PATENT OFFICE

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MICRO PHOTO INC
CLEVELAND OHIO

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

July 1, 1958 Volume 732 Number 1

PATENTS

NOTICES

Foreign Patents Received in the Scientific Library as of May 31, 1958

Country	Date received	Highest number
Australia:		
(*Abstracts*)	May 19, 1958	31,864
(*Patents*)	May 5 1958	211,300
Austria	Apr. 22, 1958	196,900
Belgium	May 2, 1958	533,200
Canada	May 29, 1958	557 809
Denmark	May 2, 1958	84,325
Egypt	Mar. 24, 1958	1,069
Finland	Mar. 19, 1958	29,227
France:		
(*Patents*)	May 12, 1958	1,154,400
(*Additions*)	May 12, 1958	68,150
Germany:		
(*Auslegeschriften*)	May 6, 1958	1,024,450
(*Patents*)	Mar. 11, 1958	1,010,864
Great Britain	May 29, 1958	794,810
India	May 5, 1958	58,166
Ireland	Apr. 9, 1958	21,450
Italy	May 29, 1958	522,600
Japan	May 19, 1958	2,900
Netherlands	May 9, 1958	88,015
Norway	May 19, 1958	91,243
Philippines	June 29, 1956	217
Poland	Mar. 20, 1958	40,586
Sweden	Apr. 11, 1958	162,249
Switzerland	May 21, 1958	328,673
Yugoslavia	Feb. 17, 1955	16,461

Australia: First 2,000 incomplete
Belgium: First printed 493,079
Canada: First printed 453,746
Czechoslovakia: Latest 81,300/1952
Finland: First printed 19,428
First 500 incomplete
Hungary: First received 5,792
Latest 140,582/1951
Ireland: Missing 1–10,000
Italy: First 243,000 incomplete
Russia: Latest 2496/1928
Yugoslavia: First received 10,001

Change in Rules of Practice

Notice was given in the Federal Register of June 6, 1958, (23 F. R. 3968) of the following change in the Rules of Practice which will take effect July 7, 1958:

1. Paragraph (n) of Rule 21 is amended to read as follows:

(n) Search of Patent Office records for purposes not otherwise specified in this section, per hour of search or fraction thereof $3.00

2. Paragraph (o) of Rule 21 is deleted.

Adjudicated Patents

(D. C. Mass.) Pierce Patent No. 2,133,642 (250—36), for electrical system, *Held* invalid. *Pierce* v. *American Communications Co.*, 159 F. Supp. 943; 116 USPQ 508.

(D. C. Mass.) Pierce Patent No. 2,133,645 (250—20), for electrical system and apparatus. *Id.*

(D. C. Mass.) Pierce Patent No. 2,133,648 (250—20), for electrical system. *Id.*

(D. C. Wis.) Olander Patent No. 2,663,102 (38—123), for ironing table. Claim 1 *Held* valid and infringed. *J. R. Clark Co.* v. *Geuder, Paeschke & Frey Co.*, 159 F. Supp. 948; 116 USPQ 141.

(D. C. Mich.) Martini Patent No. 2,712,419 (242—84.21), for spinning type fishing reel. Claim 4 *Held* valid but not infringed. *Martini* v. *Great Lakes Products, Inc.*, 159 F. Supp. 847; 116 USPQ 569.

Disclaimer

2,328,541.—*Maurice R. Bachlotte*, Old Hickory, Tenn. YARN GUIDE. Patent dated Sept. 7, 1943. Disclaimer filed May 28, 1958, by the assignee, *E. I. du Pont de Nemours & Company*.

Hereby enters this disclaimer to claims 1 through 4 of said patent.

Patents Available for Licensing or Sale

2,681,810. Golf Club Cart Having Retractable Running Gear. Correspondence to: Patent Counsel, Cherry-Burrell Corporation, Cedar Rapids, Iowa.

2,710,319. Electro-Mechanical Traverse Operated Switch. Mansell E. Bush, 197 Osler St., Toronto 9, Ontario, Canada.

2,824,311. Scarf (Western Scarf for Motorcycle and Horseback Riding). Mark Barnett, 239 Doty St., Hammond, Ind.

2,827,643. Ant Repellent Bee Hive Stand. Emil E. Affeld, Terminal Place, Moses Lake, Wash.

2,829,551. Shank Grip Adjusting Means for a Slidable Side Jaw Wrench. Stanley Kupis, 585 29th St., Oakland 9, Calif.

2,830,633. Power Nut Cracker. Edward and Adelaide Peter, Route 1, Box 236, Aumsville, Oreg.

2,830,796. Mining Drill Bit. Wesley Weese, Quick, W. Va.

New Applications Received During May 1958

Patents	6,750
Designs	444
Plant Pats	10
Reissues	42
Total	7,246

Issue

Patents	973	No. 2,840,821 to No. 2,841,793, incl.
Designs	41	No. 183,113 to No. 183,153, incl.
Plant Pats	1	No. 1,722
Reissues	3	No. 24,495 to No. 24,497, incl.
Total	1,018	

CONDITION OF PATENT APPLICATIONS AS OF MAY 31, 1958

Total number of pending applications (excluding Designs)		208,262
Total number of pending Design applications		6,624
Total number of applications awaiting action (excluding Designs)		87,935
Total number of Design applications awaiting action		3,087
Date of oldest new application	June	4, 1957
Date of oldest amended application	May	17, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 55, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 59.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 28, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-30-57	9-4-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	9-26-57	9-9-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	12-2-57	10-29-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	9-13-57	8-28-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	8-6-57	8-6-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	10-1-57	10-24-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. G., acting), Optics	9-11-57	9-9-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-11-57	10-14-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	9-30-57	9-10-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	9-17-57	10-2-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	10-28-57	10-14-57
12. (III) SPINTMAN, S., (DURHAM, E. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	8-12-57	7-1-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-3-57	9-3-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	9-6-57	8-22-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	9-5-57	9-16-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	8-13-57	8-2-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	10-10-57	10-11-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	9-3-57	9-3-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	9-19-57	9-3-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	9-4-57	9-12-57
21. (III) MADER, R. C., Textiles	7-18-57	7-16-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	9-3-57	9-3-57
23. (VI) SMITH OW, I., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	6-4-57	5-17-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	11-7-57	11-12-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	8-16-57	8-15-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-1-57	10-3-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	10-16-57	10-17-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	8-26-57	8-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	9-3-57	7-26-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	10-15-57	10-7-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BORTTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	9-30-57	10-1-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-11-57	9-16-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-15-57	10-7-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	10-3-57	10-2-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	1-2-58	1-3-58
36. (V) CUTTING, C. A., (acting), Measuring and Testing; Automatic Weighers; Weighing Scales	7-5-57	7-2-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	9-4-57	9-10-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Aso, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	11-20-57	12-2-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	11-15-57	11-25-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	11-1-57	11-1-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	9-9-57	8-22-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	8-1-57	8-1-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilising and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing. Fluid Treatment of Textiles	9-3-57	9-5-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-4-57	9-3-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	9-13-57	9-13-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	10-2-57	9-10-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	10-2-57	9-16-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	8-16-57	8-22-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	10-7-57	10-14-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	11-1-57	11-5-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	9-5-57	9-6-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	9-6-57	9-3-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	11-19-57	10-7-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	11-4-57	11-6-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	7-9-57	7-5-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	10-8-57	10-1-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	12-10-57	12-2-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	10-30-57	10-8-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	9-11-57	8-26-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	12-22-57	10-18-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	9-3-57	9-3-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	11-5-57	11-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	8-22-57	9-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	9-4-57	8-15-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	9-3-57	8-23-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	9-10-57	9-9-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	11-1-57	10-28-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	10-16-57	10-17-57
CLASS. DIVS. II—LADY, J. E., Oscillators	1-7-58	1-6-58
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	9-3-57	9-9-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	9-16-57	9-10-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	9-3-57	9-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	7-1-57	6-6-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	11-4-57	12-6-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	9-5-57	10-21-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 55 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during July 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,247,345, to 2,251,257, inclusive
Plant Patents ..... Numbers 478 to 479, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE TENNEY ET AL.

No. 6327. Decided April 23, 1958

[— CCPA —; — F.2d —; 117 USPQ 348]

1. PRIOR ART—PRINTED PUBLICATION—CANCELLED MATTER IN PATENTED FILE—*Reginald A. Fessenden* v. *Richard H. Wilson et al.* CONSIDERED.

In regard to the case of *Reginald A. Fessenden* v. *Richard H. Wilson et al.*, 18 CCPA 1171, 48 F.2d 422, 1931 C. D. 419, 9 USPQ 274, cert. denied 284 U. S. 640, which "has been cited on a number of occasions by other courts as well as by the Patent Office, as standing for the proposition that matter appearing in a patent application as originally filed, but cancelled before the application issued as a patent, does not constitute a printed publication," *Held* that "we do not feel that the case stands for the proposition attributed to it."

2. PATENTS—NATURE OF A PATENT—SHOULD ADD TO SUM OF KNOWLEDGE.

Held that unless the patentee, by his disclosure, adds to the sum of human knowledge, the grant of a patent would, in fact, be a monopoly within the definition in *United States* v. *Dubilier Condenser Corp.* (1933), 289 U. S. 178 at 186, and the policy of the patent laws would be frustrated.

3. SAME—SAME—CONSIDERATION FOR PATENT GRANT.

"* * * in consideration for the patent grant, something must be given to the public which it did not have before (albeit that the enjoyment of this 'something' may be postponed for 17 years). If the public is already possessed of that 'something,' or *if it is accessible to the public*, there is a failure of consideration and no patent may be granted."

4. PRIOR ART—PRINTED PUBLICATION—FOREIGN TYPEWRITTEN PATENT APPLICATIONS OPENED TO PUBLIC INSPECTION.

Held that the reason foreign typewritten patent application files, which have been opened to public inspection in a foreign patent office, have not been "applied as bars by the courts is found in the requirement that the publication, to be a bar, must be 'printed.'"

5. SAME—SAME—PRIOR KNOWLEDGE OR USE—PATENT ACT OF 1836—35 U. S. C. 102(a)(b).

"* * * a 'printed publication' may be an effective bar to the granting of a patent if it is 'in this or a foreign country.' 35 U. S. C. 102(a)(b). For knowledge or use of the invention to be a statutory bar, however, it must be 'in this country.' 35 U. S. C. 102(a). The patent act of 1836 made the same distinction. Act of July 4, 1836, c. 357, 15, 5 Stat. 123."

6. SAME—SAME—SAME—PROBABILITY OF BEING MADE KNOWN TO AMERICAN PUBLIC.

In regard to the printed publication and prior knowledge or use bars to the grant of a patent, *Held* that "what Congress was concerned with, both in 1836 and 1952, was the *probability* that the subject matter would be made known to the American public."

7. SAME—SAME—SAME—SAME.

"Knowledge or use in the United States would *probably* (or so Congress must have reasoned) come to the attention of the American people whereas the same probability would not be present with respect to such knowledge and use abroad. By the same token, in the case of 'printed' publications, Congress no doubt reasoned that one would not go to the trouble of printing a given description of a thing unless it was desired to print a number of copies of it."

8. SAME—SAME—PRINTING ALONE INSUFFICIENT.

"Printing alone, of course, would be insufficient to reasonably assure that the public would have access to the work, for the possibility always exists that the printed matter may be suppressed and might never reach the public. Then too, there are time lapses between the printing and the publishing of a given work, and the public is not to be charged with knowledge of a subject until such time as it is available to it. For this reason, it is required that the description not only be printed but be published as well."

9. SAME—SAME—PUBLICATION OF SINGLE PRINTED COPY SUFFICIENT.

"* * * though the law has in mind the *probability* of public knowledge of the contents of the publication, the law does not go further and require that the probability must have become an actuality. In other words, once it has been established that the item has been both printed and published, it is not necessary to further show that any given number of people actually saw it or that any specific number of copies have been circulated. The law sets up a *conclusive presumption* to the effect that the public has knowledge of the publication when a single printed copy is proved to have been so published."

10. SAME—SAME—PRIVATE COMMUNICATION NOT SUFFICIENT.

"The so-called 'publication' cannot be a private communication or the like."

11. SAME—SAME—MICROFILM IS NOT "PRINTED" AND NOT A "PRINTED PUBLICATION" UNDER 35 U. S. C. 102(b).

On the issue of "whether a microfilm, which allegedly was made available to the public only by virtue of the publication of a bibliography, there being no evidence of record that any copies of said microfilm have been made or seen by any member of the public, is a 'printed publication' within the meaning of that term as used in 35 U. S. C. 102(b)," *Held* that the microfilm is not a "printed publication" within the contemplation of section 102(b) and *Held* that the conclusion that the microfilm is not "printed" makes it unnecessary to consider whether it was published.

APPEAL from the Patent Office. Serial No. 111,308.

REVERSED.

Lawrence B. Biebel and *Marechal, Biebel, French & Bugg* for Tenney.

Clarence W. Moore (*J. Schimmel* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal from a decision of the Patent Office Board of Appeals, rejecting claims 3 through 12, 14 through 18, 21 and 22, all the claims remaining in appellants' application No. 111,308, filed August 19, 1949, for "Machine for Producing Dispersions of Liquids in Air or Other Gases for the Production of Fogs," as unpatentable over the prior art.

The alleged invention, as may be seen from its title, relates to fog producing apparatus, the essential element of said apparatus being a "pulse jet engine." As will be hereinafter seen, it is not necessary to set forth the claims on appeal nor to further describe the alleged invention, for in the view we take of the case, only a question of law is before us.

The primary reference relied upon by the Examiner and by the Board is a microfilm copy of the typewritten specification of a German patent application,[1] said microfilm having been applied against appellants' claims by virtue of the provisions of 35 U. S. C. 102(b), as a printed publication allegedly published on June 11, 1948.

The history of this microfilm is set forth in appellants' brief as follows:

* * * * * * *

A patent application was filed by a German national in the former Government Patent Office in Berlin, Germany on February 25, 1943. At the end of World War II this Government Patent Office, called Reichspatentamt, became defunct. Some time after the close of the war military personnel of the United States Government obtained access to the unpublished patent applications on file in the Reichspatentamt, and recorded them on microfilm, along with a large amount of other technical material.

These microfilms were turned over to the Office of Technical Services of the United States Department of Commerce. Eventually they were placed in the Library of Congress and the Office of Technical Services published the Bibliography of Scientific and Industrial Reports concerning all of the data captured at the end of the war. The reference here was one of a substantial number of unpublished German patent applications photographed on reel PBL 83291. This reel was listed in the Bibliography along with other reels on which were photographed various other unpublished German applications under the following designation: * * *

"PBL 83291. Reichspatentamt, Berlin. German patent applications on aircraft. (Fiat Microfilm Reel B 134, Frames 8522–9442) 1937–1945. 942 f. Price: Microfilm—$9.00—Enlargement print—$120.00. In German."

It should be noted that there is no other identification of the material recorded in the reel beyond the single above quoted statement, "German patent applications on aircraft." The cited frames of the microfilm have no relation to aircraft.

It is stated in the Bibliography that copies could be obtained by ordering them from the Office of Technical Services, giving appropriate PB number identification. * * *

The Board, conceding that the faulty indexing of the O. T. S. bibliography would be apt to mislead the public as to the contents of the reel of microfilm in question, and not denying that there was no evidence of record to indicate that any copies of the Karcher document were made from the microfilm on file in the Library of Congress prior to appellants' filing date, nevertheless held, on the authority of *Ex parte Brendlein*, 105 USPQ 453 (Bd. Appls. 1955), that the notice of availability to the public in the O. T. S. bibliography of the microfilm in question constitutes said microfilm a "printed publication" within the meaning of 35 U. S. C. 102(b),[2] as of the publishing date of said bibliography, June 11, 1948 (a date more than one year prior to appellants' filing date).

Appellants urge that, due to the practical impossibility of locating the microfilm on file in the Library of Congress, even after the O. T. S. bibliography was published (as a result of the faulty indexing), the microfilm was not published within the contemplation of section 102(b), supra. They further argue that the microfilm was not "printed."

Counsel for the Commissioner admitted during oral argument that if the microfilm is held not to be a valid reference (viz,—a printed publication) all the claims on appeal are allowable.

The issue confronting us, therefore, is whether a microfilm, which allegedly was made available to the public only by virtue of the publication of a bibliography, there being no evidence of record that any copies of said microfilm have been made or seen by any member of the public, is a "printed publication" within the meaning of that term as used in 35 U. S. C. 102(b).

The importance of this question is at once obvious. At first blush we had thought that this decision might be influenced by a prior decision of this court: *Reginald A. Fessenden* v. *Richard H. Wilson et al.*, 18 CCPA (Patents) 1171, 48 F.2d 422, 9 USPQ 274, cert. denied 284 U. S. 640 (1931). This decision was urged by appellant as analogous to the instant case. The case has been cited on a number of occasions by other courts as well as by the Patent Office, as standing for the proposition that matter appearing in a patent application as originally filed, but cancelled before the application issued as a patent, does not constitute a printed publication. *Tampax, Inc.* v. *Personal Products Corp.*, 38 F. Supp. 663 (D. C., E. D. N. Y. 1941); *Gulliksen* v. *Halberg* (dissenting opinion), 75 USPQ 252, 256 (Bd. Appls. 1937). We have examined the Fessenden case carefully but, granting the language used therein is somewhat misleading [1] we do not feel that the case stands for the proposition attributed to it. There, in answer to the appellant's argument that the cancelled description in appellant's application, filed June 23, 1915, and issuing as a patent on May 14, 1918, was sufficient to bar appellees from a patent on the ground that they were not the first inventors, the court said:

* * * The statute authorises the granting of a patent under certain conditions if the invention is:

not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, * * *

For obvious reasons, the filing of an application, the description of which is canceled before it results in a patent or comes to the public notice, is not such a published description of the invention as is within the inhibition of the statute. *Milburn Co.* v. *Davis-Bournonville Co.*, supra.[3]

It is rather obvious, from the court's citation of the Milburn case (which says nothing of printed publications) that the appellant had not urged that the *patented file* containing the cancelled matter constituted a printed publication, nor had the court that in mind. Appellant was merely urging that *all* matter contained in an application as filed constituted a disclosure sufficient to bar the granting of a patent under the well known rule of the Milburn case, which now has been codified into 35 U. S. C. 102(e).

We have found no other decisions of this court which bear on the instant question. The issue before us is, therefore, at least as far as this court is concerned, one of first impression.

We have carefully considered most of the countless cases in the reports on the question of what is or is not a printed publication. Irreconcilable conflicts exist as between the holdings of a number of them and few have set forth sufficient reasoning to be of any assistance to us. In reaching our conclusion we of necessity must disagree with at least several of these cases.

Be this as it may, we are of the opinion that the microfilm in the instant case is not a "printed publication" within the contemplation of 35 U. S. C. 102(b) and that, therefore, the decision of the Board must be reversed. More specifically, we are of the opinion that the microfilm is not "printed."[4]

In *United States* v. *Dubilier Condenser Corp.*, 289 U. S. 178, 186 (1933), the Supreme Court, speaking through Mr. Justice Roberts, stated:

Though often so characterized, a patent is not, accurately speaking, a monopoly, for it is not created by the executive authority at the expense and to the prejudice of all the community except the grantee of the patent. *Seymour* v. *Osborne*, 11 Wall. 516, 533. The term monopoly connotes the giving of an exclusive privilege for buying, selling, working or using a thing which the public freely enjoyed prior to the grant. Thus a monopoly takes something from the people. An inventor deprives the public of nothing which it enjoyed before his discovery, but gives something of value to the community *by adding to the sum of human knowledge*. *United States* v. *Bell Telephone Co.*, 167 U. S. 224, 239; *Paper Bag Patent Case*, 210 U. S. 405, 424; *Brooks* v. *Jenkins*, 3 McLean 432, 437; *Parker* v. *Haworth*, 4 McLean 370, 372; *Allen* v. *Hunter*, 6 McLean 303, 305–306; *Attorney General* v. *Rumford Chemical Works*, 2 Bann. & Ard. 298, 302. He may keep his invention secret and reap its fruits indefinitely. In consideration of its disclosure *and the consequent benefit to the community*, the patent is granted. * * * [Emphasis added.]

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[1] Karcher, German patent application No. 138,004, filed February 25, 1943.

[2] The import of the Board's decision is that the microfilm per se, *by virtue* of the O. T. S. notice of availability, is the printed publication relied upon; the Board's opinion expressly rejects possible reliance on the O. T. S. bibliography as such.

[3] 270 U. S. 390 (1926).

[4] In the course of this opinion, reference will be made to the "publication" aspect of the question before us, but only because we are of the opinion that the words "printed" and "publication" are so connected with one another that treatment of the one cannot be satisfactorily done without overstepping into the bounds of the other. The opinion, however, is not intended to be at all definitive on the question of what constitutes a "publication."

Emphasis has been placed on the portions of the foregoing passage relating to the benefit conferred upon the public by the grant of a patent. [2] It will be observed that unless the public so derives benefit, unless the patentee, by his disclosure, adds to the sum of human knowledge, the grant of a patent would, in fact, be a monopoly within the above definition, and the policy of the patent laws would be frustrated.

Thus, in Robinson on Patents, Vol. 1, p. 305 (1890), it is stated that:

> An inventor does not become entitled to a patent merely by exercising his creative faculties in the production of an art or instrument. The consideration for the grant of his exclusive privilege is the benefit which he confers upon the public by placing in their hands a means through the use of which their wants may be supplied. If the same means *has been already made accessible to them* by the inventive genius of a prior inventor, or if they receive it first from him it is incapable of useful application, no benefit results to them from his inventive act and there is no consideration for his patent. When this want of consideration becomes apparent before a patent has been granted it will be refused; when afterward, the patent is defeated. In order, therefore, that an invention may be patented or protected by a patent, it must be *new*, that is, *bestowed for the first time upon the public* by the patentee * * *. [Emphasis added, except for *new*.]

On p. 423 Robinson states:

> The identity of two inventions having been established, the legal novelty of either depends upon the state of *public knowledge*, at the date of its invention, concerning the existence and the nature of the other. If one existed *in a manner accessible to the public* when the other was invented, the latter is not new to the public, whatever it may be to the inventor; and, on the other hand, though the earlier were a complete art or instrument at the date of the invention of the later, yet if it were concealed *and inaccessible*, so that the public had derived no benefit from its invention, the later, if first introduced to public use, becomes in reference to them a new invention, entitling the inventor from whom they receive it to a patent. [Emphasis added.]

And in an English case, *Patterson* v. *Gas Light & Coke Co.*, L. R. 3 App. 239, 244 (1877), it was stated that:

> The consideration for a patent is the communication to the public of a process that is new. In Hindmarch on Patents (1st ed. 1846, p. 33) it is laid down that "if the public once becomes possessed of an invention by any means whatever, no subsequent patent for it can be granted, either to the true or first inventor himself or any other person; for the public cannot be deprived of the right to use the invention, and a patentee of the invention could not give any consideration to the public for the grant, the public already possessing everything that he could give." * * * If the invention and the mode in which it can be used has been made known to the public by a description in a work that has been publicly circulated, * * * or in a specification duly enrolled, * * * it avoids the patent, though it is not shown that it ever was actually put in use.

See also *Stead* v. *Williams*, 2 Webs. Pat. Cas. 137, 142.

We have quoted the foregoing passages liberally, for we feel that in these passages lies the foundation of the "printed publication" bar of our present patent act. While it is true that, in various particulars, the English case aforequoted is not applicable to our patent laws, the broad language used is consistent with what we feel is good reasoning and good law today. The essence of all we have quoted is that [3] in consideration for the patent grant, something must be given to the public which it did not have before (albeit that the enjoyment of this "something" may be postponed for 17 years). If the public is already possessed of that "something," or *if it is accessible to the public*, there is a failure of consideration and no patent may be granted.[5] Note the statement in *Cottier* v. *Stimson*, 20 Fed. 906, 910 (C. C. D. Ore. 1884), wherein the "printed publication" bar of the Patent Act of 1870 was considered:

> * * * The statute goes upon the theory that *the work has been made accessible to the public*, and that the invention has thereby been given to the public, and is no longer patentable by any one. * * * [Emphasis added.]

If our analysis of the basis of the "printed publication" bar is correct, numerous questions arise. If it is prior "accessibility" to the public of the subject matter of the invention that is the essence of the bar, why have the courts and the Patent Office consistently held that a foreign typewritten patent application file which has been opened to public inspection in a foreign patent office is not a bar under the "printed publication" provisions of the current and predecessor patent acts? *De Ferranti* v. *Westinghouse, Jr.*, 1890 C. D. 114 (Commr. Pats.); *Parkin and Wright* v. *Jenness*, 1898 C. D. 64 (Commr. Pats.); *Ex parte Ulmann*, 1925 C. D. 27 (Commr. Pats.) *Bayer* v. *Rice*, 24 USPQ 38 (C. A. D. C. 1934); *Ex parte Haller*, 103 USPQ 332 (Bd. Appls. 1953); *Carter Prods., Inc.* v. *Colgate-Palmolive Co.*, 104 USPQ 314, 320–321 (D. C. D. Md. 1955). Why have the German Gebrauchsmuster, which are typewritten and open for public inspection, not been applied as statutory bars under the same provisions?[6] *Permutit Co.* v. *Wadham*, 13 F.2d 454, rehrg. 15 F.2d 20 (6th Cir. 1926); *Permutit Co.* v. *Graver Corp.*, 43 F.2d 898 (7th Cir. 1930); *Ex parte Smith*, 82 USPQ 83 (Bd. Appls. 1941).

It would seem that based upon pure logic alone, the foregoing means of accessibility to the public would be equally effective in vitiating the consideration necessary to support the patent grant as would be "printed" publications. The answer to the foregoing questions, however, is not to be obtained by logical analysis, for as will hereinafter be shown, Congress' failure to cover this type of situation has unquestionably been due to legislative oversight or to some obscure policy not detectible on the face of the opinions considering the question nor in the volumes containing the legislative history of the "printed publication" provision.

It is clear, however, that [4] the reason the foreign patent applications were not applied as bars by the courts is found in the requirement that the publication, to be a bar, must be "printed."[7]

Congressional concern over the "printed" aspect of the publication necessary to constitute a statutory bar to the grant of a patent may best be considered by a discussion of handwritten publications.

No one would dispute the fact that a wholly handwritten publication is not embraced within the phrase "printed publication." For one reason or other, Congress felt that such a publication would not be sufficient to establish that the invention sought to be patented was already in the public realm (or, as aforestated, was *accessible* to the public). Clearly, Congress' reason for excluding handwritten publications did not relate to the permanence of the publication, for it is common knowledge that there are numerous handwritten manuscripts extant which are centuries old. It is equally certain that Congress was not concerned with the legibility of the publication, for if the publication were illegible, whether "printed" or handwritten, no one would argue that it would constitute a statutory bar under the hereinvolved provisions of the Patent laws. And to say that Congress was concerned with the appearance of the publication is to ignore realities. The only realistic distinction that we can see as between "handwritten" and "printed" publications relates to the *method* of producing them.

What was said by Mr. Edinburg, Examiner in Chief of the Patent Office, in his dissenting opinion in *Gulliksen* v. *Halberg*, 75 USPQ 252, 254–255 (Bd. Appls. 1937), is apposite to this point:

> The original patent act of 1790 was repealed in 1793 and a new act substituted. Section 6 of this act provided:
>
> "That the defendant in such action shall be permitted to plead the general issue, and give this act and any special matter—in evidence, tending to prove that—the thing thus secured by patent was not originally discovered by the patentee, but had been *in use*, or had been *described in some public work*, anterior to the supposed discovery of the patentee."
>
> The patent act was revised in 1836. The revised act provided in section 15 that the defendant could plead any matter tending to prove that the invention
>
> "had been described in some public work anterior to the supposed discovery thereof by the patentee or had been in *public use* etc."
>
> In the same act of 1836, section 7 employed the words "printed publication" and "public use." It is to be noted that there is uncertainty whether "public work" in section 15 referred to the same thing as "printed publication" in section 5.[8]
>
> In the act of 1870, the words "public work" were dropped and the words "printed publication" adopted in place of them. The present Revised Statute also employs only the words "printed publication." It appears from this that the statute as at present drawn does not contemplate any "public work" as being a bar but some special public work, namely, a *printed* publication.
>
> * * * * * * *
>
> One decision, *Keene* v. *Wheatley*, 14 Fed. Cases 1764, rendered during this period discussed this part of the statute and throws some light on its meaning. In this decision it was stated:
>
> "Under the laws concerning patents for inventions, a previous description of the alleged invention in a 'public work,' which means a printed book defeats a patent. But such a description in an *unprinted book* has in itself no such effect."
>
> Here the Court draws a distinction between a "printed book" and an "unprinted book." In the same decision there is a discussion of a distinction drawn between "writing" and "printing." The Court refers to "printing" as a process of multiplying the copies by sheets and to "writing" as making copies letter by letter. The Court stated,
>
> "Thus the difference is that between multiplication and addition human means of increasing the number of copies by writing are extremely limited. *By printing*, they may, on the contrary, in the words of Lord Cranworth *be multiplied indefinitely*." [Emphasis in original.]

But we do not think that we should stop at this point in our analysis of what Congress intended by "printed." A further refinement may be made by viewing the words "printed publication" in the context in which they appear in the Patent Act. It is to be noted that [5] a "printed publication" may be an effective bar to the granting of a patent if it is "in this or a foreign country." 35 U. S. C. 102(a)(b). For knowledge or use of the invention to be a statutory bar, however, it must be "in this country." 35 U. S. C. 102(a). The Patent Act of 1836 made the same distinction. Act of July 4, 1836, c. 357, § 15, 5 Stat. 123. [6] Bearing in mind the basic nature of the patent grant, as heretofore discussed, it becomes readily evident that what Congress was concerned with, both in 1836 and 1952, was the *probability* that the subject matter would be made known to the American public. [7] Knowledge and use in the United States would *probably* (or so Congress must have reasoned) come to the attention of the American people whereas the same probability would not be present with respect to such knowledge and use abroad. By the same token, in the case of "printed" publications, Congress no doubt reasoned that one would not go to the trouble of printing a given description of a thing unless it was desired to print a number of copies of it. Note a further statement in the dissenting opinion of the Gulliksen case, supra, at p. 255:

> It has been suggested that the words "printed publication" as used in the patent statute have a special connotation and should be considered together rather than separately. If so considered, *it is believed that "printing" would obviously refer to some mode of producing copies which would ordinarily be used in making a large number of copies so as to insure general distribution or publication.* * * * [Emphasis added.]

[8] Printing alone, of course, would be insufficient to reasonably assure that the public would have access to the work, for the possibility always exists that the printed matter may be suppressed and might never reach the public. Then too, there are time lapses between the printing and the publishing of a given work, and the public is not to be charged with knowledge of a subject until such time as it is available to it. For this reason, it is required that the description not only be printed but be published as well.

[9] But though the law has in mind the *probability* of public knowledge of the contents of the publication, the law does not go further and require that the probability must have become an actuality. In other words, once it has been established that the item has been both printed and published, it is not necessary to further show that any given number of people actually saw it or that any specific number of copies have been circulated.[9] The law sets up a *conclusive presumption* to the effect that the public has knowledge of the publication when a single printed copy is proved to have been so published. See *Evans* v. *Eaton*, 3 Wheat. 454, 514 (1818); Curtis, Law of Patents, pp. 500–03 (4th ed. 1873).

Using the foregoing as a guide, the answer to the instant question is clear. While microfilming furnishes a means of multiplying copies, there is no *probability*, from a mere showing that a microfilm copy of a disclosure has been produced, that the disclosure has achieved wide circulation and that, therefore, the public has knowledge of it. The nature of present day microfilm reproduction differs from normal printing methods. Though one would be more likely than not to produce a number of copies of printed material, one producing an item by microfilming would be as apt to make one copy as many. In the case of printing, unless a number of copies were produced, a waste of time, labor and materials would result; present day microfilming methods, on the other hand, are as well designed to produce one microfilm as well as many without waste.

It is no doubt true that the present law is anomalous, as evidenced by our conclusion that the microfilm is not "printed." A foreign patent file, laid open for public inspection, is not a printed publication, because typewritten, while a printed publication, available to the public only in a Southern Rhodesian library, would be. The former is obviously more likely to reach the eyes of the American public than the latter. It is obvious, however, that unless we are to rewrite 35 U. S. C. 102(b) for Congress, this must be the result reached. Our job is to interpret the law, not to make it.

[11] For the foregoing reasons, the microfilm copy of the Karcher disclosure is not a "printed publication"

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[5] Congress, of course, has not made the existence of a "printed publication" a bar to the grant of a patent under all circumstances. Congress has given applicants a period of grace of one year after the invention has been described in a printed publication for the applicant to file his application. 35 U. S. C. 102(b).

[6] It is to be noted that, inconsistently with these cases, typewritten college theses placed on library shelves have been held to be "printed publications." *Ex parte Hershberger*, 96 USPQ 54 (Bd. Appls. 1952); *Gulliksen* v. *Halberg*, 75 USPQ 252 (Bd. Appls. 1937); *Hamilton Laboratories* v. *Massengill*, 111 F.2d 584 (6th Cir. 1940).

[7] The earlier decisions did not urge this as the reason. *De Ferranti, Parkin & Wright, Ulmann* and *Bayer* v. *Rice* cases, supra, but the later decisions, in which the earlier were cited, made it unmistakably clear that the applications were not "printed" and were, therefore, not printed publications. *Haller* and *Carter Products* cases, supra.

[8] This should be section 7.

[9] This statement, however, presupposes publication in fact. The so-called "publication" cannot be a private communication or the like. *Dow Chemical Co.* v. *Williams Bros. Well Treating Corp.*, 81 F.2d 495 (10th Cir. 1936); see also *Jockmus* v. *Leviton*, 28 F.2d 812 (2d Cir. 1928).

within the contemplation of section 102(b). Our conclusion that the microfilm is not "printed" makes it unnecessary to consider whether it was published.

In view of the concession that the claims must stand allowable if this reference is held to be of no legal effect, the decision of the Board is reversed.

REVERSED.

WORLEY, *J.* (concurring):

I agree with the result reached by the majority but do not wish to be understood as holding that under no circumstances can a microfilm be "printed" within the statutory meaning.

The very thorough review by the majority illustrates the extreme difficulty of stating with finality just what constitutes a printed publication, as well as the irreconcilable judicial conflicts which have resulted therefrom.

I doubt that congressional intent of the unitary term "printed publication" can be satisfactorily determined merely by a literal interpretation of those words individually. It seems to me other factors are entitled to consideration, including not only the actual physical process employed in production or reproduction, but also availability, accessibility, dissemination and, perhaps, in some cases, even intent.[1] Under such circumstances, it would appear advisable to limit determination in the instant case to the specific question presented. Any broader holding or, for that matter, even dictum, might well result in increasing rather than diminishing the present unsettled condition of the law.

RICH, *J.* (concurring):

I concur in the conclusion reached but not necessarily with all of the reasons of the majority opinion.

First, to dispose of a somewhat irrelevant matter, I have always been and still am of the opinion that the grant of a patent creates a monopoly and that much confused thinking has resulted from arguing that it does not. It is, however, a beneficial monopoly to be distinguished from odious monopolies and only to that extent am I willing to agree with the discussion by the majority of *United States* v. *Dubilier Condenser Corp.*, 289 U. S. 178. I have commented on this matter before in 24 J. P. O. S. at page 96, where my views are more fully set forth.

While I agree with the majority opinion in its ultimate conclusion that the single microfilm shown to be on file in the Library of Congress is not a "printed publication," under section 102(b), and with the supporting conclusion that it is not "printed," I think the basis for the latter conclusion requires clarification because I feel that under different circumstances we may in future wish to be free to hold that a "printed publication" can be made by microfilm techniques. I think it should be clear that we are not holding that microfilms can under no circumstances be deemed to be "printed."

I think that the Board, in the *Ex parte Brendlein* case, 105 USPQ 453, on which it relied, had a good idea which it misapplied, however, in both that case and this one. It said that it regarded a microfilm copy as in the same category with the stencil sheet which *might* be used to produce mimeograph copies "or with the type that might be set up to print an unlimited number of copies of a writing." It then moved from this idea to another, that the O. T. S. announcement of availability of copies to be made from the microfilm constituted in law a publication *of the material on the microfilm*.

I will assume for the sake of argument (and I think it is the law) that when a book has been printed and copies are available for delivery, an advertisement offering it for sale would bring about its "publication," even before any copies are actually sold. It would be a quite different proposition to say that an advertisement of a forthcoming book which *had not yet been printed* was a publication of the book. In construing the term "printed publication" it would seem to be axiomatic that the printing has to be done before the publishing, otherwise the publication will not be of something "printed."

If, as the Board said, the microfilm is comparable to a mimeograph stencil or to set type (I do not believe the Board really meant to refer to unset type), as seems to me to be technically reasonable, it fails, by reason of that very fact, to support the Board's view because it does not constitute *printed* material ready to be published but merely a *means for producing printed material*, as yet unused. It cannot, therefore, become a "printed publication" by virtue of a published offer to carry out the reproduction process on request and make a copy of the microfilm or produce enlargement prints therefrom. I thus agree fully with the majority's conclusion that the microfilm at bar is not "printed" but for the reason that it is merely a *means for making prints* which has not been shown to have been put to use. We do not happen to know whether the Library of Congress microfilm is an original made by photographing the documents which are recorded on it or a photographic copy (or "print") made from such an original. It makes no difference to me in this case because as of the date relied on, the date of publication of the O. T. S. bibliography, no other copy of it has been shown to exist and I can see no reason for assuming the existence of any other copies, as would normally be done in the case of an ordinary book or periodical. To me the situation is no different than it would be if only the original documents, now photographed onto the microfilm, were in the library and the O. T. S. had published a bibliography offering to furnish applicants with photostatic copies thereof. We would then have precisely the same degree of *accessibility* but we would not have the *probability* of wide circulation which is, I agree, the real significance of the word "printed" in the term "printed publication." Were it otherwise, logic would require the inclusion within the term of all unprinted public documents for they are all "accessible." While some tribunals have gone quite far in that direction, as in the "college thesis cases," I feel they have done so unjustifiably and on the wrong theory. Knowledge is not in the possession *of the public* where there has been no dissemination, as distinguished from technical accessibility, and surely the former is the concept underlying the expression "printed publication." Printing, in the original and common meaning of the term which implies the use of the printing press, is not even now the only common means for producing multiple copies for publication and microfilm techniques are already in use to replace printed books in some fields. We must not be narrow in our view of the meaning of "printed" and in novel situations should consider the facts to see whether the interested public has in fact had possession of the disclosure in the form of a general publication. Nothing of the kind is shown by the facts of the present case. No rigid rule about microfilm should be deduced, however, from our decision. And on the other hand it should not be assumed that the word "printed" is so sacred that any paper which has come off of a printing press and has been "published" in the sense of having been made known to some fraction of the public will qualify as a printed publication under section 102(b). In our legal system effect is to be given to substance and intent without making a fetish either of the dictionary or of ritualistic formulae. *Kiefer & Kiefer* v. *R. F. C.*, 306 U. S. 381, 391 fn. 4, *Johnson* v. *United States*, 163 Fed. 30, 32, *Cabell* v. *Markham*, 148 F.2d 737, 739.

[1] A talk delivered by John A. Blair, Esq. at Michigan Patent Law Association Meeting February 7, 1956.

U. S. Court of Customs and Patent Appeals

TJ SILBER (DOING BUSINESS AS ECONOMY PRODUCTS CO.)
v.
THE BULLSEYE CORP.

No. 6332. Decided April 23, 1958

[— CCPA —; — F.2d —; 117 USPQ 358]

1. EVIDENCE—LEADING QUESTIONS—ADMISSIBILITY OF TESTIMONY—WEIGHT OF TESTIMONY.

"Silber, who, as hereinbefore indicated, waived the right to be represented at the taking of testimony on behalf of Bullseye, now objects to the admission thereof on the ground that much of it was elicited by leading questions. That objection can apply only to the weight of the testimony * * *."

2. SAME—TESTIMONY—CREDIBILITY.

"* * * it is evident that Silber knew of the use of the 'Plasticote' mark by Bullseye or its associates during the five years next preceding Silber's application, and the extent of use indicated by the petition, exhibits and testimony * * * would certainly be 'substantial' as that term is ordinarily understood. Accordingly, Silber's affidavit in February 1952 as to substantially exclusive use of the mark by him reflects definitely upon his credibility."

3. TRADEMARKS—CONCURRENT USE PROCEEDINGS—SECONDARY MEANING—TRADEMARK ACT OF 1946, SECS. 2(d) AND 2(f).

"* * *, we are in agreement with the Assistant Commissioner that Silber's evidence is of such a nature that it cannot be accepted as proving substantially exclusive use by him of the trademark here involved prior to 1952, which is long subsequent to the time when Bullseye began continuous use of that mark. Accordingly, the refusal to grant an unrestricted registration to Silber was proper."

4. SAME—SAME—REGISTRATION OF GREATER SCOPE THAN REQUESTED—ADMISSIONS BY APPLICANT.

Where Bullseye, in its application, did not request unrestricted registration and did not make an unqualified allegation of substantially exclusive use of its mark; admitted a use by Silber in three States and excluded those States from its request for registration; and, in effect, conceded that Silber's right to use the mark in one of the States was superior to its own, *Held* that, despite the assertion by Bullseye that the admission and concession were due to a mistake, it cannot properly be accorded a registration of greater scope than that requested in its application as filed; and *Held* that the failure of Silber's evidence to establish any date of use prior to the time Bullseye began continuous use of the mark does not destroy the effect of Bullseye's admissions, express and implied.

5. SAME—CONCURRENT REGISTRATION—SECONDARY MEANING—"PLASTICOTE."

"Apart from * * * three States * * *, the evidence clearly establishes that 'Plasticote' has acquired a secondary meaning and has become distinctive of Bullseye's goods in commerce. It follows that Bullseye is entitled to a concurrent registration as requested in its application."

6. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—RECORD—CORRECTING DIMINUTION OF RECORD—TAXING OF COSTS DEFERRED.

"Decision has been deferred until this time on the taxing of costs as to certain papers added to the record as the result of a motion by appellee to correct diminution of the record. We find the papers to be relevant and material to the issues presented in the case and the costs incident to including them in the record are accordingly taxed against the appellant."

7. TRADEMARKS — REGISTRABILITY — CONCURRENT REGISTRATION—REMAND.

"We hold that appellant Silber is not entitled to any registration of the trademark 'Plasti-Cote,' and that appellee, The Bullseye Corporation, is entitled only to a concurrent registration as requested in its application here involved. The decision of the Assistant Commissioner is modified to the extent indicated and the case is remanded for further proceedings consistent with this opinion."

APPEAL from the Patent Office. Concurrent use proceeding No. 110.

MODIFIED AND REMANDED.

Mason & Graham and *Collins Mason* (*Russell L. Law* and *Donald A. Gardiner* of counsel) for TJ Silber (doing business as Economy Products Co.).

Steward & Steward, *Roy F. Steward*, and *Merrill F. Steward* for The Bullseye Corporation.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Assistant Commissioner of Patents, acting for the Commissioner, in a concurrent use proceeding under section 2(d) of the Trademark Act of 1946, 110 USPQ 374. Involved is an application for registration for concurrent use filed August 12, 1950, by appellee, The Bullseye Corporation, hereafter referred to as Bullseye; and an application for unrestricted registration filed August 18, 1950, by appellant, TJ Silber, doing business as Economy Products Co., hereafter referred to as Silber.

Bullseye's trademark "Plasticote" is used as a single word on a cleaning and polishing composition for automobiles and furniture. Silber's mark consists of two words, "Plasti-Cote," and is used with similar merchandise for cleaning and polishing purposes. The marks and the goods of the parties have been considered substantially identical, however, and will be so regarded here.

The Examiner of Interferences rejected both of the applications hereinbefore described on the ground that the respective marks therein defined are merely descriptive of the goods with which the marks are used. New applications were thereafter filed by the parties, and those substituted applications are here in issue. Therein each applicant, in an effort to establish distinctiveness by appropriate evidence of secondary meaning, claims substantially exclusive and continuous use of the mark during the period of five years next preceding the filing date of the application as provided by section 2(f) of the Act of 1946. Bullseye's application acknowledges an exception to such claim, however, in the use of the mark by Silber "from at least November 1, 1949" in the States of Arizona, California and Washington, wherein Silber had obtained a State registration for his mark.

Silber alleges first use of the mark in commerce, which may be lawfully regulated by Congress, on July 1, 1941, while Bullseye alleges first such use on August 1, 1945. Both parties in support of their con-

tentions took testimony by deposition, but neither party cross-examined the witness or witnesses of the other, nor did either party appear when the other party took its testimony.

The Examiner of Interferences and the Assistant Commissioner upon the evidence of record both held that Bullseye had established continuous use of its mark on the goods here involved, by its predecessors and itself, at least as early as 1946, and continuing from that date, in increasing amounts, up to the time when its application herein to register was filed. Those holdings are clearly supported by the record.

[1] Silber, who, as hereinbefore indicated, waived the right to be represented at the taking of testimony on behalf of Bullseye, now objects to the admission thereof on the ground that much of it was elicited by leading questions. That objection can apply only to the weight of the testimony, and giving such objection full consideration, we find that Bullseye's evidence amply supports a date of use as early as the end of 1946 and continuous use thereafter.

The principal controversy here concerns the credibility of the evidence offered by Silber, who testified, without corroboration, in his own behalf, and offered in evidence a multiplicity of invoices, letters, sales slips and other papers, none of which were identified by any other person. The Examiner of Interferences, in his disposition of the issues presented, among other things, found that neither party had shown substantially exclusive use of its mark during the critical five year period, and accordingly held that neither was entitled to registration.

The Assistant Commissioner on appeal from that decision extensively reviewed the testimony and exhibits submitted and held that Silber's evidence was of such a nature that it could not be credited; that it established no sales of merchandise under his mark here involved prior to 1952, "which long postdates Bullseye's use"; and that the record submitted by Silber constituted an attempted fraud on the Patent Office. She accordingly affirmed the holding of the Examiner of Interferences that Silber was not entitled to registration, but reversed his holding as to Bullseye which, she held, was entitled, upon appropriate amendment of its application, to an unrestricted registration of the contested mark.

The record discloses that months after the first rejection of both applications by the Examiner on the ground of descriptiveness, and "Responsive to Patent Office action of September 7, 1951," Silber, by his amendment of February 29, 1952, incorporated in his substituted application all matters touched upon in said Patent Office action, and further remarked that "* * * *The statement under section 2(f) is now verified, and alleges that the registration is sought in accordance with section 2(f) of the 1946 Act.*" [Emphasis added.]

It is properly pointed out by Bullseye that in February 1952, when Silber incorporated in his application the statement, under oath, that he had acquired ownership of the mark here in issue "through substantially exclusive and continuous use thereof as a mark by the applicant in commerce among the several States for the five years next preceding the date of the filing [February 29, 1952] of the above-entitled application," Silber actually knew of the substantial use of the "Plasticote" mark by the Livingston Company, an associate of Bullseye, prior to the filing by Silber of his substituted or amended application.

There is of record in support of that contention a petition filed in the Patent Office by Silber on October 26, 1951, for access to the Bullseye application, in which Silber's attorneys state that Silber had advised them "that he had had considerable past trouble, infringement, correspondence and negotiations with the Bullseye Corporation through its attorneys and agents, seeking rights under your petitioner's trademark in question." Attached to the petition as Exhibit A was a letter to Silber's attorney from Bullseye's attorney stating that Bullseye has authorized its distributor in California to discontinue the use of the "Plasticote" mark. Exhibit B was a letter to Silber's company from the president of the Livingston Company, inquiring as to the possibility of purchasing Silber's automobile polish business in California. Exhibit D was a letter from Silber's attorney to Lester Tobias, an employee of Bullseye, dated June 27, 1950, stating that "Mr. Silber and I finally discussed the 'Plasticote' trademark *used by your friends on a royalty basis*" [emphasis added], and declining to do business with such friends.

Bullseye also offered the testimony of its president, Francis W. Westerson, to the effect that J. Allan Trankel, as attorney for Silber, wrote letters on July 20, 1949 to two California companies, one in San Francisco and the other in Fresno, charging them with an infringing use and advertising of the mark "Plasticote." Copies of such letters are in evidence.

[2] In view of the foregoing enumerated facts, it is evident that Silber knew of the use of the "Plasticote" mark by Bullseye or its associates during the five years next preceding Silber's application, and the extent of use indicated by the petition, exhibits and testimony just considered would certainly be "substantial" as that term is ordinarily understood. Accordingly, Silber's affidavit in February 1952 as to substantially exclusive use of the mark by him reflects definitely upon his credibility. Moreover, as pointed out in the decision of the Assistant Commissioner, there are a number of apparent inconsistencies in the evidence presented by Silber which, in our opinion as in her opinion, have not been satisfactorily explained.

For the reasons given [3] we are in agreement with the Assistant Commissioner that Silber's evidence is of such a nature that it cannot be accepted as proving substantially exclusive use by him of the trademark here involved prior to 1952, which is long subsequent to the time when Bullseye began continuous use of that mark. Accordingly, the refusal to grant an unrestricted registration to Silber was proper. *Academy Award Products* v. *Bulova Watch Company*, 233 F.2d 449, 105 USPQ 61, affirming 109 USPQ 327; *Van Alstyne & Co.* v. *Boutwell Milling & G. Co.*, 43 App. D. C. 530; *Academy* v. *Academy Award Products, Inc.*, 89 USPQ 451; *Old-Monastery Wine Co., Inc.* v. *St. Julian Wine Co.*, 110 USPQ 241.

It does not necessarily follow, however, that Bullseye should be given the unrestricted registration to which the Assistant Commissioner has held it to be entitled, even if Silber's evidence is disregarded, as we think it must be.

Bullseye, in its application, did not request unrestricted registration and did not make an unqualified allegation of substantially exclusive use of its mark. It admitted a use by Silber "from at least November 1, 1949" in California, Washington, and Arizona, as hereinbefore described, and excluded those States from its request for registration. Moreover, the record shows that, in 1949, Bullseye discontinued the use of its "Plasticote" mark in California, as the result of complaints by Silber, and replaced it by the mark "ICV." This, in effect, was a concession by Bullseye that Silber's right to use the "Plasticote" mark in California was superior to its own.

[4] Under such circumstances, and despite the assertion by Bullseye that the above admission and concession on its part were due to a mistake, we are of the opinion that Bullseye cannot properly be accorded a registration of greater scope than that requested in its application as filed. The failure of Silber's evidence to establish any date of use prior to 1952 does not destroy the effect of Bullseye's admissions, express and implied, that Silber had such an interest in the mark "Plasticote" as would preclude Bullseye from obtaining a registration covering California, Washington and Arizona. [5] Apart from the three States last mentioned, the evidence clearly establishes that "Plasticote" has acquired a secondary meaning and has become distinctive of Bullseye's goods in commerce. It follows that Bullseye is entitled to a concurrent registration as requested in its application.

In view of that conclusion, we consider that no useful purpose would be served by the presentation of other undisputed and cumulative facts of record not discussed in the Commissioner's decision, which are likewise adverse to the appellant's case.

[6] Decision has been deferred until this time on the taxing of costs as to certain papers added to the record as the result of a motion by appellee to correct diminution of the record. We find the papers to be relevant and material to the issues presented in the case and the costs incident to including them in the record are accordingly taxed against the appellant.

[7] We hold that appellant Silber is not entitled to any registration of the trademark "Plasti-Cote," and that appellee, The Bullseye Corporation, is entitled only to a concurrent registration as requested in its application here involved. The decision of the Assistant Commissioner is modified to the extent indicated and the case is remanded for further proceedings consistent with this opinion.

MODIFIED and REMANDED.

RICH, *J.*, concurs in the result.

WORLEY, *J.* (dissenting in part):

I agree with the majority and the concurrent holdings of the Patent Office that appellant is not entitled to registration. However, I am of the opinion registration should also have been refused appellee. My disagreement stems from a different evaluation of the evidence offered by appellant. I concur with the Examiner of Interferences that appellant's evidence establishes use of the involved mark at such times and in a sufficient number of States to preclude a grant to appellee of any registration of that mark, concurrent or otherwise.

I would affirm the decision of the Assistant Commissioner so far as it refuses appellant registration, but reverse so far as it holds appellee entitled to registration.

U. S. Court of Customs and Patent Appeals

THE GILLETTE CO. v. GEORGE P. KEMPEL, DOING BUSINESS AS SHUAH MFG. CO.

No. 6351. Decided April 23, 1958

[— CCPA —; — F.2d —; 117 USPQ 356]

1. TRADEMARKS—OWNERSHIP—USE—EVIDENCE.
"This court has consistently held that ownership of a trademark registration constitutes prima facie evidence of ownership and use of the mark."
2. SAME—USE—EVIDENCE.
"* * *, a registration is prima facie evidence of continuing use of the registered mark beginning on the filing date of the application on which registration was granted."
3. SAME—ASSIGNEE OF REGISTRATION—STANDS IN PLACE OF REGISTRANT.
"That the assignee of a registration stands in the place of the registrant in all respects is * * * clear from section 45 of the Lanham Act which provides that 'The terms "applicant" and "registrant" embrace the legal representatives and successors and assigns of such applicant or registrant.'"
4. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—MATTER BEFORE COURT—TRADEMARKS—EX PARTE HOLDING IN INTER PARTES PROCEEDING.
"Appellant alleges error in the holding of the Assistant Commissioner with respect to confusing similarity, but since that holding was expressly made ex parte and was favorable to the applicant, it cannot properly be reviewed on the instant inter partes appeal by the opposer."
5. TRADEMARKS—INTER PARTES PROCEEDINGS—INTER PARTES RULINGS DESIRABLE.
"* * * the Assistant Commissioner, instead of ruling inter partes upon a question which had been properly raised in an inter partes proceeding and which had been fully argued and briefed by both parties, made an ex parte ruling thereon. In our opinion it would be highly desirable in the interest of expeditious and orderly procedure to make the ruling in such cases inter partes in the first instance rather than ex parte. It would then be subject to review by us in the inter partes appeal if the decision on other issues required such review, without having to await an inter partes ruling on remand."
6. SAME—OPPOSITION—REVERSAL AND REMAND.
"The decision dismissing the opposition is reversed and the case remanded for further proceedings consistent with this opinion."

APPEAL from the Patent Office, Opposition No. 32,871.

REVERSED AND REMANDED.

Rowland V. Patrick for The Gillette Co.

J. William Freeman for George P. Kempel, doing business as Shush Mfg. Co.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Assistant Commissioner, acting for the Commissioner of Patents, 110 USPQ 324, affirming the decision of the Examiner of Interferences dismissing an opposition by appellant, the Gillette Company, to an application by appellee, George P. Kempel, doing business as Shush Mfg. Co., for registration of "Shush" as a trademark for a portable kit containing a disposable syringe, a disposable douche bag, and douche chemical preparations. Appellee's application was filed October 17, 1952, and alleges October 1, 1952, as the date of first use of the mark in commerce.

Appellant is the assignee, by mesne assignments, of Trademark Registration No. 363,691, for the word "Hush" as a trademark for toilet preparations, granted January 3, 1939, to Estelle A. Kirstein, doing business as Hush Company. Appellant duly filed certified copies of its registration and the pertinent assignments as required by the Patent Office rules which, in the opinion of the Examiner of Interferences, adequately established appellant's ownership of the registration. The Examiner also stated that neither such ownership nor appellant's priority of use of its mark was in dispute, and that the sole issue was whether contemporaneous use of the parties' marks on their respective goods was likely to cause confusion, mistake, or deception of purchasers. He found no such likelihood and dismissed the opposition.

The Assistant Commissioner noted that appellant did not acquire title to its registration until after appellee had commenced use of its mark, and held that "Under such circumstances, the burden was upon opposer to go forward with its proofs to establish that it had rights superior to applicant's rights in order to prevail in this proceeding. The burden was not discharged, and the opposition is therefore dismissed." The Assistant Commissioner then held that "Considering the marks from an ex parte viewpoint, the differences in goods are believed to be sufficient to avoid all likelihood of confusion, mistake or deception of purchasers."

Since the Assistant Commissioner considered confusing similarity as an ex parte question only, dismissal of the opposition must have been based on the theory that appellant was not entitled to rely on its registration alone as evidence of use of its mark from a date prior to appellee's first use of its mark.

[1] This court has consistently held that ownership of a trademark registration constitutes prima facie evidence of ownership and use of the mark. *The May Department Stores Co.* v. *Schloss Bros. & Co., Inc.*, 43 CCPA (Patents) 980, 234 F.2d 879, 110 USPQ 282, and cases there cited. In *General Baking Co.* v. *Commander-Larabee Corp.*, 23 CCPA (Patents) 973, 82 F.2d 427, 29 USPQ 28, the following statement from the decision of the Commissioner of Patents in *The Rosenberg Co.* v. *Phillips-Jones Company, Inc.*, 1921 C. D. 81, 289 O. G. 411, was quoted with approval:

> All this leads to the conclusion that the filing of a regular application for the registration of a trademark supported by an affidavit under section 2 and accompanied by specimens of the mark as actually used should be taken as prima facie proof that the applicant was the owner of the mark on the date the application was filed, and that fact having been established the presumption must arise that the applicant continued to own the mark and to use it.

The same presumption applies after a registration has been granted and, accordingly [2] a registration is prima facie evidence of continuing use of the registered mark beginning on the filing date of the application on which the registration was granted. *Charles of the Ritz* v. *Elizabeth Arden Sales Corporation*, 34 CCPA (Patents) 1029, 161 F.2d 234, 73 USPQ 413. [3] That the assignee of a registration stands in the place of the registrant in all respects is also clear from section 45 of the Lanham Act which provides that "The terms 'applicant' and 'registrant' embrace the legal representatives and successors and assigns of such applicant or registrant."

It follows from the foregoing that appellant's registration constitutes prima facie evidence of continuous use by appellant and its predecessors of the trademark "Hush" on the goods listed in the registration, beginning on August 11, 1938, the filing date of the application on which the registration was granted. Accordingly, the question as to confusing similarity between that mark and appellee's mark was an inter partes one and should have been so considered by the Assistant Commissioner.

[4] Appellant alleges error in the holding of the Assistant Commissioner with respect to confusing similarity, but since that holding was expressly made ex parte and was favorable to the applicant, it cannot properly be reviewed on the instant inter partes appeal by the opposer. *Rogers & Gallet* v. *Janmarie Inc.*, 44 CCPA (Patents) 905, 245 F.2d 505, 114 USPQ 238, and the appeal is accordingly dismissed with respect to that ground.

Ultimate determination of the issues involved here has been considerably delayed because [5] the Assistant Commissioner, instead of ruling inter partes upon a question which had been properly raised in an inter partes proceeding and which had been fully argued and briefed by both parties, made an ex parte ruling thereon. In our opinion it would be highly desirable in the interest of expeditious and orderly procedure to make the ruling in such cases inter partes in the first instance rather than ex parte. It would then be subject to review by us in the inter partes appeal if the decision on other issues required such review, without having to await an inter partes ruling on remand.

[6] The decision dismissing the opposition is reversed and the case remanded for further proceedings consistent with this opinion.

REVERSED AND REMANDED.

U. S. Court of Customs and Patent Appeals

IN RE COOPER

No. 6329. Decided April 14, 1958. Petition for rehearing denied May 23, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. TRADEMARKS — REGISTRABILITY — NATURE OF GOODS — BOOKS—TITLES OF BOOKS.

   Held that the sole question raised is whether an arbitrary, i. e. coined, term which is the title of a book, and the only designation the book has, is registrable as a trademark for books under the Trademark Act of 1946; that "No one has asserted that a word may not be used as a trademark for books or that there cannot be trademarks for books, in the form of a word or otherwise, or that trademarks for books cannot be registered" under the Trademark Act of 1946; and that "Nothing we say should be taken as implying that no trademark for books can be registered; * * *."

2. SAME—SAME—TRADEMARK NECESSARY—TRADEMARK USE NECESSARY TO EXISTENCE OF TRADEMARK.

   "* * * before there can be registration there must be a trademark and a trademark exists only where there has been trademark use."

3. SAME—NATURE OF A TRADEMARK—DESCRIPTIVENESS—USE OF MARK—TRADEMARK ACT OF 1946, SEC. 2 AND SEC. 2(e)(i).

   Held that the introductory clause of Sec. 2 of the Trademark Act of 1946 and subsection (e)(i) thereof are complementary "to the extent that a mark which is 'merely descriptive' of the goods to which the applicant has applied it is not being used by him *as a trademark* for those goods and hence, in that use, *is not a trademark*."

4. SAME—DESCRIPTIVENESS—NAMES INCAPABLE OF FUNCTIONING AS TRADEMARKS.

   "* * * we proceed on the understanding that the name of a thing is descriptive of it, for the sense in which the trademark law uses the term 'descriptive' includes the names of things as well as qualifying expressions. In lay language the name of a thing might be referred to as designative, as in the expression 'red rose' the name 'rose' is designative and the adjective 'red' is descriptive, but trademark law lumps the names and the qualifying expressions in the descriptive category. Thus the names 'orange,' 'bean' and 'book' are clearly 'descriptive' of oranges, beans and books respectively. Furthermore, such names are incapable of functioning as trademarks because they cannot distinguish the goods of one person from the goods of another."

5. SAME — REGISTRABILITY — NATURE OF GOODS — BOOKS — NAME OF SERIES OF BOOKS.

   Held that the name for a series of books, "at least while it is still being published, has a trademark function in indicating that each book of the series comes from the same source as the others; that the name of the series is not descriptive of any one book and each book has its individual name or title"; that a "series name is comparable to the title of a periodical publication such as a magazine or newspaper"; and that while "it may be indicative, either specifically or by association in the public mind, of the general nature of the contents of the publication, it is not the name or title of anything contained in it."

6. SAME—SAME—SAME—SAME—TITLES OF BOOKS.

   "A book title, * * *, especially one which is coined or arbitrary, identifies a specific literary work, of whatever kind it may be, and is not associated in the public mind with the publisher, printer or bookseller—the 'manufacturer or merchant' referred to in the trademark act (Sec. 45, definition of trademark). If a title is associated with anything, it is with the author for it is he who has produced the literary work which is the real subject of purchase."

7. SAME—SAME—ARBITRARY TERM "TEENY-BIG" AS ONLY NAME OF BOOK.

   "As 'TEENY-BIG' is no more than the name of a book, its only name, it is not a trademark under the statute, section 2. Hence, 'TEENY-BIG' was properly refused registration. It is of no avail to point out that it was 'arbitrary' because every newly coined name has that characteristic, for example 'radio,' 'woofer,' 'tweeter' and 'smog,' a fact that tends to be forgotten as new nomenclature becomes a part of the language and new titles are added to the publishers' catalogs."

8. WORDS AND PHRASES—"BOOK."

   "In saying that 'TEENY-BIG' is the name of a book, we note that in this context the term 'book' has a dual aspect. First, it is an article of manufacture which can be sold in the marketplace. As such it is not unlike blankbooks or pads of paper. Secondly, it contains, by virtue of the printing on the paper, an intellectual content which is incorporeal—the story. The title of the 'book' does not really pertain to the first aspect at all but identifies, names or describes the incorporeal literary content, which is subject to the laws pertaining to literary property. Publishers, in short, are not in the blankbook business."

9. TRADEMARKS — REGISTRABILITY — NATURE OF GOODS — BOOKS—TITLES OF BOOKS—TRADEMARKS AND COPYRIGHTS.

   "There is a compelling reason why the name or title of a book of the literary sort cannot be a trademark. The protection accorded the property right in a trademark is not limited in time and endures for as long as the trademark is used. A book, once published, is protected against copying only if it is the subject of a valid copyright registration and then only until the registration expires, so eventually all books fall into the public domain. The right to copy which the law contemplates includes the right to call the copy by the only name it has and the title cannot be withheld on any theory of trademark right therein."

10. CONSTITUTION—ARTICLE I, SEC. 8, 8TH CLAUSE—GRANTS POWER TO CONGRESS—AUTHORS—TRADEMARKS.

    "Article I, section 8, eighth clause, of the Constitution, * * *, does no more than grant power to Congress to secure certain rights to authors and inventors insofar as it elects to do so. The cited clause grants no *rights* to authors and has nothing to do with the registration of trademarks."

11. UNFAIR COMPETITION—BOOKS—TITLES OF BOOKS.

    "It is well known that the rights in book titles are afforded appropriate protection under the law of unfair competition."

12. TRADEMARKS—REGISTRABILITY—NATURE OF GOODS—SAME PRINCIPLES FOR ALL—DECISIONS BY PATENT OFFICE.

    In a case involving the registrability as a trademark of a title of a book, wherein applicant alleged that the Patent Office inconsistently registered "trademarks for names or titles of games," *Held* that "the decision of this case in accordance with sound law is not governed by possibly erroneous past decisions by the Patent Office," and that "the same principles of law apply to the registration of trademarks for all kinds of goods."

APPEAL from the Patent Office. Serial No. 653,815.

AFFIRMED.

Marzall, Johnston, Cook & Root and *John A. Marzall* for Cooper.

Clarence W. Moore for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

The sole question raised by this appeal is whether an arbitrary, that is to say coined, term which is the title of a book, and the only designation the book has, is registrable as a trademark for books under the Trademark Act of 1946, also known as the Lanham Act.

Facts

September 28, 1953, appellant applied for the registration of "TEENY-BIG" as a trademark for books, in Class 38, on the Principal Register under the act of July 5, 1946, alleging first use and use in "commerce" on July 1, 1953. The specimen filed with the application appears to be the jacket of a book, the front cover portion bearing at the top the words "TEENY-BIG," underneath which is a picture and under the picture the statement "By R. K. Cooper with Illustrations by Dorothy Ashbrook Hobson." On the portion which would wrap around the back of the book are printed the title and author's name. On the back portion is the usual blurb from which one may gather that the work is a juvenile, that is to say a book for children, the principal character in which is a little elf with magic powers of self-expansion named Teeny-Big. It also appears that Raymond K. Cooper, the author and appellant here, Yale '22, is president of four large building and supply houses, grandfather of five and took "time out of his busy routine to capture within the covers of his new book the elusive spirit of childhood." In sum, the book contains a single story, the name of the story is "TEENY-BIG," the title of the book is "TEENY-BIG" and the book has no other name, title, subtitle or any other designation except its generic name "book."

Decisions Below

The Examiner of Trademarks refused registration "on the ground that the mark presented herein is merely the title of a book" and because "the author or proprietor of a literary work has no property in its name, which is merely a term of description which must be used in calling for the goods." Five decided cases and a text were cited as authorities.

Assistant Commissioner Leeds affirmed the decision of the Examiner in an opinion published at 110 USPQ 323. Her reasons for refusing registration were essen-

tially the same as those of the Examiner but she made this concise statement as to her principal reason:

The name which is *the only name* by which an article of merchandise may be identified—whether a book or any other—is not a trademark and is therefore not registrable. Since the subject matter of this application is the name and the only name by which the copies of applicant's book can be identified, it is not a trademark and is not registrable.

Appellant's Points

It has so long been settled that the title of a book cannot be registered as a trademark, because it is not a trademark, that there has been some question in our minds as to whether the concurring decisions below should not be summarily affirmed with mere citation of some of the principal authorities. *In re Page Company*, 47 App. D. C. 195, alone would suffice. However, the apparent sincerity of appellant's arguments persuades us to a presentation of our views on the principal contentions which have been made and an explanation of the reasons why we believe the appellant's arguments to be unsound.

Wrong Question Asked

At the outset, appellant misstates the question before us, asserting that it is "whether an *arbitrary* word may be used as a trademark for books in the same manner in which the same trademark could be used for ordinary commodities such as fruits, canned goods, shoe laces, locomotives, etc." This is *not* the issue, which is as we have stated it at the beginning of this opinion. [1] No one has asserted that a word may not be *used* as a trademark for books or that there cannot *be* trademarks for books, in the form of a word or otherwise, or that trademarks for books cannot be registered under the Lanham Act. Appellant appears to assume that "TEENY-BIG" has been used *as a trademark* for books in asking that it be registered, but that is what we have to decide. Nothing we say should be taken as implying that no trademark for books can be registered; but [2] before there can be registration there must be a trademark and a trademark exists only where there has been trademark use.

Statutory Provisions

Appellant's first point, as briefed, is that the 1946 act *entitles* him to registration. It is urged that "TEENY-BIG" is registrable by the express provision of Sec. 2 unless it falls within one of the prohibitions of that section and appellant contends that it does not.

Section 2, relied on by appellant, insofar as here pertinent provides:

Sec. 2. Trademarks registrable on the principal register

No trademark by which the goods of the applicant may be distinguished from the goods of others shall be refused registration on the principal register on account of its nature unless it—

* * * * * * *

(e) consists of a mark which, (1) when applied to the goods of the applicant is merely descriptive or deceptively misdescriptive of them, * * *; * * * (15 U. S. C. 1052).

[3] The introductory clause and the quoted portion of subsection (e) are complementary and opposite sides of the same coin to the extent that a mark which is "merely descriptive" of the goods to which the applicant has applied it is not being used by him *as a trademark* for those goods and hence, in that use, *is not a trademark*. The decisions below are obviously predicated on Section 2 in holding "TEENY-BIG" unregistrable on the grounds (a) that it is not a trademark and (b) that it is the name of applicant's book.

To eliminate any possible doubt on the matter [4] we proceed on the understanding that the name of a thing is descriptive of it, for the sense in which the trademark law uses the term "descriptive" includes the names of things as well as qualifying expressions. In lay language the name of a thing might be referred to as designative, as in the expression "red rose" the name "rose" is designative and the adjective "red" is descriptive, but trademark law lumps the names and the qualifying expressions in the descriptive category. Thus the names "orange," "bean" and "book" are clearly "descriptive" of oranges, beans and books respectively. Furthermore, such names are incapable of functioning as trademarks because they cannot distinguish the goods of one person from the goods of another.

Appellant asserts that his mark does not fall within any of the prohibitions of the trademark act, that he has complied with all of its provisions and apparently *assumes* that "TEENY-BIG" has been used by him as a trademark. We do not think this is an overstatement for at the beginning of the brief it is stated that "evidently the rejection of the application was based on the alleged premise that a valid trademark may not be had on the use of an arbitrary name *as a trademark* for books (not in series)" and the question is asked "what protection may he have when an arbitrary word or name is used *as a trademark* for his books?" [Emphasis ours.]

Appellant seems to be arguing that whenever an *arbitrary* term is applied to a commodity of commerce—which a book is, of course—it ipso facto becomes a trademark. For example, he says:

The word "Potatoes" may not be protected for potatoes, but "Zippo" may be a valid trademark for potatoes or cigar lighters. "Zippo," like "TEENY-BIG," being an *arbitrary* word for the goods or commodity by which the public designates the product to indicate the origin.

To this is coupled an argument, the main theme of the brief, as plausible as it is fallacious, which will best be understood from the following selected passages, illustrative of many others:

The Examiner holds that the applicant *may not* have protection on the name or mark of his book, because there is no other way in [sic] asking for the book. That same kind of reasoning would be true with respect to any other goods, or to commodities such as canned beans, oranges, or what not.

* * * * * * *

To say that there is no other way of asking for a book than by its title, does not appear to be sound and logical because the same is true of any goods or commodity. If a person should ask for a book—and there are millions of books—the next question would be, "What book do you want?", and the answer would be, "TEENY-BIG."

* * * * * * * *

In the same vein, if somebody asked for an orange or a dozen of oranges, the grocer would say, "What kind of oranges do you want?" and, if "Sunkist" oranges were wanted they would reply "Sunkist" oranges.

If a purchaser would say, "I want some canned beans," he would be asked, "What kind of canned beans do you want?" He would reply by saying, "Libby's," "Heinz," or whatever other make he wants.

* * * * * * * *

It does not seem to make any difference whether the goods be books, games, golf clubs, riding saddles, oranges, candy, canned goods, or any other item.

But it does make a difference. The purchaser of a book is not asking for a "kind" or "make" of book. He is pointing out which one out of millions of distinct titles he wants, designating the book by its name. It is just as though one walked into a grocery and said "I want some food" and in response to the question "What kind of food?" said, "A can of chicken noodle soup."

The fallacy in appellant's arguments resides in the comparison of the wrong terms. "TEENY-BIG" must be compared to "oranges" and "canned beans" *on the facts of this case*, and not to "Sunkist," "Heinz," and "Libby's." Obviously, to support our statement of what terms must be compared, it behooves us to show that "TEENY-BIG" is a descriptive name like "canned beans," rather than a trademark like "Sunkist" as assumed (but not proved) by appellant.

The key to this case is not the word "arbitrary," which appellant takes to be tantamount to a directive to register, but the true nature of the words "TEENY-BIG." Man is a creative animal. By the labor of his hands he creates things and by the labor of his mind he creates thoughts which are woven together into the form of essays, reports, speeches, court opinions, stories and the like. Man is a verbal animal and each new thing brings into being before long a new name—hammer, wheel, wagon, automobile, airplane. Things found in nature are also named—oranges, beans. Language evolves adjectives like "teeny" and "big" and "baked" and some new things can be named without coining new words, for example "tank truck."

Books, as articles of merchandise, have entered the marketplace in great quantities. As appellant says, there are millions of them. They proliferate in two ways. New copies of old books are constantly manufactured—"Hamlet," the "Holy Bible," "Webster's Dictionary" and J. K. Lasser's "Your Income Tax." But, as in the case we are dealing with, authors and their publishers are constantly producing *new* books, the contents of which are new ideas in different forms—new plays, new yarns, new attempts to recapture the elusive spirit of childhood. Each is a new thing, unique, which has to have a name and, speaking generally, its name will fall into one of two categories. In the first category is a name like "tank truck" suggested above, composed of existing descriptive words or names, or other purely descriptive phrases such as "Furniture Repair and Refinishing" and "The Life of Abraham Lincoln." The second category contains the *new names* for new books, the ones appellant calls "arbitrary"—"Candide," "Leviathan," "Huckleberry Finn," "Arrowsmith," "Moby Dick," "Pride and Prejudice," to pick a few at random, names which give, prior to reading it, no indication of what is in the book. Of course there are also the intermediate names ranging through all shades of descriptiveness of the book's contents. But however arbitrary, novel or nondescriptive *of contents* the name of a book—its title—may be, it nevertheless *describes* the book. Appellant has nowhere attempted to answer the question, How else would you describe it—what else would you call it? If the name or title of a book were not available as a description of it, an effort to denote the book would sound like the playing of the game "Twenty Questions."

Appellant appears to argue that there is an inconsistency in registering as a trademark the name for a series of books and in not registering the title of a single book. We see no inconsistency. [5] The name for a series, at least while it is still being published, has a trademark function in indicating that each book of the series comes from the same source as the others. The name of the series is not descriptive of any one book and each book has its individual name or title. A series name is comparable to the title of a periodical publication such as a magazine or newspaper. While it may be indicative, either specifically or by association in the public mind, of the general nature of the contents of the publication, it is not the name or title of anything contained in it. [6] A book title, on the other hand, especially one which is coined or arbitrary, identifies a specific literary work, of whatever kind it may be, and is not associated in the public mind with the publisher, printer or bookseller—the "manufacturer or merchant" referred to in the trademark act (Sec. 45, definition of trademark). If a title is associated with anything, it is with the author for it is he who has produced the literary work which is the real subject of purchase.

[7] As "TEENY-BIG" is no more than the name of a book, its only name, it is not a trademark under the statute, section 2. Hence, "TEENY-BIG" was properly refused registration. It is of no avail to point out that it was "arbitrary" because every newly coined name has that characteristic, for example "radio," "woofer," "tweeter" and "smog," a fact that tends to be forgotten as new nomenclature becomes a part of the language and new titles are added to the publisher's catalogs.

[8] In saying that "TEENY-BIG" is the name of a book, we note that in this context the term "book" has a dual aspect. First, it is an article of manufacture which can be sold in the marketplace. As such it is not unlike blankbooks or pads of paper. Secondly, it contains, by virtue of the printing on the paper, an intellectual content which is incorporeal—the story. The title of the "book" does not really pertain to the first aspect at all but identifies, names or describes the incorporeal literary content, which is subject to the laws pertaining to literary property. Publishers, in short, are not in the blankbook business.

[9] There is a compelling reason why the name or title of a book of the literary sort cannot be a trademark. The protection accorded the property right in a trademark is not limited in time and endures for as long as the trademark is used. A book, once published, is protected against copying only if it is the subject of a valid copyright registration and then only until the registration expires, so eventually all books fall into the public domain. The right to copy which the law contemplates includes the right to call the copy by the only name it has and the title cannot be withheld on any theory of trademark right therein. As was aptly said in *In re Page Company*, 47 App. D. C. 195, when copyright in a protected work expires, "the use of the descriptive name becomes publici juris." The title there under consideration was "Pollyanna" which appears to be quite as "arbitrary" as "TEENY-BIG." Of course, it makes no difference whether the work whose name is sought to be registered is copyrighted. If it is not, the public may copy it at once and would be as clearly entitled to call it by its name. If there were two publishers of "Pollyanna," how could the title possibly indicate origin or distinguish the goods of one from the goods of the other?

We have reviewed the opinion of Judge Garrett in *Whitman Publishing Company* v. *McLoughlin Bros., Inc.*, 25 CCPA (Patents) 1298, 38 USPQ 120, 97 F.2d 608, so extensively quoted by appellant. We find it entirely consistent with what we have said in this opinion and with the result reached. Other cases which have held that the titles of books are mere

names, and hence not trademarks, are *Black et al.* v. *Ehrich et al.*, 44 Fed. 798 (1891); *In re Page Company*, supra; *Ex parte Reinhold Publishing Corporation*, 68 USPQ 401 (Com'r. 1946), and *Ex parte Simmons-Boardman Publishing Corporation*, 77 USPQ 600 (Com'r. 1948).

Other Arguments

Appellant urges that since the copyright laws do not protect the titles of books, if the Patent Office will not grant any protection on the name or title "then the applicant is without recourse even under the Constitution of the United States, which provides that patentees and authors *shall* be entitled to *protection* on their respective works." Elsewhere it is alleged that this supposed failure of the law "appears to be a violation of" the Constitution.

[10] Article I, section 8, eighth clause, of the Constitution, to which we are referred, does no more than grant power to Congress to secure certain rights to authors and inventors insofar as it elects to do so. The cited clause grants no *rights* to authors and has nothing to do with the registration of trademarks. [11] It is well known that the rights in book titles are afforded appropriate protection under the law of unfair competition. See Nims, "Unfair Competition and Trade-Marks," 4th Ed., Chapt. XVIII, especially § 277; Shoemaker, "Trade-Marks," Sec. 112 at page 325.

Appellant says, "The Patent Office does register trademarks for names or titles of *games*, which appears to be inconsistent with its holding that names or titles of books are not registrable." He then cites a number of examples together with the registration numbers and other data. We refrain from mentioning any of them so as not to reflect on the validity of registrations not before us, it being clear that we have not been supplied with sufficient information to enable us to say whether the words registered were legally entitled to be considered trademarks or were mere descriptive names which could not at the same time be trademarks. Having postulated this situation, however, appellant makes much of it in argument, one of his typical contentions being, "If games are registrable, and they are, books also should be registrable." Of course, neither games nor books are registrable but only trademarks.

[12] The short answer to the last mentioned contention is that the decision of this case in accordance with sound law is not governed by possibly erroneous past decisions by the Patent Office. Suffice it to say that the same principles of law apply to the registration of trademarks for all kinds of goods. If appellant were seeking to register "TEENY-BIG" as a trademark for a game the name of which was "TEENY-BIG" and it had no other possible descriptive name, our decision would be the same, and we trust it would have been the same in the Patent Office.

The decision of the Assistant Commissioner is affirmed.

AFFIRMED.

WORLEY, *J.* (dissenting):

I appreciate the detailed discussion in the majority opinion, but am not completely satisfied as to the correctness of the result reached therein. True, there is precedent, particularly in the *In re Page Company* decision, supporting the conclusion that the instant mark is not registrable, but it is also true that this court itself has provided support for the opposite view. For example, in *Whitman Publishing Company* v. *McLoughlin Bros., Inc.*, 25 CCPA (Patents) 1298, 98 USPQ 120, 97 F.2d 608, this court quoted with approval the following language:

> *I can perceive no reason why a trademark may not properly be applied to a book*, or to a complete collection of books, just as it may be applied to a serial publication, or to any other article of merchandise. * * *
>
> * * * I think that trademark ownership in a mark applied to books depends upon exactly the same considerations as those by which the question of ownership is determined with respect to marks applied to any other merchandise. *I can find no justification, either in law or in reason, for applying a different rule.* [Italics supplied.]

I readily concede the precise issue here was not present there, but the language is especially significant since it was approved after consideration of *In re Page*. That decision was handed down in 1917, long prior to enactment of the Lanham Act, by the Court of Appeals of the District of Columbia. I respect the views of that court as "Those of a co-ordinate appellate court having, perhaps, approximately the standing" of this court in patent and trademark matters, and as such "they are persuasive and entitled to deference, but are not authoritatively binding."[1] In my opinion, the Page case is irreconcilable with the quoted language of the Whitman decision. I prefer to follow the latter, not necessarily because it is one of our own decisions, but primarily because it is sound and consistent with the provisions of the Lanham Act.

I agree with the majority that "The sole question raised by this appeal is whether an arbitrary, that is to say coined, term which is the title of a book, and the only designation the book has, is registrable as a trademark for books under the Trademark Act of 1946, also known as the Lanham Act."

The only provisions of that act germane to the instant issue are:

> *Sec. 2. Trademarks registrable on the principal register*
>
> No trademark by which the goods of the applicant *may be distinguished* from the goods of others shall be refused registration on the principal register on account of its nature unless it * * * [Italics supplied.]
>
> * * * * * * *
>
> (e) consists of a mark which (1) when applied to the goods of the applicant is *merely descriptive* or deceptively misdescriptive of them, * * *; * * * (15 U. S. C. 1052). [Italics supplied.]

It does not seem to me that a reasonable interpretation of the above language would prohibit registration of the instant mark. First, it is obvious, as the majority concedes, that the mark is an "arbitrary, that is to say coined, term * * *." As such it would seem to fully satisfy the first requirement of the act with respect to its capability of distinguishing appellant's goods from the goods of others. Second, how a mark can be considered "arbitrary" and at the same time "merely descriptive" is something I am unable to reconcile with the express provisions of subsection (e). While it is quite true that a trademark which was *originally arbitrary* may eventually *become descriptive*, that is not the case here.

Our late colleague, Judge Cole, once observed that "Trademarks exist in a practical world * * *."[2] Broadly speaking, I think that statement captures the spirit of the congressional intent as reflected in the report of the Senate Committee on Patents (Senate

[1] *Watson* v. *Allen*, App. D. C., April 3, 1958.
[2] *Burton-Dixie Corp.* v. *Restonic Corp.*, 43 CCPA (Patents) 950, 234 F.2d 668, 110 USPQ 272.

Report No. 1333, May 14, 1946) which accompanied the Lanham Act:

> The purpose of this bill is to place all matters relating to trademarks in one statute and to *eliminate judicial obscurity, to simplify registration and to make it stronger and more liberal, to dispense with mere technical prohibitions and arbitrary provisions, to make procedure simple*, * * *.
>
> * * * * * * *
>
> The purpose underlying any trademark statute is twofold. One is to protect the public so it may be confident that, *in purchasing a product bearing a particular trademark which it favorably knows, it will get the product which it asks for and wants to get.* * * * [Italics supplied.]

If the test employed in rejecting the instant mark is a proper and valid standard, then it should be consistently applied. That such does not appear to be the case is best illustrated by reference to but a few registered trademarks encountered daily, such as "Mercurochrome," "Coca-Cola" (also registered as "Coke"), "Mentholatum," "Pepto-Bismol," "Bufferin," "Anacin," "Absorbine, Jr.," and "7 Up." Suppose, for example, a buyer wants a bottle of "7 Up." How can he identify what he wants without calling for it by name—the only name it has and the only name he knows? What other name did it have at the time of registration? Would not the same also be true of a multitude of other popular marks? Then why should a different standard govern the instant mark?. How can a purchaser identify "Teeny Big" without asking for it by name—the only name it has and the only name he knows?

In addition to the above, counsel for appellant cites numerous names of games which have been registered, among which are "Parcheesi," "Bingo," "Indian Checkers," "Galloping Dominos," and "Monopoly." It seems appropriate to wonder by what test those marks were passed for registration, and to inquire how they, any more than "Teeny Big," can be identified by any other name.

It does not seem consistent to grant trademark protection for the titles of periodicals, comic strips, and books in series yet deny protection to the arbitrary title of a single book. For example, "The Saturday Evening Post" is a registered trademark, although obviously it is the name and the only name by which that periodical can be identified. There, as here, trademark registration does not cover the *contents*, but merely the *title*. The contents of the Post, if copyrighted, would enter the public domain upon expiration of the copyright protection; however, the trademark under which the contents were published would not be available to the public, but would remain with the publisher. Would that not also be true here? In that connection, the following language in the majority opinion is interesting:

> There is a compelling reason why the name or title of a book of the literary sort cannot be a trademark. The protection accorded the property right in a trademark is not limited in time and endures for as long as the trademark is used. A book, once published, is protected against copying only if it is the subject of a valid copyright registration and then only until the registration expires, so eventually all books fall into the public domain. The right to copy which the law contemplates includes the right to call the copy by the only name it has and the title cannot be withheld on any theory of trademark right therein.

I trust I do not do the majority an injustice in construing that language to indicate that they have been influenced, at least to some extent, as I think was also true in several of the cases cited below, by the provisions of the Copyright Act, an act over which this court has no jurisdiction.

It seems there is an underlying fear on the part of the majority that registration of the instant mark would provide *permanent protection* of the contents of the book. However, I do not see that registration of the instant *title* would carry with it any greater degree of protection of the *contents* than is the case with respect to the title of a series of books or periodicals.

It is a matter of common knowledge that millions are spent in an effort to educate the public to ask for products *by a particular name*. I think Congress intended to encourage, not retard, those efforts when it enacted the Lanham Act. I not only fail to see that registration of the instant mark would result in any violence in the trademark world, but, on the contrary, feel that its registration would be clearly consistent with the provisions of that Act.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

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2,480,112, A. G. Talbert, Coupling for tractor and semi-trailer units or the like, filed Dec. 20, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2105, *Talbert Construction Equipment Co.* v. *L. M. Miller Co. et al.* Patent held valid and infringed (notice May 16, 1958).

2,515,817, K. C. Augenstein, Expansion bracelet; **2,549,416**, same, Connector for wrist watch; **Des. 165,355**, same, Expansible chain for a bracelet or similar article; **Des. 165,356**, same, filed July 1, 1957, D. C., S. D. N. Y., Doc. 122/79, *Speidel Corp.* v. *Moore Products Corp. et al.* Consent judgment; defendants enjoined May 19, 1958.

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2,562,115, E. H. Replogle, Aircraft alighting gear, filed May 19, 1958, Ct. Cls., Doc. 223/58, *Stanley Aviation Corp.* v. *The United States*.

2,571,536, **Re. 23,694**, L. G. Ehmann, Material handing device for industrial trucks, filed July 12, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1180, *Hyster Co.* v. *Hunt Foods, Inc.* Ordered that Universal Clamp Co. be made a defendant Mar. 8, 1957; complaint and counterclaim dismissed May 12, 1958.

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2,617,375, W. J. Peets, Electric motor drives for sewing machines; **Re. 24,370**, C. Harris, Embroidering mechanism for zigzag sewing machines; **2,832,302**, F. Geganf, Sewing machine, filed May 20, 1958, D. C., S. D. N. Y., Doc. 133/350, *The Singer Mfg. Co.* v. *Brother International Corp.*

2,633,209, C. H. Armstrong, Combination child's chair, filed May 16, 1958, D. C., N. D. Ga. (Atlanta), Doc. 778, *Swift & Co.* v. *Grover B. Harben, Jr.*

2,660,763, Easley and Swayze, Etching, filed Feb. 27, 1956, D. C., S. D. N. Y., Doc. 130/209, *Dow Chemical Co.* v. *Western Printing & Lithographing Co., Inc.* Stipulation and order of dismissal May 8, 1958.

2,696,633, W. J. Hincks, Hide stripping assembly, filed Mar. 19, 1958, D. C., N. D. Ohio (Toledo), Doc. 7966, *The Globe Co. et al.* v. *F. J. Arend & Son et al.* Order vacating default judgment against plaintiff Frans J. Arend, Jr., entered May 13, 1958, May 19, 1958.

2,763,032, E. L. Sharts, Containers having flap hold-down means, filed May 13, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37,316, *Weyerhaeuser Timber Co.* v. *Royal Container Co.*

2,833,607, A. M. Zalkind, Toy fencing foil, filed May 20, 1958, D. C., S. D. N. Y., Doc. 133/346, *Albert M. Zalkind et al. v. Empire Plastic Corp.*

2,833,368, F. J. Curran, Perfumed or deodorant ball and a support therefor, filed May 16, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c878, *Frank J. Curran Co. v. Hy Starr et al.*

2,838,194, Hopkins and Easley, Etching, amended complaint filed May 19, 1958, D. C., S. D. N. Y., Doc. 130/210, *Dow Chemical Co. v. Bingham Photo & Engraving Co., Inc.*

2,838,446, Nissel and Bruce, Picture tube restorer, filed May 15, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c873, *Circuit Mfg. Co., Inc. v. Anchor Products Co.* Same, Doc. 58c874, *Circuit Mfg. Co., Inc. v. Perma Power Co. et al.*

2,833,363. (See 2,617,375.)

2,835,074, R. W. Crawford et al., Action toy; Des. 182,791, R. W. Crawford, Push toy, filed May 21, 1958, D. C., S. D. N. Y., Doc. 133/354, *Fisher-Price Toys, Inc. v. J. Chein & Co.*

Re. 23,824. (See 2,571,560.)

Re. 24,870. (See 2,617,375.)

Des. 182,255. (See 2,515,617.)

Des. 182,256. (See 2,515,617.)

Des. 175,875, F. Armbrust, Ornamental chain; Des. 175,876, same, filed May 21, 1958, D. C. R. I. (Providence), Doc. 2347, *Armbrust Chain Co. v. Prochain, Inc.*

Des. 175,876. (See Des. 175,875.)

Des. 176,870, I. Klein, Candy bar or similar article, filed Dec. 19, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 16124, *Barton, Inc. v. Victoria Sweets Inc. et al.* Consent dismissal May 19, 1958.

Des. 180,878, S. Briskman, Shears or the like, filed May 16, 1958, D. C., S. D. N. Y., Doc. 133/256, *Samuel Briskman et al. v. Karl Peters, Jr.*

Des. 182,791. (See 2,835,074.)

REISSUES

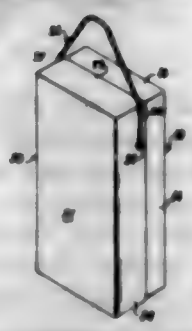
JULY 1, 1958

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,495
CONTAINER FOR SHOES AND THE LIKE

Leo C. Pace, Asheville, N. C.

Original No. 2,772,045, dated November 27, 1956, Serial No. 491,021, February 28, 1955. Application for reissue January 27, 1958, Serial No. 711,535
9 Claims. (Cl. 229—52)



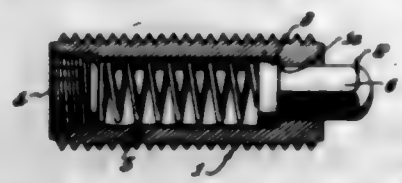
1. A container comprising a substantially rectangular body provided with a bottom, first and second side walls and first and second end walls, a cover for said body comprising a top wall, third and fourth side walls and third and fourth end walls, said end walls and side walls of the cover being substantially one-half the width of the end walls and side walls of said body and being adapted to fit snugly about the corresponding walls of said body, said first and third side walls and said second and fourth side walls having respective coinciding eyelets therethrough when the container is closed located at points substantially half-way between the bottom wall of the body and the opposite edges of the first and second side walls and also being located adjacent said first end wall, a double-ended pliable handle formed into a loop and having opposed ends thereof projecting inwardly through the eyelets in the third and fourth side walls and through the eyelets in the first and second side walls, and means restraining the free ends of the pliable handle from being pulled out of said eyelets.

24,496
SPRING PLUNGER

Paul D. Cornelius, Los Angeles, Calif., assignor, by mesne assignments, to Vilter Engineering Corporation, a corporation of Delaware

Original No. 2,791,914, dated May 14, 1957, Serial No. 367,695, July 13, 1953. Application for reissue September 17, 1957, Serial No. 685,775
6 Claims. (Cl. 74—527)

6. A spring plunger comprising: a tubular body externally threaded throughout its length, there being an inwardly projecting shoulder in the passage through the body near the front end thereof; a plunger having a head fitted to slide axially within said passage and a shank extending from said head fittingly to ride in the portion of said passage disposed forwardly of said shoulder, said shank being formed with wrench-receiving flats that cooperate with complementary flats formed in the portion of said passage disposed forwardly of said shoulder to restrain relative rotation between said shank and said body whereby rotation of said shank will effect concurrent rotation of said body; a plug seated within said body

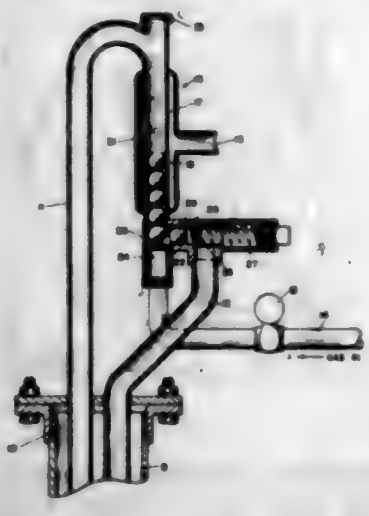


to close the rear end of said passage; and a compression spring between said plug and said head normally maintaining the front end of said shank projected beyond the front end of said body.

24,497
APPARATUS FOR PUMPING WELLS

Renic P. Vincent, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

Original No. 2,698,582, dated January 4, 1955, Serial No. 261,714, December 14, 1951. Application for reissue December 10, 1956, Serial No. 627,726
20 Claims. (Cl. 103—52)



1. An apparatus for gas lifting a well with a series of plungers comprising a production tubing and a power tubing, a head at the lower end connecting said production tubing and said power tubing together as a continuous conduit within said well, means forming a constriction in said power tubing, at least one of said means and said plungers being resilient, an inlet below said constriction to admit well fluids into said conduit within said well, a plunger injector for delivering plungers serially into the upper end of said power tubing, means to inject lifting fluid into said power tubing behind each of said plungers, and means at the upper end of said production tubing for discharging said well fluids from said conduit.

PLANT PATENTS

GRANTED JULY 1, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,722
CONICAL OR PYRAMIDAL RED MAPLE TREE
Edward H. Scanlon, Olmsted Falls, Ohio
Application May 23, 1957, Serial No. 661,269
1 Claim. (Cl. 47—59)

A new and distinct variety of red maple tree as described and illustrated characterized by its elongated conical form and particularly by its autumn coloration and constancy thereof.

PATENTS

GRANTED JULY 1, 1958

GENERAL AND MECHANICAL

2,840,821
SIDE SHIELD ATTACHMENT FOR GOGGLES AND SPECTACLES
Fred G. Gey, Jr., Greece, and Walter O. Parker, Brighton, N. Y., assignors to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application March 30, 1956, Serial No. 575,087
1 Claim. (Cl. 2—13)



In a goggle or the like, the combination of a rim surrounding a lens, an endpiece extending laterally from the temporal portion of the rim and having a shoulder at the front edge of the rim, an arcuate, resilient support frame extending along the upper and temporal portions of the rim and rearwardly thereof, a loop member secured to and projecting forwardly from the support frame, said loop member having an opening through which the endpiece projects, said loop member being bent over to engage said shoulder, hook means projecting forwardly from the support frame and hooked over the edge of the rim, and a side shield member mounted on the support frame whereby the side shield is detachably held on the goggle or the like.

2,840,822
ABDOMINAL SUPPORTING BELT
Francis S. Ericsson, Warren, Pa.
Application October 26, 1956, Serial No. 618,574
4 Claims. (Cl. 128—547)



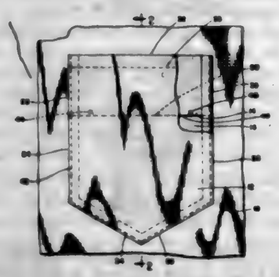
1. An abdominal supporting belt comprising a front half and a back half, means joining adjacent edges of the back half to the front half whereby the belt will be mounted in encircling relation to the abdomen region of the body of a wearer, said means permitting angular adjustment of the front half in relation to the back half for providing support for the abdomen in various stages of pregnancy, said front half including an inner and outer panel of resilient material with the ends thereof secured together, said panels being disposed with the ends of one coextensive with the ends of the other and the center of the one below the center of the other but with the major portions of the panels being coextensive thus permitting both panels to engage and support a portion of the abdomen.

2,840,823
GLOVES AND/OR MITTENS
Benjamin B. Kita, Upper Black Eddy, Pa., assignor to Advance Glove Manufacturing Co., Detroit, Mich., a corporation of Michigan
Application February 17, 1956, Serial No. 566,164
5 Claims. (Cl. 2—158)



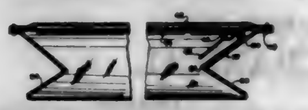
1. A reversible mitten having two complementary outer side walls and an intermediate inner partition wall complementary to each outer side wall and disposed between the outer side walls, said three walls being secured together along their margins defining two complementary hand-receiving compartments on opposite sides of the partition wall between the partition wall and an outer side wall.

2,840,824
NON-SPILL POCKET
Nadine B. Horner, Chicago, Ill.
Application November 22, 1955, Serial No. 548,314
3 Claims. (Cl. 2—247)



1. In a shirt or similar garment, a non-spill open top pocket comprising a flexible front wall panel, secured along the side and bottom edges to the shirt, a flap secured to and extending downwardly from the upper edge of said panel a predetermined material distance between said panel and the skirt, a tack stitch disposed on each side of said flap adjacent to the lower edge of said flap and in predetermined spaced relation to the side edges of said flap and fastening the flap to said shirt, the means securing the marginal side edges of said panel to the shirt also securing the marginal side edges of the flap to said shirt in superposed relation, said tack stitches defining an access opening into the pocket therebetween and holding said access opening in normally closed position, whereby objects inserted into said pocket through said access opening are retained in said pocket insubstantially all positions thereof.

2,840,825
INVISIBLE ZIPPER POCKET
Fernando Garrido, New York, N. Y.
Application July 23, 1956, Serial No. 599,600
1 Claim. (Cl. 2—252)



In a garment, the combination, with a pocket-supporting panel, of a pocket construction comprising back and front pocket walls, and a slide fastener on at least one of said walls disposed to normally close the pocket, said fastener being mounted in a position concealing the same from the casual viewer, said pocket construction further including pleats at opposite sides of the same and connected to said panel, one of the pleats including an inner wall, the fastener including a slide and a pivoted handle on the slide, said inner wall of said one pleat overlying the slide handle in the fastener-closing position of the slide, said pocket construction additionally including spring means on said one pleat tensioned to bias the inner wall toward the handle to retain the handle in a slide-locking position, said spring means comprising legs anchored to the fastener at opposite sides of the slide and a spring wing springably, pivotally connected to the legs, the spring wing being secured to said inner wall, and being tensioned to resiliently bear against the handle in the slide-locking position of the handle while simultaneously closing said one pleat, the spring wing being of a U-shape, the bight portion of the wing constituting the part thereof bearing against the handle, the side portions of the wing constituting the part thereof connected to the respective legs of the spring means.

2,840,826
STOOL SAMPLING APPARATUS
Gerald K. Ebbesen, Irvington, and Harry J. Johnson, New York, N. Y.
Application January 24, 1955, Serial No. 483,675
1 Claim. (Cl. 4—1)



Apparatus for collecting a sample of human feces comprising a toilet bowl, a seat thereon, a thin disposable flexible strip of width not more than half the diameter of the said bowl at the level of the lowest part of the strip when the strip depends within the bowl and of length substantially greater than the distance between the sides of the said seat, and means for securing the strip at each end and over substantially the full width thereof to the said seat and in conforming relationship thereto, so that the strip will depend in non-rotatable manner with the lowest part between the two sides of the bowl.

2,840,827
DISAPPEARING SHOWER CURTAIN
Emil Calvano, Los Angeles, Calif.
Application August 27, 1956, Serial No. 606,447
4 Claims. (Cl. 4—149)

1. In combination with the side walls of a bath shower, a pair of brackets secured on said side walls, respectively, a curtain roller mounted at its end on said brackets, respectively, a shower curtain wound on said curtain roller, a curtain roller casing mounted at its ends with said brackets extending into engagement with the inner of



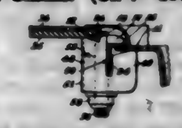
said ends of said casing, said casing being provided with a longitudinal slot through which said curtain extends for winding said shower curtain on said curtain roller or for unwinding said curtain from said curtain roller.

2,840,828
MEANS OF INFLATING BY AIR SEPARATED FROM COMBINED AIR AND WATER PRESSURE
Carl Wilmer Furaberg, Portland, Oreg.
Application April 9, 1957, Serial No. 651,751
1 Claim. (Cl. 4—172)



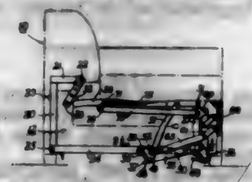
A swimming pool comprising a bottom wall secured to the bottom tube of a plurality of inflatable tubes stacked one upon the other and in communication with each other for inflation purposes, said bottom tube having an air outlet opening in communication through a manifold with the interior of the other of said tubes and a water outlet in open communication with the bottom end of a standpipe extending to a height above said pool at a point below said air outlet opening and adapted to deliver water to the interior of the pool, a Venturi tube adapted at one of its ends for connection to a source of water pressure and in communication at its opposite end through a check valve with the interior of said bottom tube and having an atmospheric air intake opening intermediate its ends whereby water and air will combine within the Venturi tube, open said check valve, and flow to the interior of the bottom tube wherein air liberated from the water will be forced into said tubes to inflate the same and the resultant back pressure upon final inflation of said bottom tube surplus air and the water will flow through the standpipe whereby in the absence of water flow into said bottom tube said back pressure will close said check valve and the ultimate air pressure in all of said tubes will be determined by the height of said standpipe and the column of water remaining therein.

2,840,829
CLAMP AND FRAME COMBINATION FOR SINKS AND THE LIKE
Samuel Hammer, New York, N. Y., assignor to United Metal Cabinet Corporation, New York, N. Y., a corporation of New York
Application September 11, 1953, Serial No. 379,618
7 Claims. (Cl. 4—187)



1. A drainboard, clamp and frame combination for sinks and the like comprising a drainboard having a frame opening, a frame of sheet material bent to a generally sickle-shaped form in cross-section, said frame including a downwardly depending frame leg and lateral extensions at the upper end thereof extending on each side of the leg to form a downwardly facing abutting shoulder on each side thereof for engagement with said drainboard and sink respectively, said frame also providing an upwardly facing clamping shoulder; U-shaped clamping means forming parallel clamp legs perpendicularly disposed with respect to said abutting shoulders, the clamping means having an opening located between said legs for a clamping screw, a clamping screw passing through said opening between said legs and parallel to said legs, said screw having a head, a nut received on said screw, said screw head and nut comprising screw elements of which one element produces downward pressure on said upwardly facing clamping shoulder and the other element applies upward pressure to both of said downwardly facing abutting shoulders.

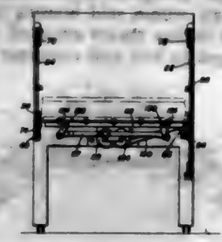
2,840,830
ADJUSTABLE SOFA-BED PROVIDED WITH FRAME LOCKING MEANS
John M. Pokorny and Louis Pokorny, Jr., Ronkonkoma, N. Y., assignors of one-third to John M. Pokorny, Bellport, one-third to Louis Pokorny, Jr., and one-third to Louis Pokorny, both of Ronkonkoma, N. Y.
Application September 25, 1953, Serial No. 382,237
4 Claims. (Cl. 5—13)



1. In a sofa-bed, a sofa body, a frame foldable into said body to define a sofa and unfoldable out of said body to define a bed, said frame comprising sections including an upper horizontal section, a front vertical section, and a lower horizontal section, said sections being in substantial alignment when the frame is in unfolded position, the upper and lower horizontal sections being in parallelism during movement of the frame between its folded position and a forwardly raised intermediate position, a lever pivoted to said lower horizontal section and to said sofa body for supporting said frame during unfolding movement thereof, a pair of toggle links pivotally connected to each other and having their outer ends pivotally connected to said upper and lower horizontal sections respectively, a lug on one of said toggle links, said lug being so positioned that it lies in axial alignment with the pivot connecting said lever to said lower horizontal section when said frame is in said intermediate position, and means on said lever for receiving said lug when said frame is in said intermediate position, said means being movable with said lever upon continued folding movement of said frame beyond said intermediate position to lock said lug and hence said toggle links against movement, thereby locking said upper and lower horizontal sections in parallelism during movements of the frame between said intermediate and folded positions.

2,840,831
BABY CRIB STRUCTURE
John J. Kedrowski, Stevens Point, Wis.
Application December 2, 1955, Serial No. 550,689
2 Claims. (Cl. 5—63)

1. A baby crib comprising a pair of spaced opposed end members having vertical guides mounted thereon, a pair of spaced side members mounted on said guides, at least one of said side members being vertically slidably mounted, a mattress support vertically slidably mounted on said guides, means connecting said one of said side members and said mattress support for raising said mattress support as said one of said side members is lowered, said means including a pitman extending parallel to said end members and pivotally connected to said one of said side members, a first toothed wheel rigidly secured to said pitman, said first toothed wheel being rotatably mounted on a first of said end members, a second toothed wheel intermeshing with said first toothed wheel



and being rotatably mounted on said first of said end members, arms eccentrically and rigidly attached to each of said toothed wheels, and links pivotally connected to said arms and to said mattress support whereby a rotation of said first toothed wheel will cause a raising or lowering of said arms and a corresponding movement of said mattress support.

2,840,832
AQUATIC DEVICE
Marvin R. Fried, San Francisco, Calif., assignor of one-half to Roy E. Conger, San Francisco, Calif.
Application December 5, 1955, Serial No. 550,996
4 Claims. (Cl. 9—1)

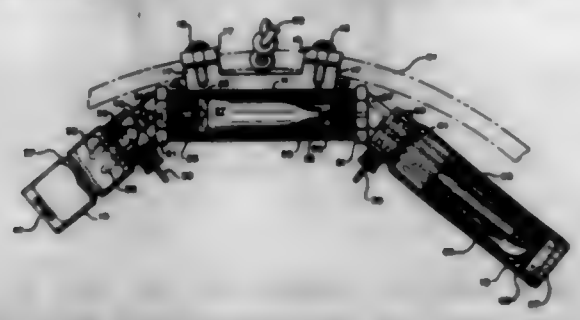


1. An aquatic device comprising: a pair of relatively long, narrow pontoons disposed and spaced in substantially parallel relationship, each pontoon having an area on its upper side for receiving the foot of an operator standing on the pontoons at an operator's station intermediate the ends of the pontoons; a first vertically extending frame means provided forward of the operator's station and joining the pontoons together, said frame means being pivoted on the pontoons for movement by an operator standing at the operator's station, said movement being normal to the longitudinal axis of the pontoons to rotate each pontoon about its longitudinal axis both clockwise and counter-clockwise, a second frame extended between the pontoons rearward of the operator's station, a power unit including a motor and a propeller driven thereby, means mounting the power unit on the second frame for movement about a vertical axis, and linkage extending from one of said pontoons to a connection on the power unit spaced from said vertical axis for rotating the power unit in a horizontal plane upon rotation of one of said pontoons about its longitudinal axis.

2,840,833
AUTOMATICALLY ACTUATED FLOTATION DEVICE
Adel J. Fruendt, Hatboro, Pa.
Application November 26, 1954, Serial No. 471,544
6 Claims. (Cl. 9—9)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a flotation device including an environmental condition sensing signal generating means for producing an electrical impulse, fluid pressure release means includ-

ing a hollow generally cylindrical elongated housing, a squib cylinder fixedly mounted in one end of said housing, a hollow piston slidably mounted within said squib cylinder, an electrically actuated expendable squib enclosed within the space bounded by said cylinder and said piston, an elongated pressurized fluid container mounted slidably within said housing adjacent said piston, a resilient biasing means mounted within said housing and arranged to bias said container into engagement



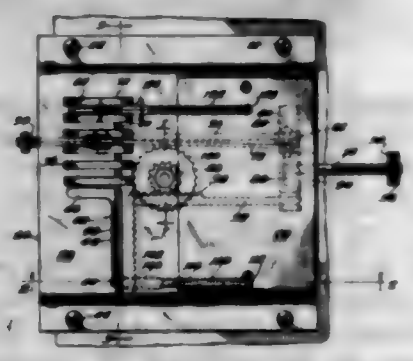
with said piston, a sealed opening in the end of said fluid container remote from said piston, and a seal opening means fixedly mounted in the other end of the housing adjacent to the sealed opening in said container, whereby expansion of the squib overpowers the biasing effect of said resilient biasing means to produce sliding movement of the piston and the container adjacent thereto so that the sealed opening in the container is forced against the fixed seal opening means to break the seal and release the pressurized fluid within said container.

2,840,834

INSERTER FOR PLASTIC BINDERS

Isidore Spinner and August J. Braun, Chicago, Ill., assignors to Plastic Binding Corporation, Chicago, Ill., a corporation of Delaware

Application February 2, 1953, Serial No. 334,472
8 Claims. (Cl. 11—1)



1. A binding machine of the class described comprising a binder-holder, an elongated finger-engaging member, a support rigidly secured to the finger-engaging member and positioning the member at one side of the binder-holder, a second support near the opposite end of the binder-holder shaped to receive the finger-engaging member, an actuating member, means responsive to the actuating member to drive the first support in the direction parallel with the binder-holder to seat the finger-engaging member in the second support, and mechanism responsive to said actuating member to move both supports away from the binder-holder to uncurl the binder following the seating of said finger-engaging member in said second support.

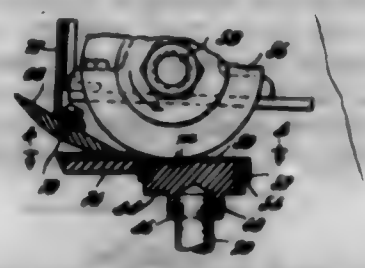
2,840,835

ROUGHING MACHINE

Walter W. Pres, Auburn, Maine

Application October 31, 1957, Serial No. 693,615
24 Claims. (Cl. 12—17)

1. Apparatus for roughing the margin of a flexible cover attached to one side of a rigid backing with its margin extending laterally therefrom, comprising a support having an edge against which an edge of the backing may be placed and a surface at an angle thereto upon which the margin of the covering may rest while the edge of the backing is engaged with the edge of the support, said surface containing a shallow groove which is transversely concave and an abrading element arranged so that a portion of it is concentric with the curvature of the groove and has contact with the margin of the cover resting across the groove, and means for moving the



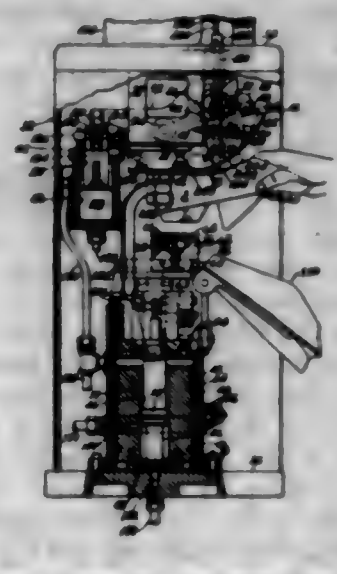
abrading element in a direction toward the edge of the support against which the edge of the backing rests to exert a stress on the margin which tends to pull said margin inwardly between the concentric portions of the abrading element and the support, said backing being movable relative to the support during such movement of the abrading element to present successive portions of the margin lengthwise of the backing to the abrading element.

2,840,836

SHOE BOTTOM IRONING DEVICES

Arthur R. Hubbard, Beverly, Mass., assignor to United Shoe Machinery Corporation, Boston, Mass., a corporation of New Jersey

Application July 23, 1957, Serial No. 673,653
24 Claims. (Cl. 12—53.5)



1. A device for use in ironing the shank and heel seat portions of the bottoms of shoes comprising a rigidly mounted heel ironing block having a generally flat operating surface and shank ironing members hinged to said heel ironing block adjacent to one edge of its operating surface, an abutment member for engaging the last of a shoe presented to the device and mounted for movement toward said heel ironing block to press the heel seat of the shoe against the block, power means for effecting such movement of said abutment member, and separate power means for swinging said shank ironing members relatively to the heel ironing block to force the shank ironing members against the shank portion of the shoe.

2,840,837

REVERSIBLE ELECTRIC TOOTHBRUSH

Edward Gusteme, Danbury, Conn.

Application September 21, 1956, Serial No. 611,096
2 Claims. (Cl. 15—23)

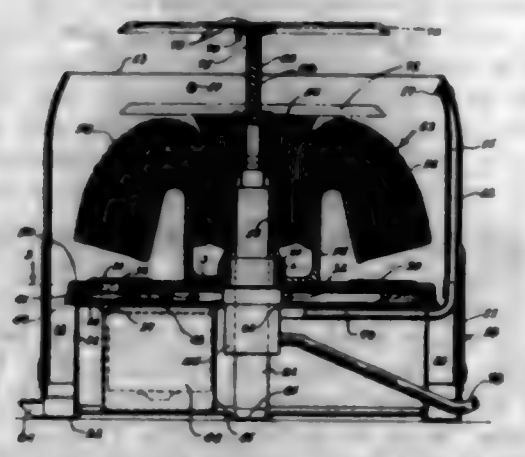
1. A power toothbrush including a hollow handle containing therein controlled motor means, said handle in-

cluding a longitudinal bore portion opening into one end thereof, a brush including an elongated shaft extending longitudinally of said bore portion in operative engagement with the motor means, said bore portion flaring outwardly into the one end of the handle, an annular groove extending intermediately about the inner periphery of the outwardly flared portion, and a cover for the brush including an elongated arcuate housing for overlying the brush and an integral longitudinally extending strip ele-



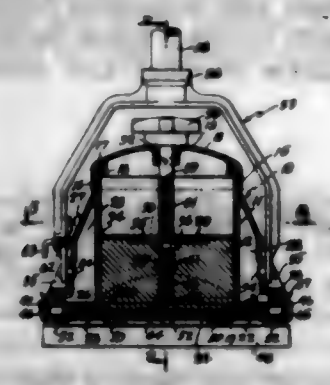
ment overlying a portion of the brush shaft, said housing portion including an angularly directed transversely apertured end portion removably receiving the terminal end of the brush shaft therein, the strip portion of said cover terminating in a laterally extending C-shaped resilient end portion, said C-shaped resilient end portion being removably received in the inner peripheral groove about the outwardly flaring portion of the longitudinal bore of the handle in circumposed relationship about an intermediate portion of the brush shaft.

2,840,838
DISH WASHER WITH AUTOMATIC JET OPERATION
Charles Kepler Brown, Jr., Verona, N. J.
Application August 24, 1953, Serial No. 376,128
19 Claims. (Cl. 15—74)



1. A dishwasher comprising a container having a top edge, a support extending upwardly from the container and having a top surface on which a dish or other article is placed, a water discharge conduit opening through said top surface and into depressed areas of the top surface which are spaced from the confronting surface of the dish or other article on the support, the depressed areas extending radially to the edge of the support whereby water from said discharge conduit is deflected by the dish or other article and is discharged radially outwardly across the surface of the dish or other article, bearing means in which the support is movable up and down, resilient means holding the support in a raised position, moving brush means with which the article contacts when the support is pushed downwardly, said brush means having bristles at its upper end and having all of said bristles terminating at a level lower than the top edge of the container, and valve means in position to be operated by the support for supplying water to the water discharge conduit when the surface of the article which rests on the supporting means moves downwardly to a level below the top edge of the container, the supporting means being long enough to operate the valve means before the surface of the article comes into contact with the brush means.

2,840,839
COMBINATION LIQUID AND PASTE WAX APPLIER AND BUFFER
Amerigo J. Benedetti, Fairfield, Conn.
Application August 27, 1953, Serial No. 376,937
6 Claims. (Cl. 15—124)



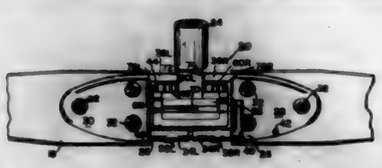
2. A device for applying paste wax to a surface comprising a body including an upright cylindrical container provided with a discharge passage at its lower end, a fibre pad at the under side of the body for spreading wax on said surface and provided with a cavity opening through its under side to hold a quantity of wax exposed at the under side of the pad for application to said surface, said cavity communicating with said passage to receive wax therefrom, means in the container for forcing wax into the cavity comprising a reciprocable circular plunger, an upright feed screw passing through the center of and having threaded connection with the plunger to shift it in opposite directions by operation of the screw, and means whereby the plunger becomes disconnected from the threads of the screw as it reaches its lowest position by manipulation of the screw in one direction, and means for lifting the plunger upwardly to become reconnected with the threads on manipulation of the screw in the opposite direction, a downwardly extending tapered and pointed lug on the under side of the plunger and an upwardly extending tapered pointed lug on the bottom of the container cooperating with the first lug when the plunger is in its lower position to prevent turning of the plunger with the screw, and means for operating the screw to shift the plunger.

4. A device for applying paste wax to a surface comprising a body including an upright container provided with a discharge passage at its lower end, a fibre pad at the under side of the body for spreading wax on said surface and provided with a cavity opening through its under side forming a reservoir to hold a quantity of wax exposed at the under side of the pad for application to said surface, said cavity communicating with said passage to receive wax therefrom, means in the container for forcing wax into the cavity to fill it, a cover at the under side of the pad covering the exposed bottom surfaces of the pad and the exposed wax in the cavity to prevent drying and hardening of the pad and wax, means detachably securing the cover to the body, a buffing pad comprising a plate and a fibre pad secured to the under side of the plate, and means detachably securing the plate of the buffing pad to the under side of the cover comprising cooperating snap fasteners on the under side of the cover and upper side of the plate.

2,840,840
COLLAPSIBLE MOP SUPPORT
Irving Albert Yamen, Denver, Colo., assignor to Dust-Tex Corp., Denver, Colo., a corporation of Colorado
Application June 4, 1956, Serial No. 589,151
5 Claims. (Cl. 15—147)

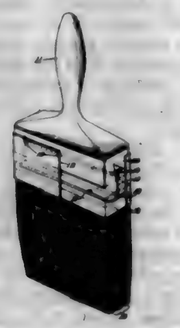
2. A mop head comprising a member having a socket adapted to receive a mop handle, a connector element having opposed spaced front and rear walls interconnected

by opposed spaced side walls with the walls forming an opening, a bar received in the opening between a pair of opposed walls and mounted thereon for tiltable movement about a first axis, said socket member being mounted on said bar for pivotal movement about a second axis perpendicular to said first axis, said connector and bar thus providing a universal connection for the socket member, one of the walls having a notch formed therein sized to receive the socket member and prevent movement



thereof about one of said axes, a pair of hinge leaves carried in opposed relation on opposite sides of the connector for hinged movement about spaced hinge axes, said hinge leaves and connector acting in combination to form a hinge by means of which said hinge leaves may be moved from a folded position to an extended position in which the leaves are substantially coplanar, wings attached to the hinge leaves in opposed relation for insertion into the opposed pockets of a swab, and releasable latch means for maintaining the hinge leaves in extended position.

2,840,841
PAINT BRUSH AND METHOD OF MAKING THE SAME
Franklin C. Maxwell, Philadelphia, Pa., assignor to Elder & Jenks, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application October 21, 1954, Serial No. 463,710
3 Claims. (Cl. 15—193)



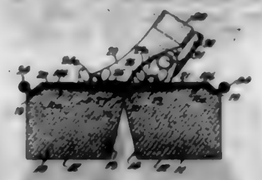
1. A brush comprising a handle having a slot recessed along the bottom face thereof, a plurality of painting filaments grouped together at one end, a resinous bonding material disposed about and above the said end of said filaments, a separate layer of self-hardenable resinous plastic material disposed across said bonding material and mechanically attached thereto, and retaining means having one end inserted in said recessed slot and held in position by said handle, and the other end horizontally inserted in said separate layer of self-hardenable resinous material.

2,840,842
GOLF BALL COATING DEVICE
John M. Kaheny, Melrose, Mass.
Application October 20, 1953, Serial No. 387,087
6 Claims. (Cl. 15—210)

1. As an article of manufacture, a substantially spherical container comprising two substantially identical sections, means for releasably securing the abutting portions of said sections together, fibrous material secured to the inner surface of said sections, golf ball coating material applied to said fibrous material whereby to coat a golf ball freely disposed intermediate said sections with said coating material when said sections are assembled and shaken said sections with said coating material when assembled defining a space substantially larger than a golf ball and means whereby said coating material is facilitated in drying after shaking the device and prior to separation of said halves.



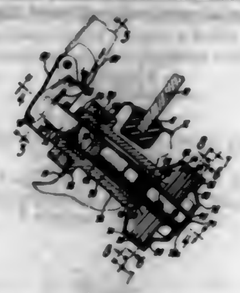
2,840,843
FOLDING MOP HEAD ASSEMBLY
Le Roy J. Vavrinek, Des Plaines, Ill., assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois
Application July 1, 1953, Serial No. 365,310
3 Claims. (Cl. 15—244)



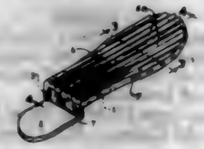
1. A mop head comprising a pair of matching block-shaped wings of sponge material, each wing having a bottom work-engaging face substantially congruent with that of the other when such work-engaging faces are in confronting relation, and each work-engaging face being arranged in a plane forming a continuation of the plane of the other when in work-engaging position, and each wing when in said latter position presenting a planar face in opposed upwardly converging relation to the corresponding face of the other wing to define a cavity of inverted V-shaped contour between the work engaging faces and to define a bridging portion only along a relatively narrow upper marginal portion of said opposed faces of the wings, and a hinge joining said wings at the upper limits of said bridge in downwardly offset relation to the top surfaces of said wings extending outwardly from said hinge.

2,840,844
WINDSHIELD WIPER TRANSMISSION CABLE TENSIONING APPARATUS
Clarence P. McClelland, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 27, 1953, Serial No. 351,870
9 Claims. (Cl. 15—253)

1. Windshield wiper apparatus of the character described, including: a windshield wiper arm; an oscillatable shaft; means for mounting said arm nonrotatably on said shaft; a plurality of drive pulleys all rotatably mounted on said shaft; a plurality of cables, one being connected to each of said pulleys; and readily releasable means spaced from said wiper arm in a location to be accessible when said wiper arm is mounted on said shaft for locking said pulleys to said shaft to form a drive connection between said cables and shaft and provide for oscillation of the shaft through the cables.



2,840,845
COVER FOR A FOOTPLATE
Joseph E. Wood, Toronto, Ontario, Canada
Application January 4, 1955, Serial No. 479,752
1 Claim. (Cl. 15—265)



A replaceable cover, for a footplate having a sole rest portion that narrows to the rear where it underlies the instep and a heel rest portion downwardly stepped therefrom, comprising a normally horizontal body member designed to overlie and conforming generally to the outline of the sole rest portion of the footplate, having a depending side wall with an inturned flange about the entire perimeter thereof except across the rear where the footplate is downwardly stepped to the heel rest portion, said inturned flange terminating short of the opposite rear ends of said side wall, and a transversely extending lip across the rear of said body member depending to a level below the bottom of said flanged side wall, and being attached only to the body member of said cover and free from the side wall and spaced from the ends of the inturned flange, whereby said lip may be swung upwardly to enable the ready introduction of said cover to the toe part of the footplate when applying said cover thereto, wherein said body member is of stretchable material and the depth of the flanged depending side wall corresponds substantially with the thickness of the edge of the sole rest portion of the footplate, enabling said body member to be drawn on longitudinally over the footplate from the front toward the heel thereof, the inturned flange snugly embracing the marginal underside of the footplate and the narrower width of said cover at the instep portion providing a lateral pinching action against the correspondingly narrow portion of the underlying footplate to hold said cover securely in position against accidental upward and forward displacement respectively; said depending lip acting also to prevent forward displacement of said cover and serving as a cushion-like stop to protect the front of the heel of a shoe applied to and pressed forwardly on said footplate.

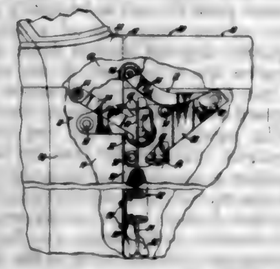
2,840,846
HOLLOW INSULATED HANDLE
Norman J. Mercer, New York, N. Y.
Application March 7, 1957, Serial No. 644,677
1 Claim. (Cl. 16—116)

A kitchen tool having an integral unitary hollow handle construction composed of upper and lower elongated handle shells integrally joined at the side edges thereof, and having a tool shank member integrally joined to one end of said handle construction, said hollow handle having a rarified air body shank for insulating purposes, said rarified air body resulting from elevating the temperature of the handle shells when integrally joined, followed by welding them while the air therein is in highly heated condition, said handle also being reinforced at one end thereof by a transverse tubular element welded at its ends to



the base portions of the handle shells, said handle shells having converging flat top and bottom faces which converge toward the shank member, and having arcuate side and end edges forming parts of the section of a cylinder, said upper and lower shells being welded along the side and end edges thereof and said welds being ground off so that there are smooth external faces with the interior bead portions of said welds constituting longitudinal reinforcement.

2,840,847
HINGING ARRANGEMENT
Dallas D. Danser, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 18, 1953, Serial No. 380,934
1 Claim. (Cl. 16—128.1)



A hinge of the differential type comprising a forward link and a rearward link each pivoted at longitudinally spaced points to a support member and to a closure member respectively, said rearward link being shaped as a bellcrank having a longer arm and a shorter arm, said longer arm including the pivotal connections of said rearward link to said support member and to said closure member, said shorter arm extending with its free end in the general direction toward said forward link, a counterweight tension coil spring, the lower end of said spring being pivotally connected to the support member at a fixed point below the rearward link-to-support member pivot at a relatively long distance therefrom, the upper end of said spring being pivotally connected to the shorter bellcrank arm of said rearward link, said spring moving about its fixed pivot in a path of swing during opening and closing of said closure member, a stationary cam on said support member arranged adjacent said spring below the rearward link-to-support member pivot at a relatively short distance therefrom as compared with its distance from the fixed pivot of the spring, the lateral position of said cam from the rearward link-to-support member pivot being forward with respect to said pivot, said cam having a transversely extending portion causing cam engagement with said spring during at least the

last part of its motion to the open position of said closure member, said transversely extending cam portion having a contour composed of an ascending portion followed by a rounded crest and a descending portion extending into the path of movement of the spring for deflecting it laterally with respect to its axis, the final position of the spring in the open position of the closure member being defined by its engagement with the descending cam portion.

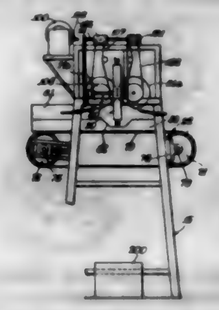
2,840,848
GRAVITY OPERATED DOOR HINGE
James M. Hickey, Mentor, Ohio
Application April 25, 1955, Serial No. 503,580
4 Claims. (Cl. 16—154)



1. A gravity hinge comprising a rod member, a frame member mounted on the rod member for relative turning movement and also for sliding movement axially of the rod member, said frame member comprising a substantially flat metal plate adapted to be rigidly secured in the lower corner of the hinge edge of a door and having spaced angularly disposed integral flange portions apertured to receive spaced portions of the rod member, a cylindrical cam having a relatively narrow annular cam surface disposed about the rod member coaxially, the cam surface being separated from the rod member by an annular clearance space greater than the radial width of the cam surface, a cam follower roller rigidly secured to one lateral edge of said frame member and having a cylindrical peripheral surface, means rigidly securing the cam to the rod member intermediate the flange apertures, means securing the follower roller to the frame member with the rotational axis of the roller normal to the axis of the rod member and so that the narrow cam surface is substantially centered on the peripheral surface of the follower, and means for rigidly securing the rod member to a supporting post or the like.

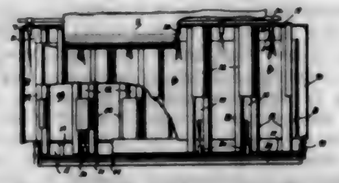
2,840,849
POULTRY BONING MACHINE
Ralph W. Bergstrom and Harold D. Lindeman, Worthington, Minn., assignors, by mesne assignments, to Campbell Soup Company, Camden, N. J., a corporation of New Jersey
Application January 20, 1955, Serial No. 482,956
9 Claims. (Cl. 17—1)

1. A machine for removing the meat from a cooked poultry leg comprising a support, a pair of generally cylindrical rolls each having closely spaced flexible studs upstanding radially from the surface thereof, means mounting said rolls on said support for rotation about parallel axes with the outer ends of their respective studs moving in substantially tangent paths, means connected to said rolls for rotating said rolls in opposite directions at the same peripheral speed, a leg-carrying element mounted on said support for suspending a poultry leg, and means connected to said element for moving said element between said rolls in a direction opposite to the common direction of movement of the opposing studs of said rolls, said rolls each having corresponding portions of their respective peripheries of lesser diameter than the



remainder of the periphery thereby to cause the outer surfaces of the studs at such portions to be spaced apart a greater distance when in opposing relation than the remainder of the studs.

2,840,850
SHRIMP PEELING MACHINE
Fernand S. Lapeyre and James M. Lapeyre, New Orleans, La., assignors to The Peelers Company, Houma, La., a partnership of Louisiana
Application June 15, 1954, Serial No. 436,788
22 Claims. (Cl. 17—2)



1. A machine for peeling shrimp or the like comprising a support for the shrimp, a rotary and longitudinally traveling roller the axis of which is longitudinally displaceable with respect to said support dividing the support into a peeling channel and a trash disposal way, and means to reciprocate the roller on the support to encounter the shrimp in the channel and squeeze the meat from the hull and passing over the hull to expose such hull to the disposal way, and means for removing the trash from the disposal way.

2,840,851
SHRIMP DEVEINER
Wallace A. Vertender, Flushing, N. Y.
Application March 14, 1957, Serial No. 646,153
6 Claims. (Cl. 17—7)



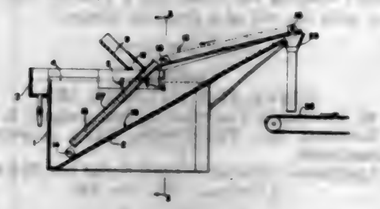
1. A one-piece metal shrimp cleaner comprising an elongated channel-shaped handle portion having a flat integral extension on one end thereof disposed in the plane of the bottom wall portion of the handle portion, a triangular-shaped knife member extending at right angles from the plane of the extension, on one long edge of said extension, adjacent the handle portion, said knife member having a slanting knife edge, and a scoop device on the same edge of the extension extending in the same direction as the knife member, said scoop device having a trough portion extending downwardly and rearwardly from the outer end of the extension toward the knife member to a point in alignment with the end of the knife member, said scoop device having a knife edge extending in the same direction as the slanting knife edge of the knife member.

2,840,852
METHOD OF SEALING THE END OF STUFFED CASINGS
Joseph J. Frank, Union, N. J.
Application June 2, 1953, Serial No. 359,137
4 Claims. (Cl. 17—45)



1. The method of sealing the end of a stuffed sausage having a length of filled casing and a length of unfilled casing at its end, which comprises constricting said unfilled portion to form a neck, applying tension to said neck portion while applying resistive force to said filled portion thereof to expel air therefrom and form the end of said filled portion into generally convex shape, and sealing the neck adjacent said filled portion.

2,840,853
APPARATUS FOR FRAGMENTING PITCH
Frank J. Fontana, Long Beach, Calif., assignor to Richfield Oil Corporation, Los Angeles, Calif., a corporation of Delaware
Original application March 10, 1951, Serial No. 214,909, now Patent No. 2,683,288, dated July 13, 1954. Divided and this application October 15, 1953, Serial No. 386,416
2 Claims. (Cl. 18—2.4)



1. An apparatus of the type described which comprises a tank, open at its upper end, adapted to confine a body of water coolant and having an inclined bottom extending at one end upwardly to above the level in said tank at which the surface of the water coolant is to be maintained, an open ended box having closed sides positioned in said tank above the bottom thereof with its enclosing sides extending vertically above and below the level at which the body of water coolant is to be maintained, a pitch distributing means located to distribute pitch onto that surface of the body of water to be confined in said tank which is enclosed by said open ended box, and a drag means adapted to move in a continuous path downwardly through the open ended box to the vicinity of the bottom of the tank at its lower end, upwardly along the inclined bottom of the tank to above the level at which the body of water coolant is to be maintained and back to above the open ended box where the path of the drag means is completed.

2,840,854
METHOD AND APPARATUS FOR SEALING CONTAINERS
Orville B. Sherman, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application September 2, 1955, Serial No. 532,164
14 Claims. (Cl. 18—5)



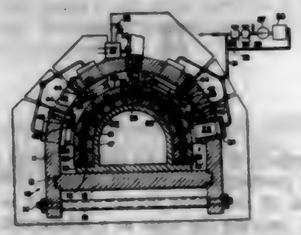
1. A method of closing an opening in an article which comprises positioning over and spaced from said opening a mass of moldable plastic material in a moldable condition, moving the mass as a whole into engagement with the wall surface of the article at and surrounding said opening and molding the material to conform to the shape of the said wall surface of the article, and thereafter solidifying the material.

2,840,855
MULTIPLE-DUCT FLUID-CONDUCTING ASSEMBLY
Ivanhoe P. Denyssen, Merion Station, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application December 30, 1954, Serial No. 478,861
1 Claim. (Cl. 18—8)



In an improved spinning machine comprising a trough containing an acidic coagulating bath, a row of spinnerets designed to be immersed in said bath for the spinning of filaments therein, and a supply of viscose or other spinning solution to be extruded through said spinnerets, the improvement comprising an improved spinneret arrangement and means for temporarily shutting off the flow of viscose from the spinnerets as they are withdrawn from the bath through an arc over the bath, said means comprising a stationary conduit extending through the side of the spinning trough and journalled therein, a pair of inlet ports in the sides of said conduit positioned directly opposite each other, means for admitting viscose to said ports, a cylindrical plug rotatably fitted into said conduit, a pair of parallel ducts extending through said plug and terminating adjacent the ports in said conduit so as to register with said ports when the spinnerets hereinafter recited are in spinning position, a pair of spinnerets, means connecting said spinnerets to the other extremity of said ducts so that there is always open communication between said ducts and said spinnerets, and means for rotating said plug and attached spinnerets so as to raise the latter in a 180° arc out of their normal spinning position in the bath, whereby one end of the ducts will be temporarily out of register with the ports in the conduit in that portion of the arc wherein the spinnerets are still directly over the spinning bath so that the viscose cannot drip from the spinneret into the bath, but the ducts will again register with the ports during the latter portion of the 180° swing so as to resume flow through the spinneret as soon as the latter clears the bath.

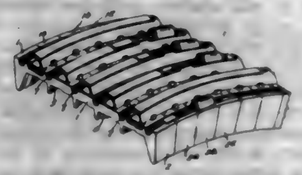
2,840,856
MOLDING APPARATUS AND PROCEDURE
Sven K. Moxness, Racine, Wis., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application October 16, 1952, Serial No. 315,471
8 Claims. (Cl. 18—30)



1. A mold for use with plastic materials, said mold having a plurality of walls forming a mold cavity for receiving a plastic charge, one of said walls comprising a plurality of sections, each of said sections having a molding face, means mounting each of said sections for movement in a direction transverse to said face during operation of said mold, means limiting the extent of said movement away from said cavity, said limiting means being arranged to terminate filling of the mold at a predetermined point, and means for applying substantially continuous pressure against each of said sections in a direction toward said cavity during shrinkage of the plastic charge within said mold.

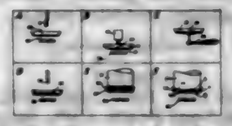
5. The method of molding relatively large hollow objects of a certain molding material in a mold having an inner wall and an outer wall, heating to a temperature at which said molding material is fluid, comprising the mold, injecting plastic molding material into the mold and between the walls, urging one of the walls toward the other wall by a predetermined pressure, limiting the movement of the one wall due to the pressure exerted by the molding material, and terminating the injection of the material when the pressure of the material in the mold rises sufficiently to indicate that movement of said movable wall has terminated and maintaining said pressure until said material in the mold has substantially set.

2,840,857
APPARATUS FOR REMOULDING OR RETREADING TYRES FOR VEHICLES
Geoffrey Brotherton Lett, London, England, assignor to Earle W. Hawkinson, Minneapolis, Minn.
Application January 13, 1955, Serial No. 481,633
Claims priority, application Great Britain January 15, 1954
2 Claims. (Cl. 18—44)



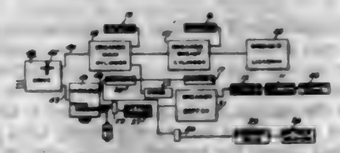
1. An apparatus for retreading pneumatic tire casings comprising a plurality of segmental mold sections each having circumferentially spaced radially disposed sides, each of said mold sections being circumferentially arcuate intermediate the sides and of shallow generally U-shape in axial cross-section with the circumferential arcuate length of each mold section being substantially equal to ¼ pi, each of said mold sections having at least one circumferentially extending groove in the radial outer surface and a desired tread pattern on the radial inner surface thereof, each of said mould sections further having a circumferentially outwardly projecting elongated element on one of the radially disposed sides and a circumferentially inwardly opening element receiving recess on the opposed radially disposed side, said mold sections being arranged in side by side abutting relationship with the outwardly projecting elongated element of each mold section being received within the inwardly opening recess of the next adjacent mold section to provide an annular mold with the grooves in the radial outer surfaces of the mold sections circumferentially aligned and with said outwardly projecting elongated elements and inwardly opening recesses locking the respective mold sections against axial movement relative to each other, and an annular, flexible band-type member disposed in the circumferentially aligned grooves for locking said mold sections in said side by side abutting relationship, said member including a releasable means for releasing the band-type member to adjust and change the diameter of the annular mold by the removal therefrom or the addition thereto of a given number of the mold sections.

2,840,858
METHOD OF MAKING CLOSURES
William C. Raiser, Elbe A. Wilckens, and Joseph G. Gernak, Baltimore, James P. Hamilton, Glen Burnie, and Edward M. Redding, Baltimore, Md., assignors to Crown Cork & Seal Company, Baltimore, Md., a corporation of New York
Application August 19, 1955, Serial No. 529,538
5 Claims. (Cl. 18—59)



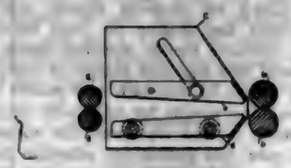
1. The method which comprises heating a metal closure to drive off residual stamping lubricant, depositing a charge of plastisol centrally of the closure while spinning the latter at a high R. P. M., and thereby spreading the same as a uniform layer coextensive with the undersurface of the cap, completely curing the plastisol and thereafter shaping the same into a cushion liner in said closure with the aid of a pressure plunger.

2,840,859
DRIVE FOR CARDING SET
John W. Powischill, Cheltenham, Pa., assignor to Proctor & Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application October 7, 1955, Serial No. 539,043
6 Claims. (Cl. 19—98)



1. A drive for a carding set having a breaker section and a finisher section, each section having feed and delivery means effecting a uniform delivery of material from said section, a first transmission driving the feed and delivery means of said breaker section, a second transmission driving the feed and delivery means of said finisher section, regulating means for varying the output speed of at least one of said transmissions, and correlating means responsive to variation in the ratio of output speeds of said first and second transmissions and connected to said regulating means to actuate the latter to return said ratio of output speeds to a given value.

2,840,860
DRAFTING SLIVERS OF FIBROUS MATERIALS
George F. Raper, Masham, near Ripon, England
Application March 28, 1953, Serial No. 343,549
20 Claims. (Cl. 19—130)



1. Means for drafting a fibrous sliver without the use of rotating or travelling means between retaining and drawing rollers, comprising plain top and bottom surfaces which are relatively movable substantially perpendicularly to the sliver axis, and two plain side surfaces equidistant from each other throughout the length of said top and bottom surfaces, said four surfaces forming an uninterrupted passageway which extends as nearly as practicable from the nip of the retaining rollers to the nip of the drawing rollers, and all of said surfaces during drafting being stationary in the direction of travel of the sliver and being in constricting contact with the sliver to act to constrict it to less than its natural cross-sectional area, and said passageway being so positioned that the sliver center-line forms a straight line between the nip-points of the retaining and drawing rollers.

2,840,861
SUCTION HEAD MOUNTING FOR TEXTILE MACHINE CLEANING SYSTEMS
Woodrow W. Hewitt, Benjamin S. Powell, Jr., and George A. White, Charlotte, N. C., assignors to Spinsavac Corporation, Charlotte, N. C., a corporation of North Carolina
Application March 31, 1955, Serial No. 498,146
6 Claims. (Cl. 19—139)



1. In a spinning frame having a plurality of drafting rolls, roll stands supporting the drafting rolls and a suction pipe disposed adjacent the lowermost and foremost of said drafting rolls, improved means for supporting each end of said suction pipe comprising a bracket fixed to the inner surface of a corresponding roll stand, a link pivotally connected to said bracket and extending forwardly therefrom, a leaf spring member having one end connected to and normally urging said link upwardly, said member extending rearwardly from said link and curving upwardly and forwardly, means securing the other end of the spring member to said bracket, means carried by the bracket for limiting upward movement of said link, an arm secured for pivotal adjustment on the forward portion of said link, and means securing the arm to the corresponding end of said suction pipe.

2,840,862
SUCTION HEAD MOUNTING FOR VACUUM CLEARING SYSTEMS
Woodrow W. Hewitt, Charlotte, N. C., assignor to Spinsavac Corporation, Charlotte, N. C., a corporation of North Carolina
Application November 10, 1955, Serial No. 546,216
16 Claims. (Cl. 19—139)



15. Apparatus for supporting tubular suction heads of a suction clearer system adjacent drafting rolls mounted on roll stands of a textile machine comprising a link for each end of a suction head having one of its ends attached to a fixed part of said machine, each link having an upwardly resiliently biased free end extending forwardly beneath corresponding drafting rolls, a supporting arm adjustably and fixedly secured to and projecting upwardly from the free end of each link, a flanged closure cap for each end of the suction head having a reduced portion fitting in the suction head, and a universal connection between each supporting arm and the adjacent closure cap.

2,840,863
CLEARER SUCTION HEAD MOUNTING
Woodrow W. Hewitt, Charlotte, N. C., assignor to Spinsavac Corporation, Charlotte, N. C., a corporation of North Carolina
Application June 15, 1956, Serial No. 591,592
6 Claims. (Cl. 19—139)

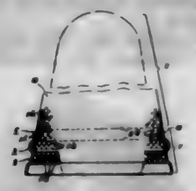


1. In a cleaning system having a tubular suction head for the rolls of a textile machine and each end of the suction head being closed, in combination, a leaf spring member for each end of the suction head, means to secure one end of each member to a fixed part of the machine rearwardly of the suction head, each member extending rearwardly from said means, then curving forwardly and terminating adjacent the corresponding end of said suction head, a screw threaded into each closed end of the suction head and having a cavity in its outer end, and a pin carried by the forward end of each member and being loosely journaled in the cavity in the screw in the corresponding closed end of the suction head.

2,840,864
MANUFACTURE OF FELT HATS
Ernest C. Graveson, Danbury, Conn.
Application June 12, 1956, Serial No. 590,872
13 Claims. (Cl. 19—148)

1. The method of producing a welt edge on the brim of a fur felt hat, which includes the steps of depositing fur fibers on a substantially conical surface in such manner as to form a hat bat thereon, and in the course there-

of causing the fibers to deposit to an appreciably less than normal thickness along a narrow band extending around the bat and which is spaced from the lower edge of the



bat a distance corresponding to the depth of bat required to provide a welt of the desired radial width on the edge of the brim of the finished hat, thereby to effect a line of thinness in said brim just inwardly of the welt.

2,840,865

METHOD AND APPARATUS FOR DEPOSITING FIBROUS ELEMENTS IN THE MANUFACTURE OF FIBROUS STRUCTURES

Russell H. Reed, Sandpoint, Idaho, assignor to Changewood Corporation, Chicago, Ill., a corporation of Illinois

Application October 22, 1954, Serial No. 464,039
12 Claims. (Cl. 19—155)



1. Apparatus for the deposition of fibrous elements varying in dimension to form a mat in which the fibrous elements of larger dimension are deposited in a layer substantially separated from the layer of fibrous elements of smaller dimension, comprising a collecting surface moving endlessly in a longitudinal direction, means for issuing the fibrous elements in an endless stream in uniform distribution crosswise from an outlet in spaced relation over the collecting surface, and a member extending crosswise of the collecting surface and intercepting the stream of fibrous elements having foramens dimensioned to permit passage therethrough of fibrous elements of smaller dimension for deposition onto the collecting surface while the fibrous elements of larger dimension are displaced longitudinally by the foraminous member for deposition onto the collecting surface longitudinally of the fibrous elements of smaller dimension.

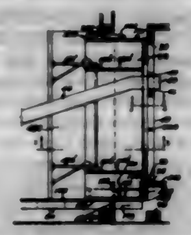
2,840,866

MOVABLE SHELTER-STATIONARY SHELTER CONNECTOR

Harold A. Paulsen, Omaha, Nebr.

Application November 21, 1952, Serial No. 321,894
4 Claims. (Cl. 20—1)

1. A passageway assembly for attachment between a stationary shelter and a movable shelter, said stationary structure having a portion overhanging the adjacent side of said movable shelter, said movable shelter having a vertical wall provided with an opening therein, said opening having a top and bottom spaced respectively below and above the top and bottom of said vertical wall, said stationary shelter having an opening therethrough the side walls of which are disposed opposite the side walls of said movable shelter opening, said passageway assembly comprising telescoping closure means for enclosing and defining a passageway between said stationary and movable shelter, said closure means having a floor panel, side closure panels and a roof panel telescoping in relationship to and extending between said shelters to close said passageway, at least one of said side panels being slidable sideways on said floor panel; a compressable gasket secured to and extending along the movable shelter ends of said panels for pressing against said vertical wall of said trailer and sealing the joint between said panels and said movable shelter; operable means to force said panels toward said movable shelter to compress said gasket; locking means to maintain said panels in gasket compressing positions; means for adjustably securing one of said side panels to said top panel for adjustment of the spacing of said side panels for adaption to varying widths of movable shelter doorway opening; means for adjustably securing said side panels to said top panels for



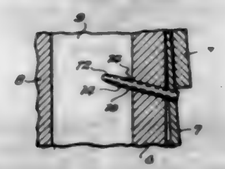
adaptation to varying heights of movable shelter doorway opening; two side shutters hingedly attached to said stationary structure and extending vertically one on each side of said passageway assembly from said stationary structure to the adjacent sidewall of said trailer and extending above the roof of said trailer beneath said overhanging portion of said stationary structure; a top shutter extending downwardly from the overhanging portion of said stationary structure to the top of said trailer, said shutters having gaskets of a flexible construction on those edges which are adjacent said trailer for engaging said trailer and pressing against said trailer sidewall and roof respectively to enclose the passageway assembly from the weather on its upper and vertical sides; and means for closing in the space between the bottoms of said side shutters and the said floor to enclose the bottom of said passageway assembly from the weather.

2,840,867

HOLLOW BUILDING WALL VENTILATING DEVICE

Shepard J. Wilder, Concord, N. H.

Application April 8, 1955, Serial No. 500,086
6 Claims. (Cl. 20—4)



1. A device for use in connection with the ventilation of the interior of a hollow building wall, said device including a tubular member having an uninterrupted smooth axial passage throughout its length, a spike having an external diameter slightly less than the internal diameter of said tubular member and adapted to be inserted into said passage of said tubular member, said spike having at one end thereof a head and having an annular outwardly extending shoulder in spaced relation to said head and formed to engage an end of said tubular member, said spike having a tapered pointed end adapted to extend beyond the other end of said tubular member, said other end of said tubular member being tapered, said

device when driven into a building wall initially forming a hole therein by means of the pointed portion of the spike, said tapered end of said tubular member upon further driving of said device into the wall enlarging said hole to enable said tubular member to extend into said hollow wall by blows upon the head of said spike and transmitted to said tubular member through said shoulder on said spike, said spike when removed from said tubular member opening said passage therein through which air may pass from a hollow wall to the exterior of the wall.

2,840,868

THRESHOLD

Maurice May, Atlanta, Ga., assignor to American Art Metals Company, Atlanta, Ga., a corporation of Delaware

Application May 6, 1955, Serial No. 506,546
3 Claims. (Cl. 20—64)



1. A threshold for a door which is equipped with a door check mounted in a recess below the floor, said threshold comprising a main section adapted to extend lengthwise between opposite door jambs, a second section detachably connected to said main section and extending alongside said main section for a portion of the length of said main section extending from one end of said main section, said main section having a beveled edge extending throughout the length thereof on the side adjacent said second section and said second section having a complementary beveled edge abutting said main section beveled edge throughout the length of said portion of said main section, the complementary relation between said beveled edges being such that the upper surfaces of said main section and said second section lie in the same horizontal plane.

2,840,869

GLAZING WITH GLASS SHEETS

Thomas G. Fegan, Hadleyrange, England; Cecily Mary Fegan, administratrix of said Thomas G. Fegan, deceased

Application October 31, 1955, Serial No. 543,998
Claims priority, application Great Britain December 9, 1954
3 Claims. (Cl. 20—56.4)



1. A channel-section sealing strip of semi-soft plastic material adapted to be applied around the edges of a sheet of glass for interposition between the glass and a window frame to which the edges and at least one face of the sheet are to be fitted, the channel recess tapering from a wider bottom to form a narrower mouth, so that the sides of the strip must be expanded to fit the thickness of a sheet that at most is only slightly less thick than the width of the bottom of the recess, and the center of the base of the strip being thickened and convex externally before the channel is expanded on to the sheet of glass, whereby such expansion serves to flat this external part of the base and to force the bottom of the recess upwardly into a bow that contacts the center of the edge of the sheet but leaves the corners of the edge of the sheet clear of contact with the bottom of the recess.

2,840,870

LOUVERED DOOR CONSTRUCTION OR THE LIKE

Salem C. Pohlman, San Francisco, Calif., assignor, by mesne assignments, to Buffalos Woodworking Co., Tacoma, Wash., a corporation of Washington

Application June 14, 1954, Serial No. 436,437
2 Claims. (Cl. 20—63)



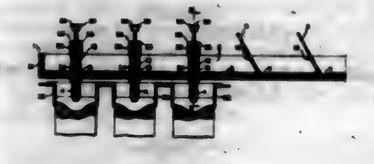
1. A louvered door or the like comprising a pair of opposed parallel wood stiles each having a longitudinally extending recess in its inner edge, a channel shaped slat supporting insert of relatively thin elastic metal mounted in each recess with the flanges of such channel projecting inwardly into and against the sides of the recess, the web of each channel being substantially flush with the inner edge surface of the associated stile whereby upon painting of the door the inserts do not show, each of said inserts having spaced slat receiving apertures and a plurality of slat gripping fingers along the edges of each aperture and projecting inwardly between the flanges of each insert, the total area of the fingers adjacent each aperture being substantially equal to the area of such aperture, said fingers including oppositely disposed portions at each aperture whereby slats are firmly gripped by said oppositely disposed portions, and wood slats mounted in said apertures and firmly gripped by said fingers.

2,840,871

APPARATUS AND METHOD FOR CASTING METAL

Richard E. Gaffney, Opportunity, Wash., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation

Application December 9, 1955, Serial No. 552,025
18 Claims. (Cl. 22—79)



1. A molten metal handling system comprising an elongated transfer trough having at least one underpour outlet in said trough, a vertically disposed cylindrical screen in axial alignment with said outlet, said cylindrical screen extending from a position in contact with the upper end of said outlet to a position above the top of said transfer trough.

2,840,872

METHOD OF ECONOMICALLY INTRODUCING ZIRCONIUM INTO STEEL

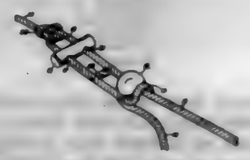
John Bidner, Youngstown, Ohio, and Phillips M. Conner, Sharon, William H. McClure, Sharpsville, and William Parks, Sharon, Pa., assignors to Sharon Steel Corporation, Sharon, Pa., a corporation of Pennsylvania

No Drawing. Application January 14, 1952
Serial No. 266,442
3 Claims. (Cl. 22—215)

1. The method of economically introducing zirconium into steel including the steps of collecting a heat of fully

killed steel in a ladle, pouring the killed steel into an ingot mold, and feeding a mixture of zirconium-containing material and aluminum in the ratio of 10 to 20 zirconium-containing material to 1 of aluminum by weight to the mold during pouring.

2,840,873
QUICK RELEASE MECHANISM
Vincent I. Meier, Port Washington, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 22, 1953, Serial No. 399,840
4 Claims. (Cl. 24—123)



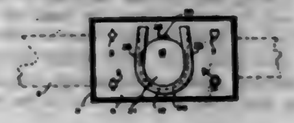
4. A quick release mechanism for releasably securing two lines together comprising a rounded protuberance on one line short of the free end thereof; a loop having inner and outer ends formed in the free end of the second line; a distance piece between and separating the stretches of the loop near the inner end thereof; a yieldable member having opposite ends thereof attached to said spaced stretches of the second line resiliently connecting the stretches of the loop near the outer end thereof; said stretches being spaced a distance less than the diameter of said protuberance; said protuberance being passed through the outer end of said loop with the line and its free end being on the same side of the loop; whereby the yieldable member tends to hold the loop closed into protuberance retaining relation against the separating action of the distance piece, to retain the protuberance within the loop when the lines are not under strain and the distance piece holds the stretches of the loop apart against the action of said member when the lines are tensioned, so that the protuberance may be pulled from the loop and the lines separated by pulling on the free end of the one line.

2,840,874
CLOTHESLINE CLAMP
Edward E. Sauerman, Miami, Fla.
Application November 18, 1954, Serial No. 469,813
1 Claim. (Cl. 24—137)



An improved clothes and clothesline clamp of the kind described comprising a pair of elongated arms pivotally connected together intermediate the ends thereof, a pair of laterally spaced apart clamping plates on one end of one of said arms, a loop on one end of the other of said arms positioned longitudinally of said other arm engageable between said plates, each of said plates having arcuate transversely aligned segmental slots spaced outwardly from said one arm, an arcuate transversely segmental slot in said loop for alignment with said first mentioned segmental slots to receive a clothesline and resilient means engaging between said arms adjacent the other end thereof urging said one ends of said arms together into clamping relation to each other.

2,840,875
ORNAMENTAL COIN HOLDING BELT BUCKLES
Gordon R. Chambers, Phoenix, Ariz.
Application April 16, 1954, Serial No. 423,806
1 Claim. (Cl. 24—163)



An ornamental belt buckle composed of a substantially flat body having a back face, and an ornamental front face including a centrally disposed ornament on the said front face of said buckle body, said front face having a U-shaped raised configuration including a curved closed bottom portion and laterally positioned portions extending upward from said bottom portion, said configuration having a slot on its inner edge, following the shape of said raised portion and adjacent the front face of said buckle body and open at the top to receive a coin-like ornamental disk and closed at the bottom, and a retaining tongue extending from the back face of said body through said body and supported on a flat spring on the back of said body; said tongue extending through an aperture in said buckle body and contacting the upper edge of said disk when in said slot and removably retaining said ornamental disk in said slot.

2,840,876
ROLLER BUCKLE
Albert Bliss, Los Angeles, Calif., assignor to Arthur Thomas Sturdy, Jr., Warwick, R. I.
Application October 19, 1954, Serial No. 463,153
3 Claims. (Cl. 24—171)

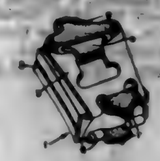


1. A belt buckle comprising a one-piece frame member, said frame member having a substantially rectangular rear portion, means joined to one end of said rear portion for securing one end of a belt thereto, said rear portion having at each corner thereof an integral supporting post perpendicularly disposed thereto, a pair of inwardly extending flanges integrally carried by said posts, said flanges being in spaced relation to said rear portion and defining therewith oppositely disposed channels, said channels being completely open along the length of said frame member between said supporting posts and slidably receiving the free end of said belt, the open portion of said channels providing access to the edges of said belt, said flanges extending inwardly a distance considerably less than one-half the lateral dimension of said frame member to define a space therebetween, said space providing additional access to said belt during the belt tightening and loosening operations, and means associated with said rear portion for releasably retaining the free end of said belt in adjusted position.

2,840,877
SLIDE FASTENER WITH DETACHABLE SMOOTHING MEANS
Anestis Folfis, Jackson Heights, N. Y., assignor to Knit Wear Patents, Inc., Atlanta, Ga., a corporation of Georgia
Application October 4, 1951, Serial No. 249,714
1 Claim. (Cl. 24—205.15)

A slidable fastener member having a front and back connected by a neck and a clip having a front and back

connected by a neck at one end enveloping said member and overlying the front and back of said member, said clip having cut-out tongues on its back and front adjacent



the neck, a tip mounted on each tongue, tips on the front and back of the clip at the ends remote from the neck, and flanges on said ends at each side of said tips.

2,840,878
SEPARABLE KEY HOLDER
John J. Olson, St. Paul, Minn., assignor to Bowns & Bigelow, St. Paul, Minn., a corporation of Minnesota
Application March 5, 1956, Serial No. 569,367
6 Claims. (Cl. 24—230)



1. A coupling device for supporting a pair of bead chains which in turn are adapted to support keys, including a flat plastic body portion having a slot internally formed therein and having means for supporting a key chain, a plastic insert member separable from said body portion adapted to slide within the same, said insert member having means for supporting a key chain, a springlike extension formed on said insert member to releasably engage said body portion, said body portion having shoulder means for receiving the springlike extension formed on the separable member, and means for guiding said plastic insert member into said slot in the plastic body portion.

2,840,879
CLAMPING TOOL FOR CLAMPING TOGETHER CYLINDRICAL CONTAINERS
Fred Richard Boice, New Monmouth, N. J.
Application November 7, 1957, Serial No. 695,026
4 Claims. (Cl. 24—259)



1. A clamping tool for clamping together the outer ends of the side walls of adjacent cylindrical containers comprising an S-shaped base, a plurality of fingers depending from said base, said fingers being so spaced as to alternately engage the side walls of a single container and two of said plurality of fingers being so spaced to engage opposite sides of the walls of said adjacent containers when said tool is brought into engagement with said containers.

2,840,880
PROCESS FOR CASTING CONCRETE PIPE
George Ronald Jensen and Carl Wilmer Chamlund, Salt Lake City, Utah, assignors, by mesne assignments, to Con-Vi-Ro Pipe Corporation, South Gate, Calif., a corporation of Delaware
Application March 3, 1954, Serial No. 413,754
6 Claims. (Cl. 25—155)



1. In a method of forming, from a substantially dry concrete mix, concrete pipe of the type having a bell end, the steps comprising spinning a hollow cylindrical mold having a bell-forming portion at one rate, introducing a substantially dry concrete mix into the mold, contacting a portion of the length of the mold progressively throughout the circumference during said spinning with a vibrator at a fixed location to impart high frequency vibrations to the mold to pack the concrete mix against the mold while the mold is being filled, applying positive pressure to the concrete mix to further pack the same against the mold while said mold is spinning and being vibrated, removing said positive pressure and said vibrator, and spinning said mold at a more rapid rate to impart additional centrifugal force to said concrete mix.

2,840,881
ARTICLE OF MANUFACTURE AND PROCESS OF MAKING SAME
Alva Wayne Bateman, Newburgh, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application May 13, 1955, Serial No. 508,181
11 Claims. (Cl. 28—79)



1. A resilient fibrous structure comprising at least two layers an outer layer being composed primarily of nonwoven intermingled polytetrafluoroethylene fibers, and another layer composed primarily of fibers other than polytetrafluoroethylene, at least some of the fibers of at least one of said layers extending into the other layer to bind the separate layers together.

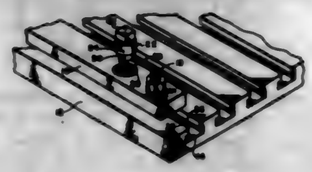
2,840,882
FIBROUS COVERING FOR ELASTIC THREAD
Charles C. Smith, Providence, R. I., assignor to Darlington Fabrics Corporation, New York, N. Y., a corporation of Delaware
Original application December 12, 1951, Serial No. 261,231, now Patent No. 2,733,179, dated January 31, 1956. Divided and this application June 7, 1955, Serial No. 513,773
15 Claims. (Cl. 28—81)



1. A relaxed rubber elastic core thread and jacket encasing and substantially concealing the thread, the thread and jacket being stretchable when the thread is subjected to longitudinal tension, the jacket being attached

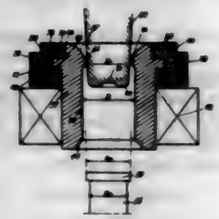
at longitudinally spaced intervals to the thread, and having a plurality of projecting fibrous blghts between each adjacent pair of points of attachment.

2,840,823
FIXTURE ALIGNER FOR USE WITH T-SLOT TABLE
Charles J. Kotchen, San Diego, Calif.
Application January 14, 1957, Serial No. 633,933
7 Claims. (Cl. 29—1)



1. An aligner for use in pairs in aligning jigs, fixtures and the like on a table with a slot therein, comprising: a bushing for rigid securement in the base of the jig; a plug accurately fitted in said bushing for rotation therein; said plug including an axially protruding portion extending downwardly beyond said bushing; said protruding portion constituting a cam adapted to fit snugly between confronting slot faces in the table wherewith the aligner is to be used when the cam is in operative position, and to fit loosely between said slot faces when the cam is in inoperative position; and means for forcefully partially rotating said plug from said inoperative position to said operative position to shift the jig relative to the table.

2,840,824
APPARATUS FOR SHAPING TUBULAR PARTS
Ornato Bignolli, Clermont-Ferrand, France
Application November 15, 1951, Serial No. 256,582
Claims priority, application France April 17, 1951
2 Claims. (Cl. 29—1.3)



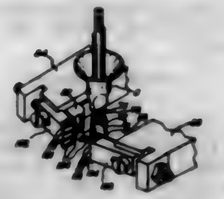
1. In a machine for the shaping of tubular elements having a bottom, such as cases, from a solid starting billet, a frame, an upper cylinder mounted on said frame, a lower cylinder opposite and coaxial with said upper cylinder, mounted on said frame, an upper piston sliding in said upper cylinder, an axial member integral with said upper press piston and consisting of a needle having a cylindrical stem and an end portion which is slightly conical, a female member of annular shape secured on said frame in the axis of the upper and lower cylinders, said female member having a cylindrical bore and a constricted annular part of smaller diameter than that of the cylindrical bore on the side of the axial member and of greater diameter than the diameter of the axial member to permit the latter to slide past said constricted part, a lower press piston sliding in the lower cylinder, and a ram secured on said lower press piston and coaxial with said female member and with said axial member.

2,840,825
SEMI-CONDUCTING AMPLIFIERS
Ian George Archie Crossell, Black Notley, England, assignor to Marconi's Wireless Telegraph Company Limited, London, England, a British company
Application January 26, 1955, Serial No. 484,276
Claims priority, application Great Britain January 28, 1954
1 Claim. (Cl. 29—25.3)



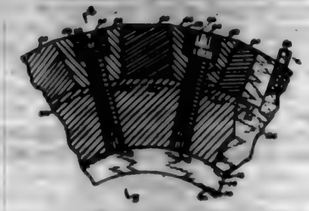
A method of making a semi-conducting amplifier including the steps of forming a specimen with a grown junction between P and N materials, electrolytically etching said specimen to produce, by differential etching, a visible step therein where the junction is situated, forming at least one well by ultrasonic drilling, the drilling being continued until the base is at a desired predetermined distance from the grown junction, providing an alloy junction at the base of said well to serve as an emitter junction on at least one side of the grown junction, the alloy junction being formed by placing a pellet of the desired alloy material at the bottom of the well and then heating same so as to cause the alloy material to alloy with the material of which the well is formed.

2,840,826
SHIELD FORMING AND MOUNTING METHOD AND APPARATUS
Frederick J. Grube, East Cleveland, and John H. Hollabaugh, Mayfield Heights, Ohio, assignors to General Electric Company, a corporation of New York
Application November 29, 1952, Serial No. 323,212
6 Claims. (Cl. 29—25.13)



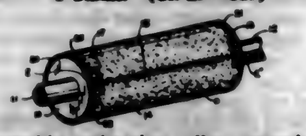
1. The method of forming and mounting a shield on a lamp mount comprising a stem having a pair of lead wires of different lengths extending longitudinally therefrom on opposite sides of the axis of the stem and with their ends bent laterally inwards to the said axis and supporting therebetween a filament substantially in alignment with said axis, which method comprises shaping a rectangular sheet metal blank by forming a corrugation across one dimension of the blank intermediate its ends and forming the remainder of the blank to a generally cylindrical configuration about an axis parallel to said corrugation, and assembling the shield so formed with said lamp mount by aligning the shield axially with the mount stem and with the corrugation thereon aligned with the longer one of said pair of lead wires and its laterally bent end and effecting relative axial movement between the shield and mount to bring the filament within the shield and the said longer lead wire within the corrugation, and then crimping the said corrugation about said longer lead wire.

2,840,827
METAL CUTTING TOOLS AND ELEMENTS
Walter James Donnelly, Jackson, Mich.
Application November 15, 1949, Serial No. 126,897
9 Claims. (Cl. 29—105)



1. A machine tool comprising a machine tool body having an outer surface, and having a plurality of cutting blade seat areas formed on said outer surface and mutually spaced from each other, cutting blade members seated on each of said cutting blade seat areas, a plurality of stepped side surfaces formed on opposite sides of said cutting blade members, a plurality of radially biased fastening members disposed one between each adjacent pair of cutting blade members on the areas of said cutter tool body intermediate said cutting blade seat areas, a plurality of second stepped side surfaces formed on opposite sides of each of said fastening members and constructed and arranged to bear upon the corresponding stepped side surfaces on said cutting blade members, to exert a resultant force acting to retain said cutting blade members in secure engagement with their said cutting blade seat areas during movement of said cutter body and in cutting operations, and means acting upon said fastening members for securing the same to said machine tool body.

2,840,828
EDGE FINISHING FOR DAMPENING ROLLER COVERS OF LITHOGRAPHIC PLATES
Paul N. Guglielmo and Herbert Jacobs, Brooklyn, N. Y.
Application July 13, 1956, Serial No. 597,707
1 Claim. (Cl. 29—119)



A lithographic moistening roller, comprising a rigid cylindrical member having axially extending shaft ends, a cover disposed on said member, said cover being a cylindrical sleeve, said sleeve being smooth, taut and wrinkle-free and being formed from a moisture-absorbent rectangular sheet, opposite side edges of said sheet being sewn together to form a longitudinal seam in the sleeve, said seam extending substantially the full length of said sleeve, a pair of bar tacks, said tacks respectively terminating opposite ends of said seam, said tacks extending completely through the sleeve from one side to the other, and a pair of welt cords, said cords respectively being juxtaposed against opposite annular raw end edges of said sleeve, said cords being secured to said annular end edges by continuous lines of stitching.

2,840,829
METHOD OF FORMING WOUND MAGNETIC CORES
Ernest M. Freegard, Danville, Ill., assignor to General Electric Company, a corporation of New York
Application February 18, 1954, Serial No. 409,410
5 Claims. (Cl. 29—155.57)

1. A method of making wound transformer cores from strip magnetic material comprising the steps of winding said strip about an arbor to form a plurality of continuous superimposed turns, unwinding said turns so as to form therewith a polygon having a smaller number of turns, cutting through said turns of said polygon in a plurality of locations to form a plurality of groups of



strips, at least one of said groups having a length different from the length of another of said groups, and successively superimposing strips from each of said groups one on the other to form a core, each of said successively superimposed strips having an end abutting against an end of the previously superimposed strip.

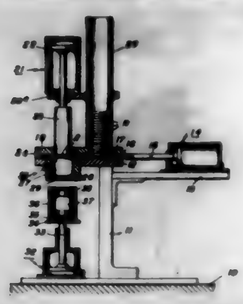
2,840,890
WIRE COATING
Fred A. Enos, Towson, Md., assignor to Armco Steel Corporation, a corporation of Ohio
No Drawing. Application March 19, 1952
Serial No. 277,534
5 Claims. (Cl. 29—180)

2. Stainless steel wire of improved cold-forming properties having thereon a thin layer of cold-forming lubricant consisting essentially of about equal proportions by volume of common soap, lead and metal stearate selected from the group consisting of calcium stearate, aluminum stearate, lead stearate and zinc stearate.

2,840,891
HIGH TEMPERATURE STRUCTURAL MATERIAL AND METHOD OF PRODUCING SAME
John S. Nachtman, Washington, D. C.
No Drawing. Application January 4, 1955
Serial No. 479,874
8 Claims. (Cl. 29—182.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

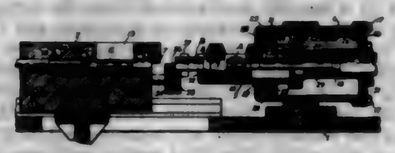
1. A metallurgical composition for use in the production of structural material capable of unusual strength and hardness up to about 1200° F. comprising an intimate finely divided mixture consisting of 75 to 95 parts by weight of a metallic base selected from the group consisting of aluminum and alloys of aluminum, and 25 to 5 parts by weight of an additive selected from the group consisting of the inorganic oxygen bearing compounds of a metal selected from the group consisting of magnesium, titanium, vanadium, chromium, zirconium, lanthanum, cerium and praseodymium, which compounds do not contain any non-metal other than oxygen mixtures of said compounds, mixtures of said compounds with aluminum alloy strengthening metals selected from the group consisting of iron, molybdenum, vanadium, titanium, tantalum, columbium, chromium, manganese, nickel, tungsten, boron and the rare earth elements, mixtures of said compounds with aluminum oxide, and mixtures of said compounds with said strengthening metals and aluminum oxide, said inorganic oxygen bearing compound comprising at least 5 parts by weight of said composition.

2,840,893
APPARATUS FOR ASSEMBLING RETAINING RINGS
Hans Erdmann, Maplewood, N. J., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 593,679
6 Claims. (Cl. 29—211)



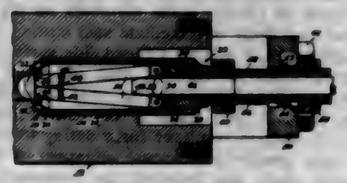
1. Apparatus for assembling internal spring retaining rings in grooves provided therefor in the bores of housings and the like comprising, in combination, a generally horizontal supporting member, an upright ring magazine support on said member for maintaining a plurality of the retaining rings to be assembled in column formation, a sleeve member affixed to and depending from said supporting member with its axis generally parallel to that of said magazine and having a through bore of progressively decreasing diameter for compressing a ring received in the larger end thereof to the diameter of the housing bore responsively to axial movement of a ring through said sleeve bore, means mounted on said supporting member for picking off the endmost ring of the column thereof and for feeding it to the larger-diameter end of the sleeve bore, and reciprocating plunger means mounted coaxially with said sleeve for pushing said ring axially along the sleeve bore and thence into the bore of a housing positioned to receive the compressed ring until it reaches the plane of the housing groove into which it is to be assembled, the operation of said slide end plunger means being timed so that the slide means partakes of its ring-feeding stroke when the plunger means is retracted from the sleeve and retracts during the working stroke of the plunger means.

2,840,893
MACHINE FOR INSERTING THE CORES OF RESILIENT BUSHINGS
Howard N. Peppercorn, Logansport, and Eldon P. Neher, Burrows, Ind., assignors to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio
Application May 11, 1954, Serial No. 428,991
3 Claims. (Cl. 29—235)



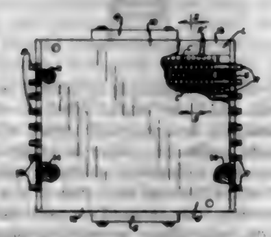
1. In a machine for assembling a resilient bushing that has a rigid outer sleeve, a rigid tubular core and a tubular insert of elastic rubber under radial compression between the sleeve and core, an axially movable plunger that has a core receiving end portion that is of reduced diameter, of a size to slidably fit within the core and of a length corresponding substantially to the length of the core and that terminates in a tapered pilot portion beyond the end of said core receiving portion and of a size to pass through a core moving onto or off said receiving portion, said plunger having passages for discharging fluid under pressure radially outwardly at the juncture of said core receiving portion and said pilot portion, means for supporting a sleeve with an elastic rubber insert therein in the path of said plunger and in axial alinement therewith, actuating means for advancing said plunger into engagement with the insert to enter a core on the core receiving end of the plunger into the insert, and means for delivering fluid under pressure through said passages to progressively expand the tubular insert immediately in advance of the core during passage of the pilot portion of the plunger through the tubular insert.

2,840,894
VALVE SEAT REPLACEMENT TOOL
Norman H. Eckler, Cherwick, and Eugene W. Jacobson, Oakmont, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application July 27, 1953, Serial No. 370,529
2 Claims. (Cl. 29—261)



1. For use in replacing an annular valve seat of the type disposed at one end of a cylindrical valve stem opening in a valve body and seated against an annular shoulder, such shoulder being provided with a pair of diametrically opposed recesses underlying the valve seat; an improved valve seat replacement tool comprising a cylindrical sleeve adapted to be received for reciprocable movement in the valve stem opening, a hollow stem concentric with the sleeve and having one end extending into one end of the sleeve and fixedly secured thereto, a pair of legs having their inner ends disposed within the sleeve, said inner ends of the legs being diametrically spaced with respect to the axis of the sleeve and individually pivoted to said end of the hollow stem for diametrically opposed pivotal movement of the outer ends of the legs toward and away from the axis of the sleeve, said legs extending from the other end of the sleeve and terminating at their outer ends in diametrically opposed, radially extending fingers that are axially spaced from said other end of the sleeve whereby an annular valve seat embracing the outer ends of the legs can be engaged between said other end of the sleeve and the fingers, a tension spring connecting the legs intermediate their ends yieldingly urging the legs to a position in which the opposite extremities of the fingers are spaced apart a lesser distance than the diameter of the sleeve and in which the legs are inclined toward the axis of the sleeve from their inner ends, a bar reciprocable in the hollow stem and having one end disposed between and in camming engagement with the legs for causing radially outward pivotal movement of the fingers upon movement of the bar toward said other end of the sleeve, said hollow stem extending from said one end of the sleeve with such extending portion being threaded and provided with a longitudinal keyway, an anchor plate and means carried by the plate for releasably fastening the plate to the valve body in a predetermined and fixed relative position, said plate having an opening therethrough through which the threaded portion of the hollow stem is freely reciprocable, a key carried by the plate that is received in the keyway for preventing rotation of the hollow stem relative to the plate, and a nut threaded on the hollow stem and bearing against the plate for pulling the hollow stem through the plate, whereby the sleeve can be pushed into the valve stem opening into engagement with the valve seat with the fingers directed toward the recesses, the legs cammed to cause the fingers to pivot into the recesses, and the valve seat withdrawn in a position embracing the legs and engaged between the sleeve and the fingers.

2,840,895
METHOD OF MAKING A MOULD FOR PRODUCING RINGS AND THE LIKE
Robert M. Minnick, Denver, Colo.
Application May 24, 1954, Serial No. 431,857
5 Claims. (Cl. 29—433)



1. A method of making a mould for producing a plurality of circular members which comprises cutting into the opposite sides of a pair of plates held in edge to edge relation circular recesses with the axes of each recess on each side of a plate coinciding with and intersecting the line of engagement of the edges of the plates, mounting in companion mould units the plates so cut with one of each plates of each pair of plates which were simultaneously cut with circular recesses being mounted in side by side relation in one mould unit and the each other plate of each pair of plates being mounted in the other mould unit in such manner that when the mould units are brought together the edges of each pair of plates will engage each other as they did when the circular recesses were being cut, said plates in each unit being so positioned with each other that the axes of the recesses are aligned.

2,840,896
METHOD FOR APPLYING GRIPS TO HOCKEY STICKS AND THE LIKE
Russell W. Edwards, Duxbury, Mass.
Application April 27, 1956, Serial No. 581,210
1 Claim. (Cl. 29—450)



The method of applying a cylindrical grip of flexible elastic material to a hockey stick handle having a bulge at the end thereof which comprises slipping said grip onto a spreadable support having an outer periphery slightly less than the inner periphery of said grip, rolling said grip on said spreadable support to form a torus near an end thereof, spreading said support at said end thereof to stretch said torus and increase the inner periphery thereof, placing said spread support over said bulge, clamping said support thereupon by means of the force exerted by said stretched torus, and rolling said torus over said bulge onto said handle.

2,840,897
METHOD OF MAKING FLEXIBLE METAL TUBING
David Ingalls, Westfield, N. J., assignor to Airtron, Inc., Linden, N. J., a corporation of New Jersey
Application January 7, 1954, Serial No. 402,693
1 Claim. (Cl. 29—463)



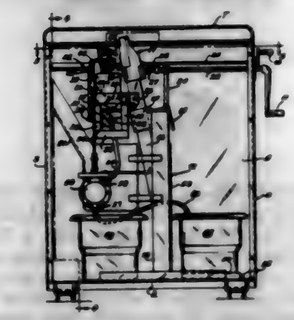
A method of making flexible, metal tubing comprising forming a pair of metal strips, each substantially to a U-shape in transverse section with a longitudinal series of transverse corrugations which extend completely from one side edge of the strip to the strip's other side edge, changing the width of end portions of said corrugations along each of opposable side edges of said strips by increasing such width along a side edge of one of said strips and decreasing such width along the opposable side edge of the other of said strips to enable all such end portions along both side edges of one of the strips to inter-nest relatively to such end portions along both side edges of the other of the strips, moving said strips longitudinally and convergingly toward each other with the concave sides of the strips facing each other and with inter-nestable end portions of the corrugations of said strips in direct opposition to each other and progressively bending said strips at successive points therealong as such points come together during such longitudinal and converging movement, continuing longitudinal movement of said strips with not-yet-inter-nested portions moving convergingly and inter-nested portions moving in a common plane, and metallicly bonding said inter-nesting portions together.

2,840,898
METHOD OF MAKING A SNAP HOOK
Edward T. Yeo, Seattle, Wash., assignor to Marine Specialty Mfg. Co., Seattle, Wash., a corporation of Washington
Application May 13, 1953, Serial No. 354,679
3 Claims. (Cl. 29—551)



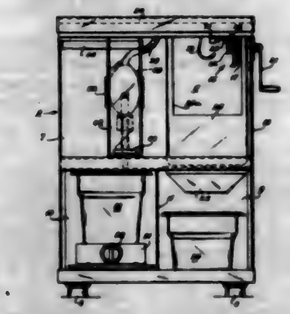
1. The method of producing a snap-hook from a continuous length of spring wire of normal circular cross-section which comprises doubling the wire upon itself to produce a tensioning loop comprehending within its circumferential span somewhat less than a full circle from which the free ends of the wire extend forwardly as straight branches, and at the same time subjecting substantial portions of each branch lying to the front of said loop to a flattening deformation widening the same in a direction normal to the plane of the loop, hooking the non-deformed free extremities of the branches inwardly to bring the same into lapping registration in a plane approximately the same as that occupied by the loop, coining the two hooked branches to produce an offset occurring at the root juncture of each bill with its supporting shank and such as brings the upper face of each bill's extreme end more or less flush with the shank of the bill which it overlies, and finally volutely tensioning the snap-hook by deflecting the two shanks in opposite directions from the general plane of the hook and converse to the direction in which the related branch is coined.

2,840,299
SANITARY CAN OPENER APPARATUS
Oliver J. Mullich, Eureka, Mo., assignor to Southern Hotel and Restaurant Supplies, Inc., Washington, Mo., a corporation of Missouri
Application September 30, 1957, Serial No. 687,128
14 Claims. (Cl. 30—4)



1. Apparatus for opening sealed food cans comprising, a can opener device, a support for the cans movable to a position adjacent the can opener and to a position away from the can opener so a sealed can may be placed upon the support for opening and thereafter removed from the support, fluid discharge means adjacent the can opener, pressure supply means connected to said discharge means to supply sanitizing fluid upon the can opener, operating lever means disposed between said pressure supply means and said support and responsive to said support reaching its position adjacent the can opener to render said pressure supply means operative to supply sanitizing fluid, can lid retrieving means disposed adjacent the can opener and operatively connected to said support to move a can lid from a previous can away from the can opener upon said support moving to its first named position, and means to urge said support into said first named position to cause operation of said pressure supply means to sanitize the can opener.

2,840,900
SANITARY CAN OPENER
Oliver J. Mullich, Eureka, Mo., assignor to Southern Hotel and Restaurant Supplies, Inc., Washington, Mo., a corporation of Missouri
Application September 30, 1957, Serial No. 687,249
12 Claims. (Cl. 30—5.4)



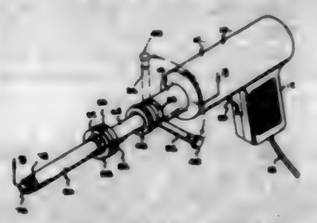
1. Sanitary can opener apparatus, comprising a lid severing type can opener device, pump means having a suction inlet and a discharge, a reservoir for sanitizing fluid connected to said pump suction inlet, fluid discharge means connected to said discharge conduit and arranged adjacent said can opener device to direct the sanitizing fluid thereupon, and mechanism connected to said pump means to operate said pump means between uses of said can opener device to effect periodic delivery of sanitizing fluid through said discharge means upon said can opener device.

2,840,901
SAFETY RAZOR WITH ADJUSTABLE UNIT FOR VARYING BLADE EXPOSURE
John Narizzano, Buenos Aires, Argentina
Application July 25, 1955, Serial No. 524,151
6 Claims. (Cl. 30—73)



1. A safety razor comprising a handle, a lower blade supporting plate and an upper blade clamping plate, means to releasably secured said upper blade plate to said lower blade supporting plate in blade clamping engagement therewith, a laterally shiftable unit comprising a pair of end strips free of said plates, a pair of longitudinally extending rods secured to said end strips, said rods underlying said blade supporting plate in sliding engagement therewith, at least one safety bar interconnecting said end strips, a plurality of positioning means formed in a laterally fixed member abutting said rods, said positioning means longitudinally interengaging said rods and means urging said laterally shiftable unit against said blade supporting plate.

2,840,902
TUBE CUTTER
Ernest D. Iannotti, Warrensville Heights, Ohio
Application November 8, 1957, Serial No. 695,331
8 Claims. (Cl. 30—104)



1. A tube cutter comprising a drive means including a readily portable motor housing; a casing extending from and rigid with the housing; a shaft having a flexible coupling within the casing to said drive means for rotation thereby; a rotary blade secured to the shaft for rotation therewith, said shaft and blade being insertable in a tubular workpiece; an elongated inner bearing tube journalled in the casing and having a longitudinal eccentric bore in which the shaft is journalled; an elongated outer bearing tube also journalled in the casing and having an eccentric bore in which the inner bearing tube is rotatably mounted; and means mounted in the casing operable by a user for first rotating the inner bearing tube independently of the outer bearing tube in a direction to move the shaft and blade to a position eccentric to the workpiece, for passage of the blade through the wall of the workpiece, and then linking the inner and outer bearing tubes for conjoint rotation for effecting travel of the eccentrically disposed shaft and blade bodily in a circular path about the axis of the workpiece for cutting of the workpiece over the full circumference thereof.

2,840,903
RAZOR BLADE CUTTER
Antonio M. Christensen, Seattle, Wash.
Application October 1, 1956, Serial No. 613,237
2 Claims. (Cl. 30—162)



1. A razor blade knife comprising an elongated U-shaped body having spaced parallel walls integrally joined at their lower ends, each of said walls having outwardly offset upper end portions with said end portions parallel and spaced apart substantially more than said walls, said body having one lower corner thereof truncated, said walls having aligned longitudinally extending slots formed therein adjacent the truncated end of said body, a single edge razor blade having a reinforcing back secured to one edge thereof, said blade having a central bore formed therein, said blade having the back thereof slidably mounted between said outwardly offset end portions and said blade depending therefrom between said walls, said bore in said blade being aligned with said slots, an inverted U-shaped cover engaged over said upper end portions, a depending elongated portion integrally formed on said cover on the end thereof opposite said slots and extending in spaced parallel relation to one of said walls, said elongated portion having the lower edge thereof inwardly offset and secured to said one of said walls, an arm slidably engaged between one of said walls and said elongated portion, a reduced offset end portion integrally formed on said arm extending through said slots and said bore whereby upon sliding movement of said arm said razor blade is moved into and out of operating position, and integral means on said arm providing a handle for moving said arm.

2,840,904
POWER DRIVEN GRASS TRIMMER MOTOR MOUNTING MEANS
Sanborn B. Hutchins, Holden, Mass., assignor to Hutchins Mfg. Inc., Holden, Mass., a corporation of Massachusetts
Application July 29, 1957, Serial No. 674,934
17 Claims. (Cl. 30—210)



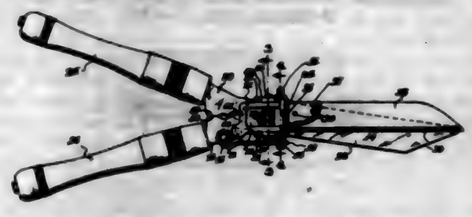
1. In a mounting for the driving means of a grass clipper provided with an elongated support unit along which extends a shaft operatively connected to a cutter unit, a holder unit secured to said support unit, a motor unit operatively connected to said shaft, holding arms on the holding unit for engagement with opposite sides of the motor unit, and means on the holder unit operatively connected to said holding arms effective to move the latter into and out of holding relation with respect to said motor unit.

2,840,905
SEPARABLE SHEARS
Christopher Martin Geiger, Quarryville, Pa.
Application May 29, 1957, Serial No. 662,514
4 Claims. (Cl. 30—226)



1. A right-hand pair of shears, a left-hand pair of shears, the handles of said shears being similar, the handle of the right-hand shears receiving and nesting the handle of the left-hand shears to provide a single cutting instrument capable of manual operation with a single handle.

2,840,906
SHEARING DEVICE
David H. Kolsen, Jr., West Lawn, Pa.
Application August 30, 1957, Serial No. 681,307
5 Claims. (Cl. 30—243)



1. Shears including a lower arm with a fixed blade extending forwardly therefrom, said fixed blade having a cutting edge, an upper arm having a forwardly extending portion resting on the lower arm, a bolt pivotally connecting the upper arm with the lower arm whereby said upper arm is arranged to swing in a substantially horizontal plane with respect to the fixed blade, a pair of ears upstanding from the portion of the upper arm adjacent to the portion thereof which is pivotally connected with the lower arm, a pivot pin mounted in aligned apertures in said ears and arranged transversely of said upper arm, a bracket having a lower forwardly extending arm with a movable blade fixed thereto, said movable blade having a cutting edge arranged to engage the cutting edge of the fixed blade, a pair of spaced apart substantially parallel legs extending from said bracket, said pivot pin engaging an aperture formed in each leg of said bracket whereby said bracket and the movable blade carried thereby are pivotally supported from said ears for vertical movements upwardly and downwardly with respect to said fixed blade, and means interposed between said upper arm and said bracket arm acting on the bracket for urging the movable blade in a direction toward said fixed blade whereby the cutting edge of the upper movable blade is caused to progressively contact the cutting edge of the fixed blade during operation of the shears.

2,840,907
CREAM CHEESE HOLDER AND SPREADER
Frieda Herman, Flushing, and Mario Rossi, Brooklyn, N. Y.
Application April 8, 1957, Serial No. 651,524
3 Claims. (Cl. 31—20)

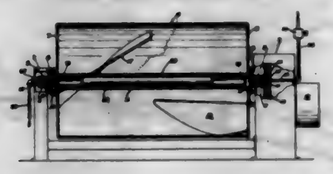
1. A container, holder and server for cream cheese and the like comprising a tubular outer cover, a tray

adapted to hold brick-shaped cream cheese and the like slidably and removably contained in said cover, and a cutter-spreader removably connected to the cover to cut and spread the contents of the tray, said cover having an open end for entrance and exit of the tray and means to mount the cutter-spreader pivotally on the cover at said open end as a guillotine guided by abutment with



the cover, said means being a pivot pin on the cover adjacent one upper corner of said open end of the cover, said cutter-spreader having a blade of shorter span than the tray and a handle with an inverted keyhole-shaped pivot pin opening to permit partial rotation of the cutter-spreader when the cutter-spreader is raised and to guide the cutter-spreader blade into the tray when the cutter-spreader is lowered.

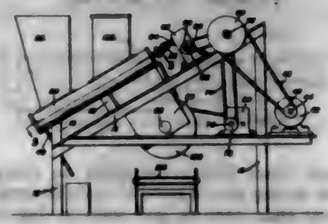
2,840,908
CHURNS
Harold L. Solle, Minneapolis, Minn.
Application November 26, 1954, Serial No. 471,304
2 Claims. (Cl. 31—34)



1. In a batch-type butter making churn, a pair of spaced bearing pedestals, a cylindrical drum having end walls, trunnions secured to said end walls and rotatably received in said pedestals, a plurality of spiral vanes secured to the inner surfaces of the cylindrical and end walls of said drum for agitating the contents of the churn, an elongated tubular baffle member axially disposed in said drum and having its ends secured to the end walls of the drum in leaktight relation thereto, an elongated closed cylindrical member axially mounted in said tubular baffle member with its outer cylindrical wall surface spaced a relatively small distance inwardly from the inner wall surface of said tubular baffle member and cooperating therewith to provide an annular restricted fluid circulating passage extending the length of the churn, and fluid circulating conduit means in communication with each end of said tubular baffle member, chilled fluid circulating through said baffle member to chill the outer cylindrical wall surface of the baffle member during the butter working portion of each cycle of operation, whereby the attendant may readily control the temperature of the butter being worked to assure uniform intermixing of the various constituents thereof.

2,840,909
APPARATUS FOR PREPARING CHEESE AND THE LIKE
Visvaldis N. Daenis, Hopewell Junction, N. Y.
Application March 7, 1957, Serial No. 644,604
8 Claims. (Cl. 31—46)

1. An apparatus for preparing cheese comprising a frame, an angularly upwardly extending cylindrical trough supported on said frame, a pair of oppositely turning spiral augers having closely interspaced flights mounted in said trough, means for driving said augers connected thereto, a hopper mounted on said trough communicating with said trough at the lower end thereof for feeding mix to said trough, said trough having an outlet spaced from the upper end of said trough, said flights of said augers terminating short of said outlet to form a compression



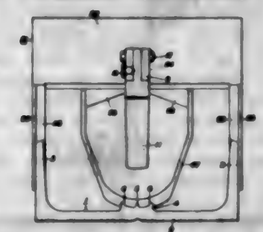
chamber between said upper end of said trough and said outlet, a conduit connected to said outlet for receiving mix from said outlet, a molding roll on said frame receiving mix from said outlet, and means for actuating said molding roll mounted on said frame.

2,840,910
METHOD AND MEANS TO RECORD A FUNCTIONAL DENTAL PLANE
Wayne B. Ford, Burbank, Calif.
Application January 11, 1954, Serial No. 403,179
7 Claims. (Cl. 32—19)



1. Means to establish a functional plane between upper and lower waxes formed on models of the upper and lower mouth areas and disposed on said mouth areas, said means comprising two similar U-shaped bite plates generally conforming to the shape of the gum ridges of said mouth areas, members associated with said plates and adapted to be embedded in said waxes, and jack means interconnecting each said plate and the respective associated members to adjust each plate relative to the wax on which mounted.

2,840,911
DENTAL PROSTHETIC APPLIANCES
Horace Hayman Boyle, Swansea, Wales
Application May 14, 1953, Serial No. 355,974
Claims priority, application Great Britain May 15, 1952
3 Claims. (Cl. 32—32)



1. A gauge plate for defining on a mould for dental prosthesis the position of a patient's occlusal surface, comprising a strip of metal of a length exceeding the normal width of a human head, having substantially parallel rearward extensions at its ends, said strip having also a rearwardly projecting center point and two other rearwardly projecting points spaced on opposite sides of the centre point by the normal width of an incisor.

2,840,912
SLEEVE LENGTH MEASURING DEVICE
Anthony Montana, Jersey City, N. J.
Application December 11, 1953, Serial No. 554,791
15 Claims. (Cl. 33—2)



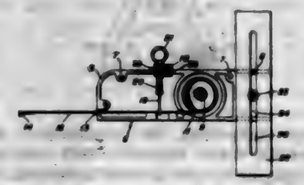
1. A sleeve length measuring device, comprising a support member, a thumb piece and a dispenser outlet mounted in spaced relation on said support, the thumb piece providing means to receive the thumb of a hand on an arm upon which a sleeve is disposed, the outlet and the support being fixedly associated with each other, the thumb piece being movable along said support member toward and away from said outlet, the relative movement of the outlet and the thumb piece effecting adjustment to locate the outlet to determine a desired sleeve length when the thumb of a hand is positioned on said thumb piece, and means for dispensing a marking medium through said outlet.

2,840,913
SCALE HOLDER FOR OPTICAL TOOLING
Alfred A. Houser, Wichita, Kans., assignor to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware
Application August 30, 1956, Serial No. 607,216
5 Claims. (Cl. 33—74)



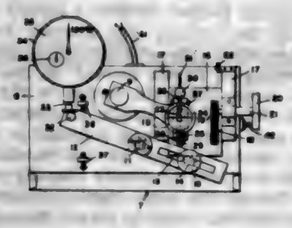
1. A device for positioning a scale relative a tooling button and an optical instrument in optical tooling, comprising: a clamp member having a tooling button opening extending at right angles from a lower flat face thereof and of a size to receive a tooling button and said clamp member being split from said opening to an edge thereof and having a clamping bolt through the split portion operative to clamp such tooling button in said opening, said clamp member having a wall upstanding from an edge thereof and a support member having a wall upstanding from an edge thereof abutting said wall on said clamp member and a pivot bolt extending through said upstanding walls for pivoting therebetween about an axis normal to the axis of said tooling button opening, a clamping bolt supported in one upstanding wall and acting in an arcuate slot in the other upstanding wall for securing thereof in adjusted pivoted position, said support member having a support portion with a dovetail guideway and a flat elongated scale disposed therein in a position with its axis parallel to and spaced from said pivotal axis and normal to said tooling button opening axis, said support member and said clamp member having aligned slots therein at the end of said guideway intersecting said tooling button opening so that said scale may be abutted against clamped tooling buttons in all positions thereof and the aligned slot in said clamp member being arcuate to permit pivotal adjustment of said scale with said support member, and a series of bubble levels mounted on said device for orienting said scale relative the horizontal and vertical in various positions thereof.

2,840,914
LAYOUT DEVICE
Raymond L. Beckelew, Grand Junction, Colo.
Application July 27, 1956, Serial No. 600,491
1 Claim. (Cl. 33—75)



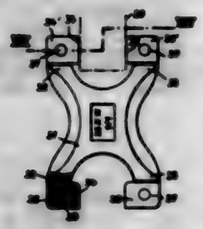
A layout device of the character described comprising: an elongated housing having a circular opening therein, a straight edge mounted on one end portion of said housing, a reel rotatably mounted in said housing, means for actuating said reel, a tape extending slidably into the housing and having one end secured to the reel for winding thereon, a hook on the other end of the tape for anchoring same to a support, said tape having a plurality of rows of longitudinally spaced perforations therein, a disk mounted for rotary adjustment in the opening and having therein a peripheral groove rotatably receiving the housing, and a spring projected, manually retracted bolt slidably mounted off center in the disk and engageable selectively in the rows of perforations for releasably locking the tape against sliding movement in the housing.

2,840,915
APPARATUS FOR DETERMINING THE PERCENTAGE OF RED CELLS IN A BLOOD SPECIMEN
Louis E. Drummond and Edward L. Drummond, Havertown, and Robert J. Drummond, Drexel Hill, Pa.
Application March 23, 1954, Serial No. 418,034
6 Claims. (Cl. 33—125)



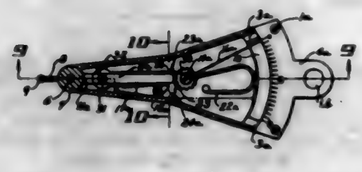
1. Apparatus for determining the percentage of red cells in a blood specimen including a movable stage adapted for the reception of a centrifuged capillary tube of blood, means for guiding the stage in straight line movement, a hairline sight positioned above the tube, guide means on the stage for moving the tube of blood independently of the stage and in the same line of direction as the stage to bring a terminal of the red blood column into a position substantially uniplanar with the hairline, and mechanism comprising a gauge and interconnected parts, operable in a predetermined sequence to visualize the percentage reading of the red cells in said tube.

2,840,916
GAUGES AND PROCESS FOR MAKING THE SAME
Paul Mueller, Munich, Germany, assignor to Hahn & Kolb Werkzeugmaschinen und Werkzeuge, Stuttgart, Germany
Application June 8, 1954, Serial No. 435,247
Claims priority, application Germany June 16, 1953
19 Claims. (Cl. 33—168)



1. A gauge comprising, in combination, a pair of one-piece metallic feeler members each having a feeler surface for engaging an article to be measured, said feeler members having precisely predetermined characteristics at said feeler surfaces thereof and requiring precisely predetermined characteristics only at said feeler surfaces thereof; and rigid means fixed to said feeler members and holding said feeler surfaces apart from each other at a precise, predetermined distance, said means being made at least at all portions in direct engagement with said feeler members of a non-metallic plastic having a melting point substantially lower than that of said feeler members.

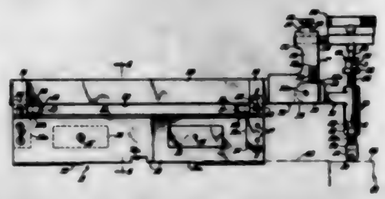
2,840,917
TOOLMAKERS INDICATORS
August K. Koch, Detroit, Mich.
Application June 2, 1955, Serial No. 512,622
3 Claims. (Cl. 33—172)



1. A dual range toolmakers indicator including a housing, an arm pivoted thereon, a contact member projecting from the housing and mounted for movement with the arm about the axis thereof, a graduated scale on the housing, a needle pivoted on the housing for movement across the scale, means in the housing coacting with the arm and needle for turning said needle across the scale when the arm is turned in one direction, and other pivoted means on the housing interposed between the arm and the needle whereby when the arm is turned through the same angular distance in the opposite direction the needle is turned through a different angular distance so that the scale is adapted to read in ten-thousandths of an inch when the arm is turned in one direction and thousandths of an inch when said arm is turned in the opposite direction.

2,840,918
MAGNETIC SURFACE GAUGE
Fredric C. Wildemann, Madison, Wis.
Application November 21, 1955, Serial No. 548,114
14 Claims. (Cl. 33—172)

12. In a surface gauge of the class described, a magnetic member comprising a pair of longitudinally extending parallel runners having downwardly projecting edges whereby both runners can contact a curved surface while extending in the direction of the axis of said surface, longitudinally spaced apart rest means mounted on said member, a bar carried by said rest means and gauge means carried by said bar overhanging one end of said



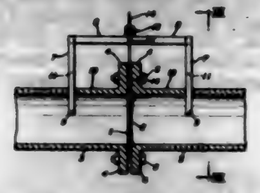
magnetic member, said gauge means including a dial indicator and a finger depending below said indicator in operative relation to said indicator, said finger being mounted for bodily up and down movement with respect to the bar and being also selectively extensible and retractable independently of said bodily movement.

2,840,919
CAM-RISE GAUGE
Ernest R. Russell, Huntington Park, Calif.
Application January 9, 1956, Serial No. 558,609
3 Claims. (Cl. 33—174)



1. A cam gauge comprising a circular plate provided with peripheral graduations, a stud extending in one direction from the center of said circular plate, a pilot projection rotationally carried by the stud and adapted to enter an axial cavity in the face of a flat cam while the plate is in flatwise relationship to the cam, an angle indicator interposed between the plate and pilot projection and rotationally carried by the stud, said indicator comprising a radial arm having one edge readable in connection with the graduations of the plate, a fixed knob on the plate and extending therefrom in a direction opposite to the stud of said plate, said knob being provided with a slideway that is diametral to the plate, the face of the plate toward the knob defining a wall of said slideway, an elongated slide longitudinally adjustable in said slideway, friction means housed in the knob and creating a pressure upon the slide to bias the same into frictional engagement with the mentioned face of the plate to hold the adjustment of the slide, a transverse shoulder on the slide face in a direction away from the plate and knob, a second slide on the elongated slide and on the portion of the latter that is between said shoulder and the end of the elongated slide beyond said shoulder, means on said second slide for abutting the transverse shoulder, and a cam-edge-engaging part on the second slide and directed toward a cam on which the gauge is mounted, said part being disposed at zero of the graduations of the plate, the mentioned angle indicator being adjustable relative to the mentioned part to define the angle included between said indicator and part.

2,840,920
ORIFICE PLATE CENTERING GAUGE
Kenneth A. Clifton, Hubbard, Ohio
Application October 21, 1954, Serial No. 463,767
2 Claims. (Cl. 33—180)



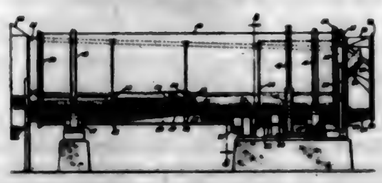
1. A tool for centering a circular metering orifice plate between facing flanges on adjacent ends of a pair of pipes forming a part of a fluid conduit comprising a gauging member for insertion between said flanges from any of a plurality of circumferentially spaced positions and having a part at its inner end for gauging engagement with the periphery of said orifice plate, a mechanical bridge having a pair of legs for engagement with the external surfaces of said pipes on opposite sides of said flanges and a center portion extending between said legs and over said flanges, each of said legs having positioning provisions for engagement with at least two circumferentially spaced points on said pipe external surfaces whereby said center portion provides a reference of the center of said pipes when said positioning provisions on each of said legs are engaged with said pipe surfaces, and a clamp for adjustably securing said gauging member to said bridge center portion with said gauging part a predetermined distance in a radial direction from the center of said pipes when its said positioning provisions are engaged with said pipe surfaces.

2,840,921
TWIST DRILL GAUGE
Nels H. Swanson, Lincolnwood, Ill.
Application December 27, 1955, Serial No. 555,360
1 Claim. (Cl. 33—201)



A simple gauge assembly adapted for use by an extremely simple gauging technique to indicate directly the angular values of all three critical angles on the cutting ends of twist drills of all commonly used sizes, comprising, in combination, a flat lower gauging element, a flat upper gauging element, pivot means connecting both elements for rotary adjustment relative to each other about a common pivotal axis, said pivot means extending slightly below said lower gauging element, each of said elements having a generally semicircular segmental shape in relation to said pivotal axis, said respective elements defining thereon two straight reference edges located and dimensioned in relation to said elements to cross each other to define an open angle variable by rotary adjustment of the elements relative to each other, an elongated adapter separably applicable to said lower element to facilitate alignment of said straight edge thereon with large twist drills; said adapter including a flat elongated tongue engageable with the underside of the marginal edge of said lower element defining said straight edge thereon, said tongue being slotted at one end to fit around said pivot means below said lower element, and said adapter including an elongated rectilinear fold joined to said tongue in perpendicular relation thereto, said fold depending a substantial distance below said tongue element and projecting thereabove a distance substantially equal to the thickness of said lower element to engage said straight edge thereof without interfering with rotary adjustment of said upper element, said adapter having sufficient length to cross said pivot means at one end and extend at the other end beyond said straight edge on said lower element; an arcuate clearance angle scale inscribed on said lower element and graduated circumferentially to higher angular values in the direction in which said upper element must rotate in relation to said lower element to increase an open angle defined by said upper and lower element straight edges, a clearance angle reference mark positioned on said upper element to indicate on said clearance angle scale the degree to which an open angle defined by said straight edges exceeds a right angle, an arcuate point angle scale inscribed on said lower element in circumferentially spaced relation to said clearance angle scale and graduated circumferentially to lower angular values in the same circumferential direction in which said clearance angle scale is graduated to higher angular values, a point angle reference mark located on said upper element to indicate directly on said point angle scale the supplement of an open angle defined by said straight edges, an arcuate chisel point angle scale inscribed on said lower element in circumferentially spaced relation to said clearance angle and said point angle scales, and a chisel point angle reference mark located on said upper element to indicate directly on said chisel point angle scale the open angle defined by said straight edges.

2,840,922
ROTARY COOLER
Maurice J. Erlemann, Oak Park, Norman L. Francis, La Grange, and Rudolph R. Teichmann, North Riverside, Ill., assignors to Link-Belt Company, a corporation of Illinois
Application July 18, 1956, Serial No. 598,545
16 Claims. (Cl. 34—135)



1. A cooler, comprising a rotatably mounted outer shell, a plurality of axially extending radial louvres spaced circumferentially around the inner surface of said outer shell to provide an annular series of radially inwardly opening treatment fluid passages, an inner shell mounted on the inner edge portions of said louvres formed to provide an outlet for each of said fluid passages, a feed end plate mounted across one end of said inner shell and having a central opening for the introduction of material to form an axially extending bed supported on the latter shell, a plurality of ring dam assemblies mounted on the inner edge portions of said radial louvers at axially spaced points along said inner shell and extending radially inwardly therefrom to control the axial flow of the material in said bed, partition means circumferentially spanning a portion of each of said fluid passages adjacent said feed end plate to divide said portion into inner and other sections, means closing

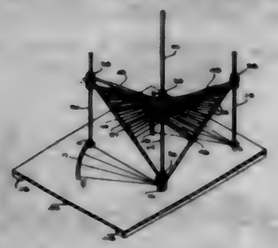
the inner ends of said inner sections, and a stationary treatment fluid manifold mounted in sealed relationship with said feed end plate and the associated end of said outer shell, said manifold having an inlet opening aligned with the inner and outer sections of the passages located radially outwardly of the location of the material bed, an exhaust opening aligned with the inner and outer sections of a plurality of passages that are spaced circumferentially from the location of the said material bed, and means for closing the outer ends of the passages not aligned with said inlet opening or said exhaust opening.

2,840,923
GRANULAR MATERIAL DRYING APPARATUS
Heinz Behrens, Koln-Junkersdorf, Germany
Application July 7, 1955, Serial No. 520,572
Claims priority, application Germany July 9, 1954
2 Claims. (Cl. 34—164)



1. Apparatus for drying granular material comprising a longitudinally inclined channel for receiving the material to be dried by a drying agent, resilient mounting means for enabling said channel to vibrate freely upon application of a vibratory motion thereto, an unbalanced rotary mass for imparting a substantially horizontal vibratory motion to said channel, and means mounted upon said channel for effecting rotation of said mass on an axis of rotation substantially vertically of the longitudinal axis of said channel.

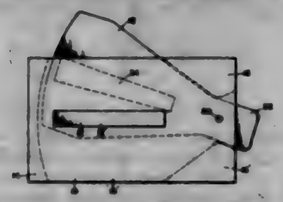
2,840,924
HYPERBOLIC PARABOLOID GENERATOR
Donald W. Wills, Topeka, Kans.
Application April 26, 1957, Serial No. 655,279
7 Claims. (Cl. 35—34)



1. A device for developing a geometrical surface comprising a horizontal base, four upstanding vertical rod members secured to said base at points defining a four-sided polygon on said base, respective vertically adjustable members mounted on said rod members, respective extensible link bars connecting said vertically adjustable members in the vertical planes of the respective sides of said polygon, and spaced elastic elements connecting the opposed pairs of link bars.

2,840,925
TACHISTOSCOPE
Philip M. Deneen, Columbus, Ohio
Application December 27, 1954, Serial No. 477,863
3 Claims. (Cl. 35—35)

1. A manually operable tachistoscope comprising: a fixed plate having an opening therein; a movable plate connected to said fixed plate at a pivot point adjacent an edge of said fixed plate and so mounted as to permit substantially unopposed manual pivotal movement of said movable plate with respect to said fixed plate; said movable plate having an opening on one side of said pivot point and a lever handle portion on the opposite side of said pivot point; means for limiting the movement of said movable plate between two limit positions; said openings being so located, at a substantial distance from said pivot point, and so shaped, as to provide an opening through said tachistoscope when said movable plate is in a position approximately midway between its limit positions; said movable plate completely covering said opening in said fixed plate when said movable plate is in each limit position; so constructed and arranged that with said movable plate in either limit position said lever handle portion can conveniently be pressed directly by hand to provide rapid movement of said movable plate to the other limit position and, approximately midway in said movement, to expose to momentary view, unable for rapid recognition practice, anything located behind said opening in said fixed plate.



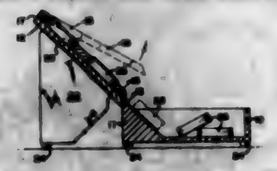
2,840,926
MEMORIZING AID
Floyd A. Campbell, Springfield, Ohio
Application February 18, 1957, Serial No. 640,704
5 Claims. (Cl. 35—35)



1. A memorizing aid comprising a housing having a bottom wall, upstanding side walls and upstanding end walls, said side walls projecting beyond the bottom and end walls, rollers journaled between the ends of the side walls exteriorly of the end walls, a flexible belt encircling the housing and movable on the rollers, a card having longitudinal rows of indicia disposed on the upper surface of said bottom wall and underlying the upper run of the endless flexible belt, said belt having a transverse window selectively revealing transversely aligned indicia in each row of indicia on the card, and a transversely movable shuttle in said window for selectively revealing and concealing the card indicia in one row or the other revealed through said window.

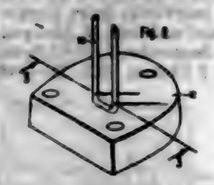
2,840,927
EDUCATIONAL ABACUS SET
Karl Hofmann, Wuerzburg, Germany, assignor of one-half to Paul O. Tobeler, doing business under the name of Trans-Oceanic, Los Angeles, Calif.
Application February 7, 1956, Serial No. 563,999
6 Claims. (Cl. 35—73)

1. An educational abacus set comprising a substantially rectangular box, said box having a hollow portion in the lower part thereof adapted to removably receive and hold a plurality of number tiles, said box having a pivotable lid, means for holding said lid in upwardly inclined position with respect to the hollow portion of said box, said lid having a substantially flat upper surface when held in such inclined position, a tile board pivotally attached to said lid, said tile board being normally disposed in overlying relationship to the upper surface of



said lid, said tile board having a plurality of openings therein, each of said openings being adapted to receive and hold one of a plurality of number tiles in fixed position on said lid, said lid adapted to be pivoted to permit said tiles to be moved by force of gravity downwardly along the flat inclined surface of said lid into the hollow portion of said box.

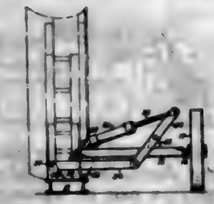
2,840,928
HEEL LIFT AND METHOD OF MAKING THE SAME
Edward H. Bastable, Boston, Mass.
Application June 13, 1956, Serial No. 591,163
1 Claim. (Cl. 36—34)



A ready-to-apply heel lift for a woman's shoe having a non-metallic high heel, which consists essentially of a lift portion conforming to the shape of the lower face of the heel with flat parallel upper and lower faces, and a non-resilient, tempered, U-shaped attaching member having closely spaced legs with pointed free ends, said lift portion being a tough, wear-resisting thermoplastic composition and said U-shaped member having its closed end embedded in the central area of said lift portion with its legs spaced inwardly of the periphery of said lift portion and projecting at right angles from the upper face of said lift portion.

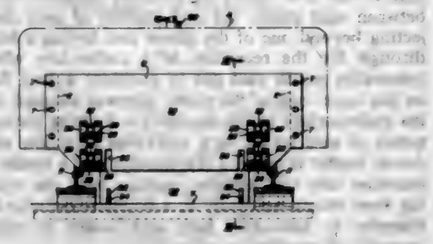
2,840,929
MEANS FOR OPERATING DELVERS
Brian Farley, Yenda, New South Wales, Australia
Application February 14, 1955, Serial No. 489,167
Claims priority, application Australia March 3, 1954
2 Claims. (Cl. 37—98)

1. A tractor drawn delver comprising a main beam, a moldboard hinged to said main beam at the front end thereof, front and rear bracket lugs secured to said main beam, front and rear hinge members pivoted to said bracket lugs, an axle frame extending from said hinge members, an axle carried by said axle frame, a wheel mounted upon the end of the axle, and means whereby the said delver may be tilted from its elevated travelling position upon its wheel to its working position with its wheel raised and returned to its elevated position when desired, said means comprising a hydraulic ram cylinder serviced from the tractor and pivotally connected to the axle frame adjacent said rear hinge member, a plunger



slidable within said cylinder, and a lever system connected at one end to said plunger and having its other end in pivotal connection with the main beam of the delver, the lever fulcrum being on the axle frame.

2,840,930
TRACKWAY SCRAPER
James M. Mundell and John Pavlovich, Jr., Gary, Ind., assignors to United States Steel Corporation, a corporation of New Jersey
Application March 21, 1956, Serial No. 572,857
7 Claims. (Cl. 37—104)



3. In a vehicle having a frame mounted for travel along the rails of a trackway the improvement therewith of a retractible scraper for scraping particles of material from said trackway which comprises a vertically disposed base plate rigidly mounted on one end of said frame with its longitudinal axis extending transversely of said trackway, said base plate having at least two horizontally spaced openings therethrough, means forming a pair of spaced vertical guideways on one face of said base plate, one adjacent each end of the plate, said last named means including an angle bar having a web and flange portion fixedly mounted adjacent to and parallel with each side edge of said base plate with its flange directed toward the vertical center line of the base plate parallel with and spaced from one face of said base plate, each of said flange portions having an opening therethrough aligned with one of said openings in the base plate, a vertically disposed scraper plate slidably mounted on said one face of said base plate with its side edges slidably fitted between said flanges and the face of the base plate, the longitudinal axis of said scraper plate being parallel with the longitudinal axis of said base plate, rollers journaled for free rotation in each of the openings in the base plate and the flanges with a portion of their peripheries contacting one face of said scraper plate, extensible suspension means carried by said base plate supporting said scraper plate, power means connected with said suspension means for extending and retracting the same to thereby lower and raise said scraper plate toward and away from the surface of said trackway, and control means located on said vehicle for actuating said power means.

2,840,931
SCARIFIER ATTACHMENT FOR TRACTOR MOUNTED SHOVEL LOADERS
Andrew L. Appel, Mobilville, Mo.
Application January 4, 1957, Serial No. 632,483
4 Claims. (Cl. 37—117.5)



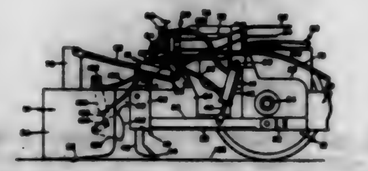
1. A scarifier attachment for the main loader arm of a tractor mounted shovel loader, said attachment comprising in assembly: a pair of transversely spaced similarly contoured vertical side plates; an angularly disposed circular opening in one of the side plates; a flat rectangular bar connecting the side plates intermediate their upper and lower edges, the ends of the bar extending beyond the front and rear marginal edges of said plates, and said bar and the portions of said plates disposed thereabove defining a cavity for hte reception of and welding thereinto of a forward end portion of said main loader arm; a pair of aligned circular openings formed in the side plates on a determined plane below the undersurface of said bar; a rooter element having a cricular opening in the upper end portion thereof; a headed pin having a shank extending transversely through the circular opening in the rooter and the similar openings in the side plates to pivotally suspend said rooter between said plates, the end portion of said shank projecting beyond one of the plates and having a hole therethrough for the reception of a cotter key whereby to removably retain said pin in position; a heel formation on the upper end of the rooter element adapted to engage the undersurface of the flat bar for limiting pivotal movements of said rooter in a clockwise direction when said shovel loader is moving rearwardly; and a headed pin for insertion into said angular opening with the rooter having been swung upwardly in a counterclockwise direction whereby to releasably lock said rooter in raised nonoperative disposition.

2,840,932
EARTH AND MATERIAL HANDLING IMPLEMENT
Theodore V. Breyer, New Philadelphia, Ohio
Application September 3, 1953, Serial No. 378,293
7 Claims. (Cl. 37—145)

2. In combination, for mounting on the front end of the blade supporting frame of a bulldozer; a fixed support bracket, an implement support bracket slidable into supporting engagement with the fixed bracket from above, means on the implement support bracket forming a horizontal pivot axis for detachably receiving implements, and means for fixing implements in adjusted positions to said implement support bracket.

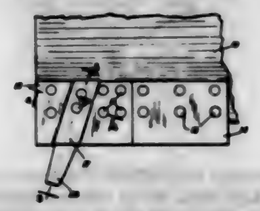
2,840,933
COMBINATION SCRAPER AND SCARIFIER ATTACHMENT FOR TRACTOR
Jack W. Brem, San Diego, Calif.
Application November 12, 1953, Serial No. 391,607
3 Claims. (Cl. 37—145)

1. A combination scraper and scarifier attachment for a tractor including a scarifier comprising a beam member having therein a plurality of depending teeth, a pair of support arms attached to said beam member, means for securing said support arms to a tractor, pairs of spaced brackets on said beam member, a scraper comprising a back plate and extended end plates thereon, a blade support angularly mounted adjacent the lower edge of said back plate, an adjustable blade removably attached to said blade support and extending below the level of said back plate, said scraper being mounted for



pivotal movement about a horizontal axis between the scraper and said means, said scraper having a second blade removably secured to said end plates in front of the first mentioned blade and slightly above the level of the first mentioned blade when the scraper is normally positioned with said back plate vertically disposed, means operatively connected to raise and lower said scarifier, and means operatively connected to raise and lower said scraper relative to said scarifier.

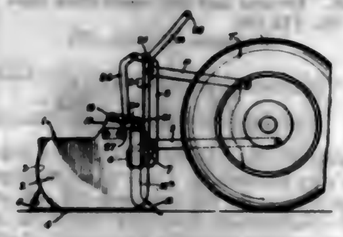
2,840,934
TOOTH MOUNTING ON BLADE OF EARTH MOVING IMPLEMENT
Elmer W. Hazzard and John K. McLeod, Coos Bay, Oreg.
Application September 7, 1954, Serial No. 454,278
3 Claims. (Cl. 37—146)



1. In combination, an earth digging implement moldboard having a front face, a bottom edge and an intersecting side edge, an end bit secured to the front face of said moldboard adjacent the corner defined by said intersecting edges and extending below said bottom edge, said end bit being generally flush with said moldboard face but having an elongate medial portion offset from said face and extending upwardly from said bottom edge and inwardly relative to said side edge to define with said moldboard face a socket, a corner tooth having a shank cooperatively fitting within said socket, said tooth extending angularly downwardly below the bottom edge of said end bit, and means extending through said end bit, tooth shank and moldboard for securing said tooth in place.

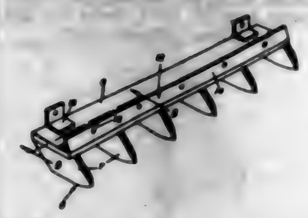
2,840,935
EARTH-WORKING APPARATUS
Lee O. Bird and Rex R. Bailey, Glendale, Calif., assignors to Western Equipment Mfg. Co., Glendale, Calif., a corporation of California
Application October 5, 1954, Serial No. 460,468
3 Claims. (Cl. 37—146)

3. Earth-working apparatus including: a bar; scarifying teeth having shanks; means on said bar slidably supporting thereon said shanks for movement relative to the bar; means connected with said shanks operable to move said teeth into and out of engagement with the ground; said last-named means including a shaft; means for rotatably supporting said shaft to one side of said bar,



crank arms on said shaft; links connecting said crank arms with said shanks; an upstanding member on said bar, a lever fulcrumed on said upstanding member; a driving crank arm on said shaft, and a link connecting said lever with said driving crank arm.

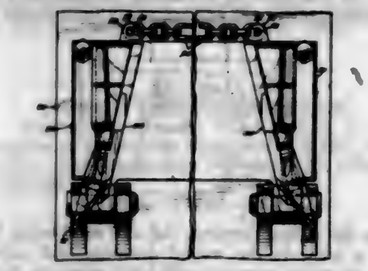
2,840,936
BRUSH RAKE ATTACHMENT FOR BULLDOZERS
Elbert Rand, Missouri Valley, Iowa, assignor of fifty percent to Jacob Rand, Missouri Valley, Iowa
Application August 24, 1955, Serial No. 530,263
1 Claim. (Cl. 37—146)



A rake attachment for the blade of an earth working machine comprising a beam coextensive with the bottom surface of an earth working blade, a plurality of teeth extending downwardly from the beam, an elongated attaching strip fixed to one longitudinal edge of the beam and extending upwardly therefrom, a plurality of attaching brackets fixed to the other longitudinal edge of the beam, and means detachably securing the strip and brackets to the lower front and rear portions respectively of the blade to support the rake attachment under the bottom of the blade.

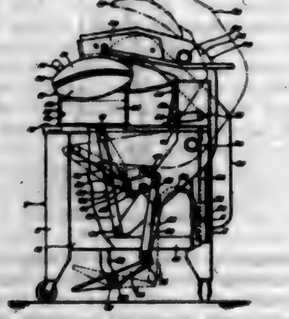
2,840,937
EXCAVATING APPARATUS
Forbes R. Clarke, Jr., Du Quoin, Ill., assignor to The United Electric Coal Companies, Chicago, Ill., a corporation of Delaware
Application July 24, 1956, Serial No. 599,778
3 Claims. (Cl. 37—189)

1. For use in an excavating machine having two spaced rows of earth-cutting blades rotatable in vertical planes about a common horizontal axis and swingable as a unit in a horizontal path, with each row including a plurality of circumferentially spaced blades and with each of said blades including a generally radial leading edge disposed adjacent the outboard side of the respective row and including an inwardly facing surface inclined from the leading edge of the blade toward the other row of blades to force material cut by the rotating blades into the space between said rows and in the direction of rotation thereof, and with the blades in the two rows being of the same number and being paired generally transversely of the planes of rotation of said rows, the improvement comprising auxiliary earth moving means assisting the inclined surfaces of said blades in moving the earth cut by said



blades in the direction of movement of said blades, said means being a narrow member extending between a pair of transversely spaced blades at their trailing edges and adjacent the periphery of said blades.

2,840,938
GARMENT PRESSING MACHINE
Kellen E. Hale, Dayton, Ohio, and Henry D. Fowlie, Clawson, Mich.
Application October 18, 1954, Serial No. 462,972
5 Claims. (Cl. 38—36)



1. In a garment pressing machine the combination of a cabinet, a buck mounted upon the cabinet, a head, an upstanding C-shaped frame, means for mounting the head on the upper end of the frame for moving the head downwardly toward and upwardly away from the buck, means for swingably supporting the frame on the cabinet comprising an oscillating link pivotally mounted on the cabinet and having a pivotal connection with an intermediate portion of the frame and a first toggle device pivotally mounted at its upper end to the cabinet and having its depending end pivotally connected to the lower terminal end of the frame, a second toggle device associated with the joint of the first toggle device for operating the latter, and means for actuating the second toggle device.

2,840,939
SELF-LOCKING TAG
Kenneth R. McClure, St. Charles Township, Kane County, Ill., assignor to Wallace J. Dickey, St. Charles Township, Kane County, Ill.
Application July 28, 1955, Serial No. 525,020
3 Claims. (Cl. 40—21)

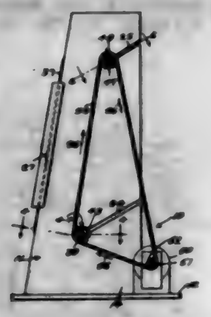
1. A tag comprising a piece of sheet metal and a flexible tie member of wire, the tie member being barbed at a free end and at its other end being carried by the

sheet metal piece, the carried end having retaining means projecting from the cross-section of the wire, the sheet metal piece in blank form having hole therethrough close to and inwardly from one edge, said edge being rolled inwardly of the sheet in a manner to provide a walled opening through the roll and including the carried end of



the tie in the walled opening, the said hole being located to form a niche in the walled opening, said rolled end over the tie being crimped over said retaining means to lock the tie therein, and the barbed end being constructed for insertion in the walled opening to be engaged in said niche against withdrawal.

2,848,940
MECHANICAL READING AND WRITING TABLET
John R. Miles, Williamsport, Md.
Application November 5, 1956, Serial No. 620,225
3 Claims. (Cl. 40—31)



1. A mechanical reading and writing apparatus comprising a substantially upright housing including a front wall and side walls, said front wall having vertically spaced horizontally elongated openings, a lower shaft extending across said housing and journalled in said side walls, an upper shaft extending across the housing and journalled in the side walls above the lower shaft, a roll of paper mounted on the lower shaft within the housing, means securing the roll of paper to the lower shaft for rotation therewith, an outer end of the strip forming the roll of paper extending from said roll outwardly through a lower one of the front wall openings and back into the housing through an upper one of the front wall openings for positioning a portion of the paper strip in an exposed position against an outer side of the front wall and between said openings, means detachably connecting said end of the paper strip to the upper shaft for movement therewith, a power source fixed to and supported by a part of the housing, and driving means forming a connection between said power source and the upper shaft and the lower shaft, said driving means including parts disengagedly secured to said shafts whereby either of the shafts may be driven from the power source while the other shaft is disengaged therefrom for winding the paper strip onto the selectively driven shaft and for unwinding it from the other shaft, said strip of paper which is attached to both of said shafts being windable in the same direction whereby movement of said drive means in a single direction will cause the shaft selectively driven by the drive means to wind the paper strip thereon.

2,848,941
SLIDE CHANGER
Frank C. Badalich, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois
Original application November 4, 1954, Serial No. 466,908. Divided and this application June 28, 1955, Serial No. 518,581
6 Claims. (Cl. 40—79)



1. A slide holding tray for insertion in a slide changer of a projector comprising, a one piece rectangular elongated box open at the top and along one side and having a central longitudinally extending slot in the bottom, a plurality of septums extending transversely of said bottom between a lip along said one side and a wall along the opposite side to hold the slides in separated parallel relation, said lip and wall preventing endwise movement of said slides and said slides being horizontally movable through said open side when they are elevated sufficiently far to clear said lip, downwardly facing shoulders being formed along the sides of said slot for slidably supporting the tray, and rack teeth extending along the tray for cooperating with a pinion to move the former along the slide changer.

2,848,943
ANIMATED DISPLAY SIGN
Arthur M. Ryan, Burlingame, Calif.
Application June 27, 1955, Serial No. 518,073
4 Claims. (Cl. 40—139)

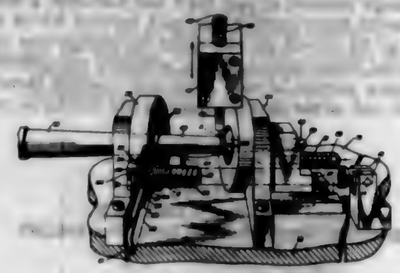


1. An assembly for supporting a sign display for animated movement comprising: a flexible vertical rod member; means for anchoring the base of said rod member to a primary support; an upper bearing sleeve telescopically rotatably mounted on the upper end of said rod member; a circumferential crimp formed in the body of said sleeve defining an interiorly projecting annular bearing seat having a smaller diameter than said rod rod rotatably supported on the top end of said rod member; and means for securing a display sign to said upper bearing sleeve for flexing movement with, and rotatable movement relative to, said rod member.

2,848,943
APPARATUS FOR CHASING RINGS
Bertram W. Sager, Highland Park, and Mason M. Sager, Chicago, Ill., assignors to Paramount Wedding Ring Co. Inc., Chicago, Ill., a corporation of Illinois
Application March 19, 1956, Serial No. 572,249
9 Claims. (Cl. 41—1)

1. In an apparatus for chasing rings, the combination with a rod for mounting rings to be chased, of a slide

movable transversely to the end of the rod for picking rings in succession from the end of the rod and moving them theretrom, a graduated mandrel movable into the path of the individual rings and disengaging the rings



therefrom, a hammer movable to engage ring blanks on the mandrel, means for rotating the mandrel for successive strokes of the hammer, and means withdrawing the mandrel from the hammer and discharging the chased rings.

2,848,944
ADAPTOR FOR A MAGAZINE
James F. Thompson, Chestertown, Md.
Application March 30, 1954, Serial No. 419,665
1 Claim. (Cl. 42—50)



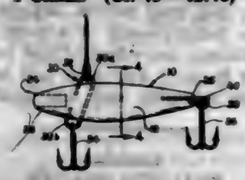
An adaptor to fit in the forward edge of a magazine of an automatic firearm, said magazine comprising a spring and follower and said firearm comprising a bolt and chamber, the adaptor comprising a shank portion and a ramp portion, said shank portion extending the length of the magazine and lying entirely within the spring and in front of the follower, the bottom end of the shank having a notch fitting over a plate bar in the bottom of the magazine, the top end of the shank being held in place by means of a pin through the magazine walls; the ramp, an extension of the shank, overlying the edge of the magazine and terminating below the bolt and having an inclined concave surface leading to the chamber.

2,848,945
LIVE BAIT CASTER
Carlton H. Seaiock, Rome, Ga.
Application July 18, 1956, Serial No. 596,981
1 Claim. (Cl. 43—41.2)



In a live bait caster, an elongated live bait receiving tube having a closed lower end and an open upper end, fishing line securing means on said upper end, an elongated buoyant sleeve circumposed on and secured to said tube, said sleeve being tapered and having a smaller end terminating close to and spaced from said open end and a larger end terminating at the closed end of the tube, said sleeve having a concave outer surface which extends between said smaller and larger ends.

2,848,946
MINNOW LIKE FISHING LURE
Eugene S. Lachicotte, Charleston, S. C.
Continuation of application Serial No. 412,202, February 24, 1954. This application November 15, 1956, Serial No. 622,424
1 Claim. (Cl. 43—42.48)



A fishing lure comprising an elongated body tapering inwardly toward the front and rear, said body having relatively high substantially vertical sides of slightly convex configuration tapering inwardly at the top and bottom into arcuate top and bottom portions, the taper of the body toward the rear being somewhat greater than the taper toward the front and the taper toward the top being somewhat greater than the taper toward the bottom, the bottom of said body tapering downwardly from the front and rear thereof toward the medial portion thereof so that a greater surface area is located below rather than above the center of gravity, an elongated looped element passing through said body and having its longitudinal axis intersecting the longitudinal axis of said body in the front portion thereof; at a point about one-third of the distance from the front of the body to the rear of the body; at an angle of about 70 degrees, said looped element being disposed in the longitudinal vertical plane of the longitudinal axis projecting from the top and bottom portions a sufficient distance to pivotally attach hooks to the bottom of the loop and a ring to the top of the loop, means for pivotally positioning hooks on the rear portion of the body so that such addition of hooks compensates to maintain the center of gravity of the lure, said body having an axial bore disposed in the front portion of the lure and a weight disposed in the bore being of sufficient size to balance the lure when it is suspended from a line attached to the ring so that the lure will incline slightly downwardly toward the front so that the greater surface area of the lure is located to the rear of the center of gravity of the lure, whereby when the lure is pulled through the water, oscillatory movements are set up about the vertical axis passing through the looped element where the line is attached, since the greater surface area of the lure is located to the rear of the center of gravity of the lure, simultaneously with oscillatory movement about a longitudinal horizontal axis since the greater surface area is located below the center of gravity of the lure, thus simulating the swimming movements of a minnow.

2,848,947
ANIMAL TRAP
Bernard E. Dougherty, Seattle, Wash., assignor to Dodd Products, Inc., Lancaster, Pa., a corporation of Pennsylvania
Application September 2, 1954, Serial No. 453,829
2 Claims. (Cl. 43—81)

1. An animal trap of the type having a spring operated pivoted jaw, comprising a sear formed of a length of

wire having one end bent to substantially form a square, one side of said square being inclined with respect to the extended length of said sear, a staple engaging said inclined portion so that upward pressure on the extended length of said sear tends to move the sear in a longitudinal direction, a pivoted trigger engaging the free end of said sear, and a bait lever formed of a single piece



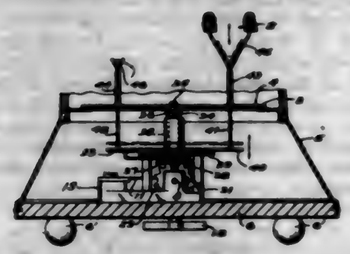
of wire and bent at one end to provide a head portion extending concentrically with respect to the length of said bait lever, said head portion engaging said trigger, said bait lever being pivoted at a point adjacent said head portion whereby movement of said bait lever in any direction about its pivot will cause said head portion to trip said trigger releasing said sear held pivoted jaw.

2,846,948
BALLOON HOLDER
John C. Stickley, Atlanta, Ga.
Application December 11, 1956, Serial No. 627,681
1 Claim. (Cl. 46—32)



A balloon holder comprising an elongated flexible plastic tube adapted for telescopic engagement over one end of a stick, an annular plastic balloon seat ring having a diameter substantially greater than the diameter of said tube, and a plurality of flexible plastic elongated arms extending integrally from one end of said tube in outwardly diverging relation having the ends thereof opposite said tube integrally joined to said ring in circumferentially equispaced relation.

2,846,949
MUSIC BOX DRIVEN DANCING FIGURINE
James E. Faulkner, Tuckahoe, N. Y., assignor to Lader, Incorporated, New York, N. Y., a corporation of New York
Application January 21, 1955, Serial No. 483,306
4 Claims. (Cl. 46—118)



1. In a dancing figurine toy in which musical accompaniment and motive power are provided by a conventional music box having motive means driving a drum provided with spikes engaging a reed, the combination of a rotatable platform on which the feet of at least one figurine normally rest, said at least one figurine being suspended from a yoke at the upper end of pin projecting through and revoluble with said platform, a rotatable vertical shaft carrying at its upper end said platform, a gear fastened to said shaft, a toothed wheel rotatable with said drum and meshing with said gear to transmit therethrough rotation to said shaft and platform, a pivotally actuated lever operated by said toothed wheel and adapted to be moved up and down by engagement with teeth as the wheel rotates, and a vertically movable disk resting on a portion of said lever and movable thereby, the lower end of the figurine-carrying pin resting on said disk.

2,846,950
HAND PUPPETS
Jules Cotler, Forest Hills, N. Y.
Application March 15, 1957, Serial No. 646,249
1 Claim. (Cl. 46—175)



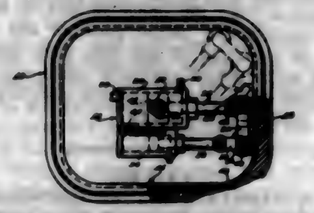
A novelty mitten comprising a tubular body of soft fabric material having a circular open end, the other end of the body being formed with opposed flap portions, with rounded peripheral edges, a panel extending across the space between the flap portions, said panel having rounded peripheral edges fastened to the edges of the flap portions, said panel being formed of flexible felt and being longer than the diameter of the body thereby normally holding said flap portions spaced apart, said panel having a central opening midway its ends, a pneumatic bag having a restricted neck portion supported in said opening and a reed in said restricted neck portion whereby upon movement of the flap portions toward each other said bag will be squeezed actuating said reed for producing a sound.

2,846,951
BALLOON POWERED TOY
Luther L. Gross, Los Angeles, Calif.
Application February 25, 1957, Serial No. 642,153
2 Claims. (Cl. 46—206)



1. A self-propelled toy comprising: a vehicular base; an inflatable gas reservoir mounted upon the upper surface of said base and having a gas outlet extending through said base to the lower surface thereof; a flexible tube extending longitudinally along said lower surface of said base, said tube having a gas inlet connected with the gas outlet of said reservoir and a gas outlet proximate an outer end of said base, said tube having a substantially flat rectangular cross-sectional configuration in the relaxed condition, said tube being expandable to a substantially circular cross-sectional configuration in response to gas pressure within said tube; a connecting rod affixed at one end thereof to said tube; a crankshaft rotatably suspended from said base below said tube, said connecting rod being pivotally connected to a crank arm of said crankshaft to impart rotary motion to said crankshaft in response to reciprocation of said connecting rod; valve means connected to said crankshaft to pulse gas from said reservoir through said tube whereby said connecting rod is caused to reciprocate; and a drive wheel connected to said crankshaft.

2,846,983
GLASS TUBE SCORING DEVICE
Leonard D. Scudder, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application January 6, 1954, Serial No. 402,451
13 Claims. (Cl. 49—39)



1. Apparatus for scoring the inner surface of a hollow body of plastic material, said apparatus comprising a plurality of scoring elements, means for holding said scoring elements in contact with said surface at a scoring plane with one element in advance of another in said plane and pressing the scoring elements against said surface with the pressure applied to both scoring elements in the same general direction, and means for causing a relative rotation of the said hollow body and the scoring elements about an axis within the perimeter of said surface and perpendicular to said plane and thereby causing the scoring elements to traverse said surface and produce a score at said plane, the scoring elements being on the same side of said axis with one scoring element following in the track of another and thereby progressively deepening the score, the said scoring elements consisting of scoring rolls including a leading roll with a comparatively blunt scoring edge for forming the initial score, and a follower roll with a sharper scoring edge for following in and deepening the initial score.

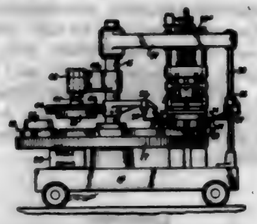
2,846,953
GUIDE FOR GLASS BENDING MOLDS
Lloyd V. Black, Tarentum, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation
Application December 14, 1951, Serial No. 261,657
5 Claims. (Cl. 49—67)



1. In apparatus for bending glass sheets, the combination with a mold upon which sheets are adapted to be bent when exposed to bending temperatures, of a glass contacting member, and a support for said member including a heat responsive member comprising elements of different coefficients of expansion which are operable at said bending temperatures to cause movement of said contacting member away from said glass sheet.

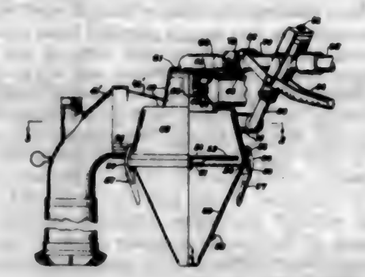
2,846,954
MACHINE FOR PRESS MOLDING GLASSWARE
Clesbert G. Rumsey, Columbus, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application November 21, 1955, Serial No. 548,071
4 Claims. (Cl. 49—37)

3. A turret-type machine for press molding hollow glass articles comprising a mold table mounted for rotation about a vertical axis, a plurality of mold units mounted on said table and adapted to be moved to and through a series of operating stations, each of said mold units comprising a body member and a ring member combined to form a mold cavity, a press plunger mounted for up-and-down movement at a pressing station, said plunger including a molding head movable into the said combined mold for molding an article therein, clamping means common to all said molds at said pressing station, said clamping means comprising clamping fingers adapted to clamp said ring members on the body members under



pressure, said clamping fingers each having pivotal mounting separate from and stationary with respect to the mold table and positioned over a portion of the path of said ring members, a plurality of fluid operated motors individual to each clamping member and operatively connected to said clamping fingers, said motors being operative to alternately move the clamping fingers into and out of pressure contact with the ring members as they are successively presented and are at rest at the pressing station.

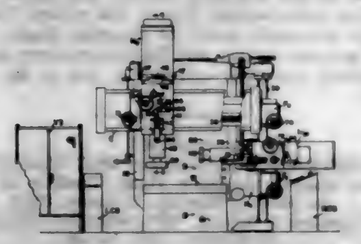
2,846,955
PORTABLE BLAST CLEANING MACHINE
Herman Hastrup, Kaneohe, Oahu, Territory of Hawaii, and Rolf C. Hastrup, Torrance, Calif.
Application July 13, 1955, Serial No. 521,719
20 Claims. (Cl. 51—8)



1. In a portable abrasive blast cleaning machine to be carried and operated by a single operator for removing debris from a coated surface, said machine including an abrasive container, a blast head having a surface contactor boot adapted to contact an area of surface to be blast cleaned, an inner and an outer casing spaced apart to form an inner channel for the passage of abrasive toward said surface and an outer channel for the passage of spent abrasive and debris from said surface, a blast nozzle adapted to discharge a blast stream of air into said inner channel and against said area, a separator chamber wherein spent abrasive is separated from debris and dust, an exhaust nozzle adapted to create suction in said outer channel of said blast head, passageway connecting means to provide, when said contactor boot is in contact with said surface, a short, endless and always open recirculatory path for abrasive material from said abrasive container to said blast head and against said surface, thence to said separator chamber and back to said container, the combination therewith of a swivel joint means connecting said blast head to said separator chamber to permit rotation of said head with respect to

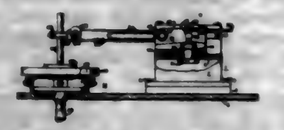
said separator chamber wherein the longitudinal axis of said head may move through 360° in a plane perpendicular to the axis of rotation, said swivel joint means comprising an inner and an outer casing spaced apart and extending laterally from said blast head rotatably connected, respectively, to an inner and an outer casing spaced apart and extending laterally from said separator chamber, the space enclosed between said inner and outer connected casings constituting a passageway communicating between said outer channel of said blast head and the said separator chamber, passageway means, positioned within the space enclosed by said inner connected casings but out of communication with said space, adapted to convey compressed air to said blast nozzle; the remaining portion of said space enclosed by said inner connected casings constituting a passageway through which abrasive material passes enroute from said abrasive container to said blast head.

2,840,956
GRINDING MACHINE
Claude M. Grinage, Stratford, Conn., assignor to The Bullard Company, a corporation of Connecticut
Application December 5, 1952, Serial No. 324,348
40 Claims. (Cl. 51—59)



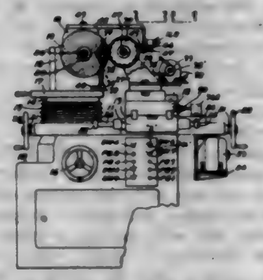
15. In a grinding machine, a base; a work-supporting table mounted on said base; a standard fixed to said base; a grinding head mounted on said standard and adapted to be reciprocated toward and from said work-supporting table; means for reciprocating said grinding head; an electrical circuit for controlling said reciprocating means; a plurality of control stations conveniently located relatively to said base; function-selecting means at each of said control stations adapted to select any one of a plurality of functions of said grinding head; and an interlocking solenoid mechanism rendered effective by the movement of the function-selecting means at one control station to render ineffective the function-selecting means at the other control station.

2,840,957
LAPPING DEVICE
Walter J. Warden, West Long Branch, and Helmr P. Wambsganss, Red Bank, N. J.
Application June 7, 1957, Serial No. 664,446
4 Claims. (Cl. 51—58)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. In a crystal polishing machine having a polishing disk, a means for oscillating said polishing disk through an arcuate path in a horizontal plane, and a shaft rotatable about a vertical axis which intercepts the horizontal plane in the region of motion of the polishing disk, a means carried on the end of said shaft for supporting the crystals to be polished comprising a base plate having a plurality of optically flat symmetrically positioned surfaces lying in the same plane perpendicular to the vertical axis, a precision ground glass work holder having optically flat parallel surfaces seated on each of said surfaces of said base plate, a retaining plate secured to said base plate having symmetrically positioned bores embracing work holders in their positions upon said surfaces, means associated with said retainer plate engaging said work holders for releasably securing said work holders in their seated positions, a plurality of hardened pins adjustably extending from the upper surface of the retainer plate at symmetrically placed positions and means for adjusting the extension of said pins from said retaining plate, said latter means operating upon engagement by said polishing plate to interrupt the polishing operation beyond a predetermined point.

2,840,958
AUTOMATIC CUTTER GRINDER
Campbell Ernst Waller, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application May 19, 1955, Serial No. 509,546
27 Claims. (Cl. 51—95)



21. A cutter grinder for successive automatic grinding of a series of teeth on a cutter or workpiece comprising a base, a grinding wheel and a work support mounted on the base for relative traversing movement, means for effecting said traverse, a tooth rest carried by the base adjacent the grinding wheel for positioning a workpiece tooth during grinding, a flipper tooth rest supported in position to engage a workpiece tooth to restrain rotary movement of the workpiece in one direction and movable by rotary indexing movement of the workpiece in the opposite direction, a reversible torque motor carried by the work support for effecting opposite directions of rotary movement of a supported workpiece and maintaining a torque thereon during a grinding operation, a first means to reverse said torque motor to index a workpiece whereby the workpiece will react on and move the flipper tooth, and control means for said torque motor operable by movement of said flipper tooth to reverse the torque motor to urge the tooth of the indexed workpiece against the tooth rests.

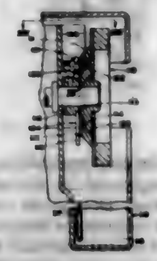
2,840,959
SANDING DEVICE
Louis R. Pritikin, Los Angeles, Calif.
Application June 11, 1957, Serial No. 664,984
7 Claims. (Cl. 51—187)



1. In a miniature sanding device for cosmetic use, in combination: a plurality of superimposed sandpaper

strips; and a holder in which the ends of said strips are clamped, with the strips stretched around the holder, said holder comprising: a block which in longitudinal section is of shallow U-form, defining an elongated depression, said block including a bottom web and a pair of jaws projecting upwardly from the respective ends thereof, said jaws defining concave inner faces which are slightly converging upwardly at the tips of said jaws to define a restricted pass, and a cap member having a longitudinal cross sectional contour corresponding generally to that of said depression, received in said depression and having rounded ends mating with said concave inner jaw faces, the tip portions of said strips being clamped between said jaws and said cap ends with said jaws sprung apart, and with said bottom web consequently bowed upwardly, and with said strips stretched between said jaws in spaced relation to the bowed lower face of said web to provide a cushioning action in the use of the device, said bowed web functioning to spring-load said jaws into clamping engagement with said strip ends, the converging end portions of said jaw tips overhanging said cap ends and thereby securing the cap in said depression.

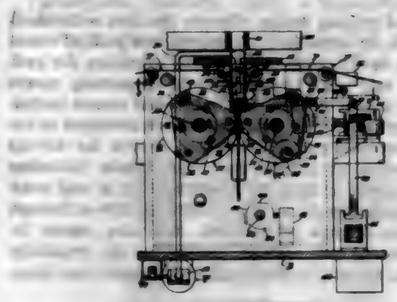
2,840,960
LIQUID FEED FOR A GRINDING WHEEL
Sheldon M. Booth, South Haven, Mich.
Application October 22, 1956, Serial No. 617,616
5 Claims. (Cl. 51—267)



1. A device for conveying liquid into an annular recess in one axial face of a disk rotatable about a substantially horizontal axis, comprising: circular means co-axial with said disk and mounted upon said axial face; a liquid reservoir below said circular means; a flexible loop encircling said circular means and movable with said disk, said loop extending into said reservoir; and an arcuate member above said circular means and adjacent to said disk, said member being arranged to deflect into said recess the liquid flung by centrifugal force from said loop as it passes around said circular means.

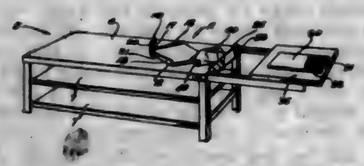
2,840,961
METHOD AND APPARATUS FOR PRODUCING EVACUATED PACKAGES
Benjamin Karpowicz, Jr., Philadelphia, Pa., assignor to Pak-Rapid, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application July 27, 1955, Serial No. 524,750
20 Claims. (Cl. 53—22)

1. A system for forming, filling, exhausting and sealing packages of flexible material comprising opposed sealing rolls between which opposed strips of packaging material are fed and formed into packages, said rolls having axially spaced opposed circular surfaces for forming edge seals for the packages and circumferentially spaced opposed cross members for forming cross seals for the packages each cross member of a pair having a groove in a part of the surface thereof opposed to a like groove in the opposed cross member, a nozzle connected to a source of vacuum and adapted to project into said grooves, driving mechanism for said rolls and mechanism for controlling the operation of the rolls and of the nozzle including means providing a period of dwell for the rolls when the grooves of a pair of cross seal members are opposed and for thereafter causing said rolls to resume movement to complete formation of the cross seal and means operating to project said nozzle into the package in the region of said grooves and to withdraw it during said period of dwell, to evacuate the package.



14. In a method of forming, filling and sealing successive packages from opposed strips of packaging material and exhausting the package through a vacuum nozzle, the method which comprises passing said strips between opposed sealing rolls to form edge seals and a first end seal for a package, introducing the material to be packaged, forming a portion of the other end seal of the package leaving an unsealed passage of limited area therein in the region of said nozzle, exhausting the package through said passage by said nozzle and thereafter passing the said strips further between said rolls to close said passage and complete formation of said other end seal and to form a first end seal for the succeeding package.

2,840,962
WRAPPING METHOD AND APPARATUS
William F. Stremke, William F. Stremke, Jr., and Roman R. Pazderski, Milwaukee, Wis.
Application June 1, 1954, Serial No. 433,664
9 Claims. (Cl. 53—31)



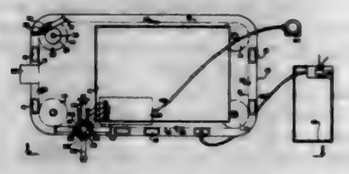
1. A wrapping method for enveloping an article in a rectangular wrapping sheet using a table provided with article locating means and also using a hot plate spaced beyond said article locating means, which method comprises locating a stack of rectangular wrapping sheets on the table with corresponding first corners of each sheet projecting toward the article locating means, corresponding second corners of each sheet diagonally opposite the first corners being directed away from the article locating means; placing an article to be wrapped in predetermined relation to the article locating means and partially on the first corner of the uppermost sheet of the stack; drawing the second corner of the uppermost sheet around and beneath the article into lapping engagement with the first corner of the sheet; and moving the article and the lapping first and second corners of said sheet across a hot plate for the heat sealing of the lapping corners.

2,840,963
LID PLACING DEVICE
Charles W. Cumerord, Cincinnati, Ohio, assignor to The Karl Kiefer Machine Company, Cincinnati, Ohio, a corporation of Ohio
Application March 21, 1957, Serial No. 647,488
23 Claims. (Cl. 53—73)



19. In a lid placing device wherein the cans with which the lids are to be associated are moved in a path of travel beneath said device, supporting means overlying the path of travel of said cans, means on said supporting means for retaining a stack of lids, said last named means including a plurality of multiple part cam means arranged to engage the lowermost end of said stack, means for driving said cam means in unison, said cam means including cam parts adapted to drop the lowermost lid in said stack on an underlying can as said cam means are driven through a predetermined cycle of rotation, said cam means including additional cam parts for supporting the remainder of the stack as the said lowermost lid is dropped therefrom.

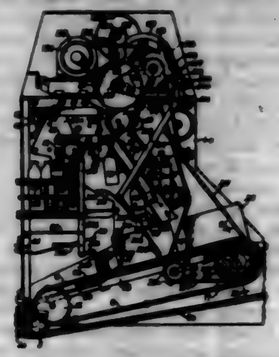
2,840,964
EVACUATING AND SEALING APPARATUS
Albert C. Kissling, Philadelphia, Pa.
Application May 14, 1954, Serial No. 429,866
8 Claims. (Cl. 53—74)



8. An apparatus of the type described including a conveyor adapted to carry a number of spaced bags, actuating means for intermittently moving said conveyor, a pump connected to a source of liquid and adapted to discharge a measured quantity of liquid into one of said bags, a first activating device operable to activate said actuating means to bring said bags successively into position to receive a liquid charge from said pump, a second activating device for charging said pump with liquid, a third activating device for resetting said actuating means preparatory to further movement of said conveyor, a fourth activating means for discharging liquid from said pump into a bag in said position, and a pair of holding jaws adapted to clamp the mouth of a bag therebetween, means for moving said jaws into and out of engagement with said bag, and means movable with one of said jaws and operable upon movement of said jaw out of engagement with said bag to energize said activating devices.

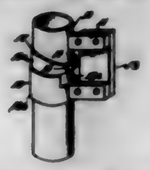
2,840,965
MACHINES FOR INSERTING FILLED CONTAINERS INTO CASES
Stephen John Lewis, Brooklyn, N. Y.
Application July 23, 1954, Serial No. 445,310
17 Claims. (Cl. 53—160)

1. Container pick-up and carrying means for the purposes set forth, comprising tongs of the lever-grip type, endless conveyor means on which said tongs are pivotally suspended for gravity-induced self-closing action, means for presenting a container to be cased at a pick-up point in the path of travel of said tongs, and means adapted to prevent gravity closing action as the tongs respectively approach the container and to release said tongs as they come into embracing relation to the container at said pick-up point, to permit gravity closing of said tongs



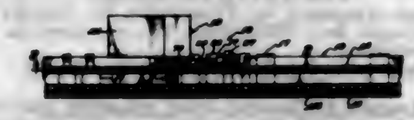
upon said container as they start to move away from the pick-up point.

2,840,966
FORMING AND FILLING TUBES FOR PACKAGE MAKING APPARATUS
Jack Dresden, Philadelphia, Pa.
Application August 1, 1956, Serial No. 601,529
3 Claims. (Cl. 53—177)



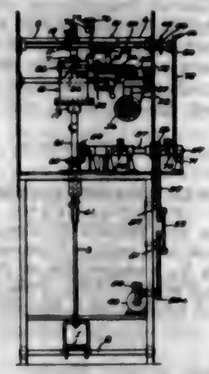
1. A web former for package making machines in which the longitudinal margins of an elongated strip of sheet material having a high elongation rate are brought together in overlapped relation for longitudinal sealing comprising a vertical abutment member for engagement by an inner of said margins, an upright shoe of round shape surrounding said abutment member and having inner and outer end portions in overlapping and spaced relation and the inner end portion in spaced relation to said abutment, said shoe having a top marginal strip engaging and guiding edge, said edge having diametrically oppositely disposed uppermost and lowermost web guiding edge portions with the top marginal edge at said overlapped positions being upturned.

2,840,967
BAG CLOSING MACHINE
Leland H. Platt, Leland H. Platt, Jr., and John D. Platt, Los Angeles, Calif.
Application March 19, 1954, Serial No. 417,383
23 Claims. (Cl. 53—198)



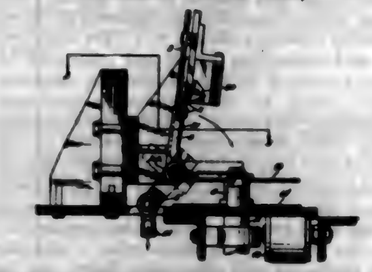
1. Apparatus for gathering and closing the neck portion of an initially distended and therefore open flexible bag, comprising bag advancing means forming a pair of opposed surfaces adapted to receive between them a side edge portion of the bag, drive means for moving one of said surfaces in a direction tending to advance the bag material between said surfaces, blocking means acting temporarily to block such advancement of the forward portion of the bag material being advanced so that the material is gathered back of the blocking means to a transversely reduced neck portion of the bag securable then in closed condition, and means in addition to said drive means for then producing relative movement of said advancing means and said blocking means in a direction causing said advancing means to move bodily relative to the blocking means in the direction of advancement of the bag while the advancing means are in engagement with a gathered bag neck to thereby advance said neck relative to the blocking means and thus free the neck.

2,840,968
APPARATUS FOR SEALING CONTAINERS
José Clement, Bezons, France, assignor to La Cellophane, Paris, France, a corporation of France
Application March 9, 1956, Serial No. 570,529
Claims priority, application France March 10, 1955
3 Claims. (Cl. 53—198)



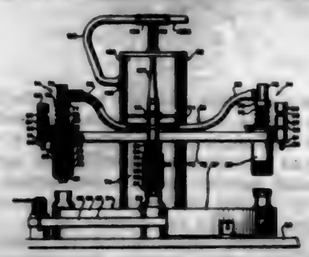
1. Apparatus for applying a sealing tape to a container comprising a container support, means mounting said support to rotate about a fixed axis, releasable means for securing a container on said support, drive means to rotate said support, a movable sealing head to apply a sealing tape to the rotating container, manual means to be advanced to release said securing means to permit a sealed container to be removed from said support and a second container to be inserted thereon and to be retracted to restore said securing means to holding position, means initiated by retraction of said manual means to advance said sealing head to apply the sealing tape to said container and to energize said drive means for rotating said container so as to wrap said sealing tape thereabout.

2,840,969
BOTTLE CAPPING MACHINE
John Hutchison, Upper Brookville, Theodore F. Aronson, Valley Stream, and Floyd A. Lyon, Upper Brookville, N. Y.
Application February 25, 1952, Serial No. 273,258
4 Claims. (Cl. 53—316)



1. Bottle stoppering apparatus comprising a lightweight arm pivotally mounted on a horizontal axis, means to feed bottles to a first predetermined position relative to said arm, means to feed stoppers to a second position relative to said arm, pickup means connected to said arm and adapted to hold one of said stoppers, and means to insert said stoppers comprising means to rotate said arm with a mapping motion about said horizontal axis.

2,840,970
STOPPERING APPARATUS
Frank E. Brown, Glendale, Calif., assignor to Unette Corporation, Burbank, Calif., a corporation of Delaware
Application March 7, 1955, Serial No. 492,461
7 Claims. (Cl. 53—324)



1. An apparatus for emplacing resilient bottle stoppers of the type having a flat diaphragm with a skirt depending centrally therefrom which comprises a stopper receiver having a recess in its undersurface, the transverse dimensions of said recess being less than the transverse dimensions of the diaphragm portion of the stopper to be emplaced, means for positioning a stopper with its diaphragm covering said recess with the edges of said diaphragm portion extending over the edges of said recess, means for evacuating said recess whereby the center of the diaphragm portion of a stopper covering said recess is drawn inwardly to retain said stopper on said stopper receiver, a bottle receiver having a vertical aperture aligned vertically with and spaced beneath said stopper receiver, means for positioning an unstoppered bottle in said vertical aperture with the open mouth of said bottle facing said stopper receiver, means for moving said stopper receiver toward said bottle receiver to position the skirt of a stopper retained on said stopper receiver in the mouth of a bottle positioned in said bottle receiver while rendering said evacuating means ineffective at the end of such movement whereby said stopper is released in the mouth of said bottle by said stopper receiver, means for removing said stoppered bottle from said bottle receiver, indexing means carrying said stopper receiver and said bottle receiver through four indexed stations wherein said means for positioning a stopper cooperates with said stopper receiver at one station, said bottle-positioning means cooperates with said bottle receiver at a second station, said means for moving said stopper receiver toward said bottle receiver operates at a third station and said means for removing a bottle cooperates with said bottle receiver at a fourth station.

2,840,971
DISC HARROW
Clarett B. Greeson, Rockford, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application March 18, 1954, Serial No. 416,237
2 Claims. (Cl. 55—73)

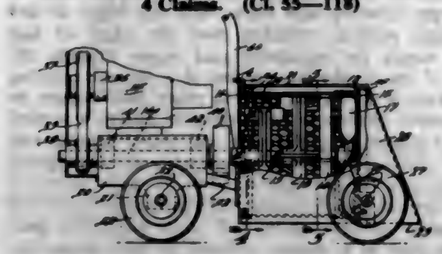
1. In a wheel type harrow for use with a tractor the combination of a frame, an axle rockingly secured to the frame in a position transverse to the direction of progress and having offset portions, ground engaging supporting means on said offset portions whereby rocking of said axle will cause raising and lowering of said frame in relation to the ground, means for so rocking said axle, a

drawbar structure substantially rigid with said frame and extending toward the tractor, a tongue portion pivoted for up-and-down swinging movement on said drawbar structure and having rigid therewith an upwardly directed actuating arm, means on said tongue portion for connection to a tractor, a plurality of harrow gangs carried on said frame for engagement with the ground when said frame is lowered, a generally downwardly extending actuating arm on the axle and, in one position of the parts,



extending in a direction generally parallel to the arm on said tongue portion, link means connecting said arms for swinging of said tongue portion in response to rocking of said axle, and including a forwardly and upwardly inclined threaded member and a second threaded member engaged with the first and having a control extending to a point within reach of an operator on the tractor, for effecting a corrective adjustment of the position of said tongue portions in relation to that of said axle.

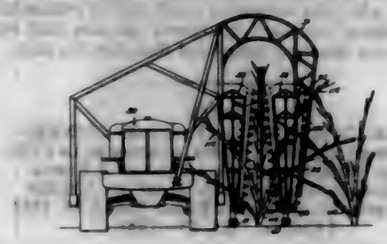
2,840,972
LAWN SWEEPER AND MATERIAL DISINTEGRATOR
Frank W. Schwarz, Berkley, Mich.
Application November 15, 1955, Serial No. 546,884
4 Claims. (Cl. 55—118)



1. In a combined lawn sweeper and material disintegrator, the combination of a horizontally disposed drum having an open front end, a closed rear end and a foraminous peripheral wall affording discharge openings for disintegrated material, an open bottomed housing mounted on said drum and surrounding the same in spaced relation whereby disintegrated material discharged through said openings may be delivered through the space between the drum and the open bottomed housing to the ground, said housing extending below the bottom of the drum, traveling wheels mounted on said housing, the front end portion of said housing providing a material pick-up nozzle in communication with the open front end of the drum, a rotatable shaft disposed axially in the drum, a suction fan mounted on said shaft adjacent said open front, and chopping blades mounted on said shaft intermediate the suction fan and said closed rear end, and means for rotating said shaft.

2,840,973
PICK-UP ATTACHMENT FOR CANE HARVESTERS
Byron C. Thomson, Thibodaux, and Paul F. Oswald, New Orleans, La., assignors, by direct and mesne assignments, to Thomson Machinery Company, Thibodaux, La., a corporation of Louisiana
Application August 22, 1956, Serial No. 605,543
15 Claims. (Cl. 56—15)

1. A cane harvester comprising a mobile frame, a forwardly and downwardly inclined elevating and gathering boom pivotally connected adjacent its upper end to said mobile frame, power operated means operatively inter-connected to said mobile frame and to said boom, a ground contour shoe pivotally connected at a rear portion of its top side to the lower portion of said boom, a shoe operated control means operatively connected to

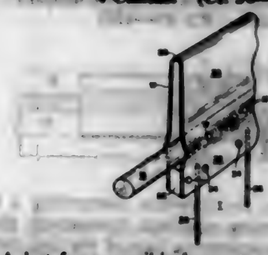


said boom and to the top side of said shoe spaced from said pivot, and actuating means operatively connected to said control means and said power operated means to cause alternate raising and lowering of said boom in response to pivotal movement of said ground contour shoe.

2,840,974
POWER MOWER ASSEMBLY WORK POSITION HOLDING MEANS
Thomas J. Dunn and Herbert W. Davis, Hackettstown, N. J., assignors to Certified Equipment Corporation, New York, N. Y., a corporation of New York
Application March 29, 1957, Serial No. 649,385
3 Claims. (Cl. 56—25)

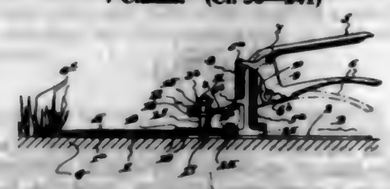
1. In a power mower attachment including an upstanding housing adapted to be secured in side by side relation with respect to a side of a tractor frame, an arm arranged on the side of said housing remote from the side adapted to be secured to the tractor frame side adjacent the lower end of said housing, and sloping downwardly and outwardly from the lower end of said housing and having the upper end connected to the lower end portion of said housing for swinging movement about a horizontal axis in upwardly and downwardly directions, an upstanding frame positioned adjacent the lower end of said arm and connected intermediate its ends to the lower end of said arm for swinging movement about a second horizontal axis parallel to and spaced from said first-named axis in upwardly and downwardly directions, an upstanding bracket arranged at a right angle with respect to said upstanding frame and connected to said frame for rotational movement about a vertically disposed pin carried by said bracket in clockwise and counterclockwise directions, a horizontally disposed reciprocatory knife mower assembly arranged on the forward side of said arm and extending transversely of said bracket and carried by said bracket for movement with the latter, a coil spring operatively connected to said pin for biasing said bracket toward the counterclockwise direction, the improvement consisting in a releasable cooperating means on said upstanding frame and bracket for retaining said mower assembly in its transverse position.

2,840,975
HARVESTER REEL BAT
Ernest H. Keller, Spokane, Wash.
Application March 31, 1955, Serial No. 498,291
4 Claims. (Cl. 56—219)



1. A bat for reversible harvester reels, comprising: an elongated metal bar having an aligned series of tines outstanding therefrom; an elongated flat-sided hollow sheet metal slat blade including a pair of opposed side walls joined by a bull nosed bend section forming the blade edge, said blade being hair-pin shaped in cross section, being positioned astraddle said bar, and outstanding from said bar in a direction opposite to said tines; means securing said blade to the bar; and an aligned journal means at the ends of said bat defining a longitudinal axis medially located between the outer ends of the tines and the bull nosed bend section of said blade.

2,840,976
GRASS CUTTING SHEARS AND THE LIKE
David Howard Keiser, Jr., West Lawn, Pa.
Application October 1, 1956, Serial No. 613,105
7 Claims. (Cl. 56—241)



1. Grass shears of the character described, comprising a base structure that includes a stationary cutting blade and an extension member arranged to project rearwardly of said blade in such manner that said blade and member will combinedly form a stationary ground contacting arrangement for the shears that extends substantially from one end thereof to the other, a handle member fixedly united with said base structure and spacedly arranged above the extension member in substantially parallel relation therewith, a movable cutting blade arranged in cooperative cutting relation with said stationary blade in such manner as to enable said blades to perform their grass severing function while the shears are held in operative position on the ground, a movable handle member operatively arranged between said fixedly united handle member and said base structure, and means actuated by said movable handle member to effect cutting action of said blades.

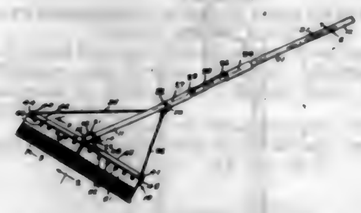
2,840,977
RAKING DEVICE HAVING RAKING BEAMS INTERCONNECTED BY ROTATABLE SUPPORTS
Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V., Maasland, Netherlands, a Dutch limited company
Application December 3, 1953, Serial No. 395,957
Claims priority, application Netherlands December 10, 1952
12 Claims. (Cl. 56—377)

1. A device for laterally displacing grass, hay or other material lying on the ground, comprising a number of raking beams, catching members, rotatable supports obliquely disposed with regard to the travelling direction, a frame with at least one rotatable raking mechanism constituted by said number of raking beams forming an angle with the travelling direction of the frame and adapted to move parallel to themselves, said beams being provided with said catching members and having their



corresponding extremities hingedly connected to said rotatable supports, said supports being parallel to one another and being mounted at the frame for free rotation, said raking mechanism being supported on the ground so that on forward movement of the frame the raking mechanism is put into rotation by its contact with the ground and material lying thereon.

2,840,978
GRASS RAKE AND GRAPPLE
Daniel Spinosa, Somerville, Mass.
Application October 31, 1956, Serial No. 619,623
5 Claims. (Cl. 56—400.04)

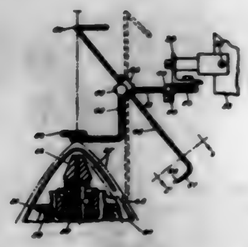


1. A combination rake and grapple comprising an elongated handle, a pair of diametrically opposed aligned rake elements, means pivotally securing said rake elements at their adjacent ends to one end of said handle, said pivot means lying in a plane forming an obtuse angle with respect to the longitudinal axis of said handle, slider means slidably disposed on said handle and movable relative to said handle, and means interconnecting said slider means and said rake elements at their respective ends remote from said adjacent ends, whereby movement of said slider means away from said one end of said handle pivots said rake elements inwardly toward said handle axis at an angle thereto for grasping of material.

2,840,979
YARN TWISTING APPARATUS
Albert D. Harmon, Pendleton, S. C., assignor to Deering Milliken Research Corporation, near Pendleton, Oconee County, S. C., a corporation of Delaware
Application April 29, 1955, Serial No. 504,889
11 Claims. (Cl. 57—58.83)

7. A two-for-one twisting apparatus including a rotatable spindle means, a normally non-rotating yarn

package support means carried by said spindle means, an annular yarn guide carried by said package support means and positioned to receive a yarn end as it is unwound from a supply package carried by said package support means, an apex guide positioned on the extended axis of rotation of said spindle means, yarn take-up means to withdraw the yarn end through said apex guide from



a yarn balloon created by the rotation of said spindle means; and movable yarn snaring means normally positioned to permit the passage of yarn from said supply package to said take-up means, and means for moving said snaring means into the path of an end of yarn passing from said supply package to said annular guide when a tensioned yarn end is not present between said apex guide and said yarn take-up means.

2,840,980
FLYER AND PADDLE OR PRESSER FOR FLYERS OF YARN OR THREAD WINDING MACHINES
James Whitehead, Oldham, England, assignor to William Bodden & Son Limited, Oldham, England
Application May 25, 1956, Serial No. 511,013
1 Claim. (Cl. 57—117)



A presser for a textile spinning machine comprising a vertical arm, pivots mounting said vertical arm on a conventional flyer whereby it can swing to and from a package whereon yarn is wound, a horizontal arm at the lower end of said vertical arm, a presser head on the end of said horizontal arm and remote from said vertical arm and constituting a continuation of said horizontal arm, two holes in said presser whose centers are on the line of the axis of the horizontal arm, the hole nearer said horizontal arm having a slot-like opening below said horizontal arm, the other hole having an opening on the top of said presser, a tapered groove extending between said holes in the outside face of said head and aligned with the centers of said two holes, a second tapered groove on the inside face of said head and extending forwardly from said other hole toward the end of said head whereby the yarn can be brought down the flyer and twisted round said horizontal arm and through said holes and leave said head by the second groove as it is wound on said package.

2,840,981
SPINNING RING FOR TRAVELERS
Hyatt B. Atwood, Buffalo, N. Y., assignor to Herr Manufacturing Co., Inc., Buffalo, N. Y.
Application June 7, 1954, Serial No. 435,016
3 Claims. (Cl. 57—139)



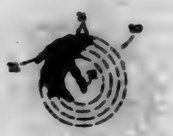
1. A spinning ring for travelers, comprising a hardened metal body having openings transversely thereof intersecting the traveler bearing face of the ring, tubular inserts of lubricant-adsorbing porous metal fitted in said openings and exposed at their inner ends in flush relation to the bearing face of the ring, wicks fitted in said inserts and extending substantially to said inner ends thereof, and a holder for the ring-body extending about the same and having an annular lubricant feed channel therein to which said wicks and the outer ends of said inserts are exposed.

2,840,982
EXPANSION BRACELET HAVING TWO PARALLEL ROWS OF CONNECTING LINKS
Karl E. Stingele, Huchenfeld, near Pforzheim, Germany, assignor to Rodi & Wienerberger Aktiengesellschaft, Pforzheim, Baden, Germany
Application July 25, 1956, Serial No. 599,990
Claims priority, application Germany August 17, 1955
4 Claims. (Cl. 59—79)



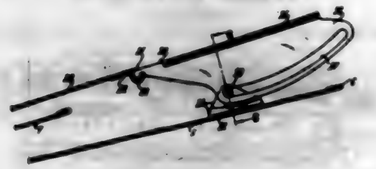
1. In an expansion bracelet in combination, a series of tubular links of substantially rectangular cross-section arranged in a single row extending lengthwise to the bracelet, each of said tubular links extending transversely to said row so that the bracelet has opposite engaging and outer surfaces lying in substantially parallel planes, each of said links having a pair of shorter opposite walls forming said outer and engaging surfaces, and a pair of longer opposite walls respectively located opposite corresponding longer walls of adjacent links; a plurality of first connecting means and a plurality of second connecting means, each of said connecting means being constituted by a pair of substantially U-shaped members having a base and a pair of legs, the legs of the U-shaped members of each pair projecting into two adjacent links from opposite ends of said links, said legs being arranged in two rows extending lengthwise to the bracelet and located respectively near said engaging and outer surfaces and entirely in opposite end portions of said links, and the bases of said U-shaped members being located outside of said links and extending in two rows lengthwise of the bracelet, the pairs of U-shaped members constituting said first connecting means being staggered lengthwise of the bracelet with respect to the pairs of U-shaped members constituting said second connecting means; and a pair of leaf springs resilient in longitudinal direction of the bracelet and located in each of said links and being respectively associated with said first and second connecting means, each spring of each pair of springs being engaged by a single pair of legs of a pair of said U-shaped members and urging said tubular links into an abutting position in which said longer walls of adjacent links abut each other and in which the bracelet is contracted.

2,840,983
RESILIENTLY COILED CHAIN CONSTRUCTIONS AND LINKS THEREFOR
Paul C. Kalbach, Rhinebeck, N. Y.
Application April 23, 1956, Serial No. 580,107
5 Claims. (Cl. 59—83)



1. A plurality of links interconnected to form a resilient self-coiling chain construction, each link including an under-looped portion and an upper-looped portion extending to overlie said under-looped portion, the latter extending beyond said upper-looped portion, a bight means interconnecting said under-looped and upper-looped portions and having folded leaf spring properties, said upper-looped and under-looped portions each having end sections extending through the bight means of an adjoining link forming a double eye-coupling, said loop sections being in a predetermined spaced relation to each other, said bight means serving to resist pressure forces applied to bring said end sections closer together, said bight means of one link and end sections of an adjoining link being so constructed and arranged to permit maximum spacing of said loop sections of said first link when the links are disposed at less than 180 degrees providing the self-coiling action of the chain construction and movement of the links toward a 180 degree uncoiling relation causing compression of said sections within said bight means applying a resilient force for returning the chain construction to said self-coiling condition.

2,840,984
LONGITUDINALLY MOVABLE SHROUD AND VARIABLE AREA EXIT NOZZLE FOR JET ENGINE AFTERBURNER
Richard G. Lasher, Van Nuys, Calif., assignor, by mesne assignments, to Westinghouse Electric Corporation, a corporation of Pennsylvania
Application August 15, 1952, Serial No. 304,690
5 Claims. (Cl. 60—35.6)



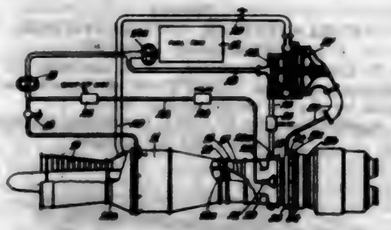
1. In a jet engine afterburner, a variable area exit nozzle having a circumferentially enlarged position for afterburning operation and a circumferentially diminished position for non-afterburning operation, a generally tubular shroud surrounding the afterburner and converging to an aft end opening adjacent said variable area nozzle opening, said shroud having an open forward end for admission of cooling air, means for actuating and positioning said shroud longitudinally aft of said nozzle for increased flow of cooling air during afterburning and for returning said shroud to forward position for non-afterburning operation; and cam mechanism between the shroud and the variable area exit nozzle effective upon aft movement of the shroud to increase the nozzle exit area and effective upon forward movement of the shroud to diminish the nozzle exit area.

2,840,985
JET PIPE WITH PIVOTED OUTLET-AREA-VARYING NOZZLE ELEMENTS
Cyril Albert Elliott, Littleover, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application March 27, 1953, Serial No. 344,978
Claims priority, application Great Britain April 10, 1952
9 Claims. (Cl. 60—35.6)



1. A jet nozzle comprising a jet pipe having inner and outer skins, the inner skin defining a channel for the flow of hot jet gases and the outer skin being spaced away from the inner skin to be cooler than the inner skin, said jet pipe having an outlet therefrom, a nozzle segment, pivot bearing means supporting said nozzle segment for pivotal movement relative to the outlet of the jet pipe to vary the effective outlet area thereof, said nozzle segment when in position to reduce the jet pipe outlet area intercepting a portion of the hot jet gas and thereby transmitting an axial thrust to the pivot bearing means, peripherally-extending gas sealing means including a first sealing element carried externally by said inner skin and a co-operating sealing element carried by the nozzle segment, and support means carried by said outer skin and carrying said pivot bearing means with freedom of the latter for movement relative to the outer skin in a direction substantially parallel to the axis of the jet pipe, whereby differential axial expansion of the inner and outer skins is compensated by substantially axial movement of the pivot bearing means relative to the outer skin to ensure abutment of the sealing elements with one another around their peripheries.

2,840,986
AFTER-BURNER FUEL SUPPLY SYSTEM FOR GAS-TURBINE ENGINES
David Omri Davies, North Kingsway, John Sutcliffe Jones, Wallasey, and George Guilanoff, Allestree, England, assignors to Rolls-Royce Limited, Derby, England, a British company
Application April 13, 1953, Serial No. 348,342
Claims priority, application Great Britain April 29, 1952
6 Claims. (Cl. 60—35.6)



3. In combination, a jet-reaction-propulsion gas turbine engine, a jet pipe connected to receive exhaust gases from the engine and adapted to deliver the exhaust gases to atmosphere as a propulsive jet, said jet-pipe comprising an inner wall defining the exhaust gas passage and an outer wall around the inner wall and spaced therefrom to form an annular cooling air passage with an inlet at one end, and means to deliver fuel into the jet pipe to be burnt with the exhaust gases therein including fuel injectors adapted to deliver into the jet pipe, a fuel pump connected to deliver fuel to said fuel injectors, an air-turbine connected to the fuel pump to drive it, a manifold adjacent said inlet to the annular cooling air passage

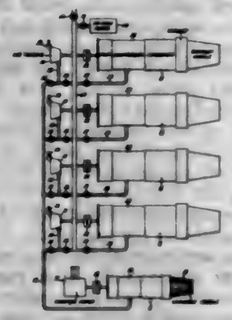
and connected to receive exhaust air from said air turbine, restricted passage means connecting the manifold to the annular cooling air passage, whereby the pressure ratio across the air turbine is limited, and moving nozzle parts co-operating with said jet pipe at its outlet end and movable to vary the effective area of the outlet, said nozzle parts being adapted to be cooled in operation by air flowing out from said annular cooling air passage.

2,846,987

IMPROVED METHOD AND ARRANGEMENT FOR STARTING REACTION TYPE PROPULSION UNITS USING AN AUXILIARY REACTION TYPE PROPULSION UNIT

David J. Bloomberg, Newton, Mass., and Neil Burgess, Madeira, Ohio, assignors to General Electric Company, a corporation of New York

Application March 23, 1953, Serial No. 344,166
5 Claims. (Cl. 60—39.14)



1. In a jet propulsion apparatus comprising a plurality of jet reaction-type units each having an individual starter air turbine, an auxiliary reaction-type propulsion unit adapted to initiate the operation of the remainder of said plurality of units and having a variable exhaust nozzle and with low energy starting characteristics, means for conveying pressurized fluid therefrom to said individual starter air turbines of said remainder of said plurality of units, and means for selectively controlling the flow of said fluid to said individual starter air turbines.

2,846,988

FUEL CONTROL APPARATUS FOR SUPERSONIC RAMJET

John P. Longwell, Westfield, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application July 17, 1952, Serial No. 299,441
6 Claims. (Cl. 60—39.28)



1. In combination, an aerial missile having a body in the form of an elongated tubular duct, a diffuser and a combustor in said duct, means for deriving the static and impact pressures in said duct at the diffuser exit, a device controlled by said static and impact pressures, a fuel line, and a flow control valve actuated by said device, said valve being interposed in said fuel feed line.

2,846,989

END CAP FOR COMBUSTOR

Robert Wallace Macaulay, Cincinnati, Ohio, assignor to General Electric Company, a corporation of New York

Application September 13, 1955, Serial No. 534,455
7 Claims. (Cl. 60—39.65)



1. A combustor end cap having a generally hemispherical annular shroud portion, the inner part of said shroud having ports for metering air passing therethrough, two annular coaxial segments of different diameters mounted within said shroud in partial overlapping, resiliently connected, spaced fashion with the smaller inner segment upstream of the larger outer segment, the outer edge of said outer segment being in slidable contact with said shroud, means to resiliently connect said inner segment and the inner edge of said shroud, and a nozzle receiving ring having apertures for the passage of cooling air around its inner periphery fixed to the inner edge of said inner segment, said outer segment having a plurality of louvers in overlapping rows therein, said louvers having their slits arranged in a generally radial direction.

2,846,990

MULTISTAGE FUEL INJECTION FOR RAM-JET COMBUSTOR

John P. Longwell, Westfield, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application July 17, 1952, Serial No. 299,443
7 Claims. (Cl. 60—39.72)



1. In combination, an aerial missile having a body in the form of an elongated tubular duct, a diffuser and a combustor in said duct, a fuel source having a fuel chamber in said body, and nozzle means connected with said fuel chamber and communicating with said duct, said nozzle means being located upstream from said combustor, said nozzle means including an upstream set of fuel injection nozzles and a downstream set of fuel injection nozzles, and a venturi for each of said nozzles, said nozzles being arranged to inject said fuel into airstreams passing through said venturis at the throats thereof in a direction contra to the flow of said airstream through said venturis, said sets of nozzles being separated from each other by a distance approximately one-half the wavelength of the periodic pressure fluctuation in said combustor.

2,846,991

ROTARY PUMP AND MOTOR HYDRAULIC TRANSMISSION

John L. Nisbet, Winston-Salem, N. C.

Application June 24, 1954, Serial No. 439,111
21 Claims. (Cl. 60—53)



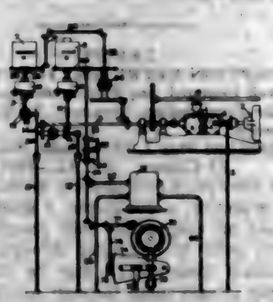
11. A pump and motor transmission comprising at least a first and a second fluid unit structure each comprising an irregular core cam, a mating female cam slidably mounted for axial movement on said core cam, a circular wall member having one of its ends contacting one end of said female cam and in which the adjacent end of the high point or points of the core cam have sliding rotational movement, at least one vane slidably penetrating said circular wall member, means to maintain said vane in contact with the periphery of the core cam, a circular closure member on said adjacent end of the core cam and in which said vane has sliding radial and axial movement, each closure member and the adjacent end of the respective female cam defining a work chamber therebetween, a stationary housing in which the two female cams, their respective circular wall members and their respective vanes have unitary axial sliding movement and in which said female cams have rotative movement, means for driving the core cam and female cam of the first unit structure whereby the first unit structure serves as the pump and the second unit structure serves as the motor, said housing and each circular wall member having coinciding fluid passageways therein communicating with the respective work chambers closely adjacent opposite sides of each vane, conduit means connecting each passageway of the pump with a corresponding passageway of the motor, and means to increase the size of the chamber of the motor in response to decreasing the size of the chamber of the pump and vice versa whereby the core cam of the pump transmits pressure to, and drives, the core cam of the motor at varying ratios.

2,846,992

SYNCHRONIZING CONTROL FOR MOTION REPRODUCING DEVICES

William H. Newell, New York, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application August 4, 1942, Serial No. 453,549
14 Claims. (Cl. 60—53)



1. Motion reproducing mechanism comprising a receiver of a transmission system, a driven shaft, a reversible servomotor operatively connected to the driven shaft, a control member having means for adjusting the direction and speed of the servomotor, means for comparing the movements of the receiver and of the driven shaft including an output element, motive means for positioning the control member operatively connected to the output element, an auxiliary motor, means for introducing the movement of the auxiliary motor into the comparing means to modify the position of the output element, and means controlled by the output element for energizing the auxiliary motor.

2,846,993

EXPANSIBLE DRIVING CORE FOR DRIVING PILE SHELLS

Howard F. Cundill, Arlington Heights, Ill.

Application March 18, 1957, Serial No. 646,740
18 Claims. (Cl. 61—79)



1. In an expansible driving core for driving pile shells, the combination of an axially extending stem, a plurality of expansible leaves surrounding said stem, a plurality of vertically spaced cams on said stem for each leaf, and a plurality of cam followers on each leaf cooperating with said cams, said cams comprising inclined bars sloping upwardly and outwardly relatively to said stem, and said cam followers having holes embracing outer and inner surfaces of said cam bars, whereby relative axial motion between said stem and said leaves in one direction effects positive expansion of said leaves into engagement with the pile shell at the beginning of the driving operation, and whereby relative axial motion in the opposite direction effects positive retraction of said leaves out of engagement with the pile shell at the completion of the driving operation in the core retracting operation.

2,846,994

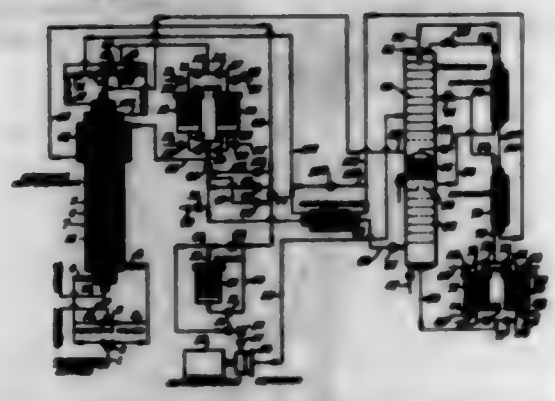
METHOD OF SEPARATING GASEOUS MIXTURES

Walter E. Lobo, Westfield, N. J., and George T. Skaperdas, New York, N. Y., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application January 31, 1947, Serial No. 725,514
8 Claims. (Cl. 62—14)

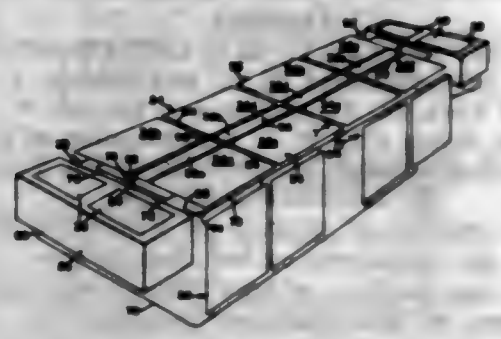
1. In the method of treating air wherein a stream of compressed air, containing carbon dioxide as an impurity, is passed in one direction of flow through a reversing heat exchange zone in heat exchange relation with relatively cool counterflowing fluid, obtained from the air in a later stage of treatment and not greater in mass quantity than said stream of air, to effect cooling of the air and resultant precipitation of the impurity in a colder portion of the heat exchange zone, and wherein the stream of air and a second gaseous stream comprising at least a portion of said counterflowing fluid and substantially free of the impurity and at lower temperature than said colder portion are alternated one with the other in two paths

of the heat exchange zone whereby the second gaseous stream passes over precipitated impurity and evaporates it, and further wherein a part of the stream of cooled air is subjected to expansion with production of external work and another part is subjected to subsequent treatment in compressed condition; the improvement which comprises cooling the stream of compressed air in the heat exchange zone to a temperature below the precipitation temperature of the impurity, removing the stream of cooled air from the heat exchange zone, passing a fluid stream of cooled air, in countercurrent heat exchange with said stream of compressed air through a separate path in the heat exchange zone disposed in heat exchange relation with at least a part of said colder portion whereby said fluid stream is warmed by additionally cooling said stream of compressed air to maintain a difference between the



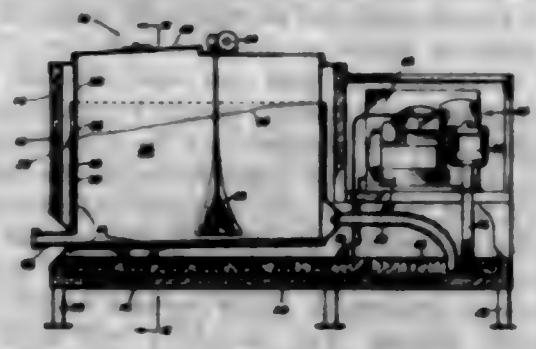
temperature at which the precipitation of impurity occurs at any point in said colder portion and the temperature at which said second gaseous stream passes over precipitated impurity which is less than would exist but for the passage of said fluid stream through the separate path, removing the fluid stream from the separate path, passing a fraction thereof in heat exchange with at least a part of said second gaseous stream passing to the reversing heat exchange zone and cooling the fraction sufficiently to provide for an average temperature when said fraction is subsequently combined with a second fraction of said fluid stream which average temperature is suitable for effecting vapor phase expansion of the combined fractions, combining said fractions thereby obtaining said average temperature and producing the combined fractions as air to be subjected to expansion and then expanding with production of external work.

2,840,995
REFRIGERATOR USING SOLID CARBON DIOXIDE
Frederick E. Hazard, Chicago, Ill.
Application October 3, 1955, Serial No. 536,236
17 Claims. (Cl. 62—167)



9. For a container having opposite end walls, opposite side walls and a top wall, a refrigerating system comprising: a bunker at one end of the container and having wall means defining a chamber adapted to contain a solid refrigerating medium of the type characterized by sublimation and the production of a gas, and said wall means including in heat-exchange relationship to said chamber a reservoir for containing a fluid from which heat is abstracted by the solid refrigerating medium; said chamber having a gas outlet through its wall means and said reservoir having a fluid inlet and a fluid outlet and being sealed against gas and fluid interchange with the chamber; fluid-circulating heat-exchanger means along certain of the walls of the container and connected to the fluid inlet and outlet of said reservoir; and self-contained insulating means adjacent to and substantially coextensive with at least another wall of the container and wholly separate from the container walls and defining gas-receiving cells, certain of said cells being connected to the gas outlet of the bunker chamber.

2,840,996
MILK COOLER
Theodore B. Steinhorst and Henry W. Steinhorst, Utica, N. Y., assignors to Emil Steinhorst & Sons, Inc., Utica, N. Y.
Application January 11, 1955, Serial No. 481,189
11 Claims. (Cl. 62—189)

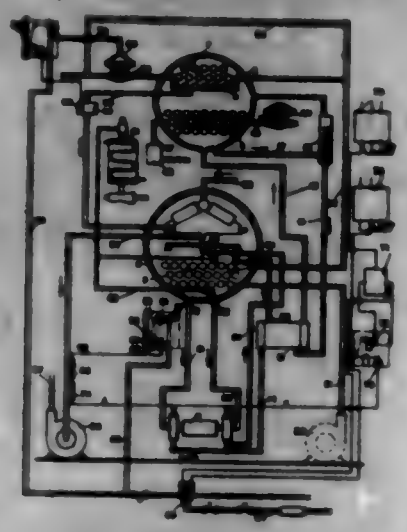


1. Apparatus for cooling milk of the water cooled, bulk milk cooler type which comprises, an outer cabinet having insulated walls and bottom, a sump tank positioned in the bottom of said cabinet, an evaporator coil of a refrigerating system positioned adjacent the bottom of said sump tank, a stainless steel cylindraform milk tank liner open at the top and mounted in said cabinet so that the bottom thereof is above the water level in said sump tank, an outer shell surrounding the lower portion of said liner and spaced closely adjacent thereto, a plurality of weeper holes positioned in the bottom of said shell adjacent one end thereof, a plurality of tie members disposed between said liner and shell to join said outer shell to said liner, flared water inlet means for introducing water between said liner and shell, an overflow dam member positioned along one end of said shell to permit discharge of water from between said shell and liner into said sump tank, pump means for circulating water from said sump through said inlet means and out said overflow dam and back to said sump tank, refrigerating means connected to said evaporator coil for cooling the water in said sump, and control means for regulating the temperature and flow of said water.

2,840,997
ABSORPTION REFRIGERATION SYSTEMS
Louis Howell Leonard, Jr., East Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application May 2, 1955, Serial No. 505,369
11 Claims. (Cl. 62—494)

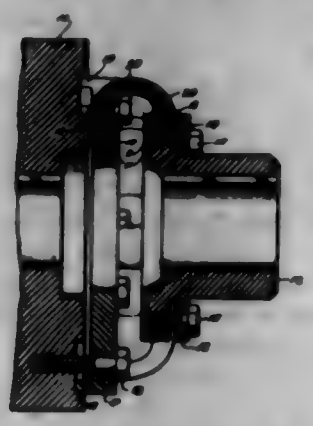
1. In an absorption refrigeration system, the combination of a generator, a condenser, a shell containing an absorber and an evaporator, said absorber including a sump, a first outlet in said sump through which solution of intermediate concentration may be withdrawn and a second outlet in said sump through which weak solution may be withdrawn, means for withdrawing weak solution through the second outlet and for supplying the withdrawn weak solution to the generator, means for supplying strong solution from the generator to the absorber without admixture with weak solution prior to its dis-

charge in the absorber, and means for withdrawing the solution of intermediate concentration through the first



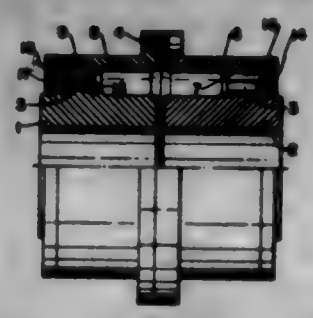
outlet and for discharging the withdrawn solution of intermediate concentration in the absorber.

2,840,958
COUPLINGS
Herwarth Reich, Bochum, Germany
Application February 23, 1956, Serial No. 490,875
Claims priority, application Germany February 23, 1954
13 Claims. (Cl. 64—12)



4. An elastic coupling comprising, in combination, two oppositely arranged rotary coupling discs having opposite inner faces respectively formed with a plurality of recesses, each recess having a center portion extending along a chord and two end portions opening on the periphery of the respective coupling discs, said recesses defining inwardly projecting lugs on said inner faces of said coupling discs; a set of elastic coupling members arranged spaced from each other along the peripheral portions of said coupling discs, each coupling member consisting of a resilient material and including a yoke portion and two leg portions having free end portions respectively secured to said coupling discs, each coupling member having a pair of lateral edges bounding said yoke portion and said leg portions, said coupling members being arcuate and having an inner face formed with a pair of opposite recesses located in the region of said leg portions and receiving opposite projecting lugs of said two coupling discs; first reinforcing means embedded in said coupling member and including oblique portions crossing each other in said yoke portion of said coupling member, curved portions located at said lateral edges of said coupling member, and transverse portions located in said free end portions of said coupling member, said first reiforcing means consisting of cords wound in an endless 8-shaped strand having two loops surrounding, respectively, said recesses in said coupling member for reinforcing the same against the forces exerted by said lugs of the coupling discs; and second reinforcing means embedded in said coupling member and including a pair of lateral reinforcing portions respectively extending along said lateral edges of said coupling member and a pair of transverse portions respectively connecting the ends of said lateral reinforcing portions and being located in said free end portions of said coupling member, said second reinforcing means consisting of cords wound in an endless strand.

2,840,997
FLEXIBLE SHAFT-COUPLING
Josef A. Denner, Duesseldorf, and Paul A. Köpke, Mettmann, Rhineland, Germany
Application August 29, 1955, Serial No. 531,844
Claims priority, application Germany September 3, 1954
5 Claims. (Cl. 64—15)



1. A flexible shaft coupling comprising a hub member externally formed with a circumferentially spaced set of torque-transmitting teeth defining a circumferentially spaced set of socket grooves, a sleeve member internally formed with a circumferentially spaced set of torque-transmitting teeth defining a circumferentially spaced set of socket grooves, each groove of the hub member being at the circumferential position of a groove of the sleeve member and therewith defining a socket, and, mounted in each of the sockets, torque-transmitting and cushioning means comprising a set of C-shaped, transversely split, spring-metal rings all arranged in side-by-side relation to one another, so that the set of rings is in effect a single, laminated unit, but with numerous lamina acting respectively as individual springs.

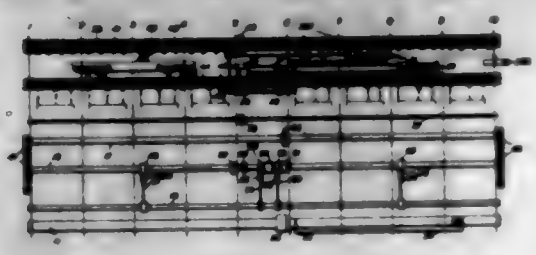
2,841,000
RESILIENT GEAR
John H. Parks and Rollin P. van Zandt, Peoria, Ill., assignors to Caterpillar Tractor Co., Peoria, Ill., a corporation of California
Application September 6, 1955, Serial No. 532,633
3 Claims. (Cl. 64—27)



3. A gear structure having a hub member rotatable about an axis, a toothed ring member mounted for rotation relative to said hub member, a chamber defined between said members, a key formation in one of said members within said chamber, anchor means on said other member disposed in diametral relationship to said key formation, a solid curved spring with its ends engaging said key formation and anchor means whereby angular displacement of the relative positions of said key formations shortens the distance therebetween and compressively stresses said spring in either direction of displacement from normal, and means formed in one of said members adjacent the key formation in the other member

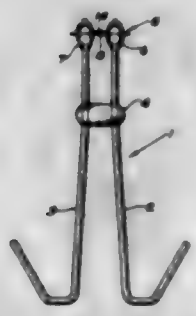
presenting a solid abutment in response to excessive displacement of the relative key positions caused by peak torsional loads.

2,841,001
STRAIGHT BAR KNITTING MACHINE
Patrick Gideon McCarthy, Loughborough, and Denis Winfield, Shepshed, England, assignors to William Cotton Limited, Loughborough, England
Application April 24, 1953, Serial No. 350,851
Claims priority, application Great Britain January 28, 1953
16 Claims. (Cl. 66—82)



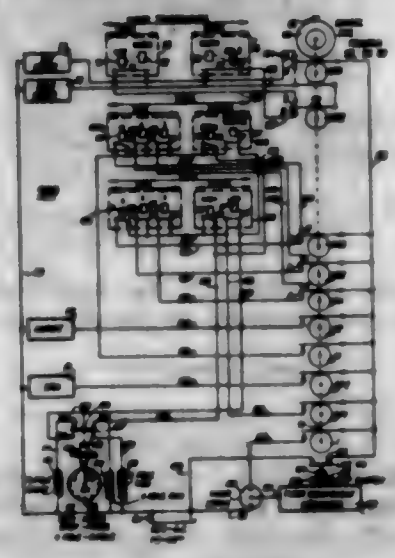
1. A multi-division straight bar knitting machine organized to knit underwear and outerwear and to fashion the same by widening or narrowing as required, of the type having a plurality of needle divisions disposed end to end and each comprising a needle bar with needles, associated knitting elements, yarn carriers having a variable amplitude of traverse, and fashioning mechanism for widening or narrowing as required, and having mechanisms, common to a plurality of needle divisions, for operating the needle bars and associated elements and for traversing the carriers to and fro in knitting fabric blanks simultaneously on all divisions, and further mechanisms for operating the fashioning mechanisms in narrowing or widening and for varying the traverse of the carriers; the traverse-varying mechanism including automatically-racked lead screws; which machine has a plurality of the said lead screws, and a plurality of hand controls for rotating them by hand, grouped at an intermediate location in the length of the machine between two adjacent needle divisions.

2,841,002
PHOTO FLASH LAMP
Paul A. Dell, Highland Heights, and Conrad E. Bochard, Lyndhurst, Ohio, assignors to General Electric Company, a corporation of New York
Application June 5, 1957, Serial No. 663,748
4 Claims. (Cl. 67—31)



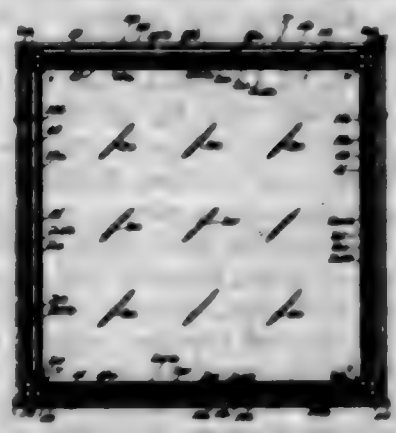
1. A flash lamp comprising a sealed light-transmitting envelope containing a combustion supporting gaseous filling and a quantity of readily combustible material loosely arranged within the envelope, electric ignition means for said combustible material comprising a pair of lead-in wires sealed through the wall of and extending into said envelope, and an ignition filament within said envelope and having its opposite ends firmly secured to the inner ends of said lead-in wires to electrically connect the filament thereto, said filament having a portion thereof between said lead-in wires flattened into approximately a rectangular cross-section, beads of primer on said filament and lead-in wires where the filament is secured to the lead-in wires, and additional primer on the flattened portion of the filament.

2,841,003
CONTROL CIRCUITS FOR AUTOMATIC CLOTHES WASHING MACHINES
George D. Conloe, Franklin Park, Ill., assignor to General Electric Company, a corporation of New York
Application January 17, 1955, Serial No. 482,371
11 Claims. (Cl. 68—12)



11. In a clothes washing machine adapted to proceed through a predetermined cycle of operations for washing and drying clothes, a rotatable wash basket, a clothes agitator disposed within said basket, drive means including a drive motor for operating said agitator at either of two predetermined speeds for washing the clothes and for rotating said basket at either of two predetermined speeds for extracting water from the clothes, manually operable control means including a first manually operable controller for preselecting the agitator speed independently of the basket speed and a second manually operable controller for preselecting the basket speed independently of the agitator speed, and cycle controlling means for selectively governing said drive means to operate said agitator at its preselected speed and to rotate said basket at its preselected speed, whereby said predetermined cycle either of said agitator speed may be used with either of said basket speeds for washing and for drying the clothes.

2,841,004
SELF-SEALING WALL TILES
Mario Maccanferri, Rye, N. Y.
Application August 21, 1952, Serial No. 305,657
1 Claim. (Cl. 72—18)



A tile adapted to be pressed against a mastic coating in position adhered thereto comprising, in combination, a thin tile body of plate form having a marginal body portion providing outer edges therearound; said marginal body portion having a rearwardly extending continuous

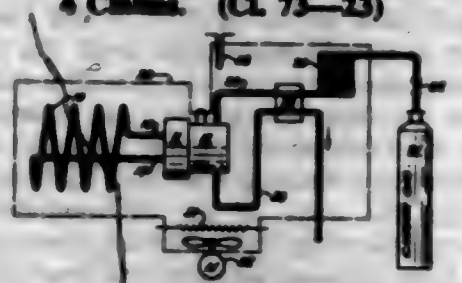
outer edge flange thereabout surrounding the rear surface of said tile body; said continuous outer edge flange providing a side edge flange portion along each outer edge of said marginal body portion of said tile body; a set of a plurality of closely spaced, continuous and substantially parallel, narrow mastic knifing sealing ribs on the rear side of said marginal body portion in position substantially parallel with each side edge flange portion; all adjacent ribs of said plurality of closely spaced, narrow sealing ribs of each of said sets of sealing ribs forming therebetween and therealong a narrow channel; said sets of narrow, substantially parallel sealing ribs including all of the ribs of each set thereof being positioned at locations on the rear side of said marginal body portion along and immediately adjacent to but with the outermost ribs of said sets of ribs spaced inwardly a slight distance from said edge flange portions, respectively, forming therebetween and therealong narrow channels; each of said sets of sealing ribs extending completely across the rear side of said tile body and of said marginal body portion thereof with each of said narrow sealing ribs of each of said sets of ribs at the opposite ends thereof being extended to the adjacent side edge flange portions, respectively, of said continuous outer edge flange providing a plurality of continuous and unbroken sealing ribs completely around the rear side of said marginal body portion immediately adjacent to and along said side edge flange portions of said continuous outer edge flange of said tile body.

2,841,985

CHROMATOGRAPHIC METHOD AND APPARATUS

Norman D. Coggeshall, Verona, Pa., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application December 11, 1956, Serial No. 627,598
4 Claims. (Cl. 73—23)



1. A partition chromatography apparatus which comprises an elongated tubular partition column containing a partitioning media, the two ends of said column being rigidly mounted on a rotatable head, said rotatable head having two channels passing therethrough which communicate respectively with the two ends of said column, said rotatable head being rotatably mounted on a stationary charge inlet block, said block having a carrier fluid channel and an effluent channel passing therethrough, the openings of such channels on the surface of contact of said block with said rotatable head being so positioned that when the carrier fluid channel communicates with either of the channels in the rotatable head the effluent channel communicates with the other channel in the rotatable head, a carrier fluid line connecting the carrier fluid channel with a source of carrier fluid, an effluent line connecting the effluent channel with a detecting means and means for introducing a fluid charge mixture into the carrier fluid channel.

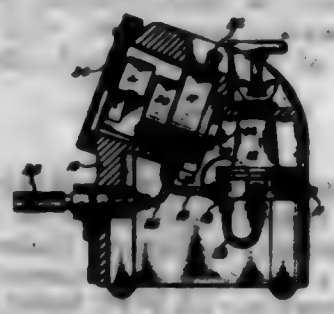
2,841,986

PNEUMATIC GAUGING DEVICE

Ralph C. Baker, Dayton, Ohio, assignor, by mesne assignments, to The Sheffield Corporation, a corporation of Delaware

Application April 23, 1954, Serial No. 425,289
15 Claims. (Cl. 73—37.9)

1. A gauging apparatus comprising means providing a flow path adapted for connection at one end to a source of fluid under pressure, an outlet connection at the other end of said flow path adapted for connection to a gauging head, a restrictor in said flow path, a gauging means connected to said flow path and responsive to the pressure in the flow path at one point therealong downstream of said restriction, and an automatically controlled restriction



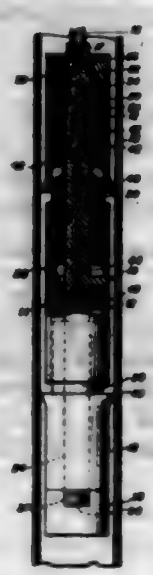
means in said flow path between said gauging head connection and said restrictor including a movable flow controlling member subjected to the pressure changes at said one point along the flow path for varying the fluid flow through the flow path and modifying the response of the gauging means.

2,841,987

APPARATUS FOR TESTING OIL WELL CASING OR THE LIKE

Glenn L. Loomis, McAllen, Tex., assignor, by mesne assignments, to Loomis Hydraulic Testing Co., Inc., a corporation of Texas

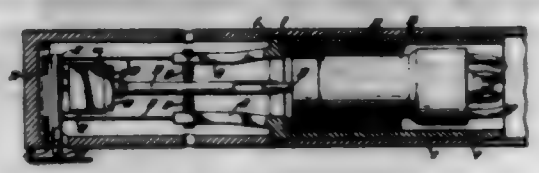
Application January 10, 1955, Serial No. 480,741
13 Claims. (Cl. 73—40.5)



1. In an apparatus adapted for testing sections of well pipe or the like with a testing fluid, an elongated tester body of substantially smaller diameter than the diameter of the pipe to be tested and having a longitudinally extending bore therein closed at its lower end, spaced packer members mounted exteriorly on said tester body and having a normal exterior diameter less than the diameter of the pipe to be tested to thereby provide annular clearance therebetween, said packer members having peripheral lips which are oppositely disposed to each other, means on each end of said tester body to retain and limit longitudinal movement of said packer members, said last mentioned means having a diameter substantially equal to the diameter of said spaced packer members, means continuously responsive to fluid pressure in the bore of said tester body for causing said packer members to compress longitudinally against said retaining means and expand transversely into initial sealing engagement with the wall of the pipe to thereby seal off a section of pipe to be tested, means positioned in said tester body intermediate of said spaced packer members and operable in response to a predetermined pressure of testing fluid higher than the pressure of testing fluid necessary to in-

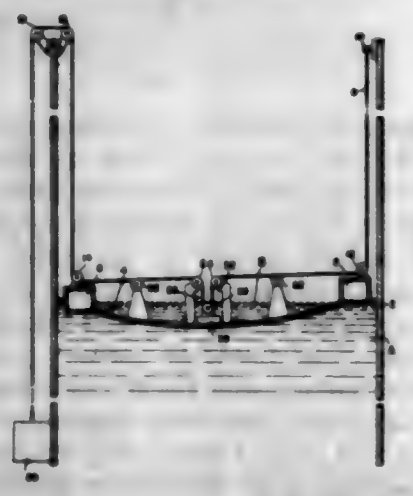
itially cause said packers to compress longitudinally and expand transversely into sealing engagement with the well pipe, said last mentioned means when operable permitting testing fluid to enter the sealed-off section between said packers and flow underneath the lips of said packers so as to couple with the operation of said means continuously responsive to fluid pressure for maintaining said packers in sealing engagement with the well pipe while the section of well pipe is being tested.

2,841,008
SURFACE SMOOTHNESS MEASURING MEANS
John H. Brems, Detroit, and Joseph B. Bidwell, Royal Oak, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 15, 1951, Serial No. 246,853
8 Claims. (Cl. 73—105)



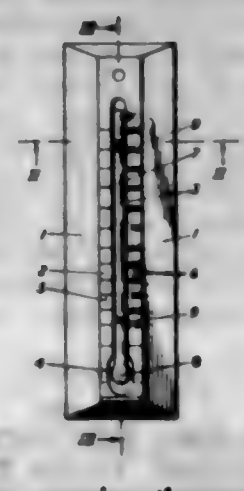
1. A pickup unit for measuring surface smoothness comprising an elongated hollow casing, a sleeve of shorter length fitting within said casing, spaced resilient members supported on the inner end of the sleeve, a stylus holder connected to the ends of the members and movable transversely of the casing and extending through an opening in the side of said casing, an electron tube mounted within said sleeve and having a resilient inner end wall capable of being deformed but maintaining a given position of rest, and an electrode within the tube secured to said end wall to be moved from outside the tube, a projection secured to said wall to move the same and the electrode to vary the position of the latter, and means interconnecting said stylus holder and the projection to transfer movement of the stylus holder to the tube element.

2,841,009
TANK GAUGE
Fred M. Mayes, Newtown, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application October 17, 1955, Serial No. 540,728
1 Claim. (Cl. 73—321)



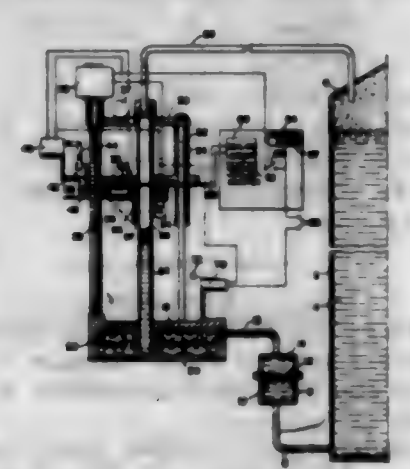
Gauging means for a tank having a floating roof comprising a flexible member, means anchoring one end of said flexible member at a fixed level above an edge portion of said roof, guiding means carried by said roof and directing said flexible member across the roof from said edge portion to a second edge portion of said roof substantially diametrically opposite the first mentioned edge portion, guiding means located at a fixed level above said second edge portion, means for maintaining said flexible member taut, and indicating means associated with said flexible member, said flexible member having free movement past the guiding means carried by the roof and past the last mentioned guiding means so as to move freely between said edge portions of the roof during roof movements, with movements at the last mentioned guiding means substantially proportional to vertical movements of the central portion of the roof irrespective of inclination of the roof.

2,841,010
METHOD OF SECURING THERMOMETER TUBES TO A BASE
Francis Alfred Garrett, Wentworth, Virginia Water, England
Application May 26, 1954, Serial No. 432,494
Claims priority, application Great Britain February 26, 1954
1 Claim. (Cl. 73—376)



A method of firmly securing thermometer tubes on a base having a longitudinal groove and paired fastening receiving abutment forming openings which consists in applying said tube to the groove in the base, inserting substantially U-shaped wire loops about the tube through said fastening receiving openings whereby their limbs extend toward the rear face of the base, drawing one limb of the wire from behind the base to draw the wire through said apertures and causing the other limb to bend over and embrace the body of the thermometer stem, and simultaneously forming, by continued drawing of the first mentioned limb, splayed portions that bear with clamping pressure against the abutment sides of said openings to hold the tube to the base, and finally severing the excess wire of the drawn leg behind the base.

2,841,011
PRESSURE MEASURING DEVICE
Fred M. Mayes and Elmer T. Young, Newtown Square, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application June 19, 1956, Serial No. 592,282
6 Claims. (Cl. 73—401)



1. In combination, a manometer comprising a light-transmitting tube and a liquid therein, a member mova-

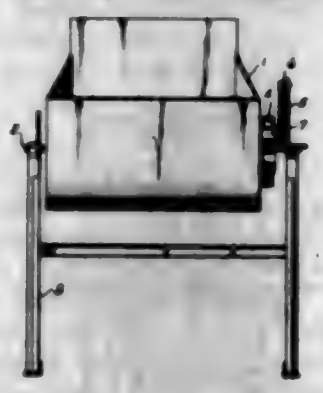
ble along said manometer tube and carrying means providing a beam of light traversing said manometer tube, and means effecting chopping of the beam to provide light pulses the number of which is a function of the displacement of said member, means responsive to the light pulses, and counting means operated by the last mentioned means.

2,841,012
FLUID SAMPLERS
Harold Romer, Brooklyn, N. Y.
Application February 20, 1956, Serial No. 566,679
10 Claims. (Cl. 73—421)



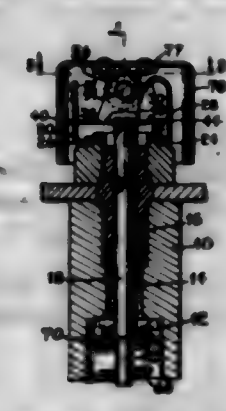
1. A continuous liquid sampling device comprised of a bottle, a stopper therefor and hoses, one of the said hoses having a shut off valve at one end and having its other end extending into the bottle, a wall of said hose having a hole therethrough intermediate its ends for liquid intake purposes, the other hose also having an end extending into the bottle and its other end being provided with an exhaust valve and both said hoses being of such an extended length as to be able to reach the surface of the body of water being sampled whereby when the bottle is filled with a gaeous element under pressure and the exhaust valve opened the desired sample can flow into the bottle.

2,841,013
MORTAR BATCHING DEVICE
Harold A. Gadsden, Washington, D. C.
Application May 4, 1955, Serial No. 505,953
3 Claims. (Cl. 73—429)



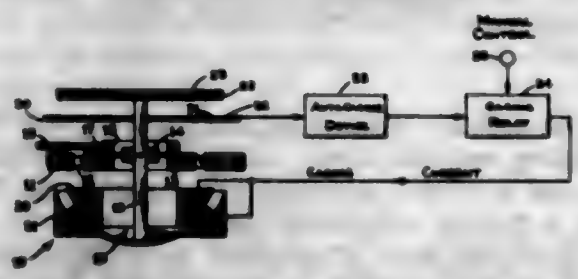
1. A mortar batching device comprising a stand, a hopper comprising a container having one side thereof open, forming a mouth, said hopper being pivotally mounted on the stand, locking means having a plurality of engageable portions fixedly mounted on said hopper, a lever pivotally mounted on the stand and having an end portion engageable with a preselected portion of said locking means, the engagement of the lever and locking means determining the angle of repose of said hopper whereby the cementitious to aggregate ratio of mortar to be measured in the hopper can be predetermined regardless of the moisture content of the sand.

2,841,014
THERMAL RESPONSIVE DEVICE
Carlton W. Bondurant, Dayton, Ohio, assignor to Standard-Thomson Corporation, Vandalia, Ohio, a corporation of Delaware
Application September 7, 1954, Serial No. 454,591
4 Claims. (Cl. 74—2)



1. In a thermal responsive device comprising a tubular enclosing body, a rod longitudinally movable within said body and extending therefrom, a spring urging movement of said rod from said body, a cradle rotatably attached to the end of said body and encircling the rod, the cradle including a guide wall and a hook member, the guide wall being provided with an elongate slot, a plate attached at the end of said rod normal to the axis thereof, the plate having an end extending into the elongate slot of the guide wall, the other end of the plate having an arcuate portion, a bearing block attached to the plate, a rotatable shaft journalled in said bearing block normal to said rod, a fusible material attaching the shaft to said block preventing rotation of said shaft, a toothed wheel attached to the shaft, the hook member of said cradle engaging said wheel, the hook thus retaining the rod from axial movement urged by the spring, and a cup-shape hood made of thermal conductor material attached to said bearing block and extending over said bearing block and covering the end of the rod, the hood member acting as a thermal sensing element so that upon subjection to a predetermined high temperature the fusible material melts permitting rotation of said shaft, thus permitting rotational release of said wheel from the hook member releasing the rod for axial movement in a direction from said body, movement of the rod from said body being limited by engagement of the arcuate portion of said plate with the hook member of the cradle.

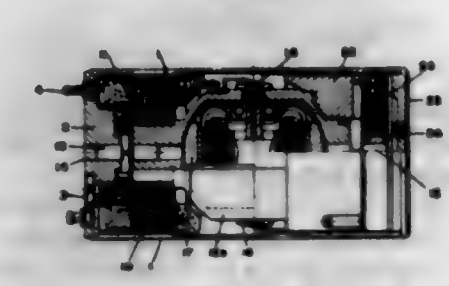
2,841,015
AUTOMATIC CAGING DEVICE FOR GUNSIGHT GYRO
James A. Saxman, Portland, Ind., assignor to the United States of America as represented by the Secretary of the Navy
Application March 21, 1955, Serial No. 495,834
8 Claims. (Cl. 74—5.1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A switching and timing device for switching and timing an electrical circuit comprising, a ring having a pair of conductors on one face thereof in close side-by-side radial reversed-turn relation adapted to be bridged by conductive element in contact therewith, electric switch-

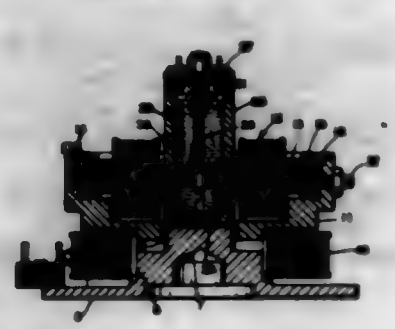
ing means coupled to said pair of conductors for switching an electrical circuit upon said pair of conductors being bridged electrically, and timing means coupled to said electric switching means for timing the duration of said switching means whereby the electrical circuit may be switched by bridging said conductors which switched condition will exist for a time duration determined by said timing means.

2,841,016
GYROSCOPE
Paul F. Hayner, Pelham, and George J. Shemphe, Nashua, N. H., assignors, by mesne assignments, to Sanders Associates, Inc., Nashua, N. H., a corporation of Delaware
Application November 12, 1953, Serial No. 391,494
10 Claims. (Cl. 74—5.6)



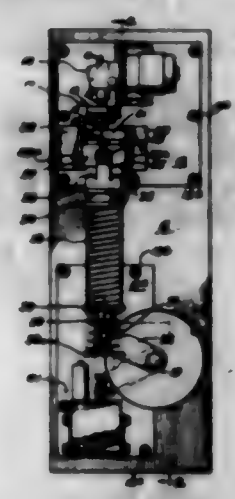
8. A gyroscope comprising a rotor; a gimbal having bearing means for said rotor coincident with its axis of spin; a suspension for said gimbal including a fixed support; apertures in said gimbal and said support along a line perpendicular to said axis of spin; torsion bars having relatively narrow central portions and enlarged ends supported in said apertures supporting said gimbal without friction while permitting its pivotal movement about said perpendicular line; and a differential transformer having one section thereof secured to said fixed support and another section secured to said gimbal for movement therewith to translate its angular velocity into an electrical signal having an amplitude proportional to angular velocity of said rotor.

2,841,017
GYRO ERECTION SYSTEM
Guy Franklin Roush, Montclair, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application June 9, 1953, Serial No. 360,529
14 Claims. (Cl. 74—5.7)



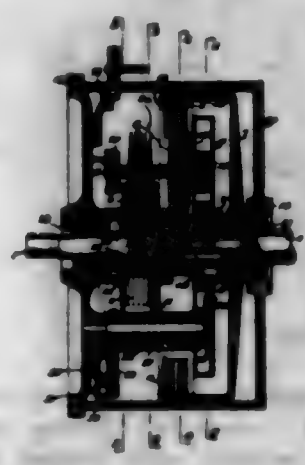
1. An erection system for a gyroscope provided with precessing erection means, comprising an inductive element and a support arranged for mounting on the gyroscope, a flexible suspension member carried by the support, a control mass of magnetic metal pendulously suspended by said member in the magnetic field of the inductive element in position to vary the reluctance of said field upon deviation of the gyroscope spin axis from a reference axis, and control means responsive to said variations for actuating the precessing means and thereby correcting said deviation.

2,841,018
QUICK RELEASABLE DRIVE
James J. Dickson, Hollywood, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application April 12, 1955, Serial No. 501,667
3 Claims. (Cl. 74—35)



1. Apparatus for shifting an object slowly in one direction and rapidly in the opposite direction, said apparatus comprising a motor, a rotatable shaft, a clutch connecting the motor and the shaft, a screw connected to the shaft for rotation therewith, a nut engaging the screw, means connecting the nut and the object to hold the nut against rotation and to make the object shift in said one direction or the said opposite direction in response to movement of the nut along the screw produced by rotation of the screw, and a spring acting against the last mentioned means so as to be stressed in response to movement of the object in said one direction, whereby upon disengagement of the clutch the shaft and screw are free to rotate and the nut to move along the screw, thereby permitting the stressed spring to move the object in said opposite direction.

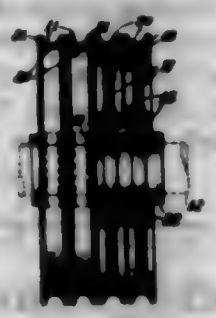
2,841,019
INFINITELY VARIABLE FRICTION DISK POWER TRANSMISSION
Josef Beier, Sarnen, Switzerland; Alice Beier, nee Siegenbeim, Karlsruhe, Germany, Hans Herbert Beier, East-Boldon, England, and Regina Beier, Karlsruhe, Germany, heirs of the estate of said Josef Beier, deceased
Application September 27, 1954, Serial No. 458,573
Claims priority, application Germany December 18, 1953
9 Claims. (Cl. 74—199)



1. Gradually variable friction transmission comprising, in combination, first shaft means; a set of first parallel friction discs having peripheral rigid friction rims and being secured to said first shaft means for rotation therewith and slidable in axis direction; first spring-loaded pressure means engaging the outermost friction discs of said first set of friction discs for urging said first friction discs to a closer spaced parallel position; second shaft means coaxial with said first shaft means;

a set of second parallel annular friction discs having inner annular rigid friction rims and being secured to said second shaft means for rotation therewith and slidable in axial direction, said set of second friction discs being spaced in radial and axial directions from said set of first friction discs; second spring-loaded pressure means engaging the outermost friction discs of said second set of friction discs for urging said second friction discs to a closer spaced parallel position; at least one third shaft means parallel to said first and second shaft means; two axially spaced groups of third parallel friction discs having lateral conical friction faces and being secured to said third shaft means for rotation therewith and slidable in axial direction while remaining in parallel position, said friction faces of said third friction discs of one of said groups being in frictional meshing engagement with said rigid friction rims of said first friction discs only, and said friction faces of said third friction discs of the other of said groups being in frictional meshing engagement with said rigid friction rims of said second friction discs only for transmitting high torque at a great reduction ratio; movable supporting means supporting said third shaft means rotatable and shiftable between one position in which said first and third shaft means are farther spaced and another position in which said first and third shaft means are closer spaced; and operating means for moving said movable supporting means between said positions for gradually changing the ratio of transmission between said first and third shaft means.

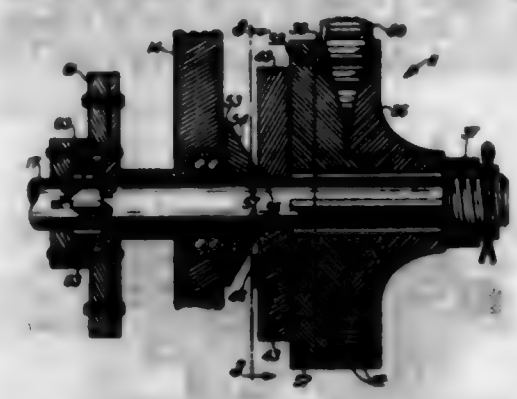
2,841,020
SHEAVE ASSEMBLIES FOR LOOMS
Christopher Van Deventer IV, Knoxville, Tenn.
Application January 5, 1954, Serial No. 402,270
2 Claims. (Cl. 74—230.01)



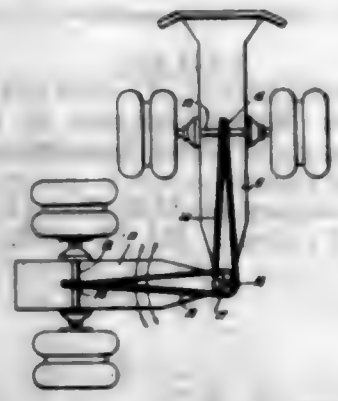
1. In a loom sheave assembly comprising a supporting shaft and a plurality of sheaves, each of the sheaves including a body having a hub thereon formed in one integral piece of molded plastic material and a bushing mounted in the hub and fixed thereto, the bushing being shorter in length than the hub with the hub projecting at opposite ends beyond the ends of the bushing, and a thrust ring mounted on the shaft between adjacent sheaves and having opposite ends projecting into the hubs of adjacent sheaves into axially abutting relation with the bushings thereof, said thrust ring and bushings being formed of dissimilar metals, said thrust ring having an external diameter smaller than the internal diameter of the hub and spaced therefrom substantially throughout the periphery of the thrust ring, said thrust ring having a length sufficient to maintain the bodies of adjacent sheaves spaced apart.

2,841,021
EXPANSIBLE PULLEY
James P. Stalbel, Racine, Wis.
Application June 11, 1956, Serial No. 590,592
11 Claims. (Cl. 74—230.17)

1. In an expansible pulley of the type operable with a V-belt and influenced by centrifugal force weights, the combination of a rotatable shaft, a pair of pulley halves mounted on said shaft for rotation therewith and one of said pulley halves axially movable on said shaft, said pulley halves including facing beveled surfaces for defining a V-shaped pulley groove therebetween with said V-belt received in said groove, a weight pivotally attached to said one of said pulley halves on the side thereof opposite said groove for movement radially outwardly of said shaft on an axis parallel to said shaft and upon rotation of said pulley, a spring attached between said weight and said one of said pulley halves for urging said weight radially inwardly toward said shaft, means adjacent said weight for retaining the latter radially inwardly and axially with respect to said shaft when tension on said V-belt urges said one of said pulley halves axially and for releasing said weight to have said pulley halves spread apart when centrifugal force acts on said weight and said tension on said V-belt is relieved.



2,841,022
TWISTED CHAIN DRIVE
Emmitt Marcus Tucker, Medford, Oreg.
Application February 18, 1955, Serial No. 487,368
4 Claims. (Cl. 74—245)

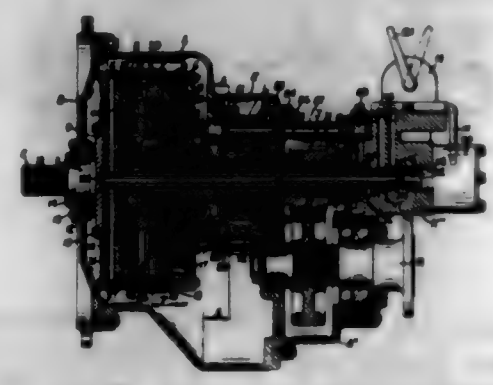


1. In a chain for power transmission between shafts angularly disposed relative to each other, in different planes, a plurality of links, each link comprising a pair of spaced side plates and a roller pin at each end thereof, each of said side plates being twisted so that the opposite ends thereof lie in planes angularly disposed relative to each other in relation to the longitudinal axis of each plate, said longitudinal axis lying in a straight line, to provide an angular displacement between the pins at opposite ends of each link.

2,841,023
REVERSE GEAR
Alexis S. Gorokhoff, Oxford, Conn., assignor to The Snow-Nabstedt Gear Corporation, Hamden, Conn., a corporation of Connecticut
Application February 3, 1953, Serial No. 334,947
9 Claims. (Cl. 74—377)

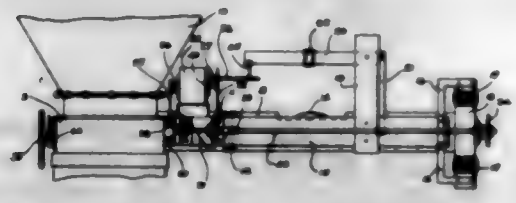
1. In a reversing mechanism, a housing of elongated shape having provisions for mounting a horizontal drive shaft, a horizontal drive shaft mounted in said housing by

said provisions, the forward end portion of said housing having a wall portion substantially concentric with said shaft, said end portion of the housing being provided with an upright wall at the end of the housing, the rear end portion of said housing being enlarged in a downward direction beneath the rear portion of said shaft, a downwardly offset output shaft journaled in said last-mentioned portion of the housing and carrying a reduction gear wheel meshing with a gear carried by the rear portion of said drive shaft, a rotary driving member in the forward end portion of the housing in the form of a drum or shell having a forward end wall, an axial wall and a rear wall,



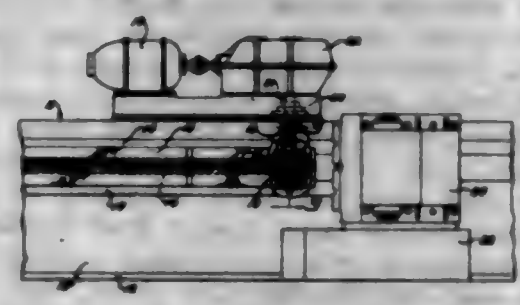
said member enclosing a portion of said driving shaft and being rotatable by a rotary driving element mounted in said upright housing wall, gearing including a gear fixed to said drive shaft forwardly of said gear connection with said offset shaft whereby the direction of rotation of said shaft can be reversed, driving means for said last-named gearing including a gear and a rotary carrying sleeve for said gear disposed around said drive shaft and extending into said driving shell at the rear end of the latter, friction-clutch means within said driving shell for clutching said sleeve to the rear wall of said shell, and friction-clutch means within said driving shell for clutching said driving shaft to the forward wall of said shell.

2,841,024
CONTROLLING DEVICE
Lyndus E. Harper, West Barrington, R. I., assignor, by mesne assignments, to B-I-F Industries, Inc., a corporation of Rhode Island
Application January 24, 1955, Serial No. 483,521
24 Claims. (Cl. 74—388)



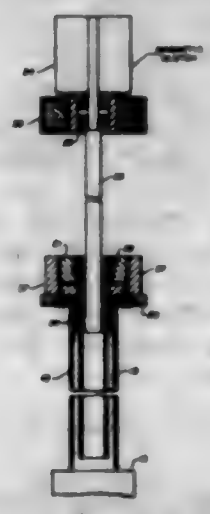
1. The combination with an adjusting member movable in opposite directions and an actuating member movable in opposite directions from a predetermined position, of means for determining the position of said adjusting member in response to the position of said actuating member comprising a pair of members mounted for rotation about parallel axes, means for rotating said members at the same rate, a shaft, a driving connection between said shaft and adjusting member, a rock shaft connected with said actuating member to turn from a predetermined normal position thereof through an arc and in a direction corresponding to the displacement of said actuating member out of its normal position, and means for selectively establishing an intermittent driving connection between a rotatable member and said shaft by movement of said rock shaft out of said normal position for intervals determined by the position of said rock shaft out of normal.

2,841,025
DRIVE MEANS FOR BROACHING MACHINES AND THE LIKE
Joseph P. Chryba, Rochester, Mich., assignor to Detroit Broach & Machine Company, Rochester, Mich., a corporation of Michigan
Application March 25, 1957, Serial No. 648,093
2 Claims. (Cl. 74—409)



1. In a herringbone type rack and pinion drive for the slide of a broaching machine or the like including a frame, a slide reciprocably mounted in ways on said frame, a rack fixed to said slide, a pinion housing turnably mounted in a bore in said frame having an axial center located at the intersection of an axis disposed normal to and an axis spaced parallel from said rack, a pinion shaft, a pinion keyed on said pinion shaft meshed with said rack, said pinion shaft being rotatably mounted in said pinion housing on an axial center eccentric to the axial center of said pinion housing located on said axis spaced parallel to said rack, said pinion housing being cut away at said rack to permit limited turning thereof in respect to said rack, the turning of said pinion housing in opposite directions increasing or decreasing the backlash in said rack and pinion drive, the said pinion housing including an annular flange at one end and a securing ring at the other end thereof including means for fixing said pinion housing in said frame in any position to which it may be turned, and a thrust bearing mounted on said pinion housing axially engaging said pinion shaft adapted to hold the said pinion keyed thereon in central alignment with respect to said rack during said turning of the pinion housing to accomplish the increase or decrease of backlash in said drive.

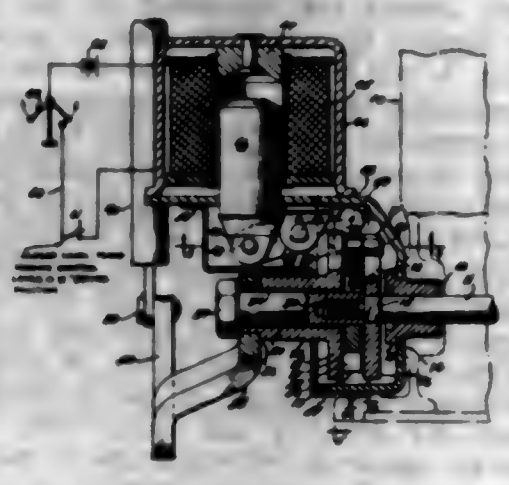
2,841,026
NUT SCREW MECHANISMS
John Alexander Forbes Glass, Wooton, Liverpool, England, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application May 11, 1955, Serial No. 507,525
8 Claims. (Cl. 74—424.8)



1. A nut and screw mechanism comprising a nut member engaging a screw member, a shaft for rotating one of said members, means preventing rotation of the other member whilst permitting free axial movement of both

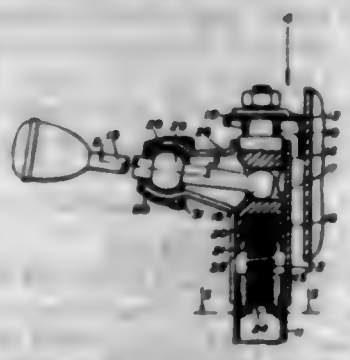
said members together in a direction along the shaft, stops for limiting the axial movement of said members in both directions and a releasable catch arranged to hold the rotatable one of the members at one of its end stops against a force tending to move it towards its other stop.

2,841,027
CONTROL MECHANISM FOR AUTOMATIC TORQUE CONVERTERS
Jeannot G. Ingres, Dearborn, Mich., assignor to Automatic Shifters, Inc., Richmond, Va., a corporation of Virginia
Application March 5, 1953, Serial No. 340,600
21 Claims. (Cl. 74—473)



4. A control device for a torque converter having a rock shaft for controlling the condition of the converter and movable to a plurality of positoins two of which are a low range position and a driving range position, comprising a first disk fixed to said shaft, a second disk, motion transmitting means connected between said disks whereby rocking of said second disk rocks said first disk, manually operable means for rocking said second disk, and said second disk having a radial slot, a lever having an end normally disengaged from said slot, means for rocking said lever from normal position to move it into engagement with said slot to lock said second disk against rocking movement, and means for transmitting movement from said lever to said first disk, when said lever moves from its normal position, for rocking said first disk to rock said shaft to low range position.

2,841,028
GEAR-SHIFT MECHANISM FOR MOTOR VEHICLES
Jakob August Adloff, Mainz-Gonsenheim, Germany, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 6, 1953, Serial No. 347,028
Claims priority, application Germany April 8, 1952
12 Claims. (Cl. 74—484)



3. Gear-shift mechanism comprising a support, a rod slidably and rotatably mounted on said support, a manually operable lever pivoted on said support and adapted to effect slidable and rotatable movements of said rod, and interconnection between said lever and said one end of said rod comprising a sheet metal member shaped to enclose said support in part and to form a spherical socket bearing for said lever, lugs externally of said socket and a bush enclosing the socket and retained by said lugs.

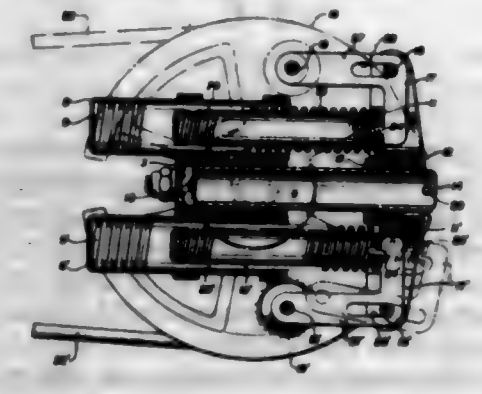
4. Gear-shift mechanism comprising a fixed guide support, a manually operable lever having a spherical head and pivoted on said support, a rod slidable and rotatable relative to said support, an interconnection between said support, said rod, and said lever comprising a sheet metal member formed of a tubular part fixed to said rod and slidably guided on said support, and a shank part at right angles to said tubular part forming a spherical socket for the spherical head on said lever, and a bushing enclosing said socket and retaining the same firmly enclosed upon said spherical head.

2,841,029
FLEXIBLE REMOTE CONTROL CABLE
Raymond Richoux, Paris, France
Application November 5, 1953, Serial No. 390,374
Claims priority, application France August 11, 1953
5 Claims. (Cl. 74—501)



1. In a flexible remote control cable having a tubular sheath, the combination with a flexible flat metallic core guided in said sheath along substantially its whole length by means of two rows of rolling elements interposed between either side of said core and said sheath, of two flat metal strips freely slidable in said sheath each on one side of said core, said strips being each provided with spaced openings each adapted to receive one of said rolling elements to keep said elements in spaced relationship, each opening being slightly larger than the rolling element therein and being provided on either side of the rolling element engaged therein with transverse walls making an angle with said core and having a height at least equal to the rolling radius of said element, so that the latter is free to rotate within said opening without any risk of jamming or escaping, however flexed said sheath may be.

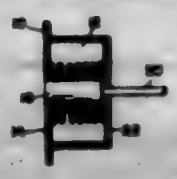
2,841,030
CONTROL LINE REGULATOR
Robert J. Wrighton, Tarzana, Calif., assignor to Pacific Scientific Aeroproducts, Glendale, Calif., a corporation of California
Application July 11, 1957, Serial No. 671,306
6 Claims. (Cl. 74—501.5)



1. A control line regulator comprising a regulator body, a pair of oppositely disposed sheave sectors carried by said body and relatively turnable about a common axis, said sheave sectors being adapted to receive control cables, regulator spring means carried by said regulator body, force transmitting means connecting said spring means and said sheave sectors for urging the latter to turn in opposite directions to maintain the cables under rig tension, said force transmitting means serving to effect the locking of said sheave sectors against relative turning movement when a control load is applied to one

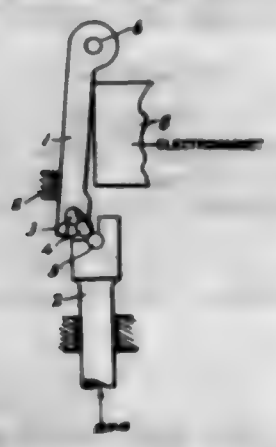
of the cables connected to one of said sheave sectors, and slack take-up spring means carried by said regulator body and also acting through the force transmitting means to cause the other sheave sector to take up any slack developed in the unloaded cable.

2,841,831
FLUSH PANEL KNOB CONSTRUCTION
Julius Young, Detroit, and Benjamin W. Colmen, Berkley, Mich.
Application November 10, 1954, Serial No. 468,844
21 Claims. (Cl. 74—594)



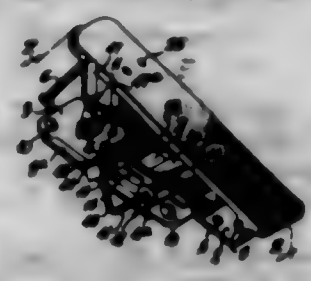
1. In a device having a manually or digitally operated part, an enclosing panel having an opening, an operating part having a projecting end terminating in said opening, spaced apart from the perimeter of said opening and adjacent the outer plane of said panel, and a protecting and finishing plate movably mounted in the compass of said opening around said projecting end and in the plane of said outer panel, said plate being shiftable inwardly to permit grasping of said operating part.

2,841,832
OPERATING MECHANISMS FOR ELECTRIC CIRCUIT CONTROL DEVICES
Cyril Frederick Gimson, Duncherch, near Rugby, and John Owen Tattersall, Edenbridge, England, assignors to The British Thomson-Houston Company Limited, a British company
Application November 10, 1953, Serial No. 391,356
Claims priority, application Great Britain November 14, 1952
12 Claims. (Cl. 74—526)



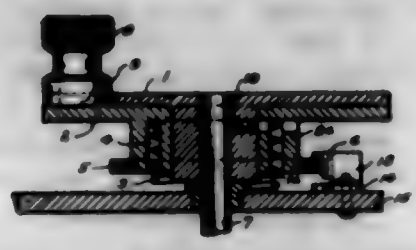
12. A toggle operating mechanism comprising, in combination, a reciprocable operating member, a pivoted armature control member positioned in substantial axial alignment with said operating member, an electromagnet for operating said armature, cylindrical surfaces formed on said operating member and said control member, a cylindrical roller making line contact with said cylindrical surfaces, the axes of said roller and said cylindrical surfaces being normally located substantially in a single plane, said plane having an angular relation with the axis of said members and said roller being movable so that its axis moves transversely of said plane, a separate axially extending projection on each of said members defining therebetween abutments for restraining transverse movement of said roller, movement of said armature in response to a change in energization of said electromagnet effecting a movement of said roller whereby to alter the distance between the axes of said cylindrical surfaces and produce a movement of said operating member.

2,841,833
ACCELERATOR LIMIT CONTROL
Bennett R. Fields, Fayetteville, N. C.
Application August 2, 1956, Serial No. 601,769
7 Claims. (Cl. 74—526)



1. Limit control for attachment to the accelerator pedal for limiting the maximum speed of an automobile comprising, a skid fixedly mounted on the floorboard of the automobile beneath the accelerator pedal, a slider pivotally connected at one end to the accelerator pedal and having its opposite end slidably engaging said skid at a small angle, said slider being biased toward said skid for free sliding back and forth movement on said skid relative to the movement of the accelerator pedal, an abutment mounted relative to said skid in the path of movement of said slider to limit the amplitude of free sliding movement of said slider on said skid and the amplitude of movement of the accelerator pedal, and means for diverting said slider away from said abutment to restore to full amplitude of movement of said slider and said accelerator pedal.

2,841,834
CONTROL MECHANISM WITH AUTOMATIC STOP MECHANISM
Thomas T. Greene, Sr., Audubon, N. J., assignor to the United States of America as represented by the Secretary of the Air Force
Application November 21, 1955, Serial No. 548,287
4 Claims. (Cl. 74—526)

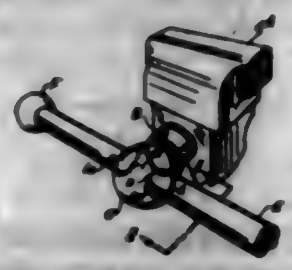


1. A locking control means comprising a rotatably mounted upper disc having a cut-out portion, a control member rigidly connected to said upper disc, a lower disc in telescopic engagement with said upper disc and rotatable therewith in lower unlocked position and rigidly mounted therewith in an upper locked position, a lock gear circumferentially mounted in fixed relation on said lower disc, a lock member in engagement with said lock gear when said lower disc is in said upper locked position, and a control knob in engagement with said cut-out portion rigidly mounted on the upper surface of said lower disc and depressible to move said unlocked disc to said lower position to disengage said lock gear from said lock member.

2,841,835
GRIP-SPRING FOR VISE-HANDLES AND THE LIKE
Leroy P. Simpson, Los Angeles, Calif.
Application May 13, 1955, Serial No. 508,870
6 Claims. (Cl. 74—545)

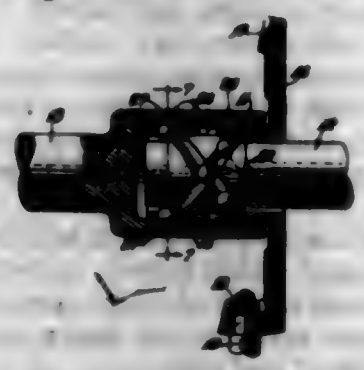
1. A grip-spring, cooperable with a shaft having a longitudinal axis and being rotatable around said longitudinal axis, and with a handle bar slidably intersectingly held by said shaft in an aperture therein substantially perpendicular to said longitudinal axis of said rotatable shaft, to immobilize said handle bar in a selected trans-

verse position relative to said shaft, comprising: two hook means, a first of said hook means being grippingly engageable with said handle bar at one side of said shaft, the second of said hook means being grippingly engageable with said handle bar at the opposite side of said shaft, and each of said hook means having a first end and a second, free, end; and spring wire connecting and biasing means connecting said first ends of said two hook means; said spring wire connecting and biasing means being



precurved and elastically openingly deformable to define a closingly biased curved portion forcibly contactingly curvedly extending at least partially around said rotatable shaft and at least partially around said longitudinal axis thereof when each of said two hook means is engaged with said handle bar on opposite sides of said shaft, said closingly biased curved portion biasing each of two hook means against opposite sides of said shaft; whereby said handle bar may be frictionally retained in a selected relationship to the shaft.

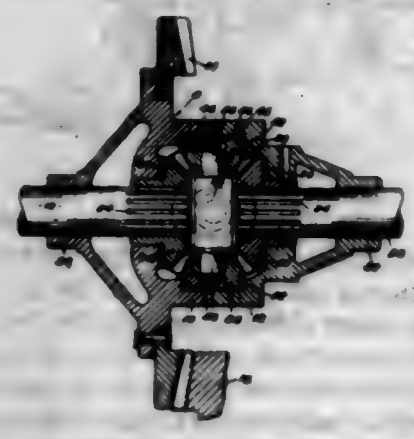
2,841,836
GEARLESS DIFFERENTIAL
Joseph L. Decker, New Brunswick, N. J.
Application November 6, 1952, Serial No. 318,976
2 Claims. (Cl. 74—650)



1. A gearless differential comprising a tubular driving cage, a plurality of longitudinal slots in the driving cage, a plurality of ball bearings in the slots, a first drive shaft having intersecting, external, continuous tracks alternately extending their courses toward opposite ends of the first drive shaft, said first drive shaft being disposed with its tracks within the driving cage and in camming relation with the ball bearings in the slots, a second drive shaft having a tubular end thereon and positioned over the driving cage; parallel, internal, continuous tracks in the tubular end of the second drive shaft alternately extending their courses toward opposite ends of the second drive shaft, and said tracks being disposed in camming relation with the ball bearings in the slots whereby the rotation of the driving cage impels the ball bearings into camming relation with the internal and external tracks thereby producing rotation of the drive shafts, and said tracks on the first and second drive shafts, each having a corresponding number of alternations of courses.

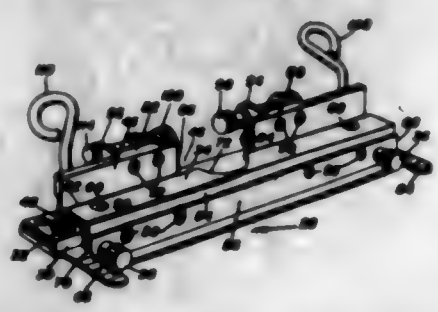
2,841,837
Ralph R. Randall, Freeport, Ill., assignor of one-fourth each to Francis S. Roach, Harold R. Nettles, and Leona F. Gassman
Application March 16, 1956, Serial No. 571,992
18 Claims. (Cl. 74—711)

1. A differential mechanism comprising a rotatable housing forming a driving member, a pair of spaced apart axially aligned bevel gears mounted within said housing at the axis of rotation of the housing, a plurality of pinion gears arranged between and meshing with said bevel gears, said pinion gears each having an eccentric crank arm associated therewith and projecting in a direction radially outwardly of the housing, said housing having a cylindrical bearing socket disposed radially outwardly of and in axial alignment with each of said pinion gears, said sockets being concentric with the pitch diameter of the adjacent pinion gear, said eccentric crank arm



projecting into said bearing socket, a pilot bearing in said bearing socket, said pilot bearing and said eccentric crank arm having outer surfaces which cooperate to form a circular bearing surface disposed concentrically within said bearing socket, said pilot bearing and said eccentric crank arm having complementary inner abutting curved surfaces, said bearing surface having a diameter slightly less than the diameter of said bearing socket whereby said crank arm is permitted to rock slightly within said bearing socket.

2,841,838
SAW TOOL ATTACHMENT
Frank A. Redmond, Chattanooga, Tenn.
Application January 22, 1957, Serial No. 635,193
5 Claims. (Cl. 76—77)

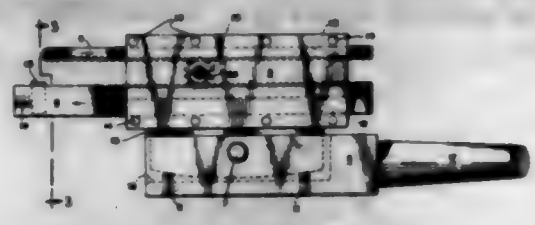


1. An attachment for a saw setting tool to feed, hold and gauge the set of saws, said attachment including a mounting bar, a frame adjustably secured to said bar, said frame having a table and having a back and an apron extending substantially normal to said table, said table having a groove therein to accommodate the set in saw teeth, said back having an opening to expose a saw tooth to be set, a pair of feed pawls slidably mounted on said back, and handles engaging said feed pawls for actuating said feed pawls, and means for limiting the stroke of said pawls, said means including adjustable stops adjustably secured to said back, said handles engaging said stops to limit movement of said handles and hence of said pawls.

2,841,839
TAPER CUTTING DEVICE
Adam W. Stastny, Oak Park, Ill.
Application May 18, 1955, Serial No. 509,272
4 Claims. (Cl. 77—58)

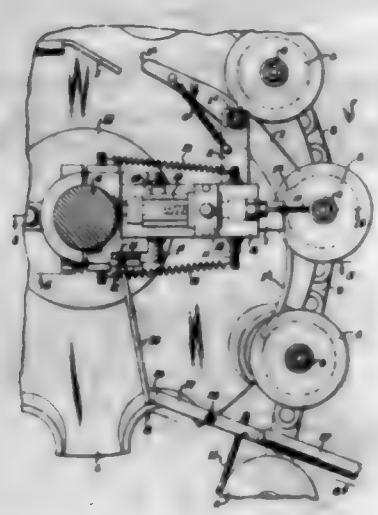
1. A taper-cutting device comprising, a pair of hinged members movable toward a piece of work whereon a taper is to be cut, a pair of rack elements slidably mounted

on one member on opposite sides of a meshing pinion journaled on the member to effect the opposite parallel shifting of the elements, the adjacent ends of the elements extending beyond the member mounting the elements, a cutting-tool supported on one end of one of the rack elements, means for altering the relative angularity of the two members for predetermining the angularity of the elements to the axis of the work and consequently the



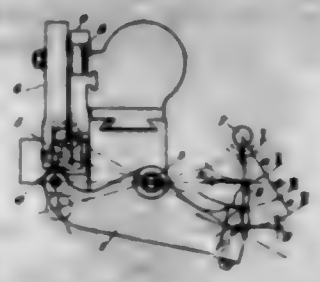
pitch of the taper to be cut on the work, and other means for manually actuating the pinion to initially adjust the adjacent advance ends of the elements to abut the end of the other element against the face of the work with the tool disposed to initiate the taper-cutting operation, whereby the subsequent forward movement of the members effects a constant and uniform advance of the tool-supporting element in the plane in which it was initially angulated to the axis of the work.

2,841,040
SELF-SHANK BUTTON DRILLING MACHINES
Frederick R. Greene and William H. Umlandt, Muscatine, Iowa
Application December 18, 1956, Serial No. 629,140
16 Claims. (Cl. 79—14)



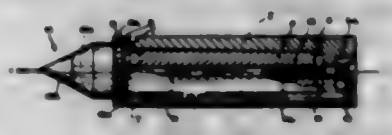
9. An attachment for button blank finishing machines having button holding chucks moving in an endless series in an orbital path around spaced notched disks driven by shafts, said chucks each holding self-shank button blanks respectively comprising an arm adapted to be journaled on one said shaft; a power driven drill radially movable on said arm; a second arm pivoted on said first arm and swingable in an arc; a fixed stop; resilient means for normally retracting said first arm into its dwell position against said stop; means for pivoting said second arm into position to contact each chuck in succession after the first arm has been retracted to dwell position; means for shifting the second arm to permit said second arm to be retracted into dwell position; a carriage movably mounted on said first arm carrying said drill and its power driving means; a bell-crank lever carried by said first arm and having one leg engaging said carriage, whereby the carriage will be moved forwardly as said bell-crank lever is swung; means cooperating with the other leg of said bell crank lever to project the carriage forwardly as the first arm is rotated about said shaft; and yieldable means normally retracting the carriage when the first arm is in dwell position.

2,841,041
RECTIFYING DEVICE FOR AUTOMATIC LATHES
Guillaume Ernest Mégel, Moutier, Switzerland, assignor of fifty percent to Henri Mancia, Moutier, Switzerland
Application June 17, 1954, Serial No. 437,454
Claims priority, application Switzerland June 18, 1953
1 Claim. (Cl. 82—28)



In a lathe having a movable headstock and a cam with cam surface characteristics corresponding to the movements to be imparted to said headstock; a first lever having spaced first and second ends and mounted intermediate said ends for pivotal movement about a first axis, a feeler carried by said first lever adjacent said first end thereof for contacting and riding over said cam surface and displaceable in accordance with said characteristics of the latter along an arcuate path about said first axis, a second lever having spaced first and second ends and mounted intermediate said last-named ends for pivotal movement about a second axis oriented at right angles to said first axis, a first contact member carried by said first lever adjacent said second end thereof, a second contact member carried by said second lever adjacent said first end thereof and engaging said first contact member, a bearing member provided with a profiled contact surface and carried by said headstock, and a contact element carried by said second lever adjacent said second end thereof and engaging and riding over said profiled contact surface of said bearing member, whereby said headstock is moved in accordance with the movements of said feeler as the same rides over said cam surface, the shape of said profiled contact surface of said bearing member being predetermined to compensate for errors of transmission arising from arcuate movements of said feeler due to the pivotal mounting of said first lever, to thereby ensure that movements of said headstock correspond only to changes in linear distance between said feeler and a preselected reference portion of said cam.

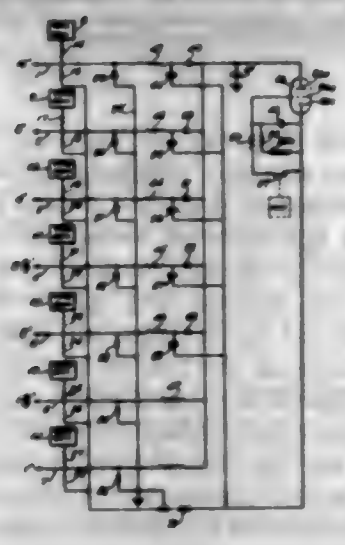
2,841,042
ADJUSTABLE CENTER FOR LATHES
Marcellus L. Jacobs, Excelsior, and Joseph H. Jacobs, Osseo, Minn., assignors to Jacobs Wind Electric Company, Minneapolis, Minn., a corporation of Montana
Application August 2, 1955, Serial No. 526,018
3 Claims. (Cl. 82—33)



1. An adjustable lathe center comprising a center point member having an elongated rearwardly extending shank with a gradually tapered portion and having a forwardly extending work-mounting tip with the point thereof disposed eccentrically of the longitudinal axis of said tapered shank portions, and having an enlargement extending radially outwardly between said gradually tapered portions and the work-mounting tip, said enlargement having a sharply tapered portion on the rear side thereof, a mounting member having a hollow portion with cooperating gradually tapered portions for cooperatively receiving in concentric relation the gradually tapered shank portions of the center point member to frictionally engage the same and hold said shank against rotation dur-

ing operative rotation of work on said work-mounting tip, the forward end of said hollow portion terminating in a cooperating sharply tapered portion to engage the sharply tapered enlarged portion of the center point member when the gradually tapered portions are frictionally interfitted with the desired frictional resistance to rotation, and means associated with the rear portions of said shank and said mounting member to hold said sharply tapered portions in engagement and thus maintain the desired predetermined resistance to relative rotation between the shank and mounting member.

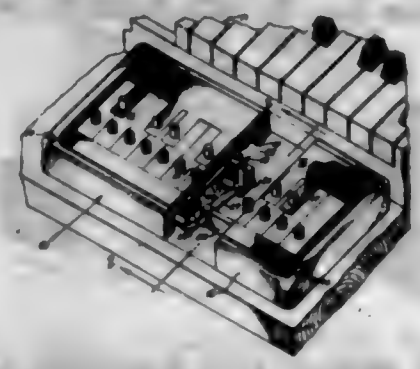
2,841,643
ELECTRIC ORGAN
Ernst Schreiber, Berlin, Germany, assignor to Veb Werk fur Fernmeldewesen, Berlin-Oberschoeneweide, Germany
Application January 31, 1956, Serial No. 562,528
5 Claims. (Cl. 84—1.13)



1. In an electric musical instrument having a plurality of keys each associated with a respective multi-position stop; a plurality of tone control arrangements for said keys, respectively, each control arrangement comprising a single electronic vacuum tube for all associated stop positions, a resistance-capacitance transient circuit for applying a bias voltage to said tube, switch means in said circuit and operable when closed to reduce the resistance of said circuit and thus the bias on said tube to a value rendering said tube conductive, and operable when open to increase the resistance of said circuit and thus the bias on said tube to a value rendering said tube nonconductive, said switch means being normally closed when the respective key is inoperative and being arranged to be opened by said respective key when the same is operative, and a plurality of grounded diode rectifiers, one for each stop position, arranged in parallel with one another and connected across said tube, whereby when said switch means is closed and said tube is rendered conductive said rectifiers are operated in their voltage-transmission ranges and tone voltages applied to said rectifiers are shorted to ground via said rectifiers, while when said tube is rendered nonconductive due to opening of said switch means by said respective key said rectifiers are operated in their voltage-blocking ranges and said tone voltages are not shorted to ground and may be taken off across said rectifiers for subsequent amplification and transformation into sounds.

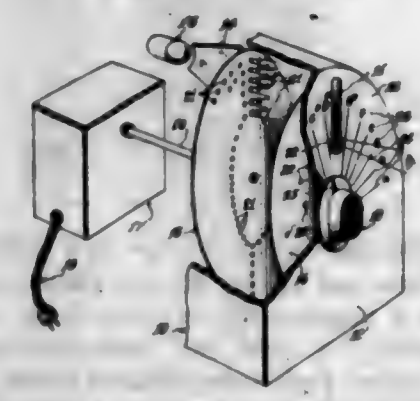
2,841,644
INSTRUMENTS
Earle J. Beach, East Orange, N. J., and Jacob T. Kunz, North Hills, Pa., assignors to Schulmerich Electronics, Inc., Sellersville, Pa., a corporation of Pennsylvania
Application March 30, 1956, Serial No. 575,259
1 Claim. (Cl. 84—423)

A keyboard device for selectively controlling an electrically operated chime instrument, comprising a frame adapted for mounting on a master musical instrument and having a simulated piano-type keyboard of reduced size formed thereon, parallel supports inside of said frame, a continuous fixed contact means mounted on each of said supports, a plurality of movable contact means mounted on each support arranged so that they cooperate with the fixed contact means on an adjacent support to form a plurality of switches, and a plurality of switch operators extending through said simulated keyboard and freely



slidable therein so as to be normally urged downwardly, each of said switch operators being biased upwardly by the free end of its cooperating movable contact means, said movable contact means contacting its respective fixed contact means when its cooperating switch operator is forced downwardly against said biasing action, each of said operators passing through a different key on said simulated keyboard so that the latter serves as a guide for the playing of said chime instrument.

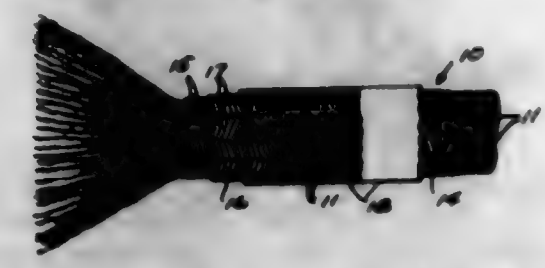
2,841,845
BEAT RATE INDICATOR FOR MUSICAL INSTRUMENT TUNERS
Albert W. Dickey, Madison, N. J.
Application April 15, 1957, Serial No. 652,857
5 Claims. (Cl. 84—454)



3. A beat rate indicator for musical instrument tuners comprising: an opaque casing having a light-penetratable window; a light source located inside said casing; means to direct light rays from said source toward said casing window; light flash timing means including a rotatable disk located in interposed relation to said light source and said casing window and having at least one circular row of uniformly spaced apertures arranged concentrically to the rotational axis thereof; means to rotate said timing disk at a constant speed that causes successive apertures in the row to pass the casing window at time intervals corresponding to the beat rates required in tuning a harmoniously related pair of notes of the equal-tempered chromatic musical scale, a note selector shield interposed between the timing disk and the casing window and being rotatable about the axis of said timing disk, said note selector shield being provided with at least one note-representing aperture located at the same radial distance from the common rotational axis as the row of apertures in the timing disk and adapted to be brought into registration with the casing window to permit light rays to be projected through said window as each aperture of the timing disk successively passes the exposed

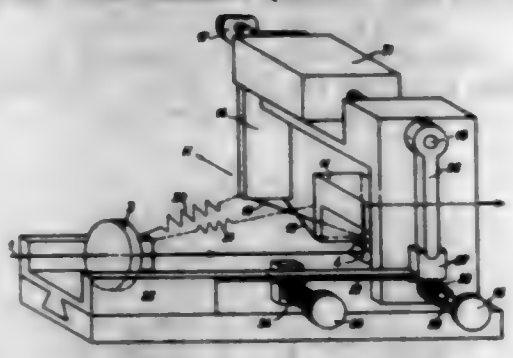
aperture of the note selector shield; and means by which said note selector shield may be adjusted angularly about its axis.

2,841,846
SHOCK RESISTANT ROPE
Leslie A. Ruston, Middle Haddam, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn., a corporation of Connecticut
Application May 28, 1957, Serial No. 660,275
7 Claims. (Cl. 87—2)



1. A shock resistant rope comprising a bundle of parallel crimped and set continuous filaments of a material having a high tensile strength and a braided tube of yarns composed of a material having a high tensile strength disposed around said bundle and holding the bundle under a compacting force.

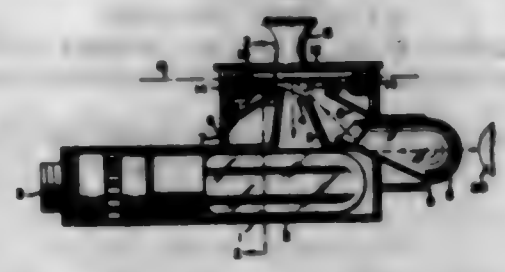
2,841,847
INSTRUMENT LEVELING MEANS
Heinrich Ellenberger, Munich-Pasing, Germany
Application May 6, 1957, Serial No. 657,181
Claims priority, application Germany May 7, 1956
11 Claims. (Cl. 88—2.4)



1. A fine leveling device for use in a telescope having an objective lens and having an eye piece lense mounted in a frame in a longitudinal light ray path, said leveling device comprising a light ray deflection member disposed in the optical path and pivotable about a horizontal transverse axis to deflect said rays in a vertical plane; and a deflection member suspension comprising a torsion filament supported at one end in said frame and fixed at its other end to one side of said deflection member, a leaf spring supported on said frame and disposed opposite the other side of said deflection member and spaced therefrom, a pair of tension filaments attached between said other side of said deflection member and said spring and crossed in mutually spaced relation, the tension placed thereon by said leaf spring imparting a turning moment to said deflection member, and said torsion element being twisted to impart to said deflection member an equal and opposite turning moment.

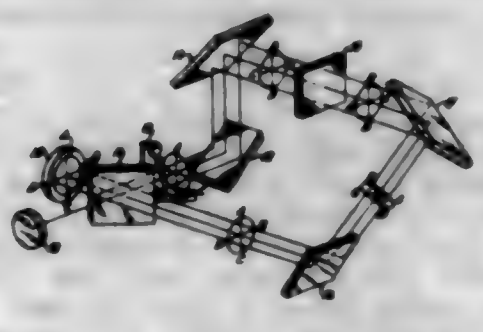
2,841,848
YARN DEFECT MONITOR
William Lankford Duncan and George Hillary Hutchens, Waynesboro, Va., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application April 29, 1954, Serial No. 426,534
2 Claims. (Cl. 88—14)

1. A device for detecting defects in a funicular structure comprising an observation chamber, with openings at each side adapted to permit continuous passage of the said funicular structure therethru, supporting and guiding means for the said funicular structure within the said chamber adapted to provide a straight line of passage for the said funicular structure between the said openings in the said observation chamber, a non-reflecting shadow bar rigidly fixed in the said chamber positioned below and parallel to the line of passage of the said funicular structure, one side of said chamber having a light entrance aperture below one of said openings, a light source adapted to direct light through said entrance aperture toward the under side of the said shadow bar directly opposite to the side of passage of the said funicu-



lar structure and disposed to form an umbra with the said shadow bar through which said funicular structure passes, a photo-electric detection means positioned below the shadow bar and directed toward the illuminated side of the said non-reflecting shadow bar, a light shield means positioned around the photo-electric detection means to shield the latter from all light except that reflected by surfaces of the funicular structure protruding beyond the umbra of the said shadow bar, the said photo-electric detection means being sensitive to light reflected by protrusions on the said funicular structure which extend beyond the said umbra of the shadow bar, to thereby give an indication of any defect in the funicular structure.

2,841,849
INTERFEROMETER
Larkin B. Scott, Fort Worth, Tex., assignor to The Perkin-Elmer Corporation, Norwalk, Conn., a corporation of New York
Application March 30, 1955, Serial No. 497,830
6 Claims. (Cl. 88—14)



1. In an interferometer, means for splitting entrant light into first and second beams, an optical element comprising two reflective surfaces rigidly fixed in back-to-back relation to each other, means for directing said beams to opposite reflective surfaces of said optical element, said means being positioned and arranged to direct said beams along separate paths effecting opposite 90-degree rotation of each beam, whereby fringe patterns are produced independently of the tilt of said optical means.

2,841,850
STRIP CUPS
Ralph N. Kircher, West Bend, Wis., assignor to West Bend Aluminum Co., West Bend, Wis., a corporation of Wisconsin
Application July 30, 1956, Serial No. 600,892
4 Claims. (Cl. 88—14)

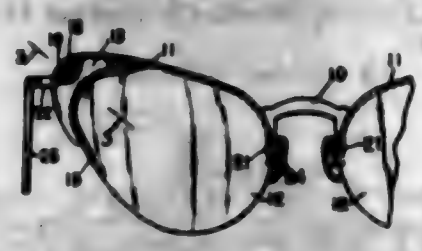
1. A strip cup comprising a cup having an open top

and a pen removably positioned in said cup, said pen



having a sloping bottom with a drain slot at an upper level of said sloping bottom.

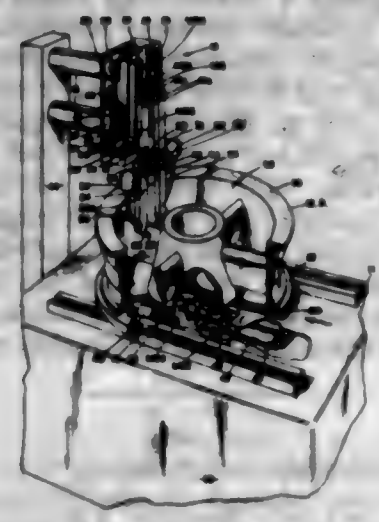
2,841,861
TENSION TYPE SPECTACLE MOUNTING
Raymond F. E. Stegmann, Greece, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application August 28, 1956, Serial No. 630,530
2 Claims. (Cl. 88—47)



1. In a spectacle mounting, the combination of a lens, a bridge and means for detachably connecting the lens to the bridge comprising a resilient brow bar having one end connected to the bridge and extending along the upper edge of the lens and above and beyond the temporal portion thereof, a relatively short non-metallic rim member having on its inner edge a groove in which the temporal edge of the lens is seated, and means for detachably securing the member to the temporal portion of the brow bar comprising a plate positioned in a recess formed in the outer edge of the member, said plate being soldered to the inner adjacent edge of the brow bar at the temporal portion thereof, a screw passing through aligned apertures in the member and plate and threaded to the plate and lens abutment means connected to the bridge and located adjacent to the nasal edge of the lens, the resilience of the brow bar yieldably urging the rim member against the lens to hold the nasal portion of the lens against the abutment means whereby the lens is detachably held on the mounting.

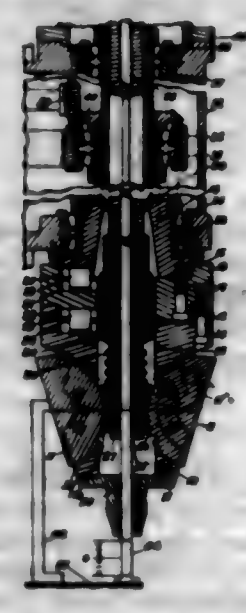
2,841,862
MILLING MACHINE
William F. G. Lacy, Richmond Hill, Ontario, Canada, assignor to Orenda Engines Limited, Village of Malton, Ontario, Canada, a corporation
Application September 18, 1956, Serial No. 610,903
2 Claims. (Cl. 90—13)

1. In a milling machine having a base, a table mounted for reciprocation on the base and adapted to carry a workpiece, a cutter mounted for sliding movement in a plane normal to the plane of reciprocation of the table, and means to index the cutter towards the table at one end of each reciprocation of the table; structure integrating the movement of the table relative to the cutter so that the cutter will, at the other end of each reciprocation of the table, lie at a point relative to the table which is on the generatrix of a cone, the axis of the cone being parallel to the plane in which the cutter moves said structure comprising a first stationary hydraulic cylinder the axis of which is parallel to the general direction of travel of the cutter having a piston moving with the cutter, a second stationary hydraulic cylinder having a piston and piston rod the axes of which are parallel to the direction of reciprocation of the table, the two cylinders being of iden-



tical volume and in a closed hydraulic circuit and stop means mounted on the piston rod of the second cylinder to limit the movement of the table in one direction.

2,841,863
TRACER CONTROLLED ANGULAR CUTTER
Herman Herlacher, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Co., Cincinnati, Ohio, a corporation of Ohio
Application February 20, 1956, Serial No. 566,583
9 Claims. (Cl. 90—13.5)

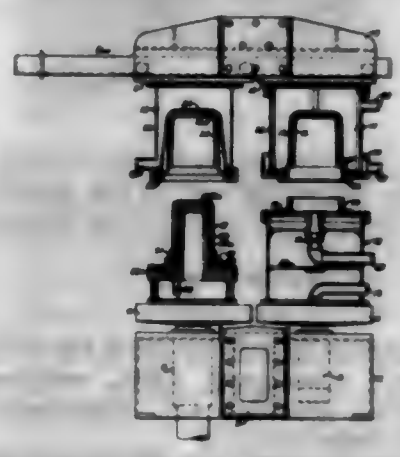


1. In a variable conical cutter having a body in which is supported angularly adjustable cutters and a draw bar axially slidable to adjust said cutters, the combination of a servomotor operatively connected to the end of said draw bar, including a servovalve and a tracing finger slidably mounted within said draw bar and projecting beyond the end of said body for engagement with a template to control actuation of said servovalve.

2,841,864
FIBER MOLDING APPARATUS
Kurt Muller and Heinz Tennigen, Krefeld, Germany, assignors to Deutsche Fibrit Gesellschaft m. b. H., Krefeld, Germany, a corporation of Germany
Application August 17, 1954, Serial No. 604,779
21 Claims. (Cl. 92—54)

1. Apparatus for the manufacture of molded articles from aqueous pulp, comprising a wet mold including a female screen mold having a substantially fluid-tight chamber surrounding its outer surface in fluid-tight engagement with the rim portion of its opening, a fluid exhaust conduit in communication with the interior of said chamber, an expression mold positioned in fixed spacial rela-

tionship alongside and substantially parallel to said wet mold, said expression molds including a perforate female support form having a flexible bag lining its inner surface, a second fluid-tight chamber surrounding its outer surface in fluid-tight engagement with the rim portion of the opening of said flexible bag, and a fluid conduit in communication with the interior of said second chamber, a wet mold pot positioned opposite said wet mold in axial alignment therewith, said wet mold pot including rim means adapted to mate the fluid-tight engagement with the rim of said female screen mold, means for passing an aqueous pulp suspension through said rim means, an expression ram positioned opposite said expression mold in axial alignment therewith, said expression ram including



a perforate male ram form adapted to fit within said screen mold and said female support form with its walls in spaced relationship thereto, means for moving said wet mold pot and said wet mold into and out of engagement with each other, means for moving said expression mold and said expression ram into and out of engagement with each other, means for moving said expression mold out of alignment and said wet mold into alignment with said expression ram, means for moving said expression ram and said wet mold into engagement with said ram form in the interior in spaced relationship to said screen mold, means for moving said expression ram and wet mold out of engagement, and means passing a pressure fluid through said fluid conduit into said second fluid-tight chamber.

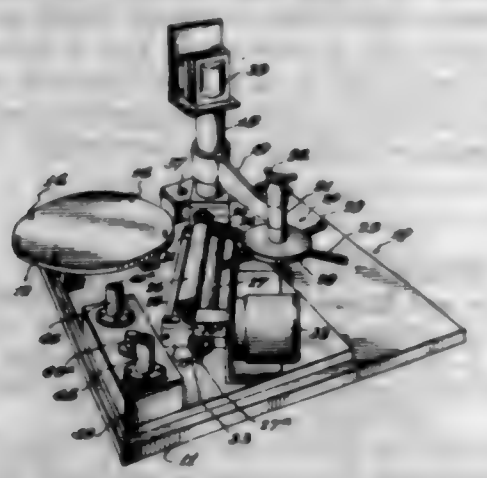
2,841,655

MACHINE AND METHOD FOR MAKING CONTAINERS FOR COMESTIBLES

William E. Deakon, Chicago, Ill., assignor to Ruby Whitney, Chicago, Ill.

Continuation of application Serial No. 430,884, May 19, 1954. This application June 20, 1955, Serial No. 516,367

18 Claims. (Cl. 93—1)



1. Apparatus of the class described for making a multi-pocket container for comestibles or the like comprising a support for a substantially circular blank of sheet material, a spider having radially extending arms including means for supporting said spider, said spider being arranged to adopt a first position with reference to said support to provide radially extending lines along which a pair of superimposed blanks are cemented together, means for indexing said spider to an angular position with reference to said support different from the first position thereof to provide radially extending lines of a different angular position than said first lines along which a third such blank superimposed on the second blank is cemented to the said second blank, means for moving said spider and said support relative to each other whereby said spider comes into contact with said blank sheets for cementing thereof, and means for rendering the surface of the outer one of said three blanks cementitious in character at a pair of spaced points thereon prior to folding all of the so treated blanks along a common diameter thereof with the said outer one of said blanks folded on itself and held together at said cementing points.

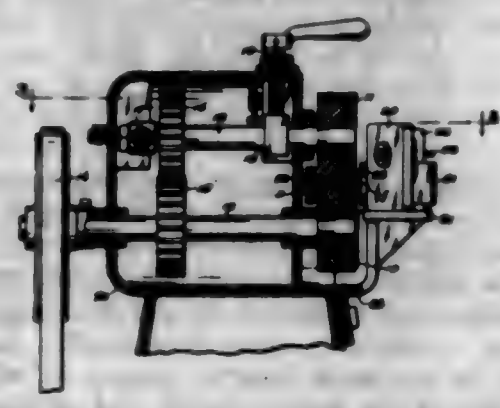
2,841,656

PAPER EDGE FLARING MACHINE

Lee D. Hincher, Seattle, Wash.

Original application June 27, 1947, Serial No. 757,558. Divided and this application September 18, 1953, Serial No. 381,847

3 Claims. (Cl. 93—36)



3. A machine for flaring an edge of a strip of cardboard or other like fibrous stock to give to the edge an expanded width by comparison with the normal thickness of the stock, and which comprises a pair of pressure rollers at least one of which is driven and adapted to have the strip fed along a travel plane therebetween, buttress means having a buttress surface arranged to bear against one of the edges of a fed strip and located near one end of said rollers to resist transverse crushing force imposed upon the other edge of such strip, edge-crushing means near the other end of said rollers and presenting a crushing surface placed so as to firmly press against said other edge of the strip at a point opposite said buttress means and spaced from the buttress surface of the latter a distance less than the normal width between said edges of the strip, said crushing surface being substantially longer than the normal thickness of said edge against which it presses and having said length disposed at cross angles to said travel plane of the strip, whereby there is imposed upon said edge of the strip against which the crushing surface presses a crushing force of such intensity and character as will force the latter edge inwardly and cause the marginal fibers composing said edge to be crushed and spread in opposite directions from said travel plane.

2,841,667

PARTITION ASSEMBLING MACHINES

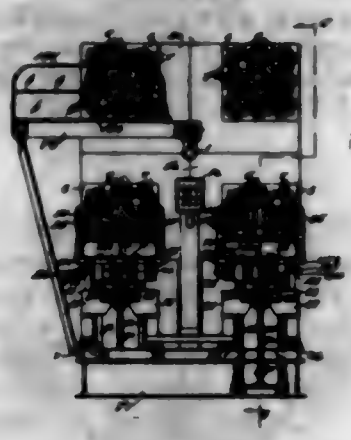
John C. Rodgers, North Hills, and Walter Kiwi, Terwedale Manor, Pa., assignors to Huntingdon Industries Incorporated, Meadowbrook, Pa., a corporation of Pennsylvania

Application August 29, 1955, Serial No. 531,148

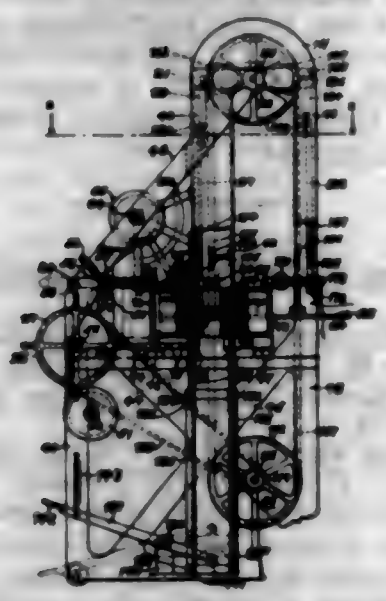
9 Claims. (Cl. 93—38)

1. A partition strip assembling machine comprising a turret having a face portion, partition strip retaining

members on said face portion, members for positioning said turret at predetermined angular positions, a first hopper table at a predetermined location with respect to said turret and carrying a plurality of partition strips, a pattern strip holder for said first hopper table, members for holding a pattern strip on said holder, control members responsive to said pattern strip for controlling the successive positioning of said hopper table at predetermined positions with respect to said turret face portion, means for successively delivering partition strips from said first hopper table in spaced relation at each of said positions into engagement with said strip retaining means, a second hopper table at a different predetermined location with respect to said turret and carrying a plurality of partition strips for engagement with said first partition strips, a pattern strip holder for said second hopper table, members for holding a pattern strip on said holder, control members responsive to said pattern strip for controlling the successive positioning of said second hopper table at predetermined positions with respect to said turret face portions, means for successively delivering partition strips from said second hopper table at each of said positions into engagement with partition strips from said first hopper table, and means for controlling said delivering means and said turret positioning means in timed relation.



2,841,053
PACKAGE MAKING MACHINE
Frederick E. Bickford, Greenwich, Conn.
Application June 9, 1954, Serial No. 435,489
19 Claims. (Cl. 93—44)



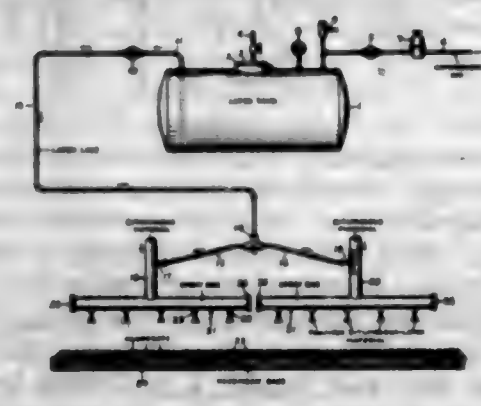
1. In a machine for forming package trays from moldable sheet material, in combination, a molding chamber having two portions, one of which is movable with respect to the other, each said portion having upstanding side walls and upstanding end walls, said end walls being slightly spaced from said upstanding side walls, a bottom for said molding chamber fixed to said relatively movable portion, means for feeding a sheet of material above the open top of said chamber, a plurality of plungers each of a cross-sectional size to fit in said molding chamber, means to move said plungers successively into and out of said molding chamber in timed relationship to the feeding of sheet materials across said chamber, each said plunger pressing a length of said sheet material into tray form with the sheet material between said plunger and said mold bottom, sides and ends, and means to move said movable molding chamber portion to thereby open the molding chamber and move said bottom out of the path of each said plunger permitting said plungers to leave the molding chamber by movement in the same direction as their entering movement.

2,841,059
TRAFFIC SAFETY BARS
Grant A. Wiswell, Burlingame, Calif.
Application July 31, 1953, Serial No. 371,449
6 Claims. (Cl. 94—1.5)



1. A traffic bar comprising a hollow, crowned elongated central body, apertured end projections at both ends of said body, and a plurality of transverse fins projecting outward from both sides of said body, each said fin curving downwardly from adjacent the top of said body in a narrow, straight-sided ridge having a greater curvature than said body, and a pad at the bottom of each fin extending back to the lower edge of said body.

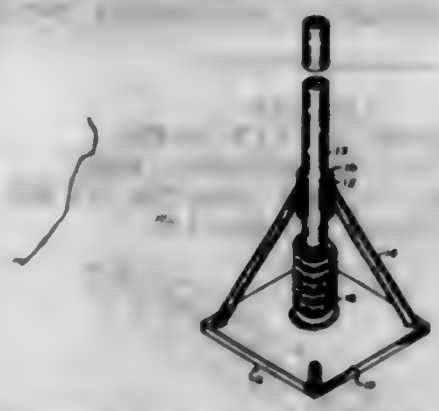
2,841,060
PREPARATION OF RUBBER-CONTAINING BITUMINOUS MACADAM SURFACES
Jesse C. Coppage, Waquoit, Mass., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application April 13, 1955, Serial No. 501,998
10 Claims. (Cl. 94—23)



1. In a process for preparing a bituminous macadam pavement, the steps which comprise, introducing a controlled amount of an aqueous rubber dispersion under a superatmospheric pressure of at least about 30 pounds per square inch gauge, into heat-liquefied bituminous material maintained at a superatmospheric pressure less than that on the rubber dispersion, but at least about 25 pounds per square inch gauge, in a confined space at a temperature between about 225° F. and about 400° F., the amount of water in the dispersion being between about 40% and about 60% by weight, the balance being essentially rubber, the amount of dispersion introduced being between about 4 gallons and about 150 gallons per 1000 gallons of bituminous material, thereafter re-

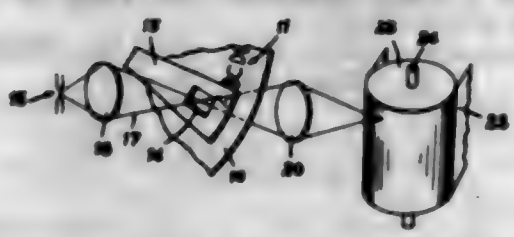
leasing the resulting mixture from the confined space, thereby producing a foaming mixture, applying said foaming mixture to a prepared surface and causing said mixture to come in contact with a layer of mineral aggregate on said prepared surface while said mixture is in a foaming condition.

2,841,861
TAMPING DEVICE
Thomas Edward Starr, Anniston, Ala.
Application October 8, 1953, Serial No. 385,584
4 Claims. (Cl. 94—48)



1. A tamper comprising a relatively broad, thick metal plate having a substantially flat operating face, a helical spring disposed substantially at right angles to said face, said spring having one end welded to said base, a handle-forming shaft disposed in axial alignment with said spring and having one end welded to said spring, a sleeve about said shaft spaced from the end of said spring and serving as a guide and support for said shaft, and a series of braces connecting said sleeve and the outer portion of said plate.

2,841,862
PHOTOTYPESETTING APPARATUS
Richard C. O'Brien, Dayton, Ohio, assignor to Harris-Intertype Corporation, a corporation of Delaware
Application May 27, 1954, Serial No. 432,729
5 Claims. (Cl. 95—4.5)

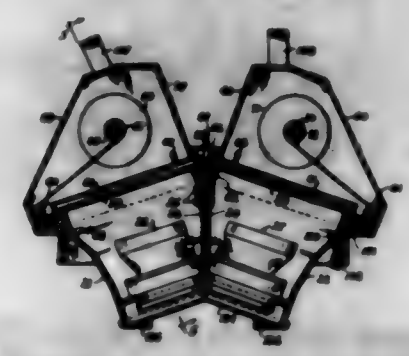


1. A photocomposing apparatus for producing photographic images of selected characters of predetermined different magnifications on a photosensitive record in a fixed image plane from means defining a fixed object plane including a character carrier having thereon a plurality of characters of fixed sizes, comprising means for projecting a light beam from a selected character on said carrier onto said record, a projection lens of predetermined focal length located in the path of said beam from said object plane to said record to form said image, means supporting said lens in a first position in predetermined spaced relation with said object plane causing said image to be focused at a first magnification in said fixed image plane, an optical flat adapted to be positioned in said beam path to provide a greater actual distance between said lens and one of said fixed planes than the air-equivalent distance therebetween, the thickness of said flat being equal to

$$\frac{ND}{N-1}$$

where N is the refractive index of said flat and D is the distance between said fixed image plane and a second plane in which said image would be focused by said lens at a predetermined second magnification in the absence of said flat, means for interposing said flat in said beam path, and means coordinated with said interposing means for shifting said lens axially of said beam to a second position causing said image to be focused in said fixed image plane while establishing a ratio of the air-equivalent distance between said lens and said fixed image plane to the air-equivalent distance between said lens and said object plane equal to said predetermined second magnification.

2,841,863
DOUBLE AERIAL CAMERAS
Wallace Sidney Park, Louisville, Ky.
Application March 10, 1953, Serial No. 493,423
1 Claim. (Cl. 95—12.5)

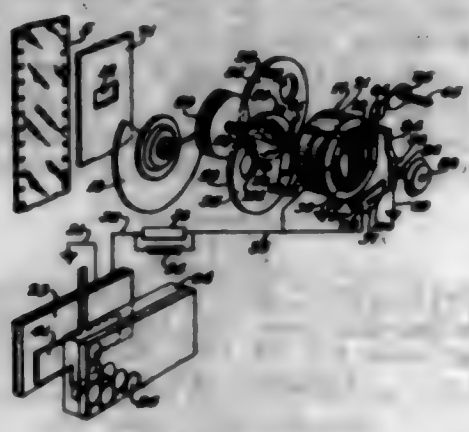


A double aerial camera comprising a camera housing, means separating said housing into two lens sections, a removable film spool hood surmounting each of said sections, said hoods being independent of each other and having open bottoms adjacent their corresponding lens sections, one of said hoods being normally for housing a roll of unexposed film and the other for housing a complementary roll of exposed film continuous therewith, members forming a vacuum plenum chamber in each of said hoods, said members including a perforated platen for each hood at right angles to the lens axis of its corresponding housing section, means for supporting a continually moving strip of film across the bottom of both of said platens, said means including a roller between said sections, wall members surrounding said roller, said wall members including portions projecting from said hoods and normally mutually abutting each other, means for separating said portions to expose for severing film carried by the roller, a lens shutter shaft in each section, a train of gears for driving each of said shafts, each train having a terminal gear, a single gear in meshed relation with both of said terminal gears, and a powered shaft for driving said single gear.

2,841,864
EXPOSURE CONTROL FOR PHOTOGRAPHIC CAMERAS
John P. Bagby, Skokie, Stanley R. Freeland, Evanston, and Mervin W. La Rue, Jr., Park Ridge, Ill., assignors to Bell & Howell Company, Chicago, Ill., a corporation of Illinois
Application August 13, 1957, Serial No. 677,865
12 Claims. (Cl. 95—64)

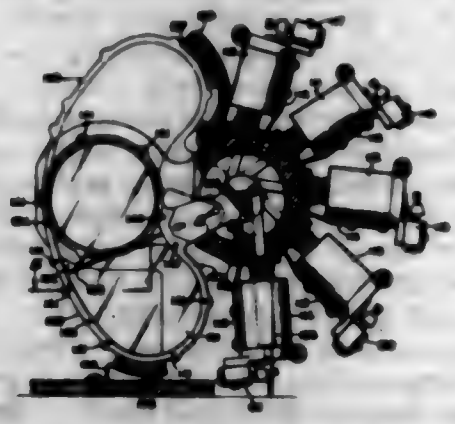
6. In a photographic camera, the combination comprising means forming an exposure aperture, a photoelectric cell, spring means, motor means having a rotative member driven in one direction by said photoelectric cell and in the opposite direction by said spring means, the relative angular position of said rotative member being determined by the relative output of said photoelectric cell, at least one additional rotative member directly connected to said first rotative member, at least two of said members being connected for rotation in opposite directions, at least two of said rotative mem-

bers having diaphragm members with arcuate openings moving in overlapping relationship with the axes of the openings intersecting in front of said exposure aperture, said rotative members being individually balanced about their respective axes and said rotative members forming a rotative system in which the rotational inertia of the



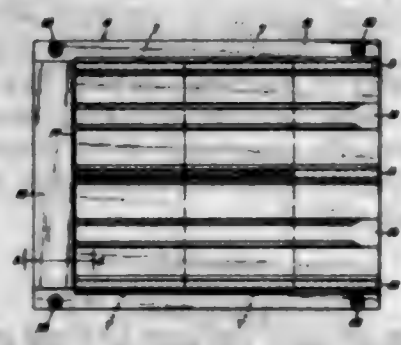
members connected for rotation in one direction acts against and approximately balances the rotational inertia of the members connected thereto for rotation in the opposite direction rendering said diaphragm insensitive to external accelerations without rendering the diaphragm members insensitive to movement by torque applied by said motor means or spring means.

2,841,665
COLOR FILM PRINTER
Fred W. Gage, Beverly Hills, and Albert W. Toudreau, North Hollywood, Calif., assignors to Warner Bros. Pictures, Inc., Burbank, Calif., a corporation of Delaware
Application November 7, 1952, Serial No. 319,296
5 Claims. (Cl. 95—75)



2. A motion picture color film printer comprising a light source, means adapted to bring a negative color film and a positive film of raw stock into contact, means for advancing said films in contact at a printing aperture of fixed size, optical means for directing light in a single light path from said source to said aperture, fixed means in said light path for adjusting the color of said light in accordance with the type of said raw stock, a variable aperture in said light path for adjusting the amount of said light in said light path reaching said aperture in accordance with the density of said negative, and a plurality of adjustable means in said light path adapted to be introduced into and removed from said light path for varying the color of said light in said path in accordance with the departures in color in said negative from the correct colors, said adjustable means maintaining the intensity of the light in said path substantially constant regardless of the variation in color by said light, said last mentioned means including a plurality of flat color filters in parallel planes adjacent one another, and perpendicular to said light path, each filter having a transparent section automatically movable into said light path upon removal of said filter from said light path, a frame for each filter, each color filter being a gelatin sheet occupying substantially one-half of each frame, the other half of said frame being occupied by a transparent gelatin sheet, a transparent sheet being inserted in said light path when a respective color filter is removed therefrom, solenoids being provided for moving said frames, each solenoid having two windings simultaneously energized to move said frames, switches being provided and operated upon energization of said solenoids to eliminate the current from one winding of an energized solenoid after its frame has been moved, and an alarm circuit connected to said solenoid windings for indicating the failure of operation of any of said switches.

2,841,666
CARD MOUNTING STRUCTURE
Allan H. Tod, Charlottesville, Va., assignor to Acme Visible Records, Inc., Crozet, Va., a corporation of Delaware
Application July 22, 1954, Serial No. 445,026
4 Claims. (Cl. 95—85)

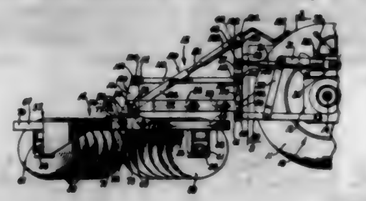


1. A structure for facilitating unitary photographic reproduction of lines of indicia separately contained on a plurality of record cards of the class wherein a plurality of record cards embodying indicia on one marginal edge portion are disposed in edgewise spaced overlapping relationship on an elongated carrier runway by means of tab pairs on each card projecting toward each other adjacent an intermediate portion of the card opposite the indicia bearing edge, comprising a card carrier in slidable engagement with a supporting base; said carrier comprising a flat metallic sheet, an elongated card runway secured thereto and projecting centrally of and above one surface thereof, a pair of spaced rail members on said surface parallel to said runway for supporting the side edges of cards engaged on said runway in plane parallel relationship to said sheet, and a flanged mounting member secured to and projecting centrally of and below the opposite face of said sheet and at right angles to said card runway; said supporting base comprising a flat metallic sheet, a runway channel secured thereon receiving said flanged mounting member in slidable edgewise embracing engagement, and a pair of spaced rail members on said base parallel to said runway channel for supporting the side edges of said engaged card carrier in plane parallel relationship to said base member.

2,841,667
HITCH STRUCTURES
Masick C. Magarian, Fresno, Calif.
Application December 7, 1954, Serial No. 473,716
5 Claims. (Cl. 97—46.07)

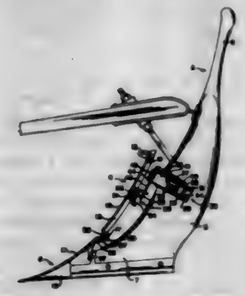
4. In combination with a tractor having a pair of rearwardly extended lift arms, a frame mounted in a substantially erect position on the extended ends of the lift arms for forward and rearward tipping thereon, powered means for raising and lowering the lift arms, a control system connected to the powered means, and a link interconnecting the frame and the control system for automatically operating the powered means to raise the lift arms when the frame is tipped forwardly and to lower the lift arms

when the frame is tipped rearwardly; a draft hitch for coupling an implement to the frame adapted adjustably to translate draft force of the tractor into regulated components of force exerted elevationally on the implement, comprising a pair of draft arms having forward ends pivotally mounted on the frame for pivotal elevational movement and rearward ends pivotally connected to the implement, a telescopically adjustable link pivotally connected to the implement at a position in substantial align-



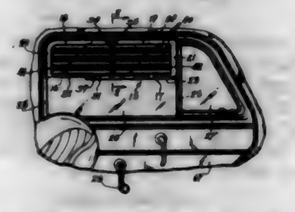
ment with the pivotal connection of the draft arms thereto and pivotally connected to the frame at a position in elevationally spaced relation to the draft arms, a bracket upwardly extended from the implement adjacent to the pivotal connection of the arms and the link thereto, and a substantially rigid member pivotally connected to the bracket and pivotally connected to the frame at a position in elevationally spaced substantially parallel relation to the draft arms.

2,841,068
MOULDBOARD OR BREAST OF PLOW
Shinjiro Takahita, Shoichi Takahita, Minoru Takahita, Tsutomu Takahita, and Akira Takahita, Nahari-cho, Nakaasa, Mieken, Japan
Original application August 15, 1952, Serial No. 304,662, now Patent No. 2,785,617, dated March 19, 1957. Divided and this application January 11, 1957, Serial No. 633,717
3 Claims. (Cl. 97—123)



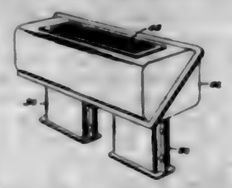
1. An adjustable mouldboard for a plough, comprising a plurality of spaced-apart inclined longitudinally twistable and flexible ribs, each having an outer face and upper and lower end portions with each face normally in substantially the same inclined plane; a support; means loosely connecting said lower end portions to said support; ball-and-socket connection means connecting each rib to a next adjacent rib, including an elongated channel-shaped member extending beneath the upper end portions of said ribs and provided with a pair of openings spaced a substantially equal distance from the longitudinal center thereof, and ball-and-socket assemblies operatively connected between one portion of said channel-shaped member and said ribs; and angularity adjusting means for connection between said channel-shaped member and said plough, to warp said ribs longitudinally so that portions of like faces thereof move out of said plane, including a support structure, means rigidly mounting said support structure upon a plow above the horizontal plane of said elongated channel-shaped member, an arcuate rack carried by said support structure, a lever having an outermost arm portion constructed and arranged to be manually disposed between selected teeth of said rack, and an upwardly-extending rotatable and reciprocating rod pivoted at its upper end to said arm and slidably extending through said support structure, with said support structure forming a fulcrum for said lever, said rod being bifurcated at its lower end and said bifurcated lower end slidably extending downwardly into said openings in said elongated channel-shaped member.

2,841,069
VENTILATING DEVICE FOR VEHICLES
Milton Glazburg, New Hyde Park, N. Y.
Application July 18, 1952, Serial No. 299,688
1 Claim. (Cl. 98—2)



A ventilating device adapted to be mounted in the window frame runs for the window pane of a motor vehicle window, comprising in combination a frame having two substantially U-shaped frame sections, said frame sections each having two channels facing inwardly, a pair of sheets of transparent light polarizing material respectively secured in one of the channels in each of said frame sections, said sheets each having slots extending therethrough to serve as louvers, a screen section, said sheets each having openings extending therethrough, a pair of mesh screens respectively disposed in the other of said channels in the frame sections, and means for adjustably positioning said frame sections with respect to each other in said window frame, said means including two straps pivotally secured together at one end, the other end of one of said straps being pivotally fastened to one frame section and the other end of the other strap being pivotally fastened to the other frame section, said straps being movable toward or away from each other to slide the frame sections toward or away from each other to reduce or increase the overall length of the frame sections, said straps being pivoted by exerting manual pressure on said one end thereof.

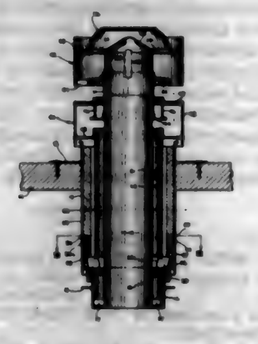
2,841,070
OUTLET FOR USE IN AN AIR DISTRIBUTING SYSTEM
Bernard E. Carran, Sewickley, Pa., assignor to H. H. Robertson Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 16, 1956, Serial No. 616,248
1 Claim. (Cl. 98—40)



An outlet box for use as a component of an air distributing system comprising a hollow shell of two identical half sections, each section being generally triangular in

cross section and each having an open face, one of the sections having an air discharge opening in one wall thereof and the other section having a pair of inlet openings, an outwardly extending peripheral flange defining the open portion of each half section to enable the sections to be secured together to form a substantially rectangular outlet box, each of the sections being adapted to be secured together to position the discharge opening and inlet opening in adjacent and in opposed relation to one another to thereby enable such openings to be positioned in different positions in the side, top and bottom walls forming in the outlet chamber.

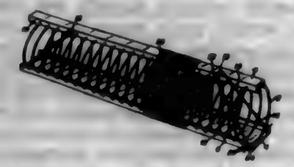
2,841,071
CHIMNEY CONSTRUCTION
Fern A. Strawbridge, Corunna, Mich., assignor to Strawbridge Manufacturing Company, Corunna, Mich., a partnership of Michigan
Application July 11, 1955, Serial No. 521,357
8 Claims. (Cl. 98—46)



1. In a chimney construction, the combination comprising: a flue gas conduit; a ventilating and weather-sealing attachment mounted on said flue gas conduit, said attachment including a weather band mounted in fixed position above said flue gas conduit relative to, and surrounding, said flue gas conduit; a weather cap mounted within, and spaced from, said weather band, said weather cap having a convex upper surface and a central opening therethrough; a deflecting cap mounted beneath the opening in said weather cap and spaced therefrom, said deflecting cap having a convex upper surface and being of greater diameter than the internal diameter of the flue gas conduit and being of substantially the same diameter as said central opening; a dish-shaped barrier having a central opening therethrough mounted in fixed position relative to said conduit below and spaced from said deflecting cap and within said weather band, said barrier having a downwardly sloping upper surface, the diameter of said central opening of said barrier being substantially the same as the external diameter of said conduit, said barrier sealingly contacting said flue gas conduit.

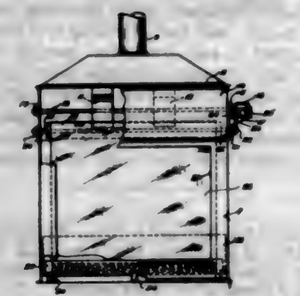
2,841,072
VENTILATING DUCT
Robert D. Knight, Shaker Heights, and Thomas Melville, Maple Heights, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey
Application February 25, 1955, Serial No. 490,562
4 Claims. (Cl. 98—56)

1. A ventilating duct comprising a helical spring, two channel members on opposite sides of said spring arranged with their flanges facing each other, the flanges of said channel members having spaced notches therein for receiving the convolutions of said spring to hold the same in spaced relationship, and a pair of wire stays at each end



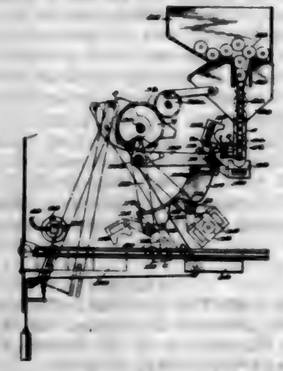
of the duct extending at an oblique angle between and connected to said channel members.

2,841,073
PAINT SPRAY BOOTH
Stella M. Forshee, Detroit, Mich.
Application September 29, 1954, Serial No. 459,648
6 Claims. (Cl. 98—115)



1. A paint spray booth having a back, a top, side walls, and a front wall with an opening therein, an exhaust for said booth, and a backdrop curtain consisting of a continuous length of normally dry, highly absorbent fabric material, spaced from the back and sides of said booth, said curtain having a tensile strength sufficient to support itself, and having an exposed area dimension greater than the opening in said front wall, feed means for said material, and a removable receptacle for collecting previously exposed portions of said material.

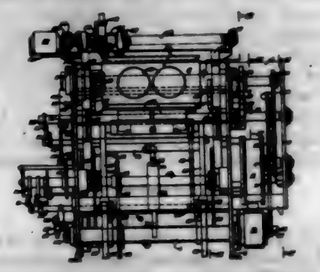
2,841,074
SAUSAGE GRILLING AND VENDING MACHINE
Richard Schechter, Uppsala, Sweden, assignor to AB Thorell & Persson, Uppsala, Sweden
Application April 11, 1955, Serial No. 500,585
Claims priority, application Sweden September 23, 1954
6 Claims. (Cl. 99—355)



1. A grilling and vending machine for a sausage having a stick extending longitudinally therethrough comprising a frame, a magazine secured to said frame, said

magazine containing a plurality of the sausages and having a discharge opening in the lower portion thereof, a cradle pivotally mounted beneath said discharge opening, spaced vertical guide means in said cradle for guiding the stick portions at either end of the sausages to conduct the sausages vertically downwardly in a superimposed manner, lock means for retaining the lowermost sausage in said cradle guide means, trip means for releasing said locking means to release said lowermost sausage, spaced horizontal guide elements positioned beneath the cradle, and means for actuating said trip means and for simultaneously grilling and transporting said sausage from said cradle to said spaced horizontal guide elements comprising a lever pivotally connected to said frame, a pair of grill irons pivotally connected to one end of said lever, said grill irons having recesses therein adapted to receive said sausage therebetween, motor-driven cam means for periodically oscillating said lever to cause said grill irons to be moved from said cradle to said spaced horizontal guide elements, said lever being arranged to trip said lock-releasing trip means, and cam means secured to said frame for opening said grill irons to receive said lowermost sausage when said lever is adjacent said cradle, for closing said grill irons together when said lever is moved toward said spaced horizontal guide elements, and for opening said grill irons when said lever is adjacent said horizontal guide elements.

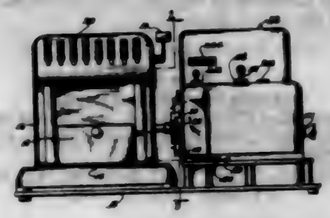
2,841,075
ARTICLE DECORATING APPARATUS
George Edward Ryckman, East Liverpool, Ohio, assignor to The Homer Laughlin China Company, Newell, W. Va., a corporation of Delaware
Application June 20, 1957, Serial No. 667,001
21 Claims. (Cl. 101—41)



1. Article decorating apparatus comprising a turret rotatable on a horizontal axis, elastic diaphragms mounted on the turret at circumferentially spaced points, means normally holding the turret stationary with a diaphragm at its bottom, a color-applying device above the turret for applying a design to a diaphragm at the top of the turret, an article-receiving chuck normally spaced from the turret, means for moving the chuck toward and away from said bottom diaphragm, means for inflating the bottom diaphragm to press it against an article on the chuck moved toward that diaphragm, means for raising said color-applying device, and means for rotating the turret while said color-applying device is elevated and the chuck is removed from the turret, whereby to index a color-carrying diaphragm to the bottom of the turret.

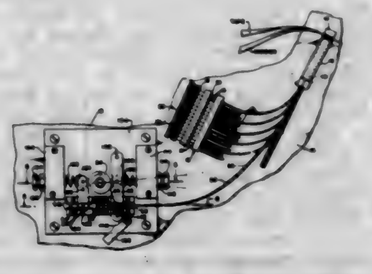
2,841,076
CHECK WRITING AND SIGNING MACHINE
Clarence W. Johnson, Barrington, and John Kreidich, Chicago, Ill., assignors to The Hedman Company, Chicago, Ill., a corporation of Delaware
Application February 15, 1955, Serial No. 488,356
16 Claims. (Cl. 101—91)

3. In a machine for writing and signing individual checks in one continuous sequence of imprinting operations which follow automatically one after the other, the combination of a base, a check writing assembly mounted on said base and including a shaft rocked back and forth through a predetermined angle of movement during each operating cycle of the assembly, a check signing assembly mounted on said base to receive checks released from said writing assembly, a starting switch for said check signing assembly, a toggle switch actuator mounted on said shaft for operating said starting switch



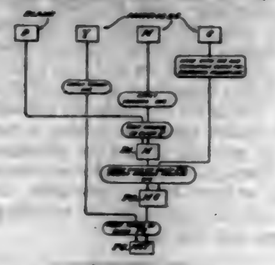
as an incident to each operating cycle of the shaft, said toggle switch actuator having pivot means therein providing for scissoring of the actuator to an inoperative position as an incident to movement of the shaft in one direction, and means on said toggle switch actuator for preventing scissoring thereof upon engagement of the switch actuator with the switch as an incident to movement of the shaft in the opposite direction to render said actuator effective to operate the switch.

2,841,077
WIRE PRINTER MECHANISM
Reynold B. Johnson, Palo Alto, Calif., and Fred G. Wolff, Endwell, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 7, 1953, Serial No. 396,716
25 Claims. (Cl. 101—93)



1. In an apparatus of the type in which a character is formed upon a paper or other recording material by relative movement between a platen supporting such paper or other recording material and the grouped ends of a plurality of wires upon which a character pattern is formed by selective displacement of such ends from a common plane, a plurality of wires, means for confining ends of said wires into a group and for restraining them against free endwise movement, guide means engaging said wires at intermediate points to prevent lateral deflection of the wires when their other ends are subjected to axial forces, character pattern forming means operable to apply axial forces upon the other ends of said wires to effect selective displacement of said wire grouped ends, and means for shifting said restraining means toward and away from a platen so as to record the character pattern formed on the grouped ends of the wires upon the paper or other recording material, said confining and restraining means being movable relative to the other ends of said wires.

2,841,078
PHOTOGRAPHIC COLOR CORRECTION IN IMBIBITION PRINTING
Eastman A. Weaver, Winchester, Mass., assignor to Comstock & Wescott, Inc., Cambridge, Mass., a corporation of Massachusetts
Application March 2, 1953, Serial No. 339,556
15 Claims. (Cl. 101—149.1)

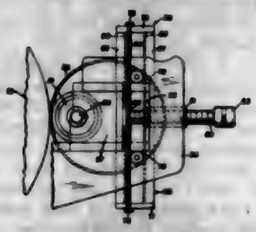


1. A method of producing color-corrected imbibition prints comprising the steps of mixing in solution a printing dye having undesired spectral absorption with a bleaching agent that is inert to said dye but capable of bleaching a second printing dye, and of printing one color aspect record with the mixture and another color-aspect record with the second dye, whereby the bleaching agent reduces the second dye to correct for undesirable absorption of the first dye in a spectral region properly absorbed by the second dye.

2,841,079
LITHOGRAPHY
Elbert A. Dutfer, Burlingame, Calif.
No Drawing. Application May 28, 1953
Serial No. 356,303
2 Claims. (Cl. 101—149.2)

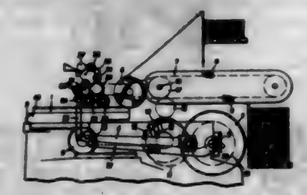
1. As a new composition of matter, a material for treating a lithographic plate comprising one-half gallon 2-butoxyethanol, one-half gallon methanol, 1½ pounds nickel chloride, one-half pound cuprous chloride.

2,841,080
ROTARY WEB PRINTING DEVICE WITH HOLLOW PRINTING CYLINDERS
John Viscardi, Lodi, N. J.
Application April 28, 1955, Serial No. 504,450
7 Claims. (Cl. 101—178)



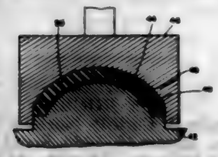
1. In a printing device, a rotatable impression roll, a plurality of spaced hollow printing cylinders disposed in external contact with said impression roll, pressure means disposed in internal engagement with each of said printing cylinders to hold the latter in contact with said impression roll and maintain rolling contact between said printing cylinder and impression roll, bearing members carrying each of said pressure means and movable toward and away from said impression roll for varying the pressure between said printing cylinder and impression roll, means for applying a printing medium to the exterior of each of said printing cylinders, and guide means for maintaining each of said printing cylinders in proper position for receiving said printing medium, whereby a plurality of imprints can be made on a single sheet during one pass of the sheet about said impression roll.

2,841,081
INKING MECHANISM FOR HIGH-SPEED CYLINDER PRINTING PRESSES
Kurt Kaufmann, Berlin-Waidmannslust, Germany, assignor to Automatic Druckmaschinenfabrik Dr. W. Hiendger & Schon, Berlin, Germany
Application July 6, 1954, Serial No. 441,546
8 Claims. (Cl. 101—353)



1. An inking mechanism for high-speed cylinder printing presses, and more particularly for high-speed stop-cylinder printing presses, having a carriage adapted to support a printing form for forward and backward movement, said inking mechanism comprising a first group of co-operating rolls including a first single form inking roll adapted to be driven independently and continuously, means for lifting said first form inking roll from said printing form during backward movement of said printing form, and a second group of co-operating rolls comprising a second single form inking roll and adapted to be driven forwardly and backwardly by said carriage.

2,841,082
METHOD OF CURVING MAGNESIUM PRINTING PLATES
James Stanley Kirkpatrick, Detroit, Mich., assignor to Brooks and Perkins, Inc., Detroit, Mich., a corporation of Delaware
Application October 6, 1952, Serial No. 313,290
1 Claim. (Cl. 101—401.1)

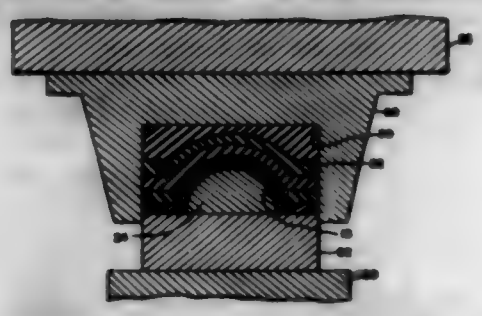


The method of producing cylindrically curved printing plates composed essentially of hard, dense, homogeneous magnesium which comprises providing a flat magnesium plate with a printing surface at one side thereof, heating the plate to a temperature of at least 450 degrees Fahrenheit, placing the plate against a rigid convex cylindrical forming member with the central portion of the other side of the plate engaging along an intermediate portion of the surface of the member, applying pressure initially to the end portions of the plate to bend the plate generally into conformation with the member, thereafter trapping a yieldable material in contact with the convex printing surface of the plate, applying pressure through the yieldable material of increasing magnitude and progressively outwardly from the central portion of the plate toward the ends thereof, and increasing the pressure applied through the yieldable material to a pressure of a minimum of 1000 pounds per square inch throughout the printing surface of the plate to cause the plate to conform to the rigid convex cylindrical forming member and to retain its shape without springback following release of the pressure.

2,841,883
METHOD OF MAKING CYLINDRICALLY CURVED PRINTING PLATES

James S. Kirkpatrick, Detroit, and Peter Zylstra, Jr., Plymouth, Mich., assignors to Brooks & Perkins, Inc., Detroit, Mich., a corporation of Delaware

Application August 2, 1954, Serial No. 447,142
13 Claims. (Cl. 101—401.1)



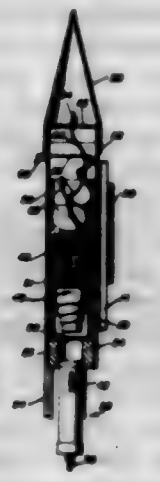
1. The method of making cylindrically curved printing plates which comprises providing a flat magnesium plate with a printing surface at one side thereof, engaging the other side of the plate with a rigid convex cylindrical forming member, pressing a yieldable rubber material against the printing surface of the plate to cause the plate to conform to the forming member, maintaining the plate at a temperature of between 300 and 800 degrees Fahrenheit during the application of pressure, and trapping the rubber material while increasing the applied pressure and thus applying an essentially hydraulic pressure through the rubber material, the pressure being selected in accordance with the temperature of the plate and having limits in accordance with the following table:

Forming Temperature, ° F.	Forming Pressures in p. s. i.	
	High	Low
300	18,500	3,200
350	14,500	2,400
400	12,000	1,850
450	9,700	1,450
500	8,000	1,000
550	6,400	650
600	5,000	400
650	3,750	300
700	2,700	225
750	1,650	185
800	800	100

2,841,884
TOY ROCKET

Orville H. Carlisle, Norfolk, Nebr.

Application August 30, 1954, Serial No. 453,085
5 Claims. (Cl. 102—34.1)

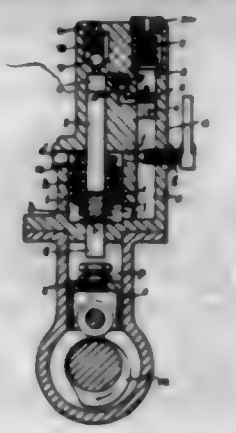


1. A toy rocket comprising, a housing, guide fins on said housing, propelling means in said housing for projecting the rocket into the air, and timed means in said housing for retarding the descent of said rocket, said timed means being actuated after the propelling means has been expended, said housing having a removable cap, a paper liner in said housing for preventing charring and corrosion of the inside surface thereof, a folded parachute in said housing, said parachute having shroud lines, a resilient member secured to an edge of said housing and connected with the shroud lines, said resilient member absorbing the shock caused by the opening of the parachute, said parachute being extended into its unfolded condition by said timed means during descent of said rocket, said folded parachute formed substantially in the form of a cylinder, and an end cap positioned on one end of said folded parachute, said timed means including an explosive charge for expelling the parachute from the housing said folded parachute having a paper wrapper, an end cap on one end thereof for protecting said parachute from damage by the explosive charge, said liner end cap and wrapper being expendable, said liner also providing a smooth surface for the expelling of the parachute, wrapper and end cap.

2,841,885
LIQUID FUEL PUMPS FOR INTERNAL COMBUSTION ENGINES

Fraser Mackie Evans, Acton, London, England, assignor to C. A. V. Limited, London, England

Application January 16, 1956, Serial No. 559,484
1 Claim. (Cl. 103—37)



A liquid fuel pump comprising in combination a fuel inlet, a body part provided with a first bore for receiving fuel from said fuel inlet, a second bore arranged coaxially with and extending from one end of said first bore, and a fuel transfer passage leading from said first bore to the remote end of said second bore and having a restricted vent associated therewith, a fuel outlet leading from the last mentioned end of said second bore, a fuel feed plunger slidable in said first bore, a spring acting on said plunger, a rotary cam for moving said plunger against the action of said spring, a fuel injection plunger slidable in said second bore in one direction by said fuel feed plunger for discharging fuel through said outlet, and in the opposite direction by the pressure of fuel transferred by said fuel feed plunger from said first bore to said second bore through said passageway, and a spring-loaded valve arranged in said passageway and movable by fuel pressure in said first bore to reduce the rate of fuel flow therefrom to said second bore.

2,841,886
DOWNWELL PUMP

Roy H. Deitrickson, Toledo, Ohio, assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application May 13, 1953, Serial No. 354,690
6 Claims. (Cl. 103—46)

1. In a hydraulically actuated downwell pump for a well having a casing and an inner operating tubing of diameter smaller than the inner diameter of the casing, in combination, apparatus consisting of a hydraulic engine and a pump and being located near the bottom of

the tubing and having a cylindrical housing smaller in diameter than the inner diameter of said tubing, said tubing and said housing defining an annular space surrounding said housing, a seal closing off such annular space from the part of said tubing above said engine and pump, valving mechanism for said engine to admit power oil from said tubing above said seal to said engine and to discharge exhaust power oil therefrom into the annular space below said seal, a production fluid and exhaust power oil conduit separate from said tubing and leading from the lower part of such annular space to the surface, production fluid valving means located be-



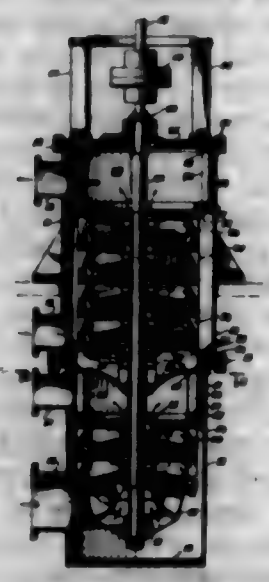
low said pump in said tubing and including a standing valve for admitting production fluid into said valving means only and a stationary discharge valve for effectuating discharge of production fluid from said pump into such annular space only and at a level below said pump during a discharge stroke of said pump and for directing production fluid admitted into said valving means to the lower side of said pump during an intake stroke, the upper side of said pump being in communication with such annular space at a level above the discharge level of said standing discharge valve and at a level substantially above the level of communication between such space and said separate conduit.

2,841,087

VERTICAL CENTRIFUGAL PUMPING APPARATUS

Robert J. MacMeekin, Flourtown, and Edward G. Hilscher, Philadelphia, Pa., assignors to C. H. Wheeler Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania

Application December 14, 1955, Serial No. 553,826
2 Claims. (Cl. 103—107)



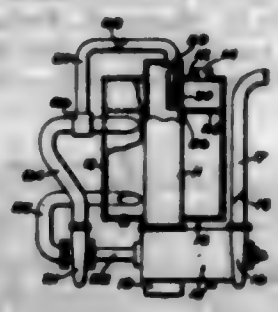
1. In a vertical centrifugal pumping apparatus, a vertical outer casing containing an inside pump assembly withdrawable through an opening at the upper end of said casing, said pump assembly including a lower pump and an upper pump driven from a vertical shaft, each of said pumps spaced from said outer casing and having a suction port and a discharge port, said outer casing having an inlet passage extending around the exterior of said lower pump and in open communication with the suction port of said lower pump, an outlet passage in said casing in open communication with the discharge port of said lower pump, an inlet passage in said casing extending around the exterior of said upper pump and in open communication with the suction port of said upper pump, and an outlet passage in said casing in open communication with the discharge port of said upper pump, means for supporting said pump assembly from the upper end of said outer casing, said supporting means comprising a closure for the opening at the upper end of said outer casing, said closure having a downwardly facing surface complementary to an upwardly facing surface on said outer casing and forming therewith a joint sealing a compartment at the upper end of said casing from the atmosphere, said compartment forming part of said outlet passage communicating with the discharge port of said upper pump, and members depending from said closure and suspending said pump assembly from said closure, said joint between said upwardly and downwardly facing surfaces reacting to sustain the full downward thrust of the weight of the pump assembly on said closure; and a plurality of sealing means providing sliding seals between said inside pump assembly and said outer casing, vertically separated from one another and acting independently of one another to prevent communication between the suction port of said lower pump and the discharge port of said lower pump, between the discharge port of said lower pump and the inlet port of said upper pump, and between the suction port of said upper pump and the discharge port of said upper pump, each of said sealing means comprising a cylindrical bearing surface interiorly of said outer casing and a self-adjusting resilient ring mounted in a circumferentially continuous groove in an annular member of said pump assembly and pressing outwardly upon said bearing surface.

2,841,088

PUMPING UNIT

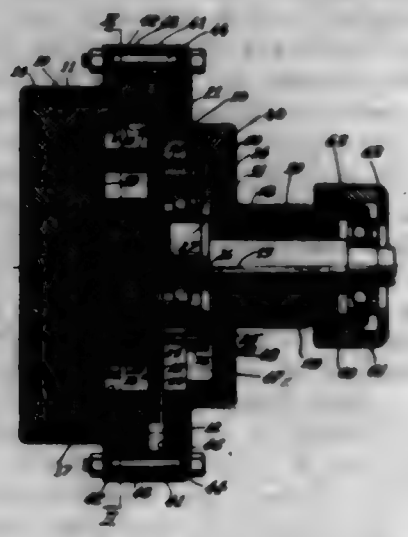
Francis E. Duddario, Reading, Mass.

Application June 12, 1953, Serial No. 361,107
6 Claims. (Cl. 103—113)



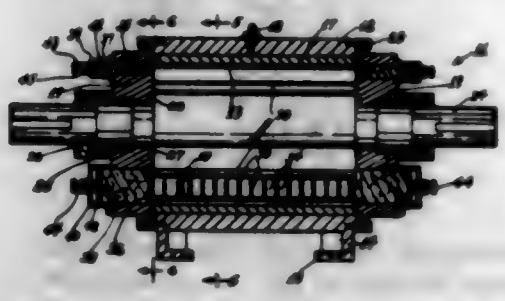
1. In pumping apparatus, the combination of a tank, a first pump having an inlet in communication with the lower part of said tank and an outlet in communication with the upper part thereof, said first pump being disposed relative to said tank to be primed by the head thereof, a standpipe having an outlet, a second pump including an inlet with which the inlet of said standpipe is in priming communication, said standpipe being arranged above said second pump and having a capacity greater than that required to prime said second pump and said outlet for said first pump including an ejector, and a suction tube effecting communication between said ejector and the upper part of said standpipe.

2,841,089
SCROLL PUMP
John Lester Jones, Cleveland, Ohio, assignor, by mesne assignments, to Rand Development Corporation, Cleveland, Ohio, a corporation of Ohio
Application May 29, 1953, Serial No. 358,673
7 Claims. (Cl. 103—131)



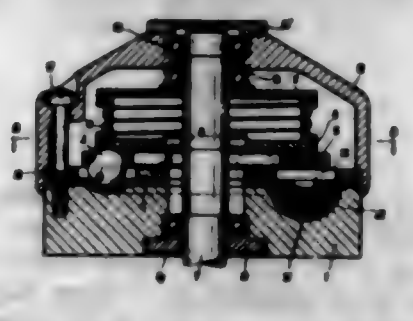
1. In a pump, a casing member having a planar casing face intersected by a spirally-shaped recess, means in said casing providing openings at the inner and outer ends of said recess to provide inlet and outlet openings for the recess, an end plate providing spaced faces, one of said faces being generally planar and abutting said casing face and having a spirally-shaped rib extending therefrom into said recess, the other face of said end plate having an annular hub extending away therefrom, a second casing member connected to said first casing member and having wall portions spaced from said end plate, bearing means inside of said hub, a rotatable shaft journaled in said second casing member and having an eccentric portion engaging said bearing means to oscillate said end plate, continuous biasing means between the other of said faces on said end plate and said wall portions of said second casing member to load said end plate into sealing engagement with said casing face, and stop means between said first casing member and said end plate precluding relative rotation therebetween.

2,841,090
REVOLVING SLEEVE ROTARY VANE PUMP
Frederick W. Nuerwell, Parker, Ariz.
Application March 14, 1955, Serial No. 494,073
3 Claims. (Cl. 103—140)



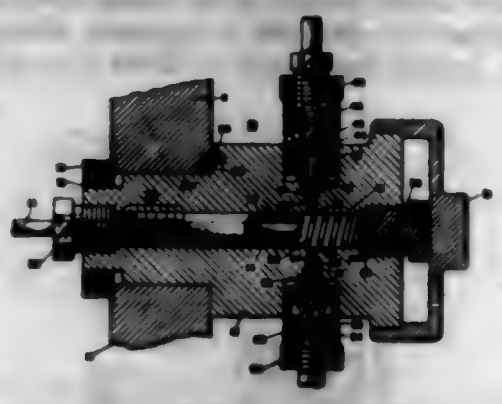
1. In a rotary vane pump of the character described, a main housing having a cylindrical internal wall, a cylindrical sleeve member disposed in said main housing, said sleeve member being substantially coextensive in length with said cylindrical internal wall and rotatively engaging said cylindrical internal wall, respective end walls secured to the ends of said housing, a longitudinal shaft extending rotatably through said end walls on an axis spaced from the axis of the cylindrical internal wall of said housing, a plurality of longitudinal vanes pivoted to said shaft in said housing on parallel longitudinal axes and being substantially coextensive in length with said sleeve member, respective deformable sealing elements mounted in said end walls and being arranged to sealingly engage the end edges of said vanes at opposite locations with respect to said shaft, respective plungers slidably mounted in said end walls and engaging said sealing elements substantially over their entire areas, means to exert adjustable inward force on said plungers, fluid inlet means in at least one of said end walls and communicating with the interior portion of the sleeve member at one side of the shaft between said sealing elements, and fluid outlet means in at least one of said end walls communicating with the interior portion of the sleeve member between the sealing elements on the side of said shaft opposite said fluid inlet means.

2,841,091
APPARATUS FOR CONVEYING GASES OR LIQUIDS
Paul Schaurte, Schaan-Sax, Liechtenstein
Application November 15, 1954, Serial No. 468,946
Claims priority, application Germany November 16, 1953
16 Claims. (Cl. 103—149)



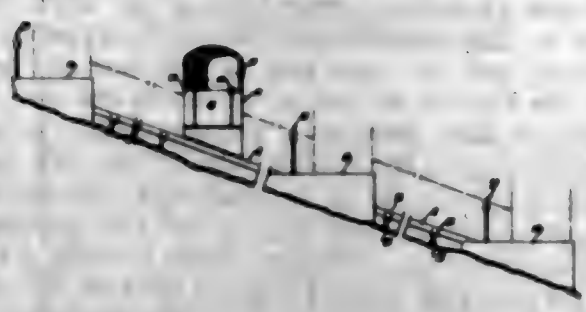
1. An apparatus for conveying a gaseous or liquid medium comprising a housing, a central shaft rotatable within said housing, said housing having a substantially level surface therein extending at a right angle to said shaft, an annular groove within said surface coaxially with said shaft, a resilient diaphragm superposed upon said groove, said groove and diaphragm together forming an annular channel, an inlet and an outlet for said medium near each other in said housing and communicating with said channel in such a manner that communication between said inlet and said outlet is established through said groove by way of a long arcuate chamber as well as by way of a short arcuate chamber, a partition within said short arcuate chamber of said groove and forming an integral part of said diaphragm so as to close off the communication between said inlet and outlet by way of said short arcuate chamber of said groove, at least one spherical element, means for guiding said element so as to roll along a circular path coinciding with a vertical cylindrical plane passing through the center of said annular groove, as seen in a cross section thereof, pressure means connected with said shaft so as to rotate therewith and pressing upon said spherical element and in frictional contact therewith, said annular groove when seen in cross section having a central concave portion in the shape of an arc of a circle having a diameter substantially equal to the diameter of said spherical element plus the thickness of said diaphragm, and a convex portion at each side of said central portion gradually merging into said level surface in said housing, said spherical element being depressed by said pressure means upon said diaphragm, thus pressing said diaphragm into said groove so as to fill out said groove at such particular point completely, whereby when said spherical element rolls along said circular path in one direction and simultaneously depresses said diaphragm into said groove, it progressively pushes said medium along said channel from the inlet to the outlet thereof.

2,841,891
HIGH-PRESSURE PUMP
Irvin R. Whitesman, Los Angeles, Calif., and John T. Burress, Willow Grove, Pa., assignors to Milton Roy Company, Philadelphia, Pa., a corporation of Pennsylvania
Application August 9, 1955, Serial No. 527,319
7 Claims. (Cl. 103—153)



1. In a high-pressure pump, a liquid end assembly comprising a body member having a passage extending therethrough forming a chamber for receiving a pump plunger, a suction port extending through the wall of said body member and communicating with said chamber, a discharge port extending through the wall of said body member and communicating with said chamber, valve means in each of said ports, said suction and discharge ports being in axial alignment with each other and in a plane substantially perpendicular to the axis of said chamber, one end of said body member having a portion of reduced diameter and an external shoulder adjacent thereto, said portion being adapted to extend through an opening in the frame of the high-pressure pump, means for forcing said shoulder against the frame, a packing assembly disposed within said chamber and adapted to encircle the pump plunger to form a liquid-tight seal at one end of said chamber, and self-centering sealing means disposed at the opposite end of said chamber and beyond said suction and discharge ports forming a liquid-tight seal at the opposite end of said chamber, said self-centering sealing means including a member having a tapered surface for cooperating with a corresponding tapered surface on said body member at the same end of said chamber.

2,841,893
HILL CLIMBING APPARATUS
Sherman A. Camp, Walnut Creek, Calif.
Application October 29, 1953, Serial No. 389,127
5 Claims. (Cl. 104—235)



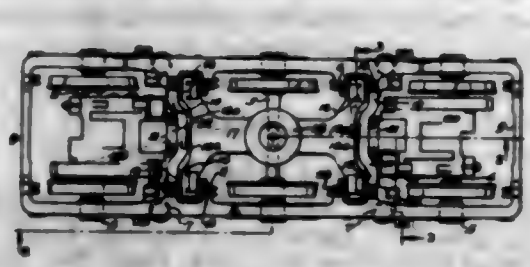
1. Hill climbing apparatus comprising a pair of parallel ground-supported upwardly inclined tracks, a carriage mounted on said tracks by roller wheel support means for two way movement thereon, a chain disposed between said tracks and parallel thereto for substantially the full length thereof, fastening means for the ends of said chain, said chain extending under and being in mesh with a first idler sprocket carried by said carriage, over and in mesh with a driving sprocket mounted on said carriage, and under and in mesh with a second idler sprocket, said second idler sprocket being mounted on a stub shaft carried by a lever arm disposed parallel to said tracks and mounted on said carriage for pivotal movement about a horizontal axis, a stop member mounted on said carriage to engage said stub shaft to inhibit the lifting of said stub shaft under the tensioning force of said chain, braking elements pivotally connected to said carriage in juxtaposed relation to said tracks operable to pivotally move into braking engagement with said tracks, a crank lever connection between said stub shaft and said braking elements operable to support said braking elements out of engagement with said tracks when said stub shaft is in engagement with said stop member under the tensioning force of said chain and operable to pivot said elements into braking engagement with said tracks when said lever arm is caused to rock downwardly in response to slackness in said chain or the breaking thereof to move said stub shaft out of engagement with said stop member, and reversible power means mounted on said carriage for rotating said driving sprocket in either direction of rotation.

2,841,894
SYSTEM OF TRANSPORTING HIGHWAY VEHICLES BY RAIL
Leon B. Schumacher, Dayton, Ohio
Application April 12, 1955, Serial No. 500,767
8 Claims. (Cl. 105—159)



1. A railway vehicle body consisting of two highway semi-trailer bodies each having girder-like sidewalls, and means on the rear end of each sidewall for detachably securing said bodies to each other back-to-back, said securing means comprising a toothed vertical member rigidly secured to the rear end of each sidewall and extending substantially the full height of said sidewall and detachably engaged with a cooperating similar member on the other said semi-trailer body.

2,841,895
RAILWAY VEHICLE TRUCK
James C. Travilla, University City, Mo., and Adelbert C. Wintemberg, Drexel Hill, and Robert E. Stein, Boothwyn, Pa., assignors to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware
Application August 30, 1954, Serial No. 453,848
15 Claims. (Cl. 105—188)



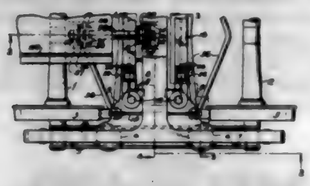
2. In a railway truck, spaced axles and wheels, a truck frame supported therefrom and including wheel pieces connected by transverse transoms positioned between said axles, a bolster spring-supported from said frame and including cross members extending generally parallel to and in close relation to said transoms, the ends of said transoms and bolster cross members being offset transversely of their length from their intermediate portions in order to accommodate associated truck structure positioned between the opposite ends of each transom.

2,841,096
SUSPENSION SYSTEM FOR THE BOGIES OF RAILWAY AND LIKE VEHICLES
Archie John Hirst, Leicester, England, assignor to Metalastik Limited, Leicester, England, a corporation of Great Britain
Application January 18, 1954, Serial No. 404,498
Claims priority, application Great Britain January 31, 1953
1 Claim. (Cl. 105—197)



A bogie for a railway vehicle comprising a wheeled frame having side members, a pair of upright, parallel links of substantially equal length arranged adjacent one of said side members and spaced horizontally in the direction of travel of the bogie, a pivotal connection between the bottom end of one of the links and said one side member of the frame, a pivotal connection between the upper end of the other link and said one side member, a beam extending between said links and being pivotally connected to the upper end of the first said link and to the bottom end of the second said link, a support for the body of the vehicle located above the beam, and a spring assembly carried by the beam and extending therefrom up to the body support which is held up from the beam solely by means of said spring assembly.

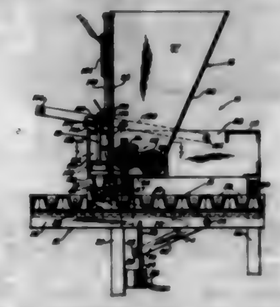
2,841,097
RAILWAY TRUCK
James C. Travilla, University City, Mo., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware
Application February 24, 1953, Serial No. 338,300
14 Claims. (Cl. 105—199)



1. In a railway vehicle, a truck including axles and wheels and a truck frame carried thereby and including wheel pieces, a vehicle body including an underframe, hangers suspended at their upper ends from said truck frame at the level of said wheel pieces and extending downwardly and below the level of said wheel pieces, and members on said underframe projecting downwardly between hangers at opposite sides of the truck and supported from the lower ends of said hangers.

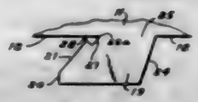
2,841,098
VISCOUS INGREDIENT DISPENSING APPARATUS
Jacques Paul Sprouken, Berkeley, Calif.
Application September 21, 1956, Serial No. 611,166
7 Claims. (Cl. 107—8)

1. In viscous material dispensing apparatus of the type involving a forwardly movable mold assembly composed of separate mold sections having mold cavities therein, support means having side portions adapted to be positioned along opposite sides of a mold assembly and to extend thereabove, a dispensing assembly mounted on and between said side portions, said dispensing assembly comprising a viscous material containing hopper having side walls, a bottom wall arranged to be spaced above a mold assembly and a vertical front wall having a forward side, said vertical front wall having a lower edge spaced upwardly from said bottom wall so as to define therewith a transversely elongated discharge opening, front and rear transverse rollers extending between and journaled in said side walls, said rollers being in cooperating relationship with the rear roller working close to said bottom wall and said front roller being elevated above said bottom wall, means connecting said rollers together for rotation in opposite directions and means for driving the rollers to force viscous material



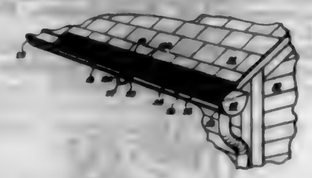
in the hopper forwardly through said discharge opening, an extruding housing mounted on the forward side of the hopper front wall and communicating with said hopper through said discharge opening and into which viscous material is forced from said discharge opening, said extruding housing having a top wall and a bottom wall, piston rod means working through said top wall, a piston working within said housing and secured to said piston means, said housing bottom wall having discharge nozzle means depending therefrom, and piston operating means for said piston.

2,841,099
SHINGLE
Herbert Abraham, New York, N. Y., assignor to The Ruberoid Co., New York, N. Y., a corporation of New Jersey
Application March 8, 1955, Serial No. 492,890
2 Claims. (Cl. 108—7)



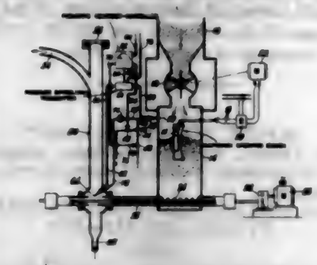
2. A locking shingle of the square butt type comprising a body portion and a butt portion having a straight edge, a slot extending transversely in the same general direction as the straight edge of the butt portion and terminating with an open end at one side of the butt portion, the edge of the slot at the closed end and one of the adjacent sides forming a locking corner, a locking tab extending from the straight edge of the butt portion, said locking tab having an inclined edge extending at an acute angle to the straight edge of the butt portion, said inclined edge having a reentrant angle forming a portion having the free edge thereof directed towards the straight edge of the butt section and spaced therefrom, said shingle being constructed and arranged to be laid in courses with like shingles and with the locking tabs of those shingles of each upper course inserted in the transversely-extending slots of the shingles of the next lower course, with the locking tabs interlocked with the locking corner of the transversely-extending slots, and with the portion formed by the re-entrant angle of the locking tab underlying the butt portion of a shingle of a lower course, and on any tendency of the butt portion of the shingle to which the locking tab is attached to lift functioning to engage the underside of the butt portion of the shingle of the lower course to prevent such lifting.

2,841,100
MOVABLE SCREEN FOR EAVES TROUGHS
Carl H. Moller, Miami, Fla., assignor to Christine Moller, Miami, Fla.
Application December 1, 1954, Serial No. 472,273
1 Claim. (Cl. 108—30)



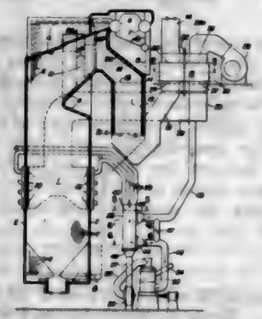
A screen for an eave trough having a longitudinally extending rolled edge, said screen comprising an elongated section of screen material having a rod positioned in one longitudinal edge and rendering said section of screen material rigid longitudinally, a U-shaped arm positioned transversely of said section of screen material, the ends of said U-shaped arm hooked over the opposite edge of said screen material with respect to the edge in which said rod is positioned, the base of said U-shaped arm extending outwardly beyond said rod, and a plurality of inverted substantially U-shaped spring fasteners each of which has an eyelet thereon pivotally engaged about said rod in said longitudinal edge of said section of screen material and having depending arm portions adapted to be engaged over the rolled edge of said eave trough in self-retaining relation thereto.

2,841,101
PULVERIZED COAL FEEDING AND PRESSURIZING SYSTEM
Arlan B. Hale, St. Albans, Milfred L. Brown, Nitro, and Stanton E. Parrish, South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York
Application August 27, 1953, Serial No. 376,944
8 Claims. (Cl. 110—104)



1. An apparatus for continuously forming under pressure an oxygen and pulverized coal mixture having the characteristics of a fluidized solid, comprising a closed fluidizing chamber having at least one outlet for said mixture and an inlet for oxygen; a pressurized coal chamber having a gas port for admitting inert gas into and out of said chamber; means communicating between said coal chamber and said fluidizing chamber for conveying pulverized coal under pressure from said coal chamber into said fluidizing chamber; an open pulverized coal hopper adjacent to said coal chamber for receiving and storing pulverized coal at atmospheric pressure; means communicating between said coal hopper and said coal chamber for conveying pulverized coal from said coal hopper into said coal chamber; means responsive to the level of coal in said coal chamber and controlling said communicating means from said coal hopper into said coal chamber so as to maintain a constant predetermined level of pulverized coal in said coal chamber; and control means for controlling the pressure in said coal chamber relative to the pressure in said fluidizing chamber by regulating the flow of an inert gas into and out of said coal chamber through said gas port so as to maintain the pressure in said coal chamber above the pressure in said fluidizing chamber by a predetermined value.

2,841,102
HEAT EXCHANGER
Leonard J. Marshall, Tenafly, N. J., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application July 24, 1953, Serial No. 370,139
3 Claims. (Cl. 110—106)

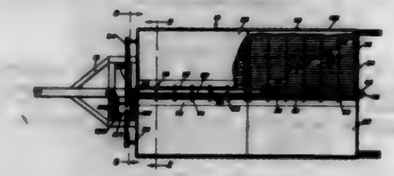


1. In an apparatus for burning fuel and for extracting heat from the products of combustion, the combination of an air heater, a furnace, a conduit connecting said furnace to said air heater to convey the products of combustion in heat exchange relation in said heater with the air for burning said fuel to heat said air, an outlet conduit for the heated air connecting said air heater to said furnace, a non-contacting air cooler in fluid communication with the heated air outlet conduit of said air heater to receive a controlled portion of heated drying air for cooling said portion, said cooler having an outlet for the cooled drying air, a mill-drier connected to the drying air outlet of said cooler for receiving said cooled drying air and for pulverizing said fuel and drying said fuel while suspended in air, thereby lowering still further the temperature of said drying air due to evaporation of moisture from said fuel, an air and fuel mixture outlet of said mill drier, a conduit connecting said drier mixture outlet to said cooler, means for establishing within said non-contacting cooler heat exchange between said relatively cool mixture and said heated drying air for cooling the latter, a mixture outlet of said cooler, a conduit connecting said cooler mixture outlet to said furnace for feeding said fuel and air mixture to said apparatus for burning, and by-pass means for by-passing a portion of at least one of said heat exchange fluids around said air cooler, whereby to controllably lower the temperature of the drying air leaving said cooler, while maintaining constant the quantity of said drying air passing through said mill-drier.

2,841,103
SUGAR CANE PLANTER
James G. Arceneaux, Chamberlin, La.
Application June 17, 1954, Serial No. 437,396
2 Claims. (Cl. 111—5)

1. A sugar cane planter comprising a mobile receptacle having elongated inclined converging side walls for receiving elongated sugar cane stalks, a longitudinally ex-

tending upstanding divider between the side walls for dividing the receptacle into two compartments, said divider having downwardly diverging walls with a plurality of vertically disposed and longitudinally spaced slots in each wall of the divider, the slots in one wall being disposed in alignment with the slots in the other wall, a longitudinal shaft disposed between the inclined walls of the divider, a plurality of longitudinally spaced circular saws mounted on said shaft, the periphery of said saws projecting through aligned pairs of slots and terminating



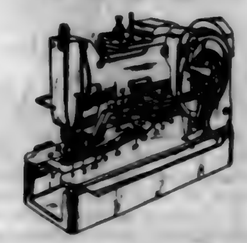
adjacent the converging walls of the receptacle whereby the walls of the receptacle and the divider guide the sugar cane stalks into the saws, the walls of the receptacle terminating in spaced bottom edges, conveying means extending inwardly under the bottom edges of the walls of the receptacle for receiving the cut lengths of sugar cane stalk from between the saws, and discharge means receiving the cut lengths of stalk from the conveying means and depositing the same in longitudinal rows on the ground.

2,841,104
CHECK WIRE PAY-OUT STAKE
Edgar D. Basch, Lyons, Ind.
Application March 18, 1957, Serial No. 646,737
7 Claims. (Cl. 111—49)



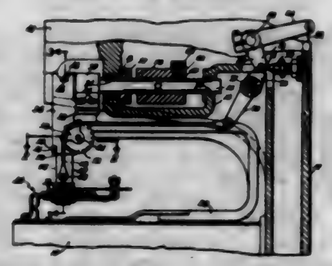
1. In a corn planter check wire pay-out mechanism operating under increasing tension set up in the wire, the combination of a base member; stake means interengaging said member and having a pair of legs entering the ground retaining said member against rotation about said means; a pair of bars rockably carried by said member and extending in a common direction therefrom; a release member rockably carried by one of said bars; said other bar having a slot therethrough in part longitudinally thereof and in part laterally thereof; a pivot member carried by said release member and slidingly entering said slot; spring means interengaging the release member and said one bar normally rocking the release member toward said base member positioning the release member at an acute angle with said one bar limited in degree by the limits of travel of the pivot member in said slot; a tubular housing swingably carried by said base member between said two bars and extending therebetween; a tube freely extending within said housing; a compression spring within said tube; an abutment in an outer end portion of the tube; a check wire engaging rod entering said tube within said spring; an abutment on the rod; said spring lying between said two abutments; a second compression spring within said housing surrounding said tube; a spring abutment carried by an outer end portion of the housing past which said tube may slide; a spring abutment externally of the tube, between which two spring abutments said second spring lies; said first spring requiring less pressure to compress it than said second spring; said rod passing across said release member; and an abutment on said rod striking said release member upon pull on said rod by said wire, said abutment sliding along and becoming free of the release member upon increasing pull on said rod, thereby setting up a "pay-out" of the rod dependent upon the degree of pull thereof by said wire.

2,841,105
SEWING MACHINES
Alfred Bacher, Winterthur, Switzerland, assignor to G. M. Pfaff Aktiengesellschaft, Kaiserslautern, Pfalz, Germany, a Germina company
Application August 30, 1955, Serial No. 531,477
Claims priority, application Germany September 11, 1954
5 Claims. (Cl. 112—77)



1. A tape guide, for use in connection with a sewing machine for the production of reinforced button holes and having a needle and a needle plate and a movable presser lever extending from a point above said needle plate, said tape guide comprising in combination, an elongated arm including one end portion connected to said presser lever at a point spaced from said needle plate for movement with said presser lever, and an opposite end portion extending to and being parallel with the needle plate, said arm having formed in said opposite end portion a recess surrounding the needle path, clamping means for the tape mounted on two opposite sides of said recess to suspend a length of tape across said recess for engagement by the needle, and tape holding means connected to said arm gripping said tape yieldingly at a point spaced from said clamping means, said clamping means including a hoop mounted on said arm, adjacent one side of said recess, said tape being engaged between said hoop and the top surface of the arm, and a clip connected to said arm near the other side of said recess and operable to engage said tape.

2,841,106
SEWING MACHINE CLAMPS
Herbert E. Althens, Auburndale, Mass., assignor to The Reece Corporation, Waltham, Mass., a corporation of Massachusetts
Application May 9, 1955, Serial No. 506,907
5 Claims. (Cl. 112—237)



1. In a sewing machine, a work clamp, said work clamp including a lower work supporting member and a presser foot member coacting therewith for clamping

work therebetween, a single post mounted on said work clamp for vertical movement thereon with respect to said lower work supporting member, said presser foot being mounted on said post for movement therewith, actuating means for raising and lowering said presser foot member with respect to said work supporting member, said actuating means including a pair of cables connected to opposite sides of said post, and means for equalizing the pressure exerted on the opposite sides of the post by the actuating means when said presser foot is being raised.

2,841,107
FLEXIBLE FLOATING DECK
Maurice G. Scheider, Bel Air, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 29, 1955, Serial No. 549,898
1 Claim. (Cl. 114—43.5)



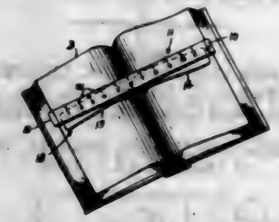
A waterborne craft forming an airplane runway for receiving landing aircraft thereon comprising an elongated free-floating raft, said raft having a rigid framework extending about the periphery thereof and buoyant means underlying said framework, flexible fabric sheet means extending between said framework, and an arresting gear supported on said framework at the landing end of the runway comprising a pair of spaced uprights, a cable extending over said uprights and downwardly below said rafts into the water, and sea anchors attached to the lower-most ends of the cable to restrict lateral movement of the raft and restrain extensive forward movement thereof when an aircraft engages the cable during a landing operation.

2,841,108
INDICATING SUPPORT FOR FIRE EXTINGUISHERS
John P. Phillips, North Hollywood, Calif.
Application August 29, 1955, Serial No. 531,217
3 Claims. (Cl. 116—114)
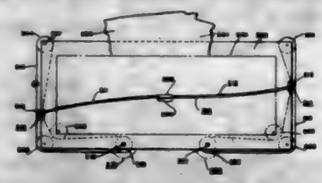


1. An indicating support for fire extinguishers and the like comprising a vertical fixed back plate, a movable plate spaced forwardly of the back plate, links connecting the upper and lower portions of the plates for up and down parallel movement, an extinguisher supporting hook on the movable plate, a helical spring between the two plates, extending the length of same, a connection between the upper end of the spring and the upper end of the back plate, another connection between the spring at its lower end and the lower end of the movable plate, means for adjusting the tension on the spring, the connection at the upper end of the spring including a bracket on the back plate, the tension adjusting means for the spring including a screw threaded rod passing through an opening in the upper spring supporting bracket, a slotted head on the upper end of said rod, an internally screw threaded annulus on the rod, a connection between the upper end of the spring and the annulus, an integral forward extension on the upper links, indicia on the extension, a juxtaposed integral forwardly and downwardly extending slotted extension on the supporting bracket for the upper end of the spring, the position of the indicia extension varying with respect to the spring bracket extension and the slot therein, said variation dependent upon the condition of the extinguisher on the supporting hook.

2,841,109
READING ACCELERATOR
Dorothy M. Marty, Mentor, Ohio
Application August 30, 1956, Serial No. 607,109
2 Claims. (Cl. 116—119)



1. A line guide comprising a guide strip of thin flexible material having a transverse center section of general V-shape adapted to fit within the fold of an open book, said guide strip at the sides of such center section being upwardly bowed to conform approximately to the contour of the pages of the open book, and a flat actuator strip extending across and secured to the outer surfaces of the uppermost portions of said guide strips, such uppermost portions of the guide strip and hence the areas of connection of the same to said actuator strip being spaced respectively inwardly of the ends of said guide strip, said actuator strip being relatively rigid so that the guide strip can be flexed closely to contact the pages of the book by pressing on the actuator strip, at least one longitudinal edge of said guide strip being displaced outwardly of the corresponding edge of said actuator strip.

2,841,110
MECHANICAL APPARATUS FOR DISPLAYING ELECTRICAL PHENOMENA OR THE LIKE
Edward R. Jahns, Los Angeles, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application December 10, 1956, Serial No. 627,495
2 Claims. (Cl. 116—124.1)



1. In combination, a graph disposed upon a first surface and having first and second rectangular coordinate axes each representing a respective electrical condition, a flexible indicating rod disposed in proximity with said graph, said flexible rod having a minor portion fixedly disposed with respect to said graph and a major portion adapted for selective displacement along a second and imaginary surface which is equidistant from said first surface, a stationary mounting plate fixedly disposed with respect to

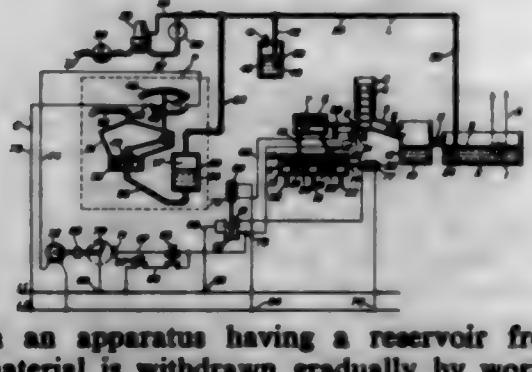
said minor portion of said flexible rod and equidistant from said first surface, a rotationally adjustable electrical control, and means intercoupling said electrical control with said flexible rod for varying the disposition of said major portion of said rod in response to the rotational displacement of said control to indicate visually the electrical phenomena resulting from the adjustment of said control, said intercoupling means consisting of a slider element disposed upon a side edge of said stationary mounting plate and having means for slidably retaining said major portion of said flexible rod, said slider element being adapted for translational displacement along said side edge of said stationary mounting plate, a plurality of idler wheels mounted upon a surface of said stationary mounting plate, a concentric drive wheel mounted upon said electrical control, and a guide wire fixedly attached solely to said slider element and disposed about said idler wheels and concentric drive wheel in frictional relationship.

2,841,111

SYSTEM FOR CONTROLLING LIQUID LEVEL

Preston L. Walker II, Birmingham, Ala., assignor to United States Steel Corporation, a corporation of New Jersey

Application July 28, 1954, Serial No. 446,233
22 Claims. (Cl. 118—7)



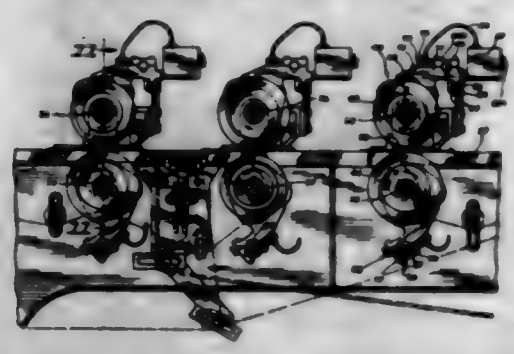
1. In an apparatus having a reservoir from which fluid material is withdrawn gradually by working operations and a feed device effective upon each operation thereof to deliver a single solid batch of material to said reservoir to replace the material withdrawn, a control system for maintaining the level of material in said reservoir above a predetermined minimum comprising actuating means for operating said feed device, means controlling the operation of said actuating means, and means responsive to the level of material in said reservoir falling below said predetermined minimum for operating said control means.

2,841,112

ROTARY DEWAXER FOR COATED PAPER OR CARDBOARD BLANKS

Paul E. Fischer, Minneapolis, Minn., assignor to E. G. Staude Manufacturing Company, Inc., St. Paul, Minn., a corporation of New Hampshire

Application March 3, 1955, Serial No. 491,875
5 Claims. (Cl. 118—11)



1. A machine for dewaxing selected portions of the surface of wax-coated box blanks comprising a frame, a power drive on the frame, box blank carrier means connected to said power drive and mounted on the frame for carrying said blanks along a straight plane of movement at a predetermined speed and in succession, at least one pair of cross shafts extending across the machine at equal distances above and below the plane of movement of said box blanks, said shafts being connected to the power drive so as to be driven thereby in synchronism with said box blank carrier means, heated roller means mounted on one of said shafts, said roller means having a pad on the periphery thereof forming a circumferential surface thereof, said pad being shaped to correspond to the area of the box blank which it is desired to dewax, and support roller means on the other shafts having a diameter such that it will hold the box blank against said pad as the blank is moved thereberween.

2,841,113

HABITAT OR MATRIX FOR LIVE BAIT TYPE CREATURES AS WORMS, CRAYFISH OR HELGRAMITES

Edward A. Ehert, Snyder, N. Y.

Application August 17, 1956, Serial No. 604,644
1 Claim. (Cl. 119—1)



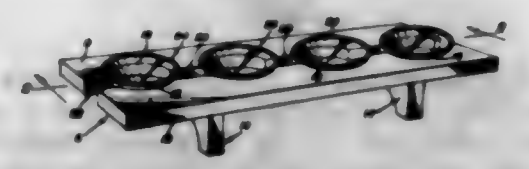
A mass of cellular fibrous cellulose sponge for the keeping in healthy active state for long periods of time of live fish worms and the like live fish bait commingled therewith, said mass consisting substantially exclusively of a multitude of individual, irregularly shaped, ragged edged chunks of said sponge containing protruding fibers, said chunks when damp and freely expanded varying in size, the larger of said pieces essentially having individually a volume not exceeding approximately .25 cubic inch whereby normal sized fish worms are incapable of nesting in a single chunk to impede removal thereof and the smaller of said chunks essentially having individually a volume not smaller than approximately .0002 cubic inch whereby air circulates through the garden worms and chunks to evaporatively cool and supply oxygen to the worms, said fibers and cellulose providing food and moisture for the worms, thereby to keep them in healthy condition.

2,841,114

PET FEEDING STAND

William F. Grant, Arlington, Mass.

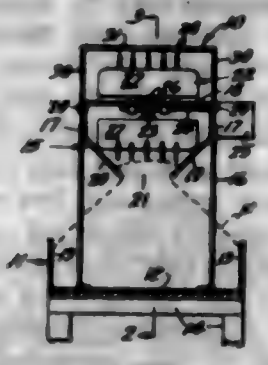
Application November 19, 1956, Serial No. 622,949
2 Claims. (Cl. 119—51)



1. A portable-type pet feeder comprising a low-lying miniature bar-like stand embodying a leg-supported elongated platform having a flat top surface disposed on a low plane suitable for use by dogs of average size and provided at longitudinally spaced places with dish-seating holes for reception of dishes, selectively usable, readily insertable and removable dishes, each hole being of a prescribed diameter corresponding to the diameter of each other hole, said dishes being of tapered construction and seated removably in the respective seating holes,

each dish having an upwardly disposed mouth portion which is of a diameter greater than the diameter of the hole in which said dish is seated and so that the upper lip portion embodied in said mouth portion projects to a level above and overhangs the flat top surface of said platform, whereby said dish may be readily placed in position in its given hole for use or may be easily lifted and removed from the hole for cleaning and replenishing needs, said platform comprising a pair of fixed coplanar elongated strip members having inner longitudinal edge portions, said edge portions being disposed in fixed spaced apart parallelism and the respective edge portions providing a continuous open-ended slot and having substantially semi-circular notches formed therein and spaced longitudinally apart, the notches in the respective edge portions being spacedly arranged so that they are cooperable in prearranged pairs, each pair of notches, with their open portions facing each other, defining and providing the aforementioned dish-seating holes, constantly accessible portions of said slot intervening between the respective spaced-apart holes.

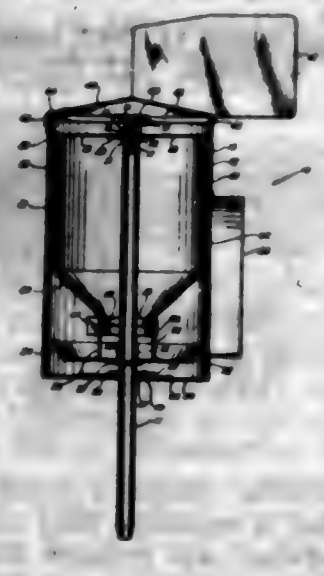
2,841,115
AUTOMATIC CHAIN TYPE LIVESTOCK FEEDER
Bertrand N. Weber, Green Isle, Minn.
Application March 25, 1955, Serial No. 496,710
3 Claims. (Cl. 119—52)



1. A livestock feeder for use with feed of the type which is likely to agglomerate into clumps such as silage, chopped hay and the like, said feeder comprising an elongated feed-confining trough, a supporting frame, a pair of elongate and parallel upright walls on the frame and extending horizontally along the trough and in spaced relation thereabove, the walls having lower feed-carrying panel portions sloped downwardly in converging relation and defining an elongated feed-discharge opening between the lower edges thereof, a conveyor mounted on the frame above said opening and extending longitudinally of the walls, said conveyor including an elongated endless flexible element having a plurality of transversely disposed feed-conveying flights thereon, each of said flights having a plurality of depending teeth thereon for dragging feed along the panels, said flights and teeth being disposed in overlapping and upwardly spaced relation with the downwardly convergent panels to permit the flights and teeth to move in multiple horizontal and vertical directions for dragging feed along the sloped panels and disintegrating the clumps carried therealong.

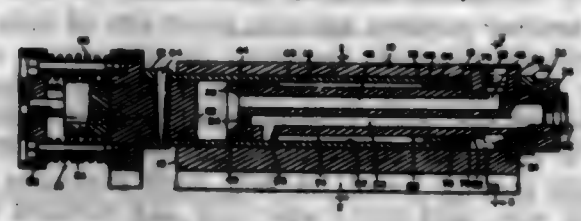
2,841,116
FEEDING DEVICE
Lewis O. Nichols and Howard A. Wilhelm,
Webster City, Iowa
Application March 8, 1955, Serial No. 492,881
3 Claims. (Cl. 119—53)

1. An animal feeding device comprising an upright cylindrical support member, a feed container and pan unit mounted on said support member intermediate the ends thereof, a tubular housing arranged about said unit and having a feeding opening therein at a position opposite said unit, means on said housing engaged with the upper end of said support member, an annular plate carried by said housing and arranged about said support in a clearance relation therewith at a position below said unit, disc shape bearing members rotatably supported on



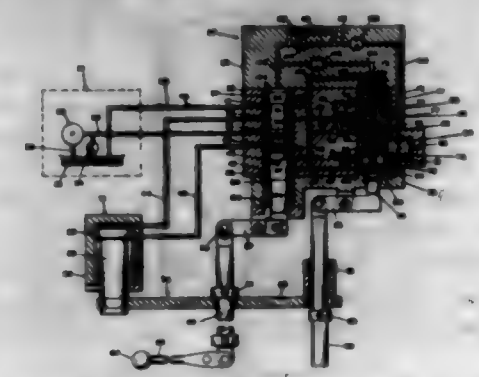
said plate for bearing engagement with said support member to provide for rotation of said housing on said support and about said unit, and a wind vane member carried by said housing.

2,841,117
PRESSURE FLUID SERVOMOTOR
Charles Sean, Detroit, Mich.
Application July 11, 1955, Serial No. 521,113
2 Claims. (Cl. 121—38)



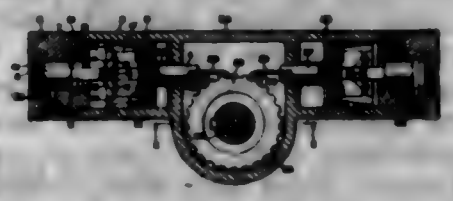
1. A pressure fluid servomotor comprising a body member having a main cylindrical bore extending longitudinally thereof from one end through the greater portion of its length with a coaxial bore of smaller diameter extending through the remaining portion, said smaller bore having an enlargement within its length forming an annular recess connecting to a radial port in said body member, said recess also having another passage connecting it to said main bore, a core member within said bores including a shank portion fitting said smaller diameter bore extending outward beyond the same having an annular shoulder at its inner end and a clamping nut on its outer portion, said core member also including an externally cylindrical portion beyond said shoulder extending the greater part of the length of said main bore coaxial therewith with an enlarged diameter head at its inner end, said core member further having two channels extending longitudinally therewithin from the shank portion through the portion within said main bore, one of said channels being open through the inner end of said core and the other connecting to said annular recess, a tubular piston member sleeved over said core member externally fitting said main bore and internally for the greater portion of its length fitting over said head, also having at its inner end a radially inwardly extending head fitting the portion of said core intermediate its enlarged head and said shank portion and forming between the same and the core head an annular chamber, a head closing the outer end of said tubular piston forming thereof a closed cup and also constituting a tool support, and external fluid connections to said channel within said core, one through said radial port passing fluid to the chamber within said cupped piston and the other to said annular chamber between said core and tubular piston.

2,841,118
CONTROL VALVE MECHANISM FOR HYDRAULIC MOTORS
Edmund A. Klein, Hilliards, Ohio, assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application March 11, 1957, Serial No. 645,046
4 Claims. (Cl. 121—38)



1. In a hydraulic system, a source of fluid pressure; a tank for fluid; a reversible fluid motor; control valve mechanism between said pressure source and said motor, said mechanism including means forming a body; a pair of bores in said body forming a pair of valve chambers; a main motor reversing control spool in the first of said bores cooperating with ports therein to form a four-way valve, said ports including an inlet port connected to receive fluid from said source of pressure, forward and reverse motor ports connected with said motor, a tank port connected with said tank and an outlet port, said main control spool being movable from one position in said bore wherein sets of said ports are connected to cause operation of said motor in one direction to another position wherein other sets of said ports are connected to cause operation of said motor in the opposite direction; means forming a pressure chamber at one end of said main control spool; passage means including a valve for connecting said chamber with said tank port; passage means in said body extending from said tank port, said outlet port and said forward motor port to ports in the second of said valve bores; first and second valve spools in said second valve bore, said second valve spool being within said first valve spool and both of said spools being movable to relatively different positions to connect said ports in said second bore in different sets, said first and second valve spools being normally disposed to prevent fluid flow from said outlet port to any other of said ports in said second bore, and said second valve spool operates in response to pressure in said outlet port to connect it with said forward motor port; linkage means operated by said fluid motor for moving said first valve spool from its normal position to a second position wherein said connection between said outlet port and said forward motor port is broken; passage means leading from said second bore to said tank port including a bleed orifice connecting said outlet port to said tank port when said first spool is shifted to said second position; a port in said second bore; passage means including a restriction connecting said last-mentioned port to said tank port; passage means including an adjustable orifice connecting said outlet port to said last-mentioned port in said second bore; passage means for conducting fluid pressure from said inlet port to one end of said second spool when said first spool is moved from its said normal position whereby differences between said pressure and the pressure in said outlet port cause said first and second spools to function as a pressure operated flow control valve for controlling the flow of fluid from said inlet port through said passage means and orifice to said tank port; passage means connecting said chamber at one end of said main control spool with said tank port in advance of said adjustable orifice through said bleed orifice; a check valve in said last-mentioned passage means arranged to permit the free flow of fluid to said chamber; passage means including an orifice arranged to by-pass said check valve to permit a restricted flow of fluid from said chamber, and a shut-off valve in said last-named passage.

2,841,119
OPERATING MECHANISM
Carl Gustaf Hård af Segerstad, Sandviken, Sweden
Application April 26, 1950, Serial No. 158,115
Claims priority, application Sweden December 12, 1949
5 Claims. (Cl. 121—39)



1. Mechanism adapted to transmit motion between an operating member which is adapted to exert a step-by-step movement and a valve member which is adapted to control fluid which moves said operating member, comprising, in combination, a support, an operating member mounted to reciprocate on said support, a valve operating bar mounted to move freely in said support and having one end positioned so as to reciprocate substantially in alignment with the reciprocating movement of said operating member and to thereby operate said valve member, two symmetrically arranged links each pivoted at one end on said end of said valve operating bar and having their free ends diverging, bracket means mounted on said operating member and connected by a sliding interengagement with said free ends of said links, and a spring resiliently urging said free ends of said links toward each other whereby the initial movement of said operating member moves said free ends of said links apart against the action of said spring when said valve operating bar is stopped from corresponding movement and continued movement of said operating member moves said free links beyond the straight line position and then moves said valve operating bar in the opposite direction.

2,841,120
MANOEUVERING OR OPERATING DEVICES
Gustav (Gösta) Adolf Fornberg, Sandviken, Sweden
Application September 13, 1955, Serial No. 534,088
5 Claims. (Cl. 121—46)



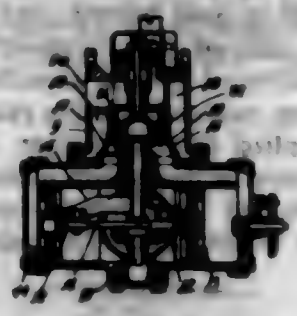
1. A device for changing the distance between two bearing members comprising, a cylinder, first means for pivotally connecting said cylinder in one of said bearing members, and a piston reciprocating in said cylinder and secured to a piston rod, second means for connecting said piston rod with the other of said bearing members, said first connecting means comprising a pair of plates disposed in substantially parallel planes spaced apart from each other, one end of each of said plates being secured to said one of said bearing members and the other end of each of said plates being secured to said cylinder, and said second connecting means comprising a pair of rods spaced apart from each other and a cross-head connecting opposite ends of said rods and secured to the free end of said piston rod, said cross-head reciprocating together with said piston rod between said plates axially, and said one of said bearing members being stationary while the other of said bearing member changes its distance from said one of said bearing members responsive to the position of said piston in said cylinder.

2,841,121

GASOLINE METER BELLOWS

William J. George, Canonsburg, Pa.

Application November 20, 1956, Serial No. 623,400
5 Claims. (Cl. 121—187)



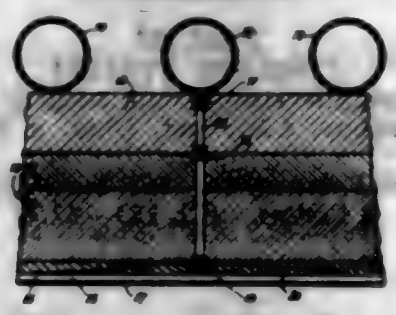
1. In a multipiston gasoline meter or the like having a rotary valve simultaneously communicating between an input port and a piston and between an output port and a piston through at least one axial bore in the valve, the improvement comprising a pair of spaced apart annular members, one fixed to one of the input and output ports and the other in sliding sealing contact with an endface of the rotary valve lying transverse to the axis of rotation of the valve, an axially extending flange on each of said annular members, one flange fitting within the other in telescopic manner to form an axially extending passage, resilient means between the two annular members urging said members axially apart and a resilient non porous cylindrical membrane fixed sealingly to the outer edges of each of said annular members and surrounding the axial flanges to form an axially extending passage from the rotary valve to one of the input and output ports.

2,841,122

WALL TUBE FLUID HEATER WITH A RELEASABLY ANCHORED ENCLOSURE

Frederick S. Tellow, South Croydon, England, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application March 12, 1953, Serial No. 342,005
4 Claims. (Cl. 122—6)



1. In a fluid heater, walls defining a furnace adapted to contain heating gases generated by the burning of a fuel in said furnace, transversely spaced fluid heating furnace wall tubes, said walls having gas-tight components disposed at the outer side of said tubes and having portions of said components between said tubes exposed to heating gas pressure, and anchoring devices each comprising a pair of elements and securing means associated with one of said elements and cooperating with said elements to maintain said wall components in place, the other of said elements being connected at one end to one of said wall tubes and disengageably connected at its opposite end to said one element at a position between said one wall tube and said securing means, the connection between said elements being constructed to yield before said wall tube connection upon the application of an undue strain on said elements and so that the portion of the wall components between the wall tubes and the connection of said elements may move freely past the connection between said elements in a direction away from said wall tubes when the connection between said elements yields.

2,841,123

LOCKING MEANS FOR HYDRAULIC JACKS

Hugh Graham Conway, Gloucester, England, assignor to British Messier Limited, Gloucester, England, a British company

Application May 18, 1954, Serial No. 430,630
Claims priority, application Great Britain May 19, 1953
6 Claims. (Cl. 121—40)



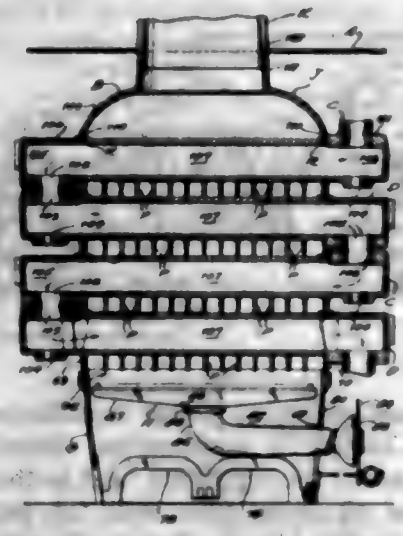
1. A hydraulic jack comprising in combination a cylinder, a piston and jack rod assembly operating in the cylinder, the jack rod being hollow to form a secondary cylinder, a crown of spring locking claws surrounding the jack rod within the cylinder and secured to the cylinder at the jack-rod end thereof, a lock-collar carried by the piston of the said assembly having a recess to surround and receive the ends of the locking claws, a locking ring slidably mounted on the jack-rod of said assembly to slide into engagement with the interior of the claws when they are in the recess, means to urge the locking ring normally toward locking position, a secondary piston located within the secondary cylinder, a lost-motion device operatively connecting the secondary piston to the locking ring, a spring urging the locking ring in the direction to take up the lost-motion toward the locking claws, and a port from the side of the main piston which lies toward the locking claws to the secondary cylinder to cause the secondary piston to unlock the locking ring when pressure is applied through said port.

2,841,124

MIDGET GAS FIRED HOT WATER BOILER

Harold S. Ackerman, Larchmont, N. Y., assignor to John F. Baier, Fort Lee, N. J.

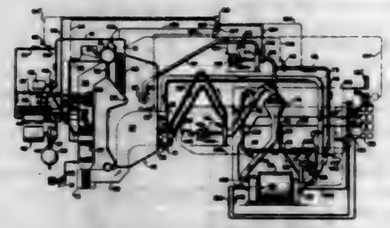
Application November 24, 1953, Serial No. 394,005
6 Claims. (Cl. 122—214)



1. A midget type assembled superimposed horizontal section gas fired water boiler with staggered downwardly converging tube sections, said tube sections having an inverted triangular cross section in which their longitudinal side walls will downwardly converge toward each other and join together at a longitudinally extending downwardly projecting edge and the base of the triangular cross section will be bulged and curved upwardly at the top of the tube, each said cross section being provided with a plurality of spaced parallel transversely laterally outwardly and downwardly projecting deep flanges and the tube sections in each adjacent upper and lower sections being offset so that the tube sections of each successive horizontal section will be staggered in respect to each other and be positioned opposite the spaces in the next upper and lower sections, said tube sections con-

nected by single nipples at the ends of the sections, said sections having terminal tube sides of varying sizes so that alternate sections may be reversed and superimposed, each of said sections being of the same form, shape, size and dimension but being non-symmetrical so that each section can only be stacked in respect to the next higher and next lower section by being reversed by rotation of 180° on a vertical axis, each section having a plurality of parallel tubes in spaced side-by-side relationship of downwardly converging cross sectional areas with the intermediate tubes being of the same cross sectional area and the outside tubes being of much wider area on one side and much narrower area on the other side, each said section having a continuous parallelly extending downwardly projecting leg having about the same depth as the deep flanges and contacting the periphery of the next lower section, said flange supporting the section substantially above the next lower section so that the transverse flanges will clear the next lower section and each section having end liquid flow connection one at one side being in the top of the section and directed upwardly and connected with the next higher horizontal section and the other at the other side being in the bottom of the section and directed downwardly and connected with the next lower horizontal section and said parallel tubes conducting the water parallelly between the nipples in one direction in one section and in an opposite direction in the next higher section with said nipples being disposed within said flow connections establishing communication between the successive superimposed horizontal sections.

2,841,125
STEAM BOILER WITH SUPERHEATER AND CONTROLS THEREFOR
Fernando Falla, Maplewood, N. J., assignor to Kennedy-Van Saun Mfg. & Eng. Corp., New York, N. Y., a corporation of Delaware
Application December 23, 1954, Serial No. 477,227
8 Claims. (Cl. 122—479)

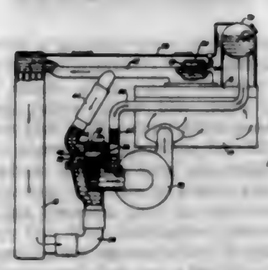


1. In a steam generator power installation including a steam boiler having a combustion chamber, a steam superheater, means for supplying heat to the steam superheater, and an air-swept tube mill for pulverizing coal for firing the boiler, means for conducting steam from the boiler to the superheater, means for feeding coal to the mill to be pulverized therein, means responsive to the rise and fall of the level of coal in the mill for respectively decreasing and increasing the rate of feed of the coal feeding means to maintain a reserve supply of pulverized coal in the mill, a burner means discharging into the combustion chamber for burning pulverized coal to heat the boiler, means for delivering a pulverized coal air mixture from the tube mill to said burner means, means responsive to an increase and decrease respectively in the demand for superheated steam delivered by the superheater for increasing and decreasing respectively coal-air mixture from the tube mill to said burner means, means defining a passageway for conducting combustion gases from the combustion chamber over the superheater for supplying the heat necessary to heat the steam in the superheater, means for augmenting the heat of said conducted combustion gases for heating steam in the superheater including a burner located adjacent the inlet of said passageway for burning pulverized coal, means for supplying a mixture of pulverized coal and air from the mill to said burner, and means responsive to the rise and fall of the temperature of the superheated steam delivered by the superheater for decreasing and increasing, respectively, the rate at which pulverized coal is supplied to said burner, whereby the temperature of the superheated steam delivered by the superheater is maintained substantially constant regardless of the variations in the demand for superheated steam.

2,841,126
MARINE DIESEL FUEL COMPOSITIONS AND METHODS OF OPERATING MARINE DIESEL ENGINES
Troy L. Cantrell, Drexel Hill, and Mark L. Hill, Springfield, Pa., assignors to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application May 9, 1955
Serial No. 507,125
4 Claims. (Cl. 123—1)

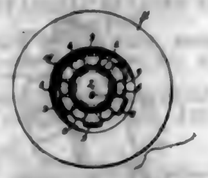
1. In the method of operating a marine diesel engine, wherein a medium diesel fuel containing a corrosion causing amount of sea water is injected by fuel injectors into the cylinders of the engine for compression ignition and combustion therein, the combination therewith of the improvement comprising injecting into said cylinders a diesel fuel comprising a major amount of a medium diesel fuel subject to salt water emulsification, and containing about 0.001 to about 0.1 percent by weight of the composition of a substantially neutral salt of a primary n-alkyl amine containing 8 to 18 carbon atoms per molecule and a dialkyl acid orthophosphate whose alkyl groups are selected from the class consisting of 3-methylbutyl, 2-ethylhexyl, Oxo amyl and Oxo octyl radicals, the amount of said salt being sufficient to impart salt water corrosion inhibiting properties to the fuel.

2,841,127
COOLING SYSTEM
Forest S. Baxter, Cleveland, Ohio, assignor to The White Motor Company, Cleveland, Ohio, a corporation of Ohio
Application February 16, 1955, Serial No. 488,589
7 Claims. (Cl. 123—41.1)



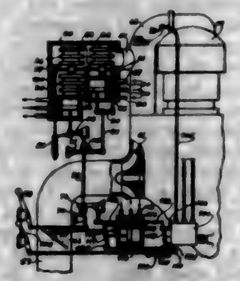
1. A cooling system for an internal combustion engine comprising a radiator, pump means for circulating coolant through the engine and the radiator, a conduit connected to the top of said radiator, air separator means on said engine connected with said conduit, a tank above said air separator and connected thereto, conduit means connecting said tank to the inlet of the pump means, and a one way valve for preventing flow from said pump inlet to the tank.

2,841,128
CAGE FOR ENDWISE ASSEMBLY OF BALLS ON VALVE STEMS
William L. Allen, Philadelphia, Pa., assignor to SKF Industries, Inc., Philadelphia, Pa., a corporation of Delaware
Application July 13, 1955, Serial No. 521,665
9 Claims. (Cl. 123—90)



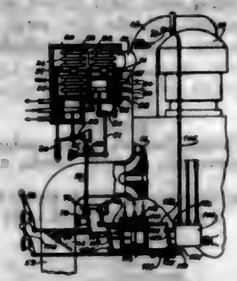
1. In combination, a valve stem having a circumferential groove constituting a ball race, a ball cage embracing the stem, said cage comprising a cylindrical portion exceeding the diameter of the stem for free endwise assembly with the latter and having an annular series of apertures in registration with the said race, a bearing ball projecting through each aperture into rolling contact with the race surface, the diameter of the individual ball exceeding that of the said aperture, and radially displaceable resilient ball-retaining means engaging the outer sides of the balls and affording controlled radial displacement of the balls in said aperture equal at least to the radial depth of said groove, said retaining means forming with the apertured cylindrical portion and with the balls a self-contained unit for manipulation as such in said endwise assembly operation, the ball engaging portions of said retaining means being confined within a circle of lesser diameter than that circumscribing the annular series of balls and leaving the outer sides of the balls exposed for seating engagement with an annular outer ball race element.

2,841,129
ENGINE CONTROL SYSTEM
Ferdinando Carlo Reggio, Norwalk, Conn.
Application July 29, 1947, Serial No. 764,322, which is a division of application Serial No. 254,355, February 3, 1939. Divided and this application August 4, 1954, Serial No. 447,795
38 Claims. (Cl. 123—119)



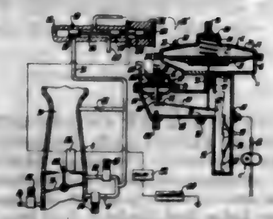
1. Engine fuel supply control means; engine air supply control means; common servomotor means adapted to actuate each of said control means; and operatively interconnected manual control means and engine combustion air pressure and temperature responsive means for controlling said servomotor means to regulate the engine fuel and air supplies in preselected relation to the setting of said manual control means and said pressure and temperature.

2,841,130
VARIABLE MAXIMUM FUEL LIMITING DEVICE
Ferdinando C. Reggio, Tampa, Fla.
Original application February 3, 1939, Serial No. 254,355. Divided and application July 29, 1947, Serial No. 764,322. Divided and application August 4, 1954, Serial No. 447,795. Again divided and this application March 25, 1957, Serial No. 648,096
48 Claims. (Cl. 123—119)



1. In a liquid fuel feed system for an engine having an air intake system, the combination with a fuel pump in said fuel feed system, of a control member movable in one direction to increase the flow of fuel supplied from the pump to the engine and movable in the opposite direction to decrease said flow of fuel to the engine, normally operative control means subject to manual supervision for moving said control member to control the flow of fuel to the engine, abutment means rigidly connected to said control member to move therewith, a stop adjustable independently of said control member and including normally disengaged cooperating abutment means having a lost motion connection with the first said abutment means and adapted for engagement therewith to override said normally operative control means and limit the movement of said control member in the sense of increasing the flow of fuel to the engine, adjusting means for positioning said stop, and engine speed responsive means and means responsive to temperature variations in said air intake system for actuating said adjusting means.

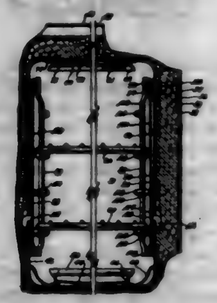
2,841,131
FUEL METERING SYSTEM
Albert J. Zapancic, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 21, 1957, Serial No. 641,629
18 Claims. (Cl. 123—119)



1. A fuel metering system for an internal combustion engine comprising an induction passage for delivering air to the cylinders of said engine, a throttle valve for controlling the quantity of air flowing through said passage, a source of fuel under pressure, a plurality of fuel conduits each of which is adapted to deliver fuel to one cylinder of said engine, valve means for metering the quantity of fuel delivered to said fuel conduits, first servo means connected to said metering valve, a venturi in the induction passage, a first conduit adapted to communicate the venturi with said servo means whereby said servo and metering valve are responsive to the mass of air flowing

through the system, a second conduit adapted to communicate atmospheric pressure to the servo means, a valve device for controlling flow through said conduits, a second servo for controlling said valve device, and throttle controlling means for actuating said second servo means whereby with the throttle at least partially open said valve device will communicate the first conduit with said first servo means while with the throttle closed and the engine decelerating said valve device will communicate the second conduit with the first servo means thereby cutting off the flow of fuel to the cylinders.

2,841,132
RANGE
Lawrence A. Philipp, Detroit, Mich., assignor to American Motors Corporation, Detroit, Mich., a corporation of Maryland
Application October 25, 1954, Serial No. 464,241
2 Claims. (Cl. 126—19)



1. Range apparatus including an oven chamber having top, bottom, side and rear walls, supporting means adjacent each side wall, each of said supporting means comprising a frame including upper and lower horizontally extending members positioned adjacent a respective side wall, rear and front vertically extending frame members, said front frame members being flat strip members, a plurality of horizontally extending guide rails secured to said vertically extending frame members and extending inwardly therefrom into said oven chamber and inwardly from said supporting means, disposable foil wrapped around and extending between the upper and lower horizontally extending frame members and between said flat strip members and said oven side walls, securing means extending from said flat strip members into openings in said side walls to clamp said frames to said oven with said foil between said flat strip members and said side walls, and vertically spaced shelves placed on certain of said guide rails.

2,841,133
RADIANT HEATER AND TOASTER
Günther Schwank, Cologne-Kalk, Germany; Rheinisch-Westfälische "Revisions" Treuhand Aktiengesellschaft (Treuhand Aktiengesellschaft), and Wilhelm Franken, executors of said Günther Schwank, deceased, assignors to American Infra Red Radiant Co., Inc., New York, N. Y., a corporation of Delaware
Application March 7, 1955, Serial No. 492,718
4 Claims. (Cl. 126—92)

1. A radiant gas space heater comprising a housing enclosure having an opening defined therein, and a burner casing mounted by said housing for the radiation of heat through said opening, said burner casing forming an outer structural wall portion of said housing, said burner casing comprising a shell open at one side thereof, an injector for supplying gas and air to said shell, and an apertured plate closing the open side of said shell and defining therewith a mixing chamber for the gas and combustion air, said shell constituting said housing wall portion and having a vertically extending rear wall integral with said shell casing and a bottom wall integral with said shell casing extending forwardly at the lower portion thereof, said housing having laterally spaced side walls and an apertured front wall extending therebetween, said shell extending between said side walls rearwardly of said front wall and in opposition to the front



wall aperture, each of said side walls having a bracket on the inner surface and in the upper region thereof to which said vertically extending rear wall of the shell is secured, said front wall of said housing having an integral bracket extending inwardly of said housing below the aperture in said front wall to which said bottom wall of said casing is secured, said apertured plate being disposed rearwardly of and facing the front wall aperture of said housing.

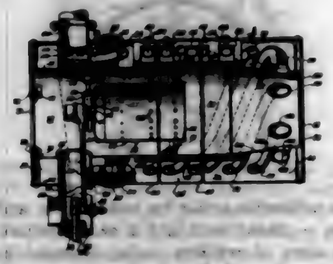
2,841,134
COMBUSTION HEATER SHEET METAL HEAT EXCHANGER
Frank A. Ryder, Indianapolis, Ind., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application October 26, 1953, Serial No. 388,896
2 Claims. (Cl. 126—109)



1. A heater combustion chamber and heat exchanger assembly comprising a pair of transversely flattened and curved longitudinally extending sheet tubes, each of said tubes being formed of a strip of sheet metal folded upon itself with its edges joined together in face to face relation by resistance welds to form a longitudinally extending tab outstanding from the main portion of said tube, the tabs of said pair being joined together in face to face relation by resistance welds so that said pair of tubes in cross section forms a generally U-shaped structure with a stiffening rib outstanding from the center thereof with the concave sides of said tubes facing each other to define a longitudinally extending central space between them, said space being open at the top through a longitudinally extending slot between the top edges of said tubes, a generally cylindrical sheet metal tubular shell enclosing said U-shaped structure and spaced from said U-shaped structure intermediate the ends thereof, a pair of flanged enclosure members formed to fit the ends of the central space between said tubes, additional flanged end closure members formed to fit the ends of the spaces at each side of said rib, said shell being shaped inwardly at its ends to embrace the ends of said U-shaped structure and the flanges of said end closure members, said shell, said U-

shaped structure, and said flanges being secured together principally by resistance welds, one of said pair of end closure members being formed to provide a burner opening and means forming an exhaust fitting connected through said shell at a position adjacent said rib.

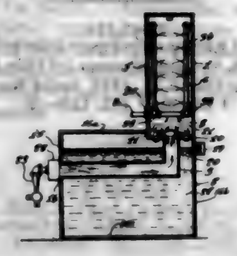
2,841,135
LIGHTWEIGHT HIGH CAPACITY COMBUSTION HEATER
Stewart F. Mulford, Orinda, Calif., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application November 23, 1954, Serial No. 470,655
3 Claims. (Cl. 126—116)



1. In a high capacity combustion heater, the combination of generally cylindrical casing means formed in first and second axial sections and defining at opposite ends thereof an inlet and an outlet for passing therethrough air to be heated, adjoining circumferential portions of said casing sections being spaced apart, resilient means bridging said adjoining portions of said casing sections circumferentially to connect said sections together yieldably for movement one relative to the other, combustion chamber means defining a combustion chamber disposed within said casing means in radially spaced relation thereto, means supporting one end of said combustion chamber means on said first casing section, said combustion chamber means being freely movable relative to said second casing section, a burner mounted to supply combustible gases to the end of said combustion chamber adjacent said first casing section, a multiplicity of flexible fire tubes each having a helical shape, said respective fire tubes having one end thereof connected to the end of said combustion chamber opposite the burner end thereof and extending through the casing means around and along said combustion chamber in radially spaced relation thereto to the burner end thereof, a common exhaust manifold mounted in said first casing section and connected to the adjacent ends of all of said fire tubes, a generally cylindrical radiation shield encircling said combustion chamber means in radially spaced relation thereto and extending therealong between the combustion chamber means and said helical fire tubes, a plurality of supports attached to said second casing section in circumferentially spaced relation therearound and extending radially inward into supporting relation to said radiation shield, and said supports having portions thereof loosely engaging adjacent portions of said helical fire tubes to loosely support the latter and provide support therethrough to the end of said combustion chamber means attached thereto.

2,841,136
LIQUID HEATING DEVICE
Jack L. Pettit, Florham Park, and Andrew J. Kelly, Westfield, N. J., assignors to Metalwash Machinery Company, Elizabeth, N. J., a copartnership
Application December 13, 1954, Serial No. 474,848
1 Claim. (Cl. 126—350)

In a liquid heating device having a solution storage tank, said tank including a front wall, a back wall, a top wall, a bottom wall and two side walls, a spray chamber having a front wall, a top wall, a back wall and two side walls disposed above said storage tank, said spry chamber being integrally fastened to said tank top wall at its lower end and in open communication with said storage tank, a pump connected through the lower portion of one of said side walls to said storage tank, a conduit connecting said pump with said spray chamber whereby liquid may be circulated from said storage tank through said pump to said spray chamber, a plurality of vertically extending pipes within said spray chamber connected to said conduit, a plurality of spray holes in said pipes, a tubular heater extending through an opening



in the front wall of said storage tank substantially horizontally across said storage tank below the liquid level therein, one end of said tubular heater adapted to be affixed by a collar to a fuel supply, the other end of said heater being turned upwardly substantially vertically and terminating in the lower portion of said spray chamber, a hood disposed above said vertical termination of said tubular heater, two brackets secured to said front and said back walls of said spray chamber to support said hood, said hood being provided with inclined surfaces so that liquid accumulating thereon runs down said surface into said storage tank for re-circulation and means for providing a flame jet through said collar into said tubular heater.

2,841,137
CLAD METAL COOKING UTENSILS
Thomas B. Chace, Winnetka, Ill.
Application April 21, 1954, Serial No. 424,652
1 Claim. (Cl. 126—390)



A stainless steel clad copper cooking utensil comprising a unitary member of cup-shape formed from a composite sheet of stainless steel clad copper stock, said member having smooth interior and exterior surfaces free of "orange peel" and including throughout the full area thereof a relatively thin interior layer of stainless steel and a relatively thick layer of copper outside of and coextensive with said interior layer of stainless steel, the thickness of said layer of stainless steel being about 25% of the thickness of the layer of copper, said member having a thick planar bottom wall of uniform thickness throughout, the thickness of the layer of copper in said bottom wall being at least about .020 inches to effect rapid uniform distribution of heat over the entire bottom wall of said member, said member having a side wall extending upward at a constant angle of inclination from said bottom wall, the included angle between said bottom and side walls being at least 90 degrees, the corner joining said walls being no thicker than said bottom wall to avoid localized heating at the corner and excessive transmission of heat to the side wall, said side wall being no

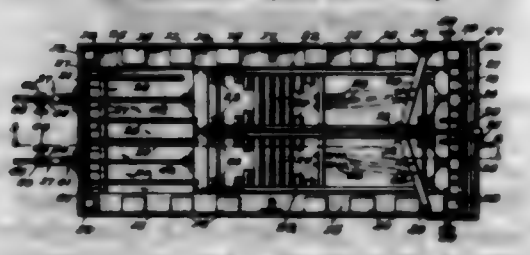
thicker than said corner and diminishing in thickness at a uniform rate from said corner to adjacent the upper edge thereof to afford a progressively diminishing distribution of heat over the side wall from the bottom to the top thereof, the thickness of the thinnest portion of said side wall being about 65% of that of said bottom wall to afford an effective distribution of heat over the side wall and to balance the cup-shaped member, the ratio of thickness of said layers of stainless steel and copper being substantially uniform throughout the utensil to provide for a substantially uniform ratio of heat transmission from the copper through the stainless steel.

2,841,138
ALLERGY TESTING DEVICE
Ernest S. V. Laub, Corona del Mar, Calif.
Application March 11, 1957, Serial No. 645,127
4 Claims. (Cl. 128—2)



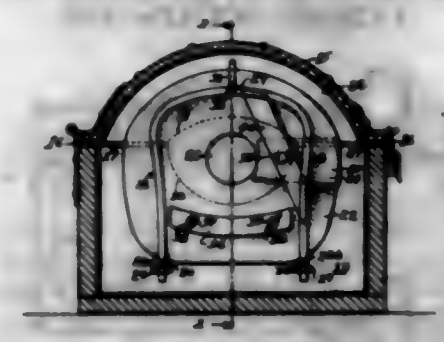
2. In a device for testing for allergies, a plurality of blocks for holding allergens, each block having a central cavity extending between opposed sides of said block, said cavity having a well at one of said sides for holding an allergenic substance and having a reduced bore communicating between said well and the other of said sides for discharging said substance; scarifying means on said other side, the opening of said bore at said other side being recessed with respect to said scarifying means; an envelope containing said blocks with said bores in an alignment from which said scarifying means are excluded, one side of said envelope sealing said wells and the other side of said envelope being opposed to said scarifying means and said bores and being removable to expose said scarifying means; and sealing means, distinct from such envelope, for sealing said bores.

2,841,139
COMBINED EXERCISING AND MASSAGING LOUNGE
Alexander Robert Tarr, Green Springs, Ohio
Application March 23, 1956, Serial No. 573,484
10 Claims. (Cl. 128—25)



1. A combined exercising and massaging lounge having two longitudinally and independently reciprocable patient-supporting carriages, each of said carriages having a set of transverse patient-supporting rollers, the sets of rollers being in immediately adjacent side-by-side relationship whereby reciprocation of said carriages in opposite directions will duplicate the basic hand massage movement, two leg-operated actuators movably mounted at the foot end of the lounge and having pedals to be engaged by the patient's feet, means operatively connecting one of said actuators with one of said carriages, means operatively connecting the other of said actuators with the other of said carriages, said actuators being operable to move said carriages toward the foot of the lounge, and spring means operatively connected with said carriages for biasing the latter toward the head of the lounge, whereby the patient may simultaneously reciprocate said carriages in opposite directions by alternate pushing movements of the legs to create cyclic sequential active and passive exercise in the muscles contacted by said rollers coupled with simultaneous massage.

2,841,140
ADJUSTABLE COLLAR FOR RESUSCITATORS AND RESPIRATORS
John E. Lindley, Houston, Tex., and Ancil L. Lindley, Macon, Miss.
Application November 28, 1955, Serial No. 549,351
8 Claims. (Cl. 128—30)



1. In an adjustable collar for resuscitators and respirators having a planar wall and a neck aperture formed therein, a sheet of resilient sealing material positioned against said walls, said sheet having a neck-receiving aperture formed therein and a cut therethrough extending from the edge of said aperture to the edge of said sheet forming two free ends adapted to be overlapped for adjustment of said neck aperture, clamping means supported by said wall and adapted to surround said aperture and press against said sheet to maintain a sealing relation between said sheet and wall, and additional clamping means supported by said first clamping means and pressing against said overlapped ends for maintaining a sealing relation therebetween.

2,841,141
THERAPY BED
Archibald Perrin Hodgins, Charleston, W. Va.
Application December 29, 1952, Serial No. 328,421
1 Claim. (Cl. 128—57)

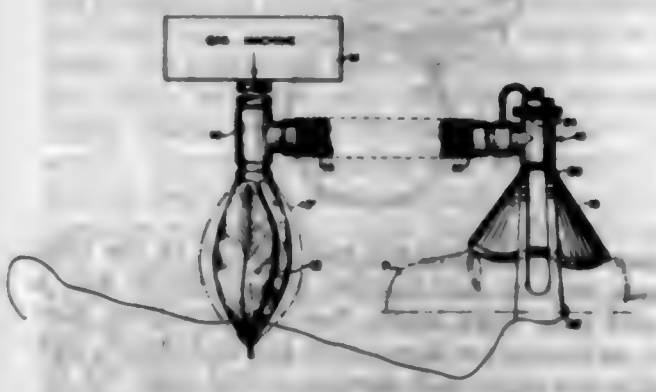


In a spinal massage apparatus, a frame, a sheet of canvas or the like covering the frame, padding mounted on the frame beneath the sheet, adjacent one end thereof, said padding having an opening therein, a trackway mounted on the lower portion of the frame, a car having wheels mounted on said trackway, a pair of arms extending upwardly and rearwardly from the forward portion of the car, a massaging roller transversely mounted on the upper ends of said arms and extending through the opening to bear against the under surface of the sheet, resilient means to normally urge the roller into engagement with the sheet, a motor mounted on the frame, and means connecting the motor and car to reciprocate the car.

2,841,142
ANESTHETIC ADMINISTERING APPARATUS
Wayne W. Hay, Madison, Wis., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application March 25, 1955, Serial No. 496,782
8 Claims. (Cl. 128—188)

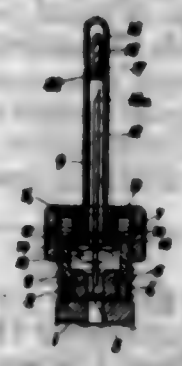
1. An anesthetic administering apparatus for administering an inhalent anesthetic gas mixture to a patient

comprising a source of an anesthetic gas mixture, a delivery system, including valve means at the terminal end thereof effective to prevent reverse flow of gas in said delivery system, means connecting said delivery system with the patient's respiratory tract, a collapsible breathing reservoir forming a part of said delivery system adapted to be compressed externally to create a positive pressure therein, a discharge system for conducting gases of exhalation from the patient to the atmosphere including dis-



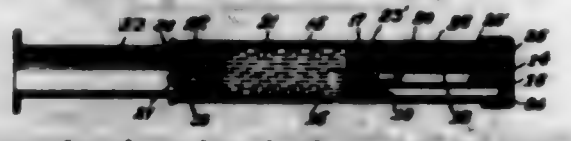
charge valve means which permits gas to flow only to the atmosphere when open, pressure responsive means operative to close said discharge valve means when energized, and means communicating with said delivery system for applying the gas pressure therein to said pressure responsive means, whereby when said breathing bag is compressed to create a positive delivery pressure said pressure responsive means is energized and the flow of gas through said discharge valve means is prevented.

2,841,143
INJECTION DEVICE FOR LIQUIDS AND AMPOULE THEREFOR
Albert Heinrich Bertram, Hasperde, Germany, assignor to Firma Penicillin-Gesellschaft Dessloberg & Co., Gottingen, Germany, a corporation of Germany
Application March 27, 1956, Serial No. 574,264
Claims priority, application Germany January 17, 1956
13 Claims. (Cl. 128—216)



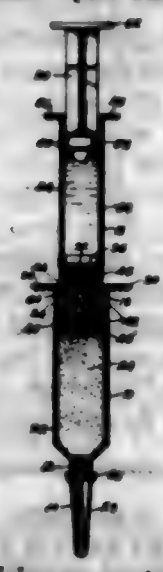
1. An injection device and an ampoule therefor comprising an injection needle having points at both ends and a sealing member mounted thereon, a container having an open mouth piece, a membrane closing said open mouth piece of said container, and a holding ring with a pressure ring disposed inside of said holding ring and a needle enclosure projecting outwardly from said pressure ring, the said injection needle with its sealing member being loosely disposed within said holding ring, said needle enclosure and said membrane, and means for connecting said holding ring with said mouth piece of said container, a screw ring at least partly surrounding and threadably connected with said holding ring and said pressure ring, the said pressure ring being adapted to press the said injection needle sealingly on said mouth piece of said container and to break off said enclosure for said injection needle.

2,841,144
HYPODERMIC SYRINGE
Milton J. Cohen, Washington, D. C., and Robert K. McConnaughey, Chevy Chase, Md.
Application February 12, 1954, Serial No. 409,829
7 Claims. (Cl. 128—218)



1. A hypodermic syringe having a tubular open-ended outer cartridge, a plunger mounted for reciprocation in one end of said cartridge, a floating piston adjacent the other end of the cartridge providing with the plunger a compartment for liquid, a hypodermic needle extending through the piston into communication with said compartment, a cup removably attached to said piston and supporting said needle, a sleeve surrounding said needle and a plug carried by said sleeve in position to close the orifice in the needle.

2,841,145
SYRINGE
John A. Epps, Denver, Colo.
Application May 7, 1956, Serial No. 583,831
9 Claims. (Cl. 128—218)

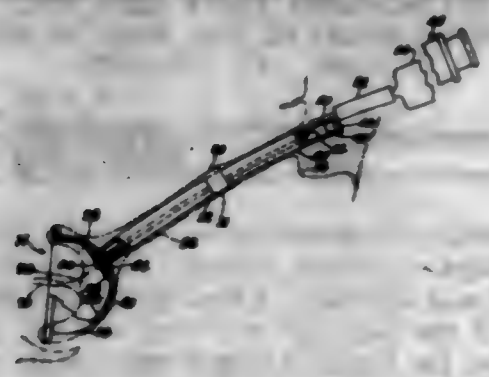


1. A syringe comprising an outer tubular barrel having a hypodermic needle connected to one end thereof communicating with the interior of said barrel, a plug mounted in the other end of the outer barrel for axial slidable movement therein in liquid tight sealed contact therewith, said plug having a cavity in the surface thereof opposite the interior of the outer barrel and a fluid passage interconnecting said cavity with the interior of said outer barrel, an inner tubular barrel sized for telescopic movement into the interior of the outer barrel, said inner barrel having one end thereof provided with a projecting portion connected into the cavity of the plug for relative axial movement, said projecting portion containing a fluid passage misaligned with the fluid passage in the plug, means adapted to engage the surface of the plug adjacent the projecting portion upon relative axial movement in one direction and form a liquid tight seal between said fluid passages, and a plunger mounted for axial slidable movement in the other end of the inner barrel in liquid tight sealed contact therewith.

2,841,146
CERVICAL MEDICATION AND ARTIFICIAL INSEMINATION MEANS
Walter J. Henbest, Skokie, Ill., assignor to George Stubbs, Los Angeles, Calif.
Application June 28, 1955, Serial No. 516,636
18 Claims. (Cl. 128—235)

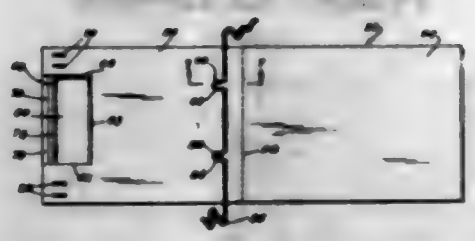
1. A cervical cup, and an open-ended, thin, single-walled duct connected to and communicating at one end

with said cup and adapted to extend outward from said cup along the vaginal canal, said duct having a transverse hole adjacent its other end and between its ends, said hole



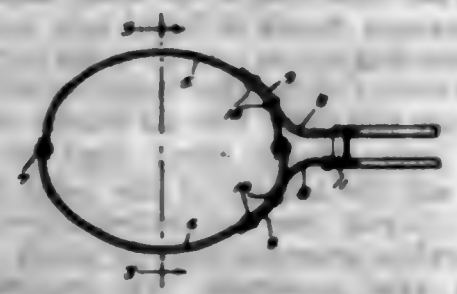
being disposed adjacent the anterior end of the vaginal canal when said cup is about the cervix and being adapted to receive the bent end of a tube to be extended down the duct to direct fluid into said cup.

2,841,147
DISCARDABLE HYGIENIC KIT
Dunbar S. McLaurin, New York, N. Y.
Application November 17, 1954, Serial No. 469,418
2 Claims. (Cl. 128—275)



1. A sanitary diaper comprising a rectangular sheet of disposable absorbent paper material constituting a diaper member, tabs spaced along one end edge thereof, the other end edge thereof having pairs of spaced slots in transverse alignment adjacent its corners, and a tie string threaded loosely through said tabs and slots.

2,841,148
VISCERA RETAINER FOR USE IN ABDOMINAL OPERATIONS
Godfrey J. Kadavy, Omaha, Nebr.
Application June 21, 1957, Serial No. 667,169
3 Claims. (Cl. 128—303)



1. A surgical instrument comprising a pair of semi-circular members pivotally connected at their ends, handles secured to said semi-circular members adapted to expand said semi-circular members providing a substantially oval support over which an elastic cover is stretched, and said pair of semi-circular members adapted to be collapsed, reducing the size of said instrument facilitating the removal of said instrument through a substantially small opening.

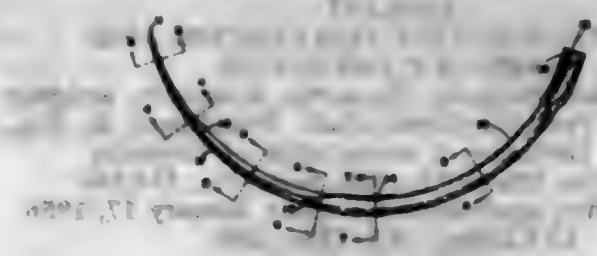
2,841,149
TOURNIQUET
George W. Marsden, Upper Darby, Pa.
Application June 17, 1957, Serial No. 666,862
2 Claims. (Cl. 128—327)

1. A tourniquet comprising a flexible, expandible, elongated tube, means for introducing air under pressure into said tube, a valve operable in one position thereof to permit the entry of compressed air into said tube and in another position thereof to permit escape of air from said tube, and a combined buckle and valve carried by one end of said tube and adapted to receive, and to clamp, the other end of said tube to retain the tourniquet in the position to which it is adjusted around the portion of the body to which pressure is to be applied, and to prevent the



entry of compressed air into the end portion of the tube which extends beyond said buckles and is not in use, a portion of said tube being larger than the remaining portion thereof, so to cover a larger area per unit length, and so as to bulge inwardly to a greater extent than the remaining portion of said tube whereby greater pressure is exerted by said larger portion per square inch than the pressure exerted by the remaining portion of said tube.

2,841,150
CUTTING EDGE SUTURE NEEDLE
Charles T. Riall, Danbury, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application May 6, 1957, Serial No. 657,377
3 Claims. (Cl. 128—339)



1. A surgical needle comprising a point, an armed edge portion, a cross-section of which is essentially bounded by arcs of circles which intersect to form armed edges having an included angle of between 30° and 80° and which tapers from the point towards the rear of the needle, a smoothly faired transition portion, a round portion and at the back end, suture attaching means.

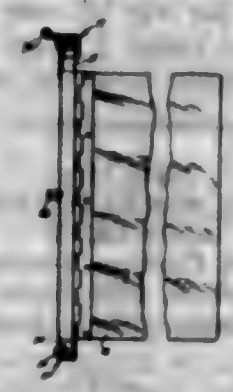
2,841,151
SEPARABLE RING BINDER ATTACHMENT FOR BRIEF CASES AND THE LIKE
Leo Stein, Chicago, Ill.
Application December 6, 1954, Serial No. 473,877
2 Claims. (Cl. 129—24)



1. In a brief case assembly including a case having foldable sides and a connecting median portion of substantial length, an elongated base plate about as long as said median portion and fixedly secured longitudinally to said median portion and having thin and substantially flat longitudinal marginal flanges that diverge relative to one another and lie in offset relation to said median por-

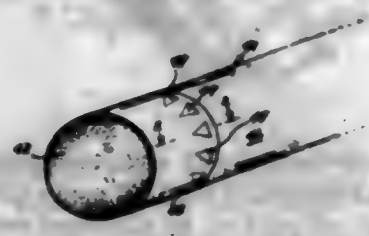
tion, a ring metal assembly including an elongated transversely upwardly arched resilient shell about as long as said base plate and provided with underturned longitudinal convergently related marginal flanges defining respective confronting grooves, a pair of complementary elongated toggle plates of substantially the same length as said shell and of a total width slightly greater than the dimension between said grooves and having longitudinal meeting edges in pivotal interengagement with the opposite longitudinal edges thrusting into said grooves, respective matching ring sections carried rigidly by said toggle plates and projecting upwardly through holes in the shell and being openable and closable by movement of the toggle plates pivotally between respective opposite upwardly converging opening and downwardly converging closing over-center positions, and levers connected to the opposite ends of the toggle plates for effecting at least said over-center opening movement, the total width to which said base plate flanges extend being less than said dimension between the grooves but greater than the distance between the edges of said shell flanges, the ring metal assembly being longitudinally slidable onto the base plate from one end thereof by engaging said base plate flanges in said grooves under said toggle plates, the opposite end portions of said base plate flanges having depending lugs engageable with the opposing ends of the shell flanges to predetermined fully assembled substantially coextensive disposition of the ring metal assembly and the base plate, said base plate having struck-up therefrom and facing toward said one end a stop shoulder boss and said toggle plates having a shoulder facing toward said one end and engageable interlockingly with said shoulder boss in the ring section closing over-center position of the toggle plates to prevent withdrawal of the ring metal assembly and being raised clear of said shoulder boss to permit longitudinal assembly or disassembly movement of the ring metal assembly relative to the base plate in the opening-over-center position of the toggle plates.

2,841,152
ADJUSTABLE BOOK BINDER
Robert H. Popper, Hillside, N. J.
Application May 21, 1957, Serial No. 660,526
10 Claims. (Cl. 129—38)



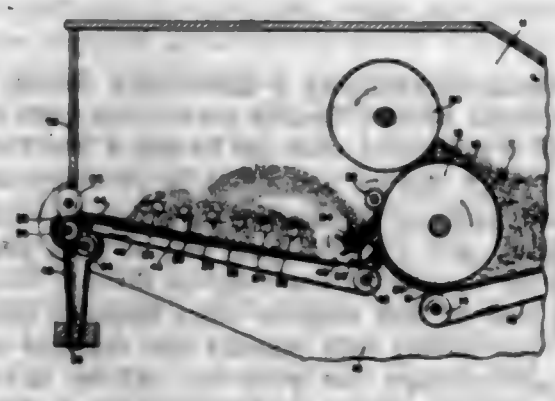
1. A book binder comprising a rigid back plate having forwardly extending vertical side walls, forwardly extending horizontal wall structure adjacent the upper and lower ends thereof and a transverse slot extending therethrough between said side walls and intermediate said end wall structure, an angle member having a back wall parallel to said plate and having its upper and lower ends slidably positioned between said upper and lower end wall structure and having a forwardly extending wall parallel to said plate side walls, a side cover hinged to one of said plate side walls, another cover hinged to said angle member forwardly extending wall, a manually engageable element at the rear of said angle member back wall and extending through said slot for positioning the last mentioned cover with respect to said other cover whereby the space between said covers can be adjusted to accommodate a book of a given thickness, releasable clamping means for said angle member back wall, and a coupling rod cooperating with said end wall structure to position the book between said covers.

2,841,153
CIGARETTES
Louis G. Pelletier, New York, N. Y.
Application June 16, 1955, Serial No. 516,069
2 Claims. (Cl. 131—9)



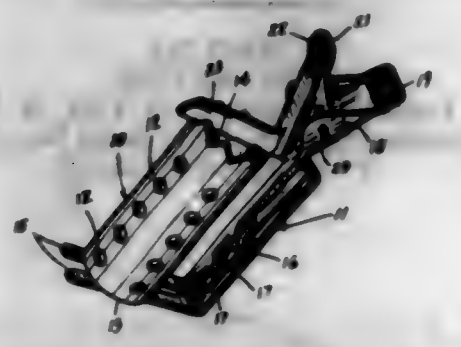
1. Improved cigarette structure comprising: a wrapper member, a tobacco filler disposed within said wrapper member and a sleeve positioned upon said wrapper member at one end thereof; said sleeve having an inner surface, a cylindrical portion of which is provided with an adhesive layer and a second adjacent surrounding surface which is free of adhesive, said sleeve member having a plurality of frangible tabs partially extending over each of said surrounding surfaces; said adhesive serving to interconnect portions of the outer surface of said wrapper member and the inner surface of said sleeve member; whereby upon the tearing of said tabs in a direction outwardly of said sleeve member, small openings are formed in said wrapper member for the admission of air.

2,841,154
CIGARETTE MACHINE FEED
George Dearsley, Raleigh, N. C., assignor to American Machine & Foundry Company, a corporation of New Jersey
Application November 1, 1954, Serial No. 465,895
8 Claims. (Cl. 131—109)



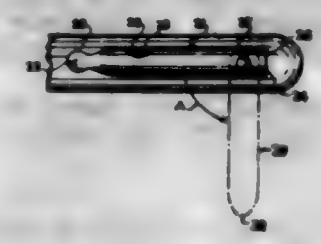
1. A carded feed drum for continuously removing a predetermined quantity of tobacco from a source of supply of cigarette tobacco, means for picking said tobacco from said carded feed drum, a winnower for winnowing said picked tobacco, a collecting belt for receiving showered tobacco from said winnower, a row of fans interposed between said winnower and said collecting belt said row of fans being divided into at least two groups with each group rotating in a direction opposite to an adjoining group, and the longitudinal axis of each of said fans lying in a plane parallel to said collecting belt for dispersing said showered tobacco over a wide area of said collecting belt, and a transverse tape for receiving the tobacco on said collecting belt and forwarding the tobacco so received from said collecting belt to a rod forming mechanism of a cigarette making machine.

2,841,155
HAIR CURLER
Henri Light, Evansville, Ind.
Application January 23, 1956, Serial No. 560,720
2 Claims. (Cl. 132—46)



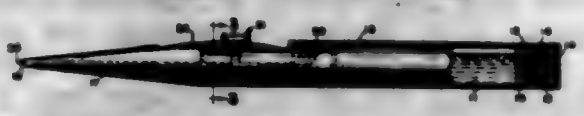
1. A hair curler comprising a clamping member having a pair of opposed normally parallel arms, one of said arms serving as a base adapted to be disposed next to the scalp and having a right-angular extension adapted to be disposed perpendicularly relative to the scalp, the other of said arms being movable to and from its normally parallel clamping position relative to said one arm, finger-grip means connecting said extension and said other arm for moving the latter to and from said clamping position, and a perforated cylindrical member interposed between and clampingly held by said arms, said perforated cylindrical member being of uniform diameter throughout, and said finger-grip means being disposed proximate the end of said perforated cylindrical member opposite that engaging the said one arm.

2,841,156
FOUNTAIN PEN NAIL FILE
Leon S. Herald, New York, N. Y.
Application March 20, 1956, Serial No. 572,645
1 Claim. (Cl. 132—73.5)



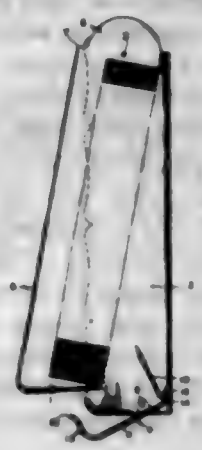
An implement embodying a manicuring device, comprising a tubular body, a flexible pocket clip fixed at one end thereof to said body, said clip having a free rounded end, with a notch therein, and a nail file pivotally secured to said body, said nail file having a pointed end and flat abrasive sides, said clip overlying and at least partially concealing the nail file in one position thereof, said nail file having one of said abrasive sides disposed adjacent said body and having said pointed end engaged in the notch in said rounded end when the nail file is in said partially concealed position, said nail file being pivotable to a position substantially perpendicular to said clip, whereby said body serves as a handle for said nail file.

2,841,157
COSMETIC APPLICATOR
Margaret S. Walker, Lakeland, Fla.
Application September 7, 1956, Serial No. 608,567
7 Claims. (Cl. 132—74.5)



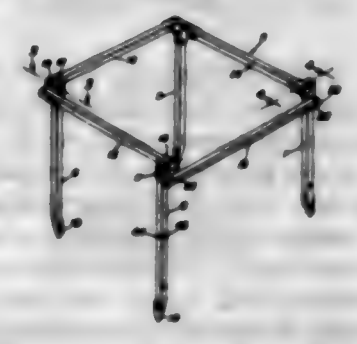
1. A cosmetic applicator comprising a barrel having a chamber for cosmetic substances, an applicator tip of reduced size, a threaded closure for one end of said barrel, a channel extending from the opposite end of said barrel to said applicator tip, a capillary member within and extending throughout the length of said channel and having one end in said barrel for absorption of the cosmetic material and with its other end exposed so that said cosmetic material may be dispensed, advancing and retracting mechanism for said capillary member having a portion in communication with said channel for engaging said capillary member and having an operating portion exteriorly of said barrel, said barrel having a slot in which said retracting and advancing portion is slidable, spring means for normally maintaining said advancing and retracting means out of contact with said capillary member, and a cap for said applicator tip adapted to maintain said advancing and retracting mechanism in retracted position.

2,841,158
SHEATHED TOILET ARTICLE
George Abe Leighton, Henley-in-Arden, England, assignor to Jarrett Rainsford & Leighton Limited, Birmingham, England, a British company
Application August 28, 1956, Serial No. 604,883
Claims priority, application Great Britain
August 21, 1955
7 Claims. (Cl. 132—143)



1. A toilet article, such as a comb, hingedly connected by one end to an end of a sheath-like case, U-shaped in cross section which forms a handle whereby the toilet article can be manipulated, a trip bar pivotally mounted within the case in a position where it is overlain by the toilet article when the latter is housed in the case, and means whereby the trip bar may be moved to trip the toilet article and swing it about its hinge so that it projects at least partly from the case.

2,841,159
CONVERTIBLE PORTABLE DUCK BLIND AND TENT
William H. Graham, Tooele, Utah
Application April 20, 1956, Serial No. 579,517
1 Claim. (Cl. 135—4)



A frame for a portable collapsible duck blind comprising a front pair of legs, a rear pair of legs, a pair of side rails and a rear rail, said legs being adapted to be driven into the ground, means pivotally connecting the rails to the upper portion of the legs for folding into a position parallel to each other, a front cross bar pivotally connected at one end to one of the front legs for folding

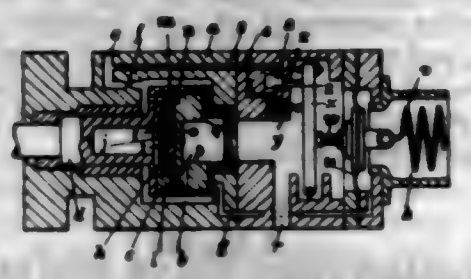
into a position parallel thereto, said cross bar having an opening in its other end, and an upstanding pin supported in outwardly spaced apart relation on the other front leg for insertion in the opening of the cross bar for detachably connecting the cross bar at the front of the frame to lock the front legs to each other in upright position.

2,841,160
CLEAR VISION UMBRELLA
August DeWispelare, Syracuse, N. Y.
Application February 21, 1956, Serial No. 566,921
3 Claims. (Cl. 135—35)



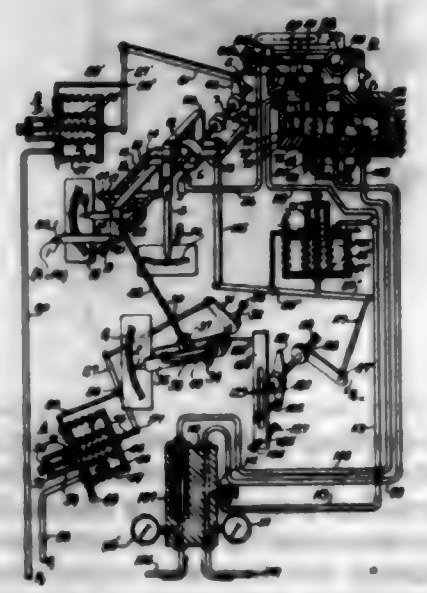
1. In an umbrella, the combination which comprises a handle, a plurality of ribs pivotally mounted on the handle, a cover extended over the ribs, said cover having a plurality of openings therethrough, transparent panels positioned in the openings of the cover, an annular protective shield having an upper edge and a lower edge, positioned with the upper edge secured to the cover, said shield being movably mounted on the cover for elevation upwardly therefrom, thereby providing shields for the transparent panels in the openings through the cover, and means for elevating the shield as the umbrella is opened.

2,841,161
HYDRAULIC SPEED-RESPONSIVE GOVERNORS
Denis Ernest Lee, Acocks Green, Birmingham, England, assignor to Joseph Lucas (Industries) Limited, Birmingham, England
Application June 21, 1955, Serial No. 517,026
Claims priority, application Great Britain June 28, 1954
1 Claim. (Cl. 137—58)



A hydraulic speed-responsive governor comprising in combination a housing having an inlet and an outlet for liquid under pressure, a rotary hollow body contained in the housing, a flexible diaphragm dividing the interior of the hollow body into first and second compartments the first of which communicates with the interior of the housing through an opening in the hollow body, and the second of which communicates with a region of low pressure leading to the housing outlet, a valve arranged to establish communication between the two compartments and provided with centrifugally operable actuating means within the hollow body so that the actuating means tends to close the valve in response to centrifugal force derived from rotary motion of the hollow body, and a baffle provided with a restricted orifice and arranged within the first compartment to provide between the baffle and diaphragm a narrow space to which liquid under pressure admitted to the first compartment has access through the restricted orifice so that the effect of the baffle is to damp down pressure fluctuations in the liquid acting on the diaphragm, and so minimize any inherent tendency to hunting of the governor.

2,841,162
APPARATUS FOR COMPUTING OUTPUT PRESSURES BASED ON ONE OR MORE INPUT PRESSURES
Donald M. Stough, Penn Township, Allegheny County, Pa., assignor to Hagan Chemicals & Controls, Inc., a corporation of Pennsylvania
Application December 8, 1955, Serial No. 551,798
7 Claims. (Cl. 137—85)



1. A system for computing an output pressure signal based on one or more input pressures, that comprises a regulator having a source of supply of pneumatic pressure, a valve having a supply pressure inlet port, an output pressure outlet port and an exhaust port, a diaphragm for operating the valve to vary the outlet pressure, a duct having an orifice, means for supplying a pressure from the supply port of the valve through the duct and orifice onto said diaphragm, a pivoted nozzle pipe connected to receive a pressure from the supply pressure on the diaphragm, said pipe having a nozzle through which air escapes, pressure deflectable means connected to the valve outlet port for actuating said nozzle pipe about its pivot, a baffle disposed adjacent said nozzle for controlling the discharge of air therefrom and varying the pressure on said diaphragm and thereby controlling the magnitude of the pressure at the outlet port, a first input pressure deflectable means for moving said baffle towards or away from the nozzle, a second pressure input responsive deflectable means, linkage means actuated by said second input deflectable means for actuating said baffle, and a third pressure deflectable means responsive to the output pressure at the outlet port of said regulator for so modifying the motion of said linkage means that the output pressure of said regulator is caused to bear a predetermined relationship to said input pressures.

2,841,163
CONTROL APPARATUS
Reginald M. Williamson, New Hope, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 20, 1956, Serial No. 566,496
10 Claims. (Cl. 137—98)

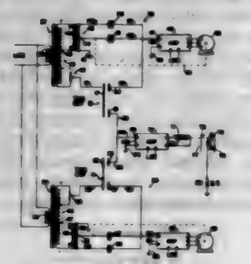
1. Apparatus for use with an aircraft having a first and a second fuel tank located on opposite sides of an axis of the aircraft comprising; first and second capacitance type sensing means arranged to be positioned in the first and second fuel tanks respectively; a first bridge network having a first transformer secondary winding with two end terminals and a tap connected to ground,

a rebalance capacitor connected in a variable voltage connection to one end terminal of said first secondary winding, a first amplifier having a pair of input terminals, means connecting one of said amplifier input terminals to said rebalance capacitor and the other input terminal to ground, and a motor connected to the output of said amplifier and arranged to control a fuel quantity indicator and to control said variable voltage connection; a second bridge network having a second transformer secondary winding with two end terminals and a tap connected to ground, a second amplifier having a pair of input terminals one of which is connected to ground, and means



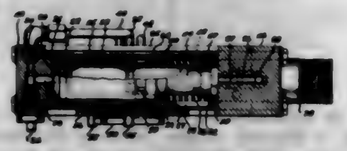
to control the draining of fuel from the first and second fuel tanks connected to be controlled by the output of said second amplifier; a timer having switch means cycled thereby, means controlled by said switch means in a first position connecting said first and second sensing means in parallel to the other end terminal of said first transformer secondary and to said one input terminal of said first amplifier, means controlled by said switch means in a second position connecting said first and second sensing means in a series circuit to the end terminals of said second transformer secondary, and means connecting the other input terminal of said second amplifier to the common connection of said first and second sensing means.

2,841,164
CONTROL APPARATUS
Reginald M. Williamson, New Hope, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 28, 1956, Serial No. 566,563
14 Claims. (Cl. 137—98)



1. Apparatus for use with an aircraft having a first and a second fuel tank located on opposite sides of an axis of the aircraft about which the center of gravity is to be maintained, comprising: a first and a second measuring capacitor arranged to be positioned in the first and second fuel tanks respectively and having capacitor electrodes extending throughout the height of the fuel tanks, the capacitance value of said first and second capacitors being a function of the height of fuel in the individual fuel tanks; a first and a second rebalanceable capacitance bridge network each having a measuring arm and having a rebalance arm which includes a capacitor and an indicator calibrated in terms of fuel quantity, means connecting said first and second measuring capacitors in the measuring arms of said first and second bridge networks respectively so as to cause the indicator of said first and second bridge networks to indicate the quantity of fuel in the first and second fuel tanks respectively; a center of gravity capacitance bridge, and means connecting said first and second measuring capacitors in opposite legs of said center of gravity bridge, the condition of balance of said center of gravity bridge thereby being a function of the center of gravity of the fuel in the first and second fuel tanks with respect to the aircraft axis.

2,841,165
ADDITIVE FEEDING MEANS
Lewis V. Emery, Atlanta, Ga., assignor to Hydro-Air Products, Atlanta, Ga., a corporation of Georgia
Application March 11, 1955, Serial No. 493,717
7 Claims. (Cl. 137—99)



4. An additive feeding means for injecting an additive fluid in a primary fluid flowing under pressure, said means comprising a cylinder, a movable piston slidably fitted in said cylinder and having a bore opening at one end thereof, a stationary piston slidably telescoped in said movable piston bore and having a bore extending therethrough, means biasing said movable piston for sliding movement in said cylinder in the direction opposite the end thereof at which the bore therein opens, valve means operated by sliding movement of said movable piston in said biased direction for applying pressure from said primary fluid exteriorly to said movable piston within said cylinder and thereby causing the sliding movement of said movable piston to reverse against the bias thereon, said valve means being further operated by said reversed sliding movement for releasing said pressure and thereby allowing return of said movable piston under the bias thereon, means for admitting additive fluid interiorly of said movable piston through the bore of said stationary piston during movement of said movable piston under said bias, and means for allowing said admitted additive fluid to be fed through the bore of said stationary piston into said primary fluid during movement of said movable piston against the bias thereon.

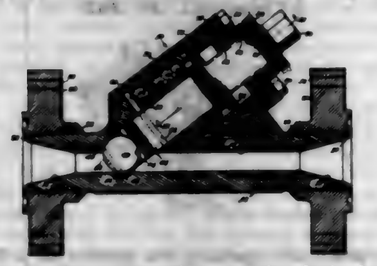
2,841,166
COMBINATION VALVE AND PLUG
John M. Austin, Whitman, Mass.
Application December 30, 1955, Serial No. 556,641
5 Claims. (Cl. 137—223)



1. A combination valve and plug for air-inflatable objects and the like comprising a resilient valve chamber having a pair of oppositely disposed side walls in spaced relation, the inner surface of one of said side walls having an inwardly extending portion which lies closely adjacent the opposite wall, said portion being provided with an aperture therein, whereby the application of an

external pressure on said resilient chamber will cause said portion to collapse against said opposite wall to seal off said aperture, said valve further comprising a hollow resilient body member having an upper section of substantially cylindrical configuration, and a lower section comprising an annular depression which merges with an outwardly flaring skirt portion which in turn merges with a converging skirt portion, whereby said converging skirt portion is adapted to be rolled externally on said outwardly flaring portion to provide an air-cushion flange around the periphery of said annular depression.

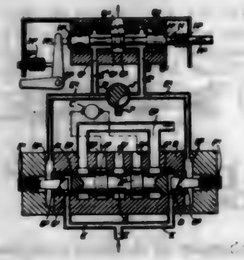
2,841,167
BALL TYPE SHUT-OFF VALVE
Eugene W. Jacobson, Oakmont, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application July 27, 1953, Serial No. 370,436
2 Claims. (Cl. 137—327)



1. In a valve construction, a valve body having a straight passageway therethrough of circular cross section, said valve body also having a cylindrical opening therein of circular cross section that is inclined at an acute angle to said passageway, said opening intersecting an intermediate portion of said passageway and terminating at such intersection, with the diameter of said opening being greater than the diameter of the passageway multiplied by the secant of said acute angle to define an annular shoulder in the valve body that surrounds the passageway, an annular valve seat fitted in said opening and engaging said shoulder, said shoulder having a recess therein underlying the valve seat whereby the latter can be forcibly removed, said valve seat having a substantially frusto-conical opening therethrough of such a diameter and slope that the valve seat is substantially clear of the passageway, a cylindrical valve stem slidingly and sealingly received in the cylindrical opening, the end of the valve stem adjacent the valve seat having a recess therein, a ball rotatably received in the recess, the end portion of the valve stem surrounding the recess having a plurality of cross cuts therein to define inturned tabs that retain the ball within the recess, said valve stem having a transverse opening therein that communicates with the innermost portion of the recess, such transverse opening being in alignment with a portion of the ball for facilitating removal of the ball from the recess, said ball being engageable with the valve seat to close the passageway, and screw means for causing longitudinal movement of the valve stem.

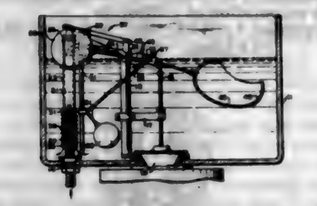
2,841,168
HYDRAULIC CONTROL VALVE APPARATUS
Francis Benjamin Leveton, George Edward Chittenden, and Norman Lee, Coventry, England, assignors to The Kloeknire Company Limited, Coventry, England, a British company
Application November 16, 1953, Serial No. 392,388
Claims priority, application Great Britain November 19, 1952
13 Claims. (Cl. 137—332)

1. Control valve apparatus for controlling the supply of working fluid in a hydraulic circulating system comprising a main valve member of the piston type operating within a cylindrical valve chamber in a valve housing having inlet and outlet ports communication between which is controlled by the main valve member, control fluid inlet and outlet passages leading respectively to and from each of the ends of the main valve chamber a fluid pressure source connected to the control fluid inlet passages, a subsidiary control valve apparatus arranged to control simultaneously two functionally alike control fluid passages in such manner as to vary progressively the



relative effective cross sectional areas of the two passages thus controlled, and two pressure balancing valves controlling respectively each a different one of the other two of such control fluid passages and arranged to be so controlled by movement of the main valve member that, on any movement of the main valve member resulting from movement of the subsidiary control valve apparatus, the pressure balancing valves move in a sense which tends to bring the pressures in the two ends of the main valve chamber to equality.

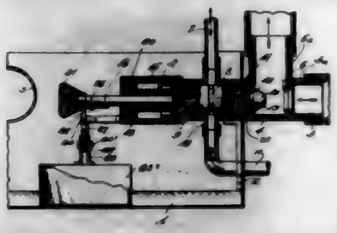
2,841,169
VALVE MEANS
Walter W. Martin and Calvin L. Martin, Paula Valley, Okla.
Application October 3, 1955, Serial No. 538,092
8 Claims. (Cl. 137—409)



1. A water closet feed valve assembly, comprising, in combination, a spring loaded refill valve adapted to be urged to closed position by the spring, a first lever pivoted in a central portion, one end portion of said lever connected to said refill valve in valve opening relation upon operation of said lever, the other end portion of said lever having a weighted member thereon adapted when in the atmosphere to overcome said spring to open said refill valve and when submerged and free in the flush tank water to exert less force than necessary on said lever to open said valve against the force of said spring, latch means with said lever having a catch and a hook to engage said catch, a second lever pivoted in a central portion having a normally submerged float on one end portion and connected to said hook on the other end portion and adapted to engage said latch means to hold said lever with said valve in wide open position upon flushing said water closet to empty the flush tank thereof, and a third lever pivoted in a central portion having a normally buoyed float on one end portion and connected to said

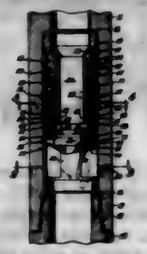
catch on the other end portion and adapted to release said latch means to allow said spring to close said refill valve when said flush tank has been refilled.

2,841,170
EMERGENCY SHUT-OFF FOR HOT WATER HEATERS
John Kuney, Menlo Park, Calif.
Application May 14, 1957, Serial No. 659,096
5 Claims. (Cl. 137—410)



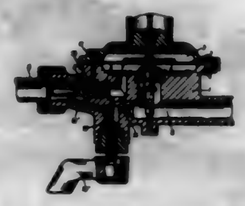
1. In a mechanism of the class described, the combination of an elongated casing, a valve body slidably mounted within said casing, a rod-like stem screwed at one end into said valve body, said casing provided with a detachable cap at one end and surrounding said rod-like stem, a coil spring on said rod-like stem, said cap being provided with a packing therein at one end, a washer fitting entirely within said cap and being positioned against said packing, said rod-like stem provided with a conical-like plug on its outer end, a float under said conical-like plug, a bracket on said float, a float arm mounted on said bracket, and said arm being positioned close to said rod-like stem and adapted to contact said stem to lock said stem against movement.

2,841,171
APPARATUS FOR AUTOMATICALLY FILLING WELL BORE CONDUIT STRINGS
John R. Baker, Pasadena, and John F. Muse, Montebello, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application April 27, 1953, Serial No. 351,394
18 Claims. (Cl. 137—493)



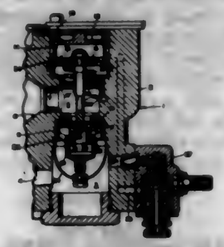
1. In apparatus for controlling the flow of fluid in a conduit string positionable in a well bore: a valve body adapted to be disposed in a generally vertical position in the conduit string; a first valve member in said body; a second valve member in said body movable upwardly with respect to said body into engagement with said first valve member to restrict upward flow of fluid between said members and movable downwardly out of engagement from said first member to allow flow of fluid therebetween; spring means engaging said first valve member for urging said first valve member downwardly toward engagement with said second valve member; said first valve member having a downwardly directed surface of a total area acted on by fluid under pressure therebelow, when said valve members are in engagement with each other, which tends to shift said first valve member in an upward direction out of engagement from said second valve member; said first valve member having an upwardly directed surface of a total area acted on by fluid under pressure therebelow, when said valve members are in engagement with each other, which tends to shift said valve member in a downward direction into engagement with said second valve member; the total area of said downwardly directed surface being greater than the total area of said upwardly directed surface.

2,841,172
QUANTITY REGULATOR FOR GAS HEATED CONTINUOUS FLOW TYPE HOT WATER APPARATUS
Hans Dinges, Remscheid, Germany, assignor to Johann Vaillant K. G., Remscheid, Germany
Application March 9, 1954, Serial No. 415,049
Claims priority, application Germany March 12, 1953
1 Claim. (Cl. 137—502)



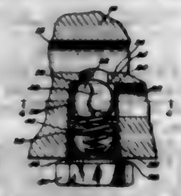
In a device for regulating the quantity of a fluid, a housing with a main passage and a smaller auxiliary passage for the fluid, a throttling cross section and a regulation valve with an unbalanced valve body in said main passage, means for controlling said regulating valve in dependence of the differential pressure arising at said throttling cross section, said auxiliary passage by-passing the regulating valve and also the throttling cross section, said housing having a second auxiliary passage, said second auxiliary passage only by-passing the throttling cross section and means to effect a change of the cross section of the two auxiliary passages simultaneously and in same direction.

2,841,173
CONTROL VALVE
Richard J. Mason, Lyndhurst, and John S. Jaquith, Cedar Grove, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application February 19, 1953, Serial No. 337,753
1 Claim. (Cl. 137—505.18)



An air control for supplying a substantially constant output pressure from a source of varying pressure, comprising a housing having side inlet means and side outlet means, said housing having in succession a large lower bore, a central small bore and a large upper bore, said lower bore forming a high pressure chamber and connecting with the inlet means, said central bore forming a low pressure chamber and connecting with the outlet means, a valve seat arranged at the inner end of said lower bore and having a passageway axially connecting the high and low pressure chambers, an elongated valve member having a cylindrical head portion and an upperside area and an underside area, the upper edge of the cylindrical head portion cooperating with said valve seat in said passageway to vary the opening thereof so that the upperside area of said head portion is subject to pressure air in the low pressure chamber, the valve member having a cylindrical body portion coextensive with the periphery of said head portion extending into the high pressure chamber, a guide member having a closed bore receiving the cylindrical body portion of the valve member for shielding the underside area of the head portion of the valve member from the pressure of the pressure air in the high pressure chamber, the inner peripheral part of the guide member being removably positioned against said valve seat in the high pressure chamber and having openings to said valve seat, the outer part of said guide member being spaced from the walls of said lower bore, at least one bleed passage in the head portion of said valve member opening the bore of said guide member to the pressure in said low pressure chamber so that the pressure of the air in the low pressure chamber is applied at the underside area as well as at the upperside area of said valve member, a valve rod secured at one end to the valve member and extending through said passageway and the low pressure chamber and into said upper bore, a piston member in said upper bore secured to the other end of the valve rod and forming a pilot chamber above the piston, a cup-shaped partition plate in contact with said rod and forming a spring chamber beneath the piston, a coil spring about the valve rod expanded between the underside of the piston and the bottom wall of the cup-shaped partition plate and biasing the piston upwards in a sense to cause the head portion of the valve member to close the passageway, said spring being the only means urging said valve member to closed position, the partition plate serving as a shield for the piston member against velocity shock of pressure air flowing from the high pressure chamber through the valve passageway to the low pressure chamber, means including a pressure reducer and a passageway in the housing communicating the high pressure chamber with the pilot chamber, channel means in the housing communicating the spring chamber with the low pressure chamber to equalize the pressures thereon, the piston being responsive to pressure in the pilot chamber to overcome the spring bias so as to actuate the head portion of the valve member in a sense to open the passageway, and said piston having a bleed hole therethrough so that the pressure in said pilot chamber can be relieved through said spring chamber.

2,841,174
VALVE
Charles F. Frye, Chicago, Ill.
Application December 14, 1954, Serial No. 475,070
5 Claims. (Cl. 137—514.5)



1. A check valve for conveying power fluid at high velocity comprising: a valve body having a bore therein; a seat at one end of said bore; an inlet passage through said seat; a lateral discharge port in said bore; a ball axially movable in said bore to and from said seat and past said discharge port; said bore having a longitudinally extending slot adjacent said discharge port, said slot having straight parallel side guide edges for guiding said ball past said discharge port; said bore encircling said ball with minimum mechanical clearance only, of the order of magnitude of from 10 to 15 thousandths of an inch; whereby when said ball is lifted from its seat, the issuing stream cannot get behind said ball, and pushes said ball forcibly away, beyond said discharge port.

2,841,175
HIGH PRESSURE VALVE
Alfred Ford, Chicago, Ill., assignor to Superior Pipe Specialties Company, Cicero, Ill., a corporation of Illinois
Application December 7, 1954, Serial No. 473,672
2 Claims. (Cl. 137—557)

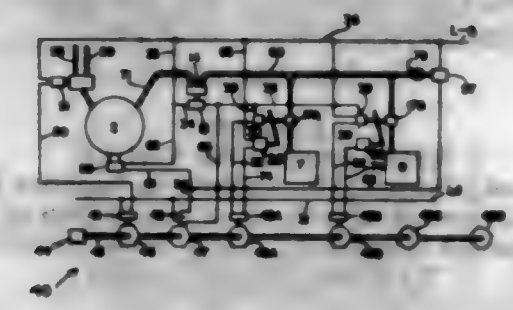


1. A high pressure valve construction comprising a valve body having a threaded nipple portion at one end and an annular sleeve portion at the other end, said body having an axial bore through the ends of the body, said valve body having the nipple end provided with an annular valve seat and having an intermediate body portion to be engaged by a wrench, a nut of similar stock as the intermediate valve body portion, means for rotatably supporting said nut on the sleeve part of the valve body with the threaded portion of the nut extending beyond said sleeve and generally coaxial with the valve body bore, means for retaining said nut from any substantial movement along the axis of the valve body, a valve stem having a valve head on one end thereof, said valve stem being disposed within the bore of the valve body and having the valve head disposed at the nipple end for cooperation with the valve seat, pin means passing transversely through said valve body and valve stem for locking these two parts against relative rotation, one of said parts providing lateral clearance for said pin so that the valve stem may move longitudinally of the valve body while still being locked against rotation relative thereto, said valve stem having a threaded portion disposed within said nut so that as said nut is turned said valve stem is longitudinally moved, said valve stem having an axial bore from the end remote from the valve head to the base of the valve head, said valve stem having at least one transverse bore connecting the axial stem bore with the region around the valve stem at the base of the valve head, and at least one slot on the outside of said threaded nipple portion extending parallel to the axis of the nipple, said slot cutting across the nipple threads and extending from the free end of the nipple toward the valve body, said body having a sealing gasket adjacent the nipple, said slot being long enough so that when the valve body is backed out from the wall of a high pressure container enough to break the gasket seal, then said slot provides a channel for a leak to generate noise.

2,841,176
WASHER SUPPLY CONTROLS
Benjamin A. Bass, East Moline, Ill., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application May 22, 1953, Serial No. 356,665
1 Claim. (Cl. 137—565)

In a device for feeding supplies to the cylinder of a washer, in combination, a plurality of supply containers

adjacent said cylinder, separate suction lines leading from each container to a normally closed valve therefor having an operating rod, a common base for all of such valves, a wall rising from said base, a solenoid for each of said valves carried by said wall, mechanism connecting the operating rod of each valve with its sole-



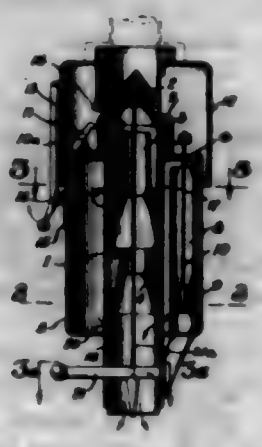
noid which when the solenoid is actuated, holds the valve open, a common manifold means connecting with all of said valves, a motor driven constant delivery pump, and a switch adjacent each of said mechanisms which is closed by the movement of the operating rod to open the valve, said switch supplying current to operate said pump when it is closed.

2,841,177

APPARATUS FOR AUTOMATIC MEASUREMENTS OF LIQUIDS

Arnold Schmidt, Hamburg-Bergedorf, Germany, assignor to Askania Werke Aktiengesellschaft, Berlin-Friedenau, Germany, a corporation of Germany

Application June 28, 1951, Serial No. 234,014
Claims priority, application Germany July 7, 1950
13 Claims. (Cl. 137—614.14)



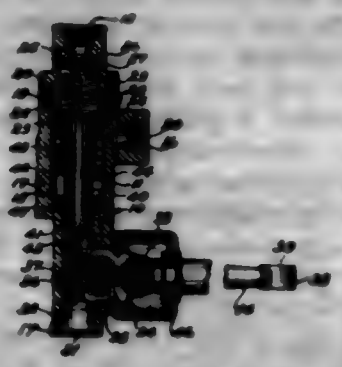
1. An apparatus for precisely and automatically measuring predetermined amounts of liquid, said apparatus comprising, in combination, a flow tunnel, a measuring container located coaxially to the flow tunnel and axially and circumferentially movable relatively thereto, said tunnel and container having two sets of openings located at different levels, said measuring container being movable axially relatively to said flow tunnel to two end positions, one set of said openings being substantially in alignment in one of said end positions and the other set of said openings being substantially in alignment in the other one of said end positions, means connected with said flow tunnel and directing a part of the current flowing therethrough through one of said sets of openings to said measuring container, a valve closing and opening the flow of liquid through said tunnel, means operatively connecting said valve with said measuring container, means locking said valve and said measuring container in one of said end positions, a liquid-responsive device within said measuring container, and means connecting said liquid-responsive device with said locking means and operable to release said locking means.

2,841,178

CONTROL VALVE

Forrest O. E. Schmitz, Detroit, Mich., assignor to Midland-Ross Corporation, Cleveland, Ohio, a corporation of Ohio

Application July 7, 1952, Serial No. 297,586
1 Claim. (Cl. 137—627.5)



Apparatus for use with a vehicle having a relatively movable frame and axle and an air spring therebetween, said apparatus comprising a body and an arm adapted to be connected one to the frame and the other to the axle of the vehicle, said arm projecting into and being pivotally connected at its inner end to said body, said body having a chamber provided with an air inlet adapted to be connected to a source of air under pressure, an air outlet adapted to be connected to an air spring, and a piston receiving opening, said outlet having a restricted port, a valve seat in said chamber adjacent to said inlet, a first valve engageable with said seat to control the flow of air from the chamber through the inlet, a valve seat in said chamber between said ports, a second valve engageable with said seat to control the flow of air from said inlet to said outlet, resilient means in the body to urge said valves against their seats, a piston in said chamber and piston receiving opening, packing means in the body to prevent the escape of air through said opening around said piston, said piston having an exhaust passage extending therethrough from an open end which is closeable by engagement of said open end with said second valve, and means for automatically maintaining said body and said arm in predetermined relative position, said means including a member in the body engaging the inner end of said arm and adapted to be moved by relative pivotal movement of said body and arm and engaging and adapted to move said piston, said movable member serving when the arm moves in one direction to move said piston to an air inlet position in which the piston engages and moves said second valve off its seat, and when the arm moves in the opposite direction to move said piston to an air exhaust position in which the piston is out of contact with the second valve, the valve is on its seat and the passage through the piston is open to permit escape of air therethrough from said outlet and when the body and arm are moved to an intermediate predetermined position, to move the piston to and maintain it in a hold position in which the open end of the piston is in engagement with said valve and the valve is on its seat.

2,841,179

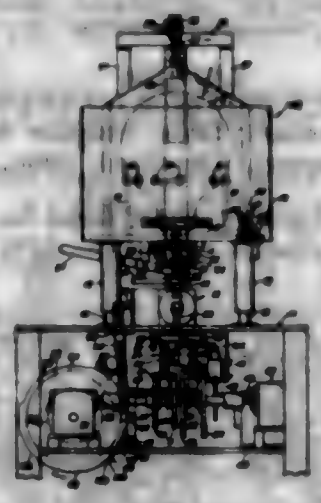
EXHAUST MACHINE

George E. Ott, Eastlake, and Donald B. Torr, Cleveland, Ohio, assignors to General Electric Company, a corporation of New York

Application March 15, 1957, Serial No. 646,376
8 Claims. (Cl. 137—634)

1. In a device of the character described comprising a fluid flow conduit and valve arranged to control flow of fluid through said conduit, actuating means for said valve comprising a slow speed cam shaft and a high speed cam shaft, means to drive said shafts at predetermined different speeds, an actuating cam on said high speed shaft, follower means connected to said valve

and including a shiftable arm portion mounted to be moved into registry with said actuating cam or to a neutral position out of registry with said cam, said actuating cam being configurated to effect movement of said arm portion, when in registry therewith, in directions to cause the follower means to alternately open and close



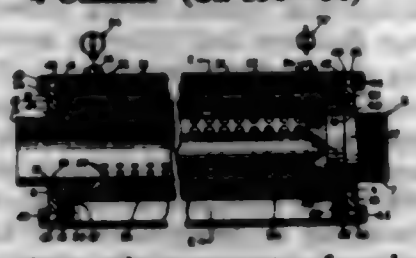
said valve, a shifter cam on said slow speed shaft, and follower means connected to said shiftable arm portion and arranged to be actuated by said shifter cam, said shifter cam being configurated to effect movement of said arm portion alternatively into registry with said actuating cam and to said neutral position for predetermined periods of time.

2,841,180

PULSATION DAMPENER DEVICE AND MANDREL FOR USE THEREIN

Jerome R. Pier, Irwin, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application November 25, 1955, Serial No. 549,021
4 Claims. (Cl. 138—30)



1. Pulsation dampening apparatus for absorbing pressure surges in a conduit conducting fluid at fluctuating pressures, said apparatus comprising, in combination, resilient sleeve means, housing means disposed about said resilient sleeve means and providing a chamber surrounding said resilient sleeve means and chargeable with fluid at a preselected pressure, and a perforated tubular mandrel connectable with the conduit and encircled by said resilient sleeve means, said resilient sleeve means being sealingly secured adjacent its respective ends between said housing means and mandrel, said mandrel having a plurality of spaced, raised convexly curved ridges formed on the outer surface thereof for engagement by the inner surface of said resilient sleeve means for so controlling the pattern of collapse of said resilient sleeve means, when fluid pressure in said chamber exceeds that in the conduit, as to prevent the formation of sharp bends in said resilient sleeve means.

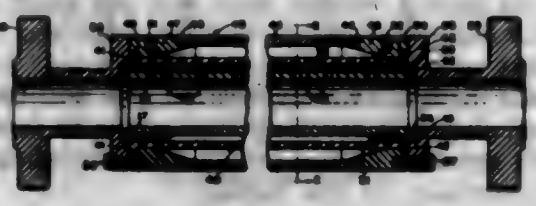
2,841,181

PULSATION DAMPENER DEVICE

Ellis E. Hewitt, Ruffsdale, and Ralph R. Leffler, Trafford, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application January 31, 1956, Serial No. 562,386
4 Claims. (Cl. 138—30)

1. Pulsation dampening apparatus for use with a pipe line carrying a fluid under variable pressure, comprising, in combination, a pipe section for connecting to said line, said section being perforated with a plurality of throttling orifices extending in a plurality of rows substantially parallel to the longitudinal axis of the pipe section, a plurality of slotted substantially semi-circular rods disposed on the outside of said pipe section in positions over said plurality of rows, respectively, the slots communicating with said orifices, cup means mounted on the ends of said pipe section, said cup means being constructed



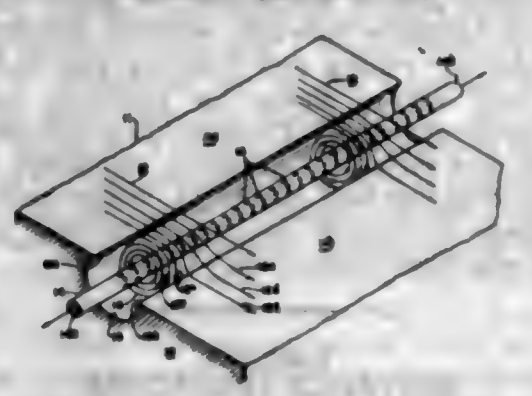
and arranged to cooperate with the ends of said rods for maintaining said rods in predetermined positions on the section, resilient sleeve means substantially surrounding said perforated pipe section and said rods, and housing means substantially surrounding said sleeve means and cooperating therewith in sealed relation to provide a chamber into which other fluid under pressure is introduced for applying pressure to the outside of said resilient sleeve means.

2,841,182

BOUNDARY LAYER FLUID CONTROL APPARATUS

Sinclaire M. Scala, Bronx, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 29, 1955, Serial No. 556,352
5 Claims. (Cl. 138—37)



1. In a body having a surface associated with a flow of fluid, wherein a low energy boundary layer of fluid is present adjacent said surface; means for removing said boundary layer of fluid including a recess in said surface extending transversely to the flow of fluid, said recess being of curved cross-sectional shape, means for creating a stagnation streamline immediately downstream of said recess, whereby said boundary layer forms a vortex in said recess about the central axis of said recess, and a foraminous tubular member disposed adjacent the central axis of said recess and extending subetantially the length of said recess, said tubular member being of smaller cross-sectional area than said recess and being in communication with a region of lower pressure than said fluid.

2,841,183

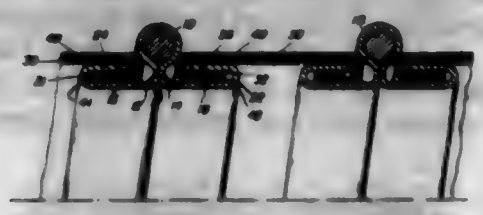
COLLAPSIBLE TUBING WITH PROTECTIVE RIB

William E. Rejeski, Farmington, Conn., assignor to The Wiremold Company, West Hartford, Conn., a corporation of Connecticut

Application June 9, 1955, Serial No. 514,285
14 Claims. (Cl. 138—60)

1. Collapsible tubing comprising a metal strip wound into a helical spiral, the edges of said strip being reversely bent, a flexible strip having an edge inserted between said reversely bent edge and the body of the strip and

frictionally held thereby, the opposite edge of said flexible strip being inserted between the opposite edge and body portions of an adjacent convolution of said metal strip, the portion of said metal strip between its reversely bent



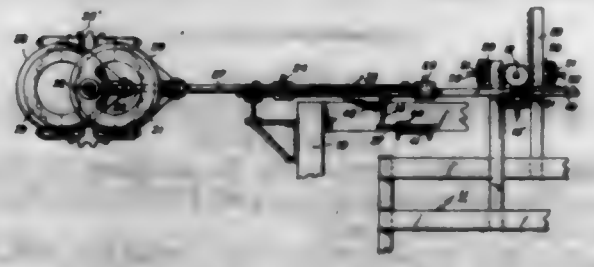
edges being bent outwardly beyond the portions of the strip paralleling said reversely bent edges to form a protective rib exterior of the tubing and extending beyond the circumference of the tubing.

2,841,184

HEDDLE CONTROL MECHANISM FOR LOOMS

Montgomery B. Penman, Bloomsburg, Pa., assignor to The Magee Carpet Company, Bloomsburg, Pa., a corporation of Pennsylvania

Application January 6, 1956, Serial No. 557,683
16 Claims. (Cl. 139—56)



1. A heddle control mechanism for looms comprising a series of vertically movable heddles, individual gear mechanisms for raising and lowering said heddles including reciprocating means for operating each gear mechanism to raise or lower said heddles, movable latches carried by said reciprocating means, oppositely movable means for engaging said latches to operate said reciprocating means to raise or lower said heddles, and solenoids for selectively controlling said latches.

2,841,185

SELVEDGE PROTECTOR

Theodore E. Berger, Kutztown, Pa.

Application July 8, 1954, Serial No. 442,029
2 Claims. (Cl. 139—195)



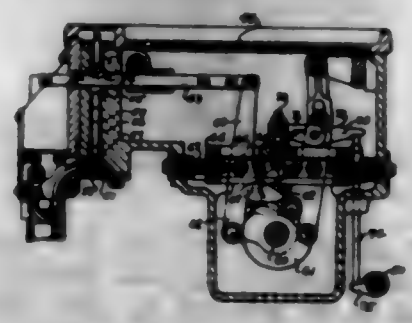
1. A selvedge protector for attachment to a loom comprising an elongated hollow housing mounted on a stationary portion of the loom, an elongated bar reciprocably mounted in said housing, spring means normally urging said bar longitudinally outwardly of said housing, a depending plate mounted on the outer end of said bar, a bunter plate pivotally attached to the lower end of said depending plate, said depending plate having an aperture therein, a headed stud on said bunter plate extending through said aperture for retaining the bunter plate in position for engagement by the lay on the loom when the filler threads are beaten up into the woven cloth, a hook pivotally mounted on said bar behind said depending plate and projecting forwardly of the bunter plate, said hook terminating in a tapered point adapted to engage the warp threads adjacent the remote edges thereof, said projecting stud contacting the hook for raising the point thereof out of contact with the warp threads and out of the path of movement of the lay upon inward movement of the bunter plate, and spring means interconnecting said hook and bar for urging the hook into engagement with the warp threads.

2,841,186

FILLING DETECTOR FOR A WEAVING MACHINE

John Fisher, Cleveland, Ohio, assignor to The Warner & Swasey Company, Cleveland, Ohio, a corporation of Ohio

Application April 25, 1955, Serial No. 503,670
18 Claims. (Cl. 139—370)



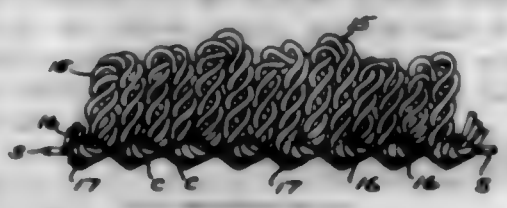
1. In a weaving machine of the gripper shuttle type having a picking mechanism and a receiving mechanism, a filling or weft thread detecting mechanism on the receiving side comprising a movable element associated with the receiving mechanism and driven in opposite directions in timed relationship to the shed formation and the laying of filling or weft threads in the sheds, a movable feeler, spring means for moving said feeler in a thread detecting direction, movable means operatively associated and movable in unison with said feeler, means carried by said element and cooperating with said movable means to move the latter and said feeler against the action of said spring means during movement of said element in one direction and allowing movement thereof by said spring means during movement of said element in the opposite direction, said movable means and said element carried means having portions which interengage to arrest the movement of said element in the opposite direction prior to its completion whenever there is an absence of a filling or weft thread to be engaged by said feeler, and means operatively associated with said element for automatically stopping the machine whenever the movement of said element in the opposite direction is thus arrested.

2,841,187

RANDOM TEXTURE PILE FABRIC

David Karpoff, Blauvelt, Herbert Bridgman, Yonkers, and Emory P. Mersereau, Jr., Thornwood, N. Y., assignors to Mohasco Industries, Inc., a corporation of New York

Application January 23, 1956, Serial No. 560,476
1 Claim. (Cl. 139—403)



In the weaving of a pile fabric in which pile loops are formed over pile forming wires, the improvement which comprises weaving pile warps composed of a soft, loosely twisted yarn over a succession of differently shaped pile forming wires, said wires in each respect including at least one wavy wire followed by a high tipped wire adapted to produce pile loops of varying heights as the wires are successively withdrawn, each weftwise repeat comprising at least four reed dents, and each dent

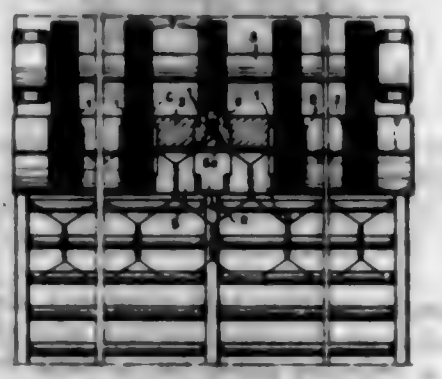
having at least a stuffer warp and a pair of chain warps, two consecutive dents only containing pile warps whereby successive pile warps are unevenly spaced along said wires.

2,841,188

MACHINE FOR MAKING HYDRAULIC WORKS BASKET FOR RIVER, MOUNTAIN, AND SEA DEFENSES

Mario Rossi, Bologna, Italy, assignor to S. p. A. Officine Maccaferri già Raffaele Maccaferri & Figli, Bologna, Italy

Application May 28, 1953, Serial No. 356,263
4 Claims. (Cl. 140—24)



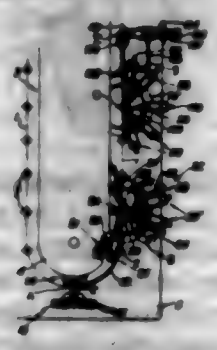
1. A machine for simultaneously twisting the marginal portion of a metallic lattice with hexagonal meshes about a rod or wire extending along said marginal portion, comprising, in combination, a base, a number of equal coaxially arranged equidistant rotary bodies each having a transverse slot extending across the axis of said body and a radially extending bore communicating with the slot, intermediate slotted fixed bodies secured to the machine frame for supporting said rotary bodies at their opposed sides, said slots in said fixed bodies being all aligned and extending across the axes of said rotary bodies, means being provided for revolving simultaneously said rotary bodies and keeping their slots constantly aligned.

2,841,189

APPARATUS FOR MOUNTING FILAMENTS

Carl R. Meckstroth, South Euclid, and Fred J. Grube and Louis A. Demchock, Sr., Cleveland, Ohio, assignors to General Electric Company, a corporation of New York

Application June 1, 1953, Serial No. 358,912
9 Claims. (Cl. 140—71.6)



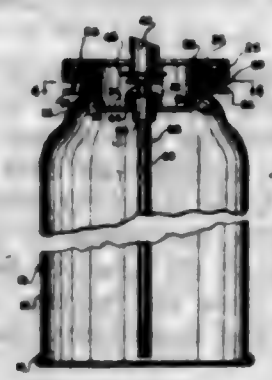
1. In a mount making machine comprising a stem holder for holding in vertical position a stem having an arbor projecting downwardly with a plurality of support wires radiating laterally outward therefrom and a pair of leads extending generally downward from said stem beyond said arbor with an elongated filament connected at its ends to said leads, means to index said stem holder along a fixed path to a plurality of stations including a station whereat the stem is received with the filament hanging downward from said leads in the form of a loop, bending and curling mechanisms at said station under the path of said stem, said bending and curling mechanisms being mounted for movement upward and including a plurality of curling devices engageable with the filament at a plurality of spaced points along said loop and also including a bending device comprising finger means associated with each curling device, and actuating means operable to effect movement of said curling devices upward to engage the filament and then lift it at said spaced points to the approximate elevation of the lower ends of said leads and including means operable to then actuate the said finger means of the bending devices to bend respective support wires downward to bring the free ends thereof across the filament and into operative relation to the respective curling devices and also including means operable to actuate said curling devices to curl the said free ends of the support wires about the filament.

2,841,190

REFILLABLE PRESSURE SPRAY DEVICE

William Scheck, New York, N. Y.

Application January 14, 1957, Serial No. 634,026
3 Claims. (Cl. 141—20)



1. In combination, a pressure spray device and recharging means therefor, said spray device comprising a container having an open end, a closure for said open end including a dish-shaped cap having a central opening, a dispensing valve assembly supported on said cap, said assembly including a tubular outlet plunger in the central opening in the cap communicating with the interior of the container and protruding outwardly thereof, a depressible valve actuating cap removably seated on the outer end of said plunger outlet, said actuating cap having a discharge port, said recharging means including a propellant container holding a gaseous propellant under pressure, a dispensing valve assembly attached to the propellant container, a recharging valve assembly attached to said latter dispensing valve assembly, said recharging valve assembly including a hollow valve body having an outlet neck portion, a cylindrical member mounted on said neck portion, a resilient pad carried by said cylindrical member, said member and pad having aligned central bores, a tubular outlet member depending from the valve body and extending through said bores outwardly of the pad, said tubular outlet member extending into the tubular plunger outlet of the container forming a pipe line therewith, said pad contacting the outer end of said plunger outlet for actuating the same when the depressible cap is removed to open the valve in the spray device container, said cylindrical member contacting the side wall of said inner surface of the dish-shaped cap for guiding the movement of the tubular outlet member of the recharging valve assembly into the tubular plunger of the container valve assembly.

2,841,191

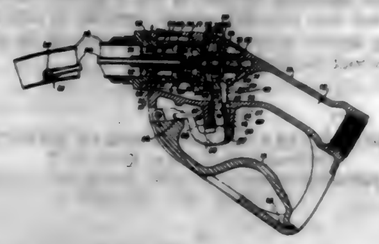
LIQUID DISPENSING APPARATUS

John Fraser, Tolworth, Surbiton, England, assignor to Avery-Hardoll Limited, Chessington, England

Application May 21, 1957, Serial No. 662,555
Claims priority, application Great Britain March 30, 1953
16 Claims. (Cl. 141—209)

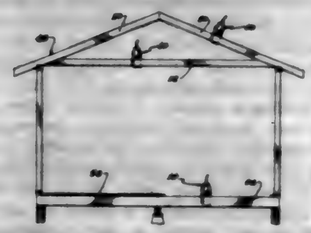
1. A liquid dispensing bosecock comprising a body and a nozzle jointly defining a main liquid passage, said body

having a control chamber therein, a main valve seat in said main liquid passage, a main valve movably mounted between said control chamber and said main valve seat and dividing said main liquid passage into upstream and downstream portions, means providing communication between the up stream portion of said main liquid passage and said control chamber for admitting pressure liquid into said chamber for acting on the upstream end of said main valve to urge said main valve onto said main valve seat to close said main liquid passage, means providing a



second passage between said control chamber and the downstream portion of said main liquid passage, pilot valve means controlling said second passage, manually operated means for opening said pilot valve means to relieve the pressure in the control chamber and allow opening of the main valve, and means for inducing suction by flow of liquid through the hosecock for closing said pilot valve means and cause and increase in pressure in said control chamber and consequent closure of said main valve.

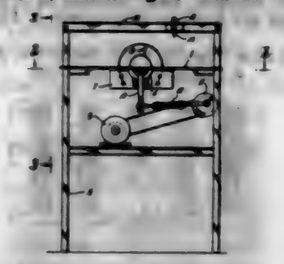
2,841,192
PORTABLE SAW SUPPORT FOR ATTACHING IDLE SAW TO AN EDGE-UP BOARD
Virgil D. Martin, Ontario, Calif.
Application December 30, 1955, Serial No. 556,601
3 Claims. (Cl. 143—43)



2. A combined handle and support member for a portable power saw having a body portion, including a support member base portion, means for attaching said base portion to the saw body at one side of the saw body, an arm integral with said base portion which extends upwardly and forwardly from said base portion along the side of the saw body to which said base portion is attached in spaced relation to the saw body to receive a board between said arm and the saw body, and a handle integral with said arm and extending laterally from said arm to the opposite side of the saw body.

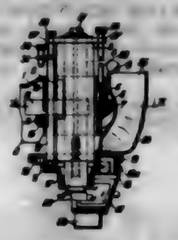
2,841,193
MACHINE FOR SAWING SPONGE-LIKE CELLULAR GLASS
Paul E. Petrofsky, Houston, Tex., assignor to The Aber Company, Houston, Tex., a corporation of Louisiana
Application March 2, 1956, Serial No. 569,174
2 Claims. (Cl. 143—85)

2. A machine for cutting semicylindrical shapes from blanks of Foamglas or the like, including a table top having a flat work supporting surface which is devoid of upward projection to interfere with free movement in all directions of work supported thereby, an oscillating plate positioned wholly beneath said work supporting surface and carried on the underside of the said table top for oscillation about an axis coincident with the plane of said surface, a parti-circular saw blade secured at opposite ends and beneath said work supporting surface to said plate and projected above the table surface on a semi-round path whose center is aligned with the table surface,



power means to oscillate said plate and said saw blade as work is fed on the table surface past the oscillating saw blade, a swinging guide for a blank from which a shape is to be cut and a pivot pin suspended above and downwardly terminated at an elevated point vertically spaced from the work supporting surface, said elevated pin being engageable with said guide and establishing therefor a swinging axis normal to said plane of the work supporting surface.

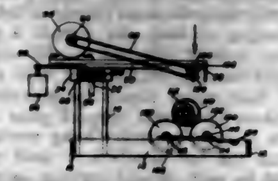
2,841,194
TOOL DRIVING AND GUIDING STRUCTURE FOR A MACHINE TOOL
Albert Köberle, Oberriet, Switzerland, assignor to Firma B. Raimann G. m. b. H., Freiburg im Breisgau, Germany
Application November 7, 1955, Serial No. 545,466
Claims priority, application Switzerland December 1, 1954
10 Claims. (Cl. 144—134)



1. In a machine tool, in combination, a bearing for a spindle which drives the tool of the machine tool; support means supporting said bearing for axial movement; moving means operatively connected to said bearing for axially shifting the same; a holder guided by said bearing for axial movement along the length thereof, said holder being adapted to hold a guide for the tool; and second moving means operatively connected to said holder for axially shifting the same along the axis of said bearing, whereby said bearing and said holder may be moved relative to and independent from each other.

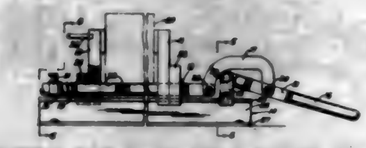
2,841,195
LOG-DEBARKING MACHINE
Oscar T. Fulghum, Wadley, Ga.
Application October 25, 1956, Serial No. 618,339
3 Claims. (Cl. 144—208)

1. A log-debarking machine comprising a frame, longitudinal guide means mounted on said frame adjacent the rear thereof and spaced vertically upwardly from a rotating nontraveling log adjacent the front of the frame, a cutterhead slidably mounted on said guide means for vertical swinging movement and longitudinal sliding movement, whereby the cutterhead may be brought into engagement with such a log, said guide means including a pair of spaced parallel guideways interconnected by end plates, pivot means mounting said end plates, elongated handle means for pivoting said end plates in one direc-



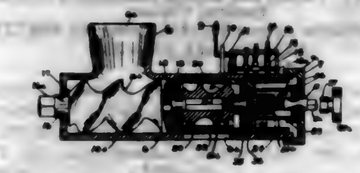
tion, and counterbalance means urging the end plates in the other rotational direction, whereby manual pressure on the handle means may be transmitted to the cutterhead for urging the same into contact with a log being debarked, and whereby the counterbalance means will automatically urge the cutterhead away from such log when said manual pressure on the handle means is released.

2,841,196
TOGGLE LEVER ACTUATED SLIDING JAW VISE
Edward Zaudzyk, Brooklyn, N. Y.
Application October 28, 1955, Serial No. 543,348
2 Claims. (Cl. 144—383)



1. A vise comprising a base, a vertically-disposed first jaw rising from said base inwardly of one end thereof, a vertically-disposed second jaw arranged in face to face relation with respect to said first jaw and carried by said base for movement toward and away from said first jaw, a pull rod arranged longitudinally of and spaced above said base and extending through said first and second jaws, an upright bracket adjacent the other end of said base connecting one end of said pull rod to said base for longitudinal sliding movement therealong, a vertically-disposed post rising from said base adjacent one end of the latter, said pull rod having its other end between said post and said first jaw, a lever having its lower end connected to said post for swinging movement from an upright position to a downwardly-sloping position longitudinally of and away from said pull rod, an arcuately-shaped link having one end operatively connected to the adjacent end of said pull rod and having the other end pivotally connected to said lever intermediate the ends of the latter, said link being positioned so that upon execution of movement of said lever from the upright position to the downwardly-sloping position its concave face rests upon the upper end of said post, a collar slidably mounted on said pull rod exteriorly of said second jaw, a coil spring surrounding the portion of said pull rod between said collar and said second jaw and having one end bearing against said collar and having the other end bearing against said second jaw biasing said second jaw towards said first jaw, and releasable lock means carried by said collar engageable with a selected one of a series of cooperating means arranged in spaced relation along the adjacent portion of said pull rod securing said collar on said pull rod for movement toward said first jaw in response to execution of movement of said lever from its upright position to its sloping position.

2,841,197
MEAT GRINDER HAVING PLURAL CUTTING MEANS
Otis R. Ardrey, Hannibal, Mo.
Application April 29, 1955, Serial No. 504,769
4 Claims. (Cl. 146—182)



1. In a grinding machine the combination of a housing, an opening on the top of said housing for admission of the material to be ground, an opening on the bottom of said housing for release of the final ground material, a worm having a leading end and a trailing end the same positioned immediately under the first mentioned opening, an apertured plate and a cutter in operative arrangement therewith aligned immediately adjacent to the leading end of said worm, a second worm having rigid knives attached to the periphery thereof, said second worm aligned axially with said first mentioned worm, an apertured cylinder aligned axially with said second mentioned worm and positioned above said opening on the bottom of said housing, said apertured cylinder having a plurality of groups of apertures with the size of the apertures in one group being different from the size of the apertures in other of said groups, said rigid knives being in shearing contact with the inner surface of said apertured cylinder, a common shaft extending axially through said worms causing their common rotation, and selectively operative means associated with said apertured cylinder to allow the rotation of said apertured cylinder or to lock said cylinder against rotation as desired.

2,841,198
CONTAINER FOR FLUID OR SEMI-PLASTIC MATERIALS
John P. Kwako, Los Angeles, Calif., assignor, by mesne assignments, to Theo. Rom, Los Angeles, Calif.
Application December 13, 1954, Serial No. 474,915
10 Claims. (Cl. 150—2.1)



1. In a container of the character described: a rear wall of flexible material extending from the front end to the rear end of the container; first and second front walls of flexible material adjacent said rear wall, said first wall extending from the front end of the container to a location intermediate the ends of the container and said second wall extending from the rear end of the container to a location spaced from the front end of the container, said first and second walls having overlapping portions; peripheral seam means connecting the edge of said rear wall with the edges of said front walls so that a cavity will be formed between them; and seams connecting said overlapping portions of said first and second front walls, said last named seams extending inwardly from the

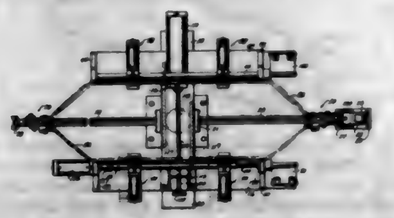
peripheral seam means toward each other and having portions thereof in spaced relation so as to define between adjacent parts of said overlapping portions of said first and second walls a filling opening connecting the exterior of the container with said cavity.

2,841,199
TRACTION INCREASING ASSEMBLY FOR VEHICLE TIRES
Hans J. Voelkel and Rudolf Ehrmann, Toronto, Ontario, Canada
Application August 28, 1956, Serial No. 606,737
8 Claims. (Cl. 152—200)



1. In combination with a vehicle tire having a tread portion, a traction increasing assembly, said traction increasing assembly comprising a plurality of cylinders, said cylinders being imbedded in said tire and being disposed in circumferentially spaced relation, bores in said tire opening through said tread portion, said bores being aligned with said cylinders, a piston in each of said cylinders, a roadway penetrating member carried by each of said pistons and seated in one of said bores for projection therefrom, an air line connecting together said cylinders, and a valve disposed between said air line and the interior of said tire, said valve including operator-operated means for selectively communicating said air line with pressure within said tire for actuating said traction assembly.

2,841,200
APPARATUS FOR SPREADING A COIL AND TWISTING THE SIDES THEREOF
Robert B. James, Cincinnati, Ohio, assignor to James Equipment Company, Inc., Greenhills, Ohio, a corporation of Ohio
Application February 4, 1955, Serial No. 486,126
8 Claims. (Cl. 153—6)



1. A coil forming apparatus for use in spreading a coil so that the coil can fit into radially directed skewed slots arranged in angular spaced relation, said apparatus comprising supporting structure, a pair of bracket members attached to the supporting structure, the bracket members being disposed in spaced relation, a support base intermediate said bracket members, a pair of rail members, one of said rail members joining each bracket member to the support base, a carrier block movably supported upon each of said rail members for movement thereon, a post vertically supported by each of said carrier members, a support block slidably movable upon each post member, a clamping member attached to each support block for engaging the ends of a coil, each clamping member being provided with a pair of vertical plate members, means for adjusting the distance between the vertical plate members, a pin member adjustably and longitudinally movable between said vertical plate members, a support plate attached to said support base member, the support plate being disposed normal to said rail members and extending on each side thereof, a pair of carriage members slidably attached to said support plate, there being one carriage member on each side of said support base, fluid motor means for movement of said carriage members upon said support plate in opposite directions, the carriage members being movable toward and away from the rail members, a shaft member rotatably carried by each of said carriage members, fluid motor means for rotation of each of said shaft members, a plurality of clamping members attached to each of said shaft members for engaging the sides of a coil, and fluid motor means attached to one of said shaft members for axial movement thereof.

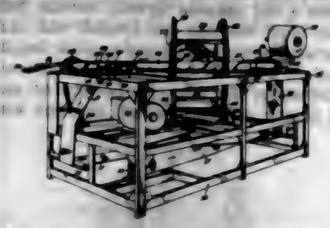
2,841,201
WIRE COILING MACHINE WITH VIBRATING COILING DIE
Wilfred R. Cheadle, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application November 2, 1956, Serial No. 620,074
1 Claim. (Cl. 153—66)



Means for forming a coil out of wire comprising a fixed block having a semi-cylindrical recess on its upper surface at one end of the block, pivot means at an intermediate portion of the length of the block, a second block longer than said first block, coterminal with the said one end of the first block, and overhanging the other end of the fixed block mounted on said pivot means, said second block having a semi-cylindrical recess complemental to the recess in the fixed block, walls defining an orifice tangential to the recess in the second block, a casing housing a vibrator resiliently mounted on the fixed block, a projection on said casing engaging beneath the overhanging end of the second block to transmit vibrations from the vibrator to the second block, and means at the recessed ends of the blocks tending to resiliently urge apart the recessed ends.

2,841,202
APPARATUS FOR FORMING A MULTIPLE WEB PRODUCT
Harlan W. Hirschy, Neenah, Wis., assignor to Kimberly-Clark Corporation, Neenah, Wis., a corporation of Delaware
Application December 17, 1954, Serial No. 476,027
6 Claims. (Cl. 154—1.7)

1. An apparatus for forming a continuous web product, comprising a mandrel, a flexible endless belt having at least one complete helical turn on said mandrel, means for depositing a first, elongated flexible medium on said belt, said first medium being carried by said belt about said mandrel, a rotatable carrier having an axis substantially coinciding with the axis of said mandrel, supply means for a second, elongated flexible medium mounted on said carrier, means for guiding said second flexible medium from said supply means over said first flexible medium while said first flexible medium is passing over said mandrel, the second flexible medium being applied in the form of a helix which is wrapped around said first medium in such relationship that the long dimension of



said second medium is maintained at a uniform, substantial angle to the long dimension of said first medium in the region where the mediums intersect, and means for cutting said second medium transversely of its long dimension after said second medium has been applied to said first medium.

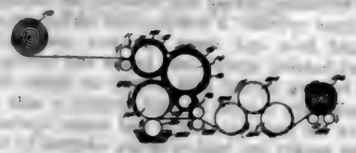
2,841,203
THERMAL INSULATION
George E. Greenemeyer, Morrisville, Pa., assignor to Mirror Insulation Company, Inc., Lambertville, N. J., a corporation of Delaware
Application July 13, 1954, Serial No. 443,033
7 Claims. (Cl. 154—45)



1. In a thermal insulation structure, a self contained unit mounted upon the structure to be insulated, comprising a pair of spaced support diaphragms of heat conducting material constituting the ends of said unit and resting upon the surface to be insulated, a flange of thin conducting material disposed transversely upon the inner face of each diaphragm with its surfaces disposed at substantially right angles to the surface to be insulated, said flange having spaced parallel recesses extending inwardly from the free edges of said flanges providing spaced fingers between said recesses, the flanges and recesses of one diaphragm being aligned with the flanges and recesses of the other diaphragm, insulating sheets extending from one of said diaphragms to the other with their ends disposed in the aligned recesses and limited to line contact with said fingers, and means for securing said unit in assembled relationship upon the surface to be insulated.

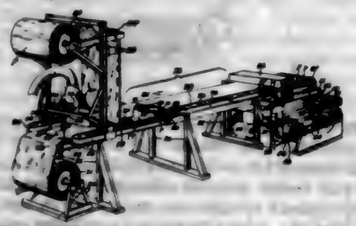
2,841,204
METHOD OF MANUFACTURING A NON-WOVEN FIBROUS SHEET
Joshua H. Goldman, Hadlyme, Conn.
Application February 5, 1953, Serial No. 335,376
5 Claims. (Cl. 154—33)

2. A method of forming a non-woven web of fibrous material having a heterogeneous mass of non-parallel and non-oriented fibers from a picker lap or other source of fiber stock, comprising the steps of attenuating the lap or fiber stock by passing said lap or fiber stock over a pair of rollers shielded to cause air currents and the fibers to follow the periphery of said rollers, the first roller rotating clockwise at a minimum surface speed of 1200 feet per minute and the second roller adjacent said first roller rotating clockwise at a minimum surface speed of 2500 feet per minute, throwing the discrete fibers by centrifugal force in a heterogeneous, non-oriented stream of uniform density upon a collecting surface to form a non-woven web, said fibers being thrown by a third shielded roller



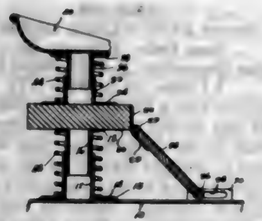
adjacent said second roller and rotating counterclockwise at a minimum surface speed of 3000 feet per minute, wetting the fibers with a bonding agent, squeezing the fibers into a thin heterogeneous, non-oriented web, and drying the web.

2,841,205
METHOD OF AND APPARATUS FOR MAKING POLYURETHANE FOAM COATED FABRICS
Whitworth F. Bird, Riverside, Conn., assignor to Collins & Aikman Corporation, Philadelphia, Pa., a corporation of Delaware
Application July 13, 1955, Serial No. 521,746
11 Claims. (Cl. 154—37)



4. Apparatus for making polyurethane foam coated fabric comprising substantially horizontal lower and upper conveyor belts respectively having upper and lower working runs for advancing vertically spaced lower and upper fabrics continuously, drive means connected for driving said conveyor belts to move the fabrics from a feed end to a discharge end of said conveyor belts, a flat horizontal support plate below the upper run of the lower conveyor belt, a flat inclined plate above and in contact with a portion of said upper conveyor, a flat horizontal plate above and in contact with the remainder of the upper conveyor, means for introducing polyurethane foam producing chemicals on the fabric supported on the lower conveyor, means for curing the product, and means for splitting the cured foam along a plane intermediate said fabrics.

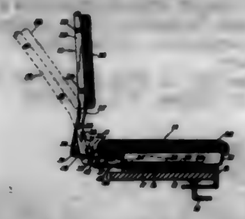
2,841,206
WEIGHTED SPRING TRACTOR SEAT
Delphenus E. O'Brien, Lincoln, Nebr.
Application May 10, 1957, Serial No. 658,255
2 Claims. (Cl. 155—52)



1. A seat for a tractor or similar structure comprising a lower shock absorber assembly comprising an upwardly

opening vertically disposed base cylinder having on its lower end a flange adapted to be fixedly secured to said structure, an upstanding inner cylinder having the portion adjacent the lower end slidably telescoping into the upper end of said base cylinder, a weight in the form of a block extending across and attached to the upper end of said inner cylinder, a compression spring circumposed about said base and inner cylinders and having the lower end bearing against said frame and having the upper end bearing against said weight, an upper shock absorber assembly carried by said weight, a seat member carried by the upper assembly, and means connected between the weight and said structure adapted to cause the weight to travel in a path coaxial with respect to the assembly.

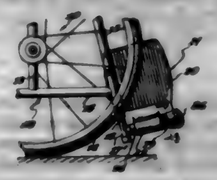
2,841,207
AUXILIARY SEAT FOR SEAT BOARDS
Charles A. Sweeney, Spokane, Wash.
Application February 13, 1956, Serial No. 565,114
1 Claim. (Cl. 155—133)



An auxiliary seat for seat boards comprising a seat frame provided with means for securing said frame to said seat boards for swivel movement of said seat frame; a back rest frame defining substantially a parallelogram pivotally secured to said seat frame on an axis parallel to the plane of said seat frame and at a point spaced from a marginal edge portion of said back rest frame, for selective angular positioning relative to said frame and resulting in an enlarged back support portion disposed above said pivot axis and an opposed laterally extending support bar disposed below said pivot axis; a rock shaft journaled in said seat frame parallel to the pivotal axis of said back rest frame; a radially extending bar carried by said rock shaft and extending from said seat frame toward said support bar; a channel member secured to said radially extending bar and having upwardly extending inner and outer flanges disposed in the arc of movement of said support bar when the radially extending bar is in its raised position, the inner flange of said channel member being disposed in contact with said seat frame when in the raised position whereby to support said channel member and support bar; depressible means urging said radially extending bar to said raised position; and manually operable levers on said rock shaft for selectively depressing said radially extending bar and removing said flanges from the arc of said support bar.

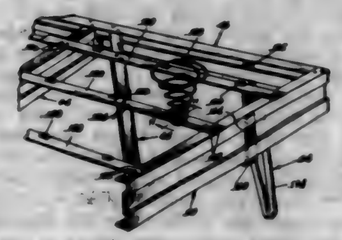
2,841,208
FOOT REST PANEL DEVICE
Sam Duke, Chicago, Ill.
Application December 19, 1955, Serial No. 553,985
1 Claim. (Cl. 155—171)

In combination with a wheel chair having a downwardly extending leg and having a forwardly extending shaft arranged normal to the longitudinal axis of said leg and rigidly secured at one end thereof to the lower portion of the leg, a footrest panel having a hollow knuckle adjacent one edge thereof rotatably receiving said forwardly extending shaft for movement of said panel between a vertical folded position against said leg and a horizontal position for supporting a foot of the chair's occupant, said leg being provided at the lower end thereof with stop means for engaging said footrest panel and for preventing movement thereof beyond a horizontal position when downward force is applied thereto, said shaft having a free end portion projecting forwardly beyond said knuckle and provided with a slot opening therein, bearing means provided by said shaft between said knuckle and said leg for limiting rearward movement of said knuckle longitudinally along said shaft, a helical spring under continuous tension being wound about the free end portion of said shaft, said spring having one end thereof disposed within said



slot opening and having the opposite end thereof frictionally engaging the edge of said panel adjacent said knuckle, and a resilient shoe mounted upon said free end portion and extending over said slot opening for maintaining the end of said spring therein, whereby, said spring automatically rotates said panel member into vertical position against said leg when an occupant's foot is lifted from the panel, the continuous tension of said spring being operative to hold the panel firmly against said leg when the footrest panel is not in use, and said spring also being operative to urge said knuckle rearwardly along said shaft and into continuous engagement with said bearing means.

2,841,209
FURNITURE STRUCTURE
Justin J. Wetzler, Evanston, Ill., assignor to The Englander Company, Inc., Chicago, Ill., a corporation of Delaware
Application March 30, 1954, Serial No. 419,736
16 Claims. (Cl. 155—181)



1. In a piece of furniture a box spring structure, comprising a rectangular frame including channel-shaped sheet metal side frame members having inturned upper and lower flanges and channel-shaped sheet metal end frame members having upper and lower inturned flanges, each of said end frame members being integrally connected with an associated side frame member and having portions of its flanges overlapping portions of the flanges of the associated side frame member, and means securing said overlapping flange portions together.

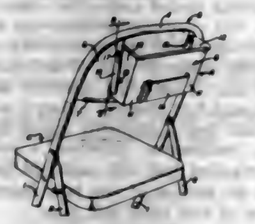
2,841,210
BACK MEMBER
Carl W. Neuenhodt, Winchester, Va.
Application May 18, 1955, Serial No. 509,240
1 Claim. (Cl. 155—188)

In combination, a chair having a curved back, a pair of spaced bracket members attached to the back of the chair, a shelf extending between said brackets, said shelf including a vertical shelf portion spaced from the back of the chair and a horizontal shelf portion extending toward the back of the chair from the vertical shelf portion, said horizontal shelf portion having one edge curved to conform to the curvature of the curved back of the chair, an elongated plate-like cup holder disposed on said



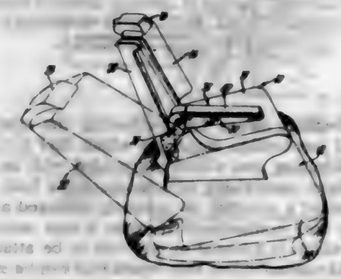
horizontal shelf portion, said elongated cup holder having one edge curved to conform to the curvature of the curved back of the chair, said cup holder being retained in substantially abutting relation between the back of the chair and the vertical shelf portion, end portions on said cup holder extending longitudinally beyond the vertical shelf portion, and means on each of said end portions for receiving a cup.

2,841,211
CHAIR ATTACHMENT
Burl F. Thompson, Ada, Okla., assignor to Thompson Manufacturing Company, Ada, Okla., a corporation of Oklahoma
Application December 2, 1957, Serial No. 699,961
3 Claims. (Cl. 155—188)



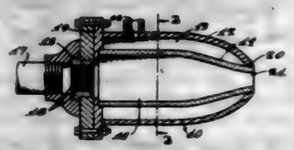
1. An attachment for a chair including a structure having mutually opposed surfaces facing toward one another, said attachment comprising a body; on each of two opposite sides of said body, a link pair, each link pair comprising two links, one fixed with respect to said body, and a pivotal connection between said two links, said links having spaced mutually opposed retaining portions facing away from one another, said pivotal connection enabling relative collapsing of said links with attendant shortening of the distance between said retaining portions to an extent permitting insertion of said links between said opposed surfaces of the chair structure, said pivotal connection also enabling reverse relative movement of said links with attendant relative extension of said links and lengthening of the distance between said retaining portions for effecting retaining engagement of said retaining portions respectively with said surfaces; and, on each side of said body, a catch engageable with one of the links of the link pair on that side for retaining the links in their relatively extended positions.

2,841,212
FOLDING EXTENSIBLE ARM REST
Marcel O. De Vos, Grosse Pointe Woods, and Letcher B. Hunt, Jr., Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 18, 1956, Serial No. 559,869
6 Claims. (Cl. 155—198)



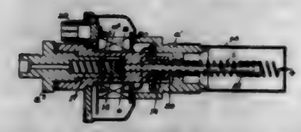
1. An extensible folding arm rest of the character described, including: a base portion having a guide track thereon; an extensible portion on said base, comprising a lower member, an intermediate leaf member and an upper leaf member; means on the lower member of said extensible portion slidably engaging said guide track for mounting the extensible portion of the arm rest on the base portion for sliding extensible movement therealong; means hingedly mounting said intermediate leaf member on said lower member at one side thereof; and means hingedly mounting said upper leaf member on said lower member at the opposite side thereof, said leaf members being swingable to horizontal positions at opposite sides of said lower member whereby surfaces of said leaf members and said lower member form a plane table surface.

2,841,213
GAS BURNER APPARATUS FOR FORMING GLASS FIBERS
Gerard de Pleinac, Granville, and Charles J. Stalego, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio
Application April 10, 1952, Serial No. 281,633
5 Claims. (Cl. 158—28)



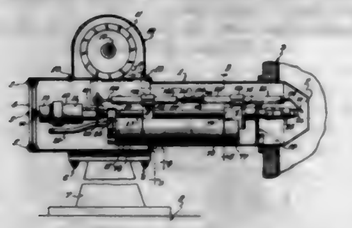
5. A burner for producing fibrous glass comprising a combustion chamber defined by a generally cylindrical porous wall through which a liquid fuel can readily pass, a non-porous casing surrounding but spaced apart from said porous wall to form a fuel chamber therebetween, said porous wall having drilled passages extending through said wall for introduction of additional liquid fuel to said combustion chamber, means for introducing a liquid fuel into said fuel chamber and thence into said combustion chamber through said porous wall and said drilled passages, and means for introducing an oxidizing material to said combustion chamber.

2,841,214
AIR HEATING MEANS FOR INTERNAL COMBUSTION ENGINES
Richard William Ridel and Thomas Carson, London, England, assignors to C. A. V. Limited, London, England
Application February 27, 1956, Serial No. 568,695
1 Claim. (Cl. 158—28)



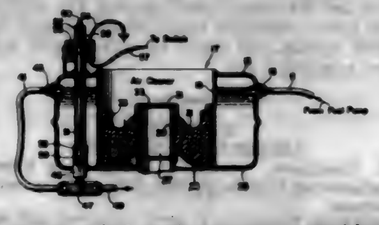
An air-heating means for facilitating the starting of an internal combustion engine to which fuel is supplied by pump injection, and which is provided with an air intake manifold, comprising in combination a body which is composed of a plurality of coaxially arranged and longitudinally bore components forming a fuel supply passage, and which is adapted at one end to be attached to the air intake manifold so that liquid fuel can be supplied to the manifold through the said passage, a laterally ported fuel discharge tube secured within and extending from the said end of the body, the end of the tube remote from the body being closed, electrically heatable means of coiled form surrounding the portion of the tube extending from the body for effecting vaporization and ignition of fuel issuing from the tube, a perforated shield attached to the said end of the body and enclosing the electrically heatable means and the adjacent portion of the tube, an axially movable and spring-loaded fuel controlling shuttle contained in the body, and a solenoid winding embracing the body for actuating the shuttle, the solenoid winding being electrically connected to the electrically heatable means.

2,841,215
OIL BURNER ASSEMBLY INCLUDING AN OIL PREHEATER
George H. Messer, East Orange, N. J., assignor to The Messer Company, Incorporated, Newark, N. J., a corporation of New Jersey
Application June 26, 1952, Serial No. 295,679
2 Claims. (Cl. 158—36)



1. In an oil burner assembly of the type including an injection nozzle, a fuel oil supply pump and an electric motor therefor, the combination therewith of a horizontal tubular member having said nozzle mounted at one end thereof and communicating therewith, control means including a valve in said member closely adjacent said nozzle and a pressure responsive device in said tubular member in spaced relation to said valve longitudinally of said tubular member for controlling the flow of oil from said tubular member through said nozzle, an oil preheater comprising a helical coil of heat-conducting tubing communicating at one end with said tubular member closely adjacent said valve and communicating at its other end with said fuel supply pump whereby fuel oil is pumped through said coil and thence through said tubular member to said valve and said nozzle, an elongate solid body of heat-conducting metal cast around and embedding said helical coil with the walls of said tubing in direct contact with said heat-conducting metal, at least one elongate electrical heating element embedded in said heat-conducting body in heat-conducting relation to said heat-conducting metal inside and close to the convolutions of said helical coil and extending throughout the length of said coil, means mounting said heat-conducting body on the underside of said tubular member exteriorly and intermediate the length thereof and parallel thereto in heat-conducting and close heat-radiating relation thereto and in close proximity to said pressure responsive means and to said valve and nozzle such as to heat said pressure responsive means, said valve and the nozzle by conduction of heat through said tubular member and by radiation of heat from said heat-conducting body, and an elongate thermostatic control switch embedded in said heat-conducting body in heat-conducting relation to said heat conducting metal and inside and close to the convolutions of said helical coil to control an electrical circuit for said heating element.

2,841,216
AUXILIARY FUEL SYSTEMS FOR AUTOMOTIVE VEHICLES
Malcolm N. McKinnon, Salt Lake City, Utah
Application November 13, 1953, Serial No. 391,905
1 Claim. (Cl. 158—46.5)

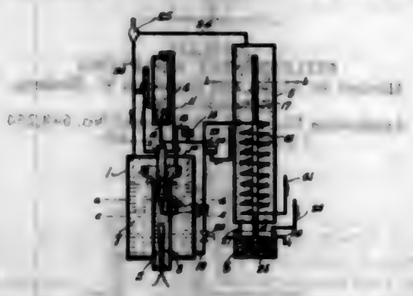


An emergency fuel supply apparatus comprising a tank adapted for insulation between the normal fuel supply and carburetor of an internal combustion engine, said tank embodying spaced concentric inner and outer walls providing a fuel chamber therebetween and a central air chamber through which air passes to the carburetor of the engine, cooling said inner wall of said fuel chamber maintaining the fuel in said fuel chamber cool, a pipe connected with said fuel chamber adjacent to the top thereof through which fuel is normally fed to the carburetor of the engine, mechanism including a solenoid operated valve for releasing fuel into said fuel line from a point adjacent to the bottom of said tank independently of the normal flow of fuel from said tank.

2,841,217
ABSORBENT REGENERATOR AND THERMAL RECIRCULATOR AND METHOD OF OPERATING SAME
Michael Bernard Goetz, Frederick, Md.
Application January 27, 1956, Serial No. 561,842
10 Claims. (Cl. 159—22)

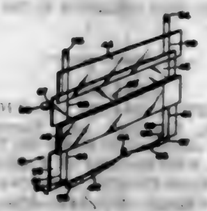
5. An apparatus of the class described comprising a generator having an outer chamber and an inner chamber, a make-up chamber within said inner chamber, a vacuum chamber mounted at a higher elevation above said generator, an interchanger comprising an interchanger vessel, a heat transfer means within said interchanger vessel, a condensate vessel open at its upper end and located below said interchanger vessel, a second heat transfer means in said condensate vessel, said second heat transfer means communicating with the lower end of said interchanger vessel, communicating means interposed between the upper end of said first mentioned heat transfer means and said outer chamber, the lower

end of said first mentioned heat transfer means being adapted to connect to a dehumidifying apparatus, the lower end of said second heat transfer means being adapted to connect to the sump of a dehumidifying apparatus, a control means forming a communication with said interchanger vessel at a point approximately the level of the top of said first mentioned heat transfer means and the bottom of said vacuum chamber, check control means forming a communication between said vacuum chamber and the top of said inner chamber, means for heating said inner chamber, check control means forming a communication between said outer chamber and



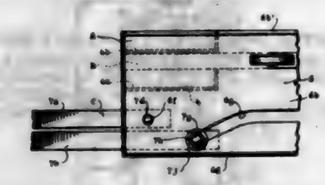
said make-up chamber, means forming a communication between said make-up chamber and the upper end of said vacuum chamber, a second means forming a communication between the vacuum chamber near its lower portion with the upper end of said make-up chamber, means forming a communication between the upper end of said interchanger vessel and the upper end of said outer chamber of said generator, and a conduit forming a communication between said condensate vessel and the upper portion of said interchanger vessel all in a manner to utilize heat alone as a medium for both regeneration and recirculation of fluid within said apparatus.

2,841,218
CLOSURE DEVICE
Bayar Goodman, Los Angeles, Calif., assignor to Wilshire Manufacturing Company, Los Angeles, Calif., a partnership
Application August 23, 1954, Serial No. 451,413
5 Claims. (Cl. 160—118)



1. A closure device comprising a frame having panel mounting means, a pair of panels supported by said mounting means for guided movement in substantially parallel offset planes, a linkage means for causing said panels to move in unison in opposite directions comprising a pair of pulley means located above the opposite ends of said panels, a link trained around each of said pulleys and connecting the same corresponding ends of said panels, pulley means located below the ends of each of said panels, and a second pair of links connecting opposite ends of different panels and trained around the second mentioned pulley means whereby said panels will be caused to move in unison in opposite directions without binding in said frame, said frame having a slot formed adjacent said panel mounting means substantially parallel with the path of movement of one of said panels, and rigid means fixed with said one panel and protruding through said slot for effecting movement of said panels in unison.

2,841,219
FIREPLACE FRONT WITH DOUBLE-FOLD DOORS
Clifford Clayton Helwig, Windsor, Ontario, Canada
Application July 1, 1955, Serial No. 519,592
3 Claims. (Cl. 160—118)

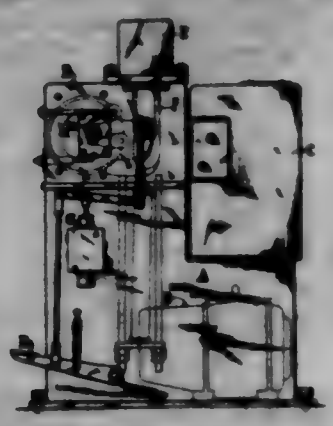


1. In a door structure the combination of a frame adapted to be applied to an opening including a bottom rail, a pair of spaced side members rising from opposite ends of said bottom rail, and a top rail extending across the top of said side members, said rails projecting forwardly beyond said side members to provide a recessed seat, and a pair of double-fold doors recessed in said frame between said overhanging top and bottom rails and lying in front of said side members to hide and conceal the same in both closed and open positions, each double-fold door consisting of hingedly connected outer and inner sections, said top and bottom rails of said frame having a pair of vertically aligned perforations near each end in the forwardly projecting portion of said rails, and said outer section of each door having a vertically projecting pivot pin at both top and bottom near its outer edge seating in said perforations and on which said door is swingable through 180 degrees from fully closed to fully opened position, guide means for each of the inner sections of said double-fold doors comprising an elongated slot in the forwardly projecting portion of one of the frame rails running from near center toward the end of the rail which slot at its inner end and for the greater part of its length is in axial alignment with said pivot pin perforation but near its outer end veers forwards at approximately 30 degrees to terminate short of the said pivot pin perforation but forwardly thereof, and a guide stud rising from the top of the inner section of the door near the inner edge thereof passing through said slot and slidable therein when the door is opened and closed whereby the two hingedly connected sections of the door are caused on the opening of the door to first hinge gradually together into almost fully double-fold position extending forwardly from the frame into the room and then together to swing quickly through approximately 90 degrees into fully double-folded and open position, the pair of double-fold doors extending in opposite directions from the ends of said frame and in longitudinal alignment therewith, in planes paralleling the face of said frame structure and axially parallel to the elongated guide slot.

2,841,220
CUTTING MACHINE FOR HARD OR HARDENED METALS
Fernand Lardenois, Veneux-les-Sablons, France
Application March 5, 1956, Serial No. 569,530
Claims priority, application France March 8, 1955
6 Claims. (Cl. 164—40)

1. In a cutting machine, a fixed support; a first rest which comprises two shells adapted to clamp round the bar to be cut and is mounted to be bodily rotatable in

the fixed support, a second rest comprising two shells adapted to clamp round the bar to be cut, each rest having a flat face, the second rest being mounted to be bodily rotatable in the fixed support between an inoperative position, in which the two rests have a common longitudinal axis and adjoin one another along their flat faces, and a cutting position in which the longitudinal axes of the two rests are offset relative to one another, the two flat faces having slid along one another, a first blocking means



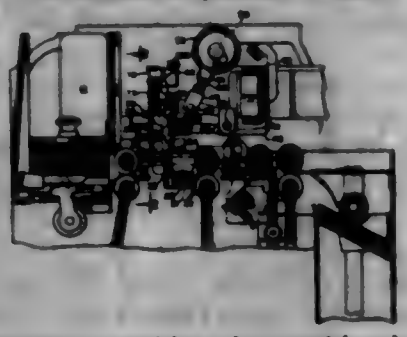
operatively connected to the support and engaging one of the shells of the first rest for clamping the bar in the first rest and blocking the movement of said first rest, driving means movable relative to the support and engaging one of the two shells of the second rest for clamping the bar in the second rest and driving the latter bodily in rotation relative to the support about an axis different from said common longitudinal axis; and motor means for driving the driving means.

2,841,221

PUNCHING MECHANISMS WITH COORDINATED PUNCH CHECKING MEANS

James M. Cunningham, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application July 19, 1954, Serial No. 444,091
12 Claims. (Cl. 164—111)



1. In a punching machine, in combination, a plurality of punches, punch actuating means for operating said punches a predetermined number of times or in excess of said predetermined number of times, means controlled by the operation of said plurality of punches and having two conditions determined by the operation of said punches a predetermined number of times or in excess of said predetermined number of times, and means controlled by said last named means for manifesting in accordance with one of the conditions of said last named means whether any punch has been operated in excess of said predetermined number of times.

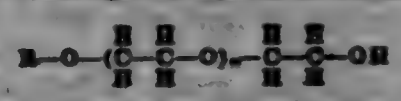
2,841,222

WELL TREATING PROCESS

Gerould H. Smith, Santa Ana, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application October 8, 1956
Serial No. 614,382
12 Claims. (Cl. 166—42)

1. A process for treating subterranean permeable formations containing argillaceous materials and penetrated by a bore hole which comprises introducing through said bore hole into said permeable formation an aqueous solution of an alkaline earth metal halide complex with a nonionic surfactant having the empirical formula



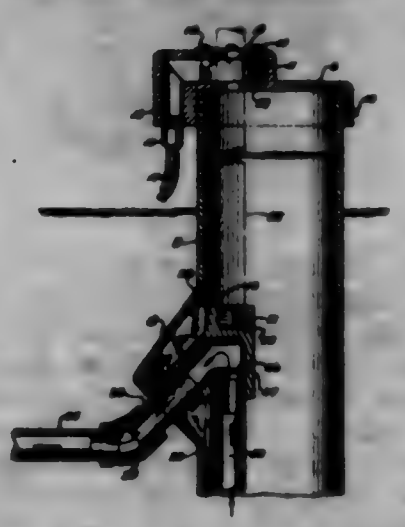
wherein n is an integral number between about 3 and about 20 and R is an organic radical selected from the group consisting of alkyl-aryl, fatty acid and mixed acid residues, and partial esters of hexatyl anhydride and a fatty acid, whereby said surfactant is sorbed by said argillaceous materials thereby flocculating said materials.

2,841,223

FITLESS WELL ADAPTOR

Herbert W. Mann and Raymond W. Sheberg, Milwaukee, Wis.

Application March 25, 1957, Serial No. 648,254
4 Claims. (Cl. 166—88)



1. In a well casing having an underground hollow section with an opening in its wall, an edge of which forms a sill, a laterally extending box of triangular contour rigidly secured to the housing in registration with said opening with the lowermost wall of the box forming an acute angle to the axis of the casing section and having its lower edge extending into said opening and engaging said sill, a flow pipe within said casing section, a chambered, oblique lateral fitting having its main portion connected to and in communication with the flow pipe, a nipple rigidly mounted in the lower wall of said box and connected at its inner end to the lateral portion of the fitting, and a supply pipe connected to the outer end portion of the nipple.

2,841,224

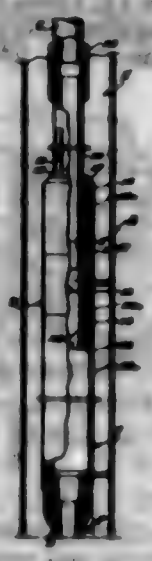
WELL PACKER AND CIRCULATION JOINT

Reuben C. Baker, Conlinge, and Martin B. Conrad, Downey, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application April 25, 1953, Serial No. 354,346
15 Claims. (Cl. 166—134)

1. In apparatus of the character described: a well packer having a body and adapted to be anchored in packed-off condition in a well casing by taking an upward strain on said body; said packer including a packing structure to seal against the well casing and means for anchoring said packing structure in casing sealing condition to the well casing against downward movement therein while permitting said body to have limited downward movement relative to said packing structure; a control valve including inner and outer telescopically arranged tubular members providing an annular passage therebetween, one of said members being connected to said body and the other of said members having means thereon for attachment to a tubular string; cooperable

seal means on said members for closing said annular passage; said body and said one of said members connected to said body having transverse portions thereon which have transverse areas to be acted on by fluid in the annulus between the tubular string and casing above the



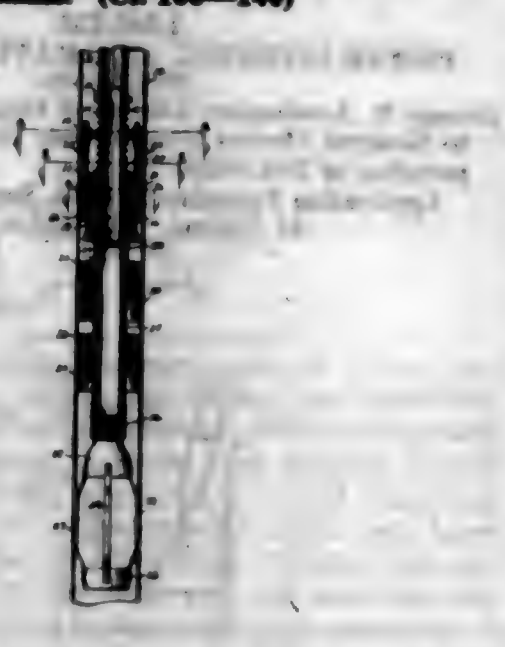
packing structure, said areas being so related to one another that the resultant of such areas faces in a downward direction, whereby said fluid urges said body in an upward direction to maintain the well packer anchored in packed-off condition in the well casing.

2,841,225

PACKER FOR USE IN OIL WELLS AND LIKE

William G. Talbott, Wichita, Kans.

Application January 27, 1956, Serial No. 561,828
4 Claims. (Cl. 166—140)



1. In a device of the class described to be used in a well casing having a tubular member adapted to have its upper end secured to a pipe and having a threaded lower portion, a cone bearing wedge slip expander threaded onto the lower portion of said tubular member, wedge grip lugs longitudinally slidably mounted on said expander, a plate washer slidably mounted on said tubular member, rods connecting said plate washer to said wedge grip lugs, at least one packer valve secured to said expander, a frictional drag unit secured to said packer valve and engaging said well casing and tending to keep said expander and said packing valve in a fixed position; the improvement of a collar carried by said tubular member at the upper portion thereof, a coil spring surrounding said tubular member between said collar and said plate washer whereby the turning of the pipe in one direction causes said tubular member to thread deeper in said expander thereby forcing said collar against said spring and depressing said plate washer and said rods to engage said grip lugs with said well casing, a second collar carried by said tubular member below said plate washer, and a second coil spring surrounding said tubular member between said plate washer and said second collar whereby the turning of the pipe in the opposite direction causes said tubular member to unthread from said expander thereby forcing said second collar against said second spring and raising said plate washer and said rods to disengage said grip lugs from said wall casing.

2,841,226

WELL BORE CONDUIT CENTERING APPARATUS

Martin B. Conrad, Downey, and John F. Muse, Whittier, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application November 24, 1953, Serial No. 394,988
13 Claims. (Cl. 166—213)



1. In apparatus for centering conduit strings in well bores: a plurality of laterally expandible circumferentially spaced members adapted to extend longitudinally along and around the exterior of the conduit string; first means retaining the lower portions of said members in juxtaposition to the conduit string and preventing outward movement of said lower portions; second means retaining the upper portions of said members in juxtaposition to the conduit string and preventing outward movement of said upper portions; and hydraulically operable means connected to said first and second means and responsive to the pressure of fluid in the well bore externally of the conduit string for forcing and shifting said first and second means relatively toward each other and thereby expand said members laterally outward.

2,841,227

APPARATUS FOR EXTINGUISHING FIRES

Martin Betzler, Urach, Germany, assignor to Minimax Aktiengesellschaft, Stuttgart-Wurttemberg, Germany

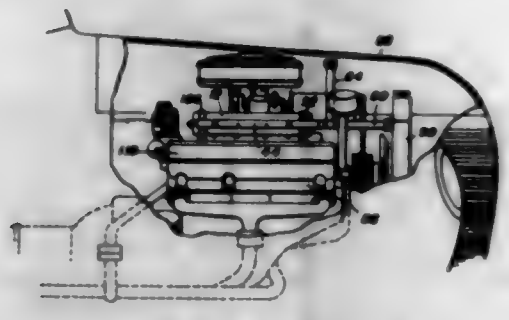
Application May 31, 1955, Serial No. 512,028
2 Claims. (Cl. 169—1)



1. An apparatus for extinguishing fires with fire extinguishing powder propelled by a propellant gas comprising a main container for the fire extinguishing powder, means for operatively connecting said main container

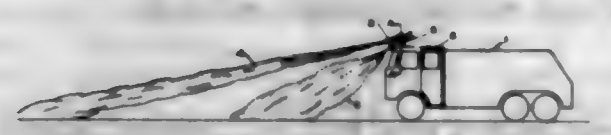
to a propellant gas supply, an auxiliary container normally maintained at a substantially lower pressure than the propellant gas supplied to the main container, said auxiliary container being connected to said main container over a conduit containing a closure adapted and arranged to permit sudden communication between the main container and said auxiliary container through said conduit to effect a sudden substantial lowering of the propellant gas pressure in the main container to loosen the fire extinguishing powder therein and hose means connected to said main container for discharging the loosened gas propelled powder therefrom.

2,841,228
FIRE EXTINGUISHER FOR VEHICLES
Robert F. Porterfield, Wornham, Va.
Application May 28, 1957, Serial No. 662,059
10 Claims. (Cl. 169—2)



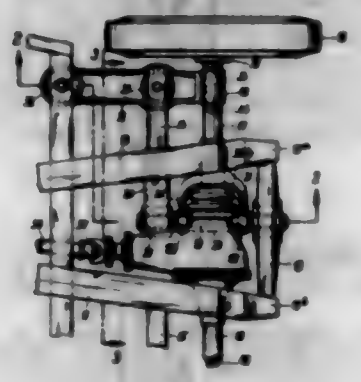
1. An automatic fire extinguisher, for vehicles having an internal combustion engine, comprising a container of extinguishing fluid, said container provided with a plurality of outwardly extending frangible venting members, mounting means for supporting said container in close proximity to an internal combustion engine, an impact actuated means operatively associated with said frangible venting members for rupturing the same thereby permitting the extinguishing fluid to escape from said container, said impact actuated means including a bar operatively connected to said frangible connecting members.

2,841,229
APPARATUS FOR SELECTION OF TURRET NOZZLE STREAM PATTERN
Arthur B. Guise, Marinette, Wis., assignor to Ansul Chemical Company, Marinette, Wis., a corporation of Wisconsin
Application May 3, 1955, Serial No. 505,738
11 Claims. (Cl. 169—25)



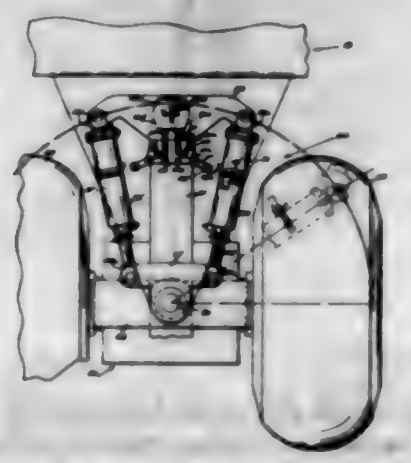
1. Apparatus for extinguishing fires which comprises a turret body, a turret nozzle pivotally mounted on said turret body and adapted to be adjustably moved to a selected angle of elevation with respect to the turret body, stream control means associated with the turret nozzle for determining the velocity and shape of a fire-extinguishing stream discharged from the nozzle, means for actuating said control means upon pivoting of said turret nozzle, said control means being actuated upon changing the angle of elevation of the nozzle for selecting a predetermined velocity and shape of the emitted stream in correlation with the angle of elevation of the nozzle and said control means automatically determining a shorter range stream pattern when the turret nozzle angle is depressed and a longer range stream as the turret nozzle angle is elevated.

2,841,230
WHEEL SUSPENSION OF MOTOR VEHICLES
Werner H. F. W. Neuschaefer, Kirchheim, Teck, and Hans K. Hirth, Stuttgart-Bad Cannstatt, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application March 12, 1956, Serial No. 570,745
Claims priority, application Germany March 12, 1955
7 Claims. (Cl. 180—73)



1. In a vehicle, the combination comprising a vehicle body, a pair of half axles, an axle transmission housing being included in one of said axles, hinging means for hinging said pair to said body for oscillation about a common substantially horizontal axis extending lengthwise of the vehicle, wheels journalled on said half axles, driving shafts connected to said wheels and extending therefrom to said housing, and springing means interposed between said body and each of said half axles, said hinging means including a pair of resilient bearings aligned with said axis and carried by said body at points spaced from and located in front of and to the rear of the axes of said half axles.

2,841,231
POWER STEERING APPARATUS FOR SHARP TURNING
George E. Armington, Cleveland Heights, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 2, 1954, Serial No. 407,743
11 Claims. (Cl. 180—79.2)

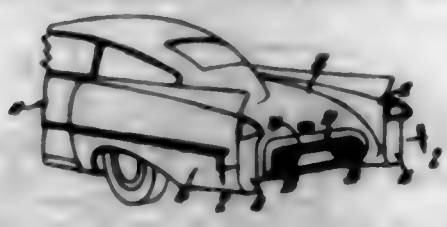


14. A vehicle comprising a body member with rolling support means, a steerable member pivotally connected on a generally vertical steering axis to said body member and having rolling support means spaced from the rolling support means on said body member, two fluid pressure operated jacks for steering said vehicle with each jack being directly pivotally connected at one end to said body member and at the other end to said steerable member, said jack end connections with said members being to the rear of said steering axis when said vehicle is in a straight ahead position, and the connection of each jack to said steerable member being located farther from said steering axis than its connection to said body member.

2,841,232
EXHAUST MEANS EXTENDING THROUGH ACCESSIBLE ENCLOSURES

Frank W. Loeffler, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 5, 1954, Serial No. 467,893
5 Claims. (Cl. 180—89)

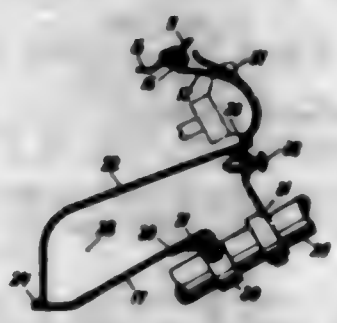


1. Exhaust means for use with automotive vehicles which include exhaust conduit means extended rearwardly of said vehicle, a compartment door provided within the rear end of said vehicle for access to an enclosure and disposed directly in the path of said conduit means, and exhaust conduit extension means provided through said door and aligned and engaged with said exhaust conduit means for conducting exhaust gases away therefrom, said extension means being disengaged from said exhaust conduit when said compartment door is opened.

2,841,233
ARRANGEMENT OF INSTRUMENTS IN A MOTOR VEHICLE

Friedrich K. H. Nallinger, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany

Application October 11, 1954, Serial No. 461,473
13 Claims. (Cl. 180—90)



1. In a motor vehicle, the combination of a body portion located in front of the driver's heat and connecting the side walls of the vehicle, said body portion comprising an upper cross member, a lower cross member located below said upper cross member and spaced therefrom, an intermediate wall connecting said upper and lower cross members so that said two cross members and said intermediate wall form an instrument wall assembly substantially of S-like cross section projecting rearwardly in the upper part and forwardly in the lower part of said wall assembly and a compartment in the lower part thereof extending transversely to the vehicle below said upper cross member, and instruments detachably mounted in said upper cross member.

2,841,234
DIAPHRAGM TYPE ACOUSTIC SCREEN

René Charles Jollivet, Paris, France

Application October 18, 1955, Serial No. 541,125
Claims priority, application France October 22, 1954
1 Claim. (Cl. 181—31)

In a protective device for insertion in a window or like panel for protecting persons from contamination by breath without appreciably impeding sound wave transmission and clear visibility, comprising, in combination, a frame coated with an adhesive, a sheath of moisture absorbent material constituted by a strip of cellophane spirally wound around said frame, a transparent diaphragm composed of inert stable material resistant to change in atmospheric conditions and having acoustical transmission properties, said diaphragm being of a given

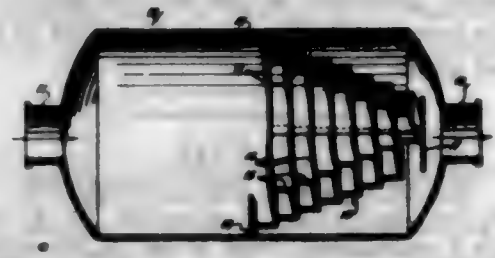


thickness and mechanically stretched over the sheath and secured thereto under predetermined tension, and apertured rigid transparent protective plats, supported at either side of said frame and diaphragm.

2,841,235
SOUND MUFFLER

Salvatore M. Curioni, Dallas, Tex.

Application April 4, 1955, Serial No. 499,180
2 Claims. (Cl. 181—67)

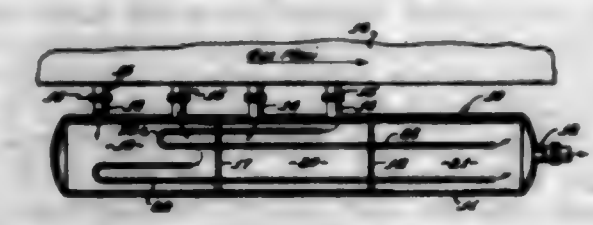


1. A device for reducing the noise of expanding gases comprising a shell into which said gases are expanded at one end and having a gas discharge at its opposite end, a helical baffle composed of a flat spiral ribbon defining a frusto-coniform body affixed to the inner wall surface of said shell about its largest convolution, said convolutions being spaced apart and presenting a plurality of stepped surfaces to incoming high velocity gases at right angles to the path of said gases and adapted to divert said gases and relatively spaced means interposed between said convolutions effective to break up and impart to said gases a progressive rotary motion to said gases to retard the velocity thereof prior to their discharge from said shell.

2,841,236
MANIFOLD TYPE PULSATION DAMPENERS

Ned H. Moerke, Paola, Kans., assignor to The Floer Corporation, Ltd., Los Angeles, Calif., a corporation of California

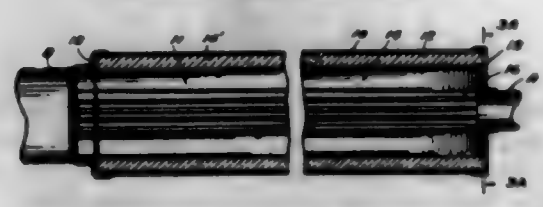
Application June 18, 1955, Serial No. 514,609
6 Claims. (Cl. 181—40)



1. A pulsation dampener comprising an elongated cylindrical shell, transverse partitions dividing the shell into first and second chambers each connectible through side openings in the shell with different gas compressor cylinders and also dividing the shell into an additional chamber containing an opening for passage of gas flowing through the shell between said side and chamber openings, said second chamber being between said first and

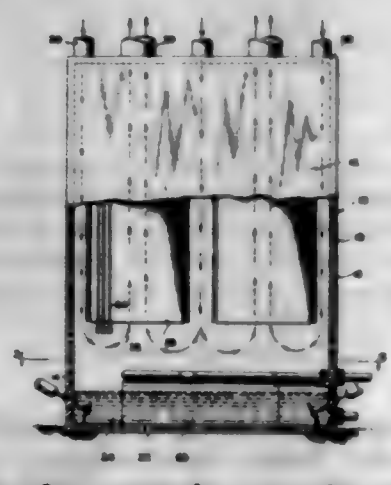
additional chambers, an elongated pipe connecting said additional chamber with said first chamber, and a second elongated pipe connecting said additional chamber with said second chamber and having a return bend portion within the first chamber, each of said pipes extending completely through one of said first and second chambers and through both said partitions.

2,841,237
MUFFLER STRUCTURE
Games Slayter, Newark, Ohio
Application December 14, 1953, Serial No. 397,872
8 Claims. (Cl. 181—42)



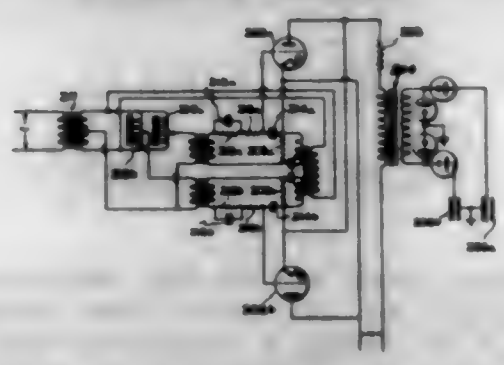
1. A muffler comprising an elongated chamber having a gas confiining imperforate wall defining a straight through passage from one end of the chamber to the other for exhaust gases and having circumferentially spaced corrugations extending lengthwise of the passage, said corrugations opening into the passage to form expansion chambers for the exhaust gases and cooperating to impart sufficient flexibility to the wall to permit flexing of said wall in response to the stresses applied to the wall by the exhaust gases.

2,841,238
ELECTRICAL PRECIPITATOR
Joseph W. Lenehan, New Brunswick, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York
Application March 18, 1955, Serial No. 495,208
3 Claims. (Cl. 183—7)



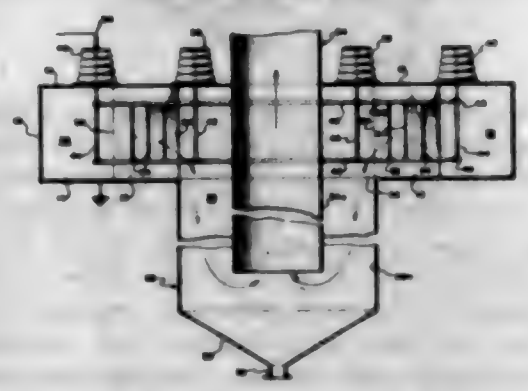
1. Apparatus for recovering material suspended in a gas stream comprising a casing providing a sump for holding liquid in the bottom of the casing, complementary discharge and collecting electrodes mounted in the casing at a spaced distance above the sump, gas inlet and gas outlet means in the casing for directing a stream of gas between the complementary electrodes, vertical baffle means disposed in the sump including a U-shaped baffle located centrally within the sump bottom and a straight baffle extending from one wall of the casing centrally into the open end of the U-shaped baffle to extend for a spaced distance between the parallel legs thereof, said baffle means defining a continuous tortuous path for the flow of liquid in said sump, liquid circulating means in the sump to maintain a flow of liquid therein through the tortuous path, means supplying liquid to the sump having outlets distributed along the upper edges of said baffle means, and outlet means for withdrawing liquid from the sump.

2,841,239
SYSTEM FOR ENERGIZING ELECTRICAL PRECIPITATORS
Herbert J. Hall, Princeton, and Harry J. White, Basking Ridge, N. J., assignors to Research Corporation, New York, N. Y., a corporation of New York
Application February 16, 1955, Serial No. 488,486
8 Claims. (Cl. 183—7)



1. A system for energizing a plurality of precipitator sections from a single alternating current power source, comprising in combination with the precipitator electrode, a high voltage transformer, rectifier means interposed between said transformer and the precipitator electrodes oriented to supply alternate half waves of rectified current alternately to different complementary sets of precipitator electrodes, thyratron control means between the alternating current power source and the primary of said transformer for controlling the primary current supply to said transformer, and means for supplying an adjustable phase-controlled firing potential to the thyratron control means to adjustably control the width of the rectified current pulses supplied to each of the different complementary sets of precipitator electrodes.

2,841,240
APPARATUS FOR SEPARATING MATERIAL FROM GASES
Harry A. Winternute, Plainfield, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York
Application November 3, 1955, Serial No. 544,636
1 Claim. (Cl. 183—7)



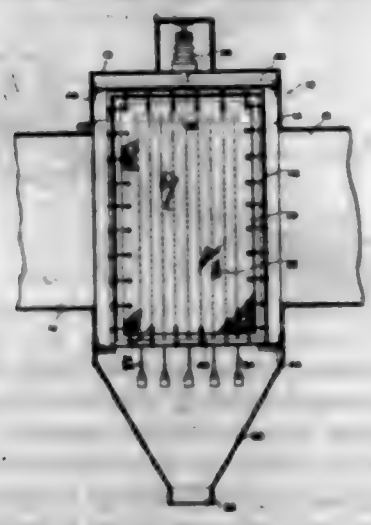
Apparatus for separating suspended particles from gases comprising a vertically extending cylindrical shell having a gas inlet opening in the periphery thereof, a top cover means and a bottom cover means for said shell, a plurality of vane members spaced from and curved spirally inwardly away from the wall of said cylindrical shell defining a plurality of spiral gas passages communicating with said inlet opening, said vane members extending between the top and bottom cover means to form an annular gas treating chamber, a separator tube having a hopper bottom depending from the bottom cover means below the inner boundary of the annular gas treating chamber and communicating therewith, a gas outlet tube extending through the top cover means and concentrically into the separator tube, the outer wall of said outlet tube being spaced inwardly of the inner wall of the separator tube to provide a second annular gas treating zone therebetween, a plurality of vertically disposed discharge

electrodes positioned between the opposed faces of said vane members, particulate material outlet means in said hopper bottom, and conductor means connecting said discharge electrodes and said vane members to a source of high potential to thereby create an electric field between associated groups of said electrodes and said vane members to agglomerate the suspended particles in the transient gas prior to their entry into the second treating zone.

2,841,241
COLLECTING ELECTRODE

Paul F. Ellenberger, Plainfield, N. J., assignor to Research-Cottrell, Inc., Bridgewater Township, Somerset County, N. J., a corporation of New Jersey

Application March 9, 1956, Serial No. 570,588
3 Claims. (Cl. 183—7)

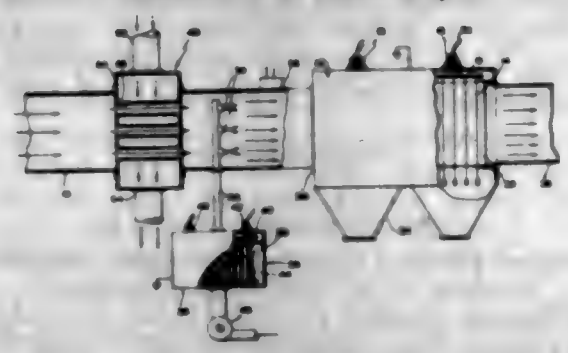


1. In an electrical precipitator, a collecting electrode including in combination a substantially rectangular frame of conductive material supported in said precipitator, sheets of a semi-conductive cloth centered within and spaced from said frame, a lightweight flexible foil of conductive material laminated between said sheets of cloth, conductive grommets secured in electrical contact with said laminated sheets at spaced intervals about and adjacent to the peripheral edge thereof, and conductive means providing an electrical coupling between said frame and said grommets.

2,841,242
METHOD FOR ELECTROSTATICALLY TREATING GASES

Herbert J. Hall, Hopewell Township, Princeton, N. J., assignor to Research-Cottrell, Inc., Bridgewater Township, Somerset County, N. J., a corporation of New Jersey

Application August 13, 1956, Serial No. 603,565
3 Claims. (Cl. 183—114)

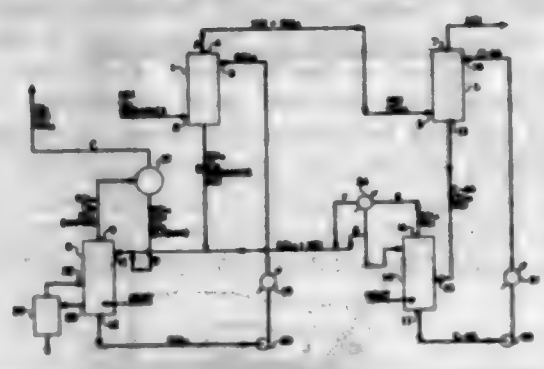


1. A method of treating flue gas containing suspended fly ash and sulfur dioxide comprising the steps, directing a stream of ozone-containing gas into said flue gas to be treated to bring about the formation of sulfur trioxide in the gas stream and then directing the gas stream containing the suspended particulate material through a high potential electrostatic zone to precipitate the suspended particles.

2,841,243
PURIFICATION OF HYDROGEN CHLORIDE

Thomas Hooker, Youngstown, Emil J. Geering, Grand Island, and Aylmer H. Maude, Niagara Falls, N. Y., assignors to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York

Application June 26, 1957, Serial No. 668,162
17 Claims. (Cl. 183—115)

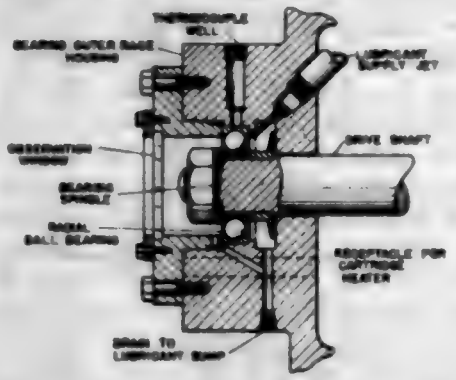


1. A process for recovering hydrogen chloride from a gaseous mixture containing hydrogen chloride, chlorine and organic vapors which comprises: scrubbing in a first zone, said gaseous mixture with a low boiling, halogenated solvent to remove chlorine and organic vapors for recovery; thereafter scrubbing in a second zone the effluent gas mixture from the first zone, which mixture contains first zone solvent and hydrogen chloride, with a solvent having a higher boiling point than said first zone solvent, thereby separating the low boiling first zone solvent from the hydrogen chloride of said effluent gas mixture.

2,841,244
PROCESS OF LUBRICATING ENGINES WITH VAPOROUS LUBRICANTS

Stanley S. Sorem, Orinda, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application October 18, 1954, Serial No. 462,830
14 Claims. (Cl. 184—1)



1. A process of lubricating solid surfaces subjected to temperatures in excess of 450° F., high loads, scuffing and seizing conditions which comprises preforming on said surfaces protective films thereon selected from the group consisting of sulfides, selenides, tellurides, phosphates and halides and thereafter contacting said surfaces with a vaporous lubricant comprising a blend of a free-oxygen-containing gaseous material and a hydrocarbon liquid lubricant having an end boiling point below 450° F., said blend being in the weight ratio of oxygen to liquid lubricant from about 7:5 to about 2:1, respectively.

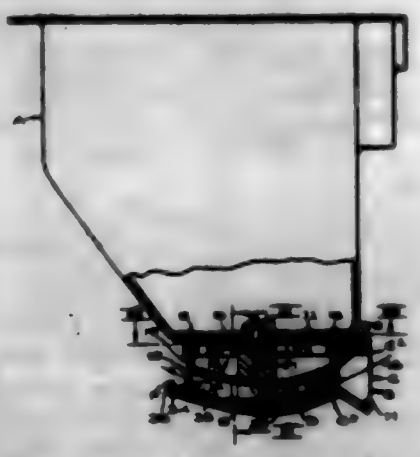
2,841,245
OIL-CATCHING RECEPTACLE WITH SPEED-CONTROLLED OIL-DISCHARGER ATTACHMENT FOR AUTOMOBILES

William G. Colgan, Oakland, Calif.

Application May 18, 1956, Serial No. 584,016
8 Claims. (Cl. 184—106)

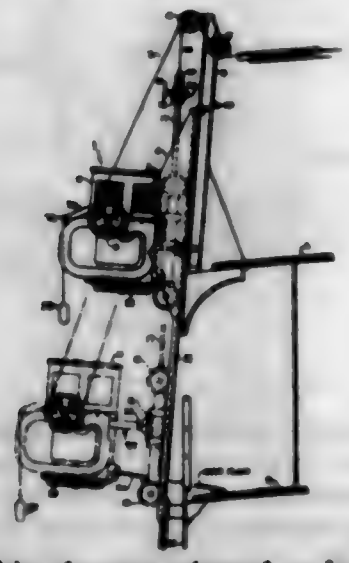
1. In an oil-catching receptacle with speed-controlled oil-discharger attachment for automobiles: a receptacle

disposed beneath a clutch pan of an automobile, and having a sump positioned to receive oil draining through an opening in the bottom of the clutch pan; means securing the receptacle to the clutch pan; the receptacle defining a wind-tunnel passageway that extends therethrough in a fore-and-aft direction, relative to the travel of the automobile; the passageway extending across the sump so



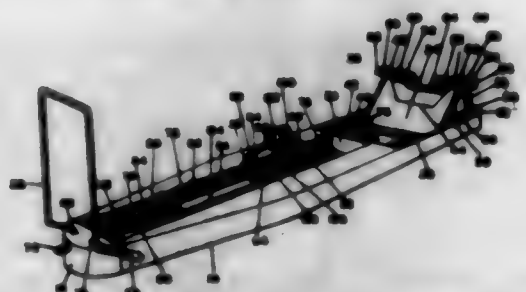
that the air flowing through the passageway will entrain the oil, when the automobile has obtained a predetermined speed and the velocity of the air has reached a point sufficient to entrain the oil; the passageway having an outlet at the trailing end of the receptacle through which the entrained oil will be discharged upon the roadway.

2,841,346
SHIP'S OVERSIDE ELEVATOR
John Leath, Great St. Helen's, London, England, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application July 22, 1954, Serial No. 448,079
Claims priority, application Great Britain July 27, 1953
1 Claim. (Cl. 187—6)



An overside ship elevator adapted to be supported by suspension cable means including inclined primary suspension cables and a secondary suspension cable and adapted to run on a ship's side without guides comprising: two vertical laterally spaced tubular chassis side members, a lower chassis traverse beam rigidly attached to said side members at their lower ends, a pair of rods mounted within said side members for slideable movement, an upper chassis traverse beam connecting said rods at their upper ends, running wheels attached to the ends of said upper and lower traverse beams, an elevator body connected to said chassis members on the outboard side thereof and movable outwardly from said chassis members, a variable length articulated beam interconnecting said elevator body and said chassis members to maintain said elevator body at a variable distance determined by the effective length of said articulated beam, primary suspension cables supporting said elevator body, a rotatable cable actuated drive means attached to said elevator body and engageable with said primary suspension cables for rotation thereby upon vertical movement of the elevator body, mechanism for increasing and decreasing the effective length of said articulated beam upon rotation of said cable actuated drive means, and a secondary suspension cable attached to said upper chassis traverse beam.

2,841,347
VEHICLE JACK
Louis Charles Stanley, York, Pa., assignor to Carlift Company, Inc., York, Pa., a corporation of Pennsylvania
Application May 25, 1954, Serial No. 432,182
13 Claims. (Cl. 187—8.41)

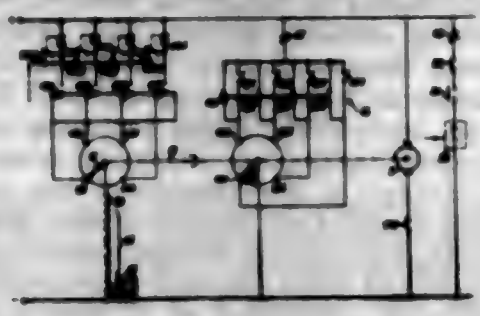


1. A vehicle jack assembly comprising in combination, an elongated frame including side members and arranged to be positioned longitudinally beneath a vehicle and narrower than the vehicle so as to be positionable between the wheels thereof, means portably supporting said jack assembly, a rear jack unit supported by said frame and including a pair of vehicle frame engageable members extending transversely to the axis of said jack frame and spaced apart laterally of said frame sufficiently to engage respectively when elevated the rearward portions of the side frame members of a vehicle, an auxiliary frame narrower than said elongated frame and supported thereby for longitudinal movement therein, a front jack unit supported by said auxiliary frame and including a vehicle frame engageable member positioned substantially intermediately between the sides of said auxiliary frame and positionable when elevated to engage an intermediate portion of the front frame member of a vehicle, means positioned between said auxiliary frame and said side members of said elongated frame and operable to elevate said frame engageable members of said rear jack unit into engagement with said side frame members of a vehicle, additional means operable to elevate the frame engageable member of said front jack unit into engagement with said front frame member as aforesaid, whereby said frame engageable members of said jack units engage said vehicle frame at triangularly arranged positions, thereby to elevate said vehicle by engaging said frame only so as to permit the axles and wheels of said vehicle to suspend freely downward from said vehicle frame.

2,841,248
LIFT CONTROL DEVICE
Gottfried Pfister, Lucerne, Switzerland, assignor to Inventio A. G., Hergiswil, Switzerland
Application October 24, 1956, Serial No. 618,105
Claims priority, application Switzerland October 27, 1955
12 Claims. (Cl. 187—29)

12. A device for arranging the order of sequence of outside calls in lifts with outside call apparatus actuated by press-buttons, in which at least one part of the outside call apparatus is so arranged in a predetermined sequence in a closed outside call circuit, that, viewed from the supply point of such circuit, the outside call apparatus is only operative in one direction, in which case that member of the outside call apparatus operated

by the outside calls which is nearest to the supply point in the operative direction, has priority in operating upon the motion control of the lift, rendering the remaining members ineffective, a selector device being provided to displace the supply point of the outside call circuit in accordance with predetermined conditions, said selector device comprises two selector arms arranged on a common shaft each having a set of fixed contacts associated therewith, said shaft being driven by a motor, which rotates the selector arms and is operationally connected with a brake of the lift in such a manner that said motor is actuated upon release of the brake, a back con-



tact of a circuit relay is connected into the circuit of the motor and a working contact also operated by said circuit relay is connected in the supply to the first of the said selector arms, said circuit relay being in direct connection with the set of fixed contacts of the second of said selector arms by means of a movable wiper contact the position of which is dependent on the position of the lift cabin, said wiper contacts co-operating with fixed contacts and thereby with back contacts of a further relay connected in parallel therewith, said contact breaker is designed as a time-switch which prevents the switching in of said further relay until the expiry of a certain period of time.

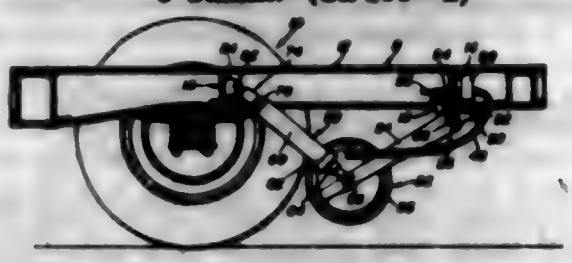
2,841,249

EMERGENCY BRAKE MEANS FOR TRAILERS AND TRUCKS

Charles S. Allen, Bakersfield, Calif.

Application December 27, 1955, Serial No. 555,377

3 Claims. (Cl. 188—2)



1. Emergency brake means for trailers and trucks comprising, in combination, a mobile wheel supported vehicle chassis, a first elongated support member fixedly mounted in a horizontal position on said chassis, a pair of duplicate hanger arms spaced apart and having upper ends hingedly mounted on and serving to suspend the arms in raisable and lowerable positions beneath the support member, the lower ends of said arms being provided with axially aligned bearings, an elongated ground-engaging roller positioned in a plane below the plane of said support member and having axial journals fixed to and projecting from the respective ends of the roller and journaled for free rotation in their respectively provided bearings, fluid operated friction brakes interposed between the arms and roller and mounted for operation on the ends of said roller, fluid operated valves, one for each brake, mounted for operation on said support member, said valves being normally closed, the upper ends of said arms being disposed in proximity to their respective valves and having outstanding valve controlling trip lugs aligned with and swingable toward and from said valves, said arms, roller and brakes cooperating in defining a liftable and lowerable emergency brake assembly which, when retracted and elevated to a road clearing position relative to said chassis serves to move the trip lugs away from the valves and to a position during which the valves remain closed, and which when the assembly is swung down to an extended operating position brings the lugs into valve engaging and opening position, a second elongated support member fixed horizontally on said chassis forwardly of and parallel to said first support member, remote controlled fluid-cylinders having upper ends hingedly suspended from said second support member and lower ends operatively connected with the lower portions of their respective arms, and remote controlled fluid delivering and distributing means mounted for operation on said first support member and operatively connected with and for charging and readying said valves for functioning.

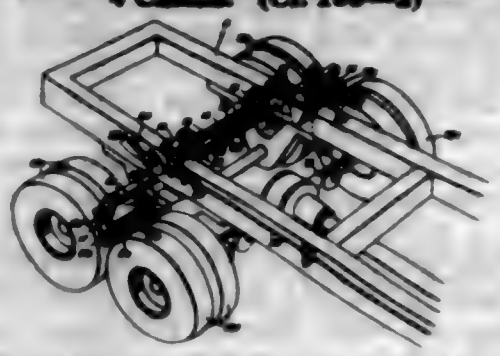
2,841,250

VEHICLE EMERGENCY BRAKE

Leonard C. Osborn, Salt Lake City, Utah

Application April 30, 1956, Serial No. 581,677

4 Claims. (Cl. 188—3)



1. An emergency braking device for a vehicle having tandem wheels mounted thereon with the peripheral surfaces of said wheels opposed longitudinally of the vehicle, said device including a wedge-shape brake block having a high-friction wedge face and a relatively low-friction wedge face opposite each other and substantially conforming to the peripheral curvatures of said wheels, said high-friction wedge face being for high-friction driven engagement by the peripheral surface of one of said wheels in favor of said block being dynamically wedged between said opposed peripheral surfaces for a given direction of movement of the vehicle thus to achieve an emergency braking action, and said relatively low-friction wedge face resting on the directly opposite peripheral surface of the other of said wheels for said block thus to be supported at the relatively low-friction wedge face while the dynamic wedge-driving action at said high-friction wedge face prevails, means for moving said block to and away from said opposed peripheral surfaces of the wheels, and means for releasably holding said block in a disengaged position with respect to said wheels pending release of said block for emergency braking.

2,841,251

BRAKE ACTUATING MECHANISM

Charles V. Shelton, Long Beach, Calif.

Application August 8, 1955, Serial No. 526,890

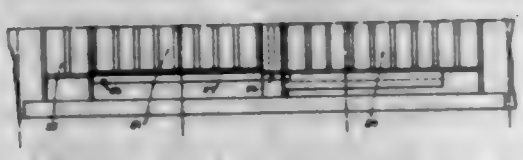
7 Claims. (Cl. 188—106)



1. Brake mechanism comprising a rotatable brake drum, a mounting plate extending across one side of said

drum, a pair of shoes movably mounted within said drum at a first side of said plate and interconnected at first ends for relative swinging movement into and out of engagement with the drum, a fluid pressure operated primary operating unit acting to actuate said shoes against the drum, a rigid tubular stop member stationarily attached to and projecting from said plate generally parallel to the axis of said drum and engageable at opposite sides by the second ends of said shoes to retain the shoes against rotation, a wedge element movable axially within said stop member and operable by said movement to actuate said second ends of the shoes relatively apart and into braking engagement with the drum and means forming an actuating connection between said wedge element and each of said shoes through an aperture in said stop member for actuating the shoes in response to said axial movement of the wedge element, said wedge element being free for sufficient lateral movement within and transversely relative to said stop member to permit actuation of said shoes by said wedge element to braking condition with either of said shoes in bearing engagement with the stop member while the other shoe is actuated away therefrom, to thereby allow for self energization of the brake in either direction when actuated by said element, said tubular stop member extending through an aperture in said plate and projecting both from said first side of the plate and from its second side, a nut threadedly connected onto said stop member at said second side of the plate to secure the stop member on the plate, said stop member containing a passage extending axially therein through said plate and to both sides thereof and containing said wedge element at the first side of the plate, and means for actuating said wedge element extending through said passage in the tubular stop member to said second side of the plate and movable axially of the stop member to actuate the wedge element.

2,841,252
JAIL LOCKING DEVICES AND THE LIKE
Folger Adam, Joliet, Ill.
Application October 15, 1953, Serial No. 386,231
16 Claims. (Cl. 189—7)



1. In a jail door locking mechanism, the combination of a longitudinally movable jail door and means to support said door during the longitudinal movements of the door along a horizontal path of travel of substantially uniform elevation between door closed and door open terminal positions, a vertically movable locking bar adjacent to the path of door travel, door movement interfering means on the locking bar, two door movement interfering means connected to the door, one being a door locked closed means and the other being a door locked open means, said two door movement interfering means being horizontally separated from each other in the direction of door movement an amount equal to the full travel of the door between its door closed and door open terminal positions, means to guide the locking bar for vertical movements without vertical movement of the door, said locking bar guiding means being constituted to permit locking bar movement in a locking bar path of travel adjacent to the path of travel of the door and to retain the locking bar against displacement horizontally in either direction of door movement, locking bar movement in one direction being a locking movement and locking bar movement in the other direction being an unlocking movement, the locking bar interfering means being engageable with the door locked closed interfering means on the door when the door is in the closed terminal position or with the door locked open interfering means on the door when the door is in the open terminal position selectively according to the position of the door when the locking bar moves in the locking direction, together with a lost-motion device including a driven element connected to the door and elongated in the direction of door movement and a driving element parallel to the driven element and movable with respect to the driven element in either direction of door movement, and means to limit the movement of the driving element in each direction of door movement with respect to the driven element, between a door closing driving element position with respect to the driven element and a door opening driving element position with respect to the driven element, means to drive the driving element in either direction of travel, the driving and driven elements of the lost-motion device including companion parallel horizontal locking bar interfering means supporting tracks extending in the direction of door movement, the supporting track of the driving element including an upwardly facing cam surface at each end of said driving element, each of said driving element cam surfaces registering vertically with an element on the locking bar when the driving element of the lost-motion device is moved to position to bring such cam surface into vertical registry with such element on the locking bar, and each such cam being formed for engagement with the element on the locking bar and movement of the locking bar and the locking bar interfering means without vertical movement of the door from a position of engagement with the cooperating door movement interfering means on the door to a position of non-engagement with such cooperating door movement interfering means during lost-motion movement of the driving element with respect to the driven element in the direction of drive of said driving element.

2,841,253
WALL PANEL
Alden W. Coffman, Pittsburgh, and Russell B. Cullen, Bradford Woods, Pa., assignors to H. H. Robertson Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application July 29, 1953, Serial No. 370,915
4 Claims. (Cl. 189—34)



3. An insulated sheet metal wall panel comprising a plurality of panel units erected side by side, each unit comprising an inner sheet metal facing sheet adapted to be secured to the framework of a building, each of said sheets having outwardly extended lips on the two side edges thereof, one a male and the other a female lip having a U-shaped portion, and with the male lip of one panel unit projecting into the U-shaped portion of the female lip of an adjacent unit, a body of insulation filling the space between the lips and overlying the inner facing sheet, and a prefabricated outer sheet and sub-girt system comprising a corrugated metal facing sheet having secured thereto a plurality of spaced light-weight sheet metal channel shaped sub-girts extending transversely and secured to the bottom of the corrugations of the outer corrugated sheet, each girt having at one end an inwardly extended portion engaging the female lip of an adjacent unit within said adjacent unit, and a slot at the bottom of the extended portion, and at the second end having the width of the channel reduced and provided with bent top portions having a rounded tongue inserted into said slot of the sub-girt of an adjacent unit, and a fastener projecting through said inwardly extended portion of the girt and through the cooperating male and female lips for securing together the inner and outer corrugated facing sheets.

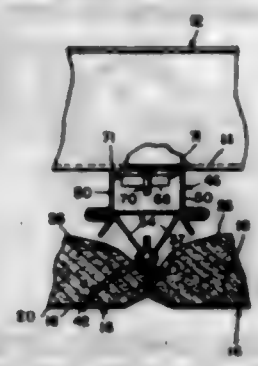
2,841,254
SELF LOCKING WINDOW CASING
Beverly R. Milner, Axton, Va.
Application December 6, 1955, Serial No. 551,419
1 Claim. (Cl. 189—75)



A window casing comprising a pair of complementary casing sections engageable in a window opening, one of said sections constituting an outer section in the sense of facing exteriorly of a building wall and the other section constituting an inner section in the sense of facing interiorly of said wall, said sections being formed as rectangular, open-center structures each including as its component portions a sill member, side jambs, and a header, the sill member, side jambs, and header of each section being formed of sheet metal material and being of channeled formation, corresponding portions of the respective casing sections being in confronting relation with their channels opening toward each other to open in the direction of the adjacent surface of the building wall in engagement with said building wall, both sections having inner side walls on the sill members, side jambs, and headers, all of the inner side walls being of planiform formation and corresponding inner side walls of the sections slidably overlapping in face-to-face contact, the sill member, side jambs, and header of each section including a bight portion disposed in a vertical plane, the bight portions of the side jambs and header of each section being in the same plane and the bight portion of the sill member of each section being in a plane offset outwardly from the common plane of the side jambs and header of the same section, the side jambs and header of each section having flanges disposed outwardly from said inner side walls thereof in a common vertical plane for engaging the adjacent surface of the building wall area immediately surrounding said opening, the sill member of each section having an outer side wall formed with a downwardly offset rib one surface of which defines a shoulder coplanar with said flanges of the same section and adapted to engage the adjacent surface of the building wall along the bottom edge of the window opening; a sealing strip extending continuously through the full periphery of at least the outer casing section as a facing for said surface of the rib and for said flanges of the side jambs and header of said one section, thus to provide a peripheral seal on said one casing section; and separable connections carried by the inner side walls of some at least of the confronting portions of the respective sections, interengaging in the slidably overlapped relationship of the inner side walls.

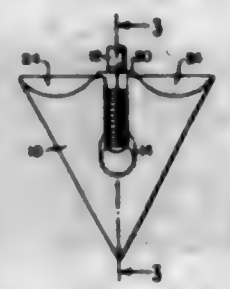
2,841,255
ACOUSTICAL SYSTEM
William George Kemp, Detroit, Mich.
Application March 3, 1955, Serial No. 491,802
5 Claims. (Cl. 189—33)

1. In a sound absorbing system for a deck or the like, a plurality of sound absorbing units, a plurality of bars supporting said units on said deck, means mounting said bars on said deck in spaced relation including generally channel-shaped clips of resilient material having their legs releasably engaged with said bars, and means securing said clips to said deck with the legs thereof projecting outwardly from said deck including pins secured to said deck and projecting therefrom in spaced relation, and elongated openings in the bases of said clips extending along a line from one leg thereof to the other receiving said pins, said openings being defined by the straight parallel free ends of fingers integral with said bases and



extending within the channels toward each other from opposite sides of said openings at an inclination in a direction away from said bases, said fingers gripping said pins and permitting said pins to be inserted into said openings in said direction but preventing withdrawal of said pins in the opposite direction, and said clips being transversely shiftable on said pins lengthwise of said openings.

2,841,256
GROUND ANCHOR
Merton L. Clevett, Jr., East Natick, Mass.
Application December 24, 1954, Serial No. 477,501
3 Claims. (Cl. 189—99)

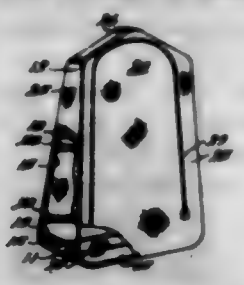


1. A ground anchor comprising a shaft with a head at one end and a peripheral flange spaced from said head, a base plate with a tapered end, a front face, a back face, and a rear end face, said plate having a hole running from its front face to its back face, said hole being larger than the cross-section of said shaft but smaller than said flange and head, said shaft loosely extending through said hole with said head located on the rear side of said plate and said flange located on the front side of said plate, said front face having an elongated slot running from said hole back to said rear end to receive said shaft when said shaft is pivoted into parallel relation with the plane of said plate, said back face having a cavity communicating with said hole for receiving said head, said cavity being sufficiently large to permit limited relative reciprocal movement of said head between a first position furthest from said tapered end and a second position closest to said tapered end, when said shaft is disposed in said slot in parallel relation to the plane of said plate, and means at said rear end for cooperating with said flange to lock said shaft in said parallel position only when said head is in said second position.

2,841,257
LUGGAGE FOR CARRYING APPAREL WITHOUT FOLDING
Edgar Roy Dallas, Detroit, Mich.
Application August 22, 1956, Serial No. 605,547
3 Claims. (Cl. 190—41)

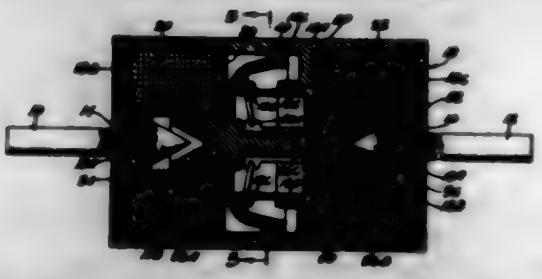
1. In a piece of hand baggage, a frame comprising two pairs of spaced upright members which form the frame

edges, top and bottom members connecting each pair of upright members, a plurality of cross members connecting said pairs of upright members to form a rigid frame, a bar extending between said top members adapted to support a clothes hanger, the height, width and depth of said frame being sufficient to accommodate a suit of clothes draped on such hanger, a cover of pliable material secured over said frame to form a base, front and



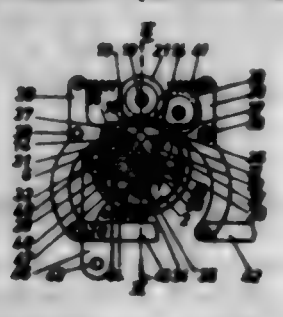
rear panels extending upwardly from said base, and side and top panels extending between said front and rear panels, an access opening in said front panel, a flap for said access opening, the disposition of said opening being such that said cover will be securely retained on said frame when said flap is open, and a carrying handle secured to said rear panel and spaced a sufficient distance below said top panel to permit convenient lifting and carrying of the piece of baggage.

2,841,258
MAGNETIC CLUTCH
Hollis Jewell, Los Angeles, Calif.
Application March 4, 1955, Serial No. 492,163
13 Claims. (Cl. 192—12)



1. In a device of the character described, a structure having a pair of aligned bearings, a first shaft rotatably supported in one of said bearings, a second shaft rotatably supported in the other one of said bearings, a magnetic core in said structure, spring means connected to said core and having two positions of stable equilibrium for interconnecting said first and second shafts, and electromagnetic means magnetically associated with said core for moving said spring means from one of said positions to the other of said two positions.

2,841,259
DRIVE COUPLING
Helmut Gelling, Ulm, Germany, assignor to Walther Büromaschinen Gesellschaft m. b. H., Gerstetten, Württemberg, Germany, a firm
Application December 27, 1955, Serial No. 555,738
Claims priority, application Germany January 8, 1955
6 Claims. (Cl. 192—51)



1. In a drive coupling of the class described, a shaft to be driven, two drive discs disposed coaxially with said shaft and loosely mounted thereon, means for rotating said drive discs in opposite directions, a coupling cylinder secured to said shaft between said two oppositely rotating drive discs, two coupling bolts shiftably mounted in said coupling cylinder and designed to be shifted parallelly with said shaft, coupling holes arranged in a circular series in each drive disc, springs tending to move said coupling bolts in opposite directions into engagement with one of the holes of the drive discs, means for retaining each bolt in its disengaged position against the action of its spring, said retaining means being located at opposite sides of the coupling cylinder between said two drive discs, and coupling engaging means for alternatively rendering ineffective said retaining means of one or the other of said coupling bolts, whereby said shaft will be coupled for rotation in one or the other direction.

2,841,260
DOMESTIC LAUNDERING MACHINES
Alvin Lodge, Erie, Pa., assignor to Blackstone Corporation, Jamestown, N. Y., a corporation of New York
Application November 8, 1954, Serial No. 467,335
14 Claims. (Cl. 192—54)

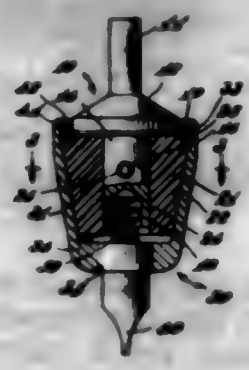


1. In a washing machine, a receptacle rotatable about a vertical axis and axially movable into and out of position for rotation, a housing in the central base portion of said receptacle, the bottom of said receptacle forming at least one of the walls of said housing a motor driven shaft having an end projecting into said housing, means in said housing for axially moving said receptacle into position for rotation and for rotating said receptacle, said means comprising a rotatable lift member carried by said shaft end and movable axially by rotation of said shaft to engage said housing and axially move said receptacle into position for rotation, a disk clutch in said housing actuable by said member upon rotation of said shaft to transmit rotation of said shaft to said receptacle, and means forming part of said clutch for varying the operative effectiveness thereof in accordance with the rotational speed of said receptacle.

2,841,261
TOOL COUPLING
Ralph Abrams, Sharon, Mass.
Application April 26, 1954, Serial No. 425,690
3 Claims. (Cl. 192—66)

1. A tool coupling comprising: a driving member; a driven member; one of said members having a metal core with tool attaching means at one end and an axial recess at its other end, washer means attached to said core against axial movement on the core towards the tool attaching means, on said core a frusto-conical body of friction material with the top of said body at the recessed end of the core and its base at the washer means, and aligned perforations through said core and said frusto-conical body, and the other member having a hollow

body fitting said frusto-conical body, with a tool mounting means at its narrower end opposite said recessed end of said core; a spring inserted in said axial recess, bearing on the inside of said hollow body and tending to separate said members; a fastening pin through aligned



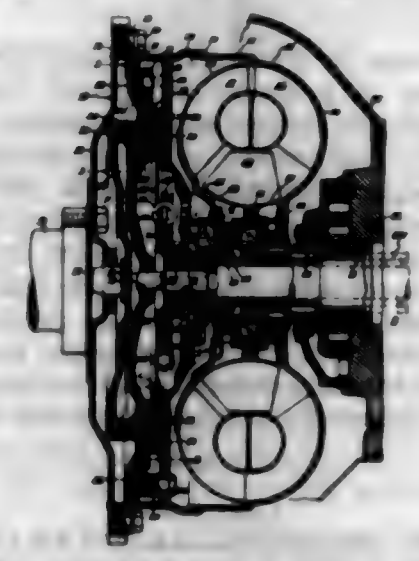
perforations of said core and said frusto-conical body; and removable retaining means at the wider end of said hollow body, said retaining means extending inwardly over said washer means such as to prevent disassembly and gross misalignment while permitting slight axial movement of said members.

2,841,262

CLUTCH

Reinhold C. Zeidler, Detroit, Mich., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application May 16, 1952, Serial No. 288,117
12 Claims. (Cl. 192—68)



1. In a friction-engaging device, relatively rotatable plates including a friction plate, an axially fixed plate, and a pressure plate movable in opposite axial directions from and to a neutral position to engage said plates and to disengage said plates; means supporting said friction plate and permitting axial movement of said friction plate; and means extending between and adjustably connecting said friction and fixed plates for relative rotation therebetween and holding said friction plate in axially spaced relation to said pressure and fixed plates, when said pressure plate is in its neutral position, and positively preventing axial movement of said friction plate during movement of said pressure plate to its neutral position.

2,841,263

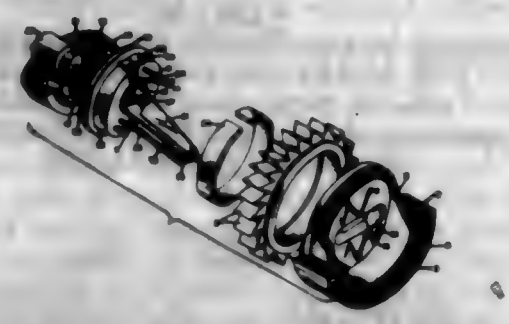
WITHDRAWN

2,841,264

INFINITE PLATEN VARIABLE

Stig R. Tibbling, Hyde Park, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application February 20, 1956, Serial No. 566,501
6 Claims. (Cl. 197—123)



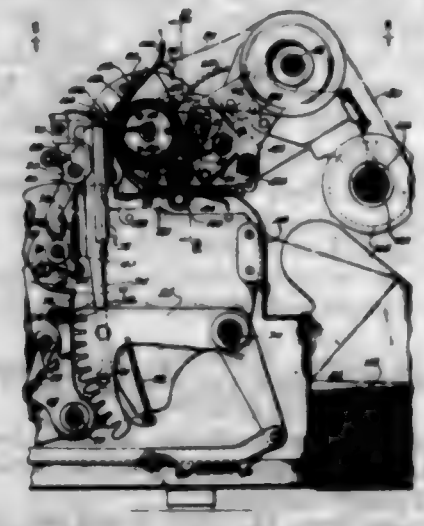
1. In a business machine having a rotatable platen and a ratchet wheel operable for rotating said platen, a clutch mechanism for controlling a driving connection between said platen and said ratchet wheel comprising, in combination, a member fixed to said platen and having a cylindrical portion extending through said ratchet wheel, a split ring clutching element mounted concentrically between said ratchet wheel and said cylindrical portion, said split ring clutching element being normally free of said ratchet wheel but adapted to be expanded into clutching engagement with the latter, a pivot element supported by said member and having a cam portion engaging the ends of said split ring clutching element, means yieldingly acting upon said pivot element for turning said cam portion to expand said split ring clutching element until it drivingly engages said ratchet wheel, and manually operable means for removing the action of said yielding means from said pivot element and effecting a release of said split ring clutching element from said ratchet wheel.

2,841,265

DUAL STRIP FEEDING MECHANISM FOR CALCULATING MACHINES

George J. Uhlig, Park Ridge, Ill., assignor to Victor Adding Machine Co., Chicago, Ill., a corporation of Illinois

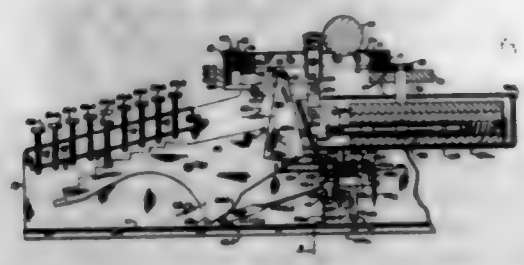
Application August 5, 1952, Serial No. 302,710
9 Claims. (Cl. 197—133)



1. In a calculating machine having a main shaft and a platen, the combination of feed rollers cooperable with the platen to cause feeding of a first record strip, a pair of feed rollers cooperable with a second record strip to advance the latter, means operable during each item entering machine cycle to advance the first record strip and second strip each a single line space, an operation control key, and means conditioned for operation upon depression of the control key to advance said second strip a substantially greater distance than required for line spacing, said last named means including a gear having a plurality of studs thereon, a wipe pawl mech-

anism cooperable with the studs, and a lost motion connection for driving said wipe pawl mechanism from the main shaft and operable to feed the second record strip a predetermined distance depending upon the number of items entered in a column on the second record strip.

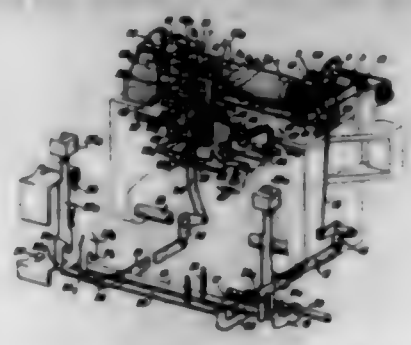
2,841,266
PRESSURE FLUID OPERATING MECHANISM FOR CALCULATING MACHINES
Allen A. Dicke, New Bremen, Ohio
Application March 16, 1955, Serial No. 494,734
29 Claims. (Cl. 197—177)



1. In a calculating machine of the type having a frame member and a carriage translatable relative to said frame member to one of a plurality of different positions, the combination of a power source comprising a source of fluid under pressure, and driving means intermediate said source of fluid under pressure and said carriage comprising a fluid operated motor connected for translating said carriage relative to said frame member, together with valve means constructed to control the supply of pressure fluid to said fluid motor to drive said motor and carriage in one direction when said valve means is in one position and to control the supply of pressure fluid to said fluid motor to drive said motor and carriage in the other direction when said valve means is in another position and to supply no fluid to said fluid motor when said valve means is in a neutral position, cam-responsive means for controlling the position of said valve means, and cam means on said carriage and movable therewith serving to position said cam-responsive means and said valve means to neutral so that no pressure fluid is applied for moving said carriage, said cam means having effective surface areas in progressively different positions each defining a carriage position, said cam-responsive means being adjustable to progressively different positions each corresponding to one of said cam surface areas, whereby when the cam-responsive means is located in a certain position the carriage will be caused to move to the position corresponding to the position of said cam-responsive means, at which position the corresponding cam surface will cam said cam-responsive means to neutral to cause the valve means to be moved to neutral position.

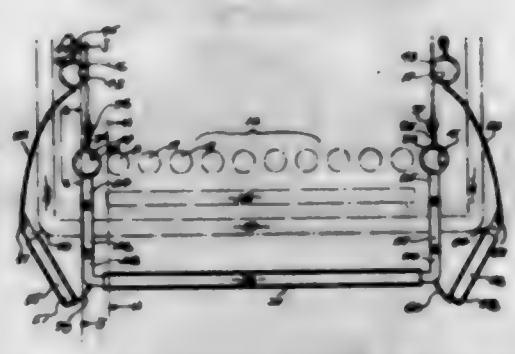
2,841,267
TABULATING DEVICE FOR TYPEWRITING MACHINES
Lucien V. Trève, Bourg-la-Reine, France, assignor to Societe de Mecanographie Japy (Societe Anonyme), Paris, France, a French company
Application June 18, 1956, Serial No. 591,987
Claims priority, application France June 23, 1955
5 Claims. (Cl. 197—177)

1. A tabulating device for typewriting machines having a carriage and a keyboard with aligned tabulating keys, comprising a frame pivotally mounted with respect to said machine about an axis in parallel relationship with said carriage; a shaft carried by said frame in parallel relationship with respect to said carriage; a cylinder rotatably and slidably carried by said shaft; regularly spaced stops carried by said cylinder along a helix thereof; a toothed wheel fast with said cylinder; a toothed sector engaging said toothed wheel and rotatable about the pivot of said frame; a first linked transmission connecting said keyboard to said toothed sector for imparting rotation thereto; a second linked transmission connecting said keyboard to said frame for imparting rotation in



upward direction to said frame about the pivots thereof; and tabulating keys imparting stepwise spaced travel to said first transmission and a constant travel to said second transmission.

2,841,268
SPEED SHIFT
Hazel V. Cantonwine, Kansas City, Mo.
Application July 10, 1956, Serial No. 596,896
6 Claims. (Cl. 197—188)

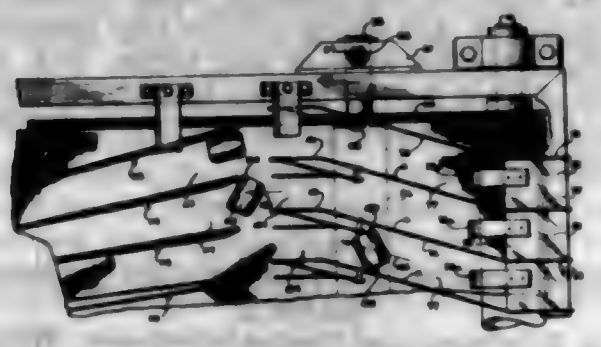


1. Lever means by which a typist may operate a predetermined key of a typewriter without displacing the fingertips from their normal position relative to the keyboard thereof, comprising: a longitudinally extended rigid band having a generally horizontal surface portion at one end thereof and including an inverted cup member adjacent the other end, said cup member being adapted to fit tightly over said predetermined typewriter key; said band being extended beyond said cup member and pivotally attached to a vertically disposed hook member adapted to fit under and engage the operating arm extending from said typewriter and supporting said key.

2,841,269
DEVICE FOR ORIENTING ARTICLES CONVEYED FORWARDLY TO A PACKAGING MACHINE
Ray S. Jenney, Robert T. Fetherston, and Glen R. Miller, Battle Creek, Mich., assignors to Kellogg Company, Battle Creek, Mich., a corporation of Delaware
Original application November 4, 1950, Serial No. 194,166, now Patent No. 2,744,609, dated May 8, 1956. Divided and this application December 30, 1955, Serial No. 562,916
5 Claims. (Cl. 198—30)

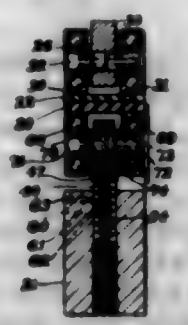
1. In a device for conveying articles of greater length than width or thickness in a predetermined direction through a plurality of laterally adjacent passageways which comprises, a relatively wide endlessly moving conveyor having an upper pass for carrying articles forwardly, a plurality of partition plates disposed above and adjacent said upper pass, said partition plates being laterally spaced from each other and being inclined laterally to the direction of travel of the upper pass of the conveyor and terminating intermediate the length of the upper pass of the conveyor to define a plurality of laterally adjacent inclined passageways, resilient means in each

passageway for orienting certain of the articles to a position with their longitudinal axes transverse to the direction of travel, resilient tongues carried by said resilient means and disposed in said passageways yieldably



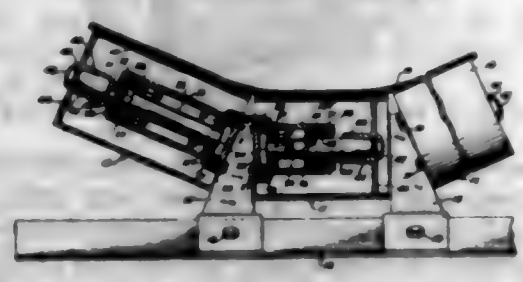
restricting the width of said passageways to less than the length of said articles whereby certain articles which are oriented by said resilient means in said passageways are constrained by said tongues to move in the direction of their widths.

2,841,270
INDIVIDUAL PRESSER ROLL UNIT
Leon E. La Bombard, Nashua, N. H., assignor to The International Paper Box Machine Company, Nashua, N. H., a corporation of New Hampshire
Application March 21, 1956, Serial No. 572,939
6 Claims. (Cl. 198—165)



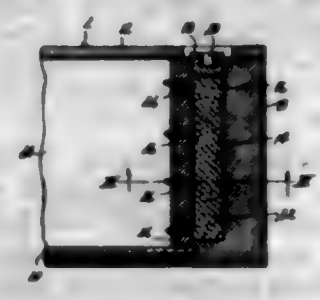
1. In a paper box folding machine having a box blank engaging belt and a fixed support parallel to, and spaced from, said belt, a plurality of individual presser roll units aligned along said fixed support for resiliently engaging the underface of said belt, each said unit including a pair of cylindrical rolls revolubly mounted on a block positioned between said rolls and block supporting means for resiliently maintaining said rolls in engagement with said belt, said roll and block having an overall lateral dimension substantially equal to the lateral dimension of said belt and certain of said rolls having an enlarged outside flange for engaging one of the opposite side edges of said belt.

2,841,271
CONVEYOR IDLERS
Bror H. Malmgren, Petaluma, Calif.
Application July 18, 1955, Serial No. 522,692
1 Claim. (Cl. 198—192)



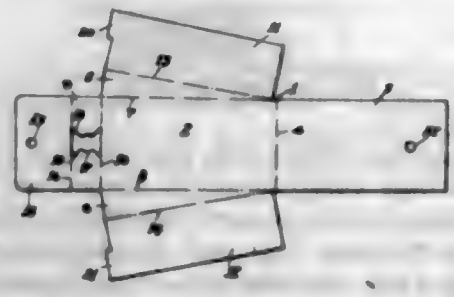
An idler assembly having a standard, a housing means rigidly supported by said standard, a first bearing means and a second bearing means carried within said housing means, a shaft having a first portion rotatably supported from within said housing means by said first bearing means and a second end portion rotatably supported from within said housing by said second bearing means, means to hold said first and second bearing means in a fixed spaced apart position on said shaft comprising an offset on said first portion of said shaft adjacent the otuer edge of said first bearing means, a removable lip on said second portion of said shaft positioned adjacent the outer edge of said second bearing means, a sleeve around said shaft between said first and second bearing means to hold said first bearing means against said offset and said second bearing means against said lip, bearing retaining means secured to said housing means to hold said first and second bearing means within said housing means with said shaft in spaced relation from all portions of said housing means, locking means attached to an end of said housing means to secure said bearing retaining means to said housing means, sealing means disposed around said shaft between said bearing retaining means and said locking means to protect said first and second bearing means from matter outside said housing means, a drum having a closed end with an inwardly flanged cone in the central portion, the cone of said drum being secured against a tapered portion of a second end of said shaft, and means to hold said drum secured to said shaft.

2,841,272
DISPLAY CASE
John F. Dreier, Sabetha, Kans.
Application September 7, 1955, Serial No. 532,982
2 Claims. (Cl. 206—10)



1. A display case comprising a normally closed container having a hollow cylindrical recess formed in a wall thereof, said recess opening exteriorly of said container and being interconnected with the interior of said container by ducts formed in said walls, said recess being adapted to contain a moth repellent substance, and a piston operable in said cylindrical recess to force said substance from said recess through said ducts to the interior of said container, said piston being operable from outside said container.

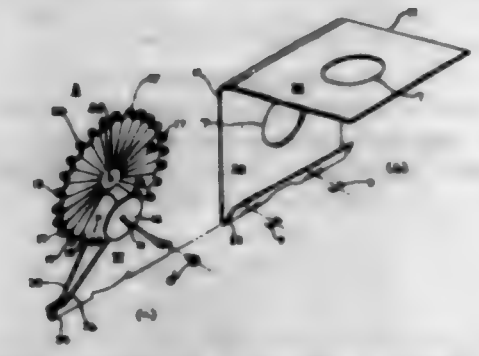
2,841,273
PAINT BRUSH WRAPPER
John J. Scott, Bristol, Conn., assignor to United States Envelope Company, Springfield, Mass., a corporation of Maine
Application October 11, 1955, Serial No. 539,752
4 Claims. (Cl. 206—15.1)



3. A one-piece paint brush wrapper comprising a main panel adapted to overlie one face of a brush, a pair of triangular side panels tapering inwardly from the top to the bottom thereof and foldably connected to the side edges of said main panel, a pair of substantially rectangu-

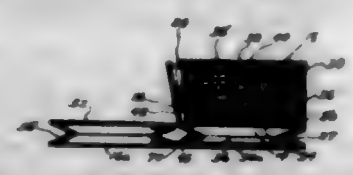
lar wing flaps extending from the edges of said side panels and adapted to be folded in overlapping relation against the face of said brush opposite from said one face, a front panel extending from the lower edge of said main panel and adapted to be folded against said wing flaps so as to form with said main panel and said side panels a substantially wedge-shaped container, a top panel extending from the upper edge of said main panel, and apertured substantially centrally for free passage therethrough of the handle of the brush, an extension flap connected with said top panel and adapted to be folded against the upper portion of said front panel, an upwardly extending tab on the upper edge of at least one of said wing flaps, for entry into said handle aperture of the top panel, to prevent inward collapse of said side panels, and means for fastening said extension flap to said front panel.

2,841,274
MATCHBOOK
Elbert Joseph Weathers, Manhattan Beach, Calif.
Application December 3, 1956, Serial No. 625,863
1 Claim. (Cl. 206—29)



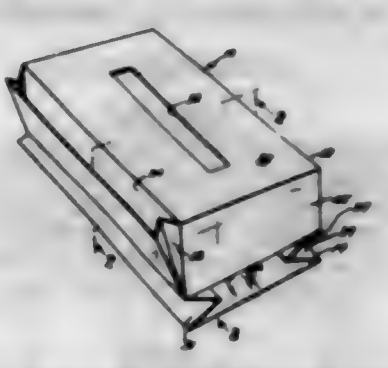
In a folded matchbook assembly a radial matchstick array comprising: a central hub with matchsticks integrally arranged with and about said hub in a uniform radial array, said matchsticks having their heads at the periphery of the circle formed by said array and a clamping member having a lateral fold to form front and back clamping portions, said clamping portions being generally circular and equivalent in size to said central hub, each, respectively, of said front and back clamping portions being joined with said lateral fold by a trapezoidal section, the longer dimension of said section being nearest said fold and the shorter section thereof being nearest said clamping portion.

2,841,275
COMBINATION DISPENSING AND DISPOSAL DEVICE
David Schwimmer and Morton Schwimmer, Teaneck, N. J., and George A. Sierer, New York, N. Y.
Application June 16, 1955, Serial No. 515,888
3 Claims. (Cl. 206—57)



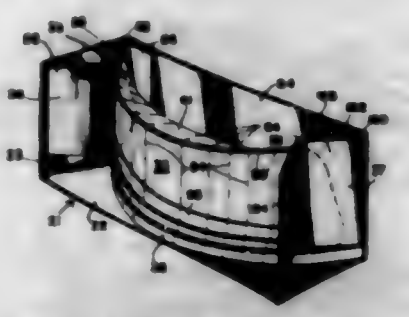
1. A combination dispensing and disposal device for use in conjunction with disposable tissues and the like, comprising: a top wall having an opening for the removal of tissues therethrough, first and second side walls and a pair of end walls all interconnected to said top wall at substantially right angles, a base wall interconnected by expansive accordion folds to said end walls and said first side wall; an isolating element formed of thin flexible moisture resistant material of shape generally conforming to the enclosure formed by said top, side and base wall, and having a bottom wall disposed above said base wall forming with said base wall and accordion folds an enclosed space for the storage of unused tissues within said enclosure; said isolating element having an upper wall having an opening aligned with the opening in said top wall, the edges of said openings being interconnected; said second side wall having a lower edge disposed substantially above the level of said bottom wall of said isolating element thereby forming an opening permitting the insertion of used tissues between said base wall and said bottom wall.

2,841,276
COMBINATION DISPENSING AND DISPOSAL DEVICE
David Schwimmer and Morton Schwimmer, Teaneck, N. J., and George A. Sierer, New York, N. Y.
Application September 13, 1955, Serial No. 533,990
1 Claim. (Cl. 206—57)



A combination dispensing and disposal container comprising: a storage element and a disposal element formed from a unitary planar blank of material, said container including a rear wall member, a top member having an opening therein for the removal of unused tissues therethrough, a front wall member, a first bottom wall member, and a pair of sidewall members; said members being interconnected to form a rectangular enclosure for unused tissues; a second bottom wall having four side edges, a plurality of accordion fold members interconnecting said first and second bottom wall members on three edges thereof, a chute wall having gusset means interconnecting the same at side edges thereof to said side wall members, and at a bottom edge thereof through an accordion fold to the remaining side edge of said second bottom wall.

2,841,277
WINDSHIELD SHIPPING CARTON ASSEMBLY
Richard E. Paige, New York, N. Y.
Application May 3, 1956, Serial No. 582,389
12 Claims. (Cl. 206—62)



1. A curved glass shipping carton assembly comprising an elongated carton having bottom, top, side and end portions and spaced corners, a curved bottom channel supporting member disposed upon the bottom of the carton and having its ends respectively extended toward corners at the same side of the carton and in the respective opposite ends thereof, said curved bottom channel supporting member having a channel groove, a curved glass windshield or the like having curved bottom and top edges and vertical side end edges, said windshield having its

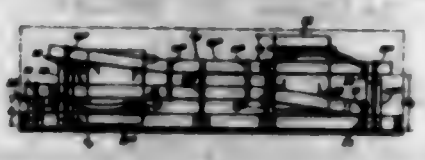
curved bottom edge lying in the channel groove of the bottom channel supporting member, a circumflexed top cover member fitted over the top edge of the curved glass windshield and running co-extensively with the bottom channel supporting member, and end bracing members overlying the ends of said bottom channel member and the cover member and tight fitted into the end corners of the carton, said circumflexed top cover having a lower edge supported upon the bottom channel supporting member whereby the windshield will be completely protected along the bottom, top and vertical side end edges thereof and the entire assembly of the windshield, the bottom channel member, the cover member and end bracing members will be braced against displacement within the carton.

2,841,278

MOTOR VEHICLE PACKAGE

John G. Cadillac, Jersey City, N. J., and Robert T. Cadillac, Brooklyn, N. Y., assignors to Ascon Contracting Co., Inc., Brooklyn, N. Y., a corporation of New York

Application September 28, 1956, Serial No. 612,827
2 Claims. (Cl. 206—65)



1. In a package for crating a motor vehicle component structure substantially in the form of a horizontal vehicle chassis frame with an engine block mounted upon the front end of the frame, the combination which comprises a crate bottom structure constituting a platform, a first component structure in the form of said chassis frame with the engine block rising therefrom in normal upright position, lower supporting means positioning the first component structure horizontally upon said platform, a second similar component structure inverted with the motor block depending from the frame and disposed in complementary relationship with the first component structure with the upright engine block of the first component structure is surrounded by the rear end portion of the frame of the second component structure while the depending engine block of the second component structure is surrounded by the rear end portion of the frame of the first component structure, higher supporting means positioning the second component structure horizontally upon the platform in the above defined complementary relationship with respect to the first component structure, first securing means fastening the first component structure with respect to said lower supporting means, and second securing means fastening said second component structure with respect to said higher supporting means.

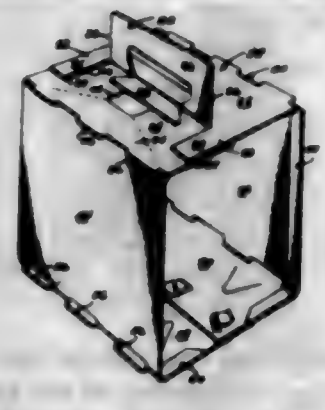
2,841,279

PAPERBOARD WRAPPER HAVING AN UPSTANDING HANDLE

Homer W. Ferrer, Atlanta, Ga., assignor, by mesne assignments, to Mead-Atlanta Paper Company, a corporation of Ohio

Application February 20, 1957, Serial No. 641,374
9 Claims. (Cl. 206—65)

1. A handle structure for a four-sided paperboard carrier having open ends, said handle structure comprising a pair of handle panel elements arranged in face-to-face relation and having aligned hand hold apertures therethrough, said handle structure being initially disposed in a flat relation on the top side of said carrier and foldably hinged thereto, a double ply side retaining portion having a length equal to the height of said handle structure disposed in flat relation on the top side of said carrier adjacent each end of said handle structure, one of said handle panels having a tab extending from each end thereof, the inner ply of the side retaining portions having notches therein aligned with the tabs on said handle structure and the outer ply of said side portions being disposed in covering relation to said notches whereby said handle structure is initially secured in flat



relation by the positioning of said handle structure tabs in said notches, and after the initial raising of said handle structure from said secured position said tabs engage the outer surface of said side retaining portions upon any subsequent downward folding of the handle structure thereby facilitating access thereto for subsequent raising.

2,841,280

PACKAGE FOR WATCH MAIN-SPRING

William Ogle Bennett, Jr., Bayside, Frederick De Merle Lower, Elmhurst, and George Ott, Jr., New Hyde Park, N. Y., assignors to Bulova Watch Company, Inc., Flushing, N. Y., a corporation of New York

Application May 6, 1954, Serial No. 428,832
1 Claim. (Cl. 206—70)



A package of a watch main-spring comprising a plate member of predetermined thickness greater than the thickness of the watch spring inserted therein, said plate member having opposite parallel faces defining the said thickness thereof, said member having a transverse aperture therethrough with opposite ends of said aperture opening one through one of said member faces and the other through the other one of said member faces, and both of said ends of the aperture having circular contour configurations of which one has greater diameter than the other and an intermediate portion of said aperture having a polyhedral contour configuration the diameter of an included circle tangential to the facets thereof being less than the diameter of either of said circular ends of the aperture, and the thickness of said intermediate polyhedral portion of said aperture conforming to the thickness of the watch spring whereby said watch spring is entirely within said intermediate polyhedral portion of said aperture and inwardly from both of said member faces.

2,841,281

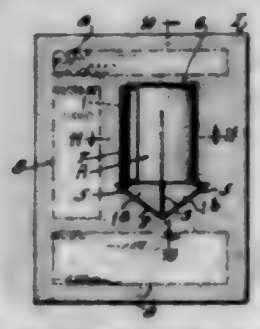
LOCKED PACKAGE DISPLAY HOLDER

Frank J. Lefebvre, Caldwell, N. J., assignor to Ivers-Lee Company, Newark, N. J., a corporation of Delaware

Application October 26, 1956, Serial No. 618,630
6 Claims. (Cl. 206—79)

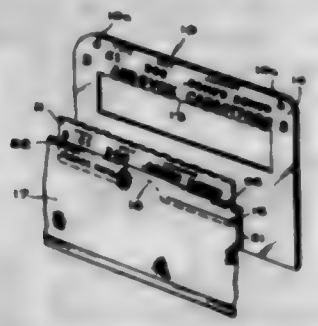
1. A package display comprising a package having a free passage opening through both of opposite ends thereof, and a card of sheet material having inherent resiliency and having a tongue attached at one end to the card with its other end free, said tongue having a portion whose normal cross-sectional dimensions are slightly less than the cross-sectional dimensions of said passage and also having at least one portion projecting laterally therefrom and spaced from the attached end

of the tongue a distance slightly greater than the length of said passage between said ends of the package, said tongue being stamped integrally from said sheet and including two sections at least one of which carries said projecting portion and is movable relatively to the other section in directions laterally of said tongue to provide



first for insertion of the free end of the tongue into one end of said passage and sliding of the package onto said tongue inwardly beyond said projecting portion and thereafter for abutment of said projecting portion with said package at the other end of said passage to hold the package against displacement from the tongue.

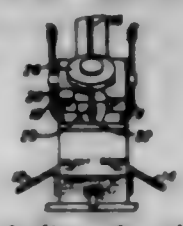
2,841,282
PACKAGING MEANS FOR SMALL ARTICLES
Murray De La Fuente, New Bedford, Mass., assignor to Aerovox Corporation, a corporation of Massachusetts
Application July 26, 1956, Serial No. 600,250
4 Claims. (Cl. 206—80)



1. Packaging means comprising a card including a tab portion adjacent the upper edge thereof extending longitudinally of said card for the major part of its width and detachable from said card, an envelope of flexible transparent material adapted to hold a plurality of like articles, indicia on said tab portion descriptive of said articles and corresponding indicia on a portion of said card from which said tab portion is adapted to be detached, means adjacent the lateral edges of said envelope to secure the latter to said tab portion, with the mouth of the envelope directed downwardly toward the lower edge of the card, said securing means being spaced from said mouth, whereby when said envelope is folded downwardly along a line extending between said securing means to depend from the card, the mouth of the envelope will be closed and in use the envelope when turned upward will afford ready access for removal of one or more of the articles therefrom from its now open mouth and whereby the detachable tab portion will serve for convenience in re-ordering and the remaining card portion will serve as a record of what has been re-ordered.

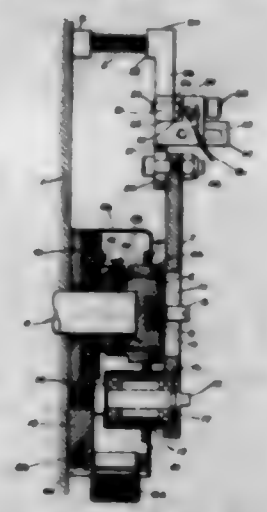
2,841,283
AUTOMATIC STRAIGHTNESS GAGE
James A. Hosford, Bethlehem, Allston L. House, Emmaus, and Jean E. Lape, Coopersburg, Pa., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application April 4, 1955, Serial No. 498,804
10 Claims. (Cl. 209—72)

1. A straightness gage for rod like articles comprising a pair of spaced sensing elements, a movable stop member for supporting one end of articles fed thereagainst between the sensing elements, a fixed support member for the other end of the articles, means for clamping an article positioned on the movable stop to the fixed support member, means for moving the stop from the end of an article when it is clamped to the fixed support, and



a series test circuit including electrical connections to the clamped end of an article and the sensing elements, operable after the stop is removed from the end of a clamped article, for detecting contact between the article and the sensing elements.

2,841,284
GAUGE
George E. Strom, Florence, and Harry D. Wintle, Jr., Northampton, Mass.
Application April 13, 1955, Serial No. 501,138
14 Claims. (Cl. 209—82)

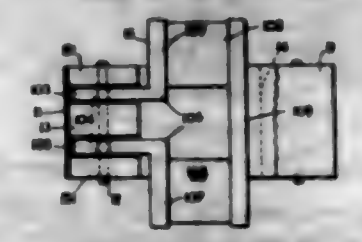


1. An electronic gauge adapted to be coupled to a machine having a rotating shaft, means coupling said gauge to said shaft so that the gauge derives its operating power from the rotation of said shaft, said gauge being capable of classifying an element produced by said machine in accordance with the length of said element after it is formed, said gauge comprising an arm, said coupling means coupling said arm to said shaft so that the arm oscillates in response to the rotary motion of said shaft, a pair of finger members mounted at one end of said arm, the arm and fingers being so positioned that the fingers sweep across one end of said machined element after the formation thereof, which end terminates its length, one of said fingers extending towards said element a greater distance than the other finger, an electrical circuit coupled to each of said fingers, said circuits being operative in response to contact between said element and said fingers, and means including said circuits for physically displacing said element when contact is made, whereby classification is determined by the particular finger which contacts said machined element.

2,841,285
MAGNETIC SEPARATORS
William Edward Box, Erdington, Birmingham, and John Thomas Claridge, Sutton Coldfield, England, assignors to Electromagnets Limited, Hockley, Birmingham, England, a company with limited liability incorporated under the laws of Great Britain
Application July 13, 1954, Serial No. 443,072
Claims priority, application Great Britain June 29, 1954
10 Claims. (Cl. 209—223)

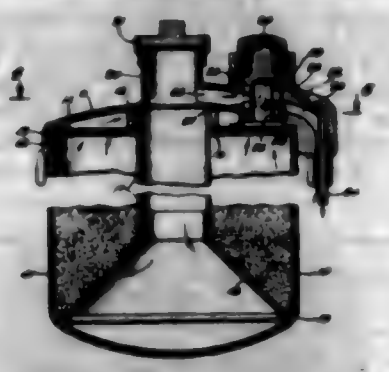
1. A magnetic separator comprising an endless conveyor band extending longitudinally in a horizontal plane

supported at the discharge end by a plurality of at least three pulleys spaced transversely on an axle, said conveyor band, said pulleys, and said axle being made of materials having substantially the same magnetic permeability as air, and a stationary magnet with arms projecting into the spaces between said pulleys and terminating in pole pieces having convex curvature concentric



with the circumference of said pulleys with radius slightly smaller than the radius of said pulleys and located adjacent said conveyor band where said conveyor band is supported by said pulleys, said stationary magnet being yoke-shaped in contour and having its arms connected by a transverse magnetic section located to the rear of said pulleys.

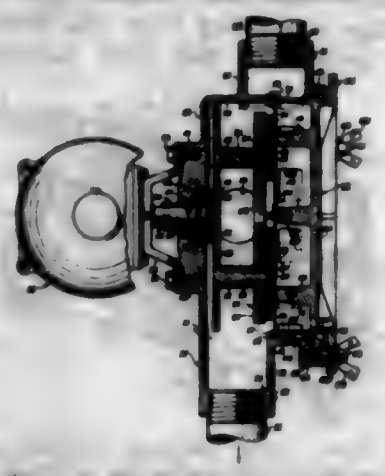
2,841,286
WATER SOFTENER
Ralph L. Abos, Ramon L. Abos, and Carl A. Stuewe, Whittier, Calif.
Application April 14, 1955, Serial No. 501,348
1 Claim. (Cl. 210—278)



A water softener comprising a tank having a hard water inlet, a soft water outlet and a drain outlet, a jet tube in the drain outlet, a tube extending downwardly into the tank, a strainer between the tube and the tank, said tube having a removable closure at the top thereof, a rotary valve controlling the inlet and the outlet, said rotary valve having one passage therethrough from the inlet to the interior of the tank and another passage from the top of the tube to the soft water outlet, said valve having a port adapted to connect the interior of the tank with the drain outlet, and a passage for connecting the inlet to the jet tube the passage initially connecting the tube to the soft water outlet being also capable of connecting the hard water inlet to the tube in the tank.

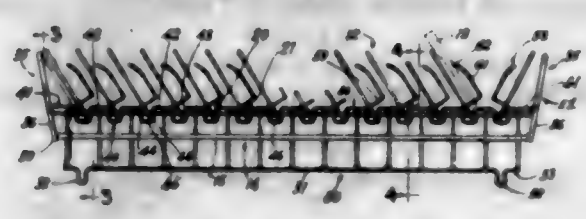
2,841,287
STRAINER CLEANING
Ralph H. Halbach, Eden Township, Alameda County, Calif., assignor, by mesne assignments, to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Delaware
Application May 11, 1954, Serial No. 428,867
19 Claims. (Cl. 210—414)

1. In a self-cleaning strainer assembly, housing structure the interior of which has a strainer that separates it into one chamber that is connected to an inlet for fluent material to be strained and an outlet for solids separated by the straining operation and another chamber that is connected to a strained fluid outlet, means for continuously cleaning said strainer comprising a spider mounted in said one chamber for rotation about an axis substantially normal to the surface of the strainer and having a drive shaft connection projecting rotatably through an aperture in the side of said housing structure, a strainer surface cleaning member mounted on said spider for limited displacement toward and away from said screen, resilient means compressed between the cleaning member



and the spider in the assembly, and an annular seal assembly at said aperture surrounding said shaft and axially contacted by said spider, said resilient means serving both to maintain said cleaning member against the screen surface and to constantly load said seal assembly to prevent leakage from said one chamber through said aperture.

2,841,288
DISH TRAYS
John Field and Harry Field, New York, N. Y.
Application June 10, 1954, Serial No. 435,859
4 Claims. (Cl. 211—41)

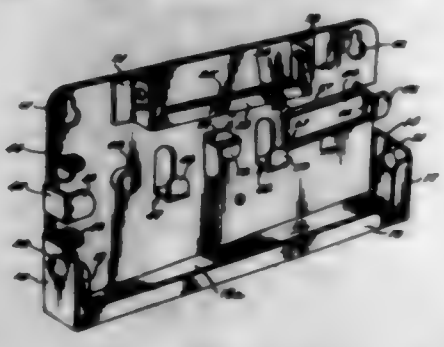


2. A dish supporting tray comprising an elongated holder and a plurality of dish engageable clips, said clips each including an elongated wire having axially aligned end portions and an intermediate laterally bowed portion, said end portions terminating in U-shaped hooks opening toward each other, said holder comprising means normally received in said hooks for swinging movement of said clips toward either end of said holder, said holder comprising other means for limiting the swinging movement of said clips in either of said directions, and said intermediate laterally bowed portions of said clips providing for movement of said hooks laterally of said holder for engagement with or disengagement from said first mentioned means.

2,841,289
WALL RACK FOR MECHANICS' TOOLS
William H. Odlum, Wilmette, and John R. Gracious, Glenview, Ill., assignors to Dure Metal Products Co., Chicago, Ill., a corporation of Illinois
Application September 14, 1954, Serial No. 455,819
7 Claims. (Cl. 211—87)

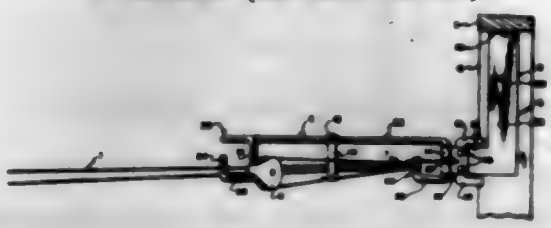
1. A holder for a plurality of socket wrenches, said holder comprising an upstanding plate having flanges extending forwardly and substantially normally to the plane of the plate from its bottom edge and from the side edges adjacent the bottom edge to form the bottom and sides of a first retainer for a plurality of wrench sockets, a strip of sheet metal disposed above the said first retainer and having a horizontal section and flanges overlying and secured to the plate, said strip forming with the plate the bottom of a second retainer for a plurality of wrench

sockets disposed above the first-mentioned retainer, a tab struck outwardly and downwardly from the plate, and laterally spaced tabs struck outwardly and upwardly from the plate at regions below and one on either side of the first-mentioned tab, all of said tabs being constructed to receive and hold between them the handle of a tool or the like, said flange extending from the bottom edge and said horizontal section of the strip having upstanding



edges constituting retaining walls for wrench sockets supported on said bottom edge flange and horizontal section, and said bottom edge flange and horizontal section being of trapezoidal configuration, the greatest width of the horizontal section being substantially equal to the smallest width of the bottom edge flange to provide in effect a split retainer for a plurality of wrenches of progressively varying sizes.

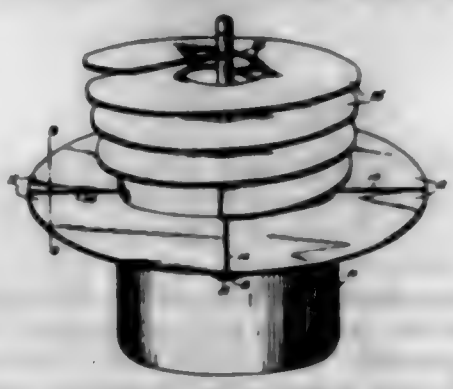
2,841,290
SUPPORTING ARM DEVICE FOR CLOTHES LINE PULLEYS
Adam van den Thoorn, Bronx, N. Y.
Application October 25, 1955, Serial No. 542,647
6 Claims. (Cl. 211—119.07)



1. A supporting arm device for a pulley line comprising a bracket adapted to be mounted adjacent a window opening and having a vertical socket, an arm having a main body portion provided at its opposite ends with substantially identical return bent portions forming frames of substantially rectangular outline projecting right-angularly from the same side of the arm and disposed in parallel vertical planes, each of said frames including a vertical pivot portion spaced sidewise from said main body portion of the arm by an upper portion of the frame, one of said vertical pivot portions being journaled in the socket of the bracket for mounting the arms for swinging movement between a position projected outwardly beyond said window opening and a position retracted through said window opening, and a pulley mounted on the other vertical pivot portion adapted to have looped around it an endless line which extends through the frame at the other end of the main body portion of the arm, the said substantially identical frames being interchangeably adapted for journaling in said socket, with the other frame mounting the pulley, whereby the device is adapted to be mounted in upright position on either side of a window opening.

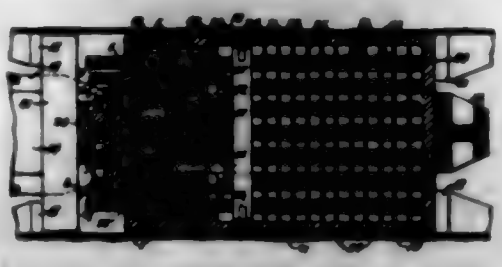
2,841,291
SPIRAL BINDERY TABLE
Frances Warren Adams, Carbondale, Ill.
Application November 8, 1955, Serial No. 545,636
2 Claims. (Cl. 211—134)

1. In a device of the kind described, a base, a jogging platform, supported by said base, and a rotary folio carrier mounted centrally of and projecting upwardly from said platform, said base consisting of a cylindrical member and said platform consisting of arcuately segmental portions surrounding the base and supported therefrom, the support for said segmental platform portions consisting of T-members having their webs interposed between adjacent segments and the edges of the



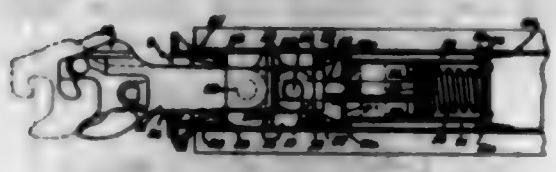
segments resting on the flanges of the T-members, said T-members extending over the top edges of the cylindrical base and down against the inside thereof, said segments and the base being secured to the T-members by clips straddling the flanges of the T-member and having terminal portions connected respectively to said segments and the base.

2,841,292
HIGH CAPACITY DRAFT GEAR WITH FRICTION AND RUBBER SPRING CUSHIONING ELEMENTS
David S. Campbell, Glen Ellyn, Ill., assignor to Cardwell Westinghouse Company, a corporation of Delaware
Application October 28, 1953, Serial No. 388,788
5 Claims. (Cl. 213—32)



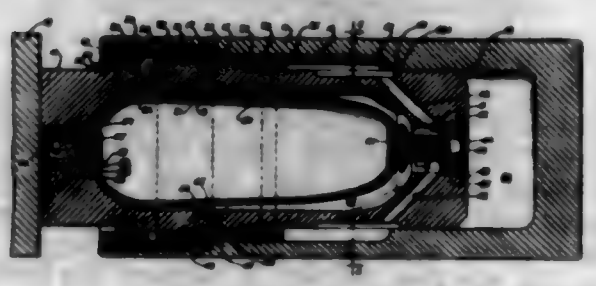
1. In a draft gear for mounting in the draft pocket of a railway car, said pocket having front and rear stops: a housing having laterally spaced opposed friction surfaces therein; and a cushioning mechanism supported within said housing to react between said front and rear stops and comprising a cushioning unit of the rubber spring type, and an energy absorbing friction cushioning element mounted in tandem with said cushioning unit for series action therewith and including a front wedge, a rear wedge longitudinally spaced from said front wedge and urged toward said front wedge by said cushioning unit, and laterally spaced wedge shoes positioned between and coacting with said front and rear wedges and having outwardly facing friction surfaces cooperating with said opposed friction surfaces, there being at least one friction surface on each wedge, said friction cushioning element being actuated by relative movement between said front wedge and said housing to translate at least a portion of the longitudinal forces applied to the gear into lateral forces to develop friction at said opposed friction surfaces; and resilient means reacting between the front wedge and said cushioning unit and urging the front wedge longitudinally away from said cushioning unit toward full release position for said friction cushioning element, whereby upon release of the gear the recoil energy is partially absorbed by said friction cushioning element, after which said last-mentioned resilient means releases said friction cushioning element.

2,841,293
RAILROAD CAR CUSHIONING MECHANISM
Oliver Eugene Spencer, Newton, Kans.
Application June 15, 1954, Serial No. 436,906
9 Claims. (Cl. 213—43)



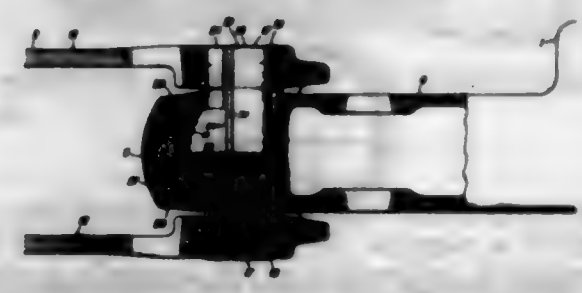
3. In a railroad car draft gear, a coupler having a pivotal draw bar, a housing, attachable to the underside of a car, into an open end of which said bar extends for pivotal support therein and which bar is longitudinally movable in the housing in response to pressure on the coupler, a cylinder of fluid extending longitudinally in and away from the open end of said housing, a piston in and movable lengthwise of said cylinder and having a metering orifice through which dampening fluid can flow from one side of the piston to the other in said cylinder, a piston rod secured at one end to said piston in said cylinder and having its other and outer end projecting to the exterior of the cylinder in and toward the open end of said housing, a pivotal connection between said outer rod end and the end of the draw bar in said housing, said connection including a block slidably disposed in said housing, a resilient buffer fixed in said housing between said pivotal connection and an adjoining end of said cylinder, and a second resilient buffer secured in housing between its open end and said pivotal connection, said block being slidable into engagement with said second buffer against the dampening action of said fluid upon a pulling force being exerted on said coupler and being slidable into engagement with said first buffer against the dampening action of said fluid upon an impact force being applied to said coupler.

2,841,294
HYDRAULIC DRAFT GEARS
Thor O. Henriksen and Roland A. Magnuson, Seattle, Wash., assignors to Pacific Car and Foundry Company, Renton, Wash.
Application June 4, 1956, Serial No. 589,040
6 Claims. (Cl. 213—43)



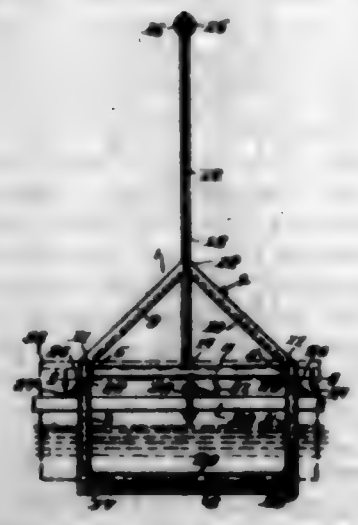
1. In a hydraulic draft gear comprising a piston and cylinder assembled for relative axial movement and defining a hydraulic fluid-confining chamber, an expansible hydraulic fluid reservoir formed in said piston, and throttling passageways interconnecting said chamber and said reservoir; the combination of an annular impervious flexible fluid seal affixed to said piston and to said cylinder and forming a fluid-filled enclosure in cooperation therewith, and passages interconnecting said enclosure with said reservoir, such that variation in the volume of said enclosure, consequent upon said relative axial movement of said piston and said cylinder, will be accompanied by a compensating fluid transfer between said fluid enclosure and said reservoir through said passages.

2,841,295
UNIVERSAL COUPLER AND YOKE CONNECTION
Emil H. Blattner, Williamsville, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application January 18, 1957, Serial No. 635,824
7 Claims. (Cl. 213—72)



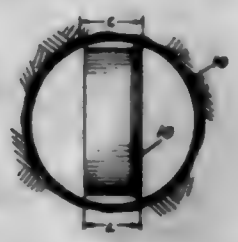
1. In a universal coupler and yoke connection, the combination with a coupler and a yoke, of a connecting pin extending through a vertically directed aperture in a butt portion of said coupler and having its ends rotatably received in openings in arms of said yoke embracing said butt portion, and a protuberance integral with and extending rearwardly from a rear part of said pin, said protuberance having a cylindrically convex surface struck about a substantially horizontal axis extending transversely of said butt portion and interfitting and coaxial with a cylindrically concave recess in said butt portion and opening forwardly onto said aperture.

2,841,296
APPARATUS FOR RAISING AND LAUNCHING BOATS
Walter L. Crews, Spencer, Iowa
Application March 23, 1954, Serial No. 418,097
4 Claims. (Cl. 214—1)



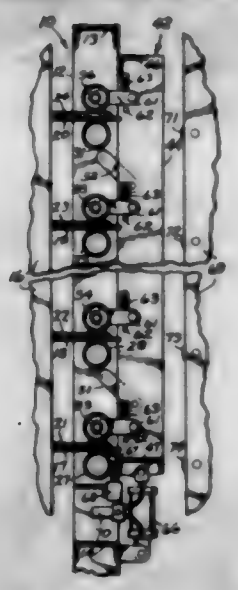
1. In combination, a pier having a top surface and an outboard end, a pair of laterally spaced horizontal mounting arms resting upon said top surface, said mounting arms having inboard ends pivotally secured to the pier to swing on vertical axes crosswise of the top surface of the pier and free outboard ends normally projecting outboardly beyond the outboard end of the pier, horizontal trunnions on and projecting laterally inwardly from the outboard ends of the mounting arms, and a normally vertical boat supporting frame normally positioned outboardly from the outboard end of the pier, said frame having vertical side members having inboard sides, and vertically spaced inboardly declining notches in said side members opening through the inboard sides thereof, said trunnions being laterally engaged in selected notches.

2,841,297
METHOD OF AND APPARATUS FOR CONSTRUCTING TUNNELS
Edward P. Washabaugh, Saginaw, Mich., assignor to American-Marietta Company, Chicago, Ill., a corporation of Illinois
Application September 13, 1954, Serial No. 455,495
16 Claims. (Cl. 214—1)



1. Tunnel section supporting and positioning apparatus for the purpose described comprising, in combination: a wheeled vehicle, tunnel section supporting mechanism mounted upon the vehicle and projecting forwardly thereof and exhibiting at the outer end radially extending tunnel section engaging and supporting means adapted to engage and support interiorly a deformable tunnel section, said means being journaled upon the mechanism for rotation relative thereto to permit rotation of the section while supported upon the mechanism and being extensible and retractable along a radial axis to deform the tunnel section carried by said means.

2,841,298
ADVANCING MECHANISM
Paul R. Walsh and George D. Mohr, Eugene, Oreg., assignors to Clear Fir Products Co. Inc., Springfield, Oreg., a corporation of Oregon
Application November 19, 1956, Serial No. 623,248
5 Claims. (Cl. 214—16.6)



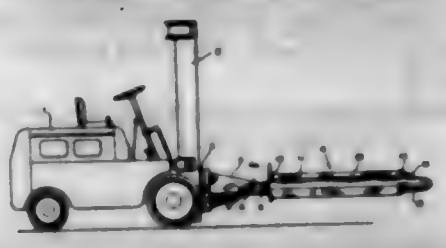
1. In the manufacture of sheet material by compressing matter in a press, apparatus for advancing a body of sheet material along a path from the press comprising a first roll member extending transversely of said path adapted to engage one side of said body, means rotatably supporting the ends of said first roll member, a second roll member radially spaced from said first roll member adapted to engage the other side of said body, a frame movable in a direction generally intersecting said path, mounting means carried by said frame rotatably supporting the ends of said second roll member, means actuated when said body passes adjacent said first roll member whereby said frame is moved relative to said path so that said first and second roll members engage opposite sides of said body as it advances in said path, biasing means operatively interposed between said frame and mounting means for yieldingly holding said second roll member against said body when said second roll member engages said body, and drive means for rotating one of said roll members.

2,841,299
LOADER MECHANISM
Ernest J. Gildner, Cheboygan, Mich.
Application July 13, 1955, Serial No. 521,803
8 Claims. (Cl. 214—140)



4. In a vehicle loader attachment for a mobile frame; a loader mounting bracket for mounting on each side of said frame; a loader assembly including a pair of spaced apart arms and a bucket hingedly carried by said arms near their front ends; the rear ends of said arms being pivotally connected to said mounting brackets; at least one extensible, fluid pressure, lift cylinder disposed in a vertical plane out of the vertical planes of said arms pivotally connected to one of said mounting brackets at a spaced distance above the connection of said arms, and to said assembly near the front ends of said arms for swinging said arms through an arc of substantially 180°, the cylinder having a piston rod assembly in extended position when the arms are swung down so that the bucket is near ground level; and at least one extensible fluid pressure tilt cylinder supported by said arms and connected to the bucket at a point offset from the hinged connection thereof for tilting said bucket.

2,841,300
METHOD OF AND MEANS FOR HANDLING COILS OF WIRE
Leonard G. Berquist, Niles, Mich., assignor, by mesne assignments, to Clark Equipment Company, Buchanan, Mich., a corporation of Michigan
Application March 5, 1956, Serial No. 569,430
4 Claims. (Cl. 214—620)

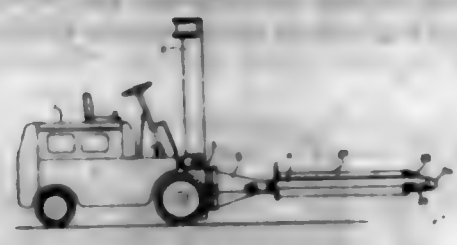


1. A method of handling a group of wire coils with a lift truck having an upwardly and downwardly movable carriage provided with a ram, which comprises the steps of positioning a group of coils of wire in side-by-side relationship with their axes aligned in a horizontal plane, engaging the ram in the openings in the group of coils, elevating the movable carriage to suspend the group of coils on the ram with their aligned axes in a vertical plane, transporting the group of coils so suspended to a work station, and lowering the movable carriage to lower the group of coils at the work station to a position where the uppermost coil of the group of coils is disposed below the horizontal plane in which the axes of the coils initially laid.

2,841,301
COIL HANDLING DEVICE
Fred Sherriff, Hickory Corners, Mich., assignor to Clark Equipment Company, Buchanan, Mich., a corporation of Michigan
Application March 6, 1956, Serial No. 569,843
8 Claims. (Cl. 214—620)

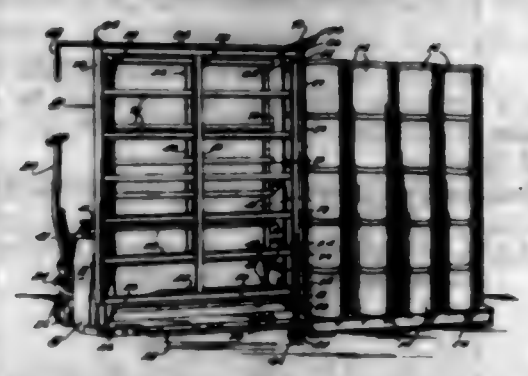
1. For use with an industrial truck having an upwardly and downwardly movable lift carriage, of ram means

comprising in combination a tube pivoted at one end to said lift carriage, means operative to normally maintain said ram means in a horizontal position to engage a plurality of coils arranged in side by side relationship with their axes in a horizontal plane, said means being operable to permit said ram means to assume a vertical dependent position with respect to said lift carriage



upon upward movement of the latter, a plurality of circumferentially spaced ribs pivoted at one end to said tube adjacent the pivotal connection of said tube with said lift carriage, a shoe pivoted to the opposite end of each of said ribs, and means operative to swing said ribs and said shoes outwardly about their pivots relative to the tube.

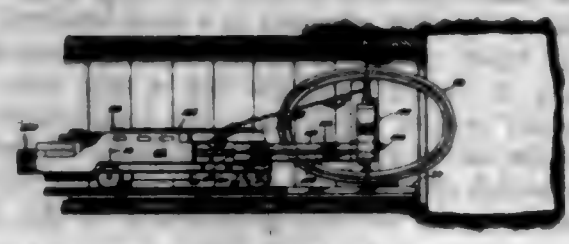
2,841,302
INDUSTRIAL TRUCK ATTACHMENT
Albert Reisman and Howard Reisman, Philadelphia, Pa.
Application September 6, 1956, Serial No. 608,256
7 Claims. (Cl. 214—621)



1. An attachment for a fork-type industrial truck for facilitating the transportation of articles freely resting in contact with other in an array on a pallet, said attachment comprising an enclosure secured to the front end of said truck, said enclosure having side walls spaced apart a distance slightly greater than the lateral distance across said array for intimately confining said articles in said array during transportation of said pallet, said front end of said enclosure being open and unobstructed for insertion of said array when said truck is engaged with said pallet, gate means being mounted adjacent the front end of said enclosure for longitudinally confining said array therewithin, and operating means being associated with said gate means for moving said gate means clear of said open end to permit insertion of said array and for interposing said gate means into the path of movement of said array after said array is inserted within said enclosure.

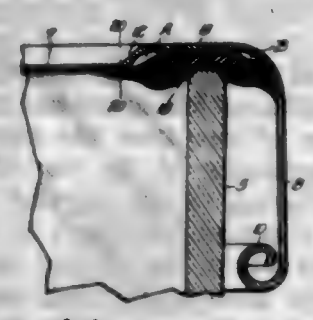
2,841,303
APPARATUS FOR CONSTRUCTING TUNNELS
Edward P. Washabaugh, Saginaw, Mich., assignor to American-Marietta Company, Chicago, Ill., a corporation of Illinois
Application May 29, 1957, Serial No. 662,310
27 Claims. (Cl. 214—652)

5. Tunnel ring section supporting and positioning apparatus comprising, in combination, a wheeled vehicle, a boom mounted on the vehicle and projecting forwardly thereof and supported for movement relative to the vehicle, a pair of radially extending tunnel section carrying arms journaled on the free end of the boom for rotation relative to the boom about both horizontal and vertical axes, and the free ends of said arms exhibiting tunnel ring section engaging devices adapted to internally engage and support a tunnel ring on the boom forwardly



of the vehicle for rotation about said horizontal and vertical axes.

2,841,304
CLOSURE CAP FOR GLASS CONTAINERS
Donald H. Zipper, Elmhurst, Ill., assignor to White Cap Company, Chicago, Ill., a corporation of Delaware
Application July 8, 1955, Serial No. 520,881
3 Claims. (Cl. 215—40)

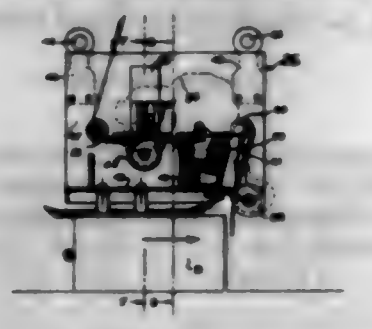


1. A closure cap of the top seal type for use in establishing and maintaining a hermetic seal on a glass container of the type in which the upper edge only of the rim of the container constitutes the hermetic sealing finish; said cap comprising a cup-shaped shell which is lined with enamel and is characterized by a generally flat top panel portion and a depending skirt portion, and an annular sealing gasket within the outer section only of the shell adjacent the skirt portion of the latter for sealingly embedded engagement with the sealing finish on the upper edge of the rim of the container when the cap is drawn down on the container; the top panel portion of the shell being provided at a point spaced inwardly from the position occupied by the inner edge of the sealing finish on the rim of the container with an abruptly inclined annular shoulder, which shoulder forms the inner wall of a relatively wide and shallow annular channel; said gasket being formed of a vinyl-base plastisol which is adherently compatible with the enamel lining of the shell and which is flowed into said channel and fluxed in place therein, and said gasket having a relatively thick annular deformable finish-engaging portion which fills said channel substantially flush with the inwardly adjoining surface of the top panel portion of the shell, and having an abruptly reduced relatively thin annular film-like anchoring portion, which relatively thin anchoring portion is integrally connected with the relatively thick finish-engaging portion across the shoulder in firmly adherent contact with the top panel portion of the shell throughout an annular zone of appreciable width of the top panel portion, which zone is located between the shoulder and the exposed center section of the shell, the thickness of said annular anchoring portion being but a small fraction of the thickness of said annular finish-engaging portion.

2,841,305
AUTOMATIC TAPING MECHANISMS
Arnold J. Werner, Elm Grove, Wis., assignor to Wanner Iron Works, Milwaukee, Wis., a corporation of Wisconsin
Application March 5, 1956, Serial No. 569,615
2 Claims. (Cl. 216—29)

1. In a taping machine having a conveyor for continuously moving a succession of cartons longitudinally

through the machine and having a tape supply roll; an electric motor operated unitary tape strip dispensing and severing mechanism mounted at a fixed location over the path of travel of the conveyor; said mechanism being operative to extend from the roll a tape strip of predetermined greater length than the longitudinal dimension of the carton and direct it lengthwise of the moving carton; switch means for said motor operated mechanism controlled by the forward progression by the conveyor



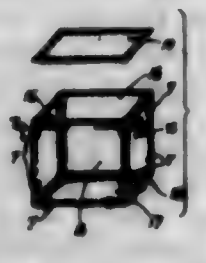
of a carton to be taped, said tape strip dispensing and severing mechanism including means for pulling a predetermined extent of tape from the supply roll and positioning it longitudinally of the top of the carton for progressive application to the top and the front end of the carton while it is being advanced by the conveyor and finally to the rear end of the carton; said mechanism including means for severing the tape strip in a predetermined length before it is completely directed to the carton and applied to the rear end thereof.

2,841,366

PACKAGING DEVICES

Paul Vitoux, Paris, France, assignor to Societe dite: Comptoir Lindar, Paris, France, a corporation of the French Republic

Application March 30, 1954, Serial No. 419,868
4 Claims. (Cl. 229—7)



1. A cubic packing case adapted to be collapsed without complete disassembly and to be disassembled when not in use, comprising a plurality of square panels each forming one wall of the case, each panel being formed from a sheet of flexible material provided with hems defining elongated substantially rectilinear pockets along each edge thereof, elongated flexible rod-like filler elements disposed in said pockets and extending substantially the length of each pocket, and detachable U-shaped clips engaging over portions of the pockets and the contained filler elements in the pockets of adjacent panels when said panels are placed in edge to edge relationship with one another.

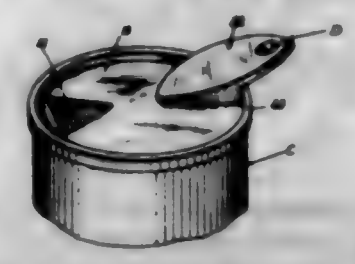
2,841,367

CLOSURE DEVICE

Florence S. Yoder, Long Beach, Calif.

Application November 1, 1956, Serial No. 619,796
1 Claim. (Cl. 220—24)

A re-usable closure device for temporarily sealing a generally triangular aperture formed in the top of a cylindrical container radially inwardly from the top seam of said container, compriaing: a wedge-shaped plug having a pair of walls joined at their front ends and interconnected at their rear ends by a third wall, the outwardly-facing surfaces of said walls tapering downwardly and inwardly from their upper ends and the inner surfaces of said walls being vertical so as to define a cavity, said plug being formed of a yieldable, form-retaining material whereby said walls will remain frictionally retained within said aperture after being downwardly inserted therein; a top piece integrally formed on the upper portion of said plug, said top piece including a portion formed with a downwardly-facing shoulder that encompasses the upper ends of said walls so as to seat on the portion of said can



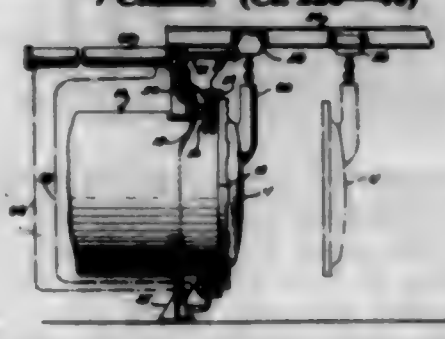
top adjacent said aperture and a rear surface extending vertically upwardly from said shoulder and being formed with an arc corresponding generally to the curvature of said top seam; and a lifting tab integrally formed on said top piece and extending rearwardly and upwardly from the rear of said top piece, said lifting tab extending outwardly relative to said can when said plug is arranged within said aperture with the underside of said lifting tab clearing said top seam.

2,841,368

PRESSURE VESSEL CLOSURE

Frederic C. Welcker, Moline, Ill., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware

Application December 23, 1954, Serial No. 477,322
7 Claims. (Cl. 220—46)



6. In a cylindrical pressure vessel having a door for closing an open end thereof, and a locking ring mounted on said vessel, said door and ring having interengageable lugs with cooperating cam means, said ring being rotatable relative to said door for locking said door on said vessel when rotated in one direction and unlocking said door when rotated in the opposite direction, the combination including fluid operated motor means connected to said ring for rotating the ring relative to said door, fluid pressure supply means, a main control valve connected to said motor means and said fluid pressure supply so that said motor means can be operated selectively in locking and unlocking direction, and safety interlock fluid pressure responsive means communicating with the interior of said vessel and connected to said fluid pressure supply means, said fluid responsive means relieving operating pressure to said fluid operated motor means when actuated in an unlocking direction when the pressure in said vessel is above a predetermined value.

2,841,369

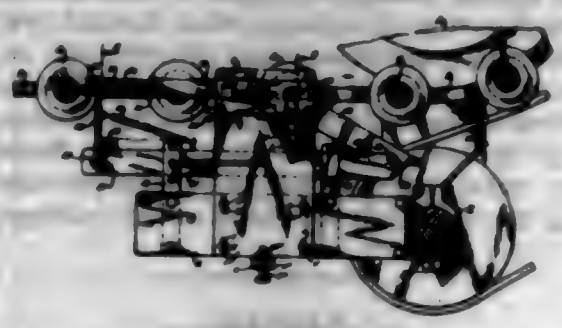
BUTTON BLANK FEEDER

Joseph C. Worst, Muscatine, Iowa

Application October 25, 1955, Serial No. 542,587
16 Claims. (Cl. 221—236)

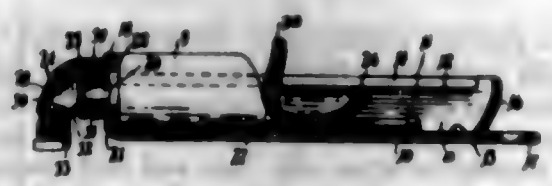
11. A button feeding mechanism comprising a feed plate having a slot therein in its side; a pair of spaced

strips on said plate at opposite sides of said slot; a feed finger reciprocably mounted on said plate between said pair of strips, said finger having a recess in its side adapted to receive a button blank; an inclined button blank feeding chute having its lower end secured on said plate and adapted to feed blanks successively into the recess of said finger; a travel arm reciprocably carried by said plate; a pivot arm mounted at the leading end of said travel arm; yieldable means for normally swinging the pivot arm outwardly of said travel arm; a fixed dog



carried by said plate adapted to engage said pivot arm at the outward limit of travel of the travel arm and to swing the pivot arm towards the travel arm; spring means for retracting the travel arm to normal position; to engage the next successive chuck; and a second pivot arm on the trailing end of said travel arm yieldably connected with said feed finger for reciprocating the latter by and with the travel arm, said yieldable connection permitting the feed finger to remain inoperative in event of jamming of blanks at the feeding finger.

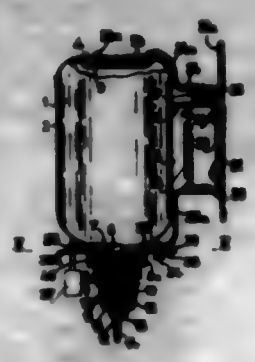
2,841,310
DISPENSING DEVICE FOR COLLAPSIBLE TUBES
Heinz H. Gruber, Toronto, Ontario, Canada
Application March 18, 1955, Serial No. 495,231
5 Claims. (Cl. 222—103)



1. A dispenser for a collapsible tube, comprising a channel-shaped body having side walls with upper edges and being receptive to the tube, inturned lips provided on said side walls to extend along the same at said upper edges, a squeezing device fitted freely in the channel of said body and having a front end and a rear end, said front end being curved to present a tube abutment face, and said rear end having aligned trunnions projecting outwardly from the sides of the squeezing device and engaged under said lips to enable the squeezing device to be swung downwardly on the tube with a compressing action and to be moved along the body for progressively compressing the tube.

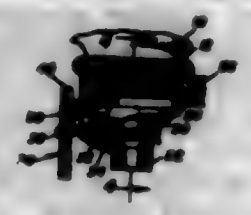
2,841,311
SOAP DISPENSER
Ferdinand Parizek, Vienna, Austria, assignor of one-half to Walter Ritt, Vienna, Austria
Application November 8, 1955, Serial No. 545,703
4 Claims. (Cl. 222—181)

1. A soap dispenser which comprises an inverted bottle having at least one flat side face, a bottom, and a bottleneck and adapted to contain liquid soap, a dispensing member carried by said bottleneck and operable to dispense batches of liquid soap from said bottle, and a U-shaped bracket adapted to be affixed to a wall and including a rigid lower limb receiving the bottleneck, an upper limb resiliently bearing on the bottom of the bottle, a straight web shorter than and connecting said limbs, and two lugs disposed close to the upper limb,



said web and lugs being formed and arranged to space the bottle from said wall.

2,841,312
DISPENSING HOPPER WITH IMPROVED VALVE
Pablo Duarte Bello, Vedado, Havana, Cuba
Application March 2, 1956, Serial No. 569,123
1 Claim. (Cl. 222—181)

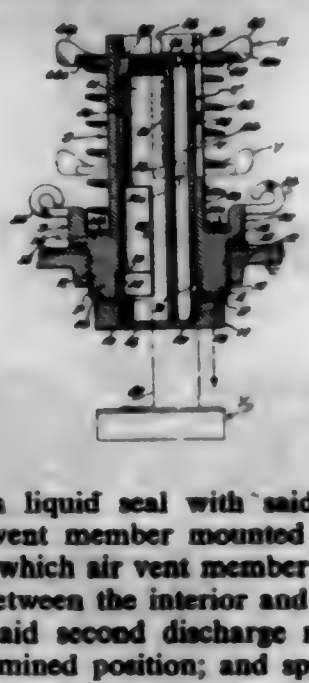


For use in conjunction with a container having a screw-threaded neck, a dispensing-type screw cap attachable to said neck and having a body portion provided with bearings and a concavo-convex domical portion defining a hopper, said domical portion being centrally apertured and having a registering pouring neck, and also having an exteriorly positioned segmental member having a vertical surface formed with spaced stop shoulders, a shaft mounted for oscillation in said bearings, a portion of said shaft spanning the passage in said neck, an agitating valve located in the passage in said neck and fixed to said shaft, and a hand-grip carried by one end of said shaft and having an inward vertical face opposed in spaced parallelism to the complemental vertical surface of said segmental member and provided with a single eccentrically positioned outstanding check-lug swingable back and forth in the space between and selectively engageable with said shoulders, the portion of said neck where it merges with the bottom of said hopper provided with a pocket-like recess communicatively alined with said passage in which the blades of the valve are confined for operation, and said body portion being provided at a place diametrically opposite to said hand wheel with means whereby said body portion may be bracketed on a wall or an equivalent fixed support member.

2,841,313
SELF VENTING DISPENSING SPOUT
Richard W. Beall, Jr., Hermosa Beach, Calif.
Application March 10, 1955, Serial No. 493,529
8 Claims. (Cl. 222—479)

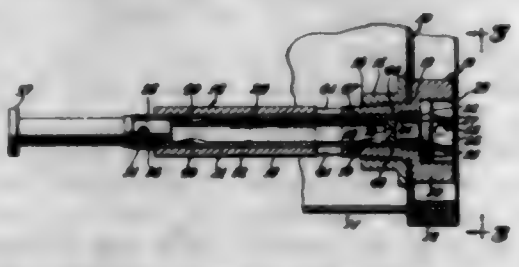
1. An automatic sealing and self-venting device for use on a container to dispense liquid therefrom including: a first tubular liquid discharge member that has a plurality of circumferentially spaced longitudinally extending slots formed therein which terminate in transverse slot extensions; a mounting member for maintaining said first means in a liquid dischargeable position with said container interior; a second tubular liquid discharge member longitudinally movable in said first discharge member; liquid sealing means mounted on said second member, which sealing means is adapted to effect a liquid-tight seal with said first member when said second member

occupies a first predetermined position relative to said first member; a plurality of circumferentially spaced transversely disposed arms mounted on said first member that are movably mounted in said slots and slot extensions, with said arms being capable of partial rotation to engage said extensions and maintain said second member at a second predetermined position where said sealing means



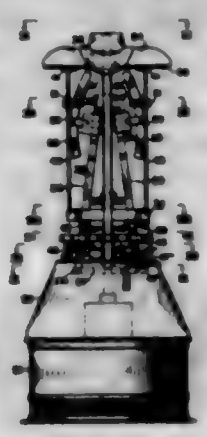
does not effect a liquid seal with said first discharge member; an air vent member mounted on said second discharge means, which air vent member only establishes communication between the interior and exterior of said container when said second discharge means is not in said first predetermined position; and spring means that at all times tend to maintain said second discharge means in said first predetermined position.

2,841,314
FAUCET
Gilbert M. Munson, Sacramento, and Philip R. Gentler, Los Angeles, Calif.
Application March 1, 1954, Serial No. 413,974
1 Claim. (Cl. 222—519)



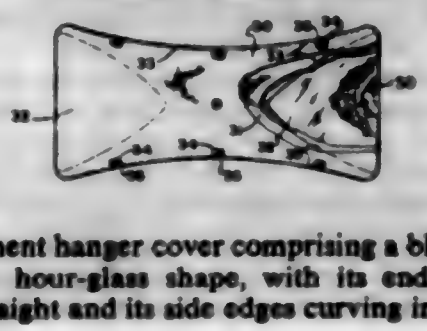
A faucet for withdrawing liquid from a container comprising: a cylindrical body having a head end and a tail end, the body having a main bore extending axially therethrough and defining an inside wall of the body, an internally threaded counterbore of larger diameter than the main bore coaxial with the main bore and adjacent the head end of the body, said counterbore having an inner end adjacent the main bore, said inner end being chamfered and providing a shoulder at said inner end facing toward the axis of the main bore, means externally of the body and adjacent the head end thereof for securing the faucet in a wall of the container with the tail end of the body arranged internally of the container, the body having an aperture formed therein spaced rearwardly of said faucet securing means, a cylindrical stem having a forward end and a rearward end and closely fitting in the main bore and being rotatable and axially slidable in the main bore from a faucet closed position to a liquid discharge position in which the forward end of the stem extends outwardly from the head end of the body, the forward end of the stem being externally threaded to engage the threads of the counterbore, an axially directed passageway in the stem having a closed forward end and a closed rearward end, a radially directed discharge opening in the stem communicating with the forward end of the passageway and being exposed when the stem is in its extended position, a radially directed inlet opening in the stem communicating with the rearward end of the passageway and registrable with said aperture when the stem is in its extended position, stop means limiting outward movement of the stem from the body beyond the place where said aperture and stem inlet opening are in registry, an annular groove around the stem in a transverse plane between the inner end of threads on the stem and the discharge opening, an annular sealing ring in the groove and engageable with said inside wall for sealing the faucet when in faucet closed position against leakage of liquid around the stem, said inside wall having an annular recess formed therein and disposed in a transverse plane substantially normal to the axis of the main bore, said transverse plane being disposed intermediate said aperture and the position of said discharge opening when the stem is in its faucet-closed position, and a sealing ring in said recess providing a seal between the stem and the body at all positions of the stem.

2,841,315
SWEATER PRESSING AND FINISHING MACHINE
August F. Paris, Brockway, Pa.
Application June 1, 1956, Serial No. 586,838
12 Claims. (Cl. 223—70)



1. In a garment pressing and finishing machine a base; a vertically extending center post supported on said base; a shoulder-engaging garment support member mounted on said post and spaced from and located above said base; a frame located between said base and said member and comprising a front frame part and a rear frame part spaced from said front frame part; a separate permeable shield secured to each frame part and spaced one from the other; oppositely disposed garment-engaging expansion elements each located between said base and said member, each extending longitudinally of said post, pivotally supported on said frame and movable back and forth between said shields; a separate pivotally mounted actuating arm pivotally secured to each of said elements; and means for simultaneously swinging said arms to move said elements into and out of engagement with a garment positioned on said support member and enveloping said shields.

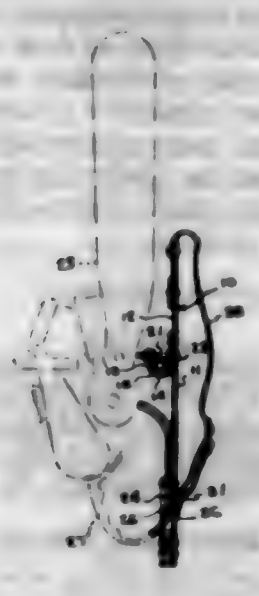
2,841,316
GARMENT HANGER COVER
Theresa M. Johnson, Beverly Hills, Calif.
Application November 15, 1954, Serial No. 468,610
6 Claims. (Cl. 223—98)



1. A garment hanger cover comprising a blank having a substantially hour-glass shape, with its ends being substantially straight and its side edges curving inwardly from

said ends to provide the narrow portion adjacent the longitudinal center of the blank, said blank comprising two outer layers of textile material, a pad disposed between said layers, a pair of inserts comprising substantially triangular pieces of plastic, one of said inserts being disposed within each end of said pad, with the bases of the triangles extending along the ends of the pad and the apices of the triangles pointing toward the center of the pad, said inserts being held in position by triangular stitching extending into said pad, said outer layers being stitched together around the edges of said blank, said blank having an opening therethrough, said cover adapted to be attached to a hanger so that the hook of the hanger extends through said opening, the opposite sides of said blank adapted to be attached to each other so that the upper part of opposite halves of said cover on the opposite sides of said hook extend parallel to the arms of the hanger and said plastic inserts cause said halves to flare outwardly toward the ends of said cover to provide shoulder support for a garment mounted on the hanger.

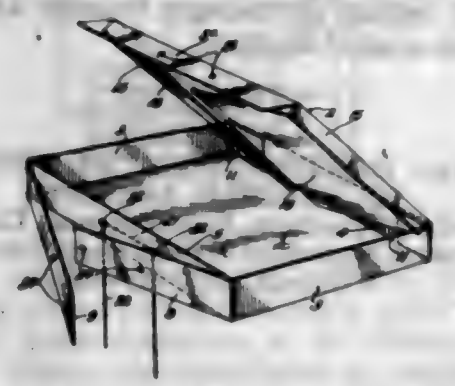
2,841,317
CARRIER FOR CHAIN SAWS
Oscar N. Elden, Stockton Springs, Maine
Application June 6, 1957, Serial No. 663,963
3 Claims. (Cl. 224—5)



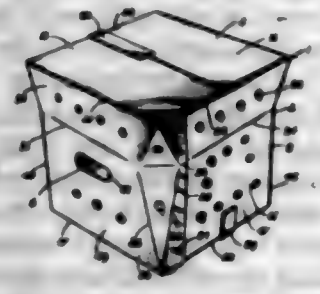
1. A carrier for chain saws comprising a support board, strap members for suspending said board from the shoulders of a woodsman, a pair of upwardly opening hanger members adjacent one end of said board and secured thereto adapted to receive a cross bar of the saw therebetween, and an upwardly opening offset pocket at the other end of said board said pocket having a front wall, said front wall having a vertically disposed opening for receiving a portion of the handle of the saw.

2,841,318
FOLDING BOX CONSTRUCTION
Mary Elizabeth Fraech, Columbus, Ohio
Application June 7, 1956, Serial No. 589,961
1 Claim. (Cl. 229—33)

A foldable paperboard box of integral one piece construction comprising a base section composed of a flat rectangular bottom wall, opposed side walls, a front wall and a back wall, said side, front and back walls being foldably connected along fold lines with said bottom wall and extending upwardly in perpendicular relation thereto, said side walls being formed at each end thereof with hingedly connected front and rear extension flaps folded inwardly in overlying relation to the front and back walls respectively of said base section, the front extension flaps of said side walls being of a length to completely overlap the front wall of said base section and to partially overlap one another; a closure section composed of a flat, rectangular top wall of substantially the same area as said bottom wall foldably carried by the back wall of said base section for free hinging movement with respect thereto, opposed, downturned side-forming webs hingedly joined with the side edges of said top wall and terminating in a pair of relatively elongated downwardly extending article-engaging wings, and a downturned, front wall flap hingedly connected with the edge of said top wall opposite the back wall of said base section, said closure section being arranged upon closure of the box to telescope within said base section with the side-forming webs of said closure section lying adjacent to and enclosed by the side walls of said base section and with the front wall flap of said closure section telescoped between the front wall and the front extension flaps of the side walls of said base section, the front flap of said closure section and the front wall and front extension flaps of said base section being formed with relatively registrable openings for the reception of a flexible tie; and a flexible tie member extending through said openings and securing said closure section in closed relation to said base section.



2,841,319
SHIPPING CONTAINER FOR PRODUCE
Roger L. White and Richard C. Miller, Lawrence, Kans., and Lewis E. Young, Salt Lake City, Utah, assignors to The Lawrence Paper Company, Lawrence, Kans., a corporation of Kansas
Application July 18, 1955, Serial No. 522,562
3 Claims. (Cl. 229—37)



1. A shipping container for fruit and garden produce formed of foldable paper board, said container having a plurality of connected side walls wherein opposed side walls have parallel upper portions disposed in parallel planes and inwardly and downwardly inclined lower portions, a score line defining the juncture of the upper and lower portions of each side wall, the upper ends of the upper portions of the side walls collectively defining the upper opening of the container, and the lower ends of the lower portions of the side walls collectively defining the bottom opening of the container, the upper and bottom openings each being of rectangular cross section with the area of the upper opening being greater than the area of the bottom opening, corner panels connecting the adjacent side walls throughout their height, said corner panels each being defined by pairs of score lines diverging from the lower ends of the side walls to the score lines defining the juncture of the upper and lower portions of the adjacent side walls and then converging

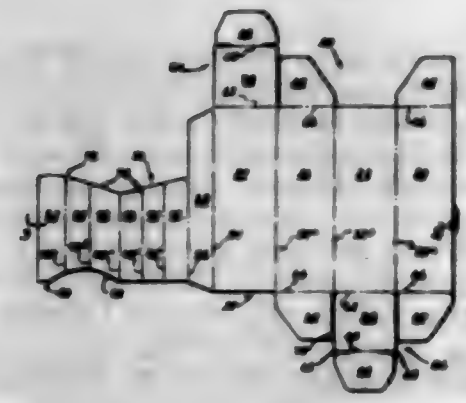
to the upper ends of the side walls, closure flaps hingedly connected to the lower ends of the side walls for closing the bottom opening of the container, and closure flaps hingedly connected to the upper ends of the side walls for closing the upper opening of the container, said side walls having a plurality of mutually spaced apertures therein, said upper parallel portions of the container being of suitable height whereby said container is characterized by the parallel portions of the side walls providing bearing surfaces between adjoining containers and the inclined lower portions and corner panels providing horizontal and vertical air passages between adjoining containers when stacked together.

2,841,320

INTEGRAL CARTONS FOR THE PROTECTION OF FRAGILE ARTICLES

John F. Curtiven, East Hampton, Conn.

Application September 9, 1953, Serial No. 379,180
5 Claims. (Cl. 229—39)



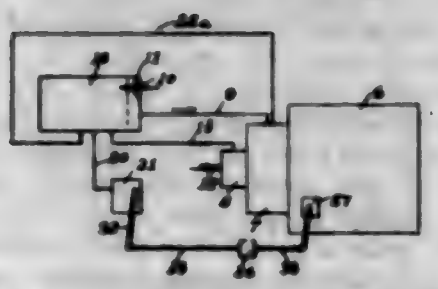
1. A collapsible carton of substantially rectangular cross-section for the protective containment of fragile articles consisting of a single blank having first, second, third and fourth side wall panels separated by fold lines and angularly related in the erected carton, at least two end closure flaps having foldable extensions, said end closure flaps extending integrally from the ends of certain of said first, second and fourth side wall panels only, additional end closure flaps extending integrally from the opposite ends of two of the side wall panels which are opposed in the erected carton and, in the erected carton, are immediately adjacent the panels to which said first mentioned end closure flaps are attached, said end closure flaps being adapted to provide end walls of the erected closed carton, a glue lap panel extending from said fourth side wall panel and adapted to be overlapped by said first side wall panel and be rigidly secured thereto, said glue lap panel being of substantially less width than said first side wall panel, and an internal flap terminating in a free edge and extending inwardly from said glue lap intermediate the edges of said first side wall panel, said internal flap consisting of a plurality of elongate panels foldably related on fold lines parallel to the axis of the erected carton and adapted to substantially envelop an article placed in the carton, the total width of said panels on each side of one of said fold lines being greater than the diagonal of the erected carton and less than the width of two adjacent side wall panels whereby said inner flap will fold flat on said one fold line when said carton is folded on the fold lines between said first and fourth and said second and third side wall panels, and the width of portion of said internal flap between said free edge and said one fold line being such that said portion of said flap slidably contacts the inner surface of said third side wall section and said free edge slidably contacts said fourth side wall panel on a line substantially spaced from a fold line between said fourth side wall panel and said glue lap when said carton is erected and loaded.

2,841,321

MEANS FOR CONTROLLING AN ENGINE-DRIVEN GAS COMPRESSOR

Guy Baron Boyce, Shenstone, England, assignor to The Hydrovane Compressor Company Limited, Walsall, England

Application October 28, 1954, Serial No. 464,463
Claims priority, application Great Britain November 4, 1953
4 Claims. (Cl. 230—9)



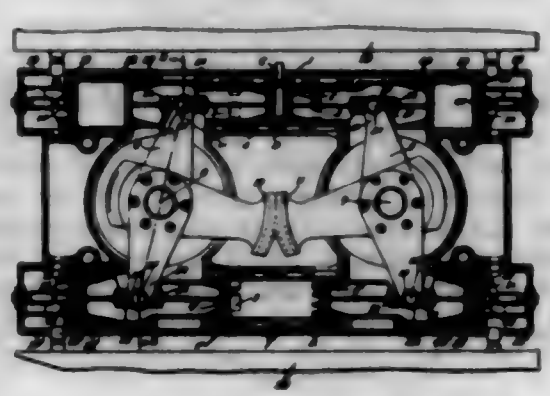
1. Means for controlling the action of an engine-driven air or other gas compressor of the kind in which a rotor mounted in a working chamber is provided with radial vanes which are sealable by oil supplied under pressure to the working chamber from a separator receiving oil-laden air from the compressor, comprising in combination an oil accumulating chamber, a passage for conducting oil under pressure from the separator to the accumulating chamber, a spring-loaded throttle arranged in said passage for controlling oil flow to the accumulating chamber, an engine controlling mechanism having an actuating member responsive to fluid pressure, and means interconnecting said accumulating chamber and said actuating member for subjecting the actuating member to a fluid pressure which varies with the oil pressure in the accumulating chamber.

2,841,322

STARTING AND REGULATING APPARATUS FOR FREE-PISTON COMPRESSORS

Erich A. Wachsmuth, Michigan City, Ind.

Continuation of application Serial No. 285,472, May 1, 1952. This application January 2, 1957, Serial No. 634,398
4 Claims. (Cl. 230—9)



1. In an apparatus for varying the quantity of fluid delivered per stroke by a compressor which includes a reciprocable piston, a cylinder for said piston, said cylinder and piston coacting to form a chamber in which compression of a fluid is effected by relative movement between said cylinder and piston, said cylinder having an inlet valve, a shaft and a connection between said shaft and piston such that they move in given relation to each other, in combination, hydraulically operable expansible chamber mechanism for holding the inlet valve open through a portion of the compression stroke of the piston, a hydraulic impulse giver having means for varying the period during which it displaces fluid, means driven by said shaft for causing said impulse giver to start to deliver its impulse with the compression stroke of said piston, conduit means connecting said impulse giver with

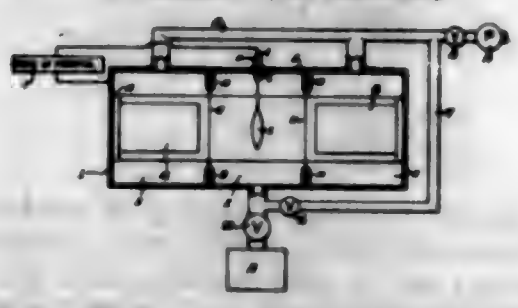
said hydraulically operable expansible chamber mechanism whereby impulses delivered by the former control the operation of the latter, and means governed by compressor discharge pressure controlling said hydraulic impulse giver to adjust the period during which the expansible chamber mechanism is subject to the impulse.

2,841,323
ADSORPTION PUMPING
Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 19, 1954, Serial No. 469,896
6 Claims. (Cl. 230—69)



2. An electronic pump comprising means for providing a gas tight chamber, a gas disposed within said chamber, and adsorbing means disposed within said chamber, said chamber having an inlet and an outlet, one-way valves connected to said inlet and said outlet in a direction to permit a flow through said chamber into said inlet and out of said outlet, means disposed within said chamber for producing a change in the adsorbing characteristics of said adsorbing means, and means for intermittently actuating said change producing means to intermittently increase and decrease the pressure within said chamber to produce a pulsating flow of gas through said chamber.

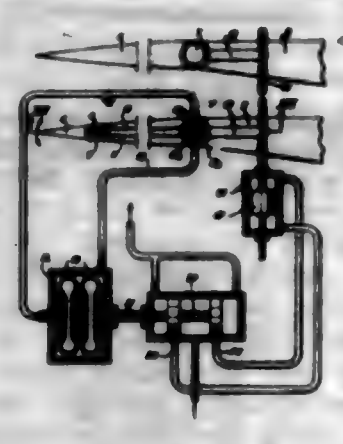
2,841,324
ION VACUUM PUMP
Donald J. Santeler, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application December 30, 1955, Serial No. 556,572
4 Claims. (Cl. 230—69)



1. An ion vacuum pump comprising means defining first and second vacuum chambers maintained at different pressures, solid membrane means separating said chambers, means positioned in the chamber maintained at the lower pressure to ionize gas molecules, means to produce a field within said last chamber to direct said ions toward and into said membrane means to establish a localized gas concentration gradient whereby the gas molecules diffuse through said membrane from the lower to the higher pressure chamber.

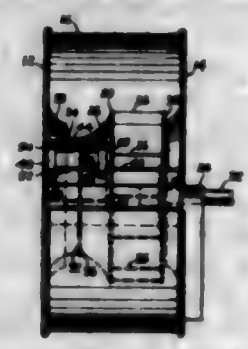
2,841,325
AXIAL COMPRESSORS
Artur Wolse, Ruit über Esslingen, Germany, assignor to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a French company
Application April 29, 1955, Serial No. 504,955
Claims priority, application France May 4, 1954
1 Claim. (Cl. 230—114)

An axial-flow air compressor having a rotor wheel capable of discharging a supersonic flow of air, a diffuser on the discharge side of said wheel, said diffuser comprising a stator ring of supersonic blades having each a stationary rear portion and a pivotal front portion ending with a sharp supersonic leading edge and pivoting about an axis extending substantially at the junction



between said portions, means for adjusting the angular position of the pivotal portions relatively to the stationary portions, and means responsive to the differential pressure on both sides of a pivotal portion for controlling the former-mentioned means.

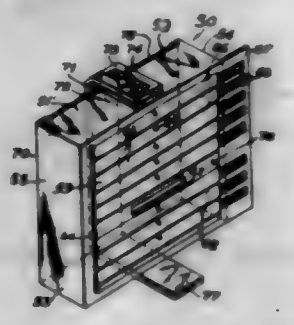
2,841,326
CENTRIFUGAL FAN
James R. Davis, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis.
Application June 14, 1954, Serial No. 436,336
5 Claims. (Cl. 230—127)



1. In a centrifugal fan, a housing of scroll form having spaced substantially parallel sides and a scroll shaped wall, an inlet throat extending within said housing from one side thereof, an impeller of the centrifugal type having flow passages therein and having said flow passages terminating in a peripheral air discharge surface, means rotatably mounting said impeller in said housing for drawing air through the inlet throat into said impeller and discharging the same from the fan housing, a substantially rectangular discharge opening in said housing, said opening being spaced from and in a plane substantially parallel with a plane tangent to the periphery of said impeller, two sides of said discharge opening being substantially at the housing sides, a third side of said discharge opening being substantially at the scroll shaped wall, a fourth side of said discharge opening being substantially in a plane through the axis of rotation of the impeller and normal to the plane of said discharge opening, a first air cut-off member secured to said housing at said fourth side of said discharge opening and extending into said discharge opening, said first air cut-off member being spaced from and extending substantially across said peripheral air discharge surface of said impeller, and a second air cut-off member secured to said housing and extending from the inlet side of said housing substantially to said peripheral air discharge surface of said impeller, said second air cut-off member extending into the discharge opening from said fourth side of said discharge opening a greater distance than said first air cut-off member, said impeller having a side wall axially converging

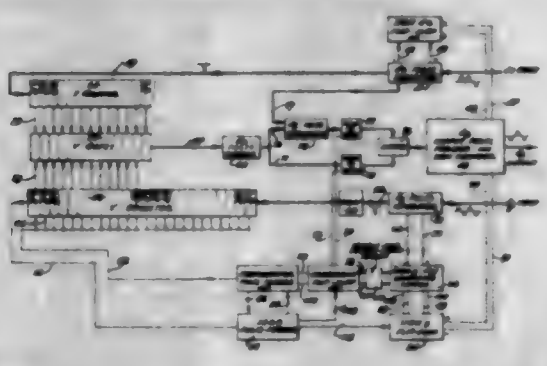
toward the said inlet and providing a passageway in the said side wall which registers with said inlet, the said second cut-off member axially overlapping the said converging side wall.

2,841,327
MAIL BOX
David Chasworth, Rockville Centre, N. Y.
Application March 16, 1956, Serial No. 572,053
1 Claim. (Cl. 232—39)



The combination with a mail box having top and bottom walls and a slidable and openable rear wall and a pivot pin extending from the top wall thereof, of a bracket for pivotally supporting the mail box against a vertical wall, said bracket comprising a U-shaped body, the bight portion of said body having an opening for receiving a fastening element for fastening the bracket to a vertical wall, said U-shaped body being adapted to receive the mail box with the bight portion of the body extending across the mail box and the leg portions thereof extending across the top and bottom walls of the mail box, one leg portion of the body having a slidable extension, a pin and slot connection between said one leg portion and the extension whereby said extension may be slid along said one leg portion, said extension having an elongated slot receiving the pivot pin on the top wall of the mail box whereby the mail box is adapted to slide outwardly of the bight portion and pivot on the bracket whereby the mail box may be turned to bring its rear slidable and openable wall to the open end of the bracket to clear the bracket for opening said rear wall.

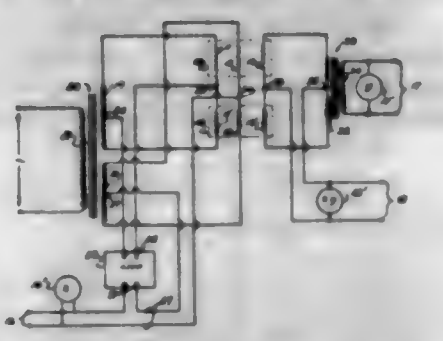
2,841,328
DIGITAL DIFFERENTIAL ANALYZER
Floyd G. Steele, Manhattan Beach, and Richard E. Sprague and Bernard T. Wilcox, Los Angeles, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application March 6, 1950, Serial No. 147,862
73 Claims. (Cl. 235—61)



1. A digital integrator comprising: means for providing digital signal indications representing discrete variations in an independent quantity; means for providing digital signal indications representing a dependent quantity; and means for differentially combining said signal indications representing a dependent quantity and said signal indications representing discrete variations in an independent quantity upon the occurrence of a variation of a discrete amount in one of said quantities.

73. A digital differential analyzer, including, a plurality of integrators, means for providing signal indications to represent digital variations in an independent quantity for each integrator, means for providing signal indications to represent digital variations in a dependent quantity for each integrator, each of said integrators including: a plurality of counters operative upon the signal indications representing the digital variations in the dependent quantity for each integrator to provide signal indications digitally representing the dependent quantity for the integrator, a plurality of gate circuits associated with the counters to pass signal indications from the counters for each integrator upon the occurrence of digital variations in the independent quantity for the integrator, means for operating on the signal indications passing through the gate circuits to provide for each integrator signal indications digitally representing the differential combination of the dependent quantity and the variations in the independent quantity for the integrator, means for introducing the last mentioned signal indications for each integrator to certain other integrators in a pattern dependent upon a problem requiring solution for use as the signal indications representing the digital variations in the independent and dependent quantities for the integrators, and means for producing signal indications to vary the value of the differential combination for each integrator to compensate for changes in the value of the dependent quantity for the integrator over the period between pairs of digital variations in the independent quantity for the integrator.

2,841,329
SIGNAL MULTIPLYING DEVICE
Joseph Statsinger, New York, N. Y., assignor to American Beech Arms Corporation, a corporation of New York
Application December 12, 1951, Serial No. 261,255
26 Claims. (Cl. 235—61)

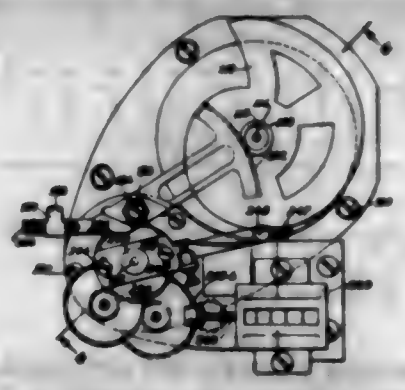


11. A thermal multiplier including in combination a pair of resistors and circuit coupling means connected in a bridge having a pair of input terminals and a pair of output terminals, thermal means for varying the resistance of one of the pair of resistors with respect to the resistance of the other of the pair of resistors in accordance with a first voltage, means for impressing a second voltage across the input terminals of the bridge and means for removing a voltage representing the product of the first and second voltages from the output terminals of the bridge.

2,841,330
MAGNETIC-CLUTCH INTEGRATOR
Nathaniel Brewer, Newtown, and Michael Evanenko, Sellersville, Pa., assignors to Fischer & Porter Company, Hatboro, Pa., a corporation of Pennsylvania
Application September 8, 1953, Serial No. 378,944
4 Claims. (Cl. 235—61)

1. An integrator including a housing having a timer-chamber and a clutch-chamber therein completely partitioned from each other, closure means for said chambers, a measurement-sensing shaft extending through said clutch-chamber into said timing-chamber, a timer in said timing-chamber, means intermediate said timer and said measurement-sensing shaft for rotationally oscillating said

shaft at timed intervals, a spiral measurement-cam revolvably mounted on said housing exteriorly thereof, a measurement-sensing cam-contacting arm carried by said measurement-sensing shaft in operative juxtaposition to said measurement-cam, a driving clutch-member and a driven clutch member within said clutch-chamber, floating coupling members intermediate said driving and driven clutch-members, said driving clutch member being fixedly connected to said measurement-sensing shaft, a driven shaft extending from said driven clutch-member, and a counter carried by said housing geared to said driven shaft.

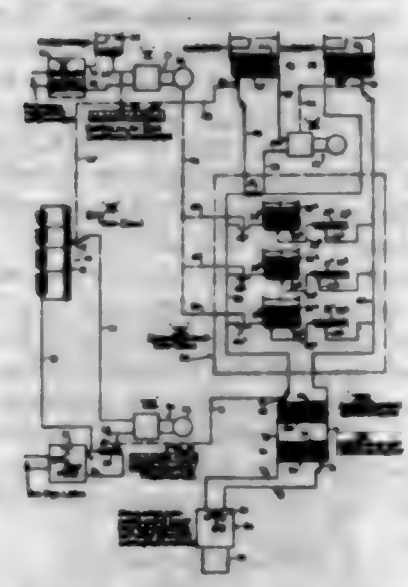


2,841,331

GENERATING STATION INCREMENTAL COST COMPUTERS, AND THE LIKE

James H. Starr, La Grange, and Robert A. Clark, Jr., River Forest, Ill., and Millard C. Westrate, Jackson, Mich.

Application June 13, 1955, Serial No. 515,162
17 Claims. (Cl. 235—61)



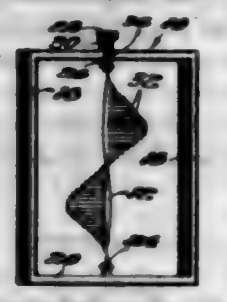
1. Means to determine the present incremental heat rate of a heat energy driven generating unit at presently existing net power output of said generating unit, comprising means to determine the present rate of heat energy supply to said unit and including rate of heat energy supply indicating means responsive to the present rate of heat energy supply, means to determine the present net power output of said generating unit and including net power output indicating means responsive to the present net power output of said generating unit to give an indication proportional to the present net power output, means to determine power output values corresponding to present net power output values under predetermined operating conditions of said generating unit and including means to give indications which are proportional to present net power output values under said predetermined operating conditions, operative connections between the aforementioned net power output response indicating means and the last mentioned determining means effective to cause the indication giving means of said last mentioned determining means to give an indication which corresponds to present net power output, means to determine the rate of heat energy supplied to said generating unit at the present net power output and under predetermined operating conditions of said generating unit, including means to give an indication of said rate of heat energy supplied to said generating unit at the present net power output and under said predetermined operating conditions, operative connections between the means which gives indications which are proportional to present net power output values under the said predetermined operating conditions, and the last mentioned means to determine the rate of heat energy supplied to the generating unit, effective to cause the indication giving means last mentioned to indicate proportionately to present net power output under said predetermined operating conditions, all said means including, means to determine and give an indication corresponding to the ratio of said indicated present rate of heat energy supply to said generating unit compared to said indicated rate of heat energy supply to said generating unit under said predetermined operating conditions of said generating unit, means to give an indication of the incremental heat rate of said generating unit under said predetermined operating conditions of said generating unit and at the present net power output, said incremental heat rate indicating means including at least one current carrying impedance unit, means to deliver current through said impedance unit and to vary said current, operative connections between the net power output indicating means which gives an indication proportional to the present net power output, and the means which delivers and varies current through the impedance unit, effective to produce a current value through said impedance unit which is proportional to the value of the net power output, to produce a potential across said impedance unit corresponding to the present incremental heat rate of the generating unit, means to produce a second potential proportional to the first mentioned potential, means to vary the ratio between both of said potentials, and operative connections between the ratio determining and indicating means aforesaid, and the means which varies the ratio between the potentials, effective to cause the ratio between the potential to vary proportionately to the indication of the ratio between the present heat rate of heat energy supply and the rate of heat energy supply under the predetermined operating conditions of the generating unit.

2,841,332

TORSIONAL FOURIER TRANSFORMER

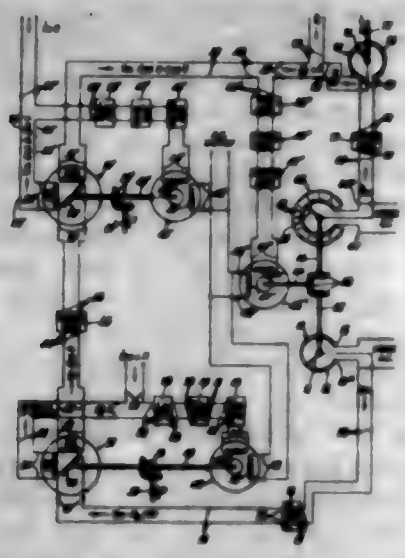
Sidney Lees, Newton, Mass.

Application June 22, 1955, Serial No. 517,314
13 Claims. (Cl. 235—61)



3. Apparatus for obtaining the Fourier transform of a function comprising an elongated torsion spring, a sheet of material secured to the spring, a function to be transformed plotted on the sheet of material with the axis of the spring corresponding to the time axis of the function, means for fixing one end of the spring, means for retaining the other end of the spring in any selected position, said sheet of material being cut into narrow strips perpendicular to the axis of the spring, and means for obtaining a physical representation of the plotted function both in the original plane of the function and in a second plane containing the axis of the spring and normal to the original plane.

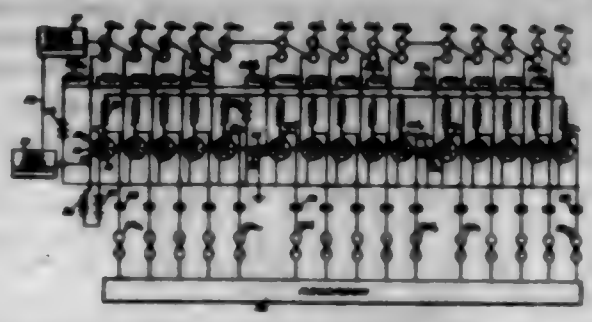
2,841,333
CALCULATING APPARATUS
George Agins and Eugene Odin, Brooklyn, and James K. Macomber, Rockville Centre, and Charles D. Rock, New York, N. Y., assignors to American Bosch Arma Corporation
Application June 13, 1942, Serial No. 446,884
7 Claims. (Cl. 235—61.5)



1. In a computer for solving for a plurality of vector quantities that may be represented by two triangles lying in intersecting planes and having a common side, the combination of means for providing a voltage proportional to a first of said vector quantities, adjustable means having a winding energized by said voltage for inducing in adjacent windings output voltages proportional to a second vector quantity and to a third vector quantity, which third quantity represents the common side of said two triangles, means for providing a voltage corresponding to a value proportional to said second quantity, means responsive to a difference between said last-named voltage and the voltage proportional to the second vector quantity provided by said adjustable means for adjusting said adjustable means to change said voltage difference to a predetermined value, second adjustable means having a winding energized by the voltage proportional to said third vector quantity for inducing in adjacent windings voltages proportional to a fourth and a fifth of said vector quantities, means for providing a voltage corresponding to a value proportional to said fourth vector quantity, and means responsive to any difference between said last-named voltage and the voltage proportional to the fourth vector quantity provided by said second adjustable means for adjusting said second adjustable means to change said voltage difference to a predetermined value, the degree of adjustment of each of said adjustable means, respectively, being a function of an angle in each of said two triangles, said last-named angles being formed by adjacent component sides of the dihedral angle forming said vector quantities.

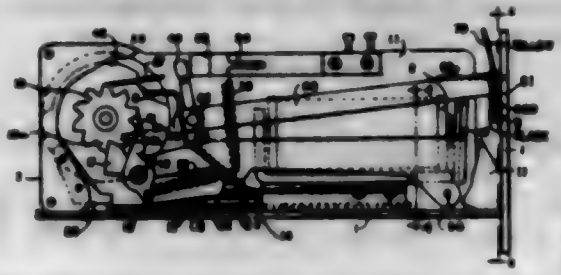
2,841,334
COUNT TRANSFERRING DEVICES
Anthony Abate, Waltham, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application April 22, 1953, Serial No. 350,283
4 Claims. (Cl. 235—92)

1. A binary counter comprising a plurality of stages each representing a digit, arranged in groups, a plurality of gating circuits each associated with the output of a stage of the counter, a plurality of output devices each associated with the output of a gating circuit, a source of gating pulses connected directly to each gating stage in the first group and to gating stages in subsequent groups through successive means each adapted to delay the gating pulse by an amount somewhat less than the interval between input pulses to the counter and equal to the



time required for a count to pass through a group of counter stages.

2,841,335
COUNTER CONTROLLED MEANS
Hans Sengebusch, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application November 5, 1952, Serial No. 318,852
7 Claims. (Cl. 236—120)

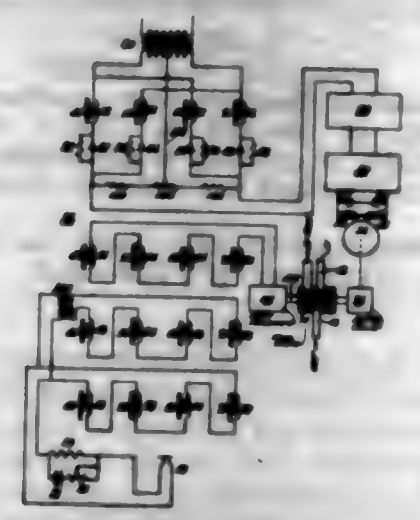


1. For use with a digit counter having tens and units wheels, and means for rotating said wheels, said tens wheel rotating a certain distance for every complete revolution of said units wheel, a separate cam for each wheel and rotating with its wheel, a cam follower means, means for pivoting said cam follower means, said cams preventing said cam follower means from pivoting until said wheels and said cams have rotated a predetermined distance, said cams shaped for allowing said cam follower means to pivot when said predetermined distance is reached, an electrical and visual alarm means operated by said pivoted cam follower means, said units wheel cam further shaped for allowing further pivoting of said cam follower means after another predetermined distance of travel of said units wheel without returning said cam follower to normal after said first pivoting, and another electrical and visual alarm means operated by said further pivoting.

2,841,336
ELECTRO-MAGNETIC CONTROL DEVICE
Lyle Martin, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application July 9, 1953, Serial No. 367,845
6 Claims. (Cl. 236—78)

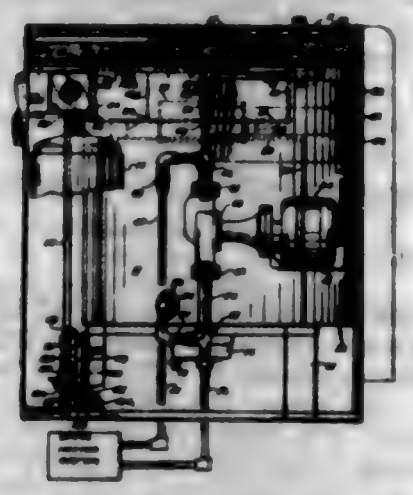
2. In a system for controlling fuel flow according to temperature, a main fuel conduit, a fuel valve in said conduit, servo means for operating said fuel valve, a torque motor for actuating said servo means, means for creating an electrical signal proportional in magnitude to a sensed temperature, means for creating a reference signal against which said electrical signal is compared; a magnetic amplifier for amplifying the temperature error signal resulting from said comparison, said amplifier consisting of a plurality of stages each of which contains four basic magnetic amplifiers arranged in an inverse-parallel, full-wave system, and each of said basic amplifiers being supplied with a source of alternating current and containing a core of magnetic material, a power winding around said core which is connected to said alternating current source, a control winding around said

core upon which said temperature error signal is impressed, a direct current rate winding around said core upon which signals responsive to rate of change of temperature are impressed, a direct current valve rate winding around said core upon which signals responsive to valve positional changes are impressed, a rectifier in series with said power windings, a resistance associated with said rectifier in such manner as to provide negative



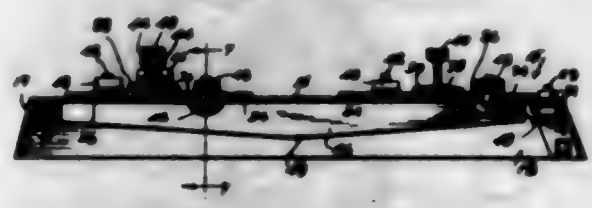
feedback, and all but the output stages containing a second resistance in series with said power winding, means for balancing the outputs of said basic amplifiers in such manner as to cause no voltage to be developed across the output of a stage unless a current is flowing in one of said direct current windings; and the output stage developing its signal across the windings of said torque motor.

2,841,337
HOT WATER HEATING SYSTEM
Edmond H. Haugen, Ann Arbor, Mich., assignor, by mesne assignments, to Iron Firemen Manufacturing Company, Cleveland, Ohio, a corporation of Oregon
Application June 3, 1953, Serial No. 359,393
10 Claims. (Cl. 237—8)



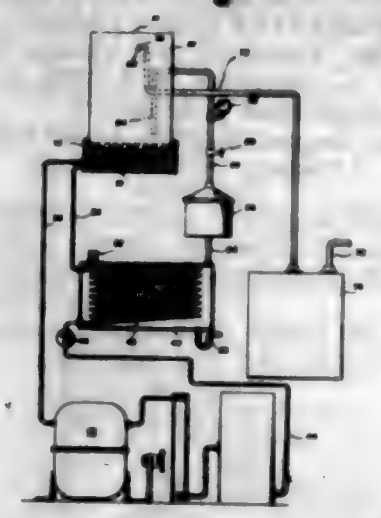
1. In a combination heater apparatus for heating water to be circulated through space heating devices and for instantaneously heating domestic hot water, a boiler for containing a body of hot water, a burner for said boiler, means for recirculating said hot water between said space heating devices and said boiler, means for recirculating hot water through said boiler comprising means for pumping water from the bottom of the boiler directly into the upper part of said boiler, a coil assembly comprising a plurality of turns of tubing grouped as a compact unit mounted in said upper part of said body of water, means connecting the inlet of said coil assembly to a supply of water under pressure and connecting the outlet to a domestic tap, whereby hot water drawn off at said tap permits entry of cooler water into said coil assembly through said supply water inlet, and thermostat means disposed in said upper part of said body of water closely adjacent said coil assembly responsive to a change in the temperature of the upper part of said body of water to control the operation of said burner and pumping means.

2,841,338
RAILROAD TIE
William H. Fairbert, Beloit, Wis.
Application September 16, 1955, Serial No. 534,739
1 Claim. (Cl. 238—59)



A metal railroad tie comprising a base portion, and end flange, side flanges, a removable end plate telescopically receivable in said base portion and having a top, sides and an end flange, and a longitudinally extending arch-shaped web centrally and integrally secured to the under surface of said base portion with its ends in spaced relation to said end flanges.

2,841,339
DEHYDRATING AND PULVERIZING MACHINE
Dale T. Gilmore, Andrews, Tex.
Application March 25, 1954, Serial No. 418,575
3 Claims. (Cl. 241—54)

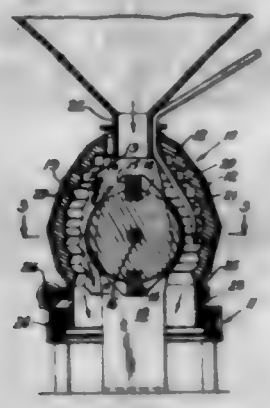


1. Apparatus for dehydrating and pulverising solids immersed in liquids comprising a hollow drum for receiving the liquid containing solids, an air drying chamber having an inlet for air to be dried and an outlet for dried air, means for supplying the dried air from the chamber to the drum and for withdrawing moisture laden air from the drum, said drum being supported for rotation so that solids within the drum continually locate during rotation at the lower part of the drum, and means for cooling the drum comprising a liquid bath tank partially enclosing the lowest peripheral portion of the lower part of the drum whereby the solids within the drum during rotation are continually immediately adjacent the cooling means.

2,841,340
THROWING ROTOR SURROUNDED BY ROTARY ABUTMENT IMPACT SURFACE
Otto Muller, Paris, France, assignor to Ste Jarum A. G. Clus, Zurich, Switzerland, a Swiss body
Application June 25, 1956, Serial No. 593,676
10 Claims. (Cl. 241—187)

1. In an impact crusher, a rotor mounted for rotation about a horizontal axis, said rotor including a plurality

of peripherally spaced hammers, means including a hopper for gravity-feeding the products to be crushed into the path of movement of said hammers whereby said products will be thrown along trajectory paths extending outwardly from said rotor, a body rotatable about an axis extending perpendicularly with respect to the horizontal plane in which the axis of said rotor is located and having an



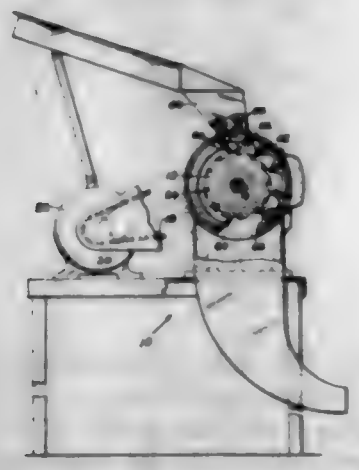
impact surface formed thereon and surrounding its axis of rotation, said body being so positioned with respect to said rotor that the path of rotation of said impact surface of said body intersects the trajectory paths of the products thrown outwardly from said rotor, the construction and arrangement being such that the entire area of the impact surface as it rotates is brought into use so that the wear is the same on the entire area of the impact surface.

2,841,341

ROTARY TYPE MACHINE FOR GRANULATING POLYSTYRENE PELLETS

Aubrey E. Noble, Plainfield, and Charles F. Annen, Jr., Sewaren, N. J., assignors to Catalin Corporation of America, a corporation of Delaware

Application August 28, 1953, Serial No. 377,018
3 Claims. (Cl. 241—243)



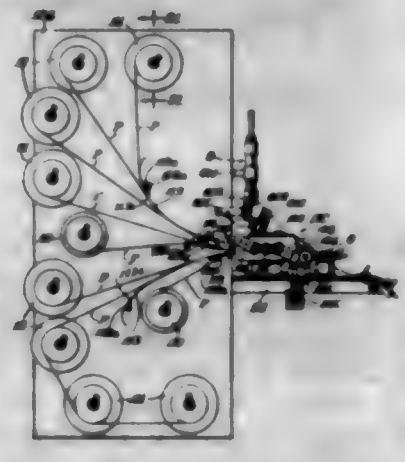
1. A machine for granulating polystyrene pellets which comprises the combination of a cylindrical rotor having blade members formed by means of a series of grooves in the general form of a V position around the face of the rotor, said grooves being interrupted at set intervals by a wedge-shaped channel member which is continuous across the face of the rotor and which undercuts the leading end portion of each blade member, means for driving the rotor, a stator having a plurality of rows of teeth adapted to mesh with the blade members for cutting the styrene pellets into granules, each of said teeth being positioned along a radial line extended outwardly from the axis of the rotor, each of said blade members being undercut to the extent that the surface of the leading end portion of each blade member is in a single plane which slopes back in a straight line away from a radial line connecting the outermost and leading portion of the blade member with the axis of the rotor, said undercut surface being extended radially inwardly of the bottom of the grooves of the blade members to a line where it meets the surface at the bottom of the wedge-shaped channel members to form a jawed recess which holds the polystyrene pellets in place so that the pellets will be cut when the blade members are rotated through the stator teeth and whereby the cutting action at any given time is restricted to a limited portion of the cutting edges of said blade members and stator teeth.

2,841,342

WINDING MACHINES

Robert A. Goodall, Ogallala, Nebr., assignor, by mesne assignments, of one-half to Clarice M. Goodall, Ogallala, Nebr., as executrix of said Robert A. Goodall, deceased, and one-half to Clarice M. Goodall, individually

Application April 23, 1953, Serial No. 350,589
15 Claims. (Cl. 242—56.1)



1. In a machine for winding strip material to form a roll, in combination, a mandrel including a pair of segments one of which is supported by the other slidably in a longitudinal direction relative thereto and rigid therewith against other relative movement, each of said segments being independently projectable into and retractable from a winding position in which said segments are in closely juxtaposed relation, means for carrying said strip material across said winding position, means for projecting one of said segments, means for projecting the other mandrel segment to clamp the strip material between said segments, means for rotating said segments as a unit to wind the strip material thereon, and means for successively retracting said segments to withdraw them from the wound roll of strip material.

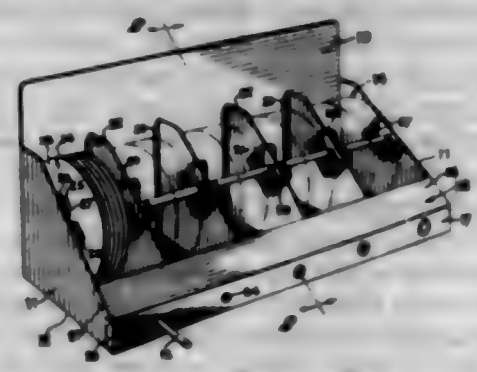
2,841,343

DISPENSING DISPLAY STAND

Jack R. Dorman, Cincinnati, Ohio

Application December 9, 1955, Serial No. 552,120
5 Claims. (Cl. 242—129.6)

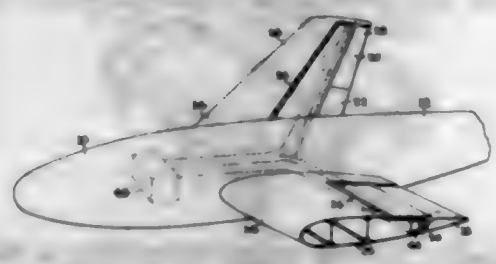
1. A dispenser for copper tubing which is wound upon a reel comprising a stand having a shaft therein to rotatably receive said reel, said shaft being substantially longer than the width of said reel whereby the reel may move back



and forth longitudinally of the shaft, a funnel-shaped guide, means to mount said funnel-shaped guide ahead of and below said reel such that the free end of the tubing

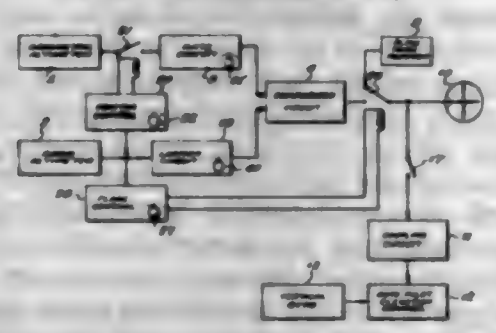
may be stripped from the reel through said guide, and said reel having an expansible core means therein which expands outwardly as the tubing is stripped from the reel for maintaining said tubing in tightly wound relationship thereon.

2,841,344
BOUNDARY LAYER CONTROL
Michael Stroukoff, Lawrenceville, N. J.
Application November 28, 1955, Serial No. 549,325
15 Claims. (Cl. 244—42)



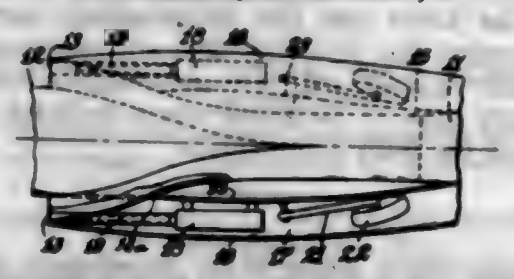
11. In an aerodynamic device having a surface adapted to be exposed to the flow of fluid thereover and terminating in leading and trailing portions which determine the normal direction of said flow, boundary layer control means comprising: means defining a depression in said surface between said leading and trailing portions, said depression extending generally along a line defined by the intersection with said surface of a plane transverse to said direction; fairing means associated with said depression and spaced from the bottom thereof to constitute a continuation of said surface to form a shallow, continuous and substantially unobstructed fluid passageway presenting fluid entrance and exit openings which are fixed relatively to said surface, said passageway being faired into said openings for flow of boundary layer fluid into and out of said passageway through said entrance and exit openings without appreciable change of direction from the flow of fluid over said surface; means located on said aerodynamic device for supplying and directing a series of substantially uniformly spaced high velocity jet streams of fluid into said passageway between the ends thereof and across substantially the entire transverse dimension thereof toward said exit opening, to thereby induce flow of boundary layer fluid into said entrance opening.

2,841,345
GLIDE PATH SYSTEM WITH FLARE OUT
Percy Halpert, Hempstead, and George F. Jude, Richmond Hill, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application January 15, 1952, Serial No. 266,456
22 Claims. (Cl. 244—77)



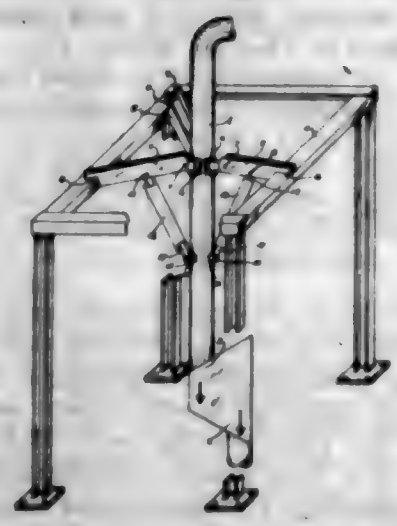
1. Landing control means for an aircraft comprising, an altimeter of the radio reflection type for producing a signal proportional to the substantially instantaneous absolute altitude of the aircraft above the terrain, means independent of said radio altimeter for producing a signal proportional to the rate of change of altitude of said aircraft, means for comparing said absolute altitude signal with said rate signal, and means responsive to the difference between said two signals for enabling said aircraft to be controlled in a manner to maintain said difference substantially zero whereby said aircraft may be directed to follow a substantially asymptotic flare-out flight path to said landing.

2,841,346
JET-PROPELLED AIRCRAFT
William Edward Willoughby Petter, Cambridge, England, assignor to Folland Aircraft Limited, Hamble, England, a British company
Application June 29, 1953, Serial No. 364,579
Claims priority, application Great Britain June 30, 1952
3 Claims. (Cl. 244—117)



1. In an aircraft of the kind having a jet or gas turbine engine mounted in the fuselage, the construction comprising main stress-carrying structural members forming a fuselage wall, a forwardly-facing scoop-style air-intake provided on the fuselage wall externally of said structural members, a rearwardly-extending air-duct leading from the intake to the engine which air-duct passes in through the structural members forming the fuselage wall on its way to the engine, a fairing on the exterior of the structural members and extending aft from the air-intake opening to fair off the air-intake, said fairing providing a compartment within itself external to the structural members, and ancillary equipment, such as an undercarriage unit or armament, carried from said structural members within said compartment forward of the engine.

2,841,347
COMPENSATING PIPE SUPPORT
John S. Moloney, Sarnia, Ontario, Canada, assignor to Polymer Corporation Limited, Sarnia, Ontario, Canada, a corporation of Canada
Application May 13, 1955, Serial No. 508,169
6 Claims. (Cl. 248—49)



6. A yieldable framework for providing a steam pipe with a thermal compensating support adjacent to a steam turbine to which the pipe is attached, said yieldable framework serving substantially to nullify the forces tending to be exerted on said turbine during a thermal change in dimension of said pipe, comprising an anchoring structure, three braces each pivotally connected at one end to said steam pipe and at the other end to said anchoring structure, the angle between each of said braces and the line joining the point of no motion of said steam turbine and the point of pivotal attachment of

each of said braces to said pipe being substantially ninety degrees, three links connected respectively to said three braces so as to form three brace and link combinations, each link being pivotally connected at one end to a point between the ends of the respective brace and at the other end to said steam pipe at a point between the pivotal attachment of the said respective brace to said steam pipe and the point of no motion of said steam turbine, the lines joining the points of pivotal attachment of each of said links to the respective brace and the "hub point" being parallel to the lines joining the point of pivotal attachment of each of said braces to said anchoring structure and the point of no motion of said steam turbine, the brace and link combinations being so arranged around the pipe that adjacent combinations are substantially spaced and two combinations are located on opposite sides of the plane which includes the brace and link of the third combination.

2,841,348
EXHAUST PIPE RESILIENT SUPPORT MOUNT
Arthur H. Stahlheth, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 2, 1953, Serial No. 389,744
3 Claims. (Cl. 248—65)



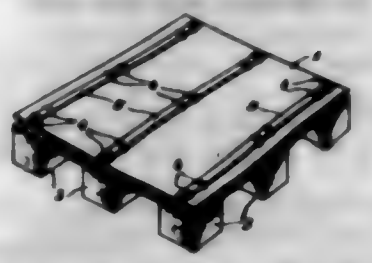
1. A mounting for resiliently supporting an exhaust pipe on a vehicle, said mounting including a resilient pad of sound absorbent material secured to said vehicle, said pad having a wear receiving surface thereon, a collar secured to said exhaust pipe, and an arcuate member projecting from said collar to form a cantilever beam in intimate contact with said wear receiving surface for rolling and sliding thereon.

2,841,349
NURSING BOTTLE HOLDER
Paul D. Charles, Miami, Fla.
Application November 17, 1954, Serial No. 469,585
1 Claim. (Cl. 248—104)



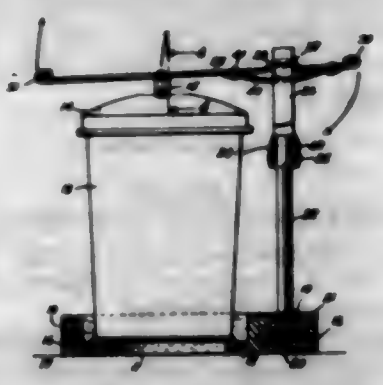
1. A nursing bottle holder comprising a single flexible cord of resilient material having means secured to its opposite ends for attaching the cord under tension to opposed sides of a child's crib, said resilient cord when so attached including an intermediate depending loop open at one side for partially surrounding and engaging a nursing bottle when inserted into the loop, and clamping member loosely surrounding adjacent spaced portions of said tensioned cord on the open side of said loop to close the latter and to dispose the loop entirely within the plane of the tensioned cord, said clamping member being movable relative to said cord towards an inserted nursing bottle to contract the loop and stretch the resilient material of the latter tightly around said bottle to frictionally and resiliently hold the same in depending inclined position without tendency to spin the bottle, said cord being movable through and relative to said clamping member to dispose and individually confine nursing bottles of varying diameters within said loop at selected positions longitudinally of said cord.

2,841,350
LOADING PALLET
Robert W. Chumbley, Hanover, Pa.
Application July 21, 1954, Serial No. 444,709
1 Claim. (Cl. 248—120)



A collapsible loading pallet comprising a substantially rigid deck, said deck having pairs of spaced parallel slits extending therethrough, said pairs of slits being arranged in spaced parallel rows with the slits in each row in alignment with the slits in all other rows, a detachable continuous support disposed below each row of slits and extending between opposite side edges of said deck, spaced pairs of staples projecting upwardly from each support through said slits with a portion of each staple disposed above the upper surface of said deck and a removable securing strip passing through the upwardly projecting portions of each row of aligned staples above said deck to detachably secure said supports to said deck, whereby upon removal of said strips said supports may be removed and said deck, supports and strips stored in a minimum of space.

2,841,351
GARBAGE CAN HOLDER
Roy Randolph Rhyne, Harlingen, Tex.
Application January 12, 1954, Serial No. 403,563
1 Claim. (Cl. 248—147)



A garbage can holder comprising a base having a circular depression in the upper side thereof for reception of a can, an upright post carried by said base at one side thereof, a cup-shaped member mounted on said post for vertical sliding movement, means securing said cup-shaped member in vertically adjusted position on said post, a pair of spaced parallel bars extending vertically upwardly from said cup-shaped member to a height greater than the top of the can, a cam member having a single flat upper side and an elliptical lower side in cross-section fixedly mounted between said bars adjacent their upper extremities, an elongated lever member having an arcuate offset portion intermediate the ends thereof, a leaf spring member having the opposite ends thereof slidably secured to said lever in confronting relation with respect to said arcuate offset portion, said cam member engaging between said spring and said lever underlying the offset portion of said lever, one end of said lever extending from said post over and beyond the can, the other end of said lever extending in an opposite direction beyond the

extremity of said base, and means detachably fixedly securing a closure member to said lever intermediate said one end of said lever and said offset portion of said lever, whereby the closure member can be moved to a locked upright position by either end of said lever.

2,841,352
COLLAPSIBLE SUPPORT DEVICE
Alexander J. Pappas, Chicago, Ill., assignor to Dorothy LaJuna, Chicago, Ill.
Application April 23, 1954, Serial No. 425,170
7 Claims. (Cl. 248—164)



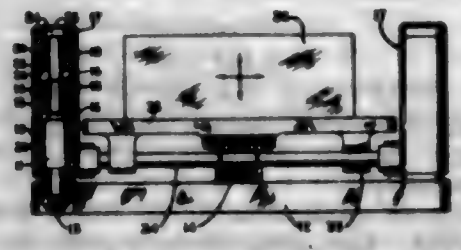
1. A collapsible support device comprising at least three standards, a transverse bore through each of said standards intermediate the ends thereof, a spider having at least three legs, at least one of said legs extended rotatably through the bore in each of said standards and having an end portion extended beyond the outer periphery of each of said standards, a ring surrounding said standards and said end portions and axially spaced grooves in said ring on opposite sides of said end portions, removable abutments in said grooves having an internal diameter smaller than the diameter of said spider whereby the ring, spider and standards are separably connected.

2,841,353
HOOK FASTENER
Hugh T. Burdick, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application July 17, 1953, Serial No. 368,656
5 Claims. (Cl. 248—224)



1. A supporting assembly adapted to be mounted for limited lateral movement on a panel in an elongated panel aperture, comprising a hook-like member having oppositely extending first and second portions disposed in generally parallel planes and joined by a connecting section adapted to extend through the panel aperture so that said first and second portions may extend in opposite directions along the back and front sides respectively of the panel, a third portion integral with and extending forwardly from the free end of said second portion, and a sheet material hanger clip, said hanger clip including two L-shaped members each having a vertical and horizontal leg extending forwardly of the panel in spaced substantially parallel relation, portions of said clip being positioned both above and below said panel aperture and confining therebetween for lateral stability a part of said second and third portions of the hook-like member, a bight portion interconnecting a portion of at least one adjacent leg of each spaced member, said spaced L-shaped members each having at opposite ends of the vertical leg thereof integral laterally outwardly extending flanges for stabilizing engagement with the front side of the panel both above and below said aperture, and resilient finger means connected to the L-shaped members and extending downwardly and rearwardly in a direction opposite to the first portion of the hook-like member for insertion through the panel aperture to engage the back side of the panel whereby the hanger member is secured to the panel but capable of lateral sliding movement within the confines of the elongated aperture therethrough.

2,841,354
NON-ROTATIONAL SHOCK AND VIBRATION ABSORBERS
John A. Humble, Indianapolis, Ind., assignor to the United States of America as represented by the Secretary of the Navy
Application November 23, 1954, Serial No. 470,841
2 Claims. (Cl. 248—358)
(Granted under Title 35, U. S. Code (1952), sec. 266)

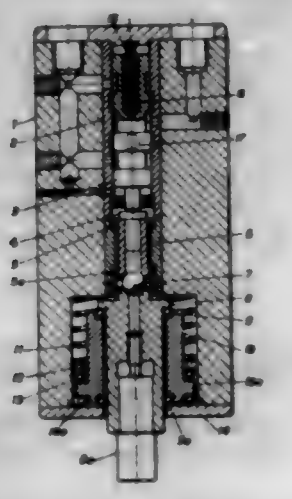


1. A shock and vibration absorber comprising: a base; a plurality of shafts mounted perpendicular to said base; a plurality of vertical tubes slidably supported one each on each of said shafts, each said vertical tube having at least one fluid chamber therein for dampening movement of said tube; a first pair of parallel shafts rigidly connected to said vertical tubes in a plane parallel to said base; first and second carriage members slidably mounted one each on each of said parallel shafts; a second pair of parallel shafts rigidly connected to said carriage members in a plane parallel to said base and perpendicular to said first pair of parallel shafts; a mounting plate member slidably mounted on said second pair of parallel shafts; and means for resisting movement of said carriage members and said mounting plate member.

2,841,355
DEVICE FOR TRANSMITTING THE MOVEMENT OF THE GAGING PIN TO THE CONTROL SLIDE VALVE IN HYDRAULICALLY OPERATED CONTROL GEAR FOR MACHINE TOOLS
Rolf Glaser, Rorschach, Switzerland, assignor to Starrfrasmaschinen A. G., Rorschacherberg, Switzerland, a Swiss company
Application August 24, 1954, Serial No. 451,782
Claims priority, application Switzerland September 8, 1953
1 Claim. (Cl. 251—3)

In a hydraulically operated control gear for machine tools, said control gear having a gaging pin and a control slide valve; a device for transmitting the movement of the gaging pin to the control slide valve, said device comprising a gaging pin holder partly enclosing the gaging pin, a guide bush guiding said gaging pin holder for axial movement jointly with the gaging pin, means engaging said guide bush solely for movement radially to the axis of the control slide valve, the axis of the gaging pin remaining parallel to the axis of the control slide valve during said radial movements of the guide bush, said gaging pin holder having a concave tapered ball seat, a bush having a concave tapered ball seat located opposite the first-mentioned ball seat, a member engaging said control slide valve and the last-mentioned

bush, means supporting the last-mentioned bush for axial movement only, and a ball mounted in said ball seats for transmitting said radial movement of the guide bush



to said control slide valve in an axial direction, and whereby the last-mentioned bush prevents radial pressure from being exerted upon said control slide valve.

2,841,356

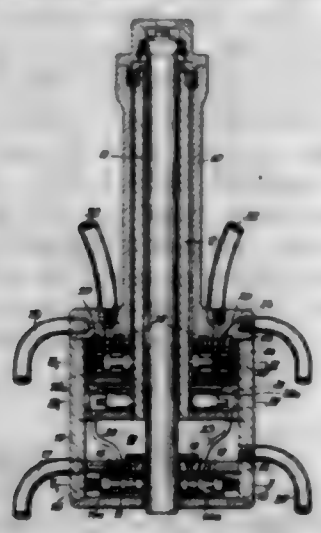
COPYING MACHINE TOOL

Rolf Glaser, Rorschach, Switzerland, assignor to Starrfrasmaschinen A. G., Rorschacherberg, Switzerland, a Swiss company

Continuation of application Serial No. 379,048, September 8, 1953. This application October 26, 1956, Serial No. 618,632

Claims priority, application Switzerland September 10, 1952

12 Claims. (Cl. 251—3)



1. An improvement in a hydraulic control device for hydraulic connection to the working pistons of a working table of a copying machine tool having a tracer assemblage comprising a pattern and a hollow guide finger for cooperation with the pattern for copying inner and outer contours, said improvement comprising a pivotally suspended control tube surrounding the guide finger suspended in pendulum suspension therein, a number of springloaded preliminary control slide valves arranged radially around the guide finger and adapted to be actuated when the guide finger is pivoted out of its middle position, a pressure source, means for connecting said preliminary control slide valves to each other and to said pressure source, a number of pressing pistons one associated with each of said preliminary control slide valves, each pressing piston arranged radially around said control tube and contacting said control tube on a radius angularly displaced relative to the radius on which the corresponding preliminary control slide valve is arranged, means for pressure-connecting said pistons to said preliminary control slide valves so that pivotal deflection of the guide finger causes a pivotal deflection of said control tube, springloaded control slide valves, means for actuating by a deflection of said control tube at least one of said control slide valves, a tip-tracer device vertically movable within the hollow guide tube and bearing against one of said control slide valves, and hydraulic connecting means for said control slide valves.

2,841,357

PINCH VALVE

Robert K. Little, Philadelphia, Pa.

Application October 27, 1954, Serial No. 465,857

3 Claims. (Cl. 251—6)



1. In a pinch type valve, the combination comprising a flexible, longitudinally extending, tubing member designed to be clamped about opposed ends of conduit members coupled by the valve, a pair of complemental supporting and clamping members mounted on opposite sides of said longitudinally extending tubing member, each of said complemental clamping members extending the entire length between the locations at which said tubing member is clamped about said conduit members and being provided with a pair of clamping jaws at said locations for co-action with complementally located clamping jaws of the opposite complemental member in securing said complemental members in gripping relation about said tubing member and conduit sections, each of said complemental members including side plate portions between said clamping locations having a slot extending transversely with respect to the axis of the tubing, a pair of pinch bars having their opposite ends mounted for sliding movement within said slots, means for adjusting the position of at least one of said pinch bars within said slots, an actuating shaft, bearings within said side plate portions for said shaft, cam means secured to said shaft and bearing on one of said pinch bars for moving said pinch bar to valve closing position, and means for adjusting the position of the other of said pinch bars within said slots.

2,841,358

FLEXIBLE TUBING PRECISION LIQUID FLOW CONTROLLER

Theodore B. Russell and Robert C. Bartlett, Miami, Fla.

Application November 26, 1956, Serial No. 624,302

1 Claim. (Cl. 251—8)



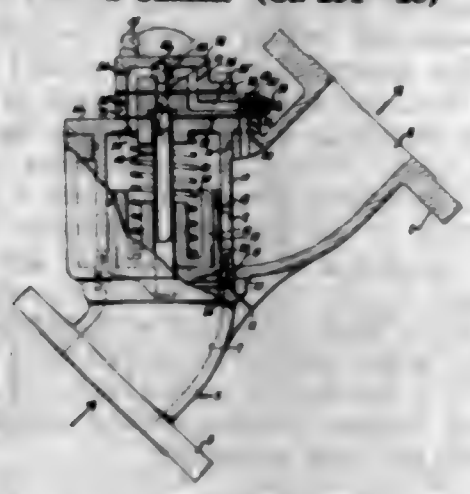
A detachable and adjustable clamp for compressing a flexible feed tube to control the flow of fluid therethrough

in a predetermined number of drops per minute, comprising a clamping head that includes a pair of spaced apart and connected guide rods, a clamping bar shiftable upon the rods, screw means for shifting the clamping bar, an elongated handle for actuating the screw, a cooperating clamping bar also supported upon the guide rods to be disposed parallel to and in opposed relation to the first named bar, the second named clamping bar being pivotally mounted on one guide rod and releasably engageable with the other guide rod whereby to dispose a tube to be compressed between the bars, an open hand grip carried by the guide rods and that depends below the clamping head, the hand grip having a bottom wall that is apertured and notched for embracing engagement with that portion of the tube that extends below the clamping head, the said tube to be compressed being held at spaced apart points by the clamp and the hand grip to prevent twisting of the device when the handle and screw are actuated, the said hand grip being an open U-shaped frame having parallel side walls and the apertured bottom wall, the side walls at their upper ends being formed tubular to engage upon and be suspended from the guide rods, the aperture of the bottom wall corresponding in diameter to the tube to be compressed, the said notch being cut through the bottom wall to communicate with the aperture and whereby the tube may be forced through the notch for detachable supporting engagement in the aperture.

2,841,359
SHUT-OFF VALVE

William F. Berck, Hayward, Calif., assignor to Ralph N. Brodie Company, San Leandro, Calif., a corporation of California

Application September 18, 1956, Serial No. 610,585
2 Claims. (Cl. 251—25)

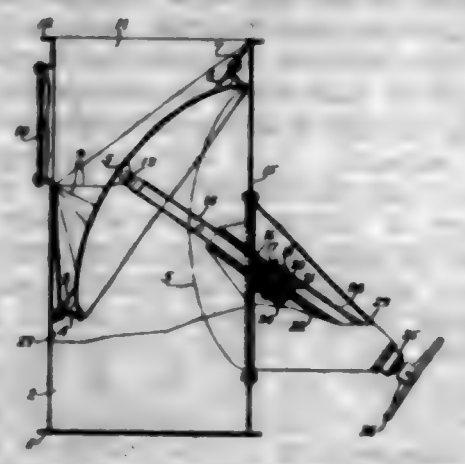


1. A shut-off valve comprising a valve body having inlet and outlet chambers arranged to be connected to inflow and outflow pipe connections, a valve cylinder having an open inner end seated in sealed position within the body in communication with the inlet chamber and provided with ports through the wall portion of the cylinder communicating with the outlet chamber, a piston slidably mounted within the cylinder for movement to and from a port closing position, spring means normally urging the piston to its port closing position, an O-ring carried by the piston in sealing engagement with the cylinder inwardly from the ports, a retaining ring removably secured within the open end of the cylinder, an O-ring seated within the cylinder between its open end and the ports and retained in sealing engagement with the piston wall by the retaining ring, a control valve head assembly carried by the cylinder in sealingly seated position upon an outer wall portion of the body, a two-way control valve operably mounted within the head assembly, passages in the head interconnectable through the control valve for selectively connecting the space within the cylinder above the piston with the inlet chamber or the outlet chamber.

2,841,360
VALVE FOR FUME CHANNELS

Stig Gustavsson, Jonkoping, Max Ydring, Stockholm, and Lars Rune Nylander, Enskede, Sweden, assignors to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden

Application June 7, 1955, Serial No. 513,864
2 Claims. (Cl. 251—87)

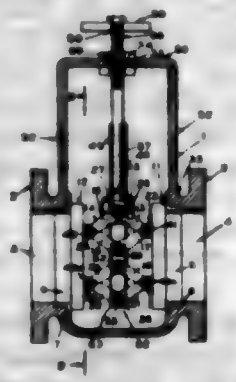


1. A valve structure for fume channels and similar ducts for dust-contaminated gaseous media, comprising a valve casing adapted to form a portion of the channel, a cross-wall diagonally arranged in the casing, means defining an annular valve seat in said cross-wall, a valve element, and a screw-threaded valve stem movable relative to said seat and guided in a sleeve projecting outwardly through the wall of said valve casing to support said valve element in registry with said valve seat, characterized in that said valve element comprises an outwardly convex hollow dome-shaped rigid body, and a tapered sealing flange mounted on the outer peripheral surface of said dome-shaped body and engageable with the inner surface of said valve seat, said body of the valve element being pivotally connected on its rear concave side to said valve stem and devoid of other connections, whereby the valve element body upon displacement from the seat is free for pivotal displacement on said valve stem, upon re-engaging said seat to be self-centering and self-cleaning and in the fully open position thereof to seat against the wall of the casing, thus enclosing in said sleeve and providing a smooth unrestricted passage for the flow of dust-contaminated gaseous media.

2,841,361
VALVE

Charles E. Palmer, Fairview, Pa.

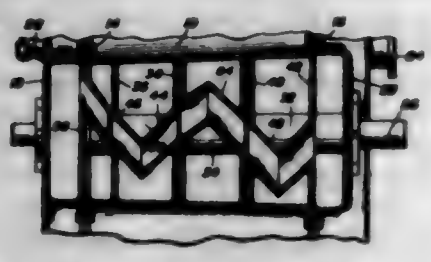
Application January 23, 1953, Serial No. 332,935
4 Claims. (Cl. 251—169)



1. A gate valve comprising a body having a cap thereon with a control member extending therethrough, an axially spaced inlet and outlet, a first and a second axially spaced valve member closing said inlet and said outlet, two laterally spaced upper and two laterally spaced lower parallelograms, said upper parallelograms being vertically spaced from said lower parallelograms, each of said parallelograms comprising four links pivotally connected together at a first corner, a second corner, a third corner, and a fourth corner by means of pins, said

first and second corner of each said parallelogram constituting first opposite corners thereof and said third and fourth corner of each said parallelogram constituting second opposite corners thereof, said third corners of said upper parallelograms being connected to said control member, said first corner of each said parallelogram being connected to said first valve member, said second corner of each said parallelogram being connected to said second valve member, the said pin connecting said fourth corners of said upper parallelograms and said third corners of said lower parallelograms extending transversely outwardly from said parallelograms, and means on said body guiding the ends of said pins at said fourth corners of said upper parallelograms and said third corners of said lower parallelograms in a path parallel to the movement of said control member, said control member being movable vertically to move said valve members out of closing relation with said inlet and said outlet and into said cap, the fourth corners of said lower parallelograms engaging said body only when said valve members are in position to move into engagement with said inlet and said outlet and said lower parallelograms being free of attachment to said control member.

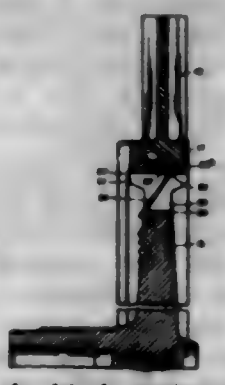
2,841,362
MULTISTAGE TURBINE
Clifton Yeomans, Washington, D. C.
Application April 14, 1952, Serial No. 282,128
2 Claims. (Cl. 253—69)



1. An axial and radial flow multistage turbine comprising a stator having a cylindrical rotor chamber and a rotor therein mounted for rotation about the axis of the chamber, said rotor having a plurality of angularly bent tubes comprising hollow impulse members disposed in circumferentially spaced positions on said rotor and equidistantly from said axis, nozzles on said stator extending into said chamber and registrable with one end of said members for discharging an elastic motive fluid under pressure into said hollow impulse members for imparting rotation to said rotor, means for circulating a coolant through said chamber and entirely about all of said impulse members and in heat exchange relation therewith, an annular baffle on said rotor within said chamber adjacent and underlying said nozzles for causing flow of coolant from said chamber into said impulse members by the aspirating effect of said nozzles to thereby eliminate dead air regions in the circulation of said coolant.

2,841,363
TURBINE DISC AND BLADE MOUNTING
Joseph Thompson Purvis, Etobicoke Township, Ontario, and Robert Mitchell Sachs, North York Township, Ontario, Canada, assignors to A. V. Roe Canada, Limited, Peel, Ontario, Canada, a corporation
Application September 17, 1953, Serial No. 380,834
7 Claims. (Cl. 253—77)

1. In a rotary power conversion machine, a rotor disc having a slit extending for the full thickness of the disc inward from its circumference, and having a blade slot in its circumference adjacent the slit, a blade slidable in the blade slot, the slot having an axis along which the blade slides, a locking member disposed in the slit at an angle to the said axis and having one end projecting outward into the blade slot, the said end of the locking



members engaging the blade and preventing sliding movement of the blade in the blade slot, and means retaining the blade in the blade slot.

2,841,364
SPREADER FOR TWISTED-TOGETHER, INSULATED CONDUCTORS
Donald L. Pratt, Rome, N. Y., assignor to Rome Cable Corporation, Rome, N. Y., a corporation of New York
Application July 13, 1955, Serial No. 521,684
3 Claims. (Cl. 254—1)

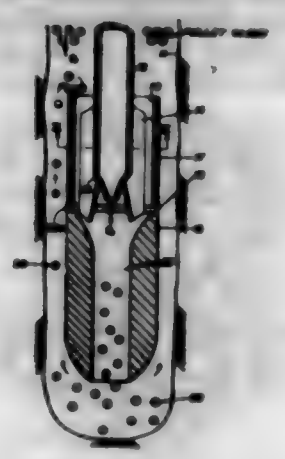


1. Apparatus for separating and holding separated normally contacting portions of a pair of insulated conductors twisted together around a bare messenger which comprises a pair of pins each having tapered ends for insertion between said twisted together conductor portions, means for mounting said pins in spaced relation and insulated from one another and disposed in angular relation to one another in a direction around the axis of the mounting means, each of said pins being rotatable with respect to its mounting means to permit it to move over the surface of an insulated conductor without damaging the insulation of the conductor and handle means connected to said mounting means by which said pins may be moved from a position of substantial alignment along the twisted together conductors to a position in which they are disposed on opposite sides of the axis of said twisted together conductors and separate said conductors from said bare messenger.

2,841,365
PELLET RECYCLE CONTROL IN PELLET IMPACT DRILLING
George H. Ramsey, Ardmore, and Fredric H. Dolly, Tulsa, Okla., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application October 27, 1953, Serial No. 388,551
1 Claim. (Cl. 255—1.8)

A method of drilling a bore hole in the earth which comprises creating a constricted high velocity jet of fluid, directing said fluid jet into a mixing chamber, introducing into and entraining in said fluid jet a plurality of pellets in said mixing chamber, directing the mixture of fluid and pellets forcibly against the formation to be drilled and centrally of the bore hole, circulating the mixture of fluid and pellets, after impact, upwardly in an annular channel flow adjacent the walls of the bore hole, separating and diverting a first portion of the fluid from the up-flowing mixture of fluid and pellets into the top of said mixing chamber, directing the pellets and remaining up-flowing fluid upwardly in said annular channel to a region above said mixing chamber, separating said pellets and a second portion of said fluid from the remaining up-flowing fluid

in said region and conducting said pellets and said second fluid portion substantially separately from said first portion into said mixing chamber through an annular channel



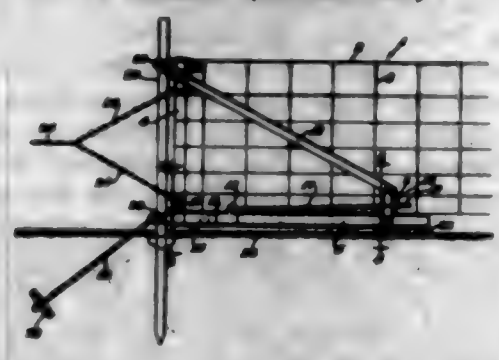
flow concentric with said first annular channel, whereby improved efficiency of pellet recycle into said mixing chamber is attained.

2,841,366
METHOD AND APPARATUS FOR DRILLING WELLS
John C. Dunn, Santa Barbara, Calif.
Application October 25, 1954, Serial No. 464,338
11 Claims. (Cl. 255—1.8)



1. An apparatus for drilling a well bore, including, a drilling string with a rigid drill collar at the lower end thereof, and a drill bit carried by the collar, said collar being initially formed to include, upper and lower coupling portions concentric with the string and the bit, and a straight intermediate eccentric portion extending between the coupling portions and offset from the vertical axis of the string and bit and operable by centrifugal force into engagement with the wall of the bore.

2,841,367
FENCE BRACE
Carl E. Funk, Earl Park, Ind.
Application May 14, 1954, Serial No. 429,835
8 Claims. (Cl. 256—37)

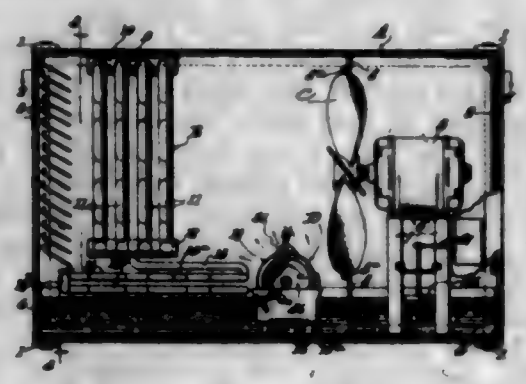


1. A fence brace for a flexible fence, comprising a fence bar to which an end portion of the fence is secured, a compression member secured at one end to the lower portion of the fence bar on a predetermined side thereof, an upper compression member secured at one end to the upper portion of the fence bar on the same side of said fence bar, an anchor for substantially immovable disposition in the ground on the opposite side of said fence bar, a tension member connected at one end to said anchor, movable means connecting the end portions of said compression members together remote from said fence bar, and adjustable means connecting the opposite end of said tension member to said movable means.

2,841,368
LUBRICATION OF HEAT REGENERATOR PACKING MATERIAL
George H. Zenner and Russell W. Hoevener, Kenmore, N. Y., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Original application November 30, 1949, Serial No. 130,341, now Patent No. 2,671,644, dated March 9, 1954. Divided and this application August 12, 1953, Serial No. 373,904
8 Claims. (Cl. 257—6)

1. A low temperature heat regenerator containing packing material comprising stone pellets of 5/16 to 5/8 inch diameter, said pellets having a tendency to abrade and dust when subjected to repeated changes of fluid flow through the regenerator, said pellets being each coated with a solid lubricant selected from the group consisting of graphite and molybdenum disulphide.

2,841,369
EVAPORATIVE CONDENSER APPARATUS AND LIQUID DISPERSER UNIT THEREFOR
Thomas W. Carraway, Dallas, Tex.
Application August 17, 1953, Serial No. 374,565
4 Claims. (Cl. 257—37)



3. In evaporative condenser apparatus, an air duct; a heat exchanger mounted in said duct and extending transversely and vertically therein; means for causing a stream of air to flow through said duct and in contact with and past said heat exchanger; an open top liquid reservoir means in said duct positioned upstream with respect to the direction of air flow; a disperser disk mounted to rotate about a horizontal axis extending across said reservoir, a lower portion only of said disk extending downwardly into said reservoir for immersion in liquid therein, said disk having a radially extending portion and a cylindrical peripheral portion extending axially from said radially extending portion, said peripheral portion being formed with alternately arranged circumferential grooves and ridges adapted, when said disk is rotated at high speed, to throw off liquid in successive but merging phases so as to produce within said duct a liquid distribution varying progressively across said duct from a dispersion of relatively large drops which are thrown against the upper part of said heat exchanger to a finely diffused fog or mist which is caused to envelop the lower

part of said heat exchanger whereby substantially the entire heat exchanger will be maintained wet and liquid from said drops will run down and over and thereby will wash the surfaces of said heat exchanger from top to bottom thereof; and a motor for driving said disk at a speed sufficiently high to produce the so characterized liquid distribution.

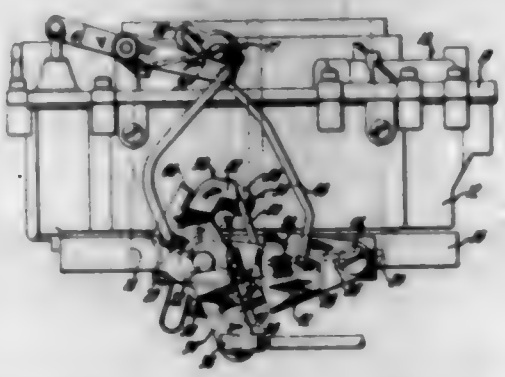
2,841,370
BLENDING MACHINE AND METHOD
Aristodeme J. Cosmetto, Rye, N. Y.
Application April 12, 1954, Serial No. 422,327
17 Claims. (Cl. 259—89)



1. A blending device comprising three equiradially spaced containers connected at their inner ends, the inner ends of said containers being open and adapted to permit communication between the interiors of said containers, means for mounting said containers for intermittent rotary motion about an axis passing through their intersecting ends and adapted to successively move each of said containers into an upper, substantially vertical position, said mounting means comprising a rotatably mounted shaft, said containers being fixedly mounted at one end of said shaft at their inner ends, a radial column fixedly mounted on said shaft, said column being hollow and open at one side, a sun gear having an elongated sleeve on the side thereof remote from said column, and rotatably supported on said shaft, a locking disk fixedly mounted on the end of said sleeve remote from said sun gear, a second sleeve rotatably mounted on said first sleeve intermediate said sun gear and locking disk, a driven gear fixedly carried by said sleeve, means imparting continuous rotary motion to said driven gear, a bearing on the face of said driven gear adjacent said sun gear, the longitudinal axis of said bearing extending parallel to said shaft, a second shaft rotatably mounted in said bearing and extending beyond said bearing at an end thereof adjacent said column, a planetary gear mounted on said second shaft in mesh with said sun gear, a crank arm fixedly carried by said planetary gear, a pin rotatably mounted at the end of said crank arm, said pin being disposed with the longitudinal axis thereof substantially parallel to said first shaft and lying on the fixed circle of said sun gear, a roller mounted at the end of said pin within said column and releasable means for locking said disk in stationary position.

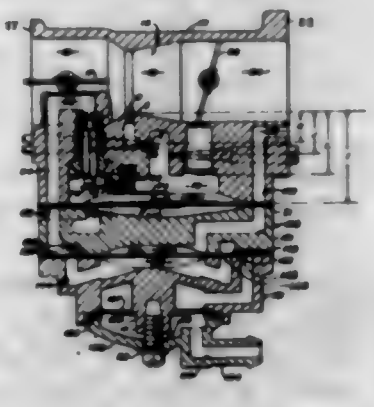
2,841,371
THROTTLE ACTUATING MECHANISM
Vinton P. Birch, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 8, 1956, Serial No. 602,780
7 Claims. (Cl. 261—23)

1. A carburetor comprising first and second induction passages, throttle valves for respectively controlling the flow through said induction passages, a mechanism for controlling the actuation of the first throttle, a linkage device operatively connecting said first and second throttles for sequential operation, temperature responsive means connected to said device, said temperature respon-



sive means adapted to coact with said first throttle controlling mechanism to disconnect the operative connection between said throttles when said engine temperature is low, and means urging said second throttle toward a closed position relative to said second induction passage.

2,841,372
APPARATUS FOR DELIVERING COMBUSTIBLE MIXTURE TO AN INTERNAL COMBUSTION ENGINE
Bernard C. Phillips, Toledo, Ohio, assignor to The Tillotson Manufacturing Company, Toledo, Ohio, a corporation of Ohio
Application June 4, 1956, Serial No. 589,170
17 Claims. (Cl. 261—41)

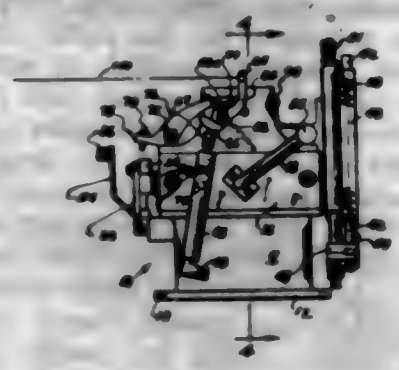


3. In combination, charge forming apparatus including a body formed with a mixing passage, a fuel chamber formed in the body in close proximity to the mixing passage, a flexible diaphragm forming a wall of the fuel chamber, an orifice in the mixing passage, a fuel inlet for the fuel chamber, said fuel inlet being formed with a valve seat, a valve member having a cone-shaped needle portion at one end thereof extending into the inlet against the pressure of the fuel and cooperating with the seat to regulate fuel flow into the fuel chamber, a lever in the fuel chamber fulcrumed on the body, one arm of the lever being in engagement with the valve member and the other arm in engagement with the central region of the diaphragm, said lever arms being of different lengths whereby force applied by movement of the diaphragm to the lever is multiplied through the lever to actuate the valve member in the fuel inlet duct, a spring engaging the lever at a region between the fulcrum and the zone of engagement of the diaphragm with the lever and adjacent the fulcrum, said fuel chamber being unvented whereby said diaphragm is actuated solely by aspiration set up by air flow through the mixing passage, and a restricted fuel conveying duct in communication with the fuel chamber and the orifice.

2,841,373
CARBURETOR FOR INTERNAL COMBUSTION ENGINES

William Bregu, Ferndale, Mich., assignor of one-half to Velma Bregu, Ferndale, Mich.

Application March 30, 1954, Serial No. 575,828
3 Claims. (Cl. 261—44)

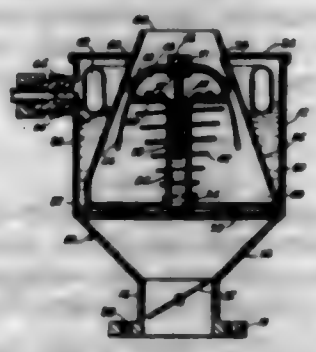


1. In a carburetor for an internal combustion engine, a rectangular vertical casing including a lower portion open at the bottom into the intake manifold of the engine, a top portion, and a midportion defined by two parallel side walls and two transverse walls, two parallel bars mounted horizontally on each side wall of the midportion inside the casing, the bars being spaced from each other to leave a narrow free space therebetween, a thick two-wing butterfly valve mounted within the midportion of the casing upon a horizontal shaft journalled in said transverse walls, the outer end of each wing being disposed parallel to the bars on the respective side wall of the casing and being normally in position to block the free space therebetween, a horizontal cylinder outside the casing, a pipe leading from the cylinder into the free space between the bars on one side wall, a similar pipe leading from the cylnider to the free space between the bars on the other side wall, two tubular members for delivery of fuel to the cylinder, each tubular member having an outlet port leading to said cylinder, a sliding pin disposed in each tubular member and normally blocking the outlet port therein, gear means mounted on one end of the shaft, a rack in mesh with said gear means and connected to the pins for movement therewith as a unit, lever means to operate the valve to unblock the free spaces between the bars and to impart, by means of the rack, longitudinal movement to the pins to unblock the outlet ports in the tubular members in sequence, one by one.

2,841,374
CARBURETORS

Gilbert E. Raynor, Tulsa, Okla.

Application May 21, 1956, Serial No. 586,100
4 Claims. (Cl. 261—44)

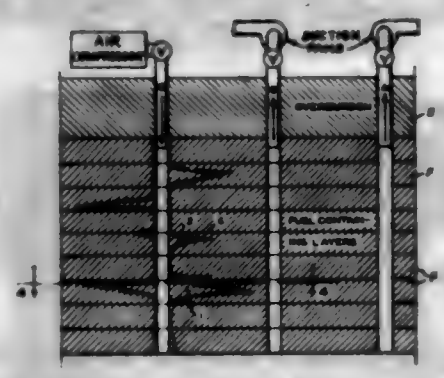


1. A carburetor comprising an outer housing member, an outlet port in the housing for discharging fuel mixture from the carburetor, a cone shaped member rigidly secured within the housing providing an annular fuel reservoir therebetween, an inlet port provided in said cone member for supplying air to the carburetor, an inner cone member reciprocally disposed within the first mentioned cone member, a siphon tube secured to the inner cone member for reciprocation therewith, means for communicating the fuel to the siphon tube, fuel dispersing means to discharge the fuel from the siphon tube to the incoming air stream and in proportion with the volume of the air stream, said movable cone member providing a variable venturi throat for reducing the pressure of the incoming air stream, pressure responsive means for reciprocating the inner cone member, and means to control the fuel level in the reservoir.

2,841,375
METHOD FOR IN-SITU UTILIZATION OF FUELS BY COMBUSTION

Gosta Johan Wilhelm Salomonsson, Hallobrottet, Sweden, assignor to Svenska Skifferolje Aktiebolaget, Orebro, Sweden, a joint-stock company of Sweden

Application March 3, 1954, Serial No. 413,904
5 Claims. (Cl. 262—3)

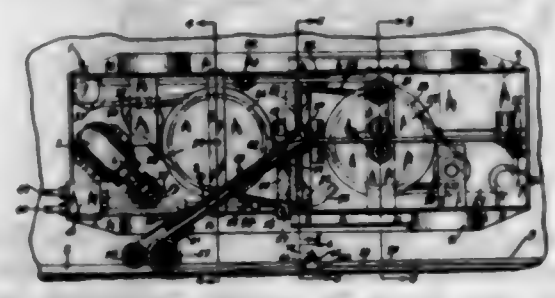


1. A method for combustion in situ of combustible organic material in subterranean deposits pierced by inlet and outlet boreholes which comprises introducing a combustion supporting gas through an inlet borehole to said combustible material to produce a combustion zone and to form hot combustion products, passing the products of combustion through the deposit to heat adjacent organic material to form valuable products including gases and vapors, collecting and removing said valuable products including gases and vapors separately from said products of combustion at a first outlet borehole which is located a distance from said combustion zone, collecting and removing the products of combustion separately from the valuable products at a second outlet borehole, said second outlet borehole being located between said first inlet borehole and said first outlet borehole, the pressures at both of said first and second outlet boreholes being below atmospheric and substantially equal; and being lower than pressures at said inlet borehole.

2,841,376
METHOD OF AND APPARATUS FOR FORMING A KEY-SLOT IN A BORE WALL FOR GUIDING THE APPARATUS AND FOR INSERTING A FLEXIBLE CONDUCTOR INTO THE SLOT

Joseph F. Joy, Pittsburgh, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application March 5, 1954, Serial No. 414,434
9 Claims. (Cl. 262—7)



1. A machine movable in a bore formed in a mine vein and which bore has a slot extending longitudinally

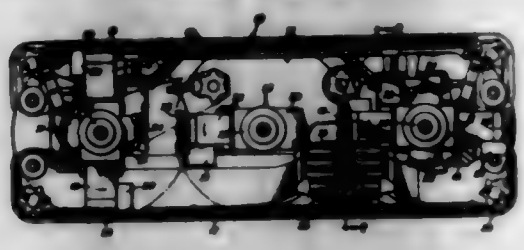
along a wall thereof and having an upwardly facing lower wall, said machine comprising, in combination, a mobile support moving within the bore, a flexible power conductor element leading from a power source beyond said bore to said support for supplying power medium to the machine, and guiding and directing means movable bodily with said support for engaging said conductor element to deflect the latter laterally beyond the bore-walls and for directing the conductor element into the slot in the bore-wall as said support moves in the bore, the lower wall of said slot supporting the conductor element in position in said slot exteriorly of the bore-walls.

2,841,377

MINING MACHINE HAVING THREE BORING HEADS

Loy D. Hagenbook, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application January 22, 1957, Serial No. 635,244
4 Claims. (Cl. 262—7)



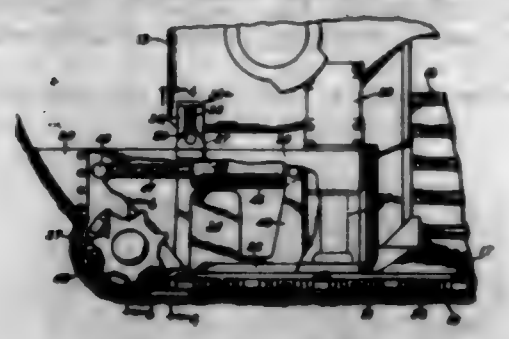
1. In a mining machine, a mobile frame, a line of laterally spaced boring heads rotatably mounted on the frame, there being a single boring head at each end of the line and a single boring head therebetween, the boring heads having radially extending arms of substantially equal length with forwardly projecting cutter supports at their ends for cutting contiguous overlapping bores in advance of the machine, a conveyor having a receiving throat opening adjacent the floor level between two of the boring heads, means on the frame for rotating the two boring heads on one side of the throat in the same direction to progress cuttings along the floor toward the throat, means for rotating the third boring head in the opposite direction to progress cuttings along the floor toward the throat, a cutter bar extending along the floor transversely of the throat, and a cutter chain movable along the cutter bar to progress cuttings along the floor in the same direction as the two boring heads which rotate in the same direction.

2,841,378

CORNER SPROCKET MECHANISM FOR BORING TYPE MINING MACHINE

Jerry Karlovsky, Cicero, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application April 5, 1957, Serial No. 651,053
3 Claims. (Cl. 262—7)



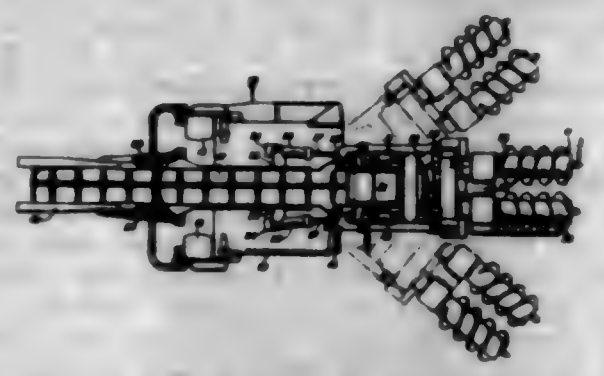
1. In a mining machine of the boring type having a frame, two laterally spaced boring heads rotatably supported on said frame for cutting contiguous bores in advance of the machine, upper and lower cutter bars mounted on said frame rearwardly of and normally disposed generally tangential to the vertical diameters of the boring heads, a longitudinally extending conveyor on the frame having a cuttings receiving throat opening adjacent the floor level between said boring heads, pusher plates on opposite sides of said conveyor throat mounted on and slidable relative to said lower cutter bar upwardly and laterally inwardly toward retracted positions and laterally outwardly and downwardly toward extended positions, idler sprockets for the cutter chain of said lower cutter bar rotatably mounted on and carried by the outer ends of said pusher plates, said pusher plates having guide means adjacent their outer ends slidably cooperating with guide means on the lower cutter bar for elevating said outer ends of the pusher plates with their idler sprockets when the pusher plates and sprockets are moved toward said retracted positions and for lowering said outer ends of the pusher plates when the pusher plates and sprockets are moved toward said extended positions, and power means for bodily extending or retracting the pusher plates and sprockets.

2,841,379

MINING APPARATUS AND AUTOMATIC FEED CONTROL THEREFOR

Herman W. Driehaus, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application December 7, 1956, Serial No. 627,992
13 Claims. (Cl. 262—19)



1. In an apparatus of the class described, a cutting mechanism, drive means for said cutting mechanism including a motor and driving and driven members driven thereby and relatively movable with respect to each other upon overload of said cutting mechanism, a pump associated with said driving and driven members and driven upon relative movement between said members to generate fluid pressure, feeding mechanism for feeding said cutting mechanism to effect a cutting operation, drive means for said feeding mechanism, fluid pressure operated control means for said drive means, and a fluid pressure connection from said pump to said control means, for operating said control means to reverse the direction of feeding movement of said feeding mechanism upon relative movement of said driving and driven parts with respect to each other, effected by overload of said cutting mechanism.

2,841,380

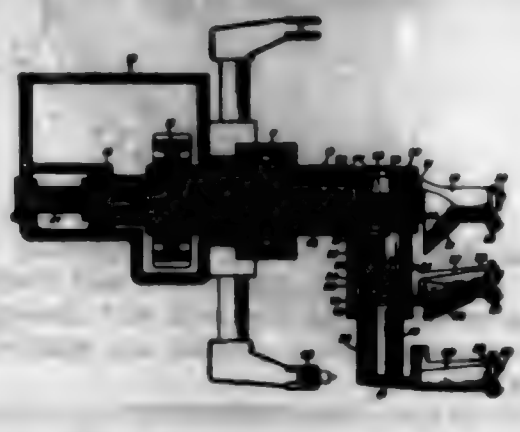
CONTINUOUS MINING MACHINE WITH ADJUSTABLE BORING HEAD

Michael G. Thasy, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application July 26, 1957, Serial No. 674,448
3 Claims. (Cl. 262—26)

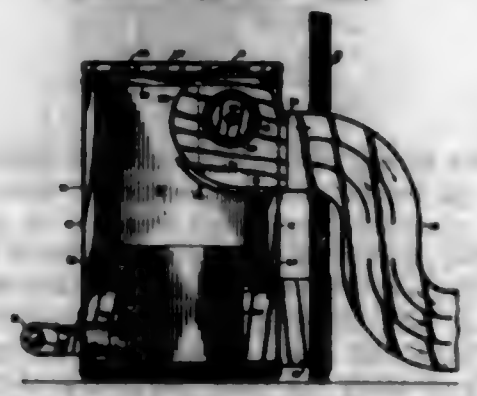
1. In a boring machine, a frame, a rotary boring head comprising a hollow drive shaft, a hollow hub, a hollow inner arm portion extending radially from said hub and separated from said hollow hub by a transverse partition, a cutter-carrying end portion telescopically mounted in the outer end of said inner radial arm portion, an

extension screw extending radially of said inner arm portion, with its outer end in threaded engagement with said telescopic outer end portion and its inner end extending through and having bearing engagement in said transverse partition, a gear fixed on the inner end of said extension screw within said hollow hub, an anchoring member having its inner end fixed to said frame and extending forwardly through said hollow drive shaft and



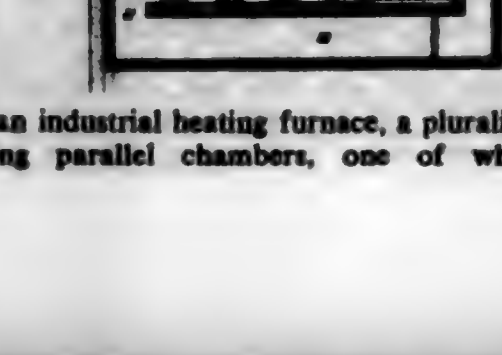
into said hollow hub, a pair of opposed gears adapted normally for free rotation in said hollow hub and each meshed with opposite sides of the gear on said extension screw, and clutch means associated with each of said gears for selectively connecting them to the anchoring member in said hub to restrain free rotation thereof, thereby causing rotation of said extension screw in one direction or the other, due to rotation of said hub.

2,841,381
TOBACCO CURER
Basil E. Jones, Fleetmoor, Ill.
Application May 14, 1953, Serial No. 354,935
5 Claims. (Cl. 263—19)



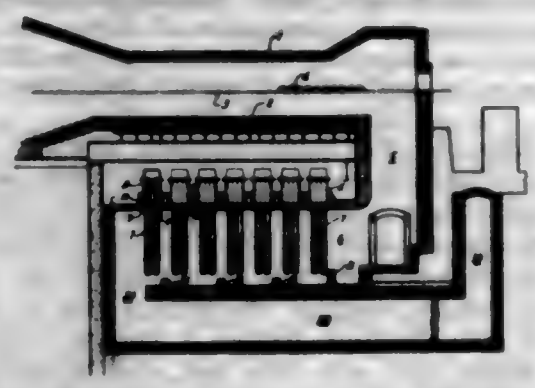
1. Apparatus for curing yellow leaf tobacco racked in a curing barn, comprising a heater casing adjacent the exterior of the barn, intermittently operable heating means having a combustion chamber in said casing, an inner liner providing a cooling jacket at the upper portion of the casing extending below the level of the top of the combustion chamber, a plurality of apertures in the casing for circulation of cooling air through the jacket, a blower above the combustion chamber, a housing for the blower having an inlet communicating with the space about the combustion chamber and an outlet, an outlet duct connecting the housing outlet with the interior of the barn, branch ducts extending from the outlet duct having discharge openings spaced about the barn area, spreader means at said discharge openings to distribute air impelled therethrough from the blower, a pair of return ducts leading from the interior of the barn to opposite sides of the casing for return flow of air through the casing to the blower, an intake opening in each return duct providing communication with the outside atmosphere to admit outside air to the casing, a damper in each return duct adjustably movable between a position closing said intake opening and leaving said duct unobstructed and a position closing the duct against communication between the barn and casing and providing unobstructed communication between said opening and casing to control the ratio of barn air and outside air drawn into the casing, thermostatic means in the barn adjustable from the exterior of the barn for controlling the operation of the heating means in accordance with temperature requirements in the barn, means for preventing operation of the heating means when the blower is inoperative, and means for operating the blower for positive recirculation of air and the heating means products of combustion through the barn and casing, whereby temperature and humidity conditions in the barn are controlled by only intermittent operation of the heating means and replacement of barn air by outside air in desired proportion.

2,841,383
GAS FUELED HOT AIR GENERATOR
Andrew J. Fuscher, Arlington, Tex.
Application August 4, 1954, Serial No. 447,875
4 Claims. (Cl. 263—19)



4. Apparatus for heating air in an air distributing duct having air moving means therein, said apparatus comprising a cabinet having means for connecting the same to said distributing duct and through which air is caused to be drawn into said duct by said air moving means screens through which said air is constrained to pass for the removal of combustibles entrained in said air, a series of gas burners located adjacent to said connecting means, a gas supply pipe for said burners, an electrical circuit, a gas control valve in said circuit and communicating with said supply pipe, temperature and moisture responsive means in said duct for actuating said control valve to supply gas to said burners in accordance with heat requirements in said duct, means for igniting said burners, an air switch in said circuit and connected with said control valve and means for actuating said air switch to close said control valve when air ceases to pass through the connecting means between said cabinet and said air distributing duct.

2,841,383
INDUSTRIAL HEATING FURNACES
Frank D. Hazen, Pittsburgh, Pa.
Application August 28, 1953, Serial No. 377,166
6 Claims. (Cl. 263—20)



1. In an industrial heating furnace, a plurality of communicating parallel chambers, one of which being

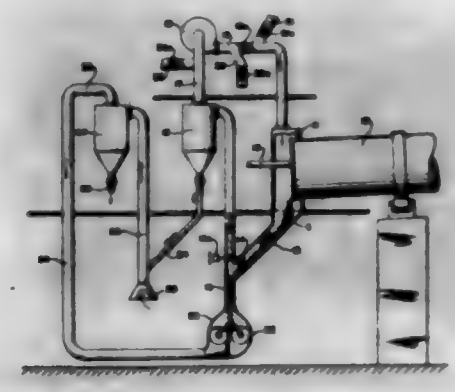
adapted for heating material passing therethrough and the other being a recuperator chamber, banks of heat exchange tubes in said last-named chamber suspended from header boxes in the path of the products of combustion from said first-named chamber, said header boxes normally forming a continuous roof for said recuperation chamber and being connected to cold and hot air manifold ducts and said header boxes being mounted on wheeled axles to be removable from said recuperator chamber, a side wall of said last-named chamber being constructed of removable bulk heads to provide openings for wheeling the banks of boxes and tubes out of said chamber transversely of the longitudinal axis of said chamber.

2,841,384

METHOD AND APPARATUS FOR COOLING MATERIALS BY GAS

Louis Petersen, Rye, N. Y., assignor to F. L. Smidth & Co., New York, N. Y., a corporation of New Jersey

Application December 23, 1954, Serial No. 477,341
5 Claims. (Cl. 263—32)



1. Apparatus for cooling hot material of different particle sizes which comprises a conduit system, means for maintaining a flowing gas stream in said conduit system, said system including an upwardly-extending conduit, crushing means located in said upwardly-extending conduit, means for introducing the material to be cooled into said upwardly-extending conduit downstream of said crushing means in the direction of gas flow, whereby material introduced into said upwardly-extending conduit initially will be separated by said gas stream into a fine fraction which is carried along with the gas stream and a coarse fraction which will pass downwardly to said crushing means and be crushed thereby and the crushed particles then will be entrained in the gas stream and subsequently mixed with said initially separated fine fraction, and means in said conduit system disposed downstream, in the direction of the flow of the gas, from the point of introduction of the material into said upwardly-extending conduit, for separating the material from the gas stream.

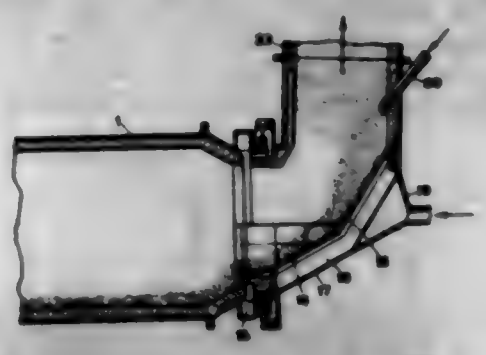
2,841,385

ROTARY KILN

Franz Müller, Refrath, Bezirk Koln, Germany, assignor to Klöckner-Humboldt-Deutz Aktiengesellschaft, Koln-Deutz, Germany, a corporation of Germany

Application December 2, 1953, Serial No. 395,710
Claims priority, application Germany December 19, 1952
2 Claims. (Cl. 263—33)

2. A kiln for processing granular material such as cement, comprising a rotary kiln structure having an open feed end, a stationary flue structure adjacent to said feed end of said kiln structure and extending upwardly away therefrom, said kiln structure and said flue structure forming together an annular gap at said feed end, said flue structure having a bottom portion projecting across said gap into said kiln structure along only part of the periphery of said gap so as to form an upwardly open spout, said bottom portion having an inner surface inclined downwardly toward said kiln structure, an annular housing firmly mounted on said kiln structure to rotate together therewith and surrounding said gap, sealing means disposed between said housing



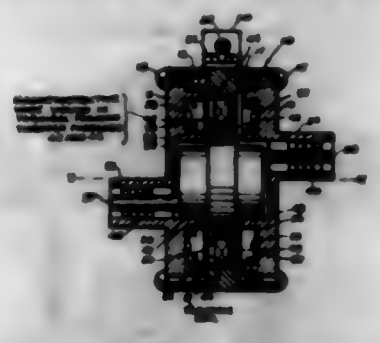
and said flue structure, and a peripherally distributed number of lifting vanes mounted in said housing around said gap to rotate together with said housing for conveying onto said bottom portion any material dropping into said gap.

2,841,386

MAGNETOSTRICTIVE ACCELEROMETER DEVICE

Wilhelm S. Everett, Santa Paula, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application December 9, 1953, Serial No. 397,288
8 Claims. (Cl. 264—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In an acceleration or deceleration sensing device: a housing; an inertia member positioned within said housing and mounted for limited freedom of movement in a direction parallel to that of the force to be sensed; a magnetostrictive wire wound in essentially toroidal fashion within said housing, each turn of said wire being secured along the outer periphery of the toroid to said housing and along the inner periphery of the toroid to said inertia member; and a ring-shaped inductance coil supported by said housing and located within the toroid defined by said magnetostrictive wire.

2,841,387

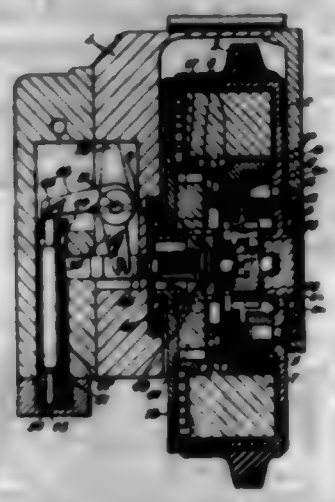
ACCELERATION AND DECELERATION SENSING DEVICE

Frank Radcliffe Mortimer, Stivichale, Coventry, England, assignor to Dunlop Rubber Company Limited, London, England, a British company

Application February 8, 1955, Serial No. 486,948
Claims priority, application Great Britain
February 9, 1954
8 Claims. (Cl. 264—1)

1. Apparatus for automatically controlling the braking pressure in a fluid pressure operated wheel brake which comprises a housing rotatable by a wheel, a member rotatable in and driven by said housing, a flywheel rotatable in said housing and having a limited angular displacement in opposite directions from a mid-position relative to said member, an accelerating spring connected between said member and said flywheel to drive said flywheel in a forward direction, a decelerating spring connected between said member and said flywheel to drive

said flywheel in a reverse direction, said accelerating spring being stronger than said decelerating spring and said springs being so tensioned and positioned as to hold



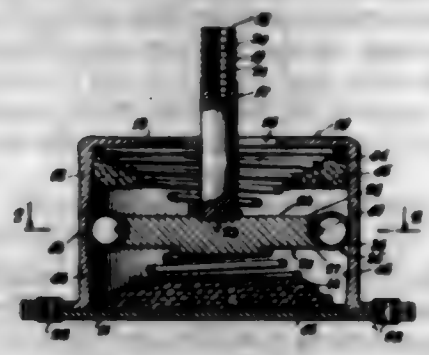
said flywheel in said mid-position when said flywheel and member rotate at the same speed, and control means displaceable by movement of said flywheel in either direction from its mid-position relative to said member.

2,841,368

VIBRATION ISOLATORS

Lester C. Hein, Port Washington, N. Y.

Application June 11, 1956, Serial No. 590,677
12 Claims. (Cl. 267—1)



1. A shock absorber and vibration isolator comprising, in combination; a housing having a side section; a load receiving member partially disposed within said housing; said load receiving member having means defining a groove around said load receiving member; a helical spring partially seated within said groove; said spring being juxtapositioned between said groove and said housing, with the axis formed by the centers of the coils of said spring located between said groove and said housing, and said spring being in slidable frictional contact with said housing; shock absorbing spring means limiting the movement of said load receiving member within said housing; and means to maintain the parts in relative assembled condition.

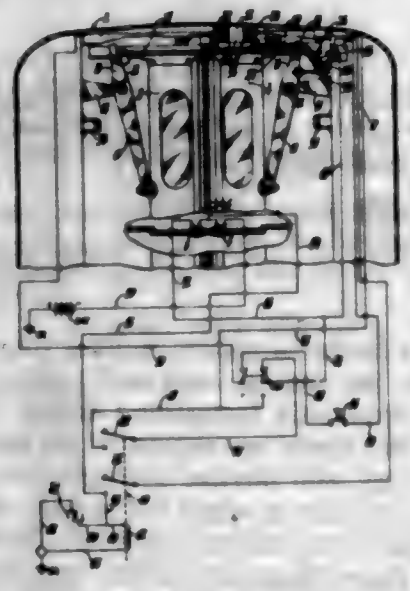
2,841,389

DOOR APPARATUS AND CONTROL

William T. Litherland, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 30, 1955, Serial No. 531,527
2 Claims. (Cl. 268—47)

1. An electrical control for a door including a sensitive edge having a switch actuated thereby upon touching and a door-operating linkage comprising first electrical means connected to said linkage operable to open said door, second electrical means connected to said linkage operable to close said door, a voltage source in electrical circuit with said switch and said electrical door-opening means, a relay energizable by touching of said edge to close said switch, a holding circuit for said relay energizable by energization of said relay, a door switch in said holding circuit operable by full opening of said door to break said holding circuit, a capacitor connected to said source in parallel with the winding of said relay to delay dropping



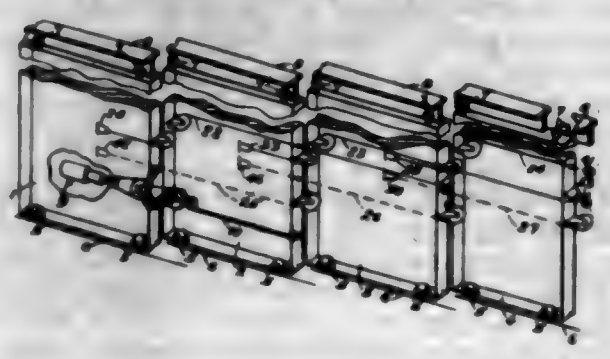
out of said relay upon breakage of said holding circuit, said relay including contacts closed by energization thereof in series with contacts on said door switch closable upon full opening of said door to energize said door-closing means whereby said door closes upon discharge of said capacitor.

2,841,390

OPERATING SYSTEM FOR MULTI-LEAF DOORS

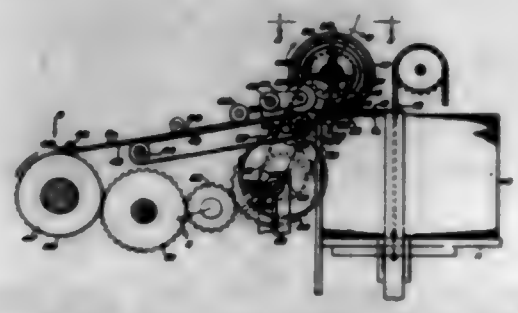
Thornton L. Urquhart, Farmington, Mich., assignor to Byrne Doors, Inc., Ferndale, Mich., a corporation of Michigan

Application October 12, 1953, Serial No. 385,464
2 Claims. (Cl. 268—51)



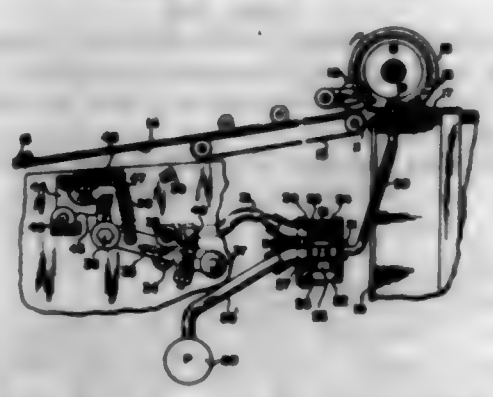
2. In a door operating system, a door comprising at least three leaves movable simultaneously differentially in opposite directions along a predetermined path to arrive substantially simultaneously at fully open and fully closed positions respectively, means for supporting said leaves for movement along said path, a motor mounted on one of said leaves and connected to an adjacent leaf for relatively moving said two last mentioned leaves along said path in opposite directions, and means connected to all of said leaves and dependent upon relative movement of said two last mentioned leaves along said path toward open position for simultaneously differentially moving all of said leaves along said path toward open position and dependent upon relative movement of said two last mentioned leaves along said path toward closed position for simultaneously differentially moving all of said leaves along said path toward closed position, said moving means moving said leaves at rates substantially proportional to the distances between the open and closed positions of the respective leaves.

2,841,391
SHEET FEEDING MECHANISM
Robert K. Norton, Twinsburg, Ohio, assignor to Harris-Intertype Corporation, a corporation of Delaware
Application April 7, 1954, Serial No. 421,587
9 Claims. (Cl. 271—12)



1. In a sheet feeder, a rotary vacuum wheel sheet forwarding device, an endless conveyor device adapted to receive sheets from said forwarding device, front guides against which the sheets are registered by said conveyor, means for driving said devices synchronously at speeds varying from a minimum speed above zero to maximum and back to minimum during each cycle, the taking of a sheet by said forwarding device and the registration of a preceding sheet against said front guides occurring at about said minimum speed.

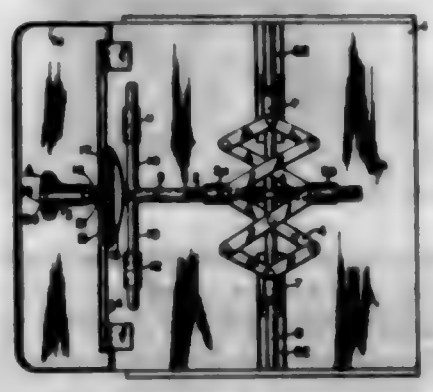
2,841,392
CONTROL FOR SHEET FEEDER
Robert K. Norton, Twinsburg, Ohio, assignor to Harris-Intertype Corporation, a corporation of Delaware
Application October 28, 1955, Serial No. 541,779
6 Claims. (Cl. 271—27)



1. In a pile feeder, suction means for gripping and forwarding the top sheet of the pile, a suction source, a suction line from said source to said suction means, a valve in said suction line, a normally closed atmosphere port, said valve comprising a chamber open to said source and said port, spring means in said chamber biasing said valve to closed position, the suction in said chamber functioning in opposition to said spring means for overcoming the action of said spring means and maintaining the valve open, means for opening said normally closed port, and trigger means adapted to be actuated by sheet detecting means for setting in motion said port opening means, whereupon said spring means acts to close said valve and interrupt sheet feed.

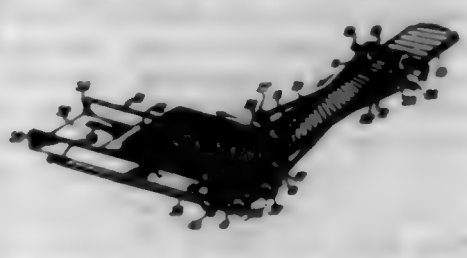
2,841,393
PAPER-CLAMPING DEVICE FOR ROTARY DUPLICATING MACHINES
Edgar Ratishauser, Zurich, Switzerland
Application September 3, 1954, Serial No. 454,189
Claims priority, application Germany March 19, 1954
7 Claims. (Cl. 271—61)

1. Paper clamping device for rotary duplicating machines comprising a table for supporting a stack of the paper to be printed, a threaded spindle extending longitudinally below said table, two-armed lazy tongs operatively connected to said spindle and extending laterally at the opposite sides of the latter, said table having laterally extending slots therein, clamping jaws connected to the opposite ends of said lazy tongs and having portions extending through said slots so that said jaws are moved toward and away from each other, to respectively clamp and release a stack of paper therebetween, by rotation of said spindle, means slidably supporting said spindle and lazy tongs for bodily lateral movement as a unit with respect to said table, releasable locking means normally holding said spindle and lazy tongs against bodily lateral movement with respect to said table, a control knob on said spindle, coupling means releasably connecting said



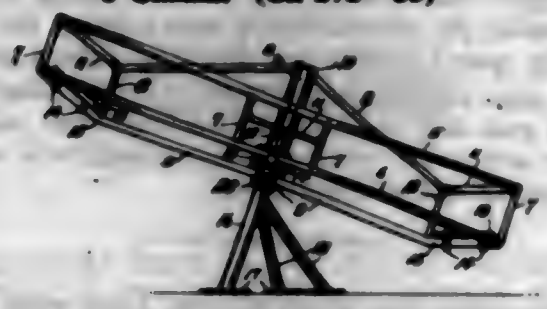
knob to said spindle for normally effecting rotation of the latter, said knob being movable relative to said spindle to disengage said coupling means and simultaneously to release said locking means for permitting lateral adjustment of said spindle and lazy tongs as a unit, and means operable by said knob upon movement of the latter for release of said coupling means and locking means to effect fine lateral adjustment of the position of said spindle and lazy tongs, whereby said control knob is manipulable to control the positions of said jaws with respect to each other, as well as with respect to said table in the lateral direction.

2,841,394
COLLECTOR FOR FLEXIBLE SHEETS
Anton R. Stobb, Racine, Wis., assignor to Western Printing & Lithographing Co., Racine, Wis., a corporation of Wisconsin
Application March 23, 1955, Serial No. 496,160
9 Claims. (Cl. 271—87)



5. In a collector for signatures of limp material coming off a printing press in an overlapped echeloned relation, the combination of two conveyors for transporting said signatures in a direction with the edge thereof in contact with one of said conveyors being the leading edge and with at least a part of said conveyors disposed in a vertical direction to hold said signatures therebetween in a vertical position, said part of said one of said conveyors including a length disposed beyond the extent of the other of said conveyors, a receiver disposed adjacent said length of said one of said conveyors on the side thereof near said signatures, a stripper mounted to extend through said length of said conveyor into the path of said signatures to intercept the latter from said one of said conveyors and thereby cause said signatures to be stacked in said receiver, a third conveyor in said receiver to support said stack on said third conveyor for transporting the latter at a predetermined speed along said receiver away from said one of said conveyors.

2,841,395
OCCUPANT PROPELLED ROUNDABOUT
John W. Walker, Wichita, Kans.
Application March 12, 1957, Serial No. 645,615
3 Claims. (Cl. 272—33)



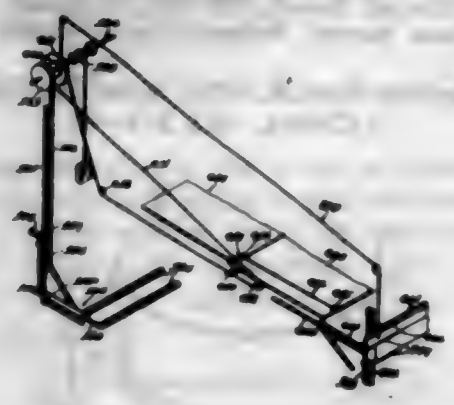
1. An amusement ride, comprising an upright post, a hub forming sleeve journalled on said post, a set of tubular upper spokes radiating from the upper end of said sleeve, a set of tubular lower spokes radiating from the lower end of said sleeve in line with said upper spokes, a tubular upper rim forming ring secured to the outer ends of said upper spokes, a tubular lower rim forming ring secured to the outer ends of said lower spokes, seats on the outer ends of said lower spokes adjoining said lower ring, the upper spokes having passenger enclosing yokes at the outer ends of the same adjoining the upper ring and in position over the seats on the lower spokes, the struts securing said upper and lower spokes and said upper and lower rings in vertically spaced apart relation, less than the body height of passengers to be carried, and whereby passengers riding the seats are fully protected within the perimeters of the two rings and in position to reach out and hold on to the surrounding upper spoke and ring structure.

2,841,396
SLIDING BOARD
Fred F. Foss, Twin Falls, Idaho
Application May 17, 1956, Serial No. 585,487
2 Claims. (Cl. 272—56.5)



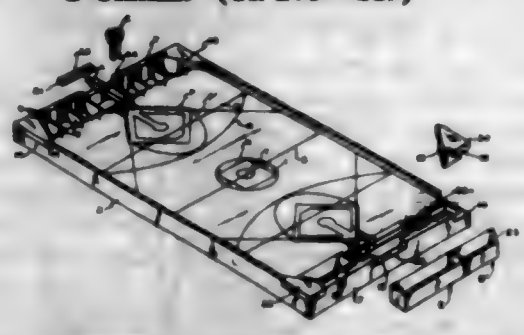
1. A playground sliding board comprising a supporting frame of one-piece construction including a pair of inclined side frame rails having downwardly extending V-shaped legs at the lower end thereof, an interconnecting transverse member between the ends of said legs, said side frame rails having elongated downwardly extending legs at the upper end thereof for supporting the side frame rails in inclined position, a plurality of transverse vertically spaced members interconnecting the elongated legs, a chute of one-piece construction mounted on said frame, said chute including a load supporting portion and a pair of side guide rails, said guide rails being generally U-shaped and inverted for forming downwardly opening channels for receiving said side frame rails, said load supporting portion having downwardly curved ends for grippingly engaging the remote edges of the transverse member between the ends of the V-shaped legs and the upper of the transverse members between the elongated legs, each of said side guide rails on the chute terminating in outwardly flared edges, said frame rails being generally cylindrical in shape with the downwardly opening guide rails frictionally gripping said side frame rails, said chute being of one piece construction of corrosive resistant material, said load supporting portion of the chute being curved transversely in a concave manner for guiding the movement of children thereon and rigidifying the chute.

2,841,397
BOWLING PINSETTING APPARATUS
George A. Moutoush, Long Beach, Calif., assignor to The Brunswick-Balke-Collender Company, a corporation of Delaware
Original application March 26, 1946, Serial No. 657,238, now Patent No. 2,697,605, dated December 21, 1954. Divided and this application December 10, 1954, Serial No. 474,375
1 Claim. (Cl. 273—43)



In combination with a bowling alley having a pin deck, a frame, a ball lift mounted on the frame for up and down movement, a pin setting rack movably mounted on the frame, for movement toward and away from the pin deck, means defining an opening in the frame through which the pin setting rack may pass in movement toward and away from the pin deck, a pin deck cover movably mounted on the frame for closing the opening and movable to clear the opening to permit passage of the pin setting rack toward and away from the pin deck, a pin deck guard mounted on the frame for up and down movement and also for back and forth movement along the pin deck, and means for mechanically interconnecting the ball lift, the pin deck guard and the pin deck cover for simultaneous operation whereby the pin deck guard is lowered and the frame opening cleared preparatory to movement of the pin setting rack through the opening and a ball raised by the ball lift, and means for moving the pin deck guard back and forth to clear the pin deck of pins thereon subsequent to the mentioned movement of the pin setting rack.

2,841,398
BALL GAME APPARATUS
Richard W. Conner, Waynesboro, Pa., assignor of two-fifths to Elva Negley Conner, Waynesboro, Pa.
Application July 9, 1952, Serial No. 297,847
2 Claims. (Cl. 273—119)



1. A game apparatus comprising a gameboard having a substantially flat and level playing surface, there being along the edge of said playing surface a plurality of pockets or wells whose bottoms lie below the level of said playing surface, said gameboard being bounded by

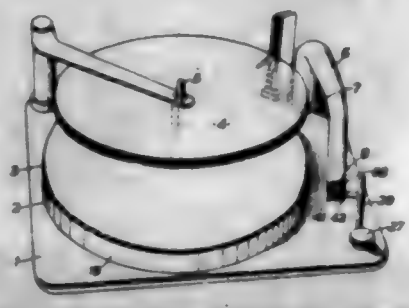
guard rails extending above the level of the playing surface, said guard rails having upwardly opening recesses at spaced points, the bottoms of the recesses being level with the playing surface, the bottom surface being provided with means for mounting projectors thereon, elongated projectors pivotally mounted on said mounting means, said projectors extending inwardly beyond the pockets, targets movably positioned upon the surface of the gameboard, the projectors being pivotally movable to project a projectile against a target or against another projectile which has been projected by an oppositely positioned projector to prevent said projectile from entering a pocket.

2,841,399

SOUND REPRODUCING APPARATUS USING DISC RECORDS

Lawrence Vincent Geest, Old Hill, England, assignor to Birmingham Sound Reproducers Limited, Old Hill, England

Application June 20, 1955, Serial No. 516,553
6 Claims. (Cl. 274—9)



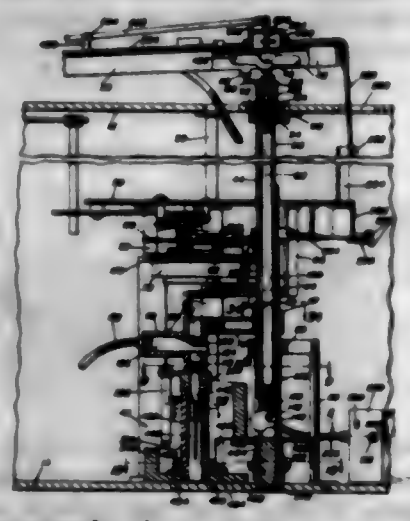
6. In sound reproducing apparatus having a turntable and a pick-up carrier movable over the turntable for the playing of records and being movable to an outer position outside the edge of any record on the turntable, and including pick-up means carried by said carrier and being provided with two styli movable alternately into operative position with respect to a record on the turntable, the combination of a movable abutment arranged adjacent the outer position of said carrier and being movable manually from one position to another, and contact means carried by said pick-up for engaging said abutment and being rendered operative by the outward movement of said carrier into said outer position for shifting said pick-up means to effect substitution of one stylus for the other in the operative position with respect to the turntable.

2,841,400

TONE ARM CONTROL FOR THE FULLY AUTOMATIC OR MANUALLY CONTROLLED PLAYING OF INTERMIXED RECORDS

Herman H. Mueller, Ephrata, Pa., assignor of small interests to various assignees

Application July 10, 1953, Serial No. 367,316
22 Claims. (Cl. 274—10)



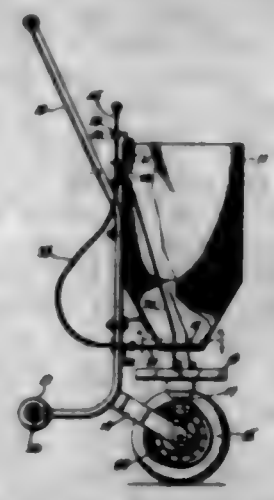
1. In an automatic phonograph record player, a tone arm having needles extending upwardly and downwardly therefrom, a support post, means mounting said tone arm upon said support post for tilting upwardly and downwardly in a vertical plane, a tilting rod vertically reciprocable in said tone post and operatively connected at its upper end to said tone arm for tilting the latter, an actuating pin on said tilting rod, a tilting cam having vertically spaced upward and downward tilting grooves, a control cam carried by and rotatably journaled in said support post and operatively associated with said tilting rod for selectively vertically positioning said actuating pin in one of said tilting grooves.

2,841,401

SPREADER FOR FERTILIZER AND THE LIKE

Anthony Mascaro, West Point, Pa.

Application August 11, 1955, Serial No. 527,688
1 Claim. (Cl. 275—15)



A mobile spreading unit comprising a tank for containing granular, pulverulent, and like material, at least one wheel supporting said tank and mounted for rotation about a substantially horizontal axis, an upright stub shaft mounted on said unit adjacent said wheel, a spreader element mounted for rotation on said shaft and comprising a substantially flat backing plate, and a plurality of upstanding vanes disposed radial to said stub shaft, means to effect rotation of said spreader elements upon advance of said unit, a discharge opening in said tank overlying said spreader unit, an agitator mounted in said tank comprising a resilient flexible strip depending downwardly through said discharge opening and displaceable vertically between a first position in engagement with the vanes whereby upon rotation of said element said strip is vibrated to effect a uniform flow of material through said discharge opening, and a second position out of engagement with said vanes, valve means in said discharge opening to afford flow of the material onto said backing plate, and an operator for said valve means movable between first and second limit positions respectively opening and closing said valve means, and connections between said strip and said operator to position the strip in its first position when the operator is in its first position and in said second position when said operator is in its second position.

2,841,402

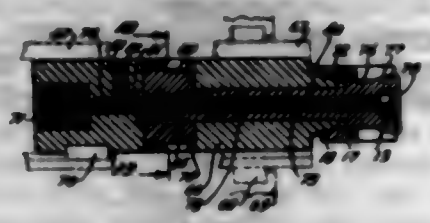
EXPANDING MANDREL CHUCK

Charles E. Drew, Racine, Wis.

Application November 7, 1955, Serial No. 545,156
4 Claims. (Cl. 279—2)

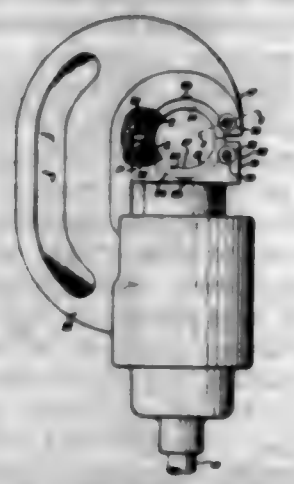
1. In a chuck, the combination of a chuck member having an apertured tapered spindle, a lengthwise adjustable drawpin having a tapered end and a shank having a portion slidably movable and guided in the aperture in said spindle, an expanding chucking mandrel engaged by said tapered spindle and the tapered end of said drawpin, and torsion resisting means permitting free length-

wise sliding movement of said shank relative to said chuck member but resisting its turning movement including a torsion resisting collar non-rotatably mounted on



a portion of the shank of said drawpin rearwardly of said portion of the shank in said aperture and also mounted in a bore in said chuck member disposed at right angles to said aperture in said chuck member.

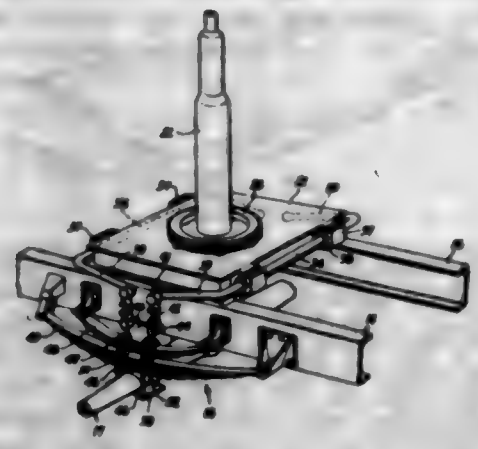
2,841,403
DETENT
Charles H. Klein, Cleveland, Ohio, and Walter E. Northcutt, Melrose, Mass., assignors to The National Telephone Supply Company, a corporation of Ohio
Application July 10, 1957, Serial No. 670,926
16 Claims. (Cl. 279—76)



1. A detent to releasably hold together first and second members having a path of relative movement therebetween, said detent comprising, spring means of wire-like material and having an axis, a portion of said spring means parallel to the axis thereof being partially cylindrical in form with sections of the wire-like material therein disposed at an appreciable acute angle to a plane normal to said axis, means holding said spring means in said second member with the axis of said spring means transverse to said path of movement, a detent surface on said first member, and abutment means including said detent surface acting between said first member and said spring means, whereby when said first and second members are separated and moved in one direction along said path of movement said abutment means causes transverse compression of said spring means to axially expand same to permit detent release of said first and second members, and whereby when said first and second members are relatively moved in the opposite direction in said path of movement said abutment means causes transverse compression of said spring means to axially expand same to effect detent engagement between said first and second members.

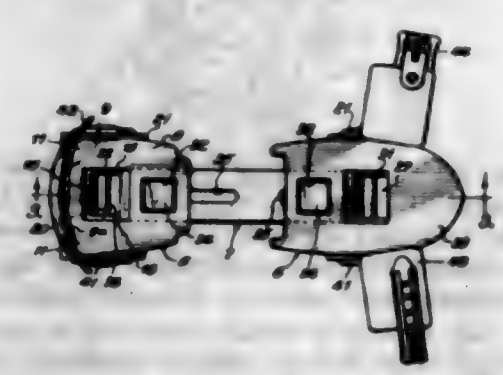
2,841,484
MOBILE LIFTING EQUIPMENT
Jay M. Eltel, Los Altos, Calif.
Application January 23, 1956, Serial No. 560,622
6 Claims. (Cl. 280—6)

1. In mobile lifting equipment of the type including a wheeled vehicle and a lift supporting structure carried by the vehicle and adapted to rotate about a vertical axis, the vehicle having at least one wheel mounting axle generally underlying said axis, and laterally spaced longitudinal frame members attached to the axle by load supporting cushioning assemblies, means including a rigid bed plate serving to carry said structure, the bed plate being supported by said frame members, a torsion mem-



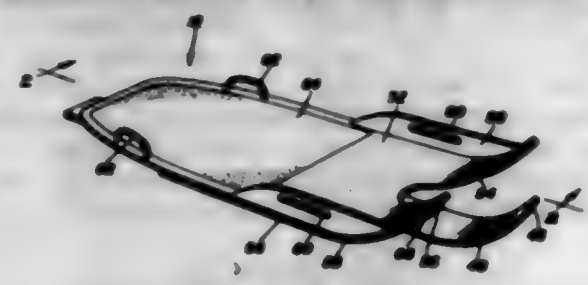
ber extending laterally of the frame members adjacent said bed plate, means forming a journal connection between said member and the bed plate, said member having arms secured to the ends of the same, and means forming an articulated connection between the ends of said arms and said axle.

2,841,485
ROLLER SKATE HAVING UNITARY PLASTIC BODY
Charles E. Jones, Chicago, and William G. Crowle, Berwyn, Ill., assignors to Manning Manufacturing Corporation, Chicago, Ill., a corporation of Illinois
Application July 26, 1956, Serial No. 600,218
6 Claims. (Cl. 280—11.26)



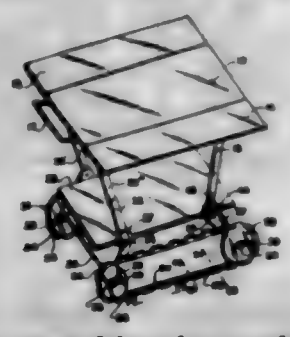
1. A skate comprising a heel and a toe portion each having a flat top wall, said portions being arranged end to end, a pair of laterally spaced parallel longitudinal webs integral with and depending from the bottom face of each top wall, the webs on each portion defining with the respective top wall inverted channels, said channels opening onto the opposed ends of said portions, a connecting bar extending between said portions and having its ends telescoped into the channels, means to secure the bar to the top walls for adjustment of the portions relative to said bar, wheel-carrying hollow journal bosses on each portion, said bosses each including parallel side walls integral with a respective pair of said webs, said side walls being offset inwardly of said webs to define upwardly facing longitudinal shoulders in abutment with the bar so as to transmit the load carried by the journal bosses to said bar, and a heel stop on the heel portion comprised of an upstanding wall integral with the top wall thereof and a depending wall spaced from the upstanding wall and integrally connected at its upper edge to the upper edge of the upstanding wall, said walls being arched laterally and defining an inverted channel open at each of its ends to receive an ankle strap threaded therebetween.

2,841,406
SLED
Arthur E. Brandon, Sauk Rapids, Minn.
Application February 14, 1956, Serial No. 565,331
1 Claim. (Cl. 280—12)



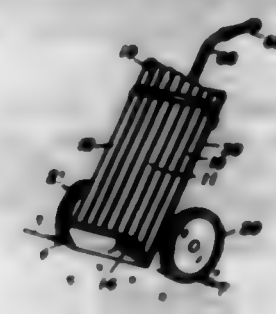
A sled comprising a center ski, a pair of bars extending along opposite sides of the center ski on top thereof and fixed thereto, a platform supported centrally by said pair of bars, a pair of flat out-rigger ski bars extending along opposite sides of the platform and fixed to the bottom thereof above said center ski, said platform having a front notch in the longitudinal center thereof and upwardly curved side portions at opposite sides of the notch, said out-rigger ski bars underlying and being fixed to said curved portions and curving in conformance therewith.

2,841,407
PORTABLE FOLDING CART-TABLE
Victor P. Arnao, Brooklyn, N. Y.
Application February 11, 1957, Serial No. 639,544
6 Claims. (Cl. 280—36)



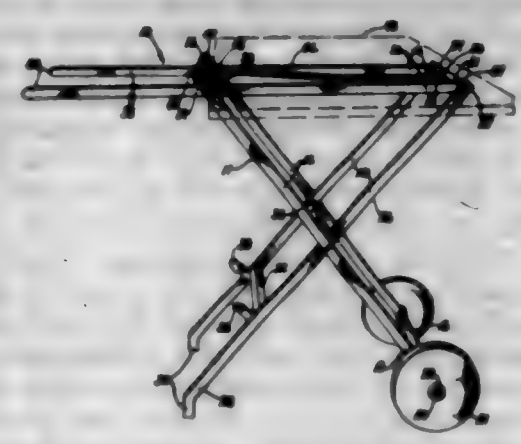
1. A cart-table, comprising in combination: a generally rectangular table top, a pair of leaves hinged to opposite sides of said top and foldable thereover, a pair of braces slidably disposed underneath said top and arranged to support said leaves in extended positions thereof, a first pair of legs pivotally attached at one end to said top, said legs having straight portions, the other ends of said legs being angularly disposed to said straight portions, a first pair of wheels rotatably mounted on an axle supported by said other ends of said legs, a shelf supported between said wheels and said top, said shelf carrying a pair of brackets, said straight portions of said legs being pivotally attached to said brackets, another pair of legs having central portions pivotally attached to other brackets secured to said shelf, said other pair of legs having offset ends joined by a cross-bar, said table top carrying a pair of lugs with recesses adapted to retain ends of said crossbar therein, said other pair of legs each having one of its ends angularly disposed, another pair of wheels rotatably mounted on the other ends of said other pair of legs, a pair of endless belts, each of said belts being mounted to move endlessly over one wheel of the first pair of wheels and over one wheel of the second pair of wheels, each of said belts being a flexible member having an inwardly disposed endless groove arranged to fit the peripheries of said wheels, each of said belts having spaced teeth extending outwardly therefrom, said groove having a plurality of equally spaced openings in the bottom thereof, said openings being located between the teeth for passage of foreign material from the groove in the belt, whereby the cart-table may be moved over soft and slippery ground, and whereby the cart-table may be collapsed to a space having a width not greater than the diameter of said wheels.

2,841,408
COLLAPSIBLE GOLF CART
Eugene S. Marlette, St. Petersburg, Fla.
Application April 30, 1954, Serial No. 426,639
4 Claims. (Cl. 280—38)



1. A golf cart comprising, in combination, an elongated club-holding body member, a handle pivotally connected to said body member to fold with respect thereto, a wheeled chassis pivotally connected to the back side of said body member for bodily movement in a plane parallel to the body member to and from a use position in which it is disposed at right angles to said body member from and to a storage position in which it extends lengthwise of the said body member, said body member being provided with elongated slide means for the chassis pivot, a link pivotally connecting the body member and said chassis at a point on the latter removed from said chassis pivot and operative to impart lengthwise movement to the pivot means in the slide means with pivotal movement of the chassis about said pivot means, releasable means for holding said chassis in the one or the other of said use and storage positions to which it has been actuated, wheel brackets hingedly connected to the chassis adjacent its ends for folding movement against the chassis, and wheels mounted on said wheel brackets to turn on a common axis extending along the chassis.

2,841,409
ARTICLE SUPPORT STAND
Donald O. Osler, Fresno, Calif.
Application December 8, 1955, Serial No. 551,779
3 Claims. (Cl. 280—41)



1. A portable, mobile, collapsible stand adapted to support a mortar board comprising main and auxiliary substantially rectangular support frames having spaced longitudinal bars providing upper and lower ends, and upper transverse bars extended between the upper ends of their respective longitudinal bars; a pivot rod substantially parallel to the transverse bars interconnecting the longitudinal bars of the frames at corresponding positions intermediate their upper and lower ends for movement between an expanded position with the main frame rearwardly inclined and the auxiliary frame forwardly in-

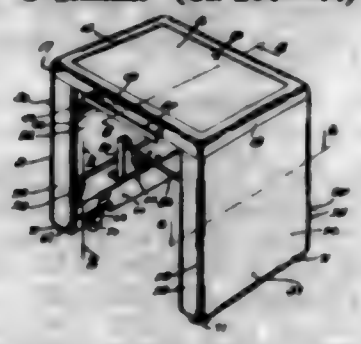
closed and a collapsed position with the frames folded against each other; support wheels rotatably mounted on the lower end of the main frame; a sleeve journalled on the upper transverse bar of the main frame; an elongated brace having an inner end connected to the sleeve, the brace also having an outer end; means releasably connecting the outer end of the brace to the upper transverse bar of the auxiliary frame when the frames are in expanded position; a pair of elongated handle bars having inner and outer ends; a transverse bar extended between the longitudinal bars intermediate the inner and outer ends, the inner ends of the handle bars being pivotally connected to the upper transverse bar of the auxiliary frame for movement of the handle bars into a substantially horizontal position with the transverse bar thereof adjacent to the upper transverse bar of the main frame; and latch means releasably interconnecting the upper transverse bar of the main frame and the transverse bar interconnecting the handle bars.

2,841,410

SEMI-CLOSED OFFICE MACHINE STAND OR SMALL DESK

Otto H. Kessler, Jr., and Raymond N. Sellen, Jr., Milwaukee, Wis., assignors to Steelper Steel Products Corporation, Menomonee Falls, Wis., a corporation of Wisconsin

Application May 3, 1954, Serial No. 427,196
2 Claims. (Cl. 280—44)



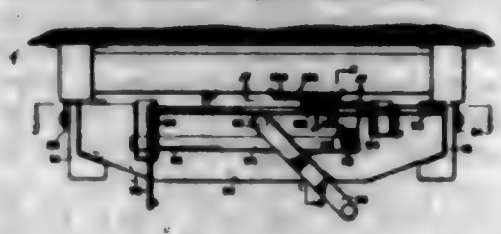
1. In a desk having a top, a pair of pedestals beneath the ends of the top, each pedestal comprising an upright sheet metal channel closed at its front and back and outer side and opened inwardly beneath the desk top, together with a foot carried at each end of each pedestal beneath the corners of the desk top, a control housing extending from the front to the rear of the desk within the lower portion of each pedestal, levers within the respective housings pivoted thereto and provided with casters movable to and from desk supporting position below the level of respective feet and a common control for said levers including lever means pivoted to the respective housings and a rod connecting said last lever means and extending longitudinally of the desk between said pedestals.

2,841,411

PRE-SELECTOR FOR POSITIONING RUNNING GEAR RELATIVE TO TRAILER BODY LOAD

Charles Bradford Sheppard, Meadow Brook, and Paul Tennebaum, Philadelphia, Pa., assignors, by mesne assignments, to Fruehauf Trailer Company, Detroit, Mich., a corporation of Michigan

Application January 10, 1956, Serial No. 558,278
5 Claims. (Cl. 280—81)



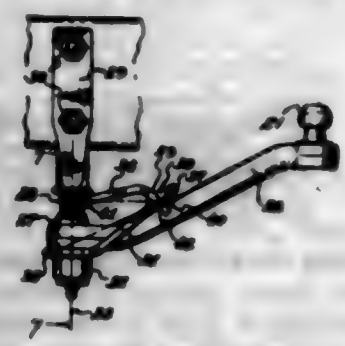
4. In a motor vehicle having running gear including side rails and a body having longitudinal side tracks slidably engaging the rails, a pre-selector for positioning the body load relative to the running gear comprising a plurality of longitudinally spaced apertures provided in said tracks, a pair of coupling rods mounted on said running gear for sliding movement through said rails, a bar pivotally interconnecting the inner ends of said coupling rods, springs wound about said rods and urging their outer ends towards said body side tracks, a shaft rotatably mounted on said running gear, one end of which is fixedly secured to said bar and the other end of which carries a handle, a spring wound about said shaft urging the handle in a particular direction and the coupling rods towards said body side rails, a keeper carried by said bar, a latch bar pivoted at one of its ends to said running gear and having a notch on its other end, resilient means urging the notched end of said latch bar into engagement with the keeper, a vertical rod carried by said latch bar, longitudinally and transversely spaced cam lugs carried by said body, the longitudinal spacing thereof corresponding to the longitudinal spacing of said side track apertures, a transverse rod rotatably and slidably mounted on said running gear having a handle on one of its ends and a plate at its other, a further cam lug on said plate, said plate being positionable to overlie said vertical rod and when moved downwardly to depress said vertical rod and release said latch bar, and indexing means correlated with the spacing of said body cam lugs whereby said further cam lug can be shifted to a position in longitudinal alignment with a given body cam lug.

2,841,412

AUTOMOTIVE IDLER ARM STABILIZER

Fred Minsek, Phoenix, Ariz.

Application May 25, 1956, Serial No. 587,349
2 Claims. (Cl. 280—95)



1. An idler arm stabilizer for the steering apparatus of an automotive vehicle having a frame, and idler arm bracket fixed on said frame, and an idler arm pivotally mounted at its inner end on said bracket, said stabilizer including a U-bolt engaging around a rigid surface on and below said inner end of said idler arm to one side of the axis of pivotal mounting of said arm on said bracket, a clamp piece engaging said bracket at a diametrically opposite point from the point of engagement of said U-bolt on said idler arm end, clamp nut means on the outer ends of said U-bolt engaging an abutment surface on the outer end of said clamp piece, and a further abutment surface on the outer end of said clamp piece engaging an intermediate portion of said idler arm when said clamp nut means is tightened.

2,841,413

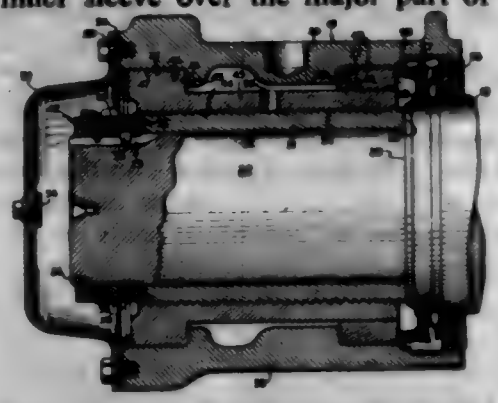
SPRING SEAT AND TRUNNION BEARING FOR VEHICLE SUSPENSION

William L. Pringle, Dearborn, Mich., assignor, by mesne assignments, to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania

Application June 11, 1953, Serial No. 361,009
6 Claims. (Cl. 280—104.5)

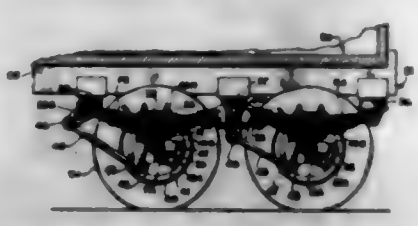
1. In a tandem axle vehicle suspension, a trunnion, a spring seat mounted to oscillate about the axis of said

trunnion comprising a spring mounting platform and a portion surrounding said trunnion, an externally threaded inner bearing sleeve non-rotatably mounted on said trunnion and secured against axial displacement on said trunnion, an internally threaded outer bearing sleeve engaged with said inner sleeve over the major part of its length



secured within said spring seat portion and fixed against rotation and axial displacement with respect to said spring seat, axially spaced bores in said spring seat portion each terminating in a radial wall facing the adjacent end of the spring seat, said outer sleeve having its outer end secured in the axially outermost of said bores, and a ring secured in the innermost of said bores surrounding and backing the inner end of said outer sleeve.

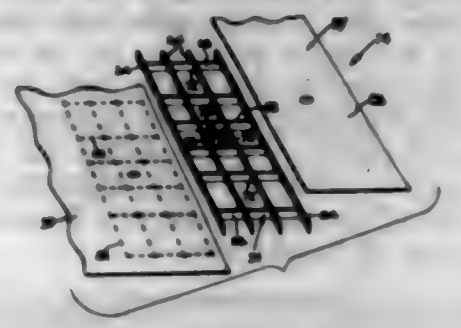
2,841,414
ANTI-BRAKE-HOP STRUCTURES FOR WHEELED VEHICLES
James C. Ward, Springfield, Mo., assignor, by mesne assignments, to Alaska Juneau Gold Mining Company, Los Angeles, Calif., a corporation of West Virginia
Application March 2, 1954, Serial No. 413,636
12 Claims. (Cl. 280—104.5)



1. In a tandem for a vehicle, a supporting frame, a pair of semi-elliptic front springs having a front axle connected thereto and a pair of semi-elliptic rear springs having a rear axle connected thereto, wheels on said axles, brake means effective between said axles and said wheels for applying braking forces to said wheels, means mounting said springs beneath said frame in a load equalizing relation, lower torque rod means only for said axles and each pivotally connected at the forward end to said frame, and connecting arms rigidly connected to said axles and pivotally connected to the respective rear ends of said torque rod means on axes located a substantial distance below the related axles, whereby otherwise unrestricted inertia forces of the vehicle attendant to braking are applied to said arms below the axes of the axles thereby precluding brake hopping.

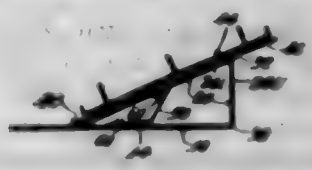
2,841,415
UPPER FIFTH WHEEL LOAD-BEARING FRAME STRUCTURE FOR SEMI-TRAILERS
James J. Black, Cincinnati, Ohio, assignor to Trailmobile, Inc., Cincinnati, Ohio, a corporation of Delaware
Application December 21, 1956, Serial No. 629,924
14 Claims. (Cl. 280—106)

1. An upper fifth wheel structure for a semi-trailer including lower side rails, said upper fifth wheel structure comprising a plurality of members forming a multi-directional grid, stress plates which are spaced apart by the grid and which respectively reside in rigid interconnection with the grid at the top and bottom faces of the grid, a king pin interconnected with said grid at a substantially central portion thereof and projecting beneath the lower one of said stress plates for coupling interconnection with a lower fifth wheel member carried on a tractor, the said upper fifth wheel structure being disposed between and connected to the side rails of the semi-trailer, the said semi-trailer having a floor over its main area rearwardly of said fifth wheel structure, said floor supported on said side rails, the top stress plate of said upper fifth wheel being substantially flush with the upper



surface of said floor and constituting a continuation thereof in the area in which said upper fifth wheel assembly is located, the lower stress plate in the area thereof adjacent said king pin being adapted for facial engagement by the upper surface of a lower fifth wheel carried on a tractor, and both stress plates in conjunction with said grid constituting load carrying members through which the static and dynamic loading of said semi-trailer is supported from a tractor through said upper fifth wheel structure.

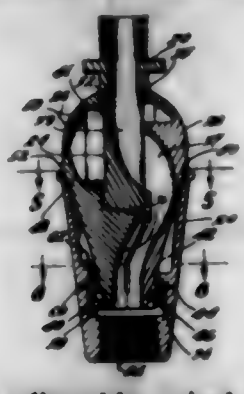
2,841,416
PORTABLE DISPLAY BINDER
Arthur M. Barrett, Winnetka, Ill., assignor to The Barrett Bindery Co., Chicago, Ill., a corporation of Illinois
Application July 7, 1953, Serial No. 366,547
4 Claims. (Cl. 281—33)



1. A display binder comprising similar outer and inner cases, said outer case including a pair of substantially rigid covers hingedly connected with respect to each other along the inner edges thereof, said inner case including a pair of covers hingedly connected with respect to each other along the inner edges thereof and each including substantially rigid corresponding sections hingedly connected along a common line transversely of the hinged connections of said covers, said cases being hingedly connected to one another along one edge thereof transversely of the hinged connections of said covers and in spaced parallel relation to the hinged connection of the sections of each cover of said inner case, a binding device carried by said inner case, said device being secured to said inner case adjacent and parallel to the hinged connection of said covers of said inner case and only to the side of the hinged connection of the sections of said covers of said inner case opposite the hinged connection of said cases, the binder affording a flat viewing position by moving the two sets of corresponding covers of the two cases away from one another about the hinged connections of said covers, a low angle viewing position by disposing the binder in said flat position and moving the edge of said inner case opposite the hinged connection of said cases toward the hinged connection of said cases to dispose the sections of each cover of said inner case at an inclination to the covers of said outer case, and a high angle viewing position by disposing the binder in said flat position, moving the edges of said cases opposite the hinged con-

nection thereof apart and resting the binder on the said edges of said cases, stop means between corresponding portions of said cases limiting separation of said cases to define the high angle viewing position, and abutment means mounted adjacent the edge of said outer case opposite the hinged connection of said cases and engageable by the adjacent edge of said inner case to define the low angle viewing position.

2,841,417
UNIVERSALLY ADJUSTABLE CONNECTION HAVING PLURAL SWIVELS
David D. Myaick, Philadelphia County, Pa., assignor to Universal Brass Works, a partnership of Pennsylvania
Application April 16, 1954, Serial No. 423,751
7 Claims. (Cl. 285—168)



1. A universally adjustable swivel connector comprising a rotatable member, a pair of first circular bearing elements being disposed on opposite sides of said rotatable member and in line with each other, a sleeve, a pair of supporting members each having a second circular bearing element adjacent to one of its ends, said second circular bearing elements being engaged with said first circular bearing elements, the other ends of said supporting members being inserted within said sleeve with the mouth of said sleeve in contact with the outer surfaces of said supporting members which bear against said mouth at an angle when engaged with said rotatable member, corresponding portions of the inserted ends of said supporting members and said sleeve including cooperating projections and indentations for axially locking said inserted ends of said supporting members within said sleeve while allowing relative rotation between said supporting members and said sleeve, a resilient means reacting in an axial direction between said cooperating projections and indentations to draw said supporting members within said sleeve and to cause said mouth of said sleeve to forcefully react against said supporting members to maintain said first and second circular bearing elements forcefully engaged, and connecting means upon said rotatable member and said sleeve which are maintained in relative positions to which they have been adjusted by rotation of said rotatable member with respect to said supporting members and rotation of said supporting members with respect to said sleeve by the forceful contact of the mouth of said sleeve upon said supporting members and said forceful engagement of said first and second circular bearing elements.

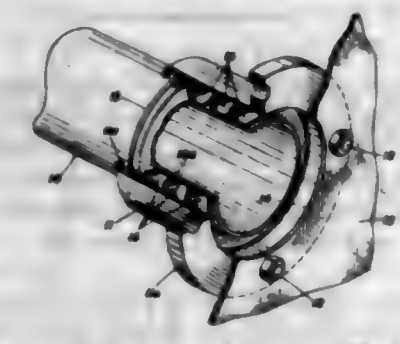
2,841,418
SHEET METAL FASTENER FOR CONNECTING A FLEXIBLE DRAINAGE TUBE TO A PLATE
Bernard H. Keating, Detroit, and Claude P. Sprunk, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 5, 1955, Serial No. 550,949
1 Claim. (Cl. 285—194)

A sheet metal fastener for retaining a hose member in fixed relation to a wall member having an opening provided therein for receiving said hose member therethrough, said fastener being made of a substantially rectangular sheet metal blank and comprising a ring portion corresponding substantially to the cross section of said hose member, two spaced apart elongated leg portions integral with said ring portion and extending axially from its outer circumference to form a tubular member and terminating in two radially outwardly extending substantially semi-circular flanges, a single inbent tang on each leg portion near said ring portion being formed from opposite side edges of each leg portion, each of said tangs having a substantially triangular configuration defined by a portion of the side edge, an edge extending substantially perpendicular thereto formed by a lateral slit in each leg portion



spaced from said ring portion and a bend line extending diagonally from the inner end of said slit away from said ring portion to the side edge, a semi-annular groove in each of said leg portions bordered by one of said flanges, said grooves providing in combination an annular wall receiving groove, said leg portions of the fastener receiving the end portion of said hose member in abutting relation against said ring portion and being clamped to said hose member with said tangs biting therein upon receipt of said fastener and hose within said wall opening and the reception of said wall member within said annular groove.

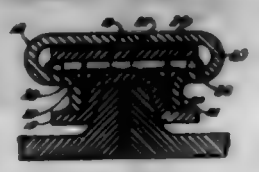
2,841,419
FLEXIBLE INNER TO OUTER PIPE COUPLING WITH PLURAL SEALS
Kenneth William Jay, Beverley Hills, Ontario, Canada, assignor to Orenda Engines Limited, Malton, Ontario, Canada, a corporation
Application November 7, 1955, Serial No. 545,386
2 Claims. (Cl. 285—225)



1. A pipe coupling comprising a cylindrical pipe having an annular flange on its outer surface spaced from one end of the pipe, a cylindrical sleeve-like adaptor having an inner diameter greater than the outer diameter of the circumferential flange, the adaptor encircling the said pipe from the said end to beyond the said flange and having an inner annular flange located at the side of the said circumferential flange remote from the said end of the pipe, the inner diameter of the inner flange being less than the outer diameter of the said circumferential flange whereby the pipe is prevented from being withdrawn from the adaptor, and a plurality of annular resilient seals of thin sheet metal spaced apart lengthwise of said pipe and independently sealing the space between the adaptor and the pipe, the seals being U-shaped in

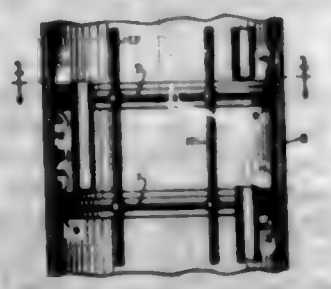
axial section and facing in the same direction between the adaptor and the pipe, the sides of each of the U-sections being in engagement with and secured at their free ends to the outer and inner surfaces respectively of the pipe and the adaptor.

2,841,420
V-BAND CLAMP WITH CLAMPING BAND AND COMBINED GUIDE AND BRACING YOKES
Theodore A. Woolsey, Albert Dale Herman, and Leonard L. Rice, Los Angeles, Calif., assignors to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan
Application April 24, 1956, Serial No. 580,336
2 Claims. (Cl. 285—421)



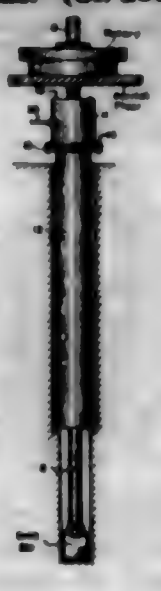
1. In a band clamp for coupling flanged members: a plurality of retainer segments for collectively encircling and embracing a pair of abutted flanges, said segments being of rolled channel section including an apex, a pair of jaws extending generally radially inwardly from respective sides of said apex, and a foot extending axially outwardly from each of the respective jaws at its inner margins; a constrictor band for drawing said segments radially inwardly, said band encircling the segments outwardly of the apexes thereof; connector means for drawing the ends of said band together; and a plurality of formed strap metal yokes each including a pair of laterally spaced legs secured to respective feet of a respective segment, a pair of shoulders extending axially outwardly from the respective legs and axially aligned with the segment apex, return bends joined to the outer extremities of said shoulders, and a bridge joining said return bends and overlying said band, the extremities of said bridge cooperating with said shoulders and return bends to provide opposed guide loops in which the respective margins of said band are slidably retained, and anti-friction rollers interposed between said band and respective segments and in rolling engagement with said apex and shoulders, for transmitting to the segment feet through said legs, radial loads developed in said band by the constriction thereof.

2,841,421
PACKING OF RINGS, DISCS, AND OTHER TRAY-LIKE DIVISIONAL WALLS IN PIPES, TOWERS, COLUMNS AND OTHER SUCH VESSELS
Peter N. Heere, Livingston, N. J.
Application March 25, 1955, Serial No. 496,649
5 Claims. (Cl. 286—1)



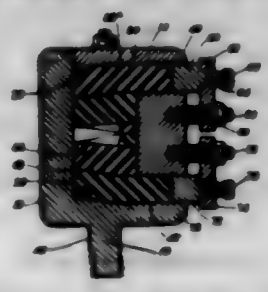
1. In combination, a containing vessel, an inserted member conforming to the surrounding wall of said containing vessel and having a rim spaced from said surrounding wall of the containing vessel, a strip of flexible, compressible packing material resistant to high temperature, pressure and chemicals in said containing vessel interposed and compressibly held in the space between the rim of said member and the surrounding wall of said containing vessel, said strip of packing material having a bead enlargement along its lower edge, said bead being wedged between the surrounding wall of the containing vessel and the lower edge of the rim on said member, whereby said member is secured in pressure-tight engagement to the surrounding wall of the containing vessel.

2,841,422
LOW PRESSURE BLOWOUT PREVENTER
Algernon S. Badger, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application June 23, 1955, Serial No. 517,473
6 Claims. (Cl. 286—16.5)



3. A device for controlling pressures in a well and adapted to seal off a well bore comprising in combination a tubular housing adapted to be connected into a surface casing in said well bore, a deformable sleeve member having an opening therethrough mounted in said housing and forming with said housing a pressure-tight annular chamber, said housing being formed to provide a fluid inlet communicating with said annular chamber, said sleeve member being provided with a plurality of internally projecting serrations on its inner wall intermediate its upper and lower ends, said serrations being of a greater deformability than said sleeve member whereby when said annular chamber is pressurized said sleeve is deformed and the opening through said sleeve is sealed.

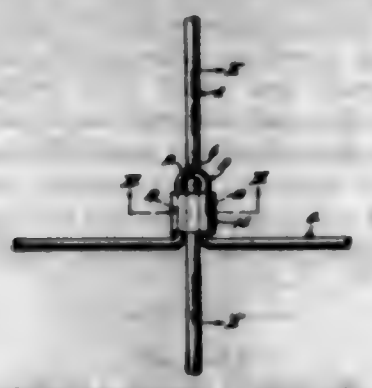
2,841,423
STUFFING BOX WITH HELICALLY ARRANGED PACKINGS INSERTED FROM THE SIDE
Charles F. Moseley, Bartlesville, Okla.
Application May 26, 1955, Serial No. 511,339
5 Claims. (Cl. 286—38)



3. A stuffing box for an oil well polished rod comprising a tubular housing having an open top and adapted for disposition around the polished rod, a removable cover member for the open top of the housing likewise adapted for disposition around the polished rod, an upper packing strip of square configuration disposed within the housing around the polished rod, means integral with the cover to guide the packing strip in a downwardly directed spiral path around the polished rod, a lower packing strip of circular configuration disposed within the housing around the polished rod, means integral with

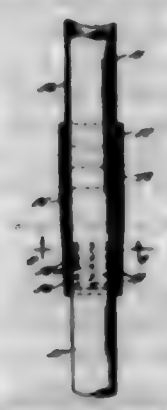
the housing to guide the lower packing strip in an upwardly directed spiral path around the polished rod, said housing having apertured means in the side wall thereof to permit insertion of the packing strips, and means cooperating with the apertured means for compressing the packing strips to provide an efficient sealing contact thereof with the outer periphery of the polished rod.

2,841,424
WIRE JOINT
William F. Richardson, Carthage, Mo., assignor to Flex-O-Lators, Inc., Carthage, Mo., a corporation of Missouri
Application September 26, 1955, Serial No. 536,591
2 Claims. (Cl. 287—49)



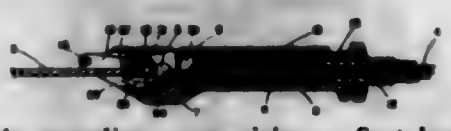
1. A wire joint comprising a first wire crimped at a point to form an indentation therein, a second wire disposed angularly to said first wire and extending through the indentation thereof, said second wire being transversely offset adjacent said first wire and having the connecting portions at said offset lying against and parallel to said first wire, and means rigidly joining said first wire and the connecting portions of said second wire.

2,841,425
EXTENSIBLE TOOL HANDLE
Richard T. Oeters, Philadelphia, Pa.
Application April 4, 1955, Serial No. 499,081
1 Claim. (Cl. 287—58)



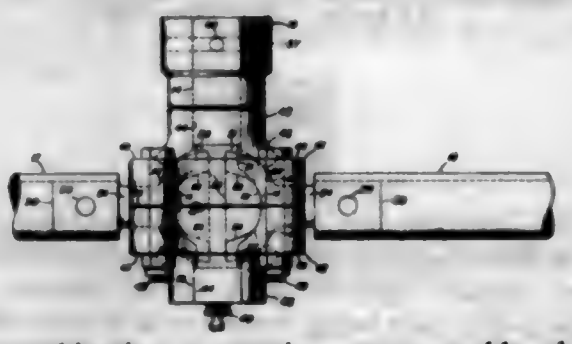
An extensible tool handle consisting of a plurality of smooth surfaced tubes successively telescoped one within another and longitudinally adjustable with respect to each other, the external tube of each immediately adjacent pair of said tubes being slitted at one end to provide a plurality of fingers at said end, a sleeve mounted on and enclosing the slotted end of each of said outer tubes, said sleeves each being movable longitudinally with respect to the outer tubes with which they are respectively associated, said sleeves each having an internally tapered portion adapted to engage and constrict the aforesaid fingers to cause the same to grip the internal tube of the respective pair when the same is in a desired adjusted position, each of said sleeves being independently and freely rotatable when said sleeves are in inert or nongripping position, each of said sleeves having an internal collar secured thereto and each of the external tubes having a collar fixedly and permanently secured on said tube and located within the aforesaid sleeve, said collars being respectively positioned relatively to limit the longitudinal movement of the sleeves on the ends of the respective external tubes and to retain said sleeves thereon.

2,841,426
CABLE COUPLING
Donald G. Schanke and Erwin K. Rose, Los Angeles, Calif., assignors to North American Aviation, Inc.
Application November 23, 1953, Serial No. 393,855
6 Claims. (Cl. 287—76)



1. A cable coupling comprising a first holding means having an end adapted to receive and hold a first cable end; a clamping member having an open side receiving said first holding means, said clamping member being pivotally connected to the opposite end of said first holding means; and a second holding means pivotally connected to said clamping member and having an opening therein defined by a shoulder for receiving and holding the end of a second cable, said first holding means having a shoulder engaging said second holding means for assuming tension loads on said second cable.

2,841,427
CENTER POINT TRIPLE STEERING KNUCKLE
Richard H. Sheppard, Hanover, Pa.
Application October 22, 1954, Serial No. 463,879
10 Claims. (Cl. 287—87)

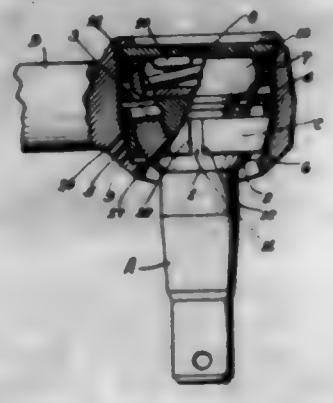


1. In combination, a steering arm movable about a vertical axis near one end thereof, a shanked ball adapted to be rigidly secured to the other end of the steering arm, a pair of spherical cups slidably engaging the ball on opposite sides thereof and having outside spherical surfaces, a tie rod rigidly secured to each cup, and a housing having a spherical cavity slidably engaging the outside surfaces of said cups and a communicating cylindrical cavity forming a bearing for the shank of the ball, whereby when the steering arm is moved about its vertical axis the ball will push one tie rod and pull the other, permitting each tie rod to have limited universal movement with respect to the ball as the housing turns about its bearing on the shank of the ball.

2,841,428
TIE-ROD JOINT WITH WEAR-COMPENSATING BEARING
Milton A. Moskovitz, St. Louis, Mo., assignor of one-half to Harry Frankel, St. Louis, Mo.
Application April 26, 1951, Serial No. 223,014
2 Claims. (Cl. 287—90)

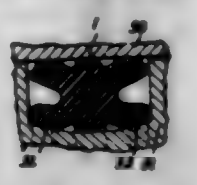
1. In a tie-rod joint comprising a socket member and a stud member rotatably and tiltably connected thereto, a closure element across one end of said socket member, said socket member having a bore axially therethrough that is tapered in diameter toward the other end of said socket member, said stud member having rounded head

within said bore, a split radially expandible ring seated between said head and the tapered portion of said bore and having inner and outer peripheral bearing surfaces to complement and movably engage said head and bore surfaces, the axial depth of said ring being less than the axial length of said tapered portion of the bore so that said ring may be assembled initially spaced from said



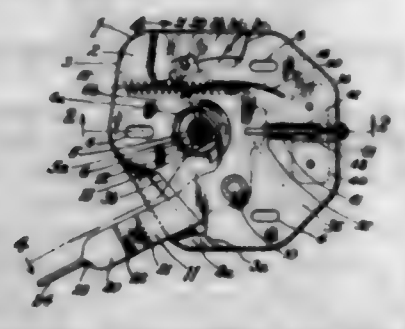
reduced end of said bore, the split of said ring being constantly open, resilient pressure means between said socket and ring and free of said head to constantly press said ring toward its seated position but permit of its rotational movement, and resilient pressure means independent of said first resilient pressure means and positioned between said closure element and head to yieldably urge the latter onto its seat in said ring.

2,841,429
SEALING RING AND JOINT
Tommy J. McCuistion, Euclid, Ohio, assignor to Parker-Hannifin Corporation, a corporation of Ohio
Application October 4, 1955, Serial No. 538,314
8 Claims. (Cl. 288—19)



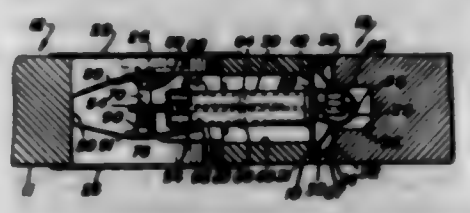
6. A flexible sealing ring having opposite faces adapted to seal against opposite walls of an annular packing chamber, each face being formed with at least two oppositely facing, continuous ridges of generally saw tooth form and a continuous convexly rounded solid rib between said ridges, the ends of said ring further being formed with annular recesses which provide relatively flexible lips, each carrying at least one of said ridges, said ribs having a curvature of radius less than one-half the distance between said ribs.

2,841,430
HOOD LATCH
Herbert Krause, Chicago, Ill., assignor to Chicago Forging and Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application July 21, 1955, Serial No. 523,437
4 Claims. (Cl. 292—11)



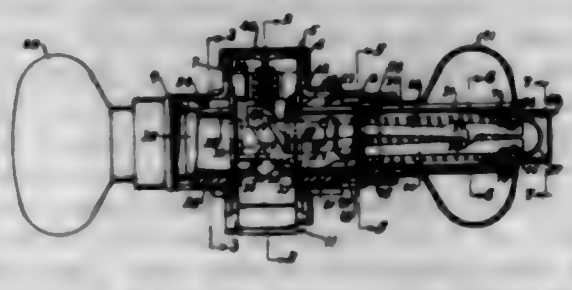
1. In a latch for automobiles and the like having a hood member and a closure member therefor, a plunger mounted on one of said members, a latch plate mounted on the other of said members, said latch plate having an aperture formed to permit the passage therethrough of said plunger when said closure member is moved toward said hood member, a main latch pivotally mounted on said plate at a point adjacent said aperture, said main latch having a latching portion extending into said aperture for engagement with said plunger, yielding means biasing said latch toward latching position, a safety latch pivotally mounted on said plate, said main latch having a camming abutment adjacent said main latch pivot and positioned to engage said safety latch when said main latch is moved toward non-latching position, said abutment, when said main latch and said safety latch are in latching position, being spaced from said safety latch to permit said main latch to move in response to engagement by said plunger when said plunger passes through said aperture without engaging said safety latch, said plate aperture, main latch latching portion, camming abutment and safety latch being all in alignment one with the other at one side of said main latch pivot said main latch having a manually operable handle portion integral therewith and beyond said main latch pivot from said latching portion and said camming abutment, said handle portion extending beyond said latch plate.

2,841,431
SLIDING DOOR LOCK
Arthur R. Adams, Pasadena, Calif., assignor to The Safe Padlock and Hardware Company, Lancaster, Pa., a corporation of Pennsylvania
Application July 6, 1954, Serial No. 441,265
16 Claims. (Cl. 292—17)



1. In a device for separably attaching relatively movable parts, in combination: means comprising a projection extending from one part; means having an opening in the other part adapted to receive and retain the projection, the projection having means operable to releasably engage the opening in a manner requiring force to withdraw the projection; means movable to a position wherein the projection is positively held in engagement with said opening; and spring detent means providing predetermined locked and unlocked positions of said movable means, said spring detent means comprising mechanism including a resilient member providing interengagement between the first means and the movable means.

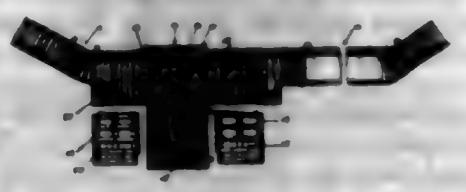
2,841,432
DOOR LOCK
Russell W. Ahlquist and Leland H. Fisler, New Britain, Conn.
Application January 23, 1956, Serial No. 568,138
(Filed under Rule 47(a) and 35 U. S. C. 116)
11 Claims. (Cl. 292—169)



1. A door lock including a retractor, a latch bolt connected to said retractor, means for retracting said retrac-

tor to withdraw said latch bolt, dogging means for preventing operation of said retracting means, latching means carried by said dogging means engageable with said retractor for retaining the dogging means in dogging position, and blocking means on said latching means normally in a position preventing engagement of said latching means with said retractor; said blocking means being movable to an inoperable position upon movement of the dogging means into dogging position to permit engagement of said latching means with the retractor and being movable into blocking position upon retraction of said retractor and disengagement thereof from said latching means.

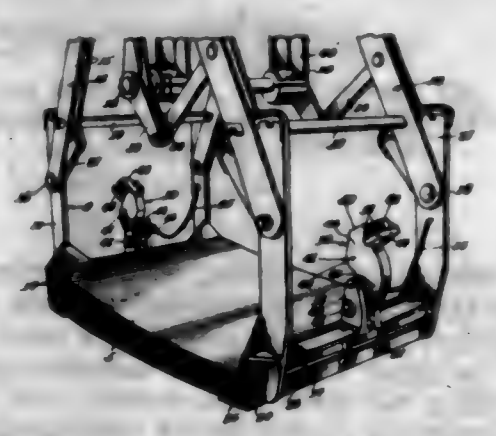
2,841,433
APPARATUS FOR HANDLING MATERIALS
William G. Pagdin, Little Silver, Henry Macaluso, Clifton, and Francis X. Bulat, Dunellen, N. J., assignors to P. Ballantine & Sons, Newark, N. J., a corporation of New Jersey
Application June 22, 1956, Serial No. 593,072
15 Claims. (Cl. 294—65)



1. In apparatus for transferring simultaneously a plurality of units in predetermined patterned relation forming a tier, the pattern of said units having a void space located internally of the periphery of said tier, a suction head for gripping said tier comprising a rigid upper portion having a top member and spacing means located below said top member and having openings therein for the free passage of air therethrough, sealing means depending from said upper portion adjacent the periphery of said tier and being arranged to contact the units forming the periphery of said tier to provide an effective seal along the area of contact, and auxiliary sealing means having a plurality of flexible wall contacting surfaces depending from said upper portion in the region of said void space and adapted to contact the units having walls forming the sides of said void space, said auxiliary sealing means being arranged so that said wall contacting surfaces thereof contact said walls forming the sides of said void space to provide an effective seal along the area of contact thereof.

2,841,434
AUXILIARY COIL LIFTING DEVICES FOR THE JAWS OF A SHEET LIFTER
Howard Hooker and Charles J. Tupy, Chicago, Ill., assignors, by mesne assignments, to Cullen-Friestedt Company, a corporation of Delaware
Application August 23, 1954, Serial No. 451,645
1 Claim. (Cl. 294—67)

In a lifter of the type that is adapted normally for use in handling a stack of sheets and comprises a horizontal supporting element, a pair of oppositely disposed depending complemental jaws having means between their upper portions and the element whereby they are permitted to swing towards and away from one another; and provided at their lower portions with fixed horizontally extending angle bars adapted to grip and support opposite side margins of the stack when the jaws are swung towards one another in connection with a stack handling operation and consisting of vertical legs and inwardly extending horizontal legs along the lower margins of the vertical legs, and gearing extending between the element and side jaws and operative when driven in one direction to move the jaws towards one another and when driven in the opposite direction to move the jaws away from one another; a pair of auxiliary devices mounted on, and associated respectively with, the jaws, adapted when in use to enable the lifter to handle a tubular article, and comprising brackets connected fixedly to, and extending upwards from, the upper margins of the vertical legs of the angle bars, vertically extending L-shaped arms consisting of proximal parts and distal parts, having the outer ends of their proximal parts connected to the brackets by horizontal pivot pins so that they are capable of swinging back and forth between an inoperative position wherein



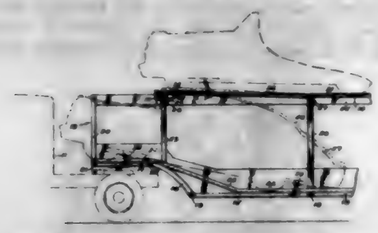
they extend upwards with respect to the angle bars and an operative position wherein they extend inwards and downwards and the distal parts thereof rest on the horizontal legs of the angle bars, and provided on the outer ends of their distal parts with lugs that extend inwards of and beyond said horizontal legs when the arms are in their operative position, and arcuate saddle-like members connected fixedly to said lugs and adapted when said arms are in their operative position and the jaws are moved towards one another in connection with an article handling operation to fit within and support the upper portions of the ends of the article.

2,841,435
BOTTLE CARRIER
Placide Rochon, St. Joseph de Sorel, Quebec, Canada
Application February 28, 1957, Serial No. 643,117
4 Claims. (Cl. 294—87.28)



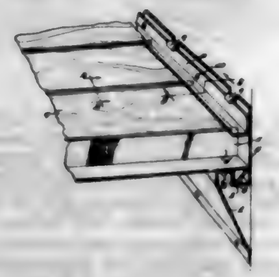
1. A bottle carrier for carrying bottles having a beaded mouth, said carrier comprising a body member consisting of a flat bottom wall, a top wall spaced from said bottom wall and side walls connecting said top and bottom walls, said top wall extending over at least part of said bottom wall, said bottom wall having at least one free edge provided with spaced deep recesses having substantially parallel side edges, the distance separating said side edges being substantially equal to the external diameter of a beaded bottle just underneath said bead so as to engage said portion of said bottle to retain and suspend said bottle by its bead, and a resilient collar member consisting of a leaf spring secured to the top face of said flat bottom wall and having an opening substantially coaxial with said recess and slightly greater than the beaded portion of said bottle so as to engage said beaded portion to prevent disengagement of said bottle from said recess.

2,841,436
MOTOR CAR CARRIER WITH SELF-ADJUSTING TRACK
Clarence C. Stuart, Dearborn, Mich., assignor to Traffic Transport Engineering, Inc., Dearborn, Mich., a corporation of Michigan
Application October 15, 1954, Serial No. 465,519
7 Claims. (Cl. 296—1)



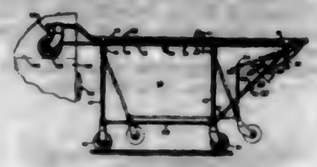
1. A trailer for transporting vehicles having means at the front end thereof for forming a pivotal connection with a tractor, said trailer comprising a lower track section and an upper track section vertically spaced from and overlying the lower track section, each said track section comprising parallel spaced longitudinally extending track portions, said lower section having inclined portions extending upwardly and forwardly toward the front end of the trailer, said upper section having stationary portions and vertically movable track portions overlying said inclined portions of the lower section, said movable portions having the rear ends thereof pivotally mounted adjacent the forward ends of the stationary portions of said upper section, whereby the forward end thereof nearest the front end of the trailer has limited vertical swinging movement, and means for resiliently holding said movable portions in their uppermost position, said means having insufficient force to maintain said movable track portions in their uppermost position when a vehicle is driven from said stationary portions of said upper section forwardly onto the movable track portions, whereby said movable track portions pivot downwardly as a vehicle is driven onto said movable track portions.

2,841,437
DECK CONSTRUCTION FOR CATTLE TRUCKS OR TRAILERS
Henderson Lee Turpin, Jr., Wytheville, Va.
Application December 5, 1956, Serial No. 626,332
4 Claims. (Cl. 296—10)



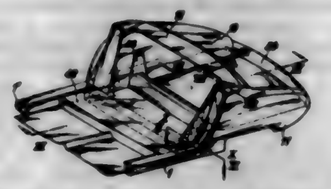
3. In a livestock transporting vehicle body having opposite side walls, decking comprising a series of removable floor members disposed side by side and extending across the body with the ends thereof disposed adjacent said body side walls, floor member supporting rails, each comprising a vertically disposed wall member engaging a body side wall and spanning the corresponding ends of said floor members, a floor member end supporting structure extending horizontally inwardly from the lower edge of said vertically disposed wall member, a bracing web extending diagonally outwardly and downwardly from the inner edge of said floor member supporting structure and terminating in a relatively narrow body side wall engaging member co-planar with said vertically disposed wall member and being secured to said body side wall, and means disposed outwardly of the upper edge of said bracing web and immediately adjacent said vertically disposed wall member for interlocking the ends of said floor members with said rails.

2,841,438
STRETCHER HAVING A COLLAPSIBLE UNDERCARRIAGE
Burt Well, Cincinnati, Ohio
Application September 13, 1956, Serial No. 609,722
6 Claims. (Cl. 296—20)



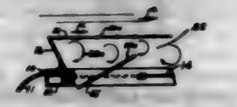
2. An ambulance cart having an elongated bed, leg means swingably mounted on the bed at the front and rear portions thereof, wheel means mounted on the free ends of the leg means and swingable with the leg means between an extended position in which the bed is fully supported horizontally at an elevated height by the leg and wheel means and a retracted position in which the leg and wheel means are adjacent the underside of the bed, auxiliary wheel means mounted substantially in the plane of the bed at the front end thereof, the auxiliary wheel means being adapted to run on the floor of a vehicle to support the front end of the bed, the rear end of the bed being supportable by an operator while the front end is supported by the said auxiliary wheel means, releasable means to hold the said leg means in extended position, said releasable means including a member movably positioned beneath the bed at the rear end thereof, said member being actuably engageable by the leg of an operator who is stationed at the rear end of said cart whereby the operator is enabled to move the said releasable means to cart leg releasing position without moving from his station, the said leg means of said cart being engageable with the vehicle as the cart is advanced into the vehicle to swing the leg means of said cart into retracted position.

2,841,439
SELF-SUPPORTING BODY OF A CAR VEHICLE
Kurt Schwenk, Ingolstadt (Danube), Germany
Application November 13, 1953, Serial No. 391,938
Claims priority, application Germany November 13, 1952
6 Claims. (Cl. 296—28)



1. In a car body having a rear axle, and a short horizontal frame ending in front of the rear axle, a girder-like rear wheel support comprising two rear wheel support casings, each of said casings having outer and inner spaced casing sections, said sections having rigid edges which are welded to each other to form an upwardly extending post, at least one of the sections of such casing being directly connected to said frame, said outer casing sections constituting the outer covering of the car body, and a top transverse member interconnecting the two casings and closing said post.

2,841,440
AIR NOISE ELIMINATOR ATTACHMENT FOR VEHICLES
Frank D. Werner, Rosemount, Minn., assignor to Marquette Engineering Company, Minneapolis, Minn., a partnership
Application February 16, 1956, Serial No. 565,921
4 Claims. (Cl. 296—44)



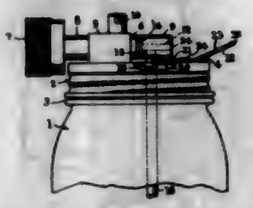
1. A noise reducer for use with a high speed vehicle of the type having generally longitudinally extending body portions which includes windows and also includes irregularities such as outwardly swingable vent windows and which causes the formation of a thin layer of highly turbulent air therealong, said noise reducer comprising an elongated imperforate plate element having attachment means constructed and arranged to be secured to the vehicle and at a position forwardly of such windows and such irregularities in the body portions, said imperforate element extending generally outwardly from said body portion in a forwardly oblique direction, whereby to remove the thin layer of highly turbulent air away from the body portion and irregularities therein and thereby prevent generation of noise by such a layer and to create another layer of turbulent air having substantially less energy and lower mean velocity than said first mentioned layer behind said element and adjacent the body portion irregularities.

2,841,441
CONVERTIBLE MOTOR VEHICLE BODY HAVING A RIGID TOP
Lee A. Evans, Atlanta, Ga.
Application April 13, 1956, Serial No. 577,974
9 Claims. (Cl. 296—117)



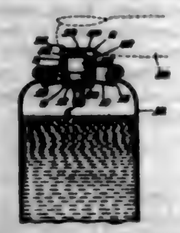
3. In a motor vehicle, a body including a windshield at the forward portion thereof, a trunk deck at the rear portion thereof, opposite side wall elements, and doors in the opposite side wall elements, a rigid top engageable on the top edges of said windshield, side wall elements and said doors and having a rear portion engageable on the forward marginal portion of said trunk deck, respective guide tracks on the top marginal portions of said doors and side wall elements, track means formed on the opposite side portions of said trunk deck, depending, resilient guide follower elements secured to the opposite side edges of said top at its forward portion and engaged with said guide tracks, additional guide follower elements secured to the side edges of said top at its rear portion and engaging said track means, said additional guide follower elements being engageable in said track means when the top is moved rearwardly, whereby said top may be at times moved into a position overlying said trunk deck, a socket in the forward end of each guide track formed and arranged to receive an associated guide follower element, each socket having a pivoted bottom wall, and resilient means supporting and exerting upward force on the pivoted bottom wall, a reversible motor mounted in the rear portion of said body, a transverse shaft drivingly coupled to said motor, pulley means on the opposite end portions of said shafts, and respective cables secured to the rear side portions of said top and drivingly engaged with said pulley means to move said top forwardly or rearwardly responsive to forward or reverse energization of said motor.

2,841,442
SPRAY DEVICES
Lee Skipwith, Jr., St. Petersburg, Fla.
Application March 5, 1956, Serial No. 569,347
3 Claims. (Cl. 299—84)



1. In a spray device comprising a container for spray material and a removable cover for the container, the said cover having attached to the normally exposed surface thereof a valve chamber connected to a coupling means on the inlet side of said chamber, a removable nozzle mounted on the outlet of said chamber, an aspirating tube connected to said nozzle and passing through said cover for withdrawal of spray material from said container by aspiration on passing liquid through the valve chamber and nozzle, a rotatable plate attached to said cover for locking the nozzle and tube in place in a spraying operation and for releasing the said nozzle and tube for separate removal thereof by rotation of said plate, and a deflector attached to said plate movable in and out of the line of the stream from the nozzle by rotation of said plate to selectively provide a fan-shaped spray and a jet spray respectively while maintaining said nozzle and tube locked in position.

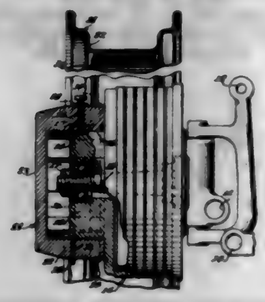
2,841,443
VALVE ACTUATOR CAP
Nels W. Sonquist, Lakewood, Ill.
Application January 21, 1954, Serial No. 405,361
1 Claim. (Cl. 299—95)



An actuator of the class described for a valve having a body with a nozzle, a stem having means for cutting off flow of fluid to the nozzle, and a resilient diaphragm covering said stem and sealing the body; said actuator comprising a cap formed of a single segment of metal, said cap having means engaged with the diaphragm at a point in alignment with the stem, and said cap comprising a plurality of spaced legs gripping said body and slidable therealong as said means are urged against the diaphragm for opening the stem, two of said legs straddling

the nozzle, said metal being capable of permanent deformation by manual pressure whereby the legs may be manually spread apart or urged together to adjust the position of said legs to any size of valve body, and said metal being resilient whereby the legs in any adjusted position thereof resiliently grip the body therebetween.

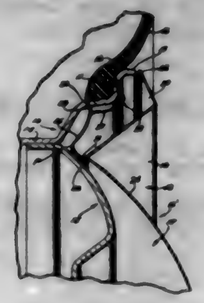
2,841,444
WHEEL MOUNTING
Daniel W. McDaniel, Hemphill, Tex.
Application January 11, 1955, Serial No. 481,153
2 Claims. (Cl. 301—1)



1. In combination, a spindle, a ball bearing race mounted on the end of said spindle, a brake drum mounted on said spindle and having a support portion extending outwardly therefrom, said support portion being provided with an inner recess for receiving therein the ball bearing race which is mounted on the end of the spindle, said support portion being of smaller diameter than said brake drum and said support portion being provided on its outer surface with a plurality of spaced apart recesses defining ribs therebetween, a body member detachably mounted on said support portion and including an annular side wall embracing said support portion, and an end wall, the inner surface of said side wall being provided with a plurality of grooves defining inwardly projecting tongues therebetween, said grooves snugly receiving therein said ribs, and said tongues being snugly seated in said recesses, a wheel including an annular rim and a circular flange extending inwardly from said rim, said flange having an inner transverse portion secured to the outer surface of said body member, there being registering apertures in said side wall and support portion, and a securing element extending through said registering apertures, the recess and the support portion which has the aperture arranged contiguous thereto being wider than the other recesses, and the tongue which has the securing element extending therethrough being wider than the other tongues, a grease fitting carried by said body member, there being a channel in said side wall communicating with said grease fitting.

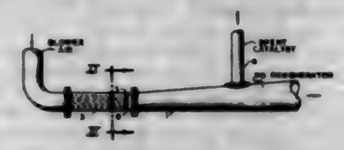
2,841,445
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application September 14, 1955, Serial No. 534,190
8 Claims. (Cl. 301—37)

1. In a wheel structure having rim and body parts with one of the parts having a generally axial flange, a circular cover member including inner and outer cover portions for overlying disposition on the wheel, said cover having circumferentially spaced generally radially extending cover retaining portions each provided with a cover retaining extremity capable of progressive camming cover retaining engagement with the axial flange, said portions terminating in flexible shouldered extremities movable independent of one another capable of bottomed engagement against the wheel in order to preclude axially inward deflection of the cover, said retaining ex-



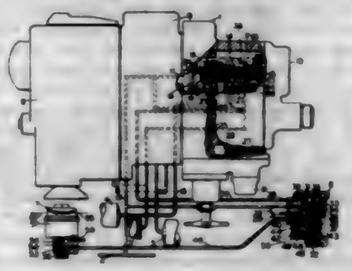
tremity being struck out and turned radially away from said cover retaining portions for edgewise engagement with the axial flange.

2,841,446
METHODS AND APPARATUS FOR HANDLING PARTICULATE SOLIDS
Harry D. Trotter, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 27, 1955, Serial No. 518,211
11 Claims. (Cl. 302—64)



1. In a process which comprises passing a confined fluid stream from a first point to a second point and introducing a confined stream of particulate solids into confluence with said fluid stream at a point intermediate said first and second points, the step which comprises gradually altering the fluid flow pattern over a significant period of time at the said intermediate point of confluence to progressively shift the locus of peripheral erosion adjacent said intermediate point of confluence.

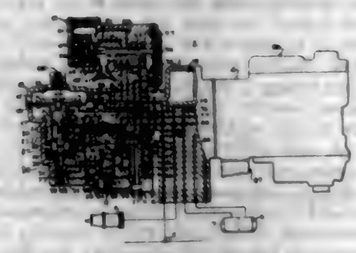
2,841,447
ELECTRO-PNEUMATIC BRAKE APPARATUS
George L. Cotter, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application March 26, 1954, Serial No. 419,855
1 Claim. (Cl. 303—15)



Fluid pressure brake apparatus for a railway car comprising the combination of a normally charged brake pipe, a brake cylinder device, a normally charged auxiliary reservoir, a brake controlling valve device having

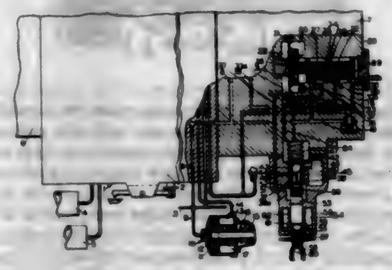
a main slide valve normally in a release position wherein it establishes communication between said brake cylinder device and the atmosphere and wherein it also establishes communication from said auxiliary reservoir to a control chamber, said brake controlling valve device being operable upon reduction in brake pipe pressure from said release position to a service position wherein said main slide valve interrupts the communication between the brake cylinder and atmosphere and establishes a communication between the brake cylinder and said auxiliary reservoir to effect application of the car brakes and wherein said main slide valve interrupts the communication between the auxiliary reservoir and said control chamber and connects said control chamber to atmosphere, conduit means, interlock valve means conditioned responsively to the release of fluid pressure from said control chamber in one position in which it establishes communication between the brake pipe and said conduit means and interrupts communication between said conduit means and atmosphere and being operative responsively to the supply of fluid under pressure to said control chamber to a second position in which it interrupts communication between the brake pipe and said conduit means and establishes communication from the conduit means to atmosphere, and magnet valve means operable to vent the conduit means and thereby the brake pipe to the atmosphere so long as the interlock valve means is in its said one position, said magnet valve means being electrically controllable independently of the propagation of a pressure reduction wave through the brake pipe.

2,841,448
FLUID PRESSURE BRAKE APPARATUS WITH MEANS WHEREBY RELEASE OF BRAKES FOLLOWING AN EMERGENCY APPLICATION MAY BE MORE PROMPTLY INITIATED
Charles L. Weber, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application November 29, 1955, Serial No. 549,648
8 Claims. (Cl. 303—46)



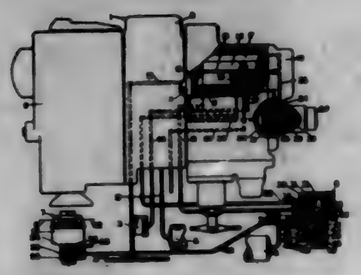
1. In a fluid pressure brake apparatus for a railway car, in combination, a normally charged brake pipe, a passage, emergency valve means responsive to an emergency rate of reduction in brake pipe pressure to supply fluid under pressure to said passage, vent valve means controlled by brake pipe pressure opposing pressure of fluid in said passage and normally biased to close off the brake pipe from atmosphere and responsive to supply of fluid under pressure to said passage to open said brake pipe to atmosphere for locally venting the brake pipe, means defining a vent communication of selected flow capacity for controlling the rate at which fluid under pressure may be released from said passage, and valve means controlled by brake pipe pressure opposing pressure of fluid in said passage and normally biased by brake pipe pressure to one position for establishing a restricted connection between said passage and vent communication and operative upon a preponderance of fluid pressure in said passage over brake pipe pressure to another position to establish a substantially unrestricted connection between said passage and vent communication in bypass of said restricted connection whereby the length of time the brake pipe is maintained open to atmosphere by said vent valve means will be controlled according to selected flow capacity of said vent communication.

2,841,449
FLUID PRESSURE BRAKE RELEASE AND REAPPLICATION VALVE DEVICE
Erik G. Erson, Export, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application May 25, 1954, Serial No. 432,083
2 Claims. (Cl. 303—68)



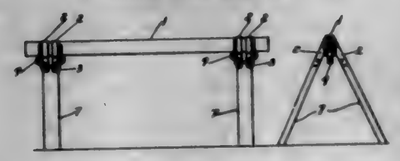
1. A brake release and reapplication valve mechanism for association with fluid pressure brake controlling apparatus of the type in which fluid under pressure is supplied to a brake cylinder device to effect a brake application upon a reduction of brake pipe pressure from a normal pressure and in which fluid under pressure is relieved from the brake cylinder device to effect a brake release upon restoration of brake pipe pressure to its normal pressure, said mechanism comprising a casing having a control chamber, fluid pressure operated valve means operatively controlled by two opposing fluid pressures and having a first position, when subject to substantially equalized opposing fluid pressures for establishing communication through which fluid under pressure supplied under the control of the fluid pressure brake controlling apparatus may reach the brake cylinder device and operative upon occurrence of a differential between said opposing fluid pressures to a second position, in which the said communication is interrupted and a different communication is established through which fluid under pressure is released from the brake cylinder device to effect a brake release, and a manually operated valve unit operable between a normal position and a different position, in which normal position said control chamber is open to atmosphere when said fluid pressure operated valve means is in its first position, or said control chamber is open to one of said opposing fluid pressures when said fluid pressure operated valve means is in its second position, and, in which different position of said manually operated valve unit, said control chamber is closed to atmosphere and opened to the other of said opposing fluid pressures to thereby provide an expansion volume for and consequent reduction of said other fluid pressure when said fluid pressure operated valve means is in its first position, or when said fluid pressure operated valve means is in its second position to cause build-up of said other opposing fluid pressure from said reduced state to a value sufficient for effecting operation of said fluid pressure operated valve means to its first position and consequent restoration of equalization between said two opposing fluid pressures.

2,841,450
ELECTRO-PNEUMATIC BRAKE APPARATUS
George L. Cotter, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application March 26, 1954, Serial No. 419,017
5 Claims. (Cl. 303—70)



5. In a fluid pressure brake apparatus, in combination, a brake pipe, an auxiliary reservoir, a brake cylinder device, a brake controlling valve device having a valve chamber always open to auxiliary reservoir and operable upon a reduction in brake pipe pressure to an application position in which fluid under pressure is supplied from said valve chamber to said brake cylinder device and operable upon a preponderance of brake pipe pressure over auxiliary reservoir pressure to a release position in which said brake cylinder device is vented to atmosphere, a control conduit, valve means incorporated in said brake controlling valve device operative when said valve device is in said release position to connect said valve chamber to said control conduit and in said application position to connect said conduit to atmosphere, electro-pneumatic means electrically operable to establish communication through which fluid under pressure may be vented from said valve chamber to atmosphere, and cut-off valve means interposed in said communication between said electro-pneumatic means and said valve chamber operative in response to pressure of fluid in said control conduit to close said communication.

2,841,451
MECHANIC'S SAWHORSE
Ira A. Faust, Birmingham, Ala.
Application May 28, 1957, Serial No. 660,386
2 Claims. (Cl. 304—5)



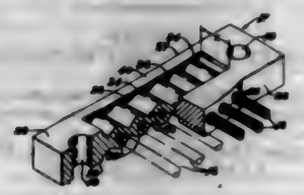
1. A mechanic's sawhorse of the class described comprising, a main top supporting piece, two similar double brackets, each of said double brackets being in two parts formed as inverted V shapes and having a flange bent at a right angle to form outer faces and end faces, said end faces having screw holes therein, a round in cross section U shaped part attached by its prong portions on each of the bracket parts with the closed end of the U part extending below the bottom face of the said main top piece, two legs having their top ends formed slanting, said legs having their slanting portions inserted between said double brackets; four curved clamps, each of said clamps being substantially U shaped in its edge portion and having one of its prongs bent in its end portion away from the other prong, said bent away portion having a bolt hole therein, the outer face of the other prong having a plurality of integral pointed portions; two said U shaped clamps being mounted in each double bracket and positioned adjacent the under face of the said top supporting piece with part of the U shaped clamps inserted through the extended portions of the round U shaped parts attached to the brackets, a bolt inserted through the holes in the U shaped clamps, a wing nut on the bolt, said bolt and nut holding the double bracket in tight condition on the main top piece with the said pointed portions adjacent the under face of the top main piece; a plurality of screws, said screws being inserted through said screw holes and into said legs.

2,841,452
AUTOMATIC BRACE LOCKS FOR SECTIONAL SCAFFOLDING
Arthur C. Bergman, Franklin Square, and William B. Sheard, Pleasantville, N. Y., assignors to The Patent Scaffolding Co., Inc., Long Island City, N. Y., a corporation of New York
Application February 24, 1953, Serial No. 338,296
1 Claim. (Cl. 304—40)



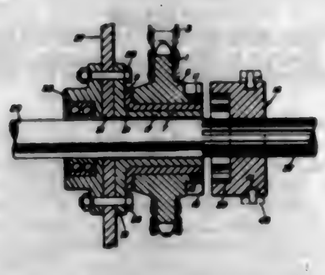
In an automatic brace lock for a scaffold, said scaffold having an upright, braces with holes in the proximity of extremities thereof, an upper bolt and a lower bolt, said bolts being in alignment and vertically spaced from one another and radially projecting from said upright, each of said bolts having a pair of diametrically opposed vertical recesses laterally of and in the proximity of the outer ends thereof, said lower bolt being adapted to project through said holes in said braces and support said braces between said recesses therein and said upright, the combination of said bolts with a sliding member supported by said upper bolt for vertically reciprocal movement transversely thereof, said sliding member having a pair of vertically spaced elongated slots, the first of said slots being closed at both ends and extending downwardly from the upper extremity of said sliding member, said sliding member including a pair of parallel vertical walls laterally of said first slot reciprocally received in said vertical recesses in said upper bolt for vertically guiding said sliding member transversely of said upper bolt, the length of said movement corresponding to the length of said first slot, the second of said slots being open at its lower end and of a length substantially less than the length of said first slot, and said sliding member having a pair of vertical legs laterally of said second slot for reception in said recesses in said lower bolt when said sliding member descends vertically and transversely of said upper bolt, said legs being above the extremities of braces supported by said lower bolt when said sliding member is moved upwardly substantially the full length of said first slot, whereby braces supported by said lower bolt between said recesses therein and said upright may be removed therefrom.

2,841,453
SEGMENTED TRACK
Robert E. Sensenman, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application November 26, 1954, Serial No. 471,383
10 Claims. (Cl. 305—10)



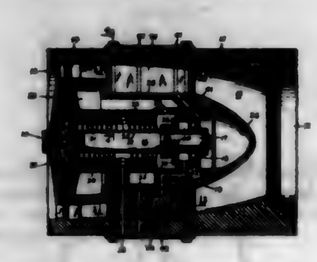
1. The method of making a tension member for a track segment which comprises providing an anchor plate having upper and lower plane mutually parallel faces on opposite sides thereof and having a plurality of laterally-spaced openings extending into the plate intermediate said faces, inserting one end of a cable into each said opening, and then deforming areas of said upper and said lower faces overlying and underlying said openings inwardly toward the cables and also deforming areas of said upper and said lower faces intermediate the cables inwardly between the cables an amount appreciably deeper from their respective faces of the plate than the deformation of said overlying and underlying areas whereby each said opening is constricted generally radially into gripping engagement with its respective cable end.

2,841,454
MOUNTING AND DRIVE MEANS FOR SPROCKET WHEELS
Mark J. Cheramie, Cut Off, La., assignor to Andrew A. Cheramie Marsh Buggies, Inc., Cut Off, La.
Application December 2, 1955, Serial No. 550,690
1 Claim. (Cl. 308—15)



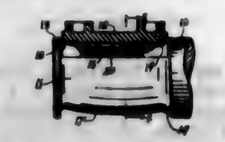
In combination, a plate having an opening therein, a rotary shaft extending through the opening and from opposite sides of the plate, a sprocket wheel for rotating the shaft having a hub adapted to be operatively connected to the shaft, means for mounting the shaft at one side of the plate comprising an anti-friction bearing secured to said one side of the plate and journalling said shaft, and means for mounting the sprocket wheel at the other side of the plate coaxially of said shaft and clear of the same comprising a tubular support surrounding said shaft coaxially thereof and clear of the same and having a circumferential end flange secured to said other side of the plate, and a bushing fixed on said tubular support and rotatably supporting said hub, said bushing having a flange on one end and a keeper ring on the other end confining said hub on the bushing.

2,841,455
SHAFT SEAL
Robert Perrier, Paris, France, assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland
Application August 30, 1957, Serial No. 681,374
6 Claims. (Cl. 308—77)



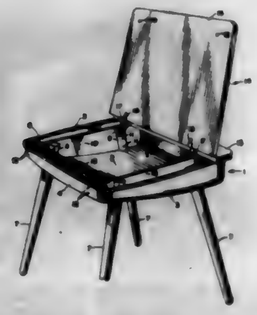
1. In a rotary device receiving heated gases under pressure, the combination of a shaft, a hollow cooling jacket surrounding said shaft in spaced relation thereto, a bearing for said shaft mounted adjacent to one end of said jacket, means mounted between said jacket and said shaft forming a labyrinthian passage therebetween open at its opposite ends, a sealing member interposed between said bearing and said labyrinthian passage for sealing the bearing from said passage, an inlet for supplying cooling fluid into said hollow jacket, means connecting the interior of said jacket to one end of said labyrinthian passage, an outlet for said cooling fluid communicating with about the mid-portion of said labyrinthian passage, and means for circulating oil through said bearing.

2,841,456
UNILATERALLY LOADED BEARING, IN PARTICULAR RAILWAY JOURNAL BEARING
Robert Turk, Gars am Kamp, Austria
Application July 18, 1955, Serial No. 522,572
1 Claim. (Cl. 308—79)



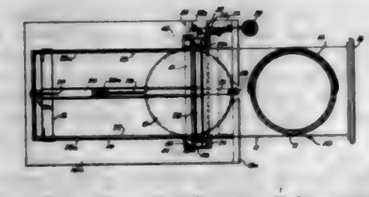
An axle bearing comprising a bearing bushing having a straight bottom wall with an arcuate-shaped portion and a journal engaging the arcuate-shaped portion of said bushing, said journal having a shoulder at one end and a flange at the other end thereof, the circumference of said journal including a cambered portion extending axially from a point midway the shoulder and flange to a point on either side of said midway point remote from the shoulder and flange and extending circumferentially substantially one hundred and thirty-five degrees thereabout, a first straight cylindrical portion alongside said cambered portion extending axially from a point remote from the shoulder to a point remote from the flange and extending circumferentially substantially forty-five degrees therearound, a depressed portion alongside said first straight cylindrical portion extending axially and circumferentially coextensively with the cambered portion, and a second straight cylindrical portion alongside said depressed portion extending axially and circumferentially coextensively with the first straight cylindrical portion.

2,841,457
DESK
Jon W. Hauser, St. Charles, Ill., assignor to Hawley Products Company, St. Charles, Ill., a corporation of Delaware
Application March 7, 1956, Serial No. 570,685
2 Claims. (Cl. 312—255)



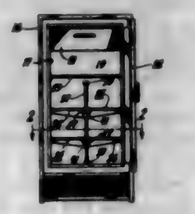
1. In a desk, the combination of: an integral, unitary body receptacle having oppositely disposed sides, a bottom which is closed except for four openings adapted to receive legs, and an open top; four legs, each of which has a top portion inserted through one of said openings in the bottom of said body receptacle; two substantially rectilinear and vertically arranged divider supporting panels spaced inwardly from the two oppositely disposed sides within said body receptacle to form compartmented areas and each said panel being in proximate alignment with two of said openings in the bottom of said body receptacle; means fastening said top portions of said legs to said divider supporting panels; means fastening said divider supporting panels to said body receptacle; and a desk top removably fitting over the open top of said body receptacle, said desk top including a stationary section mounted upon the top edge of at least one of the divider supporting panels and also including a movable section hingeably connected to said stationary section for rotatable movement from a closed position fitting over the open top of said body receptacle to an open position for access to the interior of said body receptacle.

2,841,458
GARBAGE DISPOSAL UNIT
Alois Selmer, Bronx, N. Y.
Application September 11, 1956, Serial No. 609,227
4 Claims. (Cl. 312—270)



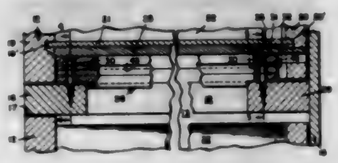
1. A garbage disposal unit adapted for concealed installation in a wall or cabinet, said unit comprising: a slideway frame; a carriage slidably mounted on said slideway; a spring mounted to the rear of said slideway frame; a stop-engaging member mounted on said carriage and biasing same downwardly; a vertically extending supporting frame fixed at one end of said slideway frame and enclosing said carriage; a container on said carriage; a closure removably positioned over said container and movable to raised and lowered positions; spring means retaining said closure in one of said positions; magnetic means on said slideway for retaining said carriage in an extended position; a complementary catch mounted beneath said carriage; a cam mounted beneath said carriage, a connecting link adapted to be engaged by said cam; a linkage, means connecting said linkage with said closure and said cam; a catch mounted on said connecting link; and a lever operatively connected with said linkage to depress said connecting link and raise or lower said closure.

2,841,459
VERTICALLY ADJUSTABLE REFRIGERATOR SHELVES
Verlee G. Sharpe, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 26, 1957, Serial No. 648,648
5 Claims. (Cl. 312—306)



1. In a cabinet provided with walls defining a compartment therein, a plurality of vertically spaced apart shelves disposed one above the other in said compartment, means for adjustably supporting said shelves within said compartment, said means comprising a single upright jack-screw within said compartment adjacent one wall thereof, separate nut means associated with each of said plurality of spaced apart shelves and cooperating with said jack-screw for adjustment independently of one another therealong to vary the height of said shelves relative to each other in said compartment without rotating the shelves, and said single jack-screw extending continuously along said one compartment wall throughout the full range of adjustment of said plurality of shelves.

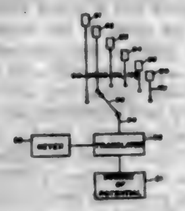
2,841,460
DRAWER GUIDE CONSTRUCTION
Maurice N. Rainier, Los Angeles, Calif.
Application April 2, 1956, Serial No. 575,410
3 Claims. (Cl. 312—346)



3. In furniture construction embodying a drawer housing providing a drawer compartment and a drawer movable in the compartment, drawer guide means comprising a laterally grooved, stationary guide rail extending from front to rear in the drawer compartment, a runner on the bottom of the drawer having a groove slidably receiving the upper portion of said stationary guide rail, and interengaging means on said runner and said stationary guide rail limiting movement of the rear portion of said drawer vertically with respect to said stationary guide rail; said interengaging means comprising a single metal strap of narrow width compared to the depth of the drawer mounted at the rear end portion of, and substantially encompassing, said runner terminating in opposed end portions received in the grooves in said guide rail.

2,841,461
APPARATUS FOR MAGNETIC PRINTING
Howard S. Gleason, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application July 26, 1952, Serial No. 301,183
4 Claims. (Cl. 346—74)

1. In a magnetic printing apparatus, the combination of a magnetic recording medium; a plurality of magnetic recording heads; means for continuously transporting said medium past said heads; each said head having a plurality of magnetic flux generating elements arranged in a matrix capable of defining, upon the selective energization of said elements, any one of a group of characters, said heads being disposed along a line through their centers, said line being contoured according to the contour of said medium in the region adjacent thereto; means for selectively energizing said elements of one head at a time; and means for sequentially switching said last-named energizing means from the elements of one head to those of another; said line being displaced from the transverse direction of said medium in the direction of said transport by an angular amount proportional to the speed of said transport and the switching speed of said



sequential switching means, whereby a magnetic image of a line of said characters may be stored on said medium, said line of characters extending substantially in said transverse direction across said medium.

CHEMICAL

2,841,462
PRODUCTION OF ALL SKIN RAYON
Marion R. Lytton, West Chester, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application June 29, 1955
Serial No. 518,987
6 Claims. (Cl. 18—54)

1. In a method of producing shaped bodies of regenerated cellulose consisting substantially entirely of skin, the step which comprises extruding viscose containing from about 0.5% to about 4%, based on the weight of the cellulose in the viscose, of an alkali-soluble polyoxyalkylene glycol ether of p,p'-diphenol into an aqueous spinning bath containing from about 10% to 25% sodium sulfate, from about 3% to 15% zinc sulfate and sulfuric acid, the percentage sulfuric acid content of the spinning bath exceeding the slubbing point but not exceeding about 1.36 times the percentage caustic soda content of the viscose.

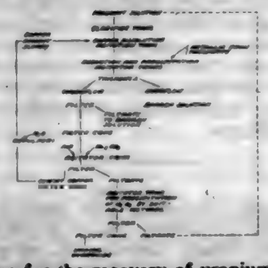
2,841,463
PROCESS OF PRODUCING ALL SKIN RAYON
Mary B. Hayes, Front Royal, Va., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application June 29, 1955
Serial No. 519,006
5 Claims. (Cl. 18—54)

1. In a method of producing shaped bodies of regenerated cellulose consisting substantially entirely of skin, the step which comprises extruding viscose containing from about 0.4% to about 3%, based on the weight of the cellulose, of a phenylenediamine into an aqueous spinning bath containing from about 10% to 25% sodium sulfate, from about 3% to 15% zinc sulfate and sulfuric acid, the sulfuric acid content of the spinning bath exceeding the slubbing point but not exceeding about 9%.

2,841,464
PRECIPITATION METHOD OF SEPARATION OF NEPTUNIUM
Lawrence B. Magnusson, Richmond, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application February 2, 1948
Serial No. 5,990
3 Claims. (Cl. 23—14.5)

1. A process for the separation of neptunium from plutonium in an aqueous solution containing neptunium ions in a valence state not greater than +4, plutonium ions in a valence state not greater than +4 and sulphate ions, comprising adding hypochlorite ions to said solution and then digesting the solution at a temperature of 15° to 25° C., adding lanthanum ions and fluorine ions, and thereafter separating the supernatant solution from the precipitate.

2,841,465
RECOVERY OF URANIUM FROM SOLUTIONS THEREOF
Robert Rampton Porter, Johannesburg, Transvaal, Union of South Africa, assignor, by mesne assignments, to the Union of South Africa as represented by the Atomic Energy Board
Application September 8, 1950, Serial No. 183,913
Claims priority, application Union of South Africa September 18, 1949
11 Claims. (Cl. 23—14.5)

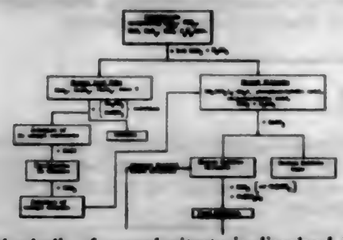


1. A process for the recovery of uranium values from a uranium-bearing solution which contains other elements, which comprises introducing an adsorbent material selected from the group consisting of cement copper and an adsorbent slime into the said solution in a pH range of about 0.5 to 3.5, said adsorbent material being insoluble and indissoluble in said solution, adding in comminuted form and as a metallic reducing agent a metal which reduces uranium from the uranyl to the uranous state in acid solution, intimately admixing said solution and said additions with each other until uranium values in the solution are precipitated, and separating the resultant uranium-bearing precipitates from the solution.

2,841,466
URANIUM EXTRACTION
Charles D. Harrington and John V. Opie, St. Louis, Mo., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application December 29, 1953, Serial No. 401,101
24 Claims. (Cl. 23—14.5)

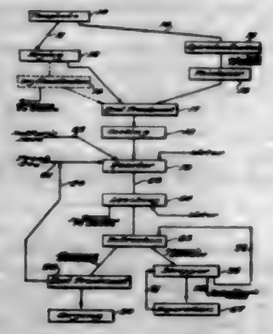
1. A process of recovering uranium values from materials containing said values together with impurities ad-

mixed therewith comprising providing a nitric acid solution of the material; adding a water-soluble nitrate as a salting-out agent thereby forming a feed solution; contacting said feed solution with diethyl ether whereby the bulk of uranyl nitrate and a minor quantity of impurities are taken up by the ether in the form of an acid ether extract while the bulk of the impurities remain in an aqueous raffinate; separating said acid ether extract from said aqueous raffinate; contacting said acid ether extract with water whereby said uranyl nitrate and impurities are reextracted into said water to form a crude liquor; separating said crude liquor from the ether extract; heating said crude liquor to at least about 118° C. to remove water and nitric acid and to obtain molten uranyl nitrate hexahydrate; cooling said molten uranyl nitrate hexahydrate to a temperature between 104 and 61° C.; contacting said uranyl nitrate hexahydrate with acid-free diethyl ether



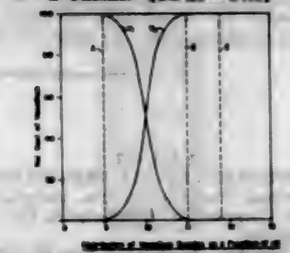
whereby the bulk of uranyl nitrate is dissolved into said acid-free ether to form a neutral ether solution, while water of hydration of said uranyl nitrate hexahydrate and the bulk of said impurities are contained in an aqueous neutral waste solution; separating said neutral ether solution from said aqueous neutral waste solution; contacting said neutral ether solution with from 2 to 20% of its volume of water whereby said impurities that have remained in said neutral ether solution are back-extracted into said water to form an aqueous wash extract; separating said wash extract from the uranyl nitrate-containing washed neutral ether solution formed; contacting said washed neutral ether solution with at least one-half its volume of water whereby uranyl nitrate is extracted into said water to form an aqueous product solution and an ether raffinate; and separating said product solution from said ether raffinate.

2,841,467
METHOD FOR RECOVERY OF MINERAL VALUES FROM LEACHED ZONE MATERIAL
Robert F. McCullough, Glenview, Ill., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application January 18, 1955, Serial No. 482,448
7 Claims. (Cl. 23—14.5)



1. A process for water-solubilizing and recovering uranium values contained in leached zone material from Florida pebble phosphate overburden which comprises heat treating the leached zone material at a temperature above about 500° C. and below about 1000° C., reacting the heat-treated material in aqueous slurry with sulfur dioxide, whereby the uranium values are rendered water-soluble, diluting the treated slurry with an inert aqueous medium, whereby the uranium values are dissolved in the aqueous phase, and recovering the uranium values from said aqueous phase.

2,841,468
RECOVERY OF URANIUM FROM CARBONATE LEACH LIQUORS
Henry F. Wilson, Maybell, Colo., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application June 14, 1957, Serial No. 665,873
3 Claims. (Cl. 23—14.5)



1. A process of selectively recovering uranium values from a vanadiferous uranium ore which comprises leaching said ore with an aqueous solution of an alkali metal carbonate to obtain a pregnant leach liquor containing dissolved uranium and vanadium values and having a pH of less than 10, adjusting the pH of said leach liquor to lie within the range 10.8 to 11.8 by the addition of an alkali thereto, then bringing the leach liquor into contact with a strong base anion exchange resin whereby the uranium values are adsorbed thereon while the vanadium values largely remain in solution, and eluting the adsorbed uranium values from said anion exchange resin.

2,841,469
PLUTONIUM CARRIER METATHESIS WITH ORGANIC REAGENT
Stanley G. Thompson, Richmond, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application July 17, 1947
Serial No. 761,747
13 Claims. (Cl. 23—14.5)

1. The method of converting a bismuth phosphate carrier precipitate containing plutonium phosphate into a composition more easily soluble in acid, which comprises dissolving said precipitate in an aqueous medium containing an alkali metal hydroxide and a water-soluble material of the group consisting of: polyhydric alcohols having hydroxy groups on adjacent carbon atoms; poly(β-hydroxyalkyl)amines; and α-hydroxycarboxylic acids; and mixtures thereof, then heating said solution whereby a precipitate containing plutonium is formed.

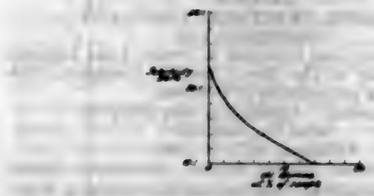
2,841,470
PROCESS FOR PREPARING FIBROUS AND WATER-INSOLUBLE ALKALI METAL TITANATES AND NEW FIBROUS CRYSTALLINE ALKALI METAL TETRATITANATES OBTAINED THEREBY
Kenneth L. Berry, Hockessin, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 18, 1956
Serial No. 585,606
35 Claims. (Cl. 23—51)

1. A fibrous dialkali metal tetratitanate wherein the alkali metal has an atomic number of at least 11, said fibrous dialkali metal tetratitanate exhibiting by X-ray diffraction analysis a definite pattern of crystalline structure.

12. An insulating composition comprising a mass of asbestos-like crystalline fibers of a dialkali metal tetratitanate corresponding in chemical composition to $M_2Ti_4O_9$ wherein M is an alkali metal having an atomic number of at least 11.

16. Process for preparation of fibrous and water-insoluble alkali metal titanates which comprises heating an alkali metal halide from the group consisting of alkali metal chlorides and fluorides and mixtures thereof to a molten state at a temperature not higher than 1200° C., the alkali metal in said alkali metal halide having an atomic number of at least 11, dissolving in said molten alkali metal halide a compound from the class consisting of titanium dioxide and non-fibrous alkali metal titanates of the general formula $M_2O\cdot(TiO_2)_m$ wherein m is an integer of 2 to 3 and M is an alkali metal having an atomic number of at least 11, maintaining at least a portion of said molten alkali metal halide saturated with the dissolved compound from the class consisting of titanium dioxide and non-fibrous alkali metal titanates of said general formula as fibrous alkali metal titanate is formed therein, and separating the fibrous and water-insoluble alkali metal titanate from said alkali metal halide.

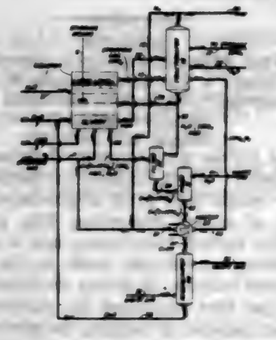
2,841,471
SYNTHESIS OF SELECTIVE MINERAL SORBENTS
Eugene E. Senzel, Beacon, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application October 23, 1956, Serial No. 617,734
6 Claims. (Cl. 23—112)



1. A process of forming synthetic crystalline zeolite characterized by the empirical formula $Na_2O\cdot Al_2O_3\cdot 2SiO_2\cdot 4\text{–}5H_2O$ and an effective pore size of 4 A. upon dehydration which comprises: maintaining an aqueous mixture of at least one soda-providing substance selected from the group consisting of sodium hydroxide and sodium aluminate, at least one alumina-providing substance selected from the group consisting of hydrous alumina and sodium aluminate, and at least one silica-providing substance selected from the group consisting of hydrous silica and finely-divided amorphous silica, said mixture containing essentially stoichiometric quantities of aluminum, silicon, and sodium for the formulation $Na_2O\cdot Al_2O_3\cdot 2SiO_2$, at temperature of 150°–325° F. and autogeneous pressure for at least about 3 hours; thereafter recovering said zeolite as the resulting solid fraction.

2,841,472
PREPARATION OF CYANOGEN
William L. Fierce, Algonquin, and Allen F. Millikan, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
Application November 4, 1955, Serial No. 545,855
14 Claims. (Cl. 23—151)

5. The process for the preparation of cyanogen which comprises reacting a water-soluble, cyanide ion-releasing reagent in a reaction zone in aqueous medium with a cupric ion-releasing reagent, recovering cyanogen as effluent, removing at least a portion of the complex formed during said reaction from said reaction zone to a heating zone and subjecting said complex therein to above about 100° C. and less than about 200° C. in the absence of oxygen so as to recover cyanogen as effluent, passing the solid residue formed in said heating zone to a regeneration zone, heating said residue at at least about 200° C. in the presence of oxygen for a time sufficient to convert at least a portion of said residue to cupric oxide, and recycling cupric oxide-containing residue formed therein to said reaction zone for further contacting.



2,841,473
PROCESS FOR REMOVING HEAVY METAL IONS FROM A NON-AQUEOUS SULFUR TRIOXIDE SOLUTION
Jacob Eichhorn, Saginaw, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application March 1, 1954
Serial No. 413,435
5 Claims. (Cl. 23—174)

1. A process for removing heavy metal ions from a nonaqueous sulfur trioxide solution, which comprises passing a substantially anhydrous solution of sulfur trioxide dissolved in a liquid solvent selected from the group consisting of sulfur dioxide and mixtures of a major proportion by weight of sulfur dioxide and a minor proportion of at least one polychlorinated aliphatic hydrocarbon selected from the group consisting of methylene chloride, carbon tetrachloride, 1,1,1-trichloroethane, tetrachloroethylene and ethylene dichloride, said solution containing heavy metal ions, into contact with an alkali metal salt form of a cation exchange resin selected from the group consisting of cation exchange resins containing sulfonic acid groups and cation exchange resins containing carboxylic acid groups as the functional groups of the same, whereby the heavy metal ions are sorbed by the resin and are removed from the solution.

2,841,474
METHOD OF PREPARING CHLORINATED DICYANDIAMIDE
Rowell R. Dorsett, Baltimore, Md., assignor of one-half to Mangels, Herold Company, Inc., Baltimore, Md., a corporation
No Drawing. Application June 12, 1956
Serial No. 590,832
7 Claims. (Cl. 23—190)

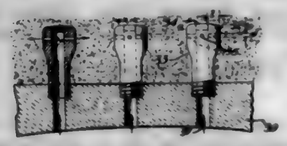
5. The method of producing chlorinated dicyandiamide that consists in mixing (*a*) dicyandiamide 10 to 70 parts by weight, (*b*) mineral acid of the group consisting of phosphoric, sulphuric and hydrochloric 7 to 60 parts by weight, (*c*) a solvent of the group consisting of water, carbon tetrachloride, tetrachloroethane, ethyl and methyl alcohol—20 to 80 parts by weight, heating the mixture to a temperature of about 130° F. to 160° F. for a period of about 1 hour, neutralizing the slurry with caustic

to a pH of about 7, adding to the neutralized slurry an aqueous solution of sodium chlorite containing from 20 to 70 parts by weight of sodium chlorite in 30 parts of water and reacting the neutralized slurry with the chlorite for from 1 to 3 hours, and then evaporating the chlorinated slurry to dryness.

2,841,475
METHOD OF PRODUCING ALUMINUM CARBIDE
George A. Fischer, Fairmont, W. Va.
No Drawing. Application December 29, 1955
Serial No. 556,333
1 Claim. (Cl. 23—208)

A method for the production of aluminum carbide for an iron mixture, which consists in thoroughly mulling together by weight four parts of powdered alumina and three parts of carbon comprising fifty percent carbon flour and fifty percent coke breeze into a unitary admixture, in adding cement and water to the admixture to form a bonded mixture, in drying the mixture to solidify the latter, and then subjecting the solidified mixture to a temperature capable of reducing the mixture for absorption into a molten iron mixture.

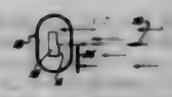
2,841,476
APPARATUS FOR CONTACTING SOLIDS WITH GASES
Benjamin S. Dalton, Riverside, Conn., assignor to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Delaware
Application July 16, 1953, Serial No. 368,425
1 Claim. (Cl. 23—284)



In gas-solid contacting apparatus including a chamber, a horizontally disposed apertured plate in said chamber, a mass of finely divided solids supported on said plate and adapted to subside thereon when non-fluidized, and means for passing fluidizing gases through said apertures to fluidize such solids; improved gas introduction means adapted to limit passage of solids into said apertures when such solids are subsided, said means comprising an insert in each aperture, said insert comprising a tubular hollow member extending upwardly from said aperture, said member being open at the bottom and closed at the top and having side walls of substantial thickness, a plurality of horizontally and radially directed openings in said side walls defining elongated gas passages in straight line communication with the interior of said member, said inserts being surrounded by said solids whereby during periods of non-fluidization subsided solids enter into said elongated passage, and the side walls of said vertical members being of thickness such that the length of said elongated horizontal passages is greater than the distance of entry of said subsided solids into said passage.

2,841,477
PHOTOCHEMICALLY ACTIVATED GASEOUS ETCHING METHOD
Thomas C. Hall, Playa Del Rey, Calif., assignor to Pacific Semiconductors, Inc., Culver City, Calif., a corporation of Delaware
Application March 4, 1957, Serial No. 643,668
9 Claims. (Cl. 41—42)

7. A method of etching a crystal body including the steps of: supporting the body to be etched in an inactive vapor of a non-ultra-violet light absorbing gas capable of chemical disassociation into chemically active species, said gas being selected from the group consisting of methyl chloride, carbon tetrachloride, ethylene chloride,



ethylene iodide, ethylene bromide and ethylene fluoride; and directing a beam of ultra-violet light upon the body to be etched at the area thereof to be etched.

2,841,478
PROCESS FOR THE MANUFACTURE OF BRIQUETS, PARTICULARLY FUEL BRIQUETS
Heinrich Dohmen, Deventer, Netherlands, assignor to N. V. Eldeka, The Hague, Netherlands, a limited-liability company of the Netherlands
No Drawing. Application January 17, 1955
Serial No. 482,399
Claims priority, application Netherlands January 23, 1954
8 Claims. (Cl. 44—15)

1. A process for the manufacture of briquets which comprises mixing relatively finely divided coal with an aqueous solution of a single binding agent consisting essentially of the reaction product of a low molecular weight aliphatic monocarboxylic acid with a member selected from the group consisting of starch, dextrin and methyl cellulose, the concentration of said agent in said solution providing a proportion of abut 0.1% to 1.0% by weight of the binding agent based on the weight of the coal, shaping said mixture into briquets under the action of pressure, and drying the shaped briquets.

2,841,479
GLYCEROL TRIETHER LUBRICANT COMPOSITIONS
Robert E. Hefner and Malcolm E. Pruitt, Lake Jackson, Tex., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application May 28, 1954
Serial No. 433,256
9 Claims. (Cl. 44—58)

1. A liquid motor fuel for internal combustion engines consisting essentially of gasoline and containing a minor proportion of from 0.1 to 20 percent by volume of a mixture of normally liquid trialkyl triethers of (terminal monohydroxy polyoxyalkylene) monoethers of glycerol, said alkyl groups being the same or different and having from 1 to 8 carbon atoms each, and said polyoxyalkylene monoether groups being composed of an average of from 5 to 50 oxyalkylene units formed from at least one alkylene oxide selected from the class consisting of ethylene oxide, 1,2-propylene oxide, 1,2-butylene oxide, and 2,3-butylene oxide.

2,841,480
LEAD SCAVENGER COMPOSITIONS
Venard E. Yust, Alton, and John L. Rowe, East Alton, Ill., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
No Drawing. Application April 24, 1953
Serial No. 351,032
13 Claims. (Cl. 44—63)

1. A fuel composition for internal combustion engines consisting essentially of a stable gasoline, a minor effective anti-detonant amount of a tetra lower alkyl lead anti-detonant, and a scavenger mixture for said anti-detonant consisting essentially of a halohydrocarbon scavenger and of a phosphorus compound selected from the group consisting of tri-heterocyclic phosphates and tri-heterocyclic phosphites, each heterocyclic ring of which contains from 5 through 6 atoms consisting of carbon and only a single atom selected from the group consisting of oxygen, sulfur and nitrogen and each heterocyclic group of which is attached to the phosphorus atom through a chalcogen atom having an atomic number of from 8 through 16, said halohydrocarbon scavenger and said phosphorus compound being present in amounts such that, where *a* is the number of mols of said halohydrocarbon scavenger present multiplied by one-half the number of halogen atoms per molecule for each gram atom of lead in the lead anti-detonant present, and *b* is the number of mols of said phosphorus compound present multiplied by three-halves, for each gram atom of lead in the lead anti-detonant present, the total of *a* plus *b* is from about 0.4 to about 2.0, *b* is from about 0.01 to about 0.6, and the ratio of *a* to *b* is from about 3:2 to about 100:1.

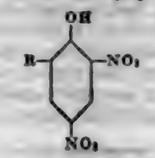
2,841,481
PYROTECHNIC MASSES
Ronald Gibson Hall, Hemel Hempstead, England, assignor to Brock's Crystal Palace Fireworks Limited, Hemel Hempstead, England, a British company
Application February 23, 1955, Serial No. 490,063
Claims priority, application Great Britain March 11, 1954
6 Claims. (Cl. 52—23)



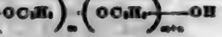
1. A pyrotechnic mass which consists essentially of an intimate mixture of a heat-hardened synthetic resin selected from the group consisting of phenol-formaldehyde resins, urea-formaldehyde resins and melamine-formaldehyde resins and an oxidizing agent selected from the group consisting of ammonium nitrate, alkali metal nitrates, alkaline earth metal nitrates, urea nitrate, alkali metal chlorates, alkaline earth metal chlorates, ammonium perchlorate, alkali metal perchlorates, alkaline earth metal perchlorates, ammonium chromates, alkali metal chromates and alkaline earth metal chromates in the proportion of 1 part of the resin, dry weight, to 0.5–3.5 parts of the oxidizing agent.

2,841,482
HERBICIDAL CHEMICAL COMPOSITIONS
Arthur W. Sweeny, Garden Grove, and Robert W. Nex, Bellflower, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application March 5, 1953
Serial No. 342,666
7 Claims. (Cl. 71—2.3)

1. A composition of matter comprising a component (1) which is a 2,4-dinitro-6-alkyl-phenol of the formula



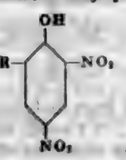
wherein R represents an alkyl radical containing from 3 to 5 carbon atoms, inclusive, and a component (2) which is a polyglycol aryl ether-alcohol compound of the formula



wherein X represents an aryl radical of the benzene series having a molecular weight of at least 91, *m* represents an integer from 4 to 8 inclusive, and *n* represents an integer from 0 to 6, inclusive, and containing at least about 3 moles of component (2) for each mole of component (1).

2,841,483
HERBICIDAL CHEMICAL COMPOSITIONS
Arthur W. Sweeny, Garden Grove, and Robert W. Nex, Bellflower, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application March 5, 1953
Serial No. 342,667
8 Claims. (Cl. 71—2.3)

1. A composition of matter comprising a component (1) which is a 2,4-dinitro-6-alkyl-phenol of the formula



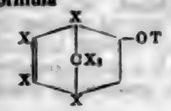
wherein R represents an alkyl radical containing from 3 to 5 carbon atoms, inclusive, and a component (2) which is a polyglycol alkyl ether-alcohol compound of the formula



wherein *w* represents 12 to 16, inclusive, *m* represents from 0 to 5, inclusive, *n* represents from 3 to 10, inclusive, and the total number of alkylene oxide groups in the molecule is between 9 and 13, inclusive, and containing at least about 4 moles of component (2) for each mole of component (1).

2,841,484
BIOLOGICAL TOXICANTS COMPRISING HEXAHALOBICYCLOHEPTENOLS AND ESTERS THEREOF
William K. Johnson, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application May 5, 1955
Serial No. 506,372
25 Claims. (Cl. 71—2.3)

20. A herbicidal and fungicidal composition comprising an inert carrier and, as the essential effective ingredient a compound of the formula



where X is halogen and T is selected from the group consisting of hydrogen, hydrocarboncarbonyl radicals, and hydrocarboncarbamyl radicals.

2,841,485
HEXAHALOBICYCLOHEPTENEDIOLS AND DERIVATIVES THEREOF
William K. Johnson, Dayton, Ohio, and Tad Le Marre Patton, Houston, Tex., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application May 20, 1955
Serial No. 510,053
26 Claims. (Cl. 71—2.3)

24. The method of destroying vegetation which comprises applying to living plants a phytotoxic amount of a herbicidal composition comprising an inert carrier and, as the essential effective ingredient, 1,4,5,6,7,7-hexachlorobicyclo[2.2.1]-5-heptene-2,3-diol.

2,841,486

PLANT DEFOLIATING METHOD EMPLOYING DI-, TRI-, AND TETRATHIOPHOSPHORIC ACID DERIVATIVES

Charles W. Osborn and Lyle D. Goodhue, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application June 22, 1953
Serial No. 363,418
7 Claims. (Cl. 71—2.7)

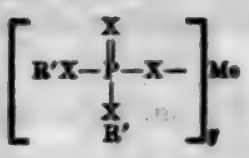
1. A method for defoliating cotton which comprises applying to the leaves of said plant when it is mature a composition comprising dispersed in a non-aqueous defoliant adjuvant carrier a defoliating quantity of a compound which can be represented by one of the formulas consisting of:

(1)



wherein X is selected from the group consisting of oxygen and sulfur, at least 2 X's being sulfur; wherein R is selected from the group consisting of hydrogen, alkyl, aryl, aralkyl, alkaryl and cycloalkyl groups and not more than one R is hydrogen;

(2)



wherein X is selected from the group consisting of oxygen and sulfur with at least 2 X's being sulfur, Me is a metal selected from groups I–A, II–A, II–B, and IV–B of the periodic table, y is equal to the valence of Me, and R′ is selected from the group consisting of alkyl, aryl, aralkyl, alkaryl and cycloalkyl groups; and wherein the alkyl groups contain 1–16 carbon atoms, the aryl, aralkyl and alkaryl groups contain 6–16 carbon atoms and the cycloalkyl groups contain not in excess of 16 carbon atoms with 5–6 carbon atoms in the ring.

2,841,487

METHOD OF STORING TITANIUM SPONGE

Alexandre R. Tarsey, Las Vegas, and Delmar B. Davis, Henderson, Nev., assignors to Titanium Metals Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application April 30, 1956
Serial No. 581,304
3 Claims. (Cl. 75—84.5)

1. A method for storing titanium metal sponge which contains magnesium chloride impurity which comprises storing said sponge in a closed container in an atmosphere conditioned by the presence of aluminum chloride.

2,841,488

NODULAR CAST IRON AND PROCESS OF MAKING SAME

Heuton Morrogh, Tanworth-in-Arden, England, assignor, by mesne assignments, to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 6, 1952
Serial No. 270,281
7 Claims. (Cl. 75—123)

1. A process for producing magnesium-containing hypereutectic nodular cast iron from molten cast iron containing an interfering element detrimental to the graphite-nodularizing action of magnesium alone, said element being in the group consisting of tin, lead, antimony, bismuth, arsenic, selenium and tellurium, in detrimental amount up to about 0.1%, titanium in amount up to about 0.2% and copper in amount of from about 2% to 7%, which process comprises establishing a melt of grey cast iron hypereutectic in relation to carbon content and containing an interfering amount of at least one of said group of interfering elements, adding magnesium and cerium to said molten hypereutectic iron in such amounts that the iron, when cast, contains not less than 0.005% of magnesium and not less than 0.001% of cerium, the total of these two metals being at least about 0.04%, said cast iron being characterized by a satisfactory nodular graphite structure despite the presence of said detrimental amounts of elements capable of interfering with the graphite-nodularizing action of magnesium.

2,841,489

NODULAR CAST IRON AND PROCESS OF MAKING SAME

Heuton Morrogh, Tanworth-in-Arden, England, assignor, by mesne assignments, to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 6, 1952
Serial No. 270,282
Claims priority, application Great Britain
February 7, 1951
12 Claims. (Cl. 75—125)

1. Process for the production of grey cast iron which contains copper, is hypoeutectic in relation to carbon, and in which the graphite is present at least predominantly in the form of nodules, which process comprises adding magnesium and cerium to a molten iron which contains copper, is hypoeutectic in relation to carbon and which on casting gives a grey cast iron, and casting the treated melt; the treated melt having a copper content of about 2% to 7% which would substantially interfere with the nodularizing action of the magnesium in the absence of cerium.

2,841,490

METHOD FOR MAKING IMPROVED GRAY CAST IRON

William Steven, Rubery, and Roger Maxwell Lumb, Kenilworth, England, assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 18, 1953
Serial No. 337,686
Claims priority, application Great Britain
February 27, 1952
9 Claims. (Cl. 75—130)

1. The method for producing spheroidal graphite in cast iron castings made from molten hypoeutectic and eutectic gray cast iron which comprises establishing a bath of molten gray cast iron containing a small amount of magnesium effective in the absence of detrimental elements to induce the occurrence of spheroidal graphite in castings made from the bath, said iron containing a detrimental element from the group consisting of indium, thallium, tin, bismuth, antimony, lead and titanium in an amount sufficient substantially to suppress the effect of magnesium in producing spheroidal graphite in castings made from the iron, adding to said bath a small amount up to about 0.05% of a rare earth metal to counteract the suppressive effect of the detrimental elements, inoculating the bath, and casting metal from the thus-treated bath to provide gray cast iron castings containing a substantial proportion of the graphite in a spheroidal form.

2,841,491

BATTERY GRID ALLOY

Harold E. Zahn, Buffalo, N. Y., assignor to Gould-National Batteries, Inc., Depew, N. Y.

No Drawing. Application December 16, 1955
Serial No. 553,426
2 Claims. (Cl. 75—166)

1. A storage battery grid alloy consisting essentially

of from .001% to .10% cobalt; .05% to .25% silver; 1.0% to 12.0% antimony; and tin not in excess of .50%; the balance being substantially lead.

2,841,492

PHOTOCHEMICAL REPRODUCTION

Donald Charles Gresham, London, England, assignor, by mesne assignments, to McCorquodale-Gresham, Inc., Long Island City, N. Y., a corporation of Delaware

No Drawing. Application May 24, 1954
Serial No. 433,828
Claims priority, application Great Britain June 24, 1953
5 Claims. (Cl. 96—30)

1. A process for the production of a negative color separation screen reproduction modified to reduce the dot area of said reproduction in the areas corresponding to the black or darker areas of the original subject, which comprises forming a positive screen record (*a*) of the whole response of the original in one waveband selected from blue, green and red wavebands, forming a positive screen record (*b*) of the whole response of the original in another and different waveband selected from blue, green and red wavebands, forming a positive screen record (*c*) of the black areas only of the original, forming a negative record (*d*) by printing (*b*) and (*c*) successively in register on a single sheet of light-sensitive photographic material and forming a negative record (*e*) by printing (*a*) and (*d*) successively in register on a single sheet of light-sensitive photographic material the said records (*a*), (*b*) and (*c*) being made at different screen angles and the said negative record (*e*) constituting the product required.

2,841,493

AIR TYPE PRINTING PROCESS

Eduardo Carranza, Dunellen, N. J.

Application October 22, 1954, Serial No. 463,978
2 Claims. (Cl. 96—33)

1. A process for producing prints of type matter and other line work over surfaces coated with a proteinaceous colloid, comprising treating said surfaces with an aqueous solution of potassium bichromate, exposing the surfaces so treated to actinic light under a line negative, covering the areas so treated with a coat of waterproof drawing ink, removing the unwanted ink in the unexposed areas with a weak aqueous solution of sodium hypochlorite, and rinsing the treated surfaces in an aqueous solution of sodium hydrosulphite.

2,841,494

DEVELOPING AND FIXING EXPOSED SILVER SUCCINDIAMIDOXIME

Marilyn Levy, Red Bank, N. J., and Nash A. Kidd, Freeport, Tex., assignors to the United States of America as represented by the Secretary of the Army

No Drawing. Application August 13, 1956
Serial No. 603,849
7 Claims. (Cl. 96—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of forming a visible image in an organic colloid carrier having dispersed therein silver succindiamidoxime comprising developing the exposed carrier by treating it with steam and then fixing it with ammonia.

2,841,495

DRY STABLE FEED COMPOSITION

Charles W. Stewart, Hinsdale, Ill., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

Application February 6, 1956, Serial No. 563,752
10 Claims. (Cl. 99—2)

1. A dry feed composition containing carotenoid pigments which is stable against oxidative deterioration comprising a decoiled vegetable oil bearing material having absorbed thereon carotenoid pigments and coated with a coating material from the group consisting of steep liquor and steep liquor in combination with any of the following: corn sirup, dextrose greens, molasses, and mixtures thereof, the amount of steep liquor in said combination being at least about 50 percent, dry basis; the amount of coating material being at least 35 percent, dry basis, of the entire mixture.

2,841,496

DUSTLESS MEAL AND METHOD OF PREPARING THE SAME

Earl H. Brockman, Caldwell, Idaho, assignor of one-third to Pauline Brockman, Caldwell, Idaho

No Drawing. Application March 12, 1956
Serial No. 570,674
12 Claims. (Cl. 99—2)

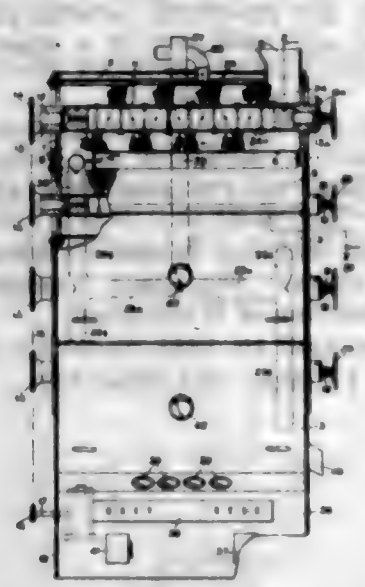
1. A process of grinding solid, normally dust-forming, material while reducing dust formation which comprises admixing a small amount of oil-bearing seed, having an oil content in excess of about 12%, with the material and thereafter grinding the mixture.

2,841,497

ACTIVATING GRAIN FLOUR WITH MALT FLOUR

Roger Paul Charles Carcassonne-Leduc, Paris, France, assignor to C-L Processes, Incorporated, Wilmington, Del., a corporation of Delaware

Application November 21, 1951, Serial No. 257,478
5 Claims. (Cl. 99—94)



5. The method of physically transforming and activating a mixture of malt and edible grain flours comprising the steps of mixing a predetermined quantity of malt flour with the edible flour to produce the desired maltage, subjecting the mixture containing atmospheric moisture to a mechanical action and propelling in a zone maintained at a predetermined temperature above that at which most effective diastatic transformation of the starch will occur but which is below that at which vitamins are destroyed, and then passing the mixture to and through a free fall zone containing water vapor and maintained at a temperature lower than said predetermined temperature, thus providing effective conditions for diastatic action, said mixture being subjected to pneumatic mixing and diastatic action as it falls through said zone.

2,841,498
COLD WATER-SOLUBLE GELATIN COMPOSITION AND METHOD OF PREPARING THE SAME

Frank J. Cahn, Los Angeles, and Elliot B. Hagerty, Whittier, Calif., assignors to Louis Milani Foods, Inc., Los Angeles, Calif., a corporation of Illinois

No Drawing. Application October 19, 1955
Serial No. 541,543
2 Claims. (Cl. 99—136)

1. A process for preparing a powder for incorporation into gelatin-containing foodstuffs capable of dissolving in cold water to form liquids from which a transparent gel is obtained at room temperatures, which process consists in spraying an aqueous solution containing about 2 parts of gelatin and sugar in about 3 parts of water wherein the weight ratio of sugar to gelatin is between 8:1 and 10:1, under a pressure of about 225 lbs. per square inch at a rate of about 35 gallons per hour downwardly into a downwardly moving current of air heated to between 124° C. and 243° C. and surrounded by a jacket of downwardly moving cool air, thereby producing a sensibly dry powder having a moisture content between 4% and 5% by weight and an apparent specific gravity of about 0.6.

2,841,499
COLORED FOOD PRODUCT AND METHOD OF MAKING THE SAME

Frank X. Groom, St. Louis, Mo., assignor to Union Starch & Refining Company, Columbus, Ind., a corporation of Indiana

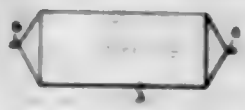
No Drawing. Application March 3, 1955
Serial No. 492,639
2 Claims. (Cl. 99—148)

1. A dry powdered food product adapted to be mixed with aqueous liquid to provide a comestible food, said powdered product consisting essentially of nutritious ingredients, flavor, dry powdered caramel color as a coloring compound and ¼–1.0% of a water soluble cellulose ether.

2,841,500
METHOD OF PACKAGING AND PRESERVING HOPS

James O. Hughes and Ray Nelson, Yakima, Wash., assignors to Tri-State Processing Company, Yakima, Wash., a corporation of Washington

Application April 10, 1953, Serial No. 348,839
1 Claim. (Cl. 99—189)



A method of packaging hops for shipment and preserving the same in the original condition during such shipment, comprising taking a compressed bale of hops and removing the original covering sheet and bands therefrom, subjecting the original compressed bale of hops to a higher degree of pressure to highly compress the bale and reduce the size of the bale to approximately one-half of the original size, retaining the highly compressed bale in substantially the same reduced size by enclosing the same in a sheet and bands and thereby resisting the expansion of the bale, then enclosing the highly compressed bale which is reduced in size within a casing formed from a plastic sheet, then heat sealing overlapping parts of the casing to completely close the same and provide an air tight casing, and retaining the highly compressed bale which is reduced in size in substantially the same size for preventing expansion of such bale when said bale is in the air tight casing.

2,841,501
SILVER POLISH

James G. Murphy, Silver Spring, Md.

No Drawing. Application April 17, 1957
Serial No. 653,290
4 Claims. (Cl. 106—3)

1. A silver polish consisting essentially of a mixture of abrasive powder and an n-alkane-1-thiol, the alkane being a C_{12-20} straight chain radical.

2,841,502
TAP HOLE AND BESSEMER BOTTOM MIX

Howard F. West and John K. Veale, Joliet, Ill., assignors to The Illinois Clay Products Company, Joliet, Ill., a corporation of Illinois

No Drawing. Application January 11, 1956
Serial No. 558,412
1 Claim. (Cl. 106—281)

A plastic refractory composition suitable for closing tap holes, forming Bessemer bottoms and the like, said composition consisting essentially of a mixture of comminuted clay and crushed firebrick, and a liquid binder present in the amount from about 6% to 10% by weight, said liquid binder being an oleaginous material containing fused ring aromatics obtained by the thermal cracking of cycle oils at temperatures of between approximately 650° F. to 1000° F., and further characterized by oxidizing and polymerizing on heating to a solid.

2,841,503
FILM-FORMING HYDROSOLS OF BARIUM TITANATE, THEIR PREPARATION AND A SUBSTRATE COATED THEREWITH

Boynton Graham and Gordon D. Patterson, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 19, 1955
Serial No. 553,730
11 Claims. (Cl. 106—286)

1. A film-forming hydrosol of barium titanate comprising water, barium titanate as the major film-forming ingredient in the form of a sol dispersed therein in amount from 0.01 to 5% by weight, and an acid having a pKa of less than 5 as the peptizing agent in amount of at least 10 and not more than 150 mole percent based on said barium titanate.

2,841,504
SURFACE COATED CALCIUM CARBONATE PIGMENTS

Lawrence M. Liggett, Wyandotte, Mich., assignor to Wyandotte Chemicals Corporation, Wyandotte, Mich., a corporation of Michigan

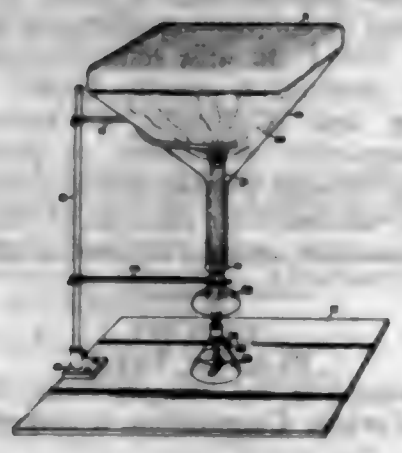
No Drawing. Application September 1, 1953
Serial No. 377,983
10 Claims. (Cl. 106—308)

1. A powdery, rubber reinforcing grade pigment consisting of calcium carbonate with a solid coating dispersed on the surfaces of the particles thereof, said coating consisting of (1) a higher amine selected from the group consisting of primary n-alkyl amines whose alkyl groups contain 10–18 carbon atoms and rosin amines and (2) a compound containing a high molecular weight organic acid radical and selected from the group consisting of 10–20 carbon atom fatty acids, rosin acids, lower esters of rosin acids and metallic salts of rosin acids, the molar ratio of said compound to said higher amine being in a range of 1/1 to 7/1, and the concentration of said coating being sufficient to materially improve the rubber processing and rubber reinforcing properties of said calcium carbonate.

2,841,565
METHOD OF MANUFACTURING CATHODE-RAY TUBES

Adolph W. Schmidt, Norwood Park, Ill., assignor to The Rauland Corporation, a corporation of Illinois

Application August 3, 1954, Serial No. 662,918
5 Claims. (Cl. 117—18)



1. A method of improving the cross-burn resistance of a luminescent screen deposited onto the faceplate of a cathode-ray tube bulb, said method comprising: placing said bulb in an upright position with said faceplate uppermost; introducing a cloud, having silicon dioxide particles suspended therein, into said cathode-ray tube bulb; inverting said cathode-ray tube bulb; and retaining said cloud in said inverted bulb for a period of time sufficient to permit said silicon dioxide particles to settle out of said cloud onto said deposited luminescent screen.

2,841,566
PROTECTIVE COMPOSITION

Dean E. Rueckert, Melrose, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application June 15, 1953
Serial No. 361,873
16 Claims. (Cl. 117—76)

6. The method of making a paper base composition suitable for use as a protective covering for food products, which comprises: treating a highly porous and flexible fibrous base material weighing 8 to 10 pounds per ream with an edible adhesive whereby the adhesive reduces the absorption properties of the fibers and reduces the size and number of interstices normally found in said base material, and thereafter supplying said adhesive-treated base material with a polyethylene coating of approximately 0.5 to 2.0 mils thickness whereby the remaining interstices are restricted while the inherent flexibility and other desirable properties of said base material are maintained.

2,841,567
METHOD OF FLAMEPROOFING FIBERS AND COMPOSITION USED THEREIN

James R. Costello, Jr., Chicago Heights, and Thornton P. Traise, South Chicago Heights, Ill., assignors to Victor Chemical Works, a corporation of Illinois

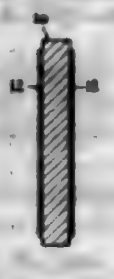
No Drawing. Application September 22, 1953
Serial No. 381,762
8 Claims. (Cl. 117—136)

1. The method of flameproofing cellulosic fibers which comprises impregnating the fibers with an aqueous emulsion of a partial polymer of a beta, gamma, unsaturated dialkenyl beta, cyanoethanephosphonate wherein each alkenyl group is a member of the class consisting of allyl and methallyl radicals, substantially drying the fibers and heating the fibers at a polymerizing temperature and for a time sufficient to effect further polymerization and attachment of the resulting polymer to the fibers.

2,841,568
ELECTRICAL CIRCUIT ELEMENTS

Rolland R. Roup and Jack S. Kilby, Milwaukee, Wis., assignors to Globe-Union Inc., Milwaukee, Wis., a corporation of Delaware

Application May 27, 1955, Serial No. 511,701
12 Claims. (Cl. 117—200)



1. An electrical circuit element having a body of high dielectric constant material having throughout properties of a semiconductor and a conducting electrode secured to a surface thereof.

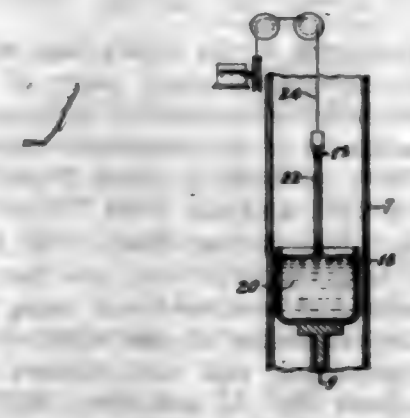
3. The method of making an electrical circuit element including forming a body of titanates of barium and strontium with a minor additive of rare earth oxide, firing said body to maturity in a reducing atmosphere to make said body throughout a uniform semiconductor having a high dielectric constant, and firing a metal electrode onto said body.

10. An electrical circuit element having a body consisting essentially of sintered metallic oxides in reduced state having a high dielectric constant and providing throughout an n-type semiconductor in which the number of excess carriers are limited, a conducting electrode bonded to a surface of said body, and a non-ohmic barrier layer between said conducting electrode and said body having the same chemical properties as said semiconductor.

2,841,569
METHOD OF DOPING SEMI-CONDUCTIVE MATERIAL

Robert V. Jensen, Trenton, N. J., and Robert A. Laff, West Lafayette, Ind., assignors to Radio Corporation of America, a corporation of Delaware

Application April 27, 1955, Serial No. 504,230
13 Claims. (Cl. 148—1.5)



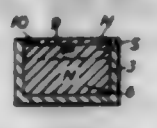
1. The method of dissolving a conductivity-type-determining impurity material into a semi-conductive material whose melting point is higher than the boiling point of said impurity material comprising the steps of melting said semi-conductive material and: adding said impurity material into said semi-conductive material when liquidized in the form of an alloy consisting essentially of said impurity material and a carrier material different from said semi-conductive material whose boiling point is higher than the melting point of said semi-conductive material, the composition of said alloy being such that it is single phase and has a boiling point higher than the melting point of said semi-conductive material.

2,841,510

METHOD OF PRODUCING P–N JUNCTIONS IN SEMI-CONDUCTOR MATERIALS

Simon Ernst Mayer, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application May 25, 1955, Serial No. 511,028
Claims priority, application Great Britain June 11, 1954
6 Claims. (Cl. 148—1.5)



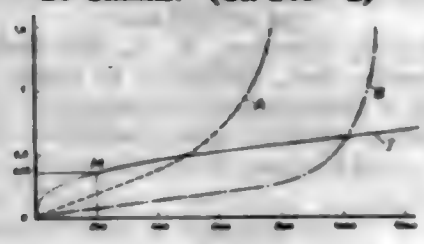
1. A method of treating a body of semi-conductor crystalline material selected from the class consisting of germanium and silicon and of given conductivity type for the purpose of producing therein a P–N junction, comprising the steps of depositing on a given surface of the body a film of a significant impurity element of the kind adapted, when added to the semi-conductor material, to produce conductivity of the type opposite to the given type, and heating the body to a temperature sufficient to cause the significant impurity element to be diffused into the body, characterised in this, that at some stage before the body is heated, there is deposited on all other surfaces of the body except the given surface a film of a material selected from the class consisting of an element and an inorganic compound of such element taken from group IV of the periodic table which is isomorphous with the semi-conductor material, but different therefrom.

2,841,511

METAL ALLOY AND ITS MANUFACTURING PROCESS

Hervé Bibring, Meudon, France, assignor to Office National d'Etudes et de Recherches Aeronautiques, Chatillon-sous-Bagneux, France

Application September 14, 1953, Serial No. 379,779
Claims priority, application France September 16, 1952
20 Claims. (Cl. 148—2)



15. A process of producing a cast cobalt base refractory metal alloy characterized by small creep of constant ratio at high temperature comprising admixing in amounts by weight in excess of approximately 40% cobalt, from 20% to 35% chromium, from 5 to 20% molybdenum, from 0 to 15% tungsten, from 3% to 15% nickel, from 0.6% to 1.2% carbon, from 0 to 0.5% titanium, from 0.05% to 0.3% zirconium, less than 3% of silicon and manganese and iron, said iron being present and constituting the remainder of said alloy, casting said mixture, and maintaining said cast mixture at a temperature between about 800° C. and about 1050° C. for a prolonged period of time.

2,841,512

METHOD OF WORKING AND HEAT TREATING ALUMINUM-MAGNESIUM ALLOYS AND PRODUCT THEREOF

Hugh S. Cooper, Shaker Heights, Ohio, assignor to William F. Jobbins, Incorporated, Aurora, Ill., a corporation of Illinois

No Drawing. Application October 12, 1956
Serial No. 615,456
8 Claims. (Cl. 148—11.5)

1. A method for making a wrought aluminum alloy material comprising soaking a body of metal comprising magnesium 5 to 8%, titanium .10 to .25%, manganese .10 to .25%, beryllium .0005 to .05%, impurities not more than .50%, balance aluminum, for a period of from 15 minutes to 40 hours at a temperature of about from 700 to 750° F., reducing said body by forming to about from 40 to 60% of starting cross-section while maintaining said body within a temperature range not greater than and not substantially below about from 700 to 750° F. and then further soaking the body at about from 700 to 750° F. to fully anneal it whereby the resulting alloy material is greatly further reducible by cold working and is capable of achieving thereby strengths comparable with those of presently known heat-treatable wrought aluminum alloys while also having corrosion resistance far superior to that of presently known heat-treatable wrought aluminum alloys.

2,841,513

PLASTIC FLUX

William G. Morrison, Jr., Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application July 7, 1954
Serial No. 441,922
8 Claims. (Cl. 148—23)

1. A plastic welding flux consisting of 70 parts by weight of a mixture of dry fluxing agents having the following composition:

	Parts by weight
Asbestos	16
Titanium dioxide	12
Ferromanganese	8
Sodium silicate	34

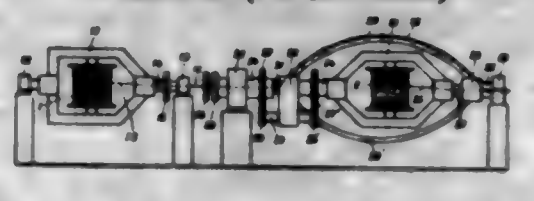
and 30 parts by weight of glycerol.

2,841,514

DEVICE FOR CONTROLLING AND ADJUSTING THE CAPACITANCE OF AN ELECTRICALLY INSULATED CONDUCTOR

Sven Sigurd Nordblad, Spanga, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden

Application June 1, 1956, Serial No. 588,642
Claims priority, application Sweden June 13, 1955
7 Claims. (Cl. 154—2.24)



1. A device for controlling and adjusting the capacitance of an electrically insulated conductor, on which an insulating material is spirally applied, characterized by a rotatable supply means, arranged so as to be able to rotate round a shaft with the same direction as the direction, which an electrically insulated conductor coming from the supply means has when leaving this supply means, and by a measuring means, which the electrically insulated conductor coming from the supply means has to pass for control of its capacitance, the rotatable supply means being arranged to rotate in dependence on the control results from said measuring means.

2,841,515

CONVEYOR BELTS

Leslie A. Runton, Middle Haddam, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn., a corporation of Connecticut

Application May 18, 1956, Serial No. 585,716
4 Claims. (Cl. 154—52.1)

1. A conveyor belt comprising a pair of layers of a woven fabric, an intermediate polyurethane foam dis-

posed between said fabric layers and bonding the same together, one of said fabric layers having a plurality of openings therein, and members composed of said poly-



urethane foam formed integrally with said intermediate layer extending through said openings, and projecting above the surface of said last mentioned fabric layer for positioning articles on said belt.

2,841,516

ASBESTOS YARN AND METHOD OF PRODUCING FRICTION LINING THEREFROM

Henry C. Morton, Branford, Conn., assignor to The Russell Manufacturing Company, Middletown, Conn., a corporation of Connecticut

Application October 4, 1957, Serial No. 688,175
6 Claims. (Cl. 154—81)



5. The method of making a friction lining from asbestos yarn made from short asbestos fibers consisting essentially of the steps of passing a yarn core through a treating zone containing a liquid resin-rubber composition to cause the yarn to pick up a surface coating of said composition, passing the coated yarn with the coating still tacky through a zone containing short asbestos fibers suspended in an air current under conditions to cause said fibers to become embedded in said coating, drying the vehicle of said coating to bind the fibers to said core, passing the coated yarn through another treating zone containing a liquid rubber-resin composition to pick up a further coating of said composition, passing the yarn with said coating still tacky through a second zone containing short asbestos fibers suspended in an air current under conditions to cause the fibers to be picked up by said last coating, drying the yarn to remove the vehicle and cause said last fibers to be bonded to said yarn, fabricating said coated yarn into a tape, impregnating said tape with said rubber-resin composition, and pressure molding the same to form a friction lining and heat curing the rubber-resin composition.

2,841,517

PHOSPHOROTHIOLIC ACID ESTER COMPOSITIONS AND METHODS OF DESTROYING INSECTS

William R. Boon and Eric C. Edgar, Brackmell, Ranajit Ghosh and Norman Greenhalgh, Manchester, Hans S. Hopf, Brackmell, and Betty Florence Burnand, Richmond, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application January 10, 1955
Serial No. 481,632
Claims priority, application Great Britain
December 21, 1954
9 Claims. (Cl. 167—22)

1. A pesticidal composition comprising an inert pesticide carrier and, as the active pesticidal ingredient, a phosphorothiolic acid ester of the general formula

$$O{=}P(OR_1)(OR_2){-}S{-}LX$$

in which R_1 and R_2 stand for lower alkyl radicals, L stands for a member of the group consisting of divalent saturated aliphatic hydrocarbon radicals of up to four carbon atoms and divalent saturated aliphatic hydrocarbon radicals of up to four carbon atoms in which the carbon atoms are interrupted by Z, Z being an atom selected from the group consisting of oxygen, sulphur, and nitrogen carrying a lower alkyl substituent, and X stands for a member of the group consisting of secondary aliphatic amines, piperidine and morpholine attached to L through the amino nitrogen atom and salts thereof.

2,841,518

FUNGICIDAL COMPOSITIONS

Irving D. Webb, Rosemead, and John W. Yale, Jr., Yorba Linda, Calif., assignors, by mesne assignments, to Celler Carbon and Chemical Corporation, a corporation of California

No Drawing. Application January 9, 1956
Serial No. 557,875
9 Claims. (Cl. 167—22)

1. A fungicidal and nematocidal composition comprising an inert pesticidal carrier material and, as the essential active ingredient, a product obtained by heating a mixture essentially comprising methyl orthothioformate and elemental sulfur, cooling the product so obtained to room temperature, and separating therefrom any free sulfur which is thereby precipitated, said heating step being carried out at such temperature and for such period of time that the product from which said precipitated sulfur has been separated contains between about 1 and about 12 atomic weights of sulfur per molecular weight of methyl orthothioformal.

2,841,519

BISISOPROPOXYCARBONYL ETHYLENEBISDITHIOCARBAMATE

Chien-Pen Lo and W. E. Craig, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 19, 1956
Serial No. 560,071
3 Claims. (Cl. 167—22)

1. As a new chemical compound, bis(isopropoxycarbonyl) ethylenebisdithiocarbamate.

2. A process for controlling fungi which attack plants which comprises supplying to a fungus-infected environment thereof bis(isopropoxycarbonyl) ethylenebisdithiocarbamate.

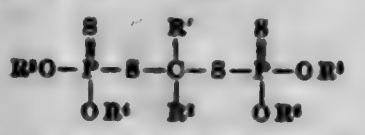
2,841,520

PESTICIDAL PHOSPHORUS ESTERS

Joe R. Willard and John F. Henahan, Middleport, N. Y., assignors to Food Machinery and Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 16, 1956
Serial No. 597,887
10 Claims. (Cl. 167—22)

1. A compound of the formula



wherein R′ and R^2 are different radicals selected from the group consisting of chloro, nitro, S-(di-lower-alkoxyphosphinothioyl)mercapto and phenyl radicals, and R^3, R^4, R^5 and R^6 are lower alkyl radicals.

5. A pesticidal composition comprising a toxic concentration of a compound of claim 1 and an inert pesticidal adjuvant as carrier therefor.

8. A method of controlling mite and insect pests comprising contacting said pests with an effective concentration of a compound of claim 1.

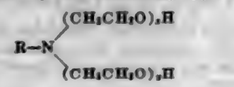
2,841,521

INSECTICIDAL COMPOSITIONS AND METHOD OF COMBATING INSECTS

Walter W. Abramitis, Downers Grove, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application July 8, 1954
Serial No. 442,197
8 Claims. (Cl. 167—24)

1. An insect-repelling composition, comprising a mixture of pyrethrin-type insecticide and a condensation product represented by the following type formula:



where R is an aliphatic group containing from 6 to 22 carbon atoms and x and y are integers having a sum of from 5 to 60, said mixture containing a larger proportion of said condensation product than of said pyrethrin-type insecticide.

2,841,522

FUNGICIDAL CHLORONITROBENZOIC ACID ESTER COMPOSITION AND METHOD OF USING SAME

Calvin N. Wolf, New York, N. Y., assignor, by mesne assignments, to Pittsburgh Coke and Chemical Company, a corporation of Pennsylvania

No Drawing. Application May 20, 1954
Serial No. 431,258
6 Claims. (Cl. 167—30)

1. Fungicidal composition comprising a fungicidally inert surface-active dispersing agent and an ester of a chloronitrobenzoic acid.

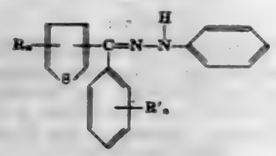
2,841,523

PHENYL HYDRAZONES OF THIENYL PHENYL KETONES

Van R. Gaertner, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

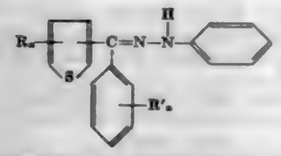
No Drawing. Application September 21, 1954
Serial No. 457,556
10 Claims. (Cl. 167—33)

1. A compound having the formula



in which R and R′ are selected from the class consisting of hydrogen and alkyl radicals of from 1 to 5 carbon atoms and n is a number of from 1 to 2.

4. A biological toxicant comprising an inert carrier and as the essential active ingredient a compound having the formula



in which R and R′ are selected from the class consisting of hydrogen and alkyl radicals of from 1 to 5 carbon atoms and n is a number of from 1 to 2.

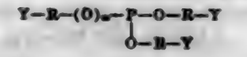
2,841,524

ADDUCTS OF TRITHIANE WITH SULFENYL CHLORIDES AND PHOSPHITES

Gail H. Birum, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

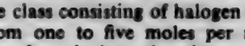
No Drawing. Application November 25, 1955
Serial No. 549,201
19 Claims. (Cl. 167—33)

1. The phosphorus-containing product of the reaction of an adduct in which one mole of trithiane is combined with from one to three moles of sulfenyl chloride of formula R′SCl in which R′ is a hydrocarbon radical of from one to eight carbon atoms which is free of non-benzenoid unsaturation and which contains at least one substituent selected from the class consisting of halogen and the nitro radical, with from one to five moles per mole of said sulfenyl chloride of a trivalent phsophorus acid ester of the formula:



wherein m is a cardinal number not greater than one, R is a bivalent hydrocarbon radical selected from the class consisting of lower alkyl, cyclohexyl and aryl, aralkyl and alkaryl radicals containing not more than ten carbon atoms, and Y is selected from the class consisting of hydrogen and chlorine atoms.

16. An insecticidal composition comprising an inert carrier and as the essential effective ingredient the phosphorus-containing product of the reaction of an adduct in which one mole of trithiane is combined with from one to three moles of a sulfenyl chloride of the formula R′SCl in which R′ is a hydrocarbon radical of from one to eight carbon atoms which is free of non-benzenoid unsaturation and which contains at least one substituent selected from the class consisting of halogen and the nitro radical, with from one to five moles per mole of said sulfenyl chloride of a trivalent phosphorus acid ester of the formula:



wherein m is a cardinal number not greater than one, R is a bivalent hydrocarbon radical selected from the class consisting of lower alkyl, cyclohexyl and aryl, arylalkyl and alkaryl radicals containing not more than ten carbon atoms, and Y is selected from the class consisting of hydrogen and chlorine atoms.

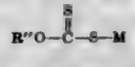
2,841,525

BIOLOGICAL TOXICANTS

Gail H. Birum and William E. Weesner, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 18, 1956
Serial No. 578,861
19 Claims. (Cl. 167—33)

1. The process which comprises contacting a phosphite ester of the formula $(RO)_2PXR'$ where R is selected from the class consisting of alkyl chloroalkyl and bromo alkyl radicals, R′ is selected from the group consisting of R and alkali metal, and X is selected from the class consisting of oxygen and sulfur, and an alkylxanthate salt of the formula



where R″ is an alkyl radical and M is an alkali metal, with at least a portion of the product of chlorination of trithiane under substantially anhydrous conditions to introduce from one to three moles of chlorine per mole of trithiane into the chlorination product, and thereby forming a phosphorus- and sulfur-containing biological toxicant product.

2,841,526

FATTY ACID-RESIN ADSORPTION PRODUCT

Edwin L. Gustus, Chicago, Ill., assignor to R. J. Strasenburgh Co., Rochester, N. Y., a corporation of New York

No Drawing. Application June 4, 1956
Serial No. 588,996
2 Claims. (Cl. 167—55)

1. A composition for treating Moniliasis, said composition being in dosage unit form comprising a minimum of approximately 75 mgs. and a maximum of approximately 5 grams per dosage unit of a polyamine anion exchange resin in which the amine groups are selected from the groups consisting of primary, secondary and tertiary amine groups, and having adsorbed thereon a fatty acid selected from the group consisting of saturated fatty acids containing from 7 to 9 carbon atoms and unsaturated double bond fatty acids containing from 6 to 11 carbon atoms.

2,841,527

MEDICINAL EMULSIONS

Louis Freedman, Mount Vernon, A. Jay Merritt, New Rochelle, and Jacques Breitbart, New York, N. Y., assignors to U. S. Vitamin Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 7, 1955
Serial No. 545,546
6 Claims. (Cl. 167—77)

1. A composition for topical application, comprising an aqueous-fatty base emulsion containing pantothenyl alcohol and at least one of the group consisting of hydrocortisone alcohol and a crystalline, fatty acid ester of hydrocortisone.

2,841,528

METHOD OF MAKING FUSED TABLETS

Johan Myhre, Oslo, Norway, assignor, by mesne assignments, to Collett & Co. A/S, a corporation of Norway

No Drawing. Application September 21, 1954
Serial No. 457,570
11 Claims. (Cl. 167—82)

1. The method of making tablets comprising tableting a granulate of an edible substance which is a solid at room temperature and which is capable of fusing at an elevated temperature consisting predominantly of a sugar and heating the thus-formed tablet to a temperature whereat the tablet fuses to a homogeneous, glassy mass.

2,841,529

PROCESS FOR MANUFACTURING CELLULOSE WOOL AND RESULTING PRODUCTS THEREOF

Jacques Schmidt and Pierre-François Auguste Meyer, Strasbourg-Robertsau, France, assignors to Société dite: Papeteries de la Robertsau, Société Anonyme, Strasbourg-Robertsau, France, a French company

No Drawing. Application February 10, 1953
Serial No. 336,208
Claims priority, application France August 29, 1952
10 Claims. (Cl. 167—84)

1. A process for manufacturing a cellulose wool product inhibited against evolution of odors of liquids absorbed therein, which comprises: preparing an aqueous suspension of cellulosic fibers, thoroughly distributing deodorizing chlorophyll in said suspension, adding thereto a water-soluble salt of a metal selected from the group consisting of aluminum and barium to act as a flocculant for the said chlorophyll on the cellulose, and converting the suspension into cellulose wool.

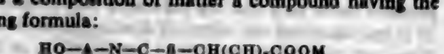
2,841,530

HAIR WAVING COMPOSITIONS CONTAINING SECONDARY AMINO ALIPHATIC ALCOHOL DITHIOCARBAMATES

Carl N. Andersen, Briarcliff Manor, N. Y., and Willard T. Somerville, Fairhaven, N. J., assignors to Van Ameringen-Haebler, Inc., New York, N. Y., a corporation of New York

No Drawing. Application May 18, 1955
Serial No. 509,428
13 Claims. (Cl. 167—87.1)

1. As a composition of matter a compound having the following formula:



wherein HO—A represents an alkanol group derived from a secondary amino aliphatic alcohol having 2–10 carbon atoms, R is a member of the group consisting of alkyl groups having a carbon content C_1–C_4 and alkanol groups having a carbon content C_2–C_{10}, R′ and R″ are members of the group consisting of hydrogen and alkyl groups having a carbon content C_1–C_3, M is a member of the group consisting of sodium, potassium, calcium, magnesium, ammonium, alkyl ammonium groups derived from amines, and alkanol ammonium groups derived from amino alcohols, and x equals 0–6.

2,841,531

PROCESS FOR SPLITTING RACEMATES

Albert Wettstein and Ernst Vischer, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application August 16, 1956
Serial No. 604,334
Claims priority, application Switzerland August 25, 1955
15 Claims. (Cl. 195—2)

1. Process for splitting racemates of d,l-steroids, which comprises subjecting a d,l-steroid containing at least one reducible group to the action of a reducing enzyme, which enzyme is produced by the culture of a microorganism, whereby at least one of the reducible groups of the d-antipode of the starting racemate is reduced and the l-antipode remains unchanged, and isolating at least one of these enantiomorphic forms.

2,841,532

FERMENTATION PROCESS FOR THE PRODUCTION OF L-LYSINE

Donald A. Kita, Jackson Heights, and Hsing T. Huang, Fresh Meadows, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application October 18, 1956
Serial No. 616,590
2 Claims. (Cl. 195—30)

1. A process for the preparation of L-lysine, which process comprises fermenting a nutrient medium initially containing from about 0.1 to about 0.5 gram of L-lysine per liter, with a mutant of *E. coli* which initially requires L-lysine for growth, under submerged, aerobic conditions, adjusting the pH to between 7.2 and 8.2, rupturing the cell wall of the organism, and then continuing the reaction under anerobic conditions.

2,841,533

METHOD FOR TESTING AND BLENDING LUBRICANTS

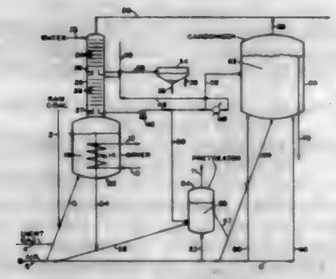
John Bryant Matthews, Newton, Chester, and Eric John Clayfield and Thomas Vincent Whittam, Upton Heath, Chester, England, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application August 23, 1954
Serial No. 451,688
Claims priority, application Great Britain August 24, 1953
5 Claims. (Cl. 196—1)

2. A method for producing a stable, as well as a lacquer and sludge resistant mineral lubricating oil com-

position for the lubrication of engine and movable machine parts which has a spreading pressure value such that the measured film pressure is at least 15 dynes per centimeter for a system of a horizontal steel surface immersed in water and superimposed by a film of a water-insoluble and substantially oil-insoluble C_{15}–C_{18} alkanol surrounding a drop of said oil which simultaneously contacts said steel surface, the water and the alkanol, which consists essentially of blending a mixture of mineral lubricating oil fractions, one of which has a spreading pressure value such that the measured film pressure thereof is less than and the other oil fraction is more than 15 dynes per centimeter, as defined hereinbefore, so that the final mineral lubricating oil composition for the lubrication of engine and movable machine parts has a spreading pressure value such that the measured film pressure is at least 15 dynes per centimeter as defined above.

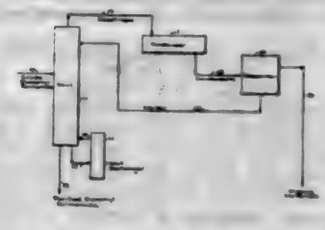
2,841,534
FLUIDIZED CARBONIZATION
George T. Skaperdas, Fresh Meadows, N. Y., assignor to The M. W. Kellogg Company, a corporation of Delaware
Application December 27, 1954, Serial No. 477,791
11 Claims. (Cl. 202—3)



1. In a process in which a finely divided fluidized carbonaceous material is introduced into a reaction zone maintained under conditions of elevated temperature suitable to produce a conversion product, the improvement which comprises introducing the finely divided solid carbonaceous material into a drying zone where it is maintained in a dense highly turbulent fluidized bed, heating the fluidized bed of carbonaceous material to an elevated temperature by indirect heat exchange to remove water and only a minor proportion of the tarry constituents therefrom, passing the dry carbonaceous material to the reaction zone, passing drying zone effluent gases containing water vapor, entrained carbonaceous solids and tar compounds vaporized from said carbonaceous material to a scrubbing zone, condensing tar compounds in the scrubbing zone and using the liquid to scrub solids from the effluent gases, yielding a slurry of tar compounds and solids to the reaction zone, passing the gases from the scrubbing zone to a quenching zone wherein they are quenched with water to condense therefrom water vapor and any remaining tar compounds and separating condensed tar from the water condensate.

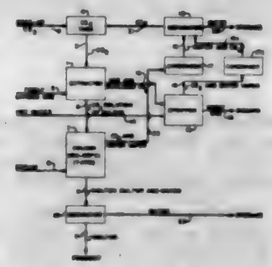
2,841,535
PURIFICATION OF DIMETHYL FORMAMIDE
Everett H. Pryde, Kenmore, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application August 22, 1955, Serial No. 529,657
5 Claims. (Cl. 202—42)

4. In a process for the continuous production of adiponitrile by the cyanidation of 1,4-dichlorobutane using dimethyl formamide as solvent and recycling the same following removal of adiponitrile by fractional distillation, the step of continuously removing five-carbon nitriles from said solvent before reuse, said step comprising continuously feeding the solvent to be recycled together with a weight of water equal to about one-fourth to about one-third that of said solvent into a distillation column



maintained at a pressure of about 200–300 mm. of mercury and at a maximum temperature of 120–125° C., continuously withdrawing dimethyl formamide free of five carbon nitriles from the bottom of the still and continuously withdrawing the azeotrope of water and five-carbon nitriles from the top of the still.

2,841,536
PROCESS FOR RECOVERY OF SULFUR FROM ELEMENTAL-SULFUR BEARING ORE
Robert B. Egbert, Roslyn Heights, N. Y., assignor to Chempatents, Inc., New York, N. Y., a corporation of Delaware
Application January 5, 1953, Serial No. 329,670
6 Claims. (Cl. 202—46)

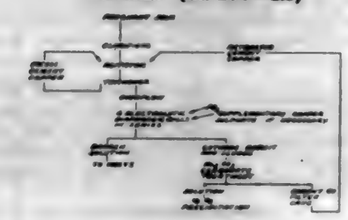


1. A process for recovering sulfur from carbon disulfide solutions thereof which comprises steam distilling the carbon disulfide therefrom at a temperature in the range of 120 to 159° C. and the corresponding steam pressure.

2,841,537
PURIFICATION OF DINITRILES
Pio Guyer and Werner Richarz, Zurich, and Paul Walther, Visp, Switzerland, assignors to Lonza Electric and Chemical Works Ltd., Basel, Switzerland
No Drawing. Application June 28, 1957
Serial No. 668,618
Claims priority, application Switzerland June 30, 1956
5 Claims. (Cl. 202—56)

1. A method of removing cyclic imino-cyano compounds from dinitriles of adipic acid containing said compounds as impurities, said method comprising adding active carbon to said dinitrile in an amount of about .3 to 5 percent by weight, calculated on the dinitrile, heating the mixture to a temperature not exceeding the boiling point of the dinitrile for a time sufficient to adsorb substantially said cyclic imino-cyano compounds by said active carbon, and separating the purified dinitrile from the active carbon.

2,841,538
CARRIER ELECTROLYTIC PROCESS FOR RECOVERY OF URANIUM FROM SOLUTIONS THEREOF
Robert Rampton Porter, Johannesburg, Transvaal, and Ewen Thomas Pinkney, Orkney, Transvaal, Union of South Africa, assignors, by mesne assignments, to the Union of South Africa as represented by the Atomic Energy Board
Application September 8, 1950, Serial No. 183,914
Claims priority, application Union of South Africa September 20, 1949
7 Claims. (Cl. 204—1.5)



1. A process for the selective preparation and recovery of uranium compound from a solution containing uranium values, which comprises subjecting the solution to be treated to electrolysis within a pH range of about 0.5 to 6.0 in the presence in the solution being electrolyzed of a cation carrier selected from the group consisting of Cu, Cd, Ni, Au, Ag, Zn, Bi, Sb, As and Fe cations and also of an anion selected from the group consisting of phosphate, arsenate, hydroxide and carbonate ions, whereby said cation is deposited at the negative electrode in free form as finely divided metal and, concomitantly therewith, the uranium is deposited in combined form as uranium compound.

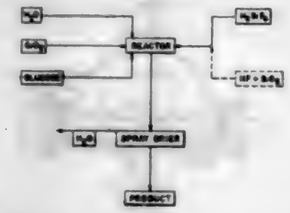
2,841,539
HEAT TREATMENT OF ELECTROPLATED URANIUM
Paul F. Hogland, Cleveland, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application April 1, 1946
Serial No. 658,885
4 Claims. (Cl. 204—1.5)

1. The method of rendering an electroplated coating of a high-melting metal on a metallic uranium article impervious, said high-melting metal being selected from the group consisting of copper and nickel, which comprises applying to the high-melting metal electroplated coating an electroplated coating of a low-melting metal of the group consisting of tin and zinc and immersing the electroplated article in a liquid organopolysiloxane of a molecular weight of between 500 and 2000 and selected from the group consisting of a ring-type compound corresponding to the formula $(RR'SiO)_x$ and a chain-type compound corresponding to the formula

$$Y(RR'SiO)_xZ$$

wherein R and R' designate organic radicals selected from the group consisting of methyl, ethyl and propyl radicals, x designates the number of units in the polymer, and Y and Z designate a terminal member selected from the group consisting of elements and radicals, said organopolysiloxane being maintained at a temperature between 250 and 300° C. and the immersion being for a period of time sufficient to cause diffusion of the low-melting metal into the electroplated coating of the high-melting metal.

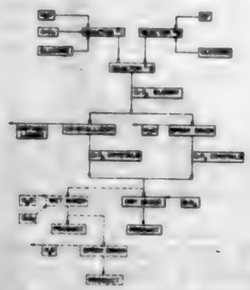
2,841,540
CHEMICAL COMPOSITION FOR CHROMIUM PLATING
Robert C. Smith, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
Application October 28, 1955, Serial No. 543,354
11 Claims. (Cl. 204—51)



1. The reaction product obtained by chemically reacting a chromium compound, an organic reducing agent and fluosilicic acid in amounts sufficient to yield a material containing about 23 to 28% chromium, 2.5 to 7.75% silicon and 24–36% fluorine.

7. In the process of electrodepositing chromium from an aqueous electrolyte containing chromium ions, and ions of an inorganic acid, the improvement which includes incorporating into said electrolyte an amount of the product defined by claim 1 such that the fluorine content of said electrolyte is from about 0.5 to 7.0 grams per liter.

2,841,541
CHEMICAL COMPOSITION FOR CHROMIUM PLATING
Robert C. Smith, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
Application October 28, 1955, Serial No. 543,373
4 Claims. (Cl. 204—51)

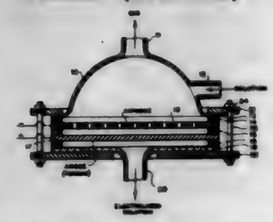


1. A composition of matter comprising the reaction product obtained by chemically reacting a trivalent chromium compound, silicon dioxide and a fluorine-containing compound, the proportions of these elements in the reaction product being about 27% chromium, about 26% fluorine and about 4% to 7% silicon.

2,841,542
ELECTRODEPOSITION OF COPPER
John W. Marquen, Berkley, Mich., assignor to The Udylite Research Corporation, Detroit, Mich., a corporation of Michigan
No Drawing. Application December 19, 1955
Serial No. 553,717
16 Claims. (Cl. 204—52)

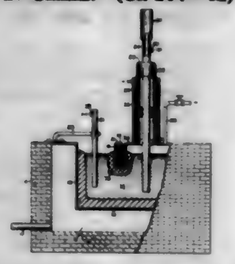
1. A plating bath comprising an alkaline copper cyanide bath containing in solution tellurium in an amount in the range of about 0.0002 to about 0.006 gram/liter.

2,841,543
ELECTROLYTIC PROCESS OF FORMING HYDRAZINE
John F. Haller, Niagara Falls, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application October 20, 1953, Serial No. 387,244
5 Claims. (Cl. 204—59)



1. A process of forming hydrazine which comprises electrolyzing a solution of liquid ammonia containing an electrolyte soluble in liquid ammonia in an electrolytic cell containing a porous anode comprising a conductive material selected from the group consisting of stainless steel, nickel, gold, platinum and carbon while forcing the solution through the porous anode and applying a potential gradient to the cell sufficient to repel cations of the solution at the anode at a velocity greater than the flow rate of the solution through the porous anode and recovering hydrazine from the electrolyzed solution.

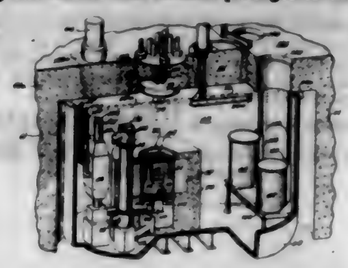
2,841,544
PROCESS FOR THE PRODUCTION OF FLUORINE-CONTAINING COMPOUNDS
Kenneth J. Radimer, Little Falls, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application April 24, 1956, Serial No. 580,269
27 Claims. (Cl. 204—62)



1. A novel process for the electrolytic production of a fluorine-containing organic compound which comprises passing an electric current through a melt of an inorganic compound of fluorine containing at least one metal constituent in contact with a cathode and an anode, said anode being in contact with an added organic compound at a voltage sufficiently high to electrolyze said melt, to produce a fluorine-containing organic compound and recovering said fluorine-containing organic compound as a product of the process.

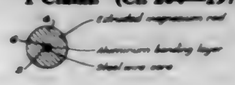
2,841,545
POWER REACTOR
Walter H. Zinn, Hinsdale, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application June 15, 1954, Serial No. 437,017
11 Claims. (Cl. 204—193.2)

1. A nuclear reactor system comprising an imperforate reactor tank containing a liquid metal as primary coolant, a fast nuclear reactor having coolant passages with a predominantly vertical component submerged in said liquid metal, a heat exchange system submerged in said liquid metal, said heat exchange system comprising a primary heat exchanger and a primary coolant pump, a pipe connecting one end of said coolant passages to the inlet end



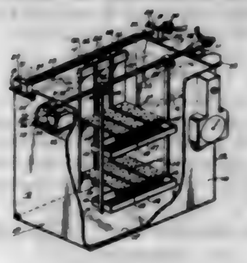
of the heat exchanger, a pipe connecting the other end of the coolant passages to the outlet end of the pump, said heat exchanger having an outlet within the tank and said pump having an inlet within the tank, and means for passing a secondary coolant through said heat exchangers.

2,841,546
EXTRUDED MAGNESIUM ANODES WITH ALUMINUM-COATED STEEL CORE WIRES
Harold A. Robinson, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application December 3, 1952, Serial No. 323,748
1 Claim. (Cl. 204—197)



A consumable anode comprising a rod of magnesium alloy having a central core of aluminum coated steel wire, said alloy being characterized by a generally homogeneous solid solution and the small grain size typical of extruded magnesium alloys.

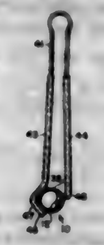
2,841,547
APPARATUS FOR ELECTROPLATING
Raymond W. Kotz, Barrington, Arthur R. Dummkoehler, Chicago, and Ralph E. Belke, Lincolnwood, Ill., assignors to Belke Manufacturing Co., Chicago, Ill., a corporation of Illinois
Application December 31, 1956, Serial No. 631,832
5 Claims. (Cl. 204—223)



1. An electroplating apparatus comprising a tank for electrolyte, a bus bar having electrical connections to carry current to anodes, said bus bar extending across the top of the tank, near one side wall of the tank, a plurality of anodes depending from said anode bus bar, each anode comprising a depending plate having a hook at its upper end mounted on the bus bar, and each anode having a horizontally extending plate carried by the anode to extend over the work pieces to assure uniform current distribution through the electrolyte to them, a cathode bus bar

carried by the top of said tank and supported at its ends by an electric vibrator carried by the tank by means of resilient cushions to permit free vibration of the latter bus bar, a work supporting tray comprising a pair of vertically extending bars having hooks at their upper ends mounted on said vibrating bus bar and having means for securing the hooks to the latter bus bar to prevent relative motion, the work supporting tray comprising a rectangular member, the end walls of which are secured to said vertical bars to support the tray beneath the horizontal plates of the anodes, said tray having a mesh bottom for free access of electrolyte through the bottom to the work pieces carried thereby, the said horizontal plates being provided with a multiplicity of apertures for discharging upwardly bubbles of gas formed on the lower side of said horizontal plates during the electroplating operation, a source of energization of alternating current for said electric vibrator, including an electric circuit, said electric circuit also including an electric timing device adapted to repeatedly turn on the electric vibrator for a sufficiently short period of time to change the positions of the pieces and adapted to repeatedly turn off the electric vibrator over a longer and major period of time during which most effective electroplating takes place.

2,841,548
ELECTRODE HOLDER
David Perlman, Beaumont, Calif.
Application December 11, 1953, Serial No. 397,569
1 Claim. (Cl. 204—297)



In an improved electrode holder for supporting of a dental impression electrode in an electrolyte during an electro-deposition process, a generally long U-shaped strip of stainless steel spring metal, resistant to the destructive action of electrolyte and other elements, said U-shaped strip having two facing arms, one longer than the other, said arms being biased to flex their ends very lightly into holding engagement with a dental impression electrode held between them, the major portion of each arm having cemented thereto an electrically insulating vinyl resin coating, resistant to the destructive action of electrolyte and other elements, the said longer arm end being shaped to form a generally wide V seat portion having two angularly bent strip portions for seating one side of the dental impression electrode therein, the said shorter arm end having a short portion bent to form a finger tip having a bare metallic end for projecting toward the vertex junction of the said V bent seat portion for simultaneous holding of the dental impression electrode and for making an electro-conductive contact with the said dental impression electrode.

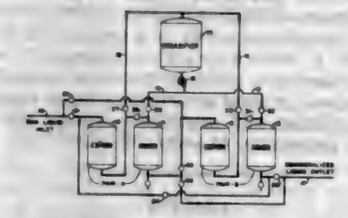
2,841,549
ELECTROPLATING HANGER TO SUPPORT A PLURALITY OF ARTICLES
George B. Hogaboom, Jr., Kenilworth, N. J.
Application May 5, 1955, Serial No. 506,295
3 Claims. (Cl. 204—297)

1. A hanger for suspending a multiplicity of articles in an electroplating tank, said hanger comprising a linear body provided by a plurality of contiguous electrically conductive wire strands helically twisted together at intervals along the length of the body to form spaced apart interlocked sections, with selected strands parted intermediate the interlocked sections to provide free end portions extending from the ends of said sections, said free



end portions being bent into upwardly open article receptive hook members projecting laterally from the linear body, and an end portion of said linear body terminating in an inverted hanger hook formation to suspend said body from a cathode rod of an electroplating tank.

2,841,550
PROCESS OF OPERATING A DEMINERALIZING INSTALLATION
Harry L. Beohner, Wilton, Conn., assignor to Pfaudler Permutit Inc., New York, N. Y., a corporation of Delaware
Application March 18, 1955, Serial No. 495,305
10 Claims. (Cl. 210—26)

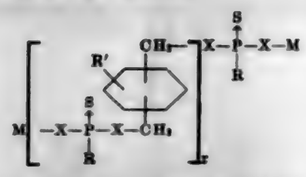


1. A process of operating a demineralizing installation comprising a plurality of pairs of ion exchange units adapted to be operated in series whereby liquid to be treated is passed through a maximum of two of said pairs in series, each of said pairs consisting of a cation exchange unit and an anion exchange unit, which process comprises carrying out with each of said plurality of pairs the following steps: (one) placing said pair as the first pair of a series until the capacity of said pair has been exhausted; (two) thereafter reconditioning said pair; (three) thereafter placing said pair again as the first pair of a series; (four) thereafter placing said pair as the second pair of a series; and thereafter repeating steps (one) to (four).

2,841,551
LUBRICATING OIL ADDITIVE AND OIL CONTAINING THE SAME HAVING IMPROVED WATER TOLERANCE
Harvey E. Alford, Amherst, and Chien-Wei Liao, Cleveland, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application December 24, 1956
Serial No. 630,851
4 Claims. (Cl. 252—18)

1. A mineral lubricating oil additive comprising (1) from 1.0 to 10 parts by weight of a mixture consisting

essentially of 20 to 60 parts by weight of barium octadecylsulfonate, from 10 to 30 parts by weight of barium carbonate, and from 15 to 45 parts by weight of zinc octyldithiophosphate, and (2) 0.1 to 5 parts by weight of a polymer having the structure:



where M is an alkali metal, X is selected from the group consisting of sulfur and oxygen and at least one X is oxygen, R is an alkenyl radical having from eight to twenty-two carbon atoms, R′ is selected from the group consisting of from one to three alkyl radicals having in total from one to three carbon atoms, and x has a value within the range from two to ten and represents the average number of such units in the molecule.

2,841,552

LUBRICATING OIL COMPOSITION

Eugene E. Richardson and Lawson W. Mixon, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application June 30, 1955
Serial No. 519,259
9 Claims. (Cl. 252—32.7)

1. A lubricant composition comprising a major proportion of a lubricating oil and in combination therewith from about 0.001 to 15% by weight of a phosphorus, sulfur, and nitrogen-containing reaction product obtained by reacting a phosphorus sulfide at a temperature of about 200° to 500° F. with a hydrocarbon, subsequently neutralizing the phosphorus sulfide-hydrocarbon reaction product with a basic reagent containing a metal constituent, and then reacting said neutralized product with nitric oxide at a temperature of about 50° to 400° F.

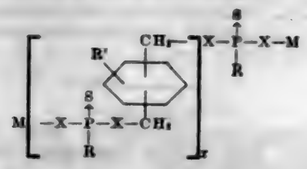
2,841,553

LUBRICATING OIL ADDITIVE

Samuel M. Darling, Lyndhurst, and Chien-Wei Liao, Cleveland, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 24, 1956
Serial No. 630,050
8 Claims. (Cl. 252—32.7)

1. A mineral lubricating oil containing an amount to improve the dispersancy and viscosity index of the oil within the range from 0.1 to 5% by weight of the oil of a lubricating oil additive having the structure:



where M is an alkali metal, X is selected from the group consisting of sulfur and oxygen and at least one X is oxygen, R is an alkenyl radical having from eight to twenty-two carbon atoms, R′ is selected from the group consisting of from one to three alkyl radicals having in total from one to three carbon atoms, and x has a value within the range from two to ten and represents the average number of such units in the molecule.

2,841,554

SOLUBLE CUTTING OIL AND METHOD OF APPLYING THE SAME

Henry A. Ambrose, Penn Township, Allegheny County, and Joseph H. Platt, Plum Township, Allegheny County, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application December 16, 1953
Serial No. 398,636
3 Claims. (Cl. 252—33.4)

1. In the method of working metal in which a thin, high speed jet of cutting liquid is directed at a high velocity between the tool and the work, the improvement which comprises using as the cutting liquid an emulsion comprising a major amount of water and a minor amount of an emulsifiable cutting oil comprising from about 50 to 95 percent by weight of a mineral lubricating oil having a Saybolt Universal viscosity at 210° F. greater than 210 seconds and from about 5 to 50 percent by weight of an emulsifying agent.

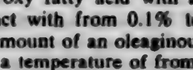
2,841,555

METAL N-ACYL SARCOSINATE THICKENED LUBRICATING OILS

Joseph F. Lyons, Wappingers Falls, and Paul R. Thomas, Beacon, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application March 2, 1956
Serial No. 568,993
6 Claims. (Cl. 252—33.6)

1. A grease comprising a major portion of an oleaginous lubricating base and a metal salt of N-acyl sarcosine of the general formula



in which R is an aliphatic hydrocarbon radical containing 10 to 24 carbon atoms, said metal salt being present in an amount sufficient to effect thickening of said lubricating base to grease consistency and said metal being selected from the group consisting of alkali metals, alkaline earth metals and mixtures thereof.

2,841,556

PROCESS FOR PREPARING ANHYDROUS LIME GREASE

Reuben A. Swenson, Hammond, and Stephen J. Zajac, Whiting, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application December 19, 1955
Serial No. 554,102
11 Claims. (Cl. 252—39)

1. The method of preparing a stable substantially anhydrous calcium high molecular weight hydroxy fatty acid soap base grease comprising saponifying a high molecular weight hydroxy fatty acid with a basic calcium compound in contact with from 0.1% to about 10.0% water and a small amount of an oleaginous vehicle, heating said mixture to a temperature of from about 250° F. to about 300° F., to form a heavy soap base, adding from about 0.1% to about 5% of additional water to the heavy soap base at a temperature of about 250° F. to about 300° F., with continuous mixing, discontinuing the heating of said mixture, and grading in additional oleaginous vehicle to obtain a substantially anhydrous grease product.

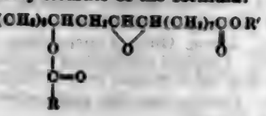
2,841,557

LITHIUM SOAP GREASE AND PROCESS OF MAKING SAME

John Walter Nelson, Lansing, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 24, 1956
Serial No. 561,137
6 Claims. (Cl. 252—41)

1. In the manufacture of lithium greases, the method which comprises heating a mixture of a lithium base, an alkyl epoxy acyloxy stearate of the formula:



water and mineral oil to a temperature sufficient to form a soap and dehydrate the mixture, said mixture comprising approximately two moles of lithium base per mole of said stearate and at least 15 moles of H_2O per mole of lithium base and the amounts of lithium base and said stearate employed being sufficient to form a grease upon subsequent cooling of the mixture, R being a lower alkyl radical and R′ being a lower alkyl radical.

2,841,558

HYDROCARBON OIL COMPOSITIONS

Joseph E. Fields, Dayton, and John M. Butler, Centerville, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 6, 1955
Serial No. 513,579)
5 Claims. (Cl. 252—56)

1. A hydrocarbon oil composition of reduced foaming properties consisting essentially of a hydrocarbon oil having foaming tendencies and a quantity less than 0.1 percent by weight, based on the weight of said oil, said quantity being sufficient to suppress said foaming tendencies but insufficient to substantially modify the viscosity properties of said oil, of a vinyl ester polymer consisting of a vinyl ester of a fatty acid and having an average of from 4 to 8 carbon atoms in the acid portion of the polymer, a 10 percent cyclohexanone solution of said liquid polymer having a specific viscosity of from 0.25 to 1.5 at a temperature of 25° C.

2,841,559

METHOD OF DOPING SEMI-CONDUCTIVE MATERIALS

Fred D. Rosi, Plainsboro, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application April 27, 1955, Serial No. 504,189
10 Claims. (Cl. 252—62.3)

1. The method of alloying a conductivity-type-determining material with a semi-conductive element selected from the class consisting of germanium and silicon and having a particular valence, the melting point of said semi-conductive element being higher than the boiling point of said conductivity-type-determining material, comprising the step of: adding into a melt of said semi-conductive element a compound consisting of said conductivity-type-determining material and an element having a valence the same as that of said semi-conductive element, the boiling point of said compound being higher than the melting point of said semi-conductive element.

2,841,560

PRESSURE TRANSMITTING FLUIDS

George E. Barker, New Castle, Del., assignor to Atlas Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 2, 1954
Serial No. 472,773
6 Claims. (Cl. 252—78)

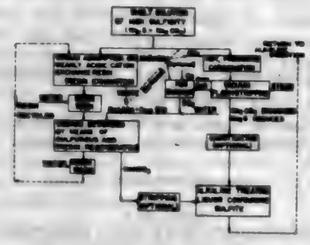
1. A pressure transmitting fluid comprising a base liquid consisting of at least 25% ethylene glycol, at least 10% formamide and from 20 to 35% water, all percentages being by weight, and a polyoxyethylene ether-ester of a dimerized higher unsaturated fatty acid, said ether-ester being soluble in said base liquid and present in sufficient quantity to adjust the viscosity of the fluid at 130° F. to between about 2 and about 150 centistokes.

2,841,561

RECOVERY OF CHEMICALS FROM SMELT SOLUTIONS

Kenneth Russell Gray, Hartzell Lance Crosby, and John Charles Steinberg, Shelton, Wash., assignors to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

Application March 12, 1954, Serial No. 415,754
7 Claims. (Cl. 252—183)



1. In the preparation of wood pulp, the solution-phase process for recovering chemicals and preparing pulp digestion liquors which comprises combusting soda-base waste liquor containing sulfur compounds from the digestion of wood, forming a smelt containing a substantial quantity of sodium sulfide by furnacing the waste liquor under reducing conditions and forming an aqueous solution of the resulting smelt, subjecting one body of the smelt solution to carbonation with a gas consisting at least in part of carbon dioxide under a pressure of from 16 to 165 pounds per square inch absolute and at a temperature of from 50° to 150° C., directing the hot carbonated solution while under pressure into a chamber maintained under a vacuum of from 5 to 29 inches of mercury where hydrogen sulfide and steam flash off releasing a substantial proportion of the hydrogen sulfide and then contacting the solution with steam to strip off additional hydrogen sulfide while under the vacuum, whereby hydrogen sulfide is recovered in concentrated form and a smelt solution is produced having an enhanced content of salts of carbonic acid and a decreased sulfide content, causticizing with lime the solution having an enhanced content of salts of carbonic acid and a decreased sulfide content to form an alkaline liquor containing sodium sulfide and sodium hydroxide, subjecting another part of the smelt solution to multiple stages of solution carbonation each followed by flash-stripping as aforementioned for the substantially complete removal of hydrogen sulfide thereby substantially completely removing the sodium sulfide therefrom and enhancing the content of sodium salts of carbonic acid, reacting sulfur dioxide with said latter solution to form sodium sulfite and sodium bisulfite, and combining the causticized solution with the solution containing sodium sulfite and sodium bisulfite.

2,841,562
PHOSPHOR COATING SUSPENSION
Martha J. Bergin, Millbury, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
No Drawing. Application November 5, 1954
Serial No. 467,239
4 Claims. (Cl. 252—301.3)

1. A phosphor coating suspension comprising a powdered phosphor, an organic binder therefor, and mixed therewith a small percentage, at least 1% by weight of a nitrocarbamate of a radical selected from the group consisting of: isopropyl, methyl, ethyl.

2,841,563
DEMULSIFYING PROCESS
Willard H. Kirkpatrick, Sugar Land, and Alice Walker, Houston, Tex., assignors to Visco Products Company, Houston, Tex., a corporation of Delaware
No Drawing. Application June 22, 1954
Serial No. 438,624
9 Claims. (Cl. 252—340)

1. A process of breaking water-in-oil emulsions which comprises treating such emulsions with the product of the reaction of castor oil, an organic dicarboxy acid and a polyoxyalkylene compound having a molecular weight of at least 1700 from the group consisting of glycols and monoethers of glycols in which the oxyalkylene groups consist essentially of oxyethylene and oxypropylene groups and the weight ratio of oxyethylene to oxypropylene is at least 1:4 and not greater than 4:1, said reaction being effected at 150° C. to 300° C. with the elimination of not more than the usual water of esterification required to form simple esters.

2,841,564
ALUMINA DESICCANT AND PROCESS FOR PREPARATION THEREOF
John G. Miller, Philadelphia, Pa., and James V. Weir, Merchantville, N. J., assignors to Porocel Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application May 5, 1953
Serial No. 353,238
14 Claims. (Cl. 252—463)

1. A method for producing an improved desiccant for drying substantially paraffinic hydrocarbons containing carbonyl sulfide, carbon disulfide, and mercaptan type sulfur compounds comprising reacting activated alumina with a dilute solution of a mineral acid selected from the group consisting of sulfuric acid and hydrochloric acid in an amount sufficient to render it inactive for conversion of said sulfur compounds to hydrogen sulfide without substantially decreasing the dry gas capacity of said alumina after reactivation, and reactivating said alumina, without washing, by heating at a temperature and for a time sufficient to substantially eliminate any free acid remaining in said alumina.

2,841,565
METHOD OF MAKING THERMOSETTING MOLDING COMPOSITIONS CONTAINING FILLER
Leopold F. Bornstein, Wilmington, Del.
No Drawing. Application June 15, 1956
Serial No. 591,536
14 Claims. (Cl. 260—17.3)

1. The improvement in the manufacture of thermosetting molding compositions which comprises reacting in a confined zone an aldehyde selected from the group consisting of formaldehyde, paraformaldehyde and mixtures thereof with an amino compound selected from the group consisting of urea, thiourea, melamine and mixtures thereof at a temperature within the range 200–230° F. in the presence of a fibrous filler component and less than 10% water based on the dry weight of said molding composition while limiting the escape from the confined zone of water previously present and that liberated in the condensation reaction, and upon substantial completion of the condensation reaction quickly cooling the reaction mixture and simultaneously releasing the water vapor from the confined zone.

2,841,566
HIGH POLYMERS WITH CHEMICALLY BONDED REINFORCING AND METHOD OF MAKING SAME
Theodore A. Te Grotenhuis, Olmsted Falls, Ohio, assignor of twenty percent to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
No Drawing. Original application August 2, 1952, Serial No. 302,415, now Patent No. 2,742,378, dated April 17, 1956. Divided and this application June 25, 1954, Serial No. 439,463
14 Claims. (Cl. 260—17.4)

1. A method of forming a composite article comprising a mass of a member of the group consisting of inorganic pulverulent solids and fibers bonded to a resinous polymer polymerized in situ to the solid state which comprises wetting said group member with a polymerizable liquid in a continuous phase and comprising a monomeric polymerizable styrene and without agitation causing polymerization of said monomeric styrene in contact wth said group member and in a continuous phase, said group member being characterized by having attached to surface portions thereof a coupling compound comprising an allyl siloxane group, the body of said group member and the body of said resinous polymer being different.

2,841,567
ANTI-STATIC COMPOSITION, PROCESS OF MAKING AND PROCESS OF APPLYING
George K. Blanton, South Charleston, and Theophilus A. Feild, Jr., Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application November 21, 1955
Serial No. 548,249
8 Claims. (Cl. 260—29.6)

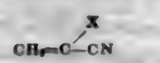
1. An antistatic composition stable during storage, which comprises an aqueous solution essentially comprising from 15% to 60% by weight of polymers of acrylate esters of polyethylene glycols having average molecular weights between about 400 and about 1,000, and about 1% to about 16%, based upon the dry weight of said polymers, of an oxygen-containing inorganic compound of boron, said aqueous solution having been concentrated and the acrylate ester polymers therein formed by heating a 4% to 12% aqueous solution of said esters at temperatures up to around 100° C. in the presence of from about 5% to about 25%, based upon the dry weight of said ester, of a catalyst of the class consisting of hydrogen peroxide, peracetic acid and mixtures thereof.

2,841,568
COMPOSITIONS OF ACRYLONITRILE POLYMERS AND ETHYLENE OXALATE AND PROCESS FOR PREPARING SAME
Alfred B. Craig and Eugene L. Rinewald, Decatur, Ala., assignors to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware
No Drawing. Application October 13, 1955
Serial No. 540,331
7 Claims. (Cl. 260—30.4)

1. A new composition of matter comprising a homogeneous miscible mixture of ethylene oxalate and a polymer of monomeric substances of which acrylonitrile is at least 70% of the polymerizable content.

2,841,569
GRAFT POLYMERS OF POLYETHYLENE AND POLYMERIZABLE NITRILES AND PROCESS FOR PRODUCING SAME
Frank M. Rugg, West Caldwell, and James E. Potts, Roseland, N. J., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application August 30, 1954
Serial No. 453,128
12 Claims. (Cl. 260—45.5)

5. A thermoplastic graft copolymer of the ingredients consisting of polyethylene and a polymerizable nitrile having the formula



wherein X is a member selected from the group consisting of halogen, hydrogen, cyano and methyl.

2,841,570
POLYMERIZATION OF FORMALDEHYDE
Robert Neal MacDonald, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 30, 1953
Serial No. 365,234
4 Claims. (Cl. 260—67)

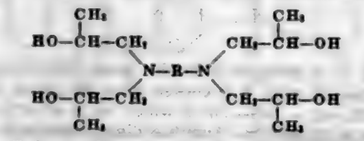
1. A process for producing a tough, stable, high molecular weight polymer of formaldehyde comprising the consecutive steps of forming a liquid reaction medium by introducing monomeric formaldehyde, containing less than 0.1% by weight of water, into an organic liquid from the group consisting of ethers, aromatic hydrocarbons, chlorinated hydrocarbons, aliphatic hydrocarbons, and cycloaliphatic hydrocarbons, maintaining the said reaction medium as a liquid at a temperature of —80° C. to —15° C. and at substantially atmospheric pressure until 1%–20% by weight of said monomeric formaldehyde has polymerized to form particles of solid prepolymer, removing said prepolymer from said reaction medium, introducing into said reaction medium, after removal of the said prepolymer, 0.00005 to 0.05 mol percent, based on said monomeric formaldehyde, of a polymerization initiator from the group consisting of aliphatic amines, cycloaliphatic amines, and primary aromatic amines, maintaining the conditions of temperature and pressure at —80° C. to +25° C., and recovering a tough, stable, high molecular weight polymer of formaldehyde.

2,841,571
RESINOUS COMPOSITION
Henry P. Wohnsiedler, Darien, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application November 2, 1954
Serial No. 466,440
12 Claims. (Cl. 260—67.6)

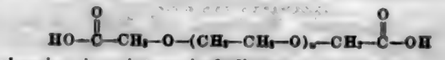
1. A process for preparing a thermosetting melamine-formaldehyde resinous composition which comprises reacting at reflux temperature in a series of *n* stages melamine and aqueous formaldehyde until the melamine has dissolved and the condensation reaction has advanced to a point within the hydrophilic to partly hydrophobic state wherein the formaldehyde is introduced into the sphere of reaction in amounts approximating 1/*n*th of the total quantity of formaldehyde to be introduced, *n* times, the pH value is maintained at about 8.0 to about 9.5 during the reaction, the mol ratio of total formaldehyde to melamine is within the order of about 0.9:1 to about 1.5:1, respectively, and *n* is an integer of at least 2.

2,841,572
WATER-SOLUBLE POLYESTERS
John Philip McMahon, Grosse Ile, Mich., assignor to Wyandotte Chemicals Corporation, Wyandotte, Mich., a corporation of Michigan
No Drawing. Application December 14, 1955
Serial No. 552,981
7 Claims. (Cl. 260—75)

1. A water-soluble polyester which is the condensation product of N,N,N′,N′ tetrakis (2-hydroxypropyl) alkylene diamine conforming to the structural formula:



wherein R is an alkylene radical containing from 2 to 6 carbon atoms, and a dicarboxymethyl ether conforming to the structural formula:



wherein *n* is an integer including zero.

2,841,573
FLUOROCARBON VINYL-TYPE ESTERS AND POLYMERS
Arthur H. Ahlbrecht, White Bear Township, Ramsey County, and Harvey A. Brown, Oakdale Township, Washington County, Minn., assignors to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
No Drawing. Application December 29, 1955
Serial No. 556,074
4 Claims. (Cl. 260—79.3)

1. Fluorocarbon vinyl-type esters of the class consisting of vinyl esters and allyl esters of perfluoroalkanesulfonamido alkylenemonocarboxylic acids; said vinyl esters having the formula:

$$R_fSO_2N(R')RCOOCH{=}CH_2$$

and said allyl esters having the formula:

$$R_fSO_2N(R')RCOOCH_2CH{=}CH_2$$

wherein R_f is a perfluoroalkyl group containing 4 to 12 carbon atoms, R is an alkylene bridging group containing 1 to 12 carbon atoms, and R′ is of the class consisting of a hydrogen atom and alkyl groups containing 1 to 6 carbon atoms.

2,841,574
ANIONIC POLYMERIZATION PROCESS
Walter E. Foster, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application February 1, 1954
Serial No. 407,569
10 Claims. (Cl. 260—80)

1. A process which comprises polymerizing an ethylenic monomer in the presence of a catalyst consisting of a sodium alkenyl derived from an aliphatic olefin, a sodium alkoxide derived from methyl alkyl carbinols, and an alkali halide, said polymerization being conducted in the presence of a solvent inert to polymerization selected from the group consisting of ethers, acetals, and tertiary amines, said solvent being present in at least equal molecular quantities, relative to the quantity of said catalyst.

2,841,575

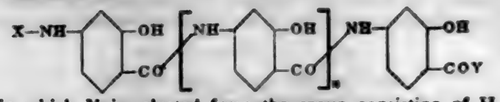
AZO DYES FROM CONDENSATION PRODUCTS OF P-AMINOSALICYLIC ACID

Hans Z. Lecher, Plainfield, and Bennett G. Buell, Somerville, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Original application June 16, 1953, Serial No. 362,146. Divided and this application February 14, 1956, Serial No. 565,319

7 Claims. (Cl. 260—144)

1. Azo dyes obtained by coupling a compound of the structure



in which X is selected from the group consisting of H and carboxylic acyl, Y is chosen from the group consisting of OH and —NH—Ar in which Ar is an aryl radical and *n* is an integer >—1 with a diazo compound.

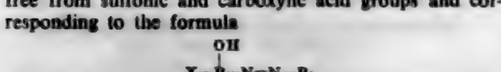
2,841,576

COMPLEX METAL COMPOUNDS OF AZO-DYESTUFFS

Christian Zickendraht, Binningen, and Arthur Buehler, Rheinfelden, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application April 16, 1956
Serial No. 578,164
Claims priority, application Switzerland April 21, 1955
12 Claims. (Cl. 260—145)

1. A reaction product of a triarylmethane dyestuff having a xanthone ring but being free from sulfonic acid groups with a complex metal compound containing one atom of one of the metals selected from the group consisting of cobalt and chromium bound in complex union with substantially two molecules of a monoazo dyestuff free from sulfonic and carboxylic acid groups and corresponding to the formula



wherein X represents a member selected from the group consisting of a sulfone group and a sulfonic acid amide group, R represents a benzene radical bound to the azo linkage in vicinal position to the hydroxy group and R_1 represents the radical of an enolic coupling component bound to the azo linkage in a position vicinal to the enolized keto group.

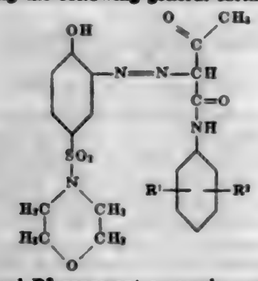
2,841,577

COBALT COMPLEXES OF 3-AMINO-4-HYDROXY-BENZENE SULFONYLMORPHOLINE AZO DYESTUFFS

Albert F. Strobel, Phillipsburg, N. J., and William W. Williams, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 20, 1954
Serial No. 451,293
3 Claims. (Cl. 260—146)

1. The cobalt complex compound of the monoazo dyestuff having the following general formula:



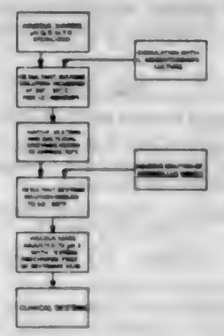
wherein R^1 and R^2 represent a member selected from a class consisting of hydrogen, chlorine, lower alkyl, lower alkoxy, sulfamyl, lower alkyl sulfamyl, lower dialkyl sulfamyl, and sulfonylmorpholine radicals, and in which the cobalt-dyestuff ratio is 1:2.

2,841,578

METHOD FOR PRODUCING CLINICAL DEXTRAN

Leo J. Novak and George S. Stoycos, Dayton, Ohio, assignors to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application August 28, 1953, Serial No. 377,232
2 Claims. (Cl. 260—209)



1. In the separation of hydrolyzed dextran from aqueous solutions thereof resulting from the hydrolytic action of the dextranase elaborated by the mold *Aspergillus wentii* on dextran of relatively high molecular weight, which solutions contain, in addition to the hydrolyzed dextran, dextranic acid produced as a by-product of the hydrolysis of the dextran by said mold, the improvement which comprises separating the hydrolyzed dextran from said solution in a condition in which it is substantially free of the dextranic acid, by the step of (A) adding to the solution, at a pH of 1.0 to 5.0, about 50% by volume of a precipitant for the hydrolyzed dextran selected from the group of water-miscible lower aliphatic alcohols and ketones, collecting the precipitated hydrolyzed dextran and the step (B) of dissolving the precipitated hydrolyzed dextran in water, and adding to the solution thus obtained, at a pH of 1.0 to 5.0, about 50% of the precipitant for the hydrolyzed dextran, step (B) being performed at least once.

2,841,579

DEPOLYMERIZATION OF CELLULOSE IN ALKALINE MEDIUM

Jacques A. Villefroy and William R. Saxton, Hawkesbury, Ontario, Canada, assignors to Canadian International Paper Company, Montreal, Canada, a corporation of Quebec, Canada

No Drawing. Application April 15, 1954
Serial No. 423,532
Claims priority, application Canada April 6, 1954
20 Claims. (Cl. 260—233)

1. The method of treating cellulose which comprises aging alkali cellulose in the presence of a metallic oxidation catalyst selected from the group consisting of cobalt, manganese and iron and an agent selected from the group consisting of tartaric and citric acids and their salts, said agent being effective to prevent precipitation of said catalyst without inhibiting its catalytic activity.

2,841,580

MANUFACTURE OF ALKALI CELLULOSE AND PULP SHEETS THEREFOR

Edward J. Howard and William B. Crawford, Hawkesbury, Ontario, Canada, assignors to Canadian International Paper Company, Montreal, Quebec, Canada, a corporation of Canada

No Drawing. Application October 11, 1955
Serial No. 539,931
4 Claims. (Cl. 260—233)

1. In a method of preparing alkali cellulose from highly purified cellulose pulp the steps of supplying a sheet of highly purified cellulose pulp, applying a caustic soda soluble adhesive to one face of said sheet, placing a second sheet of highly purified cellulose pulp against the adhesive-carrying face of said first mentioned sheet, passing the two sheets through pressure-applying means, cutting the adhered sheets to proper size for introduction into a steeping press, placing a predetermined number of the cut sheets vertically in the steeping press, and finally filling the steeping press with a caustic soda solution of mercerizing strength whereby to progressively dissolve the adhesive between each pair of sheets in the steeping press and to permit each sheet to become individually and completely steeped.

2,841,581

MANUFACTURE OF NEW QUINONE COMPOUNDS

Adrian Marxer, Basel, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J., a corporation of New Jersey

No Drawing. Application April 25, 1956
Serial No. 580,456
Claims priority, application Switzerland May 13, 1955
16 Claims. (Cl. 260—239)

1. 2:6-bis-ethyleneimino-p-benzoquinones wherein the 2- and 6-positions each contain a member of the group consisting of unsubstituted ethyleneimino and mono-lower alkyl-ethyleneimino radicals and wherein the 3- and 5-positions are substituted by a member of the group consisting of halo, lower alkoxy and lower alkyl mercapto radicals.

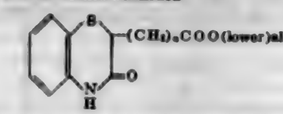
2,841,582

AMINOALKYL ESTERS OF 2-CARBOXY-2H,1,4-BENZOTHIAZIN-3(4H)-ONES

Markus Zimmermann, Evanston, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application May 29, 1956
Serial No. 587,949
6 Claims. (Cl. 260—243)

1. A compound selected from the group consisting of compounds of the formula



and non-toxic addition salts thereof wherein *n* is selected from the group of numbers consisting of 0 and 1 and Z is a radical selected from the group consisting of di-(lower)-alkylamino, piperidino, pyrrolidino and morpholino.

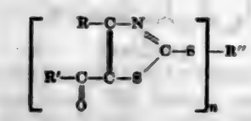
2,841,583

5-ACYL-2-THIAZOLESULFENAMIDES

John J. D'Amico, Charleston, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 2, 1954
Serial No. 453,942
12 Claims. (Cl. 260—247.1)

1. A compound of the structure



where R and R′ represent lower alkyl groups and R″ represents an amino group selected from the group consisting of NH_2, lower alkylamino, di-(lower alkyl)amino, cyclohexylamino, methylcyclohexylamino, benzylamino, alpha-methyl benzylamino, furfurylamino, tetrahydrofurfurylamino, beta-phenethylamino, 2-hydroxyethylamino, diallylamino, di-beta-phenethylamino, di-2-thenylamino, N-methyl cyclohexylamino, dicyclohexylamino, di-2-cyanoethylamino, morpholinyl, piperidyl, methyl piperidyl, piperazyl, methyl piperazyl and ethylene diamino and *n* is a whole number greater than zero but less than 3 equal to the number of amino groups in R″.

2,841,584

HEXAHYDROPYRIDAZINE, DERIVATIVES THEREOF, AND PROCESS

William T. Hunter, Minneapolis, Minn., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 14, 1954
Serial No. 475,279
11 Claims. (Cl. 260—250)

1. A composition selected from the group consisting of: (*a*) hexahydropyridazine; and (*b*) acid-addition salts thereof, said salts having anions which do not substantially increase the toxicity of the compound toward animal organisms.

2,841,585

REACTIONS OF S-TRIAZINE

Christoph J. Grundmann and Alfred Kreutzberger, Columbus, Ohio, assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application November 5, 1954
Serial No. 467,230
6 Claims. (Cl. 260—256)

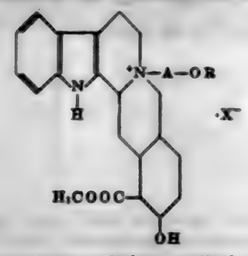
1. A process for preparing heterocyclic compounds which comprises admixing 1,3,5-triazine with a primary amine at a temperature between about room temperature and about 200° C. and in proportions of about 3 moles of primary amine to about 1 mole of 1,3,5-triazine, said primary amine being selected from the group consisting of ethylene diamine, o-phenylene diamine, dimethylaminouracil, 1,8-diaminonaphthalene, o-aminothiophenol and o-aminophenol.

2,841,586
N-HYDROXYALKYL DERIVATIVES OF YOHIMBINE

Richard A. Robinson, Morton Grove, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application April 3, 1956
Serial No. 575,711
7 Claims. (Cl. 260—286)

1. A compound of the structural formula



wherein A is a lower alkylene radical separating the groups attached thereto by at least two carbon atoms, R is a member of the class consisting of hydrogen and the 3,4,5-trimethoxybenzoyl radical, and X is one equivalent of a non-toxic anion.

2,841,587
SEPARATION OF MIXTURES OF DESERPIDINE AND RESERPINE BY NITROSATION

Alfred Becker, Muenchenstein, Switzerland, assignor to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application April 3, 1957
Serial No. 650,301
Claims priority, application Switzerland April 9, 1956
8 Claims. (Cl. 260—287)

1. Process for the preparation of deserpidine free from reserpine, wherein a mixture of reserpine and deserpidine is subjected to the action of nitrous acid at a temperature below 80° C. to form a reaction mixture containing deserpidine and nitrosation products and the deserpidine is separated from the nitrosation products.

2,841,588
EXOCYCLIC =NH GROUP AND =S ATOM SUBSTITUTED PYRROLIDINES AND PIPERIDINES, THEIR ACID SALTS, AND METHODS FOR THEIR PREPARATION

Edward G. Howard, Jr., Hockessin, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 21, 1955
Serial No. 523,620
21 Claims. (Cl. 260—293.4)

1. A compound selected from the class consisting of the free bases and acid salts of nitrogen-containing heterocyclic compounds having a five to six membered heterocyclic ring consisting of carbon atoms and one nitrogen atom wherein the ring carbons bonded to ring nitrogen are singly bonded thereto and bear respectively an exocyclic =NH group and an exocyclic =S atom each doubly bonded to their respective ring carbon atoms, and the remaining ring carbons are saturated and each bears at least one hydrogen atom and at most one monovalent substituent of not more than 8 carbon atoms which is free from aliphatic unsaturation and is selected from the class consisting of hydrocarbon, alkoxy and alkylthio radicals.

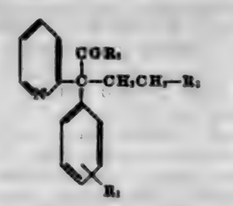
8. 2-imino-6-thioxopiperidine.

2,841,589
ALPHA-ARYL,ALPHA(2-PYRIDYL)BUTYRYL AMIDES AND PROCESS OF PREPARATION

Arne Olof Brandstrom, Nils Sixten Hjalte, and Olle Martinsson, Uppsala, Sweden, assignors to Aktiebolaget Pharmacia, Uppsala, Sweden, a corporation of Sweden

No Drawing. Application June 2, 1955
Serial No. 512,992
Claims priority, application Sweden June 4, 1954
15 Claims. (Cl. 260—294)

1. Compounds consisting of the free bases of the following formula and the non-toxic acid addition and lower alkyl quaternary salts:



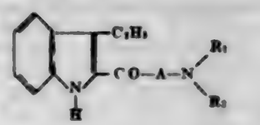
wherein R_1 is a member of the group consisting of H, halogen of atomic number not less than 17 and not more than 35 lower alkyl and lower alkoxy, R_2 and R_3 are members of the group consisting of lower dialkylamino, piperidino, morpholino and pyrrolidino.

2,841,590
INDOLE DERIVATIVES

Robert Michel Jacob, Ablon-sur-Seine, and Naoum Mayer Mosnar, Paris, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application March 11, 1957
Serial No. 644,988
Claims priority, application France March 19, 1956
5 Claims. (Cl. 260—319)

1. As a new composition of matter a member of the class consisting of the indole derivatives of the formula:



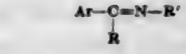
in which A is a member of the class consisting of a single bond and the —NH— group, and R_1 and R_2 are each members of the class consisting of hydrogen atoms and methyl groups.

2,841,591
PREPARATION OF PHTHALIMIDINES

William W. Prichard, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 18, 1952
Serial No. 294,255
7 Claims. (Cl. 260—325)

1. Process of preparing an N-substituted phthalimidine which comprises reacting an aromatic ketaldimine of the formula



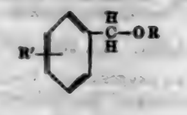
wherein Ar is a carbocyclic aromatic nucleus attached to the ketaldimino group through an annular carbon in the ortho position relative to an unsubstituted annular carbon, R is from the group consisting of hydrogen and aliphatic and aromatic substituents, and R′ is from the group consisting of aromatic and aliphatically saturated hydrocarbon, oxahydrocarbon and azahydrocarbon substituents, said ketaldimine being free of substituents which evolve gas in the Zerewitinoff test for active hydrogen, with carbon monoxide at a pressure of 100–1000 atmospheres and a temperature of 225° C.–450° C., in the presence of at least 0.1% by weight of said ketaldimine, of a catalyst from the group consisting of cobalt carbonyl and nickel carbonyl calculated as metal.

2,841,592
PROCESS FOR PRODUCING α-ALKOXYBENZYL-SUCCINIC ANHYDRIDES AND NUCLEARLY SUBSTITUTED BENZYL DERIVATIVES THEREOF

Raymond I. Longley, Jr., Springfield, and Tracy M. Patrick, Jr., Marblehead Neck, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 23, 1953
Serial No. 363,689
11 Claims. (Cl. 260—346.8)

1. The process comprising the reaction of 1 mole of maleic anhydride with 1 mole of a benzyl alkyl ether having the formula:



wherein R is an alkyl radical having up to 8 carbon atoms and R′ is selected from the group consisting of hydrogen, chlorine, and methyl, ethyl, methoxy and ethoxy radicals, and the molar ratio of the said ether to the maleic anhydride at the inception of the reaction is from about 1:1 to about 10:1, in the presence of from about 0.5 to about 10 mole percent, based on the maleic anhydride, of a peroxygen catalyst selected from the group consisting of benzoyl peroxide, acetyl peroxide, t-butyl peroxide, lauroyl peroxide, stearoyl peroxide, t-butyl hydroperoxide, acetyl benzoyl peroxide, hydrogen peroxide, sodium peroxide, peracetic acid, sodium perborate, potassium persulfate, and sodium percarbonate, at a temperature of from about 25° C. to about 150° C. selected such that the peroxygen catalyst is decomposed at a moderate rate during the course of the reaction.

2,841,593
REACTION OF SUBSTITUTED BENZENE, CHLORINE, AND SUBSTITUTED MALEIC ANHYDRIDE AND PRODUCTS THEREOF

George G. Ecke, Detroit, Alfred J. Kolka, Birmingham, and William E. Burt, Royal Oak, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application April 18, 1955
Serial No. 502,214
9 Claims. (Cl. 260—346.8)

1. A process which comprises reacting an aromatic compound selected from the class consisting of alkylbenzenes, arylbenzenes, carboxyalkylbenzenes, benzene, halobenzenes, alkylbenzenes halogenated in the side chain, carboxylated benzenes and carbalkoxybenzenes with an olefin selected from the class consisting of maleic anhydride, chlorinated maleic anhydride and brominated maleic anhydride and a source of free chlorine atom selected from the class consisting of chlorine, sulfuryl chloride, phosgene and phosphorus pentachloride in the presence of a free radical initiator selected from the class consisting of light, organic peroxides, benzenediazoacetate, α,α′-azobisisobutyronitrile, tetraalkyllead and nuclear radiation, to produce an organochlorosuccinic anhydride wherein the organo group is derived from said aromatic compound; the molar ratio of said aromatic compound reactant to said olefin reactant being 1:1 to 10:1 and the molar ratio of said source of free chlorine atom to said olefin reactant being 0.5:1 to 1.5:1; the reaction being carried out at a temperature of 0 to 500° C.

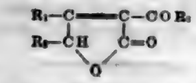
3. As a new composition of matter, a compound selected from the group consisting of (pentachlorocyclohexyl)-maleic anhydride and α-phenyl-α′-chlorosuccinic anhydride.

2,841,594
PRODUCTION OF BETA-FUROIC ACIDS

Richard Norman Lacey, Hull, England, assignor to British Industrial Solvents Limited, London, England, a British company

No Drawing. Application June 6, 1952
Serial No. 292,193
5 Claims. (Cl. 260—347.3)

1. A process for the production of a beta-furoic acid which comprises heating an unsaturated lactone at an elevated temperature in the presence of a strong acidic catalyst selected from the group consisting of strong mineral acids and Friedel-Crafts halide catalysts, said lactone having the structural formula



where R_1, R_2 and R_3 are members of the group consisting of alkyl, phenyl, and alkyl-substituted phenyl groups.

2,841,595
PROCESS FOR MANUFACTURE OF GLYCIDYL ETHERS OF POLYHYDRIC PHENOLS

Philip Pezzaglia, El Cerrito, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application January 31, 1955
Serial No. 485,299
11 Claims. (Cl. 260—348.6)

1. A process for the production of glycidyl ether of a polyhydric phenol which comprises etherifying the polyhydric phenol with epihalohydrin in the presence of from 2 to 15 moles of epihalohydrin per phenolic hydroxyl group of the phenol by addition of 90 to 98% of an equivalent of alkali metal hydroxide per equivalent of the phenolic hydroxyl groups of the phenol, next separating unreacted epihalohydrin from the reaction mixture, and then contacting the etherified polyhydric phenol with alkali metal hydroxide in excess amount over that needed to react with the halogen in the ether on a chemical equivalent basis.

2,841,596
CYCLIC KETONES

Charles R. Stephens, Jr., Waterford, Conn., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application July 24, 1953
Serial No. 370,231
11 Claims. (Cl. 260—351)

1. A process for the preparation of an 8,9-dihydroxy-3,4-dihydro-1(2)-anthracenone, which comprises reacting an 1,8-dihydroxy-9(10)-anthracenone in dilute aqueous alkali with hydrogen in the presence of a hydrogenation catalyst.

2,841,597

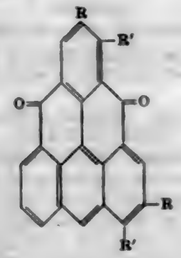
TRIANGULENE COMPOUNDS AND INTERMEDIATES THEREFOR

Eric Clar, Glasgow, Scotland, and David Gordon Stewart, Flixton, Manchester, England, assignors, by mesne assignments, to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application March 13, 1953
Serial No. 342,288

17 Claims. (Cl. 260—362)

1. A product triangulene-4,8-quinone dicarboxylic acid having the formula



wherein R represents COOH when R′ represents H and R′ represents COOH when R represents H, R and R′ being selected from the group consisting of H and COOH.

2,841,598

ESTRADIOL-17β-PHENYL PROPIONATE

Colin Leslie Hewett, London, England, assignor to Organon Inc., Orange, N. J., a corporation of New Jersey

No Drawing. Application April 17, 1956
Serial No. 578,564
Claims priority, application Great Britain
January 21, 1952

1 Claim. (Cl. 260—397.5)

Estradiol-17-β-phenyl propionate.

2,841,599

PROCESS FOR MAKING CRYSTALLINE CORTISONE ACETATE

Barney J. Magerlein, Kalamazoo, and Jack K. Dale, Kalamazoo Township, Kalamazoo County, Mich., and Louis W. Wachtel, Frederick, Md., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Original application November 26, 1954, Serial No. 471,511. Divided and this application January 10, 1957, Serial No. 634,602

1 Claim. (Cl. 260—397.45)

A process for the preparation of a new crystalline form of cortisone acetate which is stable in aqueous vehicles comprising dissolving cortisone acetate in an inert water-miscible organic solvent, mixing with water, adding to the mixture a water-immiscible hydrocarbon solvent fraction obtained from a petroleum distillate in which said cortisone acetate is insoluble, said water-immiscible hydrocarbon solvent having a boiling point between about 25 and 150 degrees centigrade, co-distilling the resulting mixture to obtain a new form of crystalline cortisone acetate, 98 percent of the crystals thus obtained having a particle size between about forty and about sixty microns in length and further characterized by an ultraviolet extinction $E_{239}=15{,}800$, optical rotation $[\alpha]_D^{22}=178$ degrees (acetone), an optic axial angle of 76 degrees and the following X-ray diffraction data:

INTERPLANAR SPACING, A.	
13.9	3.24
10.7	3.11
6.83	2.87
5.9	2.78
5.5	2.61
5.12	2.54
4.74	2.47
4.35	2.32
3.9	2.24
3.64	2.16
3.42	

2,841,600

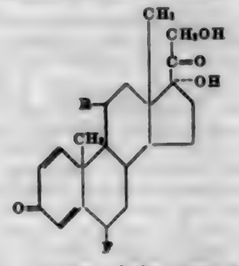
6α-FLUORO Δ′-CORTISONE AND 6α-FLUORO Δ′-HYDROCORTISONE AND THE 21-ACYLATES THEREOF

John A. Hogg and George B. Spero, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application January 18, 1957
Serial No. 634,828

4 Claims. (Cl. 260—397.45)

1. 6α-fluoro - 11 - oxygenated - 17α,21 - dihydroxy-1,4-pregnadiene-3,20-dione of the following formula:



wherein R is a member of the group consisting of β-hydroxy and keto; and the 21-acylates thereof wherein the acyl radical is that of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

2,841,601

SEPARATION OF DICARBOXYLIC AND MONOCARBOXYLIC ACIDS

Norman C. Hill, Akron, Ohio, and Takeru Higuchi, Madison, Wis., assignors to The C. P. Hall Company, Akron, Ohio, a corporation of Ohio

Application May 24, 1955, Serial No. 510,769

8 Claims. (Cl. 260—404)

1. In the treatment of alpha, omega-alkanedioic acids, alkanoic acids and nitrocarboxylic acid present in the non-aqueous phase of the two-phase reaction product obtained in the oxidation by an aqueous oxidizing agent which includes nitric acid, of source material of the class which consists of saturated and unsaturated cylic and acyclic aliphatic hydrocarbons and oxygen-containing derivatives thereof which hydrocarbons and derivatives contain at least 4 carbon atoms in a straight saturated chain, the steps which comprise dissolving alkanoic acids from the non-aqueous phase with inert non-polar solvent, and then separating the solvent and non-aqueous phases.

2,841,602

ALKYNOXY ACIDS

Henry Brown, Huntington Woods, Donald H. Becking, Detroit, and Theddeus W. Tomaszewski, Dearborn, Mich., assignors to The Udylite Research Corporation, Detroit, Mich., a corporation of Michigan

No Drawing. Application October 4, 1955
Serial No. 538,529

7 Claims. (Cl. 260—431)

1. An unsaturated aliphatic acid selected from the group consisting of alknoxy sulfonic acids having 3 to 14 carbon atoms inclusive, alknoxy carboxylic acids having 5 to 15 carbon atoms and the sodium, potassium, nickel, cobalt, iron, magnesium, ammonium, mercury and amine salts thereof, said acids containing an alkane group having from 1–4 carbon atoms.

2,841,603

LIQUID PHASE OXIDATION OF PARAFFINIC HYDROCARBON MIXTURES

Carl N. Zellner, Berkeley Heights, and Fred Lister, Cranford, N. J., assignors to Tidewater Oil Company, a corporation of Delaware

No Drawing. Application March 8, 1955
Serial No. 493,074

7 Claims. (Cl. 260—451)

1. In the liquid phase oxidation of relatively high molecular weight predominantly paraffinic hydrocarbon mixtures with oxygen of a free-oxygen containing gas, the improvement wherein the oxidation reaction is carried out in the presence of an oxidation catalyst consisting essentially of a combination of manganese and a group IVB metal in ratio of one gram atom of manganese to from about 0.1 to about 2.5 gram atoms of the group IVB metal.

2,841,604

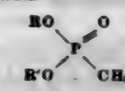
DIALKYL MONOCHLOROMETHANEPHOSPHONATE ESTERS CONTAINING FROM 3 TO 10 CARBON ATOMS IN THE HYDROCARBON RADICALS

Arthur Dock Fon Toy, Park Forest, and Kenneth H. Rattenbury, Chicago Heights, Ill., assignors to Victor Chemical Works, a corporation of Illinois

No Drawing. Application August 23, 1954
Serial No. 451,604

5 Claims. (Cl. 260—461)

1. A water-insoluble dialkyl monochloromethanephosphonate of the formula



where R and R′ are aliphatic hydrocarbon radicals having at least 3 and not more than 10 carbon atoms.

2,841,605

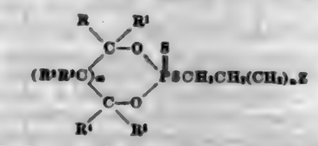
PRODUCTION OF HETEROCYCLIC DITHIOPHOSPHORIC ESTERS

William M. Lanham, Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application January 12, 1955
Serial No. 481,495

13 Claims. (Cl. 260—461)

1. As new compounds, heterocyclic phosphorus-containing esters having structures corresponding to the formula

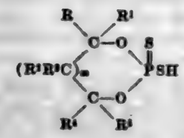


wherein R, R^1, R^2, R^3, R^4 and R^5, respectively, designates a radical of the class consisting of hydrogen and the alkyl radicals; m is an integer from 0 to 1; Z designates a member of the class consisting of



and —CN radicals wherein R^6 represents a radical of the class consisting of hydrogen, the saturated aliphatic hydrocarbon radicals, the monocyclic aromatic hydrocarbon radicals, and the corresponding halogen-substituted aliphatic and aromatic hydrocarbon radicals, and the $-(CH_2)_7CH{=}CHC_8H_{17}$ radical; and n is an integer from 0 to 1.

8. Process for producing heterocyclic phosphorus-containing esters, which comprises reacting a heterocyclic phosphorus-containing acid of the formula



wherein R, R^1, R^2, R^3, R^4 and R^5, respectively, designates a radical of the class consisting of hydrogen and the alkyl groups, and m is an integer from 0 to 1, with an ester of the formula $CH_2{=}CH(CH_2)_nZ$, wherein n is an integer from 0 to 1, and Z is a radical of the class consisting of —CN and the



radicals wherein R^6 is a radical of the class consisting of hydrogen, the saturated aliphatic hydrocarbon radicals, the aromatic monocyclic hydrocarbon radicals, and the corresponding halogen-substituted aliphatic and aromatic hydrocarbon radicals, and the $-(CH_2)_7CH{=}CHC_8H_{17}$ radical.

2,841,606

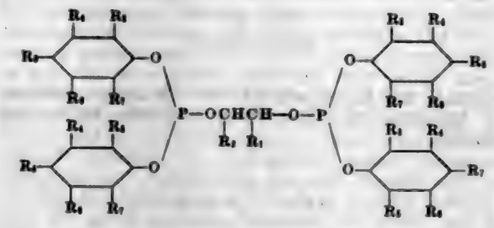
TETRA-AROMATIC ALKYLENE DIPHOSPHITES

Ingenuin Hechenbleikner and Francis C. Lanoue, Adams, Mass., assignors to Shea Chemical Corporation, Jeffersonville, Ind., a corporation of Tennessee

No Drawing. Application December 28, 1955
Serial No. 555,763

3 Claims. (Cl. 260—461)

1. Compounds having the formula:



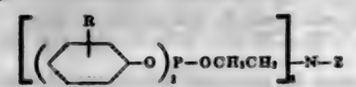
wherein R_1 and R_2 are selected from the group consisting of hydrogen and a lower alkyl group and R_3, R_4, R_5, R_6 and R_7 are selected from the group consisting of hydrogen and lower alkyl groups.

2,841,607
PROCESS OF PREPARING ALKANOLAMINE PHOSPHITES

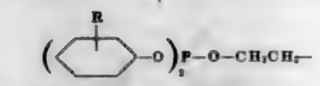
Ingenuin Hechenbleikner, Clarksburg, and Albro T. Gaul, Adams, Mass., assignors to Shea Chemical Corporation, Jeffersonville, Ind., and Columbia, Tenn., a corporation of Tennessee

No Drawing. Application May 21, 1956
Serial No. 585,954
5 Claims. (Cl. 260—461)

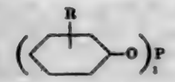
1. A process of preparing a compound having the formula



where Z is selected from the group consisting of



a lower alkyl group and an aryl group, and R is selected from the group consisting of hydrogen, hydrocarbon and halogen comprising trans-esterifying a compound having the formula



with an alkanolamine having the formula

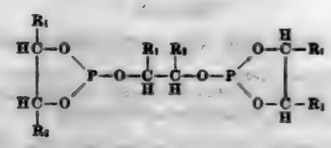
$$(HOCH_2H_2)_2N—Z$$

2,841,608
CYCLIC GLYCOL PHOSPHITES

Ingenuin Hechenbleikner, Clarksburg, and Francis C. Lanoce, North Adams, Mass., assignors to Shea Chemical Corporation, Jeffersonville, Ind., and Columbia, Tenn., a corporation of Tennessee

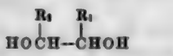
No Drawing. Application May 21, 1956
Serial No. 585,958
10 Claims. (Cl. 260—461)

1.

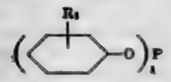


wherein R_1 and R_2 are selected from the group consisting of hydrogen and an alkyl group.

3. A process of preparing the compound of claim 1 comprising transesterifying a glycol having the formula



where R_1 and R_2 are selected from the group consisting of hydrogen and alkyl with a phosphite having the formula



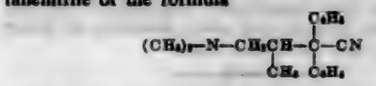
where R_3 is selected from the group consisting of hydrogen, hydrocarbon and halogen and there are employed two mols of the phosphite for each three mols of the glycol.

2,841,609
DEXTRO -6- DIMETHYLAMINO - 4,4 - DIPHENYL-5-METHYL-3-HEXANONE, SALTS THEREOF, AND PREPARATION THEREOF

Aubrey A. Larsen, Schodack Center, and Benjamin F. Tuller, East Greenbush, N. Y., assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 1, 1953
Serial No. 395,682
2 Claims. (Cl. 260—465)

1. The process of preparing dextro-6-dimethylamino-4,4-diphenyl-5-methyl-3-hexanone which comprises reacting racemic 2,2-diphenyl-3-methyl-4-dimethylaminobutanenitrile of the formula



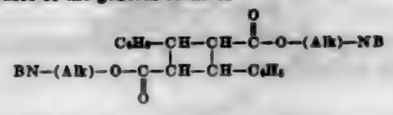
with at least one equivalent of dextro-tartaric acid to form a mixture of diastereoisomeric salts, separating dextro - 2,2 - diphenyl - 3 - methyl - 4 - dimethylaminobutanenitrile dextro-bitartrate from said diastereoisomeric salt mixture by fractional crystallization, separating the levo - 2,2 - diphenyl - 3 - methyl - 4 - dimethylaminobutanenitrile dextro-bitartrate from the mother liquors remaining after removal of the major part of the dextro isomer, liberating the free levo-nitrile by reacting said levo - 2,2 - diphenyl - 3 - methyl - 4 - dimethylaminobutanenitrile dextro-bitartrate with an excess of a strong base, reacting said levo-nitrile with ethyl magnesium bromide, and hydrolyzing the resulting Grignard complex by heating it with mineral acid.

2,841,610
ESTERS OF ARYL-SUBSTITUTED CYCLOBUTANE-DICARBOXYLIC ACIDS

William A. Lott, Maplewood, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application August 12, 1955
Serial No. 528,123
3 Claims. (Cl. 260—475)

1. A compound selected from the group consisting of free bases of the general formula



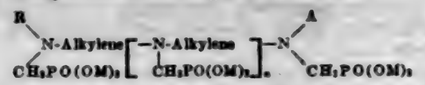
wherein Alk is a lower alkylene, and NB is selected from the group consisting of secondary and tertiary amino radicals; and the acid-addition salts thereof.

2,841,611
N-ALKYL SUBSTITUTED ALKYLENE POLYAMINE METHYLENE PHOSPHONIC ACIDS

Frederick C. Bersworth, Framingham Center, Mass., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application September 1, 1954
Serial No. 453,701
6 Claims. (Cl. 260—500)

1. Compounds conforming to the formula:



where R is selected from the group consisting of alkyl, aralkyl; A is selected from the group consisting of alkyl, aralkyl and $—CH_2PO(OM)_2$; alkylene is selected from the group consisting of $—CH_2CH_2—$, $—CH(CH_3)CH_2—$, and $—CH_2CH_2CH_2—$; n is an integer in the range 0, 1, 2, 3, 4; M is selected from the group consisting of alkali metal, hydrogen, ammonium base.

2,841,612
MANUFACTURE OF p-TOLUENE SULFONIC ACID

Leonard M. Wylie, Atlanta, Ga., assignor to Tennessee Corporation, New York, N. Y., a corporation of New York

No Drawing. Application September 6, 1956
Serial No. 608,108
3 Claims. (Cl. 260—505)

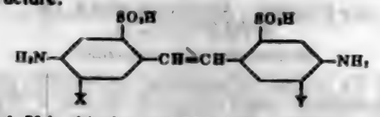
1. A process for making toluene sulfonic acid having a high ratio of para isomer to ortho isomer which comprises sulfonating one mole of toluene with 0.9 to 1.25 moles of sulfur trioxide dissolved in liquid sulfur dioxide, the sulfonation reaction being conducted in two stages by dividing the total toluene into two lots, sulfonating one lot with the total SO_3—SO_2 mixture in the first stage and then adding the second lot of toluene to the sulfonation mass in the second stage, said stages both being conducted at substantially atmospheric pressure while condensing the SO_2 gas evolved by the heat of reaction, and removing residual SO_2 from the sulfonation mass.

2,841,613
ALKOXY DIAMINOSTILBENEDISULFONIC ACIDS

Robert S. Long, Bound Brook, and Alice K. Kantor, Plainfield, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Original application October 17, 1955, Serial No. 541,074. Divided and this application November 29, 1956, Serial No. 624,989
4 Claims. (Cl. 260—509)

1. Compounds which in their free acid form have the structure:



in which X is chlorine and Y is lower alkoxy.

2,841,614
PRODUCTION OF TRICYCLODECANE-DICARBOXYLIC ACID

Karl Büchner, Duisburg-Hamborn, and Josef Meis, Oberhausen-Osterfeld, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany

No Drawing. Application November 10, 1953
Serial No. 391,374
Claims priority, application Germany November 25, 1952
13 Claims. (Cl. 260—514)

1. As a new compound tricyclodecane-dicarboxylic acid-4,8.

2,841,615
PROCESS FOR THE RECOVERY OF TEREPHTHALIC ACID FROM SOLUTIONS CONTAINING ALKALI METAL SALTS OF TEREPHTHALIC ACID

Hartwig Schütt, Hagen, Westphalia, Werner Stein and Franz Rank, Duesseldorf-Holthausen, and Hubert Schirp, Duesseldorf, Germany, assignors to Henkel & Cie. G. m. b. H., Duesseldorf-Holthausen, Germany, a corporation of Germany

Application December 28, 1956, Serial No. 631,893
Claims priority, application Germany January 5, 1956
5 Claims. (Cl. 260—525)

1. In a cyclic process of producing terephthalic acid from reaction products obtained by subjecting a neutral alkali metal salt of a benzene carboxylic acid other than terephthalic acid to a rearrangement reaction at temperatures above 340° C., said reaction products comprising substantial quantities of a dialkali metal terephthalate, the improvement which comprises (step 1) dissolving the dialkali metal terephthalate contained in the reaction product in an inert solvent medium selected from the group consisting of water, water-miscible organic solvents and mixtures thereof, (step 2) reacting the dissolved dialkali metal terephthalate with at least one compound selected from the group consisting of benzene carboxylic acids other than terephthalic acid and their acid alkali metal salts to form the corresponding relatively insoluble monoalkali metal terephthalate and a solution of the corresponding soluble neutral alkali metal salt of said benzene carboxylic acid, (step 3) reacting the monoalkali metal terephthalate from step 2 with a benzene carboxylic acid other than terephthalic acid in the presence of an inert solvent medium selected from the group consisting of water, water-miscible organic solvents and mixtures thereof, to form insoluble terephthalic acid and a solution of the corresponding soluble acid alkali metal salt of said benzene carboxylic acid, separating the terephthalic acid from the solution obtained in step 3, recycling the acid alkali metal salt of the benzene carboxylic acid from step 3 into step 2, and recycling the neutral alkali metal salt of the benzene carboxylic acid from step 2 into the thermal rearrangement reaction to form additional reaction product comprising substantial quantities of dialkali metal terephthalate.

2,841,616
PROCESS FOR THE RECOVERY OF ALPHA-KETOGLUTARIC ACID

Carl Berger, Dayton, and Everette E. Witt, Miamisburg, Ohio, assignors to Campbell Soup Company, Camden, N. J., a corporation of New Jersey

No Drawing. Application October 30, 1956
Serial No. 619,133
8 Claims. (Cl. 260—537)

1. In the process of isolating alpha-ketoglutaric acid from its aqueous solutions in the form of its alkaline-earth metal salts, the novel steps which comprise heating the solution containing the salt to a temperature of at least about 90° C. and removing the precipitate of alkaline-earth metal alpha-ketoglutarate which forms from the solution.

2,841,617
DECOBALTING PROCESS

Joseph Kern Mertzweiller, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application August 11, 1955, Serial No. 527,853
1 Claim. (Cl. 260—604)

In a carbonylation process wherein olefinic carbon compounds are contacted in a carbonylation zone with carbon monoxide and hydrogen in the presence of a cobalt containing catalyst under elevated temperatures and pressures to produce aldehydic reaction products containing at least one more carbon atom than said olefinic compound and wherein a solution comprising said reaction products and dissolved cobalt catalyst is decobalted to remove and recover cobalt from the cobalt contaminated aldehydic product, the improvement which comprises contacting said contaminated aldehyde product with a complex salt containing in its cation a metal selected from the group consisting of cobalt and nickel, and a nitrogen compound selected from the group consisting of amines and ammonia, whereby a precipitate containing cobalt catalyst is formed and separating said aldehydic reaction product substantially freed of cobalt from said precipitate.

2,841,618
ALDEHYDE PURIFICATION
Clyde Lee Aldridge, Baker, and Rhea N. Watts, St. Francisville, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application November 9, 1956, Serial No. 621,364
17 Claims. (Cl. 260—604)

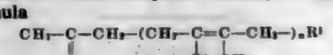
1. In a carbonylation process wherein aldehydes are produced by reacting an olefin with carbon monoxide and hydrogen in the presence of a carbonylation catalyst at elevated temperatures and pressures and wherein the aldehyde product is freed from catalyst, the improvement which comprises recovering an aldehyde product contaminated with alcohols not easily separated by distillation, fractionating said aldehyde product under mild conditions not conducive to acetal formation to remove higher and lower boiling contaminants, recovering from said fractionation step an alcohol-contaminated aldehyde mixture, subjecting said mixture to thermal treatment whereby acetalization occurs and fractionating said mixture to recover an aldehyde product of at least 99% purity.

2,841,619
THIO-BIS DIALKYLPHENOLS
Harry E. Albert, Lafayette Hill, Pa., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
No Drawing. Application December 5, 1957
Serial No. 700,753
6 Claims. (Cl. 260—609)

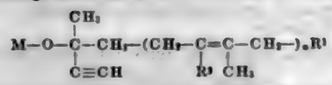
1. Thio-bis-dialkyl phenols of the class consisting of thio-bis(2-alkyl-4-methylphenols) in which the alkyl group contains 4 to 12 carbon atoms and is from the class which consists of secondary and tertiary alkyl groups.

2,841,620
UNSATURATED TERTIARY ETHERS AND PREPARATION THEREOF
Louis Joseph Colaianni, Waldwick, and Martin Louis Tanzer, West Milford Township, Passaic County, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application August 13, 1956
Serial No. 603,799
13 Claims. (Cl. 260—611)

1. A process which comprises reacting a ketone having the formula



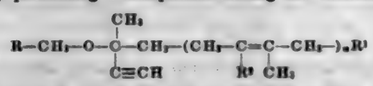
with alkali metal acetylide, thereby producing a compound having the formula



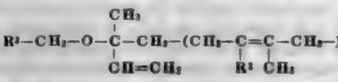
reacting the latter with a compound having the formula

R—CH_2—A

thereby producing a compound having the formula



and reacting the latter with about one molar proportion of elemental hydrogen in the presence of a selective hydrogenation catalyst which preferentially catalyzes the hydrogenation of acetylenic unsaturation to the olefinic stage only, thereby producing a compound having the formula



wherein, in the foregoing formulas, each of R^1 and R^2 represents a member selected from the group consisting of hydrogen and lower alkyl radicals, each of R^3 and R represents a member selected from the group consisting of hydrogen and hydrocarbon radicals having not more than six carbon atoms, M represents an alkali metal, A represents an anion of a strong mineral acid, and *n* represents an integer selected from the series 1, 2.

2,841,631
ALKENYLOXYPOLYETHOXYETHYL ALKYL ETHERS
Gerard C. Riley, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application May 22, 1956
Serial No. 586,355
8 Claims. (Cl. 260—615)

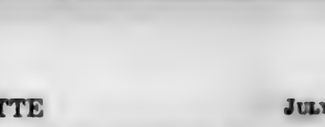
1. Compounds of the formula

$$RCH_2CH{=}CHCH_2(OCH_2CH_2)_nOR^*$$

where R is an alkyl group of four to twelve carbon atoms, R^* is an alkyl group of not over two carbon atoms, and *n* is an integer from five to twenty.

2,841,622
PROCESS FOR PRODUCING ALKYLATED PHENOLS
Douglas G. Norton, Berkeley, and Frank C. Davis, Richmond, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application May 8, 1957
Serial No. 657,714
14 Claims. (Cl. 260—624)

1. In the process for preparing 2,4,6-trialkyl phenols, the improvement which comprises reacting a bisphenol of the formula



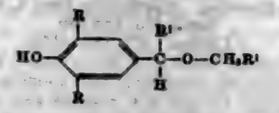
wherein the R's are alkyl and the R^1's are selected from the group consisting of hydrogen and lower alkyl, said reaction being conducted in the presence of an aliphatic alcohol and a base at temperatures from about 150° C. to about 350° C. and at pressures sufficient to maintain the reactants in liquid form.

2,841,623
PROCESS FOR THE ALKYLATION OF PHENOLS
Douglas G. Norton and Rupert C. Morris, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application May 8, 1957
Serial No. 657,715
16 Claims. (Cl. 260—624)

1. A process for the nuclear alkylation of a phenol having a hydrogen bonded to the aromatic nucleus in at least one of the positions ortho- and para- to the phenolic hydroxyl group, which comprises reacting said phenol with from about 0.05 to about 2 moles of a saturated aldehyde per mole of phenol, at temperatures between about 150° C. and about 350° C., the reaction being conducted in the presence of from about 0.05 to about 3 moles of a basic acting material per mole of phenol, in the presence of at least about 5 moles per mole of phenol of a primary alkanol having from 1 to 8 carbon atoms, and at a pressure sufficient to maintain the reactants in their liquid state.

2,841,624
PROCESS FOR PRODUCING ALKYLATED PHENOLS
Douglas G. Norton and Rupert C. Morris, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application May 8, 1957
Serial No. 657,724
14 Claims. (Cl. 260—624)

1. In the preparation of 2,4,6-substituted alkyl phenols, the improvement which comprises reacting an ether of the formula



wherein the R's are alkyl and the R^1's are selected from the group consisting of hydrogen and lower alkyl, said reaction being conducted in the presence of at least one equimolar amount of a primary alcohol and more than about 0.05 mole of base per mole of ether, at temperatures between about 150° C. and 350° C. and at a pressure sufficient to retain the reactants in the liquid state.

2,841,625
STABILIZATION OF CHLORINATED HYDROCARBONS WITH 2,5-DIMETHYL-1,5-HEXADIENE-3-YNE AND SYNERGISTIC MIXTURES CONTAINING SAME
Robert J. Burch, Berkeley Heights, and Morton W. Leeds, Union, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
No Drawing. Application February 8, 1956
Serial No. 564,116
6 Claims. (Cl. 260—652.5)

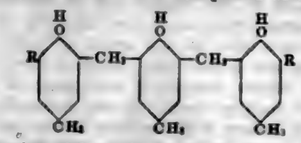
1. A composition of matter comprising a chlorinated hydrocarbon solvent and a small but stabilizing amount of diisopropropenyl acetylene and a stabilizing agent selected from the group consisting of 3-methyl-1-pentyn-3-ol and 2,6-di-tert-butyl-para-cresol.

2,841,626
ISOMERIZATION OF PARAFFIN HYDROCARBONS
George Holzman, Walnut Creek, Calif., and George M. Good, Port Chester, N. Y., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application March 11, 1957
Serial No. 644,965
4 Claims. (Cl. 260—683.65)

1. Process for the isomerization of paraffin hydrocarbons which comprises contacting a feed consisting of isomerizable paraffin hydrocarbon having less than 7 carbon atoms in the presence of added hydrogen and between about 2 and 100 mole percent of water vapor based on said hydrocarbon with a catalyst containing at most a negligible amount of chlorine below 0.1% and consisting essentially of a noble metal of group VIII in combination with an aluminous carrier having cracking activity at a temperature between about 480 and about 890° F. and pressure between about 1 and 100 atmospheres to effect isomerization of said hydrocarbon as the predominating reaction.

2,841,627
METHOD OF PRESERVING A RUBBER WITH AN α,α′-BIS(HYDROXYPHENYL)-2,6-XYLENOL AND RESULTING COMPOSITIONS
David J. Beaver, Richmond Heights, and Paul J. Stoffel, Florissant, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application October 10, 1952
Serial No. 314,284
7 Claims. (Cl. 260—810)

2. A vulcanized diene polymer rubber preserved by having incorporated therein a compound of the structure



where R is selected from the group consisting of hydrogen and methyl groups.

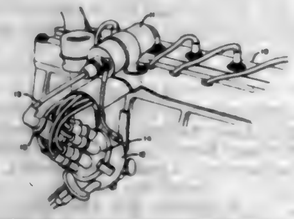
2,841,628
USE OF CERTAIN BIS(2,4-DIALKYLPHENOL) MONOSULFIDES IN RUBBER AS ANTIOZONANT AND PRODUCT OBTAINED
Harry E. Albert, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
No Drawing. Application December 24, 1953
Serial No. 400,341
12 Claims. (Cl. 260—810)

1. A light-colored sulfur-vulcanized shaped natural-rubber product which contains a small amount of a bis-(2-alkyl-4-methylphenol) monosulfide sufficient to inhibit ozone deterioration, in which the 2-alkyl group contains three to twelve carbon atoms.

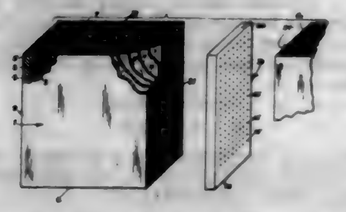
ELECTRICAL

2,841,629
SPARK INTENSIFYING DEVICE
Morris E. Autrey, De Kalb, Tex.
Application November 4, 1955, Serial No. 544,873
1 Claim. (Cl. 123—148)

A device of the character described comprising a cylindrical body of insulating material having a spiral groove formed in the sides thereof, a cylindrical casing of insulating material closely encompassing the sides and ends of said body and having a hollow tubular projection centrally formed at each end thereof, a cylindrical projection formed at each end of said body and each closely encompassed by its associated tubular projection, a pair of U-shaped loops each having its legs extending inwardly at diametrically opposed points between the inner walls of one tubular projection and its associated cylindrical projection whereby to hold said loops in position, one of the legs of each of said loops terminating at the adjacent end of the body, and a wire interconnecting the remaining legs and extending through said spiral groove, said groove being of a length to permit two complete convolutions of said wire.



2,841,630
BATTERY AND METHOD OF FABRICATING
Jack Morgan Watt, Los Angeles, Calif.
Application May 18, 1954, Serial No. 430,490
2 Claims. (Cl. 136—15)



2. A storage battery comprising: a casing of insulating material having therein an elongated rectangular cell compartment having side walls and end walls and a bottom; a positive cell assembly in one end of said compartment and a negative cell assembly in the opposite end of said compartment; each of said assemblies comprising a group of electrode plates each including a metal grid and active electrode material supported therein, said plates being disposed in closely spaced face to face relation, parallel to one another and to the side walls of said cell compartment, and a retainer clip of C-section enclosing three sides of said group of plates, said clip including top and bottom wall members integrally joined to top and bottom margins of said group of plates and an end wall member normal to and integrally joined to said top and bottom wall members and to said plates at one end of the assembly, said clip and the grids of said plates being of a common metal and integral with one another, whereby said clip and plates constitute a box-like assembly wherein the front and rear plates of the plate group are joined to the front and rear edges of said clip to constitute front and rear closures of said assembly, whereby said assembly is fully closed except at the end of said assembly opposite said end wall member, said opposite ends of said assembly being open with a series of openings between the edges of said plates; the respective positive and negative cell assemblies, as disposed in said compartment, having said open ends thereof in adjacent, opposed end-to-end relation to one another, separated by a vertical gap extending transversely of said compartment; and a single insulator plate disposed in said gap and extending between said compartment side walls and from top to bottom of said compartment so as to divide said compartment into respective positive and negative areas, said insulator plate having an imperforate bottom portion in an area thereof of strip-form extending along the bottom margin thereof and upwardly to a substantial height above the lower margins of said electrode plates, to retain within the respective compartment areas any active electrode material dropping from the electrode plates therein, and said insulator plate having in the remainder of its area above said imperforate bottom portion thereof, a plurality of apertures providing electrolytic communication across said gap and through said open ends of the respective positive and negative cell assemblies, into said assemblies.

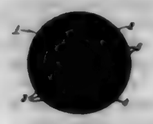
2,841,631
STORAGE BATTERY PASTE FORMULATION
Harold E. Zahn, Buffalo, N. Y., assignor to Gould-National Batteries, Inc., St. Paul, Minn.
No Drawing. Application March 1, 1955
Serial No. 491,511
6 Claims. (Cl. 136—26)

1. In a lead-acid storage battery including a lead containing grid, a paste formulation carried by said grid and including means for retarding corrosion of said grid comprising an intimate mixture of from .005% up to .5% by weight each of cobalt sulphate and silver sulphate admixed with the lead oxide of said paste.

2,841,632
ELECTROLYTE ADDITIVE FOR STORAGE BATTERIES
James F. Mischell, South Euclid, Ohio, and Kenneth Patterson, Wauwatosa, Wis., assignors to Gould-National Batteries, Inc., St. Paul, Minn.
No Drawing. Application June 4, 1956
Serial No. 588,949
5 Claims. (Cl. 136—153)

1. In a storage battery, a cell, a liquid electrolyte in the cell comprising a sulphuric acid solution of a specific gravity between 1.2 and 1.3, positive and negative lead containing plates in the cell and immersed in the electrolyte, a separator of cellulose material between the plates and immersed in the electrolyte, and said sulphuric acid solution having dissolved therein cobalt sulphate in the percentage range of .001% to .020% by weight of cobalt per volume of acid and silver sulphate in the percentage range of .05% to .20% by weight of silver per volume of acid.

2,841,633
ELECTRICAL CABLE STRUCTURE
Frank M. Clark, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Original application June 1, 1951, Serial No. 229,401, now Patent No. 2,782,248, dated February 19, 1957. Divided and this application December 3, 1956, Serial No. 625,796
9 Claims. (Cl. 174—25)



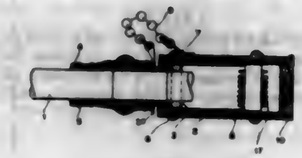
6. A liquid dielectric filled electrical cable comprising an electrical conductor, cellulosic insulation therefor comprising layers of paper impregnated with said liquid dielectric, at least one layer of said paper being adjacent said conductor, said insulation having therein resinous material and metal foil each completely surrounding said conductor.

2,841,634
SECTIONAL TELESCOPIC POLE
Clarence L. Kimball, Fort Lauderdale, Fla.
Application October 2, 1956, Serial No. 613,426
6 Claims. (Cl. 174—45)



3. A telescopic pole device that comprises a plurality of substantially identical tubular and cylindrical sections that are assembled in concentric and axial relation to form an elongated pole, each section being molded from a non-metallic material having an upper and lower portion of different diameters and whereby a portion of reduced diameter has telescopic engagement within the next adjacent portion of larger diameter, the different diameters forming a stop shoulder that serves to limit the telescoping of the sections, the inner diameter of the lower portion corresponding to the outer diameter of the upper portion, a metallic ground conductor that is molded into each section and that is co-extensive in length with the section, an outermost area of the conductor in the upper portion being exposed for the full length of the upper portion and an innermost area of the conductor in the lower portion being exposed for the major length of the inner wall of the lower portion, the exposed areas of the conductor being in the same vertical plane, the several sections when in telescopic assembled relation having their respective exposed conductors in overlying frictional engagement, means for bolting the several sections together in assembled relation and means formed on the bolting means for forcing the overlapping conductors in tight bonding relation.

2,841,635
WATERPROOF AND PRESSUREPROOF CABLE PLUGS AND CONNECTIONS
Warren E. Witsell, Woods Hole, and Sydney T. Knott, Barnstable, Mass., assignors to the United States of America as represented by the Secretary of the Navy
Application June 14, 1955, Serial No. 515,566
2 Claims. (Cl. 174—77)



1. A waterproof cable connector assembly comprising a shell having a reduced terminal portion, a cable projecting through said reduced portion into the interior of said shell, means within said shell secured to said cable preventing withdrawal of said cable, a waterproof covering, means securing said waterproof covering about said reduced portion and said cable to form a watertight seal, a connector secured in said shell adjacent its open end, means joining the conductors of said cable to said connector, a hollow cover adapted to fit closely about said shell, said cover being closed at one end, said cover having an interior annular groove, a compressible sealing ring positioned in said interior groove, said shell having an exterior annular groove situated to register with said interior groove when said cover is installed over said shell, and said sealing ring being adapted to extend into both grooves when said grooves are aligned to form a water tight barrier.

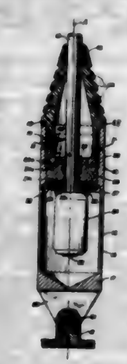
2,841,636
ELECTRIC INSULATOR AND METHOD OF MAKING SAME
Roger B. White, Cleveland, Ohio, assignor to The Glastic Corporation, Cleveland, Ohio, a corporation of Ohio
Application September 24, 1953, Serial No. 382,078
4 Claims. (Cl. 174—138)

1. An electrical insulator comprising a hollow sleeve having the side walls thereof made up of a plurality of glass fibers running peripherally of the sleeve and a hardened thermosetting resinous material thoroughly impregnating said fibers and means for making a mechanical connection to said insulator, said means constituting



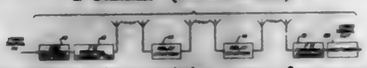
a threaded member embedded in a side wall between adjacent portions of said glass fiber.

2,841,637
STRAIN INSULATOR
Tomlinson I. Moseley, Atherton, and Robert J. Stahl, Redwood City, Calif., assignors to Carolands Company, Belmont, Calif., a corporation of California
Application June 29, 1956, Serial No. 594,792
1 Claim. (Cl. 174—163)



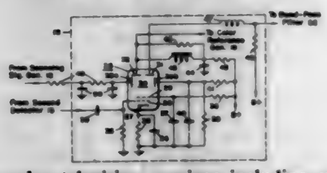
A strain insulator for mechanically coupling two tension members, comprising a cup-shaped sleeve having a longitudinal axis and having one end closed and the other end open, means for connecting one tension member to the closed end of said sleeve, the other member extending into the open end of said sleeve and being spaced from the sleeve, a first compression ring within and spaced from said sleeve and positively engaging said other member for transmitting an axial force from said other member toward the open end of said sleeve, a second compression ring spaced from said other member and positively engaging said sleeve for transmiting an axial force from said sleeve in opposition to said first-named force, said compression rings having opposed radially overlapping load-bearing faces, an electrical insulating ring disposed between and in engagement with said faces of the compression rings, said insulating ring having annular ribs projecting axially from opposite ends thereof, one rib being radially spaced from and overlying the load-bearing face of said first compression ring, the other rib being radially spaced from said other tension member and overlying the load-bearing face of said second compression member, and an insulating cap connected to and extending axially out from the open end of said sleeve, said cap converging into sealed engagement with said other tension member for sealing the interior of said sleeve.

2,841,638
METHOD FOR FREQUENCY MODULATED COLOR TELEVISION TRANSMISSION
John W. Ricke, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 17, 1953, Serial No. 380,730
2 Claims. (Cl. 178—5.2)



2. The method of transmitting, over a frequency modulation system having inherent delay distortion, color television signals according to the NTSC standard, which includes compressing the amplitude range of components of said color television signal of frequencies up to a frequency of the order of one megacycle per second, transmitting the pre-emphasized color picture signals over said frequency modulation system, and subjecting the color picture signals appearing at the receiver of said system to complementary expansion to restore the compressed portion of the color picture signals to their original amplitude range.

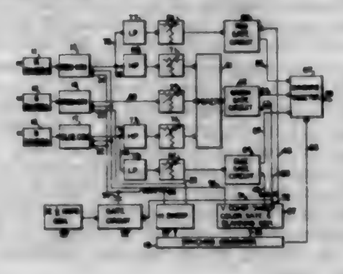
2,841,639
COLOR TELEVISION
Charles H. Heser, Glencoe, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application May 26, 1953, Serial No. 357,591
5 Claims. (Cl. 178—5.4)



1. In a color television receiver including means for developing a composite color signal comprising periodically recurring color-synchronizing signal components of predetermined duration and interposed color picture signal components, a time-division signal-translating circuit comprising: an electron-discharge device comprising means including a cathode for developing a stream of electrons, a pair of output electrodes, and a first control system comprising a control electrode interposed between said cathode and said output electrodes for controlling the intensity of said electron stream; means including a second control system association with said device for normally directing said electron stream to a selected one of said output electrodes and responsive to an applied signal for directing said electron stream to the other of said output electrodes; means for applying said composite color signal to said first control system to modulate said electron stream; means for impressing on said second control system a gating signal in synchronism with and at least equal in duration to said color-synchronizing signal components to direct said electron stream to said other output electrode during operating intervals in which said synchronizing components occur in said composite color signal; a first output circuit coupled to said one output electrode for developing a color picture signal; and a second output circuit coupled to said other output electrode for developing a color synchronizing signal.

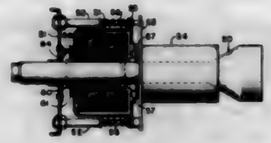
2,841,640
COLOR TELEVISION SYSTEM
Everhard H. B. Bartelink, Concord, N. H., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application August 13, 1953, Serial No. 374,013
12 Claims. (Cl. 178—5.2)

1. A color television system comprising, means for separating the light image of a subject to be reproduced into a plurality of color components, cathode ray tube means for converting said color components to electrical signals, means for generating a sawtooth wave having a relatively long time duration, means for generating a pair of successive sawtooth waves each having a relatively short time duration, means for combining said long and short duration sawtooth waves in time sequence relation to produce a combined wave train of short and long



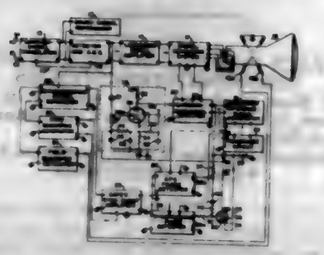
duration sawtooth waves, means for vertically scanning said cathode ray tube means by said combined wave train, means for transmitting electrical signals representative of one of said color components only during the occurrence of said long duration sawtooth wave, and means for transmitting electrical signals representative of respective other ones of said color components only during the occurrence of respective ones of said short duration sawtooth waves.

2,841,641
IMAGE-REPRODUCING APPARATUS
Robert P. Burr, Huntington, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application August 2, 1954, Serial No. 447,244
8 Claims. (Cl. 178—5.4)



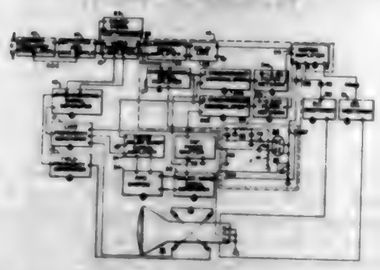
1. In a color-television receiver including display screen color-image-reproducing apparatus of the projection type for displaying component color images in register comprising: three cathode-ray image-reproducing tubes, having associated electromagnetic cathode-ray beam focus units having air gaps for allowing magnetic focus fields to develop in the cathode-ray tubes, for individually developing components of a composite multicolor image to be reproduced; an optical system for projecting the components of the multicolor image to the display screen in register for observation as a single composite image; and an adjustable magnetic shunt cooperative with one of the beam focus units and comprising a pair of cylinders longitudinally displaceable for primarily controlling the focusing of one of the cathode-ray tubes in response to longitudinal displacements, the cylinders being rotatable with respect to each other and rotatable together and individually having nonuniform edges extending into one of the air gaps for providing an effective nonuniform edge of adjustable shape for primarily controlling the register of the image components in response to rotation of the cylinders.

2,841,642
SWITCHING CIRCUIT FOR A COLOR-TELEVISION RECEIVER
Donald Richman, Fresh Meadows, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application August 18, 1954, Serial No. 448,890
5 Claims. (Cl. 178—5.4)



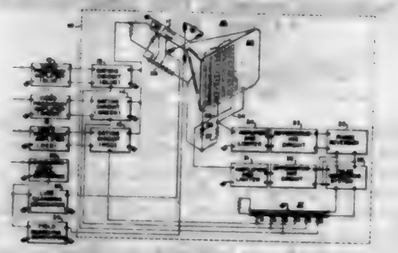
1. In a color-television receiver having a chrominance channel and a quadricorrelator color-synchronizing system having pull-in and hold-in operating modes and including an automatic-phase-control filter, a switching circuit comprising: a mode-control phase detector for supplying a control signal representative of the state of synchronism of a subcarrier reference-signal generator; an electron-discharge tube having a control electrode coupled to the mode-control phase detector and responsive to the control signal for causing the tube to be nonconductive during the hold-in mode and conductive during the pull-in mode; an alternating-current path coupled from an input terminal of the automatic-phase-control filter, through the control electrode to cathode space-current path of the tube, to an output terminal of the filter and effective, when the tube is conductive, to increase the alternating-current transmission characteristic of the filter to cause the synchronizing system to operate in the pull-in mode; and a filter network connected to the anode of the tube and effective, when the tube is conductive, to develop a bias voltage to disable the chrominance channel.

2,841,643
COLOR-SATURATION CONTROL APPARATUS
Bernard D. Loughlin, Lynbrook, N. Y.
Application October 29, 1954, Serial No. 465,554
19 Claims. (Cl. 178—5.4)



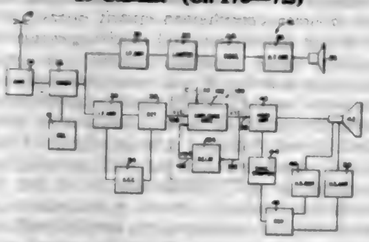
1. In color-television apparatus, a color-saturation control apparatus comprising: a circuit for supplying the luminance, chrominance, deflection-synchronizing, and color-synchronizing components of a color-television signal; a signal-translating network for translating said chrominance and said luminance components in which the relative amplification of said translated components can be varied; a signal-comparison circuit responsive to said deflection-synchronizing and color-synchronizing components for comparing the amplitudes of said synchronizing components to develop a resultant signal representative of any deviation of said amplitudes of said synchronizing components from a predetermined ratio; and means for utilizing said resultant signal to modify the relative amplitudes of said luminance and chrominance components translated through said network, thereby to effect automatic color-saturation control.

2,841,644
COLOR-TELEVISION IMAGE-REPRODUCING APPARATUS
Albert J. Biggs, Wembley, England, assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application January 14, 1955, Serial No. 481,907
6 Claims. (Cl. 178—5.4)



1. A color-television image-reproducing apparatus comprising: an image-reproducing device including an input circuit responsive to an applied signal having components representative of a plurality of colors combined in a predetermined relation, means for scanning a target in a predetermined raster with an electron beam, a target which effectively has a plurality of elemental portions and when scanned by that beam are productive of individual ones of said colors, a plurality of electron-permeable light-reflecting conductive members disposed in a predetermined spaced relation over substantially the entire area of said target intermediate said scanning means and said target for augmenting the intensity of said colors and simultaneously therewith translating energy concurrently with the scanning of said elemental portions by said beam, and means for controlling the intensity of said beam; control circuits including said members responsive to said translated energy for deriving a control signal having components representative of the position of said beam with relation to said elemental portions during said scanning; and a control system coupled to said circuits and to said control means for utilizing said control signal to control said beam intensity in a predetermined relation to the application to said input circuit of said color-representative components, whereby said device reproduces an image in color.

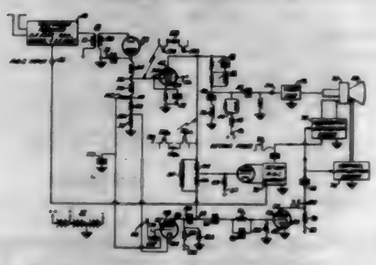
2,841,645
TELEVISION RECEIVER
Murray J. Stateman, Wantagh, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application March 14, 1955, Serial No. 493,935
19 Claims. (Cl. 178—7.3)



10. A system for improving the signal-to-noise ratio in a television receiver comprising first means for comparing

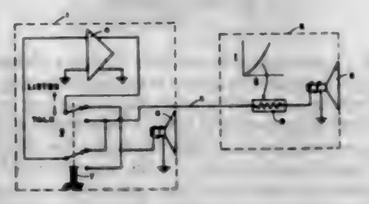
the amplitude of an incoming signal with a previously received signal, second means for establishing lower and upper limits for amplitude change in successive signals, and third means responsive to said second means for modifying said incoming signal when the amplitude thereof falls outside of said lower and upper limits for amplitude change.

2,841,646
NOISE CANCELLING SYSTEMS
Lucius P. Thomas, West Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application August 25, 1955, Serial No. 530,587
4 Claims. (Cl. 178—7.5)



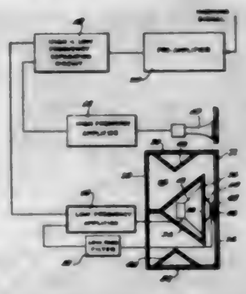
2. In a television receiver for receiving and demodulating television signals having at least a video component and a synchronizing component, said synchronizing pulse component representing maximum carrier intelligence excursions of received radio television signals, the combination of: means receiving and demodulating television signals, said receiving and demodulating means including an automatic gain control potential input means for controlling the gain of said receiving means in accordance with a gain control potential; a synchronizing signal separator circuit operatively coupled with said receiving means for separating synchronizing signals from received demodulated television signals; a television picture reproducing means operatively coupled with said receiving means; horizontal and vertical raster scanning means operatively associated with said picture reproducing means for defining a television picture raster; means connecting said scanning means and said separator circuit for synchronization of said scanning means by separated synchronizing component; a keyed automatic gain control potential developing circuit operatively coupled with said receiving means and said horizontal scanning means for developing a gain control potential, which when applied to said receiving means gain control potential input means, increases the gain of said receiving means upon the reduction of received signal strength or the fortuitous missynchronization of said horizontal scanning means by said separated synchronizing signal, said gain control signal otherwise tending to stabilize the amplitude of signal delivered by said receiving means to a substantially fixed desired value over wide ranges of radio signal strength variations; a noise cancellation circuit operatively coupling the output signal from said receiving means to said synchronizing signal separator circuit; an amplitude threshold device included in said noise cancellation circuit restricting signal cancellation to signal excursions extending beyond the peaks of said synchronizing pulses as represented in said stabilized substantially fixed value of demodulated signal delivered by said receiving means; means included in said cancellation circuit for varying said cancellation threshold thereof in accordance with a control potential; means operatively coupled with said receiving means developing a threshold control potential which is a direct function of the signal amplitude delivered by said receiving means; and means coupling said threshold control potential to said threshold varying means with an electrical sense which increases the value of said cancellation threshold in a direction and magnitude preventing cancellation of synchronizing pulse components in said cancellation circuit upon the fortuitous increase in the amplitude of delivered signal from said receiving means above said substantially fixed desired value.

2,841,647
PRIVACY INSURING MEANS FOR INTERCOMMUNICATION SYSTEMS
Angus W. Blow, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application December 7, 1953, Serial No. 396,530
9 Claims. (Cl. 179—1)



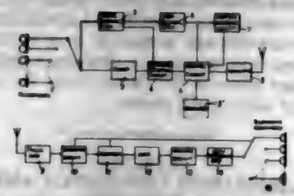
1. In a communication system of the type including a first station, a second station, and a line interconnecting said stations, and in which said second station has a bilateral sound transducer, the improvement which consists of providing a substantially resistive non-linear impedance means in series with said line, and said transducer, the maximum impedance of said non-linear means being large relative to the impedance of said line and providing a maximum impedance to small amplitude signals generated by said transducer and a minimum impedance to large amplitude signals applied to said line at said first station whereby privacy is assured at said second station.

2,841,648
SOUND PRODUCING DEVICE
Edward G. Thurston, Chicago, Ill., assignor to Electro-Voice, Incorporated, Buchanan, Mich.
Application August 8, 1955, Serial No. 526,864
10 Claims. (Cl. 179—1)



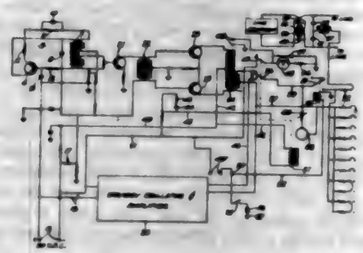
1. A sound reproducing device comprising a speaker arranged to operate up to a certain crossover frequency, an amplifier having an input adapted to be connected to a signal source and an output connected to the speaker, a microphone confronting the speaker at a distance from ⅛ to ¼ wavelength of said crossover frequency, and connected to the input of the amplifier, and means to attenuate the frequency components produced by the microphone above several times said crossover frequency.

2,841,649
PULSE CODE MODULATION SYSTEM
Jacques Maurice Boisvieux, Gennevilliers, France, assignor to Compagnie Francaise Thomson-Houston, Paris, France
Application September 21, 1951, Serial No. 247,621
Claims priority, application France September 22, 1950
19 Claims. (Cl. 179—15)



1. A pulse code modulation system, comprising means for producing groups of pulses corresponding to the instantaneous values of a modulation signal, a compression circuit for compressing said pulses, a supply voltage for said compression circuit, means for coding said pulses, a transmitter for transmitting said coded pulses, means for transmitting a control signal varying in relation to the instantaneous value of the supply voltage feeding said compression circuit, a receiver for receiving the transmitted coded pulses, and said control signal, means for decoding said pulses, a decompression circuit in said receiver for decompressing said decoded pulses, a supply voltage for said decompression circuit, means for applying said control signal to said decompressor circuit so that the supply voltage of the decompressor circuit varies as the supply voltage feeding said compression circuit, and means for producing a signal corresponding to the modulation signal at the transmitter from said decoded pulses.

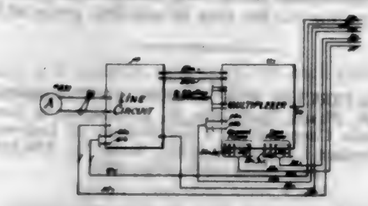
2,841,650
TELEPHONE ALERT SYSTEM
Robert L. Koehler, Canoga Park, Calif., assignor to Kellogg Kords, Incorporated, New Haven, Conn., a corporation of Connecticut
Application November 20, 1956, Serial No. 623,349
10 Claims. (Cl. 179—2)



1. An alert system comprising a transmitter for generating a signal to be transmitted, an output circuit for said transmitter, a plurality of telephone lines connectable to said output circuit, and a receiver of said signal at the end of each of said lines, each of said receivers including means for indicating the operative condition of said receiver and means for indicating the reception of said signal after the reception of said signal has discontinued.

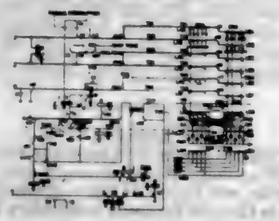
2,841,651
TELEPHONE SYSTEM
Robert B. Trousdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application January 27, 1954, Serial No. 406,567
16 Claims. (Cl. 179—15)

1. In an automatic telephone system, a plurality of lines having individually assigned thereto different time positions in repetitive time position frames, means including a plurality of impulse responsive links for setting up two-way communication connections between calling and called ones of said lines, and time position responsive restricted service means included in each of said links for varying the service provided by the link on a call set up therethrough in accordance with the time position assigned to the calling line operatively associated therewith.



12. In an automatic telephone system, a plurality of lines, arranged in at least two different groups having different service requirements, means including a plurality of impulse responsive links for setting up two-way communication connections between calling and called ones of said lines, line identification means common to said links for identifying the lines of one of said groups, and restricted service means included in each of said links and controlled in part by said line identification means for modifying the service provided on a call established therethrough in accordance with the service group classification of the calling line operatively associated with said one link.

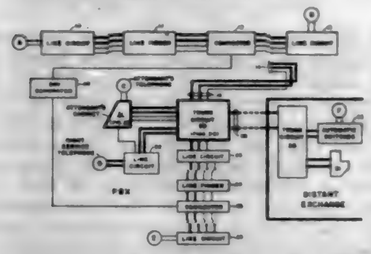
2,841,652
CONNECTOR AND CIRCUIT ARRANGEMENT FOR AUTOMATIC TELECOMMUNICATION EXCHANGE SYSTEM
Benjamin Bertie Johnson, West Dulwich, London, England, assignor to Telephone Manufacturing Company Limited, London, England, a British company
Application October 16, 1956, Serial No. 616,243
Claims priority, application Great Britain October 25, 1955
2 Claims. (Cl. 179—18)



1. An electric selecting device, for connecting, in response to impulses from a source of impulses, a calling line to a desired one of a plurality of other lines divided into a first and a second group, said device including a pair of selective relay units, an impulse-switching relay, and a change-over relay; each selective relay unit having an armature, an energising coil for operating said armature, a plurality of banks of contacts, a like plurality of fingers and a like plurality of finger magnets, one finger and one finger magnet associated with each bank of contacts, each bank of contacts including at least two work contacts, to each of which work contacts one line of said plurality of said other lines is connected, and a control contact, connections connecting each control contact of one selective relay unit to a finger magnet of the other selective relay unit, said impulse-switching relay having contacts for distributing impulses from said source of impulses in alternation to said energising coil of said selective relay units so as to

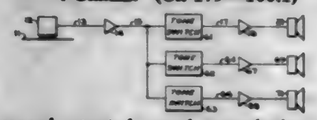
produce a successive operation of said banks of contacts in response to successive impulses of a first train of impulses, circuit means including a controlling contact of one of said selective relay units for operating said change-over relay in response to a given impulse of said first train of impulses for causing said two selective relay units in response to a second train of impulses to select a line of the second group, said change-over relay when operated cutting out the lines of said first group of lines.

2,841,653
TRUNK CIRCUIT FOR ATTENDANT'S CABINET
William W. Pharis, Rochester, N. Y., assignor to General Dynamics Corporation, a corporation of Delaware
Application December 1, 1955, Serial No. 550,245
4 Claims. (Cl. 179—27)



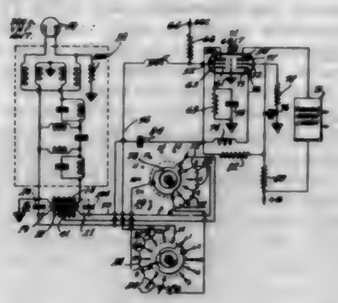
1. In a telephone system, a private branch exchange and a distant office interconnected by a trunk line, means for switching said private branch exchange between day service and night or emergency service operation, a plurality of subscriber stations in said private branch exchange, means in said distant office for furnishing ringing current to signal a particular one of said subscriber stations during said night or emergency service operation, means in said private branch exchange for furnishing ringing current to signal any desired one of said subscribers during said day service operation, means connected to said trunk line to be operated responsive to said ringing current furnished by said distant office, means for completing a direct, metallic circuit to said particular station from said distant office over said trunk line responsive to operation of said last named means, and means for extending talking battery from said distant office over said metallic circuit to said particular station during periods of said night service.

2,841,654
RECORD ACTUATED SOUND SYSTEM
Skipworth W. Athey, Mount Kisco, Louis L. Pourciau, Pleasantville, and David B. Shaw, White Plains, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application October 14, 1954, Serial No. 462,196
4 Claims. (Cl. 179—100.1)



1. A record-actuated sound reproducing system comprising, a record medium having a selected tone signal and signals to be reproduced recorded on a single sound track thereof, pickup means positioned to convert the signals recorded on said sound track into corresponding electrical signals, a signal translating channel having its input connected to said pickup means, said signal translating channel including a filter network connected in series therein offering a high impedance to a signal frequency corresponding to that of said selected tone signal and low impedance to signal frequencies corresponding to the signals to be reproduced, a resonant network connected in shunt to the input of said signal translating channel having a low impedance to signal frequencies corresponding to that of said selected tone signal and high impedance to signal frequencies corresponding to the signals to be produced, loudspeaker means, switch means connecting said loudspeaker means to the output of said signal translating channel in one condition of operation and disconnecting said loudspeaker means from said signal translating channel and grounding said loudspeaker means through a resistor in a second condition of operation, and means for deriving a potential from said resonant network for determining the condition of operation of said switch means.

2,841,655
STABILIZED HIGH FREQUENCY AMPLIFIER CIRCUITS
Leopold A. Harowitz, Erlton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 6, 1956, Serial No. 626,635
8 Claims. (Cl. 179—171)

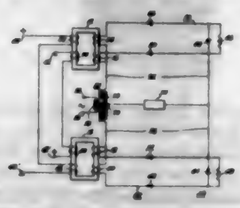


8. A high frequency amplifier tunable over a wide high frequency range comprising in combination, an electron tube having at least an anode, cathode and control grid, means providing an input circuit for said high frequency amplifier including a coupling transformer having primary and secondary windings, means providing tuning inductance for said amplifier connected between a first terminal of said secondary winding and said control grid, means providing an output circuit for said amplifier connected between said anode and ground for said amplifier, means connecting said cathode to a terminal of said primary winding and to said secondary winding through the distributed capacitance between said transformer windings, and a neutralizing capacitor connected from said anode to a second terminal of said secondary winding whereby said neutralizing capacitor and the inherent interelectrode capacities of said tube form a portion of a balanced bridge circuit between said anode and ground.

2,841,656
TEMPERATURE COMPENSATED MAGNETIC AMPLIFIER
Robert M. Hubbard, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application September 13, 1957, Serial No. 683,775
4 Claims. (Cl. 179—171)

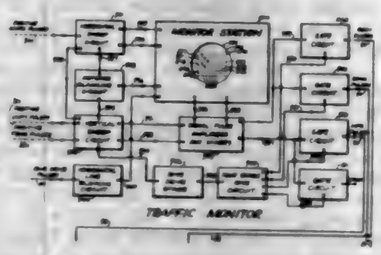
1. In a self-saturating magnetic amplifier adapted to be connected to a source of alternating supply voltage to effect an output voltage across a load, the combination comprising, magnetic core means, load winding means disposed in inductive relationship with the magnetic core means, a self-saturating rectifier connected in series circuit relationship with the load winding means, circuit means including said load for effecting a flow of load current from said source through the series connected load winding means and self-saturating rectifier

when said source is of one polarity and for effecting a flow of leakage current through said series circuit in the reverse direction when said source is of the opposite polarity, control winding means disposed in inductive relationship with the magnetic core means, another series circuit including compensating winding means disposed in inductive relationship with the magnetic core means, a compensating device which has substantially the same impedance-temperature characteristic as the self-saturating rectifier, and blocking means, and other circuit means for connecting said another series circuit in parallel cir-



cuit relationship with the series circuit including the load winding means and the self-saturating rectifier, the compensating winding means being so disposed that when said source is of said opposite polarity the magnetomotive force produced by the leakage current through the compensating winding means opposes the magnetomotive force produced by the leakage current through the load winding means, and said blocking means being so connected as to prevent the flow of current through said another series circuit when said source is of said one polarity.

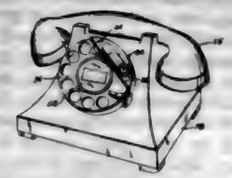
2,841,657
TRAFFIC MONITOR FOR ELECTRONIC TELEPHONE SYSTEM
Robert B. Trousdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application March 18, 1955, Serial No. 495,150
30 Claims. (Cl. 179—175.2)



1. In an automatic telephone system, a plurality of lines having individually assigned thereto different time positions in repetitive time position frames, electronic means for establishing two-way communication connections between different ones of said lines, and electronic visual display means for simultaneously displaying the switch-hook condition of all of said lines.

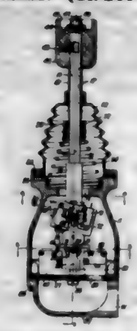
2,841,658
LOCKING DEVICE FOR DIAL TELEPHONES
Thomas Dawkins, New York, N. Y.
Application February 24, 1954, Serial No. 412,223
5 Claims. (Cl. 179—189)

1. A locking device for a rotary telephone dial having a fixed finger stop associated therewith, comprising a locking cap having a front plate and a back plate, a lock in said front plate cooperating with a latch therein, said back plate having a hole to receive one end of said lock, said back plate having an opening, a slide in said back plate provided with a bayonet prong, said prong extending



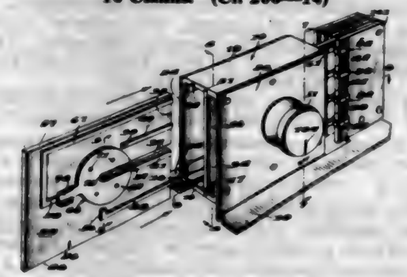
through said opening, said front and back plates having recesses to fit over a telephone dial.

2,841,659
CONTROL MECHANISM
Jay M. Eitel, Los Altos, Calif.
Application April 20, 1956, Serial No. 579,689
7 Claims. (Cl. 200—6)



1. In a control mechanism, a housing, a plurality of switches mounted in said housing, a control lever having one end pivotally mounted in said housing, a section of said control lever being movable axially tiltable about the pivotal connection of the control lever, means mounted on said control lever and adapted to cause operation of said switches as said section of said control lever is tilted, an additional switch mounted on said section of said lever for movement with said section, and means carried by said control lever for operating said additional switch in any position of said control lever independent of axial movement of the lever.

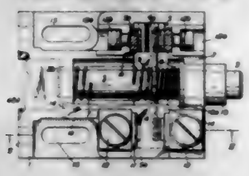
2,841,660
ROTARY SWITCH WITH REMOVABLE UNITS
Michael A. Tabet, Norfolk, Va., assignor to Tabet Manufacturing Company, Inc., Norfolk, Va., a corporation of Virginia
Application April 11, 1956, Serial No. 577,533
16 Claims. (Cl. 200—14)



1. An electrical switch assembly comprising, plates of insulating material arranged in face-to-face spaced relationship, a group of contacts arranged in circular outline on each plate with the contacts of each group circumfer-

entially spaced from each other, a blade mounted for rotation on each plate, said blades being adapted to successively engage the contacts of one group during rotation thereof, conductors carried by each plate extending from the respective contacts thereon, means supporting said plates for guided movements in the plane of each plate, terminal contacts mounted in fixed relationship with respect to said supporting means engaging the conductors carried by each plate, means for actuating said blades in unison when the plates are in positions with the conductors thereon engaging said terminal contacts, and each plate having a slot for accommodating a portion of the actuating means during movement of a plate from a position engaging its terminal contacts.

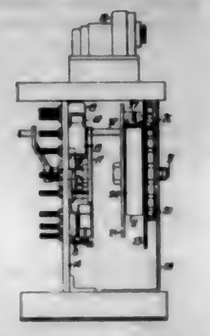
2,841,661
ELECTRIC LIMIT SWITCHES
Thomas Daniel Guy Wintle, Hall Green, Birmingham, England, assignor to J. A. Crabtree & Co. Limited, Walsall, England, a British company
Application November 19, 1953, Serial No. 393,141
Claims priority, application Great Britain November 22, 1952
8 Claims. (Cl. 200—16)



1. An electric limit switch comprising an insulating base, fixed contacts secured to said base, a plunger slidable axially thereof in said base with one end extending outwardly of said base for contact with a member which actuates the limit switch, a movable contact plate carried by said plunger transversely thereof and disposed for cooperation with said fixed contacts, a short sleeve slidably mounted upon said plunger and slidably extending through said base to a point rearwardly of the outer end of said plunger, and, a helical spring surrounding said plunger between said contact and the inner end of said sleeve, whereby the member which actuates the switch first contacts the outer end of said plunger to move said contact plate from said fixed contacts, and whereby upon failure of said plunger to move said contact plate from said fixed contacts the member which actuates the switch continues its movement to press upon the outer end of said sleeve, to compress said helical spring to become solid and thereby to transmit a positive force to said contact plate to separate it from said fixed contacts.

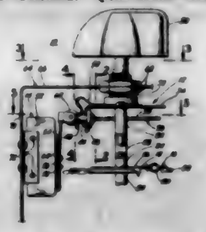
2,841,662
LOAD TAP CHANGING TRANSFORMERS
William C. Sealey, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application September 30, 1957, Serial No. 687,013
9 Claims. (Cl. 200—17)

1. A mechanism for moving an element from one operating position to another with a quick break, slow make movement comprising an index plate, a sprocket member, means for rotating said sprocket member about an axis at a relatively slow uniform speed, an actuating member, means connecting said actuating member to said element, means for rotating said actuating member about said axis with a rapid snap action to move said element to an intermediate position, said means comprising a pair of spring assemblies disposed between said members, means connecting the ends of said assemblies to said members, and latch means engageable with said index plate to prevent rotation of said actuating member until said one of said assemblies is biased to a predetermined extent by rotation of said first member, the other of said springs acting to stop the movement of said actuating member intermediate operating positions, and means con-



nected to said sprocket member for moving said member from its intermediate position to the next operating position at a slow speed.

2,841,663
MULTIPLE SWITCH CONSTRUCTION
Arthur W. Anderson, Janesville, Wis., assignor to The Burdick Corporation, Milton, Wis., a corporation of Delaware
Application July 23, 1954, Serial No. 445,417
3 Claims. (Cl. 200—18)

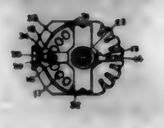


1. A multiple switch construction including in combination, a frame having a front wall, a multi-position rotary switch including a plurality of spaced stationary contacts carried in fixed position on said frame and at least one rotatable contact, an operating shaft carrying said rotatable contact, rotatably supported by said frame and selectively operable to different switch operating positions in which said rotatable contact is in engagement with one of said stationary contacts, bearing structure on said frame journaling said shaft and including a portion extending forwardly of said front wall, detent means including a radially movable detent element for indexing said operating shaft in each of its switch operating positions, a bracket detachable secured on the forwardly extending portion of said bearing structure, and a second switch mounted on said bracket at a position displaced from the longitudinal axis of said shaft, said second switch having an operating member positioned adjacent said detent element and operable by said element when said shaft is moved from one of its switch operating positions to another.

2,841,664
SPEED CONTROL AND REVERSING SWITCH
Albert J. Gartland, Jr., Shelton, and Harry W. Uhlrig, Stratford, Conn., assignors to General Electric Company, a corporation of New York
Application March 29, 1956, Serial No. 574,842
6 Claims. (Cl. 200—18)

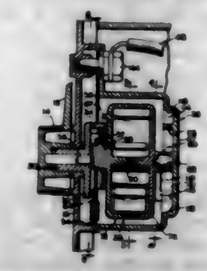
1. A snap action switch comprising an insulating base plate having a series of fixed contacts arranged at one

end of the plate, a movable contact plate pivotally mounted adjacent its center on the base for sweeping engagement over the fixed contacts, a shaft supported from the base having an operating handle at its outer end, and spring means connected between the shaft and the movable contact for providing the switch with a snap action, the opposite end of the movable contact having detent means for cooperation with a series of recesses in the base plate for holding the movable contact in proper



engagement with the fixed contact, the invention comprising a single pole, double throw motor reversing switch at the opposite end of the base plate from the fixed contacts with three spaced terminals, the middle terminal being centrally disposed on the base and carrying a V-shaped spring blade for engagement with the other terminals while the detent end of the movable contact has an insulating portion for controlling the position of the spring blades with relation to the terminals as the switch handle is turned.

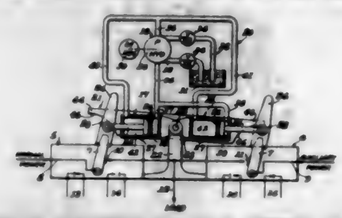
2,841,665
TIME DELAY DEVICE
Blanchard D. Smith, Atlanta, Ga.
Application July 7, 1955, Serial No. 520,467
11 Claims. (Cl. 200—33)



1. A time delay switch comprising a stationary housing, fixed electrical contact means carried by said housing, a receptacle mounted for movement in said housing, electrical contact means movable with said receptacle and engageable with said fixed contact means, said receptacle having a chamber containing a flowable material, means for causing said flowable material to flow from said chamber at a predetermined time rate, spring means urging said receptacle to move to a predetermined position, cooperating latch means carried by said receptacle and by said housing to prevent movement of said receptacle to said position, and a follower movably mounted upon said receptacle responsive to the level of the flowable material in said chamber for releasing said latch means to thereby permit said spring means to move said receptacle to said predetermined position.

2,841,666
AUTOMATIC TRANSFER SWITCH
Arnold N. Anderson, Palm Springs, Calif.
Application July 29, 1957, Serial No. 674,651
12 Claims. (Cl. 200—50)

12. Transfer switching means comprising two circuit breakers connected to a common load and each circuit breaker connecting said load to a separate current source, a piston cylinder unit connected to each circuit breaker to open and close the same, the units being pivoted to a common pivot and extending in opposite directions from the common pivot, an interlock walking beam pivotally connected to said common pivot having opposite ends with cam faces thereon, each breaker having an operating arm carrying a boss for cooperation with one of said cam faces, the cam faces being so spaced that when one breaker is in the closed position, its boss moves against the cooperating cam face to tilt the interlocking



walking beam to a position in which the opposite cam face prevents movement of the other breaker boss to the breaker closed position, a reversible hydraulic pump, pressure fluid connections between said pump and the opposite ends of the cylinders of said units to actuate the latter to open one said circuit breaker while closing the other, whereby the closing of either breaker is delayed until opening of the other has been effected.

2,841,667
AIR VELOCITY ACTUATED ELECTRICAL SWITCH
Glenn E. Stowe, Farmington, Maine
Application January 18, 1957, Serial No. 634,991
4 Claims. (Cl. 200—81.9)

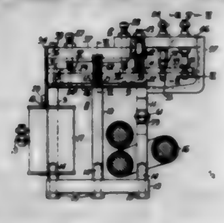


1. In a switch, a Venturi including an intermediate narrow portion defining a throat, the ends of said Venturi being enlarged and being open, there being an orifice in said throat intermediate the ends of said Venturi, a housing depending from said Venturi and secured thereto, a first pair of opposed bushings mounted in said housing, a second pair of opposed bushings mounted in said housing, a contact bar mounted in each of said bushings, a securing element connected to each contact bar, wires connected to said securing elements, a spherical body member movably mounted in said housing and mounted for movement into and out of engagement with said contact bars, a coil spring engaging said body member and interposed between said first named bushings and said body member, there being an aperture in said housing intermediate the ends thereof, and a neck depending from the lower end of said housing and provided with a vent.

2,841,668
OVERSPEED RELAY
John W. Wurgler, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application July 20, 1956, Serial No. 599,107
8 Claims. (Cl. 200—87)

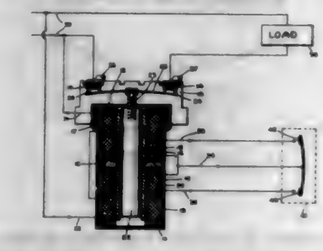
1. An armature and contact assembly for an electromagnetic relay comprising a bridging support channel of nonmagnetic material, said channel adapted to be mounted on an electromagnetic relay core, a nonmagnetic dust cover closing off the bottom of said channel, an armature

of magnetic material adapted to be pivotally supported within said channel, a first spring bias means urging said armature outwardly from said channel, armature retaining means on said channel, said retaining means engaging said armature to retain said armature substantially within said channel, said retaining means disengaging from said armature when said armature is pivotally supported



within said channel, a second adjustable spring biasing means resisting pivotal movement of said armature, armature stop means limiting the pivotal movement of said armature, contact means disposed to be actuated in response to the pivotal movement of said armature, a plurality of enclosure means coacting with said channel and dust cover to define a chamber enclosing said armature and contact means.

2,841,669
SOLENOID-OPERATED RELAY
Leonard W. Cook, Lakewood, R. I., assignor to General Electric Company, a corporation of New York
Application November 29, 1955, Serial No. 549,644
9 Claims. (Cl. 200—102)



1. A solenoid-operated relay comprising a pair of spaced high-voltage primary electromagnetic coils surrounding and defining an axial passageway, said coils being adapted for permanent connection to a source of high-voltage, a low-voltage coaxial secondary electromagnetic coil inductively coupled to each high-voltage primary coil, each secondary coil being adapted for closing its circuit to selectively neutralize the magnetic effect of the primary coil inductively coupled thereto, a ferromagnetic solenoid-plunger reciprocally movable along the axis of said passageway by the selective closing of the circuits of said secondary coils, and electrical contacts movable with said plunger to open and close as said plunger moves back-and-forth.

2,841,670
FRICTIONLESS PLUNGER SWITCH HAVING ALIGNABLE SELF-HOLDING CONTACTS
Charles R. Peter, West Allis, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application December 23, 1954, Serial No. 477,257
11 Claims. (Cl. 200—104)

1. A switch comprising a pair of stationary contacts, a contact carrier, a bridging contact resiliently mounted on said carrier to be movable relative thereto, means for moving said carrier to carry said bridging contact into and out of bridging engagement with said stationary contacts, an iron core rigidly mounted on said carrier, an iron armature rigidly mounted on said bridging contact, said core and armature together substantially encircling said bridging contact to utilize the flux encircling said bridging contact when current flows therethrough



for attracting said armature toward said core thereby forcing said bridging contact against said stationary contacts to prevent separation of said bridging contact from said stationary contacts by the electromagnetic forces produced by current flow through said contacts.

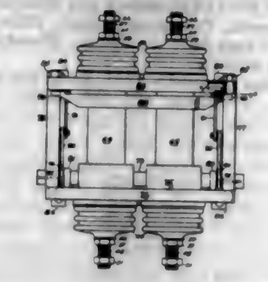
2,841,671
CIRCUIT BREAKER
John F. Marquis, St. Charles, Ill., assignor to Littelfuse Incorporated, Des Plaines, Ill., a corporation of Illinois
Application May 28, 1957, Serial No. 662,826
5 Claims. (Cl. 200—113)



1. A circuit breaker comprising a thin, flexible, snap-acting bimetallic switch blade element formed by two superimposed and secured together metal strips having substantially different thermal coefficients of expansion, said bimetallic element having a first dished shape below a given control temperature, with the higher expanding metal on the concave side thereof, and being adapted to snap into an oppositely dished shape above said temperature, said bimetallic element having a contact and terminal means spaced from said contact, said bimetallic element having an H-shaped electrical insulating portion in the central region thereof between said contact and terminal means, the opposite legs of the H-shaped insulating portion extending contiguous to but being spaced from at least one margin thereof and forming at least one current path between said contact and terminal means having points located at the ends of the legs of the H where the current path narrows to a degree that the resistance per unit path length is at least in the neighborhood of twice that of the adjacent central portion of the bimetallic element between the legs of the H, so that the heat developed per unit path length at the narrow path points is at least in the neighborhood of twice that developed in said adjacent central portion of said bimetallic element, said latter portion of said bimetallic element contributing substantially to the snap-action characteristics of the bimetallic element and receiving sufficient heat from said narrow path points under excessive current flow that the snapping temperature thereof is reached after a time delay from the instant of time the excessive current begins to flow, and a stationary contact supported externally of said bimetallic element and positioned to make

firm contact with said contact on said bimetallic element when the latter is in said first dished shape and which is separated from said latter contact when said bimetallic element is in its oppositely dished shape.

2,841,672
ELECTRIC SWITCH CONSTRUCTION
Peder B. Hoye, Maywood, Ill.
Application July 19, 1955, Serial No. 522,923
9 Claims. (Cl. 200—163)



1. In an electric switch of the type having a pair of cup-shaped insulators each carrying a contact stud therein and having a bushing insulator carrying a sleeve contact, means for mounting said pair of cup-shaped insulators in axial alignment with each other and with said bushing insulator for cooperation between said sleeve contact and said contact studs comprising: a lower supporting frame, an upper supporting frame, and a movable shelf, said lower supporting frame having a unitary bottom wall and a pair of spaced apart side walls and being open at the top thereof, said upper supporting frame separably fastened to said side walls, means removably mounting said movable shelf between said side walls for upward and downward movement of said shelf, said last-mentioned means comprising a pair of ears formed to project from each end of said shelf, the ears of each pair of said ears being spaced apart a distance substantially equal to the width of said side walls and positioned one on each side of said side walls, each side of said side walls being formed to guide said ears whereby said shelf is movable upwardly and downwardly between said side walls and is removable as a unit from the top of said lower supporting frame, an opening provided through each of said bottom wall, said upper supporting frame and said movable shelf, bonding means securing one insulator of said pair of cup-shaped insulators to said bottom wall through said opening therein, second bonding means securing the other insulator of said pair of cup-shaped insulators to said upper supporting frame through said opening therein, third bonding means securing said bushing insulator to said shelf through said opening therein and in axial alignment with said pair of cup-shaped insulators and positioned whereby said sleeve contact is in constant engagement with the contact stud of said one insulator and movable to make and break contact with the contact stud carried by said other insulator.

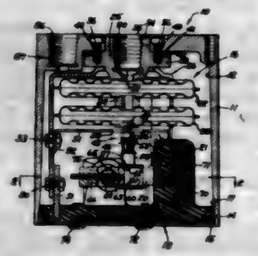
2,841,673
WIRING DEVICE WITH QUICK CONNECT TERMINALS
George B. Benander, Oaklawn, R. I., assignor to General Electric Company, a corporation of New York
Application March 1, 1956, Serial No. 568,853
5 Claims. (Cl. 200—166)

1. A wiring device comprising a recessed base and a separable cover member, a contact supported in the base, the terminal end of the contact being rigidly supported against one side wall, an adjacent wall having a wire-receiving opening with an edge in alignment with said terminal end, a spring locking tongue of strip material seated on the last-mentioned wall with a free end overlying the edge of the opening opposite the terminal of the contact, the opposite end of the locking tongue bearing against a partition within the base and formed at a reentrant angle with a movable offset arm that terminates in an unsupported anchoring strip; the invention



comprising the means for securing the spring locking tongue in the base including opposed grooves in the side walls of the housing, an insulating plate member slideably arranged in the grooves and bearing down on the anchoring strip, the plate member being interengaged with the anchoring strip for holding the strip firmly in place against upward forces and forces acting perpendicularly to the plane of the plate member.

2,841,674
PRESSURE RESPONSIVE INSTRUMENT
Marian E. Bourns and Marvin E. Harrison, Riverside, Calif.; said Harrison assignor to said Bourns
Application January 5, 1954, Serial No. 402,384
4 Claims. (Cl. 201—48)



1. A pressure responsive instrument comprising a housing having a cavity extending inwardly from one side thereof, a lid on said one side of said housing enclosing said cavity, a supporting structure attached to said lid and holding the latter in place on said housing, means for attaching said structure to said housing, a pressure sensitive element mounted on said supporting structure, said attaching means including an opening extending through the wall of said housing and communicating with the interior of said pressure sensitive element, whereby fluid pressure may be admitted to the interior of said pressure sensitive element, a resistance element mounted on said lid, a movable contact member supported on said lid and wiping on said resistance element, and an operating connection between said pressure sensitive element and said contact member.

2,841,675
ADJUSTABLE RESISTANCE ELEMENTS
Warren J. Oestreicher, Flushing, N. Y., assignor to Kendon Electronics Co. Inc., a corporation of New York
Application July 12, 1954, Serial No. 442,629
2 Claims. (Cl. 201—62)

1. An adjustable circuit element comprising a first body determining the value of the circuit element, a second insulating body surrounding and slidably supporting said

first body predeterminedly spaced therefrom, terminal means at one end of said first body in contact with one end of said first body and other terminal means including a coaxial ring on said second body spaced therefrom and from said first terminal means, at least one terminal strip extending longitudinally along said second body in the space between said ring and said second body, said terminal strip having one end projecting from said second body and another end in contact with a least one other portion of said first body being dependent upon the relative position of said first and second bodies, and an adjustable fastening member attached to said ring and holding said ring and said longitudinal terminal strip against said second body; said second body having at least one opening permitting said terminal strip slidingly to engage said other portion of said surface layer.

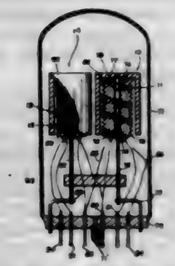


2,841,676
ADJUSTABLE ELECTRICAL INSTRUMENTS
Edward D. O'Brian, Anaheim, Calif., assignor to Bourns Laboratories, Inc.
Application June 20, 1955, Serial No. 516,442
7 Claims. (Cl. 201—62)



1. A variable resistor comprising a housing having an elongated cavity formed therein, apertured end walls closing the ends of said cavity, a nonconductive connector movable linearly within said cavity, a resistance element and a conductor disposed parallel to the line of travel of said connector, said conductor being electrically connected to one end of said resistance element, a pair of spaced contacts on said connector wiping on said resistance element and said conductor, and a pair of terminals connected to said contacts, respectively, and extending axially therefrom, said terminals passing through and being slidable within said apertures in said end walls.

2,841,677
CIRCUIT COUPLING DEVICE
Joseph Statzinger, New York, N. Y., assignor to American Bosch Arma Corporation, a corporation of New York
Original application August 21, 1951, Serial No. 242,957, now Patent No. 2,700,829, dated February 1, 1955. Divided and this application October 19, 1954, Serial No. 463,117
10 Claims. (Cl. 201—63)



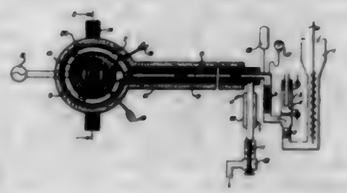
1. In a device of the character described, a resistor comprising a pair of spaced body members of insulating material, a heat conducting member extending through each of said body portions, windings on said bodies and shields at least partially surrounding said bodies, each of said shields being supported by one of said heat conducting members, heat conducting means connecting said heat conducting members and an evacuated envelope containing said bodies.

2,841,678
HIGH-FREQUENCY INDUCTOR ARRANGEMENT FOR CONTINUOUS SEAM WELDING
Lloyd A. Thorson, Cuyahoga County, Ohio, assignor to The Ohio Crankshaft Company, Cleveland, Ohio, a corporation of Ohio
Application March 21, 1955, Serial No. 495,527
5 Claims. (Cl. 219—8.5)



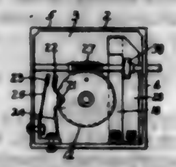
1. A high-frequency inductor arrangement for inducing welding currents to flow in the sides of and between the edges of a continuously moving C-shaped metallic tube as such edges are continuously brought together at a pre-determined point in the path of travel said arrangement comprising in combination a pair of coplaner plate like members having spaced edges including a first portion closed spaced and parallel to define a split remote from the tube edges, a second portion diverging to define a tube receiving opening terminating from 15° to 90° short of the tube edges and a third portion diverging from a termination point of the second portion, the termination point being inter-connected by a generally axially and arcuately extending conductors converging generally over the point of bringing the edges together.

2,841,679
DYNAMIC AUTOCLAVE FOR THE CONTINUOUS TREATING OF ORES UNDER HIGH TEMPERATURE AND HIGH PRESSURE IN THE VICINITY OF THE CRITICAL TEMPERATURE OF WATER
Junsei Yamazaki, Kochi City, Japan
Application September 6, 1956, Serial No. 608,313
7 Claims. (Cl. 219—10.51)



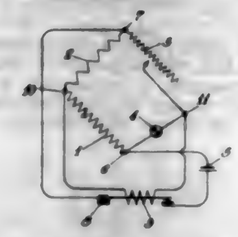
1. A high pressure and temperature device of continuous operation for the hydrothermal treatment of ores in a pasty or slurry condition, comprising a long double conduit high pressure reactor consisting of a part of said double reactor for purpose of heat exchange, another part for induction heating, and thirdly a part for maintaining the temperature constant thereat, heating means for said third part, and means for dynamically and continuously forcing said paste through the reactor, and means for selectively heating the paste in the reactor under high pressure at desired intervals.

2,841,680
CONTROL DEVICE FOR ELECTRIC HEATING CIRCUITS
Daniel V. Tuttle, Kirtland, Ill., assignor, by mesne assignments, to Ferro Corporation, Cleveland, Ohio, a corporation of Ohio
Application March 1, 1954, Serial No. 413,239
3 Claims. (Cl. 219—20)



1. A control for electrical heating devices wherein a single constant speed motor simultaneously operates means for automatically controlling electrical energy input into said heating device and a timing mechanism for automatically turning off said heating device at a preselected time, comprising in combination a manually actuated temperature control shaft with a first temperature cam affixed thereto adapted to set a pair of temperature contact members a predetermined distance from each other, said contacts when in closed position adapted to supply electrical energy to said heating device, a second temperature cam actuated by said motor adapted to cyclically open and close said pair of temperature contact members, a time control cam adapted to open and close a pair of timing contact members, said pair of timing contact members when in a closed position adapted to supply electrical energy to said motor, shaft means for manually turning said time control cam wherein said pair of timing contact members are moved into a closed position and gear means actuated by said motor adapted to rotate said time control cam wherein said pair of timing contact members are moved to an open position.

2,841,681
ELECTRO-THERMAL REGULATING DEVICE
Antonio Nugremandi, Milan, Italy
Application May 31, 1955, Serial No. 512,694
Claims priority, application Great Britain June 3, 1954
4 Claims. (Cl. 219—20)



1. An electro-thermal device for regulating the temperature of an electrically heated body, comprising four circuits forming together the four arms of a Wheatstone bridge, one arm of the bridge alone constituting the heating circuit that heats the said body, and having a zero temperature coefficient, and one arm adjacent thereto constituting alone a control circuit, this arm having a variable temperature coefficient and a negligible ohmic resistance, and this control circuit as well as the heating circuit being in close contact with the body the temperature of which is to be controlled, an electrical relay, and means for supplying electric current through the said electrical relay to two opposite angles of the Wheatstone bridge, said two arms being connected in series across the means for supplying electric current, the other two arms of the bridge being connected in series across said means, remote from and out of heat exchange relation with said body, the excitation circuit of the said relay being inserted directly between the remaining two opposite angles of the Wheatstone bridge, and being adapted to open the heating circuit upon a predetermined temperature of the body that is being heated being exceeded.

2,841,682
PAINT STRIPPING APPLIANCES
Anders Rasmussen Skarsten, Welwyn Garden City, England, assignor to Skarsten Manufacturing Company Limited, Welwyn Garden City, England, a British company
Application July 16, 1956, Serial No. 598,166
12 Claims. (Cl. 219—29)



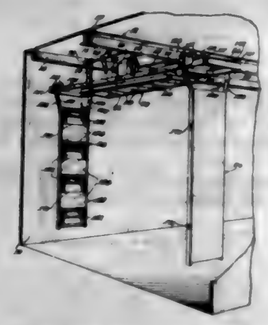
1. An electrical paint stripping tool, comprising a handle having a substantially straight central grip portion and two limbs at opposite ends of the central portion which extend substantially perpendicularly away therefrom on the said side thereof, an electrical heating unit, including an electrical heating element, releasably secured to the free end of one handle-limb so that the element extends in a plane substantially parallel to the grip portion of the handle, a scraping blade having a channel-form body and a sharpened scraping edge provided on an outwardly-bent flange along one side of the channel body, and means for securing the scraping blade to the free end of the other handle-limb so that the outwardly-bent flange extends in a direction substantially perpendicular to the direction of the grip portion of the handle, whereby the tool is pulled over the surface from which paint is to be stripped.

2,841,683
DEVICE FOR IGNITING FUEL
Theodore O. Ogle and Gerald K. Stevens, Burbank, Calif.
Application July 12, 1956, Serial No. 597,472
4 Claims. (Cl. 219—32)



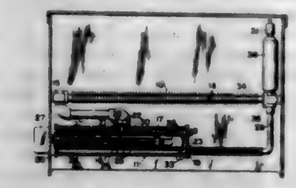
1. The combination of: a brazier adapted to receive a layer of charcoal; said brazier having a bottom pan, side walls extending upwardly from said bottom pan a given height, and a center post axially disposed through said bottom pan and extending upwardly therefrom; and a device for igniting said charcoal, said device having an electrical resistance member shaped to partially encircle said center post and lie substantially flat on said charcoal, whereby said post tends to stably retain said device; an electrical conducting means angularly connected to said electrical resistance member and dimensioned so as to be supported on said side walls and extend upwardly and outwardly therefrom; a thermally insulated handle connected to said conducting means, and electrical terminal means mounted in said handle adapted to connect said conducting means to a source of electrical energy.

2,841,684
APPARATUS FOR BAKING PAINT ON AUTOMOTIVE VEHICLES
William J. Miskella, Cleveland, Ohio
Application June 12, 1956, Serial No. 590,950
8 Claims. (Cl. 219—35)



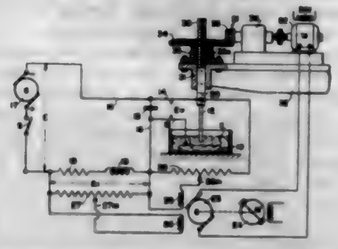
1. Apparatus for use in painting automotive vehicles of different size, comprising, in combination, a paint booth defining a longitudinal vehicle parking space therein, generally straight horizontal track means supported in said booth in an overhead position extending longitudinally over said vehicle parking space, a movable support carriage mounted on said track means for translation therealong, frame means supported on said carriage for translation by the latter, said frame means including two end portions spaced from each other transversely in relation to said track means to extend beyond opposite sides of said vehicle parking space, two traversing heads movably supported on said respective frame end portions for movement toward and away from each other, two generally vertical heater banks suspended by the upper ends thereof from said respective traversing heads and opposing each other across said vehicle parking space, each of said vertical heater banks including infrared heater means thereon oriented to emit heat toward the other vertical heater bank, a horizontally elongated heater bank including infrared heater means oriented to radiate heat perpendicularly therefrom, suspension means supported from said carriage and suspending said horizontally elongated heater bank to extend horizontally between said vertical heater banks, and said suspension means including adjustable means for raising and lowering said horizontally elongated heater bank in relation to said carriage.

2,841,685
RADIATORS
Carl Z. Alexander, Chatham, N. J.
Original application November 15, 1952, Serial No. 320,662, now Patent No. 2,736,790, dated February 28, 1956. Divided and this application February 27, 1956, Serial No. 567,968
3 Claims. (Cl. 219—38)



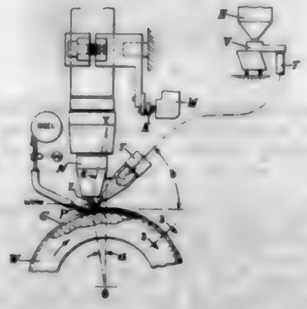
2. A radiator comprising, in combination, a radiating unit for a fluid heat transfer medium, said radiating unit having a plurality of parallel pipes and headers interconnecting adjacent ends of said pipes and having an inlet and an outlet, respectively, a heating unit having an outer housing and an inner housing for the fluid disposed therein below and adjacent said radiating unit, said heating unit having an outlet formed in the top thereof and an inlet formed in the bottom thereof, a pipe connecting the outlet of the heating unit with the inlet of the radiating unit, a separate second pipe connecting the outlet of the radiating unit with the inlet of the heating unit, and electrical heating means within said inner housing of said heating unit for raising the temperature of said heat transfer medium.

2,841,686
AUTOMATIC CONTROL SYSTEM FOR THE ELECTRODE OF A SPARK-CUTTING APPARATUS
Everard M. Williams, Pittsburgh, Pa., assignor, by mesne assignments, to Firth Sterling Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application November 2, 1951, Serial No. 254,566
10 Claims. (Cl. 219—69)



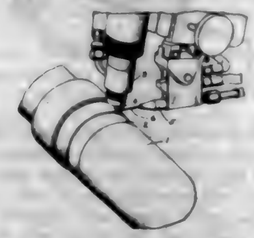
9. In spark-cutting apparatus having an electrode spaced from a workpiece to define a dielectric fluid-filled spark gap therebetween, intermittent spark-providing circuitry including a condenser, a charging circuit for charging the condenser from a direct current source, a discharging circuit connected across the condenser including the electrode and workpiece defining said spark gap, a reversible motor means for moving the electrode relative to the workpiece to adjust the spark gap spacing as the machining proceeds, and means responsive to the difference between a reference direct current voltage and the average voltage across said gap to control the speed and direction of said motor means.

2,841,687
METHOD OF APPLYING HARD-FACING METALS
Kenneth E. Richter, Morristown, N. J., assignor to Union Carbide Corporation, a corporation of New York
Application February 18, 1954, Serial No. 411,184
10 Claims. (Cl. 219—76)



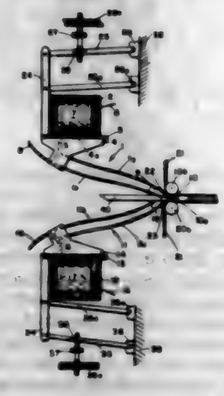
1. Method of hard facing a metal workpiece to form thereon a wear-resistant band, which comprises striking an arc between a non-consumable electrode and the bottom of a premachined groove forming a band matrix to form therein a weld puddle, shielding the arc and weld puddle with a stream containing inert gas, projecting a stream of hard-facing particles through the shielding gas into said weld puddle, progressing the arc, weld puddle, shielding gas and stream of hard-facing particles simultaneously along a line of weld on said metal workpiece, simultaneously oscillating said non-consumable electrode and said stream of hard facing particles transversely with respect to said line of weld to spread the heat of the arc and to distribute said particles uniformly throughout the weld puddle, and feeding low carbon ferrous metal into the leading edge of the weld puddle in said groove to further reduce the tendency to cracking in the band matrix below the bottom of said groove.

2,841,688
METHOD OF APPLYING A COPPER BAND TO A METALLIC SURFACE
Donald R. Andreassen, Waterloo, and Irving Herman, Cedar Falls, Iowa, assignors to Chamberlain Corporation, Waterloo, Iowa, a corporation of Iowa
Application October 25, 1955, Serial No. 542,622
7 Claims. (Cl. 219—76)



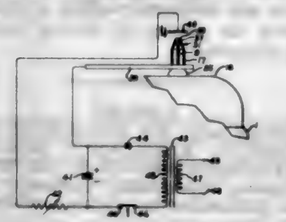
1. The method of applying a seamless copper band to a cylindrical element, including the steps of mounting a cylindrical element for rotation, separately feeding a pair of copper wires at an angle towards each other adjacent the cylinder, energizing one wire as the hot electrode and feeding the other wire into the welding arc to melt the wires and weld the copper to the cylinder while rotating the cylinder, one of said wires being deoxidized copper and the other standard electrical wire.

2,841,689
TUBULAR SPRING WELDING ELECTRODE
Carl A. van Pappelendam, Rivera, Calif., assignor to North American Aviation, Inc.
Application June 5, 1956, Serial No. 589,493
13 Claims. (Cl. 219—78)



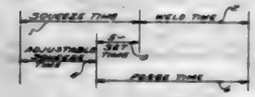
1. A welding electrode comprising an electrode, means to support said electrode, an electrode base secured to said support means, a welding tip, resilient means connecting said electrode base with said welding tip to carry current and cooling fluid to said welding tip and means on said support means to hold said resilient means at a predetermined tension.

2,841,690
CONTACT PIN AND METHOD FOR FLUORESCENT LAMPS
Robert A. Knebler, Cleveland Heights, Ohio, assignor to General Electric Company, a corporation of New York
Application December 28, 1954, Serial No. 477,970
4 Claims. (Cl. 219—100)



1. The method of making a welded connection between a generally tubular metal contact pin and the end of a metal inlead wire which comprises the steps of providing the contact pin with an extended end portion having an outer termination of low thermal mass and defining an opening of restricted diameter and of greater length than the wall thickness of the portion of the pin defining said opening, threading the wire through the bore of the pin, positioning an end of the wire within the said restricted opening, and in back of said outer termination, pressing an electrode against the said low thermal mass termination of the said end portion of the pin and with said electrode and said termination pressed together discharging a charged capacitor through a circuit including said electrode and the low thermal mass termination of said contact pin to first vaporize metal at said termination and then form an arc between said pin and said electrode through said metal vapor while maintaining a spacing between said electrode and the main portion of said pin no larger than the spacing therebetween when said electrode and the said termination of said pin are in contact to melt metal at the said extended end portion of said pin and cause liquified metal to flow into said restricted opening and around the end of the inlead wire therein to melt metal at said wire end and close the said opening with intermingled metal of the contact pin and the inlead wire, and thereafter interrupting said arc to solidify the welded connection between said pin and said wire.

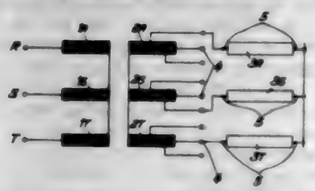
2,841,691
NEGATIVE FORGE TIMING FOR RESISTANCE WELDERS
Stuart C. Rockafellow, Farmington, Mich.
Application June 30, 1955, Serial No. 519,074
3 Claims. (Cl. 219—108)



1. In a process for electrical resistance welding employing the steps of squeezing the welding electrodes together until they exert a substantially constant pressure on the work, passing a welding current through the welding electrodes and performing a forging operation by changing the pressure exerted on, and by, the welding electrodes during the passing of welding current, the preceding steps being of predetermined length and being performed in timed relationship to each other as the re-

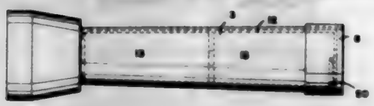
sult of separate timing operations, the improvement in said process comprising the steps: initiating a timing operation for closing and squeezing the electrodes for an adjustable period of time constituting an initial squeeze period; terminating said initial squeeze period after a preselected passage of time and immediately thereafter starting a timing operation for controlling the forging operation and simultaneously starting a timing operation for a final squeeze period of fixed duration; terminating said timing operation for said final fixed squeeze period while continuing said timing operation for controlling the forging operation and thereupon starting a timing operation for controlling the passage of welding current through the welding electrodes.

2,841,692
METHOD OF AND AN APPARATUS FOR THE ELECTRICAL RESISTANCE HEATING OF SEMI-FINISHED METALLIC ARTICLES
Gerhard Seulen, Remscheid, Germany, assignor to Deutsche Edelstahlwerke Aktiengesellschaft, Krefeld, Germany
Application December 21, 1955, Serial No. 554,446
Claims priority, application Germany December 27, 1954
3 Claims. (Cl. 219—156)



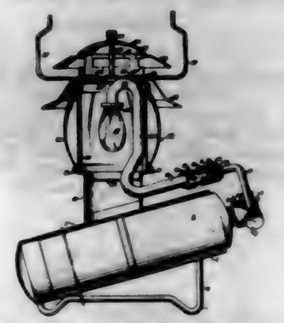
1. Method for the electrical resistance heating of semi-finished metallic workpieces and particularly steel workpieces for preparing said workpieces for an immediately followng hot-working process, which consists in supplying the heating current in at least two phases to workpieces connected in circuit to the different phases at a number of different heating stations corresponding to the number of phases, feeding the workpieces from station to station so that the temperature of each workpiece is raised by the resistance heating stage-by-stage by connection in circuit to first one phase and then another and employing different voltages in the different phases in dependence upon the resistance of the workpieces as affected by the temperatures thereof so that the phases of the supply mains are substantially uniformly loaded.

2,841,693
TAPERED HOUSING AND SLEEVE FOR FLASHLIGHTS
Charlie F. Talbot, Houston, Tex.
Application July 9, 1954, Serial No. 442,249
2 Claims. (Cl. 240—10.66)



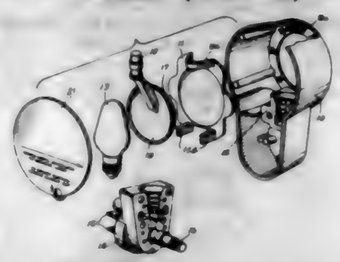
1. In a flashlight, an elongated hollow housing, a battery holder telescoped into said housing, said holder including a sleeve, said sleeve being tapered from a larger diameter at its rear end to a smaller diameter at its front end, an inwardly extending projection on the front end of said sleeve for engaging and supporting a battery, a closure cap for engaging with said housing at the rear end thereof, and a bail means pivotally secured to the rear end of said sleeve whereby it may be moved to inactive position so that said closure cap may enclose it when said cap is engaged with said housing, said bail means movable to active position when said cap is removed so that said sleeve and batteries therein may be removed from said housing.

2,841,694
PORTABLE GAS LANTERN
Milo E. Webster, Rochester, N. Y., assignor to Otto Bernz Co., Inc., Rochester, N. Y., a corporation of New York
Application March 23, 1955, Serial No. 496,157
4 Claims. (Cl. 240—38)



1. A portable gas lantern for use in combination with a liquified fuel gas cylinder, which comprises an inclined receiver for the fuel cylinder having legs attached thereto forming a stable, self-supporting base unit, a transparent lantern globe mounted above said inclined receiver, a tap connection positioned for attachment to a fuel gas cylinder positioned in said receiver, a gas conduit connected to said tap connection extending above said receiver and terminating in the upper portion of said globe, a mantle hanger positioned at the end of said gas conduit in said globe, and regulator valve means positioned for adjusting the quantity of gas flowing through said gas conduit.

2,841,695
ELECTRIC FIXTURE
Arthur R. Bentzen, Providence, R. I., assignor to General Electric Company, a corporation of New York
Application December 13, 1956, Serial No. 628,092
3 Claims. (Cl. 240—73)



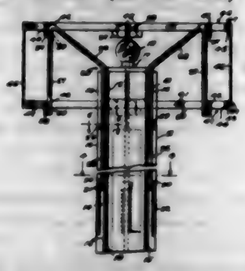
1. An electric fixture comprising a housing with a translucent exteriorly convex face which is concave with respect to the interior of said housing, exterior prongs for making contact with an electric outlet, a lamp socket positioned inside said housing, a switch inside said housing with an exterior manual control, a circuit connecting said lamp socket to said prongs through said switch, and an opaque light shield within said housing, said light shield having a spherical configuration substantially coextensive with the concave portion of said translucent face and an exterior control knob for rotating said shield around its center of curvature to bring its convex surface into contact with the concave surface of said translucent housing face.

2,841,696
LAMP SHADE
Hermann Herrey, New York, N. Y.
Application January 18, 1954, Serial No. 404,429
1 Claim. (Cl. 240—106)



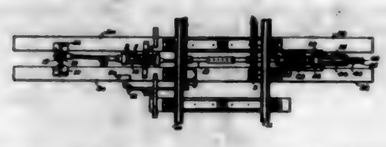
A lamp structure comprising two sheets in contact along at least a portion of their edges and so fixed in position with respect to each other that they face each other with trough-like surfaces in at least one location, said sheets constituting in said location at least in substantial parts the walls of a hollow body of figure eight-shaped elements intersecting at an angle and along a single substantially closed dimensional line of intersection, said sheets frictionally engaging each other at least along substantial parts of said line of intersection with at least one of said sheets being elastically deformed so as to be pressed into frictional engagement against the other of said sheets, said sheets being of substantially identical cylindrical configuration and provided along their edges with teeth interlocking each other so as to be held together against their inherent springiness, one of said sheets having a relatively large center hole and the other of said sheets having a number of relatively small center holes, and a lamp structure supporting the sheet assembly on one of said smaller openings and extending through said assembly and said larger opening to the outside.

2,841,697
LAMP WITH ADJUSTABLE LAMP SHADE SECTIONS
Robert C. Smith, Denver, Colo.
Application March 29, 1957, Serial No. 649,398
8 Claims. (Cl. 240—103)



1. An adjustable lamp of the character described comprising a lamp standard and a lamp shade, said lamp shade comprising a plurality of lamp shade sectors each including a frame sector and a panel sector supported by and disposed around the frame sector thereof, each lamp shade sector including a supporting rod connected to and supporting the frame sector thereof, said lamp standard having guide means slidably receiving complementary portions of the supporting rods for slidably supporting the lamp shade sectors relative to the lamp standard, and latch means carried by said rod portions and releasably engaging portions of the lamp standard for adjustably supporting said rod portions individually relative to the lamp standard for adjustably supporting the lamp shade sectors relative to the lamp standard and to one another.

2,841,698
RAILWAY SWITCH LOCK
Edward J. Kromholz, Rockford, Ill.
Application May 6, 1954, Serial No. 427,993
10 Claims. (Cl. 246—160)

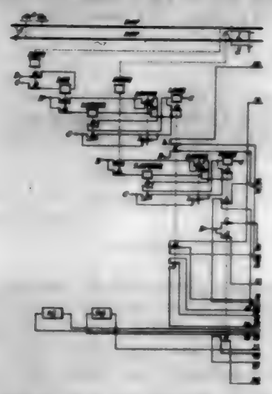


1. In an automatic switch lock for railroads, comprising a throw-bar connected with the switch members to be locked, and spring pressed switch operating mechanism connected with one end thereof and functioning normally to close said switch members, the improvement which consists in the provision of automatically operable switch locking mechanism for selectively locking said switch members in either closed or open position comprising a keeper bar which is a direct extension of the throw-bar and has longitudinally spaced V-notches provided in opposite sides thereof, a pair of opposed elongated latch members each pivoted at one end on a stationary support for releasably locking said keeper bar and each having a V-tooth projecting inwardly from the free end arranged to engage in a V-notch and said latch members having cam surfaces defined on their outer longitudinal edge portions intermediate their ends in diverging relationship to one another, said keeper bar being reciprocable relative to said support between said latch members, over-center spring means connected to and compressible and expansible between said keeper bar and said latch members tending normally to urge said latch members toward retracted position relative to said keeper bar and to urge the keeper bar toward an extreme position when said means is moved either way past deadcenter by said keeper bar, a yoke having follower means arranged to engage said cam surfaces to confine the latch members in locking position movable relative to said latch members from their pivoted ends on a line substantially bisecting the angle defined between the cam surfaces on said latch members toward their free ends to force the latch members inwardly toward each other with cam action into locked position with their V-teeth firmly wedgingly engaged in the notches, spring means for retracting said yoke, and electrical means for operating said yoke in the locking direction controlled by the passage of cars over the switch, whereby the keeper bar is held in locked position during the passage of cars over said switch.

2,841,699
RAILWAY SIGNALING FOR INTERSECTING TRACKS
Ralph R. Kemmerer, Swissvale, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application December 23, 1955, Serial No. 554,953
5 Claims. (Cl. 246—161)

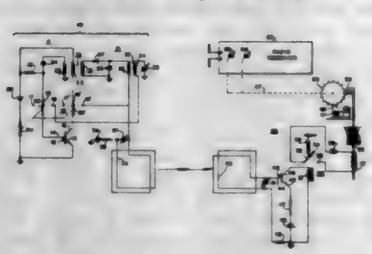
1. Control apparatus for railway signaling comprising a track section, a track relay associated with said track section and normally energized during non-occupancy of said section, a track relay repeater stick relay, a thermal relay, a thermal repeater relay, first circuit means for energizing said track relay repeater stick relay over a front contact of the track relay, a front contact of the thermal relay, and a front contact of the thermal repeater relay, and means for energizing said thermal relay and said thermal repeater relay over a back contact of said

thermal relay connected in parallel with a front contact of said thermal repeater relay so that said thermal relay



must be energized without interruption over a full heating period before completing said first circuit means.

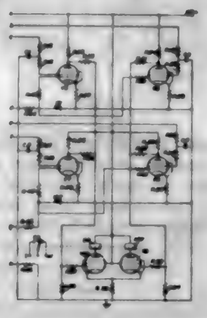
2,841,700
REMOTE-CONTROL APPARATUS
Frederick C. Halldea, Floral Park, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application April 4, 1957, Serial No. 650,650
15 Claims. (Cl. 250—2)



1. A remote-control apparatus comprising: an oscillator including a transistor having emitter, base, and collector electrodes, a selector switch, and means including a source of a small voltage which in one position of said switch applies to said electrodes operating biases effective to establish oscillations at a low power level; an energy-storage device and a charging circuit therefor coupled to said oscillator for charging said device to a voltage considerably greater than said small voltage; and a radio-frequency power oscillator including said transistor, said device, and said switch which in another position thereof connects said greater voltage in circuit with said electrodes for applying thereto operating biases effective to establish oscillations at a high power level.

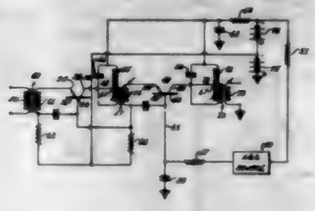
2,841,701
DIVERSITY RADIO TELEGRAPH SYSTEM
Victor John Terry, Thomas Frederick Stanley Hargreaves, and Hector Thomas Prior, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application May 27, 1953, Serial No. 357,738
Claims priority, application Great Britain June 17, 1952
2 Claims. (Cl. 250—20)

1. Diversity receiving system for frequency-shift telegraph signals comprising means for separately receiving signals transmitted over a plurality of different paths, a plurality of pairs of thermionic amplifier valves, one pair for each path, each valve comprising at least cathode, control grid and anode electrodes, means for separately deriving from said pairs of valves voltage waves representative of the frequency modulations of the received signals, means for directly adding said derived voltage waves to produce a resultant voltage wave, means for applying to the control grids of that pair of valves which is associated with the path over which signals are weaker a voltage dependent on the amplitude of the weaker sig-



nals, means for applying to the cathodes of said last-mentioned pair of valves a voltage which is dependent on the amplitude of the stronger signals, rectifier decoupling means connected between said control grids and cathodes and so poled as to permit said control grid potentials to fall below the cathode potentials by an amount which is sufficient to prevent conduction through said valves, and an output relay device responsive to said resultant voltage wave.

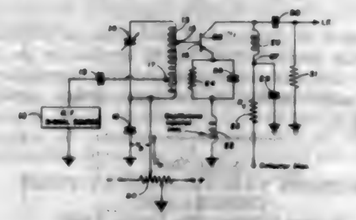
2,841,702
SEMI-CONDUCTOR AUTOMATIC GAIN CONTROL SYSTEM
Loy E. Barton, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 24, 1953, Serial No. 370,129
12 Claims. (Cl. 250—20)



1. In a signal receiver, the combination comprising, signal detection means including a semi-conductor device having a semi-conductive body and an emitter, a base, and a collector electrode in contact therewith, said semi-conductor device having a characteristic wherein potential variations of said collector electrode are proportional to variations in the amplitude of an applied alternating current signal, a first and second signal amplifying device each having a semi-conductive body, and a common, an input, and an output electrode in contact therewith, means coupling the output electrode of said first device with the input electrode of said second device, means coupling the output electrode of said second device with said base electrode, biasing means for each of said electrodes including means wherein the input electrode current of said second device is operative to bias the common electrode of said second device, and conductive circuit means coupled between said collector electrode and the common electrode of said second device wherein the potential variations of said collector electrode are applied to the common electrode of said second device to vary

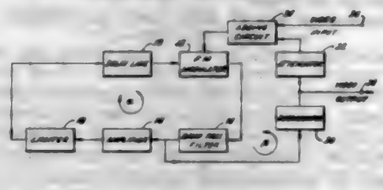
the gain and the input electrode current of said second device thereby to vary the gain of said first device, the gain of said first device being thereby decreased more rapidly than the gain of said second device.

2,841,703
TRANSISTOR MIXER CIRCUIT WITH GAIN CONTROL
Calvin C. Bopp and Richard W. Bradmiller, Cincinnati, Ohio, assignors to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware
Application January 10, 1956, Serial No. 558,366
2 Claims. (Cl. 250—20)



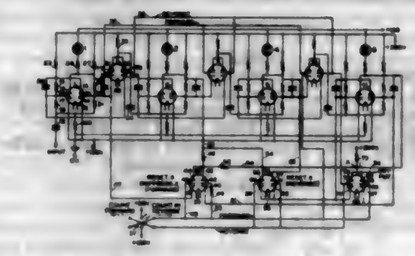
1. A transistor mixer circuit comprising a transistor having base and emitter and collector elements arranged in a common-emitter configuration, means for applying radio frequency carrier signals to said base, means in circuit with said emitter for injecting locally produced oscillations, automatic gain contrbl voltage supply means for biasing the diode formed by the base and emitter in a forward direction to provide an emitter current gain control effect, said means being so proportioned that the mixer circuit operates on the forward-bias portion of a curve plotted on a framework of Cartesian coordinates with base voltages as abscissae and gain values as ordinates, gain decreasing with increase in input signal and emitter current and resultant increase in said biasing, a source of reverse collector bias voltage, and a collector load resistor connected in series between said collector and said source, for producing a supplemental collector voltage gain control effect, said source and resistor being so proportioned that the mixer circuit operates on the corresponding portion of a curve plotted on a framework of Cartesian coordinates with collector voltages as abscissae and gain values as ordinates, gain decreasing with increase in input signal, whereby the change of gain produced by the first gain control effect is supplemented by the change of gain produced by the second gain control effect, said portions being inclined in the same general directions on their frameworks of coordinates, so that the two gain control effects are cooperative and mutually supplemental.

2,841,704
SIGNAL INTEGRATING SYSTEM
David E. Sunstein, Bala-Cynwyd, William Ussler, Jr., Philadelphia, and Allen C. Munster, Hatboro, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application April 9, 1952, Serial No. 281,414
21 Claims. (Cl. 250—27)



1. A sweep integrator system comprising a recirculating signal loop including a delay means and having an over-all gain of unity, said system including means for causing a signal at a substantially constant frequency to be circulated in said loop, means for causing a shift in the frequency of said recirculating signal dependent upon an instantaneous characteristic of the signal to be integrated, a degenerative auxiliary loop coupled to said recirculating loop, said degenerative loop causing the effective intelligence feedback factor of said recirculating signal loop to have a value less than unity, and means for deriving an output signal from said recirculating signal loop.

2,841,705
REVERSIBLE ELECTRONIC DECADE COUNTER
Nathan A. Moerman, Roslyn, N. Y.
Application May 29, 1953, Serial No. 358,327
1 Claim. (Cl. 250—27)



In an electronic counter for counting forward for one mode of operation and for counting in reverse for another mode of operation, the combination of, four bi-stable binary counting thermionic triode vacuum tube trigger stages each capable of assuming alternate "on" and "off" conditions in response to applied pulses, thermionic triode vacuum tube couplings connected between the first and second, the second and third and the third and fourth stages for reversing a given stage in response to the going "off" of the stage preceding said given stage for counting in a forward direction, a thermionic triode vacuum tube for resetting the fourth stage and for preventing the second stage from reversing upon application of an input pulse when the first and fourth stages are "on" for converting from binary to decimal counting in counting in the forward direction, additional thermionic triode vacuum tube couplings connected between the first and second, the second and third and the third and fourth stages for reversing a given stage in response to the going "on" of the stage preceding said given stage for counting in the reverse direction, and a thermionic triode vacuum tube for resetting the second and third stages upon application of an input pulse when all the stages are "on" for converting from binary to decimal counting in the reverse counting direction.

2,841,706
TRANSFORMER COUPLED CATHODE FOLLOWER
Robert C. Kuentzer and David J. Crawford, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application March 16, 1954, Serial No. 416,572
6 Claims. (Cl. 250—27)

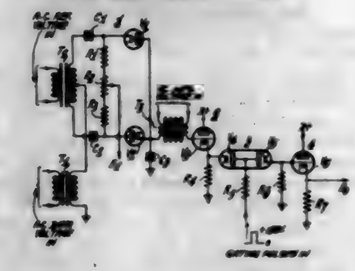
1. An electronic circuit of the cathode follower type adapted to transfer an input signal to a capacitive load with minimum distortion to the waveform of said signal, comprising, in combination, a vacuum tube having a plurality of electrodes including at least an anode, a cathode and a control grid, an input signal source connected to said control grid, a circuit connected to said anode and said cathode respectively, a transformer having a primary and secondary winding, said primary winding being connected in said anode circuit, said secondary

winding being connected in said cathode circuit, said primary and secondary windings of said transformer being so polarized that signals induced in said cathode



circuit during transfer of said input pulse vary in the same sense as said input signal, said cathode circuit further including a plurality of unidirectional circuits and means for connecting a capacitive load to said cathode.

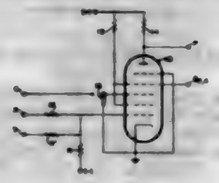
2,841,707
INFORMATION HANDLING SYSTEM
James M. McCalley, Barrington, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 19, 1954, Serial No. 424,682
The terminal fifteen years of the term of the patent to be granted has been disclaimed
6 Claims. (Cl. 250—27)



1. In an information sampling system, a phase-sensitive detector, means for supplying to said detector a reference voltage of predetermined frequency, means for supplying to said detector an information voltage of said predetermined frequency but of variable phase dependent upon said information, said detector operating to produce a direct current voltage output depending upon the phase of said information voltage relative to said reference voltage, means for superimposing an alternating current information voltage on the direct current voltage output of said detector to produce a resultant voltage, an output circuit, a voltage-responsive electronic switch constructed and arranged when closed to couple said resultant voltage to said output circuit, and means for supplying a voltage to said switch to close the same.

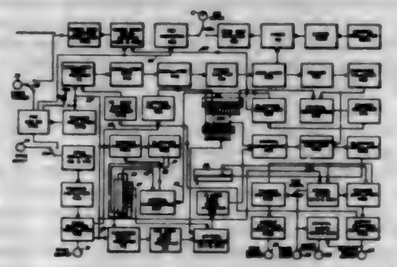
2,841,708
ELECTRONIC LOGICAL CIRCUITS
Leonard R. Harper, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application March 3, 1955, Serial No. 491,970
13 Claims. (Cl. 250—27)

1. An electronic logical circuit comprising: a pentagrid vacuum tube having its cathode and fifth grid connected together and to a point of predetermined potential; a first load impedance; means coupling the second and fourth grids of said tube together and, through said first load impedance, to a source of positive potential; a second load impedance coupling the plate of said tube to a source of positive potential; bias means for normally biasing the first grid of said tube beyond cut-off including third, fourth, and fifth impedances, each having one terminal connected to said first grid; and, a source of input pulses connected to the third grid of said tube; whereby an output is produced at said second and fourth grids in response to positive input signals applied to the other terminal of either or both of said fourth and fifth impedances,



and an output is produced at said plate in response to an individual positive input signal applied to the other terminal of either of said fourth and fifth impedances but not both, under control of the input pulses applied to said third grid.

2,841,709
PRECISION VARIABLE-DELAY PULSE GENERATOR
Robert J. Price, San Diego, Calif.
Application April 4, 1955, Serial No. 499,257
10 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)

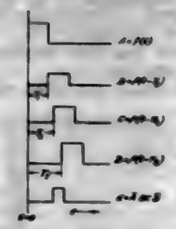


7. A device of the class described comprising means for generating a reference pulse, means responsive to said pulse for generating a first train of pulses of first order spacing, frequency divider means responsive to said train for generating a second train of pulses spaced apart a second order of multiples of said first order spacing, means for deriving a second order synchronizing pulse train from said divider means, means responsive to said synchronizing train for producing a third train of pulses spaced apart a third order of multiples of said first order spacing, means responsive to said second and third trains for selecting a pulse of said first train, and means for selectively and independently delaying said second and third train in time increments of first and second order respectively.

2,841,710
METHOD AND MEANS FOR PULSE WIDTH DISCRIMINATION
Frederick W. Marschall, Rome, N. Y., assignor to the United States of America as represented by the Secretary of the Air Force
Application July 17, 1956, Serial No. 598,485
6 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)

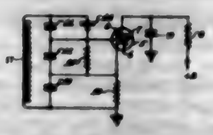
1. A receiving system for recognizing a signal pulse of predetermined time duration having maximum and minimum limits, comprising an input channel for receiving an input signal pulse, means for deriving from said input signal a series of delayed signals, each time-spaced from the others by predetermined amounts, means for combining said input signal and one of said delayed signals, means for inverting said combined signal, and output

means responsive to the output signal from said inverting means and the other of said delayed signals for providing



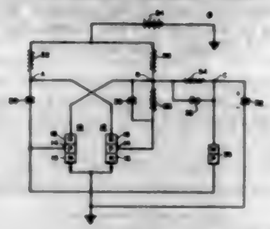
a signal when said input pulse is of said predetermined time duration.

2,841,711
OSCILLATION GENERATOR
Winfield R. Koch, Manton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application September 23, 1953, Serial No. 381,902
7 Claims. (Cl. 250—36)



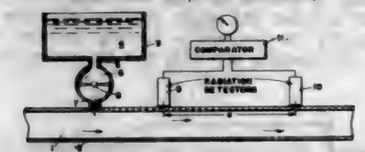
1. An oscillation generator comprising an amplification device having at least three electrodes, a tank circuit for said oscillation generator having inductance and capacity for determining the frequency of oscillations generated, means for connecting at least two of the electrodes of said amplifying device across a relatively small portion of said tank circuit whereby changes in the operational characteristics of said device have a very small effect on the frequency of resonance of said tank circuit, means providing connections between the electrodes of said amplification device whereby oscillations are regeneratively set up at a frequency determined by the resonant characteristics of said tank circuit, means for deriving a negative control potential in response to oscillations in said tank circuit, and means for applying said negative potential to the amplifying device for controlling the amplitude of oscillations of said generator.

2,841,712
TRANSISTOR SWEEP GENERATOR
Henri H. Hoge and Douglas L. Spotten, Baltimore, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 27, 1956, Serial No. 567,887
7 Claims. (Cl. 250—36)



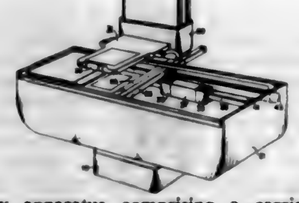
7. In a sweep generator, first and second transistors each having an emitter, a collector and a base, means interconnecting the emitters of said transistors, circuit means including a capacitor coupling the interconnected emitters to the collector of one of said transistors, and a Zener-type diode connecting one side of said capacitor to the base of the other of said transistor.

2,841,713
RADIATION TYPE FLOWMETER
Donald F. Howard, North Long Beach, Calif., assignor to North American Aviation, Inc.
Application January 4, 1954, Serial No. 401,869
12 Claims. (Cl. 250—43.5)



11. A radiation-type flowmeter adapted to continuously detect the rate of flow of a fluid stream comprising a tracer fluid having a stable nuclide characterized by being easily converted into a short half-life radionuclide, said radionuclide being characterized by having a detectable variation in the degree of decay of radiations over the approximate period of time required for said fluid stream to flow a predetermined distance; means for continuously injecting said tracer fluid into said fluid stream; means for artificially converting at a predetermined rate said stable nuclide of said tracer fluid into said short half-life radionuclide at a point just prior to injection into said fluid stream; and means for detecting the radioactive decay of said radionuclide in said tracer fluid while flowing said predetermined distance in said fluid stream whereby the output of said decay determining means is a predetermining function of said rate of flow.

2,841,714
X-RAY APPARATUS
Everett W. Vaughn, Ellicott City, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 11, 1953, Serial No. 353,996
23 Claims. (Cl. 250—57)

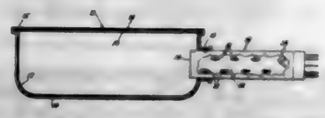


1. X-ray apparatus comprising a carriage, support means for said carriage, a linear motor comprising a stator and a recor, means for fixing said recor to said carriage support means, a counterweight system attached to said carriage and including said stator as a part of the mass of said system, a switch operator handle, support means for said handle, means mechanically connecting said handle support means to said carriage for limited movement of said handle relative thereto, so that said carriage may be moved by manual force applied to said handle, switch means electrically connected to said motor, said switch means being mechanically linked to said handle for actuation in response to movement of said handle relative to said carriage and operative to energize said motor to apply a force in the same direction as that of the manual force applied to said operator handle.

2,841,715
RADIATION DETECTION DEVICE
Warner W. Schultz, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application October 2, 1953, Serial No. 383,732
2 Claims. (Cl. 250—71)

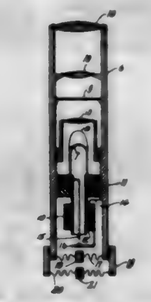
1. A scintillation type radiation detection device comprising a fluorescent member having an area which is

sufficient in extent to cover a wide surface area of an object to be monitored and which gives off light flashes throughout said area having an intensity proportional to the amount of radiant energy received from said object, a single photoelectric device having a photosensitive element which is smaller in area than said area of said fluorescent member and which produces electrons when light impinges thereon, and a housing member having therein a first opening in which said fluorescent member



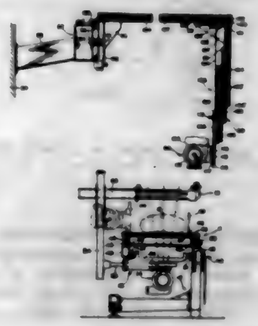
is disposed and a second opening therein remotely located relative to portions of said fluorescent member in said first opening and in which said photosensitive member of said photoelectric device is disposed, said housing member having a light reflective surface on its entire inner area which connects said openings, whereby said device provides in relatively short periods of time a single accurate indication of the total radioactive contamination of said wide surface area of said object being monitored.

2,841,716
DOSIMETER
Theodore A. Rich, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application December 16, 1954, Serial No. 475,607
11 Claims. (Cl. 250—83.3)



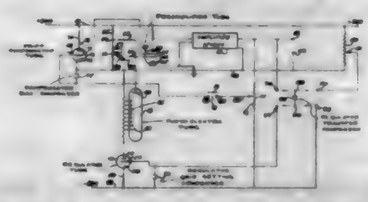
11. A dosimeter comprising, fiber means, sealed tube means enclosing said fiber means in a first ion chamber and forming therewith a first capacitor adapted to be electrostatically charged and to be substantially discharged by a small amount of radiation impinging thereupon, said fiber means indicating by its position the extent of said discharge, said tube means having therein a second ion chamber within which is a large second capacitor having one end connected to said tube means, said second ion chamber thereby being adapted to be electrostatically charged and to be substantially discharged by a large amount of radiation, switch means for selectively connecting said first and second capacitor in parallel with one another, said switch means comprising a flexible conductor connected to the other end of said second capacitor and selectively adapted to contact said fiber means, said fiber means being supported from an insulator within said tube means and having an extension in juxtaposition the contact portion of said flexible conductor, and means included within said tube for optically magnifying any movement of said fiber means so as to make the movement more readily visible.

2,841,717
X-RAY APPARATUS
Arthur J. Kluser, Wauwatosa, Wis., assignor to General Electric Company, a corporation of New York
Original application November 16, 1951, Serial No. 256,891. Divided and this application August 19, 1952, Serial No. 305,105
5 Claims. (Cl. 250—91)



3. An adjustable support structure for a ray source comprising an elongated horizontally extending beam member, a carrier frame movable horizontally on and longitudinally of said beam member, a cantilever beam mounted on said carrier frame in position extending outwardly of said beam member, a carriage supported on and movable longitudinally of said cantilever beam, toward and away from said beam member, a series of telescopically interfitting frames each mounted on and adjustable longitudinally of the next adjacent frame of the series, one of said interfitting frames comprising a supported end frame of the series, the same being secured on said carriage in position depending therefrom, mounting means for mounting the ray source on another of said interfitting frames forming a supporting end frame of the series, weight counterbalancing traction means, a cable connected at one end on said beam member at an end thereof, the other end of the cable being connected with said traction means at the opposite end of said beam member, the intermediate portions of said cable being supported on guide rollers mounted on said carrier frame and said supporting end frame, whereby to counterbalance the movable mass of the supported ray source on said beam member, and means for counterbalancing the movable mass of certain of said telescopically interfitting frames each upon the next adjacent frame of the series.

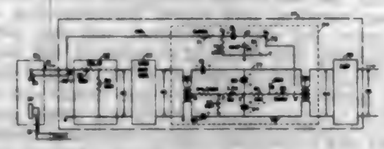
2,841,718
COMPENSATION FOR TWO POINT REGULATED AMPLIFIER
Michael C. Hoover, Grand Rapids, Mich., assignor to Mandrel Industries, Inc., a corporation of Michigan
Application November 1, 1954, Serial No. 465,824
8 Claims. (Cl. 250—214)



1. A compensated control circuit for a photo-electric sorter comprising in combination an amplifier drift compensation tube having a cathode, an anode and a control electrode, a pre-amplifier tube having a cathode, an anode and first and second control electrodes, an electron

multiplier type photo-electric tube having a cathode and dynodes and having an anode connected to the first control electrode of the pre-amplifier tube, the drift compensation tube anode being connected to the second control electrode, means connected to the output of the pre-amplifier tube to give a response in accordance with light intensity to which the photo-electric tube is subjected, having an output terminal, a regulator tube having a cathode and a control electrode and having an anode connected to the photoelectric tube cathode for controlling the interelectrode voltage of said photo-electric tube, an amplifier drift compensation voltage divider coupled to said output terminal, a transfer condenser, a regulator reference voltage source to which the condenser is adapted to be connected, means for momentarily transferring the condenser to connection between the output terminal and the control electrode of the regulator tube to compensate for aging, means for elevating the potential of the first control electrode of the pre-amplifier and, thereafter, while said grid potential is still elevated connecting the drift compensation voltage divider to the control-electrode of the drift compensation tube for readjusting the potential of the second control electrode of said pre-amplifier for compensating the amplifier for drift.

2,841,719
DIODE GATE AND ITS CONTROL CIRCUIT
Arthur J. Radcliffe, Jr., La Grange, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application January 26, 1955, Serial No. 484,116
4 Claims. (Cl. 307—88.5)



1. In combination, a source of alternating-current signals, an output circuit path, a two-wire balanced-to-ground link for coupling the source of alternating-current signals to the output circuit path, balanced diode gate means in said link, a simplex circuit in the link for controlling the gate means, a control diode, a signal source of variable potential direct current coupled to a first electrode of the control diode comprising first signals of one polarity and potential and second signals of a substantially lower potential, a storage condenser coupled to a second electrode of the control diode and to the link, the control diode being conducting when the first electrode is at a lower potential of said one polarity than the second electrode, a path of relatively high resistance from the second electrode to a source of fixed potential direct-current of said one polarity in the simplex circuit for charging the condenser while said first signals appear at the first electrode, a path of lower resistance through the control diode for discharging the condenser while said second signals appear at the first electrode, means responsive to the condenser charging to a given potential of said one polarity for biasing the diode gate to block the alternating-current signals, and means responsive to the discharge of the condenser to a substantially lower potential for biasing the diode gate to pass the alternating-current signals.

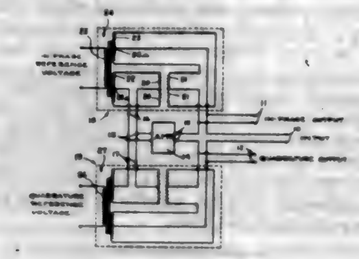
2,841,720
FUNCTION SHAPING NETWORK
Jacob Tellerman, Brooklyn, N. Y., assignor to American Bosch Arma Corporation
Application February 8, 1954, Serial No. 408,900
12 Claims. (Cl. 307—107)

1. In a device of the character described, a pair of input terminals, an alternating input signal applied to said terminals, a network containing a reference voltage, a rectifier and an output element connected in series with the input terminals, said rectifier being biased by the reference voltage to be non-conductive for input signals



below a certain value and conductive for greater input signals, the current in the output resembling a half wave rectified signal and said reference voltage being a periodic unidirectional voltage of twice the frequency of the input signal and comprising sinusoidal half cycles.

2,841,721
DISCRIMINATOR
Paul H. Savet, Westbury, N. Y., assignor to American Bosch Arma Corporation, a corporation of New York
Continuation of application Serial No. 337,483, February 18, 1953. This application October 2, 1956, Serial No. 613,544
2 Claims. (Cl. 307—149)

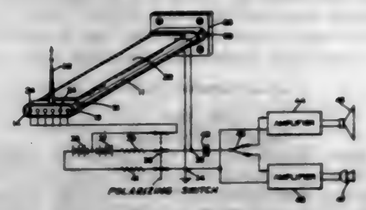


1. In a device of the character described, an electrical signal source producing an electrical signal containing an inphase component and a quadrature component, an amplifier having an input and an output, a first pair of series connected heating resistors and a first pair of series connected heated resistors in close thermal contact but electrically isolated from each other, a source of inphase reference voltages connected to energize each of said first pairs of resistors equally, a second pair of series connected heating resistors and a second pair of series connected heated resistors in close thermal contact but electrically isolated from each other, a source of quadrature phase reference voltages connected to energize equally each of said second pair of heating resistors, electrical connections between the output of said amplifier and said first and second pairs of heating resistors whereby the heating resistors are unbalanced according to a portion of said amplifier output, electrical connections between the input of said amplifier, said electrical signal source and each of said first and second pairs of heated resistors.

2,841,722
BENDING-RESPONSIVE ELECTROMECHANICAL TRANSDUCER DEVICE
Charles K. Gravley, Lakewood, Ohio, assignor, by mesne assignments, to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application March 18, 1953, Serial No. 343,054
20 Claims. (Cl. 310—8.5)

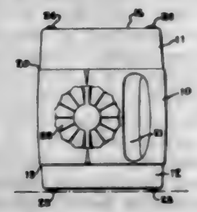
1. A bending-responsive electromechanical transducer device, comprising: a polycrystalline body of electromechanically sensitive dielectric material having two spaced thickness portions, generally parallel to each other and each of substantial thickness, joined into one body

by at least three laterally separated masses of such material connecting said two thickness portions, said body being formed with said connecting masses from a comminuted ceramic raw material and ceramically bonded throughout so as to be mechanically non-composite; electrodes disposed individually on each outer surface of said two thickness portions and on exposed portions of the inner surfaces thereof not replaced by said laterally separated connecting masses, said electrodes being adapted to carry unidirectional electric potentials corresponding to polarizing fields directed in opposite thickness directions in said two thickness portions, and said electrodes on said outer surfaces being adapted to carry electric signal po-



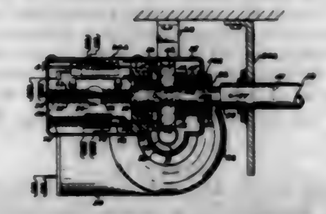
tentials corresponding to electric signal fields directed at a given instant in the same thickness direction in said two thickness portions; and mechanical means coupled to said body so that motion of said means is associated with bending of outer surface elements of said body, said bending involving at a given instant lateral contraction and expansion respectively of one and the other of said two thickness portions as constrained by said connecting masses, and said contraction and expansion being electromechanically coupled with said electric signal fields when said electromechanically sensitive material is conditioned by said oppositely directed polarizing fields in said two thickness portions of said body.

2,841,723
MOTOR UNIT FOR CULINARY APPLIANCES
Joseph R. Corbett and Lindol H. Sprague, Cincinnati, Ohio; said Sprague assignor to said Corbett
Application February 10, 1954, Serial No. 409,372
1 Claim. (Cl. 310—50)



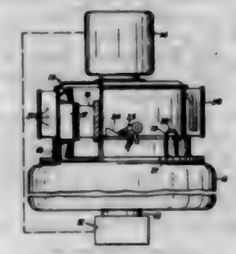
A housing for an electric motor adapted to be used as a source of power to drive culinary appliances, said housing comprising a casing, a pair of end bells secured respectively to the opposite ends of said casing, said casing and end bells being substantially triangular as viewed from an end to provide three side faces of substantially the same size, each of said end bells having an outer face which is flat and which is in a plane normal to the central axis of the housing, a recess centered in each of the outer faces of the end bells, a high speed power take-off coupler disposed within one of said recesses in a position to be accessible to a mating coupler of a culinary appliance, a low speed power take-off coupler disposed within the other recess in a position to be accessible to a mating coupler of a culinary appliance, an elongated slot extending through the housing adjacent to one of the three longitudinal side edges thereof to provide a handle by means of which the housing may be grasped, and a control knob for adjusting the speed of the motor mounted upon one of the faces of the housing adjacent to the handle, whereby said housing may be stood on one end bell to expose the high speed power take-off, or the housing may be stood on the other end bell to expose the low speed power take-off, or the housing may be laid down upon the face opposite to the handle to expose both power take-offs and in all three of said positions the control knob is readily accessible for manipulation thereof.

2,841,724
MOUNTING FOR GARAGE DOOR UNIT
Steffen S. Brown, Dayton, Ohio, assignor to The Brown-Breckmeyer Company, Dayton, Ohio, a corporation of Ohio
Application April 27, 1954, Serial No. 425,853
4 Claims. (Cl. 310—76)



1. In a motor-control device, a reversible electric motor having a casing, a gear box housing secured to one end of said casing, a countershaft journaled in said gear box housing, one end of said countershaft being adapted for driving purposes, gear means interconnecting said electric motor and said countershaft, said gear means loosely engaging said countershaft whereby said motor is rotatable when said countershaft is stationary, a clutch assembly drivingly engaging said gear means and said countershaft, means engageable with said clutch assembly to lock said countershaft against rotation in response to de-energization of said motor, limit switch means associated with the other end of said countershaft to control movement of said electric motor, and said clutch assembly, said gear means, and said switch means being located in said gear box housing.

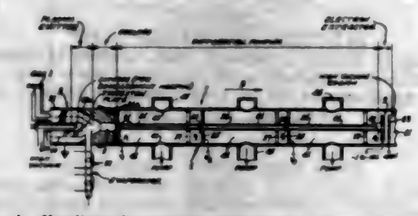
2,841,725
ELECTRIC GENERATING EQUIPMENT
Harold Edward Cameron Clapham, Edinburgh, Scotland, assignor to Bruce Peebles & Company Limited, Edinburgh, Scotland, a British company
Application May 4, 1954, Serial No. 582,753
8 Claims. (Cl. 310—112)



1. Electric generating plant which comprises a main generator whose rotor is mounted on a shaft having two ends one of which is driven and the other of which is coupled to a further rotary device, an auxiliary generator having a rotor mounted on the main generator shaft coaxially therewith between its ends and a stator coaxially surrounding the main shaft between its ends, the auxiliary generator having output terminals for delivering an

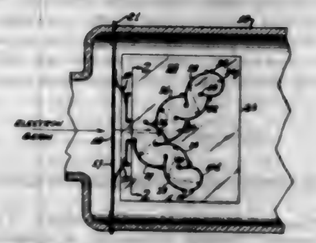
auxiliary electric supply, and the stator of the auxiliary generator being pivotally mounted for angular movement relatively to the stator of the main generator about the axis of the shaft in response to the load torque between the stator and rotor of the auxiliary generator, and resilient restraining means acting on the stator of the auxiliary generator and tending to resist its relative angular movement in the direction corresponding to the load torque and to move it in the opposite direction, under-speed and over-speed protective means associated with the main generator, and operating means mounted between the ends of the main shaft and actuated in response to the said relative angular movement of the auxiliary stator, the said operating means when so actuated operating the under-speed and over-speed protective means.

2,841,726
APPARATUS FOR PRODUCING THERMALLY-COOL CHARGED PARTICLES
Ronald C. Knechtli, Cranbury, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application June 25, 1957, Serial No. 667,943
9 Claims. (Cl. 313—7)



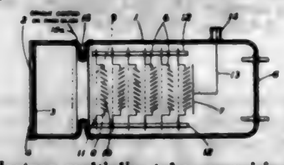
1. A distributed pumping apparatus, for reducing the gas pressure along a constricted passageway between two regions, comprising elongated tubular means constituting said passageway, said means being provided with a multiplicity of apertures therethrough distributed around and along the length thereof, wall means forming at least one annular pumping chamber surrounding said tubular means, and means for evacuating said pumping chamber, whereby the gas pressure in said tubular means is progressively reduced along its length by evacuation through said apertures.

2,841,727
QUANTIZING TUBE
Arthur S. Jensen, Princeton, and George W. Gray, Lambertville, N. J., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application January 26, 1955, Serial No. 484,174
1 Claim. (Cl. 313—68)



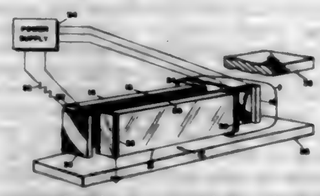
A quantizing tube comprising, an evacuated envelope including means to generate an electron beam, means to deflect said beam along a line, an apertured dynode having solid portions and apertures located along said line, a second dynode positioned to be struck by electrons of said beam which pass thru said apertures, a first series of electron multiplier dynodes arranged to amplify the secondary emission from said solid portions, a first plurality of collector electrodes each corresponding with one of said solid portions and positioned to collect electrons from the last of said first series of multiplier dynodes, a second series of electron multiplier dynodes arranged to amplify the secondary emission from said second dynode, a second plurality of collector electrodes each corresponding with one of the apertures in said apertured dynode and positioned to collect electrons from said second series of electron multiplier dynodes, and a conductive shield positioned between said deflecting means and said dynodes, said shield being provided with a slit in alignment with said line.

2,841,728
ELECTRON MULTIPLIERS
James Dwyer McGee, Ealing, London, England, assignor to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain
Application March 25, 1952, Serial No. 278,347
Claims priority, application Great Britain March 27, 1951
5 Claims. (Cl. 313—95)



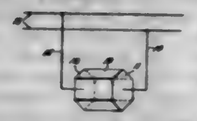
1. An electron multiplier tube comprising an evacuated envelope, a photoelectric cathode therein, a plurality of dynode electrodes mounted in said envelope on a plurality of light transmitting insulating rods having ends facing said cathode, and an anode for collecting the electrons emitted by said dynodes, said envelope having a substantial portion of its body lying between said cathode and said rod ends composed of light transmitting glass, and having an annular light attenuating portion forming an internal projection extending towards the axis of the envelope and disposed between the cathode and said ends of said rods.

2,841,729
MAGNETIC ELECTRON MULTIPLIER
William C. Wiley, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application September 1, 1955, Serial No. 531,878
4 Claims. (Cl. 313—104)



1. A magnetic electron multiplier, including, a first plate, a second plate disposed a particular distance from the first plate in substantially parallel relationship to the plate to define a first region between the first and second plates, means for producing a uniform voltage drop across the first plate, means for producing a uniform voltage drop across the second plate at a potential relative to the voltage drop across the first plate to provide in the first region an electric field having a component in a direction substantially perpendicular to the plates, and means for providing a magnetic field in the first region in a direction perpendicular to the electric field and parallel to the plates.

2,841,730
SINGLE CRYSTAL ELECTROLUMINESCENCE
William W. Piper, Glenville, N. Y., assignor to General Electric Company, a corporation of New York
Application December 5, 1955, Serial No. 550,992
9 Claims. (Cl. 313—108)



1. An electroluminescent cell comprising a single crystal consisting essentially of an activated phosphor material selected from the group consisting of zinc sulfide, zinc selenide, cadmium sulfide, cadmium selenide and mixtures thereof, and a pair of electrodes on oppositely disposed surfaces of said crystal.

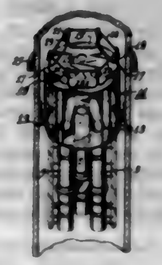
2,841,731
ARC TUBE CATHODE CONSTRUCTION
Beatrice Pearson De Lany, Miami Beach, Fla., and Paul L. Copeland, Chicago, Ill.
Application January 21, 1954, Serial No. 405,414
3 Claims. (Cl. 313—173)



1. In combination in an electrical discharge tube comprising an air tight envelope formed of insulating material; a pool of metal therein which is in liquid form at normal operating temperatures, said pool comprising a cathode member, an anode positioned within said envelope and spaced away from said cathode; and electrical connections to said anode and said cathode from points outside of said envelope; and restriction means for concentrating the electron action of the anode upon a limited portion of the cathode pool area, said means comprising a member formed of insulating material positioned within said envelope and provided with a closed top and an open bottom, said open bottom being in contact with said metal pool; a portion of the interior of said restriction being provided with a conductive surface, spaced away from said metal pool, and a resistance connecting member positioned on the inner face of said restriction and in contact with said conductive surface and with said metal pool; said member shaped to define an opening in the wall of said member between its ends, said opening establishing communication between the interior of said member and the interior of said envelope and means for positioning said restriction within said envelope.

2,841,732
GETTER ASSEMBLY
Albert M. Morrell, East Petersburg, and William B. Miller, Lancaster, Pa., assignors to Radio Corporation of America, a corporation of Delaware
Application October 15, 1953, Serial No. 386,262
9 Claims. (Cl. 313—176)

1. A getter assembly comprising a main vaporizable getter loop, a plurality of conductive portions secured to and forming with said main getter loop closed auxiliary induction loops, each of said auxiliary induction loops



including a different portion of said getter loop, said auxiliary induction loops extending angularly from said getter loop.

2,841,733
ELECTRIC DISCHARGE LAMP
William F. Hodge, Lyndhurst, Ohio, assignor to General Electric Company, a corporation of New York
Application April 29, 1953, Serial No. 351,847
5 Claims. (Cl. 313—184)

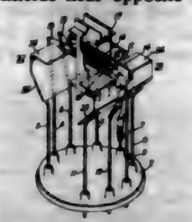


1. In an electric lamp, the combination comprising a sealed envelope, a source of radiation within said envelope causing operation of the lamp at an elevated temperature within the range from 600° C. to 900° C., said lamp being subject to casual liberation of hydrogen in the space between said sealed envelope and said source during operation, and means sealed in the envelope wall comprising a palladium diaphragm exposed to the space within and the space without said envelope for diffusing to the surrounding atmosphere casual hydrogen produced during operation of the lamp.

2,841,734
HIGH FREQUENCY ELECTRIC DISCHARGE DEVICE
Clifford E. Horton and Hsiang Hsu, Owensboro, Ky., assignors to General Electric Company, a corporation of New York
Application March 27, 1953, Serial No. 344,957
9 Claims. (Cl. 313—240)

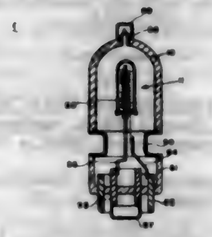
1. A high frequency electric discharge device for grounded grid operation including a generally cylindrical envelope including a closure at one end having a plurality of lead-in conductors sealed therethrough in a

circular array, an electrode mount including a cathode, a grid, and an anode supported in mutually insulated and concentric relation in the order named with the anode the outermost electrode, means supporting said electrode mount in said envelope with the axis extending generally transverse to the axis of said envelope, a shield member extending outwardly from each end of said grid and downwardly toward said closure, lead-in conductors connected to each of said shields near opposite edges thereof and



providing grid circuit connections, a lead-in conductor connected with said anode between said shields and extending through said closure member between lead-in conductors connected with different ones of said shields, and a cathode connection with a lead-in conductor positioned between the lead-in conductors connected with one of said shields to limit the inductive coupling between said grid-anode circuit on the one hand and the grid cathode-circuit on the other.

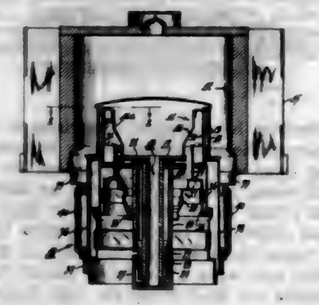
2,841,735
ELECTRON DISCHARGE TUBE
George Rybakoff, Little Neck, N. Y., assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application March 15, 1955, Serial No. 494,356
3 Claims. (Cl. 313—242)



3. An electron discharge device comprising an evacuated envelope, said envelope including an external metal anode having a cylindrical portion and a dome-shaped end portion closing one end of said cylindrical portion, a vitreous base spaced from the other end of said anode, and an intermediate annular metal member between said base and said anode, said annular member having a reentrant portion constricting the space communicating with both the anode and the base and constituting part of the envelope, a cathode mounted concentrically within said anode and also having integral electron emissive cylindrical and dome-shaped portions substantially equally spaced from corresponding portions of said anode, and terminal connections for said cathode extending through and sealed into said base, said reentrant portion shielding said base from destructive current flow from said cathode.

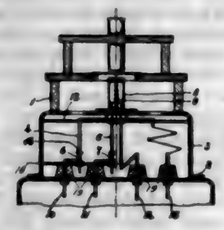
2,841,736
ELECTRON TUBE AND FILAMENTARY CATHODE
Merrald B. Shrader, Mount Joy, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application June 5, 1953, Serial No. 359,770
13 Claims. (Cl. 313—273)

13. An electron tube comprising a filamentary cathode, co-axial and concentric control, screen, and anode electrodes, support and heating current lead-in means comprising a first tubular conductor having a terminal portion at one end thereof, and a second tubular member co-axial with and having a larger diameter than said first tubular member surrounding the other end portion of said first tubular member, an annular cathode terminal member surrounding said other end of said first tubular member and said second tubular member and insulatingly sealed to said second tubular member, an annular control elec-



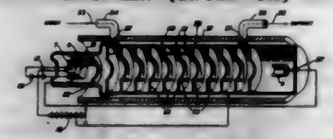
trode terminal member insulatingly sealed to said cathode terminal member and extending toward said terminal end of said first tubular member, an annular screen electrode terminal member insulatingly sealed to said control electrode terminal member extending toward and surrounding said terminal end of said first tubular member; whereby said first tubular member, said second tubular member, said control electrode terminal member, and said screen electrode terminal member form a double reentrant portion of the envelope of said electron tube.

2,841,737
ELECTRIC DISCHARGE TUBE
Carel Peter Klöpping and Christiaan Leonardus Pick, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application March 18, 1952, Serial No. 277,217
Claims priority, application Netherlands April 23, 1951
4 Claims. (Cl. 313—318)



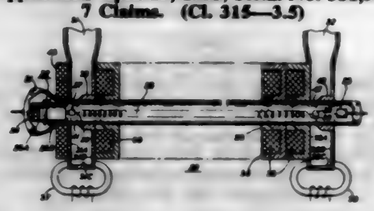
1. An electric discharge tube comprising an envelope having a substantially cylindrical portion, a base member hermetically sealing off said cylindrical portion, at least one solid connector pin extending through said base and sealed therein, a metal terminal member wholly within said cylindrical portion, said terminal member having an aperture therein, means to connect said terminal member to said connector pin, at least one electrode in said envelope and secured to said cylindrical portion, a rigid conductor within said cylindrical portion secured at one end to said electrode and extending at the other end into the aperture in said terminal member, and means effecting an electrical connection between said conductor and said terminal member.

2,841,738
HIGH FREQUENCY AMPLIFIER
John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Original application January 11, 1946, Serial No. 640,597, now Patent No. 2,636,948, dated April 28, 1953. Divided and this application November 22, 1952, Serial No. 322,184
19 Claims. (Cl. 315—3.5)



1. An electron beam device comprising a continuous high frequency electromagnetic wave transmission circuit having input and output connections for said electromagnetic wave, means for directing an electron beam along said circuit in the region of the high frequency field of said circuit and in coupling relation thereto, and shielding means located along the path of the electron beam within said wave transmission circuit for substantially shielding the beam from the high frequency field in a number of successive regions, said successive regions being separated from each other along the path of the electron beam by other regions in which the electron beam passes through the high frequency field in coupling relation thereto.

2,841,739
ELECTRON BEAM SYSTEMS
John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 29, 1953, Serial No. 351,984
7 Claims. (Cl. 315—3.5)

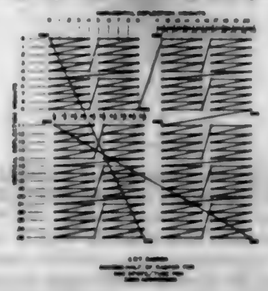


1. In a traveling wave tube, an electron source and a target electrode defining therealong a path of electron flow, electrode means disposed along the path of flow for accelerating the electron stream, a plurality of identical solenoids disposed along the path of flow at equal distances, adjacent solenoids being in field opposing relation, and a succession of identical annular permeable members, each forming a low reluctance path around a solenoid which is open at equal distances along an annular region adjacent to and surrounding the path of flow for establishing longitudinal magnetic flux along the corresponding region of the electron path, the successive uniform regions of magnetic flux serving as successive identical converging lenses having a convergence sufficient for overcoming the space charge divergence between successive regions.

2,841,740
CONVERTIBLE STORAGE SYSTEMS
George F. Bland, New York, N. Y., William J. Deerhake, Dumont, N. J., and Joachim Jeenel, New York, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 21, 1955, Serial No. 547,982
34 Claims. (Cl. 315—8.6)

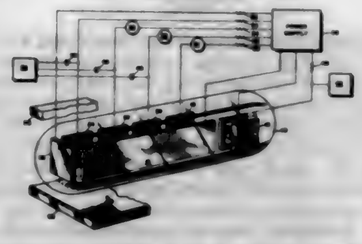
1. An electrostatic storage system consisting of a plurality of cathode ray tubes, means for moving the beams of said tubes over the faces thereof in a first standard raster to traverse a first plurality of spots each constituting a memory area, means for moving the beams of said tubes over the faces thereof in a second standard raster to traverse a second plurality of spots each constituting a memory area, and switching means for causing said tubes to operate under control of said first means to trace said first raster alone or alternatively to operate under control of both said first and second means in sequence to trace both said rasters in sequence.

16. An electronic circuit network including an electrostatic storage system consisting of a plurality of cath-



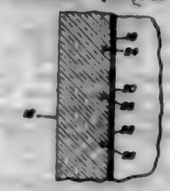
ode ray tubes, means for moving the beams thereof to coordinately arranged spots each constituting an address and identified by the coordinate numbering thereof, an address register, means automatically controlled for transiently charging said address register with the identification of the address at which said beams are located at any given operational interval of said network, means for detecting an error in information handled by said network, said detecting means controlling means for halting further operation of said network whereby said address register steadily holds the identification of a given address at which said error is detected.

2,841,741
MULTI-ANODE HIGH SPEED SWITCHING TUBE
William C. Wiley, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application February 17, 1956, Serial No. 566,119
6 Claims. (Cl. 315—12)



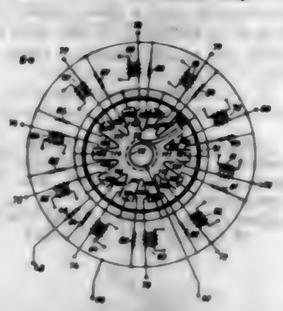
1. An electron switch, including, a plurality of plates spaced from one another and disposed in substantial alignment, an electrode disposed relative to the plates to define a first region between the plates and the electrode, means for providing an electric field in the first region, means for providing a magnetic field in the first region in a direction substantially perpendicular to the electric field, the electric and magnetic fields being disposed in a direction and having a magnitude to cause electrons introduced to the region to travel completely through the region, and means for modifying the electric field between a particular plate and the electrode to cause electrons introduced to the first region to be prevented from entering the region between the particular plate and the electrode.

2,841,742
COLOR SCREEN FOR A CATHODE RAY TUBE
Stephen Zalocha, Sanborn, N. Y.
Application February 15, 1954, Serial No. 410,373
2 Claims. (Cl. 315—21)



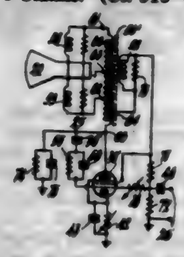
1. A screen for a television tube of a television receiving apparatus with a surface adapted to be bombarded by cathode rays which are moved over the screen along lines during scanning, comprising a base of vitreous material, a plurality of closely spaced, parallel focusing conductors, in the shape of microconductors arranged in substantial parallelism to the lines along which scanning takes place, located in close proximity to the central portion of the color producing phosphor strip placed on said screen surface adjacent phosphor strips having different color characteristics varying from strip to strip in predetermined sequence, conductor means for connecting focusing conductors associated with phosphor strips of the same color electrically, means for impressing electrical potentials on said conductor means and focusing conductors, the microconductors forming the focusing conductors being insulated from the phosphor strips by being embedded in the vitreous material of the screen directly behind the surface covered by the phosphor strips, said focusing conductor being thus adapted to locate the cathode ray centrally on the color strip, thus minimizing the deviation of the cathode ray.

2,841,743
ELECTRON TUBE DEVICE
Hans Bertil Håård, Hagersten, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application July 15, 1954, Serial No. 443,643
Claims priority, application Sweden July 31, 1953
6 Claims. (Cl. 315—21)



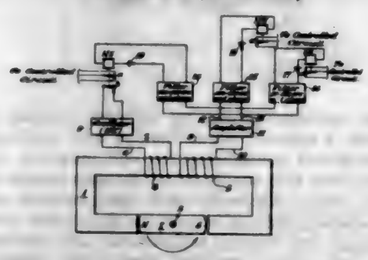
1. An electron discharge apparatus including a trochotron having several compartments each limited by a receiving electrode, a control electrode and the control electrode of the next following compartment and further having a cathode and means for stepping the electron beam produced by the cathode from compartment to compartment, in combination with an auxiliary control electrode means for each compartment, each of said auxiliary electrode means being disposed between the receiving electrode and the control electrode of the respective compartment closer to the control electrode of its own compartment than to the control electrode of the next following compartment, a source of a bias potential negative relative to the cathode connected to each auxiliary control electrode means to render the electrode means active during the discharge, and circuit means for varying said bias potential to vary the distribution of the cathode current between the respective receiving electrode and the respective control electrode.

2,841,744
SYNCHRONIZED LOW FREQUENCY SAWTOOTH CURRENT WAVE GENERATING CIRCUITS
Jacob Chass, Camden, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 8, 1955, Serial No. 520,775
6 Claims. (Cl. 315—27)



5. In a television receiver, the combination with a deflection circuit including a deflection winding, the operating cycle of said deflection circuit having a trace portion and a retrace portion, of a self-oscillating circuit including a single signal amplying device including an output electrode and a pair of control electrodes, means providing positive feedback from the output electrode to one of said control electrodes of said device and sustained oscillations of said oscillating circuit during the retrace portion of the deflection cycle, means providing negative feedback from the output electrode to the other of said control electrodes of said device and linear amplifier operation thereof during the trace portion of said deflection to provide output current from the output electrode of said device of a sawtooth waveform, and means for applying said current of sawtooth waveform to said deflection winding.

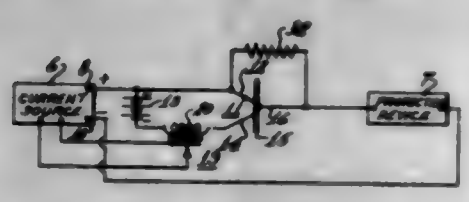
2,841,745
ELECTRIC SPEED GOVERNORS
Charles B. Shields, Penn Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application September 9, 1955, Serial No. 533,400
16 Claims. (Cl. 317—5)



1. A control device comprising a magnetic circuit including a stationary portion and a magnetized movable portion, means for at times moving said movable portion at different rates, a first and a second winding coupled to said magnetic circuit, a source of coded varying current connected to said first winding a relay connected to said second winding to respond to a voltage developed in said second winding by the current supplied to said first winding until said movable portion moves at a rate which

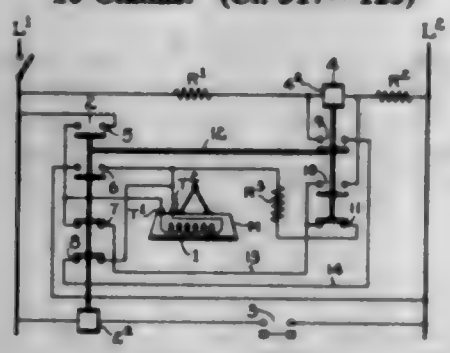
varies the magnetic circuit flux developed by said magnetized portion a sufficient amount to provide a second winding voltage capable of maintaining said relay steadily energized.

2,841,746
PROTECTIVE CIRCUIT
Daniel D. Mawhinney, Jersey City, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 19, 1955, Serial No. 509,537
9 Claims. (Cl. 317—51)



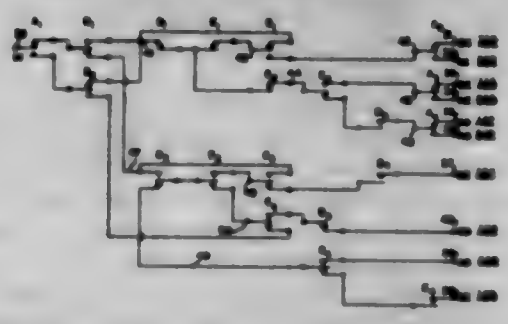
1. The combination with a current operated device and a current source having a pair of terminals of opposite polarities, of a transistor having a base, an emitter and a collector electrode and a base-emitter conductive path, direct-current conductive circuit means connecting said base-emitter path in series between one terminal of said source and said current operated device to provide direct operating current for said device from said source, direct-current conductive means connecting the other terminal of said source with said current operated device, and current operated control means for said source including a control impedance element connected between said collector and emitter electrodes to provide a collector electrode load for said transistor, said control means having a control connection with said source to provide protective control of the output current from said source in response to operating current of predetermined amplitude through said impedance element.

2,841,747
CONTROLLER FOR INDUCTIVE DEVICES
Howard E. Hodgson, Wauwatosa, Wis.
Continuation of application Serial No. 156,800, April 19, 1950. This application November 26, 1954, Serial No. 471,258
10 Claims. (Cl. 317—123)



1. The combination with an inductive winding, a supply circuit, a resistor, circuit making and breaking contacts, energizing connections for said inductive winding extending from said supply circuit through certain of said contacts, reverse discharge connections between said inductive winding and said supply circuit through certain of said contacts and through said resistor, and auxiliary discharge connections extending across the terminals of said inductive winding through certain of said contacts, of means to effect break of said discharge connections by certain of said contacts throughout the period of making and maintaining said energizing connections and to effect making of said discharge connections through said resistor by certain of said contacts upon break of said energizing connections by certain of said contacts, said means controlling make of said auxiliary discharge connections and rendering make thereof automatic when discharge of said inductive winding through the first mentioned discharge connections is defeated by failure of said resistor included therein.

2,841,748
RELAY CIRCUIT
Andrew C. Reynolds, Jr., Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 15, 1954, Serial No. 475,520
10 Claims. (Cl. 317—137)



5. A distribution network for selectively providing three electrical paths from a common input locality to three output localities comprising first, second and third switching devices, each of said switching devices including pairs of terminals and means for selectively establishing alternate conductive paths between at least two of said pairs of terminals in response to alternate ones of two conditions of operation of said switching devices, said pairs of terminals being arranged in electrical circuit with conducting means to provide a first subcircuit connecting the input locality to a first junction point through the first pair of terminals of the first switching device, a second subcircuit connecting the input locality to a second junction point through the first pair of terminals of the second switching device, a third subcircuit connecting the first and second junction points through the first pair of terminals of the third switching device, a first output circuit including a second pair of terminals of the first switching device connecting the first junction point to a first output locality, a second output circuit including a second pair of terminals of the second switching device connecting the second junction point to the second output locality, and a third output circuit including a second pair of terminals of the third switching device connecting the second junction point to the third output locality.

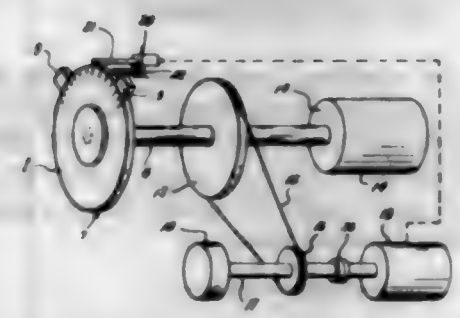
2,841,749
SELENIUM RECTIFIER
George Ennarino and Robert Parsons, Bloomington, Ind., assignors to Sarkes Tarzian, Inc., Bloomington, Ind., a corporation of Indiana
Application April 11, 1955, Serial No. 500,407
19 Claims. (Cl. 317—241)



1. A unilateral conductor comprising a base plate, a layer of selenium on said base plate, a barrier layer on said selenium layer formed by coating the selenium layer with a dilute solution having a pH of 6.0 to 7.5 containing in a mixture of a volatile organic solvent and

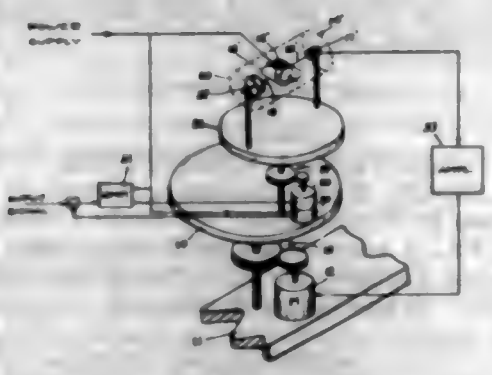
water a combination of an organic amine having a boiling point above 100° C. and a basic dissociation constant in the range of 1×10^{-3} to1×10^{-4} and an acid of an element in that triangular section of the short form of the periodic table including period 2 of group IVb, period 2 of group VIb and period 4 group VIb, and a counter electrode on said barrier layer.

2,841,750
CONTROL AND DIAL MECHANISM FOR VARIABLE FREQUENCY OSCILLATOR
Robert L. Tucker, Tulsa, Okla., assignor to Southwestern Industrial Electronics Company, Harris County, Del., a corporation of Delaware
Application July 27, 1956, Serial No. 600,515
6 Claims. (Cl. 318—2)



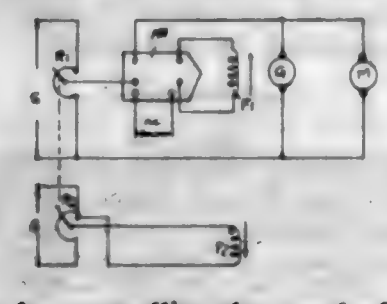
5. In a variable frequency oscillator having frequency varying means, the combination therewith of a reversible drive means for operating said frequency varying means to effect a sweeping of frequencies, a dial connected to said reversible drive means to rotate in opposite directions in synchronism therewith, at least one limit stop slidably carried on said dial for arcuate movement relative thereto in said opposite directions, yieldable means normally holding said limit stop on said dial for movement therewith, a switch disposed in the path of movement of said limit stop, said switch being connected with said reversible drive and being operative when engaged from either of said opposite directions to cause said reversible drive means to rotate said dial toward said either direction, and stop means in the path of movement of said limit stop to prevent further uni-directional movement of said limit stop after operative engagement thereof with said switch.

2,841,751
TURRET CONTROL
Theodore J. Newman, Forest Hills, N. Y., assignor to American Bosch Arma Corporation, a corporation of New York
Application December 3, 1954, Serial No. 472,889
4 Claims. (Cl. 318—77)



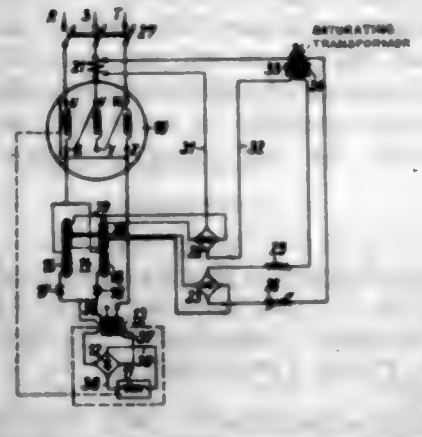
1. In a device of the character described, a support, a turret carried by said support and rotatable with respect thereto, a platform carried by said turret, motive means carried by said turret and operatively connected to said platform for rotating said platform relative to said turret at a predetermined rate, an integrating gyroscope carried by said platform, a pickoff unit on said gyroscope, second motive means carried by said support and operatively connected to said turret, and electrical connections between said pickoff unit and said second motive means for energizing said second motive means for controlling the rotation of said turret.

2,841,752
ELECTRIC CONTROL SYSTEMS PARTICULARLY SUITABLE FOR WARD-LEONARD DRIVES
Denis Bolton, Rugby, England, assignor to The British Thomson-Houston Company Limited, a British company
Application October 23, 1953, Serial No. 387,862
Claims priority, application Great Britain October 30, 1952
4 Claims. (Cl. 318—145)



1. A system for controlling the speed of a direct current motor supplied with current from a generator by controlling the terminal voltage of the generator, comprising a source of voltage for supplying excitation current to the generator, a direct current reference voltage, a magnetic amplifier for controlling the excitation current, said magnetic amplifier having a control winding energised in dependence on any difference between the terminal voltage of said generator and said reference voltage whereby to adjust the excitation of said generator to restore the terminal voltage to a predetermined value, means providing an auxiliary excitation for the generator in a sense to buck the main excitation controlled through said magnetic amplifier, and means for adjusting simultaneously the value of said auxiliary excitation and the value of the reference voltage in such a manner that the auxiliary excitation is zero when the main excitation is a maximum, and is a maximum when the main excitation is a minimum.

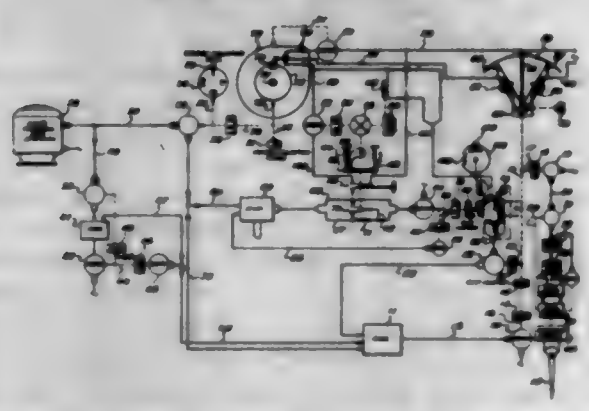
2,841,753
MOTOR REGULATING APPARATUS
Otto Grebe, Olpe, Westphalia, and Alfred Lang, Esslingen, Germany, assignors to Elektro-Mechanik G. m. b. H., Olpe, Westphalia, Germany
Application January 24, 1955, Serial No. 483,704
Claims priority, application Germany January 23, 1954
1 Claim. (Cl. 318—433)



In an apparatus for maintaining constant the energizing current and the delivered torque of a motor during start under load, the motor having at least one field winding and being coupled to a magnetic fluid clutch having an exciting winding, in combination, a magnetic amplifier having at least one main winding and a first and a second control winding, said main winding being connected in

parallel with said field winding; means for transmitting the output of said magnetic amplifier to said exciting winding of said clutch; a current transformer in circuit with said first control winding and with the energizing current of said motor, and producing a current proportional to said energizing current for providing in said first control winding a current proportional to said energizing current; and a source of substantially constant potential connected to said second control winding for providing a substantially constant current in said second control winding, whereby the difference between the currents flowing in said first and second control windings varies the impedance of said main winding of said magnetic amplifier and thereby controls the exciting current of said magnetic fluid clutch so as to maintain constant the energizing current of the motor by maintaining constant the torque transmitted by said clutch.

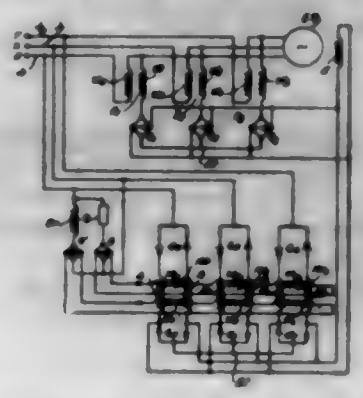
2,841,754
STEERING SYSTEMS FOR MARINE CRAFT
Grandville R. Jones, Stewart Manor, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application August 26, 1953, Serial No. 376,683
12 Claims. (Cl. 318—489)



1. In a steering system for marine craft having a rudder controlling servomotor, a settable course selecting member, reference signal means operatively connected to said servomotor providing a measure of the displacement of the craft from the course set by said course selecting member, signal means operatively connected to said reference signal means and said servomotor providing a time integral measure of the displacement of the craft from its selected course, normally ineffective means for disabling said time integral signal providing means, and means operable to render said disabling means effective during course changes effected through resetting of said course selecting member and to re-establish said disabling means after a time delay including two relatively movable cooperating parts normally positioned at a null condition, a connection between said course selecting member and one of the parts operable to move said part with resetting of said course selecting member, and motive means operable to move the other of the parts to re-establish the null condition between said parts.

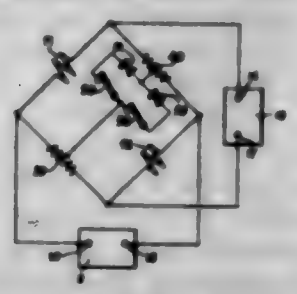
2,841,755
ARRANGEMENT FOR STABILIZING THE VOLTAGE OF A SYNCHRONOUS ALTERNATOR
Werner Krämer, Darmstadt, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application December 9, 1953, Serial No. 397,183
Claims priority, application Germany December 11, 1952
5 Claims. (Cl. 322—25)

1. In a voltage stabilization arrangement, in combination, generator means including an exciting winding, three phase conductors and a neutral point; three reactor means, each having at least first and second primary windings and a secondary winding, each of said first primary windings being connected in series with a different one of said phase conductors, each of said second primary windings being connected in series with a phase conductor adjacent the one in which its first primary winding is in series, and each of said secondary windings being connected at one end thereof to the same phase conductor



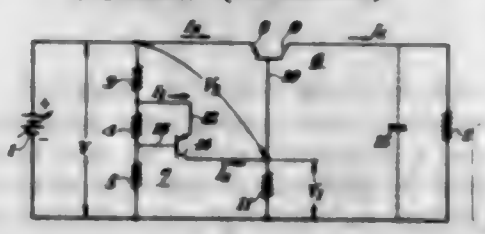
as its first primary winding; and three rectifier means, each having input and output terminals, said input terminals being connected between the other end of different ones of said secondary windings respectively, and said neutral point, and said output terminals being connected in parallel with said exciting winding.

2,841,756
EXCITATION CIRCUITS FOR REVERSIBLY POWERED TRANSLATING DEVICES
Eric Pell, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application November 26, 1954, Serial No. 471,419
4 Claims. (Cl. 322—77)



1. In combination, a translating device having a pair of inductive regulating windings, a pair of center tap resistors connected in a bridge circuit with said windings and disposed in alternate legs thereof, two parallel series groups, each comprising a switch and a half-wave rectifier connected between the center taps of said resistors with the rectifiers connected in opposed conducting relation with respect to the other, and a pair of unidirectional voltage sources, one of which has its output connected across one pair of diagonally opposite junctions of said bridge circuit and the other of which has its output connected across the other pair of diagonally opposite junctions of said bridge circuit.

2,841,757
ELECTRICAL REGULATOR
Charles B. Shields, Penn Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application January 24, 1956, Serial No. 560,986
6 Claims. (Cl. 323—4)



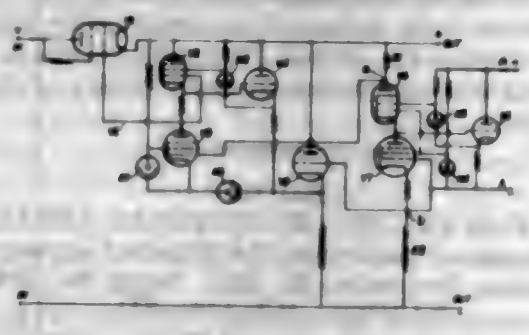
1. In combination with a source of direct current energy, a control circuit for regulating the current flowing

in a load circuit comprising a first transistor provided with an output circuit connected to said load circuit and an input circuit connected to said source of energy, a voltage dividing network connected across said source of energy, and a second transistor provided with an input circuit connected to said network and an output circuit connected across a portion of the output circuit of said first transistor.

2,841,758
VOLTAGE STABILIZING CIRCUIT ARRANGEMENTS

Peter Maurice Wright, Great Waltham, and Percy Samuel Brandon, Chelmsford, England, assignors to Marconi's Wireless Telegraph Company Limited, London, England, a British company

Application April 19, 1954, Serial No. 424,171
Claims priority, application Great Britain April 21, 1953
2 Claims. (Cl. 323—22)



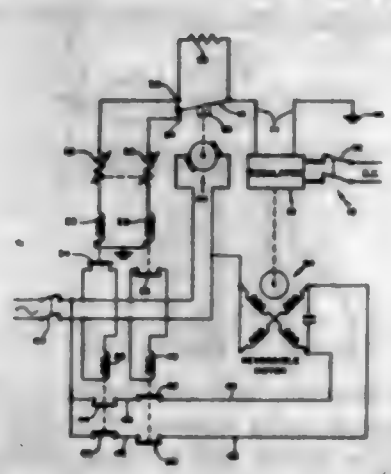
1. A voltage stabilizing circuit arrangement of the kind of which voltage taken from a potentiometer across the output terminals is compared with a reference voltage and the resultant is used to control a series control element in the feed to one terminal to maintain the output voltage substantially constant, the circuit arrangement comprising a first part of the potentiometer of relatively low resistive value connected between said one terminal and a current regulator included in said potentiometer and a second part of the potentiometer of relatively high resistive value connected between the current regulator and the other output terminal, the voltage being taken from the potentiometer a the junction of the first part and the current regulator and wherein the comparing is effected by comparing means, and the reference voltage is derived from a reference source, one side of the source being connected to the comparing means and the other side of the source being connected to the junction between the regulator and said second part wherein the comparing means comprises a thermionic voltage amplifier, and wherein said other side is connected to the last-mentioned junction through a cathode follower valve, and wherein the amplifier comprises a valve including at least an anode, a cathode, and a grid, said cathode being connected to said one side of the source and said grid being connected to the junction between said first part and the regulator, an anode load for said amplifier valve constituted by a pentode connected thereto as a cathode follower, said pentode including an anode connected to said first mentioned terminal.

2,841,759
VOLTAGE REGULATOR

William S. Snyder, Emporium, and Fred W. Willardson, Smethport, Pa., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts

Application July 11, 1956, Serial No. 597,225
3 Claims. (Cl. 323—66)

1. A voltage regulating system comprising a supply circuit whose voltage is to be regulated, a regulator effective to vary the voltage in that circuit, a mechanism to operate the regulator to cause it to raise or lower said voltage, a pair of secondary relays with their switch members in series relation connected to said mechanism, a pair of primary relays whose switch members control, respectively, the current flow in the coils of the secondary relays, each of the coils of said primary relays leading

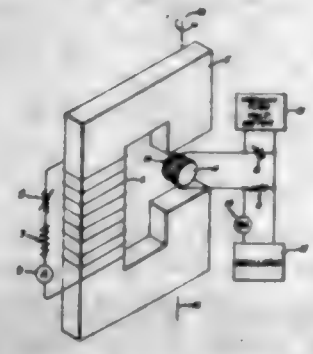


to contacts at one end of a double throw single pole switch whose other end is connected to one of the legs of the supply circuit, means for cyclically operating the double throw switch and a resistor shunting the switch.

2,841,760
METHOD AND APPARATUS FOR MEASURING ANGULAR MOTION

Albert Hansen, Jr., Lynn, Mass., assignor to General Electric Company, a corporation of New York

Application October 4, 1952, Serial No. 313,153
26 Claims. (Cl. 324—.5)



1. The method of measuring angular motion which comprises applying to a magnetic resonance sample a unidirectional magnetic field, providing means for applying an alternating magnetic field of frequency f to said sample at right angles to said unidirectional field to produce substantial magnetic resonance at the Larmor frequency v and rotating said alternating magnetic field applying means about an axis parallel to said unidirectional field at an angular velocity which is a function of the angular motion to be measured, deriving an electrical effect corresponding to the shift from the condition of magnetic resonance caused by the rotation of said alternating magnetic field applying means, and measuring said electrical effect.

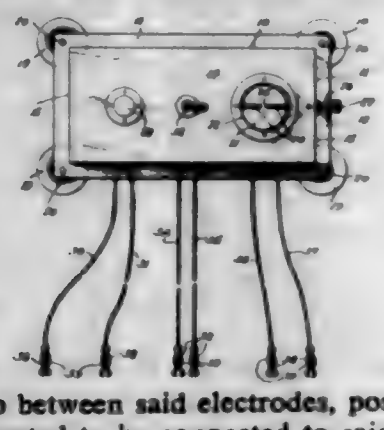
2,841,761
ENGINE TROUBLE DETECTING DEVICE

Horace L. Kincaid, Tuscaloosa, Ala.; James D. Kincaid, administrator of said Horace L. Kincaid, deceased, assignor of one-half to Susan Kincaid and one-half to Marvin O. Tidmore, Tuscaloosa, Ala.

Application November 24, 1954, Serial No. 471,015
1 Claim. (Cl. 324—18)

An engine trouble detecting device comprising a hollow body, vacuum cups secured to said body for securing said body to a support, a starter switch in said body, positive and negative leads connected to said starter switch, adapted for connection to the starter line of the engine to be tested, a master switch in said body, a window formed in said body, positive and negative leads connected to

said master switch, adapted for connection respectively to the voltage regulator and coil of the engine to be tested, a pair of electrodes inwardly of said window, means ad-



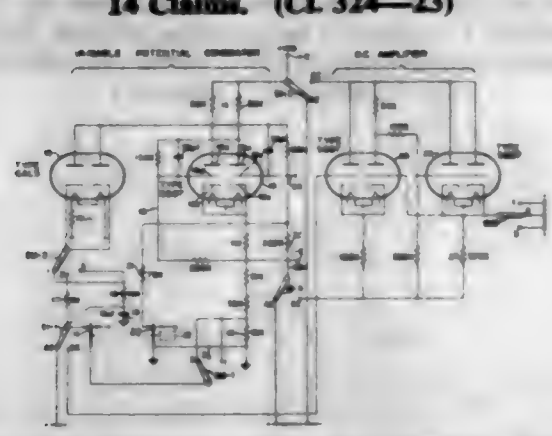
justing the gap between said electrodes, positive and negative leads adapted to be connected to said electrodes to a spark plug to be tested, and a spring clamping device at the free end of each of said leads.

2,841,762

GASEOUS-DISCHARGE TUBE TESTER

Robert L. Bullard, Wappingers Falls, and Harry J. Beatty, Jr., Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application July 6, 1956, Serial No. 596,254
14 Claims. (Cl. 324—23)



1. A gaseous-discharge tube characteristic tester comprising, an energy storage device, impedance means providing with said device a value of time constant determining the rate of any change of energy storage in said device, energy translating means including said storage device and said impedance means and including a first energy control device for establishing an initial value of energy storage in said storage device and a second energy control device for establishing a final value of energy storage in said storage device, means for actuating said first control device to initiate a change of energy storage in said storage device, means for utilizing the energy storage of said storage device for applying to a preselected electrode of a gaseous-discharge tube to be tested a test-control potential having a characteristic varying with time and in a sense tending to render said tube conductive, and means responsive to the attainment of gaseous-discharge conduction by said tube for actuating said second control device to establish said final value of energy storage in said storage device and thereby provide a measure of a preselected operating characteristic of said tube.

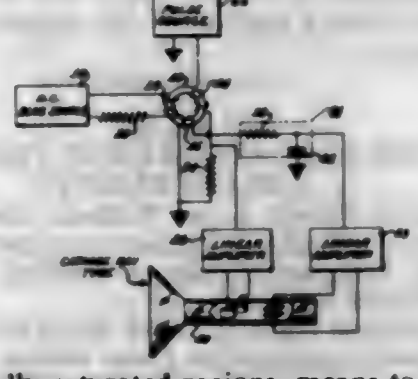
2,841,763

TESTING SYSTEM FOR MAGNETIC MATERIALS

Raymond Stuart-Williams, Pacific Palisades, Calif., and Witold M. Modlinski, Trenton, and Arthur W. Lo, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application June 30, 1953, Serial No. 365,186
10 Claims. (Cl. 324—40)

1. Apparatus for obtaining the hysteresis characteristics of magnetic material comprising means to apply a magnetomotive force to said magnetic material to position it in one of its magnetically saturated regions, means to apply pulses of magnetomotive force to said magnetic material in successive increasing amplitude steps in a direction to drive said magnetic material toward the other



of its magnetically saturated regions, means to detect the changes in flux in said material due to the operation of said means to apply pulses of magnetomotive force, and means to display the output from said means to detect flux changes and said means to apply pulses of magnetomotive force.

2,841,764

DEVICE FOR TESTING ELECTRICAL APPARATUS

Hermann Heimberger, Reutlingen, Germany

Application November 24, 1953, Serial No. 394,147
5 Claims. (Cl. 324—51)

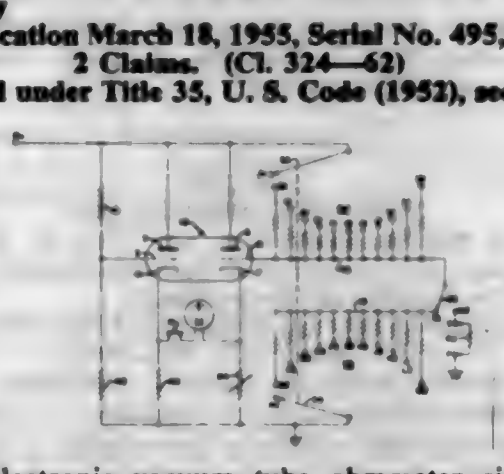
1. In an electrical testing device for determining the condition of a plurality of circuits and adapted to be placed in said circuits to be tested without interfering with the normal operation of same, said device comprising in combination conducting means for each circuit to be tested and adapted to carry the current of said circuits, a pair of contacts in each of said circuits, one of said contacts being spring pressed against the other, a rotary knife blade switch arm and means for manually rotating same, a pair of separated contacts carried by said arm, one on the upper and the other on the lower side thereof and respectively connected to the two poles of said signal device, said spring pressed contacts being concentrically arranged with respect to said switch arm and being separable by movement of said contact arm thereagainst and while so separated establishing a circuit through said contacts carried by said arm to said signal device.

2,841,765

ELECTRIC OHMMETER

George B. Harrold, Geneva, N. Y., assignor to the United States of America as represented by the Secretary of the Navy

Application March 18, 1955, Serial No. 495,371
2 Claims. (Cl. 324—62)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An electronic vacuum tube ohmmeter circuit for testing and checking resistors, comprising a pair of triodes connected in parallel, a source of voltage connected

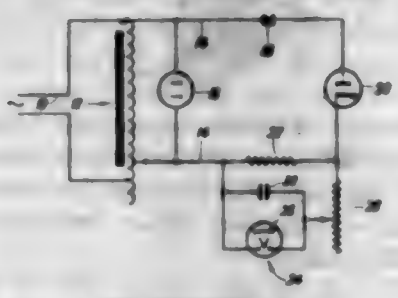
across the anode-cathode circuits of said triodes for applying energizing potential thereto, adjustable bias means in the cathode circuit of at least one of said triodes to compensate for the inherent characteristic differences of said triodes, a first resistor of a fixed predetermined value connected between the anode and grid of one of said triodes, a second resistor of a fixed predetermined value connected between the grid and cathode of said one triode, the predetermined resistance values of said first and second resistors being such that the quotient of said first resistor to said second resistor results in a predetermined ratio, a first selectively variable resistance means connected between the anode and grid of the other of said triodes, a second selectively variable resistance means adaptable to be connected between the grid and cathode of said other triode, unicontrol means for selectively varying said first and second variable resistance means in unison whereby the quotient of the resistance value of said first variable resistance means to the resistance value of said second variable resistance means remains constant and equal to said predetermined ratio for all variations of said first and second variable resistance means, terminal means for receiving the resistor to be tested and adaptable to be connected between the grid and cathode of said other triode, switch means for selectively and discretely connecting said second variable resistance means and said terminal means between the grid and cathode of said other triode, and indicator means connected across the cathodes of said triodes and responsive to the current flow through said triodes to indicate any deviation from said predetermined ratio when said terminal means with a resistor to be tested is connected between the grid and cathode of said other tube.

2,841,766

EXPANDED SCALE LINE METER

John H. Mintner, Williamsport, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application February 4, 1954, Serial No. 408,186
5 Claims. (Cl. 324—131)



1. A measuring circuit comprising a gas filled voltage regulating tube, a resistor in series therewith, both being adapted to be placed across a line whose voltage is to be measured, a voltmeter having a scale calibrated in line voltage and an indicator movable over the scale, said voltmeter shunting the resistor, the indicator being near a point on the scale which is indicative of the breakdown voltage of the regulator tube when the meter is unenergized, the resistor being of a value to allow for full scale deflection of the indicator from the breakdown voltage of the tube to maximum line voltage.

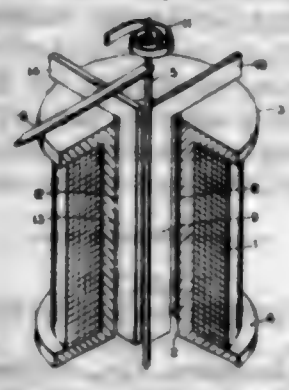
2,841,767

ELECTRICAL MEASURING INSTRUMENT

Stephen C. Hoare, Manchester, Mass., assignor to General Electric Company, a corporation of New York

Application December 28, 1955, Serial No. 555,971
5 Claims. (Cl. 324—147)

1. In an electric measuring instrument of the repulsion vane type, the combination of: an electric coil having an axial aperture, said coil adapted to be energized by an electrical source, a fixed ferromagnetic repulsion vane, a movable ferromagnetic repulsion vane, rotatably mounted for magnetically deflecting from said fixed vane upon coil energization, said vanes having portions within the axial aperture of said coil and additional portions beyond said aperture, said additional portions exerting a mutual



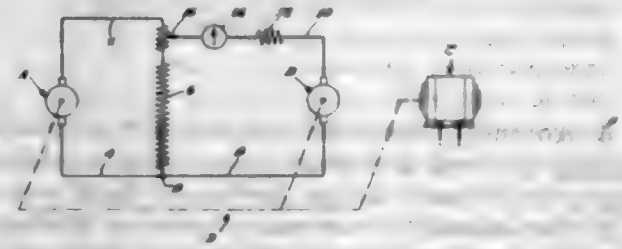
magnetic repulsion force upon energization of said coil, said additional portions having a radial length which extends beyond the maximum radial length of said aperture.

2,841,768

METHOD AND SYSTEM FOR CHECKING THE SPEED-OUTPUT RELATIONSHIP OF A GENERATOR

Leon Robinson, Brooklyn, N. Y., assignor to Eastern Air Devices, Inc., Dover, N. H., a corporation of New York

Application November 24, 1954, Serial No. 470,964
23 Claims. (Cl. 324—158)



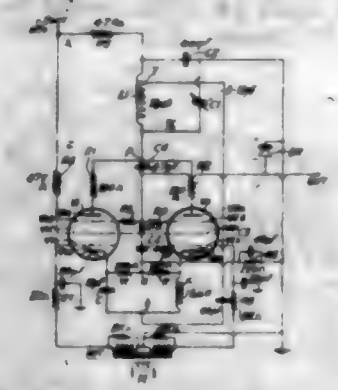
1. The method of checking over a range of speeds the relationship between the output of a generator and the speed at which it is operating which comprises operating said generator at a plurality of speeds over said range of speeds, simultaneously operating a reference generator known to have the desired speed-output relationship at the same speeds as said generator being checked, and detecting any differences in the relationship between the outputs of the two generators.

2,841,769

FREQUENCY MODULATED OSCILLATION GENERATORS

William Lea Wright, Great Baddow, England, assignor to Marconi's Wireless Telegraph Company Limited, London, England, a company of Great Britain

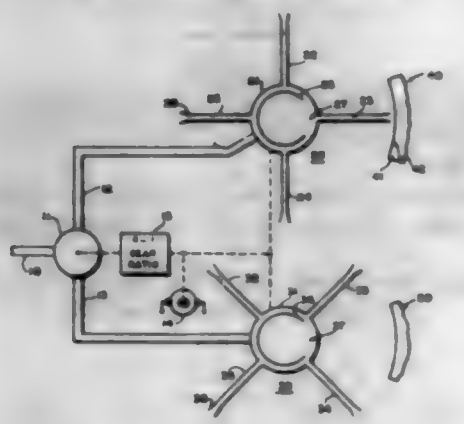
Application July 6, 1954, Serial No. 441,431
Claims priority, application Great Britain July 8, 1953
8 Claims. (Cl. 332—24)



1. A modulated phase shift oscillation generator comprising a pair of valves with a common anode circuit including a frequency selective network, a source of an-

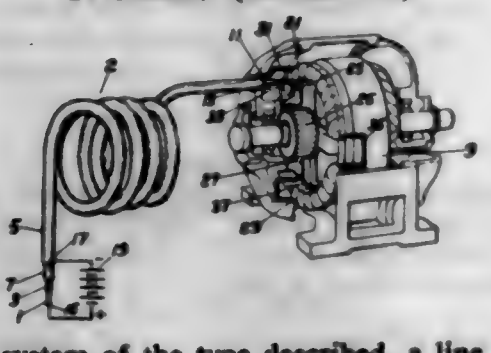
ode voltage, a branched positive feedback path from said common anode circuit to the cathodes of said valves, said path including part of a substantially aperiodic reactance-resistance network of substantially linear phase-frequency characteristics having a capacity branch and an inductance branch, said branches being of substantially equal reactive impedances at the frequency for which said frequency selective network is selective, and means for applying modulating potentials in phase opposition to two grids of said valves, one in each.

2,841,770
MULTIPLE OUTPUT WAVEGUIDE SWITCHING SYSTEMS
John S. Hollis, Chamblee, Ga., assignor to the United States of America as represented by the Secretary of the Army
Application June 2, 1955, Serial No. 512,903
6 Claims. (Cl. 333—7)



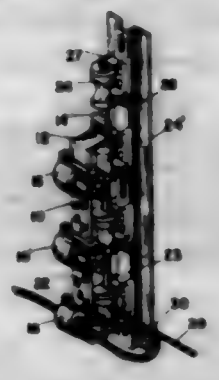
4. An energy distribution system for sequentially connecting a circuit to a plurality of other circuits comprising a first rotary switch having its input connected to said first-named circuit and having a plurality of selectable, symmetrically-spaced outputs, an equal plurality of additional rotary switches having their inputs respectively connected to each of said outputs, each of said additional switches having a plurality of symmetrically-spaced selectable outputs, said additional switches being tied together for simultaneous rotation and so phased relative to each other that the energization of the outputs of each is interspersed with the energization of the outputs of the others, and means gearing said first switch to the other switches for rotation at a higher speed than said other switches, the speed ratio being such that the number of switching actions of said first switch in a given time interval is equal to the combined number of switching actions of all of said additional switches during the same time interval.

2,841,771
FOUR-TERMINAL FILTER EMBODYING AN IONIZED MEDIUM
Frank S. Dunleavey, Canton, Mass.
Application April 18, 1951, Serial No. 221,625
17 Claims. (Cl. 333—79)



1. In a system of the type described, a line for transmitting power currents and attenuating high frequency currents comprising two co-extensive elongated conducting electrodes each having the ends of its axis of elongation respectively disposed adjacent to the corresponding ends of the other electrode and each having a surface extending between its two ends and disposed opposite to a surface of the other electrode, the said surface of one of the electrodes being provided with an electrolytically formed film of oxide of the material of said one electrode, a conducting medium comprising a substance having free ions therein disposed between the oppositely disposed electrode surfaces with one of its surfaces in contact with the oxide film and its other surface in contact with the said surface of the other electrode, two of the adjacently disposed ends of the electrodes being respectively provided each with an input terminal to provide a pair of adjacent input terminals for connection to a source of high-frequency currents to be attenuated, and the other two adjacently disposed ends being respectively provided each with an output terminal to provide a pair of adjacent output terminals for connection to a load device, the only direct conductive connections between corresponding input and output terminals being the electrodes to which they are connected, respectively, in order that at all times high-frequency currents may pass along the oppositely disposed surfaces of the electrodes with the directions of the currents along the opposite surfaces opposing one another and of substantially the same magnitude.

2,841,772
TRANSFORMER MOUNTING BRACKET
Clifford E. Sloop, Columbus, Ga.
Application June 25, 1954, Serial No. 439,269
10 Claims. (Cl. 336—67)



2. In combination with the spool bolt of a secondary wire rack, a transformer mounting bracket secured to said bolt to extend parallel thereto and in spaced relation therefrom, and a window type current transformer mounted on said bracket.

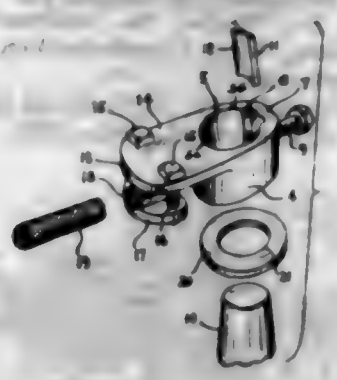
2,841,773
PRESSURE CONTACT TYPE TERMINAL BLOCK
William Shumate, Wichita, Kans., assignor to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware
Application March 2, 1956, Serial No. 569,073
6 Claims. (Cl. 339—198)



1. A terminal block structure comprising a first electrically non-conductive member having at least one substantially planar surface and having spaced conductor receiving apertures therethrough disposed substantially normal to said surface; a conductive terminal strip carried flat on said surface and having apertures therethrough in registry with the respective apertures in said first member; a second electrically non-conductive member having a surface cooperable with the planar surface

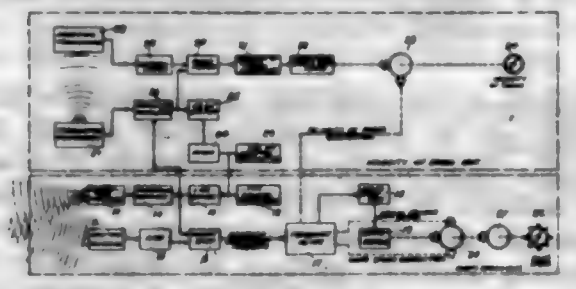
of the first member, the said surface of the second member having a plurality of spaced integral outwardly projecting pressure buttons thereon located to register with the respective apertures in said terminal strip; and means independent of and spaced from said terminal strip for clamping the two members together with their mentioned cooperating surfaces in close proximity.

2,841,774
ELECTRICAL COUPLING
Edward W. Remmeck, Dudley, Mass.
Application September 16, 1955, Serial No. 534,792
1 Claim. (Cl. 339—237)



A coupling device for attachment to a tapered terminal post comprising a sleeve of bronze metal having an oval shaped bore of controlled size adapted to receive the terminal post, said bore having a tapered wall section on one end thereof of a circular cross section dimensioned to fit relatively intimately with the taper and side surface curvature of the post and an intermediate enlarged open area of a diameter wider than the diameter of the post along a transverse line offset with respect to the axis of the post on the side thereof opposite to the end surface of circular cross section and having smooth inner walls which blend uninterruptingly into said tapered wall section, an offset portion on the side of said sleeve opposite the tapered end wall of circular cross section of the bore and having a normally related threaded perforation therein, a longitudinal channel in said offset portion having substantially parallel side walls spaced apart a width less than the width of the intermediate enlarged open area and less than the diameter of the post and in communicating relation with said enlarged open area, said channel having a relatively smooth, flat uninterrupted base surface and substantially normally related parallel side walls, an integral tongue extending outwardly of the upper end of said sleeve on the side thereof opposed to said offset portion and embodying means for connecting an electric terminal thereto, a separate clamp plate of bronze metal shaped to loosely fit in said channel between it and the terminal post when assembled therewith and having substantially parallel relatively smooth uninterrupted outer side edge surface portions spaced apart a distance slightly less than the distance between the side walls of the channel permitting it to be freely slid in a direction longitudinally of the channel, the thickness of said clamp plate being tapered from one end thereof toward the other and having one of its face surface portions cylindrically smoothly curved and shaped to have a smooth uninterrupted fit with the side surface of the terminal post on the side thereof opposite the tapered end wall of circular cross section of the bore and having its opposed face surface smooth and shaped to the shape of and to loosely fit in the channel, and a clamp screw extending through said threaded perforation and adapted to engage said clamp plate to force it into binding relation with said post, said clamp plate being of a thickness and said channel being of a depth in accordance with the controlled size of the oval bore that when said plate is in clamped relation with the post a slight portion of said plate still remains in the channel and is adapted to be held against rotation in a sidewise direction by the side walls of the channels and only a slight portion of the screw is exposed between said clamp plate and the base of the channel, the said sleeve having the oval shaped bore therein, the offset portion with the longitudinal channel therein and the integral tongue extending outwardly of the upper end of said sleeve all being formed in integral relation with each other and to the finished size, shape and surface texture desired by a single casting operation.

2,841,775
FREQUENCY RESPONSIVE SYSTEMS
Norman B. Saunders, Cambridge, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application May 25, 1950, Serial No. 164,283
5 Claims. (Cl. 340—3)



5. A device for measuring velocities in a water medium comprising means for transmitting compressional waves through the medium, means for receiving said compressional waves, means for measuring the difference in frequency between the transmitted waves and the received waves, and means for applying a feedback correction signal to said frequency measuring means from the output of said frequency measuring means dependent on the velocity of the device through the water.

2,841,776
SHORE-CONTROLLED METHOD AND SYSTEM OF PREAMPLIFIER EXCHANGE
Zeger H. Blankers, San Diego, Calif.
Application April 6, 1953, Serial No. 347,191
10 Claims. (Cl. 340—4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

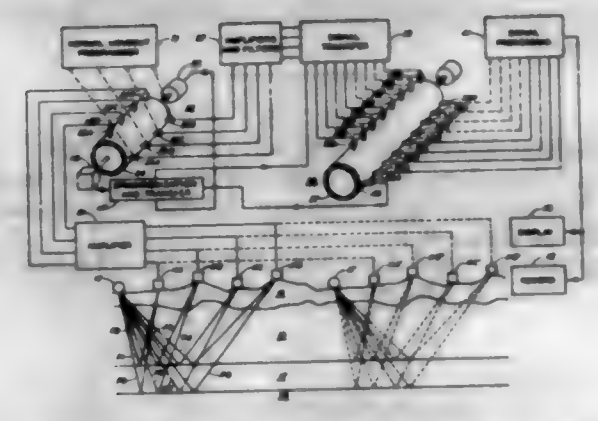


9. A system of preamplifier exchange comprising a source of on-shore D. C. potential, a plurality of submerged preamplifiers operable only on one polarity of said potential, off-shore means associated with said preamplifiers and operable only on reversed polarity of said potential for selectively transferring said potential to said preamplifiers in successive order in response to successive reversals of the polarity of said potential, and on-shore means for reversing the polarity of said potential at will.

2,841,777
METHOD FOR COMPENSATING SEISMIC DETECTOR SIGNALS FOR INTERSIGNAL TIME VARIATIONS

Francis G. Blake and Aubra E. Tilley, Fullerton, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application July 5, 1955, Serial No. 519,876
4 Claims. (Cl. 340—15)

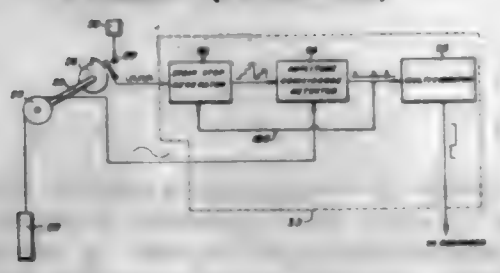


1. Apparatus for analyzing seismic data in the form of a plurality of groups of electrical signals, each of said groups being produced by a plurality of seismic detectors actuated by movement of the earth in response to a seismic disturbance, comprising a first rotatable, reproducible recording medium for sequentially recording each of said groups of signals, a second rotatable, reproducible recording medium having a recording capacity sufficient to simultaneously record all of said groups of signals, transfer means connected between said first and said second media for transferring each of said groups of signals from said first medium to said second medium, normal moveout removing means connected to said first medium for introducing into the signals reproduced from said first medium time corrections corresponding to the normal moveout corrections for said signals, means responsive to the speeds of rotation of said first and said second recording media for actuating said transfer means upon synchronization of the speeds of said media to transfer said normal-moveout corrected signals to said second medium, means for reproducing said signals from said second recording medium with different time delays therebetween corresponding to the fixed time corrections for said signals, and means for selectively combining said signals reproduced from said second medium to produce a plurality of composite signals.

2,841,778
GENERATION AND RECORDING OF DISPLACEMENT DEPENDENT MODULATED CARRIERS

John D. Ball and Carl R. Wiechmeyer, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application September 26, 1955, Serial No. 536,420
5 Claims. (Cl. 340—18)

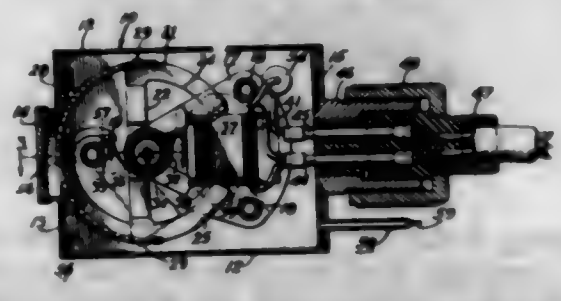


1. In a well logging system: means for lowering into a borehole a logging device adapted to produce first electrical signals representative of a physical characteristic of the earth formations traversed by said borehole; electrical conducting means connected to said logging device for conducting said electrical signals to the surface of the earth; means connected to said lowering means adapted to intermittently activate an electric current thereby producing intermittent signals, each activation of said current representing a predetermined displacement of said logging device; circuit means for modifying a characteristic of said intermittent signals in accordance with the amplitude of said first electrical signals; a recorder; and electrical conducting means interconnecting said circuit means and said recorder, said electrical conducting means serving to conduct the modulated signals to said recorder.

2,841,779
POSITION INDICATOR

George Peterson, Jr., Wayne, Pa., assignor to Penn Keystone Corporation, West Conshohocken, Pa., a corporation of Pennsylvania

Application February 21, 1957, Serial No. 641,639
5 Claims. (Cl. 340—378)

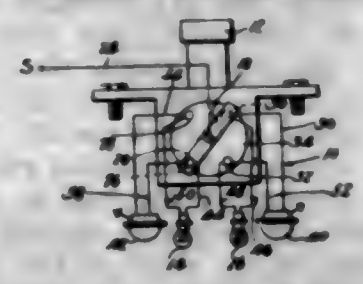


2. An electro-magnetic indicator comprising a generally rectangular housing having front and side walls, a window in the front wall of said housing, a first side frame member for the indicator positioned within said housing, a second side frame member carried by said first side frame member in spaced parallel relation therewith, mounting means to position said side frame members relative to said housing, an armature assembly pivotally mounted between said side frame members for rotary movement from a central neutral position to opposite limit positions, an indicator carried by said armature assembly adjacent said housing window operable to indicate the position of said armature, a centering spring one end thereof interconnected with said armature assembly and the other end thereof secured to side frame member operable to resiliently maintain said armature assembly in its central neutral position, a split collet frictionally engaging said armature assembly and secured to said one end of said centering spring to permit adjustment of the central neutral position of said armature, and electromagnetically operated actuators secured to said side frame members operable to actuate said armature assembly from said central neutral position to said opposite limit positions.

2,841,780
LIGHT CONDITION INDICATOR FOR VEHICLES

Kenneth R. Norton, El Paso, Tex.

Application June 28, 1956, Serial No. 592,637
4 Claims. (Cl. 340—252)



1. An indicating system for indicating the operable condition of vehicle head lamps each having bright and low light filaments comprising: a source of electrical energy, a power circuit connecting one set of light filaments with the source, a pair of testing circuits each including a pilot indicator lamp, said pilot lamps each

being connected in series to the filaments not energized, said testing circuits each being connected to the source, and switch means selectively closing the testing circuits to the light filaments not energized by the power circuit so as to test said last-named filaments.

2,841,781

ELECTRIC SIGNALLING DEVICE FOR TRAFFIC CONTROL

Walter Loh, Munich, Josef Hlebsch, Dachau, near Munich, and Theodor Wietek, Munich, Germany

Application January 9, 1956, Serial No. 558,111
Claims priority, application Germany January 10, 1955
4 Claims. (Cl. 340—321)



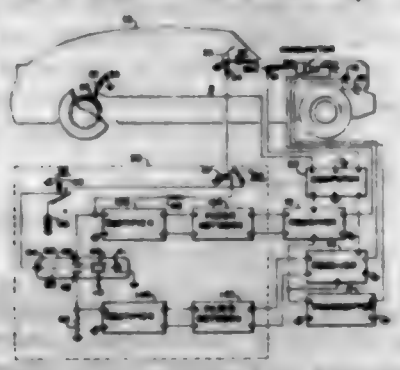
1. Traffic signalling device comprising a casing adapted to be used as a handle part and to receive therein at least one battery cell, a sleeve secured to the casing, a cylinder secured to the sleeve and composed of a transparent plastic material, a sleeve secured to the cylinder, a solid transparent plastic body in the form of a rod secured to the last-mentioned sleeve and having a peripheral side surface and an outer end face, a carrier in the form of an insulating plate secured on one end of the cylinder and having a light bulb secured on each side of the plate so that one light bulb will project light through the cylinder and the other bulb will project light through the transparent plastic body, and means to electrically connect the light bulbs to the battery, said cylinder having a color on its peripheral surface and the plastic body having a different color on its side peripheral surface and a third color on its end face remote from the battery cell.

2,841,782

EQUIPMENT MONITORING APPARATUS FOR RADAR SYSTEM

Knox McIlwain, Huntington, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application June 15, 1954, Serial No. 436,805
3 Claims. (Cl. 343—5)



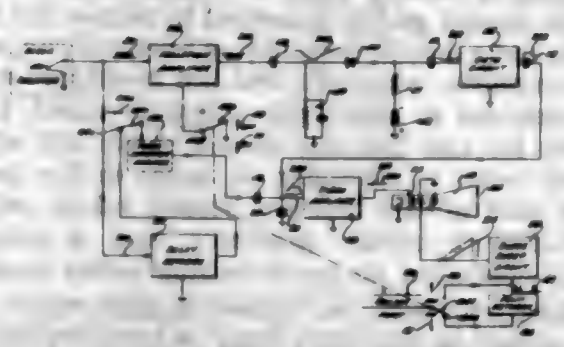
1. In a collision-prevention radar system having a transmitter and a pair of receivers for enabling automatic deceleration of a moving vehicle in accordance with its proximity to head-on objects, equipment monitoring apparatus for warning the operator of equipment failure comprising: first supply-circuit means for supplying a first receiver signal representative of ground-reflected energy received in response to energy radiated from said transmitter and picked up by a first of said receivers; second supply-circuit means for supplying a second receiver signal representative of ground-reflected energy received in response to energy radiated from said transmitter and picked up by a second of said receivers; the amplitude of each of said first and second receiver signals being dependent on the translation characteristics of the receiver through which it is translated; an electron-discharge device having a cathode, a pair of deflection electrodes, and an anode, one of said deflection electrodes being coupled to said first receiver-signal supply-circuit means and a second of said deflection electrodes being coupled to said second receiver-signal supply-circuit means, said deflection electrodes being jointly responsive to said receiver signals for controlling the anode current of said electron-discharge device in accordance with the difference in the output signals of said receivers; signaling apparatus for indicating equipment failure; a first relay coupled to said anode and responsive to the anode current of said electron-discharge device for controlling the operation of said signaling apparatus; and a second relay coupled to said receiver-signal supply-circuit means and responsive to at least one of said receiver signals for also controlling the operation of said signaling apparatus.

2,841,783

CLUTTER ELIMINATOR CIRCUIT

Hugh W. Jamieson, Woodland Hills, Paul J. Kibler, Los Angeles, and Tock A. Wilson, Playa Del Rey, Calif., assignors, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware

Application June 17, 1953, Serial No. 362,210
9 Claims. (Cl. 343—17.1)



1. A clutter eliminator circuit comprising a source of video signals, wherein said signals include useful target echo signals and undesirable clutter signals; gating pulse generating means, coupled to said source, and responsive to said signals to develop a gating signal only in the presence of clutter signals from said source; a delay network, coupled to said source, and adapted to delay the signals from said source; and indicating means connected to said gating pulse generating means and said delay network, said indicating means adapted to be inoperative during the occurrence of a gating signal and to be operative in the absence of a gating signal, whereby only useful target echo signals are visually displayed by said indicating means.

2,841,784

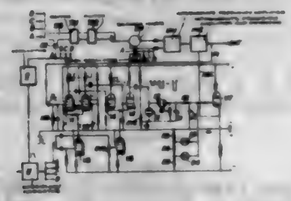
PILOT PULSE DUAL CHANNEL GAIN CONTROL

Alfred Benjamin Starks-Field, Chelmsford, Oswold Edward Keall, West Hanningfield, and Eric Holden Priestley, Leigh-on-Sea, England, assignors to Marconi's Wireless Telegraph Company Limited, London, England, a British company

Application March 29, 1954, Serial No. 419,288
Claims priority, application Great Britain April 1, 1953
2 Claims. (Cl. 343—17.1)

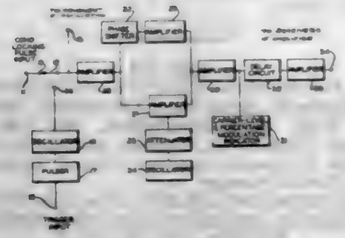
1. A radar system comprising a receiver channel, means for feeding a pulse of signals into a predetermined point of said receiver channel during a short period in the so-

called "dead time" prior to the transmission of a radar pulse, means for taking off said pulse of signals from said channel after passage through the part of said channel whose gain is to be automatically controlled, comparing means for comparing the pulse of signals thus taken off with a reference signal, means for utilizing the resultant of the comparison for automatically controlling the gain of said channel to maintain it at a predetermined value, a gating valve having at least a control grid, a cathode and a plate, said gating valve operating to control said comparing means and being inoperative except when a pulse of signals is fed into said channel, and comprising generator means for producing pulses synchronized with the transmitted pulse to appear in the "dead time," an oscillator connected to be controlled by the said synchronized pulses to feed pulses of oscillations into said predetermined point of said receiver channel whenever said oscillator receives a synchronized pulse from said generator means, means for feeding the synchronized pulses to the control of said gating valve, and wherein the



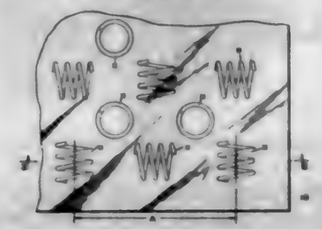
control grid of said gating valve is biased to render said gating valve inoperative except when a pulse of signals is being fed into said channel, and wherein the comparing means for comparing the pulse of signals comprises a first valve having a control grid, a cathode and an anode where said control grid is connected to receive the taken-off signals, and a second valve having a control grid, a cathode and an anode, where the said last mentioned control grid is connected to receive the reference signal, a cathode circuit for said first and second valves and wherein the gating valve is connected in series in the cathode circuit of each of said first and second valves, and further including a master generator and a subsidiary modulator controlled by synchronizing pulses from said master pulse generator to produce a pulse which is delayed to appear in the "dead time," a local oscillator being controlled by the subsidiary modulator to feed said pulse of signals into said predetermined point whenever said oscillator receives a pulse from the subsidiary modulator.

2,841,785
TARGET SIMULATING SIGNAL GENERATOR
Frederic Cunningham, Jr., Belmar, N. J., and Walter Selove, Chicago, Ill., assignors, by direct and mesne assignments, to the United States of America as represented by the Secretary of War
Application May 8, 1946, Serial No. 668,029
5 Claims. (Cl. 343—17.7)



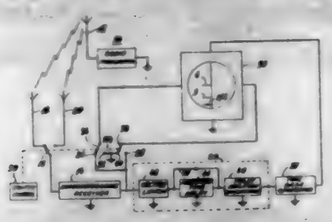
1. Apparatus for testing moving target indication radar systems comprising, a source of pulsed oscillations, means to feed said pulsed oscillations to the radar received as a locking pulse input, means to apply said pulsed oscillations to two parallel paths, means to shift the phase of said pulsed oscillations in one of said parallel paths by a fixed amount, means to amplitude modulate said pulsed oscillations in the other of said parallel paths, means to combine said phase shifted oscillations and said amplitude modulated oscillations to produce pulsed oscillations having phase and amplitude modulation, means to determine the carrier level and percentage modulation of said amplitude and phase modulated pulsed oscillations, and an amplifier and delay circuit in the output circuit of said phase-amplitude modulated pulsed oscillations.

2,841,786
DIELECTRIC STRUCTURES
Robert H. Dicke, Princeton, N. J., assignor to the United States of America as represented by the Secretary of the Navy
Application February 3, 1956, Serial No. 563,255
3 Claims. (Cl. 343—18)



1. A dielectric structure highly transparent to microwaves comprising a sheet of insulating material having imbedded therein a regular lattice array of metallic resonator elements, said resonators each having an axis, each resonator element having a resonance frequency less than the microwave frequency and being spaced apart a distance not substantially greater than one-fourth the microwave wave length, wherein said lattice array is a mono-layer of said resonator elements arranged with their axes regularly oriented in three mutually perpendicular directions.

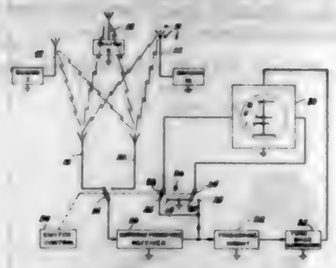
2,841,787
RADIO LOCATING APPARATUS
Leonard George Walter Knott, Hanwell, London, England, assignor to Ultra Electric, Inc., Wilmington, Del., a corporation of Delaware
Application May 8, 1953, Serial No. 353,870
Claims priority, application Great Britain May 8, 1952
3 Claims. (Cl. 343—101)



1. A radio locating system for guiding a vehicle to a given location including transmitting means for operation at said location to radiate spaced groups of equally spaced pulses of radio frequency energy, each group consisting of three or more pulses, said pulses being emitted at a low rate of repetition, and receiving apparatus for operation on board said vehicle arranged to detect said radio frequency energy, said receiving apparatus comprising a pair of directive antennas arranged with their

axes of greatest sensitivity inclined one to the other in the horizontal plane, a cathode ray tube indicating device coupled selectively to the output of each antenna for comparing their respective outputs a time base generator for causing deflection of the beam in said tube, and means coupled with said antennas and with said time base generator arranged to respond only to the second pulse of each of said groups of pulses for initiating a cycle of said time base circuit, said means comprising a delay line coupled to a pulse discriminator and arranged to delay the application of the first pulse of a given group to the input of said discriminator for a time interval equal to the spacing between successive pulses whereby the receipt of the second pulse in time coincidence with the application of said first pulse to the discriminator will cause operation of said discriminator to trigger said time base circuit.

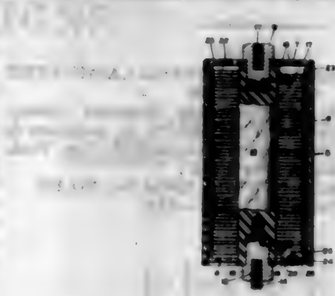
2,841,788
RADIO LOCATING SYSTEM AND APPARATUS THEREFOR
David Kerr, Ealing, London, England, assignor to Ultra Electric, Inc., Wilmington, Del., a corporation of Delaware
Application October 12, 1953, Serial No. 385,623
Claims priority, application Great Britain October 14, 1952
10 Claims. (Cl. 343—101)



1. A radio locating system of the homing type including in combination, self-controlled transmitting means for operation at a position to be located, said transmitting means being constructed to radiate spaced groups of pulses of radio frequency energy, the duration of each group being short relative to the time interval between successive groups, and receiving apparatus for homing on said transmitting means, said receiving apparatus comprising a cathode ray tube display device, time base generating means coupled to said tube and arranged to initiate a trace on the tube screen in response to and upon the reception of a radiated pulse from said transmitting means, said trace having a duration which is only slightly longer than the duration of a group of pulses, and means including a directional antenna system coupled to said tube for providing an indication thereon containing information as to the direction of said transmitting means, whereby a low power transmitting means can be homed upon in the presence of background noise.

2,841,789
LOADING COIL STRUCTURE
Rex E. Bassett, Jr., Fort Lauderdale, Fla., assignor to Bassett Research Corporation, Detroit, Mich., a corporation of Michigan
Application March 18, 1955, Serial No. 495,268
3 Claims. (Cl. 343—749)

3. In a loading coil for resonating a radio frequency system to desired frequency, a cylindrical casing, plastic end plates fitted to the extremities of said casing, metal end fittings supported in the centers of said end plates, a dielectric rod within said casing supporting and insulating said metal end fittings, a loading coil supported against the inner periphery of said casing and in contact with said end fittings respectively at its upper and lower



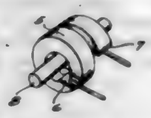
extremities, an inert gas filling said casing, whereby said loading coil may be utilized for resonating a radio frequency system to desired frequency by contacting said metal end fittings in said system.

2,841,790
DUAL SLOT WIDEBAND ANTENNA
Nils E. Lindenblad, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Original application September 27, 1950, Serial No. 186,969, now Patent No. 2,791,769, dated May 7, 1957. Divided and this application December 21, 1956, Serial No. 629,869
5 Claims. (Cl. 343—767)



1. An antenna system including an elongated hollow metallic structure having a cross-section comprising at least three hollow wing portions extending from the central axis of said structure, each of said wing portions having at least one set of elongated apertures therein lying side by side, one of said apertures being longer than the other, and means to couple a transmission line to said structure at each set of apertures to energize the same.

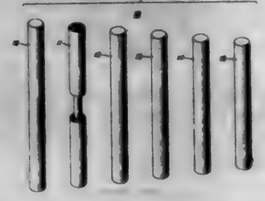
2,841,791
HIGH DIELECTRIC TYPE ANTENNA
Heinz M. Schlicke, Fox Point, Wis., assignor to Allen-Bradley Company, Milwaukee, Wis., a corporation of Wisconsin
Application January 26, 1953, Serial No. 333,326
3 Claims. (Cl. 343—787)



2. A magnetic dipole antenna for electrical frequencies of the upper frequency ranges comprising an open eyed helix of dielectric substance having a dielectric constant in excess of about 50 the side surfaces of said helix being bare, electrodes at the ends of said helix for transmission line connection comprising areas of substances

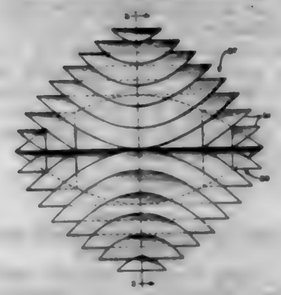
having the properties of metallic conduction in intimate contact with said helix ends, and a body of high permeability substance disposed in the eye of said helix.

2,841,792
DIRECTIONAL ARRAY EMPLOYING LAMINATED CONDUCTOR
James O. Edson, Warren Township, Somerset County, and Carl E. Schoideler, Plainfield, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 29, 1951, Serial No. 264,102
8 Claims. (Cl. 343—819)



1. In a directional antenna array, a driven element and a director element, said driven element comprising a pair of composite conductors, each comprising a multiplicity of very thin metal films separated by insulating material and said composite conductors being spaced around different portions of a common axis, and means for applying signals to said two composite conductors at the ends thereof at which they are adjacent one another, said last-mentioned means comprising conducting means for making contact with a plurality of said metal films.

2,841,793
MICROWAVE LENS
Cornelius Bryant Young, Jr., Jamaica, N. Y.
Application January 22, 1953, Serial No. 332,626
19 Claims. (Cl. 343—909)

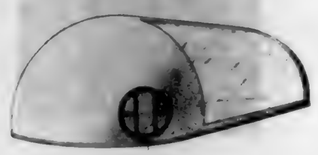


4. In a microwave lens of the path length delay type, two sections symmetrical with respect to a common plane, each section including a plurality of parallel conducting wave deflecting members of sheet material arranged in overlapped stacked relation and progressively decreasing in size in a direction away from said plane thereby forming a convex contour.

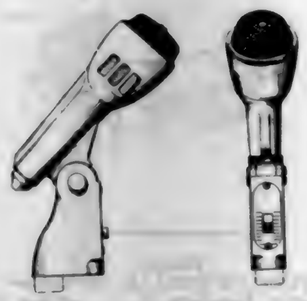
DESIGNS

JULY 1, 1958

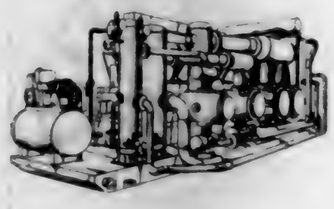
183,113
PLAY AREA ENCLOSURE
Walter W. Bird, Williamsville, N. Y., assignor to Birdair Structures, Inc., Buffalo, N. Y.
Application May 2, 1957, Serial No. 45,989
Term of patent 14 years
(Cl. D13—1)



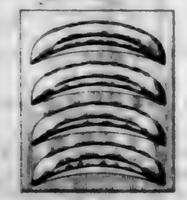
183,114
MICROPHONE
Louis R. Burroughs, Buchanan, Mich., assignor to Electro-Voice, Incorporated, Buchanan, Mich., a corporation of Indiana
Application September 20, 1957, Serial No. 47,798
Term of patent 14 years
(Cl. D26—14)



183,115
PACKAGED COMPRESSOR UNIT
George W. Calloway, Shreveport, La., assignor to The J. B. Beaird Company, Inc., Shreveport, La., a corporation of Delaware
Application May 6, 1955, Serial No. 35,859
Term of patent 14 years
(Cl. D65—1)



183,116
LOUVERED PANEL
Rudy P. Capranica, Arcadia, Calif.
Application March 2, 1956, Serial No. 40,438
Term of patent 14 years
(Cl. D62—4)



183,117
COMBINED LENS AND VENTILATOR COVER FOR A RECESSED LIGHT AND FAN UNIT
George Coleman, Glencoe, and Robert Podall, Highland Park, Ill., assignors to Berns Air King Corporation, Chicago, Ill.
Application May 27, 1957, Serial No. 46,356
Term of patent 14 years
(Cl. D48—16)



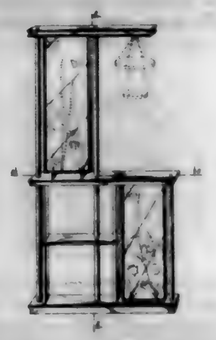
183,118
RESTAURANT OR SIMILAR ARTICLE
James D. Comstock, Houston, Tex.
Application January 28, 1957, Serial No. 44,632
Term of patent 14 years
(Cl. D13—1)



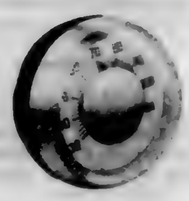
183,119
BUILDING
James D. Comstock, Houston, Tex.
Application April 4, 1957, Serial No. 45,578
Term of patent 14 years
(Cl. D13—1)



183,120
ROOM DIVIDER UNIT
John C. Disney, San Francisco, Calif., assignor to Moss Manufacturing Company Inc., San Francisco, Calif., a corporation of California
Application January 30, 1958, Serial No. 49,444
Term of patent 14 years
(Cl. D13—1)



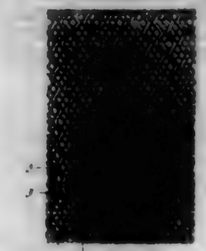
183,121
SPACE CONDITION RESPONSIVE INSTRUMENT
Henry Dreyfuss, South Pasadena, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application July 15, 1957, Serial No. 46,938
Term of patent 14 years
(Cl. D52—7)



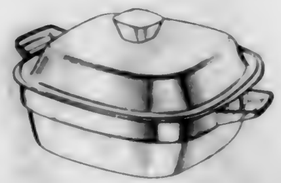
183,122
GOBLET
James E. Glynn, San Francisco, Calif.
Application July 16, 1957, Serial No. 46,966
Term of patent 14 years
(Cl. D36—8)



183,123
FUFFED TEXTILE FABRIC
Henry Earl Goforth and Clement Ralph Howell, Winnsboro, S. C., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application March 12, 1956, Serial No. 40,575
Term of patent 14 years
(Cl. D92—1)



183,124
CASSEROLE OR SIMILAR ARTICLE
John Caldwell Hampshire, New Rochelle, N. Y.
Application January 9, 1957, Serial No. 44,464
Term of patent 14 years
(Cl. D44—1)



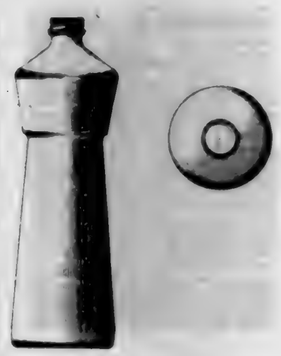
183,125
SPOON OR SIMILAR ARTICLE
Henri A. Horton, Knoxboro, N. Y., assignor to Oneida Ltd., New York, N. Y., a corporation of New York
Application March 4, 1957, Serial No. 45,059
Term of patent 14 years
(Cl. D54—12)



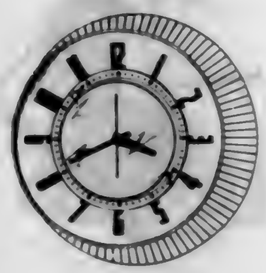
183,126
LACE TABLECLOTH
James S. Hughes, Kingston, Pa.
Application April 26, 1957, Serial No. 45,919
Term of patent 3½ years
(Cl. D92—26)



183,127
BOTTLE
James B. Johnson, Dallas, Tex., assignor to Anderson, Clayton & Co., Houston, Tex., a corporation of Delaware
Application November 16, 1956, Serial No. 43,791
Term of patent 14 years
(Cl. D58—8)



183,128
CLOCK OR SIMILAR ARTICLE
William V. Judson, Dover, Mass., assignor to General Electric Company, a corporation of New York
Application May 2, 1957, Serial No. 45,986
Term of patent 3½ years
(Cl. D42—7)



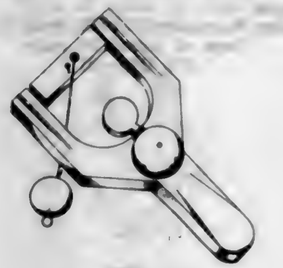
183,129
CLOCK OR SIMILAR ARTICLE
William V. Judson, Dover, Mass., assignor to General Electric Company, a corporation of New York
Application September 9, 1957, Serial No. 47,680
Term of patent 3½ years
(Cl. D42—7)



183,130
HINGE FOR LUGGAGE UNITS
Erwin Kalla, West Pittsburg, Pa., assignor to Reliable Luggage, Inc., West Pittsburg, Pa., a corporation of Pennsylvania
Application June 5, 1957, Serial No. 46,491
Term of patent 14 years
(Cl. D10—9)



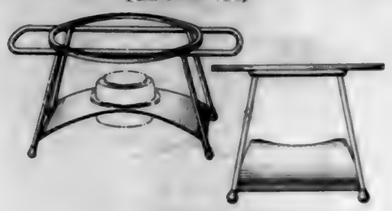
183,131
TETHERED BALL TOY
Alfred C. Kather, Los Angeles, Calif.
Application May 6, 1957, Serial No. 46,015
Term of patent 14 years
(Cl. D34—15)



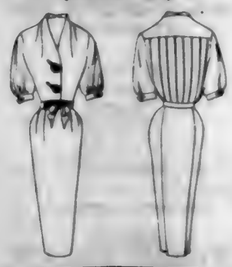
183,132
COMBINED CLOCK AND CIGARETTE LIGHTER
Samuel J. Kaufman, New York, N. Y.
Application December 16, 1957, Serial No. 48,920
Term of patent 7 years
(Cl. D42—7)



183,133
FOOD WARMING STAND
Michael S. Lax, New York, N. Y., assignor to Kromex Corporation, Cleveland, Ohio, a corporation of Ohio
Application September 30, 1957, Serial No. 47,932
Term of patent 14 years
(Cl. D81—18)



183,134
DRESS
Miriam A. Leibowitz, New York, N. Y., assignor to Ginsburg and Abelson, Inc., New York, N. Y., a corporation of New York
Application November 19, 1957, Serial No. 48,535
Term of patent 3½ years
(Cl. D3—26)



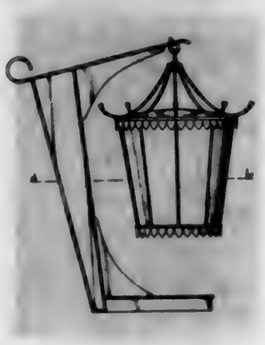
183,135
LAUNDRY CART
Robert A. May, Wynnewood, Pa., assignor to Proctor Electric Company, Philadelphia, Pa., a corporation of Pennsylvania
Application November 23, 1956, Serial No. 43,912
Term of patent 14 years
(Cl. D14—3)



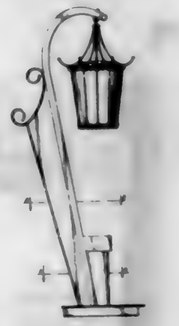
183,136
GUNSIGHT
Ralph E. McCabe, Auburn, Calif.
Application March 11, 1957, Serial No. 45,178
Term of patent 14 years
(Cl. D30—1)



183,137
LAMP
Gerald Moss, San Francisco, Calif.
Application June 19, 1957, Serial No. 46,650
Term of patent 14 years
(Cl. D48—28)



183,138
LAMP
Gerald Moss, San Francisco, Calif.
Application June 19, 1957, Serial No. 46,651
Term of patent 14 years
(Cl. D48—20)



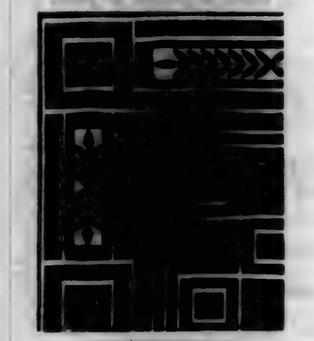
183,139
PORTABLE INCINERATOR
Milan O. Nelson, Petaluma, Calif.
Application October 8, 1956, Serial No. 43,259
Term of patent 7 years
(Cl. D81—1)



183,140
LACE FABRIC OR SIMILAR ARTICLE
Robert Arthur Padmore, Scranton, Pa.
Application March 26, 1957, Serial No. 45,444
Term of patent 3½ years
(Cl. D47—6)



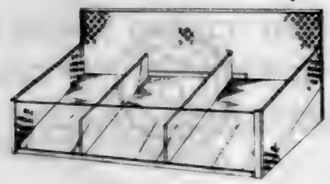
183,141
LACE TABLECLOTH
Robert Arthur Padmore, Scranton, Pa.
Application April 26, 1957, Serial No. 45,918
Term of patent 3½ years
(Cl. D92—26)



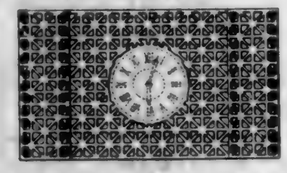
183,143
CHOCOLATE CONFECTION
Richard M. Palmer, Wyomissing, Pa.
Application April 3, 1958, Serial No. 50,314
Term of patent 14 years
(Cl. D82—2)



183,143
DISPLAY CASE
Barbara B. Rickert, New York, N. Y., assignor to Laros Incorporated, Bethlehem, Pa., a corporation of Pennsylvania
Application August 6, 1956, Serial No. 42,505
Term of patent 14 years
(Cl. D86—11)



183,144
CLOCK
Ben Rubin, Chicago, Ill.
Application July 11, 1956, Serial No. 42,212
Term of patent 14 years
(Cl. D42—7)



183,145
EXHAUST EXTENSION
Linus E. Russell, Springfield, Ohio, assignor to Peters & Russell, Inc., Springfield, Ohio, a corporation of Ohio
Application September 24, 1954, Serial No. 32,427
Term of patent 14 years
(Cl. D14—6)



183,146
FENCE POST CAP
Richard E. Savin, Chicago, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application November 29, 1956, Serial No. 43,986
Term of patent 14 years
(Cl. D28—1)



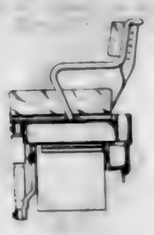
183,147
WHEEL COVER
Joseph R. Schomansky, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 28, 1956, Serial No. 44,350
Term of patent 7 years
(Cl. D14—30)



183,148
COMBINED TOY AIRPLANE AND BOMBSIGHT
David L. Severson, Madison, Wis.
Application April 5, 1957, Serial No. 45,598
Term of patent 7 years
(Cl. D34—15)



183,149
TRACTOR SEAT OR THE LIKE
Allison K. Simons, Whitefish Bay, Arthur O. Radke, Wauwatosa, and Joseph A. Champa, Milwaukee, Wis., assignors to Hickman Industries, Inc., Eden, N. Y., a corporation of New York
Application December 6, 1956, Serial No. 44,078
Term of patent 14 years
(Cl. D14—6)



183,150
BADGE OR SIMILAR ARTICLE
Alexander E. Ulmann, New York, N. Y.
Application August 30, 1956, Serial No. 42,797
Term of patent 14 years
(Cl. D29—2)



183,151
CHILD'S TOOTHBRUSH HOLDER
Earl E. Varner and Adam C. Zilem, Waco, Tex.
Application April 15, 1957, Serial No. 45,739
Term of patent 14 years
(Cl. D4—3)



183,152
ILLUMINABLE ELECTRIC DOOR CHIME
Carl Wellhofer, Jenkintown, Pa., assignor to Progress Manufacturing Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application May 8, 1957, Serial No. 46,059
Term of patent 14 years
(Cl. D72—1)



183,153
AUTOMOBILE
Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application May 4, 1956, Serial No. 41,357
Claims priority, application Germany November 14, 1955
Term of patent 7 years
(Cl. D14—3)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 1ST DAY OF JULY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Cornelius, Paul D., to Vlier Engineering Corp. Spring plunger. Re. 24,496, 7–1–58, Cl. 74—527.
Pace, Leo C. Container for shoes and the like. Re. 24,495, 7–1–58, Cl. 229—52.
Pan American Petroleum Corp.: *See*—
Vincent, Renic P. Re. 24,497.
Vincent, Renic P., to Pan American Petroleum Corp. Apparatus for pumping wells. Re. 24,497, 7–1–58, Cl. 103—52.
Vlier Engineering Corp.: *See*—
Cornelius, Paul D. Re. 24,496.

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Scanlon, Edward H. Conical or pyramidal red maple tree. 1,722, 7–1–58, Cl. 47—59.

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Beaird, J. B., Co., Inc.: *See*—
Calloway, George W. 183,115.
Berns Air King Corp.: *See*—
Coleman, George, and Podall. 183,117.
Bird, Walter W., to Birdair Structures, Inc. Play area enclosure. 183,113, 7–1–58, Cl. D13—1.
Birdair Structures, Inc.: *See*—
Bird, Walter W. 183,113.
Burroughs, Louis R., to Electro-Voice, Inc. Microphone. 183,114, 7–1–58, Cl. D26—14.
Calloway, George W., to The J. B. Beaird Co., Inc. Packaged compressor unit. 183,115, 7–1–58, Cl. D65—1.
Capranica, Rudy P. Louvered panel. 183,116, 7–1–58, Cl. D42—4.
Champa, Joseph A.: *See*—
Simons, Allison K., Radke, and Champa. 183,149.
Coleman, George, and R. Podall, to Berns Air King Corp. Combined lens and ventilator for a cover recessed light and fan unit. 183,117, 7–1–58, Cl. D48—16.
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Comstock, James D. Building. 183,119, 7–1–58, Cl. D13—1.
Daimler-Benz Aktiengesellschaft: *See*—
Wilfert, Karl. 183,153.
Disney, John C., to Moss Mfg. Co, Inc. Room divider unit. 183,120, 7–1–58, Cl. D13—1.
Dreyfuss, Henry, to Minneapolis-Honeywell Regulator Co. Space condition responsive instrument. 183,121, 7–1–58, Cl. D52—7.
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General Electric Co.: *See*—
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Judson, William V. 183,129.
General Motors Corp.: *See*—
Schemansky, Joseph R. 183,147.
Ginsburg and Abelson, Inc.: *See*—
Leibowitz, Miriam A. 183,134.
Glynn, James E. Goblet. 183,122, 7–1–58, Cl. D36—8.
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Hampshire, John C. Casserole or similar article. 183,124, 7–1–58, Cl. D44—1.
Hickman Industries, Inc.: *See*—
Simons, Allison K., Radke, and Champa. 183,149.
Horton, Henri A., to Oneida Ltd. Spoon or similar article. 181,125, 7–1–58, Cl. D34—12.
Howell, Clement R.: *See*—
Goforth, Henry E., and Howell. 183,123.
Hughes, James S. Lace tablecloth. 183,126, 7–1–58, Cl. D92—26.
Johnson, James B., to Anderson, Clayton & Co. Bottle. 183,127, 7–1–58, Cl. D58—8.
Judson, William V., to General Electric Co. Clock or similar article. 183,128, 7–1–58, Cl. D42—7.
Judson, William V., to General Electric Co. Clock or similar article. 183,129, 7–1–58, Cl. D42—7.
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Kather, Alfred C. Tethered ball toy. 183,131, 7–1–58, Cl. D34—15.
Kaufman, Samuel J. Combined clock and cigarette lighter. 183,132, 7–1–58, Cl. D42—7.
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Lax, Michael S. 183,133.
Laros Inc.: *See*—
Rickert, Barbara B. 183,143.
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Leibowitz, Miriam A., to Ginsburg and Abelson, Inc. Dress. 183,134, 7–1–58, Cl. D3—26.
May, Robert A., to Proctor Electric Co. Laundry cart. 183,135, 7–1–58, Cl. D14—3.
McCabe, Ralph E. Gunsight. 183,136, 7–1–58, Cl. D90—1.
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Moss, Gerald. Lamp. 183,138, 7–1–58, Cl. D48—20.
Moss Mfg. Co. Inc.: *See*—
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Padmore, Robert A. Lace fabric or similar article. 183,140, 7–1–58, Cl. D47—6.
Padmore, Robert A. Lace tablecloth. 183,141, 7–1–58, Cl. D92—26.
Palmer, Richard M. Chocolate confection. 183,142, 7–1–58, Cl. D62—2.
Peters & Russell, Inc.: *See*—
Russell, Linus E. 183,145.
Podall, Robert: *See*—
Coleman, George, and Podall. 183,117.
Proctor Electric Co.: *See*—
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Progress Mfg. Co., Inc.: *See*—
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Radke, Arthur O.: *See*—
Simons, Allison K., Radke, and Champa. 183,149.
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Kalla, Erwin. 183,130.
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Rubin, Ben. Clock. 183,144, 7–1–58, Cl. D42—7.
Russell, Linus E., to Peters & Russell, Inc. Exhaust extension. 183,145, 7–1–58, Cl. D14—6.
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Simons, Allison K., A. O. Radke, and J. A. Champa, to Hickman Industries, Inc. Tractor seat or the like. 183,149, 7–1–58, Cl. D14—6.
Ulmann, Alexander E. Badge or similar article. 183,150, 7–1–58, Cl. D29—2.
United States Rubber Co.: *See*—
Goforth, Henry E., and Howell. 183,123.
Varner, Earl E., and A. C. Zilem. Child's toothbrush holder. 183,151, 7–1–58, Cl. D4—3.
Wellhofer, Carl, to Progress Mfg. Co., Inc. Illuminable electric door chime. 183,152, 7–1–58, Cl. D72—1.
Wilfert, Karl, to Daimler-Benz Aktiengesellschaft. Automobile. 183,153, 7–1–58, Cl. D14—3.
Zilem, Adam C.: *See*—
Varner, Earl E., and Zilem. 183,151.

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TO WHOM

PATENTS WERE ISSUED ON THE 1st DAY OF JULY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

AB Thorell & Persson: *See*—
Schechter, Richard. 2,841,074.
Aacon Contracting Co., Inc.: *See*—
Cadillac, John G. and R. T. 2,841,278.
Abate, Anthony, to Raytheon Mfg. Co. Count transferring devices. 2,841,334, 7-1-58, Cl. 235—92.
Aber Co., The: *See*—
Petrofsky, Paul E. 2,841,193.
Abos, Ralph L. and R. L., and C. A. Stuewe. Water softener. 2,841,286, 7-1-58, Cl. 210—278.
Abos, Ramon L.: *See*—
Abos, Ralph L. and R. L., and Stuewe. 2,841,286.
Abraham, Herbert, to The Ruberoid Co. Shingle. 2,841,099, 7-1-58, Cl. 108—7.
Abramitis, Walter W., to Armour and Co. Insecticidal compositions and method of combating insects. 2,841,521, 7-1-58, Cl. 167—24.
Abrams, Ralph. Tool coupling. 2,841,261, 7-1-58, Cl. 192—66.
Ackerman, Harold S., to J. F. Baier. Midget gas fired hot water boiler. 2,841,124, 7-1-58, Cl. 122—214.
Acme Visible Records, Inc.: *See*—
Tod, Allan H. 2,841 066.
Adam, Folger. Jail locking devices, and the like. 2,841,252, 7-1-58, Cl. 189—7.
Adams, Arthur R., to The Safe Padlock and Hardware Co. Sliding door lock. 2,841,431, 7-1-58, Cl. 292—17.
Adams, Frances W. Spiral bindery table. 2,841,291, 7-1-58, Cl. 211—134.
Adloff, Jakob A., to General Motors Corp. Gear-shift mechanism for motor vehicles. 2,841,028, 7-1-58, Cl. 74—484.
Advance Glove Mfg. Co.: *See*—
Kita, Benjamin B. 2,840,823.
Aeroquip Corp.: *See*—
Woolsey, Theodore A., Herman, and Rice. 2,841,420.
Aerovox Corp.: *See*—
De La Fuente, Murray. 2,841,282.
Agins, George, E. Odin, J. K. Macomber, and C. D. Beck, to American Bosch Arma Corp. Calculating apparatus. 2,841,333, 7-1-58, Cl. 235—61.5.
Ahlbrecht, Arthur H., and H. A. Brown, to Minnesota Mining & Mfg. Co. Fluorocarbon vinyl-type esters and polymers. 2,841,579, 7-1-58, Cl. 260—79.3.
Ahlquist, Russell W., and L. H. Fisler. Door lock. 2,841,432, 7-1-58, Cl. 292—169.
Aiken, William L., to S K F Industries, Inc. Cage for endwise assembly of balls on valve stems. 2,841,128, 7-1-58, Cl. 123—90.
Air Reduction Co., Inc.: *See*—
Burch, Robert J., and Leeds. 2,841,625.
Hay, Wayne W. 2,841,142.
Airtron, Inc.: *See*—
Ingalls, David. 2,840,897.
Aktiebolaget Pharmacia: *See*—
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Gustavsson, Stig, Ydring, and Nylander. 2,841,360.
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Ward, James C. 2,841,414.
Albert, Harry E., to The Firestone Tire & Rubber Co. Thiobis dialkylphenols. 2,841,619, 7-1-58, Cl. 260—609.
Albert, Harry E., to The Firestone Tire & Rubber Co. Use of certain bis (2,4-dialkylphenol) monosulfides in rubber as antiozonant and product obtained. 2,841,628, 7-1-58, Cl. 260—810.
Aldridge, Clyde L., and R. N. Watts, to Esso Research and Engineering Co. Aldehyde purification. 2,841,618, 7-1-58, Cl. 260—604.
Alexander, Carl Z. Radiators. 2,841,685, 7-1-58, Cl. 219—38.
Alford, Harvey E., and C.-W. Liao, to The Standard Oil Co. Lubricating oil additive and oil containing the same having improved water tolerance. 2,841,551, 7-1-58, Cl. 252—18.
Allen-Bradley Co.: *See*—
Schlicke, Heinz M. 2,841,791.
Allen, Charles S. Emergency brake means for trailers and trucks. 2,841,249, 7-1-58, Cl. 188—2.
Allied Chemical & Dye Corp.: *See*—
Coppage, Jesse C. 2,841,060.
Allis-Chalmers Mfg. Co.: *See*—
Peter, Charles R. 2,841,670.
Sealey, William C. 2,841,662.
Wurgler, John W. 2,841,668.
Althens, Herbert E., to The Reece Corp. Sewing machine clamps. 2,841,106, 7-1-58, Cl. 112—237.
Ambrose, Henry A., and J. H. Platt, to Gulf Research & Development Co. Soluble cutting oil and method of applying the same. 2,841,554, 7-1-58, Cl. 252—33.4.
American Art Metals Co.: *See*—
May, Maurice. 2,840,868.

American Bosch Arma Corp.: *See*—
Agins, George, Odin, Macomber, and Beck. 2,841,333.
Newman, Theodore J. 2,841,751.
Savet, Paul H. 2,841,721.
Statsinger, Joseph. 2,841,329.
Statsinger, Joseph. 2,841,677.
Tellerman, Jacob. 2,841,720.
American Brake Shoe Co.: *See*—
Klein, Edmund A. 2,841,118.
American Cyanamid Co.: *See*—
Lecher, Hans Z., and Buell. 2,841,575.
Long, Robert S., and Kantor. 2,841,613.
Riall, Charles T. 2,841,150.
Wohnsiedler, Henry P. 2,841,571.
American Infra Red Radiant Co., Inc.: *See*—
Schwank, Günther. 2,841,133.
American Machine & Foundry Co.: *See*—
Dearsley, George. 2,841,154.
American Machine and Metals, Inc.: *See*—
Buss, Benjamin A. 2,841,176.
Weicker, Frederic C. 2,841,308.
American-Marietta Co.: *See*—
Washabaugh, Edward P. 2,841,297.
Washabaugh, Edward P. 2,841,303.
American Motors Corp.: *See*—
Philipp, Lawrence A. 2,841,132.
American Viscose Corp.: *See*—
Denyssen, Ivanhoe P. 2,840,855.
Hayes, Mary B. 2,841,463.
Lytton, Marion R. 2,841,462.
Andersen, Carl N., and W. T. Somerville, to Van Ameringen-Haebler, Inc. Hair waving compositions containing secondary amine aliphatic alcohol dithiocarbamates. 2,841,530, 7-1-58, Cl. 167—87.1.
Anderson, Arnold N. Automatic transfer switch. 2,841,666, 7-1-58, Cl. 200—50.
Anderson, Arthur W., to The Burdick Corp. Multiple switch construction. 2,841,663, 7-1-58, Cl. 200—18.
Andreassen, Donald R., and I. Herman, to Chamberlain Corp. Method of applying a copper band to a metallic surface. 2,841,688, 7-1-58, Cl. 219—76.
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Noble, Aubrey E., and Anness. 2,841,341.
Ansul Chemical Co.: *See*—
Guise, Arthur B. 2,841,229.
Appel, Andrew L. Scarifier attachment for tractor mounted shovel loaders. 2,840,931, 7-1-58, Cl. 37—117.5.
Arceneaux, James G. Sugar cane planter. 2,841,103, 7-1-58, Cl. 111—5.
Ardrey, Otis R. Meat grinder having plural cutting means. 2,841,197, 7-1-58, Cl. 146—182.
Armco Steel Corp.: *See*—
Emm, Fred A. 2,840 890.
Armington, George E., to General Motors Corp. Power steering apparatus for sharp turning. 2,841,231, 7-1-58, Cl. 180—79.2.
Armour and Co.: *See*—
Abramitis, Walter W. 2,841,521.
Arnao, Victor P. Portable folding cart-table. 2,841,407, 7-1-58, Cl. 280—36.
Aronson, Theodore F.: *See*—
Halahan, John, Aronson, and Lyon. 2,840,969.
Askania Werke Akt.: *See*—
Schmidt, Arnold. 2,841,177.
Athey, Skipwith W., L. L. Pourciau, and D. B. Shaw, to General Precision Laboratory Inc. Record actuated sound system. 2,841,654, 7-1-58, Cl. 179—100.1.
Atlas Powder Co.: *See*—
Barker, George E. 2,841,560.
Atwood, Hyatt B., to Herr Mfg. Co., Inc. Spinning ring for travelers. 2,840 981, 7-1-58, Cl. 57—120.
Automatic Druckmaschinenfabrik Dr. W. Hinniger & Sohne: *See*—
Kaufmann, Kurt. 2,841,081.
Automatic Shifters, Inc.: *See*—
Ingres, Jeannot G. 2,841,027.
Autrey, Morris E. Spark intensifying device. 2,841,629, 7-1-58, Cl. 123—148.
Ausin, John M. Combination valve and plug. 2,841,166, 7-1-58, Cl. 137—223.
Avco Mfg. Corp.: *See*—
Bopp, Calvin C., and Bradmiller. 2,841,703.
Avery-Hardoll Ltd.: *See*—
Fraser, John. 2,841,191.
B-I-F Industries, Inc.: *See*—
Harper, Lynous E. 2,841,024.
Babcock & Wilcox Co., The: *See*—
Tollow, Frederick S. 2,841,122.
Bacher, Alfred, to G. M. Pfaff Akt. Sewing machines. 2,841,105, 7-1-58, Cl. 112—77.
Badalich, Frank C., to Bell & Howell Co. Slide changer. 2,840,941, 7-1-58, Cl. 40—79.

Badger, Algernon S., to Esso Research and Engineering Co. Low pressure blowout preventer. 2,841,422, 7-1-58, Cl. 286—16.5.
Badley, Rex R.: *See*—
Bird, Len O., and Badley. 2 840,935.
Bagby, John P., S. R. Freeland, and M. W. La Rue, Jr., to Bell & Howell Co. Exposure control for photographic cameras. 2,841,064, 7-1-58, Cl. 95—64.
Baier, John F.: *See*—
Ackerman, Harold S. 2,841,124.
Baker, John R., and J. F. Muse, to Baker Oil Tools, Inc. Apparatus for automatically filling well bore conduit strings. 2,841,171, 7-1-58, Cl. 137—493.
Baker Oil Tools, Inc.: *See*—
Baker, Reuben C., and Conrad. 2,841,224.
Baker, John R., and Muse. 2,841,171.
Conrad, Martin B., and Muse. 2 841,226.
Baker, Ralph C., to The Sheffield Corp. Pneumatic gauging device. 2,841 008 7-1-58, Cl. 73—37.9
Baker, Reuben C., and M. B. Conrad, to Baker Oil Tools, Inc. Well packer and circulation joint. 2,841,224, 7-1-58, Cl. 166—134.
Ball, John D., and C. R. Wischmeyer, to Esso Research and Engineering Co. Generation and recording of displacement dependent modulated carriers. 2,841,778, 7-1-58, Cl. 340—18.
Ballantine, P. & Sons: *See*—
Pagdin, William G., Macaluso, and Bulat. 2,841,488.
Bame, John L.: *See*—
Yust, Venard E., and Bame. 2,841,480.
Barker, George E., to Atlas Powder Co. Pressure transmitting fluids. 2,841,560, 7-1-58, Cl. 252—78.
Barrett, Arthur M. to The Barrett Bindery Co. Portable display binder. 2,841,416, 7-1-58, Cl. 281—38.
Barrett Bindery Co., The: *See*—
Barrett, Arthur M. 2,841,416.
Barron John T.: *See*—
Whiteman, Irvin B., and Barron. 2,841,092.
Bartelink, Everhard H. B., to General Precision Laboratory Inc. Color television system. 2,841,040, 7-1-58, Cl. 178—5.2.
Bartlett, Robert C.: *See*—
Russell, Theodore B., and Bartlett. 2,841,358.
Barton, Loy E., to Radio Corp. of America. Semi-conductor automatic gain control system. 2,841,702, 7-1-58, Cl. 250—20.
Basch, Edgar D. Check wire pay-out stake. 2,841,104, 7-1-58, Cl. 111—49.
Bassett Research Corp.: *See*—
Bassett, Rex E., Jr. 2,841,789.
Bassett, Rex E., Jr., to Bassett Research Corp. Loading coil structure. 2,841,782, 7-1-58, Cl. 343—749.
Bastable, Edward H. Heel lift and method of making the same. 2,840,928, 7-1-58, Cl. 36—34.
Baster, Forest S., to The White Motor Co. Cooling system. 2,841,127, 7-1-58, Cl. 123—41.1.
Bateman, Alva W., to E. I. du Pont de Nemours and Co. Article of manufacture and process of making same. 2,840,881, 7-1-58, Cl. 28—79.
Bausch & Lomb Optical Co.: *See*—
Gay, Fred G., Jr., and Parker. 2,840,821.
Stegeman, Raymond F. E. 2,841 051.
Beach, Earle J., and J. T. Kunz, to Schulmerich Electronics, Inc. Instruments. 2,841 044, 7-1-58, Cl. 84—423.
Beall, Richard W., Jr. Self venting dispensing spout. 2,841,313, 7-1-58, Cl. 222—479.
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Bullard, Robert L., and Beatty. 2,841,762.
Beaver, David J., and P. J. Stoffel, to Monsanto Chemical Co. Method of preserving a rubber with an α,α'-bis (hydroxy phenyl)-2,6-xylenol and resulting compositions. 2,841,627, 7-1-58, Cl. 260—810.
Becker, Alfred, to Ciba Pharmaceutical Products, Inc. Separation of mixtures of deserpidine and reserpine by nitrosation. 2,841,587, 7-1-58, Cl. 260—287.
Beeking, Donald H.: *See*—
Brown, Henry, Beeking, and Tomaszewski. 2,841,602.
Behrens, Heinz. Granular material drying apparatus. 2,840,923, 7-1-58, Cl. 34—164.
Beier, Alice, nee Siegenheim: *See*—
Beier, Josef. 2,841,019.
Beier, Hans H.: *See*—
Beier, Josef. 2,841,019.
Beier, Josef, deceased: A. Beier, nee Siegenheim, and H. H. and R. Beier, heirs. Infinitely variable friction disk power transmission. 2,841,019, 7-1-58, Cl. 74—199.
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Beier, Josef. 2,841,019.
Belke Mfg. Co.: *See*—
Kotz, Raymond W., Dammkoehler, and Belke. 2,841,547.
Belke, Ralph E.: *See*—
Kotz, Raymond W., Dammkoehler, and Belke. 2,841,547.
Bell & Howell Co.: *See*—
Badalich, Frank C. 2,840,941.
Bagby, John P., Freeland, and La Rue. 2,841,064.
Bell Telephone Laboratories, Inc.: *See*—
Edson, James O., and Scheidsler. 2,841,702.
Pierce, John R. 2,841,738.
Pierce, John R. 2,841,739.
Rieke, John W. 2,841,638.
Bello, Pablo D. Dispensing hopper with improved valve. 2,841,812, 7-1-58, Cl. 222—181.
Benander, George E., to General Electric Co. Wiring device with quick connect terminals. 2,841,673, 7-1-58, Cl. 200—166.
Bendix Aviation Corp.: *See*—
Martin, Lyle. 2,841,336.
Mason, Richard J., and Jaquith. 2,841,175.
Roush, Guy F. 2,841 017
Wiley, William C. 2,841,729.
Wiley, William C. 2,841,741.
Benedetti, Amerigo J. Combination liquid and paste wax applier and buffer. 2,840,839, 7-1-58, Cl. 15—124.
Bennett, William O., Jr., F. D. Lower, and G. Ott, Jr., to Bulova Watch Co., Inc. Package for watch main-spring. 2,841,280, 7-1-58, Cl. 206—70.
Bentsen, Arthur R., to General Electric Co. Electric fixture. 2,841,695, 7-1-58, Cl. 240—78.
Beohner, Harry L., to Pfaudler Permutit Inc. Process of operating a demineralising installation. 2,841,550, 7-1-58, Cl. 210—26.
Berck, William F., to Ralph N. Brodie Co. Shut-off valve. 2,841,359, 7-1-58, Cl. 251—25.
Berger, Carl D., and E. E. Witt, to Campbell Soup Co. Process for the recovery of alpha-ketoglutaric acid. 2,841,616, 7-1-58, Cl. 260—537.
Berger, Theodore E. Selvedge protector. 2,841,185, 7-1-58, Cl. 139—195.
Bergin, Martha J., to Sylvania Electric Products Inc. Phosphor-coating suspension. 2,841,562, 7-1-58, Cl. 252—301.3.
Bergstrom, Ralph W., and H. D. Lindeman, to Campbell Soup Co. Poultry boning machine. 2,840,849, 7-1-58, Cl. 17—1.
Berns, Otto Co., Inc.: *See*—
Webster, Milo K. 2,841,694.
Berquist, Leonard G., to Clark Equipment Co. Method of and means for handling coils of wire. 2,841,300, 7-1-58, Cl. 214—620.
Berry, Kenneth L., to E. I. du Pont de Nemours and Co. Process for preparing fibrous and water insoluble alkali metal titanates and new fibrous crystalline alkali metal tetratitanates obtained thereby. 2,841,470, 7-1-58, Cl. 23—51.
Bersworth, Frederick C., to The Dow Chemical Co. N-alkyl substituted alkylene polyamine methylene phosphonic acids. 2,841,611, 7-1-58, Cl. 260—500.
Bertram, Albert H., to Firma Penicillin-Gesellschaft Danelsberg & Co. Injection device for liquids and ampoule therefor. 2,841,143, 7-1-58, Cl. 128—216.
Betsler, Martin, to Minimax Akt. Apparatus for extinguishing fires. 2,841,227, 7-1-58, Cl. 169—1.
Bibring, Hervé, to Office National d'Etudes et de Recherches Aeronautiques. Metal alloy and its manufacturing process. 2,841,511, 7-1-58, Cl. 148—2.
Bickford, Frederick E. Package making machine. 2,841,058, 7-1-58, Cl. 93—44.
Bidner, John P., M. Connor, W. H. McClure, and W. Parks, to Sharon Steel Corp. Method of economically introducing zirconium into steel. 2,840,872, 7-1-58, Cl. 22—215.
Bidwell, Joseph B.: *See*—
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Biggs, Albert J., to Haseltine Research Inc. Color-television image-reproducing apparatus. 2,841,644, 7-1-58, Cl. 178—5.4.
Biginelli, Oreste. Apparatus for shaping tubular parts. 2,840,884, 7-1-58, Cl. 29—1.3.
Birch, Vinton F., to General Motors Corp. Throttle actuating mechanism. 2,841,371, 7-1-58, Cl. 261—23.
Bird, Len O., and R. R. Badley, to Western Equipment Mfg. Co. Earth-working apparatus. 2,840,935, 7-1-58, Cl. 37—145.
Bird, Whitworth F., to Collins & Aikman Corp. Method of and apparatus for making polyurethane foam coated fabrics. 2,841,205, 7-1-58, Cl. 154—37.
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Guest, Lawrence V. 2,841,399.
Birum, Gail H., to Monsanto Chemical Co. Adducts of trithiane with sulfenyl chlorides and phosphites. 2,841,524, 7-1-58, Cl. 167—33.
Birum, Gail H., and W. E. Weesner, to Monsanto Chemical Co. Biological toxicants. 2,841,525, 7-1-58, Cl. 167—33.
Black, James J., to Trailmobile, Inc. Upper fifth wheel load-bearing frame structure for semi-trailers. 2,841,415, 7-1-58, Cl. 280—106.
Black, Lloyd V., to Pittsburgh Plate Glass Co. Guide for glass bending molds. 2,840,953, 7-1-58, Cl. 49—67.
Blackstone Corp.: *See*—
Lodge, Alvin. 2,841,260.
Blake, Francis G., and A. E. Tilley, to California Research Corp. Method for compensating seismic detector signals for intersignal time variations. 2,841,777, 7-1-58, Cl. 340—15.
Bland, George F., W. J. Deerhake, and J. Jeenel, to International Business Machines Corp. Convertible storage systems, 2,841,740, 7-1-58, Cl. 315—8.6.
Blankers, Zeger H. Shore-controlled method and system of preamplifier exchange. 2,841,776, 7-1-58, Cl. 340—4.
Blanton, George K., and T. A. Feild, Jr., to Union Carbide Corp. Anti-static composition, process of making and process of applying. 2,841,567, 7-1-58, Cl. 260—29.6.
Blattner, Emil H., to The Symington-Gould Corp. Universal coupler and yoke connection. 2,841,295, 7-1-58, Cl. 213—72.
Bliss, Albert, to S. A. Thomas, Jr. Roller buckle. 2,840,876, 7-1-58, Cl. 24—171.
Bloomberg, David J., and N. Burgess, to General Electric Co. Improved method and arrangement for starting reaction type propulsion units using an auxiliary reaction type propulsion unit. 2,840,987, 7-1-58, Cl. 60—39.14.
Blow, Angus W., to General Dynamics Corp. Privacy insuring means for intercommunication systems. 2,841,647, 7-1-58, Cl. 179—1.
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Agins, George, Odin, Macomber, and Bock. 2,841,333.
Bodden, William, & Son Ltd.: *See*—
Whitehead, James. 2,840,980.
Boeing Airplane Co.: *See*—
Houser, Alfred A. 2,840,913.
Hubbard, Robert M. 2 841,656.
Shumate, William. 2,841,773.
Boice, Fred R. Clamping tool for clamping together cylindrical containers. 2,840,879, 7-1-58, Cl. 24—259.

Boisvieux, Jacques M., to Compagnie Francaise Thomson-Houston. Pulse code modulation system. 2,841,649, 7-1-58, Cl. 179—1.5.

Bolton, Denis, to The British Thomson-Houston Co., Ltd. Electric control systems particularly suitable for Ward-Leonard drives. 2,841,752, 7-1-58, Cl. 318—145.

Bondurant, Carlton W., to Standard-Thomson Corp. Thermal responsive device. 2,841,014, 7-1-58, Cl. 74—2.

Boon, William R., E. C. Edgar, R. Ghosh, N. Greenhalgh, E. S. Hopf, and B. F. Burnand, to Imperial Chemical Industries Ltd. Phosphorothiolic acid ester compositions and methods of destroying insects. 2,841,517, 7-1-58, Cl. 167—22.

Booth, Sheldon M. Liquid feed for a grinding wheel. 2,840,960, 7-1-58, Cl. 51—287.

Bopp, Calvin C., and R. W. Bradmiller, to Avco Mfg. Corp. Transistor mixer circuit with gain control. 2,841,703, 7-1-58, Cl. 250—20.

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Borgman, Arthur C., and W. B. Sheard, to The Patent Scaffolding Co., Inc. Automatic brace locks for sectional scaffolding. 2,841,452, 7-1-58, Cl. 304—40.

Bornstein, Leopold F. Method of making thermosetting molding compositions containing filler. 2,841,565, 7-1-58, Cl. 260—17.3.

Bourns Laboratories, Inc.: *See*—
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Box, William E., and J. T. Claridge, to Electromagnets Ltd. Magnetic separators. 2,841,285, 7-1-58, Cl. 209—223.

Boyce, Guy B., to The Hydrovane Compressor Co. Ltd. Means for controlling an engine-driven gas compressor. 2,841,321, 7-1-58, Cl. 230—9.

Boyle, Horace H. Dental prosthetic appliances. 2,840,911, 7-1-58, Cl. 32—32.

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Brandstrom, Arne E., N. S. Hjelte, and O. Martensson, to Aktiebolaget Pharmacia. Alpha-aryl, alpha(2-pyridyl) butyryl amides and process of preparation. 2,841,589, 7-1-58, Cl. 260—294.

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Brewer, Nathaniel, and M. Evanenko, to Fischer & Porter Co. Magnetic-clutch integrator. 2,841,330, 7-1-58, Cl. 235—61.

Breyer, Theodore V. Earth and material handling implement. 2,840,932, 7-1-58, Cl. 37—145.

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British Thomson-Houston Co., Ltd., The: *See*—
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Brockman, Earl H., ½ to P. Brockman. Dustless meal and method of preparing the same. 2,841,496, 7-1-58, Cl. 99—2.

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Kirkpatrick, James S., and Zylstra. 2,841,083.

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Brown, Charles K., Jr. Dish washer with automatic jet operation. 2,840,838, 7-1-58, Cl. 15—74.

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Buell, Bennett G.: *See*—
Lecher, Hans Z., and Buell. 2,841,575.

Buffelen Woodworking Co.: *See*—
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Bulova Watch Co., Inc.: *See*—
Bennett, William O., Jr., Lower, and Ott. 2,841,280.

Burch, Robert J., and M. W. Leeds, to Air Reduction Co., Inc. Stabilization of chlorinated hydrocarbons with 2,5-dimethyl-1,5-hexadiene-3-yne and synergistic mixtures containing same. 2,841,625, 7-1-58, Cl. 260—652.5.

Burdick Corp., The: *See*—
Anderson, Arthur W. 2,841,663.

Burdick, Hugh T., to Illinois Tool Works. Hook fastener. 2,841,353, 7-1-58, Cl. 248—224.

Burgess, Neil: *See*—
Bloomberg, David J., and Burgess. 2,840,987.

Burnand, Betty F.: *See*—
Boon, William R., Edgar, Ghosh, Greenhalgh, Hopf, and Burnand. 2,841,517.

Burr, Robert P., to Haseltine Research, Inc. Image-reproducing apparatus. 2,841,641, 7-1-58, Cl. 178—5.4.

Burt, William E.: *See*—
Ecke, George G., Kolka, and Burt. 2,841,593.

Buse, Benjamin A., to American Machine and Metals, Inc. Washer supply controls. 2,841,176, 7-1-58, Cl. 137—565.

Butler, John M.: *See*—
Fields, Joseph E., and Butler. 2,841,558.

Byrne Doors, Inc.: *See*—
Urquhart, Thornton L. 2,841,390.

C. A. V. Ltd.: *See*—
Evans, Fraser M. 2,841,085.
Ridel, Richard W., and Curson. 2,841,214.

C-L Processes, Inc.: *See*—
Carcassonne-Leduc, Roger P. C. 2,841,497.

Cadillac, John G. and R. T., to Aacon Contracting Co., Inc. Motor vehicle package. 2,841,278, 7-1-58, Cl. 206—65.

Cadillac Robert T.: *See*—
Cadillac John G. and R. T. 2,841,278.

Cahn, Frank J., and E. B. Hagerty, to Louis Milani Foods, Inc. Cold water-soluble gelatin composition and method of preparing the same. 2,841,498, 7-1-58, Cl. 99—130.

California Research Corp.: *See*—
Blake, Francis G., and Tilley. 2,841,777.

Calvano, Emil. Disappearing shower curtain. 2,840,827, 7-1-58, Cl. 4—149.

Camp, Sherman A. Hill climbing apparatus. 2,841,093, 7-1-58, Cl. 104—235.

Campbell, David S., to Cardwell Westinghouse Co. High capacity draft gear with friction and rubber spring cushioning elements. 2,841,292, 7-1-58, Cl. 213—32.

Campbell, Floyd A. Memorizing aid. 2,840,926, 7-1-58, Cl. 35—35.

Campbell Soup Co.: *See*—
Berger, Carl, and Witt. 2,841,616.
Bergstrom, Ralph W., and Lindeman. 2,840,849.

Canadian International Paper Co.: *See*—
Howard, Edward J., and Cranford. 2,841,580.
Villefroy, Jacques A., and Saxton. 2,841,579.

Cantonwine, Hazel V. Speed shift. 2,841,268, 7-1-58, Cl. 197—180.

Cantrell, Troy L., and M. L. Hill, to Gulf Oil Corp. Marine diesel fuel compositions and methods of operating marine diesel engines. 2,841,126, 7-1-58, Cl. 123—1.

Carcassonne-Leduc, Roger P. C., to C-L Processes, Inc. Activating grain flour with malt flour. 2,841,497, 7-1-58, Cl. 99—94.

Cardwell Westinghouse Co.: *See*—
Campbell, David S. 2,841,292.

Carlift Co., Inc.: *See*—
Smalley, Louis C. 2,841,247.

Carlisle, Orville H. Toy rocket. 2,841,084, 7-1-58, Cl. 102—34.1.

Carolands Co.: *See*—
Moseley, Tomlinson I., and Stahl. 2,841,637.

Carranza, Eduardo. Air type printing process. 2,841,493, 7-1-58, Cl. 96—33.

Carraway, Thomas W. Evaporative condenser apparatus and liquid dispenser unit therefor. 2,841,369, 7-1-58, Cl. 257—37.

Carrier Corp.: *See*—
Leonard, Louis H., Jr. 2,840,997.

Case, J. I., Co.: *See*—
Greeson, Clarett B. 2,840,971.

Catalin Corp. of America: *See*—
Noble, Aubrey E., and Annese. 2,841,341.

Caterpillar Tractor C.: *See*—
Parks, John H., and van Zandt. 2,841,000.

Caudill, Howard F. Expansible driving core for driving pile shells. 2,840,993, 7-1-58, Cl. 61—79.

Cen-Vi-Ro Pipe Corp.: *See*—
Jessen, George R., and Chanlund. 2,840,880.

Certified Equipment Corp.: *See*—
Dunn, Thomas J., and Davis. 2,840,974.

Chace, Thomas B. Clad metal cooking utensils. 2,841,137, 7-1-58, Cl. 126—390.

Chamberlain Corp.: *See*—
Andreassen, Donald R., and Herman. 2,841,688.

Chambers, Gordon R. Ornamental coin holding belt buckles. 2,840,875, 7-1-58, Cl. 24—163.

Changewood Corp.: *See*—
Reed, Russell H. 2,840,865.

Chanlund, Carl W.: *See*—
Jessen, George R., and Chanlund. 2,840,880.

Charles, Paul D. Nursing bottle holder. 2,841,349, 7-1-58, Cl. 248—104.

Chass, Jacob, to Radio Corp. of America. Synchronized low frequency sawtooth current wave generating circuits. 2,841,744, 7-1-58, Cl. 315—27.

Chasworth, David. Mail box. 2,841,327, 7-1-58, Cl. 232—39.

Chayka, Joseph P., to Detroit Broach & Machine Co. Drive means for broaching machines and the like. 2,841,025, 7-1-58 Cl. 74—409.

Cheatle, Wilfred R., to Sylvania Electric Products Inc. Wire coiling machine with vibrating coiling die. 2,841,201, 7-1-58, Cl. 153—66.

Chempatents, Inc.: *See*—
Egbert, Robert B. 2,841,536.

Chemstrand Corp., The: *See*—
Craig, Alfred B., and Ringwald. 2,841,568.

Cheramie, Andrew A., Marsh Buggies, Inc.: *See*—
Cheramie, Mark J. 2,841,454.

Cheramie, Mark J., to Andrew A. Cheramie Marsh Buggies, Inc. Mounting and drive means for sprocket wheels. 2,841,454, 7-1-58, Cl. 308—15.

Chicago Forging and Mfg. Co.: *See*—
Krause, Herbert. 2,841,430.

Chittenden, George E.: *See*—
Levetus, Francis B., Chittenden, and Lee. 2,841,169.

Christensen, Antone M. Razor blade cutter. 2,840,903, 7-1-58, Cl. 30—162.

Chronister, Robert W. Loading pallet. 2,841,350, 7-1-58, Cl. 248—120.

Ciba Ltd.: *See*—
Zickendraht Christian, and Buehler. 2,841,576.

Ciba Pharmaceutical Products, Inc.: *See*—
Becker, Alfred. 2,841,587
Marxer, Adrian. 2,841,581.
Wettstein, Albert, and Vischer. 2,841,531.

Cincinnati Milling Machine Co., The: *See*—
Horlacher, Herman. 2,841,053.
Waller, Campbell E. 2,840,956.

Clapham, Harold E. C., to Bruce Peebles & Co. Ltd. Electric generating equipment. 2,841,725, 7-1-58, Cl. 310—112.

Clar, Erie, and D. G. Stewart, to Shell Development Co. Triangulene compounds and intermediates therefor. 2,841,597, 7-1-58, Cl. 260—362.

Claridge, John T.: *See*—
Box, William E., and Claridge. 2,841,285.

Clark Equipment Co.: *See*—
Berquist, Leonard G. 2,841,300.
Sherriff, Fred. 2,841,301.

Clark, Frank M., to General Electric Co. Electrical cable structure. 2,841,633, 7-1-58, Cl. 174—25.

Clark, Robert A., Jr.: *See*—
Starr, James H., Clark, and Westrate. 2,841,331.

Clarke, Forbes R., Jr., to The United Electric Coal Co. Excavating apparatus. 2,840,937, 7-1-58, Cl. 37—189.

Clayfield, Eric J.: *See*—
Matthews, John B., Clayfield, and Whittam. 2,841,533.

Clear Fir Products Co., Inc.: *See*—
Walsh, Paul R., and Mohr. 2,841,298.

Clement, Joel, to La Cellophane. Apparatus for sealing containers. 2,840,968, 7-1-58, Cl. 53—198.

Clevett, Merton L., Jr. Ground anchor. 2,841,256, 7-1-58, Cl. 189—90.

Clevite Corp.: *See*—
Gravley, Charles K. 2,841,722.

Clifton, Kenneth A. Orifice plate centering gauge. 2,840,920, 7-1-58, Cl. 33—180.

Coffman, Alden W., and R. B. Cullen, to H. H. Robertson Co. Wall panel. 2,841,253, 7-1-58, Cl. 189—34.

Coggeshall, Norman D., to Gulf Oil Corp. Chromatographic method and apparatus. 2,841,008, 7-1-58, Cl. 73—23.

Cohen, Milton J., and R. K. McConnaughey. Hypodermic syringe. 2,841,144, 7-1-58, Cl. 128—218.

Colaianni, Louis J., and M. L. Tanser, to Hoffmann-La Roche Inc. Unsaturated tertiary ethers and preparation thereof. 2,841,620, 7-1-58, Cl. 260—611.

Colgan, William G. Oil-catching receptacle with speed-controlled oil-discharger attachment for automobiles. 2,841,245, 7-1-58, Cl. 184—106.

Collett & Co. A/S: *See*—
Myhre, Johan. 2,841,528.

Collier Carbon and Chemical Corp.: *See*—
Webb, Irving D., and Yale. 2,841,518.

Collins & Aikman Corp.: *See*—
Bird, Whitworth F. 2,841,305.

Colman, Benjamin W.: *See*—
Young, Julius, and Colman. 2,841,031.

Combustion Engineering, Inc.: *See*—
Marshall, Leonard J. 2,841,102.

Commonwealth Engineering Co. of Ohio, The: *See*—
Novak, Leo J., and Stoycos. 2,841,578.

Compagnie Francaise Thomson-Houston: *See*—
Boisvieux, Jacques M. 2,841,649.

Comstock & Wescott, Inc.: *See*—
Weaver, Eastman A. 2,841,078.

Conger, Roy E.: *See*—
Fried, Marvin R. 2,840,832.

Conles, George D., to General Electric Co. Control circuits for automatic clothes washing machines. 2,841,003, 7-1-58, Cl. 68—12.

Conner, Elva N.: *See*—
Conner, Richard W. 2,841,398.

Conner, Richard W., ½ to E. N. Conner. Ball game apparatus. 2,841,398, 7-1-58, Cl. 273—119.

Connor, Phillips M.: *See*—
Bidner, John, Connor, McClure, and Parks. 2,840,872.

Conrad, Martin B.: *See*—
Baker, Reuben C., and Conrad. 2,841,224.

Conrad, Martin B., and J. F. Muse, to Baker Oil Tools, Inc. Well bore conduit centering apparatus. 2,841,220, 7-1-58, Cl. 166—213.

Conway, Hugh G., to British Messier Ltd. Locking means for hydraulic jacks. 2,841,123, 7-1-58, Cl. 121—40.

Cook, Leonard W., to General Electric Co. Solenoid-operated relay. 2,841,669, 7-1-58, Cl. 200—102.

Cooper, Hugh S., to William F. Jobbins, Inc. Method of working and heat treating aluminum-magnesium alloys and product thereof. 2,841,512, 7-1-58, Cl. 148—11.5.

Copeland, Paul L.: *See*—
De Lany, Beatrice P., and Copeland. 2,841,731.

Coppage, Jesse C., to Allied Chemical & Dye Corp. Preparation of rubber-containing bituminous macadam surfaces. 2,841,060, 7-1-58, Cl. 94—23.

Corbett, Joseph R., and L. H. Sprague, to said Sprague assor. to said Corbett. Motor unit for culinary appliances. 2,841,723, 7-1-58, Cl. 310—50.

Corn Products Refining Co.: *See*—
Stewart, Charles W. 2,841,495.

Cosmetto, Aristodeme J. Blending machine and method. 2,841,370, 7-1-58, Cl. 259—89.

Costello, James R., Jr., and T. P. Traise, to Victor Chemical Works. Method of flameproofing fibers and composition used therein. 2,841,507, 7-1-58, Cl. 117—136.

Cotler, Jules. Hand puppets. 2,840,950, 7-1-58, Cl. 46—175.

Cotter, George L., to Westinghouse Air Brake Co. Electro-pneumatic brake apparatus. 2,841,447, 7-1-58, Cl. 303—15.

Cotter, George L., to Westinghouse Air Brake Co. Electro-pneumatic brake apparatus. 2,841,450, 7-1-58, Cl. 303—70.

Cotton, William Ltd.: *See*—
McCarthy, Patrick G., and Winfield. 2,841,001.

Crabtree, J. A., & Co. Ltd.: *See*—
Wintle, Thomas D. G. 2,841,661.

Craig, Alfred B., and E. L. Ringwald, to The Chemstrand Corp. Compositions of acrylonitrile polymers and ethylene oxalate and process for preparing same. 2,841,568, 7-1-58, Cl. 260—30.4.

Craig, W. E.: *See*—
Lo, Chien-Pen, and Craig. 2,841,519.

Cranford, William B.: *See*—
Howard, Edward J., and Cranford. 2,841,580.

Crawford, David J.: *See*—
Kuenstner, Robert C., and Crawford. 2,841,706.

Cressell, Ian G. A., to Marconi's Wireless Telegraph Co. Ltd. Semi-conducting amplifiers. 2,840,885, 7-1-58, Cl. 29—25.3.

Crosby, Hartzell L.: *See*—
Gray, Kenneth R., Crosby, and Steinberg. 2,841,561.

Crowe, Walter L. Apparatus for raising and launching boats. 2,841,290, 7-1-58, Cl. 214—1.

Crowle, William G.: *See*—
Jones, Charles E., and Crowle. 2,841,405.

Crown Cork & Seal Co.: *See*—
Rainer, William C., Wilckens, Germak, Hamilton, and Redding. 2,840,858.

Cullen-Friestedt Co.: *See*—
Hooker, Howard, and Tupy. 2,841,434.

Cullen, Russell B.: *See*—
Coffman, Alden W., and Cullen. 2,841,253.

Cunningham, Frederic, Jr., and W. Selove, to United States of America, War. Target simulating signal generator. 2,841,785, 7-1-58, Cl. 343—17.7.

Cunningham, James M., to International Business Machines Corp. Punching mechanisms with coordinated punch checking means. 2,841,221, 7-1-58, Cl. 164—111.

Curioni, Salvatore M. Sound muffler. 2,841,235, 7-1-58, Cl. 181—67.

Curran, Bernard E., to H. H. Robertson Co. Outlet for use in an air distributing system. 2,841,070, 7-1-58, Cl. 98—40.

Curriran, John F. Integral cartons for the protection of fragile articles. 2,841,320, 7-1-58, Cl. 229—39.

Curson, Thomas: *See*—
Ridel, Richard W., and Curson. 2,841,214.

Cutler-Hammer, Inc.: *See*—
Pell, Eric. 2,841,756.

Daddario, Francis E. Pumping unit. 2,841,088, 7-1-58, Cl. 103—113.

Daimler-Benz Akt.: *See*—
Nallinger, Friedrich K. H. 2,841,233.
Neuschaefer, Werner H. F. W., and Hirth. 2,841,230.

Dale, Jack K.: *See*—
Magerlein, Barney J., Dale, and Wachtel. 2,841,599.

Dallas, Edgar R. Luggage for carrying apparel without folding. 2,841,257, 7-1-58, Cl. 190—41.

Dalton, Benjamin S., to Dorr-Oliver Inc. Apparatus for contacting solids with gases. 2,841,476, 7-1-58, Cl. 23—284.

D'Amico, John J., to Monsanto Chemical Co. 5-acyl-2-thiazolesulfenamides. 2,841,583, 7-1-58, Cl. 260—247.1.

Dammkoehler, Arthur R.: *See*—
Kotz, Raymond W., Dammkoehler, and Belke. 2,841,547.

Danser, Dallas D., to General Motors Corp. Hinging arrangement. 2,840,847, 7-1-58, Cl. 16—128.1.

Darling, Samuel M., and C. Liao, to The Standard Oil Co. Lubricating oil additive. 2,841,553, 7-1-58, Cl. 252—32.7.

Darlington Fabrics Corp.: *See*—
Smith, Charles C. 2,840,882.

Davies, David O., J. S. Jones, and G. Gulianoff, to Rolls-Royce Ltd. After-burner fuel supply system for gas-turbine engines. 2,840,986, 7-1-58, Cl. 60—35.6.

Davis, Delmar B.: *See*—
Tarsey, Alexandre R., and Davis. 2,841,487.

Davis, Frank C.: *See*—
Norton, Douglas G., and Davis. 2,841,622.

Davis, Herbert W.: *See*—
Dunn, Thomas J., and Davis. 2,840,974.
Davis, James R., to The Trane Co. Centrifugal fan. 2,841,326, 7-1-58, Cl. 230—127.
Dawkins, Thomas. Locking device for dial telephones. 2,841,658, 7-1-58, Cl. 179—189.
Dearsley, George, to American Machine & Foundry Co. Cigarette machine feed. 2,841,154, 7-1-58, Cl. 131—109.
De Bos, Marcel O., and L. B. Hunt, Jr., to General Motors Corp. Folding extensible arm rest. 2,841,212, 7-1-58, Cl. 155—198.
Decker, Joseph L. Gearless differential. 2,841,036, 7-1-58, Cl. 74—650.
Deerhake, William J.: *See*—
Bland, George F., Deerhake, and Joenel. 2,841,740.
Deering Milliken Research Corp.: *See*—
Harmon, Albert D. 2,840,979.
Delly, Fredric H.: *See*—
Ramsey, George H., and Delly. 2,841,365.
Deitrickson, Roy H., to The National Supply Co. Downwell pump. 2,841,086, 7-1-58, Cl. 103—46.
De La Fuente, Murray, to Aerovox Corp. Packaging means for small articles. 2,841,282, 7-1-58, Cl. 206—80.
De Lany, Beatrice P., and P. L. Copeland. Arc tube cathode construction. 2,841,731, 7-1-58, Cl. 313—173.
Dell, Paul A., and C. E. Ebchard, to General Electric Co. Photo flash lamps. 2,841,002, 7-1-58, Cl. 67—31.
Demchock, Louis A., Sr.: *See*—
Meckstroth, Carl R., Grube, and Demchock. 2,841,189.
Denison, William E., to H. Whitney. Machine and method for making containers for comestibles. 2,841,055, 7-1-58, Cl. 93—1.
Denyssen, Ivanhoe P., to American Viscose Corp. Multiple-duct fluid-conducting assembly. 2,840,855, 7-1-58, Cl. 18—8.
De Piolenc, Gerard, and C. J. Stalego, to Owens-Corning Fiberglas Corp. Gas burner apparatus for forming glass fibers. 2,841,213, 7-1-58, Cl. 158—28.
Detroit Broach & Machine Co.: *See*—
Chayka, Joseph P. 2,841,025.
Deutsche Edelstahlwerke Akt.: *See*—
Seulen, Gerhard. 2,841,692.
Deutsche Fibrit Gesellschaft m. b. H.: *See*—
Muller, Kurt, and Tonniges. 2,841,054.
De Wispelere, August. Clear vision umbrella. 2,841,160, 7-1-58, Cl. 135—35.
Diamond Alkali Co.: *See*—
Smith, Robert C. 2,841,540.
Smith, Robert C. 2,841,541.
Dicke, Allen A. Pressure fluid operating mechanism for calculating machines. 2,841,266, 7-1-58, Cl. 197—177.
Dicke, Robert H., to United States of America, Navy. Dielectric structures. 2,841,786, 7-1-58, Cl. 343—18.
Dickey, Albert W. Beat rate indicator for musical instrument tuners. 2,841,045, 7-1-58, Cl. 84—454.
Dickey, Wallace J.: *See*—
McClure, Kenneth R. 2,840,939.
Dickson, James J., to United States of America, Atomic Energy Commission. Quick releasable drive. 2,841,018, 7-1-58, Cl. 74—28.
Dodd Products Inc.: *See*—
Dougherty, Bernard E. 2,840,947.
Dohmen, Heinrich, to N. V. Briko. Process for the manufacture of briquets, particularly fuel briquets. 2,841,478, 7-1-58, Cl. 44—15.
Dönges, Hans, to Johann Vaillant, K. G. Quantity regulator for gas heated continuous flow type hot water apparatus. 2,841,172, 7-1-58, Cl. 137—502.
Donnelly, Walter J. Metal cutting tool and element. 2,840,887, 7-1-58, Cl. 29—105.
Donner, Josef A., and P. A. Kopke. Flexible shaft-coupling. 2,840,999, 7-1-58, Cl. 64—15.
Dorman, Jack E. Dispensing display stand. 2,841,343, 7-1-58, Cl. 242—129.6.
Dorr-Oliver Inc.: *See*—
Dalton, Benjamin S. 2,841,476.
Halbach, Ralph H. 2,841,287.
Dorsett, Rowell R., to Mangels, Herold Co., Inc. Method of preparing chlorinated dicyandiamide. 2,841,474, 7-1-58, Cl. 23—190.
Dougherty, Bernard E., to Dodd Products Inc. Animal trap. 2,840,947, 7-1-58, Cl. 43—61.
Dow Chemical Co., The: *See*—
Bersworth, Frederick C. 2,841,611.
Eichhorn, Jacob. 2,841,473.
Hefner, Robert E., and Pruitt. 2,841,479.
Robinson, Harold A. 2,841,546.
Sweeny, Arthur W., and Nex. 2,841,482.
Sweeny, Arthur W., and Nex. 2,841,483.
Dreeben, Jack. Forming and filling tubes for package making apparatus. 2,840,966, 7-1-58, Cl. 53—177.
Dreier, John F. Display case. 2,841,272, 7-1-58, Cl. 206—10.
Drew, Charles E. Expanding mandrel chuck. 2,841,402, 7-1-58, Cl. 279—2.
Driehaus, Herman W., to Goodman Mfg. Co. Mining apparatus and automatic feed control therefor. 2,841,879, 7-1-58, Cl. 262—19.
Drummond, Edward L.: *See*—
Drummond, Louis E., E. L., and R. J. 2,840,915.
Drummond, Louis E., E. L., and R. J. Apparatus for determining the percentage of red cells in a blood specimen. 2,840,915, 7-1-58, Cl. 33—125.
Drummond, Robert J.: *See*—
Drummond, Louis E., E. L., and R. J. 2,840,915.
Duke, Sam. Foot rest panel device. 2,841,208, 7-1-58, Cl. 155—171.
Dulfer, Elbert A. Lithography. 2,841,079, 7-1-58, Cl. 101—149.2.
Duncan, William L., and G. H. Hutchens, to E. I. du Pont de Nemours and Co. Yarn defect monitor. 2,841,048, 7-1-58, Cl. 88—14.
Dunleavey, Frank S. Four-terminal filter embodying an ionized medium. 2,841,771, 7-1-58, Cl. 333—79.
Dunlop Rubber Co. Ltd.: *See*—
Mortimer, Frank E. 2,841,387.
Dunn, John C. Method and apparatus for drilling wells. 2,841,366, 7-1-58, Cl. 255—1.8.
Dunn, Thomas J., and H. W. Davis, to Certified Equipment Corp. Power mower assembly work position holding means. 2,840,974, 7-1-58, Cl. 56—25.
Dunson, Philip M. Tachistoscope. 2,840,925, 7-1-58, Cl. 35—35.
Du Pont de Nemours, E. I., and Co.: *See*—
Bateman, Alva W. 2,840,881.
Berry, Kenneth L. 2,841,470.
Duncan, William L., and Hutchens. 2,841,048.
Graham, Boynton, and Patterson. 2,841,503.
Howard, Edward G., Jr. 2,841,568.
MacDonald, Robert N. 2,841,570.
Prichard, William W. 2,841,591.
Pryde, Everett H. 2,841,595.
Duro Metal Products Co.: *See*—
Odlum, William H., and Gracious. 2,841,289.
Dust-Tex Corp.: *See*—
Yamen, Irving A. 2,840,840.
Dzenis, Viswaldis N. Apparatus for preparing cheese and the like. 2,840,909, 7-1-58, Cl. 31—46.
Eannarino, George, and R. Parsons, to Barkes Tarnian, Inc. Selenium rectifier. 2,841,749, 7-1-58, Cl. 317—241.
Eastern Air Devices, Inc.: *See*—
Robinson, Leon. 2,741,768.
Ebbesen, Gerald K., and H. J. Johnson. Steel sampling apparatus. 2,840,826, 7-1-58, Cl. 4—1.
Ebchard, Conrad E.: *See*—
Dell, Paul A., and Ebchard. 2,841,002.
Ebert, Edward A. Habitat or matrix for live bait type creatures as worms, crayfish or helgramites. 2,841,113, 7-1-58, Cl. 119—1.
Ecke, George G., A. J. Kolka, and W. E. Burt, to Ethyl Corp. Reaction of substituted benzene, chlorine and substituted maleic anhydride and products thereof. 2,841,593, 7-1-58, Cl. 260—346.8.
Eckler, Norman H., and E. W. Jacobson, to Gulf Research & Development Co. Valve seat replacement tool. 2,840,894, 7-1-58, Cl. 29—261.
Edgar, Eric C.: *See*—
Boon, William R., Edgar, Ghosh, Greenhalgh, Hopf, and Burnand. 2,841,517.
Edson, James O. and C. E. Scheideler, to Bell Telephone Laboratories, Inc. Directional array employing laminated conductor. 2,841,792, 7-1-58, Cl. 343—819.
Edwards, Russell W. Method for applying grips to hockey sticks and the like. 2,840,896, 7-1-58, Cl. 29—450.
Egbert, Robert B., to Chempatents, Inc. Process for recovery of sulfur from elemental-sulfur bearing ore. 2,841,536, 7-1-58, Cl. 202—46.
Ehrmann, Rudolf: *See*—
Voelkel, Hans J., and Ehrmann. 2,841,199.
Eichhorn, Jacob, to The Dow Chemical Co. Process for removing heavy metal ions from a non-aqueous sulfur trioxide solution. 2,841,473, 7-1-58, Cl. 23—174.
Eilenberger, Paul F., to Research-Cottrell, Inc. Collecting electrode. 2,841,241, 7-1-58, Cl. 183—7.
Eitel, Jay M. Mobile lifting equipment. 2,841,404, 7-1-58, Cl. 280—6.
Eitel, Jay M. Control mechanism. 2,841,659, 7-1-58, Cl. 200—5.
Ekco Products Co.: *See*—
Vavrinek, Le Roy J. 2,840,843.
Elden, Oscar N. Carrier for chain saws. 2,841,317, 7-1-58, Cl. 224—5.
Elder & Jenks, Inc.: *See*—
Maxwell, Franklin C. 2,840,841.
Electric & Musical Industries Ltd.: *See*—
McGee, James D. 2,841,728.
Electromagnets Ltd.: *See*—
Box, William E., and Claridge. 2,841,285.
Elektro-Mechanik, G. m. b. H.: *See*—
Grebe, Otto, and Lang. 2,841,753.
Electro-Voice, Inc.: *See*—
Thurston, Edward G. 2,841,648.
Ellenberger, Heinrich. Instrument leveling means. 2,841,047, 7-1-58, Cl. 88—24.
Elliott, Cyril A., to Rolls-Royce Ltd. Jet pipe with pivoted outlet area-varying. 2,840,985, 7-1-58, Cl. 60—35.6.
Emery, Lewis V., to Hydra-Air Products. Additive feeding means. 2,841,168, 7-1-58, Cl. 137—99.
Emm, Fred A., to Armco Steel Corp. Wire coating. 2,840,890, 7-1-58, Cl. 29—180.
Englander Co., Inc., The: *See*—
Wetsler, Justin J. 2,841,209.
Epps, John A. Syringe. 2,841,145, 7-1-58, Cl. 128—218.
Erdmann, Hans, to Waldes Kohinoor, Inc. Apparatus for assembling retaining rings. 2,840,892, 7-1-58, Cl. 29—211.
Ericsson, Francis S. Abdominal supporting belt. 2,840,822, 7-1-58, Cl. 2—41.
Erisman, Maurice J., N. L. Francis, and R. R. Teichman, to Link-Belt Co. Rotary cooler. 2,840,922, 7-1-58, Cl. 34—135.
Erson, Erik G., to Westinghouse Air Brake Co. Fluid pressure brake release and reapplication valve device. 2,841,449, 7-1-58, Cl. 303—68.

Esso Research and Engineering Co.: *See*—
Aldridge, Clyde L., and Watts. 2,841,618.
Badger, Algernon S. 2,841,422.
Ball, John D., and Wischmeyer. 2,841,778.
Mertzweiller, Joseph K. 2,841,617.
Ramsey, George H., and Delly. 2,841,365.
Ethyl Corp.: *See*—
Ecke, George G., Kolka, and Burt. 2,841,593.
Foster, Walter E. 2,841,574.
Evanenko, Michael: *See*—
Brewer, Nathaniel, and Evanenko. 2,841,230.
Evans, Fraser M., to C. A. V. Ltd. Liquid fuel pumps for internal combustion engines. 2,841,085, 7-1-58, Cl. 103—37.
Evans, Lou A. Convertible motor vehicle body having a rigid top. 2,841,441, 7-1-58, Cl. 296—117.
Everett, Wilhelm R., to United States of America, Navy. Magnetostrictive accelerometer device. 2,841,386, 7-1-58, Cl. 264—1.
Fairbert, William H. Railroad tie. 2,841,338, 7-1-58, Cl. 238—59.
Fairchild Engine and Airplane Corp.: *See*—
Perrier, Robert. 2,841,455.
Falls, Fernando, to Kennedy-Van Saun Mfg. & Eng. Corp. Steam boiler with superheater and controls therefor. 2,841,125, 7-1-58, Cl. 122—479.
Farley, Brian. Means for operating delvers. 2,840,929, 7-1-58, Cl. 37—98.
Faucher, Andrew J. Gas fueled hot air generator. 2,841,882, 7-1-58, Cl. 263—19.
Faulkner, James E., to Lador, Inc. Music box driven dancing figurine. 2,840,949, 7-1-58, Cl. 46—118.
Faust, Ira A. Mechanic's sawhorse. 2,841,451, 7-1-58, Cl. 304—5.
Fegan, Cecily M.: *See*—
Fegan, Thomas G. 2,840,869.
Fegan, Thomas G., deceased: C. M. Fegan, administratrix. Glazing with glass sheets. 2,840,869, 7-1-58, Cl. 20—56.4.
Feild, Theophilus A., Jr.: *See*—
Blanton, George K., and Feild. 2,841,567.
Ferro Corp.: *See*—
Tuttle, Daniel V. 2,841,680.
Fetherston, Robert T.: *See*—
Jenney, Ray S., Fetherston, and Miller. 2,841,269.
Field, Harry: *See*—
Field, John and H. 2,841,288.
Field, John and H. Dish trays. 2,841,288, 7-1-58, Cl. 211—41.
Fields, Bennett R. Accelerator limit control. 2,841,033, 7-1-58, Cl. 74—526.
Fields, Joseph E., and J. M. Butler, to Monsanto Chemical Co. Hydrocarbon oil compositions. 2,841,558, 7-1-58, Cl. 252—56.
Fierce, William L., and A. F. Millikan, to The Pure Oil Co. Preparation of cyanogen. 2,841,472, 7-1-58, Cl. 23—151.
Firestone Tire & Rubber Co., The: *See*—
Albert, Harry E. 2,841,619.
Albert, Harry E. 2,841,628.
Firma B. Raimann G. m. b. H.: *See*—
Köberle, Albert. 2,841,194.
Firma Penicillin-Gesellschaft Dauelsberg & Co.: *See*—
Bertram, Albert H. 2,841,143.
Firth Sterling Inc.: *See*—
Williams, Everard M. 2,841,686.
Fischer, George A. Method of producing aluminum carbide. 2,841,475, 7-1-58, Cl. 23—208.
Fischer, Paul E., to E. G. Staude Mfg. Co., Inc. Rotary dewaxer for coated paper or cardboard blanks. 2,841,112, 7-1-58, Cl. 118—11.
Fischer & Porter Co.: *See*—
Brewer, Nathaniel, and Evanenko. 2,841,230.
Fisher, John, to The Warner & Swasey Co. Filling detector for a weaving machine. 2,841,186, 7-1-58, Cl. 139—370.
Fisler, Leland H.: *See*—
Ahlquist, Russell W., and Fisler. 2,841,482.
Flex-O-Lators, Inc.: *See*—
Richardson, William F. 2,841,424.
Fluor Corp., Ltd., The: *See*—
Moerke, Ned H. 2,841,236.
Folland Aircraft Ltd.: *See*—
Petter, William E. W. 2,841,846.
Foltis, Anestis, to Knit Wear Patents, Inc. Slide fastener with detachable smoothing means. 2,840,877, 7-1-58, Cl. 24—205.15.
Fontana, Frank J., to Richfield Oil Corp. Apparatus for fragmenting pitch. 2,840,853, 7-1-58, Cl. 18—2.4.
Food Machinery and Chemical Corp.: *See*—
Willard, Joe R., and Henahan. 2,841,520.
Ford, Alfred, to Superior Pipe Specialties Co. High pressure valve. 2,841,175, 7-1-58, Cl. 137—557.
Ford, Wayne B. Method and means to record a functional dental plane. 2,840,910, 7-1-58, Cl. 32—19.
Forrer, Homer W., to Mead-Atlanta Paper Co. Paperboard wrapper having an upstanding handle. 2,841,279, 7-1-58, Cl. 206—65.
Forsberg, Gustav (Gösta) A. Maneuvering or operating devices. 2,841,120, 7-1-58, Cl. 121—46.
Forshee, Sheila M. Paint spray booth. 2,841,073, 7-1-58, Cl. 98—115.
Foss, Fred F. Sliding board. 2,841,398, 7-1-58, Cl. 272—56.5.
Foster, Walter E., to Ethyl Corp. Anionic polymerization process. 2,841,574, 7-1-58, Cl. 260—80.
Fowlie, Henry D.: *See*—
Hale, Kellen E., and Fowlie. 2,840,938.
Francis, Norman L.: *See*—
Erisman, Maurice J., Francis, and Teichman. 2,840,922.
Frank, Joseph J. Method of sealing the end of stuffed casings. 2,840,852, 7-1-58, Cl. 17—45.
Frankel, Harry: *See*—
Moskovits, Milton A. 2,841,428.
Franken, Wilhelm: *See*—
Schwank, Günther. 2,841,133.
Frasch, Mary E. Folding box construction. 2,841,818, 7-1-58, Cl. 229—33.
Fraser, John, to Avery-Hardoll Ltd. Liquid dispensing apparatus. 2,841,191, 7-1-58, Cl. 141—209.
Freedman, Louis, A. J. Merritt, and J. Breitbart, to U. S. Vitamin Corp. Medicinal emulsions. 2,841,527, 7-1-58, Cl. 167—77.
Freegard, Ernest M., to General Electric Co. Method of forming wound magnetic cores. 2,840,889, 7-1-58, Cl. 29—155.57.
Freeland, Stanley R.: *See*—
Bagby, John P., Freeland, and La Rue. 2,841,064.
Fried, Marvin R., ¼ to R. E. Conger. Aquatic device. 2,840,832, 7-1-58, Cl. 9—1.
Fruehauf Trailer Co.: *See*—
Sheppard, Charles B. and Tenenbaum. 2,841,411.
Fruendt, Adel J. Automatically actuated flotation device. 2,840,833, 7-1-58, Cl. 9—9.
Frye, Charles F. Valve. 2,841,174, 7-1-58, Cl. 137—514.5.
Fulghum, Oscar T. Log-debarking machine. 2,841,195, 7-1-58, Cl. 144—208.
Funk, Carl E. Fence brace. 2,841,367, 7-1-58, Cl. 256—37.
Furnberg, Carl W. Means of inflating by air separated from combined air and water pressure. 2,840,828, 7-1-58, Cl. 4—172.
Gadseden, Harold A. Mortar batching device. 2,841,013, 7-1-58, Cl. 73—429.
Gaertner, Van R., to Monsanto Chemical Co. Phenyl hydrazones of thienyl phenyl ketones. 2,841,523, 7-1-58, Cl. 167—33.
Gaffney, Richard E., to Kaiser Aluminum & Chemical Corp. Apparatus and method for casting metal. 2,840,871, 7-1-58, Cl. 22—79.
Gage, Fred W., and A. W. Tondreau to Warner Bros. Pictures, Inc. Color film printer. 2,841,065, 7-1-58, Cl. 95—75.
Garrett, Francis A. Method of securing thermometer tubes to a base. 2,841,010, 7-1-58, Cl. 73—376.
Garrido, Fernando. Invisible zipper pocket. 2,840,825, 7-1-58, Cl. 2—252.
Gartland, Albert J., Jr., and H. W. Uhlrig, to General Electric Co. Speed control and reversing switch. 2,841,664, 7-1-58, Cl. 200—18.
Gassman, Leona P.: *See*—
Randall, Ralph R. 2,841,037.
Gaul, Albro T.: *See*—
Hechenbleikner, Ingenuin, and Gaul. 2,841,607.
Gay, Fred G., Jr., and W. O. Parker, to Bausch & Lomb Optical Co. Side shield attachment for goggles and spectacles. 2,840,821, 7-1-58, Cl. 2—13.
Geering, Emil J.: *See*—
Hooker, Thomas, Geering, and Maude. 2,841,243.
Geiger, Christopher M. Separable shears. 2,840,905, 7-1-58, Cl. 30—226.
Gelling, Helmut, to Walther Büromaschinen Gesellschaft m. b. H. Drive coupling. 2,841,259, 7-1-58, Cl. 192—51.
General Aniline & Film Corp.: *See*—
Strobel, Albert F., and Williams. 2,841,577.
General Dynamics Corp.: *See*—
Blow, Angus W. 2,841,647.
Gleason, Howard S. 2,841,461.
Pharis, William W. 2,841,653.
Trousdale, Robert B. 2,841,651.
Trousdale, Robert B. 2,841,657.
General Electric Co.: *See*—
Benander, George B. 2,841,673.
Bentsen, Arthur R. 2,841,695.
Bloomberg, David J., and Burgess. 2,840,987.
Clark, Frank M. 2,841,633.
Conlee, George D. 2,841,003.
Cook, Leonard W. 2,841,669.
Dell, Paul A., and Ebchard. 2,841,002.
Freegard, Ernest M. 2,840,889.
Gartland, Albert J., Jr., and Uhlrig. 2,841,664.
Grube, Frederick J., and Hollometre. 2,840,886.
Hansen, Albert, Jr. 2,841,700.
Hoare, Stephen C. 2,841,767.
Hodge, William F. 2,841,733.
Horton, Clifford E., and Han. 2,841,734.
Kizaur, Arthur J. 2,841,717.
Kuebler, Robert A. 2,841,690.
MacCaulay, Robert W. 2,840,989.
Meckstroth, Carl R., Grube, and Demchock. 2,841,189.
Ott, George E., and Torr. 2,841,179.
Piper, William W. 2,841,730.
Rich, Theodore A. 2,841,716.
Santeler, Donald J. 2,841,324.
Schultz, Warner W. 2,841,715.
General Motors Corp.: *See*—
Adlof, Jakob A. 2,841,028.
Armington, George E. 2,841,231.
Birch, Vinton P. 2,841,371.
Brems, John H., and Bidwell. 2,841,008.
Danser, Dallas D. 2,840,847.
De Bos, Marcel O., and Hunt. 2,841,212.
Keating, Bernard H., and Shrunk. 2,841,418.
Litherland, William T. 2,841,380.
Loeffler, Frank W. 2,841,232.
McClelland, Clarence P. 2,840,844.
Sharpe, Verloe G. 2,841,459.
Stahlhuth, Arthur H. 2,841,348.
Zapanche, Albert J. 2,841,131.
General Precision Laboratory Inc.: *See*—
Athey, Skinwith W., Pourcian, and Shaw. 2,841,654.
Bartelink, Everhard H. B. 2,841,640.
General Steel Castings Corp.: *See*—
Travilla, James C. 2,841,097.
Travilla, James C., Wintemberg, and Stein. 2,841,095.
General Telephone Laboratories, Inc.: *See*—
Bengebusch, Hans. 2,841,335.

General Tire and Rubber Co., The: *See*—
Peppercorn, Howard N., and Neher. 2,840,893.
Te Grotenhuis, Theodore A. 2,841,506.

George, William J. Gasoline meter bellows. 2,841,121, 7–1–58, Cl. 121—187.

Germak, Joseph G.: *See*—
Rainer, William C., Wilckens, Germak, Hamilton, and Redding. 2,840,858.

Gettier, Philip R.: *See*—
Munson, Gilbert M., and Gettier. 2,841,314.

Ghosh, Ranajit: *See*—
Boon, William R., Edgar, Ghosh, Greenhalgh, Hopf, and Burnand. 2,841,517.

Gildner, Ernest J. Loader mechanism. 2,841,299, 7–1–58, Cl. 214—140.

Gilmore, Dale T. Dehydrating and pulverizing machine. 2,841,339, 7–1–58, Cl. 241–54.

Gimson, Cyril F., and J. O. Tattersall, to The British Thomson-Houston Co. Ltd. Operating mechanisms for electric circuit control devices. 2,841 032, 7–1–58, Cl. 74—520.

Ginsburg, Milton. Ventilating device for vehicles. 2,841,069, 7–1–58, Cl. 98—2.

Glaser, Rolf, to Starrfrasmaschinen A. G. Device for transmitting the movement of the gaging pin to the control slide valve in hydraulically operated control gear for machine tools. 2,841,355, 7–1–58, Cl. 251—3.

Glaser, Rolf, to Starrfrasmaschinen A. G. Copying machine tool. 2,841,356, 7–1–58, Cl. 251—3.

Glass, John A. F., to United States of America, Atomic Energy Commission. Nut screw mechanisms. 2,841,026, 7–1–58, Cl. 74—424.8.

Glastic Corp., The: *See*—
White, Roger B. 2,841,636.

Gleason, Howard S., to General Dynamics Corp. Apparatus for magnetic printing. 2,841,461, 7–1–58, Cl. 346—74.

Globe-Union Inc.: *See*—
Roup, Rolland R., and Kilby. 2,841,508.

Goetz, Michael B. Absorbent regenerator and thermal recirculator and method of operating same. 2,841,217, 7–1–58, Cl. 159—22.

Goldman, Joshua H. Method of manufacturing a non-woven fibrous sheet. 2,841,204, 7–1–58, Cl. 154—33.

Good, George M.: *See*—
Holzman, George, and Good. 2,841,626.

Goodall, Clarice M.: *See*—
Goodall, Robert A. 2,841,342.

Goodall, Robert A., deceased, ¼ to C. M. Goodall, executrix, and ¾ to C. M. Goodall, individually. Winding machines. 2,841,342, 7–1–58, Cl. 242—56.1.

Goodhue, Lyle D.: *See*—
Osborn, Charles W., and Goodhue. 2,841,486.

Goodman, Bayar, to Wilshire Mfg. Co. Closure device. 2,841,218, 7–1–58, Cl. 160—118.

Goodman Mfg. Co.: *See*—
Driehaus, Herman W. 2,841,379.
Hagenbook, Loy D. 2,841,377.
Karlovsky, Jerry. 2,841,378.
Thassy, Michael G. 2,841,380.

Goodrich, B. F., Co., The: *See*—
Sausaman, Robert E. 2,841,453.

Gorshkoff, Alexis S., to The Snow-Nabstedt Gear Corp. Reverse gear. 2,841,023, 7–1–58, Cl. 74—377.

Gould-National Batteries, Inc.: *See*—
Macholl, James F., and Patterson. 2,841,632.
Zahn, Harold E. 2,841,491.
Zahn, Harold E. 2,841,631.

Gracious, John R: *See*—
Odlum, William H., and Gracious. 2,841,289.

Graham, Boynton, and G. D. Patterson, to E. I. du Pont de Nemours and Co. Film-forming hydrosols of barium titanate, their preparation and a substrate coated therewith. 2,841,503. 7–1–58, Cl. 106—286.

Graham, William H. Convertible portable duck blind and tent. 2,841,159 7–1–58, Cl. 135—4.

Grant, William F. Pet feeding stand. 2,841,114, 7–1–58, Cl. 119—51.

Gravesen, Ernest C. Manufacture of felt hats. 2,840,864, 7–1–58, Cl. 19—148.

Gravley, Charles K., to Clevite Corp. Bending-responsive electromechanical transducer device. 2,841,722, 7–1–58, Cl. 310—8.5.

Gray, George W.: *See*—
Jensen, Arthur S., and Gray. 2,841,727.

Gray, Kenneth R., H. L. Crosby, and J. C. Steinberg, to Rayonier Inc. Recovery of chemicals from smelt solutions. 2,841,561, 7–1–58, Cl. 252—183.

Grebe, Otto, and A. Lang, to Elektro-Mechanik G. m. b. H. Motor regulating apparatus. 2,841,753, 7–1–58, Cl. 318—433.

Green, Luther L. Balloon powered toy. 2,840,951, 7–1–58, Cl. 46—206.

Greene, Frederick R., and W. H. Umlandt. Self-shank button drilling machines. 2,841,040, 7–1–58, Cl. 79—14.

Greene, Thomas T., Sr., to United States of America, Air Force. Control mechanism with automatic stop mechanism. 2,841,034, 7–1–58, Cl. 74—528.

Greenhalgh, Norman: *See*—
Boon, William R., Edgar, Ghosh, Greenhalgh, Hopf, and Burnand. 2,841,517.

Greeson, Clarett B., to J. I. Case Co. Disc harrow. 2,840,971, 7–1–58, Cl. 55—73.

Gresham, Donald C., to McCorquodale-Gresham, Inc. Photomechanical reproduction. 2,841,492. 7–1–58, Cl. 96—30.

Grinage, Claude M., to The Bullard Co. Grinding machine. 2,840,956, 7–1–58, Cl. 51—50.

Gronemeyer, George E., to Mirror Insulation Co., Inc. Thermal insulation. 2,841,203, 7–1–58, Cl. 154—45.

Grossl, Frank X., to Union Starch & Refining Co. Colored food product and method of making the same. 2,841,499, 7–1–58, Cl. 99—148.

Grube, Fred J.: *See*—
Meckstroth, Carl R., Grube, and Demchock. 2,841,189.

Grube, Frederick J., and J. H. Hollopetre, to General Electric Co. Shield forming and mounting method and apparatus. 2,840,886, 7–1–58, Cl. 29—25.13.

Gruber, Heinz H. Dispensing device for collapsible tubes. 2,841,310, 7–1–58, Cl. 222—103.

Grundmann, Christoph J., and A. Kreutzberger, to Olin Mathieson Chemical Corp. Reactions of s-triazine. 2,841,585, 7–1–58, Cl. 260—256.

Guest, Lawrence V., to Birmingham Sound Reproducers Ltd. Sound reproducing apparatus using disc records. 2,841,399, 7–1–58, Cl. 274—9.

Guglielmo, Paul N., and H. Jacobs. Edge finishing for dampening roller covers of lithographic plates. 2,840,885, 7–1–58, Cl. 29—119.

Gulse, Arthur B., to Ansul Chemical Co. Apparatus for selection of turret nozzle stream pattern. 2,841,229, 7–1–58, Cl. 169—25.

Gulf Oil Corp.: *See*—
Cantrell, Troy L., and Hill. 2,841,126.
Coggeshall, Norman D. 2,841,005.

Gulf Research & Development Co.: *See*—
Ambrose, Henry A., and Piatt. 2,841,554.
Eckler, Norman H., and Jacobson. 2,840,894.
Jacobson, Eugene W. 2,841,167.

Gustavsson, Stig, M. Ydring, and L. R. Nylander, to Aktiebolaget Svenska Flaktfabriken. Valve for fume channels. 2,841,360, 7–1–58, Cl. 251—87.

Gustems, Edward. Reversible electric toothbrush. 2,840,837, 7–1–58, Cl. 15—23.

Gustus, Edwin L., to R. J. Strasenburgh Co. Fatty acid-resin adsorption product. 2,841,526, 7–1–58, Cl. 167—55.

Guyer, Pio, W. Richars, and P. Walther, to Lonza Electric and Chemical Works Ltd. Purification of dinitriles. 2,841,537, 7–1–58, Cl. 202—56.

Haard, Hans B., to Telefonaktiebolaget L M Ericsson. Electron tube device. 2,841,743, 7–1–58, Cl. 315—21.

Hagan Chemicals & Controls, Inc.: *See*—
Stough, Donald M. 2,841,162.

Hagenbook, Loy D., to Goodman Mfg. Co. Mining machine having three boring heads. 2,841,377, 7–1–58, Cl. 262—7.

Hagerty, Elliot B.: *See*—
Cahn, Frank J., and Hagerty. 2,841,498.

Hahn & Kolb Werkzeugmaschinen und Werkzeuge: *See*—
Mueller, Paul. 2,840,916.

Halahan, John, T. F. Aronson, and F. A. Lyon. Bottle capping machine. 2,840,909, 7–1–58, Cl. 53—310.

Halbach, Ralph H., to Dorr-Oliver Inc. Strainer cleaning. 2,841,287, 7–1–58, Cl. 210—414.

Hale, Arian B., M. L. Brown, and S. E. Parrish, to Union Carbide Corp. Pulverized coal feeding and pressurizing system. 2,841,101, 7–1–58, Cl. 110—104.

Hale, Kellen E., and H. D. Fowlie. Garment pressing machine. 2,840,938, 7–1–58, Cl. 38—36.

Hall, C. P., Co., The: *See*—
Hill, Norman C., and Higuchi. 2,841,601.

Hall, Herbert J., to Research-Cottrell, Inc. Method for electrostatically treating gases. 2,841,242, 7–1–58, Cl. 183—114.

Hall, Herbert J., and H. J. White, to Research Corp. System for energizing electrical precipitators. 2,841,239, 7–1–58, Cl. 183—7.

Hall, Ronald G., to Brock's Crystal Palace Fireworks Ltd. Pyrotechnic masses. 2,841,481, 7–1–58, Cl. 52—23.

Hall, Thomas C., to Pacific Semiconductors, Inc. Photochemically activated gaseous etching method. 2,841,477, 7–1–58, Cl. 41—42.

Hallden, Frederick C., to Haseltine Research, Inc. Remote-control apparatus. 2,841,700, 7–1–58, Cl. 250—2.

Haller, John F., to Olin Mathieson Chemical Corp. Electrolytic process of forming hydrazine. 2,841,543, 7–1–58, Cl. 204—59.

Halpert, Percy, and G. F. Jude, to Sperry Rand Corp. Glide path system with flare out. 2,841,345, 7–1–58, Cl. 244—77.

Hamilton, James P.: *See*—
Rainer, William C., Wilckens, Germak, Hamilton, and Redding. 2,840,858.

Hammer, Samuel, to United Metal Cabinet Corp. Clamp and frame combination for sinks and the like. 2,840,829, 7–1–58, Cl. 4—197.

Hansen, Albert, Jr., to General Electric Co. Method and apparatus for measuring angular motion. 2,841,760, 7–1–58, Cl. 324—0.5.

Hård af Segerstad, Carl G. Operating mechanism. 2,841,119, 7–1–58, Cl. 121—39.

Hargreaves, Thomas F. S.: *See*—
Terry, Victor J., Hargreaves, and Prior. 2,841,701.

Harmon, Albert D., to Deering Milliken Research Corp. Yarn twisting apparatus. 2,840,979, 7–1–58, Cl. 57—58.83.

Harper, Leonard R., to International Business Machines Corp. Electronic logical circuits. 2,841,708, 7–1–58, Cl. 250—27.

Harper, Lynous E., to B–I–F Industries, Inc. Controlling device. 2,841,024, 7–1–58, Cl. 74—388.

Harrington, Charles D., and J. V. Opie, to United States of America, Atomic Energy Commission. Uranium extraction. 2,841 468, 7–1–58, Cl. 23—14.5.

Harris-Intertype Corp.: *See*—
Norton, Robert K. 2,841,391.
Norton, Robert K. 2,841,392.
O'Brien, Richard C. 2,841,062.

Harrison, Marvin E.: *See*—
Bourns, Marlan E., and Harrison. 2,841,674.

Harrold, George B., to United States of America, Navy. Electric ohmmeter. 2,841,765. 7–1–58, Cl. 324—62.

Hastrup, Herman and R. C. Portable blast cleaning machine. 2,840,955, 7–1–58, Cl. 51—8.

Hastrup, Rolf C.: *See*—
Hastrup, Herman and R. C. 2,840,955.

Haugen, Edmond H., to Iron Fireman Mfg. Co. Hot water heating system. 2,841,337, 7–1–58, Cl. 237—8.

Hauser, Jon W., to Hawley Products Co. Desk. 2,841,457, 7–1–58, Cl. 312—255.

Hawkinson, Earle W.: *See*—
Lett, Geoffrey B. 2,840,857.

Hawley Products Co.: *See*—
Hauser, Jon W. 2,841,457.

Hay, Wayne W., to Air Reduction Co., Inc. Anesthetic administering apparatus. 2,841,142, 7–1–58, Cl. 128—188.

Hayes, Mary B., to American Viscose Corp. Process of producing all skin rayon. 2,841,463, 7–1–58, Cl. 18—54.

Hayner, Paul F., and G. J. Shomphe, to Sanders Associates, Inc. Gyroscope. 2,841,016, 7–1–58, Cl. 74—5.6.

Hazard, Frederick E. Refrigerator using solid carbon dioxide. 2,840 995, 7–1–58, Cl. 62—167.

Haseltine Research, Inc.: *See*—
Biggs, Albert J. 2,841,644.
Burr, Robert P. 2,841,641.
Hallden, Frederick C. 2,841,700.
McIlwain, Knox. 2,841,782.
Richman, Donald. 2,841,642.

Hasen, Frank D. Industrial heating furnaces. 2,841,383, 7–1–58 Cl. 263—20.

Hassard, Elmer W., and J. K. McLeod. Tooth mounting on blade of earth moving implement. 2,840,934, 7–1–58, Cl. 37—145.

Hechenbleikner, Ingenuin, and F. C. Lanoue, to Shea Chemical Corp. Tetra-aromatic alkylene diphosphites. 2,841,606, 7–1–58. Cl. 260—461.

Hechenbleikner, Ingenuin, and A. T. Gaul, to Shea Chemical Corp. Process of preparing alkanolamine phosphites. 2 841,607, 7–1–58, Cl. 260—461.

Hechenbleikner, Ingenuin, and F. C. Lanoue, to Shea Chemical Corp. Cyclic glycol phosphites. 2,841,608, 7–1–58, Cl. 260—461.

Hedman Co., The: *See*—
Johnson, Clarence W., and Kreidich. 2,841,076.

Heers, Peter N. Packing of rings, discs and other tray-like divisional walls in pipes, towers, columns and other such vessels. 2,841 421 7–1–58, Cl. 260—1.

Hefner, Robert E., and M. E. Pruitt, to The Dow Chemical Co. Glycerol triether lubricant compositions. 2,841,479, 7–1–58, Cl. 44—58.

Hehn, Lester C. Vibration isolators. 2,841,388, 7–1–58, Cl. 267—1.

Heimberger, Hermann. Device for testing electrical apparatus. 2,841,764, 7–1–58. Cl. 324—51.

Helwig, Clifford C. Fireplace front with double-fold doors. 2,841,219 7–1–58, Cl. 160—118.

Henahan, John F.: *See*—
Willard, Joe R., and Henahan. 2,841,520.

Henkel & Cie, G. m. b. H.: *See*—
Schütt, Hartwig, Stein, Rank, and Schirp. 2,841,615.

Henrikson, Thor O., and R. A. Magnuson, to Pacific Car and Foundry Co. Hydraulic draft gears. 2,841,294, 7–1–58, Cl. 213—43.

Herald, Leon S. Fountain pen nail file. 2,841,156, 7–1–58, Cl. 132—73.5.

Herman, Albert D.: *See*—
Woolsey, Theodore A., Herman, and Rice. 2,841,420.

Herman, Frieda, and M. Rossi, Cream cheese holder and spreader. 2,840,907, 7–1–58, Cl. 31—20.

Herman, Irving: *See*—
Andreassen, Donald R., and Herman. 2,841,688.

Herr Mfg. Co., Inc.: *See*—
Atwood, Hyatt B. 2,840,981.

Herrey, Hermann. Lamp shade. 2,841,696, 7–1–58, Cl. 240—108.

Heubaski, Walter J., to G. Stubbs. Cervical medication and artificial insemination means. 2,841,146, 7–1–58, Cl. 128—235.

Heuer, Charles H., to Zenith Radio Corp. Color television. 2 841,639. 7–1–58. Cl. 178—5.4.

Hewett, Colin L., to Organon Inc. Estradiol-17β-phenyl propionate. 2,841,598, 7–1–58. Cl. 260—397.5.

Hewitt, Ellis E., and R. R. Leffler, to Westinghouse Air Brake Co. Pulsation dampener device. 2,841,181, 7–1–58, Cl. 138—30.

Hewitt, Woodrow W., B. S. Powell, Jr., and G. A. White, to Spinsavac Corp. Suction head mounting for textile machine cleaning systems. 2,840,861, 7–1–58, Cl. 19—139.

Hewitt, Woodrow W., to Spin Sa Vac Corp. Suction head mounting for vacuum clearing systems. 2,840,862, 7–1–58, Cl. 19—139.

Hewitt, Woodrow W., to Spinsavac Corp. Clearer suction head mounting. 2,740 863, 7–1–58, Cl. 19—139.

Hickey James M. Gravity operated door hinge. 2,840,848, 7–1–58 Cl. 16—154.

Hiebach, Josef: *See*—
Lob, Walter, Hiebach, and Wietek. 2,841,781.

Higuchi, Takeru: *See*—
Hill, Norman C., and Higuchi. 2,841,601.

Hilficker, Edward G.: *See*—
MacMeekin, Robert J., and Hilficker. 2,841,087.

Hill, Mark L.: *See*—
Cantrell Troy L., and Hill. 2,841,126.

Hill, Norman C., and T. Higuchi, to The C. P. Hall Co. Separation of dicarboxylic and monocarboxylic acids. 2,841,601. 7–1–58. Cl. 260—404.

Hincher, Lee D. Paper edge flaring machine. 2,841,056, 7–1–58. Cl. 93—36.

Hirschy, Harlan W., to Kimberly-Clark Corp. Apparatus for forming a multiply web product. 2,841,202, 7–1–58, Cl. 154—1.7.

Hirst, Archie J., to Metalastik Ltd. Suspension system for the bogies of railway and like vehicles. 2,841,096, 7–1–58, Cl. 105—197.

Hirth, Hans K.: *See*—
Neuschaefer, Werner H. F. W., and Hirth. 2,841,230.

Hjelte, Nils S.: *See*—
Brandstrom, Arne E., Hjelte, and Martensson. 2,841,589.

Hoare, Stephen C., to General Electric Co. Electrical measuring instrument. 2,841,767. 7–1–58, Cl. 324—147.

Hodge, William F., to General Electric Co. Electric discharge lamp. 2,841,733. 7–1–58, Cl. 313—184.

Hodgson, Howard E. Controller for inductive devices. 2,841 747. 7–1–58. Cl. 317—123.

Hoffman Electronics Corp.: *See*—
Jahns, Edward R. 2,841,110.

Hoffman-La Roche Inc.: *See*—
Colnianni, Louis J., and Tanser. 2,841,620.

Hofmann, Karl, ½ to P. O. Tobeler, doing business under the name of Trans-Oceanic. Educational abacus set. 2,840,927, 7–1–58, Cl. 35—73.

Hogaboom, George B., Jr. Electroplating hanger to support a plurality of articles. 2,841,549, 7–1–58, Cl. 204—297.

Hoge, Henri H., and D. L. Spotten, to Westinghouse Electric Corp. Translator sweep generator. 2,841,712, 7–1–58, Cl. 250—36.

Hogg, John A., and G. B. Spero, to The Upjohn Co. 6λ-fluoroδ' cortisone and 6λ-fluoroδ' hydrocortisone and the 21-acylates thereof. 2,841,600, 7–1–58, Cl. 260—397.45.

Hoglund, Paul F., to United States of America, Atomic Energy Commission. Heat treatment of electroplated uranium. 2,841,539, 7–1–58, Cl. 204—1.5.

Hollis, John S., to United States of America, Army. Multiple output waveguide switching systems. 2,841,770, 7–1–58, Cl. 333—7.

Hollopetre, John H.: *See*—
Grube, Frederick J., and Hollopetre. 2,840,886.

Holsman, George, and G. M. Good, to Shell Development Co. Isomerization of paraffin hydrocarbons. 2,841,626, 7–1–58, Cl. 260—683.65.

Homer Laughlin China Co., The: *See*—
Ryckman, George E. 2,841,075.

Hooker Electrochemical Co.: *See*—
Hooker, Thomas, Goering, and Maude. 2,841,243.

Hooker, Howard, and C. J. Tupy, to Cullen-Friestedt Co. Auxiliary coil lifting devices for the jaws of a sheet lifter. 2,841,434, 7–1–58, Cl. 294—67.

Hooker, Thomas, E. J. Geering, and A. H. Maude, to Hooker Electrochemical Co. Purification of hydrogen chloride. 2,841,243, 7–1–58, Cl. 183—115.

Hoover, Michael C., to Mandrel Industries, Inc. Compensation for two point regulated amplifier. 2,841,718, 7–1–58, Cl. 250—214.

Hopf, Hans S.: *See*—
Boon, William R., Edgar, Ghosh, Greenhalgh, Hopf, and Burnand. 2,841,517.

Horlacher, Herman, to The Cincinnati Milling Machine Co. Tracer controlled angular cutter. 2,841,053, 7–1–58, Cl. 90—13.5.

Horner, Nadine B. Non-spill pocket. 2,840,824, 7–1–58, Cl. 2—247.

Horowitz, Leopold A., to Radio Corp. of America. Stabilised high frequency amplifier circuits. 2,841,655, 7–1–58, Cl. 179—171.

Horton, Clifford E., and H. Hsu, to General Electric Co. High frequency electric discharge device. 2,841,734, 7–1–58, Cl. 313—240.

Hosford, James A., A. L. House, and J. E. Lape, to Western Electric Co., Inc. Automatic straightness gage. 2,841,283, 7–1–58, Cl. 209—72.

House, Allston L.: *See*—
Hosford, James A., House, and Lape. 2,841,283.

Houser, Alfred A., to Boeing Airplane Co. Scale holder for optical tooling. 2,840,913, 7–1–58, Cl. 33—74.

Houvener, Russell W.: *See*—
Zenner, George H., and Houvener. 2,841,368.

Howard, Donald F., to North American Aviation, Inc. Radiation type flowmeter. 2,841,713, 7–1–58, Cl. 250—43.5.

Howard, Edward G., Jr., to E. I. du Pont de Nemours and Co. Exocyclic =NH group and =S atom substituted pyrrolidines and piperidines, their acid salts, and methods for their preparation. 2,841,588, 7–1–58, Cl. 260—293.4.

Howard, Edward J., and W. B. Cranford, to Canadian International Paper Co. Manufacture of alkali cellulose and pulp sheets therefor. 2,841,560, 7–1–58, Cl. 260—233.

Hove, Peder B. Electric switch construction. 2,841,672, 7–1–58, Cl. 200—163.

Hsu, Hsiung: *See*—
Horton, Clifford E., and Hsu. 2,841,734.

Huang, Hsing T.: *See*—
Kita, Donald A., and Huang. 2,841,532.

Hubbard, Arthur R., to United Shoe Machinery Corp. Shoe bottom ironing devices. 2,840,836, 7–1–58, Cl. 12—53.5.

Hubbard, Robert M., to Boeing Airplane Co. Temperature compensated magnetic amplifier. 2,841,650, 7–1–58, Cl. 179—171.

Hudgins, Archibald P. Therapy bed. 2,841,141, 7–1–58, Cl. 128—57.

Hughes Aircraft Co.: *See*—
Jamieson, Hugh W., Kibler, and Wilson. 2,841,783.

Hughes, James O., and R. Nelson, to Tri-State Processing Co. Method of packaging and preserving hops. 2,841,500, 7–1–58. Cl. 99—189.

Humble, John A., to United States of America, Navy. Non-rotational shock and vibration absorbers. 2,841,364, 7–1–58. Cl. 248—358.

Hunt, Letcher B., Jr.: *See*—
De Ros, Marcel O., and Hunt. 2,841,212.

Hunter, William T., to Sterling Drug Inc. Hexahydropyridazine derivatives thereof, and process. 2,841,584, 7–1–58, Cl. 260—250.

Huntingdon Industries Inc.: *See*—
Rodgers, John C., and Kiwi. 2,841,057.

Hutchens, George H.: *See*—
Duncan, William L., and Hutchens. 2,841,048.
Hutchins Mfg., Inc.: *See*—
Hutchins, Sanborn B. 2,840,904.
Hutchins, Sanborn B., to Hutchins Mfg. Inc. Power driven grass trimmer motor mounting means. 2,840,904, 7-1-58, Cl. 30—210.
Hydra-Air Products: *See*—
Emery, Lewis V. 2,841,165.
Hydrovane Compressor Co. Ltd., The: *See*—
Boyce, Guy B. 2,841,321.
Iannetti, Ernest D. Tube cutter. 2,840,902, 7-1-58, Cl. 30—104.
Illinois Clay Products Co., The: *See*—
West, Howard F., and Veale. 2,841,502.
Illinois Tool Works: *See*—
Burdick, Hugh T. 2,841,353.
Imperial Chemical Industries Ltd.: *See*—
Boon, William R., Edgar, Ghosh, Greenhalgh, Hopf, and Burnand. 2,841,517.
Ingalls, David, to Airtron, Inc. Method of making flexible metal tubing. 2,840,897, 7-1-58, Cl. 29—463.
Ingres, Jeannot G., to Automatic Shifters, Inc. Control mechanism for automatic torque converters. 2,841,027, 7-1-58, Cl. 74—473.
International Business Machines Corp.: *See*—
Bland, George F., Deerhake, and Jeenel. 2,841,740.
Bullard, Robert L., and Beatty. 2,841,762.
Cunningham, James M. 2,841,221.
Harper, Leonard R. 2,841,708.
Johnson, Reynold B., and Wolff. 2,841,077.
Kuenstner, Robert C., and Crawford. 2,841,706.
Reynolds, Andrew C., Jr. 2,841,748.
Tibbling, Stig B. 2,841,264.
International Nickel Co., Inc., The: *See*—
Morrogh, Henton. 2,841,488.
Morrogh, Henton. 2,841,489.
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International Paper Box Machine Co., The: *See*—
La Bombard, Leon E. 2,841,270.
International Standard Electric Corp.: *See*—
Mayer, Simon E. 2,841,510.
Terry, Victor J., Hargreaves, and Prior. 2,841,701.
International Telephone and Telegraph Corp.: *See*—
Radcliffe, Arthur J., Jr. 2,841,719.
Inventio A. G.: *See*—
Pfister, Gottfried. 2,841,248.
Iron Firemen Mfg. Co.: *See*—
Haugen, Edmond H. 2,841,337.
Ivers-Lee Co.: *See*—
Lefebvre, Frank J. 2,841,281.
Jacob, Robert M., and N. M. Messer, to Societe des Usines Chimiques Rhone-Poulenc. Indole derivatives. 2,841,590, 7-1-58, Cl. 260—319.
Jacobs, Herbert: *See*—
Guglielmo, Paul N., and Jacobs. 2,840,888.
Jacobs, Joseph H.: *See*—
Jacobs, Marcellus L. and J. 2,841,042.
Jacobs, Marcellus L. and J. H., to Jacobs Wind Electric Co. Adjustable center for lathes. 2,841,042, 7-1-58, Cl. 82—33.
Jacobs Wind Electric Co.: *See*—
Jacobs, Marcellus L. and J. H. 2,841,042.
Jacobson, Eugene W.: *See*—
Eckler, Norman H., and Jacobson. 2,840,894.
Jacobson, Eugene W., to Gulf Research & Development Co. Ball type shut-off valve. 2,841,167, 7-1-58, Cl. 137—327.
Jahns, Edward R., to Hoffman Electronics Corp. Mechanical apparatus for displaying electrical phenomena or the like. 2,841,110, 7-1-58, Cl. 116—124.1.
James Equipment Co., Inc.: *See*—
James, Robert B. 2,841,200.
James, Robert B., to James Equipment Co., Inc. Apparatus for spreading a coil and twisting the sides thereof. 2,841,200, 7-1-58, Cl. 153—6.
Jamieson, Hugh W., P. J. Kibler, and T. A. Wilson, to Hughes Aircraft Co. Clutter eliminator circuit. 2,841,783, 7-1-58, Cl. 343—17.1.
Jaquith, John S.: *See*—
Mason, Richard J., and Jaquith. 2,841,173.
Jarrett Rainsford & Laughton Ltd.: *See*—
Laughton, George A. 2,841,158.
Jay, Kenneth W., to Orenda Engines Ltd. Flexible inner to outer pipe coupling with plural seals. 2,841,419, 7-1-58, Cl. 285—225.
Jeenel, Joachim: *See*—
Bland, George F., Deerhake, and Jeenel. 2,841,740.
Jenney, Ray S., R. T. Fetherston, and G. R. Miller, to Kellogg Co. Device for orienting articles conveyed forwardly to a packaging machine. 2,841,269, 7-1-58, Cl. 198—30.
Jensen, Arthur S., and G. W. Gray, to United States of America, Atomic Energy Commission. Quantizing tube. 2,841,727, 7-1-58, Cl. 313—68.
Jensen, Robert V., and R. A. Laff, to Radio Corp. of America. Method of doping semi-conductive material. 2,841,509, 7-1-58, Cl. 148—1.5.
Jessen, George R., and C. W. Chaniund, to Cen-Vi-Ro Pipe Corp. Process for casting concrete pipe. 2,840,880, 7-1-58, Cl. 25—155.
Jewell, Hollis. Magnetic clutch. 2,841,258, 7-1-58, Cl. 192—12.
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Cooper, Hugh S. 2,841,512.
Johnson, Benjamin B., to Telephone Mfg. Co. Ltd. Connector and circuit arrangement for automatic telecommunication exchange system. 2,841,652, 7-1-58, Cl. 179—18.
Johnson, Clarence W., and J. Kriedich, to The Hedman Co. Check writing and signing machine. 2,841,076, 7-1-58, Cl. 101—91.
Johnson, Harry J.: *See*—
Ebbesen, Gerald K., and Johnson. 2,840,826.
Johnson, Reynold B., and F. G. Wolff, to International Business Machines Corp. Wire printer mechanism. 2,841,077, 7-1-58, Cl. 101—93.
Johnson, Theresa M. Garment hanger cover. 2,841,316, 7-1-58, Cl. 223—96.
Johnson, William K., to Monsanto Chemical Co. Biological toxicants comprising hexahalobicycloheptenols and esters thereof. 2,841,484, 7-1-58, Cl. 71—2.3.
Johnson, William K., and T. L. Patton, to Monsanto Chemical Co. Hexahalobicycloheptenediols and derivatives thereof. 2,841,485, 7-1-58, Cl. 71—2.3.
Jolfre, René C. Diaphragm type acoustic screen. 2,831,234, 7-1-58, Cl. 181—31.
Jones, Basil E. Tobacco curer. 2,841,351, 7-1-58, Cl. 263—19.
Jones, Charles E., and W. G. Crowle, to Manning Mfg., Corp. Roller skate having unitary plastic body. 2,841,405, 7-1-58, Cl. 280—11.26.
Jones, Grandville R., to Sperry Rand Corp. Steering systems for marine craft. 2,841,754, 7-1-58, Cl. 318—489.
Jones, John L., to Rand Development Corp. Scroll pump. 2,841,089, 7-1-58; Cl. 103—131.
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Davies, David O., Jones, and Ouilanoff. 2,840,986.
Joy, Joseph F., to Joy Mfg. Co. Method of and apparatus for forming a key-slot in a bore wall for guiding the apparatus and for inserting a flexible conductor into the slot. 2,841,376 7-1-58, Cl. 262—7.
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Joy, Joseph F. 2,841,376.
Jude, George F.: *See*—
Halpert, Percy, and Jude. 2,841,345.
Kadavy, Godfrey J. Viscera retainer for use in abdominal operations. 2,841,148, 7-1-58, Cl. 128—303.
Kaheny, John M. Golf ball coating device. 2,840,842, 7-1-58, Cl. 15—210.
Kaiser Aluminum & Chemical Corp.: *See*—
Gaffney, Richard E. 2,840,871.
Kalsey, John. Emergency shut-off for hot water heaters. 2,841,170 7-1-58, Cl. 137—410.
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Long, Robert S., and Kantor. 2,841,613.
Karlovsky, Jerry, to Goodman Mfg. Co. Corner sprocket mechanism for boring type mining machine. 2,841,378, 7-1-58, Cl. 262—7.
Karpoff, David, H. Bridgman, and E. P. Mersereau, Jr., to Mohasco Industries, Inc. Random texture pile fabric. 2,841,187, 7-1-58, Cl. 139—403.
Karpowicz, Benjamin, Jr., to Pak-Rapid, Inc. Method and apparatus for producing evacuated packages. 2,840,941, 7-1-58, Cl. 53—22.
Kaufmann, Kurt, to Automatic Druckmaschinenfabrik Dr. W. Hinniger & Sohne. Inking mechanism for high-speed cylinder printing presses. 2,841,081, 7-1-58, Cl. 100—353.
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Keating, Bernard H., and C. P. Sprunk, to General Motors Corp. Sheet metal fastener for connecting a flexible drainage tube to a plate. 2,841,418, 7-1-58, Cl. 285—194.
Kedrowski, John J. Baby crib structure. 2,840,831, 7-1-58, Cl. 5—63.
Keilbach, Paul C. Resiliently coiled chain constructions and links therefor. 2,840,983, 7-1-58, Cl. 59—83.
Keiser, David H., Jr. Shearing device. 2,840,906, 7-1-58, Cl. 30—268.
Keiser, David H., Jr. Grass cutting shears and the like. 2,840,976, 7-1-58 Cl. 56—241.
Kellogg Co.: *See*—
Jenney, Ray S., Fetherton, and Miller. 2,841,269.
Kellogg, M. W., Co., The: *See*—
Lobo, Walter E., and Skaperdas. 2,840,994.
Skaperdas, George T. 2,841,534.
Kelly, Andrew J.: *See*—
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Kemmerer, Ralph R., to Westinghouse Air Brake Co. Railway signalling for intersecting tracks. 2,841,699, 7-1-58, Cl. 246—161.
Kemp, William G. Acoustical system. 2,841,255, 7-1-58, Cl. 189—88.
Kendon Electronics Co. Inc.: *See*—
Oestreicher, Warren J. 2,841,675.
Kennedy-Van Saun Mfg. & Eng. Corp.: *See*—
Falla, Fernando. 2,841,125.
Kerr, David, to Ultra Electric, Inc. Radio locating system and apparatus therefor. 2,841,788, 7-1-58, Cl. 343—101.
Kessler, Otto H., Jr., and R. N. Sellon, Jr., to Stolper Steel Products Corp. Semi-closed office machine stand or small desk. 2,841,410, 7-1-58, Cl. 280—44.
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Levy, Marilyn, and Kidd. 2,841,494.
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Kincaid, Horace L. deceased; J. D. Kincaid, administrator, ½ to S. Kincaid and ¼ to M. G. Tidmore. Engine trouble detecting device. 2,841,761, 7-1-58, Cl. 324—18.
Kincaid, James D.: *See*—
Kincaid, Horace L. 2,841,761.
Kincaid, Susan: *See*—
Kincaid, Horace L. 2,841,761.

Kircher, Ralph N., to West Bend Aluminum Co. Strip cups. 2,841,050, 7-1-58, Cl. 53—14.
Kirkpatrick, James S., and P. Zylstra, Jr., to Brooks & Perkins, Inc. Method of making cylindrically curved printing plates. 2,841,063, 7-1-58, Cl. 101—401.1.
Kirkpatrick, James S., to Brooks and Perkins, Inc. Method of curving magnesium printing plates. 2,841,062, 7-1-58, Cl. 101—401.1.
Kirkpatrick, Willard H., and A. Walker, to Visco Products Co. Demulsifying process. 2,841,563, 7-1-58, Cl. 252—340.
Kissling Albert C. Evacuating and sealing apparatus. 2,840,964, 7-1-58, Cl. 53—74.
Kita, Benjamin B., to Advance Glove Mfg. Co. Gloves and/or mittens. 2,840,823, 7-1-58, Cl. 2—158.
Kita, Donald A. and H. T. Huang, to Chas. Pfizer & Co., Inc. Fermentation process for the production of L-lysine. 2,841,532, 7-1-58, Cl. 195—30.
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Kleelavite Co. Ltd., The: *See*—
Levetus, Francis B., Chittenden, and Lee. 2,841,168.
Klein, Charles H., and W. E. Northcutt, to The National Telephone Supply Co. Detent. 2,841,403, 7-1-58, Cl. 279—76.
Klein, Edmund A., to American Brake Shoe Co. Control valve mechanism for hydraulic motors. 2,841,118, 7-1-58, Cl. 121—38.
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Klöpping, Carel P., and C. L. Pick, to North American Philips Co., Inc. Electric discharge tube. 2,841,737, 7-1-58, Cl. 313—318.
Knechtli, Ronald C., to United States of America, Army. Apparatus for producing thermally-cool charged particles. 2,841,726, 7-1-58, Cl. 313—7.
Knight, Robert D., and T. Melville, to United States Steel Corp. Ventilating duct. 2,841,072, 7-1-58, Cl. 98—56.
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Köberle, Albert, to Firma B. Raimann G. m. b. H. Tool driving and guiding structure for a machine tool. 2,841,194, 7-1-58, Cl. 144—134.
Koch, August K. Toolmakers' indicators. 2,840,917, 7-1-58, Cl. 33—172.
Koch, Winfield R., to Radio Corp. of America. Oscillation generator. 2,841,711, 7-1-58, Cl. 250—36.
Koehler, Robert L., to Koiled Kords, Inc. Telephone alert system. 2,841,650, 7-1-58, Cl. 179—2.
Koiled Kords, Inc.: *See*—
Koehler, Robert L. 2,841,650.
Kolka, Alfred J.: *See*—
Ecke, George G., Kolka, and Burt. 2,841,503.
Koller, Ernest H. Harvester reel bat. 2,840,975, 7-1-58, Cl. 56—219.
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Donner, Josef A., and Kopke. 2,840,999.
Kotchan, Charles J. Fixture aligner for use with T-slot table. 2,840,883, 7-1-58, Cl. 29—1.
Kotz, Raymond W., A. R. Dammkoehler, and R. E. Belke, to Belke Mfg. Co. Apparatus for electroplating. 2,841,547, 7-1-58, Cl. 204—223.
Krämer, Werner, to Licentia Patent-Verwaltungs-G. m. b. H. Arrangement for stabilizing the voltage of a synchronous alternator. 2,841,755, 7-1-58, Cl. 322—25.
Krause, Herbert, to Chicago Forging and Mfg. Co. Hood latch. 2,841,430, 7-1-58, Cl. 292—11.
Kreidich, John: *See*—
Johnson, Clarence W., and Kreidich. 2,841,076.
Kreutzberger, Alfred: *See*—
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Krombolz, Edward J. Railway switch lock. 2,841,698, 7-1-58, Cl. 246—160.
Kuebler, Robert A., to General Electric Co. Contact pin and method for fluorescent lamps. 2,841,690, 7-1-58, Cl. 219—100.
Kuenstner, Robert C., and D. J. Crawford, to International Business Machines Corp. Transformer coupled cathode follower. 2,841,706, 7-1-58, Cl. 250—27.
Kuns, Jacob T.: *See*—
Beach, Earle J., and Kuns. 2,841,044.
Kwake, John P., to Theo. Ross. Container for fluid or semi-plastic materials. 2,841,198, 7-1-58, Cl. 150—2.1.
La Bombard, Leon E., to The International Paper Box Machine Co. Individual presser roll unit. 2,841,270, 7-1-58, Cl. 198—165.
La Cellophane: *See*—
Clement, Joel. 2,840,968.
Lacey, Richard N., to British Industrial Solvents Ltd. Production of beta-furoic acids. 2,841,594, 7-1-58, Cl. 260—347.3.
Lachicotte, Eugene S. Minnow like fishing lure. 2,840,946, 7-1-58, Cl. 43—42.48.
Lador, Inc.: *See*—
Faulkner, James E. 2,840,949.
Laff, Robert A.: *See*—
Jensen, Robert V., and Laff. 2,841,509.
Lamb, John, to Shell Development Co. Ship's overside elevator. 2,841,246, 7-1-58, Cl. 187—6.
Lamb, Roger M.: *See*—
Steven, William, and Lamb. 2,841,490.
Lang, Alfred: *See*—
Grebe, Otto, and Lang. 2,841,753.
Lanham, William M., to Union Carbide Corp. Production of heterocyclic dithiophosphoric esters. 2,841,005, 7-1-58, Cl. 260—461.
Lanoue, Francis C.: *See*—
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Hechenbleikner, Ingenuin, and Lanoue. 2,841,608.
Lape, Jean E.: *See*—
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Lapeyre, Fernand S. and J. M., to The Peelers Co. Shrimp peeling machine. 2,840,850, 7-1-58, Cl. 17—2.
Lapeyre, James M.: *See*—
Lapeyre, Fernand S. and J. M. 2,840,850.
Lardenois, Fernand. Cutting machine for hard or hardened metals. 2,841,220, 7-1-58, Cl. 164—40.
Larsen, Aubrey A., and B. F. Tullar, to Sterling Drug Inc. Dextro - 6 - dimethylamino-4,4-diphenyl-5-methyl-3-hexanone, salts thereof and preparation thereof. 2,841,909, 7-1-58, Cl. 260—465.
La Rue, Mervin W., Jr.: *See*—
Bagby, John F., Freeland, and La Rue. 2,841,064.
Laub, Ernest S. V. Allergy testing device. 2,841,138, 7-1-58, Cl. 128—2.
Laucher, Richard G., to Westinghouse Electric Corp. Longitudinally movable shroud and variable area exit nozzle for jet engine afterburner. 2,840,984, 7-1-58, Cl. 60—35.6.
Laughton, George A., to Jarrett Rainsford & Laughton Ltd. Sheathed toilet article. 2,841,158, 7-1-58, Cl. 132—142.
Lawrence Paper Co., The: *See*—
White, Roger L., Miller, and Young. 2,841,319.
Lecher, Hans Z., and B. G. Buell, to American Cyanamid Co. Azo dyes from condensation products of P-aminosalicylic acid. 2,841,575, 7-1-58, Cl. 260—144.
Lee, Denis E., to Joseph Lucas (Industries) Ltd. Hydraulic speed-responsive governors. 2,841,161, 7-1-58, Cl. 137—58.
Lee, Norman: *See*—
Levetus, Francis B., Chittenden, and Lee. 2,841,168.
Leeds, Morton W.: *See*—
Burch, Robert J., and Leeds. 2,841,625.
Lees, Sidney. Torsional fourier transformer. 2,841,332, 7-1-58, Cl. 235—61.
Lefebvre, Frank J., to Ivers-Lee Co. Locked package display holder. 2,841,281, 7-1-58, Cl. 206—79.
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Le June, Dorothy: *See*—
Pappas, Alexander J. 2,841,352.
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Leonard, Louis H., Jr., to Carrier Corp. Absorption refrigeration systems. 2,840,997, 7-1-58, Cl. 62—494.
Lett, Geoffrey B., to E. W. Hawkinson. Apparatus for remoulding or retreading tyres for vehicles. 2,840,857, 7-1-58, Cl. 18—44.
Levetus, Francis B., G. E. Chittenden, and N. Lee, to The Kleelavite Co. Ltd. Hydraulic control valve apparatus. 2,841,168, 7-1-58, Cl. 137—332.
Levy, Marilyn, and N. A. Kidd, to United States of America, Army. Developing and fixing exposed silver succindiamidoxime. 2,841,494, 7-1-58, Cl. 96—61.
Lewis, Stephen J. Machines for inserting filled containers into cases. 2,840,965, 7-1-58, Cl. 53—160.
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Darling, Samuel M., and Liao. 2,841,553.
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Krämer, Werner. 2,841,755.
Liggett, Lawrence M., to Wyandotte Chemicals Corp. Surface coated calcium carbonate pigments. 2,841,504, 7-1-58, Cl. 106—308.
Light, Henri. Hair curler. 2,841,155, 7-1-58, Cl. 132—40.
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Bergstrom, Ralph W., and Lindeman. 2,840,849.
Lindenblad, Nils E., to Radio Corp of America. Adsorption pumping. 2,741,323, 7-1-57, Cl. 230—69.
Lindenblad, Nils E., to United States of America, Navy. Dual slot wideband antenna. 2,841,790, 7-1-58, Cl. 343—767.
Lindley, Anell L.: *See*—
Lindley, John E. and A. L. 2,841,140.
Lindley, John E. and A. L. Adjustable collar for resuscitators and respirators. 2,841,140, 7-1-57, Cl. 128—30.
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Erisman, Maurice J., Francis, and Teichman. 2,840,922.
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Litherland, William T., to General Motors Corp. Door apparatus and control. 2,841,389, 7-1-58, Cl. 268—47.
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Little, Robert K. Pinch valve. 2,841,357, 7-1-58, Cl. 251—6.
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Lo, Chien-Pen, and W. B. Craig, to Rohm & Haas Co. Bis-isopropoxycarbonyl ethylenebisdithiocarbamate. 2,841,519, 7-1-58, Cl. 167—22.
Lob, Walter, Hiebsch, and T. Wietek. Electric signalling device for traffic control. 2,841,781, 7-1-58, Cl. 340—321.
Lobo, Walter E., and G. T. Skaperdas, to The M. W. Kellogg Co. Method of separating gaseous mixtures. 2,840,994, 7-1-58, Cl. 62—14.
Lodge, Alvin, to Blackstone Corp. Domestic laundering machines. 2,841,260, 7-1-58, Cl. 192—54.
Loeffler, Frank W., to General Motors Corp. Exhaust means extending through accessible enclosures. 2,841,232, 7-1-58, Cl. 180—89.
Long, Robert S., and A. K. Kantor, to American Cyanamid Co. Alkoxy diaminostilbenedisulfonic acids. 2,841,613, 7-1-58, Cl. 260—509.

Longley, Raymond L., Jr., and T. M. Patrick, Jr., to Monsanto Chemical Co. Process for producing α-alkoxybenzylsuccinic anhydrides and nuclearly substituted benzyl derivatives thereof. 2,841,592, 7–1–58, Cl. 260—346.8.

Longwell, John P., to United States of America, Navy. Fuel control apparatus for supersonic ramjet. 2,840,988, 7–1–58, Cl. 60—39.28.

Longwell, John P., to United States of America, Navy. Multistage fuel injection for ram-jet combustor. 2,840,990, 7–7–58, Cl. 60—39.72.

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Loomis, Glenn L., to Loomis Hydraulic Testing Co., Inc. Apparatus for testing oil well casing or the like. 2,841,007, 7–1–58, Cl. 73—40.5.

Loomis Hydraulic Testing Co., Inc.: *See*—
Loomis, Glenn L. 2,841,007.

Lott, William A., to Olin Mathieson Chemical Corp. Esters of aryl-substituted cyclobutanedicarboxylic acids. 2,841,610, 7–1–58, Cl. 260—475.

Loughlin, Bernard D. Color-saturation control apparatus. 2,841,643, 7–1–58, Cl. 178—5.4.

Lower, Frederick D.: *See*—
Bennett, William O. Jr., Lower, and Ott. 2,841,280.

Lucas, Joseph (Industries) Ltd.: *See*—
Lee, Denis E. 2,841,161.

Lucy, William F. G., to Orenda Engines Ltd. Milling machine. 2,841,062, 7–1–58, Cl. 90—13.

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Halahan, John, Aronson, and Lyon. 2,840,969.

Lyon, George A. Wheel cover. 2,841,445, 7–1–58, Cl. 301—37.

Lyons, Joseph F., and P. R. Thomas, to The Texas Co. Metal N-acyl sarcosinate thickened lubricating oils. 2,841,555, 7–1–58, Cl. 252—33.6.

Lytton, Marion R., to American Viscose Corp. Production of all skin rayon. 2,841,462, 7–1–58, Cl. 18—54.

Maass, Herbert W., and R. W. Shoberg. Pitless well adaptors. 2,841,223, 7–1–58, Cl. 166—88.

Macaluso, Henry: *See*—
Pagdin, William G., Macaluso, and Bulat. 2,841,433.

Maccaferri, Mario. Self-sealing wall tiles. 2,841,004, 7–1–58, Cl. 72—18.

MacCaulay, Robert W. to General Electric Co. End cap for combustor. 2,840,989. 7–1–58, Cl. 60—39.65.

MacDonald, Robert N., to E. I. du Pont de Nemours and Co. Polymerization of formaldehyde. 2,841,370, 7–1–58, Cl. 260—67.

Macholl, James P., and K. Patterson, to Gould-National Batteries, Inc. Electrolyte additive for storage batteries. 2,841,632, 7–1–58, Cl. 136—153.

MacMeekin, Robert J., and E. G. Hilflicker, to C. H. Wheeler Mfg. Co. Vertical centrifugal pumping apparatus. 2,841,087, 7–1–58, Cl. 103—107.

Macomber, James K.: *See*—
Agins, George, Odin, Macomber, and Bock. 2,841,333.

Magarian, Masick C. Hitch structures. 2,841,067, 7–1–58, Cl. 97—46.07.

Magee Carpet Co., The: *See*—
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Magerlein, Barney J., J. K. Dale, and L. W. Wachtel, to The Upjohn Co. Process for making crystalline cortisone acetate. 2,841,509, 7–1–58, Cl. 260—397.45.

Magnuson, Roland A.: *See*—
Henrikson, Thor O., and Magnuson. 2,841,294.

Magnusson, Lawrence B., to United States of America Atomic Energy Commission. Precipitation method of separation of neptunium. 2,841,464, 7–1–58, Cl. 23—14.5.

Malmgren, Bror H. Conveyor idlers. 2,841,271, 7–1–58, Cl. 198—192.

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Mangels, Herold Co., Inc.: *See*—
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Starks-Field, Alfred B. Kenll, and Priestley. 2,841,784.
Wright, Peter M., and Brandon. 2,841,758.
Wright, William L. 2,841,769.

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Mariotte, Eugene S. Collapsible golf cart. 2,841,408, 7–1–58, Cl. 280—38.

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Marquis, John F., to Littelfuse Inc. Circuit breaker. 2,841,671, 7–1–58, Cl. 200—113.

Marschall, Frederick W., to United States of America, Air Force. Method and means for pulse width discrimination. 2,841,710, 7–1–58, Cl. 250—27.

Marsden, George W. Tourniquet. 2,841,140, 7–1–58, Cl. 128—327.

Marshall, Leonard J., to Combustion Engineering, Inc. Heat exchanger. 2,841,102, 7–1–58, Cl. 110—106.

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Martin, Lyle, to Bendix Aviation Corp. Electro-magnetic control device. 2,841,336, 7–1–58, Cl. 236—78.

Martin, Virgil D. Portable saw support for attaching idle saw to an edge-up board. 2,841,192, 7–1–58, Cl. 143—43.

Martin, Walter W. and C. L. Valve means. 2,841,169, 7–1–58, Cl. 137—400.

Marty, Dorothy M. Reading accelerator. 2,841,109, 7–1–58, Cl. 116—119.

Marxer, Adrian, to Ciba Pharmaceutical Products, Inc. Manufacture of new quinone compounds. 2,841,581, 7–1–58, Cl. 260—239.

Mascaro, Anthony. Spreader for fertilizer and the like. 2,841,401, 7–1–58, Cl. 275—15.

Mason, Richard J., and J. S. Jaquith, to Bendix Aviation Corp. Control valve. 2,841,173, 7–1–58, Cl. 137—505.18.

Matthews, John B., E. J. Clayfield, and T. Y. Whittam, to Shell Development Co. Method for testing and blending lubricants. 2,841,333, 7–1–58, Cl. 196—1.

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May, Maurice, to American Art Metals Co. Threshold. 2,840,868, 7–1–58, Cl. 20—64.

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Mayes, Fred M., and R. T. Young, to Sun Oil Co. Pressure measuring device. 2,841,011, 7–1–58, Cl. 73—401.

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McClelland, Clarence P., to General Motors Corp. Windshield wiper transmission cable tensioning apparatus. 2,840,844, 7–1–58, Cl. 15—253.

McClure, Kenneth R., to W. J. Dickey. Self-locking tag. 2,840,939, 7–1–58, Cl. 40—21.

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McGee, James D., to Electric & Musical Industries Ltd. Electron multipliers. 2,841,728, 7–1–58, Cl. 313—95.

McIlwain, Knox, to Haseltine Research, Inc. Equipment monitoring apparatus for radar system. 2,841,782, 7–1–58, Cl. 343—5.

McKinnon, Malcolm N. Auxiliary fuel systems for automotive vehicles. 2,841,216, 7–1–58, Cl. 158—46.5.

McLaurin, Dunbar S. Discardable hygienic kit. 2,841,147, 7–1–58, Cl. 128—275.

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Megel, Guillaume E., 50% to Henri Mancia. Rectifying device for automatic lathes. 2,841,041, 7–1–58, Cl. 82—28.

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Milliner, Beverly R. Self locking window casing. 2,841,254, 7–1–58, Cl. 189—76.

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Williamson, Reginald M. 2,841,164.

Minnesota Mining & Mfg. Co.: *See*—
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Norton, Douglas G., and Morris. 2,841,624.

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Morrogh, Henton, to The International Nickel Co., Inc. Nodular cast iron and process of making same. 2,841,489, 7–1–58, Cl. 75—125.

Mortimer, Frank R., to Dunlop Rubber Co. Ltd. Acceleration and deceleration sensing device. 2,841,387, 7–1–58, Cl. 264—1.

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Moskovitz, Milton A., ½ to H. Frankel. Tie-rod joint with wear-compensating bearing. 2,841,428, 7–1–58, Cl. 287—90.

Moxness, Sven K., to Minneapolis-Honeywell Regulator Co. Molding apparatus and procedure. 2,840,856, 7–1–58, Cl. 18—30.

Mueller, Herman H. Tone arm control for the fully automatic or manually controlled playing of intermixed records. 2,841,400, 7–1–58, Cl. 274—10.

Mueller, Paul, to Hahn & Kolb Werkzeugmaschinen und Werkzeuge. Gauges and process for making the same. 2,840,916, 7–1–58, Cl. 33—168.

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Müller, Franz, to Klöchner-Humboldt-Deutz Akt. Rotary kiln. 2,841,385, 7–1–58, Cl. 263—33.

Muller, Kurt, and H. Tonniges, to Deutsche Fibrit Gesellschaft m. b. H. Fiber molding apparatus. 2,841,054, 7–1–58, Cl. 92—54.

Muller, Otto, to Ste Jaruza A. G. Chur. Throwing rotor surrounded by rotary abutment impact surface. 2,841,340, 7–1–58, Cl. 241—187.

Mullich, Oliver J., to Southern Hotel and Restaurant Supplies, Inc. Sanitary can opener apparatus. 2,840,899, 7–1–58, Cl. 30—4.

Mullich, Oliver J., to Southern Hotel and Restaurant Supplies, Inc. Sanitary can opener. 2,840,900, 7–1–58, Cl. 30—6.4.

Mundell, James M., and J. Pavlovich, Jr., to United States Steel Corp. Trackway scraper. 2,840,980, 7–1–58, Cl. 37—104.

Munson, Gilbert M., and P. R. Gettler. Faucet. 2,841,814, 7–1–58, Cl. 222—519.

Munster, Allen C.: *See*—
Sunstein, David E., Usaler, and Munster. 2,841,704.

Murphy, James G. Silver polish. 2,841,501, 7–1–58, Cl. 106—3.

Muse, John F.: *See*—
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Conrad, Martin B. and Muse. 2,841,226.

Myhre, Johan, to Collett & Co. A/S. Method of making fused tablets. 2,841,528, 7–1–58, Cl. 167—82.

Mynick, David D., to Universal Brass Works. Universally adjustable connection having plural swivels. 2,841,417, 7–1–58, Cl. 285—168.

N. V. Briko: *See*—
Dohmen, Heinrich. 2,841,478.

Nachtman, John S. High temperature structural material and method of producing same. 2,840,891, 7–1–58, Cl. 29—182.5.

Nallinger, Friedrich K. H., to Daimler-Benz Akt. Arrangement of instruments in a motor vehicle. 2,841,283, 7–1–58, Cl. 180—90.

Narissano, John. Safety razor with adjustable unit for varying blade exposure. 2,840,901, 7–1–58, Cl. 30—73.

National Supply Co., The: *See*—
Deitrickson, Roy H. 2,841,086.

National Telephone Supply Co., The: *See*—
Klein, Charles H., and Northcutt. 2,841,403.

Negromanti, Antonio. Electro-thermal regulating device. 2,841,681, 7–1–58, Cl. 219—20.

Neher, Eldon P.: *See*—
Peppercorn, Howard N., and Neher. 2,840,893.

Nelson, John W., to Sinclair Refining Co. Lithium soap grease and process of making same. 2,841,557, 7–1–58, Cl. 252—41.

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Hughes, James O., and Nelson. 2,841,500.

Nesselrodt, Carl W. Rack member. 2,841,210, 7–1–58, Cl. 155—188.

Nettles, Harold R.: *See*—
Randall, Ralph K. 2,841,037.

Neuschaefer, Werner H. F. W., and H. K. Hirth, to Daimler-Benz Akt. Wheel suspension of motor vehicles. 2,841,230, 7–1–58, Cl. 180—73.

Newell, William H., to Sperry Rand Corp. Synchronizing control for motion reproducing devices. 2,840,992, 7–1–58, Cl. 60—53.

Newman, Theodore J., to American Bosch Arma Corp. Turret control. 2,841,751, 7–1–58, Cl. 318—77.

Nex, Robert W.: *See*—
Swesey, Arthur W., and Nex. 2,841,482.
Swesey, Arthur W., and Nex. 2,841,483.

Nichols, Lewis O., and H. A. Wilhelm. Feeding device. 2,841,116, 7–1–58, Cl. 119—53.

Nisbet, John L. Rotary pump and motor hydraulic transmission. 2,840,991, 7–1–58, Cl. 60—53.

Noble, Aubrey E., and C. F. Annese, Jr., to Catalin Corp. of America. Rotary type machine for granulating polystyrene pellets. 2,841,341, 7–1–58, Cl. 241—243.

Nordblad, Sven S., to Telefonaktiebolaget L M Ericsson. Device for controlling and adjusting the capacitance of an electrically insulated conductor. 2,841,514, 7–1–58, Cl. 154—2.24.

North American Aviation, Inc.: *See*—
Howard, Donald F. 2,841,713.
Schanke, Donald G., and Rose. 2,841,426.
Van Pappelendam, Carl A. 2,841,689.

North American Philips Co., Inc.: *See*—
Klöpping, Carel P., and Pick. 2,841,737.
Rybakoff, George. 2,841,735.

Northcutt, Walter E.: *See*—
Klein, Charles H., and Northcutt. 2,841,403.

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Norton, Douglas G., and F. C. Davis, to Shell Development Co. Process for producing alkylated phenols. 2,841,622, 7–1–58, Cl. 260—624.

Norton, Douglas G., and R. C. Morris, to Shell Development Co. Process for the alkylation of phenols. 2,841,623, 7–1–58, Cl. 260—624.

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Norton, Kenneth R. Light condition indicator for vehicles. 2,841,780, 7–1–58, Cl. 340—252.

Norton, Robert K., to Harris-Intertype Corp. Sheet feeding mechanism. 2,841,391, 7–1–58, Cl. 271—12.

Norton, Robert K., to Harris-Intertype Corp. Control for sheet feeder. 2,841,392, 7–1–58, Cl. 271—27.

Novak, Leo J., and G. S. Stoycos, to The Commonwealth Engineering Co. of Ohio Method of producing clinical dextran. 2,841,578, 7–1–58 Cl. 260—209.

Nuerwell, Frederick W. Revolving sleeve rotary vane pump. 2,841,090, 7–1–58, Cl. 103—140.

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O'Brian, Edward D., to Bourns Laboratories, Inc. Adjustable electrical instruments. 2,841,676, 7–1–58, Cl. 201—62.

O'Brien, Delphenus K. Weighted spring tractor seat. 2,841,206, 7–1–58, Cl. 155—52.

O'Brien, Richard C., to Harris-Intertype Corp. Phototypesetting apparatus. 2,841,062, 7–1–58, Cl. 95—4.5.

Odin, Eugene: *See*—
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Odlum, William H., and J. R. Gracious, to Duro Metal Products Co. Wall rack for mechanics' tools. 2,841,289, 7–1–58, Cl. 211—87.

Oestreicher, Warren J., to Kendon Electronics Co. Inc. Adjustable resistance elements. 2,841,676, 7–1–58, Cl. 201—62.

Oeters, Richard T. Extensible tool handle. 2,841,425, 7–1–58, Cl. 287—58.

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Bibring, Hervé. 2,841,511.

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Ohio Crankshaft Co., The: *See*—
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Olin Mathieson Chemical Corp.: *See*—
Grundmann, Christoph J., and Kreutzberger. 2,841,585.
Haller, John F. 2,841,543.
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Lucy, William F. G. 2,841,052.

Organon Inc.: *See*—
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Osborn, Charles W., and L. D. Goodhue, to Phillips Petroleum Co. Plant defoliating method employing di-, tri-, and tetrathiophosphoric acid derivatives. 2,841,480, 7–1–58, Cl. 71—2.7.

Osborn, Leonard C. Vehicle emergency brake. 2,841,250, 7–1–58, Cl. 188—2.

Osier, Donald O. Article support stand. 2,841,409, 7–1–58, Cl. 280—41.

Osmond, Charles W., to The Karl Kiefer Machine Co. Lid placing device. 2,840,963, 7–1–58, Cl. 53—73.

Oswald, Paul F.: *See*—
Thomson, Bryon C., and Oswald. 2,840,973.

Ott, George E., and D. B. Torr, to General Electric Co. Exhaust machine. 2,841,179, 7–1–58, Cl. 137—634.

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Owens-Illinois Glass Co.: *See*—
Ramsey, Cleabert G. 2,840,954.
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Pacific Car and Foundry Co.: *See*—
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Pacific Semiconductors, Inc.: *See*—
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Pagdin, William G. H., Macaluso, and F. X. Bulat, to P. Ballantine & Sons. Apparatus for handling materials. 2,841,433, 7–1–58, Cl. 294—65.

Paige, Richard E. Windshield shipping carton assembly. 2,841,277, 7–1–58, Cl. 206—62.

Pak-Rapid, Inc.: *See*—
Karpowicz, Benjamin, Jr. 2,840,961.

Palmer, Charles E. Valve. 2,841,361, 7–1–58, Cl. 251—169.

Pappas, Alexander J., to D. Le June. Collapsible support device. 2,841,352, 7–1–58, Cl. 248—164.

Paramount Wedding Ring Co., Inc.: *See*—
Sager, Bertram W. and M. M. 2,840,943.

Paris, August F. Sweater pressing and finishing machine. 2,841,315, 7–1–58, Cl. 223—70.

Parizek, Ferdinand, ½ to W. Ritt. Soap dispenser. 2,841,311, 7–1–58, Cl. 222—181.

Park, Wallace S. Double aerial cameras. 2,841,063, 7–1–58, Cl. 95—12.5.

Parker-Hannifin Corp.: *See*—
McCulston, Tommy J. 2,841,429.

Parker, Walter O.: *See*—
Gay, Fred G., Jr., and Parker. 2,840,831.

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Bidner, John, Connor, McClure, and Parks. 2,840,872.

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Hale, Arlan B., Brown, and Parrish. 2,841,101.

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Patterson, Gordon D.: *See*—
Graham, Boynton, and Patterson. 2,841,503.

Patterson, Kenneth: *See*—
Macbeth, James F., and Patterson. 2,841,632.

Patton, Tad L. M.: *See*—
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Peelers Co., The: *See*—
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Pell, Eric, to Cutler-Hammer, Inc. Excitation circuits for reversibly powered translating devices. 2,741,756, 7–1–58, Cl. 322—77.

Pelletier, Louis G. Cigarettes. 2,841,153, 7–1–58, Cl. 131—9.

Penman, Montgomery B., to The Magee Carpet Co. Heddle control mechanism for looms. 2,841,184, 7–1–58, Cl. 139—56.

Penn Keystone Corp.: *See*—
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Peppercorn, Howard N., and R. P. Neher, to The General Tire and Rubber Co. Machine for inserting the cores of resilient bushings. 2,840,893, 7–1–58, Cl. 29—235.

Perkin-Elmer Corp., The: *See*—
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Perlman, David. Electrode holder. 2,841,548, 7–1–58, Cl. 204—297.

Perrier, Robert, to Fairchild Engine and Airplane Corp. Shaft seal. 2,841,455, 7–1–58, Cl. 308—77.

Peter, Charles R., to Allis-Chalmers Mfg. Co. Frictionless plunger switch having alignable self-holding contacts. 2,841,670, 7–1–58, Cl. 200—104.

Petersen, Louis, to F. L. Smidth & Co. Method and apparatus for cooling materials by gas. 2,841,384, 7–1–58, Cl. 263—32.

Peterson, George, Jr., to Penn Keystone Corp. Position indicator. 2,841,779, 7–1–58, Cl. 340—378.

Petrofsky, Paul E., to The Aber Co. Machine for sawing sponge-like cellular glass. 2,841,193, 7–1–58, Cl. 143—85.

Petter, William E. W., to Folland Aircraft Ltd. Jet-propelled aircraft. 2,841,346, 7–1–58, Cl. 244—117.

Pettit, Jack L., and A. J. Kelly, to Metalwash Machinery Co. Liquid heating device. 2,841,136, 7–1–58, Cl. 126—350.

Pessaglia, Philip, to Shell Development Co. Process for manufacture of glycidyl ethers of polyhydric phenols. 2,841,595, 7–1–58, Cl. 260—348.6.

Pfaff, G. M., Akt.: *See*—
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Beohner, Harry L. 2,841,550.

Pfister, Gottfried, to Inventio A. G. Lift control device. 2,841,248, 7–1–58, Cl. 187—29.

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Philco Corp.: *See*—
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Philipp, Lawrence A., to American Motors Corp. Range. 2,841,132, 7–1–58, Cl. 126—19.

Phillips, Bernard C., to The Tillotson Mfg. Co. Apparatus for delivering combustible mixture to an internal combustion engine. 2,841,372, 7–1–58, Cl. 261—41.

Phillips, John P. Indicating support for fire extinguishers. 2,841,108, 7–1–58, Cl. 116—114.

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Ambrose, Henry A., and Platt. 2,841,554.

Pick, Christian L.: *See*—
Klopping, Carel P., and Pick. 2,841,737.

Pier, Jerome R., to Westinghouse Air Brake Co. Pulsation dampener device and mandrel for use therein. 2,841,180, 7–1–58, Cl. 138—30.

Pierce, John R., to Bell Telephone Laboratories, Inc. High frequency amplifier. 2,841,738, 7–1–58, Cl. 315—3.5.

Pierce, John R., to Bell Telephone Laboratories, Inc. Electron beam systems. 2,841,739, 7–1–58, Cl. 315—3.5.

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Piper, William W., to General Electric Co. Single crystal electroluminescence. 2,841,730, 7–1–58, Cl. 313—108.

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Platt, Leland H., L. H. Platt, Jr., and J. D. Bag closing machine. 2,840,967, 7–1–58, Cl. 53—198.

Platt, Leland H., Jr.: *See*—
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Pohlman, Salem C., to Buffelen Woodworking Co. Louvered door construction or the like. 2,840,870, 7–1–58, Cl. 20—03.

Pokorny, John M., and L. Pokorny, Jr., ⅛ to J. M. Pokorny, ⅛ to L. Pokorny, Jr., and ¼ to L. Pokorny. Adjustable sofa-bed provided with frame locking means. 2,840,830, 7–1–58, Cl. 5—13.

Pokorny, Louis: *See*—
Pokorny, John M., and L. Pokorny, Jr. 2,840,830.

Pokorny, Louis, Jr.: *See*—
Pokorny, John M., and L. Pokorny, Jr. 2,840,830.

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Popper, Robert H. Adjustable book binder. 2,841,152, 7–1–58, Cl. 129—38.

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Porter, Robert R., to Union of South Africa, Atomic Energy Board. Recovery of uranium from solutions thereof. 2,841,465, 7–1–58, Cl. 23—14.5.

Porter, Robert R., and E. T. Pinkney, to Union of South Africa, Atomic Energy Board. Carrier electrolytic process for recovery of uranium from solutions thereof. 2,841,538, 7–1–58, Cl. 204—1.5.

Porterfield, Robert F. Fire extinguisher for vehicles. 2,841,228, 7–1–58, Cl. 169—2.

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Pourciau, Louis L.: *See*—
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Powell, Benjamin S., Jr.: *See*—
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Powischill, John W., to Proctor & Schwartz, Inc. Drive for carding set. 2,840,859 7–1–58, Cl. 19—98.

Pratt, Donald L., to Rome Cable Corp. Spreader for twisted-together, insulated conductors. 2,841,364, 7–1–58, Cl. 254—1.

Price, Robert J. Precision variable-delay pulse generator. 2,841,709, 7–1–58, Cl. 250—27.

Prichard, William W., to E. I. du Pont de Nemours and Co. Preparation of phthalimidines. 2,841,591, 7–1–58, Cl. 260—325.

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Radcliffe, Arthur J., Jr., to International Telephone and Telegraph Corp. Diode gate and its control circuit. 2,841,719, 7–1–58, Cl. 307—88.5.

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Chass, Jacob. 2,841,744.
Horowitz, Leopold A. 2,841,655.
Jensen, Robert V., and Laff. 2,841,500.
Koch, Winfield R. 2,841,711.
Lindenblad, Nils E. 2,841,323.
Mawhinney, Daniel D. 2,841,746.
McCulley, James M. 2,841,707.
Morrell, Albert M., and Miller. 2,841,732.
Rosi, Fred D. 2,841,559.
Shrader, Merrald B. 2,841,736.
Stuart-Williams, Raymond, Modlinski, and Lo. 2,841,763.
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Rainer, William C., E. A. Wickens, J. G. Germak, J. P. Hamilton, and E. M. Redding, to Crown Cork & Seal Co. Method of making closures. 2,840,858, 7–1–58, Cl. 18—59.

Rainier, Maurice N. Drawer guide construction. 2,841,460, 7–1–58, Cl. 312—346.

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Ramsey, George H., and F. H. Delly, to Esso Research and Engineering Co. Pellet recycle control in pellet impact drilling. 2,841,366, 7–1–58, Cl. 255—1.8.

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Rand, Ellert, 50% to J. Rand. Brush rake attachment for bulldozers. 2,840,936, 7–1–58, Cl. 37—145.

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Reed, Russell H., to Changewood Corp. Method and apparatus for depositing fibrous elements in the manufacture of fibrous structures. 2,840,865, 7–1–58, Cl. 19—155.

Reggio, Ferdinando C. Variable maximum fuel limiting device. 2,841,130, 7–1–58, Cl. 123—119.

Reggio, Ferdinando C. Engine control system. 2,841,129, 7–1–58, Cl. 123—119.

Reich, Herwarth. Couplings. 2,840,998, 7–1–58, Cl. 64—12.

Reisman, Albert and H. Industrial truck attachment. 2,841,302, 7–1–58, Cl. 214—621.

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Richars, Werner: *See*—
Gnyer, Pio, Richars, and Walther. 2,841,537.

Richfield Oil Corp.: *See*—
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Richmand, Donald, to Haseltine Research, Inc. Switching circuit for a color-television receiver. 2,841,642, 7–1–58, Cl. 178—5.4.

Richoux, Raymond. Flexible remote control cable. 2,841,029, 7–1–58, Cl. 74—501.

Richter, Kenneth E., to Union Carbide Corp. Method of applying hard-facing metals. 2,841,687, 7–1–58, Cl. 219—76.

Ridel, Richard W., and T. Curzon, to C. A. V. Ltd. Air heating means for internal combustion engines. 2,841,214, 7–1–58, Cl. 158—28.

Rieke, John W., to Bell Telephone Laboratories, Inc. Method for frequency modulated color television transmission. 2,841,638, 7–1–58, Cl. 178—5.2.

Rienen, Roy R. Garbage can holder. 2,841,351, 7–1–58, Cl. 258—147.

Riley, Gerard C., to Rohm & Haas Co. Alkenyloxypolyethoxyethyl alkyl ethers. 2,841,621, 7–1–58, Cl. 260—615.

Ringwald, Eugene L.: *See*—
Craig, Alfred B., and Ringwald. 2,841,568.

Ritt, Walter: *See*—
Parizek, Ferdinand. 2,841,311.

Roach, Francis S.: *See*—
Randall, Ralph R. 2,841,037.

Robertson, H. H., Co.: *See*—
Coffman, Alden W., and Cullen. 2,841,253.
Curran, Bernard E. 2,841,070.

Robinson, Harold A., to The Dow Chemical Co. Extruded magnesium anodes with aluminum-coated steel core wires. 2,841,546, 7–1–58, Cl. 204—197.

Robinson, Leon, to Eastern Air Devices, Inc. Method and system for checking the speed-output relationship of a generator. 2,841,768, 7–1–58, Cl. 324—158.

Robinson, Richard A., to G. D. Searle & Co. N-hydroxyalkyl derivatives of yohimbine. 2,841,586, 7–1–58, Cl. 260—286.

Rochon, Placide. Bottle carrier. 2,841,435, 7–1–58, Cl. 294—87.28.

Rockafellow, Stuart C. Negative forge timing for resistance welders. 2,841,691, 7–1–58, Cl. 219—108.

Rockwell Spring and Axle Co.: *See*—
Pringle, William L. 2,841,413.

Rodgers, John C., and W. Kiwi, to Huntingdon Industries Inc. Partition assembling machines. 2,841,057, 7–1–58, Cl. 93—38.

Rodi & Wiesenberger Akt.: *See*—
Stiegele, Karl E. 2,840,982.

Roe, A. V., Canada, Ltd.: *See*—
Purvis, Joseph T., and Sachs. 2,841,363.

Rohm & Haas Co.: *See*—
Lo, Chien-Pen, and Craig. 2,841,519.
Riley, Gerard C. 2,841,621.

Rolls-Royce Ltd.: *See*—
Davies, David O., Jones, and Oulianoff. 2,840,986.
Elliott, Cyril A. 2,840,985.

Romanek, Edward W. Electrical coupling. 2,841,774, 7–1–58, Cl. 339—237.

Rome Cable Corp.: *See*—
Pratt, Donald L. 2,841,364.

Romer, Harold. Fluid samplers. 2,841,012, 7–1–58, Cl. 73—421.

Rose, Erwin K.: *See*—
Schanke, Donald G., and Rose. 2,841,426.

Rosi, Fred D., to Radio Corp. of America. Method of doping semi-conductive materials. 2,841,559, 7–1–58, Cl. 252—62.3.

Ross, Theo.: *See*—
Kwake, John P. 2,841,198.

Rossi, Mario: *See*—
Herman, Frieda, and Rossi. 2,840,907.

Rossi, Mario, to S. p. A. Officine Maccaferri già Raffaele Maccaferri & Figli. Machine for making hydraulic works basket for river, mountain and sea defenses. 2,841,188, 7–1–58, Cl. 140—24.

Roup, Rolland R., and J. S. Kilby, to Globe-Union Inc. Electrical circuit elements. 2,841,508, 7-1-58, Cl. 117—200.

Roush, Guy F., to Bendix Aviation Corp. Gyro erection system. 2,841,017, 7-1-58, Cl. 74—5.7.

Roy, Milton, Co.: *See*—
Whiteman, Irvin R., and Barron. 2,841,002.

Ruberoid Co., The: *See*—
Abraham, Herbert. 2,841,099.

Rueckert, Dean E., to Swift & Co. Protective composition. 2,841,506, 7-1-58, Cl. 117—76.

Rugg, Frank M., and J. E. Potts, to Union Carbide Corp. Graft copolymers of polyethylene and polymerizable nitriles and process for producing same. 2,841,560, 7-1-58, Cl. 260—45.5.

Ruhrchemie Akt.: *See*—
Büchner, Karl, and Meis. 2,841,614.

Runton, Leslie A., to The Russell Mfg. Co. Shock resistant rope. 2,841,046, 7-1-58, Cl. 87—2.

Runton, Leslie A., to The Russell Mfg. Co. Conveyor belts. 2,841,515, 7-1-58, Cl. 154—52.1.

Russell Mfg. Co., The: *See*—
Morton, Henry C. 2,841,516.
Runton, Leslie A. 2,841,046.
Runton, Leslie A. 2,841,515.

Russell, Theodore B., and R. C. Bartlett. Flexible tubing precision liquid flow controller. 2,841,358, 7-1-58, Cl. 251—8.

Rutishauser, Edgar. Paper-clamping device for rotary duplicating. 2,841,393, 7-1-58, Cl. 271—61.

Ryan, Arthur M. Animated display sign. 2,840,942, 7-1-58, Cl. 40—139.

Rybakoff, George, to North American Philips Co., Inc. Electron discharge tube. 2,841,735, 7-1-58, Cl. 313—242.

Ryckman, George E., to The Homer Laughlin China Co. Article decorating apparatus. 2,841,075, 7-1-58, Cl. 101—41.

Ryder, Frank A., to Stewart-Warner Corp. Combustion heater sheet metal heat exchanger. 2,841,134, 7-1-58, Cl. 126—109.

S K F Industries, Inc.: *See*—
Aiken, William L. 2,841,128.

S. p. A. Officine Maccaferri già Raffaele Maccaferri & Figli: *See*—
Rossi, Mario. 2,841,188.

Sachs, Robert M.: *See*—
Purvis, Joseph T., and Sachs. 2,841,363.

Safe Padlock and Hardware Co., The: *See*—
Adams, Arthur R. 2,841,431.

Sager, Bertram W. and M. M., to Paramount Wedding Ring Co., Inc. Apparatus for chasing rings. 2,840,943, 7-1-58, Cl. 41—1.

Sager, Mason M.: *See*—
Sager, Bertram W. and M. M. 2,840,943.

Salomonsson, Gosta J. W., to Svenska Skifferolje Aktiebolaget. Method for in-situ utilization of fuels by combustion. 2,841,375, 7-1-58, Cl. 262—3.

Sanders Associates, Inc.: *See*—
Hayner, Paul F., and Shomphe. 2,841,016.

Santeler, Donald J., to General Electric Co. Ion vacuum pump. 2,841,324, 7-1-58, Cl. 230—69.

Sarkes Tarzian, Inc.: *See*—
Eannarino, George, and Parsons. 2,841,749.

Sauerman, Edward E. Clothesline clamp. 2,840,874, 7-1-58, Cl. 24—137.

Saunders, Norman B., to Raytheon Mfg. Co. Frequency responsive systems. 2,841,775, 7-1-58, Cl. 340—3.

Saussman, Robert R., to The B. F. Goodrich Co. Segmented track. 2,841,453, 7-1-58, Cl. 305—10.

Savet, Paul H., to American Bosch Arma Corp. Discriminator. 2,841,721, 7-1-58, Cl. 307—149.

Saxman, James A., to United States of America, Navy. Automatic caging device for gunsight gyro. 2,841,015, 7-1-58, Cl. 74—5.1.

Saxton, William R.: *See*—
Villefroy, Jacques A., and Saxton. 2,841,579.

Scala, Sinclaire M., to Westinghouse Electric Corp. Boundary layer fluid control apparatus. 2,841,182, 7-1-58, Cl. 138—37.

Schanke, Donald G., and E. K. Rose, to North American Aviation, Inc. Cable coupling. 2,841,426, 7-1-58, Cl. 287—76.

Schaurt, Paul. Apparatus for conveying gases or liquids. 2,841,091, 7-1-58, Cl. 103—149.

Schechter, Richard., to AB Thorell & Persson. Sausage grilling and vending machine. 2,841,074, 7-1-58, Cl. 99—355.

Scheck, William. Refillable pressure spray device. 2,841,190, 7-1-58, Cl. 141—20.

Scheideler, Carl E.: *See*—
Edson, James O., and Scheideler. 2,841,792.

Scheider, Maurice G., to United States of America, Navy. Flexible floating deck. 2,841,107, 7-1-58, Cl. 114—43.5.

Schirp, Hubert: *See*—
Schütt, Hartwig, Stein, Rank, and Schirp. 2,841,615.

Schlicke, Heinz M., to Allen-Bradley Co. High dielectric type antenna. 2,841,791, 7-1-58, Cl. 343—787.

Schmidt, Adolph W., to The Rauland Corp. Method of manufacturing cathode-ray tubes. 2,841,505, 7-1-58, Cl. 117—18.

Schmidt, Arnold, to Askania Werke Akt. Apparatus for automatic measurements of liquids. 2,841,177, 7-1-58, Cl. 137—614.14.

Schmidt, Jacques, and P.-F. A. Meyer, to Société dite: Papeteries de la Robertsau, Société Anonyme. Process for manufacturing cellulose wool and resulting products thereof. 2,841,529, 7-1-58, Cl. 167—84.

Schreiber, Ernst, to Veb Werk Fur Fernmeldewesen. Electric organ. 2,841,043, 7-1-58, Cl. 84—1.13.

Schulmerich Electronics, Inc.: *See*—
Beach, Earle J., and Kuns. 2,841,044.

Schultz, Forrest O. E., to Midland-Ross Corp. Control valve. 2,841,176, 7-1-58, Cl. 137—627.5.

Schultz, Warner W., to General Electric Co. Radiation detection device. 2,841,715, 7-1-58, Cl. 250—71.

Schumacher, Leon B. System of transporting highway vehicles by rail. 2,841,094, 7-1-58, Cl. 105—159.

Schütt, Hartwig, W. Stein, F. Rank, and H. Schirp, to Henkel & Cie. G. m. b. H. Process for the recovery of terephthalic acid from solutions containing alkali metal salts of terephthalic acid. 2,841,615, 7-1-58, Cl. 260—525.

Schwank, Günther, deceased; Rheinisch-Westfalische Revision Treuhand Akt. (Treuhand Akt.) and W. Franken, executors, to American Infra Red Radiant Co., Inc. Radiant heater and toaster. 2,841,133, 7-1-58, Cl. 126—92.

Schwarz, Frank W. Lawn sweeper and material disintegrator. 2,840,972, 7-1-58, Cl. 55—118.

Schwenk, Kurt. Self-supporting body of a car vehicle. 2,841,439, 7-1-58, Cl. 296—28.

Schwimmer, David and M., and G. A. Sierer. Combination dispensing and disposal device. 2,841,275, 7-1-58, Cl. 206—57.

Schwimmer, David and M., and G. A. Sierer. Combination dispensing and disposal device. 2,841,276, 7-1-58, Cl. 206—57.

Schwimmer, Morton: *See*—
Schwimmer, David and M., and Sierer. 2,841,275.
Swimmer, David and M., and Sierer. 2,841,276.

Scott, John J., to United States Envelope Co. Paint brush wrapper. 2,841,273, 7-1-58, Cl. 206—15.1.

Scott, Larkin B., to The Perkin-Elmer Corp. Interferometer. 2,841,049, 7-1-58, Cl. 88—14.

Sealey, William C., to Allis-Chalmers Mfg. Co. Load tap changing transformers. 2,841,662, 7-1-58, Cl. 200—17.

Sealock, Carlton H. Live bait caster. 2,840,945, 7-1-58, Cl. 43—41.2.

Sequist, Nels W. Valve actuator cap. 2,841,443, 7-1-58, Cl. 299—95.

Searle, G. D., & Co.: *See*—
Robinson, Richard A. 2,841,586.
Zimmermann, Markus. 2,841,582.

Sellon, Raymond N., Jr.: *See*—
Kessler, Otto H., Jr., and Sellon. 2,841,410.

Selmer, Alois. Garbage disposal unit. 2,841,458, 7-1-58, Cl. 312—270.

Selove, Walter: *See*—
Cunningham, Frederic, Jr., and Selove. 2,841,785.

Sengebusch, Hans., to General Telephone Laboratories, Inc. Counter controlled means. 2,841,335, 7-1-58, Cl. 235—126.

Senn, Charles. Pressure fluid servomotor. 2,841,117, 7-1-58, Cl. 121—38.

Sensel, Eugene E., to The Texas Co. Synthesis of selective mineral sorbents. 2,841,471, 7-1-58, Cl. 23—112.

Seulen, Gerhard, to Deutsche Edelstahlwerke Akt. Method of and an apparatus for the electrical resistance heating of semi-finished metallic articles. 2,841,692, 7-1-58, Cl. 219—156.

Sharon Steel Corp.: *See*—
Bidner, John, Connor, McClure, and Parks. 2,840,872.

Sharpe, Verlos O., to General Motors Corp. Vertically adjustable refrigerator shelves. 2,841,459, 7-1-58, Cl. 312—306.

Shaw, David B.: *See*—
Athey, Skipwith W., Pourciau, and Shaw. 2,841,654.

Shea Chemical Corp.: *See*—
Hechenbleikner, Ingenuin, and Gaul. 2,841,607.
Hechenbleikner, Ingenuin, and Lanoue. 2,841,606.
Hechenbleikner, Ingenuin, and Lanoue. 2,841,608.

Sheard, William B.: *See*—
Borgman, Arthur C., and Sheard. 2,841,452.

Sheffield Corp., The: *See*—
Baker, Ralph C. 2,841,006.

Shell Development Co.: *See*—
Clar, Eric, and Stewart. 2,841,597.
Holuman, George, and Good. 2,841,626.
Lamb, John. 2,841,246.
Matthews, John B., Clayfield, and Whittam. 2,841,538.
Norton, Douglas G., and Davis. 2,841,622.
Norton, Douglas G., and Morris. 2,841,623.
Norton, Douglas G., and Morris. 2,841,624.
Pezzaglia, Philip. 2,841,595.
Sorem, Stanley S. 2,841,244.
Yust, Venard E., and Bame. 2,841,480.

Shelton, Charles V. Brake actuating mechanism. 2,841,251, 7-1-58, Cl. 188—106.

Sheppard, Charles B., and P. Tenenbaum, to Fruehauf Trailer Co. Pre-selector for positioning running gear relative to trailer body load. 2,841,411, 7-1-58, Cl. 280—81.

Sheppard, Richard H. Center point tripie steering knuckle. 2,841,427, 7-1-58, Cl. 287—87.

Sherman, Orville B., to Owens-Illinois Glass Co. Method and apparatus for sealing containers. 2,840,854, 7-1-58, Cl. 18—5.

Sherriff, Fred, to Clark Equipment Co. Coil handling device. 2,841,301, 7-1-58, Cl. 214—620.

Shields, Charles B., to Westinghouse Air Brake Co. Electric speed governors. 2,841,745, 7-1-58, Cl. 317—5.

Shields, Charles B., to Westinghouse Air Brake Co. Electrical regulator. 2,841,757, 7-1-58, Cl. 323—4.

Shoberg, Raymond W.: *See*—
Maass, Herbert W., and Shoberg. 2,841,223.

Shomphe, George J.: *See*—
Hayner, Paul F., and Shomphe. 2,841,016.

Shrader, Merrald B., to Radio Corp. of America. Electron tube and filamentary cathode. 2,841,736, 7-1-58, Cl. 313—273.

Shumate, William, to Boeing Airplane Co. Pressure contact type terminal block. 2,841,773, 7-1-58, Cl. 339—198.

Sierer, George A.: *See*—
Schwimmer, David and M., and Sierer. 2,841,275.

Simpson, Leroy P. Grip-spring for vise-handles and the like. 2,841,035, 7-1-58, Cl. 74—545.

Sinclair Refining Co.: *See*—
Nelson, John W. 2,841,557.

Skaperdas, George T.: *See*—
Lobo, Walter E., and Skaperdas. 2,840,994.

Skaperdas, George T., to The M. W. Kellogg Co. Fluidized carbonization. 2,841,534, 7-1-58, Cl. 202—3.

Skarsten, Anders R., to Skarsten Mfg. Co. Ltd. Paint stripping appliances. 2,841,682, 7-1-58, Cl. 219—29.

Skarsten Mfg. Co. Ltd.: *See*—
Skarsten, Anders R. 2,841,682.

Skipwith, Lee, Jr. Spray devices. 2,841,442, 7-1-58, Cl. 299—84.

Slayter, Games. Muffler structure. 2,841,237, 7-1-58, Cl. 181—42.

Sloop, Clifford E. Transformer mounting bracket. 2,841,772, 7-1-58, Cl. 336—67.

Smalley, Louis C., to Carlift Co., Inc. Vehicle jack. 2,841,247, 7-1-58, Cl. 187—8.41.

Smidth, F. L., & Co.: *See*—
Petersen, Louis. 2,841,384.

Smith, Blanchard D. Time delay device. 2,841,665, 7-1-58, Cl. 200—33.

Smith, Charles C., to Darlington Fabrics Corp. Fibrous covering for elastic thread. 2 840 882, 7-1-58, Cl. 28—81.

Smith, Gerould H., to Union Oil Co. of California. Well treating process. 2,841,222, 7-1-58, Cl. 166—42.

Smith, Robert C., to Diamond Alkali Co. Chemical composition for chromium plating. 2,841,540, 7-1-58, Cl. 204—51.

Smith, Robert C., to Diamond Alkali Co. Chemical composition for chromium plating. 2,841,541, 7-1-58, Cl. 204—51.

Smith, Robert C. Lamp with adjustable lamp shade sections. 2,841,697, 7-1-58, Cl. 240—108.

Snow-Nabstedt Gear Corp., The: *See*—
Gorshkoff, Alexis S. 2,841,023.

Snyder, William S., and F. W. Willardson, to Sylvania Electric Products Inc. Voltage regulator. 2,841,759, 7-1-58, Cl. 323—66.

Societe de Mecanographie Japy (Societe Anonyme): *See*—
Trève, Lucien V. 2,841,267.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
Jacob, Robert M., and Messer. 2,841,590.

Societe dite: Comptoir Linier: *See*—
Vitoux, Paul. 2,841,306.

Société dite: Papeteries de la Robertsau, Société Anonyme: *See*—
Schmidt, Jacques, and Meyer. 2,841,529.

Societe Nationale d'Etude et de Construction de Motsurs d'Aviation: *See*—
Weiss, Artur. 2,841,325.

Solle, Harold L. Churns. 2,840,908, 7-1-58, Cl. 31—84.

Somerville, Willard T.: *See*—
Andersen, Carl N., and Somerville. 2,841,530.

Sorem, Stanley S., to Shell Development Co. Process of lubricating engines with vaporous lubricants. 2,841,244, 7-1-58, Cl. 184—1.

Soubier, Leonard D., to Owens-Illinois Glass Co. Glass tube scoring device. 2,840,952, 7-1-58, Cl. 49—29.

Southern Hotel and Restaurant Supplies, Inc.: *See*—
Mullich, Oliver J. 2,840,899.
Mullich, Oliver J. 2,840,900.

Southwestern Industrial Electronics Co.: *See*—
Tucker, Robert L. 2,841,750.

Spencer, Oliver E. Railroad car cushioning mechanism. 2,841,293, 7-1-58, Cl. 213—43.

Spero, George B.: *See*—
Hogg, John A., and Spero. 2,841,600.

Sperry Rand Corp.: *See*—
Halpert, Percy, and Jude. 2 841,845.
Jones, Grandville R. 2,841,754.
Newell, William H. 2,840,992.

Spinner, Isidore, and A. J. Braun, to Plastic Binding Corp. Inserter for plastic binders. 2,840,834, 7-1-58, Cl. 11—1.

Spinosa, Daniel. Grass rake and grapple. 2,840,978, 7-1-58, Cl. 56—400.04.

Spin Sa Vac Corp.: *See*—
Hewitt, Woodrow W. 2,840,862.

Spinsavac Corp.: *See*—
Hewitt, Woodrow W. 2,840,863.
Hewitt, Woodrow W., Powell, and White. 2,840,861.

Spotten, Douglas L.: *See*—
Hoge, Henri H., and Spotten. 2,841,712.

Sprague, Lindol H.: *See*—
Corbett, Joseph R., and Sprague. 2,841,723.

Sprague, Richard E.: *See*—
Steele, Floyd G., Sprague, and Wilson. 2,841,328.

Spronken, Jacques P. Viscous ingredient dispensing apparatus. 2,841,098, 7-1-58, Cl. 107—8.

Sprunk, Claude P.: *See*—
Keating, Bernard H., and Sprunk. 2,841,418.

Stahl, Robert J.: *See*—
Moseley, Tomlinson L., and Stahl. 2,841,637.

Stahlhuth, Arthur H., to General Motors Corp. Exhaust pipe resilient support mount. 2,841,348, 7-1-58, Cl. 248—65.

Stalego, Charles J.: *See*—
De Pioleno, Gerard, and Stalego. 2,841,213.

Standard Oil Co. (Indiana): *See*—
Richardson, Eugene E., and Mixon. 2,841,552.
Swenson, Reuben A., and Zajac. 2,841,556.

Standard Oil Co. (Ohio), The: *See*—
Alford, Harvey E., and Liao. 2,841,551.
Darling, Samuel M., and Liao. 2,841,553.

Standard-Thomson Corp.: *See*—
Bondurant, Carlton W. 2,841,014.

Starks-Field, Alfred B. O. E. Keall, and E. H. Priestley, to Marconi's Wireless Telegraph Co. Ltd. Pilot pulse dual channel gain control. 2,841,784, 7-1-58, Cl. 343—17.1.

Starr, James H., R. A. Clark, Jr., and M. C. Westrate. Generating station incremental cost computers, and the like. 2,841,331, 7-1-58, Cl. 235—61.

Starr, Thomas E. Tamping device. 2,841,061, 7-1-58, Cl. 94—48.

Starrfrasmaschinen A. G.: *See*—
Glaser, Rolf. 2,841,355.
Glaser, Rolf. 2,841,356.

Stastny, Adam W. Taper cutting device. 2,841,030, 7-1-58, Cl. 77—58.

Stateman, Murray J., to Sylvania Electric Products Inc. Television receiver. 2,841,845, 7-1-58, Cl. 178—7.3.

Statsinger, Joseph, to American Bosch Arma Corp. Signal multiplying device. 2,841,329, 7-1-58, Cl. 235—61.

Statsinger, Joseph, to American Bosch Arma Corp. Circuit coupling device. 2,841,677, 7-1-58, Cl. 201—63.

Staude, E. G., Mfg. Co., Inc.: *See*—
Fischer, Paul E. 2,841,112.

Ste Jaruza A. G. Chur: *See*—
Muller, Otto. 2,841,340.

Steele, Floyd G., R. E. Sprague, and B. T. Wilson, to Northrop Aircraft, Inc. Digital differential analyser. 2,841,328, 7-1-58, Cl. 235—61.

Stegeman, Raymond F. E., to Bausch & Lomb Optical Co. Tension type spectacle mounting. 2,841,051, 7-1-58, Cl. 88—47.

Steibel, James P. Expansible pulley. 2,841,021, 7-1-58, Cl. 74—230.17.

Stein, Leo. Separable ring binder attachment for brief cases and the like. 2,841,151, 7-1-58, Cl. 129—24.

Stein, Robert E.: *See*—
Travilla, James C., Wintemberg, and Stein. 2,841,095.

Stein, Werner: *See*—
Schütt, Hartwig, Stein, Rank and Schirp. 2,841,615.

Steinberg, John C.: *See*—
Gray, Kenneth R., Crosby, and Steinberg. 2,841,561.

Steinhorst, Emil, & Sons, Inc.: *See*—
Steinhorst, Theodore R. and H. W. 2,840,906.

Steinhorst, Henry W.: *See*—
Steinhorst, Theodore R. and H. W. 2,840,906.

Steinhorst, Theodore R., and H. W., to Emil Steinhorst & Sons, Inc. Milk cooler. 2,840,906, 7-1-58, Cl. 62—185.

Stephens, Charles R., Jr., to Chas. Pfizer & Co., Inc. Cyclic ketones. 2,841,596, 7-1-58, Cl. 260—351.

Sterling Drug Inc.: *See*—
Hunter, William T. 2,841,584.
Larson, Aubrey A., and Tullar. 2,841,609.

Steven, William, and R. M. Lamb, to The International Nickel Co., Inc. Method for making improved gray cast iron. 2,841,490, 7-1-58, Cl. 75—130.

Stevens, Gerald E.: *See*—
Ogle, Theodore O., and Stevens. 2,841,683.

Stewart, Charles W., to Corn Products Refining Co. Dry stable feed composition. 2,841,495, 7-1-58, Cl. 99—2.

Stewart, David G.: *See*—
Clar, Eric, and Stewart. 2,841,597.

Stewart-Warner Corp.: *See*—
Mulford, Stewart F. 2,841,135.
Ryder, Frank A. 2,841,134.

Stickley, John C. Balloon holder. 2,840,948, 7-1-58, Cl. 46—32.

Stiegele, Karl E., to Rodi & Wiesenberger Akt. Expansion bracelet having two parallel rows of connecting links. 2,840,982, 7-1-58, Cl. 59—79.

Stobb, Anton R., to Western Printing & Lithographing Co. Collector for flexible sheets. 2,841,394, 7-1-58, Cl. 271—87.

Stoffel, Paul J.: *See*—
Beaver, David J., and Stoffel. 2,841,627.

Stolper Steel Products Corp.: *See*—
Kessler, Otto H., Jr., and Sellon. 2,841,410.

Stough, Donald M., to Hagan Chemicals & Controls, Inc. Apparatus for computing output pressures based on one or more input pressures. 2,841,102, 7-1-58, Cl. 137—85.

Stowe, Glenn E. Air velocity actuated electrical switch. 2,841,667, 7-1-58, Cl. 200—81.9.

Stoycos, George S.: *See*—
Novak, Leo J., and Stoycos. 2,841,578.

Strasenburgh, R. J., Co.: *See*—
Gustus, Edwin L. 2,841,526.

Strawsine, Fern A., to Strawsine Mfg. Co. Chimney construction. 2,841,071, 7-1-58, Cl. 98—46.

Strawsine Mfg. Co.: *See*—
Strawsine, Fern A. 2,841,071.

Stremke, William F. and W. F., Jr., and R. R. Pasderski. Wrapping method and apparatus. 2,840,962, 7-1-58, Cl. 53—31.

Stremke, William F., Jr.: *See*—
Stremke, William F. and W. F., Jr., and Pasderski. 2,840,962.

Strobel, Albert F., and W. W. Williams, to General Aniline & Film Corp. Cobalt complexes of 3-amino-4-hydroxybenzene sulfonylmorpholine azo dyestuffs. 2,841,577, 7-1-58, Cl. 260—146.

Strom, George E. and H. D. Wintle, Jr. Gauge. 2,841,284, 7-1-58, Cl. 209—82.

Stroukoff, Michael. Boundary layer control. 2,841,344, 7-1-58, Cl. 244—42.

Stuart, Clarence C., to Traffic Transport Engineering, Inc. Motor car carrier with self-adjusting track. 2,841,436, 7-1-58, Cl. 296—1.

Stuart-Williams, Raymond, W. M. Modlinski, and A. W. Lo, to Radio Corp. of America. Testing system for magnetic materials. 2,841,763, 7-1-58, Cl. 324—40.

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Sturdy, Arthur T., Jr.: *See*—
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Mayes, Fred M., and Young. 2,841,011.
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Salomonsson, Gosta J. W. 2,841,375.
Swanson, Nels H. Twist drill gauge. 2,840,921, 7-1-58, Cl. 33—201.
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Swenson, Reuben A., and S. J. Zajac, to Standard Oil Co. Process for preparing anhydrous lime grease. 2,841,556, 7-1-58, Cl. 252—39.
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Swezey, Arthur W., and R. W. Nex, to The Dow Chemical Co. Herbicidal chemical compositions. 2,841,483, 7-1-58, Cl. 71—2.3.
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Takakita, Shinjiro, S., M., T., and A. 2,841,068.
Takakita, Shinjiro, S., T., and A. Mouldboard or breast of plow. 2,841,068, 7-1-58, Cl. 97—123.
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Takakita, Shinjiro, S., M., T., and A. 2,841,068.
Takakita, Tsutomu: *See*—
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Talbot, Charlie F. Tapered housing and sleeve for flashlights. 2,841,693, 7-1-58, Cl. 240—10.66.
Talbott, William G. Packer for use in oil wells and like. 2,841,225, 7-1-58, Cl. 166—140.
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Trousdale, Robert B., to General Dynamics Corp. Traffic monitor for electronic telephone system. 2,841,637, 7-1-58, Cl. 179—175.2.
Tucker, Emmitt M. Twisted chain drive. 2,841,022, 7-1-58, Cl. 74—243.
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Williamson, Reginald M., to Minneapolis-Honeywell Regulator Co. Control apparatus. 2,841,164, 7–1–58, Cl. 137—98.
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

July 1, 1958 Volume 732 Number 1

TRADEMARKS

NOTICES

Change in Rules of Practice

Notice was given in the Federal Register of June 6, 1958, (23 F. R. 3968) of the following change in the Rules of Practice which will take effect July 7, 1958:

1. Paragraph (n) of Rule 21 is amended to read as follows:

(n) Search of Patent Office records for purposes not otherwise specified in this section, per hour of search or fraction thereof..... $3.00

2. Paragraph (o) of Rule 21 is deleted.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 66,310 (BLACK & WHITE), James Buchanan & Co., Ltd., Whiskey, filed May 20, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37340, *The Fleischmann Distilling Corp.* v. *Maier Brewing Co. et al.*

Reg. No. 141,126 (GENERAL MOTORS), General Motors Corp., Trademark for motor-driven vehicles; **Reg. No. 193,674** (GMC AND DESIGN), same; **Reg. No. 214,825** (GM), same, Internal-combustion engines and repair and replacement of parts thereof, etc.; **Reg. No. 622,094** (GENERAL MOTORS), same, Complete residential oil and gas heating units, etc.; **Reg. No. 613,474** (GMC AND DESIGN), same, Motor vehicles, not including engines, and structural parts etc.; **Reg. No. 646,514**, same, Maintenance and repair service for automotive vehicles, etc.; filed May 19, 1958, D. C., S. D. Fla. (Tampa), Doc. 3381, *General Motors Corp.* v. *General Motors Automobile Assn. et al.*

Reg. No. 198,974. (See Reg. No. 141,126.)

Reg. No. 208,122 (ATRAUMATIC), Davis & Geck, Inc., Surgical and dental needles and combined needles and sutures, filed Mar. 27, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37162, *American Cyanamid Co.* v. *Lionhaven, Ltd.* Consent decree; permanent injunction May 13, 1958.

Reg. No. 207,738 (TECO), Timber Engineering Co., Lumber and fabricated metal joints for timber connections, filed May 19, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37332, *Timber Engineering Co.* v. *Timber Engineering Co. of California, Inc.*

Reg. No. 214,825. (See Reg. No. 141,126.)

Reg. No. 226,978 (SANITIZED), Sanitized, Inc., Antiseptic chemical compound in liquid form which is a chemical compound etc., filed May 15, 1957, D. C., S. D. N. Y., Doc. 133/285, *Sanitized, Inc.* v. *S. C. Johnson & Sons, Inc.*

Reg. No. 227,807. (See Reg. No. 391,866.)

Reg. No. 391,866 (WARNER BROS. PICTURES INC. AND DESIGN), Warner Bros. Pictures, Inc., Motion pictures and motion picture films, etc.; **Reg. No. 227,807**, same; **Reg. No. 568,577** (WARNERCOLOR), same, Motion picture photoplays, filed May 16, 1958, D. C., S. D. N. Y., Doc. 133/290, *Warner Bros. Records, Inc. et al.* v. *Warner Music, Inc.*

Reg. No. 224,689 (SPICE ISLANDS), Frederick H. Johnson, doing business as Spice Islands Co., Red wine vinegar flavored with garlic, etc.; **Reg. No. 466,663**, same; **Reg. No. 574,147**,

CONDITION OF TRADEMARK APPLICATIONS AS OF MAY 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]..... 11,801
Date of oldest new application..... Oct. 29, 1957
Date of oldest amended application..... Oct. 7, 1957

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	11-7-57	10-7-57
(II) R. F. SHRYOCK, Classes 6, 15, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	10-29-57	10-8-57
(III) E. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 45, 47, 48, 49, 52, and Certification Marks	11-8-57	12-16-57
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Applications Filed During the Month of May 1958—1,942

Registrations Issued..... 329—No. 663,611 to No. 663,939
Renewals Issued..... 55

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

same; Reg. No. 567,151, same, Tea; Reg. No. 568,889 (SPICE ISLANDS COMPANY AND DESIGN), same, White wine vinegar, etc., filed Dec. 14, 1954, D. C., E. D. N. Y. (Brooklyn), Doc. C–15011, *Spice Islands Co.* v. *Spice Land Products, Inc.* Judgment for injunction in favor of plaintiff May 23, 1958.

Reg. No. 606,863. (See Reg. No. 395,020.)

Reg. No. 627,527 (PARAMOUNT), John Steiner, Phonograph records, filed May 20, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c901, *John Steiner, doing business as The New York Recording Laboratories* v. *Am-Par Records Corp. et al.*

Reg. No. 648,869. (See Reg. No. 395,020.)

Reg. No. 665,961 (PAPER MATE), Frawley Corp., Ballpoint pens, filed Jan. 14, 1954, D. C., S. D. Calif. (Los Angeles), Doc. 16188–BH, *Paper Mate Co., Inc. et al.* v. *Lip-Mate Corp. et al.* Dismissal by stipulation (notice May 15, 1958).

Reg. No. 668,577. (See Reg. No. 391,866.)

Reg. No. 672,329 (AUDIVOX AND DESIGN), Audivox, Inc., Hearing aids, parts thereof and accessories therefor, filed Apr. 14, 1954, D. C., W. D.-Ky. (Louisville), Doc. 2757, *Audivox, Inc.* v. *Audiphone Hearing Aid Co., Inc. et al.* Agreed judgment; defendants restrained from using words "Western Electric" or "Audivox"; other claims of plaintiff not adjudged herein dismissed with prejudice Dec. 12, 1955 (notice received May 23, 1958).

Reg. No. 674,147. (See Reg. No. 395,020.)

Reg. No. 687,151. (See Reg. No. 395,020.)

Reg. No. 613,474. (See Reg. No. 141,126.)

Reg. No. 614,005 (GRIL-LETS), Kleen-Kole Inc., Artificial fuel of compressed sawdust, filed Jan. 24, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18408, *Kleen Kole, Inc.* v. *Renuzit Home Products Co.* Stipulation of dismissal May 22, 1958.

Reg. No. 633,686. (See Reg. No. 141,126.)

Reg. No. 642,146 (ANYSTREAM), Speakman Co., Shower heads, filed May 22, 1958, D. C., S. D. N. Y., Doc. 133/369, *Speakman Co.* v. *Durst Mfg. Co., Inc. et al.*

Reg. No. 643,511 (SAFEWAY), Safeway Stores, Inc., Meats and poultry, etc., filed May 20, 1958, D. C., W. D. Okla. (Oklahoma City), Doc. 8038, *Safeway Stores, Inc.* v. *Chickasha Cotton Oil Co., Inc.*

Reg. No. 666,914. (See Reg. No. 141,126.)

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 17,764. The Simonite Company, Inc., Edinburg, Ind. Filed Oct. 18, 1956.

VEALE-WAY

For Fiber Weaving Material Used in Making Chair Seats, Baskets, Porch Furniture, and Other Articles.
First use July 10, 1956.

Class 2—Receptacles

SN 36,647. C. & J. Clark Limited, Street, England. Filed Sept. 4, 1957.

SEALOMATIC

Owner of British Reg. No. 694,234, dated Nov. 28, 1950.
For Containers of the Box Type Made of Cardboard or of Boards Made From Vegetable Fibres.
First use in 1951; in commerce in 1951.

SN 37,380. Shell Chemical Corporation, New York, N. Y. Filed Sept. 17, 1957.

FLOTAINER

For Package for Synthetic Rubber—Namely, a Crate Suitable for Palletizing.
First use July 26, 1957.

SN 37,786. Handle Carton Corporation, San Mateo, Calif. Filed Sept. 23, 1957.

PORT-O-PACK

For Cardboard Merchandising Carton With a Carrying Handle.
First use Aug. 30, 1957.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 28,518. Hinton & Company, Inc., New York, N. Y. Filed Apr. 19, 1957.

HAPPINESS CAPE COD GARDEN HOME

Owner of Reg. No. 597,238.
For Bird Cages.
First use Jan. 15, 1957.

SN 29,797. Boyce A. Gatewood, Cleburne, Tex. Filed May 10, 1957.

BAGSCO

For Pads Containing Aromatic Cedar Shavings Used for Animal Bedding.
First use Oct. 23, 1953.

SN 36,899. Lamont International Corporation, New York, N. Y. Filed Sept. 9, 1957.

MIAMI STYLING BY ALGORELLI

For Ladies' Handbags, Pocketbooks, Purses, Purse-Type Baskets, and the Like, Made of Willow, Straw, Woven Fabrics, and Beads.
First use on or about July 6, 1957.

SN 39,495. Pyramid Leather Goods Co., Inc., New York, N. Y. Filed Oct. 24, 1957.

CHARM-MATE

For Children's Handbags.
First use Sept. 4, 1957.

SN 41,133. Joseph Antell, Inc., Boston, Mass. Filed Nov. 22, 1957.

Joseph Antell

Owner of Reg. No. 410,981.
For Handbags.
First use during September 1939.

SN 42,212. Gold Seal Importers, Inc., New York, N. Y. Filed Dec. 11, 1957.

LAVACORD

For Ladies' Handbags.
First use on or about Dec. 2, 1957.

SN 42,246. Sterling Products Co., Inc., St. Paul, Minn. Filed Dec. 11, 1957.

SCOTTIE PAK

For Plastic Traveling and Storage Bags.
First use Dec. 31, 1954.

SN 42,690. The Gunn Company, Grand Rapids, Mich. Filed Dec. 19, 1957.



Owner of Reg. No. 634,999.
For Carrying Bags.
First use Feb. 28, 1951.

SN 43,115. A. J. Siris Products Corp., New York, N. Y. Filed Dec. 27, 1957.

MON-KEY

For Purses.
First use Dec. 19, 1957.

SN 43,240. Coblents Bag Company, Inc., New York, N. Y. Filed Dec. 31, 1957.

PERMAPLASTIC

For Ladies' Handbags.
First use Nov. 27, 1957.

SN 48,785. Platt Luggage, Inc., Chicago, Ill. Filed Mar. 31, 1958.

SLIMLINE

For Hand Luggage.
First use August 1954.
Subj. to Intf. with SN 24,386.

Class 4—Abrasives and Polishing Materials

SN 34,408. Dow Corning Corporation, Midland, Mich. Filed July 26, 1957.



Owner of Reg. Nos. 576,945, 620,607, and others.
For Organopolysiloxane Fluids for Use as Polishes, Polish Ingredients, and Polish Additives.
First use June 18, 1951.

Class 6—Chemicals and Chemical Compositions

SN 26,257. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed July 3, 1957.

ISOCHLORTHION

Owner of German Reg. No. 607,860, dated Dec. 3, 1956; and U. S. Reg. No. 586,887.
For Animal and Plant Destroying Agents.

SN 34,405. Dow Corning Corporation, Midland, Mich. Filed July 26, 1957.



Owner of Reg. Nos. 576,945 and 576,946.
For Silanes, Siloxanes, Silicon Chemicals, Organometallic Compounds, Defoaming Agents, Sterilizing Fluids for Electrically Heated Oil Sterilizers, Diffusion Pump Fluids, Hydraulic Fluids, Damping Fluids for Instruments, Gauges, and Vibration Dampers on Internal Combustion Motors, Heat Transfer Fluids, Release Agents for Rubber, for Plastic Molding, and for Baking Pans, Catalysts for Polymerizing Siloxanes, Water Repellents for Fabrics, Glass, and Ceramics, Impregnants for Softening and Imparting Water Repellence to Leather.
First use May 2, 1951.

SN 36,768. American Cyanamid Company, New York, N. Y. Filed Sept. 6, 1957.

UV 24

For Ultraviolet Absorber—Namely, a Complex Chemical for Use on or in Organic Materials Which Discolor Upon Exposure to Light, Such as Plastics, Resinous Coatings, Cellophane, Cloth, and Paper.
First use Aug. 15, 1957.

SN 39,541. Metal Processing Co., Inc., Cedar Grove, N. J. Filed Oct. 25, 1957.

LUSTRALLOY

For Plating Chemicals.
First use Jan. 23, 1948.

SN 40,682. Eli Lilly and Company, Indianapolis, Ind. Filed Nov. 14, 1957.

ELCIDE

For Preservative Having Antibactericidal and Antifungal Properties for Use in Manufacturing Processes of Oil, Rubber, Paper Industries, and the Like.
First use Sept. 26, 1957.

SN 40,855. O. E. Linck Co., Inc., Clifton, N. J. Filed Nov. 18, 1957.

PURPLE DEATH

For Rodenticides.
First use Sept. 11, 1957.

SN 40,995. American Cyanamid Company, New York, N. Y. Filed Nov. 20, 1957.

CYL-MAG

For Catalyst.
First use Oct. 8, 1957.

SN 41,097. Philip A. Hunt Company, Palisades Park, N. J. Filed Nov. 21, 1957.

ETCH-O-GRAPH

For Ferric Chloride Solution for Use in Powderless Etching in the Photoengraving Industry.
First use Oct. 25, 1957.

SN 41,098. Philip A. Hunt Company, Palisades Park, N. J. Filed Nov. 21, 1957.

ADD-O-GRAPH

For Additive for Use in Powderless Etching in the Photoengraving Industry.
First use Oct. 25, 1957.

SN 41,208. Aircool Company, Inc., Neodesha, Kans. Filed Nov. 25, 1957.

CHARGETTE

For Refrigerants.
First use Nov. 12, 1957.

SN 41,503. American-Marietta Company, Chicago, Ill. Filed Nov. 29, 1957.

MICRO-AIR

For Composition for Incorporation in Concrete and Mortar Mixes To Entrain Air in the Mixes To Improve the Durability and the Resistance to Freezing and Thawing of the Hardened Concrete or Mortar.
First use Oct. 16, 1957.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 34,469. Alcan Paper Co., Inc., Alton, Ill. Filed July 29, 1957.



For Empty Shot Gun Shells, Shot Gun Powder, Shot Shell Wads, Musket Caps, Primers, and Loaded Shot Gun Shells.
First use 1954.

Class 10 — Fertilizers

SN 44,502. Woodward & Dickerson, Inc., Philadelphia, Pa. Filed Jan. 23, 1958.

Roxwood

For Fertilizer.
First use Apr. 28, 1955.

SN 46,110. Coastal Chemical Corporation, Yazoo City, Miss. Filed Feb. 19, 1958.

COASTAL

For Commercial Fertilizers.
First use Nov. 14, 1957.

SN 47,005. Premier Peat Moss Corporation, New York, N. Y. Filed Mar. 12, 1958.

PREMIER

Owner of Reg. Nos. 324,309, 610,866, and others.
For Peat Moss, Peat Humus, With or Without Inorganic or Organic Substances, for Agricultural or Horticultural Use as a Fertilizer, Soil Conditioner, Combination Fertilizer and Soil Conditioner, Soil Builder, and Plant Food.
First use July 1, 1933.

SN 47,859. International Minerals & Chemical Corporation, Chicago, Ill. Filed Mar. 17, 1958.

PERMA-PHOS

For Phosphate Rock for Use as a Fertilizer.
First use Feb. 17, 1958.

Class 11 — Inks and Inking Materials

SN 17,189. The Print-O-Matic Company, Inc., Chicago, Ill. Filed Oct. 9, 1956.

DIAGRAPHY

For Stencil Mimeographing Compound.
First use Sept. 3, 1956.

Class 12 — Construction Materials

SN 3,272. Harry T. Campbell Sons' Corp., Towson, Md. Filed Feb. 24, 1956.



The words "A Pavement for Permanence" are disclaimed apart from the other features of the mark shown.
For Building Stone, Asphaltic Concrete, and So-Called Hot and Cold Mix Asphaltic Concrete for Construction of Surfaces and Beds for Roads and Streets.
First use Nov. 1, 1932.

SN 23,877. Dalmine S. p. A., Milan, Italy. Filed Jan. 14, 1957.

RIVESTIMENTO DALMINE

Owner of Italian Reg. No. 120,372, dated Jan. 18, 1955.
For Trolley Poles and Masts.

SN 27,429. Form-A-Lite, Inc., Northbridge, Mass. Filed Apr. 3, 1957.

FORM-A-LITE

For Laminated Decorative Sheets Used for Table Tops, Furniture, and Wallboard.
First use Mar. 15, 1957.

SN 39,017. Vista-Lux Corporation of America, Beltsville, Md. Filed Oct. 18, 1957.

VISTA-LUX

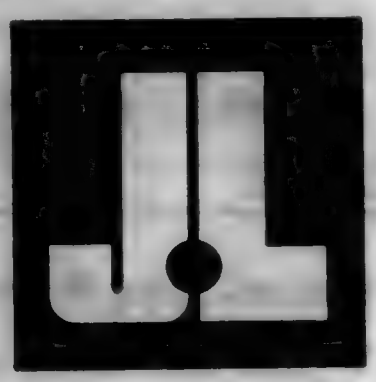
For Corrugated Plastic Sheets and Panels.
First use Sept. 1, 1957.

SN 39,077. Norton Company, Worcester, Mass. Filed Oct. 17, 1957. Sec. 2(f) as to "Norton."

NORTON

Owner of Reg. Nos. 33,757, 576,477, and others.
For Safety-Tread Tiles and Terrazzo of Bonded Abrasive Grains.
First use in January 1949; in January 1919 as to "Norton."

SN 41,647. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Dec. 2, 1957.



Owner of Reg. Nos. 527,815 and 538,922.
For Metal Structural Shapes.
First use on or about June 1, 1956.

SN 41,648. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Dec. 2, 1957.



Owner of Reg. Nos. 527,815 and 538,922.
For Metal Structural Shapes.
First use on or about June 1, 1956.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 38,950. John Sexton & Co., Chicago, Ill. Filed Oct. 15, 1957.

BREW-O-HANDLE

For Hanger for Supporting a Tea Bag in Water.
First use May 3, 1957.

Class 14—Metals and Metal Castings and Forgings

SN 16,126. The International Nickel Company, Inc., New York, N. Y. Filed Sept. 21, 1956.

"402"

For Nickel-Containing Alloys—Namely, Those Containing Nickel and Copper in the Form of Rods, Bars, Sheet, Plate, Strip, Wire, Seamless Tubing, and Welded Tubing.
First use July 13, 1956.

SN 22,677. Howard Supply Company, Vernon, Calif. Filed Jan. 16, 1957.

COMMONWEALTH

For Metal Products—Namely, Sheet Metal.
First use June 3, 1955.

SN 37,290. Quebec Metallurgical Industries Ltd., Ottawa, Ontario, Canada. Filed Sept. 16, 1957.

QUEMET HUNTSMAN

Owner of Canadian Reg. No. 103,064, dated Apr. 6, 1956.
For Stainless Steel in the Form of Strips, Bars, and Billets.

Class 15—Oils and Greases

SN 31,506. Paragon Products Corporation, Oshkosh, Wis. Filed June 6, 1957.

PARAGUM

For Petroleum Waxes—Namely, Waxes Used in the Dairy, Tannery and Paper Converting Industries, Battery Companies, and Other Industrial Uses.
First use Jan. 15, 1945.

SN 41,273. Helipot Corporation, Newport Beach, Calif. Filed Nov. 25, 1957.

HELILUBE

For Lubricants for Potentiometers.
First use in June 1957.

SN 41,517. Consolidated Sewing Machine Corp., New York, N. Y. Filed Nov. 29, 1957.

SEWLUBE

For Lubricating Oils and Greases.
First use on or about Oct. 18, 1957.

Class 16—Protective and Decorative Coatings

SN 33,499. The Permalux Company, Aurora, Ill. Filed July 10, 1957.

KAP SIL

For Chemical Additives for Paints.
First use on or about June 27, 1957.

SN 45,023. Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany. Filed Jan. 31, 1958.



Owner of German Reg. No. 685,072, dated Dec. 2, 1955.
For (based on use in commerce) Paint, Enamel and Lacquer.
For (based on German registration) Varnishes and Impregnating Agents.
First use in 1933; 1909 as to representation of a three pointed star; in commerce in 1950; 1912 as to three pointed star in ring.

SN 45,130. Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany. Filed Feb. 8, 1958.

MERCEDES-BENZ

Owner of German Reg. No. 375,067, dated Oct. 7, 1927.
For (based on use in commerce) Paint, Enamel and Lacquer.
For (based on German registration) Varnishes and Impregnating Agents.
First use in 1926; in 1896 as to "Benz"; in commerce in 1950; in 1900 as to "Mercedes."

SN 45,043. Zolatone Process, Inc., d. b. a. Scientific Coatings Company, Los Angeles, Calif. Filed Feb. 10, 1958.



The words "Multi-Color Spray the Easy Way" are disclaimed. The drawing is lined for the color red.
For Multi-Color Liquid Organic Coatings Such as Paints, Lacquers, Etc.
First use Oct. 2, 1957.

Class 17 — Tobacco Products

SN 40,433. Continental Cigar Company, West Scranton, Pa. Filed Nov. 12, 1957.

LIDO

For Cigars.
First use Sept. 18, 1957.

SN 40,744. Cuban Tobacco Company Inc., New York, N. Y. Filed Nov. 15, 1957.

PUCK

For Cigars.
First use in or prior to the year 1882.

Class 18 — Medicines and Pharmaceutical Preparations

SN 9,058. Nathan H. Sacha, M. D., New York, N. Y., to Ennex Corporation, Bronx, N. Y. Filed May 25, 1956.

ENNEX

For Ointment for Relieving Irritations of the Skin.
First use on or about Jan. 12, 1956.

SN 10,608. Lifetime Living, Inc., New York, N. Y. Filed June 20, 1956.

ORINE

For Medicated Mouthwash.
First use June 8, 1956.

SN 25,857. Hess & Clark, Inc., Ashland, Ohio. Filed Mar. 11, 1957.



For Poultry, Stock and Veterinary Remedies, and Medicated Feed Concentrates for Poultry and Livestock.
First use Oct. 2, 1956, on a poultry and livestock remedy.

SN 28,720. Merck & Co., Inc., Rahway, N. J. Filed Apr. 23, 1957.

CODELSOL

Owner of Reg. Nos. 632,544, 641,316, and 627,262.
For Hormonal Compound for Use in Medicine and Pharmacy.
First use Apr. 8, 1957.

SN 29,740. The Wm. S. Merrell Company, Cincinnati, Ohio. Filed May 9, 1957.

Alertonic

For Geriatric Vitamin Supplement.
First use May 1, 1957.

SN 30,973. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J. Filed May 28, 1957.

STERISIL

Owner of Reg. Nos. 368,254 and 640,263.
For Ear Drops, Medicated Shampoo for Scalp Infections, Ointment and Pre-Operative Disinfectant Spray.
First use May 10, 1957.

SN 32,622. Organon Inc., Orange, N. J. Filed June 26, 1957.

SENITON

For Medicinal Hormone Preparation, Useful in the Treatment of Stress-Induced Conditions, Such as Surgery, Debilitating Diseases, Etc.
First use Mar. 26, 1957.

SN 33,982. Felix R. May, d. b. a. Physical Culture Products Co., Branford, Conn. Filed July 18, 1957.

NATURESSENCE

For Vitamin and Mineral Food Supplement Preparations.
First use Dec. 1, 1956.

SN 37,381. The Si-Lak Company, Hospers, Iowa. Filed Sept. 17, 1957.

Si-lak for Silos

For Animal and Poultry Supplements Consisting of Vitamins and Dehydrated Organisms and Molds.
First use June 16, 1956.

SN 40,099. Viavi Products Company, Belmont, Calif. Filed Nov. 4, 1957.

VITA-THIN

For Pharmaceutical Preparation for Use as a Dietary Aid.
First use May 25, 1956.

SN 40,371. Flint, Eaton & Company, Decatur, Ill. Filed Nov. 13, 1957.

FLINT

For Pharmaceuticals—Namely, Choline Dihydrogen Citrate, Calcium Gluconate, Therapeutic Iron Compound To Supply Iron for Hemoglobin Regeneration, Iron Choline Citrate Complex and Sulfonamide for Medical Use.
First use Jan. 15, 1897, on choline dihydrogen citrate.

SN 40,625. Teikoku Hormone Manufacturing Company Limited, Minato-ku, Tokyo, Japan. Filed Nov. 13, 1957.

Saliva-Parotin
サリバ・パロチン

The Japanese characters are the Japanese phonetic translation of the term "Saliva-Parotin." Owner of Japanese Reg. No. 501,441, dated Apr. 30, 1957.
For Hormone Preparations.

SN 42,077. The Stuart Company, Pasadena, Calif. Filed Dec. 9, 1957.

Stuart Prolar

For Medicinal Preparation for Use as a Non-Narcotic Analgesic.
First use Nov. 25, 1957.

SN 42,078. The Stuart Company, Pasadena, Calif. Filed Dec. 9, 1957.

Stuart Prolar-B

For Medicinal Preparation for Use as an Analgesic Antispasmodic.
First use Nov. 25, 1957.

SN 42,176. Uni-Chemicals Ltd., Zurich, Switzerland. Filed Dec. 10, 1957.

LINACIDIN

Owner of Swiss Reg. No. 127,858, dated Feb. 5, 1949.
For Pharmaceutical Products.

SN 42,561. Walker Laboratories, Inc., Mount Vernon, N. Y. Filed Dec. 16, 1957.

VIACETS

For Multiple Vitamins.
First use Sept. 3, 1957.

SN 42,593. Miles Laboratories, Inc., Elkhart, Ind. Filed Dec. 17, 1957.

ALKA-SELTZER

Owner of Reg. Nos. 283,831, 613,450, and others.
For Antiacid Analgesic Effervescent Preparation.
First use Dec. 20, 1930.

SN 42,619. American Cyanamid Company, New York, N. Y. Filed Dec. 18, 1957.

SERVISONE

For Steroid Preparation.
First use Dec. 4, 1957.

SN 43,894. Thayer Laboratories, Inc., New York, N. Y. Filed Jan. 13, 1958.

DELIMINE

For Antacid Tablets.
First use Nov. 29, 1957.

Class 19—Vehicles

SN 31,480. Finley-Smith Sales Company, Aurora, Ill. Filed June 6, 1957.

BARRACUDA

For Boats and Parts Thereof; Boat Trailers.
First use on or about Apr. 1, 1955.

SN 41,997. Cruisers, Inc., Oconto, Wis. Filed Dec. 9, 1957.

SEAFARER

For Boats.
First use Mar. 3, 1954.

SN 42,090. Elsear J. Vaillancourt, d. b. a. E. Vaillancourt, Clearwater, Fla. Filed Dec. 9, 1957.

Magic Tilt

For Boat Trailers.
First use Feb. 2, 1957.

SN 42,158. Regie Nationale des Usines Renault, Billancourt, Seine, France. Filed Dec. 10, 1957.

FLORIDA

Priority claimed under Sec. 44(d) on French Reg. No. 465,690, dated June 20, 1957 (Seine); Natl. Inst. No. 92,050.
For Automobiles and Trucks, Including Bodies, and Structural Parts.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 17,490. North Electric Company, Galion, Ohio. Filed Oct. 15, 1956.

NORTH

Owner of Reg. No. 658,463.
For Carrier Transmitter Equipment, Carrier Receiver Equipment, Carrier Signal Control Equipment, and Carrier Power Supply Equipment for Such Uses as, for Example, but not Limited to, Carrier Subscriber Telephone Systems and Carrier Telephone Trunk Equipment.
First use on or about Sept. 27, 1956, on carrier equipment; on or about Jan. 26, 1889, as to "North."

SN 17,903. Gibbs Manufacturing and Research Corporation, Janesville, Wis., to The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Oct. 22, 1956.

SPEED CURE

For Electrical Heating and Control Units and Parts Therefor for Use with Tire Vulcanization Equipment.
First use January 1956.

SN 36,802. Lasko Metal Products, Inc., West Chester, Pa. Filed Sept. 6, 1957.

Dolly Madison

For Electrical Household Appliances—Namely, Dutch Oven, Skillets, Griddles, and Toasters.
First use July 15, 1957.

SN 37,901. Montgomery Elevator Company, Moline, Ill. Filed Sept. 25, 1957.

MAC

For Electrically Operated Controls, Signal Lights, Interlock Mechanisms, and Safety Devices for Elevators.
First use Sept. 6, 1955.

SN 38,573. Union Carbide Corporation, New York, N. Y. Filed Oct. 8, 1957.

HELIARC

Owner of Reg. No. 416,610.
For Electric Cutting Torches.
First use May 10, 1956.

SN 41,081. Leetronics, Inc., Brooklyn, N. Y. Filed Nov. 20, 1957.

MOTOROID

For Electric Rotary Solenoids.
First use Oct. 22, 1957.

Class 22—Games, Toys, and Sporting Goods

SN 25,049. Trimline Tackle Co. Inc., Bronx, N. Y. Filed Feb. 25, 1957.

TRIM-SPORT

For Fishing Reels.
First use Jan. 28, 1957.

SN 30,391. Doyle L. Barkley, d. b. a. Rod Barkley, Gruver, Tex. Filed S. R. May 21, 1957. Am. P. R. Apr. 25, 1958.

Rod Barkley

For Small Toy Guitars and Toy Ukuleles Which Are Primarily Sold to Children Who Are Cowboy Fans, Especially Television Cowboy Fans.
First use Apr. 7, 1956.

SN 38,144. R. H. Green, d. b. a. Golf-Rite of Florida, Tampa, Fla. Filed Oct. 1, 1957.

"SLIP-N-SHINE"

For Golf Club Head Covers.
First use Nov. 13, 1956.

SN 38,903. Cortland Line Company, Inc., Cortland, N. Y. Filed Oct. 15, 1957. Sec. 2(f).

CORTLAND

For Fishing Lines, Fishing Nets, Tennis Rackets, Balls, Strings, and Presses and Tennis Court Equipment—Namely, Nets, Tighteners, Reels, and Markers; Squash Rackets, Badminton Rackets, Shuttlecocks, Shuffleboards, and Croquet Equipment.
First use in or about 1942.

SN 39,347. Trim Molded Products Co. Inc., Burlington, Wis. Filed Oct. 22, 1957.

TRIM PAK

For Toy Molded Plastic Products, Specifically Toy Model Airplane Kits, and Dolls and Doll House Accessories.
First use Apr. 15, 1957.

SN 40,544. Arranbee Doll Co. Inc., Hicksville, N. Y. Filed Nov. 13, 1957.

April Showers

For Dolls and Accessories for Dolls.
First use Aug. 3, 1957.

SN 40,696. Eugene N. Parker, d. b. a. Parker Tackle Co., Roseburg, Oreg. Filed Nov. 14, 1957.

CLOW-PAL

For Artificial Fishing Lures.
First use May 15, 1957.

SN 40,876. Plastoform Corp., Brooklyn, N. Y. Filed Nov. 18, 1957.

GYRO-JOE

For Toy Flying Platform Pilot.
First use Aug. 1, 1957.

SN 40,993. Alexander Doll Company, Inc., d. b. a. Madame Alexander, New York, N. Y. Filed Nov. 20, 1957.

"Kelly"

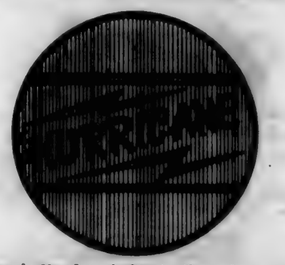
For Dolls.
First use Oct. 31, 1957.

SN 40,994. Alexander Doll Company, Inc., New York, N. Y. Filed Nov. 20, 1957.

"Robin"

For Dolls.
First use Oct. 31, 1957.

SN 41,340. T. L. Wellman, d. b. a. Wellman Archery Company, Wadsworth, Ohio. Filed Nov. 25, 1957.



The drawing is lined to indicate the colors red and yellow.
For Archery Bows.
First use Mar. 17, 1956.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

SN 28,730. Roy Scharf, d. b. a. Grove Machine Works, Bowling Green, Ohio. Filed Apr. 23, 1957.

CLEAN-RITE

For Sewer Cleaning Machinery.
First use September 1949.

SN 31,777. Nygran Industries Ltd., Vancouver, British Columbia, Canada. Filed June 11, 1957.

FILE-N-JOINT

For Machines for Reconditioning Chain Saws.
First use Oct. 1, 1956; in commerce October 3, 1955.

SN 32,662. The Bentley Engineering Company Limited, Leicester, England. Filed June 26, 1957.

BENTLEY-KOMET

Owner of British Reg. No. 765,705, dated May 18, 1957; and U. S. Reg. No. 291,035.
For Warp Looms, Winding Machines, Warping Machines, Weaving Looms, Lace Machines, Braid Machines, Spinning Machines, Dyeing Machines, and Finishing Machines, All Being Textile Machinery.

SN 39,378. Brown Oil Tools, Inc., Houston, Tex. Filed Oct. 23, 1957.

P·R·I·M·E

For Oil and Gas Well Completion and Production Tools and Parts Thereof.
First use July 10, 1957.

SN 39,417. James Smith & Son, Inc., Worcester, Mass. Filed Oct. 23, 1957.

JSS INC

For Combing Machines, Coilers, and Indexing Machine Tools.
First use Oct. 9, 1957.

SN 42,516. Modern Carpet Sweeper Co., Inc., Great Neck, N. Y. Filed Dec. 16, 1957.

J·U·B·I·L·E·E

For Carpet Sweepers.
First use Aug. 19, 1957.

SN 42,547. Southern California Muffler Corporation, Culver City, Calif. Filed Dec. 16, 1957.

BELOND "500"

Owner of Reg. No. 568,129.
For Automobile Mufflers.
First use Nov. 13, 1957.

SN 45,431. Wupa-Maschinen Aktiengesellschaft, Dusseldorf, Germany. Filed Feb. 6, 1958.

Wupa

Owner of German Reg. No. 690,907, dated May 22, 1956.
For Automatic Machines for Embossing and Stamping Platen Stamping Presses, Stapling Machines, Machinery for Bookprinting and Bookbinding Plants.

SN 45,819. Oneida Ltd., Oneida, N. Y. Filed Feb. 13, 1958.

SAND DUNE

For Stainless Steel Flat Tableware.
First use Dec. 31, 1957.

Class 24 — Laundry Appliances and Machines

SN 35,278. National Propane Corporation, New Hyde Park, N. Y. Filed Aug. 9, 1957.

NPC AUTOMATIC CLOTHES DRYER

Applicant disclaims the words "Automatic Clothes Dryer" apart from the mark as shown.
For Automatic Clothes Dryers.
First use Feb. 7, 1957.

SN 39,765. Wood Conversion Company, St. Paul, Minn. Filed Oct. 29, 1957.

TUFFLEX

Owner of Reg. Nos. 500,283, 510,039, and others.
For Ironing Board Pads and Component Felted Fiber Mats Therefor.
First use May 10, 1946.

Class 25 — Locks and Safes

SN 27,236. Sargent & Greenleaf, Inc., Rochester, N. Y. Filed Mar. 29, 1957.

SPY-PROOF

Owner of Reg. No. 541,059.
For Dial and Ring Sets for Combination Locks.
First use June 1956.

Class 26 — Measuring and Scientific Appliances

SN 40,911. American Optical Company, Southbridge, Mass. Filed Nov. 19, 1957.

AOLITE

For Ophthalmic Lenses.
First use Nov. 4, 1957.

SN 41,154. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

APO-FARRON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Sept. 10, 1957.

SN 41,157. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

SUPER-FARRON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Sept. 13, 1957.

SN 41,160. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

FARROTAR

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Oct. 2, 1957.

SN 41,635. Helio-Tech, Inc., Pasadena, Calif. Filed Dec. 2, 1957.

NORWOOD SUPER-DIRECTOR

For Light Meters.
First use Oct. 15, 1957.

SN 44,071. Electrothermal Engineering Limited, London, England. Filed Jan. 16, 1958.



For Electrical Heating Equipment and Apparatus for Laboratory and Scientific Use—Namely, Heating Mantles, Heating Tapes, Armoured Heaters, Water, Air, and Histological Baths, Apparatus for Soxhlet, Kjeldahl and Other Tests, Test Tube Heaters, Heating Panels and Pads, Pyrometers and Energy Regulators for Control of Such Apparatus and Equipment.
First use in 1941; in commerce June 30, 1952.

SN 44,225. Unitronics, Inc., St. Louis, Mo. Filed Jan. 17, 1958.

DIACO

For Photographic Printers.
First use Sept. 4, 1957.

Class 27—Horological Instruments

SN 29,505. Uhrenfabrik "Timex" Jaisle & Co., Pforsheim, Germany. Filed May 6, 1957.

BADENIA

Owner of German Reg. No. 686,760, dated Jan. 23, 1956.
For Clocks, Watches, Watch and Clock Cases, Dials and Parts of Watches and Clocks.

SN 39,003. Montres Universal, Perret & Berthoud S. A. (Universal Watches, Perret & Berthoud Ltd.), Geneva, Switzerland. Filed Oct. 16, 1957.

MICROTOR

Owner of Swiss Reg. No. 164,601, dated Feb. 14, 1957.
For Time Pieces and Parts Thereof.

SN 40,650. Bulova Watch Company, Inc., Flushing, N. Y. Filed Nov. 14, 1957.

SPUTNIK

For Watches.
First use Oct. 23, 1957.

SN 41,383. Harold I. Horton, d. b. a. Arpeggio Watch Company, New York, N. Y., to Arpeggio Watch Co. Inc., New York, N. Y. Filed Nov. 26, 1957.

ARPEGGIO

For Watches.
First use in or about June 1957.

Class 28—Jewelry and Precious-Metal Ware

SN 36,543. Towle Manufacturing Company, Newburyport, Mass. Filed Aug. 30, 1957.

PETIT POINT

For Sterling Silver Flatware.
First use Aug. 15, 1957.

SN 37,686. I. Roskin Company, Inc., New York, N. Y. Filed Sept. 23, 1957.

MELEE GLARE TOP

Owner of Reg. No. 568,228.
For Finger Rings and Finger Ring Mountings.
First use Aug. 15, 1957.

SN 40,912. Anson Incorporated, Providence, R. I. Filed Nov. 19, 1957.

ENVOY

For Men's Jewelry—Namely, Tie Holders, Collar Holders, Tie Pins, Cuff Links, Watch Chains, Key Chains, Key Rings, Watch Bands, Brief Clips, Money Clips, Tie Chains, Studs, Buckles, Identification Bracelets, Tie Slides, Collar Pins, and Finger Rings.
First use Oct. 20, 1957.

Class 31—Filters and Refrigerators

SN 29,401. Sweden Freezer Manufacturing Company, Seattle, Wash. Filed May 2, 1957.

Owner of Reg. No. 642,622.
For Refrigerating Machine for Making Milk Shakes.
First use June 27, 1955.

SN 45,028. Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany. Filed Jan. 31, 1958.

Owner of German Reg. No. 685,072, dated Dec. 2, 1955; and U. S. Reg. Nos. 376,775, 356,793, and 278,454.
For (based on use in commerce) Filter Elements, Filter Inserts, Filter Hoses, and Brushes for Cleaning Oil Filters.
For (based on German registration) Electric Refrigerators, and Freezers.
First use 1933; in commerce 1933.

SN 45,129. Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany. Filed Feb. 3, 1958.

MERCEDES-BENZ

Owner of German Reg. No. 375,067, dated Oct. 7, 1927; and U. S. Reg. Nos. 285,557 and 278,454.
For (based on use in commerce) Filter Elements, Filter Inserts, Filter Hoses, and Brushes for Cleaning Oil Filters.
For (based on German registration) Electric Refrigerators, and Freezers.
First use 1926; in commerce 1927.

Class 32—Furniture and Upholstery

SN 29,072. Alfred Imhof Limited, London, England. Filed Apr. 29, 1957.

IMLOK

Owner of British Reg. No. 755,124, dated June 20, 1956; No. 759,632, dated Nov. 15, 1956; and No. 759,633, dated Nov. 15, 1956.
For Cabinets, Containers, and Cases All Made of Metal, Sold Empty and Used for Containing Electrical and Electronic Instruments and Apparatus; Component Parts of These Goods; and Racks.

SN 47,712. Bankers Box Company, Franklin Park, Ill. Filed Mar. 14, 1958.

BANKERS BOX PRODUCTS

The word "Products" is disclaimed apart from the mark as shown.
For Storage Filing Boxes.
First use Feb. 26, 1957.

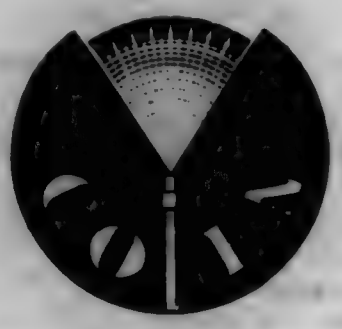
Class 34—Heating, Lighting, and Ventilating Apparatus

SN 23,768. Aktiebolaget Svenska Fläktfabriken, Stockholm, Sweden. Filed Feb. 5, 1957.

INDIVENT

Owner of Swedish Reg. No. 71,230, dated Jan. 18, 1952.
For System for Air Conditioning in Ships Comprising Means for Controlling Temperature and Air Change.

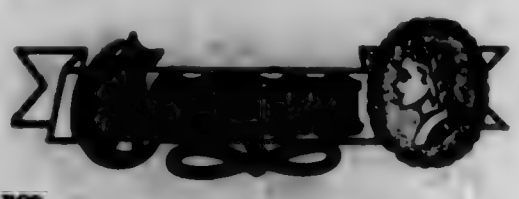
SN 37,944. Coen Company, San Francisco, Calif. Filed Sept. 27, 1957.



For Oil and Gas Fired Industrial Boiler-Burner Apparatus and Electric-Mechanical Controls Therefor.
First use on or about July 1928.

Class 36—Musical Instruments and Supplies

SN 40,104. Winter & Company, Inc., New York, N. Y. Filed Nov. 4, 1957.



For Pianos.
First use on or about Jan. 1, 1937; on or about Sept. 2, 1936, in another display.

Class 37—Paper and Stationery

SN 641. Vereinigte Papierwerke Schickedanz & Co., Nurnberg, Germany. Filed Jan. 12, 1956.

FAVORIT

For Cellulose Wiping Sheets and Tissues, Cellulose Handkerchiefs, Cellulose Napkins, and Cellulose Mats.
First use Oct. 27, 1949; in commerce Oct. 27, 1949.

SN 28,269. Pak-Well Paper Products Company, Portland, Oreg. Filed Apr. 16, 1957.



The drawing is lined for the color blue but no claim is made to the color. The lining surrounding the figure is a portion of the blue background of the label and no claim is made thereto.
For Merchandise Bags and Wrappers.
First use February 1952.

SN 28,336. Edward J. Delaney, Joliet, Ill. Filed Apr. 17, 1957.

SUE-PAM

For Envelopes.
First use Apr. 10, 1956.

SN 34,870. Scott Paper Company, Chester, Pa. Filed Aug. 2, 1957.

DURA-WIPES

Owner of Reg. No. 647,493.
For Paper Towels.
First use May 6, 1957.

SN 35,088. Creative Aids, Inc., New York, N. Y. Filed Aug. 7, 1957.

RECONCIL-VELOPE

For Bank Balance Proving Envelope Files.
First use July 22, 1957.

SN 35,605. The Borg Paper Company, Middletown, Ohio. Filed Aug. 15, 1957.

SUN—DIAL

For Paper Dental Bracket Table Covers.
First use June 10, 1957.

SN 40,134. Marcalus Manufacturing Co., Inc., East Paterson, N. J. Filed Nov. 5, 1957.

MARCAL

For Paper Handkerchiefs, Paper Napkins, Waxed Paper, Toilet Paper, and Paper Towels.
First use in December, 1945.

Class 38—Prints and Publications

SN 28,979. United File-O-Matic, Inc., New York, N. Y. Filed Apr. 26, 1957.

AUDIO-FILE

For Loose Leaf Publications Containing Interchangeable and Replaceable Data Sheets Bearing Descriptions, Illustrations, Diagrams, Prices, Etc. of Radio, Television, Sound Reproduction and Electronic Apparatus, Components, Parts, Accessories and Related Equipment.
First use Jan. 15, 1957.

SN 39,542. National Cartoonists Society, New York, N. Y. Filed Oct. 25, 1957. Sec. 2(f).

THE CARTOONIST!

Owner of Reg. No. 513,868.
For Booklet or Periodical Published Quarterly.
First use 1948.

SN 40,837. The Hearst Corporation, New York, N. Y. Filed Nov. 18, 1957.

JUDD SAXON

For Series of Cartoons or Comic Strips.
First use Apr. 8, 1957.

SN 40,838. The Hearst Corporation, New York, N. Y. Filed Nov. 18, 1957.

Bride & Home

For Magazine Published Quarterly.
First use January 1957.

SN 41,144. The California Oil Company, Perth Amboy, N. J. Filed Nov. 22, 1957.

THE CALOILER

For Publication in the Nature of a House Organ Published and Distributed From Time to Time.
First use December 1956.

SN 41,385. The House of Seagram, Inc., New York, N. Y. Filed Nov. 26, 1957.

YOUR LEISURE TIME

For Periodical Publication.
First use Sept. 6, 1957.

SN 41,956. Russ and Helen Watson, Denison, Iowa. Filed Dec. 6, 1957.

BRIGHT ACRES

For Series of Cartoons or Comic Strips.
First use July 16, 1957.

SN 42,021. Joseph Hoover & Sons Company, Philadelphia, Pa. Filed Dec. 9, 1957.

Playgirl

For Calendars.
First use Aug. 15, 1957.

SN 42,374. Ward Green Company, New York, N. Y. Filed Dec. 13, 1957.

Home Library Press

For Books Published From Time to Time.
First use Nov. 1, 1957.

Class 39—Clothing

SN 642,185. Venus Foundation Garments, Inc., Chicago, Ill. Filed Feb. 12, 1953.

Envy by Venus

For Girdles and Panty Girdles.
First use August 1951.

SN 699,586. Nortex Shoe Corporation, Gainesville, Tex., to Linda Jo Shoe Co., Inc., Gainesville, Tex. Filed Dec. 7, 1955.

Foam cushion by TEX-MOC

Owner of Reg. No. 578,767.
For Shoes and Moccasins.
First use Nov. 11, 1955.

SN 23,568. Red Raven Rubber Company, Newark, N. J. Filed Jan. 31, 1957.

RAYTEX

For Infants' Bibs and Pants, Children's and Ladies' Shower Caps, Bathing Caps, and Underwear.
First use July 1956.

SN 28,486. Blair Fashions, Inc., by change of name from Blair Corset Co., Inc., Chicago, Ill. Filed Apr. 19, 1957.



For Brassieres, Torso Length Corselets, and Corselets.
First use Apr. 12, 1957.

SN 29,636. International Shoe Company, St. Louis, Mo. Filed May 8, 1957.

NOK-A-BOUT

For Shoes.
First use Mar. 15, 1957.

SN 30,758. Fairy Silk Mills, Inc., Shillington, Pa. Filed May 27, 1957.

Faefie
Hi Mommy

For Maternity Garments—Namely, Slips, Panties, Half Slips, Nightgowns, and Sleeping Garments.
First use July 1, 1956.

SN 33,900. New Era Hats Inc., New York, N. Y. Filed July 17, 1957.

Anniversaire

For Ladies' and Misses' Hats.
First use May 16, 1957.

SN 34,206. A-Justa-Boot Sales Corporation, Providence, R. I. Filed July 23, 1957.

A-JUSTA-BOOT

For Children's Slippers.
First use Apr. 15, 1957.

SN 37,517. Piedmont Shirt Company, Greenville, S. C. Filed Sept. 19, 1957.

LADY
Wings

Owner of Reg. Nos. 395,806, 429,691, and others.
For Women's, Girls', and Misses' Shirts, Blouses, Nightgowns, Pajamas, and Jackets.
First use Sept. 10, 1957.

SN 39,140. Hi-G, Inc., Long Island City, N. Y. Filed Oct. 18, 1957.

HI-G

Owner of Reg. Nos. 616,626 and 638,509.
For Panties and Panty Briefs.
First use Apr. 26, 1956.

SN 39,147. Le Roi Hosiery Co. Incorporated, New York, N. Y. Filed Oct. 18, 1957.

HUGTOPPERS

Owner of Reg. Nos. 282,795, 506,227, and 567,265.
For Slipper Socks.
First use Sept. 6, 1951.

SN 39,241. M. K. M. Knitting Mills, Inc., Manchester, N. H. Filed Oct. 21, 1957.

FINRICO

For Sweaters.
First use June 5, 1957.

SN 39,639. Mr. John, Inc., New York, N. Y. Filed Oct. 28, 1957.

MR. JOHN

"Mr. John" is the name of a living individual, whose consent is of record. Owner of Reg. Nos. 549,819 and 632,767.
For Fur Coats, Fur Jackets, Fur Stoles, Fur Scarves, and Fur Trimmed Coats.
First use Oct. 16, 1956.

SN 40,228. Gimbel Brothers, Inc., New York, N. Y. Filed Nov. 7, 1957.

Baby
Royal

For Infants' Shirts, Gowns, Training Pants, Buntings, and Sleepers.
First use Oct. 15, 1957.

SN 40,387. Sport-Wear Hosiery Mills, Inc., Etowah, Tenn. Filed Nov. 8, 1957.

SPORT Miss

For Hosiery.
First use Oct. 16, 1957.

SN 40,388. Sport-Wear Hosiery Mills, Inc., Etowah, Tenn. Filed Nov. 8, 1957.

SPORT Master

For Hosiery.
First use Oct. 16, 1957.

SN 40,389. Sport-Wear Hosiery Mills, Inc., Etowah, Tenn. Filed Nov. 8, 1957.

SPORT Mister

For Hosiery.
First use Oct. 16, 1957.

SN 40,430. Conaway-Winter, Inc., St. Louis, Mo. Filed Nov. 12, 1957.

MRS. WINTER'S

For Infants' Shoes.
First use in January 1952.

SN 40,447. French, Shriner & Urner Manufacturing Co., Boston, Mass. Filed Nov. 12, 1957.

BIARRITZ

For Men's Shoes.
First use Oct. 29, 1957.

SN 40,450. Garrod Shoe Co., Inc., New York, N. Y. Filed Nov. 12, 1957.

STRATAFLEX

For Shoes.
First use Apr. 3, 1957.

SN 40,529. Munsingwear, Inc., Minneapolis, Minn. Filed Oct. 31, 1957.



Owner of Reg. Nos. 120,903, 599,084, and others.
For Women's Hosiery; Women's and Girls' Sleepingwear—Namely, Nightgowns, Pajamas, Bed Socks, Lounging Robes and Bed Jackets; Women's and Girls' Golf Shirts, Bowling Shirts, Tennis Shirts, Boating Shirts, Underwear, and Foundation Garments.
First use June 4, 1956, on women's hosiery; Jan. 1, 1911, in another form.

SN 41,132. Joseph Anteil, Inc., Boston, Mass. Filed Nov. 22, 1957.

Joseph Antell

Owner of Reg. No. 410,981.
For Shoes, Slippers and Storm Boots for Women, Misses, and Children and Rubber Footwear and Hosiery for Women and Misses.
First use during September 1939 on shoes.

SN 41,291. Melville Shoe Corporation, New York, N. Y. Filed Nov. 25, 1957.

John Ward

Owner of Reg. No. 104,625.
For Shoes, Slippers, Rubbers, and Boots of Leather, Fabric, Rubber, and Combinations Thereof; and Hosiery.
First use Dec. 17, 1894.

SN 42,063. Roth-Le Cover of California, Los Angeles, Calif. Filed Dec. 9, 1957.

MARISSA

For Ladies' and Misses' Coats and Suits.
First use Nov. 8, 1957.

SN 42,257. West Milford Sportswear, Inc., Pompton Lakes, N. J. Filed Dec. 11, 1957.

Mister Cy

For Jackets, Skirts, and Shorts.
First use Oct. 1, 1957.

SN 42,909. Bali Brassiere Co., Inc., New York, N. Y. Filed Dec. 24, 1957.

BALI-"LO"

Owner of Reg. No. 553,151.
For Brassieres and Bandeaux.
First use Dec. 10, 1957.

SN 42,970. Challenge Products, Inc., New York, N. Y. Filed Dec. 24, 1957.

LEG-A-TEES

For Ladies' and Children's Tights.
First use June 21, 1957.

SN 43,104. Les Successeurs de P. Codet et Teillet, Paris and Saint-Junien, Haute Vienne, France. Filed Dec. 27, 1957.

LIONEL LE GRAND

"Lionel le Grand" is the name of a living individual whose consent is of record.
For Fabric and Leather Gloves for Women.
First use in March 1948; in commerce in March 1948.

Class 40—Fancy Goods, Furnishings, and Notions

SN 39,284. E. C. Scherrer, Inc., New York, N. Y. Filed Oct. 21, 1957.

SHONTRÉ

For Braids Used in the Manufacture of Hat Bodies.
First use Oct. 2, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 28,328. Cameo Curtains, Inc., New York, N. Y. Filed Apr. 17 1957.

DURONIZED

For Marquisette Fabric for Making Window Curtains, Treated To Make It Machine Washable and Also Resistant to Dirt and Other Deleterious Influences.
First use Dec. 10, 1956.

SN 33,419. The Jaunty Fabric Corporation, d. b. a. Jaunty Mills, New York, N. Y. Filed July 9, 1957.

SONG

For Piece Goods Woven From Natural or Man Made Fiber or a Combination Thereof for Use in the Manufacture of Lingerie—Namely, Nightgowns, Pajamas, Bed Jackets, Slips, Panties, and Robes.
First use May 9, 1957.

SN 33,526. Aldon Rug Mills, Inc., Lenni Mills, Pa. Filed July 11, 1957.

IMPERIAL WINDSOR

For Loop Pile Rugs and Carpets.
First use June 21, 1957.

SN 35,181. Lawson Products, Inc., Pawtucket, R. I. Filed Aug. 8, 1957.

CIRCANET

For Elastic Mesh and Net Fabric.
First use Apr. 8, 1957.

SN 37,600. Scottish Crofter-Weavers Limited, Aberdeen, Scotland. Filed Sept. 20, 1957. Sec. 2(f).

HEBRATEX

Owner of U. S. Reg. No. 437,367.
For Harris Tweeds Hand-Loomed in the Hebrides From Yarn Spun on the Scottish Mainland.
First use in 1945; in commerce Mar. 16, 1948.

SN 38,537. Hockmeyer Bros., Inc., New York, N. Y. Filed Oct. 8, 1957.

RHINO-SET

For Fabric Finish With Which Applicant Has Treated Its Piece Goods.
First use Mar. 12, 1956.

SN 38,821. Hockmeyer Bros. Inc., New York, N. Y. Filed Oct. 14, 1957. Sec. 2(f).

STURDY-KORD

Owner of Reg. No. 358,208.
For Textile Fabrics in the Piece Composed of Corduroy.
First use in April 1937.

SN 39,408. Lawson Products, Inc., Pawtucket, R. I. Filed Oct. 23, 1957.

Circa Lace

The exclusive use of the textile term "Lace" is disclaimed apart from the mark as shown.
For Elastic Mesh and Net Fabric.
First use Sept. 20, 1957.

SN 39,989. Princeton Knitting Mills, Inc., New York, N. Y. Filed Nov. 1, 1957.

PAKANYL

For Knitted Textile Fabrics in the Piece, for Making Dresses, Blouses, Skirts, and the Like.
First use in October 1954.

SN 40,018. Bettermade Garment Company, Los Angeles, Calif. Filed Nov. 4, 1957.

Paca-Bouclé

Owner of Reg. No. 619,991.
For Acetate and Rayon Boucle Fabrics in the Piece.
First use July 11, 1957.

SN 42,931. Shirley Fabrics Corporation, New York, N. Y. Filed Dec. 23, 1957.

COMPULSION

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Apr. 8, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 37,599. Schueler & Company, New York, N. Y. Filed Sept. 20, 1957.

DRAGER

For Surgical Instruments—Namely, Surgical Forceps, Scissors, Retractors, Probes, Clamps, and Bone Saws.
First use June 24, 1957.

SN 40,039. Evans-Crowder Co., South Lyon, Mich. Filed Nov. 4, 1957.

Spray-A-Top

For Atomizers for Cosmetic, Medicinal, and Toilet Preparations.
First use Feb. 19, 1951.

SN 40,667. The Dentists' Supply Company of New York, York, Pa. Filed Nov. 14, 1957.

AIROTOR

For Dental Handpieces and Control Units Thereof.
First use on or about July 9, 1957.

SN 40,921. Clifford R. Arnold, d. b. a. Arnold Health Equipment Company, New York, N. Y. Filed Nov. 19, 1957.

SLIM-CYCLE

For Machines for Body Exercise and Muscular Conditioning—Namely, Stationary Machines Ridden Like a Bicycle.
First use August 1956.

SN 41,050. The Pyramid Rubber Company, Ravenna, Ohio. Filed Nov. 20, 1957.

COLORFLO

For Infant Nursing Bottles and Infant Nursing Units Comprising Nursing Bottles, Nipples, Nipple Retaining Screw Caps.
First use Apr. 23, 1956.

SN 41,074. Harry J. Bosworth Company, Chicago, Ill. Filed Nov. 21, 1957.

SOLVITE

For Dental Impression Material.
First use on or about Dec. 1, 1923.

SN 41,075. Harry J. Bosworth Company, Chicago, Ill. Filed Nov. 21, 1957.

PLASTOGUM

For Dental Impression Material.
First use on or about Jan. 1, 1938.

SN 41,910. Joa Co., Lake Wales, Fla. Filed Dec. 6, 1957.

FAUNS

For Sanitary Napkins.
First use Oct. 16, 1957.

SN 41,949. Surgical Appliance Industries, Inc., Cincinnati, Ohio. Filed Dec. 6, 1957.

WUNDERTRUS

For Surgical Trusses.
First use Nov. 21, 1957.

SN 42,287. Independent Grocers' Alliance Distributing Company, Chicago, Ill. Filed Dec. 12, 1957.

I G A

For Toothpicks.
First use Sept. 1, 1927.

Class 45—Soft Drinks and Carbonated Waters

SN 38,350. General Foods Corporation, White Plains, N. Y. Filed Oct. 4, 1957.

KOOL DROPS

Owner of Reg. Nos. 238,448, 642,703, and others.
For Tablets for Use in Making Soft Drinks.
First use Aug. 6, 1957.

SN 38,351. General Foods Corporation, White Plains, N. Y. Filed Oct. 4, 1957.

PENGUINS

For Tablets for Use in Making Soft Drinks.
First use Aug. 6, 1957.

Class 46—Foods and Ingredients of Foods

SN 5,414. Cranberry Growers, Inc., Wisconsin Rapids, Wis., now by change of name to Indian Trail, Inc. Filed Mar. 29, 1956. Sec. 2(f).

VINE FRESH

Owner of Reg. No. 539,462.
For Fresh Cranberries.
First use Sept. 4, 1948.

SN 12,472. Wm. Wrigley Jr. Company, Chicago, Ill. Filed July 19, 1956.

ARROWMINT

Owner of Reg. No. 118,258.
For Chewing Gum.
First use June 15, 1956.

SN 25,162. De Greila Packing Inc., Louisville, Ky. Filed Feb. 27, 1957.

HIGH-D

For Fresh Citrus Fruits, Fresh Deciduous Fruits, and Fresh Vegetables.
First use Dec. 10, 1956.

SN 29,574. H. C. Brill Company, Inc., Newark, N. J. Filed May 7, 1957.

WHOOPEE

For Cake Mix Containing Flour, Sugar, Shortening, Dried Eggs, Cocoa, Salt, Leavening, and Emulsifiers.
First use Dec. 21, 1928.

SN 33,581. Tobin Packing Co., Inc., Rochester, N. Y. Filed July 11, 1957.

DUBLIN BRAND

The word "Brand" is disclaimed apart from the mark as shown in the drawing.
For Corned Beef.
First use Mar. 13, 1953.

SN 37,555. Bud, Inc., Salinas, Calif., now by change of name Bud Antle, Inc. Filed Sept. 20, 1957.

RICK

Owner of Reg. No. 500,685.
For Fresh Vegetables.
First use Nov. 30, 1956.

SN 42,141. Independent Grocers' Alliance Distributing Company, Chicago, Ill. Filed Dec. 10, 1957.

TABLE RITE

Owner of Reg. No. 617,647.
For Food and Grocery Products—Namely, Fresh and Smoked Meats; Fresh Poultry; Cheeses and Cheese Spreads; and Dairy Products.
First use July 1953.

SN 42,446. Comet Rice Mills, Houston, Tex. Filed Dec. 16, 1957.

13

For Rice.
First use Oct. 8, 1954.

SN 43,381. Oelerich & Berry Company, Chicago, Ill. Filed Jan. 2, 1958.

BRONCO

For Chocolate Flavored Food Syrup With Vitamins and Iron Added.
First use Dec. 30, 1957.

Class 47—Wines

SN 1,676. E. Isolabella & Figlio S. p. A., Milan, Italy. Filed Feb. 1, 1956. Sec. 2(f).

ISOLABELLA

Owner of Reg. Nos. 313,346 and 442,316.
For Vermouth.
First use in the year 1870; in commerce in the year 1937.

SN 28,840. Cazalis & Prats, Sete, France. Filed Apr. 25, 1957.

C & P

CAZALIS & PRATS

For Vermouth.
First use prior to Nov. 6, 1906; in commerce Nov. 6, 1906.

Class 49—Distilled Alcoholic Liquors

SN 17,345. Union Cooperative de Viticulteurs Charentais, Cognac, France. Filed Oct. 12, 1956.

LOGIS DU MAY

For Cognac.
First use Dec. 31, 1903; in commerce Nov. 30, 1946.

SN 31,592. The Saterac Company, Inc., New Orleans, La. Filed June 7, 1957.

TAAKA

For Vodka.
First use Mar. 19, 1952.

SN 40,086. Schenley Industries, Inc., New York, N. Y. Filed Nov. 4, 1957. Sec. 2(f).

CEDARHURST

For Whiskey.
First use Dec. 5, 1902.

Class 50—Merchandise Not Otherwise Classified

SN 32,142. The Sun Rubber Company, Barberton, Ohio. Filed June 17, 1957.

SUN

Owner of Reg. No. 550,481.
For Bottle Stoppers.
First use May 10, 1957.

SN 33,315. Animal Trap Company of America, Litits, Pa. Filed June 20, 1957.

QUICK DRY

For Fur Pelt Stretchers.
First use Jan. 23, 1922.

SN 39,925. Univest, Inc., Temple City, Calif. Filed Oct. 31, 1957.

AQUA-SEAL

For Plastic Swimming Pool Covers.
First use in March 1957.

SN 40,050. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Nov. 4, 1957.

VIDENE

Owner of Reg. No. 415,200.
For Polyester Film.
First use May 17, 1957.

SN 40,117. Crown Cork & Seal Company, Inc., Baltimore, Md. Filed Nov. 5, 1957.

Shell-o-Seal

For Metal Closures—Namely, Crown Caps.
First use Oct. 1, 1956.

Class 51—Cosmetics and Toilet Preparations

SN 12,000. Angelique and Company, Inc., d. b. a. Angelique, Wilton, Conn. Filed July 12, 1956.

white satin

For Perfume, Cologne, Bath Powder, and Bath Oil.
First use on or about Feb. 28, 1949.

SN 12,002. Angelique and Company, Inc., d. b. a. Angelique, Wilton, Conn. Filed July 12, 1956.

black satin

For Perfume, Cologne, Bath Powder, and Bath Oil.
First use on or about Oct. 31, 1946, on perfume and cologne.

SN 12,004. Angelique and Company, Inc., d. b. a. Angelique, Wilton, Conn. Filed July 12, 1956.

Red satin

For Perfume, Cologne, Bath Powder, and Bath Oil.
First use on or about Mar. 31, 1954.

SN 12,006. Angelique and Company, Inc., d. b. a. Angelique, Wilton, Conn. Filed July 12, 1956.

Gold satin

For Perfume, Cologne, Bath Powder, and Bath Oil.
First use on or about Dec. 31, 1950.

SN 22,652. American Photograph Corporation, New York, N. Y. Filed Jan. 16, 1957.

Wake-up Make-up

Applicant disclaims any exclusive right to use the word "Make-Up" apart from the mark shown on the drawing.
For Photographic Make-Up Kit Comprising a Cardboard Folder Containing Cleansing Cream, Make-Up Base, Mascara and Brush, Eyebrow Pencil, Lipstick, and Comb.
First use about Oct. 1, 1956.

SN 35,785. The Lander Co. Inc., d. b. a. Elizabeth Post, New York, N. Y. Filed Aug. 19, 1957.

ELIZABETH POST

The name, "Elizabeth Post," shown in the drawing is that of a living individual, whose consent is of record. Owner of Reg. No. 654,885.
For Nail Polish, Nail Polish Remover, Wave Setting Lotion, and Eyebrow Pencils.
First use Jan. 1, 1934.

Class 52—Detergents and Soaps

SN 5,385. Bardahl Manufacturing Corporation, Seattle, Wash. Filed Mar. 29, 1956. Sec. 2(f).

BARDAHL

Owner of Reg. No. 526,554.
For Engine Flush and Cleaner, and Carburetor Cleaner.
First use Sept. 9, 1955.

SN 24,069. P. & P. Products, Detroit, Mich. Filed Feb. 8, 1957.

LUCKY-LADY

For Detergent Compound for Stockings or Hose.
First use Dec. 14, 1956.

SN 31,572. Magnus Chemical Company, Inc., Garwood, N. J. Filed June 7, 1957.

magnus

Owner of Reg. Nos. 175,886, 373,289, and 601,129.
For Soap for Detergent Purposes and Soap Mixtures for Cleaning Finished Surfaces.
First use 1952.

SN 32,399. Metro-Atlantic, Inc., Centredale, R. I. Filed June 21, 1957.

METRO

For Textile Detergent Materials To Be Used in Connection With the Dyeing, Bleaching, Rinsing, Washing and Finishing of Yarns, and Woven and Knitted Fabrics of Cotton, Wool, Rayon, and Other Natural and Synthetic Fibres.
First use in 1949.

SN 33,813. Hudson Fur Cleaning Company, Providence, R. I. Filed July 16, 1957.

Prep

For Chemical Compound in Liquid Form for Use as a Prespotter in Removing Stains and Soil From Furs and All Man-Made Furs.
First use Nov. 10, 1956.

SN 40,320. Chesebrough-Pond's Inc., New York, N. Y. Filed Nov. 8, 1957.

ANGEL PROMISE

Owner of Reg. No. 645,522.
For Shampoo for the Hair.
First use Sept. 27, 1957.

SN 40,955. Albert Meyers, d. b. a. Dyo Chemical Company, Dallas, Tex. Filed Nov. 19, 1957.

Dyo-Flex

For Preparations for Cleaning Leather and Fabric Articles—Namely, Leather Soap and Dry Cleaning Detergent Soap and Spot Removers.
First use in the year 1932.

SN 41,362. Herman A. Duncan, d. b. a. Duncan Sales Co., Oakland, Calif. Filed Nov. 26, 1957.

KORROSOLV

For Chemical Composition Used for Cleaning Metals.
First use Jan. 26, 1956.

SN 41,363. Herman A. Duncan, d. b. a. Duncan Sales Co., Oakland, Calif. Filed Nov. 26, 1957.

GREASUP

For Chemical Composition Used for Removing Greases, Oils, Fats, Waxes, Bacteria, and Other Impurities From Concrete.
First use Jan. 26, 1956.

SN 41,516. Chemical Service of Baltimore, Inc., Baltimore, Md. Filed Nov. 29, 1957.

LAB ONE

For Cleaning, Disinfecting, and Deodorising Preparation.
First use Mar. 15, 1955.

SN 41,935. The Procter & Gamble Company, Cincinnati, Ohio. Filed Dec. 6, 1957.

CHLOROSHEEN

For Combination of Wetting and Chlorinating Agents for Use as an Ingredient in Dish Washing Detergent.
First use Nov. 7, 1957.

SN 42,068. Speed-D-Burr Corporation, Glendale, Calif. Filed Dec. 9, 1957.

SPEED-D-BURR

Owner of Reg. No. 626,509.
For Cleaning Compounds and Scale Removers.
First use Sept. 10, 1953.

SERVICE MARKS

Class 102—Insurance and Financial

SN 36,665. Mid-Union Indemnity Company, Elgin, Ill. Filed Sept. 4, 1957.

For Insurance Underwriting.
First use Sept. 20, 1956.

Class 103—Construction and Repair

SN 31,720. The Zeller Corporation, Defiance, Ohio Filed June 10, 1957.

ZELAIR

For Repair of Aircraft.
First use Dec. 18, 1956.

Class 105—Transportation and Storage

SN 37,227. Continental Air Lines, Inc., Denver, Colo. Filed Sept. 16, 1957.

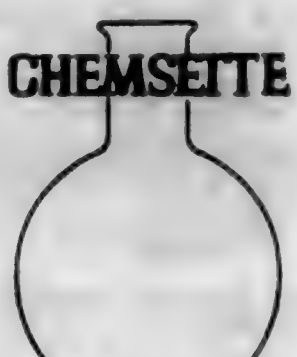
"Gold Carpet"

For Transportation of Persons by Air.
First use July 1, 1957.

Class 106 — Material Treatment

SN 21,785. Defiance Manufacturing Company, d. b. a. Defiance Bleachery, Barrowsville, Mass. Filed Dec. 28, 1956.

CHEMSETTE



For Treatment of Textile Fabrics of Others Composed of Blended or Mixed, Natural or Synthetic Fibres To Effect a Permanent Washable, and Non-Pilling Finish by the Chemical Conversion Thereof.

First use Sept. 18, 1956; Mar. 9, 1955, as to "Chemsette."

SN 22,897. Edge-Craft Process Co., New York, N. Y. Filed Jan. 22, 1957.

DURA-SEALED

For Cutting and Edging Tapes of Others.

First use Mar. 19, 1952.

Subj. to Intf. with SN 10,885.

SN 43,234. Burlington Industries, Inc., New York, N. Y. Filed Dec. 31, 1957.

BUR-MATIC

For Dyeing and Finishing the Textile Fabrics of Others.

First use Oct. 29, 1957.

SN 43,235. Burlington Industries, Inc., New York, N. Y. Filed Dec. 31, 1957.

AUTO-MAGIC

For Dyeing and Finishing the Textile Fabrics of Others.

First use Oct. 29, 1957.

SN 43,429. Burlington Industries, Inc., New York, N. Y. Filed Jan. 6, 1958.

COMMAND PERFORMANCE

For Dyeing and Finishing the Textile Fabrics of Others.

First use Oct. 29, 1957.

CERTIFICATION MARKS

Class B — Services

SN 26,668. Allied Motor Courts Association (New Mexico corporation), Gallup, N. Mex., from Allied Motor Courts Association (unincorporated). Filed Mar. 22, 1957.

Your
"A"
Motor Court

The certification mark is used by member motor courts authorized by applicant to certify as to the quality and character thereof, including cleanliness, accommodations, and general first class service to patrons. No claim is made to the words "Your" and "Motor Court" apart from the mark shown.

For Motel Services.

First use Nov. 14, 1956.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

663,611. CODDING'S AND DESIGN. Samuel L. Katanich, d. b. a. H. W. Codding & Sons. SN 2,505. Pub. 4–15–58. Filed 2–13–56.

663,612. COKER 187. Coker's Pedigreed Seed Company. SN 22,513. Pub. 4–15–58. Filed 1–14–57.

663,613. PLASTI-BRASS. Anchor Plastics Company, Inc. SN 26,040. Pub. 4–15–58. Filed 3–13–57.

663,614. ISOFOAM. Isocyanate Products, Inc. SN 26,703. Pub. 4–15–58. Filed 3–29–57.

663,615. BEAVER BRAND AND DESIGN. Ray Industries, Inc. SN 28,192. Pub. 4–15–58. Filed 4–15–57.

663,616. SCANDIA. The Albert Dickinson Company. SN 29,440. Pub. 4–15–58. Filed 5–6–57.

663,617. TOP FLIGHT AND DESIGN. J. Oliver Johnson Seed Company. SN 31,227. Pub. 4–15–58. Filed 6–3–57.

663,618. STARK. Stark Bro's Nurseries and Orchards Co. SN 31,422. Pub. 4–15–58. Filed 6–5–57.

663,619. SUNDOWN. Thad Huckabee. SN 31,480. Pub. 4–15–58. Filed 6–6–57.

663,620. KLEAN SURF. American Colloid Company. SN 32,723. Pub. 4–15–58. Filed 6–27–57.

663,621. MAISONETTE. Armour and Company. SN 32,888. Pub. 4–15–58. Filed 7–1–57.

663,622. DANDY DEAL. Dandy Deal Co., d. b. a. Deal Moving & Storage. SN 34,218. Pub. 4–15–58. Filed 7–23–57.

663,623. PRIDE OF THE WEST. Central States Seed Service, Inc. SN 36,692. Pub. 4–15–58. Filed 9–5–57.

Class 2—Receptacles

663,624. HI-VI. Lily-Tulip Cup Corporation. SN 23,489. Pub. 4–15–58. Filed 1–30–57.

663,625. SUN TUBE AND DESIGN. Sun Tube Corporation. SN 26,025. Pub. 4–15–58. Filed 3–12–57.

663,626. STYLE TRENDS. Style Trends Inc. SN 31,960. Pub. 4–15–58. Filed 6–13–57.

663,627. PACKERS PACKAGE INCORPORATED. Packers Package, Inc. SN 32,844. Pub. 4–15–58. Filed 6–28–57.

663,628. FUL-DOT. Fulton Bag & Cotton Mills, to West Virginia Pulp and Paper Company. SN 35,042. Pub. 4–15–58. Filed 8–6–57.

663,629. "STIFFY." Meloy Container Corporation. SN 35,793. Pub. 4–15–58. Filed 8–19–57.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

663,630. FX–100. Kenneth C. Fay, d. b. a. Deseghers. SN 28,585. Pub. 4–15–58. Filed 4–22–57.

663,631. JOCKEY. John W. Fitzloff. SN 37,872. Pub. 4–15–58. Filed 9–26–57.

Class 5—Adhesives

663,632. HY-TEN QUIK-SETT. E. F. Houghton & Co. SN 26,174. Pub. 4–15–58. Filed 3–14–57.

663,633. ROLL-ON. The Mastic Tile Corporation of America. SN 37,709. Pub. 4–15–58. Filed 9–23–57.

Class 6—Chemicals and Chemical Compositions

663,634. X–500. The FR Corporation. SN 695,714. Pub. 4–15–58. Filed 10–3–55.

663,635. INDUR. Pitt-Consol Chemical Company. SN 29,655. Pub. 4–15–58. Filed 5–8–57.

663,636. BACTO. Difco Laboratories Incorporated. SN 30,573. Pub. 4–15–58. Filed 5–23–57.

663,637. NORMADOL. General Aniline & Film Corporation. SN 31,983. Pub. 4–15–58. Filed 6–14–57.

663,638. S AND DESIGN. Safeway Stores, Incorporated. SN 33,285. Pub. 4–15–58. Filed 7–5–57.

663,639. POLARIS AND DESIGN. Bodie-Hoover Petroleum Corporation. SN 37,627. Pub. 4–15–58. Filed 9–23–57.

663,640. ANTIOXIDANT D. Allied Chemical & Dye Corporation. SN 37,712. Pub. 4–15–58. Filed 9–24–57.

663,641. THIS. Standard Brands Incorporated. SN 37,961. Pub. 4–15–58. Filed 9–27–57.

663,642. VITA WHITE. Standard Brands Incorporated. SN 37,982. Pub. 4–15–58. Filed 9–27–57.

663,643. SPAR. Standard Brands Incorporated. SN 37,983. Pub. 4–15–58. Filed 9–27–57.

663,644. NEVINDENE. Neville Chemical Company. SN 38,072. Pub. 4–15–58. Filed 9–30–57.

663,645. NEVILLAC. Neville Chemical Company. SN 38,073. Pub. 4–15–58. Filed 9–30–57.

663,646. NEVINOL. Neville Chemical Company. SN 38,074. Pub. 4–15–58. Filed 9–30–57.

663,647. NUBA. Neville Chemical Company. SN 38,076. Pub. 4–15–58. Filed 9–30–57.

Class 10—Fertilizers

663,648. BIG MIX AND DESIGN. Mid-South Chemical Corporation. SN 37,893. Pub. 4–15–58. Filed 9–26–57.

663,649. PRO-N. O. M. Scott and Sons Company. SN 38,238. Pub. 4–15–58. Filed 10–2–57.

Class 11—Inks and Inking Materials

663,650. STORMS. H. M. Storms Company. SN 36,815. Pub. 4–15–58. Filed 9–6–57.

Class 12—Construction Materials

663,651. RO-LA-LUME. Charles Rudin, d. b. a. A. B. C. Awning Co. SN 678,480. Pub. 6–28–55. Filed 12–16–54.

663,652. STORM SHIELD AND DESIGN. Storm Shield of New England, Inc. SN 2,667. Pub. 7–23–57. Filed 2–14–56.

663,653. BORNE SCRYMSER. Borne, Scrymser Company, now by change of name to Borne Chemical Company, Inc. SN 13,904. Pub. 4–15–58. Filed 8–14–56.

663,654. GRAV-L-TITE. Art E. Mitchell. SN 22,449. Pub. 4–15–58. Filed 1–11–57.

663,655. BLUMCRAFT AND DESIGN. Blumcraft of Pittsburgh. SN 22,505. Pub. 4–15–58. Filed 1–14–57.

663,656. GLIDE-FOLD. The C-Mor Company. SN 26,533. Pub. 4–15–58. Filed 3–20–57.

663,657. ROYAL TENNESSEE AND DESIGN. The Georgia Marble Company. SN 28,144. Pub. 4–15–58. Filed 4–15–57.

663,658. MAYFAIR. Croft Louisiana, Inc. SN 29,790. Pub. 4–15–58. Filed 5–10–57.

663,659. SHOWERAMA. Daryl Products Corp. SN 35,247. Pub. 4–15–58. Filed 8–9–57.

663,660. TUFT-WOOD. Wood Conversion Company. SN 35,410. Pub. 4–15–58. Filed 8–12–57.

663,661. NU-BOND. Leon W. Diamond, d. b. a. Swiss Laboratory. SN 37,236. Pub. 4–15–58. Filed 9–16–57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

663,662. SAV-A-TIR. Sav-A-Tir. SN 34,179. Pub. 4–15–58. Filed 7–22–57.

Class 14 — Metals and Metal Castings and Forgings

663,663. GRAPH-AIR HOLLOW-BAR. The Timken Roller Bearing Company. SN 34,310. Pub. 4–15–58. Filed 7–24–57.

Class 15 — Oils and Greases

663,664. BORNE SCRYMSER. Borne, Scrymser Company, now by change of name to Borne Chemical Company, Inc. SN 13,907. Pub. 4–15–58. Filed 8–14–56.

663,665. ISOCERIN. Ernst Schliemann's Export-Ceresin-Fabrik. SN 28,288. Pub. 4–15–58. Filed 4–10–57

663,666. PROSSER'S NITRO-X. Sweney Prosser, d. b. a. Prosser's Nitro-X. SN 32,439. Pub. 4–15–58. Filed 6–24–57.

663,667. GULFWAY. Gulf Oil Corporation. SN 34,856. Pub. 4–15–58. Filed 8–2–57.

663,668. SUPER WILKUT. Sinclair Refining Company. SN 37,979. Pub. 4–15–58. Filed 9–27–57.

663,669. PROMESA. Miracle Candle Company. SN 38,065. Pub. 4–15–58. Filed 9–30–57.

663,670. SLIX. Led-Col Co. SN 38,363. Pub. 4–15–58. Filed 10–4–57.

Class 16 — Protective and Decorative Coatings

663,671. AQUAPLAS. Revertex Limited. SN 3,118. Pub. 10–16–56. Filed 2–21–56.

663,672. PHELAN'S FLEX-TRETE AND DESIGN. Phelan-Faust Paint Mfg. Co. SN 29,653. Pub. 10–8–57. Filed 5–8–57.

663,673. REFLECTOLITE. Minnesota Mining & Manufacturing Company. SN 33,270. Pub. 11–19–57. Filed 7–5–57.

663,674. PERMA BAR. Leroy H. Potter, d. b. a. Lee Potter Company. SN 34,552. Pub. 4–15–58. Filed 7–29–57.

663,675. PRECISELY RIGHT FOR THE JOB. Precision Paint Corporation. SN 41,185. Pub. 4–15–58. Filed 11–22–57.

663,676. AMOCO. The American Oil Company. SN 41,347. Pub. 4–15–58. Filed 11–26–57.

663,677. THE PAINT WITH THE TWO BEARS "IT WEARS" AND DESIGN. Baer Bros. Paint & Varnish Co., Inc. SN 41,435. Pub. 4–15–58. Filed 11–27–57.

663,678. AUTOMATED. Chemical Service of Baltimore, Inc. SN 41,514. Pub. 4–15–58. Filed 11–29–57.

Class 18 — Medicines and Pharmaceutical Preparations

663,679. PENATEN. Penaten Pharmaceutische Fabrik Dr. Med. Riese & Co. G. m. b. H. SN 649,661. Pub. 6–28–55. Filed 7–1–53.

663,680. FENDRUFF. American Cyanamid Company. SN 12,563. Pub. 4–15–58. Filed 11–15–57.

663,681. HETERODASE. American Cyanamid Company. SN 12,566. Pub. 4–15–58. Filed 11–15–57.

663,682. HETEROZYME. American Cyanamid Company. SN 12,567. Pub. 4–15–58. Filed 11–15–57.

663,683. CAMINAR. Armour and Company. SN 25,801. Pub. 4–15–58. Filed 3–1–57.

663,684. THERADERM. Bristol-Myers Company. SN 32,052. Pub. 4–15–58. Filed 6–17–57.

663,685. PERMA LIFE AND DESIGN. Aquarium Supply Company, Inc. SN 33,189. Pub. 4–15–58. Filed 7–5–57.

663,686. ORADENT. Oradent Chemical Co., Inc. SN 33,902. Pub. 4–15–58. Filed 7–17–57.

663,687. SPASMOBERON. C. H. Boehringer Sohn. SN 34,210. Pub. 4–15–58. Filed 7–23–57.

663,688. TEVIROL. Schering Corporation. SN 35,065. Pub. 4–15–58. Filed 8–6–57.

663,689. PERLONGIT. C. H. Boehringer Sohn. SN 35,620. Pub. 4–15–58. Filed 8–16–57.

663,690. GERITAG. S. J. Tutag & Company. SN 35,627. Pub. 4–15–58. Filed 8–19–57.

663,691. AQUALIN. The William A. Webster Company. SN 35,892. Pub. 4–15–58. Filed 8–20–57.

663,692. FLAVINOL-C. Walker Laboratories, Inc. SN 36,548. Pub. 4–15–58. Filed 8–30–57.

663,693. PRENAPHOS. Chicago Pharmacal Company. SN 37,559. Pub. 4–15–58. Filed 9–20–57.

663,694. BUTAPARNIT. Geigy Chemical Corporation. SN 37,728. Pub. 4–15–58. Filed 9–24–57.

663,695. ALKADOTE. Curtis Laboratories, Inc. SN 37,867. Pub. 4–15–58. Filed 9–26–57.

663,696. VITAPRIME. L. James McCarty, d. b. a. Vitaprime Co. SN 38,059. Pub. 4–15–58. Filed 9–30–57.

663,697. DIURASE. Merck & Co., Inc. SN 38,062. Pub. 4–15–58. Filed 9–30–57.

663,698. KONAKION. Hoffmann-La Roche Inc. SN 38,209. Pub. 4–15–58. Filed 10–2–57.

663,699. E-Z-OFF. Neoco Corporation. SN 38,298. Pub. 4–15–58. Filed 10–3–57.

663,700. PREV-A-HIST. Borun Bros., d. b. a. Essential Vitamin Co. SN 38,336. Pub. 4–15–58. Filed 10–4–57.

663,701. AMADIL. George A. Breon & Company. SN 38,337. Pub. 4–15–58. Filed 10–4–57.

663,702. DAYALET8-M. Abbott Laboratories. SN 38,410. Pub. 4–15–58. Filed 10–7–57.

663,703. FLOXAID. Merck & Co., Inc. SN 38,760. Pub. 4–15–58. Filed 10–11–57.

663,704. SENOBILE. The Purdue Frederick Company. SN 38,764. Pub. 4–15–58. Filed 10–11–57.

663,705. AMYLOPAX. Victoria Laboratories Limited. SN 39,301. Pub. 4–15–58. Filed 10–21–57.

663,706. DEXTEN. Victoria Laboratories Limited. SN 39,302. Pub. 4–15–58. Filed 10–21–57.

663,707. PAREPEPTOL. Chicago Pharmacal Company. SN 39,319. Pub. 4–15–58. Filed 10–22–57.

663,708. N. K. C. American Cyanamid Company. SN 39,364. Pub. 4–15–58. Filed 10–23–57.

663,709. PARACORT. Parke, Davis & Company. SN 44,203. Pub. 4–15–58. Filed 1–17–58.

Class 19 — Vehicles

663,710. CC AND DESIGN. Cambridge Corporation. SN 14,940. Pub. 4–15–58. Filed 8–31–56.

663,711. WILLIAMS AND DESIGN. Power Brake Equipment Company. SN 27,721. Pub. 4-15-58. Filed 4-8-57.

663,712. ZIMMCO. Roger C. Zimmerman, d. b. a. Zimmco Products. SN 36,384. Pub. 4-15-58. Filed 8-27-57.

663,713. ONE MAN AND DESIGN. Ferno Manufacturing Company. SN 36,704. Pub. 4-15-58. Filed 9-5-57.

663,714. INGERSOLL KALAMAZOO B-W ETC. AND DESIGN. Borg-Warner Corporation. SN 36,772. Pub. 4-15-58. Filed 9-6-57.

663,715. BIG BOY AND DESIGN. The Dalton Foundries, Inc. SN 36,787. Pub. 4-15-58. Filed 9-6-57.

Class 21 — Electrical Apparatus, Machines, and Supplies

663,716. SCHLATTER AND DESIGN. H. A. Schlatter A. G. SN 17,967. Pub. 4-15-58. Filed 10-22-56.

663,717. MAGNETOOL. Multifinish Manufacturing Company. SN 18,861. Pub. 4-15-58. Filed 11-6-56.

663,718. SOUND IN THE ROUND. Concertapes, Inc. SN 24,240. Pub. 4-15-58. Filed 2-12-57.

663,719. ZIP FLASHER. Clyde H. Clement, to Animated Lighting Company. SN 24,404. Pub. 4-15-58. Filed 2-15-57.

663,720. GELOSO AND DESIGN. Geloso S. p. A. SN 25,294. Pub. 4-15-58. Filed 2-26-57.

663,721. "EDU-KIT." Progressive "Edu-Kits" Inc. SN 26,385. Pub. 4-15-58. Filed 3-18-57.

663,722. SUPERGRIP. The Fibre-Metal Products Company. SN 26,694. Pub. 4-15-58. Filed 3-22-57.

663,723. HEATRON. Heatron, Incorporated. SN 26,940. Pub. 4-15-58. Filed 3-26-57.

663,724. CAVALIER. The Wakefield Company. SN 26,993. Pub. 4-15-58. Filed 3-26-57.

663,725. FILTRON. The Filtron Company, Inc. SN 27,427. Pub. 4-15-58. Filed 4-3-57.

663,726. DEARBORN. Benjamin S. Naven, d. b. a. Dearborn Electronic Laboratories. SN 27,935. Pub. 4-15-58. Filed 4-11-57.

663,727. MONODE. Monode, Inc. SN 29,379. Pub. 4-15-58. Filed 5-3-57.

663,728. GALVAKOTE. Clayton Mark & Company. SN 30,736. Pub. 4-15-58. Filed 5-27-57.

663,729. STEPPAK. David Bogen Co., Inc. SN 30,746. Pub. 4-15-58. Filed 5-27-57.

663,730. VERSA-DUTY. Revi-Duty Electric Company. SN 31,010. Pub. 4-15-58. Filed 5-29-57.

663,731. CONTROL MASTER. National Presto Industries, Inc. SN 33,090. Pub. 4-15-58. Filed 7-2-57.

663,732. THE BONNET BOX. Guild Radio and Television Company. SN 33,241. Pub. 4-15-58. Filed 7-5-57.

663,733. HOMELITE. Textron Inc. SN 34,474. Pub. 4-15-58. Filed 7-26-57.

663,734. LANCO LOZENGE. Arthur S. La Pine & Company, d. b. a. La Pine. SN 34,543. Pub. 4-15-58. Filed 7-29-57.

663,735. WEST-ING-ARC. Westinghouse Electric Corporation. SN 36,032. Pub. 4-15-58. Filed 8-22-57.

663,736. MOTOR-MIKE. Electro-Capacitors Company. SN 36,066. Pub. 4-15-58. Filed 8-23-57.

663,737. BISHOP MORE THAN A CENTURY ETC. AND DESIGN. Bishop Manufacturing Corporation. SN 36,153. Pub. 4-15-58. Filed 8-26-57.

663,738. SOUND FLO. The Astatic Corporation. SN 36,271. Pub. 4-15-58. Filed 8-27-57.

663,739. R. G. D. Radio Gramophone Development Company Limited. SN 36,622. Pub. 4-15-58. Filed 9-3-57.

663,740. EZOMATIC. Northern Engineering Works. SN 36,671. Pub. 4-15-58. Filed 9-4-57.

663,741. C-L-X. Simplex Wire & Cable Company. SN 36,812. Pub. 4-15-58. Filed 9-6-57.

663,742. FILTER QUEEN AND DESIGN. Health-Mor, Inc. SN 37,011. Pub. 4-15-58. Filed 9-11-57.

Class 22 — Games, Toys, and Sporting Goods

663,743. MOHAWK. Mohawk Sporting Equipment Co. (firm), to Mohawk Sporting Equipment Co. (Ohio corporation). SN 34,365. Pub. 4-1-58. Filed 7-25-57.

663,744. KRAZY MINNOW. Robert F. Austin, d. b. a. Austin Engineering Company. SN 34,903. Pub. 4-15-58. Filed 8-5-57.

663,745. MERCURY WORM. K-L Sporting Goods Company. SN 35,097. Pub. 4-15-58. Filed 8-7-57.

663,746. PFLUEGER "88." The Enterprise Manufacturing Company. SN 35,761. Pub. 4-15-58. Filed 8-19-57.

663,747. LITTLE MISS MARY-ANNE. Duchess Doll Corporation. SN 36,864. Pub. 4-15-58. Filed 9-9-57.

663,748. SKORT. Boreva Sportswear Company. SN 37,131. Pub. 4-15-58. Filed 9-13-57.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

663,749. SAFETY. M. E. Cunningham Company. SN 11,126. Pub. 4-15-58. Filed 6-11-56.

663,750. MICHIGAN HI THERM AND DESIGN. Detroit Aluminum & Brass Corporation. SN 12,601. Pub. 4-15-58. Filed 7-23-56.

663,751. FLOW TRACK. The Rapids-Standard Company, Inc. SN 25,890. Pub. 4-15-58. Filed 4-22-57.

663,752. WEB-O-PRINT. Weber Addressing Machine Co., Inc. SN 26,217. Pub. 4-15-58. Filed 3-14-57.

663,753. SMOOTHIE. Paramount Service, d. b. a. Smooth-Tone Muffler Co. SN 27,548. Pub. 4-15-58. Filed 4-5-57.

663,754. CINCINNATI. The Cincinnati Shaper Company. SN 29,701. Pub. 4-15-58. Filed 5-9-57.

663,755. MAGNI STAMP AND DESIGN. The Brenner Sign and Stamp Service. SN 29,784. Pub. 4-15-58. Filed 5-10-57.

663,756. CINCINNATI BICKFORD. Giddings & Lewis Machine Tool Company. SN 31,002. Pub. 4-15-58. Filed 5-29-57.

663,757. EMCO-UNIMAT AND DESIGN. Maier & Co. Fabrik fur Spezialmaschinen. SN 33,424. Pub. 4-15-58. Filed 7-9-57.

663,758. AMPULCO. The American Pulley Company. SN 33,860. Pub. 4-15-58. Filed 7-17-57.

663,759. DESIGN OF EAGLE AND GLOBE. J. I. Case Company. SN 35,848. Pub. 4-15-58. Filed 8-20-57.

663,760. WESCO. Frank W. Butler, d. b. a. Wesco Tool & Mfg. Co. SN 37,218. Pub. 4-15-58. Filed 9-16-57.

663,761. NARCO. Narco, Inc. SN 37,364. Pub. 4-15-58. Filed 9-17-57.

663,762. MULTIFORM. J. A. Richards Company. SN 37,449. Pub. 4-15-58. Filed 9-18-57.

663,763. GEMCO. General Mower Corporation. SN 37,570. Pub. 4-15-58. Filed 9-20-57.

663,764. MULTI LIFT. Multi-Lift Co. SN 37,586. Pub. 4-15-58. Filed 9-20-57.

663,765. ORNAMENTA. G. M. Pfaff A. G. SN 38,450. Pub. 4-15-58. Filed 10-7-57.

663,766. SNO-WHIZZER AND DESIGN. Jerrold B. Meyer, d. b. a. Clayton Industrial Products Co. SN 39,978. Pub. 4-15-58. Filed 11-1-57.

663,767. NEWMATIC. Westinghouse Air Brake Company. SN 41,204. Pub. 4-15-58. Filed 11-22-57.

663,768. CASE-O-MATIC DRIVE. J. I. Case Company. SN 41,235. Pub. 4-15-58. Filed 11-25-57.

663,769. ONE HAND AND DESIGN. George A. Leonard, d. b. a. Hacksaw Pruning Blade Co. SN 41,555. Pub. 4-22-58. Filed 11-29-57.

663,770. DUCLONE. The Ducon Company, Inc. SN 41,444. Pub. 4-15-58. Filed 11-27-57.

663,771. FORD. Ford Motor Company. SN 41,632. Pub. 4-15-58. Filed 12-2-57.

Class 26—Measuring and Scientific Appliances

663,772. TRIO AND DESIGN. Trio Laboratories, Inc. SN 14,478. Pub. 5–21–57. Filed 8–23–56.

663,773. NICCA. Nikka Kamera Kabushiki Kaisha, d. b. a. Nicca Camera Co. Ltd. SN 23,167. Pub. 12–17–57. Filed 1–24–57.

663,774. SWELLTESTER. William A. Swan, d. b. a. Swan Specialties Company. SN 29,398. Pub. 4–15–58. Filed 5–3–57.

663,775. TRANSALYZER. Kay Electric Company. SN 30,498. Pub. 4–15–58. Filed 5–22–57.

663,776. ANALYTIKIT. Fred P. Meyers, d. b. a. Analytikit Company. SN 34,972. Pub. 4–15–58. Filed 8–5–57.

663,777. ENGINSCOPE. Allen B. Du Mont Laboratories, Inc. SN 35,037. Pub. 4–15–58. Filed 8–6–57.

663,778. ANUMBRA. Skloexport, Podnik Zahranicniho Obchodu pro Vyvoz Skla, d. b. a. Glassexport, Foreign Trade Corporation for the Export of Glass. SN 35,130. Pub. 4–15–58. Filed 8–7–57.

663,779. AEROCAP. General Mills, Inc. SN 35,186. Pub. 4–15–58. Filed 8–8–57.

663,780. HALOID. The Haloid Company, now by change of name Haloid Xerox Inc. SN 35,191. Pub. 4–15–58. Filed 8–8–57.

663,781. GALVATRON. Consolidated Electrodynamics Corporation. SN 35,243. Pub. 4–15–58. Filed 8–9–57.

663,782. UTILATOR. Kay Electric Company. SN 35,266. Pub. 4–15–58. Filed 8–9–57.

663,783. SELEC-TIME. King-Seeley Corporation. SN 35,268. Pub. 4–15–58. Filed 8–9–57.

663,784. RENIL. Martin Berliner, d. b. a. Renil Co. SN 35,318. Pub. 4–15–58. Filed 8–12–57.

663,785. LEONARD. Leonard Valve Company. SN 35,363. Pub. 4–15–58. Filed 8–12–57.

663,786. SPHERCON. The Plastic Contact Lens Company. SN 35,386. Pub. 4–15–58. Filed 8–12–57.

663,787. PROBE-MASTER. Kingston Electronic Corporation. SN 36,716. Pub. 4–15–58. Filed 9–5–57.

663,788. TOKHEIM. Tokheim Corporation. SN 37,052. Pub. 4–15–58. Filed 9–11–57.

Class 27—Horological Instruments

663,789. STOWA. Walter Storz, d. b. a. Firma Walter Storz. SN 22,479. Pub. 4–15–58. Filed 1–11–57.

Class 28—Jewelry and Precious-Metal Ware

663,790. TROUSSEAU. The International Silver Company. SN 26,175. Pub. 4–15–58. Filed 3–14–57.

Class 29—Brooms, Brushes, and Dusters

663,791. WINDMILL BRAND AND DESIGN. Ben Tunis, d. b. a. Ben Tunis Co. SN 10,201. Pub. 4–15–58. Filed 6–13–56.

663,792. SWISH-EEZ. The New York Association for the Blind, Inc. SN 27,876. Pub. 4–15–58. Filed 4–10–57.

663,793. FAMILY FAIR. Loblaw, Inc. SN 36,601. Pub. 4–15–58. Filed 9–3–57.

663,794. "DAZZLE." Felix von Lilienfeld. SN 37,760. Pub. 4–15–58. Filed 9–24–57.

663,795. PERMA-BROOM. American-Marietta Company, O-Cedar Division. SN 38,415. Pub. 4–15–58. Filed 10–7–57.

663,796. SUNBEAM. Sunbeam Corporation. SN 38,647. Pub. 4–15–58. Filed 10–9–57.

663,797. YACHTSMAN AND DESIGN. The Wooster Brush Company. SN 39,434. Pub. 4–15–58. Filed 10–23–57.

Class 31—Filters and Refrigerators

663,798. AIR-O-METRIC. Sweden Freezer Manufacturing Company. SN 30,963. Pub. 10–22–57. Filed 5–28–57.

663,799. THOR. Thor Power Tool Company. SN 41,493. Pub. 4–15–58. Filed 11–27–57.

663,800. MILEAGE BOOSTER. Vic Manufacturing Co. SN 41,498. Pub. 4–15–58. Filed 11–27–57.

Class 32—Furniture and Upholstery

663,801. DUR-A-PEDIC. Duplex Products Company, Incorporated, d. b. a. The Duplex Product Company and Duplex Products Corporation. SN 666,006. Pub. 5–17–55. Filed 5–10–54.

663,802. SPYROFIL. Nachman Corporation. SN 17,565. Pub. 4–15–58. Filed 10–16–56.

663,803. DESK-ETTE. Transogram Company, Inc. SN 38,104. Pub. 4–15–58. Filed 9–30–57.

663,804. GAMESERVER. Florence K. Willett, d. b. a. Florence Louise Kay. SN 38,881. Pub. 4–15–58. Filed 10–14–57.

663,805. KOLCRAFT. Kolcraft Products, Inc. SN 39,047. Pub. 4–15–58. Filed 10–28–57.

663,806. VIBRA-REST. The Basic-Wits Furniture Industries, Incorporated. SN 40,016. Pub. 4–15–58. Filed 11–4–57.

663,807. UVT. Blocksom & Company. SN 42,198. Pub. 4–15–58. Filed 12–11–57.

663,808. TENSION EASE. The Englander Company, Inc. SN 42,276. Pub. 4–15–58. Filed 12–12–57.

663,809. SCOTSMAN. Bela B. Junkunc, d. b. a. J & J Tool and Machine Co. SN 42,588. Pub. 4–15–58. Filed 12–17–57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

663,810. KLING-FLO. Cobon Plastics Corporation. SN 15,769. Pub. 4–15–58. Filed 9–17–56.

663,811. DISCPAK. Chiksan Company. SN 36,499. Pub. 4–15–58. Filed 8–30–57.

663,812. ARMSTRONG RHINO-FLEX TIRES AND DESIGN. The Armstrong Rubber Company. SN 36,685. Pub. 4–15–58. Filed 9–5–57.

663,813. BON-SEAL. Bonewitz Chemicals, Inc. SN 36,771. Pub. 4–15–58. Filed 9–6–57.

663,814. POWER PULL. The B. F. Goodrich Company. SN 37,157. Pub. 4–15–58. Filed 9–13–57.

663,815. "NF." The Firestone Tire & Rubber Company. SN 37,250. Pub. 4–15–58. Filed 9–16–57.

663,816. VICTOCOR. Victor Manufacturing & Gasket Co. SN 37,698. Pub. 4–15–58. Filed 9–23–57.

Class 36—Musical Instruments and Supplies

663,817. ROTH. Scherl & Roth, Inc. SN 14,174. Pub. 4–15–58. Filed 8–17–56.

663,818. JOH. HEINRICH HAMMIG. J. M. Sahlein, d. b. a. J. M. Sahlein Music Company. SN 25,509. Pub. 4–15–58. Filed 3–5–57.

663,819. CONPHIL THE PHILHARMONIC CONCERT. Helmut Woblsch. SN 29,508. Pub. 4–15–58. Filed 5–6–57.

663,820. CARILLON AMERICANA. Schulmerich Carillons, Inc. SN 32,018. Pub. 4–15–58. Filed 6–14–57.

Class 37—Paper and Stationery

663,821. ONE-WRITE SYSTEM. The National Church Supply Company, Inc. SN 22,828. Pub. 4–15–58. Filed 1–16–57.

Class 38—Prints and Publications

663,822. MAP CORPORATION OF AMERICA AND DESIGN. Map Corporation of America. SN 10,894. Pub. 4–15–58. Filed 6–25–56.

663,823. PHILADELPHIA STORY. S D K Publications, Inc. SN 27,238. Pub. 10–1–57. Filed 3–29–57.

663,824. THE CHAMPION EXPANDING ENCYCLOPEDIA OF MORTUARY PRACTICE. The Champion Company. SN 27,846. Pub. 4–15–58. Filed 4–10–57.

663,825. PROF ZIP. Leonard W. Lagmay. SN 29,852. Pub. 4–15–58. Filed 5–9–57.

663,826. QUILLO. Quillo Art Company. SN 31,893. Pub. 4–15–58. Filed 6–13–57.

663,827. FUTURES MARKET SERVICE. Commodity Research Bureau, Inc. SN 32,739. Pub. 4–15–58. Filed 6–27–57.

663,828. THE AMERICAN MAINTAINER. American Building Maintenance Co. of California. SN 33,669. Pub. 4–15–58. Filed 7–15–57.

663,829. THE INVESTOR'S FORUM. General Features Corporation. SN 35,094. Pub. 4–15–58. Filed 8–7–57.

663,830. A GRIFFIN ORIGINAL AND DESIGN. Wetmore and Bugden, Inc. SN 35,714. Pub. 4–15–58. Filed 8–16–57.

663,831. AVAGRAM. Walter V. Clarke, d. b. a. Walter V. Clarke Associates, Inc. SN 35,850. Pub. 4–15–58. Filed 8–20–57.

663,832. YOUR TEETH. General Features Corporation. SN 35,992. Pub. 4–15–58. Filed 8–22–57.

663,833. THE BETTER WAY. The Hearst Corporation. SN 35,996. Pub. 4–15–58. Filed 8–22–57.

663,834. KO-KO THE KLOWN AND DESIGN. Max Fleischer. SN 36,071. Pub. 4–15–58. Filed 8–23–57.

663,835. COLORATOR. Mauts Paint & Varnish Company. SN 38,368. Pub. 4–15–58. Filed 10–4–57.

663,836. FUNSPOT. The Billboard Publishing Company. SN 38,587. Pub. 4–15–58. Filed 10–9–57.

663,837. THE CRITIC. The Thomas More Association. SN 38,719. Pub. 4–15–58. Filed 10–10–57.

Class 39—Clothing

663,838. D'AQUA. J. Schoeneman, Inc., now by change of name Slade Inc., to J. Schoeneman, Incorporated. SN 647,881. Pub. 2–22–55. Filed 5–28–53.

663,839. LEATHER VOGUE ORIGINALS AND DESIGN. Popular Manufacturing Co., Inc. SN 14,408. Pub. 4–15–58. Filed 8–22–56.

663,840. TWINSURANCE. Adams-Millis Corporation. SN 25,667. Pub. 4–15–58. Filed 3–7–57.

663,841. BEAUTY FASHION. Adams-Millis Corporation. SN 25,668. Pub. 4–15–58. Filed 3–7–57.

663,842. SLIMTEX. Ward Green Company. SN 26,659. Pub. 4–15–58. Filed 3–21–57.

663,843. CLAYMORE. Claymore, Incorporated. SN 27,418. Pub. 4–15–58. Filed 4–3–57.

663,844. KEELS. Sapphire Corporation. SN 27,740. Pub. 4–15–58. Filed 4–8–57.

663,845. BABY KITTENS AND DESIGN. K–P Shoe Co., to Ben Palmer. SN 28,602. Pub. 4–15–58. Filed 4–22–57.

663,846. HOWLAND. United States Rubber Company. SN 30,207. Pub. 4–15–58. Filed 5–16–57.

663,847. CORVETTI'S. Gallenkamp Stores Co. SN 32,593. Pub. 4–15–58. Filed 6–25–57.

663,848. SKYMASTER. International Shoe Company. SN 33,244. Pub. 4–15–58. Filed 7–5–57.

663,849. HUSH PUPPIES. Wolverine Shoe and Tanning Corporation. SN 34,197. Pub. 4–15–58. Filed 7–22–57.

663,850. AMERICAN WARMER. B. W. Harris Manufacturing Co. SN 34,945. Pub. 4–15–58. Filed 8–5–57.

663,851. TOM-BIG-BEE AND DESIGN. Reed Brothers, Inc. SN 36,304. Pub. 4–15–58. Filed 8–28–57.

663,852. TOM BIG BEE AND DESIGN. Reed Brothers, Inc. SN 36,305. Pub. 4–15–58. Filed 8–28–57.

663,853. PRIDE OF THE BLOSSOM AND DESIGN. Dodge Textile Company, Inc. SN 44,792. Pub. 4–15–58. Filed 1–16–58.

Class 40—Fancy Goods, Furnishings, and Notions

663,854. BEAUTIPEARL. B. Blumenthal & Co., Inc. SN 32,050. Pub. 4–15–58. Filed 6–17–57.

663,855. KLIPPIES. The Kaynar Company. SN 36,455. Pub. 4–15–58. Filed 8–29–57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

663,856. PAMPOO 8000. New England Textile Co., Inc. SN 23,999. Pub. 4–15–58. Filed 2–7–57.

663,857. CANVASBACK. Wm. E. Hooper & Sons Co. SN 25,255. Pub. 4–15–58. Filed 2–28–57.

663,858. LUNAIRE. Kendall, Inc. SN 26,629. Pub. 4–15–58. Filed 3–21–57.

663,859. "GLAZETTE AGP." Armar Manufacturing Co., Inc. SN 28,988. Pub. 4–15–58. Filed 4–29–57.

663,860. HEADSAIL. J. W. Valentine Co., Inc. SN 31,288. Pub. 4–15–58. Filed 6–3–57.

663,861. MAINSAIL. J. W. Valentine Co., Inc. SN 31,289. Pub. 4–15–58. Filed 6–3–57.

Class 44—Dental, Medical, and Surgical Appliances

663,862. DENTASEAT. Ritter Company, Inc. SN 18,192. Pub. 4–15–58. Filed 10–25–56.

663,863. VISO. Sanborn Company. SN 20,857. Pub. 4–15–58. Filed 12–11–56.

663,864. M AND DESIGN. Blue M Electric Company. SN 24,748. Pub. 4–15–58. Filed 2–20–57.

663,865. DESIGN OF MAN'S HEAD. Hans Schwarzkopf. SN 25,361. Pub. 4–15–58. Filed 3–1–57.

663,866. O–R PRODUCTS COMPANY ETC. AND DESIGN. Russell W. Price, d. b. a. O–R Products Company. SN 25,664. Pub. 4–15–58. Filed 3–7–57.

663,867. DIGITATOR. Blake Industries, Inc. SN 26,057. Pub. 4–15–58. Filed 3–13–57.

663,868. Q–D–A. Cramer Chemical Co. SN 26,575. Pub. 4–15–58. Filed 4–22–57.

663,869. BEN VENUE. Ben Venue Laboratories, Inc. SN 32,641. Pub. 4–15–58. Filed 6–25–57.

663,870. BOL D'AIR JACQUIER. Societe d'Exploitation des Brevets Jacquier. SN 34,470. Pub. 4-15-58. Filed 7-26-57.

663,871. COTTON BLOSSOMS Q. Q-Tips, Inc. SN 36,923. Pub. 4-15-58. Filed 9-9-57.

Class 45—Soft Drinks and Carbonated Waters

663,872. BURGER CHEF. Burger Chef Systems, Inc. SN 38,258. Pub. 4-15-58. Filed 10-3-57.

Class 46—Foods and Ingredients of Foods

663,873. ROGERS BITS O' HONEY. Rogers Canning Company. SN 663,516. Pub. 10-25-55. Filed 3-29-54.

663,874. STORCK. August Storck G. m. b. H. SN 696,191. Pub. 4-15-58. Filed 10-10-55.

663,875. TRE RIPE. Filice & Perrelli Canning Company, Inc. SN 4,315. Pub. 4-15-58. Filed 3-12-56.

663,876. LONG JOHN AND DESIGN. Milko Cone & Baking Co., Inc., now by change of name to Milko Products, Inc. SN 11,866. Pub. 4-15-58. Filed 7-10-56.

663,877. DELWHIP. Delsey Products. SN 17,711. Pub. 4-15-58. Filed 10-18-56.

663,878. E-Z FLO. Anderson, Clayton & Co. SN 18,396. Pub. 4-15-58. Filed 10-30-56.

663,879. ARPEAKO ETC. AND DESIGN. Tobin Packing Co., Inc. SN 20,867. Pub. 4-15-58. Filed 12-11-56.

663,880. SHURFRESH. Central Retailer-Owned Grocers, Inc. SN 22,792. Pub. 4-15-58. Filed 1-18-57.

663,881. MATKI. Scottville Cheese, Inc. SN 26,878. Pub. 4-15-58. Filed 3-25-57.

663,882. SMOKE HOUSE AND DESIGN. M. H. Greenebaum, Inc. SN 26,938. Pub. 4-15-58. Filed 3-26-57.

663,883. "SO-LITE" ETC. AND DESIGN. The Neligh Mills. SN 28,538. Pub. 4-15-58. Filed 4-19-57.

663,884. SOUTHERN BELLE. J. H. Filbert, Inc. SN 29,349. Pub. 4-15-58. Filed 5-3-57.

663,885. ROMAINE. Chalet Suzanne Foods, Inc. SN 31,820. Pub. 4-15-58. Filed 6-12-57.

663,886. TRIPLE-H. Hercules Powder Company. SN 32,315. Pub. 4-15-58. Filed 6-20-57.

663,887. CAROL-SUE. Flotill Products, Incorporated. SN 32 942. Pub. 4-15-58. Filed 7-1-57.

663,888. BANQUET McCORMICK AND DESIGN. McCormick & Company, Incorporated. SN 33,088. Pub. 4-15-58. Filed 7-2-57.

663,889. AKTIVAR. Wilber J. Allingham, d. b. a. W. J. Allingham Products Co. SN 34,109. Pub. 4-15-58. Filed 7-22-57.

663,890. ROLAIT. Ross & Rowe, Inc. SN 34,258. Pub. 4-15-58. Filed 7-23-57.

663,891. DARICAL. Milk Minerals Co., Inc. SN 34,719. Pub. 4-15-58. Filed 7-31-57.

663,892. HONEY BOY. Benjamin Harrison Hughes, d. b. a. Ben Hughes & Son. SN 36,714. Pub. 4-15-58. Filed 9-5-57.

663,893. FORT SUTTER. United Grocers, Ltd. SN 36,938. Pub. 4-15-58. Filed 9-9-57.

663 894. FORT SUTTER AND DESIGN. United Grocers, Ltd. SN 36,939. Pub. 4-15-58. Filed 9-9-57.

663,895. BONNIE HUBBARD'S. United Grocers, Ltd. SN 36,940. Pub. 4-15-58. Filed 9-9-57.

663,896. BONNIE HUBBARD'S AND DESIGN. United Grocers, Ltd. SN 36,941. Pub. 4-15-58. Filed 9-9-57.

663,897. DEE-S. Hercules Powder Company. SN 37,164. Pub. 4-15-58. Filed 9-13-57.

663,898. MAMMY'S BEST. Southern Poultry Company, Inc. SN 38,094. Pub. 4-15-58. Filed 9-30-57.

663,899. FRIENDSHIP IN A CUP. Standard Brands Incorporated. SN 38,170. Pub. 4-15-58. Filed 10-1-57.

663,900. SATIN. Standard Brands Incorporated. SN 38,173. Pub. 4-15-58. Filed 10-1-57.

663,901. STANBI. Standard Brands Incorporated. SN 38,716. Pub. 4-15-58. Filed 10-10-57.

663,902. CHEE-WEEE. Elmer Candy Co., Inc. SN 38,741. Pub. 4-15-58. Filed 10-11-57.

663,903. SIZL-SPRAY. Heublein, Inc. SN 38,993. Pub. 4-15-58. Filed 10-16-57.

663,904. HANDI-SNAK AND DESIGN. Peter Florsheim, d. b. a. Florsheim Farms. SN 39,213. Pub. 4-15-58. Filed 10-21-57.

663,905 BESTDUG. James Greve, d. b. a. Greve Farms. SN 39,224. Pub. 4-15-58. Filed 10-21-57

663,906. TENDA-BAKE. Malden Flour Mills, Inc. SN 39,477. Pub. 4-15-58. Filed 10-24-57.

Class 47—Wines

663,907. ARDO. Priv. Fabbrica Maraschino "Excelsior" Girolamo Luxardo S. p. A. SN 16,627. Pub. 4-15-58. Filed 9-25-56.

663,908. PINK MIST. United Vintners, Inc., d. b. a. Petri Wineries. SN 35,305. Pub. 4-15-58. Filed 8-9-57.

Class 49—Distilled Alcoholic Liquors

663,909. RON CAPITANO. Sovereign Importers, Ltd. SN 13,486. Pub. 4-15-58. Filed 8-6-56.

663,910. KAMMER. Kammer-Kirsch, A. G. for Edelbrandtweine. SN 33,624. Pub. 4-15-58. Filed 7-12-57.

663,911. TUDOR CASTLE. Jules Ortelg, Ltd. SN 36,311. Pub. 4-15-58. Filed 8-27-57.

Class 50—Merchandise Not Otherwise Classified

663,912. SEE-MOR-PAK. The C-Mor Company. SN 2,503. Pub. 4-15-58. Filed 2-13-56.

663,913. K-LAN. The Landers Corporation. SN 26,558. Pub. 4-15-58. Filed 3-20-57.

663,914. FAC. Mark Sylwan Aktiebolag. SN 26,983. Pub. 4-15-58. Filed 3-26-57.

663,915. SHOR KWIK. United States Rubber Company. SN 28 981. Pub. 4-15-58. Filed 4-26-57.

Class 51—Cosmetics and Toilet Preparations

663,916. STUDIO GIRL. Virginia K. Taylor. SN 14,295. Pub. 3-4-58. Filed 8-20-56.

663,917. JEWELBASE. Juliette Margien Inc. (California corporation), now by change of name to Juliette Margien, Inc. (Delaware corporation). SN 20,763. Pub. 4-15-58. Filed 12-10-56.

663,918. PLACENTUBEX. Mers & Co. SN 32,106. Pub. 4-15-58. Filed 6-17-57.

663,919. CHAPADIEU. Heyward O. Shackelford, d. b. a. Merrie Hoge Co. SN 34,465. Pub. 4-15-58. Filed 7-26-57.

663,920. LIQUIDENT. Colgate-Palmolive Company. SN 35,854. Pub. 4-15-58. Filed 8-20-57.

663,921. NU-GLOSS. The Realistic Company. SN 37,662. Pub. 4-15-58. Filed 9-23-57.

663,922. WAVE MAGIC. Helene Curtis Industries, Inc. SN 37,945. Pub. 4-15-58. Filed 9-27-57.

663,923. DE-PIL. Park & Tilford. SN 38,081. Pub. 4-15-58. Filed 9-30-57.

663,924. LANOLITE. Revlon, Inc. SN 38,221. Pub. 4-15-58. Filed 10-2-57.

Class 52—Detergents and Soaps

663,925. IN. Tom Daly Electric Inc. SN 31,640. Pub. 4-15-58. Filed 6-10-57.

663,926. S AND DESIGN. Safeway Stores, Incorporated. SN 33,284. Pub. 4-15-58. Filed 7-5-57.

663,927. ONYX. Onyx Oil & Chemical Company. SN 35,611. Pub. 4-15-58. Filed 8-9-57.

663,928. REVOPON. Verona Chemical Company. SN 36,637. Pub. 4-15-58. Filed 9-3-57.

Service Marks

Class 103—Construction and Repair

663,929. MARTIN ETC. AND DESIGN. J. Walter Martin, d. b. a. Martin Tire & Supply Company. SN 16,963. Pub. 4-15-58. Filed 10-4-56.

663,930. H. Hamilton Watch Company. SN 28,516. Pub. 4-8-58. Filed 4-19-57.

Class 105—Transportation and Storage

663,931. EXECUTIVE. Executive Car Leasing Company. SN 13,746. Pub. 4-15-58. Filed 9-10-56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

663,932. Aluminum Marine Hardware Co. Inc., Auburn, N. Y. SN 30,625. Filed P. R. 5-24-57. Am. S. R. 4-22-58.



For Marine Hardware Including Cleats, Chocks, Transom Plates, Step Plates, Lifting Handles, Rope Clamps, Rope Guides, Bow Lights, Flag Pole Sockets, Windshield Brackets, Bow Eyes, Boat Cover Sockets, Oarlocks, Cabin Light Fixtures, Fender Hooks, Tow Hooks, Fender Hooks and Mirrors.
First use Dec. 2, 1956.

Class 16—Protective and Decorative Coatings

663,933. Jerome A. Taudte Company, Incorporated, Miami, Fla. SN 30,857. Filed P. R. 5-27-57. Am. S. R. 3-20-58.

Vinyl Cote

For Paint.
First use Oct. 10, 1955.

Class 22—Games, Toys, and Sporting Goods

663,934. Beehler Arts Ltd., New York, N. Y. SN 32,166. Filed P. R. 6-18-57. Am. S. R. 5-5-58.

HI-HEEL 'TEEN

For Dolls.
First use March 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

663,935. Delaware Tool Steel Corporation, Wilmington, Del. SN 17,791. Filed P. R. 10-19-56. Am. S. R. 5-2-57.

DELAWARE PIPEDRIVR

For Pipe Driving Tools.
First use Jan. 1, 1956.

Class 39—Clothing

663,936. Samuel Lewis, New York, N. Y. SN 33,258. Filed P. R. 7-5-57. Am. S. R. 5-8-58.

AD-HITE HATS

The word "Hats" is disclaimed apart from the mark as shown.
For Ladies' Hats.
First use Apr. 3, 1957.

Class 46—Foods and Ingredients of Foods

663,937. Williamson Candy Company, Chicago, Ill. SN 693,893. Filed P. R. 8-29-55. Am. S. R. 3-11-58.

PUBLIC ENERGY NUMBER ONE

For Candy.
First use Nov. 1, 1945.

663,938. Eugene M. Gambrell, d. b. a. Florida Products Company, Tampa, Fla. SN 26,547. Filed P. R. 3-20-57. Am. S. R. 10-7-57.

FLORIDA RED RIPE

For Canned Tomatoes.
First use Nov. 17, 1955.

663,939. Tavener Rutledge Limited, Liverpool, England. SN 40,157. Filed P. R. 11-5-57. Am. S. R. 4-30-58.



For Fruit Flavored Drops.
First use Apr. 29, 1953; in commerce 1953.

TRADEMARK REGISTRATIONS RENEWED

120,618. NCC AND DESIGN. Cl. 39. 2-19-18.
121,183. INTERNATIONAL ASSOCIATION HEAT AND FROST INSULATORS AND ASBESTOS WORKERS AND DESIGN. Cl. 38. 4-16-18.
121,208. BAR AND DESIGN. Cl. 46. 4-16-18.
121,924. DA-COTE. Cl. 16. 6-11-18.
122,336. OWL AND DESIGN. Cl. 37. 7-23-18.
122,345. DIXIE CRYSTALS AND DESIGN. Cl. 46. 7-23-18.
122 816. PINE TREE. Cl. 23. 9-17-18.
353,981. WHEYTONE. Cl. 46. 1-25-38.
355,061. PALM TREE ETC. AND DESIGN. Cl. 46. 3-8-38.
355,214. NORTH-TEX. Cl. 39. 3-8-38.
355,566. JANE ADDAMS. Cl. 46. 3-22-38.
355,644. GOTHIC. Cl. 28. 3-22-38.
356,094. MACY'S. Cl. 21. 4-12-38.
356,259. NON-WRINKOOL. Cl. 39. 4-19-38.
356,482. GALACCO. Cl. 7. 4-26-38.
356,578. ROBINSON AND DESIGN. Cl. 37. 5-3-38.
356,682. SALMON SNACKS. Cl. 46. 5-10-38.
356,925. SHIPMATE. Cl. 19. 5-17-38.
357,065. TRIANGLE AND DESIGN. Cl. 34. 5-24-38.
357,177. DUROFACE AND DESIGN. Cl. 39. 5-24-38.
357,416. "RURALDUCTOR." Cl. 21. 6-7-38.
357,514. SPORT WALKS. Cl. 39. 6-7-38.
357,929. KRESTOMALTA. Cl. 46. 6-21-38.
357,939. KAUSTINE. Cl. 34. 6-21-38.
358,056. PETREX. Cl. 6. 6-28-38.
358,106. KAM. Cl. 18. 6-28-38.
358,237. DIANA. Cl. 46. 7-5-38.
358,438. PEE GEE. Cl. 42. 7-12-38.
358,535. STATE SEAL. Cl. 46. 7-19-38.
358,790. KLIXON. Cl. 40. 7-26-38.
358,829. SEALEDGE. Cl. 40. 7-26-38.
358,896. REPRESENTATION OF MALE FIGURE. Cl. 39. 7-26-38.
358,951. ACR. Cl. 21. 7-26-38.
358,952. ANW. Cl. 21. 7-26-38.
358,953. AHR. Cl. 21. 7-26-38.
358,954. AMR. Cl. 21. 7-26-38.
358,961. CHIROSINE. Cl. 44. 7-26-38.
358,967. RESTMORE. Cl. 32. 7-26-38.
359,283. ZERONE. Cl. 6. 8-9-38.
359,864. DIXATONE. Cl. 51. 8-30-38.
360,021. TIME AWARD. Cl. 27. 9-6-38.
360,022. PARIS AND DESIGN. Cl. 39. 9-6-38.
360,282. A MASTER MARK SIGNED PIECE AND DESIGN. Cl. 32. 9-13-38.
360,283. BEAVER BROOK CHAIRS ETC. AND DESIGN. Cl. 32. 9-13-38.
360,342. SEPARETTES. Cl. 39. 9-13-38.
360,359. CENTEN. Cl. 46. 9-13-38.
360,619. HEMOCHROMIN. Cl. 18. 9-20-38.
360,672. LEDLOY. Cl. 14. 9-20-38.
360,824. E-Z WIPE AND CIRCLE DESIGN. Cl. 16. 9-27-38.
360,871. KING RICHARD. Cl. 28. 9-27-38.
360,872. LADY DIANA. Cl. 28. 9-27-38.
360,941. MARK OF TESTED QUALITY AND DESIGN. Cl. 46. 10-4-38.
361,078. ANDY BOY. Cl. 46. 10-4-38.
361,193. CHIRODRILL. Cl. 44. 10-11-38.
361,253. BOXLAV. Cl. 39. 10-11-38.

TRADEMARK REGISTRATIONS CANCELED

Section 8

235,852. GONDOLIER. Cl. 46. 11-29-27.
444,475. BREVWELT. Cl. 39. 4-24-51.
553,710. DAN-DEE. Cl. 4. 1-22-52.

The following registrations issued May 13, 1958

558,586. D AND DESIGN. Cl. 23.
558,591. SILVER BEAUTY. Cl. 46.
558,593. CLOCK CHECK AND DESIGN. Cl. 37.
558,602. DRAMATIZED. Cl. 37.
558,604. A SPLIT OF PIEL'S BEER AND DESIGN. Cl. 48.
558,606. KOOLEEZ. Cl. 51.
558,611. KINA ROK ROUGE AND DESIGN. Cl. 47.
558,614. T-O. Cl. 45.
558,620. PURE WITHIN DESIGN. Cl. 32.
558,621. SURCON. Cl. 13.
558,624. KNOT-NOTCH. Cl. 39.
558,633. AMBASSADOR FILMS AND DESIGN. Cl. 26.
558,635. COLONIAL WITHIN DESIGN. Cl. 4.
558,636. MUDCO AND DESIGN. Cl. 13.
558,642. PEEK IN AND DESIGN. Cl. 3.
558,645. LITTLE PRINCESS BEAUTY PARLOR. Cl. 22.
558,647. ROMAIR SYSTEM AND DESIGN. Cl. 34.
558,649. CAL-O-DATE. Cl. 27.
558,655. ALVAPEX. Cl. 27.
558,658. FASTENOL. Cl. 51.
558,659. BLUE LINE. Cl. 29.
558,663. PROFILE INITIAL. Cl. 39.
558,665. FLEXOMATIC. Cl. 32.
558,666. PONY BILL. Cl. 22.
558,670. AUTO-CALKER. Cl. 23.
558,671. LEMON HART RUM AND DESIGN. Cl. 49.
558,681. THERMOGENE AND DESIGN. Cl. 18.
558,682. HYGEX. Cl. 29.
558,685. USEDIT. Cl. 22.
558,688. LAUNDER-EASE. Cl. 52.
558,690. MULTI-MIT. Cl. 29.
558,691. GAMECOCK. Cl. 48.
558,692. GAMECOCK AND DESIGN. Cl. 48.
558,694. BOWL-A-MATIC. Cl. 22.
558,699. KENBRO. Cl. 22.
558,701. CULTISPRAY. Cl. 23.
558,711. NYSKIN. Cl. 18.
558,715. Q-MARK. Cl. 37.
558,718. STERI. FARM. Cl. 6.
558,722. LITE-WEIGHT TELESEAT. Cl. 32.
558,725. BULU AND DESIGN. Cl. 23.
558,726. ISCO. Cl. 6.
558,727. ISCO AND DESIGN. Cl. 6.
558,734. IRMA HARDING. Cl. 37.
558,735. HEATH. Cl. 45.
558,739. TRI-MATIC. Cl. 12.
558,747. STOLIT. Cl. 12.
558,750. VAL-HUE. Cl. 32.
558,754. DUTCH BRAND AND DESIGN. Cl. 6.
558,757. JIM HAYWOOD. Cl. 22.
558,758. WINDOW CHARM. Cl. 32.

558,760. EARLY FROST. Cl. 6.
558,765. F B AND REPRESENTATION OF NEEDLE. Cl. 23
558,766. ZYMOTERIC. Cl. 18.
558,767. SNUG FOAM PILLOW. Cl. 32.
558,773. LAMI-MATED. Cl. 22.
558,777. T. M. DESIGN. Cl. 22.
558 778. TAM-AQUA AND DESIGN. Cl. 39.
558,780. VOLA. Cl. 51.
558,781. T-V-CHAMPIONS. Cl. 22.
558,786. DUOTTE. Cl. 42.
558,793. ENCORE. Cl. 42.
558,796. WHIRLERS AND DESIGN. Cl. 39.
558,797. HYDRO-MAGIC AND DESIGN. Cl. 34.
558,805. CUSTOMATED. Cl. 8.
558,823. DIBESTIL. Cl. 18.
558,824. WISK. Cl. 39.
558,827. MARAZUL. Cl. 46.
558 829. FARMER GRAY AND PICTURE. Cl. 26.
558,830. MINI-FRAME. Cl. 32.
558,836. DECOR-AIDER. Cl. 28.
558,837. ALISAN. Cl. 39.
558,838. TALISMAN. Cl. 37.
558,840. FLY 'N' SAUCER. Cl. 8.
558,841. ARTUME AND DESIGN. Cl. 18.
558,845. STRATEGIC CONTROL. Cl. 39.
558,846. PEMAR HANDMADES AND DESIGN. Cl. 39.
558,850. LAWR-RAE. Cl. 39.
558,852. PLYTONE. Cl. 37.
558,853. STRING SYMPHONY AND DESIGN. Cl. 32.
558,855. CONESTOGA. Cl. 20.
558,857. TRIANGLE AND CIRCLE DESIGN. Cl. 34.
558,858. ZEST. Cl. 39.
558 860. STONELAIN. Cl. 8.
558,861. STONELAIN AND DESIGN. Cl. 8.
558,863. RING-A-ROUND. Cl. 39.
558 865. B M P AND ENTIRE SEAL. Cl. 6.
558,868. SUNSTRIPE. Cl. 26.
558,874. THE FIRESIDE BOOK CLUB. Cl. 101.
558,875. MODEL INDUSTRY ASSOCIATION ETC. AND DESIGN. Cl. 101.
558,883. ANTHRACITE INSTITUTE ETC. AND DESIGN. Cl. 34.
558,888. GOLD-N-TOASTED AND DESIGN. Cl. 45.
558,890. DOGGIE WASH. Cl. 62.
558 891. FERRY'S ETC. AND DESIGN. Cl. 1.
558,892. MENTE SEAL PAK AND REPRESENTATION OF A SEAL. Cl. 2.
558,898. CHEK AND REPRESENTATION OF A CLUB. Cl. 6.
558,899. FONTANA. Cl. 12.
558,901. TALL FESCUE INDIANA SEEDS. Cl. 1.
558,902. KING SIZE AND DESIGN. Cl. 22.
558,904. ROCHESTER. Cl. 44.
558,906. CHRISTOPHER'S FOUNTAIN OF HEALTH DRINK AND DESIGN. Cl. 18.
558,907. VOIT. Cl. 35.
558,908. ENER-G-TABS. Cl. 18.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

121,966. GEM. Cl. 46. 6-11-18. Swift and Company, Chicago, Ill. Amended: In the certificate, line 8, heading, and in the statement, column 1, line 10, "nut-oleomargin" is deleted and *margarine* is inserted.

239,869. SILVER SEAL ETC. AND DESIGN. Cl. 46. 3-13-28. Mutual Orange Distributors. Pure Gold, Inc., Redlands, Calif. Amended: In the statement, column 2, lines 5 through 7 are deleted, and the drawing is amended to appear:



356,185. VENUSFORM ETC. AND DESIGN. Cl. 39. 4-19-38. Venus Lingerie Co., Inc., New York, N. Y. Amended: In the statement, column 1, line 15, "Reserving" through "Venusform" in line 21 are deleted, and the drawing is amended to appear:

Venusform

377,402. OLIO SASSO ETC. AND DESIGN. Cl. 6. 5-7-40. P. Sasso E Figli. Gruppo Oleario Novaro & C., Oneglia, Italy. Amended to appear:



443,829. DUMPCRETE. Cl. 23. 3-14-50. Maxon Construction Company, Inc., Dayton, Ohio. Amended: In the statement, column 1, line 13, "Ready Mixed Concrete" is deleted and *Concrete Mixed in a Central Plant* is inserted.

555,224. ROYAL-APEX. Cl. 12. 2-26-52. Royal Apex Manufacturing Corporation, Brooklyn, N. Y. Corrected: In the heading and in the statement, column 1, line 1 and signature, "Corporation" should be *Co.*

556,247. HEXCEL AND DESIGN. Cl. 12. 3-18-52. California Reinforced Plastics Company. Hexcel Products Inc., Berkeley, Calif. Amended to appear:

HEXCEL

622,959. DECA-VI-SOL. Cl. 18. 3-13-56. Mead Johnson & Company, Evansville, Ind. Amended: In the statement, column 2, line 1, "liquid" is deleted.

650,707. INNOCENTI AND DESIGN. Cl. 19. 8-20-57. Innocenti Societa Generale per L'Industria Metallurgica e Meccanica, Milan, Italy. Corrected: In column 2, line 3, "23" should be *19*.

652,535. SHURE SPLICERS. Cl. 21. 10-1-57. The Thomas & Betts Co., Elisabeth, N. J. Amended to appear:

SHURE SPLICER

657,348. JOHN DAY. Cl. 12. 1-21-58. Edward Hines Lumber Co., Chicago, Ill. Corrected: In the statement, column 2, line 4 should be canceled and *First use 1949 on millwork trim, in commerce 1949.* should be inserted.

658,617. I. C. I. Cl. 52. 2-18-58. Imperial Chemical Industries Limited, London, England. Corrected: Column 2, line 1, after "use" *and soft soap* should be inserted.

658,814. ROULETTE AND DESIGN. Cl. 38. 2-25-58. Roulette Records, Inc., New York, N. Y. Corrected: In column 2, line 4 should be deleted.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

161,425. BRIAR CLUB AND DESIGN. Cl. 39. Marcus Breier's Sons. 11-14-22. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

209,223. SUEDE-TEX. Cl. 39. Marcus Breier's Sons. 2-16-26. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

337,810. SNOW TRAIN. Cl. 39. Marcus Breier's Sons. 8-18-36. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

361,448. BANTAMAC AND DESIGN. Cl. 39. Adirondack Sportswear Inc. 10-18-38. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

395,829. BRIAR DOWN AND DESIGN. Cl. 39. Glasgo Limited, assignor to Marcus Breier's Sons. 6-16-42. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

400,630. DESIGN OF ROOSTER. Cl. 39. Marcus Breier's Sons. 3-23-43. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

407,965. UMBRELLA AND DESIGN. Cl. 39. Marcus Breier's Sons. 7-11-44. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

438,803. "IN THE BAG." Cl. 39. Marcus Breier's Sons. 5-11-48. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

443,226. NORTHERM. Cl. 39. Marcus Breier's Sons. 8-16-49. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

557,483. WEATHER-PERFECT BANTAMAC AND DESIGN. Cl. 39. Marcus Breier Sons, Inc. 4-15-52. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

562,811. BANTAMAC ETC. AND DESIGN. Cl. 39. Marcus Breier Sons, Inc. 8-12-52. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

563,146. AIR-FREE. Cl. 39. Marcus Breier Sons, Inc. 8-19-52. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

569,714. BANTAMAC BANTAMATES AND DESIGN. Cl. 39. Marcus Breier Sons, Inc. 1-27-53. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

593,315. BREN. Cl. 39. Marcus Breier Sons, Inc. 8-3-54. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

599,720. GYRON. Cl. 42. Marcus Breier Sons, Inc. 12-21-54. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

600,023. BANTAM-WEAR ETC. AND DESIGN. Cl. 39. Marcus Breier Sons, Inc. 12-28-54. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

618,690. BANTAM-BEN SPORTSWEAR AND DESIGN. Cl. 39. Marcus Breier Sons, Inc. 1-3-56. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

618,717. CLOSURE CLOTH. Cl. 42. Marcus Breier Sons, Inc. 1-3-56. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

628,302. CHANTICLEER SPORTSWEAR AND DESIGN. Cl. 39. Marcus Breier Sons, Inc. 6-5-56. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

632,340. INFRA-RED. Cl. 42. Marcus Breier Sons, Inc. 8-7-56. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

641,554. LAVA LEATHER. Cl. 1. Marcus Breier Sons, Inc. 2-12-57. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

641,804. INFRA RAY. Cl. 42. Marcus Breier Sons, Inc. 2-19-57. New Cert. Sec. 7(c), to White Stag Manufacturing Co., Portland, Oreg., 7-1-58.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 1—Raw or Partly Prepared Materials

352,616. Dec. 7, 1937. Oglesby Granite Quarriers, Elberton, Ga. Pub. by Coggins Granite and Marble Industries Inc., Elberton, Ga.

OGLESBY

For Granite—Namely, Rough and Sawed Granite, Blue Granite, Grey Granite, and Monumental Granite.

Class 2—Receptacles

444,673. Mar. 25, 1952. The Heller Company, White Plains, N. Y. Pub. by Heller Hostess Ware Inc., White Plains, N. Y.

HOSTESS

For Thermally Insulated Base Metal Ice Vaults and Buckets.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

358,373. July 12, 1938. Seattle Luggage Corporation, Seattle, Wash. Pub. by Henry L. Kotkins, Seattle, Wash.

SKYWAY

For Trunks, Dress Suitcases, Handbags, Golf Bags, Sample Cases, Portfolios, and Animal Carriers.

Class 4—Abrasives and Polishing Materials

121,588. May 14, 1918. Butcher Polish Company, Malden, Mass. Pub. by registrant.

BUTCHER'S
No. 3 Reviver.

For Finish and Polish for Floors and Other Woodwork.

121,589. May 14, 1918. Butcher Polish Company, Malden, Mass. Pub. by registrant.

BUTCHER'S
Liquid Polish.

For Finish and Polish for Floors and Other Woodwork.

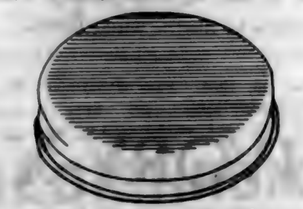
Class 6—Chemicals and Chemical Compositions

355,069. Mar. 8, 1938. Chesebrough Manufacturing Company, Consolidated, New York, N. Y. Pub. by Chesebrough-Pond's Inc., New York, N. Y.



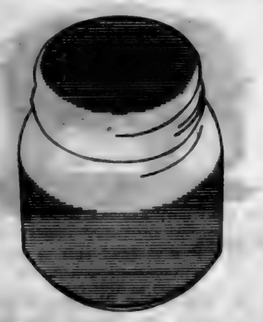
For Petroleum Jelly.

355,071. Mar. 8, 1938. Chesebrough Manufacturing Company, Consolidated, New York, N. Y. Pub. by Chesebrough-Pond's Inc., New York, N. Y.



For Petroleum Jelly and Preparation Thereof, and Pomade.

355,072. Mar. 8, 1938. Chesebrough Manufacturing Company, Consolidated, New York, N. Y. Pub. by Chesebrough-Pond's Inc., New York, N. Y.



For Petroleum Jelly.

358,124. June 28, 1938. Geigy Company, Inc., New York, N. Y. Pub. by Geigy Chemical Corporation, Ardsley, N. Y.

GRAPHITONE

For Dyestuffs, Lakes, and Chemical Products Suitable for Dyeing and Printing Purposes.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

356,213. Apr. 19, 1938. Fisher Scientific Company, Pittsburgh, Pa. Pub. by registrant.

FLEXAFRAME

For Metal Pipe and Adjustable Aluminum Alloy Pipe Clamps for Holding Two or More Pipes at Different Angles, for Constructing Frames, Stands, Racks, and the Like.

361,559. Oct. 25, 1938. The Youngstown Sheet and Tube Company, Youngstown, Ohio. Pub. by registrant.

YOLOY

For Butt-Welded Pipe, Seamless Pipe, Electrically Welded Pipe, Dipped Pipe, Well Casing, Tubing, Drill Pipe, Line Pipe, Signal Pipe, Dry Kiln Pipe, Pipe Couplings, Full Weight Conduit, Hot Dipped Galvanized [illegible]duit, Electro-Galvanized Conduit, Black Enameled Condu[illegible] Conduit Couplings and Elbows, and Made of Ferrous [illegible] Containing Nickel and Copper as the Principal Alloying Metals.

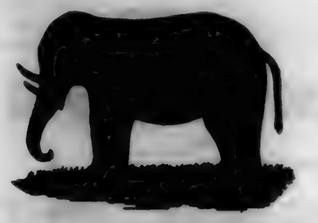
Class 14—Metals and Metal Castings and Forgings

55,096. Aug. 7, 1906. The Phosphor-Bronze Smelting Co. Limited, Philadelphia, Pa. Pub. by The Seymour Manufacturing Co., Seymour, Conn.

DELTA

For Metallic Alloys.

55,406. Aug. 14, 1906. The Phosphor-Bronze Smelting Co., Limited, Philadelphia, Pa. Pub. by The Seymour Manufacturing Co., Seymour, Conn.



For Metallic Alloys.

64,751. Aug. 20, 1907. The Phosphor-Bronze Smelting Co. Limited, Philadelphia, Pa. Pub. by The Seymour Manufacturing Co., Seymour, Conn.

ELEPHANT BRAND

For Metallic Alloys.

132,484. June 22, 1920. The Phosphor Bronze Smelting Company, Philadelphia, Pa. Pub. by The Seymour Manufacturing Co., Seymour, Conn.

DELTA

For Alloys of Copper, Tin, and Zinc and Phosphor Bronze in Ingots, Casting and Finished Forms.

132,485. June 22, 1920. The Phosphor Bronze Smelting Company, Philadelphia, Pa. Pub. by The Seymour Manufacturing Co., Seymour, Conn.

ELEPHANT BRAND

For Alloys of Copper, Tin, and Zinc and Phosphor Bronze in Ingots, Casting and Finished Forms.

133,175. July 13, 1920. The Phosphor Bronze Smelting Company, Philadelphia, Pa. Pub. by The Seymour Manufacturing Co., Seymour, Conn.



For Alloys of Copper, Tin, and Zinc and Phosphor Bronze in Ingots, Casting and Finished Forms.

361,366. Oct. 18, 1938. The Youngstown Sheet and Tube Company, Youngstown, Ohio. Pub. by registrant.

YOLOY

For Hot Rolled Sheets, Hot Rolled Annealed Sheets, Cold Rolled Sheets, Pickled Sheets, Special Finished Sheets, Porcelain Enameling Sheets, Roofing and Siding Sheets, Corrugated Sheets, Sheared Plates, Rounds, Squares, Flats, Hexagons, Angles, Channels, T's, Special Sections, Forging Bars, Ingots, Blooms, Slabs, Billets, Strip, Rods, Wire Rods, Plain Wire, Spring Wire, Welding Wire, Copper-Coated Wire, Pot Annealed Wire and S & C Rods and Wire, and Made of Ferrous Alloy Containing Nickel and Copper as the Principal Alloying Metals.

Class 15—Oils and Greases

119,882. Dec. 18, 1917. The Cudahy Refining Company, Portland, Maine, and Chicago, Ill. Pub. by Sinclair Refining Company, New York, N. Y.

EMERALD

For Lubricating Oils.

Class 18—Medicines and Pharmaceutical Preparations

355,196. Mar. 8, 1938. Parke, Davis & Company, Detroit, Mich. Pub. by registrant.

SIBLIN

For Preparation of Plantago With Vitamin B for Use in the Treatment of Constipation.

Class 19—Vehicles

358,104. June 28, 1938. United Aircraft Corporation, East Hartford, Conn. Pub. by registrant.

HYDROMATIC

For Aircraft Propellers, Parts, and Attachments Therefor.

Class 21—Electrical Apparatus, Machines, and Supplies

355,726. Mar. 29, 1938. Pass & Seymour, Inc., Syracuse, N. Y. Pub. by registrant.

BROWN-X

For Wall Plates for Electric Wiring Devices.

355,727. Mar. 29, 1938. Pass & Seymour, Inc., Syracuse, N. Y. Pub. by registrant.

CHROME-X

For Wall Plates for Electric Wiring Devices.

355,728. Mar. 29, 1938. Pass & Seymour, Inc., Syracuse, N. Y. Pub. by registrant.

IVORY-X

For Wall Plates for Electric Wiring Devices.

379,833. July 30, 1940. W. H. Phalen, Fond du Lac, Wis. Pub. by Wells Mfg. Corporation, Fond du Lac, Wis.

SUPREME STANDARDIZD PRODUCTS

For Complete Line of Ignition Service Parts—Vis., Armatures, Field-Coils, Starter and Generator Brushes, Contacts, Condensers, Distributor Caps, Starting Switches, Distributor Rotors, Stop Light Switches, Generator Cut-Outs, Distributor Breaker Points, Brush Holders, Coils, Starter Generator Distributor Bushings, and Electrical Insulating Gaskets, Distributor Connectors, Distributor Connecting Strip and Rivet Assemblies, Magnetos, Magneto Distributor Plates, Magneto Windings, Magneto Contacts, Magneto Condensers, Magneto Brush Holders, Magneto Brushes, Bearings for Magnetos, Magneto Gears, Magneto Drive Shafts, Magneto End Shafts, Magneto End Housings, Magneto Bushings, Magneto Laminations, Magneto Bearing Felts, Impulse Couplings, Electrical Automotive Horn Service Parts, Electrical Windshield Wiper Service Parts, and Automotive Lighting Equipment and Accessories.

390,200. Sept. 9, 1941. Bowers Battery Mfg. Company, Inc., Reading, Pa. Pub. by Bowers Battery and Spark Plug Co., Reading, Pa.

CERAMITE SEALED

For Spark Plugs.

Class 22—Games, Toys, and Sporting Goods

156,168. June 20, 1922. Ashaway Line & Twine Manufacturing Company, Ashaway, R. I. Pub. by registrant.

ASHAWAY

For Fishing Line.

Class 26—Measuring and Scientific Appliances

356,563. May 3, 1938. Bridgeport Thermostat Company, Inc., Bridgeport, Conn. Pub. by Robertshaw-Fulton Controls Company, Richmond, Va.

Bridgeport

For Thermostat Controls for Automobile Heaters.

414,320. June 5, 1945. Clay-Adams Company, Inc., New York, N. Y. Pub. by Clay-Adams, Inc., New York, N. Y.

MEDICHROME

For Biological Educational Projection Slides.

443,156. July 26, 1949. A. G. Optical Company, Chicago, Ill. Pub. by registrant.



For Monocular Magnifiers, Projection Lens Optics, Camera Lenses, Binocular Lenses, Telescope Optics, Condensing Lens Systems, Consisting of One Lens or a Number of Lenses, so Arranged as To Produce a Concentrated Source of Light, Sound Lens Systems, Consisting of Optical Combinations Used in Film Projection Equipment, for Reproducing Sound From Sound Film, and Microscopic Optics.

Class 32—Furniture and Upholstery

293,002. Apr. 5, 1932. R. C. Heller Co., Inc., Baltimore, Md. Pub. by registrant.

GOLD BOND

For Mattresses.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

353,394. Jan. 4, 1938. The James Walker Packing Company, Inc., New York, N. Y. Pub. by registrant.

SHALLEX

For Molded Packing With Groove and Corresponding Projection Composed of Asbestos or Cotton Duck, With a Rubber or Composition Binder, With or Without Metal Strips of an Anti-Frictional Composition Made in Various Sizes and Lengths Spiraled or Coiled; Also Cut or Molded Rings, for Use in Packing Rods and Stuffing Boxes of Engines or Pumps for Service in Steam, Water, Oil, Gasoline, Acids, and Air.

357,348. May 31, 1938. R. H. Hood Company, Philadelphia, Pa. Pub. by registrant.

EVENIZED

For Leather Aprons or Belts Used in Worsted Combing and Drawing Machines.

358,086. June 28, 1938. Ramsey Accessories Manufacturing Corporation, St. Louis, Mo. Pub. by Ramsey Corporation, Manchester, Mo.

10 up PISTON RINGS

For Piston Rings and Piston Ring Expanders.

Class 39—Clothing

351,989. Nov. 16, 1937. Spalsbury-Stein-Deevers Shoe Company, Fredericktown, Mo. Pub. by Vocational Footwear, Inc., Lutesville, Mo.

PEP-ER-UP

For Shoes of Leather, or a Combination of Leather, Rubber or Fabric.

354,221. Feb. 8, 1938. John B. Stetson Company, Philadelphia, Pa. Pub. by registrant.

The Whippet

For Hats—Namely, Men's and Boys' Hats of Felt, Straw, and Straw Braid, Cloth Caps, Men's Silk Hats, and Felt and Straw Hats for Women and Children.

357,741. June 14, 1938. Frank & Meyer Neckwear Company, St. Louis, Mo. Pub. by Superba Cravats, Inc, Rochester, N. Y.

Cruise Cloth

For Neckwear—Namely, Men's and Boys' Neckties, Cravats, and Mufflers.

441,948. Feb. 1, 1949. Miami Sportswear Co., Miami, Fla. Pub. by Miami Sportswear Co., Inc., Opa-locka, Fla.

Leeb OF MIAMI

For Men's, Boys', Women's, Girls', Misses', and Children's Swim Suits, Swim Shorts, Swim and Play Shorts, Outer Shorts, Under Shorts, Play Suits, Sun Suits, Suits, Slacks, Slack Suits, Slack Sets, Undershirts, Panties, Pants, Pajamas, Jackets, Sport Jackets, Leather Jackets, Dresses, Halters, Brassieres, Slips, Hosiery, Blouses, Girdles, Skirts, Beach Shirts, Robes, Coats, Hats, Caps, Helmets, Bonnets, Scarfs, Sweaters, Neckties, Raincoats, Belts for Outer Wear, Shoes Made of Leather, Rubber, Fabric, and Combinations Thereof, and Shirts.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

97,362. June 2, 1914. Stephen Sanford & Sons, Inc., Amsterdam, N. Y. Pub. by Bigelow-Sanford Carpet Company, Inc., New York, N. Y.

FERVAK

For Textile Rugs, Mats, and Carpets.

Class 44—Dental, Medical, and Surgical Appliances

354,016. Jan. 25, 1938. The L. D. Caulk Company, Milford, Del. Pub. by registrant.

Pulprotex

For Dental Cement.

Class 46—Foods and Ingredients of Foods

120,692. Feb. 26, 1918. Otto Roth, New York, N. Y. Pub. by Otto Roth & Co., Inc., New York, N. Y.



For Cheese.

363,284. Dec. 20, 1938. Hawaiian Pineapple Company, Limited, San Francisco, Calif. Pub. by registrant.

"GEMS"

For Canned Pineapple.

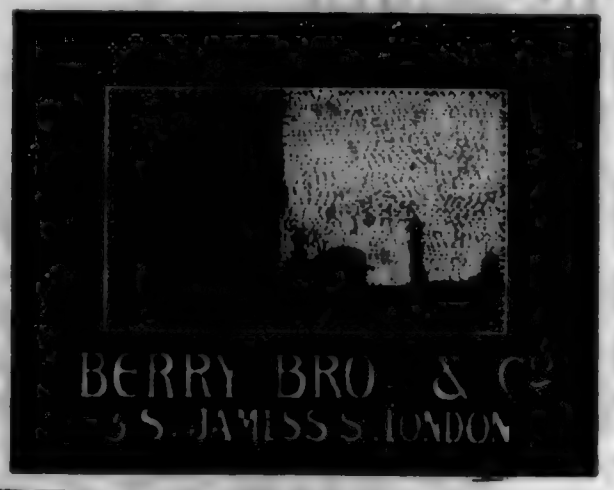
444,548. Aug. 21, 1951. Dixie Grain Co. Inc., Shelbyville, Tenn. Pub. by registrant.

DIXIE HOME

For Wheat Flour, Both Plain and Self-Rising; Corn Meal, Bolted and Unbolted; Dairy Feeds, Hog Feeds, Horse Feeds, Poultry Feeds, i. e, Breeder Mash, Laying Mash, Growing Mash, Mash Broiler Ration, Chick Starter, Conditioning Mash, Corn and Wheat Hen Scratch, Corn and Wheat Fine Chick Scratch, Medium Corn, and Wheat Scratch.

Class 47—Wines

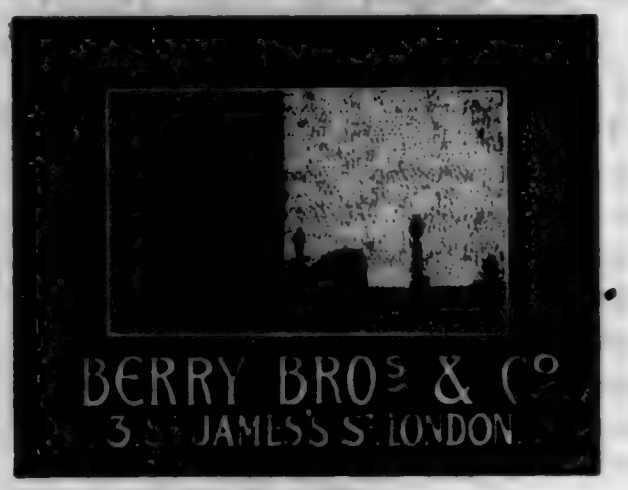
355,932. Apr. 5, 1938. Berry Bros. & Co., London, England. Pub. by Berry Bros. & Rudd Limited, London, England.



For Wines.

Class 49—Distilled Alcoholic Liquors

355,952. Apr. 5, 1938. Berry Bros. & Co., London, England. Pub. by Berry Bros. & Rudd Limited, London, England.



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Class 50—Merchandise Not Otherwise Classified

352,617. Dec. 7, 1937. Oglesby Granite Quarriers, Elberton, Ga. Pub. by Coggins Granite and Marble Industries Inc., Elberton, Ga.

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402,577. Aug. 3, 1943. Plax Corporation, Hartford, Conn. Pub. by registrant.

POLYFLEX

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120,568. Feb. 19, 1918. E. Gal, Sociedad en Comandita, Madrid, Spain. Pub. by Perfumeria Gal, S. A., Madrid, Spain.

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Funsten Co.: *See*—
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Funsten, James J., d. b. a. Funsten Co., San Francisco, Calif. 558,691, canc. Cl. 46.
Gallenkamp Stores Co., Los Angeles, Calif. 663,847, pub. 4–15–58. Cl. 39.
Gambrell, Eugene M., d. b. a. Florida Products Co., Tampa, Fla. 663,938. Cl. 46.
Geigy Chemical Corp.: *See*—
Geigy Co., Inc.
Geigy Chemical Corp., Ardsley, N. Y. 663,694, pub. 4–15–58. Cl. 18.
Geigy Co., Inc., New York, by Geigy Chemical Corp., Ardsley, N. Y. 358,124, 12(c) pub. 7–1–58. Cl. 6.
Geloso S. p. A., Milan, Italy. 663,720, pub. 4–15–58. Cl. 21.
General Aniline & Film Corp., New York, N. Y. 663,637, pub. 4–15–58. Cl. 6.
General Features Corp., New York, N. Y. 663,629, pub. 4–15–58. Cl. 38.
General Features Corp., New York, N. Y. 663,832, pub. 4–15–58. Cl. 38.
General Mills, Inc., Minneapolis, Minn. 663,770, pub. 4–15–58. Cl. 20.
General Mower Corp., Buffalo, N. Y. 663,763, pub. 4–15–58. Cl. 23.
Georgia Marble Co., The, Tate, Ga. 663,657, pub. 4–15–58. Cl. 12.
Gerber, Charles, d. b. a. Charles A. Gerber Co., Bartlett, Ill. 558,888, canc. Cl. 45.
Gerber, Charles A., Co.: *See*—
Gerber, Charles.
Gerda Footwear Co., Inc., New York, N. Y. 558,796, canc. Cl. 39.
Gershenow, Robt. K., Co., Inc., New York, N. Y. 558,824, canc. Cl. 39.
Giggings & Lewis Machine Tool Co., Fond du Lac, Wis. 663,756, pub. 4–15–58. Cl. 23.
Giorgetti, L., & Co., Minkler, Calif. 235,852, canc. Cl. 46.
Glasgo Ltd., to Marcus Breier's Sons, to White Stag Mfg. Co., Portland, Oreg. 395,829, new cert. Cl. 39.
Glassexport, Foreign Trade Corp. for the Export of Glass: *See*—
Skoexport, Podnik Zahranicniho Obchodu pro Vyvoz Skla.
Goodrich, B. F., Co., The, Akron, Ohio. 663,814, pub. 4–15–58. Cl. 35.
Greenebaum, M. H., Inc., New York, N. Y. 663,882, pub. 4–15–58. Cl. 46.
Green, Ward, Co., New York, N. Y. 663,842, pub. 4–15–58. Cl. 39.
Greve Farms: *See*—
Greve, James.
Greve, James, d. b. a. Greve Farms, Phoenix, Ariz. 663,905, pub. 4–15–58. Cl. 46.
Grolier Society, Inc., The, New York, N. Y. 558,874, canc. Cl. 101.
Gruppo Olearlo Novaro & C.: *See*—
P. Sasso E Figli.
Guild Radio and Television Co., Inglewood, Calif. 663,732, pub. 4–15–58. Cl. 21.
Gulf Oil Corp., Pittsburgh, Pa. 663,667, pub. 4–15–58. Cl. 15.
Haaker, Harlan W., d. b. a. Harlan Sales, Detroit, Mich. 558,890, canc. Cl. 52.
Haloid Co., The, now by change of name Haloid Xerox Inc., Rochester, N. Y. 663,780, pub. 4–15–58. Cl. 26.
Haloid Xerox Inc.: *See*—
Haloid Co., The.
Hamilton Watch Co., Lancaster, Pa. 663,930, pub. 4–8–58. Cl. 103.
Harlan Sales: *See*—
Haaker, Harlan W.
Harris, B. W., Mfg. Co., St. Paul, Minn. 663,850, pub. 4–15–58. Cl. 39.
Hart, Lemon, & Son Ltd., London, England. 558,671, canc. Cl. 49.
Hawaiian Pineapple Co., Ltd., San Francisco, Calif. 363,284, 12(c) pub. 7–1–58. Cl. 46.
Health-Mor, Inc., Chicago, Ill. 663,742, pub. 4–15–58. Cl. 21.
Hearst Corp., The, New York, N. Y. 663,833, pub. 4–15–58. Cl. 38.
Heath, L. S., & Sons, Inc., Robinson, Ill. 558,735, canc. Cl. 45.
Heatron, Inc., York, Pa. 663,723, pub. 4–15–58. Cl. 21.
Heller Co., The, by Heller Hostess Ware Inc., White Plains, N. Y. 444,673, 12(c) pub. 7–1–58. Cl. 2.
Heller Hostess Ware Inc.: *See*—
Heller Co., The.
Heller, R. C., Co., Inc., Baltimore, Md. 293,002, 12(c) pub. 7–1–58. Cl. 32.
Henderson Bros. & Co. Ltd., London, England. 558,682, canc. Cl. 29.
Henry, Lyell D., Ames, Iowa. 558,666, canc. Cl. 22.
Hercules Powder Co., Wilmington, Del. 358,056, ren. 6–28–58. Cl. 6.
Hercules Powder Co., Wilmington, Del. 663,886, pub. 4–15–58. Cl. 46.
Hercules Powder Co., Wilmington, Del. 663,897, pub. 4–15–58. Cl. 46.
Hershel California Fruit Products Co.: *See*—
Riverbank Canning Co.
Heublein, Inc., Hartford, Conn. 663,908, pub. 4–15–58. Cl. 46.
Hevi-Duty Electric Co., Milwaukee, Wis. 663,730, pub. 4–15–58. Cl. 21.
Hexcel Products Inc.: *See*—
California Reinforced Plastics Co.
Hickok Mfg. Co. Inc., Rochester, N. Y. 558,663, canc. Cl. 39.
Hines, Edward, Lumber Co., Chicago, Ill. 657,348, cor. Cl. 12.
Hoffmann-La Roche Inc., Nutley, N. J. 663,698, pub. 4–15–58. Cl. 18.
Hoge, Merrie, Co.: *See*—
Shackelford, Heyward O.
Hood, R. H., Co., Philadelphia, Pa. 357,348, 12(c) pub. 7–1–58. Cl. 35.
Hooper, Wm. E., & Sons Co., Baltimore, Md. 663,857, pub. 4–15–58. Cl. 42.
Houghton, E. F., & Co., Philadelphia, Pa. 663,632, pub. 4–15–58. Cl. 5.
Huckabee, Thad, Albany, Ga. 663,619, pub. 4–15–58. Cl. 1.
Hughes, Benjamin H., St. Joseph, Mo. 663,892, pub. 4–15–58. Cl. 46.
Imperial Chemical Industries Ltd., London, England. 656,617, cor. Cl. 52.
Inland Steel Co., Chicago, Ill. 360,672, ren. 9–20–58. Cl. 14.
Innis, Speiden & Co.: *See*—
International Minerals & Chemical Corp.
Innocenti Societa Generale per L'Industria Metallurgica e Meccanica, Milan, Italy. 650,707, cor. Cl. 19.
International Association of Heat and Frost Insulators and Asbestos Workers, Washington, D. C. 121,188, ren. 4–16–58. Cl. 38.
International Harvester Co., Chicago, Ill. 558,734, canc. Cl. 37.
International Latex Corp., Dover, Del. 558,606, canc. Cl. 51.
International Minerals & Chemical Corp., New York, N. Y., from Innis, Speiden & Co. 558,726, canc. Cl. 6.
International Minerals & Chemical Corp., New York, N. Y., from Innis, Speiden & Co. 558,727, canc. Cl. 6.
International Shoe Co., St. Louis, Mo. 663,848, pub. 4–15–58. Cl. 39.
International Silver Co., The, Meriden, Conn. 663,790, pub. 4–15–58. Cl. 28.
Isocyanate Products, Inc., New Castle, Del. 663,614, pub. 4–15–58. Cl. 1.
Italian Imports Co.: *See*—
Vitantonio, Estro.
J & J Tool and Machine Co.: *See*—
Junkunc, Bela B.
James, F. T., Co., Ltd., The, Toronto, Ontario, Canada, to The F. T. James Fish Co., Ltd., Toronto, Canada. 356,682, ren. 5–10–58. Cl. 46.
James, F. T., Fish Co., Ltd., The: *See*—
James, F. T., Co., Ltd., The.
Jamestown Lounge Co., Jamestown, N. Y. 360,282, ren. 9–13–58. Cl. 32.
Jamestown Lounge Co., Jamestown, N. Y. 360,283, ren. 9–13–58. Cl. 32.
Johnson, J. Oliver, Seed Co., Chicago, Ill. 663,617, pub. 4–15–58. Cl. 1.
Jones, Harold G., New York, N. Y. 558,750, canc. Cl. 32.
Juillerat Freres S. A., Berne, Switzerland. 558,655, canc. Cl. 27.
Junkers & Co, Gesellschaft Mit Beschrankter Haftung, Werman on the Neckar, Germany. 357,065, ren. 5–24–58. Cl. 34.
Junkunc, Bela B., d. b. a. J & J Tool and Machine Co., Chicago, Ill. 663,909, pub. 4–15–58. Cl. 32.

Juvenile Shoe Corp. of America, The, Aurora, Mo. 357,814, ren. 6-7-58. Cl. 39.

K-L Sporting Goods Co., Chicago, Ill. 663,745, pub. 4-15-58. Cl. 22.

K-P Shoe Co., to B. Palmer, Portage, Wis. 663,845, pub. 4-15-58. Cl. 39.

Kabo, Inc., Chicago, Ill. 558,858, canc. Cl. 39.

Kammer-Kirsch, A. G. for Edelbranntweine, Karlsruhe, Baden, Germany. 663,910, pub. 4-15-58. Cl. 49.

Kandell, Inc., New York, N. Y. 663,858, pub. 4-15-58. Cl. 42.

Katanich, Samuel L., d. b. a. H. W. Codding & Sons, Copley, Ohio. 663,611, pub. 4-15-58. Cl. 1.

Kaustine Co., Inc., to Kaustine Furnace & Tank Corp., Perry, N. Y. 357,939, ren. 6-21-58. Cl. 34.

Kaustine Furnace & Tank Corp.: *See*—
Kaustine Co., Inc.

Kay Electric Co., Pine Brook, N. J. 663,775, pub. 4-15-58. Cl. 26.

Kay Electric Co., Pine Brook, N. J. 663,782, pub. 4-15-58. Cl. 26.

Kay, Florence L.: *See*—
Willett, Florence K.

Kaynar Co., The, Rivera, Calif. 663,855, pub. 4-15-58. Cl. 40.

Kennedy Brothers Arms Co., Inc., St. Paul, Minn. 558,699, canc. Cl. 22.

Kina Rok, Charenton (Seine), France. 558,611, canc. Cl. 47.

King-Seeley Corp., Ann Arbor, Mich. 663,783, pub. 4-15-58. Cl. 26.

Kingston Electronic Corp., Medfield, Mass. 663,787, pub. 4-15-58. Cl. 26.

Kinsley-Kovsky Jewelry Mfg. Co., Inc., to Kinsley & Sons, Inc., St. Louis, Mo. 355,644, ren. 3-22-58. Cl. 28.

Kinsley & Sons, Inc.: *See*—
Kinsley-Kovsky Jewelry Mfg. Co., Inc.

Klik Promotions, Inc., New York, N. Y. 558,830, canc. Cl. 32.

Kolcraft Products, Inc., Chicago, Ill. 663,805, pub. 4-15-58. Cl. 32.

Kotkins, Henry L.: *See*—
Seattle Luggage Corp.

La Pine: *See*—
La Pine, Arthur S., & Co.

La Pine, Arthur S., & Co., d. b. a. La Pine, Chicago, Ill. 663,734, pub. 4-15-58. Cl. 21.

Lactona Inc., St. Paul, Minn. 558,659, canc. Cl. 29.

Lagmay, Leonard W., Los Angeles, Calif. 663,825, pub. 4-15-58. Cl. 38.

Landers Corp., The, Toledo, Ohio. 663,913, pub. 4-15-58. Cl. 50.

Lawr-Rae Hosiery Mills, Reading, Pa. 558,850, canc. Cl. 39.

Led-Col Co., Brooklyn, N. Y. 663,670, pub. 4-15-58. Cl. 15.

Leonard, George A., d. b. a. Hacksaw Pruning, Fayetteville, N. C. 663,769, pub. 4-22-58. Cl. 23.

Leonard Valve Co., Cranston, R. I. 663,785, pub. 4-15-58. Cl. 26.

Lily-Tulip Cup Corp., New York, N. Y. 663,624, pub. 4-15-58. Cl. 2.

Lincoln Paper Co., Chicago, Ill. 558,715, canc. Cl. 37.

Loblaw, Inc., Buffalo, N. Y. 663,793, pub. 4-15-58. Cl. 29.

Longines-Wittnauer Co., Inc., The, to Longines-Wittnauer Watch Co., Inc., New York, N. Y. 360,021, ren. 9-6-58. Cl. 27.

Longines-Wittnauer Watch Co., Inc.: *See*—
Longines-Wittnauer Co., Inc., The.

Macy, R. H., & Co., Inc., New York, N. Y. 356,094, ren. 4-12-58. Cl. 21.

Maiden Flour Mills, Inc., Newton, N. C. 663,906, pub. 4-15-58. Cl. 46.

Maier & Co. Fabrik fur Spezialmaschinen, Hallein, Austria. 663,757, pub. 4-15-58. Cl. 23.

Map Corp. of America, Boston, Mass. 663,822, pub. 4-15-58. Cl. 38.

Margien, Juliette, Inc., now by change of name to Juliette Margien, Inc., Ridgefield, N. J. 663,917, pub. 4-15-58. Cl. 51.

Mark, Clayton, & Co., Evanston, Ill. 663,728, pub. 4-15-58. Cl. 21.

Martin, J. Walter, d. b. a. Martin Tire & Supply Co., Wichita, Kans. 663,929, pub. 4-15-58. Cl. 103.

Martin Tire & Supply Co.: *See*—
Martin, J. Walter.

Mastic Tile Corp. of America, The, Newburgh, N. Y. 663,633, pub. 4-15-58. Cl. 5.

Mauts Paint & Varnish Co., Madison, Wis. 663,835, pub. 4-15-58. Cl. 38.

Maxon Construction Co., Inc., Dayton, Ohio. 443,829. Am. 7(d). Cl. 23.

McCarty, L. James, d. b. a. Vitaprime Co., Vista, Calif. 663,696, pub. 4-15-58. Cl. 18.

McCormick & Co., Inc., Baltimore, Md. 663,888, pub. 4-15-58. Cl. 46.

Mead Johnson & Co., Evansville, Ind. 622,959. Am. 7(d). Cl. 18.

Mecklenburg Specialties, Inc., Charlotte, N. C. 558,902, canc. Cl. 22.

Meloy Container Corp., Kansas City, Mo. 663,629, pub. 4-15-58. Cl. 2.

Mente & Co., Inc., New Orleans, La. 558,892, canc. Cl. 2.

Merck & Co., Inc., Rahway, N. J. 663,697, pub. 4-15-58. Cl. 18.

Merck & Co., Inc., Rahway, N. J. 663,703, pub. 4-15-58. Cl. 18.

Mers & Co., Frankfurt am Main, Germany. 663,918, pub. 4-15-58. Cl. 51.

Meyer, Jerrold B., d. b. a. Clayton Industrial Products Co., Chicago, Ill. 663,766, pub. 4-15-58. Cl. 23.

Meyers, Fred P., d. b. a. Analytikit Co., Denver, Colo. 663,776, pub. 4-15-58. Cl. 26.

Miami Sportswear Co., Miami, by Miami Sportswear Co., Inc., Opa Locka, Fla. 441,948, 12(c) pub. 7-1-58. Cl. 39.

Miami Sportswear Co., Inc.: *See*—
Miami Sportswear Co.

Mid-South Chemical Corp., Memphis, Tenn. 663,648, pub. 4-15-58. Cl. 10.

Milk Minerals Co., Inc., New York, N. Y. 663,891, pub. 4-15-58. Cl. 46.

Milk Minerals Co. Inc., Chicago, Ill., to Milk Minerals Co., Inc., New York, N. Y. 353,981, ren. 1-25-58. Cl. 46.

Milk Minerals Co., Inc.: *See*—
Milk Minerals Co. Inc.

Milko Cone & Baking Co., Inc., now by change of name to Milko Products, Inc., Chicago, Ill. 663,876, pub. 4-15-58. Cl. 46.

Milko Products, Inc.: *See*—
Milko Cone & Baking Co., Inc.

Mineral Wool Insulations Co., Fontana, Calif. 558,890, canc. Cl. 12.

Minnesota Mining & Mfg. Co., St. Paul, Minn. 663,673, pub. 11-19-57. Cl. 16.

Miracle Candle Co., Laredo, Tex. 663,669, pub. 4-15-58. Cl. 15.

Mitchell, Art E., Los Alamitos, Calif. 663,654, pub. 4-15-58. Cl. 12.

Model Industry Association, Chicago, Ill. 558,675, canc. Cl. 101.

Mohawk Sporting Equipment Co., to Mohawk Sporting Equipment Co., Elyria, Ohio. 663,743, pub. 4-1-58. Cl. 22.

Monjar, Alice, d. b. a. Monjar Bridal Salon, Springfield, Ohio. 558,837, canc. Cl. 39.

Monjar Bridal Salon: *See*—
Monjar, Alice.

Monode, Inc., Cleveland, Ohio. 663,727, pub. 4-15-58. Cl. 21.

Montgomery, Dallas D., Scottsburg, Ind. 558,901, canc. Cl. 1.

More, Thomas, Association, The, Chicago, Ill. 663,837, pub. 4-15-58. Cl. 38.

Morgan, J. E., Mfg. Co., Tamaqua, Pa. 558,778, canc. Cl. 39.

Mud Products, Inc., Tulsa, Okla. 558,636, canc. Cl. 13.

Multifinish Mfg. Co., Detroit, Mich. 663,717, pub. 4-15-58. Cl. 21.

Multi-Lift Co., Battle Creek, Mich. 663,764, pub. 4-15-58. Cl. 23.

Murphy Paint Corp.: *See*—
Murphy Varnish Co.

Murphy Varnish Co., Newark, N. J., to Murphy Paint Corp., Baltimore, Md. 121,924, ren. 6-11-58. Cl. 16.

Mutual Orange Distributors Pure Gold, Inc., Redlands, Calif. 289,869. Am. 7(d). Cl. 46.

Nachman Corp., Chicago, Ill. 663,802, pub. 4-15-58. Cl. 32.

Narco, Inc., Chattanooga, Tenn. 663,761, pub. 4-15-58. Cl. 23.

National Casket Co., New York, N. Y., to National Casket Co., Inc., Boston, Mass. 120,618, ren. 2-19-58. Cl. 39.

National Casket Co., Inc.: *See*—
National Casket Co.

National Church Supply Co., Inc., The, Chester, W. Va. 663,821, pub. 4-15-58. Cl. 37.

National Presto Industries, Inc., Eau Claire, Wis. 663,731, pub. 4-15-58. Cl. 21.

Nayen, Benjamin S., d. b. a. Dearborn Electronic Laboratories, Chicago, Ill. 663,726, pub. 4-15-58. Cl. 21.

Neligh Mills, The, Neligh, Nebr. 663,883, pub. 4-15-58. Cl. 46.

Neoco Corp., Los Angeles, Calif. 663,690, pub. 4-15-58. Cl. 18.

Neville Chemical Co., Pittsburgh, Pa. 663,644-7, pub. 4-15-58. Cl. 6.

New England Textile Co., Inc., New York, N. Y. 663,856, pub. 4-15-58. Cl. 42.

New York Association for the Blind, Inc., The, New York, N. Y. 663,792, pub. 4-15-58. Cl. 29.

Nicca Camera Co. Ltd.: *See*—
Nikka Kamera Kabushiki Kaisha.

Nichols Wire & Aluminum Co., Davenport, Iowa. 558,857, canc. Cl. 34.

Nikka Kamera Kabushiki Kaisha, d. b. a. Nicca Camera Co. Ltd., Ota-ku, Tokyo-to, Japan. 663,773, pub. 12-17-57. Cl. 24.

Northern Engineering Works, Detroit, Mich. 663,740, pub. 4-15-58. Cl. 21.

O-B Products Co.: *See*—
Price, Russell W.

Oglesby Granite Quarriers, by Coggins Granite and Marble Industries Inc., Elberton, Ga. 352,616, 12(c) pub. 7-1-58. Cl. 1.

Oglesby Granite Quarriers, by Coggins Granite and Marble Industries Inc., Elberton, Ga. 352,617, 12(c) pub. 7-1-58. Cl. 50.

Onyx Oil & Chemical Co., Jersey City, N. J. 663,927, pub. 4-15-58. Cl. 52.

Orndent Chemical Co., Inc., Clifton Forge, Va. 663,686, pub. 4-15-58. Cl. 18.

Orange Food Products, Inc., Dorchester, Mass. 558,614, canc. Cl. 45.

Ortelg, Jules, Ltd., Long Island City, N. Y. 663,911, pub. 4-15-58. Cl. 49.

Owl Supply Co., Boston, Mass., to Scovill Mfg. Co., Waterbury, Conn. 122,336, ren. 7-23-58. Cl. 37.

P. Sasso E Figli Gruppo Oleario Novaro & C., Oneglia, Italy. 377,402. Am. 7(d). Cl. 6.

Pacific Compound and Mfg. Co., Seattle, Wash., to Thomson Chemical Co., Lima, Ohio. 558,688, canc. Cl. 52.

Pacific Fruit & Produce Co., to Pacific Gamble Robinson Co., Seattle, Wash. 358,535, ren. 7-19-58. Cl. 46.

Pacific Gamble Robinson Co.: *See*—
Pacific Fruit & Produce Co.

Packers Package, Inc., Muncie, Ind. 663,627, pub. 4-15-58. Cl. 2.

Palmer, Ben: *See*—
K-P Shoe Co.

Pantone Press, Inc., New York, N. Y. 558,856, canc. Cl. 38.

Paramount Service, d. b. a. Smooth-Tone Muffler Co., San Francisco, Calif. 663,753, pub. 4-15-58. Cl. 23.

Parke, Davis & Co., Detroit, Mich. 355,196, 12(c) pub. 7-1-58. Cl. 18.

Parke, Davis & Co., Detroit, Mich. 663,709, pub. 4-15-58. Cl. 18.

Park & Tilford, New York, N. Y. 663,923, pub. 4-15-58. Cl. 51.

Pass & Seymour, Inc., Solvay, N. Y. 355,726, 12(c) pub. 7-1-58. Cl. 21.

Pass & Seymour, Inc., Syracuse, N. Y. 355,727, 12(c) pub. 7-1-58. Cl. 21.

Pass & Seymour, Inc., Syracuse, N. Y. 355,728, 12(c) pub. 7-1-58. Cl. 21.

Penaten Pharmazeutische Fabrik Dr. Med. Riese & Co. G. m. b. H., Rheendorf am Rhine, Germany. 663,679, pub. 6-28-55. Cl. 18.

Perfumeria Gal, S. A.: *See*—
E. Gal, Sociedad en Comandita.

Petri Wineries: *See*—
United Vintners, Inc.

Pfaff, C. M., A. G., Kaiserslautern, Germany. 663,765, pub. 4-15-58. Cl. 23.

Phalen, W. H., by Wells Mfg. Corp., Fond du Lac, Wis. 379,823, 12(c) pub. 7-1-58. Cl. 21.

Phalen-Faust Paint Mfg. Co., St. Louis, Mo. 663,672, pub. 10-8-57. Cl. 16.

Philippine Embroidery Corp., New York, N. Y. 558,846, canc. Cl. 39.

Phosphor Bronze Smelting Co., The, Philadelphia, Pa., by The Seymour Mfg. Co., Seymour, Conn. 132,484, 12(c) pub. 7-1-58. Cl. 14.

Phosphor Bronze Smelting Co., The, Philadelphia, Pa., by The Seymour Mfg. Co., Seymour, Conn. 132,485, 12(c) pub. 7-1-58. Cl. 14.

Phosphor Bronze Smelting Co., The, Philadelphia, Pa., by The Seymour Mfg. Co., Seymour, Conn. 132,175, 12(c) pub. 7-1-58. Cl. 14.

Phosphor-Bronze Smelting Co. Ltd., The, Philadelphia, Pa., by The Seymour Mfg. Co., Seymour, Conn. 55,096, 12(c) pub. 7-1-58. Cl. 14.

Phosphor-Bronze Smelting Co. Ltd., The, Philadelphia, Pa., by The Seymour Mfg. Co., Seymour, Conn. 55,406, 12(c) pub. 7-1-58. Cl. 14.

Phosphor-Bronze Smelting Co. Ltd., The, Philadelphia, Pa., by The Seymour Mfg. Co., Seymour, Conn. 64,751, 12(c) pub. 7-1-58. Cl. 14.

Piel Bros., East New York and Brooklyn, N. Y. 558,604, canc. Cl. 48.

Pine Tree Milking Machine Co., to Babson Bros. Co., Chicago, Ill. 122,816, ren. 9-17-58. Cl. 23.

Pitt-Consol Chemical Co., Newark, N. J. 663,635, pub. 4-15-58. Cl. 6.

Plastic Contact Lens Co., The, Chicago, Ill. 663,786, pub. 4-15-58. Cl. 26.

Plax Corp., Hartford, Conn. 402,577, 12(c) pub. 7-1-58. Cl. 50.

Popular Mfg. Co., Inc., New York, N. Y. 663,839, pub. 4-15-58. Cl. 39.

Potter, Lee, Co.: *See*—
Potter, Leroy H.

Potter, Leroy H., d. b. a. Lee Potter Co., Glendale, Calif. 663,674, pub. 4-15-58. Cl. 16.

Power Brake Equipment Co., Portland, Oreg. 663,711, pub. 4-15-58. Cl. 19.

Precision Paint Corp., Chamblee, Ga. 663,675, pub. 4-15-58. Cl. 16.

Price, Russell W., d. b. a. O-B Products Co., Newton, Mass. 663,866, pub. 4-15-58. Cl. 44.

Priv. Fabrica Maraschino "Excelsior" Girolamo Luxardo S. p. A., Torreglia, Italy. 663,907, pub. 4-15-58. Cl. 47.

Progressive "Edu-Kits" Inc., Brooklyn, N. Y. 663,721, pub. 4-15-58. Cl. 21.

Prosser's Nitro-X: *See*—
Prosser, Sweney.

Prosser, Sweney, d. b. a. Prosser's Nitro-X, Charlotte, N. C. 663,668, pub. 4-15-58. Cl. 15.

Purdue Frederick Co., The, New York, N. Y. 663,704, pub. 4-15-58. Cl. 18.

Pure Gold, Inc.: *See*—
Mutual Orange Distributors.

Pure Oil Co., The, Chicago, Ill. 558,620, canc. Cl. 32.

Q-Tips, Inc., Long Island City, N. Y. 663,871, pub. 4-15-58. Cl. 44.

Quillo Art Co., Minneapolis, Minn. 663,826, pub. 4-15-58. Cl. 38.

Quinn, Edward M., d. b. a. T & M Laboratories, San Francisco, Calif. 558,711, canc. Cl. 18.

Radio Gramophone Development Co. Ltd., Romford, Essex, England. 663,739, pub. 4-15-58. Cl. 21.

Railton, B. A., Co., Chicago, Ill. 121,208, ren. 4-16-58. Cl. 46.

Ramsey Accessories Mfg. Corp., St. Louis, by Ramsey Corp., Manchester, Mo. 358,088, 12(c) pub. 7-1-58. Cl. 35.

Ramsey Corp.: *See*—
Ramsey Accessories Mfg. Corp.

Rapids-Standard Co., Inc., The, Grand Rapids, Mich. 663,751, pub. 4-15-58. Cl. 23.

Ray Industries, Inc., Oxford, Mich. 663,615, pub. 4-15-58. Cl. 1.

Realistic Co., The, Cincinnati, Ohio. 663,921, pub. 4-15-58. Cl. 51.

Reed Brothers, Inc., Tupelo, Miss. 663,851-2, pub. 4-15-58. Cl. 39.

Reeves Brothers, Inc.: *See*—
Thurston Cutting Corp.

Reilly, Olcott & Co., Oneida, N. Y. 558,681, canc. Cl. 18.

Reliance Mfg. Co., Chicago, Ill. 558,624, canc. Cl. 39.

Renil Co.: *See*—
Berliner, Martin.

Revertex Ltd., London, England. 663,671, pub. 10-16-56. Cl. 16.

Revlon, Inc., New York, N. Y. 663,924, pub. 4-15-58. Cl. 51.

Richards, J. A., Co., Kalamazoo, Mich. 663,762, pub. 4-15-58. Cl. 23.

Ritter Co., Inc., Rochester, N. Y. 663,862, pub. 4-15-58. Cl. 44.

Riverbank Canning Co., Riverbank, to Hershel California Fruit Products Co., San Jose, Calif. 358,237, ren. 7-5-58. Cl. 46.

Robertshaw-Fulton Controls Co.: *See*—
Bridgeport Thermostat Co., Inc.

Robinson Tag & Label Co., New York, N. Y. 356,578, ren. 5-3-58. Cl. 37.

Rochester Accoustical Laboratories: *See*—
Ryan, S. C.

Rogers Canning Co., Milton, Oreg. 663,873, pub. 10-25-55. Cl. 46.

Romair, Inc., Lancaster, Pa. 558,647, canc. Cl. 24.

Roman Cotton Goods Corp., New York, N. Y. 558,793, canc. Cl. 42.

Rose & Rowe, Inc., New York, N. Y. 663,890, pub. 4-15-58. Cl. 46.

Roth, Otto, by Otto Roth & Co., Inc., New York, N. Y. 120,692, 12(c) pub. 7-1-58. Cl. 46.

Roth, Otto, & Co., Inc.: *See*—
Roth, Otto.

Roulette Records Inc., New York, N. Y. 558,814, cor. Cl. 26.

Royal Apex Mfg. Corp., Brooklyn, N. Y. 555,224, cor. Cl. 13.

Ryan, S. C., d. b. a. Rochester Accoustical Laboracories, St. Paul Minn. 558,904. Cl. 44.

Rudin, Charles, d. b. a. A. B. C. Awning Co., Albany, N. Y. 663,651, pub. 6-28-55. Cl. 12.

S D K Publications, Inc., Philadelphia, Pa. 663,823, pub. 10-1-57. Cl. 38.

Safeway Stores, Inc., Oakland, Calif. 663,638, pub. 4-15-58. Cl. 6.

Safeway Stores, Inc., Oakland, Calif. 663,926, pub. 4-15-58. Cl. 52.

Sahlein, J. M., d. b. a. J. M. Sahlein Music Co., San Francisco, Calif. 663,818, pub. 4-15-58. Cl. 36.

Sahlein, J. M., Music Co.: *See*—
Sahlein, J. M.

Samuel, Lewis, New York, N. Y. 663,936. Cl. 39.

Sanborn Co., Cambridge, Mass. 663,863, pub. 4-15-58. Cl. 44.

Sanford, Stephen, & Sons, Inc., Amsterdam, by Bigelow-Sanford Carpet Co., Inc., New York, N. Y. 97,362, 12(c) pub. 7-1-58. Cl. 42.

Santiago Development Corp.: *See*—
Bestov Products, Inc.

Sapphire Corp., New York, N. Y. 663,844, pub. 4-15-58. Cl. 39.

Savannah Sugar Refining Corp., Savannah, Ga. 122,345, ren. 7-23-58. Cl. 46.

Sav-A-Tir, Atlanta, Ga. 663,662, pub. 4-15-58. Cl. 13.

Schering Corp., Bloomfield, N. J. 663,688, pub. 4-15-58. Cl. 18.

Scherl & Roth, Inc., Cleveland, Ohio. 663,617, pub. 4-15-58. Cl. 36.

Schlatter, H. A., A. G., Zollikon, Switzerland. 663,716, pub. 4-15-58. Cl. 21.

Schliemann's, Ernst, Export-Ceresin-Fabrik, Hamburg-Billstedt, Germany. 663,665, pub. 4-15-58. Cl. 15.

Schoeneman, J., Inc., now by change of name Slade Inc., to J. Schoeneman, Inc., Baltimore, Md. 663,838, pub. 2-22-55. Cl. 39.

Schulmerich Carillons, Inc., Sellersville, Pa. 663,820, pub. 4-15-58. Cl. 36.

Schwarzkopf, Hans, Hamburg-Altona, Germany. 663,865, pub. 4-15-58. Cl. 44.

Scott, O. M., and Sons Co., Marysville, Ohio. 663,649, pub. 4-15-58. Cl. 10.

Scottville Cheese, Inc., Scottville, Mich. 663,881, pub. 4-15-58. Cl. 46.

Scovill Mfg. Co.: *See*—
Owl Supply Co.

Seattle Luggage Corp., by Henry L. Kotkins, Seattle, Wash. 358,373, 12(c) pub. 7-1-58. Cl. 3.

Seymour Mfg. Co., The: *See*—
Phosphor-Bronze Smelting Co. Ltd., The.

Shackelford, Heyward O., d. b. a. Merrie Hoge Co., Purcellville Va. 663,919, pub. 4-15-58. Cl. 51.

Shell Chemical Corp., New York, N. Y. 558,760, canc. Cl. 6.

Sherman, Robert M., Yonkers, N. Y. 558,908, canc. Cl. 18.

Simplex Wire & Cable Co., Cambridge, Mass. 663,741, pub. 4-15-58. Cl. 23.

Sinclair Refining Co.: *See*—
Cudahy Refining Co., The.

Sinclair Refining Co., New York, N. Y. 663,668, pub. 4-15-58. Cl. 15.

Skoexport, Podnik Zahranicniho Obchodu pro Vyvoz Skla, d. b. a. Glassexport, Foreign Trade Corp. for the Export of Glass, Prague, Czechoslovakia. 663,776, pub. 4-15-58. Cl. 26.

Slade Inc.: *See*—
Schoeneman, J., Inc.

Smith, Roy R., d. b. a. Econo-Pak Register Co., Kansas City, Mo. 558,593 canc. Cl. 37.

Smooth-Tone Muffler Co.: *See*—
Paramount Service.

Snyder Oil Tool Corp., Los Angeles, Calif. 558,621, canc. Cl. 13.
Societe d'Exploitation des Brevets Jacquier, Lyons, Rhone, France. 663,870, pub. 4–15–58. Cl. 44.
Socony Mobil Oil Co., Inc.: *See*—
Socony-Vacuum Oil Co., Inc.
Socony-Vacuum Oil Co., Inc., to Socony Mobil Oil Co., Inc. New York, N. Y. 350,925, ren 5–7–56. Cl. 19.
Softskin Toys, Inc., New York, N. Y. 558,777, canc. Cl. 22.
Southern California Fish Corp., Terminal Island, Calif. 558,827, canc. Cl. 46.
Southern Poultry Co., Inc., Monroe, Ga. 663,898, pub. 4–15–58. Cl. 46.
Sovereign Importers, Ltd., New York, N. Y. 663,909, pub. 4–15–58. Cl. 49.
Spalding, A. G., & Bros. Inc., Chicopee, Mass. 558,773, canc. Cl. 22.
Spalsbury-Steis-Deevers Shoe Co., Fredericktown, by Vocational Footwear, Inc., Lutesville, Mo. 351,989, 12(c) pub. 7–1–58. Cl. 39.
Sporting Enterprises, Boston, Mass. 558,781, canc. Cl. 22.
Standard Brands Inc., New York, N. Y. 663,641–3, pub. 4–15–58. Cl. 6.
Standard Brands Inc., New York, N. Y. 663,899–901, pub. 4–15–58. Cl. 46.
Stark Bros's Nurseries and Orchards Co., Louisiana, Mo. 663,618, pub. 4–15–58. Cl. 1.
State Wholesale Grocers, Inc., Chicago, Ill. 355,566, ren. 3–22–58. Cl. 46.
Steere Enterprises: *See*—
Steere, John H.
Steere, John H., d. b. a. Steere Enterprises, Hollywood, Calif. 558,642, canc. Cl. 3.
Stein, A., & Co., Chicago, Ill. 358,790, ren. 7–26–58. Cl. 40.
Stein, A., & Co., Chicago, Ill. 358,899, ren. 7–26–58. Cl. 39.
Stein, A., & Co., Chicago, Ill. 360,022, ren. 9–6–58. Cl. 39.
Stetson, John B. Co., Philadelphia, Pa. 354,221, 12(c) pub. 7–1–58. Cl. 39.
Stoddard, G. S., & Co., Inc., New York, N. Y. 558,766, canc. Cl. 18.
Storck, August, G. m. b. H., Halle, Westphalia, Germany. 663,874, pub. 4–15–58. Cl. 46.
Storm Shield of New England, Inc., Everett, Mass. 663,652, pub. 7–23–57. Cl. 12.
Stormas, H. M., Co., Brooklyn, N. Y. 663,650, pub. 4–15–58. Cl. 11.
Storz, Walter, d. b. a. Firma Walter Storz, Pforzheim, Germany. 663,789, pub. 4–15–58. Cl. 27.
Storz, Walter, Firma: *See*—
Storz, Walter.
Style Trends Inc., Canton, Ohio. 663,626, pub. 4–15–58. Cl. 2.
Sunbeam Corp., Chicago, Ill. 663,796, pub. 4–15–58. Cl. 29.
Sunstripe Corp., Rochester, N. Y. 558,868, canc. Cl. 26.
Sun Tube Corp., Hillside, N. J. 663,625, pub. 4–15–58. Cl. 2.
Superba Cravats, Inc.: *See*—
Frank & Meyer Neckwear Co.
Swan Specialties Co.: *See*—
Swan, William A.
Swan, William A., d. b. a. Swan Specialties Co., Casper, Wyo. 663,774, pub. 4–15–58. Cl. 26.
Sweden Freezer Mfg. Co., Seattle, Wash. 663,798, pub. 10–22–57. Cl. 31.
Swift and Co., Chicago, Ill. 121,966. Am. 7(d). Cl. 46.
Swiss Laboratory: *See*—
Diamond, Leon W.
Sylwan, Mark, Aktieboiag, Stockholm, Sweden. 663,914, pub. 4–15–58. Cl. 50.
T & M Laboratories: *See*—
Quinn, Edward M.
Taudte, Jerome A., Co., Inc., Miami, Fla. 663,933. Cl. 16.
Tavener Rutledge Ltd., Liverpool, England. 663,939. Cl. 46.
Taylor, Virginia K., Glendale, Calif. 663,916, pub. 3–4–58. Cl. 51.
Terrytoons, Inc., New Rochelle, N. Y. 558,829, canc. Cl. 26.
Tex Products, Inc.: *See*—
Beauty Kote Corp.
Textron Inc., Providence, R. I. 663,733, pub. 4–15–58. Cl. 21.
Thomas & Betts Co., The, Elizabeth, N. J. 652,535. Am. 7(d). Cl. 21.
Thomson Chemical Co.: *See*—
Pacific Compound and Mfg. Co.
Thor Power Tool Co., Chicago, Ill. 663,799, pub. 4–15–58. Cl. 31.
Thurston Cutting Corp., to Reeves Brothers, Inc., New York, N. Y. 358,829, ren. 7–26–58. Cl. 40.
Timken Roller Bearing Co., The, Canton, Ohio. 663,663, pub. 4–15–58. Cl. 14.
Tobin Packing Co., Inc., Rochester, N. Y. 663,879, pub. 4–15–58. Cl. 46.
Tokheim Corp., Fort Wayne, Ind. 663,788, pub. 4–15–58. Cl. 26.
Towle Mfg. Co., Newburyport, Mass. 360,871, ren. 9–27–58. Cl. 28.
Towle Mfg. Co., Newburyport, Mass. 360,872, ren. 9–27–58. Cl. 28.
Transogram Co., Inc., New York, N. Y. 663,803, pub. 4–15–58. Cl. 32.
Trio Laboratories, Inc., Seaford, N. Y. 663,772, pub. 5–21–57. Cl. 26.
Tunis, Ben, d. b. a. Ben Tunis Co., Searsdale, N. Y. 663,791, pub. 4–15–58. Cl. 29.
Tunis, Ben, Co.: *See*—
Tunis, Ben.
Tutag, S. J., & Co., Detroit, Mich. 663,690, pub. 4–15–58. Cl. 18.
Twin City Shellac Co. Inc., Brooklyn, N. Y. 553,710, canc. Cl. 4.
United Aircraft Corp., East Hartford, Conn. 358,104, 12(c) pub. 7–1–58. Cl. 19.
United Grocers, Ltd., San Francisco, Calif. 663,893–6, pub. 4–15–58. Cl. 46.
United Pure Food Co., New York, N. Y. 360,359, ren. 9–13–58. Cl. 46.
United States Rubber Co., New York, N. Y. 663,846, pub. 4–15–58. Cl. 39.
United States Rubber Co., New York, N. Y. 663,915, pub. 4–15–58. Cl. 50.
United Vintners, Inc., d. b. a. Petri Wineries, San Francisco, Calif. 663,908, pub. 4–15–58. Cl. 47.
United Wallpaper, Inc., Chicago, Ill. 558,838, canc. Cl. 37.
Valentine, J. W., Co., Inc., New York, N. Y. 663,860–1, pub. 4–15–58. Cl. 42.
Van Cleef Bros., Inc., Chicago, Ill. 558,754, canc. Cl. 6.
Venue, Ben, Laboratories, Inc., Bedford, Ohio. 663,869, pub. 4–15–58. Cl. 44.
Venus Lingerie Co., Inc., New York, N. Y. 356,185. Am. 7(d). Cl. 39.
Verona Chemical Co., Newark, N. J. 663,928, pub. 4–15–58. Cl. 52.
Vic Mfg. Co., Minneapolis, Minn. 663,900, pub. 4–15–58. Cl. 31.
Victoria Laboratories Ltd., London, England. 663,705–6, pub. 4–15–58. Cl. 18.
Victor Mfg. & Gasket Co., Chicago, Ill. 663,616, pub. 4–15–58. Cl. 35.
Vital Products Mfg. Co., Cleveland, Ohio. 558,870, canc. Cl. 23.
Vitaprime Co.: *See*—
McCarty, L. James.
Vocational Footwear, Inc.: *See*—
Spalsbury-Steis-Deevers Shoe Co.
Volt, W. J., Rubber Corp., Los Angeles, Calif. 558,907, canc. Cl. 35.
Vola Laboratories: *See*—
Weber, Loretta.
Von Lilienfeld, Felix, Flushing, N. Y. 663,704, pub. 4–15–58. Cl. 29.
Wakefield Co., The, Vermilion, Ohio. 663,724, pub. 4–15–58. Cl. 21.
Waldoc Handicrafters, Watsontown, Pa. 558,840, canc. Cl. 8.
Walker, James, Packing Co., Inc., The, New York, N. Y. 353,394, 12(c) pub. 7–1–58. Cl. 35.
Walker Laboratories, Inc., Mount Vernon, N. Y. 663,692, pub. 4–15–58. Cl. 18.
Weber Addressing Machine Co., Inc., Mount Prospect, Inc. 663,752, pub. 4–15–58. Cl. 23.
Weber, Loretta, d. b. a. Vola Laboratories, Philadelphia, Pa. 558,780, canc. Cl. 51.
Webster, William A., Co., The, Memphis, Tenn. 663,691, pub. 4–15–58. Cl. 18.
Weitz, S., & Co., Inc., Cleevland, Ohio, to Joseph H. Cohen & Sons, Inc., New York, N. Y. 357,177, ren. 5–24–58. Cl. 39.
Wells Mfg. Corp.: *See*—
Phalen, W. H.
Wesco Tool & Mfg. Co.: *See*—
Butler, Frank W.
Western Waxed Paper Co.: *See*—
Crown Zellerbach Corp.
Westinghouse Air Brake Co., Pittsburgh, Pa. 663,707, pub. 4–15–58. Cl. 23.
Westinghouse Electric Corp., Pittsburgh, Pa. 663,735, pub. 4–15–58. Cl. 21.
West Virginia Pulp and Paper Co.: *See*—
Fulton Bag & Cotton Mills.
Wetmore and Sugden, Inc., Fairport, N. Y. 663,830, pub. 4–15–58. Cl. 38.
Whitehead, Jud, Heater Co., Oakland, Calif. 556,797, canc. Cl. 34.
White Stag Mfg. Co.: *See*—
Breier's, Marcus, Sons.
Adirondack Sportswear Inc.
Glasgo Ltd.
Whitney Sporting Goods Co., The, Denver, Colo. 558,757, canc. Cl. 22.
Willett, Florence K., d. b. a. Florence Louise Kay, New York, N. Y. 663,804, pub. 4–15–58. Cl. 32.
Williamson Candy Co., Chicago, Ill. 663,937. Cl. 46.
Williamsport Wire Rope Co. (in Receivership), to Bethlehem Steel Co., Williamsport, to Bethlehem Steel Co., Bethlehem, Pa. 357,416, ren. 6–7–58. Cl. 21.
Wilner, Morris, Pittston, Pa. 558,602, canc. Cl. 37.
Wobisch, Helmut, Vienna, Austria. 663,819, pub. 4–15–58. Cl. 36.
Wolfe & Lang, Inc., to Fortuna Foundations, Inc., New York, N. Y. 360,342, ren. 9–13–58. Cl. 39.
Wolverine Shoe and Tanning Corp., Rockford, Mich. 663,849, pub. 4–15–58. Cl. 39.
Wood Conversion Co., St. Paul, Minn. 663,660, pub. 4–15–58. Cl. 12.
Wooster Brush Co., The, Wooster, Ohio. 663,797, pub. 4–15–58. Cl. 29.
Youngstown Industries, Inc., Girard, Ohio. 558,758, canc. Cl. 32.
Youngstown Sheet and Tube Co., The, Youngstown, Ohio. 361,366, 12(c) pub. 7–1–58. Cl. 14.
Youngstown Sheet and Tube Co., The, Youngstown, Ohio. 361,559, 12(c) pub. 7–1–58. Cl. 13.
Zimmco Products: *See*—
Zimmerman, Roger C.
Zimmerman, Roger C., d. b. a. Zimmco Products, Buffalo, N. Y. 663,712, pub. 4–15–58. Cl. 19.

U. S. GOVERNMENT PRINTING OFFICE: 0——1958

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PATENTS

NOTICES

Change in Rules of Practice

Notice was given in the Federal Register of June 6, 1958, (23 F. R. 3968) of the following change in the Rules of Practice which will take effect July 7, 1958:

1. Paragraph (n) of Rule 21 is amended to read as follows:

(n) Search of Patent Office records for purposes not otherwise specified in this section, per hour of search or fraction thereof $3.00

2. Paragraph (o) of Rule 21 is deleted.

International Convention for the Protection of Industrial Property

Adherence of Australia to the London 1934 Revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective June 2, 1958, of Australia to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

June 11, 1958.

Disclaimer

2,781,413.—*James W. Lassing*, Great Neck, N. Y. DEPOLARIZED-ACTION BATTERY. Patent dated Feb. 12, 1957. Disclaimer filed May 29, 1958, by the assignee, *Haseltine Research, Inc.*

Hereby enters this disclaimer to claims 1–6, inclusive, 10, and 13 of said patent.

Patents Available for Licensing or Sale

2,715,904. Nose Attachment Container for Head Cold Medicament. Albert G. Hill, 321 Edmonton St., London, Ontario, Canada.

2,787,236. Gloves for Directing Traffic. Edward E. Welch, Box 74, East Otis, Mass.

2,826,613. Recovery of Solid Guanadine Carbonate. Otto Grosskinsky, Elfriede Thurauf, Walter Klempt, and Helmut Umbach, Dortmund-Eving, Germany. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,833,043. Lead Block for Masons. Frank Patejdl, Jr., Box 105, Marquette, Lakeside, Mich.

General Electric Company is prepared to grant non-exclusive licenses under the following 7 patents upon reasonable terms to domestic manufacturers.

Applications for license under the following patent should be directed to: General Electric Company, Housewares and Radio Receiver Division, 1285 Boston Ave., Bridgeport 2, Conn.

2,344,820. Electric Blanket Temperature Control Apparatus.

Applications for license under the following 5 patents should be directed to: General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass., Attention, Patent Counsel.

2,282,937. Prevention of Corrosion in Electric Capacitors.
2,410,714. Dielectric and Insulation Composition.
2,827,320. Seal.
2,829,353. Three-Phase Stacked Magnetic Core Section.
2,830,277. Welding of Hinged Butt Joint Magnetic Cores.

Applications for license under the following patent should be directed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,830,943. Method for Controlling the Irradiation of Polyethylene.

New Applications Received During May 1958

Patents	6,750
Designs	444
Plant Pats	10
Reissues	42
Total	7,246

Issue

Patents	975—No.	2,841,794 to No.	2,842,768, incl.
Designs	37—No.	183,154 to No.	183,190, incl.
Plant Pats	7—No.	1,723 to No.	1,729, incl.
Reissues	5—No.	24,498 to No.	24,502, incl.
Total	1,024		

CONDITION OF PATENT APPLICATIONS AS OF MAY 31, 1958

Total number of pending applications (excluding Designs)		208, 262
Total number of pending Design applications		6, 624
Total number of applications awaiting action (excluding Designs)		87, 935
Total number of Design applications awaiting action		3, 087
Date of oldest new application	June	4, 1957
Date of oldest amended application	May	17, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 32, 42, 45, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 60.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 55, 68.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 46, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 31, 49, 52, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-30-57	9-4-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	9-26-57	9-9-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	12-2-57	10-29-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	8-13-57	8-26-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	8-6-57	9-6-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	10-1-57	10-24-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. G., acting), Optics	9-11-57	9-9-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-11-57	10-14-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	9-30-57	9-10-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	9-17-57	10-2-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clinching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	10-28-57	10-14-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	8-12-57	7-1-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-3-57	9-3-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	9-6-57	8-22-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	9-5-57	9-16-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	8-13-57	8-2-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	10-10-57	10-11-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	9-3-57	9-3-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	9-19-57	9-3-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	9-4-57	9-12-57
21. (III) MADER, R. C., Textiles	7-18-57	7-16-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	9-5-57	9-3-57
23. (VI) SMITH OW, I., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	6-4-57	8-17-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	11-7-57	11-12-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	8-16-57	8-15-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-1-57	10-3-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	10-16-57	10-17-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	8-26-57	8-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	9-3-57	7-26-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	10-15-57	10-7-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	9-30-57	10-1-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-11-57	9-16-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-15-57	10-7-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	10-3-57	10-2-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	1-3-58	1-3-58
36. (V) CUTTING, C. A., (acting), Measuring and Testing; Automatic Weighers; Weighing Scales	7-5-57	7-2-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	9-4-57	9-10-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Aza, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	11-20-57	12-2-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	11-15-57	11-25-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacle and Packages	11-1-57	11-1-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	9-9-57	8-22-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	8-1-57	8-1-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	9-3-57	9-5-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-4-57	9-3-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	9-13-57	9-13-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinic Series (e. g., fluorescable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	10-2-57	9-10-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	10-2-57	9-16-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	8-16-57	8-22-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	10-7-57	10-14-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	11-1-57	11-5-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	9-5-57	9-6-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	9-6-57	9-3-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	11-19-57	10-7-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	11-4-57	11-6-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	7-9-57	7-5-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	10-8-57	10-1-57
57. (III) MILLER, A. R., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	12-10-57	12-2-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	10-30-57	10-9-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	9-11-57	8-26-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	12-22-57	10-18-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	9-3-57	9-3-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	11-5-57	11-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	8-22-57	9-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	9-4-57	8-16-57
66. (V) LISANN, L., Geometric Instruments; Acoustics; Building Structures	9-3-57	8-23-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	9-10-57	9-9-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	11-1-57	10-28-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	10-16-57	10-17-57
CLASS. DIVS. II—LADY, J. E., Oscillators	1-7-58	1-6-58
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	9-3-57	9-9-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	9-16-57	9-10-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs: Scaffolds	9-3-57	9-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	7-1-57	5-6-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	11-4-57	12-6-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	9-5-57	10-21-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 66

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during July 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents	Numbers 2,247,345, to 2,251,257, inclusive
Plant Patents	Numbers 478 to 479, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE CHANDLER

No. 6341. Decided April 23, 1958

[— CCPA —; — F.2d —; 117 USPQ 361]

1. PATENTABILITY—MULTIPLICITY OF CLAIMS—COMPLEX DISCLOSURE, BROAD CLAIMS.

"Appellant's invention is not of an exceptionally complex nature. * * *. Moreover, * * *, the appealed claims do not specify the various detailed features, but are broadly drawn. Accordingly, the alleged complexity of the specific apparatus disclosed affords no basis for an excessive number of claims."

2. SAME—SAME—PURPOSE OF CLAIMS NOT SERVED.

"* * *, it is proper to allow applicants a reasonable latitude in setting forth their inventive concepts in different phraseology, but it is the purpose of claims to point out and define what an applicant regards as his invention, and that purpose is not served if, as the result of frequent repetitions, they present to the mind a blur rather than a definition."

3. SAME—SAME—DIVISION OF CLAIMS INTO CATEGORIES NOT CONCLUSIVE.

On the question of multiplicity of claims, *Held* that appellant's arbitrary division of fifty claims into ten categories did not establish that there were material differences between the claims; that whether "a claim is broad or narrow is a matter of degree and opinion, and it does not follow that two claims are patentably, or even materially, different from each other merely because one may be termed 'broad' and the other 'narrow'"; that "two claims do not necessarily differ materially because one merely recites only one engine while the other recites several"; and that "the fact that one of two claims is drawn to a method, and the other to an apparatus is not, in itself, proof that both are necessary to protect appellants' invention."

4. SAME—SAME—POSSIBLE DAMAGE TO APPLICANT BALANCED AGAINST BURDEN ON PATENT OFFICE AND COURTS.

"No two claims are identical and therefore it is possible to argue, in each instance, that the difference might become important under some hypothetical future circumstances. The extent to which virtual duplication of claims may be justified by possible remote contingencies is a matter of opinion which must be determined on the basis of the circumstances of each individual case. It is necessary to balance the possible damage to an applicant which might result from an insufficient number of claims against the burden imposed upon the Patent Office and the courts by the presentation of an unreasonably large number."

5. SAME—SAME—FAIL TO PARTICULARLY POINT OUT AND DISTINCTLY CLAIM—35 U. S. C. 112.

"In the instant case we are in agreement with the Examiner and the Board that the number of claims presented is greatly in excess of what is necessary, with the result that the claims as now presented do not particularly point out and distinctly claim the subject matter which the applicant regards as his 'invention,' as required by 35 U. S. C. 112."

6. SAME—FUNCTIONALITY—35 U. S. C. 112 (3rd para.).

In regard to the expression beginning with "so that" in the recitation "means responsive to said movement for regulating the propulsive power of said engine, in accordance with said movement, so that said aircraft is propelled at a definite, selected speed, corresponding to the position of said engine relative to said aircraft, throughout the speed range of said aircraft," *Held* that the expression is not merely functional, but constitutes a part of the definition of the "means responsive to said movement" and thus "that means is defined as being responsive to the movement of the engine in such a way that the aircraft will be propelled at a definite speed in the manner specified"; and *Held* that such a "definition conforms to the provision of 35 U. S. C. 112 that an element in a claim for a combination 'may be expressed as a means or step for performing a specified function without the recital of structure, material or acts in support thereof.'"

7. SAME—SAME—*In re Lamb* DISTINGUISHED.

In distinguishing from *In re Lamb*, 32 CCPA 799, 146 F.2d 277, 1945 C. D. 83, 64 USPQ 241, *Held* that there "the 'whereby' clause did not constitute a part of the definition of any means but merely stated a function which did not necessarily follow from the apparatus recited in the claim."

8. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—DECISION—NO ANTICIPATION FOUND, NO CONTENTION OF LACK OF INVENTION OVER REFERENCE.

"* * * claims 2, 3, and 21 are not anticipated by the Goddard patent. Since it has not been contended that, if not so anticipated, they do not define invention over the patent, it must be held, so far as the issues presented here are concerned, that those claims are drawn to patentable subject matter."

9. PATENTABILITY—REFERENCES—NO SUGGESTION OF DESIRABILITY OF RESULT OR MANNER OF ATTAINING IT.

"* * *, the references do not suggest either the desirability of the result called for by claim 12 or the manner in which it could be attained. It follows that that claim defines patentably over the reference."

10. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—MATTER BEFORE COURT—CLAIMS TO NONELECTED SPECIES NOT CONSIDERED BY EXAMINER OR BOARD.

"Claims 4, 5, 13, and 14 were held to be drawn to nonelected species. They were not considered on their merits by the Examiner or the Board and, accordingly, are not before us for such consideration."

11. PRACTICE—RULE 146—BOARD OF APPEALS—CONSIDERATION OF CLAIMS TO NONELECTED SPECIES IN PRESENCE OF MULTIPLICITY REJECTION.

Where appellant alleged error in the failure of the Board of Appeals to pass upon the merits of claims directed to nonelected species, contending that his application contained allowable generic claims, *Held* that, since all the claims stood rejected on the ground of multiplicity, the application contained no allowed claim, generic or otherwise.

12. APPEAL TO BOARD OF APPEALS—MATTER BEFORE BOARD—MERITS OF CLAIMS REJECTED ONLY ON GROUND OF MULTIPLICITY.

Where the Examiner made no final rejection of certain claims except on the ground of multiplicity, *Held* that the Board of Appeals properly refused to consider the claims on the merits.

13. PRACTICE—MULTIPLICITY OF CLAIMS—NUMBER OF CLAIMS TO BE CONSIDERED ON MERITS.

"The question as to how many claims should be considered on their merits when there is an outstanding rejection of all the claims on the ground of multiplicity is one which should be left largely to the discretion of the Patent Office tribunals. There appears to be no statute or rule which requires any action whatever on the merits under such circumstances."

14. PATENTABILITY — PARTICULAR SUBJECT MATTER — AUTOMATIC CONTROL FOR JET ENGINES—MULTIPLICITY OF CLAIMS—PRACTICE.

Held that the decision of the Board of Appeals, in an application on an automatic control for jet engine, is affirmed as to the rejection of all claims on the ground of multiplicity and as to the failure to consider certain claims on their merits, and is reversed as to the holding that certain other claims were not drawn to patentable subject matter.

APPEAL from the Patent Office.

MODIFIED.

A. M. Prentiss for Chandler.

Clarence W. Moore (*S. Wm. Cochran* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the rejection by the Primary Examiner of all the claims of appellant's application No. 23,036 for a patent on an automatic control for jet engines. Claims 2 and 12, which are typical of the rejected claims, are as follows:

2. In an aircraft propelled by a jet engine, means for controlling the speed of flight in accordance with the reaction thrust of the engine jet, comprising; means for mounting the engine so that it is movable relative to said aircraft in proportion to the reaction thrust of its jet, throughout the range of said movement; and means responsive to said movement for regulating the propulsive power of said engine, in accordance with said movement, so that said aircraft is propelled at a definite, selected speed, corresponding to the position of said engine relative to said aircraft, throughout the speed range of said aircraft.

12. In an aircraft propelled by multiple jet engines, means for controlling the speed of flight in accordance with the jet reaction thrust of each engine, comprising; means for mounting each engine so that it is movable relative to said aircraft in proportion to the reactive thrust of its jet, throughout the range of said movement; and means for regulating the propulsive power of all the engines by varying the fuel supply to each engine in accordance with the movement of one engine selected as a master, so that said aircraft is propelled at a definite, selected speed, corresponding to the position of said engine relative to said aircraft, throughout the speed range of said aircraft.

The references relied on are:

Goddard, 2,397,658, April 2, 1956.
Griffith (British), 578,311, June 24, 1946.

Appellant's invention relates to a method and apparatus for controlling the speed of an aircraft driven by one or more jet engines and preventing it from veering off its course because of unequal thrusts from the several engines. The engines are provided with individual manually adjustable control devices of identical construction, which are connected to respond to the reaction thrusts of the respective engines to vary correspondingly the fuel flow or, alternatively, the cross-sectional area of the air intake or exhaust gas discharge of the engines. The several control devices are connected with each other by a single fluid pressure line, so that all the engines may be controlled in accordance with the performance of one of them, employed as a master engine. Each control mechanism includes a bellows for compensating for changes in density of the atmosphere, which is normally a function of the altitude of the plane, and also includes means for preventing the engine speed or temperature from exceeding safe limits. Since the appealed claims are broadly drawn, we deem it unnecessary to consider the specific mechanisms by which the results above described are accomplished.

The Goddard patent relates to a jet engine primarily designed for the propulsion of rockets or rocket craft. It discloses a combustion chamber supported on the frame of the craft by springs in such a manner that the springs are compressed by an amount dependent upon the total jet thrust of the engine. The resultant movement of the combustion chamber causes a corresponding movement of one sleeve of a sleeve valve which controls the supply of fuel to the combustion chamber. The other sleeve of the valve may be adjusted manually as desired and a manually actuated valve for completely cutting off the fuel supply is also provided.

The British patent to Griffith discloses a control system for a multi-engine jet aircraft in which each engine is provided with a tube facing upstream in the path of the exhaust gases and transmitting the pressure resulting from the impact of the gases to one side of a diaphragm in a pressure differential device. The opposite sides of the diaphragms associated with the several engines are subjected to a common fluid pressure controlled by a valve in a by-pass around a fluid pump. The diaphragm of each engine regulates the fuel supply of that engine so that changes in the engine exhaust pressure will cause an appropriate adjustment in the fuel supply to balance the thrust to that of the other engine or engines.

In another embodiment shown by Griffith, four engines are employed, one of which is manually controlled, and the pressure from the exhaust of that engine is transmitted to one side of each of three diaphragms, the other sides of the diaphragms being each subjected to the exhaust pressure of one of the other engines. The movements of the diaphragms control the fuel supplies of the engines with which they are associated to bring them into balance with the manually controlled master engine.

There are fifty claims involved in this appeal and all of them have been rejected on the ground of multiplicity. Both the Examiner and the Board considered the number of claims presented to be greatly in excess of that necessary to point out and protect appellant's invention, and the Examiner was of the opinion that twenty claims would be adequate for that purpose.

Appellant argues that fifty claims are necessary because "The invention herein disclosed is *pioneer* in *scope*, there being no reference cited which even broadly anticipates applicant's *basic inventive concept* of *controlling* the *speed* of *flight* of a jet engined aircraft by means of the *jet reaction thrust* of the engine"; and because "the invention herein disclosed is a *very complex* one, involving the combination of a large number of novel elements."

Assuming appellant's invention to be of a pioneer nature, it is not clear why fifty claims should be necessary to define such an invention which is succinctly described in a single sentence, as quoted above. It may be noted that eight claims were considered sufficient for the basic patent covering both the electromagnetic telegraph and the Morse code. *O'Reilly et al.* v. *Morse et al.*, 56 U. S. 61.

[1] Appellant's invention is not of an exceptionally complex nature. The application includes three sheets of drawings and the specification covers less than nineteen pages of the printed record here. Applications of substantially greater complexity are frequently before this court and are adequately defined in a number of claims much less than the number presented here. Moreover, as pointed out by the Board, the appealed claims do not specify the various detailed features, but are broadly drawn. Accordingly, the alleged complexity of the specific apparatus disclosed affords no basis for an excessive number of claims.

As was pointed out in *In re Barnett*, 33 CCPA (Patents) 1119, 155 F.2d 540, 69 USPQ 609, [2] it is proper to allow applicants a reasonable latitude in setting forth their inventive concepts in different phraseology, but it is the purpose of claims to point out and define what an applicant regards as his invention, and that purpose is not served if, as the result of frequent repetitions, they present to the mind a blur rather than a definition. *Ex parte Duncan*, 1920 C. D. 36, 276 O. G. 207, affirmed 49 App. D. C. 372, 265 Fed. 1012.

Appellant seeks to justify his presentation of fifty claims by dividing them into ten categories, as follows:

(a) Broad apparatus claims involving a single engine;
(b) broad apparatus claims involving a plurality of engines;
(c) narrow apparatus claims involving a single engine;
(d) narrow apparatus claims involving a plurality of engines;
(e) broad method claims involving a single engine;
(f) broad method claims involving a plurality of engines;
(g) narrow method claims involving a single engine;
(h) narrow method claims involving a plurality of engines;
(i) broad apparatus claims involving a subcombination of elements of applicant's invention; and
(k) narrow apparatus claims involving a subcombination of elements of applicant's invention.

[3] Such an arbitrary division does not establish that there are material differences between the claims. Whether a claim is broad or narrow is a matter of degree and opinion, and it does not follow that two claims are patentably, or even materially, different from each other merely because one may be termed "broad" and the other "narrow." Similarly, two claims do not necessarily differ materially because one merely recites only one engine while the other recites several; and the fact that one of two claims is drawn to a method, and the other to an apparatus is not, in itself, proof that both are necessary to protect appellant's invention.

The Examiner and the Board have pointed out what they consider typical examples of claims which do not differ materially from each other. We agree with them as to those examples and are of the opinion that there are a number of other instances of substantial duplication. [4] No two claims are identical and therefore it is possible to argue, in each instance, that the difference might become important under some hypothetical future circumstances. The extent to which virtual duplication of claims may be justified by possible remote contingencies is a matter of opinion which must be determined on the basis of the circumstances of each individual case. It is necessary to balance the possible damage to an applicant which might result from an insufficient number of claims against the burden imposed upon the Patent Office and the courts by the presentation of an unreasonably large number. [5] In the instant case we are in agreement with the Examiner and the Board that the number of claims presented is greatly in excess of what is necessary, with the result that the claims as now presented do not particularly point out and distinctly claim the subject matter which the applicant regards as his "invention," as required by 35 U. S. C. 112. Accordingly, the rejection on the ground of multiplicity will be affirmed.

The Examiner also respectively considered twenty-one claims selected by appellant, and held that seven of them; namely, claims 24 through 27, 29, 37, and 38 would be allowable aside from their rejection on the ground of multiplicity. Four of the other selected claims, Nos. 4, 5, 13, and 14 were held to be drawn to a non-elected species and therefore would not be allowable in the absence of an allowable generic claim. The remainder of the claims selected, Nos. 2, 3, 6, 11, 12, 16, 17, 19, 21 and 153, were held to be unpatentable over the references above cited.

Claims 2, 3, and 21 were held by the Examiner and the Board to be so broad as to be anticipated by the Goddard patent. So far as that holding is concerned, those claims are substantially identical and it will be sufficient to consider only claim 2 specifically.

Goddard shows a combustion chamber producing a propelling jet for his aircraft or rocket, which satisfies the broad requirement of claim 2 for a jet engine, and he also discloses the mounting of the combustion chamber in such a manner that it is movable relative to the aircraft in proportion to the jet thrust, throughout its range of movement. Accordingly, if claim 2 distinguishes patentably over Goddard, it must be because of the recitation, in its final lines, of "means responsive to said movement for regulating the propulsive power of said engine, in accordance with said movement, so that said aircraft is propelled at a *definite, selected speed*, corresponding to the position of said engine relative to said aircraft, throughout the speed range of said aircraft" [emphasis added].

The Examiner held that the words beginning with "so that" in the quoted expression were merely a functional expression equivalent to the "whereby" clause considered in *In re Lamb*, 32 CCPA (Patents) 799, 146 F.2d 277, 64 USPQ 241, and hence could not have patentable significance. The Board found it unnecessary to consider the correctness of that holding.

[6] We are of the opinion that the expression beginning with "so that" is not merely functional, but constitutes a part of the definition of the "means responsive to said movement." Thus that means is defined as being responsive to the movement of the engine in such a way that the aircraft will be propelled at a definite speed in the manner specified. Such a definition conforms to the provision of 35 U. S. C. 112 that an element in a claim for a combination "may be expressed as a means or step for performing a specified function without the recital of structure, material or acts in support thereof." [7] The instant situation differs from that presented in *In re Lamb*. There the "whereby" clause did not constitute a part of the definition of any means but merely stated a function which did not necessarily follow from the apparatus recited in the claim.

It follows from the foregoing observations that claims 2, 3, and 21 are not anticipated by the Goddard patent, unless that patent shows a control means which will cause the aircraft to be "propelled at a definite, selected speed." It has not been contended that Goddard expressly discloses such speed control, but it was the opinion of the Board that it is inherent in the system disclosed by the patent.

The arrangement shown by Goddard is such that the movement of the combustion chamber in response to an increased thrust causes the fuel supply to be increased. So long as enough oxygen is supplied to the chamber to combine with all the fuel supplied, such an increase in the amount of fuel will increase the thrust, resulting in a further movement of the combustion chamber and an additional increase in the fuel supply. However, when the amount of fuel exceeds that which can properly combine with the oxygen, the thrust will be decreased so that the combustion chamber will move back, under the action of the springs by which it is supported, thus restricting the supply of fuel. The result of this arrangement, as described by Goddard, is that fuel will always be supplied in such an amount as "to produce the greatest thrust for the oxygen flow that is taking place."

Goddard's oxygen supply is controlled by a hand valve, but it is pointed out in the patent that the oxygen flow depends not only on the setting of the valve but also upon the temperature of the combustion chamber, and it is also evident that in the case of a rocket, the flow would vary as the supply of oxygen approached exhaustion. When such variations take place, the control means described does not adjust to maintain a uniform thrust or speed but, on the contrary, brings the fuel supply into proper relation with the changed supply of oxygen to the combustion chamber, thus producing a variation in thrust and speed.

In our opinion the Goddard arrangement does not satisfy the requirement of claims 2, 3, and 21 as to speed regulation. It is true, that so long as Goddard's oxygen flow remains constant, the fuel supply will also be kept constant, resulting in uniform speed. However, upon any change in the rate of oxygen flow, there will be a corresponding change in thrust and speed. Accordingly, Goddard's fuel control means serves merely to coordinate the fuel and oxygen supplies to obtain optimum combustion conditions and is not, in any proper sense, a means for maintaining any definite selected speed. On the contrary, it acts to produce a different speed whenever there is a variation in the rate of flow of oxygen.

[8] It follows that claims 2, 3, and 21 are not anticipated by the Goddard patent. Since it has not been contended that, if not so anticipated, they do not define invention over the patent, it must be held, so far as the issues presented here are concerned, that those claims are drawn to patentable subject matter.

Claim 153 is a method claim of a scope similar to that of claims 2, 3, and 21, and was similarly rejected on the Goddard patent. For the reasons given in connection with claims 2, 3, and 21, we also find claim 153 to be drawn to patentable subject matter.

Claim 6 was held by the Examiner to be unpatentable over the patent to Banning, 2,569,444, but that holding was reversed by the Board. Accordingly, no question as to the patentability of claim 6 is here presented.

Claims 11, 12, 16, 17, and 19 were rejected as unpatentable over Griffith, in view of Goddard. Claim 12, which is representative of that group of claims, calls for a multi-jet engine aircraft in which flight speed is controlled in accordance with the jet reaction thrust of each engine, the engines being movably mounted to effect that result, and in which the propulsive power of all the engines is regulated by varying the fuel supply to a master engine, so that the aircraft is propelled at a definite selected speed.

It was the opinion of the Board that Goddard controls the speed of flight of his aircraft by the jet thrust of his engine, that Griffith controls his multi-jet engine plane in such a way as to obtain a definite selected speed, although he utilizes exhaust flow rather than total jet thrust for that purpose, and that there would be no invention in combining those two disclosures to produce what is recited in claims 11, 12, 16, 17, and 19.

As has been noted in connection with claims 2, 3, and 21, we are of the opinion that Goddard does not control the speed of his aircraft by the jet thrust of his engine. That thrust acts merely to coordinate the oxygen and fuel supplies and to make the speed dependent upon the rate of supply of oxygen. Moreover, it is by no means apparent how the Goddard and Griffith disclosures could be combined to produce a unitary device functioning in the manner called for by claim 12. Griffith effects his multi-engine control by creating a pressure which is a function of the exhaust flow of each engine and balancing the pressure of the master engine against the individual pressures of the other engines. Goddard does not show such a pressure system and there is nothing to show how the movement of each of a number of engines constructed in accordance with his disclosure could be converted into a fluid pressure so that such pressures could be balanced in the manner suggested by Griffith.

[9] In our opinion, the references do not suggest either the desirability of the result called for by claim 12 or the manner in which it could be attained. It follows that that claim defines patentably over the references.

Claims 11, 16, 17, and 19 are quite similar to claim 12 and, for the reasons just given, we consider that those claims also define patentable subject matter.

[10] Claims 4, 5, 13, and 14 were held to be drawn to non-elected species. They were not considered on their merits by the Examiner or the Board and, accordingly, are not before us for such consideration. *In re Hill et al.*, 34 CCPA (Patents) 783, 158 F.2d 1001, 72 USPQ 283. Appellant alleges error in the failure of the Board to pass upon the merits of those claims. He does not deny that they are directed to nonelected species, but contends that the application contains allowable generic claims and that therefore he is entitled to an action on the merits of claims 4, 5, 13, and 14, under the provisions of Patent Office Rule 146. [11] However, since all the claims stand rejected on the ground of multiplicity, the application now contains no allowed claim, generic or otherwise. If the multiplicity objection is overcome, and the case then contains an allowable generic claim, action on the merits of claims 4, 5, 13, and 14 will apparently be in order.

[12] Appellant also contends that, notwithstanding the rejection on the ground of multiplicity, the Board should have passed on the merits of some or all of claims 7 to 10, 15, 18, 22, 23, 28, 30 to 36, and 39 to 50. The Board properly refused to consider those claims on the merits since the Examiner had made no final rejection of them except on the ground of multiplicity.

[13] The question as to how many claims should be considered on their merits when there is an outstanding rejection of all the claims on the ground of multiplicity is one which should be left largely to the discretion of the Patent Office tribunals. There appears to be no statute or rule which requires any action whatever on the merits under such circumstances. In the instant case, we are of the opinion that, with the exception of claims 4, 5, 13, and 14, to the extent noted above, appellant's application has received ample consideration on the merits and such consideration of additional claims is not in order.

[14] The decision of the Board of Appeals is affirmed as to (1) the rejection of all the claims on the ground of multiplicity; and (2) as to the failure to consider claims 4, 5, 7 to 10, 13, 14, 15, 18, 20, 22, 23, 28, 30 to 36, and 39 to 50 on their merits; and (3) is reversed as to the holding that claims 2, 3, 11, 12, 16, 17, 19, 21, and 153 are not drawn to patentable subject matter.

MODIFIED.

JACKSON, *J.*, retired, recalled to participate.

PATENT SUITS

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2,220,581. (See 2,202,068.)

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2,220,222. (See 2,202,068.)

2,421,204. (See 2,151,215.)

2,421,204. (See 2,202,068.)

2,454,204. (See 2,221,010.)

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REISSUES

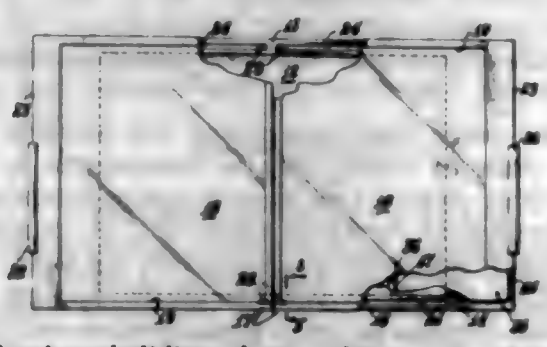
JULY 8, 1958

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,498
PIVOTAL-SLIDING DOOR CABINET

Irvin E. Berger, Chicago, Ill., assignor to Premier-Hall Manufacturing Co., Chicago, Ill., a corporation

Original No. 2,763,527, dated September 18, 1956, Serial No. 574,820, March 29, 1956. Application for reissue November 12, 1957, Serial No. 696,003
8 Claims. (Cl. 312—325)



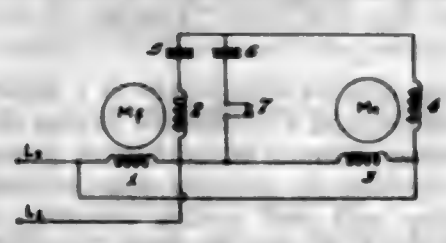
4. A pivotal-sliding door cabinet comprising an enclosure having a vertical front wall and means defining an opening in said front wall comprising bottom and top horizontal framing members and at least one interconnected vertical framing member, a vertically disposed door for said enclosure adapted to move between two positions, one of which is a position parallel with and overlying the front wall and closing off at least a portion of said opening, and the other of which is a position in which the plane of said door is vertical and forms an angle with the plane of said front wall, a pair of horizontal concealed guide means provided in said cabinet at the top and bottom thereof, forwardly opening slots provided in said respective bottom and top framing members providing access to said guide means from said front wall, a slide confined in each of said guide means and each slide having a link member extending forward of said guide means through the respective slots, said link members being pivotally connected respectively at the top and bottom of said door adjacent one vertical edge thereof and defining a first vertical axis about which said one vertical edge is adapted to swing with sliding movement of said slides while said vertical edge is translated horizontally parallel with said horizontal framing members, a third link member in the form of an elongate plate having a hinged connection with said vertical framing member to define a second vertical axis to enable swinging of said third link member, said third link member having another hinged connection with the rear of said door and defining thereby a third vertical axis, said third vertical axis being disposed between said one vertical edge of said door and the opposite vertical edge, the said opposite vertical edge being free and adapted to be manually moved to pivot said door about said third vertical axis while moving said door between said positions.

24,499
ELECTRIC MOTOR CIRCUITS

Sheldon S. L. Chang, New York, N. Y., assignor to Robbins & Myers, Inc., Springfield, Ohio, a corporation of Ohio

Original No. 2,784,362, dated March 5, 1957, Serial No. 547,360, November 17, 1955. Application for release August 5, 1957, Serial No. 677,187
13 Claims. (Cl. 318—163)

1. An electric circuit for operating two electric motors each having a main winding and a starting winding, said circuit including a parallel connection of said two main windings, a series connection of said two starting windings, one of said motors having a starting capacitor and a running capacitor in parallel and both in series with its



starting winding, and the said running capacitor being in series with the starting winding of the other of said motors to serve as a starting and running capacitor for the latter.

24,500
ROTARY MACHINE

Nils Nilsen Straatvelt, Oslo, Norway

Original No. 2,783,714, dated March 5, 1957, Serial No. 264,439, January 2, 1952. Application for release June 26, 1957, Serial No. 669,403
Claims priority, application Norway January 12, 1951
10 Claims. (Cl. 103—131)



1. A rotary machine comprising a closed casing with inlet and outlet openings, said casing having a working space limited by an outer and an inner curved wall, a piston adapted to operate in said casing between said curved walls and having a movement so that all points of the piston move in circles having the same diameter, a force transfer organ adapted to transfer forces to or from said piston to which said piston is connected rigidly, said transfer organ extending radially through one of said curved walls of said working space, one of said curved walls of said working space having an opening in which said transfer organ is freely movable, the dimension in the axial direction of said opening being similar to that of said force transfer organ, the dimension of said opening in the direction perpendicular to said first direction being at least so great that when said force transfer organ is in a position as far from one end of said opening as it can be during one revolution of the machine shaft, the distance between said force transfer organ and said end of the opening in the direction perpendicular to the axial direction will be at least equal to the diameter of said circles in which each point of the piston moves, movable sealing elements adapted to move in sealing engagement with the walls of said opening, means for moving said sealing elements, whereby leakage of the working medium from one side to the other side of said opening is reduced or prevented.

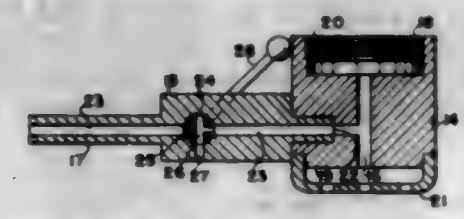
24,501

APPARATUS FOR MIXING FLUIDS

Lou Pollock and Harold C. Wald, Dayton, Ohio, assignors to The Davies-Young Soap Company, Dayton, Ohio, a corporation of Ohio

Original No. 2,699,731, dated January 18, 1955, Serial No. 266,956, January 17, 1952. Application for reissue August 5, 1955, Serial No. 526,799

4 Claims. (Cl. 103—262)



1. A mixing unit for attachment to a faucet and comprising a body defining a cylindrical mixing chamber, said mixing chamber defining a cylindrical passage through said body, openings in opposite ends of said body and communicating with said mixing chamber, said mixing chamber having a smaller diameter than either of said openings, a wing portion projecting radially outwardly from said body portion and secured to said body portion intermediate the ends thereof, a longitudinal passage through said wing portion and communicating with said mixing chamber intermediate the ends thereof, a source of supply connected to said wing portion and communicating with said longitudinal passage, an air channel in said wing portion spaced from said mixing chamber and interconnecting said longitudinal passage and the atmosphere, a cylindrical recess at the junction of said air channel and said longitudinal passage, the longitudinal axis of said recess being transverse to and passing through said longitudinal passage, a valve member rotatably disposed within said recess, a transverse passage through said valve and adapted to be aligned with said longitudinal passage, a radial passage in said valve member perpendicular to said transverse passage and communicating between said transverse passage and the outer surface of said valve member, and manual operable means having two operating positions to rotate said valve member to selectively connect said mixing chamber with either of said air channel or said source of supply.

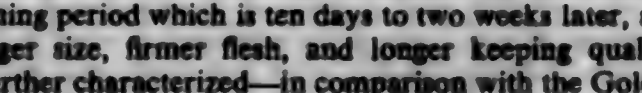
24,502

EXPANSIBLE WRIST WATCH BAND

Simon Myerson, Newton, Mass.

Original No. 2,751,132, dated June 19, 1956, Serial No. 340,953, March 9, 1953. Application for reissue June 17, 1957, Serial No. 667,062

7 Claims. (Cl. 224—4)



1. A wrist watch band comprising two sections, corresponding ends of which may be attached to a wrist watch, the other ends of said sections having interengageable coupling means by which such ends are detachably connected when the band is worn about the wrist, each of said sections having an elongate sheath, and an elongate retracting member having a portion within one sheath and another portion within the other sheath, said retracting member extending across said coupling means and its opposite ends being anchored to the respective sheaths, [the normal length of said retracting member being less than that of the two section so as to exert a retracting force which normally holds the two sections snugly about the wrist,] the expanded length of said retracting member being sufficient to permit removal of the band from the wrist when said coupling means are detached.

PLANT PATENTS

GRANTED JULY 8, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,723

NECTARINE TREE

Frederic W. Anderson, Merced, Calif., assignor to Kim Bros., Reedley, Calif.

Application October 29, 1957, Serial No. 693,221

1 Claim. (Cl. 47—62)

A new and distinct variety of nectarine tree, as illustrated and described, which bears exteriorly red, yellow fleshed, semi-freestone fruit characterized essentially by an extremely early ripening period; characterized further—in comparison with the Early Sun Grand nectarine—by ripening about ten days earlier, not quite as large of size, and flesh which clings more to the stone; and characterized additionally—in comparison with the John Rivers nectarine—by ripening about a week to ten days earlier, yellow instead of white flesh, firmer flesh, and more exterior red color.

1,724

NECTARINE TREE

Frederic W. Anderson, Merced, Calif., assignor to The Burchell Nursery, Modesto, Calif.

Application October 29, 1957, Serial No. 693,222

1 Claim. (Cl. 47—62)

A new and distinct variety of nectarine tree, as illustrated and described, which bears large, firm, yellow fleshed, freestone fruit wherein the skin is a yellow ground color overspread with red, mottled and striped with a deeper brownish red; the fruit being characterized—in comparison with the Freedom nectarine—by fruit having a ripening period which is ten days to two weeks later, and of larger size, firmer flesh, and longer keeping quality; and further characterized—in comparison with the Golden Grand nectarine—by fruit which is more uniform in size, of firmer flesh, and of better eating quality.

1,725

PEACH TREE

Frederic W. Anderson, Merced, Calif., assignor to Kim Bros., Reedley, Calif.

Application October 29, 1957, Serial No. 693,223

1 Claim. (Cl. 47—62)

A new and distinct variety of peach tree, as illustrated and described, which bears white fleshed, clingstone fruit having a red surface color substantially overspreading a pale greenish-yellow ground color, and particularly characterized by an early ripening period approximately one week before the Mayflower peach, and with the Springtime peach; and further characterized—in comparison with said Springtime peach—by large showy flowers, leaves with reniform glands, and fruit which is larger, firmer, brighter red in surface color, not quite so protuberant at the apex, and less subject to defects.

1,726

MINIATURE ROSE PLANT

Ralph S. Moore, Visalia, Calif.

Application August 27, 1957, Serial No. 680,605

1 Claim. (Cl. 47—61)

A new and distinct variety of bush type hybrid miniature rose plant, substantially as described and illustrated, characterized by a dense, well-shaped plant having foliage which fills out approximately to soil level, and which foliage is clean, medium to dark green, and glossy; further characterized by cuttings which root readily and transplant easily, and a plant which withstands shearing very well, with the bloom recurring quickly; and additionally characterized in comparison with the Oakington Ruby by greater vigor of growth, more thorns, and deeper red flowers; in comparison with the Juliette by greater vigor of growth, together with being more upright and having deeper red and more lasting flowers; and in comparison with the Red Imp by a plant which is larger and heavier, with darker, larger, and less double red flowers.

1,727

HYBRID BUDDLEIA PLANT

Albert Victor Pike, Chiddingstone, England, assignor to John J. Grullemans, Cleveland, Ohio

Application July 26, 1956, Serial No. 600,359

1 Claim. (Cl. 47—60)

The new distinct hybrid species of Buddleia plant as herein described and illustrated.

1,728

IRIS PLANT

Robert Schreiner, Salem, Oreg.

Application June 7, 1957, Serial No. 664,458

1 Claim. (Cl. 47—60)

A new and distinct variety of iris plant, substantially as herein shown and described, characterized particularly by its uniform Vinaceous-Rufous coloring of the flowers, its well-cupped erect petals and graceful flaring lower petals, pronounced ruffling of the outer edges of the petals, large size and number of blooms, the heavy texture of the blooms which resists wind, rain and hot sunshine, its height and well-spaced stem-branching, and its resistance to leaf spot.

1,729

ANCHUSA PLANT

Thomas Carille, deceased, late of Twyford, England, by Wendy Veronica Carille, administratrix, Berkshire, England, assignor to John J. Grullemans, Cleveland, Ohio

Application October 25, 1957, Serial No. 692,589

1 Claim. (Cl. 47—60)

The new and distinct variety of anchusa plant substantially as herein shown and described.

PATENTS

GRANTED JULY 8, 1958

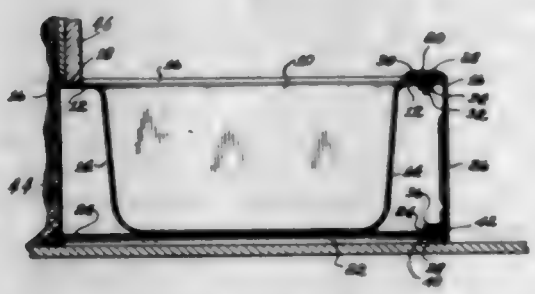
GENERAL AND MECHANICAL

2,841,794
HAND POCKET FOR GARMENT SLEEVE
Joseph De Grazia, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Army
Application October 1, 1956, Serial No. 613,356
2 Claims. (Cl. 2—247)
(Granted under Title 35, U. S. Code (1952), sec. 266)



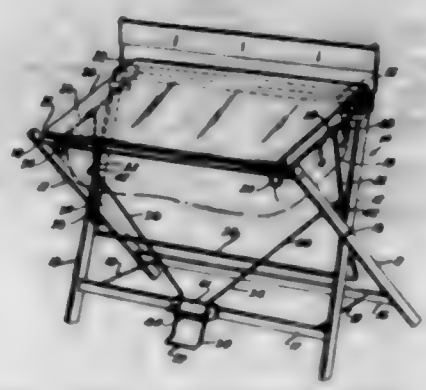
1. In a body garment having sleeves formed with open lower ends; the improvement comprising each sleeve having a wrist covering portion and a subjacent portion extending downwardly in covering relation to a substantial portion of the related hand of the wearer, means forming a hand receiving pocket in said subjacent portion of each sleeve interiorly thereof, each pocket having a free upper edge defining an upwardly opening mouth in said wrist covering portion, and said mouths extending across substantial portions of the interiors of said sleeves to permit unaided access to said pockets by upwardly flexing the wrists and hands of the wearer.

2,841,795
BATH TUB WITH REVERSIBLE APRON
Dominick P. Pelicano, Trenton, N. J.
Application May 2, 1957, Serial No. 656,626
1 Claim. (Cl. 4—173)



In combination with a bath tub having flat horizontal portions extending along the outer upper edges of its opposite sides and having upstanding flanges extending along the outer edges of said flat horizontal portions, a thin walled apron member laterally bent longitudinally into a continuous formation comprising a flat base portion adapted for seating on either of the flat horizontal portions of the tub, a canopy extending from one edge of said base portion over and spaced above said base portion at a sufficient height to clear either of said upstanding tub flanges, and an apron portion depending from the opposite edge of said canopy; and coengaging means on said apron and tub for rigidly, but detachably, mounting said apron member on either side of said tub.

2,841,796
INFANT'S BATHING DEVICE WITH IMPROVED FOOT ACTUATED DRESSING TABLE
Benjamin H. Kennedy, Pittsford, N. Y., assignor of one-half to Ann M. Kennedy, Rochester, N. Y.
Application July 30, 1956, Serial No. 600,951
3 Claims. (Cl. 4—177)

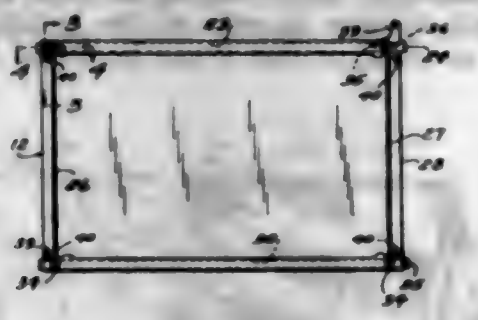


2. In an infant's bath tub and associated dressing table and support therefor, first means mounting said dressing table for movement to and from active and inactive positions respectively overlying the tub and alongside thereof, said means including side arms pivotally connected at their upper ends to a dressing table substantially medially of the ends thereof, second means located at each side pivotally connected with the support and having spaced guide openings through which openings the side arms slideably engage, third means arranged between said spaced guide openings tensioning said side arms to normally urge the same upwardly, a foot operated member having side portions pivotally connected at their upper ends to said side arms between said first and second means for effecting movement of the dressing table from the inactive position to the active position by downward movement of said member, and said dressing table having extensions located adjacent the pivotal connection of the side arms with said dressing table in the path of movement of said side arms and which extensions impinge against said side arms to retain the dressing table in forwardly inclined relation until the dressing table is in complete overlying relation with the tub.

2,841,797
INFANT'S BATHING DEVICE WITH IMPROVED DRESSING TABLE
Benjamin H. Kennedy, Pittsford, N. Y., assignor of one-half to Ann M. Kennedy, Rochester, N. Y.
Application July 30, 1956, Serial No. 600,952
3 Claims. (Cl. 4—177)

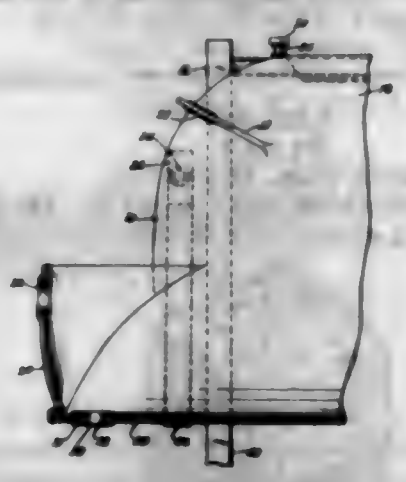
1. In an infant's bathing device and associated dressing table and support therefor, means mounting said dressing table on said support for movement from an inactive position at the rear of the tub to an active position overlying the tub, said dressing table including a panel and a generally rectangular frame consisting of front and rear bars and end rods with the panel stretched between the front and rear bars, said front bar

having slots spaced from the ends thereof and extending inwardly from the under side thereof and with bores extending outwardly from the slots respectively toward the outer ends of said front bar, and said rods being



secured to said rear bar and having upwardly extending forward ends provided with outwardly extending terminals releasably engaging in said slots respectively in said front bar with the terminals fitting said bores.

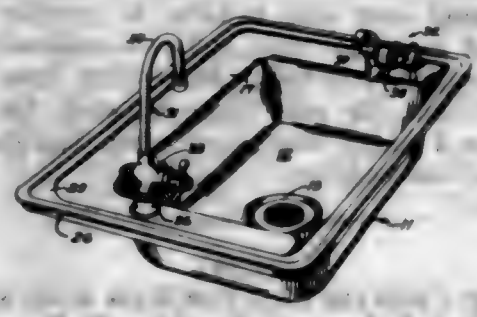
2,841,798
INFANT'S BATHING DEVICE
Benjamin H. Kennedy, Pittsford, N. Y., assignor of one-half to Ann M. Kennedy, Rochester, N. Y.
Application July 30, 1956, Serial No. 600,953
6 Claims. (Cl. 4—177)



1. In an infant's bathing device, a support including front and rear longitudinally extending rails, a flexible tub having opposite longitudinally extending side portions secured to said top rails, said tub having end walls provided with folds at the opposite sides thereof, apertured means securing said folds together respectively, a reinforcing strip secured to and extending across the outer portion of each of said end walls and having free apertured end portions, and means carried by said top rails releasably engaging through the apertured end portions of said strips and through the apertured means of said folds for detaining the end walls of the tub in upwardly extending tub forming formation with the slackness on opposite sides of said end walls forming pleats with said folds.

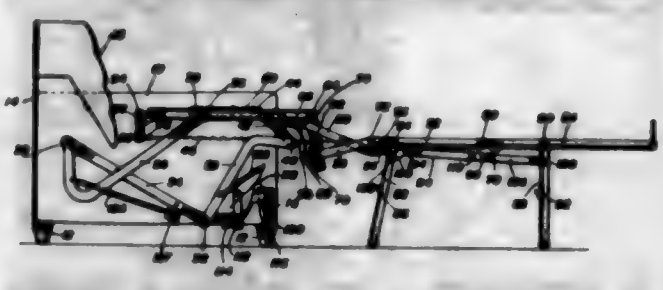
2,841,799
FOUNTAIN RECEPTOR
John E. Traynor, Orinda, Calif., assignor to Haws Drinking Faucet Company, Berkeley, Calif., a corporation of California
Application December 30, 1954, Serial No. 478,823
3 Claims. (Cl. 4—187)

1. A fountain receptor comprising a substantially rectangular bowl having a bottom wall, a back wall, a front wall and opposed end walls, a wide planar ledge extending horizontally outwardly from the upper edge of said back and end walls, a drinking fountain mounted on a portion of said ledge extending outwardly from one of said end walls and positioned adjacent said front wall, and a faucet fixture having its discharge opening directed generally towards said bottom wall mounted on a portion of



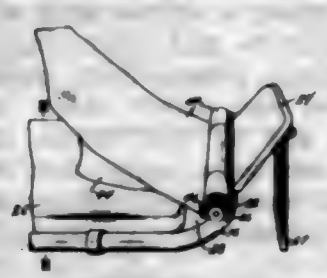
said ledge extending outwardly from the other of said end walls and positioned adjacent said rear wall.

2,841,800
BED DAVENPORT
Joseph R. Thomas, Chicago, Ill.
Application September 27, 1954, Serial No. 458,515
3 Claims. (Cl. 5—13)



1. In a bed davenport having a frame with a fixed upwardly extending front board, a plurality of hingedly connected sections to form a seat when folded and a bed when extended, means connecting the sections for coordinating their movements into and out of the frame, guiding and supporting means at the rear of the front board extending from the upper edge and downwardly and inwardly therefrom, one of the sections having foldably related parts and engaging said means to support the sections in the seat position within the frame in close relation to the front board and to direct them over the top of the front board free from contact therewith in the folding and unfolding movement of the sections into and out of the frame.

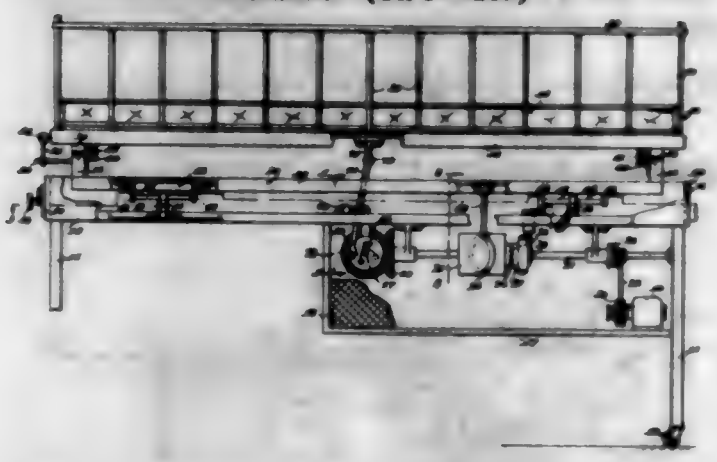
2,841,801
AMBULATORY COT SHEET PROTECTOR
Richard C. Crown and John K. Watkins, Sylvania, Ohio
Application August 25, 1955, Serial No. 530,554
1 Claim. (Cl. 5—92)



In combination, an ambulatory cot having a frame with a foot board hingedly attached thereto, bedding mounted on said frame terminating at one end thereof to provide a spaced region between said bedding and said board adjacent the hinge attachment, said attachment including fastening means for the foot board thereto, a U-shaped bracket having its central portion engaged by said fastening means to mount said bracket to said board in the spaced region when said board is folded over said bedding and above said region when said board is extending outwardly therefrom, said bracket having its terminal legs outwardly extending from its central portion to provide a pair of spaced bearings laterally positioned with respect to said board, a roller freely mounted

by and between said bearings, a strip of sheet material wound on said roller and manually withdrawable therefrom to extend over said bedding to provide a shield therefor, and means on said roller to manually rewind said sheet thereon, said roller and wound sheet material disposable within the said space between the bedding and foot board hinge attachment when said foot board is folded over said bedding.

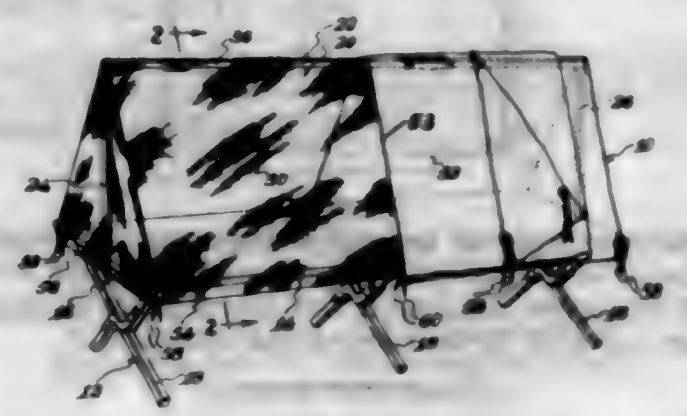
2,841,802
COMBINED CRIB OR BED ROCKER AND SHAKER
Jack T. Leverett, Brooklyn, N. Y.
Application May 12, 1955, Serial No. 507,792
2 Claims. (Cl. 5—109)



1. In combination, a base including a plurality of spaced parallel vertically disposed legs, a plurality of spaced parallel horizontally disposed beams secured to the upper ends of said legs, a pair of spaced parallel vertically disposed side walls and a pair of spaced parallel vertically disposed end walls secured to said beams, a horizontally disposed platform secured to certain of said legs, a motor mounted on said platform, a drive shaft journaled above said platform, belt and pulley means connecting said motor to said drive shaft, a cam mounted on said shaft and provided with a curved trackway, a frame movably mounted above said base and including spaced parallel bars interposed between the walls of said base, curved end pieces extending between said bars and secured thereto, a bed movably mounted above said frame and including a pair of spaced parallel side members, brackets secured to the inner surfaces of the end pieces, coil springs extending upwardly from the brackets and connected to the bottom of the bed for providing a spring mounting therefor, straps on the bottom of said bed for engagement with the curved end pieces, a driven shaft arranged at right angles with respect to said drive shaft and journaled above said platform, intermeshing beveled gears connecting said drive and driven shafts together, a disc mounted on an end of said driven shaft, a bracket depending from said bed, a removable crank connecting said disc to said bracket, and a finger depending from said frame and engaging the trackway in said cam.

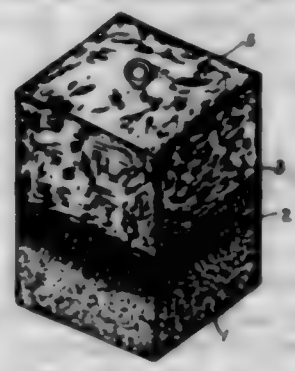
2,841,803
COT TENTS
Walter G. Bodling, Austin, Tex.
Application August 17, 1955, Serial No. 528,907
1 Claim. (Cl. 5—113)

A cot tent comprising a cot frame including longitudinal, parallel side rails and transverse end rails connecting the ends of the side rails and having projecting ends that project beyond the side rails, uprights socketed in holes in the end rails, a hinged ridge pole horizontally extending between the end rails, means removably securing the ridge pole to the upper ends of the uprights, a mesh netting covered draped over the ridge pole and having sides and ends with the ends being in two complementary sections, said sides and ends having edge flaps that overlie the outer side faces of the rails, tie strings on the flaps to secure the flaps to the rails, a canvas cover of a shape identical to the shape of the netting cover and overlying the netting cover and being joined midway its ends to the netting cover by transverse stitching so that it can be folded back from



the netting cover at either end, said canvas cover having sides and sectional ends, said sides and ends of the canvas cover having edge flaps that overlie the edge flaps on the netting cover, said edge flaps of the canvas cover having tie strings to secure them to the rails, and said tie strings for both covers being secured to the projecting ends of the end rails.

2,841,804
FLOAT
Joseph Case, Miami, Fla.
Application March 20, 1953, Serial No. 343,667
1 Claim. (Cl. 9—8)



In a float, a body having a cellular foam glass core, a porous fabric covering the surface of said foam glass core, a coal-tar pitch material coating said porous fabric, a layer of asbestos fiber covering said pitch material, said pitch material containing approximately 2% paraffin solids for rendering said pitch material malleable, thereby reducing chipping and increasing the waterproofing characteristics of said body, said pitch material penetrating the pores of said fabric and into the surface cells of said core, said porous fabric preventing the formation of air bubbles in said pitch material, said pitch material, asbestos fiber and porous fabric adhering to said core by interlocking with said surface cells to form a non-erosive skin.

2,841,805
AQUAPLANE
Brooks Roudebush, Winamac, Ind., assignor, by mesne assignments, to Fun-Craft, Inc., Winamac, Ind., a corporation of Indiana
Application August 8, 1955, Serial No. 526,812
4 Claims. (Cl. 9—21)

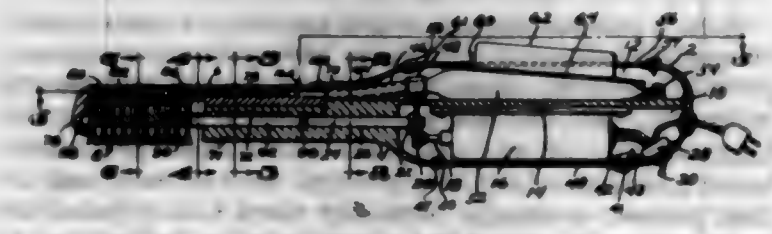
1. A bifurcated unitary water sport device adapted to be towed from a boat or the like and ridden by an operator, and comprising a relatively rigid transverse forward end portion, and a pair of elongated ski-like members to

support the operator and trailing said forward end portion in spaced apart relation and rigidly transversely connected to the said forward end portion, said ski-like members being normally maintained substantially in common planar positions against twisting longitudinally thereof by the inherent rigidity of their transverse connections



with said forward end portion but being relatively flexible under relative applied pressure by the operator thereon in substantially vertical directions along at least portions of their lengths rearwardly of said transverse connections with said forward end portion for relative manipulative and steering control of the device by the operator.

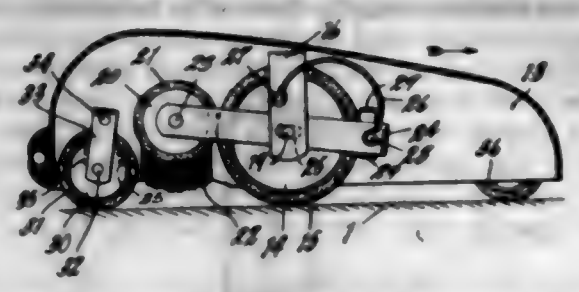
2,841,886
ROTARY TOOTHBRUSH HAVING MEANS TO FEED DENTIFRICE THEREON
John V. Bland, Newton, Mass.
Application October 22, 1954, Serial No. 463,863
5 Claims. (Cl. 15—24)



3. A dental appliance comprising a hollow handle divided longitudinally into two substantially coextensive compartments both of which will normally be within the confines of the user's hand, one compartment adapted to receive a tube of toothpaste, means at the outer side of said one compartment adapted to be pressed inwardly by hand pressure in a direction transverse of the length of the said tube for forcing toothpaste out of a toothpaste tube positioned in said one compartment, a toothbrush element having a plurality of radially extending bristles embedded in the periphery of a rotatable shaft, an electric motor for rotating said shaft mounted within said handle in the other compartment alongside of said tube of toothpaste, means operatively coupling said motor and said shaft, a dispenser member overlying said toothbrush element and removably secured to said handle and means for connecting said dispenser member with a toothpaste tube, said dispensing member acting to direct toothpaste forced out of a toothpaste tube onto the bristles of said toothbrush.

2,841,897
CARPET SWEEPER
Fred W. Pullen, Grand Rapids, Mich., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich.
Application June 23, 1952, Serial No. 295,033
9 Claims. (Cl. 15—48)

6. In a carpet sweeper the combination of a casing, main floor wheels, spindles for said floor wheels carried by said casing, a brush provided with rollers coacting with said main floor wheels, brush hanger members on which said brush is journaled having longitudinal slots in the arms thereof pivotally and slidably engaging said floor wheel spindles, and auxiliary floor wheels swingably mounted on the casing to coact with said rollers on said



brush on the forward stroke of the sweeper and to be disengaged therefrom on the return stroke of the sweeper.

2,841,898
TRAY AND APPLICATOR FOR PHONOGRAPH RECORD TREATMENT
Robert W. Beyland, Yalesville, Conn.
Application January 27, 1956, Serial No. 561,728
1 Claim. (Cl. 15—121.3)

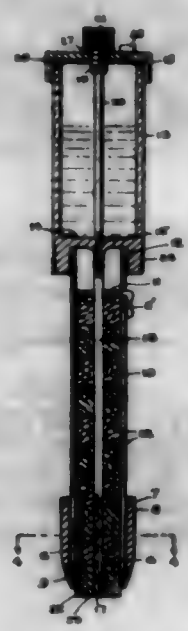


A device for use in applying a cleaning and treating liquid to phonograph records comprising a shallow rectangular tray having a bottom and four side walls, a plurality of spaced riser fins in one end of said tray, each fin extending from the bottom to a plane parallel to the bottom and slightly below the upper edges of said walls, the bottom portion of the other end of said tray being smooth and unimpeded, the spaces between said fins communicating one with the others and the other end of said tray, a disc-shaped applicator sponge having a flat lower work face of an area smaller than the other end of said tray for insertion therein to soak up a quantity of liquid retained in said tray and a thin peripherally gripped handle member superimposed on and conected to said sponge for manipulation thereof, the size of said sponge being coordinated with the spacing of said fins so that upon inserting said sponge in the tray to soak up liquid and then depressing the sponge on the top edges of the fins to eject a portion of the liquid, sufficient liquid will be retained in the sponge for coating a record to be treated.

2,841,899
FINGER NAIL POLISH REMOVING TOOL
Doris Oliver, Fort Lauderdale, Fla.
Application April 10, 1957, Serial No. 651,949
4 Claims. (Cl. 15—138)

2. A finger nail polish removing tool, comprising an elongated handle forming cylindrical and tubular barrel that forms a magazine, the barrel at its lower end being slotted to form a plurality of flexible clamping tongues, a nut rotatably supported upon the lower portion of the barrel, means formed upon the nut whereby to flex the tongues inwardly, a plurality of cylindrical absorbent wads carried within the barrel concentric thereto, a follower plate in the barrel to overlie the uppermost wad and whereby the group of wads may be progressively fed downwardly to dispose a lowermost wad partially projecting below the lower end of the barrel, the said tongues when flexed inwardly adapted to have a circumferential clamping engagement with the lowermost wad to prevent

displacement, a fluid chamber connected to the upper end of the barrel, an elongated fluid conducting tube leading from the chamber axially thereof to terminate within the



lowermost wad, the lower end of the tube being perforated whereby fluid may be discharged from the tube to engage and saturate the lowermost wad, and valve means for controlling the flow of fluid through the tube.

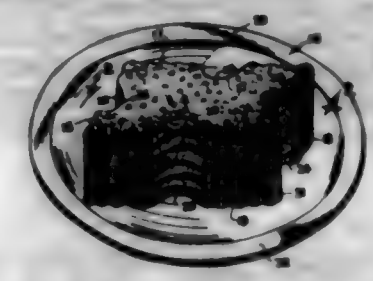
2,841,810
BRUSH
Carl J. Reinhard, Dayton, Ohio
Application January 19, 1956, Serial No. 560,206
2 Claims. (Cl. 15—172)



1. In a painting implement, a body bar having a straight handle length at one end and a straight outer length at the opposite end, a brush mounted on said outer end length having bristles at its outer end and a transversely extending tubular part at its inner end, said tubular part being rotatable and axially slidable on said outer end length of the bar, a pin extending transversely of the bar adjacent its outer end and having its ends projecting outwardly of the bar, said tubular part having notches at its outer end engageable with projecting ends of said pin, and a spring bearing against the opposite end of said tubular part to resiliently bias said part against the ends of said pin.

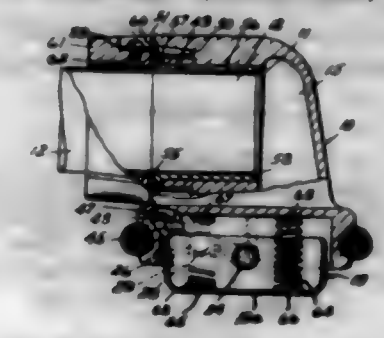
2,841,811
FINGER CLEANING DEVICE
Esther T. Carroll, Jamaica, N. Y.
Application April 9, 1956, Serial No. 576,865
3 Claims. (Cl. 15—244)

1. A finger cleaning device comprising an absorbent block having sides, said sides having a plurality of spaced finger wiping concave portions of a size to receive a person's finger, said concave portions having laterally disposed cross serrations, said absorbent block having top



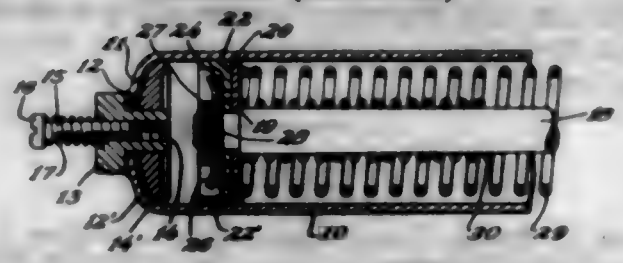
and bottom surfaces and said concave portions of said sides extending between said top and bottom surfaces.

2,841,812
TANK TYPE VACUUM CLEANER NOZZLE
Stanley F. Lechowicz, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a corporation of Connecticut
Application March 23, 1956, Serial No. 573,396
5 Claims. (Cl. 15—355)



1. In a vacuum cleaner nozzle assembly, a transversely elongated hollow nozzle housing having a bottom surface provided with an elongated aperture for the passage of suction air into the nozzle, an elongated shaft disposed longitudinally of the aperture and within the nozzle housing and provided with a crank arm at each end, a shoe member associated with each crank arm disposed at each transverse end of the nozzle housing and having a bearing surface disposed below the bottom surface of the nozzle housing adapted to slide over the surface being cleaned, the shoe members each being pivotally connected intermediate the ends thereof to the outer end of its associated crank arm for vertical movement relative to the nozzle housing in response to rotation of the shaft, means resiliently urging each of the shoes in opposite directions about its pivotal axis, and means disposed centrally of the nozzle housing to selectively rotate the shaft.

2,841,813
DOOR CHECK
Harold W. Falk, St. Paul, Minn., assignor to Wright Products, Inc., St. Paul Park, Minn., a corporation of Minnesota
Application November 16, 1954, Serial No. 469,168
2 Claims. (Cl. 16—66)



1. A door check comprising in combination a tubular casing having an integral rounded end provided with an aperture therethrough, an adjustable air valve in the said aperture at one end of said casing, spring means on said adjustable valve to hold the said valve in pre-adjusted position, a piston rod within said casing, a pair of spring means encircling said piston rod, a flexible plunger mounted between non-flexible washers on the

innermost end of said rod, a plurality of aligned air passageways provided by apertures in said plunger and said washers, and a flexible washer secured to said piston rod and overlying said air passageways externally of said non-flexible washers so that upon withdrawal of said piston rod from said casing said air passageways are opened and upon movement of said piston rod a sufficient distance into said casing said air passageways are closed, said flexible washer normally being concave in a direction away from said apertures.

2,841,814

LOCKABLE HINGED HANDLE FOR CONTAINERS

Charles F. Murphy, Natick, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application October 9, 1956, Serial No. 614,782
1 Claim. (Cl. 16—110)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A hinged handle for a container or the like having a handle mounting lug fixedly projecting therefrom and forming a support for handle hinging means including a hinge pin comprising an elongated sheet metal handle-forming member of generally channel shape in transverse section mounted to swing freely on said hinge pin into and out of an operative position in substantially projecting alignment with said handle mounting lug, a sleeve-like keeper dimensioned to be snugly received upon but slidable relatively freely in an endwise direction upon said handle and handle mounting lug and to overlap the hinge connection between said lug and said handle when the handle is disposed in operative position and the keeper is in a predetermined position of sliding adjustment rigidly to lock the handle in the said position, a stop lug struck inwardly from the body of said sleeve-like keeper at a position in an endwise direction thereof to form an abutment one side of which is disposed to engage said handle hinging means for arresting sliding movement of said keeper in a direction carrying the keeper into overlapping relation with the handle mounting lug upon arrival of said keeper at handle locking position and an oppositely disposed side and a latch comprising an elongated leaf spring anchored at one end to the web of said channel-shaped handle at a point remote from the hinged end thereof, said leaf spring having a free end extending toward the said hinged end of said handle and being biased in a direction to engage the said oppositely disposed side of the stop lug on said keeper when the latter is in handle locking position to cooperate with said handle hinging means in preventing movement of the keeper from handle locking position, the range of movement of said free end being sufficient to permit disengagement of the same from said stop lug by the application of manual force.

2,841,815

AUTOMOBILE DOOR HINGE WITH HOLD-OPEN MEANS

Elmar V. Kallstrom and Warren J. Kush, Rockford, Ill., assignors to Atwood Vacuum Machine Company, Rockford, Ill., a corporation of Illinois

Application February 27, 1956, Serial No. 567,801
2 Claims. (Cl. 16—142)

1. In a hinge, the combination of two hinge members pivotally connected together for opening and closing movement relative to one another, two spaced leaf springs fixed at one end with respect to one of said hinge members and having the other of said hinge members movable therebetween and arranged to have slidable engagement at its opposed longitudinal edges on the inner faces thereof, said leaf springs being arranged to be thereby deflected relative to their fixed ends and spread apart against their inherent resistance to deflection, said springs having inwardly projecting cam-shaped portions in inwardly spaced relation to the free ends thereof over



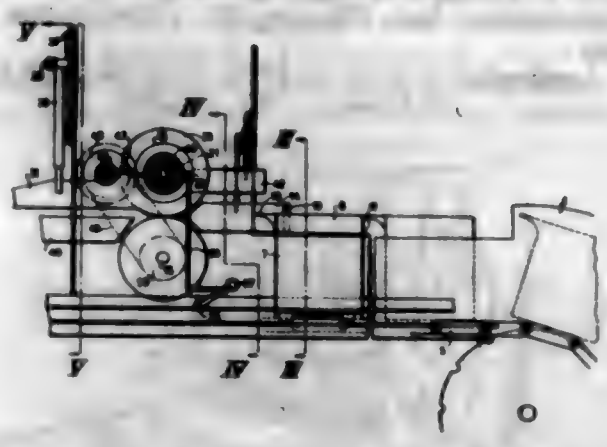
which the longitudinal edges of the last mentioned hinge member slide in the movement of said member to fully opened position, said projections serving to hold said hinge member in fully opened position, and said leaf springs having inwardly projecting stop shoulders defined at their free ends in outwardly spaced relation to said cam-shaped projections for engagement by said last mentioned hinge member in fully opened position, and tension spring means in outwardly spaced relation to said shoulders interconnecting the free end portions of said leaf springs to resist the spreading apart thereof.

2,841,816

FISH FILLETING MACHINE

Henry Westerdahl, Sydhavnen, Ronne, Denmark, assignor to A/S Atlas, Copenhagen, Denmark

Application March 5, 1954, Serial No. 414,402
Claims priority, application Denmark March 7, 1953
8 Claims. (Cl. 17—4)



1. A machine for cutting fillets from fish and the like, comprising, in combination, support means having a supporting surface formed with an elongated slot; an endless conveyor chain mounted below said support means for movement relative thereto in the direction of said slot; a plurality of narrow propelling members mounted on said conveyor chain, each having a substantially spear-shaped upper portion extending in said direction, each of said upper portions being adapted to engage the rearwardly turned head end of a previously beheaded fish, at least one of said propelling means extending upwardly from said conveyor chain through said slot of said supporting surface of said support means so that the upper portion of said one propelling member may engage a previously beheaded fish placed upon said supporting surface in the region of said slot thereof and move such fish along a

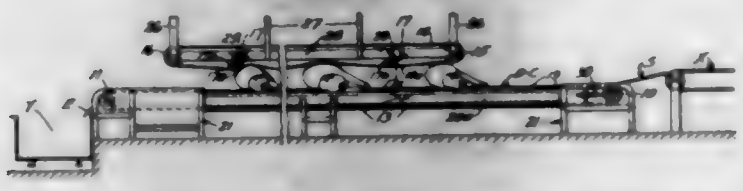
work path extending in said direction of said slot; and cutter means on said support means in the region of said work path and on both sides thereof for cutting each side of a fish carried by said one propelling member, beginning with the tail end, while said one propelling member moves the fish along said work path.

2,841,817

APPARATUS FOR FACILITATING STICKING BLEEDING OF SLAUGHTER ANIMALS

Laurence W. Murphy, Austin, Minn., assignor to Geo. A. Hormel & Co., Austin, Minn., a corporation of Delaware

Application November 14, 1955, Serial No. 546,622
7 Claims. (Cl. 17—24)



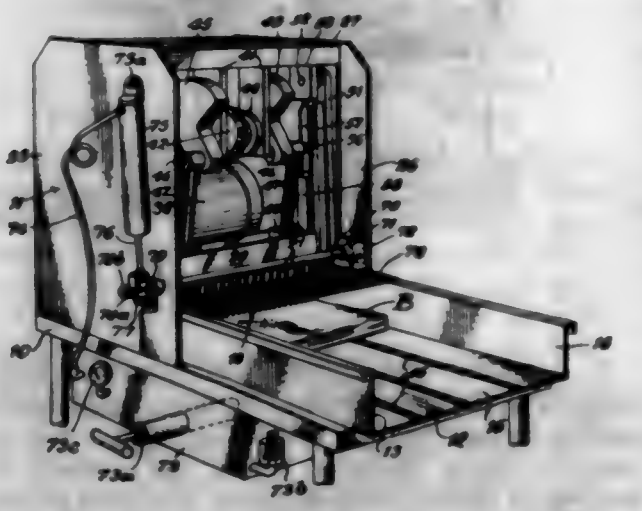
1. Apparatus for facilitating sticking and bleeding of slaughter animals comprising, an elongated conveyor including a first portion defining a substantially planar conveying surface of an overall width and contour for accommodating transversely the full lengths of immobilized slaughter animals disposed on their sides transversely thereof, said conveyor also including a second portion adjacent one lateral edge of said first portion and disposed below said first portion for receiving and supporting the head and at least portions of the forelegs of the animals, said second portion being foraminous to permit passage of blood therethrough and means for driving said conveyor at a predetermined speed related to its length so that the time element of animals successively moved throughout said length is sufficient for substantially complete bleeding of the animals after sticking.

2,841,818

MEAT-PERFORATING APPARATUS

Carroll L. Griffith, Chicago, Ill., assignor to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois

Application August 25, 1955, Serial No. 530,558
10 Claims. (Cl. 17—25)



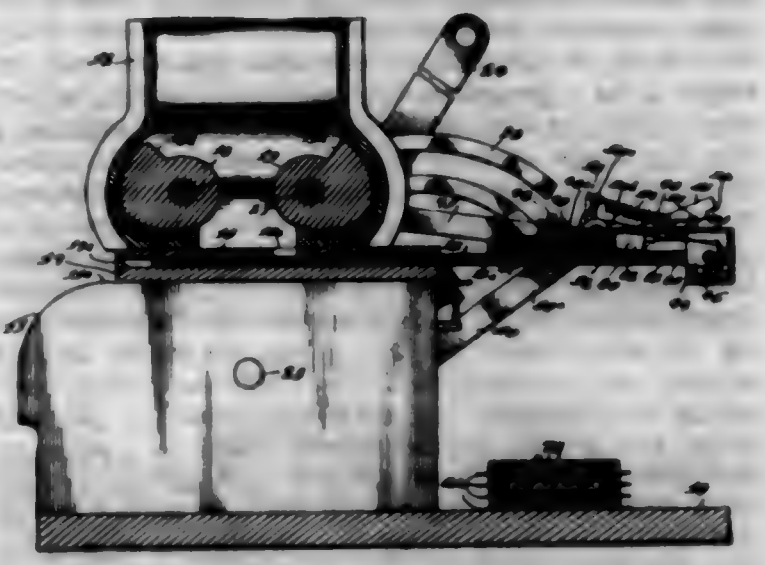
1. Apparatus comprising a frame, a generally horizontal bed plate fixed relative to the frame on which slidingly to support a piece of meat, a crosshead mounted in said frame for reciprocation above said bed plate and generally perpendicular thereto, meat-piercing tools carried by said crosshead in a bank extending across said bed plate and positioned to enter a piece of meat on said bed plate, a rotary operating shaft mounted in said frame, eccentric means on said shaft operatively connected to said crosshead for reciprocating it in a direction generally perpendicular to said bed plate, swinging guide means for said crosshead pivoted on a horizontal axis to said frame adjacent its upper end, cam means on said shaft operatively associated with said guide means to effect horizontal swing of said guide means on its pivotal axis, said cam means having a first portion providing no camming action in a first extreme of the arc of swing of the guide means at which time the eccentric means effects a downward movement of the crosshead with penetration of the meat, a second portion operable to cam the guide means forward to the second extreme in the arc of swing while the eccentric means lifts the crosshead in withdrawing the tools from the meat and while moving the meat in the forward direction by the tools, a third portion providing no camming action for limiting the forward movement of the guide means and of the meat moved by the tools, and a fourth portion operable to cam the guide means to its rearmost horizontal position while the eccentric means moves the tools from withdrawing position to penetrating position, stripper means carried by said frame movable into a position which is above the normal level of the meat on said bed plate and below the lower ends of the tools in their uppermost position, whereby to free the meat from the tools and permit the tools to move above the meat during return of the crosshead from its advancing movement, and movable constant pressure means connected to said stripper means for moving it into the path of an entering piece and force it onto the top face of a passing piece, whereby to limit the rise of the piece in withdrawing the pins.

2,841,819

MOLDING APPARATUS

Harry H. Holly, Olympia Fields, Ill., assignor to Hollymatic Corporation, a corporation of Illinois

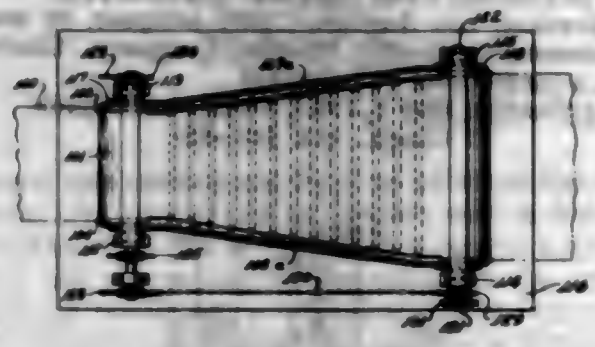
Application August 24, 1954, Serial No. 686,160
7 Claims. (Cl. 17—32)



2. Molding apparatus, comprising: a mold plate member having top and bottom surfaces, the member being relatively thin with respect to its length and width and having surfaces extending between said top and bottom surfaces defining an opening through the mold plate member, the opening defining surfaces being smoothly blended into each other to provide rounded contours; an elongated movable member in said opening of substantially the same thickness as said plate member normally located at one side of the opening and having a side surface facing said opening and cooperating therewith to define a mold cavity, said side surface having its ends smoothly blended into said opening defining surfaces in order to constitute a continuation of said rounded contours, the movable member having its top and bottom surfaces substantially in the same planes as the corresponding surfaces of said plate member; means for moving the movable member

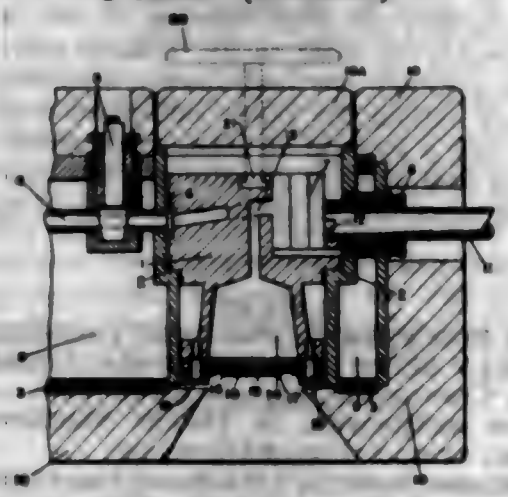
within the opening to vary the size of the cavity; and means for guiding said movement to maintain said coplanar relationship of said top and bottom surfaces.

2,841,820
STRETCHING MEANS
Fred B. Pfeiffer, Akron, Ohio, assignor of one-half to Jesse R. Crossan, Wadsworth, Ohio
Original application February 3, 1954, Serial No. 407,968, now Patent No. 2,769,022, dated October 30, 1956. Divided and this application January 13, 1955, Serial No. 485,564
7 Claims. (Cl. 18—1)



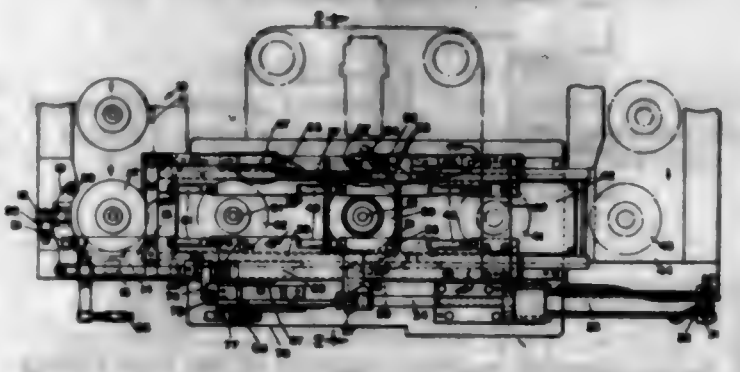
1. Apparatus for continuous simultaneous stretching in all directions in a given plane, a sheet of stretchable material which comprises two stretchable elastic driven endless belts mounted on and driven by two pairs of pulleys, the pulleys of each said pair having parallel axis and one pulley of each pair being disposed substantially directly over the other so that said belts run in direct contact with each other from one said pair of pulleys to the other, said belts having integral continuous thickened bead-like edges; non-parallel rigid grooved guide members disposed between said pairs of rolls; said beaded edge portions being disposed in said grooves in sliding relation therewith whereby the course of travel of said thickened edges from one pair of rolls to the other is defined.

2,841,821
MELT SPINNING APPARATUS WITH REMOVABLE SPINNING ASSEMBLY
John W. Philippe, St. Albans, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain
Application February 18, 1953, Serial No. 336,159
Claims priority, application Great Britain February 19, 1952
1 Claim. (Cl. 18—8)



A melt spinning apparatus comprising a spinning unit, means defining an upwardly opening well for removably receiving and supporting said unit, means having an outlet communicating with said well for supplying molten filament forming material to said unit, means substantially surrounding said well for heating the unit supported therein, said spinning unit comprising a pump for pumping the material from said supplying means and a spinning pack through which the material is pumped by said pump, said unit providing an inlet for said pump, clamping means for securing said unit to said well defining means with said inlet and outlet in fluid-tight communication, and means detachably connected with said pump for driving the latter.

2,841,822
MOLDING APPARATUS
Robert C. Clough, Lombard, Richard B. Graf, Downers Grove, and John F. Krezic, North Riverside, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application June 29, 1954, Serial No. 448,152
5 Claims. (Cl. 18—16)



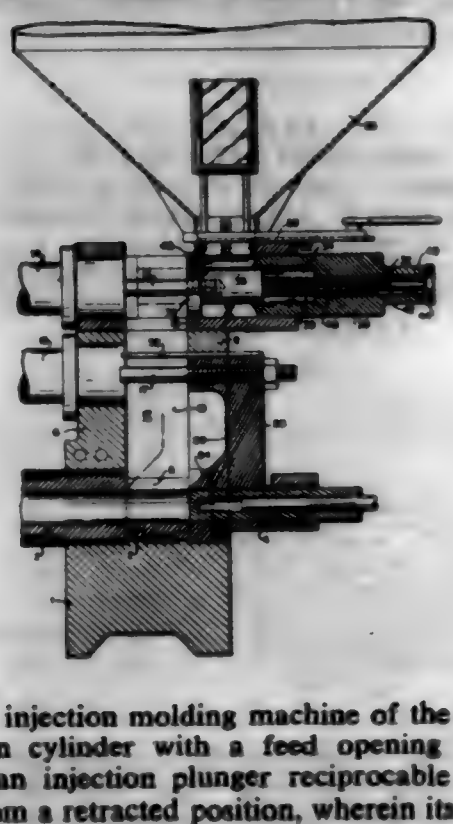
4. A die feeding apparatus for a molding press comprising a die guide extending from feed end thereof to and through the press to an exit end thereof, a guideway extending along the die guide, a slide mounted slidably on the guideway, a plurality of sets of escapement pawls carried by and spaced along the slide, means for reciprocating the slide along the guideway between a retracted position and a feed position, means operable jointly by the slide as it reaches its retracted position and a die positioned on the feed end of the guideway for actuating the slide-reciprocating means, and means operable by the slide as it reaches its feed position for actuating a press-reciprocating means.

2,841,823
MOLDING APPARATUS
Carroll H. Van Hartesveldt, Birmingham, Mich.
Application February 8, 1954, Serial No. 408,889
1 Claim. (Cl. 18—19)



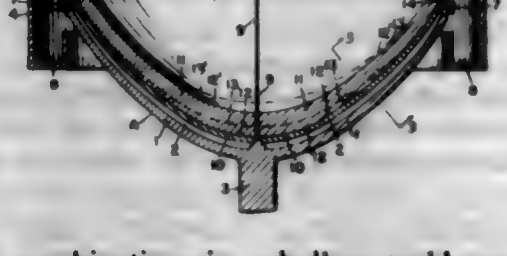
Molding apparatus comprising a plurality of mold members cooperating to define a die cavity, a rigid metal cavity lining carried by one of said mold members, electrical contacts for causing a current flow across said lining, said mold members being formed of lightweight electric insulator materials, means for selectively moving said members in and out of cavity forming relationship, means for separably locking said members together, and fluid pressure actuated means carried by said moving means for applying pressure against said mold members to exert pressure against a molding composition in the cavity.

2,841,824
FEED MECHANISM FOR INJECTION MOLDING MACHINE
Wilfred G. Harvey, Leominster, Mass.
Application November 9, 1953, Serial No. 390,883
3 Claims. (Cl. 18—30)



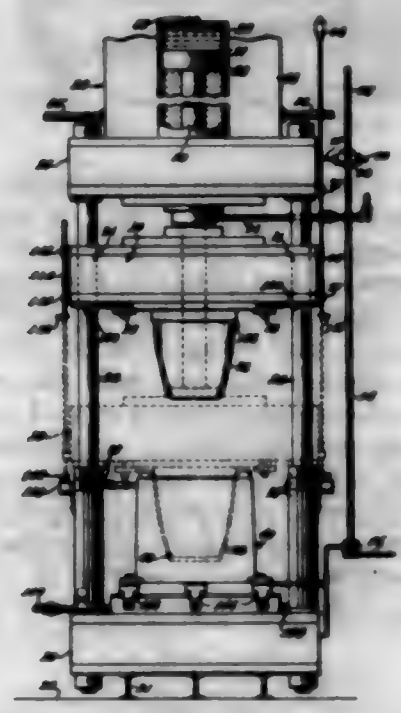
1. In an injection molding machine of the type having an injection cylinder with a feed opening between its ends, and an injection plunger reciprocable within said cylinder from a retracted position, wherein its end is clear of said feed opening, to an advanced position, wherein its body portion extends beyond said feed opening, mechanism for intermittently feeding predetermined charges of plastic material to said injection cylinder, comprising supply means for thermoplastic material disposed above said cylinder, an upstanding delivery duct having its lower end communicating with said feed opening and its upper end communicating with said supply means, a closure member mounted on the outside of said cylinder with its lower part projecting into said feed opening, the inner face of said lower part conforming to the curvature of the inside of said cylinder, said closure member being movable from a retracted position, wherein the communication between said feed opening and delivery duct is unimpaired, to an advanced position within said delivery duct, wherein the closure member enters said feed opening, and means for successively advancing said closure member and plunger and thereafter retracting them.

2,841,825
NEGATIVE PATTERN AND HOLLOW MOLD FOR CASTING COMPOUND REFLECTOR MEMBERS
Bandilio Jesús Piqué, Marianao Township, Cuba
Original application March 19, 1951, Serial No. 216,367, now Patent No. 2,719,327, dated October 4, 1955. Divided and this application August 19, 1954, Serial No. 450,982
2 Claims. (Cl. 18—34)



1. The combination, in a hollow mold comprising a ring support and a cover member, of a negative pattern comprising two half convex paraboloids having different curvature displaced from each other along their paraboloidal axis, and a meniscus plane conformed between the inner periphery of said displaced half convex paraboloids and comprising their paraboloidal axis, with an inner paraboloidal concave surface in said cover member inwalling said negative pattern near to face with said displaced half convex paraboloids, and a bevel ring surface in said ring support located between the outer periphery of said half convex paraboloids and said inner paraboloidal concave surface, and thus said hollow mold being adapted for casting compound reflector members.

2,841,826
METHOD FOR MOLDING PLASTIC
Milton Brecher, Los Angeles, Calif., assignor, by mesne assignments, to Zenith Plastics Company, Gardena, Calif., a corporation of Delaware
Application May 1, 1953, Serial No. 352,468
1 Claim. (Cl. 18—55)

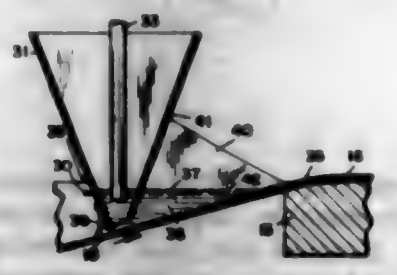


The method of molding a large-area article from a thermosetting plastic resin material having a short incipient gelation time wherein a heated mold is initially charged with material comprising said plastic and a fibrous reinforcing material, the steps of: setting one side of the mold in an initial rapid movement to a stop position short of closing of the mold and with a force less than that required for final molding, to heat and press said resin to fill the mold cavity; holding said one side at said stop position; and immediately thereafter closing the mold by setting the other side thereof in a final movement with a force at all times substantially equal to the required final molding pressure and in a time interval expiring before commencement of gelation of said resin.

2,841,827
PROCESS FOR PRODUCING ELECTROMECHANICALLY SENSITIVE SHEET MATERIAL
Joseph W. Crownover, Sherman Oaks, Calif., assignor, by mesne assignments, to Electric Machinery Mfg. Company, a corporation of Minnesota
Application April 26, 1954, Serial No. 425,664
6 Claims. (Cl. 18—57)

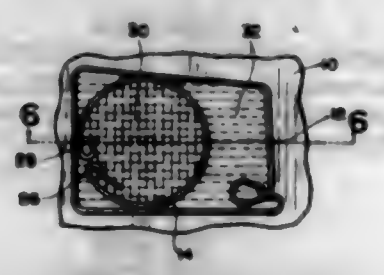
2. In a method of forming barium titanate ceramic bodies in thin layers from a viscous film-forming liquid mix containing comminuted barium titanate solids and polymerizable liquid resin, the comminuted solids being present in a sufficient amount to form a thin ceramic ware and the mix being congealable upon the application of heat thereto; the steps of providing a moving uniformly

inclined, impervious surface; forming a body of the liquid mix on a portion of the inclined surface so that said surface supports the said mix; passing said surface upwardly at a uniform angle to the horizontal beneath said body of liquid mix at all areas of contact between the said surface and mix; preheating said impervious surface before contact with said liquid mix to cause said mix to congeal



adjacent said surface and form an adherent film thereon; moving said surface out of contact with a free surface of said body of mix at said angle whereby a film of adherent mix of a thickness dependent on the amount of preheating is withdrawn from beneath the bottom of said body of mix; and moving said surface horizontally at a level above the upper level of said body of mix.

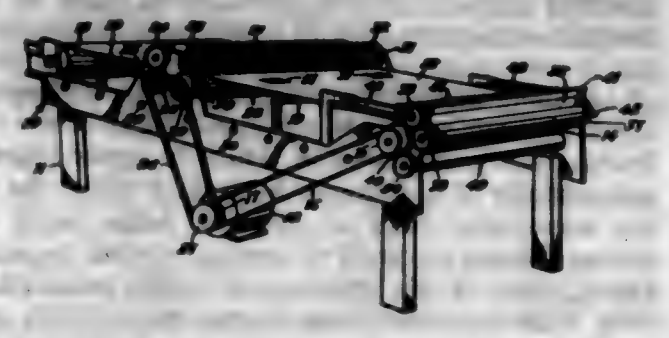
2,841,828
PROCESS FOR MANUFACTURING JEWELRY AND THE LIKE
Ralph K. Osborn, Seattle, Wash.
Application March 3, 1955, Serial No. 491,928
2 Claims. (Cl. 18—59)



1. The method of manufacturing a mosaic jewelry, comprising: forming, on a horizontal planar surface, a first enclosure from a resilient strip of metal set on edge on the planar surface but not restrained thereon and with its ends slightly separated, forming a second enclosure inside the first enclosure from a second resilient strip of metal of like width set on edge on the planar surface but not restrained thereon and with its ends slightly separated, the ends of the resilient metal strips terminating in bends to assist in preventing the plastic material from pulling away from the metal strips, depositing a first plastic material in said first enclosure outside of said second enclosure and depositing a second plastic material in said second enclosure, maintaining the assembly in position for a time and in temperature conditions inducing the plastic materials to set, and grinding the upper surface of the plastic materials and strip edges into a planar surface.

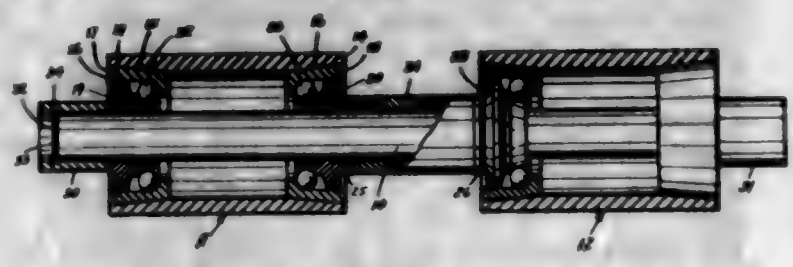
2,841,829
DEHAIRING APPARATUS AND METHOD
Eldon J. Strandine and Francis G. Connick, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois
Application October 20, 1955, Serial No. 541,635
7 Claims. (Cl. 19—2)

6. Apparatus for dehairing skins comprising a conveyor for moving the skins, holes in said conveyor for inserting the shanks of the skin to hold the skin on the conveyor, a first set of rollers working in cooperation with said conveyor to loosen the hair from the skins and a second set of rollers both of which being located adja-



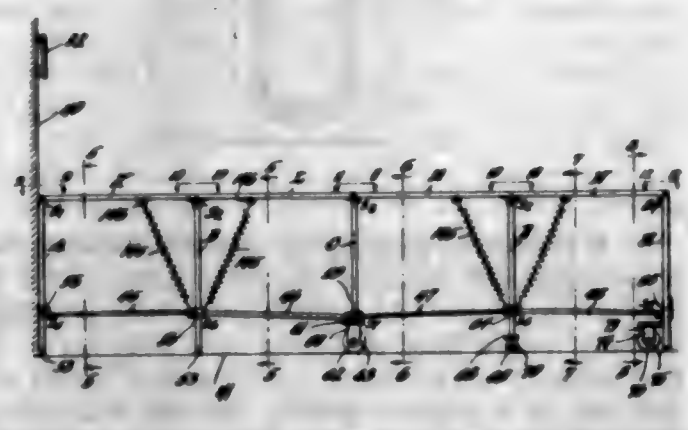
cent the conveyor and adapted to pull the loosened hair from the skin.

2,841,830
TEXTILE ROLL BEARING
Robert B. Barris, Evansville, Ind., assignor to Fawkes Caster Corporation, Evansville, Ind., a corporation
Application March 8, 1954, Serial No. 414,787
7 Claims. (Cl. 19—142)



1. A top roll for spinning and drawing frames comprising a shaft, a cot sleeve having tapered inner end surfaces, a pair of outer bearing raceways having a conical form to fit within the tapered ends of said sleeve, cooperating inner raceways mounted within said outer raceways, an annular series of ball bearings operating between each said inner and outer raceway, a groove formed in the inner periphery of each outer raceway outwardly of the inner raceway, and a snap ring mounted within each said groove in overlapping relation to the periphery of the inner raceway for retaining said inner raceway within its outer raceway as a bearing unit, and means removably secured on said shaft against axial displacement to engage and lock said bearing units in cot sleeve supporting position, whereby said bearing units may be removed upon removal of said locking means.

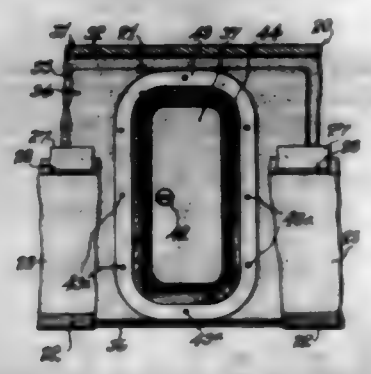
2,841,831
FOLDING STAGES
Charles Mackintosh, Los Angeles, Calif.
Application March 16, 1953, Serial No. 342,503
16 Claims. (Cl. 20—1.123)



1. A folding stage for auditoriums and the like, which comprises a series of vertical supporting frames spaced apart horizontally and adapted to rest upon the ground surface when the stage is extended for use, a series of normally horizontal flush floor panels, means pivotally

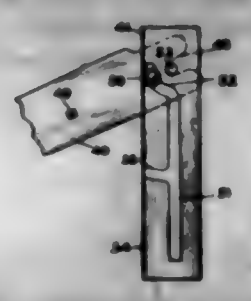
connecting the remote edge of each of the end panels of said series to the upper edge of a supporting frame, means pivotally connecting pairs of adjoining edges of adjacent panels to the upper edge of a common supporting frame, the remote edges of said end panels and alternate pairs of adjoining edges being adapted during folding to pivot upwardly with respect to the upper edges of the alternate frames associated therewith, while the upper edges remain substantially in a common horizontal plane, the remaining intervening pairs of adjoining edges being adapted during folding to pivot downwardly with respect to the upper edges of the intervening frames associated therewith, while the intervening frames move bodily upwards, whereby said stage floor panels may be folded together in zigzag fashion to a collapsed nested storage condition and alternate frames caused to approach each other while the remaining intervening frames rise to occupy positions between the nested panels, wheel mountings for certain of said first named frames, at least one of said remote end supporting frames comprising a panel providing a substantially vertical apron for said stage, which apron panel in collapsed position is vertically aligned with the next adjacent floor panel to which it is pivotally secured, said means for connecting pairs of adjoining panel edges to a common frame being constituted by hinges having leaves secured to the panel edges and frames, respectively, and pintles disposed parallel to the panel edges, the hinges associated with the downwardly swinging panel edges having their pintles at approximately the level of the top edges of said frames and the hinges associated with the upwardly swinging panel edges having angular leaves secured to the under-surface of said panels adjacent said edges and projecting upwardly between said edges, other leaves connected to the top of said frames and projecting upwardly between said panel edges, and pintles joining said leaves together, said pintles being disposed just below the upper surface of the panels, and said panels having recesses in said downwardly swinging edges to accommodate said leaves and said pintles.

2,841,832
BUILDING CONSTRUCTION PASSAGEWAY
Kibbey W. Couse and Robert M. Sutphen, Newark, N. J., assignors to Couse Manufacturing, Inc., Newark, N. J., a corporation of New Jersey
Application February 25, 1957, Serial No. 641,898
7 Claims. (Cl. 20—2)



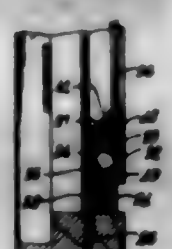
7. A method of forming an enclosure between two adjacent expansible building structures positioned a spaced distance apart, the said method comprising pivoting horizontally hinged floor panels on each structure to a position between the structures, pivoting wall panels on each structure to a position wherein the said wall panels rest adjacent the edge of the said floor panels, opening doors in each of the said wall panels, extending collapsible passageways from each wall panel to a position wherein the said extended collapsible passageways abut, and fastening the ends of the said collapsible passageways together.

2,841,833
AWNING TYPE WINDOW STRUCTURE
Humbert Arcamonte, Miami Springs, Fla.
Application April 12, 1957, Serial No. 652,631
4 Claims. (Cl. 20—42)



3. An article of manufacture comprising a hinge member, a guide member, said guide member having a longitudinally disposed slot, said slot being arcuate at an upper end and a transverse slot communicating with said longitudinal slot intermediate its ends, a pivot pin mounted on said guide member in alignment with said longitudinal slot, a plurality of pins mounted on said hinge member and extending into said longitudinal slot, said pins being positioned in said longitudinal slot whereby upon the movement of said guide member relative to said hinge member, one of said pins is received by said arcuate end of said slot simultaneously as said other of said pins is received by said transverse slot, said hinge member having an open ended slot in alignment with said pivot pin on said guide member whereby said hinge member is adapted to swing about said last named pin outwardly of said guide member when said pivot pin on said guide member falls into said open ended slot.

2,841,834
SLIDING WINDOW SASH STRUCTURE
John Poole, Jr., Tarzana, Calif., assignor to Robert R. Chesley, Los Angeles, Calif.
Application July 29, 1955, Serial No. 525,288
7 Claims. (Cl. 20—52)



1. A weather resistant sliding window assembly which includes: a frame for a window opening; a pair of parallel inwardly projecting tracks disposed along opposite sides of said window opening, the sides of said tracks having longitudinally extending weather-strip receiving openings; a sliding panel for closure of said window opening, said panel being provided with channels adapted to receive said tracks; rotatable balls in at least one of said channels for rolling contact with one of said tracks, and weather-stripping material in said weather-strip receiving openings, said weather-stripping material being in contact with one of each pair of said channeled edges of said sliding panel to provide weather resistant sealing contact.

2,841,835
WINDOW MOUNTING
Michael J. Nardulli, Elmwood Park, Ill., assignor to Michael J. Nardulli, Angelo F. Naples, and Peter F. Nardulli, as trustees
Application October 27, 1955, Serial No. 543,095
1 Claim. (Cl. 20—55)

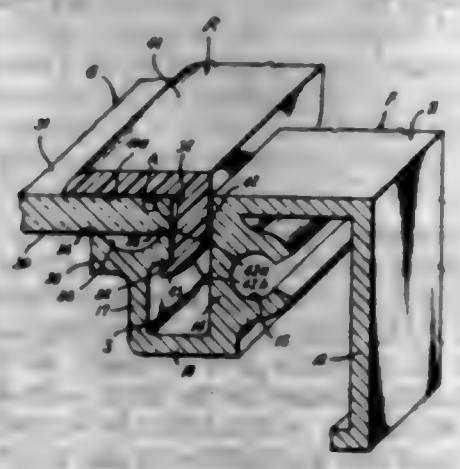
In a mounting member for auxiliary window sash, an elongated channel member having a web and inner and outer side flanges between which one edge of an auxiliary

sash may be received, a bracket formed from sheet metal to provide a horizontal shelf with a depending mounting flange along one edge and an upstanding retaining flange along the other edge, said bracket having a portion of said mounting flange against and lying in the plane of the outer side of one side flange adjacent to the upper portion of the latter with the remaining



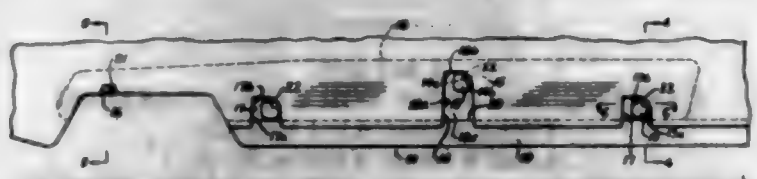
portion of the mounting flange and said horizontal shelf projecting laterally beyond and substantially at right angles to said web, and means securing said mounting flange to said upper portion of said outer flange of said channel, said projecting portion of said bracket being adapted for engagement with the outer face of the outer stop of a window frame to accurately locate said member with respect to said stop.

2,841,836
WINDOW GLASS CONSTRUCTIONS AND FASTENERS FOR SAME
Searcy A. Watson, Houston, Tex.
Application February 28, 1955, Serial No. 490,789
2 Claims. (Cl. 20—56.4)



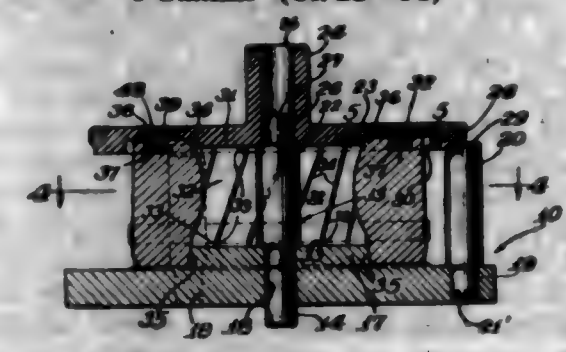
1. A fastener for releasably attaching a pane of glass to a window frame or the like, comprising an L-shaped member having intersecting and connecting inner surfaces which form an acute angle therebetween, one of said inner surfaces being flat to engage a pane of glass, the other of said inner surfaces having a flange at its outer end projecting inwardly and forming a shoulder for engagement with a window frame, and the outer surface of the leg having the flange being tapered towards its outer end and forming a reduced thickness at said outer end.

2,841,837
MOUNTING MEANS FOR DECORATIVE STRIPS, MOULDINGS, OR THE LIKE
Edmund W. Baggott, New York, N. Y., assignor to Ideal Toy Corporation, Hollis, N. Y., a corporation of New York
Application February 4, 1954, Serial No. 408,263
2 Claims. (Cl. 20—74)



2. A decorative molding strip and a mounting wall for said strip, said wall being longitudinally elongated and having a plurality of longitudinally spaced openings and an aperture located rearwardly of said openings, said molding strip being longitudinally elongated and being somewhat flexible transversely and being resilient, said strip having a plurality of longitudinally spaced lugs extending from one face thereof and a pin extending from said face thereof rearwardly of said lugs, said strip and said wall being adapted to be placed in superimposed abutting relationship with said lugs extending through said wall rearwardly of and in longitudinal alinement with said aperture, said strip being flexed away from said wall in the vicinity of said pin, said strip and said wall being adapted to be assembled by sliding said strip longitudinally forwardly relative to said wall until said pin opposes said aperture, the resilience of said strip thereby moving said pin into said aperture, said lugs and said openings being cooperatively shaped and positioned to permit said forward movement of said strip and to thereby lock said strip against transverse movement away from said wall.

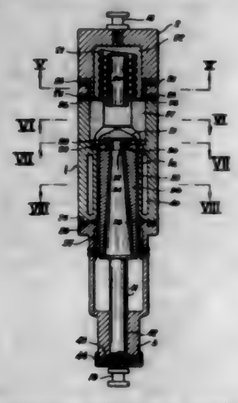
2,841,838
CORE LOCATING DEVICE AND METHOD OF ASSEMBLING CORES
Jack G. Covitt, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application June 8, 1956, Serial No. 590,217
6 Claims. (Cl. 22—31)



1. A core assembly fixture comprising a base having a central bore, a table having a cylindrical upwardly extending lower locating projection, said table and projection including a centrally located bore, a plurality of upright pins circumferentially spaced and removably connected to said table, each of said pins having an undercut shoulder, said locating projection being adapted to engage and locate at their lower ends a plurality of core elements in circumferentially disposed and adjacent relation, each of said core elements having at its upper end a dovetail recess, a ring having its outer peripheral edge portion seated upon the shoulders of said pins, said ring having an inner peripheral edge portion engaging said upper edges of said core elements, an annular locating plate having a central bore, said locating plate having a cylindrical downwardly extending upper locating projection adapted to be engaged by the upper ends of said core elements, said locating plate having an outer peripheral edge spaced from the inner peripheral edge of said

ring to provide an annular recess in registry with the dovetail recesses of said core elements, and a spindle having a central portion supported on said table for supporting said locating plate, said spindle including an upper portion engaging the bore of said locating plate, and a lower portion extending through the bore of said table and into the bore of said base whereby the table is rotatably supported on said base.

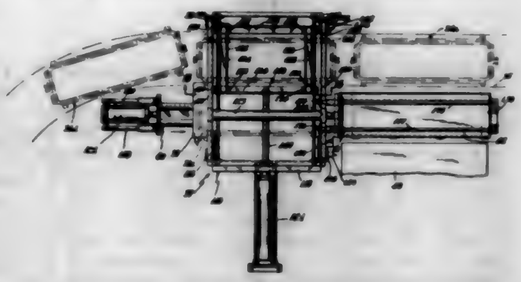
2,841,839
CASTING MACHINE FOR CHILL CASTING CYLINDRICAL LINERS
Adolf Roebig, Verona, N. J.
Application September 17, 1952, Serial No. 309,978
3 Claims. (Cl. 22—57)



1. A high frequency melting and casting machine for chill-casting cylindrical liners, said machine comprising, in combination, a single casing having two aligned end sections, a melting pot within one end section of said casing, a high frequency coil enclosing said melting pot, a casting form within another end section of said casing in alignment with said melting pot, means supporting said casing intermediate its ends, hydraulic means for swinging said casing to move downwardly the end section of the casing containing said melting pot, hydraulic means withdrawing the end section of the casing containing said melting pot from the rest of the casing, hydraulic means filling said melting pot with the metal to be molten, the second-mentioned hydraulic means being adapted to return the end section of the casing containing the melting pot to the rest of the casing after said melting pot is filled with said metal, the first-mentioned hydraulic means being adapted to swing said casing to move upwardly said end section of the casing after its return, means switching on said high frequency coil when the melting pot is filled with said metal, hydraulic means withdrawing the end section of the casing containing said casting form from the rest of the casing, and means connected with all of said hydraulic means for operating them in the above sequence.

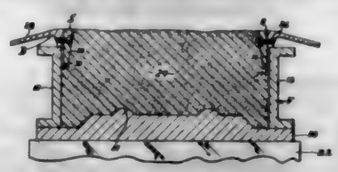
2,841,840
AUTOMATIC APPARATUS FOR REMOVING CORE ARBORS FROM FOUNDRY FLASKS
William G. Reichert, Newark, N. J.
Application August 13, 1954, Serial No. 449,655
6 Claims. (Cl. 22—93)

1. An apparatus for removing a core arbor from a mold flask having opposite open ends, said apparatus comprising a support for holding said flask, a punch, means mounting the punch for reciprocal movement axially of the arbor, and actuating means for advancing the punch in one direction through one of the open ends of the flask and into engagement with one end of the arbor to push the opposite end of the arbor outwardly of the opposite open end of the flask and then retracting the punch in the opposite direction to withdraw the punch from the flask, a member engageable with said opposite outwardly-projecting end of the arbor, means mounting said member for reciprocal movement axially of the arbor toward and away from said flask, and a second actuating means controlled by operation of the first actuating means for automatically advancing said member away from the flask after the punch has been advanced, to pull the arbor outwardly therefrom until the entire



arbor is removed from the flask and then retracting said member to disengage the latter from the arbor, a table located adjacent said opposite open end of the flask and beneath the path of movement of said member for receiving the arbor when the latter is moved outwardly of the flask, means pivotally mounting the table for movement from a horizontal position for receiving the arbor to a tilted position for discharging the arbor from the table, and a third actuating means controlled by operation of the second actuating means, for moving said table to each of said positions thereof.

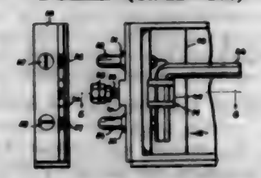
2,841,841
METHOD AND APPARATUS FOR MOLDING
Russell J. Hines, Lakewood, Ohio, assignor to The Hines Flask Company, Cleveland, Ohio, a corporation of Ohio
Application September 6, 1956, Serial No. 608,394
1 Claim. (Cl. 22—96)



A sand measuring frame for use with a rectangular foundry molding flask comprising an endless band strip member and a separable skirt portion releasably secured thereto, said band strip member including side and end walls joined in the form of a rectangle to form a configuration complementary to the flask, said skirt portion comprising an endless wall detachably secured to the upper edge of said side and end walls and extending downwardly and outwardly therefrom, said skirt portion being adapted to engage and be supported upon the top of the flask and overhang the same on all sides in a manner allowing the lower portion of the band strip member to be telescoped into the flask in close proximity with the walls thereof and allowing the upper portion of the band strip member to extend above the flask by an amount sufficient to measure a predetermined quantity of sand to be inserted into the flask, said skirt portion being adapted to carry excess sand over and away from the walls of the flask during the sand filling operation, said side and end

walls having the inside surfaces thereof tapered downwardly and outwardly to facilitate the removal of the frame from the flask after the sand filling operation.

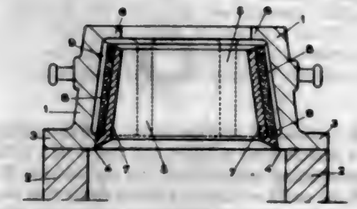
2,841,842
FOUNDRY FLASK
Russell J. Hines, Lakewood, Ohio, assignor to The Hines Flask Company, Cleveland, Ohio, a corporation of Ohio
Application April 27, 1956, Serial No. 581,115
1 Claim. (Cl. 22—106)



In a molding flask having vertical walls interconnected at the respective ends thereof to define an enclosed boundary and having a hinged interconnection at one corner and a separable interconnection at another corner whereby the abutting end of one wall at the separably interconnected corner may be laterally advanced to or drawn away from the abutting end of the other wall thereat, a latch mechanism for releasably interlocking the abutting ends of the walls at the separably interconnected corner comprising, a stud slidably disposed in the abutting end of one of the walls at the separably interconnected corner and adapted for horizontal longitudinal displacement with respect to the one wall in a plane substantially parallel thereto, said stud being displaceable in a direction away from the abutting end it is disposed in to an outer released position and in a direction toward the abutting end to an inner locked position, the abutting end of the other wall at the separably interconnected corner having an open-ended horizontal slot positioned for releasably receiving said stud laterally through the open end of the slot when the abutting ends approach each other with the stud disposed in released position, said stud having a head at its outer end to engage the outer surface around said slot and to coact therewith to draw the abutting ends into locking engagement when the stud is displaced to its locked position, and a leverage means rotatably disposed on the inner end of the stud for displacing the stud to its released and locked positions including, a lever having one end adapted to pivot about an inside surface of the adjacent abutting end and being pivotally connected at a point near said last-named one end to the inner end of the stud to form a fulcrum point for the lever thereat, whereby horizontal rotation of the lever into the plane of the adjacent wall displaces the stud horizontally toward the abutting end it is disposed in and into its locked position thereby locking the abutting ends in a separable interconnection, and whereby horizontal rotation of the lever away from the plane of the adjacent wall displaces the stud to its released position thereby enabling said one wall to be withdrawn from said other wall, said lever having a handle adjustably secured thereto to form an extension thereof.

2,841,843
HOT TOP
Henri Neuveau, Saint-Germain-les-Corbeil, France, assignor to S. A. R. L. Doittau Produits Metallurgie, Les Tarterets-Corbeil, France, a corporation of France
Application May 16, 1955, Serial No. 508,685
Claims priority, application France October 21, 1954
3 Claims. (Cl. 22—147)

1. In a feed head metal casing for an ingot mold which casing is provided with an inner lining comprising a layer of aggolomerated exothermic material and a layer of inert material that is exposed to molten metal of a feed head, the said metallic feed head casing having an inwardly projecting lower rim and inwardly projecting, spaced narrow ribs extending upwardly from said rim,



said rim and ribs having cemented on the inwardly directed surface thereof the external face of preformed blocks comprising a layer of agglomerated exothermic material and an internal layer of agglomerated moulding sand so as to delay ignition of the exothermic material by the heat of the poured molten metal.

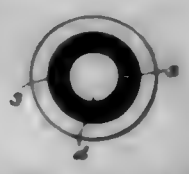
2,841,844
METHOD OF SHELL MOLDING
Elbert E. Ensign, Ypsilanti, Royal A. Van Patten, Garden City, and Donald B. Whitcomb, Ypsilanti, Mich.; said Van Patten assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
No Drawing. Application May 31, 1952
Serial No. 291,844
9 Claims. (Cl. 22—193)

8. In a process of producing a laminated hollow shell core from sand mixed with a thermosetting resin which includes the steps of filling a heated core box with a loose mixture of sand and thermosetting resin and then permitting substantially all of the sand resin mixture to flow from the pattern to leave a thin layer of partially cured sand resin mixture at least a portion of which is supported against gravity only by its own rigidity and adherence to the wall of the core box, the improvement comprising permitting the resin portion of the sand resin mixture adjacent the heated metal surface to cure for a time not in excess of five seconds and only sufficiently to produce a thin self-supporting lamina of sand resin mixture, removing the excess of the non-adhering loose sand resin mixture, permitting the resin in the sand resin lamination so produced to cure further, again filling the heated core box with a loose sand resin mixture, maintaining this loose sand resin mixture in contact with the thin lamination until the desired thickness of core has been produced, removing the excess loose sand resin mixture and curing the laminated core so formed.

2,841,845
PROCESS FOR PRODUCTION OF SHELL MOLDS
Julius M. Blumenstein, Detroit, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
No Drawing. Application July 31, 1953
Serial No. 371,725
4 Claims. (Cl. 22—193)

4. A process for the production of a shell molding sand comprising heating molding sand substantially above the boiling point of water, mulling this hot sand, adding to the hot sand a partially polymerized phenol-aldehyde resin free of all catalysts capable of effecting further consequential advancement of the resin at the temperature of the mulling operation, cooling the mulled mixture of sand and phenol-aldehyde resin, adding to the cooled mixture a polymerization catalyst, and admixing the sand, resin and catalyst.

2,841,846
METHOD OF MAKING METAL CASTINGS
Koichi Ouzi, Minato-ku, Tokyo, Japan
Application January 8, 1954, Serial No. 402,895
Claims priority, application Japan May 19, 1953
5 Claims. (Cl. 22—201)



1. A method of making metal castings comprising the steps of introducing a first metal batch in a mold through an inlet opening spaced from the top and the bottom surface of the mold so that the metal flows first downwardly to form a reservoir of hot metal below the inlet opening and then rises upwardly in the mold; chilling a portion of the mold spaced from and above the inlet opening to solidify a portion of the metal extending from the chilled part of the mold to a desired thickness; draining the non-solidified metal in the mold from the reservoir of hot metal formed below the inlet opening and simultaneously pouring a second batch of metal from the top of the mold to displace the non-solidified part of the first metal batch; stopping the drainage after the displacement has taken place; and letting the second batch of metal also solidify in the mold.

2,841,847
LANDING NET HOLDER
Harry F. Wallace, Bethlehem, Pa.
Application May 5, 1955, Serial No. 506,155
6 Claims. (Cl. 24—3)



1. A landing net holder comprising an elongate body having a longitudinal bore opening upon one end thereof, the bore being closed at the opposite end of the body, spring means disposed within said bore and seating upon the closed end thereof, an elongate fastening member having means thereon adapting it for attachment to a landing net and a stem projected within the open end of said bore and compressing said spring means, said body also having a pair of convergent secondary bores intersecting each other and the first mentioned bore in an area adjacent the stated open end of the first bore, a loose ball disposed in each of the secondary bores and each ball being freely movable in its bore, and said stem having an annular groove therein receiving portions of said balls to retain said stem in the first bore against the action of said spring means.

2,841,848
FASTENER
Dale D. Smith, Royal Oak, Mich., assignor to Harley Earl, Inc., a corporation of Michigan
Application May 18, 1954, Serial No. 428,634
3 Claims. (Cl. 24—41)

1. In a one piece fastener, an elongate flexible plastic base portion, a plastic tang portion integrally joined to said base portion at a position near but spaced from one end thereof, the side walls of said tang portion converging toward the free end thereof in the form of a frustum, a plastic sleeve portion integrally joined to said base portion at a position near but spaced from the opposite end thereof, said tang portion and said sleeve portion projecting out of the plane of said base portion with the axes of said sleeve portion and said tang portion in substantially parallel relationship when said base portion is in a substantially flat position, said sleeve portion



defining a tapered recess adapted to receive and snugly fit said tang portion when said base portion is return bent whereby the opposite end sections of said base portions extend in spaced substantially parallel relationship, said fastener being formed of a plastic material having adhesive characteristics when two pieces of the same material are pressed together, the adhesive characteristics of said material together with the friction of the fit between said tang portion and said sleeve portion serving to maintain said tang portion and said sleeve portion in interfitted relationship.

2,841,849
RETAINING HOLDER FOR ELONGATED FLEXIBLE ARTICLES
Arthur W. Rice, Fremont, and Guy W. Crawford, Hesperia, Mich.
Application August 30, 1957, Serial No. 681,277
3 Claims. (Cl. 24—129)

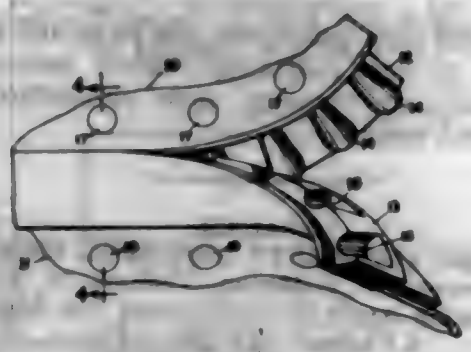


1. A retaining holder for elongated flexible articles comprising a receptacle having a bottom wall and an upstanding peripheral wall, said bottom wall being formed with an aperture adjacent said peripheral wall, a cover member hingedly connected to the top edge of said peripheral wall and being swingable to cover said receptacle, and a locking bar in said receptable pivoted at both ends to said peripheral wall at points spaced on opposite sides of said aperture, said locking bar being shaped to extend closely adjacent to the inside surface of said peripheral wall when swung to a position parallel to said bottom wall and being adapted to clamp a portion of a flexible article extending through said aperture to said inside surface.

2,841,850
FASTENING DEVICE
Adam T. Zaborski, Altadena, Calif., assignor to Aerophysics Development Corporation, a corporation of California
Application July 26, 1954, Serial No. 445,657
3 Claims. (Cl. 24—204)

1. A device for fastening together the adjacent edges of a material, comprising: a pair of strip members secured to said adjacent edges, respectively, in longitudinal overlapping relationship whereby the inner face of one of said strips is in surface engagement with the outer face of the other of said strips and the front edge of said one strip is juxtaposed to the rear edge of the other strip, said material initially extending from its adjacent edges in opposite directions away from said strips and insubstantially the same plane whereby stretching forces acting in said plane in directions transverse to the

longitudinal edges of the material and strips tend to separate said material edges and slide the strip members from their overlapping relationship; one strip face having a row of projections spaced along its length dimension; the other strip face having a row of recesses spaced along its length dimension in corresponding relationship with respect to the row of projections; each of said projections decreasing in size in a direction extending from the front edge of said one strip face, across the width of the strip face, towards the rear edge of the strip face and also increasing in size in a direction extending normally away from said one strip face; the corresponding recesses in said other strip face each opening out on the front edge of the strip face and being defined by diverging side walls continuously extending across the width of the strip face, to terminate in an end wall adjacent to the rear edge of



the strip face so that each recess increases in size interiorly, said recesses having a greater length in the width direction of the strip than the projections whereby when said projections are in tight mating engagement with said recesses, the edges of said material are held against said stretching forces and also against forces acting in directions normal to the strip faces and whereby there is left a small space between said end wall of each recess and the end of each projection equal to the difference in length between each recess and its mating projection so that the projections may be moved, by transverse compression forces applied to said strips, further towards the end walls of the recesses to leave gaps between the lateral sides of the projections and recesses, said gaps being of sufficient size to pass the projections and enable the strips to be separated.

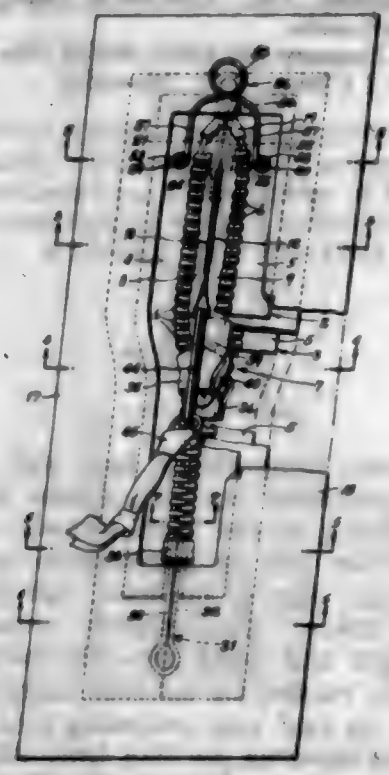
2,841,851

SLIDE FASTENER SEALING CLOSURE

William F. Van Amburg, Erie, and Walter M. Redmond and Gail W. Pringle, Meadville, Pa., assignors to Talon, Inc., a corporation of Pennsylvania

Application January 29, 1953, Serial No. 334,014
6 Claims. (Cl. 24—205.1)

1. A closure for the opposed edges of a slotted opening comprising a pair of slide fasteners each having a series of spaced apart interlocking fastener elements arranged along the opposed edges of the stringers thereof, a longitudinally extending sealing member of a resilient material arranged between said fasteners and which are securely attached to the stringers thereof, the marginal edge portions of each of said sealing members being hollow so as to provide relatively thin and pliable opposed wall portions which are disposed in abutting relation when the fasteners are closed, a resilient fork-like member arranged at the closing end of said opening having the leg portions thereof arranged in side-by-side relation and extending and disposed in the hollow portions of said marginal edge portions adjacent the end thereof which are adapted to hold the opposed wall portions in abutting relation, said leg portions being offset intermediate the length thereof so as to provide substantially an oval-shaped space therebetween, a slider arranged on said fastener elements for engaging and disengaging the same, said slider comprising a pair of spaced-apart wing portions which are disposed on the outer sides of the fastener elements of each of said slide fasteners and a plate-like portion spaced inwardly of each of said wing portions and integrally connected to their respective wing portions by a neck portion so as to provide substantially a Y-shaped channel between each of said wing portions and their respective opposed plate-like portions for receiving the fastener elements of the respective fasteners, said plate-like members being spaced from one another and integrally connected together by a web-like portion substantially diamond-shape



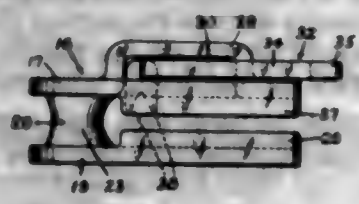
in cross section, the marginal edge portions of said sealing members being disposed between said plate-like portions to either side of said web-like portion, said web-like portion adapted to be disposed in the oval-shape space between the leg portions of the fork-like member when the slider is moved to its fully closed position at that end of said opening whereby the marginal edge portions of said sealing members are held tightly together and around said web-like portion so as to prevent leakage through the opening at that end thereof.

2,841,852

LOCKING SLIDER FOR SLIDE FASTENERS

John E. Burbank, Stamford, Conn., assignor, by mesne assignments, to Cue Fastener, Inc., a corporation of New York

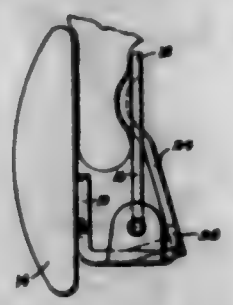
Application March 28, 1955, Serial No. 497,941
5 Claims. (Cl. 24—205.14)



1. In a lock type slider for slide fasteners, said slider having spaced parallel plates, an island connecting said plates adjacent one end and guide flanges at their lateral edges; the improvement comprising a bale extending lengthwise one of said plates, said bale having opposite ends fixed to said one plate and having a mid-portion spaced from said one plate to define an elongated space therebetween, said one plate having an elongated slot therethrough behind said bale with one end adjacent to said island, a pull tab having a pair of elongated arms joined at one end, the other ends of the arms extending inwardly into said space from opposite sides of said bale into overlapping relation and slidable lengthwise of said mid-portion of said bale, and a tooth on at least one of said

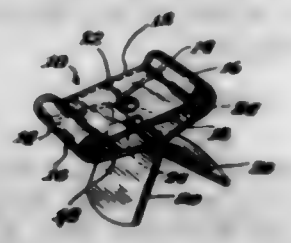
other ends of said arms, said tooth extending at substantially a right angle to the plane of the pull tab to project through and move lengthwise of said slot when the pull tab is substantially parallel to said one of said plates and bears against said bale.

2,841,853
EARRING CLASP
Roy N. Guyot, Attleboro, Mass., assignor to Guyot Brothers Company, Inc., Attleboro, Mass., a corporation of Massachusetts
Application January 28, 1955, Serial No. 484,711
1 Claim. (Cl. 24—252)



A jewelry clasp, comprising a base with an upstanding ornament mounting lug and spaced pivot ears, a movable jaw having spaced arms pivotally mounted in the base pivot ears and an intermediate spring tongue engaging the outer edge of the base, said jaw being resiliently urged towards the ornament mounting leg by the spring tongue and being movable away from said lug to releasably receive an ear lobe therebetween, and stop abutments on said base extending into the path of movement of the movable jaw side arms away from said lug, to limit said movement.

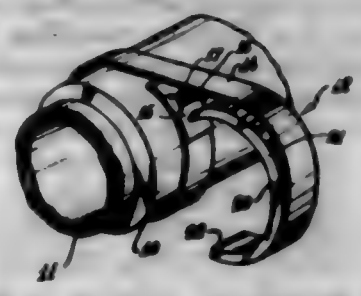
2,841,854
CLIP
Bernard Yellin, Chicago, Ill.
Application October 9, 1956, Serial No. 614,852
2 Claims. (Cl. 24—259)



2. A clip for securing a rod to an object, said clip comprising a central flat top portion provided with a central opening to receive a rod, curved upwardly extending end portions at the opposite ends of the central flat top portion and extending above the top of the flat top portion for engaging the surface of the object and for spacing the central flat top portion therefrom, legs continuing from said end portions, said legs first extending inwardly towards each other and then having a reversely bent portion extending downwardly and outwardly, each of said legs at said bent portion being provided with a recess, in vertical alignment with said opening and each of said legs being adapted to envelope a portion of the rod.

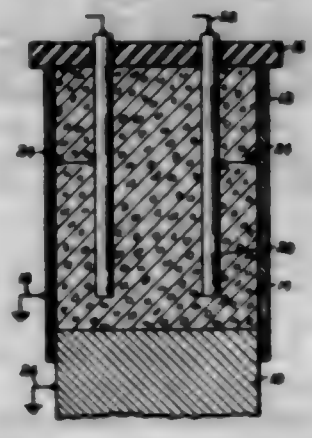
2,841,855
CLAMP
Edwin Leroy Weber, Van Nuys, Calif.
Application January 20, 1955, Serial No. 482,952
7 Claims. (Cl. 24—273)

1. A clamp comprising: an elongated strap adapted to wrap around the article to be clamped and having an inner end with a fulcrum thereon; a spring-like arcuate clamping arm attached to the outer end of said strap and having a surface spaced inwardly therefrom and adapted to seat on said fulcrum, said arm having a length greater than one-half the circumference of said article and the ends thereof spaced apart a distance less than the diameter of said article whereby said arm may be rotated about said fulcrum and resiliently forced over said article to draw



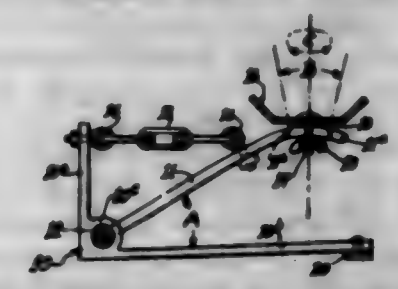
and retain said strap over said fulcrum and tightly about said article; and a spring member arranged in the form of a corrugated strip underlying said strap and resiliently compressible to urge said strap radially outwardly and maintain clamping pressure upon circumferential reduction of said article.

2,841,856
ELECTRIC CONCRETE MOLDING PROCESS
Lawrence F. Gelbman, Yonkers, N. Y.
Application April 28, 1955, Serial No. 504,525
6 Claims. (Cl. 25—155)



1. An electric-molding process for making concrete blocks and other forms by molding them and stiffening only their external parts and thereby providing said external parts with sufficient structural strength to contain their inner unstiffened parts and then letting the concrete set without any external means of maintaining its molded form, comprising the steps of depositing the concrete in a mold, passing an electric current through marginal portions of the concrete to form a shell of stiffened concrete surrounding a core of relatively unstiffened concrete, and then removing the concrete from the mold without waiting for the inner core of concrete to stiffen.

2,841,857
ADJUSTABLE HEAD SUPPORT
Clark Blachly, Jamestown, Kans.
Application September 19, 1957, Serial No. 684,885
5 Claims. (Cl. 27—21)



1. A portable support carrying an adjustable head rest adapted for use by a surgeon or undertaker in adjustably supporting a human head, comprising an L-shaped sup-

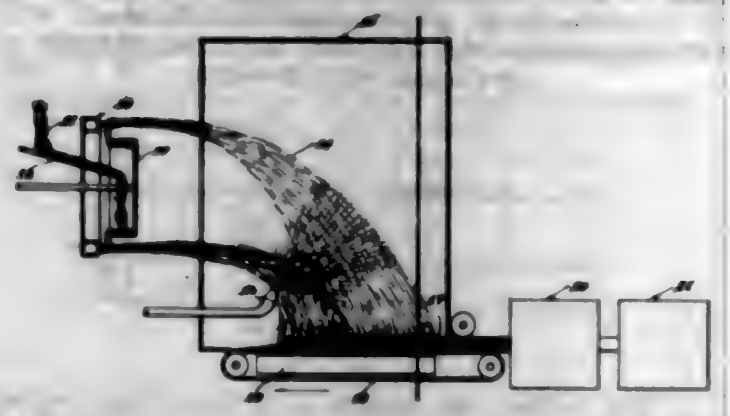
port consisting of a vertical wall formed integrally with a laterally disposed base member, a pair of laterally spaced ears formed at the side of the junction of said vertical wall with said base member, a vertically adjustable arm pivotally carried in said ears, means for retaining said arm in vertically adjusted position comprising an adjustable turnbuckle pivotally connected at its opposite ends respectively to said vertical wall and to said arm, and a head rest pivotally mounted on the outer free end of said arm.

2,841,858

MINERAL WOOL AND METHOD OF TREATING AND COLORING THE SAME

William H. Owens, Wabash, Ind., assignor to American Rock Wool Corp., Wabash, Ind., a corporation of Indiana

Application February 8, 1955, Serial No. 486,999
10 Claims. (Cl. 28—74)



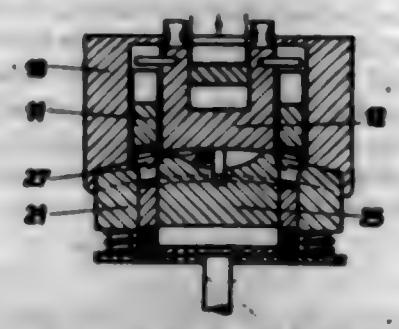
1. The method of producing mineral wool, including the steps of preparing a treating composition comprising an intimate mixture consisting of an annealing oil and a small quantity of a wetting agent intimately mixed together and to which is then added and thoroughly mixed a yellow iron oxide pigment for producing a mineral wool of substantially golden color, spraying said mineral wool fibers with said treating composition subsequent to fiberization and prior to their collection, passing the treated fibers through a shredder to convert the bulk wool blanket into tufts, removing shot from the tufts and rolling these tufts into pellets.

2,841,859

DEVICE FOR MOUNTING OF COVERED BUCKLES

Kurt Spendel, Recklinghausen, Germany, assignor to Firma Otto Berning & Co., Schwelm, Westphalia, Germany, a corporation of Germany

Application January 12, 1955, Serial No. 481,412
Claims priority, application Germany January 20, 1954
2 Claims. (Cl. 29—3)



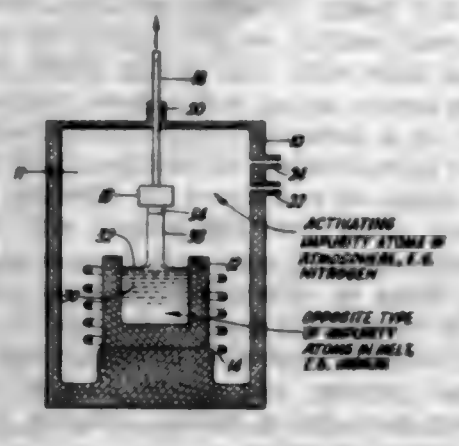
1. In a device for mounting covered buckles having an upper piece covered with material and a lower uncovered piece, an upper tool comprising a main frame having an end face, a first core-piece axially movable in the said main frame, and a first pressure frame disposed between the said main frame and said first core-piece, and a lower tool comprising an outer frame having an end face disposed opposite that of the said main frame, a second core-piece disposed in said outer frame and a counter support disposed between the said outer frame and the said second core-piece, and the said outer frame having outwardly inclined top faces extending from its inner faces, the said inclined faces being adapted to fold over the outer edge portions of said material and to bend over the outer edge portions of said upper piece covered with said material, and the said second core-piece having inwardly inclined top faces, and extending toward said first pressure frame, said last mentioned inclined top faces being tangent to the side faces of said first core-piece.

2,841,860

SEMICONDUCTOR DEVICES AND METHODS

Frederic Koury, Lexington, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application August 8, 1952, Serial No. 303,440
4 Claims. (Cl. 29—25.3)



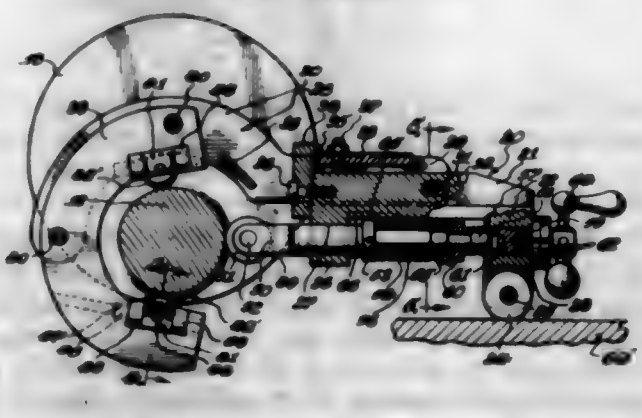
4. The method of forming semiconductor circuit elements comprising the steps of preparing a melt of semiconductor material doped to yield a crystal of one conductivity type, maintaining said melt with a surface layer of said melt exposed to the contents of a closed chamber, introducing an impurity atmosphere into said chamber effective to impart the opposite conductivity type to said surface layer of said melt, contacting said surface layer of said melt with a seed of semiconductor material, pulling said seed away from said surface layer to grow a crystal from said melt having a circular cross-section with a core of said one conductivity type and an outer shell of said opposite conductivity type, transversely cutting said crystal at spaced locations to provide a plurality of semiconductor elements, and bonding ohmic contacts to the core and shell of each of said semiconductor elements.

2,841,861

DEVICE FOR COLD ROLLING OF CRANKSHAFT FILLETS

Forrest F. Williams, Villa Park, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application July 10, 1956, Serial No. 596,911
3 Claims. (Cl. 29—90)



1. A device for rolling laterally spaced annular fillets of a journal member, the said journal member being con-

nected at opposite ends adjacent said fillets to coaxial members having a cross-sectional dimension greater than the cross-sectional dimension of said journal member, comprising; a frame, a pair of arms, each arm being disposed on opposite sides of said frame, hinge means connecting said arms to said frame, said hinge means including a lost motion connection whereby said arms may be moved longitudinally and hingedly with respect to said frame, a stop on said frame, stop engaging means engaging said stop for maintaining said arms against hinging movement, a hook shaped member on each of said arms adapted to straddle the journal member, a pair of roller brackets connected to said hook shaped member in opposed relation, a fillet roller on each bracket adapted to engage each fillet in rolling engagement during rotation of said journal and coaxial members, said brackets during operation being disposed in generally diverging relation, means for resiliently urging said fillet rollers into compressive relation with respect to said fillets, said means including an idler roller adapted to engage said journal member, a tension member connected to said idler roller and to said frame, and adjustable resilient means urging said tension member and said idler roller in a direction longitudinally with respect to said frame to resiliently lock said device on said journal member, means on said frame for releasing the tension member and roller from engagement with said journal member whereby said arms may be moved longitudinally on said frame to disengage said stop and stop engaging means whereby said arms and said frame may be relatively hingedly moved to disengage said device from said journal member and means on said frame adapted to support said device against rotation during rotation of said journal member.

2,841,862

CHROMIUM AND TITANIUM OXIDE REFRACTORY COMPOSITIONS

Edward W. Golber, Oakland, Mich., assignor to General Electric Company, a corporation of New York

No Drawing. Application May 27, 1954
Serial No. 432,934
5 Claims. (Cl. 29—182.5)

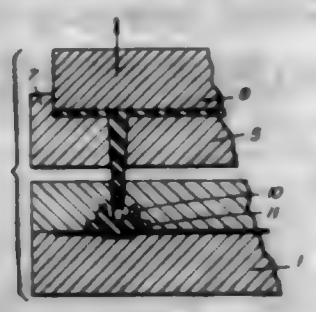
1. A sintered refractory composition consisting essentially of from about 15 to about 50 percent, by weight of the composition, of chromium, and a suboxide of titanium having a Ti/O atomic ratio of from about 0.68 to about 1.35.

2,841,863

RUBBER LINED BOTTLE CAPS

William Geisler, Tenafly, N. J., assignor to Wilbro Corporation, Maywood, N. J., a corporation of New Jersey

Application June 15, 1954, Serial No. 436,822
4 Claims. (Cl. 29—413)



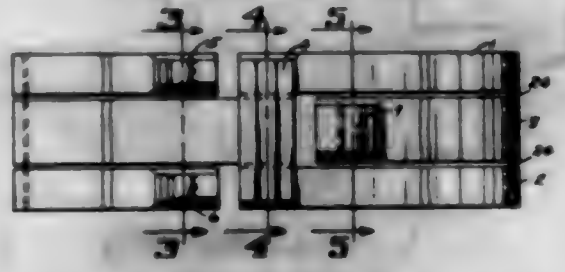
1. The method of making a bottle closure which consists in scoring a thin metal sheet with a series of scored areas spaced from each other to provide a surrounding metal area greater than the overall area of the bottle closure, placing said sheet in a mold member, placing over said mold member a second mold member having recesses registering with said scored areas and shaped to form a bottle closure having an annular outer portion of a diameter to fit against the neck of the bottle, said mold member having a passage extending from the mold cavity to the upper surface of the mold member for the passage of molding compound to be molded therein, placing a third member over said second-mentioned member, said third member having passages registering with the first-mentioned passages, forcing the molding composition through said passage while retaining said three mold members against relative movement, elevating said third mold member to separate the molding composition in said passage from the molded bottle closure, and thereafter cutting from said sheet disks of metal with the molded bottle closure attached thereto and shaping said disks to provide metal flanges of a width to be spun under the flange on the neck of the bottle to be closed.

2,841,864

METHOD OF MAKING FRICTION BAND ASSEMBLIES

John C. Kelly, Jackson, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware

Application May 23, 1955, Serial No. 510,243
3 Claims. (Cl. 29—418)



1. The method of making a friction band assembly which comprises butt-welding the ends of a hooped band to the ends of a segment having a transverse spacer formed with a radially outer transverse tie, laterally spaced ears at one side of the spacer and a single ear at the other side of the spacer, the single ear being in circumferential alignment with the space between the laterally spaced ears, removing the weld flash at the ends of the segment and inside the assembly, sizing the assembly by expansion, broaching the spacer to form slots extending transversely of the assembly at the inner ends of the ears, piercing the bottoms of the slots adjacent the inner ends of the ears to form openings separated by circumferentially extending tie bars extending from the ears, peening the inner surface of the assembly, securing a friction lining to the inner surface of the assembly, circumferentially severing the lined assembly at opposite sides of the single ear and laterally spaced from the tie bars to form two axially spaced substantially co-extending slots in the lined segment and band including the pierced openings adjacent the single ear and the laterally innermost pierced openings adjacent the laterally spaced ears and terminating at the ends in the lined segment at opposite sides of the spacer, and then cutting out the tie bars and piercing the lining in registration with the openings and the spaces formerly occupied by the tie bars to form three axially spaced bands, the outer bands being integral with the spacer on one side thereof and the inner band being integral with the other side of said spacer and allowing the assembly to automatically expand.

2,841,865

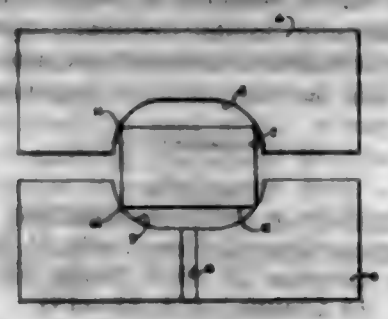
METHOD OF FORMING BODIES

James Jackson, Tulsa, Okla.

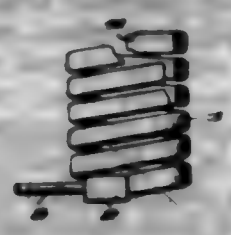
Application May 28, 1954, Serial No. 431,896
2 Claims. (Cl. 29—421)

1. The method of forming a substantially spherical shaped body which consists of placing a pre-formed cylindrical shaped work piece having open ends between upper and lower die members having an internal recess of an arcuately shaped contour, compressing the die members

against the work piece to reduce the diameter of the open ends thereof, simultaneously directing hydraulic pressure directly to the interior of the work piece for application against the opposite side thereof to cause the metal to flow to substantially the contour of the dies.

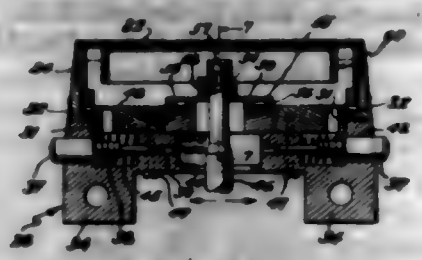


2,841,866
METHOD OF FORMING THIN-WALLED TUBING INTO A DESIRED SHAPE
Arthur R. Schilling, Bound Brook, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey
Application February 10, 1954, Serial No. 409,400
2 Claims. (Cl. 29—423)



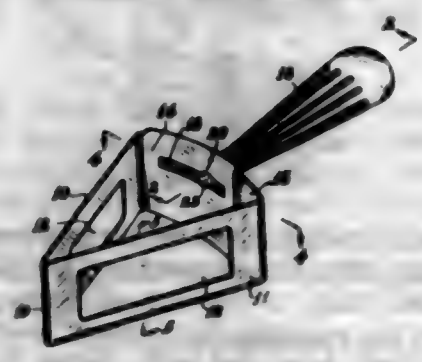
1. A method of forming a Bourdon spring which comprises filling a straight piece of tubing with a material which is normally fluid at room temperature, solidifying the filler material, bending the tubing to desired shape while the filler material is in solidified state, and heating the shaped tubing to remove the filler material completely by evaporation and to harden the bent tube.

2,841,867
RECIPROCATING DRY SHAVER HEAD CONSTRUCTION
Grady Padgett, Coral Gables, Fla.
Application March 15, 1957, Serial No. 646,352
5 Claims. (Cl. 30—43)



1. In a dry shaver head, an elongated movable cutter including a longitudinal inverted U-shaped cutter means having inner side legs and an upper cutter portion, said upper cutter portion having a plurality of longitudinal, inverted U-segments having cutter slots at the bight portions thereof, said cutter including transverse end members connected to the lower and inner surfaces of said cutter means at the ends thereof and having notches for matingly receiving said U-segments, and a crossbar across the open bottom of said cutter means for connection to a driving means, said open bottom enabling cuttings to fall freely from within the confines of said cutter, and a fixed shearing assembly including a longitudinal inverted U-shaped shearing means having outer side legs and an upper shear portion, said shear portion having a plurality of longitudinal inverted adjacent U-like segments having shear perforations at the bight portions thereof, the U-like segments in said shear portion mating with the U-segments in said cutter portion with the bight portions of each in face-to-face engagement, said shearing assembly including transverse end frames connected to the lower and inner surfaces of said shearing means at the ends thereof and having slots for matingly receiving the U-like segments thereof, said shearing assembly having a longitudinal dimension greater than that of said cutter to allow longitudinal reciprocation therein of said cutter.

2,841,868
CAKE CUTTERS AND SERVERS
Gerard J. O'Brien, Jersey City, N. J.
Application February 18, 1957, Serial No. 640,800
2 Claims. (Cl. 30—114)



1. A cake cutter and server comprising a pair of blades of resilient material positioned at an acute angle to each other and formed of a unitary length of said material bent at the apex of said angle, the size of said acute angle being thereby adapted to be varied by swinging said blades apart or toward each other about said apex as a pivot, each of said blades having an extension thereon extending from the end thereof remote from said apex at an obtuse angle thereto in a direction toward the opposite blade, said extensions being arcuate at a curvature having the center thereof at the apex, said blades being positioned in mutual sliding contact, the radius of the curvature of said extensions being identical with the length of said blades, a handle, and cooperating means on said handle and on said extensions for releasably locking said extensions against mutual sliding.

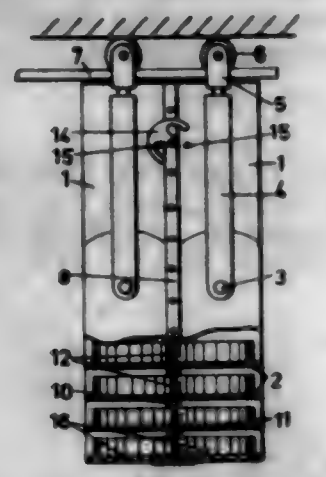
2,841,869
SPAGHETTI FORK WITH IMPROVED HANDLE
Herman Levine, Easton, Pa.
Application November 20, 1956, Serial No. 623,477
4 Claims. (Cl. 30—322)



1. A spaghetti handling and eating fork for one-handed use comprising an elongated handle having an axial bore, a fork having a spindle fitting rotatably in said bore, said spindle having its outer end fastened rotatably to the outer end of said handle, the distal end portion of said fork embodying a shank terminating in a flat head provided with spaced tines all in the same plane, the median portion of said fork comprising an elongated part constituting a finger-grip, said finger-grip rigidly fastened to both the spindle and the shank whereby to couple the spindle and shank together and to provide a means for rotating the shank and head relative to the handle.

2,841,870
MOVABLE DEVICE FOR STORING AND TURNING CHEESE

Curt Olle Georg Persson, Halmstad, Sweden
Application September 26, 1956, Serial No. 612,277
Claims priority, application Sweden September 26, 1955
4 Claims. (Cl. 31—49)



1. In a cheese curing plant an arrangement for storing and turning cheeses comprising a plurality of shelf units each comprising a plurality of vertically aligned shelf members for receiving the cheeses, said shelf units being open at their front and back, means for mounting said shelf units in a row with the back of one unit facing the front of another unit, means for pivotally supporting each of said shelf units laterally thereof for rotation about a horizontal axis extending longitudinally of said shelf members through the center of gravity of the shelf unit, means form oving said shelf units towards and away from each other within said row, a rear wall member having a front and a rear side and being in said row between two of said shelf units and separate from each shelf unit, both sides of said rear wall member cooperably abutting the back of each of said units, and coupling means for releasably attaching said rear wall member to one of said shelf units, said coupling means being operable, when said rear wall member is tightly sandwiched between two juxtaposed shelf units, for transferring said rear wall member from one to the other of said units.

2,841,871
DENTURE MAKING EQUIPMENT

James S. Miller, Morrisville, Pa.; Florence F. Miller and Helene M. Deitz, executrices of the estate of said James S. Miller, deceased
Application December 16, 1954, Serial No. 475,689
7 Claims. (Cl. 32—19)



1. In equipment of the character described in combination with upper and lower base plates formed from an impression in plastic material taken from the mouth of a patient for whom artificial dentures are to be made, relatively flat supports attached to the backs of said plates in substantially horizontal and parallel relation, a device for establishing the vertical relation between the maxilla and mandible including a relatively large screw secured to said lower base plate by means of an axially extending smaller screw having a head bearing against tthe bottom of the flat support on said plate, a flat handle member provided with means for attaching it to the flat support on said upper base plate a split ring nut holder mounted on said handle member for movement in any horizontal direction, and screw means for locking said nut holder in fixed position on said handle member, a vertically slitted and adjustable nut on said larger screw adapted to enter said nut holder and bear against said handle member, screw means for clamping said nut holder about said nut, and screw means for clamping said nut about said larger screw.

2,841,872
DENTAL BITE REGISTER

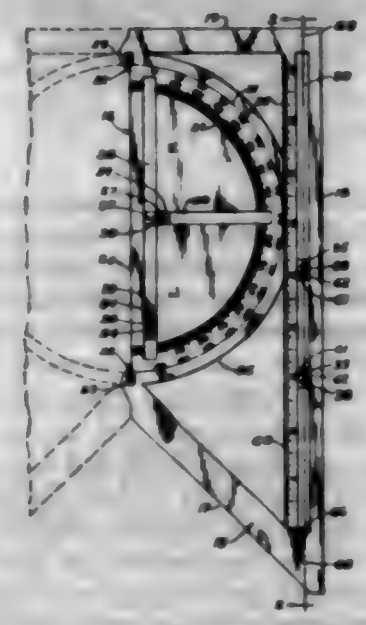
Eugene Glueck, New York, N. Y.
Application October 25, 1955, Serial No. 542,599
11 Claims. (Cl. 32—19)



1. A dental bite register device comprising an upper assembly adapted to be mounted on an upper temporary base plate and a lower assembly adapted to be mounted on a lower temporary base plate, said upper assembly comprising a plate defining spaced apart cut out portions including at least one front cut out portion and a pair of opposite side cut out portions, said cut out portions being adapted to be filled with wax, said lower assembly comprising a plate having a plurality of upstanding pins including at least one front pin and a pair of opposite side pins, the cut out portions of said upper assembly being in registration with said pins, intermediate plate means extending over said side pins, resilient means mounting said intermediate plate means upon the plate of said lower assembly above said side pins, said intermediate plate means defining holes for the passage therethrough of said side pins, said intermediate plate means and said side cut out portions being configurated so that said intermediate plate means will abut the plate of said upper assembly without entering said side cut out portions.

2,841,873
ELLIPSOGRAPH

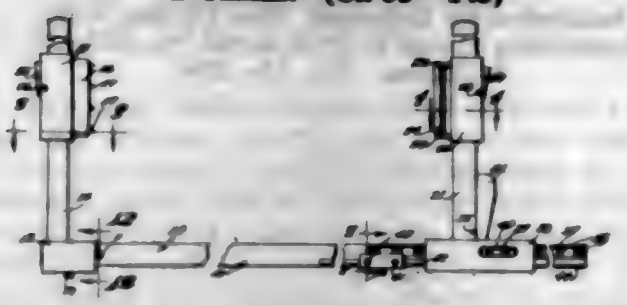
Leroy V. Bell, Wakefield, R. I.
Application April 6, 1954, Serial No. 421,370
3 Claims. (Cl. 33—31)



1. An ellipsograph comprising a guiding frame having a T-shaped slot formed therein by two intersecting slots, a slide carried in each of said slots for longitudinal move-

ment therein, each of said slides having an opening formed therein and extending through the slides, a scribing beam, a pair of posts adjustably mounted on said beam, a base pivotally carried by each of said posts and having a pin projecting therefrom to selectively engage said openings on either side of said frame for connecting said posts to said slides, means on said beam for guiding a scribing instrument to draw half an ellipse as said slides are moved in said slots, a locating frame, and means pivotally connecting said guiding frame to said locating frame for swinging movement about an axis of said ellipse.

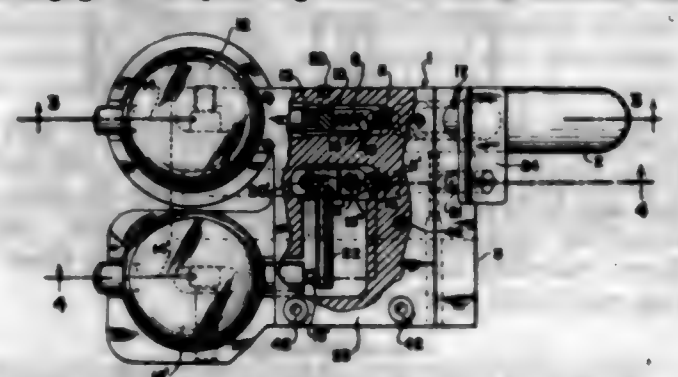
2,841,874
TIRE GAUGE
Sam H. Richardson, Modesto, Calif.
Application May 6, 1957, Serial No. 657,381
2 Claims. (Cl. 33—143)



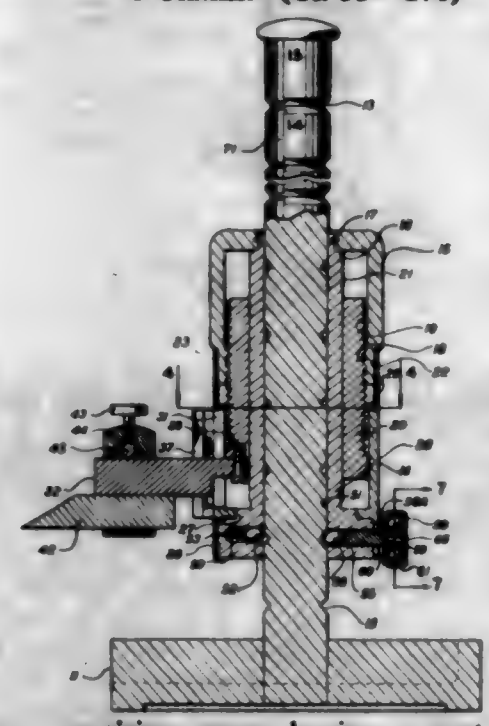
1. In a tire measuring device, a bar, a limit pin extending transversely through said bar, a first bracket mounted on an end of said bar and abutting said pin, a securing element extending through said bracket and engaging said bar, a first arm extending from said first bracket and secured thereto, a first gauge slide adjustably mounted on said arm, a shoulder extending from said slide and secured thereto, a plurality of spaced apart pointed prongs carried by said shoulder, a manually operable spring pressed locking member carried by said slide for engagement with said arm to maintain said slide immobile in its adjusted position, a second bracket adjustably mounted on said bar, a second arm extending outwardly from said second bracket and secured thereto, a manually operable spring pressed locking member carried by said second arm and said second bracket for engagement with said bar to maintain said second bracket immobile in its adjusted position, a second gauge slide adjustably mounted on said second arm, a manually operably locking member carried by said second gauge slide for maintaining said second gauge slide immobile in its adjusted positions, a pair of spaced parallel ears extending from said second gauge slide and secured thereto, a roller extending between said ears and connected thereto, there being a groove in said bar, a ruler positioned in said groove and having graduations thereon, there being an opening in said second bracket defining a window for permitting observation of said graduations.

2,841,875
INDICATOR TYPE SNAP GAGE
Clarence B. Stapleton, Royal Oak, Mich., assignor to Vinco Corporation, Detroit, Mich., a corporation of Michigan
Application August 4, 1955, Serial No. 526,375
5 Claims. (Cl. 33—148)

1. In a device for gaging tapered articles, a frame, two calipering mechanisms mounted on said frame and spaced apart a predetermined distance, each of said mechanisms comprising a stationary and a movable gaging block, said stationary gaging blocks being mounted in said frame, separate levers pivoted on said frame having said respective movable gaging blocks mounted thereon, dial indicators carried by said frame, said levers being independently connected with said respective indicators to operate them, said indicators being on centers which are spaced apart on said frame a greater distance than said calipering mechanisms, one of said gaging block levers engaging the operating member of one of said indicators, and the other of said levers having a lateral extension which engages the operating member of the second indicator, said levers being individually spring pressed to urge their respective gaging blocks independently toward the respective stationary gaging blocks and simultaneously therewith to actuate said indicators, and common means for actuating said levers to retract their gaging blocks and to allow them to close upon the tapered article to be measured.



2,841,876
MICROMETER HEIGHT GAUGE
Harold C. Pittenger, Los Angeles, Calif.
Application September 2, 1955, Serial No. 532,297
6 Claims. (Cl. 33—170)



3. In a precision gauge having a post with equally spaced circumferential grooves and a body slidable on the post supporting in fixed axial relationship an internally threaded thimble nut threadably engaging an externally threaded sleeve slidable on the body and carrying an extending indicator arm, the combination comprising first means manipulable to extend into a circumferential groove for locking the body in registry with the groove, and second means urged into a groove prior to locking for locating the first means adjacent a circumferential groove.

2,841,877
PLUG GAUGE
Samuel Ernest Coley, Shirley, England
Application October 14, 1955, Serial No. 540,602
Claims priority, application Great Britain
October 27, 1954
4 Claims. (Cl. 33—178)

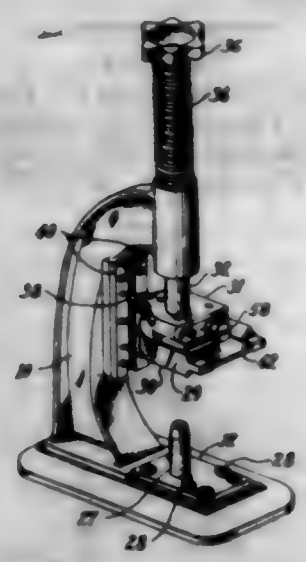
1. A plug gauge comprising a cylindrical body, a cylindrical sleeve fitting over said body and being axially

movable with respect thereto, said body including spaced abutments to limit the axial movability of said sleeve, said sleeve having a slightly larger inner diameter than the outer diameter of said body and being provided with apertures, freely rotatable balls of uniform diameter



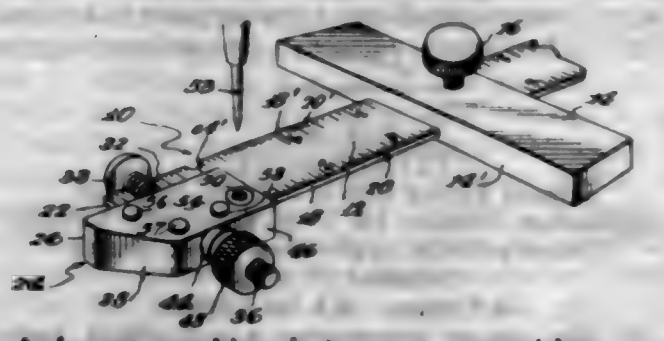
housed in said aperatures, the diameters of said balls being greater than the radial thickness of said sleeve so that said balls can roll on said body while simultaneously projecting radially outwards from said sleeve, and said sleeve including means to prevent said balls from dropping out of said apertures.

2,841,878
SHOE TESTING DEVICES
Charles K. Woodman, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application December 16, 1955, Serial No. 553,505
8 Claims. (Cl. 33—180)



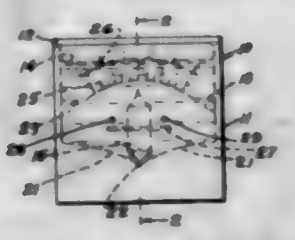
1. In a device for testing a part of a shoe on a last having positioning indicia formed thereon in a predetermined relation to a portion of the last over which the part of the shoe to be tested is shaped, a frame having positioning means cooperating with the last and said positioning indicia fixedly to position said frame and last with respect to each other, and a gaging member shaped in conformity to the said portion of the last for testing the said part of the shoe, said member being mounted upon said frame for movement into a relation with respect to said positioning means corresponding to that between the said portion of the last and its positioning indicia.

2,841,879
LAYOUT GUIDE CLAMP
Harry Lanski, Chicago, Ill.
Application January 7, 1957, Serial No. 632,766
8 Claims. (Cl. 33—189)



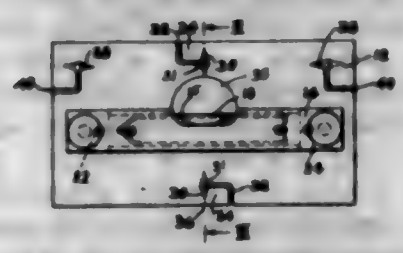
1. A layout marking instrument comprising, a rule having a recess in the calibrated edge thereof alined with a predetermined calibration, a layout guide clamp releasably secured on one end of the rule, said layout clamp having a guide hole therethrough and stop means engaging said end and calibrated edge to position the layout clamp with the center of the guide hole in registry with said calibration and edge concurrently and the recess aligned with the guide hole, means on the layout clamp for releasably clamping the same in said position, said stop means being provided on opposite surfaces of the layout clamp, said rule having a recess in the opposite straight edge thereof aligned with the first named recess, said stop means being arranged to permit selective installation of the layout clamp with the guide hole in registry with either of said edges and recesses concurrently.

2,841,880
LEVEL
Christopher M. Goleeson, West Covina, Calif.
Application March 2, 1954, Serial No. 413,627
9 Claims. (Cl. 33—206)



1. A level comprising, in combination: a transparent body; aligning surfaces for said body; a chamber formed within said body; a liquid disposed in and partially filling said chamber; a pointed recess formed in one wall of said chamber; an elongated freely movable buoyant indicator disposed in said liquid in said chamber; a weight connected to one end of said indicator; pointed ends formed on said indicator, said one end being formed on said weight and adapted for seating in and cooperation with said pointed recess; a scale disposed in said chamber and adapted for cooperation with another of said pointed ends of said indicator; and means for limiting movement of said indicator relative to said pointed recess.

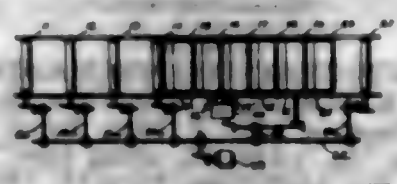
2,841,881
LEVEL UNIT
William G. Baldwin, Williamsburg, Pa.
Application September 23, 1954, Serial No. 457,879
7 Claims. (Cl. 33—207)



1. A leveling instrument comprising a bubble tube, a housing of square section in which the bubble tube is carried, the top and bottom surfaces of the housing being flat and being parallel, the top surface having an opening therein through which the bubble tube is exposed to view, and a thin flat metal plate secured against one side wall of the housing having parallel top and bottom edges which are also parallel with the top and bottom surfaces of the housing and ends which are square with the top and bottom edges, the plate being at least as long as the housing, said plate being thin as compared to the section of the bubble tube housing and being several times wider than said section so as to extend above and below the housing, the housing being centered between the ends of the plate, the top and bottom edges of the plate having cord-receiving slits therein, each having cord-retaining notches at its inner end located on

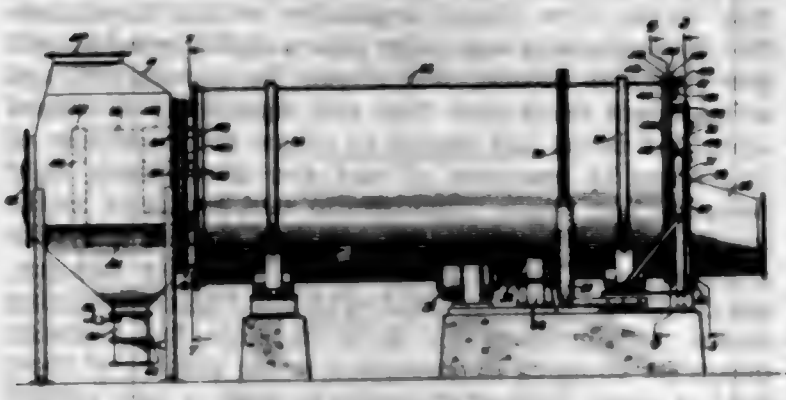
the vertical center line of the plate and tube housing so that a cord may be received in and stretched across the center of the instrument at the center of the bubble tube, the plate having an opening therethrough in the mid portion thereof through which the bubble tube may be viewed from the opposite side of the plate.

2,841,882
PAPER MACHINE DRYER DRIVE MECHANISM
Lloyd Hornbostel, Beloit, Wis., assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application September 30, 1955, Serial No. 537,448
5 Claims. (Cl. 34—121)



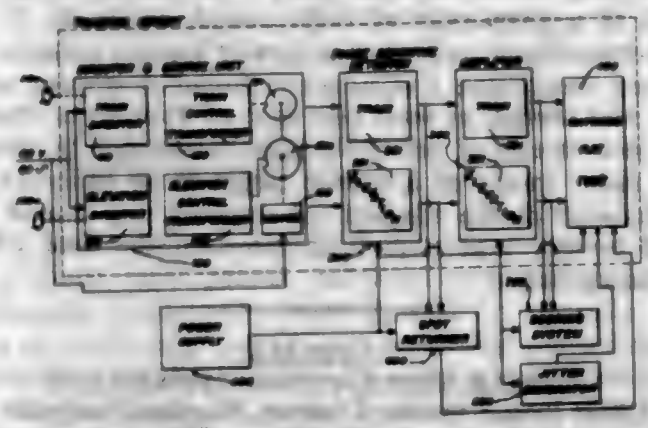
1. In a paper machine dryer, a first dryer roll, a second dryer roll adjacent thereto and cooperating with said first roll to support a reach of traveling paper web therebetween, a main drive imparting a predetermined speed to said first roll to rotate the same, a first rotary gear element in driven connection with said main drive, a second rotary gear element in driving connection with said second roll, and a control rotary gear element arranged with said first and second elements to define a differential gearing assembly, and driven with a variable speed ratio element which in turn is driven from said first rotary gear element, said variable speed ratio element provides means for applying a speed variation to said control element to impart, via said differential gearing assembly a speed differential between said rolls.

2,841,883
APPARATUS FOR DRYING AND COOLING
Norman L. Franch, La Grange, Ill., assignor to Link-Belt Company, a corporation of Illinois
Application November 10, 1955, Serial No. 546,892
15 Claims. (Cl. 34—136)



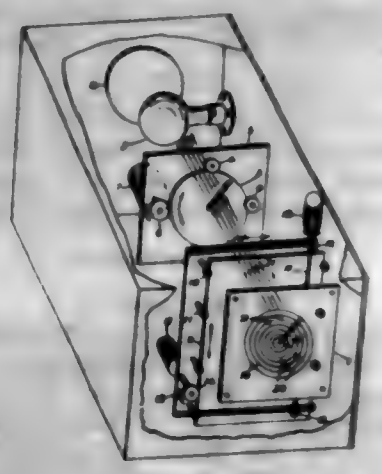
1. A device of the type described, comprising means supported for rotation about a horizontal axis and forming an annular series of axially extending treatment gas passages, a plurality of axially extending, circumferentially overlapped louvres arranged tangentially around the radially inner sides of said passages, the overlapped portions of said louvres being spaced to provide an outlet for each of said passages that is directed rearwardly and radially outwardly relative to the direction of rotation of said passage forming means, means for introducing material into one end of said passage forming means to form a bed of material on the louvres at the bottom and to one side thereof, means for introducing treatment gas into the passages positioned radially outwardly of the material bed, said passage forming means having a centrally located opening in the end thereof opposite the point of introduction of the material for releasing the treatment gas and for discharging material from said bed, a plurality of discharge louvres, means mounting said discharge louvres to extend axially outwardly from the discharges end of said passage forming means in surrounding relationship with the discharge opening, said discharge louvres having their adjacent longitudinal edge portions circumferentially overlapped and spaced to provide tortuous passageways therebetween for the escape of the released treatment gas, the discharged material being supported on the discharge louvres for movement to the outer ends thereof, and means mounted on the outer ends of said discharge louvres and providing a centrally located opening from the space within the louvres for releasing the material therefrom.

2,841,884
RADAR TRACKING DEMONSTRATING AND TRAINING INSTRUMENT
Henry P. Birmingham, Washington, D. C., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Original application May 11, 1951, Serial No. 225,768, now Patent No. 2,777,214, dated January 15, 1957. Divided and this application June 30, 1952, Serial No. 296,336
5 Claims. (Cl. 35—10.4)



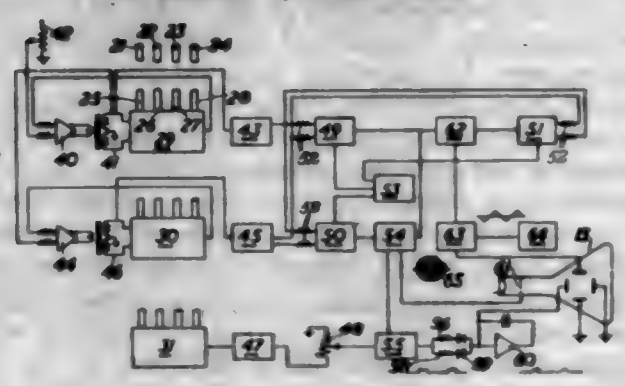
2. A circuit for measuring the time duration that the deflection of a cathode ray beam is maintained within a substantially octagonal area on the screen of a cathode ray tube comprising, two pairs of substantially matched diode vacuum tubes for detecting potential differences between opposite beam deflecting plates of the cathode ray tube, the two cathodes of each pair of vacuum tubes being responsive to the potential difference between each pair of opposite beam deflecting plates, the two plates of each pair of vacuum tubes being tied to each other, the two pairs of plates being united through two resistors into a single plate circuit, a third resistor interposed in the unitary plate circuit, said three resistors having substantially equal resistance values and each being in excess of the internal resistance of each of said pairs of vacuum tubes, an amplifier, the thus combined plate potentials of said twin diodes controlling the output potential of said amplifier, a one-way valve or rectifier vacuum tube having its cathode potential and hence its conductivity controlled by the output potential of said amplifier, the power supply voltages for said amplifier and rectifier being chosen to provide a cut-off cathode potential for the rectifierlocated on the straight line portion of the amplifier plate current voltage curve, the combination of the two potential differences between the two opposite pairs of beam deflecting plates thus controlling the conductivity of said rectifier and resulting in a conductive rectifier so long as insufficient to deflect the cathode beam out of a substantially octagonal area on the cathode ray tube screen, and means cooperating with the plate circuit of said rectifier for measuring the accumulated duration of the conductive periods thereof.

2,841,885
RADAR TRAINER
George Thomas William Hall, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application May 13, 1954, Serial No. 429,625
Claims priority, application Great Britain May 15, 1953
6 Claims. (Cl. 35—10.4)



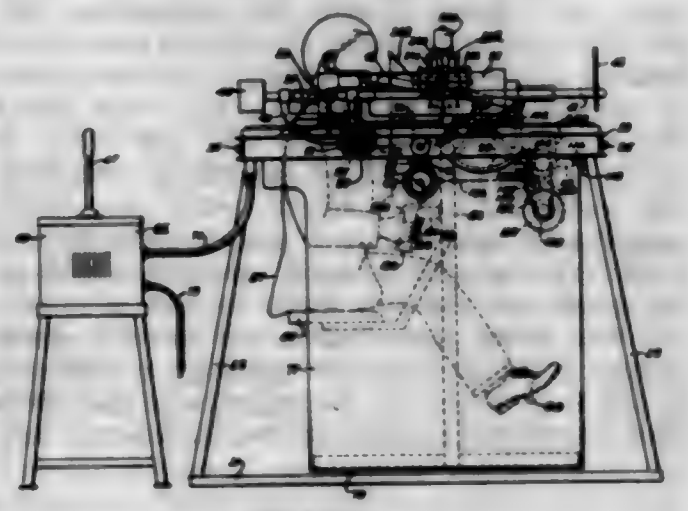
1. A radar-observation training device comprising a translucent viewing screen, means for producing an elongated beam of ultra-violet light in simulation of an oscillograph time-base trace, means for causing said beam to scan said screen in accordance with the scanning function of a given type of radar search equiment, at least one translucent target-image carrier located adjacent said screen comprising a translucent thread, a storage bobbin for said thread, at least one spot of fluorescent material on said thread of relatively high persistence to simulate the radar image of a mobile target to be observed, and a draw-off device adapted for drawing said thread from said bobbin over a path to intercept the field of said scanning beam.

2,841,886
RADAR SIMULATING APPARATUS
Albert Ernest Cutler, Crawley, England, assignor to Communications Patents Limited
Application September 22, 1954, Serial No. 457,695
Claims priority, application Great Britain October 1, 1953
10 Claims. (Cl. 35—10.4)



1. Radar training apparatus for producing on a viewing screen corresponding to the viewing screen of a radar unit in an aircraft moving in space synthetic representations simulating radar echoes transmitted from the radar unit to and reflected from features of the earth's surface, comprising a chart bearing on the surface thereof a representation of features of the earth's surface, means for projecting upon said chart surface a beam of electromagnetic waves so as to be reflected therefrom in correspondance to said features, said means being capable of effecting three dimensional movement of said beam relative to said chart corresponding to assumed movements of the radar unit, means operatively connected to the flight controls of said training apparatus continuously to compute the slant range from the radar unit to the ground in response to the setting of said controls from data representing the various movements of the radar unit, a display tube, means responsive to said reflections of electromagnetic waves from said chart surface to produce electric signals and operatively connected to said display tube to display on said display tube in response to said signals a reproduction of features represented on said chart, means to apply range scanning potentials to said display tube at a high repetition frequency, and means operatively connected to said computing means for controlling the operation of said display tube in response to the computed value of the slant range to produce visible markings on said display tube only when the range scanning potential is in a predetermined time relation to the computed slant range.

2,841,887
GUN TRAINING MECHANISM
Kendall Clark, Glen Ellyn, Ill.
Original application May 9, 1945, Serial No. 592,765, now Patent No. 2,640,395, dated June 2, 1953. Divided and this application May 29, 1953, Serial No. 358,386
3 Claims. (Cl. 35—25)

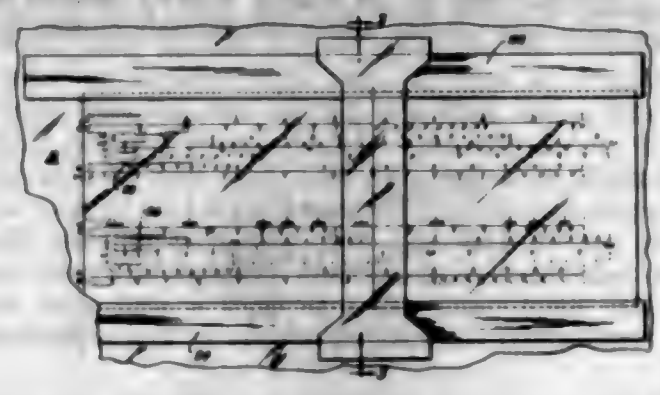


1. A gunnery trainer comprising in combination, a simulated gun mounted upon a gun yoke, a gun control including trigger simulating means, gun drive means responsive to said gun control for positioning said gun and yoke, a target arm carrying a target, a remote target control, target drive means responsive to said target control for positioning said target arm, a sight carried by said gun yoke for viewing said target, the construction and arrangement being such that said sight may be trained upon said target and caused to follow the movement of said target by operation of said gun drive means, sight compensating means responsive to said gun drive means for adjusting the position of said sight on said gun yoke relative to said gun to provide a lead angle for said gun, electric circuit means responsive to said trigger simulating means for simulating the firing of shots, first counting means for counting in proportion to the number of shots fired, a switch carried by said gun yoke, a cam carried by said target arm for actuating said switch, cam compensating means responsive to said target drive means for adjusting the position of said cam on said target arm such that said cam will engage said switch when said gun has the proper lead angle relative to said target, and second counting means for counting in proportion to the number of shots fired while said switch is actuated by said cam.

2,841,888
SLIDE RULE DEMONSTRATOR FOR OVERHEAD PROJECTOR
Paul D. Grimmer, Jackson Heights, N. Y.
Application March 24, 1955, Serial No. 496,638
1 Claim. (Cl. 35—39)
(Granted under Title 35, U. S. Code (1952), sec. 266)

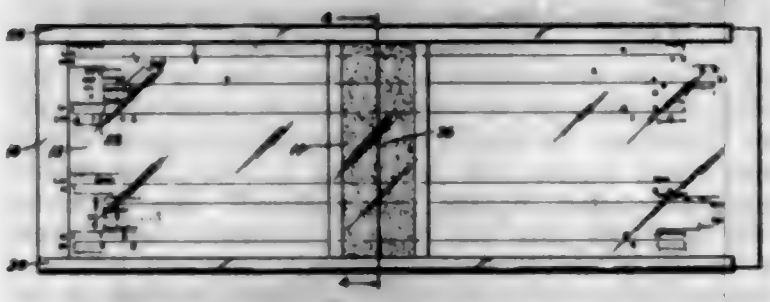
A slide rule demonstrator for an overhead projector comprising a fixed transparent planar base, slide rule

indicia on the upper face of said base, track means extending from said base, a transparent relatively thin planar plastic strip overlying said base and slidably held in said



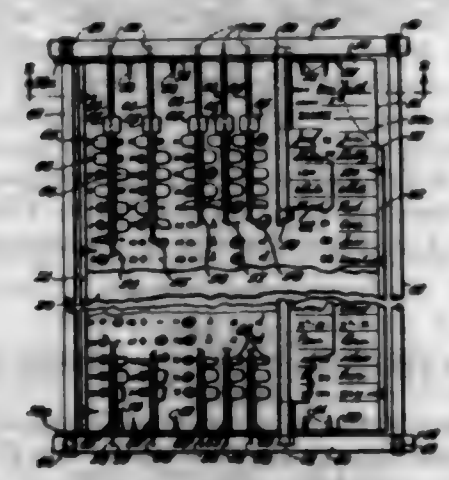
track means for longitudinal movement on said base, slide rule indicia on the upper face of said plastic strip and a transparent cursor movably coupled to said track means and overlying said transparent strip and base.

2,841,889
PROJECTABLE SLIDE RULE
Thomas C. Coale, Levittown, and Wesley F. Heyman, Glen Cove, N. Y.
Application April 4, 1955, Serial No. 499,255
5 Claims. (Cl. 35—39)
(Granted under Title 35, U. S. Code (1952), sec. 266)



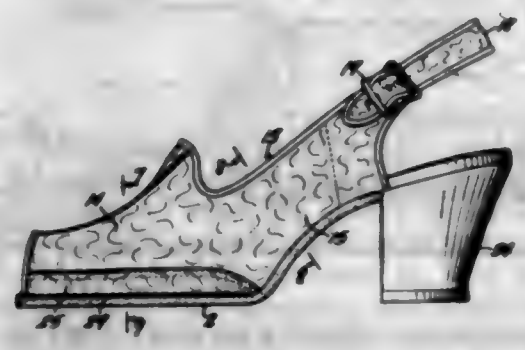
1. A slide rule demonstrator for an overhead projector comprising a transparent planar base, end flaps extending from said base, fold lines between said base and end flaps whereby said flaps are folded along said fold lines to provide track means on the base, said flaps being at an acute angle to the base, a transparent median planar slide movably held in said track means and a transparent cursor superimposed on said slide for movement relative thereto.

2,841,890
DEVICE FOR GRADING PAPERS
Lewis Bailey, Jackson, Ky.
Application April 25, 1956, Serial No. 580,481
11 Claims. (Cl. 35—48)



3. In a device for grading test papers, a rectangular tray-like base member adapted to receive a stack of test papers and comprising a first hinge element, a frame comprising rectangularly disposed side elements and mounting a second hinge element coacting with said first hinge element comprising said base member, said first and said second hinge elements comprising a floating mount whereby said frame is adapted to lie snugly atop the said stack of test papers as the height thereof varies, a rod extending between oppositely disposed said side elements of said frame, a plurality of shields comprising hub portions pivotally and slidably arranged on said rod in end to end relation between the said side elements of said frame, and a resilient element interposed between one of the said frame elements and the said plurality of shields comprising hubs, whereby the said hubs are urged into frictional engagement with respect to each successive hub and with respect to the oppositely disposed said side element of said frame.

2,841,891
FORCE-LASTED STITCHDOWN SHOE
Louis Sillman, Coytesville, and Hans Hacker, Rutherford, N. J., assignors to Flexline Shoe Company, a corporation of New Jersey
Application October 5, 1955, Serial No. 538,666
2 Claims. (Cl. 36—16)



1. A shoe comprising an upper having vamp and quarter portions, said quarter portions only having lasting allowances, mudguard strips secured to opposite side edges of said vamp portion and projecting approximately one quarter inch beyond the edges of the vamp, said strips extending from the toe to the junction of said vamp and quarter portions and provided with a slit a short distance forwardly of the rear end of each of said strips, said slits extending inwardly from the edges of said strips to the edges of said vamp portion, an outsole having forepart and shank portions, an insole having forepart, shank and heel portions, the forepart of the insole affixed directly to the forepart only of the outsole, the lateral edges of the forepart of the outsole projecting outwardly beyond the edges of the insole, said mudguard strips having lower edge portions extending from the toe rearwardly to said slits turned outwardly and stitched to the projecting edge portions of said outsole, the side edges of said vamp portion abutting the upper face of the outsole and held between the mudguard strips and the side edges of the insole, the portions of said strips rearwardly of said slits and the lasting allowances of said quarter portions turned inwardly and secured between the shank portions of the insole and outsole to shape the shank portion of the shoe smoothly to the contour of the shank of a selected last, the rear ends of said mudguard strips pointing inwardly toward one another in a direction transverse to the length of the shoe.

2,841,892
SHOE CONSTRUCTION
Anthony Joseph Giannone, Saugerties, N. Y.
Application October 29, 1956, Serial No. 618,741
3 Claims. (Cl. 36—34)

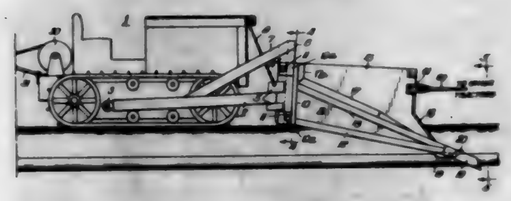
1. In a shoe construction, a plate having a plurality of spaced integral internally threaded bosses extending from its upper surface and an integral internally threaded projection extending from its lower surface, a stud threaded into said projection, a sole having holes therethrough to

receive and orient said bosses therein with said upper plate surface against the lower surface of said sole, and



a plurality of screws threaded into said bosses from the upper side of said sole.

2,841,893
PIPELINE RECLAIMER
Kenneth C. Knapp, Oxford, Kans.
Application December 24, 1953, Serial No. 400,334
5 Claims. (Cl. 37—1)



1. Apparatus for removing pipelines from the ground comprising: the combination with a track-laying tractor having a yoke pivoted to its frame near its rear end and extending around its front end, and having a power winch on its rear end; of an earth loosening unit comprising: a generally vertical post-like member fixed upon the front end of the yoke of the tractor; a mounting base rigidly fixed to said post member; spaced apart base members fixed to said mounting base and extending forwardly and downwardly therefrom; a center board positioned midway between said base members and fixed thereto, and extending upwardly therefrom and fixed to said mounting base; mold boards fixed between said center board and base members, with the outer edges of the mold boards aligned with the outer edges of the base members, said unit being moved along a pipeline by the tractor to loosen the earth above and alongside the pipeline, the earth so loosened falling back onto the pipeline as the unit moves therealong; a reclaimer unit pulled along beneath the pipeline by a cable attached to the winch as the tractor moves along the line to break the pipe loose from the earth in which it is embedded; an elevator unit pulled along beneath the pipe by the reclaimer to elevate the pipe through the loosened earth towards the surface; and a cradle engaging the pipe, supported by a boom tractor and pulled along the pipe by a cable attached to the junction of the reclaimer and winch cable for elevating the pipe out of the loosened earth and depositing it thereupon.

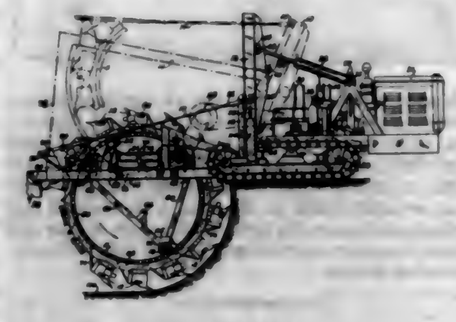
2,841,894
COMBINATION BUMPER AND BULLDOZER ATTACHMENT
Charles M. Valois, Miami, Fla.
Application February 10, 1956, Serial No. 564,731
8 Claims. (Cl. 37—42)

1. A combination bumper and bulldozer attachment for a self-propelled vehicle having transversely spaced longitudinally extending side rails, said bumper and bulldozer attachment comprising supports carried by the side rails of the vehicle and extending longitudinally therefrom adjacent the front ends thereof, a concavely curved bumper carried by the supports and extending horizontally across the front of the vehicle with its concave side remote from said vehicle, and a transversely curved bull-



dozer blade supported on the bumper for movement adjacent the lower edge thereof in a vertical arcuate path from an inactive position in which its concave side lies adjacent the concave side of the bumper to an active position in which it lies below the bumper with its concave side remote from the vehicle.

2,841,895
WHEEL TYPE TRENCHING MACHINE
John F. Lindell and Raymond L. Kennedy, Newton, Iowa, assignors, by mesne assignments, to Koehring Company, Milwaukee, Wis., a corporation of Wisconsin
Application March 11, 1955, Serial No. 493,692
7 Claims. (Cl. 37—97)

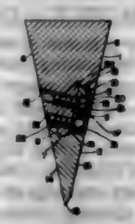


1. In a trenching machine, a vehicle, a rotary excavating wheel located near an end of said vehicle, an elongated mast assembly swingably associated with the adjacent vehicle end, a carriage movable along said mast assembly, a cantilever supporting frame for said wheel swingably attached to said carriage, a hydraulic power unit for moving said carriage along said mast assembly, and another hydraulic power unit for swinging said mast assembly forwardly and rearwardly to effect further movements of said carriage and its excavating wheel.

2,841,896
EXCAVATING TOOTH WITH REPLACEABLE POINT
Herman S. Meshover, Shaker Heights, Ohio
Application March 29, 1956, Serial No. 574,824
1 Claim. (Cl. 37—142)

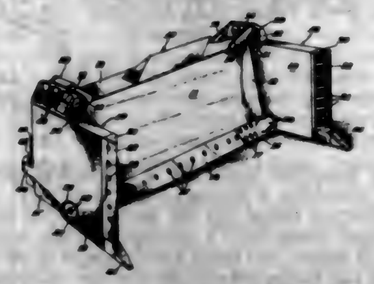
In a tooth for excavating implements and the like, a base of generally wedge-shaped form characterized by parallel side walls and flat top and bottom walls which converge toward each other from the rear portion of said

base to the front portion thereof, said base provided with a tongue having a face which lies in a plane which is substantially parallel with the bottom wall of said base, a second face which lies in a plane which is substantially parallel with the top wall of said base and extends rearwardly to a point such that its area is considerably greater than the area of said first face, and a front face which lies in a plane which is perpendicular to the bottom wall of said base, said base provided adjacent the rear edge of said second face with a recess having spaced walls parallel with each other and with the top wall of said base, and provided adjacent to the rear edge of said first face with a third face extending from said edge perpendicularly to said bottom wall; a replacement point



for said base, said point being of wedge-like form having a top face which is substantially flush with the top wall of said base, a bottom face which is substantially flush with the bottom wall of said base, said point having in its rearward portion a recess adapted to snugly receive the tongue of said base and provided also with an extension having a tongue adapted to be snugly received in the recess of said base; and means for removably securing said point to said base, said means comprising laterally and longitudinally spaced bolts extending through said extension and into said base, said bolts having their axes substantially perpendicular to the plane of the top wall of said base, and having their heads countersunk below the plane of the top face of said point.

2,841,897
VARIABLE PITCH END WINGS FOR BULLDOZERS
Edward D. Duke, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application March 26, 1956, Serial No. 573,679
6 Claims. (Cl. 37—143)



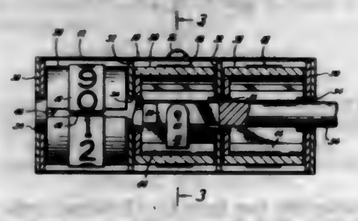
6. In an earth moving scraper comprising a moldboard adapted to operate in a substantially vertical position, and a cutting blade connected to a lower portion of said moldboard; end wings connected to laterally spaced opposite ends of said moldboard, each wing comprising a vertical wall projecting forwardly of said moldboard, means pivotally supporting each wing on said moldboard about a horizontal axis comprising a shaft connected to and projecting laterally outwardly from said moldboard, each wing including a journal portion pivoted on one of said shafts, means on said wings engaging said moldboard for locking said wings in a number of pivoted positions relative to said moldboard, means supporting each of said wings against endwise thrust including guide members connected to opposite ends of a rear portion of said moldboard, said guide members projecting rearwardly with respect to said moldboard; and arms projecting rearwardly with respect to said moldboard and engaging said guide members, said arms being adapted to slide relative to said guide members during pivotal movement of said wings.

2,841,898
MEDIUM WEIGHT DIRT MOVING MACHINE
Will D. Sampson, San Antonio, Tex., assignor to Engineering Industries Corporation, San Antonio, Tex., a corporation of Texas
Application July 27, 1953, Serial No. 370,416
1 Claim. (Cl. 37—168)



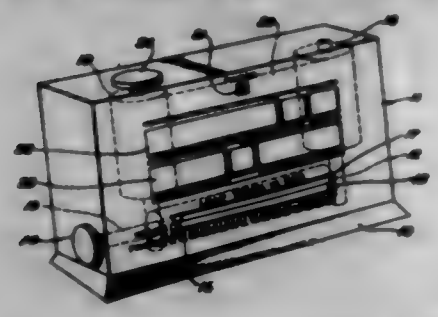
A dirt moving machine comprising a pair of laterally spaced upwardly sloping rearwardly diverging frame members, a pair of laterally spaced upwardly sloping rearwardly diverging lower frame members arranged in vertically spaced parallel relation to said first-named frame members, means connecting the adjacent forward ends of said upper and lower frame members, means extending transversely between said upper frame members and connected thereto anchoring said upper frame members in spaced relation, downwardly and rearwardly sloping parallel rear frame members secured to said upper and lower frame members, wheels journalled on the free ends of said rear frame members, means secured to the forward end of said machine for connecting said machine to a tractor, a scraper blade, a semi-circular bar fixed to said blade, means pivotally securing said semi-circular bar to said first-mentioned means, and means on said upper frame members for vertically adjusting said scraper blade.

2,841,899
REGISTER FOR SERVICE TRAYS AND THE LIKE
Aubrey J. Renfrow, Liberty, Tex.
Application July 5, 1956, Serial No. 596,863
3 Claims. (Cl. 40—68)



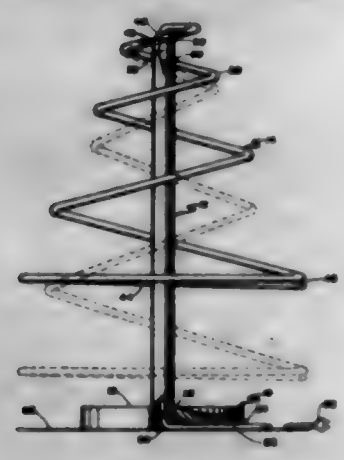
1. A register comprising a housing of generally cylindrical shape open at its opposite ends and having aligned window openings, cylindrical indicia bearing elements rotatably mounted in the housing, each of said elements having indicia thereon positioned to be moved into and out of registration with one of said openings upon rotation of the element, and means insertable in an end of the housing and having a portion positioned to be selectively engaged with each of said elements to rotate the elements.

2,841,900
MULTI-YEAR CALENDAR
Helen R. Ryan, New York, N. Y.
Application May 12, 1955, Serial No. 507,911
8 Claims. (Cl. 40—117)



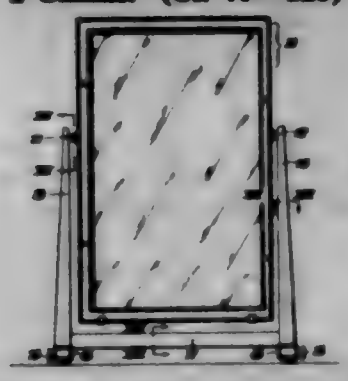
1. In a calendar, a first chart having a series of fourteen complete yearly calendars all arranged in a single linear array and each yearly calendar having associated therewith a corresponding one of fourteen individual key indicia, a second chart having a series of yearly dates arranged in fourteen columns with all yearly dates having the same key indicia located in the same column and with the yearly dates in adjacent columns in parallel rows, first stationary window means adjacent the first chart to display only one of said key indicia and the corresponding complete yearly calendar at a time, second window means adjacent the second chart of a size to display only one of said parallel rows at a time, a stationary index adjacent the second window means having said fourteen key indicia respectively each in alignment with a corresponding one of said fourteen columns, means movably supporting said second chart to bring a chosen yearly date into view through said second window, means to determine the year-identifying indicia in said stationary index which is in alignment with said chosen yearly date, and means movably supporting said first chart to bring into view through said first window means the said determined year identifying key indicia and also the corresponding full yearly calendar.

2,841,901
COLLAPSIBLE TREE FORM FOR CHRISTMAS CARDS AND THE LIKE
Ronald E. Maple, San Diego, Calif.
Application March 9, 1956, Serial No. 570,622
3 Claims. (Cl. 40—124)



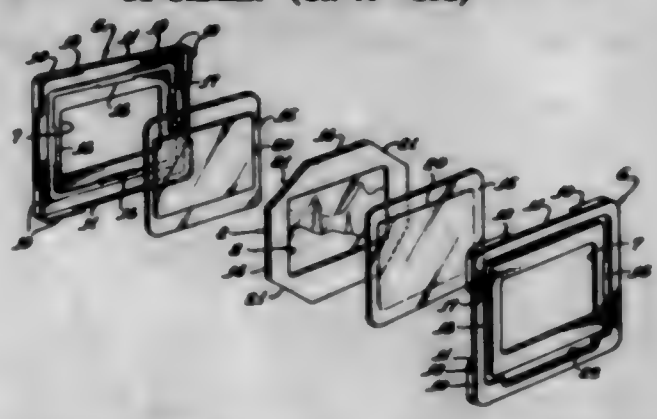
1. A collapsible tree form for Christmas cards and the like comprising; a base; an upright standard removably mounted on said base; and a resilient card support member of generally helical form mounted at the center thereof on the top of said standard; said member comprising an elongated resilient sheath having two insulated electrical conductors coextensive therewith and enclosed therein; means for securing and illuminating a card on said member comprising a lamp having prong terminals capable of insertion through a card and said sheath to contact said conductors.

2,841,902
PANEL SIGN FRAME
George M. Pfundt, Churchville, Pa.
Application September 1, 1955, Serial No. 531,957
2 Claims. (Cl. 40—125)



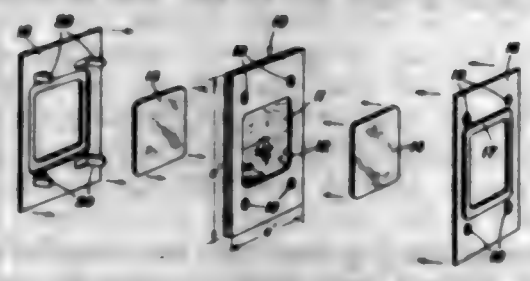
1. In a panel sign, a frame provided with horizontal supporting legs each comprising elongated channel members, reinforcing channel members disposed across the opening of each of said elongated members, reinforcing brackets disposed across the backs of said legs, said legs and reinforcing members having aligned openings therein adapted to receive fastening means and a transverse channel member having openings at its ends aligned with said first mentioned openings, fastening means adapted to pass through said aligned openings to connect said transverse member to said horizontal legs, vertical columns attached to each of the said fastening means and extending upward from said supporting leg, a tapered opening in the upper portion of each of said columns, a display panel, pins attached to said display panel extending outwardly toward said openings, said pins adapted to be inserted in said opening and retained in the tapered parts thereof.

2,841,903
PROTECTIVE BINDER FOR CARDBOARD MOUNTED PHOTOGRAPHIC TRANSPARENCIES
Grover N. Christensen, North Hollywood, Calif.
Application March 16, 1956, Serial No. 571,949
11 Claims. (Cl. 40—152)



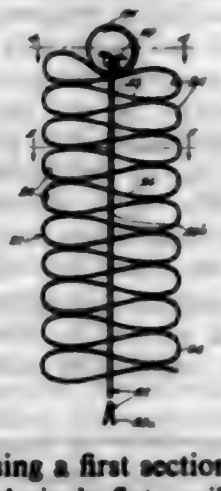
1. A protective binder for a rectangular cardboard mount containing a photographic transparency, wherein the cardboard mount has the corners thereof removed, said binder comprising: a rectangular frame engageable with said mount; said frame having flanges at the corners thereof; said flanges defining therebetween elongated openings for receiving therein substantially flush relation with said flanges the outer edges of said mount; said frame having viewing openings therein for registration with the viewing openings in said mount; transparent panes carried by said frame for covering the viewing openings in said frame and said mount; said frame having another opening therein through which a portion of the cardboard mount is exposed so that indicia written or printed on said exposed portion is visible through said last named opening when the frame and mount are secured together; and means for holding said frame and mount is assembled relation.

2,841,904
SLIDE MOUNTINGS
Theodore M. Jahlen, Stamford, Conn.
Application January 29, 1957, Serial No. 637,044
6 Claims. (Cl. 40—152)



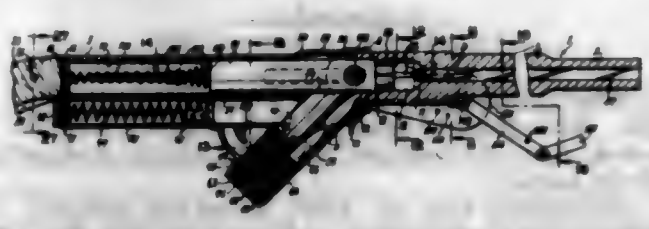
1. A protective glass plate mounting for a film transparency marginally held in a primary frame and having a pair of protective transparent plates seatable in the respective recesses formed by each face of the film with the associated primary frame portions, and a pair of cover frames applicable to said primary frame, each for holding a respective transparent plate, for use with an encompassing frame for receiving and edgewise encompassing said primary frame with said transparent plates and with said cover frames, which encompassing frame in turn comprises a flat body portion having an opening of substantially square configuration, a pair of inwardly overhanging flanges along opposed edges of the body portion and spaced therefrom to constitute a pair of parallel grooves facing one another for the insertion therein of a slide, and also comprising at the third edge of said body portion an abutment for the slide, with said recesses and the picture opening being rectangular and defined by a long side and a short side and adapted to be surrounded by said square opening so that the short sides of the picture opening extend parallel and adjacent to one pair of edges of said square opening whereas the long sides of the picture opening extend parallel to and spaced from the other pair of edges of said square opening and thus define within said square opening an elongated unencumbered area between each long side of the picture opening and the respective associated parallel edge of the square opening; characterized thereby that each said cover frame is formed with a raised offset portion constituting and outwardly appearing as a flat ledge providing a marginal recess around the picture opening for accommodating excess thickness of the associated transparent plates seated in the primary frame, said assembly of primary frame with transparent plates and cover frames thus providing a marginal portion of reduced thickness surrounding a relatively raised portion and comprising the thickness of the primary frame and the metal gauge thickness of the cover frames so that when said assembly is inserted into said encompassing frame, the raised portions of the assembly will extend within and into the respective open areas of the encompassing frame with the frame hugging respective marginal portions of reduced thickness so that the outer faces of said encompassing frame will fall substantially in a plane with the associated outer faces of said raised portions of the respective cover frames of the assembly after insertion thereof into the encompassing frame, with the addition that the one cover frame is provided with a first pair of tongue shaped fastening prongs extending from the inner face thereof and disposed at the respective ends of the one long side of said flat raised ledge, said primary frame and the other cover frame having matching openings for receiving said prongs, each prong having a terminal portion bent over inwardly flat against the outer face of said other cover frame in a manner to interlock the component parts of said assembly, with said bent over portions extending parallel to and substantially in a plane with the associated long side of the flat raised ledge so as to lie within the respective elongated unencumbered area of the square opening, and a second pair of similar fastening prongs similarly disposed at the opposite long side of the flat raised ledge and extending from said one cover frame through matching openings in the primary frame and in said other cover frame, with similarly bent over portions disposed in the respective elongated unencumbered area within the square opening.

2,841,985
BOW AND METHOD FOR MAKING SAME
Gustav Wanchek, Salinas, Calif., assignor, by mesne assignments, to Chicago Printed String Company, a corporation of Delaware
Application December 30, 1955, Serial No. 556,486
5 Claims. (Cl. 41—18)



1. A bow comprising a first section formed of a predetermined length of relatively flat, resilient ribbon provided with uniformly and longitudinally spaced apertures, the portions of said ribbon intermediate adjacent apertures being alternately looped in opposite directions to form at least eight loops, four of said loops being disposed on opposite sides of the apertures arranged in substantially registered relation, the bight of each loop being spaced from said registered apertures, an elongated, attenuated, pliable second ribbon section integrally formed with said first section and having one end thereof threaded through said registered apertures, and extending a substantial distance beyond the end loop of said first section, the other end of said second section being integral with the other end loop of said first section, the portion of said second section intermediate the ends thereof being loosely disposed within the threaded apertured portions of said first section, and stop means located at the juncture of said first and second sections and impassable with respect to said registered apertures; said first section, when the apertured portions thereof are moved relative to said second section into a gathered position against said stop means, effecting automatic twisting of said loops about said second section as an axis to form a substantially pompon type bow.

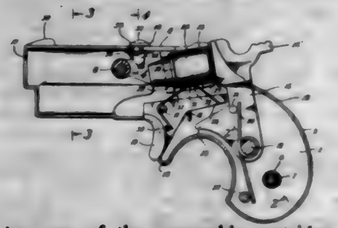
2,841,986
SHOULDER FIREARM HAVING SEPARATE PROJECTILE AND POWDER MAGAZINES
Edwin R. Michelson, Berkeley, Mo.
Application June 7, 1954, Serial No. 434,929
7 Claims. (Cl. 42—17)



1. A gun adapted for firing a cartridge-less projectile having a detonating cap in its base, said gun comprising a chamber, a barrel extending forwardly from the

chamber and having a rifled bore throughout its length except for a section adjacent to the chamber, said barrel being diametrally enlarged and smooth-surfaced in said section to provide a projectile-engaging throat into which the projectile may be snugly seated prior to firing, an annular seat in said chamber located rearwardly of the throat, the distance between the throat and the seat being sufficient to provide space for receiving a powder charge, a bolt slidably mounted at the rear end of and in axial alignment with the chamber and having an annular shoulder for engagement against the seat, actuating means for shifting the bolt to-and-fro into and out of seated position, a projectile magazine located below the chamber and rearwardly of the throat in downwardly and angularly projecting relation thereto, spring-biased means in the projectile magazine for injecting a single projectile at a time from the projectile magazine into the chamber, means on the forward end of the bolt for seating said projectile in said throat, a powder magazine located below the chamber and rearwardly of the projectile magazine in parallel relation to the chamber, a powder-feeding cylinder mounted at the rear of and parallel to the projectile magazine, said cylinder being in communication at its upper end with the powder magazine, a spring-biased piston in the powder magazine for injecting a charge of powder from the powder magazine into the powder-feeding cylinder, and piston-like means in the powder-feeding cylinder for introducing said charge of powder into the chamber.

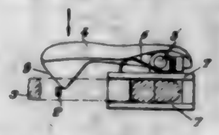
2,841,907
TOY CARTRIDGE TYPE GUN
Talley Webbea Nichols, Jacksonville, Tex.
Application April 3, 1957, Serial No. 650,431
9 Claims. (Cl. 42—54)



1. In a toy gun of the removable cartridge type, a gun body having a wall portion bounding a chamber which is for slidable insertion into and ejection from the chamber of a removable cap containing cartridge, a hammer mechanism having a trigger pivotally mounted in the body, a bar spring having a grounded bearing at one end on said chamber wall and having in spaced relation to said grounded end an abutment on the trigger to yieldably bias the same in one direction, said spring at its grounded end having a portion thereof projected through an opening in said wall and into said chamber in the path of a cartridge for frictional engagement by the side of a cartridge located within the chamber and a slidable ejector slidably carried by the body for movement in the direction of cartridge insertion-ejection travel, said ejector having inside the body a cartridge engaging abutment and having outside said body a finger actuating abutment.

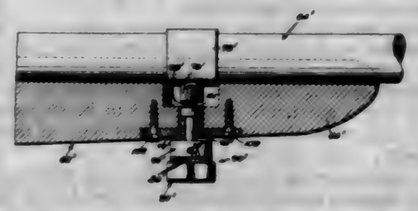
2,841,908
TRIGGER ACTUATOR FOR FIREARMS
Eugène Bourquin, Geneva, Switzerland, assignor to Brevets Aero-Mecaniques S. A., Geneva, Switzerland, a Swiss society
Application May 16, 1955, Serial No. 508,587
Claims priority, application Luxembourg May 26, 1954
4 Claims. (Cl. 42—69)

1. A firearm which comprises, in combination, a stock, a trigger pivoted to said stock, a trigger guard carried by said stock surrounding said trigger, an oblong lever pivoted to said trigger guard on the left hand side thereof about an axis parallel to the longitudinal plane of symmetry of the firearm and at right angles to the line of fire thereof, said lever extending in a direction substantially parallel to said line of fire, and its dimension in



this direction being greater than the width of the palm of a human hand, and resilient means for urging said lever away from said trigger guard, said lever including a part shaped and positioned for cooperating with said trigger to actuate it when said lever is pushed toward said trigger guard.

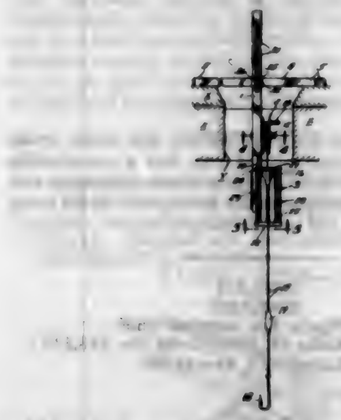
2,841,909
CONSTANT TORQUE-TYPE STRESS APPLIANCE FOR FIREARM BARRELS
Lemuel M. Temple, North Haven, Conn., assignor to Olin Mathieson Chemical Corporation, New Haven, Conn., a corporation of Virginia
Application July 12, 1954, Serial No. 442,693
4 Claims. (Cl. 42—75)



1. In a firearm, a stock part, a barrel part bedded therein; a stress connection for the stock and barrel parts comprising a member adapted for rotary mounting in one part and having a threaded portion for connection with the other part; a cupped manipulator having a bottom and a rim and being mounted for rotation coaxially of said member, said member and said bottom of the manipulator constituting the elements of a pawl-type clutch of which one element has ratchet teeth and the other element has cooperating pawl-like projections; a screw having an exposed head in the cup of said manipulator and a threaded shank extending through the bottom of the latter and received in said member; a compression-type spring surrounding the threaded shank of said screw and interposed between the head of the latter and the bottom of said manipulator, said spring urging said clutch elements into driving engagement with each other with a force variable with the adjustment of said screw, and said ratchet teeth and projections being coordinated so as to interlock with each other and positively drive said member on turning said manipulator in one direction, and to override each other on turning said manipulator in the opposite direction at a torque greater than a predetermined maximum.

2,841,910
ICE FISHING APPARATUS
Chester P. Berg, Minneapolis, and William W. Viehahn, Duluth, Minn.
Application October 27, 1955, Serial No. 543,144
2 Claims. (Cl. 43—4)

2. Ice fishing apparatus comprising, an elongated rod adapted to extend vertically through a hole in the ice on a body of water, a fish line reel mounted on said rod intermediate the ends thereof, a downwardly opening receptacle secured to the rod between said reel and the lower end of said rod, said receptacle being of a size to freely receive a fishing bobber through its open lower end, said receptacle having a transparent upper end through which said bobber is visible when the bobber is disposed within the receptacle, said transparent upper end having an opening for free passage therethrough of a fish line attached to said bobber and wound on said reel, said opening being of smaller diameter than said bobber, a rod supporting bar having its opposite ends engageable with the upper surface of the ice surrounding the hole, and means intermediate the ends of said supporting bar pivotally mounting the same to said rod on a horizontal axis above the plane of the top of said reel for movements between an operative rod supporting position normal to the rod and an inoperative position parallel to the rod,



said bar in its operative position supporting the rod in the hole with said receptacle and reel positioned below the surface of the water in the hole, said rod having a transverse slot extending longitudinally thereof, said means comprising a pivot bolt extending laterally outwardly of the bar through said slot, a slide member mounted on said bolt and engaging the side of the rod opposite said bar and at opposite sides of said slot, and a locking nut screw-threaded on said bolt outwardly of said slide member and operative to frictionally hold said bar and slide member against sliding movement longitudinally of the rod but permitting said pivotal movements of said bar relative to the rod, loosening of said locking nut permitting sliding movement of the bar longitudinally of the rod to vary the depth at which said receptacle and reel are positioned in the hole.

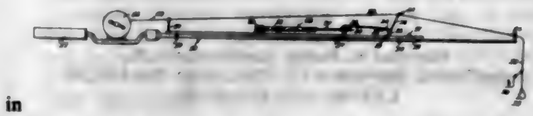
2,841,911
FISHING SINKER
Roy E. Dahlgren, Seattle, Wash.
Application April 6, 1956, Serial No. 576,598
1 Claim. (Cl. 43—43.12)

A fishing sinker comprising: a symmetrically shaped, weighted body; a shank fixedly connected at one end to and projecting from one end of the body, said shank, for its full length, being of imperforate, smooth-surfaced formation, of circular cross-section, and of constant diameter; a highly resilient, thin-walled, flexible tube substantially longer than the shank and normally contracting to an inner diameter less than that of the shank, one end of the tube being radially distended to fit onto and grip said shank for the greatest part of the length of the shank, said end of the tube being adapted to separate from the shank responsive to a strong axial pull exerted on the shank and tube in a direction tending to pull the same apart and exceeding a predetermined value, the resiliency of the tube constituting the sole force holding the same on the shank; and a line connector including a portion engaged in the other end of the tube, said portion of the line connector having an enlarged free end,



the other end of the tube including a cuff radially contracted about the line connector in back of said enlarged free end, the engagement of the cuff with said line connector portion being of a strength exceeding in value the grip of said one end of the tube on the shank.

2,841,912
AUTOMATIC FISHING DEVICE
Tone H. Elming, Colorado Springs, Colo.
Application August 20, 1957, Serial No. 679,298
2 Claims. (Cl. 43—15)

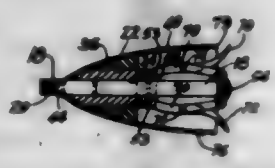


2. In an automatic fishing device for a fishing line, a base, a guide member on said base adjacent one end thereof, ears extending upwardly from said base, a pin extending between said ears, an adjustable trip bar including an arm provided with a sleeve pivotally mounted on said pin, a spring member mounted on said pin and engaging said arm and normally urging the arm to swing rearwardly toward said guide member, there being an elongated slot in said arm, a lever having a free end and a portion adjustably connected to said arm, a securing element extending through a portion of said lever and engaging said slot, a curved bracket on said free end of said lever, a latch adapted to extend over said bracket and said latch having one end thereof pivotally connected to said base, there being an offset portion on the other end of said latch, a keeper including a collar pivotally connected to said base, and a finger extending from said collar for engagement with the offset portion of said latch, said keeper further including a plate provided with a groove for a fishing line, whereby a pull on the outer end of the line will cause the keeper to release the latch and permit rearward swinging of the trip bar and the curved bracket to engage and jerk the line.

2,841,913
EXPANDER FISH LURE
Carl A. Pearson, Moline, Ill.
Application February 21, 1956, Serial No. 566,923
2 Claims. (Cl. 43—37)

1. In an expander fish lure, an elongated shaft having forward and rear ends, a sleeve shorter than said shaft, said sleeve having an axial bore slidably and non-rotatably receiving said shaft, said sleeve having forward and rear ends, said sleeve having circumferentially spaced radial slots opening through its rear end and reaching from

the sleeve bore to the outer surface of the sleeve, pivots on said sleeve extending across said radial slots, radial lugs mounted on the rear end of the shaft and aligned with said radial slots, relatively short rear levers having inner ends pivoted on said lugs, relatively long forward levers having inner ends in related radial slots and pivoted on pivots therein, said forward levers having sharpened outer ends and serving as fish-impaling spears, the outer ends of the short rear levers being pivoted to intermediate portions of said long levers, and releasable detent means acting between said sleeve and said shaft for releasably retaining the sleeve in a forward and set



position on said shaft wherein the spear levers are retracted, said detent means being releasable by rearward pull on said sleeve and accompanying rearward movement of the sleeve relative to the shaft in which said spear levers are moved radially extended fish-impaling positions, and a longitudinally elongated housing circumposed on said sleeve and having a portion extending rearwardly beyond said sleeve and defining a skirt enclosing the long and short levers in the retracted positions thereof, said skirt having longitudinal slots therein aligned with said radial slots and through which the spear levers pass to their extended positions.

2,841,914
FISH HOOKS
Maynard H. Butler, Smithtown, N. Y.
Application September 19, 1956, Serial No. 610,789
1 Claim. (Cl. 43—43.16)



A barbless fish hook including a shank and a return arm, said arm having a pointed tip tapering to the extremity thereof, that one side of the tip nearer the shank being concave, the opposite side of the tip being convex, the intermediate portion of said arm below the tip having the shape of a complete single cycle of a wave lying in the plane of the hook thereby providing a rounded bulge on said one side of the arm and vertically spaced therebelow a second rounded bulge on said oposite side of the arm, the lower portion of said arm and the lower end of said intermediate portion being curved at their junction, the curvature of said junction consisting of a concave side facing the shank and a convex side facing oppositely thereto, said arm throughout the length thereof being cylindrical in cross-section whence the surface thereof is smooth and continuous.

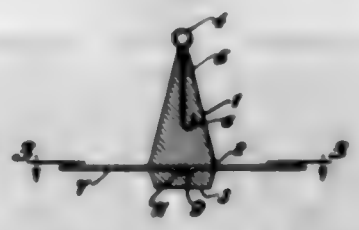
2,841,915
TROLLING SINKER
Benjamin H. Cohen, Lorain, Ohio
Application April 1, 1955, Serial No. 498,601
1 Claim. (Cl. 43—42.72)

A trolling sinker comprising an elongated rod provided with a fishing line attaching eye at one end thereof, a stop element fixed to the rod adjacent the other end of the same, a solid sinker formed with an opening longitudinally therethrough, said sinker having a medial portion of substantially greater diameter than the end portions of the sinker, with said sinker tapering from said



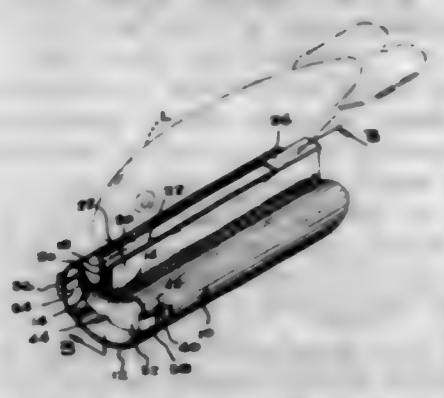
medial point toward the ends thereof, said sinker being longitudinally slideable on the rod, and a compression spring located on said rod and interposed between said stop member and one end of the sinker, said spring being in alignment on the rod with the sinker.

2,841,916
SINKERS
Nobuo Ueda, Los Angeles, Calif.
Application October 26, 1956, Serial No. 618,522
4 Claims. (Cl. 43—44.96)



1. A sinker having a body in the form of a right circular cone, an eye at the vertex of said cone for attachment with a fish line, and four equidistantly spaced apart arms extending outwardly at right angles to the axis of said cone adjacent the base of said cone, and all of said arms lying in the same plane.

2,841,917
ARTIFICIAL FISHING LURE HOOK GUARD
Herbert T. Haskell, El Paso, Tex.
Application April 6, 1956, Serial No. 576,593
1 Claim. (Cl. 43—54.5)



A guard for treble hooks of artificial lures comprising an elongated, tubular body formed open at least at one end thereof to permit treble hooks to be inserted in and extracted therefrom, said body at one side thereof being

indented longitudinally over its full length and having a narrow longitudinal slot located medially between opposite sides of the indentation, said slot opening at said end to form a passage for the shanks of the hooks; door means on the body indented along one side corresponding to the indentation of the body for closing the open end thereof against the accidental movement of hooks out of the body; and a pair of wide, flat, longitudinal flanges on the body spaced transversely thereof and projecting outwardly therefrom wholly exteriorly of the body along the opposite sides of the slot, said flanges lying in parallel planes to extend said passage a substantial distance outwardly from the body, thus to enclose, exteriorly of the body, substantial portions of the lengths of the hook shanks while maintaining the width of the passage substantially constant over the full depth thereof, said indentation defining, at opposite sides of the slot, longitudinally extending depressed portions of the body and said depressed portions defining within the body longitudinal recesses separated from each other by the slot and by the depressed portions and adapted to receive tips of fishhooks the shanks of which extend through the slots.

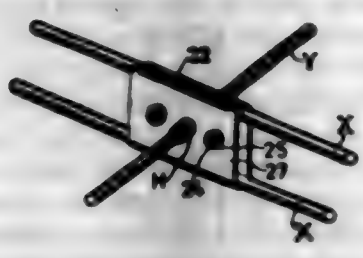
2,841,918

BEARING ASSEMBLY FOR BUILDING SETS

Mark Christopher Sylwan, Hagersten, Sweden

Original application February 18, 1952, Serial No. 272,118. Divided and this application January 26, 1956, Serial No. 561,633

8 Claims. (Cl. 46—29)



1. In a set of constructional elements including at least one elongated cylindrical structural member, a bearing assembly comprising in combination two substantially flat, similar, clamping sheet members disposed in facing relation and including surfaces adapted to accommodate and grip said cylindrical structural member therebetween and to maintain the same in a predetermined position, extending parallel to the plane of the sheet members, means for releasably clamping said sheet members together in opposed relation with said cylindrical member interposed therebetween, each clamping member having an aperture therethrough, a bearing bush having an enlarged middle portion and reduced end portions, the apertures in the sheet members being in alignment when said members are in opposed relation, said enlarged middle portion of the bush having a greater transverse dimension than the apertures and less axial extent than the distance between the facing inner surfaces of the sheet members so as to permit limited axial adjustment of the bush relative to the plane of the clamping sheet members, each said clamping sheet member having one edge portion bent to define a trough so that when in opposed relation the trough of the respective sheet members surround and conform with at least a portion of the periphery of said cylindrical structural member, said troughs extending completely along one edge of each sheet member and said clamping sheet members each having additional apertures therethrough in alignment when the members are in opposed relation, and the means for releasably clamping such sheet members together about a cylindrical structural member including threaded means disposed through the said aligned additional apertures of opposed sheet members and nut means cooperable with the threaded means.

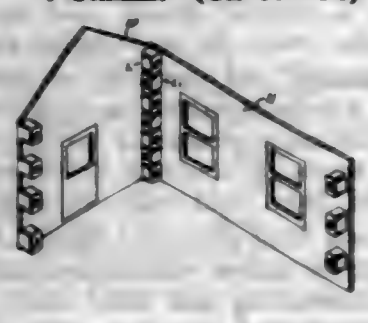
2,841,919

DETACHABLE JOINT FOR TOY HOUSE

Albert George McNeill, Maple Glen, Pa.

Continuation of application Serial No. 316,007, October 21, 1952. This application July 16, 1956, Serial No. 597,903

4 Claims. (Cl. 46—30)



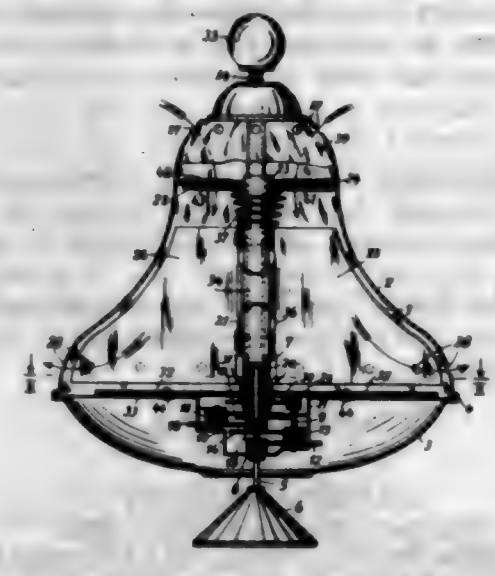
1. In a toy building, a pair of simulated building walls arranged in angular relation with respect to each other with one edge of one wall abutting the inner face of the other wall and the outer face of said one wall substantially flush with one edge of said other wall, a first group of spaced lugs fixed on and projecting inward from the inner face of said one wall each located entirely on the inner side of said one wall with one side flush with said one edge of said one wall, said one sides of said lugs thus abutting the inner face of said other wall, and a second group of spaced lugs fixed on and projecting inward from the inner face of said other wall each located entirely on the inner side of said other wall with the outer edge surfaces of said second group of lugs being spaced from the edge of the wall by which they are carried a distance equal to the thickness of said one wall and extending frictionally between an adjacent pair of lugs of said first group in abutting engagement with the inner face of said one wall, whereby said lugs cooperate with each other and said walls to releasably connect the latter together while being totally concealed from view.

2,841,920

SPINNING TOP

Peter Ballois, Altenberg, near Nurnberg, Germany

Application February 17, 1956, Serial No. 566,294
Claims priority, application Germany September 5, 1955
2 Claims. (Cl. 46—49)



1. In a spinning top, the combination of a base; a shaft fixed in and extending upwardly from said base; a hollow body rotatably mounted on said shaft, and comprising a transparent upper housing and a lower housing; means for rotating said body about said shaft; a plate mounted in said body between said housings; a plurality of color disks rotatably mounted on non-coincident axes on the upper surface of said plate; a gear train carried by said body and connecting said shaft with said disks and adapted to rotate each of said disks in response to

rotation of said body about said shaft; a musical wind instrument of the reed type comprising a disk fixed in the upper housing, having a plurality of radial slots, and a plurality of reeds so mounted on the upper surface of said fixed disk that said reeds overlie said slots, respectively, said reeds being adapted to vibrate in said slots to produce a musical sound, said instrument also having a rotatable shaft in said body, passed loosely through said fixed disk and journalled on said fixed shaft, and a fan vane fixedly mounted on said rotatable shaft and adapted to cause a current of air to pass into said body through a series of openings above said fixed disk and be evacuated from said body through a series of openings below said fixed disk, said current being adapted to vibrate said reeds; and a second gear train carried by said body and connecting said fixed shaft and said rotatable shaft and adapted to rotate said rotatable shaft in response to rotation of said body about said fixed shaft, said second gear train being constructed to drive said vane at a slower speed than the speed of rotation of said body.

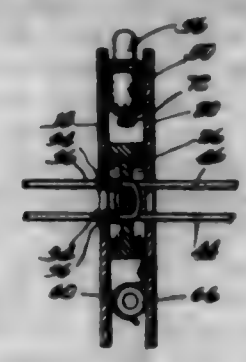
2,841,921
REMOTE CONTROL DEVICES
Peter A. Freeman, Baltimore, Md.
Application March 2, 1956, Serial No. 569,070
2 Claims. (Cl. 46—77)



2. A remote control device for self-propelled conveyances having a control element movable between opposite limits and biased in the direction of one of said limits, said remote control device comprising a frame, a drive disc rotatably mounted on said frame, means for rotating said drive disc, a yoke movable on said frame toward and away from the drive disc, a freely rotatable drum mounted in said yoke and in frictional driving engagement with said disc, a flexible line wound on said drum and adapated at its outer end for connection to the control element of a conveyance, and means for selectively varying the frictional drive between said drum and said disc, said last mentioned means including a tension spring connected at one end thereof to said yoke and urging the same toward said disc, a crank pivoted to frame and having the other end of said spring connected thereto, and a finger-piece connected to said crank for actuating the same.

2,841,922
ILLUMINATED TOY
Sophie C. Kollutzas, Gary, Ind.
Application October 3, 1956, Serial No. 613,656
4 Claims. (Cl. 46—228)

1. A toy of the type described comprising rotatable body means, pairs of string sections respectively extending from opposite sides of said body means and respectively having interconnected outer end portions and inner end portions connected to said body means in radially spaced relationship, said pairs of string sections being twistable for rotating said body means, and electrical illuminating means on said body means and including normally open switch elements respectively moveable with said inner end portions of one of said pairs of string sections for contacting each other and energizing said illuminating means when said one pair of string sections are twisted about each other, said switch elements being



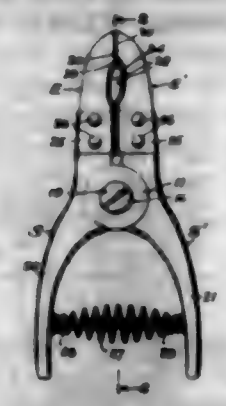
elongated hollow flexible elements through which said inner end portions of said one pair of said string sections extend.

2,841,923
SPRAYING DEVICE
William Dickison, Des Plaines, Ill., assignor to H. D. Hudson Manufacturing Company, Chicago, Ill., a corporation of Minnesota
Application August 17, 1954, Serial No. 450,373
9 Claims. (Cl. 47—1)



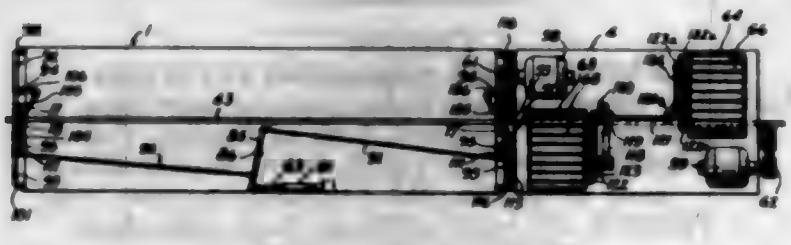
1. A spraying device for destroying weeds and other plant life, comprising a barrel providing a reservoir for a substantial quantity of a spray solution, a cylinder mounted in said barrel and having one or more inlet ports for the passage of a limited quantity of spray solution from the reservoir into the cylinder, a plunger received in one end of said cylinder and longitudinally movable therein, means for spring-biasing said plunger to inoperative position, a rod connected to one end of the plunger and projecting through one end of the barrel and thereat provided with a handle for depressing the rod and plunger against the force of said spring, a valve body and nozzle assembly at the other end of the cylinder, a spring-pressed valve in the passage of said valve body adapted to be unseated when the plunger is depressed and moved into the cylinder for forcing liquid under pressure through the valve body, an insert loose in said body and provided with a helical groove whereby said insert is given a spinning action by the liquid under pressure flowing through said passage toward the nozzle, and an inverted cup-shaped receptacle at the other end of the barrel encompassing the nozzle and adapted to isolate a weed to be destroyed from surrounding vegetation.

2,841,924
GIRDLING TOOL
Willis J. Flak, Corona, Calif.
Application January 11, 1957, Serial No. 633,744
1 Claim. (Cl. 47—1)



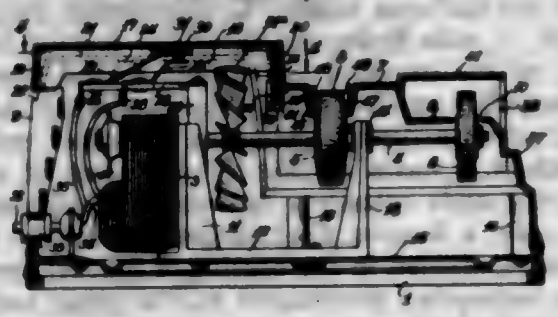
A cane girdling tool comprising: a pair of supporting members; means pivotally connecting said members intermediate their ends to form co-acting handles at one side of the pivotal connection cutting elements secured to said members at the other side of said pivotal connection and having spaced blades defining a discharge slot therebetween; means co-acting with said members to urge same in a direction to move said cutting elements towards each other into clamping engagement with a cane when interposed between the elements; said blades having parallel cutting edges of concave contour extending perpendicularly with respect to the axis of said pivotal connection, and with said cutting edges of one element disposed directly opposite the cutting edges of the other element for co-action therewith in making two spaced circumferential cuts in the bark of the cane under the action of said urging means when the tool is rotated on the cane; at least one of said cutting elements being laterally upset between its blades to provide a lip having a cutting edge spanning the space between said blades and disposed at a chisel forming angle to shave away the bark of the cane between the circumferential cuts as the tool is rotated, whereby to cleanly girdle the cane.

2,841,925
APPARATUS FOR GLASS TEMPERING
Harold A. McMaster, Genoa, Ohio, assignor to Permaglass Inc., Genoa, Ohio
Application February 8, 1954, Serial No. 408,934
7 Claims. (Cl. 49—47)



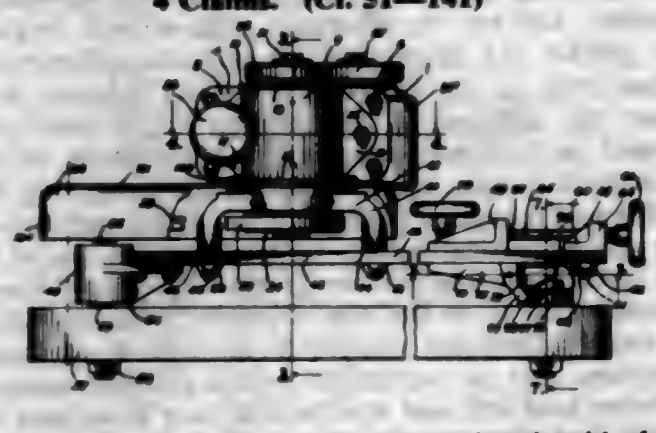
1. Apparatus for tempering glass including a furnace having front doors, a frame for supporting glass in the form of a plate or sheet, a timer mechanism, door operating means actuated by said timer mechanism at a predetermined time after it is set for opening the front doors of the furnace, means actuated by the door operating means following the opening of said front doors for moving the frame carrying the glass plate into the furnace, means associated with and movable with said frame moving means for actuating said door operating means to close the front doors following the movement of said frame into the furnace, and means actuated by said door operating means after the frame has been moved into the furnace to reset the timer.

2,841,926
KNIFE SHARPENER CASING
William A. Lebus, Riverside, Ill., assignor, by mesne assignments, to Supreme Products Corporation, Chicago, Ill., a corporation of Illinois
Application May 6, 1954, Serial No. 428,068
14 Claims. (Cl. 51—5)



12. A unitary casing for an electric knife sharpener comprising a housing having a motor encasing portion, and a grinding wheel and buffing wheel portion, all arranged in horizontal alignment; said motor portion having a top opening bounded on opposite sides and at one end by portions of the housing wall which provide downwardly facing shoulders, said grinding and buffing wheel portion having parallel side walls extending upwardly from upwardly facing longitudinally extending base margins and said side walls having laterally projecting formations above said base margins providing downwardly facing shoulders spaced a predetermined distance from said base margins, a pair of movable covers, one for said motor portion and one for said grinding and buffing wheel portion, each of said covers having laterally projecting members for engaging beneath the shoulders bounding the respective housing portions, and each of said covers being of resiliently yieldable material and adapted for attachment to said housing by springing said projecting members into latching engagement with said shoulders by downward pressure, and upwardly acting yieldable spring means within said motor portion for supporting the cover thereof at substantially the center of its area and normally urging the cover outwardly against the respective shoulders whereby said cover is inwardly movable in said top opening, said grinding and buffing wheel portion cover being shiftable longitudinally on said base margins abutting relation with said side walls and shoulders thereon and having a length substantially one-half the length of said portions for exposing one-half thereof while covering the other half.

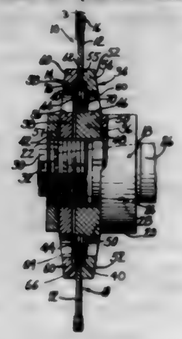
2,841,927
CONTACT-WHEEL-BELT-GRINDER
Cecil D. Barnes, Kansas City, Mo., assignor to B & E Mfg. Co., Inc., Kansas City, Mo., a corporation of Missouri
Application January 12, 1956, Serial No. 558,773
4 Claims. (Cl. 51—141)



1. A grinder, including a standard, a bearing block on the standard and having a transverse semi-cylindrical recess providing a bearing face of relatively large area, a turning head having a cylindrical trunnion in said recess, a cap extending over the trunnion and having a semi-

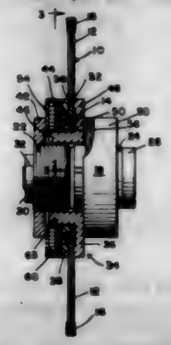
cylindrical bearing face cooperating with the bearing face of the recess in forming a journal for the trunnion, adjustable means for anchoring the cap to the block for gripping the trunnion to prevent movement thereof and to release the trunnion for turning movement through 360 degrees, said turning head having a bore extending through the trunnion axially, a countershaft journaled in the bore, a yoke projecting from the turning head oppositely of the trunnion and having spaced apart arms, a counterpulley on the end of the countershaft intermediate said arms, a driving pulley on the other end of the countershaft, a beam carried by said arms of the yoke and having ends extending outwardly of opposite sides of the yoke, a bearing fixed to one end of the beam, a stub shaft journaled in the bearing, a bracket, means adjustably supporting the bracket on the other end of the beam, a stub shaft carried by the bracket, contact wheels on the stub shafts, a grinding belt extending around the contact pulleys to provide a continuous moving grinding face for the contact wheels, a driven pulley on the stub shaft carried by said bearing and in aligning registry with the counterpulley, an endless belt operating over the driven and counter pulleys, and a drive belt extending over the driving pulley on the countershaft for operating the grinding belt.

2,841,928
TRUING DEVICE FOR PERIPHERAL TYPE GRINDING WHEELS
Donald A. Trescott, Chicago, Ill., assignor to Super-Cut, Inc., Chicago, Ill., a corporation of Illinois
Application December 26, 1956, Serial No. 630,555
10 Claims. (Cl. 51—168)



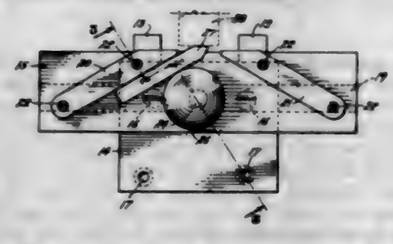
1. In a device for operatively mounting a peripheral type grinding wheel or the like having a mounting opening therein on a machine spindle between a shoulder normal to and rotating with the spindle and a pull-up nut on the forward end of the spindle, in combination, front and rear clamping rings surrounding the spindle between said shoulder and nut in concentric relation with respect to the spindle and in engagement with the opposite faces respectively of the wheel in clamping relation thereto under the influence of said pull-up nut, a hub portion formed on said rear clamping ring presenting an outer cylindrical surface, an intermediate mounting ring fitting within said mounting opening of the wheel and surrounding said cylindrical surface on the hub and spaced from the latter, said intermediate ring being loosely disposed between said front and rear clamping rings and capable of radial adjustment relative to the hub in any angular direction, and an adjustable wedge member interposed between said hub and intermediate ring at at least three widely and circumferentially spaced regions therearound, said wedge members each being operable upon progressive adjustment thereof in one direction to exert increasing increments of outward radial thrust on the intermediate ring member.

2,841,929
TRUING DEVICE FOR PERIPHERAL TYPE GRINDING WHEELS
Carl Stalmachowski, Chicago, Ill., assignor to Super-Cut, Inc., Chicago, Ill., a corporation of Illinois
Application December 26, 1956, Serial No. 630,605
6 Claims. (Cl. 51—168)



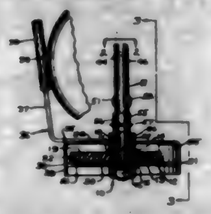
1. In a device for operatively mounting a peripheral type grinding wheel or the like having a wheel body provided with an arbor opening therein on a machine spindle between a shoulder normal to and rotating with the spindle and a clamping nut, in combination, a rear clamping ring including a radially extending clamping flange from which there projects forwardly a cylindrical hub portion presenting a cylindrical outer surface, a front clamping ring including a radially extending clamping flange and a rearwardly extending circular flange, said latter flange extending into and fitting tightly within the arbor opening of the grinding wheel body and serving to fixedly secure the latter to the front clamping ring, said hub portion of the rear clamping ring extending forwardly and projecting into the front clamping ring whereby said front clamping ring is loosely and telescopically slidable on the hub portion of the rear clamping ring, said clamping rings being disposed on the spindle between said shoulder and nut with the shoulder bearing against the front ring and the nut bearing against the rear ring, and an adjusting screw threadedly received within the radial clamping flange of the front clamping ring and projecting radially therethrough at at least three circumferentially spaced regions therearound and effectively bearing at its inner end against the outer surface of said cylindrical hub portion of the rear clamping ring.

2,841,930
THREADING TOOL GRINDING FIXTURES
Conrad S. Horst, Denver, Colo., assignor to William C. Horst and Robert E. Horst, both of Denver, Colo.
Application December 7, 1956, Serial No. 626,926
3 Claims. (Cl. 51—231)



1. A device for supporting a pointed tool on a tool rest and in grinding relation with a grinding wheel comprising: a base plate; means for securing said base plate in a substantially horizontal position on said tool rest; a slide plate, having a substantially horizontal upper surface, resting upon said base plate; guide means guiding said slide plate transversally of said base plate and parallel to the axis of said wheel; two oppositely inclined guide bars mounted upon the horizontal upper surface of said slide plate and extending rearwardly from a spaced-apart position at the forward edge of said slide plate at an obtuse angle to each other to outline a triangular area on the upper surface of said plate; and a rotatable eccentric member mounted on a vertical axis on said slide plate intermediate said guide bars, the eccentricity of said eccentric member being sufficient to clamp the tool horizontally outward against either guide bar.

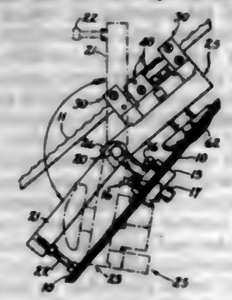
2,841,931
KNIFE SHARPENER
Glen H. Hohbaugen, Palos Verdes, and William W. Hastiger, Pasadena, Calif.
Application May 31, 1957, Serial No. 662,943
8 Claims. (Cl. 51—241)



1. For combination with a home electric mixer having an arbor section adapted to rotate a mixer beater stem, an assembly comprising a rod sized for endwise upward reception in an arbor socket and rotation by the arbor section with the rod projecting outwardly and downwardly from said socket away from the arbor section, an abrasive disc carried by the rod and rotatable coaxially therewith in spaced relation to the arbor section for sharpening a knife blade presented to said disc, means including a cylindrical housing mounted coaxially on the rod to rotate freely beneath said arbor section and independently of the rod about said abrasive disc in at least partially protecting relation therewith, said rod projecting upwardly away from the housing, and a handle carried by the housing extending away from said rod above the bottom level of the housing and then projecting upwardly to engage a part of the arbor section spaced from the rod when the rod is rotating for resisting rotation of said housing therewith.

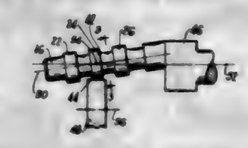
2,841,932
BLADE GRINDING MEANS
Fred B. Tammen and Anthony John Metz, Davenport, Iowa, assignors to Bettendorf Bakery Equipment Company, Bettendorf, Iowa, a corporation of Iowa
Application April 18, 1956, Serial No. 578,922
12 Claims. (Cl. 51—250)

1. A grinder for a transverse array of endless blade bands of a bread slicing machine comprising shaft means extending transversely across the machine apposite the array of blade bands, a sharpener base mounted on said shaft and oscillatably and transversely slidably associated therewith, a pair of abrasive sharpener blocks on said base and facing each other in offset relationship with their blade-engaging surfaces slanting towards each other at shallow angles, blade engaging and guiding means on said base and located in outboard relation with respect to said sharpener blocks, means for mounting said sharpener blocks for rectilinear sliding backing-off movement away from each other and for opposite movement toward each other, spring means on said base urging said blocks toward each other, means on said base for overcoming said spring means and urging said blocks away from each other whereby substantially uniform



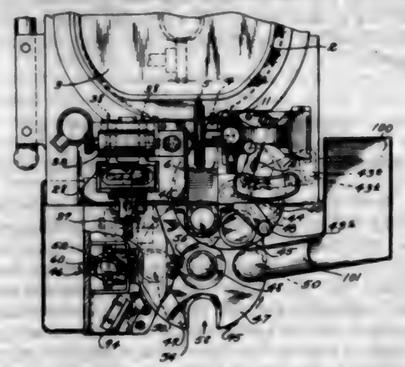
grinding angles and conditions may be maintained despite variations in the widths of bands being ground.

2,841,933
METHOD OF CHAMFERING A VALVE SPOOL
Farlow B. Burt, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application September 27, 1956, Serial No. 612,548
5 Claims. (Cl. 51—281)



4. A method of chamfering a valve spool land comprising the steps of placing a valve spool in a rotatable grinding fixture so that the axis of the spool intersects the axis of rotation of the fixture at the center of the land to be chamfered, rotating said fixture about its axis, and moving abrasive means against the land to simultaneously chamfer the opposite edges of the land.

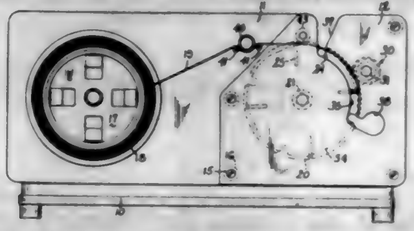
2,841,934
MACHINES FOR COUNTING COINS AND OTHER ARTICLES
Friederich Wilhelm Schoenewolf, New York, N. Y., assignor to Automatic Coinwrapping Machine Corporation, New York, N. Y., a corporation of New York
Application September 30, 1954, Serial No. 459,363
2 Claims. (Cl. 53—59)



1. A coin counting and packaging machine having counting mechanism including at least one counting wheel which is advanced as the counting of the coins proceeds, at least one stop-pin which is adjustable to various posi-

tions whereat said pin is engageable by said counting wheel to stop said wheel and thereby stop the counting at the finish of the counting of lots of predetermined numbers of coins per lot, said machine having a discharge port for coins from the counting mechanism, a carrier movable to carry open empty packages to said port for filling by coins and to carry filled packages thence, a package-closing mechanism disposed to operate on filled packages in said carrier, means to operate, when brought into action, said carrier and package-closing mechanism, a member movable on said stop-pin by engagement with said counting wheel at said various positions of the stop-pin, a second member spanning said various positions of the first member and engageable by said first member thereat and connected to said means to bring the same into action, and means controlled by said carrier to remove such stop-pin from engagement with said wheel to restart the counting of coins.

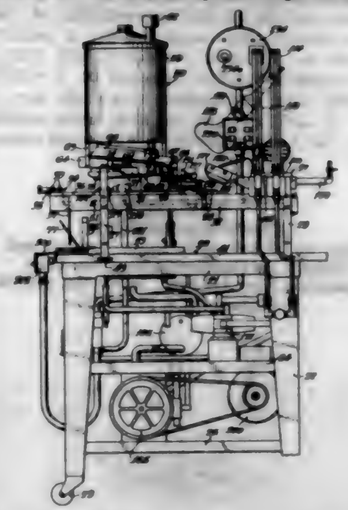
2,841,935
BAG-TYING MACHINE
Alfred P. Kroeger, Southbury, Conn., assignor to Derby Sealers, Incorporated, Ansonia, Conn., a corporation of Connecticut
Application March 12, 1956, Serial No. 570,738
12 Claims. (Cl. 53—135)



1. A bag-tying machine comprising a frame, a feed wheel rotatably mounted on the frame provided with a peripheral notch, means for supporting a roll of pressure-sensitive tape in position for a length thereof to lie on the periphery of the wheel spanning said notch with its tacky side outwardly, said frame having an arcuate slot therein described about the axis of said wheel and registering with said notch whereby the wheel may be turned by movement of the bag, said slot opening through an edge of the frame to permit the gathered neck of the bag to be inserted in said notch, a roller member rotatably mounted on the frame with its periphery adjacent the periphery of the feed wheel to engage the back of the leading end of the tape and fold it around the neck of the bag in said notch, and a severing member mounted on the wheel to sever the tape at a point rearwardly of the notch.

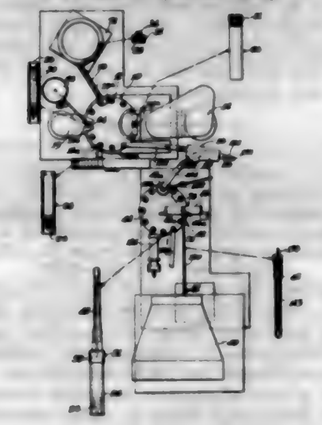
2,841,936
CARTON FILLING APPARATUS
Albert B. Mojonnier, Chicago, Ill.
Application September 23, 1954, Serial No. 457,849
19 Claims. (Cl. 53—266)

1. In an apparatus for filling preformed paper cartons having a gabled top, the combination of a filling mechanism, an elongated container support track, laterally spaced guide rails disposed above said support track for guiding a row of cartons from a loading station past the filling mechanism, a pusher reciprocably mounted adjacent one end of said rails and adapted upon movement in one direction to engage the end carton of the row of cartons and advance the row of cartons, an opening mechanism disposed above said rails extending from the filler mechanism towards the pusher to engage the gabled tops of the cartons and open the same as the cartons are advanced to the filler mechanism, a closing mechanism disposed above said rails and extending from said filler mechanism away from said pusher to engage the gabled tops of the cartons and close the latter as the cartons are advanced thereby, a stapler operated in timed relation with the advance of the cartons for stapling the gabled tops of the cartons



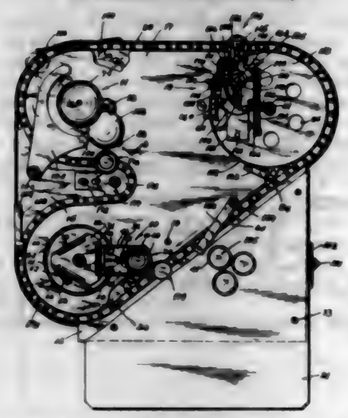
as they are moved thereby, a depressor block mounted for vertical pivotal movement into and out of engagement with the gabled top of the containers, and means responsive to movement of said pusher in said other direction for pivoting said depressor block into engagement with the gabled tops of the cartons.

2,841,937
MACHINE FOR ASSEMBLING DISPOSABLE CARTRIDGES FOR HYPODERMIC SYRINGES
John J. Mintel, Brooklyn, Carl H. Abbe, Maspeth, Serge Sarasin, New York, and Hermann G. Thulke, Massapequa, N. Y., assignors to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware
Application December 28, 1956, Serial No. 631,109
14 Claims. (Cl. 53—276)



1. A machine for assembling disposable hypodermic syringes including a plungered and sealed medicament-containing vial and associated sterile needle comprising a turntable including recesses for receiving said vials, intermittent means for rotating said turntable and successively positioning said recesses at predetermined stations, supply means associated with said turntable at an initial station for delivering plungered vials to said recesses, dispensing means associated with said turntable at a following station for filling said vials, closure-applying means associated with said turntable at a further station for placing closures upon said filled vials, sealing means associated with said turntable at a still further station for sealing said closures upon said vials, a needle-applying device disposed adjacent said turntable, conveyor means associated with said turntable and said needle-applying device for transferring sealed vials from said turntable to said needle-applying device, a needle-supplying device operatively associated with said needle-applying device, and said needle-applying device including means for orienting and attaching said needles to said vials.

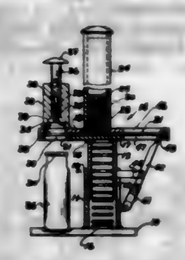
2,841,938
AUTOMATIC CUP DISPENSING AND FILLING MACHINE FOR FLUIDS AND SEMI-SOLIDS
Silvio A. Speroni, Bayside, N. Y.
Application July 16, 1956, Serial No. 597,917
13 Claims. (Cl. 53—282)



1. A machine for packaging fluid or viscous products such as ice cream comprising, in combination, mechanism for feeding containers, mechanism for filling the containers with fluid or viscous products such as ice cream, and mechanism for capping the filled containers, said mechanisms including sprocket wheels and an endless chain movable around said sprocket wheels for moving the same and for carrying containers to be acted upon by said various mechanisms and motor means for moving said chain, said chain having spaced container-supporting carriers thereon, said feeding mechanism including a bodily swingable magazine holding a supply of containers in nested stacked relation adapted to be moved over a container carrier, means for moving said magazine, means for transferring the lowermost container in the stack onto the container carrier underneath the magazine, said latter means including a vertically slidable plate, opposed pivotal arms carried by said plate gripping the lowermost container in the stack, and a cam actuated lever adapted to engage said arms and separate the same to release said lowermost container whereby said container falls by gravity into the carrier underneath the magazine.

2,841,939
BOTTLE CAPPING DEVICE
Albert Marceau, Garden City, Mich.
Application January 30, 1957, Serial No. 637,191
3 Claims. (Cl. 53—310)

1. In a bottle capping device, a horizontal base, a hollow vertical stand thereon, a coiled spring within the stand, a vertically slidable column disposed telescopically within the stand and kept by the spring in a yieldable relation to the base, a platform mounted upon the column, the platform being provided at one end with an aperture, a housing above the aperture, a plunger disposed therein for a vertical reciprocal movement with respect to said aperture, a vertical magazine mounted on the platform parallel to said housing, a plurality of disk-type closures



for bottles disposed in a stack in said magazine, means to shift the individual closures from the magazine over the aperture and into the path of the movement of the plunger on its way downwardly, handle means on the plunger, the means being adapted to move the platform down with the plunger and the magazine and to thrust the plunger from above against a single closure disposed within said aperture.

2,841,940
MACHINE FOR APPLYING END CLOSURES TO HYPODERMIC SYRINGES
Frank E. Brown, Burbank, Calif., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware
Application September 13, 1954, Serial No. 455,567
11 Claims. (Cl. 53—311)



1. A machine for orienting, feeding, applying and sealing metallic end closures over cylindrical containers, comprising a readily disconnectable storage hopper for receiving and storing a plurality of metallic closure caps, means for conveying a plurality of cylindrical containers along a path in proximity with said hopper, a readily disconnectable chute connecting with said hopper and adapted to deliver closure caps in juxtaposition with said conveying means to vertically overlie the path of said cylindrical containers, means for sequentially feeding closure caps from said hopper into said feed chute, means at the discharge end of said feed chute overlying said conveyor means for positioning said closure caps over a cylindrical container including structure for applying a so-positioned cap on an underlying container, a readily disconnectable cap spinning mechanism in overlying relationship with said conveying means in proximity with said closure cap applying means and including structure vertically overlying said conveying means along the path of movement of said cylindrical containers for moving the spinning mechanism toward and away from the containers, said spinning mechanism further including structure adapted to contact a metallic closure cap seated on a cylindrical container and to spin the cap into a friction-fit relationship with the container, and a common control shaft including structure for operating said conveying means, said spinning means and said cap positioning means in a predetermined phased relationship.

2,841,941

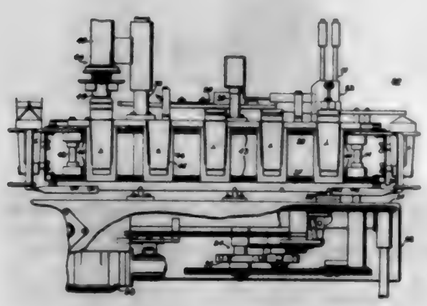
WITHDRAWN

2,841,942

CARTON FOLDING AND CLOSING MEANS

John R. Wills and Clarence W. Jane, Detroit, Mich., assignors to Ex-Cell-O Corporation, Detroit, Mich., a corporation of Michigan

Application February 19, 1954, Serial No. 411,468
10 Claims. (Cl. 53—375)



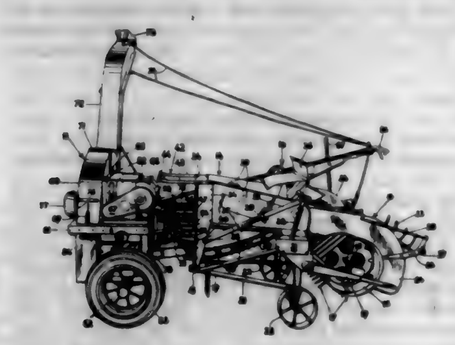
9. A guide means disposed along a horizontal axis for closing an upright rectangular paper carton mouth of a type having first and second opposite sides with upstanding first and second flaps respectively thereon when a carton is moved relative to said guide along said axis, said guide comprising first and second guide bars disposed along opposite sides of said axis, said bars being spaced at their leading ends and converging progressively along said axis for progressively bending said first and second sides and flaps thereon respectively inwardly toward said axis, said first bar in an intermediate portion of its length being divided along an oblique plane to provide a transfer path for said second flap from an upper to a lower surface of said bar.

2,841,943

QUICK ATTACHING FORAGE HARVESTER

Ferdinand J. Dumanowski, Davenport, Iowa, assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application November 2, 1953, Serial No. 389,619
8 Claims. (Cl. 56—16)



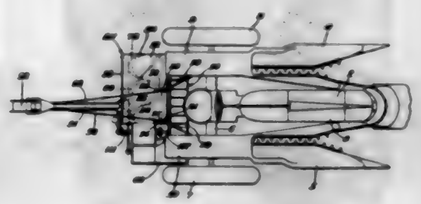
1. In combination with a base unit including a forage chopping unit and a feed means therefor, said base unit having an engaging means thereon, a ground supported forage gathering unit having pick-up and conveying means thereon and having cooperative association with said chopping unit and feed means, said gathering unit having an engaging means thereon complemental with said first-mentioned engaging means, a driving gear on said base unit, a supporting member on said pick-up unit extending outwardly of said pick-up engaging means, a gear on said supporting member having driving connection with said pick-up and conveying means, said gear also having driving connection with said driving gear, and securing means interconnecting said engaging means.

2,841,944

TRACTOR MOUNTED CORN SHELLER AND PICKER

Ernest C. Carlson, Wheaton, and Samuel E. Hillblom and Peter Sammarco, Chicago, Ill., assignors to International Harvester Company, a corporation of New Jersey

Application June 14, 1955, Serial No. 515,388
2 Claims. (Cl. 56—18)



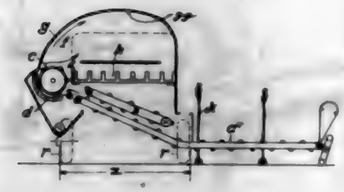
1. For use with a two-row corn picker of the type comprising a pair of pickers mounted at opposite sides of a tractor and which comprises a longitudinal body, a transverse rear axle structure and a pair of large tractor wheels at opposite ends of said structure and said picker units having rear discharge extremities extending over the rear axle structure, the improvement comprising: a sheller and cleaner unit including a housing disposed lengthwise between said wheels rearwardly of said rear axle structure in horizontal transverse alignment therewith, means mounting said unit from said rear axle structure, said unit including a shelling cage adjacent to one end with a rotor journalled therein for rotation about a fore and aft axis, conveying means disposed in receiving relation to said discharge extremities of the pickers and in delivering relation to said cage and positioned ahead of said unit at a common level therewith, combined conveying and classifying mechanism of the sift-through type within said housing disposed substantially perpendicular to the rotor and having a receiving end in receiving relation to said cage and having a discharge end at the end of the housing opposite to said cage for discharging cobs and husks upon the ground and disposed at a common level with said cage in endwise alignment therewith transversely of the tractor, said housing having a bottom wall disposed in receiving relation to said conveying and classifying mechanism for receiving kernels of corn sifted downwardly therefrom, and an elevator conveyor connected to said housing and extending diagonally upwardly and rearwardly therefrom and having a lower end in receiving relation to said classifying mechanism through an opening in said wall of said housing.

2,841,945

HARVESTER COMBINE

Walter Gustav Brenner, Harsewinkel, Westphalia, Germany

Application May 19, 1955, Serial No. 509,593
In France July 5, 1946
Public Law 619, August 23, 1954
Patent expires July 5, 1966
2 Claims. (Cl. 56—122)



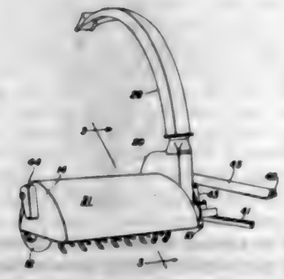
1. For use in a combine, the combination of rotary threshing means including a thresher drum having a generally upwardly disposed material-discharge outlet, a hood associated with said drum adjacent its outlet, said hood extending upwardly over and then laterally of the drum and being substantially in the form of a truncated cone whereby the material discharged from said drum will be turned substantially laterally with respect to the drum without disturbing its relative interrelationship.

2,841,946

FORAGE HARVESTER KNIVES

Arnold B. Skromme and Gail R. Sutherland, Ottumwa, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa

Application January 7, 1955, Serial No. 480,360
9 Claims. (Cl. 56—289)



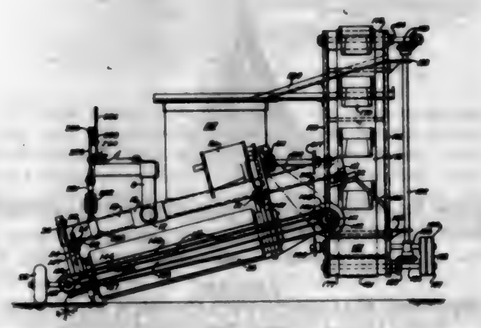
1. Knife members for use with a crop gathering machine of the type having an arcuate shaped casing with its concavity facing downwardly, a rotating chopping and gathering structure journaled in said casing substantially coaxial therewith and including axially spaced knife holders, and an upper discharge spout communicating directly through an upper portion of the casing, each of said knife members characterized by: a substantially straight shank portion extending radially from and connectible with the knife holder and having a leading edge and a trailing edge and disposed in a plane substantially normal to the axis of rotation; and a blade portion rigidly united to the shank portion transversely disposed relative to the direction of rotation and having an outer free end spaced radially from the shank portion, a cutting edge of the blade portion extending from and in a continuing relationship from the leading edge of the shank portion, and a corresponding trailing edge on the blade portion continuing from the trailing edge of the shank portion, the blade portion being so turned to cause the blade surface from its cutting to its trailing edge to be inclined radially inwardly.

2,841,947

CUCUMBER HARVESTING MACHINE

Delphis G. Grew, Saginaw, Mich.

Application July 25, 1955, Serial No. 524,258
30 Claims. (Cl. 56—327)



1. Apparatus for successive harvesting of maturing cucumbers from spaced rows of vines during the growing season and returning the vines to the ground in condition for further growth and production of cucumbers comprising in combination wheeled frame means for movement longitudinally of a row of vines in straddling relation thereto; means carried by the frame means for progressively lifting a vine throughout the length thereof above the ground from adjacent the root thereof so that maturing cucumbers depend therefrom and resiliently engaging the maturing cucumbers depending therefrom; means carried by the frame means for imparting lateral movement to the vine relative to the cucumbers depending therefrom in engagement with the vine lifting means for severing the cucumbers from the vine; means connected to the frame means for collecting the severed cucumbers; and means carried by the frame means for returning the vines to the ground in condition for further growth, said means for collecting the severed cucumbers including a conveyor suspended from the wheeled frame means and disposed in front of the vine lifting means in substantially parallel relation thereto, a conveyor suspended from the wheeled frame means and disposed to the rear of the vine lifting means in substantially parallel relation thereto, and a third conveyor suspended from the wheeled frame means and disposed transversely of the first named conveyors in a position to receive cucumbers therefrom.

2,841,948

EXTENSIBLE LAWN RAKE

William Zenowitz, Bloomfield, Conn.

Application August 10, 1956, Serial No. 603,366
5 Claims. (Cl. 56—400.18)

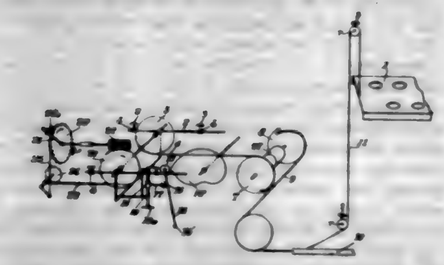
1. An adjustable rake comprising a handle, a sleeve embracing said handle for longitudinal sliding movement thereon, a frame member carried by the lower end of said handle and having a bow disposed transversely thereof, guide eyes on said bow, a plurality of tines each peripherally embracing and secured to said sleeve and

guidingly and slidingly received in one of said guide eyes, lock means operatively connected to said sleeve and



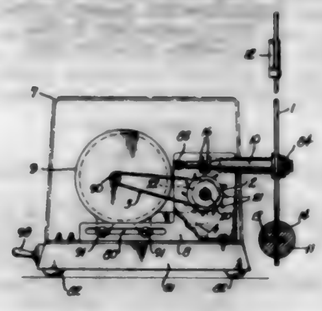
handle for securing said sleeve in longitudinally adjusted position upon said handle.

2,841,949
SPINNING MACHINES INCLUDING A RING RAIL
Walter Leutert, Geneva, Switzerland, assignor to Society Bremontex, a corporation of Tanglers
Application June 27, 1955, Serial No. 518,310
Claims priority, application Luxembourg June 29, 1955
5 Claims. (Cl. 57—99)



1. A spinning machine which comprises, in combination, a frame, a ring rail reciprocable vertically with respect to said frame, a device for controlling the vertical displacements of said ring rail including a carriage guided along a horizontal path with respect to said frame, a chain fixed to said ring rail and means including rollers journalled in said frame and a chain drum mounted on said carriage for pulling said chain vertically in response to displacement of said carriage in one direction, with means for preventing said chain drum from rotating with respect to said carriage in a direction corresponding to a downward movement of said ring rail, a driving cam rotatable in said frame, adjustable transmitting means interposed between said cam and said carriage for imparting a reciprocating motion to said carriage with respect to said frame in response to the rotary motion of said cam, adjusting means operatively connected with said transmitting means for varying the rate of transmission of movement from said cam to said carriage, a part rotatably mounted on said carriage, cooperating means carried by said frame and said carriage for imparting a limited rotation to said part on every reciprocation of said carriage, and means for coupling said part at will either with said chain drum or with said adjusting means.

2,841,950
METRONOME
Alexander Mlynarski, Seattle, Wash.
Application May 16, 1955, Serial No. 508,670
4 Claims. (Cl. 58—130)



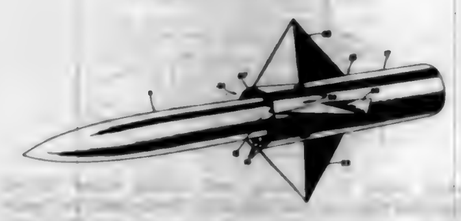
1. A metronome for reliably and indefinitely maintaining a constant beat over the entire range of tempi, comprising a pendulum arm; a rock shaft to which said pendulum arm is secured for conjoint rocking back and forth; means to vary the periodicity of the pendulum arm; a jack-shaft disposed transversely of and adjacent said rock shaft; an escapement device including a toothed wheel upon the jack-shaft and cooperating collars on the rock shaft to enable advance of the jack-shaft by the distance between adjacent teeth of the wheel at each swing of the pendulum arm; a constant-speed electric motor; and drive means including a slipping clutch, interposed between said motor and said jack-shaft.

2,841,951
APPARATUS FOR REDUCING EXHAUST GAS PRESSURE IN INTERNAL COMBUSTION ENGINES
Richard T. Whitcomb, Hampton, Va.
Application November 5, 1954, Serial No. 467,094
3 Claims. (Cl. 60—32)



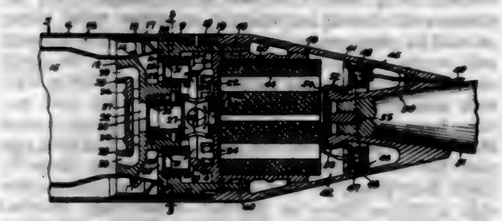
1. In an exhaust system for multi-cylinder, four cycle internal combustion engines, the combination comprising exhaust ducts extending from the exhaust ports of the cylinders, a common duct uniting said exhaust ducts in an essentially parallel direction to establish a common region of union, said exhaust ducts being arranged in a substantially circular array at the union with said common duct, said common duct being progressively contracted in the direction of flow of the exhaust gases therethrough, an ejector connected to the gas exit end of said common duct, said ejector being comprised of a constricted region followed by a gradually expanding region, and a duct extension of substantially uniform cross sectional area connected to the gas exit end of said ejector and being of a length such that decreasing pressure disturbances reflected into said duct extension by the emanation of gas surges from the discharge end thereof are reflected back to said ejector during ebb of gas flow therein thereby to materially reduce gas flow reversal in said ejector during said ebb of gas flow.

2,841,952
REAR INLET ANNULAR DIFFUSER
Louis S. Dillman, Lancaster, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 9, 1955, Serial No. 487,226
2 Claims. (Cl. 60—35.6)



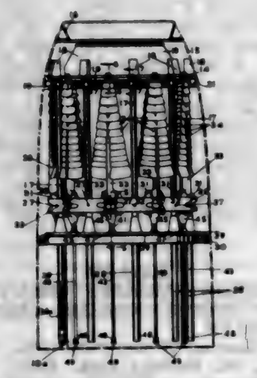
1. A ramjet acrodyne comprising a divergent-convergent fuselage, flame holder and fuel ignition means provided on the rear section of the fuselage, a walled housing fixed to and enclosing the rear section of said fuselage in spaced relation with respect thereto and having a combustion chamber in which said flame holder and fuel ignition means are arranged, the leading edge of said housing being disposed in a vertical plane passing normal to said fuselage at a location just forward of the convergency of the fuselage, the trailing edge of said housing being disposed in a vertical plane normal to said fuselage at a location to the rear of the fuselage, a plurality of ducts each of which is provided with a leading and trailing edge and circumferentially disposed about said rear section of the fuselage with the leading edge thereof spaced a predetermined distance rearwardly from the leading edge of the housing for providing an annular air inlet defined by said fuselage and housing, each of said ducts having an arcuate-shaped wall in cross section with the terminal ends thereof secured along the peripheral surface of said rear section, said arcuate-shaped wall of each duct being shaped to form an air entrance opening upstream at said leading edge thereof and to converge as it extends downstream and to form an oval-shaped opening at said trailing edge thereof, an oval-shaped hollow strut carried by each of said walls and secured to said housing for supporting and maintaining said housing in spaced relation with respect to said fuselage and in communication with said ducts and with the atmosphere through an oval-shaped passageway formed in each of said struts and in registration with complementary peripherally spaced oval-shaped openings formed in the housing whereupon air entering said annular inlet in the path of travel of said entrance openings will flow through the ducts, struts and complementary openings in said housing to the atmosphere, said ducts and struts providing a plurality of mutually spaced passageways between said ducts and housing, the area of the passageways being greater than the area of said entrance openings in said ducts whereupon air entering said annular air inlet may follow an unrestricted path through said passageways to the fuel ignition means in said combustion chamber.

2,841,953
SYSTEM FOR PRESSURIZING THE FLUID PROPELLANT TANK OF A SELF-PROPELLED MISSILE
Walter D. Teague, Jr., Alpine, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application June 10, 1955, Serial No. 514,797
10 Claims. (Cl. 60—35.6)



1. In a system for pressurizing the fluid propellant tank of a self-propelled missile, means in said missile including a cylinder coaxial with said missile and forming a closed pressurizing chamber, a piston slidable axially in said cylinder and dividing said chamber into first and second axially aligned compartments, there being passageways in said piston opening through the wall thereof and communicating with said first compartment, said passageways being opened to said second compartment by rearward movement of said piston, a rupturable diaphragm normally sealing a passageway from said second compartment to said tank, means mounted adjacent said diaphragm and operated by and in response to rearward axial movement of said piston to rupture said diaphragm, and a combustible charge in said first compartment ignitable to generate pressure in said chambers to move said piston and thereby rupture said diaphragm and thereafter pressurize said tank.

2,841,954
MEANS FOR REVERSING THE THRUST OF A JET ENGINE
Horace S. Rainbow, Coventry, England, assignor to Armstrong Siddeley Motors Limited, Coventry, England
Application December 13, 1955, Serial No. 552,948
Claims priority, application Great Britain December 23, 1954
5 Claims. (Cl. 60—35.54)



4. A jet engine including a jet pipe, a jet nozzle at the tail end of said jet pipe, circular arrangements of guides outside said jet pipe, a circular arrangement of parallel tubes supported in said guides and connected at their downstream end with said jet nozzle, respective, double-acting, hydraulic actuators at the upstream ends

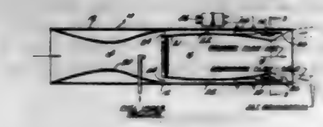
of said tubes for reversely moving said jet nozzle between its operative position and a position axially downstream of said jet pipe in which said jet nozzle is substantially inoperative, more than two arcuate thrust-reversing sections which normally lie in inoperative positions outside said jet pipe with their axes parallel thereto, each of said sections being provided with a series of arcuate thrust-reversing elements, a carrier for said sections, said sections being pivoted on said carrier adjacent the upstream ends thereof for tilting in respective radial planes of said jet pipe, respective toggle means acting between said carrier and said sections remotely from the pivots of said sections on said carrier, said carrier being rigid with said tubes, and means operating, when said sections have been moved by said tubes to extend beyond the downstream end of said jet pipe, to extend said toggles for simultaneously tilting said sections inwardly about their pivots for their said elements to jointly provide a conical series of aerofoil-section rings intermediate the adjacent ends of said jet pipe and jet nozzle when the latter is in its downstream position, said aerofoil-section rings being shaped to reverse the thrust of flow of a main proportion of the jet.

2,841,955

DIRECTIONAL CONTROL FOR JETS

George H. McLafferty, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application February 14, 1956, Serial No. 565,397
1 Claim. (Cl. 60—35.54)



In a jet engine having an air intake, a converging-diverging diffuser downstream of said intake, a casing forming a downstream continuation of said diffuser and forming a duct, an annular member in said duct spaced inwardly from said casing and forming a central combustion chamber, said casing and member also forming an annular cooling duct surrounding said combustion chamber, said annular member converging at its downstream end and said casing being uniform at its downstream end whereby said cooling duct enlarges at its downstream end, said casing having its trailing edge downstream of but adjacent to the downstream end of said member whereby an ejector action is obtained by the main stream withdrawing air from said cooling duct, partition means dividing the cooling duct into a plurality of annular segments, valve means in each of said segments and located in the enlarged portion of said cooling duct, and servo means for selectively closing one or more of said valves for varying the direction of flow from said main duct.

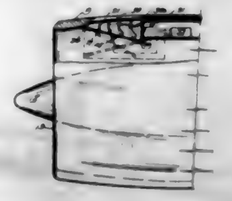
2,841,956

COMBINATION VARIABLE AREA CONVERGING-DIVERGING NOZZLE AND THRUST DESTROYER

William E. Gunson, Kansas City, Mo., and Elton F. Hammond, Jr., Roeland Park, Kans., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application February 20, 1956, Serial No. 566,741
4 Claims. (Cl. 60—35.54)

3. Jet propulsion power plant apparatus comprising a turbine; wall structure aft of the turbine providing a normal motive fluid flow passage defined by a centrally disposed tail cone and a concentric outer casing, said casing having an elongated opening formed therein adjacent its after extremity; means disposed within the opening for directing gases flowing therethrough upwardly and outwardly therefrom; hook members pivotally secured adjacent the leading and trailing edges of the said opening; a flap member having hook member engageable means



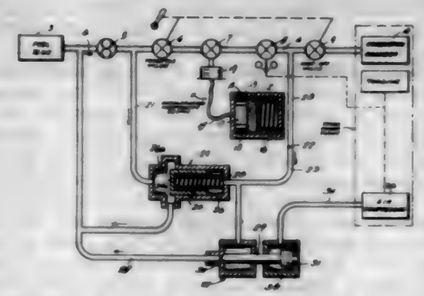
disposed along the leading and trailing edges thereof so that said flap member can cover or uncover the opening; means for controlling engagement and disengagement of the hook members with the hook member engageable means and means for moving said flap member when one set of hook engageable means are disengaged from the pivoted hook members.

2,841,957

AUTOMATIC COMPRESSOR PRESSURE LIMITER

Robert J. Thorpe and Robert A. Neal, Shawnee, Kans., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application August 9, 1955, Serial No. 527,430
1 Claim. (Cl. 60—39.28)



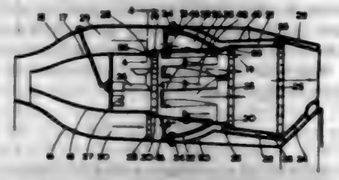
In a fuel regulating system a turbo-power plant including an air compressor and a combustion chamber; a fuel tank; a fuel pump; a manual throttle valve; a valve sensitive to acceleration of the turbo-power plant; a valve sensitive to the speed of the turbo-power plant; a first fuel conduit successively interconnecting the fuel tank, the fuel pump, the throttle valve, the acceleration valve, the governor valve and the combustion chamber; a second fuel conduit in parallel with the fuel pump; a relief valve disposed in said second fuel conduit regulating fuel flow therethrough; means responsive to the pressure differential between the output of the pump and the input to the combustion chamber for controlling disposition of the relief valve; a third fuel conduit which extends from a portion of said first fuel conduit between the governor valve and the combustion chamber to a portion of said first fuel conduit between the fuel tank and the fuel pump; a needle valve disposed in said third fuel conduit regulating fuel flow therethrough; and means responsive to the output pressure of the air compressor for controlling disposition of the needle valve.

2,841,958

COMBUSTION SYSTEM OF THE KIND COMPRISING AN OUTER AIR CASING CONTAINING A FLAME COMPARTMENT FOR USE IN GAS TURBINE ENGINES AND RAM JET ENGINES

Morris A. Stokes and Robert W. O. Papworth, Coventry, England, assignors to Armstrong Siddeley Motors Limited, Coventry, England

Application December 13, 1956, Serial No. 628,886
Claims priority, application Great Britain December 22, 1955
12 Claims. (Cl. 60—39.65)



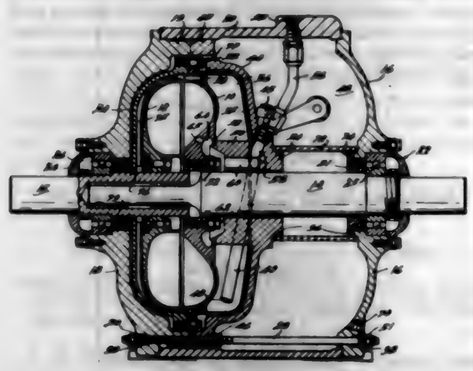
1. An engine combustion system comprising an outer air-receiving casing, a flame compartment supported in said casing and annularly spaced from said casing, said flame compartment having a ring of ports, and, supported in the annular space between the flame compartment and the air-receiving casing, an annular, forwardly-facing curved scoop, said system also comprising splitter struts dividing the interior of the curved scoop circumferentially, said splitter struts being axially-directed but radially-extending, said splitter struts having outer surfaces, the adjacent outer surfaces of each adjacent pair of struts, together with a portion of the scoop uniting the struts, defining a flow passage terminating in one of said ring of ports, said ring of ports communicating with the interior of the flame compartment, said surfaces of said struts and a portion of the scoop uniting the struts being so shaped aerodynamically that said flow passage diverts the air from its substantially axial path at entry to a substantially radial path where the air discharges through the port into the compartment, with a greatly reduced pressure loss.

2,841,959

FLUID COUPLING

Douglas G. Snow, Holly, Mich., assignor, by mesne assignments, to Gilbert E. Nelson, Holly, Mich.

Application November 26, 1954, Serial No. 471,357
5 Claims. (Cl. 60—54)



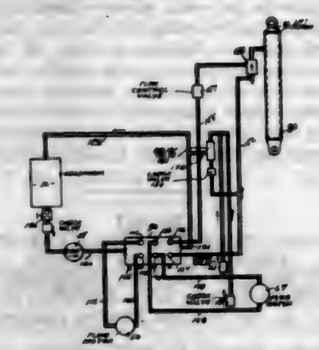
1. In a hydraulic coupling assembly, a fixed housing defining a reservoir within which liquid is normally maintained at a level below the top, an internal housing structure located at least partially within said reservoir and fixed with relation thereto, and defining a coupling chamber, a fluid coupling within and fitted relatively closely with respect to said coupling chamber, passage-defining portions providing communication between a portion of said reservoir above the liquid level therein and the interior of said coupling chamber and located outside the peripheral area of the coupling, to permit ejection of fluid from the chamber into the reservoir by the pumping action resulting from rotation of the coupling, the reservoir being substantially sealed, the portion of the coupling chamber below said passage-defining portions being effectively isolated from the lower portion of the reservoir, and means for feeding fluid into the coupling and for removing fluid from the coupling through transfer passages located in the vicinity of the axis of rotation of the coupling.

2,841,960

FLUID PRESSURE CONTROL SYSTEM

James Howard Holan, Rocky River, and Herman J. Troche, Fairview Park, Ohio, assignors to J. H. Holan Corporation, Cleveland, Ohio, a corporation of Ohio

Original application January 18, 1954, Serial No. 404,462. Divided and this application October 11, 1954, Serial No. 461,356
4 Claims. (Cl. 60—97)



1. In a fluid pressure control system for a movable aerial extension ladder supported on a frame carriage which is rotatably mounted on a pedestal-like support and having independent motor-operated means for rotating, extending and tilting the ladder respectively, said system including a multiple plunger control valve comprising a valve block having access ports operatively connected to said means with the plungers being axially movable within the block from neutral to operative position for coaction with said ports for selectively actuating said means, and wherein each of said plungers is provided with one extremity extending externally of the block and means within the block normally biasing each of the plungers to a neutral position, the combination of, a plurality of operating levers, each pivotally coupled intermediate its ends to the external extremity of a corresponding valve plunger for actuating the latter in said axial direction, a fixed footing on said frame carriage, one end of said levers being pivotally supported on said fixed footing and the other end of each lever being accessible for manipulation by an operator, a fixed bracket on said carriage having an elongated slot for receiving and guiding one of said levers in its movement, and means movable generally axially of said one lever and automatically urged into coaction with said bracket to lock said last-mentioned lever in neutral position.

2,841,961

OFF-SHORE DRILLING BARGE

Joseph E. Lucas, Caracas, Venezuela, assignor to DeLong Corporation, a corporation of Delaware

Application April 13, 1953, Serial No. 348,269
14 Claims. (Cl. 61—46.5)

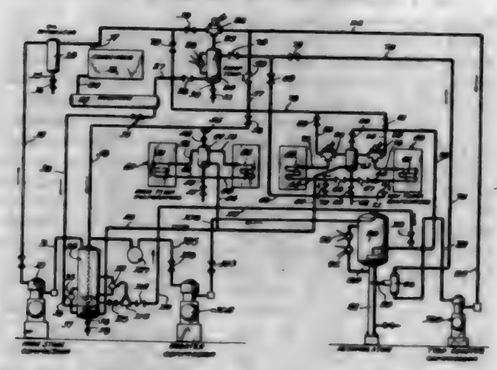
1. A movable gripper assembly of the class described arranged to releasably engage a supporting column, said

gripper assembly including an upper slip ring and a lower slip ring, each of said rings having its inner periphery formed of spaced converging oppositely inclined surfaces, segmental gripping shoes within each of said rings, each of said shoes having converging oppositely inclined surfaces arranged to engage and complementary to said ring surfaces, means movably connecting the shoes to said rings, means for normally maintaining the shoes out of



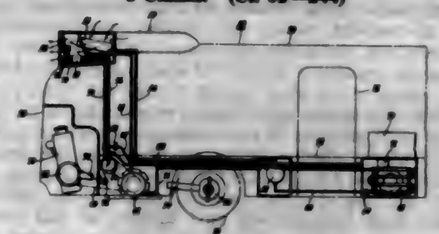
engagement with the rings, pressure operated means for selectively moving the inclined surfaces of the shoes into engagement with the inclined surfaces of the rings so as to cause the shoes to be moved radially into frictional engagement with the supporting member, means for displacing one of said rings axially relative to the other ring, and a clamping bar spaced from said rings for releasably engaging the column to independently support the same.

2,841,962
RETURN APPARATUS FOR A TWO-STAGE REFRIGERATION SYSTEM
William V. Richards, Glenview, Ill., assignor to H. A. Phillips, doing business as H. A. Phillips & Company, Chicago, Ill., by Wayland Phillips, conservator of his estate
Application January 23, 1957, Serial No. 635,859
9 Claims. (Cl. 62—174)



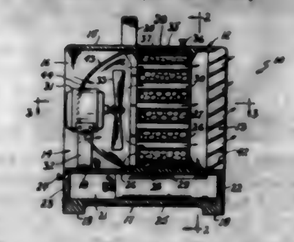
9. In a refrigerating system, in combination, a cooling coil providing an evaporator and having a liquid refrigerant inlet line and a vaporized refrigerant outlet line, a surge drum in connected relation with the inlet and outlet line respectively, a high pressure refrigerant feed line for delivering liquid refrigerant to the surge drum, a suction return line for the vaporized refrigerant, an accumulator in the suction return line for collecting liquid refrigerant which may entrain with the vaporized refrigerant, a dump trap, a booster compressor for the dump trap, a suction return conduit connecting the dump trap with the inlet to the booster compressor, an ejector having connection with the accumulator for receiving liquid refrigerant therefrom, a supply line connecting the outlet of the booster compressor with the dump trap, said ejector being interposed in the supply line whereby high pressure gaseous refrigerant from the booster compressor is delivered to the ejector for pumping the liquid refrigerant received thereby to the dump trap, other conduit means for draining the liquid refrigerant from the dump trap and discharging the same into the high pressure refrigerant feed line, and defrosting means for the evaporator comprising a valve member in the outlet line from the cooling coil, said valve member in one position connecting the outlet line with the surge drum and in another position connecting the outlet line with the high pressure refrigerant feed line for introducing gaseous refrigerant to the cooling coil, a check valve in the inlet line to the cooling coil for preventing flow of liquid refrigerant in a reverse direction toward the surge drum, and conduit means connecting the dump trap with the inlet line to the cooling coil at a location beyond the check valve.

2,841,963
REFRIGERATING APPARATUS
Hans O. Schjolin and Everett W. Allen, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 18, 1956, Serial No. 616,848
5 Claims. (Cl. 62—244)



1. In a passenger vehicle having a passenger compartment provided with a floor and a roof, a driving means for said vehicle located adjacent the floor, an air conditioning means for said passenger compartment including a compressor driven by and operable coincidentally to the operation of said driving means and an air cooled condenser located adjacent the roof and an evaporating means located adjacent the passenger compartment, means for circulating air in heat exchange relation with said evaporating means into said passenger compartment, fan means located adjacent said condenser for circulating air into heat exchange relation with said condenser, a hydraulic motor adjacent said condenser for driving said fan means, and a hydraulic pump adjacent to and driven by said driving means for supplying fluid under pressure to said hydraulic motor.

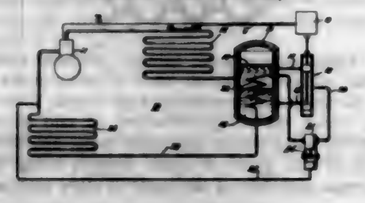
2,841,964
PORTABLE AIR COOLER
Hubert D. Anderson, Coward, S. C.
Application March 23, 1955, Serial No. 496,130
1 Claim. (Cl. 62—426)



A self-contained portable air cooler, comprising in combination a substantially rectangular housing having an open front and back and including top and bottom

walls and a pair of side walls, a horizontal partition provided in said housing adjacent the bottom wall thereof and affording a battery compartment in the bottom portion of the housing, a front wall member provided for said battery compartment at the front of the housing, a hinged door provided for the battery compartment at the back of the housing, a pair of spaced vertical plates extending from said partition to the top wall of the housing and defining an ice compartment therebetween, said plates extending transversely between said side walls and being spaced inwardly from the respective front and back of the housing, a set of open-ended tubes mounted in said plates and extending through said ice compartment, a hinged door for the ice compartment provided in the top wall of the housing, a plurality of upwardly angulated air deflecting louvers provided in the open front portion of the housing, a substantially semi-spherical shroud disposed in the open back portion of the housing and formed with a centrally located air inlet opening, a bracket provided on said partition, an electric motor carried by said bracket substantially in alignment with said opening, a fan secured to the armature of said motor and disposed within said shroud, a dry cell battery positioned in said battery compartment and operatively connected to said motor, and a switch mounted at one side wall of said housing in circuit with said battery and said motor.

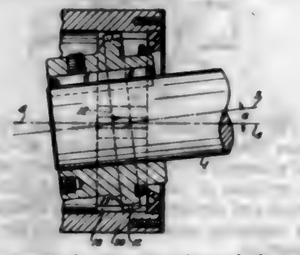
2,841,965
DUAL CAPACITY REFRIGERATION
Theodore L. Etherington, Ballston Lake, N. Y., assignor to General Electric Company, a corporation of New York
Application June 29, 1954, Serial No. 440,021
8 Claims. (Cl. 62—513)



1. In a refrigeration system including a receiver and an evaporator, a compressor and a condenser, a pair of refrigerants in said receiver, said refrigerants being at a first temperature range substantially immiscible and at a second temperature range substantially, mutually soluble, means for circulating a solution of said refrigerants through said system at said second temperature range, means for cooling the refrigerants in the receiver to vary the solubility thereof as a function of evaporator temperature, and means to selectively circulate one of said refrigerants when said first range of temperature is attained.

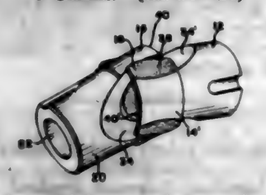
2,841,966
FLEXIBLE COUPLINGS
Charles W. Beldon and Harley E. Northrop, Westfield, N. Y.
Continuation of application Serial No. 192,954, October 30, 1950. This application November 14, 1955, Serial No. 546,744
11 Claims. (Cl. 64—9)

5. A flexible coupling for coupling a pair of rotary elements, comprising a circular inner gear element having outwardly extending teeth; a circular outer gear element having inwardly extending teeth; the two gear elements positionable with the outer gear element surrounding the inner gear element and with the teeth of the gear elements in mutually meshed engagement; means by which one rotary element may drive the other through the tooth engagement comprising connecting parts between the respective gear elements and rotary elements to cause them to rotate respectively with the rotary elements; the teeth of the gear elements bing formed so that the drive will occur without back-lash or binding at the tooth engagement when the rotational axes of the gear elements, due to the positions of the rotary elements, are at an angle of misalignment with each other in the range from zero degrees to a preselected maximum; the tooth form of the outer gear element being such that the teeth



extend longitudinally in the direction of the gear axis; the tooth form of the inner gear element being such that each tooth has portions extending outwardly at right angles to the surface of a geometrical cone coaxial with the inner gear element, and, considered as an ordinary gear tooth, has a known pressure angle, and the cone angle between the cone surface and its axis is equal to the said maximum angle of misalignment multiplied by the value of the cotangent of the pressure angle.

2,841,967
UNIVERSAL JOINT
Max P. Baker, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 6, 1956, Serial No. 608,274
3 Claims. (Cl. 64—16)

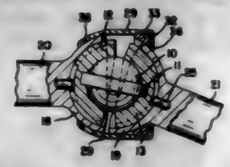


3. In a universal joint, a socket member having a bifurcated end, the bifurcated end portions being aligned in a plane, a segmental cylindrical opening located between the bifurcated end portions having its longitudinal axis perpendicular to said plane, the bifurcated ends being further formed to have each side thereof which is parallel to said plane shaped in the form of identical segmental right circular conical surfaces having the vertices thereof located at the geometric center of said cylindrical openings and having the altitudes thereof perpendicular to said plane, the angle between the altitudes and slant heights of said conical surfaces being greater than 45°, said member including portions projecting outwardly thereof having opposed segmental right conical surfaces complementary to the said conical surfaces of said forks interposed between adjacent prongs and snugly engaging said conical fork surfaces coextensively thereof when said shaft members are in an aligned position.

2,841,968
CONSTANT VELOCITY UNIVERSAL JOINT
Emil A. Helmke, East Detroit, Mich.
Application May 31, 1956, Serial No. 588,432
6 Claims. (Cl. 64—21)

1. A universal joint comprising an exterior driving shell, an exterior driven shell, an interior shell for said

driving shell, an interior shell for said driven shell, a central free, floating sphere engaged by both interior shells, a continuous cylindrical key integral with and surrounding said central sphere, a key way in each interior shell receiving a portion of said sphere key whereby the driving and driven shells are maintained at an



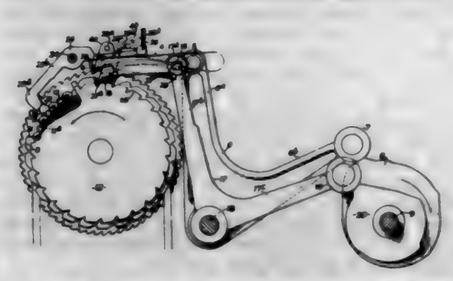
angle of 180°, interfitting keys and key ways connecting said interior shells and the respective driving and driven shells and arranged at 90° relative to said sphere key, the engaging surfaces of said interior and exterior surfaces being curved and concentric with said central sphere, and a housing enclosing said exterior shells for retaining the parts assembled.

2,841,969
HOME KNITTING-MACHINE
Arthur Boehler, Troyes, France
Application June 5, 1956, Serial No. 589,455
Claims priority, application France June 6, 1955
2 Claims. (Cl. 66—63)



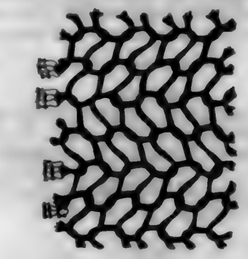
1. A home knitting-machine having a double needle-bed with guide grooves in each bed and, in said grooves, twin-hook needles having their bodies concealed completely in said grooves and their hooks projecting above the upper surfaces of the needle-beds and control cams for actuating said needles, said cams engaging directly the bottoms of said hooks.

2,841,970
CONTROL MECHANISMS FOR KNITTING MACHINES
Alfred Percy Saunders, Leicester, England, assignor to Wildt and Company Limited, Leicester, England, a British company
Application June 20, 1956, Serial No. 592,580
Claims priority, application Great Britain June 24, 1955
9 Claims. (Cl. 66—155)



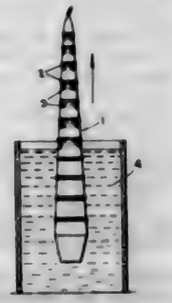
1. In an automatic knitting machine, a control mechanism comprising, in combination, a main control drum, a peripherally toothed ratchet wheel secured to said drum, a rack pawl arranged to co-operate with said wheel, means functioning to reciprocate said pawl and so rack round the control drum, prearranged cams on said drum from which automatically operated parts of the machine are actuated, a timing chain which consists of a succession of connected links and from which racking movements of the drum are initiated at required times, means moving said chain intermittently, lugs on pre-arranged links of the timing chain, a movable bluff member which controls engagement of the pawl with the ratchet wheel and is influenced by the lugs on the chain, said lugs being all of one height so that they are only capable of dictating the times when the control drum is to be racked, a bluff lever independent of the chain-influenced bluff member, prearranged studs on the control drum for controlling the said independent bluff lever, and a part on the drum rack pawl for engagement by said bluff lever in such a way that the latter automatcially determines varying extents to which said drum is racked.

2,841,971
COMPRESSIVE STOCKING
Joseph J. Bird, Marvin H. Comer, Charlie A. Miles, and Ralph C. Braxton, Burlington, N. C., assignors to Alamance Industries, Inc., Burlington, N. C., a corporation of North Carolina
Application August 19, 1957, Serial No. 678,906
24 Claims. (Cl. 66—178)



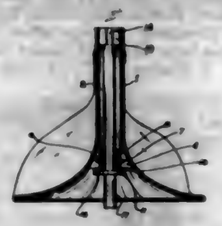
1. A highly compressive tubular garment comprising a plurality of knitted courses, each of said courses formed from a plurality of independent high torque lively monofilament yarns, the torque direction of said plurality of yarns in the same course being the same, and the torque direction of the yarns in some courses being opposite to the torque direction of the yarns in other courses.

2,841,972
METHOD OF ORNAMENTING CANDLES
Walter Weglin, Centereach, N. Y.
Application August 16, 1956, Serial No. 604,397
6 Claims. (Cl. 67—22.5)



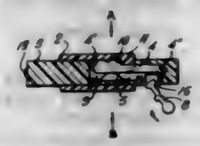
1. The method of ornamenting candles which comprises applying a decorating material to a candle, said material being of a color different from the color of said candle, and dipping said candle into a vessel containing a warm fluid for a length of time sufficient to melt said decorating material to form ornamenting streakings on said candle, and thereafter removing the candle from said vessel.

2,841,973
WASHING MACHINE AGITATOR ASSEMBLY
Gerald L. Cockerill, Ottawa, Ontario, Canada, assignor to J. H. Comer & Son, Limited, Hull, Quebec, Canada
Application October 17, 1955, Serial No. 540,912
Claims priority, application Canada December 10, 1954
2 Claims. (Cl. 68—133)



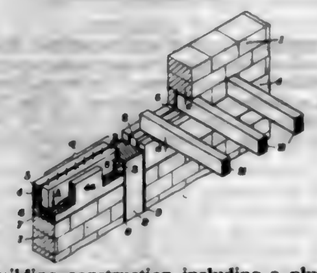
1. In a washing machine, a washing tub, a fixed tubular casing projecting upwardly from the bottom of said tub, a generally horizontal bearing surface on said casing, an agitator defining a central cavity and surrounding said casing, a member formed of a synthetic resinous material of a type which remains hard at all temperatures normally encountered in the tub of a washing machine, said member including a cylindrical body portion, means for detachably mounting said member on said agitator within said cavity, said last-mentioned means comprising a plurality of radial buttress members formed on said agitator and extending inwardly into the said cavity thereof, the inner faces of said buttress members lying on a common imaginary cylinder, grooves in said faces lying in a common horizontal plane, a resilient split ring mounted in said grooves and engaging the outer surface of said cylindrical body portion and a bearing surface on said member resting on the first bearing surface for supporting the weight of the agitator.

2,841,974
BOLT LOCK
Erich Hensel, Doberlug-Kirchhain, Germany
Application March 23, 1954, Serial No. 418,042
2 Claims. (Cl. 70—134)



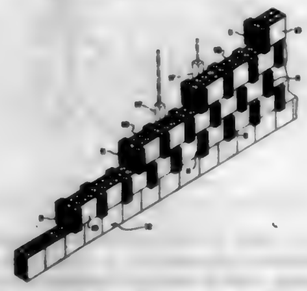
1. A bolt lock for mounting in one of two relatively movable members, comprising a first sleeve capable of receiving a warded key, said first sleeve being arranged in a first bore of one of said members, a second sleeve for arrangement in a second bore of said one member, the longitudinal axes of the first and second sleeve being offset and extending in directions substantially perpendicular to each other, a bolt slidably arranged in said second sleeve, said bolt having a recess for engagement with the ward of the key, a longitudinal cavity defined in said bolt, a safety lever mounted in said cavity on a fulcrum for locking movement, said safety lever having a catch adjacent one end and an inclined surface at the other end, the catch being positioned to engage a portion of said second sleeve when said bolt is in advanced locking position, said bolt containing spring means urging said catch toward said sleeve portion, the end of said cavity adjacent said safety lever inclined surface having an inclined wall, said recess being positioned to permit engagement of the safety lever by the ward of said key when the key is turned to retract the bolt, the inclined surface of said safety lever then sliding along the inclined wall of said cavity to permit rocking movement of said safety lever to bring the catch out of engagement with said sleeve portion.

2,841,975
BUILDING CONSTRUCTION
Friedrich Bruckmayer, Vienna, Austria
Application October 10, 1955, Serial No. 539,634
9 Claims. (Cl. 72—1)



1. In a building construction including a plurality of stories, the combination of a structural frame comprising a plurality of upwardly extending columns with a wall disposed between each pair of adjacent columns, the vertical edges of said wall and the adjacent faces of said columns defining spaces therebetween, a beam on top of and supported by the said wall, a pair of oppositely disposed brackets supported at the height of each floor of the said stories by each of the said columns, and an auxiliary beam disposed on each side of the said columns adjacent each of the said brackets within the said wall, the ends of the said auxiliary beam having supported portions, one of the said supported portions being carried by at least said beam and the wall therebeneath and the other of the said supported portions being carried by the said brackets, thereby distributing one part of the load carried by the said auxiliary beam to the said wall therebeneath and another part to the said adjacent column by means of the corresponding bracket.

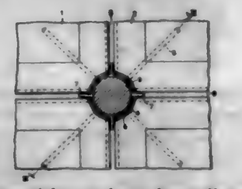
2,841,976
CELLULAR WALL CONSTRUCTION
Harmon H. Goldstone, New York, N. Y., assignor to Goldstone & Dearborn, a partnership
Application January 20, 1956, Serial No. 560,391
5 Claims. (Cl. 72—41)



1. In a wall structure composed of superimposed rows of multicellular blocks, the improvement comprising a first course containing one or more cellular blocks having open-ended vertical cells to the number n in a transverse direction, a vertically adjacent second course containing one or more cellular blocks having open-ended vertical cells to the number $n+1$ in a transverse direction, the cells of each $n+1$ block of said second course being in at least partial vertical register with the cells of an n block of said first course and the transverse extent of said $n+1$ block being such that the external cells

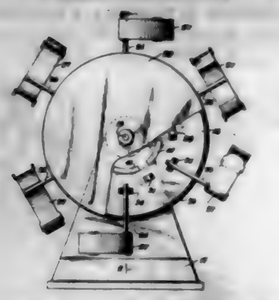
thereof overlie and extend on to the sides beyond the outer walls of said *n* block the cells of blocks of the first course being in open communication with cells of blocks of the second course whereby air may flow transversely through said wall structure from one side to the other thereof, the air flowing sinuously from one course to the other while moving in a generally transverse direction through said wall structure.

2,841,977
WELDING AND ASSEMBLING FLOOR
Marinus Kok, De Steeg, Netherlands, assignor to N. V. Betonfabriek "De Meteoor," De Steeg, Rheden, Netherlands, a limited-liability company of the Netherlands
Application July 13, 1953, Serial No. 367,570
Claims priority, application Netherlands July 12, 1952
3 Claims. (Cl. 72—68)



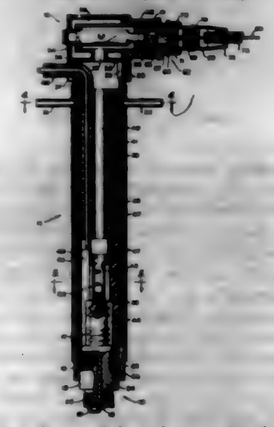
1. A floor comprising at least four aligned rectangular concrete slabs, the four corners of each slab consisting of approximately quarter-cylindrical grooves, a reinforcing metal frame around the top edge of each slab, a metal member having approximately the shape of a quarter cylinder lining each of said grooves and being integral with said frame, an upper end of each metal member being flush with the frame, four adjacent ones of said quarter-cylindrical metal members forming a substantially cylindrical bore in the floor, a cylindrical sleeve removably fitted in said bore, and abutment means projecting into said bore to support the cylindrical sleeve.

2,841,978
WATCH TESTING APPARATUS
Julius Kohn, New York, N. Y.
Application July 12, 1955, Serial No. 521,442
7 Claims. (Cl. 73—6)



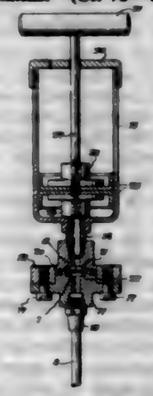
1. Watch testing apparatus comprising a support, a carrier rotatable on the support, a spindle on the carrier and extending with a radial component away from the axis of rotation of the carrier, a bearing on the carrier in which the spindle is rotatable about an axis of rotation extending lengthwise of the spindle, a watch holder attached to the spindle and rotatable with the spindle about the axis of rotation of the spindle, means for rotating the carrier to impart orbital movement to the spindle and watch holder, mechanism for turning the spindle intermittently about its own axis of rotation during said orbital movement, means for preventing rotation of the spindle at a plurality of angular locations and during certain arcs of movement along the orbital path of the spindle, said mechanism including means for automatically restarting rotation of the spindle at the end of each of said arcs of movement.

2,841,979
COMBUSTION STUDY DEVICE
Bobby C. Harbert, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application May 16, 1955, Serial No. 508,525
7 Claims. (Cl. 73—35)



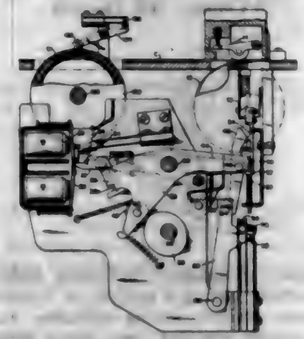
1. Apparatus for studying the combustion process of a spark-ignited internal combustion engine which comprises, in combination, a spark plug having a hollow central electrode; a transparent rod disposed within said central electrode; an elongated extension member having an interior passageway formed therein in axial alignment with said central electrode, said member being attached to and extending upwardly from said spark plug; an electrical conducting means connected to said central electrode; a photoelectrical cell container supported on the upper end of said extension member, said container having an opening formed in the walls thereof above said interior passageway of said extension member; and a photoelectric cell disposed within said cell container.

2,841,980
METHOD OF DETERMINING THE DETERGENCY VALUE OF OILS AND APPARATUS FOR USE IN CONNECTION THEREWITH
Tyler Kay, Buffalo, N. Y.
Application October 6, 1955, Serial No. 538,949
7 Claims. (Cl. 73—53)



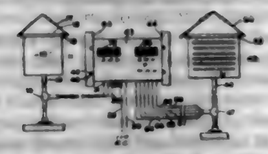
1. A method of determining the detergency value of engine crank case oil which comprises subjecting an element of known size of an indicator material which is soluble in lubricating oils containing detergents and less soluble in lubricating oils free from detergents, to a predetermined quantity of the crank case oil to be tested, measuring the remainder of said element after the same has been subjected to said oil, and determining the detergency value of the oil from the decrease in a dimension of said body.

2,841,981
AUTOMATIC VERIFICATION OF ZEROS
Robert L. Rockefeller, Red Hook, and Leon F. Trimble, Hyde Park, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 7, 1956, Serial No. 583,313
15 Claims. (Cl. 73—156)



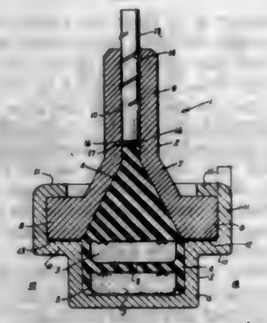
1. In a record verifying machine, a row of record analyzing elements, means for advancing a record past said row of elements column by column, said record having at least one field comprising a predetermined number of columns in which digit representing designations are recorded, a set of digit representing keys, means controlled jointly by an operated one of said digit representing keys and said record analyzing elements for comparing said keyed digit with a recorded digit designation, a program device having controlling data arranged therein in at least one field comprising a number of columns equal to the corresponding said record field and an analyzing circuit controlled jointly by said program device and any of said keys whose digital value is not greater than the number of columns in said field and effective upon a single operation of said key when the first column of said record field is positioned adjacent said elements for causing the zero representing one of said elements to analyze a number of successive columns for zero designations according to the particular key operated.

2,841,982
COMPENSATING FUEL DEMAND METER
Mensal Lee Johnson, Kalamazoo, Mich.; Margaret O. Lamb, executrix of the estate of said Johnson, deceased, assignor to Margaret O. Lamb
Application December 23, 1955, Serial No. 554,992
13 Claims. (Cl. 73—339)



1. In apparatus for estimating the fuel oil consumption of a building using oil both for space heating and for a substantially time-dependent, weather-independent purpose, the combination including: a reference chamber having a heat-conducting wall adapted to have its exterior surface in heat-exchange relationship with the outdoor atmosphere; thermostatically controlled electrical heating means within the reference chamber adapted to maintain the temperature therein substantially constant at a predetermined value; means outside the reference chamber to supply constant voltage electric current for energizing the heating means; a synchronous motor outside the reference chamber controlled by the same thermostat that controls the heating means whereby the motor is caused to operate during the periods of energizing of the heating means; a first switch means adapted to be opened and closed at regular time intervals in response to operation of the motor during the periods of its operation; a first impulse counter in series in a circuit with the first switch adapted to register one unit each time the switch is closed whereby the number of units registered on the counter over a period of time is a measure of the integrated heat-absorbing capacity of the atmosphere over the same period of time; and a time-dependent second switch means in series with the impulse counter in a circuit excluding the first switch whereby time-dependent units are registered on the counter at a regular rate in addition to those registered in response to the action of the first switch.

2,841,983
POWER ELEMENT
Sergius Vernet, Yellow Springs, Ohio, assignor to Antioch College, Yellow Springs, Ohio, a corporation of Ohio
Application May 9, 1956, Serial No. 583,786
2 Claims. (Cl. 73—358)

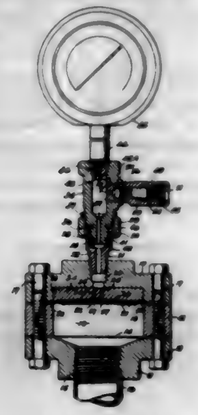


1. A power element comprising a housing, said housing including an internally threaded sleeve; pressure-producing material within the housing; a threaded shaft meshingly engaged with the threads in the sleeve; and force-transmitting material within the housing between the shaft and pressure-producing material.

2,841,984
CONNECTION FOR FLUID PRESSURE OPERATED DEVICES
Donald C. Green, Russell, Ohio
Application May 6, 1953, Serial No. 353,341
3 Claims. (Cl. 73—395)

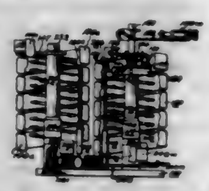
1. A connection for connecting a source of fluid pressure to a gage of the Bourdon tube type having a tubular gage stem for indicating the pressure of the fluid, comprising: a walled housing divided into a walled gage chamber and a walled pressure chamber by a flexible diaphragm; a wall of the gage chamber having a surface spaced from one face of the diaphragm; means for effecting communication of source fluid under pressure to the pressure chamber to subject the other face of the diaphragm to the pressure to flex the diaphragm; the diaphragm provided with a plurality of concentric corruga-

tions and the said wall surface provided with a corresponding plurality of corrugations with which the corrugations of the diaphragm will make intimate mating contact upon flexure of the diaphragm by said pressure; a passageway through the gage chamber wall, its inner portion being of capillary diameter and opening into the gage chamber at said surface and its outer portion being of larger diameter; a nipple with a duct therethrough axially, communicating at one end with the outer portion of the passageway and having an open cylinder in its outer end; a body having a piston projected a predetermined distance into said cylinder, and means coupled to the end of the cylinder wall for securing said piston in said projected position; the body having a bore therethrough axially, of



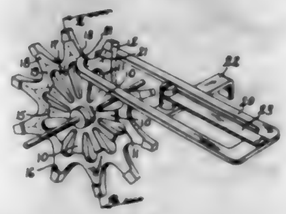
capillary diameter at its inner end portion and outwardly being of enlarged diameter; the tubular gage stem communicating with the outer end of the bore whereby the gage connection may be assembled by filling the nipple and its duct and the passageway and gage chamber with liquid to the top of the cylinder, and by filling the body bore and its enlarged diameter portion and the tubular stem and gage with liquid to the end of the piston, and by flexing the diaphragm into engagement with the gage chamber surface by pressure applied on the said other face of the diaphragm in the pressure chamber, and then projecting the piston into the cylinder to its predetermined projected position and thus displacing into the gage chamber a predetermined quantity of liquid that moves the diaphragm to a normal non-flexed position.

2,841,985
COMPENSATING OR DIFFERENTIAL PRESSURE OR TEMPERATURE RESPONSIVE MECHANISM
Edmund D. Haigler, Hatboro, Pa., assignor to Fischer & Porter Company, Hatboro, Pa., a corporation of Pennsylvania
Application September 8, 1953, Serial No. 378,945
4 Claims. (Cl. 73—412)



4. A helical Bourdon tube mechanism, including a helical Bourdon tube, a stationary pivot member disposed within the helix of said Bourdon tube and having two pivots generally co-axial with the helix of said tube, one of said pivots being in juxtaposition to one of the ends of said tube and the other pivot being in juxtaposition to the other end of said tube, a generally radial tube-anchorage member pivoted on one of said pivots and having the juxtaposed end of said Bourdon tube affixed thereto, a generally radial tube-anchorage member pivoted on the other of said pivots and having the juxtaposed end of said tube affixed thereto, said tube-ends being arranged to be movable in arcuate paths generally about the axis of said helical Bourdon tube.

2,841,986
MECHANICAL OSCILLATORS
Cecil Frank Clifford, Bath, England
Original application July 18, 1951, Serial No. 236,819, now Patent No. 2,743,614, dated May 1, 1956. Divided and this application January 30, 1956, Serial No. 562,338
Claims priority, application Great Britain July 15, 1950
10 Claims. (Cl. 74—1.5)

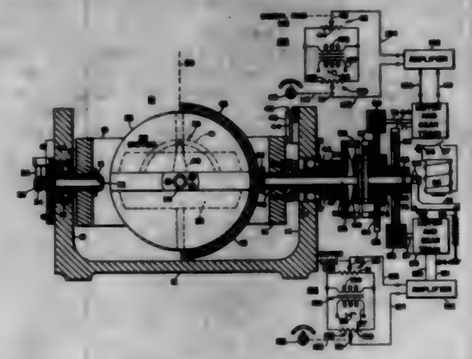


1. A magnetic escapement mechanism embodying an oscillating member having a position of repose intermediate its extreme positions during oscillation, and a complementary rotating member, said rotary member presenting a wavy magnetic track thereon, said oscillating member having at least one pole face thereon and being subject to a restoring force giving substantial isochronism, and said members being coupled together by a magnetic coupling wherein the motion of rotation is coupled at all times to the motion of oscillation by the magnetic flux between said pole face and the wavy track, and said wavy track being constructed with a nonuniform dimensional factor, the departure from uniformity being such that the centralizing force of the magnetic coupling adjacent the repose position of the oscillating member is varied with respect to that exerted at its extreme positions as to reduce anisochronism due to magnetic and other parasitic forces.

2,841,987
GYROSCOPIC APPARATUS
Harry L. Brown, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application March 14, 1957, Serial No. 646,158
17 Claims. (Cl. 74—5.1)

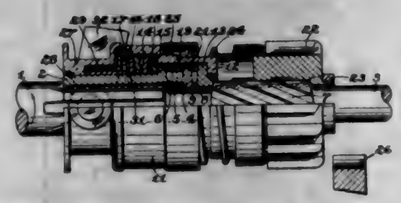
1. A variable angle caging apparatus for a gyroscope having a rotor adapted to rotate about a spin axis and a pair of members mounting said rotor for rotation about a pair of mutually perpendicular axes, one of said axes being perpendicular to said spin axis, said caging apparatus comprising: first coupling means on one of said pair of members; second coupling means on the other of said pair of members; first motor means having rotatable means; second motor means having rotatable means; means for simultaneously coupling said rotatable means of said first motor means to said first coupling means and coupling said rotatable means of said second motor means to said second coupling means; means controlling the energization of said first and said second motor means so as to control the rotation of said rotatable means, said coupling of said rotatable means to said first and said second coupling means destroying the spatial rigidity of said

rotor and permitting said motor means to rotate said rotor about said pair of mutually perpendicular axes simultaneously to change the attitude of said spin axis;



and means for simultaneously decoupling said rotatable means of said first and second motor means from said first and second coupling means.

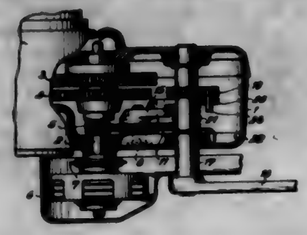
2,841,988
STARTER GEARING FOR INTERNAL COMBUSTION ENGINES
John J. Sabatini, Horseheads, N. Y., assignor to Bendix Aviation Corporation, a corporation of Delaware
Application February 13, 1956, Serial No. 564,907
6 Claims. (Cl. 74—6)



1. In starter gearing for internal combustion engines a motor shaft, a driving and shifting sleeve splined thereon, a coupling member slidably journalled on said shaft and having an inclined torque transmitting connection to said sleeve, a hollow shaft slidably journalled on the motor shaft and having an overrunning connection to the coupling member, a pinion splined on said hollow shaft, and yielding means for transmitting axial movement of the hollow shaft to the pinion to move it into mesh with a gear of the engine to be started.

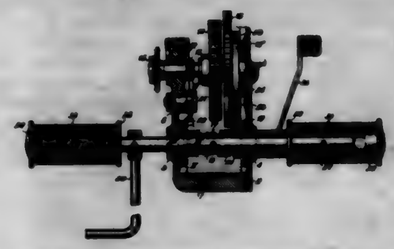
2,841,989
KICK STARTER DEVICE
Alfred Kreidler and Hanns Hilber, Stuttgart, Germany; said Hilber assignor to said Kreidler
Original application June 23, 1954, Serial No. 438,774, now Patent No. 2,781,033, dated February 27, 1957. Divided and this application September 11, 1956, Serial No. 609,171
Claims priority, application Germany June 27, 1953
2 Claims. (Cl. 74—6)

1. In an engine-gearbox unit for engine-assisted pedal cycles and for light motorcycles, a housing, an engine-driven shaft rotatably mounted within said housing, a second shaft rotatably mounted within and extending outside of said housing, power-transmitting means carried by said second shaft within said housing, an intermediate freewheel lever rotatably mounted within said housing and being capable of transmitting an engine-starting torque from said second shaft to said engine-driven shaft, power-receiving means carried by said intermediate freewheel lever and operatively connected to said power-transmitting means, and said housing having a rib adjacent said second shaft, an arm pivotally connected with said freewheel lever, a second lever and a helical torsion spring,



said arm being connected with said second lever by means of a pivot pin, and said second lever being secured to said second shaft, and said helical torsion spring being disposed on said second shaft and one end of said spring engaging said pivot pin and the other end of said spring abutting said rib of the housing.

2,841,990
GEAR FOR SINGLE-TRACK VEHICLES
Hanns Hilber, Stuttgart, Germany, assignor to Alfred Kreidler, Stuttgart, Germany
Original application June 24, 1954, Serial No. 438,938, now Patent No. 2,804,865, dated September 3, 1957. Divided and this application September 11, 1956, Serial No. 609,172
Claims priority, application Germany June 26, 1953
2 Claims. (Cl. 74—6)

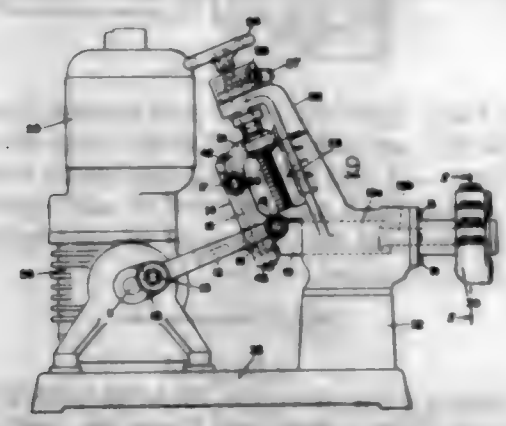


1. In a transmission gear for single track vehicles, a housing, a side cover for said housing, a driven shaft rotatably mounted in said housing and said side cover, a footrest spindle rotatably mounted in said housing and said side cover, a kickstarter mechanism mounted on said footrest spindle, a plurality of speed change mechanism gears carried by said driven shaft, one of said last mentioned gears carrying a hub having at its periphery a plurality of ratchet means, a gear ring rotatably received on said hub, said kickstarter mechanism including a tooth sector engaging said gear ring, said footrest spindle being adapted to be replaced by a pedal crankshaft rotatable in said housing and said side cover.

2,841,991
STROKE ADJUSTMENT DEVICE
Royal Bartlett Saalfrank, Gulfport, Fla., assignor to Milton Roy Company, Philadelphia, Pa., a corporation of Pennsylvania
Application April 16, 1956, Serial No. 578,583
17 Claims. (Cl. 74—40)

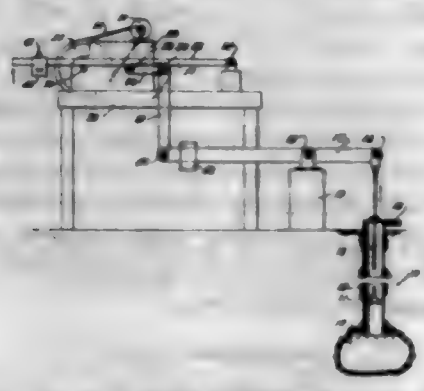
12. A variable stroke mechanism comprising a crosshead to be reciprocated along a given path, a swing member, supporting structure including a first pivotal connection for one end of said swing member, said swing member extending across the line of travel of said crosshead, a slidable and rotatable driving connection between

said crosshead and said swing member for movement of said crosshead between a forward position and a rearward position, said swing member being movable through angles equal to each other as measured from a line perpendicular to the line of travel of said crosshead and extending through said pivotal connection when in a position midway of its forward and rearward positions for said full-stroke, stroke-adjusting means constraining said supporting structure for movement of said pivotal connection along a fixed path substantially coinciding with the position of said swing member with said crosshead in its forward position for a selected length of stroke, a driving link, said swing member having a second pivotal



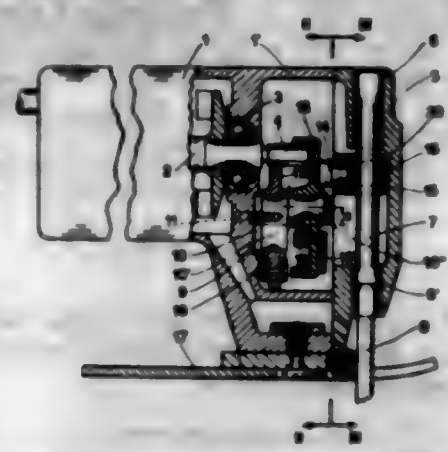
connection for one end of said driving link located on the arc of a circle which passes through the points of intersection of said swing member with said travel path of said crosshead when in its full forward position and when in its full rearward position for said full-stroke and being displaced along said arc in the direction of said crosshead through an angle equal to said equal angles, and means for reciprocating said driving link including crank means having a center of rotation, said center of rotation being located on a line extending from the axis of said second pivotal connection in a direction normal to the forward position, for a selected operation between full-stroke and zero-stroke, of a kinematic link interconnecting said first and said second pivotal connections.

2,841,992
COUNTERBALANCE MEANS FOR UNEQUAL RECIPROCATING LOADS
Joe Chastain, Midland, Tex.
Application September 13, 1954, Serial No. 455,663
7 Claims. (Cl. 74—41)



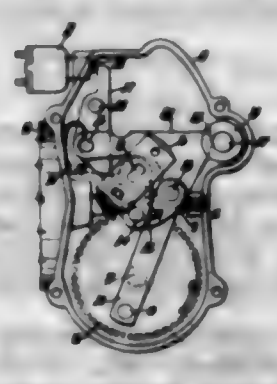
7. A device of the type described including: a drive shaft; a crank arm having one end rigidly secured to said drive shaft; means secured to the other end of said crank arm connecting said crank arm to a load; and a counterbalance mechanism for reducing the peak torques to which the drive shaft is subjected, comprising: a counterbalance arm pivoted at one end to a fixed structure, means movably connecting said counterbalance arm to said other end of said crank arm to move said counterbalance arm about said pivot as said drive shaft revolves, and a weight on said counterbalance arm moving circularly about said drive shaft as said drive shaft revolves whereby said weight imposes a torque on said drive shaft which varies inversely with the torque imposed on said drive shaft by said load.

2,841,993
DRIVE FOR HAND POWER TOOLS
Albert Kaufmann, Zuchwil, Switzerland, assignor to Firma Scintilla Ltd., Solothurn, Switzerland
Application October 24, 1956, Serial No. 618,155
Claims priority, application Switzerland October 25, 1955
7 Claims. (Cl. 74—50)



1. In a hand power tool, in combination, support means; elongated tool carrying means reciprocatorily carried by said support means; drive means carried by said support means and including a drive shaft; a pinion fixed to said drive shaft for rotation therewith; a first gear supported for rotation about its axis by said support means and having at its periphery teeth directed outwardly away from the axis of said first gear and meshing with said pinion; a second gear supported for rotation about its axis by said support means and having at its periphery teeth directed inwardly toward the axis of said second gear and meshing with said pinion at a side thereof opposite from the side which meshes with said first gear; and motion transmitting means interconnecting one of said gears with said tool carrying means for reciprocating the latter during rotation of said one gear, the other of said gears cooperating with said one gear to compensate unbalanced forces.

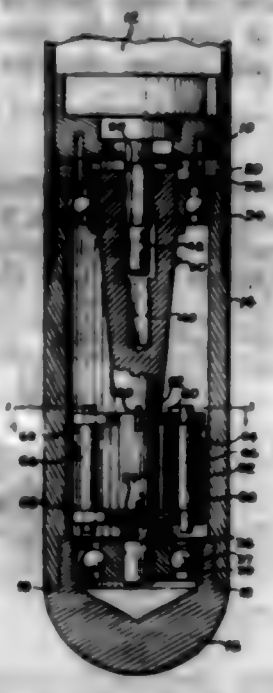
2,841,994
WINDSHIELD WIPER MECHANISM
John B. Dyer, Syracuse, and Walter D. Harrison, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 6, 1953, Serial No. 347,021
5 Claims. (Cl. 74—75)



1. Windshield wiper actuating mechanism including in combination, a unidirectional rotatable driving member, an oscillatable driven member, a connecting rod having pivotal connection at one end to said driving member, a link pivotally connected to the other end of said connecting rod, a second link pivotally connected to the other end of said connecting rod, and means operatively interconnecting said link and said driven member, the construction and arrangement being such

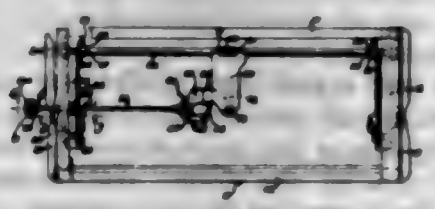
that rotation of said driving member imparts oscillation to said driven member, and manually positionable means engageable with said second link due to rotation of the driving member operable to vary the amplitude of oscillation imparted to said driven member.

2,841,995
VIBRATOR
Charles B. Sieber, Villa Park, Ill., assignor of one-half to Elmer R. Stitt, and one-half to William J. Miller, both of Dayton, Ohio
Application May 2, 1955, Serial No. 505,388
3 Claims. (Cl. 74—87)



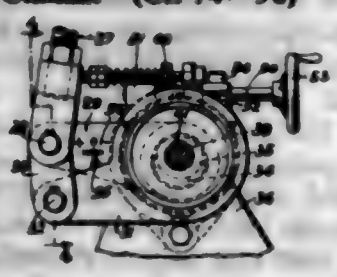
1. A vibrator for use in vibrating concrete, said vibrator including a housing having a cylindrical cavity, means for vibrating the housing, said means including a rotatably mounted member supported in bearings concentrically mounted in the housing, said member having a tapering portion terminating in a cylindrical portion near one end of the cylindrical cavity, supporting means connected to said cylindrical portion, said supporting means being in substantial balance with respect to said member, roller means eccentrically mounted in contact with said housing near one end thereof and upon said supporting means for rotation through a circular path concentric with said cylindrical cavity, said roller means being mounted for radial movement upon said supporting means and rotating therewith, eccentrically mounted bearing means for said roller means mounted upon said supporting means for radial movement with the roller means so that the roller means traveling through a circular path are forced by centrifugal force into rolling contact with the cylindrical cavity in the housing to thereby vibrate the housing.

2,841,996
ACTUATING MECHANISM FOR ADJUSTABLE VEHICLE SEAT
John W. Jamieson and Thomas C. Dingman, Dearborn, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application November 20, 1953, Serial No. 393,259
1 Claim. (Cl. 74—89)



Mechanism for actuating a cross shaft of a motor vehicle seat adjustable relative to the vehicle floor, comprising a pair of opposed stampings forming a box section housing, said stampings having juxtaposed marginal flanges adjacent the lower portion of said housing, fastening means securing said flanges together and to said vehicle floor, a pair of bearings in the opposite end walls of said housing, a transversely extending shaft extending through said housing and journaled in said bearings, said shaft having a portion extending laterally from said housing, a ratchet and pawl type handle mounted upon said last mentioned end of said actuating shaft to effect rotation thereof in either direction selected, a screw at the inner end of said actuating shaft within said housing, said housing sections having outwardly extending parallel marginal flanges at the opposite side of said housing from said first mentioned flanges, said last mentioned flanges being spaced apart to form a narrow slot therebetween opening into said housing, a bell crank lever having a pair of stamped sections lying adjacent each other throughout the major portion of their length and extending through the narrow slot between said last mentioned flanges of said housing sections and pivotally connected to said last mentioned flanges for pivotal movement about an axis extending at right angles to the axis of said actuating shaft, said lever sections being flared apart within said housing to embrace therebetween said actuating shaft, a traveling nut mounted upon said screw for lateral movement thereon as said actuating shaft is rotated, trunnions extending from opposite sides of said nut, the flared portions of said lever sections having slots formed therein for slidably receiving said trunnions, a connecting link one end of which is pivotally connected to the end of said bell crank lever remote from the flared end thereof for pivotal movement about a vertical axis and the other end of which is adapted to be pivotally connected to an intermediate portion of said shaft.

2,841,997
FLYING ADJUSTMENT FOR PRESSES
Frederick K. Maust, Queens Village, N. Y.
Application August 23, 1954, Serial No. 451,398
2 Claims. (Cl. 74—96)

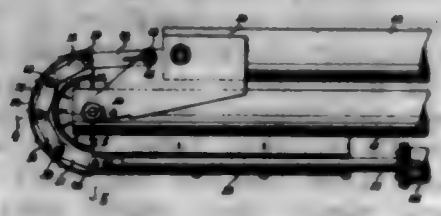


1. In mechanisms for the fine adjustment of the feed movement of a feed roll on a machine having a drive shaft, a drive adjustment for said feed roll, comprising the combination of an oscillatable driving arm actuated from said drive shaft through suitable means, said arm adapted to be freely oscillated through a constant angle, an angularly displaceable eccentric pivot for said arm, an oscillatable driven arm having its axis of oscillation coincident with the axis of displacement of said eccentric pivot, a link connecting the free ends of said arms, and means for angularly displacing said eccentric to thereby vary the effective length of said driving arm and through said link vary the angle of oscillation of said driven arm.

2,841,998
ARTICULATED APPARATUS
Herman J. Troche, Fairview Park, Ohio, assignor to The J. H. Holan Corporation, Cleveland, Ohio, a corporation of Ohio
Application August 27, 1956, Serial No. 606,287
6 Claims. (Cl. 74—99)

1. In an apparatus having a pair of relatively movable members pivotally interconnected with one another at

adjacent ends, an articulated connection comprising, extensible means carried by one of said movable members adjacent its pivoted extremity and disposed with its extension axis transverse to the pivotal axis between said movable members, a plurality of rigid members pivotally connected in end-to-end relation to form an elongated transversely flexible member, means pivotally connecting the extremities of said flexible member respectively to



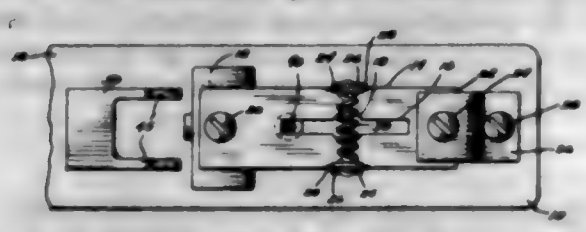
the extensible means and to the pivoted extremity of the other movable member, and arcuate guide means carried by said one movable member concentric with the pivotal axis between the movable members and partially enclosing said flexible member intermediate its extremities, whereby said flexible member is movable along the arcuate path of said guide means to rotate said other movable member in either direction corresponding to extension and retraction of said extensible means respectively.

2,841,999

SNAP ACTING MECHANISM

Earnest F. Swanson, Bristol, Ind., assignor to Penn Controls, Inc., Goshen, Ind., a corporation of Indiana

Application June 13, 1955, Serial No. 515,075
4 Claims. (Cl. 74—100)



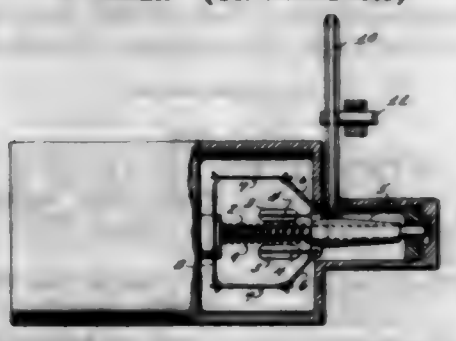
1. Snap acting mechanism comprising a leaf spring blade provided with a longitudinal slot terminating short of the ends thereof, means for anchoring one end of said blade whereby the other end may serve as an actuating means, a pair of elements pivotally engaging the side edges of said blade in the vicinity of the central portion of said slot, resilient means biasing said elements toward each other, and means for imparting movement to said blade in opposite directions at a point intermediate its anchored end and said pair of elements to cause the unanchored end thereof to move with snap action in opposite directions.

2,842,000

SPEED GOVERNOR DEVICE

Olof Lorentz Ottosson, Motala, Sweden, assignor to Industriaktiebolaget Luxor, Motala, Sweden, a corporation of Sweden

Application September 25, 1953, Serial No. 382,351
Claims priority, application Sweden September 29, 1952
1 Claim. (Cl. 74—190.5)



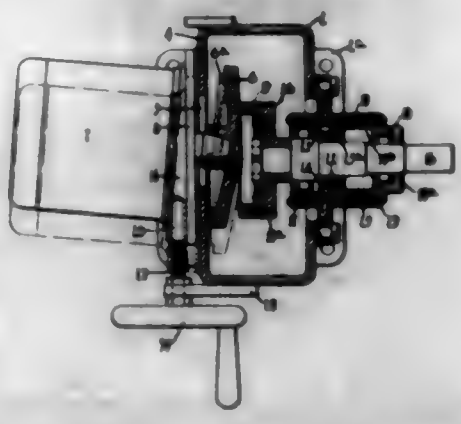
A driving member and a driven member, a speed governor and a variable reduction gear arranged between said driving member and said driven member, said speed governor comprising an arbitrarily chosen centrifugal device operatively connected to said driving member and controlling said variable reduction gear, said gear comprising a conical body and a circular disc in engagement with said conical body, the shape of said body being accommodated to the regulation characteristic of said centrifugal device, said conical body being operatively connected to said centrifugal device and being by this device displaced along its rotational axis in relation to the circular disc, whereby at the speed variations of the driving member the product of the speed of said last mentioned member and the radius of said conical body in the engagement point of said circular disc is constant, the rotary motion of said circular disc being transferred from said disc to said driven member.

2,842,001

VARIABLE SPEED TRANSMISSION DEVICE

Colin Alfred Hunting, Sandringham, Victoria, Australia

Application October 26, 1954, Serial No. 464,733
6 Claims. (Cl. 74—191)



1. A variable speed transmission device of the kind indicated comprising a main supporting casing upon which is slidably secured by means of a slidable motor supporting plate an electric motor mounted at an inclination to the plane of the supporting casing wall and adapted to traverse the casing wall under the influence of a rotatable screw retained by a bracket secured to the casing and which cooperatively engages a female threaded orifice in a thickened portion of the motor supporting plate, a conical driving disc mounted at the extremity of a motor driving shaft projecting within the casing maintained in frictional engagement with the upraised annular rim of a replaceable frictional element secured to a metal supporting member attached to the inner extremity of a driven shaft itself supported by a thrust bearing assembly retained in a tubular housing formed by an extension of the main supporting casing, said plane of said casing wall being perpendicular to the axis of said driven shaft.

2,842,002

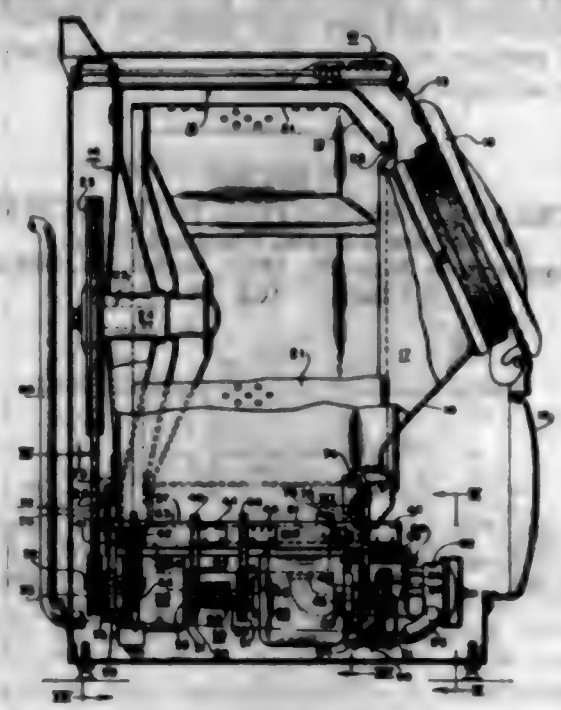
DRIVING UNIT FOR A LAUNDRY MACHINE

Norman A. Stegman, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 5, 1955, Serial No. 551,100
5 Claims. (Cl. 74—217)

5. In a multiple speed power unit, the combination of a motor having a shaft, a multiple speed mechanism having laterally spaced, power input and power output shafts and including means for adjusting the speed of the power output shaft, said power input shaft being axially aligned with the motor shaft and coupled thereto, a frame structure including means for supporting the motor, a pair of brackets carried by the frame and having respective arcuate saddles formed in the ends thereof, said multiple speed mechanism having a pair of spaced annular shoulders coaxial with the input shaft for the support of the

multiple speed mechanism, respective resilient rings encompassing the annular shoulders and seated in the arcuate saddles, clamps carried by the brackets and engaging the respective rings for retaining the latter in engagement



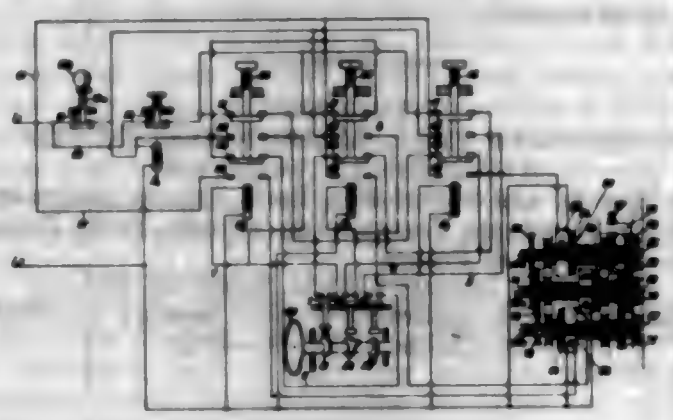
with the saddles and providing for arcuate movement of the multiple speed mechanism relative the brackets, and means interposed between the frame structure and the multiple speed mechanism for biasing the latter about said saddles in a predetermined direction.

2,842,003

ELECTRICAL CONTROL APPARATUS

Hubert Fussangel, Berlin-Mariendorf, Germany, assignor to Firma Fritz Werner Aktiengesellschaft, Berlin-Marienfelde, Germany

Application July 9, 1953, Serial No. 367,891
3 Claims. (Cl. 74—365)



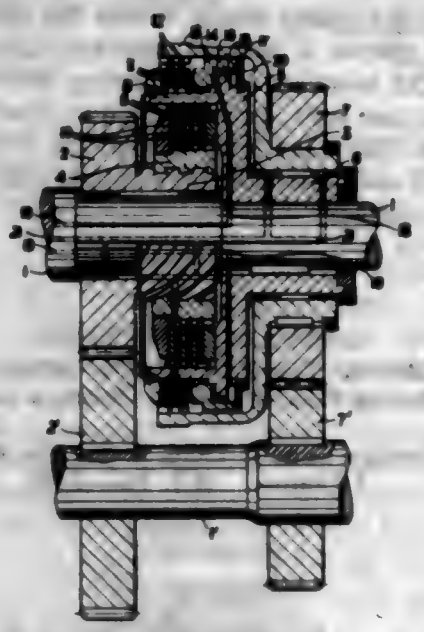
1. Electrical control apparatus comprising, in combination, a plurality of electrical control devices adapted to be selectively energized; a plurality of electrically conductive lines respectively leading to said control devices for feeding current thereto; a plurality of selector circuits equal to the number of control devices and each including a selector switch; mechanical actuating means operatively connected to said selector switches of said selector circuits for selectively closing one of said selector switches; a plurality of holding circuits respectively bridging said selector circuits; a plurality of control relays having their coils electrically connected respectively to said holding circuits and to said selector circuits bridged thereby, said control relays respectively including a plurality of first normally open switches respectively located in said lines leading to said control devices and a plurality of second normally open switches respectively located in said holding circuits; an additional electrically conductive line leading to said selector circuits for feeding current thereto; an additional relay having its coil connected in parallel with said holding circuits and having a normally closed switch located in said additional line; and a control switch electrically connected to said holding circuits and additional relay for directing current to said holding circuits and additional relay when said control switch is closed, whereby when said control switch is open said holding circuits are open and said normally closed switch of said additional relay is closed to feed current through that one of said selector circuits which includes said one selector switch to energize that one of said control relays which is connected to said one selector circuit and thereby close the pair of normally open switches of said one control relay and whereby when said control switch is closed current will flow through the holding circuit including one of the normally open switches of said one control relay to maintain the latter relay energized and to maintain the control device electrically connected to the other of the normally open switches of said one control relay energized.

2,842,004

DOUBLE CLUTCH

Ernst Lammers and Hugo Raabeneck, Essen, Germany, assignors to Aktiengesellschaft für Unternehmungen der Eisen- und Stahlindustrie, Essen, Germany

Application August 17, 1954, Serial No. 450,424
Claims priority, application Germany August 24, 1953
8 Claims. (Cl. 74—368)



1. In combination in a double clutch: a rotatable shaft, a first gear freely rotatably supported by said shaft and provided with a threaded collar, an overrunning clutch comprising a plurality of discs and a disc-supporting member engaging the thread of said collar, said discs being arranged for selectively engaging or disengaging each other depending on the relative movement between said threaded collar and said disc-supporting member to thereby selectively drivingly connect or disconnect said first gear and said shaft, a shiftable clutch comprising a plurality of discs surrounding said overrunning clutch, fluid operable means operable selectively for causing the discs of said shiftable clutch selectively to engage or disengage each other, a second gear arranged for driving connection with said shiftable clutch for selectively drivingly connecting or disconnecting said shaft with said second gear, and a gear train drivingly connecting said first gear with said second gear.

2,842,005

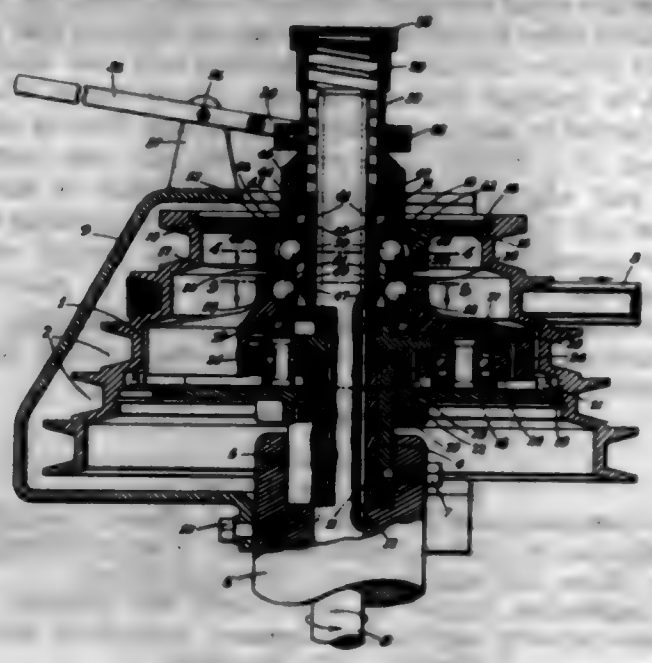
PULLEY UNIT

Russell E. Dunnibee, Lodi, Calif.

Application October 29, 1956, Serial No. 619,009
9 Claims. (Cl. 74—374)

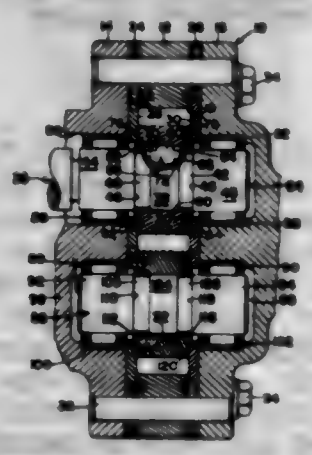
1. A change-speed pulley unit, adapted to drive a spindle projecting from a stationary part, comprising a

hollow pulley concentric to the spindle, a rotary sleeve surrounding the spindle for a portion of its length in driving relation, a fixed sleeve attached to the stationary part and surrounding the rotary sleeve, the sleeves extending axially into the pulley, the latter being rotatably supported from the fixed sleeve, a cylindrical member formed



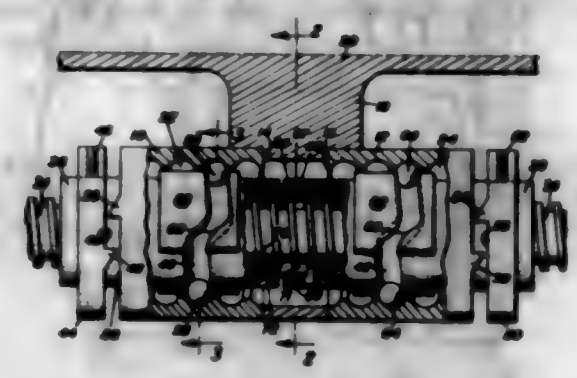
coaxially on the rotary sleeve within the pulley and clear of the fixed sleeve, a pair of separate hubs surrounding the cylindrical member, direct-driving means connecting the pulley to one hub, speed reduction means connecting the pulley to the other hub, and clutch means operative to selectively and independently couple said hubs to said cylindrical member.

2,842,006
DRIVE MECHANISM
John H. Edman, Waterloo, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application June 1, 1954, Serial No. 433,512
4 Claims. (Cl. 74—434)



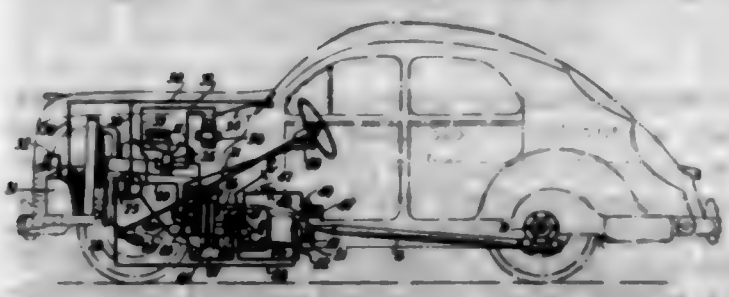
1. Drive means of the character described, comprising: a support having a pair of parallel spaced walls; a shaft member journaled at its opposite ends respectively in the walls for rotation on an axis normal to the walls and having an axial keyway in that portion of its outer surface between the walls; a rotor member having a central bore loosely received by the shaft member between the walls and further having opposite radial faces respectively juxtaposed relative to the walls so that the walls limit axial displacement of the rotor member relative to the support, said rotor member having an axial keyway in its bore in register with the shaft member keyway and a driving key connecting the rotor and shaft members for rotation in unison and including one part received in one keyway and an integral part projecting radially therefrom into the other keyway, said radially projecting part having a keyway-engaging central portion midway between the walls and axially spaced end portions flanking said central portion and lying within the length of said other keyway, said end portions being of reduced circumferential thickness as respects the keyway and said central portion so as to be free from intimate driving contact with said other keyway.

2,842,007
BACKLASH ELIMINATING NUT MECHANISM
Martin L. Brant, Portland, Oreg.
Application June 26, 1957, Serial No. 668,130
5 Claims. (Cl. 74—441)



1. A backlash eliminating nut mechanism comprising a cylindrical outer shell provided with an internal ball race and having longitudinally extending lugs, a feed screw concentrically positioned within said cylindrical outer shell, nuts threaded on said feed screw and provided with an external ball race, rotatable means concentrically secured to said nuts and provided with longitudinally extending lugs projecting inwardly, means disposed in and between said internal ball race and said external bearing ball race for urging said nuts axially outwardly, bearing ball retaining means concentrically disposed on said nut, and means secured to the interior ends of said nuts to impart torque thereto in opposite directions thereof.

2,842,008
OVERDRIVE TRANSMISSION SYSTEM FOR AUTOMOBILE VEHICLES
Jean Maurice and Michel Rist, Paris, France, assignors to Societe Anonyme Francaise du Ferodo, Paris, France, a corporation of France
Application January 4, 1956, Serial No. 557,352
Claims priority, application France January 17, 1955
11 Claims. (Cl. 74—472)

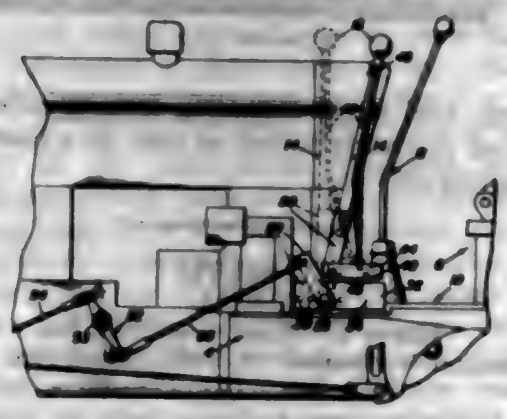


1. An improved overdrive transmission system for automobile vehicles, including an engine, an accelerator pedal for said engine, a clutch, a gear-changing member and a gear-box with an over-drive gear device, said system comprising: clutch-actuating means for engaging and disengaging the said clutch; a kick-down device for controlling the operation of the said over-drive device; and means for co-ordinating the action of said clutch-actuating means and said kick-down device, whereby the clutch is disengaged when the said pedal is fully depressed and the operating member of the said kick-down device is thus actuated so as to pass from the over-drive to direct-drive gear.

2,842,009
OPERATING LEVER FOR FARM TRACTOR TORQUE AMPLIFIER

Robert H. Schumann, Ida Grove, Iowa

Application July 18, 1955, Serial No. 522,549
1 Claim. (Cl. 74—491)

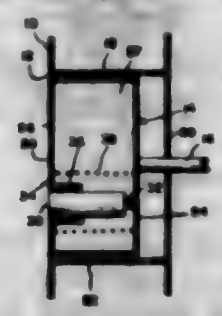


For use in conjunction with a torque amplifying means employed, for example, on the International Harvester "Farmall 300" Tractor, an adapter bracket designed to be fastened and anchored at a given place of vantage on said tractor, said bracket comprising an angle iron having horizontal and vertical flanges, a lengthwise edge portion of said horizontal flange being adapted to be fixed on a stationary part of the tractor frame and being provided intermediate its ends with a clearance notch opening through said edge portion, a rocker shaft parallel to and situated beneath said horizontal flange and mounted for angular rotation in a bearing hole provided therefor in the vertical flange, said bearing hole situated at the median portion of said notch, a rocker arm fixed at its lower end to one end portion of said rocker shaft and operable back and forth in said clearance notch and extending above the plane of said horizontal flange, a lever in alignment with said rocker arm and having its lower end overlapped and fixed to the upper end portion of said rocker arm, a second rocker arm shorter than the first rocker arm secured to the opposite end of said rocker shaft and paralleling and located on one side of the vertical flange of said bracket, said second named rocker arm being adapted to accommodate a push-pull link which is operatively connectible, with complemental torque amplifying means, a keeper fixed transversely atop said horizontal flange at one end portion of said clearance notch, a latch pivotally mounted on said first named rocker arm and having a free end portion provided with a keeper notch releasably engageable with said keeper, a trip finger pivotally mounted on the upper end portion of said lever, and an operating member affording an operating connection between the trip finger and an intermediate portion of said latch.

2,842,010
FLUSH PANEL CRANK CONSTRUCTION

Julius Young, Detroit, and Benjamin W. Colman, Berkley, Mich.

Application March 22, 1955, Serial No. 495,988
7 Claims. (Cl. 74—504)

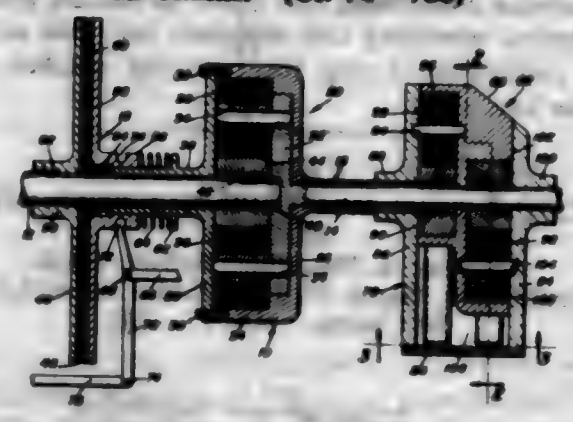


3. In a digitally operable mechanism, a panel having an opening, a member rotatable in said opening on a shaft arranged substantially normal to the plane of said panel, a digitally operated handle mounted fixedly and eccentrically on said member substantially parallel to the rotation axis of said member, said handle terminating at its digital end adjacent the plane of said panel, a movable protecting and finishing plate arranged in the plane of said panel about said handle, said plate being inwardly shiftable against resilient means to permit grasping of said handle for rotation of said member on said shaft, said resilient means urging said plate back into flush alignment with said panel and said handle's digital end to provide a flush appearance in said panel.

2,842,011
VARIABLE SPEED AND TORQUE TRANSMISSION

Carl Skowron, Salem, Ohio

Application April 16, 1956, Serial No. 578,418
11 Claims. (Cl. 74—786)

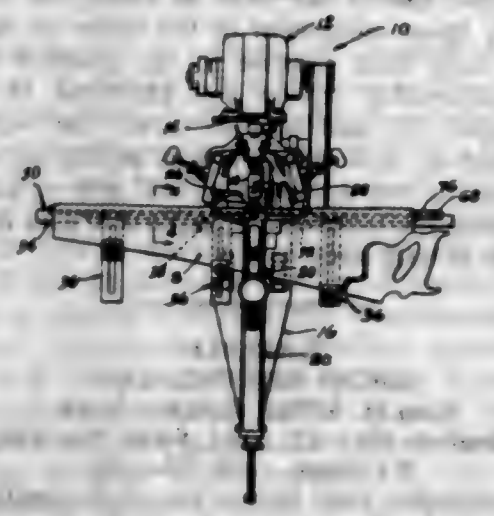


1. A variable speed and torque transmission comprising a planetary gear unit and a pump unit, said planetary gear unit including an input shaft, a sun gear on said input shaft, a ring gear surrounding said sun gear, a spider, planetary gears carried by said spider meshed between said sun and ring gears, an output shaft connected to said spider, a control shaft connected to said ring gear, said pump unit comprising first and second pumps connected to said output and control shafts, respectively, said pumps being mounted within a single housing, said output shaft extending through said housing, said control shaft being disposed concentric to said output shaft, and valve means controlling operation of said first and second pumps to control rotation of said ring gear and said spider whereby direction of rotation and speed of said output shaft is controlled.

2,842,012
SAW ADVANCE MEANS FOR AUTOMATIC SAW FILINGS

Iver J. Nelson, Merrill, and Arlo R. Nelson, Rhinelander, Wis.

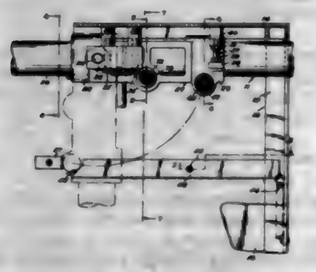
Application March 29, 1957, Serial No. 649,540
2 Claims. (Cl. 76—35)



1. A saw tooth filing machine comprising a face plate, a horizontal slideway extending along one side of said face

plate, a guide bar sliding in said slideway, saw blade clamping means on and depending from said guide bar, said guide bar having an outer side, longitudinally spaced blocks secured to said outer side of the guide bar having horizontal legs, first upstanding pins on said horizontal legs, a support bar extending along said guide bar and resting upon said horizontal legs, said support bar having upper and lower edges, the lower edge of the support bar having therein sockets receiving the block pins, second upstanding pins on the upper edge of the support bar, a template bar extending along and resting upon said support bar and having upper and lower edges, sockets in the lower edge of the template bar receiving said second pins of the support bar, saw tooth indexing notches in the upper edge of said template bar, said support bar and said template bar having aligned outer saw blade engaging sides in line with said clamping means, said machine comprising saw blade advancing means and filing means overlying said template bar, said advancing means comprising a dog for engaging notches of said template bar.

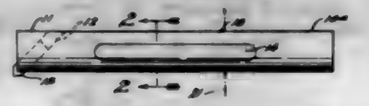
2,842,013
MACHINE TOOL WITH SPINDLE SUPPORTING BOOM
Anthony A. Muehling, Detroit, Mich.
Application March 29, 1954, Serial No. 419,339
10 Claims. (Cl. 77—31)



6. In a machine tool, a frame structure, a boom having tool actuating means supported thereon adjacent one end thereof, means mounting the boom on the frame structure for swinging movement about an axis extending perpendicular to the longitudinal axis of the boom between positions wherein the longitudinal axis of the boom extends generally horizontally and generally vertically with respect to the frame structure, an arm pivoted intermediate the ends thereof on the frame structure for swinging movement about an axis extending parallel to the axis of swinging movement of said boom, said boom having a part movable therewith and engageable with one end of the arm to swing the latter end downwardly upon movement of the boom to its vertical position, a stop fixed relative to the machine frame in opposed relationship to the end aforesaid of the arm and engageable by said part to locate the boom in its vertical position, and spring means acting on said arm for swinging the end aforesaid of said arm upwardly to a position where the latter end engages said part in opposed relationship to said stop.

2,842,014
RIGID BORING BAR
Paul H. Miller, Berkley, Mich.
Application May 17, 1954, Serial No. 430,127
9 Claims. (Cl. 77—58)

2. A composite, rigid boring bar of the cantilever type comprising a shank section and a tool-gripping head of steel, a plurality of strips of a cemented carbide, said strips having a depth of at least 15% and a width of at least 25% of the diameter of said shank section and being anchored in place in longitudinal slots located in



said shank, said strips extending from a point adjacent to said tool mounting means at least to a point adjacent said mounting portion.

2,842,015
DRILL
Harry E. Miller, Gallitzin, Pa.
Application November 12, 1954, Serial No. 468,339
2 Claims. (Cl. 77—65)



1. A compound drill device comprising an elongated shank adapted to be secured to the rotating spindle of a drill, said shank having an inwardly extending tapered socket in one end thereof, a peripheral flange on said shank at said one end, a plurality of longitudinally disposed tapered bores extending through said flange, a tapered bit disposed in each of said tapered bores for forming a cutting device, said flange having circumferentially spaced grooves in the periphery thereof for permitting passage of cut material, an elongated bit having a tapered upper end disposed in said tapered socket, said elongated bit extending axially beyond the tapered bits for forming an auxiliary cutting means said elongated bit extending to the lower end of the flange with the upper end disposed above the flange, and a setscrew for locking the upper end in the socket.

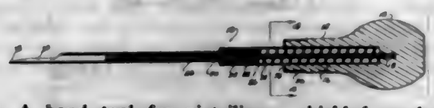
2,842,016
CABLE DRESSING TOOL
Kenneth T. Miller, Longmeadow, Mass.
Application September 10, 1956, Serial No. 608,864
2 Claims. (Cl. 81—9.5)



2. A tool to facilitate removal of insulating material about spaced parallel conductors by slitting the insula-

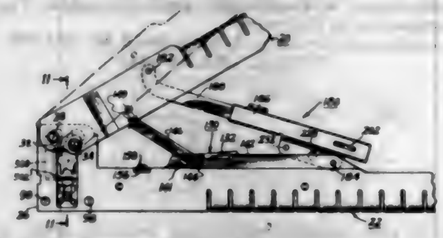
tion along and between the conductors comprising, a pair of elongated members having lower handles and elongated upper jaws and portions intermediate said handles and jaws being in superposed relation, a pivotal connection between said intermediate portions for the swinging of said handles and jaws between open and closed positions, said jaws having flat upper and lower faces, said jaws being bent relative to their respective handles in a direction at right angles to the axis of said pivotal connection and then bent in a direction parallel to said axis whereby the corresponding faces of said jaws are disposed in the same plane, elongated blocks secured to corresponding faces of said jaws extending outwardly along said faces having longitudinal inner faces extending radially outwardly from said pivotal connection and arranged for abutment in the closed position of said jaws, said inner faces of said blocks being provided with longitudinally extending channel grooves arranged to form in abutting relation of said inner faces of said blocks an open ended channel extending radially outwardly of said pivotal connection for the passage of a cable therethrough lengthwise of the tool, and a knife secured in one of said blocks having an outer slitting edge arranged to extend across the channel in the closed position of said jaws.

2,842,017
HAND WIRE STRIPPER
Harold R. Watson, Victorville, Calif.
Application May 24, 1957, Serial No. 661,359
4 Claims. (Cl. 81—9.5)



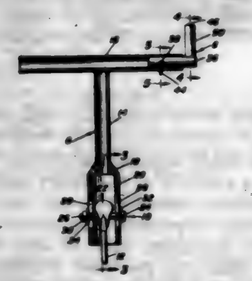
1. A hand tool for pigtailing a shielded conductor comprising an elongated hollow tubular member having an end portion thereof cut away and terminating in a point, a rod mounted for reciprocation within said tubular member, said rod having one of its ends projecting beyond the other end of said tubular member and its other end being normally disposed within said tubular member adjacent to but spaced from said pointed end, and resilient means constantly tending to urge said rod and tubular member for movement away from each other.

2,842,018
RATCHET TYPE HAND TOOL FOR SEVERING AND CRIMPING MAGAZINE FED ELECTRICAL CONNECTORS
Kemper M. Hammell, Harrisburg, and George S. Reider, Jr., Highspire, Pa., assignors to AMP Incorporated, a corporation of New Jersey
Application December 8, 1955, Serial No. 551,799
6 Claims. (Cl. 81—15)



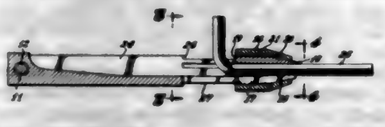
1. A hand operated crimping tool having a pair of dies movable toward each other into crimping position, a pair of handles for urging said dies toward or away from each other, a pair of relatively slidable members constituting a linkage between the handles, a slot in one of the slidable members, said slot having a narrowed portion, a pin movable in the slot and secured to the second member, said pin including a body with a reduced portion, whereby the handles may be moved away from each other until the pin body engages the narrow portion of the slot, at which time the movement of the handles may be continued by adjusting the pin to permit the reduced portion to engage the narrow portion of the slot.

2,842,019
ANCHOR ROD PULLER
Arthur W. Huser, Mount Vernon, Mo.
Application April 24, 1957, Serial No. 654,853
2 Claims. (Cl. 81—53)



1. An anchor rod puller comprising a socket member for telescopic reception of the usual eye-equipped upper end of the anchor rod, said socket member having diametrically opposite elongated slots therein adapted to register with the eye on said rod, a bolt having end portions removably mounted in the slots and adapted to extend through the eye and to thus mechanically and operably connect the eye with the socket member, and handle means carried by said socket member, comprising a T-shaped member, the companion portions of which are of hollow tubular form, one portion constituting a shank and being connected with the socket member, and the other portion a handle the end portions of which are adapted to receive a readily attachable and detachable crank-like hand-grip.

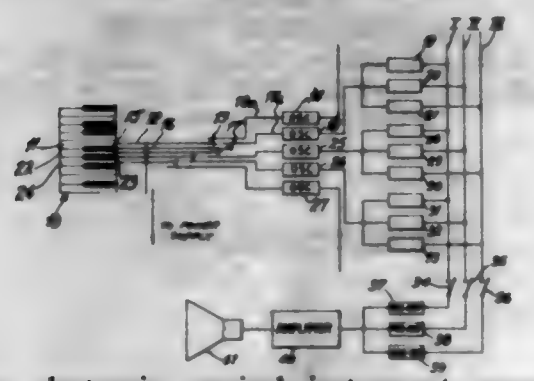
2,842,020
WRENCH HOLDER
Carl S. Tarquinio, Los Angeles, Calif.
Application March 3, 1955, Serial No. 491,961
4 Claims. (Cl. 81—177)



1. A tool holder to engage and increase the effective length of an L-shaped Allen-type wrench having a relatively long longitudinal shank and a shorter lateral shank, comprising: an elongated body to serve as a longitudinal extension for said longitudinal shank of the wrench; a plurality of jaws on one end of said body forming a passage on the axis of the body to receive said longitudinal shank; and means including a circumferentially continuous sleeve to tighten said jaws into engagement with said shank, said body having a longitudinal groove opening on the side of the body, said groove being in communication with and aligned with said jaw passage, said groove being wider than said longitudinal shank, the length of said groove being at least approximately the length of the longitudinal shank to serve as an entrance for the longitudinal shank into said jaw passage for engagement of the longitudinal shank by said jaws at a position of the

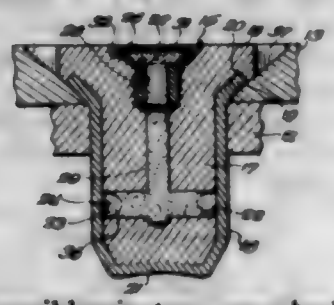
longitudinal shank in which said lateral shank extends out of the groove adjacent the inner end of the jaw passage.

2,842,021
ELECTRONIC MUSICAL INSTRUMENT
Paul B. Ouciey, Princeton, N. J., assignor to Guiton Industries, Inc., Metuchen, N. J., a corporation of New Jersey
Application May 17, 1955, Serial No. 508,936
4 Claims. (Cl. 84—1.01)



1. An electronic musical instrument comprising in combination a plurality of oscillators, each characterized by a substantially sinusoidal output current, individual shaping circuits respectively interposed in the output paths of said oscillators, each of said shaping circuits including at least one reactance element comprising a material selected from the group consisting of ferroelectric and ferromagnetic materials.

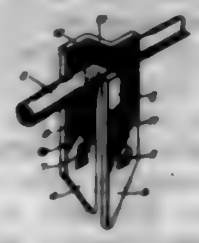
2,842,022
EXPLOSIVE RIVET HAVING TUBULAR EXPANSION SHELL
Walter A. Semmion, Los Angeles, Calif.
Application November 4, 1953, Serial No. 390,114
16 Claims. (Cl. 85—40)



16. In an expansible rivet: a core body comprising a shank and a head integral with said shank; a tubular shell surrounding said shank, attached and sealed at one end to the body adjacent the junction between said head and shank, and sealed at its other end to define, with said shank, an expansible annular chamber which, in the unexpanded rivet, is substantially filled by said shank; said shank having a cylindrical wall provided with an annular channel communicating with said chamber and opening to the shell, said body having means extending from siad head axially in said shank and to said channel for communicating an ignition impulse thereto; and an explosive charge in said channel, facing the inner wall of said shell and adapted, when ignited, to apply to said shell an expanding force for bulbing said shell, said shell being of sleeve form, with its end remote from said head being anchored and sealed to and closed by the end of said shank.

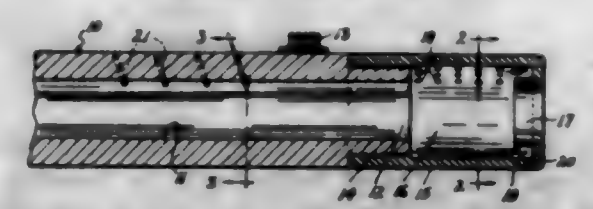
2,842,023
SHEET METAL STAPLE WITH INWARDLY LANCED WIRE SECURING TABS
John V. Majewski, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application March 16, 1955, Serial No. 494,648
3 Claims. (Cl. 85—49)

1. A fastener formed from a sheet metal blank and adapted to be driven into a support for securing an electric wire thereto and comprising a member having opposed planar leg portions joined by a transverse portion, said transverse portion jointly providing a driving surface and a bight surface engageable with said wire, opposed resilient tongue-like tabs lanced inwardly of each of said leg portions, said tabs being of relatively different lengths and each having a free end extending towards said bight portion, the free end of the relatively shorter tab being



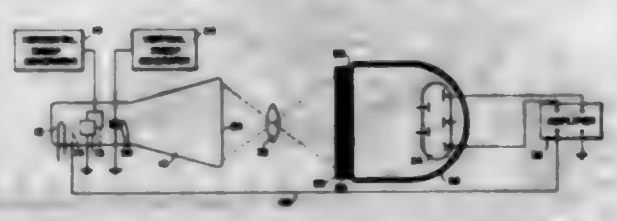
spaced from said bight portion a sufficient distance to permit sliding engagement with said wire in a direction extending longitudinally of the legs and towards said bight portion and to further oppose movement of said wire in an opposite direction, the relatively longer of said resilient tabs being biased inwardly of the leg portions and being arranged to press said wire against the opposite leg portion, whereby said tabs are arranged to maintain electrical engagement of said fastener with said wire.

2,842,024
ANTI-RECOIL GUN BARRELS
John F. Matter, Pendleton, Oreg.
Application December 7, 1954, Serial No. 473,652
1 Claim. (Cl. 89—14)



An anti-recoil gun barrel having a muzzle portion provided only at the top thereof at opposite sides of its axis with longitudinally extending rows of rearwardly inclined ventilating apertures, said muzzle portion also being provided forwardly of said apertures with an enlarged gas chamber having a lateral wall provided only in its upper portion with rows of gas outlet openings, the side and bottom portions of said muzzle portion and of said lateral wall of said gas chamber being imperforate, and a bullet exit provided at the outer end of and re-entrant in said gas chamber coaxially with the bore of the barrel, said bullet exit affording an annular brake head in the front end portion of said gas chamber.

2,842,025
PHOTOGRAPHIC METHOD
Dwin R. Craig, Falls Church, Va., assignor, by mesne assignments, to LogEtronics, Inc., Alexandria, Va., a corporation of Delaware
Application September 2, 1954, Serial No. 453,747
9 Claims. (Cl. 88—24)



1. A photographic method for reducing gross contrast and substantially increasing detail contrast of elemental areas lacking in contrast comprising energizing a light source to produce a variable light beam, directing said beam to illuminate an elemental area of a subject to be reproduced with a spot of the same area, scanning

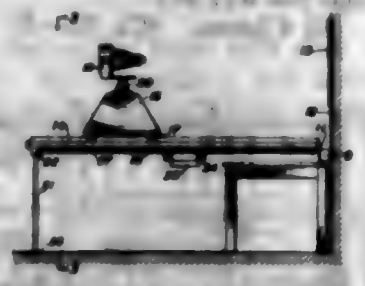
said subject with said spot and directing light produced by said spot from each portion of said subject to form a real image on a photosensitive surface and simultaneously expose the same, directing light with equal efficiency from all portions of said photosensitive surface to a light intensity sensing device, and continuously modifying said light beam as a function of the sensed intensity to produce substantially constant average exposure of all elemental areas of the photosensitive surface.

2,842,826

SUPPORTING DEVICE FOR CAMERAS

Richard M. Reese, Madison, and Ivar J. Anderson, Blooming Grove, Wis., assignors to Bjorksten Research Laboratories, Inc., Fitchburg, Wis., a corporation of Illinois

Application May 28, 1956, Serial No. 587,577
3 Claims. (Cl. 88—24)



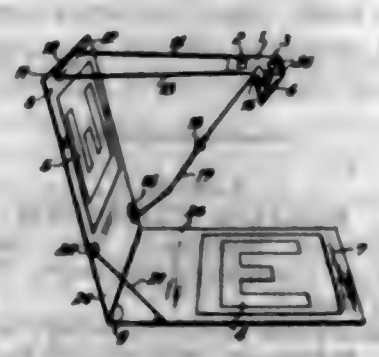
1. A camera supporting device comprising in combination a flat table member having one end attached hingeably to a wall, a leg member hingeably attached to the other end of said table member, rails rigidly attached to the upper surface of said table member, camera supporting means slidably engaging said rails, threaded means disposed in said camera supporting means adapted to frictionally engage said rails and prevent movement of said supporting means with respect thereto, a camera supported by said supporting means, latch means attached to said wall adapted to engage said other end of said table member to thereby maintain said table member in substantially a vertical plane adjacent said wall, two metal rods attached to the underside of said table member and spaced apart therefrom and parallel thereto, camera supporting means slidably attached to said rod, threaded means in said supporting means frictionally engageable with said rods to prevent sliding movement of said supporting means with respect to said rods, and a second horizontal table member disposed horizontally adjacent said wall.

2,842,037

STEREOSCOPIC DEVICE IN THE FORM OF A BOOK

Adriano Betti, Lucca, Italy

Application May 23, 1956, Serial No. 586,865
2 Claims. (Cl. 88—30)



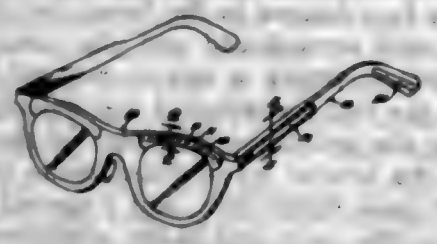
1. A stereoscopic viewing device comprising two covers hinged together at their adjacent side edges to form a folder, a plurality of leaves pivotably secured at the hinge point of the folder to permit turning over in the manner of leaves of a book when the folder is in opened position, the facing surfaces of each adjacent pair of leaves bearing respectively left-hand and right-hand stereoscopic images of a subject and one of said images being formed in mirror-image reversed manner, lug means mounted adjacent the other side edge of one of the leaves, a support pivotably engaged on said lug means for movement about an axis parallel to the hinge of the cover, a double-aperture eye-piece carried on the support, a collapsible stay pivotably coupled at one end to said leaf adjacent the hinge and at the other end to the eye-piece to hold said eye-piece in a predetermined erected position with respect to the cover, and a mirror mounted on the stay adjacent the eye-piece, one aperture of the eye-piece in the erected position thereof permitting viewing of the mirror-image reversed subject image in the mirror and the other aperture permitting direct vision of the other subject image.

2,842,828

PLASTIC SPECTACLE FRAME INLAYS

Austin B. Belgard, Evanston, Ill.

Application June 23, 1953, Serial No. 363,447
1 Claim. (Cl. 88—41)



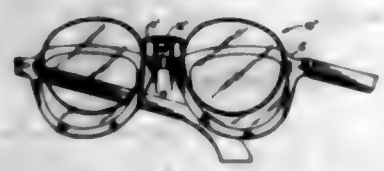
In a temple-equipped spectacle plastic frame, a frame portion having a recess therein with an inner flat surface at the base of the recess, a plastic inlay adapted to be frictionally received within said recess and releasably retained therein by friction, said inlay having also an inner surface adapted to contact the inner surface at the base of said recess, at least one of said inner surfaces being provided with indentations adapted to receive adhesive, an outer shell carried by said plastic inlay and adapted, when said inlay is within said recess, to lie flush against the surface of the frame to cover the marginal portions of said recess, and a solvent adhesive bond within said indentations and uniting said inlay to said frame within said recess.

2,842,029

ATTACHMENT FOR SPECTACLES

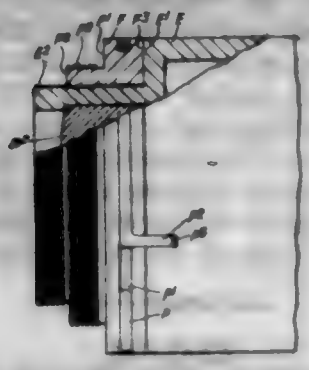
Aaron Roth, Brooklyn, N. Y.

Application December 13, 1954, Serial No. 474,883
5 Claims. (Cl. 88—41)



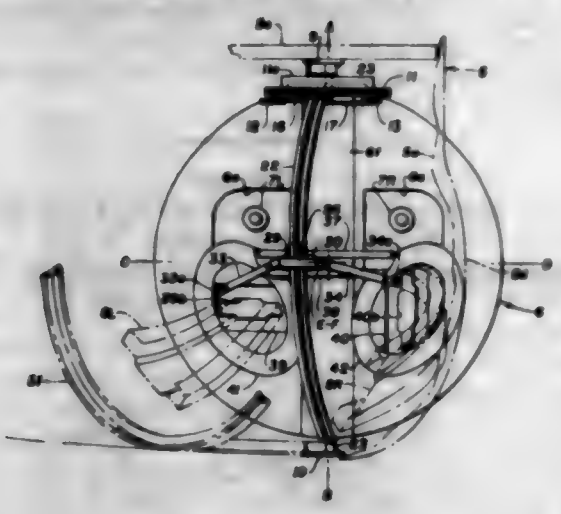
1. The combination of a spectacle frame and an auxiliary bowless lens frame for selective use in front of the spectacle frame, comprising a spectacle frame bridge member means providing vertical bore means, said auxiliary bowless frame carrying lens means and having a horizontal bar interconnecting the lens carrying means, elongated rod means carried by said bar means, said bore means and rod means frictionally engaging each other whereby said bowless lens frame may be lowered to a desired position directly in front of the spectacle frame or elevated to a desired position up to a level where the lower edge of the bowless frame is above the field of vision thru the spectacle.

2,842,630
MOUNTS FOR PHOTOGRAPHIC LENSES
John Walter Geddes, Leicester, England, assignor to Taylor, Taylor & Hobson Limited, Leicester, England, a company of Great Britain
Application November 13, 1956, Serial No. 621,623
Claims priority, application Great Britain November 23, 1955
15 Claims. (Cl. 88—57)



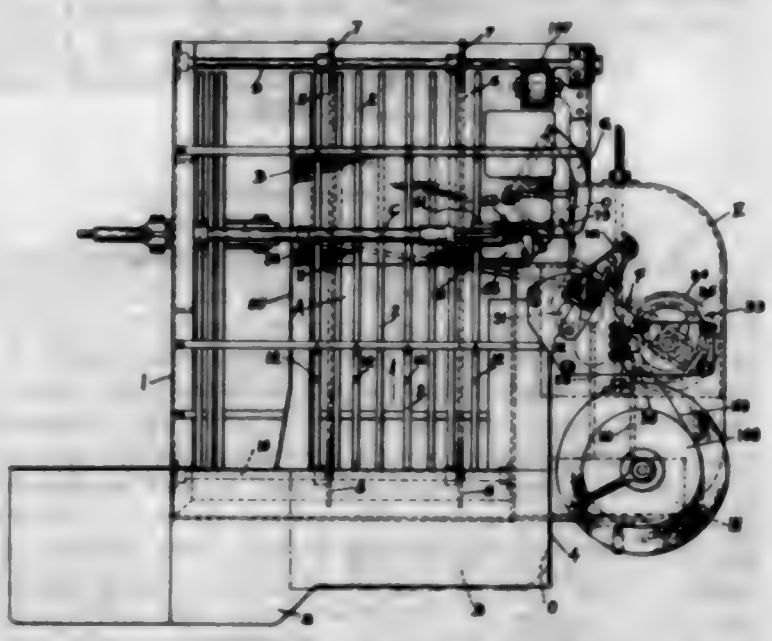
1. A lens mount intended for alternative use with each of two types of camera requiring camera fittings of different sizes on the mount, including an external screw-thread constituting part of the first camera fitting, a back flange face located at the front end of the operative part of such screwthread and also constituting part of the first camera fitting, a second external screwthread coaxial with the first screwthread and having a diameter not less than the maximum diameter of the same back flange face, the second screwthread being positioned in front of such back flange face, and a second back flange face located at the front end of the operative part of the second screwthread, the second screwthread and the second back flange face together constituting the second camera fitting.

2,842,631
TURRET INSTALLATION WITH AMMUNITION FEED MECHANISM
Quinton C. Johnson, Torrance, Calif., assignor to North American Aviation, Inc.
Application November 17, 1954, Serial No. 469,497
9 Claims. (Cl. 89—37.5)



1. In a gun turret installation, an aircraft body, a turret having a pivotal mounting relative to said body positioned for rotation within an opening in said body, a drive member fixed to said turret, an arcuate track member coaxially mounted upon said turret pivotal mounting for rotation therewith and with respect thereto, an ammunition feed chute extending from within said body through a wall of said turret to the interior thereof, pivotal means operatively connecting said drive member with said arcuate track member engageable with said body for imparting relative pivotal movement to said track member through a lesser angle in the same direction as said driven movement of said turret secondary guide means carried by said turret disposed normal to said track member for reception of a roller means, roller means for engaging both said track member and said secondary guide means, and ammunition chute guide means movably mounted upon said turret for positioning by said roller means in accordance with the relative movement of said track member with respect to said turret for coordinated guidance of the ammunition feed chute in accordance with the pivotal movement of said gun turret to provide greater clearance as said feed chute is rotated with said turret toward said body opening.

2,842,632
SLEEVING APPARATUS FOR VALVED PAPER BAGS
George W. Mosser, Wellsburg, W. Va., assignor, by mesne assignments, to Hudson Pulp & Paper Corp., New York, N. Y., a corporation of Maine
Continuation of abandoned application Serial No. 295,673, June 26, 1952. This application September 19, 1956, Serial No. 611,093
32 Claims. (Cl. 93—8)

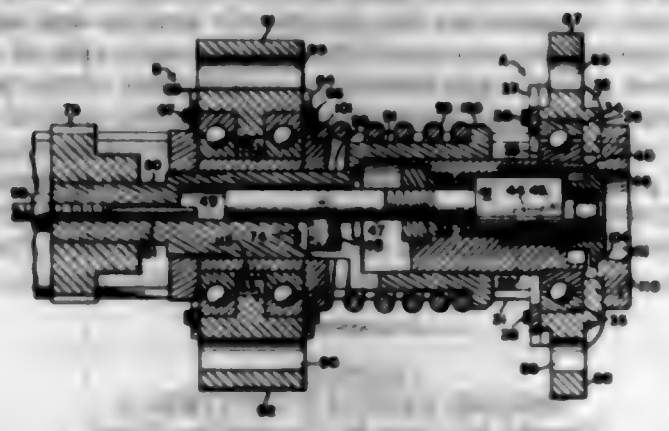


1. Apparatus for applying sleeves to the valve portions of paper bags comprising a conveyor on which the bags are received for movement thereby in a direction transversely of their longitudinal axes from a receiving station to a discharging station, means operating the conveyor to move each bag to a sleeve applying position, separate gripping means respectively positioned at opposite sides of the bag when in said position for gripping engagement with opposite faces of the bag at points adjacent its open end and spaced inwardly of the valve portion thereof and for moving said faces apart from each other to unfold the valve portion, sleeve applying means comprising a frame mounted for pivotal movement and having a sleeve supporting plate onto which a sleeve may be fed and supported in a position at one side of valve portion, and means for pivoting said frame when a bag valve portion is unfolded to bodily move the sleeve supported thereby from a sleeve receiving position to a position superimposed against the unfolded valve portion for attachment thereto.

2,842,633
BOTTOM EXPANDER
Albert A. Heyman, Baltimore, Md., assignor to The Maryland Cup Company, Baltimore, Md., a corporation of Maryland
Application June 14, 1956, Serial No. 591,438
5 Claims. (Cl. 93—36.5)

2. In a bottom expander for paper cups having a forward section and a rearward section movable relative to each other, a barrel carried by the forward section, said barrel having an eccentric bore extending parallel to

the direction of relative motion of said sections, a core member rotatably mounted in said bore, said core having an eccentric aperture parallel to the bore, a first shaft mounted in said aperture, a second shaft connected to



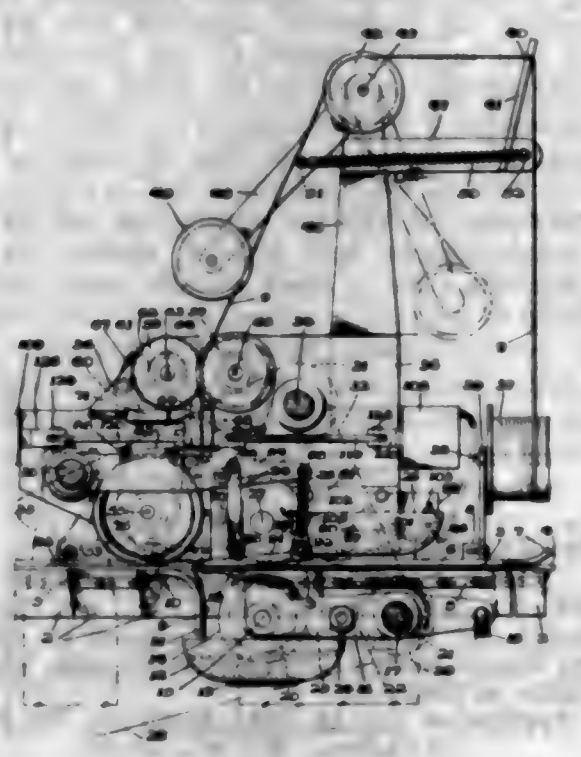
and extending rearwardly from said core, means in said rearward section for supporting the second shaft, and means for rotating the second shaft when said sections move relative to each other.

2,842,834

MACHINE FOR APPLYING TEAR TAPE TO CARTON BLANKS

Ingvar L. Tolf, Battle Creek, Mich., assignor to General Foods Corporation, New York, N. Y., a corporation of Delaware

Application February 27, 1953, Serial No. 339,390
12 Claims. (Cl. 93—36.9)



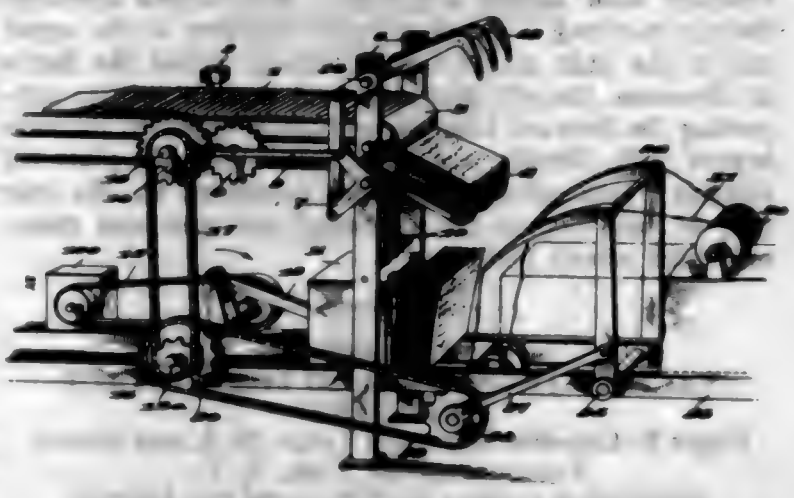
1. A machine for applying tape to carton blanks comprising means for feeding carton blanks through the machine, friction roller means engaging a blank on opposite sides of the line of application of the tape and rotated by said blank during its passage through the machine, means for applying adhesive to the moving blank along said line, a tape supply means, tape feeding means driven by said friction roller means for feeding tape from said supply means to a blank as it moves through the machine, a tape cut-off knife, and knife operating means actuated by a moving blank at a predetermined point in its travel, the locations of said point and of said knife being correlated to cut off the tape at the length desired for application to the blank.

2,842,835

COUNTING AND PACKAGING MACHINE

James F. Larkin, Chattanooga, Tenn.

Original application April 11, 1952, Serial No. 281,821, now Patent No. 2,695,087, dated November 23, 1954. Divided and this application August 13, 1954, Serial No. 450,346
1 Claim. (Cl. 93—93)



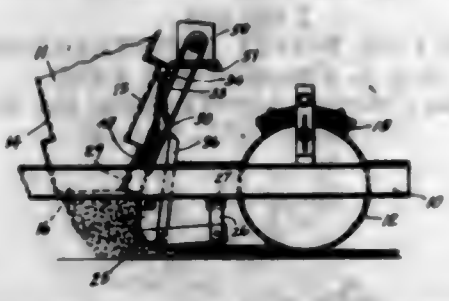
A counting and packaging machine for papers and the like comprising a conveyor for supplying papers to the machine, a transfer carriage comprising a rack mounted adjacent the end of said conveyor to receive papers from the conveyor, a packaging chamber disposed in spaced relation to the conveyor end, means pivotally mounting said transfer carriage for movement between the paper receiving position adjacent the end of said conveyor and a paper discharge position in the packaging chamber, said means including a motor having a rotatable shaft, a fractional revolution clutch connecting the shaft to the carriage, a control element for causing the engagement of the fractional revolution clutch, paper counting means for operating said control element at preselected intervals determined by the papers counted, a package tying arrangement adjacent said packaging chamber, a second fractional revolution clutch connecting said package tying arrangement to said rotating shaft, a second control element for said second clutch, and means connecting said second control element to said counting means for operating said control element at additional preselected intervals determined by the papers counted.

2,842,836

COMPACTING AND SPREADING DEVICE FOR HIGHWAY SURFACING MATERIALS

Ivan J. Overman, Marion, Ind.

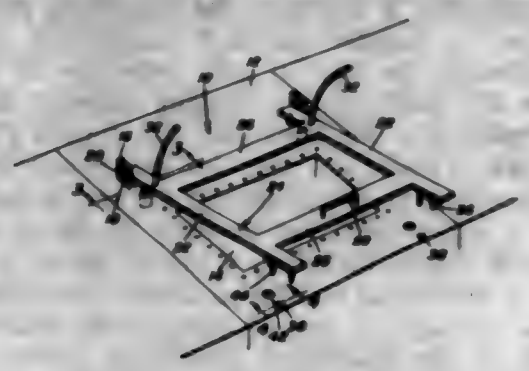
Application November 23, 1953, Serial No. 393,609
1 Claim. (Cl. 94—46)



Apparatus for laying highway surfacing material comprising a frame, rotatable means for supporting said frame, a hopper mounted on said frame and having front and rear walls converging downwardly to form a material discharging throat at the bottom thereof, a screed plate positioned behind and below the rear wall of said hopper and including a baffle member extending upwardly into overlapping relationship with the lower edge of the rear hopper wall, whereby highway surfacing material pushed in front of said baffle may form a vibration transmitting connection between the rear of said hopper and the upper portion of

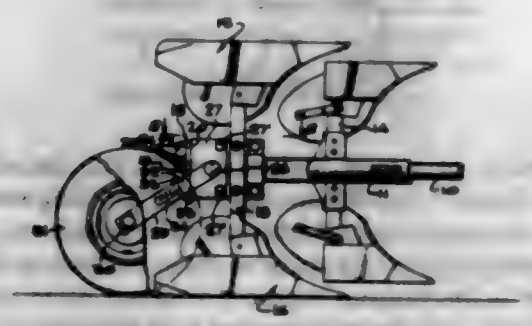
said baffle, means for adjustably mounting said screed plate on said frame with a predetermined degree of play in a vertical direction, said means including members pivotally suspending the rear edge of the screed plate from the frame, spaced brackets mounted on the rear hopper wall, spaced pivotal links for suspending the forward edge of said screed plate from the brackets, said brackets each having a plurality of enlarged openings therein receiving a pin of reduced diameter at the upper end of the links permitting movement within the limits of clearance thereby provided, and tension springs connecting the forward edge of said screed plate to the rear hopper wall, thereby resiliently supporting said plate for vibratory movement, and means supported on the rear wall of said hopper for vibrating said wall and therewith said screed plate.

2,842,837
VACUUM TRANSFER ARM FOR CONTACT PRINTERS
Edgar R. Gobeille, Mountain Lakes, N. J., and Marcel Verdoorner, New York, N. Y.
Application October 6, 1955, Serial No. 538,915
3 Claims. (Cl. 95—76)



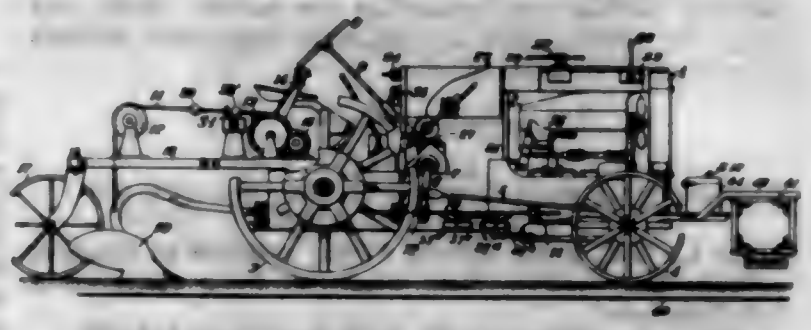
1. A vacuum transfer arm for use with a table surface having an area for holding sensitive material, said arm comprising a pair of rigid side members and a pair of rigid interconnecting members, said members being hollow and communicated with a vacuum source, the undersurface of said members having a plurality of openings communicating with the interior thereof for retaining a film thereon, the table surface having a plurality of sockets with movable pin receptacles therein, said members having depending pins for engagement with the pin receptacles thereby locating and equalizing the arm in relation to the table surface, and means for urging the arm towards the table surface thereby preventing relative movement between the arm and table surface.

2,842,838
PLOW TAIL WHEEL CONSTRUCTION
Roy L. Chandler, Bell, Calif.
Application February 2, 1953, Serial No. 334,578
12 Claims. (Cl. 97—26)



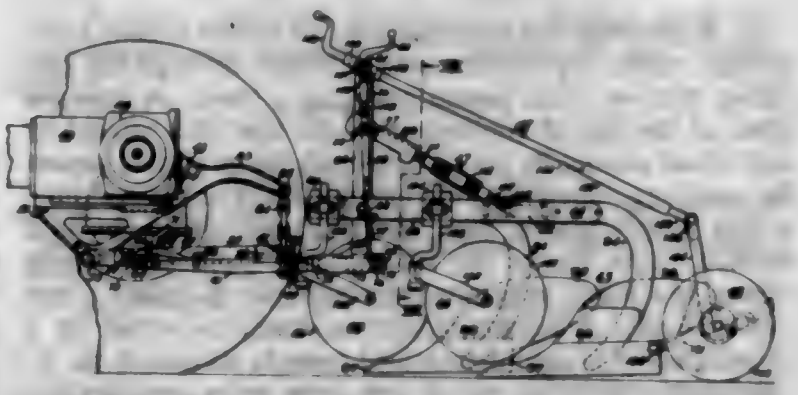
1. In a two-way plow: a fixed support frame, a plow carrying frame mounted on said support frame for swinging movements from one side to the other thereof; a tail wheel; an arm pivotally supporting said tail wheel for unitary movement with said carrying frame, and relative swinging movement about the pivot of said arm; an abutment adjacent said pivot adapted to limit downward swinging movement of the arm on either side of the support frame; a cross-member carried by said support frame having ends positioned on opposite sides of the support frame; adjustable stops at the ends of said cross-member for respectively limiting and varying upward movement of the arm on each side of the support frame; a pin carried by said support frame positioned below said cross-member; a member carried by said arm having a forked outer end adapted to engage said pin and shift the arm from one position of engagement with said abutment to its other position of engagement with said abutment during change of the plow frame from one side to the other of said support frame.

2,842,839
MOTOR VEHICLE CONTROLS
Donald M. Swingle, Cambridge, Mass.
Application May 8, 1950, Serial No. 160,732
4 Claims. (Cl. 97—46.03)



1. In a vehicle having power operated propelling means, power operated direction controlling means for the vehicle, an implement connected with the vehicle, raising and lowering means for the implement, means for automatically controlling the raising and lowering of the implement, a detector unit on the vehicle including a transmitting coil and a plurality of receiving coils on opposite sides of the transmitting coil, a source of A. C. current connected with the transmitting coil for creating an electro-magnetic field adjacent thereto for exciting said receiving coils, a linear metallic guide path strand externally of the vehicle in position to influence the effect of the electro-magnetic field on the respective receiving coils, and electric motor means connected with the receiving coils for operating the vehicle direction control means.

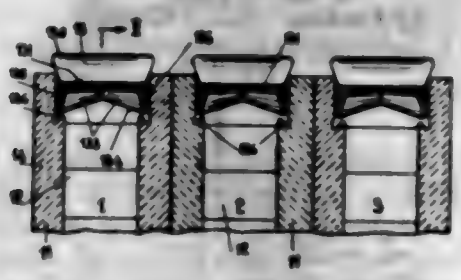
2,842,840
DRAFT MEANS AND DEPTH CONTROL FOR GROUND WORKING IMPLEMENTS
Willard H. Tanke, La Crosse, Wis., and Walter G. Charley, La Crescent, Minn., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a corporation of Delaware
Application July 15, 1947, Serial No. 760,958
33 Claims. (Cl. 97—47.54)



1. An agricultural implement comprising a draft structure adapted for vertically rigid connection with

an up and down adjustable tractor drawbar, an implement support, means connecting said implement support with said draft structure for angular movement relative thereto about a transverse hinge axis, a tillage tool connected with said implement support for movement in unison therewith, and coupling means rigidly interconnecting portions of said implement support and draft structure remote from said hinge axis and including an adjustable part effective to selectively change the angle between said implement support and draft structure while maintaining the rigidity of said interconnection, said coupling means also including additional parts interengaged for release in response to said tool encountering an excessive resistance while advancing in ground engaging position.

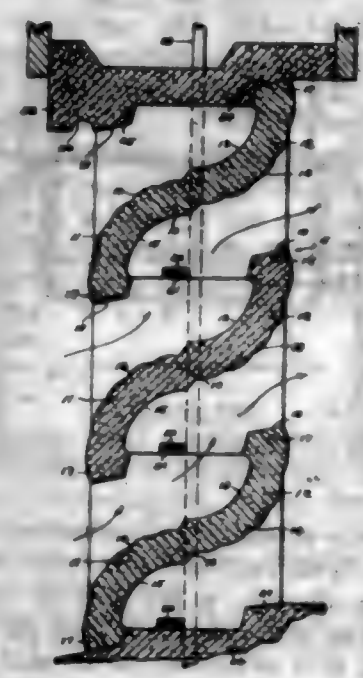
2,842,041
CHIMNEY ATTACHMENT
Armin Burger, Bern, Switzerland
Application November 1, 1954, Serial No. 466,184
Claims priority, application Switzerland November 2, 1953
2 Claims. (Cl. 98—78)



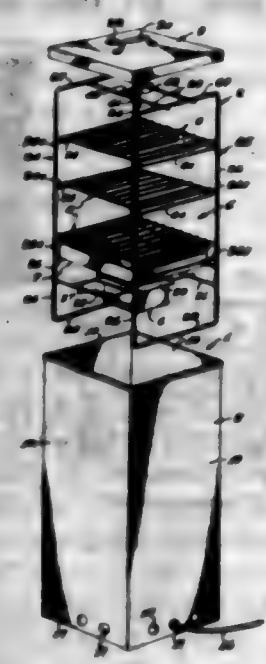
1. In a chimney structure in combination, a rectangular chimney top including two pairs of oppositely arranged wall portions, one pair of said oppositely arranged wall portions being formed with inwardly and upwardly directed air passages; channel means on the inner face of the other pair of said oppositely arranged wall portions inclined toward and communicating with said inwardly and upwardly directed passages in said one pair of oppositely arranged wall portions; and an elongated deflecting member located in said top portion of said chimney structure and extending between said other pair of oppositely arranged wall portions and having a pair of oppositely arranged lower side portions tapering toward the longitudinal plane of symmetry of said deflecting member to form a sharp bottom edge, said bottom edge being inclined downwardly and outwardly from the center of said deflecting member toward and extending with opposite free end portions thereof, respectively over said channel means on the inner face of said other pair of oppositely arranged wall portions thereof, whereby rain water collecting on said deflecting member will be directed into said channel means and by the same into said passages and outwardly of said chimney structure.

2,842,042
VENTILATOR WALL AND WINDOW BLOCKS
Carl Rose, Miami, Fla., assignor to George Munday, Miami, Fla.
Application December 9, 1955, Serial No. 552,055
2 Claims. (Cl. 98—121)

1. A ventilated wall construction formed of a plurality of courses of concrete blocks that are laid in parallel and in end to end abutting relation, the blocks each having air passages extending transversely thereof, each of the blocks at one end having vertically arranged ribs and whereby the blocks in each course are held in spaced relation so that a plurality of courses of the blocks form a vertical void for the full height of the wall that is adapted to be filled with concrete and whereby to form a mullion that locks the block together, the blocks each having end walls that are connected together by a reversely curved web portion, the blocks being reversible transversely and having interlocking and aligning engagement when in superposed relation, the web portion having identical face portions to be alternately upwardly and outwardly disposed in accordance with the reversible laying of the block, each of the face portions being arcuately corrugated from the center of the block downwardly toward the ends and whereby to drain rain water toward the ends of the block.

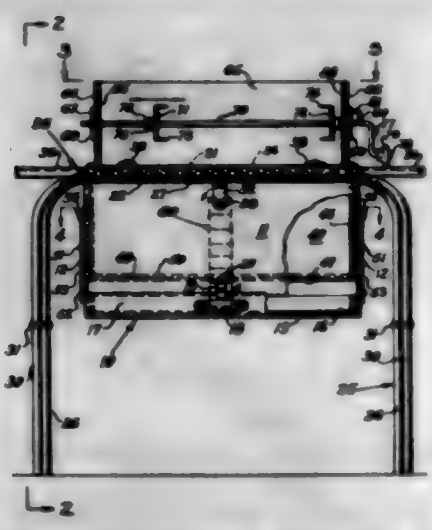


2,842,043
FOOD SMOKING APPLIANCE
Howard R. Rexland, Arcadia, Calif.
Application October 4, 1954, Serial No. 460,112
11 Claims. (Cl. 99—259)



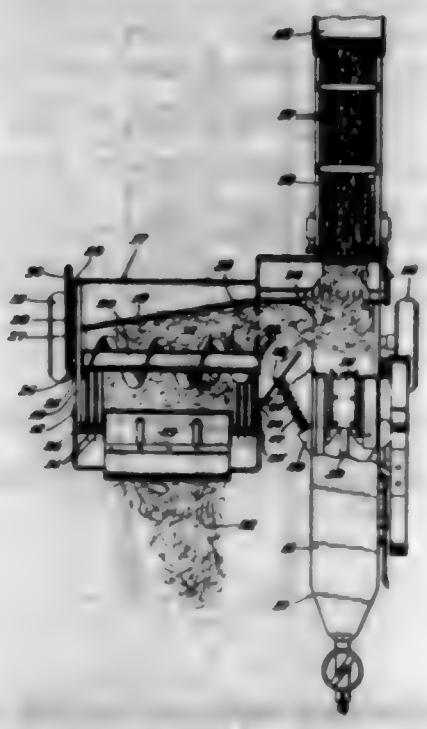
1. A food smoking appliance including: a housing; a food supporting rack adapted to be mounted in said housing and removed therefrom; a container for smoke producing material; means mounting said container on said rack for movement therewith into and out of said housing; said mounting means providing for movement of said container relative to said rack and heating means operable in said housing to effect combustion of said material, said heating means having a surface disposed for contacting and supporting said rack with the container thereon when said container is mounted in said housing.

2,842,844
BARBECUE COOKER
Regina Kirk, Tampa, Fla.
Application July 31, 1957, Serial No. 675,413
6 Claims. (Cl. 99—339)



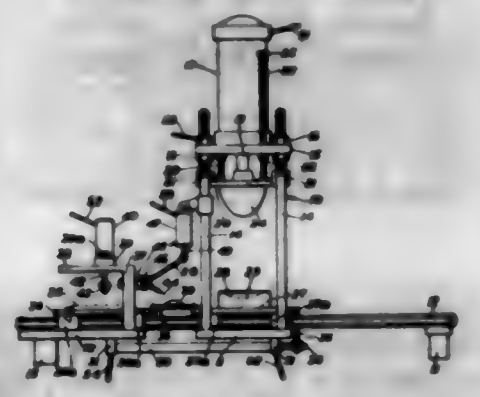
1. In a barbecue cooker the combination of a receptacle having bottom, front, rear and side walls, said side walls having openings therein, a fire box in said receptacle having front, rear and side walls and an open bottom, a fire supporting grid extending across said bottom, guide flanges on the sides of said openings in the side walls of said receptacle, said side walls of said fire box being vertically movable in said guide flanges, a top for said receptable secured to the top of said fire box, means for raising and lowering said top relative to said receptacle, and legs supporting said receptacle.

2,842,845
VARIABLE FEED OPENING FOR HAY BALERS
James H. Bornzin, La Grange, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application March 20, 1956, Serial No. 572,698
1 Claim. (Cl. 100—142)



A mechanism assisting the feeding of various quantities of material to be baled from a platform to a bale-forming chamber in cooperation with an auger disposed generally transversely on the platform and unjournalled at its delivery end, and packer fingers movable through an area of the platform adjacent the rearward portion of the auger and thence through an opening disposed in and extending lengthwise of the bale-forming chamber, comprising a yieldable inclined wall hingedly mounted on said platform adjacent one end of the opening adjacent the unjournalled delivery end of the auger and forwardly thereof and arranged and constructed to position the hay laterally and rearwardly of the platform to the area adjacent the opening in the bale-forming chamber through which the packer fingers operate, and spring means normally urging said yieldable inclined wall toward a position in front of the unjournalled end of the auger and toward a position to constrict the length of the opening whereby the yieldable inclined wall automatically moves to position an optimum quantity of hay in the area through which the packer fingers operate when greater or lesser volumes of hay are fed therethrough, and to enlarge or restrict the size of the opening depending on the quantity of hay fed thereto.

2,842,846
MEANS FOR PRINTING OR DECORATING ARTICLES OF WARE
Guy Leslie Murray, deceased, late of Cheltenham, England, by Lilian Murray, Cheltenham, and Basil Guy Murray, Bristol, England, executors
Application November 16, 1955, Serial No. 547,282
Claims priority, application Great Britain November 18, 1954
12 Claims. (Cl. 101—41)

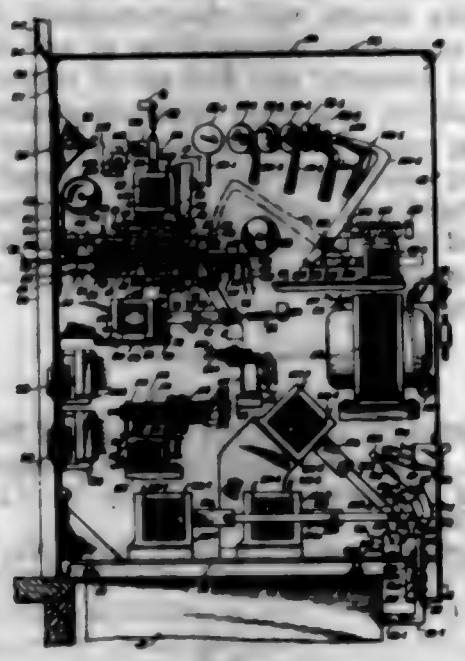


1. An automatic machine for decorating articles of ware comprising in combination carrying means for a resilient pad, a plate having the design formed thereon which is to be printed on the ware to be decorated, support means for said plate and for an article of said ware, a cylinder and plunger operated by fluid pressure which reciprocate said carrying means towards and away from said support means, a further cylinder and plunger operated by fluid pressure to impart translatory movement to said support means in a direction normal to the reciprocating movement of the carrying means, valve means for controlling admission of fluid to the respective cylinders, means interconnecting said controlling valve means so that timed sequential movement of the carrying means and the support means is effected to cause the resilient pad first to be applied to and then withdrawn from said plate bearing the design and then to said articles, means for applying paint to said plate whilst carried by said support means, a doctor disposed between the paint-applying means and the carrying means, and means for moving said doctor into contact with said plate to remove excess paint therefrom during movement of the support means in one direction only and for removing the doctor from contact with the plate during movement of the support means in the opposite direction, said means by which the doctor is moved operating automatically in timed relation to said sequential movement between the carrying means and the support means.

2,842,847
RACE TICKET PRINTING APPARATUS
Van Dyke Hill, New York, N. Y., and Lynn Brodton, Levittown, Pa.
Application March 15, 1956, Serial No. 571,882
19 Claims. (Cl. 101—69)

1. Race ticket printing apparatus comprising, in combination, means to receive from a bettor a ticket blank

and support it in a printing position, printing means at the printing position to apply to said blank indicia including an entry selection, said printing means including a plurality of separately operable individually movable entry indicating indicia printers, a plurality of separately operable controls each associated with one of said printers



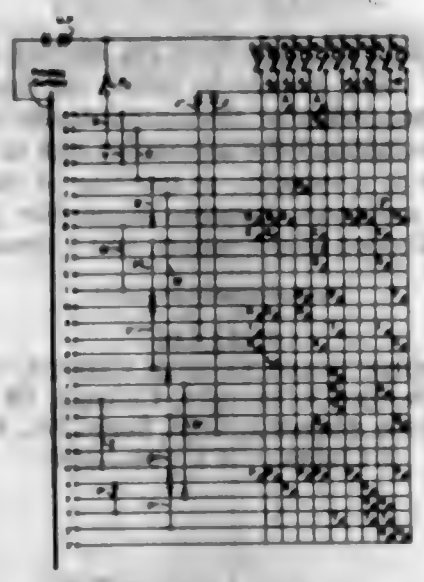
to operate the latter individually, means to limit operation of each printer to manipulation of a single one of said entry controls at a time, means to prevent operation of said apparatus by any of said entry controls in the absence of a ticket blank in said receiving means, and means to deliver to the blank-depositing bettor the printed ticket.

2,842,048

ELECTRIC CONTROL ARRANGEMENT

Hans Heuer, Wilhelmshaven, Germany, assignor to Olympia Werke A. G., Wilhelmshaven, Germany

Application July 9, 1957, Serial No. 670,736
Claims priority, application Germany July 23, 1956
14 Claims. (Cl. 101—93)



12. An improved electrical network for the control of printing apparatus in which the characters to be printed are produced with the aid of a plurality of printing units which are compactly arranged next to each other in a stencil and selectable, at will, to form a desired combination of several of these units together composing a character, and adapted to be used with computing machines and the like, which network comprises input and output lines normally connected with each other by diode means, a portion of these diode means normally used being replaced by transverse connecting lines intermediate at least two output lines.

2,842,049

DEACETYLATED CHITIN MORDANT

John P. Delaugre, Los Angeles, Calif., assignor to Technicolor Corporation, Hollywood, Calif., a corporation of Maine

No Drawing. Application September 22, 1954
Serial No. 457,795
1 Claim. (Cl. 101—149.1)

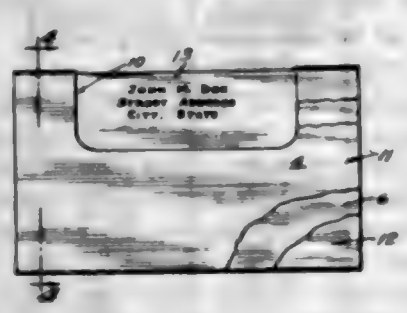
As a process for producing a pre-mordanted dye absorptive blank comprising a gelatin coating, the steps of adding an aqueous solution of an acid salt of deacetylated chitin to the gelatin before coating a support therewith, coating the support with the solution of the gelatin and deacetylated chitin, hardening the colloid coating with an alkaline formaldehyde solution, and thereafter reacting the deacetylated chitin in the colloid with an acid formaldehyde solution.

2,842,050

MASTER CARD FOR REPRODUCTION BY THE SPIRIT TRANSFER PROCESS

Ansel J. Wright, Minneapolis, Minn., assignor to Master Addresser Company, Minneapolis, Minn., a partnership comprising A. J. Wright, Harriet R. Wright and William H. Wright, Jr.

Application June 13, 1955, Serial No. 515,899
2 Claims. (Cl. 101—149.4)



1. A four-ply file card having laterally spaced sides, a top edge and a bottom edge, said file card including a generally rectangular sheet-like body folded along generally parallel fold lines to divide said body into upper, intermediate and lower panels of substantially like marginal dimensions with the lower panel being folded upwardly and superimposed in front of the intermediate panel and the upper panel being folded downwardly and superimposed in front of the upwardly folded lower panel with the free edge portion of the lower panel and the fold line between the upper panel and the intermediate panel defining the top edge of the file card and the free edge portion of the upper panel and the fold line between the lower panel and the intermediate panel defining the bottom edge of the file card, said bottom edge being substantially straight and continuous and said top edge having a generally centrally disposed upwardly opening notch therein which terminates short of the laterally spaced sides of the file card, and a master sheet of substantially the same marginal dimensions as said panels removably secured between the intermediate panel and the upwardly folded lower panel, said master sheet having a reproducible legend in reverse form on a portion thereof that extends into the notch in the top edge of the file card.

2,842,051

GIBBERELLIC ACID COMPOUNDS, AND PREPARATION AND USE THEREOF

Percy Wragg Brian, Margaret Edith Radley, Philip John Curtis, and George Wynne Elson, Welwyn, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

Application June 27, 1955, Serial No. 518,226
Claims priority, application Great Britain June 30, 1954
11 Claims. (Cl. 71—2.5)

1. A method for promoting the growth of plants com-

prising treating said plants with a gibberellic acid compound having the formula



said acid being characterized by the following properties:

Molecular formula, $C_{19}H_{22}O_6$
Melting point, 233–235° C. (vigorous gas evolution)
Optical rotation, $[\alpha]_D^{26}$ +83° (c., 0.51 in methanol)
Monomethyl ester:
Melting point, 209–210° C.
Optical rotation, $[\alpha]_D^{16}$ +75° (c., 0.5 in ethanol)
p-Bromophenacyl ester:
Melting point, 218–219° C.
Hydrolysis with boiling mineral acid—1 mole carbon dioxide evolved
Acetyl derivative:
Melting point, 233–234° C. (dec.)
Optical rotation, $[\alpha]_D^{17}$ +152° (c., 0.5 in ethanol)
Methyl acetyl gibberellate:
Melting point, 180–181° C.
Optical rotation, $[\alpha]_D^{16}$ +150° (c., 0.4 in ethanol)

Absorption bands in the infra-red region of the spectrum when suspended in the form of a "Nujol" mull at the following frequencies expressed in reciprocal centimeters:

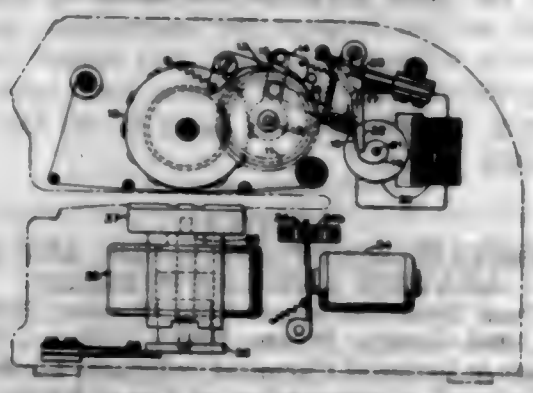
Absorption 55% and above	Absorption 45%–54%
	3, 290
	1, 2[illegible]
3, 460	1, 263
1, 752	1, 250
1, 191	1, 186
1, 172	1, 128
1, 082	1, 105
1, 022	975
	898
	778

and wherein X is selected from the group consisting of hydrogen, alkali metal, alkaline earth metal, lower alkyl, phenyl, hydroxyethyl, and para-bromo-phenacyl, and wherein Y and Z are each selected from the group consisting of hydrogen, and



where R is selected from the group consisting of lower alkyl, and phenyl.

2,842,652
SHEET CONTROLLED ELECTRICALLY OPERABLE TIME RECORDING DEVICE
Teall Cocuradt, Owego, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application March 9, 1954, Serial No. 414,993
2 Claims. (Cl. 101—287)



2. In a printing device, the combination of printing means, an electromagnetic device, a first set of normally closed contacts and a second set of normally open contacts both controlled by said electromagnetic device, a switch operable by a record to be recorded upon, a control circuit for said printing means including said first set of contacts and completed by the closure of said record operated switch to effect a printing operation, an energizing circuit for said electromagnetic device including a third set of contacts operable by the actuation of said printing means, said electromagnetic device being operative to transfer the condition of said first and second sets of contacts, said first set of contacts, in transferred condition, serving to open said control circuit for the printing means, a holding circuit for said electromagnetic device established through said second set of contacts in transferred condition and said record operated switch, said holding circuit being maintained in an energized state until interrupted by the release of said record operated switch.

2,842,653
METHOD OF CONTROLLING INK MISTING
Vincent S. de Marchi, Jamaica, N. Y., assignor to Interchemical Corporation, New York, N. Y., a corporation of Ohio
Application January 23, 1957, Serial No. 635,714
2 Claims. (Cl. 101—349)



1. The method of controlling ink misting occurring on a high speed roller couple in which ink is being transferred from one roller of the couple to the other, which comprises forcing into the advancing nip of the roller a stream of gas at a velocity, at the bite of the nip where the ink film separates, between somewhat greater than the peripheral speed of the rollers, and 3 times that speed.

2,842,654
RAISE-PROOF INDICIA FOR CHECK WRITERS
Howard S. Monger, Chicago, Ill.
Application August 2, 1956, Serial No. 601,683
4 Claims. (Cl. 101—399)



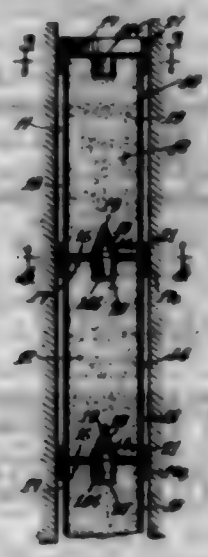
1. For use in conjunction with a printing device having printing members, raise-proof indicia comprising a series of indicia on the printing members being progressively changed for preventing alteration of the indicia by superposition of different indicia thereon, said series of indicia progressively slanting at different angles.

2,842,855

EXPLOSIVE CHARGE CONTAINER

Richard D. Mason, Wilmette, Ill., assignor to Seismograph Service Corporation, Tulsa, Okla., a corporation of Delaware

Application April 23, 1954, Serial No. 425,197
7 Claims. (Cl. 102—24)



1. An explosive charge comprising a plurality of explosive cartridges arranged in end-to-end relationship to form a column of cartridges each containing explosive material, at least one of said cartridges having a unitary end structure closing one end and including structure defining a closed shaped jet forming cavity extending into the explosive material in said one cartridge for producing a jet explosive effect directed into the adjacent end of the next cartridge, said adjacent end of said next cartridge having a unitary end member including structure extending into the explosive material in said adjacent cartridge and defining a shaped stand-off cavity aligned with but of different shape than the first mentioned shaped cavity for directing the jet explosive effect into said next cartridge, thereby insuring complete detonation of all of said cartridges.

2,842,856

EXPLOSIVE CHARGE

Robert L. Klotz, Conyngham, Pa., assignor to Seismograph Service Corporation, Tulsa, Okla., a corporation of Delaware

Application May 4, 1954, Serial No. 427,457
11 Claims. (Cl. 102—24)



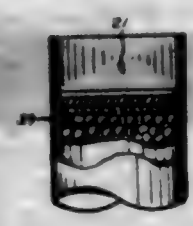
1. An explosive charge comprising a plurality of explosive cartridges each containing explosive material and arranged in end-to-end relationship to form a column of cartridges, detonating means for detonating said charge located at some point in said column, and at least one hollow pin inserted into the explosive material at the end of one of said cartridges remote from said detonating means and into the explosive material in the adjacent end of the next cartridge in said column to connect the two cartridges together, one end of said pin including structure shaped to define a jet forming cavity in the explosive material in one of the two connected cartridges for producing an explosive jet which is directed away from said detonation point from one of the two connected cartridges into the other of the two connected cartridges.

2,842,057

SHOTSHELL

Hugh Dunn, Orange, Conn., assignor to Olin Mathieson Chemical Corporation, New Haven, Conn., a corporation of Virginia

Application August 6, 1956, Serial No. 602,285
3 Claims. (Cl. 102—42)



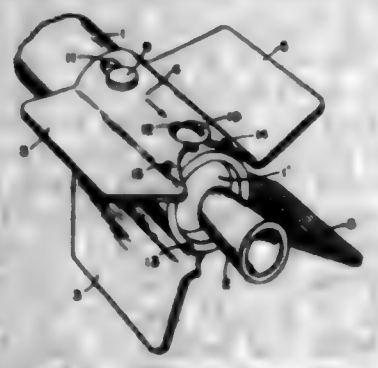
2. In a shotshell having a conventional shot column, the method of enclosing the shot column in an envelope comprising the steps of providing an annular collar of resilient material, inserting the collar between the shot column and the interior of the shell, arranging said collar so that a margin thereof projects above the shot column, slitting the margin, providing a top wad having cam surface formed on at least one side thereof and terminating in a circular knife edge advancing the wad into the shell so that the knife edge engages and separates the slit margin of the collar from the interior of the shell and the cam surface folds the slit margin over the top of the shot column.

2,842,058

GUIDE VANE ARRANGEMENT FOR ROCKET MISSILES

Nils-Erik Gustaf Killer, Karlskoga, and Karl-John Thorild Thorildsson, Bofors, Sweden, assignors to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation

Application April 27, 1953, Serial No. 351,122
6 Claims. (Cl. 102—50)



1. A guide vane arrangement for attachment to a tubular rocket missile comprising a pair of diverging vanes and an intermediate member formed as a unit of sheet metal, said intermediate member being curved and having a concave surface facing away from said vanes, the inner radius of the curvature of said concave surface of said intermediate member being slightly smaller than the outer radius of the circumferential curvature of the rocket missile, said rocket having protruding therefrom male locking members and said intermediate member having enlarged female locking slots for receiving said locking members in one axial position of said intermediate member relative

to the rocket and slot portions of reduced size to retain said locking members in releasably locking engagement in another axial position of said intermediate member relative to the rocket.

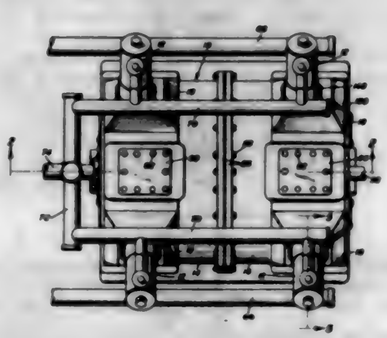
2,842,859
DETONATOR
Harold J. Plumley, Washington, D. C., Richard H. F. Stream, Jr., Kensington, Md., and Paul L. Godchaux II, New Orleans, La.
Application September 13, 1946, Serial No. 696,972
2 Claims. (Cl. 102—70.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An electroresponsive detonator of the character disclosed comprising a preformed casing having an elongated cylindrical body portion, a cylindrical head portion of greater diameter than said body portion and a frustro conic portion intermediate said head and body portions, an explosive charge arranged within said body portion, a collar arranged within the body portion in sealing engagement therewith and with said explosive charge, a flash charge arranged within said collar for firing the explosive charge, a preformed plug pressed into said casing and comprising a first, second, third cylindrical portion of progressively decreasing diameter and a complementary frustro conic portion intermediate said first and second portions in sealing engagement with said head portion, body portion, collar, and frustro conic portion of the casing respectively, flange means on said head portion overlapping said first cylindrical portion of the plug for maintaining said first, second and third cylindrical portions and the complementary frustroconic portion thereof in sealing engagement with said head portion, body portion, collar and frustro conic portion of the casing respectively, a pair of lead-in wires extending through the plug and molded therein, a plurality of corrugated portions on said lead-in wires molded in said second and third portions of the plug for maintaining said wires fixed to the plug, a pair of straight portions on one end of said lead-in wires and molded into said third portion of said plug and said flash charge, a bridge wire secured to said lead-in wires and embedded in said flash charge for firing the charge in response to an electrical impulse applied thereto, and a pair of straight portions on the other end of said lead-in wires and molded in said first, second and frustro conic portions of the plug and extending outwardly therefrom for establishing an external electrical connection to said bridge wire.

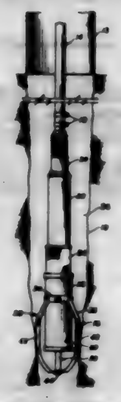
2,842,860
HIGH PRESSURE RECIPROCATING PUMP
William R. Barry, Tulsa, Okla., assignor, by mesne assignments, to John W. Mecom, Houston, Tex.
Application October 10, 1955, Serial No. 539,369
11 Claims. (Cl. 103—4)

1. A high pressure reciprocating pump including a pair of aligned crankcase sections, pump cylinders mounted upon each section, each section having a pair of cylinders disposed at a 90° angle, the cylinders of the two sections being positioned in longitudinal rows, pistons slidable in each cylinder, each section having a crank chamber and a crankshaft journaled therein, means connecting the pistons of each section to the crankshaft



journaled therein, a power input shaft journaled in both said sections, means connecting said input shaft to each crankshaft for driving and maintaining the latter in relatively fixed relation, said sections including a compartment disposed between their crank chambers, said connecting means being housed in said compartment.

2,842,861
GUARD AND GUIDE FOR WELL PUMP AND MOTOR ASSEMBLY
Joseph A. Brenner, Hanover, Pa.
Application February 8, 1957, Serial No. 638,994
8 Claims. (Cl. 103—87)



1. A submerged pump assembly for suspension within a well shaft below the water level therein and comprising a pump and electric motor assembly connected to the lower end of flexible piping by which said assembly is supported vertically, said motor having a rigid waterproof casing enclosing the same, in combination with guard and guide means having circumferentially spaced flexible elongated fingers extending longitudinally of said assembly, a flexible and contractible band surrounding a portion of said assembly and arranged to be clamped to the exterior thereof detachably to fix said guard and guide means thereto, the normally upper ends of said fingers being spaced circumferentially around said band and fixed thereto, and means connecting the lower ends of said flexible fingers together at a point substantially in coincidence with

the axis of said pump and motor assembly, the intermediate portions of said fingers being spaced laterally from the sides of said assembly and the lower ends of said fingers extending downward and inward into meeting relationship below the lower end of said assembly to provide a guiding point therefor, whereby the intermediate portions of said fingers are engageable with the walls of a well shaft resiliently and flexibly when said assembly and tubing are being lowered thereinto to center said assembly in said well and also conform to irregularities in the walls of the well and any variations in diameter thereof so as to prevent impedance of lowering of the assembly into said well, the engagement of the intermediate portion of said fingers with the walls of said well also being sufficiently frictional to resist rotational torque of said pump and motor assembly when operating, thereby preventing such torque from moving said assembly appreciably in a rotary direction and also preventing any appreciable axial twist in said flexible tubing.

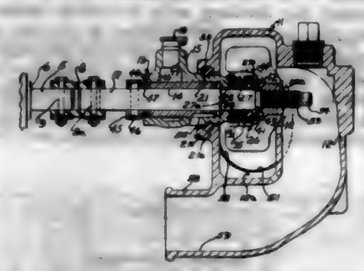
2,842,862
VORTEX PUMP
Alexander M. Wright, West Hartford, Conn., assignor, by mesne assignments, to Pratt & Whitney Company, Incorporated, West Hartford, Conn., a corporation of Delaware
Application October 31, 1951, Serial No. 254,622
10 Claims. (Cl. 103—96)



1. A rotary pump comprising a housing having an annular fluid pumping passage with a fluid inlet region and a fluid discharge region, an impeller mounted for rotation in said annular fluid pumping passage in said housing, said impeller having a radially extending portion terminating in a cylindrical wall and a radial side wall spaced axially from said radially extending portion, radial blades on said impeller which traverse only the inner portion of said passage; said radial blades having outer ends located in the plane of said cylindrical wall and extending axially from the radial portion of said impeller to the plane of the radial side wall thereof, each adjacent pair of blades and the radial connecting portion of said impeller therebetween defining a bucket with an arcuate bottom wall that extends from the plane of the radial side wall of the impeller to the cylindrical wall portion thereof and terminates in an opening in the plane of said radial side wall; means provided by said housing for introducing fluid laterally through said openings into the root zone of said buckets, each of said blades having a diagonal lower edge extending from the plane of the impeller radial side wall inwardly and downwardly and terminating at said arcuate bottom wall at a point which is substantially opposite the midpoint of said means for introducing fluid; whereby vortex currents in said passage are materially reduced.

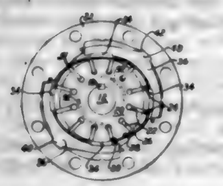
2,842,863
WATER PUMP MOUNTING
Floyd F. Kishline, Johnston S. Voigt, and Gustav V. Hedstrom, Kenosha, Wis., assignors to American Motors Corporation, Kenosha, Wis., a corporation of Maryland
Application June 24, 1955, Serial No. 517,846
3 Claims. (Cl. 103—103)

1. A water pump for an engine comprising: an impeller housing having an impeller chamber and a water passage in communication with but offset from said chamber, said housing having a mouth opening into the impeller chamber on the side of said chamber opposite from the side occupied by the offset water passage; a bearing housing; a pump shaft extending through the bearing housing; a bearing within said bearing housing for supporting the pump shaft, said bearing housing pro-



jecting into the mouth of the impeller housing; a resilient sealing ring encircling the exterior of the bearing housing and being interposed between the bearing housing and the impeller housing in the mouth thereof; an impeller threaded onto the end of the pump shaft and the threaded portion of the pump shaft being of substantial length so as to project from the impeller chamber into the offset water passage.

2,842,864
HYDRAULIC PRESSURE UNIT
Gunnar A. Wahlmark, Rockford, Ill.
Application May 24, 1954, Serial No. 431,634
9 Claims. (Cl. 103—120)

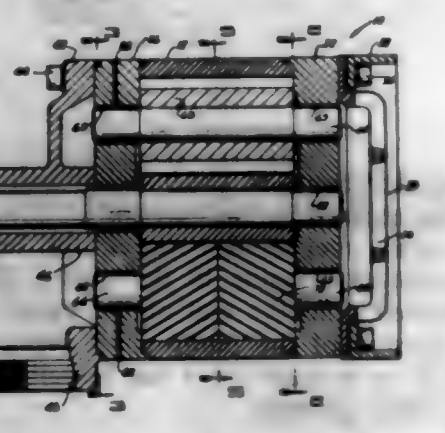


1. In a fluid pressure unit having a flexible normally cylindrical vane ring mounted in a working chamber of a housing and having a rotor coaxial with the ring and rotatably mounted in the chamber with a plurality of pumping vanes radially shiftably retained by the rotor and operatively engaging the ring, the improvement comprising a pair of rocker members disposed in said housing on opposite sides of the axis of the rotor and each having a pair of engagement areas engaging said ring at positions 90° apart, means oscillatably mounting said members in said housing, and means for actuating said members for shifting the respective engagement areas in opposite radial directions to deflect said ring elliptically along axes defined between diametrically opposite pairs of engagement areas whereby either of the axes becomes a major elliptical axis while the other becomes a minor elliptical axis.

2,842,865
GEAR PUMP
Ralph D. Lease, Royal Oak, Mich., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application March 7, 1955, Serial No. 492,642
4 Claims. (Cl. 103—126)

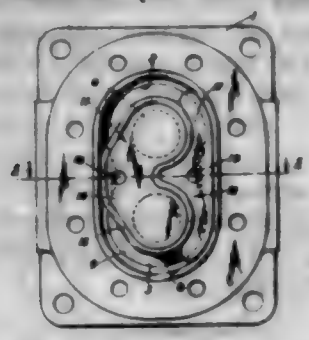
3. A fluid pump comprising a hollow body member open at its ends; separate ported suction and discharge plates closing the opposite ends of said body member;

a drive shaft journaled in said plates and carrying a drive gear within said body member; a plurality of driven gears each mounted in said body member in mesh with said drive gear, the axes of said driven gears being equidistantly spaced in a circle concentric with the axis of said drive shaft; dividing walls in said body member forming separate compartments in which said driven gears are mounted; the dividing walls extending inwardly toward said drive gear and terminating in circular surfaces having approximately the same radius as the outer circle of said drive gear; said driven gears extending between the drive gear and the opposite walls of the compartments in which the driven gears are mounted so as to divide the compartments into alternating suction and discharge



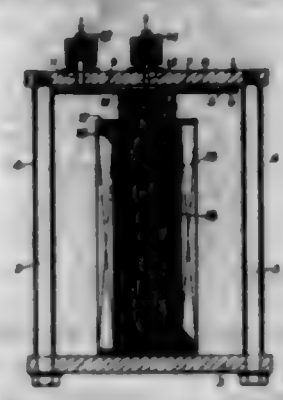
cavities; suction ports extending through the suction plate into the suction cavities; discharge ports extending through the discharge plate into the discharge cavities; a grill member including an annular section secured to the outer face of the suction plate, said grill member also including a series of spokes extending axially away from the annular section and then parallel to the suction plate; a strainer screen having a central section fitting against the outer faces of the spokes and an annular section fitting against the annular section of the grill member; an annular screen shield member having a first flange fitting against the annular screen section, and a second axially extending flange surrounding the screen central section; and screws securing the shield member, screen, grill member, and suction plate onto the body member.

2,842,066
GEAR PUMP
John Leslie Hilton, Hornchurch, England, assignor to The Plessey Company Limited, Ilford, England, a British company
Application May 18, 1955, Serial No. 509,164
Claims priority, application Great Britain May 21, 1954
4 Claims. (Cl. 103—126)



1. A gear type fluid displacement device comprising a housing having two interconnected chambers, two intermeshing displacing gears mounted for rotation in said chambers in such manner as to separate two parts of said chambers to form a high pressure part at one side and a low pressure part at the other side of the zone in which the gears mesh, said gears having journals extending axially therefrom, at least one one-piece bearing plate having two parallel end faces and bearing bores supporting the journals of both said gears, extending from one to the other of said end faces, said bearing plate being supported in the housing so as to be movable in said housing axially of said journals, means admitting fluid from the high-pressure zone of the housing to part of the outer end face of said bearing plate to urge said plate into contact with said gears, the size of said isolated part of said face being such that the action of said admitted pressure on said part will balance or slightly over-balance the resultant force on the opposite side of said plate caused by the pressure gradient of the fluid in the pumping chamber, an endless flexible sealing member interposed between the housing and said outer end face of the bearing plate in sealing contact with both said housing and bearing plate so as to isolate a part of said face from the part to which said pressure is admitted, said separated part including the ends of the two bearing bores, and passage means being provided connecting the chamber enclosed between said isolated part of said outer end face and the pump housing to the low-pressure zone of the device.

2,842,067
PUMPS FOR FLUIDS, MORE ESPECIALLY LIQUIDS
Ronald John Stevens, Kingston Hill, England
Application October 3, 1955, Serial No. 538,105
Claims priority, application Great Britain October 12, 1954
14 Claims. (Cl. 103—152)

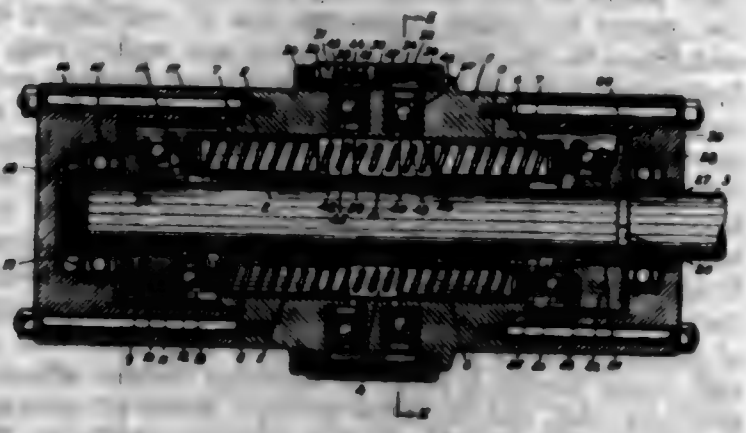


1. An electrically operated diaphragm pump for fluids comprising in combination a complementary pair of parts consisting as regards one of the parts of a rigid block and as regards the other of a flat plate, said plate being secured to one face of said block in face to face relation thereto, a recess in at least one of said parts defining with the surface opposite thereto of the other part an interfacial space constituting the working chamber of the pump, said plate being flexible and constituting the diaphragm of the pump, said working chamber being of shallow proportions by reason of its depth dimension in the direction of oscillation of the diaphragm being a small fraction only of its diameter dimension, a projection from the face of at least one of said parts extending partially across the working chamber depthwise thereof, said projection being adapted in the course of each stroke of oscillation of the diaphragm in the direction towards the rigid block to cut off one portion of the working chamber from another portion thereof while permitting the diaphragm to complete its said stroke of oscillation, a fluid inlet leading through the rigid block to one of said portions of the working chamber, a fluid outlet leading through the rigid block to the other of said portions and electrical means for oscillating the diaphragm.

2,842,068
PISTON PUMP
Eric Olov Sundin, Hudiksvall, Sweden
Application October 4, 1955, Serial No. 538,489
Claims priority, application Sweden October 5, 1954
2 Claims. (Cl. 103—166)

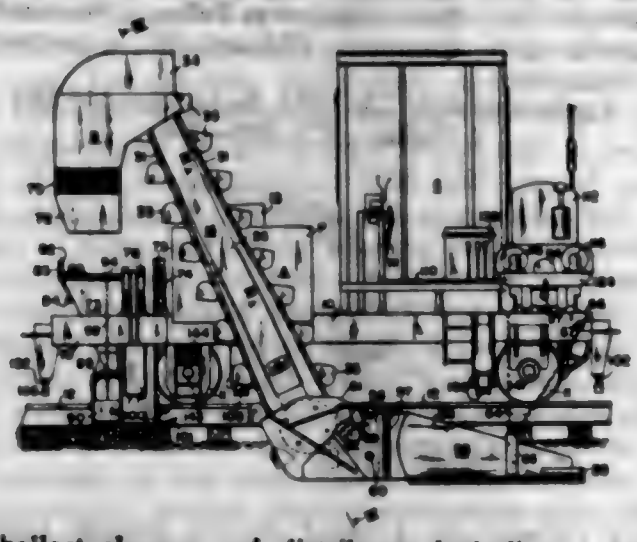
1. A piston pump comprising, in combination, a stationary pump-block, a drive shaft rotatably mounted in

said block, the latter having a plurality of borings arranged around the rotatable drive shaft, parallel to said shaft and extending through the block, pistons movable in opposite directions in said borings, springs for pressing the pistons apart, inclined thrust collars on said shaft, said pistons pressing against said collars and being reciprocated by the latter, one inlet valve and one inlet channel provided for each one of said borings and adapted for feeding liquid pressure medium to each one of the latter, one outlet valve being provided for each



one of the borings and being connected with an outlet channel for delivering pressure medium from said borings, one wall of said inlet channel being composed of a ring surrounding said pump-block, and one wall of said outlet channel being composed of a similar ring arranged at the side of said first ring, each one of said rings being provided with an outlet connecting piece and kept in position by a ring nut tightly pressing said rings against an annular rib on said pump-block, said rings being turnable in relation to said pump-block.

2,842,069
BALLAST DISTRIBUTOR
James B. McWilliams, Pittsburgh, Pa., assignor to Railway Maintenance Corporation, Pittsburgh, Pa.
Application September 11, 1953, Serial No. 379,629
1 Claim. (Cl. 104—5)



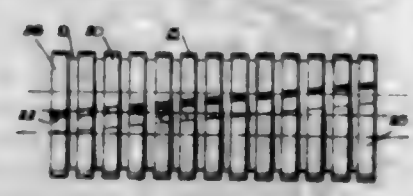
A ballast cleaner and distributor including a vehicle mounted on wheels for movement along tracks supported by ties around which it is desired to distribute ballast, a conveyor depending from each side of the vehicle in angular relationship therewith, the lower end of the conveyor having a scoop which engages ballast lying along the track, cleaning means to receive the discharge of the conveyors, a storage hopper on said vehicle to receive the discharge of the cleaning means and to direct the flow of ballast back along the tracks; the improvement comprising a plurality of outlets on said hopper, individually adjustable closures for each of the outlets, a wobble plate stationed adjacent and below each outlet and resiliently mounted on the hopper to engage and spread the ballast discharged through the outlets, said wobble plates being normally vertically disposed but being adapted to pivot about an edge to assume a desired angular position, and means to move the hopper vertically during the ballast flow from said outlets such that the elevation of the hopper in conjunction with the movement of the vehicle aids in controlling the volume of ballast deposited from the outlets.

2,842,070
WELDED BOLSTER CONSTRUCTION
William G. Boese and Franklin P. Adler, Michigan City, Ind., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application January 19, 1952, Serial No. 267,282
8 Claims. (Cl. 105—414)



1. In a railway car underframe having a center sill, a cover plate positioned transversely of the underframe and upon the center sill, a vertically disposed web plate having its top positioned against the underface of the cover plate and secured thereto and having one end positioned against the center sill and secured thereto, said web plate being cut away at the corner adjacent the cover plate and the center sill to form a wall on the web plate extending from said one end to the top of the web plate, and a tie plate positioned in the cut away corner of the web plate in abutting relation with the wall and extending between and bearing against the cover plate and the web plate and the center sill, and welds securing the tie plate to the cover plate and the web plate and the center sill.

2,842,071
MANUFACTURE OF SHREDDED CEREAL PRODUCTS
Scott H. Perky, Winchester, Mass., assignor to National Biscuit Company, New York, N. Y., a corporation of New Jersey
Application August 6, 1951, Serial No. 240,539
1 Claim. (Cl. 107—10)

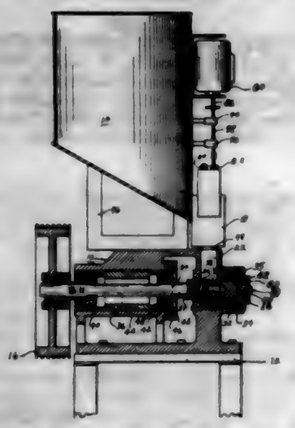


A substantially cylindrical roll for making shredded cereal products comprising a plurality of circumferential grooves separated by intervening lands, said lands having circumferentially spaced recesses extending between the adjacent grooves and intervening non-recessed sections adapted to rotate in pressure contact with an adjacent roll, the recesses in successive lands being aligned in a non-axial row and the trailing edge of a land section at one end of the roll circumferentially overlapping the leading edge of a land section at the other end of the roll.

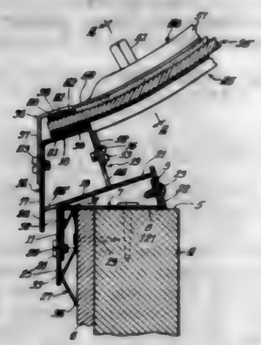
2,842,072
FOOD PROCESSING MACHINE
George O. Graves, Mishawaka, Ind.
Application March 21, 1956, Serial No. 572,849
5 Claims. (Cl. 107—14)

1. In a machine for extruding and puffing cereal meal: a housing having a bore therein, a rotatable member in said bore having a helical ridge on the periphery thereof, an extrusion die plate mounted on said housing across

said bore and having a plurality of extrusion holes extending through the plate and communicating directly with the area in said bore occupied by the ridged periphery of said member, each of said holes having an inlet portion tapering inwardly and a cylindrical portion connected to said tapered portion and extending through the plate to the outside surface thereof, the total cross sectional area of said cylindrical portions being sufficiently less than the cross sectional area of said bore occupied by said helical ridge and the length of said cylindrical portions being sufficiently great to creat sufficient friction and pressure to raise the temperature of the meal being fed therethrough to prebake said meal before it is expelled from said holes.

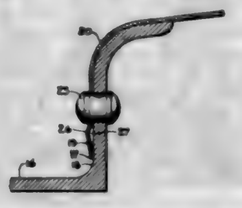


2,842,073
SKYLIGHT
Sanford K. Huston and Thomas L. Anderton, Chicago, Ill.
Application September 29, 1954, Serial No. 459,015
10 Claims. (Cl. 108—16)



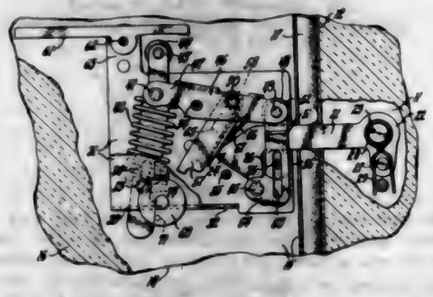
1. In a skylight, the combination of a curb anchor ring adapted to be mounted on the top of an outwardly extending annular skylight curb, said anchor ring being provided with a generally horizontally extending portion of annular shape positioned on the top of such a curb and having an upwardly extending flange at its inner periphery, and a downwardly extending flange at its outer periphery positioned adjacent to but spaced from the adjacent outer face of the curb, an annular base frame comprising side and end members constructed in the form of a box channel having inner and outer side walls, a top wall and a base wall, the latter wall extending inwardly and upwardly from the inner side wall and overlying said curb anchor ring, said base wall having a downwardly extending flange adjacent its inner edge abutting the inner face of said upwardly extending flange on the anchor ring, the outer side walls of said frame extending substantially perpendicular to the horizontally extending portion of said anchor ring with said wall extending downwardly below the plane of the base wall, said frame having a flange adjacent to but spaced from the outer side walls, extending downwardly from the base wall in substantially parallel relation with respect to the corresponding outer side wall, the inner face of said last-mentioned flange being positioned in abutting relation to said outer flange of said anchor ring and depending therebelow, means for rigidly connecting one of said flanges on said frame to the adjacent flange on said anchor ring, a flashing strip of resilient material positioned between each such curbing face and the corresponding inner faces of the adjacent flanges, said flashing strip having a longitudinally extending intermediate portion secured to the adjacent curb face and longitudinal edge portions extending toward and engaging the respective adjacent flanges operative to substantially close the space between such flange and said curb face and restrict the passage of liquid upwardly between the same, said inner wall of said frame having a series of openings therein adjacent said base wall, and the latter having a series of openings therein positioned between the outer side wall and the corresponding outer flange of said base frame to provide drainage to the exterior for liquids accumulating on said base wall, a dome-shaped cover of a size to be positioned on said base frame with the peripheral cover edges seated on the top wall of the base frame, clamping means of generally L-shape in cross section having one leg overlying the peripheral edges of said cover and the other leg extending in abutting relation to the corresponding outer side wall of the base frame, means operatively securing the last-mentioned leg to such side wall, and respective gasket means interposed between said top wall and clamping means and the opposed portions of said cover.

2,842,074
CAR ROOF SEALING ARRANGEMENT
Francis M. Hess, Riverdale, Ill., and Franklin P. Adler, Michigan City, Ind., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application July 23, 1954, Serial No. 445,388
1 Claim. (Cl. 108—5.4)



In a railway car, a metal portion thereon having a plurality of spaced rivet holes, a metal roof sheet having a flange provided with a plurality of spaced rivet holes adjacent an edge in alignment with said rivet holes in said metal portion, an inwardly facing crimped portion extending along said edge, said crimped portion beginning approximately halfway between the center line of said holes and the edge of said sheet, and securing rivets inserted and driven through the holes to said metal portion thereby causing the edge of said crimped portion to contact said metal portion and be conformed thereto and provide a space between the crimped portion and said metal portion inwardly of said edge for the retention of car cement and whereby to form a tension joint with said crimped portion under constant tension against said metal portion.

2,842,075
DOOR FASTENER
Francis L. Ratniczak, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 11, 1954, Serial No. 449,072
4 Claims. (Cl. 109—63.5)



1. In a portable refrigerator, a cabinet structure having a compartment therein provided with an access opening and a door structure adapted to close said opening, a refrigerating system associated with said refrigerator including an electrically operated refrigerant translating unit mounted therein, an electric circuit detachably connected to a source of electric current and leading therefrom to said unit, a fastening device for said door structure, said fastening device comprising a keeper element on one of said structures and a manually actuated latch mechanism carried by the other of said structures including a keeper latching means normally interlockable with the keeper element for latching said door structure in tightly closed position against said cabinet structure, a lever on one of said structures for actuating said latch mechanism to break the interlock between said keeper latching means and said keeper element to open said door, electrically operable means incorporated in said manual latch mechanism having a connection with said electric circuit, means for controlling said electrically operable means, said unit, said circuit, said electrically operable means and said control means all being movable with the portable refrigerator upon transporting same from one locality to another, said electrically operable means being energized solely in response to engagement of said keeper element with said control means upon moving the door into closed association with said cabinet to cause said keeper latching means to mechanically interlock with the keeper element for latching the door closed after being opened by said lever, and said electrically operable means being deenergized by disconnecting said detachable circuit from said source of electric current for rendering said keeper latching means ineffective to interlock with said keeper element to prevent latching of the door tightly closed whereby said door thereafter remains in an ajar position with respect to said cabinet.

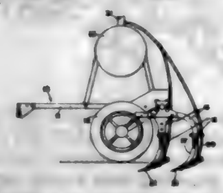
2,842,076
APPARATUS FOR DISTRIBUTING COMBUSTION AIR INTO DIFFERENT COMBUSTION ZONES OF A FURNACE
Johannes Josef Martin, Munich, Germany
Application February 5, 1953, Serial No. 335,363
11 Claims. (Cl. 110—72)

1. In a furnace having a plurality of combustion zones individually requiring different amounts of combustion air at different loads and at different fuels burnt in the furnace, a furnace wall extending along a plurality of combustion zones of the furnace, a plurality of adjustable air admission means associated with said wall for admitting combustion air from the outside into the individual combustion zones, and a mechanism operatively connected with said admission means for simultaneously adjusting said admission means, said air admission means individually including means determining the air flow area of said admission means and individually having a nonlinear air passage control edge whose configuration is



different in different ones of the above admission means for differently changing the air flow area of the different air admission means upon simultaneous adjustment by said mechanism whereby at successive settings of said mechanism the character of the relative flows of air through the successive air admission means is changed.

2,842,077
TUNNEL FORMER AND SUBSOIL INJECTOR
Charles S. Morrison, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application September 14, 1953, Serial No. 379,941
1 Claim. (Cl. 111—7)

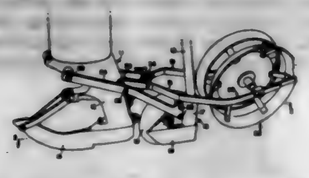


In an agricultural implement, means for injecting a fluid, such as anhydrous ammonia, normally under pressure sufficient to retain the fluid in the form of a liquid until the pressure is released, into the soil, at which time the pressure is released and the fluid becomes gaseous, said means comprising a relatively narrow soil-penetrating shank, a furrow-forming tool secured to the lower end of said shank, the latter being of such length to dispose the furrow forming tool under but adjacent the surface of the ground, said tool being wider than said shank so as to form a tunnel in the soil underneath but adjacent the surface of the ground, means carried by the shank for directing the fluid to be injected into said tunnel, and means providing upwardly and laterally inwardly facing surfaces on the rear upper portion of said tool, said surfaces lying rearwardly of and laterally outwardly of the shank and disposed in a position to act against the soil at the upper portion of the tunnel and press the soil generally laterally inwardly and upwardly to close the opening in the soil made by the passage of said shank therethrough.

2,842,078
DISK FERTILIZER APPLICATOR
Arthur J. Immesoete, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application October 14, 1955, Serial No. 540,439
2 Claims. (Cl. 111—85)

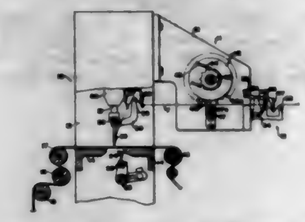
1. In a fertilizer-planter combination, a first furrow opener comprising a non-rotatable part in the form of a soil penetrating runner, a second furrow opener comprising a non-rotatable soil penetrating plate disposed laterally outwardly of and closely adjacent the rear of said runner, and a rotatable disk mounted on said plate and extending forwardly thereof, the forwardly extended

portion of said rotatable disk being disposed between said runner and said plate, and the rotation of said disk



facilitating the passage of said furrow openers through trash and the like.

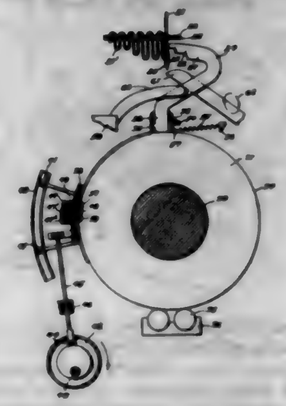
2,842,079
METHOD OF MAKING PILE FABRICS WITH LOOPS OF DIFFERENT HEIGHT AND APPARATUS FOR PRACTICING THE METHOD
Walter A. Rice, Amsterdam, N. Y., assignor, by mesne assignments, to Mohasco Industries, Inc., Amsterdam, N. Y., a corporation of New York
Application September 28, 1955, Serial No. 537,118
8 Claims. (Cl. 112—79)



1. A method of making a pile fabric with pile elements of different heights, in which the pile elements are formed from yarns, which comprises advancing a backing sheet stepwise, providing final stored supplies of the respective yarns, drawing lengths of a plurality of pile yarns from the final stored supplies of the yarns and passing the yarns through the sheet during the successive periods of rest of the sheet to form loops of the respective yarns, the loops of the yarns lying in rows extending transverse to the direction of movement of the sheet and the loops of each single yarn lying in a row lengthwise of the sheet and being connected by that yarn, providing preliminary stored supplies of the respective yarns between the final stored supplies and the main sources of supply of the yarns by drawing the yarns from the main sources of supply, momentarily holding yarns selected in accordance with a pattern between the final and preliminary stored supplies of the yarns, the selected yarns being held for a predetermined length of time after each loop-forming operation, and replenishing the final stored supplies of the yarns after each loop-forming operation by drawing the held yarns at least in part from the last inserted loops thereof, dependent upon the length of time said yarns are held, and by drawing the yarns not held from the preliminary stored supplies thereof.

2,842,080
TUFT LOOP HEIGHT CONTROLLED BY LOOPER
Frank W. E. Hoeselbarth, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Application January 6, 1956, Serial No. 557,810
4 Claims. (Cl. 112—79)

1. Mechanism for producing needled pile fabric of different heights, including a gang of reciprocable needles and a series of loopers individually cooperating with the respective needles and having different stroke positions, each looper having an operative end for engagement with the needled loop, which looper has zones of different thicknesses depthwise, the zone of least thickness extending from the top edge of the looper and the zones of greater thicknesses being stepped rearwardly from the zone of least thickness, each zone at different looper stroke positions cooperating with the needles and which zones enable the looper to control the position of loops



of different heights, in combination with means for bringing the lopers into positions to engage yarns advanced by the needles and means for selectively determining different positions of the zones of the individual loopers in cooperation with the corresponding needles so that the loopers will establish loops of different heights.

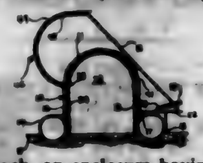
2,842,081
AUTOMATIC SHUTTLE RACE CLEANER
Minoru Kurihara, Hamazaki-cho, Higashi Matsuura-gun, Saga Prefecture, Japan, assignor to Consolidated Sewing Machine Corp., New York, N. Y., a corporation of New York
Application September 4, 1957, Serial No. 682,868
2 Claims. (Cl. 112—192)



1. A sewing machine shuttle mechanism, comprising a shuttle, a shuttle race, an oscillatory shuttle drive mechanism wherein a shuttle driver is oscillated in an arcuate path concentric with said shuttle race, and a shuttle race wiping means, said shuttle race wiping means comprising a wiper which is disposed between the shuttle driver and the shuttle race and is provided with relatively sharp end portions which are disposed in wiping engagement with said race, a clip engaging said wiper and means securing said clip to said shuttle driver, whereby the oscillatory movement of the shuttle driver is translated into a corresponding oscillatory movement of the wiper, enabling its relatively sharp end portions to wipe the shuttle race clean, said clip being provided with a shank which is disposed against the shuttle driver, said securing means by which the clip is secured to the shuttle driver being a screw by which said shank is secured to the inside of said shuttle driver, said clip being provided with a bridge which extends across the shuttle driver, and a detent projecting from said bridge into engagement with the wiper, said shank of the clip being generally arcuate in shape and being provided with spring

tension which is asserted through the bridge and the detent against the wiper to maintain the wiper in wiping engagement with the shuttle race.

2,842,082
BOAT DOCK
Lucius N. Smith, Montverde, Fla.
Application April 2, 1956, Serial No. 575,583
6 Claims. (Cl. 114—.5)



1. In a boat dock, an enclosure having side walls and a roof, means for supporting said enclosure over a body of water, an end door pivotally connected at one side to one end of said enclosure, there being an opening in a side wall of said enclosure defining an entrance for said enclosure, a side door hingedly connected at its upper end to said enclosure and overhanging said opening in said side wall, means for raising and lowering said side door relative to said side wall, and means operatively connecting said end door to said side door whereby said end door is opened in response to raising said side door and is closed in response to lowering said side door.

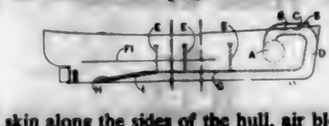
2,842,083
HYDROFOIL ARRANGEMENT
Fritz Vertens, Wiesing, near Schleswig, Germany
Application November 24, 1954, Serial No. 471,066
Claims priority, application Germany February 10, 1954
6 Claims. (Cl. 114—66.5)



1. A hydrofoil arrangement for a craft comprising, in combination, two hydrofoil means located in a plane transverse to the longitudinal plane of symmetry of the craft underneath the forward portion of the craft, each of said hydrofoil means including a substantially vertical supporting portion downwardly depending from said craft and a single foil portion extending from the lower end of the respective supporting portion in upward and outward direction and being shaped in such manner as to produce a hydrodynamic lifting force whereby said foil portions produce in a curve a righting moment on the craft, said vertical supporting portions being located opposite each other equally spaced from the longitudinal plane of symmetry of the craft and separated from each other by a free space, each of said supporting portions having a cross-section symmetrical with respect to a plane parallel to the longitudinal axis of the craft so that said supporting portions produce no hydroynamic lifting force in a curve; and means connecting the outer ends of said foil portions, respectively, with said craft and adapted to be located above the water line.

2,842,084
SHIP'S HULL CONSTRUCTION
Kenneth Frank Williams, Cambridge, England
Application August 15, 1955, Serial No. 528,433
Claims priority, application Great Britain August 17, 1954
8 Claims. (Cl. 114—122)

1. A ship construction comprising a hull including a generally flat bottom, three projections extending downwardly from said bottom, two of which projections are extensions of the sides of the hull, the other being arranged along the longitudinal centre line of the bottom, thereby defining two tunnels beneath said bottom extending along substantially the whole length of the hull, exterior baffle plates mounted on the outside of said hull and extending alongside and spaced from the hull sides respectively substantially from the bow to stern and substantially from water level down to approximately the level of said projections, thereby forming a



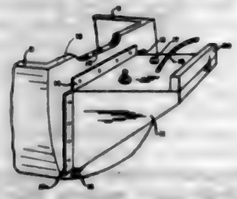
double skin along the sides of the hull, air blowing means mounted on said hull, inlets in the bottom of the hull adjacent the bow in communication with said air blowing means and said tunnels, whereby air is introduced into the tunnels and directed substantially parallel with the bottom of the hull to the stern, and means for providing communication between said tunnels and the spaces between the hull sides and the respectively associated baffle plates for controlling exit of air from said tunnels.

2,842,085
SHIP'S BUMPER
Einar Norman, Vancouver, British Columbia, Canada
Application February 7, 1956, Serial No. 564,011
5 Claims. (Cl. 114—219)



1. A ship's bumper section comprising a pneumatic tire having a tread and a pair of side walls, said tire being collapsed diametrally to form end folds and two arcuate halves, one of said halves being partially nested in the other, one of said halves retaining substantially its semi-circular form with the tread on its convex face and the other half being distorted to a substantially V-shaped form with the tread on its inner face, and means uniting the two halves together adjacent the folds.

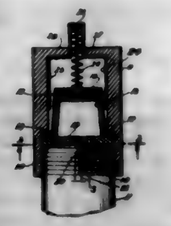
2,842,086
COMBINATION OUTBOARD MOTOR SUPPORT AND FUEL TANK
Charles W. Yost, East Detroit, Mich., assignor of one-half to James L. Scott, Detroit, Mich.
Application November 18, 1954, Serial No. 469,737
4 Claims. (Cl. 115—.5)



1. In a device of the class described, adapted for attachment to the transom of a boat, a fuel tank having a forward wall; flanges extending outwardly from the sides of said forward wall adapted for attachment to the outer face of the transom of a boat; an outlet conduit communicating with said tank; and a clamping ledge mounted

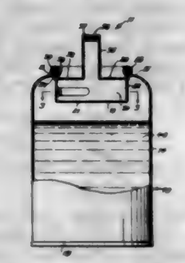
on the upper surface of said tank at the rear edge thereof so as to extend transversely of a boat on which the tank may be attached, and adapted for reception of the clamping member of an outboard motor.

2,842,857
PRESSURE INDICATOR
Edmund G. Burns, Brooklyn, N. Y.
Application January 4, 1957, Serial No. 632,581
6 Claims. (Cl. 116—34)



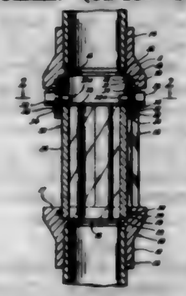
1. A pressure indicator for engagement with the valve stem of a pneumatic tire for indicating the pressure in the tire, said pressure indicator including a cap having an apertured top wall and a threaded end for securing the same on the valve stem of the tire, a resilient member having a top wall, a peripheral wall and a flange extending outwardly from said peripheral wall, means sealingly securing said resilient member in said cap, said means including an apertured member threadedly secured in said cap and having a lug disposed in engagement with the valve in the valve stem for admitting air from the tire to said resilient member for expanding the same, a slide member having a peripheral wall located wholly within said cap and extending about the peripheral wall of said resilient member and having a free end projecting through the opening in the top wall of the cap, said slide member being depressible into frictional engagement with the peripheral wall of said resilient member and retained in said depressed relation when the resilient member is expanded thereagainst by the pressure of the tire, and means arranged within said slide member for moving said slide member with the free end thereof in outwardly projecting relation when the air in the tire is decreased so as to reduce the pressure of the resilient member against said slide member.

2,842,888
FIRE ALARMS
Robert K. Youtie, Haddonfield, N. J.
Application February 27, 1956, Serial No. 567,938
3 Claims. (Cl. 116—106)



1. A heat responsive alarm comprising a vessel adapted to contain fluid under pressure, fluid actuable sound producing means having a fluid inlet and a fluid outlet, said sound producing means being connected to said vessel with said fluid inlet communicating with the interior of said vessel for receiving said fluid and said fluid outlet communicating with the exterior of said vessel for passing said fluid through and actuating said sound producing means, and closure means located within said fluid outlet and there secured by heat fusible material in closing relation with respect to said fluid outlet to retain said fluid against the pressure thereof within said vessel and sound producing means, whereby the application of heat sufficient to fuse said fusible material releases said closure means for expulsion of the latter exteriorly of said vessel and sound producing means by the force of said fluid so that the fluid passes through and actuates said sound producing means without obstruction.

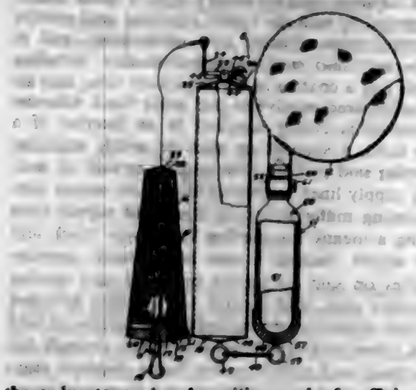
2,842,889
REMOVABLE TELESCOPING SIGHT GLASSES FOR CONDUITS
Omer K. Midkiff, Hobbs, N. Mex., assignor to U. S. Industries, Inc., New York, N. Y., a corporation of Delaware
Application July 23, 1956, Serial No. 599,630
5 Claims. (Cl. 116—117)



1. A sight glass comprising, a body having a bore therethrough, a side door in the body opening into the bore, a plurality of tubular telescoping parts telescoped in an operative position with each other and with the bore on opposite sides of the side door to bridge the side door, means sealing between the telescoping parts and the bore wall and between adjacent telescoping parts whereby the bore through the body and the telescoping parts provide a flow passageway through the body, said telescoping parts being movable axially relative to each other from said operative position to a dismantling position to free at least one of the telescoping parts from the telescoping relationship, said removable part having length and width dimensions smaller than the corresponding dimensions of said door to permit its removal and replacement through the side door when the telescoping parts are in dismantling position and also being transparent to permit visual inspection of the contents of the flow passageway, and means for releasably latching the telescoping parts to each other and to the bore wall to maintain the telescoping parts in the body when in said operative position.

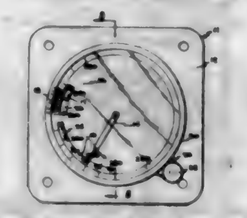
2,842,899
COMBINATION SIGNALING DEVICE
Hans Samwald, Toronto, Ontario, Canada
Application April 30, 1956, Serial No. 581,766
2 Claims. (Cl. 116—124)

1. A combination signaling device comprising an inflatable sack, means containing an inflating medium under pressure which is lighter than air connected to said sack and communicating with the interior thereof and manually operable for discharging the compressed medium therefrom into the sack for inflating the sack, a tank containing compressed smoke attached to and depending from said means, a tethering line, means forming a connection between the tank and an end of the tethering line operable in response ot a jerking pull one the tethering line in a direction away from the tank for releasing the compressed smoke in puffs from the tank, an outlet formed in said tank, said last mentioned means comprsing a valve closing said outlet, a lever pivotally supported by said tank intermediate of the ends of the lever having one end engaging said valve and an opposite end connected to the tethering line, a valve spring associated with the valve and urging



the valve to a closed position and of sufficient strength to withstand the normal pull of the balloon to maintain the valve closed, whereby a jerk on the tethering line will rock the lever to cause the first mentioned end thereof to momentarily displace the valve to an open position against the pressure of the valve spring.

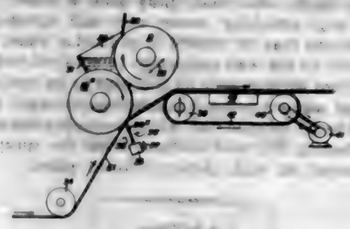
2,842,891
TRUE AIRSPEED INDICATOR
Ronald L. Kennedy, Erie, Pa.
Application July 26, 1957, Serial No. 674,422
2 Claims. (Cl. 116—129)



1. In an aircraft airspeed indicator, a circular stationary main dial provided with an airspeed scale at its margin, a pointer rotatably mounted for angular movement around the center of said main dial, a movable dial rotatably mounted adjacent said main dial concentrically therewith, a true airspeed scale on said movable dial, and respective temperature and altitude scales mounted on said dials and located adjacent each other, said temperature and altitude scales being formed and arranged so that observed values of temperature and altitude may be aligned with each other responsive to rotation of said movable dial whereby to angularly adjust said true airspeed scale relative to said first-named airspeed scale, said true airspeed scale being calibrated to provide a corrected air speed indication relative to said stationary main dial in accordance with said aligned temperature and altitude values.

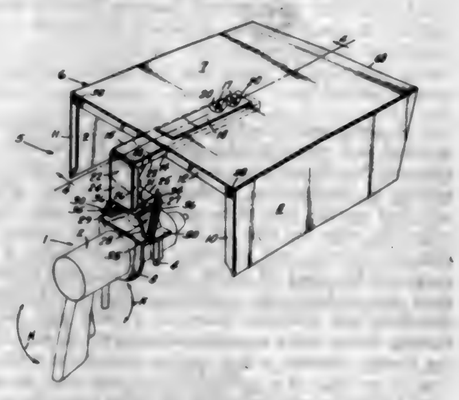
2,842,892
REVERSE ROLL COATING MACHINE WITH BLADE SUPPORT FOR WEB
Anthony W. Pomper, Piscataway Township, Middlesex County, N. J., assignor to John Waldron Corporation, New Brunswick, N. J., a corporation of New Jersey
Application March 2, 1955, Serial No. 491,697
9 Claims. (Cl. 118—248)

1. A web coating apparatus comprising in combination, a continuously driven transfer roll, means to advance a web into line contact with said roll in opposition to its direction of rotation, means to supply said roll with a uniform layer of coating material of a predeter-



mined thickness in advance of its engagement with said web, and a flexible blade having a straight edge adapted to engage the under surface of the web at the contact line and urge it into said roll contact.

2,842,893
SPRAY DEVICE AND AN ADAPTABLE AND FLEXIBLE SPRAY GUN ATTACHMENT WHICH IS A COMPONENT THEREOF
Kathryn Veronica O'Neill, Philadelphia, Pa.
Application November 8, 1955, Serial No. 545,678
12 Claims. (Cl. 118—301)

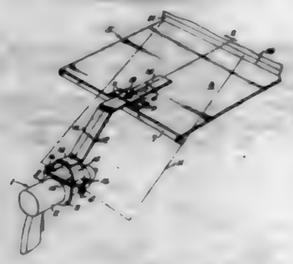


1. A spray gun attachment adapted to be removably attached to a spray gun for spraying a confined surface area of a wall, comprising, in combination, a shielding means for abutting the wall surface to be sprayed and for confining a wall surface area to be sprayed, attaching means for removably attaching said shielding means to a spray gun, said attaching means being operatively connected to said shielding means, and tension spring means operatively associated with said attaching means and said shielding means for positioning said shielding means and said attaching means and spray gun attached thereto, whereby said attaching means and spray gun attached thereto may be moved in at least a plane angular with respect to the wall surface to be sprayed and whereby a confined surface area of said wall to be sprayed may be sprayed without using masking tape to mask the wall areas not to be sprayed and without moving the shielding means abutting the wall surface.

3. A spray device for spraying a confined surface area of a wall, comprising, in combination, a spray gun, a shielding means for abutting the wall surface to be sprayed and for confining a wall surface area to be sprayed, attaching means for removably attaching said shielding means to said spray gun, said attaching means being operatively connected to said shielding means, means removably attached to said spray gun for receiving said attaching means operatively connected to said

shielding means, and tension spring means operatively associated with said attaching means and said shielding means for positioning said shielding means and said attaching means and said spray gun attached thereto, whereby said attaching means and said spray gun attached thereto may be moved in at least a plane angular with respect to the wall surface to be sprayed and whereby a confined surface area of said wall to be sprayed may be sprayed without using masking tape to mask the wall areas not to be sprayed and without moving the shielding means abutting the wall surface while the spray gun is being moved on said aforementioned plane.

2,842,094
SPRAY DEVICE AND A SPRAY GUN ATTACHMENT WHICH IS A COMPONENT THEREOF
Kathryn Veronica O'Neill, Philadelphia, Pa.
Application November 8, 1955, Serial No. 545,679
6 Claims. (Cl. 118—301)



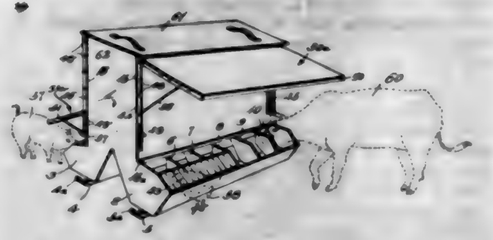
1. A spray gun attachment adapted to be removably attached to a spray gun for spraying a first surface area adjacent the straight edge of a second surface area, comprising, in combination, a shielding means for abutting said first surface area to be sprayed at the edge thereof coinciding with the edge of the said second surface area adjacent thereto, said shielding means including a substantially flat sheet of a stiff, flexible material having at least one straight edge, attaching means for removably attaching said shielding means to a spray gun, said attaching means being movable with respect to said shielding means, whereby a first surface area of the wall adjacent to an edge of a second surface area may be spray-coated without using masking means to mask the second surface area of the wall at points directly along said edge and whereby the said surface area to be coated may be continuously coated along its edge by merely moving the shielding means and the spray gun attached thereto along said edge.

2,842,095
SPRAYING DEVICE FOR LINING THE INTERIOR OF SMALL DIAMETER PIPES
Robert Leibner, Kings Park, N. Y.
Application May 15, 1956, Serial No. 584,992
1 Claim. (Cl. 118—306)



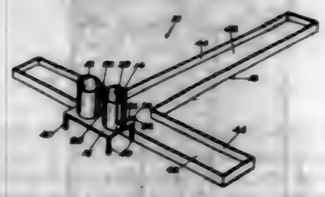
A spray gun for lining the interior of small diameter pipes, such as boiler tubes, said spray gun comprising an elongated solid guide block of a circular cross-section, the cross-section of said guide block corresponding generally to the interior cross-section of the pipe to be lined whereby said guide block is guided by the pipe in its passage therethrough, an air supply pipe extending through and supported by said guide block, a coating material supply pipe extending through and supported by said guide block adjacent said air supply pipe, a spray nozzle assembly carried by said air supply pipe and said coating material supply pipe adjacent said guide block and in advance thereof, said spray nozzle assembly including an air nozzle and a coating material pick-up tube, said air nozzle being centered relative to said guide block whereby coating material is evenly supplied to an interior of a pipe to be lined, a support on said air nozzle engaging and supporting said pick-up tube relative to said air nozzle, flexible supply lines connected to said air supply pipe and said coating material supply pipe, said supply lines also forming a means for moving said guide block and said spray nozzle through a pipe being lined, separate control valves on said air supply pipe and said coating material supply pipe, said control valves being disposed within an area defined by a longitudinal projection of said guide block whereby said valves clearly pass through the pipe being lined, said control valves being disposed rearwardly of said guide block and protected from said spray nozzle by said guide block.

2,842,096
PORTABLE SELECTIVE TYPE HOPPER AND TROUGH FEEDER
Gilbert L. Bradfield, Chandler, Ind.
Application August 23, 1955, Serial No. 530,835
2 Claims. (Cl. 119—52)



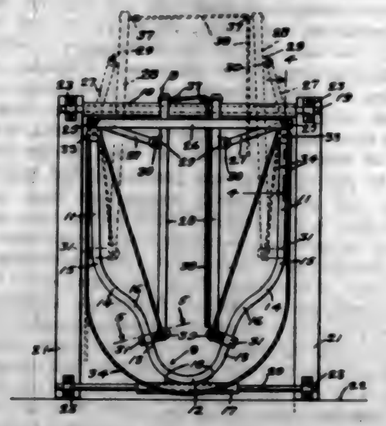
1. A universal feeder for animals comprising a vertically extending feed hopper, a feed trough connected with the bottom of said hopper for gravitationally receiving feed therefrom, vertically extending elongated frame members arranged at each end of said hopper and projecting outwardly from the plane of the side wall thereof and having sets of spaced apertures in the outwardly projecting portions of said elongated frame members disposed at varying heights above the top of said feed trough, the sets of apertures in the frame members being horizontally aligned with respect to the top of said feed trough, a substantially rectangular guard frame, a panel extending over said guard frame, the opposite ends of said guard frame having a series of spaced apertures therein, means at opposite ends of said guard frame for detachably engaging selected horizontally aligned apertures in said frame members on pivots which may be raised or lowered with respect to the open top of said feed trough in a position spaced from the side wall of said hopper and swingable on said pivots to a position wherein the panel thereof extends over the open top of said feed trough and means detachably engageable with said frame members and with selected apertures in the opposite ends of said guard frame for maintaining said guard frame in a selected inclined plane over the open top of said feed trough for restricting the headroom space over the open top of the feed trough, the pivots of said guard frame being selectively setable in horizontally aligned apertures in said frame members for selectively limiting the headroom access by animals to said feed trough.

2,842,097
ANIMAL FOOD MIXER
Lester A. Krostoching, Sharon Springs, Kans.
Application June 18, 1956, Serial No. 591,837
4 Claims. (Cl. 119—52)



1. In a feed mixer, the combination which comprises a pair of tanks, a tube extended between and connecting the lower ends of the tanks, an upper tube extended between and connecting upper ends of the tanks, a nipple having a fitting on each end extended through the wall of one of the tanks providing a discharge connection, and an overflow pipe mounted in the fitting on the end of the nipple positioned in the tank, said overflow pipe being adapted to be removed to open the discharge connection.

2,842,098
ANIMAL HOLDER
Robert L. Sudheimer, Carbondale, Ill.
Application June 14, 1957, Serial No. 665,720
6 Claims. (Cl. 119—99)



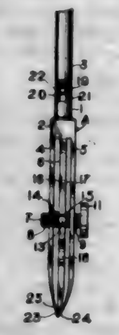
1. An animal holding gate comprising a frame through which animals are able to pass, means adapted to detachably mount said frame between spaced uprights and for positioning the lower portion of the frame adjacent the ground level, a pair of elongated jaws, means slidably connecting lower ends of said jaws to complementary lower portions of the frame, link members having corresponding ends pivotally connected to upper portions of the frame and extending inwardly therefrom and having inner ends pivotally connected to upper portions of said jaws, said lower frame portions extending upwardly and outwardly relative to one another, and manually actuated hoist means connected to said jaws and adapted to be manually actuated for exerting an upward pull on the jaws whereby said jaws are displaced away from one another by said second mentioned means moving upwardly relative to said lower frame portions and by upward and outward swinging movement of said links, and flexible means anchored to the upper end of one jaw and slidably connected to and extending downwardly from the other jaw for urging the jaws downwardly and inwardly when a downward pull is exerted on said flexible means.

2,842,099
ELECTRIC CALF WEANER
Lewellyn Miller, Limestone, Tenn.
Application September 13, 1956, Serial No. 609,634
4 Claims. (Cl. 119—130)



1. A calf weaner comprising a longitudinally curved body adapted to fit over the bridge of the nose of the calf, electrically conductive means adjustably connected with said body to fit at least in part around the head of the calf to hold the body on the calf, said body being made of electrically insulating material, a switch attached at one end of said body, a battery carried by said body, an amplifier carried by said body, an electrical circuit including said battery, amplifier, body holding means and controlled by said switch to shock the calf when said switch is closed, said circuit including conductors fixed on said body, said switch including a stationary contact carried by said body and located on the upper exterior surface thereof, a resilient switch arm carried at one end by said body, and a contact at the opposite end of said arm adapted to be moved into touch with said stationary contact, and an insulation cover on an inner portion of said resilient switch arm and the outer end portion of said switch arm exposed to touch and shock the cow.

2,842,100
DRAFTING PEN
Clarence Burtes Hodges, Hazel, Ky.
Application August 14, 1957, Serial No. 678,112
1 Claim. (Cl. 120—169.5)



A drafting pen comprising a pen unit having a shank portion containing two exterior blades and an intermediate blade, said intermediate blade being comparatively rigid with respect to shank and the two exterior blades, points of said exterior blades adjustable toward and

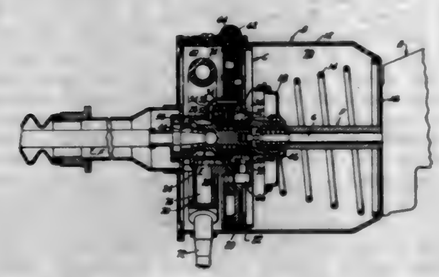
away from point of said intermediate blade, said pen unit normally being carried by a handle, means for detachably connecting said pen unit to handle, including an annular grooved cylindrical portion on shank to fit into bore in handle, a handle bored to accept said grooved cylindrical portion of shank, an adjusting screw attached and fixed in its longitudinal axis onto the intermediate blade, said adjusting screw having its opposite ends screw threaded with opposed screw threads and screw threaded into the two exterior blades thereby urging points of said exterior blades simultaneously equidistantly away or toward point of said intermediate blade when said adjusting screw is turned, a recess in said intermediate blade to aid in filling the pen with inking fluid.

2,842,101

FLUID PRESSURE SERVO-MOTOR

Earl R. Price, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application April 18, 1956, Serial No. 578,992
1 Claim. (Cl. 121—41)



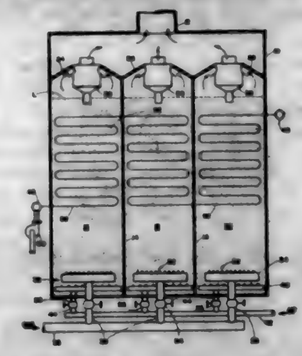
In an atmospheric suspended fluid pressure servomotor: a power chamber having a movable wall therein dividing the power chamber into an enclosed forwardly positioned opposing chamber isolated from the atmosphere and a rearwardly positioned opposing chamber continually in communication with the atmosphere, a control valve carried by said movable wall having a flexible vacuum supply line communicating therewith, said flexible supply line communicating an external source of vacuum with said control valve, said valve means having a manually movable control member movable relative to said movable wall from a normal position wherein said valve means communicates atmospheric pressure from said rear chamber to said forward chamber to a position forwardly of said normal valve position wherein it communicates vacuum from said flexible supply line to said forwardly positioned opposing chamber, said movable control member being constructed and arranged to force said movable wall forwardly manually upon further forward relative movement of said control member relative to said movable wall, flow conducting passage means through said movable wall communicating said opposing chambers, said flow conducting passage means having a flow capacity substantially in excess of that of said control valve, and valve closure means for said passage means preventing air flow from said rear opposing chamber to said forward opposing chamber and opening said passage means to its full capacity upon a slight increase in pressure in said forward opposing chamber above that in said rear opposing chamber, whereby substantially atmospheric pressure is maintained in said forward opposing chamber during manual movement of the movable wall.

2,842,102

STEAM GENERATION

Henry J. Blaskowski, New York, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application November 18, 1954, Serial No. 469,739
1 Claim. (Cl. 122—4)



The method of heating a fluid and controlling the heat input thereto over a wide range comprising providing a plurality of independent separate beds of particulate material which is capable of catalytically oxidizing a fuel-air mixture provided the material is within a predetermined temperature range, passing the fluid to be heated through a heat exchanger in contact with the material of said beds to thereby indirectly impart heat from the beds to said fluid, fluidizing the material of said beds, introducing fuel and air directly into said beds for catalytic oxidation thereof in contact with said material, effecting such oxidation, maintaining the supply of fuel and air to each bed such that the bed temperature is within said predetermined range and individually increasing and decreasing this supply to each bed within the limits dictated by this temperature range to regulate the heat input to the fluid throughout a first range as desired, the upper limit of which is that obtained when all the beds are fired to give the maximum permissible bed temperature within said predetermined temperature range and the lower limit is that obtained when all the beds are fired to give the minimum permissible bed temperature within said predetermined temperature range, providing a second range of regulation of the heat input to the fluid by deactivating one of said beds through the termination of the supply of fuel thereto and increasing and decreasing the fuel and air supply to the other beds within the limits dictated by said predetermined bed temperature range with the upper limit of this second range being that obtained when all of said other beds are fired to give the maximum permissible bed temperature within said predetermined range and the lower limit is that obtained when all of said other beds are fired to give the minimum permissible bed temperature within said predetermined temperature range.

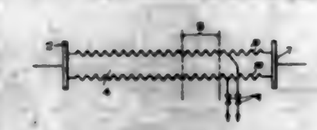
2,842,103

METHOD FOR WASHING OUT THE CONDUITS OF SUPERCRITICAL PRESSURE, WATER TUBE, VAPOR GENERATORS

Paul Profos, Winterthur, Switzerland, assignor to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland

Application March 25, 1954, Serial No. 418,684
Claims priority, application Switzerland July 25, 1953
1 Claim. (Cl. 122—379)

A method for individually washing out selected tubular conduits of a forced flow supercritical pressure vapor generator including the steps of continuously supplying operating fluid and combustible and oxidizing media to the generator at relative rates producing a substantially constant temperature of the generated supercritical pressure vapor at a normal location in its path, of temporarily reducing the pressure in the selected conduit to be washed



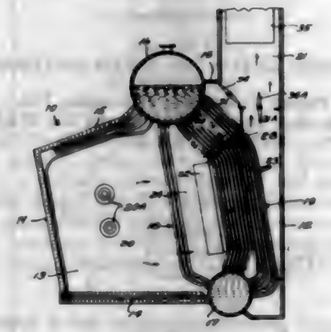
out to below the critical pressure of the fluid for producing wet vapor in the selected conduit upstream of the normal location of the vaporizing zone, and of blowing off contaminated wet vapor from the selected conduit which is to be washed out, while leaving undisturbed at least the critical pressure of the fluid in all the other conduits.

2,842,104

VAPOR GENERATOR

Leonard James Culver, London, England, assignor to Foster Wheeler Corporation, New York, N. Y., a corporation of New York

Application August 10, 1955, Serial No. 527,599
6 Claims. (Cl. 122—480)



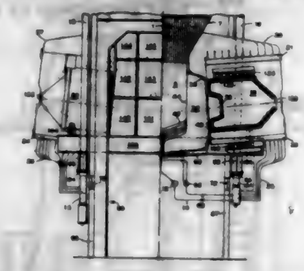
1. A vapor generator comprising a setting having a furnace chamber therein, means for firing said furnace chamber thereby producing combustion gases, a combustion gas outlet in said setting, an upper liquid-vapor drum and a lower liquid drum disposed in said setting, an inner bank of vapor generating tubes, an outer bank of vapor generating tubes, said inner bank and said outer bank of tubes being laterally spaced from one another, the tubes of said banks communicating at their opposite ends with the two drums, said tubes extending substantially vertically within the setting at a location between the furnace chamber and the combustion gas outlet, a superheater having U shaped tubes disposed in the space between the inner and outer vapor generating tube banks and spaced below said upper drum, said U-shaped superheater tubes being disposed one above the other with the longitudinal axes of the tubes extending substantially normal to the longitudinal axes of the tubes of the inner and outer banks of vapor generating tubes, said superheater spaced from one of said tube banks a distance slightly greater than the width of the largest U shaped superheater tubes to permit removal of said superheater tubes by lateral displacement thereof into the space between the superheater and said tube bank.

2,842,105

CYCLONE FIRED VAPOR GENERATING UNIT WITH DOWNCOMER SUPPORT FOR THE CYCLONE FURNACE

Johann Kolling, Oberhausen, Rhineland, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application July 20, 1955, Serial No. 523,160
8 Claims. (Cl. 122—510)



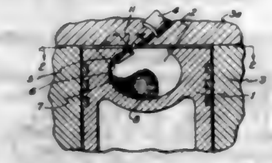
1. In a vapor generating and superheating unit, means including vapor generating tubes presenting a vertically extended furnace chamber subject to the flow of high temperature gases the heat from which causes the vaporizing of liquid in the vapor generating tubes, similar means including vapor generating tubes defining a cyclone fuel burning furnace delivering high temperature combustion products to the lower part of the vertically extended furnace chamber, and means for supporting the cyclone furnace in position at one side of the vertically extended furnace chamber; the last named means including steelwork, a vapor and liquid drum horizontally disposed at the upper portion of the steelwork, large diameter upright downcomers pendently supported by the steelwork, tubular connections between the upper ends of the downcomers and the liquid space of the drum, tubular connections between the lower ends of the downcomers and the inlets of the vapor generating tubes of the cyclone furnace, a horizontally disposed load-carrying girder supported at its end portions by the lower parts of the downcomers and arranged in a vertical plane adjacent the center of gravity of the cyclone furnace, and means whereby the girder receives the load of the cyclone furnace.

2,842,106

COLD ENGINE STARTING DEVICE

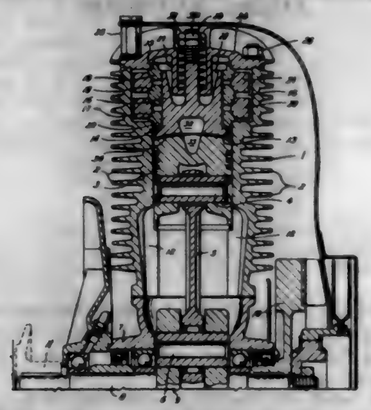
Siegfried Meurer, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nürnberg A. G., Nurnberg, Germany

Application July 15, 1957, Serial No. 671,859
Claims priority, application Germany July 24, 1956
4 Claims. (Cl. 123—30)



1. A cold starting device for a fuel injection internal combustion engine in which the major portion of the injected fuel jet is directed against the wall of the combustion chamber to form a film and the minor fuel portion is atomized, comprising a baffle mounted in said chamber in the path of the fuel jet when cold and thereby deflecting said jet and atomizing the fuel during cold starting of the engine, and being automatically movable by a rise in temperature in said chamber to a position out of the path of the fuel jet.

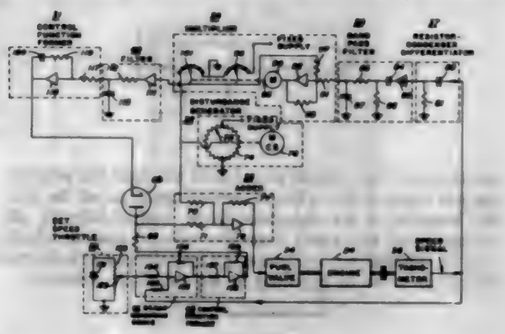
2,842,107
INTERNAL COMBUSTION ENGINE
Hermann Teegen, Bielefeld, Germany, assignor to Diesel Engine Company of Texas, Houston, Tex., a corporation of Texas
Application December 27, 1955, Serial No. 555,675
4 Claims. (Cl. 123—48)



1. An internal combustion engine having a cylinder and a piston movable in said cylinder, and including, a control piston in one end of the cylinder, the space between the first piston and the control piston forming a combustion chamber, means for adjusting the position of the control piston relative to the cylinder to thereby vary the area of the combustion chamber in accordance with temperature changes, said last-named means comprising a plurality of inner rings surrounding the control piston and constructed of a material having a relatively low co-efficient of expansion, one of said rings engaging a projection on the control piston whereby movement of the rings in a direction parallel to the control piston axis will permit movement of said control piston relative to the cylinder, a plurality of outer rings disposed alternately between the inner rings and constructed of a material having a relatively high co-efficient of expansion, the bores of the outer rings engaging the outer peripheral surfaces of the inner rings with the engaging surfaces of the rings being inclined, whereby radial expansion and contraction of the outer rings permits the inner rings to move up and down relative to the axis of the cylinder, and a fixed support for confining the inner rings between said fixed support and the end of the cylinder, whereby as the outer rings expand and contract, the inner rings undergo movement to change the position of the control piston with respect to the cylinder.

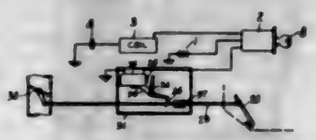
2,842,108
CLOSED-LOOP ACCELERATION CONTROL SYSTEM
John Claytor Sanders, Lakewood, Ohio
Application November 15, 1955, Serial No. 547,052
13 Claims. (Cl. 123—102)
(Granted under Title 35, U. S. Code (1952), sec. 266)

8. An acceleration control system for a gas engine having a fuel valve, said system comprising: a control function former for producing a control signal to control said valve to establish an average fuel flow for said engine; a source for producing a disturbance signal of alternating polarity; adding means for producing an added signal of said control signal and said disturbance signal; leads for conducting said added signal to said fuel valve for varying the fuel flow to said engine, whereby changes in acceleration are produced; means for producing a signal that is a function of the instantaneous speed of said engine; means for producing a differentiated signal of the speed signal; filter means for producing a first filtered signal consisting of the portion of said differentiated signal which is at the same frequency as said disturbance signal; multiplying means for producing a product signal which is a product of said disturbance signal and said first filtered signal; low-pass filter means for producing a second filtered signal from said product



signal from which the disturbance frequency and all higher frequencies are eliminated; and leads for conducting said second filtered signal to said control function former whereby the control function former produces a change in control signal to change the average fuel flow in a direction to give maximum acceleration of said engine.

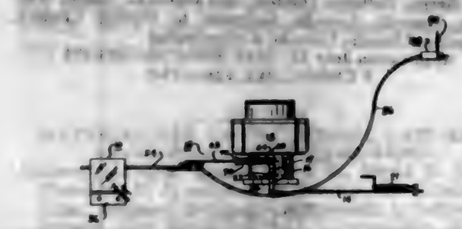
2,842,109
IGNITION ACTUATED SPEED GOVERNING APPARATUS
Patrick T. Baldwin, Milwaukee, Wis.
Application March 9, 1956, Serial No. 570,610
8 Claims. (Cl. 123—102)



1. A speed governing apparatus for a prime mover having an ignition circuit connecting the primer mover to a source of electrical energy, comprising ignition switch means connected in said ignition circuit and having two operable positions, speed governing means for governing the speed of said prime mover, and a second circuit connecting said governing means and said ignition switch means to said source of electrical energy, said switch means being operable in the first of said positions to close said ignition circuit and being operable in the second of said positions to close both said ignition and second circuits.

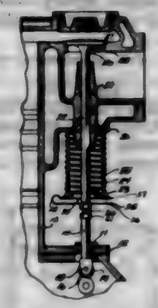
2,842,110
CARBURETOR THROTTLE CONTROL DEVICE
William C. Eddy, Jr., Michigan City, Ind., assignor to Television Associates, Inc., Michigan City, Ind., a corporation of Illinois
Application December 31, 1956, Serial No. 631,945
10 Claims. (Cl. 123—102)

1. An auxiliary throttle control mechanism for an internal combustion engine, comprising a magnetic attractable movable member, a linkage for connecting said member with the throttle, a magnetic means for holding said member in preselected positions and the throttle in desired open positions, a means in said linkage adapted to yield to pressures tending to open the throttle, means for varying the preselected setting of the throttle without disturbing the initial setting of said movable member, and an electrical control circuit for said magnetic means



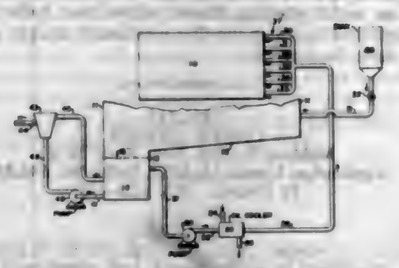
having a holding circuit controlled by a switch operated by said magnetic means.

2,842,111
VALVE SILENCERS
George M. Brown, Milwaukee, Wis.
Application November 13, 1956, Serial No. 621,939
2 Claims. (Cl. 123—188)



1. A device of the character described comprising a flat sheet area of spring material shaped intermediately to provide a partially cylindrical spring fold and having areas either side of the fold divergent from each other when in spring relaxed position, one of said areas being apertured centrally, the other of said areas opposite said aperture being imperforate.

2,842,112
METHOD FOR REDUCING CORROSION IN LUBRICATION SYSTEMS
Judson L. Phillips, Upper Montclair, and John J. Kolfenbach, North Plainfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application December 20, 1954, Serial No. 476,356
3 Claims. (Cl. 123—196)



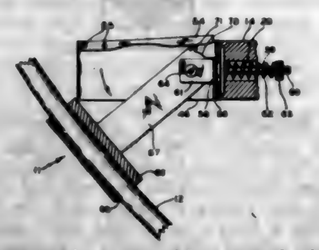
1. In the lubrication of marine diesel engines operating on fuels containing from 1 to 4 wt. percent sulfur, which fuel on burning results in the formation of oxides of sulfur which results in the contamination of the bearing lubricating oil, and wherein a portion of the bearing lubricating oil is removed from its crankcase, centrifuged to separate out impurities and the purified oil returned to said crankcase, the improvement which consists essentially of adding to the lubricating oil in said crankcase, an aqueous solution of an alkaline alkali metal phosphate in an amount sufficient to maintain the pH of said oil within a range of 5 to 11, the resultant used aqueous salt solution being subsequently removed from the lubricating oil together with said aforementioned impurities by centrifuging.

2,842,113
ARCHERY BOW
Lowell W. Roper, Oakland, Calif.
Application September 6, 1955, Serial No. 532,697
4 Claims. (Cl. 124—24)



2. In an archery bow comprising a handle section, an upper limb extending longitudinally from one end of the handle section and a lower limb extending longitudinally from the other end of the handle section, said bow when strung having a generally convex back side remote from the bow string and a generally concave face side proximate to the bow string, the improvement wherein said handle section includes a grip portion having a length at least as great as the width of a hand for which said handle section is dimensioned and a substantially uniform thickness such that said grip portion can be comfortably gripped by the hand for which the handle section is dimensioned, said grip portion having an inclination downwardly and toward the bow string from the proximal end of said upper limb such that when the grip portion is held in the hand with the wrist straight, the bow is disposed in a substantially vertical position.

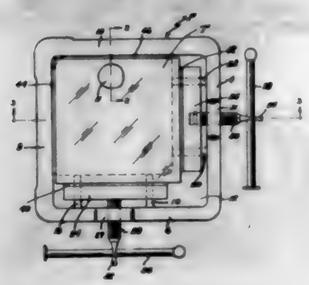
2,842,114
FOLDABLE CROSSBOW
Howard C. Duncan, Springfield, Oreg.; Elois E. Duncan, administratrix of said Howard C. Duncan, deceased
Application May 26, 1955, Serial No. 511,273
6 Claims. (Cl. 124—25)



1. A folding crossbow comprising a stock elongated in the direction of aim, a pivot perpendicular to said direction of aim mounted for longitudinal sliding movement in the front end of said stock, a bow holder connected with said pivot for rotation from a transverse operative position to a longitudinal folded position with respect

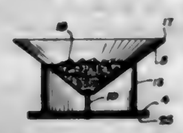
to said stock, and a spring urging said pivot rearwardly in the stock to hold said bow holder firmly in operative position against the front end of the stock when the bow holder is disposed in said transverse position.

2,842,115
TILE HOLDING TOOL FOR USE IN TILE CUTTING
John Pepi, Quincy, Mass., assignor to Edward C. Hoesterie, Chicago, Ill.
Application June 6, 1957, Serial No. 664,104
3 Claims. (Cl. 125—35)



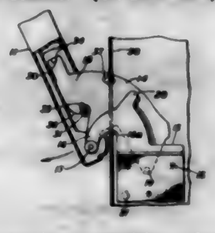
1. A tile retaining press construction for supporting a tile element in a state of predetermined compression required for a selective hole breaking operation, said press construction including a four-sided frame, said frame having two of its sides meeting to form a fixed corner, tile supporting base portions extending inwardly along the opposite sides of the frame, a bottom portion having a hole therethrough, a pair of pressure bars adjustably disposed in the frame at right angles to one another and oppositely to the fixed corner, said pressure bars being adapted to engage and hold the tile element against the fixed corner with an unsupported bottom of the tile element occurring over the said hole and screw means for tightening the respective pressure bars to exert compressive forces on the tile element.

2,842,116
ARTICLE OF DISPOSABLE BARBECUE STOVE PACKAGE UNIT
Harvey M. Hinderer, Ferguson, Mo.
Application March 17, 1954, Serial No. 416,859
2 Claims. (Cl. 126—9)



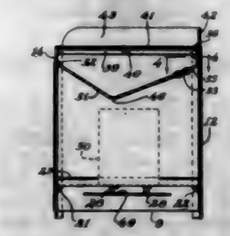
2. A disposable barbecue stove comprising in combination: a base of sheet material; a rigid cylinder of flexible sheet material having detachable edges, the cylinder being mounted on the base with one of the circular edges of the cylinder in contact with the base; a cone comprising a fire-pot of flexible sheet material having detachably secured edges defining an element of the cone, the cone being located on the cylinder with the apex of the cone within the cylinder and the surface of the cone in contact with the other circular edge of the cylinder; and a connecting member secured to the base and the apex of the cone for securing the base, cylinder, and cone in assembled relationship.

2,842,117
DOOR HINGE MECHANISM
Olav Berge, Toronto, Ontario, and David G. Smith, Weston, Ontario, Canada, assignors to Moffats Limited, Weston, Ontario, Canada, a corporation
Application July 21, 1955, Serial No. 523,475
4 Claims. (Cl. 126—194)



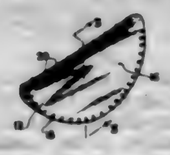
1. A hinge mechanism comprising a fixed plate, a movable plate parallel to the fixed plate and pivotally secured thereto, the rotation of the movable plate being in its own plane, the movable plate having two substantially oppositely directed notches cut therein, and a hinged member having a U-shaped spring rod mounted thereon adapted to releasably engage the notches on the movable plate.

2,842,118
MORTAR HEATER
Walter S. Slaiecki, St. Paul, Minn.
Application October 1, 1953, Serial No. 383,608
5 Claims. (Cl. 126—345)



1. A mortar heater including a generally rectangular cabinet having four rectangularly arranged side walls, at least one of the said side walls providing an air inlet opening at the lower end thereof, a heater unit within said cabinet, a generally V-shaped baffle extending between two opposite walls, one straight edge of the V-shaped baffle being connected to a third wall and the opposite straight edge of the baffle being spaced from the opposite wall with the apex of said baffle being displaced in relationship to the center of the said cabinet, a generally horizontal mortar supporting plate above said baffle and forming a top closure for the walls, said cabinet having an outlet opening therein above said baffle in the cabinet wall to which the first mentioned straight edge of the baffle is secured.

2,842,119
CHEEK UPLIFT
Mildred Walton, New York, N. Y.
Application March 15, 1957, Serial No. 646,244
12 Claims. (Cl. 128—76)



1. A cheek uplift pad for insertion in the mouth in back of a crease line for reducing the sharpness of said

line, comprising a body having one generally straight longitudinal edge portion and an arcuate, opposite edge portion merging at its ends into the ends of the first end portion, and a flexible sheath of moisture-proof material fully enclosing said body.

2,842,120
MATERIAL FOR AN ORTHOPEDIC CAST AND PROCESS OF MAKING THE SAME
Andrew J. Foglia, Brooklyn, N. Y., David F. Smith, Metuchen, N. J., and Earl B. Dotwiler, Old Greenwich, Conn., assignors, by mesne assignments, to Johnson & Johnson, New Brunswick, N. J., a corporation of New Jersey
No Drawing. Application April 15, 1953
Serial No. 349,094
5 Claims. (Cl. 128—91)

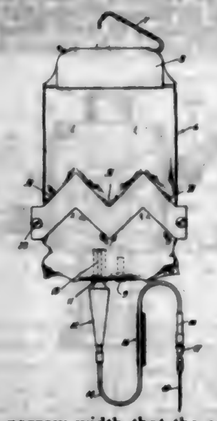
1. A process for making a material for making an orthopedic cast which comprises applying to a gauze bandage, a non-aqueous slurry of an uncured melamine-formaldehyde resin, plaster of Paris, an adhesive binding agent, a catalyst for the resin, and a volatile dispersing medium for said adhesive binding agent, heating the resulting gauze bandage to a substantially dry state at a temperature not appreciably greater than 260° F., without appreciably increasing the degree of polymerization of the resin, wherein said melamine resin is a fusible water dispersible material having a mol ratio of 1:1.5 to 1:3.3, melamine to formaldehyde, respectively, wherein said resin constitutes about 5% to 30% by weight of the total solids in said slurry, wherein the binding agent constitutes between about 0.5% to 3.0% by weight of the total solids of said slurry, wherein said plaster of Paris constitutes the balance of solids of said slurry and wherein said volatile medium is present in an amount sufficient to enable said solids to form a coatable slurry therewith.

2,842,121
CAST FORMING MATERIAL AND METHOD OF MAKING
Orman B. Billings and Leo Brickman, Metuchen, N. J., assignors to Johnson & Johnson, a corporation of New Jersey
No Drawing. Application June 15, 1955
Serial No. 515,793
Claims priority, application Canada September 4, 1954
6 Claims. (Cl. 128—91)

1. A cast forming material, useful for producing an immobilizing cast, comprising a flexible, pervious backing bonded to a substantially dry composition comprising about 5 to 30% of potentially-reactive melamine-formaldehyde resin and about 95 to 70% of plaster of Paris based on the weight of said composition, said cast forming material containing resin-curing catalyst in an amount in the range of about 2.5 to 30% based on the weight of the resin therein, said material having one surface thereof coated to the extent of about 10 to 40% of its area with discrete smooth globules comprising a dispersion of resin-curing catalyst in polyethylene glycol having a molecular weight in the range of about 5000 to 7000.

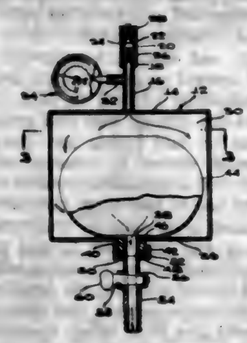
2,842,122
FILTER
William F. Butler, Oakland, Calif., assignor to Cutter Laboratories, Inc., a corporation of California
Application August 2, 1955, Serial No. 526,614
8 Claims. (Cl. 128—214)

1. Blood administration equipment comprising a container having flexible walls and opposite ends with an outlet at the lower end, and a pair of plates secured in position upon the container between said ends and constricting the flexible walls of the container and providing a fluid passage between the constricted walls in the form



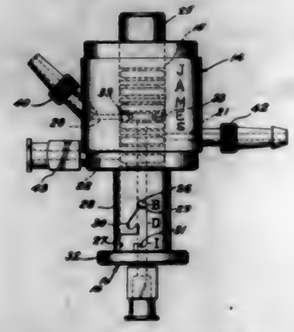
of a slot of such narrow width that the constricted walls act as a filter for blood passing through the slot.

2,842,123
PRESSURIZED TRANSFUSION APPARATUS
Le Roy M. Randhaug, Pomona, Calif.
Application May 25, 1956, Serial No. 587,241
1 Claim. (Cl. 128—214)



Pressurized transfusion apparatus for blood, plasma, saline solutions and the like, comprising a pressure container, a variable-volume impervious fluid chamber contained in the pressure container for containing a fluid to be transfused, said variable-volume chamber member having a valve-controlled outlet portion extending in sealed relationship from the pressure container for dispensing pressurized transfusion fluid contained in the impervious fluid chamber member, said pressurized container including an aperture portion extending through a wall portion thereof, an annular externally-threaded collar member surrounding said aperture portion and extending from the pressure container, the variable volume impervious fluid chamber member comprising a collapsible bag, said bag having a nozzle portion extending through the aperture portion of the pressure container and terminating in an annular gasket portion overlying the end of the threaded collar, the valve controlled outlet portion of the variable-volume chamber member comprising a tubular coupling element having an annular internally-threaded cap portion engageable on the threaded collar and clampingly engaging the annular gasket portion of the collapsible bag, and valve means on the tubular coupling element for controlling the dispensing of transfusion fluid from the interior of the collapsible bag.

2,842,124
BLOOD TRANSFUSION SYSTEM
Joseph M. James, Wilmington, N. C.
Application December 10, 1956, Serial No. 627,471
3 Claims. (Cl. 128—214)



1. A system for blood exchange transfusion in infants having the disease of erythroblastosis comprising a casing having a cylinder therein and three passageways from the outer surface of said casing to longitudinally spaced positions on the wall of said cylinder, a control assembly slidably positioned for longitudinal movement in said cylinder, said control assembly having a syringe at its outer end, a control device intermediate its ends and a piston at its inner end positioned in said cylinder, said piston having an opening extending from its surface transversely inwardly and defining a transverse conduit, said piston and said control portion having a longitudinal hole defining a longitudinal conduit in fluid communication with said transverse conduit and said syringe, a control means mounted on said casing for operative coaction with said control device to connect selectively said syringe through said longitudinal conduit and said transverse conduit to one of said three passageways, said piston having spaced outer annular transverse grooves on opposite sides of and very near to said transverse conduit, O-rings positioned in said grooves and sealingly engaging the wall of said cylinder, the longitudinal distance between said transverse conduit and either closely adjacent O-ring being less than either longitudinal distance between adjacent passageways in the cylinder wall to provide a sealed zone around the selected passageway, first conduit means connected to one of said passageways for conducting a baby's blood from the baby and a donor's blood to the baby, second conduit means connected to the second of said passageways for discharging the baby's blood from the system, third conduit means connected to the third of said passageways for taking donor's blood into the system.

2,842,125
SYRINGE TIP STRUCTURE
Fred E. Stephany, Rutherford, N. J., assignor to Becton, Dickinson and Company, Rutherford, N. J., a corporation of New Jersey
Application January 20, 1954, Serial No. 405,085
4 Claims. (Cl. 128—218)

1. In a hypodermic syringe in combination a barrel unit having an outer end formed with a bore, a needle-mounting member having a body overlying the outer barrel edge defining such bore, an extension forming a part of said body and projecting into such bore, the bore of said barrel being formed with threads extending through to its outer end, said extension being also formed with threads, the diameter of said extension being substantially less than the diameter of said bore whereby an effective area of clearance exists between the threads of said extension and bore and a cement-like layer lying within said area to intervene said threads and also extending into space existing between the body of such member and said outer barrel edge.

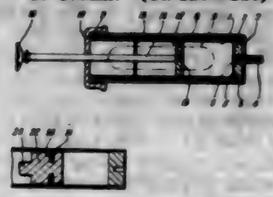


2,842,126
SYRINGE ASSEMBLY
Frank E. Brown, Burbank, Calif., assignor to Frederick M. Turnbull, Los Angeles, Calif.
Application March 16, 1954, Serial No. 416,606
1 Claim. (Cl. 128—218)



A syringe assembly including in combination a barrel, a closure at one end of said barrel, a plunger at the opposite end of the same, outwardly extending flanges forming a part of said barrel adjacent its ends, caps, an actuating stem slidably carried by one of said caps, a double-ended needle carried by the second of same, flanges in the form of spaced wing portions at diametrically opposite points in said caps and shiftable to positions overlying and engaging against said barrel flanges to retain said caps against movement with respect to said barrel.

2,842,127
HYPODERMIC SYRINGES
Samuel James Everett, Thornton Heath, England, assignor to S. & R. J. Everett & Company Limited, Thornton Heath, England, a British company
Application April 11, 1955, Serial No. 500,520
Claims priority, application Great Britain April 15, 1954
10 Claims. (Cl. 128—218)



1. A hypodermic syringe comprising a barrel, an end cap formed of a material having a coefficient of expansion substantially equal to that of said barrel, said end cap comprising a first portion slightly less in diameter than the internal diameter of said barrel and extending into said barrel, a nozzle secured to said end cap, a sealing member formed by a relatively thin layer of a halogenated ethylene of the class consisting of polytetrafluorethylene and polymonochlortrifluorethylene interposed between the adjacent surfaces of said barrel and said end cap, and means for securing said end cap to said barrel.

10. A hypodermic syringe comprising a barrel, an end cap and nozzle combination over one end of said barrel,

a piston member slidable within said barrel and of a diameter slightly less than the internal diameter of the barrel, said piston comprising an annular groove, a thin supporting metal washer of a diameter slightly less than the internal diameter of the barrel, located within said groove, and formed of a material having a coefficient of expansion substantially equal to that of said barrel and a sealing layer of a halogenated ethylene of the class consisting of polytetrafluorethylene and polymonochlortrifluorethylene adjacent to said washer in said groove and extending over the periphery of said washer.

2,842,128
THUMB RING FOR HYPODERMIC SYRINGE
George N. Hein, Jr., San Carlos, Calif., assignor to Becton, Dickinson and Company, Rutherford, N. J., a corporation of New Jersey
Application May 19, 1955, Serial No. 509,646
8 Claims. (Cl. 128—218)



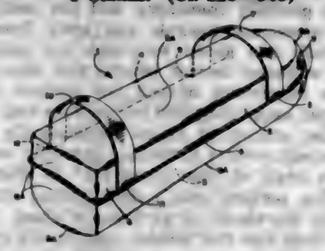
1. In a syringe assembly, in combination, a hypodermic syringe plunger, a circular beaded portion defining an end thereof, a pair of connected contact elements to removably engage such portion, said elements each comprising a pair of spaced lips to receive between them a part of said portion, said lips defining between them a groove and the base of each groove presenting an arcuate configuration corresponding substantially to the radius of said beaded portion.

2,842,129
VOIDING SHORTS FOR INCONTINENT PEOPLE
Joseph W. Ernstoff, Brooklyn, N. Y.
Application August 10, 1956, Serial No. 603,349
3 Claims. (Cl. 128—288)



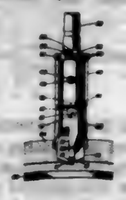
1. A body discharge garment including an inside and outside layer of liquid repellent material shaped substantially in the form of shorts, said layers being sealed together at the extreme upper and lower ends thereof to form a liquid-repellent enclosure, said inside layer including an adjustable belted portion to vary the dimensions of an aperture enclosing the urinary discharge organ, said outside layer including a plurality of zippered closing means for sealing ingress apertures in said outside layer, and an adjustable peripheral belted portion at the upper end of said garment for conforming said garment to the body of the wearer, wherein one of said plurality of zippered closing means is disposed in contiguous relation to said aperture inclosing said urinary discharge organ to permit voluntary urinary discharge, and absorbing means disposed in the lower portion of said liquid-repellent enclosure.

2,842,130
SURGICAL APPLIANCES
Leon S. Seidler, Chicago, Ill.
Application March 13, 1957, Serial No. 645,771
5 Claims. (Cl. 128—383)



2. A supporting surgical appliance comprising a substantially longitudinal rectangularly prismatic pliable gas-filled cushion enclosure provided with a plurality of non-elastic straps extending transversely of the top and from side to side of said cushion and positioned adjacent the ends of said enclosure, said enclosure having an upper portion and a lower portion hermetically sealed together longitudinally and transversely around its perimeter, said straps being attached to said cushion at said seal.

2,842,131
AUTOMATIC DRILL
George W. Smith, Augusta, Ga.
Application May 27, 1957, Serial No. 661,922
3 Claims. (Cl. 128—310)



1. A drilling implement for bone structures, comprising, a drill, a counterbore collar surrounding said drill, said drill and collar being relatively longitudinally slidable, a drive cylinder aligned with said drill and collar, a closure head at the upper end of said cylinder, clutch means between said drive cylinder and drill, said clutch means also maintaining said drill and collar for conjoined rotary movement, whereby said drill and collar rotate when said drive cylinder rotates, and means between said closure head and drill for disconnecting said clutch means between said drill and said drive cylinder and forcing said drill axially ahead of said collar when resistance to the cutting action of said drill ceases.

2,842,132
SURGICAL CLAMP
Luis R. Soltero, Houston, Tex., and Stanly D. Greenberg, Iowa City, Iowa
Application October 15, 1956, Serial No. 616,080
4 Claims. (Cl. 128—322)



1. A surgical clamp for partial occlusion of blood vessels and the like, comprising a pair of opposed jaw

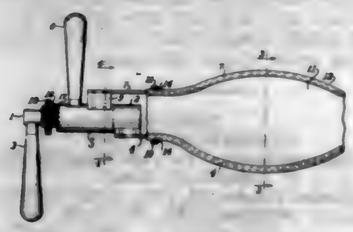
sections adapted to be positioned lengthwise of a blood vessel and having teeth thereon which interengage when the jaw sections are brought together, said teeth being of a length to indent the vessel without rupturing same, pivot means pivotally connecting said jaw sections together for movement towards and away from each other, a handle arm joined with each jaw section for forming an extension thereof beyond said pivot means to effect the movements of said jaw sections towards and away from each other, said jaw sections each having a first portion adapted to extend longitudinally of the vessel, a second portion extending upwardly and forwardly at an angle of from about 115° to about 125° from said first portion, and a third portion extending upwardly and rearwardly at an angle of about 100° to about 120° from said first portion, said handle arms extending rearwardly at an angle of from about 120° to about 140° from said third portion, and interfitting fixation means at the upper ends of said second portions of said jaw sections extending above the vessel being gripped by said jaw sections for preventing shifting of the jaw sections as they are moved towards each other in applying clamping pressure to the vessel during the partial occlusion of same.

2,842,133
SURGICAL OR MEDICAL VEIN DILATING DEVICE
Czeslaw Antoni Florian Uhma, Sydney, Nova Scotia, Canada, assignor to Surgic Company Limited, Sydney, Nova Scotia, Canada, a body corporate of Nova Scotia
Application February 27, 1957, Serial No. 642,815
13 Claims. (Cl. 128—345)



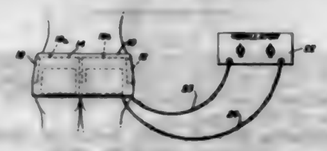
1. A dilating device for intravenous use for the purpose hereinbefore stated comprising an elongated trough-shaped member tapering towards one end thereof, a short hollow needle fixed to said tapered end for entry into a vein until the vein is dilated by said member, and a finger piece attached to the other end of said member for manipulating the device.

2,842,134
OBSTETRICAL DELIVERY INSTRUMENT
Charles Russell Post, Andover, N. J.
Application September 30, 1953, Serial No. 383,270
4 Claims. (Cl. 128—361)



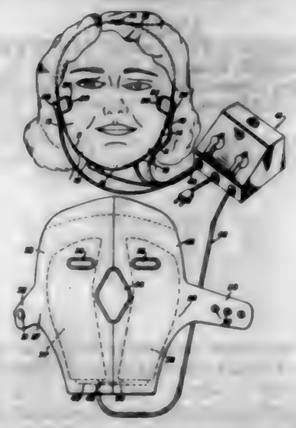
4. A surgical instrument comprising, in combination, a shaft member having a shoulder, a sleeve therearound, handles attached to said sleeve and said shaft at right angles to the axes thereof, a pair of strips having straight portions and curved portions attached respectively to said shaft and said sleeve, a flexible fabric hood member having pockets adapted to be slipped over said strips whereby said hood is supported by said strips, grommets adjacent said pockets, and hooks attached respectively to said strips adapted to cooperate with said grommets for holding said hood in place, and a lock member cooperating between said shaft and said sleeve for locking the respective strip members in position after wrapping said hood around a fetal body member.

2,842,135
ELECTRICAL BODY TREATING DEVICE
William J. Browner, San Mateo, Calif., assignor to Relaxacizor, Inc., Los Angeles, Calif., a corporation of California
Application November 26, 1956, Serial No. 624,245
10 Claims. (Cl. 128—422)



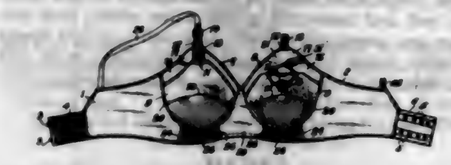
1. In an electrical body treating device: an electrical oscillator for producing a therapeutic current having electronic tube means and circuit means employing at least one resistance element connected to the remaining parts of the oscillator by conductor means; a plurality of electrodes adapted to deliver said therapeutic current to the patient's body; and a unitary supporting means for supporting said electrodes and said resistance means of said oscillator on said patient's body so that while bodily tissues are being treated by said therapeutic current heat from said resistance means will be passed to said bodily tissues to facilitate the electrical treatment thereof.

2,842,136
MEANS FOR TONING MUSCLES AND CONNECTIVE TISSUES
William J. Browner, San Mateo, Calif., assignor to Relaxacizor, Inc., Los Angeles, Calif., a corporation of California
Application November 26, 1956, Serial No. 624,246
9 Claims. (Cl. 128—422)



1. In a means for the electrical treatment of the muscular and connective tissues of the face: electrodes adapted to be applied to spaced areas of the face of a subject; means for holding the electrodes in engagement with the face; a source of electric current having output circuits connected to said electrodes, said electric current source comprising an oscillator having therein electronic tube means and a circuit therefor including resistance means; and means for supporting said resistance means in proximity to the face of the subject so that heat from the resistance means will heat the facial tissues during the time electric current is being passed through the tissues between the electrodes.

2,842,137
BRASSIERES
Victor L. Becker, Los Angeles, Calif.
Application June 22, 1956, Serial No. 593,169
1 Claim. (Cl. 128—460)



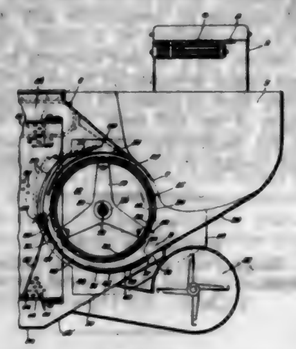
A brassiere having a breast cup composed of inner and outer fabric sections, the outer section being of a size and shape enabling it to cover the breast and having an upper edge terminating slightly below the upper edge of the inner section, said outer section having a lower edge defined by seaming extending on a curved line, the inner section being composed of a pair of similar, separate segments, each segment having an edge engaged in the curved line seaming and having a top edge defining the upper limit of the breast cup, each of said segments also having an outer free edge, said free edges co-operating in the formation of a tapered opening between the segments, the free edges defining said opening being spaced apart to provide the widest part of said opening at the curved line seaming, the segments having upper portions disposed in overlapped relation by seaming extending only along the upper edges of the segments, the extent of overlap of the segments being sufficient to permit of expansion of the opening under breast pressure.

2,842,138
METHOD FOR MAKING BANDAGE MATERIAL FOR ORTHOPEDIC CASTS AND PRODUCT THEREOF
Orman B. Billings, Leo Brickman, and James J. Eberl, Metuchen, N. J., assignors to Johnson & Johnson, a corporation of New Jersey
No Drawing. Application January 21, 1954
Serial No. 405,502
8 Claims. (Cl. 128—91)

1. A bandage for producing an immobilizing cast comprising a fabric backing and bonded to said fabric a substantially dry composition comprising about 5–30% by weight of uncured aldehyde-triazine resin and about 95–70% by weight of plaster of Paris based on the total weight of resin and plaster of Paris, and sufficient adhesive to bond said composition to said backing.

2,842,139
CORN SHELLER HAVING EAR POSITIONER AND BREAKER
Ernest C. Carlson, Wheaton, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application June 14, 1955, Serial No. 515,367
6 Claims. (Cl. 130—6)

1. In a corn sheller, a support, a shelling cylinder rotatably carried thereby, peripheral shelling means on the cylinder, a concave carried by the support in partially enveloping relation to said cylinder and in radially outwardly spaced relation thereto and defining a shelling throat therewith having an intake and an outlet spaced circumferentially of the cylinder in the direction of rotation thereof, said concave having ear guide means thereon presenting a smooth contoured ear guiding surface extending toward said cylinder and elongated diagonally of the axis of rotation thereof from adjacent to said intake to intermediate the ends of said throat and from one side to the other of said concave and adapted to position ears of corn which enter said intake endwise generally axially of said cylinder, and said cylinder comprising a single narrow breaker bar extending lengthwise generally axially of said cylinder and projecting



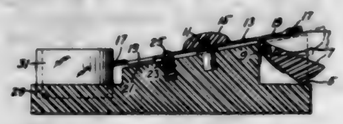
widthwise radially outwardly of said cylinder beyond said shelling means.

2,842,140
HAIR CURLERS
Carl Louis Otto and La Nelle Burnham Otto, New York, N. Y., assignors to Caronelle, Inc., New York, N. Y.
Application September 16, 1954, Serial No. 456,485
21 Claims. (Cl. 132—40)



1. A hair curling device comprising an annular core member for supporting a tress of hair wound externally thereon and a retaining member for holding the hair wound on the core member, at least one of said members being resiliently yieldable and said retaining member comprising at least two finger portions located to externally engage the hair wound on said core member, said finger portions being substantially parallel and peripherally spaced to provide between them a narrow elongated gap for clamping the base portions of the hair wound on the core member.

2,842,141
MASKING DEVICE FOR FINGERNAILS
John J. Rodrigues, Jr., Berkeley, Calif.
Application May 10, 1954, Serial No. 428,397
5 Claims. (Cl. 132—73.5)



1. A masking device for use in the application of polish to fingernails, comprising a base formed with a deep edge notch centrally located of one end of said base; means for supporting a finger in said notch adjacent the upper edge of said base; means for masking a finger placed on said supporting means to expose only the nail thereof, said means including a pivot located on the upper surface of said base, and a masking plate rotatably mounted about said pivot and of a radius sufficient to extend over said supporting means, said plate being formed with a plurality of arches of differing sizes along

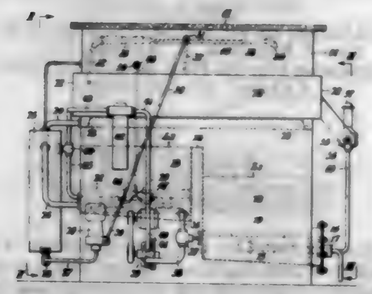
the periphery thereof at spaced intervals, with each arch terminating radially to form one end of a substantially oval-shaped opening of comparable size in said plate, adapted to expose the nail of a finger placed on said supporting means, each of said openings being bounded by side edges turned downwardly to form relatively sharp edges enabling them to closely fit into the crevices where the side edges of the nail enter the flesh of the finger; and means for facilitating the selection and placement of a selected opening in line with said supporting means.

2,842,142
EYEBROW FORM
Ralph Peck, Independence, Kans.
Application April 12, 1957, Serial No. 652,472
1 Claim. (Cl. 132—88.5)



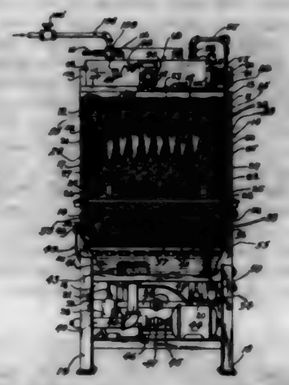
As a new article of manufacture to be used as an aid in the plucking of one's eyebrows, an eyebrow form for covering that portion of an eyebrow that is to remain after plucking thereof while leaving exposed the eyebrow portion that is to be plucked, comprising: an elongated length of material slightly smaller than but having the shape of a human eyebrow and flexible over its entire area to a degree permitting the same to lie in contact, over said entire area thereof, with a human eyebrow, said length of material being of a thinness throughout its periphery, sufficient to permit ready grasping and plucking of small hairs growing in the exposed portion of the eyebrow in close proximity to said periphery; and an adhesive on the eyebrow-contacting surface of said length of material.

2,842,143
APPARATUS FOR ULTRASONIC CLEANING OF PARTS WITH A SOLVENT
Thomas J. Kearney, Detroit, Mich., assignor to Detrex Chemical Industries, Inc., a corporation of Michigan
Application June 21, 1955, Serial No. 517,022
4 Claims. (Cl. 134—56)



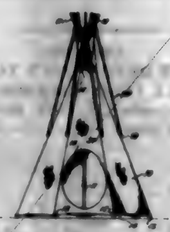
1. Apparatus for treating a work object comprising in combination a housing, an ultrasonic well within the housing containing a liquid chlorinated hydrocarbon bath and having a transducer submerged in said liquid bath whereby the work object is bombarded with waves of ultrasonic energy when said work object is positioned beneath the surface of said liquid bath, means for introducing said liquid chlorinated hydrocarbon into said well at a temperature below boiling, and temperature control means for controlling the temperature of said liquid bath, said temperature control means including heat exchanger means, valve means connected to said heat exchanger means, temperature sensitive means located in said ultrasonic well and connected to said valve means, and conduit means connected between said well and said heater exchanger means and arranged to allow passage of said liquid from said well to said heat exchanger means and return to said well.

2,842,144
DISHWASHING MACHINE RINSING APPARATUS
Homer F. Lyman, Nutley, N. J.
Application April 20, 1953, Serial No. 349,863
5 Claims. (Cl. 134—57)



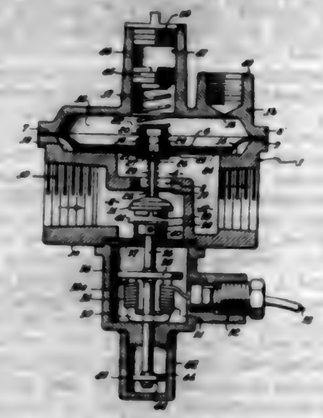
1. In dishwashing and rinsing apparatus having an area in which dishes are washed and thereafter rinsed, means for directing washing fluid onto the dishes, other means for directing rinsing fluid onto the dishes, means for delivering washing fluid to said means for directing washing fluid, washing fluid-flow control means for controlling the operation of said washing fluid delivering means, a rinsing fluid temperature booster comprising an elongated substantially horizontally extending fluid tank normally filled with rinsing water, inlet conduit means in communication with said tank adjacent one end thereof and with a source of rinsing fluid so as to conduct rinsing fluid from the source to the tank, rinse fluid-flow control means for controlling the flow of rinse fluid through said inlet conduit means, outlet conduit means in communication with said tank adjacent the end of the tank opposite said one end and so as to receive heated water therefrom, said outlet conduit also being in communication with said other means for directing rinsing fluid onto the dishes so as to conduct heated fluid from said tank to said other means, an elongated substantially horizontally extending electrical heating element so disposed in the tank that fluid in the tank flows in heat exchange relationship with the element in passing from said one end of the tank to said opposite end thereof, a thermostatically controlled electrical switch having one contact means in communication with a source of electricity and other contact means in communication with said heating element, the one contact means and other contact means being movable into and out of engagement with one another, and temperature responsive means responsive to the temperature of the fluid in said tank and operatively associated with said switch and so constructed and arranged as to move the one contact means and the other contact means out of engagement with one another when the temperature of the fluid in the tank exceeds a predetermined maximum temperature and to move said one contact means and said other contact means into engagement when the temperature of the fluid in said tank drops below a predetermined minimum.

2,842,145
TEPEE
Fred R. Wilson, Jr., Dallas, Tex., assignor, by direct and mesne assignments, of one-third to Lawrence F. Peeler, Dallas, Tex., and one-third to Schley & Schley, Dallas, Tex., a firm
Application December 14, 1953, Serial No. 397,839
5 Claims. (Cl. 135—1)



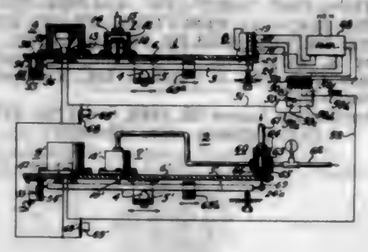
1. A tepee comprising, a plurality of upright supporting poles crossed near their upper ends and having transverse openings above their crossing, a cover surrounding and attached to the poles below their crossing, external fastenings extending through the cover and into the poles, and a lacing strung between the openings and fastenings to hold the poles spread and the cover taut.

2,842,146
FLUID PRESSURE REGULATOR AND SAFETY DEVICE
Erich Schuster, Los Angeles, Calif., assignor to Thermac Company, a corporation of California
Application January 3, 1956, Serial No. 557,005
7 Claims. (Cl. 137—66)



1. In a combined fluid pressure regulator and safety device, the combination of a valve casing having a duct therethrough for the fluid, pressure-sensitive means mounted in said casing exposed on one side to the fluid current passing through said duct, said casing having a pressure chamber to which the other side of said pressure-sensitive means is exposed, a valve-port in said casing through which the fluid flows, a valve-closure for the same, having its valve-seat on the end of said valve-opening remote from the said pressure-sensitive means, and co-operating with the valve-opening to regulate the flow of the fluid passing through said duct, a stem carried by the valve-closure, a connection between said stem and said pressure-sensitive means enabling the pressure-sensitive means to effect movement of the valve-closure toward and from the valve-seat to regulate the flow of fluid through said duct; means guided within said casing including an actuator located out of the path of movement of the valve-closure when controlled by said pressure-sensitive means, an armature operatively associated with said actuator, electro-magnetic means for normally holding the armature captive, and adapted to be connected in an electric circuit to a pilot burner, and means for moving said actuator to engage the valve-closure and advance the same onto its seat when the armature is released by the electromagnet; the said connection between the stem and said pressure sensitive means including means permitting independent movement of said stem with respect to said pressure-sensitive means.

2,842,147
FORCE RESPONSIVE DEVICES
Alfred A. Markson, Mount Lebanon Township, Pa., assignor to Hagan Chemicals & Controls, Inc., a corporation of Pennsylvania
Application September 13, 1950, Serial No. 184,569
14 Claims. (Cl. 137—85)

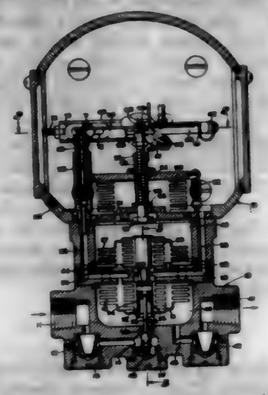


1. A device having means for receiving a pressure of variable magnitude, means for converting said pressure to an electric current output and electromagnetic means responsive to the current output for balancing the pressure input, said device comprising a beam provided with a fulcrum on which said beam may turn, a pressure input device having a deflectable member coupled to said beam and arranged to exert a force thereon of a magnitude that is proportional to the pressure input to said device, an alternating current differential transformer actuated by said beam adapted to develop an output electric current whose value is proportional to the deviation of said beam in one direction from a predetermined position, means for amplifying and rectifying said electric output, an electromagnetic device comprising a permanent magnet and a coil winding disposed to be energized in proportion to the current output of said differential transformer, said coil winding and magnet being movable relative to one another, one of them being coupled to said beam to exert a force thereon that opposes and balances the force exerted thereon by said pressure deflectable member.

2,842,148
MOTION TRANSMITTING MECHANISM FOR AIR TRANSMITTERS
Barton Jones, Los Angeles, Calif.
Application August 25, 1955, Serial No. 530,477
4 Claims. (Cl. 137—85)

1. In an air transmitter, an exciting crank arm, a nozzle and a flapper therefor, a repositioning bellows subjected to the transmitted pressure, means fulcruming the flapper on the repositioning bellows, means connecting the flapper to the exciting crank arm, said fulcruming

means being slidable between the flapper and the repositioning bellows and being swingable about an axis re-



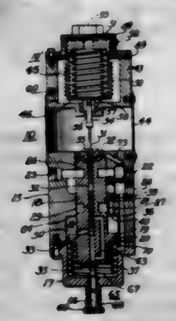
mote from the point where it fulcrums the flapper and being confined to a swinging movement about said axis.

2,842,149

SUCTION-TRIP SHUT-OFF VALVES PROVIDED WITH MANUAL RESETTING MEANS, FOR TURBINE DRIVEN BOILER FEED PUMPS

Robert R. Donaldson, Forest Hills, Pa., assignor to Hagan Chemicals & Controls, Inc., a corporation of Pennsylvania

Application August 25, 1954, Serial No. 452,077
6 Claims. (Cl. 137—87)



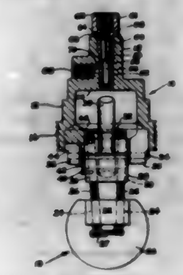
1. A valve having an "on" position for connecting, and an "off" position for shutting off, the oil supply to the governor of a steam turbine driving a boiler feed pump in response to the pump suction increasing to a value at which flashing of the feed water into steam is about to occur, said valve comprising a body having a cylinder therein, a bore of smaller diameter coaxial therewith, the body having a supply port, an outlet port and a drain port, a piston in said cylinder and having a rod provided with spaced annular valve grooves, one of which provides communication between the supply and outlet portions when the piston and rod are in "on" position and another of said annular grooves providing communication between the outlet and drain ports when the valve is in "off" position, said valve body having a restricted passageway leading from the supply port to one side of said piston to normally hold the piston in the "on" position, means urging said piston and rod to "off" position, said piston and rod having a longitudinal bore, the rod having a trip port providing communication between said passageway and the cylinder, a pilot valve in said longitudinal bore for controlling said trip port, means adapted to respond to the difference between atmospheric pressure and sub-atmospheric pressure for actuating said pilot valve in a direction to uncover said trip port, said longitudinal bore having a restricted outlet leading to the opposite side of the piston, a drain passage connected to the opposite side of the piston whereby when the sub-atmospheric reaches a predetermined value the pilot valve uncovers said trip port and provides communication between the supply port and the opposite side of said piston to drain thereby decreasing the supply pressure on said piston so that the urging means can actuate the piston and rod to the "off" position, in which position the supply port is closed and the outlet port is connected to the drain port, and means for closing the outlet of said pilot valve bore to restore the supply pressure to one side of the piston and return it to the normal "on" position.

2,842,150

VALVE DEVICE RESPONSIVE TO FLUID FLOW

Harold J. Olson, Raynham, Mass.

Application December 29, 1955, Serial No. 556,292
5 Claims. (Cl. 137—87)



1. A valve device comprising a housing embodying a lower portion, an upper portion, and a conductor partition separating said housing portions, actuating mechanism connected to said housing lower portion, and valve mechanism movable in said housing upper portion, said actuating mechanism embodying a flap, a mounting member, connecting means attached to and extending between said flap and mounting member, a portion of said mounting member normally extending diagonally and laterally from said means, means supported by said housing movably supporting said mounting member, a magnet fixed to said mounting member laterally extending portion and extending at substantially a right angle thereto into said upper portion, means between said mounting member and housing normally holding said actuating mechanism in inoperative position, said valve mechanism embodying a valve member responsive to magnetic force and means supported by said housing upper portion normally holding said valve in closed position, said housing upper portion having an orifice therein and a valve seat surrounding said orifice, said valve member normally entering said orifice and closing it, said upper portion having two openings in communication with said orifice when said valve mechanism is in open position, said valve member and magnet being adjacent to, and at opposite sides of, said partition, when said magnet is in operative position.

2,842,151

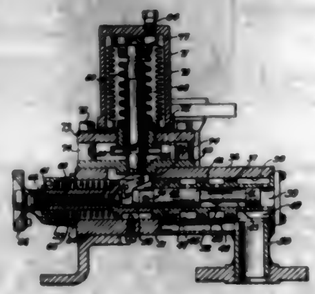
LOW BOILER FEED WATER RESPONSIVE SAFETY VALVES FOR SHUTTING DOWN BOILER FEED PUMP TURBINE

Edwin A. Cunningham, Jr., Whitehall, and George R. Anderson, Mount Lebanon Township, Allegheny County, Pa., assignors to Hagan Chemicals & Controls, Inc., a corporation of Pennsylvania

Application August 9, 1955, Serial No. 527,266
5 Claims. (Cl. 137—95)

1. A safety valve for shutting off the oil supply to the governor valve of a steam turbine driving a boiler

feed pump in response to low pressure in the boiler feed line, which safety valve comprises a valve having a body provided with supply, outlet and drain ports, the outlet port being for supplying the governor valve, a valve plug in the body, the plug when in its off position shutting off the supply port and connecting the outlet port to drain, and when in its on position connecting the supply to the outlet port, a slide in said body connected to said valve plug, means yieldingly urging the slide in a direction to shift the valve plug to off position, a trigger pivotally



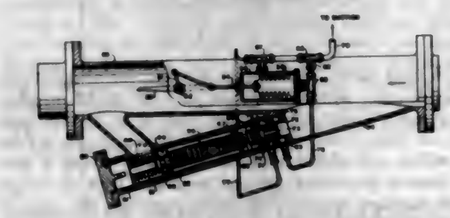
supported by the slide, a trigger keeper adapted to engage the trigger when the slide is in a position to hold the valve plug in on position, means urging the keeper out of engagement with the trigger and means including a pressure deflectable member adapted to be acted upon by the pressure of the boiler feed water to maintain engagement of the keeper with the trigger and thereby hold the valve in its on position so long as the pressure is above a predetermined value and to release the latch from the trigger when the feed pressure drops below said value.

2,842,152

PIPE LINE FLOW CONTROL

Ernest Frederick Winter, Wirral, and James Arthur Wooldridge, Cranley, England, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application March 21, 1956, Serial No. 573,018
Claims priority, application Great Britain March 23, 1955
3 Claims. (Cl. 137—154)



1. A control apparatus for hydrocarbon pipe lines comprising: a main pipe line section, a main valve therein, a pipe connected to said pipe line section at both the upstream side and the downstream side of said main valve, a water sensitive filter pack in said pipe, a valve member located in said pipe upstream of said filter pack and connected to said filter pack for operation thereby, a pressure responsive valve operating mechanism connected to said main valve, fluid conduits connecting the upstream side of said valve member to said operating mechanism supplemental valving means attached to said valve member so arranged that one of said conduits is in open communication with said valve actuating mechanism and with the upstream side of said valve member whereby said main valve is closed on expansion of said filter pack.

2,842,153

SWING GATE VALVE

Alexander Samuel Volpin, Miami Beach, Fla.

Application February 16, 1955, Serial No. 488,576
6 Claims. (Cl. 137—246.12)



1. A swing gate valve, comprising, a hollow body having a flowway therethrough, a gate chamber intersecting the flowway, gate seats in the flowway on opposite sides of the gate chamber, and a gate member in the gate chamber swingable therein between said seats transversely of the flowway axis, said gate member comprising separable perforate and imperforate seat-engaging portions disposed in contiguous edge-to-edge relation selectively movable into registration with the flowway in accordance with the angular movement of the gate member across the flowway to thereby open and close the flowway, said gate portions and said flowway being relatively dimensioned to permit said gate portions to be inserted into the gate chamber through the flowway to install the gate member in the gate chamber.

2,842,154

ALL-PURPOSE FIRE HOSE NOZZLE

Lawrence W. Lindsley, New York, N. Y.

Application October 5, 1953, Serial No. 384,027
3 Claims. (Cl. 137—270)



1. In a fire hose nozzle, in combination, a body having an inlet port, a first discharge passage of large cross-sectional area throughout and a second discharge passage of materially smaller cross-sectional area, and rotatable valve means in said body provided with a tapering bore having an entrance end substantially of the size of said inlet port and a smaller exit end substantially of the size of said large discharge opening, said bore being so dimensioned and located with respect to said port and said opening that said valve means has a first operative position interconnecting said port with said first discharge passage, a second operative position interconnecting said port with said second discharge passage and an inoperative position in which said port is disconnected from both of said discharge passages, said entrance end of said bore registering substantially fully with said inlet port in said first operative position but being only in partial register therewith in said second operative position to an extent such that the exposed area of the entrance end approximates the area of the second discharge passage.

2,842,155

THERMOSTATICALLY CONTROLLED WATER BYPASS VALVE

Ernst A. Peters, Anna, Ill.

Application June 14, 1956, Serial No. 591,401
4 Claims. (Cl. 137—337)

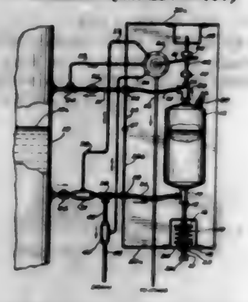
2. In combination with a liquid supply system having a cold liquid supply, a hot liquid supply, and a liquid

heater, said hot liquid supply and said cold liquid supply being connected to said liquid heater, a device interconnecting said supplies at a place above said liquid heater and comprising a valve, a temperature responsive element operatively connected to said valve to move said valve toward closed position in response to heating of said temperature responsive element and toward open



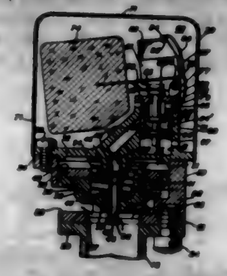
position in response to cooling of said element, said temperature responsive element being positioned and arranged to respond to the temperature of liquid from the hot liquid supply, and means for cutting off the communication between said supplies through said device when the pressure in one of said supplies becomes substantially different from the pressure in the other.

2,842,156
LIQUID LEVEL CONTROL MEANS
John W. Hueske, San Gabriel, Calif., assignor to Stanley G. Harwood, South Pasadena, Calif.
Application March 10, 1952, Serial No. 275,841
3 Claims. (Cl. 137—407)



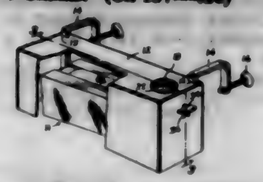
2. A device for controlling a given liquid level in a vessel to which liquid is supplied having in combination, a vessel for receiving liquid, a control means for establishing said level of said liquid in said vessel, a container adapted to receive said liquid, a conduit connecting said vessel and container so that liquid flows into said container as it rises in said vessel, a valve member in said conduit adapted to control the flow of liquid therethrough, resilient means acting to elevate said container to a certain position, said container being adapted to move downwardly against the pressure of said resilient means when sufficient liquid has entered the same from said vessel, a second conduit connecting the upper portion of said container to said vessel for permitting passage of air from said container to said vessel, a check valve in said second conduit preventing passage of air from said vessel to said container, a third conduit, a second valve in said third conduit adapted to be opened to permit discharge of the liquid in said container, a member carried by said container, and said control means being actuated by said member for closing said first mentioned valve and opening said last mentioned valve when said container reaches its lower position to cause discharge of liquid from said container whereby it will be raised by said resilient means whereby said container is moved upwardly and downwardly according to the weight of liquid therein to establish a desired level in said vessel.

2,842,157
QUICK THROW PILOT VALVE
James K. Mosher, Pasadena, Calif., assignor to Schulz Tool and Manufacturing Co., San Gabriel, Calif., a corporation of California
Application March 19, 1956, Serial No. 572,256
3 Claims. (Cl. 137—418)



2. In an actuating mechanism for valves or the like, in combination: means comprising a bell crank lever having a pivot; actuating means connected to the end of one arm of said bell crank lever; means comprising a bowed leaf spring having an intermediate deformation therein whereby the spring may flex with a snap action movement, said leaf spring being connected at its lower end to a fixed point adjacent the pivot of the bell crank lever and being connected at its opposite end to a point on the other arm of said bell crank lever, said leaf spring normally having such position that rotation of said bell crank lever, by said actuating means, tends to straighten said bowed leaf spring such that stress in the spring resists said rotation and the spring flexes at said deformation with a snap action.

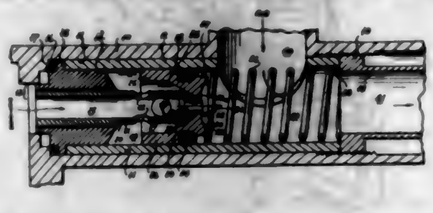
2,842,158
FLOAT VALVE
Marion A. Robinson, Clarion, Iowa
Application June 18, 1956, Serial No. 592,071
6 Claims. (Cl. 137—428)



1. A float valve, comprising, a shield member, means communicating with the interior of said shield member for operable connection to one end of a garden type hose, one side of said shield member having a slot, a float arm within said shield member, said arm having a portion thereof projecting through said slot with its major length disposed within said shield member, the side of said shield member defining said slot serving as a hinge means to allow vertical hinge motion of said float arm within said shield member, means on the projecting portion of said float arm to hold it against displacement from said slot, a float on said float arm, and means on said float arm engageable at times with said first mentioned means for closing the same.

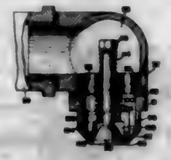
2,842,159
INJECTOR VALVE
Wesley I. Sprague, Davenport, Iowa, assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application February 23, 1955, Serial No. 490,014
3 Claims. (Cl. 137—513.7)

1. An injector comprising a housing provided with a bore, a pressure chamber in said bore connected to a source of fluid supply under pressure, a nozzle structure including a nozzle element provided with a tapered end terminating in a fluid discharge aperture and slidably fitting in said bore, a stationary closing member for said discharge aperture carried by the housing and including an elongated body having a tapered end coaxial with said aperture, said closing member having a coaxial passage communicating with the pressure chamber and the tapered



end terminating in said aperture and registering with the tapered end of the nozzle element to form a closure seal when said ends are in contact, and means for yieldably biasing said nozzle element toward the closure member to bring said ends into contact, said nozzle element being yieldable under fluid pressure to permit fluid from said chamber to pass through said aperture at a rate varying with the displacement of the nozzle element by fluid pressure.

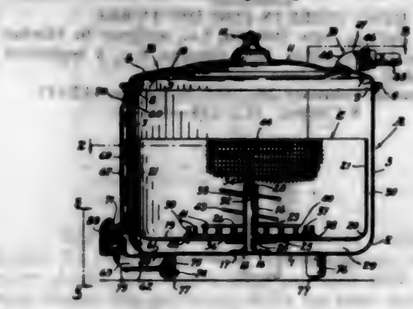
2,842,160
CHARGING APPARATUS FOR VINYL CASTING MACHINES
Paul Rekettye, Akron, Ohio, assignor to The Sun Rubber Company, Barberton, Ohio, a corporation of Ohio
Application April 9, 1952, Serial No. 281,337
8 Claims. (Cl. 137—565)



1. A device for delivering charges of a viscous liquid such as a plastisol, without dripping, said device having a chamber, a pump intermittently operated for feeding liquid to the chamber and exerting alternate pressure and vacuum on the liquid in the chamber, the chamber having an outlet, a valve at the outlet, a mounting for the valve permitting it to project beyond the outlet by the pressure exerted on the fluid by the pump or be withdrawn into the outlet by the suction exerted on the fluid by the pump.

2,842,161
DRAIN AND OVERFLOW CONSTRUCTION FOR ROTARY BASKET JET TYPE DISH WASHERS AND THE LIKE
Robert H. Hunter, Gates Mills, and Elmer J. Kasper, Cleveland, Ohio; said Kasper assignor to said Hunter
Original application October 2, 1947, Serial No. 777,388, now Patent No. 2,642,369, dated June 16, 1953. Divided and this application February 16, 1953, Serial No. 336,981
10 Claims. (Cl. 137—576)

2. In a washer having a tub comprising bottom and side walls, a drain member assembled to the tub and disposed against the outside of the tub over portions of both the bottom and side walls, said drain member being concave and formed with a continuous closed peripheral edge engaged sealingly against both the bottom and the side walls of the tub in a continuous closed parting line, the drain member and said bottom and side wall portions of the tub defining a drain passage continuous down the side and under the bottom of the tub, said tub being formed with drain and overflow openings in said bottom and side wall portions, respectively, each of said openings communicating with the drain passage, a closure supported by the drain member and movable into and out of sealing relation across the drain opening in the tub bottom, an



actuator carried by and projecting through the drain member and having operative engagement with the closure for operating the latter, the drain member being formed with an orifice to discharge water received in the drain passage from both the drain and overflow openings, and means securing the drain member assembled to the tub, whereby the closure and the actuator are supported primarily and directly by the drain member and secondarily and indirectly by the tub.

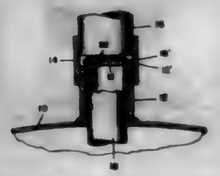
2,842,162
FLUID FLOW CONTROL DEVICE
Harry E. Schwegman, Duncan, Okla., assignor to Halliburton Oil Well Cementing Company, Duncan, Okla.
Application January 17, 1955, Serial No. 481,986
8 Claims. (Cl. 138—43)



1. A fluid flow control device comprising a housing, a mandrel mounted for sliding movement within said housing and forming therewith a passageway of variable flow capacity, said mandrel normally restricting the flow of fluids through said passageway and having a surface exposed to fluids entering said passageway, said mandrel being adapted upon sufficient force being applied thereto by fluids in said passageway to move within said housing in a direction such as to increase the flow capacity of said passageway, container means within said housing including a chamber remote from said passageway for holding a hydraulic fluid in displaceable relation to said mandrel, whereby said hydraulic fluid retards movement of said mandrel in such direction, and flow restricting means in communication with said chamber

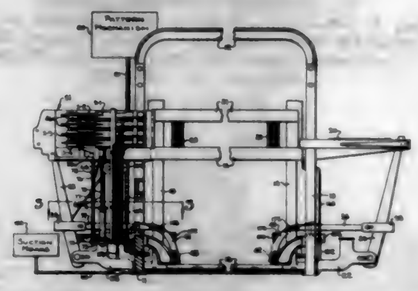
for permitting said hydraulic fluid to escape from said chamber at a very slow rate, whereby the flow capacity of said passageway increases gradually upon fluids under pressure suddenly entering said passageway.

2,842,163
RING INSERTS FOR DIP TUBES
Frank V. Boylan, New Orleans, La., assignor to Marine Controls Laboratories, New Orleans, La., a registered partnership of Louisiana
Application February 25, 1954, Serial No. 412,417
8 Claims. (Cl. 138—47)



1. The combination with a tube of elastic material and of substantially uniform wall thickness, of an annulus positioned in an open end of said tube and having an outside diameter greater than the inside diameter of the tube and maintaining the open end of the tube stretched to an increased diameter to form an encircling bead or collar.

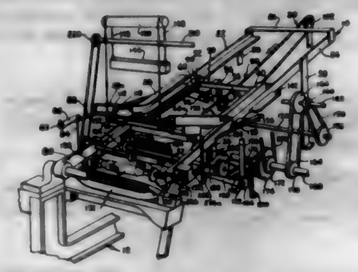
2,842,164
VACUUM WEFT HOLDER FOR LOOMS
Robert P. Head, Columbus, N. C.
Application September 13, 1956, Serial No. 609,605
18 Claims. (Cl. 139—170.3)



1. In a loom having a reciprocable lay, a vertically movable multiple shuttle box at one end of said lay, a single shuttle box at the opposite end of said lay, shuttles movable between said shuttle boxes, picker sticks at opposite ends of said lay for throwing said shuttles across said lay while leaving a trailing yarn laid across said lay and means for alternately actuating said picker sticks; the combination of a first vacuum control means for engaging the trailing yarn from shuttles adjacent the mouth of the shuttle box at one end of said lay and a second vacuum control means for engaging the trailing yarn from said shuttles adjacent the mouths of the shuttle boxes at the opposite end of said lay.

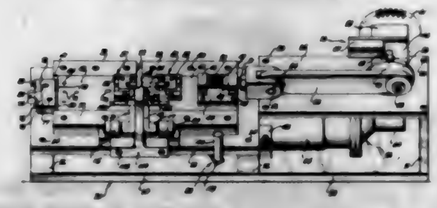
2,842,165
AUTOMATIC LOOM BATTERY
Sterling Abernethy Weaver, Shelby, N. C.
Application October 21, 1955, Serial No. 542,062
9 Claims. (Cl. 139—245)

1. An automatic battery for a loom having automatic transfer mechanism comprising a frame mounted on the transfer end of the loom, a hopper adapted to maintain a relatively large number of bobbins in stacked relation, said hopper being mounted on the frame and having an open bottom, means normally maintaining a full bobbin in position to be transferred and means, actuated by the transfer mechanism, moving said means normally maintaining a full bobbin in a linear path to a position be-



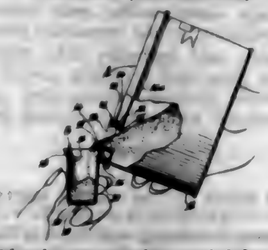
neath the hopper so that a full bobbin will be dispensed from the hopper and received by said means normally maintaining a full bobbin and then returning the means normally maintaining a full bobbin in a linear path to normal position awaiting another transfer.

2,842,166
FORMING APPARATUS FOR SEMICONDUCTOR TRANSLATING DEVICE COMPONENTS
Fred Wohlman, Jr., Inglewood, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application August 31, 1955, Serial No. 531,766
7 Claims. (Cl. 140—71)



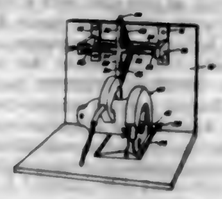
1. An apparatus for forming a whisker of a semiconductor translating device component comprising, in combination: a frame structure; a pair of die plates; longitudinal ways in said structure for reciprocally receiving said die plates; multiple, adjustable dies carried by said die plates; a driving motor; means interconnecting said motor and one of said die plates whereby to reciprocate said one of said die plates and said die carried thereby; a resilient connection between said interconnecting means and said one of said die plates; a lever pivotally carried by said frame structure; a whisker preforming member carried by said lever; a lever operating member disposed from said one of said die plates whereby to actuate said lever upon reciprocation of said one of said die plates and to effect engagement between said preforming member and said whisker to bend said whisker about a portion of one of said dies; a resilient backing for the other of said die plates; a manually operable holder for said semiconductor component, said holder being movable from a loading position to a forming position to place said whisker in position relative to said dies for forming thereby; and manually operable die opening means pivotally carried by said frame structure for moving said other of said die plates against said resilient backing therefor, whereby to move one of said dies out of engagement with a formed whisker to permit removal thereof from said forming position.

2,842,167
CLOSURE WITH JIGGER-TYPE OF SEAL
Earl S. Tupper, Upton, Mass., assignor to Tupper Corporation, North Smithfield, R. I., a corporation of Delaware
Application January 12, 1955, Serial No. 481,350
5 Claims. (Cl. 141—381)



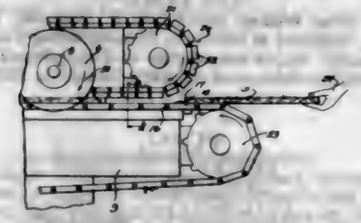
4. In combination, a container and deformable closure therefor, said deformable closure having a main wall, a peripheral upwardly offset flange on said main wall to frictionally, removably and sealably engage the container, a deformable pouring spout projecting from said main wall and surrounding an opening therein, a frictionally engaging and removable deformable sealing and measuring chamber for said spout for imposing a vacuum in the container by selectively deforming the container, the closure, or the measuring chamber prior to complete closure of the said removable closure and the measuring chamber.

2,842,168
SWINGABLE POWER SAW SUPPORT AND GUIDE
William Trochan, Berkeley, Calif.
Application August 26, 1957, Serial No. 680,073
3 Claims. (Cl. 143—46)



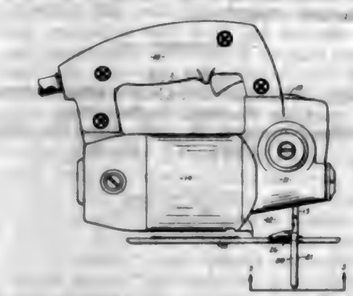
1. Supporting and guiding means for an electric hand saw comprising: a pair of opposed brackets suitable for attachment to a vertical planar surface, said brackets each including an outwardly extending horizontal supporting arm, said horizontal arms being joined by a pair of parallel rods, said rods being positioned substantially at opposite ends of said arms, the outermost of said rods being journalled in said arms; a lever fixedly secured to said journalled rod substantially perpendicular thereto for pivotal movement about the axis of said journalled rod, said lever including a normally downwardly extending portion terminating in means for pivotal attachment to the forward end of a hand saw; said lever including a second portion fixedly secured to said journalled rod substantially perpendicular thereto, said second lever portion extending substantially opposite in direction to said first mentioned lever portion; a spring secured to the free end of said second lever portion, said spring being secured at its opposite end to the innermost of the said rods whereby to normally urge said second lever portion toward said innermost rod; and a second spring secured to said innermost rod at one end thereof and suitable for attachment to an electric hand saw at the opposite end of the spring and a point on the hand saw spaced from the lever attachment, said second spring being of sufficient elasticity to normally maintain an electric hand saw in a substantially horizontal position when employed in co-operation with said lever.

2,842,169
AUTOMATIC FEED FOR SQUARING WORK FED TO THE SAW OR SAWS OF A TENONER
Curt G. Joa, Boynton Beach, Fla.
Application March 15, 1957, Serial No. 646,315
2 Claims. (Cl. 143—49)



1. A feed for an automatic woodworking machine comprising the combination with laterally spaced feed conveyor chains, said chains being provided with pairs of work-aligned lugs projecting above the table surface and having rearwardly facing shoulders, the chains being elsewhere free of obstruction between consecutive pairs of lugs to enable workpieces to be manipulated into position on the chains, holddown means cooperating with the chains to provide a traveling vise for clamping workpieces manually positioned on the chains in abutment with their respective shoulders, rotary tool means to which workpieces engaged by the traveling vise are advanced in the course of chain and holddown operation, said chains having an extent outside the holddown means which is materially less than the width of the workpieces fed thereto.

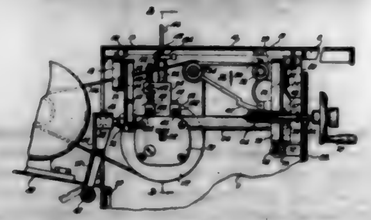
2,842,170
SABER SAW STRUCTURE
John P. Brock, Toledo, Ohio, and Frank W. Mittlas, Memphis, N. Y., assignors to The Porter-Cable Machine Company, Syracuse, N. Y., a corporation of New York
Application January 18, 1956, Serial No. 559,876
4 Claims. (Cl. 143—68)



1. A saber saw structure comprising a base plate adapted to be moved on the surface of the work piece and being formed with an opening, a housing mounted on the base plate, a saw blade holder mounted for vertical reciprocation in said housing toward and from the base plate, a vertically disposed saw blade carried by said holder and extending downwardly through the opening in the base plate and being formed with teeth on its forward edge for cutting the work piece on its stroke toward the base plate, an insert positioned on said plate in registration with said opening therein, said insert having a surface extending substantially flush with the work engaging surface of the base plate and being formed with a saw blade receiving aperture positioned in close proximity to the sides of said saw blade, and said insert and base plate having means cooperable to detachably secure said insert to the base plate against vertical movement

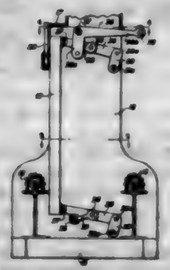
of said insert, said attaching means providing free floating limited lateral movement of said insert relative to the base plate.

2,842,171
SABER SAW ATTACHMENT FOR CIRCULAR SAW TABLE
Warren Dean Weikert and Edwin B. Deuschle, Tupelo, Miss., assignors to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 28, 1955, Serial No. 535,418
9 Claims. (Cl. 143—72)



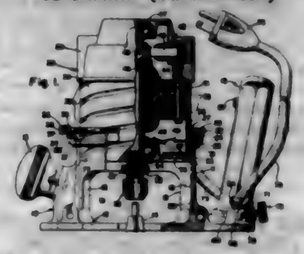
4. In combination: a saw mechanism having a saber saw blade supported for reciprocating movement; a work table having an apertured horizontal working surface; a pair of spaced trunnions; a pair of spaced parallel tie rods rigidly connecting said trunnions for unitary movement; means depending from said work table respectively adjacent the front and rear edges thereof for supporting said trunnions for movement around an axis lying in the plane of said working surface and along a line passing through the aperture of said surface; an arbor for rotatably carrying a circular saw; means supporting said arbor on said trunnions for vertical adjustment with respect thereto in a plane containing said axis; means for adjustably clamping said saw mechanism between and longitudinally along said spaced tie rods with the saber saw blade extending through the aperture in said working surface in said plane containing said axis; and a source of rotary power supported by said trunnions for optionally driving said saw mechanism and the circular saw arbor.

2,842,172
SAW SASH GUIDE MECHANISM FOR SAWMILLS
Alvin Woodruff, Dallas, Oreg.
Application November 29, 1955, Serial No. 549,740
10 Claims. (Cl. 143—82)



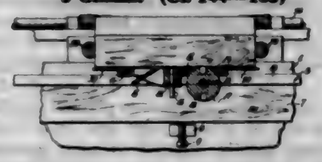
1. In a gang sawmill equipped with a saw sash mounted for up and down reciprocation within a vertical supporting framework and carrying a plurality of saw blades disposed in mutually spaced, side-by-side, gang formation, said sawmill being equipped, further, with means for reciprocating the saw sash, the provision of improved guide mechanism mounting the saw sash for reciprocation, said mechanism comprising a pair of suspension arms having mutually corresponding ends of the respective arms pivotally attached to the saw frame in mutually spaced relationship along the reciprocative path thereof; a pair of rocker links having mutually corresponding ends of the respective links pivotally secured to said supporting framework in mutually spaced relationship along said reciprocative path, and having their opposite ends pivotally attached, respectively, to the other ends of said suspension arms; and restrictive links having mutually corresponding ends thereof pivotally attached, respectively, to the suspension arms intermediate their lengths, said restrictive links extending in the same direction from their respective pivotal attachments to the suspension arms and having their opposite ends pivotally connected with said supporting framework.

2,842,173
ROUTERS WITH DETACHABLE MOTORS AND SWITCH HANDLES
Edgar P. Turner, Watchung, and Reynold Happe, Princeton, N. J., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application June 27, 1956, Serial No. 594,287
11 Claims. (Cl. 144—136)



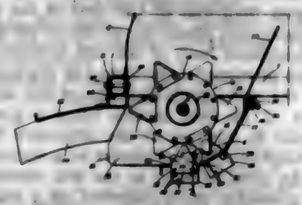
5. A motor-driven router comprising a hollow cylindrical shell formed at one end with a flanged base for contact with the work, an electric motor having an outer cylindrical case locked against rotation relative to the shell but normally slidable within the shell and selectively removable therefrom, a control handle removably secured to the flanged base, a trigger-controlled switch mounted in the handle, and a current-conducting cable electrically connecting the switch with the motor and with a plug for selective connection to a source of electric power.

2,842,174
EXCELSIOR MAKING MACHINES
Franklin Carter Flippo and Arthur Pound Flippo, Dowell, Va.
Application December 16, 1955, Serial No. 553,468
3 Claims. (Cl. 144—185)



1. In an excelsior making machine, a supporting frame, a gate frame reciprocably mounted in said supporting frame, means to reciprocate said gate frame, means to mount a wood block above said gate frame, slitting spurs carried by said gate frame for slitting said block longitudinally, a slicing knife carried by said gate frame for cutting thin pre-scored shavings from the bottom of said block, a cylinder rotatably mounted on said gate frame and lying transversely thereof, a knife carried by said cylinder extending lengthwise thereof, a gear carried by said cylinder, and a rack mounted on said supporting frame in mesh with said gear, whereby said cylinder will be caused to rotate when said gate frame is moved.

2,842,175
STRAW CHOPPER FOR COMBINE
Ernest S. Thompson, Stradmore, Calif., assignor to himself and Ethel Thompson, as joint tenants
Application October 24, 1955, Serial No. 542,193
4 Claims. (Cl. 146—123)



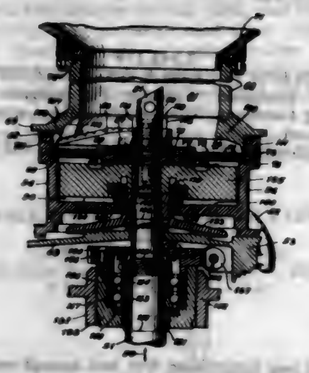
1. In a harvester which includes a downwardly opening shroud at its rear end and into which straw from the operation of the harvester is delivered, a straw-chopping unit mounted below the shroud over the opening thereof and including a transverse horizontal-axis rotor having radially projecting straw chopping blades, a housing in which the rotor below the shroud is enclosed, and a concave in the housing below the rotor to cooperate with the blades thereof; said concave including a row of upstanding blades each having a cutting edge facing contra to the direction of rotation of the rotor, and means mounting the concave blades on the housing so that each blade may be set independently of the other blades with said edge thereof disposed at varying angles to a vertical plane; said means comprising, for each concave blade, brackets secured on and depending from the housing and between which the base portion of the blade projects, the housing being slotted between the brackets for the reception of the blades, a pivot bolt through said base portion and the brackets adjacent one end thereof, the bracket having a row of holes spaced from and concentric with said pivot bolt, and another bolt removably extending through said base portion and any selected one of said row of holes.

2,842,176
FOOD GRINDER
Charles R. Bowland, Spring Valley, Ill.
Application November 28, 1955, Serial No. 549,265
2 Claims. (Cl. 146—192)



1. In a food grinder, the combination of a tubular shell portion adapted to contain food, a piston slidable within said shell portion, a sealing ring of rubber-like material between said piston and shell portion and carried by said piston, an outwardly flared part on one end of said tubular shell portion, a perforated plate removably positioned across said last named end of said shell portion, said piston having a flat bottomed base adapted to set on a flat supporting surface so that said shell portion may be gripped by hand and downward force may be manually put on the shell portion disposed in an upright position to cause the shell portion to move downwardly over the piston to force the food through the perforated plate at the top of the shell portion and said flared part extending a substantial distance above said plate to form a receptacle for receiving the food as it is ground and from which the ground food may be served, a knife rotatable across the inner face of said plate for cutting the food as it passes through the plate, a shaft passing through said plate and fixed to said knife for rotating it, a handle disposed a substantial distance above the upper edge of said outwardly flared part and fixed to said shaft for rotating said shaft and knife as the food is forced through said plate by downward manual force on said shell portion, and a gland portion disposed about said shaft and spacing said handle and plate.

2,842,177
COMMINUTING MACHINE
Carl Schmill, Winterbach, near Schorndorf, Wurttemberg, Germany, assignor of one-half to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
Application August 2, 1957, Serial No. 675,998
4 Claims. (Cl. 146—192)



1. A comminuting machine comprising a wall-means forming a circular chamber for material to be comminuted, said chamber being open for the gravity feed of material thereinto and having an open bottom, a perforated plate closing said bottom, an axially disposed shaft projecting into said chamber, at least one rotary cutter-arm secured to said shaft and movable over said plate, said wall-means including a circular wall spaced away from said cutter-arm and sloping inwardly of said chamber away from said plate, said arm having a propelling face inclined forwardly from said plate, said face terminating in a knife-edge arranged to move in a fixed path of rotation, at least one lug projecting inwardly from said sloping wall to closely overlie the outer extremity of said arm, said lug having an appreciable vertical dimension and a lateral face directed to oppose the direction of rotation of the cutter-arm, material moved outwardly and circulated by said rotating cutter-arm contacting the lateral face of said lug so as to be obstructed in its path of circulation by the lug and to be baffled inwardly by said sloping wall.

2,842,178
ONE PIECE UTILITY BOX
Louis Philip Solomon, Chicago, Ill.
Application July 22, 1955, Serial No. 523,706
1 Claim. (Cl. 150—5)



A flexible utility box molded of one piece of pliable material selected from a group consisting of polyethylene and vinyl plastics and comprising a body container por-

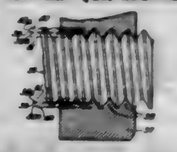
tion having a closed bottom, front, rear, and side walls, an open top and an upper marginal rib extending around its rear and side walls and ending short of meeting at the center of its front wall, a button having a shank and a head, said button located at the center of said front wall, a cover portion having a closed top, front, rear, and side portions and an open bottom, said back, front, and side portions of said cover having a marginal rim and an interior recess to permit said rim to engage the walls of said container down to said upper marginal rib when the box is in closed position, said cover portion having a front wedge depending from its front portion with a slot in the wedge to receive the shank of said button when the box is in closed position, said closed bottom of the container portion having on its inside surface a plurality of spaced ribs to act as non-slip members for an inserted article, and three spaced hinges integral with and extending between the rear portion of said cover portion and said upper marginal rib at the rear wall of said container portion.

2,842,179
CLOSURES FOR FLEXIBLE WALLED CONTAINERS
Arthur D. Hoeppner, Chicago, Ill., assignor to Bemis Bro. Bag Company, Minneapolis, Minn., a corporation of Missouri
Application May 7, 1956, Serial No. 583,020
5 Claims. (Cl. 150—7)



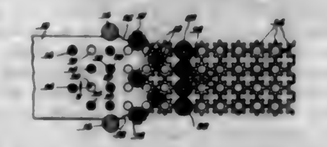
1. A flat bag comprising first and second walls having their upper portions normally disposed in flatwise relation with the vertical edge portions of one of said walls overlying the corresponding edge portions of the other of said walls, one of said walls initially being longer than the other of said walls to provide a top wall forming portion and a flap forming portion, said top wall forming portion extending the full width of the bag top and normally being folded upon itself to provide an elongated fold extending the length of the bag top and disposed in parallel relation thereto, the vertical end edges of said top wall and flap forming portions overlying the upper side edge portions of one of said walls, and seams securing together the contiguous side edges of said first and second walls and simultaneously permanently securing the vertical end edges of said top wall and flap forming portions to the ends of the bag top, thereby to complete the formation of the bag body.

2,842,180
SELF-LOCKING THREADS WITH LOCKING INTERFERENCE FIT
Calvin O. Brown, Bartlett, and X. Raymond Dodge, Hinsdale, Ill., assignors, by mesne assignments, to Set Screw & Mfg. Company, Bartlett, Ill., a corporation of Illinois
Continuation of application Serial No. 145,854, February 23, 1950. This application October 20, 1953, Serial No. 387,113
1 Claim. (Cl. 151—22)



An internally threaded first member for threaded mating engagement with an externally threaded second member of the same fit class within fit classes 1, 2 and 3, the thread on the first member including two sections, one of the sections comprising a standard thread turn, the second of the sections comprising a lock turn in mechanical continuity with and running in the same direction as the turn of the first section and having a lesser pitch diameter than that of the turn of the first section and a decreased lead phase, the profile of the thread being uniform throughout both of the said sections, the difference in pitch diameter of the thread of the second section relative to the basic pitch diameter of the said standard thread turn of the first section being a predetermined amount equal to the sum of the difference between the minimum allowable pitch diameter of a standard internal thread of the same fit class as the first member and the minimum allowable pitch diameter of a mating standard external thread of the same fit class as the first member and an amount up to about 0.002" to give a locking interference fit with the second member.

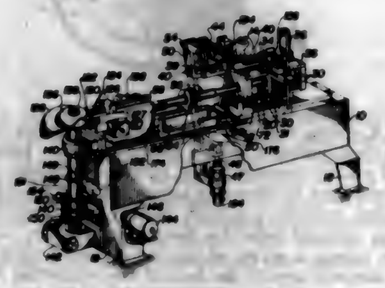
2,842,181
SMALL EIGHT PRONG WASHERS CONNECTED IN STRIP FORM
Frank J. Machac, Park Ridge, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application December 19, 1955, Serial No. 553,976
2 Claims. (Cl. 151—35)



1. An elongated metallic strip comprising a plurality of integrally joined small size lock washers, each washer consisting of an annular body portion and a total of eight prongs of uniform shape radially projecting outwardly from the outer margin of said annular body, and each prong being radially outwardly tapered throughout its length, a distance at least as great as the radial width of said body, said prongs being circumferentially spaced equally along said outer margin and similarly twisted about their radial axes so as to present a plurality of work engaging teeth at the outer extremities thereof projecting beyond opposite sides of said annular body, said washers being disposed in a plurality of rows longitudinally of said metallic strip and also disposed in a plurality of rows extending normal with respect to said longitudinal rows, radial prongs of each washer having integral limited end-to-end connection with a corresponding prong of the next adjacent washer, said connected prongs being disposed with the radial axes thereof in linear alignment along a line parallel with the longitudinal margin of said metallic strip, other prongs of each washer having integral limited end-to-end connection with a corresponding opposed prong of the next adjacent laterally positioned washer, said last-mentioned connected prongs being disposed with the radial axes thereof in linear alignment along a line extending normal to said longitudinal strip margin, the remaining four twisted prongs of said washers having their free extremities terminating within a struck-out area defining a four-leaf clover pattern with the minimum distance between corners of adjacent free prong extremities being at least as great as the maximum width of said prongs, the space between adjacent prongs of each washer presenting an area at least as great as the area occupied by each of said prongs, said last-mentioned space area combined with the space area bounded by the free extremities of adjacent washer prongs being of such size as to enable

the use of a die punch having a cross sectional four-leaf clover shape complemental to the aforesaid combined space areas.

2,842,182
APPARATUS FOR CORRUGATING TUBES BY FLUID PRESSURE
Paul E. Cate, Knoxville, Tenn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application May 27, 1955, Serial No. 511,684
7 Claims. (Cl. 153—73)



1. In a device for corrugating tubes having a plurality of pairs of cooperating forming plates, a frame in which corresponding plates of said pairs are slidably mounted, means for moving at least one of each of said pairs of plates to clamp a tube between cooperating plates, and a ram for collapsing the tube axially, the combination of an arbor movable with said ram and adapted to be received within the tube, means for supplying fluid under pressure to the interior of the tube through said arbor to bulge the tube between said plates, cam follower means on said arms, rotatable cam means cooperable with said follower means for imparting axial movement thereto, motor means for rotating said cam means, said cam means having a first surface cooperable with said follower means for moving said ram to a position wherein said arbor is disposed within the tube, a second surface cooperable with said follower means for maintaining said ram in said position for a predetermined period, and a third surface for moving said ram axially to collapse the tube.

3. In a device for corrugating tubes having a plurality of pairs of cooperating forming plates, a frame in which corresponding plates of said pairs are slidably mounted, means for moving at least one of each of said pairs of plates to clamp a tube between cooperating plates, and a ram for collapsing the tube axially, the combination of an arbor on said ram and adapted to be received in the open end of the tube, means for admitting fluid under pressure through said arbor to the interior of the tube, clamping means for establishing an operative connection between said arbor and one pair of said plates, and fluid operator means encompassing said arbor for actuating said clamping means.

2,842,183
MICA PAPER
George L. Gaines, Jr., Scotia, N. Y., assignor to General Electric Company, a corporation of New York
No Drawing. Application September 24, 1956
Serial No. 611,775
4 Claims. (Cl. 154—2.6)

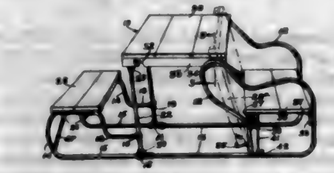
1. The method of preparing mica paper of improved tensile strength which comprises contacting comminuted mica particles with an aqueous barium salt solution, forming a wet paper-like sheet from said particles, and drying said sheet, said barium salt being characterized by a room temperature solubility of at least about 0.5 part by weight per 100 parts by weight of water.

2,842,184
FILM SPLICING DEVICE
Rowe G. Manchester, San Gabriel, Calif.
Application July 27, 1956, Serial No. 600,513
8 Claims. (Cl. 154—42.1)



1. A film splicing device comprising the combination of means forming a table, means on said table for locating a pair of film sections to be spliced in end to end relation; a shear blade assembly cooperable with said table for holding said film sections on said table, said blade assembly comprising two spaced pivoted blade elements, and a pivoted shearing blade movable between said blade elements and in shearing relation therewith for shearing a section of splicing film laid over said blade elements and for pressing said splicing film section against the adjacent end portions of said film sections.

2,842,185
PORTABLE PICNIC BENCH WITH TABLE TOP BACK
Charles Fortine, Massury, Ohio
Application April 1' 1957, Serial No. 652,191
2 Claims. (Cl. 155—124)



1. A combination table and bench construction comprising, in combination, a pair of main side frames, each one of said side frames having a lower base leg adapted to be supported upon the ground, a table top pivotally supported at one end upon an upper portion of said side frames, a pair of support legs pivotally connected at one end to the opposite end of said table top, and a coupling carried by each of said base legs of said side frames for releasably receiving the opposite ends of said support legs, said main side frames including means for supporting a seat intermediate said base legs and said upper portions, said side frames each including a bracket adjacent to said base leg for releasably engaging said one end of said table top when rotated downwardly about said opposite end, and a pair of auxiliary frames releasably secured to the free ends of said main side frames, said auxiliary frames having coupling means for releasably engaging said support legs.

2,842,186
KNOCKDOWN BENCH UNIT
Carter A. Worley, Clarksville, Ark., assignor to J. Harold Smith, Fort Smith, Ark.
Application May 23, 1956, Serial No. 586,687
4 Claims. (Cl. 155—130)

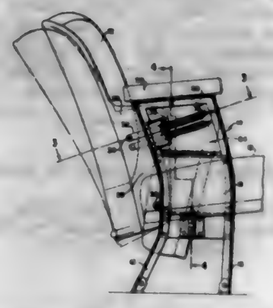
1. A bench unit adapted to be faced in different angular directions comprising a pair of spaced stringers each including an upstanding support for a connecting seat board

and a connecting back board, and means formed on said supports for mounting the seat board and the back board



for pivotal movemeat about vertical axes with respect to said supports upon relative movement of said stringers.

2,842,187
THEATER SEAT AND SUPPORT COMBINATION
Severin B. Hendrickson, Templeton, Mass., assignor to Heywood-Wakefield Company, Gardner, Mass., a corporation of Massachusetts
Application September 9, 1954, Serial No. 455,011
1 Claim. (Cl. 155—163)



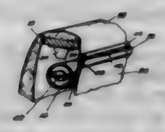
A chair comprising, a seat, a back rest, means supporting said seat and back rest including an upright standard adjacent to one side of said seat and back rest, walls in said standard forming a longitudinally extending chamber, means pivotally connecting said back rest to said standard to pivot said back rest relative thereto from an erect position adjacent to the rearmost extremity of said chamber to a reclined position substantially separated from and to the rear of said chamber, a link pivotally connected to said back rest at a point substantially above the pivotal connection between said back rest and said standard, said link extending forward from said back rest into said chamber, a compression spring in said chamber connected to said link and urging the same forward whereby said back rest is resiliently urged forward to the said erect position, said spring having a multiplicity of coiled elements therein which abut one another when said spring is in a fully compressed state, and said link carrying said spring to the said fully compressed state when said back rest is reclined fully to the rear to the said reclined position, whereby said spring acts through said link both resiliently to resist reclining of said back rest and to limit said reclining by virtue of the abutment of the multiplicity of said coiled elements of said spring, the pivot for said back rest being located in a vertical plane separated from and to the front of said back rest, a separate pivot for said seat located in a vertical plane to the rear of the center of gravity of said seat and substantially separated from and to the front of the plane of said back rest pivot, whereby an occupant of said chair may bring his weight more fully against said back rest independently of support from said seat by shifting his position on said seat, and said spring having a compression force equal to the force required evenly to counterbalance the weight of an average occupant in the various positions of recline of said back rest.

2,842,188
SPRING CUSHION STRUCTURES
Charles J. Hupp, Detroit, Mich., assignor to L. A. Young Spring & Wire Corporation, Detroit, Mich., a corporation of Michigan
Application July 19, 1954, Serial No. 444,078
6 Claims. (Cl. 155—179)



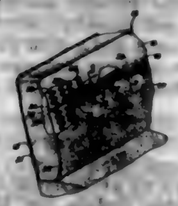
1. A spring assembly comprising a plurality of sinuously bent laterally spaced spring elements having terminal reaches provided with laterally projecting lugs at their ends and an elongated supporting bar for said spring elements comprising a body portion of flat section having an inturned bendable flange on its outer edge, the flange having a series of uniformly spaced teeth on its edge directed toward the face of the supporting bar and spaced outwardly from the inner edge of the bar, the said terminal reaches of the spring elements being disposed within and in thrust supported engagement with said inturned flange with the connecting bights thereof and the said lugs disposed between pairs of said teeth and retainingly engaged thereby with the ends of the teeth in engagement with the supporting bar and in outwardly spaced relation relative to the inner edge of the bar.

2,842,189
PROTECTIVE COVER FOR FURNITURE AND THE LIKE
Benjamin H. Gratt, Providence, R. I., assignor of fifty percent to Herbert E. Gratt, Cranston, R. I.
Application November 13, 1956, Serial No. 621,931
1 Claim. (Cl. 155—182)



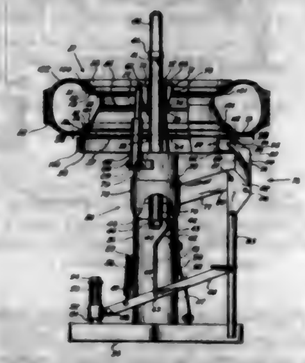
In a furniture piece, a frame defining a seat and back portions, upholstery covering said frame and cooperating therewith to provide a hollow space in the said back portion, an elongated slot in said upholstery extending transversely in the rear of said back portion, a flexible cover slidably extending through said slot and having an enlarged flexible welt edge at its outer extremity of greater thickness than said slot for preventing complete retraction of said cover therethrough, and means located within said hollow space for mounting said cover for selective movement from a retracted position wherein only said welt edge is visible, to an extended position wherein the cover passes up over the top of said back portion and down the front surface thereof, said slot being defined by a rigid guide strip secured to said frame and having an offset portion at least as long as the width of said cover, said offset being less than the thickness of said cover welt edge, and said cover being of two-part construction and having means for detachably connecting said two parts, whereby at least the part of the cover which extends down the front surface of the piece may be readily detached for replacement, cleaning or the like.

2,842,190
VEHICLE SEAT CUSHION
Bernard I. Porsendek, Belleville, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application July 16, 1956, Serial No. 598,124
9 Claims. (Cl. 155—184)



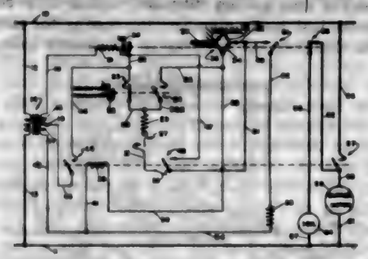
1. In a vehicle seat cushion, a frame, spring units supported by said frame, resilient padding overlying said spring units, upholstery material overlying said padding, and an elongated flexible element extending across a portion of said cushion and engaging said upholstery material to form a division between portions of said upholstery material on opposite sides thereof, said element in its free position being bowed toward said seat cushion.

2,842,191
TIRE BEAD BREAKING APPARATUS
Gilbert E. Coats, Fort Dodge, Iowa
Application April 18, 1955, Serial No. 501,936
2 Claims. (Cl. 157—1.26)



1. Tire dismounting apparatus comprising an upright standard, a horizontal tire and wheel rim supporting table mounted on said standard, a guide portion on said table, a supporting arm below said table mounted on and extended radially outwardly from said standard, a lever member pivotally supported on said arm at a position below said guide portion, a substantially horizontally disposed tire engaging shoe of a curved and elongated shape having a central portion and a pair of end portions, a shoe mounting member connected at one end to the convex side of said central portion and pivotally connected at its other end with said lever at a position below and spaced radially outwardly from the pivotal support of said lever, said mounting member being in an upright substantially parallel relation with said lever, when said lever is in an inoperative position, and with said mounting member having a straight edge lying in a vertical plane between said pivotal support and said pivotal connection, and said central portion having the concave side thereof resting against said guide portion, whereby said mounting member, on initial actuation of said lever, is moved upwardly into an inwardly inclined position so that the center portion of said shoe moves upwardly into engagement with said tire ahead of said end portions, and said straight edge, on a final upward movement of said shoe, engaging said guide portion to direct said shoe outwardly to bring said end portions substantially on a level with said central portion.

2,842,192
OIL BURNER CONTROL
Ralph S. Penn, Goshen, Ind., assignor to Penn Controls Incorporated, Goshen, Ind., a corporation of Indiana
Application August 22, 1955, Serial No. 529,825
5 Claims. (Cl. 158—28)

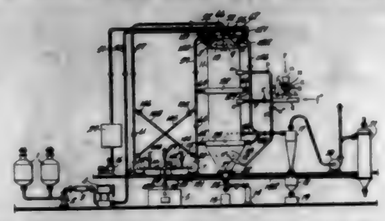


1. In a burner control for controlling a burner motor and ignition mechanism for the burner, said burner control comprising a control switch, a motor circuit having a motor switch therein, a circuit for connecting the ignition mechanism in shunting relation to the motor and having a normally closed ignition switch therein, a transformer having a pair of secondary coils connected in series with each other, a relay circuit across said coils controlled by the control switch and including a relay coil, normally closed combustion and safety switches in said relay circuit, said motor switch being operatively associated with and controlled by said relay coil, a combustion switch actuator for said combustion switch, a relay holding switch connected in parallel with said normally closed combustion switch and said control switch and adapted to be closed by energization of said relay coil, normally open combustion and resistor switches, a delayed action actuator operatively associated with said resistor switch, ignition switch and safety switch, to close said resistor and open said ignition and safety switches upon energization of said delayed action actuator for a predetermined time, said safety switch de-energizing said relay coil upon said normally open combustion switch failing to close due to initial combustion failure or reopening after closing due to subsequent combustion failure, and a resistor adapted to be connected in series with said delayed action actuator across said pair of secondary coils through said resistor switch, said control switch and said normally closed combustion switch when it closes due to combustion failure, the reduced level of energization of said delayed action actuator thereby achieved permitting manual reclosing of said safety switch.

2,842,193
SPRAY DRYING PROCESS AND APPARATUS
Mario Ballestra, Genoa, Italy
Application August 29, 1952, Serial No. 307,112
Claims priority, application Italy December 18, 1951
5 Claims. (Cl. 159—4)

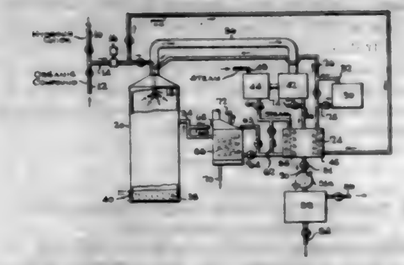
5. An apparatus for spray drying solid materials associated with a liquid medium which comprises, in combination, means defining a vertical chamber, means communicating with the upper portion of the chamber for introducing the material to be spray dried into the upper portion of said chamber, means for conducting air into the chamber to impinge upon and thereby disperse said material as it is introduced into the chamber, means for selectively supplying heated air and atmospheric air

to said chamber for contact with the material being spray dried, a first distributor in the upper portion of said chamber, a second distributor in the lower portion of said chamber, and a third distributor intermediate said first and said second distributors, said three distributors being connectable with said means for selectively supplying heated air and atmospheric air, exhaust means for removing air and gaseous products from said chamber, said exhaust means being connectable to said three distributors, whereby air and gaseous products may be introduced and may be withdrawn selectively through said distributors, the upper portion of said chamber being conical and having disposed within it a concentric hollow conical baffle member, the means for introducing into the chamber the material to be treated being located



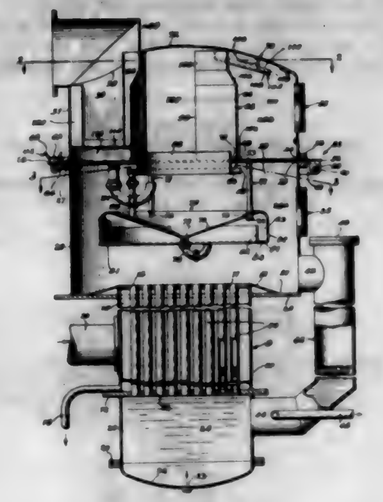
interiorly of said cone and the means for introducing the dispersing gas directing it in at least one jet having a path mainly below the base of said cone, the first distributor being positioned to discharge the drying gas into the annular space between the exterior surface of the conical baffle and the interior surface of the conical top of the chamber, the lower end of the chamber being in the shape of an inverted cone and having an upright hollow conical member disposed interiorly thereof, the vertex of said conical member being connected to said exhaust means whereby gases are withdrawn from the lower end of said chamber through said conical member, said lower end of said chamber being provided with openings for admission of the air surrounding the chamber, said openings being disposed below the base of said conical member.

2,842,194
APPARATUS FOR MANUFACTURE OF CATALYSTS
Kenneth K. Kearby, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application December 11, 1952, Serial No. 325,372
2 Claims. (Cl. 159—4)



1. An apparatus for drying hydrous oxides and recovering organic liquid from a slurry which includes a spray dryer, means for spraying a slurry containing hydrous oxide and organic liquid into the upper portion of said spray dryer, means for introducing superheated steam into an intermediate portion of said spray dryer for vaporizing the organic liquid, a bottom outlet for dried solids, a top outlet for removing vaporized organic liquid and steam from said spray dryer, a compressor communicating with said top outlet for compressing and heating vapors removed from said spray dryer, a steam turbine for operating said compressor, a heat exchanger, a pipe for leading hot compressed vapors from said compressor to said heat exchanger, a second pipe for removing cooled and condensed vapors from said heat exchanger, a receiver communicating with said second pipe for receiving condensed vapors, means for conducting steam leaving said turbine through said heat exchanger for supplying heat to said steam by indirect contact with said hot compressed vapors and a third pipe for leading said heated steam from said heat exchanger to said means for introducing superheated steam to said spray dryer.

2,842,195
APPARATUS FOR SEPARATING LIQUID FROM VAPOR IN AN EVAPORATOR OR THE LIKE
Albert W. Eckstrom, Buffalo, and Gerard L. Garrow, Cheektowaga, N. Y., assignors to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application June 24, 1954, Serial No. 439,079
2 Claims. (Cl. 159—31)



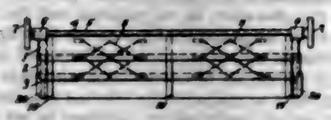
1. In an evaporator or the like having an enclosed vapor space formed principally by a vertical tubular side wall open at its upper end, a dome-shaped removable cover enclosing the upper end of said tubular side wall and having a vapor outlet, a generally horizontal tube sheet in the central lower part of said tubular side wall and means providing a trough between said tube sheet and tubular side wall and which trough is depressed with reference to said tube sheet, said evaporator also including a plurality of vertical tubes connected with and extending downwardly from said tube sheet and severally communicating with openings in said tube sheet, means arranged to supply the liquid to be evaporated to the interior of said tubes, means arranged to heat the exterior of said tubes to effect vaporization of the liquid therein and the discharge of streams of vapor and liquid upwardly into the central part of said vapor space and means arranged to drain the liquid from said trough to said supplying means; the combination therewith of means for preventing liquid from becoming entrained in the vapor passing through said vapor space comprising a horizontally disposed umbrella-shaped baffle in said vapor space, said baffle being dome shaped to arch upwardly toward its center, means arranged to support said baffle in spaced relation to the internal vertical surfaces of said tubular side wall and with one face arranged in opposition to said streams of vapor and liquid from said tubes whereby said streams are deflected horizontally along the under surface of said baffle, a generally vertical apron depending from the periphery of said baffle, said apron projecting upwardly from the periphery of said baffle to form a trough around said periphery, an internal trough along the lower edge of said apron to collect said horizontally deflected liquid, and means providing a drain for each of said troughs.

2,842,196
VENETIAN BLIND
Henry J. Schultz, Hayward, Calif., assignor to Brooks Walker
Application November 14, 1955, Serial No. 546,420
4 Claims. (Cl. 160—173)



4. A Venetian blind having lift cords, slats and a head member, a loop depending from the head member over which said lift cord passes, a lift cord clamping link, said lift cord clamping link having a straight portion and two cord tight enclosures, one at each end of said straight portion, said cords passing up through a first enclosure then over said loop that depends from said head member and down through said other cord tight enclosure in said link to support said link by said lift cords, said link clamping said cord between itself and said loop in one direction of lift cord pull to form a cord lock.

2,842,197
ADJUSTABLE CAR SUN VISOR
Joseph Victor Yeomans, Windsor, Ontario, Canada
Application October 21, 1954, Serial No. 463,671
1 Claim. (Cl. 160—324)



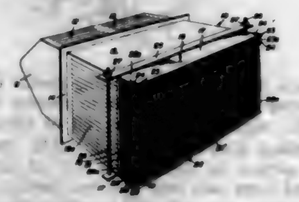
An adjustable sun visor for cars, comprising a plurality of parallel, overlapping, longitudinal sections which slide in and out to contract or expand the width of the said visor; in combination with manual means for contracting or expanding the width of the said visor consisting of a tube attached to the back of the visor section nearest the car, a shaft passing through the said tube and rotating freely therein, a gear housing attached at each end of said tube, a knob attached to each end of the said shaft, a pair of helical right angle gears rotated by the said knob and shaft, said gears being located within the said housing, and the bottom gear having rigidly attached thereto a shaft of square cross-section; each of said gear casings having a tubular extension therefrom, and a plurality of threaded telescopic tubes moving in and out of the said gear housing extensions, the first of said telescopic tubes having a square hole in the inner end thereof wherein the said square sectioned shaft can slide freely and at the same time engage in rotation the first of the said telescopic tubes, and the last telescopic tube is rigidly attached to the last of the said visor sections.

2,842,198
TORSION REGULATOR FOR IRON AND STEEL ROLLING CURTAINS
José Hernandez Prieto, Mexico City, Mexico
Application January 14, 1953, Serial No. 331,211
Claims priority, application Mexico January 18, 1952
1 Claim. (Cl. 160—313)



In combination, a metal roller curtain, a shaft, a pulley freely mounted on said shaft and attached to the upper end of said curtain to support the inner convolution of said curtain when the curtain is rolled, a spring coiled around said shaft and extending longitudinally thereof with its ends respectively attached to said shaft and said pulley, whereby said spring is tightened around said shaft when the curtain is unrolled, and a regulator comprising a split ring having a screw for adjusting the size thereof and a bracket on one of the split ends of the ring secured to the inner convolution of said curtain in surrounding relation to said coiled spring and intermediate the ends of said spring, said regulator ring having a predetermined inner diameter to be engaged by the spring upon the expansion of the coils thereof to thereby limit the effective length of said spring during the final rolling up of said curtain.

2,842,199
HEAT RAY REFLECTING MEANS, ETC.
David C. Pfeiffer, Dallas, Tex.
Application March 9, 1956, Serial No. 570,570
10 Claims. (Cl. 160—369)

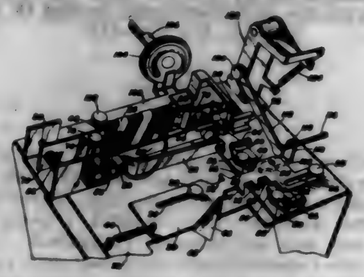


1. A sun ray guard for the air passage-providing end of an air cooled condenser casing, said guard comprising a mounting frame providing opposite wall clamp providing members adapted to overlie opposite wall portions of said casing end, a ray intercepting screen for overlying said casing end and opening therein, a carrier frame for said screen and detachably secured to said mounting frame, and clamp member connecting and actuating means adjacent other opposed walls of said casing end.

2,842,200
TIMING DEVICE
Maurice H. Graham, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application May 5, 1954, Serial No. 427,748
8 Claims. (Cl. 161—1)

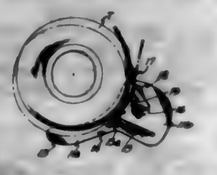
1. A timing device having a timing member movable from a first position to a second position to measure a timed interval, cyclically movable means controlling the period of movement of said timing member from its first to its second position, release means adapted for operation at the termination of said interval, said release means including a tripping member mounted on said timing member for relative movement between normal and tripping positions, said tripping member being carried by said timing member in a relative location and position free of driven engagement with the cyclically movable means whenever the timing member is out of said second position and being moved by said timing member

into driven engagement with said cyclically movable means when the timing member moves to its second position, and said tripping member being moved from its normal to its tripping position by the movement of said



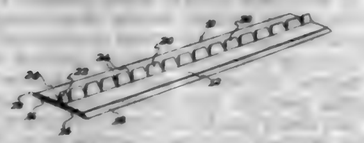
cyclically movable means after the timing member has moved to second position to establish said driven engagement, whereby said cyclically movable means actuates said release means only at the end of the desired interval.

2,842,201
TAPE DISPENSING AND CUTTING DEVICE
Clarence W. Vogt, Weston, Conn.
Application June 30, 1955, Serial No. 519,972
10 Claims. (Cl. 164—84.5)



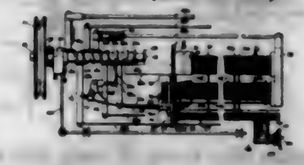
1. A tape dispensing and cutting device comprising a frame having spaced side walls to receive therebetween at least the edge portion of a roll of adhesive tape, a bar extending between said side walls and having a snubbing surface to engage one side of said tape as it is unwound from said roll, said bar having a slot therein substantially perpendicular to said surface for receiving the end of said tape when said end is folded lengthwise to facilitate insertion of the tape into said frame, a cutting blade pivotally mounted in said frame on an axis transverse to said frame, a snubber mounted in said frame for movement toward and away from said snubbing surface, means normally biasing said snubber toward said snubbing surface to grip the tape therebetween, and motion-transmitting means on said snubber and said cutting blade for urging said snubber toward said snubbing surface when said tape is pressed against said cutting member to maintain the tape between said snubber and said cutting blade under tension during cutting of said tape.

2,842,202
PERFORATING STRIP
Harry S. Boyd, Tulsa, Okla.
Application October 28, 1955, Serial No. 543,463
1 Claim. (Cl. 164—100)



As an article of manufacture, a perforating strip for circumposed attachment to an impression cylinder of an offset press, comprising an elongated flat thin base formed from extremely thin and bendable material and having opposing flat surfaces and a series of integral teeth perpendicularly formed on one of the surfaces and extending in contiguous alignment along the surface, and the teeth being triangular and having contiguous bases bottomed on the surface and having opposing flat slightly upwardly converging ends and opposing sides which converge at their upper ends to form sharp apexes which terminate in a common plane.

2,842,203
MACHINE FOR PUNCHING TAPE FOR RECORDING TELEGRAPHIC CHARACTERS
Kaj Leo Jensen and Gunnar Julius Johannes Rosendahl, Copenhagen, Denmark, assignors to Det Store Nordiske Telegraf-Selskab (Aktieselskab), Copenhagen, Denmark, a limited-liability company of Denmark
Application January 14, 1955, Serial No. 481,819
Claims priority, application Denmark January 30, 1954
12 Claims. (Cl. 164—114)

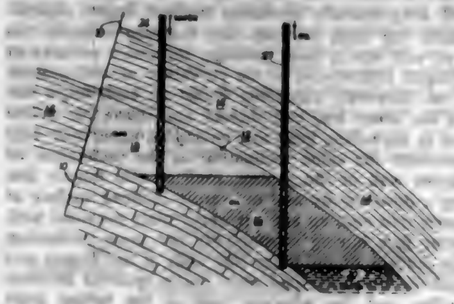


1. In a machine for punching tape for recording characters of different group lengths, in combination a punching mechanism, a first set of combination members controlling said punching mechanism, a mechanism for intermittently feeding a tape through said punching mechanism after each punching operation, including means for varying the amount the tape is advanced, a second set of combination members controlling said tape feeding mechanism to determine the length of tape advanced, means for moving said combination members between an active and an inactive position, a set of control members, means for moving said control members between an active and an inactive position, resilient means urging the combination members of said second set to active position, said control members cooperating in their active position directly with both sets of combination members to releasably hold selected combination members in a set position to determine both the character to be punched and the amount the tape is to be advanced, and a separate locking mechanism independent of said control members and cooperating with said second set of combination members controlling the tape feed to maintain the selected combination of said second set of combination members in set position after release of both sets of combination members by the control members against the action of said resilient means, thereby permitting the control members to be moved away from the active position as soon as the punching has been effected and before the tape is advanced.

2,842,204
METHOD OF INCREASING OIL RECOVERY
William L. Horner, Dallas, Tex., assignor to Core Laboratories, Inc., Dallas, Tex., a corporation of Texas
Application August 29, 1955, Serial No. 531,151
5 Claims. (Cl. 166—9)

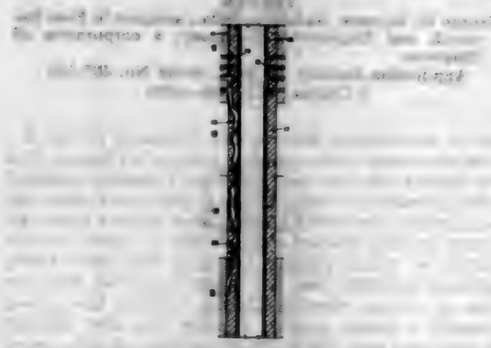
1. A method of enhancing oil recovery from a subterranean petroleum reservoir having in at least one area an appreciable dip and containing an oil pool with a free gas cap, which comprises injecting water into said reservoir through one or more injection wells penetrating said reservoir in the general area of the up-dip limit of the gas-oil contact while removing oil from said reservoir through one or more production wells penetrating said reservoir on the down-dip side of said injection wells in the area

of said oil pool to cause a portion of the gas in said gas cap to be driven ahead of said injected water into the area



originally occupied by said oil pool to flush oil therefrom and drive the same toward said production wells.

2,842,205
METHOD OF SERVICING WELLS
Thomas O. Allen, Bellaire, and Laurie M. Sloan, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 24, 1956, Serial No. 630,327
15 Claims. (Cl. 166—21)



1. A method for sealing a channel in a well back of a well casing in which the channel communicates fluidly with vertically spaced apart zones and fluid from a first of said zones is invading a second of said zones and in which the channel also communicates fluidly with less than all of a plurality of first perforations in said casing in said first zone which comprises establishing fluid communication between said channel and less than all of a plurality of second perforations in said casing in said second zone vertically spaced apart from the first perforations, forcing a low fluid loss non-plugging fluid through said channel through said perforations in fluid communication with said channel, then forcing a sealing material through said channel after said fluid, and maintaining said sealing material in said channel and said perforations in fluid communication with said channel a sufficient length of time for it to seal said channel and said perforations in communication with said channel, said low fluid loss non-plugging fluid having the characteristics of resisting entrance of other fluids into the perforations other than the perforations in fluid communication with the channel.

2,842,206
WATER SHUT-OFF METHOD
William G. Bourdon and George C. Howard, Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware
No Drawing. Application December 28, 1956
Serial No. 631,832
3 Claims. (Cl. 166—33)

1. A method for plugging a water-bearing formation penetrated by a well comprising injecting into said well and then into said formation a treating solution containing from about 40 to about 60 percent by weight of a plugging agent selected from the group consisting of rosin and rosin polymers in an oil-soluble solvent for said plugging agent, said solvent being miscible in all proportions with water, displacing said treating solution into said formation with a separate volume of water equal to at least about 1/10 the volume of treating solution, and displacing said volume of water into said formation with at least one additional batch of treating solution followed by water whereby more uniform penetration of treating solutions into zones of differing permeabilities is obtained.

2,842,207
METHOD AND APPARATUS FOR DISCONNECTING WELL PIPE JOINTS
Ford I. Alexander, Arcadia, Calif.
Application September 6, 1955, Serial No. 532,636
2 Claims. (Cl. 166—46)

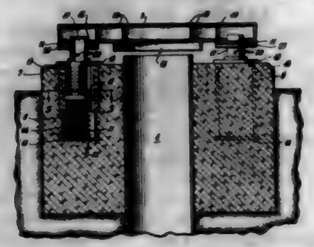


1. The method of breaking a threaded joint deep within a well between sections of a string of pipe stuck in the well, that comprises applying force to the string above said joint tending to break the joint, locally heating said joint from the inside thereof, and loosening the joint by the heat induced expansion thereof to an extent such that said force becomes effective to unscrew said joint, said force including a lifting force alternately applied and relieved to tend to vertically reciprocate the string.

2,842,208
SPRING MOUNTED VERTICAL PUMP SUPPORT
Haydron H. Dukes, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application September 14, 1953, Serial No. 379,753
3 Claims. (Cl. 166—68)

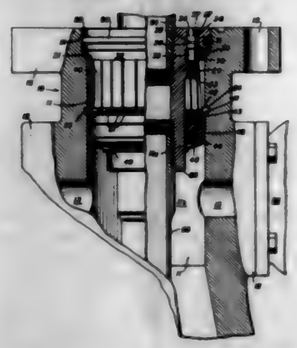
1. An improved mount for a vertical rotary pump comprising, in combination, a casing adapted to extend into a well at the surface of the earth, a rigid foundation about said casing securing same to the surrounding earth, a plurality of spring assemblies carried by said foundation, each assembly including a vertically extending spring having its lower end resting on said foundation, a vertically extending rod aligned with said spring, a disc

connected to said rod, the upper end of said spring abutting against said disc, and a support secured to the upper portion of said rod, the end of said rod protruding through said support, and a load supporting frame having an opening directly over the end of said casing and horizontal plate members resting upon each of said supports,



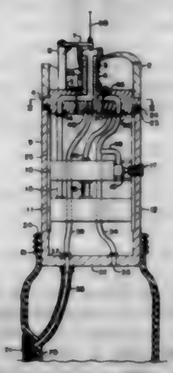
said plate members having openings formed therein around the respective rods and of larger diameter than said rods which protrude through the openings but not beyond said frame structure, whereby said frame is adapted for limited horizontal movement in any direction relative to said rods and vertical movement relative to said casing.

2,842,209
SELF-LOCKING TUBING HANGER
Wilfred C. Gibson, Fullerton, Calif., assignor to Shaffer Tool Works, Brea, Calif.
Application May 16, 1955, Serial No. 508,615
19 Claims. (Cl. 166—75)



1. In combination with the tubing head having a longitudinal passage therethrough with an upwardly and outwardly flaring merging at its upper end in an enlarged diameter portion, and an annular grove in said passage, said grove being spaced downwardly from said shoulder and having the upper wall thereof inclined outwardly and downwardly to the bottom of said groove, said tubing head having a cross-passage extending outwardly from the longitudinally extending passage, of a tubing hanger comprising a collar for connection with tubing, said collar having an enlarged diameter upper end portion removably received in the enlarged portion of the tubing head and having diametrically arranged, longitudinally extending bores, and an outwardly extending flange spaced downwardly from the enlarged portion of said collar and having tapped openings therein aligned with the bores of said enlarged portion of the collar, the periphery of said flange being spaced from the adjacent wall of the tubing head passage; latching means comprising a pair of semi-circular members each comprising a body portion removably received in the space between the flange of the collar and the enlarged end portion thereof and having the outer arcuate edge tapered to conform to and seat upon said shoulder, each body portion having a hole aligned with the bore of the enlarged portion of the collar and the tapped opening in the flange thereof; bolts having portions received in said bores and threaded portions screwed into said tapped openings; arcuately spaced, longitudinally extending resilient fingers depending from the body portions and disposed adjacent the wall of said tubing head passage, the outer surfaces of said fingers conforming to the curvature of said passage wall; an outwardly extending flange on each finger adjacent the lower free end thereof and receivable in the groove in the tubing head and having an upper side with substantially the same inclination as the inclination of the upper wall of the groove, each of said fingers also having a downwardly and outwardly inclined surface at the inner free end; an annular upper plate provided with an outer face having substantially the same inclination as said surface of the inner free ends of the fingers and engageable therewith, said plate being received between the collar and the adjacent wall of the tubing head passage; an annular packing element beneath said upper plate and between said collar and wall of said tubing head passage; an annular lower plate beneath said packing element; a frusto-conical spring washer engageable with the lower plate; releasable means for securing said washer to the collar; sealing means for the enlarged upper end of the collar to provide a seal between said enlarged upper end and the adjacent wall of the enlarged portion of the passage of the tubing head; and valve means for controlling said cross-passage of the tubing head.

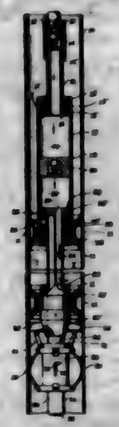
2,842,210
HYDRAULIC MOTOR OPERATED FORMATION TESTER
George H. Ramsey, Ardmore, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application January 29, 1954, Serial No. 407,119
3 Claims. (Cl. 166—100)



1. In a well formation tester including an inflatable elastic packer and a sample conduit extending through the wall thereof, the improvement which comprises a cylinder attachable at its upper end to the lower end of a string of well pipe and at its lower end to said packer, a hydraulic motor and a pump in coupled relation mounted within said cylinder, a four-position valve mounted within said cylinder above said motor and pump and separating the interior of the well pipe from the interior of the packer, said valve having a shut-position and three sequential port positions, the movable part of the valve being rotatable within the valve body and having a passageway communicating at one end with the interior of the well pipe, three separate ports in the body of said valve, the opposite end of said passageway being blocked by said valve body in a first said shut-position and registering sequentially with a first, second, and third of said

three ports in the following three port-positions, the intakes of said motor and said pump extending exteriorly of said cylinder, a first conduit connecting the exhaust of said motor with said first port, a second conduit connecting said second port with the end of said sample conduit within said packer, a third conduit connecting said third port and the interior of said packer, an additional port in said valve, a fourth conduit connecting said additional port and the exhaust of said pump, and a by-pass passageway within said movable part operable to communicate between said additional port and said third port when the valve is in its first port position.

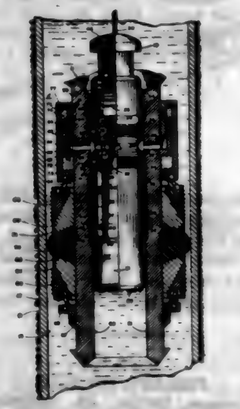
2,842,211
OIL WELL TOOL
Edgar W. McGaffey, Bakersfield, Calif.
Application November 15, 1952, Serial No. 320,707
6 Claims. (Cl. 166—101)



1. In an apparatus for cleaning perforations in oil wells, means for creating a fluid pressure across said perforations between a confined space and the exterior of the casing, comprising in combination: a stationary packing means adapted to be secured within and held stationary with respect to said casing; a movable packing means spaced from said stationary packing means to define, with said perforated casing and said stationary packing means, said confined space; a cylinder secured to and movable with said movable packing means; a plunger means slidably receiving said cylinder and including a tubular member secured to said stationary packing means; a one-way check valve dividing said cylinder into two chambers, said plunger means being operable in one of said chambers; a piston means reciprocably receivable in the other of said chambers and including means engaging said cylinder at the extremes of the stroke of said piston means whereby further movement of said piston means moves said cylinder; a one-way check valve in said piston means; fluid communicating means between said confined space and said one chamber; means for reciprocating said piston means; and means providing a source of fluid communicating with the said other chamber through said piston means.

2,842,212
WELL PRODUCTION EQUIPMENT
Maurice P. Leboerg, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application May 31, 1955, Serial No. 512,108
1 Claim. (Cl. 166—125)

In well production equipment, a packer including a tubular mandrel having a bore provided with a locking recess, a packing element carried by said mandrel, means including slips slidably mounted on said mandrel for expanding said packing element, a passage extending from said bore, a setting sleeve slidably mounted on said mandrel for moving said expanding means including said slips therealong, said sleeve providing one wall of a sealed chamber in communication with said passage and having an opposite wall exposed for subjection to well fluid pressure, a setting tool sized to fit in said bore, a low pressure



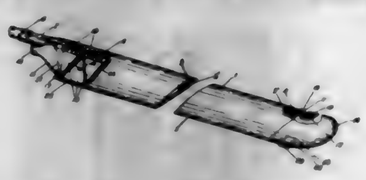
reservoir in said setting tool, a passage in said setting tool terminating in a side port, locking means carried by said setting tool for engagement in said locking recess for registering said setting tool passage with said packer passage, means carried by said setting tool for sealing with said bore above and below said passages, and electrically operated valve means movably mounted in said setting tool passage for selectively opening the same to place said reservoir in communication with said chamber through said passages.

2,842,213
MULTIPLE SLIP CASING HANGER
Erwin Burns, Los Angeles, Calif.
Application May 13, 1955, Serial No. 508,084
5 Claims. (Cl. 166—208)



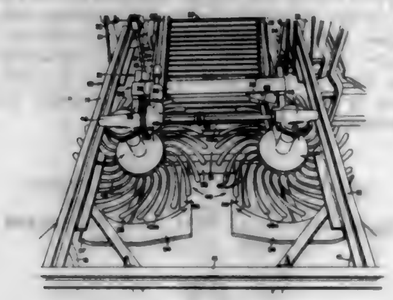
1. A multiple slip hanger of the character described, including, an elongate cylindrical body, upper and lower circumferentially offset recesses in the wall of said body, said recesses having inclined walls, and a wedge-shaped slip slidably retained in each recess, the slips in the upper recesses as overlying and engaging adjacent slips in the lower recesses.

2,842,214
ROTOR BLADE WITH DEICING MEANS
Richard H. Prewitt, Wallingford, Pa.
Original application June 28, 1947, Serial No. 724,836, now Patent No. 2,638,170, dated May 12, 1953. Divided and this application May 7, 1953, Serial No. 353,577
6 Claims. (Cl. 170—135.4)



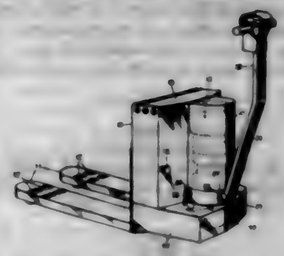
2. In a blade, means for conducting hot gases into the blade, a hollow tubular member extending internally of said blade from one end to the other end, and automatically operable thermostatic means located in the region of hot gas entry into said blade to control the passage of hot gases from said blade into said tubular member.

2,842,215
POTATO DIGGER
Charles S. Morrison, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application May 7, 1956, Serial No. 583,070
7 Claims. (Cl. 171—115)



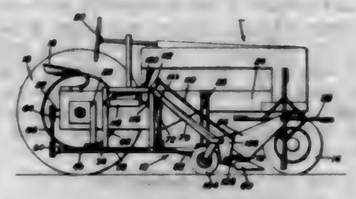
1. A potato digger comprising supporting frame means extending downwardly and forwardly, a pair of rotatable members disposed in side-by-side relation at the front portion of said frame means, the axis of rotation of said members being relatively fixed, each of said members having toothed elements arranged generally coplanar so as to facilitate passage of said rotatable member under potatoes while still in the ground, said pair of rotatable members lying substantially in the plane of said frame means, a pair of ground engaging blades fixedly connected with said frame means substantially directly ahead of said rotatable members and adapted to pass under the potato hills of two rows and direct the potatoes, soil, vines and the like onto the forward portions of said rotatable members, the major portion of said blades lying in a plane generally parallel to the plane of said rotatable members and lying just above said latter plane, means to rotate said members toward one another to concentrate said masses of potatoes, soil, vines and the like from two rows into a single stream, and centrally disposed conveyor means carried by said frame means in a position to receive potatoes, vines and the like from the adjacent generally rearwardly moving portions of said rotatable members.

2,842,216
MOUNTING FOR STEERING AND TRACTION UNIT
Bronislaus L. Ulinski, Fleetwood, Ill., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application October 31, 1955, Serial No. 543,658
4 Claims. (Cl. 180—13)



1. In a truck of the class described, a main frame, a steering and traction unit comprising a motor and a steering and traction wheel, an inner circular bearing race fixed to said steering and traction unit with the center of its circular bearing portion lying in the steering axis of said unit relatively to the truck, an outer bearing race formed for assembly and adjustment relatively to said inner race, means for assembling and adjusting said outer race whereby to fit said outer race to bearings assembled between the inner and outer races with said inner race adapted for rotation on said bearings relatively to said outer race, said inner and outer races being formed with surfaces so coacting with the bearings whereby the bearings hold the races against displacement relatively to one another when said outer race is assembled and adjusted to fit said bearings, so as to form a complete sub-assembly with said steering and traction unit rotating together with said inner race on said bearings relatively to said outer race, and means independent of said adjusting means and additional thereto extending between said outer race and main frame for securing said outer race in bearing relation to the truck frame whereby to mount the steering and traction unit on the said main frame for steering rotation relatively thereto and for ready removal from said main frame with said inner and outer races as a complete sub-assembly.

2,842,217
POWER TAKE-OFF ATTACHMENT FOR AGRICULTURAL IMPLEMENT
Morris H. Houbolt, Winona, Minn.
Application July 7, 1955, Serial No. 520,497
2 Claims. (Cl. 180—53)



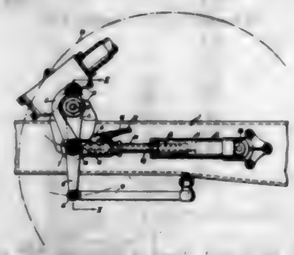
1. In combination, a farm tractor having a frame extending longitudinally and a power take-off, a farm implement having a powered working element drivingly connected with the power take-off, a pair of depending members rigidly supported on said frame in longitudinally spaced relation, a horizontally disposed sleeve bracket on the lower end of each depending member, said sleeve brackets being disposed in longitudinal alignment, a longitudinal mounting bar on the implement and being disposed alongside the tractor, a pair of laterally extending bracket members on said mounting bar, a rearwardly extending pin at the outer end of each bracket member, said pins being disposed in longitudinal spaced alignment corresponding to the longitudinal spacing of the sleeve brackets for sliding engagement with the sleeve brackets, and pivotal latch means supported on at least one of said sleeve brackets for engagement with the front of the adjacent bracket member thereby precluding withdrawal of the pins from the sleeve brackets thus detachably connecting the mounting bar of the implement to the tractor, said implement having a ground engaging support wheel thereon on the side thereof remote from said bar with the connection permitting relative pivotal movement between the tractor and implement, said means including a longitudinally extending latch member pivotally mounted on said sleeve bracket, a hook-shaped forward end on said latch member for projecting forwardly of the top edge of the bracket member, said forward end having a vertical surface for engaging the front surface of the bracket member when the pin is disposed in the sleeve bracket with the rear surface of the bracket member engaging the front end of the sleeve bracket, said hook-shaped end of the latch member being provided with a forwardly and upwardly inclined lower edge forming a cam surface, said cam surface causing the forward end of the latch member to ride up and over the upper edge of said bracket member when the sleeve brackets are in alignment with and behind the pins and the tractor is moved forwardly and the vertical surface of the latch will engage the front surface of the bracket member when the pin is completely received in the sleeve bracket.

2,842,218
MOTOR VEHICLE TAIL PIPE SUPPORT MEANS
Edgar John Bradbury, Albion, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application November 14, 1955, Serial No. 546,682
3 Claims. (Cl. 180—64)



3. In a motor vehicle having an engine mounted upon a longitudinal frame for oscillatory movement, said chassis frame including a pair of transversely spaced side sill members inter-connected by a transversely extending cross member having an opening therein, the combination including said chassis frame of an engine exhaust assembly comprising a cylindrical longitudinally extending tail pipe, said tail pipe extending through said opening and being radially spaced from the cross member portion defining said opening; and means for connecting said tail pipe to said chassis frame including a single transversely extending flexible and resilient bar of non-metallic material having its center section supported by said cross member adjacent to and above said opening, a single length of relatively stiff resilient wire rod disposed in a vertical plane, said wire rod having its ends in the forms of eyes and arms extending downwardly from said eyes in relatively converging relation to a jointure portion at the lower ends thereof, said jointure portion being in the form of a loop open at its upper side for receiving said tail pipe, and means for quick detachably connecting said eyes to respective transversely spaced end portions of said bar whereby substantially two-thirds of the circumference of said tail pipe is firmly gripped by said jointure portion.

2,842,219
STEERING DEVICE FOR AUTOMOTIVE VEHICLES WITH SERVO CONTROL
Fritz Ostwald, Heppenheim, Bergstrasse, Germany, assignor to Alfred Teves, Maschinen- und Armaturenfabrik Kom. Ges., Frankfurt, Germany
Application June 30, 1954, Serial No. 440,461
Claims priority, application Germany July 31, 1953
1 Claim. (Cl. 180—79.2)



A steering device for vehicle chassis, with servo control, comprising a steering gear; a steering gear shaft; a double-armed lever fixedly mounted on said shaft and formed with an upper arm and a lower arm; a second lever articulated adjacent one of its ends to the upper arm of said double-armed lever; an operating cylinder pivotally mounted on the vehicle chassis; a piston slidable in said cylinder; a piston rod whose one end is secured to said piston; a control slide; a housing for said control slide, said housing secured to the other end of said piston rod; a pin connecting said second lever intermediate its end to said control slide housing; means connecting said second lever adjacent its other end to a connecting rod in a manual steering gear; the lower arm of said double-armed lever being articulated to said control slide in said housing, said connecting pin being embraced by the lower arm of said double-armed lever with radial clearance, said piston and said piston rod having bores therein communicating with said control slide housing for allowing the passage of pressure medium to one or the other side of said piston in dependence on the position of the control slide, thus moving the piston in the direction of movement of the slide, whereby when the control slide is angularly displaced by the steering gear shaft, said piston and said rod will follow in the same direction to assist in the steering.

2,842,220
METHOD OF SURVEYING A BOREHOLE
Edward L. Clifford, Houston, Vernon L. Redding, Bellaire, and James R. Ording, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application January 7, 1957, Serial No. 632,832
7 Claims. (Cl. 181—.5)

3. In a system for seismic prospecting, the method including the following steps: lowering a string of geophones into a borehole, the spacing between successive geophones being approximately the same; detonating an artificial source of elastic waves at the earth's surface in the vicinity of the borehole; recording the waves received by said geophones, as a result of said detonation, in the form of a variable density presentation wherein the density of the recording varies in accordance with the strength of the received signal, the recording for each geophone being parallel to each other and spaced apart by a distance not greater than the width of the individual recordings; and adjusting the slope of the successive

recordings of the first received impulses received from said source by successive geophones going down the



borehole so that said slope is between 70° and 50° with respect to the individual recordings of the geophones.

2,842,221

WITHDRAWN

2,842,222

ACOUSTICAL TEST CELL STRUCTURES

Maurice G. Hughett, Dallas, Tex., assignor to Burnett Estes, Dallas, Tex.

Application September 14, 1954, Serial No. 455,871
11 Claims. (Cl. 181—42)



9. An acoustical test cell structure including acoustical walls forming a pair of test cells with a control room therebetween, a plurality of elongated air intake ducts extending longitudinally of the structure in adjacent parallel relation and supported one upon the other to form the top walls of the cells and room and the exterior side walls of said cells, the ducts being fabricated independently of each other and having separate passages establishing communication between the exterior and interior of said cells, and means connecting the adjacent margins of said ducts.

2,842,223

DESICCANT MATERIAL

David M. Zall, Annapolis, Md.

No Drawing. Application December 22, 1955
Serial No. 554,902
1 Claim. (Cl. 183—4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A moisture adsorbent article of the class described, comprising a moisture-impervious sheet of metal foil having finely divided silica gel adhesively affixed on a surface thereof, said silica gel being held on said sheet by means of a starch base, moisture transmissive adhesive.

2,842,224

DE-ENTRAINMENT COLUMN

Ara J. Mocradian, Deep River, Ontario, Canada, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application July 25, 1955, Serial No. 524,127
1 Claim. (Cl. 183—34)



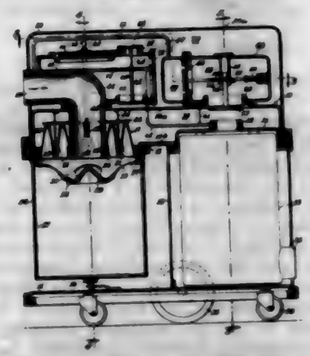
A de-entrainment column for removing substances from a stream of vapor coming from a distillation apparatus which comprises a vertically disposed hollow cylindrical body having a vapor passage extending upwardly therethrough, a sintered metal disc through which all vapor passes transversely mounted in said body and extending completely across said passage at its lower side, another sintered metal disc through which all vapor passes transversely mounted in said body and extending completely across said passage at its upper side, said sintered metal discs having a thickness of not more than ¼ inch, and a pair of spaced semi-circular overlapping baffle plates mounted in said passage between said sintered metal discs, each of said baffle plates extending transversely into and but partially across said passage.

2,842,225

AUTOMATIC MEANS FOR SHAKING SUCTION CLEANER FILTERS

Karl John Wahlborg, Bromma, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden

Continuation of application Serial No. 398,395, December 15, 1953. This application March 5, 1957, Serial No. 644,895
Claims priority, application Sweden December 20, 1952
17 Claims. (Cl. 183—37)



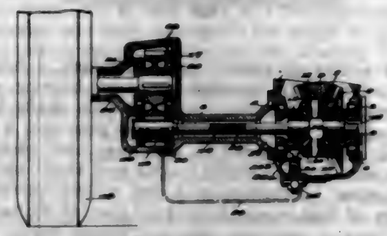
1. In a suction cleaner having a casing provided with an inlet and an outlet, a motor fan unit for normally circulating air in a path of flow between the inlet and outlet, a movable filter element in the path of flow for removing dust from air which passes therethrough, a member movable between first and second positions, means connecting said member and said filter element, said member being unaffected by the full suction effect produced by said motor fan unit during normal circulation of air in its path of flow between the inlet and outlet, means including said filter element when clogged with dust to produce an operating condition which reduces the efficiency of the cleaner, means responsive to said operating condition for subjecting one side of said member to the suction effect produced by said motor fan unit to cause said member to move from its first to its second position and effect movement of said filter element in one direction, and means operable to move said member from its second to its first position and effect movement of said filter element in the opposite direction.

2,842,226

DIFFERENTIAL LUBRICATION

Julius Liebel, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Germany

Application August 13, 1956, Serial No. 603,654
Claims priority, application Germany August 20, 1955
1 Claim. (Cl. 184—6)



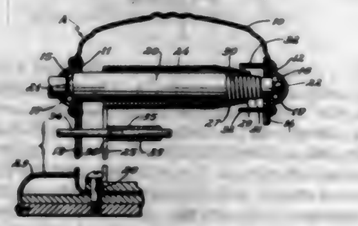
A driving mechanism for a pair of vehicle wheels comprising a pair of wheels, an axle for each wheel, a reduction gear connecting each axle to its respective wheel, a differential gear connected betwen the axles, a housing for said differential gear, an oil pump in said housing, an oil line extending between said pump to each reduction gear for the flow of lubricating oil from said pump to said reduction gear, and an axial bore in at least one of the axles for the passage of oil from said reduction gear to the center of said differential gear for lubricating the gear elements thereof by the outward flow of oil therethrough and back to said oil pump.

2,842,227

SPRING DRIVE AND CLUTCH

Tom M. Bondhus, Monticello, Minn.

Application November 16, 1954, Serial No. 469,239
7 Claims. (Cl. 185—37)



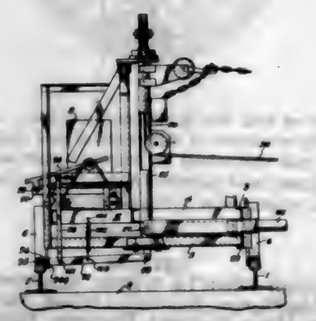
1. A spring clutch device comprising a rotatable member, a generally conical portion of said rotatable member, a torsion spring having a conical end encircling the conical end of said rotatable member, the smallest convolution of the spring being of smaller diameter than the larger diameter end of said generally conical portion of said rotatable member, means normally spaced from said spring and encircling said spring for holding said spring from undue distortion, and means anchoring the other end of the spring, rotation of the rotatable member relative to the part to which the other end of the spring is anchored in one direction acting to wrap said spring about said rotatable member and to hold the conical end of the spring from rotation relative to the rotatable member, said conical portion of said rotatable member including means engageable with the conical end of said spring, rotation of the rotatable member in the opposite direction being substantially unimpeded.

2,842,228

BRAKING MECHANISM FOR TRACK VEHICLES

Bernard Geier, Scranton, Pa., and John P. Hiltz, Jr., New York, N. Y.

Original application March 28, 1952, Serial No. 279,162. Divided and this application October 1, 1953, Serial No. 383,569
4 Claims. (Cl. 188—41)



1. In a track working machine adapted to be movably supported on the rails of a track, a main frame having wheels adapted to be supported by the track, a power mechanism on the frame constructed, in use, to apply a substantial thrust to the frame generally in a horizontal direction in the general plane of the frame but transverse to the track, a thrust transmitting structure pivoted below the main frame and constructed to transmit the force of the transverse thrust from the frame directly to the track to bypass the wheels, said force transmitting structure including an abutment member extending generally parallel to the track and pivotally supported on the frame so as to be movable down into operative position transversely opposite the side of the rail and up into inoperative position between the frame and the top of the rail, a generally vertical portion on the abutment member constructed to engage the side of a rail in opposition to the transverse thrust of the power mechanism, and an operator actuated control linkage extending down through the frame connected to the pivoted abutment member, and constructed, when actuated and held by the operator, to pivot the vertical portion of the abutment member from inoperative position down into operative position in general transverse opposition to the side of the rail so that, when the transverse thrust is applied to the frame by the power mechanism, the force thereof will be transmitted through the frame and force transmitting structure directly to the rail bypassing the wheels.

2,842,229

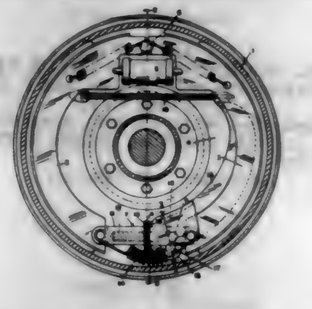
INTERNAL EXPANDING BRAKE

Elmer R. Ross, Detroit, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware

Application January 18, 1954, Serial No. 404,415
3 Claims. (Cl. 188—79.5)

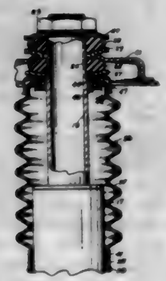
1. A brake comprising a brake drum, brake shoes within and engageable with said drum, a device between adjacent ends of said shoes for adjusting the same, said

device having members pivotally connected to said shoes and a rotatable member having a shank threadedly engaging one of said first mentioned members, a second shank slidably engaging the other of said first mentioned members and a wheel on said rotatable member abutting



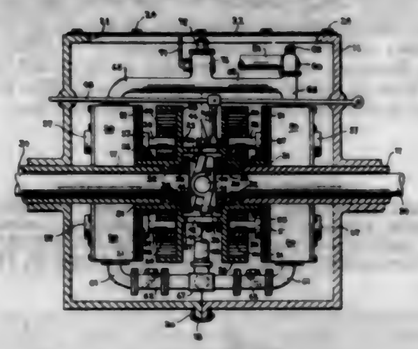
said other of said first mentioned members, and a lever operatively connected to said other of said first mentioned members and said wheel for moving apart said other of said first mentioned members and said wheel to move said shoes into engagement with said drum.

2,842,230
MOTOR VEHICLE WHEEL SUSPENSION
Earle S. MacPherson, Huntington Woods, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application October 27, 1955, Serial No. 543,133
3 Claims. (Cl. 188—88)



1. A combined hydraulic shock absorber and telescopic control member for a steerable road wheel of a motor vehicle having a sprung member and a wheel spindle upon which said road wheel is rotatably mounted, comprising an upper cylinder adapted to be connected to said sprung member, a lower cylinder telescopically associated with said upper cylinder, bearing means between said cylinders permitting rotary and axial movement of said lower cylinder relative to said upper cylinder, said wheel spindle being mounted upon said lower cylinder so that steering movement of said road wheel effects rotary movement of said lower cylinder relative to said upper cylinder, a flexible boot having an axially extensible intermediate corrugated portion encircling said cylinders, said boot having one end secured to one of said cylinders, and an annular bearing ring carried by the opposite end of said boot, said bearing ring being formed of a friction reducing material and having axially spaced radially inwardly directed flanges bearing against a cylindrical surface of said other cylinder to permit rotary movement of said lower cylinder during steering movement of said road wheel while maintaining a seal between said cylinders.

2,842,231
BRAKING SYSTEM FOR SEMI-TRAILERS
Robert K. Pepper, Syracuse, N. Y.
Application December 19, 1955, Serial No. 553,803
8 Claims. (Cl. 188—92)



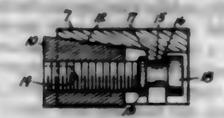
1. In a braking system for semi-trailers, a housing, a gear unit rotatably mounted within said housing, a pair of normally independently rotatable axle shafts terminating at their inner ends within said gear unit, a shaft coupling device mounted in said gear unit, means to actuate said coupling device to lock said shafts and gear unit together for rotation as a unit, a fluid reservoir, a plurality of fluid pumps located on each of the two opposite sides of said gear unit, said pumps having common inlet and outlet connections with said reservoir, means operably connecting each of said pumps with said gear unit to simultaneously actuate the pumps when the unit rotates with said shafts, and valve means in said outlet connection to regulate the flow of fluid discharged from said pumps.

2,842,232
PREFABRICATED WIRE PANEL STRUCTURES
Clark F. Walsh, Charles City, Iowa
Application October 25, 1957, Serial No. 692,364
8 Claims. (Cl. 189—3)



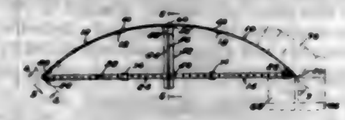
1. In a prefabricated structure embodying a lateral confining surface composed of a number of individual wire panels that when joined form an enclosure, each of said panels comprising a multiplicity of parallel horizontal strands and a transverse strand secured to each of the horizontal strands at the opposite extremities of said horizontal strands said horizontal strands adjacent one of the transverse end strands uniformly deformed into a row of open-sided loops and forming a joining surface on said one panel, the normal horizontal strands of another panel adjacent an end transverse strand forming a joining surface on said other panel, said row of deformed strands of the first named panel projecting between the normal strands of the other panel adjacent the end transverse strand thereof to form a series of aligned closed loops in which each loop is composed of a deformed strand of one panel and a relatively normal strand of the other panel bounded on either lateral side by a transverse strand of each of said panels, and a rigid tie member extending through the axes of said series of closed loops and interlocking said panels.

2,842,233
CUTTING BLADE LOCK
Walter J. Greenleaf, Meadville, Pa.
Application December 19, 1956, Serial No. 629,340
2 Claims. (Cl. 189—36)



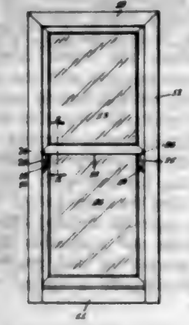
1. A self contained cartridge type lock for locking a cutting blade against a seat on a cutting tool comprising a cylindrical body adapted in the released condition of the lock to be slidably received in a socket in the cutting tool in front of the seat, said body having a bore extending inward from one end of the body and terminating short of the other end of the body, said bore being inclined to the axis of said body at a wedging angle and intersecting said body throughout the length of the bore on the side of the body facing the seat whereby the bore is open throughout its length on that side of the body, a web in the body at the termination of the bore, a slot in the web extending into the body from the side of the body facing the seat and forming a direct continuation of the bore, a cylindrical wedge slidably received in the bore and constructed to project progressively out the open side of the bore as moved along the bore in a wedging or locking direction and to thereby exert a clamping force on the blade, an axially extending screw threaded into the wedge and rotatably received in the slot, said screw being slidable in the slot transverse to the axis of the screw, the open side of the bore and the slot being of width sufficient to permit the screw to be inserted laterally, shoulders on the screw cooperating with the body to transmit thrust from the screw to the body, and means accessible from one end of the lock for turning the screw.

2,842,234
ADJUSTABLE ARCH FORM
Homer G. Heldeman, Franklin Hills, Mich., assignor to Rex Roto Corporation, Detroit, Mich., a corporation of Michigan
Application June 17, 1955, Serial No. 516,116
4 Claims. (Cl. 189—37)



1. An adjustable arch form comprising a pair of generally flat rectangular frames each formed of a plurality of resiliently flexible flat bands, said bands being substantially wider than they are thick and extending longitudinally of said frames in spaced apart relation so that each frame is resiliently flexible in a direction perpendicular to the plane thereof, said frames being assembled together with the bands of one slidably arranged between the bands of the other whereby to form a resiliently flexible, generally planar support which is extensible, means for locking said frames together against relative longitudinal movement in a desired position of extension, a second frame which is substantially rigid and also adjustable in length, means forming a pivotal connection between the opposite ends of said generally planar support and the opposite ends of said second frame and means for locking said second frame at a desired length of adjustment whereby said first frames may be adjusted in length to the circumferential extent of the arch to be formed and flexed in said position to the shape of the arch to be formed and said second frame may be extended to the chord length of said arch and locked at said length to hold the first frames in the desired shape and size of the arch to be formed.

2,842,235
METAL WINDOW STRUCTURE
George E. Stalle, Indianapolis, Ind., assignor of 33⅓ percent to Carl F. Spickelmier, 33⅓ percent to Edith S. Greer, and 33⅓ percent to Betty S. Spickelmire, all of Indianapolis, Ind.
Application May 17, 1957, Serial No. 659,953
3 Claims. (Cl. 189—73)



1. In a window structure, a metal frame having spaced side members, a pair of sash, said frame having means guiding said sash for sliding movement parallel to said side members, said means permitting limited play of each sash in its own plane and transverse to said side members, said sash having meeting rails the ends of which are spaced from said side members, and means including a removable filler block having a portion interposed between one end of one of said meeting rails and the adjacent side member to take up said play and substantially prevent movement of said side members toward each other, said filler block being attached to said side member and having a shoulder engaging said meeting rail to prevent opening movement of the sash of which said one meeting rail forms a part.

2,842,236
WINDOW FRAME
Jacob Axelrod, Detroit, Mich., assignor to Mid-States Aluminum Products Co., Detroit, Mich.
Application March 21, 1955, Serial No. 495,552
2 Claims. (Cl. 189—75)



1. A window frame for mounting within a wall opening for supporting window sash and comprising a header member, a sill member and side jamb members joined together at their respective ends to form a four sided frame having a central opening, and with the frame having a weather side and a room side; each of said

members being of the same cross-section wherein each member is formed with a flat nailing strip extending peripherally away from the central opening for laying flat over the wall edge surrounding a wall opening, a drip strip integral with the nailing strip and extending normally therefrom towards said weather side of the frame, a front frame strip integral with the drip strip end and extending into the frame central opening, and a channel plate integral with the end of the front frame strip and extending towards the room side of the frame and arranged substantially parallel to and spaced from the drip strip, the channel plate being provided with at least one pair of spaced flanges extending towards the central opening to form a sash supporting channel between the flanges, and the channel plate being indented, adjacent to and on the room side of said flanges, into the form of a groove, open towards the frame central opening and formed of side walls integral with the channel plate but extending outwardly of the central opening and a base joined to the side walls to close the end of the groove remote from the frame central opening, the channel plate being provided with projections extending from said side walls and projecting towards each other from the side walls to partially close the open end of the groove wherein a window sash may be inserted into said groove between the projections and a weather strip plate may be held within the groove by said projections and urged against said projections by a spring means positioned within the groove.

2,842,237

METHOD AND MEANS OF IMPROVING THE STRUCTURAL CHARACTERISTICS OF SHEET MATERIAL

Horst W. A. Paulsen, Muskegon Heights, Mich.

Application June 6, 1955, Serial No. 513,343
4 Claims. (Cl. 189—85)



1. A covering for a structure having spaced supports, said supports having outwardly projecting abutments thereon, said abutments being undercut at the base thereof, said covering comprising: a sheet having web portions integral with and separated by parallel inverted generally U-shaped ridge portions all projecting from one face thereof; said ridges when said covering is not installed on said supports being spaced a greater distance than the spacing between said abutments whereby when installed said web portions are compressed and arched oppositely to said ridges; said ridges being seated about said abutments with said sheet at the juncture of each of said webs and each of said ridges being pressed into the undercut portions of said abutments under the urging of said arched webs.

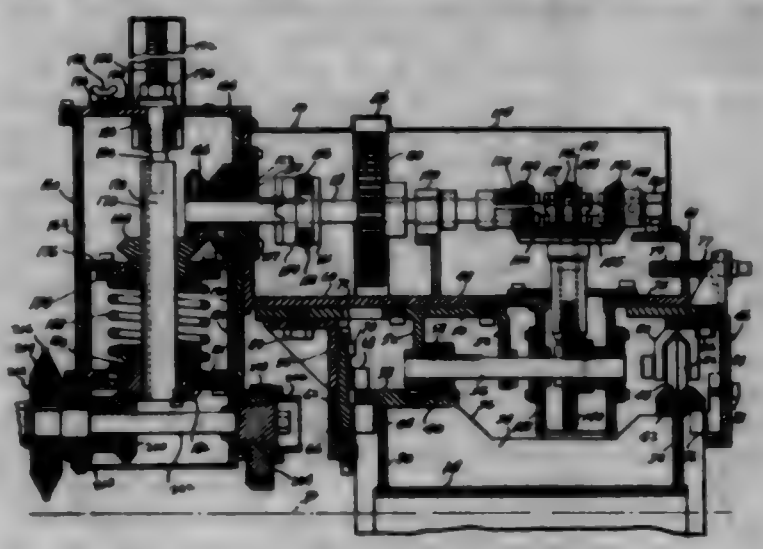
2,842,238

POWER-OPERATED PIPE CUTTING TOOL

Albert W. Shaw, Whittier, and Frank L. Claire, Taft, Calif., and Russell J. Bullard, deceased, late of Taft, Calif., by Dorothy E. Bullard, administratrix, Taft, Calif.

Application May 18, 1956, Serial No. 585,785
4 Claims. (Cl. 90—12)

4. A pipe cutting machine comprising: an annular, pipe-encircling clamp assembly including a trackway; a carriage supported on the trackway for travel about the clamp assembly; a cutter head mounted on the carriage for travel radially inwardly of the clamp assembly in a straight path perpendicular to the axis about which said carriage travels about said assembly; a ring gear stationarily mounted on and extending circumferentially of said assembly in parallel relation to the trackway; a drive pinion rotatably mounted upon the carriage in mesh with the ring gear; a cutting wheel rotatably mounted upon the cutter head on an axis always parallel to the first named axis and moving therewith radially inwardly of the clamp assembly while rotating on the cutter head and traveling with the cutter head and carriage about the clamp assembly; a prime mover on the carriage; driving connections extending from the prime mover to the pinion and cutter wheel respectively; and resilient, yielding means interposed between the carriage and cutter head and tensioned to maintain a constant pressure on the cutter head in a direction radially inwardly of the clamp assembly for biasing the cutter head in said path, said driving connection between the prime mover and cutter wheel including a drive gear on the carriage, a driving linkage extending from the prime mover to said drive gear for rotating the



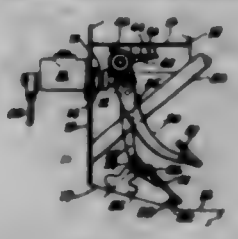
drive gear, a shaft splined to the drive gear so as to be axially shiftable therein while rotating therewith, and meshing gears rotatable with the shaft and cutter wheel respectively, said shaft and the last named meshing gears being carried by the cutter head to travel therewith radially inwardly of the clamp assembly, said resilient, yielding means comprising a compression coil spring circumposed about the shaft and abutting at its opposite ends against the carriage and cutter head respectively, the cutter head including a plate on which is rotatably supported one of the last named gears that rotates with the shaft, the cutter head further including guide rods connected to said plate and slidably engaged in the carriage for sliding movement in said path, and a cylindrical member connected to said plate, the carriage including a cylindrical housing in which said member is axially slidable in said path.

2,842,239

DOUBLE PEDAL ARRANGEMENT FOR AUTOMOTIVE VEHICLE BRAKES

Oscar H. Benker, Evanston, Ill., assignor to New Products Corporation, Chicago, Ill., a corporation of Delaware

Application May 5, 1954, Serial No. 427,830
7 Claims. (Cl. 192—3)



1. In a braking system for a vehicle having an accelerator pedal and a control element for the brake system movable between positions corresponding to brake-released and brake-applied positions and to an emergency position, a pair of levers, a fixed abutment, one of said levers being movable from a position beside the accelera-

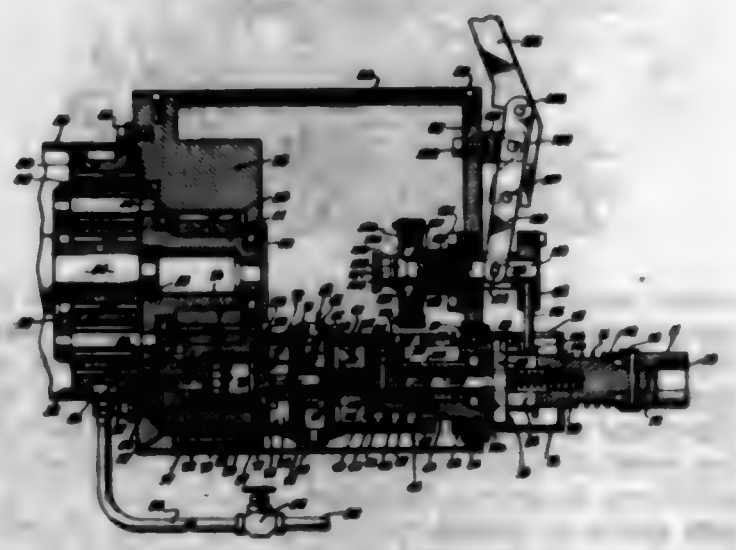
tor to the abutment and the other lever being movable from a position above the accelerator pedal to the abutment, such that the other lever has a greater arcuate travel than the said one lever, and means connecting the levers to the control element, the said one lever moving the element from brake-released to brake-applied positions and said other lever moving the element from brake-applied to emergency positions.

2,842,240

AIR AND MAGNETIC RELEASABLE TORQUE TRANSMITTING APPARATUS

Henry T. M. Rice, San Gabriel, and Robert T. Stevens, Altadena, Calif., assignors, by decree of distribution, to Adele M. Stevens, executrix of the estate of Dillon Stevens, deceased

Application May 6, 1952, Serial No. 286,252
21 Claims. (Cl. 192—56)



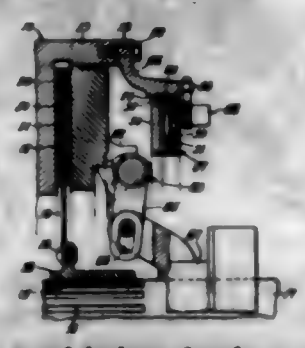
1. In torque transmitting apparatus: driving and driven members; coengaging elements on said members effecting a rotatable driving connection between said members, said elements being responsive to the torque transmitted to said members and tending to be disengaged by said torque; fluid operated means exerting a holding force on said elements tending to maintain them in engagement with each other; and magnetic means acting upon said fluid operated means to exert a holding force on said elements tending to maintain them in engagement with each other while said elements are tending to be disengaged by said torque.

2,842,241

OVERCENTER CLUTCH LEVER ARRANGEMENT

James W. Palm, Rockford, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application April 19, 1955, Serial No. 502,422
3 Claims. (Cl. 192—93)



1. In an over-center friction clutch, a driven member, a driving member, a pressure plate, a ring member adjustably secured to said driving member and having an axially extending cylindrical portion and a radially extending plate portion, said plate portion being provided with means defining radially spaced annular grooves therein; an annular plate member slidably disposed within said cylindrical portion adjacent said pressure plate and spaced from said plate portion, a plurality of annularly arranged spaced leaf spring segments retained in said means defining said grooves for urging said plate member towards said pressure plate, said spring segments being radially curvilinear in section; cam means disposed between said pressure plate and said plate member for operating said pressure plate to press said driven member against said driving member for rotation therewith, and means for operating said cam means, said plate member and said spring segments resiliently loading said clutch.

2,842,242

DISTRIBUTOR FOR GRAIN AND THE LIKE

Roy I. Patterson, Minneapolis, Minn.

Application July 2, 1956, Serial No. 595,274
4 Claims. (Cl. 193—23)



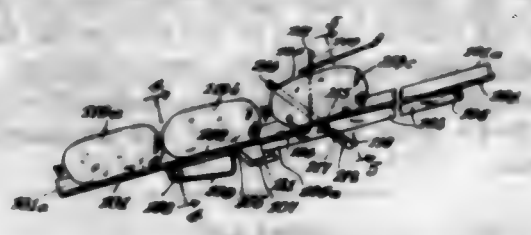
1. In a grain distributor embodying a hollow sector-shaped casing formed with an inlet opening in the upper side thereof and a multiplicity of outlet openings in the lower arcuate periphery, a tubular spout pivotally supported within said casing for swinging movement of the outer end thereof with respect said outlet openings, the improvement consisting of a funnel-shaped hopper disposed within the interior of said casing with its upper end coincident with said inlet opening and its lower end in registry with the upper end of said tubular spout to enclose the junction between the hopper and the spout within the interior of the casing and also to minimize the distance between the upper limits of the hopper and the outlet openings in said casing.

2,842,243

SLIDE REGULATORS

Karl Neidhardt, Koln-Deutz, Germany, assignor, by mesne assignments, to Heinr. Auer Muhlenwerke K. G. a. A., Koln-Deutz, West Germany, a West German firm

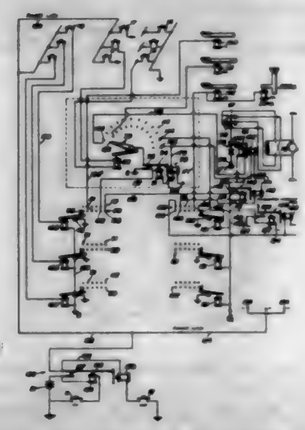
Application August 25, 1955, Serial No. 530,594
Claims priority, application Germany August 27, 1954
11 Claims. (Cl. 193—40)



1. In a sloping slide, an apparatus for retarding the speed of conveyed goods comprising, in combination, a retarding member pivotally mounted in the path of conveyed goods, said member having a surface inclined with respect to said slide when not engaged by one of said conveyed goods and adapted to be brought into substantial parallelism with said slide when engaged by and owing to the pressure of one of said conveyed goods, and means operatively associated with said retarding member for returning said surface into inclined position with respect to said slide, said means including a guide and a weight in

engagement with said guide, said weight having a position of rest in which said surface is inclined with respect to said slide and being movable from said position of rest by said retarding member when said surface is engaged and said retarding member pivoted by one of said conveyed goods.

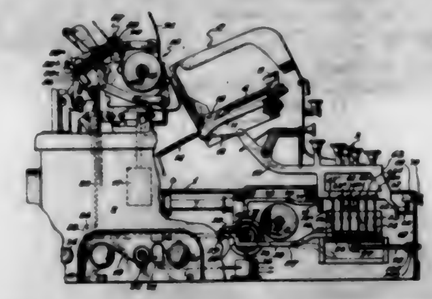
2,842,244
MACHINE OPERATOR FOR ELECTRIC TYPEWRITERS
Charles H. Gibson, New York, N. Y.
Application April 4, 1955, Serial No. 498,842
19 Claims. (Cl. 197—19)



1. A system for automatically operating an electric typewriter provided with key levers and spacing mechanisms and with a plurality of solenoids, each of which operates a key lever or spacing mechanism, comprising a plurality of series of contact devices, each provided with a bank of fixed contacts, and with a movable contact adapted to move over said bank contacts, means for connecting said bank contacts to predetermined ones of the said key lever and spacing mechanism operating solenoids, whereby said solenoids are energized in a predetermined succession when the movable contacts move over the associated bank contacts, manually operated means for selecting a contact device of a first one of the series of contact devices and for initiating its automatic operation, the contact devices of this first series being provided with means for preparing the selection of a group of contact devices from a second and a third series, means for manually selecting one contact device out of the selected group of a second one of the series of contact devices, these latter contact devices being provided with means for completing the selection of one of the contact devices out of a group of the third series which had already been prepared by the contact device of the first series, and means for automatically operating the contact devices for moving the movable contacts over the bank contacts of each contact device upon completion of the selection of a contact device.

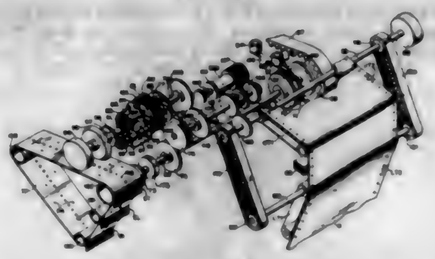
2,842,245
AUTOMATIC TRANSCRIBER AND COMPOSER
Erik Frey, Chicago, Ill.
Application September 18, 1956, Serial No. 610,488
18 Claims. (Cl. 197—20)

1. In an automatic electric typewriter in which a record tape traverses a translating device to provide electrical signals by means of which individual key levers are sequentially depressed, said typewriter having a source of rotary power and key levers normally urged toward a depressed position, apparatus responsive to said signals for initiating depression of the key levers comprising, in combination, a plurality of elongate, pivotal control members supported transversely below the key levers and spaced apart one from the other, a plurality of rotatable cam devices each normally disengaged from the rotary source and including a kinematic linkage connecting the device to a said control member adapted to be translated to pivot the control member when the cam drive is rotated, a plurality of electrical locking devices each connected to said translating device for receiving a said signal to unlock same, each locking device normally being coupled to a said cam device to prevent rotation and engagement of the cam device with said rotary



source, means on each cam device adapted to move the cam device into engagement with the rotary source when the associated locking device is unlocked, a cam operated detent member operably connected with each cam device and arranged normally to engage and maintain the key levers elevated, albeit adapted to be automatically withdrawn to permit depression of a key lever when a cam device is rotated, said key levers having encoding thereon of predetermined relation to cooperate with said control members to effect depression of individual key levers responsive to the signal supplied by the translating device, the key lever permitted to be depressed being determined by the particular control member pivoted.

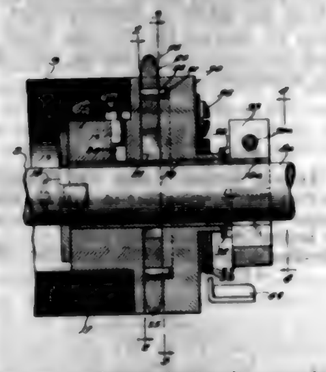
2,842,246
RECORD FEEDING DEVICES
Frank J. Furman, Endicott, and Theodore D. Koranye and Kenneth E. Rhodes, Vestal, N. Y., assignors to International Business Machines Corp., New York, N. Y., a corporation of New York
Application December 31, 1954, Serial No. 479,062
11 Claims. (Cl. 197—133)



1. In a machine for operating on a record strip, a feed control tape with indicia for controlling the feeding of the strip, means for advancing such strip and said tape, a driving means, a pair of clutches between said driving means and said advancing means, one of said clutches being of the random engaging type and the other having a toothed construction for positive engagement, means for sensing said indicia, means under control of said sensing means for controlling said random clutch to engage and disengage said advancing means, a vernier strip-

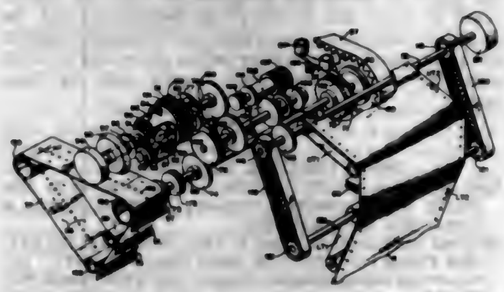
setting device on said other clutch for adjusting said strip relative to the printing line, and means for separating the toothed clutch before making a line adjustment.

2,842,247
DISAPPEARING TYPE PIN FEED
John E. Eath, Chicago, Ill., assignor to Uarco, Incorporated, a corporation of Illinois
Application August 31, 1955, Serial No. 531,669
6 Claims. (Cl. 197—133)



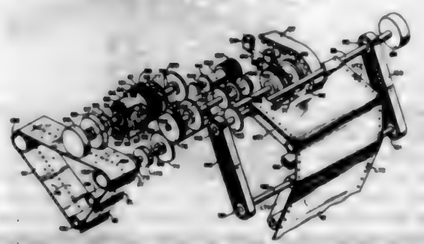
1. A pin type stationary feed unit, comprising: a pin carrier having a plurality of apertured bearings extending radially; pins reciprocally mounted in said bearings with the pins and bearings having polygonal cross sections preventing rotary movement of the pin in the bearing, said bearings being elongated and providing the sole guiding support for the pins; a laterally extending stud on each pin; and a plate having a cam groove therein receiving said studs for moving the pins radially upon relative rotation of the carrier and plate.

2,842,248
FEED CONTROL TAPE SENSING DEVICES
Fred Saltz, Binghamton, and Ramon L. Street, Vestal, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 30, 1955, Serial No. 556,748
7 Claims. (Cl. 197—133)



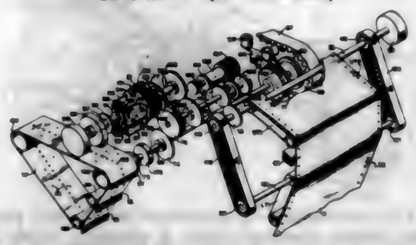
1. In a machine for operating on a record strip, a feed control tape with a plurality of individual indicia for controlling the positioning of said strip, each of said indicia corresponding to one position of the strip; means for advancing said strip and said tape in synchronism; a variable speed motor for operating said advancing means at different speeds, a plurality of sets of sensing brushes, there being one brush in each set for each of said indicia, said brush sets being spaced along the path of said tape to indicate the position of a related indicium relative to a stopping position before it is selected, means under control of related brushes coordinated with one of said indicia for selectively controlling said motor to vary the speed thereof in accordance with the predetermined extent of feed, a printer, a printer delay device and means for controlling said delay device, said sensing brushes being arranged in three sets, the first set encountered by an indicium cooperating with said delay controlling means for predetermining the time of control over said printer delay device, the second set of brushes encountered cooperating with said motor controlling means for determining when said variable speed motor may be set for slow speed control, and the third set of brushes cooperating with said advancing means for determining the actual stopping position of the record strip.

2,842,249
VARIABLE SPEED FEED CONTROL DEVICES
William F. Morgan, Vestal, N. Y., and Robert V. Mutley, Los Altos, Calif., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 10, 1956, Serial No. 558,247
10 Claims. (Cl. 197—133)



1. In a machine for operating on a record strip, a feed control tape with a plurality of individual indicia for controlling the positioning of said strip, each of said indicia corresponding to one position of the strip; means for advancing said strip and said tape in synchronism; a variable speed motor for operating said advancing means at different speeds, a plurality of sets of sensing brushes, there being one brush in each set for each of said indicia, said brush sets being spaced along the path of said tape to indicate the position of a related indicium relative to a stopping position before it is selected, and means under control of related brushes coordinated with one of said indicia for selectively controlling said motor to vary the speed thereof in accordance with the predetermined extent of feed.

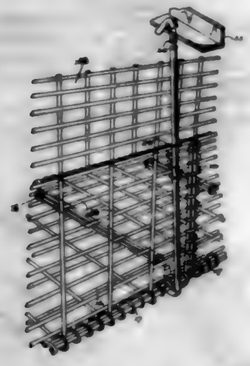
2,842,250
RECORD FEEDING MEANS
Frank J. Furman and Otto F. Monaegle, Endicott, Douglas R. Wetjen, Johnson City, and Albert A. Dowd, Vestal, N. Y., assignors to International Business Machines Corp., New York, N. Y., a corporation of New York
Original application December 31, 1954, Serial No. 479,062. Divided and this application February 28, 1956, Serial No. 568,340
11 Claims. (Cl. 197—133)



1. The combination with a printing machine and a record feed device cooperating therewith, of a device for

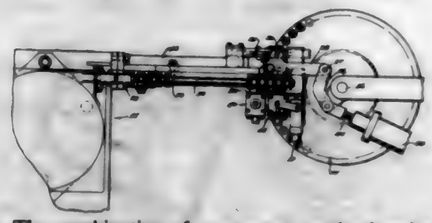
adjustably connecting said record feed device to said printing machine comprising a pair of rods attached to the base of said feed device and extending therefrom with projecting unsupported ends, and a frame on said printing machine formed with two sets of aligned openings to receive said rod ends for sliding movement therein.

2,842,251
CONVEYOR GUARD
Marshall H. Beckner, Washington, Pa., assignor to Tri-State Engineering Company, Washington, Pa., a corporation of Maryland
Application February 7, 1956, Serial No. 563,947
1 Claim. (Cl. 198—1)



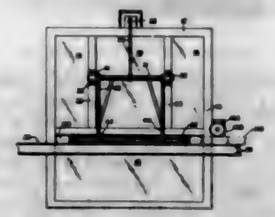
The combination with a track rail for a conveyor of the overhead type, of bracket bars supported thereby in crosswise relation thereto, pairs of hanger rods depending from the ends of the bracket bars, a guard trough bottom of weld wire mesh form connected at its longitudinal edges to the lower ends of the hanger rods, guard trough side walls of welded wire mesh form secured at their lower edges to the longitudinal edges of the said bottom and disposed alongside of the hanger rods, and means connecting the side walls to the hanger rods, whereby they are held in upright position, the trough bottom and the side walls comprising sections arranged in end-to-end relation and connected together through the mesh openings at their meeting edges, whereby the sections are held against relative endwise movement and the bottom wall is held against sagging at longitudinally spaced points that are remote from the hanger rods.

2,842,252
APPARATUS FOR TRANSFERRING AND LOADING ANODE BUTTONS ON A CARRIER
John R. Prendergast, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application May 16, 1955, Serial No. 508,682
8 Claims. (Cl. 198—24)



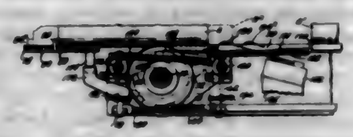
1. The combination of a conveyor mechanism including an endless conveyor chain, a conveyor frame and gears journalled for rotation about horizontal axes in said frame and over which the conveyor chain is trained, button holders mounted on the chain and uniformly spaced lengthwise thereof, means for driving the conveyor chain intermittently step by step and bringing the said holders with buttons thereon in succession to a discharge position, a stripper device comprising stripper fingers in position to straddle a holder at said station with said fingers between the conveyor chain and the button on said holder, means operable while the conveyor is at rest to move said stripper fingers outwardly from the conveyor and thereby strip the button from the holder, a carrier in position to receive the button when it is stripped from the holder, a clamping finger, and automatic means for moving the clamping finger into position to hold the button on the carrier while the stripper fingers are withdrawn.

2,842,253
CONVEYOR SYSTEM
Pasquale Amerio, Erskine Lakes, and August L. Kraft, Roselle Park, N. J., assignors to Amerio Refrigerating Equipment Co., Inc., Union City, N. J., a corporation of New Jersey
Application August 28, 1957, Serial No. 680,735
4 Claims. (Cl. 198—31)



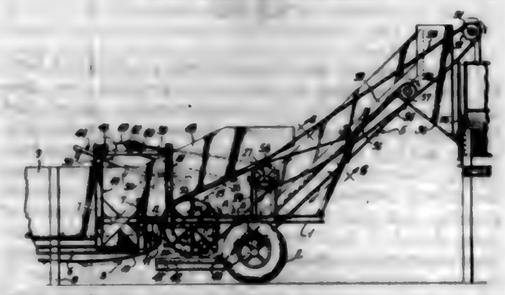
1. The combination with a constantly moving conveyor for articles to be moved to a stop where they form a group of predetermined number, of a sensing head including a friction wheel positioned upstream of the group, a primary drive for the wheel comprising the moving articles which are in contact with the wheel, a secondary drive therefor comprising a constantly rotating motor which rotates the wheel at a lesser speed than do the boxes, and an overrunning clutch between the motor and the wheel to allow the greater speed of rotation due to travel of the articles, a pivoted support for the motor to permit the motor to tilt when the articles cease to travel due to the group being filled and the secondary drive imparting rotation to the wheel, a circuit including means for operating on the group and a switch which closes the circuit upon contact with the tilted motor.

2,842,254
BOOK FEEDING MECHANISM
Carl Schramm, North Coventry, Conn., assignor to The Smyth Manufacturing Company, Hartford, Conn., a corporation of Connecticut
Original application October 8, 1952, Serial No. 313,631, now Patent No. 2,785,812, dated March 19, 1957. Divided and this application January 25, 1956, Serial No. 561,334
5 Claims. (Cl. 198—34)



1. A book feeding mechanism comprising in combination, belt means movable in a fixed rectilinear longitudinal path and adapted for receiving books arranged in longitudinal sequence, mechanism for moving the belt means at a predetermined speed and for thereby moving the successive books along said fixed rectilinear path to a predetermined receiving position, first and second stops adjacent said fixed rectilinear path of book movement and longitudinally spaced from each other by a distance less than the longitudinal dimension of the books, means for moving the two stops alternately into primary and secondary relationships in which primary relationship the first stop projects into said rectilinear path of book movement and is engageable with a book in said path to stop movement of said book and the second stop is out of said rectilinear path of book movement and in which secondary relationship the first stop is out of the said rectilinear path of book movement and the second stop projects into said rectilinear path of book movement and is engageable with a book in said path to stop movement of said book, said stop moving means including a yieldable support for the first stop which tends to move the said first stop into the path of book movement at the beginning of the said primary stop relationship and which enables the said first stop to remain out of the said path when resistance is offered to the movement of the said stop into the said path, and mechanism for cyclically operating the last said means in timed relationship with said mechanism for moving the belt means and at a rate such that any book that is partly beyond the said first stop at the beginning of the primary stop relationship is moved by the belt means along said rectilinear path and toward the said receiving position and at least partly beyond the said second stop prior to the beginning of the secondary stop relationship.

2,842,255
VINE FEEDING MACHINE
Virgil N. Jarrell, Viola, Del.
Application August 22, 1955, Serial No. 529,637
13 Claims. (Cl. 198—37)



1. In a vine feeding machine, a frame, input and delivery conveyors mounted on said frame, a transfer conveyor intermediate said input and delivery conveyors to receive vines thereon from said input conveyor and deposit them on said delivery conveyor, said transfer conveyor having a floating mount on said frame and being biased to support a predetermined weight load and movable downwardly under loads in excess of the predetermined amount, means to drive said transfer and delivery conveyors, means to move said input conveyor, and means operative by movement of the transfer conveyor under weight load variations to control said input conveyor moving means.

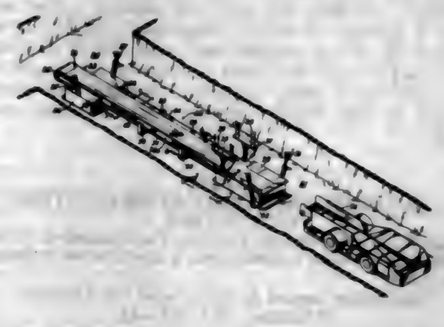
2,842,256
ELEVATING BELT CONVEYOR
Theron John Reed, Burr Oak, Mich.
Application January 30, 1956, Serial No. 562,099
3 Claims. (Cl. 198—120.5)

1. In an elevating belt conveyor, the combination of a belt loop and a supporting boom therefor comprising, a lower plate having an upwardly peaked center portion and depending side walls with inturned flanges on the lower edges thereof, complemental side plates having inwardly and downwardly inclined center portions with downturned center flanges spaced from each other throughout their length and outwardly flared upper walls with downturned marginal stiffening flanges, uprights connecting the sidewalls of said lower plate to said side plates at spaced intervals therealong, connecting clips secured to the undersides of said center portions of said side plates at spaced intervals therealong, channel shaped end members secured around the ends of said lower plate and side plates, pulleys mounted within said end members with said belt trained therearound with the upper reach of the belt disposed on said center portions of said side plates and with the lower reach of the belt disposed on said inturned flanges, means for driving the upper one



of said pulleys mounted on the upper of said end members, a motor suspended on said lower plate and drivingly connected to said driving means, and a wheeled carriage adjustably connected to the mid-portion of said boom to support the boom at various angles, said lower plate and side plates being divided into longitudinal sections with connecting angles secured to the adjacent ends thereof, part of said connecting clips being secured to the end of a section of said side plates and having laterally spaced ears projecting longitudinally into lapped engagement with the undersides of the adjacent section of side plates on opposite sides of the downturned flanges thereon, said inturned flanges on said lower plate having tie members connected between the undersides thereof at longitudinally spaced intervals therealong with part of the tie members connected to one section of the plate and extending into lapped relation with the inturned flanges on the adjacent section of the lower plate.

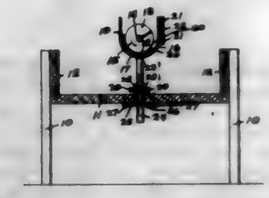
2,842,257
EXTENSIBLE FLEXIBLE FRAME CONVEYOR AND METHOD OF MINING THEREWITH
Joseph Craggs and Keith McCann, Taylorville, Ill., assignors to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application July 11, 1955, Serial No. 521,095
15 Claims. (Cl. 198—139)



1. In an extensible flexible frame conveyor including end sections, one of which is movable relative to the

other; an endless belt trained about and extending between said end sections; means fixedly spacing said end sections apart to maintain a load-carrying tension on the belt; flexible strand means disposed adjacent opposite sides of said belt; support means carried by said flexible strand means and supporting the belt; the improvement comprising, in combination with said flexible strand means tensioning means tensioning said flexible strand means; said one section being independent of and movable relative to the tensioning means; whereby said one end section can be shifted to release the belt tension preparatory to extending the conveyor to enable additional belting to be inserted without releasing the tension on the flexible strand means which supports the belt.

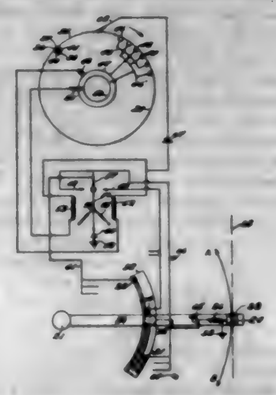
2,842,258
BEARING FOR AUGER CONVEYOR BUNK FEEDERS
Sylvester B. Rupp and Lester P. Rupp, Cleghorn, Iowa
Application November 5, 1956, Serial No. 620,240
1 Claim. (Cl. 198—213)



A bunk feeder comprising a longitudinally extending auger conveyor positioned within said bunk feeder, a plurality of spaced bearings for supporting said auger conveyor, said bearings including substantially U-shaped supports, said supports including arcuate bearing pieces upon which said auger conveyor rests, said pieces being made of relatively softer material for preventing erosion of the peripheral portions of said auger conveyor, said bearing pieces being of substantial thickness, one upper edge of said bearing pieces being substantially higher than the other edge thereof, to provide an unrestricted space in said bearings as the lower portions of said auger conveyor rotate toward said unrestricted space, vertically positioned posts attached to said U-shaped supports, means for adjustably positioning said posts, including pipes secured to the horizontal floor portion of said bunk feeder, said posts being received in said pipes, set screws threadably engaging said pipes and abutting against said posts, a vertically positioned lengthened board being secured to all of said supports and to the side of said supports toward which the lower portions of said auger rotate, said board being adapted to equalize the lateral ejection of feed material passing from said auger conveyor.

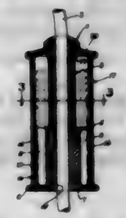
2,842,259
YARN FEED FOR NEEDLING OR KNITTING OR THE LIKE
Frank W. E. Hoeselbarth, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Application August 4, 1955, Serial No. 526,503
11 Claims. (Cl. 203—1)

1. The method of feeding yarn in accordance with a pattern, which comprises advancing a clamp along a yarn over a predetermined path of invariable length, engaging the clamp with the yarn at a variable position in respect to the end of the path, which accords with the pattern,



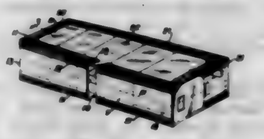
and carrying the yarn forward from the position of clamping to the end of the path by the motion of the clamp.

2,842,260
PORTABLE HOLDER FOR SMALL TOOLS
Donald H. Molitor, Belle Plaine, Minn.
Application May 6, 1954, Serial No. 428,000
3 Claims. (Cl. 206—17)



1. In a device of the class described, an elongated flexible body comprising an enlarged cylindrical base portion having a plurality of circumferentially spaced tool receiving compartments therein disposed in parallel relation to the axis of said body, and each compartment having its outwardly facing wall portion longitudinally slitted the greater portion of its length to provide contiguous abutting wall portions for each compartment capable of being flexed to facilitate selective removal of the tools from said compartments, said slits permitting the contiguous abutting wall portions of each compartment to be readily distorted by the shank of a tool, when a selected tool is tilted laterally through the slit in the wall of its respective compartment, thereby to expedite and facilitate the operation of selectively removing the tools from their respective compartments.

2,842,261
CONTAINER
Stephen Lighter, Milwaukee, Wis.
Application June 22, 1951, Serial No. 232,969
1 Claim. (Cl. 206—45.31)



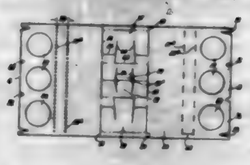
A blank for a display container formed of sheet material comprising a first rectangular side wall, a flap hingedly attached to one edge of the first side wall, a first rectangular end wall hingedly attached to the edge of the first side wall opposite the flap, a second rectangular side wall hingedly attached to the edge of the first end wall opposite the first side wall, a second rectangular end wall hingedly attached to the edge of the second side wall opposite the first end wall, said flap and said second end wall being formed with tongue and slot means adapted to interlock with one another, integral flanges hingedly attached to the free edges of the side and end walls, a stiffening means applied to the neighborhood of the attachment of the flanges to the free edges of the walls, said stiffening means biasing said flanges so that they normally rest adjacent to their respective walls and resiliently resist movement therefrom, said stiffening means consisting of a lamination of sheet material having a substantially greater elasticity than the sheet material of which the wall and flange are formed.

2,842,262
RECORD PACKAGE
Joseph C. Wismer, Pottstown, Pa.
Application September 30, 1954, Serial No. 459,247
3 Claims. (Cl. 206—47)



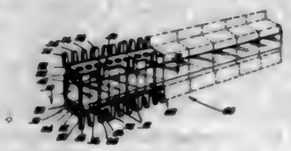
1. A record package for merchandising phonograph records and at least one other product, such as candy, comprising a plurality of axially spaced disc-shaped phonograph records having central spindle openings, removable rim structure extending around the peripheries of said records, said records forming end walls of said package and said rim structure forming side walls thereof, said rim structure contacting the peripheries of said records in sealing engagement therewith, and removable spacer means within said package and extending between said records and holding said records apart, said spacer means contacting the interior face of said records around the periphery of said spacer means and in spaced relation to said rim structure and forming therewith a chamber, and the said other product, such as candy, being confined in said chamber.

2,842,263
SUPPORTING BOX FOR ARTICLES, METHOD AND MEANS FOR ITS MANUFACTURE
Pierre Girardet, Ancenis, France, assignor to Satem S. A. Societe Anonyme: Societe d'Application Technique d'Emballages Modernes, Agadir, Morocco
Application November 1, 1954, Serial No. 465,891
Claims priority, application France November 9, 1953
2 Claims. (Cl. 206—65)



1. An open bottom and open top cardboard rack for rigidly supporting elongated fragile articles at regions on opposite sides of the median part of the article while leaving the same visible from one direction completely, with the exception of said regions, and, from the opposite direction, along the said median part, said rack being formed of an integral blank, scored to form longitudinal fold lines dividing the blank into a central base panel, a pair of outer wall elements hingedly connected at one side to opposite sides of the central base panel, a pair of longitudinal marginal top strips, hingedly connected at one side to the other sides of the outer wall elements and a pair of inner wall elements hingedly connected at one side to the other sides of the longitudinal top strips, the inner wall elements having spaced pairs of opposed openings to receive portions of the articles, the central base panel having a plurality of slits therein extending along the longitudinal side edges thereof and a plurality of slits extending between the slits on the side edges defining a plurality of transversely extending partition-forming portions integral at one transverse edge thereof with the base panel and scored along said edge to provide a transverse hinge connection with the base panel, said partition-forming portions being turned upwardly from the base to form upstanding erect partitions extending between the pairs of article-receiving openings, and openings in the base beneath each pair of said article-receiving openings, the inner wall elements and the partitions having cooperating slits and notches extending from the free edges thereof in intersecting and interlocking relation, with the free edges of the inner wall elements terminating substantially in the plane of the base panel, the slits and notches in the partitions and in the inner wall elements cooperating with each other and with the weight of the articles when in said rack to provide a rigid, frictional edge-on-edge engagement of the inner wall elements with the partitions.

2,842,264
HANGER STRUCTURE
Charles O. Larson, Sterling, Ill.
Application March 3, 1955, Serial No. 491,926
3 Claims. (Cl. 206—65)



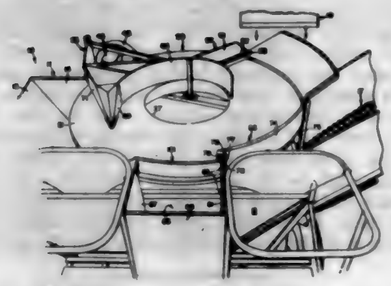
3. A package comprising a plurality of pairs of hanger members adapted to be mounted on an apertured panel, each of said hanger members including an upstanding web portion, upper and lower flanges extending laterally from upper and lower margins of said web portion, said upper flange terminating in an upstanding portion having slot means therein, said flanges having generally aligned apertures therein, said apertures in slot means being for supporting a hook member on said hanger member, a lower tab extending rearwardly from adjacent said lower margin of said web portion for insertion into an aperture in a panel, and a second upper tab extending rearwardly from adjacent said upper margin of said web portion for insertion through another aperture in said panel, said second tab terminating in an upstanding hook portion, the hanger members in each of said pairs being disposed in opposing relationship with one hanger member in each of said pairs being inverted with its upper and lower flanges telescoped beneath the lower and upper flanges respectively of its associated hanger member to form a box-like cross section with the upper and lower tabs of each telescoped pair of hanger members projecting outwardly beyond the adjacent web portions, said pairs of hanger members being disposed with peripheral end edges abutting the peripheral end edges of hanger members of an adjacent pair to provide an elongated assembly of pairs of hanger members, and an adhesive tape encircling said elongated assembly and holding said side edges in abutting relationship and adhesively gripping the web portion of each of said hanger members, said tape being

positioned with its longitudinal edges disposed within the upper and lower tabs of each pair of telescoped hanger members whereby in either longitudinally inverted position of the package, the tabs will cooperate with the edges of the tape to prevent accidental dislodgement of the hanger members from the package.

2,842,265
ROTATABLE SORTING TABLE FOR BEET HARVESTERS

Virgil F. Boseman, Moline, Knud B. Sorensen, Rock Island, and Charles S. Morrison and Brian E. Kent, Moline, Ill., assignors to Deere & Company, Moline, Ill., a corporation of Illinois

Application July 16, 1954, Serial No. 443,886
12 Claims. (Cl. 209—124)

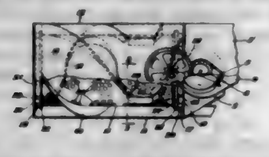


1. In a beet harvester, a mobile container for beets open at its top portion, a rotary sorting table mounted on the upper portion of said beet container and disposed above the latter, the open portion of said container being larger in area than that of said sorting table so that a portion of said container extends laterally outwardly of said table, said sorting table having a generally central opening and there being a space between the outer edge of the extended portion of the container and the adjacent portion of said rotary table, whereby beets may be dropped downwardly into the container either to the central portion of the container through the opening in said rotary table, or into a peripheral portion of said container over the outer periphery of said table, and means for delivering harvested beets to said table between said open central portion and the radially outer periphery thereof.

2,842,266
CONVEYING AND MATERIAL SEPARATING MECHANISM

Ernest C. Carlson, Wheaton, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application June 14, 1955, Serial No. 515,366
1 Claim. (Cl. 209—284)



In a combined sheller, conveyor and separator, a housing having an arcuate bottom, a perforated drum rotatably supported within said housing and having an inlet and an outlet and adapted to receive unclassified material at said inlet and discharge it from the outlet, an internal auger flight connected to said drum and projecting radially inwardly from the inner periphery thereof and extending from said inlet to said outlet, said drum having reversely spiralled external auger flights at opposite ends and terminating at adjacent ends intermediate the ends of said drum and in sweeping relation to said bottom for moving to intermediate the ends of the drum the material sifted onto said bottom through said perforation in the drum, a concave cage disposed tangentially to said inlet and having a discharge extremity contiguous to said inlet in substantially centered relation thereto, and a shelling cylinder cooperatively associated with said cage and extending transversely of the drum and positioned within said cage to throw the material directly into said drum axially thereof and formed and arranged to create an air blast directly into said drum, said cylinder rotating at high peripheral speed.

2,842,267
FUEL SYSTEM EMERGENCY PUMP AND TRAP

William A. Shire, Jr., Munster, and Joseph A. Smelko, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application May 23, 1955, Serial No. 510,278
6 Claims. (Cl. 210—416)

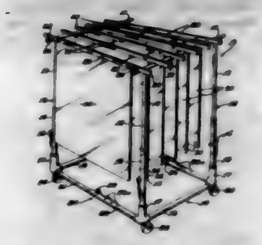


1. An apparatus adapted to cause positive flow of liquid through fuel line systems which comprises in combination a rigid body portion, inlet port means in said body portion, check valve means in said inlet port means, outlet port means in said body portion, filter means disposed between said inlet port and said outlet port, trap means below said filter means and fixed to said body portion, said trap means consisting essentially of a flexible bulb capable of being collapsed under external pressure to eject liquid therefrom through said outlet port means while causing the closing of said check valve means in the inlet port means, said filter means comprising a generally cylindrical porous plastic cup element, a flange about the open upper end of said cup element, and a flow port in said flange in register with said inlet port means, said flange serving as a support for the cup element and as a gasket between said body and said trap means.

2,842,268
CHART-HOLDING MEANS

Alice C. Gumpin, Pasadena, Calif.

Application December 4, 1953, Serial No. 396,176
4 Claims. (Cl. 211—45)



1. A portable visual aid device for supporting charts and the like to facilitate presentation thereof comprising, in combination: a frame means comprising a pair of parallel spaced apart longitudinal support bars; a pair of longitudinal base members lying parallel to said bars; upstanding post means connecting said bars and said base members; lateral means interconnecting said base members whereby an unobstructed longitudinally extending

zone open at opposite ends for accommodating chart means adapted to be supported by said bars is defined by said bars, said post means and said lateral means; roller means carried by said base members; a rigid flat plate extending across said zone at a forward position thereof; and means carried by said bars and means positioned above said base members for slidably and removably supporting said plate.

2,842,269
RACK FOR FOOD TRAYS

John R. Gomersall, Elgin, Ill., assignor to McGraw-Edison Company, a corporation of Delaware

Application April 30, 1954, Serial No. 426,852
3 Claims. (Cl. 211—71)

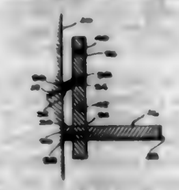


1. The combination comprising a rack for supporting food pans and the like, and a divider bar cooperable therewith, said rack comprising a pair of longitudinal rods supported substantially in parallelism in spaced apart relation, said longitudinal rods having outward projections thereon, and said divider bar comprising resilient depending means at the opposite ends thereof and cooperating depending means having projections thereon extending generally toward the resilient depending means and spaced therefrom a less distance than the diameter of said longitudinal rods for snapping over said rods, said divider bar having recesses in said resilient means cooperable with said outwardly extending projections for positioning said divider bar on said rack.

2,842,270
WALL SHELF

John B. Mauzy, Turlock, Calif.

Application November 19, 1954, Serial No. 470,185
4 Claims. (Cl. 211—90)



1. In combination, a wall, a horizontal shelf having an inner end bearing freely against the wall, and opposite sides, a post fixed to and rising from said shelf close to and spaced outwardly from said inner end, said post having an inner side, a prop having an outer end secured to the post, said prop extending inwardly beyond the inner side of the post and having an inner end vertically aligned with said inner end of the shelf and bearing freely against the wall, said prop having a bore opening through its inner end and said wall having fixed thereon a nail projecting from the wall and supportably engaged in said bore.

2,842,271
HOIST

James T. Witcher, Roswell, N. Mex.

Application March 19, 1957, Serial No. 647,024
2 Claims. (Cl. 212—35)

1. A hoist comprising, in combination, a base plate, a pair of laterally spaced apart uprights secured to one end of said base plate, an elongated boom, one end of said boom being pivotally mounted intermediate the ends of said uprights, lift chain means at the other end of said boom, a hydraulic jack having a pad, means pivotally mounting the lower end of said jack on the other end of said base plate, means pivotally connecting the upper end of the jack to said boom, and means for rotatably mounting said base plate, said means pivotally mounting the lower end of said jack on said base plate comprising a pair of angle irons secured to the under surface of said base plate along the opposite longitudinal edges thereof, said angle irons having a pair of laterally aligned openings, a rocker pin having the opposite ends positioned within said angle iron openings and passing across said base plate, said jack pad being bolted to the bottom of said jack, and

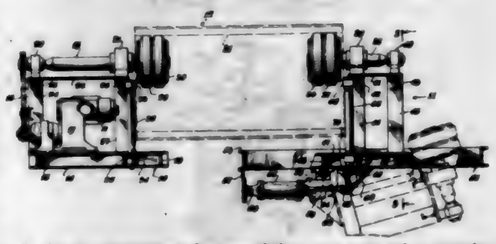


a hollow cylindrical bearing member secured to the bottom of said jack pad and rotatably receiving said rocker pin therethrough, said means rotatably mounting said base plate comprising a depending cylindrical member secured to the under surface of said base plate, a mounting plate having mounting openings and a hollow cylindrical bearing member secured at the lower end to said mounting plate and rotatably receiving therewithin said cylindrical member and a plurality of angularly spaced braces connecting said bearing member with said mounting plate, said boom including a substantially hollow cylindrical member, said lift chain means comprising an elongated slot adjacent to one end of said hollow cylindrical boom member, and a lift chain passing upwardly through said slot and out of the open end of said boom and terminating in a lift hook.

2,842,272
PIPE-REVOLVING APPARATUS

Eugene Franklin Folks, Verona, N. J., assignor to Lock Joint Pipe Company, East Orange, N. J., a corporation of New Jersey

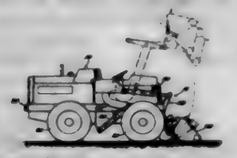
Application April 8, 1955, Serial No. 500,190
4 Claims. (Cl. 214—1)



1. In an apparatus for revolving any one of a number of pipes of different diameters to enable the application of a coating of material to the exterior thereof, a continuous rotatably power-driven shaft and a rotatable dead shaft, a stationary support for rotatably supporting said power-driven shaft in operating position, said power-driven shaft having one of its ends overhanging said support, a movable support for said dead shaft, said dead shaft having one of its ends overhanging said movable support and extending in axial alignment with and toward said power-driven shaft when said movable support is in operating position, means pivotally mounting

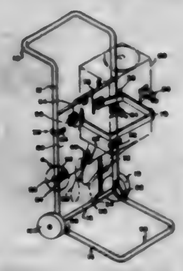
said movable support for movement of said dead shaft to and from axial alignment with said power-driven shaft, a wheel fixedly mounted on each of said overhanging ends of said shafts, said wheels being spaced from each other for rotation in parallel planes and adapted to loosely suspend a pipe having an inner diameter greater than the diameter of the outer peripheral surfaces of said wheels with said surfaces in frictional running engagement with the interior of the pipe when said movable support is in operating position, means for continuously rotating said power shaft and said pipe supported on said wheels, means engageable with the ends of said pipe for preventing longitudinal displacement of said pipe with respect to said wheels, and power-operated means for moving said movable support and said dead shaft from pipe-suspending position to allow space for the endwise movement of said pipe to and from around the wheel mounted on said power-driven shaft.

2,842,273
TRACTOR LOADERS
Thorvald G. Granryd, Libertyville, Ill., assignor to The Frank G. Hough Co., a corporation of Illinois
Application September 10, 1956, Serial No. 608,909
36 Claims. (Cl. 214—140)



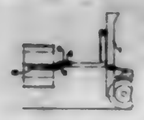
1. In a tractor loader, a tractor comprising a power source and traction means, a material handling implement, and means connected between said power source, said traction means and said material handling implement for automatically dividing the available power from said power source between said traction means and said material handling implement in a direct proportion to the power consumed respectively by said material handling implement and said traction means.

2,842,274
MOTOR HOIST
Ernest T. Sherman, Dayton, Ohio
Application October 14, 1957, Serial No. 689,977
4 Claims. (Cl. 214—374)



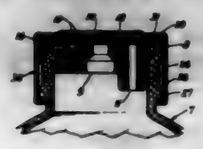
1. In a hoisting and transporting device; a tubular frame comprising a length of pipe or conduit having its ends brought together and formed so as to provide for laterally spaced vertically extending side rails, a U-shaped base extending forwardly from the bottom of the side rails, and a U-shaped handle extending rearwardly from the tops of the side rails, a panel extending transversely between the side rails, roller means toward the lower and upper edges of the panel engaging the front and back sides of the side rails, an axle attached to the side rails on the back sides thereof and toward the bottom, wheels on the ends of the axle, said wheels being so positioned that the device will set upright thereon, a screw having its lower end supported on the axle and extending upwardly behind the panel, a frame connected with the panel through which the screw extends, gear means in the frame threaded to the screw, means carried by the said frame for rotating the gear means whereby the panel can be moved vertically between the said side rails, and means carried by the panel for supporting engagement with an outboard motor, said means comprising hooks attached to the panel and adapted for engaging the towing line loops provided on the motor.

2,842,275
DRUM HANDLING APPARATUS
Edwin Russell Kaghler, New York, N. Y.
Application February 23, 1956, Serial No. 567,336
6 Claims. (Cl. 214—653)



1. In an apparatus of the class described, a frame for attachment to a lift truck, a pair of gripping arms carried by said frame, each of said gripping arms being mounted for movement toward and from the other and also in a direction transverse to such movement, operative connections between said arm and said frame whereby relative movement of said arm with respect to said frame in one direction effects a relative movement of said arm in the transverse direction.

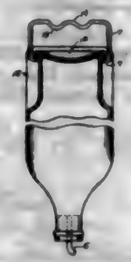
2,842,276
CONTAINER CLOSURE
William F. Butler, Oakland, Calif., assignor to Cutter Laboratories, Inc., a corporation of California
Application August 2, 1955, Serial No. 526,013
6 Claims. (Cl. 215—79)



1. A closure for a container having a mouth, a flexible stopper provided as a closure for said mouth, said stopper having an upper face and a first and a second passage therethrough to the atmosphere from the container, a flexible cover provided over the upper face of said stopper as a closure for said passages in the stopper, said cover being adapted to pass a tubular piercing element into said first passage in the stopper, said cover having an outer rim seating on the stopper about the peripheral edge thereof and supporting the cover on the stopper with that portion of the cover within the rim spaced from the upper face of the stopper to permit air to enter the container through the second passage when a tubular piercing element is inserted through the flexible cover and the first passage.

2,842,277
FLASK
Raymond L. Jewell, Erie, Pa., assignor to American Sterilizer Company, Erie, Pa., a corporation of Pennsylvania
Application June 4, 1952, Serial No. 291,690
1 Claim. (Cl. 215—100)

A flask having a square bottom and upstanding side walls defining a square envelope, the bottom having a raised center portion, a U-shaped bail received entirely within the envelope of the flask with the base of the U extending across the bottom of the flask midway between two of the upstanding side walls on opposite sides of the flask and normal to the other two upstanding side walls of the flask and with the sides of the U straddling and extending axially up along said other two upstanding side walls of the flask, an indentation in the center of the base of the U standing out from the raised center portion of the bottom of the flask but within the envelope of the flask, elongated axially extending reentrant recesses in the side walls receiving the sides of the U en-



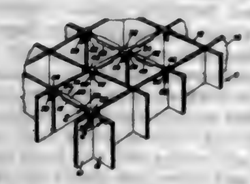
tirely within the envelope of the flask, inwardly extending projections on the sides of the flask within said recesses, said recesses having outwardly extending abutments located closer to the bottom of the flask than the projections on the sides of the bail when the sides of the bail are in their uppermost position and cooperating with the projections to limit the extension of the bail from the bottom of the flask, and said recesses having sides cooperating with the sides of the U to limit the swinging of the bail so the base of the U cannot be swung to one side far enough so that it will not automatically be moved to the retracted position when the bottom of the flask is rested on a supporting surface.

2,842,278
LID STAY ASSEMBLY
Charles F. Murphy, Natick, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application October 27, 1955, Serial No. 543,283
3 Claims. (Cl. 217—60)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A lid stay for a container lid or the like comprising a bar having a longitudinal slot and adapted for connection with the lid, a projection formed upon one side of said bar near one end of said slot, a keeper element slidably contacting said one side of said bar and having a portion adapted to engage and pass over said projection during movement of the lid between open and closed positions, an element fixed to said keeper element and engaging in the longitudinal slot in said bar to maintain the said portion of said keeper element in a predetermined position of alignment with respect to said projection, keeper anchoring means projecting through said slot and adapted for attachment to the body of said container or the like and resilient means cooperating with said anchoring means to urge the keeper element toward said one side of the bar to cooperate with said keeper anchoring means in constraining said bar for predetermined endwise movement during opening or closing movement of said lid.

2,842,279
BEVERAGE CASE REPAIR MEANS
Hazen A. Gustafson, Beloit, Kans.
Application July 25, 1955, Serial No. 524,847
3 Claims. (Cl. 217—70)



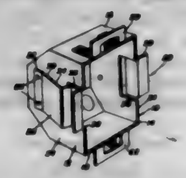
3. A beverage case repair bracket comprising a bendable sheet material structure cruciform in plan and embodying a plurality of arms radiating from a common hub-like center, each arm embodying a median body portion channel-shaped in cross-section and embodying spaced parallel flanges and an intervening web connecting said flanges, a relatively narrow coplanar extension projecting from one end of said body portion and having a right angularly disposed self-adapting clamp at its its outer end, said clamp embodying pairs of partition straddling and embracing fingers lateral to said extension, and respective pairs of fingers being spaced from each other and located to the right and left of the lengthwise edges of said extension and the fingers of each pair having pointed anchoring prongs directed inwardly toward each other.

2,842,280
TOBACCO ASH RECEPTACLE
Nels H. Nelson, Spencer, Iowa
Application July 14, 1955, Serial No. 522,122
1 Claim. (Cl. 220—1)



In a tobacco ash receptacle, a receptacle, a hopper top on said receptacle having a downwardly and inwardly sloping wall terminating in a depending neck opening, an inverted cone baffle secured to said hopper top and embracing the lower end of said neck opening, a spring supporting member having one end connected to said inverted cone baffle, a coil spring on the other end of said supporting member, and a cone-shaped baffle member below the said opening in said hopper top resting in a space completely below the horizontal plane of the lower end of said neck opening and solely supported by said coil spring.

2,842,281
ELECTRIC OUTLET BOX ATTACHMENT
Homer A. Chisholm, Vernon, Tex., assignor of one-third to Cleddie A. Palmer, Vernon, Tex.
Application October 15, 1956, Serial No. 615,878
2 Claims. (Cl. 220—3.6)



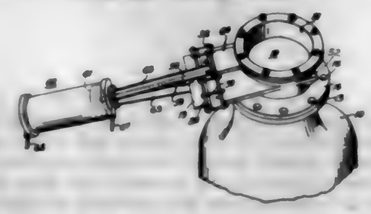
1. In combination with a wall panel, said wall panel having an opening therein, a container, means for mounting said container in said wall panel opening, said container including opposite walls having rear portions and front edges, said mounting means comprising a pair of wide resilient straps secured to outer faces of said container walls along said rear portions, said resilient straps having outwardly opening oppositely directed wall panel receiving socket portions, base portions connected along the rear portions of said container walls, an intermediate portion of said resilient straps bent outwardly and forwardly and connecting said wall panel receiving socket portions and said bases and overlying an intermediate portion of said container walls whereby the intermediate portions of said side walls provide inward limiting stops for said straps so that the latter will be prevented from being moved into a position wherein the elastic limit is exceeded, openings on forward portions of said container walls aligned with said resilient straps of slightly larger dimensions than said wall panel receiving socket portions and receiving said wall panel receiving socket portions of said resilient straps when said container is being inserted in said wall panel opening, said openings being substantially closed by said wall panel receiving socket portions of said resilient straps, said resilient straps including forwardmost flanges defining forward boundaries of said sockets, said flanges and said front edges being coplanar, said wall panel receiving socket portions of said resilient straps engaging the perimeter of said wall panel opening and anchoring said container to said wall when said container has been inserted into position in said wall panel opening.

2,842,282
CONTAINER CLOSURE AND COMBINATIONS
Richard L. Parish, Jr., North Salem, and John W. La Rocque, Harrison, N. Y., assignors to American Flange & Manufacturing Co., Inc., New York, N. Y., a corporation of Delaware
Application June 22, 1951, Serial No. 233,048
1 Claim. (Cl. 220—39)



A closure combination for containers, comprising a container wall formed with an opening therein, a neck formed from said wall and extending upwardly therefrom around said opening, a screw threaded bushing received within said opening and formed with an outwardly extending bead overlying the free end of said neck, an integral one-piece non-metallic yieldable resilient closure plug formed with a screw threaded body portion received within said screw threaded portion of said closure plug, a gasketing portion formed from the material of said closure plug and extending outwardly into engagement with said bushing above the threads thereof, an outwardly extending integral shoulder on said plug, extending outwardly with respect to the body of said plug, overlying said bead and in gasketing engagement therewith, said shoulder being relatively thin with respect to the body of said plug and a capseal, said capseal including a disc-like top portion and a downwardly extending skirt around said top portion, said top portion engaging the upper surface of said shoulder and deforming the same against said bead and said skirt portion being engaged by said neck beneath said bead.

2,842,283
CLOSURE FOR PRESSURE VESSELS
Russell G. Smith, Cincinnati, Ohio, assignor to The Wm. Powell Company, Cincinnati, Ohio, a corporation of Ohio
Application February 20, 1956, Serial No. 566,403
6 Claims. (Cl. 220—41)



1. In a closure for a pressure vessel having an opening therein, a tubular body communicating with the opening, there being a slot in one side of the body, a closure plate reciprocable in said slot between open and closed positions, in the latter of which the closure plate spans the opening, and a collar in the body engageable by the closure plate when closed, a packing and sealing arrangement which comprises a packing box connected to the slot and surrounding the shank of the closure plate, a lantern ring inside the packing box, said lantern ring having an elongated central opening receiving the closure plate in closely embracing relation, said lantern ring having a grease distributing groove facing the closure plate, means for injecting grease under pressure into said groove to coat the closure plate with grease as it reciprocates in the packing box, packing in the packing box outboard of the lantern ring, and a woven metal ring inside the packing box embracing the closure plate inboard of the lantern ring to wipe excess grease from the closure plate and retain the grease in the groove of the lantern ring to maintain pressure in the pressure vessel, the pressure urging the closure plate toward the collar when the closure plate is closed so that the grease on the closure plate seals the opening when the closure plate is in closed position.

2,842,284
CYLINDER END SEAL FOR FLUID PRESSURE CYLINDER
Francis S. Flick, Melrose Park, Ill., assignor to Flick-Reedy Corporation, a corporation of Illinois
Application November 14, 1955, Serial No. 546,384
5 Claims. (Cl. 220—46)



5. A fluid pressure cylinder assembly, comprising: a cylinder tube having a continuous cylindrical inner surface and a reduced thickness section at one end with an outer surface concentric with the inner surface of the tube; a head on said end of the cylinder having a circular groove for receiving the reduced section of the tube with the outer surface of the reduced section and outer wall of the groove engaging in sealing relation, said head having an opening therethrough with its axis concentric with the axis of the cylinder tube and an inner face on the head lying in a flat plane normal to said opening axis; a longitudinally facing shoulder formed on the cylinder tube at the base of the reduced thickness section externally thereof and being normal to the cylinder tube axis, said shoulder and head inner face abutting to maintain the longitudinal axes of the head opening and cylinder tube in longitudinal alignment when the head and cylinder tube are in assembled relation; a resilient sealing ring in the bottom of the groove in sealing contact with the end of the tube reduced section, said circular groove having a width slightly in excess of the thickness of said reduced section to provide clearance between the inner surface of the cylinder and inner face of the groove for application of internal fluid pressure to the sealing ring in the bottom of the groove; and tie means securing the head and cylinder tube together.

2,842,285
COATING COMPOSITIONS
Justus Russell Sackett, Cynwyd, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application September 6, 1955
Serial No. 532,753
7 Claims. (Cl. 220—64)

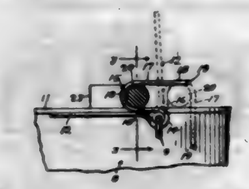
1. A sheet steel can having a soldered seam and a baked interior coating derived from a liquid coating composition comprising a solution, in volatile organic solvent, of (1) a heat-bodied varnish comprising (*a*) glyceride drying oil and (*b*) 50%–200% by weight, based on said oil, of varnish resin selected from the class consisting of maleic acid modified ester gums and heat-reactive polymerized petroleum hydrocarbon resins, and (2) 0.05%–0.75% by weight, based on the total of (*a*) and (*b*), of orthophosphoric acid, said coating being substantially free of a scorched appearance along the soldered seam.

2,842,286
ANNULAR INSERT FOR BOXES
Kurt Beyer, Thansau, near Rosenheim, Germany, assignor to Willy Hesselmann, Rosenheim, Germany
Application January 4, 1955, Serial No. 479,753
1 Claim. (Cl. 220—90)



An insert adapted to be used with a plurality of cans having circular open ends of varying predetermined diameters with removably inserted covers of corresponding predetermined diameters, comprising a one-piece ring member of a resilient, non-rusting, non-corrosive substance, said ring member having an external conical sealing surface and an internal conical sealing surface parallel and complementary to said external conical sealing surface, said ring member being adapted for insertion into the circular open end of one of the cans when its respective cover is removed from said can, and in place of the cover, whereby said ring member's external conical sealing surface may be placed in sealing engagement with the open end of the can, and its respective cover inserted in the ring member in sealing engagement with said internal conical surface of the latter, and a cross bar secured to said ring member for stripping off and supporting a brush.

2,842,287
CONTAINER BAIL WITH BRUSH HOLDER
Claude C. Cornwell, Toledo, Ohio
Application July 5, 1956, Serial No. 595,902
6 Claims. (Cl. 220—95)

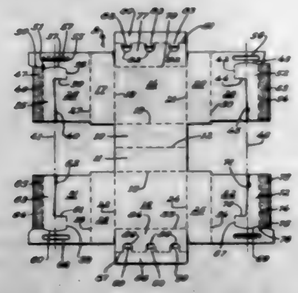


1. In combination with an end portion of a container bail, a portion of a container to which said end portion of the bail is pivotally connected, and a rim portion of the container disposed above the level of said bail pivot; a brush holder carried by said bail portion including spaced substantially parallel inner and outer legs between which a portion of the handle of a brush is adapted to engage when another portion of the brush handle is resting upon said rim portion for supporting the brush with the head thereof extending inwardly over the open top of the container, said brush holder including an inner end portion extending between complementary ends of said legs and against which a portion of the handle is adapted to bear and which is disposed remote from the terminal of said bail end, and said brush holder having an opposite open end through which the brush handle is slidably movable into and out of engagement with the brush holder, said brush holder being disposed in a plane normal to the plane of said bail portion and crosswise of the pivotal axis thereof, the terminal of said bail end constituting an eye adapted to engage a fastening which extends outwardly from the upper portion of the container and which eye is adapted to be spaced outwardly from said part of the container rim, said inner leg constituting an integral extension of a part of said eye, said legs being disposed in planes substantially parallel to the plane of said bail portion for supporting the brush with a part thereof in engagement with the container rim when said legs are disposed substantially parallel to the container rim.

2,842,288
BOTTLE CARRIERS
Robert M. Dunning, St. Paul, and Harold G. Zastrow, Minneapolis, Minn., assignors to Waldorf Paper Products Company, St. Paul, Minn., a corporation of Minnesota
Application August 10, 1951, Serial No. 241,248
4 Claims. (Cl. 220—113)

4. In a foldable bottle carrier blank comprising a generally H-shaped flat sheet cut and scored to form a rectangular bottom member foldable along its longitudinal median line, rectangular side wall panels foldably outstanding oppositely from said bottom member long sides, and like end wall flap panels foldably outstanding from and along each side wall panel margin perpendicular to the fold line junctions of said side wall panels and bottom member, like blank corner areas integrally and foldably related with and as continuations of said end wall flap panels for coaction as partition and handle elements of the carrier, each of said areas comprising a rectangular sheet portion foldably outstanding from and substantially coextensively along the margin of the associated end wall flap spacedly paralleling the fold junc-

tion of the latter with a side wall panel a distance more than twice the width dimension of the end wall flap and less than the corresponding dimension of the side wall panel, a fold line scored in said sheet portion paralleling the fold junction of the latter with an end wall flap panel and spaced therefrom a distance substantially equal to the width of said end wall flap panel, a cut intersecting said sheet portion from the end of said fold line remote from the sheet portion inner margin outwardly of the blank and through the free end of the sheet portion, a fold line scored between said cut and the inner margin of said sheet portion parallel to said last named fold line in a spacing from the latter a distance substantially equal to the width of the end wall flap panel, and said sheet portion also having elongated handle forming slots along a line inwardly adjacent and parallel to an outer long margin of the blank.

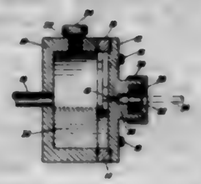


2,842,289
CONSTRUCTION OF POURING SPOUT
Charles Henry Malpas, Geelong, Victoria, Australia, assignor to Victorian Diemoulders Proprietary Limited, Geelong, Victoria, Australia, a Victorian company
Application August 2, 1954, Serial No. 447,178
Claims priority, application Australia March 1, 1954
2 Claims. (Cl. 222—143)



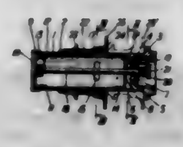
1. In combination; a container having a wall with a circular opening therein adjacent one side, the edge of said wall around said opening being curved toward the interior of the container, and a pouring spout including a curved nozzle portion having a passageway for liquid extending therethrough and a base at one end having a circumferential groove in the external surface thereof, said groove being disposed in a plane extending substantially parallel and closely adjacent to that part of said nozzle portion which extends to the other end of the latter, at least the outer portion of said base being formed of a yieldable material and having a beveled outer edge to be passed through said opening for accommodating said curved edge of the wall around said opening in said groove with said curved edge biting into the yieldable material of said base within the groove to prevent removal of the spout from the container, said spout being rotatable about the axis of said opening between a stored position, wherein said nozzle portion extends across and closely adjacent to said wall, and an operative, pouring position, wherein said nozzle portion projects beyond said one side of the wall.

2,842,290
MERCURY DISPENSER
Erle H. Dodge, Beverly, Mass., and Stanley J. Gartner, Emporium, Pa., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application December 19, 1955, Serial No. 553,992
4 Claims. (Cl. 222—167)



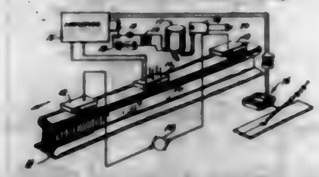
1. Apparatus for metering measured amounts of mercury or similar substances comprising: a rotatable reservoir within which a body of mercury is disposed; and a plate disposed within said reservoir and attached thereto, said plate having a scoop formed therein adjacent to the periphery thereof, a metering pocket formed therein, and a feeding trough formed therein and connecting said scoop to said metering pocket, said plate being moveable, upon rotation of said reservoir, into and out of the said body of mercury whereby said scoop withdraws a quantity of mercury from the said body of mercury and the said feeding trough conveys it to the said metering pocket.

2,842,291
FLUID HANDLING MEANS
Bruce Duval, Ewell, and Roger Strange Waddington, Epsom, England
Application May 28, 1954, Serial No. 587,848
Claims priority, application Great Britain June 1, 1955
11 Claims. (Cl. 222—332)



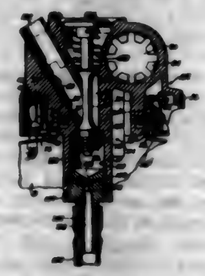
1. A device for withdrawing a liquid from a container which device comprises a tubular body part adapted to be moved in reciprocal motion forwardly and rearwardly through a sealing member in an orifice formed in the container, abutments spaced apart along the length of the body part for defining limits for said reciprocal motion, a liquid inlet port to said body part, a liquid outlet port formed through the longitudinal wall of said body part, a manually-operable valve associated with a liquid port, an air reservoir located within and partitioned off from the remainder of said body part, an air inlet port formed through the longitudinal wall of said body part and communicating with said air reservoir and an air outlet port leading from the air reservoir to communicate with the exterior of the body part via the remainder of the body part, the air inlet port and the liquid outlet port being positioned forwardly of one of the abutments, the liquid inlet port being positioned forwardly of the liquid outlet port, the air outlet port being positioned to lie, when the device is oriented horizontally with the liquid outlet port directed downwardly, above the level of the liquid outlet port.

2,842,292
INDICATING MEANS FOR RAIL FLAW DETECTING APPARATUS
David C. Bettison and Frank H. Keaton, Omaha, Nebr.
Original application July 23, 1948, Serial No. 40,278, now Patent No. 2,682,442, dated June 29, 1954. Divided and this application April 5, 1954, Serial No. 421,115
10 Claims. (Cl. 222—394)



1. Dispensing means comprising a hermetically sealed container adapted to contain an indicating liquid and a quantity of pressure fluid, said indicating liquid occupying the bottom portion of said container and said pressure fluid occupying the upper portion of said container, an outlet passage and associated valve seat formed in the bottom portion of said container such that said quantity of pressure fluid is permanently trapped in said container by said indicating liquid, a resiliently urged plunger mounted in said container and cooperating with said valve seat to block said outlet passage, magnetic means carried by said container, and cooperating means carried by said plunger and adapted to move relative to said magnetic means to unseat said plunger when one of said means is energized so that said indicating liquid is ejected under the pressure of said pressure fluid.

2,842,293
DISPENSING APPARATUS
Robert S. Knapp and Richard B. Nebinger, St. Louis, Mo., assignors to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware
Application April 18, 1955, Serial No. 502,042
4 Claims. (Cl. 222—399)



1. In combination with a liquid filled container having a neck opening terminating in an enlarged lip, a detachably secured dispensing device, said dispensing device having a body portion received within the neck of said container, and means for detachably securing said body portion in gas-tight sealing relation, said means comprising a sealing means carried by said body portion and cooperating with the inner wall surface of said container neck to effect a gas-tight seal therewith, and latch means cooperating with the enlarged lip of said container neck to effect external gripping engagement therewith, said latch means being spring biased to permit automatic attachment of said dispensing device and locking thereof upon insertion of said portion of the dispensing device within said container neck, and manually operable release means for permitting unlatching and removal of said portion of the dispensing device from said container neck, said latch means comprising a plurality of rigid elements pivotally carried by said body portion and spring biased toward said container lip, said release means comprising a ring member having a plurality of cam surfaces adapted to cooperate with said rigid elements for pivoting them outwardly away from said container lip.

2,842,294
LIQUID DISPENSING DEVICES
Joseph Crowder, Dunbar, W. Va.
Application May 24, 1957, Serial No. 661,522
7 Claims. (Cl. 222—426)



1. A liquid dispensing device comprising a normally upright elongated substantially hollow cylindrical liquid dispensing element having a centrally apertured closure plate at the upper end thereof, said element having a first series of circumferentially spaced apertures formed therein adjacent said closure plate, said element having a second series of circumferentially spaced apertures, said first and second series of apertures being vertically spaced relative to each other, a first container having opposed open and closed ends, said element extending through said closed end, means rigidly securing said closed end to said element intermediate said first and second series of apertures, a second container having opposed open and closed ends, said second container surrounding said first container in laterally spaced relation and with said first and second closed ends being disposed proximate each other, said element extending through said closed end of said second container, means rigidly securing said last named closed end to said element below the lowermost series of apertures, a liquid reservoir having opposed open and closed ends, means rigidly securing the upper end of said second container with said closed end of said reservoir, said closed end of said reservoir having an aperture formed therein, means venting said first and second containers into said reservoir, a closure member for said open end of said reservoir, means in said closure member for venting said reservoir to the atmosphere, said closure member having an aperture formed therein, an elongated shaft mounted for reciprocation within said element, said shaft extending through said closure plate, said first container and said apertures formed in said closed end of said reservoir, its closure member and extending thereabove, a valve fixedly secured on said shaft and disposed within said element, said valve being normally disposed in its closed position immediately below said second series of apertures, a first helicoidal spring surrounding said shaft and having one of its ends engaging against said valve, the other end of said spring abutting against said closure plate said first helicoidal spring constantly tending to urge said valve for movement away from said closure plate, a collar fixedly secured to said shaft adjacent said closure plate, a second valve slidably mounted on said shaft, a second helicoidal spring interposed between said collar and second valve, said second valve being movable for engagement across said aperture formed in said closed end of said reservoir, a knob threaded on said extending end of said shaft and bearing against said closure member and means preventing rotation of said shaft as said knob is rotated in a clockwise or counter clockwise direction.

2,842,295
LID CLOSURE FOR CAN CONTAINERS
Anthony Bajada, San Francisco, Calif.
Application January 24, 1956, Serial No. 561,042
10 Claims. (Cl. 222—485)



1. An end closure for a can body comprising a sheet metal lid body seamed around its periphery to the can body closing the end thereof: at least one opening formed through said lid body defined by an interiorly depending circular flange; a plug closure including a plug body of substantially the same diameter as said opening press-fitted into said opening from the inside of said lid; and a circular flange of larger diameter than said opening provided on said plug body seated against said depending circular flange of said opening to prevent removal of said plug outwardly through said opening.

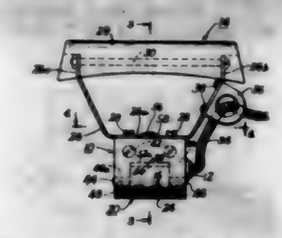
2,842,296
DISPENSING TUBES
John H. McWhirter, Pittsburgh, Pa.
Application January 22, 1957, Serial No. 635,273
9 Claims. (Cl. 222—549)



1. A dispensing tube comprising a body, a neck extending from said body in communication with the interior of said body, said neck having a lateral opening therein, said lateral opening being in communication with the interior of said body through said neck, a closure sleeve for said opening, said sleeve having an opening, the cross section of the outer surface of said neck and said opening being in the form of generally similar closed curves with the curve of said opening of slightly greater area than the curve of said cross-section, different points on the curve of said opening being displaced different distances from the center of said curve of said cross section so that when said sleeve is oriented in a position in which said closed curves opening in said sleeve and said closed curves cross section of said neck coincide said sleeve is slidable along said neck and when said sleeve is turned to a position at an angle to said first named position said sleeve is locked on said neck, and a ridge on the end of said neck remote from said body preventing removal of said sleeve, said sleeve having a protuberance thereon which is adapted to engage said lateral opening in the locked position of said tube.

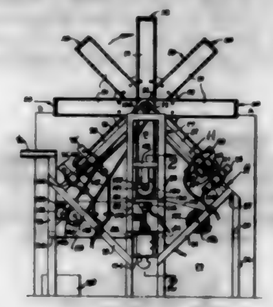
2,842,297
IRONING DEVICE FOR HAT BRIM
Robert Friedman, Bethel, Conn., assignor to Doran Brothers, Incorporated, Danbury, Conn.
Application September 29, 1954, Serial No. 459,019
6 Claims. (Cl. 223—21)

1. In an ironing device for hat brims, the combination of a main ironing member having a semi-cylindrically shaped ironing surface with a groove for receiving the felted welt edge of a hat brim formed therein, a U-shaped holding piece connected to said main ironing member, a second ironing member having a concave surface shaped to interfit with said first mentioned ironing surface, means for pivotally attaching said second ironing member to the dependent legs of said U-shaped holding piece, whereby said second ironing member may pivot to a closed position, said ironing surfaces being so shaped that when said second ironing member pivots to said closed position, the felted welt edge of a hat brim inserted therebetween will be urged into said groove, and the remainder of the hat brim will be urged into ironing position, said surfaces further being shaped to support the hat brim therebe-



tween without wrinkling in the closed position, and a set screw for adjustment of said closed position of said second ironing member to control the relative positions of said ironing surfaces in said closed position.

2,842,298
HOSIERY BOARDING AND FORM INSERTING APPARATUS
Murphy A. Hill, Kings Mountain, N. C., assignor to Mauney Hosiery Mills, Inc., Kings Mountain, N. C., a corporation of North Carolina
Application September 25, 1956, Serial No. 611,903
14 Claims. (Cl. 223—60)

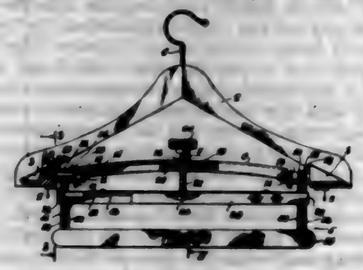


1. Apparatus for boarding socks comprising a turret mounted on a substantially horizontal axis, a plurality of circularly spaced boarding blades projecting outwardly from said turret in substantially parallel relation to the axis of the turret, each of said blades being of the configuration desired of the boarded socks, means to impart step-by-step rotation to the turret wherein each step is substantially equal to the distance between the centers of adjacent blades, whereby a sock may be manually positioned on each successive blade as it occupies a position to one side of the axis of the turret, a pair of spaced substantially parallel heat-radiating elements so positioned that each successive blade moves to a position therebetween with corresponding movements of said turret for heat-setting the sock thereon, a transfer-applying station disposed subsequent to said heat-radiating elements, and means automatically operable in the interim between certain steps in rotation of said turret for automatically applying indicia to a sock on a corresponding blade at said transfer-applying station.

2,842,299
GARMENT HANGER
Jacob J. Podell, New York, N. Y.
Application April 22, 1955, Serial No. 503,198
4 Claims. (Cl. 223—96)

1. An article hanger comprising a pair of jaws movable relative to each other from an open position to a closed article-gripping position, each of said jaws being

mounted on mounting elements journalled on said hanger, a clamping bar mounted on said hanger, means on said hanger for moving said clamping bar in one direction relative to said jaws for operative engagement with said mounting elements to move said jaws from said open



position to said closed position, and spring fingers on said clamping member extending between said mounting elements to engage said mounting elements when said clamping bar is moved in the opposite direction to move said jaws from said closed position to said open position.

2,842,300
HAND OPERATED POLE CLIMBING AID
John M. Johnson, Lindsborg, Kans.
Application January 8, 1957, Serial No. 633,013
2 Claims. (Cl. 227—24)



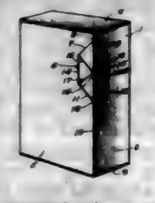
1. A pole climbing aid comprising a yoke for encompassing a pole, said yoke including a pair of lever arms interconnected by a central connecting toothed portion, said lever arms having angulated portions upwardly offsetting said toothed portion from the ends of said lever arms remote from said toothed portion, and chain means secured to one of said lever arms and detachably secured to the other of said lever arms, said chain means including a link supporting arm pivoted at one end thereof to said one of said lever arms, a chain secured to the other end of said ling supporting arm, and a clip secured to said other lever arm detachably engaging said chain.

2,842,301
CONTAINER
Marcel O. Albert, Washington, D. C.
Application August 2, 1955, Serial No. 525,988
1 Claim. (Cl. 229—1.5)



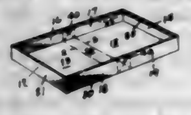
A metal foil lined paper container comprising a body portion having two ply paper walls lined on the inside with metal foil, said body portion being formed from an initially substantially flat paper blank having metal foil covering substantially one-half of one side thereof, the upper margin of said paper blank on the unlined portion thereof being downwardly offset, the lower margin of said blank on the lined portion thereof being upwardly offset, adhesive between the adjoining paper plies of said two ply paper walls, the upper margin of said blank being turned down to form a rim bead consisting of a single ply of metal foil lined paper on an open end of said body portion, and a paper bottom portion having a depending flange securely engaged with the other end of said body portion, said bottom portion having a lining of metal foil on the upper side thereof and on the outside of said depending flange, the bottom margin of said blank being folded over around the inside of said depending flange, said folded bottom margin consisting of a single ply of unlined paper secured to the inner paper side of said depending flange by adhesive, said single ply and said foil lining being sealed to said depending flange and its foil lining by means of complementary internesting grooves in said single ply and its foil lining and said depending flange and its foil lining whereby said bottom is sealed to said body portion by a first frictional seal between said grooved internested face to face foil linings and a second adhesive seal between said depending flange and said folded bottom margin.

2,842,302
POURING SPOUT CARTON
Fred A. Ryder, Chicago, Ill., assignor to Chicago Carton Company, a corporation of Delaware
Application April 19, 1956, Serial No. 579,333
5 Claims. (Cl. 229—17)



1. A paper board carton having a pouring spout formed in two walls of the carton which meet to form a corner of the carton, said two walls having potential slits therein in which are joined at said corner and which potential slits respectively extend from said corner into said walls at substantially like acute angles to said corner, a pair of fold lines which are joined at said corner and respectively extend therefrom into said walls at substantially like acute angles to said corner and towards said potential slits, a pair of fold lines respectively in said walls in spaced parallel relation to said corner and interconnecting said potential slits and said angularly extending fold lines in the respective walls, and, in each of said walls, a pair of fold lines which intersect each other at said corner and extend therefrom to the junctures of said parallel fold lines with said potential slits and said angularly extending fold lines, the intersections of said last-mentioned pairs of fold lines joining each other in said corner intermediate said potential slits and said first mentioned pair of fold lines.

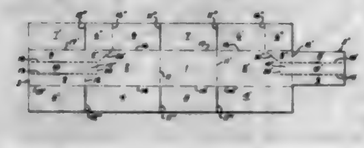
2,842,303
SET UP BOX
Samuel Platt, Burlingame, Calif., assignor to United Paper Box Co.
Application February 14, 1955, Serial No. 487,970
2 Claims. (Cl. 229—30)



2. A set up box formed from a single, elongated, generally rectangular blank and having a bottom wall, top wall and one side wall in coplanar relationship at a point in the manufacture thereof, a central pair of spaced

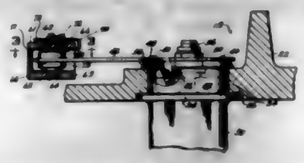
parallel scores defining opposite edges of said one side wall and one of the edges of said bottom wall and of said top wall respectively, marginal portions on said blank along the remaining edges of said bottom wall and said top wall, corner pieces integral with the ends of said one side wall and between and integral with the adjacent ends of each pair of marginal portions that are adjacent to said one side wall, each of said corner pieces being formed with an outwardly opening recess directed away from said one side wall, said marginal portions and said corner pieces being secured in positions perpendicular to the plane of said blank to one side thereof, a single cover paper glued to and covering the outer surfaces of said top wall, bottom wall, side walls and corner pieces including the outer surface of said one side wall and having portions extending across the recess in each of said corner pieces when said bottom wall, top wall, and one side wall are in said coplanar relationship and after said marginal portions and corner pieces are perpendicular thereto, folding scores in each of said corner pieces extending at right angles to each other from the ends of said central pair of spaced parallel scores to facilitate folding them on themselves with parts thereof in lapping relation and closing said recesses upon swinging said top wall about said central pair of parallel scores to a position over said bottom wall, said top wall being folded to a position over said bottom wall with the corresponding marginal portions on said top wall and on said bottom wall in lapping relation and with said corner pieces folded on themselves, the portion of said cover paper extending across each of said recesses being disposed within each corner piece between the lapped parts thereof and glue stressed by glue covering one side thereof to yieldably resist out-folding of said corner pieces for thereby yieldably resisting swinging of said cover toward a position in which the latter is coplanar with said bottom and for yieldably holding said top wall upright relative to said bottom wall when said top wall is swung to said upright position from its position over said bottom wall.

2,842,304
SHIPPING AND CARRYING CARTONS
William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application July 7, 1954, Serial No. 441,815
10 Claims. (Cl. 229—51)



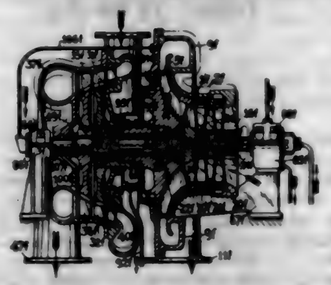
1. A carton formed from a one piece blank of sheet material and designed to provide a plural purpose shipping, hand transportation and dispensing carton for a group of cans packaged therein, said carton presenting a pair of said walls, a pair of end walls, a top wall and a bottom wall proportioned to receive a single layer can group therein with the top and bottom ends of the cans positioned adjacent the top and bottom walls of the carton, one of said end walls having a pair of substantially parallel and breakable weakened lines formed therein which define therebetween a pull-out handle part taken from and extending across the mid-sectional portion of the end wall, said carton having a breakout cover part designed to provide a can dispensing opening adjacent the handle part, said breakout cover part presenting a cover top section taken from the top wall of the carton and defined by a hinging score extending transversely across the carton top wall, said cover top section as defined by said transverse score having a longitudinal length which is less than half the longitudinal length of the top wall but not substantially less than the diameter of a single can, a front flange section comprising that portion of the end wall extending between the pull-out handle part and the top wall of the carton and separable from the pull-out handle part along the adjacent breakable weakened line and when broken defines the free edge of the front flange section and the adjacent edge of the handle part, and a pair of cover side flange sections taken from and separable from the carton side walls along breakable weakened lines extending between the terminal ends of said hinging score and the terminal ends of said weakened line which defines the cover front flange section, said cover part being openable by swinging the same along said top wall hinging score when the front flange section and side flange sections thereof are released from the handle part and the side walls of the carton along said breakable lines to thereby provide a can dispensing opening in the top wall of the carton adjacent the handle part.

2,842,305
COMPRESSOR STATOR ASSEMBLY
Henry A. Eckenfels and Le Var C. Jensen, Cincinnati, Ohio, assignors to General Electric Company, a corporation of New York
Application November 1, 1955, Serial No. 544,172
1 Claim. (Cl. 230—114)



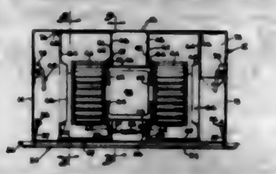
An axial flow compressor comprising a casing, a plurality of stages of opening in said casing, a stator blade rotatably supported in each of said openings, a lever arm secured to each of said stator blades, each of said lever arms having a ball and socket bearing in one end thereof, an actuating ring secured to each stage of lever arms by pins secured thereto, said pin extending through the ball and socket bearing and having a head thereon, and a fork clip extending about said actuating ring and over said head to retain said pin in position, and means for actuating said actuating ring to transmit rotary motion to said stator vanes.

2,842,306
TURBINE DRIVEN MULTI-STAGE BLOWER OR PUMP
Alfred Buchi, Winterthur, Switzerland
Application April 20, 1953, Serial No. 349,847
Claims priority, application Switzerland April 30, 1952
6 Claims. (Cl. 230—116)



1. A multi-stage counter rotating gas turbine driven vane wheel compressor or pump, comprising a high and low pressure vane wheel of at least one stage each counter-rotating high and low pressure axially through flow turbine rotors of one stage each, a stator housing for the turbine comprising guide ducts to guide the actuating gas from a source outside to the high and low pressure turbine rotors and to guide the discharge of the gas to the outside, a stator housing for the compressor comprising a guide device to transform the velocity of the pressure fluid at least partly into pressure and to guide it to the outside, both said housings being mounted on a common floor base, coaxial inner and outer shafts extending centrally and longitudinally with respect to said housings, each of said shafts being secured at one end thereof to one of said compressor vane wheels and each of said turbine rotors being secured to the other ends of said shafts, said shafts being driven by said turbine rotors in mutually opposite direction, blading on each vane wheel constituting a blading assembly of at least two stages receiving the pressure medium in axial direction by rotation of said low pressure vane wheel having blading constructed for rotation in one direction and feeding it directly and centrally over substantially equally dimensioned through flow areas into said high pressure compressor vane wheel and being discharged from the latter in radial direction and supplied to said guide device of the compressor housing, said high pressure turbine rotor being bladed to rotate at greater rotational speed and power consumption than said low pressure turbine rotor and rotating one of said two compressor vane wheels at greater rotational speed than the other of said two vane wheels, whereby optimum efficiency of the compressor at under-rated quantity and pressure of the available actuating medium for said turbine is attained.

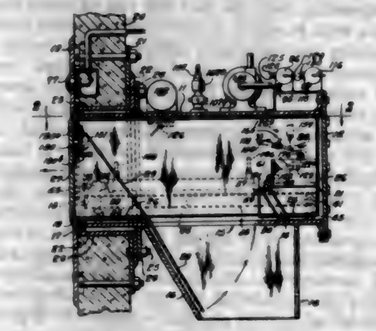
2,842,307
BLOWER CONSTRUCTION
Walter A. Spear, Cincinnati, Ohio, assignor to NuTone, Inc., Cincinnati, Ohio, a corporation of New York
Original application August 3, 1954, Serial No. 447,586. Divided and this application June 24, 1955, Serial No. 519,112
8 Claims. (Cl. 230—117)



1. A motor-blower unit for installation in a recessed casing, said motor-blower unit comprising an electric motor having a drive shaft extending axially from each of its opposite ends, a rigid cylindrical jacket substantially enclosing said motor, a pair of mounting rings secured to the opposite ends of said cylindrical jacket, resilient means mounting the opposite ends of said motor in said mounting rings, a pair of blower wheels, each wheel of the pair secured to a shaft at an end of said motor, a pair of volute blower wheel housings, said rings configurated to seat said housings and means to removably secure said volute blower wheel housings to the respective mounting rings at the opposite ends of said cylindrical jacket.

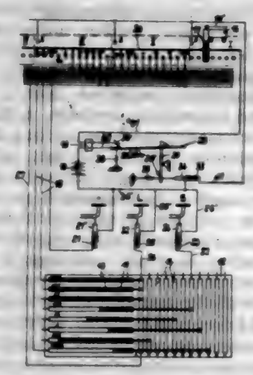
2,842,308
DRAWER TYPE DEPOSITORY
Cleburne T. Mannengill, Dallas, Tex.
Application December 22, 1955, Serial No. 554,683
10 Claims. (Cl. 232—44)

1. A depository comprising a casing having an opening at one end and a discharge opening in its bottom; a drawer slidably mounted in said casing, said drawer having an opening in its bottom; a cross-partition mounted in said drawer having its top edge near the drawer front and it slower edge adjacent the front edge of said drawer bottom opening; said drawer bottom opening communicating with the said casing bottom opening when the drawer is closed, a recessed flange mounted around the casing end opening on the edges of the casing; a sealing



strip supported in the recess of said flange; said drawer front having edges extending beyond the drawer on all sides engaging said sealing strip when the drawer is closed; a face plate mounted on said recessed flange and surrounding said drawer front; an electrical circuit; means for energizing said circuit; means actuated by said circuit for opening and closing the drawer, and means actuated by said circuit for locking and unlocking the drawer.

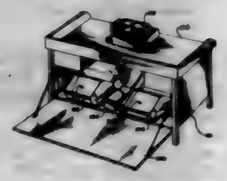
2,842,309
COMPUTER-TYPEWRITER APPARATUS
Erich Erbstösser, Gosenbach, Kreis Siegen, Germany, assignor to Firma Siemag Feinmechanische Werke G. m. b. H., Eiserfeld (Sieg), Germany
Application October 11, 1955, Serial No. 539,802
Claims priority, application Germany October 15, 1954
6 Claims. (Cl. 235—59)



1. In a remotely controlled typewriter mechanism having a movable carriage wherein a plurality of multi-order numbers are to be printed in different tabular columns along the carriage, in combination, a first electrical contact mounted on the movable carriage of the typewriter and movable therewith; a plurality of groups of fixed electrical contacts mounted on said typewriter adapted to be sequentially engaged by said first electrical contact when the typewriter carriage is moved between its first and its last position, each group of said groups of fixed electrical contacts corresponding respectively to a different tabular column to be printed by the typewriter,

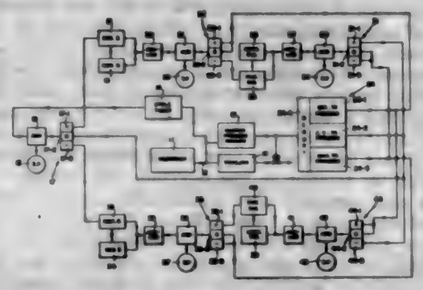
each of the fixed electrical contacts of each of said groups corresponding respectively to a different decimal order of its respective tabular column; a plurality of keys mounted on said typewriter, each of said keys corresponding to a different digit to be printed by said typewriter along said carriage; a plurality of actuating means, each of said actuating means being adapted to actuate one of said keys, respectively, when energized, to print the corresponding digit for said key and to move the carriage to its next position; a source of operating potential for energizing said actuating means; circuit means connected between each of said plurality of fixed contacts and said actuating means for connecting said source of operating potential, whenever desired, to one of said plurality of actuating means when said first electrical contact engages one of said fixed electrical contacts; at least one second fixed electrical contact positioned between the fixed electrical contact corresponding to the lowest decimal order of one tabular column and the fixed electrical contact corresponding to the highest decimal order of the next tabular column and adapted to be engaged by said first electrical contact; and means connected in circuit with said second fixed electrical contact for moving the movable carriage to its next position without any digit being printed when said first electrical contact engages said second fixed electrical contact.

2,842,310
TYPEWRITER CONTROLLED CALCULATORS
Morton P. Matthew, Berkeley, Calif., assignor to Frides, Inc., a corporation of California
Application September 15, 1953, Serial No. 380,241
8 Claims. (Cl. 235—60.12)



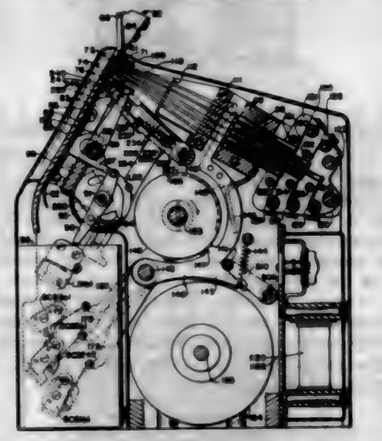
1. A typewriting and calculating apparatus comprising an electrically operated typewriter, numeral keys in said typewriter, a first electrically operated calculating machine, a multiplier unit in said first calculating machine set for a predetermined multiplier value, a second electrically operated calculating machine, a multiplier unit in said second calculating machine set for a different value than is the multiplier unit in said first calculating machine, a multiplier unit in said second calculating machine set for another predetermined multiplier value, readout selector switches in said calculating machines, a control system electrically connected to said typewriting and calculating machines, said control system being operable to control said calculating machines selectively in accordance with the operations of said typewriter, said control system being also operable under control of said calculating machines to control said typewriter in accordance with amounts accumulated in said calculating machines, selecting slides in said calculating machines, a selecting slide control unit in each calculating machine and electrically controlled through said control system in one case by said typewriter and in another case by said selector switches, said selecting slides being operable to control the entering of values in said calculating machines and serving as amount storage means for said calculating machines, and a program unit having switches in electrical connection with said control system, said program unit being operable to make said control system first control said calculating machines in accordance with the operations of said typewriter and subsequently make said calculating machines, in effect, read back into said typewriter, amounts accumulated in said calculating machines, and operate said typewriter in accordance with the amounts accumulated in said calculating machines.

2,842,311
CONTROL APPARATUS
Edgar H. Petrie, Levittown, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application March 24, 1955, Serial No. 496,437
35 Claims. (Cl. 235—61)



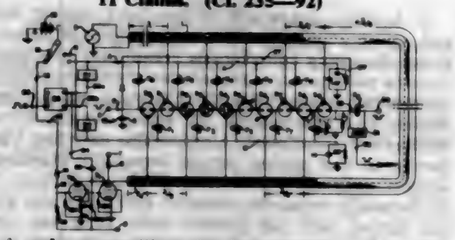
1. Control apparatus for a process comprising a computer analog of the process, means responsive to the output of the process and connected to selectively apply varying signals to the input of said analog, signal responsive means connected to the output of said analog, a set point signal source connected to said signal responsive means, said signal responsive means having an output which is a predetermined function of the difference between said set point signal source and said analog output, and a process controller connected to be controlled by said signal responsive means.

2,842,312
CARD READING APPARATUS
Donald L. Weeks, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application March 23, 1955, Serial No. 496,173
22 Claims. (Cl. 235—61.11)



12. In an apparatus for reading cards on which data is represented by perforations at required ones of data representing positions, the data representing positions forming intersecting rows and columns on the card, the combination of a plurality of sensing pins, one for sensing each data representing position on a card; a switching means controlled by the sensing pins to convert the sensed data into electrical output signals, said switching means including an input bus for each row of sensing pins, an output bus for each row of sensing pins, and a resilient contact for each sensing pin, each contact connected to an input bus, normally urging the sensing pin to sensing position, and operatble to connect its input bus to its related output bus when its sensing pin senses a perforation in a card; and control means cooperable with the sensing pins, to control the operation of the pins to sense the data on the card, said control means normally restraining the pins from movement to sensing position and maintaining the contacts out of engagement with the output buses but operable to free the pins, column by column, one column at a time, to sense the card, said freed sensing pins which find holes in the card allowing their related contacts to engage output buses and provide output signals successively in the output buses as the columns of the card are sensed in succession.

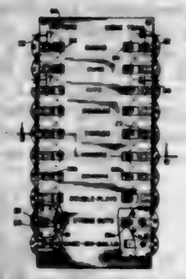
2,842,313
FERROELECTRIC ACCUMULATOR
Helmut J. Geisler, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Continuation of application Serial No. 383,526, October 1, 1953. This application December 28, 1956, Serial No. 631,326
11 Claims. (Cl. 235—92)



1. A pulse controlling circuit comprising a plurality of ferroelectric capacitor storage elements each having two terminals and capable of assuming alternate stable states of polarization in response to electric fields of opposite polarity applied thereto, switch means connecting one terminal of each capacitor element with one terminal of an adjacent one of said capacitor elements, and advancing means comprising means for successively operating alternate ones of said switch means and further means for simultaneously applying an electric field to the other terminal of alternate ones of said ferroelectric capacitor elements, said electric field being sufficient to cause any of said elements in one stable state to switch to the other stable state.

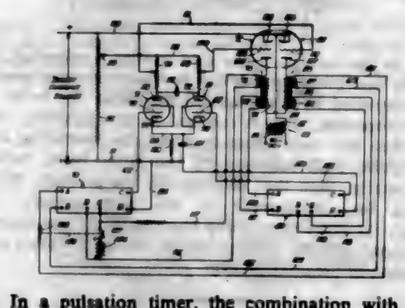
2,842,314
TALLYING DEVICE
Frank McKennett, Hempstead, N. Y.
Application March 25, 1955, Serial No. 496,636
7 Claims. (Cl. 235—114)

1. A portable indicating article comprising a card composed of separate sheets secured together at spaced points and otherwise unattached, a column of thin flat indicator dials confined flat between unattached surfaces of the sheets, pivots rotatively mounting the dials to the card, and sight openings in the card spaced similarly to the dial axes for exposing chosen indicia of the dials, the dials in the column each bearing on a front face a circle of digits of a lower denominational order, and carry indicating elements respectively associated with the dials, each element being a flat piece confined between the card sheets and mounted by means including the pivot of the associated dial, each element bearing on a front face carry indicant and adjustable manually from a position in which the indicant thereon is concealed to a position in which the indicant is displayed by the sight opening for



the related dial in a position adjacent the digit displayed by the dial.

2,842,315
SEQUENTIAL PULSATION TIMER
Julius L. Solomon, Chicago, Ill., assignor to Welding Research, Inc., Chicago, Ill., a corporation of Illinois
Application June 15, 1953, Serial No. 361,608
11 Claims. (Cl. 235—132)

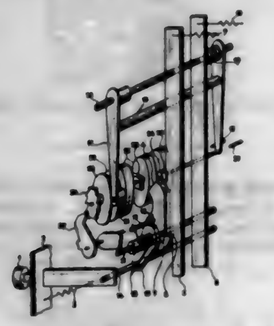


1. In a pulsation timer, the combination with a first counting element, a second counting element, and an electric source providing periodic current pulses to be counted by the elements, of a control circuit for rendering the counting elements alternately operative for performing a counting function, said control circuit providing first and second electric translating means having connection with the electric source for transmitting the periodic current pulses to the elements, the first translating means transmitting to the second element current pulses to be counted thereby and transmitting to the first element current pulses for resetting the element, the second translating means transmitting to the first element current pulses to be counted thereby and transmitting to the second element current pulses for resetting the element, an electric discharge device for each electric translating means for controlling by its conductivity the energization of its particular translating means, said discharge devices being electrically connected in a manner whereby only one is conductive at a time, and means electrically connecting the counting elements with the discharge devices in a selective manner, whereby each element at the completion of its counting function supplies a signal voltage to a certain one of the discharge devices to effect alternate conductivity of the discharge devices.

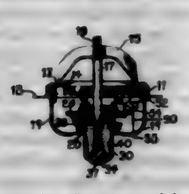
2,842,316
REGISTER RESETTING MECHANISM
Edouard Schubauer, Geneva, Switzerland, assignor to Sodeco, Societe des Compteurs de Geneve, Geneva, Switzerland, a firm
Application August 22, 1955, Serial No. 529,654
Claims priority, application Switzerland August 25, 1954
6 Claims. (Cl. 235—144)

1. A register resetting mechanism for a metering system including coaxial metering wheels, return-to-zero

cams cooperating with the said wheels and a plurality of pinions controlling each the corresponding metering wheel, the said mechanism including a pusher knob, a lever adapted to pivot through a predetermined angle upon depression of the said knob, a control lever moving in unison with the said pivoting lever and controlling the engagement and disengagement of the pinions with the metering wheels, a spring tensioned by the said pivoting lever when angularly shifted through operation of the knob, a lever controlling the return-to-zero cams and subjected to the action of the said spring, a releasing lever holding last mentioned lever in its inoperative position and controlled by the pusher knob when the latter has, upon depression, almost reached its end position, to release then the said return-to-zero cam-controlling lever, the angular path followed by the latter being substantially smaller than that followed by the pivoting lever to provide for engagement of the return-to-zero cams through the lever controlling them until reengagement of the pinions with the corresponding metering wheels under the action of the control lever.



2,842,317
THERMAL VALVE WITH SAFETY LOCK
Charles W. Wood, Lebanon, Ohio, assignor to Standard-Thomson Corp., Dayton, Ohio, a corporation of Delaware
Application May 6, 1954, Serial No. 427,926
6 Claims. (Cl. 236—34)



1. In a fluid control valve comprising an annular valve seat member provided with an annular flange extending therefrom, a plurality of support members attached to the valve seat member and extending on either side therefrom, a movable valve member engageable with the valve seat member, a casing member having rigid end walls attached to the movable valve member, a guide member attached to one of the support members, the guide member extending around the outer periphery of the casing member adjacent thereto, a body of elastic material within the casing member contacting opposite end walls of the casing member, an expansive material within the casing member engaging the body of elastic material, a rod member attached to some of the support members, the rod member slidably extending through one of the end walls of the casing member contacted by the body of elastic material, the rod member having a tapered end extending into the body of elastic material, resilient means engaging the movable valve member and the support members to which the guide member is attached, the resilient means urging the movable valve member toward the valve seat member, and a spring member attached to the valve seat member and having an end thereof abutting the annular flange, the spring member extending between the casing and one of the support members, the spring member having a shoulder portion in the path of movement of the movable valve member so that the movable valve member engages the shoulder portion of the spring member upon extended movement of the valve member, the movable valve member thus being retained in open position.

2,842,318
VALVE
Richard Lyons Campbell, Birmingham, Mich., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application February 2, 1956, Serial No. 563,057
6 Claims. (Cl. 236—34)



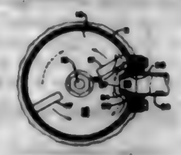
5. A valve comprising an apertured support wall; a coil spring engaging said support wall, the spaces between the spring convolutions constituting openable and closable valve ports; a temperature responsive power element within the spring and including a cup portion extending from the end of the spring remote from the support wall; said power element also including a piston having an end portion thereof threadedly engaging the support wall; said power element also including a body of thermally expansible material within the cup portion for forcing said cup portion away from the support wall on fluid temperature increase so as to open the coil convolutions for the passage of fluid.

2,842,319
METHOD OF PRODUCING ULTRA-CLEAN COAL
Wilhelm Reerink, Essen-Bredeney, Walter Münchenborn, Essen, and Erich Nötzold, Essen-Haarzopf, Germany
No Drawing. Application October 21, 1953
Serial No. 387,538
Claims priority, application Germany November 5, 1952
17 Claims. (Cl. 241—14)

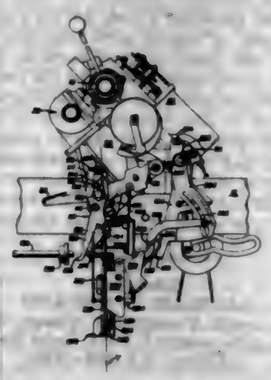
1. A method of producing ultra-clean coal having a very low ash content comprising in combination the steps of selectively comminuting a starting coal according to the different mechanical strengths of its petrographic constituents, screening said comminuted material by means of a first screen, subjecting the fine material from said screening step to a preliminary flotation, screening the concentrate from said preliminary flotation step by means of a second screen of finer mesh than said first screen, further breaking-up the oversize grain from said finer mesh screening step, subjecting the undersize grain from said finer mesh screening step and said further broken-up oversize grain from said finer mesh screening step to a further flotation and collecting the concentrate from said further flotation step.

2,842,320
FOOD WASTE DISPOSER APPARATUS
Clifton H. Ewing, Easthampton, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 31, 1957, Serial No. 662,907
4 Claims. (Cl. 241—46)

1. In a food waste disposer, a housing having a waste receiving opening therein; a waste grinding chamber below said opening; a waste grinder in the lower part of said chamber, said grinder including a flywheel rotatable about a vertical axis, an impeller mounted on said flywheel for rotation therewith, and a shredder on a wall of said chamber, said impeller being adapted to impart a whirling motion to waste material in said chamber for causing said material to move over said shredder; a waste discharge beyond said grinder; and an auxiliary waste fluid inlet carried by said housing and communicating with said grinding chamber, said inlet being provided by a projection on the inner surface of said housing above said grinder and having a passage therein from the exterior to the interior of said housing, said passage being of converging configuration with the narrow end thereof communicating with said grinding chamber, said projection being tapered at least on both sides and the bottom thereof from its junction with the inner surface of said housing toward the center of said housing.



2,842,321
TENSION FOR A WINDING MACHINE
John V. Keith, Warwick, R. I., assignor to Universal Winding Company, Cranston, R. I., a corporation of Massachusetts
Original application May 4, 1951, Serial No. 224,491, now Patent No. 2,740,589, dated April 3, 1956. Divided and this application February 15, 1956, Serial No. 565,697
2 Claims. (Cl. 242—45)



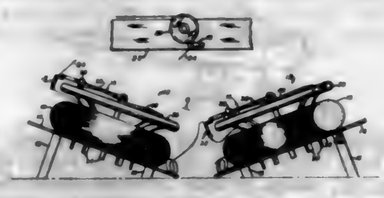
1. In a winding machine the combination comprising a winding spindle adapted to hold a package core, means for traversing a strand of yarn along said package core, a source of power for rotating said spindle and operating said traversing means, a shaft rotated by said source of power, a tension disk adapted to be rotated by said shaft, a tension plate, and means adapted to urge said tension plate against said tension disk to cause said disk and plate to bear against a strand of yarn feeding therebetween.

2,842,322
FISHING LINE REEL
Kenneth A. Bradshaw, Richmond, Va.
Application February 17, 1955, Serial No. 488,779
3 Claims. (Cl. 242—84.1)

1. In a line reel, an elongated frame member provided with an elongated and open sided recess extending longitudinally of said frame member, and an elongated tapered finger formed integrally with said member and disposed entirely within one end portion of said recess, said recess having one closed end and communicating at a point remote from said closed end with a lateral entrance at one side of the frame member, said finger having a relatively wide base portion at the closed end of the recess and a relatively narrow end portion adjacent to but spaced from said entrance, the width of said finger being less than the width of the frame member and said finger being disposed centrally in said recess whereby to provide a pair of line locking bays within said recess at opposite sides of said finger.



2,842,323
FLYER FOR SUPPLY STANDS
Vincent A. Rayburn, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application September 3, 1953, Serial No. 378,278
8 Claims. (Cl. 242—128)

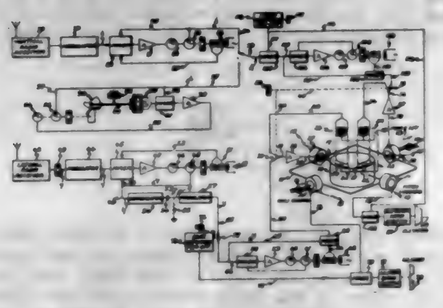


1. A supply stand for paying off filaments from coils thereof, which comprises a substantially upright arbor designed to extend axially into and receive such a coil, a substantially horizontal arm having one end mounted rotatably and pivotally on the top of the arbor and having its other end free to be rotated around the arbor by a filament as it is payed off from the coil, a wire guide mounted on the free end of the arm for guiding the filament being payed off from the coil, a circular cam mounted on the top of the arbor, and a cam follower carried by the arm in contact with the cam for oscillating vertically the end of the arm on which the wire guide is mounted during rotation of the arm, thereby preventing tangles from occurring in the filament.

2,842,324
AIRCRAFT HAVING RADIO BEAM ACTUATED AUTOMATIC PILOT MECHANISM
George F. Jude, Fresh Meadows, and Percy Halpert, Hempstead, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application March 21, 1955, Serial No. 495,432
22 Claims. (Cl. 244—77)

5. The combination in a dirigible craft of, an automatic pilot having a gyro vertical with an erecting device for exerting a torque about its pitch axis and a pick-off providing an automatic pilot signal in accordance with tilt of the craft about its roll axis from the reference defined by the gyro, a radio receiver on the craft providing a signal proportional to the lateral displacement of the craft from a radio guidance beam, means responsive to the signal of said radio receiver providing an output in accord-

ance with the acceleration of the craft in a cross course lateral direction, and means operatively connecting said



acceleration output means and said torque exerting erecting device.

2,842,325
RETRACTABLE LANDING GEAR
Howard S. Greco and Raymond B. Janney II, Wilmington, Del., assignors to All American Engineering Company, Wilmington, Del., a corporation of Delaware
Application January 11, 1956, Serial No. 558,462
6 Claims. (Cl. 244—102)

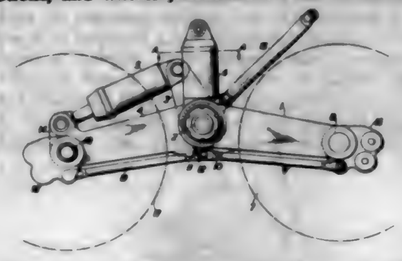


1. In combination with an oleo landing gear including a fixed upper section and a lower axially movable section, ski means pivotally mounted intermediate its ends on said movable section, means for maintaining said ski means at a set trim angle comprising a master fluid cylinder connected to said fixed oleo section and a piston in said cylinder having a piston rod connected to said oleo movable section, a slave cylinder having a piston therein and a rod pivotally connected to said ski means adjacent the trailing end thereof, cross fluid connections between said cylinders, a trim cylinder having a piston therein and a rod connected to said slave cylinder, and means for varying fluid pressure in said last cylinder on opposite sides of said last piston, for varying said trim angle.

2. The combination defined in claim 1, together with pivoted linkage means connected to said oleo landing gear and with an aircraft carrying same and fluid operated means connected to said linkage means for swinging said landing gear together with said master cylinder slave cylinder and trim cylinder to a retracted position under said aircraft.

2,842,326
AIRCRAFT UNDERCARRIAGE
Geoffrey Francis Sharples, Blackpool, England, assignor to The English Electric Company Limited, London, England, a British company
Application January 21, 1955, Serial No. 483,316
Claims priority, application Great Britain March 23, 1954
4 Claims. (Cl. 244—103)

1. An aircraft undercarriage of the tandem type comprising in combination: an undercarriage leg, a common axle journalled in the said leg, one arm fixedly connected to one end of the said axle and a second arm rotatably mounted on the other end of the said axle, stub axles mounted on the free ends of the said arms parallel to the said common axle of the latter and pointing in opposite directions, and wheels journalled on the said stub axles



and having their centre planes in alignment with one another.

2,842,327
HOSE NOZZLE HOLDER
Frederick H. King, Ferndale, Mich.
Application January 23, 1956, Serial No. 560,529
3 Claims. (Cl. 248—88)



1. A device for holding the nozzle of a hose, said device comprising an elongated substantially vertical rod, a bracket rigidly surmounting said rod, a carrier having side-walls and a bottom wall between and upon which such nozzle is received, means pivoting the carrier on the bracket for up and down travel, means to maintain said carrier in selective positions of said travel, a retaining member including a plate having a nozzle receiving notch, a pair of spaced arms integrally joined with and carrying said plate, the end portions of said arms being parallel, pivot means mounting the respective arms upon the respective side-walls and affording up and down swinging travel of said retaining member to and from a use position in which said plate is engaged between said side-walls and said notch receives a nozzle immediately forward of the coupling member of such nozzle, and the parallel end portions of said arms resiliently stress said side walls to maintain such use position.

2,842,328
GARBAGE CAN STAND
George R. Youngblood, Albany, Ga.
Application November 5, 1954, Serial No. 467,010
1 Claim. (Cl. 248—156)



A garbage can stand comprising an upper ring and a bottom ring disposed in concentric, vertically spaced relation with each lying wholly in a horizontal plane; a plurality of straight, elongated legs fixedly connected between said rings and converging in a downward direction, said legs being uniformly spaced about the circumference of the rings, said bottom ring being slightly

smaller in diameter than the upper ring and being adapted for engagement directly against a supporting surface; a pair of identical but opposite, approximately V-shaped can support rods disposed in a common horizontal plane adjacent the bottom ring, said rods having spaced, confronting bight parts and having outer end portions affixed to the several legs; a V-shaped connecting strap lying wholly in a vertical plane and connected to the bight parts, said strap having a bight portion disposed approximately in the plane of the bottom ring; a cross brace extending diametrically of the bottom ring approximately in the plane thereof and overlying said bight portion, said cross brace and bight portion having registering openings; and a vertical anchoring pin removably positioned through the openings for engagement in said surface and having a head overlying the bight portion, the vertical plane of said strap lying directly perpendicularly to the length of the cross brace.

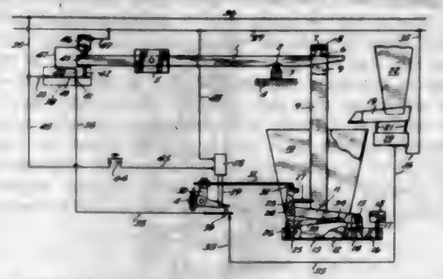
2,842,329
COMBINATION HANGER FOR HATS AND JACKETS
Sam Friedman and Arthur Friedman, New York, N. Y.
Application September 27, 1954, Serial No. 458,321
1 Claim. (Cl. 248—368)



A combination hat and coat hanger comprising a shank, a supporting hook on the upper end thereof, a separate hat hook extending from the lower end thereof, and a curved coat hook also extending from the lower end of the shank, said hat hook including a straight body portion in longitudinal contact with the shank, an angular body portion extending from said straight body portion and having a recess therein opening downwardly and spaced bearing sleeves on said straight body portion rotatably embracing the shank, said hat hook being rotatable about the shank between a use position in which it extends from the shank oppositely from the coat and supporting hooks, and an inoperative position in which it is extended from the shank in the same direction as and is coplanar with the coat and supporting hooks, the free end of the coat hook being disposed in the path of rotary movement of the angular portion of the hat hook and being adapted to snap into interlocking relation with the recess in said angular portion for holding the hat hook in inoperative position.

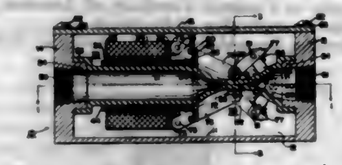
2,842,330
MAGNETIC LOCK FOR SCALE BEAMS AND THE LIKE
Frank L. Hopkins, Minneapolis, Minn., assignor to Bemis Bro. Bag Co., St. Louis, Mo., a corporation of Missouri
Application December 27, 1956, Serial No. 630,790
3 Claims. (Cl. 249—36)

3. In an automatic weighing device, scale means including a beam supported intermediate its ends by a fulcrum and a weighing hopper supported by one end of said beam, power-operated mechanism for causing delivery of material to said hopper, circuit means including a switch for controlling said power-operated mechanism, the free end portion of said beam engaging said switch to close said circuit means when the hopper is empty to energize said power-operated mechanism, said free end portion moving out of engagement with said switch when the hopper is filled to a predetermined extent with said material, a fixed electromagnet mounted in the path of movement of the free end of said beam and engaging said free end upon movement of the beam to its hopper-filled position, and circuit means including a second switch engaged by the free end of said beam upon movement thereof to its hopper-filled position to cause said electromagnet to be energized to hold said beam in its



hopper filled position, the magnetic force exerted by said electromagnet being sufficient to hold said beam against return movement to its hopper empty position when said hopper is loaded with a given quantity of said material said force being less than the gravity bias exerted on the free end of the beam when the hopper is empty, whereby to permit return of said beam to its hopper empty position to open the switch for said electromagnet and close the switch controlling said power-operated mechanism.

2,842,331
PINCH-OFF VALVE
Donald G. Anderson, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application October 26, 1955, Serial No. 542,852
5 Claims. (Cl. 251—6)

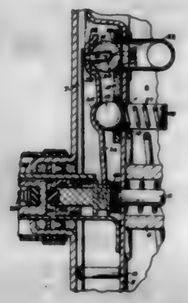


1. In a valve of the class described, a valve housing having an inlet and outlet joined by a pliable tube, a solenoid including a solenoid plunger slidably mounted within said solenoid and both supported concentrically with said tube, two linkage operators joined to said plunger at diametrically opposite points and extending parallel with said tube, two pair of clamp arms pivotally mounted at one of their extremities and having spring mounting ears at their other extremities, pressure bars joining each said pair of clamp arms and bearing on opposite sides of said tube, pairs of cross links pivotally joining the clamp arms and said linkage operators at their free extremities. and spring means connecting opposite pairs of the spring mounting ears to bias said pressure bars to pinch the tube closed when said solenoid is de-energized.

2,842,332
VALVE CONSTRUCTION
Owen M. Whitten, Detroit, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application February 25, 1954, Serial No. 412,537
2 Claims. (Cl. 251—86)

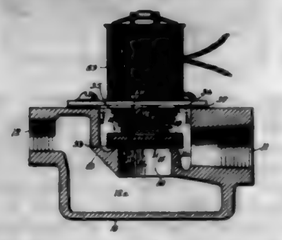
1. A valve construction comprising an annular seat, a valve having a partly spherical surface at one side thereof

adapted to roll into and out of sealing engagement with said annular seat while partially entering the latter, said valve having an elongated recess in the side thereof opposite said partly spherical surface the axis of which extends through the center of gravity of said valve and through the center of said partly spherical surface, said bottom of said recess being located between the center of gravity of said valve and said partly spherical surface, and a mounting for said valve including a pin having an elongated body generally aligned with the axis of said



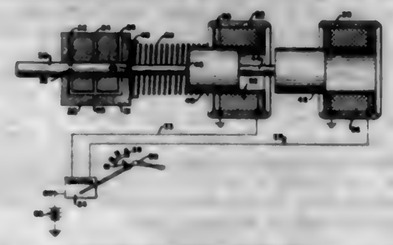
seat and movable toward and away from said seat, said body extending freely into said recess and having an end rotatably engaging the bottom of said recess, said recess loosely receiving said body to enable said valve to move angularly relative to said body and to roll over an edge of said seat without interference from said body into full sealing engagement with said annular seat while partially entering the latter by the force of said end of said body against the bottom of said recess during movement of said pin toward said seat.

2,842,333
VALVE
George C. Kent, Elmhurst, Ill., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware
Application December 7, 1955, Serial No. 551,601
1 Claim. (Cl. 251—88)



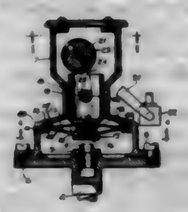
A valve comprising a valve body having an inlet and outlet separated by a partition provided with a valve seat, a valve member for cooperating with said valve seat, said valve member comprising a relatively rigid plate, a facing of compressible resilient material attached to said plate and cooperating with said valve seat for valve closing, a rodlike member for moving said valve member, an attaching member coupled to said rodlike member, said rodlike member having a reduced portion extending through an aperture in said attaching member and having means at the reduced portion thereof for locking said attaching member loosely to said reduced portion, said attaching member having terminal portions extending through slots in said plate and shoulders overlying the face of said plate, said terminal members being turned along the plate face to clamp said plate to said attaching member.

2,842,334
CONTROL DEVICE
Brooks H. Short, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 15, 1954, Serial No. 416,342
3 Claims. (Cl. 251—137)



1. A control device for a hydraulically-operated transmission, the combination comprising: a three-positioned valve for controlling hydraulic flow of said transmission, a controller connected with said valve and selectively movable to provide three different valve positions, means for yieldably holding said controller in said first position, an actuator for said controller comprising at least two magnetically-operated devices connected to said controller, means adapted in one position to connect the first magnetically-operated device in circuit with a current source for moving the controller to said second position and adapted in another position to initially connect the first and second magnetically-operated devices in circuit with a current source and then to connect only the second magnetically-operated device in circuit with said current source for moving said controller to said third position, said yieldable means returning said controller to said first position when said magnetic devices are de-energized.

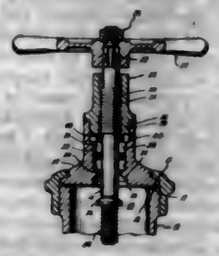
2,842,335
VALVES
William R. Cousins, Woodstock, Ontario, Canada
Application January 10, 1951, Serial No. 205,248
7 Claims. (Cl. 251—261)



1. In a valve structure, a body casing defining a working chamber, including a reduced waist portion defining a piston receiving bore, a flexible diaphragm closing said chamber adjacent one end of said bore, a body of oil inside said chamber forming an oil bath, a piston operating in snug sliding fit in said piston receiving bore and connected to said flexible diaphragm, a valve closure member secured to said diaphragm and piston exteriorly of said chamber adapted to co-operate with a valve seat aligned with said bore and piston, an eccentric operating in said chamber adjacent the end of said bore opposite the said diaphragm, and a connecting rod directly connecting said eccentric and piston, means for operating said eccentric, said eccentric having an eccentricity to amplify the movement of said operating means and having a plane of symmetry, said plane of symmetry being disposed parallel to the plane of said valve seat with said

valve closure member in closed position, said eccentric, connecting rod, and piston all operating immersed in said oil bath to move said diaphragm and said valve closure member to provide a valving action.

2,842,336
AUTOMATIC SELF SEALING STEM
Charles F. Johnson, Houston, Tex., assignor to George A. Butler, Houston, Tex.
Application August 22, 1955, Serial No. 529,740
1 Claim. (Cl. 251—336)



In a valve having a valve body adapted to contain a fluid under pressure, a bonnet closing one end of the body and having an axial bore provided at one end with threads, a rotatable valve stem having threads engaging the bonnet threads for moving the stem axially of said bore, the bore and the stem having spaced peripheries defining an interior chamber of annular cross-section, an annular piston disposed in said interior chamber dividing said chamber into an inner zone, freely communicating with said valve body and any pressured fluid therein, and an outer zone freely communicating with said threads, a body of fluid sealant under pressure in said outer chamber, said piston slidably engaging both said bore and said stem to assume a position in said chamber determined by the relative pressures in said zones and to accommodate rotational and axial displacement of said stem, relative to said bonnet, said bonnet having a valve seat portion surrounding said stem intermediate said bore and the valve body, and an annular valve surface on said valve stem for seating engagement with said valve seat upon axial displacement of said valve stem.

2,842,337
VALVE CONTROLS
Ralph Pintarelli, Johnston, R. I.
Application January 17, 1955, Serial No. 482,204
1 Claim. (Cl. 251—339)



In a device of the character described, a length of tubing, a valve mounted in said tubing, means normally biasing said valve to closed position, a disc slidably mounted within one end of the tubing, said disc having a peripheral wall extending outside the adjacent end of the tubing, said wall having a plurality of notches therein, a plurality of inwardly extending teeth carried by said one end of the tubing, said teeth and said notches coacting to key said disc to said tubing and further to limit the outward slidable movement of said disc, an elongated rod having one end threadedly connected to said disc and its other end in alignment with and adjacent to said valve, whereby when inward pressure is applied to said peripheral wall, said other rod end engages said valve and forces it open.

2,842,338
COMPOSITION AND METHOD FOR PLUGGING AND CONSOLIDATING
Robert W. Davis, Hermosa Beach, Calif., and James L. Lummus, Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware
No Drawing. Application May 17, 1956
Serial No. 585,399
10 Claims. (Cl. 255—1.8)

6. The method of increasing the degree of consolidation and decreasing the permeability of formations penetrated by a well comprising drilling said well using a drilling fluid containing at least about $W/4M$ pounds of a water-soluble calcium salt per barrel of drilling fluid, where W is the pound molecular weight of said salt and M is the number of calcium ions per molecule of said salt, and subsequently injecting into said formation an aqueous solution containing from about 5 to about 50 percent by weight of polyacrylic acid, said polyacrylic acid having a molecular weight such that a 10 percent by weight aqueous solution thereof has a viscosity in the range of between about 5 and about 200 centipoises.

2,842,339
AUTOMATIC WELL DRILLING APPARATUS
William Calvin Gresham and Robert H. Ashby, Oklahoma City, Okla., assignors to Mud Control Laboratories, Inc., Oklahoma City, Okla., a corporation of Delaware
Application May 14, 1956, Serial No. 584,547
17 Claims. (Cl. 255—19)

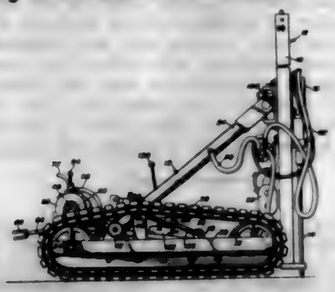


1. Apparatus for maintaining a predetermined drilling pressure on a well drilling tool which is supported from above by a flexible supporting cable comprising measuring means for continuously sensing the tension in said supporting cable, rotatably mounted reel means to receive said flexible cable, holding means having a locked position holding said reel means against rotation with said tool and supporting cable wound thereon and an unlocked position releasing the reel and permitting the gravitational descent of said supporting cable and drilling tool, cycling means operable to release said holding means to the unlocked position for a fixed interval of time and operable to return said holding means to the locked position for a fixed interval of time whereby said cable descends during said unlocked interval to reduce said tension by a predetermined increment, and means actuated by said measuring means for actuating said cycling means whenever said tension exceeds a predetermined maximum to reduce said tension by said predetermined increment provided said cycling means is not in said locked interval.

2,842,340
DRILL CARRIAGE
John W. Barrett, Roanoke, Va., assignor to Drill Carrier Corporation, Salem, Va., a corporation of Virginia
Application August 16, 1954, Serial No. 450,069
12 Claims. (Cl. 255—51)

2. A drill carriage comprising a transverse axle, an elongated frame member pivotally secured to each end of said axle, sprockets on each frame member, an endless flexible tread mounted on said sprockets, power means for

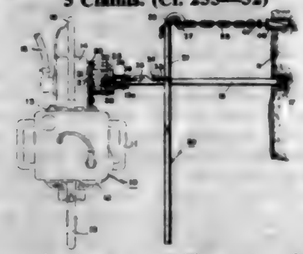
independently driving said treads, a support arm secured to said axle for adjustably supporting a drill, and means for adjusting the axle in relation to the frame members having the treads thereon, said tread driving means comprising a pair of air operated motors with one motor driving each tread and supported from the adjacent frame member, and a separate control for each motor thereby providing a control for the direction of travel of the carriage, said axle having a hollow closed passage, an air supply line admitting air into said passage at one end thereof for supplying air to one of said motors, and a hose line communicating with the air supply line for supplying air to the other of said motors.



6. A drill carriage comprising a pair of elongated mobile frame members, a transverse axle interconnecting said frame members, said frame members being pivotally attached to said axle for free swinging movement in a vertical plane, and a drill supporting arm rigid with said axle to permit unrestricted relative movement between the drill supporting arm and the frame members, and means interconnecting the axle and each of the frame members for rotating the axle in relation to the frame members for adjusting the angular relation between the supporting arm and the frame members, said means interconnecting the axle and each of the frame members being connected with each other and maintaining the position of the arm while permitting the frame members to swing about the axle to different relative angular positions

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2,842,341
FORCE APPLYING ATTACHMENT FOR PORTABLE POWER DRILLS
Fredrick W. Wink, Winnipeg, Manitoba, Canada, assignor of one-half to Jack G. Herzberg, Elm Grove, Wis.
Application June 21, 1955, Serial No. 516,870
5 Claims. (Cl. 255—52)



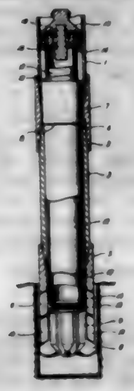
1. In combination, a portable power driven drilling machine having a casing with a projecting bearing for a rotary shaft which carries a drill, a collar swiveled for rotary movement on said bearing concentric with said shaft, a pressure applying hand lever having near one end spaced and laterally opposed parts forming an open portion through which the drill carrying portion of the shaft projects, flexible connections between diametrically opposite parts of said collar and said opposed parts of the open portion of said lever, a chain having means for anchoring it to a stationary support, and a hook on said one end of the lever and engaged by said chain.

2,842,342
ROCK DRILL CUTTING INSERT OF HARD METAL
Diderik Wilhelm Haglund, Sandviken, Sweden, assignor to Sandvikens Jernverks Aktiebolag, Sandviken, Sweden, a corporation of Sweden
Application July 6, 1955, Serial No. 520,347
4 Claims. (Cl. 255—63)



1. A rock drill cutting insert having a cutting edge surface, a plane bottom surface opposite to said cutting edge surface, oppositely disposed substantially parallel plane side surfaces and oppositely disposed end surfaces, said insert consisting of at least one zone of hard metal which has a relatively greater resistance to wear and at least one zone which has a relatively greater toughness, said zone which has a relatively greater resistance to wear constituting substantially the whole of said cutting edge surface and extending downwardly therefrom with a decreasing cross-sectional area in the direction from said cutting edge surface toward said bottom surface, said zone which has a relatively greater toughness constituting the remainder of the insert and extending upwardly with a decreasing cross sectional area in the direction from said bottom surface toward said cutting edge surface, the lateral boundary surfaces between said zones being substantially plane surfaces and lying at acute angles to the adjacent side surfaces of said insert.

2,842,343
RETRACTIBLE BIT
Walter L. Church and Carroll E. Church, Houston, Tex.
Application November 19, 1954, Serial No. 469,986
3 Claims. (Cl. 255—72)



3. In a retractible drilling means, a tubular drill stem, a tubular sub mounted on the lower end of said drill stem, a guide means on the lower end of said sub having upwardly and inwardly tapered slots in the lower end face thereof, a bit having a shank and legs depending from said shank, cutting members on the lower ends of said legs, and anchoring means on the outer side walls of said legs adjacent said cutting members, said anchoring means being upwardly and inwardly tapered to be received by said slots, a core taking apparatus movable into and out of said drill stem having means for moving said legs into position to be anchored on said drill stem.

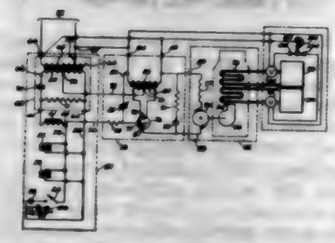
2,842,344
BORDER FENCE
Charles Todd, Los Angeles, Calif.
Application March 12, 1956, Serial No. 571,859
3 Claims. (Cl. 256—21)

1. A border fence comprising an elongate vertical strip, an elongate horizontal strip attached at one of its elongate edges to the vertical strip to form a substantial L-shaped elongate fence, a first stake attached to the fence and extending downwardly therefrom at an acute angle to the vertical, and a second stake attached



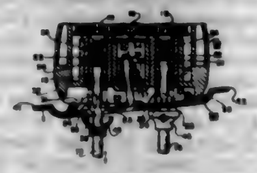
to the fence and extending downwardly therefrom at an acute angle to the vertical said stakes extending downwardly from opposite edges of said elongate horizontal strip.

2,842,345
THERMAL REGULATING SYSTEM
Walter J. Brown, Cleveland Heights, Ohio
Application April 7, 1950, Serial No. 154,547
29 Claims. (Cl. 257—3)



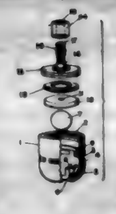
11. A heat-governing system comprising a thermal regulator constituted by a continuous phase-shifting device including a series circuit formed by a temperature-sensitive capacitor serially connected to an impedance element, said capacitor being provided with a dielectric formed of a ferro-electric material, an input network for coupling said series circuit to a source of alternating voltage, a first output terminal operatively coupled to the junction of said capacitor and said element, and a second output terminal connected to a point in said input network providing a potential having a predetermined phase relative to the voltage of said source whereby the regulating voltage established between said first terminal and said second output terminal varies continuously in phase in accordance with changes in temperature; a heat energy controller, said capacitor being positioned in heat-receiving relation with said heat energy controller; and phase-sensitive means coupled to said thermal regulator and responsive to said regulating voltage to govern the operation of said heat energy controller in accordance with the phase thereof.

2,842,346
FOOD MIXER
Gustav H. Koch, Springfield, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 21, 1956, Serial No. 573,010
3 Claims. (Cl. 259—1)



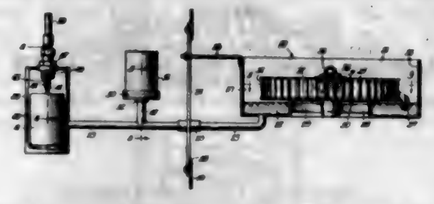
1. In a mixer, the combination of a casing having a recess formed in the outer portion thereof, a pair of hollow spindles journalled in the casing and extending into spaced portions of the recess, means for rotating said spindles, a pair of beaters having respective shafts, said spindles having respective bores for receiving the shafts of the beaters, means coupling the beater shafts to the spindles for rotation therewith, spring biased means for retaining the shafts within the spindles in coupled relation, an ejector plate having a center stem extending within said recess and openings spaced outwardly from the stem receiving the shafts of said beaters, a pair of seats formed on said casing and engageable with portions of the plate spaced outwardly from said openings therein, a spring carried by the casing within said recess for biasing the plate against said seats, said plate having terminal portions outwardly of said seats and defining handles by which the plate may be manually tilted about one or the other of said seats, and respective shoulders formed on said shafts and disposed adjacent said plate during operation of the mixer, said shoulders being selectively engaged by the plate when the latter is tilted about one or the other of said seats for the ejection of a beater from its respective spindle and in opposition to the spring biased retaining means associated with the spindle.

2,842,347
AERATING DEVICE
Glenn Q. Ripley, Jr., Girard Township, Erie County, Pa.
Application December 21, 1953, Serial No. 399,189
7 Claims. (Cl. 261—76)



1. An aerating device for liquids comprising a hollow body member having an inlet and an outlet adapted to be attached to a conduit, a partition in said hollow of said body having an orifice, a support on said body, a sphere shaped member resting and free to rotate on the upstream side of said support between said support and said partition in said body member on the outlet side of said partition, and apertures in the sides of said body member on the outlet side of said orifice whereby air is admitted and is dispersed in the liquid flowing through said body member.

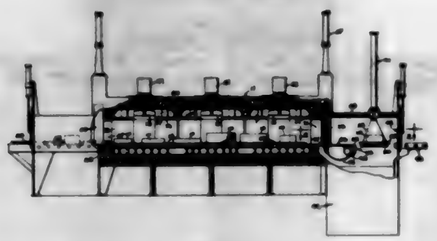
2,842,348
AUTOMATIC HUMIDIFIER
Arthur J. Geen, Elmhurst, Ill., assignor to Drais Enterprises, Inc., Addison, Ill., a corporation of Illinois
Application November 17, 1954, Serial No. 469,409
5 Claims. (Cl. 261—91)



1. An automatic humidifier for use in a warm air circulating system, comprising a receptacle having upstanding side walls adapted to be supported in the furnace plenum casing or the like where it is in the moving current of heated air, a feed line connecting the receptacle to a water supply line, means for controlling the flow

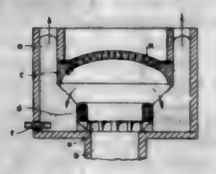
of water in said feed line to maintain a quantity of water at a constant level in said receptacle, a member mounted for free rotation on a vertical axis and in proximity to the water level in said receptacle, said member extending adjacent to the side walls of the receptacle and having blades arranged to rotate the same when air is directed against their surfaces, means for directing at least some of the heated air into the member and against the surfaces of the blades to rotate the same, said member having means to deflect the air outwardly and cause it to pass over exposed portions of the inner side wall surfaces of the receptacle as it leaves the member, and an agitator device mounted on said member and extending into the water for splashing some of the water onto said portions of the receptacle inner side wall surfaces and into the deflected air.

2,842,349
TRANSFER MECHANISM FOR CONDITIONING APPARATUS
Harold N. Ipsen, Rockford, Ill.
Application June 21, 1956, Serial No. 592,778
8 Claims. (Cl. 263—6)



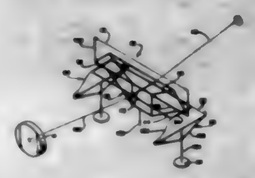
8. A conditioning apparatus having, in combination, means defining an elongated horizontal conditioning chamber having an outlet opening at one end thereof, a door selectively operable to close said opening, a horizontal guideway disposed within said chamber and extending out through said opening and beyond the chamber, a plurality of work supporting trays supported on said guideway in end to end abutting relation to be pushed endwise step by step along the guideway thereby to move the leading tray partially through said opening, each of said trays having a plurality of abutments spaced apart longitudinally of the tray, an endless conveyor having a run extending along a portion of said guideway outside of said chamber and adjacent said abutments, means for driving said conveyor to advance said run away from said opening, and a projection on said conveyor and engageable with one of said abutments to advance said leading tray out of said opening and away from the succeeding trays thereby to permit said door to close the opening.

2,842,350
RINGSHAFT-FURNACE
Max Berz, Kochel am See, Germany
Application October 12, 1954, Serial No. 461,870
6 Claims. (Cl. 263—29)



1. A ringshaft furnace for heating material by means of waste gases, comprising in combination a shaft forming a ring chamber for the material to be heated, a central interior admission channel for the waste gases to said chamber, a vault at the top of said admission channel serving as a baffle for deflecting said waste gases through the material to be heated, openings for the discharge of said material through said admission channel and so disposed that said gases enter the material above the discharge openings for the heated material, said ring chamber being formed by an upper annular member and a lower annular member, the latter having the smaller outer diameter, said members being spaced from each other forming therebetween, said admission channel for the waste gases, said discharge openings for the heated material being formed between the lower annular member and the bottom of the heating chamber.

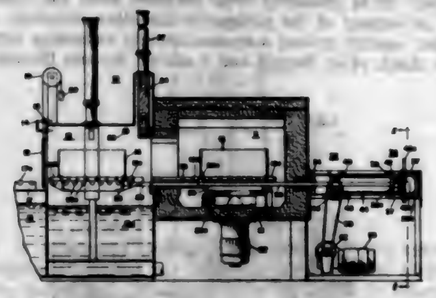
2,842,351
QUARTZ FIBER TORSION ULTRAMICROBALANCE
Jerome A. Redder, Berkeley, Calif.
Application August 11, 1955, Serial No. 527,834
5 Claims. (Cl. 265—54)



1. A torsion fiber microgram balance comprising a beam system, means for suspending said beam system including a torsion fiber, said beam system including a main beam and a secondary beam, said secondary beam being connected to said main beam and being laterally positioned with respect thereto, said secondary beam including means for supporting a pan, and a suspension fiber intermediate said last means and said main beam, means for twisting said torsion fiber comprising a shaft connected thereto, means forming a shoulder on said shaft, a friction disc movable on said shaft, a gear slidably mounted on said shaft, means urging said gear and said friction disc toward said shoulder and forming a frictional connection between said gear and said shoulder, and means for rotating said gear.

2. In a microgram balance comprising a torsion fiber, a main beam fixedly connected to said torsion fiber and extending laterally across said fiber, an end member adjacent each end of said main beam connected to said beam, said end members extending laterally of said main beam, means for suspending a load pan adjacent each end of said beam comprising a secondary beam at each of said ends of said main beam, each of said secondary beams comprising a truss-like member positioned beneath said main beam, a pair of suspension fibers connected to each of said truss-like members in spaced relationship and to the adjacent end members in spaced relationship, said suspension fibers suspending said truss-like members beneath said main beam, said truss-like members and their connected suspension fibers lying in a vertical plane generally parallel to the vertical plane containing said torsion fiber with the suspension fibers of each secondary beam being in non-parallel relation with respect to each other, said suspension fibers constituting the sole support for said secondary beams, the point of connection of said suspension fibers to said secondary beams being substantially below the points of connection of the latter fibers to said main beam, said suspension fibers being capable of free torsional deflection during operation of said balance.

2,842,352
APPARATUS FOR HANDLING WORK IN A FURNACE
Gustave M. Tauber, Philadelphia, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania
Application November 5, 1953, Serial No. 390,339
20 Claims. (Cl. 266—4)



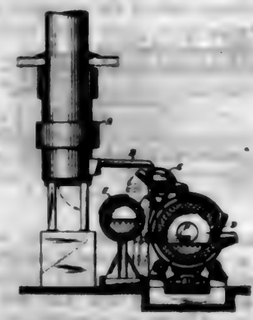
1. Transfer mechanism for moving work from one work station to another and return comprising reciprocable means operable through a predetermined cycle, coupling structure movable in timed relation with said reciprocable means, means effective on said reciprocable means between reciprocable movements thereof automatically to produce rotation of said coupling structure into coupling and decoupling relation with said work at predetermined points in said operating cycle of said reciprocable means, reversible driving means for operating said reciprocable means, and automatic program control means for controlling the operation of said reversible driving means and said coupling structure to produce in sequence coupling of said work by said coupling structure to said reciprocable means at said one station and transfer thereof to said other station and thereafter upon subsequent operation of said reversible driving means the coupling movements are controlled to produce return of the work to said one station by said reciprocable means and decoupling thereof from said reciprocable means to complete said predetermined cycle.

2,842,353
SLAG LADLE
Michael J. Priola, Duluth, Minn.
Application April 26, 1956, Serial No. 580,762
3 Claims. (Cl. 266—39)



1. A slag ladle having a sidewall converging toward the bottom to provide a generally conical inner surface, said ladle being open at the top and bottom, an outwardly extending marginal flange at the lower edge of said sidewall, a removable bottom wall having a diameter slightly greater than the diameter of the bottom opening and having a beveled edge, said bottom wall being disposed within said ladle with said beveled edge engaging the conical inner surface of said sidewall to prevent leakage of molten material from said ladle, a separate securing ring engaging said marginal flange and fastening means extending through said securing ring and into said bottom wall to clamp said beveled edge in tight engagement with said conical inner surface and to prevent removal of said bottom wall upon inverting said ladle.

2,842,354
SMELTING FURNACE SYSTEM
Heinrich Hölme, Gevelsberg, Westphalia, Germany, assignor to Stockey & Schmitz, Gevelsberg, Westphalia, Germany, a firm
Application October 19, 1955, Serial No. 541,451
Claims priority, application Germany October 22, 1954
28 Claims. (Cl. 266—40)



1. A melting furnace arrangement comprising, in combination, at least one smelting furnace; a guiding arrangement located adjacent said smelting furnace for receiving molten metal, said guiding arrangement being movable between a collecting position and a discharging position and having an outlet for discharging metal in said discharging position; a forehearth located underneath said guiding arrangement and being oscillatable about a horizontal axis between a discharging position, and a heating end position, said forehearth having a discharge opening for discharge in said discharging position and a circumferentially extending charging opening located underneath said outlet in at least one intermediate position of said forehearth; and means for oscillating said forehearth between said discharging position and said end position for bringing the molten metal therein into contact with different inner surface portions thereof, and for simultaneously moving said guiding arrangement to and from said discharging position in a selected sequence with the movement of said forehearth so that said guiding arrangement is in collecting position when said forehearth oscillates.

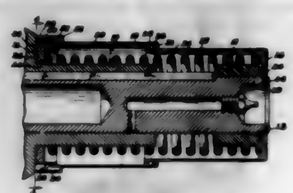
11. A smelting furnace system as set forth in claim 1, wherein the guiding arrangement incorporates a guide gutter arranged in peripheral direction on the forehearth and leading to the charging opening thereof and a guide member is arranged at the side of the forthhearth to guide the onflowing melting charge towards the charging opening, said guide member being movable and provided with means for swinging its mouth end into inoperative position as the charging opening of the forehearth passes through the upper range of its movement.

19. A smelting furnace system as set forth in claim 1, wherein a receiving member for collecting the melting charge delivered by a feed gutter from the smelting furnace has a pouring spout coordinated to the forehearth and a second pouring spout coordinated to a collecting vessel independent of the forehearth, said receiving member carrying a control roller which cooperates with a cam race on the forehearth.

2,842,355
SAFETY SPRING CARTRIDGE
Ernest U. Lang, Columbus, Ind., assignor, by mesne assignments, to The Reliance Electric and Engineering Company, Cleveland, Ohio, a corporation of Ohio
Application April 8, 1954, Serial No. 421,907
7 Claims. (Cl. 267—1)

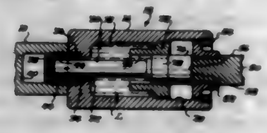
1. A spring cartridge comprising a first tubular member, a second tubular member telescopically associated

with said first tubular member and freely rotatable relative thereto about the common axis of said tubular members, cooperating lip means near one end of each of said tubular members for preventing axial separation of said tubular members in one direction, means providing a wall adjacent the other end of said first tubular member, a cap member, bayonet-slot locking means on said



cap member and the other end of said second tubular member, and a coiled compression spring received in said tubular members and confined between said wall and said cap member, said wall and said cap member each being formed with a substantially central bore therethrough substantially coaxial with said tubular members for mounting said cartridge on a shaft means.

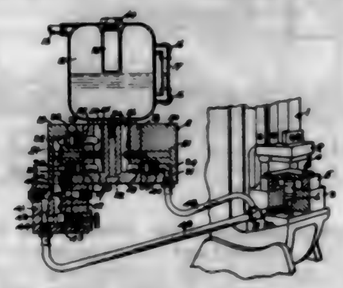
2,842,356
LIQUID SPRING
Paul H. Taylor, Grand Island, N. Y., assignor to Wales-Strippit Corporation, North Tonawanda, N. Y., a corporation of New York
Application April 14, 1955, Serial No. 501,273
6 Claims. (Cl. 267—1)



1. A double-acting liquid spring for absorbing both compression and tension forces between two spaced, relatively movable elements, said spring comprising a container having a chamber therein filled with a compressible liquid, a piston reciprocable in said chamber and adapted on movement in one direction in said chamber to compress said liquid, a piston rod secured to said piston and projecting from said container through one end thereof, lost-motion connecting means connecting the projecting end of said piston rod to one of said elements, lost-motion connecting means connecting said container at its opposite end to the other element, said one element being adapted to move relative to said piston rod into abutting relation with said container when said two elements move toward one another, and said other element being adapted to move into abutting engagement with said piston upon said movement of said two elements toward one another to force said piston into said container to compress said liquid in said chamber.

2,842,357
CIRCULATING SYSTEMS FOR HYDRAULIC LIQUID BETWEEN STORAGE TANKS AND CYLINDERS
Floyd M. Williamson, Detroit, Mich.
Application March 4, 1957, Serial No. 643,635
6 Claims. (Cl. 267—1)

1. A circulating system for hydraulic liquid comprising a storage tank having liquid therein under relatively low pressure, said tank having openings therein, a cylinder having a plunger therein, a conduit connected to each opening, the opposite extremities of the conduits being connected to one and the same extremity of the cylinder, a spring closed check valve in one conduit past which liquid is adapted to flow from the tank to the cylinder to move the plunger therein in one direction, a check valve in the other conduit past which liquid flowing to the tank is adapted to travel, a relief valve interposed in the other conduit between the check valve therein and the cylinder, said relief valve being adapted to be opened by liquid expelled under relatively high pressure from the cylinder by movement of the plunger in the other direction, said other conduit having a by-pass therein extending around the check valve therein and a second by-pass therein ex-



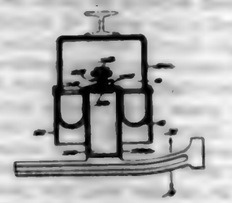
tending around the relief valve through both of which liquid flowing through said other conduit to the cylinder is adapted to pass, a spring closed check valve in the first named by-pass having a stronger spring therein than in the first named spring closed check valve whereby liquid is adapted to flow primarily to the cylinder from the tank through the first named conduit and a supplementary flow is adapted to pass from the tank to the cylinder through said other conduit and its by-passes, and a check valve in said second by-pass to prevent the passage of liquid therethrough towards the tank.

2,842,358
FLUID SHOCK ABSORBER SPRINGING ASSEMBLY
Pierluigi Nardi, Milan, Italy, assignor to Societa Applicazioni Gomma Antivibranti "Saga" S. p. A., Milan, Italy, a corporation of Italy
Application October 29, 1952, Serial No. 317,401
Claims priority, application Italy November 3, 1951
7 Claims. (Cl. 267—35)



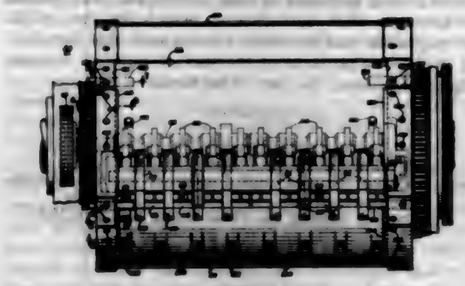
1. A resilient shock absorber, particularly for vehicles, comprising a substantially cylindrical body made of elastic material and being adapted to be loaded in the axial direction by a substantially constant static load produced substantially by the weight of the vehicle when the vehicle is not moving and by additional variable dynamic loads produced when the vehicle is in motion, substantially circumferential ribs and grooves between said ribs on the longitudinal outer surface of said body, reinforcing means made of relatively inexpansible material embedded in said ribs for preventing deformation of said body in the radial direction, a cavity in said body, a fluid filling said cavity, and means communicating with said cavity for maintaining said fluid under substantially constant pressure to counterbalance the static load acting on said body, the additional dynamic load being yieldingly supported by the material of which said body is made.

2,842,359
PNEUMATIC CUSHION FOR MOTOR VEHICLES
Adolf Christian Auer, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg, A. G., Nurnberg, Germany
Application October 10, 1955, Serial No. 539,680
Claims priority, application Germany October 14, 1954
2 Claims. (Cl. 267—65)



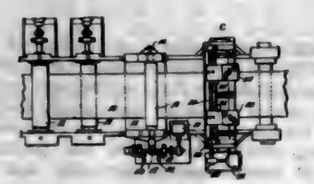
1. A pneumatic cushion for a vehicle spring support comprising a lower air chamber compartment adapted to be seated upon a vehicle axle, an upper air chamber housing adapted to be secured to a vehicle frame and inverted over said compartment and having its lower edge laterally spaced from the upper edge of said compartment, an annular diaphragm of U-shape cross-section having its outer edge secured to said housing lower edge and its inner edge secured to said compartment upper edge, a cover on said compartment, said housing lower edge, said cover, and said compartment upper edge all lying in substantially the same horizontal plane, and air choke valve means mounted on said cover for restricting air flow through said cover upon expansion of the pneumatic cushion.

2,842,360
CYLINDER WITH CHOKE RELIEVING MEANS FOR PRINTING PRESS DELIVERY MECHANISM
Curtis S. Crafts, Oak Park, Ill., assignor to Miehle-Goss-Dexter, Incorporated, Wilmington, Del., a corporation of Delaware
Application June 29, 1954, Serial No. 440,048
7 Claims. (Cl. 270—58)



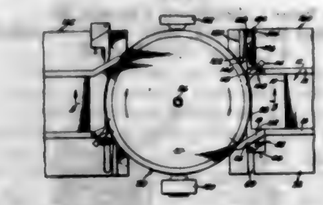
1. In a printing press delivery mechanism having a series of cylinders for transferring severed products, a product-handling cylinder which comprises a rotatably mounted cylinder body, a series of product-handling elements longitudinally spaced along the surface of the cylinder and mounted for movement between a product-engaging and a product-releasing position, means for operating said product-handling elements in synchronism with the rotation of the cylinder, product supporting means arranged longitudinally adjacent said product-handling elements and having a curved surface for defining the outer surface of said cylinder, said means being pivoted at its leading edge about a longitudinal axis and free of obstruction so as to be depressible inwardly of the cylinder through a range adequate to provide clearance for choked products, stops for defining the outward limit of movement of said means, and biasing means for biasing said supporting means outwardly against said stops, said biasing means being so constructed and arranged and said product-handling cylinder being so spaced with respect to the adjacent cylinder that the product supporting means remain solidly seated on its stops for all normal operation and is depressed inwardly only upon occurrence of a choking condition.

2,842,361
AUTOMATIC STRIP ALIGNMENT CONTROL
Harold R. Miller, Bon-Aire, Pa., assignor to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio
Application February 13, 1956, Serial No. 565,085
6 Claims. (Cl. 271—2.6)



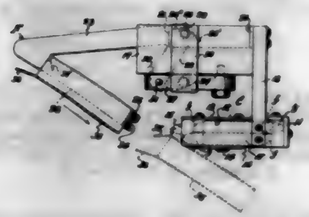
1. In combination, in a strip line, a pair of aligning rolls between which the strip passes, means to skew said aligning rolls to cause the strip to move laterally, laterally adjustable strip edge sensing means to sense lateral movement of the strip and operatively connected to said skewing means to skew said rolls to cause said strip to return to proper alignment, adjusting means for adjusting the distance between said strip edge sensing means, and means to sense the passage of wider and narrower strip and operatively connected to said adjusting means to move said strip edge sensing means to proper sensing position.

2,842,362
CARD PROCESSING APPARATUS
Robert M. Hayes, Los Angeles, and Alfred M. Nelson, Redondo Beach, Calif., assignors to The Magnavox Company, Los Angeles, Calif., a corporation of Delaware
Application October 3, 1955, Serial No. 538,111
19 Claims. (Cl. 271—3)



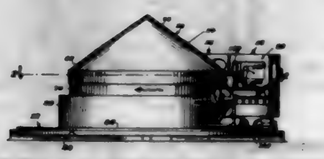
1. In combination for use with a plurality of cards, means including a drum rotatable in a particular direction for moving the cards with the drum, a card holder disposed in contiguous relationship to the drum for maintaining the cards in stacked relationship, movable means associated with the drum and the card holder in a first position for obtaining an individual withdrawal of the cards from the stack for movement with the drum in the order of their disposition in the stack, and movable means associated with the drum and the stack in a first position for obtaining an individual transfer of the cards from the drum to the stack for disposition in the stack in the order of their movement with the drum.

2,842,363
APPARATUS FOR LOADING THE SUPPLY MAGAZINE OF A PACKAGING MACHINE WITH COLLAPSED CARTONS
William B. Leavens, Jr., West Orange, N. J.
Application October 11, 1956, Serial No. 615,273
7 Claims. (Cl. 271—61)



1. Apparatus for loading a multiplicity of collapsed folded cartons into the supply magazine of a carton opening, filling and closing or like machine, said cartons being stacked in column formation and initially enclosed in a removable holding clip, said apparatus comprising a carton receiving means aligned with said machine supply magazine in communication therewith, said receiving means having a forwardly open entrance way through which the carton filled holding clip can be entered thereinto, a carton column retainer and holding clip receiving frame, means to pivotally support said frame for swinging movement from an open position to a closed position substantially aligning a portion thereof in opposition to the entrance way of said receiving means so as to engage the free end of said frame portion with the carton column in the holding clip deposited in said receiving means, whereby to restrain accompanying movement of said carton column while the holding clip is manually withdrawn therefrom and onto said frame portion, the withdrawn empty holding clip being removable from said frame portion when the frame is out swung to its open position, releasable latching means cooperative with said frame and adapted to releasably detain said frame in its operative closed position relative to the carton receiving means, and spring means to yieldably urge said frame to out swung position when said latching means is released.

2,842,364
AMUSEMENT APPARATUS OF THE CAROUSEL TYPE
Peter J. Hutchison, Chicago, Ill.
Application February 8, 1957, Serial No. 638,981
4 Claims. (Cl. 272—43)



1. Amusement apparatus of the carousel type comprising a planar support base juxtapositionable on a horizontal support surface, a support shaft extending vertically from the upper surface of the base, an annular wall extending vertically from the base in circumposed equidistant relationship from the longitudinal axis of said shaft, a rotary carriage journaled on said support shaft for horizontal rotation thereon, a vehicle assembly secured to the carriage and rotatable on the base exteriorly of the annular wall in a fixed circular path thereabout, power drive means on said carriage, said power drive means including friction drive means operatively engaging the inner periphery of the annular wall for rotating the carriage and vehicle assembly, and power drive control means on the vehicle assembly operatively connected to said power drive means for controlling rotation of the carriage from the vehicle assembly, said power drive means comprising an electric motor, a source of electric current, slip ring means interposed between the shaft and carriage operatively connected to the source of electric current and to said motor, said electric motor including a power output shaft, power transmitting means operatively connected to the power output shaft and said friction drive means, said friction drive means comprising a horizontally pivotal support lever intermediately pivoted on the carriage, a horizontally rotatable drive wheel mounted on one end of the support lever peripherally engageable on the inner periphery of the annular wall, said power drive control means comprising force transmitting means operatively connected to the other end of the lever for controlling pivotal movement of said lever.

2,842,365
PHYSICAL EXERCISER
Thomas F. Kelley, New York, N. Y.
Application February 7, 1956, Serial No. 564,035
3 Claims. (Cl. 272—69)



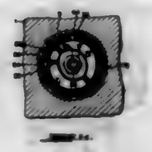
1. An exerciser comprising a base structure having a treading surface of substantially the length of a step of a user, said surface being inclined upwardly from the bottom toward each end to form a front and rear portion, and having a slick surface over which the feet of the user may slide, and the surface being such that lines normal to the two portions of the surface intersect substantially at the waist of the user of the device.

2,842,366
COMBINATION BALL AND CORD
James A. Fust, Helena, Ark., assignor to Hit-A-Home, Inc., Hinsdale, Ill., a corporation of Illinois
Application August 16, 1954, Serial No. 450,100
3 Claims. (Cl. 273—26)



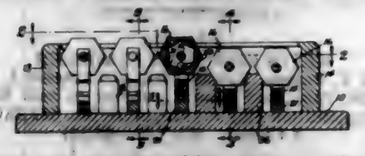
1. A ball and cord combination comprising a ball having a solid core, a cover for said core, said ball having a hole therein which extends diametrically through said core and through one side of said cover, said hole being enlarged at one end of said core opposite the end of said hole adjacent the hole in said cover, said cord being disposed in said hole, and an enlargement on said cord disposed in the enlarged end of said hole and wholly within the normal periphery of the ball to prevent disassembly of said cord from said ball.

2,842,367
BOWLING BALL
Glenn Keith, Alexandria, Va.
Application January 16, 1957, Serial No. 634,486
13 Claims. (Cl. 273—63)



1. In a bowling ball having a plurality of digital openings each of substantially circular cross-sectional shape, means for adjusting the effective position of at least one of the openings comprising a liner having a plurality of compartments arranged about the inner circumference of the opening and provided with resilient inner walls, and means for separately inflating said compartments to selectively distend the inner walls thereof.

2,842,368
GAME APPARATUS
Myron H. Williams, Hayward, Wis.
Application November 2, 1956, Serial No. 619,972
1 Claim. (Cl. 273—143)



A game apparatus comprising a base, a pair of walls arranged in parallel spaced relation rising from said base adjacent opposite sides thereof, a plurality of upstanding U-shaped support members positioned transversely of and between said walls, each support member having each leg connected to the adjacent wall for movement between upward and downward portions, a game piece having a plurality of indicia bearing faces extending about its periphery positioned between the legs of each of said members so that a portion of its periphery is above the upper ends of said walls when each of said members is in its upper position and below said ends of said walls when each of said members is in its downward position, said game pieces being connected to the legs of the adjacent support member for upward and downward movement therewith and for free rotation about a horizontal axis transverse to said walls, means carried by said base and operable to effect the movement of each of said members, and means carried on said base and operable to engage each of said game pieces when the adjacent support member is in the downward position to prevent rotation of said game piece.

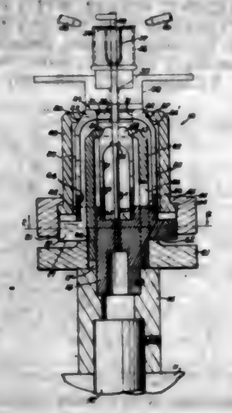
2,842,369
GOLF CLUB
James V. T. East, Chicago, Ill., assignor, by mesne assignments, to National Die Casting Company, Chicago, Ill., a corporation of Illinois
Application November 29, 1954, Serial No. 471,579
7 Claims. (Cl. 273—164)

1. In a golf club having a head formed with a striking face of three-dimensional convex shape at the forward portion thereof and a top surface of three-dimensional convex shape, and a shaft attached to said head at the heel portion thereof and extending in angular relation to said head, the improvement comprising means defining on said head a line extending along the intersection of the face and a first plane passing through the preferred point



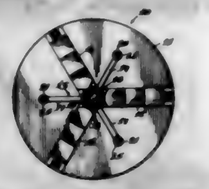
of initial contact of the face with a ball and perpendicular to a second plane tangent to the face at said preferred point of initial contact, which planes being vertical when the club is in initial stance position, said line extending at least from said preferred point of initial contact upwardly along the striking face and onto the adjacent portion of the top surface of the head.

2,842,370
HOLDING FIXTURE
Samuel Kube, Allentown, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application November 29, 1954, Serial No. 471,774
3 Claims. (Cl. 279—46)



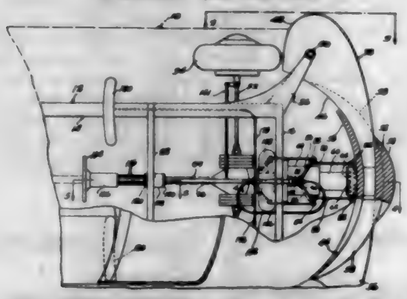
1. A fixture for holding an elongate inner part centrally in a centrally apertured outer part having a reduced centrally positioned lower portion to be gripped, the fixture comprising a body having a centerline, a first cylindrical element disposed concentric with the centerline, fixed at one end to the body and having resilient jaws at the other end adapted to support the outer part and when normally open to receive the reduced portion, a first actuator movable relative to the body and the first cylindrical element to close the jaws on the reduced portion and firmly hold the outer part with its aperture concentric with the centerline, a second cylindrical element disposed in the first cylindrical element concentric with the centerline, fixed at one end to the body and having resilient jaws at the other end to receive the inner part when moved through the aperture of the outer part, and a second actuator extending into the first element and movable relative to the body and the second cylindrical element to close the resilient jaws of the second element on the inner part to locate and hold it centrally in the aperture of the gripped outer part.

2,842,371
WORK HOLDING DEVICE
Gerard M. Kersten, Chicago, Ill.
Application May 21, 1957, Serial No. 660,646
8 Claims. (Cl. 279—123)



1. A work holding device for supporting relatively thin workpieces to be clamped in a standard chuck having a plurality of jaws movable along predetermined paths to clamp a workpiece, comprising: a work supporting member adapted to be positioned against a faceplate of the chuck out of the paths of movement of the chuck jaws and having a work supporting surface; and means abuttable against the faceplate at at least three points for adjusting said member relative to the faceplate of the chuck to dispose said work supporting surface parallel to the faceplate of the chuck whereupon a relatively thin workpiece held thereagainst is properly aligned to be clamped in the chuck jaws, said means including magnetic members engageable with the faceplate whereby the work supporting member may be shifted laterally of the faceplate.

2,842,372
SAFETY STEERING WHEEL WITH INFLATABLE CUSHION FOR VEHICLES
Pasquale I. D'Antini, Toronto, Ontario, Canada
Application April 19, 1957, Serial No. 653,857
9 Claims. (Cl. 280—29)



5. The combination, with a vehicle chassis, of a shock-absorption apparatus comprising: bumper means mounted on the chassis for yielding movement to a back position on receiving the force of impact in a vehicle collision; a steering column mounted on the chassis for movement to a retracted position longitudinally of the chassis away from the vehicle driver; means connected between the bumper means and steering column, translating movement of the bumper means to said back position into movement of the steering column to its retracted position; a series of normally deflated, pneumatic cushions arranged to protect the occupants of the vehicle; and means responding to said movement of the bumper means to a back position adapted for inflating said cushions.

2,842,373
STAND
Robert J. Duerr, South Bend, Ind.
Application April 26, 1956, Serial No. 580,884
2 Claims. (Cl. 280—47.19)

2. An equipment stand and cart, comprising vertical members spaced from one another forming a frame, a bottom panel and four vertical side panels forming a compartment attached to said members at the lower portion thereof, a member connecting said vertical members at the top thereof and forming a handle, a platform pivotally connected to each of said vertical members above said compartment and below said last mentioned member and having a raised horizontal position and a lowered vertical position on the same side of said vertical



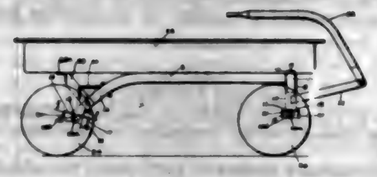
members as said compartment, a member positioned below said platform for releasably holding said platform in its horizontal position including a means for varying the angularity of said platform, a pair of wheels, an axle for said wheels connected to said vertical members, and a single leg connected to the bottom of said compartment forming a tripod with said wheels for placing said platform in a substantially level position when said platform is in its raised position.

2,842,374
REVOLVING SEAT STROLLER
Richard T. Benson, Kansas City, and Edward J. Boysel, Sedalia, Mo.; said Benson assignor to said Boysel
Application May 3, 1956, Serial No. 582,360
5 Claims. (Cl. 280—47.39)



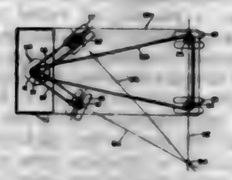
1. In a vehicle of the character described, a wheeled frame, a platform mounted on said frame, a seat, and means for mounting said seat in upwardly spaced relation to said platform to swivel about an axis centrally located relative to said platform, comprising a dome-like portion on said platform and extending centrally upwardly therefrom, said dome-like portion having a central opening in the top thereof, an upstanding tubular socket member mounted on said frame and extending upwardly through said opening in said dome-like portion, said tubular member closely fitting in said opening and extending upwardly beyond said dome-like portion, means closing the bottom end of said socket, a pivot pin mounted on said seat and extending downwardly therefrom into said socket into engagement with said means for closing the bottom end of said socket.

2,842,375
TORSION SPRING SUSPENSION FOR FRAME OF CHILDREN'S VEHICLES
William J. Nightingale, Chicago, Ill., assignor of one-half to George C. Nightingale and one-half to Richard H. Nightingale
Application December 16, 1954, Serial No. 475,699
6 Claims. (Cl. 280—87.03)



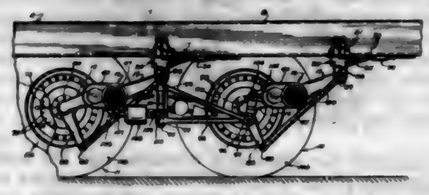
1. In a children's vehicle, a chassis comprising a central longitudinally extending beam member having a straight portion with a coupling means at its front end adapted for attachment to rolling means and having a downwardly sloping rear portion, a transverse torsion spring support on the rear end of said beam, said support having a top wall, end walls and side walls, said support having two torsion bars anchored against rotation at one end in opposite end walls and adapted for coupling relation at the other ends with Z-shaped axle members.

2,842,376
WHEEL STEERING MECHANISM FOR CAMERA DOLLIES AND THE LIKE
Steve Krilanovich, North Hollywood, Calif.
Application August 13, 1954, Serial No. 449,747
16 Claims. (Cl. 280—91)



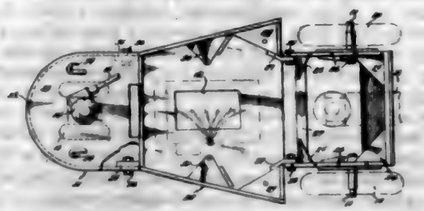
10. A dolly for motion picture cameras, comprising an elongated platform, four supporting wheels mounted two at each end of said platform for rotation about horizontal axes and for turning about vertical axes, a generally vertically disposed steering shaft journaled at one end of said platform and having handle bars at its upper end, a cam mounted horizontally around said steering shaft and rotatable independently thereof, said cam being provided with a symmetrical U-shaped cam slot the ends of which are closer to the axis of said steering shaft than is the base thereof, a cam follower mounted in said cam slot and connected to a crank on said steering shaft, three independently rotatable sleeves mounted concentrically around said steering shaft, the first of said sleeves being connected to said cam and to both wheels at one end of said platform to turn said wheels about said vertical axes, the second and third of said sleeves being independently connected to the wheels at the other end of said platform to turn said wheels about said vertical axes, a toggle linkage connecting said cam follower and said second and third sleeves, and clutch means operable when in a first position to lock said cam against rotation, and when in a second position to drive said first sleeve and said cam with said steering shaft.

2,842,377
VEHICLE SUSPENSION HAVING DIFFERENTIALLY CONNECTED WHEELS
Adolph Ronning, Minneapolis, Minn.
Application January 19, 1955, Serial No. 482,831
20 Claims. (Cl. 280—104.5)



1. A wheel suspension for a vehicle frame, comprising a forwardly and rearwardly extending member having a generally horizontal rear portion and an upwardly and forwardly extending forward portion, means pivoting the forward end of the member to the vehicle frame on a generally transverse and horizontal axis and said forward portion angling downwardly and rearwardly from said pivot, cranked axles extending rearwardly from each side of the member and having their forward ends journaled on transverse axes in a common horizontal plane on the horizontal rear end portion of the member, ground wheels supporting the rear ends of the axles, and means differentially connecting the axles for opposite upward and downward movements about their forward journaled ends.

2,842,378
SECTIONAL CRANE BODY
Glenn W. Way, Delaware, Ohio
Application May 29, 1953, Serial No. 358,466
1 Claim. (Cl. 280—106)

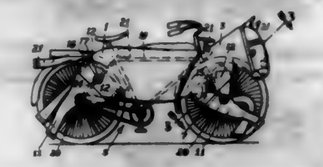


A frameless body for a mobile crane, comprising a forward section, an aft section and an intermediate section, means for detachably securing said sections in end to end relation, each of said sections consisting of side and top plates, rigidly connected at adjoining edges, stub axles mounted directly and solely in the side plates of said forward section, means for mounting a boom on the top plate of said forward section, substantially directly above said axles, a steered wheel mounting depending from and supported directly and solely by the top plate of said aft section, and motor supporting gussets of heavy gauge metal carried by respective side plates of said intermediate section and directed horizontally inwardly in opposed sets.

2,842,379
ANIMAL-SHAPED BICYCLE ATTACHMENTS
Joseph Campo, Lindenhurst, N. Y.
Application April 26, 1955, Serial No. 503,919
3 Claims. (Cl. 280—1.204)

1. A bicycle attachment comprising two pairs of lightweight flat members of which the first two have the outline of the front portion of an animal body and the second two have the outline of the main and rear portions of an animal body, braces connecting the upper portions of each pair of said flat members to each other,

parallel guide members on the inner extremities of said flat members, and two pairs of plates representing animal legs being secured to the wheel axles of a bicycle and having parallel edge portions which are slidable in said



guide members for adjustment purposes, said flat members and said plates being constructed and arranged for covering and camouflaging both sides of the major portions of a bicycle.

2,842,380
DOUBLE LOCK TRAILER COUPLING
Dewey S. Weiss, Portland, Oreg.
Application April 16, 1956, Serial No. 578,391
6 Claims. (Cl. 280—504)



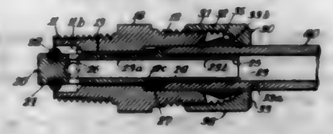
1. A trailer coupling comprising a body, a coupling member pivoted on said body for movement about a horizontal axis from a closed position to an open position, a latch for locking said coupling member in closed position, said latch being pivoted on said body for movement in a direction to release said coupling member, a fixed stop element on said body member having a stop surface extending at right angles to said direction and engaging a similar stop surface on said latch for positively preventing said latch from pivoting in said direction under the influence of a force imposed thereon in said direction, said latch being mounted on said body for bodily shifting movement in a direction parallel to its pivotal axis to free said latch from said stop element, and means urging said latch against movement in said direction parallel to its pivotal axis.

2,842,381
VALVED CONNECTOR
George E. Franck, Riverside, Ill., assignor to The Imperial Brass Manufacturing Company, a corporation of Illinois
Application February 7, 1955, Serial No. 486,347
2 Claims. (Cl. 284—18)



1. A valved connector for ready attachment of a fluid pressure supply line to a device having a tubular connection projection, comprising: a body member having a passage completely therethrough; means for connecting the end of a supply tube to one end of the body member in fluid conductive relationship; a tubular sleeve secured to the body member within the passage and having an end projecting outwardly from the opposite end of the body member and an inner end forming a valve seat; a valve within the body member passage having a tubular stem slidable in the sleeve and having a laterally extending passage through the wall thereof and an outer end, said valve further having a sealing member adapted to abut the valve seat to close the passage, and yielding means urging the valve into seated position; a single yieldable, annular member concentrically mounted around said outer end of the sleeve; and a connecting member adapted to be secured to a device and urge said annular member forcibly against said sleeve and the device to seal and secure said device to said connector and retain positionally a tubular connection projection of the device inserted into said sleeve against said valve stem end to hold the valve open against the action of the yielding means.

2,842,382
VALVED CONNECTOR
George E. Franck, Riverside, Ill., assignor to The Imperial Brass Manufacturing Company, a corporation of Illinois
Application February 7, 1955, Serial No. 486,348
3 Claims. (Cl. 284—18)



1. A valved connector comprising, in combination: an elongated body having a first recess opening outwardly through one end of the body, a second recess opening outwardly through the other end of the body and an axial bore connecting the recesses, the bore having a diameter less than each recess to form a shoulder at the inner end of each recess, the shoulder at the inner end of said first recess forming a valve seat; a valve member having a head disposed in said first recess and adapted to cooperate with the shoulder at the inner end of said first recess, and a tubular valve stem extending slidably through the bore and into said second recess, an annular external boss on said valve stem spaced outwardly of the bottom of said second recess and a plurality of radial ports opening through said stem immediately adjacent said valve head, a compression spring interposed between said annular boss and the said second recess shoulder yieldably urging said valve member in one longitudinal direction to a closed position; and means for effecting a fluid-tight seal between said body and a tube end inserted into said second recess coaxially of the valve stem to bear against said boss on the valve stem in opposition to said spring to urge said valve member in an opposite longitudinal direction to an opened position, said means comprising an annular sleeve resiliently compressible into gripping and sealing engagement with the tube and sealing engagement with said body member, and a nut means having threaded engagement with said body at said other end concentrically of the second recess for compressing engagement with said sleeve.

2,842,383
SECTIONAL GASKET RING FOR BELL JOINT CLAMP
Patterson D. Merrill, South Bend, Ind., assignor to M. B. Skinner Company, South Bend, Ind., a corporation of Indiana
Application February 3, 1953, Serial No. 334,820
3 Claims. (Cl. 285—413)



1. A gasket ring for a pipe leak clamp, comprising a plurality of similar arcuate sections, each section including an end wall engageable with the end wall of an adjacent section and interrupted by an elongated tube-forming end portion of substantially semi-circular cross-sectional shape whose axis is substantially parallel to the axis of said ring and which projects from both sides of said ring section, a bolt including a shank portion and a head having an annular groove in its inner face, and a nut threaded on said shank and including a circular skirt portion projecting therefrom, the opposite ends of the tube-forming portions of adjacent abutting ring sections being of dimensions to be received and confined in said groove and skirt portion, respectively, the outer surfaces of the ends of said tube-forming portions being tapered and cooperating with the tube-forming portion of the adjacent ring section to define substantially frusto conical surfaces respectively tapering in opposite directions with their minimum dimensions outermost, said groove and skirt portion each having substantially frusto conical surfaces substantially complementally engaging said first named frusto conical surfaces, the frusto conical shape of said tube forming portions being interrupted by substantially flat surfaces adjacent the parting plane between adjacent ring sections.

2,842,384
BOX WITH INTERCONNECTED NON-ROTATING HUB
Kenneth H. Foskett, Manchester, N. H., assignor to Anchor Manufacturing Company, Boston, Mass., a corporation of Massachusetts
Application May 23, 1955, Serial No. 510,079
4 Claims. (Cl. 285—283)



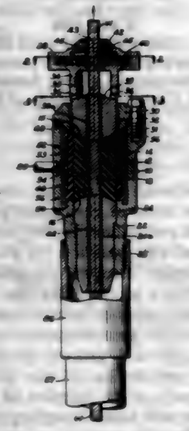
1. The combination of a box having an opening in one wall, a screw-threaded hub having at one end a narrow internal flange, the outer face of the flange seating on the outside of the box around the opening, the inside diameter of the flange approximating the diameter of the opening so that the inner edges of the flange and opening register approximately, the edge of the box around said opening having radial notches in its periphery and said flange having lugs projecting lengthwise of the hub into said notches from the inner edge of said face, and in said opening a ring having at its inner end an external flange overlapping the edge of said internal flange and at its outer end a second external flange overlapping said edge of the box, thereby to anchor the hub to the box so that the hub cannot rotate relatively to the box and to present around said opening a smooth surface whose internal diameter is only slightly smaller than that of the hub.

2,842,385
BAND CLAMP WITH SLIP-BAND CONSTRICTOR MEANS
Robert A. Webster, Los Angeles, Albert Dale Hermann, Encino, and Theodore A. Woolsey, Pasadena, Calif., assignors, by mesne assignments, to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan
Application March 24, 1953, Serial No. 344,268
5 Claims. (Cl. 285—408)



1. In a band clamp for clamping together a pair of flanges on the ends of aligned tubes: a constrictor band having jaw segments each including a central portion of truncated V-section having a crown portion at its periphery, buttress walls extending generally radially outwardly from the inner extremities of said V-section central portion, and peripheral flanges extending toward one another from the outer extremities of said buttress walls and overlapping and lying against said crown; and tabs struck outwardly from said peripheral flanges and extending toward one another in outwardly-spaced relation to said crown to provide therewith slide-ways in which the margins of said band are slidably received and retained to provide a floating connection between said band and jaw segments.

2,842,386
SPRAY ELIMINATOR FOR WIRE LINE STRIPPERS
John Regan, Palos Verdes Estates, Calif., assignor to Regan Forge and Engineering Co., San Pedro, Calif., a corporation of California
Application May 24, 1954, Serial No. 431,831
6 Claims. (Cl. 286—16)

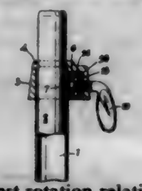


1. In combination in line-stripping apparatus: a housing having a vertical longitudinal bore extending therethrough; a compressible stripper disposed in said bore and having a passage for a line extending axially therethrough, said compressible stripper having a helical cut radially therethrough and from end to end, the opposite ends of said compressible stripper being concave; a convex packing member in the inner end of said bore and having a convex end engaged in the adjacent concave end of said compressible stripper; a line-receiving member carried on the upper end of said housing and having an integral packing nut at its lower end disposed in the upper end of said housing, its lower end being convex and entering the adjacent concave end of said compressible stripper, and an apertured yieldable wiper provided on the upper end of said receiving member to wipe a line passing through said receiving member.

2,842,387
LOCKING OR CLAMPING DEVICES FOR RELATIVELY SLIDABLE OR ROTATABLE ELEMENTS
Clifford Anthony Della-Porta, South Wigston, England, assignor to The Premier Drum Company Limited, South Wigston, England, a British company
Application November 27, 1956, Serial No. 624,619
Claims priority, application Great Britain January 2, 1956
3 Claims. (Cl. 287—58)

1. A locking or clamping device comprising two relatively slidable members disposed one within the other, a housing secured fixedly to the outer one of said members,

a clamping element guided slidably in said housing and at one end passing through the outer member and opposed to and adapted to be pressed against the inner member for locking the inner and outer members together, a nut loose in the other end of said clamping



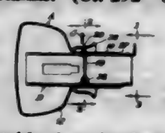
element and held against rotation relatively to said clamping element and opposed to the interior of said housing, a screw threaded through said nut and abutting at one end against the clamping element and at its other end passing loosely through said housing and formed with externally accessible means for rotating it.

2,842,388
RAILROAD COMPRESSED AIR HOSE GASKET
Eugene J. Holdeman, Freeport, Ill.
Application February 3, 1956, Serial No. 563,313
1 Claim. (Cl. 285—23)



A gasket for railroad car air hose coupling heads comprising an annular body of resiliently compressible material solidly formed and approximately square when viewed in cross section at any location on its circumference, a continuous, outwardly directed mounting flange formed on the outer periphery of the body, the top surface of the body being formed with a continuous, annular groove the width of which is approximately equal to the maximum depth thereof, said groove lying intermediate the outer and inner peripheries of the body to reduce the thickness of the body at the location of the groove, thereby to define outer and inner coupling rings separated by the groove and flexible relative to one another through the provision of the groove, the width of the groove being substantially less than the distance between each side edge of the groove and the corresponding adjacent edge of the gasket body measured along a line extending radially of the gasket body, the outer ring having a top surface in a plane slightly above that of the top surface of the inner ring, said planes being parallel and being disposed normally to the axis of the body.

2,842,389
KNOB MOUNTING CONSTRUCTION
Vincent Muttart, Downey, Calif., assignor to Independent Lock Company, Fitchburg, Mass., a corporation of Massachusetts
Application November 29, 1956, Serial No. 625,856
3 Claims. (Cl. 292—352)



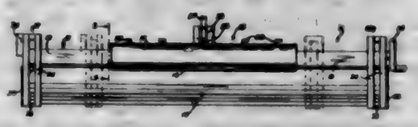
1. In a demountable door knob and spindle assembly wherein a tubular shank member is removably locked to a tubular spindle member by the engagement of a spring biased latch radially extending from one of said members into a slot forming a keeper on another of the members, cam means forming a leading edge for said latch in sliding said knob member on said spindle member, said cam means cooperating upon the axial coupling of the knob shank member over the spindle member to engage an edge of one member with the cam of the other member, thereby to depress said latch member to the shank releasing position thereof, said keeper having a rearwardly disposed branch slot through which said cam means extends in the knob locking position of said latch member said keeper being defined by transverse shoulders which form, in the knob locking position of said latch member, positive stops abutting the forward and rearward faces of the projected latch member and the shoulder defining the rearward extremity of said branch slot lies in non-abutting relation to said cam means.

2,842,390
HANDLING TONG FOR DRUMS
Charles A. Stine, Port Hueneme, Calif.
Application July 7, 1953, Serial No. 366,640
2 Claims. (Cl. 294—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A handling tong for up-ending a drum, comprising a bar designed to extend across one end of the drum and having offset end portions extending a relatively short distance toward the other end of the drum, an arm rigidly secured to each of the end portions and extending downwardly and inwardly therefrom, a pad on the end of each of said arms having spaced faces canted relative to each other to engage the cylindrical surface of the drum below the midsection thereof, and an outwardly extending handle rigidly secured to each of said arms.

2,842,391
GRAPPLES
Richard C. Hermann, Belleville, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application April 13, 1956, Serial No. 578,125
2 Claims. (Cl. 294—67)



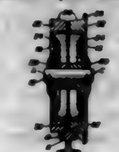
1. A grapple comprising a centrally supported elongate main frame including pairs of equally spaced back-to-back angular members forming end-to-end parallel guide ways between the backs of the members and end-to-end out-of-plane guide surfaces on respective upper and lower portions of the pairs of members, auxiliary frames formed of pairs of elongate Z-shaped elements positioned with central portions thereof longitudinally movable in their respective guide ways from opposing ends thereof and top and bottom lateral portions thereof riding respectively upon and beneath their out-of-plane upper and lower guide surfaces, the Z-shaped elements of the auxiliary frames having inner and outer ends, load supporting heads mounted on the outer ends of the elements, the inner ends of the elements being disposed in the main frame equal distances from the central support thereof, and means supported by the main and auxiliary frames to maintain the frames relatively positioned and actuable to move the auxiliary frames like distances toward each other, until the aligned Z-shaped members thereof meet in alignment with the central support, and away from each other predetermined distances to receive loads of different lengths in the heads.

2,842,392
PARACHUTE DISCONNECTING DEVICE
Frederick L. Hanke, Oxnard, Calif.
Application August 29, 1955, Serial No. 531,234
4 Claims. (Cl. 294—83)



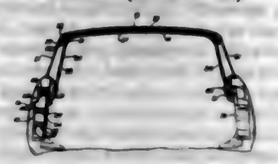
1. A device for separably connecting a parachute and its load comprising: a piston connected to said parachute, said piston fitting within a cylinder, a clevis connected to said cylinder, a clevis pin insertable into said clevis and supporting said load, and a safety pin mounted upon said piston locking said clevis pin into said clevis, said safety pin being withdrawn upon relative movement of said piston and cylinder.

2,842,393
FLANGED WHEELS
Edwin T. Lorig, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application May 4, 1955, Serial No. 506,027
9 Claims. (Cl. 295—1)



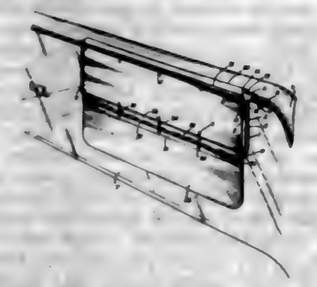
1. A wheel assembly for a vehicle adapted to travel on parallel rails comprising a first pair of opposed wheels having their transverse centers spaced apart a distance substantially equal to the distance between the centers of the rails, a second pair of opposed wheels arranged in tandem with said first pair of wheels and having their transverse centers spaced apart a distance substantially equal to the distance between the centers of the rails, the axis of rotation of each wheel sloping downwardly toward its opposed wheel and inwardly in a direction toward the wheel arranged in tandem therewith, and a peripheral flange on each wheel on the side adjacent its opposed wheel, each wheel including two opposed tread portions mounted for movement at the same angular velocity, the tread portions being movable under load toward each other adjacent their point of contact with the rail.

2,842,394
MOTOR VEHICLE BODY
Earle S. MacPherson, Huntington Woods, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application September 21, 1955, Serial No. 535,636
5 Claims. (Cl. 296—28)



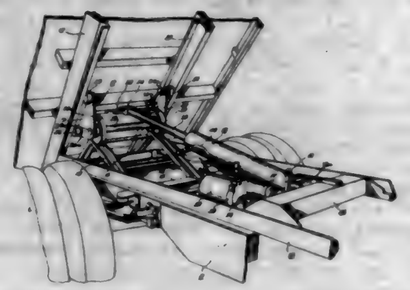
1. In a motor vehicle body having a pair of hinged doors at each side thereof, a center pillar extending vertically between the pair of doors at each side of the vehicle and secured at its lower end to said body, said pillar terminating at its upper end adjacent the belt line of said body, a window in each of said doors moveable generally vertically and arranged to have their adjacent edges positioned closely adjacent each other in the raised position of said windows at each side of said vehicle to provide a substantially unbroken glass wall at each side of the vehicle, a roof rail at each side of the body spaced above the upper ends of said center pillars, a roof panel secured to said roof rails, an inverted U-shaped supporting bar extending transversely within said vehicle and having its upper portion positioned closely adjacent said roof panel, the side portions of said U-shaped supporting bar extending generally vertically and spaced inwardly an appreciable distance from the planes of said windows, the lower extremities of the side portions of said bar having outwardly projecting portions terminating in vertically elongated flanges secured to said center pillars to interconnect and reinforce the latter, said inverted U-shaped bar passing said roof rails adjacent the inboard sides thereof, and attaching portions on said bar interconnecting the latter to each of said roof rails to support and reinforce the latter.

2,842,395
SUN VISOR EXTENSION
Lucile J. Davis, Wichita, Kans.
Application December 10, 1956, Serial No. 627,232
1 Claim. (Cl. 296—97)



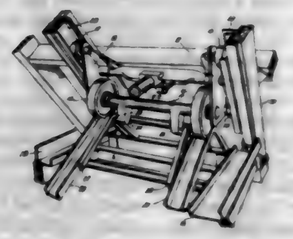
An attachment for longitudinal and vertical enlargement of a sun visor for motor vehicles supported from the frame of said vehicle, said visor having a substantially flat rectangular body swingable about said support, said attachment comprising, a pair of side members spaced apart for engaging each side of said visor, a U-shaped member joining the bottom edges of the side members together with the legs of said U-shaped member engaging the inner surfaces of the side members, an elongate member joining the top edges of said side members together and having opposed depending side walls engaging the inner surfaces of said side members, said elongate member extending upwardly and outwardly at an angle and thence inwardly to a point centrally of said side members forming a substantially diamond-shaped gripping member, said sides defining a space narrower than the body of said visor whereby when the side members are inserted over the body of the visor, the outward tension on the side members will cause the depending side walls of the elongate member to exert tension on the upper edge of the body of said visor to retain the same in adjusted position longitudinally of the visor, and an extension member of substantially non-flexible material and of substantially the same size of said attachment, and a hinge having one leg connected to one leg of said U-shaped member and the other leg attached to one edge of said extension, said legs of said hinge being provided with mating brackets for receiving a removable pin for vertical swinging movement thereby enlarging said visor when the extension member is swung down.

2,842,396
DUMP VEHICLE TILTING MECHANISM
Fayette Elam Marsh, Irl W. Anspach, and Irven Wilbur McRoberts, Hastings, Nebr., assignors, by mesne assignments, to Wyatt Manufacturing Company, a corporation of Kansas
Application March 16, 1953, Serial No. 342,332
5 Claims. (Cl. 298—22)



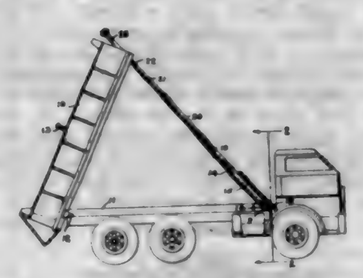
1. An hydraulic lift device for a dump truck, said truck comprising a chassis frame and a dump frame pivotally mounted adjacent the rear of said chassis frame for rotation about an axis transverse to said chassis frame, said chassis frame having a chassis track extending longitudinally, upwardly, and rearwardly with respect thereto, with its rear portion adjacent the rear end of said chassis frame, said dump frame having a longitudinally disposed dump track above said chassis track, said dump track being disposed approximately parallel to said dump frame, an hydraulic cylinder pivotally attached at one end to said chassis frame at a position spaced forwardly of the pivotal mounting of the dump frame, a piston rod extending from the other end of said cylinder, a dolly pivotally attached to the end of said piston rod, said dolly comprising a triangular vertically disposed plate, a pair of upper rollers bearing against said dump track, said rollers being longitudinally spaced and rotatably mounted adjacent two respective corners of said triangular plate, a lower roller bearing against said chassis track, said lower roller being rotatably mounted adjacent the remaining corner of said triangular plate, said piston rod being pivotally attached to said triangular plate at a point intermediate said upper rollers and approximately on a straight line between the mounting points of said respective upper rollers on said triangular plate.

2,842,397
TILTING DUMP TRUCK
William E. Fleming, Hastings, Nebr., assignor, by mesne assignments, to Wyatt Manufacturing Company, a corporation of Kansas
Application March 16, 1953, Serial No. 342,408
1 Claim. (Cl. 298—22)



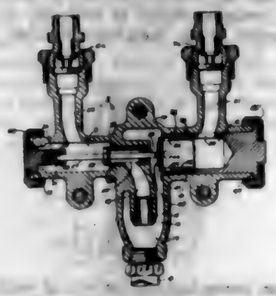
In an hydraulic lift device for a dump truck, said truck comprising a chassis frame and a dump frame pivotally mounted adjacent the rear of said chassis frame for rotation about an axis transverse to said chassis frame, said chassis frame having a chassis track extending longitudinally, upwardly, and rearwardly with respect thereto, with its upper rear portion adjacent the rear end of said chassis frame, said dump frame having a longitudinally disposed dump track above said chassis track, said dump track being disposed approximately parallel to said dump frame and comprising a channel with parallel upper and lower flanges, an hydraulic cylinder pivotally attached at one end to said chassis frame at a position spaced forwardly of the pivotal mounting of the dump frame, a piston rod extending from the other end of said cylinder, a dolly pivotally attached to the end of said piston rod, said dolly comprising a triangular vertically disposed plate, a pair of upper rollers between the upper and lower flanges of said dump track bearing against said dump track, said rollers being longitudinally spaced and rotatably mounted adjacent two respective corners of said triangular plate, a lower roller bearing against said chassis track, said lower roller being rotatably mounted adjacent the remaining corner of said triangular plate, said piston rod being pivotally attached to said triangular plate at a point intermediate said upper rollers, and means for retaining said dolly in close proximity to said chassis track, said means comprising a guide bar attached at its forward end to said chassis track, said guide bar extending longitudinally, upwardly and rearwardly along said chassis track and having a downwardly curved hook portion proximate the upper rear portion of said chassis track, said triangular plate having a shaft extending laterally therefrom adjacent said remaining corner thereof, said lower roller being rotatably mounted on said shaft, and a lug depending from said shaft, said leg having a hook portion extending under said guide bar.

2,842,398
TRUCK DUMPING APPARATUS
Donal W. Chaney, Cambridge City, Ind., assignor to Converto Mfg. Co., Inc., Cambridge City, Ind., a corporation of Indiana
Application July 28, 1955, Serial No. 524,958
3 Claims. (Cl. 298—22)



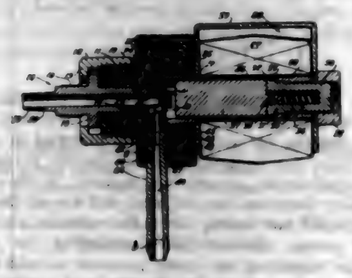
3. The combination with a dump truck chassis; a body having a floor and resting normally over said chassis and hinged thereto at a rear portion thereof; a jack hinged to said chassis at the forward end of said body and extending upwardly therealong; a member rockably connected to an upper end portion of said jack and extending downwardly therealong; pivot means carried by a front portion of said body and adjacent its floor; said member being rockably carried by said pivot means and extending a distance therebelow to a free terminal end; and means carried by said chassis in the path of and engaging said terminal end when said body is in said normal position and restraining rocking of the member on said pivot means thereby restraining rocking of the jack.

2,842,399
HOSING APPARATUS
Dietrich Strahmann and Hermann Strahmann, Jr., Livingston, N. J., and Henry Strahmann, New York, N. Y., assignors to Strahmann Valves, Inc., New York, N. Y., a corporation of New York
Application November 14, 1955, Serial No. 546,593
6 Claims. (Cl. 299—83)



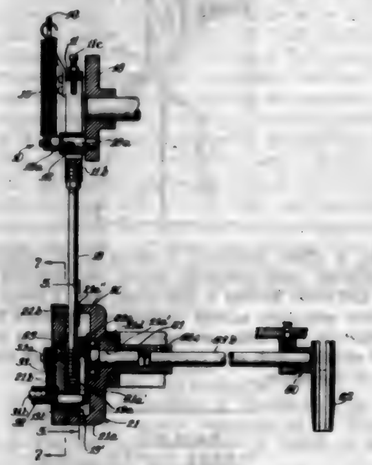
1. In apparatus for hosing with hot water, a body having a steam inlet chamber, having a water inlet chamber, having a mixing chamber communicating with both of said chambers and having an outlet, a steam valve in the steam inlet chamber, a steam-valve spring for biasing the steam valve towards closed position, a water valve in the water inlet chamber constructed and arranged to be urged towards open position by flow of water past said water valve, said steam valve and said water valve being so positioned that initial opening movement of said water valve starts the flow of water and continued opening movement of said water valve moves and holds said steam valve open against the bias of its spring, and stoppage of flow of water past said water valve permits both valves to close.

2,842,400
DIAPHRAGM TYPE SOLENOID DELIVERY VALVE
Jack J. Booth and William C. Branch, Dallas, Tex.
Application July 23, 1956, Serial No. 599,509
2 Claims. (Cl. 299—149)



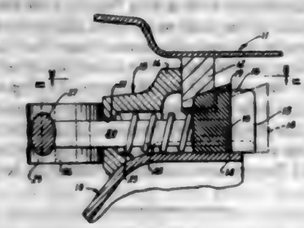
1. In a valve for dispensing carbonated beverages, a valve body having a side inlet and a bottom outlet, an inlet nipple in the inlet and a discharge nozzle in the outlet, a valve seat in the body aligned axially with the inlet nipple, a solenoid having a housing connected to the side of the body opposite the inlet, a sleeve extending through the core of the solenoid coil and having its inner end received in a bore formed in the body opposite the inlet, a cup shaped diaphragm having an annular flange surrounding the inner end of the sleeve, the solenoid plunger being reciprocable in the sleeve and being acted upon by a spring whereby it normally urges the diaphragm in seating engagement with the valve seat and is retracted relative thereto upon energizing the solenoid coil, the diaphragm having a thickened central portion adapted to be compressed between the valve seat and the plunger and an internal annular bead formed on the annular flange engaging with an annular peripheral groove formed in the sleeve, the arrangement being such that the diaphragm may be snapped on the adjacent end of the sleeve whereby the solenoid may be attached to and withdrawn from the valve body with the diaphragm attached to the sleeve.

2,842,401
TUFT GUARD MECHANISM
Börje Sjögren, Goteborg, Sweden, assignor to Carlson Tool and Machine Company, a corporation of Illinois
Application November 29, 1954, Serial No. 471,872
14 Claims. (Cl. 300—8)



1. In a brush-tufting machine having a tuft guard, means for actuating said tuft guard comprising: a driving means having one member arranged to have linearly reciprocatory motion; cam means guiding said member in any one of a plurality of paths; and crank means slidingly engaging said member and reciprocatorily rotated thereby in a direction and to the extent allowed by said cam means, the tuft guard being operatively associated with the crank means to be oscillatorily rotated thereby.

2,842,402
QUICK ACTING WHEEL CLAMP
George F. Fenner, Detroit, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application May 14, 1956, Serial No. 584,860
7 Claims. (Cl. 301—9)



1. A quick acting clamp for a variable tread wheel of the type having a rim shiftable axially of a coaxial wheel body by the relatively rotative coaction of camming members carried for rotation with the rim and body, respectively, comprising a clamp head slidable axially on said wheel body to and from clamping engagement with said rim, a stem on said head, a fixed abut-

ment surface on said wheel body, and an actuator cam eccentrically pivoted on said stem in sliding cam engagement with said abutment surface.

2,842,403
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application November 1, 1954, Serial No. 465,962
18 Claims. (Cl. 301—37)



1. In a wheel structure, a plurality of circumferentially spaced cover-retaining spring clips carried by the wheel and each having a free edge, and a cover having a portion generally axially corrugated opposite the clips and with the clip edges engaging retainingly in press-on, pry-off relation with said corrugated portion to retain the cover on the wheel.

2,842,404
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application September 15, 1955, Serial No. 534,536
8 Claims. (Cl. 301—37)



1. In a wheel structure including a multi-flanged tire rim, a multi-part wheel cover including a central circular member and a peripheral ring member, said central member having a generally axially rearwardly turned flange terminating in spaced resilient cover retaining fingers for gripping engagement with a rim flange, said ring member extending radially beyond said axial flange and having a generally axially rearwardly turned annular flange at its inner periphery confronting the axial flange of said central member, one of said axial flanges having an annular groove and the other having an annular rib nested in said groove for interlocking the two cover members together and providing a reinforcing rib area adjacent and relative to which said fingers can resiliently flex so as to be backed up thereby.

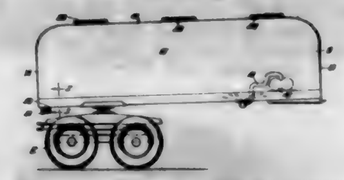
2,842,405
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application September 20, 1955, Serial No. 535,336
8 Claims. (Cl. 301—37)

1. In a wheel structure including multi-flanged rim and body parts, a wheel cover including an inner circular cover member and an outer annular cover member, one of said cover members having a generally axially rearwardly turned annular flange, the other of said members also having an axially rearwardly turned flange, said flange on said outer cover member extending axially beyond the other of said flanges and provided with circumferentially spaced resiliently deflectable fingers for retaining the cover upon the wheel, one of said axial flanges having an annular seat and the other having an annular extension nested in said seat to interlock the inner and outer cover members together in assembly,



said extension being located on one of said axial flanges extending from the annular underturned periphery of one cover member and said seat being formed in the other of said axial flanges extending from an annular underturned periphery of the other cover member and transversely enveloping the annular extension of the other cover member in snap-on, pry-off engagement thereby providing a reinforced area adjacent and relative to which the retaining fingers can resiliently flex so as to be backed up thereby.

2,842,406
CONTROL IN AN APPARATUS FOR CONVEYING MATERIALS
Myles Standish, Omaha, Nebr., and William D. Shadwick, Council Bluffs, Iowa, assignors to Omaha Standard, Inc., Council Bluffs, Iowa, a corporation of Iowa
Application November 18, 1955, Serial No. 547,778
2 Claims. (Cl. 302—29)



1. In an apparatus for conveying material, a bin having a bottom opening, a porous medium at said bottom opening for supporting the material in said bin, an air duct for supplying air uniformly through said porous medium to aerate the material in the bin and cause it to flow on the inclined surface of the porous medium, said bin having an outlet opening at one end of said porous medium for discharging the material, means for supplying air under pressure to said air duct, and valve means located adjacent said outlet opening connected to said air duct for venting the air in said duct to atmosphere, whereby the flow of material on said porous medium is controlled.

2,842,407
FLOCKING MACHINE
Carl M. Davis, Riverside, Calif.
Application November 7, 1956, Serial No. 620,940
5 Claims. (Cl. 302—37)

1. A flocking apparatus, comprising a hopper having a generally funnel-shaped bottom portion, a perforated drum mounted in the upper portion of said hopper for rotation about a generally horizontal axis, means to effect rotation of said drum about said horizontal axis at a

controlled rate to thereby effect controlled feeding of flock particles through the perforations of said drum and into said bottom portion of said hopper, a generally annular casing mounted adjacent the extreme lower end of said hopper bottom portion and having a tangential discharge outlet, means to connect said extreme lower end to the center portion of one side of said casing to permit flow of flock particles into said casing, an impeller rotatably mounted in said casing and generally coaxial therewith, electric motor means to rotate said impeller to thereby effect flow of flock into said casing through said impeller and thence into said discharge outlet, and conduit means connected to said discharge outlet to conduct flock particles therefrom to a point of use, characterized in that said means to effect rotation of



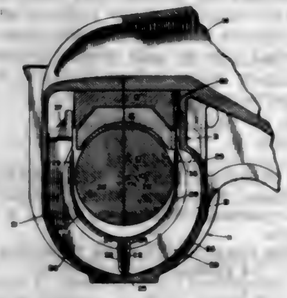
said drum includes an electric motor, speed reduction means driven by said electric motor and having an output pulley, a change-speed mechanism including a pair of outer sheave elements fixedly mounted on a common shaft in spaced relationship and a central sheave element also mounted on said shaft, a belt to connect said output pulley to said change-speed mechanism, said belt being mounted between one of said outer sheave elements and said central sheave element, a driven pulley mounted on a shaft connected axially to said drum, a second belt mounted around said driven pulley and also mounted between the other of said outer sheave elements and said central sheave element, and means to adjust the position of said shaft for said sheave elements to thereby change the speed ratio between said output pulley of said speed reduction means and said driven pulley.

2,842,408
SCAFFOLD
Arthur H. Symons, deceased, late of River Forest, Ill., by Continental Illinois National Bank and Trust Company of Chicago, executor, Chicago, Ill., assignor to Symons Clamp & Mfg. Co., a corporation of Delaware
Application March 8, 1956, Serial No. 570,383
4 Claims. (Cl. 304—40)



1. As a new article of manufacture, a scaffold comprising a pair of spaced apart upstanding unitary end frames consisting of vertically extending side members and horizontally extending cross members between the side members and having on the ends of the side members thereof fixedly mounted laterally projecting lugs provided with rigidly connected upstanding stud-like elements in spaced relation with the adjacent portions of the side members, braces extending between the ends of the side members of the end frames and having at the ends thereof fixedly connected vertically extending sleeves shaped to fit snugly around the stud-like elements, adapted to be connected to the elements by positioning them thereabove and then shifting them downwards into encircling relation with said elements, and further adapted to be disconnected from the stud-like elements by shifting them upwards out of encircling relation therewith, and ring-shaped locking elements extending loosely around the ends of the end frame side members, positioned directly above the upper ends of the stud-like elements, having associated therewith means whereby they are held against vertical sliding movement with respect to the ends of the end frame side members while at the same time they are permitted to rotate freely back and forth relatively to said side members, embodying notches in their outer marginal portions, and adapted to be rotated back and forth between an unlocked position wherein the notches are in vertical alignment with the stud-like elements to permit the sleeves on the ends of the braces to be mounted on or removed from said stud-like elements and a locked position wherein the notches are out of vertical alignment with the stud-like elements with parts of their said outer marginal portions overlying the upper ends of the sleeves around the stud-like elements to prevent said sleeves from being disconnected from said stud-like elements, and braces extending between the end frames for maintaining the latter in their spaced apart relationship.

2,842,409
GUARD BEARINGS
Dan A. Christensen and Clifford A. Stephens, Palo Alto, Calif., assignors, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application December 21, 1954, Serial No. 476,678
7 Claims. (Cl. 308—38)



1. In a railway truck journal assembly of the type having a journal housing provided with a large diameter opening in its rear end wall for the reception of a journal, a truck journal extending through said opening into said housing, bearing means interposed between the top of said housing and the upper side of said journal, and a guard bearing interposed between the lower side of said journal and the adjacent interior walls of said housing for restricting the relative movement of said journal with respect to the housing, said guard bearing being generally U-shaped and having an inner arcuate bearing surface on the bight portion thereof normally out of contact with but closely spaced from the lower half of said journal, the improvement comprising an outer supporting surface of said guard bearing conforming generally to the configuration of the interior side and bottom walls of the journal housing but adapted to directly contact the same only at the lowermost end and at the opposite upper end portions of the legs of said device radially opposite the

3, 6 and 9 o'clock portions of said arcuate bearing surface, whereby the forces imposed by the cradling of the journal against the arcuate bearing surface of either side of the guard bearing are distributed by said guard bearing between the bottom and one of the side walls of the journal housing.

2,842,410
ROLLER BEARING
Hermann J. Neidhart, Geneva, Switzerland
Application October 20, 1953, Serial No. 387,191
Claims priority, application Switzerland November 24, 1952
9 Claims. (Cl. 308—215)



1. A resilient bearing device comprising a pair of rigid, relatively movable members having opposed roller-engaging surfaces constituting roller races, said races being normally spaced uniformly apart to define a predetermined roller path of constant width therebetween and being movable in opposite directions along said path while maintaining said constant width of said roller path over the length thereof, and a plurality of rollers of elastic rubber-like material and circular cross-section when unstressed, said rollers being distributed in spaced apart relationship along said path and being radially compressed between the races for rolling thereon in said path and out of contact with one another, relative movement of the races in said opposite directions along said path being opposed only by internal resistance of said roller material to elastic deformation due to rolling of the rollers under radial compression, and variation of the normally uniform spacing of the races over the length of said path being opposed only by elastic resistance of the rollers to radial compression, whereby said relatively movable members are at all times free from positive transmission of forces from one to the other within the device and relative movement of the races along said path is opposed only by said internal resistance of the roller material to elastic deformation due to rolling of the rollers under radial compression.

2,842,411
TRIPLE PURPOSE PISTON RING EXPANDER
Holly M. Olson, Muskegon, Mich., assignor to Sealed Power Corporation, Muskegon, Mich., a corporation of Michigan
Application December 27, 1954, Serial No. 477,625
4 Claims. (Cl. 309—41)



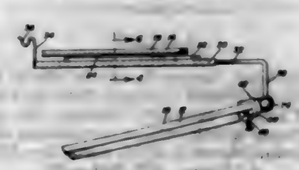
1. In a piston ring having upper and lower, thin, parted, circular, metallic rails, and a circular, parted spacer between said rails, a circular, parted, thin ribbon, spring steel, corrugated expander of generally uniform width back of said rails having alternate, inwardly and outwardly extending humps having intermediate portions at upper and lower edges separated a short distance from adjacent edge portions of said expander, the opposed edge portions of said outwardly extending humps bearing against the inner edges of said rails, said hump edge portions having each an inward incline at an acute angle to the width of said expander, and said expander at the inwardly extending humps having elongated slots lengthwise thereof located generally midway between the upper and lower edges of said inwardly extending humps.

2,842,412
BRACED NESTABLE TABLES
Charles Mackintosh, Los Angeles, Calif.
Application October 26, 1956, Serial No. 618,475
4 Claims. (Cl. 311—1)



1. A table adapted for nesting with other tables of the same kind which comprises a four-sided frame having one side shortened at each end compared to the opposite side, a leg mounted on the exterior of said shortened side adjacent each end thereof, a leg mounted on the exterior of the two frame sides that are adjacent said shortened side at the end of each of said two sides remote from said shortened side, a panel overlying said frame, and a brace member connecting the two legs at each end of the table extending between points located intermediate the length of said legs, said brace member having an elongated center portion, extending generally transversely of the longitudinal axis of the table and lying between planes which extend transversely of said axis and are respectively tangential to the outer face of the leg adjacent the shortened side and the inner face of the leg remote therefrom, and curved end portions connecting said center portion to the outer and inner faces of the respective legs.

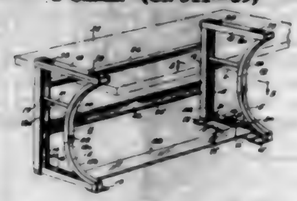
2,842,413
ROTATABLE TRAY
Victor C. Simmons, Freeport, Tex.
Application November 14, 1956, Serial No. 622,053
2 Claims. (Cl. 311—32)



1. A utility tray comprising a circular, substantially flat tray, an upstanding flange connected to the peripheral edge of said tray, a support plate, a tube having a polygonal cross section, said support plate being mounted upon said tube, said support plate having an area equal to at least half the area of said tray so that a substantial supporting surface is provided for said tray being supported by said plate and rotatably attached thereto by said bolt, a felt pad of slightly smaller dimensions than said plate interposed between said tray and said support plate providing a soft, smooth surface for the bottom of said tray and preventing random rotation thereof, said support plate being attached to said tube near one end thereof, the other end of said tube projecting beyond the peripheral edge of said tray, a rod slidably telescoped in one end of said tube, said rod having a polygonal cross-section of slightly smaller

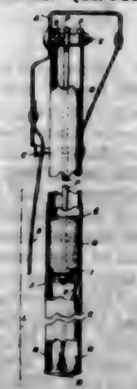
external dimensions than the internal dimensions of said tube, and means for clamping said rod and supporting said utility tray on a supporting surface.

2,842,414
STAND FOR POWER SEWING MACHINE TABLE
Samuel S. Wolff, Reading, Pa., assignor to American Safety Table Company, Inc., Reading, Pa., a corporation of Pennsylvania
Application June 9, 1954, Serial No. 435,527
1 Claim. (Cl. 311—39)



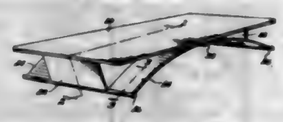
A table-top support including a pair of spaced-upright end members each comprising an upper and a lower section, each section having a rear leg and foreleg fixed in spaced relation by at least one horizontally extending connecting member, the top ends of the fore and rear legs of each upper section being bridged by one of said horizontal connecting members and the bottom ends of the fore and rear legs of each lower section being bridged by another of said horizontal connecting members, said upper and lower section rear legs extending substantially vertically and rectilinearly from their respective bridging members, the foreleg of at least one section of each end member extending rearwardly from its point of connection with its associated horizontally extending bridging member and diverging therefrom, each said foreleg terminating in a rectilinear portion paralleling its associated rear leg, the rear leg and rectilinear portion of the foreleg of said one section of each end member telescopically engaging the rear leg and foreleg respectively of the other section of the same end member, whereby the upper section may be adjusted vertically relative to the lower section within the telescoping engagement range of the foreleg rectilinear portion, and a first brace member interconnecting the upper sections of said end members, and a second brace member interconnecting the lower sections of said end members.

2,842,415
ADJUSTABLE LEG STRUCTURE
Gustave Paul Keller, Long Beach, Calif.
Application June 25, 1957, Serial No. 667,746
4 Claims. (Cl. 311—39)



1. In a corner leg bracket assembly comprising a tubular table leg, a bolt or rivet mounted near the upper end of the table leg, an eccentric cam, said bolt being used both as a hinge pin for the table leg and also as a shaft for the cam, a rivet passing through the table leg below and parallel to the first named rivet, a spring snap bracket which snaps over the head of said rivet when the table leg is fully opened to standing position, a tubular leg extension slidable over the table leg, a washer mounted at the lower end of the table leg, a rubber compound cylinder mounted within the leg extension and adjacent said washer, a threaded disk screwed adjacent the lower end of said rubber cylinder, a hole passing through the center of said washer and rubber cylinder, a P-shaped threaded pull rod swiveled on said eccentric cam and passing through said hole, and a wing nut on the threaded end of said rod whereby when the leg is turned to standing position, the rubber cylinder is compressed firmly against the inside of the leg extension thus locking the leg extension at the desired length.

2,842,416
BEDSTEAD OR TABLE STRUCTURE
Alfred M. Davock, Birmingham, Mich.
Application March 7, 1957, Serial No. 644,649
3 Claims. (Cl. 311—77)



1. A structure comprising, a pair of spaced apart supports, a structural member supported on said supports and extending substantially horizontally therebetween, said supports converging downwardly from said structural member, means connecting the upper ends of said supports to said structural member and limiting outward movement of the lower ends of said supports, a bendable structural member, said bendable structural member and said supports mutually supporting the load of said first structural member, said bendable structural member having a true length greater than the distance between the lower ends of said supports, means attaching opposite ends of said bendable structural member respectively to the lower ends of said supports bending the said bendable structural member in the form of an arch having its crown supporting said first structural member intermediate said supports.

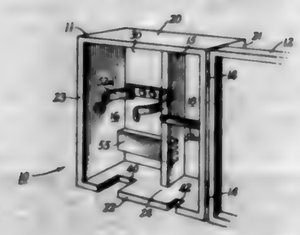
2,842,417
HOLLOW TAPERED FURNITURE LEG
Edward C. Scanlon, West Barrington, R. I.
Application January 31, 1957, Serial No. 637,444
3 Claims. (Cl. 311—109)



2. A hollow tapered furniture leg comprising a hollow transparent plastic tapered outer sleeve, a hollow tapered

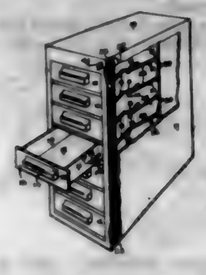
inner core, a sheet of decorative material, constituting a liner, wrapped around said hollow tapered core and placed within said hollow transparent plastic tapered outer sleeve with the opposite ends of said outer sleeve and inner core in horizontal alignment, a toe plug having a foot portion terminating in a taper mated with the taper of said hollow tapered inner core to be secured therein and a plug having a tapered body provided with a projection, said tapered body mating with the taper of said hollow tapered inner core to be secured therein with said projection extending beyond the end of said outer sleeve and inner core.

2,842,418
CARRYING CASE AND CONTAINER
Willard D. Wassell, Westport, Conn.
Application March 15, 1951, Serial No. 215,759
5 Claims. (Cl. 312—209)



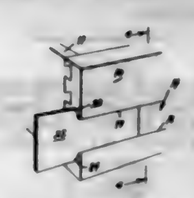
1. A combined storage and travel case for a small appliance, such as an electric razor, having a length of cord attached thereto and being completely removable from said case, said case comprising: a substantially rectangular box having a fixed back wall and side walls and a movable front wall to permit insertion and retention of the appliance; partition means dividing the interior of said box into a first appliance storage compartment and a second cord storage compartment, said first compartment being just slightly larger than the appliance, and said second compartment being just large enough to store the cord in a coiled condition, the bottom side wall common to said compartments having a first and a second three sided aperture therethrough, said first aperture being approximately centered beneath said first compartment so that the cord immediately adjacent the bottom end of the appliance can be passed through it, the size of said first aperture being large enough to permit insertion of the appliance end of the cord but small enough to prevent the appliance from slipping through it, said second aperture being approximately centered beneath said second compartment so that the cord can be passed therethrough, said second aperture being just large enough to permit insertion of one turn of the cord, said first and second apertures in conjunction with the wall portion between them serving as a support for a short length of cord immediate the bottom end of the appliance and passing on the outside of said case between said apertures, whereby when said appliance is inserted in said first compartment its bottom end is secured by this short length of cord which passes between said compartments on the outside of said case, and means in addition to said apertures, said partition means and said front wall for helping in retaining the appliance and the cord in their respective compartments.

2,842,419
FILING CABINET DRAWER LOCKING MECHANISM
Don R. Howard, Worcester, Mass., assignor to The Wright Line, Inc., Worcester, Mass., a corporation of Massachusetts
Application February 23, 1955, Serial No. 489,934
5 Claims. (Cl. 312—218)



1. A filing cabinet comprising a framework, a set of drawers slidably mounted therein, an abutment associated with each drawer, a set of locking members pivotally movable into and out of positions of engagement with the abutments to prevent opening the drawers, a bar connecting said members so that they move as a unit, means including a cam associated with each drawer which serves when every drawer is closed to swing all of the locking members away from the abutments and permit opening any drawer, and a separate, resiliently urged means associated with each drawer which serves when any one drawer is opened to swing all of the locking members to positions of preventing opening the remaining drawers.

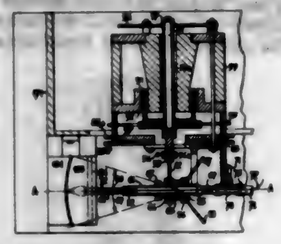
2,842,420
DRAWER FRONT
Jorgen G. Hansen, Brooklyn, and Jens Thuesen, Mamaroneck, N. Y., assignors to Huntington Chair Corporation, Huntington, W. Va., a corporation of West Virginia
Application August 10, 1955, Serial No. 527,562
2 Claims. (Cl. 312—320)



2. In a drawer front, a front wall having a channel extending the entire width thereof, said channel including upper and lower portions that are undercut to form concave configurations from the front toward the rear thereof, said undercut portions defining upwardly and downwardly projecting finger holds, the opening between said finger holds forming the narrowest part of said channel, a flat wall forming the rear of said channel, upper and lower grooves formed in said channel adjacent said rear wall and extending the width of said drawer front above and below said upper and lower undercut portions respectively, each of said grooves having a forward shoulder formed on the front thereof and adjoining the adjacent undercut portion, and a removable panel located in said grooves and spaced from said upper and lower finger holds, said removable panel lying in face contact with the rear flat wall of said channel and defining a decorative and protective member for said drawer front.

2,842,421
DYNAMIC INDICATORS
Jean Albert Dreyfus, Geneva, Switzerland
Application July 6, 1951, Serial No. 235,529
Claims priority, application Switzerland July 7, 1950
19 Claims. (Cl. 346—116)

7. In a dynamic indicator adapted to transform the energy produced by driving means into the angular shifting of at least one indicator needle over a cooperating surface under the action of said driving means, the provision of a system of bent spring blades engaging the needle through one point to allow the latter to pivot in a predetermined plane, said system comprising laminae joined alternately in pairs at their inner and outer ends and separated by parallel slits formed therein, a support to which the outer ends of the spring blade system are secured, a paper strip over which the needle point is adapted to produce a record as it moves round its point of connection with the spring blade system, a convex guide and a concave guide between which guides said strip is adapted to move, said guides being located at a



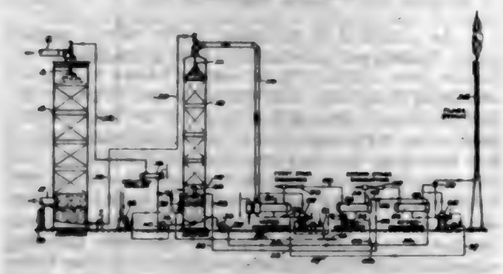
distance from said plane to avoid the rubbing of the needle point on the paper, and means controlling the progression of the paper in front of the needle point.

CHEMICAL

2,842,422
PROCESS FOR BLEACHING ORGANIC TEXTILE MATERIALS WITH ALKALI METAL CHLORITES CONTAINING AN ESTER WHICH CONTROLS THE EVOLUTION OF CHLORINE DIOXIDE
Pierre Mosse, Lyon, France, assignor to Societe Rhodiaceta, Paris, France
No Drawing. Application February 21, 1955
Serial No. 489,735
Claims priority, application France February 23, 1954
3 Claims. (Cl. 8—108)

1. A process for bleaching organic textile materials, said process comprising bleaching said materials in an aqueous solution of an alkali metal salt of chlorous acid having a temperature of from 40° to 150° C., in which is dissolved an ester selected from the group consisting of ethyl acetate, glycol formate, glycerol formate, glycol acetates, glycerol acetates, ethyl lactate, ethyl tartrate, ethyl phthalate and γ-butyrolactone, the solution being free from acids, acidic salts and compounds oxidizable to yield acids, said solution containing 0.1 to 20 grams of the ester per liter and the chlorite and ester being initially in the proportion to give said solution a pH between 8 and 6.

2,842,423
SEPARATION OF ACID GASES FROM COAL CARBONIZATION GASES
Herbert A. Gollmar, Pittsburgh, Pa.
Application April 13, 1955, Serial No. 501,160
8 Claims. (Cl. 23—3)



1. A process for separation and recovery of hydrogen sulfide, and the like, from coal carbonization gas comprising: scrubbing the coal carbonization gas with an alkaline aqueous absorbent and absorbing hydrogen sulfide therefrom; removing fouled absorbent containing the dissolved hydrogen sulfide from the absorption zone and flowing this fouled absorbent through an actification zone under subatmospheric pressure; injecting steam through jet evacuating means in communication with said actification zone to maintain said subatmospheric pressure, whereby the tendency of the vapors from said actification zone to form hard polymers in the process equipment is substantially eliminated, producing within said evacuating means a mixture of steam and actifier vapors; circulating absorbent from the actification zone into indirect contact with said steam-actifier vapor mixture and by heat-exchange therewith heating the absorbent; circulating the absorbent thus heated back to the actification zone wherein vapors formed by the application of heat of said steam-actifier vapor mixture liberate hydrogen sulfide; and removing liberated hydrogen sulfide from the actification zone.

2,842,424
PROCESS FOR SEPARATING NIOBIUM AND TANTALUM FROM MATERIALS CONTAINING THESE METALS
Waldemar Schoruastein, Arlesheim, and Fritz Kern, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application February 24, 1956
Serial No. 567,475
Claims priority, application Switzerland March 1, 1955
7 Claims. (Cl. 23—18)

1. Process for separating niobium and tantalum from one another, wherein in a mixture containing tantalum pentachloride and niobium oxychloride the tantalum pentachloride is dissolved in an anhydrous solvent selected from the group consisting of thionyl chloride, sulfuryl chloride and sulfur dioxide, and the resulting solution is separated from the undissolved fraction of the starting mixture.

2,842,425
USE OF SLAG FOR AGGLOMERATION OF RUTILE FOR SHAFT FURNACE CHLORINATION
John N. Andersen, Grand Island, N. Y., assignor to Stauffer Chemical Company, a corporation of Delaware
Application July 21, 1955, Serial No. 523,455
2 Claims. (Cl. 23—87)

1. A process for chlorination of rutile in a shaft furnace comprising feeding a finely divided charge of rutile, carbon and a material containing an oxide of at least one metal selected from the group consisting of calcium and magnesium into an upper portion of the shaft furnace for downward passage through a reaction zone in said furnace, said reaction zone being at an elevated temperature whereat titanium tetrachloride is formed and the

metal oxide is converted to a liquid metal chloride, and introducing a stream of chlorine into a lower portion of the shaft furnace to pass upwardly through the reaction zone, the quantity of said material fed being sufficient in relation to the charge to provide liquid metal chloride in



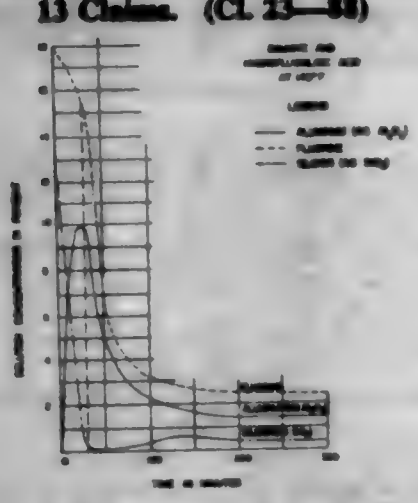
the reaction zone in an amount sufficient to agglomerate the charge sufficiently to prevent fluidization thereof by the upwardly moving chlorine stream, the rate of chlorine introduction in relation to the charge fed being sufficient in the absence of the aforesaid sufficient agglomeration to fluidize at least a substantial portion of the bed.

2,842,426

ALUMINUM FLUORIDE MANUFACTURE

Edwin M. Glocker, Baltimore, Md., assignor to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut

Application February 15, 1957, Serial No. 640,423
13 Claims. (Cl. 23—88)



1. A method for the manufacture of substantially pure aluminum fluoride in high yields comprising reacting bauxite and with not more than its stoichiometric equivalent of a fluorine containing acid from the group consisting of hydrofluoric and hydrofluosilicic acids and mixtures thereof at a temperature above about 100° F. and below 190° F., and separating the resulting liquid from unreacted solids at the point of maximum solubility of aluminum fluoride pre-determined for the specific reactants and conditions employed, thereby obtaining maximum recovery of substantially pure aluminum fluoride.

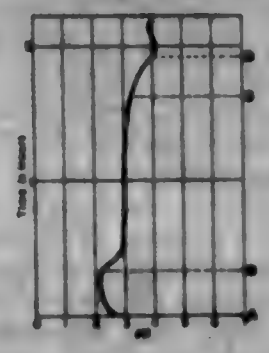
2,842,437

PROCESS OF SEPARATING NICKEL AND COBALT

Francis Reynaud and Georges Terrax, Pomblieres, France, assignors to Societe d'Electro-Chimie, d'Electro-Metallurgie et des Acieries Electriques d'Ugine, Paris, France, a corporation of France

Application April 19, 1956, Serial No. 579,177
Claims priority, application France April 23, 1955
1 Claim. (Cl. 23—183)

A one-stage process of separating cobalt and nickel values from a solution of their salts, which consists substantially of simultaneously adding chlorine and a material from a group consisting of alkali metal and alkaline-earth metal carbonates to the solution in a ratio sufficient to maintain the pH initially between about 2 and 3 and to progressively increase the pH to about 4, during which



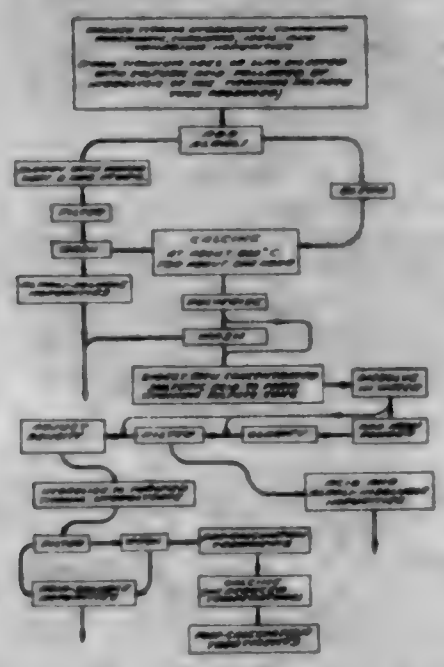
time more than 98% of the cobalt contained in the solution is precipitated as a hydroxide and the nickel remains in solution, and rapidly separating the substantially pure precipitated cobalt hydroxide from the solution to prevent absorption of nickel.

2,842,428

PRODUCTION OF PURIFIED TITANIUM DIOXIDE PIGMENT

Charles A. Tanner, Jr., Moorestown, N. J., and Winfred J. Canwenberg, Piney River, Va., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

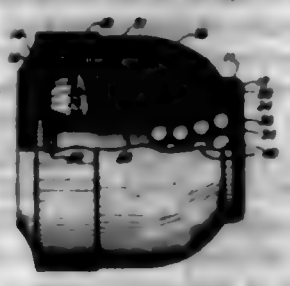
Application June 1, 1951, Serial No. 229,481
13 Claims. (Cl. 23—202)



1. As a method of producing highly refined, purified titania hydrolysate substantially free of phosphatic impurities from relatively pure, washed titania hydrolysate containing phosphatic, iron, vanadium and chromium impurities in total amount less than 1% by weight calculated on the TiO_2 equivalent of said hydrolysate, wherein said impurities are converted into alkali-solubilized and acid-solubilized forms and are removed by washing with water, the improved method which comprises (1) converting said titania hydrolysate into an insoluble metal titanate and said alkali-solubilizable impurities including phosphatic impurities into water-soluble derivatives thereof, by reacting said hydrolysate with a reactive alkali compound capable of so-reacting therewith, at an elevated temperature until said reactions are substantially complete; (2) separating the insoluble metal titanate from the water-soluble constituents of the reaction mixture so obtained, including the phosphatic and other alkali-solubilized impurities thereof, by washing said mixture with water; (3) digesting the so-purified metal

titanate with concentrated sulfuric acid to form soluble titanium sulfate and convert the acid-solubilizable impurities into water-soluble derivatives thereof; (4) forming an aqueous solution of the titanium sulfate so obtained; (5) filtering the titanium sulfate solution to remove impurities which are neither alkali-solubilizable nor acid-solubilizable and any insoluble by-products; (6) hydrolyzing said titanium sulfate, in said purified aqueous solution to form insoluble titania hydrolysate; and (7) separating the insoluble titania hydrolysate from the acid and acid-solubilized impurities by filtering and washing with water; the refined, purified titania hydrolysate so obtained being substantially free of phosphatic impurities and other deleterious impurities and being capable of conversion into titanium dioxide pigments having excellent brilliance and high-tintorial power.

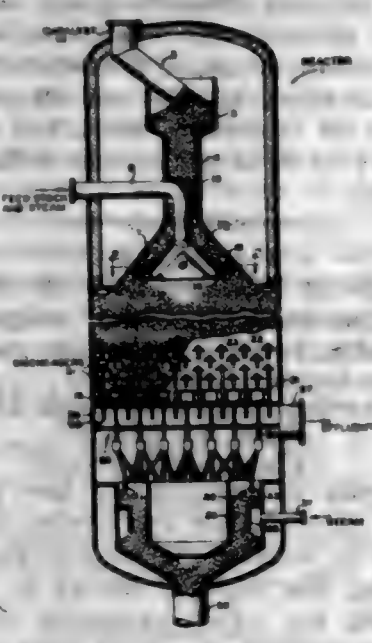
2,842,429
CONCENTRATOR
Edward A. Easton, West Covina, and Stanley Magyarosy, Puente, Calif.
Application October 11, 1956, Serial No. 615,388
4 Claims. (Cl. 23—267)



1. In a device for obtaining a concentration of dissolved material and having a fluid inlet and a fluid outlet, an outside member and an inside member of smaller cross-section to provide an annulus into which the material to be dissolved is placed, means for flowing a portion of the inlet fluid through the annulus to dissolve a portion of the material and the other portion of the inlet fluid through the inside member, means at the fluid outlet for combining the fluid containing the dissolved material with the other portion of the inlet fluid, and at least one fluid flow responsive member within the inside member responsive to a changing fluid flow to vary the resistance to fluid flow in accordance with the varied resistance to fluid flow of the material so that a fixed concentration is maintained despite varied fluid flow.

2,842,430
FEEDSTOCK INJECTOR
George F. L. Bishop, Woods Cross, Utah, assignor to Phillips Petroleum Company, a corporation of Delaware
Application May 6, 1955, Serial No. 506,651
7 Claims. (Cl. 23—288)

1. In a hydrocarbon conversion unit, in combination, a conduit extending into the upper portion of the unit for the admission of catalyst particles thereto, a feed inlet pipe extending through the wall of said unit into said conduit and depending therein, said conduit and said feed inlet pipe defining an annular space through which a stream of catalyst particles may be fed downward in the form of a compact moving bed, said feed inlet pipe terminating at its lower end in a spray nozzle within the discharge end of said conduit, said conduit tapering outwardly at its said discharge end to form a cone-shaped outlet, the base angle of said cone-shaped outlet being greater than the angle of repose of the catalyst particles so as to permit said stream of catalyst particles to move past said spray nozzle, said nozzle comprising a pair of concentric cones within said cone-shaped outlet, said pair of concentric cones separated by a second annular space which communicates with said feed inlet pipe, the inner cone serving to deflect incoming feed toward a plurality of horizontally-directed radial outlet conduits positioned in the lower periphery of said second annular space, and a deflector baffle projecting outwardly over



each of said nozzle outlet conduits so as to form a sheltered niche beneath said baffle and deflect downcoming catalyst particles from said outlet conduits and facilitate the spraying of said feedstock into said downcoming catalyst particles.

2,842,431
TREATED FUELS
Louis H. Robertson, Elizabeth, N. J.
No Drawing. Application August 24, 1955
Serial No. 530,397
4 Claims. (Cl. 44—24)

1. The process of preparing a treated fuel which comprises impregnating charcoal with molten paraffin wax for a period of from about 5 to about 20 seconds at a temperature not less than 165° F. and recovering a fuel of superior ignition characteristics.

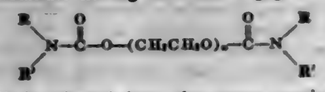
2,842,432
SUPPLEMENTARY FUEL MIXTURE FOR COLD STARTING DIESEL ENGINES
Stanley R. Newman, Fishkill, and Herbert E. Vermillion, Wappingers Falls, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
No Drawing. Application December 7, 1953
Serial No. 396,786
4 Claims. (Cl. 44—53)

1. A supplementary fuel mixture designed for cold starting diesel engines by manifold introduction consisting essentially of from 20 to 80 percent by volume of diethoxy methane and from 80 to 20 percent by volume of a compound selected from the group consisting of diethyl ether, ethylene glycol diethyl ether, diethylene glycol diethyl ether, and mixtures thereof.

2,842,433
MOTOR FUEL COMPOSITION
Stanley R. Newman, Robert Y. Heisler, and Kenneth L. Dille, Fishkill, and Norman Alpert, Poughkeepsie, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
No Drawing. Application November 19, 1956
Serial No. 622,869
8 Claims. (Cl. 44—71)

1. A liquid hydrocarbon fuel for a combustion engine boiling within the gasoline range containing a polyethylene

glycol carbamate having the following general formula:



wherein R is selected from the group consisting of hydrogen, alkyl, alkenyl, and alkynyl radicals containing from 1 to 18 carbon atoms, R′ is selected from the group consisting of an alkyl, alkenyl, and alkynyl radical containing from 1 to 18 carbon atoms, and *n* is an integer ranging from 2 to 6, in an amount sufficient to inhibit engine deposits.

2,842,434

METHOD OF PRODUCING CRUDE IRON

Otto Kippe, Osnabrueck, Germany, assignor to Paul O. Tobeler, doing business under the name of Trans-Oceanic, Los Angeles, Calif.

No Drawing. Application July 11, 1955
Serial No. 521,397
7 Claims. (Cl. 75—2)

1. The method of beneficiating low grade iron ore having a high silica and low iron content to promote slag formation and to increase the yield of pig iron obtained during smelting, that includes drying to lump-form red mud comprising the alkali containing residue obtained by separating a solution of sodium alum from a mixture of iron-containing bauxite ore in aqueous sodium hydroxide, said red mud residue being composed of ferric oxide, alumina, silica, titanium oxide and sodium oxide with said ferric oxide and alumina being present in an amount comprising at least a major portion of the total dry weight of the residue composition, and admixing said lump-form red mud with said low grade ore for reaction therewith during smelting in the absence of metallic aluminum.

2,842,435

METHODS OF STRIPPING TIN AND TIN ALLOY SURFACE COATINGS FROM IRON AND IRON ALLOY ARTICLES

Michael G. Mile, Greensboro, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application December 1, 1955
Serial No. 550,492
5 Claims. (Cl. 75—98)

1. The process of stripping a surface coating consisting principally of tin from an article made of a metal of the group consisting of iron, steel and alloys of iron and steel, which comprises immersing such a coated article in an acid tin-stripping bath containing antimony trioxide until the coating has been stripped from the article whereby an antimony containing smut capable of penetration by copper ions forms on the article, treating the article with a solution of a copper salt whereby copper is precipitated from the solution on the smut so as to form a copper film on the surface of the article under the smut by copper ion penetration therethrough, converting the precipitated copper into a copper sulphide, and treating the article in an alkali cyanide bath to dissolve the copper in the copper sulphide, whereby the surface of the article is caused to be clean and substantially smut-free.

2,842,436

SELECTIVE REJECTION OF IRON AND ALUMINUM IN HYDROMETALLURGICAL RECOVERY OF METALS

John Orndorff Dasher, Pittsburgh, Pa., and Arthur James Beyer, White Plains, N. Y.; said Beyer assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 30, 1956
Serial No. 562,358
6 Claims. (Cl. 75—101)

1. In acid-leaching non-ferrous metal values from a solids mixture containing (*a*) at least one diluent metal selected from the group consisting of iron and aluminum and (*b*) metal values of at least one non-ferrous metal which is substantially insoluble in the leaching acid at a pH between about two and about six, by heating a slurry of said solids mixture in an aqueous mineral acid leaching-liquor, said leaching-liquor having an acid content at least equivalent to that at pH 2, to an elevated temperature under superatmospheric pressure and treating said heated slurry with an oxygen-containing gas while maintaining said elevated temperature, superatmospheric pressure and acid content, whereby said metal values and diluent metal are dissolved; the improvement in selectively concentrating said metal values which comprises: maintaining said elevated temperature above at least about 350° F. until dissolution of said non-ferrous metal substantially ceases, whereby non-ferrous metal is selectively dissolved; separating resultant solution from residual solids; adjusting the pH of so-separated solution to from about two to about six, whereby dissolved non-ferrous and diluent metals are precipitated as a mixture wherein the ratio of said non-ferrous metal to diluent metal is increased over that in said solids mixture; collecting said precipitate; forming a second slurry of collected precipitate in an aqueous mineral acid treating-liquor having an acid content in excess of that at pH 2; heating said second slurry to a temperature above 350° F. when aluminum rejection is not required and above about 400° F. when aluminum is to be rejected, maintaining said second slurry at said temperature and acid content until dissolution of non-ferrous metal substantially ceases and removing residual solids, whereby a solution is obtained wherein the ratio of dissolved metal value to diluent-metal is higher than in said precipitate.

2,842,437

AUSTENITIC NODULAR IRON

Eraldo Gozzi, Pont-a-Mousson, France, assignor to Compagnie de Pont-a-Mousson, Nancy (Meurthe-et-Moselle), France, a corporation of France

No Drawing. Application August 17, 1956
Serial No. 604,597
Claims priority, application France August 29, 1955
4 Claims. (Cl. 75—125)

1. An austenitic cast iron produced from molten iron and having a high resistance to traction, and in which the free carbon is present at least partly in the spheroidal form, said cast iron comprising 2.2% to 3.3% total carbon, 1% to 3.3% silicon, less than 0.5% phosphorus, less than 0.10% sulphur, 0.02% to 0.10% magnesium, 10% to 17% nickel, 0.8% to 3% copper and 2.5% to 7% manganese; said copper and manganese constituents being added simultaneously to said molten iron.

2,842,438

COPPER-ZIRCONIUM ALLOYS

Matti J. Saarivirta, Plainfield, and Alfred E. Bock, Jr., Rumson, N. J., assignors to American Metal Climax, Inc., a corporation of New York

No Drawing. Application August 2, 1956
Serial No. 601,631
8 Claims. (Cl. 75—153)

8. A copper base alloy suitable for fabricating commutator segments and other electrical components requiring the combination of properties consisting of high electrical conductivity, sufficient strength and resistance to softening at temperatures above 500° C. consisting of from .02 to .07% by weight zirconium, balance oxygen-free copper, said alloy being characterized by an electrical conductivity not below 85% I. A. C. S. and a softening temperature of at least 520° C.

2,842,439

HIGH STRENGTH ALLOY FOR USE AT ELEVATED TEMPERATURES

Dolph G. Ebeling, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application October 1, 1954
Serial No. 459,832
6 Claims. (Cl. 75—171)

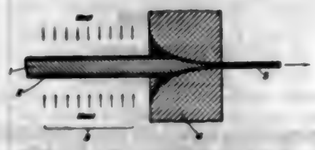
1. A metal alloy having high mechanical and physicochemical properties at elevated temperatures consisting essentially of 28 to 32.5 atomic percent nickel; 36 to 38.5 atomic percent cobalt; 22 to 23 atomic percent chromium; 4 to 6 atomic percent titanium; 0.5 to 1.5 atomic percent carbon; from 1.8 to 4.5 atomic percent of a metal selected from a group consisting of tungsten, molybdenum, niobium and tantalum and mixtures of said metals; and the remainder of said alloy being substantially all iron with the proportions of the several constituents being so selected that the iron content does not exceed 2.5 atomic percent.

2,842,440

PROCESS OF MAKING STRUCTURAL MATERIAL BY HEAT BONDING WIRE FILAMENTS

John Simon Nachtman, Washington, D. C., and Johan Bjerketon, Madison, Wis.

Application December 18, 1953, Serial No. 399,085
7 Claims. (Cl. 75—208)



1. The process of providing a shaped body comprising metal wire filaments extending therethrough which comprises the steps of providing a plurality of metal wire filaments .001" to .010" in diameter coated with at least two layers .00001" to .001" thick each of said layers being a non-powdered continuous substantially homogeneous substance selected from the group consisting of metals and oxides thereof of different composition than said filament, compacting a group of said filaments under pressure sufficiently low to prevent elongation and cross-sectional deformation of said filaments and while maintaining such pressure thereon, applying heat to said compacted mass at a gradually increasing rate to alloy said layers with each other to thereby join said filaments together, said heat being applied at a rate which prevents the temperature of said compacted mass from exceeding the melting point of any component thereof.

2,842,441

ANTIMICROBIAL PRESERVATIVE

Franz Mishrad Knoll, Vienna, Austria

No Drawing. Application July 25, 1955
Serial No. 524,280
14 Claims. (Cl. 99—48)

1. The combination of a liquid containing perishable organic matter with a preservative admixed in a proportion of the order of 0.0002% to 0.001%, by weight, of said liquid, said preservative comprising an alkyl phenyl ester of a halogenated fatty acid.

2,842,442

PROCESS FOR MAKING YEAST LEAVENED BAKED PRODUCTS

George A. Jeffreys, Salem, Va.

No Drawing. Application December 1, 1954
Serial No. 472,516
6 Claims. (Cl. 99—90)

1. In a process for making yeast-leavened baked products in which yeast is incorporated into a dough mix, the step which comprises adding to the dough mix, in addition to said yeast, a dry solid composition prepared by culturing yeast at a temperature of about 25–37° C. on a liquid substrate containing sugar, selected from the group consisting of sucrose and dextrose, organic nitrogen and an aqueous extract of a culture of *Aspergillus oryzae* grown on a substrate containing cereal bran, the yeast nutrients present in said liquid substrate comprising at least about 10% by weight of the culture medium, and then drying the fermented composition at a maximum temperature of about 140° F., said composition containing substantial amounts of leavening enzymes and other dough-conditioning factors and characterized by its ability to shorten substantially the fermentation time in the production of said yeast-leavened product.

2,842,443

METHOD OF TRUSSING POULTRY

Leemon D. Rice, Turlock, Calif., and Russell W. Posegate, La Grange Park, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

Application April 5, 1956, Serial No. 576,330
6 Claims. (Cl. 99—107)



1. In a method of trussing poultry wherein the shanks of the legs of a dressed fowl are disjointed from the thighs to expose the hocks and wherein the abdomen contains an opening adapted to receive the tail, the steps of disengaging the tail from the spine, encircling the tail with an elastic band at a point removed from the tip thereof, then folding the tail into the opening of said abdomen moving the hocks in adjacent relation, slipping the free end of said band over the adjacent hocks to support them against the folded tail, looping another elastic band over said hocks, twisting the free end of said band to be supported against the sternum of said fowl, and looping the free end of the twisted band across the breast of said fowl.

2,842,444

METHOD OF FORMING MOULDS FOR PRECISION CASTING

Harold Garton Emblem, Melbourne, and Desmond Joseph Cloherty, Chellaston, England, assignors to Rolls-Royce Limited, Derby, England

No Drawing. Application July 19, 1954
Serial No. 444,364
Claims priority, application Great Britain August 18, 1953
9 Claims. (Cl. 106—38.3)

1. The method of forming a mould for precision casting which includes adding an aqueous solution of an alkali metal silicate to an excess of an aqueous solution of a mineral acid, mixing with the resultant acid reaction products so formed a stable substantially electrolyte free colloidal dispersion of silica in water alone and using the resultant liquid to bind a refractory mould material.

2,842,445
BINDING LIQUID FOR MOLDS USED IN PRECISION CASTING
Harold Gurney Emblem, Melbourne, and Desmond Joseph Cloherty, Chesterton, England, assignors to Rolls-Royce Limited, Derby, England, a British company
No Drawing. Application January 23, 1956
Serial No. 560,849
Claims priority, application Great Britain August 18, 1953
9 Claims. (Cl. 106—38.35)

1. A bonding liquid for bonding refractory materials used for moulds and cores in precision casting which is prepared by carrying out the hydrolysis of ethyl silicate with a stable silica sol to which has been added an acid selected from the group which includes hydrochloric and sulphuric acids to produce a normality of the acidified silica sol in the range 0.25 to 1.2.

2,842,446
HIGH-INDEX GLASS ELEMENTS
Warren R. Beck, Mahtomedi, and Nelson W. Taylor, Afton Township, Washington County, Minn., assignors to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
No Drawing. Application December 27, 1954
Serial No. 477,526
4 Claims. (Cl. 106—47)

1. Transparent glass elements highly resistant to deterioration by chemicals and weathering action and formed from glass characterized by having a refractive index above 2.4, said elements having a thickness not exceeding 1 millimeter and substantially completely consisting of between 15 and 50 weight percent titanium dioxide and between 85 and 50 weight percent lead oxide.

2,842,447
METHOD OF MAKING A REFRACTORY BODY AND ARTICLE MADE THEREBY
Leon R. Schlotzhauer and Kenneth T. Wood, Painted Post, N. Y., assignors to Corning Glass Works, Corning, N. Y., a corporation of New York
No Drawing. Application September 29, 1955
Serial No. 537,569
5 Claims. (Cl. 106—57)

1. The method of making a highly refractory and corrosion resistant body which comprises making an intimate mixture consisting essentially of finely divided zircon and finely divided alumina in substantially the stoichiometric proportions of the equation

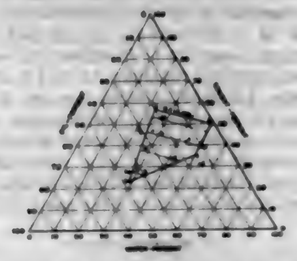
$$2ZrSiO_4+3Al_2O_3=2ZrO_2+Al_6Si_2O_{13}$$

and 1 to 5 wt. percent of a mineralizer molding the mixture to form a body and reacting the constituents by sintering the body without fusion at a temperature above 1500° but not above about 1800° C. until the reaction is substantially complete.

2,842,448
SODIUM SILICATE ADHESIVE
John E. Dersich, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
No Drawing. Application May 13, 1953
Serial No. 354,886
5 Claims. (Cl. 106—82)

1. An adhesive composition of matter characterized by strong adhesion to cellulosic materials and slight adhesion to heated metal surfaces, said composition consisting essentially of an aqueous adhesive silicate glass having an $Na_2O:SiO_2$ ratio substantially within the range of 1:2.5–4, in the major proportion, and 0.1% to 1% of a salt of an organic acid selected from the group consisting of saturated aliphatic alkyl, saturated aliphatic cyclic and aromatic acids having from 6 to 12 carbon atoms in the molecules thereof, the metal constituent of said salt being selected from the group consisting of manganese, cobalt, copper, cerium, lead, zinc, calcium, tin, and aluminum, the amount of said salt being sufficient to render said silicate glass non-adhesive to heated metallic surfaces.

2,842,449
EMULSION CEMENT
William G. Bourdon, George C. Howard, and Robert B. Evans III, Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware
Application August 13, 1956, Serial No. 603,783
2 Claims. (Cl. 106—90)



1. A lightweight cement composition suitable for well cementing operations, said composition consisting essentially of nonvolatile mineral oil, water, and ASTM Portland cement, which are present in the relative percentages by weight lying within the area defined in the accompanying diagram by the lines AB, BC, CD, and DA.

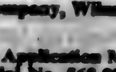
2,842,450
WITHDRAWN

2,842,451
AQUEOUS VEHICLES FOR FORMING WATER-RESISTANT FILMS
Oliver J. Greenblat and Albert A. Artera, Cleveland, Ohio, assignors to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application December 23, 1954
Serial No. 477,396
14 Claims. (Cl. 106—194)

8. The method of making a stable homogeneous aqueous composition of a water-dispersible, film-forming material which comprises the steps of dispersing a free acid form of carboxymethyl cellulose in water, adding to said water dispersion of carboxymethyl cellulose acids a water-soluble zirconium salt with vigorous agitation, and in an amount sufficient to yield a ratio of zirconium to carboxyl in the range of from 0.15 to 2, continuing the agitation until the mixture is homogeneous, adding ammonium carbonate with agitation, continuing the agitation until all frothing and gelling has disappeared and the composition has become liquid, and adjusting the pH of the resultant composition to more than 7.5 and less than 9.

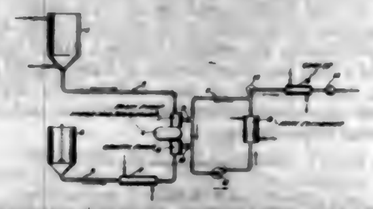
2,842,453
CELLULOSE NITRATE-LIQUID POLYMER OIL COMPOSITIONS
Donald F. Koenecke, Westfield, and Harold J. Brady, Bayonne, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application November 22, 1955
Serial No. 548,536
2 Claims. (Cl. 106—195)

1. A coating composition comprising a mixture of 1 to 100 parts of cellulose nitrate and 100 parts of a polymer selected from the group consisting of homopolymers of butadiene and copolymers of butadiene with up to 50% styrene, said polymer having a substantial proportion of its double bonds converted, to the epoxide group



so that the final polymer contains 1 to 9.5% epoxide groups, said composition yielding films 1.5 to 3.5 mils thick which are hard and flexible after curing 10 to 60 minutes at 275° to 375° F.

2,842,453
CONTINUOUS MANUFACTURE OF LIQUID ROSIN SIZE
Joseph M. Anderson, Pine Beach, N. J., and Floyd B. Porter, Jr., Watertown, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application May 6, 1955, Serial No. 506,584
8 Claims. (Cl. 106—238)



1. A process for the continuous manufacture of liquid rosin size which includes the steps of continuously and separately supplying under pressure a molten rosin and a hot aqueous alkali metal alkali solution in proportion to provide a liquid size containing between 50% and 80% by weight of solids and not more than 30% by weight of free rosin into a closed circuit reactor, continuously dispersing said rosin in said solution therein containing an effective amount of autogenously and preformed alkali metal rosinate as dispersing agent for said rosin, and continuously discharging product from said reactor.

2,842,454
CERAMIC COLOR COMPOSITIONS
Oliver A. Short, Metuchen, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application March 2, 1956
Serial No. 568,980
6 Claims. (Cl. 106—288)

1. A resin-free vitreous enamel color composition consisting essentially of a vitreous enamel color and a resin-free vehicle solid at room temperature and meltable to a liquid at a temperature between 120° F. and 212° F., in a proportion of enamel color to vehicle of 1:1 to 6:1, said vehicle consisting essentially of

17.5% to 85.5% paraffin
3.5% to 47.5% natural vegetable wax,

the paraffin and natural vegetable wax comprising 35% to 95% of said vehicle, and

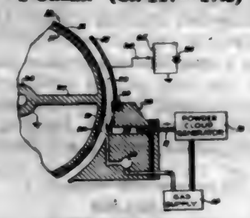
2% to 20% aluminum stearate
0% to 3% phosphorated tall oil
0% to 68% of a substance from the group consisting of stearic acid and stearyl alcohol,

all of said constituents together constituting at least 90% of said vehicle.

2,842,455
COMPOSITION OF PARAFFIN WAX AND A HYDROGENATED POLYMER OIL
David W. Young, Westfield, and Delmer L. Cottle, Highland Park, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Original application May 27, 1954, Serial No. 432,936. Divided and this application February 1, 1955, Serial No. 485,618
2 Claims. (Cl. 106—271)

1. A composition of matter consisting essentially of paraffin wax and 1 to 20% of a hydrogenated liquid polymer oil having an iodine number below 150 and prepared by mixing 50 to 100 parts by weight of butadiene-1,3 with 50 to 0 parts by weight of styrene, 50 to 500 parts by weight of an inert hydrocarbon diluent boiling between about 0 and 250° C., 1 to 100 parts of an ether selected from the group consisting of C_4–C_8 aliphatic ethers and cyclic ethers having the oxygen atoms separated by 2 carbon atoms, 1.2 to 8 parts of finely dispersed sodium and 10 to 50% by weight of a C_3–C_8 alcohol based on the weight of sodium, heating the mixture to a reaction temperature between 25 and 105° C. until substantially 100% conversion is obtained, destorying and removing the catalyst and subsequently contacting the resulting polymer with hydrogen under the pressure of about 100 to 5000 p. s. i. g. at a temperature between about 200 and 500° F. in the presence of a hydrogenation catalyst.

2,842,456
PROCESS FOR DEVELOPING AN ELECTROSTATIC IMAGE
Chester F. Carlson, Pittsford, N. Y., assignor to The Battelle Development Corporation, Columbus, Ohio, a corporation of Delaware
Application August 30, 1955, Serial No. 531,473
1 Claim. (Cl. 117—17.5)



A process for developing an electrostatic image on an image-bearing surface, said process comprising drawing the field of force of said image externally above the image-bearing surface, blowing a gas over the image-bearing surface in laminar flow to form a layer of rapidly moving gas adjacent to the image-bearing surface, generating and charging a cloud of powder particles, passing the charged powder cloud in approximately laminar flow parallel to the image-bearing surface below the protective layer of gas, and the electrostatic image and drawing the charged powder particles through the protective layer of gas causing the particles to deposit on the image-bearing surface in conformity with the said electrostatic image.

2,842,457
DECORATING COMPOSITIONS
Jack E. Morgan, Westfield, and Charles W. Wagner, Metuchen, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 17, 1957
Serial No. 659,770
8 Claims. (Cl. 117—46)

7. A precious metal decorating process which comprises applying to a ceramic body a thermosetting liquid precious metal decorative composition comprising a precious metal resinate taken from the group consisting of terpineol sulfide resinates and cyclic terpene mercaptan

resinates, a flux for said precious metal, a thermosetting epoxy resin, all dissolved in a solvent for said substances, heating said ceramic body to set said decoration, and firing said decoration to a bright, adherent precious metal form.

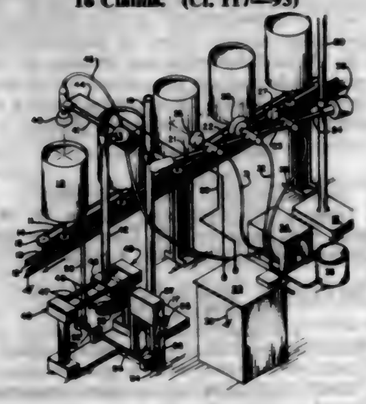
2,842,458
LOW TEMPERATURE VITREOUS COATINGS FOR STEEL
Edward J. Feeney and Ernest M. Hommel, Pittsburgh, Pa., assignors to The O. Hommel Company, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application May 28, 1954
Serial No. 433,270
19 Claims. (Cl. 117—70)

1. A low temperature porcelain enamel under coating frit adapted to be bonded to ferrous metal alloys having a coefficient of linear expansion below 14×10^{-6}, said frit having a fusing and maturing temperature between 850° and 1100° F., which comprises a mixture expressed from analysis containing mol. percentages of Na_2O 13.9 to 17.3, K_2O 0.4 to 3.0, B_2O_3 7.5 to 13.1, SiO_2 33.4 to 38.7, CaO 1.0 to 15.6, and the balance of at least one or more of the metal oxides of the group consisting of Li_2O, CuO, MgO, TiO_2, PbO, Al_2O_3, BaO, ZrO, P_2O_5, NiO, Co_3O_4 and fluorides.

2,842,459
PRIMERS FOR VINYL RESIN COATING
Frank Golub and Marvin S. Wool, University City, and William D. Berberich, St. Louis, Mo., assignors to Dennis Chemical Company, St. Louis, Mo., a corporation of Missouri
No Drawing. Application August 1, 1955
Serial No. 525,796
9 Claims. (Cl. 117—72)

8. The method of bonding a vinyl resin coating to a surface which comprises applying a primer to said surface, said primer comprising a mixture of a methyl methacrylate polymer and an unesterified epoxy resin dissolved in an organic solvent, the ratio of said methacrylate polymer to said epoxy resin being between approximately 15:85 and 99:1, volatilizing said solvent, applying a vinyl resin dispersion to the primed surface, and thereafter heating the dispersion.

2,842,460
SPRAY COATING
James W. Juvinall, Brendonwood, Ind., assignor to Ransburg Electro-Coating Corp., a corporation of Indiana
Original application December 7, 1941, Serial No. 268,431, now Patent No. 2,724,661, dated November 22, 1955. Divided and this application August 3, 1955, Serial No. 526,096
16 Claims. (Cl. 117—93)



5. A method for electrostatically coating a pair of spaced portions of an article wherein each of said portions comprises adjacent divergent surfaces, comprising: providing from an atomizing head a spray of coating material in a pattern which is an annular band; providing an electrostatic field from said head to said spaced portions being coated; and rotating said article during such coating with the center of rotation being substantially midway between said spaced portions and substantially coinciding with the center of said annular band for a substantial period of time so that said spaced portions move in opposite sides of said annular band.

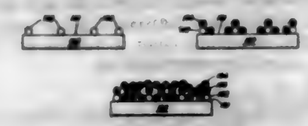
2,842,461
LEAD COATING PROCESS AND MATERIAL
Henry A. Wagner, Cleveland, Paul Geier, South Euclid, and James R. Kass, Maple Heights, Ohio, assignors to The E. F. Hauserman Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application December 2, 1955
Serial No. 556,759
4 Claims. (Cl. 117—130)

1. The method of forming a substantial sound adherent protective lead coating on ferrous articles which comprises subjecting such article to the action of a water solution of lead formate and the at least slightly water soluble condensation product of ethylene oxide and an organic compound, the solution having a pH of from 2.5 to 5.0 and a lead ion concentration of from 1 to 80 grams per liter, for a period of time sufficient to deposit a continuous corrosion-resistant lead coating on such article by chemical displacement.

2,842,462
ANTISTATIC SYNTHETIC TEXTILE MATERIAL
Hermann Haas, Hans Markert, and Gustav Lietz, Duesseldorf, Germany, assignors to Böhme Fettchemie G. m. b. H., Duesseldorf, Germany, a corporation of Germany
No Drawing. Application December 16, 1954
Serial No. 475,812
Claims priority, application Germany December 21, 1953
4 Claims. (Cl. 117—139.5)

1. An antistatic synthetic textile material impregnated with a neutral condensation product, formed by esterifying 1 mol prosphorus pentoxide with 2 mols of fatty alcohol with from 6 to 18 carbon atoms, and subjecting the resulting acid phosphoric acid ester to a condensation reaction with from 1 to 10 mols ethylene oxide at a temperature between 50 and 100° C., in an amount sufficient to impart antistatic properties to said synthetic textile material.

2,842,463
VAPOR DEPOSITED METAL FILMS
Walter L. Bond, New Providence, and Edward M. Kelly, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 4, 1953, Serial No. 378,586
11 Claims. (Cl. 117—211)



1. In combination with a hard, smooth, transparent, non-metallic substrate, an adherent vapor-deposited metallic coating less than about 100 Angstroms thick consisting of substantially 20 percent by volume of aluminum, 30 percent by volume of titanium, and 50 percent by volume of gold, wherein the aluminum forms a base layer in contact with said substrate, said gold forms the outermost layer, and said titanium is interposed between said base layer and said outermost layer.

2,842,464
METHOD OF PRODUCING AN ELECTRICAL RESISTANCE ON GLASS
George A. Dickinson, Eccleston Hill, St. Helens, and Solomon E. Kay, Windle, St. Helens, England, assignors to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey, Paris, France, a company of France
Application March 2, 1954, Serial No. 413,654
Claims priority, application Great Britain March 2, 1953
2 Claims. (Cl. 117—211)

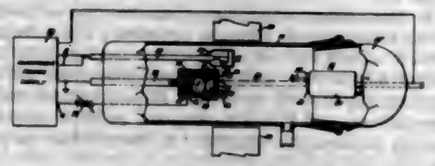
1. The method of producing an electrical resistance on the surface of toughened plate glass, which consists of applying resistance metal to the whole of the surface on which the resistance is to be produced, covering the metal with a resist to produce on the metal the desired pattern for the resistance, chemically removing the exposed metal by subjecting the exposed parts to a chemical which removes the metal but which has no action on the resist, characterised in that the resistance metal is selected from the group consisting of aluminium and an aluminium alloy and has a fusing temperature higher than that of the glass, said metal being applied to the plate glass in molten form to fuse the surface of the glass and to form a uniform coating thereon which is self-bonded to the glass, and the removal of exposed metal is effected by a hydrochloric acid solution containing a salt of a metal which is lower in the electromotive force series of elements than aluminium.

2,842,465
METHOD FOR CLEANING TIRES
Taylor H. Harrison, Fort Worth, Tex., assignor of one-half to Jack Danciger, Fort Worth, Tex.
Application December 6, 1955, Serial No. 551,360
1 Claim. (Cl. 134—7)



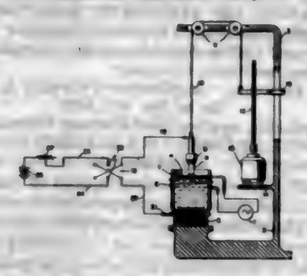
A method of cleaning tire side-walls which comprises passing a stream of compressed air through a readily vaporizable crystalline detergent mass to vaporize at lease a portion thereof, the vapors being entrained in the air stream, and ejecting the compressed air stream and its entrained vapors against the tire, followed by rinsing the treated tire, said detergent mass consisting of bicarbonate of soda, potassium hydroxide, and blueing.

2,842,466
METHOD OF MAKING P–N JUNCTION SEMICONDUCTOR UNIT
James W. Moyer, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application June 15, 1954, Serial No. 436,816
4 Claims. (Cl. 148—1.5)



1. The method of making a P–N junction semiconductor unit, which method comprises vaporizing and activator element of one conductivity inducing type, directing a beam of electrons through the vaporized activator element to ionize the vaporized element, and forming and directing a high velocity beam of said ionized vaporized element upon a semiconductor crystal selected from the group consisting of germanium and silicon of opposite conductivity type to convert a surface-adjacent region of the crystal receiving said ionized beam into said one conductivity type.

2,842,467
METHOD OF GROWING SEMI-CONDUCTORS
Rolf W. Landauer and Lloyd P. Hunter, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application April 28, 1954, Serial No. 426,270
4 Claims. (Cl. 148—1.6)



1. A method of growing a semi-conductor crystal comprising the steps of maintaining a pure elemental semiconductor material with selected conductivity type determining impurities in a melted condition, supporting a seed crystal of the same material in engagement with the upper surface of said melt, applying a direct current electric field across said seed crystal and said melt, and lifting said seed crystal slowly to permit a freezing of the melt on the lower end of the crystal while said electric field is maintained.

2,842,468
VAPOR DEPOSITION OF SINGLE CRYSTALS
Siegfried Sidney Brenner, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 20, 1955, Serial No. 523,359
12 Claims. (Cl. 148—1.6)

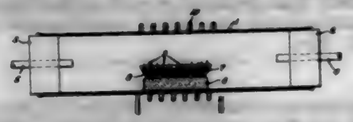


1. A method for producing high strength rod-like metallic single crystals comprising the steps of providing a metal vapor by the decomposition of a volatile metal compound at substantially atmospheric pressure and depositing the metal upon a suitable substrate at a rate less than that at which imperfections are introduced thereby forming a rod-like single crystal of said metal which is capable of supporting elastic strains as high as 1.5 percent.

2,842,469
METHOD OF PRODUCING SINGLE CRYSTALS OF IRON
Robert L. Fullman and Arno Gatti, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application August 26, 1957, Serial No. 680,612
16 Claims. (Cl. 148—1.6)

1. A method for producing rod-like high strength

single crystals of iron comprising heating a source of iron in a dry hydrogen atmosphere in the presence of



an ammonium halide in the temperature range of from about 600° C. to about 800° C.

2,842,470

PROCESS FOR INCREASING THE SCALING RESISTANCE OF TITANIUM BASE METALS

Karl Haufe, Duesseldorf, Germany, assignor to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

No Drawing. Application February 2, 1954
Serial No. 407,800
Claims priority, application Germany February 3, 1953
4 Claims. (Cl. 148—6.3)

4. A process for increasing the scaling resistance of titanium which comprises alloying 0.05 to 5 atom percent of tungsten and about 0.5 atom percent of a metal selected from the group consisting of beryllium, cerium, thorium and calcium in said titanium and then heating such alloyed titanium to a temperature of between 800 and 1100° C. in an oxidizing atmosphere until an oxide scale is formed which protects such titanium alloy against further scaling.

2,842,471

POWDER METALLURGY AND PISTON RINGS OBTAINED THEREBY

Max Koehler, Witten-Bommern, Germany, assignor to August H. Schilling, Atherton, Calif.

No Drawing. Original application December 22, 1950, Serial No. 202,395, now Patent No. 2,741,827, dated April 17, 1956. Divided and this application April 2, 1956, Serial No. 575,687
11 Claims. (Cl. 148—12)

1. Process for the manufacture of piston rings suitable for use in high speed internal combustion engines, the steps which comprise pressing a mixture of a preponderating proportion of iron powder, about 1 to 10% of lead powder, and a small proportion of powdered graphite to approximately the desired shape, sintering the mass, subsequently cold-pressing the same, and thereafter reheating the pressed mass.

2,842,472

NON-WOVEN CLOTH

Fred W. Hartstein, Summit, N. J.

Application October 5, 1955, Serial No. 538,705
1 Claim. (Cl. 154—46)



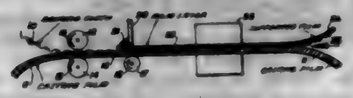
Cloth having a body comprising a layer of straight parallel cords and two other layers of cords, one upon each face of the aforesaid layer, the cords of each layer lying flat in the plane thereof, the cords of the other layers crossing the straight cords in zigzag lines and in contact therewith at all points of intersection, and united thereto at all said points of contact, the bent portions of the zigzag cords of one of said other layers coinciding with spaces between the bends in the zigzag cords of the remaining other layer, said cords of the zigzag layers being substantially all in contact with one another over the whole extent of the body, whereby the texture of the body is substantially continuous throughout.

2,842,473

PROCESS FOR COATING CLOTH

Louis A. Oberly, Chagrin Falls, and Carl B. Salsburg, Cleveland, Ohio, assignors to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware

Application June 15, 1955, Serial No. 515,608
2 Claims. (Cl. 154—120)



1. Process for coating cloth on a moving belt of thermoplastic casting film which comprises passing said belt of casting film through heat softening means; partially embedding cloth under pressure in the softened portion of said moving belt of casting film to temporarily laminate said cloth with said belt; applying a film layer of coating material over the unembedded side of the cloth while it is temporarily laminated with said moving belt of casting film; curing the applied film layer of coating material on the cloth while it is temporarily laminated with said moving belt of casting film; separating the coated cloth from the moving belt of casting film; maintaining said moving belt of casting film under a substantially constant tension; and smoothing the surface of said moving belt of casting film to remove cloth impressions after the belt is separated from said coated cloth before returning through the said heat softening means.

2,842,474

PROCESS FOR PREPARING A COPOLYMER OF 3 - METHYLENE - 1 - CYCLOBUTENE AND ANOTHER ETHYLENICALLY UNSATURATED MONOMER AND THE COPOLYMER

Burt Carlton Pratt, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 16, 1955
Serial No. 528,818
16 Claims. (Cl. 154—140)

1. An addition copolymer of 3-methylene-1-cyclobutene and another ethylenically unsaturated monomer, said copolymer containing from 1% to 45% by weight of polymerized methylenecyclobutene.

7. The process for preparing a crosslinked polymer which comprises heating, to a temperature between 100° and 325° C. until crosslinking has occurred, a crosslinkable copolymer of 3-methylene-1-cyclobutene with another ethylenically unsaturated monomer, said copolymer containing from 1% to 45% by weight of polymerized methylenecyclobutene.

12. The process which comprises the steps of printing on a surface with an ink containing a crosslinkable addition copolymer of 3-methylene-1-cyclobutene and another unsaturated monomer, said copolymer containing from 1% to 45% by weight of polymerized methylenecyclobutene, and then heating the polymer to a temperature between 100° and 325° C. to crosslink the polymer and set the ink.

13. The process which comprises the steps of bonding two surfaces with an adhesive containing a crosslinkable addition copolymer of 3-methylene-1-cyclobutene and another unsaturated monomer, said copolymer containing from 1% to 45% by weight of polymerized methylenecyclobutene, and then heating the polymer to a temperature between 100° and 325° C. to crosslink the polymer.

15. A liquid coating composition comprising an addition copolymer of 3-methylene-1-cyclobutene with another ethylenically unsaturated monomer in a volatile solvent for the copolymer, said copolymer containing from 1% to 45% by weight of polymerized methylenecyclobutene.

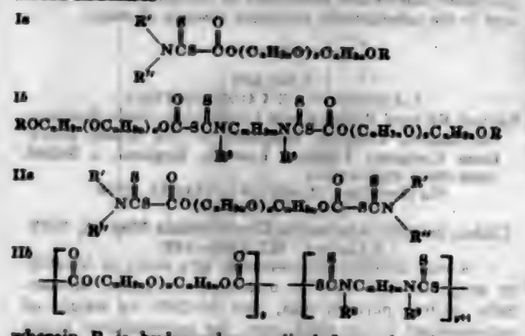
2,842,475

OXYALKOXYCARBONYL DITHIOCARBAMATES

W. E. Craig and Chien-Pen Lo, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

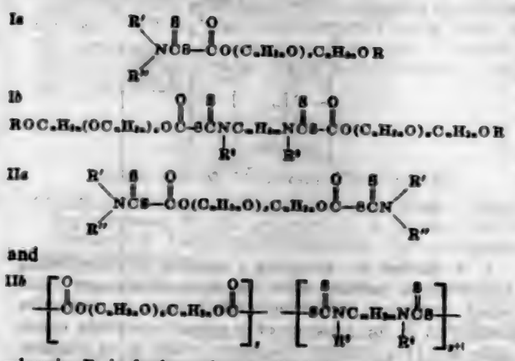
No Drawing. Application March 1, 1956
Serial No. 568,720
12 Claims. (Cl. 167—22)

1. A compound from the class consisting of compounds of the structures



wherein R is hydrocarbon radical from the class consisting of alkyl groups of not over four carbon atoms and phenyl, benzyl, cyclohexyl, and allyl groups, R′ and R″ when taken individually are alkyl groups of not over four carbon atoms each and when taken together form a saturated divalent aliphatic chain of four to five carbon atoms which with the nitrogen atom forms a five- to six-sided heterocycle which has one ring and with an N-hydrogen becomes a secondary monoamine, R° represents a member of the class consisting of hydrogen and the methyl group, and *m*, *n*, *x*, and *y* are numbers, *m* having a value of two to three, *n* having a value of two to four, *x* having a value from zero to two, and y having a value from one to five.

7. The process of controlling fungi which attack plants which comprises supplying to the environment of the plant a compound from the class consisting of compounds of the structures



and

wherein R is hydrocarbon radical from the class consisting of alkyl groups of not over four carbon atoms and phenyl, benzyl, cyclohexyl, and allyl, groups R′ and R″ when taken individually are alkyl groups of not over four carbon atoms each and when taken together form a saturated divalent aliphatic chain of four to five carbon atoms which with the nitrogen atom forms a five- to six-sided heterocycle which has one ring and with an N-hydrogen becomes a secondary monoamine, R° represents a member of the class consisting of hydrogen and the methyl group, and *m*, *n*, *x*, and *y* are numbers, *m* having a value of two to three, *n* having a value of two to four, *x* having a value from zero to two, and *y* having a value from one to five.

2,842,476

INSECTICIDAL COMPOSITIONS

Albert A. Schreiber, Salem, N. Y., assignor to McLaughlin Gormley King Company, Minneapolis, Minn., a corporation of Minnesota

No Drawing. Application April 25, 1953
Serial No. 350,759
11 Claims. (Cl. 167—24)

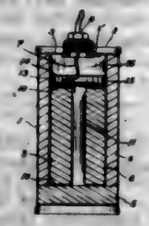
1. Anhydrous insecticidal composition comprising, dissolved in a kerosene type mineral oil fraction, a pyrethroid and from about 2 to 10 times its weight of a nitrogen base salt, selected from the group consisting of $—NH_4$ and amines containing up to 8 carbon atoms, of an alkyl aryl monosulfonic acid, whose alkyl groups contain 6–30 carbon atoms and whose aryl groups are selected from the group consisting of benzene and naphthalene.

2,842,477

SULFUR DIOXIDE GAS GENERATING COMPOSITION

Herbert Ellern, Ferguson, Isadore Kowarsky, University City, and Donald E. Olander, Florissant, Mo., assignors to Universal Match Corporation, Ferguson, Mo., a corporation of Delaware

Application April 14, 1955, Serial No. 501,420
13 Claims. (Cl. 167—40)



1. A non-explosive sulfur dioxide gas forming composition comprising sulfur, a solid combustion-supporting oxidizer for said sulfur, and a metal sulfate, said sulfur being adapted to react exothermically with said oxidizer and being adapted to react endothermically with said metal sulfate, the quantities of the sulfur, oxidizer, and metal sulfate in the exothermic and endothermic reactions being stoichiometrically proportioned so that a substantial portion of the heat generated by the exothermic reaction is absorbed by the endothermic reaction, and thereby regulating the total net heat output of the combined reactions.

2,842,478

TETRAHYDROZOLINE—CENTRAL NERVOUS SYSTEM DEPRESSANT VETERINARY COMPOSITIONS AND METHOD OF USING SAME

Joseph F. Gardocki, Maywood, and Duncan Elliot Hutcheon, Montvale, N. J., and Gerald D. Laubach, Jackson Heights, and Shih Yi P'an, Fresh Meadows, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application August 25, 1955
Serial No. 530,618
7 Claims. (Cl. 167—52)

1. A therapeutic composition comprising the active ingredients tetrahydrozoline and a central nervous system depressant selected from the group consisting of the 5-substituted alkyl derivatives of barbituric acid and 2-thiobarbituric acid, a tertiary acetylenic carbinol, a water soluble ester of a pregnanolone, chloral, chloral hydrate, chloralose, morphine, and an acid addition salt of morphine.

2,842,479

N-HIGHER ALIPHATIC ACYL ALPHA-AMINO ARYL ACETIC ACIDS AND COMPOSITIONS THEREWITH

Eric Jungermann, Fort Lee, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application May 24, 1955
Serial No. 510,839
9 Claims. (Cl. 167—65)

9. A new chemical compound selected from the group consisting of N-higher aliphatic acyl alpha amino mononuclear aryl acetic acid and its salts.

2,842,480

PREPARATION OF THROMBOPLASTIN

Heron O. Singher, Plainfield, and Emanuel A. Swart, Somerville, N. J., assignors to Ortho Pharmaceutical Corporation, a corporation of New Jersey

No Drawing. Application May 27, 1954
Serial No. 432,398
7 Claims. (Cl. 167—74)

1. In a method for the preparation of thromboplastin, the steps which comprise; finely dividing rabbit tissues selected from the group consisting of brain and lung tissue, extracting the finely divided tissue with an aqueous solution, buffered at a pH within the range of 5–8, containing an alcohol selected from the class consisting of methanol and ethanol and mixtures thereof in the amount of 5–20 percent by volume and 0.01–6.0 percent by weight of an amino acid having not more than nine carbon atoms, separating the finely divided tissue from the extracting solution and dialyzing the extracting solution against distilled water.

2,842,481

PROCESS FOR PRODUCING OLEANDOMYCIN

Edwin J. Ratajak, Roslyn, and Robert C. Nubel, Levittown, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application March 12, 1957
Serial No. 645,420
6 Claims. (Cl. 195—114)

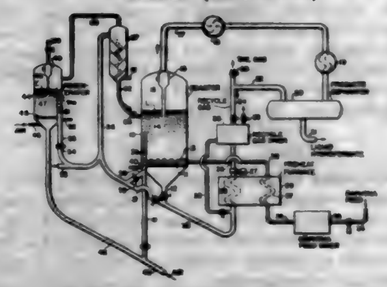
1. In a process for the production of oleandomycin by fermenting a nutrient medium with a culture of *Streptomyces antibioticus*, the improvement which comprises adding to the medium within 30 hours of initiation of the fermentation an organic dye chosen from the group consisting of the acid salts of 2,8-di(dimethylamino) acridine, the acid salts of 2,8-di(dimethylamino) xanthydrol, and a mixture comprising the acid salts of 2,8-diaminoacridine and 2,8-diamino-10-methylacridinium chloride.

2,842,482

HYDROFORMING PROCESS

Alexis Voorhies, Jr., Baton Rouge, La., and Robert C. Morbeck, Fanwood, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application May 24, 1954, Serial No. 431,776
7 Claims. (Cl. 196—50)



1. A method of upgrading hydrocarbon fractions boiling within the naphtha range in contact with catalysts consisting essentially of molybdic oxide dispersed upon zinc aluminate spinel in a fluidized solids reactor system in which catalyst is continuously circulated from the reaction zone to a regeneration zone where carbonaceous deposits are burned off, whereupon the regenerated catalyst particles are returned to the reaction zone, the improvement which consists of contacting the feed stock with the catalyst in admixture with hydrogen-rich recycle gas under conversion conditions of temperature and pressure in the substantially complete absence of water.

2,842,483

CARTON WAX COMPOSITION

Samuel Richard Petherick and Leslie Alan Nash, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited, London, England, a British joint-stock corporation

No Drawing. Application May 23, 1956
Serial No. 586,632
Claims priority, application Great Britain May 26, 1955
6 Claims. (Cl. 196—149)

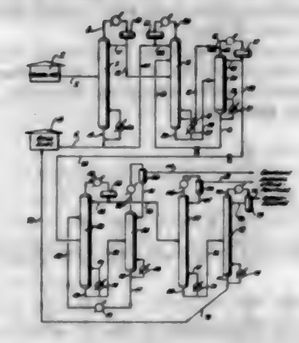
1. A wax composition consisting of a blend of 30–80% by weight of 125–130° F. melting point grade, substantially oil-free paraffin wax, and 70–20% by weight of recrystallized bright stock wax, the recrystallized bright stock wax containing 5–40% by weight of petroleum ceresin wax and 1–3% by weight of oil.

2,842,484

SEPARATION OF HYDROCARBONS

Raymond N. Fleck, Whittier, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application December 30, 1954, Serial No. 478,647
19 Claims. (Cl. 202—39.5)



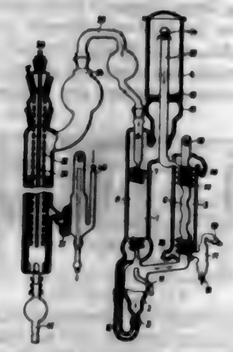
1. A method for resolving a mixture of close-boiling hydrocarbons which differ in carbon/hydrogen ratio which comprises subjecting said mixture to extractive distillation in the presence of a solvent consisting essentially of (1) a primary component which is an aliphatic dinitrile containing 3–7 carbon atoms, and (2) a secondary component selected from the group consisting of mono-nitriles and mono-amines containing one nitrogen atom and 3 to 10 carbon atoms, each of said solvent components having a boiling point at least about 30° C. higher than any of said hydrocarbons, whereby the volatility of those hydrocarbons having a relatively high carbon/hydrogen ratio is decreased relative to the volatility of those hydrocarbons having a lower carbon/hydrogen ratio, recovering overhead from said distillation a hydrocarbon fraction having a relatively low carbon/hydrogen ratio, and stripping the solvent bottoms from said distillation to recover a hydrocarbon fraction having a relatively high carbon/hydrogen ratio.

2,842,485

APPARATUS FOR BIDISTILLATION

Hugo Zellner, Linz, Austria, assignor to Jenaer Glaswerk Schott & Gen., Mainz, Rhineland-Pfalz, Germany

Application September 29, 1953, Serial No. 382,924
Claims priority, application Austria October 2, 1952
4 Claims. (Cl. 202—174)



1. An apparatus for bidistillation of a liquid containing non-volatile impurities consisting of a primary vaporizer, a heat exchanger which is composed of a spiral tube surrounded by a mantle, this mantle forming a secondary vaporizing space between itself and the spiral tube, the upper end of the spiral tube being connected to said primary vaporizer, a vessel for receiving the monodistillate whereby the inlet opening of this vessel is connected to the lower end of said spiral tube, a throttle valve which is arranged within a pipe, this pipe connecting the outlet of said vessel to the lower end of said secondary vaporizing space in which the monodistillate is vaporized completely to secondary vapor by heat exchange with the primary vapor, a steadying vessel connected to the upper half end of said secondary vaporizing room, a condenser for condensing the secondary vapor with its upper end connected to the outlet of the steadying vessel, a vacuum pump and a vessel for receiving the bidistillate, both connected to the lower end of said condenser.

2,842,486

PROCESS OF MAKING A CATALYST

Christian J. Wernlund, Niagara Falls, and Paul F. Bente, Jr., Lewiston, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 21, 1947
Serial No. 730,208
3 Claims. (Cl. 204—48)

3. The process of producing a catalytic article particularly suitable for the decomposition of hydrogen peroxide the essential steps of which consist in constituting an iron supporting structure as the cathode and a cobalt structure as the anode in a plating bath having a temperature between 22° C. and 32° C. and consisting essentially of an aqueous solution containing 40 to 50 grams per liter $CoSO_4 \cdot 7H_2O$, 40 to 50 grams per liter $(NH_4)_2SO_4$, and sufficient ammonium hydroxide to maintain the solution at a pH of between 7.3 and 7.6, and passing an electric current through said bath with a cathode current density between 40 and 50 amperes per square foot and an anode current density between 10 and 30 amperes per square foot.

2,842,487

METHOD OF PRODUCING DULL ELECTRONICKEL

Dodd S. Carr, Newark, N. J., assignor to Bart Laboratories Co., Inc., Belleville, N. J., a corporation of New Jersey.

No Drawing. Continuation of application Serial No. 435,069, June 7, 1954. This application September 12, 1957, Serial No. 683,471
7 Claims. (Cl. 204—49)

1. An aqueous, acid, electroplating bath which comprises in the aqueous medium a nickel ion yielding material together with a reagent selected from the group which consists of ortho-formylbenzenesulfonic acid having not more than two sulfonate groups in the benzene ring and the salts of ortho-formylbenzenesulfonic acid added in an amount less than 1% by weight of the solids present in the electrolyte and sufficient to obtain upon electrolyzing of the bath at a temperature of about 130° F. and at current densities extending simultaneously over a fourfold range of the order of 35 to 140 amperes per square foot a dull nickel deposit with residual compressive stress and a hardness ranging from 440–710 Vickers as measured with a 1 kilogram load with a surface having a dull, satiny finish and a roughness RMS of materially more than two microinches.

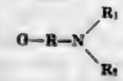
2,842,488

PROCESS FOR THE PRODUCTION OF METAL ELECTRODEPOSITS

Wennemar Strauss, Duesseldorf-Benrath, Alfred Kirschbaum, Duesseldorf, and Wolf-Dieter Willmund, Duesseldorf-Holthausen, Germany, assignors to Dehydag, Deutsche Hydrierwerke G. m. b. H., Duesseldorf, Germany, a corporation of Germany

No Drawing. Application September 28, 1954
Serial No. 458,985
Claims priority, application Germany April 22, 1954
11 Claims. (Cl. 204—52)

3. In a process of producing bright copper electrodeposits from acidic copper electroplating baths comprising hard water, technical grade copper salts and a sulfonic acid brightening agent, the steps which comprise adding to said acidic copper electroplating baths from 0.01 to 20 gm./liter of a compound, free from carboxyl groups having the structural formula



wherein R is selected from the group consisting of lower alkylene, mono hydroxy lower alkylene and phenyl, G is selected from the group consisting of halogen, cyano, thiocyano and nitro, and R_1 and R_2 are selected from the group consisting of lower alkyl, monohydroxy lower alkyl, phenyl, cyclohexyl and heterocyclic radicals which include the nitrogen atom selected from the group consisting of morpholino and piperidino, the radical G and the nitrogen atom being attached to carbon atoms of radical R, their salts and their quaternary ammonium compounds formed with epichlorohydrin, and electrodepositing copper from said baths, whereby the impurities contained in said water and technical grade copper salts are prevented from interfering with the brightening action of the sulfonic acid brightening agent.

2,842,489

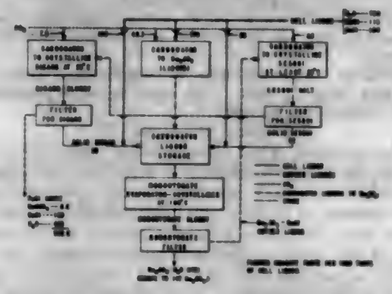
PRODUCTION OF SODA ASH

Hans Svanoe, Warren, Pa., assignor to Struthers Wells Corporation, Warren, Pa., a corporation of Maryland

Application March 5, 1957, Serial No. 644,127
7 Claims. (Cl. 204—87)

5. In a process for the conversion of cell liquor to soda ash and concentrated brine the steps which com-

prise converting in the first step sodium hydroxide, of the cell liquor from the electrolysis of brine, with car-

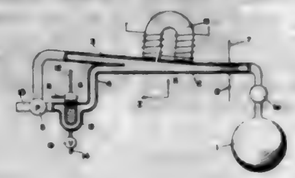


bon dioxide to sodium carbonate monohydrate, reacting in the second step mother liquor from the first step with carbon dioxide to form sesquicarbonate

(Na_2CO_3—$NaHCO_3$—$2H_2O$)

separating the sesquicarbonate from the carbonated liquor and converting the sesquicarbonate with cell liquor to sodium carbonate monohydrate, reacting in the third step the mother liquor of the second step with carbon dioxide to form sodium bicarbonate separating the sodium bicarbonate from the carbonated liquor and converting the sodium bicarbonate with cell liquor to sodium carbonate monohydrate combining and by heat converting the sodium carbonate monohydrate of each step to soda ash.

2,842,490
MANUFACTURE OF HYDROGEN PEROXIDE
Patrick J. Friel, Broomall, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application September 12, 1956, Serial No. 609,376
1 Claim. (Cl. 204—156)



The method of manufacturing hydrogen peroxide which comprises passing water vapor through a high voltage discharge at an absolute pressure not greater than about 1.0 mm. of mercury, therein dissociating the water vapor to hydrogen atoms and hydroxyl radicals, passing the hydrogen atoms and hydroxyl radicals through a magnetic field of a length and strength sufficient to effect separation of hydrogen atoms from hydroxyl radicals by displacement of the hydrogen atoms in the direction of the strongest part of the field, separately conducting the hydroxyl radicals to contact with a surface maintained at a temperature not in excess of —120° C., and recovering hydrogen peroxide formed by the union of hydroxyl radicals on said surface.

2,842,491
OZONE AIR PURIFIER
Romulus Toader, New York, N. Y., assignor to Royal Industries, Inc., Springfield, Ohio, a corporation of Ohio
Application April 27, 1956, Serial No. 581,067
1 Claim. (Cl. 204—317)

An ozone generator device, comprising a generally rectangular hollow sheet metal casing, said casing having a removable cover for the bottom, front and top thereof, and a bent plate forming sides and rear thereof, said sides and cover having a plurality of louvers therein to permit a free flow of air through the casing; a flat conductive plate secured to the rear of the casing, a plurality of pairs of electrodes secured to said flat plate; each pair of electrodes having a flat sheet of insulating material disposed therebetween, an insulating spacer having a groove therein disposed between the flat sheet and one inclined electrode of said pair of electrodes with an edge of the inclined electrode being disposed in the groove to define a wedge-shaped cavity between adjacent electrodes of said pair of electrodes, each of said electrodes being formed from a substantially flat apertured metal sheet, an electrical bridge member connecting the inclined electrodes of



the pairs of electrodes, the other electrode of each of said pairs being grounded through said flat conductive plate; a transformer having a laminated iron core secured to said flat conductive plate, primary and secondary coils wound on said core; a capacitor, and an electrical cable enclosing three lead wires extending through one side of the casing, said capacitor being connected across two of said lead wires, one of the two lead wires being connected to one end of said primary coil, the other of the two lead wires being connected to the other end of said primary coil one end of said secondary coil being connected to said inclined electrodes through said electrical bridge member, the other end of said secondary coil and the third wire of the three lead wires being grounded to said flat conductive plate.

2,842,492
PROCESS FOR INCREASING THE YIELD OF OIL UPON THE FLOODING WITH WATER OF OIL DEPOSITS
Wolf von Engelhardt, Hannover, Ernst Trommsdorff, Darmstadt, and Walter Tuna, Hannover, Germany, assignors, by direct and mesne assignments, of one-half to Rohm & Haas G. m. b. H., Darmstadt, and one-half to Gewerkschaft Elwerath, Hannover, Germany
No Drawing. Application March 2, 1955
Serial No. 491,780
Claims priority, application Germany March 3, 1954
3 Claims. (Cl. 252—8.55)

1. A process for increasing the yield of oil upon flooding oil deposits with water comprising flooding oil deposits with water containing a viscosity improver having an average molecular weight of at least 600,000 selected from the group consisting of copolymers of ethylenically unsaturated carboxylic acid and at least one ethylenically unsaturated noncarboxylic compound copolymerizable with said acid and alkali metal salts thereof, the calcium salt of said viscosity improver being soluble in water.

2,842,493
LITHIUM BASE GREASE
Richard A. Butcosk, East Hempstead, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
No Drawing. Application November 20, 1956
Serial No. 623,290
12 Claims. (Cl. 252—36)

1. A lubricating grease comprising: a major proportion of mineral oil and a minor proportion, sufficient to form a grease, of a mixture of soaps, the acid components of said soaps comprising from about fifteen percent by weight to about eighty percent by weight of wool grease fatty acids and the balance of said acid components comprising aliphatic acids having at least about twelve carbon atoms per molecule, one of the metal components of said soaps being lithium and at least one other metal component of said soaps being selected from the group consisting of calcium, strontium, barium and zinc, with the mole ratio of lithium (Li) to calcium (Ca) being between about 27:1 and about 6:1, the mole ratio of lithium (Li) to strontium (Sr) being between about 42:1 and about 2.8:1, the mole ratio of lithium (Li) to barium (Ba) being between about 33:1 and about 3:1, and the mole ratio of lithium (Li) to zinc (Zn) being between about 30:1 and about 5:1.

2,842,494
LITHIUM BASE GREASE
Richard A. Butcosk, East Hempstead, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
No Drawing. Application November 20, 1956
Serial No. 623,318
13 Claims. (Cl. 252—36)

1. A lubricating grease comprising a major proportion of mineral oil and a minor proportion, sufficient to form a grease, of a mixture of soaps selected from the group consisting of preformed soaps and of soaps formed in situ in the mineral oil, the acid components of said soaps comprising from about fifteen percent by weight to about eighty percent by weight of wool grease fatty acids and the balance of said acid components comprising aliphatic acids having at least about twelve carbon atoms per molecule, the metal components of said soaps being selected from the group consisting of lithium and lithium, lithium and sodium with the mole ratio of lithium to sodium being between about 15:1 and about 3:1, lithium and potassium with the mole ratio of lithium to potassium being between about 50:1 and about 10:1, and lithium and tin with the mole ratio of lithium to tin being between about 50:1 and about 8:1; preformed soaps of said mixtures of lithium-sodium, lithium-potassium and lithium-tin soaps comprising a lithium soap of said aliphatic acid and wool grease fatty acid soaps of said metal other than lithium.

2,842,495
PROCESS FOR FORMING HIGH SALT CONTENT COMPLEX GREASES
Arnold J. Morway, Clark, and Hans G. Vesterdal, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application November 22, 1954, Serial No. 470,436
8 Claims. (Cl. 252—39)

1. In a method for preparing a lubricating grease containing a soap-salt complex having a molar ratio of salt to soap in the range of about 7:1 to 40:1 wherein a grease-forming mixture comprising a lubricating oil, at least one salt-forming low molecular weight carboxylic acid, at least one soap-forming high molecular weight carboxylic acid and a basic reacting compound of at least one grease-forming alkaline earth metal is heated in a grease-making zone maintained at a bulk temperature in the range of about 450° to 600° F. for a period of time sufficient to promote formation of said complex and then cooling to obtain said lubricating grease, the improvement in accordance with which a portion of at least 10% by weight of the contents of said grease-making zone is subjected to a grease-hardening temperature in the range of about 700° to 1100° F. for a period of time sufficient to increase the hardness of said grease.

2,842,496
TRACTION MOTOR GEAR LUBRICANT
William J. Scheibley, Richard C. Givens, and Melvin R. Hefty, Port Arthur, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
No Drawing. Application December 23, 1955
Serial No. 554,939
5 Claims. (Cl. 252—42.1)

1. A gear lubricant comprising 1 to 3 weight percent alkali metal soap and more than 94 percent by weight of a sulfurized high viscosity petroleum residuum having a sulfur content between 0.7 and 1.3 weight percent, said residuum prior to sulfurization having an SUS viscosity at 210° F. above 950.

2,842,497
PHOSPHORUS ESTERS CONTAINING DIARYLAMINES AND POLYEPOXYPOLYHYDROXY POLYETHERS
Forrest J. Watson, Berkeley, Calif., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
No Drawing. Application January 5, 1953
Serial No. 329,719
3 Claims. (Cl. 252—49.9)

3. A lubricating composition consisting essentially of a major amount of a trialkylphosphate, each alkyl radical of which contains at least six carbon atoms, said phosphate containing 18–32 carbon atoms and from about 0.25% to about 5% by weight each of a condensation product of about equimolar proportions of a bis(hydroxyphenyl)propane with epichlorohydrin and a phenyl naphthyl amine.

2,842,498
LUBRICATING OIL
Samuel M. Darling, Lyndhurst, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application March 10, 1955
Serial No. 493,558
2 Claims. (Cl. 252—51.5)

1. A process for producing a petroleum lubricating oil having color stability comparable to that of a conventionally refined oil of the same viscosity produced from an asphaltic base crude oil, as defined herein, consisting only of the following three steps: (1) distilling from an asphaltic base crude oil, a fraction having a lubricating oil viscosity which would normally deteriorate in color upon storage unless additionally refined; (2) contacting said lubricating oil distillate with about 1 to 20 pounds of mineral adsorbent per barrel of oil; and (3) then adding to the lubricating oil produced in step (2) from 0.001 to 1% by weight of a compound of the formula:

$$HO—C_6H_4—HC=N—C_3H_6—N=CH—C_6H_4—OH$$

2,842,499
NEW SYNTHETIC LUBRICANTS
Delmer L. Cottle, Highland Park, and David W. Young, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application October 29, 1953
Serial No. 389,164
3 Claims. (Cl. 252—52)

1. A synthetic lubricating composition comprising a major proportion of a diacetal lubricating oil having an ASTM pour point below 35° F., a flash point above 375° F., and a kinematic viscosity within the range of 2.6 to 13 centistokes at 210° F., which is selected from the group of diacetals consisting of (1) diacetals having the formula:

$$(RO)_2CHCH(OR)_2$$

wherein R represents branched-chain alkyl radicals con-

taining between about 4 to 30 carbon atoms each and (2) diacetals formed from 4 moles of an aliphatic branched-chain alcohol containing between about 4 to 30 carbon atoms, 2 moles of glyoxal and 2 moles of a glycol of the formula:

$$HO(C_nH_{2n}O)_xH$$

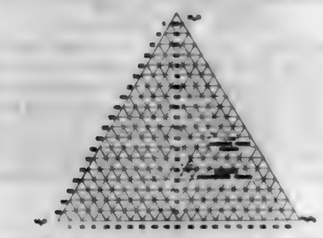
wherein n is about 2 to 12, and x is about 1 to 12; the total number of carbon atoms in the molecule being between about 18 and 125, and a minor but viscosity modifying amount of a polymerized isobutylene adapted to modify the viscosity index of a lubricating oil.

2,842,500

METHOD OF MAKING FERRITE STRUCTURES

John W. Gibson, West Park, N. Y., and Kenneth A. Lundberg, Albuquerque, N. Mex., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application January 23, 1956, Serial No. 560,609
7 Claims. (Cl. 252—62.5)



1. A method of forming a magnetic body characterized by having improved magnetic properties comprising, preparing an intimate mixture of 35 to 50 mol percent Fe_2O_3, 10 to 40 mol percent MgO and 15 to 50 mol percent MnO, heating said mixture to form a spinel type crystalline structure, forming a molded compressed body from particles of said spinel type crystalline material, supporting said body on a rare metal member consisting primarily of platinum metal, and subsequently sintering said molded body.

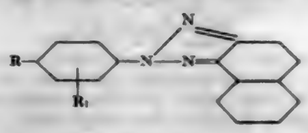
2,842,501

OPTICAL BLEACHING COMPOSITIONS

Harlan B. Freyermuth, Easton, Pa., and William W. Williams, New York, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 30, 1955
Serial No. 556,465
6 Claims. (Cl. 252—117)

1. A composition of matter for brightening white synthetic fibrous materials selected from the class consisting of synthetic fibrous superpolyamides and synthetic fibrous materials of organic derivatives of cellulose comprising an aqueous emulsion containing 0.1–2.5% by weight of an organic water-soluble synthetic detergent, and from 0.0005–0.01% by weight of a brightening agent characterized by the following general formula:



where R represents a member selected from the class consisting of amino, N,N-dialkylamino, N,N bis-β-cyanoethylamino and N-morpholino radicals, and R_1 represents a member selected from the class consisting of hydrogen, lower alkyl, lower alkoxy, and halogen.

2,842,502

SULFAMIC ACID SMOKE MIXTURE

Sidney J. Magram, Baltimore, Md., assignor to the United States of America as represented by the Secretary of the Army

No Drawing. Application October 3, 1956
Serial No. 613,795
5 Claims. (Cl. 252—305)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A smoke producing mixture containing from 50% to 80% sulfamic acid, the remainder consisting essentially of a compound selected from the group consisting of potassium perchlorate and ammonium perchlorate.

2,842,503

REACTIVATION OF PLATINUM-ALUMINA CATALYSTS

Edmond L. D'Ouville, La Grange, and Robert C. Arnold, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application March 23, 1955, Serial No. 496,239
9 Claims. (Cl. 252—412)

1. A method for restoring the activity of an alumina-supported platinum hydroforming catalyst after deactivation thereof in the hydroforming of a hydrocarbon charging stock and after removing carbonaceous deposits therefrom, which comprises introducing into said catalyst a solution of aluminum chloride, said solution being free from added acid and having substantially no solvency for platinum, and thereafter drying and calcining.

2,842,504

HYDROGENATION CATALYST

Rufus V. Jones, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application August 23, 1954
Serial No. 451,702
4 Claims. (Cl. 252—430)

1. The method of preparing a free-flowing nickel hydrogenation catalyst in storable and usable form which comprises reducing a finely divided nickel compound catalyst which is adversely affected by oxygen, in an atmosphere of hydrogen; cooling said reduced catalyst in an atmosphere of hydrogen; directly introducing said catalyst into a solution containing a solvent selected from the group consisting of cyclohexane, methylcyclohexane, decalin, benzene, toluene, dioxane, isooctane, isopentane, normal heptane, and tetralin, and a sufficient amount so as to coat said catalyst with from 5 to 100 weight percent thereof of a rubbery polymer selected from the group consisting of unhydrogenated polymers of butadiene, unhydrogenated copolymers of butadiene-styrene, unhydrogenated copolymers of isoprene-styrene, said unhydrogenated polymers and copolymers having a Mooney value above about 50 (ML–4) measured at 212° F., hydrogenated polymers of butadiene, hydrogenated copolymers of butadiene-styrene and hydrogenated copolymers of isoprene-styrene prepared by hydrogenating the corresponding unhydrogenated compound having a Mooney value above about 15 (ML–4) measured at 212° F.; and drying the resulting mixture so as to remove said solvent and leave the finely divided catalyst coated with the rubbery polymer.

2,842,505

PROCESS FOR PREPARATION OF SILVER ALLOY CATALYST

Wendal A. Alexander, Ottawa, Ontario, Canada, assignor to National Research Council, Ottawa, Ontario, Canada, a body corporate of Canada

No Drawing. Application July 20, 1954
Serial No. 444,670
10 Claims. (Cl. 252—475)

1. A process of forming a catalytic unit comprising a metal base having thereon a coating of a silver-alkaline

earth metal alloy catalyst for the oxidation of ethylenic hydrocarbons comprising vacuum depositing an alkaline earth metal in the form of a vapor on a metal base having a silver surface, subjecting the alkaline earth metal coated on the silver and the silver to a sufficient alloying temperature causing the alkaline earth metal to alloy with the silver and removing a portion of the alkaline earth metal to activate said alloy as a catalyst by treating said alkaline earth metal with an aqueous etching agent which is non-reactive with silver.

2,842,506

PROCESS FOR MAKING PLASTIC POLYURETHANE FOAM EMPLOYING WATER SOLUBLE TERTIARY AMINE-TERTIARY AMINE SALT MIXTURES AS CATALYSTS

Philip A. Roussel, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 2, 1953
Serial No. 395,843
6 Claims. (Cl. 260—2.5)

1. In a process of preparing a cellular plastic material from a foamable fluid polyurethane product having a viscosity of from about 750 to 75,000 centipoises at 30° C., said product containing unreacted isocyanate radicals and formed by the reaction between an arylene diisocyanate and at least one long-chain compound containing a plurality of hydroxyl groups, said long-chain compound being selected from the group consisting of a fatty acid triglyceride having a hydroxyl number of at least 49 and an alkyd resin containing a plurality of hydroxyl groups, the step which comprises mixing the said polyurethane product with water and a catalyst mixture comprising 1 molar part of a water-soluble tertiary amine having a basicity such that its 25% aqueous solution has a pH of at least 8.5 and from 0.25 to 3 molar parts of a salt of a tertiary amine having a basicity such that its 25% aqueous solution has a pH of at least 8.5, said salt being formed from an acid at least as strong as acetic acid, the amount of water being from about 1 to 2 times the stoichiometric equivalent of the unreacted isocyanate radicals in the polyurethane product, and the amount of tertiary amine being from 0.01 to 0.04 mole for each equivalent of unreacted isocyanate in the polyurethane product.

2,842,507

PROCESS FOR PREPARING IMPROVED ASPHALT

Kenneth G. Morris, Cranford, Joseph C. Roediger, Westfield, Raymond G. Newberg, Roselle Park, and Andrew F. Sayko, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 7, 1955
Serial No. 492,771
5 Claims. (Cl. 260—28.5)

1. A process for the preparation of an improved asphalt which comprises incorporating from about 0.1 to about 4% by weight of a phosphorous oxide and about 0.5 to about 20% by weight of a high molecular weight copolymer of isobutylene and styrene into a petroleum asphalt and thereafter air-blowing said asphalt.

2,842,508

POLYETHYLENE-WAX COMPOSITIONS AND METHOD FOR PREPARING SAME

Boris J. Sterk, Flushing, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application August 23, 1957
Serial No. 680,811
12 Claims. (Cl. 260—28.5)

1. A composition of matter comprising: (*a*) from about 97 to about 99.5 percent by weight of paraffin wax having a melting point from about 120° F. to about 140° F.; (*b*) a lower molecular weight polyethylene having an average molecular weight from about 1000 to about 2500; (*c*) a higher molecular weight polyethylene having an average molecular weight from about 4000 to about 12,000; (*d*) polyethylene (*b*) being present in an amount of at least about 0.25 percent by weight, polyethylene (*c*) being present in an amount of at least about 0.1 percent by weight and the total of said (*b*) and (*c*) being from about 3 to about 0.5 percent by weight of the said composition.

2,842,509

COMPOSITION CONTAINING ORGANOSILOXANE AND POLYIMINE AND METHOD OF TREATING TEXTILES THEREWITH

Gerald L. Shannon, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application January 26, 1956
Serial No. 561,665
6 Claims. (Cl. 260—29.2)

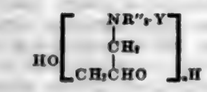
1. A method of depositing a siloxane on a fabric which comprises immersing the fabric in a siloxane-in-water emulsion containing (1) a organo siloxane of the unit formula

$$R_mSiO_{\frac{4-m}{2}}$$

in which R is selected from the group consisting of monovalent hydrocarbon radicals, hydroxylated monovalent hydrocarbon radicals and hydrogen atoms and m has an average value from 1 to 3 inclusive, (2) a non-ionic emulsifying agent and (3) from .2–80% by weight based on the weight of the siloxane of a nitrogen compound selected from the group consisting of polyimines of the formula

$$Z(CHCH_2NH)_xCHCH_2Z$$
(with R′ substituents)

in which Z is of the group consisting of NH_2 groups and chlorine atoms, R′ is of the group consisting of hydrogen and methyl radicals and x has a value of from 4 to 20 inclusive, salts of said polyimines and compounds of the formula



in which R″ is an aliphatic hydrocarbon radical of less than 5 carbon atoms, Y is an acid anion and n has a value of from 2 to 6 inclusive and thereafter removing the fabric from the water and drying it.

2,842,510

AQUEOUS FIREPROOFING COMPOSITION OF SODIUM OXYFLUOBORATE AND PHENOL FORMALDEHYDE, METHOD OF TREATING PAPER THEREWITH AND ARTICLE PREPARED THEREFROM

James A. Robertson, Lewiston, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 15, 1955
Serial No. 528,561
7 Claims. (Cl. 260—29.3)

1. An aqeous solution for fireproofing paper and other fibrous articles which comprises about 5–15% by weight of sodium oxyfluoborate hydrate, about 5–15% by weight of A stage phenol-formaldehyde and about 0.5–1.5% by weight of a water-soluble softening agent of the group consisting of glycerine, ethylene glycol, and polyethylene glycols having a molecular weight between about 200 and 20,000.

2,842,511
PROCESS FOR OBTAINING GRAIN-FREE POLYSTYRENE LATICES
Ernest Alexander Sutton, Springfield, and Costas H. Basdekis, Longmeadow, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application May 13, 1954
Serial No. 429,783
5 Claims. (Cl. 260—29.6)

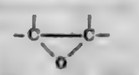
1. A process which comprises mixing about 0.1-2.0 parts by weight of a diatomaceous earth, at least 70% by weight of the particles of which are larger than about 10 microns in diameter, with 100 parts by weight of a 45–60% solids aqueous polystyrene latex containing over-size grains having a particle size of at least about 0.5 micron and then filtering the resultant mixture to obtain a latex free of said over-size grains.

2,842,512
TETRAHYDROFURFURYL NAPHTHENATE AND VINYL POLYMERS PLASTICIZED THEREWITH
James L. Jezl, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application April 21, 1953
Serial No. 350,213
4 Claims. (Cl. 260—30.4)

1. A plastic vinylidene polymer composition consisting essentially of vinylidene polymer plasticized with tetrahydrofurfuryl alcohol esters of petroleum naphthenic acids having saponification number within the approximate range from 150 to 250 mg. of KOH per gram, said esters comprising 5 to 60 weight percent of the total composition.

2,842,513
RESIN COMPOSITION CONTAINING EPOXIDIZED HYDROCARBON POLYMER AS RESIN PLASTICIZERS
William P. FitzGerald, Florham Park, and Paul V. Smith, Jr., Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application February 8, 1955
Serial No. 486,972
1 Claim. (Cl. 260—30.4)

A plastic composition of matter comprising polyvinyl chloride resin and, as a plasticizer therefor 5 to 100 parts by weight per 100 parts of resin of a mixture of 95 weight percent of diiso-octyl phthalate and 5 weight percent of an oily epoxidized diolefin polymer containing 2.11 weight percent



groups, said epoxidized diolefin polymer having been prepared by copolymerizing 80 weight percent butadiene and 20 weight percent styrene in the presence of sodium to produce an oily diolefin polymer having a molecular weight of 10,000 and a viscosity of 1.5 poise at 100 percent non-volatile content and subsequently subjecting the oily diolefin polymer to the requisite epoxidizing reaction conditions.

2,842,514
RESIN COMPOSITIONS CONTAINING ESTERS OF POLYHYDRIC ALCOHOLS AS PLASTICIZERS FOR THE RESIN
Jeffrey H. Bartlett and Paul V. Smith, Jr., Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application September 24, 1954
Serial No. 458,259
8 Claims. (Cl. 260—31.6)

7. A plastic composition of matter comprising a polyvinyl resin and a plasticizer therefor consisting of an ester of a C_8 to C_7 saturated aliphatic acid and a mixture of aliphatic polyhydric alcohols, having a hydroxyl value of about 1.15 to 1.32, said alcohols being prepared by reacting formaldehyde with C_6 aliphatic aldehydes for about 4 to 10 hours at about room temperature.

2,842,515
ORGANOPOLYSILOXANE ELASTOMER AND METHOD OF MAKING
Maynard C. Agens, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
No Drawing. Application May 21, 1954
Serial No. 431,598
9 Claims. (Cl. 260—37)

1. The process of making a solid, elastic, curable organopolysiloxane which process comprises (1) heating a liquid methylpolysiloxane oil having an average of 1.9 to 2.0 methyl radicals per silicon atom with from 0.5 to 15 percent by weight of a dialkyl phosphite, (2) passing a gas which is moistened with water and which is inert under the conditions of the reaction through the product of (1) until a semi-solid product is formed and (3) compounding one part of the product of (2) with from 0.1 to 1 part by weight carbon black and from 0.05 to 0.5 part by weight of zinc oxide.

2,842,516
ELASTOMERIC ORGANOPOLYSILOXANES CONTAINING ORGANO-TIN COMPOUNDS AND METHOD OF PREPARATION
Siegfried Nitzsche and Manfred H. Wick, Burghausen, Oberbayern, Germany, assignors to Wacker Chemie G. m. b. H., Munich, Bavaria, Germany
No Drawing. Application May 12, 1954
Serial No. 429,368
Claims priority, application Germany May 23, 1953
13 Claims. (Cl. 260—37)

1. A heat-convertible composition comprising essentially a mixture of a non-resinous organopolysiloxane which is vulcanizable to the elastomeric state and which has an average degree of substitution of from 1.75 to 2.25 organic groups per Si atom, said organic groups being directly attached to silicon by carbon-silicon linkage, a filler, a vulcanizing agent, and an organic tin compound selected from the group consisting of polymeric organotin oxides, complex reaction products of a polymeric organotin oxide with a diorganodihalostannane, hexaorganodistannoxanes, and tin salts of carboxylic acids of from 8 to 20 carbon atoms, the organic groups in said organotin oxides, hexaorganodistannoxanes, and complex reaction products being monovalent hydrocarbon radicals.

2,842,517
SILOXANE UNSATURATED POLYESTER RESINS AND METHOD OF PREPARATION
Leonard M. Shorr, Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
No Drawing. Application March 7, 1955
Serial No. 492,733
7 Claims. (Cl. 260—45.4)

1. A composition of matter comprising the reaction product of (1) from .01 to 20 percent by weight of a siloxane of the formula

$$XR_aSiO_{\frac{3-a}{2}}$$

in which X is of the group consisting of ZOR'— and $(YOOC)_aR''$— in which Z is selected from the group consisting of hydrogen and acyl radicals, R' is of the group consisting of divalent saturated aliphatic and divalent saturated cycloaliphatic hydrocarbon radicals, in all of which the ZO— group is on at least the third carbon atom away from the silicon, Y is selected from the group consisting of hydrogen and alkyl radicals, R'' is selected from the group consisting of divalent and trivalent saturated aliphatic hydrocarbon radicals and divalent and trivalent saturated cycloaliphatic hydrocarbon radicals, in all of which each carbonyl group is attached to at least the third carbon atom away from the silicon atom, a is an integer from 1 to 2 inclusive, n has a value from 0 to 2 inclusive, and R is selected from the group consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals all of which are free of aliphatic unsaturation, which siloxane may contain up to 80 mol percent copolymerized siloxane units of the formula

$$A_mSiO_{\frac{4-m}{2}}$$

in which A is selected from the group consisting of monovalent hydrocarbon radicals, halogenated monovalent hydrocarbon radicals and halophenoxymethyl radicals and m has an average value from .9 to 3 inclusive, and (2) from 80 to 99.99 percent by weight of (a) a compound of the group consisting of dihydric alcohols and acyl esters thereof formed from monocarboxylic acids, and (b) compounds containing only carbon, hydrogen, and oxygen atoms and selected from the group consisting of dicarboxylic acids, dicarboxylic acid anhydrides, and dicarboxylic acid esters, at least one molecular species in combined (a) and (b) containing aliphatic unsaturation, and the proportions of (a) and (b) being such that the total number of alcoholic groups in the reaction mixture ranges from a number substantially equal to the total number of acidic groups to a number 20 percent in excess of said total acidic groups, said reaction product being dissolved in (3) up to 50 percent by weight of a liquid vinylic compound based on the combined weights of (1), (2), and (3), said vinylic compound being compatible with the reaction product of (1) and (2).

2,842,518
PRODUCT PRODUCED BY POLYMERIZATION OF VINYLIDENE CHLORIDE-ACRYLONITRILE MIXTURES ONTO POLYCHLOROPRENE
Howard H. Irvin, Gary, Ind., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
No Drawing. Application September 13, 1954
Serial No. 455,753
2 Claims. (Cl. 260—45.5)

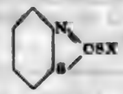
1. A nonflammable, high impact product obtained by the interaction, under polymerizing conditions, of an aqueous polychloroprene latex, vinylidene chloride and acrylonitrile, the polychloroprene on the dry basis comprising 20–60%, the vinylidene chloride 30–70%, and the acrylonitrile 10–25% of the total weight on the dry basis of these three reactants.

2,842,519
PROCESS FOR THE PRODUCTION OF A GRAFT COPOLYMER
Basil Alexander Ripley-Duggan, Harlow, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company
No Drawing. Application May 24, 1955
Serial No. 510,865
Claims priority, application Great Britain June 12, 1954
8 Claims. (Cl. 260—45.5)

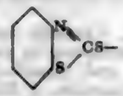
1. A process for the production of a graft copolymer which comprises polymerising a cyclic ether selected from the group consisting of ethylene oxide and its alkyl and alkenyl homologs containing not more than four carbon atoms and trimethylene oxide in the presence of a styrene/unsaturated carboxylic acid copolymer containing from 10 to 100 polymerised styrene units per carboxylic acid group in which the carboxyl groups have been esterified with one hydroxy group of a glycol, the other hydroxy group remaining as such, by heating the mixture in an anhydrous medium to a temperature above 80° C. in the presence of a polymerisation catalyst selected from the group consisting of the alkali metals and the alkali metal oxides, hydroxides, hydrides and alkoxides.

2,842,520
VINYL CONTAINING SILICONE ELASTOMERS COMPRISING SULFUR COMPOUNDS AS CURING AGENTS
Keith E. Polmanteer and Robert J. Koch, Midland, Mich., assignors to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
No Drawing. Application August 19, 1954
Serial No. 451,038
10 Claims. (Cl. 260—46.5)

1. A composition of matter, which when cured produces an elastomer, consisting essentially of (1) an organopolysiloxane containing from .1 to 5 mol percent siloxane units of the formula R'ViSiO, essentially all of the remaining siloxane units being of the formula R''_2SiO in which siloxane Vi is a vinyl radical and R' and R'' are selected from the group consisting of saturated aliphatic hydrocarbon radicals, aryl hydrocarbon radicals and halogenated monovalent hydrocarbon radicals and (2) as the sole curing agent at least .5% by weight based on the weight of the siloxane of a compound selected from the group consisting of thiuram monosulfides, thiuram disulfides, thiuram tetrasulfides, salts of dithiocarbamates, xanthates, xanthogen disulfides and compounds of the formula



where X is selected from the group consisting of hydrogen, metals and the radical



2,842,521
ALKOXY ALKYL SILOXANE AND A BORIC ACID HYDROXY COMPOUND MIXTURE
Siegfried Nitzsche and Manfred H. Wick, Burghausen, Upper Bavaria, Germany, assignors to Wacker-Chemie G. m. b. H., Munich, Bavaria, Germany
No Drawing. Application December 2, 1954
Serial No. 472,776
Claims priority, application Germany December 5, 1953
7 Claims. (Cl. 260—46.5)

1. A composition of matter consisting essentially of a mixture of (1) a partially condensed resinous organopolysiloxane in which at least 50 mol percent of the organic radicals attached directly to silicon are alkyl radicals and in which at least 0.5 mol percent of the silicon atoms have alkoxy groups attached thereto, and (2) a mixture of boric acid and an hydroxy compound selected from the group consisting of water, liquid mono- and polyhydric alcohols, and liquid phenols.

2,842,522

HYDROXY-ALKOXYLATED ORGANOSILICON COMPOUNDS

Cecil L. Frye, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application May 21, 1956
Serial No. 585,922
2 Claims. (Cl. 260—46.5)

1. An organosiloxane having the average empirical formula

$$R_xSi(OH)_y(OR')_zO_{\frac{4-(x+y+z)}{2}}$$

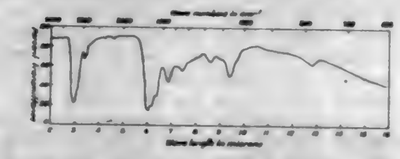
in which R is a monovalent hydrocarbon radical in which at least 40% of the R groups are aryl hydrocarbon radicals, n has an average value from .9 to 1.4, x has an average value from .15 to .9, R′ is an aliphatic hydrocarbon radical, y has an average value from .005 to .2 and in which the sum of $x+y$ is greater than .2 and the ratio of x to y is greater than 1.

2,842,523

BETA-AMINO LOWER-ALKYL CARBAMATES AND RESINOUS REACTION PRODUCTS THEREOF

William F. Tousignant and Thomas Houtman, Jr., Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application August 12, 1954, Serial No. 449,477
15 Claims. (Cl. 260—69)



1. A beta-amino lower-alkyl carbamate selected from the class consisting of beta-amino-ethyl carbamate and beta-amino-ethyl carbamates having from 1 to 2 alkyl groups of from 1 to 2 carbon atoms each attached directly to the ethyl radical.

2,842,524

CROSS-LINKED PERHALOGENATED DICARBOXYLIC ACIDS AND METHOD OF PREPARATION THEREOF

Ralph L. Herbst, Jr., Westfield, and Billy F. Landrum, Belleville, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application November 22, 1954
Serial No. 470,526
4 Claims. (Cl. 260—77.5)

3. A process which comprises reacting a straight chain, aliphatic perfluorochlorodicarboxylic acid having between 6 and 30 carbon atoms per molecule and having repeating units of —(CF_2—CFCl)— with an organic polyisocyanate.

2,842,525

MODIFIED VINYLIDENE CYANIDE INTERPOLYMERS AND THE DYEING OF FIBERS THEREOF

George Gateff, Lakewood, and James A. Klupar, Avon Lake, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application April 27, 1956
Serial No. 581,003
5 Claims. (Cl. 260—78.3)

1. The process of preparing a vinylidene cyanide interpolymer comprising 45 to 55 mol percent vinylidene cyanide responsive to dyeing with acid, basic and direct dyes which comprises polymerizing a monomer mixture containing monomeric vinylidene cyanide and beta-methylene-beta-propiolactone thereby to form an interpolymer containing beta-propiolactone rings attached to the polymer chain and then treating the interpolymer with a compound containing active hydrogen selected from the group consisting of amines, imines, inorganic acids and alcohols to open the beta-propiolactone rings and produce dye-receptive groups in the interpolymer structure.

2,842,526

VINYLCYCLOHEXANETHIOLS AND POLYMERS THEREOF

Fredrick M. Smith, Rosamond, Calif., and James E. Pritchard, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application September 8, 1952
Serial No. 308,715
30 Claims. (Cl. 260—79.7)

17. A homopolymer of vinylcyclohexanethiol.

2,842,527

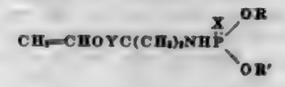
VINYL ETHER DERIVATIVES OF AMIDOPHOSPHATE AND AMIDOTHIOPHOSPHATE ESTERS, THEIR POLYMERS AND PROCESSES FOR PREPARING THEM

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

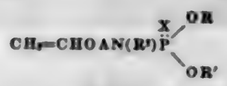
No Drawing. Application October 6, 1954
Serial No. 460,757
19 Claims. (Cl. 260—80.3)

1. A composition comprising a compound selected from the group consisting of the compounds having the Formulas I, II, and III

I



II



III



where R and R′, when not directly connected together, are separate groups selected individually from the group consisting of cyclohexyl, alkyl and alkenyl groups having 1 to 18 carbon atoms; and aryl, haloaryl, alkaryl and aralkyl groups having 6 to 19 carbon atoms, and

R and R′, when directly connected together, form a single saturated alkylene group of 2 to 3 carbon atoms forming with the —O—P—O— linkage a 5- to 6-sided heterocyclic ring.

R^3 is selected from the group consisting of an alkyl group of 1 to 18 carbon atoms, benzyl and cyclohexyl;

A is an alkylene group of 2 to 18 carbon atoms having at least two carbon atoms in a chain extending between the ether oxygen and nitrogen so that this oxygen and nitrogen atom are not both directly attached to the same carbon;

X is selected from the group consisting of oxygen and sulfur;

Y is an alkylene group of 1 to 7 carbon atoms;

Z is selected from the group consisting of cyclohexylene groups and 4-to-10-carbon atom alkylene groups having at least 4 carbons in a linear chain extending between the ether oxygen and nitrogen.

18. A method comprising copolymerizing a compound selected from the group consisting of the compounds having the Formulas I, II, and III as defined in claim 1 with another ethylenically unsaturated comonomer in the presence of a free radical catalyst.

2,842,528

POLYMERIZATION OF FLUORINE-CONTAINING ETHYLENICALLY UNSATURATED COMPOUNDS

Ralph L. Herbst, Jr., Westfield, and Billy F. Landrum, Belleville, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application March 29, 1955
Serial No. 497,822
7 Claims. (Cl. 260—87.5)

2. A process which comprises polymerizing trifluorochloroethylene in an aqueous suspension medium having a pH between about 1 and about 4 consisting essentially of water in a ratio in excess of 1:1 to monomer, and comprising water, tertiary butyl peracetate, sodium bisulfite, and a water soluble salt of iron.

2,842,529

3,3,3-TRIFLUOROPROPENE POLYMERS AND PREPARATION THEREOF

Archibald N. Bolstad, Maplewood, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application March 28, 1956
Serial No. 574,381
17 Claims. (Cl. 260—87.5)

9. A process for preparing a copolymer which comprises copolymerizing 3,3,3-trifluoropropene with a halogenated monoolefin having at least one halogen other than fluorine and not more than one fluorine atom.

2,842,530

VULCANIZATION OF POLYCHLOROPRENE WITH TETRACHLOROBENZENEDITHIOL

Peter Kovacic, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 23, 1954
Serial No. 425,325
3 Claims. (Cl. 260—92.3)

1. The process for vulcanizing polychloroprene which comprises incorporating in the polychloroprene from 0.2% to 5.0% of a compound of the group consisting of tetrachlorobenzenedithiol, its alkali metal and zinc salts, based on the weight of the polychloroprene to be vulcanized.

3. A readily vulcanizable polychloroprene having incorporated therein as a vulcanization accelerator from 0.2% to 5.0% of a compound of the group consisting of tetrachlorobenzenedithiol, its alkali metal and zinc salts, based on the weight of the polychloroprene.

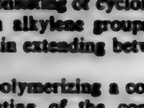
2,842,531

PHENYLALKENE HYDROCARBON POLYMERS

Warren Nesmith Baxter, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 28, 1955
Serial No. 518,689
14 Claims. (Cl. 260—93.5)

1. Solid polymers of phenylalkenes, said polymers having recurring units of



wherein R is a divalent aliphatic radical having at least one carbon atom and having melting points in the range of 90° C. to above 360° C.

2,842,532

PROCESS OF REDUCING THE VISCOSITY OF POLYMERS

Ted W. Campbell, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 23, 1956
Serial No. 617,696
7 Claims. (Cl. 260—93.7)

1. The process of reducing the inherent viscosity of crystalline polymers of a branched chain vinyl monomer having the formula CH_2=CH—R in which R is a saturated hydrocarbon group of from 3 to 7 carbon atoms in which branching of the chain takes place on a carbon atom not more than 2 removed from the vinyl radical and the longest straight chain in the molecule does not exceed 7 carbon atoms and the said polymer or mixtures thereof have an inherent viscosity above about 2 and are reduced to a value within the range of about 0.8 to 1.6 which comprises the steps of cracking the polymeric material by subjecting the same to a temperature of from about 250° C. to 310° C. and extracting the grease portion from the polymer.

2,842,533

METHOD OF RECYCLING REACTANTS IN POLYBUTENE MANUFACTURE

Robert P. Cahn, Elizabeth, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application December 12, 1955, Serial No. 552,282
7 Claims. (Cl. 260—94.8)



1. In a process for the preparation of polyisobutylene wherein isobutylene is contacted at −112° to +104° F. with a Friedel-Crafts catalyst in the presence of 25–95% of an inert non-polar solvent for the polymer based on total feed, said solvent being one which does not form a complex with the catalyst, which is liquid at the reaction temperature and in which the polymer is soluble, the method of separating the polybutene product from unreacted isobutylene and solvent which comprises introducing the reaction product into a first separating zone at 150°–250° F. and 15–75 lbs./sq. in., withdrawing unreacted isobutylene and some solvent overhead from said first zone, withdrawing polyisobutylene solution in solvent from the bottom of said first zone, heating the withdrawn solution in a second separating zone at 200°–300° F. and 15 lbs./sq. in. to remove all of the remaining isobutylene and most of the solvent, cooling, condensing and recycling the isobutylene and solvent from the first and second zones to the reaction zone and heating the remaining polyisobutylene at about 300° F. and atmospheric pressure in a third zone to remove all traces of solvent and light products.

2,842,534

NITROGEN CONTAINING LIGNINS AND METHOD OF MAKING SAME

Joseph Bayne Doughty, Charleston, S. C., assignor to West Virginia Pulp and Paper Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 28, 1956
Serial No. 566,746
1 Claim. (Cl. 260—124)

A nitrogen derivative of lignin obtained by the reaction of lignin with ethyleneimine, said derivative being characterized by being substantially insoluble in dioxane, pyridine, dioxolane, methyl cellusolve, 1:1 acetone-methanol, 1:1 acetone-dioxane, methyl phosphate, and water of neutral or acid pH, being soluble in water of alkaline pH, and being only difficultly hydrolyzable.

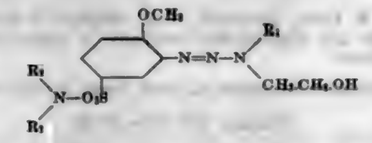
2,842,535

DIAZO-AMINO COMPOUNDS

Rudolf Löwenfeld and Konrad Löbe, Offenbach (Main), Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application February 12, 1954
Serial No. 410,024
Claims priority, application Germany February 26, 1953
5 Claims. (Cl. 260—140)

1. Diazo-amino compounds corresponding to the following general formula



wherein R_1 represents a member of the group consisting of methyl and hydroxy-ethyl and R_2 represents a member of the group consisting of methyl and ethyl.

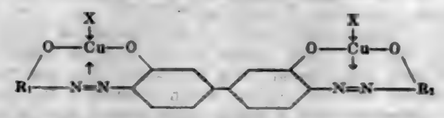
2,842,536

METALLIZED DISAZO DYES

Albert Webb Bauer and Ernest Csendes, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 29, 1956
Serial No. 594,705
7 Claims. (Cl. 260—148)

1. A metallized disazo dye of the formula



wherein X is a molecule of an amino-sugar coordinated with the Cu-atoms, R_1—O is the radical of an amino-1-naphthol disulfonic acid to which the azo bridge is attached in the 2-position, O—R_2 is the radical of a sulfonated coupling component of the group consisting of naphthol mono- and disulfonic acids, amino-naphthol mono- and disulfonic acids and mono- and disulfonated aryl-methyl-pyrazolones, and the azo bridge is attached to the radical R_2 in position ortho to the O-atom, said amino-sugar being a compound of the formula

$$CH_2OH(CHOH)_x—CH_2NHR$$

wherein x is an integer not less than 3 and not greater than 4, while R is a member of the group consisting of hydrogen, methyl, ethyl and betahydroxyethyl.

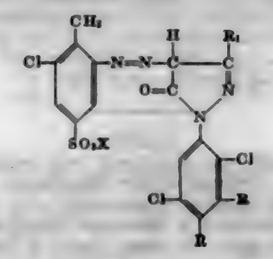
2,842,537

PYRAZOLONE DYESTUFFS

Albert F. Strobel, Phillipsburg, N. J., and William W. Williams, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 30, 1953
Serial No. 401,392
3 Claims. (Cl. 260—163)

1. Compounds of the formula



wherein X is selected from the group consisting of hydrogen, sodium and potassium, R_1 is a radical selected from the group consisting of —CH_3, —C_2H_5, —COOH, —COONa, —COOK, —$COOCH_3$ and —$COOC_2H_5$, one R is hydrogen and the other is SO_3X.

2,842,538

POLYAZO DYESTUFFS

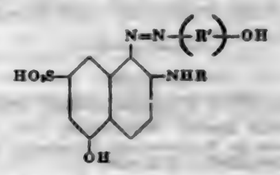
Hans-Rudolf Byland, Riehen, near Basel, Switzerland, assignor, by mesne assignments, to Seal & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application March 14, 1955
Serial No. 494,295
Claims priority, application Switzerland October 20, 1952
7 Claims. (Cl. 260—168)

1. A polyazo dyestuff which corresponds to the formula



wherein X stands for a member selected from the group consisting of OH, OCH_3, OC_2H_5, OCH_2COOH and COOH, Y stands for a moiety corresponding to the formula



R' representing a member selected from the group consisting of mono- and bi-nuclear aryl radicals of the benzene series which are free from carboxylic acid groups and the OH substituent of which is in ortho-position with respect to the adjacent —N=N— group, Z stands for a member selected from the group consisting of coupling components of the benzene and naphthalene series, wherein Y and Z may be identical, and wherein R stands for a member selected from the group consisting of hydrogen, lower alkyl, lower hydroxyalkyl, mononuclear carbocyclic aryl, cyclohexyl and benzyl.

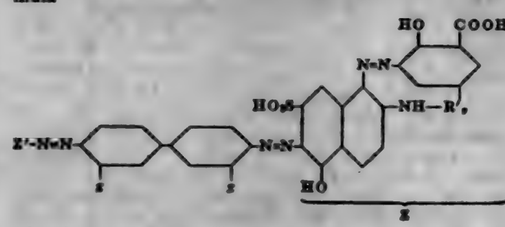
2,842,539

POLYAZO DYESTUFFS

Hans-Rudolf Byland, Riehen, near Basel, Switzerland, assignor, by mesne assignments, to Seal & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application October 7, 1955
Serial No. 539,288
Claims priority, application Switzerland October 20, 1952
6 Claims. (Cl. 260—168)

1. A polyazo dyestuff which corresponds to the formula



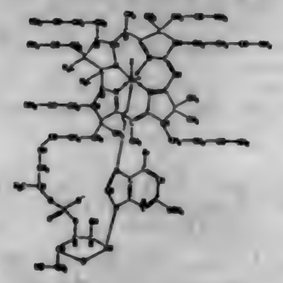
wherein x stands for a member selected from the group consisting of —OH, —OCH_3, —OC_2H_5, —OCH_2COOH and —COOH, y stands for a member selected from the group consisting of hydrogen, —SO_3H, —SO_2CH_3, —SO_2NH_2 and nitro, R' stands for a member selected from the group consisting of lower alkyl, lower hydroxyalkyl, lower alkoxyalkyl, cycloalkyl, aralkyl and mononuclear aryl radicals, and wherein Z' is a radical of a coupling component selected from the group consisting of a radical Z, of a radical of the hydroxynaphthalene series different from Z and of a radical of the hydroxybenzene, pyrazolone, acetoacetylaminobenzene and acetoacetylaminonaphthalene series.

2,842,540

PREPARATION OF NEW COBALAMINS

David Perlman, Princeton, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

Application October 1, 1956, Serial No. 613,341
3 Claims. (Cl. 260—211.5)



1. A compound selected from the class consisting of 4-bromo - 6 - methoxy-benzimidazole-hydroxo-cobalamin and salts thereof.

2,842,541

CYANOETHYL ETHERS

Glen E. Journeay, Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 27, 1954
Serial No. 446,159
7 Claims. (Cl. 260—231)

1. The process of preparing cyanoethyl ethers of polysaccharides which comprises reacting, at a temperature from about 25° C to about 140° C., a polysaccharide chosen from the group consisting of cellulose and starch with from about 5 parts to about 40 parts by weight of β,β'-oxydipropionitrile per part of the polysaccharide in the presence of water containing from about 0.1 to about 20% by weight of an alkali metal hydroxide, the amount of said water being within the range from about 20% to about 400% by weight of the polysaccharide.

2,842,542

STEROID PRODUCTION

Philip F. Beal, Portage Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application June 20, 1955
Serial No. 516,770
11 Claims. (Cl. 260—239.55)

1. A process for the oxidation of the 20α-hydroxy group of 21-acyloxy-17α,20α-dihydroxy-4-pregnen-3-ones which comprises: selectively oxidizing a 21-acyloxy-17α,20α-dihydroxy-4-pregnen-3-one wherein the acyloxy group is AcO, Ac being the acyl radical of an organic carboxylic acid containing from one to eight carbon atoms, inclusive, with a suspension of activated manganese dioxide in an organic solvent to obtain the corresponding 21-acyloxy-17α-hydroxy-4-pregnen-3,20-dione.

2,842,543

PROCESS FOR THE PRODUCTION OF CYCLOPENTANOPHENANTHRENE DERIVATIVES

Carl Djerassi, Birmingham, Mich., and Franz Sondheimer and George Rosenkranz, Mexico City, Mexico, assignors to Syntex, S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Original application April 25, 1953, Serial No. 425,310, now Patent No. 2,781,365, dated February 12, 1957. Divided and this application November 16, 1956, Serial No. 626,792
Claims priority, application Mexico April 25, 1953
7 Claims. (Cl. 260—239.55)

1. A process for the production of the 20-ketal of 3-methoxy-17α-hydroxy-17β-acetyl - 1,3,5(10) - estratriene which comprises treating 16α,17α-oxido-3-methoxy-17β-acetyl-1,3,5(10) estratriene with hydrobromic acid to form 16-bromo-3-methoxy-17α-hydroxy-17β - acetyl - 1,3,5(10)-estratriene, treating the 16-bromo compound with hydrogen in the presence of a hydrogenation catalyst to remove the 16-bromo group and form 3-methoxy-17α-hydroxy-17β-acetyl 1,3,5(10)-estratriene and treating this last mentioned compound with a ketalizing agent.

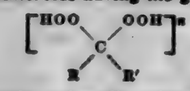
2,842,544

KETOSTEROID DIHYDROPEROXIDE DERIVATIVES, ITS ESTERS, TETROXANES AND METHODS OF MAKING SAME

Julien Warnant, Neuilly, Robert Joly, Montmorency, Jean Mathieu, Montfermeil, and Leon Velluz, Paris, France, assignors to Les Laboratoires Francais de Chimiotherapie, Paris, France, a French body corporate

No Drawing. Application June 6, 1957
Serial No. 663,880
Claims priority, application France June 15, 1956
32 Claims. (Cl. 260—239.55)

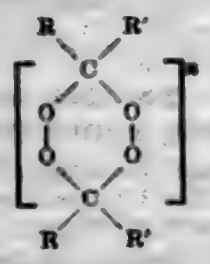
1. The group of compounds consisting of dihydroperoxides of ketosteroids having the general formula



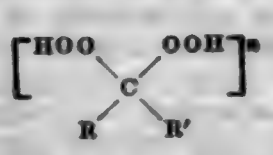
and lower aliphatic carboxylic acid and polyacid esters

and tetroxanes thereof, wherein *n* represents the factor 1 and a low multiple thereof, R, R′ and C jointly represent the group consisting of 3-keto-, 17-keto-, and 21-unacylated 20-ketosteroids of the androstane, etiocholane, pregnane, and estrane series.

3. Tetroxanes of ketosteroids according to claim 1, having the general formula

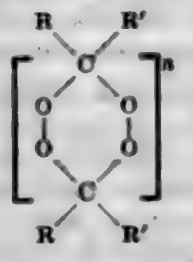


17. The method of preparing dihydroperoxides of ketosteroids having the general formula



wherein *n* represents the factor 1 and a low multiple thereof, R, R′ and C jointly represent the group consisting of 3-keto-, 17-keto-, and 21-unacylated 20-ketosteroids of the androstane, etiocholane, pregnane, and estrane series, said method comprising dissolving said ketosteroid at room temperature in an anhydrous solution of 100% hydrogen peroxide in a solvent of the group consisting of ether, dioxane, ethyl acetate, pyridine and tertiary butanol, permitting the solution to stand at room temperature, removing the solvent at low temperature by entrainment with an inert gas and purifying the remaining residue.

20. The method of preparing tetroxanes of ketosteroids, having the general formula



wherein *n* represents the factor 1 and a low multiple thereof, R, R′ and C jointly represent the group consisting of 3-keto-, 17-keto-, and 21-unacylated 20-ketosteroids of the androstane, etiocholane, pregnane, and estrane series, said method comprising dissolving said ketosteroid at room temperature in an anhydrous solution of 100% hydrogen peroxide in a solvent of the group consisting of ether, dioxane, ethyl acetate and pyridine, permitting the solution to stand at room temperature, removing the solvent at low temperature by entrainment with an inert gas, purifying the remaining residue, treating it at room temperature with acetic acid and sulfuric acid and separating the resulting solid product.

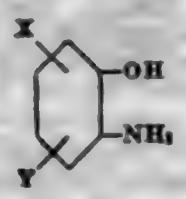
2,842,545

PROCESS FOR THE MANUFACTURE OF α:β-DI-[ARYLOXAZOLYL-(2)]-ETHYLENE COMPOUNDS

Max Duennenberger, Birsfelden, Franz Ackermann, Binningen, and Adolf-Emil Siegrist, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application June 14, 1956
Serial No. 591,269
9 Claims. (Cl. 260—240)

1. Process for the manufacture of α:β-di-[benzoxazolyl-(2)]-ethylene compounds which comprises condensing, at a temperature ranging from about 100 to 200° C., two molecular proportions of (*a*) an ortho-hydroxy-aminobenzene of the formula



in which X represents a member selected from the group consisting of a hydrogen atom and a lower alkyl group, and Y represents a member selected from the group consisting of a hydrogen atom, a lower alkyl group and a chlorine atom, with one molecular proportion of (*b*) a compound selected from the group consisting of fumaric acid, malic acid, aspartic acid and the dimethyl and diethyl esters of these acids, without separating the condensation product, which process also comprises subjecting the latter to ring closure at a temperature ranging from about 100 to 200° C., and in the presence of a catalyst selected from the group consisting of a mononuclear carbocyclic sulfonic acid and boric acid to form the dioxazolyl compound, this reaction being continued until the formation of the oxazole rings and the formation of the ethylene group connecting the oxazole rings are complete.

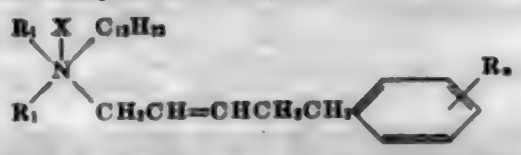
2,842,546

QUATERNARY AMMONIUM COMPOUNDS

Earl W. Lane, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 18, 1956
Serial No. 559,765
15 Claims. (Cl. 260—247)

1. As a new composition of matter, the quaternary ammonium compound having the formula



in which R is an alkyl group of no more than two carbon atoms, *n* is an integer of two to three, the R_1 groups taken singly represent alkyl groups of no more than two carbon atoms and taken collectively form a heterocyclic group from the class consisting of morpholino, thiamorpholino, piperidino, pyrrolidinyl and these groups having a lower alkyl substituent with the amino nitrogen atom and X is an anion.

4. As a new composition of matter, N-methylethylphenylpentenyl-N-dodecenylmorpholinium iodide.

2,842,547

PROCESS FOR PREPARING 5,5′ DIETHYL-1,3-BIS-(BETA - DIMETHYLAMINOETHYL) - MALONYL UREAS AND QUATERNARY AMMONIUM SALTS THEREOF

Walter Chiti and Renato Selleri, Florence, Italy, assignors to "Ibis" Istituto Biochimico Sperimentale S. p. A., Florence, Italy, an Italian company

No Drawing. Application April 27, 1956
Serial No. 580,577
Claims priority, application Italy May 3, 1955
4 Claims. (Cl. 260—256.4)

1. A process for the preparation of 5,5′-diethyl-1,3-bis - (beta - trimethylaminoethyl) - malonylurea iodide, which comprises reacting 5,5′-diethyl-1-(beta-dimethylaminoethyl)-malonylurea with beta-dimethylaminoethyl chloride in methyl alcohol containing sodium methylate, separating the resultant sodium chloride, adding an excess of methyl iodide to the remaining alcoholic solution, whereupon the 5,5′-diethyl-1,3-bis-(beta-trimethylaminoethyl)-malonylurea iodide precipitates, and separating the so-precipitated product.

2,842,548

PIPERAZINE COMPOUNDS AND METHOD OF PREPARATION THEREOF

Francis M. Callahan, Stony Point, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 30, 1956
Serial No. 562,034

4 Claims. (Cl. 260—268)

1. A member of the group consisting of monopiperazine butanetetracarboxylate, dipiperazine butanetetracarboxylate and monopiperazine mucate.

2,842,549

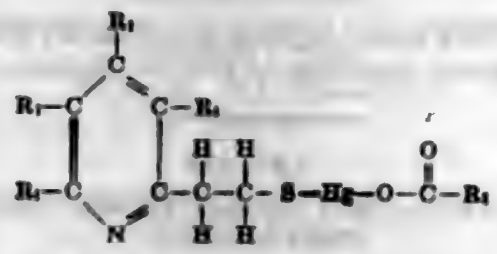
PYRIDYLETHYLTHIOMERCURIC SALTS AND METHOD FOR THEIR PREPARATION

Lyle D. Goodhue and Rector P. Louthan, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

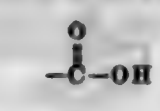
No Drawing. Application October 17, 1955
Serial No. 541,035

17 Claims. (Cl. 260—270)

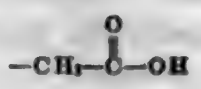
1. A pyridylethylthiomercuric salt characterized by the following structural formula



wherein: each R_1 is selected from the group consisting of a hydrogen atom, a methyl radical, an ethyl radical, a propyl radical and an isopropyl radical; and R_2 is selected from the group consisting of $—CH_3$, $—C_2H_5$,

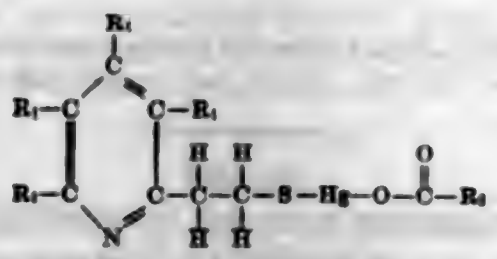


and

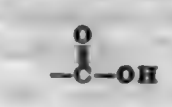


radicals.

7. A method for the preparation of a pyridylethylthiomercuric salt characterized by the following structural formula



wherein: each R_1 is selected from the group consisting of a hydrogen atom, a methyl radical, an ethyl radical, a propyl radical and an isopropyl radical; and R_2 is selected from the group consisting of $—CH_3$, $—C_2H_5$



and



radicals; which method comprises reacting a 2-mercaptoethylpyridine with a mercuric salt of an aliphatic carboxylic acid containing not more than three carbon atoms.

2,842,550

DESERPIDIC ACID LACTONE AND SALTS

Paul Reuben Ulshafer, Summit, N. J., assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J., a corporation of New Jersey

No Drawing. Application November 26, 1954
Serial No. 471,520

8 Claims. (Cl. 260—286)

1. A compound of the group consisting of deserpidic acid lactone and acid addition salts thereof.

2,842,551

STABILIZATION OF VINYL PYRIDINES

Clyde W. Mertz, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application May 25, 1953
Serial No. 357,355

7 Claims. (Cl. 260—290)

1. A process for inhibiting the formation of proliferous polymers in a mixture of organic compounds, said organic compounds being comprised of 2-methyl-5-vinylpyridine, divinylpyridine, and 2-methyl-5-ethylpyridine, which said process comprises adding to said mixture of organic compounds a nitrous acid ester of a paraffinic alcohol, said alcohol being comprised of 1 to 12 carbon atoms.

2,842,552

PROCEDURES FOR THE PREPARATION OF THE LEUCO SULFURIC ESTERS OF VAT DYESTUFFS

Chris C. Schulze, Albany, N. Y., Ben H. Kirby, Pittsburgh, Pa., and Robert E. Brouillard, Westfield, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 24, 1955
Serial No. 517,945

7 Claims. (Cl. 260—303)

1. In a process for the preparation of a leuco sulfuric ester salt of a vat dyestuff, involving reduction and esterification of the vat dye by reaction with a sulfatation reagent and a reducing metal in a water-soluble tertiary nitrogen base, and drowning the resulting reaction mixture in an aqueous alkaline solution, the improvement which comprises adjusting the amount of water in the drowning mixture to yield a final concentration of tertiary nitrogen base of 10–30% and of the dyestuff, a concentration corresponding to up to 5% of equivalent unreduced vat dye, including in the drowning mixture as a stabilizer a quantity of a hydrocarbon sulfonate of the benzene series sufficient to yield a final concentration thereof in said mixture of 1% to 5%, maintaining the temperature of the drowned mixture at a value not substantially above 40° C., at which the vat dye leuco sulfuric ester salt is completely dissolved, filtering the mixture, and recovering tertiary nitrogen base and vat dye leuco sulfuric ester salt from the filtrate.

2,842,553

PROCESS OF PREPARING IMIDAZOLIDINETHIONES

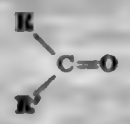
John D. Christian, Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 13, 1955
Serial No. 521,880

9 Claims. (Cl. 260—309.7)

1. An improved process for the preparation of imidazolidinethiones which comprises heating together at least equimolecular proportions of a ketone cyanohydrin of the formula $RR'C(OH)CN$ wherein R and R' are chosen from the group consisting of unsubstituted alkyl,

cycloalkyl, aryl, alkaryl, and aralkyl radicals with its corresponding ketone of the formula



wherein R and R′ are chosen from the group consisting of unsubstituted alkyl, cycloalkyl, aryl, alkaryl, and aralkyl radicals and ammonium sulfide.

2,842,554

N,N′-ALKYLTETRAMETHYLENE THIURAM DISULFIDES

Frank A. V. Sullivan, Glenbrook, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 9, 1956
Serial No. 557,825
3 Claims. (Cl. 260—313)

1. A compound selected from the group consisting of N,N′-2-methyltetramethylene thiuram disulfide and N,N′-2,5-dimethyltetramethylene thiuram disulfide.

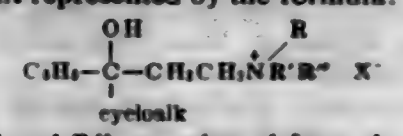
2,842,555

METHOD OF PREPARING QUATERNARY SALTS OF AMINO CARBINOLS

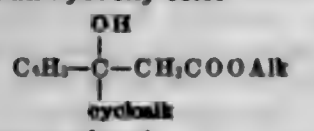
Morton Harfenist, Yonkers, and Ernest G. Magnien, Bayside, N. Y., assignors to Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y., a corporation of New York

No Drawing. Application July 27, 1954
Serial No. 446,167
2 Claims. (Cl. 260—326.5)

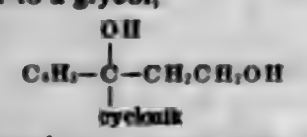
1. The method of preparing an hydroxy quaternary ammonium salt represented by the formula:



wherein R, R′ and R″ are selected from the class consisting of lower alkyl groups, and R′ and R″, when joined in ring form, are selected from the class consisting of the pyrrollidino and piperidino rings, which comprises condensing a phenyl cycloalkyl ketone with an ester of a haloacetic acid to give an hydroxy ester



reducing this ester to a glycol,



converting the glycol to a mono ester of a hydrocarbylsulfonic acid and reacting this compound with a tertiary amine NRR′R″.

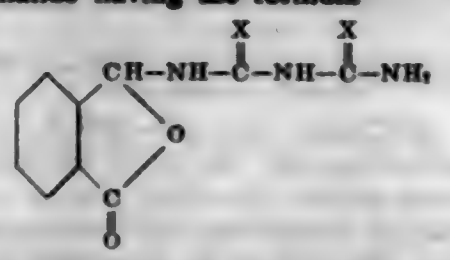
2,842,556

PHTHALIDES

Donald D. Wheeler, and David C. Young, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 5, 1956
Serial No. 595,857
3 Claims. (Cl. 260—343.3)

1. A phthalide having the formula



wherein each X represents the same member selected from the group consisting of oxygen and sulfur.

2,842,557

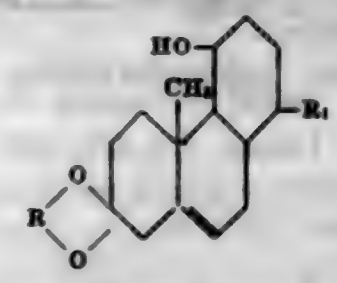
DODECAHYDROPHENANTHRENE COMPOUNDS AND METHODS OF PREPARING THE SAME

Glen E. Arth, Cranford, George I. Poos, North Plainfield, and Lewis H. Sarett, Princeton, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application August 4, 1954
Serial No. 447,892
5 Claims. (Cl. 260—340.9)

3. The process which comprises reacting 4b-methyl-1,2,3,4,4a,4b,5,6,7,9,10,10a - dodecahydrophenanthrene-1,4-diol-7-one with ethylene glycol in the presence of an acid catalyst to form the 7-ethylenedioxy derivative, and reacting said derivative with aluminum isopropoxide and cyclohexane to produce 4b-methyl-7-ethylenedioxy-1,2,3,4,4a,4b,5,6,7,8,10,10a-dodecahydrophenanthrene-4-ol-1-one.

5. A dodecahydrophenanthrene compound of the formula



wherein R is a lower alkylene group and R_1 is a member from the group consisting of keto and hydroxyl.

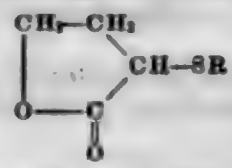
2,842,558

α-MERCAPTO-γ-BUTYROLACTONES AND THEIR PREPARATION

Arthur F. Wagner, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Original application December 30, 1954, Serial No. 478,920, which is a division of application Serial No. 369,535, July 21, 1953. Divided and this application April 25, 1956, Serial No. 580,462
9 Claims. (Cl. 260—343.6)

1. A compound having the formula



wherein R is selected from the group consisting of lower alkyl, lower alkenyl, phenyl and benzyl radicals.

2,842,559

SYNTHESIS OF ESTRONE INTERMEDIATES

William S. Johnson, Madison, Wis., and Robert Ellsworth Ireland, Los Angeles, Calif., assignors to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin

No Drawing. Application October 28, 1954
Serial No. 463,604
13 Claims. (Cl. 260—345.8)

1. Compounds selected from the group consisting of 6-(p-RO-phenyl)-3-cyano-3-R″-2-keto-*x*-1-CH_2COOR', where R is a lower alkyl group, R′ is a member of the group consisting of hydrogen, lower-alkyl groups and the tetrahydropyranyl group, R″ is a member of the group consisting of hydrogen and lower-alkyl groups, and *x* is selected from the group consisting of cyclohex-6-ene and cyclohexane.

2,842,560

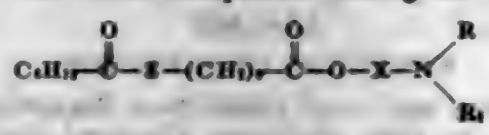
AMINOALKYL ESTERS OF 12-KETO-10,11-OCTADECENOIC ACID AND 12-KETO-10,11-EPOXYSTEARIC ACID

Joseph Nichols, Princeton, and Edgar S. Schipper, New Brunswick, N. J., assignors to Ethicon, Inc., a corporation of New Jersey

No Drawing. Application May 5, 1955
Serial No. 506,354

7 Claims. (Cl. 260—348)

1. New and useful compounds having the formula:



in which X is a lower alkylene radical, R and R_1 are each a lower alkyl radical and Z is a member selected from the class consisting of vinylene and epoxyethylene radicals.

2,842,561

NEW DYESTUFF INTERMEDIATES

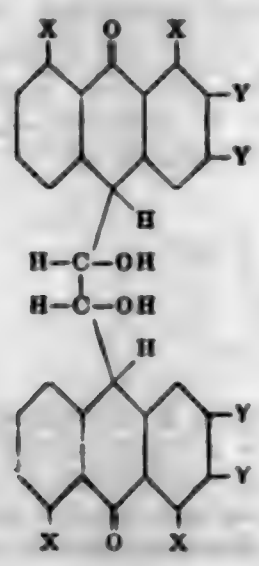
David Alexander Whyte Fairweather and John Finnie McGechen, Manchester, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application February 5, 1957
Serial No. 638,231

Claims priority, application Great Britain February 6, 1956

8 Claims. (Cl. 260—351)

1. Compounds of the formula:



wherein X and Y are selected from the group consisting of hydrogen and chlorine atoms provided that X and Y are not both chlorine atoms.

2,842,562

CYCLIZATION OF AROMATIC CARBOXYLIC ACID COMPOUNDS

Albert Bloom, Summit, N. J., Richard K. Lehne, Buffalo, N. Y., and Melvin R. Stevinson, Union, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 30, 1953
Serial No. 389,476

8 Claims. (Cl. 260—369)

1. A process for producing an anthraquinone compound comprising cyclicizing an o-benzoylbenzoic acid compound devoid of reactive interfering substituents by heating such compound in the presence of from about 0.1 to 5% by weight thereof of an acidic dehydrating agent, having a concentration equivalent to at least 85% sulfuric acid, at a temperature of about 100 to 300° C.

2,842,563

PURIFICATION OF 2-T-BUTYLANTHRAQUINONE

Wilbie S. Hinegardner and Jerome W. Sprauer, Niagara Falls, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 28, 1954
Serial No. 458,972

7 Claims. (Cl. 260—369)

1. The method of purifying 2-t-butylanthraquinone comprising contacting a solution of the impure material in a non-polar solvent from the group consisting of hydrocarbon and chlorinated hydrocarbon solvents which are free from aliphatic unsaturation with at least 0.4 part of activated alumina per part by weight of 2-t-butylanthraquinone in said solution, separating the solution from said alumina and adding thereto a polar solvent which is free from aliphatic unsaturation and is miscible with said non-polar solvent, in an amount sufficient to precipitate anthraquinone originally present as an impurity in the 2-t-butylanthraquinone, seeding the resulting mixture with anthraquinone and storing the mixture to precipitate anthraquinone therefrom, then separating the precipitated anthraquinone from the solution phase of the mixture.

2,842,564

PREPARATION OF DIAMINOANTHRAQUINONE SULFONIC ACIDS

Albert Bloom, Summit, and Leslie M. Schenck, Westfield, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 22, 1956
Serial No. 586,383

9 Claims. (Cl. 260—371)

1. A process for the production of polyaminoanthraquinone sulfonates comprising the steps in combination of forming a polyaminoanthraquinone sulfate suspending the sulfate in an inert high boiling liquid and heating the resulting sulfate to a temperature sufficiently high to cause a molecular rearrangement to form the sulfonate from the sulfate, with a minimum of by-products and minimum destruction of the anthraquinone molecule.

2,842,565

CYCLOPENTANOPHENANTHRENE DERIVATIVES AND METHOD FOR THE PRODUCTION THEREOF

Franz Sondheimer, Octavio Mancera, and George Rosenkranz, Mexico City, Mexico, assignors to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application May 12, 1955
Serial No. 507,978

Claims priority, application Mexico June 5, 1954

7 Claims. (Cl. 260—397.3)

1. A process for the production of Δ^4-androsten-17α-ol-3-one which comprises decarboxylating 3β-hydroxy-$\Delta^{5,16}$-etiocholadienic acid to form $\Delta^{5,16}$-androstadien-3β-ol, treating $\Delta^{5,16}$-androstadien-3β-ol with an aluminum alkoxide in the presence of a hydrogen acceptor to form $\Delta^{4,16}$-androstadien-3-one, oxidizing the last mentioned compound with an aromatic peracid to form the corresponding 16,17-epoxide, reducing the 3-keto group and the epoxide with lithium aluminum hydride to form a mixture of Δ^4-androsten-3α,17α-diol and Δ^4-androsten-3β,17α-diol and selectively oxidizing the 3-hydroxy group of the mixture with manganese dioxide.

7. $\Delta^{5,16}$-androstadien-3β-ol.

2,842,566

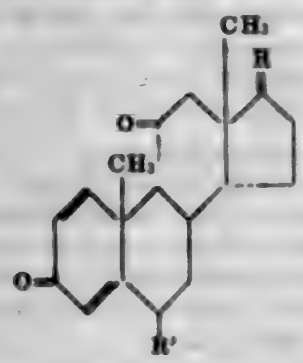
6-METHYL, $\Delta^{1,4}$, 3 KETO ANDROSTENE DERIVATIVES

Jean P. Resselet, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application December 11, 1957
Serial No. 701,586

7 Claims. (Cl. 260—397.3)

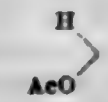
1. A compound of the formula:



wherein R is selected from the substituents consisting of keto oxygen



and



wherein Ac is the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and R' is selected from the group consisting of 6α-methyl and 6β-methyl.

2,842,567

THERAPEUTICALLY VALUABLE ESTERS OF ALCOHOLS AND KETOALCOHOLS OF THE STEROID SERIES AND PROCESS OF PREPARING SAME

Erich Haack, Heidelberg, Georg Stoeck, Mannheim-Waldhof, and Hans Voigt, Mannheim-Sandhofen, Germany, assignors to C. F. Boehringer & Soehne G. m. b. H., Mannheim, Germany

No Drawing. Application May 5, 1954
Serial No. 427,866

Claims priority, application Germany May 9, 1953

10 Claims. (Cl. 260—397.4)

2. An oily ester of a steroid alcohol selected from the group consisting of steroid alcohols having sex hormone activity and steroid alcohols having adrenocortical hormone activity, with a β-keto carboxylic acid of the formula

$$X—CO—CH_2—COOH$$

wherein X is a member selected from the group consisting of an aliphatic and a cycloaliphatic hydrocarbon radical having between 3 and 15 carbon atoms.

6. In a process of producing an oily ester of a steroid alcohol selected from the group consisting of steroid alcohols having sex hormone activity and steroid alcohols having adrenocortical hormone activity with a β-keto carboxylic acid of the formula

$$X—CO—CH_2—COOH$$

wherein X is a member selected from the group consisting of an aliphatic and a cycloaliphatic hydrocarbon radical having between 3 and 15 carbon atoms, the steps comprising heating in a vacuum a mixture of a dry steroid alcohol having hormone activity with an excess of a lower alkyl ester of said β-keto carboxylic acid until the steroid alcohol is dissolved in said ester and the lower alkly group of said ester is exchanged by said steroid alcohol group, continuing heating the reaction mixture until the lower alcohol split off during esterification reaction is distilled off, and removing the excess of said β-keto carboxylic acid lower alkyl ester.

2,842,568

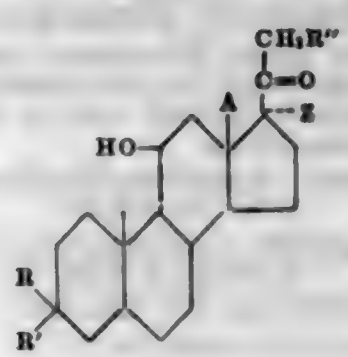
SYNTHESIS OF STEROIDS

Josef E. Herz and Josef Fried, New Brunswick, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

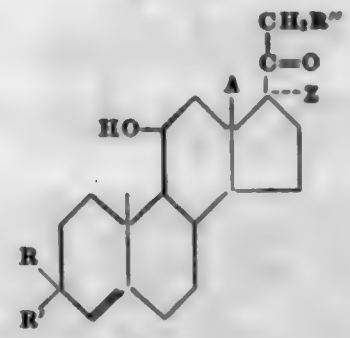
No Drawing. Application June 4, 1954
Serial No. 434,671

14 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of:



and



wherein R is hydrogen, R' is hydroxy and together R and R' is keto, Z is a radical selected from the group consisting of hydrogen and hydroxy; A is a radical selected from the group consisting of methyl and formyl; and R'' is a lower alkanesulfonyl-oxy radical.

2,842,569

HYDROLYSIS OF HYDROCORTISONE ACETATE AND Δ^1-HYDROCORTISONE ACETATE

Arthur R. Hanze, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application June 10, 1955
Serial No. 514,760

3 Claims. (Cl. 260—397.45)

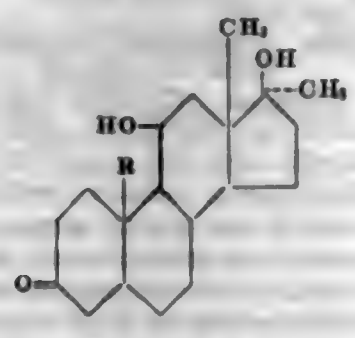
1. The process which comprises hydrolyzing a compound selected from the group consisting of hydrocortisone acetate and Δ^1-hydrocortisone acetate with at least a molar equivalent, calculated on the starting steroid, of an alkali-metal bicarbonate in a substantially oxygen-free solution of a mixture of lower-alkanol and water and continuing the reaction at a temperature between about ten and about thirty degrees centigrade while protecting the mixture from atmospheric oxygen; second, neutralizing the saponified mixture with acid; and third, isolating the thus-produced hydrolyzed steroid.

2,842,570
11β,17β-DIHYDROXY-17α-METHYLANDROSTANE-3-ONES

Milton E. Herr, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application December 5, 1955
Serial No. 550,845
5 Claims. (Cl. 260—397.45)

1, 11β,17β-dihydroxy-17α-methylandrostane - 3 - one of the formula



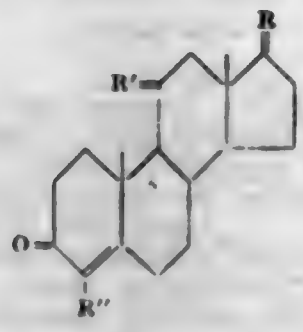
wherein R is selected from the group consisting of hydrogen and methyl.

2,842,571
METHOD OF OBTAINING STEROID HORMONE DERIVATIVES SUBSTITUTED IN THE 4-POSITION

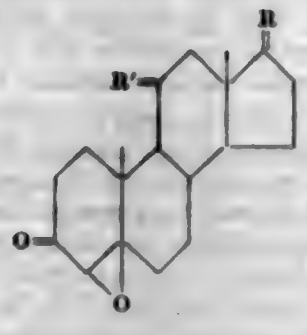
Bruno Camerino, Bianca Patelli, and Alberto Vercellone, Milan, Italy, assignors to Società Farmaceutici Italia, a corporation of Italy

No Drawing. Application October 26, 1956
Serial No. 618,438
Claims priority, application Italy March 29, 1956
6 Claims. (Cl. 260—397.45)

1. The process of preparing a 4-substituted steroid hormone derivative of the general formula



wherein R represents a member of the group consisting of =O, (H)OH, (H)$COCH_3$, (H)$COCH_2OH$ and (OH)$COCH_2OH$, R′ represents a member of the group consisting of H_2, (H)OH and =O, and R″ represents a member of the group consisting of OH and acyloxy, which comprises dissolving a 4,5-epoxy-3-keto-steroid of the general formula



in an organic solvent, treating with boron trifluoride and recovering the 4-substituted steroid hormone.

2,842,572
ORGANIC COMPOUNDS AND PROCESS

Milton E. Herr and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application May 27, 1957
Serial No. 661,626
7 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6,17α-dimethyl-11β,17β-dihydroxy-4-androsten-3-one, 6,17α-dimethyl-17β-hydroxy-4-androstene-3,11-dione and 6,17α-dimethyl-17β-hydroxy-4-androstene-3,11-dione 17β-acylate wherein the acyl group is of a hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive.

2,842,573
6-α METHYL 17 ALKYL 9α FLUORO 11 OXYGENATED 17β HYDROXY - 4 - ANDROSTEN - 3 - ONE COMPOUNDS AND PROCESS

Milton E. Herr and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application October 21, 1957
Serial No. 691,123
11 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6α - methyl - 17α - alkyl - 9α - fluoro - 11β,17β - dihydroxy - 4 - androsten - 3 - one, 6α - methyl - 17α - alkyl-9α - fluoro - 17β - hydroxy - 4 - androstene - 3,11 - dione and 6α - methyl - 17α - alkyl - 9α - fluoro - 17β - hydroxy-4-androstene-3,11-dione 17β-acylate, wherein the alkyl group has from one to six carbon atoms and the acyl group is of hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive.

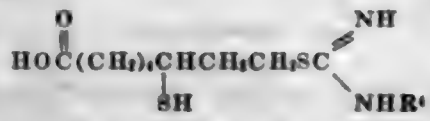
5. A process for the production of 6α,17α-dialkyl-9α-fluoro-11β,17β-dihydroxy-4-androsten-3-one, wherein the alkyl group has from one to six carbon atoms; inclusive which comprises: treating the corresponding 6α,17α-dialkyl-9(11)-oxido-17β-hydroxy-4-androstene with a fluorinating agent to obtain 6α,17α-dialkyl-9α-fluoro-11β,17β-dihydroxy-4-androsten-3-one.

2,842,574
PRODUCTION OF α-LIPOIC ACID INTERMEDIATES

Edward Walton, Scotch Plains, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application April 25, 1956
Serial No. 580,476
2 Claims. (Cl. 260—399)

1. A process which comprises reacting a compound of the formula—



wherein R^4 is a member selected from the group consisting of hydrogen and hydrocarbon groups containing less than nine carbon atoms with an excess of an inorganic base selected from the group consisting of alkali metal and alkaline earth metal bases to produce the corresponding tri-metal salt of 6,8-dithioloctanoic acid.

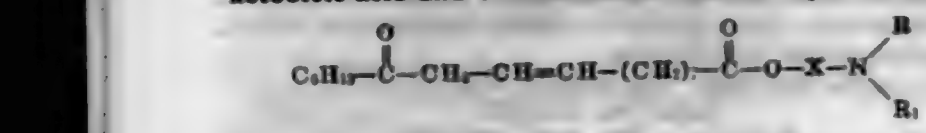
2,842,575
AMINOALKYL ESTERS OF 12-KETOOLEIC ACID AND 12-KETOELAIDIC ACID

Joseph Nichols, Princeton, and Edgar S. Schipper, New Brunswick, N. J., assignor to Ethicon, Inc., a corporation of New Jersey

No Drawing. Application May 5, 1955
Serial No. 506,355
6 Claims. (Cl. 260—404)

1. A compound selected from the group consisting of

geometrically isomeric dialkylaminoalkyl esters of 12-ketooleic acid and 12-ketoelaidic acid having the formula:



in which X is a lower alkylene radical and R and R_1 are each a lower alkyl radical.

2,842,576

PRODUCTION OF ACETALS

John Habeshaw and Charles John Geach, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

Application December 29, 1952, Serial No. 328,404
Claims priority, application Great Britain January 3, 1952
4 Claims. (Cl. 260—413)

1. In a process for the recovery and stabilization of the reaction products resulting from the Oxo synthesis reaction of an olefinically unsaturated compound selected from the group consisting of alcohols, acids, esters, ketones and nitriles, together with carbon monoxide and hydrogen in contact with an alcohol selected from the group consisting of monohydric alcohol and dihydric alcohol and a cobalt catalyst whereby at least one aldehyde and at least one acetal are formed, the improvement which comprises thereafter reacting at least a part of the product containing said aldehyde and said acetal with an alcohol selected from the group consisting of monohydric alcohol and dihydric alcohol to convert the aldehyde completely to acetal, and thereafter subjecting at least a part of the reaction product to fractional distillation and separation of at least one acetal.

2,842,577

PROCESS FOR DECOLORIZING GREEN SOYBEAN OIL

Kurt G. Stern, New York, N. Y.; Hans S. Grossmann, executor of said Stern, deceased, assignor to Harry Sobotka, New York, N. Y.

No Drawing. Application August 5, 1954
Serial No. 448,122
14 Claims. (Cl. 260—428.5)

1. A process for the removal of green coloration attributed to transformation products of chlorophyll with maximum light absorbancy at substantially 670 millimicrons from soybean oil comprising the steps of first treating the oil with charcoal sufficiently to remove inhibitor substances, and then treating the oil with a material selected from the group comprising monosaccharides and disaccharides.

2,842,578

POLYCHLOROBENZENEDITHIOLS

Josef Pikl, Glassboro, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 23, 1954
Serial No. 425,301
3 Claims. (Cl. 260—429.9)

2. Tetrachlorobenzenedithiol.

2,842,579

PREPARATION OF MONO- AND DIARYLARSINES

Louis Schmerling, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application June 22, 1955
Serial No. 517,369
7 Claims. (Cl. 260—448)

1. In the process of reacting an aromatic hydrocarbon with arsenic trichloride in contact with a Friedel-Crafts type catalyst, the improvement which comprises effecting the reaction in the presence of a saturated hydrocarbon containing a tertiary carbon atom and having not more than about 10 carbon atoms per molecule.

2,842,580

CLEAVAGE OF ORGANOHALOGENOPOLYSILANES WITH QUATERNARY AMMONIUM OR PHOSPHONIUM HALIDES

Alfred R. Gilbert and Glenn D. Cooper, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application November 22, 1955
Serial No. 548,548
6 Claims. (Cl. 260—448.2)

1. The process for obtaining organohalogenomonosilanes in which the four valences of silicon are satisfied by halogeno and organo radicals from organohalogenopolysilanes in which the organo groups are monovalent hydrocarbon radicals attached directly to silicon by carbonsilicon linkages, which comprises treating said organohalogenopolysilanes with from 0.5 to 10 percent by weight, based on the weight of said organohalogenopolysilanes, of a quaternary halide selected from the class consisting of quaternary ammonium halides having the formula

$$(R')_4NX$$

and quaternary phosphonium halides having the formula

$$(R')_4PX$$

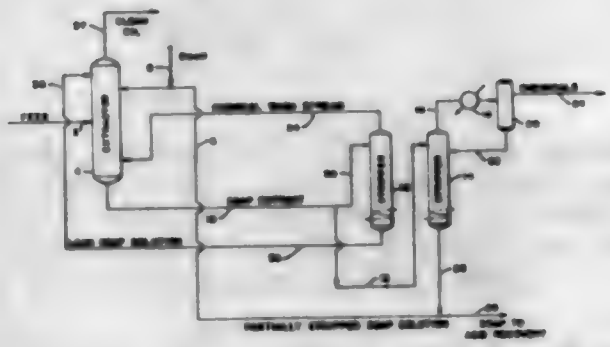
where R' is a member selected from the class consisting of alkyl and aryl radicals and X is halogen.

2,842,581

METHOD FOR EXTRACTING OIL-SOLUBLE CHEMICALS FROM HYDROCARBON SOLUTIONS THEREOF

Scott W. Walker, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

Application May 26, 1955, Serial No. 511,243
3 Claims. (Cl. 260—450)



1. In a process for the recovery of oil-soluble oxygenated organic chemicals from a hydrocarbon solution thereof derived from the synthesis of hydrocarbons by the reaction of carbon monoxide with hydrogen in the presence of a catalyst, said process involving introducing said hydrocarbon solution into an extraction zone at an intermediate point thereof and countercurrently contacting said solution with an aqueous lean salt solution of a substantially nonsurface-active salt of a preferentially oil-soluble carboxylic acid to produce a rich salt extract containing said chemicals, and thereafter subjecting said extract to a stripping operation to recover chemicals therefrom, the improvement which comprises subjecting a portion of said extract to a partial stripping operation and returning the resulting salt solution partially depleted with respect to chemicals to said zone at a level above said intermediate point, but below the level at which said aqueous lean salt solution is introduced into said zone, subjecting the remainder of said extract to a stripping operation whereby said extract is rendered substantially free of chemicals to reproduce said aqueous lean salt

solution, returning said aqueous lean salt solution thus produced to said zone at a level above that at which said partially stripped solution is introduced but below the upper end of said zone, and withdrawing a raffinate hydrocarbon stream from the upper end of said zone substantially free from chemicals.

2,842,582

LONG-CHAIN DITHIOLS AND THEIR PREPARATION

Edward L. Jenner, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 5, 1955
Serial No. 480,069
13 Claims. (Cl. 260—455)

1. A process for the additive coupling of polymerizable ethylenically unsaturated compounds with sulfhydryl compounds to produce dithiols and derivatives thereof which comprises reacting in an aqueous system, in the presence of an oxidizing agent taken from the group consisting of hydroxyl free-radicals and ceric salts in molar ratio to that of said sulfhydryl compound, a polymerizable ethylenically unsaturated compound having not to exceed ten carbon atoms and having conjugated unsaturation with a sulfhydryl compound having the formula R—SH wherein R is a substituent of the group consisting of hydrocarbon of not to exceed six carbon atoms, monocarboxy hydrocarbon of not to exceed six carbon atoms, and carboxyacyl of not to exceed six carbon atoms.

7. A composition of matter having the general formula

$$R—S—(C_4H_8X)—(C_4H_8X)—S—R$$

wherein X is a monovalent substituent from the group consisting of hydrogen, halogen and hydrocarbon of not to exceed six carbon atoms and R is a substituent of the group consisting of hydrogen, hydrocarbon of not to exceed six carbon atoms, monocarboxy hydrocarbon of not to exceed six carbon atoms and carboxy acyl of not to exceed six carbon atoms.

2,842,583

PROCESS FOR PREPARING 1,3-BIS (DIMETHYLTHIOCARBAMYL-MERCAPTOMETHYL)-UREA

Walter C. Meuly, Mill Creek Hundred, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 4, 1955
Serial No. 526,571
7 Claims. (Cl. 260—455)

1. A process for producing 1,3-bis(dimethylthiocarbamyl-mercaptomethyl)-urea, which comprises reacting together, at 0° to 60° C., in aqueous medium and in essentially stoichiometric proportions, urea, formaldehyde and a reactant of the group consisting of (1) a mixture of carbon disulfide and dimethylamine, (2) a mixture of carbon disulfide and the dimethylammonium salt of dimethyl dithiocarbamic acid, and (3) a mixture of a water-soluble salt of dimethyl dithiocarbamic acid and an acid adapted to liberate dimethyl dithiocarbamic acid from said salt in aqueous medium, and recovering the reaction product.

2,842,584

PRODUCTION OF SUCCINONITRILE

Ludwig J. Christmann, Bronxville, N. Y., assignor to Carbogen Corporation, New York, N. Y.

Application December 11, 1956, Serial No. 627,682
7 Claims. (Cl. 260—465.8)

1. A method for the continuous production of succinonitrile which comprises flowing a stream of liquid succinonitrile downwardly in a reaction zone, introducing into the bottom of said zone a dilute HCN gas containing not over 50% of HCN and substantially free from ammonia and water, introducing acrylonitrile into said zone and cooling said zone, removing from the lower part of said zone the liquid reaction mass, then heating said mass to vaporize unreacted HCN and acrylonitrile and thereafter cooling the liquid succinonitrile product.

2,842,585

ORGANIC ESTERS OF 2-(2-DIETHYLAMINOETHOXY)-ETHANOL AND THEIR PROCESS OF PREPARATION

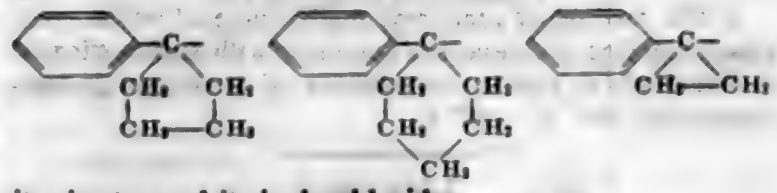
Henri Morren, Forest-Brussels, Belgium, assignor to Union Chimique Belge, Societe Anonyme, Brussels, Belgium, a Belgian company

No Drawing. Application March 23, 1954
Serial No. 418,238
Claims priority, application Belgium June 26, 1953
5 Claims. (Cl. 260—469)

1. A compound selected from the group consisting of an ester having the formula

$$R—COOCH_2CH_2OCH_2CH_2N(C_2H_5)_2$$

wherein R is a radical selected from the group consisting of



its citrates and its hydrochlorides.

2,842,586

PROCESS FOR OBTAINING ALCOHOLYSIS OF AMINOACID ESTERS

Emil Kaiser and Ellen P. Gunther, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application June 2, 1955
Serial No. 512,856
10 Claims. (Cl. 260—470)

1. In an alcoholysis reaction wherein there is obtained substantially complete interchange of the alcohol component of an ester with that of an aluminum alcoholate, the steps of reacting at least substantially stoichiometric proportions of an aluminum alcoholate and an amino acid ester derivative in which only the alcohol component is capable of undergoing alcoholysis under reflux conditions in a solvent medium containing essentially a solvent selected from the group consisting of a solvent in which the reactants are soluble but in which the aluminum alcoholate reaction product is substantially insoluble and an alcohol corresponding to the alcohol component of the aluminum alcoholate reactant, while maintaining the reactants and the reaction products in contact with the solvent medium until the reaction has been substantially completed, and then separating the amino acid ester reaction product from the reaction mixture.

2,842,587

SUBSTITUTED BUTYRIC ACIDS AND PROCESS FOR PREPARING THE SAME

Arthur F. Wagner, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application July 21, 1953
Serial No. 369,535
16 Claims. (Cl. 260—481)

1. A compound selected from the group consisting of compounds having the structure—



and alkali metal salts, ammonium salts, lower alkyl esters and acyl chlorides thereof, wherein R is selected from the class consisting of lower alkyl, lower alkenyl, phenyl and benzyl radicals.

2,842,588

TREATMENT OF SULFONIC ACIDS

Earl M. Honeycutt, West Chester, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application July 3, 1957, Serial No. 674,001
11 Claims. (Cl. 260—504)

1. Method for improving the properties of petroleum sulfonate stock which comprises: contacting petroleum sulfonate stock with an ozone-containing gas; and continuing the contacting until carboxyl acidity equivalent to at least 0.05 cc. of 1 N NaOH per 100 ml. of a 0.5 weight percent solution of the sodium salts of the sulfonic acids has been produced.

2,842,589

PREPARATION OF METHIONIC ACID

John A. Crowder and Everett E. Gilbert, Morris Township, Morris County, N. J., assignors to Allied Chemical Corporation, New York, N. Y., a corporation of New York

No Drawing. Application January 26, 1956
Serial No. 561,687
6 Claims. (Cl. 260—513)

1. The method of preparing methionic acid which comprises reacting methane sulfonic acid with sulfur trioxide in liquid phase and in the absence of a catalyst at temperature of 100° C.–150° C.

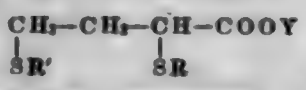
2,842,590

PROCESS FOR PREPARING MERCAPTO BUTYRIC ACIDS

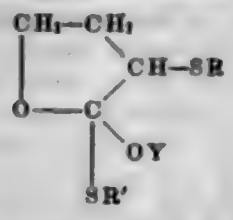
Arthur F. Wagner, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Original application July 21, 1953, Serial No. 369,535. Divided and this application December 30, 1954, Serial No. 478,920
5 Claims. (Cl. 260—526)

1. The process for the production of a compound having the formula



which comprises fusing a compound of the formula



wherein in each occurrence R is selected from the group consisting of lower alkyl, lower alkenyl, phenyl and benzyl radicals, R′ is a lower alkyl radical and Y is selected from the group consisting of alkali metal, alkaline earth metal and ammonium radicals.

2,842,591

PROCESS OF TREATING SUGAR BEET MOLASSES TO RECOVER BARIUM SACCHARATE AND GLUTAMIC ACID

James L. Shelton, San Jose, Calif., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application November 15, 1955
Serial No. 547,039
5 Claims. (Cl. 260—527)

1. A process which comprises treating sugar beet molasses with at least about 60% by weight of barium oxide, based on the weight of sugar in the molasses, in an aqueous medium having a dry substance content between about 40 and about 70% by weight, exclusive of the barium oxide, at a temperature between about 60 and about 85° C. for a period of about one-half to about five hours, varying inversely with the temperature, whereby the sugar is precipitated as barium saccharate and the glutamic acid precursor compounds in said molasses are substantially completely hydrolyzed to glutamic acid, separating the precipitated barium saccharate, and recovering glutamic acid from the barium saccharate mother liquor.

2,842,591

GLUTAMIC ACID RECOVERY

Forest A. Hoglan, Glenview, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application December 12, 1956
Serial No. 627,741
7 Claims. (Cl. 260—527)

1. A process which comprises hydrolyzing waste liquor from beet sugar molasses at elevated temperature with an alkaline earth metal hydroxide selected from the group consisting of barium hydroxide and strontium hydroxide, adjusting the resulting hydrolyzate to a pH between about 8 and about 12 with an inorganic reagent which precipitates the alkaline earth metal as a water-insoluble salt, separating the insoluble solids from the hydrolyzate, adjusting the resulting solution to a pH between about 4 and about 7.5 with sulfuric acid, crystallizing and separating inorganic salts from the hydrolyzate, adjusting the pH of the resulting solution to between about 2.5 and about 4.0 with sulfuric acid, and crystallizing and separating glutamic acid from the adjusted solution, whereby end liquor loses of glutamic acid are substantially reduced.

2,842,593

METHOD OF PREPARATION AND PURIFICATION OF THE HIGHER ALIPHATIC DI-ACIDS

Charles Paquot, Paris, Roger Perron, Chatenay-Malabry, and Josiane Petit, Villeneuve-le-Roi, France, assignors to Etablissement Public dit: Centre National de la Recherche Scientifique, Paris, France, a corporation of France

No Drawing. Application August 8, 1955
Serial No. 527,172
Claims priority, application France August 10, 1954
12 Claims. (Cl. 260—537)

1. An improved method of preparation of the higher aliphatic di-acids by nitric oxidation of hydrocarbon chains of esters of saturated higher fatty acids, the said method comprising the steps of: causing to react together one part by weight of an aliphatic saturated ester of a saturated higher fatty acid and one and a half parts by weight of pure nitric acid having a density between 1.50 and 1.52; continuing the reaction for a period of ten to twelve minutes; separating the two phases thus produced by decantation; and repeating the sequence of operations above-specified a number of times, applying each time the same quantity of nitric acid to the unconverted residue of the said ester until the phase of fatty substance has disappeared, the products thus successively separated by the decantation steps being collected together.

2,842,594

RECLAMATION OF NITROGUANIDINE

Robert Evans, Tullahoma, Tenn., and Francis C. Thames and Sol Skolnik, Indian Head, Md., assignors to the United States of America as represented by the Secretary of the Navy

No Drawing. Application August 5, 1953
Serial No. 372,612
4 Claims. (Cl. 260—564)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of recovering guanidine sulfate from spent sulfuric acid residue resulting from the nitration of guanidine sulfate with concentrated sulfuric acid and concentrated nitric acid which includes the steps of progressively heating the spent sulfuric acid residue to 53° C., then from 53° C. to 60° C., and finally from 63° C. to 70° C. over a period of seven hours in a reduced pressure varying 25 mm. of mercury to 50 mm. of mercury to effect substantial dehydration of the residue

whereby guanidine compounds in the residue are preserved undecomposed as guanidine salts for recycling with more guanidine salts in a new nitration cycle.

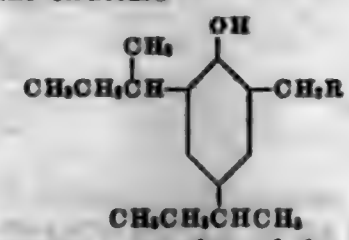
2,842,595

α-AMINO-4,6-DI-SECONDARY-BUTYL-o-CRESOLS

Raymond H. Rigterink, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 23, 1956
Serial No. 579,755
6 Claims. (Cl. 260—570.9)

1. An N-substituted-α-amino-4,6-di-secondary-butyl-o-cresol having the structure



wherein R represents a member of the group consisting of dialkylamino wherein the alkyl is a lower aliphatic radical containing from 1 to 5 carbon atoms, inclusive, diallylamino, dibenzylamino, dicyclohexylamino and piperidino.

2,842,596

INDANDIONE DERIVATIVES

Louis Freedman, Mount Vernon, and Seymour L. Shapiro, Hastings on Hudson, N. Y., and Karl Geiger, Passaic, N. J., assignors to U. S. Vitamin Corporation, a corporation of New York

No Drawing. Application December 8, 1955
Serial No. 551,751
3 Claims. (Cl. 260—592)

1. An anticoagulant for blood comprising an indandione derivative selected from the group consisting of 2-palmitoyl-1,3-indandione and the sodium salt thereof.

2,842,597

PRODUCTION OF PHENOLS AND KETONES

Andre Pacoud, St-Fons, and Maurice Fenoglio and Emmanuel Alvarado, Lyon, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application June 5, 1957
Serial No. 663,591
Claims priority, application France July 21, 1954
4 Claims. (Cl. 260—593)

1. A process for the simultaneous production of phenolic and carbonyl substances which comprises effecting the decomposition of an alkyl aromatic hydroperoxide by treatment with sulphuric acid, washing the reaction products with a 0.5 to 5% by weight aqueous solution of a substantially non-volatile carboxylic acid which has an ionisation constant of at least 1×10^{-4} and at most 1×10^{-3}, measured at 25° C., said aqueous solution having a pH of at least 1.8 and at most 5 and constituting at most 10% by volume of the said reaction products, separating the organic phase from the aqueous phase containing the sulphuric acid and thereafter separating at least the phenolic and carbonyl substances from the organic phase by distillation.

2,842,598

MYRCENE-METHACROLEIN ADDUCT AND PROCESS THEREFOR

Garry C. Kitchens, Packanack Lake, N. J., assignor to The Givaudan Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 6, 1956
Serial No. 596,162
5 Claims. (Cl. 260—598)

1. A Diels-Alder adduct of myrcene and methacrolein, said adduct having desirable olfactory and flavor properties.

2,842,599

CAROTENOIDS AND INTERMEDIATES THEREFOR

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, near Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 21, 1956
Serial No. 592,757
Claims priority, application Switzerland June 27, 1955
8 Claims. (Cl. 260—601)

4. Triphenyl - (3,7 - dimethyl-2,6-octadien-1-ylidene)-phosphine.

5) 2,6,11,15-tetramethyl - 2,4,6,8,10,12,14 - hexadecaheptaene-1,16-dial.

7. 15,15'-dehydrolycopene.

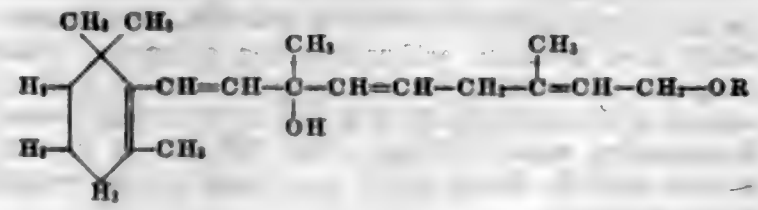
2,842,600

SYNTHESIS OF VITAMIN A ESTERS AND ETHERS

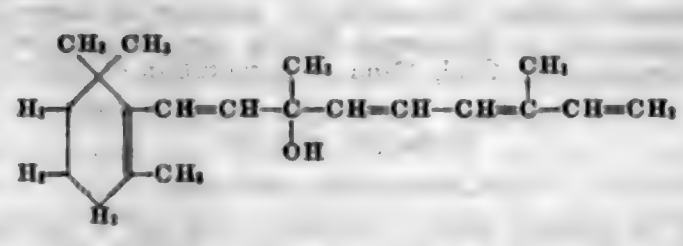
William Oroshnik, Plainfield, N. J., and Alexander D. Mebane, New York, N. Y., assignors to Ortho Pharmaceutical Corporation, a corporation of New Jersey

No Drawing. Application June 19, 1956
Serial No. 592,251
11 Claims. (Cl. 260—611)

1. The method comprising treating a compound of the formula

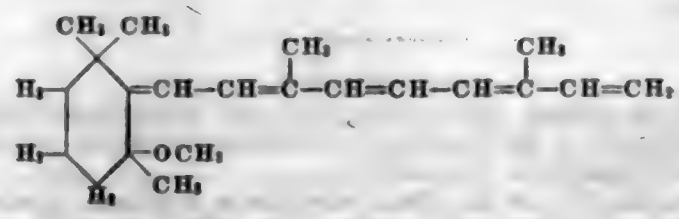


in which R is a lower alkyl radical, with a metallic amide selected from the group consisting of alkali and alkaline earth metallic amides to provide a pentaene of the formula



and treating the pentaene, in the presence of a compound selected from the class consisting of low-molecular-weight aliphatic alcohols and acids, with a dehydrating agent to provide a member of the class consisting of vitamin A, anhydrovitamin A, low-molecular-weight aliphatic ethers of vitamin A and low-molecular-weight aliphatic esters of vitamin A.

10. A compound having the formula



2,842,601

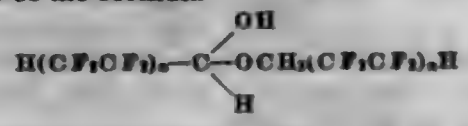
FLUORINATED HEMIACETALS

Neal O. Brace, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 14, 1957
Serial No. 678,042
3 Claims. (Cl. 260—615)

1. A process for preparing omega-hydroperfluoro ali-

phatic aldehyde-1,1-omega-trihydroperfluoro aliphatic hemiacetals of the formula



in which each *n* is an integer from 1 to 12, which comprises photochlorinating alcohols of the general formula $H(CF_2CF_2)_nCH_2OH$ in which *n* has the same meaning as given above at temperatures of from 0° to 80° C. using from 0.1 to 0.5 mole of chlorine per mole of alcohol to be reacted, the chlorine being added at such a rate that substantially all of the chlorine reacts as rapidly as it is absorbed by the solution.

2,842,602

STABILIZATION OF MONOMERS

William T. Norton, New Castle, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 4, 1956
Serial No. 557,247

4 Claims. (Cl. 260—652.5)

1. The process of inhibiting granular polymer formation in polymerizable ethylenically unsaturated monomers which form granular, self-propagating polymers, which comprises maintaining the monomers in contact with an amount of the nitrite form of an insoluble, strongly basic, N-containing anion exchange resin sufficient to provide at least 0.001% of the nitrite ion, based on the weight of the monomer.

2,842,603

PREPARATION OF PERHALOFLUOROOLEFINS

William T. Miller, Ithaca, N. Y., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application March 4, 1955
Serial No. 492,314

17 Claims. (Cl. 260—653)

1. A process which comprises: reacting a perhalofluoroolefin having a halogen atom bonded to a carbon atom adjacent to a doubly bonded carbon atom said halogen atom being selected from the group consisting of chlorine, bromine and iodine with an alkali metal fluoride in a water-soluble solvent at a temperature between about —10° C. and about 200° C., whereby said halogen atom is replaced with the fluorine atom of the alkali metal fluoride to produce a reaction mass comprising a substituted perhalofluoroolefin; and recovering said substituted perhalofluoroolefin from said reaction mass.

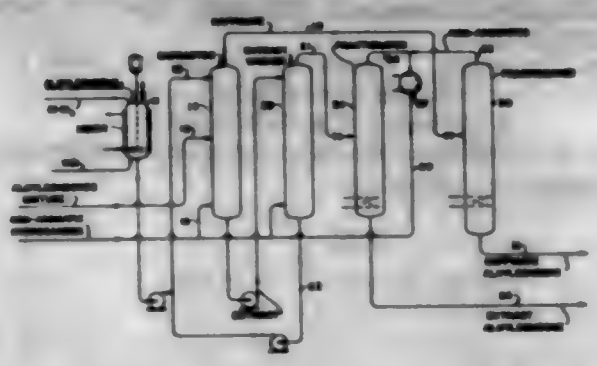
2,842,604

SEPARATION OF MIXTURES OF ALKYL-SUBSTITUTED AROMATIC HYDROCARBONS WITH ALUMINUM HALIDES

Joan Henri van der Waals and Geert Dallinga, Amsterdam, Netherlands, assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application February 16, 1953, Serial No. 337,223
Claims priority, application Netherlands April 9, 1952
13 Claims. (Cl. 260—674)

1. A method for extracting meta-xylene from a mixture of isomeric alkyl benzenes having the empirical formula C_9H_{12} which comprises introducing the mixture to an intermediate stage of a plural stage liquid-liquid contacting zone maintained at a temperature lower than about 25° C., introducing a non-aromatic hydrocarbon and a hydrogen halide into one end of said contacting zone, introducing a hydrogen halide and from about 50% to about 150% by weight, based on said mixture, of an



extracting agent comprising a complex of an aluminum halide and meta-xylene into the other end of said contacting zone, separately withdrawing from the contacting zone an extract phase substantially enriched in meta-xylene and a raffinate phase substantially enriched in the remaining components of the feed mixture, and recovering an extract enriched in meta-xylene from the extract phase.

2,842,605

ALKYLATION PROCESS AND CATALYST THEREFOR

Herbert R. Appell, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application November 24, 1954
Serial No. 471,082
22 Claims. (Cl. 260—683.15)

1. A catalyst having the general formula $AlCl_n(R)_{3-n}$ wherein *n* is an integer less than 3 and R is a halogen substituted inorganic acid radical, said catalyst being substantially free of uncombined aluminum chloride.

14. A process which comprises reacting an alkylatable compound and an olefin-acting compound at alkylating conditions in the presence of a catalyst having the general formula $AlCl_n(R)_{3-n}$, wherein *n* is an integer less than 3 and R is a halogen substituted inorganic acid radical, said catalyst being substantially free of uncombined aluminum chloride.

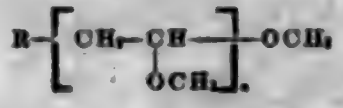
2,842,606

RUBBER LATEX COMPOSITIONS HEAT-SENSITIZED WITH POLYMETHOXY ACETALS

George G. Stoner, Easton, Pa., Julian L. Azorlosa, Westbury, N. Y., and Charles P. Alhus, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 30, 1954
Serial No. 478,866
5 Claims. (Cl. 260—815)

1. A natural rubber latex composition, adaptable for the manufacture of rubber articles by coagulation at a temperature between 35–130° C., containing in a heat-sensitizing amount at least one polymethoxy acetal having the following general formula:



wherein *n* represents an integer of 5 to 40, and mixtures thereof, and R represents a member of the class consisting of hydrogen and lower alkyl.

ELECTRICAL

2,842,607
HERMETICALLY-SEALED STORAGE BATTERY

Werner Germershausen, Frankfurt am Main, Freimut Peters, Hagen in Westphalia, and Fritz Soeding, Westhofen, Westphalia, Germany, assignors to Firma Accumulatoren-Fabrik Aktiengesellschaft, Hagen in Westphalia, Frankfurt am Main, Germany

Application March 29, 1954, Serial No. 419,312
6 Claims. (Cl. 136—6)



2. A storage cell of the hermetically sealed alkaline type comprising in combination in a casing at least one porous negative electrode, at least one porous positive electrode and at least one porous separator situated between and contacting said electrodes, an alkaline electrolyte substantially held in the pores of the separator and the electrodes by capillary action, at least one of said negative electrodes having its rear face spaced from a wall of the casing, and spacer means between said rear face and said wall forming a free gas space between said rear face and said wall, said rear face being in contact with the oxygen generated in the cell, for removing said oxygen, the porous separator having very fine pores and being saturated with liquid electrolyte so that free gases, generated at the surfaces of the electrodes, are not able substantially to penetrate the separator.

2,842,608
FLAT-TYPE ELECTROLYTIC DRY CELL FOR USE IN PRIMARY BATTERIES

Hugo Querengässer, Knapsack, near Cologne, Wilhelm Wild, Ellwangen, Jagst, Franz Broastert, Frankfurt am Main, Johann Sindel, Ellwangen, Jagst, and Friedrich Hentschel, Iserlohn, Germany, assignors to Pertrix-Union G. m. b. H., Frankfurt am Main, Germany, a limited liability company of Germany

Application April 28, 1953, Serial No. 351,688
Claims priority, application Germany May 12, 1952
1 Claim. (Cl. 136—111)



A primary cell for dry batteries, comprising two cooperating unitary enclosure members each formed of partially rigid and resilient electrically insulative moisture impermeable material and each comprising a centrally apertured flat end wall portion peripherally surrounded by an integrally formed smooth and continuous lateral wall portion extending substantially perpendicularly away from said end wall portion, said enclosure members being formed of materials of different moduli of elasticity, the lateral wall portion of one of said enclosure members substantially completely and coextensively overlying the lateral wall portion of the other enclosure member to define an enclosed space between said members which is accessible through the central apertures of said end wall portions; a depolarizing member disposed in said space, said depolarizing member having a boss formed thereon which protrudes exteriorly beyond the end wall of one of said enclosure members through one of said central apertures; a zinc anode disposed in said space for engagement by the boss of an adjacent cell, if any, through the other of said apertures; and electrolyte carrying means disposed in engagement both with said depolarizing member and with said anode, said lateral wall portions of said enclosure members being initially slidable one within the other for assembly of said cell with the more resilient of said lateral wall portions yieldingly pressing in sealing engagement against the other for sealing said enclosed space against leakage of said electrolyte therefrom.

2,842,609
METHOD FOR THE TRANSMISSION AND REPRODUCTION OF COLOR TELEVISION IMAGES

Edgar Gretener, Zurich, Switzerland, assignor to Dr. Edgar Gretener A. G., Zurich, Switzerland, a firm

Application April 23, 1953, Serial No. 350,668
Claims priority, application Switzerland April 23, 1952
10 Claims. (Cl. 178—5.2)



1. In color television apparatus, a transmitter including means for developing three original color significant signals corresponding to the relative magnitudes of the three fundamental reproduction colors of each image element, means at said transmitter for transforming said three original signals into four electrical signals comprising a white content signal of an instantaneous magnitude substantially equal to that of the minimum amplitude original signal and three color residue signals of instantaneous magnitude equal respectively to the amplitudes of said original signal less the instantaneous amplitude of said white content signal, a receiver having four image developing means, circuits for energizing said image-developing means each by a different one of said four electrical signals, means for registering the images displayed on the several image-developing means, means at said transmitter increasing the respective amplitudes of said three color residue signals by equal amounts prior to transmission, and means at said receiver decreasing the respective amplitudes of said three color residue signals by the same amounts.

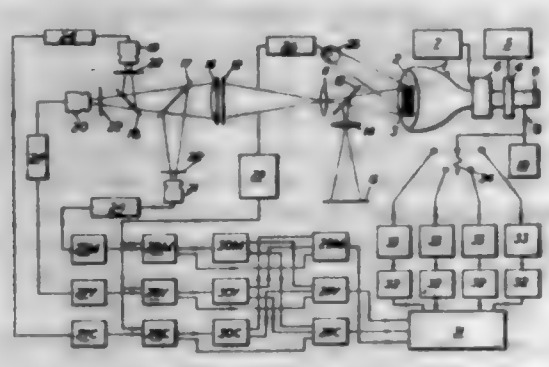
2,842,610
COLOUR PRINTING

John Fothergill Crosfield and Gordon Stanley James Allen, London, England, assignors to J. F. Crosfield Limited, London, England, a British company

Application August 23, 1954, Serial No. 451,466
Claims priority, application Great Britain August 25, 1953
12 Claims. (Cl. 178—5.2)

1. Apparatus for producing corrected colour separation prints from a colour transparency, comprising a light source of variable intensity, means for causing said source to scan over an area, a first image-forming means producing a first spot of light forming an image of said source on said transparency, means for dividing the light beam of said first spot passing through said transparency into a plurality of subsidiary beams, a light filter in the

path of each of said subsidiary beams, a photo-electric cell in the path of each of said subsidiary beams, an electronic computer, said computer being electrically connected to said photo-electric cells, a second image-forming means producing a second spot of light forming an image of said variable intensity light source on a photosensitive surface, and means operated by said computer for controlling the brightness of said second spot.



2,842,611

COLOR TELEVISION REGISTRATION SYSTEM

Leslie Connock Jesty, Burnham-on-Crouch, and Norman Rupert Phelp, Great Baddow, England, assignors to Marconi's Wireless Telegraph Company Limited, London, England, a company of Great Britain

Application January 8, 1953, Serial No. 330,302
Claims priority, application Great Britain January 16, 1952
5 Claims. (Cl. 178—5.4)



1. A color television transmitter comprising means for scanning a picture in lines, means for developing, during scanning, successive color picture signals representative of different color intensities of different successive points in the picture, means including a color grid composed of successive strips of different colors and neutral strips, said strips running at right angles to the scanning line direction for developing, during each scanning line, registration signals different and separable from the picture signals, said registration signals being developed at fixed points during line scanning and being interspersed with said color picture signals, the color sequence including a color of low visibility brightness compared with the other colors in the sequence, a strip for producing a registration signal being substituted for each alternate strip of said low visibility brightness color.

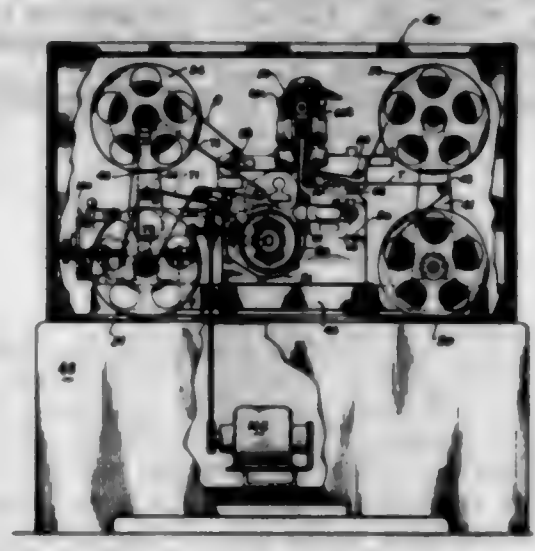
2,842,612

DATA TRANSFER APPARATUS

John H. Gruver, Cleveland Heights, Ohio, assignor to Addressograph-Multigraph Corporation, Wilmington, Del., a corporation of Delaware

Application April 8, 1953, Serial No. 347,600
11 Claims. (Cl. 178—6.6)

1. In a facsimile printing machine of the kind described comprising a scanning head at scanning station and a printing head at a printing station, means operatively associating said scanning and printing heads for reproducing scanned subject matter at said printing station, a supply magazine for holding a supply of data-bearing record cards or like discrete record instrumentalities that are to be advanced through the scanning station, a supply means from which a copy sheet may be advanced through the printing station, and a conveyor in the machine for transporting said cards in a line at a constant speed through the scanning station and beneath the scanning head whereby the data carried by the cards may be scanned and transmitted to the printing head to be printed on the copy sheet: the improvement comprising feed means adjacent the supply magazine for feeding said cards one by one to the conveyor at a predetermined rate whereby a corresponding spacing between cards on the conveyor may be established, other feed means for advancing the copy strip through the printing station at a predetermined speed, a change speed mechanism for operating the first-named feed means and adjustable to change the rate at which the



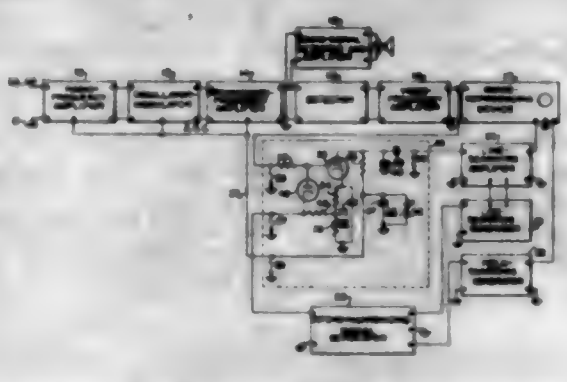
cards are fed from the supply magazine to the conveyor to thereby permit the pitch between data on adjacent cards to be varied, and another change speed mechanism for operating the second-named feed means and adjustable to change the speed at which the copy sheet is advanced through the printing station to thereby permit the spacing between each printed character to be varied.

2,842,613

CONTROL APPARATUS FOR TELEVISION RECEIVERS

Donald Richman, Fresh Meadows, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Continuation of application Serial No. 175,191, July 21, 1950. This application November 17, 1955, Serial No. 547,579
19 Claims. (Cl. 178—7.3)



14. A synchronizing-signal separating apparatus for a television receiver including a first supply circuit for a composite video-frequency signal including the direct-current component and picture components interspersed with synchronizing pulses and subject to undesired random noise pulses and including a second supply circuit for gating pulses synchronous with said synchronizing pulses and substantially unaffected in amplitude by variations in the intensity of said signal, comprising: means including a single electron-discharge device actuated jointly by said gating and said synchronizing pulses for developing from the latter a unidirectional potential substantially proportional to the amplitude of said synchronizing pulses and relatively unaffected by said noise pulses; and a nonlinear circuit element connected to the first supply circuit and said means and means whereby said nonlinear circuit element has a threshold response and,

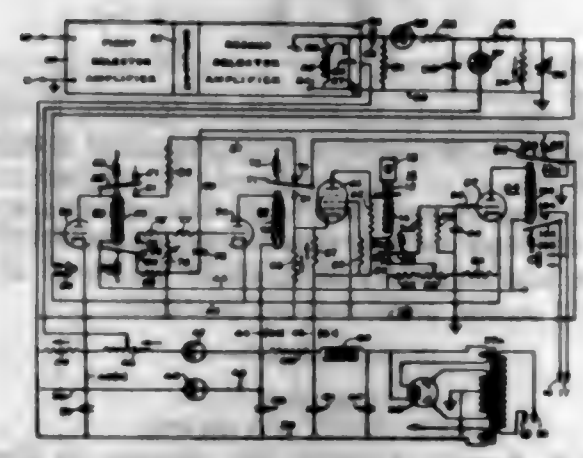
above the threshold, responsive differentially to said signal and said unidirectional potential for developing output synchronizing pulses having variations in magnitude that are small compared with said intensity variations of said composite signal.

2,842,614

REMOTELY CONTROLLED RECEIVER FOR RECORDING SELECTED PORTIONS OF TELECAST

Ellison S. Purington, Gloucester, Mass., assignor to John Hays Hammond, Jr., Gloucester, Mass.

Application April 1, 1952, Serial No. 279,734
3 Claims. (Cl. 178—7.4)



1. In a television receiver having a video channel carrying received video signals representing a video program with a control signal and a still picture signal interposed in the program in timed sequence, and having camera means including a shutter disposed to record photographically the still pictures when it appears on the television screen and processing means operating in a timed cycle to process the photographed picture, a timing relay, a circuit tuned to respond to said control signal, a circuit comprising a resistor and a capacitor in communication with said tuned circuit, means to connect said last-named circuit to actuate said timing relay, means including a second relay whereby said timing relay is connected to actuate said shutter a predetermined time after the actuation of said timing relay, a timing circuit energized by the actuation of said shutter, a third relay having means to cause release of said second relay to restore said shutter after a predetermined time, a circuit for initiating the operation of said processing means actuated by said last timing circuit, and means to connect said last-named circuit to said processing means.

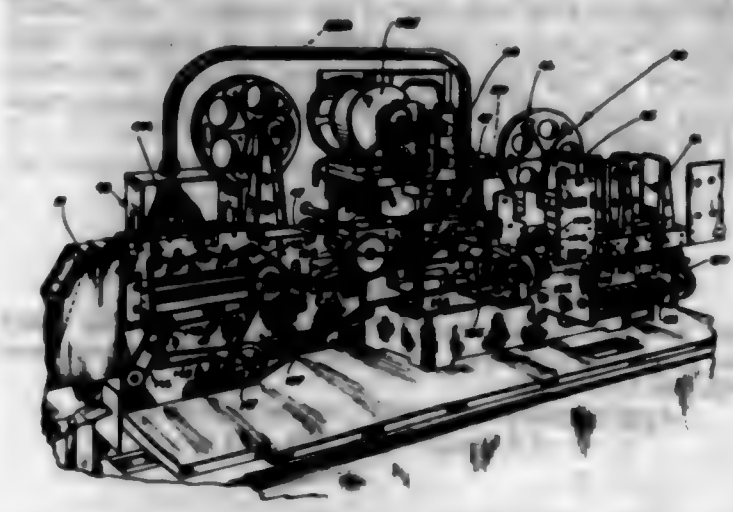
2,842,615

PRINTING MACHINES

John H. Grover, Cleveland Heights, Ohio, assignor to Addressograph-Multigraph Corporation, Cleveland, Ohio, a corporation of Delaware

Application January 8, 1957, Serial No. 633,157
23 Claims. (Cl. 178—6.6)

1. In a printing machine in which data-bearing record instruments are passed sequentially through first and second data-analysis stations to control the operation of first and second data-responsive devices operatively connected to said first and second data-analysis stations respectively, a record instrument transport system comprising: a first conveyor for transporting the record instruments through the first analysis station at a predetermined velocity; means for sequentially feeding the record instruments to said first conveyor; a second conveyor for receiving the record instruments from the first conveyor and for transporting the instruments between the first and second analysis stations at a predetermined velocity substantially lower than that of the first conveyor; and a third conveyor for receiving the record instruments from the second conveyor and for transporting the instru-



ments through the second analysis station at a velocity very much higher than that of the second conveyor.

2,842,616

ELECTRONIC TRANSMITTER, RECEIVER, AND REGENERATIVE REPEATER FOR TELEGRAPH SIGNALS IN A START-STOP CODE

Antonie Snijders, The Hague, Netherlands, assignor to Staatsbedrijf der Posterijen, Telegrafie en Telefonie, The Hague, Netherlands

Application November 24, 1952, Serial No. 322,180
28 Claims. (Cl. 178—53.1)

1. In a communication system for signals of a given number of successive substantially equal time-spaced intelligence elements, said system comprising: means for scanning the elements in each signal comprising first electronic relay cell means corresponding to each element of said signal, separate means for storing separate elements of said signal, and second electronic relay cell means corresponding to each storing means and connecting its corresponding storing means and its corresponding first electronic relay cell means of said scanning means.

2,842,617

METHOD AND APPARATUS FOR GENERATING PHASING PULSES

Paul M. Turkheimer, Little Falls, N. J., assignor to Air Associates, Incorporated, Teterboro, N. J.

Application December 27, 1955, Serial No. 555,548
4 Claims. (Cl. 178—69.5)

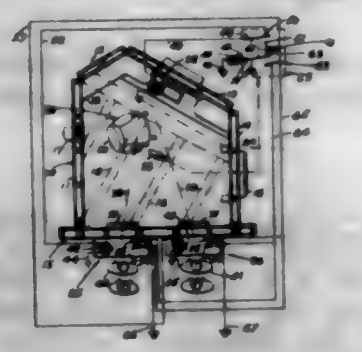
1. Apparatus for generating electrical pulses having waveform components capable of providing phase marking with blanking time in a system including a rotating member with respect to which phase marking is to be accomplished, that comprises, permanent magnet means

mounted in a fixed position at one end of said rotating member with the respective poles thereof spaced apart in the direction of rotation of the member, and electromagnetic winding means positioned in magnetic field proximity to the plane of rotation of said permanent magnet means with the axis of said winding means normal to said plane.

2,842,618
SIMULTANEOUS VIEWING AND COMMUNICATION SYSTEM

John S. Lugt, South Pasadena, Calif., assignor to John S. Lugt Corporation, Los Angeles, Calif., a corporation of California

Application June 7, 1957, Serial No. 664,307
8 Claims. (Cl. 179—1)



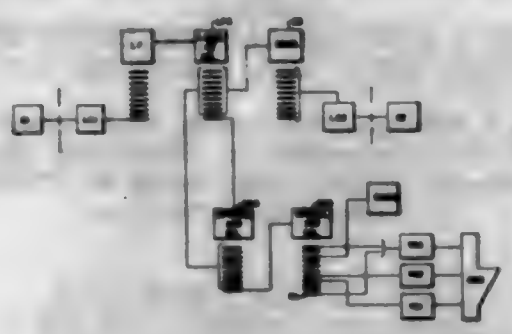
1. A simultaneous viewing and communication system comprising: a substantially enclosed room having a wall; a subject station in said room; at least two ports in said wall; a reducing lens in each port; an observer station at each port, said subject station being visible from all of said observer stations through the respective reducing lenses in said ports; a telephone at said subject station; a telephone at each of said observer stations; selector means for selectively connecting said telephone at the subject station to any one of the telephones at the observer stations; a pair of visible means at each of said observer stations, each pair of means comprising two members, each member bearing different indicia means; selector means for indicating a selected one of said members at each of said observer stations concurrently, only one of said visible means which is indicated at a given time being different from the indicated visible means at the other observer stations; and ganging means for simultaneously actuating both of said selector means, said ganging means being so connected to said selector means that when the telephone at the subject station is connected to the telephone at a selected one of said observer stations, then the member of the visible means indicated at that selected observer station is the one which is different from the others, as aforesaid, whereby an observer at the selected observer station can communicate via his telephone to a subject at the subject station, and the visible means at his station instructs him to do so, while observers at the other observer stations cannot communicate via their respective telephones to the subject, and the member of the visible means indicated at their respective observer stations instructs them of that fact.

2,842,619
ELEVEN LEVEL DROP-BACK SELECTOR

Clarence E. Lomax, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application June 21, 1955, Serial No. 516,968
8 Claims. (Cl. 179—18)

1. A numerical switch of the trunk-hunting type having a plurality of wipers and levels of bank contacts engaged thereby, said wipers being movable in a primary and a secondary direction and said contact levels including off-normal levels and a normal level such that said wipers when in one of their primary-off-normal positions rest adjacent one of said off-normal levels and when in their primary-normal position rest adjacent the normal level, sets of trunks connected to the bank contacts of said off-normal levels and a set of trunks connected to the bank contacts of said normal level, means responsive to numerical impulses received by said switch for selectively

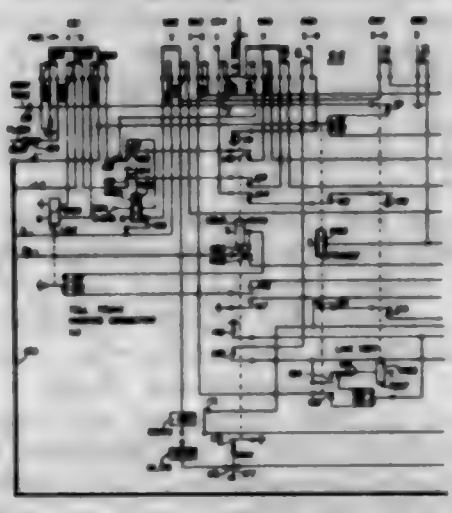


advancing said wipers to a position opposite a desired one of said first mentioned sets of trunks and means operative in case all of said trunks of said selected set are busy for releasing said wipers to their primary-normal position and then causing them to be automatically advanced in said secondary direction in search of an idle one in said second mentioned set of trunks.

2,842,620
TOLL SWITCH TRAINS

Clarence E. Lomax, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application October 4, 1955, Serial No. 538,357
20 Claims. (Cl. 179—27)



1. In a telephone system, a telephone station, a plurality of automatic switches of the trunk hunting type controllable from said telephone station for extending connections therefrom, a pilot line and a plurality of trunk lines arranged in a group and accessible to each of said automatic switches, said pilot line occupying a position preceding the positions of said trunk lines in said group so that any one of said automatic switches selects and tests said pilot line preceding the trunk hunting operation thereof into said trunk lines in said group, a busy circuit terminating said pilot line and controlled by the idle condition of any one of said trunk lines in said group for applying an idle marking to said pilot line and controlled by the busy condition of all of said trunk lines in said group for applying a busy marking to said pilot line, means included in any one of said automatic switches and controlled upon the selection of said pilot line in response to testing of said idle marking thereon for initiating trunk hunting operation thereof into said trunk lines in said group, means included in any one of said automatic switches and controlled upon selection of said pilot line in response to testing of said busy marking thereon for holding said one automatic switch and for converting said busy marking on said pilot line to a camping marking

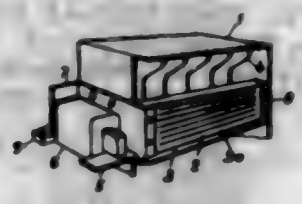
thereon and for returning a camping signal therefrom to said telephone station, said busy circuit also being controlled by the subsequent appearance of an idle trunk line in said group to remove said camping marking from said pilot line, means included in any one of said automatic switches that is holding said pilot line and responsive to the removal of said camping marking therefrom for initiating trunk hunting operations of said one automatic switch into said trunk lines in said group, and means included in any one of said automatic switches and controlled upon the selection of said pilot line in response to testing of said camping marking thereon for returning a busy signal over said one automatic switch to said telephone station.

2,842,621

INDICATING DEVICE FOR CROSS BAR SWITCHES

Karl Axel Lundkvist and Eric Axel Wiberg, Stockholm, and Arne Kurt Dietsch, Enskede, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden

Application March 25, 1954, Serial No. 418,726
Claims priority, application Sweden April 10, 1953
3 Claims. (Cl. 179—27.54)



1. In a switching device of the cross bar type wherein sets of contact springs and coacting stationary contacts are disposed in a crossing but normally disengaged relationship, a common selecting bar movable between an operated position and a non-operated position and having a support portion laterally extending therefrom, an operating bar for each set of contact springs movable between an operated position and a non-operated position, a lifting bar for the contact springs in each set to lift the latter from the disengaged relationship into an engaging relationship, a selecting member for each set pivotally connected to the respective lifting bar, a yieldable means coacting with each selecting member for pivoting the latter toward engagement with said support portion, said selecting member having a wedge shaped extension protruding between the lifting bar and the operating bar in engagement with the latter in a first pivotal position of the selecting member and withdrawn therefrom in a second pivotal position of the selecting member, said support portion retaining the selecting member in its first position in the non-operated position of the selecting bar and releasing the selecting member for movement into its second pivotal position by the action of the yieldable means upon actuation of the selecting bar, said lifting bar and said extension being movable into a position abutting against said operating bar upon operation of the selecting bar and the operating bar when actuated lifting said contact springs by the lifting bar through the agency of said extension.

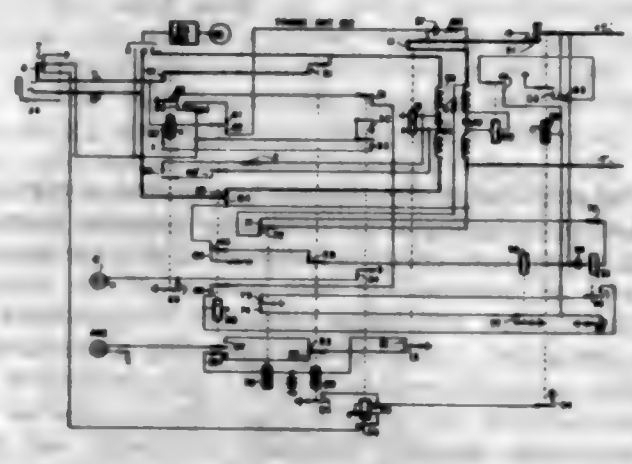
2,842,622

CARRIER ADAPTER CIRCUIT

Pier Bakker, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application March 24, 1955, Serial No. 496,553
13 Claims. (Cl. 179—43)

1. In a communication system of the class including a private exchange and a central office to which said private exchange is connected by means of a carrier circuit over which a call may be completed from said central office to said private exchange and from said private exchange to said central office and wherein said central office and said private exchange each have a loop circuit for transmitting signals to and from said carrier circuit, each loop circuit normally only partially completed to battery through a relay and wherein means at said central office are provided to enable a subscriber in said central office to complete the central office loop circuit and energize the associated relay on a call to said private exchange, the improvement comprising means at said central office



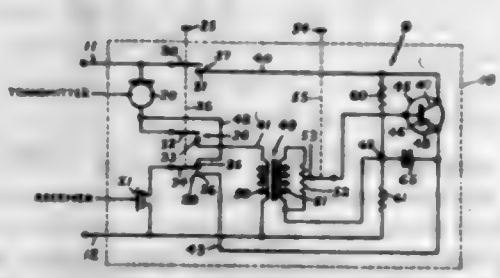
operated in response to the energization of said relay thereat for controlling said carrier circuit to transmit a signal to said private exchange, and means at said private exchange operated in response to the transmission of said signal to said private exchange for preventing completion of the loop circuit and energization of the relay at said private exchange to thereby prevent a call from said private exchange to said central office.

2,842,623

TRANSISTOR AMPLIFIER FOR TELEPHONE INSTRUMENT

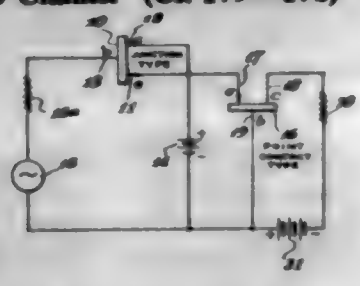
Philip N. Lehr, Huntington, N. Y., assignor to Dictograph Products Company, Inc., Jamaica, N. Y., a corporation of Delaware

Application June 11, 1954, Serial No. 436,192
11 Claims. (Cl. 179—81)



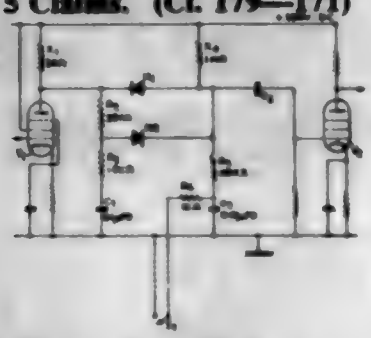
1. An amplifier system adapted to be disposed within the frame of a telephone instrument having at least a receiver and a pair of conductors operable by conjoint action to supply power to said instrument and also to carry telephonic signals to said receiver from a remote point, said signals flowing in said instrument in unamplified form through a first circuit section bridging said conductors, said system comprising, a transistor having a base electrode as an input and collector and emitter electrodes as an output, electrical signal transfer means for coupling said base electrode in signal receiving relation with said first circuit section to provide excitation of said transistor by said signals, a second circuit section adapted to carry current from one conductor through said transistor output to the other conductor, said second circuit section being adapted to energize said transistor with power, and said second circuit section being operably adapted to couple the output signal of said transistor in series with said receiver to increase the output signal thereof, and on-off switch means for selectively instituting and interrupting the operation of said transistor as an amplifier.

2,842,624
TRANSISTOR AMPLIFIER CIRCUIT
Richard E. Marsh, Oak Park, Ill., assignor to The Hallicrafters Co., a corporation of Delaware
Application March 5, 1954, Serial No. 414,410
3 Claims. (Cl. 179—171)



1. An amplifier of the character described, comprising: a first stage including a semiconductor junction transistor having emitter and collector portions of one conductivity type and an intermediate base portion of the opposite conductivity type and being connected for grounded collector operation; a second stage including a semiconductor point contact transistor having a body portion of said one conductivity type and having emitter, collector and base electrodes operably associated therewith, said point contact transistor being connected for grounded base operation; means conductively coupling both of said emitters; and means biasing the collector of said first stage in the non-conducting direction, said means also providing bias for both of said emitters.

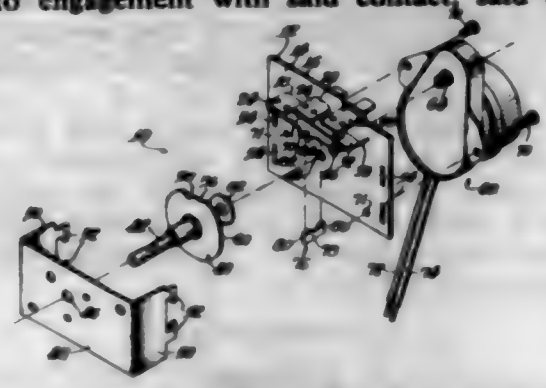
2,842,625
ATTENUATOR ARRANGEMENTS
Frank C. Holmes, Cambridge, England, assignor to Pye Limited, Cambridge, England, a British company
Application June 14, 1954, Serial No. 436,595
Claims priority, application Great Britain June 22, 1953
5 Claims. (Cl. 179—171)



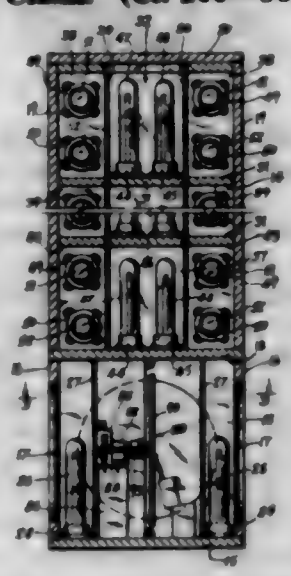
4. An attenuator circuit comprising a first amplifier stage, a second amplifier stage, an attenuator network connected to the output of said first amplifier stage, a first rectifying device, a second rectifying device, means connecting one electrode of said first rectifying device to the output of said first amplifier stage, means connecting the electrode of opposite polarity of said second rectifying device to an intermediate point on said attenuator network, means connecting the other electrodes of said first and second rectifying devices together, a source of potential, means for feeding a potential from said source to the connected electrodes of said first and second rectifying devices, switch means connected between the connected electrodes of said first and second rectifying devices and a point of fixed potential, and means connecting the connected electrodes of said first and second rectifying devices to the input of the second amplifier stage.

2,842,626
SWITCH MECHANISM
William P. Gallagher, Anthony D. Stolle, and Robert B. Ellis, Chicago, Ill., assignors to International Register Company, Chicago, Ill., a corporation of Illinois
Application November 23, 1953, Serial No. 393,802
15 Claims. (Cl. 200—38)

1. In a switch assembly, the combination of a revolvable cam having a track with a radial recess, a switch arm mounted for movement into and out of engagement with a contact, a floating C-shaped cam follower associated with said switch arm and having a body portion engageable with said cam track for urging said switch arm into engagement with said contact, said cam follower being mounted off-center of a plane passing through the axis of rotation of said cam normal to said switch arm and the body portion of said floating cam follower being receivable in said cam track recess to effect a quick break away of said switch arm from engagement with said contact.



2,842,627
TRAFFIC TIME SIGNAL DEVICE
Tobias Wagner, New York, N. Y.
Application February 15, 1956, Serial No. 565,752
1 Claim. (Cl. 200—38)

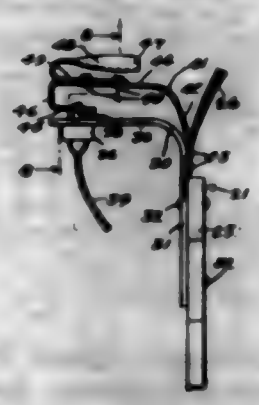


Electrical switching mechanism for controlling a traffic light signal comprising a shaft, means for rotating said shaft, an insulating disc secured to said shaft with its plane normal thereto so as to be rotated therewith and provided with a series of spaced arcuate-shaped slots concentrically arranged therein, said disc having a cut away portion in the periphery thereof, the slots in the disc being progressively lengthened radially of the disc, said cut away portion being longer than the longest slot, a plurality of movable electrical contact members located in a plane parallel to the plane of said disc and spaced apart so as to register with said series of slots and said peripheral cut away portion, said movable switch members being normally in open circuit position, said disc upon rotation moving said movable electrical contact switch members to closed circuit position, said movable contact members during said rotation of the disc falling by gravity through said slots and through said peripheral cut away portion to normal circuit opening position.

2,842,628
DRIVER DOZER ALARM
Horace A. James, Riverton, N. J.
Application June 10, 1957, Serial No. 664,807
4 Claims. (Cl. 200—52)

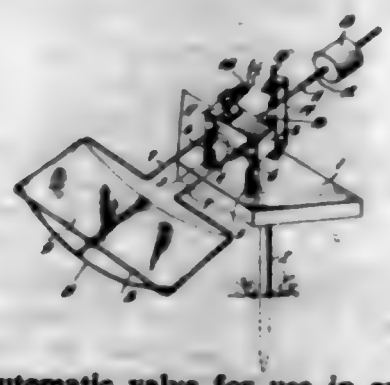
1. A dozing driver alarm comprising an alarm buzzer, an alarm actuator assembly and means connecting said

alarm actuator assembly and said buzzer to a source of electric energy with said assembly comprising a breast plate, a neck strap having the opposite ends thereof detachably connected to said breast plate, an L-shaped member having one leg thereof secured to said breast



plate, an electric contact switch supported on the other leg of said L-shaped member, an L-shaped spring arm secured to said L-shaped member, a chin engaging member secured to said spring arm, and means depending from said spring arm for closing the contacts of said electrical contact switch.

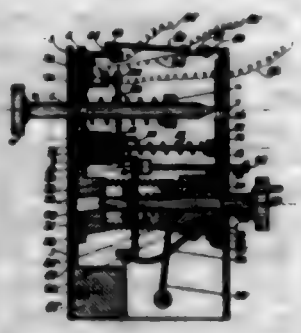
2,842,629
AUTOMATIC VALVE
Charles R. Skinner, Newfield, N. J.
Application July 23, 1957, Serial No. 673,688
2 Claims. (Cl. 200—61.07)



1. In an automatic valve for use in greenhouses, including a platform, a block having a knife edge at its under-portion, standards on the platform for supporting the block, a frame extending from the front of the block to which is sewed a fabric, a stem extending to the rear of the block, an adjustable counter-weight on said stem, a mercury switch mounted on the block and electrically connected to a water supply valve; the said frame adapted to be placed beneath a sprinkler, the block being so evenly balanced that when the cloth is dry the counter-weight will tip the frame and block upwardly to actuate the said mercury switch and cut in the water supply, and when the said cloth becomes saturated it will outweigh the counter-weight and thus lower and cut off the water supply.

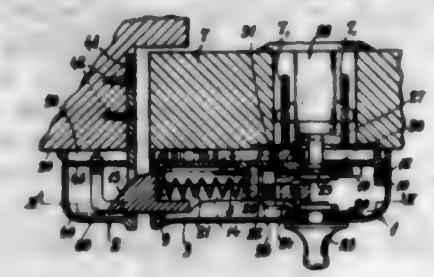
2,843,630
AUTOMATIC INTERRUPTER DEVICE FOR THE ELECTRICAL CIRCUIT IN AUTOMOBILE VEHICLES IN CASE OF COLLISION OR OVERTURNING OF SAME
Alfonso Lucibello, Buenos Aires, Argentina
Application October 27, 1953, Serial No. 388,500
5 Claims. (Cl. 200—61.45)

1. Apparatus for automatically opening an electrical circuit in an automotive vehicle comprising, in combination, a housing adapted to be mounted on said vehicle and having at least one opening in the walls thereof; a first switch arranged on said housing, connected in said electrical circuit and movable between circuit opening and circuit closing positions; a first switch operating member movably mounted on said housing for moving said switch between its circuit opening and circuit closing positions upon actuation thereof, said switch operating member having at least one opening therethrough adapted to be moved into registration with said opening of said housing wall upon actuation thereof; a switch actuating member movable between a first position out of engagement with said first switch operating member and a second position wherein said switch actuating member engages said first switch operating member and moves the same and said switch into circuit opening position, said switch actuating member having an elongated portion adapted to communicate with said openings in said switch operating member and said housing for moving the same into registration with each other when said switch actuating member engages said switch operating member, said elongated portion of said switch actuating member thereby maintaining said operating member and said switch in circuit opening position;



spring means permanently urging said switch actuating member into its second position; holding means normally holding said switch actuating member in its first position against the action of said spring means, said holding means being movable between said normal holding position and a releasing position wherein said switch operating member is released; and releasing means pivotally mounted on said housing for moving said holding means into its releasing position when pivoted whereby said switch actuating member moves into engagement with said switch operating member to initiate operation of the same so that said switch operating member moves said first switch into its circuit opening position for automatically opening said electrical circuit and said switch is maintained in said circuit opening position by the cooperation of said elongated portion of said switch actuating member and said registered openings in said operating member and said housing wall.

2,842,631
SAFETY SPRING LOCKS
Daniel Georg Martens, Oslo, Norway
Application December 8, 1954, Serial No. 473,810
17 Claims. (Cl. 200—61.67)



1. A safety spring lock device having an alarm-preparing position in which an electric alarm circuit is brought into alarm condition on inward movement of the latch from a closed position, comprising a blocking device movable to a position for mechanical blocking of the lock, means carried by the blocking device and adapted by its movement to the blocking position to bring the alarm circuit into an alarm-preparing condition, said device when in blocking position being operative to permit inward pushing of the latch a limited distance

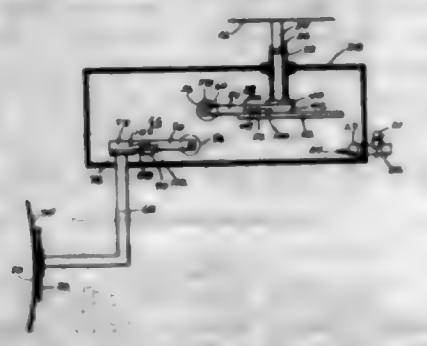
sufficient to bring the circuit into alarm condition, but insufficient to permit complete inward movement of the latch.

2,842,632
MINIATURE SNAP SWITCH
William R. Edwards, California, Md.
Application November 30, 1956, Serial No. 625,556
7 Claims. (Cl. 200—67)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a switch of the character described; a housing having a tubular recess open at one end and closed at the other, first and second fixed contacts mounted on opposite sides of said recess and a third fixed contact mounted in the closed end of said recess, a resilient contact bearing member having one end pivotally engaging said third fixed contact and the contact thereof normally engaging said first fixed contact, said member being movable between said first and second contacts, a shoulder extending from and integral with the other end of said member and means for actuating said contact bearing member comprising a ball disposed in the outer portion of said recess and in engagement with said shoulder operable to apply a rotational force to the shoulder of said contact bearing member to cause said bearing member to snap from said first fixed contact to said second fixed contact.

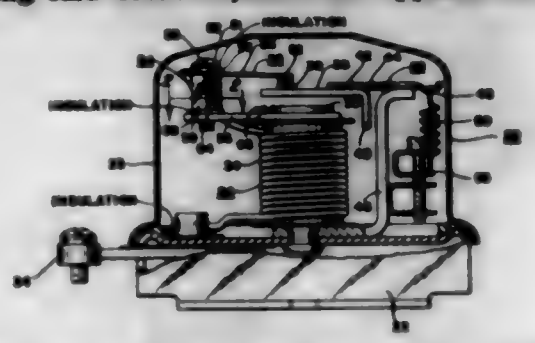
2,842,633
LOAD MEASURING DEVICE
Urban P. Roech, Dayton, Ohio
Application March 19, 1957, Serial No. 647,140
7 Claims. (Cl. 200—85)



6. In a vehicle: a wheel axle member; a load body member; resilient means supporting said body member on said axle member; an electrically operated weight indicator; a switch having a circuit switching action for changing the indicating condition of said weight indicator when a load of desired predetermined weight has been placed on said load body member; and means automatically preventing the operation of said circuit switching action of said switch until said load has been substantially emptied from said load body member.

2,842,634
ELECTRICAL REGULATOR
Lyman A. Rice, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 23, 1954, Serial No. 425,085
6 Claims. (Cl. 200—87)

1. In a circuit control, the combination comprising; an electromagnet, an armature adapted to be moved by said electromagnet and spaced therefrom when said magnet is deenergized, a movable contact carried by said armature, a flexible blade carrying a stationary contact at one end thereof that is adapted to engage said movable contact when said armature is deenergized, and means for supporting said blade adjacent the opposite end thereof



including a prismoidal member spaced from said stationary contact, said prismoidal member having nonparallel end surfaces arranged for moving said contact relative to said magnet for varying the spacing between the armature and magnet.

2,842,635
CIRCUIT BREAKER WITH THERMAL AND MAGNETIC TRIP MEANS
Thomas M. Cole, Harrison, N. Y., assignor to Federal Electric Products Company, Newark, N. J., a corporation of Delaware
Application May 8, 1953, Serial No. 353,741
9 Claims. (Cl. 200—88)

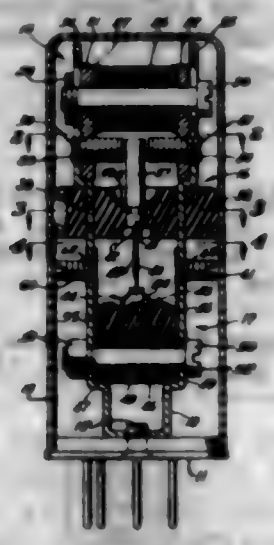


1. In a circuit breaker having stationary and movable contact members, mechanism for actuating said movable contact member to open and close the circuit breaker, said mechanism including an actuator mounted on said contact member, and a trip device including a movable latching member provided on said movable contact member and releasably engageable with said actuator for releasably holding said mechanism in contact-closing condition; electro-magnetic means energized by the current in the circuit, said latching member being formed of magnetic material and constituting a movable armature for said electro-magnetic means, and means for adjustably varying the air gap between said armature and said electro-magnetic means for adjusting the response of said latching member in relation to current value, said electro-magnetic means including a coil energized by the current in the circuit, a core for said coil, and said adjusting means being pole piece means adjustably mounted on said core, a bimetallic strip carried by said movable contact member, said strip flexing in response to predetermined current in the circuit to move said latching member for tripping the breaker, and adjustable means interposed between said strip and said latching member for adjusting the response of said latching member in relation to current value.

2,842,636
NONSYNCHRONOUS VIBRATOR
Robert E. Foster, Del Mar, Calif.
Application September 8, 1955, Serial No. 533,167
13 Claims. (Cl. 200—90)

1. In a nonsynchronous vibrator, the combination of: a magnetic circuit having an air gap therein, said magnetic circuit including coil means, said coil means gen-

erating an alternating magnetic flux across said air gap when coupled to an alternating current voltage source; a fulcrum spaced from said magnetic circuit, said fulcrum comprising a diaphragm of resilient material; a rigid armature fixed in and extending through said diaphragm substantially perpendicular to the plane of said diaphragm for pivotal movement about an axis lying in



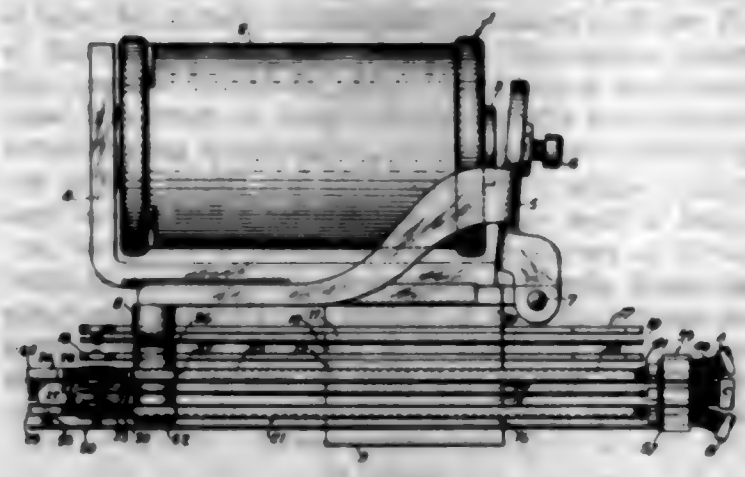
the diaphragm, one end of said armature being positioned adjacent said air gap, said armature being pivoted by said alternating magnetic flux, said armature including electrical contact means; and at least one contact element positioned adjacent said armature, said contact element being contactable by said contact means of said armature when said armature pivots in said fulcrum.

2,842,637

MICROSTRIP SWITCH

Robert T. Adams, Short Hills, and Reuben E. Altoonian, Millington, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application November 30, 1956, Serial No. 625,355
13 Claims. (Cl. 200—104)



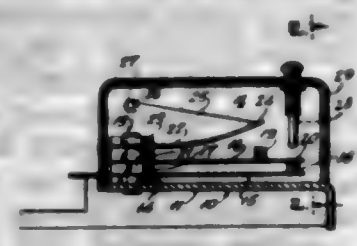
1. A switching device for use with high frequency energy comprising a high frequency transmission line including a first line conductor, a ground conductor and a strip of dielectric material supporting said first and second conductors on opposite sides thereof throughout substantially the entire lengths of said conductors, the ground conductor being wider than said first line conductor to present thereto a laterally extended conducting surface and said dielectric strip being thin to thereby dispose the said conductors in relatively close spaced parallel relation for propagation of high frequency energy in a mode approximating the TEM mode, a contact coupled to said first line conductor, said contact being externally disposed relative to said ground conductor, a second line conductor in spaced parallel relation to said ground conductor and forming therewith a second high frequency transmission line, said ground conductor being intermediate said first and second line conductors and means for moving said second line conductor to engage or disengage the said contact of said first line conductors.

2,842,638

THERMALLY CONTROLLED ELECTRIC SWITCHES

John V. M. Digirolamo, Orange, N. J., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York

Application February 1, 1955, Serial No. 485,469
1 Claim. (Cl. 200—113)



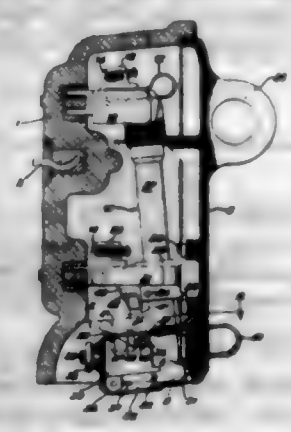
A thermally controlled current responsive electric switch having a casing, a conductive strap having a fixed end and a free end, a first contact mounted on the upper side of the free end of said strap, a non-magnetizable leaf spring having a fixed end and a free end, a second contact on the under side of said free end of said non-magnetizable leaf spring, a permanent magnet mounted on the upper side of the free end of said non-magnetizable leaf spring, said first and said second contacts being normally engaged whereby the circuit is closed, a magnetizable leaf spring having a free end and a fixed end, a thermally extensible wire having one end connected to the free end of said magnetizable spring so as to be in series with said first and said second contacts, said wire when heated by current flow being adapted to stretch and allow the magnetizable spring to enter the field of said magnet whereby the magnetizable leaf spring and the magnet mutually attract each other so that engagement between said first and second contacts will be broken and the circuit will be opened, the improvement comprising adjustable stop means to control the length of time that said first contact and said second contact are disengaged said adjustable stop means for said non-magnetizable leaf spring including a screw threadedly received in said casing the lower extremity of which is vertically adjustable with respect to the free end of said non-magnetizable leaf spring, said screw being located so that said non-magnetizable leaf spring engages said lower extremity of the screw when said contacts are disengaged.

2,842,639

FUSE CUTOUT CONSTRUCTION

Ronald W. Thiede, Las Cruces, N. Mex., and William H. Nash, South Milwaukee, Wis., assignors to McGraw-Edison Company, a corporation of Delaware

Application October 13, 1955, Serial No. 540,288
4 Claims. (Cl. 200—114)



1. In a housed fuse cutout having spaced apart line terminals, a door assembly for said housed cutout in-

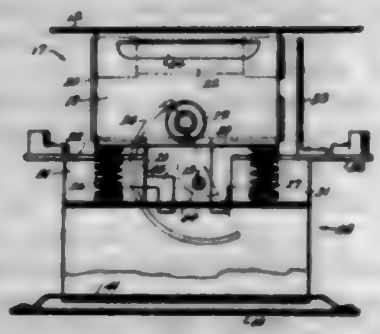
cluding a fuse cartridge assembly arranged to mechanically bridge said terminals, pivot means pivotally supporting one end of said cartridge assembly for rotative movement into and out of bridging engagement with said terminals, and a fuse link contained within said cartridge assembly and normally electrically connecting said line terminals; auxiliary switch means interposed between said fuse link and one of said terminals and comprising a pair of auxiliary contacts externally of said cartridge assembly, one of said contacts being movable and pivotally mounted and biased for movement towards electrical engagement with the other, latch means normally restraining said movement, biasing means normally urging said latch means towards restraining position, a trigger member operably engageable with said latch means and having a manipulating portion remotely positioned relative to said contacts, said trigger member adapted for manual release of said latch means against the restraining action of said biasing means, said release being effected after said fuse cartridge assembly has been pivotally rocked into mechanically secure bridging relationship with said line terminals.

2,842,640

CAM-ACTUATED, QUICK BREAK ELECTRIC SWITCH

Robert S. Ragan, Cincinnati, Ohio

Application December 13, 1955, Serial No. 552,835
11 Claims. (Cl. 200—114)



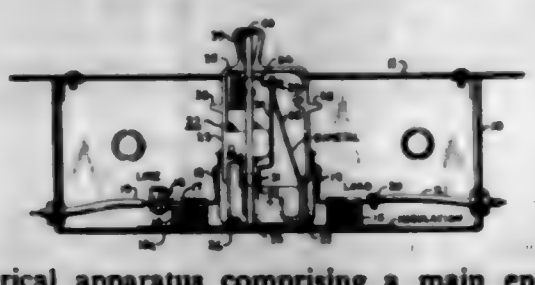
1. An electric switch comprising a contact-carrying frame, a fuse-carrying block fitting within said frame, resilient supporting means between said block and said frame, cam means associated with said frame and cooperating bearing means on said block for pressing said block into good electrical contact with the contacts of said frame and auxiliary means, including a crank associated with said cam means and a spring associated with said crank for supplying an additional upward acting force to quickly break electrical conduction between said block and the contacts of said frame.

2,842,641

CIRCUIT BREAKER

Robert G. Page, Manhasset, N. Y., assignor to General Electric Company, a corporation of New York

Application February 16, 1956, Serial No. 565,836
10 Claims. (Cl. 200—114)



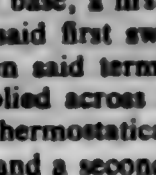
1. Electrical apparatus comprising a main enclosure at least one stationary contact within said main enclosure, an enclosed circuit interrupting unit adapted to be mounted within said enclosure and having at least one contact adapted to make contact with said stationary contact, said interrupting unit containing at least two relatively moveable contacts and means for opening said relatively moveable contacts upon the occurrence of predetermined current conditions through said interrupting unit, said interrupting unit being moveable as a unit within said main enclosure between an "on" position and an "off" position with respect to said stationary contact and cooperating stop means carried by said interrupter unit and said enclosure respectively for limiting movement of said unit to movement between said "on" and "off" positions.

2,842,642

TIME DELAY DEVICES

George Colombo, East Rockaway, and Boris Orlov, Brooklyn, N. Y., assignors, by mesne assignments, to Hoda Corporation, Great Neck, N. Y., a corporation of New York

Application June 13, 1956, Serial No. 591,239
6 Claims. (Cl. 200—122)



1. A time delay device for initially restricting the flow of current between a pair of terminals, said device comprising, in combination, a base having first and second terminals for connection across a source of electric potential; a first normally open thermostatically operated switch mounted on said base; a first high resistance heating circuit for closing said first switch, said first circuit being connected between said terminals for energization when a potential is applied across said terminals; a second normally open thermostatically operated switch mounted on said base; and a second high resistance heating circuit for closing said second switch, said second circuit being connected between said terminals in series with said first switch for energization when a potential is applied across said terminals, and said first switch is closed; said second switch being connected between said terminals and effective when closed, to shunt said heating circuits; whereby, when said terminals are connected across a source of potential, said first circuit will be energized to close said first switch after a first pre-set time interval to energize said second circuit to close said second switch after a second pre-set time interval to shunt said heating circuits to reduce the electrical resistance between said terminals to a negligible value to permit substantially unrestricted flow of current between said terminals.

2,842,643

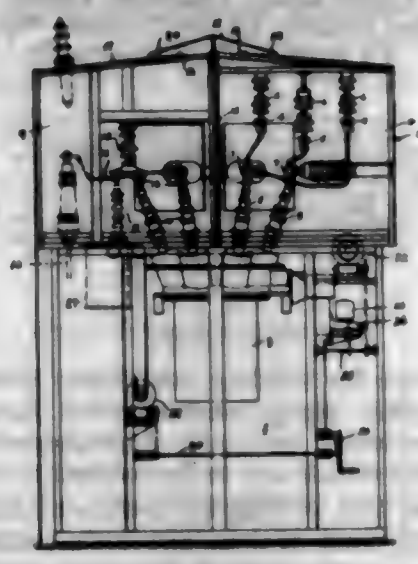
HIGH VOLTAGE SWITCHGEAR

Alfred James Nicholas, Machen, and Ronald Norton Buttrey, Newport, England, assignors to South Wales Switchgear Limited, Blackwood, England

Application October 3, 1955, Serial No. 538,235
Claims priority, application Great Britain October 6, 1954
2 Claims. (Cl. 200—144)

1. A high voltage enclosed air-insulated switch unit comprising a metal-clad housing, a roof and side walls for said housing, a feeder cable compartment and a busbar chamber contiguous therewith, positioned immediately beneath the roof, a feeder cable extending into said feeder compartment, busbars supported upon insulators in said busbar chamber, a circuit breaker supported below said feeder compartment and busbar chamber for vertical movement into and out of electrical conducting relation with the feeder cable and the busbars for establishing a switch connection therebetween, an opening in said roof

extending over the feeder compartment and the busbar chamber, a common dividing wall between said feeder



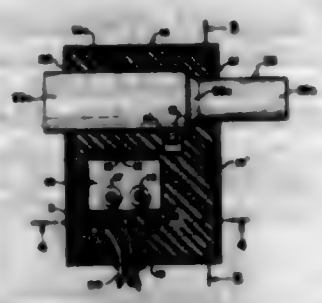
compartment and busbar chamber extending upwardly through the said opening and above the roof to define with the opening a pair of vents communicating respectively with the feeder compartment and with the busbar chamber, an upper edge to said dividing wall, sheet members extending from the said upper edge of the dividing wall on each side thereof over the said vents and a substantial distance over the roof, and in spaced relation therewith to define oppositely directed vent openings for separately venting the said feeder compartment and busbar chamber respectively.

2,842,644

HERMETICALLY SEALED SWITCH ASSEMBLY

Theodore Y. Korngren, Sr., Woodbury, Conn., assignor to Haydon Switch Incorporated, Waterbury, Conn., a corporation of Connecticut

Application April 30, 1956, Serial No. 581,457
10 Claims. (Cl. 200—168)



1. An hermetically sealed switch assembly comprising a housing having an opening therein, a switch mounted within said housing and spaced from the side walls thereof, means to actuate said switch including a movable member projecting through said opening, and a sealing filler of flexible cellular material disposed in and filling the space between said switch and the walls of said housing and surrounding said switch and movable member, said movable member being sealingly engaged with and movable in said sealing filler for actuating said switch..

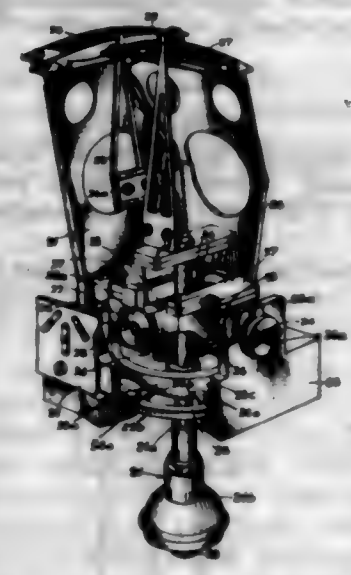
2,842,645

ELECTRICAL CONTROL DEVICE

James White Dutgleish and George Roman, Cambridge, England, assignors to Pye Limited, Cambridge, England, a British company

Application December 6, 1954, Serial No. 473,392
Claims priority, application Great Britain December 8, 1953
7 Claims. (Cl. 201—48)

6. An electrical control device of the kind in which the movement of a control member over an area in space produces two electrical quantities which are proportional to the position of hte control member at any instant comprising a control member, a first control element producing one electrical quantity actuated by movement of the control member about a first axis, a second control element producing the second electrical quantity actuated by operation of the control member about a second axis, a universal joint, supporting said control member and an isotropic friction device associated with said control member said isotropic friction device comprising a part-spherical friction surface fixed to said control member, and movable relative to a plurality of inwardly directed fingers of a springy material formed integrally with a ring and engaging said part-spherical surface, the amount of friction created in said isotropic friction device being large compared with the friction produced by the other moving parts of the control device.



7. An electrical control device of the kind in which the movement of a control member over an area in space produces two electrical quantities which are proportional to the position of the control member at any instant comprising a control member, a gimbal arrangement having an outer frame and an inner frame supporting said control member, a first potentiometer having a resistance track carried by a first support fixed relative to the inner frame of the gimbal arrangement and a wiper carried by the control member producing one electrical quantity actuated by movement of the control member about a first axis, a second potentiometer having a resistance track carried by a second support fixed relative to the outer frame of the gimbal arrangement and a wiper carried by the first support producing the second electrical quantity actuated by movement of the control member about a second axis, bearing shafts for said gimbal arrangement including insulated bushes provided with annular grooves in which are located wires connecting said potentiometers to a terminal panel and an isotropic friction device associated with said control member which, when the control member is moved, exerts a substantially uniform frictional resistance irrespective of the direction of movement, the amount of friction created in said isotropic friction device being large compared with the friction produced by the other moving parts of the control device.

2,842,646

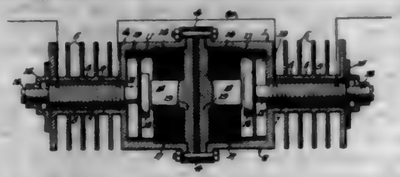
BALANCED CARBON PILE

Alois B. Essex, Glendale, and Elmer E. Garrett, Freeport, N. Y., and Henry F. McKenney, Weston, Mass., assignors to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware

Application November 23, 1956, Serial No. 623,845
3 Claims. (Cl. 201—51)

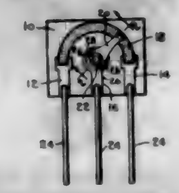
1. A variable resistance mechanism of the character described comprising two opposed oppositely facing axially aligned carbon piles secured in fixed spaced relation to

each other, spring diaphragm means by which said carbon piles are held under compression disposed between the opposed ends of said carbon piles, solenoid means operative when energized to decrease the pressure exerted by said



spring diaphragm means upon one of said carbon piles, each of said carbon piles being operative to counteract the acceleration effects upon the other of said carbon piles during axial acceleration of said variable resistance mechanism.

2,842,647
ADJUSTING MEANS FOR RESISTANCE TRIMMERS
Alfred S. Khouri, Milwaukee, Wis., assignor to Globe-Union Inc., Milwaukee, Wis., a corporation of Delaware
Application March 18, 1954, Serial No. 417,171
4 Claims. (Cl. 201—55)



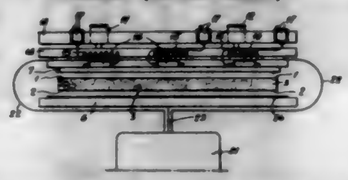
1. In a resistance trimmer having an insulating supporting plate and a resistance element fixedly mounted thereon, a flat conductive rotor pivotally mounted to said plate and having wiping engagement with said resistance, said rotor having an opening therethrough, a pivot extending from said plate through said opening to only the outerside of said rotor, said rotor having a pair of wings integral therewith and extending outwardly of said plate, said wings being diametrically positioned with respect to the center of said opening and provided with teeth extending from the sides thereof, a molded insulating knob having spaced slots adapted to receive said wings with the edges of said slots frictionally engaged by said teeth, said knob being rigidly mounted on said rotor with said wings inserted in said slots.

2,842,648
HEAT SENSITIVE ELECTRIC CABLES
Edward Henry Reynolds, London, England, assignor to British Insulated Callender's Cables Limited, London, England, a British company
Application February 11, 1955, Serial No. 487,607
Claims priority, application Great Britain February 25, 1954
20 Claims. (Cl. 201—63)



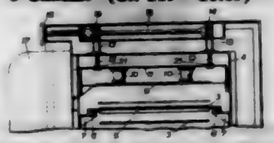
1. A temperature responsive electric cable comprising two wires twisted together, an anodic layer formed on the surface of at least one of said wires and a stable insulating material having a negative temperature coefficient of resistance permeating the anodic material, said conductors being separated by said anodic material.

2,842,649
MACHINE FOR WELDING PLASTIC SHEET MATERIALS
André Jehier, Chenaille, France
Application January 16, 1957, Serial No. 634,568
4 Claims. (Cl. 219—10.47)



1. A machine for welding continuous sheets of plastic material together along predetermined lines, in which means are provided to cause superimposed sheets of plastic material which are to be welded to pass between two electrodes for welding by means of high-frequency currents, one at least of these electrodes including permanent heating means suitable for maintaining it at a temperature only slightly below the fusion temperature of the plastic material, the permanent heating means of the electrode being comprised by several electrical resistances distributed over the whole length of the said electrode, each resistance being controlled by a separate thermostat influenced by the temperature pertaining in the vicinity of the resistance which it controls, thereby enabling a perfectly even temperature to be obtained over the whole length of the electrode.

2,842,650
OVENS FOR DIELECTRIC HEATING
Joseph Francis Naylor, Earlestown, Newton-le-Willows, Raymond Northmore, Lydiate, near Liverpool, and Christopher E. M. Tibbs, Wokingham, England, assignors to West Lancashire Radio & Television Laboratories Limited, Lydiate, near Liverpool, T. & T. Vicars Limited, Earlestown, Newton-le-Willows, and Radio Heaters Limited, Wokingham, England, all British companies
Application August 17, 1955, Serial No. 528,912
Claims priority, application Great Britain September 6, 1954
5 Claims. (Cl. 219—10.69)



1. An oven for the radio frequency di-electric heating of articles comprising an oven casing, a conveyor band passing through said oven casing for carrying the articles to be heated, a pair of balanced electrodes mounted above said conveyor band within said casing and adapted for connection to a radio frequency generator to effect di-electric heating of articles passing below the electrodes on said conveyor band, and a screening hood of a material having good electrical conducting properties enclosing said electrodes at the top and sides of the latter so that radio frequency space currents other than those flowing the conveyor band tend to flow to said screening hood, thereby to avoid the dissipation of the space currents in said oven casing.

2,842,651
PORTABLE HEATED ANIMAL BED
Carroll H. Neely, Cresco, Iowa
Application July 5, 1955, Serial No. 520,884
8 Claims. (Cl. 219—19)

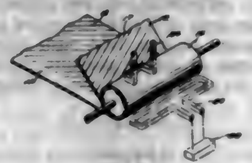
4. An animal bed comprising a fluid-tight container having a substantially unobstructed top planar surface,

said top planar surface supported by a longitudinally extending channel member positioned within said container and having a plurality of apertures therein, a liquid heat transferring material contained within said container and an electrical resistance element disposed within said container for heating said liquid heat trans-



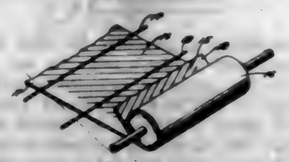
ferring material, a thermostat for controlling the amount of electricity supplied thereto, said container comprising a downwardly dished member and a downwardly dished closure member secured thereto and providing a downwardly turned recess, and a substantially continuous peripheral edge adjacent thereto for supporting said container.

2,842,652
METHODS OF MAKING ELECTRICAL CAPACITORS
Dale R. Clemons, Riverside, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application April 9, 1956, Serial No. 577,045
6 Claims. (Cl. 219—19)



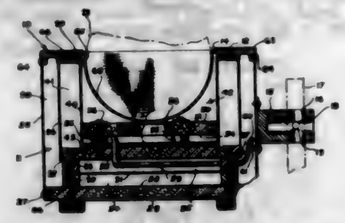
1. The method of making electrical capacitors, comprising assembling a plurality of dielectric layers into a capacitor body, the dielectric layers having thereon thin metal electrode layers in interleaved relationship with said dielectric layers, and heating portions of the body to vaporize portions of said metal electrode layers to adjust the capacitance of said capacitor body.

2,842,653
METHODS OF MAKING ELECTRICAL CAPACITORS
Dale R. Clemons, Riverside, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application April 9, 1956, Serial No. 577,132
5 Claims. (Cl. 219—19)



1. The method of making electrical capacitors comprising assembling a plurality of dielectric layers into a capacitor body, said dielectric layers having thereon thin metal electrode layers, inserting an electrically conductive element into the capacitor body, whereby it traverses one of said electrode layers, and heating the conductive element to vaporize an area of said one electrode layer to reduce the capacitance of the body.

2,842,654
FLASK HEATERS
Cleophus E. Anderson, Dubuque, Iowa, assignor to Thermo Electric Manufacturing Co., Dubuque, Iowa, a corporation of Illinois
Application August 24, 1956, Serial No. 606,135
7 Claims. (Cl. 219—43)

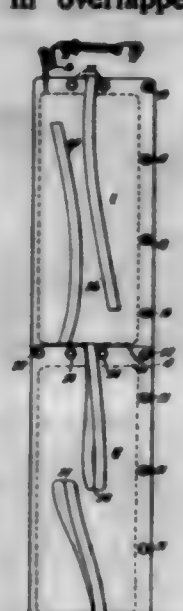


1. A flask heater for heating a flask to a relatively high temperature yet permitting manual handling of the heater comprising: an external shell of metal mesh having a relatively highly reflective inner surface; an insulator plate mounted within said external shell in spaced relation thereto; an intermediate metal shell having a relatively highly reflective inner surface, mounted within said external shell adjacent said insulator plate and extending upwardly therefrom, said intermediate shell being separated from said external shell to afford a substantially continuous air space between said shells; an inner substantially imperforate metal shell having a relatively highly reflective inner surface mounted within said intermediate shell above said insulator plate and separated from said intermediate shell to afford another air space between the inner and intermediate shells, said inner shell defining a heating chamber substantially larger than a given size flask to be heated; an electrical heating element, supported within said heating chamber in spaced heat-insulating relation with respect to said inner metal shell; and a metal mesh basket, removably supported upon one of said shells and including a part having a configuration and size corresponding to that of the base portion of a particular size flask to be heated, for suspending a flask within said heating chamber in spaced relation with respect to said heating element and the portions of said inner shell defining said chamber to enable heat radiated from said heater element and reflected inwardly through the metal basket by said metal shells to heat such a flask.

2,842,655
HEATING PAD
Morris S. Schwebel, Albany, N. Y.
Application March 25, 1957, Serial No. 648,239
3 Claims. (Cl. 219—46)

1. An article of manufacture constituting an elongated, rectangularly-shaped, longitudinally split convertible electric heating pad for human use; which pad comprises a first section having several male snap-fastener members secured in spaced aligned relation along one longitudinal marginal edge, at least two similar aligned members along a transverse edge, and tie-tapes extending from opposite edges; a second section having several female snap-fastener members along an adjacent longitudinal edge to receive said longitudinally aligned male members and secure said pad sections in overlapped, but split, marginal relation, to provide an opening to transform said pad into a head, chest and shoulder pad when the intermediate longitudinally aligned members are disengaged, at least two female snap-fastener members along a transverse edge in alignment with said aligned transverse male members to receive the same to transform said pad into a bandage when said longitudinally aligned members are disengaged, loop-tapes forming shoulder straps on opposite ends of said second section to provide a shoulder

and back, as well as a stomach and chest pad; a tortuously arranged resistance wire in each section connected together between the juncture of said fastener members; and means at one end of said wire for connecting said article to a source of electric current; said pad, when temporarily fastened in overlapped position along its



longitudinal sectional edges, having its adjacent resistance wire sections disposed in said split area in a manner such that their heat distributing capacities are equally divided and effective, with equivalent areas in each section of the pad, and more effective than they would otherwise be if said pad were not secured in said overlapped position.

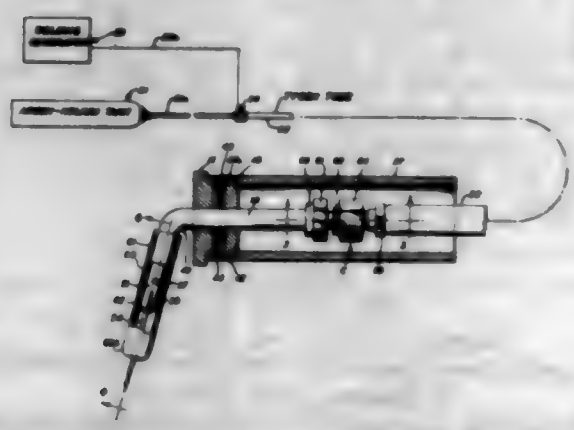
2,842,656

INERT GAS-ARC WELDING APPARATUS AND A SHIELD AND AN ELECTRODE HOLDING CHUCK FOR USE IN SAID APPARATUS

George J. Neuvirth, Lodi, N. J.

Application July 25, 1956, Serial No. 600,143

3 Claims. (Cl. 219—75)



1. An inert gas-arc welding device comprising, a cylindrically shaped electrode holding chuck having an internally threaded end portion, a reversible electrode removably carried by said chuck, a shield for said chuck and electrode, a copper conductor tube, an insert extending from said conductor tube externally threaded at one end and engaging the internally threaded end portion of said chuck, an asbestos wrapping around said copper tube, a shielding tube for said asbestos covered copper tube, said shielding tube being bent at an angle at one end portion thereof, coupling means, said copper tube being connected to a coupling means, a hand element engaging over a portion of said shielding tube and over said coupling means, said hand element being internally threaded at one end portion thereof, a threaded plug slidably carried by said shielding tube, means to selectively lock said plug against movement along said shielding tube, and said plug threadedly engaging said hand element.

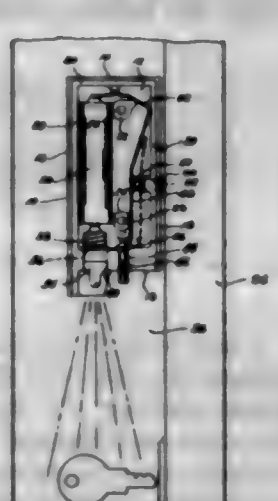
2,842,657

KEYHOLE ILLUMINATING DEVICE

Raymond C. Ford, Detroit, Mich.

Application September 14, 1954, Serial No. 455,865

5 Claims. (Cl. 240—2.13)



1. An illuminating mechanism for the keyhole of a closure lock comprising a housing; a light within said housing and provided with an energy source; conductor means within said housing and defining a circuit between the light and energy source, said conductor means comprising a deflectable arm; a manually actuable push button switch element extending out of the housing for movement into contact with said deflectable arm when said arm is in a deflected position; and a push button engaged with said deflectable arm and extending out of the housing into the path of the closure when said housing is positioned adjacent thereto, said push button being operable in response to closure pressure thereon to deflect the arm into the path of said push button switch element.

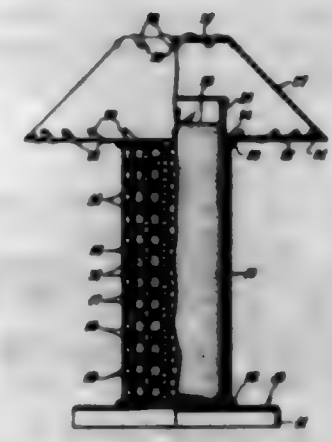
2,842,658

LAMP

Ramon Reachi, Los Angeles, Calif.

Application December 12, 1955, Serial No. 552,341

1 Claim. (Cl. 240—13)

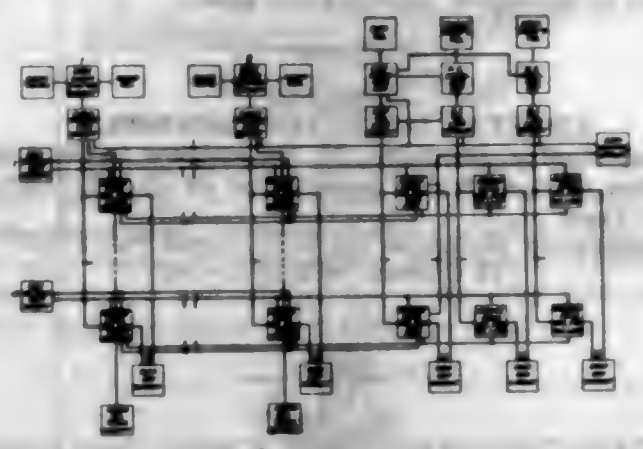


A lamp comprising a generally flat base adapted to rest on a support and having a generally flat upper surface, an upstanding generally cylindrical hollow frame member secured to said base, said frame member comprising an open-ended cylinder of perforated sheet metal having an outer peripheral ring secured thereto at each end, one of said rings being secured to said upper surface of said base and the other ring defining an annular seat, an inner cylindrical member made of light transmitting material removably nested within and substantially filling said frame member and extending above the upper end thereof, a light source in said inner member, and a removable lamp shade having a supporting ring portion loosely encompassing said inner member above said frame member and loosely resitng on said annular seat.

2,842,659
MOBILE RADIO TELEPHONE SYSTEM

Russell W. Collins, Baldwin, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 29, 1955, Serial No. 556,348
17 Claims. (Cl. 250—6)

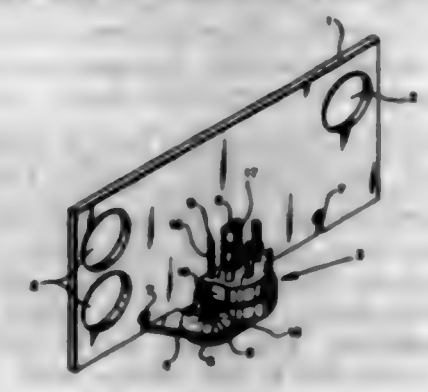


1. In a radio telephone system, a central control station, a plurality of outlying radio stations, an individual simplex circuit interconnecting said control station to each of said outlying stations, each said simplex circuit comprising means for talking and means for signaling between said control station and the connected radio station, a plurality of bridge circuits at said control station, and individual bridge connector circuit at said control station for each of said lines at each of said bridges, actuating means connected to said connector circuits for selectively connecting any of said lines to any one or more of said bridges, and means connected to said simplex circuits at said central control station, responsive to a call initiated at any of said radio stations for operatively extending said call through said one or more bridges to which said calling radio station is connected to all other of said radio stations connected to the same bridge or bridges.

2,842,660
BASE-BAFFLE SOCKET ASSEMBLY

Harry W. Brown, Mechanicsville, Pa.

Application May 25, 1954, Serial No. 432,337
2 Claims. (Cl. 250—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)

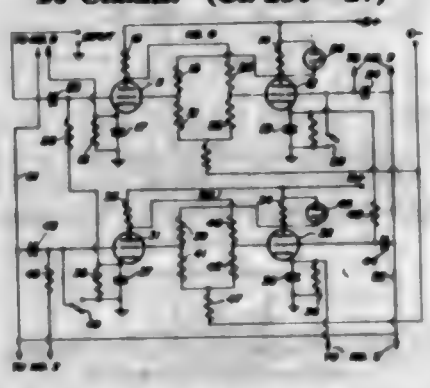


1. In electronic apparatus comprising a chassis and a tube socket having a grounding post and lugs with apertures therethrough for attaching the socket to the chassis, a base-baffle comprising a plate of conductive material, said plate having depending tabs with apertures aligned with the apertures in said tube socket lugs, connecting means to attach said lugs and said baffle tabs to said chassis, one edge of said baffle plate being shaped to fit over the tube socket and socket post, a slot in said plate disposed to fit over a grounded prong of said tube socket, said plate being disposed perpendicular to the chassis and straddling said tube socket, and means in said plate for providing series decoupling therethrough.

2,842,661
COUNTERS

Raymond M. Wilmotte, Washington, D. C., and Larry L. Young, Pasadena, Calif., assignors, by direct and mesne assignments, to Padevco Inc., Washington, D. C., a corporation of Delaware

Original application September 26, 1947, Serial No. 776,324, now Patent No. 2,646,926, dated July 28, 1953. Divided and this application July 1, 1953, Serial No. 365,496
20 Claims. (Cl. 250—27)

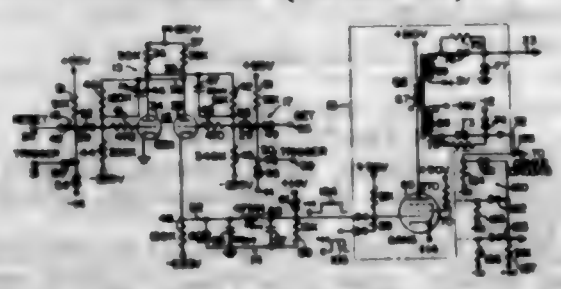


2. A reversible counting circuit comprising a plurality of pairs of first and second vacuum tubes each having a control electrode, said pairs arranged in sequence and having sequential numerical significance, means for maintaining one only of said first vacuum tubes in conductive condition, means for maintaining one only of said second vacuum tubes in non-conductive condition, means for maintaining the first and second vacuum tubes of each of said pairs of first and second vacuum tubes selectively one in conductive and the other in non-conductive condition, and means for applying positive and negative pulses selectively in parallel to all said control electrodes simultaneously.

2,842,662
FLIP-FLOP CIRCUIT

Robert J. Williams, Berwyn, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application February 3, 1955, Serial No. 486,004
6 Claims. (Cl. 250—27)

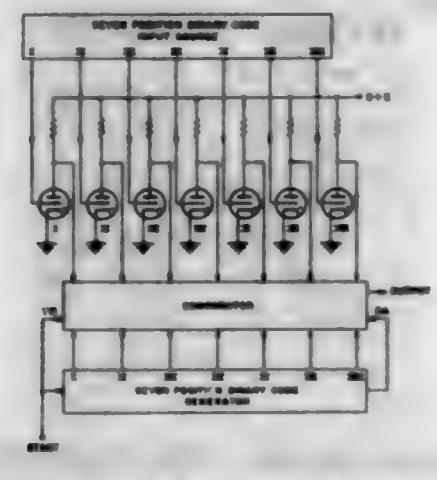


2. The combination of a source of periodic clock pulses each of which marks the beginning of a time interval, a bi-stable flip-flop including a pair of cross-connected tubes one of which has a flip-flop output conductor projected from its cathode, means operable during a clock pulse period of a time interval for setting the flip-flop, means operable during a clock pulse period of a time interval for resetting the flip-flop, a pulse amplifier comprising a transformer having a primary winding and at least one secondary winding utilized as output signal means, a normally non-conducting amplifier tube for energizing the primary winding of the transformer, gating means for effecting conduction in the amplifier tube, means including a delay line section coupling the flip-flop output conductor with the gating means, said delay line providing a delay for flip-flop output signals which is long compared to a clock pulse but is short compared to a time interval, and means coupling said gating means and the clock pulse source to cause the clock pulse to trigger the gating means for effecting conduction of the amplifier tube when the gate is properly conditioned by the delayed flip-flop output signal.

2,842,663
COMPARATOR

John Presper Eckert, Jr., Gladwyne, and Adelbert W. Reichord, Drexel Hill, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application June 10, 1955, Serial No. 514,629
19 Claims. (Cl. 250—27)

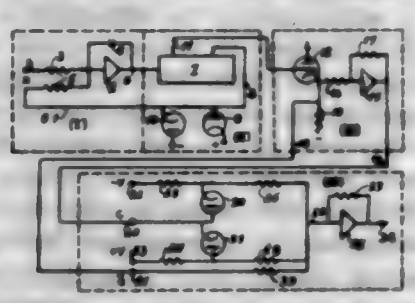


1. In combination, an electronic probing device comprising, a plurality of electronic units each of which has two different significant states, an equal plurality of signal lines adapted to receive signals of two different significant kinds, such kinds corresponding to said two different significant states, a first and a second common connecting line, an output circuit including a transformer the primary of which is center tapped, said first common connecting line being connected to said center tap of said primary, said second common connecting line being connected to one end of said primary, a plurality of junction points, means connecting every single one among said electronic units and a corresponding signal line to a respective junction point, means separately connecting each of said junction points to said first and to said second common connecting line, wherein said output circuit is conditioned to pass an output signal in response to predetermined signal conditions developed at any one of said junction points.

2,842,664
ELECTRONIC SWITCHES

Jacques Edouard Martin, Paris, France, assignor to Societe d'Electroniques et d'Automatisme, Courbevoie, Seine, France

Application March 23, 1956, Serial No. 573,356
Claims priority, application France April 7, 1955
8 Claims. (Cl. 250—27)

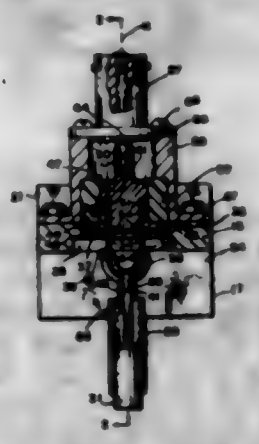


2. In combination, a summing amplifier and at least one pair of series resistance attenuators having outputs connected to the input of said summing amplifier, means for applying distinct input signals of substantially opposite polarities to the inputs of said attenuators, oppositely connected unidirectionally conducting elements having a common input and separate outputs connected respectively to similarly located intermediate points of said attenuators, means for generating a time-modulated square waveform control voltage in complementary waveforms thereof, means for applying to said common input of said unidirectionally conducting elements at least a component of one of said complementary waveforms, and means for applying at least a component of the other complementary waveform to the input of said summing amplifier, opposing thereon the component of said first complementary waveform applied thereon through one of said series resistance attenuators; the other of said series resistance attenuators delivering thereat at least a component of the signal applied to its input.

2,842,665
CRYSTAL DETECTOR ASSEMBLY

Samuel Hopfer, Brooklyn, N. Y., assignor to the United States of America as represented by the Secretary of the Army

Application December 29, 1955, Serial No. 556,376
10 Claims. (Cl. 250—31)

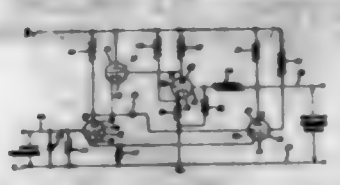


1. In combination with a rectangular waveguide, a pair of probes traversing said waveguide and respectively positioned in the vicinity of the trisecting planes the width of said waveguide, means for combining the outputs of said probes, to provide a resultant output equal to the sum of said outputs, and means to supply said resultant output to a utilization circuit.

2,842,666
MULTIVIBRATOR

Charles A. Woodcock, Nahant, and Kenneth O. Straney, Beverly, Mass., assignors to General Electric Company, a corporation of New York

Application November 19, 1951, Serial No. 257,036
16 Claims. (Cl. 250—36)



1. A multivibrator comprising a pair of voltage amplifier stages each simultaneously variable between two voltage level conditions of operation, a capacitor coupling said stages, one stage having an impedance component located in a charge-varying path of said capacitor, an electric discharge device connected in shunt with said impedance component, and means for biasing said discharge device responsive to the voltage levels existing in the other stage for rendering said discharge device conductive during the transition of said amplifier stages into one of their conditions of operation.

2,842,667
PARALLEL OPERATIONS OF TRAVELING WAVE OSCILLATORS

Edward C. Dench and Roy A. Paananen, Needham, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application January 19, 1954, Serial No. 404,944
13 Claims. (Cl. 250—36)

1. In combination, a master source of electrical energy, at least one self-excited traveling wave oscillating de-

vice including a periodic energy transmission delay structure for transmitting electromagnetic wave energy, a source of electrons, means for directing a beam of said electrons in energy interacting relationship with said wave energy, and an output coupling means coupled to



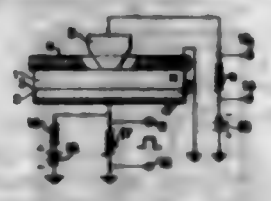
one end of said periodic structure, means for coupling energy generated by said master source into said delay structure of said traveling wave oscillating device in frequency controlling interaction with said corresponding electron beam, and means for connecting said master source and said device to a common load.

2,842,668

HIGH FREQUENCY TRANSISTOR OSCILLATOR

Richard F. Rutz, Fishkill, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 25, 1955, Serial No. 511,069
7 Claims. (Cl. 250—36)



3. An oscillator comprising a transistor including a semi-conductor body, a junction emitter connection, a high amplification factor collector connection in spatial relationship on said semi-conductor body said emitter and collector being within the diffusion distance of the excess carriers during the carrier lifetime of the material, means comprising base electrode means on said semiconductor body so located that an electric field in said semi-conductor body produced by majority carrier current flow from said base to said collector is operable to restrict minority carrier injection to a selected region of said emitter and to accelerate and direct said minority carriers to said collector, a point of reference potential, a first potential source, means connecting the negative terminal of said first potential source to said point of common reference potential, a first resistor, means connecting a first terminal of said resistor to the positive terminal of said source of potential, means connecting the remaining terminal of said first resistor to said emitter connection, a second resistor having one terminal connected to said collector connection, a second source of potential having its negative terminal connected to the remaining terminal of said second resistor, means connecting the positive terminal of said second source of potential to said point of reference potential, and means connecting said base connection to said point of reference potential.

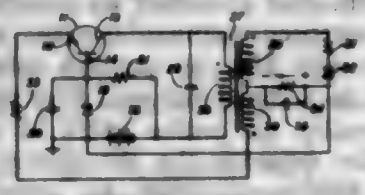
2,842,669

SELF-STARTING TRANSISTOR OSCILLATORS

Donald E. Thomas, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Original application September 17, 1951, Serial No. 246,984, now Patent No. 2,757,243, dated July 31, 1956. Divided and this application January 31, 1956, Serial No. 562,485
13 Claims. (Cl. 250—36)

1. A class C transistor oscillator which comprises a transistor having emitter, collector, and base electrodes, a source of direct voltage connected to bias said collector electrode in the reverse direction, circuit means to furnish an initial forward emitter bias from said same source comprising a resistance element having a negatively sloped resistance-current characteristic connected between said base electrode and said emitter electrode, a frequency-determining feedback path connected to feed back col-



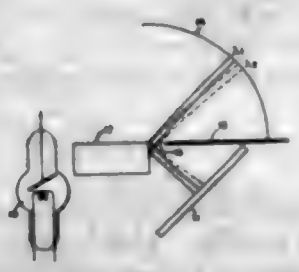
lector current in phase to said emitter electrode to sustain oscillations, and a bypassed resistor connected in series in said feedback path to provide a net steady-state emitter bias opposite in sense from said initial forward bias.

2,842,670

FLAT CRYSTAL FLUORESCENT X-RAY SPECTROGRAPH

La Verne S. Birks, Jr., Takoma Park, Md.

Application February 23, 1955, Serial No. 490,159
4 Claims. (Cl. 250—53)
(Granted under Title 35, U. S. Code (1952), sec. 266)



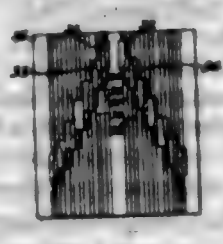
1. A spectrograph comprising in combination means adapted to hold a specimen in the path of X-radiation, a radiation diffracting crystal, nonrotatable means for holding said radiation diffracting crystal in a stationary position to receive incident polychromatic radiation emanating from a specimen held in said specimen holding means, means for simultaneously recording radiation diffracted by said diffracting crystal, a radiation shield terminating at a position juxtaposed said diffracting crystal to define therewith a narrow diffraction limiting slit of a width such as to simultaneously pass therethrough only a narrow bundle of each wavelength of the incident radiation diffracted by said diffracting means, said radiation passing through said slit being recorded simultaneously throughout an angle from zero to 90 degrees wherein each recorded bundle of wavelengths are distinctly recorded as separate wavelengths without any overlap.

2,842,671

ROENTGENPOLYCHIMOGRAPHIC METHOD, APPARATUS THEREFOR AND ROENTGENPOLYKYMOGRAPH OBTAINABLE THEREBY

Pietro Cignolini, Genoa, Italy

Application December 28, 1953, Serial No. 400,608
Claims priority, application Italy January 2, 1953
7 Claims. (Cl. 250—65)



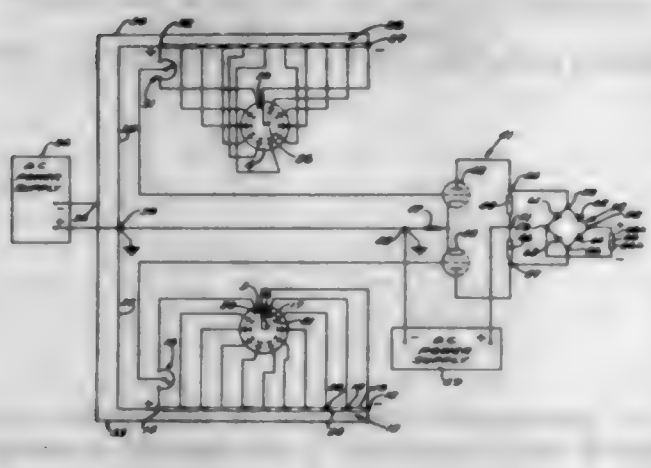
1. A method of obtaining a Roentgenpolykymograph comprising exposing a rectangular area of a Roentgen-ray sensitive film to Roentgen-rays emanating from a source,

between which source and said film is positioned a subject of which the Roentgenpolykymograph is being made, by passing said Roentgen-rays through a slit in a shield for said film, said slit being of a length to extend only a short distance over the profile edge of the subject, and moving the film beneath the slit rapidly to expose a rectangular area of the film, thus obtaining an analytical kymograph, covering said exposed rectangular areas, and exposing the remainder of said film by passing said Roentgen-rays through a slit in a shield for said film which slit extends along substantially the entire width of said shield, and moving the film beneath the slit slowly, thus obtaining a superficial kymograph with an associated analytical kymograph.

2,842,672
COMPARATOR CIRCUIT USING PHOTO MULTIPLIER TUBES

Theodore R. Thomsen, Farmington, Mich., assignor to Robotron Corporation, Detroit, Mich., a corporation of Michigan

Application February 8, 1955, Serial No. 486,791
3 Claims. (Cl. 250—83.3)



1. An electro-optical system, comprising in combination: a pair of light-sensitive electron multiplier tubes, each tube having an anode, a cathode, and a plurality of dynodes, each tube having equal numbers of dynodes; a first source of unidirectional potential having negative and positive terminals, conductors connecting the cathode and anode of each of said tubes directly to the negative and positive source terminals, respectively; a voltage dividing network having its negative end connected to said negative terminal and its positive end connected to said positive terminal, for supplying progressively higher energizing voltages to said dynodes with respect to said cathode; a pair of vacuum tubes, conductors connecting the control electrodes of said vacuum tubes in the anode circuit of said multiplier tubes; a second source of unidirectional potential having positive and negative terminals; conductors connecting the cathodes of said vacuum tubes to the negative terminal of said second unidirectional potential source; a comparison circuit connected to the anodes of said vacuum tubes and to the positive terminal of said last-mentioned potential source.

2,842,673
NEW TYPE ELECTRONICS TUBE

George E. Sumner, Baltimore, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force

Application January 5, 1956, Serial No. 557,616
2 Claims. (Cl. 250—83.3)

1. An electronics tube device having a unitary, compact tube housing, a dielectric window formed in one end of said housing, a chamber containing an ionizing gas adjacent said window, a focusing means adjacent said chamber and on the opposite side thereof with respect to said window, said focusing means being mounted on said housing, and a photosensitive means in said tube for receiving light energy released upon ionization of said gas,

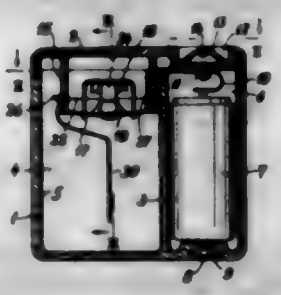


said focusing means being positioned between the chamber and the photosensitive means.

2,842,674
RADIOACTIVE RADIATION INDICATOR

Gotfred E. B. Barstad, Lillestroem, Norway, assignor to Forsvarets Forskningsinstitutt, Akershus Festning, Oslo, Norway

Application January 11, 1955, Serial No. 481,228
Claims priority, application Norway January 18, 1954
9 Claims. (Cl. 250—83.6)



1. Radiation indicator particularly for radioactive radiation comprising in combination an airtight casing; at least one electrometer mounted within said casing and having at least one stationary electrode and a leaf counter electrode; a filamentary torsional support for the leaf electrode distending in front of the stationary electrode, holding the leaf electrode in substantially gravitational equilibrium in a rest position distanced from the stationary electrode and permitting the leaf electrode to rotationally oscillate from said rest position towards and from said stationary electrode; said leaf electrode while uncharged and in rest position being held out of contact with the stationary electrode by the relaxed torsional support; a voltage source; means creating an electric field in said casing; said means and said electrometer being connected in series between the terminals of said voltage source; at least a portion of the casing being at least translucent to expose for observation changing views of the leaf electrode oscillated by the electric discharge between said leaf electrode and said stationary electrode; the frequency of said changing views harmonizing with the oscillations of the leaf electrode and thus indicating the intensity of the existing radiation.

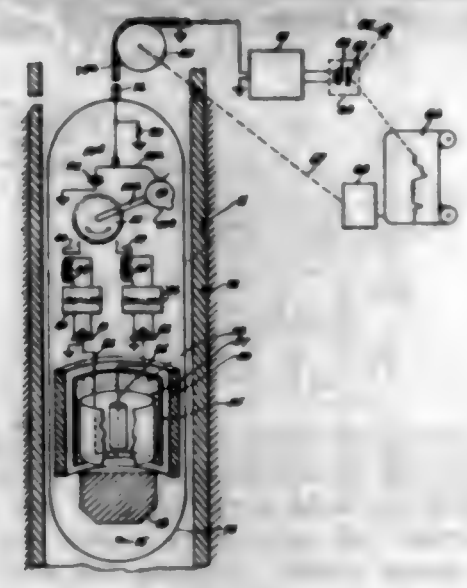
2,842,675
RADIATION DETECTOR

Serge A. Scherbatskoy, Tulsa, Okla.

Application July 7, 1955, Serial No. 520,587
5 Claims. (Cl. 250—83.6)

2. A radiation detector comprising a first radiation sensing unit operative to produce a first train of electrical impulses responsively to the presence of a first radiation field, the frequency of such impulses being substantially proportional to the intensity of said radiation field, a second radiation sensing unit operative to produce a second train of electrical impulses responsively to the presence of a second radiation field, the frequency of such other impulses being substantially proportional to the intensity of

said second field, and signal-generating means fed by said two trains of impulses and comprising a storage element, said storage element being operative to store signals corresponding to the respective impulses in said trains, to



compare such signals as to frequency, and to produce an output impulse train having a repetition rate proportional to the difference between the respective frequencies of said first and second impulse trains.

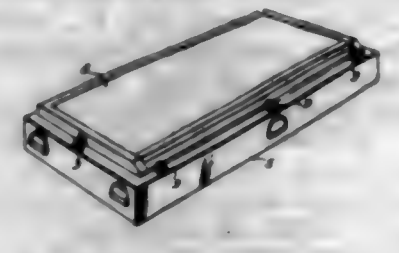
2,842,676

DEMOUNTABLE X-RAY APPARATUS

Ralph C. Schiring, Shaker Heights, and Anthony J. Foderaro, Cleveland, Ohio, assignors to Picker X-Ray Corporation, Waite Mfg. Div., Inc., Cleveland, Ohio, a corporation of Ohio

Original application November 15, 1951, Serial No. 256,468, now Patent No. 2,754,426, dated July 10, 1956. Divided and this application June 28, 1956, Serial No. 594,637

3 Claims. (Cl. 250—92)



1. In an X-ray apparatus, a tube stand comprising an articulated mast having at least two sections, means for hinging the sections together along one side of the mast, latch means for securing the sections in extended position a carriage, a bearing ring on said carriage, and a roller carried by the mast and engaging the ring to support the mast upon the carriage.

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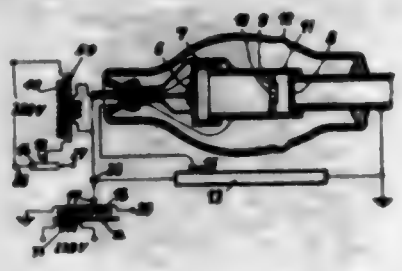
X-RAY APPARATUS

Rolf Hosemann, Berlin-Spandau, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany

Application July 24, 1952, Serial No. 300,586

5 Claims. (Cl. 250—93)

1. An X-ray apparatus comprising, in combination, an X-ray tube including a cathode, an anode, and an intermediate hollow electrode arranged between said cathode and said anode so as to direct electrons emitted by said cathode to said anode and to produce a focal spot thereon; a stepdown transformer having a primary and a secondary connected to said cathode; an adjustable rheostat connected in series with said primary of said stepdown transformer so as to change the heating current flowing through said cathode by adjustment of said rheostat; a step-up transformer having a secondary producing a high alternating voltage; an adjustable tap arranged for cooperation with said secondary of said step-up transformer so as to be at an adjustable high alternating potential; means for applying said high alternating potential of said tap of said step-up transformer to said cathode, said anode being grounded; a potentiometer inserted between said tap of said step-up transformer and ground; an adjustable tap cooperating with said potentiometer and connected with said intermediate electrode so as to adjust the size of said focal spot on said anode and thus the drawing sharpness of said X-ray tube; and means for coupling said adjustable tap of said potentiometer with said adjustable rheostat and said adjustable tap of said secondary of said step-up transformer so as to obtain the maximum permissible brightness of the focal spot produced by said intermediate electrode on said anode.



2,842,678

SHIELDING IN IRRADIATION WELL LOGGING

Daniel Silverman, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

Application September 10, 1953, Serial No. 379,414

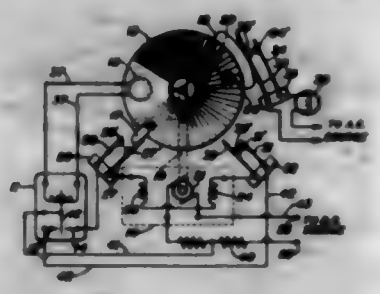
8 Claims. (Cl. 250—108)



1. Apparatus for logging wells comprising an elongated housing adapted to be moved through a well bore, a source of penetrating nuclear radiations in said housing, a detector of nuclear radiations in said housing at a fixed spacing from said source, spring means for holding said source and detector and one side of said housing against the wall on one side of a well bore; a substantial thickness of fixed nuclear-radiation shielding at least partially surrounding each of said source and said detector on the side opposite that held against a well wall, flexible nuclear-radiation shielding formed of a plurality of overlapping radiation-absorbing elements at least partially encircling said housing at a position intermediate between said source and said detector, said elements being urged outwardly to extend across a space between said housing and a well wall, the outer periphery of said flexible shield-

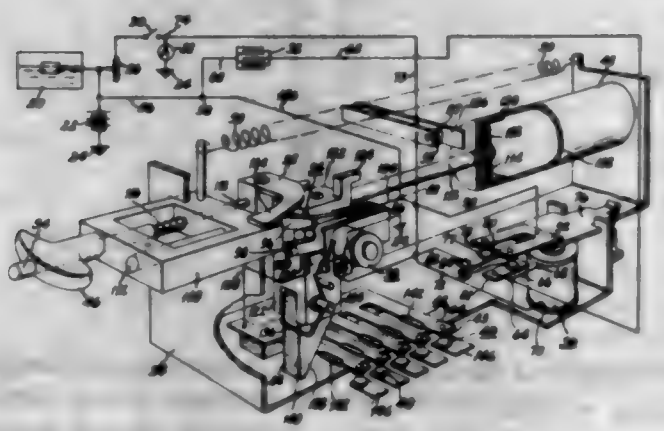
ing being movable to maintain contact with a well wall of changing shape, and means for recording an indication of the output of said detector as a function of depth in a well.

2,842,679
PHOTOELECTRIC CONTROLLER
William Nelson Goodwin, Jr., Newark, N. J.
Application March 4, 1952, Serial No. 274,886
10 Claims. (Cl. 250—205)



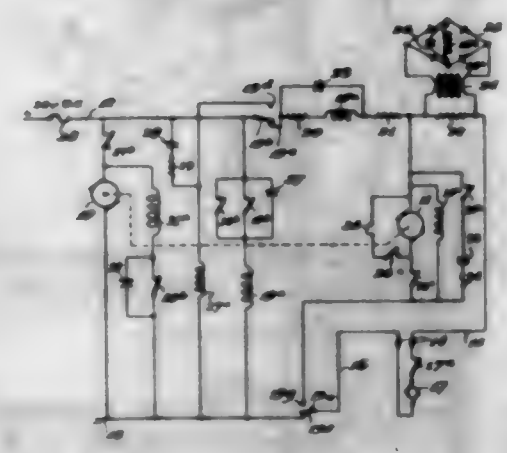
1. A system responsive to changing light conditions comprising a photocell exposed to the light and providing an electrical output that varies in accordance with the quantity of light striking its surface; light-altering means disposed in the path of light striking the photocell surface to maintain the quantity of light striking the photocell surface within a predetermined range; power means to vary the relative position of the light-altering means and the photocell; means responsive to the photocell output and actuating the power means when the photocell output varies beyond the said predetermined range, such actuation of the power means altering the relative position of the light-altering means and the photocell to maintain the quantity of light striking the photocell surface within the said predetermined range; and control means actuated upon a predetermined relative movement between the light-altering means and the photocell.

2,842,680
ELECTRIC SWITCH
Harold J. Cromwell, Argyle G. Lautzenhiser, and Charles E. Buck, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 12, 1956, Serial No. 570,899
12 Claims. (Cl. 307—10)



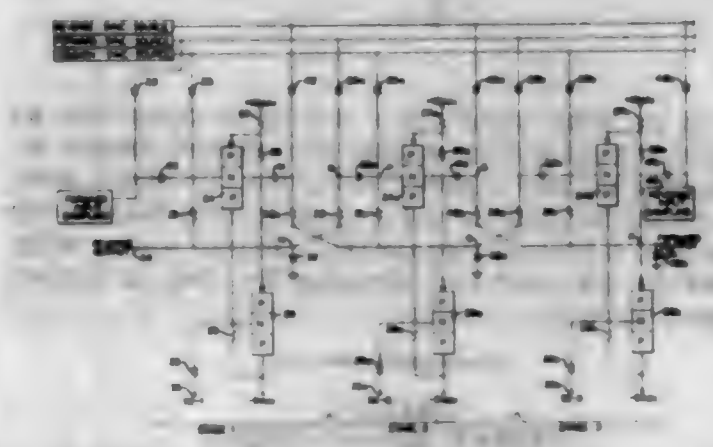
5. In a circuit for a motor vehicle having a storage battery, a moisture responsive means, a relay having an actuating coil with one end connected in a circuit through said moisture responsive means with said battery, an ignition switch for closing a circuit from the battery to an ignition system, and a fuel gauge having a terminal connected in circuit with said ignition switch and battery, the improvement comprising connecting the other end of the actuating coil to said terminal of the fuel gauge whereby the circuit through said coil and means is provided with a low resistance shunt when the ignition switch closes the circuit to the fuel gauge.

2,842,681
CONVERTER
Raymond J. C. Simon, Park Ridge, Ill., assignor to Carter Motor Company, a corporation of Illinois
Application May 28, 1957, Serial No. 662,862
12 Claims. (Cl. 307—38)



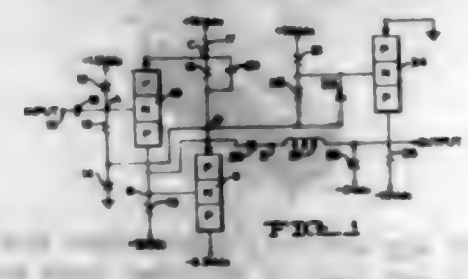
12. Means for powering an electric refrigerator having a connector plug, a compressor, and an automatic thermostatic control switch, from a power source having a characteristic of a type other than that from which the device is to be operated, comprising: means having a socket for electrical engagement by the connector plug to connect the refrigerator to the power source; converter means for converting the power from the source to a power supply having a characteristic proper for operation of the refrigerator; and means responsive to an operation of the thermostat switch which tends to operate the refrigerator compressor, to disconnect the refrigerator from the power source and to connect the converter means to the power source and the refrigerator to the power supply for operating the refrigerator compressor.

2,842,682
REVERSIBLE SHIFT REGISTER
Gerung L. Clapper, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application September 4, 1956, Serial No. 607,667
10 Claims. (Cl. 307—88.5)



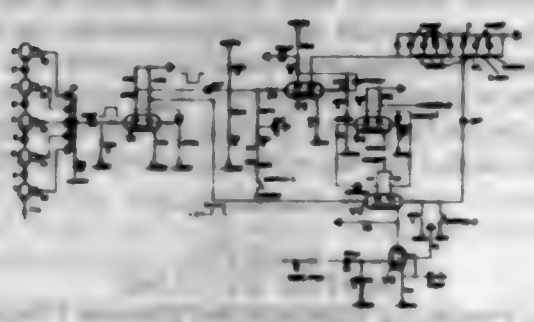
1. Signal translating apparatus comprising first and second bistable devices, means including a capacitor for coupling said first and second bistable devices together, means connected to one side of said capacitor for applying a first group of pulses thereto, and means connected to the other side of said capacitor for applying a second group of pulses thereto, the pulses in said first and second groups being synchronized with each other and of opposite polarity.

2,842,683
PULSE GENERATING CIRCUIT
Gesang L. Clapper, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application September 4, 1956, Serial No. 607,701
3 Claims. (Cl. 307—88.5)



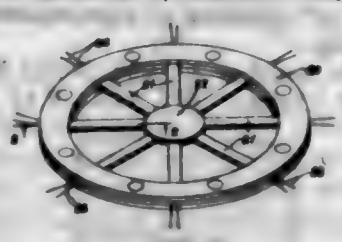
1. A signal translating apparatus comprising a bistable device having a pair of transistors of the same conductivity type and each having a base, an emitter and a collector, first means connecting the emitters of said transistors to a first potential, second means connecting the collector of one of the transistors and the base of the other transistor to a second potential, the collector of said other transistor being connected to a potential different from said first potential, input circuit means connected to the base of said one transistor for changing the conductive state thereof in response to an input signal, the change in conductive state of said one transistor causing a change in the conductive state of said other transistor by way of said second means, said other transistor biasing said one transistor by way of said first means to remain in the conductive state to which it was changed by said input signal, means connected to the emitter of said other transistor for inverting the voltage appearing at said emitter, and a delay device connected to receive the output of the last-named means and to supply a signal after a prescribed interval to the base of said other transistor for changing said other transistor back to the conductive state it was in prior to the change of state thereof.

2,842,684
ELECTRICAL PULSE GENERATING CIRCUITS
Donald Watts Davies, Southsea, England, assignor to National Research Development Corporation, London, England, a British corporation
Application November 17, 1952, Serial No. 321,024
Claims priority, application Great Britain November 26, 1951
6 Claims. (Cl. 307—106)



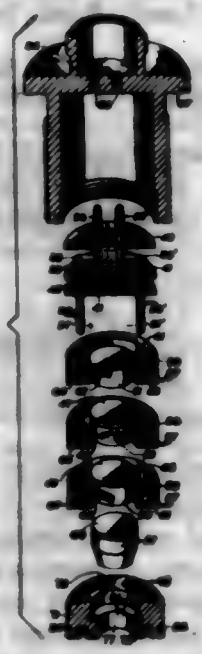
1. A one-shot circuit comprising means capable of generating a derived periodic series of electrical pulses having the timing of selected pulses in a given set of periodic pulses, a trigger, a delay-line mismatched at its far end and fed at its near end with the output from said trigger so that at an intermediate point of said delay-line a wide pulse is started a predetermined time after said trigger is set and is ended a further predetermined time later by the pulse tstep reflected at the far end of said delay-line, means for setting the trigger at a predetermined time relative to the given set of pulses, the constants of said delay-line being chosen so that the wide pulse embraces only one required single pulse in the derived series and gating means operated by said wide pulse for selecting said single pulse as an output.

2,842,685
BENDER TUNED ARRAY
Lucien A. Petermann, Deans, and Lawrence C. Oakley, Greenbrook Township, N. J., assignors to Gulton Industries, Inc., a corporation of New Jersey
Application December 23, 1955, Serial No. 555,009
5 Claims. (Cl. 310—8.3)



1. A bender tuned array comprising a plurality of piezoelectric bender elements, one end of each of said piezoelectric bender elements being fixedly held to a substantially centrally placed, nonflexible diaphragm of substantial mass, the other end of each of said piezoelectric bender elements being fixedly held to an outer element, and electrical connection means for making connection to the bender elements.

2,842,686
PIEZOELECTRIC GAGE
C Walton Musser and Lloyd W. Insetta, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application March 3, 1954, Serial No. 413,974
4 Claims. (Cl. 310—8.7)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A hermetically sealed piezoelectric gage comprising, in combination, a rigid housing having an opening at one end thereof; a contact pin assembly including a negative contact pin and a positive contact pin comprising inner portions confined within said housing, the terminal outer portions of said pins extending longitudinally outwardly of said housing through openings defined by said housing; means associated with said pins and said housing defining a hermetical seal therebetween; at least one electro-mechanical pressure responsive crystal having a negative and a positive side; a dielectric collar positioning said crystal within said housing, said collar having a recessed portion defining a pair of spaced openings in alignment with and slidably engaging the inner portions of said contact pins; means electrically connecting the negative side of said crystal to said negative pin; means elec-

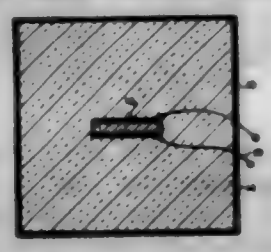
trically connecting the positive side of said crystal to said positive pin; closure means hermetically sealing said housing opening; and pressure transmitting means within said housing disposed in pressure transmitting association with said crystal and in communication with the exterior of said housing through a hermetically sealed opening in said closure means.

2,842,687

CRYSTAL MOUNT

Karl S. Van Dyke, Middletown, Conn., assignor to the United States of America as represented by the Secretary of the Army

Application September 2, 1954, Serial No. 453,979
5 Claims. (Cl. 310—9.1)



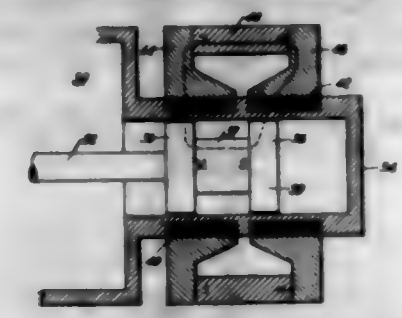
1. A resonant unit comprising a container, a piezoelectric device in said container comprising a piezoelectric crystal having electrodes thereon, and a hairlike material loosely packed around and contacting said piezoelectric device on all sides and filling said container, said material making a plurality of random contacts with said piezoelectric device and providing the sole support therefor, the frequency of said device and its Q being variable with variation of the closeness of packing of said material.

2,842,688

LINEAR RATE GENERATOR

Lyle Martin, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application October 30, 1953, Serial No. 389,293
4 Claims. (Cl. 310—15)



1. A device for creating a voltage from a linear motion comprising a cylindrical housing of non-magnetic material, a plurality of coils of wire embedded in grooves on the outside of said housing, a spool adapted to reciprocate in said cylindrical housing, said spool containing a permanent magnet and having a land of magnetic material for each of said coils, annular pole pieces of magnetic material arranged adjacent to and concentrically with each of said coils, and an annular permanent magnet positioned between said pole pieces and concentrically with said cylindrical housing.

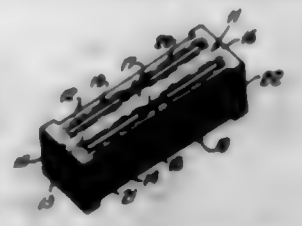
2,842,689

LOW-FREQUENCY MAGNETOSTRICTIVE TRANSDUCER

Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut

Application January 30, 1956, Serial No. 562,271
14 Claims. (Cl. 310—26)

1. An electromechanical transducer, comprising two separate laterally spaced elongated legs of magnetostrictive material, separate blocks of magnetic flux-conducting material magnetically connecting corresponding end portions of said legs, a further block of magnetic flux-conducting material magnetically connecting corresponding intermediate portions of said legs, said intermediate block being a permanent magnet and therefore establishing polarized flux-conducting paths on the one hand



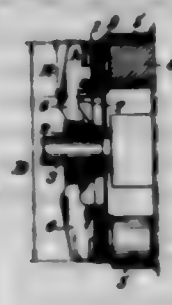
through said legs and said intermediate block and the block at one end, and on the other hand through said legs and said intermediate block and the block at the other end, and winding means linked separately to said paths along said legs and in a polarity to circulate flux in opposite directions in said paths.

2,842,690

EDDY CURRENT APPARATUS AND IN PARTICULAR IN EDDY CURRENT BRAKES

Pierre Etienne Bessiere, Paris, France, assignor to Compagnie Telma, Paris (Seine), France, a society of France

Application June 15, 1956, Serial No. 591,746
Claims priority, application France June 22, 1955
6 Claims. (Cl. 310—93)



1. An eddy current apparatus which comprises, in combination, a single inductor capable of creating a magnetic field, at least one annular armature made of a magnetic material rotatable about its axis with respect to said inductor in said field, said armature being located on one side of said inductor, a hub for supporting said armature, and a plurality of flat arms interposed between said hub and said armature, said flat arms extending at least substantially in axial planes of the armature and being located on the other side of said annular armature from said inductor system, each of said arms being provided with at least one notch for locally reducing the dimension of the corresponding arm parallel to said axis to make said arms resiliently deformable in response to deformations of said armature by heating caused by eddy currents created in said armature when it is rotating in said field.

2,842,691

MOTOR DYNAMO

Jose Pampliega Tajadura and Paulino Pampliega Tajadura, Caracas, Venezuela

Application February 6, 1956, Serial No. 563,507
12 Claims. (Cl. 310—138)

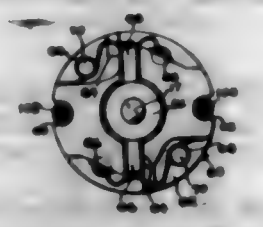
1. A motor dynamo comprising a frame, a sectionally wound stator coacting with a rotor, a shaft for journalling said rotor in said frame for rotation within said stator, a cam carried by said shaft, an arm pivotally mounted adjacent said frame in contacting relation to said cam, contacts carried by said arm, fixed contactors mounted adjacent said frame in coacting relation to the contacts on said arm, an alternating current power circuit connected to certain of said fixed contactors, a direct current circuit, said cam having an actuating surface includ-

ing high and low points for moving said arm at a rate corresponding to the frequency generated in said sectionally wound stator for moving said contacts into contacting relation with said contactors, and connections



from said direct current circuit to certain of said contacts whereby movement of said arm controls the connections of said direct current circuit with reference to said sectionally wound stator.

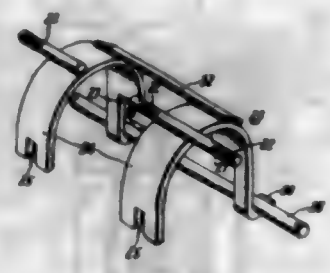
2,842,692
DIRECT CURRENT MOTOR
Edward G. Johnson and Alfred M. Caton, Dayton, Ohio, assignors to Globe Industries, Inc., Dayton, Ohio, a corporation of Ohio
Application March 8, 1954, Serial No. 414,586
8 Claims. (Cl. 318—239)



1. A brush gear or yoke assembly for use in an electric motor having a commutator, said brush assembly including a brush yoke encircling the commutator, said brush yoke having a plurality of cylindrical bosses integral therewith, a plurality of spring members, one for each of the bosses, each of said spring members encircling a boss, said yoke having a plurality of radially disposed grooves, brushes mounted in the grooves, a plurality of elongate terminals attached to the yoke, pig-tails for connecting the terminals to the brushes, said pig-tails being embedded in the brushes, said spring members biasing the brushes towards the commutator, a resilient and split insulating ring concentric with the brush yoke and having a plurality of apertures therein, there being one aperture for each terminal, the terminals extending through the apertures, the insulating ring also having a plurality of marginal grooves therein, there being one groove for each boss, the insulating ring being positioned on one side of the yoke and holding the brushes in position, the marginal grooves of said ring being biased outwardly against the bosses to thereby hold the ring in position.

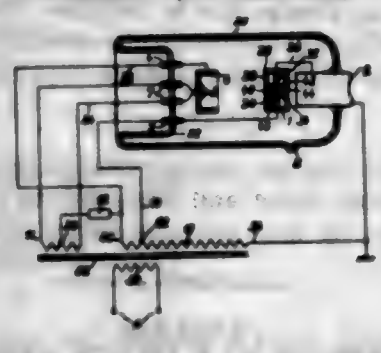
2,842,693
SUPPORT FIXTURE
Elton H. Tubbs, Westfield, N. Y., assignor to General Electric Company, a corporation of New York
Application May 17, 1957, Serial No. 659,801
2 Claims. (Cl. 310—240)

1. A support fixture connectable in a dynamoelectric machine, having spiral brush springs, for maintaining spring lever tips in a retracted position comprising, a pair of support members secured to a brush holder and extending outwardly therefrom, rungs secured to said members a sufficient distance from said brush holder and projecting perpendicular to the line of normal motion of the lever tips a distance sufficient to provide a platform suitable to support the spring lever tips in a retracted position allowing unrestricted access to brushes thereunder, and a cross member secured to said members for rigidly con-



necting them together, said support members being provided with latching means adapted to cooperate with said brush holder for preventing tilting of said support members when one or more of the tips are positioned on said rungs.

2,842,694
X-RAY APPARATUS
Rolf Hosemann, Berlin-Spandau, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application November 4, 1952, Serial No. 318,572
Claims priority, application Germany November 8, 1951
9 Claims. (Cl. 313—57)

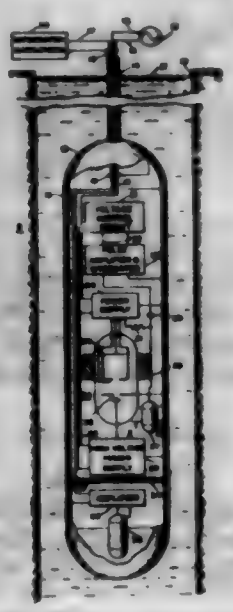


1. An X-ray apparatus, comprising, in combination, an X-ray tube including a cathode emitting electrons and an anode struck by the electrons emitted by said cathode and thus emitting X-rays; an electrostatic lens having a high refractive power and a short focal length and being arranged between said cathode and said anode, said electrostatic lens being substantially closer to said anode than to said cathode and having a first portion, a third portion and a second portion arranged consecutively in the path of the electrons from said cathode to said anode and provided, respectively, with aligned openings; means for maintaining said first and second portions of said electrostatic lens substantially at the same potential as said anode; and means for maintaining said third portion of said electrostatic lens substantially at the potential of said cathode, whereby the electrons are strongly accelerated between said cathode and said first portion of said electrostatic lens, are subsequently brought substantially to a standstill while they approach said opening of said third portion of said electrostatic lens, and are finally accelerated again when they have passed said opening of said third portion of said electrostatic lens and are under the influence of the potential of said anode so that a punctiform focal spot is generated on said anode.

2,842,695
RADIATION-RESPONSIVE APPARATUS
Clark Goodman, Boston, Mass., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application May 17, 1954, Serial No. 430,139
7 Claims. (Cl. 313—61)

6. A neutron-responsive device for deriving indications of incident neutrons having an energy at least equal to

a selected energy level substantially to the exclusion of neutrons having an energy smaller than said selected energy level comprising a chamber wherein ionization may occur, and a substance enclosed by said chamber



and adapted to enter into reactions with incident neutrons having an energy E_n to produce charged particles having an energy E_p conducive to ionization of said gas, the relationship of E_n to E_p being expressed as follows:

$$E_p \cong E_n + Q$$

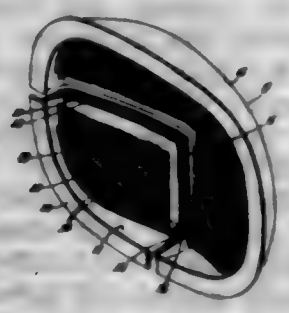
where Q is the nuclear energy change of said reactions, and has negative value and an absolute magnitude substantially equal to said selected energy level.

2,842,696

COLOR CATHODE RAY IMAGE REPRODUCING TUBE AND METHOD

Erwin P. Fischer-Colbrie, North Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

Application October 6, 1955, Serial No. 538,940
16 Claims. (Cl. 313—78)



6. A color cathode ray image reproducing tube comprising; an envelope including an insulative viewing-end cap including a viewing area supporting a phosphorescent screen including a plurality of stripes of different color phosphorescent material, electron beam producing means in said envelope for directing beams of electrons toward said screen, said cap further including integral outstanding peripheral side walls formed with integral elongated inwardly extending ledges extending generally parallel to said viewing area and transverse to the opposite ends of said stripes, and an electrode interposed between said screen and said beam producing means for effecting the travel of said beams to said screen comprising a plurality of electrically connected wires having the opposite ends thereof secured to said ledges and extending in predetermined spaced relation to each other and said stripes of phosphorescent material.

2,842,697

BEAM-INTERCEPTING STRUCTURE FOR CATHODE RAY TUBE

Frank J. Bingley, Meadowbrook, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application December 7, 1955, Serial No. 551,648
28 Claims. (Cl. 313—92)



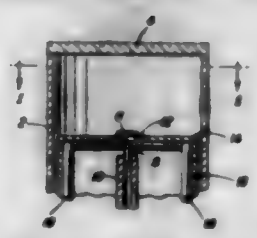
1. An electron beam-intercepting structure for a cathode ray tube comprising: a plurality of electron-sensitive elements arranged in a regular pattern, and a substantially opaque and non-reflecting material disposed between said elements.

2,842,698

INDUCTION LAMP

Sandford Christopher Peek, Jr., Hamilton, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

Application March 30, 1956, Serial No. 575,112
1 Claim. (Cl. 313—161)



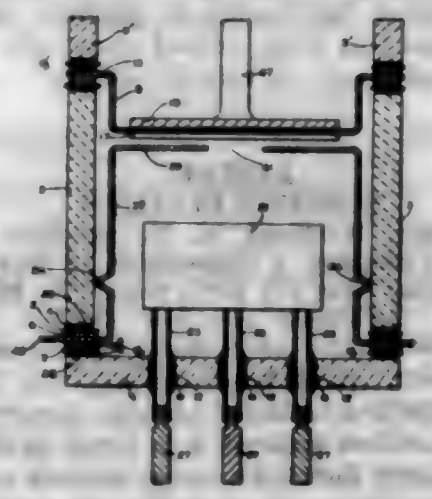
An induction lamp comprising a magnetic field concentrator having a narrow radial slot and a central opening formed therein, the radial slot extending from the outer edge of said concentrator to said opening; and a refractory target of non-uniform thickness disposed within said opening and spaced from the wall of said concentrator defining said opening, the said target being thinner in cross section at the side thereof adjacent to said slot.

2,842,699

GASEOUS SEAL AND METHOD

Kenneth J. Germeshausen, Newton Center, and Seymour Goldberg, Lexington, Mass., assignors to Edgerton, Germeshausen & Grier, Inc., Boston, Mass., a corporation of Massachusetts

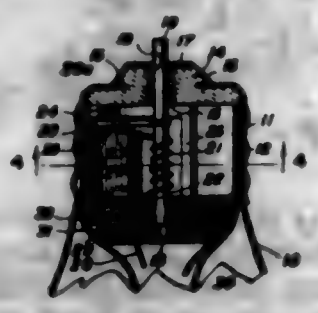
Application July 24, 1956, Serial No. 599,728
8 Claims. (Cl. 313—193)



1. A method of providing a connection between a conductor and a ceramic member that comprises coating the

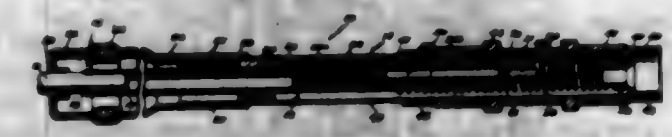
member at the connecting region with silver and titanium hydride, bonding nickel to the said coating, and securing the conductor to the nickel.

2,841,700
THEFTPROOF LIGHT BULBS
Miles H. Jacobs, Malta, Ohio
Application June 11, 1954, Serial No. 435,996
3 Claims. (Cl. 313—318)



1. A theftproof light bulb comprising a glass bulb having the usual filament therein, a screw threaded base portion on said bulb having a filament wire attached thereto, a housing in said base having a contact member thereon, the other filament wire attached to said contact member, said housing having a cover thereon, a spring tension shaft reciprocably and rotatably mounted in said housing and said cover and having contact means thereon adapted to engage the contact means in said housing when said bulb is inserted in a socket depressing said spring tensioned shaft.

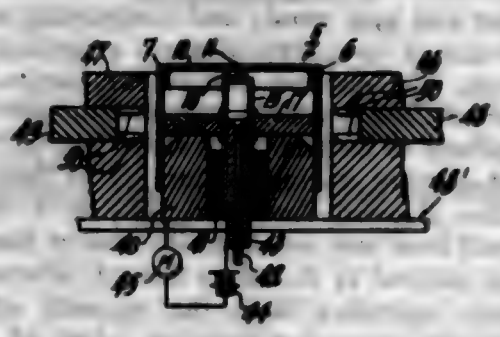
2,842,701
CATHODE HEATER ASSEMBLIES
Leo J. Cronin, Natick, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application December 21, 1954, Serial No. 476,877
8 Claims. (Cl. 313—340)



5. An indirectly heated cathode comprising a cathode sleeve having a portion thereof whose surface contains an electron-emissive material, a heater positioned within said sleeve, said heater including a current-carrying member insulated from said cathode sleeve and a heater element attached at one end thereof to said member and at the other end thereof to a portion of said sleeve, an elongated electrically-conductive supporting element including a first portion and a second portion of cross section greater than that of said first portion, an electrical insulator spaced between said first portion and said member for insulatedly mounting said supporting element within said member over a region of said element, said second portion of said supporting element engaging said heater element over a limited region thereof spaced from said one end.

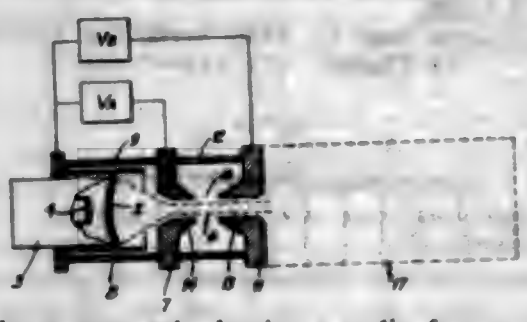
2,842,702
CATHODE GRID ASSEMBLY
Francis R. Titcomb, Lancaster, Pa., and Bernard M. Brinton, Horseheads, N. Y., assignors to Radio Corporation of America, a corporation of Delaware
Application September 2, 1954, Serial No. 453,714
2 Claims. (Cl. 315—1)

1. The method of fixing a metallic cathode in insulated predetermined spaced relation inside a cup-shaped metallic grid member, said method comprising the steps of, fixing said cathode within an aperture in a ceramic disc having an outer diameter fitting within said grid, applying a predetermined electric potential between said cathode and said grid, moving said cathode and said disc in said grid towards the closed end thereof until said cathode reaches a point at which an electric discharge occurs between said cathode and said grid, and locking



said cathode and said grid together by forming inwardly extending projections in the tubular wall of said grid at a plurality of circumferential and axially spaced points with said projections contacting the peripheral edge of said disc on both sides thereof.

2,842,703
ELECTRON GUN FOR BEAM-TYPE TUBES
Donald H. Preist, Mill Valley, Calif., assignor to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California
Application October 5, 1953, Serial No. 384,697
9 Claims. (Cl. 315—3)



1. A beam-type tube having a radio frequency section and a controllable perveance gun structure comprising a cathode for initiating an electron beam, and an apertured anode having a tubular projection thereon and positioned intermediate said cathode and said radio frequency section, said anode being adapted to operate at a certain D. C. potential with respect to said cathode to produce a certain beam perveance and means included in said gun structure for controlling said perveance including an apertured electrode intermediate said anode and said radio frequency section and having a tubular projection extending in the direction of the tubular projection on said anode, said last-mentioned means further including means for operating said electrode at a D. C. potential lower than said certain D. C. potential to increase said beam perveance.

2,842,704
DEVICE COMPRISING AN ELECTRIC DISCHARGE TUBE FOR VERY HIGH FREQUENCIES AND A DISCHARGE TUBE FOR USE IN SUCH A DEVICE
Bernardus Bastiaan van Iperen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application January 4, 1951, Serial No. 204,328
Claims priority, application Netherlands January 19, 1950
4 Claims. (Cl. 315—3.5)



1. An electron discharge device for producing electrical oscillations having very short wavelength, said dis-

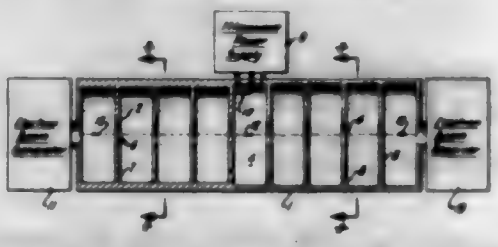
charge device comprising an evacuated tube containing: an electron gun assembly for producing an electron beam; an anode located in the axial path of said beam; and an oscillatory electrode system interposed between said electron gun and said anode and comprising a conductive gutter-shaped U-shaped element extending parallel to said beam, said element being characterized in that each elemental cross-sectional segment thereof is tuned to the frequency of oscillation of said electron discharge device, said element having a plurality of thin conductive strip-like electrode members having a transverse cross-sectional area very substantially smaller than that of said element secured to the edges thereof, alternate strip-like members extending from the opposite edges and spaced from the respective opposing edges of said element and spaced transversely from the bottom walls of said element and regularly spaced axially along said element, each of said strip-like electrode members having an aperture therethrough through which said electron beam passes one after another to excite said element into oscillation, successive ones of said strip-like members being connected to opposite edges of said element.

2,842,705

PARTICLE ACCELERATOR

Marvin Chodorow, Menlo Park, Calif., assignor to The Board of Trustees of the Leland Stanford Jr. University, Stanford, Calif.

Application June 13, 1955, Serial No. 514,889
13 Claims. (Cl. 315—5.42)



11. A linear accelerator for increasing the kinetic energy of an electron beam, comprising an array of iterated circuit elements forming a band-pass microwave transmission circuit, means supplying microwave energy to said transmission circuit, means capacitively coupling said circuit elements in series and providing a predominantly capacitive coupling between adjacent elements, means inductively coupling said circuit elements in series, said inductive coupling being less than said capacitive coupling, whereby the band-width of said transmission circuit is reduced, and means providing an electron beam adjacent to said array.

2,842,706

COLD CATHODE VACUUM TUBE

Dietrich Dobischek, Asbury Park, and Harold Jacobs, West Long Branch, N. J., assignors to the United States of America as represented by the Secretary of the Army

Application March 1, 1956, Serial No. 568,941
8 Claims. (Cl. 315—11)
(Granted under Title 35, U. S. Code (1952), sec. 266)



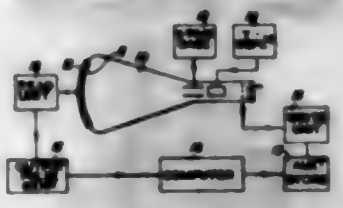
1. A cold cathode comprising a metal base and a coating thereon, said coating comprising magnesium oxide and cesium, the amount of said magnesium oxide being at least 100 times greater than the amount of cesium.

2,842,707

ELECTROSTATIC STORAGE OF DIGITAL INFORMATION

Graham L. Thomas and Arthur Alexander Robinson, Hollinwood, England, assignors to National Research Development Corporation, London, England

Application February 23, 1953, Serial No. 273,114
Claims priority, application Great Britain
February 26, 1951
17 Claims. (Cl. 315—12)



1. A method of recording digital information and of reading such information using an electrostatic storage device, the method comprising the steps of directing a cathode ray beam successively upon an elemental area in each of a succession of digit areas to read the information on such elemental areas, after reading the information on each elemental area of the said succession directing the beam to an area adjacent a preceding elemental area, and, when required by the nature of the digit to be stored on said preceding elemental area, switching the beam on whilst directed upon such adjacent area in order to reduce the charge on said preceding elemental area.

2,842,708

MULTI-BEAM KINESCOPE CONVERGENCE CIRCUITS

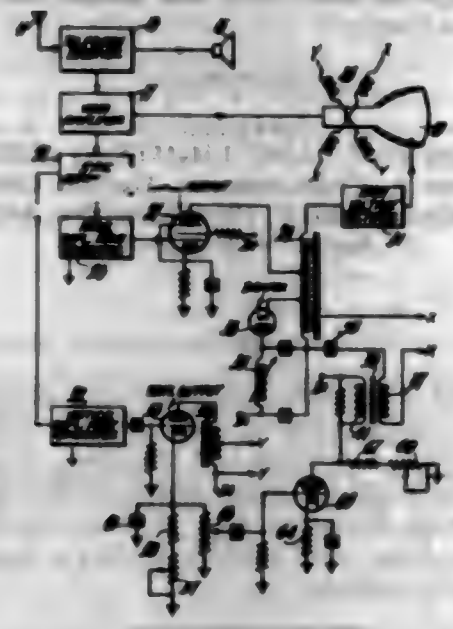
Robert Wayne Hagumann, Lancaster, and John Clarence Cooper, Lititz, Pa., assignors to Radio Corporation of America, a corporation of Delaware

Application November 4, 1955, Serial No. 545,686
5 Claims. (Cl. 315—13)



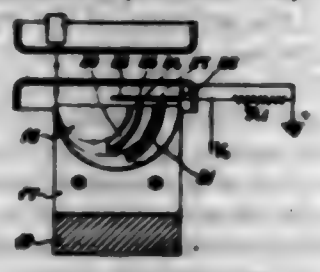
2. A beam convergence circuit arrangement for a multibeam kinescope, the electron beams of which are deflected in two directions normal with respect to each other, including a plurality of electron beam converging windings through which currents of substantially parabolic waveform of frequency corresponding to electron beam deflection in one of said directions are desired, a plurality of series circuits each comprising an inductance element, a capacitance element, and a resistance element connected in series, means to apply a voltage pulse train of recurrence rate corresponding to said deflection in said one direction across said series circuits, means to couple said beam converging windings individually across at least said resistance elements, and an inductance element shunted across at least one of said resistance elements, at least one of said shunt connected elements being adjustable.

2,842,709
RASTER DISTORTION CORRECTION
Paul M. Lufkin, Mount Ephraim, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 13, 1953, Serial No. 385,746
15 Claims. (Cl. 315—24)



7. An electron beam deflection system comprising an impedance element across which a deflection wave is developed, a deflection yoke winding, a saturable reactor having an impedance winding and a control winding, means coupling said impedance winding and said deflection yoke winding across said impedance element, means coupling said control winding to a source of alternating current potential, and means coupling a source of direct current potential to said control winding.

2,842,710
DEVICE AND CATHODE-RAY TUBES FOR STABILISING HIGH VOLTAGES
Simon van der Meer, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 9, 1954, Serial No. 474,174
Claims priority, application Netherlands January 22, 1954
4 Claims. (Cl. 315—25)



1. An electron tube comprising means producing a beam of electrons including means for changing the velocity of the electrons in said beam by applying a voltage thereto, means establishing a magnetic field relative to the direction of said beam to thereby cause said beam of electrons having a given velocity to follow a predetermined curved path, said magnetic field-establishing means comprising a pair of spaced pole-pieces between which the field is established, said pole-pieces having opposed curved discontinuities extending parallel to said curved path and producing adjacent regions of high and low magnetic field intensity, and a collector electrode located in said curved path to intercept at least some of said electrons in said beam and in such position that a change in the curvature of said curved path followed by the beam will be manifested by a change in the quantity of electrons intercepted by said collector, whereby a change in the voltage applied to the velocity-changing means causes the beam to be subject to the adjacent magnetic field of different intensity thereby producing a substantial change in collector current in response to a relatively minor change in applied voltage.

2,842,711
TELEVISION TUBE
Lothar Frenkel, Beaverton, Oreg., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application April 19, 1957, Serial No. 653,854
1 Claim. (Cl. 313—25)



A display device comprising an envelope comprising a neck portion having electron beam producing means positioned therein; means establishing a horizontal scanning plane; a mesh positioned to form an acute longitudinal dihedral angle with said plane whereby said mesh intercepts said beam; means producing a free field between said mesh and said beam producing means whereby electrons in said free field tend to move in straight lines until they strike said mesh; a faceplate positioned to form an acute longitudinal dihedral angle with said mesh, said faceplate being on the side of said mesh which is remote from said beam producing means; means to produce an electron accelerating field between said mesh and said faceplate whereby electrons are directed toward said faceplate; means causing said beam to sweep a horizontal line on said mesh and on said faceplate; and vertical deflecting means to cause said beam to change the vertical position of said horizontal line.

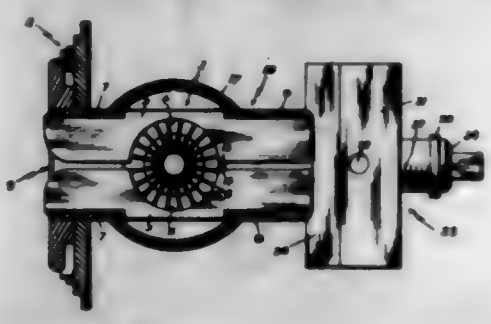
2,842,712
ELECTRONIC SIGNAL GENERATOR
Robert P. Muldoon, Doylestown, Franklin Himmelberger, Coopersburg, and Brandon K. Fuller, Souderton, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application March 6, 1953, Serial No. 340,852
14 Claims. (Cl. 315—39)



1. An ultrahigh frequency noise source comprising a two-conductor coaxial transmission line, an elongated, non-conductive, gas-tight envelope disposed between the inner and outer conductor of said coaxial line with the elongated dimension of said envelope substantially parallel to said conductors, said envelope being further disposed in spaced non-contacting relationship with said inner conductor, said envelope being filled with an inert gas at a pressure of the order of approximately 10 to 60 millimeters of mercury, an anode structure disposed in contact with said gas adjacent one end of said envelope,

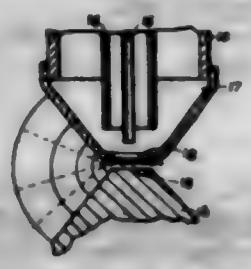
a cathode structure disposed in contact with said gas adjacent the other end of said envelope, said anode structure and said cathode structure being electrically isolated from said two conductors, and contact means electrically coupled to said anode structure and said cathode structure to which energy may be supplied to cause an electrical discharge to occur between said anode structure and said cathode structure through said gas.

2,842,713
ELECTRON DISCHARGE DEVICE
Palmer P. Derby, Wellesley, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application July 3, 1953, Serial No. 365,816
4 Claims. (Cl. 315—39)



1. An electron discharge device comprising a pair of elongated anode conductors each having a semi-circular notch located along an edge and intermediate the ends thereof, said conductors being spaced from each other with their axes parallel and their notches aligned to define a substantially cylindrical aperture intermediate the ends of said conductors and a pair of oppositely disposed cylindrical metallic sleeves positioned respectively on each of the end sections of the conductors with the anode conductors centrally disposed therein so as to form an H-guide, a plurality of anode vanes spaced on the wall of said aperture and extending radially inward therefrom and an electron source positioned in the space defined by the inner ends of said vanes.

2,842,714
ELECTRIC DISCHARGE DEVICES
William Joseph Scott, Rugby, and Clive Zbigniew Muskus, Ashby Parva, England, assignors to The British Thomson-Houston Company Limited, a British company
Application January 7, 1955, Serial No. 480,576
Claims priority, application Great Britain January 11, 1954
8 Claims. (Cl. 315—39)



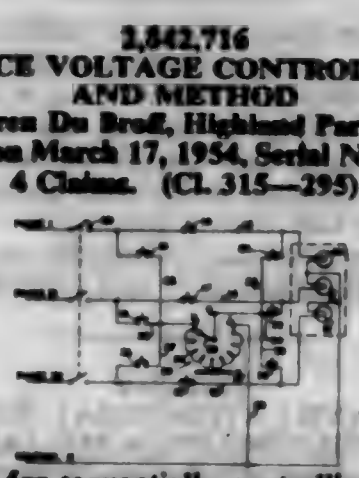
1. A high frequency electric discharge device comprising a sealed envelope adapted to form a part of an electro-magnetic wave guide, an ionisable medium filling said envelope, said envelope having spaced apart end walls permeable to electro-magnetic waves, coaxial spaced main electrodes located between said end walls, said main electrodes having opposed tips between which a radio frequency gap exists and in which gap a glow discharge occurs during operation of the device, at least one of said main electrodes being hollow, and having an open end, an auxiliary electrode mounted within said hollow main electrode to which an ionising potential is applied during operation of said device to cause a primer discharge to take place between said auxiliary electrode and said hollow main electrode, electrically conductive barrier means located across said open end of the hollow main electrode to provide electrical continuity to the tip thereof, said barrier means having interstitial openings therethrough positioned opposite to said other main electrode through which openings electrons from said primer discharge permeate into said gap.

2,842,715
FLUORESCENT LAMP LIGHTING CIRCUITS
Wilson A. Charbonneaux, Dayton, Ohio
Application August 9, 1954, Serial No. 448,426
3 Claims. (Cl. 315—184)



1. A circuit for fluorescent lamps and devices having similar load characteristics, said circuit comprising a fluorescent lamp, a reactor and capacitor in series with opposite terminals of the lamp, and a rectifier of the cold-cathode gaseous discharge type shunted across the terminals of the lamp, said rectifier having a starter anode connected to its cathode.

2,842,716
SEQUENCE VOLTAGE CONTROL SYSTEM AND METHOD
Warren Du Broff, Highland Park, Ill.
Application March 17, 1954, Serial No. 416,911
4 Claims. (Cl. 315—295)

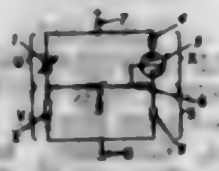


1. A system for sequentially controlling the consumption of electrical energy comprising, a plurality of electrically energized energy consuming devices different ones of which are directly connected between individual conductors and neutral of a source of electrical current, a single autotransformer of rated wattage substantially less than the sum of the wattages of the entire load and having an input terminal, a sliding contactor on said autotransformer, switch means individual to each of said current carrying conductors, circuit means extending from each said switch means to said input terminal and said sliding contactor on said autotransformer, and means including a plurality of cams operated in response to movement of the sliding contactor to sequentially operate said switch means to sequentially include said single autotransformer in circuit with each of said conductors and respectively associated energy consuming devices one at a time while excluding it from all other said conductors so that the energy consumption of all of such devices may be sequentially decreased from full consumption to zero or increased from zero consumption to full.

2,842,717
ARRANGEMENT FOR RELIEVING ELECTRICAL SWITCHING CONTACTS OF CURRENT
Karl Max Harder, Vaduz, Liechtenstein, assignor to Patent- und Versuchs-Anstalt, Vaduz, Liechtenstein, a company of the Principality of Liechtenstein
Application December 28, 1955, Serial No. 555,993
Claims priority, application Switzerland December 31, 1954
12 Claims. (Cl. 317—11)

1. An arrangement for relieving electrical switching contacts of current, more particularly sensitive contact

members which are operated as make contacts, a main switching member located in the consuming device circuit to be cut in being controlled by the make contact to be relieved, characterized by a bridge circuit consisting of two branches in parallel and supplied at the junctions of said branches, the first branch of which circuit consists of a series connection of a first and a second impedance, while the second branch consists of a series connection of a first and a second circuit element, of which one of said elements possesses at least the ener-



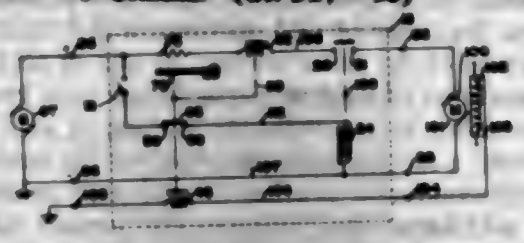
gizing member causing the main switching member provided with a self-holding member to be operated, while the other part possesses at least a make contact connected in series and operated by said main switching member, further characterized by a diagonal branch which extends from the connection point of the first and second impedances to the connection point of the first and second element and contains at least the make contact to be relieved, all the bridge branches being so equalized that after the main switching member has responded, the diagonal branch is currentless.

2,842,718

CIRCUIT INTERRUPTERS

Edward P. Smith, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a corporation of New Jersey

Application September 24, 1953, Serial No. 382,681
9 Claims. (Cl. 317—13)



1. A circuit interrupter for use with a safety ground cable protected direct current circuit, comprising electrical control contacts, manual reset means to close said contacts, spring means operating on said reset means urging said contacts toward an open position, a latch to selectively hold said contacts closed upon operation of said reset means, a lever to control said latch, main contacts, electrical means to control said main contacts, a magnetic armature, second spring means urging said armature in a first axial direction, the axis of said armature intersecting said lever, interconnecting means positioned on said axis between said armature and lever, a ground cable coil surrounding said armature, a substantially closed magnetic circuit for said ground cable coil including said armature, current of a given value in said ground cable coil effecting movement of said armature against said second spring means to move said interconnecting means and said lever and hence open said control contacts, and means to electrically connect in series said electrical means and said control contacts.

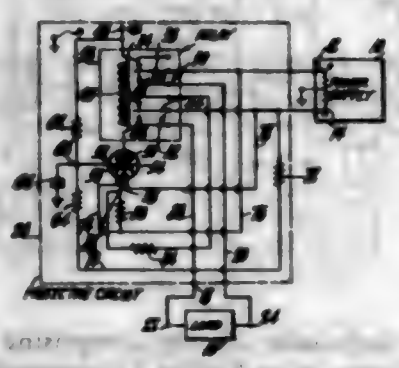
2,842,719

ELECTRICAL PROTECTIVE APPARATUS

Winslow L. Harford, Collingswood, and William J. Neely, Oaklyn, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application October 18, 1954, Serial No. 462,956
The terminal fifteen years of the term of the patent to be granted has been disclaimed
11 Claims. (Cl. 317—23)

11. Electrical protective apparatus for preventing the application of energy from a voltage power supply to a load when the voltage furnished by such supply under load departs from a selected level, said apparatus comprising: switch means having first and second positions and connected between such supply and load so as to define a current path therebetween in said first position and an open circuit therebetween in said second position; switch-operating means including an electron tube having a conduction controlling electrode and coupled to said switch means in such manner that a certain amount of conduction of said tube is necessary for maintaining said switch means in said first position; voltage-dividing circuit means including a capacitor coupled to said electrode and



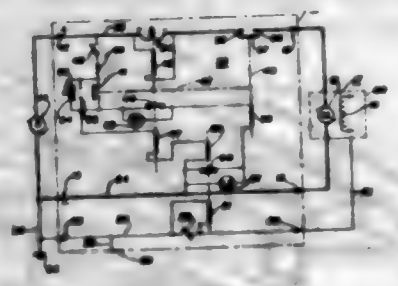
supply for decreasing the conductivity of said tube below said certain amount in response to a departure of said power supply voltage from a selected level, whereby to place said switch means in said second position; and means operatively connected to and controlled by said switch means in said second position for charging said capacitor to a potential for increasing the conductivity of said tube to at least said certain amount, thereby causing said switch means to revert, after a time interval determined by the time constant of the charging circuit of said capacitor, to said first position wherein the conductivity of said tube is again responsive to the level of said power supply voltage.

2,842,720

CIRCUIT CONTROL SYSTEM AND CONTROLLER THEREFOR

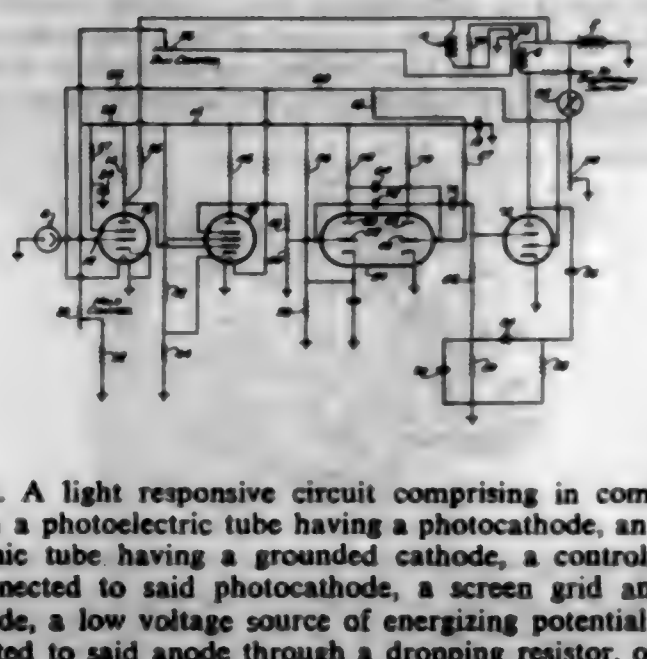
Elmo F. Huston, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a corporation of New Jersey

Application November 5, 1953, Serial No. 390,357
6 Claims. (Cl. 317—50)



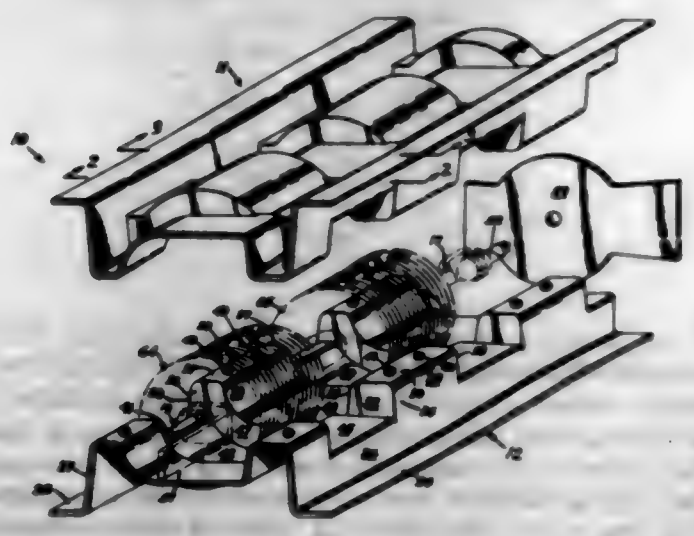
1. A selective tripping system in an electrical direct current load circuit including, a circuit interrupting device having a series coil, a shunt coil and main contacts on said device, said shunt coil controlling said main contacts, a trip relay connected directly in shunt with said series coil to control said main contacts by a predetermined increased energization of said trip relay, normally closed control contacts on said trip relay, means for connecting in series in the positive lead of said direct current circuit said series coil and said main contacts, and means for connecting in series across the positive and negative leads of said direct current circuit said control contacts and said shunt coil, the I. R. drop across said series coil being in the same sense as the induced voltage caused by increasing currents into said load circuit.

2,842,721
CONTROL CIRCUIT
Carl E. Atkins, Bloomfield, N. J., assignor to Tung-Sol Electric Inc., Newark, N. J., a corporation of Delaware
Application June 2, 1954, Serial No. 433,959
10 Claims. (Cl. 317—130)



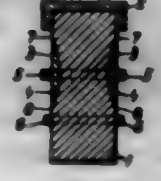
1. A light responsive circuit comprising in combination a photoelectric tube having a photocathode, an electronic tube having a grounded cathode, a control grid connected to said photocathode, a screen grid and an anode, a low voltage source of energizing potential connected to said anode through a dropping resistor, output means adapted to be actuated in response to a predetermined decrease in anode potential resulting from increase in control grid potential consequent to incidence of light on said photocathode and circuit means connected to said screen grid for providing a positive potential on said screen grid which decreases with increase in conduction of said tube, said last mentioned circuit means including means for delaying return to normal of the screen grid potential during decrease in control grid potential consequent to cessation of light on said photocathode.

2,842,722
RECTIFIER MOUNTING DEVICE
Edward J. Diebold, Palos Verdes Estates, Calif., assignor to International Rectifier Corporation, El Segundo, Calif., a corporation of California
Application March 4, 1957, Serial No. 643,637
17 Claims. (Cl. 317—234)



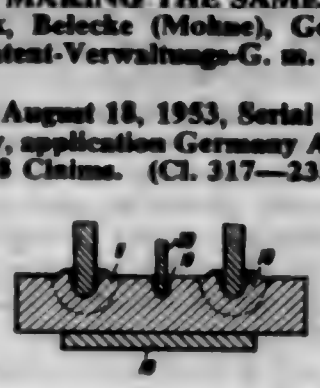
1. A rectifier housing for mounting current rectifiers, said rectifier housing comprising: a housing structure having a plurality of cavities for holding said rectifiers, said housing structure having an inlet conduit and an outlet conduit for each of said cavities, one of said inlet conduits and one of said outlet conduits being in fluid communication with each other through each of said cavities, and means covering said cavities and conduits, whereby rectifiers may be contained in said cavities in electrical connection with one another for purposes of electrical rectification of current provided thereto, and whereby a coolant fluid may be passed through said inlet conduits, into said cavities, around said rectifiers contained therein, and then out through said outlet conduits, heat generated by said rectifiers being transferred to said coolant fluid, thereby cooling said current rectifiers.

2,842,723
CONTROLLABLE ASYMMETRIC ELECTRICAL CONDUCTOR SYSTEMS
Werner Koch, Hans-Ulrich Harten, and Reiner Thedieck, Belecke (Mohne), Germany, assignors to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application April 14, 1953, Serial No. 348,728
Claims priority, application Germany April 15, 1952
6 Claims. (Cl. 317—235)



1. A controllable electrically unsymmetrically conductive device, comprising, in combination, a semi-conductor unit composed of two semi-conductor portions each forming part of the outer surface of said semi-conductor unit, one of said portions being p-conductive and the other of said portions being n-conductive, one of said portions being in the form of a hollow body and at least partially encircling the other of said portions; a first main electrode on a portion of the outer surface of one of said semi-conductor portions of said semi-conductor unit being spaced from the other semi-conductor portion of said semi-conductor unit; a second main electrode on the surface of said other semi-conductor portion of said semi-conductor unit; and an additional electrode on the surface of said one semi-conductor portion of said semi-conductor unit located nearer to said other semi-conductor portion of said semi-conductor unit than said first main electrode.

2,842,724
CONDUCTOR DEVICES AND METHOD OF MAKING THE SAME
Reiner Thedieck, Belecke (Mohne), Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application August 18, 1953, Serial No. 374,943
Claims priority, application Germany August 18, 1952
18 Claims. (Cl. 317—235)



1. In a controllable electrically unsymmetrically conductive device, in combination, a semi-conductor body including a main body portion, and a surface region portion in said main body portion adjacent to one face thereof and formed with a crater-shaped recess therein, one of said portions being p-conductive and the other of said portions being n-conductive; a first electrode extending into said crater-shaped recess and being fused therein in contact with said surface region portion; and a second electrode in contact with said semi-conductor body spaced from said surface region portion.

2,842,725
DIRECTIONAL CONDUCTOR DEVICE AND METHOD OF MAKING IT

Werner Müller, Berlin-Siemensstadt, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany

Application May 26, 1955, Serial No. 509,979
In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
12 Claims. (Cl. 317—236)



1. A directional conductor device comprising a directional conductor body, electrodes in engagement with said body, at least one of said electrodes forming a point contact in engagement with said body, and a mass applied to said body and said electrodes to envelop said body and the corresponding points of contact of said electrodes with said body and part of said electrodes, said mass hardening after application thereof and serving as sole carrier for said electrodes and for stabilizing said electrodes in engagement with said body.

2,842,726
ELECTRICAL CONDENSERS

Preston Robinson and David B. Peck, Williamstown, Mass., assignors to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts

Application June 5, 1956, Serial No. 589,548
4 Claims. (Cl. 317—258)

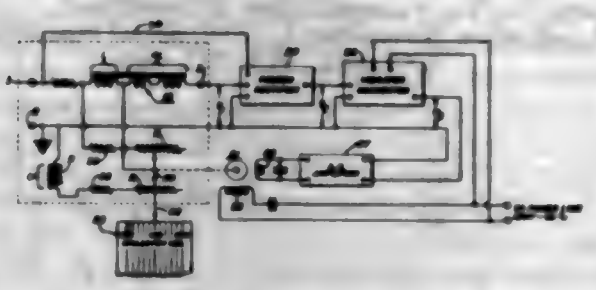


1. An electrical capacitor having a low temperature coefficient of capacity comprising convolutely wound electrode elements separated by a composite dielectric spacing material, said material consisting of at least one continuous layer of an at least partially disoriented polyethylene terephthalate film and at least one predominantly oriented tetrahaloethylene polymer film.

2,842,727
FREQUENCY METERING ARRANGEMENT

Roswell W. Gilbert, Morristown, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application April 2, 1954, Serial No. 420,499
4 Claims. (Cl. 318—28)

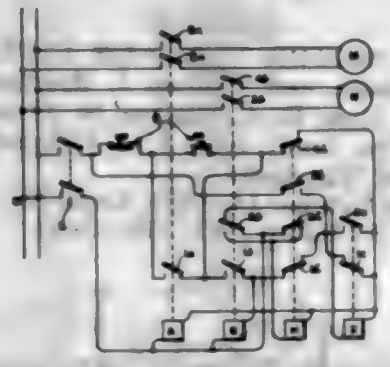


1. A three terminal, frequency-responsive, null transfer network comprising an input terminal, an output terminal and a common terminal, a first inductive reactor connected between said input and output terminals, a second inductive reactor establishing a connection between said common terminal and a point on said first reactor, a first variable resistance element connected in parallel relationship to a portion of the said first reactor, and a second variable resistance element connected in series relationship to the second reactor.

2,842,728
MOTOR CONTROL SYSTEM

Hans Lobest, Remscheid-Lennep, Germany, assignor to Barmer Maschinenfabrik Aktiengesellschaft, Remscheid-Lennep, Germany

Application January 4, 1957, Serial No. 632,506
Claims priority, application Germany January 7, 1956
2 Claims. (Cl. 318—102)

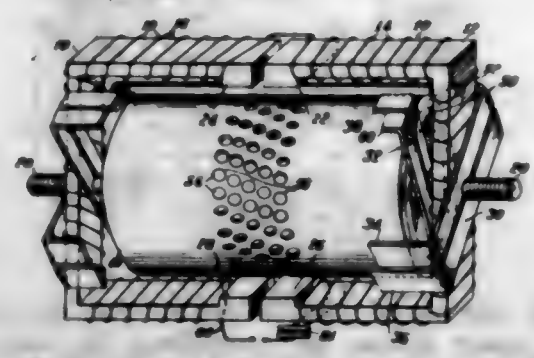


1. A switching system for multiple motors comprising a main switching relay for controlling a said motor, a secondary relay for controlling another of said motors, a time delay relay having a normally open and a normally closed switch, and an auxiliary relay having a pair of normally open and a pair of normally closed switches, one of said switching relays embodying a double throw switch, one of the normally closed switches of the auxiliary relay being connected to control the supply of energy to said auxiliary and time delay relays and to the main switching relay to initially energize said relays during motor starting operation of the system, the other normally closed switch of the auxiliary relay being interconnected with the secondary switching relay and the normally open switch of the delay relay, whereby to energize said secondary switching relay in response to delayed operation of the delay relay, during motor starting operation of the system, one of the normally open switches of said auxiliary relay being connected with the normally closed switch of the delay relay to form a circuit for energizing said main switching relay under the control of the delay relay, after the secondary relay has been initially deenergized, when the system is in operation to stop the motors, said secondary relay embodying a switch operable to energize the delay relay when said secondary relay is deenergized.

2,842,729
INDUCTION MOTOR

Herbert Hillman, Boston, Mass.

Application June 18, 1953, Serial No. 362,645
14 Claims. (Cl. 318—228)



1. In a single phase induction motor comprising a cylindrical rotor, a single stationary primary circuit element including means forming a magnetic path extending parallel to the axis of said rotor, said rotor being supported within said primary circuit element, said rotor

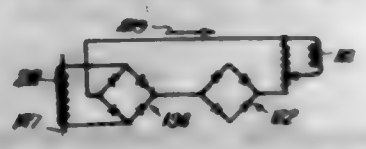
forming a secondary circuit element, additional secondary circuit elements extending parallel to the said axis and adjacent the exterior of said rotor, said additional circuit elements being stationary, all of said circuit elements being inductively coupled, each of said stationary circuit elements having a perimeter extending a substantially uniform distance from the exterior of said rotor throughout their lengths, one of said additional circuit elements having a perimeter less than that of said primary circuit element and the other of said additional circuit elements having a perimeter greater than that of said primary element.

2,842,730

SMALL MOTOR VOLTAGE CONTROL

Marvin W. Osborn and William J. Bradburn, Jr., Milwaukee, and Hans R. A. Hansen, St. Francis, Wis., assignors to The Louis Allis Co., Milwaukee, Wis., a corporation of Wisconsin

Application October 14, 1953, Serial No. 385,986
3 Claims. (Cl. 318—331)



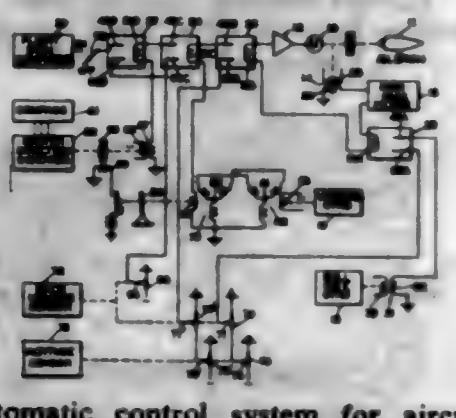
1. In a motor control circuit for a direct current motor an internally self-saturated magnetic amplifier the output of which supplies said motor; a first rectifier providing a source of direct current voltage; a potentiometer connected to said first rectifier to provide an adjustable reference voltage; a control winding in said magnetic amplifier connected to said potentiometer; a second rectifier providing a direct current voltage proportional to the input current to said magnetic amplifier, the output terminals of said second rectifier being connected in series with said control winding and said first rectifier so that the instantaneous current in said control winding is equal to the higher of the currents produced by said first and second rectifier means; a second control winding in said magnetic amplifier; a speed-setting means for varying the voltage applied from the output terminals of said magnetic amplifier to said second control winding; means for connecting said potentiometer and said speed-setting means in ganged relation.

2,842,731

CONTROL SYSTEM FOR AIRCRAFT

John C. Owen, Grand Rapids, Mich., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application September 22, 1955, Serial No. 535,873
5 Claims. (Cl. 318—489)



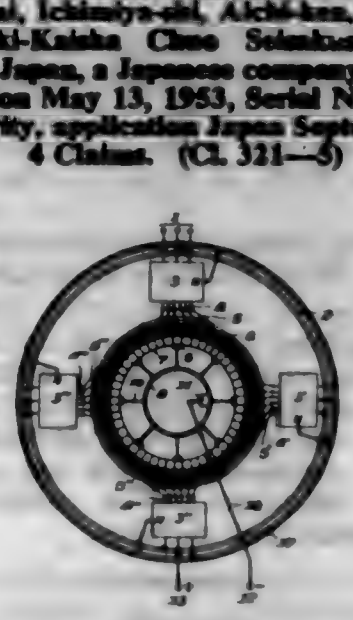
1. An automatic control system for aircraft, comprising power means for controlling the attitude of a craft about an axis, means responsive to the attitude of the craft about said axis for developing a corresponding control signal for said power means, means operatively connecting said attitude responsive means and said power means, said connecting means including a station operable for adjusting said signal, means responsive to Mach number for operating said station, means responsive to altitude for operating said station, and means jointly connecting the one operating means with the other operating means in such a manner that said control signal is adjusted as a function of Mach number and altitude.

2,842,732

ROTARY BRUSH TYPE COMMUTATOR-CONVERTER

Yasube Kasugai, Ichimiya-shi, Aichi-ken, Japan, assignor to Kabushiki-Kaisha Chuo Seisakusho, Mizuho-ku, Nagoya-shi, Japan, a Japanese company

Application May 13, 1953, Serial No. 354,718
Claims priority, application Japan September 5, 1952
4 Claims. (Cl. 321—5)



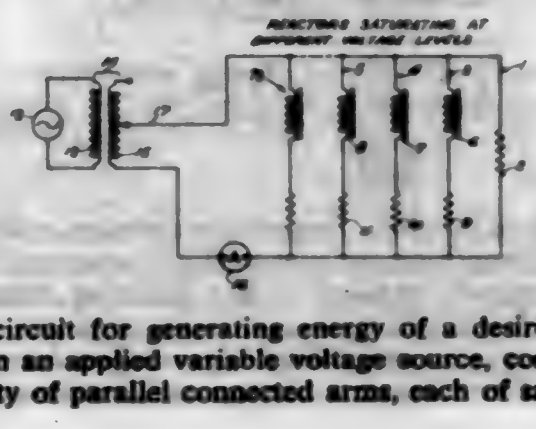
1. A rotary brush type commutator-converter apparatus comprising a plurality of transformers connected in parallel and each constructed for transforming three-phase input voltages into at least six-phase output voltages, a commutator having a plurality of segments, rotary brushes in contact with said commutator, means for rotating said brushes synchronously with the phase rotation of the output voltages of said transformers, each of said transformers having a selected output capacity and a secondary terminal for each output phase and the output capacity of each transformer being of a selected value to allow for construction of a rotary brush type commutator-converter having a selected large output capacity while maintaining reactance voltage in said apparatus at a selected reduced value for optimum commutation, and conductor means separately connecting individual secondary terminal outputs to individual segments in said commutator thereby to maintain the current in each of said conductor means along the whole length thereof less than the output current of the apparatus and the reactance voltage at a selected reduced value, whereby commutation is effected without sparking.

2,842,733

FUNCTION GENERATOR

Manfred Lilienstein, Paramus, N. J., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland

Application November 1, 1954, Serial No. 466,009
3 Claims. (Cl. 323—66)



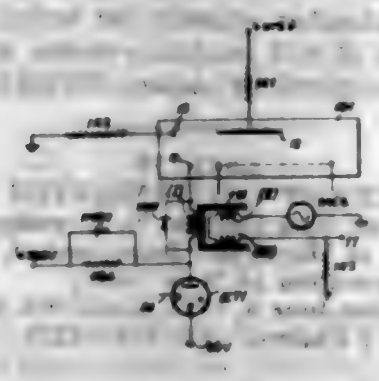
1. A circuit for generating energy of a desired function from an applied variable voltage source, comprising a plurality of parallel connected arms, each of said arms

including a saturable core reactor, the reactors in the different arms being adapted to saturate at different voltage levels, the current through said arms being limited essentially by the reactances of said saturable core reactors before saturation thereof, means for applying a variable alternating voltage to said parallel connected arms, and a common output circuit coupled to a terminal of each of said arms for receiving the cumulative current therefrom.

2,842,734
ARRANGEMENTS FOR MAGNETIC AMPLIFIER CIRCUIT SELECTION

Ronald William Stanley Kinsey, West Dulwich, London, and Brian Desmond Simmons, Greenwich, London, England, assignors, by mesne assignments, to Siemens Edison Swan Limited, London, England, a British company

Application November 5, 1956, Serial No. 620,583
Claims priority, application Great Britain November 4, 1955
2 Claims. (Cl. 323—89)

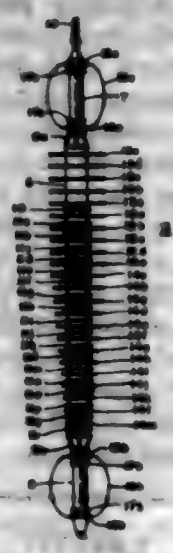


1. An electronic selecting circuit, providing for the selection of a free one of a number of circuits in a group, comprising a multi-cathode cold cathode gas discharge tube having a plurality of discharge gaps formed between a like plurality of cathodes and a common anode, an impedance connected in the circuit of said anode for ensuring that a discharge can be maintained across only one of said discharge gaps at any time, for at least one of said cathodes a circuit serving to connect the cathode to a source of ionising potential and for each of the remainder of said cathodes an individual cathode circuit serving for the purpose of selection, said remainder comprising a cathode for each circuit in said group, an output terminal for an individual to each of said remainder of said cathodes, an output magnetic amplifier for and individual to each of said remainder of said cathodes, said magnetic amplifier having a direct current magnetising winding included in the individual circuit of the cathode and having an alternating current winding connected in circuit with the particular said output terminal which pertains to the cathode and said magnetic amplifier serving to produce an output signal at the last-mentioned output terminal consequent on the establishment of a discharge across the particular one of said discharge gaps that includes the cathode, and a switching device for and individual to each of said remainder of said cathodes for rendering the cathode and its individual circuit effective for the purpose of selection consequent on a demand for a free circuit in said group arising while the particular circuit in said group to which the cathode pertains is free, said switching device comprising a cold cathode gas discharge tube having an anode and a cathode and a striker electrode and having the discharge gap formed between its anode and cathode connected in the individual circuit of the corresponding cathode of said multi-cathode cold cathode gas discharge tube and serving to lower the potential of the last-mentioned cathode on being struck consequent on the application of a striking potential to said striker electrode.

2,842,735
APPARATUS FOR ELECTRICAL LOGGING

John L. Martin, Irving, Tex., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

Application September 12, 1955, Serial No. 533,659
10 Claims. (Cl. 324—1)

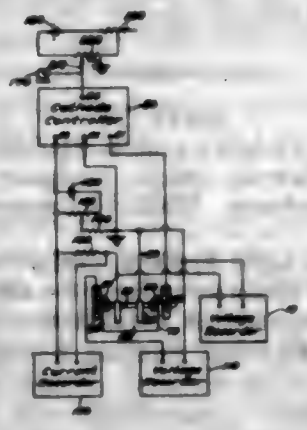


1. Apparatus for logging earth formations surrounding a well bore containing a conductive fluid comprising an elongated support member adapted to be passed through said well bore, transmitting means on said support member, a source of electric energy connected to energize said transmitting means, a plurality of receiving means on said support member displaced from one another and from said transmitting means longitudinally of said support member, electrical indicating means connected to said receiving means, and electric energy-blocking means on said support member in the vicinity of said transmitting means for impeding the flow of electric energy which would normally follow paths through said fluid only during operation of the logging apparatus, said energy-blocking means being further characterized by having a maximum energy-impeding effect for a predetermined longitudinal distance from said transmitting means and an energy-impeding effect which diminishes from said maximum as the longitudinal distance from said transmitting means increases in the direction of the receiving means most remote from said transmitting means.

2,842,736
POLAROGRAPH

Josef W. Heyd, Dayton, and Philip E. Ohmart, Cincinnati, Ohio, assignors to the United States of America as represented by the United States Atomic Energy Commission

Application April 7, 1954, Serial No. 421,715
3 Claims. (Cl. 324—30)



3. An improved polarograph for recording the current flow between a pair of inert electrodes in solution and the polarographic electrode-solution potential, and providing improved means for continuously varying the potential

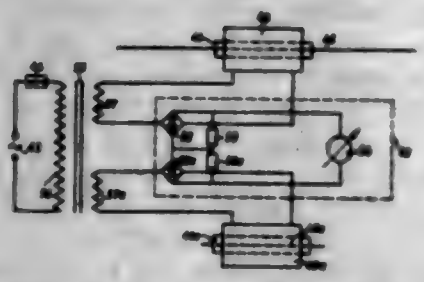
of one electrode while maintaining that of the other electrode substantially constant and for compensating for polarization effects, comprising a reaction vessel, a solution disposed therein, first and second electrodes contacting said solution, a reference half cell, a salt bridge immersed in said solution and connected to said half cell, a point of constant reference potential, an impedance connecting said half cell to said reference point, an electrical connection between said polarographic electrode and said point, an electric discharge device, having at least anode, grid, and cathode electrodes, a current source for energizing said device, means for coupling the cathode of said device to either electrode immersed in said solution, means for deriving a continuously varying potential, means for electrically combining said potential with the potential developed across said impedance, means for applying said combined signals to the grid of said device to control the current therethrough and through said solution, and means for measuring and recording continuously the polarographic electrode-solution voltage and the current through said solution.

2,842,737

CONTINUOUS THICKNESS GAUGE FOR FERROMAGNETIC MATERIALS

István Zoltán, Budapest, Hungary, assignor to Villamosipari Kozponti Kutato Laboratorium, Budapest, Hungary, a Hungarian research institute

Application February 28, 1955, Serial No. 490,876
Claims priority, application Hungary February 27, 1954
15 Claims. (Cl. 324—34)



1. In an apparatus for electromagnetically gauging cross-sectional areas of ferromagnetic materials, in combination, magnetizing coil means, path means for guiding the material to be gauged within said magnetizing coil means, electro-magnetic means adapted to set up a homogeneous alternating magnetic field within said magnetizing coil means so as to have a magnetic flux induced in and dependent on a cross-sectional area of said material, a pair of yoke means symmetrically arranged along said path means for conducting said magnetic flux so as to have said alternating magnetic field rendered homogeneous by means of confining it to a preselected spacial extension, electric means adapted to derive an electric signal characteristic of said cross-sectional area from the magnetic flux induced in said material, and indicator means for indicating said electric signal.

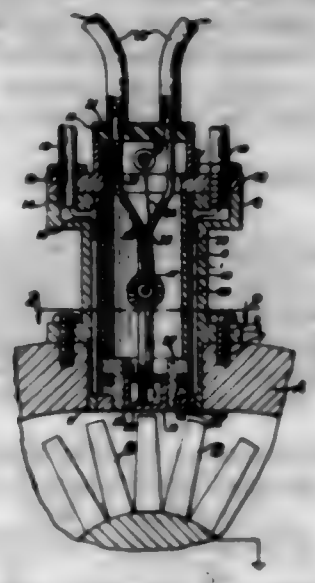
2,842,738

CAPACITANCE PROBE

Alan Warnick, Detroit, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application April 5, 1956, Serial No. 576,432
6 Claims. (Cl. 324—61)

1. A high temperature capacitance clearance probe comprising; an electrode housing having an inner wall and an outer wall, an annular coolant passage between said walls extending substantially the entire length of the housing, a sensing electrode having an inner coolant chamber and an active face disposed within said housing in such a manner as to enable said active face to sense metal adjacent the lower end of the probe, annular insulation means disposed about said electrode and releasably secured within said housing, a second coolant passage comprising an inlet tube leading to said inner coolant chamber and an outlet tube leading from said



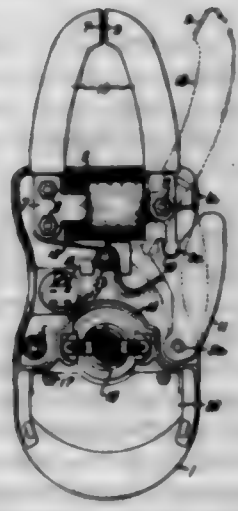
inner coolant chamber whereby the active face and the inner periphery of said insulation means are maintained at constant temperature by coolant flowing in the passage.

2,842,739

CLAMP VOLT-AMMETER

Francis X. Lamb, East Orange, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application June 6, 1955, Serial No. 513,428
2 Claims. (Cl. 324—127)



1. In a clamp-type meter, a two part case comprising a domed front case section and a complementary domed back case section, means for securing the two case sections together, a tong of laminated soft iron of approximately L-shape having a short straight leg, a winding on the short straight leg of said tong, means anchoring said tong to said case with the short leg thereof and said winding within the case and with the longer tong leg extending from the end of said case, a movable tong of laminated soft iron, means pivotally connecting said movable tong to the outer end of the short leg of said first tong so that it cooperates with the longer leg of the anchored tong, said movable tong extending inwarly beyond the pivotal connection and terminating in a cylindrical portion, a trigger extending longitudinally of and protruding from said case, said trigger being connected by a pivot to said case adjacent the trigger end which is remote from said tong, said trigger having an inner side surface extending diagonally longitudinally inward with respect to the longitudinal axis of said trigger and toward the tongs, said trigger also having a part with a recess in which the cylindrical portion of said movable tong is seated, the adjacent sides of said case sections being cut back to provide a recess for inward movement

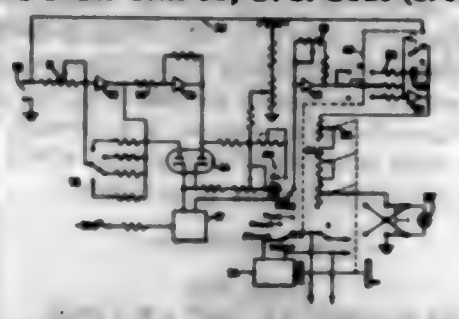
of said trigger to actuate the movable tong to open position, and a trigger return spring within said case having a coiled intermediate section encircling a fixed stud located between the longer leg of said tong and the trigger pivot, one end of said spring bearing against the anchored tong and the other end slidably engaging said diagonal inner side surface, whereby as said trigger is pressed inward of the case, the place of engagement with said other spring end moves toward the trigger pivot, thereby correspondingly decreasing the amount of force required to hold said trigger in an inner position, as compared with the force initially required to move the trigger to that position.

2,842,740

ELECTRONIC VOLTMETERS

David W. Sparks, Westfield, Ind., assignor to the United States of America as represented by the Secretary of the Navy

Application November 4, 1953, Serial No. 390,259
11 Claims. (Cl. 324—120)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A voltmeter comprising an input circuit, means coupled to said input circuit for obtaining a positive and a negative component of a voltage applied to said input, said components having the same amplitude, rectifier means coupled to said first-mentioned means for rectifying said components, voltage squaring means fed by said rectifier means, integrating means fed from said voltage squaring means, meant coupled to said integrating means for varying the output voltage of said integrating means at a constant rate with time, means connected to said last-mentioned means and indicating the square root of the resulting output to give the root-mean-square value of said input voltage.

2,842,741

PORTABLE ELECTRICAL TESTING INSTRUMENT WITH PROD RETAINING CASE

Leon L. Shaddox, Kalamazoo, Mich., assignor, by mesne assignments, to Square D Company, Detroit, Mich., a corporation of Michigan

Application October 29, 1951, Serial No. 253,664
3 Claims. (Cl. 324—149)



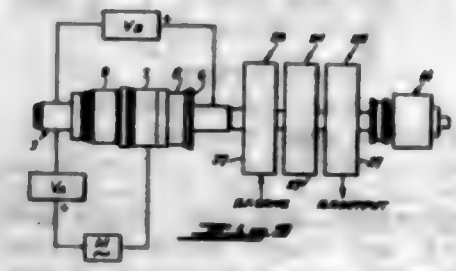
1. A case for an electrical instrument provided with a flexible lead extending from the instrument to a lead end face of an elongated insulating handle and electrically connected at the handle to a prod extending from an opposite prod end face of said handle, said lead and prod end faces defining spaced lead and prod shoulder areas, respectively, said case comprising walls defining an elongated passage extending through said case, a rigid stop intermediate of the ends of said passage, said passage being adapted to telescopically receive at least portions of said handle on opposite sides of said stop, selectively, said stop being adapted to engage said prod shoulder area with at least a portion of said prod within said passage when said handle is inserted into said passage on one side of said stop and to engage said lead shoulder area when said handle is inserted into said passage on the other side of said stop, and a continuous slot in said case opening into said passage along the entire length thereof on both said one and said other sides of said stop to permit said lead to enter transversely into said passage when said handle is inserted into said passage on said other side of said stop with said lead end face directed toward said stop, a lengthwise portion of said slot on said one side of said stop being offset circumferentially of said passage from another lengthwise portion of said slot on said one side of said stop.

2,842,742

MODULATED BEAM-TYPE ELECTRON TUBE APPARATUS

Donald H. Preist, Mill Valley, Calif., assignor to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California

Application April 29, 1954, Serial No. 426,530
9 Claims. (Cl. 332—7)



1. A modulating circuit including a klystron comprising an elongated evacuated envelope, a cathode at one end of the envelope for initiating an electron beam, cavity resonators having metal end walls spaced along the envelope axis and forming portions of said envelope, metal drift tube sections connected to said resonator end walls and providing intermediate wall portions of the evacuated envelope, one of the drift tube sections extending towards the cathode and forming a reduced neck portion between a first of the resonators and the cathode end of the envelope, a main anode mounted on the electron receiving end of the last mentioned drift tube section, an apertured modulating anode interposed between the cathode and main anode, and modulating means connected to said modulating anode.

2,842,743

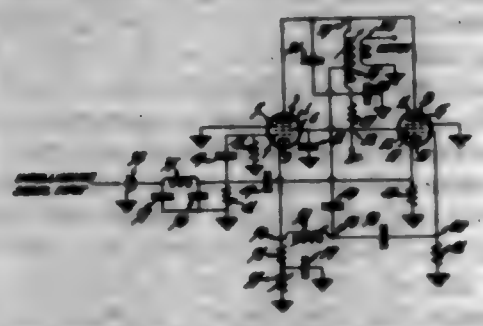
FREQUENCY MODULATOR

Charles E. Peterson, Haddonfield, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army

Application March 1, 1957, Serial No. 643,296
12 Claims. (Cl. 332—23)

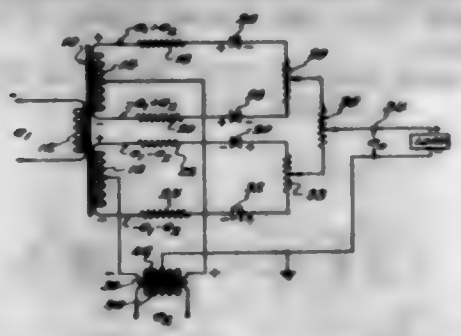
1. A modulator comprising first and second vacuum tubes each having a cathode, a grid and a plate, a tuned circuit having a first variable inductance coil and a capacitor in parallel relationship, connections from the plates of said tubes to one end of said tuned circuit, a source of unidirectional potential, means for connecting the positive terminal of said source of unidirectional po-

tential to the other end of said coil, a series connection of a second variable inductance coil and a capacitor coupled between the cathode of the first tube and the grid of the second tube, a connection from a tap on the coil of said tuned circuit to the junction between said second



variable inductance coil and said last capacitor, individual resistors connecting the cathode of said first tube and the grid of said second tube to a point of reference potential, an input circuit, and means to couple said input circuit both to the grid of said first tube and the cathode of said second tube.

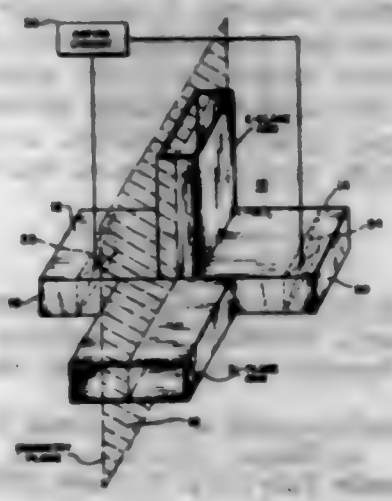
2,842,744
BALANCED MODULATOR CIRCUIT
Robert L. Frank, Great Neck, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application December 30, 1955, Serial No. 556,621
4 Claims. (Cl. 332—47)



3. A single-ended modulator circuit comprising first, second, third, and fourth unilaterally conductive two-terminal elements, means for coupling one terminal of each of said elements to a first common output terminal, the first and fourth elements being arranged to conduct current toward said first output terminal and the second and third elements being arranged to conduct current away from said first output terminal, means for producing alternating current signals of opposite phase in response to a first input signal, means for producing alternating current signals of opposite phase in response to a second input signal, means for applying one phase of the first signal to the other terminals of the first and third elements, means for applying the other phase of the first signal to the other terminals of the second and fourth elements, means for applying one phase of the second signal to the other terminals of the first and second elements, and means for applying the other phase of the second signal to other terminals of the third and fourth elements whereby each phase of said alternating current signals is applied to said first output terminal by a respective one of said unilaterally conductive elements.

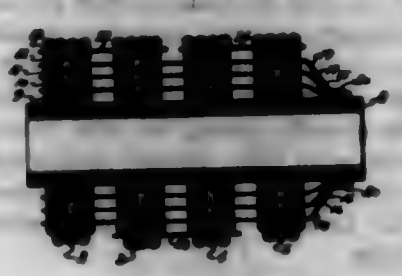
2,842,745
WAVEGUIDE SWITCH
Gordon L. Burton, Harvard, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application January 24, 1956, Serial No. 564,625
7 Claims. (Cl. 333—7)

1. In combination with a magic T waveguide duplexer having its colinear side arms short-circuited in planes equidistant from the plane of symmetry and having radio-frequency energy of prescribed wavelength coupled to its H-plane arm, means for phase commutating the radio-frequency energy coupled to the E-plane arm of said magic T comprising, normally open short-circuiting means positioned in each of said colinear arms, means for alternately activating said short-circuiting



means, said short-circuiting means being positioned relative to said plane of symmetry such that energy is coupled in one prescribed phase to said E-plane arm when one of said short-circuiting means is activated, and 180° out of phase with said prescribed phase when the other of said short-circuiting means is activated.

2,843,746
ELECTRICAL DELAY LINE
Robert M. Jones, Atherton, Calif., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application May 9, 1955, Serial No. 506,852
2 Claims. (Cl. 333—29)

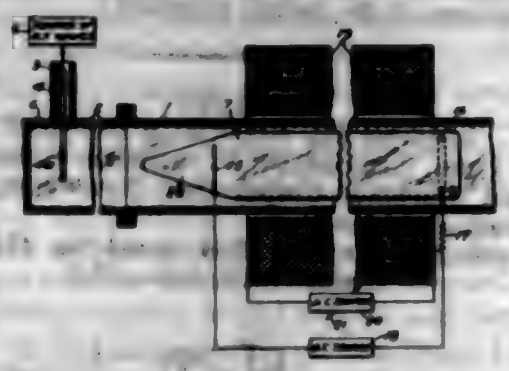


1. An electrical delay line comprising a plurality of axially spaced-apart winding sections electrically connected in series, each of said winding sections consisting of a plurality of winding layers disposed successively one upon another, a first electrically conductive strip extending through said winding sections between adjacent ones of said winding layers, a second electrically conductive strip extending through said winding sections between adjacent ones of said winding layers, and means for connecting said first conductive strip to ground, said second conductive strip being electrically floating with no direct circuit connections.

2,843,747
SELF-TRIGGERED MICROWAVE ATTENUATOR
Murray A. Lampert, Brooklyn, N. Y., and John F. Heney, Bloomfield, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application September 3, 1954, Serial No. 454,879
7 Claims. (Cl. 333—81)

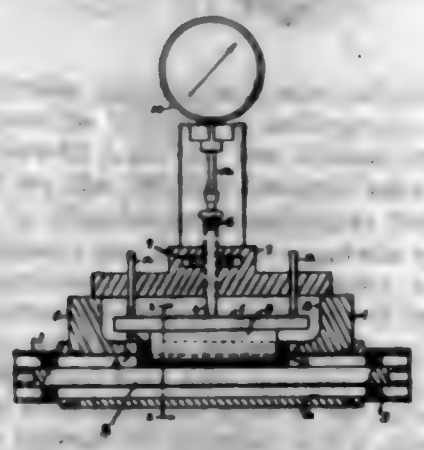
1. A power limiting attenuator comprising an electromagnetic waveguide, a body of ionizable gaseous medium having a given ionization level contained within said waveguide, means to launch electromagnetic energy in only a single mode in said waveguide and through said gaseous medium, said electromagnetic energy having a power level at least equal to said given ionization level to ionize said gaseous medium, and means to produce a magnetic field

in said gaseous medium having a value to establish gyro-resonant absorption of said electromagnetic energy in said



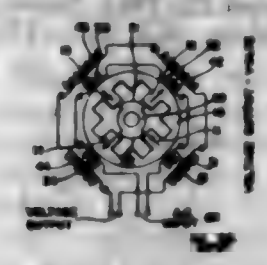
ionizable gaseous medium to limit said electromagnetic energy passing therethrough to a given power.

2,842,748
COAXIAL CABLE ATTENUATOR
Lucio M. Vallese, Brooklyn, N. Y., assignor to Polytechnic Institute of Brooklyn, Brooklyn, N. Y., a corporation of New York
Application June 7, 1955, Serial No. 513,815
3 Claims. (Cl. 333—81)



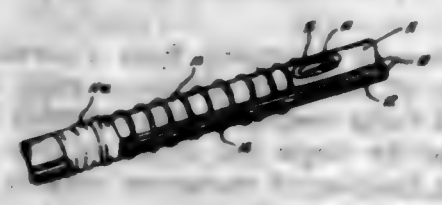
2. A variable attenuator comprising a coaxial cable section having a tubular outer conductor and a center conductor, a sheet of resistive material arranged longitudinally within the annular space between said conductors and being conductively connected along opposite longitudinal edges of said inner and outer conductors respectively, and means including a conductive sheet mounted to move into closely spaced over-lapping relation with said resistive sheet but out of conductive contact therewith for shunting energy around a variable portion of said resistive sheet.

2,842,749
DYNAMO ELECTRIC DEVICE
Charles R. Bonnell, Columbia Heights, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application September 4, 1953, Serial No. 378,456
13 Claims. (Cl. 336—135)



9. A dynamo electric device comprising: a stator having four symmetrically disposed poles, a movable element of magnetic material mounted within the stator and having a neutral position with respect to the poles, the movable element being capable of limited movement from said neutral position, a first set of windings mounted on all four poles of said stator and connected such that the sense of diametrically opposed windings are the same and the sense of windings 90 degrees displaced therefrom are reversed from said first named windings, said first set of windings being energized from an alternating current source of power, and a plurality of secondary windings mounted respectively on said four poles of said stator and adapted to have a signal voltage induced therein from said windings of said first set.

2,842,750
GEOPHONE CABLE
Clifton O. Randall and Lawrence D. Zepernick, Houston, Tex., assignors to Vector Manufacturing Company, Houston, Tex., a partnership
Application January 5, 1954, Serial No. 402,298
3 Claims. (Cl. 339—151)



1. A geophone cable comprising, a plurality of separately insulated wires in a common sheathing, a flexible length of wire formed in continuous S-turns, said flexible length of wire providing a terminal and extending along and overlying a portion of the sheathing on one side of a plane passing through the cable and extending in the direction thereof, said terminal being in electrical communication with one of said insulated wires, and means securing each end of the terminal to the sheathing.

2,842,751
GEOPHONE CABLE
Kenneth W. McLeod, Houston, Tex., assignor to Vector Manufacturing Company, Houston, Tex., a partnership
Application March 22, 1957, Serial No. 647,852
6 Claims. (Cl. 339—151)

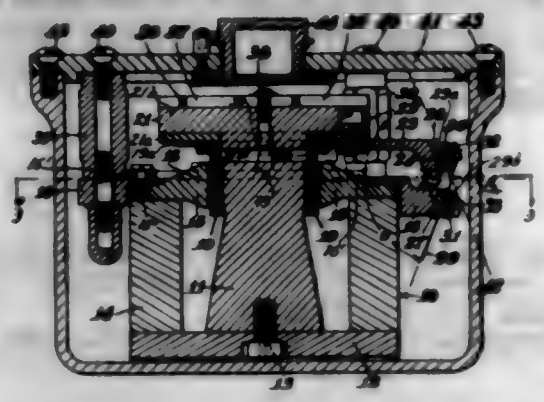


3. A geophone cable comprising, a plurality of separately insulated wires in a common sheathing, a wire extending along and overlying the sheathing to provide a terminal, said wire having portions extending transversely of the cable to provide for expansion and contraction of the terminal, means electrically connecting the terminal means to one of the insulated wires, a boot of flexible insulating material overlying the terminal means, a window in the boot exposing a portion of the terminal means, and a rigid support between the sheathing and terminal, said support underlying the window and having corrugations extending parallel to and receiving the transversely extending portions of the wire to support the wire and lock the support against movement lengthwise of the cable.

2,842,752
GEOPHONES
William Melancthon Jones, Nottingham, England, assignor to The British Petroleum Company Limited
Application August 12, 1954, Serial No. 449,300
Claims priority, application Great Britain September 9, 1953
9 Claims. (Cl. 340—17)

1. A low frequency, moving coil geophone comprising a magnet having an annular magnetic airgap, an inertia mass, a coil secured to the inertia mass, and a single leaf

spring which is flexed but which in its normal, unflexed, state is flat, one part of the leaf spring being secured relatively to the inertia mass and another part being secured relatively to the magnet, the leaf spring being flexed, by the weight of the inertia mass and coil, between



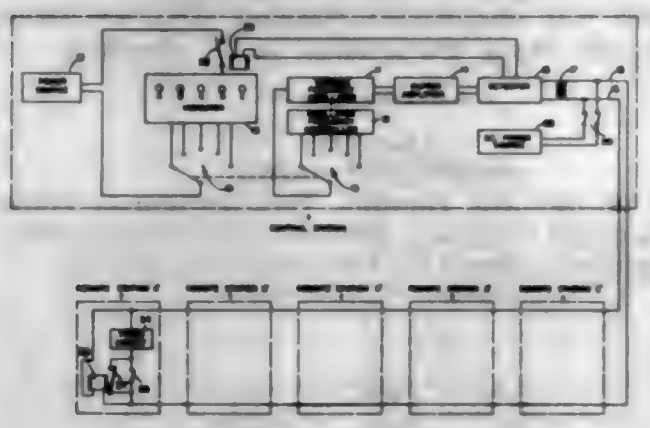
the parts where it is secured, from a normally flat state into a state of curvature without a point of inflection, and the coil being concentrically suspended in the airgap by means of the single leaf spring in such manner that the coil has freedom of movement only in the direction of the axis of the airgap.

2,842,753

MONITORING SYSTEMS

Harold I. Ewen, Cambridge, Mass.

Application June 8, 1954, Serial No. 435,302
3 Claims. (Cl. 340—171)



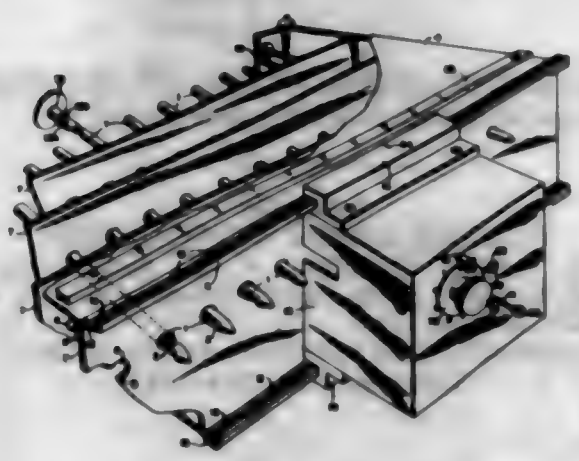
1. The combination with a plurality of switch elements each located at a remote station of a system for determining the individual conditions of said switch elements comprising: at a central station, a plurality of indicator circuits corresponding to said switch elements, respectively; a power source; a first multi-pole selector switch coupled between said power source and said indicator circuits; a variable frequency oscillator operable at a plurality of frequencies; an oscillator frequency controller coupled to said oscillator and including a second multi-pole selector switch for selectively controlling the operating frequency of said oscillator, said first selector switch being synchronized with said second selector switch; and, associated with said remote stations, a corresponding plurality of series resonant tuned circuits, said tuned circuits having resonant frequencies equal to said plurality of operating frequencies, respectively, and respective ones of said tuned circuits being coupled to said oscillator through respective ones of said switch elements; said combination including detection means at said central station coupled between said tuned circuits and said oscillator for sensing a change in the load condition of said oscillator when one of said switch elements is closed and when the operating frequency of said oscillator is made equal to the resonant frequency of the tuned circuit coupled to said oscillator through the closed one of said switch elements; and means also located at said central station responsive to said detection means to couple to said power source a selected one of said indicator circuits, said one of the indicator circuits corresponding to said one of the switch elements.

2,842,754

MAGNETIC STORAGE DEVICE

Hans P. Luhn, Armonk, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 24, 1954, Serial No. 431,920
4 Claims. (Cl. 340—174)



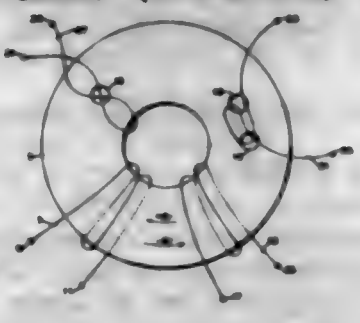
1. A device for recording, storing, selecting and reproducing data comprising a plurality of magnetic rods of circular cross section and having a plurality of parallel recording tracks disposed side by side on the surface of said rods and extending longitudinally of the latter; a magazine for storing said rods; a unit comprising a motor, feed rolls, a rotatably mounted electromagnetic transducer, means for rotating said transducer selectively to positions adjacent said tracks, a clutch for connecting said motor in driving relation with said feed rolls, said clutch being reversible for driving said feed rolls in either direction selectively, a first member for moving a selected one of said rods into said rolls for feeding said rod past said transducer to a position beyond said rolls, a second member for moving a rod from said last position into said rolls for feeding said rod past said transducer in the opposite direction and a member movable for engaging said clutch for selectively rotating said feed rolls in either direction and for actuating said first and second members selectively according to the direction of rotation of said feed rolls; means slidably supporting said unit for movement selectively to positions adjacent the ends of said rods; and means including said transducer for selectively recording data on and reproducing data from a selected track of a selected rod as said rod is fed past said transducer.

2,842,755

TERNARY MAGNETIC STORAGE DEVICE

Richard C. Lamy, Hyde Park, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application August 25, 1955, Serial No. 530,522
6 Claims. (Cl. 340—174)



5. An information storage device comprising a closed magnetic circuit capable of assuming a first and a second

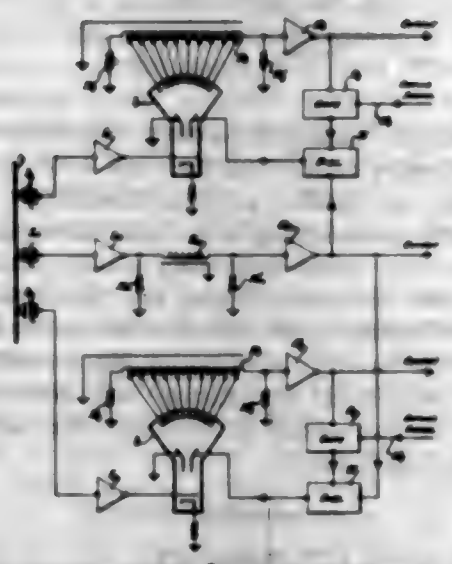
state of remanent flux, an input winding positioned about said circuit and effective when energized to selectively condition said magnetic circuit to said first or said second state of remanent flux, an output winding positioned about said circuit in which voltages are induced by changes in the net flux in said magnetic circuit, a pair of spaced openings positioned in said magnetic circuit, a sampling winding wound through said openings and effective when energized to create a sampling flux in said magnetic circuit, said sampling flux inducing a voltage in said output winding indicative of the sense of the remanent flux in said core, a single opening positioned in said magnetic circuit, and an inhibiting winding wound through said single opening and about said magnetic circuit in a figure 8 configuration, said inhibiting winding being effective when energized to inhibit said sampling winding from producing an output voltage of relatively large magnitude in said output winding.

2,842,756

PHASE CORRECTION FOR MULTIPLE TRACK RECORDINGS

Wayne R. Johnson, Los Angeles, Calif., assignor, by mesne assignments, to Minnesota Mining & Manufacturing Co., St. Paul, Minn., a corporation of Delaware

Application July 19, 1956, Serial No. 598,928
2 Claims. (Cl. 340—174)



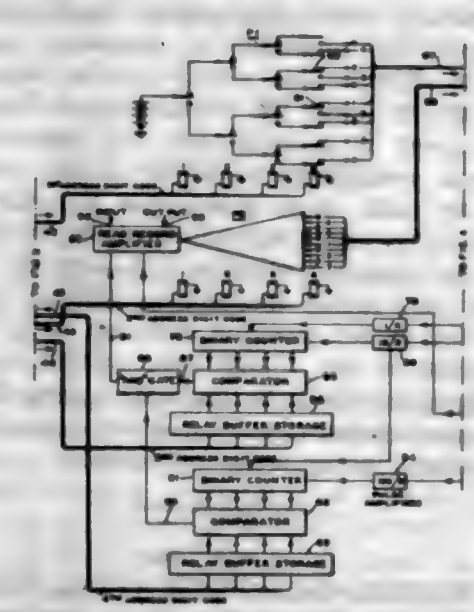
1. A flutter compensator for maintaining in fixed phase relationship between signals reproduced from simultaneously made recordings on a plurality of tracks on a moving recording medium, the signals on each track including simultaneously recorded periodically recurring time reference signals, which comprises the elements designated as elements (*a*) to (*i*) and defined as follows: (*a*) a master reproducing channel including a transducer head adapted to engage one of said tracks and translate signals recorded thereon into electrical waves; (*b*) a slave channel also including a transducer head for translating signals recorded on another of said tracks into electrical waves; (*c*) a delay line connected in the channel of element (*a*) to delay signals picked up by the transducer head therein for a fixed interval; (*d*) a second delay line provided with taps substantially uniformly spaced along the length thereof; (*e*) terminating impedances matching the characteristic impedance of element (*d*); (*f*) electronic switching means operative to connect element (*b*) to a selected one of said taps on element (*d*) in response to a control voltage applied thereto; (*g*) means for selecting from signals passing through elements (*c*) and (*d*) a time reference signal included therein; (*h*) means for comparing the time phase of pulses selected by element (*g*) and developing therefrom a control voltage varying in polarity and magnitude with the direction and magnitude of the time difference in said reference signals; (*i*) connections for applying said control voltage to said electronic switching means to connect element (*b*) the tap on element (*d*) which will minimize the time discrepancy between the reference signals received by element (*h*).

2,842,757

SYSTEM FOR DATA STORAGE INDEXING

James Evans, Flushing, N. Y., assignor to The Teleregister Corporation, Stamford, Conn., a corporation of Delaware

Application September 24, 1956, Serial No. 611,624
9 Claims. (Cl. 340—174)



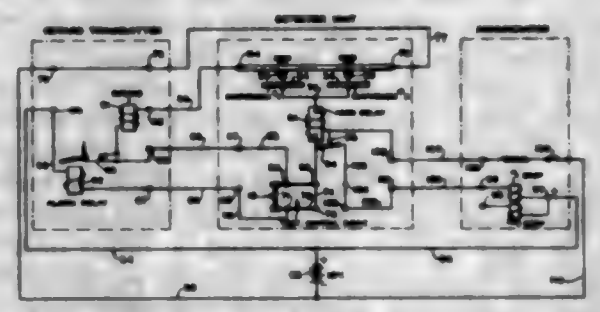
2. In a data processing system in which a large number of inventory items respectively are designated by different groups of characters, signal storage means having different portions respectively for storing signals representing the values of the different inventory items, selection apparatus controlled by character code signals for selecting a portion of the storage means corresponding to a desired inventory item, and means for effecting the selection of an item by utilizing a smaller number of characters than those in the item-designating group, comprising means for producing and temporarily storing signals representing each of the characters in said item-designating group, means for producing signals representing a predetermined added coding character and circuit means operative in response thereto for selecting only certain ones of the temporarily stored characters of the item-designating group and disregarding the remaining characters of the group, and means controlled by the combination of said added coding character and said selected ones of the item-designating characters for causing said selection equipment to select the proper storage portion of the storage means.

2,842,758

DETECTOR UNIT

Joseph L. Cassell, New York, N. Y., assignor to Automatic Fire Alarm Company, New York, N. Y., a corporation of New York

Application March 5, 1954, Serial No. 414,442
4 Claims. (Cl. 340—229)



1. Aero detector unit comprising in combination with aero tubing having diaphragms at opposite ends of same,

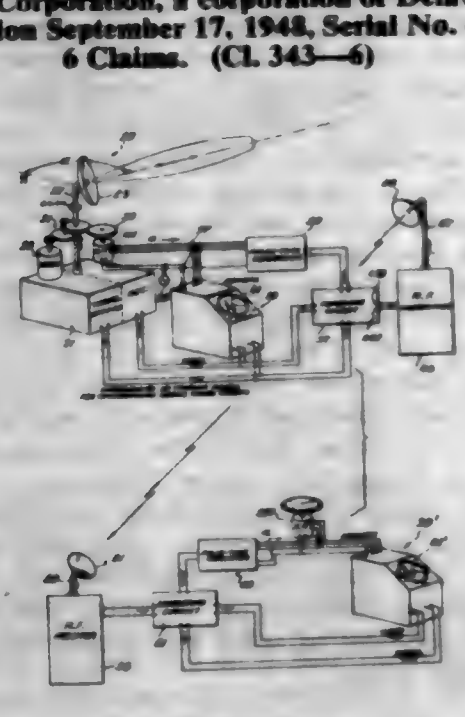
signal switches operable by said diaphragms and test valves for testing the aero connections, change-over switch mechanism for converting the unit from normal operating to test conditions and back to normal operating, an enclosure for said diaphragms, signal switches, test valves and change-over switch mechanism and including a door openable to afford access to said parts and closeable to protect said parts, said change-over switch mechanism including a spring projected switch button in the enclosure arranged to stand in the projected relation when the switch mechanism is in the on test position and to be depressed when said switch mechanism is in the normal operating position, an abutment on the cover arranged to depress said switch button when the cover is closed and to leave the switch button free to project when the cover is opened, stops for preventing closing of the cover retractably mounted in the enclosure and retainers for said stops positioned by said test valves when said valves are in normal operating position to hold the stops in retracted relation and whereby on opening said cover said switch mechanism will be automatically placed in the on test position and said cover may not be closed to return the change-over switch mechanism to normal operation until the test valves have first been returned to the normal operating position required to hold the cover stops in the retracted relation.

2,842,759

REMOTE RADAR INDICATING SYSTEM

David E. Kenyon, Huntington, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application September 17, 1948, Serial No. 49,723
6 Claims. (Cl. 343—6)



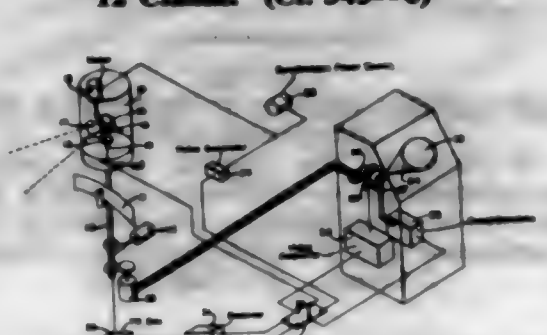
6. A remote radar indicating arrangement, comprising; a radar object distance and direction determining system including a pulse transmitter, a receiver and a directive scanning antenna; a radio data transmitting system coupled to said radar system for transmitting data therefrom to a distant point, said radio data transmitting system comprising means for producing a radio frequency carrier, means for pulse modulating said carrier in one sense synchronously with radar pulse transmissions, means for modulating said carrier in said first sense but to a lesser degree according to variations of output voltage of said radar receiver, and means for modulating said carrier in a sense different from said first sense according to variation of the angular direction of aiming of said directive scanning antenna; a presentation oscilloscope for operation at said remote point; and a radio data receiving system for operation at said remote point, said receiving system comprising means for detecting said carrier to recover the modulations thereof, means for selecting the demodulation components due to modulation in said first sense and producing range sweeps in said oscilloscope timed according to modulation excursions in said first sense exceeding a predetermined extent and varying intensity of the oscilloscope beam according to the variations of intensity less than said predetermined extent, and means for selecting the demodulation component due to modulation in said second sense and sweeping said oscilloscope beam in a direction non-parallel with the direction of said range sweeping according to this demodulation component.

2,842,760

OBJECT LOCATING APPARATUS

John L. McLucas, State College, Pa., assignor to Haller, Raymond and Brown, Inc., State College, Pa., a corporation of Pennsylvania

Application May 6, 1953, Serial No. 353,401
12 Claims. (Cl. 343—6)



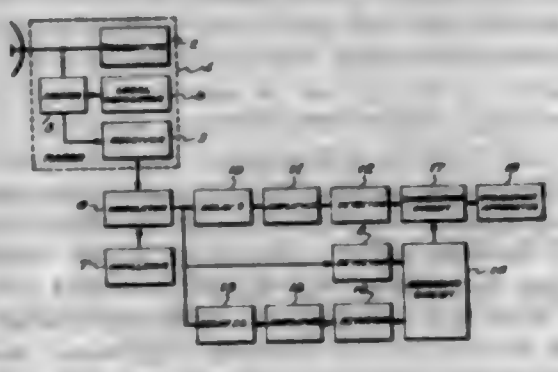
1. An object locating system comprising rotatable means carrying a radar antenna and a facsimile pick-up head, a radar set having a radar transmitter and a radar receiver both cooperating with said antenna, a cathode ray tube having beam deflecting means, means cooperating with the rotatable means and the beam deflecting means for effecting synchronous rotation of the rotatable means and the beam, said tube having a control grid, and means for selectively energizing said control grid with the output of the radar receiver or the output of said facsimile pick-up head.

2,842,761

MOVING TARGET INDICATOR RADAR SYSTEM

John W. Downs, Glen Cove, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application January 12, 1953, Serial No. 330,668
18 Claims. (Cl. 343—7.7)

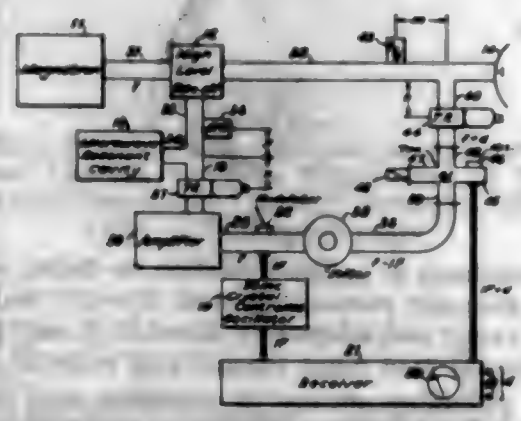


1. In a pulse radar system having a certain pulse repetition frequency, means to receive reflected signals, moving target detector means connected to said receiving means comprising means to delay said signals at least one cycle of said repetition frequency, subtracting means adapted to be connected to said receiving means and said delay means to subtract delayed and undelayed versions of said received signals, and addition means adapted to be connected to said receiving means and said delay means to integrate delayed and undelayed versions of said received signals.

2,842,763
METHOD AND MEANS FOR MEASURING RELATIVE VELOCITY

John F. Zaleski, Queens Village, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application September 23, 1948, Serial No. 50,861
9 Claims. (Cl. 343—8)

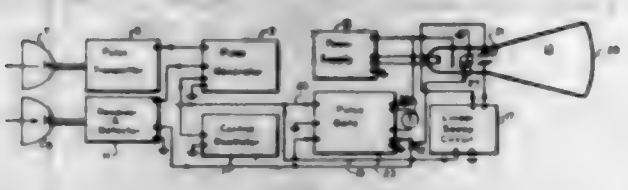


1. In a system for determining the Doppler shift in frequency produced by the transmission, reflection and reception of radiant energy between two relatively moving bodies, a microwave pulse generator on a first body, means for radiating the pulse signals produced by said generator toward a second body for reflection thereby, means for receiving said reflected signals, a microwave-resonant cavity, a circuit connecting said pulse generator and said resonant cavity whereby said resonant cavity is energized by said generated pulse signals resulting in the production of free oscillations within said cavity which endure for a period of time, a mixer, a circuit interconnecting said resonant cavity and said mixer for impressing signals on said mixer having a phase and frequency representative of the phase and frequency of said free oscillations, a circuit for impressing said reflected signals on said mixer whereby a beat frequency signal is obtained, means for deriving an output from said beat frequency signal which is proportional to the difference in frequency of said radiated signals and said received signals and switch means in said circuit connecting said pulse generator and said resonant cavity for preventing the radiation of the free oscillations produced by said cavity.

2,842,763
PULSE RECEIVING SYSTEMS

Horace Myrl Stearns, Baldwin, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application March 12, 1942, Serial No. 434,403
2 Claims. (Cl. 343—13)

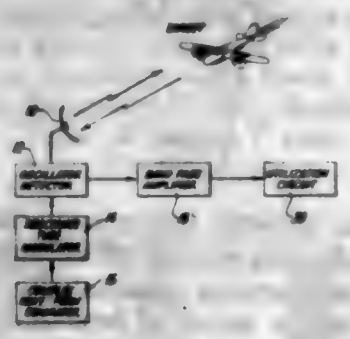


1. In a system for receiving a first periodic wave having variable phase recurring pulses, the combination comprising a source of oscillations of the same frequency as the repetition rate of said pulses, means for adjusting the phase of said oscillations, means for deriving a second periodic pulse wave from said phase-adjusted oscillations, means for delaying said second pulse wave by an amount whereby corresponding ones of said derived pulses and said delayed pulses are concurrent and overlap in time for substantially the duration of each of said first pulses, means for controlling said phase-adjusting means in response to lack of phase correspondence between said first pulse and said overlap so as to maintain said correspondence, and means for blocking transmission of said first wave except during one of said derived or delayed pulses.

2,842,764
COLLISION WARNING RADAR

Norman L. Harvey, Eggertsville, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application February 21, 1951, Serial No. 212,088
4 Claims. (Cl. 343—14)

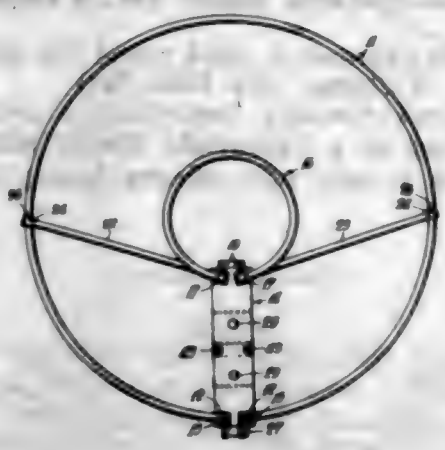


1. Radio ranging apparatus including a combined oscillator and mixer, a frequency modulator coupled to said oscillator, combined radiating and echo-receiving means coupled to said oscillator, and a band-pass filter coupled to said oscillator to abstract heterodyne output therefrom, said band-pass filter being tuned to reject all frequencies outside the band corresponding to the doppler-shift in the echo-signals frequencies received by said antenna from relatively moving objects to be detected, the modulation frequency of said modulator being greater than the half band width of said filter.

2,842,765
TELEVISION ANTENNA

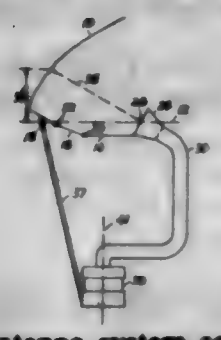
Frank R. Schmitt, Hollis, N. Y.

Application May 24, 1951, Serial No. 227,964
2 Claims. (Cl. 343—726)



1. A television antenna comprising an insulating mount, a substantially circular conductive frame having a pair of adjacent ends affixed to one end of said insulating mount and extending outwardly therefrom, said mount lying in substantially the same plane as said frame and extending radially inward toward the center thereof, a second substantially circular conductive frame also having a pair of adjacent ends affixed to said mount and extending outwardly therefrom near the inner end thereof, said second frame being of smaller diameter than said first frame and lying in substantially the same plane, said frames being clear of said mount except at the affixed ends thereof, a pair of conductive rods affixed at one end respectively to the adjacent ends of said smaller frame and extending in substantially opposite directions, said rods being affixed at their outer ends to the circumference of said larger frame.

2,842,766
BEAM-SHAPING ANTENNA SYSTEMS
Paul T. Hutchison, Watertown, and Paul Hines, Waltham, Mass., assignors to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application July 28, 1950, Serial No. 176,296
2 Claims. (Cl. 343—775)



1. A directional antenna system comprising a segment of a parabolic reflecting surface of revolution about the parabolic axis and forming substantially a half paraboloid of revolution, a series of intersecting flat reflecting surfaces at least one of which is disposed on the side of the parabolic axis opposite said parabolic surface, said intersections being along lines perpendicular to said axis, and a radiating element located adjacent the focal point of said parabolic surface and adjacent said flat reflecting surfaces, said element being directed at a point on the parabolic surface above said axis for illuminating said surface with electromagnetic energy, said flat reflecting surfaces being interceptive of a substantial portion of the energy radiated from said radiating element, said parabolic and flat reflecting surfaces terminating in each other to form an antenna whose energy distribution varies substantially as the square of the cosecant of the angle measured from said parabolic axis.

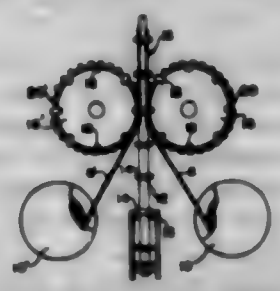
2,842,767
PARABOLIC REFLECTOR WITH A STRUCTURAL MEMBER FRONT SKIN
John L. Darrouzet, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application February 3, 1954, Serial No. 407,937
3 Claims. (Cl. 343—781)

2. An antenna assembly comprising a parabolic reflector consisting of a lightweight fibrous material impregnated with a resin, said reflector having a metallic layer therein and describing a peripheral flange, and a concave structural reinforcing member consisting of a lightweight fibrous material impregnated with a resin and having a peripheral flange, said flanges being joined together whereby said reflector and said member have their



concave surfaces in opposed relation to define an internal cavity, waveguide means projecting through said reflector into said cavity and adapted to direct R. F. energy from a predetermined feed point toward said reflector, and said member providing means to maintain said waveguide means in a fixed position relative to said reflector.

2,842,768
EXTENSIBLE ANTENNA
Herbert H. Halperin, Wantagh, N. Y., assignor to Sterling Precision Instrument Corporation, Flushing, N. Y.
Application July 13, 1955, Serial No. 521,769
11 Claims. (Cl. 343—877)



1. An extensible apparatus comprising in combination: a flexible elongated core member, a plurality of key members attached to said core member in spaced relationship to each other and a plurality of elongated flexible tape members having perforations adapted to receive said key members in an interference fit, said core member and said tape member being arranged in parallel relationship with said core member with said key members extending through said perforations.

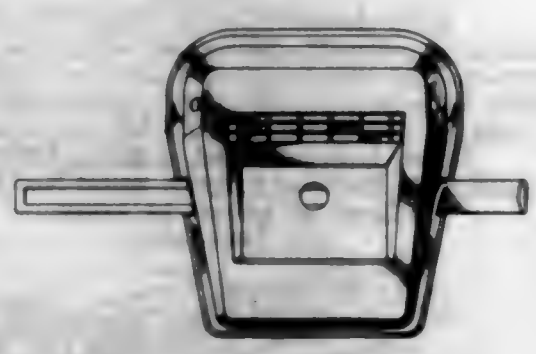
DESIGNS

JULY 8, 1958

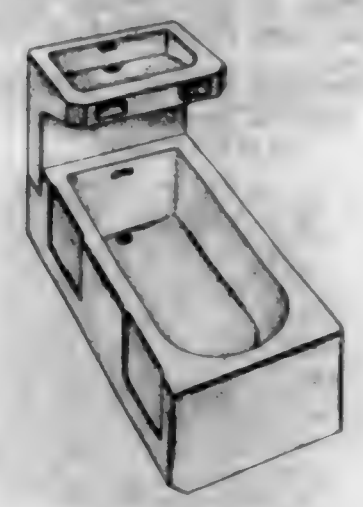
183,154
PUNCH
Vytant Aleks, Rockford, Ill., assignor to Apsco Products, Inc., Los Angeles, Calif., a corporation of Illinois
Application November 12, 1957, Serial No. 48,404
Term of patent 14 years
(Cl. D74—1)



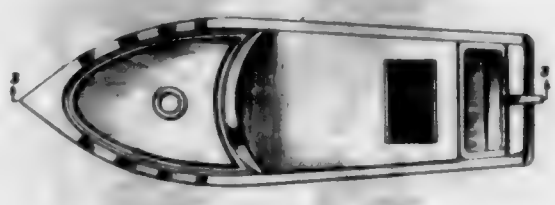
183,155
PUNCH
Vytant Aleks, Rockford, Ill., assignor to Apsco Products, Inc., Los Angeles, Calif., a corporation of Illinois
Application November 12, 1957, Serial No. 48,406
Term of patent 14 years
(Cl. D74—1)



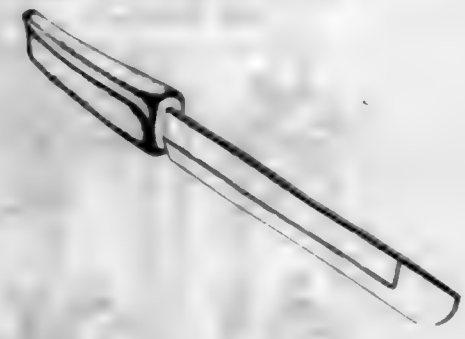
183,156
COMBINED BATH TUB AND BASIN
Ernest Amerio, New York, N. Y.
Application November 26, 1957, Serial No. 48,684
Term of patent 14 years
(Cl. D4—4)



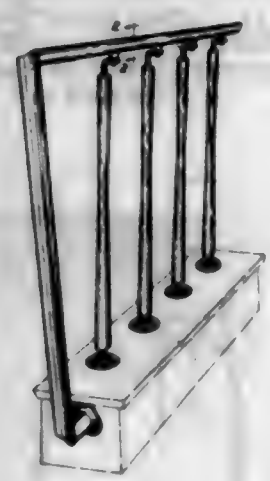
183,157
COMBINED PIPE RACK, TOBACCO RECEPTACLE, ASH TRAY, AND MATCH BOX
Lee Anderson, Glen Rock, Pa.
Application December 5, 1957, Serial No. 48,785
Term of patent 7 years
(Cl. D85—2)



183,158
SCRAPER OR SIMILAR ARTICLE
Ruth A. Bell, Cleveland, Ohio
Application March 16, 1956, Serial No. 40,646
Term of patent 14 years
(Cl. D44—29)



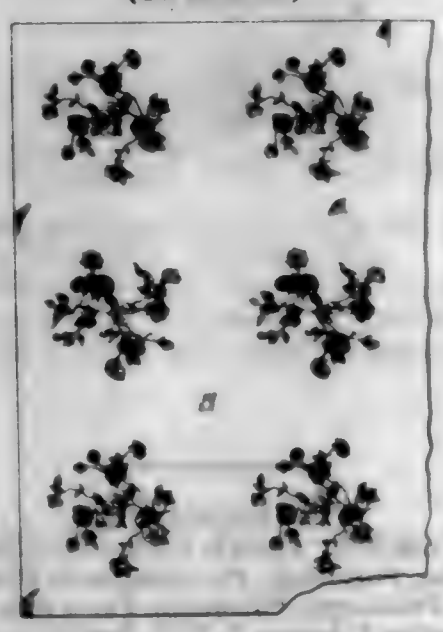
183,159
STAIRWAY HAND RAILING UNIT
Louis Blum, Pittsburgh, Pa., assignor to Blumcraft of Pittsburgh, Pittsburgh, Pa., a firm
Application February 8, 1956, Serial No. 40,078
Term of patent 14 years
(Cl. D13—7)



183,160
TEXTILE FABRIC OR SIMILAR ARTICLE
Sergei Bogdanovich, Carmel, N. Y., assignor to Weil & Durrse, Inc., New York, N. Y., a corporation of New York
Application August 1, 1957, Serial No. 47,188
Term of patent 7 years
(Cl. D92—1)



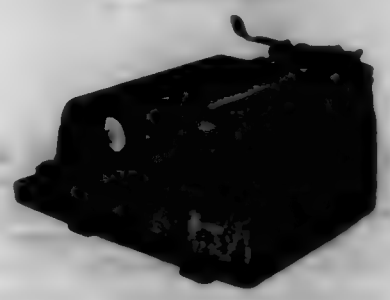
183,161
TEXTILE FABRIC OR SIMILAR ARTICLE
Sergei Bogdanovich, Carmel, N. Y., assignor to Weil & Durrse, Inc., New York, N. Y., a corporation of New York
Application August 1, 1957, Serial No. 47,189
Term of patent 7 years
(Cl. D92—1)



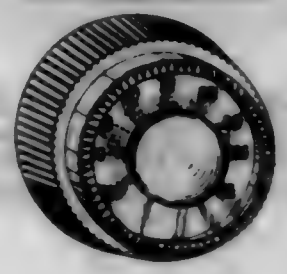
183,162
GROCERY CART STERILIZER
Charles G. Carter, Knoxville, Tenn.
Application June 20, 1957, Serial No. 46,665
Term of patent 14 years
(Cl. D83—1)



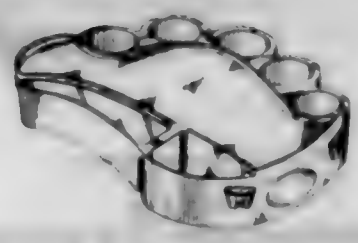
183,163
TYPEWRITER
Laird Covey, Monroe, Conn., assignor to Royal McBee Corporation, Port Chester, N. Y., a corporation of New York
Application February 12, 1957, Serial No. 44,842
Term of patent 7 years
(Cl. D64—11)



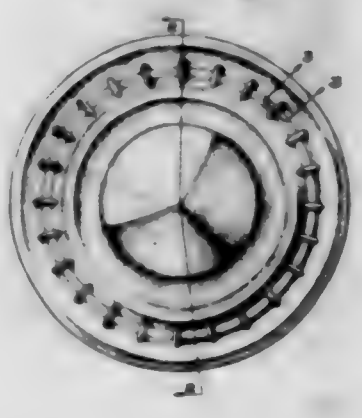
183,164
SPACE CONDITION RESPONSIVE INSTRUMENT
Henry Dreyfuss, South Pasadena, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 17, 1957, Serial No. 46,623
Term of patent 14 years
(Cl. D52—7)



183,165
SERVING TRAY
Sidney L. Fredrickson, Eugene, Oreg.
Application October 1, 1957, Serial No. 47,936
Term of patent 14 years
(Cl. D44—10)



183,166
AUTOMOBILE WHEEL COVER
Charles F. Gitschlag, St. Clair Shores, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application October 10, 1957, Serial No. 48,041
Term of patent 7 years
(Cl. D14—30)



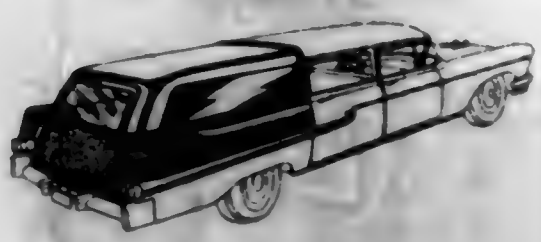
183,167
COMBINATION HAIR BRUSH AND COMB
Alexander H. Gore, Chicago, Ill.
Application January 13, 1958, Serial No. 49,229
Term of patent 14 years
(Cl. D86—8)



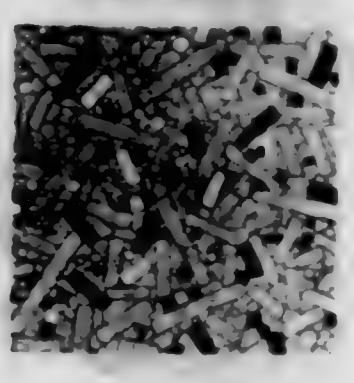
183,168
DECANTER
William E. Herber, Evanston, Ill.
Application April 27, 1956, Serial No. 41,222
Term of patent 3½ years
(Cl. D58—8)



183,169
MULTI-PURPOSE FUNERAL CAR
Willard C. Hess and Charles W. Hartline, Cincinnati, Ohio, assignors to Hess and Eisenhardt Manufacturing Company, Roumoyne, Ohio, a corporation of Ohio
Application January 17, 1958, Serial No. 49,286
Term of patent 14 years
(Cl. D14—17)



183,170
HARD SURFACE FLOOR COVERING OR SIMILAR ARTICLE
Leona G. Kolker, Brooklyn, N. Y., assignor to Congoleum-Nairn Inc., Kearny, N. J., a corporation of New York
Application September 6, 1957, Serial No. 47,644
Term of patent 14 years
(Cl. D92—17)



183,171
TOOL DISPLAY RACK OR SIMILAR ARTICLE
Ben J. Krueger, Chicago, Ill., and John T. Mains, Columbus, Ohio, assignors to The Union Fork and Hoe Company, Columbus, Ohio, a corporation of Ohio
Application November 27, 1956, Serial No. 43,956
Term of patent 14 years
(Cl. D80—9)



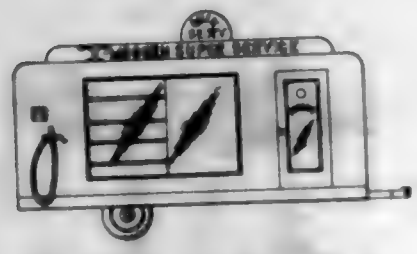
183,172
COLLAPSIBLE TUBE
Reynold B. Kruskopf, St. Paul, Minn.
Application October 7, 1957, Serial No. 47,995
Term of patent 14 years
(Cl. D58—17)



183,173
CONTROL MACHINE FOR RAILWAY CONTROL OR SIMILAR ARTICLE
John W. Logan, Jr., Forest Hills, and Robert A. Woods, Verona, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application March 14, 1957, Serial No. 45,251
Term of patent 14 years
(Cl. D26—5)



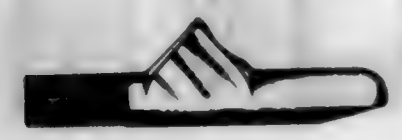
183,174
MOBILE SERVICE STATION
Georges Jacques Miron, Montreal, Quebec, Canada
Application March 18, 1957, Serial No. 45,305
Term of patent 14 years
(Cl. D14—3)



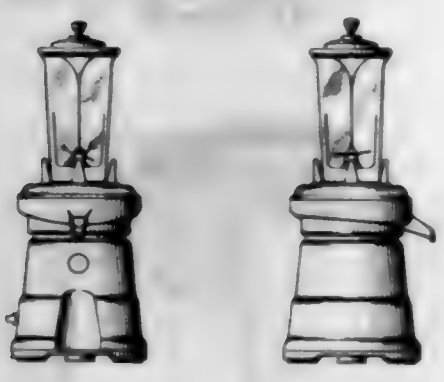
183,175
LOCKER HANDLE
Matt Monaco, Aurora, Ill.
Application May 27, 1957, Serial No. 46,361
Term of patent 14 years
(Cl. D10—8)



183,176
SINGLE SINK FAUCET BODY
René Mornard, St. Lambert, Quebec, Canada
Application September 26, 1957, Serial No. 47,876
Term of patent 14 years
(Cl. D91—3)



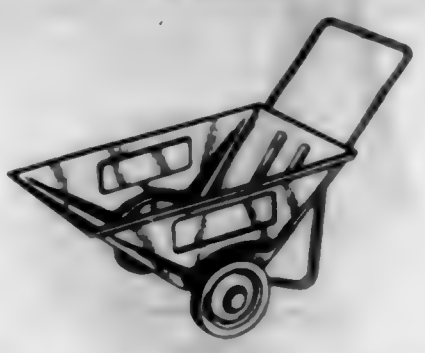
183,177
COMBINED LIQUEFIER AND POWER UNIT THEREFOR
Traugott Oertli, Zurich, Switzerland, assignor to T. Oertli Aktiengesellschaft, Kusnacht-Zurich, Switzerland
Application March 5, 1956, Serial No. 40,448
Claims priority, application Switzerland September 5, 1955
Term of patent 7 years
(Cl. D89—1)



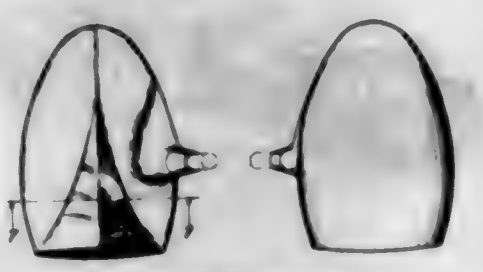
183,178
VACUUM CLEANER
Ralph C. Osborn, Bloomington, Ill., assignor to Trylon Manufacturing Corporation, Brooklyn, N. Y., a corporation of New York
Application November 18, 1955, Serial No. 38,853
Term of patent 3½ years
(Cl. D9—2)



183,179
GARDEN CART
Antonio Pasin, Oak Park, Ill.
Application September 6, 1957, Serial No. 47,621
Term of patent 14 years
(Cl. D14—3)



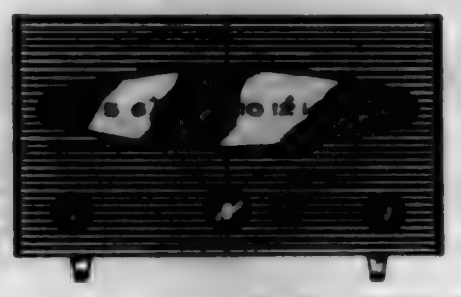
183,180
GOLF CLUB
George Adrian Phillips, Milwaukee, Wis.
Application March 14, 1957, Serial No. 45,255
Term of patent 14 years
(Cl. D34—5)



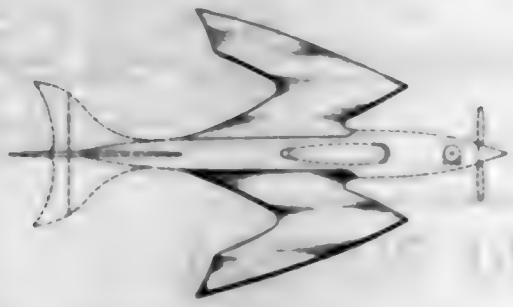
183,181
BARBER CHAIR
Fred J. Piotraschke, Clayton, Mo.
Application November 19, 1957, Serial No. 48,537
Term of patent 14 years
(Cl. D15—3)



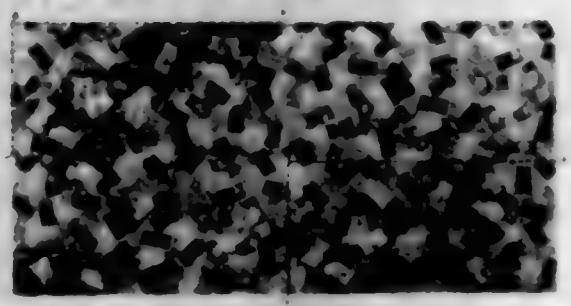
183,182
RADIO CABINET
Jean O. Reinecke, Oak Park, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application January 23, 1957, Serial No. 44,571
Term of patent 7 years
(Cl. D56—4)



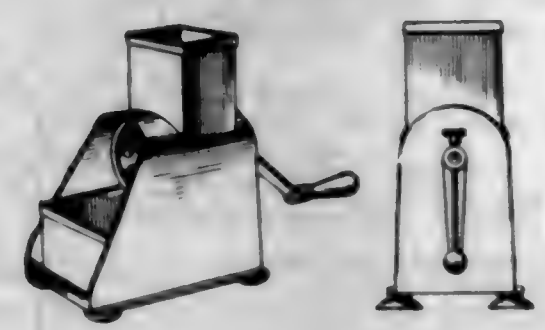
183,183
AIRPLANE
Milton J. Schmidt, Sacramento, Calif.
Application May 29, 1957, Serial No. 46,409
Term of patent 14 years
(Cl. D71—1)



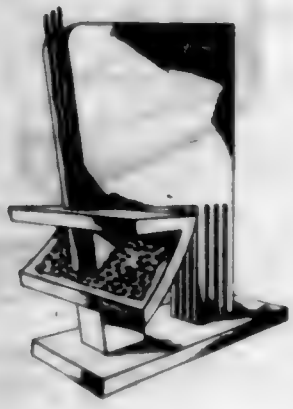
183,184
HARD SURFACE FLOOR COVERING OR SIMILAR ARTICLE
Harry A. Shortway, Glen Rock, N. J., assignor to Congoleum-Nairn Inc., Kearny, N. J., a corporation of New York
Application August 1, 1957, Serial No. 47,174
Term of patent 14 years
(Cl. D92—17)



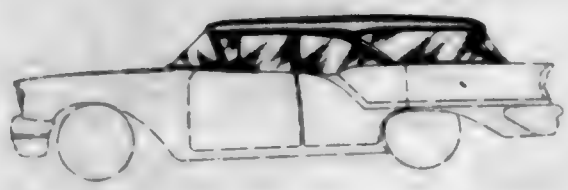
183,185
FOOD GRATER
Solomon Silberberg, Bellerose, N. Y.
Application March 1, 1957, Serial No. 45,038
Term of patent 14 years
(Cl. D89—1)



183,186
RESTAURANT SIGN
William B. Smith, Marietta, Ga., assignor to The Embers, Inc., Atlanta, Ga., a corporation of Georgia
Application January 3, 1958, Serial No. 49,117
Term of patent 14 years
(Cl. D1—12)



183,187
VEHICLE
Charles A. Stebbins, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 14, 1957, Serial No. 44,872
Term of patent 7 years
(Cl. D14—3)



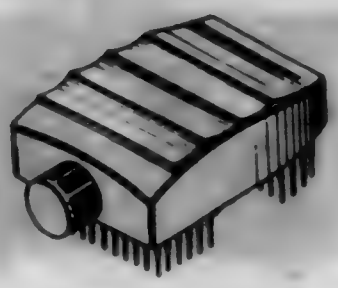
183,188
COSMETIC TABLE
Pauline Y. Stronach, Raleigh, N. C.
Application September 26, 1957, Serial No. 47,884
Term of patent 3½ years
(Cl. D33—14)



183,189
AUTOMOBILE BUMPER GUARD
Clifford C. Voss, Chwsen, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application June 11, 1956, Serial No. 41,867
Term of patent 7 years
(Cl. D14—6)



183,190
COMBINATION SHAMPOO BOTTLE AND MASSAGER
Charles M. Zampetti, Wilkes-Barre, Pa.
Application November 1, 1957, Serial No. 48,314
Term of patent 14 years
(Cl. D58—6)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 8TH DAY OF JULY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Berger, Irvin E., to Premier-Hall Mfg. Co. Pivotal-sliding door cabinet. Re. 24,498, 7–8–58, Cl. 312—325.

Chang, Sheldon S. L., to Robbins & Myers, Inc. Electric motor circuits. Re. 24,499, 7–8–58, Cl. 318—103.

Davies-Young Soap Co., The: *See*—
Pollock, Lou, and Wald. Re. 24,501.

Pollock, Lou, and H. C. Wald, to The Davies-Young Soap Co. Apparatus for mixing fluids. Re. 24,501.

Premier-Hall Mfg. Co.: *See*—
Berger, Irvin E. Re. 24,498.

Robbins & Myers, Inc.: *See*—
Chang, Sheldon S. L. Re. 24,499.

Simon, Myerson. Expansible wrist watch band. Re. 24,502, 7–8–58, Cl. 224—4.

Straatveit, Nils N. Rotary machine. Re. 24,500, 7–8–58, Cl. 103—131.

Wald, Harold C.: *See*—
Pollock, Lou, and Wald. Re. 24,501.

LIST OF PLANT PATENTEES

Anderson, Frederic W., to Kim Bros. Nectarine tree. 1,723, 7–8–58, Cl. 47—62.

Anderson, Frederic W., to The Burchell Nursery. Nectarine tree. 1,724, 7–8–58, Cl. 47—62.

Anderson, Frederic W., to Kim Bros. Peach tree. 1,725, 7–8–58, Cl. 47—62.

Burchell Nursery, The: *See*—
Anderson, Frederic W. 1,724.

Carlile, Thomas, deceased, by W. V. Carlile, administratrix, to J. J. Grullemans. Anchusa plant. 1,729, 7–8–58, Cl. 47—60.

Carlile, Wendy V.: *See*—
Carlile, Thomas. 1,729.

Grullemans, John J.: *See*—
Carlile, Thomas. 1,729.
Pike, Albert V. 1,727.

Kim Bros.: *See*—
Anderson, Frederic W. 1,723.
Anderson, Frederic W. 1,725.

Moore, Ralph S. Miniature rose plant. 1,726, 7–8–58, Cl. 47—61.

Pike, Albert V., to J. J. Grullemans. Hybrid buddleia plant. 1,727, 7–8–58, Cl. 47—60.

Schreiner, Robert. Iris plant. 1,728, 7–8–58, Cl. 47—60.

LIST OF DESIGN PATENTEES

Aleks, Vytant, to Apsco Products, Inc. Punch. 183,154, 7–8–58, Cl. D74—1.

Aleks, Vytant, to Apsco Products, Inc. Punch. 183,155, 7–8–58, Cl. D74—1.

Amerio, Ernest. Combined bath tub and basin. 183,156, 7–8–58, Cl. D4—4.

Anderson, Lee. Combined pipe rack, tobacco receptacle, ash tray and match box. 183,157, 7–8–58, Cl. D83—2.

Apsco Products, Inc.: *See*—
Aleks, Vytant. 183,154.
Aleks, Vytant. 183,155.

Bell, Ruth A. Scraper or similar article. 183,158, 7–8–58, Cl. D44—29.

Blum, Louis, to Blumcraft of Pittsburgh. Stairway hand railing unit. 183,159, 7–8–58, Cl. D13—7.

Blumcraft of Pittsburgh: *See*—
Blum, Louis. 183,159.

Bogdanovich, Sergei, to Weil & Durrse, Inc. Textile fabric or similar article. 183,160, 7–8–58, Cl. D92—1.

Bogdanovich, Sergei, to Weil & Durrse, Inc. Textile fabric or similar article. 183,161, 7–8–58, Cl. D92—1.

Carter, Charles G. Grocery cart steriliser. 183,162, 7–8–58, Cl. D63—1.

Chrysler Corp.: *See*—
Gitschlag, Charles F. 183,168.
Voss, Clifford C. 183,189.

Congoleum-Nairn Inc.: *See*—
Kolker, Leona G. 183,170.
Shortway, Harry A. 183,184.

Covey, Laird, to Royal McBee Corp. Typewriter. 183,163, 7–8–58, Cl. D64—11.

Dreyfuss, Henry, to Minneapolis-Honeywell Regulator Co. Space condition responsive instrument. 183,164, 7–8–58, Cl. D52—7.

Embers, Inc., The: *See*—
Smith, William B. 183,166.

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Bearden, William G., and G. C. Howard, to Pan American Petroleum Corp. Water shut-off method. 2,842,206, 7–8–58, Cl. 166—33.

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Beyland, Robert W. Tray and applicator for phonograph record treatment. 2,841,808, 7–8–58, Cl. 15—121.3.

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Brodton, Lynn: *See*—
Hill, Van D., and Brodton. 2,842,047.

Bronstert, Frans: *See*—
Querengasser, Hugo, Wild, Bronstert, Sindel, and Heutschel. 2,842,608.

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Brown, Calvin O., and X. R. Dodge, to Set Screw & Mfg. Co. Self-locking thread with locking interference fit. 2,842,180, 7–8–58, Cl. 151—22.

Brown, Frank E., to Chas. Pfizer & Co., Inc. Machine for applying end closures to hypodermic syringes. 2,841,940, 7–8–58, Cl. 53—311.

Brown, Frank E., to F. M. Turnbull. Syringe assembly. 2,842,126, 7–8–58, Cl. 128—218.

Brown, Harry L., to Minneapolis-Honeywell Regulator Co. Gyroscopic apparatus. 2,841,987, 7–8–58, Cl. 74—5.1.

Brown, Harry W. Base-baffle socket assembly. 2,842,660, 7–8–58, Cl. 250—16.

Brown, Walter J. Thermal regulating system. 2,842,345, 7–8–58, Cl. 257—3.

Browner, William J., to Relaxocizor, Inc. Electrical body treating device. 2,842,135, 7–8–58, Cl. 128—422.

Browner, William J., to Relaxacizor, Inc. Means for toning muscles and connective tissues. 2,842,136, 7–8–58, Cl. 128—422.

Bruck, John P., and F. W. Mittina, to The Porter-Cable Machine Co. Saber saw structure. 2,842,170, 7–8–58, Cl. 143—68.

Brucker Milton, to Zenith Plastics Co. Method for molding plastic. 2,841,826, 7–8–58 Cl. 18—55.

Bruckmayer, Friedrich. Building construction. 2,841,975, 7–8–58, Cl. 72—1.

Buchi, Alfred. Turbine driven multi-stage blower or pump. 2,842,306, 7–8–58, Cl. 230—116.

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Cromwell, Harold J., Lautsenhiser, and Buck. 2,842,879.

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Shaw, Albert W., Claire, and Bullard. 2,842,238.

Bullard, Russell J.: *See*—
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Burbank, John E., to Cue Fastener, Inc. Locking slider for slide fasteners. 2,841,852, 7–8–58, Cl. 24—205.14.

Burger, Armin. Chimney attachment. 2,842,041, 7–8–58, Cl. 98—78.

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Burns, Erwin. Multiple slip casing hanger. 2,842,213, 7–8–58, Cl. 166—208.

Burress, John W., to Drill Carrier Corp. Drill carriage. 2,842,340, 7–8–58, Cl. 255—51.

Burris, Robert B., to Faultless Caster Corp. Textile roll bearing. 2,841,830, 7–8–58, Cl. 19—142.

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Burt, Farlow B., to Bendix Aviation Corp. Method of chamfering a valve spool. 2,841,933, 7–8–58, Cl. 51—281.

Burton, Gordon L., to United States of America, Army. Waveguide switch. 2,842,745, 7–8–58, Cl. 333—7.

Butcosk, Richard A., to Socony Mobil Oil Co., Inc. Lithium base grease. 2,842,493, 7–8–58. Cl. 252—36.

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Butler, William F., to Cutter Laboratories, Inc. Filter. 2,842,122 7–8–58, Cl. 128—214.

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Cahn, Robert P., to Esso Research and Engineering Co. Method of recycling reactants in polybutene manufacture. 2,842,533, 7–8–58 Cl. 260—94.8.

Callahan, Francis M., to American Cyanamid Co. Piperazine compounds and method of preparation thereof. 2,842,548, 7–8–58, Cl. 260—268.

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Campbell, Richard L., to American Radiator & Standard Sanitary Corp. Valve. 2,842,318, 7–8–58, Cl. 236—34.

Campbell, Tod W., to E. I. du Pont de Nemours and Co. Process of reducing the viscosity of polymers. 2,842,532, 7–8–58. Cl. 260—93.7.

Campo, Joseph. Animal-shaped bicycle attachments. 2,842,379, 7–8–58, Cl. 280—1.204.

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Carlson, Chester F., to The Battelle Development Corp. Process for developing an electrostatic image. 2,842,458, 7–8–58, Cl. 117—17.5.

Carlson, Ernest C., S. E. Hillblom, and P. Sammarco, to International Harvester Co. Tractor mounted corn sheller and picker. 2,841,944, 7–8–58, Cl. 56—18.

Carlson, Ernest C., to International Harvester Co. Corn sheller having ear positioner and breaker. 2,842,139, 7–8–58, Cl. 130—6.

Carlson, Ernest C., to International Harvester Co. Conveying and material separating mechanism. 2,842,286, 7–8–58, Cl. 209—284.

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Carr, Dodd S., to Bart Laboratories Co., Inc. Method of producing dull electronickel. 2,842,487, 7–8–58, Cl. 204—49.

Carroll, Esther T. Finger cleaning device. 2,841,811, 7–8–58, Cl. 15—244.

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Simon, Raymond J. C. 2,841,681.

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Case, Joseph. Float. 2,841,804, 7–8–58, Cl. 9—8.

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Chandler, Roy L. Plow tail wheel construction. 2,842,088, 7–8–58, Cl. 97—26.

Chaney, Donal W., to Converto Mfg. Co., Inc. Truck dumping apparatus. 2,842,398, 7–8–58, Cl. 298—22.

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Christensen, Grover N. Protective binder for cardboard mounted photographic transparencies. 2,841,902, 7–8–58, Cl. 40—152.

Christian, John D., to Monsanto Chemical Co. Process of preparing imidazolidinethiones. 2,841,583, 7–8–58, Cl. 260—309.7.

Christmann, Ludwig J., to Carbogen Corp. Production of succinonitrile. 2,842,584, 7–8–58, Cl. 260—465.8.

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Cignolini, Pietro. Roentgenpolychimographic method, apparatus therefor and roentgenpolykymograph obtainable thereby. 2,842,671, 7–8–58, Cl. 250—65.

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Clemons, Dale R., to Western Electric Co., Inc. Methods of making electrical capacitors. 2,842,652, 7–8–58, Cl. 219—19.

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Cohen, Benjamin H. Trolling sinker. 2,841,915, 7–8–58, Cl. 43—42.72.
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Controls Co. of America: *See*—
Kent, George C. 2,842,333.
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Craggs, Joseph, and K. McCann, to Goodman Mfg. Co. Extensible flexible frame conveyor and method of mining therewith. 2,842,257, 7–8–58, Cl. 198—139.
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Crowder, Joseph. Liquid dispensing devices. 2,842,294, 7–8–58, Cl. 222—426.
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Crownover, Joseph W., to Electric Machinery Mfg. Co. Process for producing electromechanically sensitive sheet material. 2,841,827, 7–8–58, Cl. 18—57.
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Duncan, Elois E.: *See*—
Duncan, Howard C. 2,842,114.
Duncan, Howard C., deceased, E. E. Duncan, administratrix. Foldable crossbow. 2,842,114, 7–8–58, Cl. 124—25.
Dunn, Hugh, to Olin Mathieson Chemical Corp. Shotshell. 2,842,057, 7–8–58, Cl. 102—42.
Dunnihoo, Russell E. Pulley unit. 2,842,005, 7–8–58, Cl. 74—374.
Dunning, Robert M., and H. G. Zastrow, to Waldorf Paper Products Co. Bottle carriers. 2,842,288, 7–8–58, Cl. 220—113.
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Byland, Hans-Rudolf. 2,842,539.
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MacPherson, Earle S. 2,842,394.
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Foster, Robert E. Nonsynchronous vibrator. 2,842,636, 7–8–58, Cl. 200—90.
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Goldstone, Harmon H., to Goldstone & Dearborn. Cellular wall construction. 2,841,976, 7–8–58. Cl. 72—41.

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Gollmar, Herbert A. Separation of acid gases from coal carbonization gases. 2,842,423, 7–8–58, Cl. 23—3.

Gollub, Frank, M. S. Wool, and W. D. Berberich, to Dennis Chemical Co. Primers for vinyl resin coating. 2,842,459, 7–8–58, Cl. 117—72.

Gomersall, John E., to McGraw-Edison Co. Rack for food trays. 2,842,269, 7–8–58. Cl. 211—71.

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Goodwin, William N., Jr. Photoelectric controller. 2,842,679, 7–8–58, Cl. 250—205.

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Grew, Dolphis G. Cucumber harvesting machine. 2,841,947, 7–8–58 Cl. 56—327.

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Grossmann, Hans S.: *See*—
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Grummitt, Oliver J., and A. A. Artera, to The Sherwin-Williams Co. Aqueous vehicles for forming water-resistant films. 2,842,451, 7–8–58, Cl. 106—194.

Gruver, John H., to Addressograph-Multigraph Corp. Data transfer apparatus. 2,842,612, 7–8–58, Cl. 178—6.6

Gruver, John H., to Addressograph-Multigraph Corp. Printing machines. 2,842,615, 7–8–58, Cl. 178—6.6.

Guenzi, Eraldo, to Compagnie de Pont-A-Mousson. Austenitic nodular iron. 2,842,437, 7–8–58, Cl. 75—125.

Gulton Industries, Inc.: *See*—
Oncley, Paul B. 2,842,021.
Petermann, Lucien A., and Oakley. 2,842,685.

Gumpio, Alice C. Chart-holding means. 2,842,268, 7–8–58, Cl. 211—45.

Gunson, William E., and E. F. Hammond, Jr., to United States of America, Navy. Combination variable area converging-diverging nozzle and thrust destroyer. 2,841,956, 7–8–58, Cl. 60—35.54.

Gunther, Ellen P.: *See*—
Kaiser, Emil, and Gunther. 2,842,586.

Gustafson, Hasen A. Beverage case repair means. 2,842,279, 7–8–58, Cl. 217—70.

Guyot Brothers Co., Inc.: *See*—
Guyot, Roy N. 2,841,853.

Guyot, Roy N., to Guyot Brothers Co., Inc. Earring clasp. 2,841,853, 7–8–58, Cl. 24—252.

Haack, Erich, G. Stoeck, and H. Voigt, to C. F. Boehringer & Soehne G. m. b. H. Therapeutically valuable esters of alcohols and ketoalcohols of the steroid series and process of preparing same. 2,842,567, 7–8–58, Cl. 260—397.4.

Haake, Frederick L. Parachute disconnecting device. 2,842,392, 7–8–58, Cl. 294—83.

Haas, Hermann, H. Markert, and G. Lietz, to Bohme Fettchemie G. m. b. H. Antistatic synthetic textile material. 2,842,462, 7–8–58, Cl. 117—139.5.

Habeshaw, John, and C. J. Geach, to The British Petroleum Co. Ltd. Production of acetals. 2,842,576, 7–8–58, Cl. 260—418.

Hacker, Hans: *See*—
Sillman, Louis, and Hacker. 2,841,891.

Haefliger, William W.: *See*—
Holzhauser, Glen H., and Haefliger. 2,841,931.

Hagan Chemicals & Controls, Inc.: *See*—
Cunningham, Edwin A., Jr., and Anderson. 2,842,151.
Donaldson, Robert R. 2,842,149.
Markson Alfred A. 2,842,147.

Haglund, Didrik W., to Sandvikens Jernverks Aktiebolag. Rock drill cutting insert of hard metal. 2,842,342, 7–8–58, Cl. 255—63.

Hagmann, Robert W., and J. C. Cooper, to Radio Corp. of America. Multi-beam kinescope convergence circuits. 2,842,708, 7–8–58, Cl. 315—13.

Haigler, Edmund D., to Fischer & Porter Co. Compensating or differential pressure or temperature responsive mechanism. 2,841,985, 7–8–58, Cl. 73—412.

Hall, George T. W., to International Standard Electric Corp. Radar trainer. 2,841,885, 7–8–58, Cl. 35—10.4.

Haller, Raymond and Brown, Inc.: *See*—
McLucas, John L. 2,842,760.

Halliburton Oil Well Cementing Co.: *See*—
Schwegman, Harry E. 2,842,162.

Hallicrafters Co., The: *See*—
Marsh, Richard E. 2,842,624.

Halperin, Herbert H., to Sterling Precision Instrument Corp. Extensible antenna. 2,842,768, 7–8–58, Cl. 343—877.

Halpert, Percy: *See*—
Jude, George F., and Halpert. 2,842,324.

Hammell, Kemper M., and G. S. Reider, Jr., to AMP Inc. Ratchet type hand tool for severing and crimping magazine fed electrical connectors. 2,842,018, 7–8–58, Cl. 81—15.

Hammond, Elton F., Jr.: *See*—
Gunson, William E., and Hammond. 2,841,956.

Hammond, John H., Jr.: *See*—
Purington, Ellison S. 2,842,614.

Hansen, Hans R. A.: *See*—
Osborn, Marvin W., Bradburn, and Hansen. 2,842,730.

Hansen, Jorgen G., and J. Thuesen, to Huntington Chair Corp. Drawer front. 2,842,420 7–8–58, Cl. 312—320.

Hanze, Arthur R., to The Upjohn Co. Hydrolysis of hydrocortisone acetate and Δ'-hydrocortisone acetate. 2,842,509, 7–8–58, Cl. 260—397.45.

Happe, Reynold: *See*—
Turner, Edgar P., and Happe. 2,842,173.

Harbert, Bobby C., to Phillips Petroleum Co. Combustion study device. 2,841,979. 7–8–58, Cl. 73—35.

Harder, Karl M., to Patent- und Versuchs-Anstalt. Arrangement for relieving electrical switching contacts of current. 2,842,717, 7–8–58, Cl. 317—11.

Harfenist, Morton, and E. G. Magnien, to Burroughs Wellcome & Co. (USA) Inc. Method of preparing quaternary salts of amino carbinols. 2,842,555, 7–8–58, Cl. 260—326.5.

Harley Earl, Inc.: *See*—
Smith, Dale D. 2,841,848.

Harris Transducer Corp., The: *See*—
Harris, Wilbur T. 2,842,689.

Harris, Wilbur T., to The Harris Transducer Corp. Low-frequency magnetostrictive transducer. 2,842,689, 7–8–58, Cl. 310—26.

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Dyer, John B., and Harrison. 2,841,994.

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Koch, Werner Harten, and Thedieck. 2,842,723.

Hartstein, Fred W. Non-woven cloth. 2,842,472, 7–8–58, Cl. 154—46.

Harvey, Norman L., to Sylvania Electric Products Inc. Collision warning radar. 2,842,764, 7–8–58, Cl. 343—14.

Harvey, Wilfred G. Feed mechanism for injection molding machine. 2,841,824. 7–8–58, Cl. 18—30.

Harwood, Stanley G.: *See*—
Huneke, John W. 2,842,156.

Haskell, Herbert T. Artificial fishing lure hook guard. 2,841,917, 7–8–58 Cl. 43—54.5.

Hauffe, Karl, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for increasing the scaling resistance of titanium base metals. 2,842,470, 7-8-58, Cl. 148—6.3.
Hauserman, E. F., Co., The: *See*—
Wagner, Henry A., Golar, and Kuss. 2,842,401.
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Traynor, John E. 2,841,799.
Haydon Switch Inc.: *See*—
Korsgren, Theodore Y., Sr. 2,842,644.
Hayes, Robert M., and A. M. Nelson, to The Magnavox Co. Card processing apparatus. 2,842,362, 7-8-58, Cl. 271—3.
Haseltine Research, Inc.: *See*—
Richman, Donald. 2,842,613.
Head, Robert P. Vacuum weft holder for looms. 2,842,164, 7-8-58, Cl. 139—170.3.
Hedstrom, Gustav V.: *See*—
Kishline, Floyd F., Voigt, and Hedstrom. 2,842,063.
Hefty, Melvin R.: *See*—
Scheifley, William J., Givens, and Hefty. 2,842,496.
Heideman, Homer G., to Rex Roto Corp. Adjustable arch form. 2,842,234, 7-8-58, Cl. 189—37.
Hein, George N., Jr., to Becton, Dickinson and Co. Thumb ring for hypodermic syringe. 2,842,128, 7-8-58, Cl. 128—218.
Heinr. Auer Muhlenwerke K. G. a A.: *See*—
Neidhardt, Karl. 2,842,243.
Heisler Robert Y.: *See*—
Newman, Stanley B., Heisler, Dille, and Alpert. 2,842,133.
Heimke, Emil A. Constant velocity universal joint. 2,841,968. 7-8-58, Cl. 64—21.
Hendrickson, Severin B. to Heywood-Wakefield Co. Theater seat and support combination. 2,842,187, 7-8-58, Cl. 155—163.
Heney, John F.: *See*—
Lampert, Murray A. and Heney. 2,842,747.
Hensel, Erich. Bolt lock. 2,841,974, 7-8-58, Cl. 70—134.
Hentschel, Friedrich: *See*—
Querengasser, Hugo, Wild, Bronstert, Sindel, and Hentschel. 2,842,608.
Herbst, Ralph L., Jr., and B. F. Landrum, to Minnesota Mining and Mfg. Co. Cross-linked perhalogenated dicarboxylic acids and method of preparation thereof. 2,842,524, 7-8-58, Cl. 260—77.5.
Herbst, Ralph L., Jr., and B. F. Landrum, to Minnesota Mining and Mfg. Co. Polymerization of fluorine-containing ethylenically unsaturated compounds. 2,842,528, 7-8-58, Cl. 260—87.5.
Herman, Albert D.: *See*—
Webster, Robert A., Herman, and Woolsey. 2,842,385.
Hermann, Richard C., to Western Electric Co., Inc. Grapples. 2,842,391. 7-8-58, Cl. 294—67.
Herr, Milton E., to The Upjohn Co. 11β,17β-dihydroxy-17α-methylandrostane-3-ones. 2,842,570, 7-8-58, Cl. 260—397.45.
Herr, Milton E., and G. B. Spero, to The Upjohn Co. Organic compounds and process. 2,842,572, 7-8-58, Cl. 260—397.45.
Herr, Milton E., and G. B. Spero, to The Upjohn Co. 6-α methyl 17 alkyl 9α fluoro 11 oxygenated 17β hydroxy-4-androsten-3-one compounds and process. 2,842,573, 7-8-58, Cl. 260—397.45.
Herz, Josef E., and J. Fried, to Olin Mathieson Chemical Corp. Synthesis of steroids. 2,842,568, 7-8-58, Cl. 260—397.45.
Hersberg, Jack G.: *See*—
Wink, Frederick W. 2,842,341.
Hess, Francis M., and F. P. Adler, to Pullman-Standard Car Mfg. Co. Car roof sealing arrangement. 2,842,074, 7-8-58, Cl. 105—5.4.
Hesselmann, Willy: *See*—
Beyer, Kurt. 2,842,286.
Heublein, Morris H. Power take-off attachment for agricultural implement. 2,842,217, 7-8-58, Cl. 180—53.
Heuer, Hans, to Olympia Werke AG. Electric control arrangement. 2,842,048, 7-8-58, Cl. 101—93.
Heyd, Josef W., and P. E. Ohmart, to United States of America, Atomic Energy Commission. Polarograph. 2,842,736, 7-8-58, Cl. 324—30.
Heyman, Albert A., to The Maryland Cup Co. Bottom expander. 2,842,033, 7-8-58, Cl. 93—36.5.
Heyman, Wesley F.: *See*—
Coale, Thomas C., and Heyman. 2,841,880.
Heywood-Wakefield Co.: *See*—
Hendrickson, Severin B. 2,842,187.
Hilber, Hanns.: *See*—
Kreidler, Alfred, and Hilber. 2,841,989.
Hilber, Hanns, to A. Kreidler. Gear for single-track vehicles. 2,841,990. 7-8-58, Cl. 74—6.
Hilblom, Samuel E.: *See*—
Carlson, Ernest C., Hilblom, and Sammarco. 2,841,944.
Hill, Murphy A., to Mauney Hosiery Mills, Inc. Hosiery boarding and form inserting apparatus. 2,842,298, 7-8-58, Cl. 223—60.
Hill, Van D., and L. Brodton. Race ticket printing apparatus. 2,842,047, 7-8-58, Cl. 101—69.
Hillman, Herbert. Induction motor. 2,842,729, 7-8-58, Cl. 318—220.
Hilton, John L., to The Pleasey Co. Ltd. Gear pump. 2,842,066, 7-8-58, Cl. 103—126.
Hilts, John P., Jr.: *See*—
Geier, Bernard, and Hilts. 2,842,228.
Himmelberger, Franklin: *See*—
Muldoon, Robert P., Himmelberger, and Fuller. 2,842,712.
Hinderer, Harvey M. Article of disposable barbecue stove package unit. 2,842,116, 7-8-58, Cl. 126—009.
Hinegardner, Willie S., and J. W. Sprauer, to E. I. du Pont de Nemours & Co. Purification of 2-T-butylanthraquinone. 2,842,563, 7-8-58, Cl. 260—380.
Hines Flask Co., The: *See*—
Hines, Russell J. 2,841,841.
Hines, Russell J. 2,841,842.
Hines, Paul: *See*—
Hutchison, Paul T. and Hines. 2,842,766.
Hines, Russell J., to The Hines Flask Co. Method and apparatus for molding. 2,841,841, 7-8-58, Cl. 22—96.
Hines, Russell J., to The Hines Flask Co. Foundry flask. 2,841,842, 7-8-58, Cl. 22—106.
Hit-A-Homa, Inc.: *See*—
Fant, James A. 2,842,306.
Hoda Corp.: *See*—
Colombo, George, and Orlov. 2,842,642.
Hodges, Clarence B. Drafting pen. 2,842,100, 7-8-58, Cl. 120—109.5.
Hoeppner, Arthur D., to Bemis Bro. Bag Co. Closures for flexible walled containers. 2,842,179, 7-8-58, Cl. 150—7.
Hoeselbarth, Frank W. E., to C. H. Masland & Sons. Tuft loop height controlled by looper. 2,842,080, 7-8-58, Cl. 112—79.
Hoeselbarth, Frank W. E., to C. H. Masland & Sons. Yarn feed for needling or knitting or the like. 2,842,259, 7-8-58, Cl. 203—1.
Hoffmann-La Roche Inc.: *See*—
Isler, Otto, Montavon, Ruegg, and Zeller. 2,842,599.
Hoglan, Forest A., to International Minerals & Chemical Corp. Glutamic acid recovery. 2,842,592, 7-8-58, Cl. 260—527.
Höhne, Heinrich, to Stockey & Schmitz. Smelting furnace system. 2,842,354, 7-8-58, Cl. 266—40.
Holan, J. H., Corp.: *See*—
Holan, James H., and Troche. 2,841,960.
Troche, Herman J. 2,841,998.
Holan, James H., and H. J. Troche, to J. H. Holan Corp. Fluid pressure control system. 2,841,960, 7-8-58, Cl. 60—97.
Holdeman, Eugene J. Railroad compressed air hose gasket. 2,842,388, 7-8-58, Cl. 288—23.
Holly, Harry H., to Hollymatic Corp. Molding apparatus. 2,841,819, 7-8-58, Cl. 17—32.
Hollymatic Corp.: *See*—
Holly, Harry H. 2,841,819.
Holmes, Frank C., to Pye Ltd. Attenuator arrangements. 2,842,625, 7-8-58, Cl. 179—171.
Holshausen, Glen H., and W. W. Haefliger. Knife sharpener. 2,841,931, 7-8-58, Cl. 51—241.
Hommel, Ernest M.: *See*—
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Hommel, O., Co., The: *See*—
Feeney, Edward J., and Hommel. 2,842,458.
Honeycutt, Earl M., to Sun Oil Co. Treatment of sulfonic acids. 2,842,588, 7-8-58 Cl. 260—504.
Hopfer, Samuel, to United States of America, Army. Crystal detector assembly. 2,842,665, 7-8-58, Cl. 250—31.
Hopkins, Frank L., to Bemis Bro. Bag Co. Magnetic lock for scale beams and the like. 2,842,330, 7-8-58, Cl. 249—36.
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Murphy, Laurence W. 2,841,817.
Hornbostel, Lloyd, to Beloit Iron Works. Paper machine dryer drive mechanism. 2,841,882, 7-8-58, Cl. 34—121.
Horner, William L., to Core Laboratories, Inc. Method of increasing oil recovery. 2,842,204, 7-8-58, Cl. 166—9.
Horst, Conrad S., to W. C. and R. E. Horst. Threading tool grinding fixtures. 2,841,930, 7-8-58, Cl. 51—231.
Horst, Robert E.: *See*—
Horst, Conrad S. 2,841,930.
Horst, William C.: *See*—
Horst, Conrad S. 2,841,930.
Hosemann, Rolf, to Licentia Patent-Verwaltungs-G. m. b. H. X-ray apparatus. 2,842,677, 7-8-58, Cl. 250—93.
Hosemann, Rolf, to Licentia Patent-Verwaltungs-G. m. b. H. X-ray apparatus. 2,842,694, 7-8-58, Cd. 313—057.
Hough, Frank G., Co., The: *See*—
Granryd, Thorvald G. 2,842,273.
Houlette, Edward C.: *See*—
Pepi, John. 2,842,115.
Houtman, Thomas, Jr.: *See*—
Tousignant, William F., and Houtman. 2,842,523.
Howard, Don B, to The Wright Line, Inc. Filing cabinet drawer locking mechanism. 2,842,419, 7-8-58, Cl. 312—218.
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Bearden, William G., Howard, and Evans. 2,842,449.
Hudson, H. D., Mfg. Co.: *See*—
Dickison, William. 2,841,923.
Hudson Pulp & Paper Corp.: *See*—
Mosser, George W. 2,842,032.
Hughes Aircraft Co.: *See*—
Wohlman, Fred, Jr. 2,842,166.
Hughett, Maurice G., to B. Estes. Acoustical test cell structures. 2,842,222, 7-8-58, Cl. 181—42.
Huneke, John W., to S. G. Harwood. Liquid level control means. 2,842,156, 7-8-58, Cl. 137—407.
Hunter, Lloyd P.: *See*—
Landauer, Rolf W., and Hunter. 2,842,467.
Hunter, Robert H., and E. J. Kasper, said Kasper, assor. to said Hunter. Drain and overflow construction for rotary basket jet type dish washers and the like. 2,842,161, 7-8-58, Cl. 137—576.
Hunting, Colin A. Variable speed transmission device. 2,842,001, 7-8-58, Cl. 74—191.
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Hansen, Jorgen G., and Thuesen. 2,842,420.

Hupp, Charles J., to L. A. Young Spring & Wire Corp. Spring cushion structures. 2,842,188, 7–8–58, Cl. 155—179.

Hurford, Winslow L., and W. J. Neely, to Radio Corp. of America. Electrical protective apparatus. 2,842,719, 7–8–58, Cl. 317—23.

Huser, Arthur W. Anchor rod puller. 2,842,019, 7–8–58, Cl. 81—53.

Huston, Elmo F., to The Ohio Brass Co. Circuit control system and controller therefor. 2,842,720, 7–8–58, Cl. 317—50.

Huston, Sanford K., and T. L. Anderton. Skylight. 2,842,073, 7–8–58, Cl. 108—16.

Hutcheon, Duncan E.: *See*—
Gardocki, Joseph F., Hutcheon, Laubach, and P'an. 2,842,478.

Hutchison, Paul T., and P. Hines, to Raytheon Mfg. Co. Beam-shaping antenna systems. 2,842,766, 7–8–58, Cl. 343—775.

Hutchison, Peter J. Amusement apparatus of the carousel type. 2,842,364, 7–8–58, Cl. 272—43.

"Ibis" Istituto Biochimico Sperimentale S. p. A.: *See*—
Chiti, Walter, and Selleri. 2,842,547.

Ideal Toy Corp.: *See*—
Baggott, Edmund W. 2,841,837.

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Machac, Frank J. 2,842,181.

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Imperial Brass Mfg. Co., The: *See*—
Franck, George K. 2,842,381.
Franck, George K. 2,842,382.

Imperial Chemical Industries Ltd.: *See*—
Brian, Percy W., Radley, Curtis, and Elson. 2,842,051.
Fairweather, David A. W., and McGechen. 2,842,561.
Phipps, John W. 2,841,821.

Independent Lock Co.: *See*—
Muttart, Vincent. 2,842,389.

Industriaktiebolaget Luxor: *See*—
Ottosson, Olof L. 2,842,000.

Industrial Rayon Corp.: *See*—
Oberly, Louis A., and Salzinger. 2,842,473.

Insetta, Lloyd W.: *See*—
Musser, C Walton, and Insetta. 2,842,686.

Interchemical Corp.: *See*—
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International Business Machines Corp.: *See*—
Clapper, Genung L. 2,842,682.
Clapper, Genung L. 2,842,683.
Coonradt, Teall. 2,842,052.
Furman, Frank J., Koranye, and Rhodes. 2,842,246.
Furman, Frank J., Moneagle, Wetjen, and Dowd. 2,842 250.
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Gibson, John W., and Lundberg. 2,842,500.
Lamy, Richard C. 2,842,735.
Landauer, Rolf W., and Hunter. 2,842,467.
Lubn, Hans P. 2,842 754.
Morgan, William F., and Muffley. 2,842,249.
Rockefeller, Robert L., and Trimble. 2,841,981.
Ruta, Richard F. 2,842,668.
Saltz, Fred, and Street. 2,842,248.

International Harvester Co.: *See*—
Bornzin, James H. 2,842,045.
Bradbury, Edgar J. 2,842,218.
Carlson, Ernest C. 2,842,139.
Carlson, Ernest C. 2,842,266.
Carlson, Ernest C., Hiblom, and Sammarco. 2,841,944.
Covitt, Jack G. 2,841,838.
Duke, Edward D. 2,841,897.
Williams, Forrest F. 2,841,861.

International Minerals & Chemical Corp.: *See*—
Hoglan, Forest A. 2,842,592.
Shelton, James L. 2,842,591.

International Rectifier Corp: *See*—
Diebold, Edward J. 2,842,722.

International Register Co.: *See*—
Gallagher, William P., Stolle, and Ellis. 2,842,626.

International Standard Electric Corp.: *See*—
Hall, George T. W. 2,841,885.

International Telephone and Telegraph Corp.: *See*—
Adams, Robert T., and Altoonian. 2,842,037.
Lampert, Murray A., and Heney. 2,842,747.
Lilienstein, Manfred. 2,842,733.

Ipsen, Harold N. Transfer mechanism for conditioning apparatus. 2,842,349, 7–8–58, Cl. 263—6.

Ireland, Robert E.: *See*—
Johnson, William S., and Ireland. 2,842,559.

Irvin, Howard H., to Borg-Warner Corp. Product produced by polymerisation of vinylidene chloride-acrylonitrile mixtures into polychloroprene. 2,842,518, 7–8–58, Cl. 260—45.5.

Isler, Otto, M. Montavon, R. Ruegg, and P. Zeller, to Hoffman-La Roche Inc. Carotenoids and intermediates therefor. 2,842,599, 7–8–58, Cl. 260—601.

Jahlon, Theodore M. Slide mountings. 2,841,904, 7–8–58, Cl. 40—152.

Jackson, James. Method of forming bodies. 2,841,865, 7–8–58, Cl. 29—421.

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Jacobs, Miles H. Theftproof light bulbs. 2,842,700, 7–8–58, Cl. 313—318.

James, Horace A. Driver dozer alarm. 2,842,628, 7–8–58, Cl. 200—52.

James, Joseph M. Blood transfusion system. 2,842,124, 7–8–58, Cl. 128—214.

Jamieson, John W., and T. C. Dingman, to Ford Motor Co. Actuating mechanism for adjustable vehicle seat. 2,841,996, 7–8–58, Cl. 74—89.

Jane, Clarence W.: *See*—
Wills, John R., and Jane. 2,841,942.

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Green, Howard S., and Janney. 2,842,325.

Jarrell, Virgil N. Vine feeding machine. 2,842,255, 7–8–58, Cl. 198—37.

Jeffreys, George A. Process for making yeast leavened baked products. 2,842,442, 7–8–58, Cl. 99—90.

Jehler, Andre. Machine for welding plastic sheet materials. 2,842,049, 7–8–58, Cl. 219—10.47.

Jenaer Glaswerk Schott & Gen.: *See*—
Zollner, Hugo. 2,842,485.

Jenner, Edward L., to E. I. du Pont de Nemours and Co. Long-chain dithiols and their preparation. 2,842,582, 7–8–58, Cl. 260—455.

Jensen, Kaj L., and G. J. J. Rosendahl, to Det Store Nordiske Telegraf-Selskab (Aktieselskab). Machine for punching tape for recording telegraphic characters. 2,842,203, 7–8–58, Cl. 164—114.

Jensen, Le Var C.: *See*—
Eckenfels, Henry A., and Jensen. 2,842,305.

Jesty, Leslie C., and N. R. Phelp, to Marconi's Wireless Telegraph Co. Ltd. Color television registration system. 2,842,611, 7–8–58, Cl. 178—5.4.

Jewell, Raymond L., to American Steriliser Co. Flask. 2,842,277, 7–8–58, Cl. 215—100.

Jeal, James L., to Sun Oil Co. Tetrahydrofurfuryl naphthenate and vinyl polymers plasticized therewith. 2,842,512, 7–8–58, Cl. 260—30.4.

Joa, Curt G. Automatic feed for squaring work fed to the saw or saws of a tenoner. 2,842,109 7–8–58, Cl. 143—49.

Johnson, Charles F., to G. A. Butler. Automatic self sealing stem. 2,842,336, 7–8–58, Cl. 251—330.

Johnson, Edward G., and A. M. Caton, to Globe Industries, Inc. Direct current motor. 2,842,092, 7–8–58, Cl. 310—239.

Johnson, John M. Hand operated pole climbing aid. 2,842,300, 7–8–58, Cl. 227—24.

Johnson & Johnson: *See*—
Billings, Orman B., and Brickman. 2,842,121.
Billings, Orman B., Brickman, and Eberl. 2,842,138.
Foglia, Andrew J., Smith, and Detwiler. 2,842,120.

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Johnson, Quinton C., to North American Aviation, Inc. Turret installation with ammunition feed mechanism. 2,842,031, 7–8–58, Cl. 89—37.5.

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Meshorer, Herman S. Excavating tooth with replaceable point. 2,841,896, 7–8–58, Cl. 37—142.

Metz, Anthony J.: *See*—
Tammen, Fred B., and Metz. 2,841,932.

Meuly, Walter C., to E. I. du Pont de Nemours and Co. Process for preparing 1,3-bis(dimethylthiocarbamyl-mercaptomethyl)-urea. 2,842,583, 7–8–58, Cl. 260—455.

Meurer, Siegfried, to Maschinenfabrik Augsburg-Nürnberg A. G. Cold engine starting device. 2,842,106, 7–8–58, Cl. 123—30.

Michel, Rist: *See*—
Maurice, Jean, and Michel. 2,842,008.

Michelson, Edwin R. Shoulder firearm having separate projectile and powder magazines. 2,841,906, 7–8–58, Cl. 42—17.

Midkiff, Omer K., to U. S. Industries, Inc. Removable telescoping sight glasses for conduits. 2,842,089, 7–8–58, Cl. 116—117.

Mid-States Aluminum Products Co.: *See*—
Axelrod, Jacob. 2,842,236.

Miehle-Goss-Dexter, Inc.: *See*—
Crafts, Curtis S. 2,842,360.
Miles, Charlie A.: *See*—
Bird, Joseph J., Comer, Miles, and Braxton. 2,841,971.
Miller, Harold R., to Armco Steel Corp. Automatic strip alignment control. 2,842,361, 7–8–58, Cl. 271—2.6.
Miller, Harry E. Drill. 2,842,015, 7–8–58, Cl. 77—65.
Miller, James S., deceased, F. F. Miller, and H. M. Deits, executrices. Denture making equipment. 2,841,871, 7–8–58, Cl. 32—19.
Miller, Kenneth T. Cable dressing tool. 2,842,016, 7–8–58, Cl. 81—9.5.
Miller, Lewellyn. Electric calf weaner. 2,842,099, 7–8–58, Cl. 119—130.
Miller, Paul H. Rigid boring bar. 2,842,014, 7–8–58, Cl. 77—58.
Miller, William J.: *See*—
Sieber, Charles B. 2,841,995.
Miller, Williams T., to Minnesota Mining and Mfg. Co. Preparation of perhalofluoroolefins. 2,842,603, 7–8–58, Cl. 260—653.
Milo, Michael G., to Western Electric Co., Inc. Method of stripping tin and tin alloy surface coatings from iron and iron alloy articles. 2,842,435, 7–8–58, Cl. 75—98.
Minneapolis-Honeywell Regulator Co.: *See*—
Anderson, Donald G. 2,842,331.
Bonnell, Charles R. 2,842,749.
Brown, Harry L. 2,841,987.
Petrie, Edgar H. 2,842,311.
Minnesota Mining & Mfg. Co.: *See*—
Beck, Warren R., and Taylor. 2,842,446.
Bolstad, Archibald N. 2,842,529.
Herbst, Ralph L., Jr., and Landrum. 2,842,524.
Herbst, Ralph L., Jr., and Landrum. 2,842,528.
Johnson, Wayne R. 2,842,756.
Miller, William T. 2,842,603.
Miskel, John J., C. H. Abbe, S. Sarasin, and H. G. Thulke, to Chas. Pfizer & Co., Inc. Machine for assembling disposable cartridges for hypodermic syringes. 2,841,937, 7–8–58, Cl. 53—276.
Mittins, Frank W.: *See*—
Bruck, John P., and Mittins. 2,842,170.
Mlynarski, Alexander. Metronome. 2,841,050, 7–8–58, Cl. 58—130.
Moffats Ltd.: *See*—
Berge, Olav, and Smith. 2,842,117.
Mohasco Industries, Inc.: *See*—
Rice, Walter A. 2,842,079.
Mojonnier, Albert B. Carton filling apparatus. 2,841,936, 7–8–58, Cl. 53—266.
Molitor, Donald H. Portable holder for small tools. 2,842,260, 7–8–58, Cl. 206—17.
Moneagle, Otto F.: *See*—
Furman, Frank J., Moneagle, Wetjen, and Dowd. 2,842,250.
Monger, Howard S. Raise-proof indicia for check writers. 2,842,054, 7–8–58, Cl. 101—329.
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Christian, John D. 2,842,553.
Journeay, Glen R. 2,842,541.
Sutton, Ernest A., and Basdekis. 2,842,511.
Montavon, Marc: *See*—
Isler, Otto, Montavon, Ruegg, and Zeller. 2,842,599.
Mooradian, Ara J., to United States of America, Atomic Energy Commission. De-entrainment column. 2,842,224, 7–8–58, Cl. 183—34.
Morbeck, Robert C.: *See*—
Voorhies, Alexis, Jr., and Morbeck. 2,842,482.
Morgan, Jack E., and C. W. Wagner, to E. I. du Pont de Nemours and Co. Decorating compositions. 2,842,457, 7–8–58, Cl. 117—46.
Morgan, William F., and R. V. Muffley, to International Business Machines Corp. Variable speed feed control devices. 2,842,249, 7–8–58, Cl. 197—133.
Morren, Henri, to Union Chimique Belge, Societe Anonyme. Organic esters of 2-(2-diethylamino-ethoxy) ethanol and their process of preparation. 2,842,585, 7–8–58, Cl. 260—469.
Morris, Kenneth G., J. C. Roediger, R. G. Newberg, and A. F. Sayko, to Esso Research and Engineering Co. Process for preparing improved asphalt. 2,842,507, 7–8–58, Cl. 260—28.5.
Morrison, Charles S.: *See*—
Boseman, Virgil F., Sorensen, Morrison, and Kent. 2,842,265.
Morrison, Charles S., to Deere & Co. Tunnel former and subsoil injector. 2,842,077, 7–8–58, Cl. 111—7.
Morrison, Charles S., to Deere & Co. Potato digger. 2,842,215, 7–8–58, Cl. 171—115.
Morway, Arnold J., and H. G. Vesterdal, to Esso Research and Engineering Co. Process for forming high salt content complex greases. 2,842,496, 7–8–58, Cl. 252—39.
Mosher, James K., to Schulz Tool and Mfg. Co. Quick throw pilot valve. 2,842,157, 7–8–58, Cl. 137—418.
Mosse, Pierre, to Societe Rhodiaceta. Process for bleaching organic textile materials with alkali metal chlorites containing an ester which controls the evolution of chlorine dioxide. 2,842,422, 7–8–58, Cl. 8—108.
Mosser, George W., to Hudson Pulp & Paper Corp. Sleeving apparatus for valved paper bags. 2,842,032, 7–8–58, Cl. 93—8.
Moyer, James W., to General Electric Co. Method of making P-N junction semiconductor unit. 2,842,466, 7–8–58, Cl. 148—1.5.
Mud Control Laboratories, Inc.: *See*—
Gresham, William C., and Ashby. 2,842,330.
Muehling, Anthony A. Machine tool with spindle supporting boom. 2,842,013, 7–8–58, Cl. 77—31.
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Morgan, William F., and Muffley. 2,842,249.
Muldoon, Robert P., F. Himmelberger, and B. K. Fuller, to Philco Corp. Electronic signal generator. 2,842,712, 7–8–58, Cl. 315—39.
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Murphy, Charles F., to United States of America, Army. Lockable hinged handle for containers. 2,841,814, 7–8–58, Cl. 16—110.
Murphy, Charles F., to United States of America, Army. Lid stay assembly. 2,842,278, 7–8–58, Cl. 217—60.
Murphy, Laurence W., to Geo. A. Hormel & Co. Apparatus for facilitating sticking bleeding of slaughter animals. 2,841,817, 7–8–58, Cl. 17—24.
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Murray, Guy L., deceased, by L. and B. G. Murray, executors. Means for printing or decorating articles of ware. 2,842,046, 7–8–58, Cl. 101—41.
Murray, Lilian: *See*—
Murray, Guy L. 2,842,046.
Müschenborn, Walter: *See*—
Reerink, Wilhelm, Müschenborn, and Nötzold. 2,842,319.
Muskus, Clive Z.: *See*—
Scott, William J., and Muskus. 2,842,714.
Musser, C Walton, and L. W. Insetta, to United States of America, Army. Piezoelectric gage. 2,842,686, 7–8–58, Cl. 310—8.7.
Muttart, Vincent, to Independent Lock Co. Knob mounting construction. 2,842,389, 7–8–58, Cl. 292—352.
Mutter, John F. Anti-recoil gun barrels. 2,842,024, 7–8–58, Cl. 89—14.
N. V. Betonfabriek "De Meteoor": *See*—
Kok, Marinus. 2,841,977.
Nachtman, John S., and J. Bjorksten. Process of making structural material by heat bonding wire filaments. 2,842,440, 7–8–58, Cl. 75—208.
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Nardulli, Michael J. 2,841,835.
Nardi, Pierluigi, to Societa Applicazioni Gomma Antivibranti "SAGA" S. p. A. Fluid shock absorber springing assembly. 2,842,358, 7–8–58, Cl. 267—35.
Nardulli, Michael J., to M. J. Nardulli, A. F. Naples, and P. F. Nardulli, as trustees. Window mounting. 2,841,835, 7–8–58, Cl. 20—55.
Nardulli, Peter F.: *See*—
Nardulli, Michael J. 2,841,835.
Nash, Leslie A.: *See*—
Pethrick, Samuel R., and Nash. 2,842,483.
Nash, William H.: *See*—
Thiede, Ronald W., and Nash. 2,842,639.
National Biscuit Co.: *See*—
Perky, Scott H. 2,842,071.
National Cash Register Co., The: *See*—
Weeks, Donald L. 2,842,312.
National Die Casting Co.: *See*—
East, James V. T. 2,842,869.
National Research Council: *See*—
Alexander, Wendal A. 2,842,505.
National Research Development Corp.: *See*—
Davies, Donald W. 2,842,684.
Thomas, Graham I., and Robinson. 2,842,707.
Navior, Joseph F., R. Northmore, and C. E. M. Tibbs, to West Lancashire Radio & Television Laboratories Ltd., T. & T. Vicars, Ltd., and Radio Heaters Ltd. Ovens for dielectric heating. 2,842,650, 7–8–58, Cl. 219—10.69.
Neal, Robert A.: *See*—
Thorpe, Robert J., and Neal. 2,841,957.
Nebinger, Richard B.: *See*—
Knapp, Robert S., and Nebinger. 2,842,293.
Neely, Carroll H. Portable heated animal bed. 2,842,651, 7–8–58, Cl. 219—19.
Neely, William J.: *See*—
Hurford, Winslow L., and Neely. 2,842,719.
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Hayes, Robert M., and Nelson. 2,842,362.
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Nelson, Iver J. and A. R. 2,842,012.
Nelson, Gilbert E.: *See*—
Snow, Douglas G. 2,841,959.
Nelson, Iver J. and A. R. Saw advance means for automatic saw filings. 2,842,012, 7–8–58, Cl. 76—35.
Nelson, Nels H. Tobacco ash receptacle. 2,842,280, 7–8–58, Cl. 220—1.
Neuvirth, George J. Inert gas-arc welding apparatus and a shield and an electrode holding chuck for use in said apparatus. 2,842,656, 7–8–58, Cl. 219—75.
New Products Corp.: *See*—
Banker, Oscar H. 2,842,239.
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Morris, Kenneth G., Roediger, Newberg, and Sayko. 2,842,507.
Newman, Stanley R., and H. E. Vermillion, to The Texas Co. Supplementary fuel mixture for cold starting diesel engines. 2,842,432, 7–8–58, Cl. 44—53.
Newman, Stanley R., R. Y. Heisler, K. L. Dille, and N. Alpert, to The Texas Co. Motor fuel composition. 2,842,433, 7–8–58, Cl. 44—71.
Nicholas, Alfred J., and R. N. Buttrey, to South Wales Switchgear Ltd. High voltage switchgear. 2,842,643, 7–8–58, Cl. 200—144.

Nichols, Joseph, and E. S. Schipper, to Ethicon, Inc. Aminoalkyl esters of 12-keto-10, 11-octadecenoic acid and 12-keto-10, 11-epoxystearic acid. 2,842,560, 7-8-58, Cl. 260—348.

Nichols, Joseph, and E. S. Schipper, to Ethicon, Inc. Aminoalkyl esters of 12-ketooleic acid and 12-ketoelaidic acid. 2,842 575, 7-8-58, Cl. 260—404.

Nichols, Talley W. Toy cartridge type gun. 2,841,907, 7-8-58, Cl. 42—54.

Nightingale, George C.: *See*—
Nightingale, William J. 2,842,375.

Nightingale, Richard H.: *See*—
Nightingale, William J. 2,842,375.

Nightingale, William J., ¼ to G. C. and ¼ to R. H. Nightingale. Torsion spring suspension for frame of children's vehicles. 2,842 375, 7-8-58, Cl. 280—87.03.

Nitzsche, Siegfried, and M. H. Wick, to Wacker Chemie G. m. b. H. Elastomeric organopolysiloxanes containing organo-tin compounds and method of preparation. 2,842,516, 7-8-58, Cl. 260—37.5.

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Norman, Einar. Ship's bumper. 2,842,085, 7-8-58, Cl. 114—219.

North American Aviation, Inc.: *See*—
Johnson, Quinton C. 2,842,031.

North American Philips Co., Inc.: *See*—
Van der Meer, Simon. 2,842,710.
Van Iperen, Bernardus B. 2,842,704.

Northmore, Raymond: *See*—
Naylor, Joseph F., Northmore, and Tibbs. 2,842,650.

Northrop, Harley E.: *See*—
Belden, Charles W., and Northrop. 2,841,966.

Norton, William T., to E. I. du Pont de Nemours and Co. Stabilization of monomers. 2,842,602, 7-8-58, Cl. 260—652.5.

Nötzold, Erich: *See*—
Reerink, Wilhelm, Mülschenborn, and Nötzold. 2,842,319.

Nouveau, Henri, to S. A. R. L. Delitan Produits Metallurgie. Hot top. 2,841,843, 7-8-58, Cl. 22—147.

Nubel, Robert C.: *See*—
Ratajak, Edwin J., and Nubel. 2,842,481.

Nutone, Inc.: *See*—
Spear, Walter A. 2,842,307.

Oakley, Lawrence C.: *See*—
Petermann, Lucien A., and Oakley. 2,842 685.

Oberly, Louis A., and C. B. Salzinger, to Industrial Rayon Corp. Process for coating cloth. 2,842,473, 7-8-58, Cl. 154—120.

O'Brien, Gerard J. Cake cutters and servers. 2,841,868, 7-8-58, Cl. 30—114.

Ohio Brass Co., The: *See*—
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Smith, Edward P. 2,842,718.

Ohmart, Philip E.: *See*—
Heyd, Josef W., and Ohmart. 2,842,736.

Olander, Donald E.: *See*—
Eliern, Herbert, Kowarsky, and Olander. 2,842,477.

Olin Mathieson Chemical Corp.: *See*—
Dunn, Hugh. 2,842,057.
Hers, Josef E., and Fried. 2,842,568.
Perlman, David. 2,842,540.
Temple, Lemuel M. 2,841,909.

Oliver, Doris. Finger nail polish removing tool. 2,841,809, 7-8-58, Cl. 15—138.

Olson, Harold J. Valve device responsive to fluid flow. 2,842,150, 7-8-58, Cl. 137—87.

Olson, Holly M., to Sealed Power Corp. Triple purpose piston ring expander. 2,842,411, 7-8-58, Cl. 309—41.

Olympia Werke AG.: *See*—
Heuer, Hans. 2,842,048.

Omaha Standard, Inc.: *See*—
Standish, Myles, and Shadwick. 2,842,406.

Oncley, Paul B., to Gulton Industries, Inc. Electronic musical instrument. 2,842,021, 7-8-58, Cl. 84—1.01.

O'Neill, Kathryn V. Spray device and an adaptable and flexible spray gun attachment which is a component thereof. 2,842,093, 7-8-58, Cl. 118—301.

O'Neill, Kathryn V. Spray device and a spray gun attachment which is a component thereof. 2,842,094, 7-8-58, Cl. 118—301.

Ording, James R.: *See*—
Clifford, Edward L., Redding, and Ording. 2,842,220.

Orlov, Boris: *See*—
Colombo, George, and Orlov. 2,842,642.

Oroshnik, William, and A. D. Mebane, to Ortho Pharmaceutical Corp. Synthesis of vitamin A esters and ethers. 2,842,600, 7-8-58, Cl. 260—611.

Ortho Pharmaceutical Corp.: *See*—
Oroshnik, William, and Mebane. 2,842,600.
Singber, Heron O., and Swart. 2,842,480.

Osborn, Marvin W., W. J. Bradburn, Jr., and H. R. A. Hansen, to The Louis Allis Co. Small motor voltage control. 2,842,730, 7-8-58, Cl. 318—331.

Osborn, Ralph K. Process for manufacturing jewelry and the like. 2,841,828, 7-8-58, Cl. 18—59.

Ostwald, Fritz, to Alfred Teves Maschinen- und Armaturenfabrik Kom. Ges. Steering device for automotive vehicles with servo control. 2,842,219, 7-8-58, Cl. 180—79.2.

Ofani, Kokichi. Method of making metal castings. 2,841,846, 7-8-58, Cl. 22—201.

Otto, Carl L., and L. B., to Caronelle, Inc. Hair curlers. 2,842,140 7-8-58 Cl. 132—40.

Otto, La Nelle B.: *See*—
Otto, Carl L. and L. B. 2,842,140.

Ottosson, Olof L., to Industriaktiebolaget Luxor. Speed governor device. 2,842,000, 7-8-58, Cl. 74—190.5.

Overman, Ivan J. Compacting and spreading device for highway surfacing materials. 2,842,036, 7-8-58, Cl. 94—46.

Owen, John C., to Bendix Aviation Corp. Control system for aircraft. 2,842,731, 7-8-58, Cl. 318—480.

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Prendergast, John R. 2,842,252.

Owens, William H., to American Rock Wool Corp. Mineral wool and method of treating and coloring the same. 2,841,858, 7-8-58, Cl. 28—74.

Paananen, Roy A.: *See*—
Dench, Edward C., and Paananen. 2,842,667.

Pacoud, Andre, M. Fenoglio, and E. Alvarado, to Societe des Usines Chimiques Rhone-Poulenc. Production of phenols and ketones. 2,842,597 7-8-58, Cl. 260—593.

Paderco Inc: *See*—
Wilmotte, Raymond M., and Young. 2,842,661.

Padgett, Grady. Reciprocating dry shaver head construction. 2,841,867, 7-8-58, Cl. 30—43.

Page, Robert G., to General Electric Co. Circuit breaker. 2,842,641, 7-8-58, Cl. 200—114.

Palm, James W., to Borg-Warner Corp. Overcenter clutch lever arrangement. 2,842,241, 7-8-58, Cl. 192—93.

Pampliega Tajadura, Jose and P. Motor dynamo. 2,842,691, 7-8-58, Cl. 310—138.

Pampliega Tajadura Paulino: *See*—
Pampliega Tajadura, Jose and P. 2,842,691.

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Bearden, William G., and Howard. 2,842,206.
Bearden, William G., Howard, and Evans. 2,842,449.
Davis, Robert W., and Lummus. 2,842,338.
Silverman, Daniel. 2,842,678.
Walker, Scott W. 2,842,581.

P'an, Shih Y.: *See*—
Gardocki, Joseph F., Hutcheon, Laubach, and P'an. 2,842,478.

Papworth, Robert W. O.: *See*—
Stokes, Morris A., and Papworth. 2,841,958.

Paquet, Charles, R. Perron, and J. Petit, to Etablissement Public dit: Centre National de la Recherche Scientifique. Method of preparation and purification of the higher aliphatic di-acids. 2,842,593, 7-8-58, Cl. 260—537.

Parish, Richard L., Jr., and J. W. La Rocque, to American Flange & Mfg. Co., Inc. Container closure and combinations. 2,842,282, 7-8-58, Cl. 220—39.

Patelli, Bianca: *See*—
Camerino, Bruno, Patelli, and Vercellone. 2,842,571.

Patent- und Versuchs-Anstalt: *See*—
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Patterson, Roy I. Distributor for grain and the like. 2,842,242 7-8-58, Cl. 193—23.

Paulssen, Horst W. A. Method and means of improving the structural characteristics of sheet material. 2,842,237, 7-8-58 Cl. 189—85.

Pearson, Carl A. Expander fish lure. 2,841,913, 7-8-58, Cl. 43—37.

Peck, David B.: *See*—
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Peck, Ralph. Eyebrow form. 2,842,142, 7-8-58, Cl. 132—88.5.

Peek, Sandford C., Jr., to Sylvania Electric Products Inc. Induction lamp. 2,842,698, 7-8-58, Cl. 313—161.

Peeler, Lawrence F.: *See*—
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Pellicano, Dominick P. Bath tub with reversible apron. 2,841,795, 7-8-58, Cl. 4—173.

Penn Controls Inc.: *See*—
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Swanson, Earnest F. 2,841,999.

Penn, Ralph S., to Penn Controls Inc. Oil burner control. 2,842,192 7-8-58, Cl. 158—28.

Pepi, John, to E. C. Houlette. Tile holding tool for use in tile cutting. 2,842,115, 7-8-58, Cl. 125—35.

Pepper, Robert K. Braking system for semi-trailers. 2,842,231, 7-8-58 Cl 188—92.

Perky, Scott H., to National Biscuit Co. Manufacture of shredded cereal products. 2,842,071, 7-8-58, Cl. 107—10.

Perlman, David, to Olin Mathieson Chemical Corp. Preparation of new cobalamins. 2,842,540, 7-8-58, Cl. 260—211.5.

Permaglass Inc.: *See*—
McMaster, Harold A. 2,841,925.

Perron, Roger: *See*—
Paquot, Charles, Perron, and Petit. 2,842,593.

Persson, Curt O. G. Movable device for storing and turning cheese. 2,841,870, 7-8-58, Cl. 31—49.

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Querengässer, Hugo, Wild, Bronstert, Sindel, and Hentschel. 2,842,608.

Petermann, Lucien A., and L. C. Oakley, to Gulton Industries, Inc. Bender tuned array. 2,842,685, 7-8-58, Cl. 810—8.3.

Peters, Ernst A. Thermostatically controlled water bypass valve. 2,842,155 7-8-58. Cl. 137—337.

Peters, Freimut: *See*—
Germershausen, Werner, Peters, and Soeding. 2,842,607.

Peterson, Charles K., to United States of America, Army. Frequency modulator. 2,842,743, 7-8-58, Cl. 332—23.

Pethrick, Samuel R., and L. A. Nash, to The British Petroleum Co. Ltd. Carton wax composition. 2,842,483, 7-8-58, Cl. 106—149.

Petit, Josiane: *See*—
Paquot, Charles, Perron, and Petit. 2,842,593.

Petrie, Edgar H., to Minneapolis-Honeywell Regulator Co. Control apparatus. 2,842,311, 7-8-58, Cl. 235—61.

Pfeiffer, David C. Heat ray reflecting means, etc. 2,842,100, 7-8-58, Cl. 160—369.

Pfeiffer, Fred B., ½ to J. R. Crossan. Stretching means. 2,841,820, 7-8-58, Cl. 18—1.

Pfizer, Chas. & Co., Inc.: *See*—
Brown, Frank E. 2,841,940.
Gardocki, Joseph F., Hutcheon, Laubach, and P'an. 2,842,478.
Minkel, John J., Abbe, Sarasin, and Thulke. 2,841,937.
Ratajak, Edwin J., and Nubel. 2,842,481.

Pfundt, George M. Panel sign frame. 2,841,902, 7-8-58, Cl. 40—125.

Phelp, Norman R.: *See*—
Jesty, Leslie C., and Phelp. 2,842,611.

Philco Corp.: *See*—
Bingley, Frank J. 2,842,697.
Muldoon, Robert P., Himmelberger, and Fuller. 2,842,712.

Philips, Judson L., and J. J. Kolfenbach, to Esso Research and Engineering Co. Method for reducing corrosion in lubrication systems. 2,842,112, 7-8-58, Cl. 123—196.

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Richards, William V. 2,841,962.

Phillips, H. A., & Co.: *See*—
Richards, William V. 2,841,962.

Phillips Petroleum Co.: *See*—
Bishop, George F. L. 2,842,430.
Dukes, Haydron H. 2,842,208.
Goodhue, Lyle D., and Louthan. 2,842,549.
Harbert, Bobby C. 2,841,979.
Jones, Rufus V. 2,842,504.
Mertz, Clyde W. 2,842,551.
Smith, Frederick M., and Pritchard. 2,842,526.

Phillips, Wayland: *See*—
Richards, William V. 2,841,962.

Phipps, John W., to Imperial Chemical Industries Ltd. Melt spinning apparatus with removable spinning assembly. 2,841,821, 7-8-58, Cl. 18—8.

Picker X-Ray Corp., Waite Mfg. Div., Inc.: *See*—
Schiring, Ralph C., and Foderaro. 2,842,676.

Pikl, Josef, to E. I. du Pont de Nemours and Co. Polychlorobenzenedithiols. 2,842,578, 7-8-58, Cl. 260—429.9.

Piqué, Baudilio J. Negative pattern and hollow mold for casting compound reflector members. 2,841,825, 7-8-58, Cl. 18—34.

Pinterelli, Ralph. Valve controls. 2,842,337, 7-8-58, Cl. 251—339.

Pittenger, Harold C. Micrometer height gauge. 2,841,876, 7-8-58, Cl. 33—170.

Platt, Samuel, to United Paper Box Co., Set up box. 2,842,303, 7-8-58, Cl. 229—30.

Plessey Co. Ltd., The: *See*—
Hilton John L. 2,842,066.

Plumley, Harold J., R. H. F. Stresau, Jr., and P. L. Godchaux, II. Detonator. 2,842,059, 7-8-58, Cl. 102—70.2.

Podell, Jacob J. Garment hanger. 2,842,290, 7-8-58, Cl. 223—96.

Polmanteer, Keith E., and R. J. Koch, to Dow Corning Corp. Vinyl containing silicone elastomers comprising sulfur compounds as curing agents. 2,842,520, 7-8-58, Cl. 260—46.5.

Polytechnic Institute of Brooklyn: *See*—
Vallese, Lucio M. 2,842,748.

Pomper, Anthony W., to John Waldron Corp. Reverse roll coating machine with blade support for web. 2,842,092, 7-8-58, Cl. 118—248.

Poole, John, Jr., to R. B. Chesley. Sliding window sash structure. 2,841,834, 7-8-58, Cl. 20—52.

Poos, George I.: *See*—
Arth, Glen E., Poos, and Sarett. 2,842,557.

Porter-Cable Machine Co., The: *See*—
Bruck, John P., and F. W. Mittina. 2,842,170.

Porter, Floyd B., Jr.: *See*—
Anderson, Joseph M., and Porter. 2,842,453.

Porsondek, Bernard J., to Ford Motor Co. Vehicle seat cushion. 2,842,190, 7-8-58, Cl. 155—184.

Posegate, Russell W.: *See*—
Rice, Leemon D., and Posegate. 2,842,443.

Post, Charles R. Obstetrical delivery instrument. 2,842,134, 7-8-58, Cl. 128—361.

Powell, Wm., Co., The: *See*—
Smith, Russell G. 2,842,283.

Pratt, Burt C., to E. I. du Pont de Nemours and Co. Process for preparing a copolymer of 3-methylene-1-cyclobutene and another ethylenically unsaturated monomer and the copolymer. 2,842,474, 7-8-58, Cl. 154—140.

Pratt & Whitney Co., Inc.: *See*—
Wright, Alexander M. 2,842,062.

Preist, Donald H., to Eitel-McCullough, Inc. Electron gun for beam-type tubes. 2,842,703, 7-8-58, Cl. 315—3.

Preist, Donald H., to Eitel-McCullough, Inc. Modulated beam-type electron tube apparatus. 2,842,742, 7-8-58, Cl. 332—7.

Premier Drum Co. Ltd., The: *See*—
Della-Porta, Clifford A. 2,842,387.

Prendergast, John R., to Owens-Illinois Glass Co. Apparatus for transferring and loading anode buttons on a carrier. 2,842,252, 7-8-58, Cl. 198—24.

Prewitt, Richard H. Rotor blade with deicing means. 2,842,214, 7-8-58, Cl. 170—135.4.

Price, Earl R., to Bendix Aviation Corp. Fluid pressure servo-motor. 2,842,101, 7-8-58, Cl. 121—41.

Prieto, José H. Torsion regulator for iron and steel rolling curtains. 2,842,198 ,7-8-58, Cl. 160—313.

Pringle, Gail W.: *See*—
Van Amburg, William F., Redmond, and Pringle. 2,841,851.

Priola, Michael J. Slag ladle. 2,842,353, 7-8-58, Cl. 266—39.

Pritchard, James E.: *See*—
Smith, Frederick M., and Pritchard. 2,842,526.

Profos, Paul, to Sulzer Freres, Societe Anonyme. Method for washing out the conduits of supercritical pressure, water tube, vapor generators. 2,842,103, 7-8-58, Cl. 122—379.

Pullen, Fred W., to Bissell Carpet Sweeper Co. Carpet sweeper. 2,841,807, 7-8-58, Cl. 15—48.

Pullman-Standard Car Mfg. Co.: *See*—
Boese, William G., and Adler. 2,842,070.
Hess, Francis M., and Adler. 2,842,074.

Purington, Ellison S., to J. H. Hammond, Jr. Remotely controlled receiver for recording selected portions of telecast. 2,842,614, 7-8-58, Cl. 178—7.4.

Pye Ltd.: *See*—
Daigleish, James W., and Roman. 2,842,645.
Holmes, Frank C. 2,842,625.

Querengässer, Hugo, W. Wild, F. Bronstert, J. Sindel, and P. Hentschel, to Pertrix-Union G. m. b. H. Flat-type electrolytic dry cell for use in primary batteries. 2,842,608, 7-8-58, Cl. 136—111.

Radio Corp. of America: *See*—
Hagmann, Robert W., and Cooper. 2,842,708.
Hurford, Winslow L., and Neely. 2,842,719.
Lufkin, Paul M. 2,842,709.
Titcomb, Francis R., and Brinton. 2,842,702.

Radio Heaters Ltd.: *See*—
Naylor, Joseph F., Northmore, and Tibbs. 2,842,650.

Radley, Margaret K.: *See*—
Brian, Percy W., Radley, Curtis, and Elson. 2,842,051.

Ragan, Robert S. Cam-actuated, quick break electric switch. 2,842,640, 7-8-58, Cl. 200—114.

Railway Maintenance Corp.: *See*—
McWilliams, James B. 2,842,069.

Rainbow, Horace S., to Armstrong Siddeley Motors Ltd. Means for reversing the thrust of a jet engine. 2,841,954, 7-8-58, Cl. 60—35.54.

Rambausek, Hugo: *See*—
Lammers, Ernst. 2,842,004.

Ramsey, George H., to Esso Research and Engineering Co. Hydraulic motor operated formation tester. 2,842,210, 7-8-58, Cl. 166—100.

Randall, Clifton O., and L. D. Zepernick, to Vector Mfg. Co. Geophone cable. 2,842,750, 7-8-58, Cl. 339—151.

Ransburg Electro-Coating Corp.: *See*—
Juvinall, James W. 2,842,460.

Ratnicsak, Francis I., to General Motors Corp. Door fastener. 2,842,075, 7-8-58, Cl. 109—63.5.

Ratajak, Edwin J., and R. C. Nubel, to Chas. Pfizer & Co., Inc. Process for producing oleandomycin. 2,842,481, 7-8-58, Cl. 195—114.

Rayburn, Vincent A., to Western Electric Co., Inc. Flyer for supply stands. 2,842,323, 7-8-58, Cl. 242—128.

Raytheon Mfg. Co.: *See*—
Cronin, Leo J. 2,842,701.
Dench, Edward C., and Paananen. 2,842,667.
Derby, Palmer P. 2,842,713.
Hutchison, Paul T., and Hines. 2,842,766.

Reschi, Ramon. Lamp. 2,842,658, 7-8-58, Cl. 240—13.

Redding, Vernon L.: *See*—
Clifford, Edward L., Redding, and Ording. 2,842,220.

Redmond, Walter M.: *See*—
Van Amburg, William F., Redmond, and Pringle. 2,841,851.

Reed, Theron J. Elevating belt conveyor. 2,842,256, 7-8-58, Cl. 198—120.5.

Reerink, Wilhelm, W. Mülschenborn, and E. Nötzold. Method of producing ultra-clean coal. 2,842,319, 7-8-58, Cl. 241—14.

Reese, Richard M., and I. J. Anderson, to Bjorksten Research Laboratories, Inc. Supporting device for cameras. 2,842,026, 7-8-58, Cl. 88—24.

Regan Forge and Engineering Co.: *See*—
Regan, John. 2,842,386.

Regan, John, to Regan Forge and Engineering Co. Spray eliminator for wire line strippers. 2,842,386, 7-8-58, Cl. 286—16.

Reichert, William G. Automatic apparatus for removing core arbors from foundry flasks. 2,841,840, 7-8-58, Cl. 22—93.

Reickord, Adelbert W.: *See*—
Eckert, John P., Jr., and Reickord. 2,842,663.

Reider, George S., Jr.: *See*—
Hammell, Kemper M., and Reider. 2,842,018.

Reinhard, Carl J. Brush. 2,841,810, 7-8-58, Cl. 15—172.

Rekettye, Paul, to The Sun Rubber Co. Charging apparatus for vinyl casting machines. 2,842,160, 7-8-58, Cl. 137—565.

Relaxacizor, Inc.: *See*—
Browner, William J. 2,842,135.
Browner, William J. 2,842,136.

Reliance Electric and Engineering Co., The: *See*—
Lang, Ernest U. 2,842,355.

Renfrow, Aubrey J. Register for service trays and the like. 2,841,899 7-8-58, Cl. 40—68.

Reuland, Howard R. Food smoking appliance. 2,842,043, 7-8-58, Cl. 99—250.

Rex Roto Corp.: *See*—
Heidemann, Homer G. 2,842,234.

Reynaud, Francis, and G. Terras, to Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries Electriques d'Ugine. Process of separating nickel and cobalt. 2,842,427, 7-8-58, Cl. 23—183.

Reynolds, Edward H., to British Insulated Callenders Cables Ltd. Heat sensitive electric cables. 2,842,648, 7-8-58, Cl. 201—63.

Rhodes, Kenneth E.: *See*—
Furman, Frank J., Koranyo, and Rhodes. 2,842,246.

Rice, Arthur W., and G. W. Crawford. Retaining holder for elongated flexible articles. 2,841,849, 7-8-58, Cl. 24—120.

Rice, Henry T. M., and R. T. Stevens, to A. M. Stevens, executrix of the estate of D. Stevens, deceased, decree of distribution. Air and magnetic releasable torque transmitting apparatus. 2,842,240, 7-8-58, Cl. 192—86.

Rice, Leamon D., and R. W. Posegate, to Armour and Co. Method of trussing poultry. 2,842,443, 7–8–58, Cl. 99—107.

Rice, Lyman A., to General Motors Corp. Electrical regulator. 2,842,634, 7–8–58, Cl. 200—87.

Rice, Walter A., to Mohasco Industries, Inc. Method of making pile fabrics with loops of different height and apparatus for practicing the method. 2,842,079, 7–8–58, Cl. 112—79.

Richards, William V., to H. A. Phillips, d. b. a. H. A. Phillips & Co., by W. Phillips, conservator of his estate. Return apparatus for a two-stage refrigeration system. 2,841,962, 7–8–58, Cl. 62—174.

Richardson, Sam H. Tire gauge. 2,841,874, 7–8–58, Cl. 33—143.

Richman, Donald, to Haseltine Research, Inc. Control apparatus for television receivers. 2,842,613, 7–8–58, Cl. 178—7.3.

Rigterink, Raymond H., to The Dow Chemical Co. o-Amino-4,6-di-secondary-butyl-o-cresols. 2,842,595, 7–8–58, Cl. 260—570.9.

Ringler, William A., to The Diamond Match Co. Shipping and carrying cartons. 2,842,304, 7–8–58, Cl. 229—51.

Ripley, Glenn Q., Jr. Aerating device. 2,842,347, 7–8–58, Cl. 261—76.

Ripley-Duggan, Basil A., to The Distillers Co. Ltd. Process for the production of a graft copolymer. 2,842,519, 7–8–58, Cl. 260—45.5.

Roach, Urban P. Load measuring device. 2,842,633, 7–8–58, Cl. 200—85.

Robertshaw-Fulton Controls Co.: *See*—
Cate, Paul E. 2,842,182.

Robertson, James A., to E. I. du Pont de Nemours and Co. Aqueous fireproofing composition of sodium oxyfluoborate and phenol formaldehyde, method of treating paper therewith and article prepared therefrom. 2,842,510, 7–8–58, Cl. 260—29.3.

Robertson, Louie H. Treated fuels. 2,842,431, 7–8–58, Cl. 44—24.

Robinson, Arthur A.: *See*—
Thomas Graham L. and Robinson. 2,842,707.

Robinson, Marion A. Float valve. 2,842,158, 7–8–58, Cl. 137—428.

Robinson Preston, and D. B. Peck, to Sprague Electric Co. Electrical condensers. 2,842,726, 7–8–58, Cl. 217—358.

Robotron Corp.: *See*—
Thomsen, Theodore R. 2,842,672.

Rockefeller, Robert L., and L. F. Trimble, to International Business Machines Corp. Automatic verification of sums. 2,841,981, 7–8–58, Cl. 73—156.

Rockwell Mfg. Co.: *See*—
Weikart, Warren D., and Deuschle. 2,842,171.

Rodder, Jerome A. Quartz fiber torsion ultramicrobalance. 2,842,351, 7–8–58, Cl. 265—54.

Rodrigues, John J., Jr. Masking device for fingernails. 2,842,141, 7–8–58, Cl. 132—73.5.

Roebiz, Adolf. Casting machine for chill casting cylindrical liners. 2,841,839, 7–8–58, Cl. 22—57.

Roediger, Joseph C.: *See*—
Morris, Kenneth G., Roediger, Newberg, and Sayko. 2,842,507.

Rohm & Haas Co.: *See*—
Craig, W. E., and La. 2,842,475.
Lane, Earl W. 2,842,546.
Melamed, Sidney. 2,842,527.

Rohm & Haas G. m. b. H.: *See*—
Von Engelhardt, Wolf, Trommsdorff, and Tunn. 2,842,492.

Rolls-Royce Ltd.: *See*—
Emblem, Harold G., and Cloherty. 2,842,444.
Emblem, Harold G., and Cloherty. 2,842,445.

Roman, George: *See*—
Dalgleish, James W. 2,842,645.

Ronning, Adolph. Vehicle suspension having differentially connected wheels. 2,842,377, 7–8–58, Cl. 280—104.5.

Roper, Lowell W. Archery bow. 2,842,113, 7–8–58, Cl. 124—24.

Rose, Carl, to G. Munday. Ventilator wall and window blocks. 2,842,042, 7–8–58, Cl. 98—121.

Rosendahl, Gunner J. J.: *See*—
Jensen, Kaj L., and Rosendahl. 2,842,203.

Rosenkrans, Georg: *See*—
Djerassi, Carl, Sondheimer, and Rosenkrans. 2,842,543.
Sondheimer, Franz, Mancera, and Rosenkrans. 2,842,565.

Ross, Elmer R., to Kelsey-Hayes Co. Internal expanding brake. 2,842,229, 7–8–58, Cl. 188—79.5.

Rosselet, Jean P., to The Upjohn Co. 6-methyl, Δ1,4,3 keto androstene derivatives. 2,842,566, 7–8–58, Cl. 260—397.3.

Roth, Aaron. Attachment for spectacles. 2,842,029, 7–8–58, Cl. 88—41.

Roudebush, Brooks, to Fun-Craft, Inc. Aquaplane. 2,841,805, 7–8–58, Cl. 9—21.

Roussel, Philip A., to E. I. du Pont de Nemours and Co. Process for making plastic polyurethane foam employing water soluble tertiary amine-tertiary amine salt mixtures as catalysts. 2,842,506, 7–8–58, Cl. 260—2.5.

Roy, Milton, Co.: *See*—
Basiffrank, Royal B. 2,841,991.

Royal Industries, Inc.: *See*—
Toader, Romulus. 2,842,491.

Ruegg, Rudolf: *See*—
Isler, Otto, Montavon, Ruegg, and Zeller. 2,842,599.

Rundhaug, Le Roy M. Pressurized transfusion apparatus. 2,842,123, 7–8–58, Cl. 128—214.

Rupp, Lester P.: *See*—
Rupp, Sylvester B., and Rupp. 2,842,258.

Rupp, Sylvester B., and L. P. Rupp. Bearing for auger conveyor bunk feeders. 2,842,268, 7–8–58, Cl. 198—213.

Ruta, Richard F., to International Business Machines Corp. High frequency transistor oscillator. 2,842,668, 7–8–58, Cl. 250—36.

Ryan, Helen R. Multi-year calendar. 2,841,900, 7–8–58, Cl. 40—117.

Ryder, Fred A., to Chicago Carton Co. Pouring spout carton. 2,842,302, 7–8–58, Cl. 229—17.

S. A. E. L. Doittau Produits Metallurgie: *See*—
Nouveau, Henri. 2,841,843.

Saalfrank, Royal B., to Milton Roy Co. Stroke adjustment device. 2,841,991, 7–8–58, Cl. 74—40.

Saarivirta, Matti J., and A. R. Beck, Jr., to American Metal Climax, Inc. Copper-zirconium alloys. 2,842,438, 7–8–58, Cl. 75—153.

Sabatini, John J., to Bendix Aviation Corp. Starter gearing for internal combustion engines. 2,841,988, 7–8–58, Cl. 74—6.

Sackett, Justus R., to E. I. du Pont de Nemours and Co. Coating compositions. 2,842,285, 7–8–58, Cl. 220—64.

Saltz, Fred, and R. L. Street, to International Business Machines Corp. Feed control tape sensing devices. 2,842,248, 7–8–58, Cl. 197—133.

Salzinger, Carl B.: *See*—
Oberly, Louis A., and Salzinger. 2,842,473.

Sammarco, Peter: *See*—
Carlson, Ernest C., Hilblom, and Sammarco. 2,841,944.

Sampson, Will D., to Engineering Industries Corp. Medium weight dirt moving machine. 2,841,896, 7–8–58, Cl. 37—168.

Samwald, Hans. Combination signaling device. 2,842,090, 7–8–58, Cl. 116—124.

Sanders, John C. Closed-loop acceleration control system. 2,842,108, 7–8–58, Cl. 123—102.

Sandoz Trust: *See*—
Byland, Hans-Rudolf. 2,842,538.
Byland, Hans-Rudolf. 2,842,539.

Sandvikens Jernverks Aktiebolag: *See*—
Haglund, Didrik W. 2,842,342.

Sanner, George E., to United States of America, Air Force. New type electronics tube. 2,842,673, 7–8–58, Cl. 250—83.3.

Sarasin, Serge: *See*—
Miskel, John J., Abbe, Sarasin, and Thulke. 2,841,937.

Sarett, Lewis H.: *See*—
Arth, Glen E., Poos, and Sarett. 2,842,557.

Satem S. A. Societe Anonyme: Societe d'Application Technique d'Emballages Modernes: *See*—
Giraudet, Pierre. 2,842,263.

Saul & Co.: *See*—
Byland, Hans-Rudolf. 2,842,538.
Byland, Hans-Rudolf. 2,842,539.

Saunders, Alfred P., to Wildt and Co. Ltd. Control mechanisms for knitting machines. 2,841,970, 7–8–58, Cl. 66—155.

Sayko, Andrew F.: *See*—
Morris, Kenneth G., Roediger, Newberg, and Sayko. 2,842,507.

Scanlon, Edward C. Hollow tapered furniture leg. 2,842,417, 7–8–58, Cl. 311—109.

Scheidley, William J., R. C. Givens, and M. R. Hefty, to The Texas Co. Traction motor gear lubricant. 2,842,496, 7–8–58, Cl. 252—42.1.

Schenck, Leslie M.: *See*—
Bloom, Albert, and Schenck. 2,842,564.

Scherbatskoy, Serge A. Radiation detector. 2,842,675, 7–8–58, Cl. 250—83.6.

Schilling, Arthur R., to Daystrom, Inc. Method of forming thin-walled tubing into a desired shape. 2,841,866, 7–8–58, Cl. 29—423.

Schilling, August H.: *See*—
Koehler, Max. 2,842,471.

Schipper, Edgar B.: *See*—
Nichols, Joseph, and Schipper. 2,842,560.
Nichols, Joseph, and Schipper. 2,842,576.

Schiring, Ralph C., and A. J. Foderaro, to Picker X-Ray Corp., Waite Mfg. Div., Inc. Demountable X-ray apparatus. 2,842,676, 7–8–58, Cl. 250—92.

Schjolin, Hans O., and E. W. Allen, to General Motors Corp. Refrigerating apparatus. 2,841,943, 7–8–58, Cl. 62—244.

Schley & Schley: *See*—
Wilson, Fred R., Jr. 2,842,145.

Schlotzhauer, Leon R., and K. T. Wood, to Corning Glass Works. Method of making a refractory body and article made thereby. 2,842,447, 7–8–58, Cl. 106—57.

Schlumberger Well Surveying Corp.: *See*—
Goodman, Clark. 2,842,695.
Lebourg, Maurice P. 2,842,712.

Schmerling, Louis, to Universal Oil Products Co. Preparation of mono- and diaryliarsines. 2,842,579, 7–8–58, Cl. 260—440.

Schmitt, Frank R. Television antenna. 2,842,765, 7–8–58, Cl. 343—726.

Schnell, Carl, ½ to The Griffith Laboratories, Inc. Comminuting machine. 2,842,177, 7–8–58, Cl. 146—192.

Schoenewolf, Friederich W., to Automatic Coinwrapping Machine Corp. Machines for counting coins and other articles. 2,841,934, 7–8–58, Cl. 53—59.

Schornstein, Waldemar, and F. Kern, to Ciba Ltd. Process for separating niobium and tantalum from materials containing these metals. 2,842,424, 7–8–58, Cl. 23—18.

Schramm, Carl, to The Smyth Mfg. Co. Book feeding mechanism. 2,842,284, 7–8–58, Cl. 198—34.

Schreiber, Albert A., to McLaughlin Gormley King Co. Insecticidal compositions. 2,842,476, 7–8–58, Cl. 167—24.

Schubauer, Edouard, to Sodeco, Societe des Compteurs de Geneve. Register resetting mechanism. 2,842,316, 7–8–58, Cl. 235—144.

Schultz, Henry J., to B. Walker. Venetian blind. 2,842,196, 7–8–58, Cl. 160—173.

Schulz Tool and Mfg. Co.: *See*—
Mosher, James K. 2,842,187.

Schulze, Chris C., R. H. Kirby, and R. B. Brouillard, to General Aniline & Film Corp. Procedures for the preparation of the leuco sulfuric esters of vat dyestuffs. 2,843,552, 7–8–58, Cl. 260—303.

Schumann, Robert H. Operating lever for farm tractor torque amplifier. 2,842,009, 7–8–58, Cl. 74—491.

Schuster, Erich, to Thermac Co. Fluid pressure regulator and safety device. 2,842,146, 7–8–58, Cl. 137—96.

Schwebel, Morris S. Heating pad. 2,842,655, 7–8–58, Cl. 219—46.

Schweeman, Harry R., to Halliburton Oil Well Cementing Co. Fluid flow control device. 2,842,163, 7–8–58, Cl. 166—43.

Scott, James I.: *See*—
Yost, Charles W. 2,842,086.

Scott, William J., and C. E. Muskus, to The British Thomson-Houston Co. Ltd. Electric discharge devices. 2,842,714, 7–8–58, Cl. 315—39.

Sealed Power Corp.: *See*—
Olson, Holly M. 2,842,411.

Seidler, Leon S. Surgical appliance. 2,842,130, 7–8–58, Cl. 128—303.

Seismograph Service Corp.: *See*—
Klotz, Robert L. 2,842,086.
Mason, Richard D. 2,842,053.

Selleri, Renato: *See*—
Chitti, Walter, and Selleri. 2,842,547.

Semmion, Walter A. Explosive rivet having tubular expansion shell. 2,842,022, 7–8–58, Cl. 85—40.

Set Screw & Mfg. Co.: *See*—
Brown, Calvin O., and K. R. Dodge. 2,842,180.

Shadwick, William D.: *See*—
Standish, Myles, and Shadwick. 2,842,406.

Shaffer Tool Works: *See*—
Gibson, Wilfred C. 2,842,209.

Shannon, Gerald L., to Dow Corning Corp. Composition containing organosiloxane and polyimine and method of treating textiles therewith. 2,842,509, 7–8–58, Cl. 260—29.2.

Shapiro, Seymour L.: *See*—
Freedman, Louis, Shapiro, and Geiger. 2,842,596.

Sharples, Geoffrey F., to The English Electric Co. Ltd. Aircraft undercarriage. 2,842,326, 7–8–58, Cl. 244—103.

Shaw, Albert W. F. L. Claire, and R. J. Bullard, deceased, by D. E. Bullard, administratrix. Power-operated pipe cutting tool. 2,842,238, 7–8–58, Cl. 90—12.

Shell Development Co.: *See*—
Van der Waals, Joan H., and Dallinga. 2,842,604.
Watson, Forrest J. 2,842,497.
Winter, Ernest F., and Wooldridge. 2,842,152.

Shelton, James L., to International Minerals & Chemical Corp. Process of treating sugar beet molasses to recover barium saccharate and glutamic acid. 2,842,591, 7–8–58, Cl. 260—527.

Sherman, Ernest T. Motor hoist. 2,842,274, 7–8–58, Cl. 214—374.

Sherwin-Williams Co., The: *See*—
Grummitt, Oliver J., and Arters. 2,842,451.

Shire, William A., Jr., and J. A. Smelko, to Standard Oil Co. Fuel system emergency pump and trap. 2,842,207, 7–8–58, Cl. 210—416.

Shorr, Leonard M., to Dow Corning Corp. Siloxane unsaturated polyester resins and method of preparation. 2,842,517, 7–8–58, Cl. 260—45.4.

Short, Brooks H., to General Motors Corp. Control device. 2,842,334, 7–8–58, Cl. 251—137.

Short, Oliver A., to E. I. du Pont de Nemours and Co. Ceramic color compositions. 2,842,454, 7–8–58, Cl. 106—288.

Sieber, Charles B., ½ to E. R. Stitt and ½ to W. J. Miller. Vibrator. 2,841,995, 7–8–58, Cl. 74—87.

Siegrist, Adolf-Emil: *See*—
Duennenberger, Max, Ackermann, and Siegrist. 2,842,545.

Siemens Edison Swan Ltd.: *See*—
Kinsey, Ronald W., and Simmons. 2,842,734.

Siemens & Halske Akt.: *See*—
Müller, Werner. 2,842,725.

Silliman, Louis, and H. Hacker, to Flexline Shoe Co. Force-lasted stitchdown shoe. 2,841,861, 7–8–58, Cl. 36—16.

Silverman, Daniel, to Pan American Petroleum Corp. Shielding in irradiation well logging. 2,842,678, 7–8–58, Cl. 250—108.

Simkins, Leon L., to Square D Co. Portable electrical testing instrument with prod retaining case. 2,842,741, 7–8–58, Cl. 324—149.

Simmons, Brian D.: *See*—
Kinsey, Ronald W. S., and Simmons. 2,842,734.

Simmons, Victor C. Rotatable tray. 2,842,413, 7–8–58, Cl. 311—32.

Simon, Raymond J. C., to Carter Motor Co. Converter. 2,841,681, 7–8–58, Cl. 307—38.

Sindel, Johann: *See*—
Querengasser, Hugo, Wild, Bronstert, Sindel, and Hentschel. 2,842,608.

Singer Mfg. Co., The: *See*—
Turner, Edgar P., and Happe. 2,842,173.

Singher, Heron O., and E. A. Swart, to Ortho Pharmaceutical Corp. Preparation of thromboplastin. 2,842,480, 7–8–58, Cl. 167—74.

Sjögren, Borje, to Carlson Tool and Machine Co. Tuft guard mechanism. 2,842,401, 7–8–58, Cl. 300—8.

Skinner, Charles R. Automatic valve. 2,842,629, 7–8–58, Cl. 200—61.07.

Skinner, M. B., Co.: *See*—
Merrill, Paterson D. 2,842,382.

Skolnik, Sol: *See*—
Evans, Robert, Thames, and Skolnik. 2,842,594.

Skowron, Carl. Variable speed and torque transmission. 2,842,011, 7–8–58, Cl. 74—796.

Skromme, Arnold B., and G. R. Sutherland, to Deere Mfg. Co. Forage harvester knives. 2,841,946, 7–8–58, Cl. 56—289.

Slatoski, Walter S. Mortar heater. 2,842,118, 7–8–58, Cl. 126—245.

Sloan, Laurie M.: *See*—
Allen, Thomas O., and Sloan. 2,842,205.

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Smith, Dale D., to Earl Harley, Inc. Fastener. 2,841,848, 7–8–58, Cl. 24—41.

Smith, David F.: *See*—
Foglia, Andrew J., Smith, and Detwiler. 2,842,120.

Smith, David G.: *See*—
Berge, Olav, and Smith. 2,842,117.

Smith, Edward P., to The Ohio Brass Co. Circuit interrupters. 2,842,718, 7–8–58, Cl. 317—13.

Smith, Fredrick M., and J. E. Pritchard, to Phillips Petroleum Co. Vinylcyclohexanethiols and polymers thereof. 2,842,526, 7–8–58, Cl. 260—79.7.

Smith, George W. Automatic drill. 2,842,131, 7–8–58, Cl. 128—310.

Smith, J. Harold: *See*—
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Smith, Lucius N. Boat dock. 2,842,082, 7–8–58, Cl. 114—0.5.

Smith, Paul V., Jr.: *See*—
FitzGerald, William P., and Smith. 2,842,513.
Bartlett, Jeffrey H., and Smith. 2,842,514.

Smith, Russell G., to The Wm. Powell Co. Closure for pressure vessels. 2,842,283, 7–8–58, Cl. 220—41.

Smyth Mfg. Co., The: *See*—
Schramm, Carl. 2,842,284.

Snijders, Antonie, to Staatsbedrijf der Posterijen, Telegrafie en Telefonie. Electronic transmitter, receiver and regenerative repeater for telegraph signals in a start-stop code. 2,842,616, 7–8–58, Cl. 178—53.1.

Snow, Douglas G., to G. E. Nelson. Fluid coupling. 2,841,959, 7–8–58, Cl. 60—54.

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Stern, Kurt G. 2,842,577.

Societa Applicazioni Gomma Antivibranti "SAGA" S. p. a.: *See*—
Nardi, Pierluigi. 2,842,358.

Societa Farmaceutici Italia: *See*—
Camerino, Bruno, Patelli, and Vercellone. 2,842,571.

Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobian, Chauny & Cirey: *See*—
Dickinson, George A., and Kay. 2,842,464.

Societe Anonyme Francaise du Ferodo: *See*—
Maurice, Jean, and Michel. 2,842,008.

Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries Electriques d'Ugine: *See*—
Reynaud, Francis, and Terras. 2,842,427.

Societe d'Electronique et d'Automatisme: *See*—
Martin, Jacques E. 2,842,664.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
Pacoud, Andre, Fenoglio, and Alvarado. 2,842,597.

Societe Rhodiaceta: *See*—
Mouse, Pierre. 2,842,422.

Society Brematex: *See*—
Leutert, Walter. 2,841,949.

Socony Mobil Oil Co., Inc.: *See*—
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Butcosk, Richard A. 2,842,494.
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Soeding, Fritz: *See*—
Germershausen, Werner, Peters, and Soeding. 2,842,607.

Solomon, Julius L., to Welding Research, Inc. Sequential pulsation timer. 2,842,315, 7–8–58, Cl. 235—132.

Solomon, Louis P. One piece utility box. 2,842,178, 7–8–58, Cl. 150—0.5.

Soltero, Luis R., and S. D. Greenberg. Surgical clamp. 2,842,132, 7–8–58, Cl. 128—322.

Sondheimer, Franz: *See*—
Djerassi, Carl, Sondheimer, and Rosenkrans. 2,842,543.

Sondheimer, Franz, O. Mancera, and G. Rosenkrans, to Syntex S. A. Cyclopentanophenanthrene derivatives and method for the production thereof. 2,842,565, 7–8–58, Cl. 260—397.3.

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Boseman, Virgil F., Sorensen, Morrison, and Kent. 2,842,368.

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Nicholas, Alfred J., and Buttrey. 2,842,643.

Sparks, David W., to United States of America, Navy. Electronic voltmeters. 2,842,740, 7–8–58, Cl. 324—120.

Spear, Walter A., to Nutone, Inc. Blower construction. 2,842,307, 7–8–58, Cl. 230—117.

Spendel, Kurt, to Firma Otto Berning & Co. Device for mounting of covered buckles. 2,841,859, 7–8–58, Cl. 29—8.

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Herr, Milton E., and Spero. 2,842,573.

Speroni, Silvio A. Automatic cup dispensing and filling machine for fluids and semi-solids. 2,841,938, 7–8–58, Cl. 53—282.

Sperry Rand Corp.: *See*—
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Eckert, John P., Jr., and Reickord. 2,842,663.
Frank, Robert L. 2,842,744.
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Sperry Rand Corp., Ford Instrument Co. Division: *See*—
Essex, Alois B., Garrett, and McKenney. 2,842,646.

Spickelmier, Carl F.: *See*—
Stalle, George E. 2,842,235.
Spickelmire, Betty E.: *See*—
Stalle, George E. 2,842,235.
Sprague Electric Co.: *See*—
Robinson, Preston, and Peck. 2,842,726.
Sprague, Wesley L., to Bendix Aviation Corp. Injector valve. 2,842,159, 7–8–58, Cl. 137—513.7.
Sprauer, Jerome W.: *See*—
Hinegardner, Wilbie S., and Sprauer. 2,842,563.
Square D Co.: *See*—
Simkins, Leon L. 2,842,741.
Staatsbedrijf der Posterijen, Telegrafie en Telefonie: *See*—
Snijders, Antonie. 2,842,616.
Stalle, George E., 33⅓% to C. F. Spickelmier, 33⅓ to E. S. Greer, and 33⅓ to B. E. Spickelmire. Metal window structure. 2,842,235, 7–8–58, Cl. 189—73.
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D'Ouville, Edmond L., and Arnold. 2,842,503.
Shire, William A., Jr., and Smelko. 2,842,267.
Standard Oil Co. (Ohio), The: *See*—
Darling, Samuel M. 2,842,498.
Standard-Thomson Corp.: *See*—
Wood, Charles W. 2,842,317.
Standish, Myles, and W. D. Shadwick, to Omaha Standard, Inc. Control in an apparatus for conveying materials. 2,842,406, 7–8–58, Cl. 302—29.
Stapleton, Clarence B., to Vineo Corp. Indicator type snap gage. 2,841,875, 7–8–58, Cl. 33—148.
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Stearns, Horace M., to Sperry Rand Corp. Pulse receiving systems. 2,842,763, 7–8–58, Cl. 343—13.
Stegman, Norman A., to Westinghouse Electric Corp. Driving unit for a laundry machine. 2,842,002, 7–8–58, Cl. 74—217.
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Sterling Precision Instrument Corp.: *See*—
Halperin, Herbert H. 2,842,768.
Stern, Kurt G., and H. S. Grossmann, to H. Sobotka. Process for decolorizing green soybean oil. 2,842,577, 7–8–58, Cl. 260—428.5.
Stevens, Adele M.: *See*—
Rice, Henry T. M., and Stevens. 2,842,240.
Stevens, Dillon: *See*—
Rice, Henry T. M., and Stevens. 2,842,240.
Stevens, Robert T.: *See*—
Rice, Henry T. M., and Stevens. 2,842,240.
Stevens, Ronald J. Pumps for fluids, more especially liquids. 2,842,067, 7–8–58, Cl. 103—152.
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Bloom, Albert, Lehne, and Stevinson. 2,842,562.
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Stokes, Morris A., and R. W. O. Papworth, to Armstrong Siddeley Motors Ltd. Combustion system of the kind comprising an outer air casing containing a flame compartment for use in gas turbine engines and ram jet engines. 2,841,958, 7–8–58, Cl. 60—39.65.
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Stoner, George G., J. L. Asorlosa, and C. P. Albus, to General Aniline & Film Corp. Rubber latex compositions heat-sensitised with polymethoxy acetals. 2,842,606, 7–8–58, Cl. 260—815.
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Strahman, Henry: *See*—
Strahman, Dietrick, Herman Jr., and Henry. 2,842,399.
Strahman, Herman, Jr.: *See*—
Strahman, Dietrick, H., Jr., and H. 2,842,399.
Strahman Valves, Inc. *See*—
Strahman, Dietrick, H., Jr., and H. 2,842,399.
Strandine, Eldon J., and F. G. Connick, to Swift & Co. Dehairing apparatus and method. 2,841,829, 7–8–58, Cl. 19—2.
Straney, Kenneth O.: *See*—
Woodcock, Charles A., and Straney. 2,842,666.
Strauss, Wennemar, A. Kirstahler, and W. Willmund, to Dehydag, Deutsche Hydrierwerke G. m. b. H. Process for the production of metal electrodeposits. 2,842,488, 7–8–58, Cl. 204—52.
Street, Ramon L.: *See*—
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Plumley, Harold J., Stresau, and Godchaux. 2,842,059.
Strobel, Albert F., and W. W. Williams, to General Aniline & Film Corp. Pyrasolone dyestuffs. 2,842,537, 7–8–58, Cl. 260—163.
Struthers Wells Corp.: *See*—
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Sudheimer, Robert L. Animal holder. 2,842,098, 7–8–58, Cl. 119—99.
Sulzer Freres, Societe Anonyme: *See*—
Profos, Paul. 2,842,103.
Sun Oil Co.: *See*—
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Honeycutt, Earl M. 2,842,583.
Jesl, James L. 2,842,512.
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Rekettye, Paul. 2,842,160.
Sullivan, Frank A. V., to American Cyanamid Co. N,N'-alkyltetramethylene thiuram disulfides. 2,842,554, 7–8–58, Cl. 260—313.
Sundin, Eric O. Piston pump. 2,842,068, 7–8–58, Cl. 103—166.
Super-Cut, Inc.: *See*—
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Trescott, Donald A. 2,841,928.
Supreme Products Corp.: *See*—
Lebus, William A. 2,841,926.
Surgic Co. Ltd.: *See*—
Uhma, Czeslaw A. F. 2,842,133.
Sutherland, Gail E.: *See*—
Skromme, Arnold H., and Sutherland. 2,841,946.
Sutphen, Robert M.: *See*—
Couse, Kibbey W., and Sutphen. 2,841,852.
Sutton, Ernest A., and C. H. Basdekis, to Monsanto Chemical Co. Process for obtaining grain-free polystyrene latices. 2,842,511, 7–8–58, Cl. 260—29.6.
Svanoe, Hans, to Struthers Wells Corp. Production of soda ash. 2,842,489, 7–8–58, Cl. 204—97.
Swanson, Earnest F., to Penn Controls, Inc. Snap acting mechanism. 2,841,999, 7–8–58, Cl. 74—100.
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Singher, Heron O., and Swart. 2,842,480.
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Swingle, Donald M. Motor vehicle controls. 2,842,039, 7–8–58, Cl. 97—46.03.
Sylvania Electric Products Inc.: *See*—
Dodge, Erle H., and Gartner. 2,842,290.
Harvey, Norman L. 2,842,764.
Koury, Frederic. 2,841,860.
Peek, Sandford C., Jr. 2,842,698.
Sylwan, Mark C. Bearing assembly for building sets. 2,841,918, 7–8–58, Cl. 46—29.
Symons, Arthur H., deceased; Continental Illinois National Bank and Trust Co. of Chicago, executor, to Symons Clamp & Mfg. Co. Scaffold. 2,842,408, 7–8–58, Cl. 304—40.
Symons Clamp & Mfg. Co.: *See*—
Symons, Arthur H. 2,842,408.
Syntex, S. A.: *See*—
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Sondheimer, Franz, Mancera, and Rosenkrans. 2,842,565.
Talon, Inc.: *See*—
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Tammen, Fred H., and A. J. Metz, to Bettendorf Bakery Equipment Co. Blade grinding means. 2,841,932, 7–8–58, Cl. 51—250.
Tanks, Willard H., and W. G. Charley, to Allis-Chalmers Mfg. Co. Draft means and depth control for ground working implements. 2,842,040, 7–8–58, Cl. 97—47.64.
Tanner, Charles A., Jr., and W. J. Cauwenberg, to American Cyanamid Co. Production of purified titanium dioxide pigment. 2,842,428, 7–8–58, Cl. 23—202.
Tarquinio, Carl S. Wrench holder. 2,842,020, 7–8–58, Cl. 81—177.
Tauber, Gustave M., to Leeds and Northrup Co. Apparatus for handling work in a furnace. 2,842,352, 7–8–58, Cl. 266—4.
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Taylor, Paul H., to Wales-Strippit Corp. Liquid spring. 2,842,356, 7–8–58, Cl. 267—1.
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Teague, Walter D., Jr., to United States of America, Army. System for pressurising the fluid propellant tank of a self-propelled missile. 2,841,953, 7–8–58, Cl. 60—35.6.
Technicolor Corp.: *See*—
Delangre, John P. 2,842,049.
Teegen, Hermann, to Diesel Engine Co. of Texas. Internal combustion engine. 2,842,107, 7–8–58, Cl. 123—45.
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Lundkvist, Karl A., Wiberg, and Dietsch. 2,842,621.
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Temple, Lemuel M., to Olin Mathieson Chemical Corp. Constant torque-type stress appliance for firearm barrels. 2,841,909, 7–8–58, Cl. 42—75.
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Newman, Stanley R., and Vermillion. 2,842,432.
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Thames, Francis C.: *See*—
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Koch, Werner, Harten and Thedieck. 2,842,723.
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Thomas, Donald E., to Bell Telephone Laboratories, Inc. Self-starting transistor oscillators. 2,842,669, 7–8–58, Cl. 250—36
Thomas, Graham I., and A. A. Robinson, to National Research Development Corp. Electrostatic storage of digital information. 2,842,707, 7–8–58, Cl. 315—12.
Thomas, Joseph B. Bed davenport. 2,841,800, 7–8–58, Cl. 5—13.
Thompson, Ernest S., to himself and E. Thompson. Straw chopper for combine. 2,842,175, 7–8–58, Cl. 146—123.
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Thomsen, Theodore R., to Robotron Corp. Comparator circuit using photo multiplier tubes. 2,842,672, 7–8–58, Cl. 250—83.3.
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Hansen, Jorgen G., and Thuesen. 2,842,420.
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Todd, Charles. Border fence. 2,842,344, 7–8–58, Cl. 256—21.
Tolf, Ingvar L., to General Foods Corp. Machine for applying tear tape to carton blanks. 2,842,034, 7–8–58, Cl. 93—36.0
Tousignant, William F., and T. Houtman, Jr., to The Dow Chemical Co. Beta-amino lower-alkyl carbamates and resinous reaction products thereof. 2,842,523, 7–8–58, Cl. 260—69.
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Truchan, William. Swingable power saw support and guide. 2,842,168, 7–8–58, Cl. 143—46.
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Tupper, Earl S. 2,842,167.
Tupper, Earl S., to Tupper Corp. Closure with jigger-type of seal. 2,842,167, 7–8–58, Cl. 141—381.
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Ueda, Nobuo. Sinkers. 2,841,916, 7–8–58, Cl. 43—44.96.
Uhma, Czeslaw A. F., to Surgic Co. Ltd. Surgical or medical vein dilating device. 2,842,133, 7–8–58, Cl. 128—345.
Ulinski, Bronislaus I., to The Yale & Towne Mfg. Co. Mounting for steering and traction unit. 2,842,216, 7–8–58, Cl. 180—13.
Ulshafer, Paul R., to Ciba Pharmaceutical Products, Inc. Deserpidic acid lactone and salts. 2,842,550, 7–8–58, Cl. 260—286.
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United Aircraft Corp.: *See*—
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Midkiff, Omer K. 2,842,089.
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Air Force: *See*—
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De Grasia, Joseph. 2,841,794.
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Hopfer, Samuel. 2,842,665.
Magram, Sidney J. 2,842,502.
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Universal Oil Products Co.: *See*—
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Schmerling, Louis. 2,842,579.
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Upjohn Co., The: *See*—
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Herr, Milton E., and Spero. 2,842,572.
Herr, Milton E., and Spero. 2,842,573.
Rosselet, Jean P. 2,842,566.
Vallese, Lucio M., to Polytechnic Institute of Brooklyn. Coaxial cable attenuator. 2,842,748, 7–8–58, Cl. 333—81.
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Classification of Designs

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TRADEMARKS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Australia to the London 1934 Revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective June 2, 1958, of Australia to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

June 11, 1958.

Change in Rules of Practice

Notice was given in the Federal Register of June 6, 1958, (23 F. R. 3968) of the following change in the Rules of Practice which will take effect July 7, 1958:

1. Paragraph (n) of Rule 21 is amended to read as follows:

(n) Search of Patent Office records for purposes not otherwise specified in this section, per hour of search or fraction thereof..... $3.00

2. Paragraph (o) of Rule 21 is deleted.

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and this Office having been unable to effect service of notice of such proceeding upon the registrants, notice is hereby given that unless the registrants, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancelation will be proceeded with as in the case of default.

Visicraft Mfg. Co., Inc., New York, N. Y., Reg. No. 429,094, Canc. No. 7069.

Farel Destin, Inc., New York, N. Y., Reg. No. 434,995, Canc. No. 7090.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 22,406 (COCA COLA), Coca Cola Co., Nonalcoholic maltless beverages and the syrups for making such beverages; **Reg. No. 47,189**, same; **Reg. No. 238,145**, same; **Reg. No. 238,146**, same; **Reg. No. 413,755** (COKE), same, filed Aug. 9, 1956, D. C., W. D. Ky. (Louisville), Doc. 3188, *The Coca-Cola Co. v. Richard W. Asher.* Final judgment; trademarks held valid; defendant restrained from using "Coca-Cola" or "Coke" in selling, delivering or offering for sale in response to calls to any product not the plaintiff's (notice May 14, 1958).

Reg. No. 47,189. (See Reg. No. 22,406.)

Reg. No. 168,468 (WOOL "O"), Philadelphia Rug Mills, Inc., Wool rugs, filed May 19, 1958, D. C., S. D. N. Y., Doc. 133/311, *Wool "O" Co. v. Homemaker Rugs, Inc. et al.*

Reg. No. 238,145. (See Reg. No. 22,406.)

Reg. No. 238,146. (See Reg. No. 22,406.)

Reg. No. 313,768 (ESQUIRE), Esquire Publishing Co., Monthly publication, filed June 24, 1954, D. C., S. D. N. Y.,

CONDITION OF TRADEMARK APPLICATIONS AS OF MAY 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	11,801
Date of oldest new application	Oct. 29, 1957
Date of oldest amended application	Oct. 7, 1957

J. N. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	11-7-57	10-7-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	10-29-57	10-9-57
(III) E. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52, and Certification Marks	11-6-57	12-16-57
Renewals (All Classes)	5-2-58	5-20-58
Sec. 12 (c) Publications (All Classes)	5-10-58	5-26-58

Applications Filed During the Month of May 1958—1,942

Registrations Issued	278—No. 663,940 to No. 664,217
Renewals Issued	53

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

Doc. 94/52, *Esquire, Inc.* v. *Esquire Sportswear Co.* Stipulation and order of discontinuance May 21, 1958.

Reg. No. 380,583 (HEP), H. E. Pillsbury, Soap, cleaning powder, paste and compound; **Reg. No. 399,371**, same, Peck's Products Co., same, filed Nov. 23, 1956, D. C., E. D. Mo. (St. Louis), Doc. 10971(1), *Peck's Products Co.* v. *May Department Stores, Co.* Stipulation dismissing complaint and counter-claims without prejudice May 29, 1958.

Reg. No. 415,755. (See Reg. No. 22,406.)

Reg. No. 586,042 (SERVOSCOPE), Servo Corporation of America, Measuring and testing equipment particularly adapted to servo mechaniams, filed Mar. 17, 1958, D. C. N. J. (Newark), Doc. 309/58, *Servo Corp. of America* v. *Martin Silver et al.* Stipulation of dismissal (notice May 29, 1958).

Reg. No. 530,541 ("PRO"), United Metal Products Corp., Mechanical golf ball markers for engraving names, numbers and other legends on golf balls; **2,861,847**, E. J. Premo, Golf ball marker, filed May 23, 1958, D. C., E. D. Pa. (Philadelphia), Doc. 24715, *United Metal Products Corp. et al.* v. *Healthways, Inc.*

Reg. No. 565,716 (BIG BEAM), U-C-Lite Mfg. Co., Combination incandescent lights and battery units, and battery chargers, filed May 26, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c934, *U-C-Lite Mfg. Co.* v. *The Fair.*

Reg. No. 598,571. (See Reg. No. 309,552.)

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 5,624. Farmers Chinchilla Cooperative of America, Inc., Salt Lake City, Utah. Filed Apr. 2, 1956.

GOLDEN CROWN CHINCHILLA

No claim is made to the word "Chinchilla" apart from the mark as shown.
For Bleached Chinchilla Fur Pelts.
First use Jan. 6, 1956.

SN 22,418. Camden Fibre Mills, Inc., Philadelphia, Pa. Filed Jan. 11, 1957.

CAMDEX

For Glazed Wadding.
First use Dec. 11, 1956.

SN 23,931. Midwest Seed Service, Inc., Axtell, Nebr. Filed Feb. 6, 1957.

MIDWEST HYBRIDS

The word "Hybrids" is disclaimed apart from the mark as shown.
For Hybrid Seed Corn.
First use February 1954.

SN 24,017. Whittaker Nylon Fibres Corp., Worcester, Mass. Filed Feb. 7, 1957.

TOP -A- LON

For Synthetic Fibres.
First use on or about Nov. 8, 1956.

SN 29,971. Surpass Leather Company, Philadelphia, Pa. Filed May 13, 1957.

PUNCHO

For Shoe Leather.
First use March 1957.

Class 2—Receptacles

SN 23,736. Naturin-Werk Becker & Co., Weinheim an der Bergstrasse, Germany. Filed Feb. 4, 1957.

NATURIN

Owner of German Reg. No. 606,311, dated Feb. 28, 1951.
For Sausage Casings, Wrapping Material Made of Cellulose Derivatives, Proteins, and Plastics, Tubes, Bladders, Vats, Maws, Sausage Bags, Ham Bags, Pastry Covers.

SN 23,737. Naturin-Werk Becker & Co., Weinheim an der Bergstrasse, Germany. Filed Feb. 4, 1957.

NATURIN

Owner of German Reg. No. 606,310, dated Feb. 28, 1951.
For Sausage Casings, Wrapping Material Made of Cellulose Derivatives, Proteins, and Plastics, Tubes, Bladders, Vats, Maws, Sausage Bags, Ham Bags, Pastry Covers.

SN 38,177. Unette Corporation, Livingston, N. J. Filed Oct. 1, 1957.

TOUCHETTE

For Dispensing Container Applicator for Applying Medications, Perfumes, and Other Liquids.
First use Aug. 23, 1956.

SN 38,219. Marshall-Wells Company, Duluth, Minn. Filed Oct. 2, 1957.

VALU-BILT

Owner of Reg. No. 422,381.
For Pails and Cans, Such as Dairy Pails, Milking Pails, Miniature Pails, and Cream Cans.
First use Sept. 15, 1954.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 30,079. "Givenchy" (Société Anonyme), Paris, France. Filed May 15, 1957.

Hubert de Givenchy.

Owner of French Reg. No. 461,378, dated Dec. 5, 1956 (Seine); Natl. Inst. No. 85,043.
For Handbags, Traveling Bags.

SN 43,045. Pet Center Corporation, New York, N. Y. Filed Dec. 26, 1957.

PET CROSS

For Pet Accessories—Namely, a Clear and/or Transparent Bird Cage Cover.
First use Feb. 18, 1957.

Class 4 — Abrasives and Polishing Materials

SN 42,950. Western Abrasives, Portland, Oreg. Filed Dec. 22, 1957.

SAND-O-GRIND

For Abrasive Wheels.
First use Sept. 16, 1957.

SN 43,125. The J. R. Watkins Company, Winona, Minn. Filed Dec. 27, 1957.

FURNISHEEN

For Furniture Polish.
First use Dec. 5, 1957.

Class 5 — Adhesives

SN 30,487. Harold E. Hamman, Riverside, Calif. Filed May 22, 1957.

ANCHOR-DOUGH

For Non-Drying, Non-Hardening Tacky Composition Composed Principally of Polyisobutylene, Calcium Carbonate, Sulphonated Oil, and Light Process Oil Used to Detachably but Adhesively Fasten Articles to Supporting Surfaces.
First use Feb. 25, 1957.

SN 35,715. Whitehead Brothers Company, New York, N. Y. Filed Aug. 16, 1957.

LYQUASET

Owner of Reg. Nos. 531,433, 574,531, and 628,043.
For Liquid Binder for Use in Sand Molds and Cores.
First use on or about July 22, 1957.

SN 41,877. American Railroad Curvelining Corp., Douglaston, N. Y. Filed Dec. 6, 1957.

BONDARC

For Industrial Adhesives.
First use November 1956.

SN 42,806. National Mfg. & Sales Co., Champaign, Ill. Filed Dec. 23, 1957.

MISTER MECHANIC

For Adhesives for Affixing Sectional and Sheet Material to Walls, Floors, and Other Surfaces and, in Particular, Plastic, Metal, Ceramic, Cork, Rubber, Asphalt, Vinyl, and Linoleum in Tiles and Sheets.
First use at least 1950.

Class 6 — Chemicals and Chemical Compositions

SN 2,540. M. Michel & Company, Inc., New York, N. Y. Filed Feb. 13, 1956.

For Higher Fatty Alcohols, Surface Active Agents, Textile Chemical Specialties—Namely, Textile Softeners, Wetting Agents, Dye Fixitives, Penetrants, and Sulfonated Oils, Sulphonation Bases, and Fatty Acids.
First use Jan. 10, 1955.

SN 20,979. Whitmire Research Laboratories, Inc., St. Louis, Mo. Filed Dec. 12, 1956.

ODOR-OFF

For Chemical Preparation Used as a Disinfectant-Deodorant for Dogs and as a Room Disinfectant-Deodorant, Packaged in an Aerosol Bomb-Type Container.
First use Apr. 16, 1956.

SN 27,077. Auto-Air Industries, Inc., Lansing, Mich. Filed Mar. 28, 1957.

AUTO AIR

For Casting Compositions, Plastic Tooling Compositions, Molding Compositions, Laminating Compositions and Surface Coating Compositions Comprising Synthetic Resins.
First use Mar. 25, 1956.

SN 35,056. National Lead Company, New York, N. Y. Filed Aug. 6, 1957.

WATER BAN

For Chemical Composition in Powder Form for Forming and Treating Oil Well Drilling Fluids, Particularly of the Oil-Water Emulsion Base Type, Comprising Oleaginous Material, Minerals, and Inorganic Salts.
First use Sept. 1, 1956.

SN 37,702. Whitmire Research Laboratories, Inc., St. Louis, Mo. Filed Sept. 23, 1957.

DOG-AWAY

For Chemical Preparation Used as a Dog and Cat Repellent.
First use Aug. 27, 1957.

SN 39,409. Norman Products, Inc., Cleveland, Ohio. Filed Oct. 23, 1957.

Deck-O-Scent

For Absorbent Body Impregnated With a Perfumed Air Deodorant.
First use Jan. 14, 1954.

SN 30,599. The Davies-Young Soap Company, Dayton, Ohio. Filed Oct. 28, 1957.

DEOCHLOR

For Deodorant Blocks for Sanitaries.
First use Aug. 21, 1957.

SN 40,069. Metal & Thermit Corporation, Woodbridge Township, Middlesex County, N. J. Filed Nov. 4, 1957.

NEOCHEL

For Chemical Additive to Electroplating Baths.
First use on or about Oct. 1, 1957.

SN 40,114. Beta Laboratories, Inc., Philadelphia, Pa. Filed Nov. 5, 1957.

KROM-TROL

For Corrosion Inhibitors Used in the Treatment of Cooling Water in Air Conditioning and Cooling Tower Systems.
First use June 10, 1957.

SN 40,363. National Polychemicals, Inc., Wilmington, Mass. Filed Nov. 8, 1957.

TETRAFLEX

For Plasticizers for Use With Plastic Compositions.
First use Oct. 8, 1957.

SN 40,601. Park and Tilford, New York, N. Y. Filed Nov. 13, 1957.

PRO-DYE

For Bulk Dyes of Maximum Concentration.
First use July 30, 1957.

SN 41,135. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen on Rhine, Germany. Filed Nov. 22, 1957.

LURANTIN

For Dyestuffs.
First use Feb. 24, 1951.

SN 41,574. Resolin, Inc., Santa Monica, Calif. Filed Nov. 29, 1957.

EPOLOY

For Synthetic Plastic Resin Compositions for Molding and Forming, and Hardeners and Reinforcing Fibers Therefor.
First use on or about Oct. 1, 1957.

SN 41,731. Trager Manufacturing Co., Inc., Scranton, Pa. Filed Dec. 3, 1957.

SPRING AIR

For Household Deodorant.
First use July 1, 1953.

SN 41,738. American Cyanamid Company, New York, N. Y. Filed Dec. 4, 1957.

CYANADUR

For Pigments.
First use Sept. 25, 1957.

SN 41,766. The Lyndale Company, Stratford, Conn. Filed Dec. 4, 1957.

CARDIA SOL

For Solutions Used in Connection With Making Electrocardiograms.
First use Nov. 5, 1957.

SN 41,767. The Lyndale Company, Stratford, Conn. Filed Dec. 4, 1957.

GRAPHA SOL

For Solutions Used in Connection With Making Electrocardiograms.
First use Nov. 5, 1957.

SN 41,768. The Lyndale Company, Stratford, Conn. Filed Dec. 4, 1957.

LECTRODE SOL

For Solutions Used in Connection With Making Electrocardiograms.
First use Nov. 5, 1957.

Class 10 — Fertilizers

SN 23,528. Weil's Fertilizer Works, Inc., Goldsboro, N. C. Filed Jan. 30, 1957. Sec. 2(f).

RIPENS RIGHT

Owner of Reg. No. 344,926.
For Fertilizer.
First use Mar. 1, 1936.

SN 35,549. Wisconsin Farmco Service Cooperative, Madison, Wis. Filed Aug. 14, 1957.

FARMCO

For Fertilizers.
First use about May 1, 1956.

SN 48,439. Frank Samson, d. b. a. Samson Tree Service, Los Angeles, Calif. Filed Mar. 25, 1958.

TREE-LIFE

For Tree Food.
First use Mar. 19, 1958.

Class 11 — Inks and Inking Materials

SN 2,361. Reppard J. Jordan, d. b. a. Sterling Chemical Company, Jacksonville, Fla. Filed Feb. 9, 1956. Sec. 2(f).

PERFECT PRINT NO-OFFSET VARNISH

Owner of Reg. No. 383,103.
For Additive Drier and Reducer for Printing Ink in the Form of a Varnish Preparation.
First use Nov. 28, 1938.

Class 12 — Construction Materials

SN 37,060. Williams & Williams Limited, Chester, England. Filed Sept. 11, 1957.

WALLSPAN

For Metal Sections for Use in Building Construction.
First use in the year 1953; in commerce during 1954.

SN 39,866. Ford Roofing Products Company, d. b. a. Ford's Roofing Products, Chicago, Ill. Filed Oct. 31, 1957.

Aluma-Sheath

For Sheathing Board—Insulation Board—Reflective Insulation.
First use Sept. 12, 1957.
Subj. to Intf. with SN 41,247.

SN 41,247. Denny Paper & Board Company, Philadelphia, Pa. Filed Nov. 25, 1957.

ALUMA-SHEETH

For Aluminum-Surfaced Insulating Board.
First use on or about Jan. 5, 1957.
Subj. to Intf. with SN 39,866.

SN 42,007. Extrudart Metal Products, Inc., Hackensack, N. J. Filed Dec. 9, 1957.

EXTRUDART

For Aluminum Doors for Store Fronts.
First use May 1, 1955.

SN 42,181. Birmingham Clay Products Company, Birmingham, Ala. Filed Dec. 10, 1957.

LOGWOOD

For Brick.
First use Oct. 22, 1957.

SN 42,209. The Falako Corporation, Akron, Ohio. Filed Dec. 11, 1957.

Falako

For Windows, Doors, Awnings, and Siding.
First use Nov. 6, 1957.

SN 42,284. Louis Goldey Co., Inc., New York, N. Y. Filed Dec. 12, 1957.

GOLD TEST

For Ceramic Tile.
First use Nov. 27, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 21,936. Numatics, Incorporated, Milford, Mich. Filed Dec. 31, 1956.

NUMATICS

For Valves and Control Assemblies and Parts and Accessories for the Same.
First use Sept. 13, 1946.

SN 28,715. Long Island Tinsmith Supply Corporation, Richmond Hill, N. Y. Filed Apr. 23, 1957.

SAV-A-DOR

For Metallic Kick-Plates Affixed to Lower Portion of Exterior Doors.
First use Mar. 1, 1957.

SN 29,554. Saroo Company, Inc., New York, N. Y. Filed May 7, 1957.

Thermo-Dynamic

For Steam Trap.
First use Jan. 1, 1953.

SN 39,399. Industrial Stampings, Inc., Worcester, Mass. Filed Oct. 23, 1957.

"DUTY-RITE"

For Furniture Hardware, Including Table Slides, Swivels, Leg Brackets, Leg Plates, Arm Brackets, Tube Locks, Ferrules, and Table Levelers.
First use on or about Feb. 1, 1951.

SN 40,746. The Danielson Manufacturing Company, Danielson, Conn. Filed Nov. 15, 1957.

AQUALOY

For Marine Hardware.
First use Sept. 27, 1957.

SN 41,349. Atlantic Stamping Company, Rochester, N. Y. Filed Nov. 26, 1957.

K-W

Owner of Reg. No. 121,187.
For Milk Strainers, Milk or Cream Stirrers, Milk Dippers, and Strip Cups.
First use in January 1908.

SN 41,406. Simmons Fastener Corporation, Albany, N. Y. Filed Nov. 26, 1957.

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For Sliders for Zipper Fasteners.
First use on or about Oct. 7, 1952.

SN 41,483. Smith Welding Equipment Corporation, Minneapolis, Minn. Filed Nov. 27, 1957.

FLO-TROL

For Pressure Operated Anti-Backflow Device for Cutting Torches Made by Applicant.
First use Dec. 27, 1948.

SN 41,581. Stratoflex, Inc., Fort Worth, Tex. Filed Nov. 29, 1957.

STRATOLITE

For Hose Fittings.
First use Oct. 29, 1957.

SN 41,652. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Dec. 2, 1957.



Owner of Reg. Nos. 505,960, 521,404, and 524,212.
For Metal Fencing and Nails.
First use on or about Sept. 1, 1956, on nails.

SN 41,653. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Dec. 2, 1957.



Owner of Reg. Nos. 505,960, 521,404, and 524,212.
For Metal Fencing and Nails.
First use on or about Sept. 1, 1956, on nails.

SN 41,678. Tokheim Corporation, Fort Wayne, Ind. Filed Dec. 2, 1957.

TOKHEIM

Owner of Reg. Nos. 178,253, 608,989, and others.
For Street Box Including a Pit Liner and a Cover Therefor.
First use Oct. 25, 1957.

Class 14—Metals and Metal Castings and Forgings

SN 31,429. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed June 5, 1957.

CROMAN

For Tool Steel in the Form of Billets, Bars, Sheets and Plates, Circles Stamped or Cut From Plates or Sheets, and Disk and Ring Forgings Forged on a Steam Hammer, Drop Hammer, or Press From Rolled or Preforged Stock for Use in Fabricating Into Taps, Reamers, Broaches, Cutting Tools, Blanking Dies, Punches, Machinery Parts, Drills, Threading Dies, Gages, and Hand Tools.
First use Mar. 30, 1935.

Class 15—Oils and Greases

SN 29,417. The Atlantic Refining Company, Philadelphia, Pa. Filed May 6, 1957.



The lining and stippling are a part of the mark and do not indicate color. Owner of Reg. Nos. 244,587, 552,001, and others.
For Gasoline.
First use Mar. 8, 1957.

Class 16—Protective and Decorative Coatings

SN 33,433. S & C Electric Company, Chicago, Ill. Filed July 9, 1957.

DURABAKE

For Finish for Metal Clad Switch Gear for Switching Centers, Primaries of Unit Substations and Service Entrance Stations.
First use Mar. 5, 1952.

SN 34,326. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed July 24, 1957.

MAGI-CRAFT

For Paints, Paint Primers, Paint Enamels, Stains, Varnishes, Asphalt Products, and Paint Colors.
First use February 1957.

SN 45,989. Monsanto Chemical Company, St. Louis, Mo. Filed Feb. 17, 1958.

LOKON
Nōkōrōde

The drawing is lined for the color red, but this particular color is not claimed as a feature of the mark. Owner of Reg. Nos. 333,369, 641,600, and others.
For Protective Coating Compositions; Vapor and Weather Barrier Films.
First use at least as early as January 1949.

SN 46,209. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed Feb. 20, 1958.

CATHA-COAT

For Protective Coating for Metal Surfaces of Marine and Industrial Equipment Exposed to Sea Water, Gasoline, Vegetable Oil, and Aromatic Solvents.
First use in or about November 1947.

SN 46,315. M. Grumbacher, Inc., New York, N. Y. Filed Feb. 21, 1958.

ZEC

For Artists' Oil Color Mediums—Namely, Compounds of Oil or Oils and Other Substances for Use in Mixing With Artists' Oil Color To Make Such Oil Color Dry Faster.
First use Dec. 16, 1957.

SN 46,492. Seidlits Paint and Varnish Company, Kansas City, Mo. Filed Feb. 24, 1958.

MIDWEST

For House Paint.
First use Jan. 27, 1958.

SN 47,739. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed Mar. 14, 1958.

FERRONITE

For Paints.
First use prior to 1928.

Class 18—Medicines and Pharmaceutical Preparations

SN 18,334. Lifetime Living, Inc., New York, N. Y. Filed Oct. 29, 1956.

MYAZINE

For Ointment Cream or Lotion for Topical Application for Skin Allergies.
First use Sept. 28, 1956.

SN 30,172. Dr. Kutlak & Co., Arzneimittelfabrik, Vienna, Austria. Filed May 16, 1957.

SEMPERLUX

Owner of Austrian Reg. No. 31,661, dated Jan. 7, 1955.
For Preparations To Improve the Ability of Nocturnal Visual Power.

SN 30,739. Alvin B. Segelman, d. b. a. Cliniderm Laboratories, Boston, Mass. Filed May 27, 1957.

BONADERM

For Skin Cream for Treating Skin Lesions.
First use Jan. 10, 1957.

SN 33,994. Olin Mathieson Chemical Corporation, New York, N. Y. Filed July 18, 1957.

MEDOTOPES

Owner of Reg. Nos. 129,544 and 338,995.
For Radiopharmaceuticals for Investigative, Diagnostic, and Therapeutic Use.
First use Apr. 17, 1957.

SN 37,300. Charles Ellwood Shiffer, d. b. a. Dr. Shiffer's Laboratories, Cleveland, Ohio. Filed Sept. 16, 1957.

CAMTHOMINT

For Cooling and Soothing Vaporizing Ointment for Simple Colds, Headaches, and Muscular Aches.
First use Jan. 28, 1953.

SN 37,704. American Cyanamid Company, New York, N. Y. Filed Sept. 25, 1957.

METHOTRANE

For Tranquilizer.
First use Sept. 13, 1957.

SN 40,108. Slim-Way Foods Corporation, Chicago, Ill. Filed Oct. 28, 1957.

SLIM-WAY

For Dietary Food Supplement Containing Vitamins and Minerals.
First use Aug. 6, 1956.

SN 40,155. Sterling Drug Inc., New York, N. Y. Filed Nov. 5, 1957.

BIOSYNEPHRINE

Owner of Reg. Nos. 403,951, 404,383, and others.
For Decongestant, Antihistaminic and Antibiotic Preparation for the Relief of Congestion and for Topical Antibacterial Action in Common Cold, Sinusitis, Allergic Rhinitis (Hay Fever and Allied Allergic Conditions).
First use Oct. 1, 1957.

SN 40,918. Chase Chemical Company, Newark, N. J. Filed Nov. 19, 1957.

CITRODYNE

For Preparation for the Treatment of Colds.
First use in April 1956.

SN 41,092. Brace Pharmaceutical, Inc., New York, N. Y. Filed Dec. 3, 1957.

CERENE

Owner of Reg. No. 353,477.
For Pharmaceutical Preparation for the Relief of Pre-Menstrual Tension.
First use Sept. 7, 1955.

SN 42,016. Edward F. Glaster, d. b. a. Star Pharmacal Company, Chicago, Ill. Filed Dec. 9, 1957.

DEMEX

For Medicinal Preparation for Coughs and for Throat Irritations.
First use Oct. 30, 1946.

SN 42,540. Schering Corporation, Bloomfield, N. J. Filed Dec. 16, 1957.

METICILLIN-S

Owner of Reg. No. 667,984.
For Steroid-Antibiotic Preparation for Veterinary Use.
First use Nov. 4, 1957.

SN 42,974. The Crookes Laboratories Limited, London, England. Filed Dec. 24, 1957.

FERROVET

Owner of British Reg. No. B. 703,065, dated Nov. 30, 1951.
For Veterinary Preparations Containing Iron.

SN 43,864. R. S. Miller Laboratories, Inc., Los Angeles, Calif. Filed Jan. 13, 1958.

ERUCYTE

For Hematinic Preparation.
First use Dec. 24, 1957.

SN 44,216. Sterling Drug Inc., New York, N. Y. Filed Jan. 17, 1958.

KAYEXALATE

For Cationic Exchange Resin for the Treatment of Hyperkalemia.
First use Dec. 20, 1957.

SN 44,302. Parke, Davis & Company, Detroit, Mich. Filed Jan. 20, 1958.

OPHTHOCORT

For Ophthalmic Ointment.
First use Dec. 13, 1957.

SN 44,343. Borcherdt Malt Extract Company, d. b. a. Borcherdt Company, Chicago, Ill. Filed Jan. 17, 1958.

MALTSUPEX

Owner of Reg. No. 536,698.
For Food Supplement Having Laxative Properties.
First use Oct. 8, 1957.

SN 44,689. Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. Filed Jan. 27, 1958.

'ALKERAN'

For Medicinal Preparation for the Treatment of Neoplastic Diseases.
First use Dec. 31, 1957.

Class 19—Vehicles

SN 36,401. James Woodall, d. b. a. Glarno Safety Visor, Columbus, Ga. Filed Aug. 29, 1957.

GLARNO

For Anti-Glare Covers for Rearview Mirrors.
First use June 22, 1957.

SN 36,943. Dick Vogel, Bemidji, Minn. Filed Sept. 9, 1957.

CORE CRAFT

The term "Craft" is disclaimed apart from the mark as shown.
For Boats.
First use Jan. 1, 1955.

SN 37,092. Standard Railway Equipment Manufacturing Company, d. b. a. Southwest Manufacturing Company Division, Little Rock, Ark. Filed Sept. 23, 1957.

arkansas traveler

Owner of Reg. No. 503,856.
For Boats.
First use Oct. 1, 1956.

SN 38,411. Aeromotive Metal Products, Inc., Seattle, Wash. Filed Oct. 7, 1957.

Sports Liner

For Rigid Covers for Truck Bodies.
First use on or about Nov. 1, 1956.

SN 38,732. The Cal-Dak Company, San Gabriel, Calif. Filed Oct. 11, 1957.

CAL-DAK

Owner of Reg. Nos. 541,487 and 625,830.
For Shopping Carts and Parts Therefor.
First use in January 1956.

SN 38,759. Marine & Sports Supply, Pasadena, Calif. Filed Oct. 11, 1957.

CROWN CRAFT

The word "Craft" is disclaimed apart from the mark as shown.
For Boats.
First use May 30, 1954.

SN 39,805. Goodyear Aircraft Corporation, Akron, Ohio. Filed Oct. 30, 1957.

FLUIDRIDE

For Plastic Seats for Vehicles.
First use June 3, 1957.

SN 43,095. Harold H. Gimbel, d. b. a. The Sea Saucer Company, New Haven Conn. Filed Dec. 27, 1957.

SEA SAUCER

For Boats.
First use Dec. 7, 1957.

SN 43,211. Radio Steel & Mfg. Co., Chicago, Ill. Filed Dec. 30, 1957.



Owner of Reg. No. 561,629.
For Garden Carts.
First use Oct. 1, 1956; May 24, 1950, as to boy on wagon pedaling about the globe.

SN 43,414. American Steel Foundries, Chicago, Ill. Filed Jan. 6, 1958.

AIR-O-SLIDE

For Mounting Brackets for Tractor-Trailer Fifth Wheel Coupling Units.
First use Jan. 4, 1957.

SN 43,834. Exchange Parts Company of Fort Worth, Fort Worth, Tex. Filed Jan. 13, 1958.

SAF-T-STOP

For Automobile Brake Shoes.
First use Nov. 15, 1955.

SN 43,892. Stromberg Hydraulic Brake & Coupling Co., Chicago, Ill. Filed Jan. 13, 1958.

HYDRAMITE

For Road Vehicle Brakes.
First use Dec. 5, 1957.

SN 44,034. Mister Softee, Inc., Philadelphia, Pa. Filed Jan. 15, 1958.

Mister Softee

For Ice Cream Trucks.
First use Oct. 5, 1956.

SN 44,150. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Jan. 17, 1958.

BARFORM

For Moulded Automobile Carpets.
First use Sept. 3, 1957.

SN 44,272. The Gabriel Company, Cleveland, Ohio. Filed Jan. 20, 1958.

SELECTRIC

For Shock Absorber Control Mechanism for Motor Vehicles.
First use Nov. 25, 1957.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 38,215. S. S. Kresge Company, Detroit, Mich. Filed Oct. 2, 1957.

WEDGEFIELD

For Electric Blankets.
First use Sept. 17, 1957.

SN 38,846. Pacific Semiconductors, Inc., Culver City, Calif. Filed Oct. 14, 1957.

Varicap

For Semiconductor Crystal Capacitors.
First use Aug. 31, 1957.

SN 38,904. Craft Recording Corporation, New York, N. Y. Filed Oct. 15, 1957.

STERE-O-CRAFT

For Magnetic Recorded Sound Tapes.
First use on or about Oct. 4, 1957.

SN 39,051. Economy Auto Stores, Inc., Atlanta, Ga. Filed Oct. 17, 1957.

MOTO MAC

Owner of Reg. Nos. 395,736 and 396,142.
For Storage Batteries, Starters, Distributors, and Generators Therefor.
First use Sept. 16, 1957.

SN 39,385. Dayna Lighting, Inc., Philadelphia, Pa. Filed Oct. 23, 1957.

DAYNA

For Electrical Lighting Fixtures.
First use June 18, 1957.

SN 41,683. Advance Transformer Co., Chicago, Ill. Filed Dec. 3, 1957.

ADVAN guard

For Fluorescent Ballasts With Automatic Reset Protectors.
First use Oct. 17, 1957.

SN 41,880. Channel Master Corporation, Ellenville, N. Y. Filed Dec. 6, 1957.

SUPER SHOWMAN

Owner of Reg. No. 644,109.
For Antennas.
First use Oct. 17, 1957.

SN 41,966. American Sign and Indicator Corporation, Spokane, Wash. Filed Dec. 9, 1957.

TT

For Electrical Display Signs and Parts Thereof.
First use Mar. 15, 1954.

SN 42,055. Protectall Industries, Inc., Batavia, Ill. Filed Dec. 9, 1957.

WEED DEMON

For Electric Fence Chargers.
First use July 1953.

SN 42,100. White-Rodgers Company, St. Louis, Mo. Filed Dec. 9, 1957.

WR

Owner of Reg. Nos. 365,781, 671,789, and others.
For Electric Igniters, Electromagnetic Valves, Electrical Relays and Transformers.
First use December 1956 on electromagnetic valves.

SN 42,107. Price Brothers, Inc., Chicago, Ill. Filed Dec. 9, 1957.

PARNEON

For Electrical Display Signs.
First use Sept. 10, 1957.

SN 42,228. Model Engineering & Manufacturing, Inc., Huntington, Ind. Filed Dec. 11, 1957.

ECONOHM

For Electrical Resistors.
First use June 30, 1950.

SN 42,241. Servo Corporation of America, New Hyde Park, N. Y. Filed Dec. 11, 1957.

SERVO

Owner of Reg. Nos. 542,274, 647,377, and 338,806.
For Control-Actuating Servomechanisms; Electronic Amplifiers and Power Supplies; Radio Transmitters; and Radio Receivers.
First use Nov. 24, 1954.

SN 42,277. Eriez Manufacturing Co., Erie, Pa. Filed Dec. 12, 1957.

MAGNA-matic

For Magnetic Separators for Removing Tramp Iron and Foreign Ferrous Materials From Non-Ferrous Materials, Magnetic Head Pulleys for Holding, Controlling, Etc. Ferrous Materials in Magnetic Conveying Systems, Magnetic Feeders, Magnetic Automation Elements, and Magnetic Components for Feeding, Conveying, and Controlling Ferrous Parts.
First use Aug. 15, 1957.

SN 42,484. Kay Jewelry Stores, Inc., Washington, D. C. Filed Dec. 16, 1957.

GLORIMATIC

For Electric Coffee Makers.
First use Nov. 15, 1956.

SN 42,980. General Magnetics, Inc., Bloomfield, N. J. Filed Dec. 24, 1957.

"MAG-MOD"

For Magnetic Modulators.
First use Nov. 15, 1957.

SN 43,050. Scovill Manufacturing Company, Racine, Wis. Filed Dec. 26, 1957.

hb

For Vacuum Cleaners and Electric Blankets.
First use July 31, 1957.

SN 43,214. The Standard Electric Time Company, Springfield, Mass. Filed Dec. 30, 1957.

STANDARD-ROYAL

For Hospital Signaling Systems and Equipment.
First use Oct. 30, 1952.

Class 22 — Games, Toys, and Sporting Goods

SN 20,585. Belle Doll & Toy Corporation, Brooklyn, N. Y. Filed Dec. 7, 1956.

A BELLE DOLL

Applicant disclaims the word "Doll" apart from the mark as used.
For Dolls.
First use March 1945.

SN 27,996. United States Rubber Company, New York, N. Y. Filed Apr. 11, 1957.

THREE STAR

For Golf Balls.
First use not later than June 1951.

SN 38,900. Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Société à Responsabilité Limitée, Paris, France. Filed Oct. 15, 1957.

CHRISTIAN DIOR

Owner of French Reg. No. 428,648, dated June 4, 1953 (Beine); Natl. Inst. No. 12,010.
For Dolls.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

SN 24,793. Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Germany. Filed Feb. 20, 1957.

FUEL-MASTER

Owner of German Reg. No. 710,939, dated Feb. 12, 1958.
For Tractors for Agriculture and Logging Purposes; Railway Locomotives Driven by Internal Combustion Engines; and Heavy Duty Internal Combustion Engines, Injectors, and Injection Pumps.

SN 27,273. Buffalo-Eclipse Corporation, d. b. a. The Eclipse Lawn Mower Co., Prophetstown, Ill. Filed Apr. 1, 1957.

Rocket

For Gasoline Engine Driven Portable Power Chain Saw Machines.
First use Jan. 25, 1957.

SN 27,274. Buffalo-Eclipse Corporation, d. b. a. The Eclipse Lawn Mower Co., Prophetstown, Ill. Filed Apr. 1, 1957.

Eclipse

Owner of Reg. No. 227,104.
For Gasoline Engine Driven Portable Power Chain Saw Machines.
First use Jan. 25, 1957.

SN 27,330. Fred Mac Overland, d. b. a. Overland Company, Los Angeles, Calif. Filed June 4, 1957.

Overland

For Combination Hand Tool, Consisting of Plier, Wire Cutter, Leader Bender, Hook Degorger, Etc., for Use on Camping and Fishing Trips.
First use Dec. 20, 1951.

SN 28,860. C. Howard Hunt Pen Co., Camden, N. J. Filed Apr. 25, 1957.

RANGER 55

Owner of Reg. No. 507,580.
For Pencil Sharpeners.
First use Jan. 25, 1955.

SN 32,695. The Patterson Foundry and Machine Company, East Liverpool, Ohio. Filed June 26, 1957.

Patterson

Owner of Reg. No. 632,633.
For Chemical and Processing Equipment for Ball Mills, Crushers, Mixers, Reaction Kettles, Filter Presses, Screens, and Screening Equipment.
First use June 18, 1957.

SN 32,797. Airborne Instruments Laboratory, Inc., Mineola, N. Y. Filed June 28, 1957.

INCHWORM MOTOR

Owner of Reg. No. 654,411.
For Incremental Feed Mechanisms and Control Equipment for Use Therewith.
First use Jan. 11, 1957; August 1955 as to "Inchworm."

SN 33,830. Pan American Union, Washington, D. C. Filed July 16, 1957.

CINVA-RAM

For Portable Building Block Presses.
First use Apr. 1, 1957.

SN 34,696. H & L Tooth Company, Montebello, Calif. Filed July 31, 1957.

H & L

Owner of Reg. No. 615,335.
For Excavating Digging Teeth and Equipment.
First use Apr. 25, 1957.

SN 35,615. American Machine and Metals, Inc., East Moline, Ill. Filed Aug. 16, 1957.

MUD-O-MATIC

For Drilling Mud Control Systems Including Liquid Classifiers.
First use Dec. 14, 1956.

SN 39,515. Collamatic, Wayne, N. J. Filed Oct. 25, 1957.

APC

For Collators—Namely, Machines for Assembling Printed Material in Sets.
First use Sept. 25, 1957.

SN 39,581. John W. Bolton & Sons, Inc., Lawrence, Mass. Filed Oct. 28, 1957.

BLUE DEVIL

For High Speed Machine Knives for Chipping Pulp Wood.
First use Sept. 12, 1957.

SN 40,481. Phil Mogler, d. b. a. Mogler Farm Industries, Lester, Iowa. Filed Nov. 12, 1957.

BLUE-MATE

The drawing is lined for shading purposes only.
For Livestock Feeders.
First use Oct. 23, 1957.

SN 41,412. Vaco Products Company, Chicago, Ill. Filed Nov. 26, 1957.



For Screw Drivers.
First use Sept. 9, 1957.

SN 42,286. Imperial Knife Associated Companies, Inc., Providence, R. I. Filed Dec. 12, 1957.

TAHITIAN

For Scissors, Shears, Knives, Forks, and Spoons of All Kinds, Ladles, Spatulas, Pancake Turnovers, Potato Mashers, Egg Beaters, Slicers, and Serving Sets.
First use Nov. 25, 1957.

SN 42,826. Cascade Manufacturing Company, Portland, Oreg. Filed Dec. 23, 1957.

CASCADE

Owner of Reg. No. 433,604.
For Hydraulic Cylinders and Lift Truck Attachments.
First use Feb. 15, 1948.

SN 42,834. Cincinnati Lathe & Tool Co., Cincinnati, Ohio. Filed Dec. 23, 1957.

ROYAL

For Drilling Machines.
First use on or before Nov. 18, 1949.

SN 42,845. Detroit Aluminum & Brass Corporation, Hamtramck, Mich. Filed Dec. 23, 1957. Sec. 2(f).

Michigan

Owner of Reg. No. 542,503.
For Engine Bearings and Internal Combustion Engines Used in Automobiles, Buses, Tractors, Industrial Equipment, and Aircraft.
First use Oct. 11, 1947.

SN 42,881. The International Silver Company, Meriden, Conn. Filed Dec. 23, 1957.

CREATION

For Stainless Steel Flatware—Namely, Knives, Forks, and Spoons.
First use Dec. 5, 1957.

SN 43,974. Malcolm J. Simmons, d. b. a. Visiball Manufacturing Company, Fort Worth, Tex. Filed Jan. 14, 1958.

VisiBall

For Grease Cups.
First use Oct. 3, 1957.
Subj. to Intf. with SN 45,929.

SN 44,848. Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Filed Jan. 17, 1958.

ALL-CROP

Owner of Reg. No. 509,617.
For Agricultural Planting Apparatus, Including Drills.
First use June 10, 1954.

SN 45,929. Visiball, Inc., Fort Worth, Tex. Filed Feb. 14, 1958.

VISIBALL

For Grease Cups.
First use Oct. 3, 1957.
Subj. to Intf. with SN 43,974.

SN 45,948. Chain Belt Company, Milwaukee, Wis. Filed Feb. 17, 1958.

FLOAT-TREAT

For Apparatus for Separation of Suspended Solids and Liquids by Flotation From Another Liquid and for Clarification Apparatus for the Removal of Suspended and Colloidal Matter in Sewage Treatment and Water Purification.
First use June 17, 1957.

SN 45,949. Chain Belt Company, Milwaukee, Wis. Filed Feb. 17, 1958.

RIM-FLO

For Apparatus for Separation of Suspended Solids and Liquids by Gravity From Another Liquid and for Clarification Apparatus for the Removal of Suspended and Colloidal Matter in Sewage Treatment and Water Purification.
First use Dec. 13, 1957.

SN 46,160. Polk Bros. Typewriter Company, Chicago, Ill. Filed Feb. 19, 1958.

EXEMPLAR

For Typewriting Machines.
First use Feb. 5, 1958.

SN 46,206. The Cincinnati Milling Machine Co., Cincinnati, Ohio. Filed Feb. 20, 1958.

SPIROPOINT

For Drill Sharpening Machines.
First use on or about Jan. 3, 1958.

SN 46,262. Worthington Corporation, Hudson, N. J. Filed Feb. 20, 1958.

PORT-A-TRAC

For Self-Propelled Air Operated Wagon Drill.
First use on or about Sept. 24, 1957.

SN 46,330. Menzies Engineering Company, Pottsville, Pa. Filed Feb. 21, 1958.

MENZIES

For Material Separating and Classifying Equipment.
First use in the year 1933.

SN 46,375. Tex-Trim, Inc., Yonkers, N. Y. Filed Feb. 21, 1958.

TRU-TRIM

For Cutting and Trimming Blades Used in the Garment Industry.
First use Jan. 3, 1958.

SN 46,529. American Pipe and Construction Co., South Gate, Calif. Filed Feb. 25, 1958.

SPUNLINE

For Machines and Equipment for Applying a Cement Mortar Lining in Place to Small Diameter Pipes.
First use Oct. 23, 1957.

SN 46,592. Mondiale S. A. de Constructions Mecaniques, Vilvorde, Belgium. Filed Feb. 19, 1958.

MONDIALE

Owner of Belgian Reg. No. 64,695, dated Aug. 17, 1948.
For Lathes.

SN 46,614. Franklin Research Corporation, Boston, Mass. Filed Feb. 26, 1958.

D-S

For Plastic and Rubber Extrusion Apparatus, Vulcanisers for Continuous Extruded Rubber, Wire Measuring Apparatus, and Cooling Troughs for Use With Plastic Extrusion Apparatus.
First use Jan. 8, 1956.

Class 24 — Laundry Appliances and Machines

SN 22,755. Eduard Küsters, Krefeld, Germany. Filed Jan. 17, 1957.

Vibrotex

Owner of German Reg. No. 893,147, dated July 24, 1956.
For Washing Machines for the Textile Industry.

Class 25 — Locks and Safes

SN 30,959. The Standard Motor Company Limited, Coventry, England. Filed May 28, 1957.

STANPART

Owner of British Reg. No. 751,300, dated Feb. 25, 1956.
For Locks and Keys for Use in Motor Vehicles.

Class 26 — Measuring and Scientific Appliances

SN 17,502. Reproduction Equipment Company, Dallas, Tex. Filed Oct. 15, 1956.

RE•CO

For Automatic, Continuous-Strip, Photographic Developing Machine.
First use Sept. 26, 1956.

SN 36,746. Scully-Jones and Company, Chicago, Ill. Filed Sept. 5, 1957.

TOOLITROL

For Tool and Machine Control Board Comprising Counting Mechanism, Signalling Mechanism, Shut-Off Mechanism, Tool Setting Gage, and Tool Storage; and for Tool and Machine Control Device Comprising Counting Mechanism, Signaling Mechanism, and Shut-Off Mechanism.
First use Nov. 15, 1954.

SN 39,669. Plug Rite, Inc., St. Louis, Mo. Filed Oct. 28, 1957.

PLUG RITE

For Testing Device for Detecting the Grounded Side of an Electrical Circuit and Detecting for Shock Hazard in Electrical Appliances.
First use Oct. 15, 1957.

SN 42,131. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company. Filed Dec. 10, 1957.

PRODUCTS FOR XEROGRAPHY
HALOID XEROX
PRODUCTS FOR PHOTOGRAPHY

The words "Products for Xerography" and "Products for Photography" are disclaimed. Owner of Reg. Nos. 131,490 and 596,380.
For Xerographic Machines; Xerographic Plates; Xerographic Transfer Paper; Xerographic Rotary Cleaning Brushes; Fuser Units; Xerographic Cameras; Processed Translucent Sheets; Copying Machines; Light Sensitive Paper and Film; Photographic Cameras and Equipment; Photographic Developing Apparatus.
First use Nov. 27, 1957.

SN 42,136. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company. Filed Dec. 10, 1957.

HALOID XEROX

Owner of Reg. Nos. 131,490 and 596,380.
For Xerographic Machines; Xerographic Plates; Xerographic Transfer Paper; Xerographic Rotary Cleaning Brushes; Fuser Units; Xerographic Cameras; Processed Translucent Sheets; Copying Machines; Light Sensitive Paper and Film; Photographic Cameras and Equipment; Photographic Developing Apparatus.
First use Nov. 27, 1957.

SN 44,084. Goldblatt Tool Company, Kansas City, Mo. Filed Jan. 16, 1958.

GYRO-CORE

For Levels.
First use Apr. 12, 1957.

SN 44,130. Sylvania-Corning Nuclear Corporation, Bayside, N. Y. Filed Jan. 16, 1958.

SYLCOR

For Fuel Elements for Atomic Reactors.
First use Nov. 20, 1957.

SN 44,131. Sylvania-Corning Nuclear Corporation, Bayside, N. Y. Filed Jan. 16, 1958.

SYLCOR

For Fuel Elements for Atomic Reactors.
First use Nov. 20, 1957.

Class 27 — Horological Instruments

SN 36,182. Gruen Industries, Inc., d. b. a. Gruen Watch Company, Cincinnati, Ohio. Filed Aug. 26, 1957.

JETSTREAM

For Men's Watches.
First use May 27, 1957.

SN 39,072. Madison Sales Corporation, Chicago, Ill. Filed Oct. 17, 1957.

WALDORF

For Watches and Clocks.
First use Aug. 7, 1957.

SN 39,612. Era Watch Co. Limited C. Rüefli-Flury & Co., Bienne, Switzerland. Filed Oct. 28, 1957.

SIGNET

Owner of Swiss Reg. No. 118,152, dated Nov. 12, 1945.
For Watches and Parts of Watches; Watch Movements.

SN 40,732. Jean R. Graef, Inc., New York, N. Y. Filed Nov. 15, 1957.

GYROTRONIC

Owner of Reg. No. 520,288.
For Watches and Watch Movements.
First use Nov. 1, 1957.

Class 28 — Jewelry and Precious-Metal Ware

SN 38,183. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Oct. 1, 1957.

LUCERNE

For Sterling Silver Flatware, i. e., Knives, Forks, and Spoons.
First use Aug. 4, 1890.

SN 38,984. Towle Manufacturing Company, Newburyport, Mass. Filed Oct. 15, 1957.

AWAKENING

For Sterling Silver Flatware.
First use Oct. 4, 1957.

SN 40,627. Uncas Manufacturing Company, Providence, R. I. Filed Nov. 13, 1957.

YOUR OWN

For Finger Rings.
First use Oct. 22, 1957.

SN 40,844. The International Silver Company, Meriden, Conn. Filed Nov. 18, 1957.

LADY DEBORAH

For Silverplated Flatware—Namely, Knives, Forks, and Spoons.
First use Oct. 29, 1957.

Class 31 — Filters and Refrigerators

SN 46,159. Permanent Filter Corporation, Los Angeles, Calif. Filed Feb. 10, 1958.

CENTRIFIL

For Combination Centrifuge and Filter.
First use Mar. 20, 1957.

SN 46,401. Atlas Supply Company, Newark, N. J. Filed Feb. 24, 1958.

Micronal

For Air and Oil Filters for Use on Automobiles and Internal Combustion Engines.
First use Jan. 23, 1958.

SN 46,504. Stover Water Softener Company, St. Charles, Ill. Filed Feb. 24, 1958.

FLO-SOFT

Owner of Reg. No. 610,396.
For Domestic and Industrial Tank Type Water Softeners and Filters Sold as Units; Tank Type Iron Removal Filters, Activated Carbon Filters, Acid Neutralising Filters, Hydrogen Sulphide Removal Filters, Quartz Sand Filters, and Anthracite Coal Filters; and Portable Tank Type Water Softeners.
First use Feb. 10, 1958.

Class 32 — Furniture and Upholstery

SN 21,690. Harris Lebus Limited, London, England. Filed Dec. 27, 1956.

L-I-N-K

Priority claimed under Sec. 44(d) on British Reg. No. 758,006, dated Sept. 27, 1956.
For Wooden Articles of Furniture—Namely, Living Room Furniture, Bedroom Furniture, Kitchen Furniture, Hall Furniture, Bathroom Furniture, Office Furniture, Hotel Furniture, School Furniture, Ships Furniture and Lounge Furniture, Including Beds, Wardrobes, Dressing Chests, Low Chests,

Cupboard Chests, Chests of Drawers, Dressing Stools, Bed Cupboards, Headboards, High Chests, Wing Units, Continental Headboards, Dressing Tables, Chairs, Mirrors, Sideboards, Tables, Bureaux, Bookcases, Tea Trolleys, Kitchen Cabinets, Hall Stands, Hall Cupboards, Bathroom Stools, Bathroom Cupboards, Radio Cabinets, Television Stands, Desks, Chests, Room Dividers, Book Tables, Cocktail Cabinets, Picture Frames, Mirror Frames and Umbrella Stands; and Upholstered Furniture—Namely, Living Room Furniture, Dining Room Furniture, Kitchen Furniture, Hall Furniture, Office Furniture, Hotel Furniture, Ships Furniture, Lounge Furniture, Including Arm Chairs, Chairs, Settees, Fireside Chairs, Couches, Stools, and Cushions.

SN 22,016. Kroehler Mfg. Co. of Kentucky, Louisville, Ky. Filed Jan. 2, 1957.

KROEHLER
WORLD'S LARGEST FURNITURE MANUFACTURER
Permanized

Applicant disclaims the expression "World's Largest Furniture Manufacturer" apart from the mark as shown, for the purpose of this registration only. Owner of Reg. No. 429,170.

For Bedroom and Dining Room Furniture—Namely, Dressers, Chests, Wardrobes, Vanities, Night Tables, Buffets, and Dining Tables (and Similar Bedroom and Dining Room Furniture).

First use on or about Nov. 28, 1945.

SN 37,769. Sam Belz, Memphis, Tenn. Filed Sept. 25, 1957.

SIT-A-PON

For Ottomans.
First use June 3, 1957.

SN 40,756. Hatfield Industries, Inc., Hatfield, Pa. Filed Nov. 15, 1957.

HI-LINE

For Storage Racks—to wit, Racks With Means of Conveying Materials in or Out of Containers Either by Gravity or by Power.
First use Feb. 10, 1955.

SN 41,015. The Globe-Wernicke Chair Co., Delta, Ohio. Filed Nov. 20, 1957.

Fine-Rest

For Office Chairs.
First use in December 1947.

SN 44,564. Serta of Chicago, Inc., Chicago, Ill. Filed Jan. 23, 1958.

VALUE REST

For Mattresses and Box Springs.
First use on or about Oct. 5, 1954.

SN 44,993. Thayer, Inc., Gardner, Mass. Filed Jan. 30, 1958.

Crib Mobile

For Convertible Cribs and Playpens.
First use Jan. 1, 1956.

SN 46,150. The Mosler Safe Company, Hamilton, Ohio. Filed Feb. 19, 1958.

ROTO-FILE

Owner of Reg. No. 421,168.
For Filing Cabinets.
First use on or about Sept. 4, 1941.

SN 46,558. Saul Menick-David Sadel, Associates Incorporated, Washington, D. C. Filed Feb. 25, 1958.

COLLAPSEZE

For Collapsible Display Easels.
First use July 8, 1957.

SN 48,543. Cole Steel Equipment Co., Inc., New York, N. Y. Filed Mar. 27, 1958.

COLE-STEEL

For Office Furniture and Storage, Utility and Filing Cabinets.
First use May 8, 1933.

SN 48,691. Bedding Manufacturers Associates, Inc., Philadelphia, Pa. Filed Mar. 31, 1958.

TRU-VAL

For Mattresses, Upholstered Chairs, and Sofa Beds.
First use Dec. 1, 1957.

SN 48,829. S. A. Cook & Co., Medina, N. Y. Filed Apr. 1, 1958.

ZORI

For Chairs.
First use Jan. 15, 1958.

SN 49,055. Edson, Incorporated, Chicago, Ill. Filed Apr. 4, 1958.

TRAVEL-MATE

For Pillows.
First use Feb. 24, 1958.

SN 49,292. Nachman Corporation, Chicago, Ill. Filed Apr. 8, 1958.

ECONOSEET

For Spring Assemblies for Upholstered Cushions and Cushions Manufactured of Same.
First use Mar. 27, 1958.

SN 49,627. Simmons Company, New York, N. Y. Filed Apr. 14, 1958.

COMFORTORC

For Chairs, Settees, and Sofas.
First use Mar. 24, 1958.

SN 49,687. Vogel-Peterson Co., Chicago, Ill. Filed Apr. 16, 1958.

veep

For Garment Racks.
First use Mar. 10, 1958.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 699,473. Carrier Corporation, Syracuse, N. Y. Filed Dec. 6, 1955.

Roomette

For Air Conditioning Units Such as Air Conditioning Units for Trailers.
First use June 3, 1955.

SN 28,674. Microtron Corporation, Charlotte, N. C. Filed Apr. 25, 1957.

Micramat

For Air Filters for Heating and Air Conditioning Systems and the Like.
First use Mar. 19, 1956.

SN 28,875. Microtron Corporation, Charlotte, N. C. Filed Apr. 25, 1957.

Microtron

For Air Filters for Heating and Air Conditioning Systems and the Like.
First use Dec. 9, 1953.

SN 40,716. The Trane Company, La Crosse, Wis. Filed Nov. 14, 1957.

TORRIVENT

For Heating Units; Heating and Ventilating Units; Heating and Cooling Units; Heating, Cooling, and Ventilating Units.
First use June 10, 1957.

SN 40,749. Halo Lighting Products Company, Chicago, Ill. Filed Nov. 15, 1957.

"Mini-Sphere"

For Recessed Lighting Fixtures.
First use Nov. 4, 1957.

SN 40,788. The Trane Company, La Crosse, Wis. Filed Nov. 15, 1957. Sec. 2(f).

CLIMATE CHANGER

For Heating Units; Heating and Ventilating Units; Heating and Cooling Units; Heating, Cooling, and Ventilating Units; Cooling Units; Cooling and Ventilating Units.
First use June 1, 1933.

SN 41,103. The Lummus Company, New York, N. Y. Filed Nov. 21, 1957. Sec. 2(f) as to "Lummus."

LUMMUS

Owner of Reg. Nos. 372,287, 580,237, and others.

For Chemical and Petroleum Distillation and Refinery Apparatus and Power Plant Equipment—Namely, Oil Heaters and Parts Thereof, Heat Exchangers, Condensers, Steam Generators, Distillation Columns and Parts Thereof, Flash Evaporation Tanks, Steam Ejectors, and Delayed Coking Units.

First use during spring of 1957; during 1900 as to "Lummus."

SN 41,202. Straus-Frank Company, Dallas, Tex. Filed Nov. 22, 1957.

ARCTIC BREEZE

For Evaporative Type Coolers and Parts Therefor.
First use Feb. 10, 1957.

SN 41,317. Smith Welding Equipment Corporation, Minneapolis, Minn. Filed Nov. 25, 1957.

SILVER STAR

For Non-Electrical Welding, Cutting and Heating Torches Both Hand and Machine Types.
First use Apr. 18, 1955.

SN 41,389. Metropac Industries, Inc., d. b. a. Metromatic Oil Burner Co., Everett, Mass. Filed Nov. 26, 1957.

Water-Fire

For Combination Furnace With Domestic Water and Warm Air in One Unit.
First use June 5, 1957.

SN 41,426. Air Products, Inc., Emmaus, Pa. Filed Nov. 27, 1957.

VISARC

For Welding Torches.
First use May 7, 1957.

SN 41,427. Air Products, Inc., Emmaus, Pa. Filed Nov. 27, 1957.

REDI-SET

For Cutting and Welding Outfits.
First use July 25, 1957.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 32,962. Lee Rubber & Tire Corporation, d. b. a. Republic Rubber Division, Youngstown, Ohio. Filed July 1, 1957.

CODAFLEX

Owner of Reg. Nos. 542,056, 547,071, 619,071, and others.
For Fire Hose of the Cotton-Synthetic Polyester Fiber Jacket, Neoprene Lined Type.
First use June 3, 1957.

SN 43,382. Oliver Tire and Rubber Company, Oakland, Calif. Filed Jan. 2, 1958. Sec. 2(f).

TUFF-TRED

For Tire Treads and Tire Treading Materials.
First use Oct. 26, 1936.

SN 43,601. The Dayton Rubber Company, Dayton, Ohio. Filed Jan. 8, 1958.

DAYTONIAN

Owner of Reg. No. 354,410.
For Tires Constructed of Rubber and Fabric Composition.
First use Dec. 28, 1936.

SN 44,009. F. D. Farnam Co., Chicago, Ill. Filed Jan. 15, 1958.

KAOKOVER

Owner of Reg. No. 607,299.
For Gasket Material.
First use June 21, 1957.

SN 44,010. F. D. Farnam Co., Chicago, Ill. Filed Jan. 15, 1958.

KAOBESTOS

Owner of Reg. No. 607,299.
For Gasket Material.
First use June 21, 1957.

SN 44,011. F. D. Farnam Co., Chicago, Ill. Filed Jan. 15, 1958.

KAOFORM

Owner of Reg. No. 607,299.
For Gasket Material.
First use June 21, 1957.

Class 36—Musical Instruments and Supplies

SN 33,987. Frederick Gilbert Newton, d. b. a. Hero Records, Detroit, Mich. Filed July 18, 1957.

hero

For Mechanically Grooved Phonograph Records.
First use Apr. 3, 1957.

Class 37—Paper and Stationery

SN 35,798. The J. P. Lewis Co., Beaver Falls, N. Y. Filed Aug. 19, 1957.

JPL

For Paper Products—Namely, Tag Paper, Bristol and Poster Board.
First use Aug. 5, 1937.

SN 42,180. Dixie Wax Paper Company, Dallas, Tex. Filed Dec. 10, 1957.

LAMI-TOP

For Moisture and Moisture Vapor Proof Paper Bags.
First use Oct. 24, 1957.

Class 38—Prints and Publications

SN 19,945. C C Manufacturing Co., Chicago, Ill. Filed Nov. 27, 1956.

HOMEMAKER'S

For Catalog Publication Published From Time to Time.
First use Sept. 1, 1949.

SN 42,427. Doris Mary Appleby, d. b. a. Barry Appleby, Westcott, near Dorking, Surrey, England. Filed Dec. 16, 1957.

THE GAMBOLS

Owner of British Reg. No. 713,960, dated Jan. 15, 1953.
For Cartoons of Fictitious Characters in Strip Form Published in Periodicals.

SN 42,501. Link Aviation, Inc., Binghamton, N. Y. Filed Dec. 16, 1957.

THE CONNECTING LINK

Owner of Reg. No. 438,568.
For Magazine.
First use in April 1944.

SN 42,503. Link Aviation, Inc., Binghamton, N. Y. Filed Dec. 16, 1957.

THE LINK LOG

Owner of Reg. No. 438,568.
For Newspaper.
First use May 8, 1943.

Class 39—Clothing

SN 677,756. The Alligator Company, St. Louis, Mo. Filed Dec. 6, 1954.

The coat you'll LIVE IN!

For Raincoats and Topcoats for Men.
First use in February 1951.

SN 16,296. The Rothorough Company, Philadelphia, Pa. Filed Sept. 24, 1956.

ENDEARING

For Women's and Misses' Hosiery.
First use January 1951.

SN 19,633. Sport Kraft, Inc., Lewes, Del. Filed Nov. 19, 1956.

SPORTABLES BY SPORTCRAFT

For Women's Blouses and Skirts.
First use Aug. 1, 1955.

SN 23,230. Julius Grossman, Inc., New York, N. Y. Filed Jan. 25, 1957.

VITA SOLE

The word "Sole" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 303,663 and 522,319.
For Insoles for Shoes.
First use Nov. 3, 1932.

SN 28,876. M. K. M. Knitting Mills, Inc., Manchester, N. H. Filed Apr. 25, 1957.

FIREFLY

Owner of Reg. Nos. 246,837 and 519,421.
For Sweaters.
First use Mar. 1, 1956.

SN 29,152. Julius Garfinckel and Company, Inc., New York, N. Y. Filed Apr. 30, 1957.

BROOKS BROTHERS

Owner of Reg. Nos. 103,889, 640,370, and others.
For Men's and Boys' Clothing—Namely, Suits, Coats Including Topcoats, Overcoats, and Raincoats, Sport Coats, Jackets, Parkas, Sweaters, Vests, Trousers, Kilts, Walking Shorts, Outer Shirts Including Evening, Dress, Polo, and Sport Shirts, Collars, Pajamas, Robes, Smoking Jackets, Dressing Gowns, Underwear, Mufflers, Gloves, Neckties, Handkerchiefs, Hose, Caps, Hats, Belts, Suspenders, Garters, Boots, Slippers, Shoes, Overshoes, Beach Wear, Swimwear, Formal Wear and Military Uniforms; and Women's Clothing—Namely, Outer Shirts, Walking Shorts, Sweaters, Raincoats, and Outer Coats.
First use in the year 1856.

SN 30,474. D. Byford & Company Limited, Leicester, England. Filed May 22, 1957.

Byford.

Owner of British Reg. No. 647,856, dated May 17, 1946; and U. S. Reg. No. 442,343.
For Knitted Outer Garments.

SN 33,252. Lewel Manufacturing Co., Inc., New York, N. Y. Filed July 5, 1957.

REAR-GARD

For Girdles.
First use in November 1956.

SN 36,155. Burton's Natural Clothes Ltd., New York, N. Y. Filed Aug. 26, 1957.

PENNBROOKE

The drawing is lined for gold.
For Men's Suits, Coats, Jackets, and Pants.
First use Jan. 1, 1955.

SN 36,776. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Sept. 6, 1957.

MICRO-WATE

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Aug. 20, 1957.

SN 36,779. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Sept. 6, 1957.

KOOLHARA

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Aug. 14, 1957.

SN 36,781. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Sept. 6, 1957.

FLO-THRU

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Aug. 20, 1957.

SN 36,782. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Sept. 6, 1957.

AQUA-FINE

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Aug. 20, 1957.

SN 36,783. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Sept. 6, 1957.

TRANS-AIRE

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Aug. 14, 1957.
Subj. to Intf. with SN 36,565.

SN 36,784. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Sept. 6, 1957.

FANTOMAIRE

Owner of Reg. No. 646,861.
For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Aug. 21, 1957.

SN 37,852. Benson & Bixon Co., Chicago, Ill. Filed Sept. 26, 1957.

BENSON-BULLDOG

Owner of Reg. No. 663,977.
For Men's Suits, Sport Coats, Jackets, and Slacks.
First use Sept. 10, 1957.

SN 38,200. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Oct. 2, 1957.

FORTISSIMO

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Sept. 11, 1957.

SN 38,498. Carol B. Sullivan, New York, N. Y. Filed Oct. 7, 1957.

"GLAMOURCHIEF"

For Double-Faced Three-Cornered Kerchief.
First use June 1, 1957.

SN 38,565. J. Schoeneman, Incorporated, Baltimore, Md. Filed Oct. 8, 1957.

Trans-Aire

For Suits, Coats, Vests, and Trousers for Men.
First use Sept. 14, 1956.
Subj. to Intf. with SN 36,783.

SN 38,622. Richard H. Martin, Inc., New York, N. Y. Filed Oct. 9, 1957.

RICHARD H. MARTIN

For Coats and Suits.
First use on or about July 15, 1957.

SN 41,093. Glen Raven Knitting Mills, Inc., Glen Raven, N. C. Filed Nov. 21, 1957.

Spectator

For Hosiery.
First use July 13, 1956.

SN 41,169. Hickok Manufacturing Co. Inc., Rochester, N. Y. Filed Nov. 22, 1957.

VICOUNT

For Apparel Belts.
First use Nov. 5, 1957.

SN 43,180. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

FRAGRANCE

For Girdles, Corsets, Brassieres, and Garter Belts.
First use July 12, 1935.

SN 43,185. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

MERMAID

For Girdles, Corsets, Brassieres, and Garter Belts.
First use July 8, 1924.

SN 43,187. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

FLAMING YOUTH

For Girdles, Corsets, Brassieres, and Garter Belts.
First use Dec. 4, 1924.

SN 43,189. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

FAN

For Girdles, Corsets, Brassieres, and Garter Belts.
First use June 5, 1934.

SN 43,190. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

WIZ-BAC

For Girdles, Corsets, Brassieres, and Garter Belts.
First use July 25, 1934.

SN 43,191. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

FAN-TEX

For Girdles, Corsets, Brassieres, and Garter Belts.
First use July 17, 1935.

SN 43,192. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

FADE-AWAY

For Girdles, Corsets, Brassieres, and Garter Belts.
First use Apr. 16, 1924.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 14,510. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

DOWNDERRY

Owner of Reg. No. 514,231.
For Cloth of Wool and Mixtures of Wool, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use July 19, 1937.

SN 14,512. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

CLOUD DRIFT

Owner of Reg. No. 333,195.
For Cloth of Wool and Mixtures of Wool, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Sept. 13, 1935.

SN 14,513. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

MOLLENDO

Owner of Reg. Nos. 354,972 and 507,297.
For Cloth of Wool or Wool and Other Natural Fibers, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Nov. 13, 1936.

SN 14,514. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

KUDDLIN

Owner of Reg. No. [illegible].
For Cloth of Wool and Mixtures of Wool, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use during September 1936.

SN 14,515. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

LAUDERA

Owner of Reg. No. 514,232.
For Cloth of Wool and Mixtures of Wool, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use May 6, 1936.

SN 18,888. Seamprufe Incorporated, New York, N. Y. Filed Oct. 29, 1956.

BLENDETTE

For Woven Fabric for Making Ladies' Lingerie.
First use Oct. 1, 1956.

SN 26,847. Morgan Cotton Mills, Inc., Laurel Hill, N. C. Filed Mar. 25, 1957.

Merry-Maid

For Dish Cloths, Dish Towels (Woven), and All Purpose Cloths.
First use Feb. 13, 1957.

SN 33,287. Shulman Fabrics, Inc., Paterson, N. J. Filed July 5, 1957.

WEATHERBACK

Owner of Reg. No. 589,640.
For Fabrics in the Piece of Cotton, Rayon, or Synthetic Fibers.
First use Mar. 7, 1957.

SN 34,001. Phoenix Gummiwerke Aktiengesellschaft, Hamburg-Harburg, Germany. Filed July 18, 1957.

PHOENIX

Owner of German Reg. No. 602,901, dated July 9, 1951.
For Rubberized Fabrics in the Piece for the Manufacture of Raincoats, Air Mattresses, Bed Inserts for Hospitals, and Similar Purposes.

SN 35,316. Bemis Bro. Bag Company, St. Louis, Mo. Filed Aug. 12, 1957.

ROL-RAP

For Fabric Rug Covers.
First use June 28, 1957.

SN 42,650. The Hope Chest Company, Inc., Minneapolis, Minn. Filed Dec. 18, 1957.



For Table Cloths, Towels, Sheets, Napkins, Quilts, Blankets, Pillow Cases, Wash Cloths, and Pot Holders.
First use Aug. 30, 1954.

SN 42,921. Norman C. Rice, Inc., New York, N. Y. Filed Dec. 23, 1957.

WONDORRA

For Braided Rugs Made of Vinyl Plastic.
First use June 30, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 42,295. Mead Johnson & Company, Evansville, Ind. Filed Dec. 12, 1957.

MINIMETER

For Adapter for Altering the Drip Rate of Devices Used for Parenteral Administration of Fluids.
First use Nov. 8, 1957.

SN 43,056. Otto (Bo) Suter, Jr., d. b. a. O. Suter Dental Mfg. Co., Chico, Calif. Filed Dec. 26, 1957.

TRU-BAL

For Dental Hand Instruments.
First use Oct. 14, 1957.

SN 43,057. Otto (Bo) Suter, Jr., d. b. a. O. Suter Dental Mfg. Co., Chico, Calif. Filed Dec. 26, 1957.

FERRIER

For Dental Hand Instruments.
First use Dec. 31, 1932.

Class 45—Soft Drinks and Carbonated Waters

SN 15,884. The Charles E. Hires Co., Philadelphia, Pa. Filed Sept. 18, 1956.

Puvock

For Distilled Water.
First use 1907.

SN 19,496. Jeno F. Paulucci, d. b. a. The Bop Corp., Duluth, Minn. Filed Nov. 19, 1956.

BOP
the
Healthful
POP

No claim is made to the slogan "The Healthful Pop" apart from the mark as shown.
For Canned Carbonated Soft Drinks.
First use Nov. 7, 1956.

SN 23,396. The Charles E. Hires Co., Philadelphia, Pa. Filed Jan. 29, 1957.

Purock

For Soft Drinks.
First use Dec. 12, 1956.

Class 46 — Foods and Ingredients of Foods

SN 605,107. Mead Johnson & Company, Evansville, Ind. Filed Oct. 18, 1950.

FER-IN-SOL

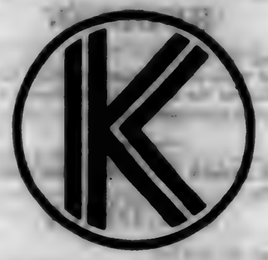
For Liquid Food Preparation Used as a Dietary Supplement—Namely, a Concentrated Solution of Ferrous Sulphate.
First use Dec. 19, 1949.

SN 15,548. O. Kavli A/S, Bergen, Norway. Filed Sept. 12, 1956.



Applicant disclaims the term "Crispbread."
For Crispbread and Wafers of Bread.
First use May 1951; in commerce June 12, 1953.

SN 17,219. Klein Chocolate Company, Elizabethtown, Pa. Filed Oct. 10, 1956.



For Chocolate Candies in Various Shapes, Cooking and Baking Chocolate, Chocolate Coating, Chocolate Liquors for Commercial Use, and Cocoa Powders.
First use October 1935.

SN 18,754. The Hekman-Meester Company, Grand Rapids, Mich. Filed Nov. 5, 1956.

AMSTERDAM

For Cream Sauces.
First use Oct. 24, 1956.

SN 21,159. Holiday Foods, Inc., Waterloo, Iowa. Filed Dec. 17, 1956.

Old Colony

For Smoked Hams and Bacon.
First use Aug. 1, 1956.

SN 22,614. Gold Medal Candy Corporation, Brooklyn, N. Y. Filed Jan. 15, 1957.

Gold Medal Candies

The word "Candies" is disclaimed.
For Peanut Brittle.
First use in or about January 1940.

SN 23,363. Tater-Flake Company, Scottsbluff, Nebr. Filed Jan. 28, 1957. Sec. 2(f).

Cawley's

For Potato Chips.
First use October 1934.

SN 30,571. John W. Cochran, d. b. a. Cinn-A-Spread Products, Lees' Summit, Mo. Filed May 23, 1957.

CINN-A-SPREAD

For Sugar and Cinnamon Spread.
First use Feb. 14, 1957.

SN 33,058. Argia B. Collins, d. b. a. Argia B's Food Products, Chicago, Ill. Filed July 2, 1957.

MUMBO

For Barbecue Sauce.
First use in March 1950.

SN 24,294. Golden Dawn Foods, Sharon, Pa. Filed Aug. 27, 1957.

GOLDEN DAWN

Owner of Reg. Nos. 440,293 and 342,519.
For Canned Fruits and Vegetables, Cranberry Sauce, Tomato Catsup, Coffee, Ice Cream, Oleomargarine, Cheese, Butter, Fresh Milk, Fruit Jellies and Preserves, Canned and Fresh-Frozen Fruit Juices, Pickles, Pickle Relish, Vinegar, Olives, Apple Butter Salad Dressing, Canned Fish, Spaghetti, Noodles, Mincemeat, Prepared Pie Crust, Dates, Table Salt, Mushrooms, Dried Fruits, Vegetable Shortening, Rice, Unpopped Popcorn, Sandwich Spread, Bottled Cherries, Dried Beef, Marshmallow Creme, Meatless Sauce, Peppers, Mustard, and Horseradish; and Fresh Fruits and Vegetables.
First use August 1935 on canned fruits and vegetables, salad dressing and salt.
Subj. to Intf. with SN 7,653.

SN 37,561. Couture Farms of Huron, d. b. a. Couture Farms of Modesto, and Couture Farms, Huron, Calif. Filed Sept. 20, 1957.



Owner of Reg. No. 271,909.
For Fresh Grapes and Fresh Melons.
First use in August 1928.

SN 38,966. Hans J. Andreassen, d. b. a. Domino Products Co., San Francisco, Calif. Filed Oct. 16, 1957.

DOMINO

For Pet Food for Dogs and Cats.
First use Sept. 3, 1955.

SN 39,421. A. E. Staley Manufacturing Company, Decatur, Ill. Filed Oct. 23, 1957.

FIDO FUDGE

For Dog Food.
First use Sept. 13, 1957.

SN 41,254. Peter Eckrich & Sons, Inc., Fort Wayne, Ind. Filed Nov. 25, 1957.

Smorgas-Pac

For Luncheon Meats.
First use May 1, 1952.

SN 42,142. Independent Grocers' Alliance Distributing Company, Chicago, Ill. Filed Dec. 10, 1957.

Pik'n Pac

For Food and Grocery Products—Namely, Canned Fruits.
First use Aug. 15, 1935.

SN 42,423. American Kitchen Products Company, Jersey City, N. J. Filed Dec. 16, 1957.

STEERO

Owner of Reg. Nos. 502,446 and 564,741.
For Bouillon in Powder and Granular Form.
First use Aug. 14, 1957.

SN 42,462. Ferrara Candy Co., Not Inc., Chicago, Ill. Filed Dec. 16, 1957.

LIC-WISH

For Candy.
First use Oct. 28, 1957.

SN 43,419. Paul F. Beich Company, Bloomington, Ill. Filed Jan. 6, 1958.

IMPS

For Candy.
First use Dec. 17, 1957.

SN 43,474. Osceola Fruit Distributors, Kissimmee, Fla. Filed Jan. 6, 1958.

KISS-ME SWEET

For Fresh Orange and Grapefruit Juices.
First use Nov. 25, 1955.

Class 50 — Merchandise Not Otherwise Classified

SN 31,860. The Buckeye Corporation, Springfield, Ohio, from Niamco, Inc., Dallas, Tex. Filed June 12, 1957.

HERBAGERE

For Temperature Controlled Cabinet Type Apparatus and Parts Thereof for the Chemical Cultivation of Plants.
First use Aug. 17, 1955.

SN 40,255. Multi-Stretched Films, Inc., Chicago, Ill. Filed Nov. 7, 1957.

MULT-O-PAX

For Stretched Sheet Material, Particularly Thermoplastic Films.
First use Oct. 24, 1957.

Class 51 — Cosmetics and Toilet Preparations

SN 35,366. Marquay, S. a. r. l., Paris, France. Filed Aug. 12, 1957.

THE CHOSEN ONE

Priority claimed under Sec. 44(d) on French Reg. No. 465,774, dated June 21, 1957 (Seine); Natl. Inst. No. 92,182.
For Perfumes, Essential Oils Used in the Manufacture of Cosmetic and Toilet Preparations, Toilet Soaps; Hair Waving, Hair Setting, and Hair Grooming Lotions; Eau de Cologne, Nail-Enamel, Hand Cream, Hand Lotion, Face Pow-

der and Body Powder, Vanishing Cream, Cold Cream, Cleansing Cream, Hormone Cream and Foundation Cream, Face Cream, Face Lotion, Rouge, Lipsticks, Mascara, Eyebrow-Pencil.

Class 52—Detergents and Soaps

SN 41,361. Herman A. Duncan, d. b. a. Duncan Sales Co., Oakland, Calif. Filed Nov. 26, 1957.

ALPREP

For Chemical Composition Used as a Cleaner and Etcher for Concrete Surfaces.
First use Jan. 26, 1956.

SN 42,168. Silicone Industries Inc., Boston, Mass. Filed Dec. 10, 1957.

SILICONE GLO

Applicant disclaims the word "Silicone" apart from the mark as shown.
For Liquid Multi-Purpose Cleaning Preparation.
First use Oct. 24, 1957.

SN 42,350. Dr. Francis B. Carroll, Racine, Wis. Filed Dec. 13, 1957.

MILKTIME

For Cleansing and Sanitizing Composition.
First use Jan. 12, 1950.

SERVICE MARKS

Class 100—Miscellaneous

SN 81. National Golf Foundation, Inc., Chicago, Ill. Filed Jan. 3, 1956. Sec. 2(f).

THE GAME OF A LIFETIME

For Association Services—Namely, the Promotion of Golf Playing and Golf Facilities Through the Distribution of Literature, Including Statistical Data, Organizational Aids, and Instructional and Technical Literature.
First use in or about August 1930.

SN 21,048. Consolidated Electrodynamics Corporation, Pasadena, Calif. Filed Dec 14, 1956.

datalab

For Engineering Services Concerned With the Design, Development, Installation, and Testing of Equipment for Automatic Data Processing.
First use Jan. 2, 1956.

Class 102—Insurance and Financial

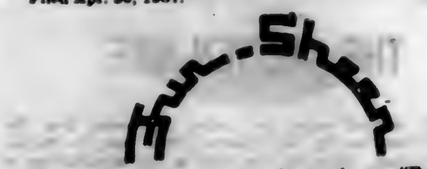
SN 20,200. Magnolia Life Insurance Company, Lake Charles, La. Filed Nov. 20, 1956.



The words "Funeral Payment Policy" are disclaimed apart from the mark as shown.
For Underwriting Funeral Insurance.
First use May 1, 1950.

Class 103—Construction and Repair

SN 29,153. Walter Haertel Company, Minneapolis, Minn. Filed Apr. 30, 1957.



The words which comprise the mark are "Fur Shear."
Owner of Reg. No. 617,287.
For Fur and Garment Cleaning.
First use on or about Apr. 15, 1956.

SN 37,652. Gunite Concrete and Construction Company, Kansas City, Mo. Filed Sept. 23, 1957.

WET-CRETE

For Pneumatic Application of Cementitious Materials.
First use Aug. 1, 1957.

Class 104—Communication

SN 38,712. RKO Teleradio Pictures, Inc., Boston, Mass. Filed Oct. 10, 1957.

SEVENKINS

For Television Broadcasting.
First use Jan. 18, 1957.

SN 38,852. Public Broadcasting Service, Inc., Enid, Okla. Filed Oct. 14, 1957.



For Radio Broadcasting Services.
First use Nov. 29, 1955.

SN 38,999. John McLendon, Jackson, Miss. Filed Oct. 16, 1957.

ebony

For Radio Broadcasting.
First use September 1954.

Class 105—Transportation and Storage

SN 34,966. Robert H. Long, d. b. a. Travelong, Elizabeth, N. J. Filed Aug. 5, 1957.

Travelong

The drawing is lined for blue.
For Tour and Travel Agency Services.
First use May 1, 1933.

SN 38,639. Simmons Tours, Inc., d. b. a. Gateway Holidays, New York, N. Y. Filed Oct. 9, 1957.

GATEWAY HOLIDAYS

Owner of Reg. No. 337,972.
For Guided Tours.
First use January 1957; in the year 1900 as to "Gateway."

SN 42,331. Worster Motor Lines, Inc., Erie County, Pa. Filed Dec. 12, 1957.



The word "Freezer" is disclaimed apart from the mark as shown.
For Transportation Services in Transporting Freight and Other Cargo.
First use in 1947.

Class 106—Material Treatment

SN 42,224. Burlington Industries, Inc., New York, N. Y. Filed Dec. 23, 1957.

BURMISET

For Dyeing and Finishing the Textile Fabrics of Others.
First use in July 1957.

SN 43,236. Burlington Industries, Inc., New York, N. Y. Filed Dec. 31, 1957.

BUR-MAGIC

For Dyeing and Finishing the Textile Fabrics of Others.
First use Oct. 29, 1957.

SN 43,526. Burlington Industries, Inc., New York, N. Y. Filed Jan. 7, 1958.



For Dyeing and Finishing the Textile Fabrics of Others.
First use on or about February 1957.

Class 107—Education and Entertainment

SN 606,051. George F. Kochaise, Chicago, Ill. Filed Oct. 7, 1955.

JUNIOR JAMBOREE

For Title of a Radio and Television Program—Namely, a Variety Show.
First use Feb. 15, 1953.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

663,940. POLURANE. Massachusetts Mineral and Manufacturing Co., Inc. SN 20,038. Pub. 4–22–58. Filed 11–28–56.

663,941. UNI-CREST. United Cork Companies. SN 20,669. Pub. 4–22–58. Filed 12–7–56.

663,942. GEMS OF THE GOLDEN WEST. Jack B. Neuman, d. b. a. Gems of the Golden West. SN 26,227. Pub. 4–22–58. Filed 3–15–57.

663,943. FAIRLON. Chippewa Plastics, Inc. SN 30,476. Pub. 4–22–58. Filed 5–22–57.

663,944. MIRACEL. Riegel Paper Corporation. SN 32,127. Pub. 4–22–58. Filed 6–17–57.

663,945. ASTRACEL. Riegel Paper Corporation. SN 32,128. Pub. 4–22–58. Filed 6–17–57.

663,946. AURACEL. Riegel Paper Corporation. SN 32,130. Pub. 4–22–58. Filed 6–17–57.

663,947. ALBACEL. Riegel Paper Corporation. SN 32,131. Pub. 4–22–58. Filed 6–17–57.

663,948. FARMCO. Wisconsin Farmco Service Cooperative. SN 35,550. Pub. 4–15–58. Filed 8–14–57.

Class 2—Receptacles

663,949. CENCO. Central States Paper & Bag Co. SN 652,836. Pub. 12–7–54. Filed 9–8–53.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

663,950. TEMPO AND DESIGN. I. Smallman & Sons Co. SN 24,207. Pub. 4–22–58. Filed 2–11–57.

Class 4—Abrasives and Polishing Materials

663,951. PERFECTONE. S. C. Johnson & Son, Inc. SN 34,359. Pub. 4–22–58. Filed 7–25–57.

663,952. LUMI-CARE. Northbrook Products, Inc. SN 35,115. Pub. 4–22–58. Filed 8–7–57.

Class 5—Adhesives

663,953. PLASTITE. Plastite Adhesives Corp. SN 21,568. Pub. 4–22–58. Filed 12–24–56.

663,954. PADLOCK. Atlantic Gummed Paper Corporation. SN 37,715. Pub. 4–22–58. Filed 9–24–57.

Class 6—Chemicals and Chemical Compositions

663,955. GAGE-O. Margaret O. Somerville, d. b. a. The Petroleum Specialty Company. SN 693,096. Pub. 4–22–58. Filed 8–15–55.

663,956. ACTI-DIONE RZ AND DESIGN. The Upjohn Company. SN 15,991. Pub. 4–22–58. Filed 9–19–56.

663,957. RHODEX. Sel-Rex Precious Metals, Inc., to Sel-Rex Corporation. SN 17,124. Pub. 4–22–58. Filed 10–8–56.

663,958. PERELESS AND DESIGN. Mississippi Lime Company. SN 20,424. Pub. 4–22–58. Filed 11–15–56.

663,959. DESIGN OF PENGUIN. Rockwell Laboratories, Inc. SN 25,034. Pub. 4–22–58. Filed 3–25–57.

663,960. SESAMYL TRIETHOXANE. Shulton, Inc. SN 26,022. Pub. 4–22–58. Filed 3–12–57.

663,961. RINSEFREE. Edward A. Murray. SN 26,851. Pub. 4–22–58. Filed 3–25–57.

663,962. DRILLING MILK. Magnet Cove Barium Corporation. SN 27,384. Pub. 4–22–58. Filed 4–3–57.

663,963. ISO-STRIP. Wagner Brothers, Inc. SN 28,208. Pub. 4–22–58. Filed 4–15–57.

663,964. ISO-SEALER. Wagner Brothers, Inc. SN 28,209. Pub. 4–22–58. Filed 4–15–57.

663,965. ISO-LOK. Wagner Brothers, Inc. SN 28,210. Pub. 4–22–58. Filed 4–15–57.

663,966. ISO-RINSE. Wagner Brothers, Inc. SN 28,211. Pub. 4–22–58. Filed 4–15–57.

663,967. ISO-LUME. Wagner Brothers, Inc. SN 28,213. Pub. 4–22–58. Filed 4–15–57.

663,968. ALCYLITE. Loven Chemical of California. SN 28,452. Pub. 4–22–58. Filed 4–18–57.

663,969. INDAIR. Industrial Air Products Co. SN 28,599. Pub. 4–22–58. Filed 4–22–57.

663,970. A ALDRICH CHEMICALS AND DESIGN. Aldrich Chemical Company, Inc. SN 30,544. Pub. 4–22–58. Filed 5–23–57.

663,971. PRONTOCOL. Woonsocket Color & Chemical Company. SN 31,681. Pub. 4–22–58. Filed 6–12–57.

663,972. AERO-SAN. DBA Products Co., Incorporated. SN 33,061. Pub. 4–22–58. Filed 7–2–57.

663,973. TRANCOA. Trancoa Chemical Corporation. SN 35,071. Pub. 4–22–58. Filed 8–6–57.

663,974. DESIGN OF DUCK. Roy Burt, d. b. a. Dri Dux Company. SN 35,324. Pub. 4–22–58. Filed 8–12–57.

663,975. FORMULA 40. The Dow Chemical Company. SN 35,751. Pub. 4–22–58. Filed 8–19–57.

663,976. SPAIRE. Liquid Glaze, Inc. SN 36,004. Pub. 4–22–58. Filed 8–22–57.

663,977. CLAREMONT AND DESIGN. Claremont Pigment Dispersion Corporation. SN 37,418. Pub. 4–22–58. Filed 9–18–57.

663,978. PLASTA. Sunlight Chemical Corporation. SN 37,530. Pub. 4–22–58. Filed 9–19–57.

663,979. POLYSTIF. Synthetic Polymer Products Limited. SN 38,648. Pub. 4–22–58. Filed 10–8–57.

Class 9—Explosives, Firearms, Equipments, and Projectiles

663,980. FIREFLY. Safety Research & Mfg. Co., Inc. SN 27,526. Pub. 4–22–58. Filed 4–4–57.

Class 11—Inks and Inking Materials

663,981. AMBREX AND DESIGN. American Dyewood Company. SN 33,393. Pub. 4–22–58. Filed 7–9–57.

Class 12—Construction Materials

663,982. AMVOID. American-Marietta Company. SN 28,422. Pub. 4–22–58. Filed 3–19–57.

663,983. STONHARD STONFIL. Stonhard Company, Inc. SN 27,064. Pub. 4–22–58. Filed 3–27–57.

663,984. DRIVE-LOK AND DESIGN. Lok-Products Co. SN 32,222. Pub. 4–22–58. Filed 6–20–57.

663,985. STRIP LOK AND DESIGN. Lok-Products Co. SN 32,223. Pub. 4–22–58. Filed 6–20–57.

663,986. FLORIDOR. Weather Products, Inc. SN 32,257. Pub. 4–22–58. Filed 6–20–57.

663,987. RESILITH. The Borden Company. SN 33,944. Pub. 4–22–58. Filed 7–18–57.

663,988. SKIRL. Mill & Timber Products Ltd. SN 34,066. Pub. 4–22–58. Filed 7–19–57.

663,989. KRIMPLOK AND DESIGN. Portland Wire & Iron Works. SN 34,081. Pub. 4–22–58. Filed 7–19–57.

663,990. BLOK-KRETE. Lee Lime Corporation. SN 36,089. Pub. 4–22–58. Filed 8–23–57.

663,991. DRESSER IDECO. Dresser Industries, Inc. SN 36,503. Pub. 4–22–58. Filed 8–30–57.

663,992. AP AND DESIGN. Constance B. Smith, d. b. a. Architectural Plastics. SN 37,047. Pub. 4–22–58. Filed 9–11–57.

663,993. TILO KOTE. Tilo Roofing Company, Inc. SN 37,304. Pub. 4–22–58. Filed 9–16–57.

Class 14—Metals and Metal Castings and Forgings

663,994. "DOG BONE." The American Platinum Works, now by merger and change of name to Engelhard Industries Inc. SN 35,156. Pub. 4–22–58. Filed 8–8–57.

Class 16—Protective and Decorative Coatings

663,995. CRYSTALITE. Gilman Paint and Varnish Company. SN 1,819. CONCURRENT USE. Pub. 4–22–58. Filed 1–26–56.

663,996. PENNSYLVANIA DUTCH AND DESIGN. Allentown Paint Manufacturing Company. SN 25,383. Pub. 2–25–58. Filed 3–4–57.

663,997. SUN-HUES. Sun Chemical Corporation. SN 29,240. Pub. 4–22–58. Filed 5–1–57.

663,998. SILISTONE. Glen A. Horn, d. b. a. Blacktop Maintenance. SN 38,750. Pub. 4–22–58. Filed 10–11–57.

663,999. LACOVER. Mohawk Furniture Finishing Products, Inc. SN 41,467. Pub. 4–22–58. Filed 11–27–57.

664,000. RAPID PAD. Mohawk Furniture Finishing Products, Inc. SN 41,468. Pub. 4–22–58. Filed 11–27–57.

664,001. BLENDAL. Mohawk Furniture Finishing Products, Inc. SN 41,469. Pub. 4–22–58. Filed 11–27–57.

664,002. IMPREXOL. Colorificio Italiano Max Meyer, S. p. A. SN 41,621. Pub. 4–22–58. Filed 12–2–57.

664,003. AUTOMATED MAINTENANCE ETC. AND DESIGN. Chemical Service of Baltimore, Inc. SN 41,746. Pub. 4–22–58. Filed 12–4–57.

664,004. MAINE LINE. Gagnon-Haskell, Inc. SN 42,127. Pub. 4–22–58. Filed 12–10–57.

Class 18—Medicines and Pharmaceutical Preparations

664,005. DRI-KAPH. American Cyanamid Company. SN 10,741. Pub. 4–22–58. Filed 12–18–57.

664,006. SUPERCOLD. The J. R. Watkins Company. SN 23,169. Pub. 4–22–58. Filed 1–24–57.

664,007. FRUITTI VITES. Harvey Wolfson, d. b. a. Columbia Medical Company. SN 26,041. Pub. 4–22–58. Filed 3–13–57.

664,008. BERGMAN'S MIXTURE. Bergman Drug Company, Inc. SN 27,004. Pub. 4–22–58. Filed 4–8–57.

664,009. THRAM. S. B. Penick and Company. SN 31,247. Pub. 4–22–58. Filed 6–4–57.

664,010. ROVIDE. American Cyanamid Company. SN 31,886. Pub. 4–22–58. Filed 6–13–57.

664,011. NATUREX. Nutritional Quality Controls, Inc. SN 32,522. Pub. 3–25–58. Filed 6–24–57.

664,012. MODREX. Modern Drugs, Inc. SN 36,305. Pub. 4–8–58. Filed 8–15–57.

664,013. WYESALS. American Home Products Corporation. SN 35,970. Pub. 4–22–58. Filed 8–22–57.

664,014. PARKER'S TOUCH. Hiscox Chemical Co., Inc. SN 37,997. Pub. 4–22–58. Filed 9–18–57.

664,015. LENIC. Cronkee-Barnes Laboratories, Inc. SN 38,270. Pub. 4–22–58. Filed 10–3–57.

664,016. DEPINAR. Armour and Company. SN 38,226. Pub. 4–22–58. Filed 10–4–57.

664,017. BIOZYME. Armour and Company. SN 38,229. Pub. 4–22–58. Filed 10–4–57.

664,018. GLIPASOL. Societe des Usines Chimiques Rhone-Poulenc. SN 38,773. Pub. 4–22–58. Filed 10–11–57.

664,019. CALMATRAN. Carter Products, Inc. SN 38,801. Pub. 4–22–58. Filed 10–14–57.

664,020. COMBAT. Thompson Medical Co., Inc. SN 38,873. Pub. 4–22–58. Filed 10–14–57.

664,021. HOMALDRON. Flint, Eaton & Company. SN 39,135. Pub. 4–22–58. Filed 10–18–57.

Class 19—Vehicles

664,022. COACHLINE. Divco Corporation, now by change of name Divco-Wayne Corporation. SN 16,678. Pub. 4–22–58. Filed 10–1–56.

664,023. ROYAL LINE AND DESIGN. John R. Price and Maxine O. Price. SN 18,965. Pub. 4–22–58. Filed 11–6–56.

664,024. CLIPPER. Highway Trailer Company, now by change of name to Trailco Corp., to Highway Trailer Company (new corporation). SN 37,787. Pub. 4–22–58. Filed 9–25–57.

664,025. KAPITAN. Adam Opel Aktiengesellschaft. SN 37,999. Pub. 4–22–58. Filed 9–30–57.

664,026. OLYMPIA. Adam Opel Aktiengesellschaft. SN 38,001. Pub. 4–22–58. Filed 9–30–57.

664,027. REKORD. Adam Opel Aktiengesellschaft. SN 38,002. Pub. 4–22–58. Filed 9–30–57.

664,028. WHM AND DESIGN. W. H. Miner, Inc. SN 38,084. Pub. 4–22–58. Filed 9–30–57.

664,029. REGAL AND DESIGN. Chicagoland Industries, Inc. SN 38,198. Pub. 4–22–58. Filed 10–2–57.

664,030. SURF-CRAFT AND DESIGN. Butler Marine Manufacturing Company, Inc. SN 38,250. Pub. 4–22–58. Filed 10–3–57.

Class 20—Linoleum and Oiled Cloth

664,031. BRIC-TONE. Ar-Tex Manufacturing Corp. SN 31,741. Pub. 4–22–58. Filed 6–11–57.

Class 21—Electrical Apparatus, Machines, and Supplies

664,032. TAP-LITE. Minneapolis Honeywell Regulator Company. SN 3,872. Pub. 4–22–58. Filed 3–5–56.

664,033. ROYALITIC. Industrial Condenser Corp. SN 16,220. Pub. 4–22–58. Filed 9–24–56.

664,034. WHISK-AWAY LIGHT-N-GAY. Pioneer Appliances, Inc. SN 16,973. Pub. 4-22-58. Filed 10-4-56.

664,035. FRANKMASTER. Hodges Research and Development Company. SN 18,320. Pub. 1-14-58. Filed 10-29-56.

664,036. DESIGN OF GROTESQUE BIRD. National Rubber Machinery Company. SN 32,630. Pub. 4-22-58. Filed 6-25-57.

664,037. LUX. The Lux Company, Inc. SN 34,488. Pub. 4-22-58. Filed 7-23-57.

Class 22 — Games, Toys, and Sporting Goods

664,038. POOLSIDE. Poolside Company. SN 13,312. Pub. 4-22-58. Filed 8-2-56.

664,039. NARUTO. Naruto & Co. Ltd. SN 30,350. Pub. 4-22-58. Filed 5-20-57.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

664,040. MUSICWRITER. Music Print Corporation. SN 6,266. Pub. 4-22-58. Filed 4-12-56.

664,041. HONEGGERS' BLEN-MILL. Honeggers' & Co., Inc. SN 29,905. Pub. 4-22-58. Filed 5-13-57.

664,042. CENATRON. Cenatron Industries, to Edward C. Mooesian, Newton J. Caffejian, and Charles J. Vagim, d. b. a. Cenatron Industries. SN 30,726. Pub. 4-22-58. Filed 5-27-57.

664,043. MARK. Clayton Mark & Company. SN 30,731. Pub. 4-22-58. Filed 5-27-57.

664,044. DESIGN OF GREEK LETTER OMEGA. S-I-F Industries, Inc. SN 32,453. Pub. 2-25-58. Filed 6-24-57.

664,045. LIQUILIZER. The Amalgamated Sugar Company. SN 34,334. Pub. 4-22-58. Filed 7-25-57.

664,046. SEMCO. Semco Research, Inc. SN 37,483. Pub. 4-22-58. Filed 9-19-57.

664,047. MAC. Montgomery Elevator Company. SN 37,902. Pub. 4-22-58. Filed 9-25-57.

664,048. VT. American Saw and Tool Company. SN 37,846. Pub. 4-22-58. Filed 9-26-57.

664,049. VOLUMATIC. James Mfg. Co. SN 37,880. Pub. 4-22-58. Filed 9-26-57.

664,050. ROTOMATIC. Joseph Sellers & Son Limited. SN 37,913. Pub. 4-22-58. Filed 9-26-57.

664,051. HARMET. Hard Metals Limited. SN 40,343. Pub. 4-22-58. Filed 11-8-57.

664,052. PRESS LOCK. Diamond Calk Horse Shoe Company. SN 40,748. Pub. 4-22-58. Filed 11-15-57.

664,053. TUSKY. Tubular Structures Corp. of America. SN 41,679. Pub. 4-22-58. Filed 12-2-57.

664,054. BIG BUTCH. J D D Lubricants Company. SN 41,909. Pub. 4-22-58. Filed 12-6-57.

664,055. DESIGN OF EAGLE. Societe Anonyme dite: Messier. SN 41,946. Pub. 4-22-58. Filed 12-6-57.

664,056. VACU-THERM. The De Laval Separator Company. SN 41,998. Pub. 4-22-58. Filed 12-9-57.

664,057. PRINCESS. Sperry Rand Corporation. SN 42,069. Pub. 4-22-58. Filed 12-9-57.

664,058. PULVOCRON. The Strong-Scott Mfg. Co. SN 42,331. Pub. 4-22-58. Filed 12-12-57.

664,059. FOSTORIA. The Fostoria Pressed Steel Corporation. SN 42,370. Pub. 4-22-58. Filed 12-13-57.

Class 24 — Laundry Appliances and Machines

664,060. DUCHESS. H. V. Keller Manufacturing Company. SN 32,392. Pub. 4-22-58. Filed 6-21-57.

Class 26 — Measuring and Scientific Appliances

664,061. GEVATON. Gevaert Photo-Producten N. V. SN 30,684. Pub. 4-22-58. Filed 5-24-57.

664,062. SWIFT. Swift Business Machines Corporation. SN 30,698. Pub. 4-22-58. Filed 5-24-57.

664,063. CHROMANALYZER. Phillips Scientific Corporation. SN 32,410. Pub. 4-22-58. Filed 6-21-57.

664,064. REPRESENTATION OF SHEETS OF PAPER IN A SQUARE. Agfa Aktiengesellschaft für Photofabrikation, now by change of name Agfa Aktiengesellschaft. SN 32,441. Pub. 4-22-58. Filed 6-24-57.

664,065. CLOSTEMP. Westinghouse Electric Corporation. SN 32,702. Pub. 4-22-58. Filed 6-27-57.

664,066. PROTELINAR. Agfa Aktiengesellschaft für Photofabrikation, now by change of name Agfa Aktiengesellschaft. SN 33,318. Pub. 4-22-58. Filed 7-8-57.

664,067. ANSCOFLURE. General Aniline & Film Corporation. SN 34,415. Pub. 4-22-58. Filed 7-26-57.

664,068. RENE. The Associated Merchandising Corporation. SN 34,657. Pub. 4-22-58. Filed 7-31-57.

664,069. METROL. Oil Metering and Processing Equipment Corporation. SN 35,802. Pub. 4-22-58. Filed 8-19-57.

664,070. INVISIBLE WORLD. Interstate Adjustese Corp. SN 36,078. Pub. 4-22-58. Filed 8-23-57.

Class 27 — Horological Instruments

664,071. DUWARD. Carlos Vendrell Paradis. SN 34,738. Pub. 4-22-58. Filed 7-31-57.

Class 28 — Jewelry and Precious-Metal Ware

664,072. ARJE ORIGINAL. Reed Jewelry Co., Inc. SN 19,516. Pub. 4-22-58. Filed 11-19-56.

664,073. FANTA-SET. Axel Bros., Inc. SN 22,224. Pub. 4-22-58. Filed 1-10-57.

664,074. ANKLE-GEM. Ankle-Gem, Ltd. SN 22,864. Pub. 4-22-58. Filed 1-22-57.

664,075. GUARDETTE. Faye H. Northup, d. b. a. Northup Products Company. SN 26,858. Pub. 4-22-58. Filed 3-25-57.

664,076. GEMEX G AND DESIGN. The Gemex Corporation. SN 34,606. Pub. 12-24-57. Filed 7-30-57.

Class 30 — Crockery, Earthenware, and Porcelain

664,077. SYLVIA. Porzellanfabrik Lorenz Hutschenreuther Aktiengesellschaft. SN 32,851. Pub. 4-22-58. Filed 5-28-57.

Class 31 — Filters and Refrigerators

664,078. TRI-FRIGERATOR. Philco Corporation. SN 41,568. Pub. 4-22-58. Filed 11-29-57.

664,079. TRI-FRIGERATION. Philco Corporation. SN 41,569. Pub. 4-22-58. Filed 11-29-57.

664,080. THERM-O-FLEX. Western Precipitation Corporation. SN 41,598. Pub. 4-22-58. Filed 11-29-57.

Class 32 — Furniture and Upholstery

664,081. STACK 'N ADD. Quaker Stretcher Company. SN 30,359. Pub. 4-22-58. Filed 5-20-57.

664,082. CAMEO AND DESIGN. Crofton Manufacturing Company. SN 33,215. Pub. 4-22-58. Filed 7-5-57.

664,083. LITTLE HOME OFFICE. Vennice E. Mark, d. b. a. Little Home Office. SN 33,831. Pub. 4-22-58. Filed 10-14-57.

664,084. THE MOST PERFECT SECRETARY. Precision-Posturect Chair Corp. SN 39,836. Pub. 4-22-58. Filed 10-30-57.

664,085. BUNKAROO. Althouse Mattress Company. SN 41,211. Pub. 4-22-58. Filed 11-26-57.

664,086. COMPLEMATE. United Merchants and Manufacturers, Inc. SN 41,580. Pub. 4-22-58. Filed 11-29-57.

664,087. COMPLEMATES. United Merchants and Manufacturers, Inc. SN 41,582. Pub. 4-22-58. Filed 11-29-57.

Class 33 — Glassware

664,088. LANCASTER GLASS AND DESIGN. The Lancaster Lens Company, now by change of name Lancaster Glass Corporation. SN 699,573. Pub. 4-22-58. Filed 12-7-55.

664,089. LANCASTER GLASS ETC. AND DESIGN. The Lancaster Lens Company, now by change of name Lancaster Glass Corporation. SN 699,574. Pub. 4-22-58. Filed 12-7-55.

Class 35 — Belting, Hose, Machinery Packing, and Nonmetallic Tires

664,090. LIPSEAL. Hannifin Corporation, to Parker-Hannifin Corporation. SN 19,245. Pub. 3-11-58. Filed 11-14-56.

664,091. DUO-SEAL. George O. Jenkins Company. SN 37,962. Pub. 4-22-58. Filed 9-27-57.

Class 36 — Musical Instruments and Supplies

664,092. ANDEX. Rex Productions, Incorporated. SN 37,685. Pub. 4-22-58. Filed 9-23-57.

664,093. KEEN. Rex Productions, Incorporated. SN 37,684. Pub. 4-22-58. Filed 9-23-57.

664,094. STARLIGHT. Metzner Engineering Corporation. SN 37,742. Pub. 4-22-58. Filed 9-24-57.

Class 37 — Paper and Stationery

664,095. PHOTOCRAFT DE AND HUMAN GROTESQUE FIGURES. Double Envelope Corporation. SN 5,419. Pub. 4-22-58. Filed 3-29-56.

664,096. "HOME-EDITION." Erving Paper Mills. SN 11,922. Pub. 4-22-58. Filed 7-11-56.

664,097. VERTIFLEX. Max I. Epstein, d. b. a. Advance Industries. SN 25,977. Pub. 4-22-58. Filed 3-12-57.

664,098. TOUCH-'N-SEAL. Tension Envelope Corporation of Kansas City. SN 26,211. Pub. 4-22-58. Filed 3-14-57.

Class 38 — Prints and Publications

664,099. SCHERING VETERINARY DIGEST. Schering Corporation. SN 27,530. Pub. 4-22-58. Filed 4-4-57.

664,100. CORECO REVIEW. Complete-Reading Electric Co., Inc. SN 29,672. Pub. 4-22-58. Filed 5-13-57.

Class 39 — Clothing

664,101. FANCY DANCE. Schiller Bros., Inc. SN 19,993. Pub. 4-22-58. Filed 11-27-56.

664,102. "THE HAPPY FELLA." Little Men, Inc. SN 22,327. Pub. 4-22-58. Filed 1-9-57.

664,103. ROGERS SNOWFLAKES. Kingsboro Mills, Inc. SN 26,002. Pub. 3-4-58. Filed 2-28-57.

664,104. COED. The Coed Collar Company, Inc. SN 32,377. Pub. 4-22-58. Filed 6-21-57.

664,105. FAERYWEB AND DESIGN. Triumph Hosiery Mills, Inc. SN 33,007. Pub. 4-22-58. Filed 7-1-57.

664,106. FRONTI-BOXER. Alexis, Inc. SN 33,390. Pub. 4-22-58. Filed 7-9-57.

664,107. FRONTI-PANTI. Alexis, Inc. SN 33,391. Pub. 4-22-58. Filed 7-9-57.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

664,108. COMOSILK. Lebow Bros., Inc. SN 644,851. Pub. 7-9-57. Filed 4-7-53.

664,109. ASTRAL. The Columbia Mills, Inc. SN 12,014. Pub. 4-22-58. Filed 7-12-56.

664,110. TRAVERSE BAY. Luther D. Sanders, d. b. a. Traverse Bay Woolen Company. SN 14,008. Pub. 4-22-58. Filed 8-15-56.

664,111. BEAVA-NEL. Paraco Woolens, Inc. SN 15,815. Pub. 10-1-57. Filed 9-17-56.

664,112. LUM-LON. Chicopee Mills, Inc. SN 21,987. Pub. 4-22-58. Filed 1-2-57.

664,113. ESSLINGER WOLLE TWOLADY WOOLS AND DESIGN. Merkel & Co. SN 23,069. Pub. 4-22-58. Filed 1-23-57.

664,114. PETAL-GLO. M. C. Schrank Company. SN 27,534. Pub. 4-22-58. Filed 4-4-57.

664,115. LECTON. E. I. du Pont de Nemours and Company. SN 27,586. Pub. 4-22-58. Filed 4-5-57.

664,116. DESIGN OF MISCELLANEOUS FIGURE. United Silk Mills, Ltd. GMBH. SN 30,124. Pub. 4-22-58. Filed 5-15-57.

664,117. PATA-CAKE. F. W. Woolworth Co. SN 30,978. Pub. 4-22-58. Filed 5-28-57.

664,118. "RICCIONE." Sopic Corporation. SN 31,364. Pub. 4-22-58. Filed 6-4-57.

664,119. CRYSALBA. Etablissements Seydoux & Michau Reunis. SN 31,392. Pub. 4-22-58. Filed 6-5-57.

664,120. McCAMPBELL ENDOWED FABRIC. McCampbell & Company, Inc. SN 31,770. Pub. 3-18-58. Filed 6-11-57.

664,121. BH AND DESIGN. Berkshire Hathaway, Inc. SN 32,728. Pub. 4-22-58. Filed 6-27-57.

Class 43 — Thread and Yarn

664,122. LUREX-MF. The Dobeckmun Company, to The Dow Chemical Company. SN 20,452. Pub. 4-22-58. Filed 12-5-56.

664,123. DESIGN OF TRIDENT. Atlantic Industries, Inc. SN 31,624. Pub. 4-22-58. Filed 6-10-57.

Class 44 — Dental, Medical, and Surgical Appliances

664,124. TWIN-ETS. Swab Manufacturing Corporation, to Twin-Ets Inc. SN 1,994. Pub. 7-24-56. Filed 2-2-56.

664,125. PHOENIX HARBURG AND DESIGN. Phoenix Gummiwerke Aktiengesellschaft. SN 34,000. Pub. 4-22-58. Filed 7-18-57.

664,126. XPEND AND DESIGN. Omega Precision Medical Instrument Co., Inc. SN 36,977. Pub. 4-22-58. Filed 9-10-57.

664,127. USE AND DESIGN. Omega Precision Medical Instrument Co., Inc. SN 37,035. Pub. 4-22-58. Filed 9-11-57.

664,128. SLIMETTE. Beltone Hearing Aid Co. SN 37,066. Pub. 4-22-58. Filed 9-12-57.

664,129. MONOJECT. Roehr Products Co., Inc. SN 37,194. Pub. 4-22-58. Filed 9-13-57.

Class 45—Soft Drinks and Carbonated Waters

664,130. BOP. Jeno F. Paulucci, d. b. a. The Bop Corp. SN 19,260. Pub. 4-22-58. Filed 11-14-56.

Class 46—Foods and Ingredients of Foods

664,131. DINNER BELL. Cousins Virdel, Inc. SN 694,398. Pub. 2-14-56. Filed 9-8-55.

664,132. DRIMIX. The Borden Company. SN 876. Pub. 4-22-58. Filed 1-17-56.

664,133. SUGAR CORN-FETTI. General Foods Corporation. SN 8,480. Pub. 4-22-58. Filed 5-17-56.

664,134. SUGAR RICE KRINKLES. General Foods Corporation. SN 8 545. Pub. 4-22-58. Filed 5-18-56.

664,135. AP-EZ-ETS AND DESIGN. Vitalfa Corporation. SN 13,105. Pub. 4-22-58. Filed 7-30-56.

664,136. PERK-O-FRESH. Interstate-United Coffee Corp. SN 15,967. Pub. 4-22-58. Filed 9-19-56.

664,137. CAFE DEL BATEY. R. & O. Betancourt Inc. SN 16,016. Pub. 4-22-58. Filed 9-20-56.

664,138. PUNCH. Schucki & Co., Inc. SN 16,747. Pub. 4-22-58. Filed 10-1-56.

664,139. DIETS OF ROCHESTER. LeRoy Shane, d. b. a. Diets of Rochester, to Diets of Rochester, Inc. SN 17,313. Pub. 4-29-58. Filed 10-11-56.

664,140. MICHIANA MILLS. George O. Graves, d. b. a. Michiana Mills. SN 17,908. Pub. 4-22-58. Filed 10-22-56.

664,141. BIRDS EYE. General Foods Corporation. SN 19,133. Pub. 4-22-58. Filed 11-13-56.

664,142. BIRDS EYE AND DESIGN. General Foods Corporation. SN 19,134. Pub. 4-22-58. Filed 11-13-56.

664,143. IMAGE. Roberts Dairy Company. SN 19,385. Pub. 10-29-57. Filed 11-16-56.

664,144. BONOMO'S AND DESIGN. Gold Medal Candy Corporation. SN 22,613. Pub. 4-22-58. Filed 1-15-57.

664,145. GLORY BEST. Boris Glory, d. b. a. Glory Best Farms and Boris Glory Broiler Farm. SN 24,588. Pub. 4-22-58. Filed 2-18-57.

664,146. E DOUBLE E BRAND AND DESIGN. Earl H. Engvall. SN 24,948. Pub. 4-22-58. Filed 2-25-57.

664,147. E DOUBLE E BRAND. Earl H. Engvall. SN 24,949. Pub. 4-22-58. Filed 2-25-57.

664,148. BLUE BIRD AND DESIGN. Harry Vincent Limited. SN 25,579. Pub. 4-22-58. Filed 3-5-57.

664,149. RONNIE'S FAMOUS COME BACK BRAND ETC. AND DESIGN. The Kuhn Company. SN 26,947. Pub. 4-22-58. Filed 3-26-57.

664,150. SAFFLORA. Safflower Products Corporation. SN 31,153. Pub. 4-22-58. Filed 5-31-57.

664,151. SAFFOLA. Safflower Products Corporation. SN 31,154. Pub. 4-22-58. Filed 5-31-57.

664,152. MR. APPLE. Prentice Packing & Cold Storage Co. SN 31,589. Pub. 4-22-58. Filed 6-7-57.

664,153. SUPERFLO. Standard Brands Incorporated. SN 31,703. Pub. 4-22-58. Filed 6-10-57.

664,154. MOUNTAIN ORCHARD. Co-Operative Fruit Growers of Adams County. SN 31,825. Pub. 4-22-58. Filed 6-13-57.

664,155. KACHINA. Gold Badge Farms. SN 32,072. Pub. 4-22-58. Filed 6-17-57.

664,156. HURON. Hercules Powder Company. SN 32,314. Pub. 4-22-58. Filed 6-20-57.

664,157. DARI-LAC. H. C. Christians Co. SN 32,584. Pub. 4-22-58. Filed 6-25-57.

664,158. TALK-O-TEXAS. Southern Canning Sales Inc. SN 33,101. Pub. 4-22-58. Filed 7-2-57.

664,159. CREOLE DELICACIES CO. ETC. AND DESIGN. Sarah Spato, d. b. a. Creole Delicacies Company. SN 33,376. Pub. 4-22-58. Filed 7-8-57.

664,160. DESIGN OF DUTCH GIRL AND WINDMILLS. Anderson, Clayton & Co., d. b. a. Anderson, Clayton & Co. Foods Division. SN 33,394. Pub. 4-22-58. Filed 7-9-57.

664,161. CALYPSO. Federal Sweets & Biscuit Co., Inc. SN 33,407. Pub. 4-22-58. Filed 7-9-57.

664,162. VICRUM. Hercules Powder Company. SN 35,261. Pub. 4-22-58. Filed 8-9-57.

664,163. VENDANGE. Louis Milani Foods, Inc. SN 36,206. Pub. 4-22-58. Filed 8-26-57.

664,164. DESIGN OF A PIG, STEER, AND LAMB. Urban N. Patman, Inc. SN 36,392. Pub. 4-22-58. Filed 8-28-57.

664,165. SUPREME SERVICE. Southland Coffee Company. SN 36,749. Pub. 4-22-58. Filed 9-5-57.

664,166. QUICK-QUART PACK. Pillsbury Mills, Inc. SN 36,083. Pub. 4-22-58. Filed 9-30-57.

664,167. FROSTY MORN. Tennessee Packers, Inc., d. b. a. Frosty Morn Meats. SN 38,175. Pub. 4-22-58. Filed 10-1-57.

664,168. DINER. Brooks Foods, Inc. SN 38,257. Pub. 4-22-58. Filed 10-3-57.

664,169. SUPERIOR. Superior Canning Company, Inc. SN 39,343. Pub. 4-22-58. Filed 10-22-57.

664,170. BEST OFFER. Albert J. Ashkar, Inc. SN 39,442. Pub. 4-22-58. Filed 10-24-57.

Class 47—Wines

664,171. SILVER SATIN. Italian Swiss Colony. SN 25,264. Pub. 3-25-58. Filed 8-9-57.

Class 48—Malt Beverages and Liquors

664,172. DESIGN OF BUCK'S HEAD. Duquesne Brewing Company of Pittsburg. SN 31,477. Pub. 4-22-58. Filed 6-6-57.

Class 50—Merchandise Not Otherwise Classified

664,173. ELECTRO-FOIL. Arrow Brands, Inc. SN 36,344. Pub. 4-22-58. Filed 8-28-57.

Class 51—Cosmetics and Toilet Preparations

664,174. LEGRAIN. Société à Responsabilité Limitée Legrain. SN 674,478. Pub. 4-22-58. Filed 10-7-54.

664,175. FORMULA 9 MIST. Charles Antell, Inc. SN 3,974. Pub. 4-22-58. Filed 3-7-56.

664,176. AQUA-VIE. Trylon Products Corporation, d. b. a. Hubere Cosmetics. SN 9,906. Pub. 3-5-57. Filed 6-5-56.

664,177. GLO-MO-GLO. Eugene Webster, d. b. a. Webster's Supreme Products. SN 19,929. Pub. 4-22-58. Filed 11-26-56.

664,178. NEWCURL-70. Robert Curley Ltd. SN 21,529. Pub. 4-22-58. Filed 12-24-56.

664,179. NUROLIN. Hirestra Laboratories, Inc. SN 28,940. Pub. 4-22-58. Filed 4-26-57.

664,180. AQUAGEN. Hirestra Laboratories, Inc. SN 28,941. Pub. 4-22-58. Filed 4-26-57.

664,181. RIGHT FACE. Sutton Cosmetics, Inc. SN 34,643. Pub. 4-22-58. Filed 7-30-57.

664,182. LEICHNER. Siegfried Leichner, d. b. a. L. Leichner. SN 35,053. Pub. 4-22-58. Filed 8-6-57.

664,183. "SUN-SUIT." The J. R. Watkins Company. SN 35,831. Pub. 4-22-58. Filed 8-19-57.

664,184. SEVENE. Vincent Secondo, d. b. a. Vincent. SN 36,111. Pub. 4-22-58. Filed 8-23-57.

Class 52—Detergents and Soaps

664,185. RE-MUV-X. Merle H. Richardson, d. b. a. Owen Products Company. SN 25,120. Pub. 4-22-58. Filed 2-26-57.

664,186. PENETONE. The Penetone Company. SN 30,601. Pub. 4-22-58. Filed 5-23-57.

664,187. TWELVE STRIKE. R & G Sales. SN 32,084. Pub. 4-22-58. Filed 7-1-57.

Service Marks

Class 100—Miscellaneous

664,188. GYRO. Gyro International. SN 12,479. Pub. 4-22-58. Filed 5-11-56.

664,189. IDENTI-FOTO. Nursery Identi-Foto Co., Inc. SN 17,955. Pub. 4-22-58. Filed 10-22-56.

Class 101—Advertising and Business

664,190. DEEPTONE. R. R. Donnelley & Sons Company (Illinois corporation), now by merger and change of name R. R. Donnelley & Sons Company (Delaware corporation). SN 692,210. Pub. 4-22-58. Filed 8-1-55.

664,191. KING OF OFFICE OVERLOADS AND DESIGN. Workman Service, Inc. SN 7,409. Pub. 6-18-57. Filed 4-30-56.

664,192. LOCAL TRADEMARKS, INC. Local Trademarks, Inc. SN 2,794. Pub. 4-22-58. Filed 3-16-56.

664,193. GRA-PAY. Graham Accounting & Statistical Corp. SN 9,145. Pub. 4-22-58. Filed 6-28-56.

664,194. MISS WOOL. The Texas Sheep & Goat Raisers Association. SN 26,409. Pub. 4-22-58. Filed 3-18-57.

664,195. TMA AND DESIGN. Technical Marketing Associates, Inc. SN 27,640. Pub. 4-22-58. Filed 4-5-57.

664,196. SKYTYPING. The Skywriting Corporation of America. SN 34,630. Pub. 4-22-58. Filed 7-30-57.

Class 102—Insurance and Financial

664,197. MAGNOLIA LIFE INSURANCE CO. AND DESIGN. Magnolia Life Insurance Company. SN 20,201. Pub. 4-22-58. Filed 11-30-56.

664,198. WEDGE BANK PAY 'N SAVE PLAN AND DESIGN. Alton Banking & Trust Co. SN 24,820. Pub. 4-22-58. Filed 2-21-57.

664,199. FEDERATED MUTUAL. Federated Mutual Implement and Hardware Insurance Company. SN 39,955. Pub. 4-22-58. Filed 11-1-57.

Class 103—Construction and Repair

664,200. FENTON WUERDEMAN THAYER AND DESIGN. Fenton United Cleaning and Dyeing Co. SN 3,840. Pub. 4-22-58. Filed 3-5-56.

664,201. COLE ETC. AND DESIGN. R. D. Cole Manufacturing Company. SN 38,344. Pub. 4-22-58. Filed 10-4-57.

Class 105—Transportation and Storage

664,202. THE CALIFORNIAN AND DESIGN. Western Air Lines, Inc. SN 18,477. Pub. 4-22-58. Filed 10-30-56.

664,203. FLAGSHIP. American Airlines, Inc. SN 36,496. Pub. 4-22-58. Filed 8-30-57.

Class 106—Material Treatment

664,204. WEATHER-GARD. Monroe Hollander, Inc. SN 24,262. Pub. 4-22-58. Filed 2-12-57.

Class 107—Education and Entertainment

664,205. MOTIVATIONAL MUSIC BY MAGNETRONICS AND DESIGN. Magne-Tronics, Inc. SN 6,812. Pub. 4-22-58. Filed 4-20-56.

664,206. TELE-SELL SPECTACULAR. Telecliniics, Inc. SN 25,799. Pub. 1-21-58. Filed 3-8-57.

Collective Membership Mark

Class 200

664,207. WHIRLY GIRLS AND DESIGN. The Whirly-Girls. SN 42,099. Pub. 4-22-58. Filed 12-9-57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

664,208. Chemex Corporation, New York, N. Y. SN 29,603. Filed P. R. 5-8-57. Am. S. R. 5-12-58.

The Chemist's Way of Making Coffee

For Coffeemakers and Parts Thereof.
First use May 15, 1942.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

664,209. Pendleton Tool Industries, Inc., d. b. a. Proto Tool Company, Jamestown, N. Y. SN 26,040. Filed P. R. 3-13-57. Am. S. R. 5-22-58.

BET'R-GRIP

For Screwdrivers and Wrenches.
First use in 1939 on wrenches.

Class 38—Prints and Publications

664,210. Kleentear, Incorporated, New York, N. Y. SN 30,780. Filed 5-27-57.

KLEENTEAR

For Prepared Advertising, Sold as Such—Namely, Tear-Off Pad Slips or Coupons Stapled to Cardboard Advertisements, Used for Contest Blanks, Recipe Slips, Premium Offers, "Do-It-Yourself" Products.
First use May 1, 1956.

Class 39—Clothing

664,211. Good Luck Glove Company, Carbondale, Ill. SN 28,850. Filed P. R. 4-25-57. Am. S. R. 5-9-58.

MILL-HAND

For Canton Flannel Work Gloves.
First use Mar. 22, 1957.

664,212. Superba Cravats, Inc., Rochester, N. Y. SN 34,089. Filed P. R. 7-19-57. Am. S. R. 3-6-58.

TWEED-WEAVE

For Neckwear.
First use May 1958.

Class 46—Foods and Ingredients of Foods

664,213. Chun King Sales, Inc., Duluth, Minn. SN 6,322. Filed P. R. 4-12-56. Am. S. R. 4-1-58.

"Divider-Pak"

For Packaged Chow Mein.
First use in January 1954.

664,214. Boyer Bros., Incorporated, Altoona, Pa. SN 10,075. Filed P. R. 6-13-56. Am. S. R. 1-31-58.

CUP-O-COCOANUT

For Candy.
First use May 13, 1954.

Class 51—Cosmetics and Toilet Preparations

664,215. Juliette Margien Inc., Ridgefield, N. J. (California corporation), now by merger and change of name to Juliette Margien, Inc. (Delaware corporation). SN 19,979. Filed P. R. 11-27-56. Am. S. R. 2-24-58.

SILVERSEAL

For Preparations for Repairing, Preserving, and Beautifying Finger Nails and Toe Nails—Namely, Liquid Top Coating or Sealer, of Which One Coat Will Add a Satiny Sheen, Iridescence, or Sparkle to the Natural Color of the Nail or the Color of Any Polish Over Which It Is Applied, and Each Further Coat Will Deepen the Effect Until a Finish Comparable to a Silvery Mother-of-Pearl Coating Is Achieved.
First use July 16, 1956.

664,216. Juliette Margien Inc., Ridgefield, N. J. (California corporation), now by merger and change of name to Juliette Margien, Inc. (Delaware corporation). SN 20,287. Filed 3-15-57.

CELLINI GOLD

For Liquid Coating Preparation Used for Beautifying Finger Nails and Toe Nails, the Effect of Which Is To Add Depth and Glow to the Color of a Nail Polish Applied Over It, or To Add Glitter and Brilliance to the Color of a Nail Polish Applied Under It, or, When Applied Without the Accompaniment of a Nail Polish, To Add Sparkle or Higher Lustre to the Natural Color of the Nails, or by Repeated Coatings To Deepen the Color Effect in a Range of Shadings From a Delicate Golden Glow to an Opaque Golden Finish.
First use July 16, 1955.

Service Mark

Class 100—Miscellaneous

664,217. Michigan National Hairdressers & Cosmetologists Association, Inc., Detroit, Mich. SN 5,440. Filed P. R. 3-29-54. Am. S. R. 10-30-57.

NORTH AMERICAN BEAUTY AND FASHION SHOW

For Promoting and Conducting an Exhibition and Show in Which Hairdressers and Cosmetologists Other Than Applicant Display and Demonstrate Their Goods and Services.
First use on or about Mar. 1, 1940.

TRADEMARK REGISTRATIONS RENEWED

122,017. ZESTA. Cl. 46. 6-18-18.
122,612. RED STAR AND REPRESENTATION OF STAR. Cl. 46. 8-27-18.
122,821. HOCK FINN AND DESIGN. Cl. 46. 9-17-18.
122,822. PRESIDENT. Cl. 46. 9-17-18.
122,823. SENATOR. Cl. 46. 9-17-18.
123,063. MARK TWAIN AND DESIGN. Cl. 46. 10-8-18.
352,190. TOMMIE TUCKINS. Cl. 39. 11-23-37.
355,221. TYPEMASTER. Cl. 23. 3-8-38.
355,500. QUINS. Cl. 42. 3-22-38.
355,648. MENTOG. Cl. 39. 3-22-38.
356,220. TRAVKIT. Cl. 50. 4-19-38.
356,319. REPRESENTATION OF TREE AND DESIGN. Cl. 6. 4-26-38.
356,384. CEGLIN. Cl. 6. 4-26-38.
356,406. CALCIBALIN. Cl. 18. 4-26-38.
356,469. ERINTOWN TWEED AND DESIGN. Cl. 39. 4-26-38.
356,470. CRUISEWAY GABERDINE AND DESIGN. Cl. 39. 4-26-38.
356,634. METALOCK. Cl. 14. 5-3-38.
356,755. B & R ETC. AND DESIGN. Cl. 13. 5-10-38.
356,835. PHOTRIX. Cl. 26. 5-10-38.
357,458. TIMBERLINE. Cl. 39. 6-7-38.
357,762. ANTI CURL AND DESIGN. Cl. 42. 6-14-38.
357,777. BUBBLING OVER. Cl. 51. 6-14-38.
358,165. MENNEN AND DESIGN. Cl. 6. 6-28-38.
358,465. BONDSTREET. Cl. 3. 7-12-38.
358,590. FLING. Cl. 51. 7-19-38.
358,842. REPRESENTATION OF CONTAINER. Cl. 12. 7-26-38.
359,057. MINI-ORTHO. Cl. 26. 8-2-38.
359,256. FLORIDA MASONRY CEMENT ETC. AND DESIGN. Cl. 12. 8-9-38.
359,354. UNISET. Cl. 23. 8-16-38.
359,394. TRINITY MIX ETC. AND DESIGN. Cl. 12. 8-16-38.
359,505. TWINSILK. Cl. 45. 8-23-38.
359,548. DYNAMO. Cl. 46. 8-23-38.
359,775. VICKLAX. Cl. 18. 8-30-38.
359,860. TEMPERED. Cl. 22. 8-30-38.
359,881. MANASITE. Cl. 6. 8-30-38.

360,055. DARLEEN. Cl. 42. 9-6-38.
360,131. HEIRESS AND DESIGN. Cl. 39. 9-6-38.
360,310. BELLBRO. Cl. 39. 9-13-38.
360,430. KING EDWARD AND DESIGN. Cl. 17. 9-20-38.
360,729. SANDERSON'S. Cl. 49. 9-27-38.
360,809. KING SALAD ETC. AND DESIGN. Cl. 46. 9-27-38.
360,855. MI-BABY LINE. Cl. 22. 9-27-38.
360,869. MI-BABY LINE. Cl. 19. 9-27-38.
360,966. ROYAL BERLIN. Cl. 26. 10-4-38.
360,981. MIX-EVENT. Cl. 50. 10-4-38.
361,004. FLAME KISSED. Cl. 46. 10-4-38.
361,031. ORABELLA. Cl. 46. 10-4-38.
361,035. OLD DOG. Cl. 46. 10-4-38.
361,152. ADCO. Cl. 52. 10-11-38.
361,202. LACTO PINE ETC. AND DESIGN. Cl. 51. 10-11-38.
361,214. CENOLATE. Cl. 18. 10-11-38.
361,244. VATCO. Cl. 19. 10-11-38.
361,313. SUPERIB. Cl. 26. 10-11-38.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

434,893. CRAIG'S CANADIAN CREAM AND DESIGN. Cl. 49. 9-18-56.

Section 8

170,030. BIRD'S EYE. Cl. 9. 7-17-22.
427,230. 8 M. Cl. 21. 2-11-47.
432,623. BREVITT. Cl. 3. 9-9-47.
443,997. 'FLOATERS'. Cl. 39. 6-22-49.
444,533. BREVITT CUSHIONWELT. Cl. 39. 7-24-51.
545,921. SOUTHPRIDE. Cl. 19. 6-19-51.
544,902. B-Z-DENT. Cl. 51. 7-10-51.
545,576. VOVAN. Cl. 26. 7-24-51.
545,692. COMMUNITY PROPLE. Cl. 38. 7-24-51.
548,161. AUTOGRAM AND DESIGN. Cl. 46. 9-18-51.
552,282. WOOSTER PLANT BILDER. Cl. 10. 12-18-51.

The following registrations issued May 20, 1958

558,911. ROTATES WITH THE SHAFT. Cl. 23.
558,918. WHITE FOX AND DESIGN. Cl. 46.
558,924. TIVOLI ARISTOCRAT. Cl. 46.
558,926. JO ANNE. Cl. 47.
558,937. TM ARMOR AND DESIGN. Cl. 29.
558,946. TIMBER KING. Cl. 23.
558,949. THE MILLICENT "GRIPIT" AND DESIGN. Cl. 39.
558,950. NO RIDE. Cl. 39.
558,951. SEXTON. Cl. 4.
558,953. GLIDE AND DESIGN. Cl. 6.
558,954. LIME SLAKER DESIGN. Cl. 23.
558,962. BRAD-INK. Cl. 52.
558,963. MACK & WILLIES. Cl. 18.
558,973. SELVAL. Cl. 42.
558,974. MODEL Z WITHIN DESIGN. Cl. 39.
558,976. VESCARF. Cl. 39.
558,978. TRIPPLE-CLEAN WITHIN DESIGN. Cl. 52.
558,979. LEEDY & LUDWIG. Cl. 26.
558,980. WHISTLE WEIGHT. Cl. 39.
558,981. LADY FANMOUR. Cl. 28.
558,982. DECOR-VAL. Cl. 42.
558,985. HIALEAH. Cl. 39.
558,987. ONE WRITING. Cl. 11.
558,988. BOURNEWORTH. Cl. 39.
558,993. DIPA-COVA AND DESIGN. Cl. 39.
558,997. CONVERT'ABLE. Cl. 39.
559,002. ACRITEX. Cl. 16.
559,005. COZOLTABS. Cl. 18.
559,006. HAMILTON AUTOMATIC CLOTHES DRYER AND DESIGN. Cl. 24.
559,012. RIVIERA. Cl. 21.
559,017. PANAMA. Cl. 39.
559,022. BARK-EEZ. Cl. 18.
559,024. WREN'S. Cl. 52.
559,026. EN Z BAR. Cl. 46.
559,030. DUCHESS MORITZA AND DESIGN. Cl. 39.
559,035. SHIMARAY. Cl. 42.
559,037. PHENITRINORE. Cl. 18.
559,038. NATANE. Cl. 6.
559,039. DESIGN OF COMICAL PEANUT MAN. Cl. 46.
559,040. LOOK-N-LITE. Cl. 8.
559,049. MONAX. Cl. 6.
559,050. MONOWAX. Cl. 6.
559,052. PLASTICERA. Cl. 6.
559,053. ULTRACERA. Cl. 6.
559,054. BLACK BEAUTY. Cl. 27.
559,056. FARNHAM AND DESIGN. Cl. 26.
559,063. GOLDEN CUTTER. Cl. 23.
559,066. CRYPTON. Cl. 27.
559,070. FEATHER TOUGH. Cl. 6.
559,071. VIZ QUIZ. Cl. 26.
559,072. THREE HEARTS AND DESIGN. Cl. 39.
559,079. FUTURAMIC. Cl. 27.
559,093. STUDIO MATCHED. Cl. 21.
559,099. CHARM PEDERMA AND DESIGN. Cl. 18.
559,102. TINY TOTS. Cl. 42.
559,105. CHINTZ ROSE. Cl. 26.
559,106. HEARTROSE. Cl. 26.
559,114. BUTAMED. Cl. 18.
559,129. PALWEVE. Cl. 39.
559,129. 700. Cl. 21.
559,130. S-B. Cl. 6.
559,134. GLOW. Cl. 26.
559,136. VIVOMAT. Cl. 6.
559,137. THUN THOOT. Cl. 39.
559,139. PAREE. Cl. 26.
559,143. GALUPEE'S. Cl. 22.
559,145. CRYSTAL RIDGE. Cl. 46.
559,146. TUM-E-TUMS. Cl. 46.
559,152. THOR AND DESIGN. Cl. 24.
559,153. SKYROPLANE. Cl. 22.
559,159. RUTHERFORDS AND DESIGN. Cl. 49.
559,167. HY-FIRE. Cl. 34.
559,175. LOWELL'S BEST. Cl. 45.
559,185. BOTTLE DESIGN. Cl. 49.
559,189. PLANT SOMETHING ETC. AND DESIGN. Cl. 1.

Section 18

390,129. COLORTECK. Cl. 38. 9-9-41.
416,890. DIPLOMAT. Cl. 3. 9-25-45.
574,255. FIBRELUX. Cl. 12. 5-12-53.
628,910. PRESSCON. Cl. 12. 6-19-56.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

361,839. CLOVER MAID AND DESIGN. Cl. 46. 11–1–38. Sioux Honey Association, Cooperative, doing business as Clovermaid Products Co., Sioux City, Iowa. Amended to appear:



548,610. POLY-VI-SOL. Cl. 46. 9–25–51. Mead Johnson & Company, Evansville, Ind. Amended: In the statement, line 8, "Liquid", and in lines 10 and 11, "in water dispersible form" are deleted.

562,494. EVER-SOFT. Cl. 21. 8–5–52. Ever-Soft Corporation, Pittsburgh, Pa. Corrected: In the statement, column 1, line 6, "iron" should be ion.

595,296. BOHEMIAN CLUB AND DESIGN. Cl. 48. 9–14–54. Bohemian Breweries, Inc. (Atlantic Brewing Company, assignee substituted), Chicago, Ill. Restricted under the provision of Sec. 18 of the Trademark Act of 1946 to that area of the United States which excludes the area embraced by the States of Illinois, Indiana, Michigan, Wisconsin and Iowa, by order of the Commissioner dated June 6, 1958, following decision on Concurrent Use No. 202, *Bohemian Brewing Company v. Bohemian Breweries, Inc. (Atlantic Brewing Company, assignee substituted)*.

606,670. TRANSOGRAM ETC. AND DESIGN. Cl. 22. 5–31–55. Transogram Company, Inc., New York, N. Y. Corrected: In the certificate, line 4, and in column 1, line 1, "New York" should be *Pennsylvania*.

618,997. BIG BUSINESS. Cl. 22. 1–10–56. Transogram Company, Inc., New York, N. Y. Corrected: In the certificate, line 4, and in column 1, line 1, "New York" should be *Pennsylvania*.

619,426. PETER PIE PAN. Cl. 22. 1–17–56. Transogram Company, Inc., New York, N. Y. Corrected: In the certificate, line 4, and in column 1, line 1, "New York" should be *Pennsylvania*.

623,355. LONE STAR AND DESIGN. Cl. 19. 3–20–56. Lone Star Boat Manufacturing Company, Inc., Grand Prairie, Tex. Corrected: In column 2, line 4, the period should be deleted and *the words "Lone Star" were first used on the goods by applicant's predecessor in title in 1948; and were first used in interstate commerce in 1948*, should be inserted.

629,387. NEO-FLECK. Cl. 16. 6–26–56. Reliance Varnish Company, Louisville, Ky. Corrected: In the certificate, lines 4 and 14, and in column 1, line 1, ", Inc." should be deleted.

643,543. GOLD MEDAL. Cl. 22. 4–2–57. Transogram Company, Inc., New York, N. Y. Corrected: In column 1, line 1, "New York" should be *Pennsylvania*.

652,501. CATAPHOTE AND DESIGN. Cl. 50. 10–1–57. Cataphote Corporation, Toledo, Ohio. Corrected: In column 1, line 1, "The" should be deleted.

658,017. NATIONAL AND DESIGN. Cl. 21. 2–4–58. Union Carbide and Carbon Corporation, now by change of name Union Carbide Corporation, New York, N. Y. Corrected: In column 1, line 1, after "Corporation", *now by change of name Union Carbide Corporation* should be inserted.

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Mennen Co., The, Morris Township, N. J. 358,165, ren. 6–28–58. Cl. 6.
Merkel & Co., Esslingen (Neckar), Germany. 664,113, pub. 4–22–58. Cl. 42.
Metzner Engineering Corp., Los Angeles, Calif. 664,094, pub. 4–22–58. Cl. 36.
Michaels, Stern & Co., Inc.: *See*—
Levy Bros. & Adler Rochester, Inc.
Michana Mills: *See*—
Graves, George O.
Michigan National Hairdressers & Cosmetologists Association, Inc., Detroit, Mich. 664,217. Cl. 100.
Milani, Louis, Foods, Inc., Los Angeles, Calif. 664,103, pub. 4–22–58. Cl. 46.
Mill & Timber Products Ltd., Burnaby, British Columbia, Canada. 663,988, pub. 4–22–58. Cl. 12.
Miller, Dorothy, to Variety Club Beverage Co., Toledo, Ohio. 359,505, ren. 8–23–58. Cl. 45.
Millicent Sportswear Corp., New York, N. Y. 558,949, canc. Cl. 39.
Miner, W. M., Inc., Chicago, Ill. 664,028, pub. 4–22–58. Cl. 19.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn. 664,032, pub. 4–22–58. Cl. 21.
Mississippi Lime Co., Alton, Ill. 663,958, pub. 4–22–58. Cl. 6.
Modern Drugs, Inc., Philippi, W. Va. 664,012, pub. 4–8–58. Cl. 18.
Mohawk Furniture Finishing Products, Inc., Amsterdam, N. Y. 663 999–664 001 pub 4–22–58. Cl. 16.
Montgomery Elevator Co., Moline, Ill. 664,047, pub. 4–22–58. Cl. 23.
Moreno Bros.: *See*—
Moreno Bros., Inc.
Moreno Bros., Inc., to Moreno Bros., Los Angeles, Calif. 361,031, ren. 10–4–58. Cl. 46.
Mosesian, Edward C.: *See*—
Cenatron Industries.
Movado Watch Agency, Inc., New York, N. Y. 559,079, canc. Cl. 27.
Murray, Edward A., Anderson, S. C. 663,961, pub. 4–22–58. Cl. 6.
Music Print Corp., Denver, Colo. 664,040, pub. 4–22–58. Cl. 23.
Naruto & Co. Ltd., Nishi-ku, Yokohama, Japan. 664,039, pub. 4–22–58. Cl. 22.
National Rubber Machinery Co., Akron, Ohio. 664,036, pub. 4–22–58. Cl. 21.
National Silver Co., New York, N. Y. 559,105, canc. Cl. 28.
National Silver Co., New York, N. Y. 559,106, canc. Cl. 28.
Neuman, Jack B., d. b. a. Gems of the Golden West, San Francisco, Calif. 663,942, pub. 4–22–58. Cl. 1.
Northbrook Products, Inc., Chicago, Ill. 663,952, pub. 4–22–58. Cl. 4.
Northup, Faye H., d. b. a. Northup Products Co., Mishawaka, Ind. 664,075, pub. 4–22–58. Cl. 28.
Northup Products Co.: *See*—
Northup, Faye H.
Nursery Identi-Foto Co., Inc., Chicago, Ill. 664,189, pub. 4–22–58. Cl. 100.
Nutritional Quality Controls, Inc., New York, N. Y. 664,011, pub. 2–25–58. Cl. 18.
Nyrope, Inc., New York, N. Y. 559,022, canc. Cl. 18.
Oil Metering and Processing Equipment Corp., Houston, Tex. 664,069, pub. 4–22–58. Cl. 26.
Omega Machine Co., Providence, R. I. 558,954, canc. Cl. 23.
Omega Precision Medical Instrument Co., Inc., Passaic, N. J. 664,126–7, pub. 4–22–58. Cl. 44.
Owen Products Co.: *See*—
Richardson, Merle H.
Paraco Woolens, Inc., Passaic, N. J. 664,111, pub. 10–1–57. Cl. 42.
Paradis, Carlos V., Barcelona, Spain. 664,071, pub. 4–22–58. Cl. 27.
Parker-Hannifin Corp.: *See*—
Hannifin Corp.
Patman, Urban N., Inc., Los Angeles, Calif. 664,104, pub. 4–22–58. Cl. 46.
Paulucci, Jeno F., d. b. a. The Bop Corp., Duluth, Minn. 664,130, pub. 4–22–58. Cl. 45.
Pendleton Tool Industries, Inc., d. b. a. Proto Tool Co., Jamestown, N. Y. 664,200. Cl. 23.
Penetone Co., The, Tenafly, N. J. 664,186, pub. 4–22–58. Cl. 52.
Penick, S. B., and Co., New York, N. Y. 664,009, pub. 4–22–58. Cl. 18.
Penn State Mills, Inc.: *See*—
Blossom Products Corp.
Petroleum Specialty Co., The: *See*—
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Philco Corp., Philadelphia, Pa. 664,078–9, pub. 4–22–58. Cl. 31.
Phillips-Jones Corp., New York, N. Y. 558,980, canc. Cl. 39.
Phillips Scientific Corp., Brighton, Mass. 664,068, pub. 4–22–58. Cl. 26.
Phoenix Gummiwerke Aktiengesellschaft, Hamburg-Harburg, Germany. 664,125, pub. 4–22–58. Cl. 44.
Pillsbury Mills, Inc., Minneapolis, Minn. 664,166, pub. 4–22–58. Cl. 46.
Pilot Plastics, Inc., Paterson, N. J. 559,143, canc. Cl. 22.
Pioneer Appliances, Inc., Dayton, Ohio. 664,034, pub. 4–22–58. Cl. 21.
Plastite Adhesives Corp., Chicago, Ill. 663,953, pub. 4–22–58. Cl. 5.
Poolside Co., Houston, Tex. 664,038, pub. 4–22–58. Cl. 22.
Portland Wire & Iron Works, Portland, Oreg. 663,989, pub. 4–22–58. Cl. 12.
Porzellanfabrik Lorenz Hutschenreuther Aktiengesellschaft, Selb, Bavaria, Germany. 664,077, pub. 4–22–58. Cl. 30.
Precision-Posturect Chair Corp., Chicago, Ill. 664,084, pub. 4–22–58. Cl. 32.
Prentice Packing & Cold Storage Co., Yakima, Wash. 664,152, pub. 4–22–58. Cl. 46.
Price, John R., and Maxine O. Price, El Monte, Calif. 664,023, pub. 4–22–58. Cl. 19.
Proto Tool Co.: *See*—
Pendleton Tool Industries, Inc.
Quaker Stretcher Co., Kenosha, Wis. 664,081, pub. 4–22–58. Cl. 32.
R & G Sales, Toledo, Ohio. 664,187, pub. 4–22–58. Cl. 52.
R & S Dime Stores Inc., Columbus, Ohio, to The Kendall Co., Boston, Mass. 358,590, ren. 7–19–58. Cl. 51.
Reconstruction Finance Corp.: *See*—
Blossom Products Corp.
Red Star Milling Co., The, Wichita, Kans., to General Mills, Inc., Minneapolis, Minn. 122,612, ren. 8–27–58. Cl. 46.
Reliance Varnish Co., Louisville, Ky. 629,387, cor. Cl. 16.
Rene Jewelry Co., Inc., Philadelphia, Pa. 664,072, pub. 4–22–58. Cl. 28.
Rex Productions, Inc., Culver City, Calif. 664,092, pub. 4–22–58. Cl. 36.
Rex Productions, Inc., Culver City, Calif. 664,093, pub. 4–22–58. Cl. 36.
Rich, Ivor, New York, N. Y. 416,690, canc. Cl. 8.
Richardson, Merle H., d. b. a. Owen Products Co., Spencer, Ind. 664,185, pub. 4–22–58. Cl. 52.

Riegel Paper Corp., New York, N. Y. 663,944–7, pub. 4–22–58. Cl. 1.
Roberts Dairy Co., Omaha, Nebr. 664,143, pub. 10–29–57. Cl. 46.
Rockwell Laboratories, Inc., Kansas City, Kans. 663,959, pub. 4–22–58. Cl. 6.
Roehr Products Co., Inc., Waterbury, Conn. 664,129, pub. 4–22–58. Cl. 44.
Rotary Seal Co., Chicago, Ill. 558,911, canc. Cl. 23.
Rougier Freres, Compagnie Incorporee, Montreal, Quebec, Canada. 559,037, canc. Cl. 18.
Rowe, Fred, d. b. a. Rowe Machine Works, Seattle, Wash. 558,946, canc. Cl. 23.
Rowe Machine Works: *See*—
Rowe, Fred.
Saari, Wayne J., d. b. a. Charm Pederma Co., Chicago, Ill. 559,099, canc. Cl. 18.
Saco-Lowell Shops, to Saco-Lowell Shops, Biddleford, Maine, to Saco-Lowell Shops, Boston, Mass. 359,354, ren. 8–16–58. Cl. 23.
Safety Research & Mfg. Co., Inc., Seattle, Wash. 663,980, pub. 4–22–58. Cl. 9.
Sallower Products Corp., San Francisco, Calif. 664,150–1, pub. 4–22–58. Cl. 46.
Sanders, Luther D., d. b. a. Traverse Bay Woolen Co., Traverse City, Mich. 664,110, pub. 4–22–58. Cl. 42.
Sanderson, Wm., & Son, Leith, Scotland, to William Sanderson & Son Ltd., Leith, Edinburgh, Scotland. 360,729, ren. 9–27–58. Cl. 49.
Sanderson, William, & Son Ltd.: *See*—
Sanderson, Wm., & Son.
San Joaquin Fruit Co., Tustin, to Frances Citrus Association, Santa Ana, Calif. 122,821, ren. 9–17–58. Cl. 46.
San Joaquin Fruit Co., Tustin, to Frances Citrus Association, Santa Ana, Calif. 122,822, ren. 9–17–58. Cl. 46.
San Joaquin Fruit Co., Tustin, to Frances Citrus Association, Santa Ana, Calif. 122,823, ren. 9–17–58. Cl. 46.
San Joaquin Fruit Co., Tustin, to Frances Citrus Association, Santa Ana, Calif. 123,063, ren. 10–8–58. Cl. 46.
Sargent & Co., New Haven, Conn. 559,063, canc. Cl. 23.
Schenley Distillers Corp., d. b. a. Gold Kist Wine Co., New York, N. Y.: said Schenley Distillers Corp., now by change of name Schenley Industries, Inc. 558,936, canc. Cl. 47.
Schenley Industries, Inc.: *See*—
Schenley Distillers Corp.
Schering Corp., Bloomfield, N. J. 559,114, canc. Cl. 18.
Schering Corp., Bloomfield, N. J. 664,099, pub. 4–22–58. Cl. 38.
Schiller Bros., Inc., New York, N. Y. 664,101, pub. 4–22–58. Cl. 39.
Schrank, M. C., Co., Bridgeton, N. J. 664,114, pub. 4–22–58. Cl. 42.
Schuckl & Co., Inc., Sunnyvale, Calif. 664,138, pub. 4–22–58. Cl. 46.
Scott, Lawrence B., Long Island City, N. Y. 356,634, ren. 5–3–58. Cl. 14.
Secondo, Vincent, d. b. a. Vincent, New York, N. Y. 664,184, pub. 4–22–58. Cl. 51.
Sellers, Joseph, & Son Ltd., Scholes, Cleckheaton, England. 664,050, pub. 4–22–58. Cl. 23.
Sel-Rex Corp.: *See*—
Sel-Rex Precious Metals, Inc.
Sel-Rex Precious Metals, Inc., Belleville, to Sel-Rex Corp., Newark, N. J. 663,957, pub. 4–22–58. Cl. 6.
Semco Research, Inc., Inglewood, Calif. 664,046, pub. 4–22–58. Cl. 23.
Sewell Mfg. Co., Bremen, Ga. 559,126, canc. Cl. 39.
Sexton, John, & Co., Chicago, Ill. 558,951, canc. Cl. 4.
Shane, Leroy, d. b. a. Diets of Rochester, Rochester, Minn., to Diets of Rochester, Inc., Chicago, Ill. 664,139, pub. 4–22–58. Cl. 46.
Shirtcraft Co., Inc., The, New York, N. Y. 558,974, canc. Cl. 39.
Shulton, Inc., Clifton, N. J. 663,960, pub. 4–22–58. Cl. 6.
Sioux Honey Association, Cooperative, d. b. a. Clovermaid Products Co., Sioux City, Iowa. 361,839. Am. 7(d). Cl. 46.
Skycraft Mfg. Corp., Long Beach, Calif. 559,153, canc. Cl. 22.
Skywriting Corp. of America, The, New York, N. Y. 664,196, pub. 4–22–58. Cl. 101.
Smallman, L., & Sons Co., New York, N. Y. 663,950, pub. 4–22–58. Cl. 3.
Smith, Constance B., d. b. a. Architectural Plastics, Rowayton, Norwalk, Conn. 663,992, pub. 4–22–58. Cl. 12.
Société à Responsabilité Limitée Legrain, Paris, France. 664,174, pub. 4–22–58. Cl. 51.
Societe Anonyme Dite: Messier, Paris, France. 664,055, pub. 4–22–58. Cl. 23.
Societe des Usines Chimiques Rhone-Poulenc, Paris, France. 664,018, pub. 4–22–58. Cl. 18.
Somerville, Margaret O., d. b. a. The Petroleum Specialty Co., Los Angeles, Calif. 663,955, pub. 4–22–58. Cl. 6.
Sopic Corp., New York, N. Y. 664,118, pub. 4–22–58. Cl. 42.
Soreng Manegold Co.: *See*—
Soreng Mfg. Corp.
Soreng Mfg. Corp., Chicago, Ill., by change of name from Soreng Manegold Co. 427,389, canc. Cl. 21.
Southern Canning Sales Inc., Highlands, Tex. 664,158, pub. 4–22–58. Cl. 46.
Southland Coffee Co., Atlanta, Ga. 664,165, pub. 4–22–58. Cl. 46.
Spato, Sarah, d. b. a. Creole Delicacies Co., New Orleans, La. 664,159, pub. 4–22–58. Cl. 46.
Sperry Rand Corp., New York, N. Y. 664,057, pub. 4–22–58. Cl. 23.
Sperti Faraday Inc., Adrian, Mich. 559,129. canc. Cl. 21.
Springfield Seed Co., Springfield, Mo. 559,189, canc. Cl. 1.
Standard Brands Inc., New York, N. Y. 664,153, pub. 4–22–58. Cl. 46.
Stensgaard, W. L., and Associates, Inc., Chicago, Ill. 360,981, ren. 10–4–58. Cl. 50.
Stensel, R., Food Products and R. Stensel Pickle Products: *See*—
Stensel, Rudolph J.
Stensel, Rudolph J., d. b. a. R. Stensel Food Products and R. Stensel Pickle Products, San Leandro, Calif. 559,146, canc. Cl. 46.
Stevenson, Margery D., G. A. Calazel, and R. Bruce, trustees of the estate of the late James Stevenson, carrying on the business of the deceased under the name of Rutherford & Co., Edinburgh, Scotland. 559,159, canc. Cl. 49.
Stoffel & Co., Inc.: *See*—
Fisher, Max.
Stonhard Co., Inc., Philadelphia, Pa. 663,983, pub. 4–22–58. Cl. 12.
Storkline Furniture Corp., Chicago, Ill. 360,888, ren. 9–27–58. Cl. 32.
Storkline Furniture Corp., Chicago, Ill. 360,889, ren. 9–27–58. Cl. 19.
Strong-Scott Mfg. Co., The, Minneapolis, Minn. 664,058, pub. 4–22–58. Cl. 23.
Suburban Gas Service, Inc., Harrisburg, Pa. 559,038, canc. Cl. 6.
Sun Chemical Corp., Long Island City, N. Y. 663,997, pub. 4–22–58. Cl. 16.
Sunlight Chemical Corp., Phillipsdale, R. I. 663,978, pub. 4–22–58. Cl. 6.
Superba Cravats, Inc., Rochester, N. Y. 664,212. Cl. 39.
Superior Canning Co., Inc., Avondale, Pa. 664,169, pub. 4–22–58. Cl. 46.
Sutton Cosmetics, Inc., New York, N. Y. 664,181, pub. 4–22–58. Cl. 51.
Swab Mfg. Corp., to Twin-Ets Inc., Jersey City, N. J. 664,124, pub. 7–24–58. Cl. 44.
Swift Business Machines Corp., Great Barrington, Mass. 664,062, pub. 4–22–58. Cl. 26.
Swisher, Jno. H., & Son, Inc., Jacksonville, Fla. 360,430, ren. 9–20–58. Cl. 17.
Swiss Importing Co., Inc., to Swiss Pine Importing Co., Inc., New York, N. Y. 361,202, ren. 10–11–58. Cl. 51.
Swiss Pine Importing Co., Inc.: *See*—
Swiss Importing Co., Inc.
Sylvania Industrial Corp., New York, N. Y., to American Viscose Corp., Philadelphia, Pa. 356,384, ren. 4–26–58. Cl. 6.
Synco Products: *See*—
Synco Products Co., Inc.
Synco Products Co., Inc., d. b. a. Synco Products, Chattanooga, Tenn. 558,953, canc. Cl. 6.
Synthetic Polymer Products Ltd., London, England. 663,979, pub. 4–22–58. Cl. 6.
Technical Marketing Associates, Inc., Concord, Mass. 664,195, pub. 4–22–58. Cl. 101.
Teleclinics, Inc., New York, N. Y. 664,206, pub. 1–21–58. Cl. 107.
Tennessee Packers, Inc., d. b. a. Frosty Morn Meats, Clarksville, Tenn. 664,167, pub. 4–22–58. Cl. 46.
Tension Envelope Corp. of Kansas City, Kansas City, Mo. 664,098, pub. 4–22–58. Cl. 37.
Texas Sheep & Goat Raisers Association, The, San Angelo, Tex. 664,194, pub. 4–22–58. Cl. 101.
Thomas, M & W, Co., New York, N. Y. 559,017, canc. Cl. 39.
Thompson Medical Co., Inc., New York, N. Y. 664,020, pub. 4–22–58. Cl. 18.
Thor Corp., Chicago, Ill. 559,152, canc. Cl. 24.
Tilo Roofing Co., Inc., Stratford, Conn. 663,993, pub. 4–22–58. Cl. 12.
Tivoli-Union Co., The, Denver, Colo. 558,924, canc. Cl. 46.
Trailco Corp.: *See*—
Highway Trailer Co.
Trancoa Chemical Corp., Reading, Mass. 663,973, pub. 4–22–58. Cl. 6.
Transogram Co., Inc., New York, N. Y. 606,670, cor. Cl. 22.
Transogram Co., Inc., New York, N. Y. 618,997, cor. Cl. 22.
Transogram Co., Inc., New York, N. Y. 619,426, cor. Cl. 22.
Transogram Co., Inc., New York, N. Y. 643,543, cor. Cl. 22.
Traverse Bay Woolen Co.: *See*—
Sanders, Luther D.
Trinity Portland Cement Co., to General Portland Cement Co., Chicago, Ill. 358,842, ren. 7–26–58. Cl. 12.
Trinity Portland Cement Co., to General Portland Cement Co., Chicago, Ill. 359,394, ren. 9–16–58. Cl. 12.
Triumph Hosiery Mills, Inc., New York, N. Y. 664,105, pub. 4–22–58. Cl. 39.
Trylon Products Corp., d. b. a. Hubere Cosmetics, Chicago, Ill. 664,176, pub. 3–5–57. Cl. 51.
Tubular Structures Corp. of America, Los Angeles, Calif. 664,053, pub. 4–22–58. Cl. 23.
Ty-Craft, Ltd.: *See*—
Karp, Paul.
Underwood Corp.: *See*—
Underwood Elliott Fisher Co.
Underwood Elliott Fisher Co., to Underwood Corp., New York, N. Y. 355,221, ren. 3–8–58. Cl. 23.
Union Carbide and Carbon Corp., now by change of name Union Carbide Corp., New York, N. Y. 658,017, cor. Cl. 21.
Union Carbide Corp.: *See*—
Union Carbide and Carbon Corp.
United Biscuit Co., Chicago, to United Biscuit Co. of America, Melrose Park, Ill. 361,004, ren. 10–4–58. Cl. 46.
United Biscuit Co. of America: *See*—
United Biscuit Co.
United Cork Companies, South Kearny, N. J. 663,941, pub. 4–22–58. Cl. 1.

United Merchants and Manufacturers, Inc., New York, N. Y. 664,086–7, pub. 4–22–58. Cl. 32.
United Silk Mills, Ltd., Krefeld, Germany. 664,116, pub. 4–22–58. Cl. 42.
Upjohn Co., The, Kalamazoo, Mich. 663,956, pub. 4–22–58. Cl. 6.
Vagim, Charles J.: *See*—
Cenatron Industries.
Variety Club Beverage Co.: *See*—
Miller, Dorothy.
Vatco Mfg. Co., Boston, Mass. 361,244, ren. 10–11–58. Cl. 19.
Velveray Corp., New York, N. Y. 559,035, canc. Cl. 42.
Vick Chemical Co., New York, N. Y. 359,775, ren. 8–30–58. Cl. 18.
Victory Optical Mfg. Co., Newark, N. J. 559,130, canc. Cl. 26.
Vincent: *See*—.
Secondo, Vincent.
Vincent, Harry, Ltd., Hunnington, near Birmingham, England. 664,148, pub. 4–22–58. Cl. 46.
Vitalfa Corp., Reseda, Calif. 664,135, pub. 4–22–58. Cl. 46.
Vogue Vanities Ltd., Handsworth, Birmingham, England. 545,576, canc. Cl. 28.
Wagner Brothers, Inc., Detroit, Mich. 663,963–7, pub. 4–22–58. Cl. 6.
Walker's Heating Supply Co., Inc., South Meadville and Meadville, Pa. 559,167, canc. Cl. 34.
Warner-Lambert-Pharmaceutical Co.: *See*—
Harrower Laboraotry, Inc., The.
Wasser, Kay & Phillips, Inc., Pittsburgh, Pa. 559,071, canc. Cl. 26.
Watkins, J. R., Co., The, Winona, Minn. 664,006, pub. 4–22–58. Cl. 16.
Watkins, J. R., Co., The, Winona, Minn. 664,183, pub. 4–22–58. Cl. 51.
Weather Products, Inc., Hialeah, Fla. 663,986, pub. 4–22–58. Cl. 12.
Webster, Eugene, d. b. a. Webster's Supreme Products, Kansas City, Mo. 664,177, pub. 4–22–58. Cl. 51.
Webster's Supreme Products: *See*—
Webster, Eugene.
Western Air Lines, Inc., Los Angeles, Calif. 664,202, pub. 4–22–58. Cl. 105.
Western Precipitation Corp., Los Angeles, Calif. 664,080, pub. 4–22–58. Cl. 31.
Westinghouse Electric Corp., Pittsburgh, Pa. 664,065, pub. 4–22–58. Cl. 26.
Whirly-Girls, The, Washington, D. C. 664,207, pub. 4–22–58. Cl. 200.
Wilson, A. L., Chemical Co., Kearny, N. J. 558,962, canc. Cl. 52.
Wisconsin Farmco Service Cooperative, Madison, Wis. 663,948, pub. 4–15–58. Cl. 1.
Witt, Wilhelm: *See*—
Loewenberg, Frits.
Wolfson, Harvey, d. b. a. Columbia Medical Co., New York, N. Y. 664,007, pub. 4–22–58. Cl. 18.
Woolworth, F. W., Co., New York, N. Y. 664,117, pub. 4–22–58. Cl. 42.
Woonsocket Color & Chemical Co., Woonsocket, R. I. 663,971, pub. 4–22–58. Cl. 6.
Workman Service, Inc., Chicago, Ill. 664,191, pub. 6–18–57. Cl. 101.
Worth, Inc., Seattle, Wash. 558,976, canc. Cl. 39.
Wren, Wm., Ltd., Watford, England. 559,024, canc. Cl. 52.

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NOTICES

Change in Rules of Practice

Notice was given in the Federal Register of June 6, 1958, (23 F. R. 3968) of the following change in the Rules of Practice which will take effect July 7, 1958:

1. Paragraph (n) of Rule 21 is amended to read as follows:

(n) Search of Patent Office records for purposes not otherwise specified in this section, per hour of search or fraction thereof..... $3.00

2. Paragraph (o) of Rule 21 is deleted.

Adjudicated Patents

(D. C. Ohio) Smith Reissue Patent No. 23,856 (179—115.5), for permanent magnet structure for electrodynamic loud speakers. Claims 6 and 7 *Held* invalid. *Magnavox Co.* v. *Muter Co.*, 160 F. Supp. 169; 117 USPQ 27.

(D. C. Ohio) Hoyt Patent No. 2,148,986 (299—88), for spray gun and means for heating air and liquid supplied thereto. Claim 3 *Held* invalid. *Hoyt* v. *Thermalcup, Inc.*, 160 F. Supp. 205; 116 USPQ 436.

(D. C. N. J.) Kleist Patent No. 2,436,380 (62—126), for refrigerating plate and internal reinforcements therefor. Claim 1 *Held* invalid. *Dole Refrigerating Co.* v. *Amerio Contact Plate Freezers, Inc.*, 160 F. Supp. 281; 117 USPQ 87.

(D. C. Ohio) Knowles Patent No. 2,469,773 (204—22), for loud speaker, diaphragm support member. *Held* valid but not infringed. *Magnavox Co.* v. *Muter Co.*, 160 F. Supp. 169; 117 USPQ 27.

(D. C. Calif.) Martin Patent No. 2,530,308 (73—151), for device for movability of member in oil wells. Claims 1, 2, 5, 8, 10, 12, 13, 14, 15, 16 and 17 *Held* valid and infringed. *Martin et al.* v. *Ford Alexander Corp.*, 160 F. Supp. 670; — USPQ —.

(D. C. Calif.) Martin Patent No. 2,530,309 (73—151), for device for determining relative movements of parts in wells. Claims 1, 6, 7, 8, 9, 10 and 11 *Held* valid and infringed. *Id.*

(D. C. Calif.) Brooks Patent No. 2,550,964 (73—151), for device for determining point at which pipe is stuck in a well. Claims 1 through 11, *Held* valid and infringed. *Id.*

(D. C. N. J.) Lebovitz Patent No. 2,565,245 (100—38), for method and means for shaping meats. Claims 1 and 2 *Held* invalid. *Churchill Meat Co.* v. *Brodsky*, 160 F. Supp. 241; 116 USPQ 571.

(D. C. N. Y.) Ashton Patent No. 2,611,198 (40—3), for tag. Claims 6 to 9 *Held* valid and infringed. *E. J. Brooks Co.* v. *Stoffel Seals Corp.*, 160 F. Supp. 581; 117 USPQ 91.

(D. C. N. Y.) Stelzer Patent No. 2,611,199 (40—3), for tag. Claims 1, 2, 4 to 6, 8, 9 and 14 to 23 *Held* invalid. *Id.*

(D. C. N. Y.) Rand Patent No. 2,630,573 (2—97), for heat retaining garment. Claims 1 to 7 *Held* valid and claims 1 to 3 and 7 *Held* infringed. *Deering, Milliken & Co., Inc.* v. *Temp-Resisto Corp.*, 160 F. Supp. 463; 116 USPQ 386.

(D. C. N. Y.) Rand Patent No. 2,630,620 (28—80), for coated fabric. Claims 1 to 8 *Held* valid and infringed. *Id.*

(D. C. Colo.) Titus Patent No. 2,649,276 (251—110), for liquid dispensing device. Claims 7 and 9 *Held* valid and not infringed. Claim 8 *Held* valid and infringed. *Wyott Mfg. Co.* v. *Doran Coffee Roasting Co. Inc.*, 160 F. Supp. 644; 117 USPQ 120.

(D. C. N. Y.) Moberg Patent No. 2,686,379 (40—3), for tag. *Held* invalid. *E. J. Brooks Co.* v. *Stoffel Seals Corp.*, 160 F. Supp. 581; 117 USPQ 91.

(D. C. Del.) Mayer Patent No. 2,702,245 (99—2), for conversion of feathers. Claims 1 to 4 *Held* invalid. *Central Mfg. Co.* v. *B–M–K Corp.*, 160 F. Supp. 312; 117 USPQ 125.

Disclaimers

2,710,311.—*Frank Kessler*, Los Angeles, Calif. INCOMING TRUNK FOR TELEPHONE SYSTEMS. Patent dated June 7, 1955. Disclaimer filed June 16, 1958, by the assignee, *General Dynamics Corporation*.

Hereby enters this disclaimer to claim 1 of said patent.

2,751,161.—*Paul W. Markwood*, Lowland, *John T. Rich*, Morristown, and *Paul D. Lingerfelt*, Lowland, Tenn., and *Charles F. Nichols*, Waynesville, N. C. DOFFING A WINDING MACHINE. Patent dated June 19, 1956. Disclaimer filed June 10, 1958, by the assignee, *Universal Winding Company*.

Hereby enters this disclaimer to claims 1 and 2 of said patent.

Patents Available for Licensing or Sale

2,833,591. Auxiliary Visor Securable to Vehicle Sun Visor by Resilient Members. John A. Kurtzke. Correspondence to Richard G. Wynne, 913 Sheraton Bldg., 711 14th St., N. W., Washington 5, D. C.

2,836,381. Airplane With Variable Sweepback Airfoils. George Carrillo Z., North Gin 427, Brownfield, Tex.

2,836,438. Compression Coupling With Convex Split Ring Locking Means. Thomas P. Turnipseed, 17140 N. W. 29th Ave., Opa-Locka, Fla.

2,838,340. Demountable and Disassemblable Arm Rest for Vehicle Window Sills. Cecil R. Johnson, 37941 Euclid Ave., Willoughby, Ohio.

General Electric Company is prepared to grant non-exclusive licenses under the following 8 patents upon reasonable terms to domestic manufacturers.

Applications for license under the following 5 patents may be addressed to: General Electric Company, Patent Counsel,

New Applications Received During May 1958

Patents	6,750
Designs	444
Plant Pats	10
Reissues	42
Total	7,246

Issue

Patents	1,080—No.	2,842,769	to No.	2,843,848, incl.
Designs	42—No.	183,191	to No.	183,232, incl.
Plant Pats	3—No.	1,730	to No.	1,732, incl.
Reissues	2—No.	24,503	to No.	24,504, incl.
Total	1,127			

Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,437,963. Method and Apparatus for Producing Aerosols.

2,714,098. Phenolic Resinous Compositions.

2,744,845. Chlorinated Maleic Adduct-Ethoxyline Resinous Compositions.

2,745,713. High Temperature High Pressure Reactor.

2,822,327. Method of Generating Ozone.

Applications for license under the following 3 patents may be addressed to: Patent Counsel, General Engineering Laboratory, General Electric Company, 1 River Road, Schenectady 5, N. Y.

2,803,274. Power-Operated Fastener Dispensing and Driving Means.

2,827,978. Acoustic Radiation Force Measuring Device.

2,828,231. Method and Apparatus for Ultrasonic Cleaning.

CONDITION OF PATENT APPLICATIONS AS OF MAY 31, 1958

Total number of pending applications (excluding Designs)		208, 263
Total number of pending Design applications		6, 624
Total number of applications awaiting action (excluding Designs)		87, 935
Total number of Design applications awaiting action		3, 087
Date of oldest new application	June	4, 1957
Date of oldest amended application	May	17, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 32, 48, 46, 50, 58, 59, 60, 63, 64.
(II) STRACHAN, C. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 45, 51, 54, 58.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 27, 28, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 62, 63.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 56.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 25, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 28, 30, 31, 49, 55, 57.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-30-57	9-4-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	9-26-57	9-9-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	12-3-57	10-29-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	9-13-57	9-23-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	8-8-57	8-6-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	10-1-57	10-24-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. G., acting), Optics	9-11-57	9-9-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-11-57	10-14-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	9-30-57	9-10-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	9-17-57	10-2-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clinching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	10-28-57	10-14-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	8-12-57	7-1-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-8-57	9-3-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	9-6-57	8-22-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	9-5-57	9-16-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	8-13-57	8-3-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	10-10-57	10-11-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	9-3-57	9-3-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	9-19-57	9-3-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	9-4-57	9-12-57
21. (III) MADER, R. C., Textiles	7-19-57	7-16-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	9-3-57	9-3-57
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	8-4-57	8-17-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	11-7-57	11-13-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	8-16-57	8-15-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-1-57	10-3-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	10-16-57	10-17-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyors; Pressure Modulating Relays; Wheel Substitutes	8-26-57	8-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	9-3-57	7-26-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	10-15-57	10-7-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	9-20-57	10-1-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-11-57	9-16-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-15-57	10-7-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	10-3-57	10-2-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	1-3-56	1-3-58
36. (V) CUTTING, C. A., (acting), Measuring and Testing; Automatic Weighers; Weighing Scales	7-5-57	7-2-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	9-4-57	9-10-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	11-20-57	12-2-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	11-15-57	11-25-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	11-1-57	11-1-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	8-9-57	8-22-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	8-1-57	8-1-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	9-3-57	9-6-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-4-57	9-3-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	9-13-57	9-13-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	10-3-57	9-10-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	10-2-57	9-16-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	8-16-57	8-22-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	10-7-57	10-14-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	11-1-57	11-5-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	9-5-57	9-6-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	9-6-57	9-3-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	11-19-57	10-7-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	11-4-57	11-6-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	7-9-57	7-5-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	10-8-57	10-1-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	12-10-57	12-3-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	10-30-57	10-8-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	9-11-57	8-26-57
60. (I) MANGAN, P. R., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	12-23-57	10-18-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	9-3-57	9-3-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	11-6-57	11-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	8-22-57	9-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	9-4-57	8-15-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	9-3-57	8-23-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	9-10-57	9-9-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	11-1-57	10-28-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	10-16-57	10-17-57
CLASS. DIVS. II—LADY, J. E., Oscillators	1-7-58	1-6-58
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	9-3-57	9-9-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	9-16-57	9-10-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	9-3-57	9-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	7-1-57	6-6-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	11-4-57	12-6-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	9-5-57	10-21-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during July 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,247,345, to 2,251,257, inclusive
Plant Patents ..... Numbers 478 to 479, inclusive

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,352,294, A. D. Welsh, Baby swing, filed Dec. 20, 1956, D. C., E. D. Mo. (St. Louis), Doc. 11003(2), *Thayer, Inc.* v. *Welsh Co.* Stipulation dismissing complaint and counterclaim May 27, 1958.

2,354,121, S. Marcus, Doll eye and method of making same, filed Feb. 23, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. C–16292, *Margon Corp.* v. *Marvel Eye Plastics Inc. et al.* Order of dismissal June 2, 1958.

2,394,056, C. A. Kaufman, Stocking and method of knitting, filed May 26, 1956, D. C., E. D. Pa. (Philadelphia), Doc. 24745, *Alamance Industries, Inc.* v. *Telesia Knitting Mills.*

2,321,497, G. M. Merta, Cup-making machine, filed May 29, 1956, D. C., E. D. Wis. (Milwaukee), Doc. 58c148, *Solo Cup Co.* v. *American Lace Paper Co., Inc.*

2,395,847, C. S. Clark, Piston, filed Apr. 11, 1957, D. C. N. J. (Newark), Doc. 278/57, *Katie S. Clark, Admx. et al.* v. *Sealed Power Corp. et al.* Cause dismissed May 27, 1958.

2,424,743, A. H. Davis, Composite textile strands and fabrics; **2,775,022**, same, Siliceous strand, filed Feb. 5, 1956, D. C., N. D. Ohio (Cleveland), Doc. 34229, *Archibald H. Davis* v. *Owens-Corning Fiberglass Corp.* Dismissed by stipulation without prejudice June 3, 1958.

2,461,464, R. Aronstein, Filter for fluorescent screen, filed Feb. 7, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15223, *Transmirra Products Corp.* v. *Stewart-Warner Corp.* Cause dismissed May 29, 1958.

2,529,040, S. H. Ross, Method of magnetizing permanent magnet rotors, filed May 20, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. C–15568, *Eastern Air Devices, Inc.* v. *Induction Motors Corp.* Order of discontinuance June 2, 1958.

2,577,221, J. B. Filger, Nose drop dispenser, filed June 5, 1954, D. C., W. D. Ky. (Louisville), Doc. 2782, *Joseph B. Filger* v. *Plax Corporation.* Judgment dismissing complaint and amended complaint Oct. 1, 1957 (notice received June 2, 1958).

2,590,738, W. G. Tufts, Slip resistant pants guard for coat hangers; **2,653,760**, same, filed Apr. 25, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15465, *L. M. Leathers' Sons* v. *Cude Paper & Bag Corp.* Order of dismissal June 2, 1958.

2,595,982, H. L. Carlson, Cement concrete portable tank structure, filed Apr. 16, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. C–17533, *Henry L. Carlson* v. *Standard Precast Products Corp.* Order of dismissal June 4, 1958.

2,597,186, J. W. Murray, End bracket for utility stand, filed Jan. 27, 1956, D. C., W. D. Wis. (Madison), Doc. 2769, *Mace Steel Products, Inc. et al.* v. *Badger, Inc.* Order dismissing action for lack of prosecution May 28, 1958.

2,620,615, A. L. Allen, Adjustable cutter bar for mowing machines, filed Aug. 7, 1956, D. C., S. D. Tex. (Houston), Doc. 10057, *Ambrose L. Allen* v. *Sears, Roebuck & Co.* Final judgment; defendant has not infringed; defendant's motion for summary judgment granted May 26, 1958.

2,621,063, C. M. Jenkins, Permanently attaching commercial hair to live hair, filed June 19, 1957, D. C., N. D. Ohio (Cleveland), Doc. 33703, *Christina M. Jenkins et al.* v. *Gladys Jones.* Consent judgment; patent held valid and infringed; defendant enjoined June 2, 1958.

2,653,740. (See 2,590,738.)

2,657,509, H. W. Samolewitz, Transparent doll eye, filed Dec. 1, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. C–16079, *Margon Corp.* v. *Dollac Corp.* Order of dismissal June 2, 1958.

2,658,811, R. N. Price, Apparatus for and method of handling and washing ampuls and vials in packed-lots, filed June 4, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. C–18754, *Popper & Sons, Inc.* v. *Rudolph N. Price.*

2,666,651, E. W. Jones, Master sound record, filed Jan. 30, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. C–16215, *Earle W. Jones* v. *Fairchild Graphic Equipment, Inc. et al.* Order of dismissal June 2, 1958.

2,684,064, J. C. Thompson, Adjustable headrest; **2,756,744**, same, Chiropractic headrest with magnetic retaining means; **2,791,215**, same, Adjustable head rest for chiropractic treatment; **2,797,510**, same, Method for chiropractic adjustment; **2,715,557**, G. L. Rock, Adjustable headrest for chiropractic treatment; **2,702,733**, W. J. Lorang, Adjustable head rest for chiropractic tables, filed May 1, 1958, D. C., S. D. Iowa (Davenport), Doc. 2/403, *Joseph Clay Thompson et al.* v. *Arnold P. Nicholas, doing business as Rival Machine Co.*

2,702,733. (See 2,684,064.)

2,707,288, D. C. Taggart, Bed pad, filed Oct. 8, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. C–16972, *The General Cellulose Co., Inc.* v. *Whitestone Products Co., Inc.* Order of dismissal June 4, 1958.

2,714,881, T. Friedman, Inlay of handbag frame, filed Feb. 6, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. C–16267, *Ideal Handbag Frame Mfg. Corp.* v. *Chestnut Metal Specialties, Inc.* Order of dismissal June 2, 1958. Same, Doc. 16252, *Ideal Handbag Frame Mfg. Corp.* v. *Nelson Brothers Metal Ornaments, Inc.* Decree as above.

2,715,557. (See 2,684,064.)

2,718,986, Re. 24,189, V. Peoples, Spreader control, filed June 2, 1958, D. C., S. D. Ohio (Cincinnati), Doc. 4235, *The O. M. Scott & Sons Co.* v. *The J. Chas. McCullough Seed Co.*

2,727,510. (See 2,684,064.)

2,737,068, Cresal and Ferraro, Fins for swimmers, filed May 27, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 488/58–BH, *Il Pescatore Rubacuore-Cresal* v. *U. S. Divers Co., Inc. et al.*

2,756,744. (See 2,684,064.)

2,775,022. (See 2,424,743.)

2,776,484. (See 2,825,956.)

2,791,215. (See 2,684,064.)

2,802,185, Stoddard and Seem, Apparatus for processing textile yarns; **2,802,188**, same, Methods of processing textile yarns; **2,802,189**, same, Method of processing thermoplastic yarns, filed May 27, 1958, D. C., E. D. Tenn. (Chattanooga), Doc. 3249, *Universal Winding Co.* v. *Southern Silk Mills, Inc.*

2,802,188. (See 2,803,105.)

2,802,189. (See 2,803,105.)

2,816,969, E. Finkel, Concealed indoor television antenna, filed Mar. 5, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18531, *J. F. D. Mfg. Co.* v. *Hygrade Electronics, Inc.* Order of dismissal June 2, 1958.

2,816,590, H. Wuster, Self-closing umbrella frame, filed June 4, 1958, D. C., S. D. N. Y., Doc. 134/161, *Polan Kats & Co., Inc.* v. *Columbia Umbrella Co., Inc.*

2,825,956, J. C. Shoemaker, Concrete-form locking means; **2,776,484**, L. E. Stewart, Concrete form construction, filed June 3, 1958, D. C., W. D. Wis. (Madison), Doc. 3074, *Simplex Forms System, Inc. et al.* v. *C. James Elifritz et al.*

2,831,706, R. K. H. Runknagel, Lubricating devices, filed May 27, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c944, *Rolf K. H. Runknagel* v. *The Rolin Corp.*

Re. 24,189. (See 2,718,986.)

Des. 171,441, M. Cornick, Tag dispensing device, filed June 18, 1954, D. C., W. D. Ky. (Louisville), Doc. 2794, *Morris Cornick, doing business as Piece Control Tag Co.* v. *Stry-Lenkoff Co. et al.* By judgment signed Aug. 25, 1955, patent held invalid and void; complaint dismissed (notice received June 2, 1958).

Des. 179,691, J. L. Malis, Aquarium filter, filed June 24, 1957, D. C. N. J. (Camden), Doc. 596/57, *Super Products Corp.* v. *Metal Frame Aquarium Co., Inc.* Judgment in favor of plaintiff; injunction issued (notice June 5, 1958).

Des. 180,653, J. A. Higier, Glove; **Des. 180,657**, same, filed May 26, 1958, D. C., S. D. N. Y., Doc. 1134/30, *Crescendoe Gloves, Inc.* v. *Herbert H. Segerman et al.*

Des. 180,657. (See Des. 180,653.)

Des. 181,220, Stahlhut and Meyer, Panel for lighting fixture or the like, filed May 26, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c937, *Day-Brite Lighting, Inc.* v. *Sandee Mfg. Co.*

REISSUES

JULY 15, 1958

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

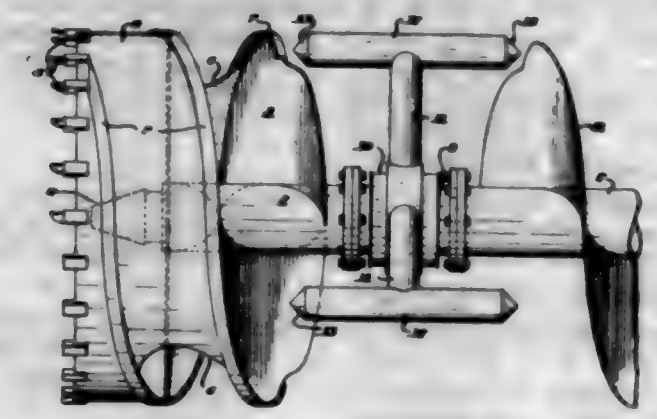
24,383

ADVANCEABLE MINING MACHINE HEAD AND SHAFT CARRIED BEARING SUPPORT THEREFOR

Charles E. Compton, Bridgeport, W. Va.

Original No. 2,751,203, dated June 19, 1956, Serial No. 324,368, December 5, 1952. Application for reissue June 10, 1957, Serial No. 665,626

1 Claim. (Cl. 262—7)



2. In a generally horizontally operable mining machine, a rotatable and advanceable structure comprising a shaft having a spiral conveyor flight connected therewith and extending thereabout, a head rigidly connected with the shaft at the forward end of the shaft having means for cutting into a body of material to be mined and removing material from said body to form a bore in said body, bearing means rotatably supporting the shaft between the head and the spiral conveyor flight on the shaft connected with the shaft so that the shaft is held against substantial movement axially of the shaft relatively to the bearing means, the bearing means having spoke-like portions each of which is non-yielding in the direction of its length extending generally outwardly from the shaft spaced apart circumferentially of the shaft providing space for relative movement therepast of large lumps of mined material, and at least three elongated supporting members spaced apart circumferentially of the shaft extending generally parallel to the axis of the shaft to guide the head in the bore, the outer surfaces of the elongated supporting members being disposed at a radial distance from the axis of the shaft approximating the radius of the first mentioned means, the elongated supporting members being supportingly connected with the spoke-like portions, the elongated supporting members being disposed in such adjacency to the head that the full weight of the head does not bear upon the bottom of the bore, whereby the elongated supporting members counteract the tendency of the head to drift downwardly and to one side due to gravity and the rotation of the head, resulting in formation of a relatively straight bore.

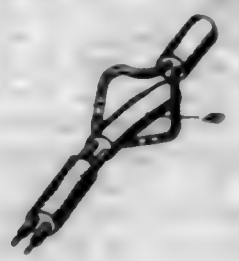
24,504

INSULATING FLEXIBLE SPLICER CORE FOR PLURAL CABLE JOINTS AND CABLE SPLICING METHOD

Daniel G. Kerwin, Bensenville, Ill., assignor, by mesne assignments, to J. B. Nottingham & Co., Inc., New York, N. Y., a corporation of New York

Original No. 2,639,312, dated May 19, 1953, Serial No. 79,859, March 5, 1949. Application for reissue May 13, 1955, Serial No. 508,338

6 Claims. (Cl. 174—138)



3. The method of splicing two multi-conductor insulated cable ends to each other, which comprises the steps of removing the insulation from a portion of each of the two ends of the cables to form the insulation with ends lying in planes at a predetermined angle to the axis of the cable and baring the conductors, splicing together bare conductors thus providing at least two such spliced conductors, positioning between the two spliced conductors a flexible grooved elastic insulating core of a length substantially equal to the length of the space between the two insulation ends, introducing the spliced portions of the conductors into the said grooves in the elastic insulating core, and applying a covering around the full length of the core and extending the covering over and beyond the two ends of the cable and sealing the covering to the core and to the said ends of the cable.

PLANT PATENTS

GRANTED JULY 15, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,730

ALMOND TREE

Vincent B. Rodgers, Ballico, Calif.

Application November 29, 1957, Serial No. 699,878

1 Claim. (Cl. 47—62)

A new and distinct variety of almond tree, as shown and described, characterized by vigorous and upright growth of the tree and the heavy production of well distributed paper-shell nuts borne mainly in clusters on short spurs but in part on branches; and further characterized—in comparison to the Nonpareil almond—by being pollinizers for each other, by a parallel blooming period, by ripening with and after the Nonpareil and harvesting immediately following the latter, by at least twice the production of equal quality nuts, and by well sealed white meat nuts having a very light straw colored shell.

1,731

FUCHSIA PLANT

Horace M. Tiret, San Francisco, Calif.

Application October 21, 1957, Serial No. 691,523

1 Claim. (Cl. 47—60)

A new and distinct variety of fuchsia plant herein described, and as set forth in the accompanying drawing, characterized by the exceptional trailing habit of growth in combination with the extra long stems and buds, which open up to reveal a flower of long sepals and a corolla of unusual color, as herein described, resulting in an appearance unlike any fuchsia plant of its type.

1,732

APRICOT TREE

Haig Calhoubian, Fresno, Calif.

Application November 8, 1957, Serial No. 695,873

1 Claim. (Cl. 47—62)

A new and distinct variety of apricot tree, substantially as shown and described herein and especially characterized by the external deep red color of the fruit, having a flavor faintly suggestive of a plum, and by a red tinge on the under surfaces of the leaves.

PATENTS

GRANTED JULY 15, 1958

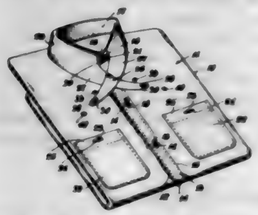
GENERAL AND MECHANICAL

2,842,769
HEEL GUARD FOR SLING PUMPS
William P. Barnes, San Angelo, Tex.
Application October 12, 1955, Serial No. 539,978
1 Claim. (Cl. 2—22)



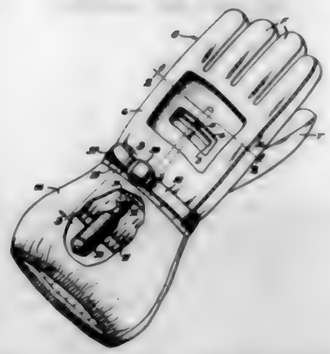
A device for supporting the rear portion of a heel sling in normal elevated position, said device comprising a strip of thin, flexible material, a coating of adhesive material on the inner surface of said strip for releasably mounting the strip of material on the surface of the rear of the heel of a wearer in partial encircling relation thereto, the outer surface of said flexible strip having a transversely extending substantially horizontally disposed ledge for engaging the lower edge of the heel sling for preventing downward movement of the sling thereby retaining the sling in normal elevated position, the outer surface of the flexible strip above the ledge engaging the inner surface of the heel sling thereby protecting the heel of the wearer from chafing by the heel sling.

2,842,770
SHIRT STRUCTURES
Warren D. Lloyd, New York, N. Y.
Application May 10, 1955, Serial No. 507,261
1 Claim. (Cl. 2—116)



As an article of wearing apparel a shirt comprising, in combination; a body structure including an openable shirt front having opposed vertical edges detachably securable together; neck-encircling means carried by said body structure provided with opposed front edge portions adapted to be brought together for closing said neck-encircling means; a turned-down soft collar having a top lateral edge carried by and connected to said neck-encircling means and a lower edge, said turned-down collar having opposed end edges extending from the neck-encircling means downwardly toward overlapping relation, the upper portions of said end edges being cut back so as to space them when the shirt front and neck-encircling means are closed to accommodate between said cut back edge portions knot means of a necktie; each of the lower portions of the opposed end edges adjacent the lower collar edge having an elongated oblique tip with said tips extending obliquely downward and laterally in opposite directions toward the far sides of said shirt front with medial crossing overlap for concealment of the crossing overlap behind the necktie; a pair of laterally-spaced tip anchoring means carried by said shirt front on opposite sides of said opposed shirt front vertical edges for anchorage of said crossed tips, the anchoring means for each tip being on the side of said shirt front vertical edges opposite the side on which said tip extends from the lower end edge portion carrying it; and cooperating anchoring means on said tips for engagement of said shirt front tip anchoring means.

2,842,771
INSULATED GLOVE
Peter Fotl, Rochester, N. Y.
Application May 17, 1957, Serial No. 659,920
8 Claims. (Cl. 2—159)



1. A heat insulated hand-covering assembly comprising a plurality of successively encased hand-coverings of heat insulating material including an intermediate inflatable hand-covering of plastic sheeting consisting of two plies of gas-impermeable sheet material adapted to have air injected into the space between said plies to provide additional heat insulation and a plurality of longitudinally extending transversely spaced internal ribs joining said plies in the back and palm portions of said intermediate inflatable hand-covering to reinforce and provide air receiving compartments in said back and palm portions, whereby upon inflation of said intermediate hand-covering said ribs will serve to substantially retain the shape of said back and palm portions.

2,842,772
MANUFACTURE OF GARMENTS OR ARTICLES FROM SHEET MATERIAL
Sydney Littman, London, England
Application January 18, 1954, Serial No. 404,605
3 Claims. (Cl. 2—243)

1. A method of making a garment from a number of diversely shaped component parts cut from a length of sheet material sufficient to produce a plurality of said garments, said method comprising the steps of providing

a supporting surface representing at a reduced scale the width of the material from which the garment is to be made, arranging on said surface rigid models at the same reduced scale of the component parts of said garment, said models being arranged in predominantly abutting relationship in the smallest rectangular space of a given width into which said model parts will fit with-



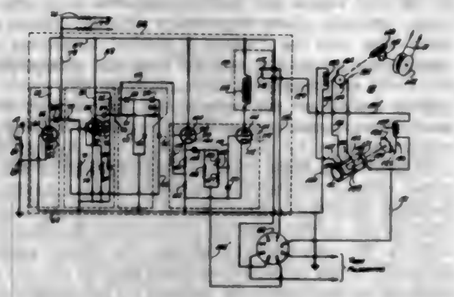
out overlapping, reproducing the arrangement of the scale models to provide a chart, arranging full size patterns of said component parts on the sheet material in the same order as shown on the chart, cutting out the material along the lines indicated by the edges of the patterns, and making up the garment from the component parts so cut out.

2,842,773
JOINT FOR CONNECTING FLEXIBLE TUBULAR MEMBERS
Philip C. Trexler, Niles, Mich., assignor to Reynlers & Son, Chicago, Ill., a copartnership
Application December 23, 1955, Serial No. 555,186
10 Claims. (Cl. 2—270)



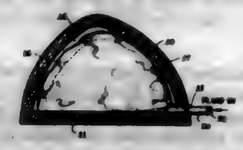
1. In combination, a pair of flexible tubular members arranged in circumferentially lapped relation, a rigid ring encircled by the lapped portions of said members and having an outer circumferential groove, an elastic ring constrictively encircling said first ring and confining said lapped portions in said groove, and a substantially inelastic ring encircling said elastic ring.

2,842,774
ELECTROMECHANICAL CONTROL SYSTEMS
George G. Vitt, Jr., Orange, N. J., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application May 26, 1955, Serial No. 511,371
6 Claims. (Cl. 3—1.1)



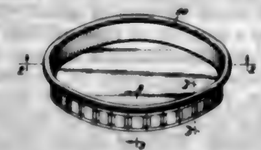
1. An electronic control for prosthetic devices comprising a microphone, an amplifier including a filter for limiting the response of said amplifier to a predetermined frequency range, means for rectifying the output signal of said amplifier, a second amplifier responsive to said rectified output signal, means including a time delay network for negatively biasing said second amplifier, a relay including at least two cooperating contacts and responsive to the last said amplifier, and electromagnetic means operable in response to said relay for actuating said prosthetic device.

2,842,775
COMPOUND PROSTHESIS DEVICE
William J. Pangman, Los Angeles, Calif.
Application February 23, 1954, Serial No. 411,933
3 Claims. (Cl. 3—36)



1. A compound surgical prosthesis for insertion under the skin of a patient to spatially replace a removed body organ, comprising: a hollow body of the shape of the removed organ, whose exterior defining walls consist entirely of a foam type resilient plastic surgical sponge material having openings entering into its exterior surfaces and extending throughout the interior thereof into which living body tissues and fluids may penetrate, there being an access slit in a wall of said body, a flexible fluid-impermeable sac inserted inside said hollow body through said access slit and adapted to substantially fill said hollow body, a filler tube joined to said sac and being accessible through said access slit, said tube being adapted to be closed in a fluid-tight manner, and a yieldable filler material inside said sac.

2,842,776
WADING POOLS
Lester Zakin, Monsey, N. Y., assignor to The Holiday Line, Inc., New York, N. Y.
Application April 6, 1955, Serial No. 499,606
4 Claims. (Cl. 4—172)

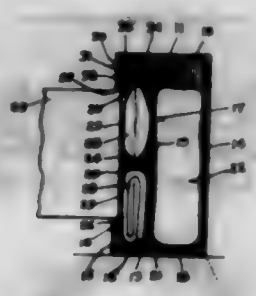


1. A wading pool comprising a plurality of vertical support members, each of said vertical support members including a plurality of apertures proximate each of their longitudinal peripheral borders and link members passing through corresponding apertures in adjacent support members on each of their longitudinal peripheral borders, and a pool comprising a bottom member, a side member and an inflated upper bumper, said inflated upper bumper resting on the upper periphery of said vertical support member.

2,842,777
COMBINATION ARTICLE OF FURNITURE
William Henry Wheeler, New York, N. Y., assignor to Edna K. Wheeler, New York, N. Y.
Application October 15, 1953, Serial No. 386,206
3 Claims. (Cl. 5—159)

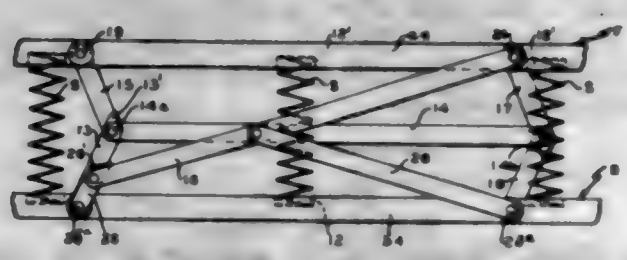
1. A convertible bed and cabinet device comprising a cabinet part having a bottom member, end and rear walls, a narrow front wall portion transversing said cabinet part adjacent said bottom member, and an elongated and rela-

tively low top shelf portion, the front of said cabinet comprising a panel section extending between and flush with said end walls and pivoted along one lower edge thereof to said narrow front wall portion for swinging movement from a vertical position to a horizontal position, movable means providing a vertical support for the free edge of said panel section when the same is in a horizontal position, a frame secured to said panel section



forming a mattress compartment spaced inwardly from said panel section, said frame extending beyond the pivoted edge of said panel section when said panel section is in horizontal position and substantially to said bottom member when said panel section is in vertical position, and said mattress compartment being open at the side thereof opposed to said panel section exposing a mattress as a sleeping surface when in the horizontal position.

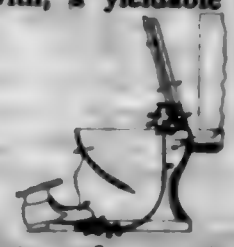
2,842,778
FABRICATED RESILIENT BODIES
Clas William Clemson, Dover, Mass., assignor of one-half to Joseph D. Ramsey, Boston, Mass.
Application May 24, 1955, Serial No. 510,694
3 Claims. (Cl. 5—239)



1. An improved bed spring construction comprising a base formed of a plurality of spaced-apart rigid stretchers secured in fixed relationship to one another, a support section located above the base in spaced relation thereto and comprising a plurality of rigid stretcher elements occuring in vertical alignment with the said stretcher elements of the base, spring means for resiliently maintaining the stretcher elements of the support section in spaced relation to the stretcher elements of the base, cooperating pivoted linkages arranged at opposite sides of the spring elements and connecting respective pairs of upper and lower aligned stretchers, and the said cooperating pivoted linkages occurring in pairs, each pair including a parallel motion bar having its opposite extremities pivotally connected to two pairs of angularly disposed arms extending between upper and lower stretchers, each of said linkages further including a diagonal bar and two angularly disposed arms for guiding said diagonal bar into a position approaching parallelism with respect to the said parallel bar when the spring elements are compressed and the upper and lower stretchers are brought into close proximity to one another.

2,842,779
OPERATOR FOR TOILET SEAT
Bruno P. Zalkoski, Weirton, W. Va.
Application June 26, 1957, Serial No. 668,050
2 Claims. (Cl. 4—251)

1. In combination with a toilet having a seat and a cover, of a means for operating said seat and cover, said means comprising a yieldable container adapted to be engaged by a person's foot, first and second spaced apart tubes extending from said container, a Y-connection arranged in engagement with said first and second tubes, a check valve arranged in said first tube, a conduit having one end connected to said Y-connection, an expansible pouch arranged beneath the toilet seat and connected to the other end of said conduit, a plate secured to said toilet and having said pouch arranged in engagement therewith, a yieldable flap having an end



secured to said plate and a portion of said flap being arranged in engagement with said pouch, a clamp arranged in engagement with said first and second tubes, a valve connected to said container for use in inflating said container, said clamp including a coil portion circumposed on said first tube, a pair of gripping portions spaced from said coil portion and arranged in engagement with said second tube, said second tube being collapsible, and circular treadle portions extending from said gripping portions for engagement by a person's foot.

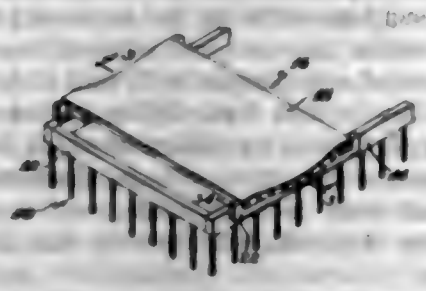
2,842,780
TOY FURNITURE
Andrew P. Bergstrand, Moline, Ill., assignor to Stromback-Becker Mfg. Co., Moline, Ill., a corporation of Illinois
Application February 7, 1957, Serial No. 638,757
2 Claims. (Cl. 5—29)



1. A sofa bed for children's dolls, comprising: a base made up of a back, a pair of upright end panels secured to and extending forwardly from the back, and a rigid horizontal bottom panel adjoining and extending forwardly from the back to a transverse front edge and fixed at opposite ends to and extending transversely between the end panels at a level closely proximate to the floor, said bottom panel having at its junction with each end panel a forwardly and upwardly facing notch affording a link-receiving notch concealed in part by the proximate end panel, and the junction of the bottom panel with the back affording a transverse upwardly opening groove running between and concealed endwise by said end panels; a top panel disposed in a sofa position at a level spaced above the bottom panel and extending transversely between and concealed endwise by the end panels and having transverse front and rear edges vertically alined respectively with the bottom panel front edge and the groove; a vertical transverse panel rigidly secured to the rear edge of the sofa-positioned top panel and depending therefrom into the groove and resting thereat on the base as the sole support of the rear edge of said sofa-positioned top panel and concealed endwise by the end panels, and further fitting said groove to resist forward displacement of said top panel relative to the base; a pair of links having end portions disposed respectively in the pockets and pivoted thereat to the base on a transverse horizontal axis and, in the sofa position of the top panel, extending upwardly to the respective opposite ends of the top panel inwardly of and concealed endwise by the respective end panels, said links having their opposite end portions pivoted to the top panel adjacent to the front edge thereof on a transverse horizontal axis to serve as the sole

support of the front edge of said sofa-positioned top panel; a closure panel extending between and carried exclusively by the links and filling the space between the front edges of the top and bottom panels and assuming a front upright position when the top panel is in its sofa position; said top and front panel being swingable via the link pivots in a forward and downward direction to extend forwardly from the base as horizontal extensions of the bottom panel to convert the sofa to a doll bed, said vertical panel then rising from the top panel as a foot board for said doll bed, and said top panel then presenting its upper surface as a floor-engaging surface in an area closely proximate to the link pivots to minimize vertical deflection of the closure and top panels when weight is applied to said doll bed.

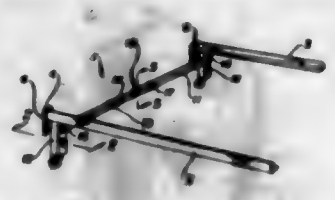
2,842,781
PORTABLE DRESSING TRAY
Charles L. Hoffman, Sunderland, Mass.
Application November 25, 1953, Serial No. 394,329
1 Claim. (Cl. 5—93)



A dressing tray comprising a rigid frame having side and end rails, said end rails containing notches, within which the ends of the side rails fit so that the upper edges of the end rails at their ends lie in the plane of the upper edges of the side rails, and the central portions of the end rails being downwardly concave, a hammock of flexible material stretched both longitudinally and transversely on the frame, said hammock having end portions folded over the end surfaces of the end rails and secured thereto, and edge surfaces folded over the side rails and secured thereto, said hammock having at opposite sides horizontal flat aprons and intermediate the flat aprons a concave trough extending from end to end, spaced bearing members at the underside of the frame adapted to support the frame horizontally, transversely of a crib on the upper rails of the crib sides, said bearing members having a vertical thickness sufficient to prevent the concave surface of the hammock from contacting the crib rails, said end rails having at their inner sides spaced parallel bearing surfaces, the inside spacing of which corresponds to the outside spacing of the crib rails, and comprising means for embracing said crib rails so as to prevent endwise displacement of the frame, and other bearing surfaces constituted by the lower edges of said end rails for supporting the frame on a flat surface.

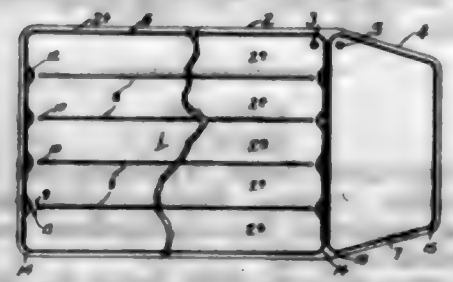
2,842,782
BEDFRAME HAVING SPECIAL END PLATE AND CROSS RAIL MEANS THEREIN
Hillard J. Sands, Cleveland, Ohio, assignor to The Harvard Manufacturing Company, a corporation of Ohio
Application November 9, 1953, Serial No. 390,910
1 Claim. (Cl. 5—282)

In a bedframe, a metal side rail of angular shape in section and having a horizontal leg and a vertical leg, and an end plate, and a weld securing said end plate to said side rail, said end plate having an edge flange lying flush against a surface of said vertical leg and being abutted against the end of said side rail and connected thereto by the said weld, said end plate having a pair of slots therein with one slot being adjacent the upper edge thereof and one slot being adjacent the lower edge thereof for receiving means to secure a bed headboard to said end plate, said end plate having a pair of parallel spaced embossed ribs provided thereon intermediate said slots



and parallel to and extending towards the horizontal leg of said side rail, said weld being anchored on one of said ribs, said end plate being positionable to engage a right or a left side rail and have said slots therein positioned in the same vertical relation to the side rail.

2,842,783
AIR MATTRESS
Milton G. Druck, Portland, Oreg., assignor to Plastimayd Products Corporation, Portland, Oreg., a corporation of Oregon
Application February 27, 1956, Serial No. 567,781
8 Claims. (Cl. 5—348)



5. In an inflatable air mattress of rib-like construction comprised of opposed sheets of flexible material sealed together airtight about their periphery and also sealed to each other along rib-like lines running across said mattress, each rib-like sealing line terminating short of the sealed periphery thereby leaving an air-connecting passageway between it and the sealed periphery, the rib-like sealing lines defining compartments connected to each other via said passageways, the improvement wherein a portion of the peripheral seal near the region of the air-connecting passageway is curved arcuately inwardly from the periphery.

2,842,784
ADJUSTABLE MATTRESS SPRINGS
John Grund, Birmingham, Ala.
Application December 13, 1955, Serial No. 552,769
3 Claims. (Cl. 5—351)



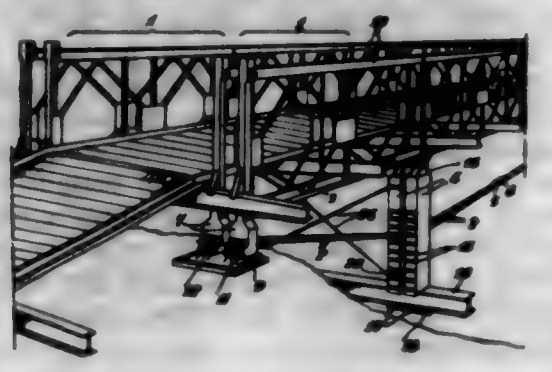
1. An adjustable mattress spring for increasing the hardness or softness of the upper surface of the mattress comprising a pair of coiled wire springs each being approximately truncated-cone-shaped, a threaded member attached by one end revolvably to the smaller end of one of the pair, a nut with threads in its inner surface attached in fixed condition to the smaller end of the other one of the pair, said spring parts being disposed with their smaller ends facing each other to thus form an outline similar to an hour glass; a groove in the member attached revolvably, a control cord attached around in the said groove, said cord being adapted by manual means to revolve said threaded member that is attached revolvably and disposed to revolve in the threaded nut attached in fixed condition to the other spring part.

2,842,783
LIFE JACKET
William C. Severts, Kingston, Mass.
Application May 7, 1954, Serial No. 428,307
11 Claims. (Cl. 9—20)



1. A life jacket in the form of a man's vest having inner and outer layers, the inner layer designed to fit closely about the body and the outer layer being of appreciably greater circumferential dimension than the inner layer, a single H-shaped bladder fitting between said layers having two sections in front, two sections at the rear and a connecting portion extending across the upper back of said jacket, the circumferential dimension of said outer layer being sufficiently great to allow said bladder to be inflated to the degree necessary to keep afloat the user of said life jacket without exerting circumferential stress on said inner layer.

2,842,784
BRIDGES
Rodman Digby-Smith, South Woodford, and Ralph Alan Sefton-Jenkins, London, England, assignors to Engineering & Industrial Exports Limited, London, England, a British company
Application June 22, 1953, Serial No. 363,172
4 Claims. (Cl. 14—6)



1. In a bridge of the type formed of standardized sections assembled to constitute a braced girder structure including articulated upper and lower structural members vertically spaced from each other by web members and having fixed anchorages adjacent the ends of said lower chord members; the invention comprising auxiliary tension members extending below said lower chord members and connected intermediate said fixed anchorages, struts depending from said girder structure at junctions between adjacent sections and provided with a series of apertures selectively receiving the tension members at various distances below the lower chord members, and means tensioning said auxiliary tension members to exert an upward component on the girder structure to compress the lower chord member and to tension the upper chord member.

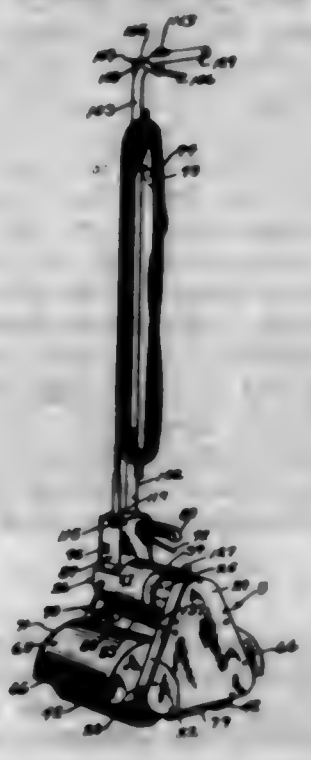
2,842,787
LOADING RAMP
George C. Murray, Essexville, and Frederick T. Stixrud, Pinconning, Mich., assignors to Maglia Inc., Pinconning, Mich.
Application October 24, 1955, Serial No. 542,322
1 Claim. (Cl. 14—72)

A loading ramp comprising: a longitudinally disposed floor including a front and rear end having raised curbs on the side edges thereof; a mounting block pivotally mounted on each side curb for swinging movement in a vertical plane; a slide bearing surface on each mounting block; a creep restraining drop lock member terminating in a free end having a portion for hooking over the edge of a loading dock slidably received by the said bearing surface on each block for sliding movement longitudinally in a forward and rearward direction to provide a pair of independent drop lock members which can be moved to different relative positions of extension so that the free end of each may be in engagement with a dock having an uneven front wall; a latch for each drop lock member



having one end supported on the mounting block for the drop lock member and pivotally movable therewith, said latch having an aperture for receiving said drop lock member and being movable on the mounting block from a position in which the marginal edge of the aperture is substantially out of engagement with said drop lock member and does not restrict free sliding movement thereof in said bearing surface to a position in which the marginal edge of the aperture is in movement restricting engagement with said drop lock member; and keeper means exerting a force normally maintaining said latch in said latter position.

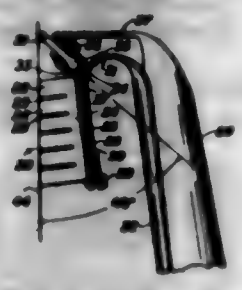
2,842,788
CARPET SCRUBBING MACHINE
Harry D. Rench, Herbert W. Harris, and Harold M. Kelm, Racine, and Loren R. Mamie, Kenosha, Wis., assignors to Racine Industrial Plant, Inc., Racine, Wis., a corporation of Wisconsin
Application January 27, 1956, Serial No. 561,756
11 Claims. (Cl. 15—48)



11. A carpet scrubbing machine comprising a pair of identical units, each of said units including a frame, a pair of horizontally disposed scrubbing brushes rotatably mounted on the frame for direct engagement with the carpet being scrubbed, an electric motor on the frame, means for simultaneously rotating the brushes from the motor, an elongated manipulating handle on the frame, said units being positioned side by side with the brushes of one unit in parallel relation to the brushes of the other unit, and means locking the units together for

simultaneous operation, and said locking means including means for connecting the frames together and the handles together.

2,842,789
COMBINED SPONGE AND SQUEEGEE WITH DUPLEX CONTROL MEANS
Bert Wells, Salt Lake City, Utah
Application January 25, 1954, Serial No. 405,849
3 Claims. (Cl. 15—121)



2. A window cleaning tool, comprising an elongate backing plate; sponge material substantially coextensive with and secured to one face of said backing plate, so as to present a broad working face; an elongate, squeegee-receiving bracket substantially coextensive lengthwise with said backing plate and extending along one longitudinal margin thereof, said bracket projecting from said one face of the backing plate at an acute angle relative to the said working face of the sponge, so as to define a channel between bracket and sponge; an elongate squeegee substantially coextensive lengthwise with said backing plate, sponge, and bracket; means securing the squeegee to said bracket with its working edge lying approximately in a plane in common with the said working face of the sponge; an elongate handle spaced apart from the opposite face of said backing plate and extending transversely thereof and approximately parallel therewith in a direction away from said squeegee; and cantilever means securing said handle to said backing plate.

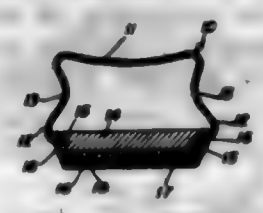
2,842,790
MOLDED PLASTIC STICK FOR A SWAB
Charles Castelli, New Brunswick, N. J., assignor to Johnson & Johnson, a corporation of New Jersey
Application June 1, 1954, Serial No. 433,398
5 Claims. (Cl. 15—143)



1. A molded plastic stick comprising a barbed end portion adapted to secure a fibrous swab, the longitudinally sidewise edge faces of the barbs inclining radially inwardly toward the longitudinal axis of said stick, the barbed area of said fiber-retaining end being not greater than 20% of the total area of said end.

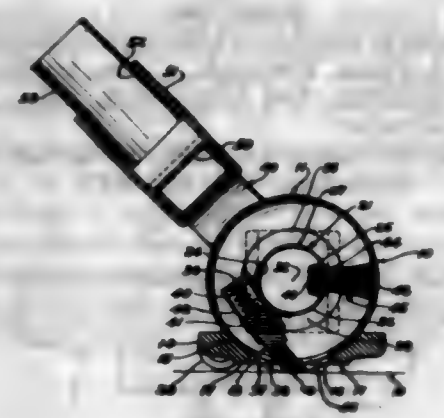
2,842,791
BLACKBOARD ERASER
Lowell Statler, Bellevue, Ohio, assignor of one-third to The Joseph Dixon Crucible Company (American Crayon Company Division), Jersey City, N. J., a corporation of New Jersey
Application October 3, 1956, Serial No. 613,666
1 Claim. (Cl. 15—209)

A blackboard eraser comprising a hollow base embodying a rectangular portion, said base further including a pair of opposed spaced apart side portions provided with recesses so as to define hand gripping portions, a first layer of yieldable material arranged contiguous to said base and operatively secured thereto, a second layer of material extending along the outer surface of said first layer of material and secured thereto, said first layer of material being sponge rubber, said second layer of material being leather and said second layer of material



being provided with a great number of minute spaced apart pores therein which are arranged closely adjacent to each other, said pores extending all the way through the second layer of material so as to create a spongy structure having a roughened working surface.

2,842,792
SURFACE CLEANING TOOL WITH PRESSURE AND FLOATING BRUSHES
Curtis C. Coons, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application May 3, 1955, Serial No. 505,691
9 Claims. (Cl. 15—355)

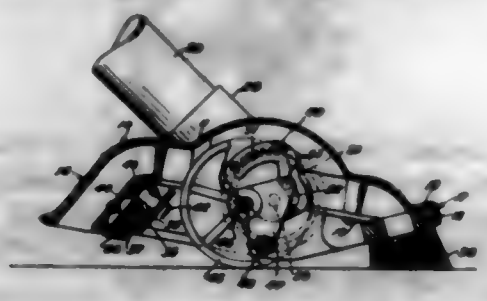


1. A suction cleaning tool comprising a body having a nozzle mouth for entrance of dirt laden air removed from a surface being cleaned, a surface engageable brush associated with said nozzle, a propelling handle connected to said brush, means mounting said brush and handle on said body for rotation about an axis as a unit relative to said nozzle mouth, supporting wheels, means mounting said wheels on said handle eccentrically with respect to said rotatable axis for displacement with respect to said nozzle mouth for selective engagement with the surface to be cleaned, said wheels being so mounted with respect to said brush that movement of said handle relative to said body to one position arranges said brush for engagement with the surface to be cleaned and said wheels out of contact with said surface to transmit the force applied to said handle directly to said brush and thus said surface, and said eccentric wheel mounting so arranged with respect to said rotatable axis that movement of said handle to another position shifts said wheels into contact with said surface to transmit the force applied to said handle directly to said wheels.

2,842,793
SUCTION CLEANING TOOL WITH FLOATING AND PRESSURE NOZZLE
Claud C. Hurd, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application May 3, 1955, Serial No. 505,692
10 Claims. (Cl. 15—359)

9. A cleaning tool for use with a suction cleaner comprising a body having spaced surface cleaning nozzles, body supporting wheels, a propelling handle, mecha-

nism attaching said handle and said wheels to said body for movement relative to each other and including means connecting said handle and a supporting wheel and shifted to different operating positions relative to said supporting wheel by movement of said handle between two angularly separated propelling positions for arranging the handle axis in offset relation to the wheel axis



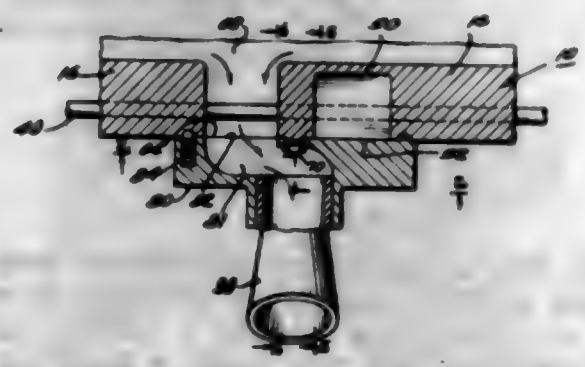
when said handle is in one of its positions to transmit the propelling force then applied to said handle to one of said cleaning nozzles, and for positioning said wheel axis and handle axis coaxial in the other of said handle position to transmit the handle propelling forces to said wheel axis whereby the other of said nozzles floats with respect to the surface being cleaned.

2,842,794

TAPERED MULTI-PURPOSE NOZZLE

Gustaf Elmar Lofgren, Riverside, Conn., assignor to Electrolux Corporation, Old Greenwich, Conn., a corporation of Delaware

Application November 12, 1954, Serial No. 468,245
2 Claims. (Cl. 15—417)



1. In a vacuum cleaner tool, a member formed with dissimilar suction nozzles on opposite faces thereof, a separate passageway leading through said member for each suction nozzle and terminating in separate horizontally elongated openings arranged end to end in substantial alignment in a rear face of said member, a valve structure rotatably mounted externally on said rear face of said member at a point intermediate said separate openings and formed with a horizontally elongated valve port on one side capable upon rotation of said nozzle to be placed in registry with one of said separate openings and capable upon further rotation of said nozzle through 180° to be placed in registry with the other of said separate openings.

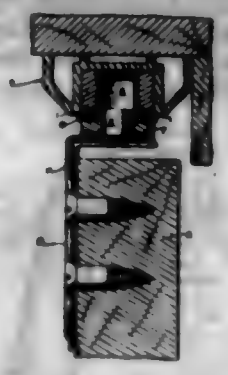
2,842,795

ADJUSTABLE PIVOT FOR DOOR TRACK

Henry L. Majeske, Coral Gables, Fla., assignor to American Screen Products Company, Miami, Fla., a corporation of Florida

Application December 28, 1956, Serial No. 631,262
1 Claim. (Cl. 16—130)

A vertical axis pivot anchor for a door having a horizontal edge thereof disposed adjacent a horizontal track including a pair of horizontally aligned flanges having spaced free edges and a longitudinal slot disposed outwardly of said flanges relative to said edge of the door; comprising an internally threaded nut slidably and nonrotatably supported in said slot and bearing on said flanges, a hanger secured to said door and comprising a horizontal arm disposed between said door edge and said flanges, a cylindrical vertical axis pivot stud supported on said arm, a tubular externally threaded sleeve receiving said pivot stud and having one end thereof adjustably supported within said nut, said sleeve having a polygonally shaped tool engageable head on its opposite



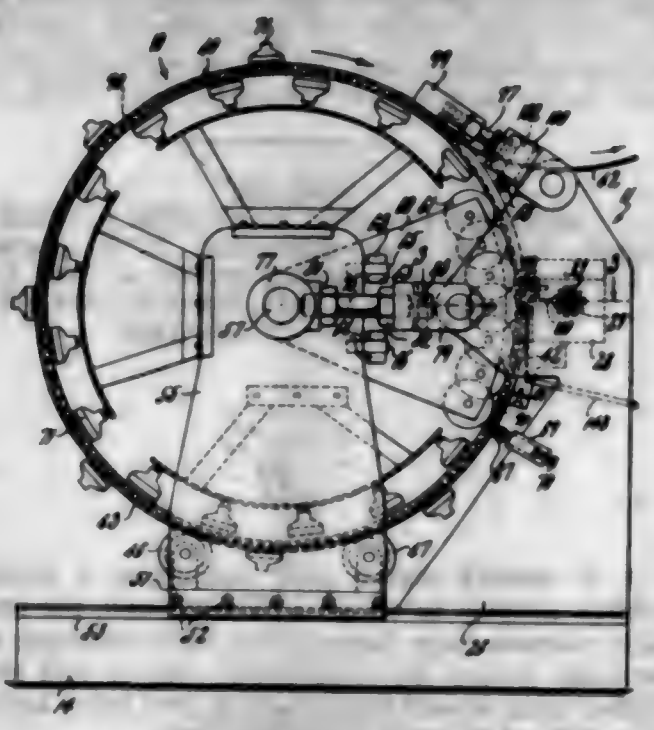
end disposed between said arm and said flanges, and a lock washer encircling said sleeve and disposed between said head and said flanges, whereby the pivot anchor is slidably adjustable longitudinally of the track upon slight retraction of said sleeve from said nut and is secured to the track in adjusted position against movement longitudinally thereof upon threading said sleeve into said nut.

2,842,796

RUBBER SHAPING AND VULCANIZING APPARATUS

Thomas J. Rhoden, Clifton, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

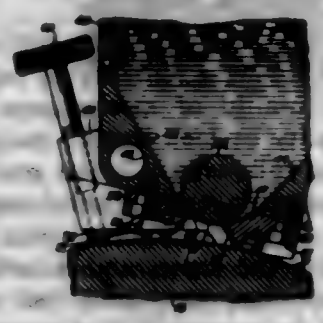
Application August 31, 1954, Serial No. 453,321
3 Claims. (Cl. 18—12)



2. A machine for continuously forming and vulcanizing a sheet of rubber comprising an extruding device for shaping raw vulcanizable rubber stock into the shape of the desired sheet, a rotary drum mounted in confining engagement with said extruding device so that the extruded sheet passes immediately into contact with the outer peripheral surface of the drum, a confining band rigidly fixed at one end to the extruding device and extending around outside the drum for a major portion of the circumference thereof, thereby defining between the band and the drum a circumferential cavity of constant thickness around which the rubber sheet passes under the influence of pressure exerted within the extruding device, means located at the extruding device for introducing a thin film of lubricant between the inner surface of the band and the adjacent surface of the rubber sheet,

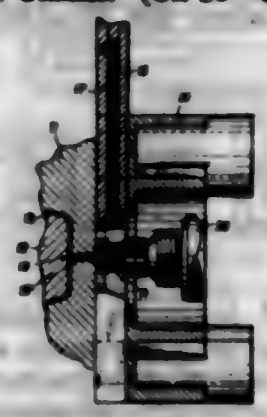
whereby the rubber sheet slides with respect to the surface of the band without disruption, means for heating the rubber within said circumferential cavity to vulcanizing temperatures and tension means connected to the other end of said confining band for urging it against the rubber at a definite pressure while the rubber is being vulcanized.

2,842,797
FILM FORMING DEVICE
Robert Paull Scherer, Grosse Pointe, Mich., assignor to R. P. Scherer Corporation, Detroit, Mich., a corporation of Michigan
Application January 16, 1956, Serial No. 559,175
7 Claims. (Cl. 18—15)



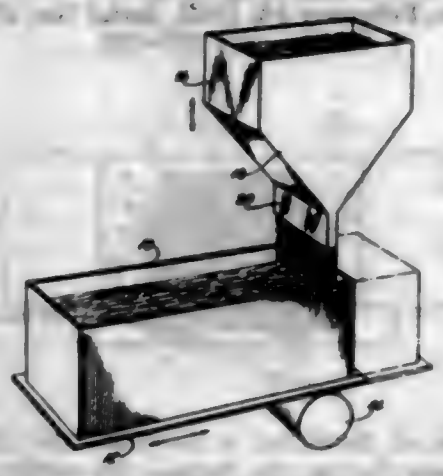
1. A device for forming films from viscous liquids comprising a hopper adapted to ride on the deposition surface of a drum with its bottom spaced therefrom; a longitudinally-extending slot having two parallel edges through said bottom of the hopper; a roll mounted within said hopper adjacent said edges for rotation in the direction of flow through said slot, one of said edges being spaced from said roll to form a gap through which a film of viscous liquid is discharged, the rate of rotation of said roll being variable to control the volume of liquid discharged, the other of said edges forming a stripping blade for removing the film from said roll to the deposition surface of said drum, and a doctor blade spaced above said deposition surface to level the deposited film.

2,842,798
INJECTION MOLDING DEVICE FOR THERMOPLASTIC MATERIALS
Ernst Paschold, Schwelm, Westphalia, Germany, assignor to Gerdes & Co., Schwelm, Westphalia, Germany, a corporation of Germany
Application January 29, 1957, Serial No. 636,907
Claims priority, application Germany February 18, 1956
4 Claims. (Cl. 18—30)



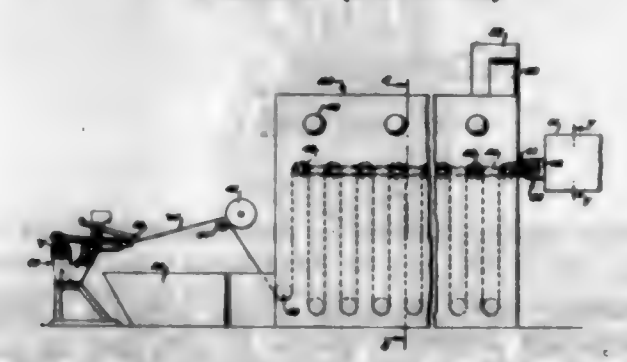
1. In an injection molding device for thermoplastic materials, an injection member having a nozzle on one end, a mold including an injection part having a recess adapted to form a sprue the base of which is disposed opposite said nozzle and said injection part having a needle-thin channel connecting the apex of said sprue with said mold, said nozzle being axially movable relative to said injection part, and an ejector disposed between said injection part and said nozzle when the latter is in its withdrawn inoperative position, and means for moving said ejector in front of the mouth of said nozzle, in order to shear off by means of said ejector said sprue and to close the mouth of said nozzle in the inoperative position of the latter.

2,842,799
METHOD OF PRODUCING ARTIFICIAL SPONGES
Alfred Pelitzer, Cleveland, Ohio
Application March 3, 1955, Serial No. 491,832
7 Claims. (Cl. 18—48)



1. The improved method of producing a fiber reinforced regenerated cellulose sponge material characterized by a substantially uniform unidirectional orientation of said fibers comprising the steps of extruding a ribbon of a fluid mixture of viscose and reinforcing fibers and a pore forming material, depositing superimposed layers of said ribbons in intimate interfacial contact and effecting the coagulation of said viscose and the regeneration of the cellulose therein into an integral body of sponge material slicing said sponge material along a plane parallel to the faces of said integrated ribbons forming said sponge material.

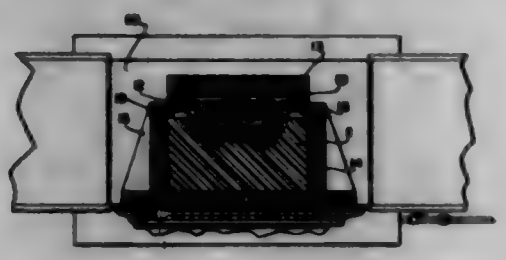
2,842,800
PROCESS FOR CONTINUOUS DRYING, WASHING, AND CUTTING OF VINYL SHEETING
Carl J. Cochran, New Kensington, Pa., assignor to Pittsburgh Plate Glass Company, a corporation of Pennsylvania
Original application September 10, 1954, Serial No. 455,299, now Patent No. 2,753,592, dated July 10, 1956. Divided and this application February 15, 1956, Serial No. 565,720
5 Claims. (Cl. 18—48)



1. The method of continuously preparing vinyl insert sheets for safety glass from a vinyl web which comprises the steps of feeding the web from a roll of vinyl stock to a drying zone, drying the web to remove moisture and traces of volatile material, cooling the web after it has been heated and dried, next washing the web in a warm bath of softened water to soften the same and remove traces of chemical deposits on the web, rinsing the web with cold softened water, stripping the web of liquid to dry the same, conveying the web while subjecting it to heat to remove moisture and to relax it from any stretching occurring to same in its prior treatments, applying air

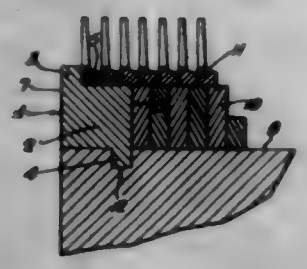
blasts to the web to remove further moisture and to straighten the web as it is being conveyed, and conveying the web through a cold zone to chill and set the web before cutting.

2,842,861
METHOD OF REPAIRING THERMOPLASTIC DIES
George J. Walkey, Burbank, and Clifton P. McGregor, North Hollywood, Calif., assignors to Lockheed Aircraft Corporation, Burbank, Calif.
Application February 14, 1952, Serial No. 273,122
1 Claim. (Cl. 18—59)



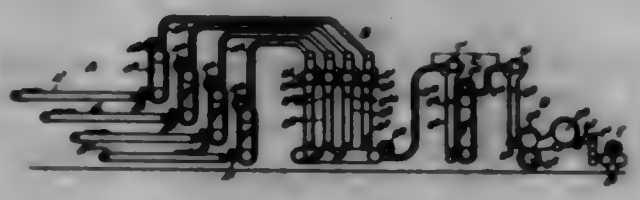
The method of repairing a thermoplastic female die which comprises placing the female die within a female die retainer to form a female die assembly, adding additional liquid plastic of the same material as that of the female die to the upper surface of said female die, inserting a male die assembly into said female die retainer and in contact with said upper surface of the female die and the additional liquid material, allowing the weight of said male die assembly to exert a constant downward pressure upon the entire body of the plastic in the female die retainer including the additional liquid plastic, raising the temperature of the die assemblies to but not above the lower limit of the melting point range of the thermoplastic material and maintaining said temperature and pressure until the entire female die is in a semi-liquid condition, removing said male die assembly from said female die assembly, and air cooling said female die to set and harden said female die.

2,842,862
END WIRES
John D. Hollingsworth, Greenville, S. C.
Application January 9, 1956, Serial No. 557,904
4 Claims. (Cl. 19—112)



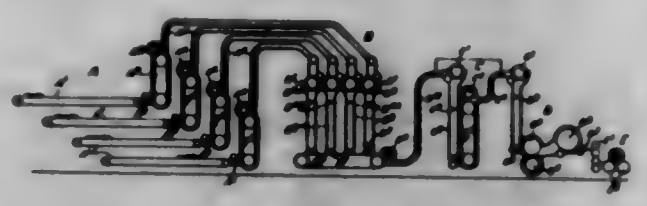
1. A carding roll comprising a base cylinder having a circumferential peripheral groove at each end, an end wire at each end of the cylinder having an annular midsection seated on the peripheral surface of the cylinder and an integral radial flange projecting into the proximate groove in said surface, said end wire having also an outer circumferential integral flange projecting radially from and embracing said midsection, a foundation wire wound in helical convolutions on the base cylinder between said end wires and forming a cylindrical surface for reception of metallic card clothing and of lesser diameter than the outer periphery of the last-named flange, and a toothed wire wound in helical convolutions on said cylindrical surface between and confined between said outer flanges.

2,842,863
PREPARATION OF BLENDED FIBROUS MATERIALS
William Aldred Hunter, Stansfill, Accrington, and Frank Singleton, Accrington, England, assignors to T. M. M. (Research) Limited, Oldham, Lancashire, England
Application April 15, 1954, Serial No. 423,388
6 Claims. (Cl. 19—146)



1. In apparatus for preparing for processing textile fibrous material comprising a plurality of ingredients, the combination of a plurality of mechanisms for opening the material, a plurality of feed trunks, each said mechanism comprising the following, viz. an endless feed lattice adapted to receive a layer of fibrous material, means for progressing the same, an endless spiked lattice with means for progressing the same, and a roller and pedal feed mechanism positioned to receive the material from said first lattice and to present it at a controlled rate to the spikes of said spiked lattice, means for delivering the opened material from said spiked lattices to said feed trunks, means for discharging the contents of each trunk in sheet formation, means for controlling the rate of such discharge from each trunk, a conveyor, means for progressing the same past the discharge points of said trunks successively, means carried by said conveyor for detaching material in finely divided form from the emergent fringe of ingredient from each trunk, in turn, and receiving the same superposed upon each other upon said conveyor, means for removing such material from said conveyor at a point beyond the discharge point of the last of said trunks, further fibre opening means, and means for delivering thereto the material removed from said conveyor.

2,842,864
PREPARATION OF BLENDED FIBROUS MATERIALS
William Aldred Hunter and Frank Singleton, Accrington, England, assignors to T. M. M. (Research) Limited, Oldham, England
Original application April 15, 1954, Serial No. 423,388. Divided and this application June 27, 1955, Serial No. 518,362
11 Claims. (Cl. 19—146)

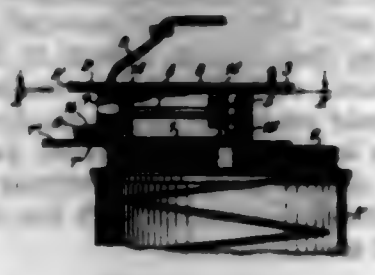


1. The method of producing blended textile fibrous materials which comprises a continuous sequence of steps of subjecting a plurality of different ingredient materials to separate opening operations, adjusting such operations so as to give all the opened materials substantially the same degree of openness, forwarding the opened materials simultaneously to a plurality of separate stations, there stacking each material in conditions of substantially controlled density and compacting it into the form of a loose sheet, feeding the material from said stations at speeds proportional to the proportions of the different materials desired in the blend, finely dividing the material of each sheet, and continuously superposing the finely divided materials from the different stations one upon another.

2,842,905
ARRANGEMENT FOR DEPOSITING SLIVER IN SLIVER CANS

Johann Kaiser, Waldshut, Baden, Germany, assignor to Chr. Mann, Maschinenfabrik, Waldshut, Baden, Germany

Application March 4, 1955, Serial No. 492,200
Claims priority, application Germany May 9, 1954
1 Claim. (Cl. 19—159)

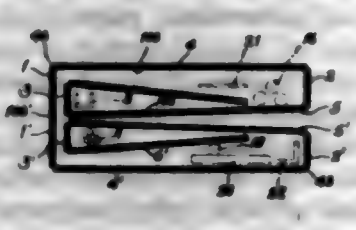


An arrangement for depositing sliver in a sliver can, which comprises in combination: a hollow rotatable member, power transmitting means drivingly connected to said hollow member for rotating the same, two delivery rollers arranged for cooperation with each other for feeding sliver into said can, said delivery rollers being supported by said rotatable member for rotation about the axis of rotation of said rotatable member, two shafts respectively arranged within said rotatable member and rotatable about the longitudinal axis thereof, said shafts being drivingly connected to said delivery rollers for rotating the same about the extension of the longitudinal axes of said shafts, movable bearing means supporting one of said shafts, one of said bearing means being rotatable and the other of said bearing means being displaceable in horizontal direction, and means drivingly connected with at least one of said shafts and arranged to rotate the same about the longitudinal axis thereof in response to the rotation of said rotatable member about the axis of rotation thereof.

2,842,906
FOLDING CABIN FOR CAMPING PURPOSES

Emilio Tornasini, Rome, Italy

Application March 15, 1955, Serial No. 494,389
7 Claims. (Cl. 20—2)

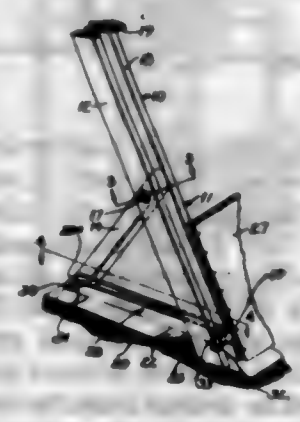


1. A demountable cabin for camping purposes comprising a plurality of foldable units at least one to form the roof, at least one to form the walls, and at least one to form the floor of the cabin, each unit including a plurality of rigid panels and a continuous waterproof and flexible cover, said panels of each unit adhering to said cover of said unit and abutting one another edgewise, said flexible cover constituting an outermost skin-like layer of the cabin when assembled, a demountable cage-like metallic frame for interiorly reinforcing said cabin, said frame comprising vertical posts, connecting pieces adapted to be secured to said posts and including horizontally halved sleeves, and horizontal cage members releasably secured in said sleeves, and a plurality of upright strip-like members, attachable to the assembled cabin on the outside thereof along lines where on the cabin inside pairs of adjacent panels abut one another.

2,842,907
JACK FRAMES AND STORAGE BIN CONSTRUCTION

Robert H. Camp, Chattaroy, and Lawrence A. Ogle, Spokane, Wash., assignors to R. and B. Manufacturing Company, Inc., Spokane, Wash., a corporation of Washington

Application April 18, 1955, Serial No. 502,849
6 Claims. (Cl. 20—1.2)

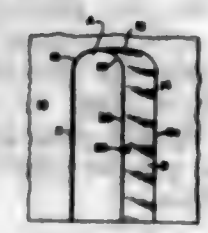


1. In a storage bin wall, a jack frame having a front leg extending upwardly at a rearward angle; said leg comprising a pair of parallel leg members spaced from each other; a bracing leg having its upper end disposed intermediate said front leg members and secured thereto and extending downwardly at a rearward incline and terminating rearwardly of the upper end of said front leg; a yoke secured to said bracing leg at its lower end and extending forwardly intermediate said spaced leg members; and a crosshead carried by said yoke and disposed in front of said front leg members at their lower ends, whereby to preclude spreading movement of the lower ends of said front leg and said bracing leg.

2,842,908
ARCHED DOORWAY AND DOOR

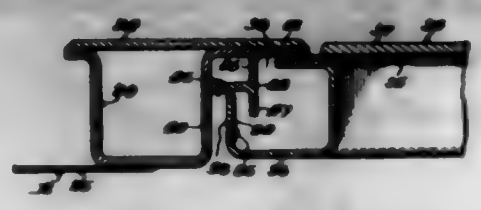
Ervin E. Kuhnke, Holyoke, Colo.

Application December 20, 1955, Serial No. 554,180
2 Claims. (Cl. 20—19)



1. In combination with an arched doorway opening in a wall, having a solid jamb at one side of the opening, a slotted jamb at the other side, a slotted full symmetrical arch above the jambs and an extended wall pocket in the wall at the slotted jamb and at each side of and above the arch, track means above the opening in said pocket, a door slab wider and taller than said opening within the pocket slidably carried upon the track means and adapted to lie completely within the pocket at the side of the slotted jamb with an edge of the slab flush to the jamb when the doorway is open and adapted to move across the opening to abut said edge against the solid jamb when the doorway is closed, an arm outstanding from the slab over said edge having its underside symmetrically configurated to the form of said arch and adapted to lie flush with the arch slot to fill the slot when the doorway is open and extend into the wall pocket when the doorway is closed.

2,842,809
LATERALLY MOVABLE DOOR ARRANGEMENT
William R. Shaver, Highland, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application December 23, 1952, Serial No. 327,469
7 Claims. (Cl. 20—26)



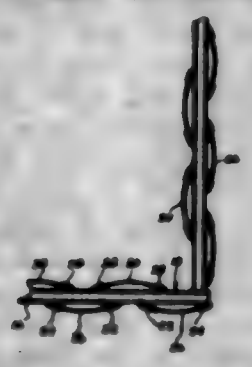
1. In a railway freight car, a wall having a door opening, a channel structure positioned at one edge of the door opening and facing toward the outside of the car and secured to the car, a door positioned over the door opening and movable transversely of and toward the car and transversely of and away from the car, a flange secured to one edge of the door and extending toward the car, and a resilient element secured to the flange, the flange being adapted to project into the channel structure and the resilient element being adapted to abut the bottom of the channel structure when the door is moved transversely of and toward the car to closed position.

2,842,810
SASHLESS WINDOW STRUCTURE
Ambrose Joseph Gangl, Edmonton, Alberta, Canada
Application July 11, 1955, Serial No. 521,293
2 Claims. (Cl. 20—52)



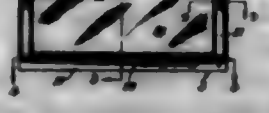
1. In a sashless window having a window frame with a first groove in the frame arranged to receive a stationary window pane and a second groove arranged to receive a movable window pane in partially overlapped relationship with the said stationary window pane when in the closed position, an angular bottom in the said second groove sloping toward the stationary window pane and adapted to maintain the said partially overlapped portions tightly together, a third groove alongside the said first groove, a ridge between the said first and third grooves terminating in a point in the second groove to deflect the movable window pane into the third groove when the said movable window pane is moved from the closed to the open position.

2,842,811
SELF-LOCKING METAL AWNING ASSEMBLY
James D. Weeks, Shreveport, La.
Application April 29, 1955, Serial No. 504,841
4 Claims. (Cl. 20—57.5)



1. In a frame-and-slat assembly for a ventilated awning, a frame member formed with flat opposite surfaces, said member including ears struck outwardly from said surfaces out of the material of the member, the ears struck from each surface being arranged in pairs with the ears of each pair confronting each other, the ears of each pair being flat and lying substantially in planes that are at a small acute angle to the planes of the surfaces from which the ears are struck and that intersect the latter planes along lines normal to the length of the frame member, the angles formed between the member and the ears of each pair defining narrow, wedge-shaped spaces opening toward each other; and transversely flexible, resilient slats having their lengths normal to the length of the frame member, each slat being resiliently bowed transversely thereof outwardly from the frame member with the opposite longitudinal edges of the slat engaged in said spaces, the ears of each pair overlying the slat engaged thereby, in flatwise contact with the slat over substantially the full area of the ears.

2,842,812
ALUMINUM AWNING WINDOW
Nathan C. Walberg, Coral Gables, and William A. Di Miscio, Miami, Fla.
Application April 21, 1954, Serial No. 424,626
4 Claims. (Cl. 20—62)



4. The combination, in an awning window, of a rectangular frame including two open front vertical jambs each having longitudinally extending channel, such channels opening toward each other, a sash, a pair of hinges secured to opposite sides of said sash, a pair of oppositely positioned vertically movable slide bars in said jambs and to which said hinges have pivotal connection to swing about a horizontal axis, means for supporting and to effect reciprocating movement of said bars, means to open and close said sash simultaneously with the down and up movement, respectively, of said bars comprising a pair of links pivoted to opposite sides of said sash and to a pair of fixed members adjustably secured to said jambs, and vertically spaced rollers on said slide bars and movable in said channels, said rollers providing a guide and lateral thrust sustaining means for the bars, with one of said rollers mounted on the pivotal connection of said hinge to sustain the lateral thrust at any angular position of the sash, each of said fixed members being a two-arm lever to one arm of which the corresponding one of said sash, closing and opening links is pivoted, the other arm being adjustably secured to one of said jambs.

2,842,813
STAIR COVERING CONSTRUCTION
Leonard M. Van Fleet, Los Angeles, Calif.
Application April 15, 1953, Serial No. 349,035
3 Claims. (Cl. 20—79)

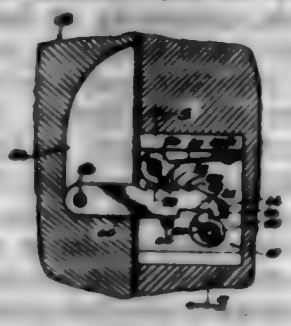
3. A floor covering construction for the step of a wooden stairway, comprising an upright riser and a horizontal tread attached to step support members, the upper end of said riser being adjacent the lower surface of said tread to form a step corner with an overhang portion, a felt pad overlapping said corner and extending to cover the portion of the step between the position nearest the corner at which both the riser and tread are attached to

said support members, a layer of sheet material positioned over said riser and tread and covering said pad, a wire screen positioned over said sheet material and secured to said riser and tread for preventing movement of said pad with respect thereto, said wire screen being bent around said overhang portion to position said pad around said overhang portion, and a layer of magnesite cement cover-



ing said sheet material and wire screen to form the surface of said construction, said felt pad separating said magnesite cement from the end of said overhang portion, from the upper surface of said tread vertically above the upper end of said riser and from the upper surface of said riser in order to prevent cracking of said magnesite cement upon warping or change in dimension of either the riser or tread.

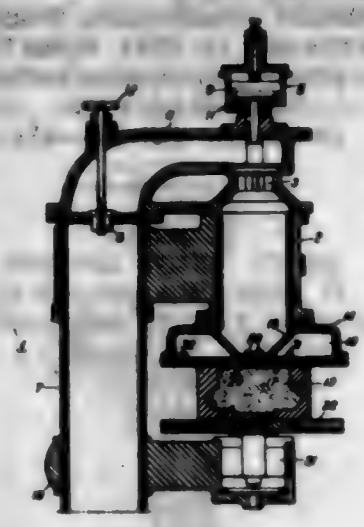
2,842,814
CLAMP
Erik A. Lindgren, Chicago, Ill.
Application August 15, 1955, Serial No. 528,489
11 Claims. (Cl. 20—92)



1. In a screen room for electric and radio wave attenuation comprising a plurality of screening sections each having a rectangular frame and a metallic screen secured to either side of said frame in electrically spaced relation, a clamp for securing two of said sections together in abutting relation along corresponding side portions of their respective frames for continuous electrical contact between respective screen portions of said frames comprising an elongated rack secured to one of said side portions having a contoured portion formed thereon, a member journalled to the other of said side portions and having a shoulder adapted to engage said contoured portion of said rack when said side portions are moved into contiguous parallel relation and to draw said side portions and said frames into tightly abutting relation when said cam is turned to place said rack under tension force and detent means adapted to engage with said rack to maintain said tension force thereon.

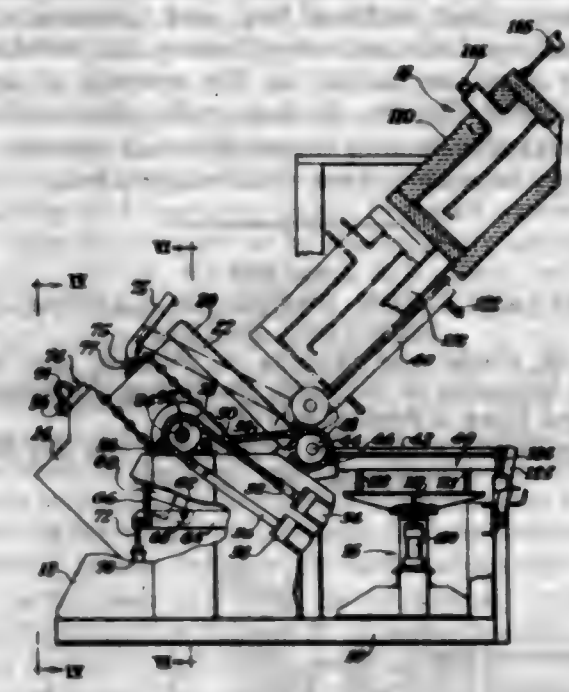
2,842,815
MACHINE FOR INJECTING SAND INTO CORE MOLDS
Richard E. Ackley, Fond du Lac, Wis., assignor to Kleinhefer Corporation, Cedarburg, Wis., a corporation of Wisconsin
Application May 11, 1956, Serial No. 584,286
5 Claims. (Cl. 22—10)

1. In a core blowing machine, the combination of: a pressure source, a sand chamber having an inlet opening disposed at the upper end thereof and having an outlet opening disposed at the bottom end thereof, means disposed adjacent said inlet opening for controlling the admission of pressure from said pressure source to said



sand chamber, and an inverted substantially U-shaped tube disposed within said sand chamber and having one leg connected to said outlet opening, and having a second leg of shorter length than said one leg.

2,842,816
MOLD FORMING APPARATUS
Ralph P. Davis, Squantum, Mass., assignor to Walworth Company, Boston, Mass., a corporation of Massachusetts
Application April 30, 1954, Serial No. 426,661
13 Claims. (Cl. 22—32)



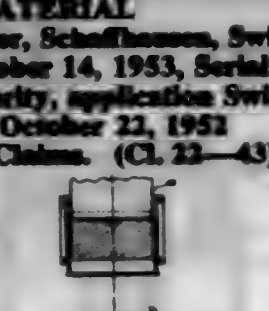
1. Mold forming apparatus comprising support means, a hopper for mold forming material pivotally mounted on said support means and having a discharge opening at one end thereof, means for oscillating said hopper about said pivot through a predetermined range of angular positions, pattern support means pivotally mounted on the hopper to swing into and out of engagement with said one end as the hopper oscillates, actuating means for moving said pattern support means relative to said hopper to swing it into and out of engagement with the hopper while said hopper is moving through one portion of said range, said actuating means for the pattern support being responsive to the means for oscillating the hopper, and means for rendering said actuating means ineffective while said hopper is moving through another portion of said range.

2,842,817

METHOD AND MEANS FOR THE MECHANICAL PREPARATION OF MOLDS FROM COMPRESSED GRANULAR MATERIAL

Erwin Bührer, Schaffhausen, Switzerland

Application October 14, 1953, Serial No. 385,999
Claims priority, application Switzerland October 22, 1952
10 Claims. (Cl. 22—43)



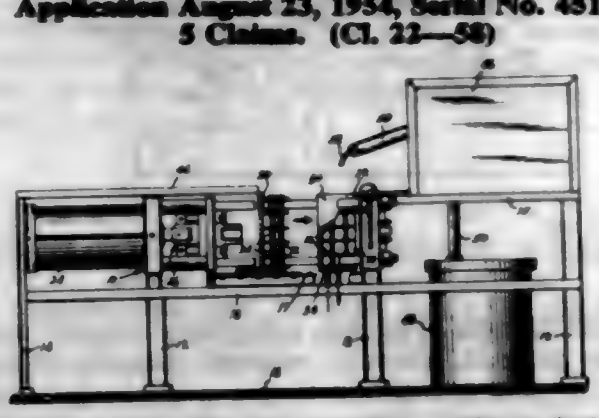
4. A machine for producing a mold made of molding sand comprising a pattern plate with a pattern thereon, a molding box on said pattern plate, a filling frame on said molding box and separable therefrom, means extending above said filling frame, said molding box, said filling frame and said extending means being adapted to enclose together a total quantity of molding sand composed of a predetermined excess quantity of molding sand and the quantity of molding sand required for the finished mold, means located below said pattern plate for imparting a jolting action to said total quantity of molding sand, said extending means including a plurality of operable means arranged for movement relative to each other for removing said excess quantity of sand from above said molding box, and pressure exerting means arranged for movement above said molding box to apply final compaction to the quantity of molding sand required for the finished mold after said filling frame and said extending means with said operable means have been separated from said molding box.

2,842,818

APPARATUS FOR PRESSURE CASTING OF PRINTING PLATES

Walter B. Cocks and Warren A. Dutton, Des Moines, Iowa, assignors to Meredith Publishing Company, Des Moines, Iowa, a corporation of Iowa

Application August 23, 1954, Serial No. 451,541
5 Claims. (Cl. 22—58)



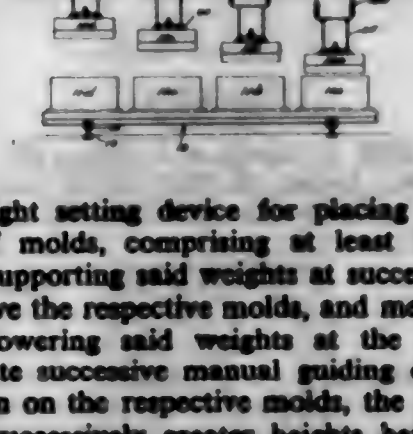
1. In an apparatus for pressure casting printing plates, a platen press having complementary convex and concave supporting surfaces, a male mold half comprising a curved plate having a marginal frame-like spacer, a female mold half comprising a complementary curved plate and adapted to carry a thin electrotype shell, said plates being separate from said supporting surfaces, said supporting surfaces comprising opposed parallel spaced ribs, the edges of which are accurately curved to insure the formation of an accurately curved mold cavity marginally enclosed by said spacer between said halves when said platens are closed and said edges are engaged with said plates, said spacer having a plurality of sharp parallel edges adapted to become embedded in the surface of said shell to seal said cavity, cooling means associated with said concave supporting surface for conducting heat from said cavity through the female mold half, a filler conduit communicating with said cavity, and means for applying fluid pressure on a casting in said cavity.

2,842,819

WEIGHT SETTING DEVICE

Axel G. Granath, Chicago, Ill., assignor to Herbert Simpson Corporation, Chicago, Ill., a corporation of Illinois

Application December 23, 1953, Serial No. 400,021
7 Claims. (Cl. 22—64)



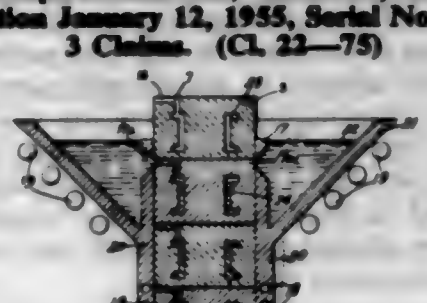
1. A weight setting device for placing weights on a plurality of molds, comprising at least three weights, means for supporting said weights at successively greater heights above the respective molds, and means for simultaneously lowering said weights at the same rate to accommodate successive manual guiding of the weights into position on the respective molds, the differences between the successively greater heights being substantial to establish a predetermined order in which the weights engage the molds and to provide a substantial time interval between engagement of each weight with its corresponding mold and the engagement of the next succeeding weight with its mold, whereby an operator may move from one weight to the next succeeding one in said predetermined order and position each weight in turn as the weights are lowered.

2,842,820

APPARATUS FOR CASTING METAL

Joseph B. Brennan, Cleveland, Ohio

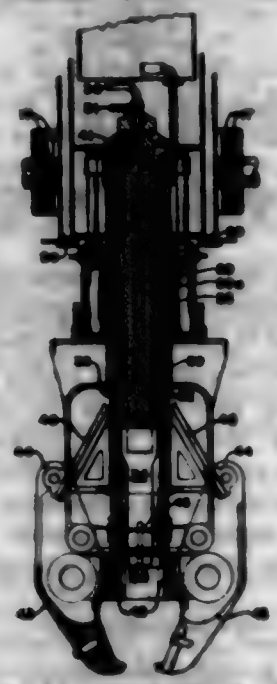
Application January 12, 1955, Serial No. 481,456
3 Claims. (Cl. 22—75)



1. A casting apparatus comprising a downwardly extending tubular mold guide, an adjoining downwardly extending cooling die below and aligned with said guide, a mold of substantially the same cross-section size and shape as said guide and die adapted to be moved downwardly through said guide for filling with molten material and through said die for cooling of said mold and solidification of the material therein, and a molten material supply crucible around said guide, said guide being formed with an opening through which molten

material flows from said crucible into said mold when the latter is disposed within said guide, said mold when thus disposed within said guide and when moved downwardly through said cooling die constituting a closure for said crucible.

2,842,821
INGOT STRIPPING AND STORAGE DEVICES
Robert J. Harry, Alliance, Ohio, assignor to The Alliance Machine Co., Alliance, Ohio, a corporation of Ohio
Application August 6, 1953, Serial No. 372,723
11 Claims. (Cl. 22—95)



4. In a mechanism for stripping ingots and the like having a track supported above an area where stripping and the like is to be carried out, movable bridge means movable along the track over said area, the improvement comprising carrier means on said bridge means movable thereon transversely to the track, hoisting means on the carrier means, frame means depending from the hoisting means and movable in the vertical direction thereby on guideways on the carrier means, vertically extensible means rotatably mounted in the frame means for rotation through 360° and movable vertically independently of the frame means, means for positively moving said vertically extensible means reciprocably in the vertical direction, means on the frame whereby the extensible means may be rotated, ram means on the extensible means movable therewith and holding means on the frame adapted to engage and hold an ingot mold against travel in the vertical direction.

2,842,822
COLLAPSIBLE UTILITY HOOK
William F. Bennett, Grapevine, Tex.
Application October 10, 1955, Serial No. 539,507
9 Claims. (Cl. 24—73)



5. As a new article of manufacture, an article suspending device comprising a first link, a second link pivoted at one end to the adjacent end of said first link for rotation into parallelism therewith, a first hook pivoted at one end to the opposite end of said first link, a second hook pivoted to the opposite end of said second link, said hooks and links being foldable into relative parallelism and means adjacent the pivotal connection between said links for restricting relative displacement thereof in folded and unfolded positions beyond predetermined limits.

2,842,823
SPRING WALL CLIPS
Sadye Kopelman, Flushing, N. Y.
Application November 23, 1955, Serial No. 548,627
2 Claims. (Cl. 24—73)

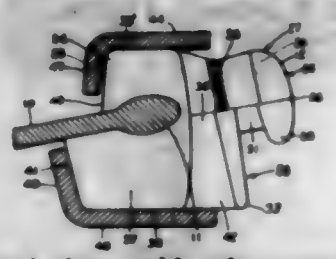


1. A clip comprising a pair of arms including a rear arm and a front arm said front arm being superimposed on the rear arm with the lower ends of both arms in a common horizontal plane and a coiled spring or any other type of spring positioned between said arms substantially intermediate the length of said front arm, said spring having deformed extensions from the ends thereof each embracing one of said arms and thereby retaining said arms together with said spring therebetween and pivotally joining the arms together with said spring serving as a pivot, said rear arm being elongated upwardly to provide an extension thereon above the upper end of said front arm, said extension having at least two spaced securing means for attaching said rear arm rigidly to a wall whereby two of said clips are adapted to be spaced apart horizontally and sheets such as, for example, bed sheets, and more particularly, at least, so-called contour sheets, may be easily and quickly folded after laundering, by first securing two corners of the sheet between the jaws of the spaced clips and the user then walking away from the wall with the opposite two corners held in the hands, to position the sheet in flattened out or extended position, and then upon walking back to the wall, the sheet may be neatly folded in the center by holding the two formerly distant corners against the two clip-held corners and releasing the latter from the clips, the preliminary steps thus completed, the further folding of the sheet is readily done, so that a finally folded sheet, neat in appearance and suitable in dimensions for storage in the linen closest, is attained.

2,842,824
SEPARABLE FASTENER WITH DUAL SIZE CENTER LEDGE SCOOPS
Louis H. Morin, Bronx, N. Y.
Application April 28, 1955, Serial No. 502,578
11 Claims. (Cl. 24—205.11)

1. In a separable fastener stringer comprising a beaded tape having metal scoops die cast thereon and spaced longitudinally along the beaded edge thereof, each scoop having a coupling end and a mounting end, each scoop comprising a pair of dissimilar longitudinal portions of different size, and wherein the dividing line between said scoop portions extends centrally, vertically and longitudinally of the scoop so that each scoop portion includes a coupling end part and a mounting end part, the improve-

ment wherein the mounting parts of both scoop portions of a scoop engage, and grip between them, both the bead and a portion of the tape inwardly of said bead, the engagement between said mounting end parts of said scoop and said beaded tape being enhanced by virtue of the extension of scoop metal into interstices of the beaded tape during the die casting of the scoop thereon, the mounting end part of one scoop portion of said scoop having a greater length, a greater width, and a greater thickness than the mounting end part of the other scoop portion, said one scoop portion by virtue of its greater length and width engaging a greater area of



the tape and bead than said other scoop portion, the coupling end part of said one scoop portion having, over a portion of the length thereof, a greater thickness than the coupling end part of said other scoop portion, said stringer on one side exhibiting uniformly sized scoop portions that are smaller than the scoop portions on the other stringer side, said smaller scoop portions providing said one side of the stringer with a daintier appearance than said other side, and the larger scoop portions on said other stringer side providing the stringer with a scoop-to-tape attachment strength substantially equivalent to that of a stringer whose scoops are uniformly equal in size to the size of said larger scoop portions.

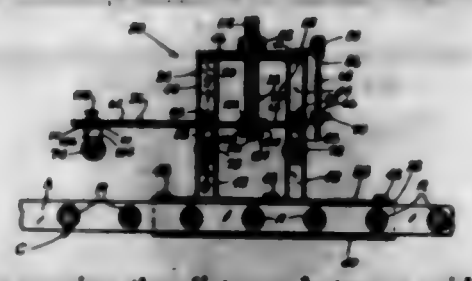
2,842,825
EAR WIRE
Ralph C. Bangs, Providence, R. I., assignor to Cero, Inc., a corporation of Rhode Island
Application March 15, 1954, Serial No. 416,037
3 Claims. (Cl. 24—252)



1. An ear wire construction comprising a substantially U-shaped body member having a pair of upwardly extending oppositely disposed sides interconnected by a bottom cross bar, one of said sides having a fixed ear lobe engaging abutment, the other of said sides comprising a fixed tubular post having a pair of spaced upstanding pivot ears at its upper extremity, a movable element pivotally mounted between said ears for movement to ear lobe clamping position with respect to said fixed abutment, said movable element having a cam edge eccentrically disposed with respect to its pivot axis, and spring means within said tubular post in engagement with said eccentric cam edge for resiliently maintaining said movable element in ear lobe clamping position.

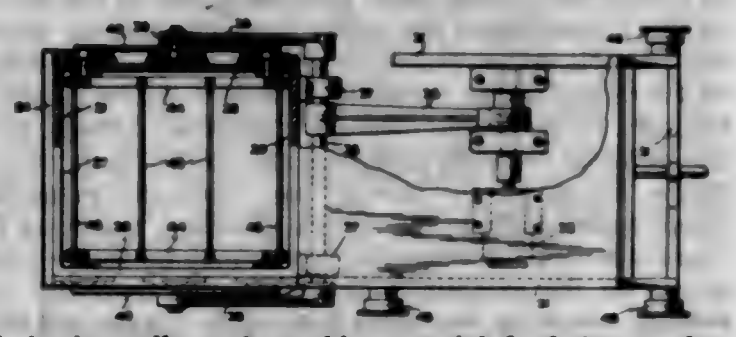
2,842,826
APPARATUS FOR USE IN MANUFACTURING PLASTIC FACED BUILDING UNITS
William G. Gittins, Ledue, Mo., assignor to Volz Concrete Materials Company, St. Louis, Mo., a corporation of Missouri
Application May 15, 1957, Serial No. 659,316
7 Claims. (Cl. 25—1)

1. Apparatus for use in manufacturing plastic faced building units comprising in combination: spaced angle supports for mounting the apparatus on the side rails of a roller type conveyor; a superstructure integrated with said supports comprising a pair of longitudinally spaced channel-shaped arch members connected at the top by a horizontally disposed plate member; a pressure indicating dial having depending actuator stem mounted on said plate member; a pressure equalizing assembly suspended from and slidably disposed within the superstructure, said assembly including a pair of longitudinally spaced transversely disposed presser rollers and an idler roller; manually operable means for maintaining the presser and idler rollers in co-planar disposition; manually operable



means for varying the distance between said rollers and the conveyor; a substructure integrated with one of the angle supports and depending therefrom along one side rail of the conveyor; a combined motor and speed reducer unit mounted on the base plate of the substructure; means for simultaneously driving said presser rollers in the same direction and at the same speed from the output shaft of said unit; and a vertically adjustable gauge bar carried by said pressure equalizing assembly for engaging the depending actuator stem of the pressure indicating dial aforesaid.

2,842,827
BLOCK FORMING MACHINE
Alison W. Nicholson, Petersburg, Va., assignor to The Richmond Foundry & Mfg. Co., Inc., Richmond, Va., a corporation of Virginia
Application January 14, 1955, Serial No. 481,875
1 Claim. (Cl. 25—103)



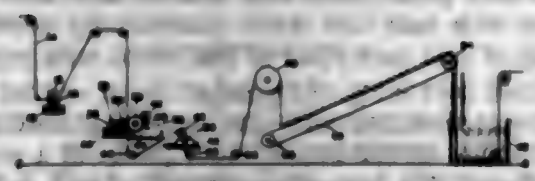
A horizontally reciprocable material feed drawer for block molding machines, comprising, front, rear, and side walls in rectangular configuration with their top and bottom edges occupying parallel planes, the drawer being open at the top and bottom, a rock shaft journalled on the rear wall exterior and projecting at each end outwardly from the plane of the adjacent side wall, an arm fixed on each end of said shaft and extending forwardly alongside the drawer with its front end in pivotal connection with a floating link disposed horizontally alongside the adjacent drawer side wall, the side walls having vertical slots therein in transverse alignment adjacent the ends of said links, a closure plate for and covering each slot at all times and vertically slidable on the adjacent drawer wall exterior, a pin fixedly secured to each plate and extending freely through the adjacent wall slot into the drawer, an open-work basket in the drawer comprised of horizontal side bars secured to the inner ends of said pins and mutually connected by a series of spaced parallel transverse rods, the major portions of said rods occupying a common horizontal plane below the horizontal median plane of the drawer, and means movable with the drawer to rock said shaft whereby to effect vertical linear reciprocation of said basket within the drawer.

2,842,828

TEXTILE FINISHING APPARATUS

Herman C. Allen, Saylesville, and William W. Russell, East Providence, R. I., assignors to Sayles Finishing Plants, Inc., Saylesville, R. I., a corporation of Rhode Island

Application February 23, 1955, Serial No. 490,076
5 Claims. (Cl. 26—18.5)



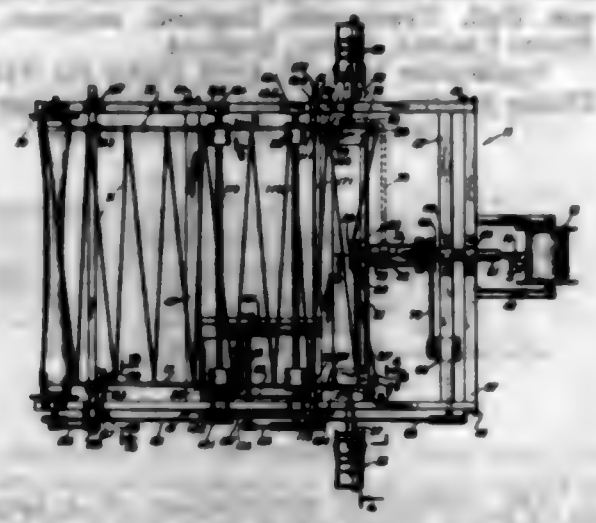
5. Apparatus for shrinking and crimping fabric in a continuous operation as it advances therethrough comprising means for applying a shrinking agent to spaced parallel stripes of the advancing fabric, means for crimping said advancing fabric with the lines of crimp extending transversely to said stripes, conveyor means for receiving said fabric from said crimping means and advancing it in slack condition to permit said shrinking agent to shrink said fabric in said spaced stripes and to develop cockles along the lines of crimp in the remaining unshrunken areas, and means for receiving said shrunken fabric from said conveyor means and for removing the shrinking agent therefrom.

2,842,829

MACHINE FOR MAKING VINE SUPPORTING NETS

Paul M. Buckles, Portland, Oreg.

Application November 28, 1955, Serial No. 549,234
5 Claims. (Cl. 28—1)



1. A machine for making vine supporting nets comprising means for feeding two flexible elements along in spaced parallel relation, means for wrapping a third flexible element around said two flexible elements from a fixed location to thus apply the third element in zig-zag fashion to said two elements, means for folding a binding tape in embracing fashion to each of said two elements after said third element has been wrapped thereabout, and means for effecting the securing of the folded portions of the tape together.

2,842,830

PROCESS FOR THE MANUFACTURE OF SELENIUM RECTIFIER

Otto J. Klein, Nurnberg, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application September 16, 1954
Serial No. 456,610
Claims priority, application Germany October 2, 1953
4 Claims. (Cl. 29—25.3)

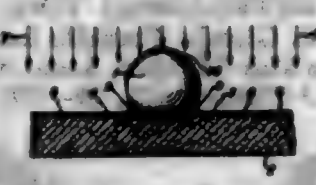
1. In the process of manufacturing a selenium rectifier the steps of applying a first counter electrode to the selenium, electro-forming the rectifier, melting the counter electrode on said selenium, removing the counter electrode and thereafter applying a porous second counter electrode.

2,842,831

MANUFACTURE OF SEMICONDUCTOR DEVICES

William G. Pfann, Far Hills, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 30, 1956, Serial No. 607,084
3 Claims. (Cl. 29—25.3)



1. A method of making closely spaced electrode contact to a body of semiconductor material comprising making a first electrode contact by placing on the said body a conducting material of such configuration that its cross-sectional area on a plane substantially parallel to, but not coincident with, the plane of juncture of the said first electrode and the said body is greater than that of the area of the said body contacted by the said first electrode, heating the area of juncture to at least the eutectic temperature of the semiconductor material of the body and an element contained in the said conducting material, and depositing a second electrode material on the surface of the said body to which first electrode contact is made from a source of such configuration and position that the junction of the first electrode and the body is concealed from the source by the first electrode, thereby resulting in an undeposited surface region surrounding the entire region common to the first electrode and the body.

2,842,832

APPARATUS FOR AND METHOD OF AUTOMATIC ASSEMBLY OF ELECTRON TUBE PARTS TO FORM AN ELECTRODE CAGE

John Anthony Chase, Nutley, Frank John Pilat, Kearny, Roy Karel Wolke, Maplewood, and Daniel Battstone, Newark, N. J., assignors to Radio Corporation of America, a corporation of Delaware

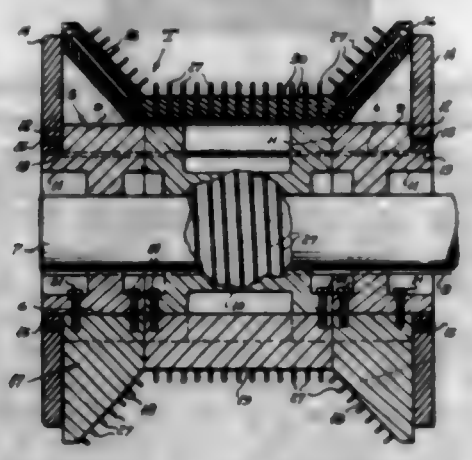
Application April 2, 1951, Serial No. 218,838
44 Claims. (Cl. 29—25.13)



13. Apparatus for automatically assembling electron tube parts in a predetermined orientation comprising an endless conveyor having a portion extending rectilinearly in a horizontal plane, a plurality of jigs supported on spaced portions of said conveyor, a loading mechanism, means for moving said conveyor to dispose one of said jigs in registry with said loading mechanism, means for locking said one of said jigs in the position of said registry, said last-named means including a fixed backing plate adjacent one side of said portion of the conveyor and a

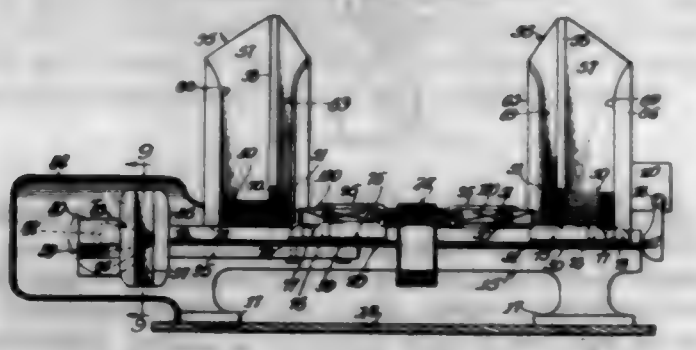
movable mechanism mounted adjacent the other side of said portion of the conveyor and opposite said plate, said mechanism being connected to said first-named means for movement towards said backing plate, whereby a jig disposed between said backing plate and mechanism is urged by said mechanism against said backing plate and means for actuating said loading mechanism to load one of said parts on said one of said jigs, said locking means holding said jig against said backing plate during a loading operation.

2,842,833
DETREADING TOOL
Herman E. Glodde, Franklin Lakes, N. J.
Application May 16, 1956, Serial No. 585,240
3 Claims. (Cl. 29—79)



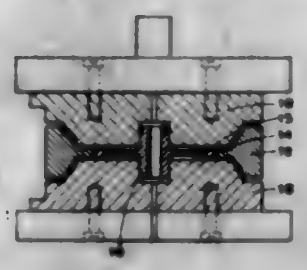
1. A detreading tool for removing a tread from a tire casing, comprising a hub adapted to be secured to a drive shaft for rotation therewith and formed with axially extending slots spaced circumferentially around the hub, blade holders formed as flat plates disposed in said slots, each blade holder formed in the axial direction of a separate central oblong section and detachable trapezoidal end sections, the outer edges of said trapezoidal end sections diverging outwardly from the ends of the outer edge of said central section, groups of spaced elongated blades having outwardly extending teeth and disposed lengthwise in a circumferential direction around the hub between pairs of adjacent holders, means on the ends of said blades and on said holders for detachably securing said blades to said holders, the blades of each group extending at a slight angle to the normal to the axis of the hub, and detachable means holding said central and end holder sections in abutting relation.

2,842,834
METHODS OF APPLYING LAMINATIONS
John M. Macchione, Park Ridge, Ill.
Continuation of abandoned application Serial No. 116,935, September 21, 1949. This application January 25, 1955, Serial No. 484,051
5 Claims. (Cl. 29—155.61)



1. The process of laminating core plates of two different shapes into assembled relation with an open-ended coil which comprises supporting an open-ended coil in a predetermined position, and cyclically repeating the steps of preassembling a first pair of core plates at a first location adjacent one open end of said coil by bringing said core plates together at said first location so that a core plate of one shape overlies a core plate of the other shape, said first location being spaced from the location of said first pair of core plates when they are in assembled relation with said coil, then moving said preassembled first pair of core plates from said first location into assembled relation with said coil while maintaining overlying relationship of said core plate of one shape with respect to the underlying core plate of the other shape so that the underlying core plate supports the overlying core plate, preassembling a second pair of core plates at a second location adjacent the opposite open end of said coil by bringing said second pair of core plates together at said second location so that a core plate of said one shape overlies a core plate of said other shape, said second location being spaced from the location of said second pair of core plates when they are in assembled relation with said coil, and then moving said preassembled second pair of core plates from said second location into assembled relation with said coil and said first pair of core plates while maintaining overlying relationship of said core plate of said one shape with respect to the underlying core plate of said other shape so that the underlying core plate supports the overlying core plate, the underlying core plate of said first pair of core plates being at least partially superimposed on the underlying core plate of said second pair of core plates when said respective pairs of core plates are in assembled relation with said coil.

2,842,835
ARTICLES OF TITANIUM ALLOYS
Harold Ernest Gresham, Little Eaton, and Douglas Wilson Hall, Tynemouth, England, assignors to Rolls-Royce Limited, Derby, England
Application June 20, 1955, Serial No. 516,588
Claims priority, application Great Britain July 1, 1954
6 Claims. (Cl. 29—159.01)



1. The method of manufacture of a forged article from titanium alloys which comprises prefabricating the article in parts adapted to be welded together, forming the parts at the places where the welds are to be made to greater cross section than the parts of the material adjacent thereto which are too thin for welding, grooving the junction between the parts on one side of the article when placed ready for welding so as to receive welding filler material, welding the parts together using a filler material of titanium alloy, then grooving the other side and welding with filler material of titanium, forging down the junction so that it is of a thickness substantially equal to that of the material adjacent thereto and then annealing the article.

2,842,836
MOLDABLE BODY, SHAPED METAL ARTICLE AND METHOD OF MAKING THE SAME
Johannes N. Hlenach, Swarthmore, Pa.
No Drawing. Application December 23, 1954
Serial No. 477,401
13 Claims. (Cl. 29—182)

1. The method of making shaped metal articles which comprises, providing a mixture of metal particles and a

continuous binding phase comprising an age-hardenable solution in mercury of metal selected from the group consisting of copper and copper alloys melting between about 1000 and about 1150° C., the concentration of metal dissolved in the mercury being just below that at which the solution loses its plasticity, shaping the resulting mass, age-hardening the shaped mass and then sintering the shaped mass.

2,842,837

METHOD OF WORKING WIRE AND A LUBRICANT THEREFOR

Raymond J. Hoot, Chagrin Falls, and Gordon T. Spare, Chardon, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey

No Drawing. Application April 17, 1956
Serial No. 578,561
5 Claims. (Cl. 29—193)

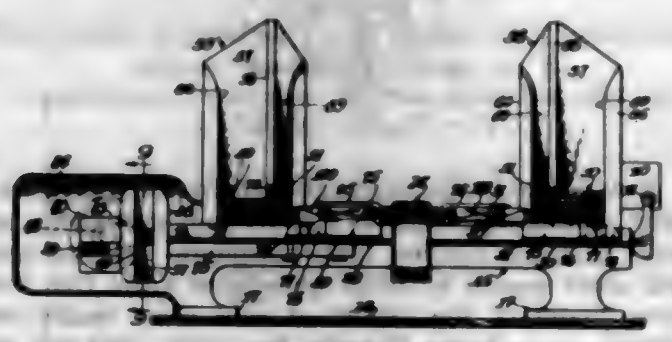
5. An article comprising a drawn wire having a coating thereon consisting essentially of a compound of the group having the formula $(C_xH_{2x+1}CONH)_2CH_2$ where x is any number from 7 to 17, and an inorganic non-volatile lubricant of the class consisting of graphite, molybdenum disulfide, cadmium sulfide, cadmium iodide and boron nitride.

2,842,838

APPARATUS FOR APPLYING LAMINATIONS

John M. Macchiesa, Park Ridge, Ill.

Division of application Serial No. 484,651, January 25, 1955, which is a continuation of application Serial No. 116,935, September 21, 1949. This application October 24, 1955, Serial No. 542,274
15 Claims. (Cl. 29—203)



1. An apparatus for automatically laminating core plates in interleaved relationship in an open ended coil comprising means providing a coil station where an open ended coil is adapted to be supported, a pair of first and second magazines at each side of the coil station, said second magazine of each pair being positioned between the coil station and the first magazine of the same pair, the first magazine being formed to hold core plates of one shape and the second magazine being formed to hold core plates of a different shape, reciprocable transfer means operatively associated with each pair of magazines, means for causing reciprocation of each said reciprocable transfer means toward and away from the coil station, said means including structure synchronizing movement of the transfer means associated with the pairs of magazines on opposite sides of the coil station whereby as either transfer means moves toward the coil station the other transfer means moves away from the coil station, said transfer means associated with each pair of magazines including core plate pick off means engageable with the lowermost core plates of said first and second magazines for removing said lowermost core plates from the respective magazines and assembling said removed plates as an associated pair at a location spaced from assembly position in said coil with the core plate removed from said second magazine overlying the core plate removed from said first magazine.

2,842,839

METHOD OF MAKING EXPANDING MANDRELS

Milton L. Benjamin and Franklyn E. Wisman, Cleveland, Ohio, assignors to Erickson Tool Company, Cleveland, Ohio, a corporation of Ohio

Original application October 28, 1955, Serial No. 541,668, now Patent No. 2,776,839, dated January 8, 1957. Divided and this application December 13, 1956, Serial No. 628,175
4 Claims. (Cl. 29—404)



1. The method of making an expanding mandrel comprising providing an axially and radially slotted generally cylindrical body having a circumferential series of segmental jaws which are flexibly joined at one end to said body; deforming said jaws inwardly to close the slots therebetween and to mutually slide said jaws outwardly along the radial meeting faces thereof; and machining a cam surface of circular cross-section on an intermediate portion of said jaws while thus deformed whereby, upon release of the deforming force on said jaws, said jaws spring back to provide high spots on such cam surface at which inward deforming force may thereafter be applied on the finished mandrel.

2,842,840

METHOD OF FABRICATING GLASS COATED METALLIC ARTICLES

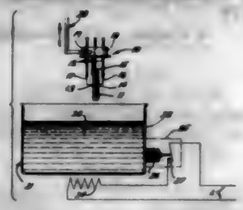
Edwin C. Ploetz, Kenosha, Ill., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

Application February 11, 1954, Serial No. 409,640
3 Claims. (Cl. 29—458)



1. In a method of fabricating a glass-lined tank structure from preformed steel members, the steps of applying a wet coating of a glass composition to the interior surfaces of the preformed members, drying said coating to substantially remove the water therefrom to form a dried glass bisque, applying a coating of a paraffin compound to the dried glass bisque adjacent the ends of the members to be joined together to increase the bisque elasticity adjacent said ends of the members to permit deforming of the members during assembly to obtain a good fit therebetween and prevent cracking and crawling of the bisque, assembling said members to form the tank structure, welding said members together along contiguous surfaces, and firing the welded tank at temperatures approximating 1600° F. to fuse said composition to the tank interior, said composition flowing into and sealing the welded joints between said members and the elevated temperature stress relieving the welded tank structure.

2,842,841
METHOD OF SOLDERING LEADS TO SEMI-CONDUCTOR DEVICES
George L. Schnable, Lansdale, and John Roschen, Hatboro, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application June 13, 1955, Serial No. 514,812
3 Claims. (Cl. 29—495)



1. In a method of fabricating a semiconductor device of the type including an indium electrode formed on a surface portion of a body of germanium, the steps which comprise: forming a bead of congealed indium-cadmium alloy solder on an end of a thin wire, the solder of said bead having a melting temperature below that of said electrode; and dipping the bead, while in contact with the electrode, in a liquid fluxing medium comprising propylene glycol containing, in solution, a flux which is non-deleterious to said semi-conductor device, while maintaining the temperature of the fluxing medium at a temperature between the melting temperatures of indium and of the indium-cadmium alloy.

2,842,842
METHOD OF ASSEMBLING ARTICLES
Lawrence A. McCarthy, Haverhill, Mass., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 31, 1953, Serial No. 345,908
1 Claim. (Cl. 29—505)



The method of forming an article of a part having an aperture therein, a tubular member having an outwardly extending shoulder intermediate its ends and a pin-like member, the aperture and the members having diameters which are substantially equal, the method comprising positioning the tubular member in the aperture of the part so that the shoulder will engage one surface of the part and the adjacent end of the tubular member will extend beyond the opposing surface of the part, flaring outwardly the said adjacent end of the tubular member beyond the aperture to adapt it to receive the pin-like member, positioning one end of the pin-like member in the outwardly flared end of the tubular member, and swaging the outwardly flared end inwardly to secure the members together and form a shoulder engaging the said opposing surface of the part to cooperate with the other shoulder to hold the secured members in the aperture of the part.

2,842,843
INSIDE TUBE CUTTER
Delbert O. Willard, Sulphur, La.
Application November 1, 1957, Serial No. 693,961
8 Claims. (Cl. 30—106)

1. A rotary inside cutting tool for cutting off tubes from the inside including a mandrel with a reduced portion adapted to be inserted into said tube and an enlarged portion on said mandrel adapted to bear against the end of said tube, said mandrel having a longitudinal groove therein opened on one side of the reduced portion of said mandrel and closed on the other side of said reduced portion of said mandrel, a shank in non-rotatable relationship to said mandrel and in register with and movable longitudinally and laterally in said groove, one end of said shank carrying



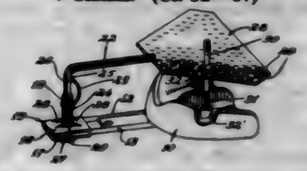
a cutting element and the other end of said shank providing means by which said shank may be rotated and fed forward endwise, said shank upon being rotated adapted to rotate said mandrel therewith and then fed forward is adapted to move outwardly forcing said cutting elements to cut circular groove around inside of said tube to cut off said tube.

2,842,844
DENTAL POLISHING DISK
Henry R. Seal, Chicago, Ill.
Application March 22, 1956, Serial No. 573,192
7 Claims. (Cl. 33—89)



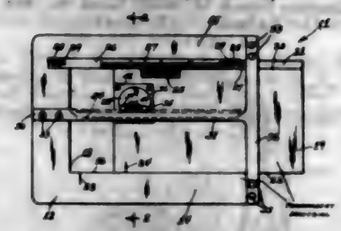
1. A dental polishing disk adapted for mounting on a mandrel and comprising a thin round stiff sheet and abrasive material coating only peripheral arcuate areas of said sheet spaced by other peripheral areas free from abrasive material, the center of said sheet inside said peripheral areas being likewise free from abrasive material, said disk being provided with peripheral areas on both sides thereof free from abrasive material and aligned as between the two sides of said disk.

2,842,845
DOWEL PIN RELATOR
Elmer Edward Carlson, St. Paul, Minn.
Application October 6, 1954, Serial No. 460,536
7 Claims. (Cl. 32—67)



1. A dowel pin relator in combination with a model tray for building artificial teeth impressions comprising a model tray, a holding arm on said tray, a clamp mounted on said holding arm, a standard mounted on said clamp, a frame mounted on said standard and supported in an exact replaceable position over said model tray, said frame including openings for aligning and setting dowel pins in tooth models in said tray, and holding means securing said dowel pins in a pre-set alignment in said openings.

2,842,846
PHOTOGRAMMETRIC CALIPER
Ellis L. Robben, Silver Spring, Md.
Application July 12, 1955, Serial No. 521,474
7 Claims. (Cl. 33—1)



1. A photogrammetric caliper comprising a first flat transparent body having a plurality of straight parallel edge portions, a second flat transparent body of substantially the same thickness as said first body arranged coplanar with said first body and slidably interengaged with said first body along said edge portions, respective marks on slidably interengaged adjacent edge portions of the first and second flat transparent bodies, the bottom surfaces of said first and second transparent bodies being substantially flush with each other along the slidably interengaged parts of said last-named edge portions, whereby said bottom surfaces may be disposed directly on a plane surface to be examined, a length scale on one of the adjacent remaining edge portions of the bodies, and index means on the other of said remaining adjacent edge portions.

2,843,847
PRECISION GARMENT PATTERN GRADING TOOL
Isidore Sturman, Yonkers, N. Y.
Application September 3, 1954, Serial No. 454,181
3 Claims. (Cl. 33—11)



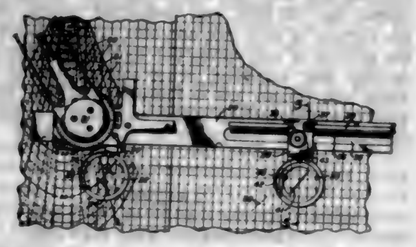
1. In a pattern grading device, in combination, a holder, said holder having a forward portion forming a first clamp jaw, a lever, first pivot means swingably mounting said lever on said holder, a pressure member, second pivot means swingably mounting said pressure member on said lever opposite said portion and forming a second clamp jaw, resilient means operatively connected with said lever and urging said jaws toward each other, and means on a side of said member normally facing said portion for securing an extension element to said member upon pivotal displacement of said member from a normal position.

2,842,848
FRONT GUN SIGHT
William F. Friedrichsmeier, Wilder, Idaho
Application August 17, 1955, Serial No. 528,950
1 Claim. (Cl. 33—52)



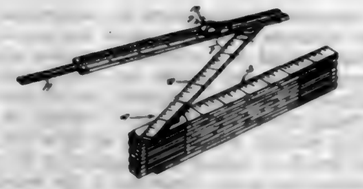
A front sight for mounting on the barrel of a firearm, said sight comprising a base immovably mounted on the upper surface of the barrel, a plurality of longitudinal grooves in said base, a sight blade disposed in the forward portion of the center groove, a contrasting material disposed in the remaining grooves and in the rear portion of the center groove, said base and said contrasting material forming a forwardly and upwardly inclined rear ramp, a rearwardly and upwardly inclined front ramp, and a top planar surface connecting said ramps, said blade extending above said top planar surface, said blade and said contrasting material being removably retained in said grooves.

2,842,849
PLOTTING SUBSURFACE SEISMIC REFLECTING BOUNDARIES
George B. Amery, Houston, Tex.
Application August 22, 1955, Serial No. 529,782
3 Claims. (Cl. 33—79)



2. In combination: a seismic wave-front chart mounted on a rigid support, said wave-front chart depicting the instantaneous position of an artificial seismic wave in the earth's surface with respect to a ground surface position from which the wave was initiated; a drafting machine mounted on said rigid support for transporting a pivot support member across the surface of said wave-front chart with two degrees of freedom of movement and without rotating said pivot support; a ruler pivotally mounted on said pivot support means; a first rotatable transparent disk mounted on said ruler, said transparent disk having indexing means in the center thereof and slope indicating means on the periphery thereof; a second rotatable transparent disk slidably mounted on said ruler; said second transparent disk having a straight-edge cut therein and slope indicating means on the periphery thereof.

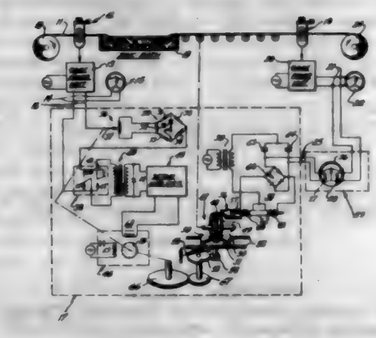
2,842,850
FOLDABLE RULE
Martin O. Anderson and Elmer H. Troselius, Chicago, Ill.
Application February 3, 1955, Serial No. 485,867
11 Claims. (Cl. 33—105)



1. In a sectional folding rule, in combination, a spring-locking pivoted joint connecting adjoining sections of and an extension for a terminating end of such rule, said joint comprising a pair of sheet metal channel shaped parts, the webs of said channel shaped parts adjoining in back to back relation and embossed for interlocking engagement, the longitudinal legs of said channel shaped parts extending outwardly and joining together adjacent over-

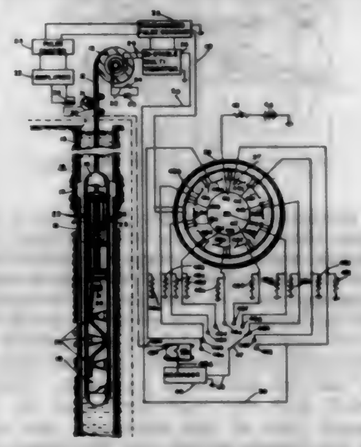
lapping sections of such rule when extended, a leaf spring portion engaging the outside surface of the web of one channel shaped part between the legs thereof, and a pin extending through said channel shaped parts and said spring securing said parts together in pivoted relation, said leaf spring comprising elongated ends spaced upon opposite sides of said spring and disposed parallel to said channel and lateral projections upon opposite sides of said pin, the terminating parts of said ends and said projections resting upon said outside surface of said web; said end extension comprising an elongated indicia containing portion slideably engaging a groove extending inwardly from an end of such rule and substantially flush with a surface thereof whereby said extension can be slideably extended beyond said end, a thumb nut, a spring-like locking member disposed between the body of the rule and said thumb nut, and a bolt extending through said extension, through said spring-like locking member and into said thumb nut whereby a turn of said thumb nut will lock said spring-like locking member to the surface of such rule and affix said extension in place, the portion of said spring-like locking member extending beyond said extension being slightly bowed upwardly when said thumb nut is loosened whereby there is no wear upon the surface of the end section containing said extension upon movement of said extension.

2,842,851
ELECTROMECHANICAL MEMORY OR SYNCHRONIZING DEVICE
Albert M. Dexter, Jr., Farmington, Conn., assignor, by mesne assignments, to Pratt & Whitney Company, Incorporated, West Hartford, Conn., a corporation of Delaware
Application January 28, 1955, Serial No. 484,796
11 Claims. (Cl. 33—125)



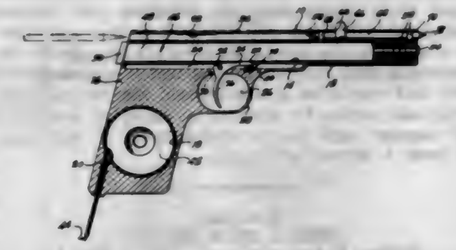
1. A dimension gaging system for continuously measuring the thickness of material which has been deposited on a base material in a continuous process production line, comprising a first station for continuously gaging the thickness of said base material, the thickness intelligence being derived as a first D. C. voltage, an electromechanical memory device having an input and an output, said first D. C. voltage being applied to the memory input, subtraction means connected to the memory output, a second station remote from said first station, for continuously gaging the thickness of said base material plus the deposited material, the thickness intelligence being derived as a second D. C. voltage, said second D. C. voltage being applied to the subtraction means, the memory device delivering its output to said subtraction means at the instantaneous application of said second D. C. voltage thereto, whereby the subtraction means indicates the thickness of said deposited material.

2,842,852
MEMORIZING SYSTEM
Denis R. Tanguy, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application March 16, 1955, Serial No. 494,797
8 Claims. (Cl. 33—125)



1. A system for deriving an output signal delayed from a pulse representing the occurrence of a given event as an instrument supported by a cable is passed through a bore hole drilled into the earth comprising: a discharge device including a plurality of discharge paths and discharge transfer means for sequentially establishing discharges in said discharge paths; means responsive to movement of the cable and to a pulse representing the occurrence of the given event for supplying a series of pulses to said discharge transfer means, each of the pulses in said series of pulses representing a unit change in displacement of the instrument along the bore hole; and utilization means responsive to a discharge in a selected one of said discharge paths.

2,842,853
PISTOL SHAPED RULE CASE
Clint Hubbert, Gate, Ala.
Application January 15, 1954, Serial No. 404,188
3 Claims. (Cl. 33—138)



3. In a device of the character described, an elongated barrel having open forward and rear ends, a pistol grip fixed to and projecting laterally from said barrel, a rule comprising a tubular case engaged in and extending along said barrel, said case having a forward end and a rear end, telescoped rule sections normally disposed within said case, said sections being telescopically extensible beyond the forward end of the case and beyond the forward end of said barrel for measuring distances while the device is held by said pistol grip, said rule case being slidably engaged in said barrel having an enlarged head on its rear end normally engaged with the rear end of the barrel and serving as means for rearwardly withdrawing the rule from the barrel.

2,842,854
COMPARATOR HAVING FINE ADJUSTMENT BY FRAME DISTORTION
Robert A. Powell, Providence, R. I., assignor, by mesne assignments, to Sonicel Corp., Warwick, R. I., a corporation of Delaware
Application December 15, 1954, Serial No. 475,379
8 Claims. (Cl. 33—147)



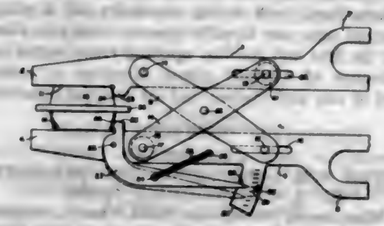
1. A gage for checking a dimension of a work-piece comprising a C-shaped frame having a pair of opposed spaced apart extremities, a first one of said extremities being a rigid portion of said frame and the second extremity being resiliently connected thereto, an indicator and an anvil being carried in opposed relationship by said extremities, a substantially rigid finger on said frame and adjacent said second extremity, and means cooperating with said finger and said second extremity to move said second extremity relative to said first extremity whereby said indicator and anvil are moved relative to each other.

2,842,855
ADJUSTABLE PIN GAUGE WITH LOCKING DEVICE
John L. Williams, Philadelphia, Pa.
Application November 26, 1954, Serial No. 471,482
1 Claim. (Cl. 33—163)



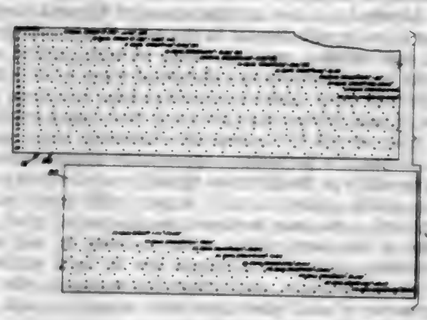
A gage comprising, in combination, an eye member having a central opening and a longitudinally split shank defining opposing shank segments, said shank segments communicating with said central opening, a first elongated member having an open longitudinally bifurcated and internally threaded neck, said central opening of said eye receiving said neck, a second elongated member having one end threadingly engaged within said threaded neck of said first member, and indicia means at the outer end of said second member independently indicating changes in the longitudinal relationship between said first and second elongated members in response to relative rotation between said first and second elongated members, said indicia means comprising a bore extending transversely through said outer end of said second member, and an element extending through said transverse bore and extending outwardly therebeyond.

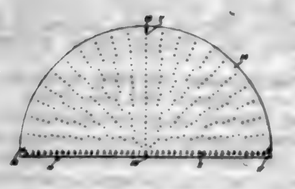
2,842,856
MISMATCH GAUGE
F Helmer Johnson, Rockford, Ill., assignor to Rockford Drop Forge Co., Rockford, Ill., a corporation of Illinois
Application November 17, 1954, Serial No. 469,483
9 Claims. (Cl. 33—172)



4. A gauge of the character described comprising a pair of relatively movable jaws having parallel inner surfaces for engagement on opposite sides of a part to be gauged, means maintaining parallel relationship of said surfaces in the opening and closing of the jaws, a stop projection on one of said jaws arranged to engage a side surface on the part being gauged, a feeler projecting from the other of said jaws for engagement with another portion of the part being gauged on the same side thereof engaged by said projection, said feeler being movably mounted with respect to a graduated scale in fixed relation to the last mentioned jaw, and spring means urging said feeler toward engagement with the part placed between the jaws.

2,842,857
APPARATUS FOR PATTERN DEVELOPMENT
Charles H. Whitten, Baton Rouge, La., assignor of fifty percent to Fabio G. Halphen, Jr., Port Allen, La.
Application November 8, 1955, Serial No. 545,615
5 Claims. (Cl. 33—174)





1. In an assembly for the parallel line development of sheet forms, a first indexing scale consisting of a panel

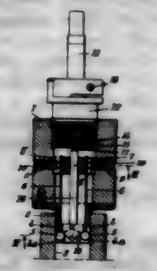
having rows of apertures therein, each row being arranged in an arc of a circle, the apertures at the ends of each row being located in an X-axis line, the center aperture of each of said rows being aligned in a Y-axis line normal to said X-axis line, indicating means at the ends of said X and Y axis lines, a second indexing scale comprising a flat member having a plurality of series of spaced openings, each series consisting of a plurality of openings that are equally spaced with the distance between the first and the last opening being equal to the circumference of a circle whose diameter or radius is indicated at one end thereof and on said flat member.

2,842,858

DEVICES FOR MEASURING THE DIAMETER OF A CYLINDRICAL BORE

Robert Mennesson, Neuilly-sur-Seine, France, assignor to Societe d'Applications et de Constructions pour Materiel Automobile S. A. C. M. A., Neuilly-sur-Seine, France, a society of France

Application April 11, 1955, Serial No. 500,479
Claims priority, application France April 24, 1954
1 Claim. (Cl. 33—178)



A device for measuring the diameter of a cylindrical bore which comprises, in combination, a support including, rigid therewith, a cylindrical plug of a diameter slightly smaller than that of said bore, two identical contact members carried by said support symmetrically with respect to the axis of said cylindrical plug, said contact members being movably guided with respect to said support in a diametral plane of said plug, at least the inner portions of said contact members, i. e. those turned toward said axis, and their outer portions, i. e. those turned in the opposite directions, being spherical, means for preventing appreciable displacement of said members in the direction of said axis, a central push-piece axially guided in said support with some lateral play, said push-piece having a wedge-shaped head, the planes of the faces of the wedge formed by said head intersecting each other along a line at right angles to said diametral plane, and means for measuring the displacements of said push-piece with respect to said support in the direction of said axis.

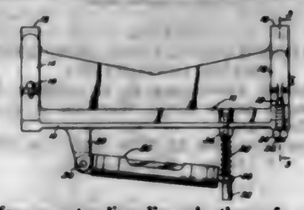
2,842,859

SHAFT ALIGNING GAUGE

Roman J. Pycink, Warren, Mich., assignor to Kent-Moore Organization, Inc., Warren, Mich., a corporation of Michigan

Application September 25, 1956, Serial No. 611,913
6 Claims. (Cl. 33—181)

1. A shaft aligning gauge comprising a frame having two L-shaped contact carrying portions spaced apart linearly on the frame, each L-shaped portion having a long leg and a short leg, the upper ends of the two long legs constituting a first pair of contacts, the upper faces of the short legs provided with a second pair of contact, the two contacts of the first pair being so relatively arranged with respect to the two contacts of the second pair that one straight line drawn through the two contacts of the first pair bears a determinded angular relationship with respect to a second straight line drawn through the two contacts of the second pair, and a spirit level mounted



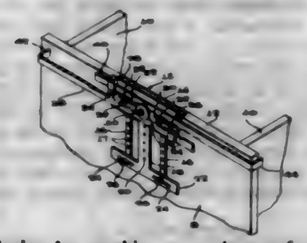
upon the frame extending linearly thereof and generally in the same direction as said straight lines through said first and second pairs of contacts, said spirit level being adjustable to shift one end of the level vertically with respect to the opposite end of the level.

2,842,860

AUTOMATICALLY CENTERING DRAWER HANDLE MARKING DEVICE

Elmer C. Gray, Highland, Calif.

Application August 16, 1957, Serial No. 678,513
5 Claims. (Cl. 33—191)



1. A device for marking on a drawer front locations for the fastening elements of a drawer handle, comprising: a frame plate supportable against said front; a pair of marking strips carried by said frame plate at opposite sides of and symmetrically in respect to the center of said frame plate; a spur gear rotatable on said frame plate; and positioning arms extending laterally outwardly from opposite sides of said frame plate and having rack teeth in mesh with the spur gear, for centering the frame plate and marking strips between opposite sides of the drawer, said marking strips each having a plurality of apertures denoting said locations, for marking of the drawer front through selected ones of said apertures, said apertures of each marking strip being spaced vertically of the same, for selection of any of a plurality of correspondingly vertically spaced areas of the drawer front on which the handle is to be mounted.

2,842,861

COMPARATOR CONTRACTIBLE PLUG GAGE

Stanley G. Johnson, West Hartford, Conn., assignor to The Johnson Gage Development Company, Bloomfield, Conn., a corporation of Connecticut

Application September 27, 1954, Serial No. 458,631
9 Claims. (Cl. 33—199)



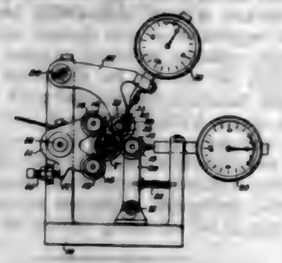
4. A pivotally contractible comparator plug gage comprising a pair of mounting means, a pair of threaded gaging members each secured to a mounting means and having an arcuate external gaging surface with the center of the arc forming an axis, each gaging member being less than a semicircle in cross section, each gaging member extending from each side of the mounting means, one having a full thread and the other a truncated thread for pitch diameter gaging, pivot means carried by the gaging members to pivotally mount the gaging members and having its axis extending parallel to the axis of the gaging surface, the pivot means axis being within boundaries formed by the gaging surfaces and located adjacent to the gaging surfaces, spring means to retain the mounting means together and to pivot the mounting means and the gaging members on the pivot means, a rack attached to one mounting means, gear means carried by the other mounting means and meshing with the rack, and an indicator on each side of the mounting means and connected with the gear means.

2,842,862

LEAD TESTING GAGE FOR THREADS AND A LEAD TESTING ROLL

Paul W. Johnson, Bloomfield, Conn., assignor to The Johnson Gage Development Company, Bloomfield, Conn., a corporation of Connecticut

Application July 24, 1956, Serial No. 599,835
10 Claims. (Cl. 33—199)



7. A gage for testing the screw thread on a test part comprising a mounting frame, means carried by the mounting frame supporting the test part in gaging position, and exposing a portion of the periphery of the test part including a plurality of spaced gaging rolls to receive the test part and engage the test part in gaging position at a plurality of points around its periphery, one of said gaging rolls being a lead testing roll, means mounting the lead testing roll for rotation and for axial movement, the lead testing roll having a plurality of thread engaging ridge means around its periphery, at least the major portion of each ridge means being peripherally spaced from the other ridge means and spaced successively from its adjacent ridge means, each ridge means being spaced axially on the periphery from all other ridge means and successively from its adjacent ridge means, and an indicator controlled by the axial movement of the lead testing roll to indicate the movement thereof.

2,842,863

ALINING GUIDES FOR PIPE BENDING

Emil C. Hollwig, Burlington, Iowa

Application April 20, 1954, Serial No. 424,447
2 Claims. (Cl. 33—207)



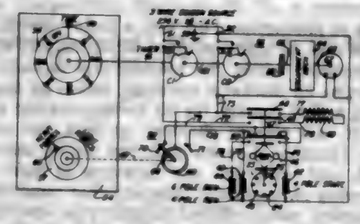
1. An aligning guide for use on a pipe to be bent comprising an elongated blade member, a U-shaped clamp having inner and outer legs and a bight portion, said bight portion rigidly secured to said blade at one end thereof, said inner leg adapted to be positioned within an open end of the pipe, a bolt extending transversely through said outer leg to hold said pipe in engagement with said inner leg, a square block having marginal faces thereon mounted on said blade on the side opposite said U-shaped clamp and in a plane parallel to the plane of the open end of said pipe, and a spirit level mounted in each marginal face of said block.

2,842,864

CLOTHES DRYING MACHINES

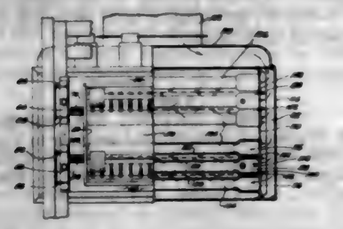
John D. Warhus, Lombard, Ill., assignor to General Electric Company, a corporation of New York

Application July 19, 1956, Serial No. 598,783
7 Claims. (Cl. 34—45)



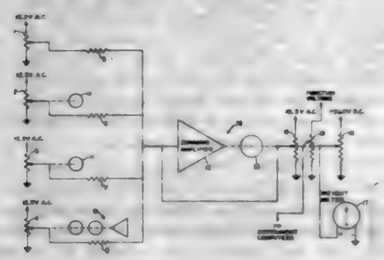
1. In a clothes drying machine including a drum mounted for rotation about a substantially horizontal axis and adapted to receive and to tumble the clothes to be dried, a casing enclosing said drum, a blower operative to translate a current of air in said casing and through said drum and into contact with the clothes tumbling therein, and a heater operative to heat said current of air so as to effect evaporation of the moisture carried by the clothes tumbling in said drum; the combination comprising an electric drive motor operative to rotate said drum and to operate said blower, said motor being of the two-speed split-phase induction type including a start winding and two corresponding run windings, said motor being operated at its relatively high speed when a first of its run windings is energized to effect a relatively high tumbling speed of rotation of said drum and a relatively high air volume operation of said blower, said motor being operated at its relatively low speed when a second of its run windings is energized to effect a relatively low tumbling speed of rotation of said drum and a relatively low air volume operation of said blower, operation of said heater in conjunction with said high tumbling speed of rotation of said drum and said high air volume operation of said blower effecting a relatively low temperature in said drum suitable to the drying of light fabrics, operation of said heater in conjunction with said low tumbling speed of rotation of said drum and said low air volume operation of said blower effecting a relatively high temperature in said drum suitable to the drying of heavy fabrics, switching apparatus having first and second positions respectively selecting said first run winding and said second run winding to be energized, means for selectively operating said switching apparatus into its first and second positions, a device responsive to the speed of said motor and having corresponding start and run positions, means governed by said device for energizing both said start winding and a predetermined one of said run windings in the start position thereof and for energizing only the selected one of said run windings in the run position thereof, and a master switch for controlling both the energization of said motor and the operation of said heater.

2,842,865
IMPINGEMENT DRY BOX ASSEMBLY
Walter Eukelmann, Los Angeles, Calif., assignor to Unicorn Engineering Corporation, Los Angeles, Calif., a corporation of California
Application October 19, 1956, Serial No. 617,076
16 Claims. (Cl. 34—159)



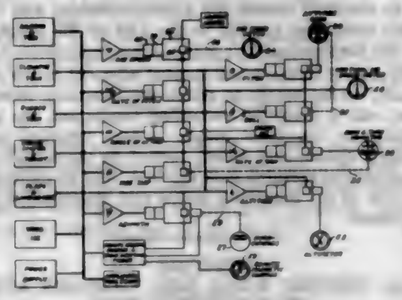
1. In an impingement dry box, a hollow housing having an open side, at least one fixed plenum chamber stationarily mounted within the housing and including a side wall having air discharge openings, means on the housing defining a flow passage for air communicating to the interior of said plenum chamber, at least one removable plenum chamber movable into and out of said housing through said open side and including at least one side wall having air discharge openings, said removable plenum chamber being adapted to occupy an operative position within the housing wherein said side wall of the removable plenum chamber is slightly spaced from said side wall of the fixed plenum chamber, said housing and removable plenum chamber having openings which register in said operative position of the removable plenum chamber, said latter opening in the housing communicating to said flow passage, means for moving said removable plenum chamber into and out of the housing, and strip supporting means on said second-mentioned means for supporting strip material for movement along a path passing between said plenum chambers.

2,842,866
GROSS WEIGHT SYSTEM FOR FLIGHT TRAINER
Robert G. Stern, Caldwell, and Thomas Courtenay Wakefield, Denville, N. J., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 24, 1952, Serial No. 316,817
6 Claims. (Cl. 35—12)



1. In a flight trainer, a system for simulating alteration in the gross weight of the aircraft simulated comprising a plurality of alternating voltage inputs representing analogs of predetermined gross weight components, a plurality of potentiometers coupled to said inputs, a summing amplifier actuated by said potentiometers, a meter, and a servo system applying the output of said summing amplifier to said meter.

2,842,867
FLIGHT COMPUTING SYSTEM AND APPARATUS
Richard C. Dehmel, Short Hills, N. J.
Continuation of abandoned application Serial No. 777,414, October 2, 1947. This application May 12, 1954, Serial No. 429,314
92 Claims. (Cl. 35—12)



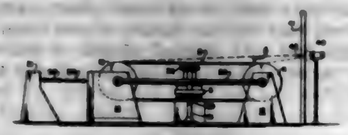
1. A flight simulator computing system comprising a plurality of flight representing controls, means responsive to the operation of said controls for deriving voltages representing moments and forces tending to affect flight attitude and speed, a plurality of inter-related and interacting electrical systems representing respectively flight conditions responsive to said derived voltages for computing flight variables including airspeed, roll and pitch attitudes and side-slip and for producing voltages representing said variables, the roll and pitch systems including servo means having functional deriving means for resolving voltages representing flight variables including air speed and side-slip according to roll and pitch attitudes for deriving voltages representing vertical components of air speed, and means responsive to said vertical component voltages for indicating vertical air speed.

2,842,868
FRONT COCKPIT INSTRUMENT FLYING HOOD
Robert H. Beltrr, Pensacola, Fla.
Application August 3, 1955, Serial No. 526,340
5 Claims. (Cl. 35—12)
(Granted under Title 35, U. S. Code (1952), sec. 266)



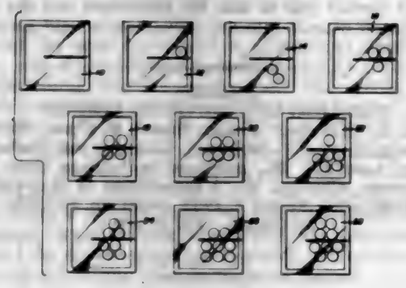
2. A hood for instrument flying of aircraft comprising, a track member having an I-shaped cross-section and fixedly mounted in said aircraft, a supporting plate, a pair of fingers mounted on said supporting plate and engaging the channels of said I-shaped track member for sliding motion thereon, frame members pivotally mounted on said supporting plate and adapted to be pivoted from an operative position to a substantially flat position, an opaque hood member mounted on said frame members and adapted to engage the helmet and shoulders of the pilot of said aircraft when in operative position and to fold substantially flat when in a stowed position, said plate, frame and hood member being slidable on said track member rearwardly to the operative position and forwardly to the stowed position, and means on said supporting plate and engaging the rear end of said track member for releasably holding said plate and hood member in operative position.

2,842,869
APPARATUS FOR ANALYZING SHOCK WAVE PATTERNS
Thomas R. Sherley, West Point, N. Y.
Application April 21, 1954, Serial No. 424,633
4 Claims. (Cl. 35—19)



1. Apparatus for producing wave shock patterns corresponding to those of an air foil moving through air including in combination a flexible membrane, a member shaped to represent an air foil, means for vibrating said member in a path transverse to the plane of said membrane and in contact with said membrane during at least a part of the vibratory movement of said member, and means for moving said membrane in a plane transverse to said vibratory movement of said member.

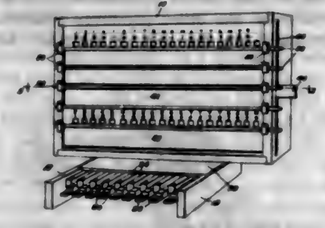
2,842,870
EDUCATIONAL APPARATUS
Edith C. Lilly, Newberg, Oreg.
Application September 28, 1953, Serial No. 382,570
3 Claims. (Cl. 35—31)



1. An educational apparatus for teaching information concerning numbers comprising a closed receptacle, an enlarged transparent panel in said receptacle, an indented numeral on the external surface of the receptacle, said numeral being defined by a groove of sufficient width to receive the finger of a person so that the shape of the numeral may be felt and observed for teaching the manner of forming the numeral, a plurality of objects movably disposed in said receptacle, each object having one dimension generally equal to the dimension of the receptacle extending perpendicularly from said transparent panel, said objects being shaped to permit the objects to be stacked for easy observation and enumeration of the objects through the transparent panel, said objects being equal in quantity to the numeral on said receptacle for visually associating the quantity of objects with the numeral.

2,842,871
EDUCATIONAL DEVICE FOR USE IN TEACHING ARITHMETIC
John D. Laird, Torrington, Wyo.
Application September 12, 1956, Serial No. 609,361
4 Claims. (Cl. 35—31)

1. An educational device comprising a support, a frame on said support, an open front face on said frame, a plurality of vertically slidable slides in said frame, indicia on said slides forming individual numbers, operating means on said support for vertically moving said slides in said frame, and a windowed mask movable into and



out of position in said frame overlying the front faces of said slides.

2,842,872
SAFETY SHOE
Edward L. Shultz, Endicott, N. Y., assignor to Endicott Johnson Corporation, Endicott, N. Y., a corporation of New York
Application December 7, 1956, Serial No. 626,980
11 Claims. (Cl. 36—72)

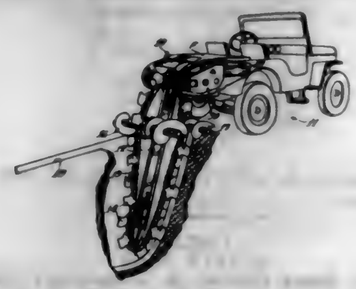


1. A safety shoe comprising: a base or sole assembly; an upper secured to the base and having a toe portion, a metatarsal portion and an instep portion; a toe protector in the form of a relatively rigid cap located at the toe portion of the upper and permanently secured therein and supported directly on the base; a metatarsal protector in the form of a relatively rigid arch extending across the metatarsal portion of the upper and permanently secured to the shoe with opposite side portions resting on and supported by the base and with its forward edge overlapping the trailing edge of the toe protector but being free from direct connection to the toe protector; and an instep protector in the form of a relatively stiff member curved to conform to the shape of the instep disposed at the instep portion with its forward edge overlapping the trailing edge of the metatarsal protector, the overlapping portion of the metatarsal protector being shiftable relative to the toe protector and the overlapping portion of the instep protector being shiftable relative to the metatarsal protector to permit flexing of the shoe.

2,842,873
HYDRAULIC POSITIONING MEANS FOR TRENCHER BOOM
Warren E. George, Auburn, and Glenn W. McIntosh, Omaha, Nebr., assignors to Auburn Machine Works, Inc., Auburn, Nebr., a corporation of Nebraska
Application August 3, 1954, Serial No. 447,588
4 Claims. (Cl. 37—86)

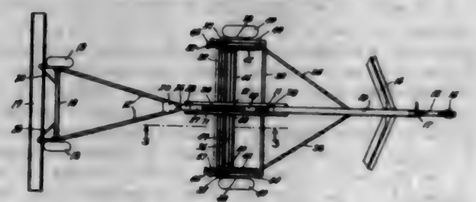
1. In a hydraulic operator for a trenching boom, said boom having a rotatable boom housing journalled in a main frame, the combination comprising, a sub-frame mounted on said main frame, said sub-frame having parallel walls and an end portion, a sprocket and an idler journalled in the walls of said sub-frame and spaced from one another in line with the end portion of said sub-frame, first and second loops of chain trained about said sprocket and said idler and laterally spaced from one another, a double-acting hydraulic actuator mounted on the end portion of said sub-frame and having a plunger

centered between the loops and coupled to said chain at the straight run portion thereof defined by said sprocket and said idler, so that linear movement of said plunger in one direction or the other produces rotation of said sprocket likewise in one direction or the other, and means



for rigidly coupling said sprocket coaxially to said boom housing for imparting motion of the plunger in either direction to said boom housing, for lowering the trenching boom and forcibly feeding it into the ground to the digging position, and for raising the boom to an elevated position.

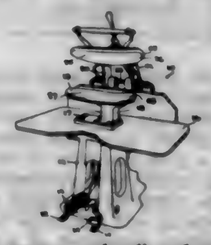
2,842,874
LAND LEVELERS
Lawrence E. Shumaker and Cecil L. Beck, Denver, Colo., assignors to Everman Manufacturing Co., Denver, Colo.
Application February 13, 1956, Serial No. 565,169
9 Claims. (Cl. 37—153)



9. In a land leveler of the type having a rear truss section hingedly connected to the rear of a supporting truss section so that it may swing laterally thereof, and a blade frame suspended from said supporting truss section with ground-engaging wheels arranged to raise and lower a scraper blade in said blade frame, means for increasing the pressure of said wheels against the ground in consequence of relative lateral movements of said truss members, comprising: a lever arm operatively connected with said wheels for imparting vertical movement thereto; a rocking lever pivotally mounted on a vertical axis on said supporting truss section and extending rearwardly into engagement with said rear truss section; and connecting means extending from said rocking lever to said lever arm and transmitting horizontal lateral movements of said rocking lever to said lever arm to impart vertical movement of said wheels.

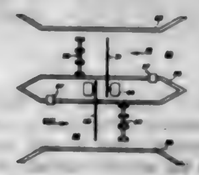
2,842,875
APPARATUS FOR FORMING AND PRESSING GARMENTS
Vincent J. Spano, Berlin Heights, N. J.
Application April 12, 1954, Serial No. 422,355
2 Claims. (Cl. 38—16)

1. A device for forming and pressing a garment sleeve including an elongated and stationary lower pressing buck, the upper surface of said buck being in part horizontal and flat and in part curved and inclined upwardly, said upper surface having the general outline of a garment sleeve, an elongated and movable upper pressing buck, the lower surface of said movable buck being in part horizontal and flat and in part curved and inclined upwardly, means for moving said upper buck so that the lower surface thereof can be brought into engagement with the upper surface of said lower buck, said inclined surfaces of said bucks being curved longitudinally and transversely thereof, said inclined surface of said lower buck being concave and said inclined surface of said upper buck being convex, said inclined surfaces adapted to nest



when said bucks engage, a plurality of orifices distributed over said upper and lower surfaces, the orifices in said inclined surfaces being in greater concentration than the orifices in said horizontal surfaces, means for applying wet steam and dry air respectively to said movable buck and means for applying suction to said stationary buck, said lower buck adapted to carry a garment sleeve thereon and in such manner that the sleeve head lies on said inclined surface and so that the horizontal and flat surface thereof extends into the sleeve hole of said garment sleeve.

2,842,876
PARKING LOT CONTROL SYSTEM
Gordon E. Chicoine, Chicago, Harvey B. Gunn, Western Springs, Eugene T. Mahoney, Chicago, and Dallas B. John, Lombard, Ill., assignors to Johnson Fare Box Company, Chicago, Ill., a corporation of Delaware
Application August 2, 1955, Serial No. 525,972
16 Claims. (Cl. 39—1)

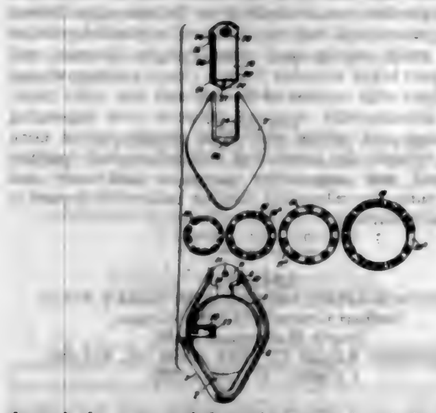


1. In a control apparatus for a parking lot provided with a passageway for vehicles, in combination, a gate, means mounting the gate for movement to and from a position obstructing the passageway, power means including a motor for moving the gate, an electromagnet lock having means including a switch connected in a first circuit for actuating the power means to open the gate upon the insertion of a valid check, an up limit switch disposed in said first circuit, means for operating said up limit switch at predetermined positions of the gate, means operable thereafter including a treadle having a switch connected in a second circuit for actuating the power means to close the gate, a down limit switch disposed in said second circuit and means for operating the down limit switch at predetermined positions of the gate.

2,842,877
KEY TAGS
Herbert A. Stevens, Long Beach, Calif.
Application March 19, 1953, Serial No. 343,439
11 Claims. (Cl. 40—2)

1. A key tag comprising a casing having side walls, one side wall being formed with a window and the other with

an indicia-indexing opening having an open outer end, the inner surface of the wall having the window therein being formed with a substantially circular seat radially of which the window extends and with a recess extending from an edge portion of the casing radially of the seat and exposed through the said opening and at its inner end communicating with the seat, circular members carrying raised indicia means and rotatably mounted in said seat in concentric relation to each other and independently rotatable to dispose selected indicia in position to be seen through the opening and the window, a closure plate for said opening slidable longitudinally of the opening



through the outer end thereof to opened and closed positions, said plate having upon its inner surface a thickened portion fitting into the opening and also having abutments projecting from the said thickened portion of the plate in transverse spaced relation to each other and between which certain of the raised indicia means fit to prevent accidental rotation of the said members when the closure plate is closed, and a link engageable with a key and having a portion removably passing through aligned openings formed respectively through the outer end portion of the closure plate and a portion of the casing and securing the closure plate in its closed position.

2,842,878
TAG
L'Tholle K. McFaddon and Karl A. Sparks, Portland, Oreg.
Application February 7, 1956, Serial No. 563,906
1 Claim. (Cl. 40—21)



A hospital bed marking tag particularly adapted to be applied to a bed rail, comprising a body panel of generally elongated rectangular configuration, and a pair of integral tabs extending respectively from the opposed ends of said body panel, each of said tabs being narrower than said body panel and having a length considerably less than its width, one of said tabs being partially defined by a pair of laterally opposed, inwardly extending, open notches, closed slits extending inwardly from said notches, and perforations at the inner ends of said slits, and a resilient, endless band respectively engaged in said perforations and being more or less permanently connected to said tag by virtue of said closed slits, the other of said tabs being partially defined by a second pair of laterally opposed, inwardly extending notches closed at their inner ends, the last mentioned notches being open and extending somewhat longitudinally in a direction away from the body of the panel to provide projections on the end of said other of said tabs, said projections extending toward the body of said panel so that the rubber band may be connected to said other of said tabs around the projection thereof in a more or less temporary manner enabling the band to be readily removed from said other of said tabs while maintaining its connection with the tag, said perforations being of greater diameter than the diameter of said band whereby the band may freely slide therethrough when in relaxed condition, said band when in relaxed condition having a length just slightly more than twice the distance between said perforations, and said panel being subdivided into a plurality of rectangular portions by parallel, transverse folding creases.

2,842,879
HANGER FOR BUBBLE LIGHTS
Joseph Baumchen, Chicago, Ill.
Application January 18, 1956, Serial No. 559,908
1 Claim. (Cl. 40—106.21)

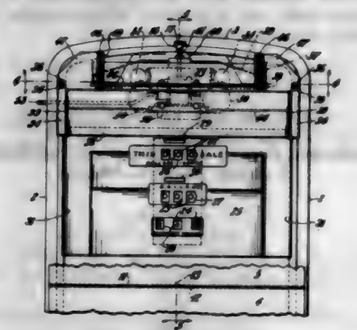


A bubble light ornament for use with Christmas trees, comprising an elongated bubble unit having bubbling solution therein and including a tubular transparent envelope adapted to be supported in upright position, a hollow casing enclosing the lower end of the envelope, an electric bulb in said casing in close proximity to the lower end of said envelope, and a support means comprising a generally U-shaped wire form member having a bight portion providing a support loop superjacent the upper end of said envelope to support the ornament on the branch of a Christmas tree, and having two approximately parallel spaced apart legs extending parallel to said envelope, said casing having a plurality of circumferentially spaced upwardly facing ventilating apertures formed therein concentrically outwardly of said envelope, the free end of each said leg extending through one of said apertures and into said hollow casing, an offset retainer portion on the end of each leg inside of said casing and underlying an adjoining wall portion of said casing in supporting relation, and means to maintain said envelope and said legs in substantially parallel relation comprising a ring member closely encircling said legs and said envelope, whereby the ornament will always be supported in upright position to maximize the decorative effectiveness thereof.

2,842,880
LUMINOUS DIAL AND SIGNS FOR SERVICE STATION DISPENSING APPARATUS
Edward D. Replanda, Agawam, Mass., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a corporation of Massachusetts
Application October 4, 1954, Serial No. 459,985
3 Claims. (Cl. 40—130)

3. In a dispensing apparatus, a housing including upstanding front and rear walls each having a window provided with upper and lower edges and a pair of

connecting side edges, front and rear upstanding dial faces respectively spaced inwardly from the front and rear windows, each such dial face extending across between the side edges of the adjacent window and extending upwardly from a level below the lower edge of its window to a level below the upper edge of its window, front and rear brand sign panels of translucent material respectively located in back of and closely adjacent the front and rear windows and spaced outwardly from the front and rear dial faces, each panel extending across between the side edges of the adjacent window and extending upwardly from a level slightly below the upper edge of the adjacent dial face to a level slightly above the upper edge of the adjacent window, each panel having a longitudinally-extending opening in its upper portion, a hollow cylindrical sign of translucent material mounted to revolve about a vertical axis located in a



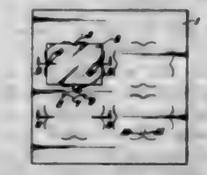
vertical plane passing centrally between and parallel with the front and rear windows and in a vertical plane passing centrally between the side edges of the windows and at right angles thereto, said cylindrical sign located at the level of the openings in the front and rear panels with portions of its periphery visible therethrough, and front and rear lamps both located inside the cylindrical sign and respectively located inside the front and rear panels and above the dial faces, one lamp overlying the space between the front brand sign panel and the front dial face and the other overlying the space between the rear brand sign panel and the rear dial face, whereby rays from each lamp pass outwardly through the endless sign and the brand sign panels and windows and other rays from the front and rear lamps respectively pass downwardly through the spaces between the front and rear panels and the front and rear dial faces to illuminate the latter.

2,842,881
ILLUMINATED SIGN
John B. Vidach, Chicago, Ill.
Application February 27, 1956, Serial No. 567,796
6 Claims. (Cl. 40—133)



1. In combination, a sign casing including a cover part and a closure part, said cover part including a hollow body portion having a bottom wall, upstanding side walls and a crowned top wall, said top wall and the upper regions of said side walls being extended longitudinally to provide a hood portion the top wall of which is a continuation of said top wall of the body portion and depending side flanges which are continuations of said side walls of the body portion, an end wall at the outer end of said hood portion, said closure part comprising a box-like structure having a bottom wall, upstanding side walls and an upstanding end wall, an open top and an open end opposite said upstanding end wall, and a leaf hinge having one leaf thereof secured to the edge region of the bottom wall of said hollow body portion and having its other leaf secured to the bottom wall of the closure part a slight distance inwardly from the free edge thereof whereby when said bottom walls are in parallel relation the two walls overlap each other a slight distance, said closure part being movable from a closed position wherein the upper edge regions of the end and side walls thereof are telescopically received between said depending side flanges and within said hood portion to an open position wherein the interior of said hollow body portion is exposed, and cooperating means on said cover and closure parts for releasably locking said closure part in its closed position.

2,842,882
PHOTOGRAPHIC MOUNT FOR X-RAY FILM
Nathan Greene and Rose Greene, North Hollywood, Calif.
Application August 27, 1954, Serial No. 452,494
1 Claim. (Cl. 40—158)



A photographic mount for generally rectangular dental X-ray films including a blank of plastic material which is easily tearable at each end of a cut made in the plastic, said blank having therein four spaced slits, each of which by extending generally in the direction of a side of the dental film to be retained in the mount provides a central inwardly directed tab to overlie a respective side of the film and the four slits leave the four corners of the film free, each of the two sides of each slit adjacent the tab curving away from the central tab, the ends of each of the slits being directed inwardly of the proximate margin of the film whereby to minimize tearing because of the wide slits formed by the curves when the tab is pressed up to receive the film, and to insure that if a tear is formed the tear will extend under the mounted film rather than in a direction away from the margin of the film.

2,842,883
PAPER MOUNT FOR TRANSPARENCIES
John H. Folwell and Wentworth C. Eaton, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application May 10, 1956, Serial No. 584,046
4 Claims. (Cl. 40—158)

1. A mount for transparencies comprising a pair of frame members adapted to be folded into overlapping relation, each frame member including registering light-transmitting apertures and at least one frame member carrying a layer of adhesive susceptible to heat and pressure, a film-locating frame carried by one frame member attached to the layer of heat and pressure-sensitive adhesive to form a film locating frame about one of the light-transmitting apertures, the film-locating frame being adapted to project

by the thickness of the material from the heat and pressure-sensitive adhesive whereby the film-locating frame may serve to separate the heat and pressure-sensitive ad-



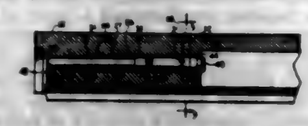
hesive of a plurality of unfolded mounts stacked up for use to pervent the heat and pressure-sensitive adhesive of one mount from prematurely contacting with the next adjacent mount.

2,842,884
DEBOSSED PRINTED BOOK COVER
Charles A. Stevenson, South Milwaukee, Wis., assignor to The Heinn Company, Milwaukee, Wis., a corporation of Wisconsin
Application September 2, 1954, Serial No. 453,885
2 Claims. (Cl. 41—24)



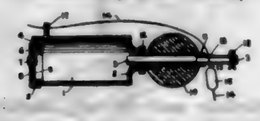
1. In a book binder cover having a grained surface, a debossment on said cover providing a wear protected printed design beneath the level of the grained surface of the cover and comprising, a bottom level substantially depressed below said grained surface, and a plurality of separate design portions raised from said bottom level and surrounded thereby on all sides to facilitate printing of the design portions, the top level of said design portions being smooth and disposed vertically intermediate said bottom level and the grained surface of the cover whereby the printing thereon is protected from wear by the higher grained surface of the cover.

2,842,885
FIRING PIN WITH PLASTIC SLEEVE FOR FIREARMS
Robert L. Hillberg, West Cheshire, Conn., assignor to The High Standard Manufacturing Corporation, Hamden, Conn., a corporation of Connecticut
Application July 27, 1954, Serial No. 446,053
1 Claim. (Cl. 42—69)



In a firearm, the combination comprising a breech block having a passage therein, a firing pin slidably mounted in said passage for limited longitudinal movement therein, said firing pin having a body portion fitting a first section of said passage and a reduced diameter nose portion extending from said body portion and fitting within a second section of said passage of correspondingly reduced diameter, a stop shoulder being formed between said sections of said passage and an oppositely facing shoulder being formed on said firing pin by the juncture of said body and nose portions, said shoulders being positioned relative to each other to limit the forward travel of said firing pin; and a sleeve of tough, resilient, plastic material having properties similar to nylon, said sleeve fitting closely on said nose portion along a part of its extent adjacent the firing pin shoulder to provide a cushion between said shoulders, the outside diameter of said sleeve being essentially the same as that of said body portion so that said sleeve swells into integral engagement with the wall of the first section of said passage when it is compressed between said shoulders upon actuation of the firing mechanism of said firearm.

2,842,886
FISH LINE FLOAT AND CLAMP
Donald A. Williams, Flint, Mich.
Application May 7, 1956, Serial No. 582,978
4 Claims. (Cl. 43—44.87)



1. The combination with a fish line and hook of a device of the class described comprising a first float and a second float movably connected together and adapted to rest upon the surface of a body of water, said first float having an air chamber, means for loosely guiding the fish line on one of said floats, restricted means for permitting water to enter the chamber of the first float causing it to sink in the water and thereby causing movement between said first and second floats, and means actuated by said movement acting to clamp the fish line on the float.

2,842,887
KNOB AND WIRE HOOK ASSEMBLY FOR FISHING AND THE LIKE
William F. Matras, Milwaukee, Wis., assignor to Frabill Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application March 11, 1955, Serial No. 493,778
5 Claims. (Cl. 43—44.95)



1. In a device of the character described, the combination with a float having a bore providing aligned bearings, of a line attachment for said float including a spring biased push button and a rod in the respective bearings in which the button is provided with a transverse slot extending laterally of its longitudinal axis, and the rod is provided with a half loop received in the slot and having a free terminal portion transverse to the axis of said rod and projecting across said longitudinal axis of said button, the button having a socket portion in which said terminal portion is relatively loosely engaged, said rod having a hook portion adapted to cooperate with a portion of said float to clamp a line therebetween.

2,842,888
FISHING FLOAT
William F. Landrum, Kansas City, Kans.
Application March 12, 1956, Serial No. 571,065
2 Claims. (Cl. 43—44.95)

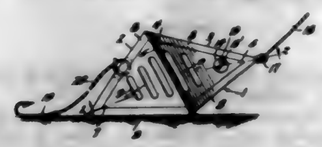
1. A fishing float comprising a buoyant body member, an elongated neck member affixed to and extending outwardly from said body member, said neck having a radially extending shoulder, a slot formed diametrically therethrough adjacent said shoulder, and a slot formed transversely therein, said transverse slot interconnecting with said diametric slot and extending through a side wall of said neck, and a helical compression spring encircling

said neck and normally bearing against said shoulder, said transverse slot being spaced from said shoulder by a distance at least as great as the lead of said helical spring, whereby a fishing line extending through said diametric slot may be positioned selectively either be-



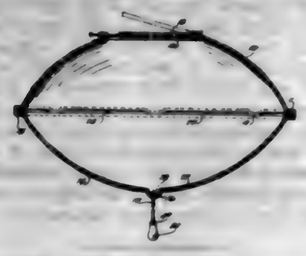
tween said shoulder and the end convolution of said spring, whereby it is gripped frictionally, or between successive convolutions of said spring, whereby it is retained in said slot but may run freely therethrough, the lead of said spring being greater than the thickness of said fishing line.

2,842,889
SINKER
Harry Gengor, Atlantic City, N. J.
Application January 8, 1957, Serial No. 633,004
1 Claim. (Cl. 43—44.99)



A hollow sinker consisting of a body portion having an open face, a removable plate, means for holding the plate in a locked position over the open face, the sinker in the shape of a hexahedron, the six faces outlined by two right triangular pyramids having a contiguous base, and the body portion formed of plastic and the removable plate formed of lead.

2,842,890
LIVEBAIT CONTAINER
Elio Geroni, Allen Park, Mich.
Application May 31, 1956, Serial No. 588,514
5 Claims. (Cl. 43—55)



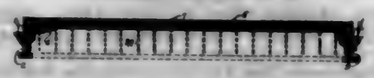
1. A live bait container comprising a casing of transparent plastic material having a semi-spherical lower section with a continuous peripheral flange and a complementary upper section also with a continuous peripheral flange, the flange of the upper section having portions thereof offset downwardly at spaced intervals separating the body of the flange of the upper section from the flange of the lower section providing water circulating passages between the sections, said upper section having an opening in the upper end and attaching elements for supporting devices thereon, a door positioned to close the opening in the upper end of the container, and a latch for retaining the door in the closed position.

2,842,891
DOOR STRUCTURE FOR PIGEON TRAPS
Louis J. Neid, St. Paul, Minn.
Original application October 24, 1949, Serial No. 123,265, now Patent No. 2,693,050, dated November 2, 1954. Divided and this application October 5, 1954, Serial No. 460,366
4 Claims. (Cl. 43—66)



1. A gate construction for suspension in a door opening of a pigeon trap for limiting passage to one direction only, said gate comprising a plurality of rod members extending in the vertical dimension of the gate and spaced apart transversely thereof, a plurality of vertically spaced rod members extending transversely of the full width of the gate through approximately the top half thereof and joined to the vertical members, other vertically spaced rod members extending in a transverse direction across the vertical members from the outermost vertical members to and each terminating at an inner one of the vertical members, the said inner ones of the vertical members being adjacent to one another and the termination of said other transverse rod members thereat providing a vertically elongated opening therebetween through the gate, and means mounted peripherally of said opening presenting smooth surfaces for the entrance of a pigeon and presenting pointed elements at the other side for preventing the return of the pigeon.

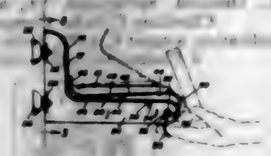
2,842,892
TERMITE CONTROL
George L. Aldridge and Lee E. Chambers, Virginia Beach, Va.
Application May 19, 1955, Serial No. 509,450
4 Claims. (Cl. 43—124)



1. In the combination including a concrete slab adapted to support a building structure and a layer of relatively coarse material disposed on the ground surface portion beneath said slab and supporting said slab above said ground surface portion, said coarse material and ground surface portion being permeable to liquid insecticides, the improvement comprising a plurality of tubes provided with a header, said tubes having downward extensions depending therefrom, said header, tubes and extensions of said tubes being arranged and adapted to distribute liquid insecticide material through said coarse material and through the ground surface portion immediately under and supporting said coarse material.

2,842,893
SOAP TRAY
Harley Howerton, Carterville, Ill., assignor of one-third to James Howerton, Carterville, Ill.
Substituted for abandoned application Serial No. 579,861, February 26, 1945. This application November 5, 1956, Serial No. 620,436
1 Claim. (Cl. 45—28)

A soap tray comprising a back, side walls and a bottom defining a box-like tray open at its forward end, said bottom sloping downwardly from said back and terminating at its forward end in a curved end portion, a platform fabricated of a plurality of parallel rods interconnected in fixed relation by transverse brace rods superposed over said bottom in elevated relation thereto and adapted to support a bar of soap, a pivot bar beneath said bottom pivotally supported at its ends on said side walls, said curved end portion of said bottom being provided with a plurality of reentrant slots, each of said parallel rods being connected at their forward ends to said pivot



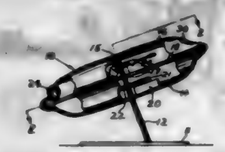
bar, said forward ends of said parallel rods being each constituted by a rearwardly directed end portion adapted to extend through an associated slot for connection to said pivot bar, a hand lever fixed at its upper end to said pivot bar and depending therefrom in a curved forwardly direction, said hand lever being adapted to be engaged by the hand of a person to cause said platform to tilt upwardly whereby the bar of soap supported thereon will slide down into the hand of said person.

2,842,894
BUBBLE-BLOWING TOYS
Henry W. Walden, New York, N. Y.
Application February 7, 1957, Serial No. 638,842
3 Claims. (Cl. 46—8)



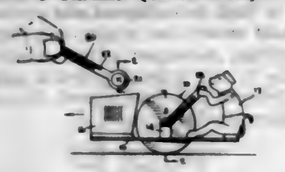
1. A bubble-blowing toy comprising, a container for holding a bubble-producing liquid, the container being provided at the top with threads, a tubular body closed at one end and open at the other end and threaded at its open end for application on the threaded end of the container to form a continuation thereof and to establish communication with the interior of the container, a ring located in the body and provided with a stem slidable axially through the body to thereby move the ring into and out of the fluid contents of the container, the wall of the body having a slot, the stem having a lateral extension protruding through the slot and slidably guided up and down therein, said lateral extension provided with a finger-piece located on the outside of the body for manual depression of the ring and to cause it to be dipped into the liquid contents of the container, spring means for elevating the ring to raised position out of the liquid, the body having a bubble-outlet opening in its side wall with which the ring registers when the ring is in its raised position, the body having a laterally-extending sleeve on a side wall of the body opposite and in alignment with the bubble-outlet opening, an air-blast nozzle slidably adjustable through the sleeve to regulate its spacing from the ring, an air tube connected to said adjustable nozzle and an air bulb attached to the end of the tube on the outside of the body.

2,842,895
FLYING SAUCER AND SPACE PATROL TOY
Frank F. Bortolazzo, Niagara Falls, Ontario, Canada
Application November 23, 1956, Serial No. 624,082
1 Claim. (Cl. 46—47)



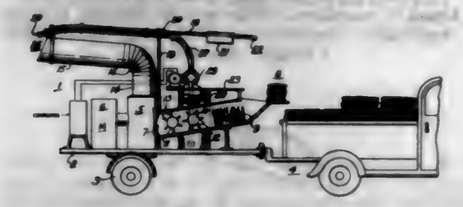
An amusement device comprising, in combination, a base, a post inclined to and secured to said base, a spheroidal disc housing rotatably carried upon said post for rotation in a single plane inclined to the plane of said base and perpendicular to the longitudinal axis of said post, said housing defining a plurality of circumferentially spaced apart window openings adjacent to the outer periphery thereof, a plurality of radially extending and longitudinally grooved arms lying in a single plane common to the central plane of said housing, a simulated figure slidably supported upon each one of said radially extending arms in proximity to each one of said openings, said simulated figures being movable by gravity between a hidden position within the interior of said housing and an exposed position adjacent to each said opening in response to rotation of said disc upon said post, and an inertia motor within said housing for rotating said disc relative to said post for sequentially moving said simulated figures between said respective hidden and exposed positions.

2,842,896
MAGNETIC TOYS
Edouard M. Sire, New York, N. Y., assignor to Bar-Zim Toy Mfg. Co., Inc., Jersey City, N. J., a corporation of New Jersey
Application July 20, 1955, Serial No. 523,257
3 Claims. (Cl. 46—238)



1. The combination with a vehicle comprising a vehicle body and a disk wheel for propelling the body, said wheel comprising a disk magnet having a horizontal axis and having planar end faces which define the width of the magnet and are north and south poles of the magnet respectively, axle means in both of said end faces, said vehicle body being pivotally connected to said axle means, of actuating means for said vehicle, said actuating means comprising a bar magnet the respective ends of which constitute the north and south poles thereof, and a handhold member supporting said bar magnet, said bar magnet being of a length which is greater than the width of said disk magnet whereby when said bar magnet is held directly forwardly of said disk magnet with their axes parallel, the respective poles of the bar magnet will extend past both said end faces of said disk magnet for controlling magnetic actuation thereof.

2,842,897
FIBRE MATS AND METHOD OF AND APPARATUS FOR MAKING THE SAME
Charles O. Finn, Cincinnati, Ohio, assignor to The Finn Equipment Company, Cincinnati, Ohio, a corporation of Ohio
Application August 11, 1953, Serial No. 373,563
6 Claims. (Cl. 47—9)



1. A method of spreading over soil areas, erosion controlling fibre mulches such as straw, hay and the like, and tacking the fibres to each other as a porous mat, that consists in developing a confined strong current of air, discharging said confined stream into the atmosphere, feeding fibres to the confined current of air to be carried thereby to areas on which the fibres are to be spread, and injecting a fog of water insoluble adhesive material into the discharged air stream containing the fibres, whereby the fibres are spotted at random with adhesive and caused to adhere, one to another, when at rest on said areas.

2,842,898
PREFABRICATED VINE SUPPORTING NET
Paul M. Buckles, Portland, Oreg.
Application January 14, 1955, Serial No. 481,801
2 Claims. (Cl. 47—46)



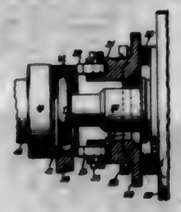
2. A prefabricated vine-supporting net comprising at least two spaced flexible strand-supporting lines, strands extending back and forth between the lines, a strip of material for each line, each strip being folded over its line, and means joining the folded portions together to prevent longitudinal displacement of the strands relative to said lines in both the collapsed and erected condition of the net, said means also joining said folded portions to prevent shifting movement of the strands in a direction transverse to said lines to maintain said strands of fixed length between said lines in both the collapsed and erected condition of said net.

2,842,899
EARTH WORKING METHOD
John R. Padrick, Anniston, Ala.
Original application June 9, 1949, Serial No. 98,107, now Patent No. 2,734,439, dated February 14, 1956. Divided and this application February 6, 1956, Serial No. 563,710
6 Claims. (Cl. 47—58)



1. The method of preparing soil for a subsequent planting operation including the steps of forming a channel of relatively loose soil a substantial distance below the ground level, of forming a ground furrow above the channel and a narrow, substantially vertical cut or section of loose soil between the channel and furrow, of aerating the soil in said channel and of depositing soil correctives in said channel so as to vary the pH of the soil substantially below the ground level.

2,842,900
FRICTION AUGMENTER FOR INTERNAL GRINDING MACHINES
Philip C. Durland, Springfield, Vt., assignor to Bryant Chucking Grinder Company
Application August 6, 1957, Serial No. 676,617
8 Claims. (Cl. 51—103)



1. In an internal centerless grinder having a rotatable work driver adapted to contact an end face of an annular workpiece, means for radially and frictionally supporting the workpiece on its outside perimeter, and a rotatably mounted tool carried by a head which is adapted for movement longitudinally to a grinding position and for transverse feed movement, a friction augmenter that comprises: a non-rotatable braking device having a frictional braking surface carried by the tool head and adapted to contact an opposite end face of the annular workpiece when the tool is moved longitudinally into the grinding position to create a frictional drag on the rotating workpiece thereby preventing the workpiece from spinning when the tool is in contact with the surface thereof, and means mounting the braking device on the tool head whereby any misalignment between the braking device and the workpiece will be automatically compensated.

2,842,901
VALVE GRINDING MACHINES
Stanley Ralys, Orange, Mass., assignor to Leavitt Machine Company, Orange, Mass., a corporation of Massachusetts
Application May 13, 1955, Serial No. 508,213
2 Claims. (Cl. 51—166)



1. A shoe for mounting interchangeably on any one of a plurality of identical gate valve grinding head legs radiating circumferentially equidistantly in a common plane from a rotatable central core and each having a pair of spaced parallel flat faces of identical size and dimensions consisting of a front working plane face and a rear face and having a pair of radially outwardly converging flat end faces connecting said front and rear faces, said shoe comprising a thin sheet of flexible material having an abrasive coating on one surface and folded to oppositely open ended tapering tube shape having four flat walls conforming respectively to the front and rear faces and the end faces of one of said legs, said four walls including front and rear walls each having an outer abrasive surface whereby the shoe may be mounted on any of the legs with either of said abrasive surfaces disposed on the front working plane face of the leg.

2,842,902
NON-RIGID ROTATIVE ABRASIVE STRUCTURES
Theodore J. Miller, St. Paul, Minn., and Earl L. Gothier, Detroit, Mich., assignors to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application January 24, 1958, Serial No. 710,837
13 Claims. (Cl. 51—193.5)



1. An abrasive wheel structure comprising an annulus of many juxtaposed radially extending flap sections of abrasive sheet material, said sections being uniformly distributed about the central axis of said annulus and being in densely packed relationship at the inner peripheral portion of the latter with adjacent sections being rigidified and firmly rigidly adhesively bonded together over an inner end area extending radially outwardly from the inner ends of said sections at least about ¼ inch across the entire width thereof to form a rigidly reinforced inner rim in said annulus.

2,842,903
GRINDING HEAD AND GRINDING SURFACE THEREFOR
Stanley C. Ralys, Orange, Mass., assignor to Leavitt Machine Company, Orange, Mass., a corporation of Massachusetts
Application February 6, 1956, Serial No. 563,675
3 Claims. (Cl. 51—194)



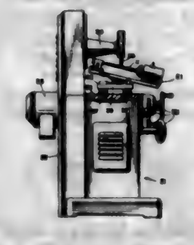
1. A grinding head for a valve grinding machine comprising a hub, three legs extending radially therefrom in equidistantly spaced relation, each leg having a peripheral face tapered in conformity with the surface to be ground and having a pair of substantially parallel side walls connecting said peripheral face and extending inwardly therefrom, straight connecting walls integrally secured to the inner ends of the adjacent side walls of adjacent legs whereby the space between the adjacent side walls of adjacent legs is unobstructed, a flexible sheet abrasive strip element having a central panel engaged with the peripheral face of each leg and having side extensions engaged with the side faces of each leg, and cooperating elements of separable snap fastening members carried by each of said extensions and each of said side walls mounting said abrasive strip elements on said legs, said elements comprising friction members engageable and disengageable by movement perpendicular to the surfaces of the sides of the legs, whereby said flexible sheet abrasive strip elements are readily removed and replaced by separation and connection of the elements of said fastening members in the unobstructed spaces between the adjacent side walls of adjacent legs.

2,842,904
GRINDING HEAD AND GRINDING SURFACE THEREFOR
Stanley C. Ralys, Orange, Mass., assignor to Leavitt Machine Company, Orange, Mass., a corporation of Massachusetts
Application April 30, 1956, Serial No. 581,481
2 Claims. (Cl. 51—197)



1. A rotatable grinding head for a valve grinding machine comprising a circular backing disc mounted on the forward end of a rotatable shaft and having a front face provided with a plurality of circumferentially equidistant radial depressions of generally rectangular prismatic shape each having a flat bottom wall bounded by a pair of parallel spaced opposite side walls of rectangular shape lying in planes which intersect the front face of the disc at 90°, said side walls defining the leading and trailing edges of flat coplanar elevated areas forming the working face of the disc, said edge of each of said areas lying in planes which intersect radially outwardly of the axis of the shaft, an abrading section comprising a sheet having a front face coated with abradant material and being preformed with portions fitting the depressions, side walls and elevated areas respectively of the backing disc, and a headed fastening member secured in registering openings in the bottom wall of each depression and the depressed portion of the abrading section for cooperating with the side walls of the depressions and the portions of the abrading section engaged therewith to connect the section to the disc securely against relative movement during rotation while the section is in grinding engagement with a valve.

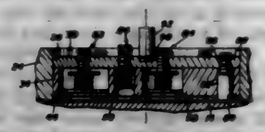
2,842,905
WORK HOLDER
Carl G. Rolin, Cicero, Ill.
Application April 13, 1953, Serial No. 348,194
1 Claim. (Cl. 51—216)



A work holder comprising a mounting plate, collet carrying means on said mounting plate, means for supporting said mounting plate at a desired inclination on a work table comprising a carrying plate disposed beneath and pivotally connected on said mounting plate for relative tilting movement about a common pivot axis, a screw threaded adjusting stem turnably journaled on said carrying plate in position extending at right angles with respect to said pivot axis, a nut threadedly connected with said adjusting stem, and a link pivotally connected with said nut and with said mounting plate for rocking movement with respect to the mounting plate about a tilting axis spaced from and parallel with respect to said common

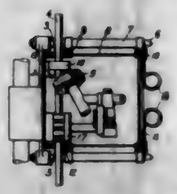
axis, said adjusting stem having an end projecting at a side of said carrying plate remote from said common axis, said projecting end being formed for connection with a stem turning member, one of said plates forming a gauging surface remote from said common axis and the other of said plates carrying a gauging member pivotally secured thereto for turning movement on an axis spaced from and parallel with respect to said common axis, said gauging member having a gauging face adapted to bear upon said gauging surface when said plates are in a predetermined datum position of relative angularity about said common axis.

2,842,906
WORK HOLDER FOR LAPPING MACHINE
Lyle E. Carter and Robert D. Ryan, Columbus, Ind.
Application October 26, 1955, Serial No. 542,888
2 Claims. (Cl. 51—216)



1. A work holder for lapping machines comprising a housing having an underside and an upper side, a plurality of work receiving recesses in said housing, said recesses opening through said underside, and individual spring loaded members mounted in each of said recesses for applying downward pressure on work received in said recesses, said housing having threaded bores aligned with said recesses, said bores opening through said upper side, each of said spring loaded members including an adjusting screw threaded in one of said bores, a washer threadedly engaged on said adjusting screw, a spring element carried by said washer, and a work engaging plate carried by said spring element, whereby said work engaging plate may be selectively vertically positioned and the spring pressure thereon selectively varied.

2,842,907
BAND KNIFE SHARPENING MEANS
Zdeněk Klika, Prague, Czechoslovakia, assignor to Pragoděv, výroba dámské a dětské konfekce, národní podnik, Prague, Czechoslovakia
Application November 23, 1956, Serial No. 624,140
2 Claims. (Cl. 51—247)



1. In a cutting machine having a band knife and grinding means engageable with the knife for sharpening the latter; the combination of a hood extending around said grinding means and having slots for the passage of the knife therethrough, and a sealing assembly within said hood adjacent each of said slots, each sealing assembly including at least one generally cylindrical hollow sealing member having a diametrical slit extending therethrough and loosely receiving the band knife, the ends of said sealing member being flattened, a holder and resilient inlays in said holder engaging said flattened ends of each sealing member to permit rocking of the latter about its longitudinal axis as well as transverse displacement of the sealing member relative to said holder.

2,842,908
ABRASIVE CUTTING WHEEL MOUNTING AND GUARD
Hugh V. Allison, Fairfield, Conn., assignor to American Chain and Cable Company, Inc., Bridgeport, Conn., a corporation of New York
Application March 29, 1937, Serial No. 649,494
4 Claims. (Cl. 51—267)



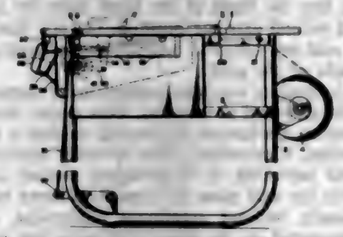
1. A guard and mounting for an abrasive wheel, comprising a spindle, an inner flange member carried by said spindle engageable with the inner side of said wheel, inner and outer complementary guard members enclosing said wheel and having a work receiving opening exposing a portion of said wheel, said outer guard member being movable from a closed to an open position to expose said wheel, and an outer flange member rotatably carried by said outer guard member engageable in the closed position of said outer guard member with the outer side of said wheel to clamp said wheel between said inner and outer flange members and to be rotatable with said wheel, said outer flange member being movable with said outer guard member to open position out of engagement with said wheel.

2,842,909
PROCESS FOR FILLING AND TREATING PRESSURE CAPSULES FOR USE IN NON-METALLIC FUZES
Fabrizio Lazari, Milan, Italy, assignor to Montecatini, Società Generale per l'Industria Mineraria e Chimica, a corporation of Italy
Original application July 17, 1952, Serial No. 299,305. Divided and this application September 26, 1956, Serial No. 612,177
Claims priority, application Italy August 4, 1951
4 Claims. (Cl. 53—25)



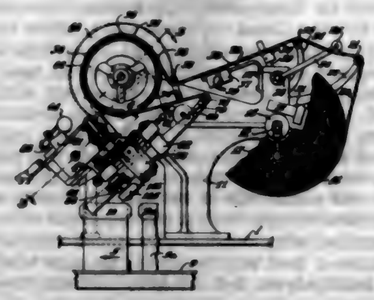
1. The process for making vitreous containers containing gas under pressure for use as a striker-propelling medium in non-magnetic mines comprising, charging the glass container with a quantity of hydrogen peroxide sufficient to create within the container the predetermined pressure, then cooling the container of about 0° C. in a cooling bath, then alkalizing the contents slightly, and finally sealing-off said container by fusion while still maintaining the body of the container in the cooling bath.

2,842,910
WRAPPING OF OBJECTS OR GOODS IN THERMOPLASTIC SHEET MATERIAL
John Alva Read, Glossop, England, assignor to Tootal Broadhurst Lee Company Limited, Manchester, England, a British company
Application December 6, 1954, Serial No. 473,357
Claims priority, application Great Britain December 18, 1953
16 Claims. (Cl. 53—33)



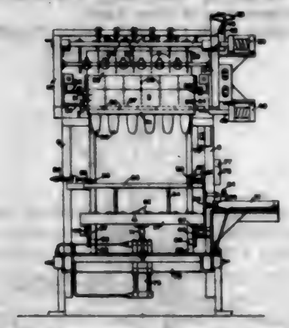
1. A method of wrapping an object with wrapping material in the form of thermoplastic sheet which comprises the steps of manually drawing the sheet lengthwise from a supply thereof along a platform towards an operator at one end of the platform, placing the object to be wrapped upon the sheet so as to be at least partly covered by the end portion of the sheet, inverting the object in engagement with the sheet by angular displacement in a direction away from the operator to form a loop of the sheet around the object and to overlap said end portion of the sheet with an intermediate portion thereof, heat seaming said overlapping portions together in a direction across the platform to maintain the loop, removing the object with the loop extending therearound from the platform, and subsequently severing the loop from the remainder of the sheet under tension, by the application of heat along a line across the sheet near the position at which it was seamed.

2,842,911
MACHINE FOR FORMING AND FEEDING COUPONS
Warren H. Harlan, Greenhills, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio
Application August 28, 1953, Serial No. 377,160
12 Claims. (Cl. 53—57)



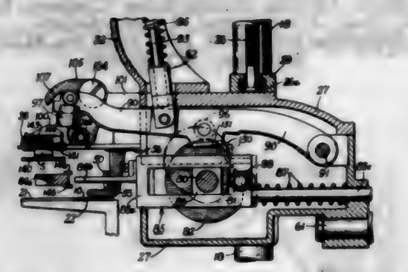
1. In a machine for forming and feeding coupons into cartons, the improvement which comprises in combination a feeding mandrel with constant tension braking means, said mandrel adapted to hold a supply of coupon-forming material in rolled strip form, said strip being perforated or notched in index with printing thereon, a timing roll having projections to engage the holes or notches in the strip, pinch rolls adapted to feed the strip by withdrawing it from the timing roll, a cut-off knife adapted to cut the strip into separate coupons while said strip is moving, a pair of impelling rolls to grip the severed coupons and feed them into cartons, means for continuously driving said timing roll, pinch rolls, cut-off knife and impelling rolls in timed relationship with each other, said means adapted to synchronize the relative motion of said timing roll to said cut-off knife so that said coupons are cut from said strip in index with the printing thereon.

2,842,912
ARTICLE PACKING APPARATUS
Albert H. Merkner and Chester L. Gutowski, Pittsburgh, Pa., assignors to H. J. Heinz Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 15, 1953, Serial No. 349,018
27 Claims. (Cl. 53—61)



1. In an article packing machine, the combination with a supply table for moving articles to be packed forwardly in plural parallel rows, of a packing mechanism comprising a transversely movable grid having spaced parallel members providing spaces therebetween in which the articles are received in rows from said table, a stationary grid underneath said movable grid formed of spaced parallel plates the upper edges of which provide a temporary support for the articles received in said spaces, and a transversely movable restraining grid formed of spaced parallel members normally occupying positions intermediate and parallel to said plates for restraining gravitational movement of articles through said stationary grid but movable transversely into positions in alignment with said plates to allow articles to gravitate through both said stationary grid and restraining grid.

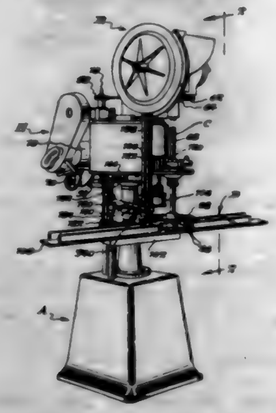
2,842,913
CONTAINER CAPPING MACHINE
Frederick R. Mariadia, Bethel, Conn., assignor to Doran Brothers, Inc., Danbury, Conn., a corporation of Connecticut
Application December 4, 1952, Serial No. 324,038
19 Claims. (Cl. 53—67)



14. In a container capping machine to be used with a conveyor for advancing containers thereto, the combination of means forming a capping station, means for feeding successive caps to a waiting position above and lat-

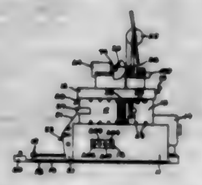
erally spaced from said capping station, a hook member adapted to successively move caps from said waiting position to a position immediately above said capping station, a pusher mounted above said capping station for vertical reciprocation to successively apply said caps to said containers at said capping station, means adapted to move successive containers to said capping station, and means for rendering said hook member inoperative when a container is not at said capping station in position to be capped.

2,842,914
SINGLE STATION CAPPING MACHINE
George H. Dimond, East Aurora, N. Y., assignor to Consolidated Packaging Machinery Corporation, Buffalo, N. Y., a corporation of New York
Application April 12, 1955, Serial No. 500,750
3 Claims. (Cl. 53—67)



1. In a capping machine the combination of means for advancing a series of containers to a capping station, capping means effective to seat each cap operatively engaged thereby onto each successively advanced container, means to feed individual caps in succession into operative association with said capping means, means to control the operation of said capping means and said feeding means, and sensing means movable into and out of the path of travel of said containers and operably connected to said control means and being effective to cause said control means to stop said cap-feeding means and to effect retention of a cap by said capping means whenever no container is present at said capping station.

2,842,915
BANDING MACHINE
George F. Howatt, Northboro, Mass., assignor to New England Envelope Manufacturing Company, Worcester, Mass., a corporation of Massachusetts
Application October 31, 1955, Serial No. 543,681
24 Claims. (Cl. 53—74)



1. A banding machine for use with envelopes, comprising: feed wheels for introducing envelopes one at a time into the machine, means for collecting the envelopes to form a pack, means connected to the feed wheels for driving them at high speed, a clutch having a driven input side, means for engaging the clutch for one revolution of its output side, a band-feeding mechanism connected to the said output side of the clutch, a banding mechanism located in the path of travel of the packs and connected to the said output, the banding mechanism including a gripping jaw movable across one face of a pack from one extreme position where it grasps a free end of the band to a second extreme position where glue is applied to said end, means causing the pack to move quickly into the bight of the band after the jaw reaches the said second extreme position, the jaw then returning to the said one extreme position while passing over the other side of the pack.

12. A banding machine comprising a supporting arm pivotally mounted at one end, cam means acting on the intermediate portion of the arm to subject it to a swinging motion, a mounting plate pivotally mounted on the arm and partaking of its swinging motion, cam means acting on the said plate to cause it to move substantially rectilinearly without rotational movement, a gripping roller mounted on the plate, a gripping jaw mounted on the plate and having a portion adapted to be pressed against the roller, a gluing anvil fixed to the plate, a bifurcated member mounted on the said jaw and formed to cooperate with the anvil.

2,842,916
DEVICE FOR VACUUM SEALING CONTAINERS
Federico A. Parodi, Montevideo, Uruguay
Application January 31, 1955, Serial No. 485,156
3 Claims. (Cl. 53—88)

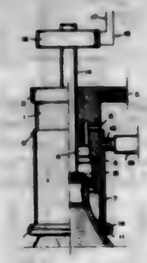


1. In apparatus for vacuum sealing containers, a sealing device comprising a member defining a cylindrical bore extending therethrough, said member being provided with a lateral outlet communicating with said bore, vacuum means connected to said lateral outlet, a piston slidably mounted within said bore in air-tight engagement therewith for longitudinal reciprocation therewithin, said piston having a closed upper end and a hollow lower end, an annular flange surrounding the lower hollow end of said piston, a resilient gasket secured to the lower face of said flange, said lower hollow end of said piston being formed with a lateral opening therein communicating between said hollow portion of said piston and the exterior of said piston, and means to guide said piston during its reciprocation within said bore so that said opening in said piston will be rotationally aligned with said outlet when said piston is at the upper end of its stroke, said opening being longitudinally spaced from said flange a distance at least as great as the distance between said outlet and the lower end of said cylindrically bored member.

2,842,917
DEVICE FOR CLOSING BOTTLES BY VACUUM WITH CROWN TYPE CAPS AND MACHINE THAT INCLUDES THE SAID DEVICE
Federico A. Parodi, Montevideo, Uruguay
Application June 14, 1955, Serial No. 515,512
4 Claims. (Cl. 53—88)

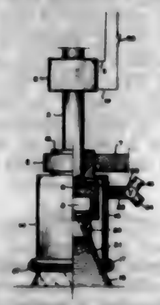
1. Apparatus for the vacuum closing of bottles with crown type caps comprising, a first cylinder supported in vertical position and provided with an internal chamber

terminating in a conical-forming member overlain by a cap-receiving chamber, a first channel communicating between said cap-receiving chamber and one side of said first cylinder, a second cylinder coaxially surrounding said first cylinder and slidably disposed in fluid-tight manner with respect thereto, the lower end of said second cylinder being provided with a packing capable of establishing an hermetic closure when adjusted around the



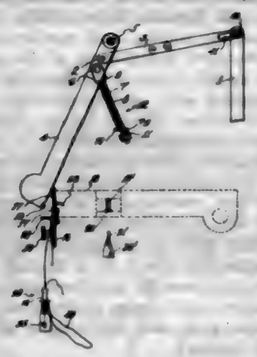
neck of the bottle to be closed, a second channel extending laterally through said second cylinder, means connecting said second channel with vacuum supply means, said second channel being positioned in vertical alignment with the channel of the first cylinder, and magnetic means disposed on the lower end of a bar slidingly mounted in said first cylinder for receiving and holding a cap.

2,842,918
APPARATUS FOR APPLYING A CROWN CAP TO A BOTTLE UNDER VACUUM CONDITIONS
Federico A. Parodi, Montevideo, Uruguay
Application June 14, 1955, Serial No. 515,513
4 Claims. (Cl. 53—88)



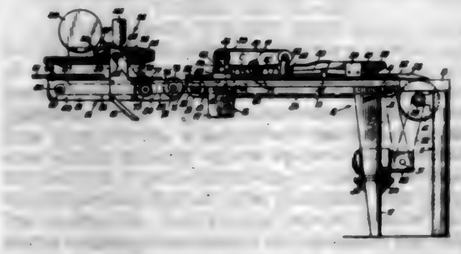
1. Apparatus for supporting a crown cap and for sealing the supported cap upon a bottle under conditions of vacuum comprising a capping head formed with a lower interior conical cap-forming surface communicating with a cap-receiving recess in said head immediately above said cap-forming surface, a vertical bar mounted for sliding longitudinal movement, said capping head being fixed to the lower end of said bar, a hollow cylinder having a channel extending therethrough, said channel communicating with a source of vacuum and with the atmosphere, means to alternately connect said channel with said source of vacuum and with the atmosphere, said bar extending coaxially through said cylinder with the upper end of said cylinder in fluid-tight connection with said bar, the lower border of said cylinder being provided with a packing adapted to sealingly engage a bottle thrust into the lower end of said cylinder, means to magnetize said head and means for pushing said head into position to close said bottle.

2,842,919
AUTOMATIC STRINGING OF FASTENED CASING ENDS
Maynard J. G. Tipper, Castro Valley, Calif.
Application December 20, 1955, Serial No. 554,233
4 Claims. (Cl. 53—135)



1. A string looping device for anchoring string loops between the pleated casing end and the fastener wall during the fastening of a casing end with a hollow fastener, comprising a looping arm pivoted at one end and having, on the other end, engaging means for engaging string from a supply, a plate having holding means for holding string in register with said engaging means when the string is to be engaged, a groove in said plate adjacent said string holding means and in the bottom of which the string remaining attached to a previously fastened casing may be disposed, cutting means positioned in line with the bottom of said groove for cutting said string remaining attached, tensioning means for keeping under tension the free string pulled from the supply by the looping arm, limiting means for limiting the travel of the previously fastened casing attached to the string as it is pulled by the looping arm for the looping operation, timed moving means for moving said looping arm through said string holding means to engage said string and carry a loop of desired length across the entrance opening of the fastener at a time when the pleated casing end is about to be fastened and so that said casing end engages the two strings of the loop as it is fastened, and for moving said looping arm back for another looping operation, and timed moving means for said cutting means to cut said string remaining attached to said previously fastened casing after the fastening operation.

2,842,920
CARTON CLOSING MACHINE
Le Roy F. Carlshell, Morris, and Richard J. Fahey, Chicago, Ill., assignors, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware
Application September 24, 1954, Serial No. 458,239
10 Claims. (Cl. 53—137)

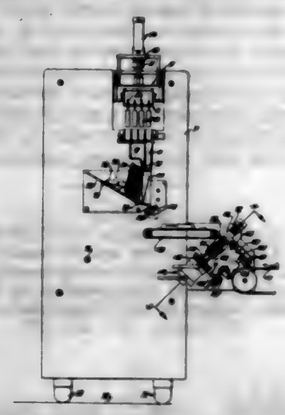


1. An apparatus for closing cartons characterized by a bottom section having hinged thereto an inner member

and a cover member together with cooperating locking elements on said carton members which are adapted to interlock in the closed condition of the carton, said apparatus comprising a longitudinally traveling conveyor to transport said cartons forwardly with said bottom section resting thereon and said inner and cover members projecting toward opposite sides of the line of travel, means progressively folding said members toward superposed and telescoped engagement of the cover over the inner member as the carton is advanced by said conveyor, means cooperating with said longitudinal conveyor for restraining the bottom of said carton against movement relative to said longitudinal conveyor, a closer belt engageable from above with said cover member in generally parallel, superposed relation to said conveyor, means driving said conveyor continuously at predetermined longitudinal speed, and means interconnected with and driven by said conveyor drive means for driving said closer belt at greater longitudinal speed, so as to shift and press said cover member downwardly and forwardly in relation to said inner member and bottom section and to transversely align and interengage said interlocking elements as the carton travels forward.

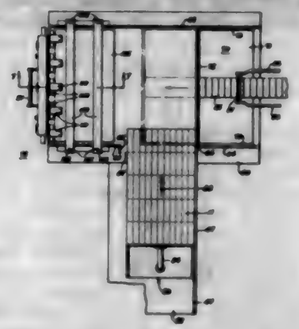
7. Apparatus for closing and sealing hinged cover-type cartons comprising a conveyor to feed cartons in a direction longitudinally of the hinge thereof, means to swing the carton cover about the hinge thereof into carton closing position as the carton is fed longitudinally, means receiving, re-orienting and advancing said closed cartons in the same direction but with said hinge at an angle to the direction of advance, comprising a flat rotatable turntable substantially in the plane of said conveyor, drive means for said conveyor and turntable, and a tape applying unit drivingly connected to said drive means and operating to apply a length of sealing tape to a forward surface of the re-oriented and advancing carton.

2,842,921
STICK CONFECTION MACHINE
Marlin R. Rasmussen, Sacramento, Calif.
Application June 6, 1955, Serial No. 513,526
12 Claims. (Cl. 53—189)



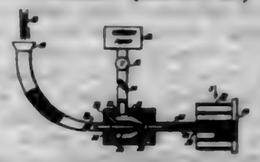
2. A stick confection machine comprising a frame, means on said frame for dropping a stick confection, means on said frame for enclosing said dropping stick confection in an envelope having adjacent closure margins, means on said frame for arresting said enveloped dropping stick confection in an inclined position including an inclined bottom support and an inclined side support, and means on said frame moving parallel to said bottom support for heating and pressing together said closure margins.

2,842,922
MATERIAL HANDLING APPARATUS
John A. Wickstrom, San Francisco, Calif., assignor to Mother's Cake & Cookie Co., Oakland, Calif., a corporation of California
Application September 16, 1952, Serial No. 309,791
1 Claim. (Cl. 53—235)



In an apparatus for loading inherently unstable stacks of wafers, the combination of a magazine through which a plurality of such stacks of wafers are adapted to be moved in contiguous mutually stabilizing groups; said magazine having a bottom and side walls closely contacting three perimeters of said groups of wafers, propelling means including a plate closely contacting one perimeter of said groups of wafers, and an open end at which one perimeter of said groups of wafers is adapted to be sequentially presented by said propelling means; means adjacent the open end of said magazine for stabilizing the stacks of wafers presented thereat by said propelling means including resilient fingers individual to said stacks of wafers and arranged to lightly compress each of said stacks between themselves and the bottom of said magazine; and a package tray receptacle disposed closely adjacent the open end of said magazine and including a retaining device adjustable to exert a slight compression upon a stack of wafers propelled into package trays contained therein; said receptacle being movable from a position in which its bottom is parallel to the side of a stack of wafers presented at the open end of said magazine to a position in which its bottom is horizontal and said stacks of wafers are gravitationally stabilized therein.

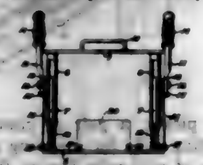
2,842,923
LIGHT ELEMENT TRANSPORT APPARATUS
Arvid G. Kjellson, Skien, Norway, assignor to Radio Corporation of America, a corporation of Delaware
Application June 18, 1956, Serial No. 592,081
7 Claims. (Cl. 53—236)



1. Apparatus for transporting relatively light, compactable elements, said apparatus comprising element guiding means having an element entrance portion and an element discharge portion, an exit for gas within said guiding means and positioned adjacent to said discharge portion and intermediate said entrance and discharge portions, and element propelling means connected to said guiding means intermediate said entrance and discharge portions for subjecting the interior of said guiding means adjacent to said exit to a lower gas pressure than the re-

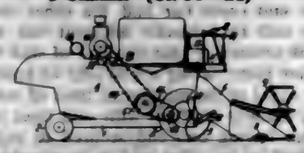
gion of said interior adjacent to said element entrance portion, whereby an element positioned within said guiding means and adjacent to said entrance portion thereof is subjected to a force urging said element toward said discharge portion, said guiding means including a portion disposed intermediate said entrance portion and said propelling means and having a generally decreasing inside transverse extent, in a direction from said entrance portion toward said propelling means, thereby to gradually compact an element during its passage during said guiding means.

2,842,924
APPARATUS FOR APPLYING FRICTION CLOSURES TO CONTAINERS
Paul Berlencourt, Yorba Linda, Calif.
Application February 20, 1956, Serial No. 566,490
4 Claims. (Cl. 53—319)



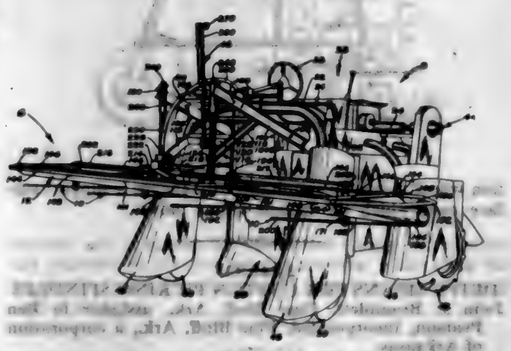
1. Apparatus for pressing a friction closure upon a container comprising: a base; a pair of posts mounted on said base and rising therefrom and spaced to receive between them a container placed on said base; sleeves respective to said posts and reciprocable thereon; a plate spanning said sleeves so as to reciprocate therewith on said posts and having a loose connection to said posts through said sleeves so as to be capable of limited tilting relative to said posts; springs respective to said posts urging said sleeves and said plate upwardly; a pair of levers positioned adjacent opposite margins of said plate and pivotally connected to said sleeves for causing downward movement of said sleeves and said plate against the resistance of said springs; links pivotally secured to said base and pivotally secured to said levers to provide swinging fulcrums upon which said levers act to slide said sleeves upon said posts; said levers being operable in unison or, selectively, individually for causing one margin of said plate to approach said base ahead of the opposite margin of said plate.

2,842,925
SELF-PROPELLED COMBINE
Lawrence E. Allen, Independence, Mo., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application September 1, 1955, Serial No. 532,052
3 Claims. (Cl. 56—21)



1. A control means for a combine including header adjusting means and propulsion means, separate control means operatively connected to said header adjusting means and to said propulsion means, a single master control member rotatably and axially movable, separate means interconnecting said master control member and said header control means and said propulsion control means, one of said interconnecting means being responsive to rotary motion of said master control member and the other of said interconnecting means being responsive to axial movement only of said master control member.

2,842,926
COTTON TOPPER WITH HYDRAULIC ADJUSTING MEANS
John L. Nelson, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application March 28, 1955, Serial No. 496,986
3 Claims. (Cl. 56—25.4)

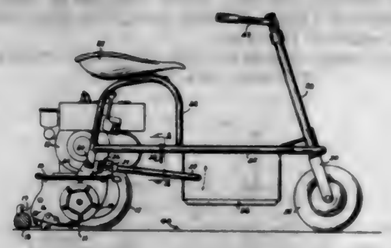


1. A cotton topper attachment for an agricultural vehicle including a chassis, a motor mounted thereon, a power take-off driven by the motor, and a source of fluid under pressure, said attachment comprising a pair of booms, means for rigidly attaching the booms to the chassis in transversely spaced relation projecting from an end of the vehicle, a support frame including a shaft, transversely spaced arms extending radially from the shaft in a common plane, and a brace rigidly interconnecting the arms and spaced from the shaft, means rotatably mounting the shaft on the booms, a second brace rigidly interconnecting the booms, a cylinder pivotally mounted on one of said braces, a plunger reciprocable in said cylinder and pivotally connected to the other of said braces, a conduit including a control valve communicating with said cylinder, means for connecting the conduit with the source of fluid under pressure on the vehicle, a plurality of transversely spaced links pivoted to the support frame, a cutter frame pivotally suspended from said links, a plurality of transversely spaced vertical bearings carried by the cutter frame, a shaft journalled in each of the bearings, a cutter blade carried by each shaft below the frame, drive means coupled in driving engagement with said shaft and mounted on said cutter frame for movement therewith, and means including a flexible drive cable for operably connecting the drive means to the power take-off of the vehicle to be rotated thereby.

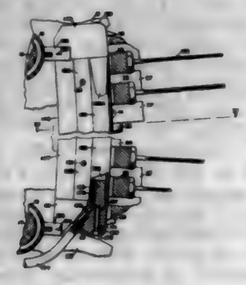
2,842,927
AUTOMOTIVE RIDEABLE MOWING MACHINE
Floyd C. Egley, Ankeny, Iowa, assignor to Western Tool and Stamping Co., Des Moines, Iowa
Application February 27, 1956, Serial No. 567,800
7 Claims. (Cl. 56—26)

1. In combination, a vehicle frame, power means on said frame, a front wheel assembly on a forward portion of said frame, a mower unit on a rear portion of said frame, said mower unit comprising a mounting frame including trailing roller means, mowing means and traction wheel means, said power means being operatively connected to said mowing and traction wheel means, horizontal pivot means connecting said mounting frame to said vehicle frame on an axis of rotation above and between the axes of rotation of said roller and traction wheel means, and manually operated force transmitting means on said mounting frame for alternatively orienting said mower unit on the pivot means to support the

load of the vehicle either on the roller means or traction wheel means and permitting both the roller and traction wheel means to simultaneously engage a support surface over which the vehicle frame moves.



2,842,928
DRIVE MEANS FOR COTTON PICKING SPINDLES
John J. Bramblett, Pine Bluff, Ark., assignor to Ben Pearson, Incorporated, Pine Bluff, Ark., a corporation of Arkansas
Original application November 9, 1955, Serial No. 545,965. Divided and this application September 24, 1956, Serial No. 611,564
13 Claims. (Cl. 56—42)



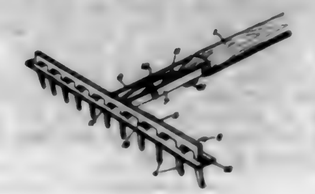
1. In a cotton picking machine having a plurality of picking spindle assemblies, a pneumatic drive rail assembly for said spindle assemblies comprising a supporting bar having a bifurcated edge portion including opposed forks, a pair of end sections respectively attached to opposite ends of said supporting bar, said end sections being respectively provided with sockets therein, a hollow deflatable and inflatable rubber tubing having a rib formed integral therewith along the length thereof, said rib projecting substantially radially from said tubing and being removably mounted in said bifurcated edge portion to support said tubing therefrom, said forks embracing the opposite sides of the exterior of said rib and terminating adjacent the junction of said rib with said tubing, a pair of connector plugs respectively attached to opposite ends of said rubber tubing and projecting outward from the ends thereof, said plugs closing the ends of said hollow tubing to define an air chamber therein, the outward ends of said connector plugs being respectively removably mounted in the sockets in said end sections to support the ends of said rubber tubing, one of said end sections being provided with air inlet means, the connector plug mounted in said one of said end sections including an air passageway through said connector plug, said air passageway opening at one end into said air chamber and alined at the other end with said air inlet means whereby a conduit for air is provided for deflating or inflating said rubber tubing, air supply means coupled to said air inlet means for the introduction of air into said air chamber to inflate said rubber tubing, said rubber tubing when inflated being in frictional contact with said picking spindle assemblies for drive thereof.

2,842,929
CORN PICKER SNAPPING ROLLS
Julius O. Schultz, Mount Clemens, and Thomas F. Cruickberry, Clawson, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application June 6, 1956, Serial No. 589,645
7 Claims. (Cl. 56—103)



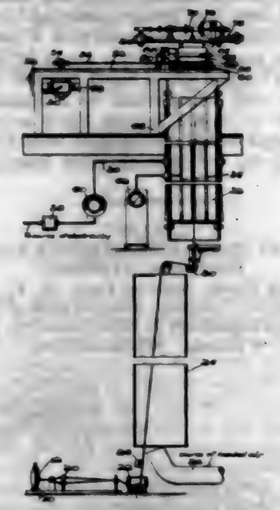
1. In a corn picker, a pair of counterrotating juxtapositioned snapping rolls for snapping ears of corn from corn stalks, one of said rolls having the upper end portion of its surface composed of granular abrasive material at least partially imbedded in a bonding agent composed principally of an epoxy resin, and a raised spiral flute extending for a major portion of said one roll, including that portion of the roll surfaced with granular abrasive material.

2,842,930
SELF-CLEANING RAKE
Joseph A. Pagley, Pittsburgh, Pa.
Application December 2, 1957, Serial No. 700,190
1 Claim. (Cl. 56—400.08)



A self-cleaning rake comprising a rake handle, a rake head having a cross bar disposed perpendicular to the said rake handle and a plurality of tines depending downwardly therefrom, parallel bars having one end of each secured to said cross bar and the other end pivotally secured to said rake handle adjacent one end thereof, an eye hook secured in said one end of said rake handle, a rectangular plate having a plurality of apertures therein, at least equal to the number of tines of said rake, said plate being initially disposed with said tines in said apertures, a link having one end secured to said plate and having a hook at its other end in engagement with said eye hook, said link having an elongated inclined slot disposed substantially centrally thereof, a bolt passing through said parallel members and through said slotted aperture and spring means for biasing said plate adjacent said cross bar, said spring means comprising a spring disposed about said bolt and having ends engaging under one of said parallel bar and said link, said one parallel bar and said link having notches in the undersides thereof for the reception of said ends, and a cross member extending between the undersides of said parallel bars beneath said handle to limit movement of said bars and hence said rake head in one direction.

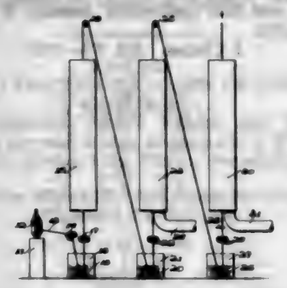
2,842,931
APPARATUS FOR TWISTING AND WINDING MULTI-PLY STRANDS
Robert Stuart Owens, Charlottesville, Va.
Original application November 12, 1953, Serial No. 391,439, now Patent No. 2,800,761, dated July 30, 1957. Divided and this application May 16, 1957, Serial No. 659,618
13 Claims. (Cl. 57—1)



13. Strand twisting and winding mechanism comprising an elongated arm, means to support said arm for rotation on an axis intermediate the ends thereof, a strand winding assembly, means to mount said strand winding assembly on said arm for rotational and axial movement on an axis perpendicular to the axis of said arm so that centrifugal force will be applied to the said assembly throughout a period of rotation of said arm, means for controlling axial movement of said strand winding assembly when centrifugal force is applied thereto to effect axial movement of the said assembly between predetermined limits at uniform velocity including a spring acting in one direction on the said assembly and positively driven means acting in the opposite direction, a spool rotated and fed back and forth by rotary and axial movement of said strand winding assembly at a position to wind strand thereon along an axis coinciding in direction with the direction of the axis of said arm and means for simultaneously operating the means for controlling axial movement of the strand winding assembly and for rotating said arm and the said assembly upon their respective axes at velocities relative to each other to cause strand to be wound in uniform layers on said spool and to be twisted prior to being wound on said spool.

2,842,931
APPARATUS AND METHOD FOR MAKING TWISTED FIBER PRODUCTS
Robert S. Owens, Charlottesville, Va.
Application July 29, 1954, Serial No. 446,585
13 Claims. (Cl. 57—35)

1. A continuous process of making multi-ply coated strands which comprises passing a plurality of separated strands simultaneously through a liquid coating bath consisting of an elastomeric resin dissolved or dispersed in a volatile vehicle, then immediately passing the coated strands under tension through a drying or vulcanizing chamber with concomitant twisting together of the strands so that the strands carrying the coating act as pressure pads to bring about an impregnation of the individual strands, the pressure exerted increasing as the vehicle carrying the resin is evaporated within said chamber; and controlling the time interval and heat which the



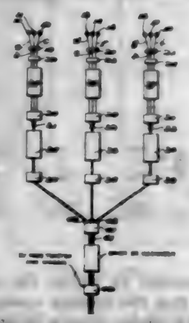
strands are subjected to within the drying or vulcanizing chamber so that the coating material is set while the multi-ply strand is under tension in and traveling through said chamber.

2,842,933
SPINNING AND WINDING DEVICE FOR TEXTILE FIBERS
Carlos Pujol, Barcelona, Spain
Application August 17, 1955, Serial No. 528,883
Claims priority, application Spain August 20, 1954
20 Claims. (Cl. 57—58.89)



1. A spinning and winding device comprising, in combination, a support; a bell-shaped member mounted for rotation about the longitudinal axis thereof in said support, said bell-shaped member having an inner surface flaring from one end of said bell-shaped member to the other end thereof and being formed at said one end thereof with an axial opening constituting an air inlet opening; air-outlet means located only in the region of said other end of said bell-shaped member, whereby during rotation of the device an air stream is created inside said bell-shaped member from said one end to said other end thereof; a stem-shaped deflecting member fixedly attached to said bell-shaped member projecting inside said bell-shaped member from said other end thereof in axial direction towards said one end of said bell-shaped member spaced from the inner surface thereof, the projecting tip of said stem-shaped deflecting member being located opposite said axial opening spaced a small distance from the inner surface of said bell-shaped member; and driving means operatively connected to said bell-shaped member for rotating the same about said axis.

2,842,934
STABILIZED MULTI-PLY YARNS
Robert Stuart Owens, Charlottesville, Va.
Original application July 29, 1954, Serial No. 446,505. Divided and this application January 9, 1956, Serial No. 557,912
2 Claims. (Cl. 57—153)



1. A stabilized multi-ply yarn including a primary ply and a secondary ply, the twist of the secondary ply being the reverse of the twist of the primary ply; an elastomeric coating impregnating the primary ply and applied to the yarn fibers while the fibers are under tension, and said coating having an elasticity, cohesiveness and tenacity such as will bond the fibers together to completely check the tendency of the primary twist to unwind; and an elastomeric coating covering the secondary ply and uniting the two plies.

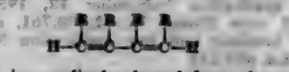
2,842,935
SPRING AND COLLET ASSEMBLIES
Robert I. Bradley, Belmont, Mass.
Application March 15, 1956, Serial No. 571,657
10 Claims. (Cl. 58—115)



1. A spring assembly including a spiral spring and a collet, the latter being a disk of a substantially uniform axial thickness greater than that of the spiral spring and consisting of a unitary annular mass of material, the inner portion of the spring being firmly embedded within and adhesively and immovably bonded to said mass of material.

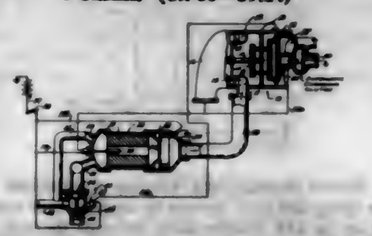
2,842,936
ROCKET PROPELLANTS AND THEIR UTILIZATION
Arnold L. Ayers, Idaho Falls, Idaho, and Cleveland R. Scott, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application May 9, 1952
Serial No. 287,028
17 Claims. (Cl. 60—35.4)

7. A method for producing immediate thrust to a rocket, comprising introducing an oxidizer, which oxidizer is capable of causing spontaneous ignition upon contact with a hypergolic fuel, and a fast burning fuel into said rocket in a combustion zone therein in contact with each other, the stoichiometric ratio of oxidizer to fuel being within the limits from 0.5:1 to 6:1, and burning said fuel in said rocket with said oxidizer at a high but controllable rate, said fuel containing from 1 to 100 percent of a component which is hypergolic in the pure state when contacted with said oxidizer, said component being an essential ingredient for imparting said fast burning quality to said fuel by its presence therein, said component being at least one of the materials selected from the group consisting of (1) a conjugated diene characterized by the structural formula



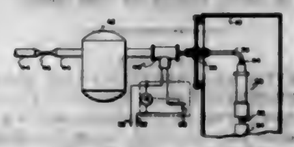
wherein one R is a radical selected from the group consisting of H, phenyl, alkoxy, NO_2, and each remaining R is selected from the group consisting of H, and an alkyl radical containing not more than 4 carbon atoms, the maximum number of carbon atoms in the total R's not exceeding 12, and (2) a liquid polymer of said conjugated diene and characterized by a viscosity at 100° F. of from 5 to 10,000 Saybolt Furol seconds, and a molecular weight within the range of from 200 to 10,000 as determined by the freezing point lowering of benzene.

2,842,937
AIRCRAFT ENGINE CARTRIDGE STARTER CONTROL SYSTEM
Albert George Clark, Ballston Lake, N. Y., assignor to General Electric Company, a corporation of New York
Application September 1, 1955, Serial No. 532,018
6 Claims. (Cl. 60—39.14)



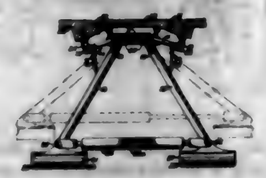
1. In combination with a turbomachine for driving a load, an automatically engageable clutch between an output shaft of said turbomachine and said load, a breech enclosure adapted to receive first and second charges of a combustible material, said second charge being larger than said first charge, fluid conduit means connected between said breech enclosure and a motive fluid inlet for said turbomachine to provide fluid communication therebetween, means for igniting said first charge, and ignition means for igniting said second charge including means actuated by the engagement of said clutch.

2,842,938
AIR SUPPLY CONTROL FOR AIR HAMMER
Charles L. Burton, Flemington, and Harold Edward van Hoesen, Somerville, N. J., assignors to Research Corporation, New York, N. Y., a corporation of New York
Application February 10, 1955, Serial No. 487,376
1 Claim. (Cl. 60—57)



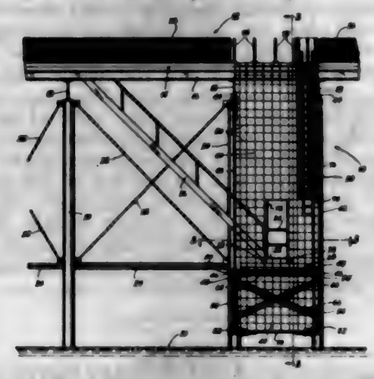
A method of controlling the vibration frequencies of a pressure-fluid operated vibrator by control of the supply of pressure fluid thereto including the steps of accumulating a supply of pressure fluid in advance of the vibrator, controlling the flow of pressure fluid to the accumulator at a rate substantially less than the demand rate of the vibrator, and periodically opening and closing communication between the accumulator and the vibrator in timed correspondence with the attainment and loss of vibrator operating pressure requirements in the accumulator to cycle operation of the vibrator from maximum to minimum vibration frequencies within each cycle of admission of pressure fluid to the vibrator from the accumulator.

2,842,939
SHOCK ABSORBER FOR DOCKING OF SHIPS
Paul Angles D'Auriac, Grenoble, France, assignor to Etablissements Neyrpic, Grenoble, France, a corporation of France
Application October 14, 1953, Serial No. 385,976
16 Claims. (Cl. 61—48)



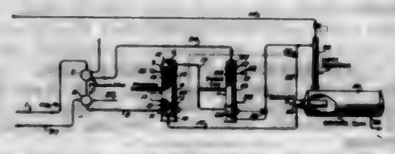
1. A shock absorber for docks and the like which comprises a shoe providing a contact surface for engaging the hull of a ship, means for supporting said shoe upon and outwardly from the dock side and for pivotal movement of said shoe to different angularly related positions about a vertical axis disposed adjacent the dock side, said shoe being supported by said means in horizontally offset relation to the perpendicular to the dock side through said axis to provide for movement of said shoe generally horizontally transversely of the dock side concomitantly with said pivotal movement of said shoe upon engagement of the contact surface of said shoe with the hull of the ship, and means operatively connected to said shoe and to said supporting means for resisting said transverse movement of said shoe toward the dock side under impact of the ship upon said shoe.

2,842,940
PERSONNEL LANDING FOR OFFSHORE PLATFORMS
Roy G. Cappel, Metairie, La., assignor to W. Horace Williams Company, Incorporated, New Orleans, La., a corporation of Delaware
Application September 22, 1955, Serial No. 535,823
10 Claims. (Cl. 61—48)



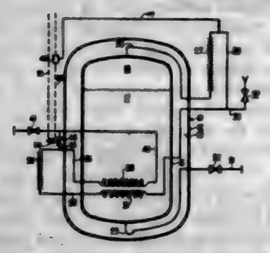
1. An offshore landing comprising, in combination, a pier structure including a main deck disposed at an elevation substantially above normal water level, said pier structure further including a pair of vertical supports disposed laterally inwardly of one edge of said main deck, flexible means including net means secured adjacent said edge and extending generally downwardly therefrom in spaced relation to said vertical supports, and yieldable struts disposed between said downwardly extending means and said supports for absorbing the breasting force of vessels brought into landing engagement with the lower portion of the downwardly extending means.

2,842,941
METHOD FOR PURIFICATION OF CARBON DIOXIDE
Allen G. Eickmeyer, Prairie Village, and Walter W. Deschner, Leawood, Kans., assignors to J. F. Pritchard & Company, Kansas City, Mo., a corporation of Missouri
Application March 29, 1956, Serial No. 574,656
6 Claims. (Cl. 62—24)



1. A method of removing inert gas that is contained with carbon dioxide and which dissolves as a contaminant when the carbon dioxide is liquefied, as, for example, in the production of Dry Ice, said method comprising passing the carbon dioxide gas mixture into a condensing zone, cooling the carbon dioxide gas mixture in said condensing zone to effect condensation of the carbon dioxide and separation of much of the inert gas, removing purge gas from the condensing zone, removing the carbon dioxide condensate from the condensing zone, flashing the condensate into a stripping zone maintained at a lower temperature incidental to said flashing of the condensate, collecting liquid carbon dioxide reaching the lower portion of the stripping zone, passing the relatively warmer condensate removed from the condensing zone into heat exchange with the relatively colder liquid carbon dioxide for reboiling the liquid carbon dioxide to supply stripping vapors to the stripping zone and to precool the condensate prior to flashing, and removing purified liquid carbon dioxide from the place of reboiling.

2,842,942
APPARATUS FOR DISPENSING GAS FROM A CONTAINER OF LIQUEFIED GAS
Herrick L. Johnston and Charles L. Newton, Columbus, Ohio, assignors to Herrick L. Johnston, Inc., Columbus, Ohio, a corporation of Ohio
Application August 25, 1955, Serial No. 530,552
10 Claims. (Cl. 62—50)



1. An apparatus for dispensing gas from a container of liquefied gas comprising, in combination, an insulated container means for confining a liquefied gas and a gaseous phase of said liquefied gas above the liquid; heat exchange means for passing gas withdrawn from said container through at least two heat exchange passes with the environmental air at ambient temperature, said heat exchange means including an intake passage communicating with said gas space whereby said heat exchange means receives a flow of said gaseous phase; heat exchange

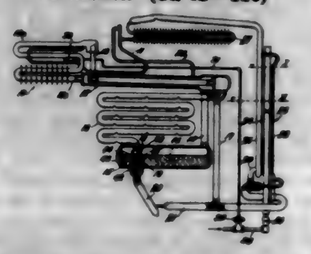
means for passing said withdrawn portion through at least two heat exchange passes with the liquefied gas in said container whereby heat picked up from said environmental air is given up to said liquefied gas to vaporize a portion thereof at least equal in amount to said portion withdrawn, one of said heat exchange passes with the liquefied gas being subsequent to one but prior to another of said environmental heat exchange passes, and another of said heat exchange passes with the liquefied gas being subsequent to said another environmental heat exchange pass; means for varying the heat exchange effect at one of said heat exchange means, and control means operatively connected to said means for varying the heat exchange effect and responsive to variations in the pressure of said gas.

2,842,943

ABSORPTION REFRIGERATION

Wilhelm Georg Kogel, Stockholm, and Axel Gosta Hellstrom, Johanneshov, Sweden, assignors to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden

Application March 22, 1955, Serial No. 496,022
Claims priority, application Sweden March 24, 1954
13 Claims. (Cl. 62—110)



1. In the art of refrigeration with the aid of a system in which refrigerant vapor is expelled from absorption liquid in a generator, refrigerant vapor is liquefied, liquid refrigerant evaporates in the presence of an inert gas in an evaporator, refrigerant vapor is absorbed into absorption liquid in an absorber, inert gas is circulated between the evaporator and absorber and absorption liquid is circulated through and between the generator and absorber, the improvement which comprises the steps of maintaining in the path of circulation of absorption liquid a body of such liquid having a liquid surface at a first place in communication with the circulating inert gas, flowing liquid refrigerant in the system to a second place which serves as a place of accumulation for such liquid, a region of the body of liquid in the second place, which is below its liquid surface and in a part of such body where liquid enriched in refrigerant tends to stratify and collect, and a region of the body of absorption liquid at the first place which is below its liquid surface being in communication with one another in a path of flow which is always completely filled with liquid, intermittently transferring to the first place in the path of circulation of absorption liquid a quantity of such liquid during periods when the normal circulation of absorption liquid is modified, flowing to said part of the second place from the first place through said path of flow therebetween the quantity of liquid transferred to the first place and effecting such flow practically immediately upon the transferred liquid reaching the first place, the quantity of liquid that can be held in the second place being more than four times greater than the quantity of liquid that can be held in the first place with the relative sizes thereof being such that, after flowing the quantity of transferred liquid from the first place to said part of the second place, the quantity of liquid remaining in the first place is essentially the same as the quantity of liquid held therein before said flow of transferred liquid is effected from the first to the second place, and flowing absorption liquid enriched in refrigerant from said part of the second place into the path of circulation of absorption liquid when normal circulation of such liquid again commences.

2,842,944

EARRING CLASP WITH SPRING BIAS CLAMP AND MEANS FOR WITHHOLDING SAME

Ernest F. Gray, Los Angeles, Calif.

Application June 4, 1956, Serial No. 589,316
2 Claims. (Cl. 63—14)



1. An earring clasp comprising a U-shaped member having oppositely disposed ornament and pivot arms, the upper end of said pivot arm providing a horizontal axis of rotation, the upper end of said pivot arm having a ledge disposed beneath said horizontal axis of rotation, an ear lobe clamping member having the inner end thereof pivotally and twistably mounted on the upper end of said pivot arm along said horizontal axis of rotation, said clamping member having a resilient tongue extending to said pivot member, said tongue having a free end pivotally resting upon said ledge, said tongue urging the free outer end of said clamping member toward said ornament arm, a slot extending inwardly from the outer end of said clamping member to divide the outer end of said clamping member into two separate ear lobe engaging portions, the outer end of only one of said two ear lobe engaging portions having a rounded projection, said projection extending along one side of the outer entrance portion of said slot whereby the entrance portion of said slot is substantially offset laterally with respect to the normal position of said pivot arm, said slot having an inner recess disposed behind said rounded projection inwardly and to one side from the entrance portion of said slot, said recess being substantially aligned with the normal position of said pivot arm, the free end of said clamping member adapted to be pivoted on said horizontal axis toward said pivot arm, said rounded projection upon said pivotal movement engaging said pivot arm and causing said clamping member to twist vertically along its axis of rotation as said pivot arm passes into said slot, said tongue twisting said clamping member back to its normal horizontal axis to move said pivot arm into said recess and hold said pivot arm within said recess behind said projection to lock the free end of said clamping member in open position away from said ornament arm, the free end of said clamping member being releasable from engagement with said pivot arm only by manual pressure on said clamping member to cause pivotal and twisting movement of said clamping member whereby said pivot arm is moved out of said recess and through said slot.

2,842,945

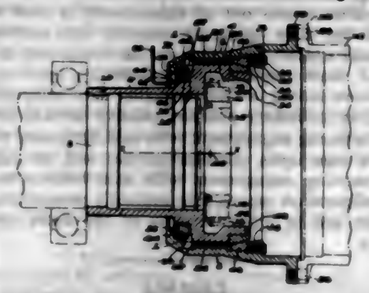
COUPLING

Arthur Swanson, Towson, Md., assignor to Koppers Company, Inc., a corporation of Delaware

Application July 18, 1956, Serial No. 598,554
10 Claims. (Cl. 64—9)

1. A flexible thrust coupling comprising a female member and a male member, said female member having internally disposed teeth and said male member having externally disposed teeth in coaxial relationship to and intermeshing with the teeth of said female member for

transmitting torque under conditions of misalignment, a pair of inner and outer axial thrust transmitting rings removably mounted, respectively, on the male and female members on one side of their intermeshing teeth, the outer ring having an internal concave spherical surface generated by a segment of a circle having a center of curvature at a point on a line running through the longitudinal axis of the coupling and resting in a plane passing through such line and through the mid-portions of the widths of said teeth, the outer surface of said inner ring being disposed to be in mating line contact with the internal surface of said outer ring, the surface of said inner ring being generated by a segment of a circle of lesser radius than the radius of the generating circle for the surface of said outer ring so as to have a curvature at point of contact smaller than the curvature of said outer ring whereby any movement of the mating rings provides a wedging action of lubricant between said rings to maintain such lubricant as a film continuously therebetween, and locking means for maintaining the female and male members in operative interrelationship.

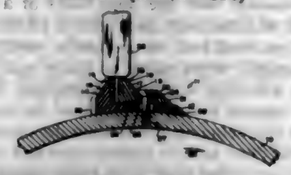


2,842,946

ADJUSTABLE CAM FOR CIRCULAR KNITTING MACHINES

Vaughn H. Butler, Harriman, Tenn., assignor to Burlington Industries, Inc., Greensboro, N. C., a corporation of Delaware

Application May 14, 1957, Serial No. 659,043
3 Claims. (Cl. 66—156)



1. In a circular knitting machine, a rotary drum and an actuating cam mounted peripherally thereon, said cam including overlying and underlying members, cooperative cam sections extending radially outwardly from corresponding ends of said members, one of said members being slotted and the other being apertured, and a screw extending through said members into said drum, whereby said apertured member may be fixedly mounted on said drum and said slotted member may be positionally adjusted with respect to said apertured member and said drum.

2,842,947

KNITTED FABRICS AND METHODS FOR KNITTING SAME

Hugo Lindner and Hellmuth Lindner, Auerbach, Erzgeb., Germany, assignors to Veb Vereinigte Strumpfwerke Rolo, Auerbach, Erzgeb., Germany

Application May 6, 1955, Serial No. 506,594
4 Claims. (Cl. 66—202)

1. As an article of manufacture a knitted fabric comprising: a plurality of first courses, each first course including a series of long loops being longer than normal loops, a plurality of second courses, each second course including a series of normal loops having normal length, and a plurality of third courses, each third course including a series of short loops being shorter than normal loops, the loops of said first, second and third courses



being made of the same yarn, the thickness of first portions of said yarn forming said long loops being less than the thickness of second portions of said yarn forming said normal loops, and the thickness of said second portions of the yarn being less than the thickness of third portions of said yarn forming said short loops.

2,842,948

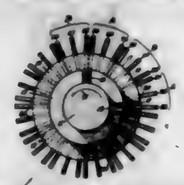
WITHDRAWN

2,842,949

MECHANICAL CORK AGGREGATE REMOVER

Jesse J. Good, Jr., Arvin, Calif.

Application September 21, 1956, Serial No. 611,288
4 Claims. (69—6.5)



1. A rotary tool for removing gummy cork-aggregate from a leather insole, said tool comprising: a cylindrical hub having means for mounting the hub on a shaft for high speed rotation of said hub; and a number of steel stub teeth the diameter of which is in the neighborhood of about one-eighth inch, said teeth being mounted in said hub to extend radially a uniform distance from the peripheral face of said hub and being about one-half inch in length to prevent gummy accumulations of aggregate on said teeth from building up around the outer ends of said teeth to an extent that it bridges the space between adjacent teeth, said teeth being scattered over the hub area occupied thereby with a density in the neighborhood of about five teeth per square inch of said area.

2,842,950

TAMPERPROOF LOCKING LEVER EQUIPPED PADLOCKS

Harry E. Soref, Milwaukee, and Daniel J. Foote, Wauwatosa, Wis., assignors to Master Lock Company, Milwaukee, Wis., a corporation of Wisconsin

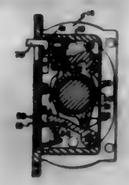
Application August 15, 1956, Serial No. 604,122
1 Claim. (Cl. 70—38)



In a tamperproof padlock having a body with a circular opening extending inwardly from one end, a shackle

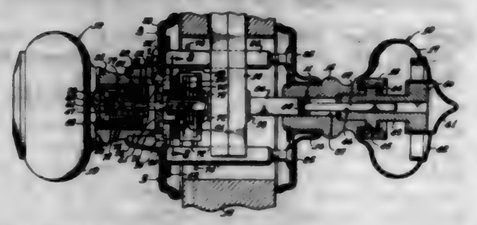
having a recessed leg of circular cross-section movably received by said body opening, and a locking lever longitudinally reciprocatably mounted within the body at right angles to the axis of said shackle leg, each corner of the outer end of said locking lever being formed with a right angular shoulder to provide therebetween a reduced tongue of a width less than the width of the recess in said circular cross-section leg to releasably extend within said circular body opening, but the tongue being of less length than the depth of the shackle leg recess, each locking lever shoulder having a longitudinal leg parallel to the axis of the locking lever and a leg transverse to the axis of the locking lever, with the transverse legs being intersected by the periphery of the body opening closely adjacent the apexes of the locking lever shoulders, the latter being slightly outwardly of the periphery of the body opening whereby circular movement of a shim inserted into the body opening around the shackle is restrained by contact with the longitudinal leg of a shoulder of the locking lever and is deflected into the shoulder apex to prevent such application of force to the locking lever longitudinally of its axis as will cause a longitudinal reciprocation of the locking lever to release it from the shackle.

2,842,951
CYLINDER LOCK FOR SLIDING DOORS
Walter J. Duvall, Chula Vista, Calif.
Application November 18, 1955, Serial No. 547,784
6 Claims. (Cl. 70—151)



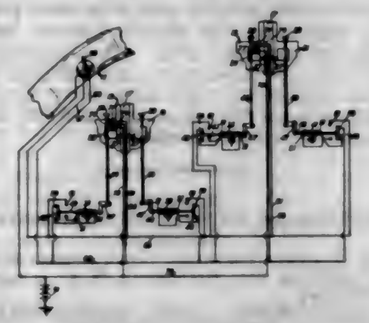
1. A lock mechanism comprising a frame, said frame having a large central opening, means for mounting a lock cylinder within said opening, a locking member rotatably mounted around said cylinder, said locking member being rotatable to a locked and an unlocked position, said locking member having a pair of diametrically opposed cams disposed adjacent the periphery of said cylinder, said cylinder having a rotatable control arm, said control arm adapted to extend beyond the periphery of said cylinder to engage the adjacent cam and move said locking member to locked or unlocked position, said cylinder being reversible with respect to said frame.

2,842,952
CAMMING LOCK MECHANISM
Fred J. Russell, Los Angeles, Calif.
Application February 3, 1956, Serial No. 563,345
8 Claims. (Cl. 70—216)



2. In a lock mechanism comprising an inner operating assembly, an outer operating assembly, and a spindle means adapted to connect said assemblies for operating a latch bolt device, the combination of a non-rotatable member in fixed position having configuration means thereon, a blocker being in releasable engagement in one position with a part of said spindle means and non-rotatably mounted with respect to the inner operating assembly, said blocker having a configuration means complementary to and adapted to be received by said first identified configuration means, said blocker having a non-rotatable axially movable engagement with said outer operating assembly and in said one position having said configuration means out of engagement, a shaft extending from the inner operating assembly into said blocker, a first cam slidably mounted on the shaft, said first cam and said shaft non-rotatable relative to each other, a second cam having a cam engaging face adapted to be retained in stationary position relative to said first cam and in camming engagement with said first cam, whereby said first cam upon rotation thereof will be shifted in axially moving engagement with said blocker to move said configuration means into mutually non-rotatable engagement and to block rotation of the outer operating assembly.

2,842,953
AUTOMOBILE DOOR LOCK CONTROL CIRCUIT
William J. Troedt, Portland, Oreg.
Application December 6, 1954, Serial No. 473,307
1 Claim. (Cl. 70—264)



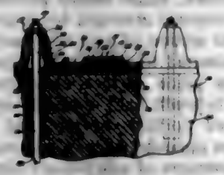
In combination with the door locks of a conventional automobile wherein each door lock is of the type including a key operated lock device and a vertically movable plunger operable when raised to cause said door lock to assume an unlocked condition permitting the associated door to be opened by manipulation of the associated outside handle and being operable when depressed or lowered to cause said door lock to assume a locked condition preventing the associated door from being opened by manipulation of the associated outside handle, said plungers being permanently mechanically connected to other portions of said door locks to permit at all times manual locking and unlocking of said door locks by operation of said plungers, the key operated lock devices being operatively connected to the associated plungers whereby the latter may be raised or depressed from the outside by turning the keys for said key operated lock devices in the desired direction, the invention comprising plural solenoid means for the plungers, the plural solenoid means being operable when energized in one manner for simultaneously raising said plungers and when energized in a different manner for lowering said plungers, said plungers adapted to be manually operated to place said door locks in locked or unlocked conditions whenever such solenoid means are inoperative for any reason whatsoever, first switch means connected to said solenoid means and being operated by turning of a key in said key operated lock devices for connecting said solenoid means to a source of electrical energy in said one manner to raise said plungers or for connecting said solenoid means in said different manner to such source of electrical energy to lower said plungers depending on the direction of turning of said key in said lock devices, second switch means located within said automobile and having a locking position, an unlocking position and a neutral position for causing energization of said solenoid means for simultaneously raising or lowering said plungers depending into which position said second switch means is moved, and contact means associated with said solenoid means for effecting de-energization of said solenoid means after a door locking or door unlocking operation and being connected to said second switch means and being operable when said second switch means is left in its locking position to cause energization of said solenoid means in the event said door locks are manually unlocked thereby returning said door locks to such locked condition, said plural solenoid means being connected in parallel with one another so that if one solenoid means becomes inoperable the remaining solenoid means will not be affected.

2,842,954
KEY CASE AND KEY
Cyril B. Schindler, New Orleans, La.
Application June 29, 1955, Serial No. 518,781
1 Claim. (Cl. 70—456)



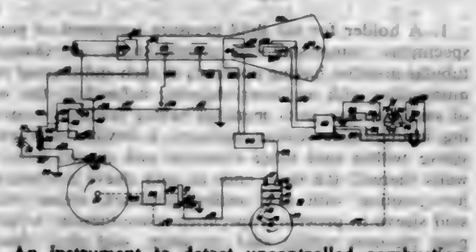
In a device of the character described, the combination of a case having completely open ends and margin, the sides of said case having similar longitudinal slots extending from near one end thereof for substantially half the length of said case, the inner ends of said slots having curved enlargements, a pin passing slidably through said slots, at least one stub key having the rear end thereof rotatably mounted on said pin, said curved enlargements permitting the key to be turned through 180° for placing it into position when protruded from said case for unlocking purposes, and a U-shaped member having its end secured respectively to the ends of said pin and adapted to be grasped for sliding said pin in said slots.

2,842,955
ENGINE FOUNDATION STRUCTURE
Tage V. Pedersen, Roscoe, Ill., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application November 13, 1953, Serial No. 391,987
1 Claim. (Cl. 72—77)



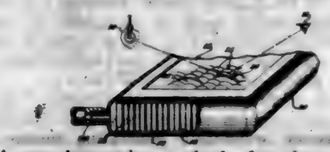
In combination a metal base member for base mounted apparatus as an internal combustion engine, the base member being provided with oppositely disposed longitudinal mounting flanges and each of said flanges having a transversely directed recessed portion near the longitudinal center of each flange and a longitudinally disposed downwardly tapered portion along the inner edge of each of said flanges, a formed concrete foundation block structure providing mounting portions receiving the mounting flanges of said base member, each such mounting portion of the block including a projection extending inwardly of the recessed portion of each associated base member mounting flange cooperating therewith, aligning the base member on the block structure and constraining the same against relative longitudinal and outwardly transverse movement in the horizontal plane, said metal mounting base further including a plurality of integral upstanding apertured bosses spaced along said flange, a plurality of stud elements each having one end portion anchored in the block structure and each having the other end extending from the block and through the aperture of a corresponding upstanding boss of the mounting flange of the base member, means engaging the protruding end of said stud elements and securing said base member to the block structure to preclude movement of said base member vertically of the longitudinal dimension of said block and to thereby cooperate with said recessed flange means to hold said base member to the block member against movement longitudinally and outwardly, and yieldable spacing means comprised partly of granular material and partly of fibrous material between the block structure and each stud element along an intermediate length of said stud elements to permit limited flexure of the stud element to compensate for relative expansion and contraction of the base member and said foundation block structure.

2,842,956
APPARATUS FOR DETECTING UNCONTROLLED COMBUSTION WITHIN INTERNAL COMBUSTION ENGINES
Otto A. Uyehara and Philip S. Myers, Madison, Wis., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
Application December 28, 1953, Serial No. 400,510
5 Claims. (Cl. 73—35)



1. An instrument to detect uncontrolled combustion with the combustion chamber of an internal combustion engine equipped with a sparking device comprising in combination, means for detecting a change in a physical property within said combustion chamber in relation to piston position during a compression and combustion cycle, means including an oscillograph to depict said change in physical property graphically on a screen, an ignition grounding device connected to a rotating part of said engine through a reduction gear whereby at predetermined intervals the ignition impulse to the sparking device is grounded out so that a comparison of fired and unfired cycles may be made.

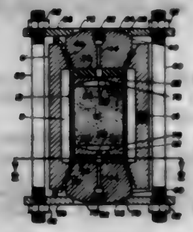
2,842,957
NON-DESTRUCTIVE METHOD OF TESTING BONDED CELLULAR PANELS
John W. Bacon, Jr., Palos Verdes Estates, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application May 17, 1955, Serial No. 509,051
3 Claims. (Cl. 73—37)



1. A non-destructive method of testing panels having a pair of skin sheets bonded to cellular material, the

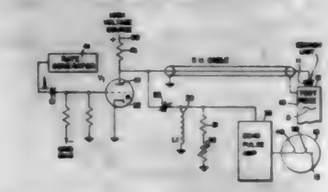
cells of which are in intercommunicating relationship comprising applying a reflective surface on the exterior surface of said panel; applying a removable tape about the peripheral edges of said panel to render the interior substantially air tight; and creating air pressure differential between the interior and exterior of said panel by an air hose inserted through an opening in said tape to cause structural weaknesses in the panel to reflectively distort said reflective surface.

2,842,958
APPARATUS FOR MEASURING FLOW CHARACTERISTICS OF POROUS SPECIMENS BY DISPLACEMENT
Allyn T. Sayre, Jr., Don W. Reark, and Albert H. Arens, Crystal Lake, and Don J. Wangelin, Barrington, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
Application January 27, 1956, Serial No. 561,768
4 Claims. (Cl. 73—38)



1. A holder for the fluid pressure treatment of porous specimens comprising, in combination, an elongated tubular member having openings at each end thereof communicating with an inner chamber defined by the walls of said member, said openings having inwardly converging infundibular sealing surfaces, a flexible open-ended sleeve within said inner chamber and spaced from the walls thereof, the open ends of said sleeve extending in juxtaposition with said sealing surfaces, means within said sleeve to provide a specimen space therein, a pair of plug closures within said openings, said plug closures having inwardly converging infundibular sealing surfaces substantially parallel to the sealing surfaces of said tubular member and extending within the open ends of said flexible member, means for holding said plug closures against the inside open ends of said flexible sleeve to compress said sleeve ends against the sealing surfaces of said tubular member, means for introducing fluid pressure into the space between the outer wall of said sleeve and the inner walls of said chamber, and means for introducing fluid pressure through said specimen space.

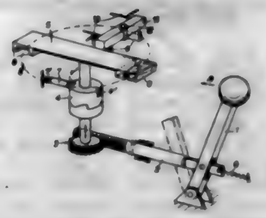
2,842,959
ULTRASONIC WAVE TRAIN GENERATOR
Elliott A. Henry, Newtown, Conn., assignor to Sperry Products, Inc., Danbury, Conn., a corporation of New York
Application November 1, 1954, Serial No. 465,791
5 Claims. (Cl. 73—67.8)



4. An ultrasonic wave-train generating means comprising a piezo-electric element, a charging circuit including a source of direct current voltage permanently connected to said element, a multi-electrode gaseous discharge device having its space path connected across said element, means normally biasing said device to discharge cut-off condition, and means for applying a momentary discharge-triggering potential opposing said biasing means to initiate conduction through said device, thereby to provide a discharge path for the energy stored in the capacitance of said element; the time constant of said charging circuit being such as to require a charging time which is long with respect to the natural period of said element, whereby the counter-voltage generated by said element immediately following conduction of said device substantially neutralizes the potential across its space path and restores the device to non-conducting condition.

5. An ultrasonic wave-train generating means in accordance with claim 4, and a receiving circuit connected to receive the generated output of said element.

2,842,960
TESTING INSTRUMENTS WITH MEANS FOR CENTERING TEST BODIES
Henri Schmadt, Zug, Switzerland
Application September 19, 1955, Serial No. 535,177
Claims priority, application Switzerland September 23, 1954
7 Claims. (Cl. 73—101)



1. In an impact testing machine equipped with an impact member and with spaced supports for holding the opposite ends of a bar-shaped test specimen to be contacted by said impact member, said specimen having a channel extending in a direction transverse to the longitudinal axis of said specimen and from one side of said specimen to the other, said supports being arranged on opposite sides of and spaced equidistantly from the path of movement of said impact member; means for centering said specimen relative to said supports, comprising a bolt member located in said channel of said specimen and having an end section protruding laterally from said specimen, guide means provided with spaced guide surface elements arranged for location on opposite sides of said end section of said bolt member, and means operatively connected to said guide means for positioning said spaced guide surface elements thereof, when the same are between said supports and adjacent peripherally spaced portions of said end section of said bolt member, on opposite sides of and equidistantly from said path of movement of said impact member, to thereby center said specimen.

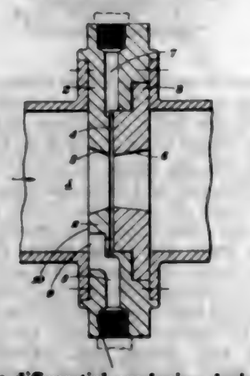
2,842,961
FLOW MEASUREMENT IN WELLS
Henri Georges Doll, Ridgefield, Conn., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application September 16, 1954, Serial No. 456,469
3 Claims. (Cl. 73—155)

1. In apparatus for measuring the flow of liquid across a given level in an oil well, the combination comprising an elongated cylindrical housing having a diameter on the order of 2 inches and a passage longitudinally therethrough for disposition across a given level in a well, a positive displacement pump disposed along said passage for pumping liquid therethrough, means for generating a signal the frequency of which is proportional to the pumping rate of said pump, means for amplitude modulating said pumping rate signal in accordance with the direction of flow of liquid across the given



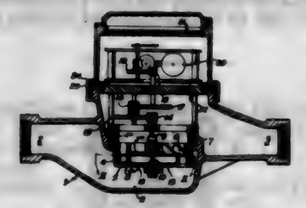
level externally of said passage, means for adjusting said pumping rate in accordance with the amplitude modulations of said modulated signal, and means including a frequency detector for indicating said adjusted pumping rate when liquid flow across the given level is substantially at a standstill.

2,842,962
PRESSURE DIFFERENTIAL PRODUCING DEVICE
Horace Edward Doll, Luton, England, assignor to George Kent Limited, London, England, a company of Great Britain
Application October 25, 1954, Serial No. 464,444
Claims priority, application Great Britain October 29, 1953
4 Claims. (Cl. 73—211)



3. A pressure differential producing device adapted to be interposed in a pipeline for the differential pressure measurement of fluid flow therein, said device comprising a plate-like structure having a thickness of from one half to one fourth the diameter of the pipeline and formed with an orifice having a throat of a length between one tenth and two hundredths the diameter of the throat, said structure having a truncated cone-shaped inlet and a truncated cone-shaped outlet communicating with said throat and so formed that the smaller ends of the cones are adjacent to one another, said structure having a substantially radially extending pressure offtake communicating with said throat and a second substantially radially extending pressure offtake communicating with a port in the inlet side of said structure, the included angle of said inlet being between 30° and 60° and the included angle of said outlet being between 12° and 18°.

2,842,963
ROTARY LIQUID METER
William Guy Ardley, London, England, assignor to George Kent Limited, London, England, a company of Great Britain
Application June 7, 1954, Serial No. 434,906
Claims priority, application Great Britain June 15, 1953
3 Claims. (Cl. 73—231)

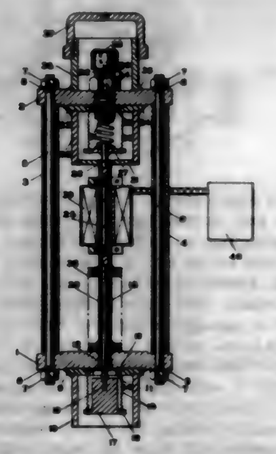


1. In a liquid meter, a casing having an inlet and an outlet; a part in said casing between said inlet and said outlet including a hollow cylindrical portion opening toward said outlet and a base portion adjacent to said inlet and extending between said inlet and said cylindrical portion, said base portion being formed with a plurality of passages extending from said inlet to within said cylindrical portion for directing liquid to flow in a plurality of jets into said cylindrical portion and toward said outlet; a rotor having a solid inner portion and an outer peripheral ring of blades registering with said passages; bearing means fixed with respect to said casing and mounting said rotor to rotate within and about the axis of said cylindrical portion with freedom to float in the direction of said axis with the peripheral outer edges of said blades surrounded by and adjacent to the internal wall of said cylindrical portion, the extent of said blade peripheral edges parallel to the axis of said cylindrical portion being less than the extent of said cylindrical portion parallel to said axis whereby the axial length of said cylindrical portion inner wall at any time immediately surrounding and adjacent to said blade peripheral edges will be constant irrespective of floating of said rotor in the direction of said axis, the total cross sectional area between said blades transverse to said axis being at least 1.75 times as great as the total cross sectional area of said passages, said base portion being apertured to provide restricted communication between said inlet and said cylindrical portion at a radial distance from said axis of rotation less than the radially inner extremities of said blades and adjacent to said rotor solid inner portion for controlling the pressure acting on said rotor in the direction of flow through said cylindrical portion to be sufficient to maintain said rotor in substantially floating condition axially relative to said bearing means; a counter mechanism; and means for transmitting drive from said rotor to said counter mechanism.

2,842,964
PRESSURE GAUGE FOR HOT LIQUIDS
Robert J. Campana, Mars, and Earle C. King, Evans City, Pa., assignors to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 21, 1954, Serial No. 438,000
2 Claims. (Cl. 73—410)

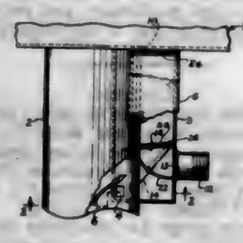
1. In a pressure gauge for measuring the pressure of hot solidifiable liquids, a pair of supporting plate members, a plurality of bolts and spacer members securing said plate members in spaced relation, a tubular member secured to one of said plate members and adapted to connect the same to the container whose pressure is to be

measured, said one plate member having an aperture therein opening within said tubular member, a bellows member secured to said one plate member and closing said aperture, a second tubular member having one end secured in said aperture and extending toward said other plate member, a cup shaped casing member secured to said other plate member and having an aperture in which is secured and sealed the other end of said last named tubular member, said other plate member having an aperture therein, a threaded adjustment member extending through said last named aperture, a bellows member secured to said other plate member and sealing said last named aperture, a spring positioned between said adjustment member and the end wall of said last named bellows member, a



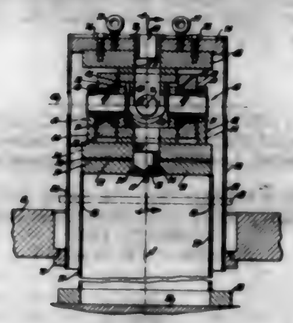
thrust rod secured to and interconnecting said bellows members and extending through said second named tubular member, a plurality of heat transfer fins on said second named tubular member adjacent said one plate member, the annular space between said rod and said second named tubular member being sufficiently small in relation to the heat transfer capacity of said fins to insure solidification of any liquid leaking past said bellows, a transformer coil secured on said second named tubular member between said fins and the other end thereof, said thrust rod having a soft iron portion extending through and forming a moveable core for said coil, and the position of said thrust rod determining the output of said transformer, said output being measured by a suitable electrical instrument calibrated in units of pressure.

2,842,965
DIVERTER VALVE SAMPLER
Lee Lavere Thompson, Iowa Park, Tex.
Application June 10, 1955, Serial No. 514,669
3 Claims. (Cl. 73—422)



1. A diverter valve for use in a mud flow line, which mud flow line extends between a drilling well and a shale separator, said mud flow line having an inlet opening formed in the lower portion thereof, a diverter baffle secured to the inside of said mud flow line immediately adjacent and down-stream from said opening therein, a box-like member secured to said mud flow line, the opening in said mud flow line being in fluid communication with said box-like member, said box-like member having the up-stream end closed and the down-stream end having an opening formed therein and being in fluid communication with said shale separator, a lateral side of said box-like member, opposite said mud flow line, having an opening formed therein, said opening being positioned downstream from the opening in said mud flow line, a plate pivotally connected to a lateral side of said box-like member, the pivot point of which is adjacent and immediately down-stream from said opening in said lateral side of said box-like member, said plate being of a length to substantially block said opening in said box-like member when in one position, means for holding said plate in adjusted position, and said diverter plate having a notch opening formed in a side thereof above said opening leading from said lateral side of said box-like member.

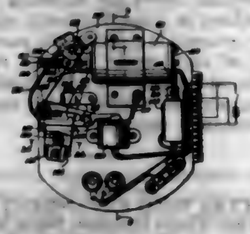
2,842,966
BALANCER FOR WATER WHEELS
Fred H. Raed, Lafayette, Calif., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application December 16, 1952, Serial No. 326,210
6 Claims. (Cl. 73—474)



6. A balancer comprising a base symmetrical with and rotatable about a vertical axis, a universal joint having a driving pair of pins and a driven pair of pins, means for supporting the weight of an article to be balanced on said driven pair of pins, and means for transferring said weight from said driving pair of pins to said base with the intersection of the axes of said pairs of pins coincident with said vertical axis, said transferring means including elements having upper and lower planar friction surfaces and including means for constraining said lower friction surface solely to rotation with said base about said vertical axis and including means for constraining said upper friction surface to rotation about said vertical axis and to motion along said vertical axis, whereby said weight presses said upper friction surface downwardly against said lower friction surface and into frictional rotary driving engagement therewith.

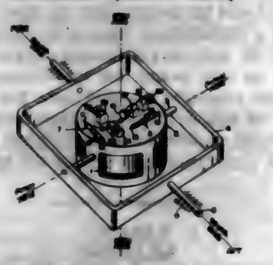
2,842,967
GYROSCOPIC DEVICE
Jay R. Borden, Pasadena, and Arne M. Harja, San Gabriel, Calif., assignors to Clary Corporation, San Gabriel, Calif., a corporation of California
Application October 10, 1955, Serial No. 539,316
4 Claims. (Cl. 74—5.1)

1. A gyroscopic device comprising a rotor, a support supporting said rotor for movement about its spin axis, a gimbal pivotally supporting said support for movement about a second axis perpendicular to said spin axis, a base pivotally supporting said gimbal for movement about an axis perpendicular to said second axis, caging cams connected to said gimbal and to said support, a cam follower carried by said base and successively engageable with said caging cams whereby to cage said gimbal and said support in predetermined attitudes relative to said



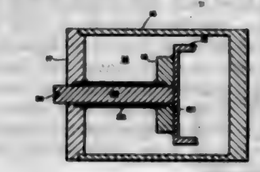
base, an actuating device movable through an actuating stroke for operating said cam follower, means forming a spring connection between said actuating device and said cam follower, a latch for latching said cam follower in an uncaged position, and means for concurrently operating said actuating device to actuate said cam follower and operating said latch to release said cam follower.

2,842,968
VERTICAL GYROSCOPE ERECTION SYSTEM
Charles E. Hurlburt, River Edge, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application September 26, 1955, Serial No. 536,699
1 Claim. (Cl. 74—5.44)



In a vertical gyro erection system, the combination of a vertical gyro having freedom in an inner gimbal on a pitch axis and freedom in an outer gimbal on a roll axis, said inner gimbal having a pair of opposite supporting surfaces, a mercury-type switch mounted on one of said supporting surfaces of the inner gimbal in parallel relation to the roll axis for sensing departure of the gyro on its pitch axis, a similar type switch mounted on said one surface of the inner gimbal in parallel relation to the pitch axis for sensing departure of the gyro on its roll axis, a pair of solenoids mounted on said one supporting surface of the inner gimbal and normal to the pitch axis, each having a plunger mass shiftable on energization of the solenoid in a direction opposed to the other, a second pair of solenoids mounted on said one supporting surface of the inner gimbal and normal to the roll axis, each having a plunger mass shiftable on energization of the solenoid in a direction opposed to the other, one or the other of a pair of the solenoids being energizable by one of the switches accordingly as the gyro departs in one direction or the other on its pitch axis, one or the other of the other pair of solenoids being energizable by the other of the switches accordingly as the gyro departs in one direction or the other on its roll axis, the switch mounted in parallel relation to the pitch axis being characterized by a cylindrical tubular envelope having a center contact, opposed end contacts and a blob of mercury fluid movable in response to precession of the gyro on its roll axis to close over the center contact and one of the end contacts, and the blob of mercury fluid characterized as of such size as to be responsive to centrifugal force created during rotation of the outer gimbal about its vertical axis to move to an end of the envelope free of the center contact whereby the roll sensing switch is ineffective to sense precession of the gyro on its roll axis during such rotation of the outer gimbal, a pair of auxiliary mercury switches mounted on the other of the pair of supporting surfaces of the inner gimbal in parallel relation to the roll sensing switch and cooperable during such rotation of the outer gimbal with the pitch sensing switch to close a circuit to the solenoids normally controlled by the roll sensing switch.

2,842,969
MOTION TRANSMITTING MEANS
William E. Baker, Waldwick, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application March 1, 1952, Serial No. 274,468
2 Claims. (Cl. 74—18)

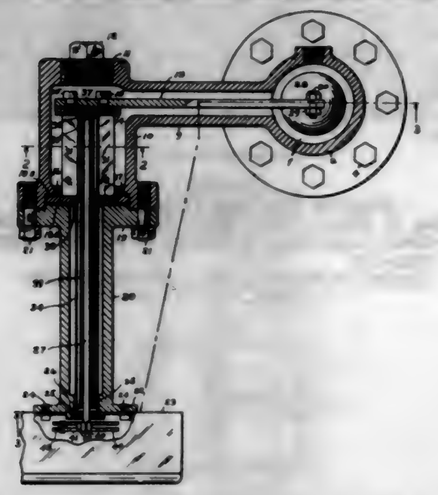


1. In apparatus for transmitting motion between the exterior and interior of a hermetically sealed housing without destroying the hermetic seal, the housing having an apertured wall portion through which the motion is to be transmitted, hermetic sealing means sealed to said portion for hermetically sealing off said aperture, said sealing means including a substantially non-elastically deformable hollow metal member having a first portion embedded in said apertured wall portion so as to extend only part way therein, means to secure said first portion in said apertured wall, and said member having a second portion secured to an object to be rotated within said housing, and a motion transmitting member secured adjacent one end thereof to the object to be moved and to said sealing means adjacent the second portion of said deformable member which is spaced from said first portion of said deformable member, said motion transmitting member being rotatably supported in a bearing surface of said housing portion which defines at least part of said aperture, said motion transmitting member being accessible from the exterior of the housing and extending through the hollow portion of said deformable member into the interior of the housing, whereby upon rotary movement of the motion transmitting member there is imparted a corresponding rotary movement to the object within said housing.

2,842,970
LIQUID LEVEL CONTROL
Francisco Angel Quiroz, Newark, N. J.
Substituted for abandoned application Serial No. 131,442, December 9, 1949. This application April 29, 1957, Serial No. 663,868
6 Claims. (Cl. 74—18.1)

1. In a device for transmitting motion of a moving element within the housing to a movable element exterior to the housing, the motion transmitting means comprising a supporting disk having a center hole, a plurality of substantially flat spring bars, each with one end secured to one face of the supporting disk around the center hole, substantially in a perpendicular position in relation to said face and having the flat sides substantially in radial

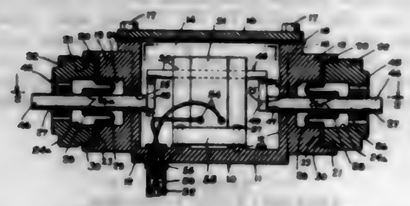
position in relation to the axis of said supporting disk, a second disk substantially parallel to the supporting disk firmly secured to the opposite ends of said spring bars, a rod with one end secured to the center of the second disk and extending between said spring bars along the axis of both disks and beyond the center hole of the supporting disk, flexible sealing means covering said rod between said disks, said sealing means being secured to the second



disk and to the supporting disk around the center hole of the latter and spaced from said rod, means for securing said supporting disk within the housing in a place with an opening that will allow said rod to extend to the exterior of said housing, connecting means between the moving element within the housing and the second disk mounted on the spring bars, and connecting means between the portion of the rod extending out of the housing and the movable element in the exterior of the housing.

2,842,971
WATERPROOF CASING WITH MEANS ESTABLISHING MOVABLE COMMUNICATION BETWEEN ENCLOSED APPARATUS AND EXTERNAL PARTS

Kenneth Cornell, Westfield, N. J.
Application April 26, 1956, Serial No. 580,910
9 Claims. (Cl. 74—18.2)

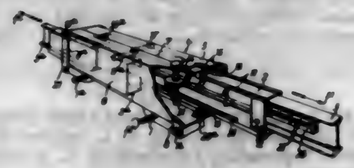


1. A water-tight casing for actuating and control apparatus comprising a casing part with detachable cover means forming one wall thereof, an enlarged chamber within said casing part for reception of such apparatus, a pair of reciprocatory members extending through walls of said casing from said chamber to the exterior of said casing, each of said members being mounted on said casing by flexible means providing a water-tight seal, a rigid movable member within said chamber operatively coupled with said apparatus and having bearing engagement with the inner ends of said reciprocatory members to translate in-and-out movement of one reciprocatory member to an equivalent reverse movement of the other reciprocatory member, and said flexible mounting and sealing means being of identical and opposed construction such that water pressure applied externally of said casing produces balanced opposed forces in the engagement between said reciprocating members and said rigid movable member.

9. A water-tight casing for actuating and control apparatus as defined in claim 1 wherein said reciprocatory members are arranged in substantially parallel relationship in one wall of said casing, and the rigid member is pivoted within said casing at a point equidistant from opposed bearing portions thereof which engage inner ends of said reciprocatory members.

2,842,972
VEHICLES WITH EXPANDING BODIES

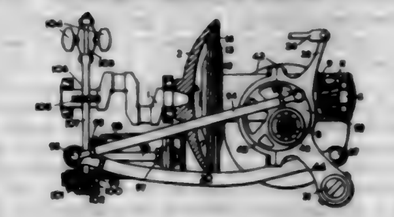
Dominique Paul Albert Houdart, Dijon, France, assignor to Etablissements Duplirex, Dijon, France, a French body corporate
Application June 20, 1956, Serial No. 592,625
Claims priority, application France June 23, 1955
11 Claims. (Cl. 74—91)



1. A telescopic assembly comprising a casing, beams telescopically arranged within and extendable from said casing, one of said beams encasing the other of said beams but defining a longitudinal opening for access to the encased beam, an axle on said casing adjacent said beams, rack means on said beams for the driving thereof, and pinion means rotatable on said axle for engaging the rack means on said beams; the pinion means comprising separate driving pinions of different pitch diameters for engaging the rack means and driving the beams at different speeds.

2,842,973
GEARING

Bailey Benge Crowe, Corpus Christi, Tex.
Application May 2, 1955, Serial No. 505,141
32 Claims. (Cl. 74—190.5)



1. A variable speed friction transmission gear comprising a first shaft, a friction disc coupled thereto, a second shaft, a friction ring coupled thereto, a carrier supporting the second shaft, a cross shaft geared to the second shaft, the supporting carrier being rotatable about the axis of the cross shaft so that the second shaft may be axially aligned with the first shaft or inclined thereto to engage the friction ring with various circumferences in the face of the friction disc to vary the speed ratio between the first shaft and the second shaft and means to permit the carrier to rotate about the axis of the cross shaft in response to the torque reaction imposed on the carrier by a driving effort upon the cross shaft.

2,842,974
COOLING MEANS FOR V-BELT PULLEYS

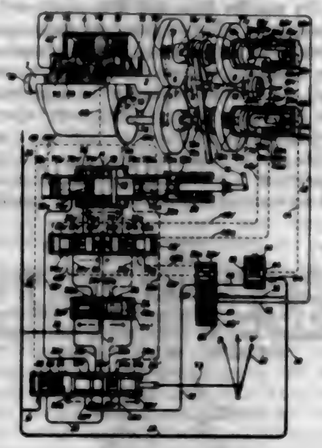
Willy Neumann, Wilhelmsfeld, Heidelberg, Germany, assignor to Motor-Condensator Compagnie, Echler K.G., Mannheim, Germany
Application February 13, 1957, Serial No. 639,733
7 Claims. (Cl. 74—230.01)



1. An air cooling attachment mounted on a V-belt pulley for rotation therewith, the pulley comprising a recessed center portion and a V-shaped peripheral side wall defining a circumferential groove, the attachment comprising a centrally apertured bottom portion adjacent but spaced from the pulley center portion and a frusto-conical peripheral portion adjacent but spaced from the side wall, an annular row of vanes being provided in the frusto-conical portion of the attachment, and means for mounting the attachment on the pulley.

2,842,975
APPARATUS FOR CONTROLLING THE PRESSURE FLUID ACTUATING A REVERSIBLE POWER TRANSMISSION

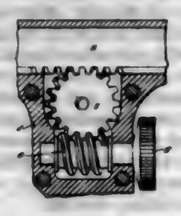
Gustav Meyer, Hermann Gros, and Fridolin Köpf, Friedrichshafen, Germany, assignors to Maybach-Motorenbau G. m. b. H., Friedrichshafen, Germany, a German firm
Application January 18, 1956, Serial No. 559,981
Claims priority, application Germany January 20, 1955
7 Claims. (Cl. 74—361)



1. An apparatus for controlling the pressure fluid of a pressure fluid operated reversible transmission including a main shaft, an intermediate shaft, a pressure fluid actuated main clutch operably interposed between said main shaft and said intermediate shaft, a driven shaft, a main reversing gearing interposed between said intermediate shaft and said driven shaft, a forward drive clutch operably interposed between said intermediate shaft and said driven shaft, a reversing clutch operably interposed between said main reversing gearing and said driven shaft, operating means connected with said forward drive clutch and with said reversing clutch for alternately engaging one and disengaging the other of said last mentioned clutches, a synchronizing reversing gearing operatively connected with said main reversing gearing, a fluid pressure actuated sychronizing clutch operably interposed between said main shaft and said synchronizing reversing gearing for temporarily reversing the direction of rotation of the driving parts of said forward drive clutch and of said reversing clutch, the apparatus for controlling the pressure fluid for actuating the aforesaid transmission comprising a hydraulic cylinder containing an actuating piston which is connected with said operating means for alternately engaging and disengaging said forward drive clutch and said reversing clutch, first valve means connected with said actuating piston for controlling flow of pressure fluid to said synchronizing clutch when said piston is in a predetermined position, a pressure fluid actuated reversing valve connected with said hydraulic cylinder for controlling flow of pressure fluid to one side or to the other side of said actuating piston, a manually operable drive direction selecting valve connected for fluid flow with said reversing valve for actuating the latter, second valve means connected with said actuating piston for controlling flow of pressure fluid to said selecting valve and to said main clutch for engaging the latter when said actuating piston is in one of its end positions, and a third valve means for controlling flow of pressure fluid to said selecting valve, said last mentioned valve means being operably connected with said synchronizing clutch for actuation by the same fluid pressure which engages said synchronizing clutch for interrupting flow of pressure fluid to said selecting valve when said synchronizing clutch is engaged.

2,842,976
GEAR MECHANISMS

Sidney Geoffrey Young, London, England
Application November 21, 1955, Serial No. 548,142
3 Claims. (Cl. 74—425)



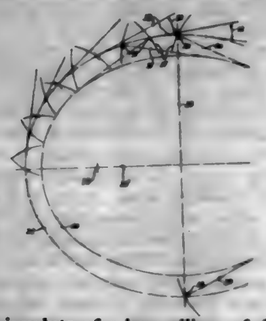
1. A gear mechanism which comprises a worm, a wormwheel in the form of a spur-wheel meshing with said worm, teeth on said spur wheel extending parallel to the axis thereof, said axis being inclined to a plane perpendicular to the longitudinal axis of said worm by an angle substantially equal to the lead angle of the worm, and a rack in mesh with said spur wheel, the longitudinal axis of the rack lying in the same plane as the longitudinal axis of the worm.

2,842,977
ELLIPTICAL GEAR

George R. Stiltz, Burlington, Vt., assignor to Barber-Colman Company, Rockford, Ill., a corporation of Illinois
Original application October 26, 1951, Serial No. 252,374. Divided and this application March 19, 1954, Serial No. 417,293
4 Claims. (Cl. 74—437)

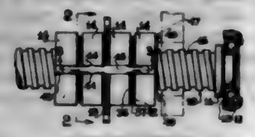
1. An elliptical spur gear comprising a body and circumferentially spaced teeth projecting outwardly therefrom and having pitch lines lying on an ellipse, the angles between the tangents of adjacent teeth at said pitch ellipse being equal around the entire gear, the pitch width of the successive teeth changing progressively from one end

of the major axis of said ellipse to the next adjacent end of the minor axis thereof, and the side of each of said



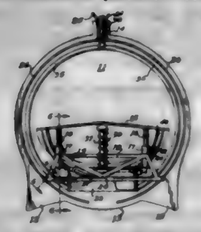
teeth being the involute of a base ellipse of different size than said pitch ellipse.

2,842,978
BALL BEARING SCREW AND NUT MECHANISM
Harry Orner, Altadena, Calif.
Application January 16, 1956, Serial No. 559,283
28 Claims. (Cl. 74—459)



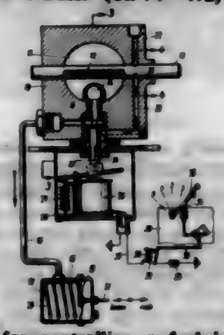
1. An antifriction self-aligning bearing assembly comprising, a pair of inner and outer concentrically-arranged circular raceway members having a pair of opposed raceway surfaces therebetween, a plurality of antifriction bearing elements distributed circumferentially along and between said raceways, load transmitting means for imposing a load on said circular members from opposite directions axially of said assembly including a load-transmitting member and a pair of nesting rings interposed between one of said circular raceway members and said load-transmitting member, one of said rings having a rounded rim edge nested against a tapering rim edge of the second ring and cooperating therewith to provide a self-aligning load-transmitting assembly adapted to be disposed between one of said circular raceway members and said load-transmitting member.

2,842,979
REMOTE CONTROL DEVICE
Charles L. Weltner, Atlanta, Ga.
Application May 8, 1956, Serial No. 583,467
15 Claims. (Cl. 74—471)



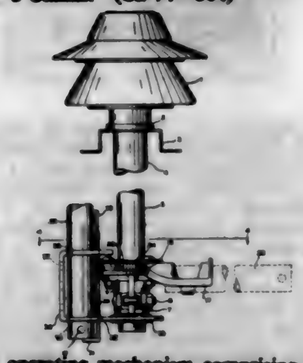
1. A control device for imparting mechanical motion and fluid pressure variations including, a casing, a control plate mounted in said casing for bodily movement and pivotal movement independent of said bodily movement, a control cable engaging said plate to be moved by pivotal movement thereof, and a pressure chamber including means responsive to bodily movement of said plate to vary the pressure in said chamber.

2,842,980
GEARSHIFT RESPONSIVE CONTROL ARRANGEMENT FOR CONTROLLING THE AMOUNT OF INJECTED FUEL OF AN INTERNAL COMBUSTION ENGINE
Friedrich K. H. Nallinger and Rudolf E. Uhlenhaut, Stuttgart, and Richard W. K. Schmannes, Stuttgart-Untertürkheim, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application October 21, 1954, Serial No. 463,786
10 Claims. (Cl. 74—472)



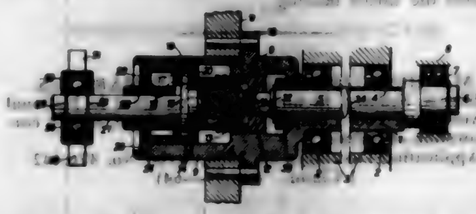
1. Apparatus for controlling a fuel injection engine having a gear transmission, comprising an operating member for variably adjusting the power output of the engine, a control member for controlling the fuel quantity injected into said engine, adjusting means controlled by said operating member for adjusting said control member, a gear shift mechanism for operating said gear transmission, means operated by said gear shift mechanism to adjust said fuel control member to a position thereof enabling the injection of a predetermined large quantity of fuel into the engine upon engagement of a lower gear of said transmission and to adjust said fuel control member to a position thereof admitting the injection of a fuel quantity smaller than said first-mentioned quantity upon engagement of a higher gear, and means controlling said first-mentioned adjusting means in accordance with the position of said operating member to enable adjustment of said fuel control member to a position corresponding to said large fuel quantity only upon adjustment of said operating member to a position corresponding to a higher power output of the engine and to prevent said adjustment of said fuel control member upon adjustment of said operating member to a smaller power output.

2,842,981
SWITCH OPERATING MECHANISM
Carl F. Thelin, Detroit, Mich., assignor to McGraw-Edison Company, a corporation of Delaware
Application July 29, 1955, Serial No. 525,180
5 Claims. (Cl. 74—504)



3. Torsional operating mechanism comprising a shaft axially rotatable to first and second angular latched positions, an arcuate segment projecting radially from the shaft for rotation therewith, said segment having radially directed stop edges spaced from each other through an arc, an elongated plate-like latch generally disposed parallel with the shaft axis when said shaft is latched in either angular position while at the same time being in the path of one of said stop edges, pivot means carried by said latch intermediate its ends, substantially flat bracket means slidably supporting said latch on its pivot means, said latch being pivotable on its pivot means when in one pivot position from parallelism with said shaft axis to an angle therewith clear of said segment and also being pivotable at an opposite angle when in another pivot position whereupon the latch bears on said segment toward the axis of rotation, whereby rotation of said shaft in a direction opposite from the second angular position allows said latch to pivot in its first pivot position out of the path of one stop edge whereupon said latch may be slid to its second pivot position for re-engaging said other stop edge when said shaft is rotated in a direction toward second angular position.

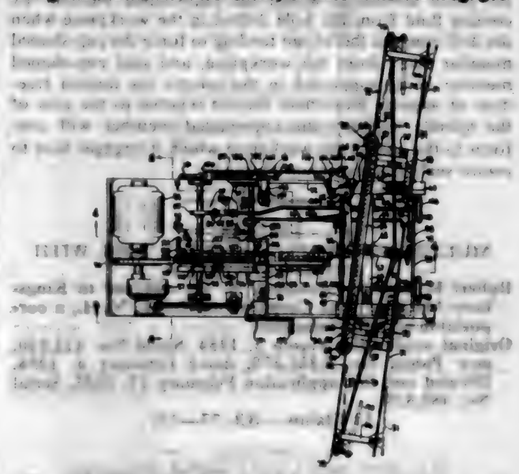
2,842,983
MOVEMENT TRANSMISSION
Steven Holdener, Wolfhausen, Zurich, Switzerland
Application August 9, 1955, Serial No. 527,311
Claims priority, application Switzerland August 28, 1954
3 Claims. (Cl. 74—600)



1. An adjustable crank mechanism comprising, a continuously rotatable main shaft having an open-ended eccentric bore with an enlarged portion at one end thereof having steep threads formed on at least a portion of the longitudinal wall thereof, means for continuously rotating said main shaft, a crank shaft rotatably mounted in said bore and having an eccentric crank pin on its outer end and having a steep threaded inner end disposed in said enlarged portion of the bore, the eccentricity of said crank pin relative to said crank shaft being the same as the eccentricity of the bore relative to the axis of rotation of the main shaft, an axially shiftable hollow member mounted in said enlarged portion of the bore and including a portion disposed between the threaded inner end of the crank shaft and the main shaft and having steep outer threads formed on the exterior longitudinal surface thereof for coactingly engaging the threads on the enlarged portion of the main shaft bore and having steep inner threads formed on the interior longitudinal surface thereof for coactingly engaging the threads on the inner end of the crank shaft, and means for axially shifting said hollow member, whereby actuation of said means changes the eccentric relation of the crank pin relative to the axis of rotation of the main shaft.

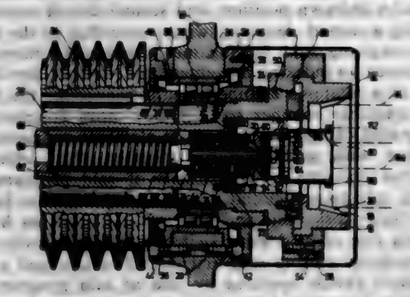
2,842,983
SAW SHARPENING APPARATUS
Jack J. Banis, Los Angeles, and John E. Jones and Victor W. Henderson, Burbank, Calif.
Application February 10, 1955, Serial No. 487,312
6 Claims. (Cl. 76—41)

4. A saw sharpener comprising; a base frame; a transverse horizontal track on said frame; a saw carriage mounted on said track for movement therealong and having means to carry a saw in a horizontal plane on said carriage; longitudinal horizontal ways in said frame; a table mounted on said ways for movement therealong; a mount shaft journaled on said table on a longitudinal axis therein, and substantially in the plan of said saw, said shaft having a transverse arbor affixed to the end thereof adjacent said saw carriage; an abrasive wheel rotatably mounted on said arbor; a prime mover on said table drivingly connected to said wheel to rotate the same; a cam shaft journaled on said table and connected to said prime mover to be rotated at a uniform rate; a tilting cam on said cam shaft; a cam follower engaged



with said tilting cam and drivingly connected to said mount shaft to tilt the same back and forth between alternate inclined positions as said cam shaft rotates; reciprocating means drivingly connected to said cam shaft to reciprocate said table along said ways to intermittently engage said wheel with a saw on said carriage, said reciprocating means being synchronized with said tilting cam whereby said engagements are made with said wheel in one or the other of said alternate positions; and feed means drivingly connected between said cam shaft and carriage to move said carriage intermittently between said engagements.

2,842,984
DRILLING MACHINES
Ragnar Leonard Carlstedt, Hagersten, Sweden, assignor to DHB Corp., New York, N. Y., a corporation of New York
Application February 15, 1954, Serial No. 410,353
Claims priority, application Sweden February 18, 1953
6 Claims. (Cl. 77—5)



2. A drilling machine of the nature described comprising; a rotary spindle, a cup-shaped member mounted in the end of the spindle that engages the workpiece and hav-

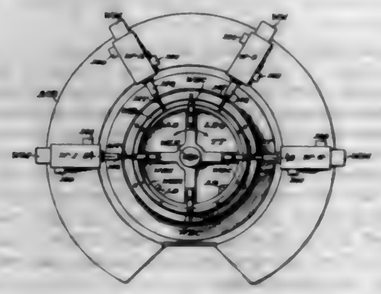
ing limited freedom of axial movement relative to the spindle but being connected with the spindle so as to rotate therewith, the open end of the cup facing the workpiece that engages the spindle, sealing means carried by the open end of the cup for sealingly engaging the end of the workpiece whereby upon drilling of the workpiece from the end opposite the spindle the hole through the spindle will be sealed by the cup-shaped member when the drill emerges from the workpiece, there being spring means in the spindle urging the cup-shaped member against the end of the workpiece with a thrust greater than the force developed within the cup-shaped member by cooling fluid from the hole drilled in the workpiece when the drill emerges therefrom tending to force the cup-shaped member away from the workpiece, and said cup-shaped member being supported in the spindle for limited freedom of angular movement therein relative to the axis of the spindle whereby the cup-shaped member will conform to the end of the workpiece which it engages thus to insure sealing engagement therewith.

2,842,985
MULTIPLE INDEXING MACHINE TOOL WITH PROGRAM SYSTEM

Robert R. Grover, Westport, N. H., assignor to Kingsbury Machine Tool Corporation, Keene, N. H., a corporation of New Hampshire

Original application March 3, 1954, Serial No. 413,820, now Patent No. 2,821,870, dated February 4, 1958. Divided and this application February 17, 1955, Serial No. 488,839

12 Claims. (Cl. 77—26)



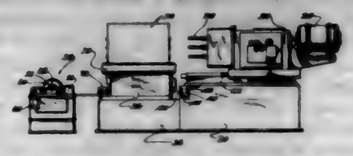
9. In a machine of the class described and comprising a base, a turret rotatable on the base, cyclic indexing means for advancing the turret and including an index-movement initiating means for procuring an indexing cycle, work units on the base and each including means for feeding a work unit tool relative to the turret, first circuit means including first electrical switches in each work unit for controlling said initiating means and causing an indexing cycle to begin when all the work units are in tool-withdrawn position, and second circuit means including a second electrical switch controlled by the turret for energizing said feeding means when the turret has completed an indexing movement; the combination therewith of a rotatable member, means connecting the turret and rotatable member so that they move concurrently, a plurality of individual program elements connected for rotation with said rotatable member, third electrical switches operated by individuals of said program elements, said second circuit means having branches for the individual work units and each of said branches having therein one of said third switches, a fourth switch for momentarily closing said first circuit means, and a fifth electrical switch operated by one of said program elements and connected in said first circuit means for maintaining energization therein after the momentary action of said fourth switch and during the course of a cycle of the rotatable member.

2,842,986
ROTARY INDEXING APPARATUS

Ralph Rodal, Richmond, Ind., assignor to National Automatic Tool Company, Inc., Richmond, Ind., a corporation of Indiana

Application February 25, 1954, Serial No. 412,490

3 Claims. (Cl. 77—64)



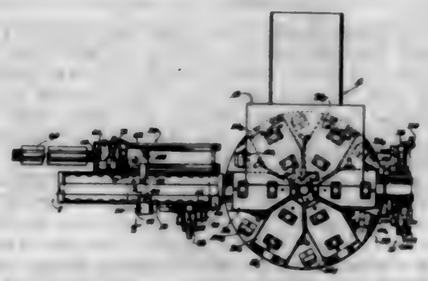
1. In an indexing mechanism for the work carrying table of a machine tool, the combination of a base, a central journal bearing in the base, a table having a central journal projecting into said bearing, a thrust bearing for the table, a plurality of downwardly opening socket means in the table, a shot bolt reciprocably mounted for projection of its upper end into the socket means, a rack on the side of the shot bolt, a pinion in engagement with the rack, an eccentric device cooperable with a part rigid with the table journal, and a shaft journalled in the base and connecting the pinion with the eccentric, said pinion, shaft, and eccentric being operable, as the shot bolt is moved into said socket means, to apply a downwardly directed force to the journal thereby to clamp the table against the thrust bearing.

2,842,987
MACHINE TOOL PROCESSING APPARATUS

Robert A. Schafer, Richmond, Ind., assignor to National Automatic Tool Company, Inc., Richmond, Ind., a corporation of Indiana

Application December 20, 1954, Serial No. 476,442

1 Claim. (Cl. 77—64)



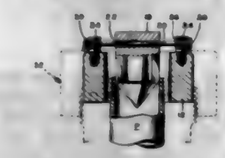
In machine tool processing apparatus, the combination of an annular array of workholders, a rotary indexing support supporting all of said workholders for indexing movement through a closed course, means defining a machining zone extending along a portion of said closed course, said course between opposite extremities of said machining zone forming a loading and unloading zone, hydraulic clamping means on said respective workholders for clamping workpieces therein, a first hydraulic system for clamping and unclamping said hydraulic clamping means, a second hydraulic clamping system for maintaining a powerful clamping pressure at a constant pressure level, rotary manifold valve means connected between said first and second hydraulic systems and said workpiece clamping means on all of said workholders, said manifold valve means including a central member of cylindrical shape defining therein a plurality of axial bores interconnected with said first and second hydraulic systems, the exterior cylindrical surface of said central manifold member defining a pattern of recesses therein tiered along the axis thereof and interconnected with said central bores, said manifold valve means including a sleeve member internally receiving said central manifold member and rotatable thereon as an incident to indexing movement of said workholder support, said sleeve member defining therein a plurality of radial bores arranged in annular arrays tiered along the axis thereof to be moved into registry with various ones of said recesses as an incident to indexing movement of said workpiece support, and conduit means connecting said sleeve bores with said hydraulic clamping means on said workholders in accordance with a predetermined pattern, said recesses in said central manifold member and said radial bores in said sleeve member being arranged circumferentially and axially with respect to the respective members to effect as an incident to rotary indexing movement of said workholder support an automatic connection between said first hydraulic system and the hydraulic clamping means on each workholder as the workholder moves to the loading and unloading zone and to automatically disconnect the first hydraulic system from the hydraulic clamping means on each workholder moving from the loading and unloading zone toward the machining zone while serving simultaneously to connect automatically the second hydraulic system with the hydraulic clamping means on each workholder moving to the machining zone and automatically disconnect the second hydraulic system for the hydraulic clamping means on each workholder moving away from the machining zone.

2,842,988
COMBINATION PIPE THREADING DIE AND REAMER

Harold K. Flolo, Houston, Tex.

Application September 12, 1956, Serial No. 609,481

3 Claims. (Cl. 77—73)



1. In combination, a pipe threading die having a central opening for receiving a pipe to be threaded, a reamer having a cutting edge extending into the central opening for reaming the inner edge of the pipe, and means mounted on said die and supporting said reamer for free sliding movement diametrically of said opening whereby said reamer is self centering in the pipe.

2,842,989
RIVETING MACHINE

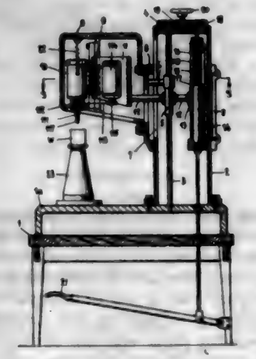
Kurt Rozsck, Brunnen, Switzerland, assignor to Kumag A. G., Maschinenfabrik, Zurich, Switzerland

Application September 7, 1955, Serial No. 532,948

Claims priority, application Switzerland May 25, 1955

1 Claim. (Cl. 78—53)

A riveting machine comprising in combination: a machine base, a hollow pillar fixedly mounted on top of said base, two vertical threaded spindles having equal helical pitch both rotatably journalled in and axially restrained relative to the said pillar, first adjustment means rotatably mounted in the said pillar and operatively connected to both the said threaded spindles and when operated driving the same at equal rotational speed, an outer casing slidably mounted parallel to the said threaded spindles on the said pillar, a screw-tapped nut in screw-engagement with one of the said threaded spindles freely slidable axially but restrained rotationally relative to the said pillar and rigidly connected to the said outer casing, a carriage, a second screw-tapped nut in screw-engagement with the other one of the said threaded spindles, freely slidable axially but restrained rotationally relative to the said pillar and rigidly connected to the said carriage, second adjustment means pivotally mounted on the said base and operatively connected to the said other threaded spindle and when operated pulling the same downward together with the said second nut and the said carriage, spring



means biasing the said other threaded spindle upwardly, a rotational motor and a vibrator mounted in the said carriage, and a riveting tool slidably and rotatably mounted in the said carriage and operatively connected to the said rotational motor and vibrator and in operation rotated and vibrated by the same.

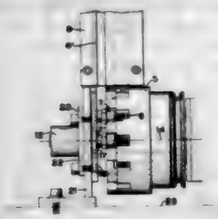
2,842,990
FEEDING MECHANISM FOR THREAD ROLLING MACHINES

Johann Franz Hübl, Berlin-Halensee, Germany, assignor, by mesne assignments, to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania

Application June 8, 1954, Serial No. 435,337

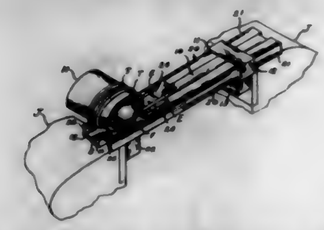
Claims priority, application Germany August 13, 1953

8 Claims. (Cl. 80—6)



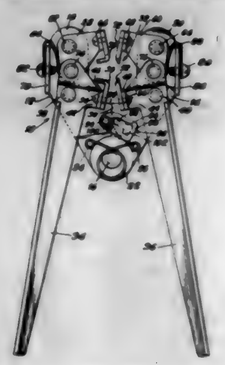
8. In apparatus for roll forming work pieces, said apparatus having a pair of rolls rotatable about predetermined axes and forming a rolling station between the adjacent peripheral portions thereof, mechanism for presenting elongated work pieces having an end surface normal to their longitudinal axis to the rolling station with said longitudinal axis of said work piece aligned with the roll axes comprising, a transfer cylinder mounted for rotation in coaxial relation with one of said rolls and having peripheral recesses adapted to loosely carry work pieces from a magazine to said rolling station, a magnet having a plane surface adapted to attract and engage said end surface of said work piece, and means mounting said magnet for rotary and axial movement about and along an axis parallel with said roll axes and substantially in the plane of the end surface of a work piece carried by said transfer cylinder whereby work pieces are delivered by said transfer cylinder to the field of said magnet and are aligned thereby during the rolling operation.

2,842,991
CLAMP INSTALLATION TOOL
Walter Ray Lasher, Omaha, Nebr.
Application September 26, 1955, Serial No. 536,669
2 Claims. (Cl. 81—9.3)



1. In a wire hose clamp installing tool of the character described an elongate central rectangular bar formed with a clamp bite engaging lip at the outer end thereof and a depending inner vise jaw surface engaging abutment at the opposite inner end, a pair of elongate rectangular side bars longitudinally embracing the central bar therebetween, a depending inner vise jaw surface engaging abutment joined between said side bars and an upstanding clamp end anchor joined between said side bars above said central bar.

2,842,992
WIRE STRIPPER
Eugene D. Hindenburg, De Kalb, Ill., assignor to Ideal Industries, Inc., Sycamore, Ill., a corporation of Delaware
Application February 15, 1955, Serial No. 488,294
10 Claims. (Cl. 81—9.5)



1. In a tool adapted to strip insulation from a wire, a pair of levers pivoted together, handle elements pivoted on the levers carrying clamping and stripping jaws, jaw carrier elements movably mounted on the levers and carrying clamping and stripping jaws generally opposed to the jaws on the handle elements, and means connecting the jaw carrier and handle elements so that when the handle elements are actuated, the jaw carrier elements will be moved relative to the levers in a direction to close the jaws.

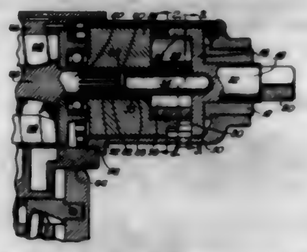
2,842,993
CONTAINER AND DISPENSER WITH CRIMPING JAWS FOR FISH LINE PELLET SINKERS
Orrin H. Thomas, Williamsport, Pa., assignor to Endicott Machine & Tool Company, Inc., Endicott, N. Y.
Application July 1, 1955, Serial No. 519,405
4 Claims. (Cl. 81—15)

1. A combined container and dispenser for split pellet sinkers comprising a pair of elongated hollow housing sections hingedly connected at one end, a pair of opposed compression jaws at the opposite end, a guide means extending longitudinally of said housing sections for slidably supporting split pellet sinkers in tandem re-



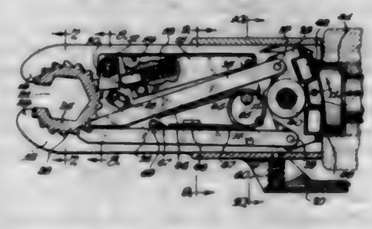
lation, and spring means for urging the uppermost sinker between said jaws upon opening movement of said housing sections.

2,842,994
ROTARY IMPACT WRENCH
Robert E. Stine, Montpelier, Ohio, assignor to The Aro Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application December 5, 1955, Serial No. 550,877
12 Claims. (Cl. 81—52.3)



2. In a tool of the character described, a rotatable driven shaft, a pilot shaft coaxial therewith, a rotatable driver, a releasable hammer interposed between said driver and said shaft and comprising an element having a slot receiving said pilot shaft to permit limited radial movement of said element relative to said pilot shaft, said element having cam faces and hammer faces, said shaft having anvil faces to be engaged by said hammer faces, and said driver having cam faces coacting with the cam faces of said hammer and operable to rotate said hammer, said coacting cam faces being shaped for propelling said hammer substantially radially inward against the action of centrifugal force upon predetermined resistance to torque.

2,842,995
POWER OPERATED RATCHET WRENCH
Leonard L. Johnson, Chicago, Ill., assignor, by mesne assignments, to The Aro Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application October 15, 1956, Serial No. 615,870
11 Claims. (Cl. 81—61)



6. A power operated ratchet wrench comprising a pair of side plates positioned in spaced parallel relation

and having at one end thereof a substantially annular opening, a ratchet member positioned between said pair of side plates and in said opening, said ratchet member having a plurality of teeth spaced around its peripheral circumference, rotary cam means positioned adjacent the other end of said side plates, a rocker pivotally secured between said side plates in operative association with said rotary cam means whereby said rocker is oscillated about its pivot at a rate dependent upon the rotary speed of said cam means, and a pair of elongated pawl means pivotally secured to different points on said rocker and adapted to engage the teeth of said ratchet member whereby the rotary motion of said cam means is converted by said rocker and pawl means into a double push translatory drive for said teeth for rotating said ratchet member between said side plates.

2,842,996
COMPOUND LEVERAGE TOGGLE LOCKING PLIERS
Carl W. Coulow, Los Angeles, Calif., and Ben Pepperdine, deceased, late of Los Angeles, Calif., by Dora Pepperdine, administratrix, Rolling Hills, Calif., and Charles A. Radcliffe, Los Angeles, Calif., assignors to The Plomb Tool Company, Los Angeles, Calif., a corporation of California
Application March 12, 1956, Serial No. 570,928
6 Claims. (Cl. 81—378)



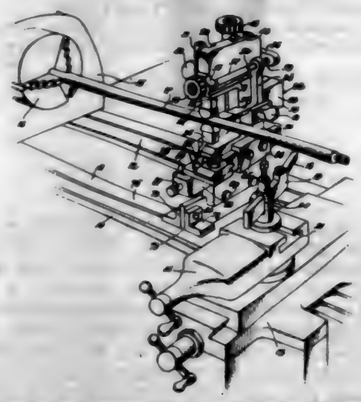
1. A compound leverage, toggle operated plier comprising: a first handle member including a first gripping jaw, a jaw member pivoted on said handle member and including a second gripping jaw opposed to and movable toward the first gripping jaw upon pivotal movement of the jaw member, a second handle member, means rotatably and movably mounting one end of said second handle member on the first handle member for movement of said one end along a given linear path with respect to the first handle member, means rotatably and movably mounting said one end of the second handle member on said jaw member for movement of said one end of the second handle member along a linear path with respect to said jaw member inclined relative to the first mentioned path, and means connected between the handle members for moving said one end of the second handle member along said one linear path in a direction to move said second gripping jaw toward the first gripping jaw upon movement of the handle members together.

2,843,997
FASTENER HOLDING PLIERS
Ralph E. Westling, Austin, Tex.
Application August 28, 1956, Serial No. 606,654
1 Claim. (Cl. 81—418)



As an article of manufacture, a pair of conventional pliers having a pair of coacting jaws and opposing jaw faces provided with serrated concavities at a point spaced longitudinally inwardly from the outer ends of the jaws, said jaws also being provided in the opposing faces thereof with transversely extending recesses disposed at a point between the outer ends of the jaws and said serrated concavities, said jaws also being provided in their opposing faces with open-ended grooves extending centrally longitudinally from the outer ends of the jaws through said recesses to said serrated concavities, said recesses being deeper than said grooves and coacting therewith when said jaws are brought together to provide a transverse chamber and a longitudinal passageway extending from said serrated concavities through said chamber to the outer ends of the jaws, whereby to receive respectively the head and adjacent shank portions of a fastening element.

2,842,998
STEADYING REST FOR METAL LATHES
Charles Kostka, Bronx, N. Y.
Application November 13, 1953, Serial No. 392,137
1 Claim. (Cl. 82—39)

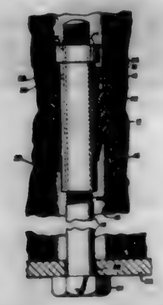


A steady rest comprising a relatively thick solid plate having one edge cutaway to form the plate into spaced arm plate sections joined by a central plate section, each arm section at one face of said plate having straight guideway grooves extending into the surface of said plate and extending toward each other and toward said cutaway, a finger support for each arm, each finger support having a surface slidable on the surface of said plate and a projection extending into said groove, means for each arm holding said arm in slidable relation to said plate, a pair of straight parallel guideway grooves extending into the surface of the central section of said plate at right angles to said first mentioned grooves and extending toward said cutaway, a finger support having a surface slidable on the surface of said plate and said last mentioned support being of L-shape construction and having a projection on each arm, each projection slidable in one of said grooves, means for retaining said last-mentioned support in slidable relation to said central plate section, a finger on each of said supports, said fingers lying in a common plane in said cutaway, and means for sliding said supports relative to said plate.

2,842,999
EXPANSION BOLT WITH COIL SPRING HAVING OVERLAPPING CONVOLUTIONS AND OUTWARDLY EXTENDING EDGE
Elmo F. Huston, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a corporation of New Jersey
Application August 6, 1954, Serial No. 448,302
3 Claims. (Cl. 85—2.4)

1. An expansion device for use in an opening in a solid body, comprising a modified volute steel spring of a plurality of turns formed from a relatively wide and

thin bar stock, said spring being generally conical with the upper end thereof of slightly smaller diameter than the lower end thereof and each turn of said spring overlapping the upwardly adjacent turn when the spring is in an unstressed state to establish a protruding edge for engaging the wall of the opening, the said upper edge being thicker than the said lower edge of the spring and being directed angularly outward with respect to the remainder of the spring along the helical length thereof and forming a bearing surface for engagement with the wall of the opening and resisting downward movement of the spring relative to the solid body along the helical length of the spring, metal sleeve means disposed inside the first end of the said spring and means to fixedly attach said sleeve means to the said first end, a thread on the



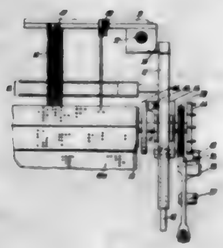
interior of the said sleeve, a male bolt threaded in said sleeve at the upper end of the bolt, the bolt extending upwardly through the spring from the lower to the upper end thereof, said volute spring being wound in a left-hand spiral and said bolt having a right-hand thread, the diameter of the body opening being slightly greater than said spring first end and slightly less than said spring second end to thus cause the middle portion of said spring to first engage said roof hole surface upon the spring being inserted first end first in said roof hole, and the friction between said male bolt threads and said sleeve threads tending to rotate and expand the said spring first end and the longitudinal compression of said spring tending to radially expand the spring as the bolt is threaded into said sleeve with corresponding longitudinal movement of said sleeve.

2,843,000

DROPPER JACQUARD MECHANISM

Frank Horsfield Haslam-Jones, West Bridgford, England, assignor to John Jardine Limited, New Basford, England

Application May 2, 1955, Serial No. 505,424
Claims priority, application Great Britain May 7, 1954
9 Claims. (Cl. 87—14)



1. Dropper jacquard mechanism comprising the combination of a jacquard cylinder, jacquard cards on said cylinder, variable numbers and patterns of perforations in said cards, an assembly of droppers adjacent the cylinder, means mounting the cylinder for movement towards and away from the droppers by which movement selected droppers are caused to occupy a projected position and other selected droppers are caused to occupy a non-projected position as governed by the number and pattern of said perforations, and racking means for racking the cylinder to present the cards one after the other to the droppers by relative movement between the racking means and the cylinder in a direction transverse to the movement of the cylinder towards and away from the droppers.

2,843,001

OPTICAL TILT CORRECTING DEVICE

Friedrich Werner, Berlin-Nikolassee, Germany, assignor to Askania-Werke A. G., Berlin-Friedenau, Germany, a corporation of Germany

Application June 11, 1956, Serial No. 590,539
Claims priority, application Germany July 2, 1955
4 Claims. (Cl. 88—1)



1. In an optical device such as a theodolite, an imaging system and a tilt-correcting system for the same, said correcting system comprising: a small pendulum; an optical deflector rigidly mounted on a free end portion of the pendulum for deflecting the ray trace of said imaging system; a first frame structure, rigidly mounted in said device; a second frame structure, resiliently supported from the first frame structure; delicate pivot means normally suspending the pendulum from the second frame structure for swinging movements of the pendulum to modify said deflecting of the ray trace; auxiliary support means for the pendulum on the first frame structure, less delicate than said pivot means, said auxiliary support means being normally not in supporting relation to the pendulum; and resilient means mounted on the first frame structure for said resilient supporting of the second frame structure, said resilient means normally holding the second frame structure to the first to render the delicate pivot means operative and the auxiliary support means inoperative but being so constructed and mounted that on an impact against the device the second frame structure is released from the first to render the delicate pivot means inoperative and the auxiliary means operative.

2,843,002

DEVICE FOR INSPECTING THE ACCURACY OF CURVATURE OF OPTICAL MATERIAL AND LENSES

William R. Allison, Phoebus, Va.

Application September 16, 1953, Serial No. 380,522
1 Claim. (Cl. 88—14)

An inspection device comprising a base including spaced parallel vertically disposed side walls, a horizontally disposed bottom wall, and a top wall extending across said side walls, said top wall being provided with a plurality of openings therein, a light source positioned in said base and adapted to be connected to a source of electrical energy, a vertically disposed back wall extending upwardly from said bottom wall and secured thereto, an opaque member positioned on said back wall, a

horizontally disposed flange extending forwardly from the top of said back wall, a plurality of translucent light conducting rods depending from said flange in spaced



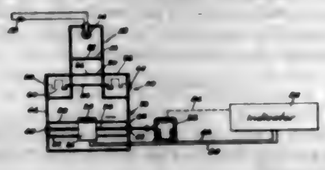
parallel relation to each other and having their lower ends shaped arcuately and arranged contiguous to said light source, and a heat absorbing glass member interposed between the lower ends of said rods and said light source.

2,843,003

FILM CLARITY MEASURING APPARATUS

Alfred V. Baker, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application March 13, 1957, Serial No. 645,793
6 Claims. (Cl. 88—14)



1. Apparatus for determining the clarity of a transparent film, comprising light beam producing means including a lamp housing having a closed end and an open end and side walls, a light source, said light source being disposed near to the closed end of said lamp housing, light beam collimating means, said light beam collimating means being disposed within the lamp housing between the light source and the open end of the lamp housing, a photo-cell housing having a closed end and an end having an opening therein, said opening facing the light source, a pair of ways, said ways being disposed within the photo-cell housing in a plane perpendicular to the axis of the collimating means, a photo-cell assembly including a photo-sensitive cell disposed beneath a cover having a narrow slit therein facing the light source, said photo-cell assembly being mounted on said ways, means for moving said photo-cell assembly along said ways, an indicator which is responsive to any electrical output of said photo-cell, means for electrically coupling the indicator to the photo-cell, and means for disposing a film perpendicularly across any light beam formed by the light beam collimating means.

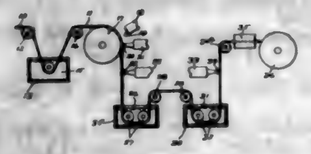
2,843,004

METHOD OF APPLYING INDICIA TO TRANSPARENCIES AND METHOD OF AND APPARATUS FOR PROJECTING IMAGES OF SAID INDEXED TRANSPARENCIES UPON A SCREEN IN REFLECTED LIGHT

Wolf Szmul Pajes, New York, N. Y.

Application November 27, 1953, Serial No. 394,592
6 Claims. (Cl. 88—16)

1. The method of applying subtitles to completed motion picture films and projecting an image of the scene carried by said film upon a screen with said subtitles illuminated which comprises printing said subtitles with opaque materials on the side of said film which will be facing the screen when said image is projected, directing light through said film towards said screen in the nor-



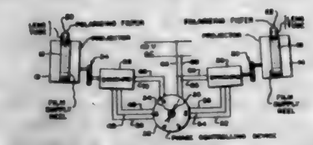
mal manner, directing additional light against the side of said film on which said subtitles are printed, and projecting an image of the film, thus illuminated, upon a screen.

2,843,005

SYNCHRONOUS STEREOSCOPIC MOTION PICTURE PROJECTION SYSTEM

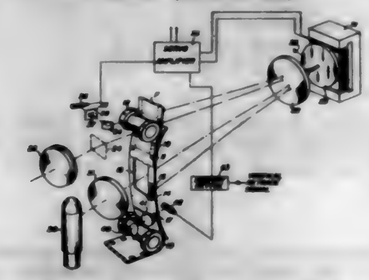
Robert C. Jones, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application March 22, 1957, Serial No. 647,904
11 Claims. (Cl. 88—16.6)



1. In combination with a pair of motion picture projectors adapted to the stereoscopic projection of motion picture films in which said films are moved by mechanisms of the projectors at substantially identical speeds, a system for providing relative phase corrections of film-moving mechanisms of said projectors and the synchronous positioning of related areas of said films for projection purposes, said system comprising a pair of synchros, each including a three-element, Y-connected stator winding and a single-phase rotor winding, individual coupling means connecting one of said synchros with the drive mechanism of one projector and the second synchro with the drive mechanism of the second projector, said coupling means cooperating with the drive and film-moving mechanisms of the projectors to provide one revolution of the synchro rotors for each positioning of the frames of said films for projection, and manually adjustable phase controlling means electrically connected to the respective stator and at least in part to the rotor windings of said synchros for predeterminedly varying the relative electrical phase thereof to provide a plurality of given relative angular displacements of the rotors of said synchros and thereby to vary the relative phase of said projector mechanisms and the relative position of stereo frames of said films for projection, said phase controlling means comprising a plurality of fixed and movable contacts, actuating means for moving said movable contacts into closed and open relation with said fixed contacts and indicating means comprising movable and fixed indices for indicating, respectively, the relative location of said movable and fixed contacts, the relative angular displacement of the synchro rotors and the relative position of the stereo frames, said phase controlling means providing different electrical connections between the stator windings of the two synchros and a reversal of the rotor connections of a given one of the synchros to the two sides of a single phase alternating current line for each setting of said movable and fixed indices.

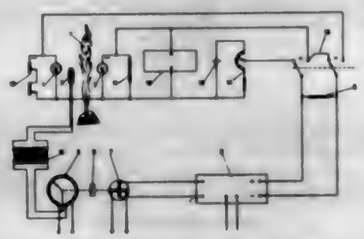
2,843,006
CONTINUOUS FEED MOTION PICTURE PROJECTOR
Arthur W. Tyler, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application September 9, 1952, Serial No. 308,562
1 Claim. (Cl. 88—16.8)



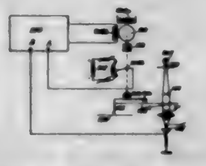
In photographic apparatus, the combination comprising a film strip having image areas and uniformly spaced light-transmitting areas arranged along at least one edge thereof, a film gate provided with a frame aperture, a control aperture and a monitoring aperture, said control and monitoring apertures being spaced longitudinally of said gate and transversely thereof in accordance with said light-transmitting areas, means for continuously moving said film strip through said film gate, a condenser lens system including a lamp for illuminating said frame aperture and said control aperture, a second condenser lens system including a lamp for illuminating said monitoring aperture, a compensating mirror for receiving and reflecting the images of the image area within said frame aperture and of the light transmitting area within said control aperture directed thereto and oscillatable through substantially one-half the angle subtended by the height of said frame aperture and about an axis normal to the direction of film movement, optical means common to said images and arranged in the light path directed to and reflected from said compensating mirror for producing a real image of said image area within said frame aperture and of a light-transmitting area within said control aperture, the real image of said image area being to one side of said film gate and substantially in the plane of said frame aperture, a photoelectric device responsive to variations in the position of the real image of said light-transmitting area within said control aperture for providing an electrical signal, a servo amplifier responsive to said electrical signal for providing an output operatively connected to said electromagnetic means to form a closed feed-back loop for driving said compensating mirror to maintain said real image stationary, and a second photoelectric device associated with said monitoring aperture and operatively connected to said servo amplifier for causing the output thereof, as successive light-transmitting areas are aligned with said monitoring aperture, to drive said compensating mirror in a direction opposed to that of said film strip until it encounters the succeeding image area and said servo amplifier is locked thereto.

2,843,007
DEVICE FOR RECORDING CONTINUOUSLY THE TRUE TEMPERATURE OF THE LIGHTING FLAMES
Jean Galey and Michel Denis, Paris, France, assignors to Institut de Recherches de la Siderurgie, Saint-Germain-en-Laye, France, a professional institution of France
Application May 18, 1954, Serial No. 430,634
Claims priority, application France May 29, 1953
5 Claims. (Cl. 88—22.5)

1. A system for continuously indicating and recording the true temperature of a luminous flame, comprising a light source mounted at one side of the flame; two identical measuring telescopes each including a receiver of radiant energy having the same response for all temperatures, one of said telescopes being positioned adjacent the light source and receiving radiant energy only from the light source and the other telescope being positioned adjacent the flame on the other side of the light source, the flame being positioned between the light source and said other telescope, which receives radiant energy from the flame and the light source; a differential electrical measuring apparatus; means for connecting both said measuring telescopes to said apparatus in opposition so as to produce an output which will represent the difference in the outputs of said measuring telescopes, means responsive to the output of said measuring apparatus for controlling the intensity of said light source, so that the output of said measuring apparatus will have a predetermined value; and recording means in the circuit of said other measuring telescope for recording the variations of current through the receiver thereof.

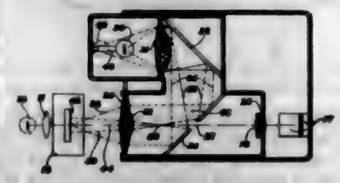


2,843,008
APPARATUS FOR MEASURING THE TEMPERATURES OF GASEOUS FLUIDS AND IN PARTICULAR FLAMES
André Georges Lucien Moutet, Meudon, France, assignor to "Office National d'Etudes et de Recherches Aeronautiques" (O. N. E. R. A.), Chatillon-sous-Bagneux, France
Application June 29, 1954, Serial No. 440,208
Claims priority, application France February 5, 1951
8 Claims. (Cl. 88—22.5)



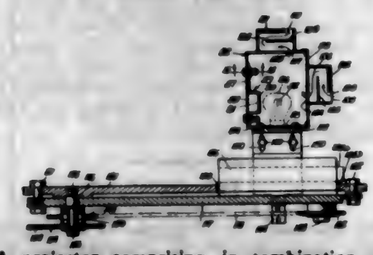
1. A device for measuring the temperature of a gaseous energy radiating fluid which comprises, in combination, a source of radiation of a wavelength ranging from 0.2 to 45 microns and of a substantially constant intensity, means including a radiation responsive element for measuring the energy of a radiation beam striking said radiation responsive element, means for directing a radiation beam from said source onto said energy measuring means, movable beam energy reducing means disposed across the path of said last mentioned beam for absorbing a portion of the energy thereof variable in accordance with the position of said energy reducing means with respect to said beam, means interposed between said energy absorbing means and said energy measuring means for passing a stream of said gaseous fluid across the path of said beam, motor means for moving said energy reducing means and means operatively connected with said radiation responsive means for indicating the value measured by said energy measuring means at the time when the energy of the radiation beam which has passed only through said varying absorbing means and the energy of the radiation beam emerging from said gaseous fluid stream become equal to each other.

2,843,009
ADJUSTABLE EPISCOPIC ILLUMINATION FOR THE CONTOUR PROJECTOR
Bert V. Stevens, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application October 14, 1954, Serial No. 462,223
3 Claims. (Cl. 88—24)



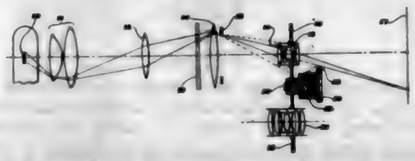
1. An optical system for projecting an image of an episcopically illuminated object, comprising a viewing screen, a plurality of optically aligned objectives for receiving light from the object and for forming an image thereof on the screen including a first objective for receiving the light from the object, a plane reflector located at the rear focal plane of the said first objective oblique to the axis thereof with an axial aperture smaller in diameter than said first objective and constituting a telecentric stop for the first objective, so that light from the first objective goes through said telecentric stop to the rest of the image forming objectives, a lamp and light condenser system optically at one side of the image forming system and positioned to send a beam of light to the plane reflector to be reflected both through and around said first objective to illuminate the object episcopically, an annular positive lens element surrounding the first objective to transmit and converge the marginal portions of said beam, and means for preventing any light which is reflected from the object through the annular lens from reaching the screen.

2,843,010
POINT SOURCE LIGHT PROJECTOR
Joseph H. Wally, Jr., Mission Hills, and Louis J. Grunwald, Prairie Village, Kans., assignors to Micro-Master, Inc., Kansas City, Mo., a corporation of Missouri
Application March 26, 1956, Serial No. 573,701
12 Claims. (Cl. 88—24)



1. A projector comprising, in combination, a point source of illumination, an object holder, projection means for focusing an image onto a screen of an object supported by said holder in axial alignment therewith, condensing means between said source of illumination and object holder for converging light rays from said source through the object to said projection means, means for axially adjusting said projection means in accordance with the extent of magnification of the object desired, and means for moving the said source of illumination in a path toward and away from the condensing means in accordance with the axial adjustment of said projection means, together with means for controlling said path whereby the light rays from said source and passing through the condensing means will converge at said projection means.

2,843,011
PHOTOGRAPHIC ENLARGERS WITH SCRATCH ELIMINATION
John H. McLeod and Rudolf Kingslake, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 4, 1957, Serial No. 643,868
4 Claims. (Cl. 88—24)



1. A photographic enlarger or projection printer comprising an illuminating system for illuminating a transparency, a plurality of interchangeable projection objectives having predetermined focal lengths and having an operative position, each objective being adapted when in the operative position to receive light from a transparency of a predetermined size and to project a sharply focused image having a predetermined degree of magnification, turret means facilitating the removal of one objective from and the moving of another objective into the operative position, means defining an image plane in front of the objective in said operative position, and means for supporting a transparency of the size associated with each objective respectively in a plane conjugate to said image plane with respect to said respective objective when said respective objective is in said operative position, characterized by the respective focal lengths f being predetermined according to the formula

$$f=\frac{L}{1+m+e}$$

where L is the distance from the entrance pupil of the objective to said image plane and is the same for all said objectives, where m is the predetermined magnification at which the respective objective operates and is considered as positive, and where e is the ratio of the distance between the entrance pupil and the front principal point to the focal length of the respective objective and is considered as positive when the principal point is in front of the entrance pupil and as negative when it is therebehind, whereby the location of the entrance pupil remains unchanged when said objectives are interchanged, further characterized by the size of all said respective pupils being the same, and still further characterized by the illuminating system being adapted to project a predetermined pattern of light onto the plane of the entrance pupil, said pattern including a predetermined amount of light inside the entrance pupil of the objective and a ring of predetermined diameter and average brightness surrounding the entrance pupil whereby scratches on the transparency have a minimum effect in the image.

2,843,012
PHONOGRAPH PERFORMANCE ILLUSTRATOR
Herbert Wallace Butterworth, New York, and Samuel P. Morse, Carle Place, N. Y.; said Morse assignor to said Butterworth
Application November 23, 1955, Serial No. 548,588
8 Claims. (Cl. 88—28)

1. Apparatus for exhibiting still pictures visually illustrating in appropriate sequence and for appropriate time

periods various representative phases of an audio record of a performance capable of both audio and visual reproduction, said apparatus including a series of still pictures illustrating said phases and arranged in the sequence of said performance, a turntable for use in playing back said record, means for exhibiting said picture series and including a shifter for shifting said series sequentially



from one picture to the next, means for counting the revolutions of said turntable and for actuating said shifter upon reaching any of a plurality of counts and including a control system for selecting the count desired to effect said actuation, and cuing means connected to said series and shifting therewith and including a separate cue for each of said pictures, said control system including means actuated by each of said cues for selecting said count.

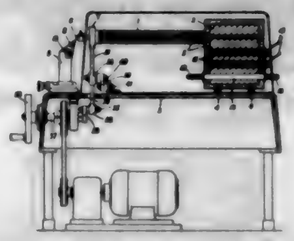
2,843,013
ALIGNMENT TELESCOPE
Carl W. Keuffel, Bernardsville, Conway D. Hillman, Millburn, and Allister L. Baker, Denville, N. J., assignors to Keuffel & Esser Company, Hoboken, N. J., a corporation of New Jersey
Original application June 20, 1952, Serial No. 294,652, now Patent No. 2,784,641, dated March 12, 1957. Divided and this application July 16, 1956, Serial No. 598,312
2 Claims. (Cl. 88—32)



2. A telescope comprising an objective lens, a reticle at a focal plane of the telescope, an eyepiece focused on said reticle, a pair of lens elements in front of said objective lens, one of said lens elements having an equivalent focal length f_1, the other of said lens elements having an equivalent focal length f_2, the optical separation between said lens elements being L, said quantities satisfying the relation $f_1+f_2=L$ in which the focal length, f_2 is inserted as a negative quantity for a negative lens, means for moving said pair of lens elements together laterally to vary the displacement of the image of a given target, the displacement of the image being proportional to the lateral movement of said pair of lens elements and means for measuring the lateral movement of said second lens to make said reticle appear in alignment with the given target.

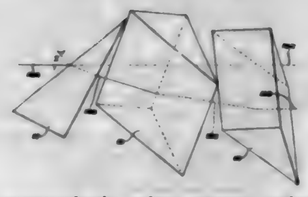
2,843,014
MICROTOME, PARTICULARLY ULTRA-MICROTOME
Helfmuth Sitte, Innsbruck, Tyrol, Austria
Application May 23, 1955, Serial No. 510,264
Claims priority, application Austria June 1, 1954
11 Claims. (Cl. 88—40)

2. A microtome comprising, in combination, a block of great heat capacity; means for varying the temperature of said block; an elongated flexible rod rigidly secured at one end thereof to said block and having a free end portion spaced a substantial distance from said block, said rod having a regular cross section to permit transverse movements of said free end portion in all directions; a specimen holder secured to said free end portion; means for holding a cutting blade in the region of said specimen holder; and operating means including a member engaging said free end portion of said rod, and moving means connected to said member for moving said member and thereby said free end portion and specimen



holder along an endless annular path located in a plane transverse to said rod so that said specimen is moved across the blade during movement along a first portion of said path and is returned laterally spaced from said blade during movement along a second portion of said path, said specimen holder being advanced by thermal expansion of said block.

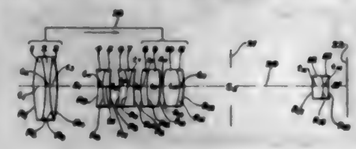
2,843,015
PRISM MAGNIFICATION SYSTEMS COMPRISING THREE OR MORE PRISMS
Benjamin E. Laboshez, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application September 1, 1955, Serial No. 531,884
6 Claims. (Cl. 88—57)



1. An anamorphotic prism system optically aligned along an optical axis and comprising a plurality of x anamorphosing prisms, where x is an integer between 3 and 8 inclusive, arranged in approximately symmetrical orientation at different angular positions around the optical axis in such manner that the angle between the active planes of each two succeeding anamorphosing prisms is chosen to be approximately $360°/x$ and further is so chosen relative to the magnification of each anamorphosing prism that the final magnification of the image is substantially equal in all directions in the image plane, whereby all the aberrational components substantially cancel each other in all planes around the optical axis while the prism magnifications augment each other.

2,843,016
OPTICAL ZOOM SYSTEM
Max Reiss, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application March 4, 1957, Serial No. 643,864
4 Claims. (Cl. 88—57)

1. An optical zoom system comprising a front movable positive member, a fixed negative member and a second movable positive member all in axial alignment with each other and in front of an aperture stop, and a weak corrective member axially aligned and at a fixed distance behind the aperture stop, the two movable positive members being adapted to remain at a fixed distance from each other and to move equal distances relative to the fixed members of the system for varying the focal length of the complete system from a value F when the movable members are at the forward end of the range of movement to a value between $2F/5$ and zero when the movable members are at the rearward end of the range of movement, in which the front movable positive member is a single compound biconvex component having a focal



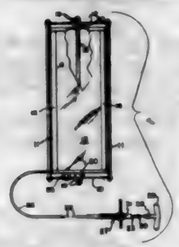
length of $0.74F \pm 20\%$, the fixed negative member consists of two compound biconcave components having focal lengths of $-0.45F$ and $-0.44F$ respectively, each $\pm 20\%$, the rear movable positive member consists of two compound biconvex components each having a focal length of $0.60F \pm 20\%$ and the corrective member is meniscus in outward form, convex to the front, and has a focal length between F and infinity.

2,843,017
REAR VIEW MIRROR ASSEMBLY
Lucien G. Ponce, Weirton, W. Va., assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application December 7, 1954, Serial No. 473,550
7 Claims. (Cl. 88—77)



5. In a rear view mirror for automobiles, a case having a back wall and an opening in the front thereof, a mirror element secured in said opening and spaced from said back wall, said mirror element serving to reflect images of different intensities when moved with respect to the object being reflected and having front and back surfaces which are disposed at an angle to one another, with a mirror coating being provided on at least said back surface, a support plate within the case between said back wall and said mirror element and spaced from said mirror element, means carried by the support plate to connect said plate to an automobile, a mounting plate within the case between said back wall and said support plate and attached to said case, means pivotally attaching said mounting plate to said support plate, a leg member extending from said support plate, cam means depending from said leg member, said cam means comprising a twisted plate which is turned laterally out of the plane of said leg portion, and actuating means movably carried by said mounting plate, said actuating means having a slot therein positioned so as to receive a portion of said twisted plate in said slot during movement of the actuating means relative to said twisted plate, said actuating means being mounted for movement in an arcuate path which is substantially parallel to the plane of said mounting plate so as to coact with said twisted plate to tilt said case and mirror element stepwise as a unit relative to said support plate to different angular locations about said pivotal attaching means to bring the mirror surfaces to definite selected positions to reflect to the same point images of different intensities.

2,843,018
ADJUSTABLE REAR VIEW MIRROR FOR TRUCKS
Donald L. Cooper, North Las Vegas, Nev., and Harvey M. De Vane, Oxnard, Calif.
Application December 19, 1955, Serial No. 553,758
5 Claims. (Cl. 88—98)



1. A device for controlling the positioning of the rear view mirror of a vehicle from the cab of the vehicle, said mirror being mounted in a housing, said housing being pivotally mounted on a base, said control device including an arm attached at one end to said mirror housing and extending outwardly therefrom, said arm having a circular opening adjacent the end thereof remote from said mirror housing, an anchor member, said anchor member having at the bottom thereof a short end portion of smaller circular diameter than the adjacent portion of said anchor member, said end portion extending through the opening in said arm, a washer disposed beneath said arm, a fastening member extending from beneath said washer into the center of the end portion of said anchor member, the portion of said arm surrounding said opening being disposed between said washer and the portion of said anchor member above said end portion, said anchor member being rotatable on its vertical axis with respect to said arm by the rotation of said end portion within said opening, a control wire attached at one end to said anchor member, a flexible tubing surrounding said control wire, a tubing terminal mounted on said base adjacent but spaced from said anchor member, the end of said flexible tubing being attached to said tubing terminal, said tubing terminal being mounted for rotation about its vertical axis, said wire adapted to be reciprocally moved from the cab of the vehicle to cause the pivotal movement of said mirror housing and mirror, said tubing terminal and anchor member being adapted to rotate about their vertical axes in response to variations in the relative positioning of said anchor member and tubing terminal during the pivotal movement of said mirror housing.

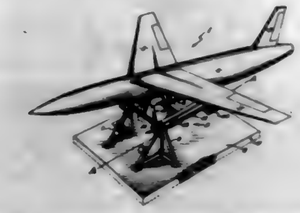
2,843,019
COMBINATION MIRROR AND FLUSHING DEVICE
Larry C. Larson, Eagle Bend, Minn.
Application June 15, 1955, Serial No. 515,666
2 Claims. (Cl. 88—104)



1. A combination mirror and flushing device comprising an elongated cylindrical hollow casing, a fitting on one end of said casing for attaching a flushing medium supply conduit, a valve in said casing for controlling the flow of flushing medium therethrough, manually operable valve actuating means projecting transversely of said casing, a collet chuck at the opposite end of said casing com-

prising resilient jaws and a sleeve threadedly engaging said casing and operable to open and close said jaws, a tubular shank having one end removably and adjustably received in said jaws, said shank terminating at the opposite end in an angularly disposed tubular mirror bracket and a mirror secured to said bracket, said bracket terminating at the end opposite said shank in a flushing medium jet orifice directed at substantially right angles to the reflecting surface of said mirror.

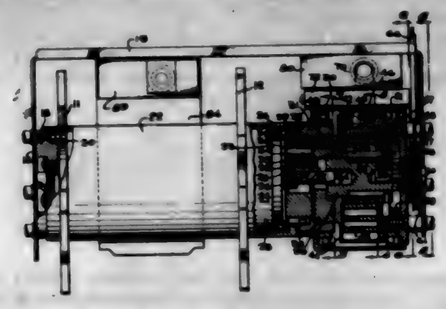
2,843,020
ZERO-LENGTH LAUNCHER
Victor B. Bertagne and John J. Pfarr, Inglewood, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application June 22, 1953, Serial No. 363,184
2 Claims. (Cl. 89—1.7)



1. A device for launching a missile comprising: a base having an upper plane surface extending in a horizontal direction; a frame structure for supporting said missile and having opposite side edges spaced with respect to each other; first and second means pivotally mounted on said frame in spaced relation adapted to receive and support a missile to be launched from said device; a pair of axially aligned trunnions extending outwardly from the side edges of said frame; forward supporting means for said frame consisting of a pair of individual supports mounted on said base; upwardly facing bearings for receiving said trunnions mounted at the top of said supports, said bearings provided with bearing caps to maintain the trunnions in their respective bearings; said supports being spaced apart a distance exceeding the greatest distance between the opposing side edges of said frame in a direction normal to a longitudinal reference line, and extending above said upper plane surface to provide an unobstructed passageway therebetween, whereby a vehicle carrying the frame with a missile supported thereon can be advanced within said passageway, and the frame lowered to position its trunnions on said bearings.

2,843,021
AMMUNITION BOOSTER WITH TORQUE LIMITING DEVICE
James E. Chapman, Los Angeles, and Walter G. Johnston, Culver City, Calif., assignors to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application December 1, 1952, Serial No. 323,402
8 Claims. (Cl. 89—33)

1. An ammunition feed booster, comprising: a rotatable sprocket; a driving motor having a shaft and an energizing circuit; an element resiliently biased against movement in one direction; transmission means for driving said sprocket and element from said shaft at reduced speed including a first clutch member movable to clutched and non-clutched positions with respect to said element, and in the non-clutched position enabling over-running rotation of said sprocket in feeding direction; a second clutch member associated with said shaft movable to clutched and non-clutched positions with respect to said element, and in the non-clutched position enabling rotation of said shaft in a feeding direction, but in clutched position opposing its rotation in a reversed direction; means normally biasing said second clutch member toward clutched position; a cam connected for movement with said second clutch member in response to movements of



said element; means for controlling said energizing circuit including contacts actuated by said cam; and means including said cam for manually moving said second clutch member to non-clutched position.

2,843,022
MOVABLE JAW GUN ENCLOSURE
Rene W. Bonnette and Robert B. Tassie, Burlington, Vt., assignors to General Electric Company, a corporation of New York
Application May 11, 1955, Serial No. 507,598
12 Claims. (Cl. 89—37.5)

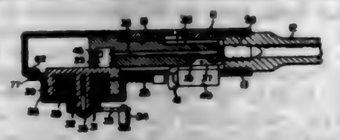


1. A gun turret housing for aircraft comprising an arcuate endless frame, two streamlined jaw members pivotally supported in confronting relation by said frame, said jaws being provided with cutaway portions forming an elongate slotted opening therebetween enabling the projections of a gun therethrough, means for rotating said frame to position said slot opening, and switching means selectively responsive to the opening of either jaw about its pivotal support for energizing said rotating means in opposite directions.

2,843,023
RECOIL MECHANISM FOR RECOIL-OPERATED FIREARMS
Louis Debuit, Grenoble, France, assignor to Etablissements Merlin & Gerin, Grenoble, France
Application July 14, 1955, Serial No. 521,945
Claims priority, application France August 31, 1954
4 Claims. (Cl. 89—132)

1. Recoil mechanism for recoil-operated firearms, particularly automatic rifles with a receiver, a breech bolt, a flywheel and a flywheel-spring for accumulating the kinetic energy of the recoil of the breech bolt and for firing the firearm thereby, a cup being provided at said

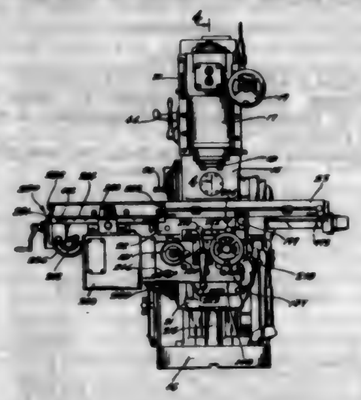
receiver forming a detachable cover thereof and housing said flywheel and said flywheel-spring, said flywheel being rotatably journaled in said cup, said flywheel-spring being extended between said flywheel and said cup, said flywheel further having a crank for tensioning thereby said flywheel-spring; said flywheel further carrying thereupon an eccentric pin; said breech bolt having at its rear end a crosspiece with a guide groove shaped for guiding therein said eccentric pin and thereby operatively connecting said flywheel with said breech bolt; said guide groove being extended in both directions from the longitudinal center line of the flywheel to a distance corresponding at least to the eccentricity of said eccentric pin, said guide groove being extended from said longitudinal center line straight and perpendicularly upwards, thereby to ensure continuous engagement of the eccentric pin and the guide groove during the forward and rearward movements of the breech bolt between the charged and firing positions and the concomitant half-revolution of the eccentric pin with the flywheel in the sense of releasing and tensioning respectively the flywheel-spring; said guide



groove, from said longitudinal center line, being curved downwards with a medium radius of curvature corresponding to said eccentricity; thereby to allow said eccentric pin first to move along said curved portion of the guide groove without exerting any force on the crosspiece and without displacing the same and, thereupon, to leave and disengage said guide groove and rotate freely with the flywheel in the sense of tensioning the flywheel-spring, and subsequently allow, on reverse rotation of the flywheel, under the tension of the flywheel-spring, said pin to be captured by said guide groove; locking means being associated with said crank and said cup thereby to lock both together in a position beyond said half-revolution and where said eccentric pin is disengaged from the guide groove, and to make possible detachment from said receiver of said cup together with flywheel, flywheel-spring and eccentric pin as a structural unit, and subsequent replacement of the same without the necessity of threading the eccentric pin into the guide groove and without being impeded through any structural part of the mechanism.

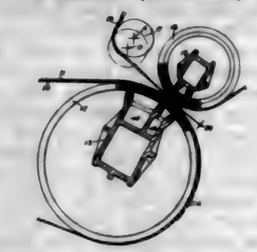
2,843,024
DUAL TRANSMISSION AND CONTROL MECHANISM
Joseph B. Armitage, Wauwatosa, Theodore A. Wetzel, Brookfield, and Gerhard G. Baumbach and Frank Zankl, Milwaukee, Wis., assignors to Kearney & Trecker Corporation, West Allis, Wis., a corporation of Wisconsin
Application June 14, 1954, Serial No. 436,358
13 Claims. (Cl. 90—13.5)

1. In a machine tool; a rotatable member; a plurality of power operable means selectively and independently connectable to rotate said member; said power operable means comprising a manually rotatable handwheel, a manually engageable feed transmission, and a reversibly energizable motor; a handwheel clutch selectively engageable to transmit power from said handwheel to said rotatable member; a transmission clutch selectively engageable to transmit power from said feed transmission to said rotatable member; a selectively engageable automatic control circuit including a source of electrical energy and a normally open disconnect switch connectable to effect a selective energization of said motor; said switch being operable to preclude energization of said motor whenever it is in its normally open position; and a latching mechanism selectively operative to latch said handwheel clutch and said transmission clutch in disengaged



power interrupting position; said latching mechanism being connected to actuate said switch to a closed position whenever said handwheel clutch and said transmission clutch are latched in disengaged position.

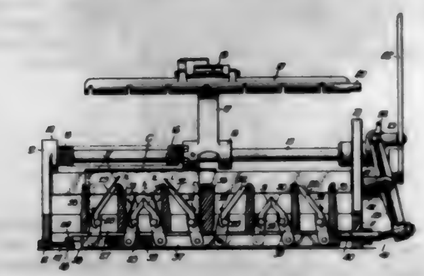
2,843,025
PAPER-MAKING MACHINES
Herbert Holden, Sheffield, England, assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application March 31, 1954, Serial No. 420,132
Claims priority, application Great Britain April 2, 1953
2 Claims. (Cl. 92—49)



1. In a vacuum pick-up mechanism in a paper making machine including a suction couch roll, a forming wire for forming and carrying a paper web, said forming wire being looped around said couch roll to be held in contact therewith and to overlie the suction area thereof, and a transfer felt, the combination therewith of a vacuum pick-up roll spaced from said couch roll in operating position by a distance slightly greater than the combined thicknesses of said wire, web and transfer felt to provide an open nip, said couch and pick-up rolls having closely adjacent overlying suction areas continuous respectively from immediately in advance of to beyond said nip, an adjustable guide roll immediately in advance of said nip and having said transfer felt trained therearound to guide said felt into said nip and into its first contact with said pick-up roll, said guide roll in non-operating position holding said felt clear of said web carried by said wire and being so positioned in operating position that said transfer felt after leaving said guide roll first contacts the web on said wire backed by said suction couch roll while said wire is subjected to the suction effect of said couch roll in advance of said nip and the felt then passes into and through said nip and is subjected to the vacuum effect of said pick-up roll to be held thereagainst with the web transferred to said pick-up roll, said web at and beyond said nip being carried by said transfer felt free of said

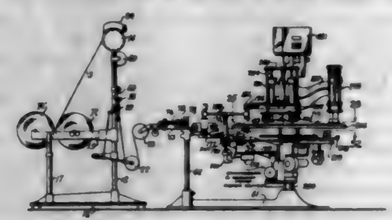
wire and said wire continuing in contact with said couch roll before, at and beyond said nip, whereby the web is not subjected to positive roll pressure at said nip.

2,843,026
EGG CARTON SETUP EQUIPMENT
Martin Berger, Morris, Ill., assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware
Application July 27, 1954, Serial No. 446,079
7 Claims. (Cl. 93—37)



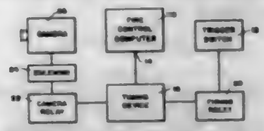
1. Apparatus for erecting cellular paperboard cartons characterized by a plurality of hinged cross partitions adapted to be swung into parallelism and in upright position at an angle to the carton walls, comprising a setup head having a plurality of partition erecting elements movably mounted thereon in longitudinally spaced relation to one another, said elements comprising a pair of endmost elements at opposite ends of said head which are oppositely movable to shift endmost cross partition elements towards said ends of the head to form the ends of said cartons, element abutment means on said head outwardly of each of said endmost elements to control the positioning of said endmost cross partition elements with relation to said carton walls, and an intermediate partition erecting element movably mounted on said head between said first named pair of elements to shift intermediate cross partitions, the setup head having mounted thereon a pair of oppositely moving parallel bars along the lengths of which the various oppositely moving elements are movably attached, and a motion reversing linkage connecting said bars whereby longitudinal movement in one direction imparted to one of said bars moves the elements attached thereto and simultaneously results in the respective movement of the other bar and the elements attached thereto in the opposite direction.

2,843,027
MACHINE FOR MAKING PLASTIC BOXES
Luther Earl Sevison, Toledo, Ohio, assignor, by mesne assignments, to E. G. Staude Manufacturing Company, Inc., St. Paul, Minn., a corporation of New Hampshire
Application January 10, 1952, Serial No. 265,734
9 Claims. (Cl. 93—45)



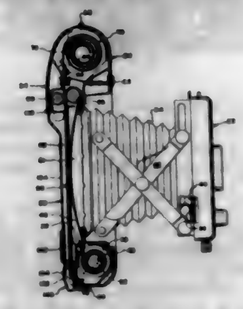
1. A machine for making boxes composed of plastic sheet material comprising means intermittently operable to engage the leading edge of a continuous sheet of plastic material and advance same a predetermined distance, severing means operable recurrently in timed relation to said sheet advancing means to sever a section of predetermined length from the sheet each time the latter is advanced, blanking means operable in timed relation to said sheet advancing means to form a box blank from each severed section of the sheet, a turntable, a jig on said turntable to receive a box blank, said jig comprising a pair of laterally spaced plates for use in box end wall folding, a pair of laterally spaced blocks on each of said plates, shouldered portions on the facing sides of each pair of blocks for use in folding tabs on opposite sides of each box end wall and a pair of laterally spaced side wall folding plates disposed at right angles to said first plates and having facing side edge portions disposed below the plane of the side edge portions of said first plates, means operable in timed relation to said sheet advancing and blanking means to rotate the turntable step-by-step and advance the same and said jig to successive stations, transfer means operable in timed relation during a dwell in the rotation of the turntable to deliver a box blank from the blanking means to the jig, said transfer means comprising a rotatable suction head, means for imposing a constant suction on the head to lift a blank from the blanking means and during movement of the head to the discharge position over the jig and means for rendering the suction ineffective when the head has been rotated to the discharge position, curved heated blade means at one station of the turntable cooperable with the jig to fold tab portions of a blank at right angles to respective end-wall portions, heated plate means at a succeeding station of the turntable cooperable with the jig to successively fold end-wall portions and then side-wall portions of the blank so that the tab portions are in lapping relation to the adjacent side-wall portions, and means at another succeeding station of the turntable cooperable with the jig to secure said tab portions to said side-wall portions.

2,843,028
MISS-DISTANCE INDICATOR
William C. Ward and Newton E. Ward, China Lake, Calif., assignors to the United States of America as represented by the Secretary of the Navy
Application March 11, 1955, Serial No. 493,840
3 Claims. (Cl. 95—12)
(Granted under Title 35, U. S. Code (1952), sec. 266)



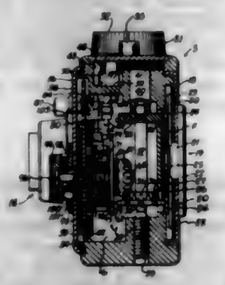
1. A miss-distance indicator for an aircraft having means for firing tracer type missiles, comprising in combination, a camera means mounting the camera on the aircraft in proximity with the pilot and so that the camera will take a picture in the direction the armament is fired, a solenoid actuator for opening the shutter of the camera, a camera relay for energizing the solenoid, a computer for producing a voltage which is a prededermined function of the time of flight of the missile from the aircraft to the point of intercept with the target, a timer, the voltage from the computer being applied to the timer, a firing relay, and a trigger switch, said trigger switch energizing said firing relay when the trigger switch is closed, said firing relay when energized causing the timer, after a period of time, substantially equal to the time of flight of the missiles to the intercept point with the target, to energize the camera relay, whereby said camera relay energizes the solenoid and causes the film of the camera to be exposed at the time the missiles are closest to the target.

2,843,029
PHOTOGRAPHIC APPARATUS INCLUDING SHEET-ARRESTING AND CONTROL MECHANISM
John W. Loftrop, Westwood, and Richard R. Wareham, Marblehead, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application December 2, 1954, Serial No. 472,746
15 Claims. (Cl. 95—13)



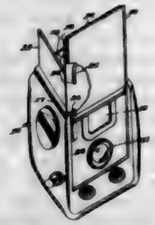
1. In photographic apparatus of the type wherein sheet material is advanced, in combination, means for arresting advancement of a sheet through said apparatus, said means including a pair of stop pins adapted to project into and engage a pair of successive pairs of perforations in said sheet for arresting the movement of said sheet past said pins, and means for mounting said stop pins for movement both together and independently of one another in a direction substantially perpendicular to the direction of advancement of said sheet, resilient means normally urging said stop pins toward said sheet and into contact therewith, manually operable means for withdrawing said stop pins from contact with said sheet and from engagement with said pair of perforations, latch means for releasably retaining said stop pins out of contact with said sheet, and means positioned in engagement with said sheet and responsive to the advancement of said sheet for automatically releasing said latch means when one of said pairs of perforations has been moved past said pins to permit said pins to move into contact with said sheet.

2,843,030
STEREOCAMERAS
Fred Perlin, Oconomowoc, Wis., assignor to Graflex, Inc., Rochester, N. Y., a corporation of Delaware
Original application November 1, 1952, Serial No. 318,153. Divided and this application May 13, 1954, Serial No. 429,582
5 Claims. (Cl. 95—18)



1. In a stereocamera of the type having two separate exposure apertures for making simultaneously two separate exposures on a photosensitive medium, the combination of a pair of shutters, each positioned, respectively, in front of one of said exposure apertures, means mounting the shutters for rotation about separate, spaced, fixed parallel axes, a positive motion transmitting connection between the shutters constraining them to concomitant rotation, a shutter spring acting upon said connected shutters, a film indexing mechanism comprising a sprocket having teeth adapted to mesh with perforations in the film to positively advance the film upon rotation of the sprocket, unidirectional actuating means for turning said sprocket in the film advancing direction, means for disengaging the sprocket from said actuating means to allow retrograde rotation of the sprocket and thus enable retraction of the film, a driving connection between the sprocket and the connected shutters and the shutter spring for cocking the shutters and tensioning the spring with each indexing of the film, said driving connection including a pawl and ratchet capable of transmitting shutter cocking and spring tensioning motion during advance of the film while leaving the shutters and shutter spring unaffected during retraction of the film, stop means for arresting shutter cocking and spring tensioning motion and thereby limiting film advance to thus define the indexed position of the film, and the number of teeth on the ratchet being equally divisible into the number of teeth on the sprocket so that despite the position in which the sprocket is left after a retraction of the film during subsequent film indexing the sprocket will stop with its teeth in exactly the same positions at the completion of each film advance.

2,843,031
VIEWING HOOD AND COVER FOR PHOTOGRAPHIC CAMERA
John K. Polhemus, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application March 16, 1954, Serial No. 416,570
8 Claims. (Cl. 95—47)



4. In a camera having an objective lens and a ground glass plate, a pair of hinged closure plates for said ground glass plate, a plate slidably mounted in the camera and adapted to cover the objective lens when in lowered position, cam slots on the rear of the sliding plate, studs on the closure plates received in said slots whereby raising of the sliding plate will raise the closure plates to open position, and means for releasably retaining the plates in raised or lowered position, said means comprising upper and lower detent slots on the rear of the sliding plate and spring detents mounted on the camera body.

2,843,032
COMBINED DRAG AND CULTIVATOR
Cecil B. Jones, Sherard, Miss., assignor of one-third to Jim Alex Smith, Stovall, Miss.
Application May 20, 1955, Serial No. 509,942
3 Claims. (Cl. 97—9)

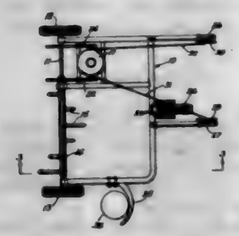
1. A combined drag and cultivator comprising a horizontally disposed plate having a concave top surface and a convex bottom surface, a plurality of blades projecting perpendicularly from the bottom surface and being fixedly and dependingly attached to said bottom surface, said blades being arranged in a plurality of rows posi-

tioned in tandem spaced relation, each of the blades of each row having its major axis disposed at an angle to the longitudinal axis of said plate, a pair of guide blades disposed along the longitudinal axis of said plate, one of said blades being adjacent the front end of said



plate and the other of said blades being adjacent the rear end of said plate, both of said guide blades depending perpendicularly from the bottom surface of said plate, and hitch means connected to said plate at the front end thereof for connecting said plate to a tractor for tractive movement therewith.

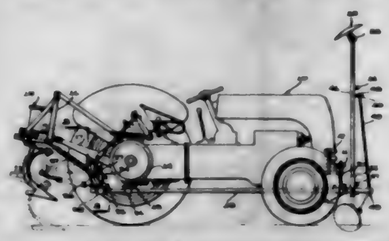
2,843,833
ORCHARD CULTIVATOR
Orval C. Meyer, Vincennes, Ind.
Application April 8, 1955, Serial No. 500,129
1 Claim. (Cl. 97—40)



A cultivator comprising a frame having a forward end, a rear end, and a pair of sides, a horizontally disposed axle journaled in the forward end of said frame for rotary movement, a driving wheel fixedly secured to said axle at each end thereof engageable with the ground, a freely rotatable wheel positioned adjacent the rear end of said frame intermediate the sides thereof and pivotally connected to the frame rear end for movement about a vertical axis, a sleeve rotatably carried by said axle intermediate said wheels, a plurality of spaced tines fixedly secured by their one ends to said sleeve for movement therewith and having their other ends engageable with the ground, means for selectively effecting either rotation of said sleeve or the rotation of said axle in a forwardly driving direction, or the simultaneous rotation of said sleeve and said axle in said direction, and an abutment means embodying a hook projecting outwardly of one of the frame sides and behind one of said driving wheels and engageable with the trunk of a tree causing said frame to move in a circle about said tree as an axis when said axle is rotated in said direction.

2,843,834
TRACTOR-MOUNTED ROW MARKER
Wilbur R. Dorsa, Kenton, Tenn.
Application April 8, 1955, Serial No. 500,105
3 Claims. (Cl. 97—230)

1. The combination with a tractor having a front bumper hitch, a hitch on the underside of the rear axle, and an implement frame mounted on the tractor for cyclic upward and downward movements relative thereto, of a row marker assembly comprising a horizontal shaft extending longitudinally of said tractor and dependingly connected to the front bumper hitch and the rear axle hitch for limited rotary movement in clockwise and counterclockwise directions, said shaft having a portion adjacent one end forwardly of said front hitch and having a portion adjacent the other end rearwardly of said rear axle hitch, a tubular socket projecting perpendicularly from said one end shaft portion, a marker arm carried by said socket and extending to one side of said tractor and movable vertically from one side of the tractor to the other responsive to rotary movement in clockwise and counterclockwise directions of said shaft, a row marker secured on the free end of said marker arm engageable with the ground when said marker is in either of its horizontal positions, and means connecting said marker arm to said implement frame so that upon execution of



rapid movement of said implement frame upwardly said marker arm is moved to a position at an angle to the vertical on one side of the tractor and moves by its momentum to a position at an angle to the vertical on the other side of the tractor, said means comprising a sleeve circumposed about said shaft other end portion, one operating arm carried by said sleeve, a lost-motion connection between said operating arm and said shaft other end portion, and means connecting the free end of said operating arm to said implement frame.

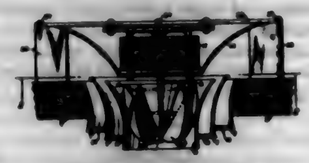
2,843,835
FOUNDATION VENT COVERS
James N. Jacks, Grenada, Miss.
Application November 18, 1954, Serial No. 469,814
1 Claim. (Cl. 98—29)



A foundation vent grille cover comprising a body of sheet material of rectangular shape having one or more small holes centrally located in said body, an outwardly and downwardly extending flange formed along the lower longitudinal edge of said body for directing rain water away from the lower edge of a grille mounted in a vent opening, compression spring clip means having an axially extending stem secured at one end to outer end of the spring and having a hooked portion at its other end, whereby when the spring is compressed the hooked portion may be passed through one of the holes in said body and bear against the rear surface of the grille for attaching said cover to the grille.

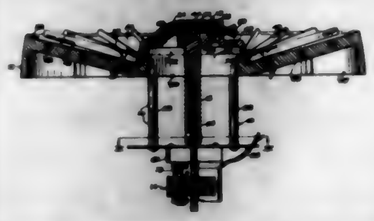
2,843,836
EXHAUST FAN MEANS
Thomas E. Quick, Wichita, Kans.
Application September 27, 1954, Serial No. 458,354
4 Claims. (Cl. 98—43)

4. Fluid moving means, comprising, in combination, a fixed converging, diverging primary duct, an impeller axially mounted within said primary duct, said impeller having a conoidal central portion with a plurality of centrifugally acting longitudinal blades radially projecting therefrom which are deeper in their forward portions than their rear portions, means to operate said impeller, an outer fixed converging, diverging duct forming with said primary duct an induced flow passageway having the outlet positioned to received thereacross fluid discharged



from said primary duct, and said impeller adapted upon operation to centrifugally move fluid axially through said primary duct and over the outlet of said induced flow passageway to induce fluid flow therethrough.

2,843,837
HOT DOG GRILL ASSEMBLY
Samuel M. Wass, Kansas City, Mo., assignor to Manley, Inc., Kansas City, Mo., a corporation of Missouri
Application May 7, 1956, Serial No. 583,117
6 Claims. (Cl. 99—423)



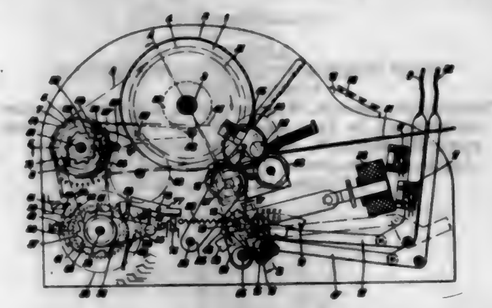
1. A cooking appliance comprising a grill adapted to be heated and having a concave, upwardly facing surface for receiving elongated articles to be heated thereby; and rotatable structure above the surface and provided with a hub and a plurality of spoke elements extending outwardly from the hub and engageable with the articles for advancing the latter along said surface on a circular path of travel about the axis of rotation of the hub while rotating the articles on their longitudinal axes, said spoke elements being located in positions tangential to said axis of rotation of the hub with the innermost portions thereof in trailing relationship to the direction of rotation of the hub whereby said concave surface and the spoke elements cooperate to cause the articles to be moved inwardly toward said axis as the same are advanced.

2,843,838
BAKERY APPARATUS AND METHOD
Robert O. Masspeaker, Memphis, Tenn.
Application January 6, 1954, Serial No. 402,576
2 Claims. (Cl. 99—438)



1. The combination of a baking utensil having at least one opening in its bottom and a recess in the inner surface of the utensil and adjoining the opening, a cover plate for said opening containing a magnetic substance and adapted to fit in said recess to substantially form a continuation of said inner surface, said cover plate also being adapted to move outwardly from said utensil to eject baked goods from the utensil, and an ejector separate from said cover plate and adapted to pass through said opening and abut said cover plate to eject the goods, said ejector also comprising a magnet.

2,843,839
SELECTIVE PRINTING PROCESS AND APPARATUS
Wilhelm Ritzerfeld, Berlin-Dahlem, and Gerhard Ritzerfeld, Berlin-Grunewald, Germany
Application May 28, 1956, Serial No. 587,789
Claims priority, application Germany May 28, 1955
5 Claims. (Cl. 101—132.5)



1. In a printing apparatus, in combination, support means; a printing roll carried for rotation about its axis by said support means and adapted to have fixed thereto a printing form having a series of printing portions arranged thereon; a counter roll parallel to and located adjacent said printing roll; a switch closing member carried by said support means for movement along a predetermined path; drive means operatively connected to said printing roll for rotating the latter about its axis and to said switch closing member for moving the same along said path in synchronism with the rotation of said printing roll; a plurality of first switches respectively corresponding to the series of printing portions of the printing form and respectively arranged in succession along said path to be successively closed by said switch closing member during movement of the latter along said path in synchroniam with the rotation of said printing roll; a plurality of second switches respectively corresponding to said plurality of first switches; electrical moving means operatively connected to said counter roll for moving the same to an operating position in close proximity to said printing roll only when said electrical moving means is energized; and electrical circuit means electrically interconnecting said first switches, second switches, and electrical moving means for energizing the latter only when said switch closing member closes a given first switch at a time when a given second switch corresponding to said given first switch is also closed, whereby by closing selected ones of said second switches selected portions of the printing form may be printed.

2,843,840
INK CONDITIONING EQUIPMENT FOR ROTARY LITHOGRAPHIC PRESS
Warren Childers, Houston, Tex.
Application August 17, 1954, Serial No. 450,587
5 Claims. (Cl. 101—141)



1. An ink conditioning device for use on lithographic presses comprising a housing having an air discharge outlet, a tubular shaft extending longitudinally through the housing and beyond the ends of the housing, means engageable with the shaft beyond the ends of the housing for supporting the shaft and housing with the outlet adja-

cent an inking roll of a lithographic press, said shaft having an opening within the housing in communication with the interior of the shaft and through which air may enter the housing, said opening being positioned to direct the air entering the housing away from the outlet and said housing being shaped to divert the air entering the housing toward said outlet.

2,843,841
DEEP PERFORATION OF SUBSURFACE FORMATIONS
Douglass M. Stewart, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 14, 1953, Serial No. 398,053
3 Claims. (Cl. 102—21.6)



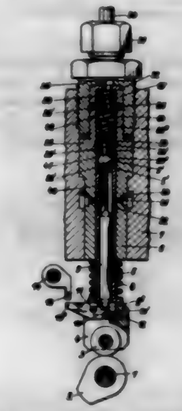
1. Apparatus for perforating a subsurface earth formation which comprises, in combination; a body member adapted to be lowered in a well bore; at least a cannon disposed in said body member to face the wall of said well bore; a hollow metal projectile in said cannon for firing by said cannon into said formation comprising a cone-shaped metal wall member arranged in said projectile having an open base facing the nose of said projectile; a cone-shaped primary high explosive charge confined behind and by said wall member in said projectile; a booster charge arranged in said projectile behind said shaped charge; a primer charge behind said booster charge in said projectile, a frangible projectile end member behind said primer charge, said charges comprising an explosive chain; an explosive delay element connected to said primer charge for firing said explosive chain, and an explosive projectile propelling charge in said cannon to fire said projectile into said formation and to set off said explosive delay element.

2,843,842
NON-METALLIC MINE FUSE
Fabrizio Lazari, Milan, Italy, assignor to Montecatini, Società Generale per l'Industria Mineraria e Chimica, a corporation of Italy
Application July 17, 1952, Serial No. 299,305
Claims priority, application Italy August 4, 1951
12 Claims. (Cl. 102—70)



1. A percussion fuze for non-metallic mines, comprising a percussion cap, a striker for igniting said percussion cap, a frangible hermetically sealed container containing a prefill of compressed propellant gas, said striker being disposed in striking position between said container and said percussion cap, and enclosure means surrounding said container and said striker, said enclosure means being operative, upon impact thereupon, to break said frangible container, whereby said striker will be propelled by the kinetic energy of the released gas to strike upon and ignite said percussion cap.

2,843,843
INJECTION PUMPS
Wilhelm Schneider, Vienna, Austria
Application June 10, 1955, Serial No. 514,597
Claims priority, application Austria June 15, 1954
5 Claims. (Cl. 103—40)

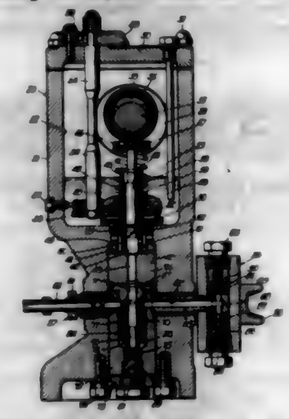


1. An injection pump of the pop-controlled type for internal-combustion engines, which comprises a pump casing formed with a pump inlet, a liquid chamber, and an outlet connected to said liquid chamber, a pump piston movably fitted in said liquid chamber and formed with a passage connecting said inlet to said liquid chamber, a closing member arranged entirely in said liquid chamber to face one end of said pump piston and to be engaged and moved by said pump piston in a predetermined phase of movement of said pump piston and to close said passage and enable the pump piston to urge liquid out of said liquid chamber through said outlet during said phase, a stop arranged in a stationary relation to the pump casing for locating the closing member in an initial position in which it is arranged to be engaged by said pump piston at the beginning of said phase, a lifting pin extending axially in said pump piston and arranged for axial movement relative thereto to protrude out of said pump piston at the end faced by said closing member, a second stop arranged to be moved with said pump piston and in engagement with said lifting pin to cause it to move with said pump piston, and control means arranged to engage said second stop in a final part of said phase of movement and to move through the intermediary of said second stop said pin relative to said pump piston and into engagement with said closing member to disengage the same from said pump piston and open said passage at the end of said phase.

2,843,844
METERING PUMP
William H. Manchester, Hinsdale, Ill.
Application July 14, 1954, Serial No. 443,251
18 Claims. (Cl. 103—44)

1. In a pump, the combination with a housing having a cylindrical recess providing a pumping chamber therein, an inlet for said chamber, an outlet for the chamber, a

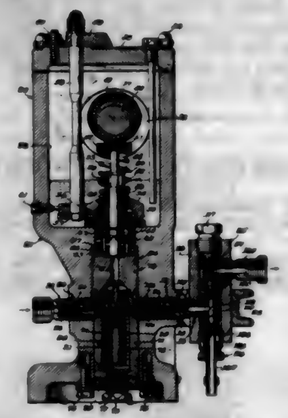
reservoir chamber provided by the housing and located above the pumping chamber, a vertically disposed passage in the housing extending between the reservoir chamber and the pumping chamber for connecting the same, a pumping element within the pumping chamber in the form of a flexible bellows having a bottom closure member and an open top end, said bellows being capable of longitudinal expanding and contracting movements to vary the volumetric capacity of the pumping chamber, the open end of said bellows being hermetically sealed to the housing walls in surrounding relation with the said passage at the top end of the pumping chamber, whereby the passage connects the interior of the bellows with the reservoir chamber so that liquid in the reservoir chamber may completely fill the passage and said bellows, and means subjecting the liquid within the bellows to hy-



draulic pulsations to cause the bellows to alternately expand and contract, whereby as the volumetric capacity of the pumping chamber is varied a fluid can be drawn through the inlet and discharged through the outlet, said inlet and outlet each incorporating a valve assembly including a base having a center passage and which provides a flat valve seating top surface, a cage also having a center passage and which is supported on the flat top surface of the base with the passages in alignment, and a valve member comprising a flat disc having location within a recess provided by the cage, said valve member having seating contact on the flat top surface of the base to close the valve assembly, and said valve member lifting to an extent as permitted by the recess to open the valve assembly permitting a liquid to flow through the aligned passages.

2,843,845
METERING PUMP APPARATUS
William H. Manchester, Hinsdale, Ill.
Application May 3, 1956, Serial No. 582,466
10 Claims. (Cl. 103—44)

1. In a pump, the combination with a housing providing a reservoir chamber in the upper portion thereof and said housing having a central bore extending from the reservoir chamber to the base of the housing, means including a bellows pumping assembly located within the bore adjacent the base thereof, a plunger pumping assembly located in the reservoir chamber in alignment with the said bore, said bellows pumping assembly including a member providing a pumping chamber, a flexible bellows depending within the pumping chamber, and a bellows closure element within the pumping chamber at the upper end thereof and to which the open end of the flexible bellows is secured, said plunger pumping assembly including a reciprocating plunger member, means providing a passage from the reciprocating plunger member to the open end of the flexible bellows, a tubular bellows guide extending longitudinally within the bellows and being fixed at its upper end to the bellows closure element, a bellows guide stem fixed to the closed bottom end of the bellows and extending through the tubular bellows guide for approximately the length of the same, and a bellows return spring



in surrounding relation with the guide stem and being located within the bellows guide, said bellows return spring yieldingly biasing the guide stem in an upward direction whereby to maintain the bellows in contracted condition.

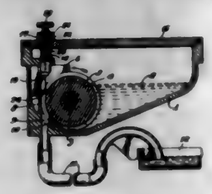
2,843,846
FLUID PUMP
Robert B. Knowles, Maywood, Calif.
Application February 16, 1956, Serial No. 566,040
10 Claims. (Cl. 103—46)



1. In a fluid actuated pump for a well including a pressure tubing within a production casing and terminating in spaced relation to the end of the production casing, said production casing being provided with a working barrel at its lower end, the combination of: a piston means slidable in the production casing between the end of the pressure tubing and the working barrel and provided with a top plunger slidable in the pressure tubing, and a bottom plunger slidable in the working barrel; said top plunger being provided with top ball valve means, said piston means having a valve chamber adjacent the bottom thereof; said piston means having a plurality of passageway means providing communication between said valve chamber and the production casing below said piston means, said valve chamber and the production casing above said valve chamber, and said valve chamber and

said pressure tubing above said top plunger; ball valve means in said valve chamber for selectively closing the passageway means between said valve chamber and the production casing above said valve chamber; and a free floating valve actuating shuttle rod extending through the passageway means between the valve chamber and said pressure tubing and engageable with said ball valve means in said valve chamber and said top ball valve means in said top plunger for opening one of said ball valve means while the other is closed.

2,843,047
MEANS FOR TRANSPORTATION OF VISCOUS LIQUIDS
Kurt Korber, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co., K. G., Hamburg-Bergedorf, Germany
Application August 16, 1955, Serial No. 528,686
Claims priority, application Germany July 31, 1954
5 Claims. (Cl. 103—84)



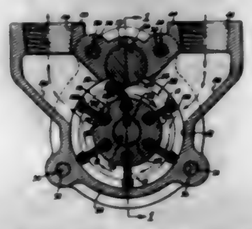
1. In a device for pressure transportation of viscous liquids, a liquid receptacle adapted to be partially filled with said liquid, a rotatably mounted roller with its major portion immersed in the liquid in said receptacle, a circumferential groove-shaped recess in said roller, outlet means providing a discharge passage in said receptacle and arranged tangentially to said groove-shaped recess in said roller to receive liquid transported by said roller due to adhesion, and a funnel-shaped constriction member forming an inlet mounted in said receptacle and disposed above said outlet means, said constriction member having roller engaging scraper edges adapted to scrape the liquid from the circumference of the roller and direct the same towards said recess.

2,843,048
LIQUID PUMPING APPARATUS
Harry F. Tapp, Longmeadow, Mass., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a corporation of Massachusetts
Application March 23, 1956, Serial No. 573,388
2 Claims. (Cl. 103—87)



1. A pump, adapted for mounting in the outlet pipe of a liquid storage tank, and comprising, a pump housing having a cylindrical outer wall to slidably fit like a piston in said pipe and having a pump chamber, and an inlet to and an outlet from said chamber respectively provided in the lower and upper ends of the housing, at least one sealing ring mounted in the outer cylindrical wall of said housing for engaging the internal peripheral wall of said pipe and preventing passage of liquid between said walls from said inlet to said outlet, a pump rotor in said chamber, a drive shaft for the rotor rotatably mounted in said housing and held against axial movement relatively thereto, said shaft adapted to extend axially through said pipe and constituting means by which the housing may be moved piston-like from the upper to the lower end of said pipe, a hollow housing adapted to be secured to the upper end of said pipe to connect with a delivery pipe, said shaft extending upwardly through the last-named housing, and a motor mounted exteriorly of the last-named housing and connected to drive said shaft.

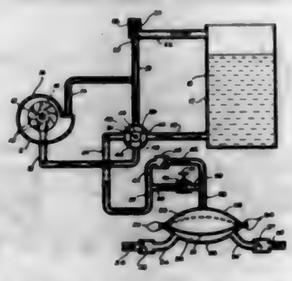
2,843,049
RESILIENT ROTOR PUMP OR MOTOR
David Sherwood, Detroit, Mich., assignor to Sherwood Brass Works, Detroit, Mich., a corporation of Michigan
Application January 29, 1954, Serial No. 406,960
1 Claim. (Cl. 103—117)



A rotary pump or motor comprising a pump casing containing a rotor chamber having axially-spaced opposite end walls and a peripheral wall with a generally cylindrical internal surface thereon, said casing having spaced liquid inlet and outlet ports communicating with said chamber, a shaft rotatably mounted in said casing and extending into said chamber, said peripheral wall having a vane-deflecting member thereon projecting inwardly therefrom toward said shaft, a rotor rotatably mounted on said shaft within said chamber, said rotor having flexible vanes of elastic deformable material projecting approximately radially therefrom into engagement at their side edges with said opposite end walls and at their outer ends with said peripheral wall and vane-deflecting member, said rotor having a hub with substantially radial circumferentially-spaced recesses extending inwardly from the periphery thereof and having enlargements at their inner ends, and said vanes having their inner end portions snugly and fixedly but removably seated in said recesses and having enlarged opposite outer and inner ends of similar cross-sectional dimensions interchangeably fitting said enlargements of said recesses, the inner ends thereof being secured in said hub recess enlargements.

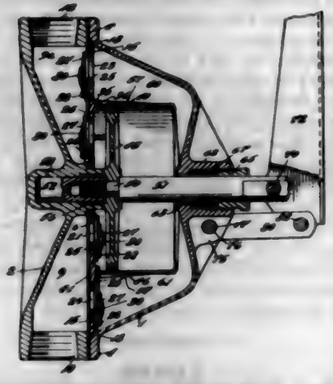
2,843,050
DIAPHRAGM SLUDGE OR CHEMICAL PUMP
Lyndus E. Harper, West Barrington, R. I.
Application February 15, 1954, Serial No. 410,187
7 Claims. (Cl. 103—152)

1. Pumping apparatus of the character described comprising walls forming a diaphragm chamber, a diaphragm therein dividing said chamber into a pumping chamber and an operating chamber, conduit means connected with said pumping chamber having means determining unidirectional flow therein, and means for supplying operating fluid to and withdrawing operating fluid from said operating fluid chamber comprising circulating means for said fluid, valve means controlling flow between said circulating means and said operating fluid chamber, said valve means comprising a valve member having an operating fluid supplying position and an operating fluid



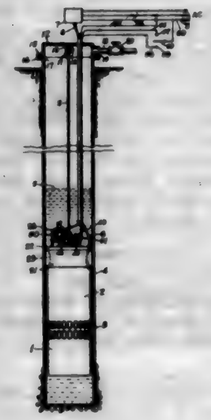
withdrawing position, means for alternately moving said valve member into each of said positions, and conduit means between said valve means and said operating fluid chamber having an adjustable valve between said valve means and said operating fluid chamber and a bypass around said valve having a check valve therein opening in a direction away from said fluid operating chamber.

2,843,051
DOUBLE-ACTING PISTON PUMPS
Robert R. Allen, Muskegon, Mich., assignor to John Wood Company, New York, N. Y., a corporation of Delaware
Application February 12, 1954, Serial No. 409,981
7 Claims. (Cl. 103—175)



1. A double-acting pump comprising a body member and a cover member; a fluid inlet chamber and a fluid outlet chamber formed in said cover member; a fluid inlet port in said cover member in open communication with said cover member fluid inlet chamber and a fluid outlet port in said cover member in open communication with said cover member fluid outlet chamber; a valve plate between said body member and said cover member; a piston cylinder seated at one end in said valve plate and seated at its opposite end in a support formed in said body member; two communicating separate extensions in said body member forming, with the outer wall of said piston cylinder, a body member fluid chamber; a piston in said piston cylinder; manually operative means to effect reciprocation of said piston in said piston cylinder; a series of four valves, each of which is pivotally connected to its valve seat member rigidly fastened to said valve plate, controlling respectively four ports in said valve plate, including a first valve controlling the port thru which fluid is drawn from said fluid inlet chamber in said cover member into said body member fluid chamber, a second valve controlling the port thru which fluid is drawn from said fluid inlet chamber in said cover member into said piston cylinder, a third valve controlling the port thru which fluid is discharged from said piston cylinder to said fluid outlet chamber in said cover member, and a fourth valve controlling the port thru which fluid is discharged from said body member fluid chamber to said fluid outlet chamber in said cover member; whereby, when the piston is moved in one direction in said piston cylinder, said first valve and said third valve are caused to be opened, and said second valve and said fourth valve are caused to be closed; and when the piston is moved in the opposite direction, said second valve and said fourth valve are caused to be opened, and said first valve and said third valve are caused to be closed, with the result that a continuous discharge of fluid is effected from the fluid outlet port in said cover member regardless of the direction of movement of said piston in said piston cylinder.

2,843,052
FLUID EXPANSIBLE PASSAGE SEAL
Orris E. Andrus, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application December 16, 1954, Serial No. 475,618
4 Claims. (Cl. 103—202)



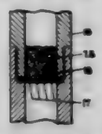
2. Sealing apparatus for closing the passage between a motor-pump unit and a well casing, which comprises an expansible member disposed between the motor-pump unit and the well casing, a chamber disposed adjacent to the motor-pump unit and having an outlet passage connecting the chamber into communication with the expansible member, said chamber being adapted to confine a pressurized fluid therein, a heat-disruptable material disposed within said passage to close the passage, an electrical heating element secured adjacent the heat-disruptable material to effect an opening of the passage, a second outlet passage connecting the chamber and the well fluid into communication, a heat-disruptable material disposed within the second outlet passage to close the second passage, a second electrical heating element secured adjacent the heat-disruptable material in the second passage to effect an opening of the second passage and a consequent deflation of the expansible member, a source of current connected in circuit with the first and second named electrical heating elements, and control means for said source of current disposed at the upper end of the well casing to selectively energize the first and second named heating elements.

2,843,853
GAS ANCHOR
Joseph T. Carle, South Pasadena, Calif.
Application March 26, 1956, Serial No. 573,900
7 Claims. (Cl. 103—283)



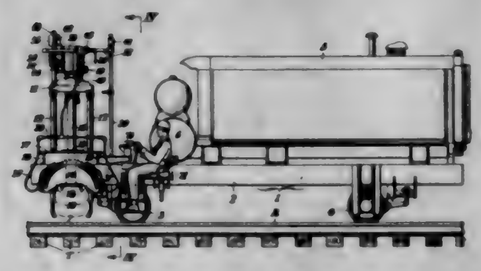
1. A gas anchor including centrifuging means for centrifugal separation of an upwardly-flowing gas-liquid mixture, said means including an elongated vertically-extending tubular housing of spiral formation provided with a gas-liquid mixture receiving port at its lower end, a separated gas discharge way at its upper end, a plurality of spaced-apart separated liquid discharge ports at only the lower end portion of said housing, and a hooded baffle disposed outwardly and facing each of said separated liquid discharge ports, each baffle having a closed upper portion and an open lower portion; separated liquid accumulator means including a reservoir, in communication with each separated liquid discharge port and disposed below said centrifuging means; and coupling means, connecting said housing and reservoir.

2,843,854
TUBING STRING SAND TRAP
Wilfred S. Crake, Houston, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application January 7, 1954, Serial No. 402,618
3 Claims. (Cl. 103—220)



3. In a well pumping installation comprising a reciprocating-piston type well pump positioned in the lower end of a well, the combination of a production tubing string suspended within said well substantially throughout the length thereof for reciprocation therein, the lower end of said tubing string being affixed to the pump piston for reciprocating said pump piston in a substantially vertical plane, and a plurality of substantially flat disc-shaped elements mounted in the tubing string transversely thereto and in spaced relationship from each other, said disc-shaped elements being provided with a plurality of perforations, the diameter of said disc elements being slightly in excess of said tubing string, and means for fixedly securing the rim of each disc element to the inner wall of said tubing string, whereby the central area of said disc elements may be flexed upwardly and downwardly opening said perforations during normal pumping operations to allow the well fluid to pass therethrough.

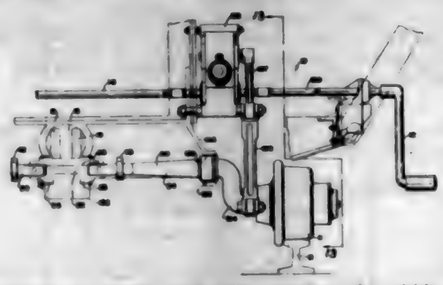
2,843,855
RAILWAY TRACK BALLAST TAMPING APPARATUS
Samuel R. Hursh, Bala-Cynwyd, and James B. McWilliams, Pittsburgh, Pa.
Application December 16, 1955, Serial No. 553,521
8 Claims. (Cl. 104—12)



1. In railway track ballast tamping apparatus, a carriage shiftable along the track rails; a crosshead confined to a guide on the carriage for up and down movement thereon and supporting, in suspension, a group of tampers for packing ballast beneath the track ties; a cylinder fixed on the carriage and having a piston with the rod thereof connected to the crosshead, said piston having a stroke for moving the tampers from a level at which they clear the rail tops to the track bed level for engaging the ballast and vice versa; a pressure fluid conduit system on the carriage; a first valve means in said conduit system for controlling admission and exhaust of pressure fluid into and from the upper end of the cylinder; an oppositely functioning second valve means in said conduit system for controlling admission and exhaust of pressure fluid into and from the bottom end of the cylinder; manual master control means on the carriage connected to and for actuating said valve means for admission of pressure fluid alternately into the top and bottom ends of the cylinder to lower and raise the crosshead; and auxiliary exhaust control valve connected to the exhaust outlet of the aforesaid first valve means; check means connected to the auxiliary valve; and an actuating member on the carriage for actuating engagement respectively with the check means and extending into the path of the crosshead so as to be contacted by the crosshead upon elevation of the crosshead and the tampers to a level slightly above the track ties to actuate the check means and thereby cause functioning of the auxiliary valve to restrict exhaust from the upper end of the cylinder to effect retardation of the crosshead and the tampers in their further rise.

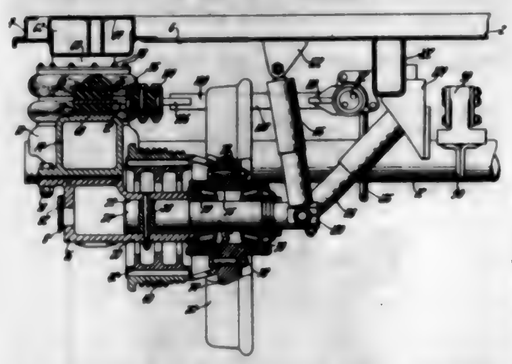
2,843,856
COUPLER APPARATUS
Kenneth A. Browne, Lakewood, Ohio, assignor to The Chesapeake and Ohio Railway Company, Cleveland, Ohio, a corporation of Virginia
Application May 13, 1953, Serial No. 354,724
11 Claims. (Cl. 105—4)

2. In a train having railway cars each of which has a pair of relatively fixed wheels at one end and extensible and retractible dolly wheels at the other end, and means for raising said dolly wheels to an inoperative position when the cars are coupled together and for lowering said dolly wheels to an operative car-supporting position when the cars are uncoupled, the improvement of coupling apparatus comprising a central coupling pin pivotally secured to said one end of a first car and projecting longitudinally therefrom, fluid lines on said first car terminating adjacent said coupling pin, valve means normally closing the termini of said fluid lines, the adjacent end of a second car having a socket into which said coupling pin extends, said second car having fluid lines terminating adjacent said socket, valve means normally closing the termini of the fluid lines of said second car, locking members on the second car engaging and locking said coupling pin in said socket, the termini of the fluid lines on said first and second cars, respectively, being aligned and in engagement, means responsive to retraction and extension of said dolly wheels for actuating said locking



members to tightly lock said coupling pin within said socket when said dolly wheels are retracted and to partially release said coupling pin when said dolly wheels are fully extended, and means responsive to said movements of the dolly wheels to open said valve means in said fluid lines when the dolly wheels are retracted and to close said valve means when the dolly wheels are fully extended.

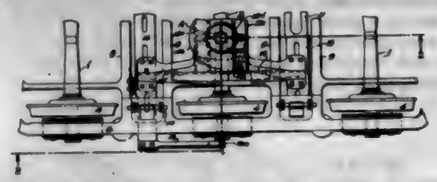
2,843,857
RAILWAY VEHICLE SUSPENSION
John Markestein, Westchester, and Clarence H. Patrie, La Grange, Ill., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 7, 1955, Serial No. 551,548
5 Claims. (Cl. 105—180)



1. In combination with a vehicle body, a suspension therefor comprising a truck frame disposed therebelow, a pair of transversely spaced axles cantilevered to said frame adjacent outboard portions thereof, a wheel mounted on each of said axles, resilient means interposed between said body and frame supporting said body on said frame, means stabilizing said frame relative to said body, and shock-absorbing means connected between the free ends of said axles and said body.

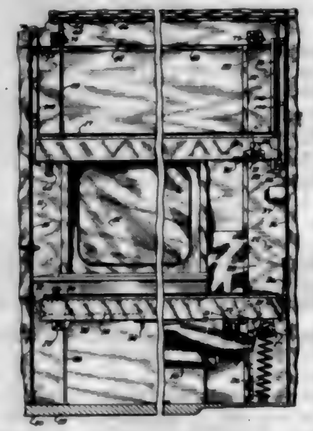
2,843,858
RAILWAY TRUCK BOLSTER STRUCTURE
James C. Travilla, University City, and Julius J. Zach, St. Louis, Mo., assignors to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware
Application April 8, 1953, Serial No. 347,468
5 Claims. (Cl. 105—230)

1. In a railway truck bolster, spaced apart, elongated members of box-like cross section, and an upright cylindrical center pivot structure between said members, diametrically opposite portions of said structure merging with upright walls of said box-like sections, the top elements



of said box-like sections merging and forming a central bearing support for the bolster load extending radially outwardly from said pivot structure.

2,843,859
RAILWAY SLEEPING CAR BED LATCH
Harold L. Norby, Chicago, Ill., and Basil E. Jones, Lenox, Ga., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Original application February 14, 1951, Serial No. 210,921, now Patent No. 2,731,924, dated January 24, 1956. Divided and this application September 6, 1955, Serial No. 532,493
1 Claim. (Cl. 105—317)



In a railway car having a passenger space defined in part by a ceiling and a partition and a wall at one side of the space and having a continuous recess including a horizontal portion in the ceiling and a vertical portion adjacent to and defined in part by the partition below the horizontal portion, an upper bed in said horizontal recess portion and a lower bed in the vertical recess portion, said upper bed being movable vertically between a lower operative position and an upper retracted position in the horizontal recess portion with its lower surface providing a substantially horizontal surface at the upper end of the vertical recess portion and said lower bed being pivoted to swing between a substantially horizontal operative position and a substantially vertical retracted position in said vertical recess portion with the upper end thereof directly below and in close proximity to said horizontal surface, a catch on said upper end of the lower bed, a first latch means projecting from said lower horizontal surface of the upper bed including a downwardly biased retractable latch member located at the upper end of the path of movement of said catch and engaging the catch in the fully retracted position of the lower bed to lock the bed against initial opening movement, a second latch means projecting from said lower horizontal surface of the upper bed including a downwardly biased retractable latch member located at a point intermediate

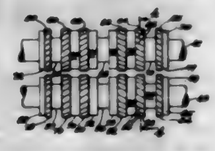
the ends of said path and engaging said catch in an intermediate position of the lower bed to secure the bed against further opening movement, and manually operable means at said upper end of the lower bed for releasing said first latch means from said catch to unlock the bed and also to release said second latch means from the catch to permit the bed to be moved to said horizontal operative position.

2,843,860
ROTARY LADING STRAP ANCHOR
Achilles L. Sladek, St. Paul, Minn., assignor to Schaefer Equipment Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 6, 1955, Serial No. 538,850
1 Claim. (Cl. 105—369)



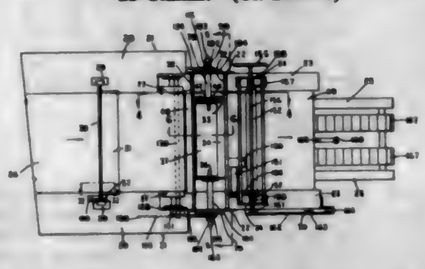
A lading strap anchor for railway cars and the like, comprising a support provided with an opening therethrough, a rotatable ring of larger diameter than said opening and coaxial therewith, the ring being engageable with the rear surface of the support, a retaining member secured to said support substantially in engagement with the back of the ring for rotatably supporting the ring, a cross bar extending across the ring, and a guide member extending transversely of the bar behind it with the opposite ends of said member connected to the ring, the guide member being bowed rearwardly away from said bar for guiding a lading strap around the bar, said retaining member having an opening through which said guide member projects.

2,843,861
SEVERING AND STACKING MECHANISM
Guy M. Bonebrake, Chicago, Ill., assignor to Wm. Wrigley Jr. Company, Chicago, Ill., a corporation of Delaware
Application July 19, 1955, Serial No. 523,077
9 Claims. (Cl. 107—7)



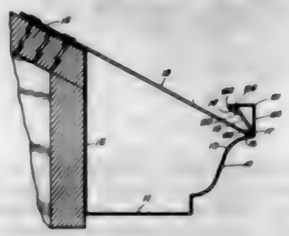
1. In a severing and stacking mechanism for separating scored slabs of compressible material of predetermined substantially uniform thickness into pieces and stacking the pieces, the combination comprising rollers mounted for rotation in separated pairs and with the rollers of each pair spaced from one another to receive the scored slab material therebetween, said pairs of rollers being aligned to engage and grip successive scored pieces of the scored slab material in succession, means for driving the rollers of the pairs at different speeds with the speed of the second successive pair engaged by the scored slab exceeding that of the first pair to the extent that the pieces are severed from the scored slab between the pairs of rollers, said rollers each having similar and opposed longitudinally spaced sections, each of which sections has thereon a plurality of rows of circumferentially spaced serrations, said rows of serrations being spaced from one another axially of the rollers and aligned on the rollers of each pair, said serrations being in the form of teeth spaced apart on each of the pairs of rollers to press into the surface of the compressible material to provide gripping action thereon, and the serrations of the aligned rows on the rollers of each pair being angularly disposed with respect to one another, so that they provide transverse depressions on the opposite sides of the material, and the rollers of the different pairs having a part of the rows of serrations offset axially of the rollers from one another.

2,843,862
BREAD MOLDING MACHINE
Clarence A. Kieffaber, Overland Park, Kans., assignor to Stickelber & Sons, Inc., a corporation of Missouri
Application September 13, 1954, Serial No. 455,672
25 Claims. (Cl. 107—8)



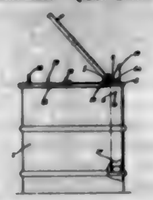
1. In a machine for twisting a plurality of elongated loaf poritons about each other to form a loaf, a conveyor for said elongated loaf portions, a hopper receiving said loaf portions from said conveyor, twisting mechanism receiving a plurality of said loaf portions from said hopper, and means controlling discharge of said loaf portions from said hopper and the operation of said twisting mechanism comprising a member in the path of said loaf portions on said conveyor, a loaf portion actu..ted member cooperating therewith in said hopper, and means for directing a first loaf portion deposited in said hopper away from and a second loaf portion deposited therein into actuating engagement with said loaf portion actuated member in said hopper.

2,843,863
ROOF GUTTER
John C. Thomson, Chicago, Ill.
Application February 4, 1954, Serial No. 408,118
1 Claim. (Cl. 108—28)



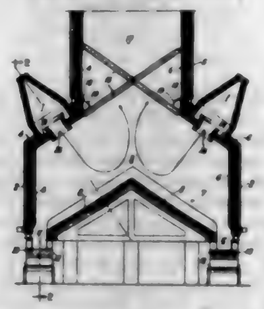
In combination, a roof gutter having a bottom wall, inner and outer side walls forming a trough therebetween, said inner wall having a flange adapted to extend over the edge of the roof to be fastened directly to the upper surface of the roof of a building, said outer wall terminating at its top edge into interlocking hanger receiving means spaced a substantial distance from the edge of said roof and including two spaced V portions, and a sheet metal hanger for supporting said outer wall from said roof, the inner end of said hanger having a terminating end adapted to overlie said flange and be secured to said roof, whereby said hanger and gutter are supported by means passing through said flange and inner end of said hanger with all securing means passing into the upper surface of the edge of said roof and the outer end of said hanger having an interlocking engagement with said two V portions in said top edge of said outer wall, said outer end of said hanger lying entirely within the interlocking portion of said outer wall and being free of extraneous securing means, that portion of the hanger between its point of attachment to the building and its point of interlocking engagement with said outer wall of said gutter lying substantially in a straight line, whereby said hanger is in tension when supporting the outer wall of said gutter against movement away from said inner wall.

2,843,864
TRASH BURNER COVER UNIT
John W. Smith, Grass Valley, Calif., assignor to Grass Valley Products Company, Grass Valley, Calif., a corporation
Application June 25, 1956, Serial No. 593,412
2 Claims. (Cl. 110—18)



1. In combination with an incinerator drum having a side wall and a top rim, a cover unit therefor comprising a front foraminous portion and a rear portion to rest on the rim and hinged together for up and down swinging movement of the front portion relative to the rear portion, said rear portion being a rigid plate, means to secure the plate on the drum, and a combustion air supply duct secured on and depending from the plate into the drum a substantial distance adjacent the back thereof, the plate being orificed to register with the duct.

2,843,865
FUEL BURNING APPARATUS
Andreas Sifrin and Otto Lotz, Oberhausen, Germany, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application April 21, 1952, Serial No. 283,292
9 Claims. (Cl. 110—28)



6. Apparatus for burning a slag-forming solid fuel comprising a cyclone furnace of substantially circular transverse cross-section about a vertically inclined longitudinal axis, means for introducing and burning a slag-forming solid fuel in said furnace at a mean furnace temperature above the fuel ash fusion temperature, means forming a gas outlet arranged centrally of the lower end of said cyclone furnace, means forming a molten slag outlet in the lower end of said cyclone furnace separate from and at a lower level than said gas outlet, a secondary chamber having an upright wall and an inclined arch section at its upper end through which said cyclone furnace gas and slag outlets are arranged to discharge separately, and an inclined floor in said secondary chamber sloping downwardly towards said upright wall and arranged so that the longitudinal axis of said cyclone furnace intersects an intermediate portion of said floor and the gases with slag particles in suspension from said gas outlet will sweep at least the upper portion of said inclined floor to deposit slag particles thereon and to maintain deposited slag particles in a molten condition, said floor terminating in a lower end portion spaced from said upright wall and defining therewith a slot arranged to receive molten slag discharging from said floor and said slag outlet.

2,843,866
APPLICATOR FOOT FOR SOIL TREATMENT WITH AMMONIA
John W. Dugan, Houma, La., assignor to Flo-Mix Fertilizers Corporation, Houma, La., a corporation of Delaware
Application May 16, 1956, Serial No. 585,201
4 Claims. (Cl. 111—7)

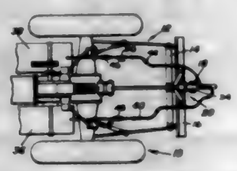


1. In an applicator foot for the subsurface application of anhydrous ammonia to the soil of the type including a cultivating blade and an ammonia applicator carried thereby, the improvement comprising a tubular sleeve carried by said cultivator blade, an ammonia injection tube arranged within said sleeve and spaced therefrom, thus producing a sleeve enclosed chamber surrounding said ammonia injection tube communicating with the outer air at both ends, the lower end portions of said sleeve and said ammonia injection tube terminating substantially in the same plane in which a central discharge opening and a surrounding annular passage are thus located, the upper end portion of the ammonia injection tube projecting above the upper end of the sleeve, a flexible ammonia conducting conduit connected with said upper end of the ammonia injection tube, the ammonia vapors, leaving at the lower end of the ammonia injection tube and expanding while leaving, producing a cooling effect condensing atmospheric moisture along the ammonia injection tube, and the ammonia vapors penetrating into the chamber between the sleeve and the ammonia injection tube through the annular passage surrounding the central discharge opening dissolve in the condensed moisture and produce solution heat, counteracting the cooling effect produced by the expansion of the ammonia and thus preventing the freezing of the soil particles and of the moisture contained therein by contact with the permanently cooled ammonia injection tube.

2,843,867
APPARATUS FOR MIXING AMMONIA WITH WATER AND FOR INTRODUCING THE MIXTURE INTO THE SOIL
John W. Dugan, Houma, La., assignor to Flo-Mix Fertilizers Corporation, Houma, La., a corporation of Delaware
Original application October 31, 1952, Serial No. 318,063, now Patent No. 2,784,538, dated March 12, 1957. Divided and this application November 14, 1956, Serial No. 622,140
4 Claims. (Cl. 111—7)

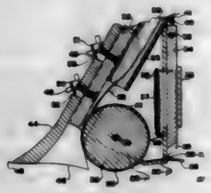
1. A soil fertilizing apparatus adapted for attachment to a cultivator with a cultivator blade, comprising an

ammonia tank, a water tank and an applicator adapted to be attached to the cultivator, said applicator including a pair of spaced substantially concentric tubes reaching into the soil enclosing between them an annular chamber, the outer one of the spaced tubes having a discharge opening at its lowest end but being closed at its upper end and joined to the inner one of the spaced tubes, which is closed at its lowermost and outermost end, and is pro-



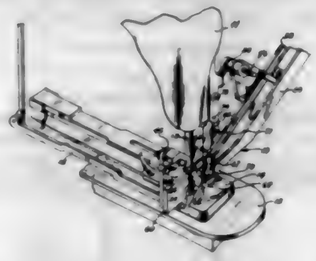
vided with lateral openings forming a communication between said inner one of the spaced tubes and the annular chamber between the tubes, means for supporting said pair of tubes on the cultivator, means for connecting said inner tube with the ammonia tank, means for connecting the outer one of the tubes near its upper closed end with the water tank and fluid control means in each of said connection means for admitting and shutting off flow of fluids from the fluid tanks to the tubes of the applicator.

2,843,068
SEED TAPE PLANTER
Warren L. Smith, Powell, Wyo., and Frank J. Smith, Stellacoom, Wash.
Application April 6, 1956, Serial No. 576,661
1 Claim. (Cl. 111—5)



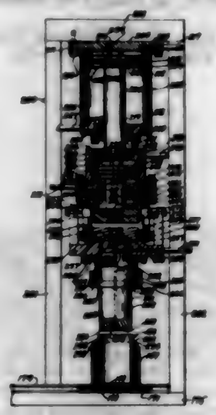
A device for planting seed tape, comprising: a generally V-shaped frame assembly including two longitudinally extended diagonally disposed side members adjoined at an apex and adapted with handle portions at their spaced ends, and a plurality of brace members disposed diagonally between said side members to hold them in rigid coplanar spaced positioning; axle means journalled in said side members adjacent said jointure apex thereof, and a large wheel mounted on said axle being rotatable within said frame; an arcuate stem bracket member supported above and forwardly of said large wheel and fixedly attached to said frame assembly at the apex thereof, said bracket being adapted with parallel skirt members having journal means therein; a small pilot wheel disposed between said skirt members and journalled therein; a furrow opening blade member having a downwardly disposed V-shaped edge movably attached to said bracket member on the side thereof spaced from said large wheel and said pilot wheel; means for carrying and feeding seed tape under said pilot and said large wheels comprising; a tube disposed inwardly of said bracket and having one aperture disposed adjacent said small wheel, and being adapted at its other end with a pair of parallel side plates having slots disposed diagonally inwardly from the upper edges thereof, a spindle member having circumferential areas of reduced diameter adjacent each end interfitting with said slots, a spool member having a quantity of seed tape wound thereon rotatably mounted on said spindle between said plates, the outer end of said tape being threadable through said tube and under said small pilot wheel and rearwardly under said large wheel; means for severing said seed tape comprising; a generally vertical channel having a shearing plate at the bottom thereof being disposed between said skirt members rearwardly of said small wheel, a cutting bar disposed in said vertical channel, spring means biasing said cutting bar downwardly in said channel, linkage means, terminated in a releasable lever adjacent one of said handle portions of said frame assembly, adapted to hold said cutting bar upwardly in said channel against said spring tension biasing means, and guide means adapted to lead said tape across said shearing plate at the bottom of said channel; means for adjusting the position of said blade member relative to the downwardly disposed surfaces of said wheels comprising; a plurality of superposed perforate slots in the shank portion of said blade member, a plurality of threaded stud members extended outwardly from said bracket member in substantially uniplanar alignment with said small and large wheels, said stud members being receivable in said slots and having wing nuts threadable thereon; and a circumferential groove dimensioned to receive said tape therein disposed in the outer edge of said small wheel, said groove having oppositely tapered sides terminated outwardly adjacent the sides of said wheel.

2,843,069
SHANK BUTTON FEEDERS
Oscar Halbreich, New York, N. Y., assignor to Kem Button Corporation, Brooklyn, N. Y., a corporation of New York
Application November 8, 1957, Serial No. 695,385
5 Claims. (Cl. 112—113)



1. A shank button feeding device for use in conjunction with a button sewing machine comprising: a button chute element, button positioning means and button holding means; said button positioning means communicating with said chute element and having resilient means for receiving and arresting successive buttons in sewing position with respect to said sewing machine; said button positioning means being supported by said chute element and arranged with respect to said button chute element to contact a portion of the head part of a shank button, said button holding means being movably supported on said chute element adjacent said button positioning means and including notched means for engaging a shank portion of a button on the outer surface thereof during sewing; first means for engaging said button chute element and for raising said button chute element and button positioning means with respect to said sewing machine, and second means including a component fixedly supported by the said button sewing machine and selectively engaging said button holding means operated by movement of said chute element for raising said button holding means with respect to said button chute element and said button positioning means.

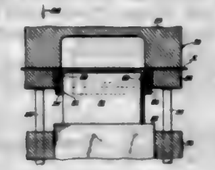
2,843,070
MACHINES FOR SHAPING SEAMLESS METAL CANS AND THE LIKE
Howard L. Berkley and Finley E. Le Count, Billings, Mont., assignors to Williston Seamless Can Company, Inc., Williston, N. Dak., a corporation of Delaware
Application March 24, 1953, Serial No. 344,342
1 Claim. (Cl. 113—38)



In an actuating mechanism for concentric dies, the combination of a frame having a bed for supporting a female die to cooperate with a concentric profiling die, and a concentric trimming die carried by said actuating mechanism, a first cross head opposing the bed and carried by said frame, a cylinder having one end carried by said first cross head, and having a piston on a piston rod extending from the other end, a second cylinder having one end carried by said piston rod, and having a second piston on a second piston rod extending from the other end of said second cylinder, each of said cylinders having ports leading to the spaces on either side of said pistons, said second cylinder carrying a housing having lateral apertures and a central end wall, said end wall carrying a cylindrical profiling die for shaping the bottom of a can, said female die having a cylindrical recess for receiving a can to be shaped, and having a bottom formation to cooperate with the shaped bottom on said profiling die, said female die having an upper shaped edge located to trim the upper edge of a can in said recess, a second cross head carried by the end of said second piston, and extending from said lateral apertures, a trimmer die carried by said second cross head to cooperate with the shaped edge of said female die, said trimmer die having a bore receiving the upper end of the profiling die, and having a larger counter-bore receiving the upper end of the female die, and having a corner for shearing off the end of a can, and a source of hydraulic fluid adapted to communicate with the ports at the head end of the cylinders successively to move the profiling die into the can to shape its bottom, to flange the can outwardly and to trim off the flange by means of the trimmer die.

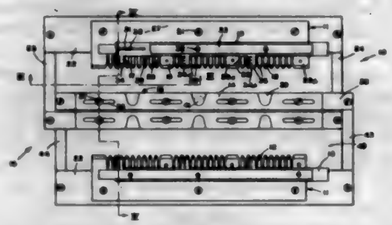
2,843,071
APPARATUS FOR INCREASING BLANK HOLDING PRESSURE DURING DRAWING OPERATION
Joseph A. Kitzinger, Spring Lake, Mich., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application October 25, 1952, Serial No. 316,855
1 Claim. (Cl. 113—46)

A mechanical die press for deep draw operations from a one-piece blank, comprising a rectangular punch, a rectangular female die member arranged to receive portions of said punch during the drawing operation, movable rectangular support means arranged to carry the metal blank during the initial drawing operation, means in engagement with said support means to resist movement of said rectangular support means to provide initial blank-holder pressure, said support means being arranged to substantially surround the punch and to cooperate with the die member for clamping the blank during the drawing operation, a plurality of retaining members each member being composed of two cup-shaped members and a spring with each end disposed in the recess of each cup-shaped member to normally maintain said cup-shaped members in spaced relation, retaining means in each recess to limit the separation of said cup-shaped mem-



bers, said retaining members being disposed in the support means adjacent the punch and at a distance from the corners of the support means with the upper cup-shaped member of each retaining member being disposed on a level with the upper surface of the support means and the lower cup-shaped member projecting below the support means, and abutment means arranged around the bottom of the punch whereby the lower cup-shaped member will contact the abutment means during the last fraction of an inch of drawing and apply localized clamping pressure by the compression of the springs and retaining members so that metal in the blank is restricted at the portions of the blank engaged by the retaining members and forced to flow at the corner portions of the blank.

2,843,072
ADJUSTABLE COMB STRUCTURE
Herbert C. Winkel, Watervliet, Kenneth G. McGowan, Lawrence, and Charles H. McAlpine, Coloma, Mich.; said McGowan and said McAlpine assignors to said Winkel
Application September 22, 1955, Serial No. 535,938
6 Claims. (Cl. 113—99)



1. In a plate burning fixture having a plate compartment, means for positioning battery plate lugs with respect to each other in said compartment, comprising in combination: a plate having a straight edge, said plate having a series of substantially evenly spaced, parallel slots in, and extending perpendicular to said straight edge; said straight edge having an unslotted portion; a bar overlying said plate, said bar having a block extending parallel with, and overlying, at least one slot in said first plate; means mounting said bar for movement with respect to said plate in a direction parallel with the plane of the plate and perpendicular to said slots; means for locking said bar in position with respect to said plate, with said block positioned a predetermined distance from said unslotted portion for receiving a predetermined number of battery plates into the slots therebetween; a posi-

tioning member support parallel with and spaced from said plate, said positioning member and said plate being mounted for relative movement toward and away from each other; a post positioning member mounted on said positioning member support for adjustable sliding movement thereon in a direction perpendicular to said slots, said post positioning member having a post receiving recess therein; and means for locking said post positioning member in selected positions on said positioning member support.

2,843,073
AUTOMATIC SOLDER FEEDING MECHANISM
Edward A. Voss and Milton Wesolowski, Baltimore, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application June 3, 1955, Serial No. 513,050
1 Claim. (Cl. 113—109)



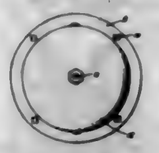
A soldering iron comprising: a handle, an elongated heating element terminating in a solder applying tip, said heating element being secured to one end of said handle in a coaxial relationship, a closed cylinder forming a part of said handle and having a longitudinal axis parallel with the longitudinal axis of said handle, a piston sliding in said cylinder, means biasing said piston to a position of rest at the rear of said cylinder, a housing secured to said cylinder and extending forwardly thereof, a tube dimensioned to receive a wire of solder for freely sliding movement therethrough, said tube extending coaxially through said cylinder and piston and through said housing and terminating adjacent the said tip, said tube being immovably fixed to said cylinder and said housing, the portion of said tube within said housing having one side open, said piston being provided with a forwardly extending portion passing through an opening formed in the forward end of said closed cylinder and terminating within said housing, means carried by said forwardly extending portion of said piston within said housing and engaging said solder wire through said open side of said tube to move said solder in a forward direction as said piston moves forwardly, means secured to said housing and engaging said solder wire through said open side of said tube to prevent said solder wire from moving rearwardly, means including a valve for providing fluid under pressure between said piston and the rear of said cylinder, hand operated means for actuating said valve, the last named means being located on said handle, and stop means carried by said housing engaging said forwardly extending portion of said piston during its forward motion to limit the extent of said forward motion.

2,843,074
SHIP'S BUMPER
Einar Norman, Vancouver, British Columbia, Canada
Application February 7, 1956, Serial No. 564,013
3 Claims. (Cl. 114—219)



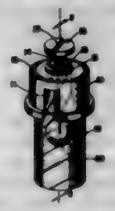
1. A ship's bumper comprising a plurality of arcuate sections of a tire, each having a tread portion and side wall portions extending the length of the arcuate section, a cross piece of substantially similar material disposed within each arcuate section with its tread extending at right angles to the tread of the arcuate section, means securing the side walls of each cross piece to the adjoining arcuate section, and a strip of resilient material extending lengthwise between the several cross pieces and the several arcuate sections.

2,843,075
ALARM DEVICE
Robert M. Geraghty, San Francisco, Calif., assignor, by mesne assignments, to Max Von Radics and William Bookwalter
Application May 23, 1957, Serial No. 661,216
2 Claims. (Cl. 116—60)



1. An alarm for a vehicle wheel comprising: a plate for vertical mounting on a wheel for rotation therewith, a bell mounted over said plate by means of a centrally positioned stud, a plurality of hammers pivotally mounted on the plate beneath said bell, resilient means mounted on said plate for returning each hammer to a predetermined position away from said bell during its travel upward with the wheel, each of said hammers being of such a length and being so positioned as to be supportable by said stud during downward travel of said hammer until a substantially upright position is reached, each hammer being engageable by gravity with said bell against resistance offered by said resilient means during said hammer's downward travel with the wheel.

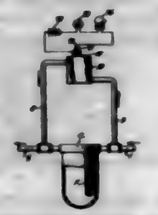
2,843,076
FORCE MEASURING DEVICE
Howard L. Cook, Santa Barbara, Leon R. Clark, Goleta, and Russell F. Knopp and Donald A. Marlow, Santa Barbara, Calif., assignors to Aerophysics Development Corporation, a corporation of California
Application June 28, 1957, Serial No. 668,734
5 Claims. (Cl. 116—114)



1. A shock indicating device comprising, in combination: a magnet; a member made of magnetic material; a stop support structure including a threaded insert secured to said magnet; a threaded shaft receivable in said insert and including a seating end receiving said member, the axis of said shaft being oriented such that threading of said shaft into and out of said insert varies the distance of said seating end from said magnet; and a guide structure secured to said magnet for limiting movement of said member away from said seating end to a direction in which the magnetic force of attraction between said magnet and said member decreases.

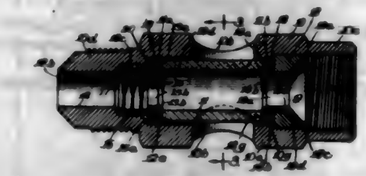
2,843,077
APPARATUS FOR INDICATING THE CONDITION OF FILTERS
Bernard L. Leefer, Silver Spring, Md.
Application May 3, 1956, Serial No. 582,407
17 Claims. (Cl. 116—117)

1. In an apparatus for testing the functional condition of a filter disposed in the channel of a liquid medium, a pressure responsive device shunting said filter in said channel comprising a pressure chamber having an inlet connected to said channel upon one side of said filter and an outlet connected to said channel upon the opposite side of said filter, a piston normally positioned on a seat in said chamber at said inlet and movable therein upon the incidence of a predetermined pressure differential at the inlet and outlet of said chamber, means



in said chamber adjacent to said outlet therein adapted to yieldingly hold said piston against said seat, an indicator rod controlled by said piston in response to the movements imparted to said piston arising from said pressure differentials, and means for latching said indicator rod in signalling position following a predetermined travel thereof to signal a clogged condition of said filter.

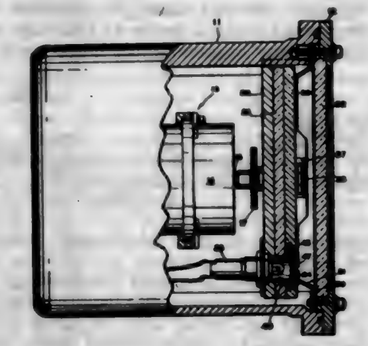
2,843,078
FLUID INDICATOR
Albert Wittlin, Chicago, Ill.
Application July 25, 1956, Serial No. 599,941
4 Claims. (Cl. 116—117)



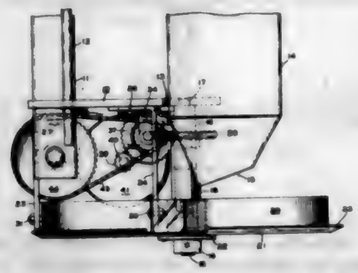
1. An indicator conduit apparatus, comprising: a transparent tube; a surrounding protective member within which the tube is located containing a port through which the tube is viewable; a sealing gasket at each end of the tube making sealing contact with said end and with the adjacent inner surface of said protective member; a gasket retaining member of generally annular shape at one of said ends frictionally engaging the inner surface of the protective member and one of said gaskets for retaining the gasket in place, the retaining member having an inner surface inwardly and rearwardly tapered at its outer end portion and generally tubular at its inner end portion, the two portions describing a funnel-like shape; and a relatively soft generally tubular sealing member on said inner surface of the gasket retaining member and of essentially the same shape as said surface, the sealing member having an inner end extended inwardly of said retaining member and contacted by an inner surface of said gasket.

2,843,079
ILLUMINATION OF POINTERS AND DIALS OF INDICATING INSTRUMENTS
Gordon S. Hunter, Plainville, Conn., and George C. Sturges, Bergenfield, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Continuation of application Serial No. 251,614, October 16, 1951. This application March 16, 1956, Serial No. 572,158
4 Claims. (Cl. 116—129)

1. In an indicating device, a dial having an opaque portion with light-conducting indicia therein, an indicator of light-conducting material cooperating with said dial, a source of illumination, and a light transmitting member adapted to receive light rays from said source of illumination, said member having a first portion adapted to direct light rays received from said source directly from said member into said dial and through said light conducting indicia to illuminate said indicia and a second portion for directing other light rays received from said source into said indicator to illuminate the indicator.



2,843,080
POPCORN FLAVORING APPARATUS
George M. Woodruff, Battle Creek, Mich., assignor to General Foods Corporation, New York, N. Y., a corporation of Delaware
Application August 2, 1955, Serial No. 525,984
4 Claims. (Cl. 118—16)

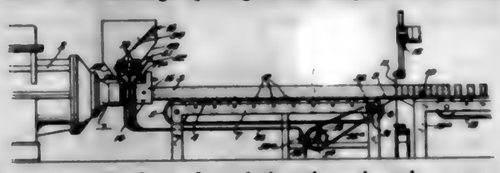


1. In popcorn flavoring apparatus, a base, a plate mounted for rotation beneath said base on a substantially vertical axis, a fence carried by said base and extending around and adjacent the edge of said plate, a discharge extension on said fence, means for feeding popped corn onto said plate adjacent the edge thereof and within said fence, means for dropping powdered flavoring material and liquid flavoring material onto the popped corn on and rotating with said plate, rotatable feeding means for said powdered flavoring material, means for rotating said plate, and means driven by said plate rotating means for driving said powdered flavoring feeding means.

2,843,081
APPARATUS FOR APPLYING VARIEGATED SANDS TO EXTRUDED BRICK-FORMING CLAY COLUMNS
Homer W. Wilson, Worthington, Ohio
Application June 28, 1956, Serial No. 594,650
7 Claims. (Cl. 118—122)

1. Apparatus for applying varicolored sand to the normally exposed surfaces of a linearly movable, extruded, brick-forming clay column comprising a magazine structure terminating in an elongated discharge opening ex-

tending transversely and disposed vertically above the upper surface of said column, said magazine structure embodying a plurality of rows of compartments for the reception of bodies of varicolored sand, each row of compartments having outlet means extending transversely of the magazine structure above the discharge opening of said magazine structure; means to adjust the effective area of the discharge opening of said magazine to control



the volumetric flow of sand therethrough, valve means associated with the outlet means of each row of compartments and movable to control the discharge of sand from its row of compartments into the discharge opening of said magazine and thence onto the upper surface of said column; and fluid pressure actuated means connected with said valve means for opening and closing the latter in a given sequential order in response to a given linear movement of said column.

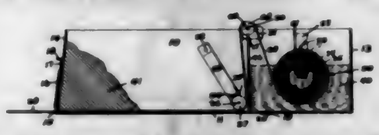
2,843,082
TAPE MOISTENER
Le Roy F. Carkhuff, Morris, and Richard J. Fahey, Chicago, Ill., assignors to Diamond Gardner Corporation, a corporation of Delaware
Application October 25, 1955, Serial No. 542,727
6 Claims. (Cl. 118—267)



1. A wick-type gummed tape moistening apparatus comprising in combination an absorbent pad, a support for said pad, a liquid container adapted to be supported at an elevation higher than said pad, said container having an opening near the bottom thereof, a tube having a first end extending upwardly in said container to a position adjacent and below its uppermost portion, an intermediate portion of said tube being sealed to said container in said opening therein, a liquid inlet opening in said tube above and adjacent said intermediate portion, the opposite end of said tube extending generally downwardly from said container, said opposite end of said tube being provided with a contacting portion in contact with said pad, a first means in association with the contacting portion of said opposite end of said tube for admitting air thereinto, and minutely adjustable second means for varying the amount of air admitted into said tube through said last mentioned means.

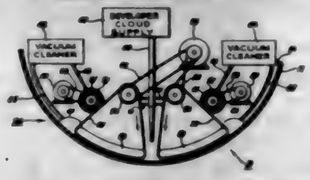
2,843,083
DEVICE FOR APPLYING PASTE TO PERFATAPE
Arnold J. Epting, Le Mars, Iowa
Application November 2, 1956, Serial No. 620,849
4 Claims. (Cl. 118—413)

4. A device for applying paste to perfatape comprising a generally lengthened container including side walls, a bottom wall, a forward wall and a rear wall, a lateral partition spaced from said rear wall to form a water receiving portion between said partition and said rear wall, a lateral support upon which a roll of perfatape can be rested and to thereby be immersed in said water, the forward portion of said container being adapted to receive paste therein, means for passing said perfatape beneath said paste after being immersed in said water, said means including an upper roller positioned above said partition over which said perfatape passes, a lower roller positioned adjacently to said bottom wall under which said perfatape



passes, said forward wall having a lower opening through which said perfatape passes after being coated with said paste, means for adjusting the width of said lower opening including a gate member engaged with said forward wall, said forward wall sloping rearwardly to provide means for more efficient accumulation of said paste at said opening, a supporting member to which said lower roller is journaled, said supporting member including upwardly extending arms, a lengthened removable rod passing through the upper terminals of said arms and said side walls, said lateral support being adjustably mounted to said side walls for adjustable vertical positioning thereof.

2,843,084
XEROGRAPHIC APPARATUS WITH ENDLESS DEVELOPMENT ELECTRODE
Richard E. Hayford, Pittsford, N. Y., assignor to The Haloid Company, Rochester, N. Y., a corporation of New York
Application June 16, 1955, Serial No. 515,886
4 Claims. (Cl. 118—637)



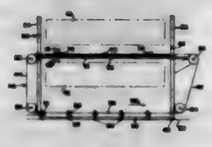
1. In a xerographic apparatus, the combination comprising a circular cylindrical xerographic plate comprising an outer layer of conductive material and an inwardly facing inner layer of photoconductive insulating material, means to rotate the cylindrical xerographic plate about its axis, and a development station within said xerographic plate, said development station comprising a development electrode positioning plate having dimensions corresponding to an area to be developed and having a convex surface positioned and conforming to the arc of a cylinder concentric to and located within the cylindrical xerographic plate, a conductive endless belt development electrode positioned around the development electrode positioning plate and in area contact therewith, means to drive the endless belt development electrode to cause continuous movement of the electrode during development while maintaining a portion of the electrode against the convex surface of the positioning plate, the electrode at said positioning plate being spaced apart by a gap from said photoconductive insulating layer of said xerographic plate, means to supply developer powder to the gap between the surface of the photoconductive insulating layer and the development electrode at the development station, and cleaning means to clean powder from the endless belt development electrode positioned at a point removed from the surface of the xerographic plate.

2,843,085
POLE BARNS
Russell C. McKee, Elmira, Ontario, Canada, assignor to McKee Bros. Limited, Elmira, Ontario, Canada, a corporation of Ontario, Canada
Application November 2, 1956, Serial No. 620,128
4 Claims. (Cl. 119—16)



1. In an elongated barn structure, two parallel rows of longitudinally spaced A-frames, the A-frames in said rows being anchored at their lower ends in a support surface and being disposed in co-planar pairs, each A-frame comprising upwardly extending angularly disposed converging inner and outer legs secured together at their upper ends and a horizontal cross piece extending between intermediate portions thereof, longitudinal purlins secured at the converging upper ends of said legs, a roof supported on the upper ends of said A-frames, an outer covering material secured on the outer legs and extending the length of said parallel rows of A-frames from the support surface to said roof defining the exterior side walls of the barn structure, transverse end walls secured at opposite ends of said rows of A-frames, a horizontal floor supported on said horizontal cross pieces and extending the length of said rows of A-frames between the inner and outer legs, and an interior covering material secured on said inner legs and extending the length of said rows of A-frames from the lower portion of said inner legs to the horizontal floor, a lower portion of said outer covering material, horizontal floor and interior covering material defining longitudinal uninterrupted parallel loafing portions extending the length of the rows of A-frames, the roof and interior covering material defining a longitudinal central combined feeding-and-loafing portion extending the length of said rows of A-frames, an upper portion of the outer covering material and said horizontal floor defining an overlying storage space extending the length of the barn and communicating with said central combined feeding-and-loafing portion, at least one of said end walls including doorways therethrough communicating with said parallel loafing portions and the combined loafing-and-feeding portions to provide access by livestock thereto.

2,843,086
DOUBLE-DECK CONVEYOR CLEANING DEVICE FOR POULTRY BATTERIES
Leonard C. Graham, Princeton, Iowa
Application February 27, 1957, Serial No. 642,836
14 Claims. (Cl. 119—22)



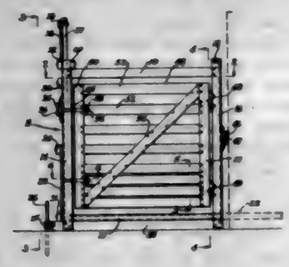
1. In a poultry cage system having upper and lower fore-and-aft tiers of cages for housing poultry whose litter drops through the bottoms of the respective cages, the improvement comprising: support structure including upper and lower fore-and-aft troughs respectively spaced directly below and substantially coextensive with the cages for receiving litter therefrom, each trough having a rear end and a forward discharge end; an endless conveyor having an active run normally extending fore and aft in the lower trough, a secondary run in the upper trough, and opposite generally upright end runs; means mounting the conveyor on the support structure for movement in such direction and amount that the active run travels forwardly in the lower trough, then upwardly and then rearwardly in the upper trough to replace the secondary run and for reverse movement so that the active run then travels forwardly in the upper trough, then downwardly and then rearwardly in the lower trough to its normal position; a plurality of trough scrapers spaced apart lengthwise of the active run, each scraper having upper and lower edge portions normally projecting respectively above and below the normally positioned active run with the lower edge in scraping relation to the bottom of the lower trough; a plurality of pivot means, one connecting each scraper to the active run on a transverse pivot axis ahead of the scraper so that the scraper is drawn forwardly as the active run moves forwardly in the lower trough, each pivot means enabling its scraper to turn about its axis as the active run enters the upper trough so that the upper edge of the scraper becomes a scraping edge in the upper trough; and a plurality of one-way stop means on the active run, one backing up each scraper against rearward swinging as the scraper engages trough litter during forward travel of the active run, and each stop means enabling pivoting of its scraper during rearward travel of said active run.

2,843,087
POULTRY DRINKER
Veachel L. Gray, Holly Springs, Ga.
Application December 11, 1956, Serial No. 627,645
3 Claims. (Cl. 119—72)



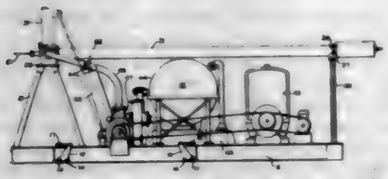
1. A poultry drinker comprising an elongated reservoir having a transversely curved bottom wall and a pair of spaced opposed inwardly curved side walls extending integrally upwardly from said bottom wall, said side walls having upper free edge portions curved inwardly and downwardly, said side walls having said free edge portions thereof terminating in a plane below the maximum height of said side walls so that water in said reservoir will be deflected back into said reservoir when the water therein is sloshed or otherwise agitated, said side walls and said bottom wall having a smooth continuous substantially semi-elliptical form in cross section, said side walls being reverted at their upper edge portions and having extending therefrom a pair of integral upwardly and outwardly sloping walls so that water accumulated on the wattles of poultry using said reservoir will be received thereby and channeled back into said reservoir, said sloping walls extending outwardly above and beyond said side walls and end walls joined to opposite ends of said reservoir in sealed relation thereto, each of said end walls having a central vertical extension projecting above said reservoir.

2,843,088
CATTLE CHUTE
Will N. Hausser, Sidney, Ill.
Application July 10, 1956, Serial No. 596,904
2 Claims. (Cl. 119—99)



1. A cattle chute comprising a pair of parallel, ground-engaging skid members, an open frame having vertical sides and vertical corner elements mounted on said skid members, opposing inwardly facing, horizontal, channel bars mounted on said skid members, a floor having opposing marginal portions thereof slidably received in said opposing channel bars and being adapted to be removed at times by sliding same longitudinally of the channel bars, one of the vertical sides having a pair of vertically spaced horizontal cross bars mounted thereon, an additional horizontal cross bar removably secured on said one of the vertical sides intermediate said first-named horizontal cross bars, a first upstanding stanchion bar rigidly secured to said first-named horizontal bars, a second upstanding stanchion bar pivotally connected to the lower portion of said one of the sides and extending across said horizontal bars, means for at times securing said second upstanding stanchion bar in clamping engagement against an animal with a portion of the animal engaged between two of said horizontal cross bars, whereby to clamp the animal to the other stanchion bar, a gate hinged to a vertical corner element of the frame, and means for releasably locking the gate adjacent an opposite vertical corner element.

2,843,089
PORTABLE PUMPING JACK
Ray Bacchi, Daly City, and Thomas C. Gillespie, Huntington Park, Calif., assignors to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application February 17, 1956, Serial No. 566,275
2 Claims. (Cl. 121—1)



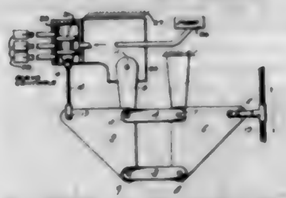
1. A portable pumping jack comprising a base, a superstructure on said base, a mounting plate on said superstructure, said mounting plate having a slot therein, a pivot mounting on said mounting plate, said pivot mounting having a horizontal axis, a jack cylinder supported on said pivot mounting for rotation about said axis between a horizontal position and a vertical position with part of said jack cylinder depending through said slot, means on said mounting plate and engaging said jack cylinder for holding said jack cylinder in said vertical position, means on said base for supplying said jack cylinder with hydraulic operating fluid, and means for connecting said supplying means and said jack cylinder through said pivot mounting.

2,843,090
ROTARY FLUID PRESSURE MOTORS
Derek William Ross Walker, Burnt Green, England, assignor to Flexible Drives (Gilmans) Limited, Smethwick, England, a British company
Application May 7, 1957, Serial No. 657,619
Claims priority, application Great Britain May 9, 1956
5 Claims. (Cl. 121—34)



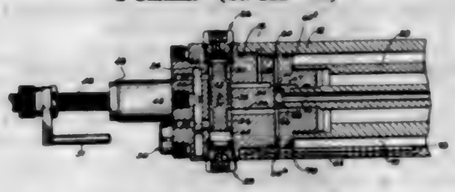
1. A fluid pressure motor assembly comprising a plurality of fluid pressure motors each consisting of a housing and a rotor, a flexible hose connecting the casings of adjacent motors, and a flexible shaft of a diameter less than the internal diameter of said hose drivably coupling the rotors of said motors and extending through said hose.

2,843,091
CHATTER-PREVENTING LINKAGE
Robert G. Brent, Arlington, Tex., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 19, 1955, Serial No. 523,135
1 Claim. (Cl. 121—38)



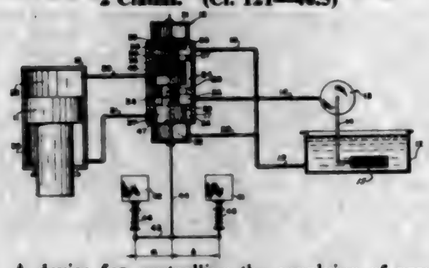
A helicopter control system comprising, a bell-crank lever one end of which is an input station, means to pivotally anchor the apex of the bell-crank, a second bell-crank lever, a valve body surrounded by a valve housing, means to connect one end of said second bell-crank to the valve body, means to connect the apex of said second bell-crank to the valve housing, means to pivotally connect the free ends of the two bell-cranks, and means to pivotally interconnect the apexes of said bell-cranks.

2,843,092
PRESSURE FLUID OPERATED VALVE STRUCTURE
William B. De Groff, Bryan, Ohio, assignor to Aro Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application December 20, 1954, Serial No. 476,317
2 Claims. (Cl. 121—45)



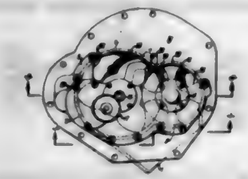
1. In a control device for regulating the flow of a pressure fluid, a housing, a spool valve reciprocably movable within a bore formed in said housing for performing a valving function, said spool valve comprising a rod member, having flanges formed at the opposite ends thereof, each of said flanges cooperating with the walls of said housing bore to define a regulating chamber at the inner side thereof and a venting chamber at the outer side thereof, said flanges each having a bleed passage extending therethrough to provide flow communication between each of said regulating chambers and the adjacent venting chambers, inlet means for supplying a flow of pressure fluid to said regulating chambers, a pair of independently operable valve-actuating controls serving to permit selective venting of said venting chambers, said bleed passages being restricted in size to permit said venting chambers to be vented at a flow rate substantially greater than the flow rate of pressure fluid from the regulating chambers through said bleed passages to the venting chambers, whereby the pressure forces exerted on said spool valve by said pressure fluid may be selectively unbalanced to effect alternative movements of said valve toward a vented end for performing a valving function, and resilient sealing means disposed within each of said venting chambers and positioned to abut the corresponding adjacent valve flange to close off the bleed passage therein when said spool valve is shifted to a limiting position of engagement with said sealing means.

2,843,093
VALVE MEANS AND CONTROL THEREFOR FOR FLUID MOTORS
Milan Vltavský, Bratislava, Czechoslovakia, assignor to ČKD, Česká Lípa, národní podnik, Ceska Lipa, Czechoslovakia
Application August 16, 1955, Serial No. 528,794
2 Claims. (Cl. 121—46.5)



1. A device for controlling the supplying of pressure fluid from a source of the latter to the opposite sides of a working piston within a cylinder of an hydraulic press; said device comprising a slide valve body having ports spaced apart therealong and adapted for connection to opposite ends of the cylinder, to the source of pressure fluid and to a discharge for the pressure fluid, respectively, a slide valve member movable longitudinally within said valve body through four different, longitudinally spaced apart control positions in which related control conditions of said ports are established, an actuating rod extending from said valve member out of said valve body, a lever member pivotally mounted, intermediate its ends, on said rod, two solenoids having movable armatures connected to the opposite, related ends of said lever member and being adapted to be energized alternately and simultaneously, and mechanical means acting yieldably on said lever member in the direction opposed to the actions of said solenoids when the latter are energized, the strokes of said movable armatures of the solenoids and the distances along said lever member between the connection of the latter to said rod and the connections of the lever member to said armatures, respectively, being proportioned to dispose said valve member in first and second extreme positions of said four positions when said solenoids are simultaneously energized and deenergized, respectively, and to dispose said valve member in third and fourth positions intermediate said first and second extreme positions when one and then the other of said solenoids, respectively, is individually energized, whereby said valve member can be disposed in any of said four positions by controlling the energization of said two solenoids.

2,843,094
POSITIVE DISPLACEMENT TYPE FLUID METER
William F. Berck, Hayward, Calif., assignor to Ralph N. Brodie Company, San Leandro, Calif., a corporation of California
Application June 1, 1956, Serial No. 588,716
6 Claims. (Cl. 121—71)

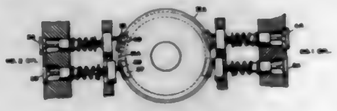


3. A positive displacement liquid meter for metering a particular liquid comprising a casing having a pair of parallel intersecting cylindrical bores therein, an inlet chamber formed therein exteriorly of one side of the bores, and an inlet port between the inlet chamber and the bores, a first rotor rotatably mounted in one bore, a second rotor rotatably mounted in the other bore, the first rotor having at least three radially projecting, helically extending lobes having surfaces epicycloidal in cross-section transversely of their rotor axis and an outer diameter sealingly fitting the bore, the second rotor having a diameter sealingly fitting its bore and engaging the periphery of the first rotor at the root of the lobes, a connection between the rotors whereby they will rotate in counter direction with the peripheral speed of the second rotor being equal to the peripheral speed of the first rotor at the root of the lobes, the second rotor having at least four helically extending sockets having surfaces epitrochoidal in cross-section transversely of their rotor axis and complemental to the lobes to mesh therewith to form a constant liquid seal longitudinally between the rotors, the inlet port extending on opposite sides of the line of intersection between the outer diameter of the rotors and having oppositely converging helical side edges, one conforming to the helix angle of the sockets and the other to the helix angle of the lobes, and intersecting at one end of the rotors at the point of intersection of the outer diameter of the rotors, a discharge wall on said casing, said intersecting bores extending through said discharge wall to form an outlet opening therethrough, whereby the fluid may enter the rotors normal thereto and to be discharged from said rotor by the meshing action thereof axially thereto through said outlet opening, said intersecting bores being radially enlarged at their discharge ends and extending inwardly therefrom short of the discharge seal lines of the bores, said radial enlargement extending circumferentially of the bores from the line of intersection thereof to short of the outlet zones, said radial enlargement being sufficiently great as to increase the effective area of the outlet opening to reduce the turbulence resulting from axial flow through a restricted outlet opening, and being sufficiently small as to cause substantially all of the liquid discharging from said outlet opening to flow axially of said rotors to reduce the turbulence resulting from a discharge flow normal to said rotors, whereby the total turbulence of the axial flow turbulence and the normal flow turbulence of the particular liquid discharging from said meter is reduced to a minimum.

2,843,095
THREE DIMENSIONAL CAM MECHANISM
Leon A. Prentice, Portland, Oreg.
Application March 5, 1956, Serial No. 569,542
2 Claims. (Cl. 123—90)

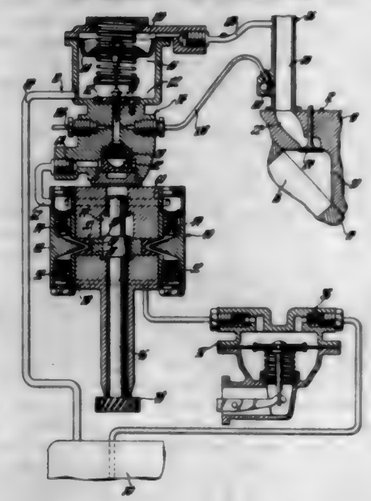
1. In an internal combustion engine, the combination of a plurality of spaced apart reciprocal intake and ex-

haust valves operable by slidably and rotatably mounted valve lifters, a crankshaft, a single cam cylinder on said crankshaft for operating all of said valves and having a pair of peripheral grooves of uniform diameter concentric with said cylinder and said crankshaft and intersected at a point in their circumference, a cam adjacent one side of each groove extending through 180° thereof in opposite directions and converging toward said inter-



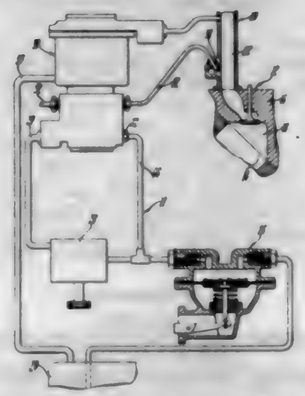
section at one of their ends and overlapping at their other to an extent equal to the mechanical separation of said valves, a tracer disposed in each groove and pivotally connected to said slidable and rotatable valve lifters, each tracer being provided with a cam shoe laterally offset from said grooves and movable by its tracer into and out of the path of movement of said cams whereby said valves will be intermittently opened by engagement of the cams with said cam shoes.

2,843,096
FUEL DISTRIBUTION MEANS
John Dolza, Fenton, Raymond J. Haefner, Utica, and George P. Ransom, Berkley, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 29, 1956, Serial No. 594,796
15 Claims. (Cl. 123—119)



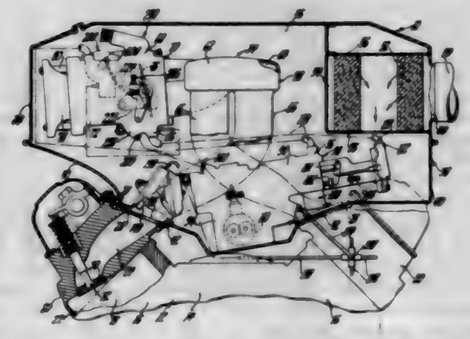
1. A fuel distribution system for an internal combustion engine having a plurality of cylinders, said system comprising a distributing chamber having an inlet at one end thereof adapted to be connected to a source of fuel under pressure, a one-way check valve disposed in said inlet to permit a flow of fuel from said source into said chamber but to prevent a reverse flow from said chamber toward said source, said check valve being pressure responsive for maintaining the pressure of the fuel upstream of said check valve greater than the pressure of the fuel in said distributing chamber, a plurality of substantially identical fuel passages radiating from said distributing chamber at substantially equally spaced points and angles, the outer ends of said passages including injector nozzles for injecting fuel into the induction passages for said cylinders.

2,843,097
FUEL ENRICHMENT MEANS
John Dolza, Fenton, and John Zimmerman, Grosse Pointe Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 29, 1956, Serial No. 594,797
8 Claims. (Cl. 123—119)



1. A fuel injection system for an internal combustion engine having a plurality of cylinders, said injection system comprising pumping means, metering means having an inlet portion connected to said pump means and a distributing portion adapted to be connected to fuel nozzles for injecting the metered fuel into the induction system of said engine, said inlet portion and said distributing portion being interconnected with each other by a pressure responsive check valve adapted to maintain the pressure of the fuel in said inlet portion above the fuel pressure in said distributing portion, enrichment means adapted to temporarily interconnect said pumping means directly with said distributing portion anterior to said check valve.

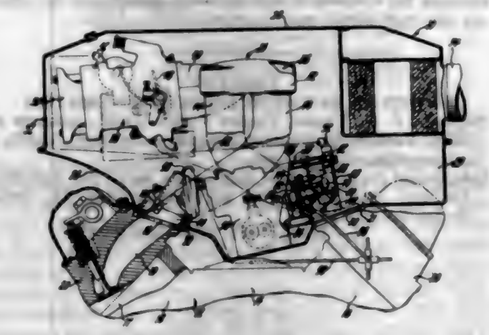
2,843,098
CHARGE FORMING MEANS
John Dolza, Fenton, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 10, 1956, Serial No. 608,853
11 Claims. (Cl. 123—119)



1. A charge forming device for an internal combustion engine having a plurality of cylinders, said device comprising an induction arrangement for supplying induction air to the cylinders of said engine, fuel metering means responsive to said air flow and effective to meter fuel in proportion thereto and to inject said metered fuel into said air, a shroud encompassing said means and having

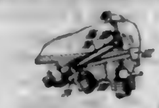
an inlet communicating with the atmosphere to circulate air around said means in heat exchanging relation therewith.

2,843,099
FUEL METERING MECHANISM
George P. Ransom, Berkley, and John Zimmerman, Grosse Pointe Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 10, 1956, Serial No. 608,892
13 Claims. (Cl. 123—119)



13. In a fuel injection system a housing having a passage therein, a guide member mounted in said passage and having an axial passage therethrough, a piston member reciprocably disposed in said axial passage, at least one of said members including metering ports, means for distributing metered fuel from said passage to the cylinders of an engine, movement of said piston member being effective to meter said fuel by controlling flow of surplus fuel through said ports, a valve body disposed in said first passage and engaging said guide to form a normally closed valve, said valve body including a pressure responsive check valve in parallel with said normally closed valve and adapted to maintain the fuel pressure anterior thereto in excess of some predetermined amount, means for simultaneously moving said piston to close said ports and open said normally closed valve.

2,843,100
FUEL CONTROL
John Dolza, Fenton, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 10, 1956, Serial No. 608,936
3 Claims. (Cl. 123—119)



1. A fuel injection system for injecting fuel into the charge for an internal combustion engine having an induction system with a throttle valve in the inlet thereof for regulating the volume of the charge, said injection system comprising a fuel pump immersed in a fuel bowl and having an outlet for discharging fuel therefrom for distribution to the charges for the engine cylinders, a normally closed by-pass valve operatively interconnected with the outlet of said pump for by-passing fuel discharged therefrom into said bowl, means responsive to the vacuum in said induction system to open said by-pass valve and substantially eliminate the injection of any fuel into the charge whenever said induction vacuum is in excess of some predetermined amount.

2,843,101
ADAPTER TYPE ONE-WAY CLUTCH DRIVE MEANS
James H. Hubert and Paul A. Poutre, Glens Falls, N. Y.
Application January 20, 1955, Serial No. 482,977
1 Claim. (Cl. 123—179)



A coupling tool for detachably connecting a driving means to the crankshaft of an engine so as to facilitate the starting of the engine, comprising a cylindrical body tapered at the one end, a socket receiver rigid therewith projecting from said tapered end of said body for detachably connecting said tool to the crankshaft of an engine, a drive shaft rotatably mounted in said body and protruding from the other end of said body for detachable connection to a driving means, and an overrunning clutch disposed within said body and connecting said body thereto to turn with said shaft, said tool being a unitary structure independent of and normally disconnected from said crankshaft.

2,843,102
VALVE STEM SEAL
Denny D. Duesenberg, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application February 27, 1958, Serial No. 718,067
12 Claims. (Cl. 123—188)

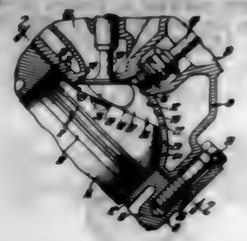


1. An internal combustion engine comprising a poppet valve and an elastomer seal, an opening in said seal for accommodating the valve stem, a plurality of serrations on said stem and in said seal opening whereby the seal is secured to said stem by the interlocking engagement of the serrations of said valve seal and valve stem.

2,843,103
COMBUSTION CHAMBER
Floyd A. Wyczalek, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 30, 1955, Serial No. 550,059
8 Claims. (Cl. 123—191)

1. A combustion chamber for an internal combustion engine having a head and a cylinder and a piston operable in said cylinder and comprising a curved side surface and a plane end surface, said surfaces being formed on said head in opposed relation to the end of said cylinder, said plane end surface being formed on said head to intersect said curved side surface throughout the entire extent of said plane end surface and within the cylinder engaging surface of said head and being disposed obliquely with respect to the axis of said cylinder, said curved side surface being a surface of revolution having an axis normal to said plane end surface, a pair of inlet and ex-

haust valves in said head and opening into said cylinder through said plane end surface, and means for igniting



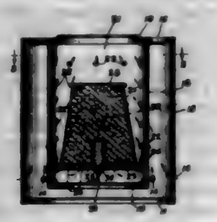
a charge compressed in said cylinder between said head surfaces and the end of said piston.

2,843,104
ADJUSTABLE BROILER
William G. Broome, Jr., Cincinnati, and Laurence J. Mitter, Hamilton, Ohio, assignors, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application August 31, 1954, Serial No. 453,320
4 Claims. (Cl. 126—41)



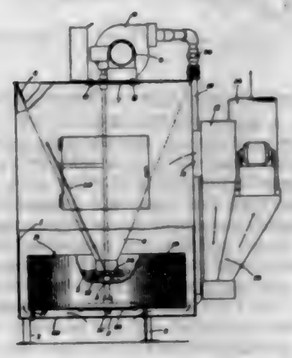
1. A mechanism for adjusting the height of a pan in a broiler drawer comprising a pair of parallel rods rotatably mounted in said drawer, a pair of wing-shaped members secured to said rods, the upper corners of said wing-shaped members being shaped to provide projections for supporting said pan, one of said wing-shaped members having a horizontal projection disposed parallel to and above said rods, the other of said wing-shaped members having a horizontal projection disposed parallel to and below said rods, a link rotatably engaged with each of said horizontal projections to cause said wing-shaped members to flap up and down in unison, an extension on one of said rods, and a hand-operable lever having a slot for engaging said extension to rotate its associated wing-shaped member and rod when said lever is manipulated backwards and forwards.

2,843,105
FUEL GAS HEATER
Alex L. Badish, Stephenson, Mich.
Application October 25, 1956, Serial No. 618,268
6 Claims. (Cl. 126—58)



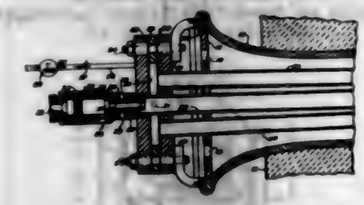
1. A fuel gas heater comprising an outer container having a top wall, said top wall having a central opening, an inner container closed at the bottom and having an open top positioned within the opening of said outer container top wall, an annular shelf of substantially ring shape, means for supporting said shelf within the inner container in freely spaced relationship to said inner container bottom wall, said outer container near the bottom thereof having vent openings, said inner container having vent openings extending substantially the height thereof, and replaceable fuel container adapted to be supported on said shelf and including a combustible casing airtight on the top and sides and having a perforated bottom, said casing being filled with a fuel and adapted to release fuel gas upon being heated through said perforated bottom, said fuel gas being admixed with air entering through the openings in said outer and inner casing and burning through the opening in said top wall, and means for igniting the fuel within said container.

2,843,106
SAWDUST BURNING SMOKE GENERATOR
Maynard J. G. Tipper, Castro Valley, Calif., assignor to Meat Packers Equipment Company, Oakland, Calif., a corporation of California
Substituted for abandoned application Serial No. 123,287, October 24, 1949. This application May 21, 1956, Serial No. 586,191
3 Claims. (Cl. 126—59.5)



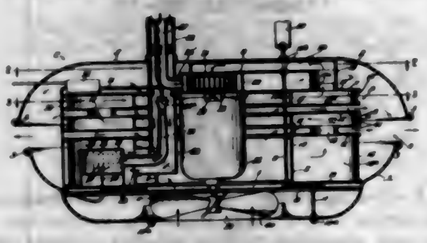
1. A sawdust burning smoke generator comprising a hopper having a bottom discharge end and adapted to hold sawdust and to discharge the same downwardly substantially continuously, a burning pot positioned below the hopper centrally thereof and having a diameter substantially greater than the diameter of the bottom discharge end of the hopper, the top of the burning pot being open and receiving the discharge end of the hopper, the burning pot including a side wall extending a substantial distance above the discharge end of the hopper and also including a base plate spaced a substantial distance below the discharge end of the hopper, a relatively narrow marginal flange projecting inwardly from the side wall of the burning pot and spaced somewhat above the base plate of the burning pot and spaced a substantial distance below the discharge end of the hopper, said flange defining a large opening centrally of the burning pot and hopper whereby the ashes from the lowermost burning mass of sawdust within the burning pot may fall freely onto the base plate below said flange, a continuously driven shaft mounted axially of the hopper and burning pot, and an elongated sweep rod secured to the shaft to turn therewith near and above said marginal flange and having its outer end terminating close to said side wall of the burning pot, said sweep rod spaced a substantial distance below the lower discharge end of the hopper and completely embedded within the mass of sawdust within said burning pot, the mass of sawdust being maintained at all times to at least the level of the discharge end of the hopper within the burning pot.

2,843,107
COMBUSTION APPARATUS HAVING PILOT BURNER WITH BOOSTER
Chester C. Ciprian and Kurt K. Urbanchek, Toledo, Ohio, assignors to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application December 19, 1955, Serial No. 554,848
4 Claims. (Cl. 126—91)



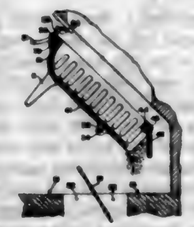
3. In a radiant tube having a fuel gas supply manifold, means for conducting a main supply of fuel gas from the manifold into the tube to an ignition zone spaced a substantial distance from one end of the tube, and means for applying suction to the other end of the tube to draw air into the former end and to draw the main supply of fuel gas from the manifold, a pilot burner comprising, in combination, a flame tube which extends from the manifold into the radiant tube and has its inner end adjacent the ignition zone, the wall of said tube having a first aperture in direct communication with the manifold, and a second aperture adjacent said first aperture for admitting air into the flame tube to form a combustible mixture with fuel gas entering the flame tube from the manifold, a nozzle adjacent the outer end of the flame tube directed inward and axially with respect to the flame tube toward said ignition zone, said nozzle having a mouth in proximity to said first and second apertures to form with said flame tube an eductor tending to draw air and fuel gas into said flame tube when a stream of gas is injected into said tube therefrom, a source of gaseous combustible mixture connected to said nozzle to inject said mixture therefrom into said tube in a stream which, when ignited, is adapted to ignite and propel a combustible mixture formed in the flame tube, whereby, when suction is applied to the radiant tube, a pilot flame appears at the inner end of the flame tube before the main supply of fuel gas accumulates in an amount sufficient to cause an explosion.

2,843,108
FORCED-DRAFT UNIT HEATER HAVING OUTSIDE COMBUSTION AIR SOURCE
Ned G. Campbell, Edward A. Norman, Jr., and Charles A. Reichelderfer, Columbus, Ohio, assignors to Norman Products Company, Columbus, Ohio, a corporation of Ohio
Application December 27, 1955, Serial No. 555,514
1 Claim. (Cl. 126—110)



In a forced-draft unit heater; an outer casing structure extending circumferentially about a vertical axis, said casing structure defining an internal heat exchanger-receiving compartment and having a first room air circulating opening disposed axially thereof and a second room air-circulating opening extending peripherally thereof; a plurality of relatively vertically spaced, horizontally disposed, annular and tubular heat exchanger sections positioned in the compartment of said casing between the air-circulating openings thereof, each of said heat exchanger sections being formed with closed internal chambers for the circulation of gaseous products of combustion; diametrically opposed passage means establishing serial communication between the internal chambers of each successive pair of heat exchanger sections; burner means positioned within the lowermost of said heat exchanger sections in diametrically opposed relation to the passage means communicating therewith; a remotely extending combustion air inlet conduit having one end portion extending through said casing and communicating with the chamber of the lowermost heat exchanger section adjacent said burner means, said combustion air inlet conduit having an opposite end portion adapted to extend to an atmosphere exterior of the zone to be heated by said unit heater; combustion gas passage-forming means mounted in said casing above the uppermost of said heat exchanger sections and communicating with the latter; a remotely extending flue pipe having one end communicating with said passage-forming means and extending coaxially through said combustion air inlet conduit and terminating in an opposite end portion adapted to extend to an atmosphere exterior of the zone to be heated by said unit heater, said combustion air inlet conduit, said heat exchanger sections, said passage-forming means and said flue pipe being all disposed in serial communication; blower means positioned in said passage-forming means operable to create a forced circulation of gases through said combustion air inlet conduit, through said heat exchanger sections, said passage-forming means and outwardly through said flue pipe; and air-displacing means in said casing operable to circulate room air between the air-circulating openings of said casing and across and around said heat exchanger sections.

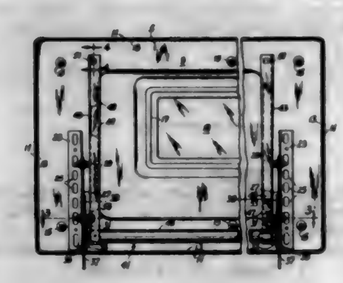
2,843,109
FIREPLACE BOX
Steve J. Chapla, Elkhart, Ind., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California
Application January 23, 1956, Serial No. 560,568
2 Claims. (Cl. 126—165)



1. A movable firebox for use in a fireplace, comprising: a shallow box-like container of non-combustible material having a substantially horizontally positioned bottom, an upstanding laterally directed front wall, an upstanding laterally directed back wall having a top edge and terminating in a left back wall end and a laterally spaced right back wall end, an upstanding left sidewall extending from said front wall to said left back wall end and terminating in a rear left sidewall end, and an upstanding right sidewall extending from said front wall to said right back wall end and terminating in a rear right side wall end; underlying downwardly depending leg means mounted adjacent said front wall; said left back wall end having

a left stud member non-rotatably fixed thereto and outwardly extended therefrom and substantially parallel to said top edge of said back wall; said right back wall end having a right stud member non-rotatably fixed thereto and outwardly extended therefrom and substantially aligned with said left stud member; said rear left sidewall end and said rear right sidewall end being similarly rotatably mounted on said left and right stud members, respectively; a left supporting bracket fixedly mounted adjacent said left stud member and non-rotatably engaged therewith; a right supporting bracket fixedly mounted adjacent said right stud member and non-rotatably engaged therewith; said container being provided with handle means positioned forwardly thereof for convenient manual access from the front of said container; said container means being provided with securing means; and hanger means fixedly mounted arcuately above said securing means and defining an arcuate upper limit of movement of said bottom, front wall, left sidewall, and right sidewall portions of said container around said fixed left and right stud members and away from the fixed upstanding back wall of said container and controllably removably securingly engaged with said securing means when said bottom, front wall, left sidewall, and right sidewall are positioned at said arcuate upper limit of movement.

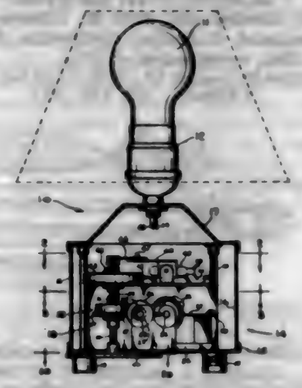
2,843,110
DOOR
Almer H. Brodbeck, St. Louis, Mo., assignor to Food Giant Markets, Inc., a corporation of New Jersey
Application January 16, 1956, Serial No. 559,207
8 Claims. (126—190)



1. A door comprising a sheet metal panel and a U-shaped stiffener frame for the door comprising a pair of rigid side bars and a torsion bar extending from one end of one side bar to one end of the other side bar and having its ends fixed to the side bars, said frame being located on one face of the panel with said side bars adjacent opposite sides of the panel and extending substantially parallel to one another from near one edge of the panel to near the opposite edge of the panel, each side bar being fastened to the panel adjacent the other end of the side bar and the frame being pivotally connected to the panel on an axis generally parallel to the panel and at right angles to the side bars intermediate the ends of the side bars.

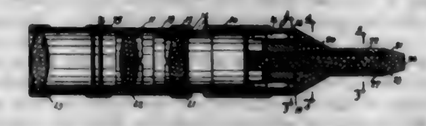
2,843,111
DEVICE FOR INDUCING SLEEP
Edward R. Roll, Fort Lauderdale, Fla.
Application August 30, 1956, Serial No. 607,208
5 Claims. (Cl. 128—1)

1. A sleep inducing device comprising: a housing; a socket with a bulb supported by said housing; an electric motor in the housing; a rheostat in the housing driven by the motor through a rheostat shaft and a one-way clutch mechanism to dim the bulb; a music box in the housing driven by the motor; a motor switch actuated by the motor to open and close said switch; and a calibrated control disk mounted on the rheostat shaft to adjust the



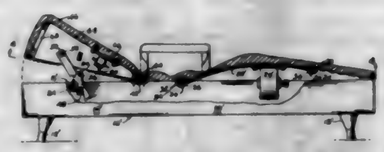
period of time during which the bulb will dim and the music box will play.

2,843,112
LIGHT TRANSMITTING MEANS FOR ENDOSCOPES
Bernard J. Miller, Philadelphia, Pa.
Application June 30, 1954, Serial No. 440,460
9 Claims. (Cl. 128—6)



1. An endoscope comprising a main barrel and a secondary barrel, wherein said barrels telescope one another, a plurality of electric lights concentrically arranged within said main barrel, a transparent filter associated with said main barrel adjacent said electric lights and transmitting only infra-red light rays, an endoscope probe joined to said main barrel adjacent said filter, said probe being comprised of a tapered cylinder of transparent material, a transparent viewing rod adjacent said probe and secured thereto, an infra-red sensitive semi-transparent lens mounted within said secondary barrel, a phosphorous surface mounted within said secondary barrel adjacent said infra-red lens, whereby the infra-red rays are converted into visible rays.

2,843,113
VIBRATING COUCH
Casper Joseph Miller, Van Nuys, Calif.
Application February 25, 1957, Serial No. 642,270
3 Claims. (Cl. 128—33)



1. A vibrating lounge comprising, in combination, a frame having a lower body supporting portion and an upper body supporting portion including a hinged head rest, a motor for imparting vibrations to the lower portion of said frame, said motor connected to a bowed, resilient spring having apertures, said frame having transverse, resilient springs, apertured clamping plates and bolt and nut units adapted to utilize the apertures of

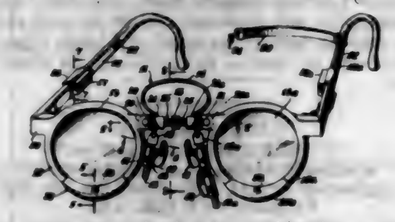
said bowed spring and clamping plates for clamping said bowed spring upon said transverse springs to provide a floating spring suspension.

2,843,114
ORTHOPEDIC SLING
Newton J. Hall, Arcadia, Calif.
Application April 19, 1957, Serial No. 653,810
5 Claims. (Cl. 128—75)



1. A head sling for use in placing the head and neck in traction comprising, a pair of soft pliant loops of similar lengths extending in side-by-side relation and having their adjacent ends secured together, and means for attaching a traction applying cable adjustably to different points transversely of the joined ends of said loops whereby the tractive effort transmitted by said cable can be distributed equally between said loops or differentially as desired.

2,843,115
COMBINED SPECTACLE FRAME AND NASAL CLAMP
Gustave Aufricht, New York, N. Y.
Application May 20, 1954, Serial No. 431,186
11 Claims. (Cl. 128—76)



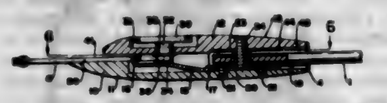
1. A nasal clamp having in combination a spectacle type frame including a temple part and a bow part at each side and a bridge means connecting said bow parts, one or more nose engaging pads supported on said bridge means, and an auxiliary weight with means removably securing it to one of said parts said means providing for securing the weight in selectable positions to vary the pressure exerted on a predetermined pad in accordance with the position of said weight.

2,843,116
HIP SUPPORT
Clara Margaret Grannan, St. Petersburg, Fla.
Application November 30, 1955, Serial No. 550,122
8 Claims. (Cl. 128—78)



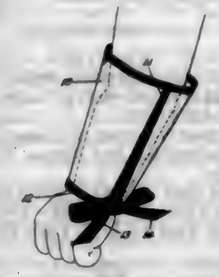
1. In a hip supporting device, a belt, a body portion joined to said belt and depending therefrom, a strap secured to said body portion and extending front to rear thereof, said strap and body portion defining an opening for receiving the leg of the wearer of the device, a resilient pad secured to said strap and extending substantially the width thereof, said pad positioned immediately adjacent the underside of the hip of the wearer when said device is in the position of use, said pad cooperating with said strap, body portion and belt to effect a lifting action, thereby relieving pressures exerted on the wearer's hip.

2,843,117
HERNIA TRUSS
Edwin W. Alexander, Silver Lake, Ohio, assignor to Akron Truss Company, Inc., Cuyahoga, Ohio, a corporation of Ohio
Application July 6, 1954, Serial No. 441,442
4 Claims. (Cl. 128—99)



1. In a ring-like truss composed of a ring adapted to encircle the body of a wearer of the truss, and at least one hernia pad thereon, with fastening means for releasably uniting the ends of the ring, which fastening means includes a latch at one end of the ring and latch-engaging means at the other end of the ring, the improvement which includes the location of said latch within an enclosure having an opening therein for insertion of the latch-engaging means for engagement with the latch when the latch and latch-engaging means overlap within the enclosure, said latch and latch-engaging means when engaged being disengageable only by both increasing the amount of said overlap and moving the latch out of alignment with the latch-engaging means.

2,843,118
ARM RESTRAINING DEVICE FOR INFANTS
Charles A. Pelow, Kenmore, N. Y.
Application September 14, 1955, Serial No. 534,199
2 Claims. (Cl. 128—133)

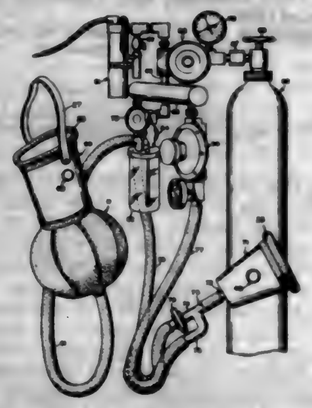


1. In a device for restraining arm movements of infants, a body member of flexible but self-sustaining sheet material and of a length greater than the length of a forearm of an infant, said body member being bent to generally frusto-conical form and permanently attached at its larger diameter end, the meeting edges being unsecured at the smaller diameter end and along the major portion of said meeting edges, and means for adjustably securing the meeting portions at said smaller diameter end to secure the same about an infant's wrist.

2,843,119
RESPIRATORS FOR ANIMALS
Max E. Glauser, Coral Gables, Fla.
Application September 14, 1955, Serial No. 534,270
7 Claims. (Cl. 128—142)

5. A respirator for animals such as horses, comprising a body having a tubular side wall and a bottom wall

with the top of the body being open to receive an animal's nose therein, a resilient annular sealing ring secured to the open top of said body and projecting radially inwardly thereof around the top to sealingly engage with an animal's nose, a collapsible reservoir bag engaged over the closed end of the body and including means for connecting the bag with a source of oxygen under pressure, a pressure-operated intake valve in said bottom wall providing communication between the interior of the body and the bag, a pressure-operated exhaust valve in said side wall through which is expellable air dispelled from



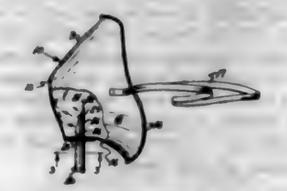
an animal's lungs, and an auxiliary air-intake valve in said side wall for supplying auxiliary air into the body upon excessive demand therefor by the animal's lungs, each of the two last-mentioned valves including an annular body portion projecting through the wall of the body, a valve seat plate secured within the valve body portion and provided in its central portion with a plurality of openings, and a valve head secured to said seat normally engaging the same to close the seat openings and being bodily liftable to be pressure-operated to open position in one direction of flow.

2,843,121
OXYGEN MASK
Charles H. Hudson, Los Angeles, Calif.
Application May 28, 1955, Serial No. 509,832
3 Claims. (Cl. 128—146)



1. A breathing mask comprising an arched shell of molded plastic having its edges comprising an out-turned flange cupped to provide a curved surface where it touches the face and having upturned edges, said shell having an upwardly offset and thickened portion on each said side flange, midway between its upper and lower edges, each provided with an opening through which an elastic strap extends.

2,843,122
BREATHING MASK
Charles H. Hudson, Los Angeles, Calif.
Application July 31, 1956, Serial No. 601,313
5 Claims. (Cl. 128—146)



1. A breathing mask, including in combination a self-supporting shell having a lower surface portion including a perforate disc, said disc having a central opening and a series of exhalation openings spaced around said central opening; and a flexible tube having an outside diameter greater than the diameter of said central opening but compressible enough to be passed therethrough, said tube being held therein against movement due to the pinching against its wall, said tube terminating inside said shell.

2,843,123

WITHDRAWN

2,843,124

WITHDRAWN

2,843,126
REGULATING MECHANISM FOR INHALATION AND EXHALATION WITH APPARATUS FOR SUPPLYING OXYGEN
Rudolf Thauer, Bad Nauheim, Germany, and Herbert R. Greider, Philadelphia, and James V. Correale, Jr., Havertown, Pa.
Application May 20, 1953, Serial No. 356,325
4 Claims. (Cl. 128—144)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In oxygen supplying apparatus for respiration, a mask, a fluid tight compartment and a fluid tight flexible diaphragm embodied in one wall of the compartment, an exhalation duct communicating between the mask and the compartment, an exhalation valve in the compartment, mechanism between the valve and the diaphragm to open the valve under a plus pressure differential between the compartment on one side of the diaphragm and the atmosphere on the other side of the diaphragm, an inhalation duct connecting a source of oxygen under pressure with the mask exteriorly of the compartment, an oxygen valve operating to control oxygen flow through the inhalation duct to the mask, mechanism between the exhalation valve and the oxygen valve for opening the oxygen valve by the exhalation valve becoming closed.

2,843,125
SANITARY NAPKIN
John C. Blesbinger and Winfield U. Day, Neenah, and Richard E. Rolke, Appleton, Wis., assignors to Kimberly-Clark Corporation, Neenah, Wis., a corporation of Delaware
Application October 5, 1955, Serial No. 538,627
5 Claims. (Cl. 128—290)



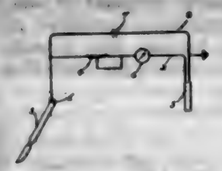
1. In combination with a pad of absorbent material, a pair of side strips disposed along opposite edges of the pad with each of said strips having a longitudinally extending portion thereof disposed in overlying relation to a marginal portion of one surface of said pad, and means providing a coating of fluid-repellant material on said marginal portions of the pad which is disposed between the overlying edge portion of each of said side strips and said pad and which extends beyond said edge portions to prevent the flow of fluid from the absorbent central area of said pad to said edge portions of said side strips.

2,843,126
SANITARY BELT
Irene R. Schmidt, Ponca City, Okla.
Application September 24, 1956, Serial No. 611,576
3 Claims. (Cl. 128—291)



1. A sanitary belt for feminine wear, comprising an elongated body portion forming a front panel, a rear panel and an intermediate crotch portion, said rear panel being wider than said front panel, with both of said panels being progressively increased in width from the crotch portion, the opposite ends of said body being formed on the arc of a circle in a concave direction, with each corner of said body being squared off along a line substantially in alignment with a radius of the circle along which the respective end is formed; a strip of elastic secured to one corner of the front panel and a corresponding corner of the rear panel to extend around one side of the waist of the wearer; a second strip of elastic secured to the opposite corner of the back panel, each of said strips of elastic being secured in a direction normal to the respective corner to which it is attached; hook and eye connectors on the remaining corner of the front panel and the opposite end of the last-mentioned strip of elastic; and sanitary napkin supporting straps secured in spaced relation to the inner surface of said body.

2,843,127
APPARATUS FOR ELECTRO-ANESTHESIA BY MEANS OF CONTACT ELECTRICITY
Kousuke Suzuki, Senju, Adachi-ku, Tokyo, Japan
Application November 9, 1953, Serial No. 391,029
Claims priority, application Japan June 19, 1953
3 Claims. (Cl. 128—303.1)



1. An apparatus for electro-anesthesia by means of contact electricity, comprising a metal operating instrument, an electrode formed of a conductive material different from that of said instrument and electro-positive to the material of said instrument, a lead wire free of a source of power connecting said instrument and electrode with one another, said electrode being adapted to contact a part of the body remote from the operating area whereby a potential difference and resulting current are produced when said instrument is in contact with said operating area, and a variable resistor in said lead between said instrument and electrode to control said current and adjust it to a value below a critical value.

2,843,128
ADENOTOME
Charles R. Storz, St. Louis, Mo., assignor to Storz Instrument Company, St. Louis, Mo., a corporation of Missouri
Application March 18, 1957, Serial No. 646,981
5 Claims. (Cl. 128—309)

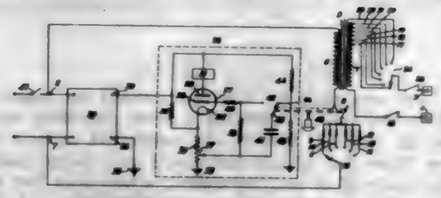


1. An adenotome comprising an elongated body with an end portion having a convex outer face provided with an opening, there being an element extending transversely of the body near said end portion and bounding the outer end of said opening and having inwardly flat, outwardly beveled surfaces forming a cutting edge facing toward the opposite end portion of the body, a flexible member slidable on said body and movable toward and from said element and having outwardly flat and inwardly beveled surfaces forming a cutting edge facing toward said element, and means operable manually from the second-mentioned end portion of the body and connected to said flexible member to advance it along the arc of said convex outer face to move its cutting edge past the first-mentioned cutting edge in shearing action.

2,843,129
SHOCK THERAPY DEVICE
Harold James Oyston, North Strathfield, near Sydney, New South Wales, and Warren George Lamb, Summer Hill, near Sydney, New South Wales, Australia, assignors to Amalgamated Wireless (Australasia) Limited, Sydney, Australia, a company of New South Wales
Application February 24, 1955, Serial No. 490,344
Claims priority, application Australia April 12, 1954
3 Claims. (Cl. 128—419)

1. A shock therapy device comprising an alternating current transformer having primary and secondary windings, a pair of applicator electrodes connected to the secondary winding of said transformer, alternating potential input means, a rectifier connected to said input means, connecting means between said input means and said transformer for applying alternating potentials from

said input means to the primary winding of said transformer, said connecting means including one of a plurality of thermistors, a power control switch for energizing said shock therapy device and a multi-position selector switch for individually selecting and including said thermistors in said connecting means, automatic electronic timing means connected to said rectifier and including a thermionically controlled relay having contacts in circuit between said secondary winding and said applicator electrodes for controlling the application



of shock voltages from said secondary winding to said applicator electrodes, said timing means including a timing capacitor arranged to control the operating time of said thermionically controlled relay, said timing means also including a thermionic valve having a resistor in its cathode circuit, an adjustable tap connected to said resistor, said timing capacitor having one terminal connected to said adjustable tap, and a selector switch connected to the other terminal of said capacitor and adapted to connect said timing capacitor alternatively to said rectifier and to the grid circuit of said thermionic valve.

2,843,130
BRASSIERE

Sydney J. Block and Lester W. Block, Culver City, Calif., assignors to California Forms, Inc., Culver City, Calif., a corporation of California

Original application December 15, 1954, Serial No. 475,525, now Patent No. 2,725,574, dated December 6, 1955. Divided and this application October 31, 1955, Serial No. 543,918
2 Claims. (Cl. 128—458)

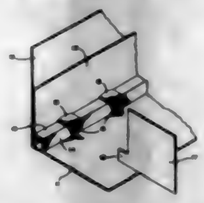


1. A brassiere including a pair of elongated elastic portions adapted to fit around the body of the wearer, the outer ends of said elastic portions adapted to be attached to each other, a pair of inelastic pieces, the outer ends of said inelastic pieces being attached to the inner ends of said elastic portions, the inner portions of said inelastic pieces being attached to each other, each of said inelastic pieces having a substantially U-shaped breast cup opening, a breast cup mounted in each of said openings, a breast pad formed of yieldable material mounted in each of said breast cups, each of said inelastic pieces having a U-shaped channel surrounding said breast cup opening and extending from the top of said brassiere on one side of said opening to the top of said brassiere on the other side of said opening, a U-shaped wire mounted in each of said channels, said wires being somewhat resilient, the free ends of said wires being directed substantially vertically and disposed adjacent the top of said brassiere, a pair of elongated vertical stays mounted adjacent the outer ends of said inelastic pieces and extending substantially from the top of said brassiere to the bottom thereof, said elastic portions adapted to be stretched longitudinally when said brassiere is fitted around the body, the stretching of said elastic portions causing the ends of each of said wires to stretch apart from each other adjacent the top of the brassiere to open the tops of said breast cups and facilitate the reception and maintenance of the breasts of the wearer within said breast cups.

2,843,131
DIVIDER PLATES FOR TRAYS

Carl F. Wolters, New Canaan, Conn., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application August 14, 1956, Serial No. 603,973
1 Claim. (Cl. 129—16)

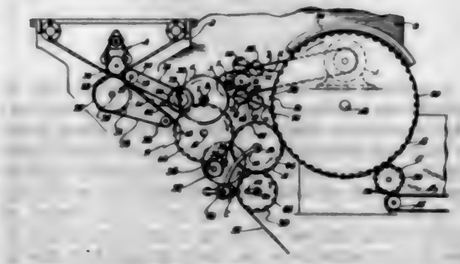


In combination a drawer having bottom and side walls, channel members disposed along the drawer at the sides thereof, a horizontal flange at the bottom of each channel member and extending inwardly away from the side walls of the drawer, a vertical flange on each channel member at the outer edge of the horizontal flange and extending downwardly to the bottom of the drawer, said vertical flanges having spaced openings therein, the sides of said openings converging downwardly to the bottom of the drawer and slightly spaced apart thereat, the horizontal flanges of the channel members above said openings being formed in an arc, the radius of which is substantially equal to the length of the sides of said openings, a tiltable divider plate resting on the bottom of the drawer, flat ears on the opposite sides of the plate at the bottom thereof and extending into said openings, the height of the ears being only slightly less than the radius of said arc.

2,843,132
MACHINES FOR MAKING RECESSED MOUTHPIECES FOR FILTER CIGARETTES

Max Pollmann, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co., K.-G., Hamburg-Bergedorf, Germany

Application September 13, 1957, Serial No. 683,746
Claims priority, application Germany September 14, 1956
3 Claims. (Cl. 131—94)



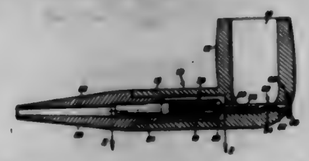
1. In a machine for making recessed mouthpieces for filter cigarettes, a drum mounted for rotation on a horizontal axis, a plurality of axial grooves in the periphery of said drum uniformly distributed therearound and each adapted to receive a plurality of aligned filter plugs having a common cover sheet partly wrapped around said filter plugs with a glued side in engagement therewith and with the free ends of said cover sheet projecting from said groove, means for rotating said drum, a pair of rotary members, means supporting said pair of rotary members for rotation on axes parallel with each other

and with the axis of the drum and disposed outside the periphery of said drum, elongated means extending across said pair of rotary means perpendicularly to the axes thereof towards the periphery of said drum, folding means secured to the end of said elongated means nearest said drum, means pivotally connecting said elongated means to one of said rotary members at a point thereof spaced from the axis of said one rotary member, means pivotally and slidably connecting said elongated means to the other rotary member at a point thereof spaced from the axis of said other rotary member, and means operatively connecting said pair of rotary members with said drum for rotating said pair of rotary members in timed relation to said drum, whereby said folding means is caused to engage one of said projecting portions of the cover sheet adjacent the periphery of the drum and to slide on said projecting portion so as to fold it on the filter plugs in said groove of the drum.

2,843,133
FILTER UNIT FOR PIPES

Jack L. Barbera, Port Jervis, N. Y.

Application September 26, 1957, Serial No. 686,443
4 Claims. (Cl. 131—207)



1. In combination with a pipe including a bowl, a stem connected to said bowl and a bit, a filter unit, said stem having an enlarged bore communicated with the interior of said bowl by a small bore disposed concentric of said enlarged bore and forming a continuation thereof, said small bore extending through said bowl to the exterior thereof, said bit having a reduced end seated in said enlarged bore, said bit being provided with an intermediate bore, said filter unit including a tubular body member having first and second end portions, said first end portion being seated in said intermediate bore and said second end portion projecting into said enlarged bore, longitudinally directed slots in the sides of said second end portion, a filter element disposed in said second end portion, a substantially cylindrical control valve telescoped over said second end portion and closing said second end, said control valve including other elongated slots selectively alignable with said first mentioned longitudinal slots to vary the size of openings into said body member, and an operator extending through said small bore and engaging said control valve for positioning said control valve.

2,843,134
SMOKER'S WRIST COMPACT

Helen L. Bass, Chicago, Ill., assignor to Amalgamated Bass Prince Inventions, Inc., Chicago, Ill., a corporation of Illinois

Application April 1, 1955, Serial No. 498,584
1 Claim. (Cl. 131—235)



A smoker's compact for wearing on a wrist comprising a box body having an open top and forming an ash tray, a lid hinged to said body for closing the top thereof, a cigarette extinguishing tube depending from said lid into the tray for insertion of a lighted end of a cigarette therethrough for extinguishing and depositing of ashes therefrom into the tray, and means for clamping the extinguished butt to said lid comprising a groove in said lid extending from one side of the tube, a bracket rising from said lid at the opposite side of said tube, a channeled finger hinged to said bracket to swing downwardly over the groove and tube to clamp the cigarette butt in the groove, said finger having a widened portion engaging said lid at opposite sides of the groove to limit downward swinging of said finger, said widened portion when said finger is swung downwardly covering said tube and holding said butt in position to act with the widened portion and said bracket for closing the upper end of the tube against the escape of ashes or sparks from the tray out of said tube, and spring means on said hinge urging said finger downwardly.

2,843,135
CIGAR PIERCER AND EXTRACTOR

Richard A. Lisiewski, Riverside, N. J.

Application May 18, 1956, Serial No. 585,832
3 Claims. (Cl. 131—255)

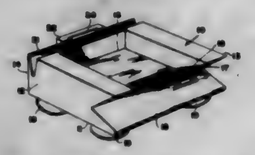


1. In a cigar piercer and extractor, a piercing tube having at one end a pronounced bevel forming thereat a sharp, open-mouthed piercing tip shiftable axially of a cigar so as to cut out of the cigar and receive a core of tobacco; and an internal, spring-tensioned tongue anchored to the wall of the tube adjacent the tip and normally extending transversely of and within the tube across the longitudinal center line of the tube, said tongue having a free end disposed in close proximity to the wall of the tube at a location angularly spaced 180 degrees circumferentially of the tube from the location at which the tongue is anchored to the wall thereof, the spring tension being of a value such that said tobacco core, as it enters the tube, will exert pressure against the tongue and will bias the same at least partially out of the path of the tobacco core, said value of the spring tension being at the same time sufficiently great to shift the tongue in a return direction back to its normal position, responsive to a decrease of pressure against the tongue by the core when the tube and cigar are pulled apart following piercing of the cigar.

2,843,136
BOBBY PIN HOLDER AND OPENER

Lillian E. Limburg, Milwaukee, Wis.

Application February 6, 1956, Serial No. 563,694
2 Claims. (Cl. 132—1)



1. A device for holding and opening bobby pins comprising a base and a plurality of upwardly disposed sides to form a cavity suitable to receive bobby pins, one of said sides defining an inside surface extending obliquely to the inside surface of said base, said one of said sides being provided with a wedge shaped outer edge for receiving and spreading apart the prongs of bobby pins, and

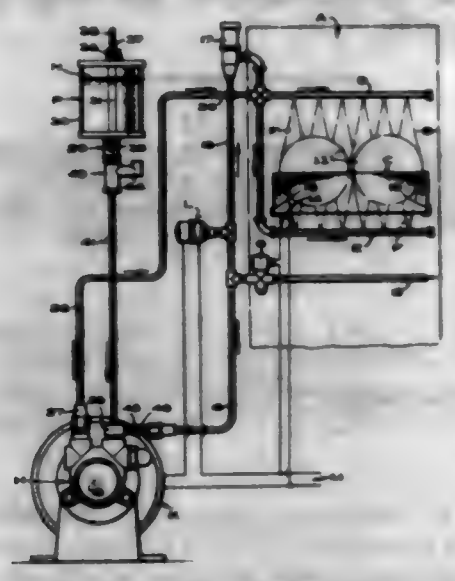
means comprising a plurality of ridges arranged on the inside surface of said one of said sides and extending substantially parallel to said outer edge thereof, said ridges extending in rows from said outer edge toward the inside surface of said base a distance sufficient for said ridges to engage and interlock with the wrinkled surfaces of the bobby pins to hold the bobby pins over said edge.

2,843,137

MOTOR-ACTUATED APPARATUS FOR INJECTING DRYING AGENTS INTO A RINSE-SPRAY SYSTEM

George Joseph Federighi and Tore H. Noren, San Francisco, Calif.

Application March 22, 1956, Serial No. 573,291
4 Claims. (Cl. 134—57)



2. The combination with a dishwashing machine defining a rinse compartment; rinse-spray nozzles positioned in said compartment; and a hot water inlet pipe coupled to said nozzles to deliver rinse water thereto; of a motor-driven pump providing a mixing chamber; a branch pipe connected to said inlet pipe and to the pump chamber to deliver part of the hot rinse water to the mixing chamber of the pump; a dispenser defining a reservoir containing a non-sudsing drying agent liquid; a drying agent feed pipe connected to the reservoir and to the mixing chamber of the pump to deliver said drying agent liquid from the reservoir directly to the mixing chamber; a water-feed adjustment coupled into said branch pipe between the hot water inlet pipe and mixing chamber of the pump and operable to restrict inflow of rinse water to the mixing chamber, and thereby create a differential pressure between said branch pipe and the drying agent feed pipe to thereby establish suction in the latter pipe; and an outflow pipe extending from an outlet of the mixing chamber of the pump to the rinse-spray nozzles to deliver a mixture of the hot rinse water and the drying agent liquid to said nozzles.

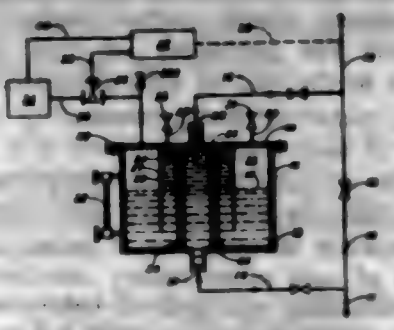
2,843,138

LIQUID PROPORTIONER

Harris H. Gilman, Palo Alto, Calif., assignor, by mesne assignments, to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application December 27, 1954, Serial No. 477,611
5 Claims. (Cl. 137—93)

5. A liquid flow proportioner of the type described comprising means forming a closed reservoir for a first liquid of higher concentration, a closed tube of porous material sealed in said reservoir and entirely surrounded by said first liquid, an inlet and an outlet for said reservoir communicating only with the interior of said tube and adapted to convey a stream of a second liquid through said tube, and means for imposing hydrostatic pressure on the liquid in said reservoir that is greater than the hydrostatic pressure in said tube to force said first liquid through said perous tube into said second liquid stream,



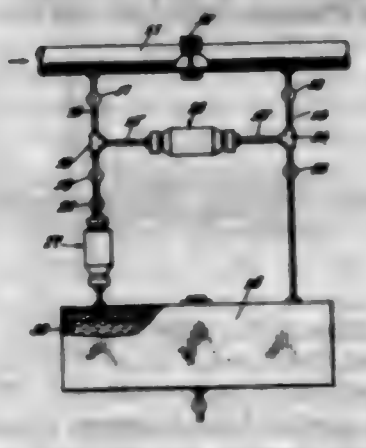
said tube being the only means whereby said first liquid is transferred into said second liquid.

2,843,139

WATER TREATING SYSTEM AND APPARATUS THEREFOR

Joseph I. Mostel, Jamaica, and William C. Hammond, Valley Stream, N. Y., assignors to Hammond-Mostel, Inc., Elmhurst, N. Y., a corporation of New York

Application November 23, 1953, Serial No. 393,814
7 Claims. (Cl. 137—101.11)



2. In a water treating system, a main adapted to convey a flow of water under pressure, a restriction in said main for developing a differential pressure in proportion to the rate of flow of water in said main, a closed container for a solution for treatment of said water, said solution being of greater specific gravity than water, hydraulic connections between the top of said container and the high and low pressure sides of said restriction, means dependent upon the developed differential pressures and including said hydraulic connections to divert corresponding amounts of said water around said restriction and through said container, said diverted water flowing over and mixing with said solution to discharge the same into said main for treatment of the water flowing therein, said diverted water until a predetermined differential pressure is reached being directed against said solution on entering said container, a pressure operated valve and means for operating said valve by said developed differential pressure when the same exceeds said predetermined amount to direct a part of the water entering said container in the direction of the outlet hydraulic connection thereto whereby the diverted water has less chance to mix with said solution and the degree of treatment of the water flowing in said main is less when the rate of flow thereof exceeds a predetermined rate.

2,843,140

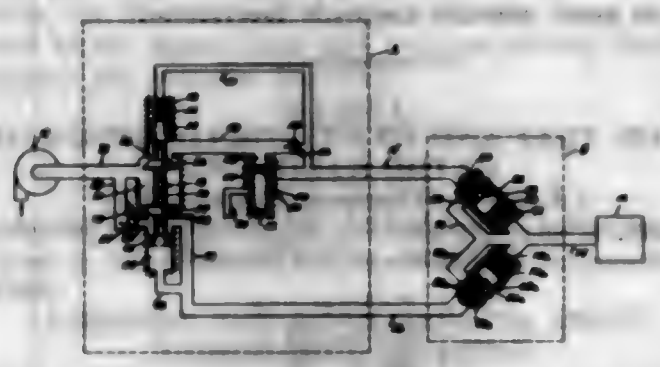
HYDRAULIC SUPPLY SYSTEM FOR AN AERONAUTICAL PROPELLER OR THE LIKE

Raymond P. Lambeck and Anthony V. Pond, Manchester, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application April 3, 1956, Serial No. 575,761
7 Claims. (Cl. 137—110)

2. In a system for supplying fluid from a pressurized source to the inlet of an hydraulically operated device, the

combination comprising means defining two fluid conduits, a selector valve disposed between said conduits and said source and having one position wherein one of said conduits and said source are connected and another position wherein the other of said conduits and said source are connected, said selector valve being biased toward said one position by fluid pressure in said one conduit and biased toward said other position by fluid pressure in said other conduit, resilient means biasing said selector valve toward said one position with less force than the bias provided by the normal fluid pressure in said other conduit, a first normally closed check valve disposed between said one conduit and said inlet and biased toward closed position by fluid pressure in said inlet, a second normally closed check valve disposed between said other conduit and said inlet and biased toward closed position by fluid pressure in said inlet, each of said check valves being



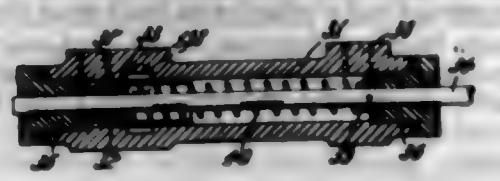
adapted to open responsive to fluid pressure in its respective conduit, means defining a passage between said source and said other conduit for flow of fluid from the source at a rate less than the rate of flow from the source to the said one or other conduit when said selector valve is in said one or other position, respectively, and a normally open bleed valve disposed between each of said conduits and said inlet for the flow of fluid from said inlet to said source in the absence of fluid pressure at said source, the bleed valve associated with said one conduit being adapted to close in the absence of fluid pressure in said one conduit and responsive to pressure in said inlet resulting from flow through said other conduit, and the bleed valve associated with said other conduit being adapted to close in the absence of fluid pressure in said other conduit and responsive to pressure in said inlet resulting from flow through said one conduit.

2,843,141

METERING DEVICES FOR HYDRAULIC CIRCUITS

Alfred Erwin Reginald Arnot and Arthur Hubert van Hooydonk, Basingstoke, England, assignors to John Reginald Sharp and Emmanuel Kaye, both of Basingstoke, England

Application November 21, 1955, Serial No. 548,199
Claims priority, application Great Britain November 22, 1954
3 Claims. (Cl. 137—115)



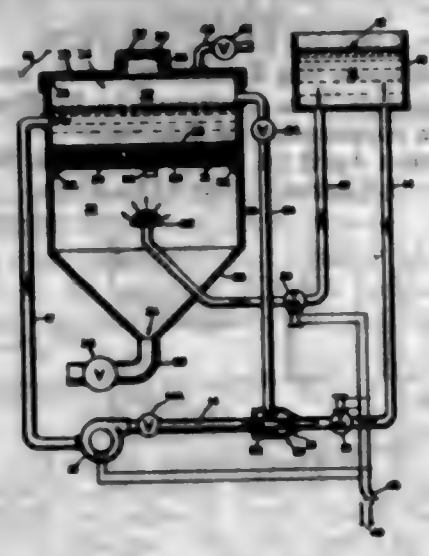
1. A control valve for metering hydraulic fluid comprising in combination a valve body, a cylindrical piston valve chamber therein, a cylindrical piston valve sliding in the chamber, a spring to urge the valve in one direction, an inlet to said chamber for hydraulic fluid under pressure in opposition to said spring and positioned on one side of said valve, an outlet from said chamber on the opposite side of said valve, a port in the side wall of the piston valve chamber leading to a drain which is progressively opened by the piston valve under a predetermined pressure differential between said inlet pressure and the spring, an axial fluid passage of limited effective area leading through said piston valve from one side of the piston valve to the other and thence directly to said outlet, and a metering rod extending axially through said passage of limited effective area.

2,843,142

LIQUID CIRCULATION SYSTEM

Paul J. Gardner, Davenport, Iowa, assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application May 5, 1955, Serial No. 506,277
8 Claims. (Cl. 137—205)



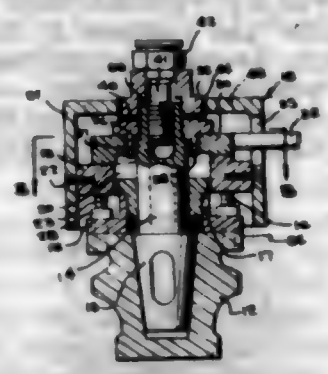
1. A liquid recirculation system, comprising a sealed liquid supply container, means for recirculating liquid between said container and a liquid use zone and maintaining an air space in said container under reduced pressure, including a centrifugal pump having a liquid intake conected to the supply container, and a circulation system including a supply passage connecting the pump discharge to said use zone and a return passage connecting said zone to the container; and means for decreasing the amount of liquid in the zone of use, including an evacuating device connected to said air space.

2,843,143

TURNING PLUG FREEING DEVICE FOR VALVES

John E. Currie, Lake Charles, La.

Application September 14, 1956, Serial No. 609,962
3 Claims. (Cl. 137—330)



1. A plug freeing attachment for a valve of the type having a main valve body, a tapered plug seated in said main body, a stem rigidly secured to said plug, and a bonnet member secured on said main body surrounding said stem, said attachment comprising a support member formed and arranged to be disposed around said stem, means on said support member adjustable toward and engageable with said main valve body for supporting said support member on said main valve body over said bonnet member and surrounding said stem, said support member being formed with a plurality of arcuate wedge elements extending in succession around said stem, a ring

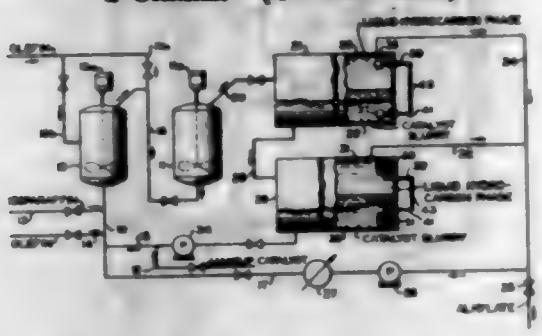
element rotatably disposed on said support member, a plurality of arcuate wedge elements on the undersurface of said ring element inclined similarly to and slidably engaging said first named wedge elements, a collar member, means for securing said collar member to said stem, means on said collar member engageable with said ring element to transfer upward force to said stem responsive to wedging cooperation of said first and second named wedge elements responsive to rotation of said ring element relative to said support member, and a handle member rigidly secured to and projecting outwardly from said ring element.

2,843,144

LIQUID LEVEL DEVICE

Lorne M. Robinson, San Francisco, Calif., and Verdus L. Hining, Houston, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

Application April 14, 1955, Serial No. 501,254
2 Claims. (Cl. 137—395)



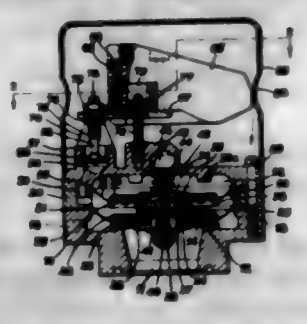
1. In a liquid level indicating system, in combination, a closed tank having a liquid therein whose level is to be measured, the space in said tank above said liquid being occupied by a lighter fluid, a gas-tight vessel, a pressure gauge mounted therein having an indicating pointer, lines connecting the respective top and bottom regions of said tank to the pressure gauge and to said vessel, whereby the reading of said pressure gauge is indicative of the liquid level in said tank, a conduit connected to said tank to withdraw liquid therefrom, a solenoid valve in said conduit, a cam mechanically connected to the indicator of said pressure gauge, and a cam switch actuated by said cam and connected in circuit with said solenoid valve to open same when the liquid in said tank rises above a predetermined level.

2,843,145

VALVE MECHANISM

Gordon T. Koehler and Gustave J. Koehler, Dayton, Ohio, assignors to Koehler Aircraft Products Company, Dayton, Ohio, a corporation of Ohio

Application March 27, 1953, Serial No. 345,044
6 Claims. (Cl. 137—414)



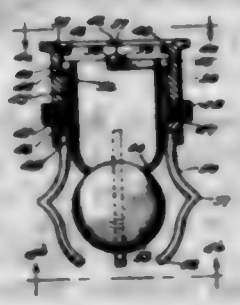
1. Valve mechanism for controlling the supply of fluid under pressure into a reservoir to maintain a predetermined level therein comprising a housing outside said reservoir, a valve seat in said housing in the path of flow of pressure fluid thereinto, a discharge connection from said valve seat and housing for supplying the fluid into said reservoir, a pair of flexible diaphragms each having a greater area than said valve seat and defining with said housing a pair of expansible fluid pressure chambers within said housing, a valve member carried by one of said diaphragms adapted to close against said seat, means connected with the other said diaphragm for communicating to said valve member movement of said other diaphragm in the valve closing direction, a bleed port connected to each said chamber, a pair of floats located in said reservoir, means controlled by said floats for opening and closing said bleed ports independently of each other to develop a pressure within that one of said chambers associated with the closed bleed port to cause expansion of that chamber subjected to internal pressure for closing said valve member, means for maintaining communication between said fluid pressure supply and said pressure chambers, and means carried by one of said diaphragms for throttling the passage of fluid into that one or said pressure chambers subjected to internal pressure as said valve member moves toward closed position to avoid pressure surges in the system.

2,843,146

DRAIN TRAP AND MEANS FOR LOCKING SAME TO THE WASTE PIPE

Louis A. Kirschner, Chicago, Ill.

Application November 28, 1955, Serial No. 549,454
4 Claims. (Cl. 137—433)



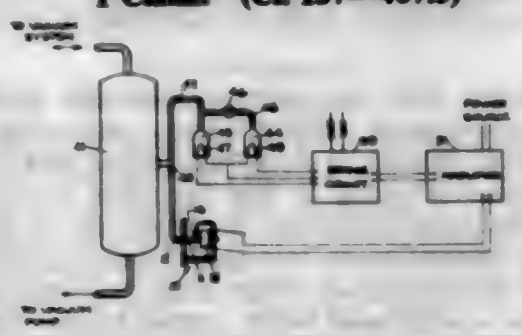
1. In a drain trap unit adapted for securement to a waste pipe, said unit comprising an upper member and a lower member, said upper and lower members each having threaded portions for engagement with each other to form a continuous wall, a compressible gasket positioned between said members in engagement with the inner wall of the waste pipe, said gasket having a substantial surface so that when compressed by the rotation of the upper member with respect to the lower member said gasket will expand laterally and lock itself against the wall of the waste pipe to prevent removal of said drain trap unit, said gasket forming the only means between said unit and said waste pipe for locking said unit to said waste pipe, a valve body within said unit having a valve seat and a float valve secured to said unit and cooperating with said valve seat for blocking the backflow from said waste pipe, cam means on said valve body to lock said valve body with respect to said unit.

2,843,147

FLUID PRESSURE SYSTEM INCLUDING A VIBRATING THROTTLING VALVE

Carl Joseph Penther, Oakland, Calif., assignor to Shell Development Company, Emeryville, Calif.

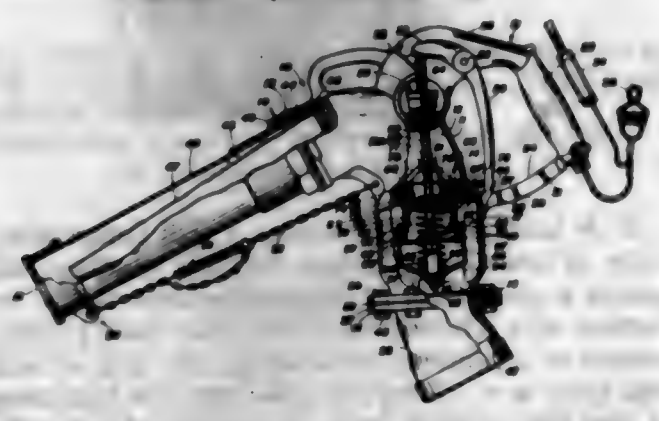
Application September 22, 1952, Serial No. 310,889
1 Claim. (Cl. 137—487.5)



A fluid pressure system including a flow control valve associated with the system vibrating between open and

closed positions to maintain the pressure within said system at substantially a predetermined value, means for effecting such vibration of the valve when the pressure in the system varies from said predetermined value comprising a bridge the electrical balance of which is determined by the pressure condition in said system on the one hand and a fixed adjustment on the other determined by said predetermined pressure, said bridge being in balance when the system pressure is at its predetermined value, a power circuit coupled to said bridge and controlled by a signal therefrom to produce continuously a fixed phase pulsed current having pulses of an amplitude and duration proportional to said signal, said flow control valve having a flow nozzle, a closure member for the nozzle, magnetic core means supported by said closure member, and a coil disposed around said core means, said coil being connected to and energized by said power circuit, the flow through the control valve being proportional to the signal from said pressure-sensing means to maintain the pressure difference.

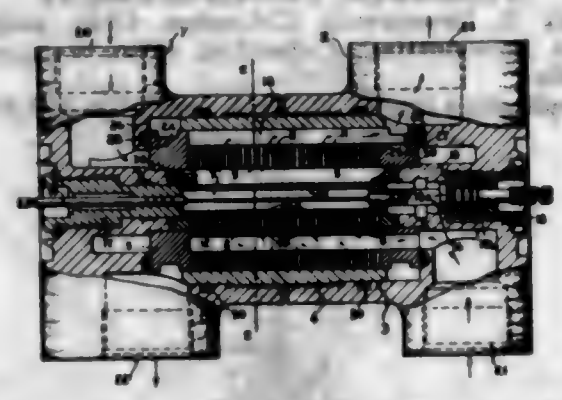
2,843,148
SOFT CLOSING NOZZLE VALVE
Alfred W. Rymsza, Dayton, Ohio, assignor to Buckeye Iron & Brass Works, Dayton, Ohio, a corporation of Ohio
Application April 5, 1955, Serial No. 499,375
8 Claims. (Cl. 137—599.2)



8. In a valve assembly having a flow passage therethrough, an axially movable valve stem, a first valve slidably carried on said valve stem, said first valve having a valve opening therein, a second valve mounted on said valve stem and adapted to close said first valve opening, means for closing said second valve, said first and second valves regulating the flow through said valve assembly, and means for decreasing the speed of said second valve when the flow passage controlled by said second valve is closed but before said second valve is seated to softly close said valve.

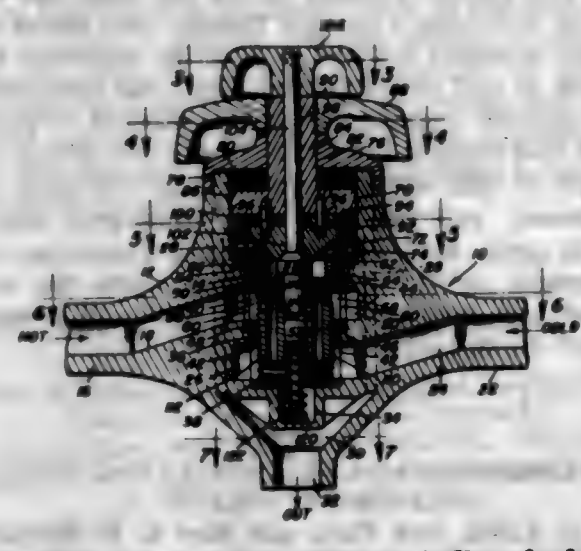
2,843,149
ROTARY HYDRAULIC VALVE
Elwyn Harvey Peters, Hasbrouck Heights, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application November 29, 1952, Serial No. 323,179
4 Claims. (Cl. 137—624)

1. In a rotary valve, a manifold sleeve having a plurality of circumferentially spaced longitudinal grooves in its outer surface and having a plurality of rows of radial openings which extend therethrough, each such row opening to and terminating at the bottom of one of said grooves, said sleeve also including a plurality of longitudinal passages each having a row of intersecting radial openings which extend to the interior of the sleeve, the longitudinal passages and their radial openings being circumferentially spaced and disposed so that they lie between adjacent pairs of the said grooves and their rows of openings, another sleeve having a length less than that of the manifold sleeve and fitted tightly thereover to form fluid channels with the grooves in the outer surface of the manifold sleeve, the grooves in the outer surface of the manifold sleeve being longitudinally disposed so that adjacent grooves have opposite ends extending beyond the edge of said another sleeve, and a longitudinally grooved stem having inter-groove lands



fitted within said sleeve, the stem being rotatable to cut off and establish communication between adjacent rows of openings simultaneously, the number of stem grooves being equal to the number of said longitudinal sleeve grooves and to the number of longitudinal sleeve passages.

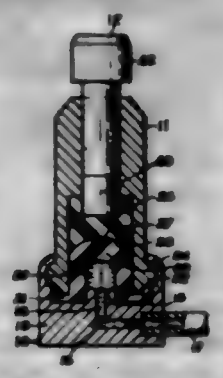
2,843,150
WATER MIXING FAUCET
Charles M. Goodwin, Mount Vernon, Ohio
Application December 8, 1955, Serial No. 551,911
7 Claims. (Cl. 137—637.2)



1. A mixing faucet comprising a hollow body having a main bore therein, hot and cold water inlet passages in said body communicating with said main bore through inlet ports spaced apart vertically along the axis of said main bore, a lower outlet passage, vertical outlet passages communicating the upper portion of said main bore with said lower outlet passage, a mixture control valve member, said mixture control valve member having a vertical length substantially equal to the vertical distance between centers of said inlet ports and being mounted in said main bore for vertical movement therethrough in the loci of said inlet ports to block said inlet ports as desired, said mixture control member having vertical bores therethrough to permit the passage of water therethrough from one of said inlet ports, a valve seat in said main bore intermediate the flow path therebetween said vertical outlet passages and said inlet ports, a flow control valve member selectively cooperating with said valve seat for controlling the flow of water through said faucet, first control means for positioning said flow control valve member relative to said valve seat, said first control means including a first valve stem journalled in said body and connected to said flow control valve member, second control means for positioning said mixture control valve member relative to said inlet ports, said

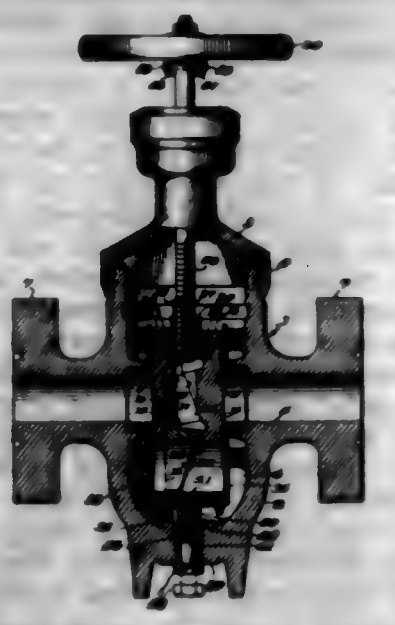
second control means including a second valve stem journalled in said flow control valve member and connected to said mixture control valve member.

2,843,151
HYDRAULIC POWER ELEMENT
Frederick A. Greenawalt, Columbus, Ohio, assignor to Ranco Incorporated, Columbus, Ohio, a corporation of Ohio
Application March 27, 1953, Serial No. 345,865
3 Claims. (Cl. 137—788)



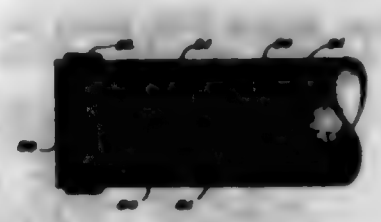
1. An expansible power element comprising a rigid base member, a rigid hollow sleeve joined at one end to said base member and having the other end open to receive a plunger, a tubular rubber element inside said sleeve and having its side walls juxtaposed to and contained by the inside walls of said sleeve, said rubber element having one end open and the other end closed by a transverse wall spaced from said open end, said open end of said rubber element facing the open end of said sleeve for receiving a plunger therein, said sleeve having the inside diameter reduced to form an abutment around the inside of said sleeve against which the open end edge of said element engages to block movement of said sidewalls of said element toward said open end of said sleeve, a plunger in said sleeve extending into the open end of said element and engaging said transverse wall, and means to apply fluid pressure to said transverse wall of said element on the side thereof opposite the side engaged by said plunger for forcing said wall toward the open end of said sleeve.

2,843,152
COMBINED VALVE ACTUATING AND LOCKING MEANS
Hubert C. Laird, Oak Park, and Kurt E. B. Bredtschneider, Chicago, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois
Application December 1, 1954, Serial No. 472,499
3 Claims. (Cl. 137—797)



1. The combination comprising a valve casing, a reciprocally movable divided closure member therewithin, said closure member comprising two adjacent portions relatively movable to each other having inclined surfaces therebetween, means for normally actuating the closure member including a valve stem extending into the casing, said casing having an opening oppositely disposed to said valve stem and said closure member being provided with a threaded portion inwardly of the opening on one of the adjacent portions thereof, means extending through the opening in the casing having a portion in abutting contact with the exterior of the casing and a threaded portion, said latter threaded portion engaging said threaded portion of the closure portion and being effective to take up any movement by drawing of one of the adjacent portions of the closure member along the inclined surface on the other adjacent portion and to secure the closure member in tight engagement against the valve casing and hold it against substantial endwise movement.

2,843,153
FILAMENT WOUND HOLLOW ELEMENTS AND METHODS FOR MAKING SAME
Richard E. Young, Rocky Hill, N. J.
Application August 17, 1953, Serial No. 374,600
21 Claims. (Cl. 138—55)



9. A hollow element having a wall comprising a plurality of intermeshed helical filament windings, said wall having a main portion of one thickness and a localized portion of a different thickness, said main portion being formed of a plurality of windings, the first of said windings lying in a cylindrical zone with the beginning point of said first winding lying on a circle of said cylindrical zone and the beginning point of the next immediate winding of said plurality being located on said circle in circumferentially spaced relation with respect to said beginning point of said first winding, and said localized enlarged portion being formed of an additional helical winding interlaced with said first and second windings of said plurality, the enlargement formed by said additional winding commencing at a position spaced from one end of said wall and terminating at a position spaced from the other end thereof.

14. A collar for the coupling of plain end pipe which includes an elongated tubular member, said tubular member being formed of helically wound intermeshed filaments secured together by a binder, said tubular member being formed with an annular abutment shoulder thereon, said shoulder lying in a plane at right angles to the axis of said tubular member and extending radially for a substantial portion of the thickness of said tubular member, certain of said filaments terminating at said shoulder, said terminating filaments meeting said shoulder at a variety of angles.

2,843,154
EXPANSIBLE PLUG FOR PIPES
Oakley W. Hosking, Monroe, N. Y., assignor to Hosking Patent Corporation, New York, N. Y., a corporation of New York
Application June 27, 1955, Serial No. 517,986
4 Claims. (Cl. 138—93)

1. An expansible plug for tubular conduits comprising an elongate hollow tubular body of resilient material, reinforcing non-resilient end caps attached to the

ends of the body and forming therewith a chamber, one of said end caps including a tubular projection having an interiorly threaded portion and an aperture communicating with said chamber, valve means for enabling fluid pressure to be introduced and maintained in said chamber, said valve means including a hollow stem threadable into the interiorly threaded portion of said



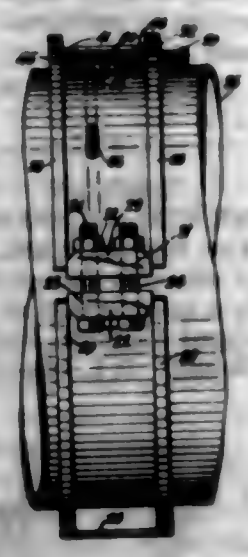
tubular projection, a normally closed spring biased valve stem positioned within said hollow stem, said hollow stem communicating with the aperture in said tubular projection, and a telescoping interconnection between said end caps for preventing longitudinal expansion of said resilient body when said body is subjected to fluid pressure whereby said plug transversely expands and firmly gripe the conduit to provide a tight seal therewith.

2,843,155

PIPE REPAIR CLAMP

Roger E. Risley and Howard L. Hoke, Bradford, Pa., assignors to Dresser Industries, Inc., Dallas, Tex., a corporation of Texas

Application March 29, 1955, Serial No. 497,617
10 Claims. (Cl. 138—99)



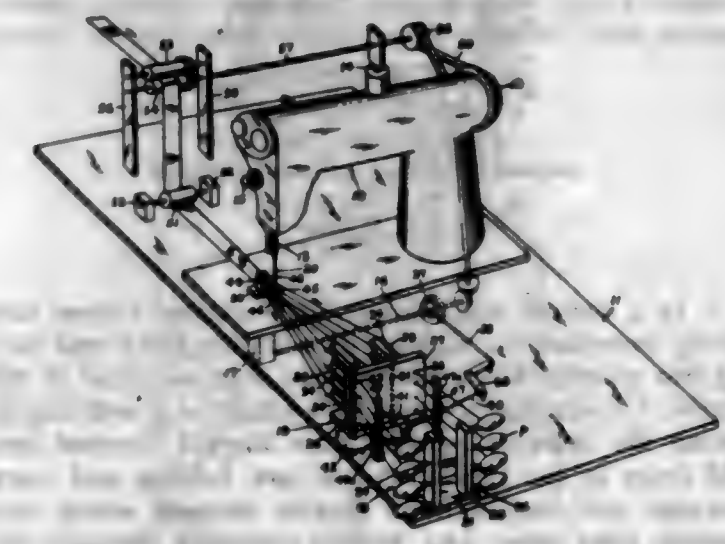
2. A leak repair clamp for application to a pipe to effect emergency repair of leaks therein comprising, in combination, a body portion and a clamping portion removably connected therewith for drawing the body portion into firm engagement with the surface of the pipe, said body portion including a pair of axially spaced-apart arcuate end members and means including a cover member cooperating with said end members to define a confined gasket recess, one of said end members being provided with circumferentially spaced-apart threaded apertures communicating with said recess, gasket means seated in said recess, follower means in said recess between said gasket means and the apertured end member for applying pressure to said gasket means transversely of the surface of the pipe, and means for urging said follower means against said gasket means, said last-named means being actuatable outside said gasket recess and comprising a plurality of set screws threadedly receivable in the apertures in the end member to apply pressure to said follower means in the direction of said gasket means.

2,843,156

APPARATUS FOR WEAVING NARROW FABRICS SUCH AS TAPES, RIBBONS AND THE LIKE

Lawrence Schwartz, Bronx, N. Y., assignor to Cue Fastener, Inc., Stamford, Conn., a corporation of New York

Application August 12, 1955, Serial No. 527,910
7 Claims. (Cl. 139—18)



1. An apparatus for weaving fabric comprising a bobbin type of sewing machine having a reciprocating needle and a bobbin movable for cooperation with said needle, means for supplying yarns to said needle and said bobbin to form a lock stitch by relative movement of said needle and bobbin, means supplying two groups of warp yarns to said machine to form a shed at the zone of said needle, means for shifting the two groups of yarns relative to the needle to cause it to reciprocate up and down in said shed first on one side of each group and then on the other side thereby to weave the yarn supplied by the needle through said warp yarns and form a lock stitch with said yarn supplied by said bobbin.

2,843,157

BRAKE TONGUES FOR THE COMPARTMENTS OF SHUTTLE BOXES IN LOOMS

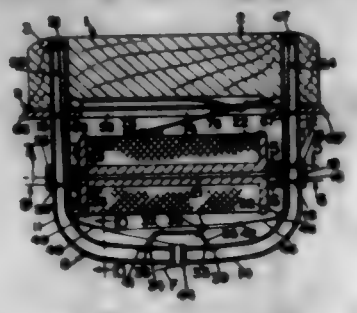
Kurt Schwabe, Le Locle, Switzerland, assignor to Tissomat A. G., Glarus, Switzerland

Application June 22, 1956, Serial No. 593,255
Claims priority, application Switzerland June 24, 1955
17 Claims. (Cl. 139—185)



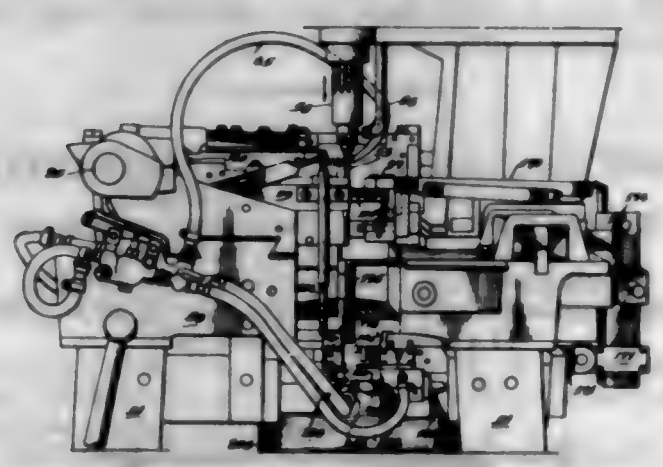
1. A shuttle brake for a loom, comprising a channel member provided at one end with means for pivotally mounting the channel member, a hollow member made of a flexible, resilient material and having a rear portion of greater width than its front portion, the rear portion of the hollow member being provided with a centrally disposed, longitudinal slit and being seated in the channel member, a clamping member disposed within the hollow member, means securing the said clamping member to the said channel member to retain part at least of the rear portion of the hollow member in a gas-tight manner between the said clamping member and the said channel member, a closed flexible tube disposed within the hollow member, a valve on the said tube, the stem of said valve extending through the longitudinal slit in the said hollow member and through the said channel member whereby its nozzle is disposed externally of the channel, and means for securing the said stem in the said channel member.

2,843,158
NARROW WARE LOOM SHUTTLE
Lewis O. Waterhouse, Oxford, Mass., assignor to Crompton & Knowles Corporation, Worcester, Mass., a corporation of Massachusetts
Application July 17, 1956, Serial No. 598,413
11 Claims. (Cl. 139—199)



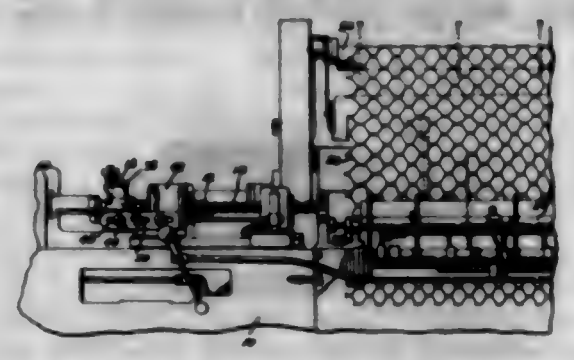
1. In a narrow ware shuttle, an elongated runner unit having provision for support on a shuttle block and having two parallel holes therein, one near each end of the runner, a U-shaped bow unit for support of a weft supply having the opposite parallel sides thereof inserted into said holes in the runner unit, a bow holding and warp spreader unit having holes therein through which said parallel sides pass, and means extending through the spreader unit into the runner unit securing the spreader unit to the runner unit and forcing the spreader unit against said parallel sides to hold the bow unit in fixed position on the runner unit.

2,843,159
SPRING FORMING APPARATUS
Alfons A. Bende, Oak Park, and Joseph S. Di Pasquale, Elmwood Park, Ill.
Application January 11, 1956, Serial No. 558,455
9 Claims. (Cl. 140—71)



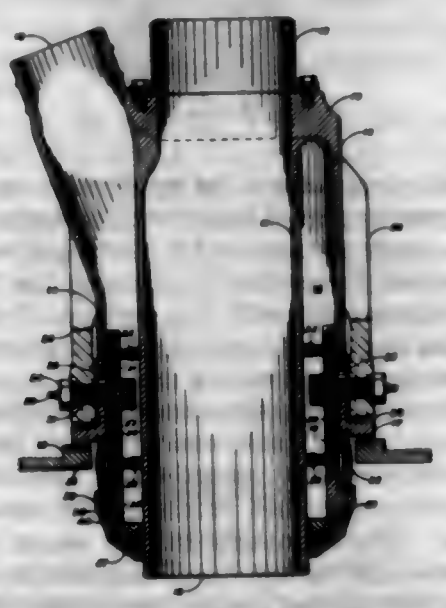
1. Spring forming apparatus comprising means coiling a spring of predetermined diameter and length with long and short leg portions extending generally at right angles to axial planes, means cutting said long leg portion to predetermined length, means guiding said spring through a drop exceeding the spring length, means at the lower end of said last means engaging said short leg portion and rotating said spring on its axis, a first coiler means serving to stop rotation of said spring and forming a hook on said short leg portion, plunger means acting substantially simultaneously with said coiler means and forming an offset intermediate the ends of said long leg portion, a second coiler means operable after said plunger means to form a hook on said long leg portion beyond the offset, chute means receiving said spring after operation of said first coiler means, said plunger means and said second coiler means, timer means retaining said spring in said chute means, vise means receiving said spring in clamped relation on release of said timer means, means at the bottom of said chute means bending said long leg portion at a predetermined angle with an axial plane and a means cutting said short leg portion to predetermined length.

2,843,160
WEAVING SPINDLE AND WIRE FEED MEANS FOR WIRE FABRIC MAKING MACHINE
Arthur E. Bleibtill, Worcester, Mass.
Application November 3, 1954, Serial No. 466,648
2 Claims. (Cl. 140—92.3)



1. A wire fabric machine comprising a hollow giraffe, a former blade lying within the giraffe and having sides which are substantially flat, means effecting relative rotative movement between the giraffe and blade, an applicator assembly located on opposite sides of and closely adjacent to the giraffe and blade functioning to feed the wires in bent condition to the giraffe and blade, a bracket supporting each applicator in angular disposition with respect to the common giraffe and blade axes, each applicator including a housing, frame means on the bracket for adjusting the bracket axially of the giraffe, means on the bracket for adjusting the bracket angularly respecting the giraffe, two horizontally disposed rollers mounted in the frame with the axes of the two rollers lying in the same plane, an intermediate roller journalled in the frame above said two rollers and serving to apply pressure to the wire guided between said two rollers and one of said two rollers lying closely adjacent the giraffe and blade whereby the wire is presented without appreciable tension to the giraffe and blade in a curved state with the curve of the wire tangential to the surface of the blade.

2,843,161
TANK FILLING NOZZLE
Chester C. Ward, Los Angeles, Calif., assignor, by mesne assignments, to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application August 15, 1955, Serial No. 528,451
7 Claims. (Cl. 141—290)



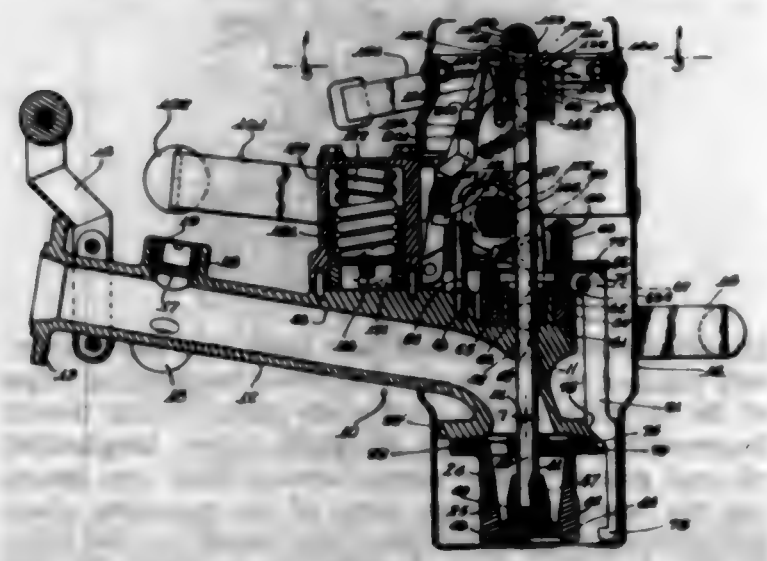
1. In a fuel tank filling nozzle having a passage for liquid fuel and a separate vapor withdrawal passage, radially expansible means carried by said nozzle for sealing it to a tank filling opening, valve means for said vapor withdrawal passage, and a single actuating means movable with respect to said nozzle and interconnecting

said sealing means and said valve so that when said sealing means is contracted said valve is closed and when said sealing means is expanded said valve is opened.

2,843,162
LIQUID DISPENSING NOZZLE AND ADAPTER THEREFOR

Ludwig T. Stoyke, Elyria, and Eugene Bahniuk, Fairview Park, Ohio, assignors to Leer, Incorporated, Grand Rapids, Mich.

Application October 26, 1956, Serial No. 618,578
7 Claims. (Cl. 141—346)



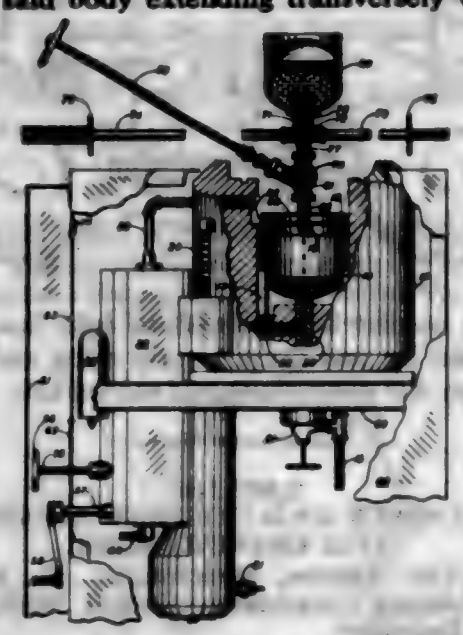
1. A liquid dispensing nozzle adapted for liquid transfer to a vessel having a filling opening provided with a fixed abutment comprising: means for engagement with the abutment for detachably securing the nozzle in the opening, a lever for operating said means between engaged and disengaged positions with respect to the abutment, said means being connected to one end of said lever to constitute the load applied thereto, the other end of said lever being the fulcrum and connected to a shiftable member for movement therewith, bias means normally urging said shiftable member toward a fixed position in the same direction as the direction of the load, means for applying input force of opposite direction to the lever intermediate its ends, a valve, means for operating said valve between open and closed positions respectively for initiating and terminating flow of liquid through the nozzle, means under the control of said shiftable member for locking the valve against movement to open position while the shiftable member is in said fixed position, whereby unless said abutment engaging means is engaged with the abutment there is absent the load which will counterbalance the force of the bias means thereby to permit said bias means to maintain a fixed position of the shiftable member and to maintain said valve locking means effective whereas upon positive engagement of the abutment engaging means with the abutment the input force is effective as to a fulcrum at the said one end of the lever and the shiftable member becomes the load to displace against its spring bias to release the valve locking means.

2,843,163
FILLING DEVICE FOR RADIOACTIVE TRACER INJECTOR

William R. Postlewaite, Menlo Park, Calif., assignor, by mesne assignments, to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Original application July 12, 1951, Serial No. 236,388, now Patent No. 2,758,754, dated August 14, 1956. Divided and this application September 15, 1955, Serial No. 534,467
1 Claim. (Cl. 141—366)

In a device for temporarily connecting a cylindrical radioisotope reservoir having a top opening to a shipping container for a liquid radioisotope, said container having a single passage communicating with the interior thereof, said device comprising a body having a longitudinal passage therethrough, a valve in said passage, an elongated handle for said valve, means at the inlet end of said passage for connecting it to said container when the latter is in an upright position, a conduit at the end of said passage opposite said inlet and, at least one elongated handle for said body extending transversely with respect

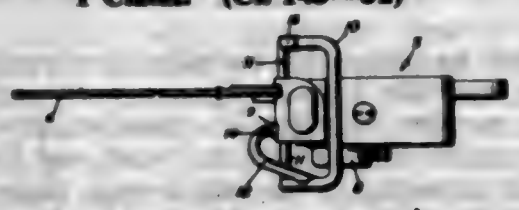


to said body, an outlet conduit for said passage, a hollow cylindrical member having an end wall surrounding said conduit and of such diameter as to circumferentially surround at least the upper portion of said isotope reservoir so that said end wall engages the upper end of said reservoir when said device and said shipping container are inverted over and lowered upon said reservoir, said handles being of such length as to reduce the intensity of harmful radiation from said radioisotope to a safe operating level.

2,843,164
CHAIN SAW

James H. Marsh, Grangeville, Idaho

Application November 1, 1955, Serial No. 544,297
1 Claim. (Cl. 143—32)



In combination, a portable power chain saw machine comprising an internal combustion engine including an exhaust opening to the atmosphere, said machine further comprising a substantially U-shaped tubular handle having closed ends secured to the machine, a pipe having one end connected to one side portion of the handle and communicating therewith, the other end of said pipe being opposed to the exhaust opening for receiving exhaust gases therefrom for delivery to the handle for warming same, the other side portion of the handle having discharge ports therein, and a sleeve valve rotatably mounted on said other side portion of said handle for controlling the discharge ports and the flow of the exhaust gases through the handle.

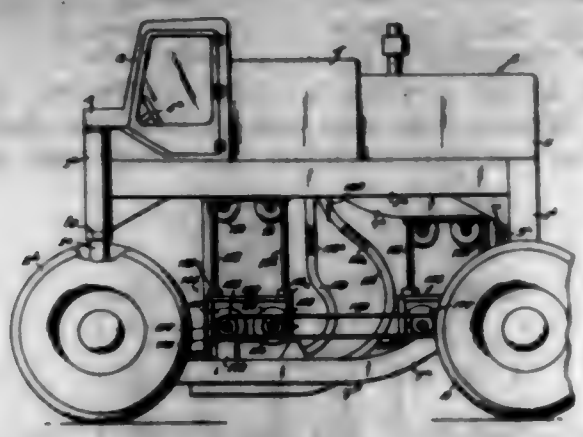
2,843,165
SELF-PROPELLED LOGGING MACHINE FOR CUTTING AND PROCESSING TREES

Emmitt B. Sherron, Raleigh, N. C.

Application March 29, 1955, Serial No. 497,783
17 Claims. (Cl. 143—43)

16. In a self-propelled logging machine, a chassis, a frame, means mounting said frame in said chassis for

pivotal movement about a normally horizontal first axis transversely of said chassis, an open-end drum, means journaling said drum in said frame for rotation about a

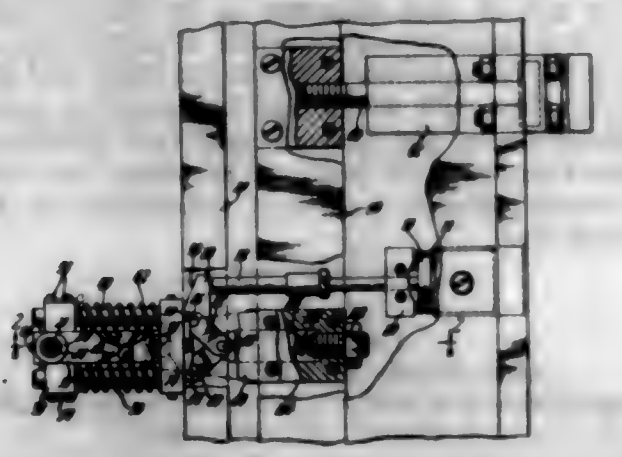


fore-and-aft second axis normal to said first axis, and means carried by said drum to grip a log and move the same through said drum along said second axis.

2,843,166
STUD TRANSFER AND HOLDING MEANS FOR A STUD DRIVING TOOL

Durlin N. Van Alstyne, Syracuse, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 25, 1955, Serial No. 524,044
5 Claims. (Cl. 144—32)



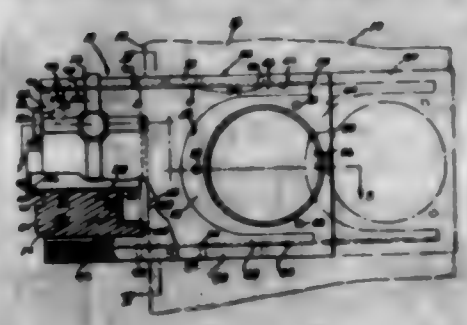
1. Work transfer means including a reciprocal carriage member operable between spaced work stations, said carriage member including jaw members pivotally connected together intermediate their ends and having actuating pins connected to the ends thereof, means engaging said actuating pins at one end of said jaw members for urging said jaw members to a closed position, means engaging said actuating pins at the other end of said jaw members for urging said jaw members to an open position, and means engaged with said jaw members for sustaining said open or closed positions during the transfer of said carriage between said spaced work stations.

2,843,167
UNIVERSAL MORTISE AND BORING JIG FOR DOOR LOCKS

Eugene E. Rushton, Houston, Tex.

Application June 1, 1956, Serial No. 588,771
2 Claims. (Cl. 144—76)

1. In a mortise and boring jig, a block having parallel sides and inner and outer ends, said block having a transverse journal bore opening through said sides, a pair of similar clamping plate assemblies engaged with said sides of the block and extending longitudinally inwardly beyond said inner end of the block, said assemblies having aligned oppositely threaded holes therethrough aligned with said journal bore, a transverse clamping screw journaled in said journal bore and having oppositely threaded end portions threaded in said threaded holes, means on an end of said screw for rotating the screw in opposite directions to move said assemblies toward and away from each other, and means for engaging said block and said assemblies for preventing rotation of the assemblies on the clamping screw, said assemblies comprising relatively stationary mounting plates containing said threaded holes, said mounting plates having inner ends and upper and lower longitudinal edges, and drill bit guide plates positioned at the inner ends of the mounting plates, said guide plates having outer ends, said guide plates having longitudinal arm means

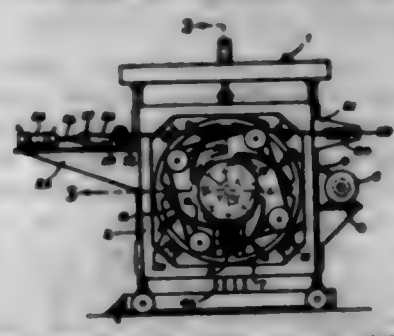


extending outwardly beyond their outer ends and supportably engaged with the upper and lower longitudinal edges of the mounting plates, said guide plates having therein transversely aligned drill bit guide holes, longitudinal rib and groove means acting between said arm means and the upper and lower edges of the mounting plates and mounting the guide plate arm means on the edges of the mounting plates, locking screws traversing said arm means, and detent recesses in the longitudinal edges of the mounting plates selectively engageable by the locking screws to hold the guide plates in longitudinally adjusted relations to the mounting plates.

2,843,168
ROTARY-RING DEBARKER HAVING CABLE-BIASED SPRINGY-BLADE SCRAPERS

Edward O. Lunn, Vancouver, British Columbia, Canada

Application April 22, 1957, Serial No. 654,347
11 Claims. (Cl. 144—208)



1. A bark-removing machine comprising a stator, a ring-type rotor mounted for rotation within the stator, a plurality of arms pivotally mounted adjacent the periphery of the rotor and adapted to swing inwardly, a bark-removing tool carried at the free end of each arm, means carried by each arm and having a cable-receiving rim, a cable extending across the stator in the path of the cable rims as said rims travel around with the rotor, said cable passing around the cable rims, and manually operable means for contracting a bight of the cable around the rims to move said bark-removing tools into engagement with a log being fed through the rotor.

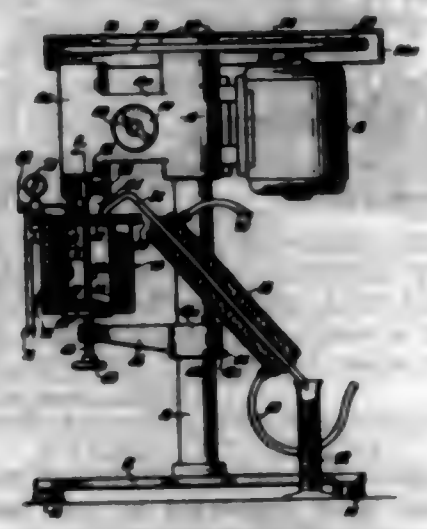
2,843,169
LABORATORY MILL FOR COMMINUTING MATERIALS TO FINE PARTICLE SIZE

Frederick W. Stehr, Atchison, Kans.

Application August 4, 1954, Serial No. 447,877
9 Claims. (Cl. 146—68)

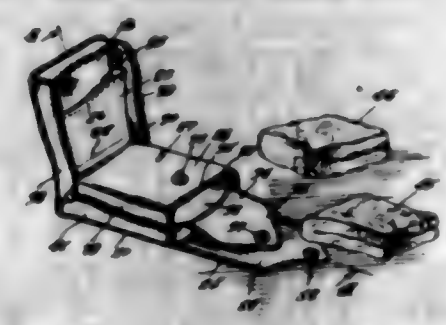
9. In a laboratory mill, a cup, an upright post, an upper arm and a lower arm extending laterally from said post,

one of said arms being swingably mounted on said post to travel in a generally horizontal arc between a first position and a second position, the outer ends of said arms being in vertical alignment in one of said positions, means for releasably clamping said cup between the outer ends of said arms when they are in vertical alignment, said means including, on the upper arm, a centrally apertured cover against which the rim of said cup seats, a power-driven shaft journaled in the upper arm and extending downwardly through the aperture in said cover, a single milling blade on the lower portion of the shaft



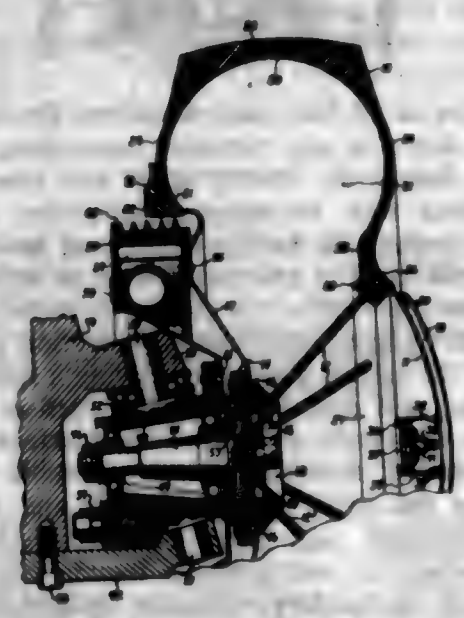
received in said cup, said blade comprising a unitary member having a plurality of arms extending radially from said shaft, each arm being in a plane generally parallel to the bottom of the cup and in close proximity thereto, and the leading edge of each arm being beveled to form an acute angle with the upper surface of the arm and an obtuse angle with the lower surface of the arm, and an annular housing concentric with said shaft and depending from said cover, said housing forming with said cover a downwardly opening cavity for receiving said cup and centering same relative to said shaft.

2,843,178
CARRYING CASE FOR SANITARY NAPKINS
Alvin Frankfurt, New York, N. Y.
Application November 23, 1956, Serial No. 624,120
3 Claims. (Cl. 150—34)



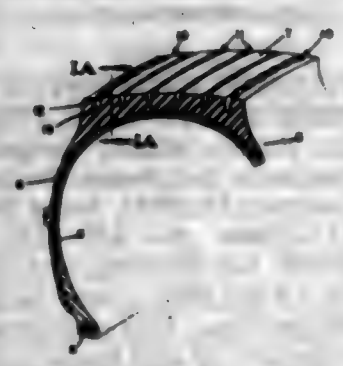
1. A carrying case for sanitary napkins comprising an elongated, rectangular outer layer of flexible material releasable fastening means for securing the inner face of one end of said outer layer to the outer face of the other end, said outer layer when the ends thereof are secured together providing an enclosure having a bottom wall, a central end wall and a top wall, a flexible rectangular housing secured to the top of the bottom wall of said outer layer, the end of said housing remote from said central end wall being open, a flexible closure flap secured to the open end of said housing at the bottom thereof adapted to close the open end of said housing and extending across the top thereof, second releasable fastening means for securing said closure flap in the closed position, a flexible three-sided depending skirt secured to the outer end and opposite longitudinal sides of the top wall portion of said outer layer and extending downwardly substantially one half the height of the central end wall portion thereof, a second three-sided skirt secured to the bottom wall portion of said outer layer along the opposite longitudinal edges thereof and across the end portion thereof remote from the central end portion, slide fastening means for connecting the adjacent edges of said first and second skirts together whereby to completely enclose said rectangular housing, whereby to provide a compact carrying case for sanitary napkins positioned within said housing and to permit the outer layer and first and second skirts to be opened while still enclosing the napkins within said housing and to store the same in a sanitary and airtight manner.

2,843,171
TUBELESS TIRE AND WHEEL COMBINATION
Harold H. Howe, Brooklyn, N. Y.
Application February 21, 1955, Serial No. 499,463
7 Claims. (Cl. 152—9)



5. A pneumatic tire and wheel combination including a rotatable wheel axle and comprising a flexible annular tire member of tubeless construction having tread and side wall portions forming an annular chamber opening radially inwardly, a rigid disc fixed to the wheel axle, a second rigid disc, the free edges of the side wall portions of the tire member being respectively connected in airtight relation to the rims of said discs, at least three equally spaced substantially inextensible conically arranged cable members fixed at one end to said second disc adjacent the periphery thereof, the other ends of said cable members being releasably connected to said first disc in concentric relation with the latter and the wheel axle.

2,843,172
STONE REJECTING TIRE TREAD
Verne H. Berry, Roseville, and Arthur W. Grant, Detroit, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application August 15, 1955, Serial No. 528,288
3 Claims. (Cl. 152—209)



1. In a tire having a rubber tread, a circumferentially continuous inwardly converging anti-skid groove formed

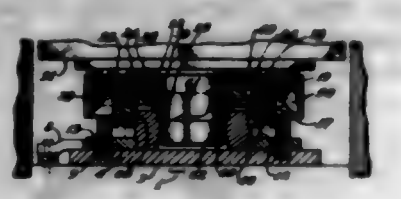
in the surface of said tread, said groove having a tortuously extending outer portion of uniform width at the tire surface and superimposed on and communicating with a circumferentially straight inner portion, the inner portion being restricted in width at the juncture thereof with the outer portion.

2,843,173

BEADING DIES FOR FLANGING AND RIBBING CYLINDRICAL MEMBER

Edwin A. de Voss, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application September 28, 1953, Serial No. 382,638
2 Claims. (Cl. 153—13)



1. Apparatus of the class described for flanging and beading a sleeve in one operation comprising: a movable segmental female die having upper and lower ends and being formed with an internal peripheral shoulder; a stationary female die having upper and lower ends and being counterbored at one end thereof to define an annular shoulder on which the sleeve is bottomed at such times as the flanging and beading operation is being performed on the sleeve; a male die having a radiused shoulder thereon, said shoulder formed to deflect one end of said sleeve outwardly over the outer surface of said internal peripheral shoulder of said movable female die, a flange on the male die outward of and around said radiused shoulder, said flange effective to bear against the top surface of said movable female die; upper and lower female die holders releasably secured to said movable and stationary female dies, each of said upper female die holders being provided with slots at one end thereof; a horizontal support plate having a central aperture therein of sufficiently large configuration to permit said stationary female die to extend therethrough, said movable female die and die holders being mounted on said plate; guide blocks mounted on said plate and having ways formed thereon, said die holders of the movable female die member being effective to travel laterally on said ways; spring means on which said support plate is seated, said spring means being compressed during the forming operation of said sleeve to allow the lower ends of said movable die to bottom on the upper end of said stationary die to define an annular space directly below said internal peripheral shoulder and between the latter and the upper end of said stationary die and into which the sleeve may buckle during a forming operation; cam members effective to engage said die holder slots and against the inward edge of said slots to urge said movable female die parts and die holders laterally inward to their flange and bead forming position.

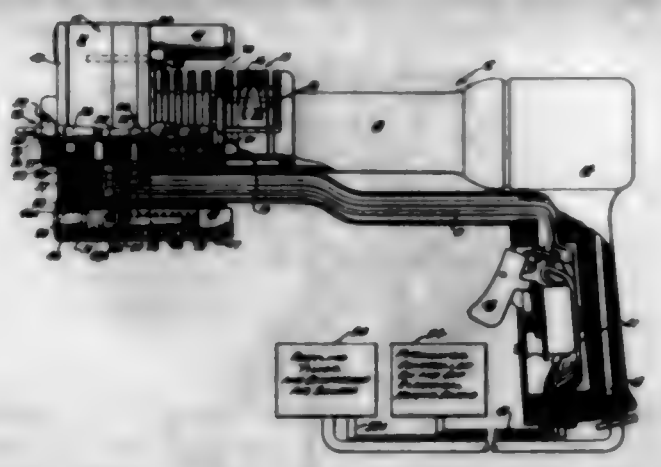
2,843,174

RATTLE TYPE DIMPLE GUN WITH TOOL AND WORK HEATING MEANS

Sterling B. Jones, Puente, Calif., assignor to Douglas Aircraft Company, Inc., Santa Monica, Calif.

Application January 21, 1953, Serial No. 332,178
13 Claims. (Cl. 153—21)

1. A fluid-operated hot-dimpling tool for dimpling in situ an aperture in a fixed sheet, comprising: a main body including a barrel portion; fluid-reciprocatable actuator means disposed coaxially of said barrel portion; forwardly and backwardly reciprocatable supporting means constituting the forward portion of the tool; a heat-conductive male dimple die retractably and protractably mounted in said reciprocatable supporting means and lying coaxially of said actuator means that are in said barrel portion with its rear portion coaxially adjacent the forward end of said actuator means; heat-generating means disposed coaxially of the forward end of said barrel portion and lying radially outwardly of said actuator means and said die; and massive, thermally conductive heat transferring means disposed radially and longitudinally in supporting relationship to said actuator means, die and heat-



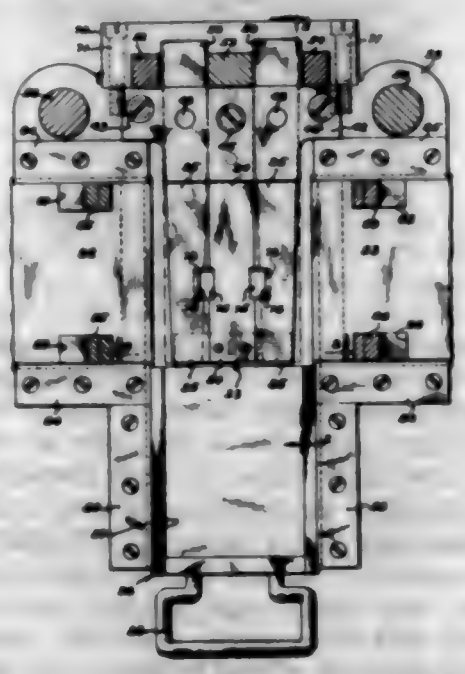
generating means, the rearward portion of said heat transmitting means being supported by said barrel, the forward portion of said heat transmitting means being resiliently connected to the rearward portion of said transmitting means and carrying said die with it in its reciprocation by said actuator, whereby to enable said die to be manually applied to said aperture and said sheet so as to heat same to enable integrative, or crackless and ringless, dimpling of same, upon reciprocation of said actuator-unit.

2,843,175

DEVICE WITH COLLAPSIBLE ARBOR FOR FORMING PARTIALLY FORMED PART INTO BOX-LIKE ARTICLE

Robert H. Black, Chicago, Claude Madera, Berwyn, and Elmer C. Neuhaus, Chicago, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application February 24, 1955, Serial No. 490,212
5 Claims. (Cl. 153—25)



3. In a device for bending a U-shaped part into a box section, the combination of a support, a pair of substantially straight arbor elements mounted on the support for pivotal movement about parallel axes disposed intermediate the ends of the elements, said arbor elements having end portions on one side of the axes and arbor

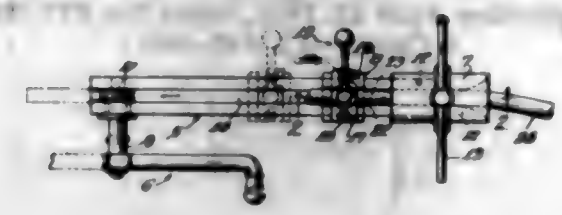
forming portions on the other side of the axes, a member mounted for movement toward and from said support, cam means on said member having cam slots for receiving said end portions and actuating the arbor elements to a predetermined expanded position and to a collapsed position in response to movement of said member toward and from the support and for holding said arbor elements in said expanded and said collapsed positions, means on said support for holding a U-shaped part about the arbor elements, a pair of bending dies slidably mounted on said support, and cam means on said member for actuating the bending dies in timed relation to the movement of the arbor elements to effect the bending of portions of the part about the arbor elements into overlapping relation to each other while the arbor elements are in said expanded position.

2,843,176

DRAW-TYPE TUBE STRAIGHTENER WITH CLAMPING MEANS ALLOWING TUBE TO BE LATERALLY INSERTED AND REMOVED

George E. Franck, Chicago, Ill., assignor to The Imperial Brass Manufacturing Company, a corporation of Illinois

Application August 28, 1953, Serial No. 377,072
4 Claims. (Cl. 153—32)



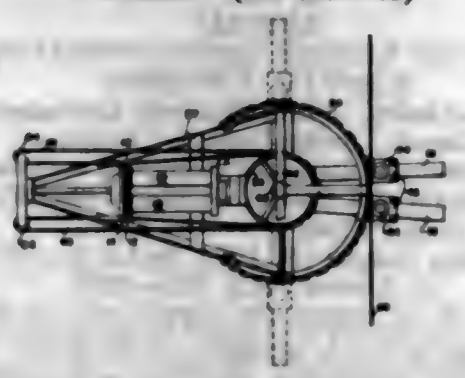
1. In a draw-type tube straightener having an elongated base, means for moving and forming a tube, comprising in combination: a clamping member having an outwardly opening groove; means for moving the clamping member longitudinally on the base; a die member fixedly secured to the base and having an outwardly opening forming groove longitudinally aligned with the clamping member groove, said grooves being arranged to allow the lateral insertion therein of any portion of a tube to be straightened; and removable outer clamping and forming means on the clamping member and die member respectively, the outer clamping means being readily operable alternatively to effect a clamping of a tube during a movement of the clamping member away from the die member and to permit release of the tube and movement of the clamping member and clamping means longitudinally of the tube and toward the die member.

2,843,177

FORMING APPARATUS WITH PIVOTED BENDING ARMS ACTUATED BY FLEXIBLE MEMBERS

William M. Dullett, Miami, Fla.

Application August 31, 1956, Serial No. 607,478
3 Claims. (Cl. 153—45)



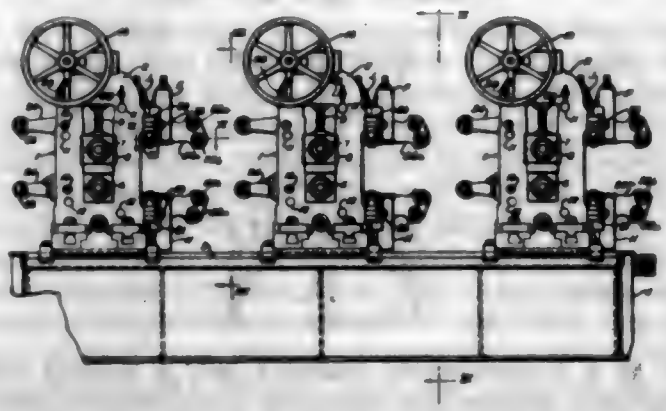
1. A machine for shaping sheet material comprising: a frame member including a supporting standard, a shaping mandrel mounted on said supporting standard, a pair of coaxial plates operatively mounted on said standard for rotation, a pair of juxtaposed arms, one of said arms being mounted on one of said plates and the other of said arms being mounted on the other of said plates for movement by said plates about their axis, said arms having means for contacting the sheet material to exert a force thereagainst, and driving means for causing opposite rotation of said plates to thereby transmit an initial rectilinear force into counter-pivotal movement of said arms, said driving means including pulley means carried by said frame member, a pressure-actuated piston positioned intermediate said pulley means and said plates for producing reciprocatory movement, a first flexible member connected at one end to said piston and extending around one of said plates and said pulley means and connected at its other end to said piston, a second flexible member connected at one end to said piston and extending around the other of said plates in an opposite direction to said first flexible member and around said pulley means and connected at its other end to said piston, said flexible members effecting counter-rotation of said plates by actuation of said piston.

2,843,178

APPARATUS FOR CORRECTING THE CONTOUR OF EXTRUDED OR ROLLED SECTIONS

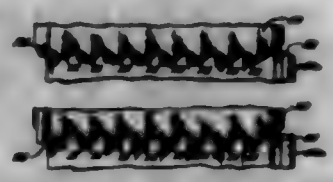
George E. Nighthart, Lewistown, Pa., assignor to Sutton Engineering Company, a corporation of Pennsylvania

Application September 11, 1956, Serial No. 609,137
14 Claims. (Cl. 153—54)



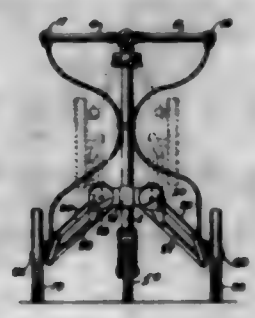
1. Apparatus for correcting the contour of and for recontouring previously shaped metal stock, comprising a roll stand having a pair of housings, a pair of roll spindles journaled in the housings and extending therebetween, each spindle being adapted to have adjustably and removably mounted thereon at least one working roll, means for driving at least one of the spindles, a plurality of horizontal cross members extending transversely between the housings, a plurality of vertically extending cross heads slidably mounted on each cross member, separate means for continuously adjusting the horizontal position of each cross head on its supporting cross member, a separate tool holder detachably and slidably mounted on each cross head, separate means for continuously adjusting the vertical position of each tool holder in its supporting cross head, and an idler roll detachably mounted on each tool holder, at least two of the cross heads being positioned adjacent a roll spindle with their supported idler rolls having their axes in substantially the same vertical plane as the spindle axes, and at least two of the cross heads being positioned on the delivery side of the roll stand with their supported idler rolls adapted to oppose each other and with their axes in a vertical plane parallel to the plane of the spindle axes.

2,843,179
ROLL FORMING APPARATUS FOR METALLIC STRIP, AND METHOD
Allen Dale Wiley and Roy Vogel Russell, Middletown, Ohio, assignors to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio
Application May 23, 1955, Serial No. 510,191
4 Claims. (Cl. 153—77)



1. A roll forming apparatus for preparing metallic strip for formation into helical lock seam pipe, comprising a plurality of stands of complementary forming rolls, the rolls of the first stand adapted to produce a first longitudinal corrugation, the rolls of a number of succeeding stands each adapted to produce an additional corrugation on each side of said first corrugation, a further succeeding stand having rolls adapted to produce a single corrugation adjacent one edge and to partially form a hook element along the other edge, and additional stands having rolls adapted to complete the formation of said hook element, and to form a flange along the edge opposite said hook element.

2,843,180
WALKERS' AIDS
Kenneth Schwartz, Madison, Wis.
Application March 11, 1954, Serial No. 415,568
4 Claims. (Cl. 155—22)



1. In a three-wheeled walker's aid, a vertical frame comprising, downwardly diverging front and rear portions and a brace connecting them, a transverse handle bar having two interconnected foldable members pivoted to said frame, means for locking the two members together and to the frame in different adjustments, a front wheel swivelled to the frame to turn independently of the handle bar, two foldable rear wheels connected to the frame on both sides thereof, and means for maintaining the rear wheels in parallelism with the frame in both their folded and unfolded positions.

2,843,181
ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Ludwig Paschen, Hildesheim, Germany, assignor to Wetzell Gesamtwerke Aktiengesellschaft, Hildesheim, Germany, a company of Germany
Application June 29, 1954, Serial No. 440,019
Claims priority, application Germany July 6, 1953
10 Claims. (Cl. 155—47)

1. A mattress comprising, in combination, a center portion, a first end portion, a second end portion, means hingedly interconnecting said first end portion to said center portion adjacent one side of said center portion, means hingedly interconnecting said second end portion to said center portion adjacent an opposite side of said center portion, and a rigid frame including two substantially parallel spaced vertically extending parts, each of said parts comprising a lower ground engaging member and an upper member, means rigidly connecting said upper and lower members in spaced relation, means removably connecting each of said upper members to one



side of said first end portion with each of said upper members extending generally parallel to its associated side, means rigidly interconnecting said parts to form a rigid frame for supporting said first portion in spaced relation to a surface underlying said lower members.

2,843,182
ADJUSTABLE CHAIR SEAT
Ross G. Stallard, Vallejo, Calif.
Application April 12, 1956, Serial No. 577,785
1 Claim. (Cl. 155—88)

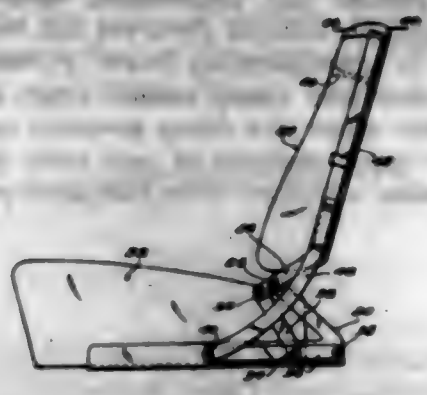


A chair comprising a plurality of legs, a framework securing said legs together, a back extending upwardly from said framework, said back including a pair of spaced upright tubular members connected at their upper end by a horizontal member, a seat structure including a pair of rigid integral loops loosely fitting respectively over said tubular members, a pair of downwardly and rearwardly curving cam bars integrally carried by said seat structure in a position below said loops and in fixed relation thereto, an arcuate foot portion formed integrally on the lower end portion of each of said cam bars, said foot portions having a surface bearing against said tubular members to releasably lock said seat structure in a vertically adjusted position, and a resilient pad fixedly secured to said surface of each of said foot portions.

2,843,183
ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Johannes Luckhardt, Berlin-Dahlem, Germany; Wanda J. F. Luckhardt, Berlin-Dahlem, Germany, sole heir of said Johannes Luckhardt, deceased, assignor to Norman P. Martin and Otto L. Walter, Lake Worth, Fla., trustees of Kappa Trust
Application August 19, 1954, Serial No. 450,869
14 Claims. (Cl. 155—107)

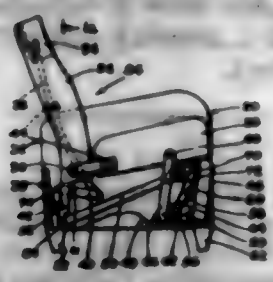
1. An article of repose for supporting the body of a person, comprising: a support, a back-rest structure, means movably connecting said back-rest structure with said support, a head-rest structure slidably engaged with said back-rest structure, a first link swingably mounted

on said support, and a second link pivoted at different regions thereof to said first link and to said back-rest



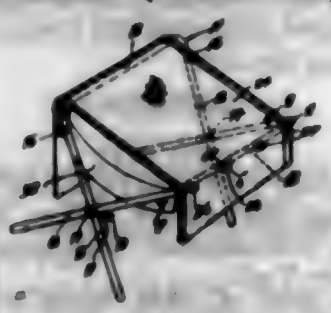
structure, one of said first and second links being pivoted to said head-rest structure.

2,843,184
ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Anton Lorenz, Boynton Beach, Fla.
Application November 8, 1954, Serial No. 467,391
11 Claims. (Cl. 155—167)



2. A reclining chair comprising a support, a seat and back-rest structure rockably mounted on said support for movement between an upright sitting position and a rearwardly-tilted reclining position, a head rest, control means mounting said head rest on said chair for movement between a retracted position adjacent to the top of said back-rest and an extended position spaced above the top edge of said back-rest, said control means including a double-armed lever pivotally mounted intermediate its ends on the support, a guide member pivotally connected to one end of said double-armed lever, the head rest being mounted on said guide member, and drive means operatively engaged with the other end of said double-armed lever and with said seat and back-rest structure, said drive means being responsive to movement of said structure for actuation of said double-armed lever to move said head rest to its extended position when the back-rest structure is tilted to its reclined position.

2,843,185
CONVERTIBLE PACK SACK AND CAMP STOOL FRAME
Bill Clem and Edward J. Gehrke, Lewiston, Idaho
Application May 5, 1955, Serial No. 506,210
4 Claims. (Cl. 155—156)



1. A foldable camp stool convertible to a pack sack frame comprising a pair of U-shaped members having spaced parallel legs united at common ends respectively by first and second crossbars; companion legs of said members being juxtaposed and pivotally united on a common axis parallel with relation to said crossbars; means releasably securing said legs in juxtaposition wherein the members may be employed as a pack sack frame while in the rectangular folded position; a fabric flap extending between and secured at one end to a first crossbar for forming the seat of said camp stool and adaptable as a cover for a pack sack when the frame is in the folded position; fastening means carried by the second crossbar; and other fastening means on said flap cooperable with said first named fastening means and disposed to fix the legs in crossed relationship when serving as a seat supported intermediate the crossbars.

2,843,186
FOLDING CHAIR WITH INDEPENDENT AND AUTOMATIC SEAT FOLD
Gerald V. Spencer, Grand Rapids, Mich., assignor to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application May 16, 1956, Serial No. 585,241
3 Claims. (Cl. 155—142)

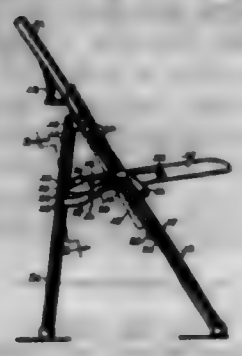


1. In a folding chair: a pair of spaced front legs; a pair of spaced rear legs having their upper ends hingedly connected to the front legs; a seat pivotally mounted between the front legs for swinging movement between a lowered position of use and a raised position of non-use; a pair of arms pivotally connected to the rear legs and extending forwardly beyond the seat's pivotal connections with the front legs and terminating at points beneath the seat in the latter's lowered position; a pair of links having their forward ends pivotally connected to the front legs and their rearward ends pivotally connected to said arms at points between the adjacent front and rear legs; and an operating rod connecting the forward ends of said arms, whereby lifting movement of the operating rod swings the rear legs to folded positions alongside the front legs and swings the seat upwardly to a folded non-use position, and whereby lowering movement of the operating rod unfolds the chair legs and permits swinging movement of the seat between its raised non-use position and its lowered use position.

2,843,187
FOLDING CHAIR WITH INDEPENDENT SEAT FOLD
Edward T. Manne, Erving B. Morgan, Benjamin J. Oom, Gerald V. Spencer, and Gerald L. Weaver, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application May 16, 1956, Serial No. 585,242
5 Claims. (Cl. 155—142)

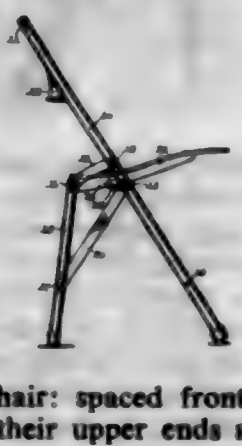
1. In a folding chair: a pair of spaced front legs; a pair of spaced rear legs having their upper ends hingedly connected to the front legs; a seat pivotally mounted between the front legs for swinging movement between a lowered position of use and a raised position of non-use; a pair of links pivotally connected to one pair of legs and extending toward the other pair; a pair of arms pivotally connected to said links and pivotally mounted on the other pair of legs, said arms extending forwardly

beyond the seat's pivotal connections with the front legs and terminating at points beneath the seat in the latter's lowered position; and an operating rod connecting the forward ends of said arms, whereby lifting movement of the operating rod swings the rear legs to folded positions



alongside the front legs and swings the seat upwardly to a folded non-use position, and whereby lowering movement of the operating rod unfolds the chair legs and permits swinging movement of the seat between its raised non-use position and its lowered use position.

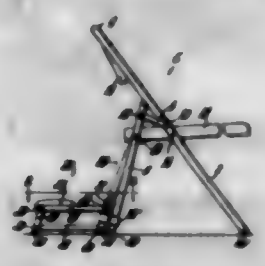
2,843,188
FOLDING CHAIR
Gerald V. Spencer, Grand Rapids, Mich., assignor to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application May 27, 1957, Serial No. 661,916
3 Claims. (Cl. 155—142)



1. In a folding chair: spaced front legs; spaced rear legs terminating at their upper ends at the approximate seat level of the chair; a seat having its rear corners pivotally connected to the rear legs near said rear legs' upper ends and adapted for support on the front legs in the unfolded condition of the chair; upper and lower links connecting the rear legs and the front legs whereby said legs are interrelatively movable between an unfolded position of use and a folded position with the rear legs lying alongside the front legs; and auxiliary links connecting the front legs and the seat whereby lifting of the seat at its front edge effects folding movement of the legs and lowering of the seat at its front edge effects unfolding movement of the legs.

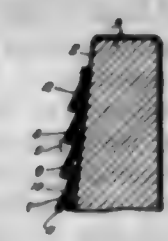
2,843,189
KNEELING STOOL
Samuel D. Lockshin, Northampton, Mass., assignor to Hampden Specialty Products, Inc., Easthampton, Mass., a corporation of Massachusetts
Application March 25, 1957, Serial No. 648,176
1 Claim. (Cl. 155—166)

A kneeling stool construction arranged for connection to the transversely spaced rear legs of a chair and adapted for movement between an upper collapsed position between said legs and a lower self supporting extended position rearwardly of said legs, a pair of elongated inner posts having lower ends for resting on the floor, clamp means for clamping intermediate portions of said posts to said rear legs of the chair whereby said posts are held in transversely spaced relation, lower and upper U shaped links having elongated side arms and outer transverse end portions connecting outer ends of the side arms in transversely spaced relation with the said side arms in substantially parallel and transversely spaced relation, inner ends of the side arms of the lower link being pivotally connected to corresponding lower portions of said inner posts below said clamp means, inner ends of the side arms of the upper link being pivotally connected to corresponding upper portions of said inner posts above said clamp means, a pair of outer elongated posts having



lower ends for resting on the floor, pivotal connections between lower portions of said outer posts and outer portions of the side arms of the lower link and pivotal connections between upper portions of said outer posts and outer portions of the side arms of the upper link, said pivotal connections being relatively disposed to position the corresponding side arms of the lower and upper links in parallelism, and a kneeling pad secured to the upper side of the upper link.

2,843,190
BACK REST ARRANGEMENT
Horst Künzel, Arzberg, Oberpfalz, Germany
Application October 4, 1955, Serial No. 538,345
Claims priority, application Germany October 18, 1954
9 Claims. (Cl. 155—178)

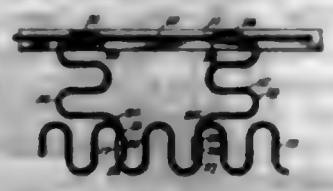


1. In a seating arrangement, a back rest having a back supporting face; and a plurality of parallel transverse cover strips having each a width substantially smaller than the height of said back rest and arranged on said back supporting face of said back rest firmly connected along the upper edges only thereof to said back rest and spaced from each other at a distance smaller than the width of each of said transverse strips, so that the lower transverse edge portion of each transverse cover strip overlaps the upper edge of the next lower transverse cover strip, whereby said lower transverse edge portions of said transverse cover strips are adapted to engage the back portion of a coat or other wearing apparel worn by a person leaning against said supporting face of said back rest and to thereby prevent movement of said back portion of the coat or other wearing apparel relative to said lower transverse edge portions and consequent creasing of said wearing apparel.

2,843,191
AUXILIARY FURNITURE SPRING
William G. Regan, Shrewsbury, Mass., assignor to Kay Manufacturing Corporation, Brooklyn, N. Y., a corporation of New York
Application June 26, 1956, Serial No. 594,060
10 Claims. (Cl. 155—179)

1. An auxiliary side spring adapted to be interposed between a sinuous main spring and a border wire in a spring structure for upholstered furniture, said side spring comprising a pair of similar spaced apart sinuous end

portions each having a plurality of substantially parallel transverse crossbars joined by substantially 180° bends, the crossbars of one end portion being substantially parallel to the crossbars of the other end portion, a sinuous intermediate connecting portion having a plurality of



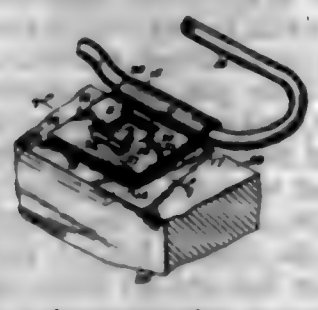
crossbars joined by bends and perpendicular to the crossbars of the end portions, and a right angle bend at each end of the intermediate connecting portion joining the end crossbar of said intermediate portion to a crossbar of the adjacent end portion.

2,843,192

CLIP FOR SINUOUS FURNITURE SPRING

Edwin G. Krakower, Roslyn Heights, N. Y., assignor to Kay Manufacturing Corporation, Brooklyn, N. Y., a corporation of New York

Application September 6, 1956, Serial No. 608,341
6 Claims. (Cl. 155—179)



1. A clip for a sinuous spring comprising a generally cylindrical bend across one end of the clip, said bend extending through an arc of less than 360° and more than 180° to provide a pair of parallel spaced apart edges bounding an opening between the edges for the passage between said edges and through the opening of the end portion of a spring into the interior of the bend by a movement perpendicular to the axis of the bend, a first flat flange extending from one of the edges away from the bend, a second flat flange extending from the other of the edges away from the bend whereby said flanges are arranged in lateral spaced relation to each other at the bend and throughout the flanges, the flanges being substantially identical with and coextensive with each other, each of the flanges having a U-shaped slot therethrough registering with the U-shaped slot of the other flange when said flanges are brought into face to face contact, said slot forming an integral tongue on the flange between the sides of the slot, both of said flanges being adapted to be maintained in face to face contact with each other and thereby to close the opening between said edges by a single staple of approximately the same width as that of the slots with the tongues of both flanges passing under and in contact with the head of the staple.

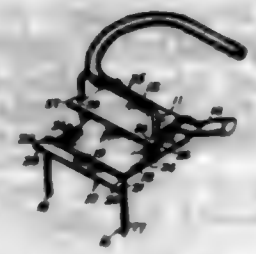
2,843,193

CLIP FOR SINUOUS SPRINGS

William G. Regan, Shrewsbury, Mass., assignor to Kay Manufacturing Corporation, Brooklyn, N. Y., a corporation of New York

Application September 6, 1956, Serial No. 608,398
6 Claims. (Cl. 155—179)

1. A clip for the end of a sinuous spring, said clip comprising an upper flange, a lower flange and a bend integrally joining said flanges, said clip having alternating projections and indentations in the side edges thereof, said indentations reducing the width of the clip at selected parts of said edges to a width less than the greatest width of said flanges, said edges being adapted to cooperate with the legs of a staple straddling the clip and within the indentations and inwardly of the projections for preventing relative movement of the clip and staple,



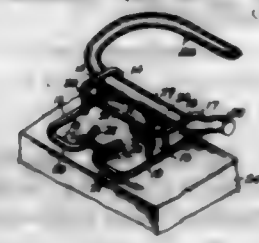
the indentations and projections in one side edge of one flange being opposed to the indentations and projections in the opposite side edge and being aligned vertically with the indentations and projections in the corresponding side edge of the other flange.

2,843,194

WIRE CLIP FOR SINUOUS SPRINGS

William G. Regan, Shrewsbury, Mass., assignor to Kay Manufacturing Corporation, Brooklyn, N. Y., a corporation of New York

Application September 20, 1956, Serial No. 610,972
9 Claims. (Cl. 155—179)



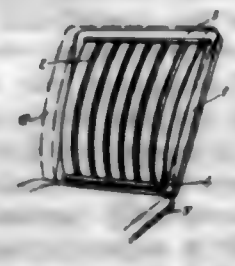
1. A clip of a single length of wire for a sinuous spring, said clip having an upper loop open at the inner end thereof, a pair of lower loops each open at the inner end thereof and each terminating at the outer end thereof in an inwardly extending free end portion arranged at approximately the mid-portion of the upper loop, and a bend joining the inner end of each of the lower loops to the inner end of the upper loop.

2,843,195

SELF-ADJUSTING BACK SUPPORT

Alvar E. A. Barvacus, Eskede, Sweden

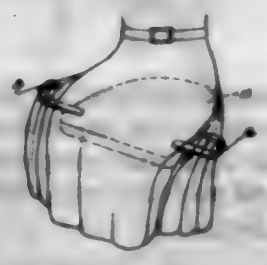
Application January 25, 1956, Serial No. 561,325
4 Claims. (Cl. 155—182)



1. In a seat back the combination of a rigid, panel-like backing, vertically spaced abutments protruding over the front surface of said backing, a plurality of parallelly spaced resilient strip-like members vertically arranged in front of said backing and having their end portions supported by said abutments, the length of each such strip-like member exceeding the distance between the pair of related abutments, and said strip-like members hence being caused to form a resilient arch over a considerable vertical length of said backing, the ends of said arch being so located to said backing and the rise of said arch being so chosen with respect to the resiliency of said strip-like members that a moderate local pressure on each of said members will enable an intermediate point of said arched

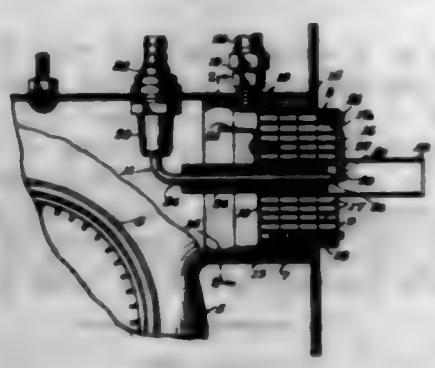
member to be brought into contact with said backing thereby reducing the span of the arch and hence make said reduced arch capable of translatory vertical motion over said backing.

2,843,196
SKIRT HOLDING BRACKET
Arlene Ruth Schauer, Milwaukee, Wis.
Application May 31, 1956, Serial No. 588,368
3 Claims. (Cl. 155—188)



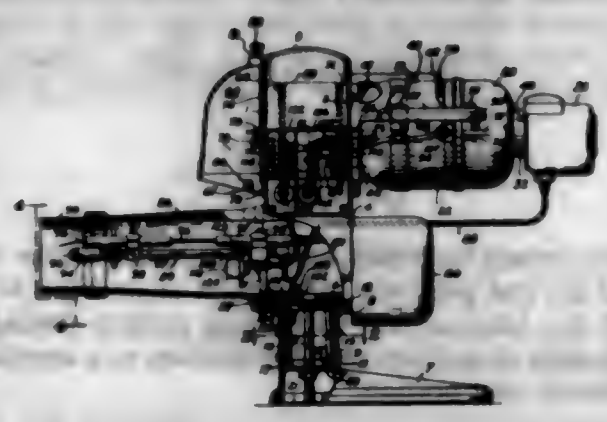
1. The combination with an armless chair having a seat, of a skirt holding bracket attachment for said chair, said attachment having an anchorage portion adapted to be attached to the chair and an upstanding skirt gathering portion, and means fastening the said anchorage portion of the bracket to the chair to dispose said upstanding portion in a position to gather a skirt and hold it out of contact with the floor.

2,843,197
BURNER
Howard B. Snyder, Los Angeles, Calif.
Application December 13, 1954, Serial No. 474,687
2 Claims. (Cl. 158—28)



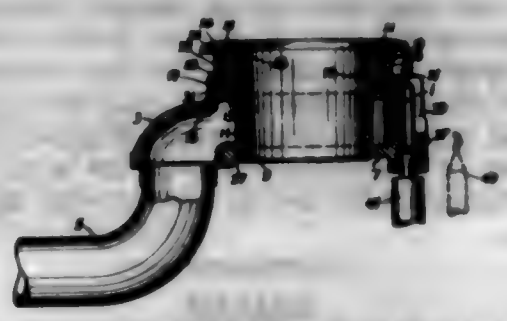
1. A burner structure comprising an air-moving blower having an outlet, said outlet being tubular, a liner tube fitted into said outlet and provided at the end thereof directed toward the blower with an annular liquid fuel-spillage collecting trough, a radial fuel inlet to the interior of said liner tube on the downstream side of the trough, a longitudinally-apertured burner body fitted into the liner tube on the downstream side of the fuel inlet, a splash plate carried on the inner side of said burner body in position to intercept fuel discharged by the inlet, said plate being sloped to guide fuel toward the burner body and being substantially narrower than said body whereby liquid fuel, in excess of what passes into the body apertures, falls gravitationally in front of the body apertures and in position to be picked up by the air stream directed through the outlet, a screen between the apertured body and the splash plate to divide the air stream and the liquid fuel carried thereby into a multiplicity of smaller air streams thereby disseminating the air thus carbureted over the face of said screen and through the apertures in the body, means to ignite the carbureted air as the same leaves the downstream side of the body, said means being carried by the apertured body, and a member in the path of movement of at least part of said smaller air streams to intercept the same and conduct carbureted air in a direction toward the ignition means.

2,843,198
FLUID FUEL BURNER
Reginald W. Beckett, Elyria, Ohio
Application March 14, 1950, Serial No. 149,550
4 Claims. (Cl. 158—76)



1. In a pressure atomizing fluid fuel burner of the type having a structure for pumping air into a combustion chamber, said structure including a hollow housing and an air tube extending from the housing for conducting combustion air to be discharged through one end of the air tube, said burner having ignition electrodes and a fuel supply tube connected together as an assembly and extending through an air tube, a combustion control system contained in a box having captive electrical terminals arranged in a predetermined pattern, a junction box mounted externally on and wholly supported by the air pumping structure, said junction box having an open side and a plurality of fixed electrical terminals exposed on said open side and arranged in a predetermined pattern complemental to the pattern of the control box terminals for mounting of the control box on and over the open side of the junction box and for facile connection of the control box terminals to the junction box terminals in predetermined relation, a light responsive control element, means supporting such control element within the pumping structure in position to receive directly radiant energy admitted into the air tube through said one end, and electrical conductor means extending between the control element and the junction box terminals, said conductor means being located substantially wholly within and protectively enclosed by the pumping structure.

2,843,199
GAS BURNER HEAD
Almer H. Brodbeck, St. Louis, and Harold C. Reinhart, Ferguson, Mo., assignors to Food Giant Markets, Inc., a corporation of New Jersey
Application January 16, 1956, Serial No. 559,455
1 Claim. (Cl. 158—116)



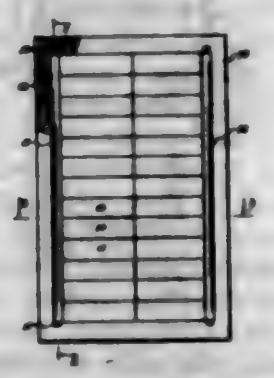
A gas burner head comprising an annular gas-transmitting body having an upper opening and a lower threaded opening, a tube threaded into said lower opening extending with substantial clearance through the upper opening, an outwardly directed flange on the tube above the upper opening, an inward annular seat located around said upper opening, an inwardly uninterrupted cylindric marginal sleeve extending up from said seat part way to said flange, an externally uninterrupted cylindric ring extending between the seat and the flange and spaced a

substantial distance outward from the tube and a relatively small distance inward from the sleeve, said ring extending vertically across the space between the upper end of the sleeve and said flange and having a lower tier of openings within the sleeve, which openings are of relatively small individual and total areas, and an upper tier of ports exposed in said space, which ports are of relatively large individual and total areas and being vertically elongate, a circular screen telescoped within said ring and covering said elongate ports, the space between the sleeve and the ring being characterized by the absence of any transverse obstruction thereacross, whereby there is provided a small continuous ring of flame at the upper end of said sleeve and beneath said elongate ports and positioned within upward flow of secondary air from the outside of the sleeve for unimpeded aeration of gas flowing from the elongate ports, said tube, ring and screen being freely removable from the body by unthreading the tube.

2,843,208
FUEL OILS
Albert G. Bocchini, Springdale, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application May 18, 1954
Serial No. 428,841
7 Claims. (Cl. 158—117.5)

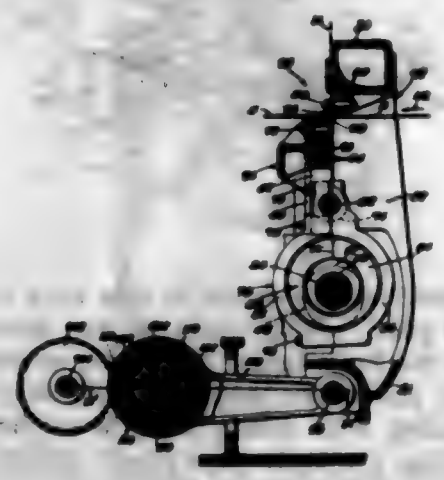
5. In a process for burning a residual fuel oil yielding a corrosive vanadium-containing ash, wherein the ash corrosively attacks the materials of the combustion zone, the method of retarding said corrosive attack which comprises uniformly blending with said fuel oil, at least at the point of combustion thereof, a finely divided precipitated hydrated calcium silicate, and subjecting the blend to combustion.

2,843,291
FLEXIBLE DOOR
Omer J. Laubenthal, Elyria, Ohio
Application November 28, 1955, Serial No. 549,367
1 Claim. (Cl. 160—354)



A door comprising, a plurality of flexible and resilient strips normally disposed side by side in a common plane and in substantially edge to edge relationship to close a doorway, each of said strips having a supporting end and a free end, a rigid member rigidly secured to the supporting ends of said strips and normally holding the strips in said plane, each of said strips being relatively inflexible in the direction of said plane and relatively flexible in each of the opposite directions transverse to said plane independently of at least one of its next adjacent strips whereby its free end may be independently moved from said plane through contact of an object therewith to permit the object to pass through the doorway, each of said strips being resilient to return the free end thereof to said plane after the object has passed through the doorway to close the doorway, means for pivotally mounting said rigid member for pivotal movement between open door and closed door positions, and releasable latch means for holding said member in one of said positions.

2,843,362
APPARATUS FOR SYNCHRONIZED INTERMITTENT PERFORMANCE ON STOCK OF VARIABLE FEED RATE
Karl W. Hallden, Thomaston, Conn., assignor to The Hallden Machine Company, Thomaston, Conn., a corporation of Connecticut
Application January 15, 1957, Serial No. 634,259
23 Claims. (Cl. 164—49)

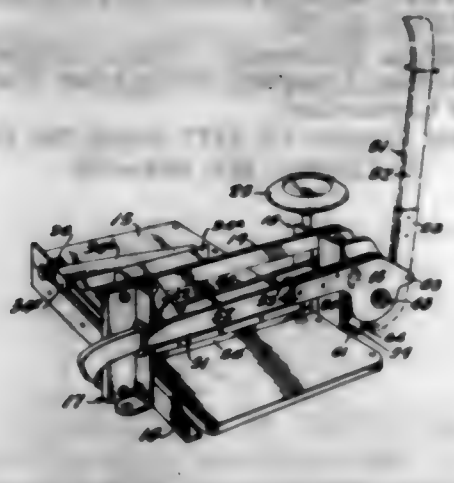


1. In apparatus of the kind described, the combination with operating eccentric means, and a frame carrying a tool and being turnable on said eccentric means so as to reciprocate said tool into and from recurring operating relation with fed stock on the drive of said eccentric means relative to said frame, of two synchronizing eccentrics of which an inner one is turnable about a fixed axis and an outer one is turnable on said inner eccentric; a follower strap on said outer eccentric pivotally connected with said frame remote from said eccentric means; means for independently angularly adjusting said synchronizing eccentrics into different dispositions relative to each other and to said operating eccentric means; and means for driving said synchronizing eccentrics jointly in any of said relative dispositions in time relation with said operating eccentric means, whereby superimposed oscillatory motions imparted to said frame by said synchronizing eccentrics result in synchronized motion of said tool with the fed stock at its recurring operations thereon at different relative feeding and driving speeds of the stock and operating eccentric means, respectively, on adjustment of said synchronizing eccentrics into correspondingly different relative dispositions.

2,843,283
CUTTER MECHANISM
Frederick S. Young, Toledo, Ohio
Application March 1, 1956, Serial No. 568,874
4 Claims. (Cl. 164—57)

1. In a cutter mechanism for a stack of paper or the like comprising a frame having a flat bed, uprights secured to said frame and arranged on opposite sides of said bed, vertical channels in said uprights respectively, a knife disposed transversely of said bed and guided by said channels in its vertical movement, a tie bar connecting the upper end portions of said uprights, means suspending the knife from the tie bar, a crank arm, means connecting one end of the crank arm to the knife, a shaft fixed to the other end of said crank arm, means rotatably supporting said shaft in one of said uprights, a ratchet wheel secured to said shaft, a lever handle for actuating said ratchet wheel, side plate means carried by said handle and disposed adjacent said ratchet wheel and rockable upon said shaft, a stationary cam plate upon said shaft,

said cam plate having a uniformly curved periphery except for a relieved portion, said relieved portion being of less diameter than the root diameter of the ratchet wheel, a spring tensioned pawl carried by said side plate means for operative engagement with said ratchet wheel only upon encountering the relieved portion of said cam



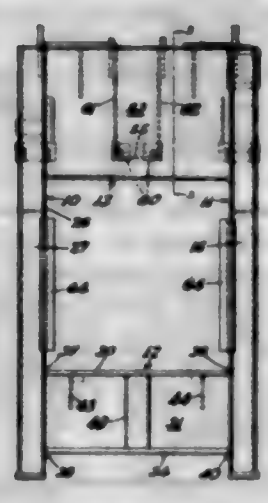
disc, said pawl being disposed to ride over the periphery of said cam plate, whereby step by step cutting action is imparted to the knife by up and down movement of the lever handle, and means actuated by the side plate means and cooperating with means on said ratchet wheel for abruptly raising the knife by a single rocking movement of the lever handle to an extreme position.

2,843,204

STRAIGHT SIDE PUNCH PRESS

Frederick E. Munschauer, Buffalo, N. Y., assignor to Niagara Machine & Tool Works, Buffalo, N. Y.

Application February 27, 1953, Serial No. 339,417
3 Claims. (Cl. 164—86)



3. In a punch press of the straight side type, a pair of laterally spaced generally vertical side column members extending substantially the height of said press at opposite sides thereof, each of said column members including an inner wall extending generally from the front to the rear of said punch press, a die receiving bed between said side column members at their lower portions and fixed against said inner walls, a crown between said side column members at their upper portions and likewise fixed against said inner walls, each of said column members having a pair of vertical channel members disposed adjacent to the front and rear vertical edges of the inner wall member thereof with the outer edges of the flanges of each channel member in abutment with and welded to the interior surface of said inner wall, said pair of channel members being spaced from each other from front to rear of said press, said inner walls being substantially thicker than the walls of said channel members.

2,843,205

APPARATUS FOR PUNCHING CORRUGATED METAL PLATES

Gerald G. Greulich, Pittsburgh, Pa.

Application July 5, 1956, Serial No. 596,071
3 Claims. (Cl. 164—90)



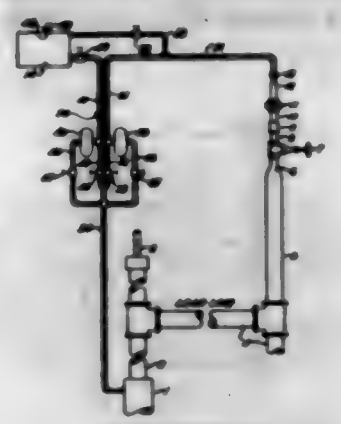
1. Apparatus for punching openings through the sides of corrugations of a corrugated plate, comprising laterally spaced parallel dies adapted to fit into those corrugations and having punch-receiving openings in their sides, means adapted to press the plate against the dies between their sides, punches in the spaces between the dies and projecting laterally toward adjacent dies, some of said punches projecting in one direction and the others projecting in the opposite direction, and means for reciprocating all of the punches in unison transversely of the dies to enable some of the punches to punch plate corrugations when the punches move in one direction and to enable the rest of the punches to punch plate corrugations when the punches move in the opposite direction.

2,843,206

PROCESS AND APPARATUS FOR REDUCING CORROSION IN OIL WELLS

John F. McNamara, Wichita, Kans., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application October 23, 1956, Serial No. 617,760
12 Claims. (Cl. 166—1)



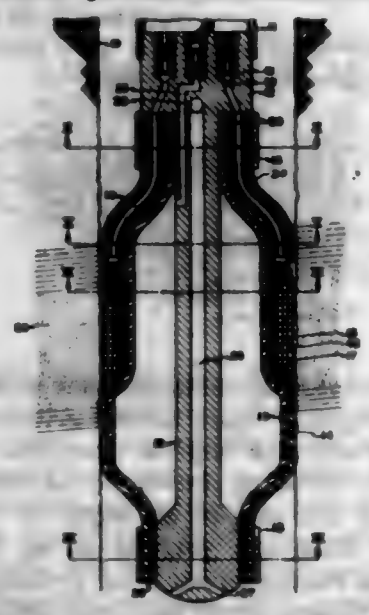
1. In the operation of a well producing both oil and water and having a high ratio of water to oil, the said well comprising an outer casing, an inner tubing and a lead line extending from the upper portion thereof, a pump located within the tubing to pump the oil and water upward therethrough, and an annular space between casing and tubing, the method of reducing corrosion which comprises: continuously withdrawing from the upper part of the lead line a small stream of oil at a velocity low enough to effect gravity separation of said oil from accompanying water; introducing a small proportion of corrosion inhibitor into the withdrawn oil; continuously introducing the mixture of withdrawn oil and corrosion inhibitor into the said annular space and causing it to flow downward therein to the bottom of the tubing and pumping the same upward therethrough to the lead line in company with newly-produced oil and water.

2,843,207
HYDROCARBON RECOVERY PROCESS
Dayton H. Clewell, Darien, Conn., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., New York, N. Y., a corporation of New York
No Drawing. Application October 25, 1956
Serial No. 618,182
8 Claims. (Cl. 166—4)

1. In the process for the recovery of hydrocarbon material from a subterranean formation containing hydrocarbons and having an input well leading thereto and at least one output well leading therefrom wherein combustion of hydrocarbon material within said subterranean formation is initiated, combustion supporting gas containing a combustion supporting medium is passed into said subterranean formation through said input well in the direction of an output well and as a result thereof a flame front preceded by combustion gas and hydrocarbon products recoverable from an output well migrate through said subterranean formation from said input well in the direction of said output well and gas issues from said subterranean formation through said output well, the steps comprising determining the time required for gas to pass through said subterranean formation from said input well to said output well, passing into said subterranean formation through said input well in addition to said combustion supporting gas tritium in known amount with respect to said combustion supporting gas whereby said tritium in admixture in known amount with said gas advances through said subterranean formation from said input well in the direction of said output well, analyzing at a time subsequent to passing said tritium into said subterranean formation and equal to said time required for gas to pass through said subterranean formation from said input well to said output well gas issuing from said output well for the amount with respect to said gas of tritium contained therein whereby the presence of tritium in undiminished amount with respect to said gas compared with the amount of tritium with respect to said combustion supporting gas passed into said input well indicates the absence of a flame front within said subterranean formation across the entire path of flow of gas between said input well and said output well, the presence of tritium in partially diminished amount with respect to said gas compared with the amount of tritium with respect to said combustion supporting gas passed into said input well indicates the presence of a flame front in said subterranean formation across a portion of the path of flow of gas between said input well and said output well, and the absence of tritium in said gas indicates the presence of a flame front in said subterranean formation across the entire path of flow of gas between said input well and said output well, and thereafter changing the rate of flow of said combustion supporting medium into said input well through said subterranean formation in the direction of said output well such that said rate of flow may be increased to eliminate discontinuity in the flame front in said subterranean formation between said input well and said output well in the event the flame front has any such discontinuity across the path of flow of gas between said input well and said output well and said rate of flow may be decreased to create discontinuity in the flame front in said subterranean formation between said input well and said output well in the event the flame front is present across the entire path of flow of gas between said input well and said output well.

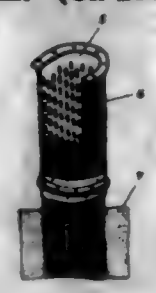
2,843,208
INFLATABLE PACKER FORMATION TESTER WITH SEPARATE PRODUCTION POCKETS
Robert H. Blood, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application January 22, 1954, Serial No. 405,587
3 Claims. (Cl. 166—100)

1. An improved formation tester which comprises an elongated mandrel attachable at its upper end to the lower end of a string of well pipe, an inflatable elastic packer surrounding and extending along said mandrel, a plurality of elongated elastic strip members overlying and extending along said packer, said strips being arranged side-by-side around said packer, reinforcing means in a portion of each said strip member such that said portion is substantially incapable of longitudinal stretching, another portion of each said strip member



being unreinforced, means for clamping the upper and lower ends of said packer and of each said strip member against said mandrel, a recessed pocket in the exterior surface of the reinforced portion of each said strip member, interconnected filling material supported within each recessed pocket to render the pocket non-collapsible, a separate non-collapsible flexible conduit enclosed within said reinforced portion of each said strip member and connected at one end to each said pocket and leading exteriorly of said packer to the upper end of said tester.

2,843,209
FILTER, ESPECIALLY FOR PIPED WELLS
Wilhelm Degen, Frankfurt am Main, Germany
Application December 27, 1952, Serial No. 328,219
Claims priority, application Germany December 29, 1951
5 Claims. (Cl. 166—228)

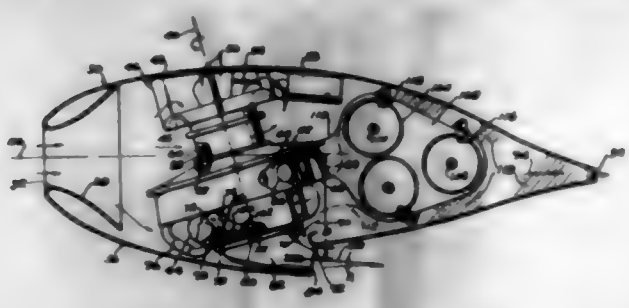


1. A unitary filter consisting of a perforated member and a permeable filter body of granular material, said granular material being cemented together by an insoluble binding agent and being permanently adhered to the perforated member.

2,843,210
ANGLE MOUNTED TIP ENGINE FOR AIRCRAFT SUSTAINING ROTOR
Robert K. Grove, Grosse Pointe Farms, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan
Application July 28, 1954, Serial No. 446,269
17 Claims. (Cl. 170—135.4)

1. An aircraft propulsion mechanism comprising a propelling blade serving as a load sustaining member and rotatable in one angular direction in a horizontal plane, a tip mounted aerodynamic pod secured to the blade for movement therewith and defining front and rear open-

ings in substantial alignment in their paths of motion with respect to one another, a gas turbine unit mounted between said openings within said pod and having vertically spaced apart compressor and turbine rotors provided with a common power shaft, said unit having an exhaust stack discharging in a jet opening in the bottom of the pod and in a direction rearwardly and slightly downwardly so as to produce a translatory thrust having



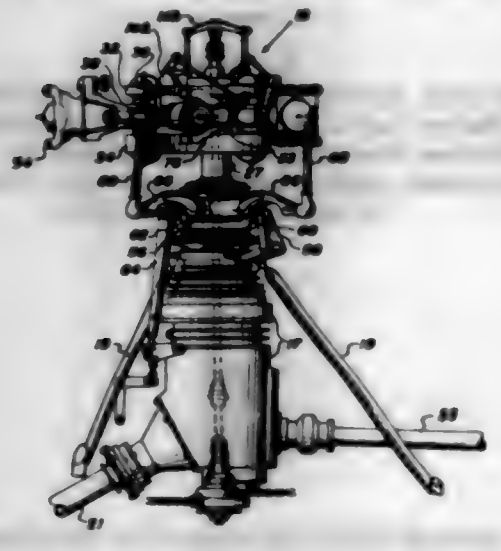
a positive blade twisting moment viewed from a reference point, said power shaft having a direction of rotation opposite to said one angular direction with the axis thereof normally inclining forwardly in the longitudinal vertical plane of the pod at an angle in excess of approximately 4° from the vertical so as to produce a gyroscopic blade twisting couple of precession of negative moment as viewed from said reference point.

2,843,211

AUTOMATIC TAIL ROTOR CONTROL

Edward Kottnieper, Fairfield, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application December 28, 1954, Serial No. 478,095
9 Claims. (Cl. 170—135.22)



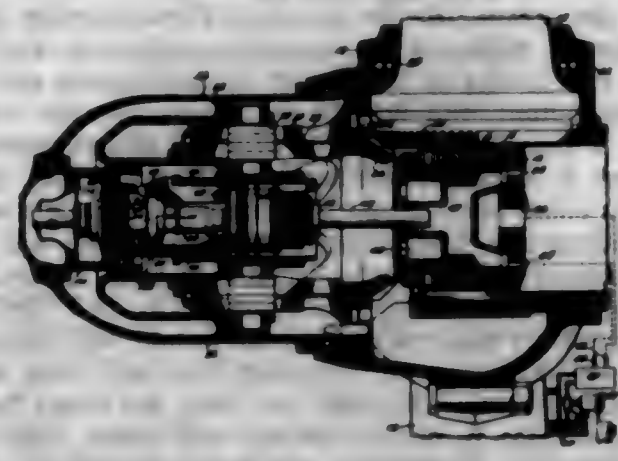
1. In a rotary wing aircraft, a main sustaining rotor having a plurality of blades mounted on drag hinges for lag-lead movements in the plane of blade rotation, an anti-torque rotor having variable pitch blades, means for varying the pitch of said blades to vary the thrust of said anti-torque rotor, mechanism operatively connecting the blades of said main and anti-torque rotors for automatically adjusting the pitch of the latter in response to lag-lead movements of said main rotor blades about their drag hinges due to changes in torque of said main rotor, said mechanism including a reciprocating member operatively connected to said pitch varying mechanism, a multi-armed star pivotally mounted on said member having an arm for each blade of said main rotor, and linkage means connecting one arm of said star to each blade of said main rotor at a point removed from the axis of its drag hinge.

2,843,213

PROPELLER PITCH STOP LOCK

Raymond P. Lumbock, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application March 1, 1954, Serial No. 413,188
10 Claims. (Cl. 170—160.32)



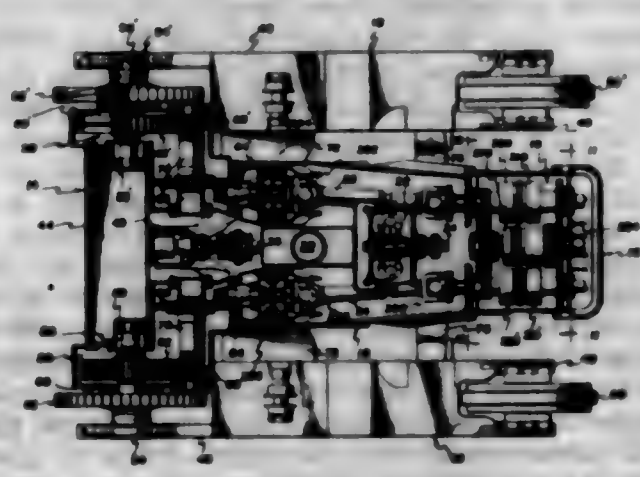
1. The improvement in stop mechanism for pitch changing mechanism comprising stop means projectable into the path of a portion of the pitch changing mechanism, projecting means operatively connected with said stop means for projecting and locking said stop means, power means operatively connected with said projecting and locking means for withdrawing said projecting and locking means from projecting and locking position, means operatively connected with said power means for at least partially returning said power means to an intermediate position with said projecting and locking means withdrawn and means operatively connected with said projecting and locking means for snapping said projecting and locking means into projecting and locking position while said power means is in an intermediate position and means connected with said power means and positioned by said returning means to a position adjacent said projecting and locking means for holding said projecting and locking means in locking position.

2,843,213

MATERIAL HANDLING MACHINE

Daniel M. Schwartz, Salt Lake City, Utah, assignor, by mesne assignments, to The Elmco Corporation, Salt Lake City, Utah, a corporation of Delaware

Application August 28, 1953, Serial No. 377,125
4 Claims. (Cl. 180—53)

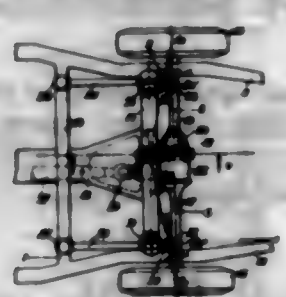


1. A mobile material handling machine having a sectional main frame comprising a front part carrying a traction unit transmission, a center part removably secured at its forward end to the front part, a motor mounted in said center part and drivably connected to the traction unit transmission in the front part, a rear part removably secured to the center part, said rear part including a pair of transversely spaced final drive housings and a transverse spacer frame between said final drive

housings, opposed final drives for the traction unit in said final drive housings, at least one torque shaft, and means drivably connecting the torque shaft to the traction unit transmission at one end and the final drives at the other end.

3. The invention defined in claim 1 including a second transmission carried by the transverse spacer frame and drivably connected to said motor in the center part and having connection with a material handling device.

2,843,214
VEHICLE WHEEL SUSPENSION
Josef Müller, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application February 24, 1956, Serial No. 568,323
Claims priority, application Germany March 12, 1955
7 Claims. (Cl. 180—73)



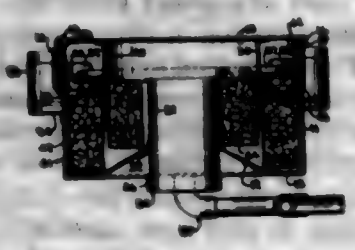
1. In a vehicle, the combination comprising a vehicle body, a bracket attached thereto, a pair of half axles hinged to said bracket only for oscillation about a substantially horizontal axis extending lengthwise of the vehicle, wheels journalled on said half axles, each of said half axles being provided with engagement means, and springing means interposed between said body and each of said half axles and engaging said engagement means at a supporting point, said supporting point being substantially located in a vertical plane extending through the center of the associated one of said wheels and through said bracket, said plane extending at an acute angle to a vertical transverse plane of said vehicle.

2,843,215
AUTOMATIC PRECIPITATOR CONTROL
Rudolf G. Streuber, Somerville, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York
Application July 2, 1953, Serial No. 365,682
14 Claims. (Cl. 183—7)



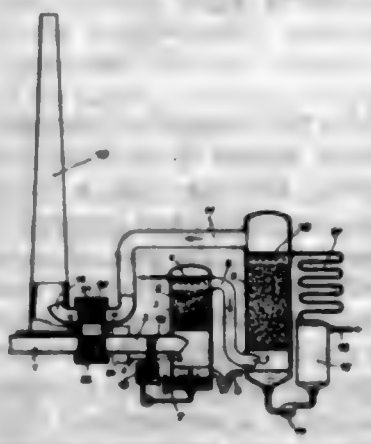
1. A system for supplying high voltage direct current to the electrodes of a high voltage electrical precipitator comprising a transformer having a core comprising two end yokes and between the end yokes a main leg carrying primary and secondary coil windings, two adjacent and mutually similar legs each carrying half of a saturating winding and a high reluctance leg which includes an air gap, whereby when no current flows through the saturating winding the magnetic circuit through the main leg is completed by said two similar legs in parallel and when a high current flows through the saturating winding the magnetic circuit through the saturating winding is completed by said high reluctance leg, means for rectifying the output of the secondary winding and applying it to the electrodes of the precipitator, and means for deriving a control voltage from said rectified output and applying it to the saturating winding whereby the output of said secondary winding is controlled by said saturating winding in response to variations in the voltage condition at the precipitator electrodes.

2,843,216
AIR FILTER AND HUMIDIFIER
William N. Powell, Barstow, Calif., assignor of twenty-five percent each to Darrel A. Rush, Urban H. Harter, and George H. Thompson
Application May 13, 1954, Serial No. 429,654
5 Claims. (Cl. 183—12)



1. An air filtering and humidifying device comprising a cylindrical casing apertured adjacent its upper edge to form air inlet vents, a removable cover mounted on and closing the top of said casing, a bottom for said casing, an air outlet conduit extending up through the bottom of said casing, a cylindrical baffle projecting down from said cover outside said conduit and having its bottom edge positioned substantially above said bottom of said casing, a first filter medium disposed between said baffle and said casing, a second filter medium disposed between said baffle and said conduit, said filter media being discrete, a perforated tube lying inside said casing and outside said baffle above the top of said first filter medium adjacent said air vents, and means for forcing water into said tube to spray water over said first filter medium, said first filter medium being relatively non-absorbent of water and said second filter medium being water absorbent.

2,843,217
GAS SEPARATING PLANT
Robert von Linde, Planegg, near Munich, Germany
Application February 9, 1953, Serial No. 335,685
Claims priority, application Germany February 21, 1952
3 Claims. (Cl. 183—34)



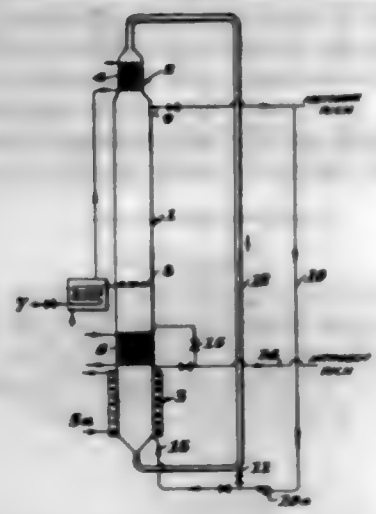
2. A plant for disposing of hot waste gases containing sulphurous constituents comprising a first gas duct for hot waste gas, a first wet gas washer connected to said first duct, means for supplying wash water to and discharging wash water therefrom, a second wet gas washer connected to receive gas from said first gas washer, means for supplying said second gas washer with a liquid for absorbing sulphurous constituents from the gas, a second gas duct connected to receive the gas from said second gas washer, a chimney connected to said second gas duct, a heat regenerator mounted to rotate on an axis between said two ducts and to intersect said ducts, means for rotating said heat regenerator, and a dust filter in said first gas duct.

2,843,218
AIR CLEANER
Elmer C. Kiekhaefer, Cedarburg, Wis.
Application July 16, 1956, Serial No. 598,186
6 Claims. (Cl. 183—71)



1. In an air cleaner, the combination of: a base member forming air inlet and outlet openings; a substantially cone shaped filter having a corrugated paper filtering element secured at its edges to outer and inner annular rings carried by said base member; a flame arrestor having inner and outer edges secured to a washer and cylindrical collar respectively mounted on said outer and inner annular rings respectively; means for securing said washer and said inner ring to said base member; and means including a cover cooperating with said outer ring and said collar for securing said cover, said collar and said outer ring to said base member.

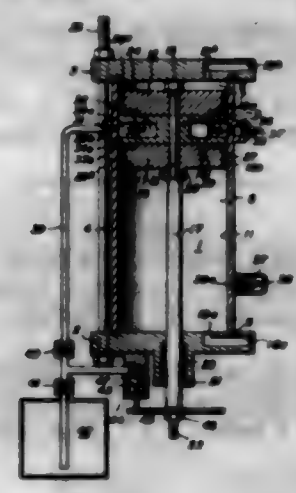
2,843,219
REMOVAL OF NITROGEN FROM NATURAL GAS
Henry W. Habgood, Edmonton, Alberta, Canada, assignor to Canadian Patents and Development Limited, Ottawa, Ontario, Canada
Application January 22, 1957, Serial No. 635,232
10 Claims. (Cl. 183—114.2)



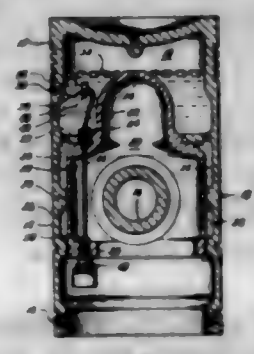
1. A method for the removal of nitrogen from gaseous mixtures consisting mainly of methane, comprising: contacting the gaseous mixture with a suitable molecular sieve in which the interstitial and intracrystalline passages are such that the ratio of the rate of sorption to partial pressure is initially greater for nitrogen than for methane; removing the gaseous mixture from contact with said molecular sieve material before the proportion of sorbed methane to sorbed nitrogen exceeds a predetermined value and before equilibrium is approached; and recovering an unsorbed fraction of said gaseous mixture which is rich in methane and which contains a substantially reduced proportion of nitrogen.

2,843,220
GREASE-LUBRICATED AIR POWER CYLINDER
Neville Rupert Anderson, Edgecliff, New South Wales, Australia
Application July 8, 1954, Serial No. 442,097
Claims priority, application Australia July 20, 1953
11 Claims. (Cl. 184—18)

1. In a grease-lubricated air power cylinder providing a chamber, a piston operable in said chamber, said piston having peripheral packings and between said packings space for a substantial quantity of grease, said chamber between the piston at the end of full stroke and the adjacent end of the chamber constituting additional space for grease, the wall of the chamber in the path of the piston having a fine aperture, said aperture being communicated with said spaces one at a time by movement of the piston, and grease inlet means with which said aperture is connected and through which said spaces are periodically charged with grease.



2,843,221
FORCE FEED LUBRICATING DEVICE FOR PISTONS
John M. Haring, Ponca City, Okla., assignor to Nickles Machine Corporation, Ponca City, Okla., a corporation of Oklahoma
Application May 4, 1955, Serial No. 505,961
6 Claims. (Cl. 184—18)

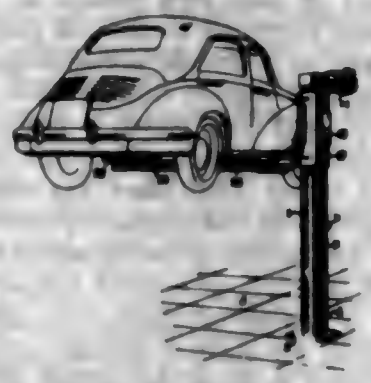


1. A force feed lubricator for a piston having an upper lubricant reservoir chamber and a lower chamber provided with a passage from the lubricant reservoir chamber to the lower chamber comprising, a pump cylinder rigidly mounted interiorly of the piston and provided with a bore therethrough, a plunger reciprocally mounted in the bore, the plunger having sufficient mass whereby it moves relative to the pump cylinder on reciprocation of the piston, said piston provided with an outlet through its wall, a conduit connecting the outlet with the bore of the pump cylinder, a first check valve in the outlet permitting outflow of lubricant but preventing inflow thereof, said conduit provided with an inlet in the upper lubricant reservoir chamber, and a second check valve in the inlet permitting inflow of lubricant into the conduit but preventing outflow thereof whereby reciprocation of said piston effects a pumping action of said plunger whereby lubricant flows into the conduit and is pumped through the outlet.

2,843,222
LIFTING DEVICE
Julio Villars, Versoix-Geneva, Switzerland
Application January 18, 1954, Serial No. 404,646
Claims priority, application Switzerland January 17, 1953
15 Claims. (Cl. 187—8.41)

1. A lifting appliance for vehicles and the like comprising a single column having a rear face and a front

face, said column consisting of two H-shaped irons, each having upper and lower soles and a stem positioned therebetween, each of said upper and lower soles having inner and outer surfaces, the upper sole and the lower sole of each said iron consisting of an external flange and an internal flange, the respective internal flanges of said upper soles being joined and the respective internal flanges of said lower soles being joined, whereby said respective stems and said respective joined internal flanges form a hollow within said column extending the length of said column, said outer surfaces of said joined upper soles and said joined lower soles constituting said rear face and said front face, respectively, said rear face having a vertical slot, an actuating screw suspended in said column between said stems and said joined internal flanges from the upper end of said column, a cylindrically shaped actuating nut engaging said screw, a lifting member horizontally disposed with respect to said column, a tubular sliding member positioned about said column,



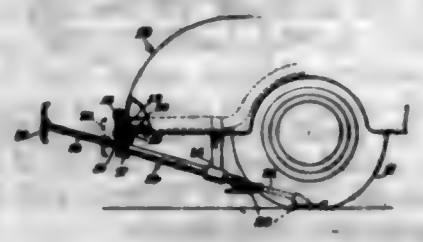
said lifting member being carried by said sliding member, means for supporting said sliding member about said column, said means including a U-shaped member engaging said nut, and arm members connected to said U-shaped member, said supporting means being movably positioned in said column between said stems and said joined internal flanges and in said slot, said arm members being also connected to said sliding member roller means for guiding said sliding member along said column, said roller means being operatively connected to said sliding member at the inner surface thereof and engaging the inner surfaces of said external flanges, at least one vehicle bearing member removably positioned on said lifting member, whereby a vehicle may be easily raised and lowered and the actuating means for so raising and lowering said vehicle may be protected from dirt and grease and water, and whereby the actuating means will not be subjected to damage when the lifting member contacts a foreign object.

2,843,223
LIFTING APPLIANCE
Julio Villers, Versoix-Geneva, Switzerland
Application October 24, 1955, Serial No. 542,405
Claims priority, application Switzerland October 30, 1954
16 Claims. (Cl. 187—8.47)



1. A lifting appliance comprising a platform, an actuating screw, a nut mechanically connected to said platform and engaged by said screw, a protecting upright, said screw being suspended from the upper end of said upright, an electric motor driving said screw, a control box in the fitting circuit of said motor, three cables of an unvarying length carrying three corners of said platform, while the fourth corner is carried by the nut, three tubular carrying uprights, grooved pulleys located opposite said three uprights and a removable member engaged in the upper end of each of said three uprights, one end of each of said three cables being secured to the upper end of an upright by means of one of said removable members, and safety means for stopping the operation of the lifting appliance caused when at least a part of the action exerted by the weight of the platform on any one of the uprights is cut out; said safety means including a single actuating member connected to the control box for breaking off the feeding circuit to the motor.

2,843,224
AUXILIARY BUMPER IMPACT ABSORBER
Max Landman and Joseph Newman, Flushing, and Herman Landman, Brooklyn, N. Y.
Application May 25, 1954, Serial No. 432,128
2 Claims. (Cl. 188—5)

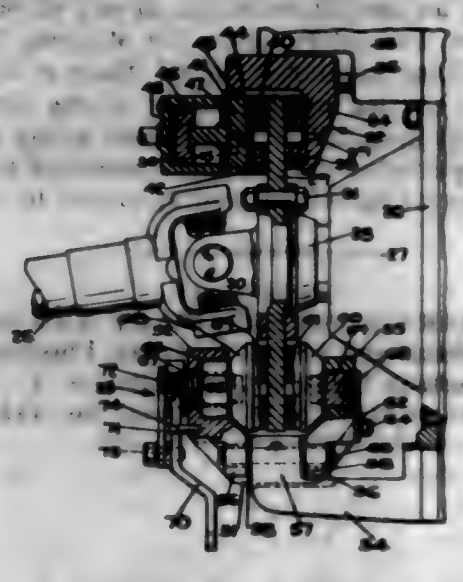


1. The combination with a vehicle having a bumper at its rear thereof, of a road surface contacting elongate and structurally rigid impact transmitting member, an impact receiving plate mounted at one end of said impact transmitting member, a shoe provided with a friction surface rigidly affixed to the other end of said impact transmitting member, support means mounting said impact transmitting member, plate, and shoe on the vehicle with said impact transmitting member being disposed at an angle with respect to the road surface for straight line movement in a vertical plane parallel to the longitudinal axis of the vehicle between a road contacting projected position and a retracted inoperative position, with said plate being disposed at the level of said bumper and positioned to the rear of said bumper, said impact transmitting member extending longitudinally under and downwardly toward the front of said vehicle, said shoe being positioned at the lower end of said transmitting member, and said friction surface being positioned horizontally and parallel to the road surface, said impact receiving plate being adapted to transmit impacts to said transmitting member for moving said impact transmitting member downwardly along is length and said shoe into frictional contact with said road surface, resilient means acting on the impact transmitting member and the vehicle, and yieldingly retaining said impact receiving plate and shoe, and said transmitting member in said retracted position.

2,843,225
MOTOR AND BRAKE MECHANISM
Frank C. Miller, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio
Application September 11, 1953, Serial No. 379,675
6 Claims. (Cl. 188—73)

1. In a brake mechanism having a disc mounted for rotation on an axis, brake means for arresting the rotation of the disc comprising, a yoke slidably supported adjacent the disc having an arm extending to each of the opposite surfaces of the disc, friction means on each of the yoke arms and positioned adjacent the opposite surfaces of the disc, means for moving said friction means into engagement with the opposite surfaces of the disc to arrest the rotation thereof, at least one of said yoke arms including a screw element threaded through the arm and having an end extending towards the disc and carrying one of said friction means, the means for

moving the friction means comprising an operating lever threaded on the screw element at the end opposite the friction means, means fixedly engaging the screw element and adjustably secured to the operating lever for



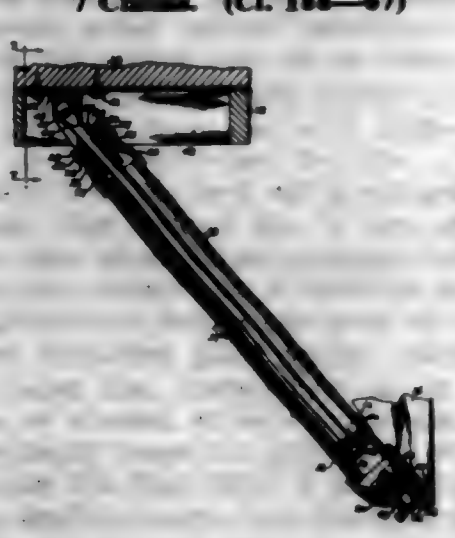
adjustment of the position of the screw element and the friction means carried thereby, oscillation of the operating lever advancing the screw element and the friction means into engagement with the disc.

2,843,226

ADJUSTABLE TILT TOP TABLE

Walter E. Nordmark, Grand Rapids, Mich., assignor to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey

Application April 11, 1956, Serial No. 577,557
7 Claims. (Cl. 188—67)



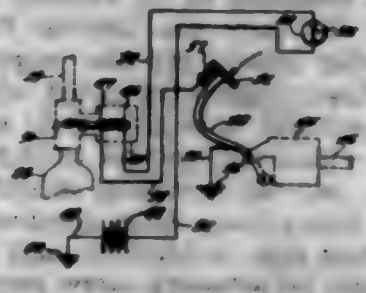
1. An automatic checking device for permitting movement in one direction of a first element relative to a second element while checking movement thereof in the opposite direction, said device comprising: a cylinder mounted on said second element and extending toward said first element; a piston in the cylinder; a piston rod connected to said piston and to said first element; and a stop washer swingably mounted on the cylinder and having an opening therethrough through which extends said piston rod, said washer having an operative location wherein it may swing to a position substantially normal to the piston rod to permit free passage of the piston rod therethrough in one direction or swing to another position binding said washer against the piston rod to prevent passage of the latter therethrough in the opposite direction, said stop washer being movable also to an inoperative location substantially normal to the piston rod wherein it permits free passage of the piston rod therethrough in said opposite direction; and a spring latch on the cylinder for confining said stop washer in either its operative location or its inoperative location.

2,843,227

AUTOMATIC HYDRAULIC BRAKE SYSTEM

Willis J. Williams, Jersey City, N. J.

Application May 9, 1955, Serial No. 506,789
1 Claim. (Cl. 188—152)



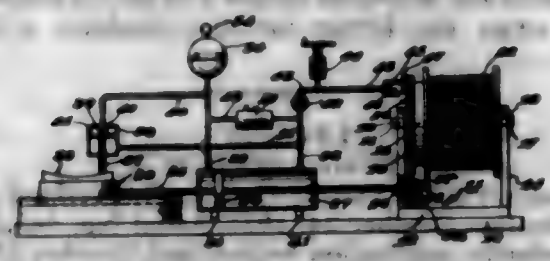
An automatic hydraulic brake system for an automobile, including hydraulic brakes for at least two wheels thereof, pipe means leading to the brakes, a master cylinder connected to the pipe means and a pressure supply pipe also connected to said pipe means for communicating pressure liquid to said pipe means to operate said brakes, a foot pedal mounted to control said master cylinder and cause flow of hydraulic pressure fluid from said master cylinder to said brakes through said pipe means upon depression of said foot pedal, a brake liquid container mounted upon the automobile for containing a quantity of brake liquid with inert gas under pressure above and in contact with the liquid, an electrically operated valve device connected to the upper end of the container in effective position to control egress of pressure liquid therefrom, a source of electric current connected to said valve device, an electric contact adjacent to the foot pedal in position to close the circuit of said source and open the valve of said device upon over travel of said foot pedal beyond normal operation thereof for controlling the brakes, and a depending tube in said container upwardly connected to said pressure supply pipe through said electrically operated valve device and extending downwardly into and below the upper level of the liquid in said container for supplying pressure liquid therefrom to the brakes when said valve device is operated.

2,843,228

BRAKE APPLYING SYSTEMS

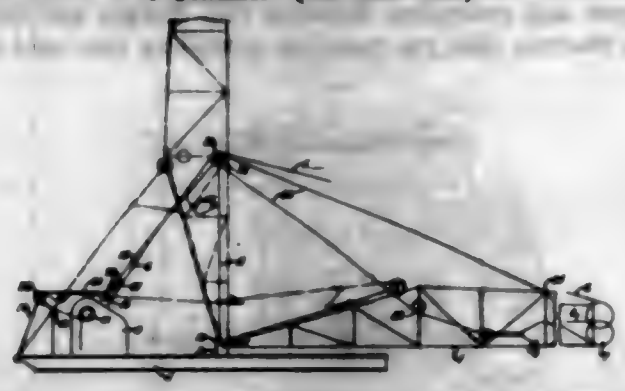
Robert Burns Wyser, Wilmington, Del., assignor to All American Engineering Company, Wilmington, Del., a corporation of Delaware

Application January 11, 1956, Serial No. 558,461
4 Claims. (Cl. 188—180)



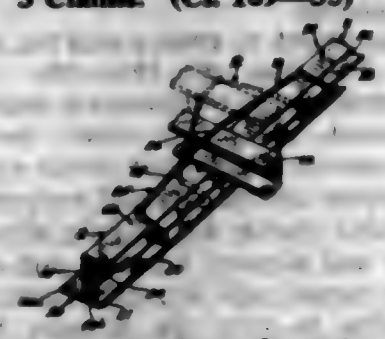
2. In combination, energy absorbing equipment including a brake and means for applying said brake to control the said energy absorbing equipment, said means comprising a double-acting fluid motor including an actuator, said fluid motor having a first and second chamber, said actuator being operatively connected to said energy absorbing equipment through a power take-off means sensitive to the rate of movement of said energy absorbing equipment, fluid pressure control means for by-passing fluid pressure from one chamber of said fluid motor to the other chamber, said brake being connected to one chamber of said motor, said fluid pressure means being connected to said actuator, and means operated by said actuator for controlling said fluid pressure control means in proportion to the rate of movement of said energy absorbing equipment to regulate the application of said brake.

2,843,229
FOLDING GIN POLE
Homer J. Woolslayer, Cecil Jenkins, and Calvin L. Turner, Tulsa, Okla., and Erwin A. Campbell, Wexford, Pa., assignors to Lee C. Moore Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 12, 1954, Serial No. 415,892
4 Claims. (Cl. 189—15)



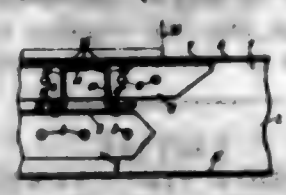
3. A portable oil well derrick comprising a base, drawworks on the base having a drum and a cathead, a reclining mast having a foot hinged to the base in front of the drawworks and extending forward therefrom, a traveling block near the foot of the mast, a drilling line connecting the block with the head of the mast and the drawworks drum, a folded gin pole above the base extending forward over the mast, the gin pole having a reclining front side and a pair of reclining rear legs overlying the front side, means hinging the top ends of the rear legs to the top end of the front side, means pivotally connecting the lower end of the front side with the base in front of the drawworks to permit the gin pole to be swung upward, shoes mounted behind the drawworks for receiving the lower ends of said rear legs after they have been swung upward, means for limiting the distance that the rear legs of the gin pole can be swung away from its front side, a sheave mounted behind one of the shoes, sheaves carried by the lower ends of the rear legs of the gin pole, a line having one end anchored behind the other shoe and extending forward around said gin pole sheaves and then back around said first-mentioned sheave and then forward to said cathead, said line being adapted to be pulled by the cathead to pull the gin pole sheaves toward said shoes and thereby lift the gin pole and swing the lower ends of its rear legs back past the drawworks to the shoes, and a sling connected with the traveling block and the mast and the top of the gin pole for raising the mast as the traveling block is pulled toward the head of the mast after the gin pole has been erected, said sling being pulled taut by the gin pole as it swings backward, whereby downward movement of the rear legs of the gin pole toward said shoes is retarded.

2,843,230
BUILDING CONSTRUCTION
Nels Nelsson, Chicago, Ill., assignor to United States Gypsum Company, Chicago, Ill., a corporation of Illinois
Application December 7, 1953, Serial No. 396,411
3 Claims. (Cl. 189—35)



1. A clip for use in securing a flanged runner to a side of an elongated support disposed transversely with respect thereto, said clip comprising an elongated resilient body section bendable to effect contacting and straddling of the elongated support, and jaw sections extending angularly from opposite ends of said body section in substantially the same relative direction for yieldably gripping and embracing a flange of the flanged runner at locations spaced from opposite sides of the support; each of said jaw sections including a first jaw having one end thereof integral with the end of said body section and extending angularly therefrom, and a second jaw integral with said first jaw and bent back relative thereto, whereby said first and second jaws are in askewed relation, the spacing between the free ends of the second jaws of said jaw sections being greater than the spacing between the ends of said first jaws integral with the ends of said body section; each second jaw having a portion intermediate the ends thereof offset in a direction substantially toward said first jaw to form a hump whereby frictional gripping engagement of the flange of the flanged runner is effected between the peak of the hump and said first jaw when said body section is in contacting and straddling relation with the support; the peaks of said humps and the portion of said body section, adapted to contact the support, defining a plane which intersects said first jaws.

2,843,231
GIRDER CONNECTION FOR VEHICLE FRAMES
Herbert F. W. Marsha, Stuttgart-Uhlbach, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application March 22, 1955, Serial No. 496,012
Claims priority, application Germany March 31, 1954
5 Claims. (Cl. 189—36)



1. A frame construction for motor vehicles which is very strong yet enables relative elastic deformation of the various parts thereof comprising a longitudinal girder member having at least two leg portions extending at an angle to each other, one of said two leg portions being relatively longer and the other of said two leg portions being relatively shorter, a cross girder member extending at an angle with respect to said longitudinal girder member and terminating at a distance from said relatively longer leg portion, said cross girder member being provided with at least two sections forming connecting surfaces, said sections being substantially parallel to said relatively shorter leg portion and spaced at different distances therefrom, a first and a second intermediate member in the form of angle irons each having a first leg portion substantially parallel to said relatively longer leg portion and a second leg portion essentially parallel to said connecting surfaces, both of said intermediate members being connected with the first leg portions thereof to said relatively longer leg portion of said longitudinal girder member and with the second leg portions to respective ones of said connecting surfaces of said cross girder member to thereby provide a strong connection between said girder members yet permit slight yielding of said cross girder in the direction of said relatively longer leg portion.

2,843,232
CORNER CONSTRUCTION FOR METAL DOOR FRAMES
Harry H. Goldberg, Denver, Colo.
Application June 21, 1956, Serial No. 592,807
3 Claims. (Cl. 189—46)

1. In a three-piece metal door frame of the type including two jamb members and a head member each

formed to provide a lateral door-receiving face, portions depending from the lateral face designed to form the trim on the sides thereof and channel shaped portions formed in each of the trim portions to receive the finished wall surfaces bounding the door opening framed by the wooden frame members, the improved means for connecting the head member to the jamb members which comprises: L-shaped brackets attached to the lateral face of the head member in opposite ends thereof, one leg of said brackets extending downwardly in position to lie behind and adjacent to the adjoining lateral face of the jamb members when said metal frame members are in assembled relation to hold the inside corners formed



therein together; and, tabs formed integral with each of the farme members on opposite ends of the head member and on the upper end of the jamb members, said tabs being located on opposite sides of each of said frame members and on the inside of each channel-shaped portion in position to lap the corresponding tab of the adjoining frame member adjacent the wooden frame when said metal frame members are in assembled relation, said pairs of lapping tabe having openings therein positioned to register when said frame members are assembled with the corners thereof in proper alignment so that a nail passing therethrough into the wooden frame will maintain the door frame in correctly assembled position.

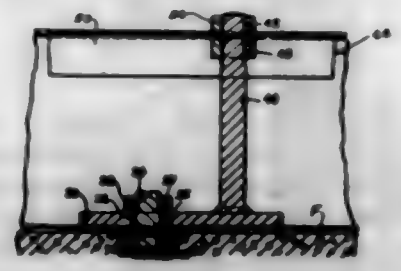
2,843,233
WINDOW STRUCTURES
William L. Walsh, Bronx, N. Y., assignor to S. H. Pomeroy Company, Inc., New York, N. Y., a corporation of New York
Application February 25, 1955, Serial No. 498,630
5 Claims. (Cl. 189—65)



5. An elongated sealer formed of resilient material comprising a relatively thin arcuate front portion enclosing a longitudinal cavity, a relatively stiff longitudinal reinforcing member lining the inner face of the arcuate front portion and including supporting legs extending rearwardly in the cavity, a plurality of forwardly facing ridges on the arcuate front portion, and a pair of shoulders disposed on opposite sides of the sealer spaced rearwardly from the arcuate front portion, said shoulders adapted to secure the sealer in a longitudinal recess.

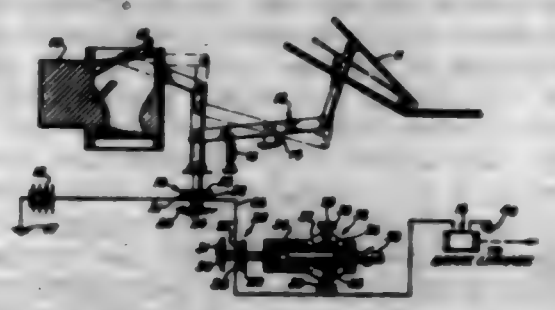
2,843,234
ACOUSTIC PANEL ASSEMBLY APPARATUS
Oliver C. Eckel, Carlisle, Mass.
Application February 24, 1956, Serial No. 567,528
6 Claims. (Cl. 189—88)

1. An acoustic assembly comprising two acoustic members and a foundation, each said acoustic member embodying a side, said sides being adjacent, a flange extending outwardly from one said side and another flange extending outwardly from the other said side towards the first-mentioned flange, a pin member affixed to said foundation and extending outwardly therefrom and between said sides, attaching apparatus holding said two acoustic members embodying an anchor member bearing upon and extending between said flanges and having a hole therein, said pin member extending into said hole,



means holding said pin member and anchor member together, another pin member attached to said anchor member and extending outwardly therefrom, a trim member having a hole therein, said other pin member extending into said trim member hole, a supporting member attached to said other pin member and keeping said trim member in predetermined position, and a retainer member attached to said other pin and holding said trim member on said supporting member.

2,843,235
PARTIAL BRAKE SYSTEM
Paul J. Weaver, Paramount, Calif.
Application August 10, 1954, Serial No. 449,257
17 Claims. (Cl. 192—3)

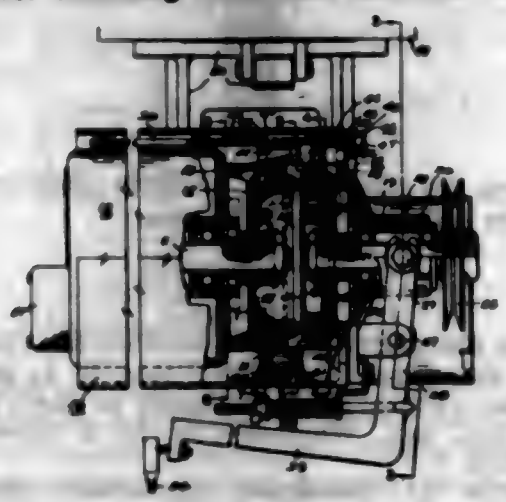


1. In a vehicle having speed control means and a braking system, actuating means for applying said braking system, vehicle speed-responsive means, and speed control responsive means, said speed responsive means and speed control responsive means being in series relationship with said actuating means, whereby said actuating means can apply the brakes only when said speed responsive means and speed control responsive means concurrently permit said application.

2,843,236
POWER TRANSMISSION UNIT
Harry C. Hunt, Reading, Pa., assignor to American Safety Table Company, Inc., Reading, Pa., a corporation of Pennsylvania
Application March 9, 1955, Serial No. 493,262
6 Claims. (Cl. 192—18)

1. In an electric power transmission apparatus of the character described, an electric motor mounting a revoluble driving member, stationary clutch support means, a clutch mechanism carried by said support means and having a revoluble clutch disc axially alined with said driving member and disposed between said driving member and support means, said driving member being selectively positionable to vary the distance between said driving member and support means, said disc being axially shiftable in one direction to a position wherein opposed surface portions respectively of said driving

member and disc are frictionally engaged and said driving member is effective to turn said disc, and in the opposite direction to a position wherein opposed surface portions respectively of said disc and support means are frictionally engaged and said support means is effective to arrest or brake rotation of said disc, and a cylindrical cover extending about said disc and axially from



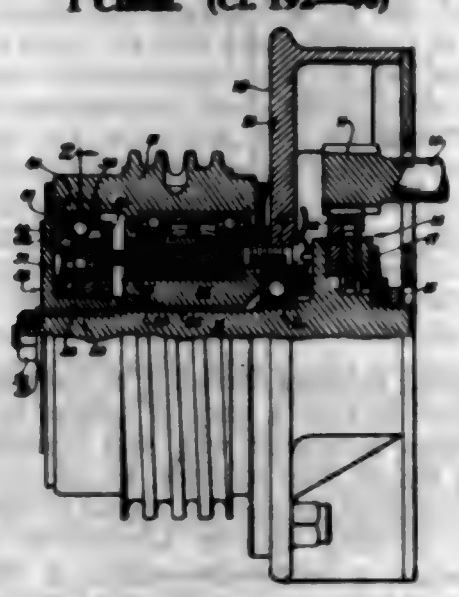
said support means to said driving member, one end portion of said cover being fixed to said support means, said driving member being telescopically associated with the opposite end portion of said cover and being movable axially relative thereto, said driving member, support means and cover being free of access openings for dirt and lint so as to conjointly form a dirt and lint excluding housing for said disc.

2,843,237

BALL TYPE DISCONNECT

William F. Carr, Grand Rapids, Mich., assignor to Lear, Incorporated, Grand Rapids, Mich., a corporation of Illinois

Application August 16, 1952, Serial No. 304,678
1 Claim. (Cl. 192—48)



Mechanism for connecting and disconnecting a rotatable driving member to and from a rotatable driven member comprising a shaft to which the driving member is coupled, a cage member secured to said shaft for rotation therewith and including a hub and an annular part having a plurality of circumferentially spaced apertures therethrough, an annular cam member including a hub supported on said first hub for axial sliding movement with respect thereto, said cam member also having a pair of merged frusto-conical actuating surfaces, a plurality of spheres retained individually in said apertures for rotation about the axis of said shaft and arranged to be actuated as a group radially outwardly by said cam member upon axial sliding movement thereof in one sense, and an annular driven member positioned concentrically with respect to said elements and having a like plurality of semi-cylindrical recesses for individual engagement by said spheres upon radially outward movement thereof, said cam member having a ferromagnetic part, and a solenoid for actuation of said part to move said cam member axially upon energization of said solenoid, one of said actuating surfaces having a slope which is relatively steeply inclined with respect to the axis of the shaft and the other of said surfaces having a slope which is of relatively shallow inclination with respect to said axis, said steep surface being effective to cam said elements substantially completely into said recesses and said shallow surface being effective to cam said elements to the floor of said recesses and to maintain the same in that position, and bias means for cooperating in reverse movement of said camming member upon deenergization of said solenoid, the reaction of said elements due to the load being also effective against said cam surfaces to provide reverse movement of the camming member.

2,843,238

ONE-WAY CLUTCH

Joseph J. Rozner, Chicago, Ill., assignor to Parkersburg-Aetna Corporation, Chicago, Ill., a corporation of West Virginia

Application November 23, 1955, Serial No. 548,621
10 Claims. (Cl. 192—45)



1. In a one-way clutch comprising outer annular body means, inner body means disposed within said outer body means, and wedging means disposed between said inner and outer body means, a preassembled unit including a body means, a one-piece sheet material retaining member having radially extending flange means secured to said last mentioned body means and having an axially extending portion radially aligned with and spaced from said last mentioned body means, said retaining member including an abutment, said retaining member portion having an opening therethrough substantially completely surrounded by margins of said portion, a wedging element loosely trapped between said last mentioned body means and margins of said retaining member portion and projecting through said opening for preventing radial and lateral separation of the wedging element from said body means, and spring means disposed between and engaging said wedging element and said abutment for yieldably biasing said wedging element.

2,843,239

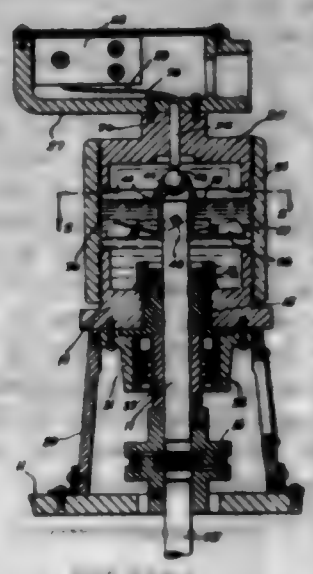
SAFETY DEVICE FOR LAUNDRY EXTRACTORS

Russell L. Nelson, Long Beach, Calif.

Application January 11, 1957, Serial No. 633,691
3 Claims. (Cl. 192—136)

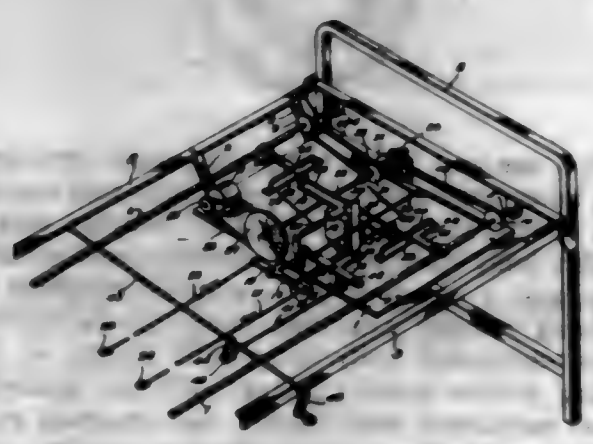
1. In a laundry machine of the type comprising a rotary driven member, a cover, a solenoid controlling the release of said cover and being formed and arranged to release said cover when energized, an energizing circuit connected to said solenoid, and a normally closed switch in said energizing circuit, means to prevent closure of said switch while the driven member is rotating comprising a liquid chamber, a shaft coupled to said driven member and being rotatably mounted in said chamber, a sleeve slidably mounted on said shaft, vane means secured to said sleeve and being engaged in the liquid in the chamber to retard rotation of the sleeve, cam means

formed and arranged to move the sleeve axially on the shaft responsive to rotation of the shaft, and means



formed and arranged to open said switch responsive to axial movement of said sleeve on said shaft.

2,843,240
LIMIT STOP FOR BED OPERATING MECHANISM
Torvald Kruse, Puente, Calif.
Application September 27, 1954, Serial No. 458,529
4 Claims. (Cl. 192—143)



1. In a bed having head operating means including a rotatable shaft and a longitudinally movable tube and foot operating means including a rotatable shaft and a longitudinally movable tube, a reversible motor, a normally off reversing switch for controlling said motor, a drive shaft coupled to said motor, a clutch having clutch operating means for coupling the drive shaft selectively to either of said rotatable shafts, a limit stop mounted on each of said longitudinally movable tubes, a switch operating member mounted on the switch and including an element coupled to the clutch operating means and projectable thereby into the path of movement of either of said limit stops when said clutch operating means is actuated.

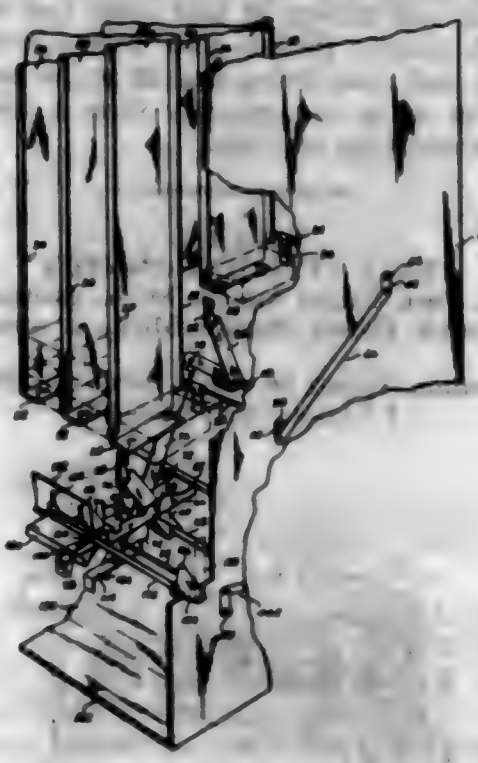
2,843,241
COIN HANDLING APPARATUS
Thomas W. Clark, Detroit, Mich., assignor to Coin-a-Matic, Inc., Detroit, Mich., a corporation of Michigan
Application May 13, 1955, Serial No. 508,022
2 Claims. (Cl. 193—25)

1. A coin handling tube for use in a coin handling apparatus including a tubular container designed to receive coins through its open upper end and store them in stacked relation pending their removal from the stack, said tube being formed of adjacent convolutions of helically wound resilient wire adapted to have its lower end extend into contact with the upper end of said tubular container to constitute an upward extension thereof, and



a deflecting pin extending at an acute angle to the axis of the tube and partially thereacross.

2,843,242
COIN CONTROLLED VENDING MACHINE
Christian Gabrielsen, Mountain Lakes, N. J., and Gustaf Erickson, Covina, Calif., assignors to Rowe Manufacturing Co., Inc., Whippany, N. J., a corporation of New York
Continuation of abandoned application Serial No. 754,488, June 13, 1947, and forfeited application Serial No. 356,448, May 21, 1953. This application February 12, 1957, Serial No. 639,663
13 Claims. (Cl. 194—10)

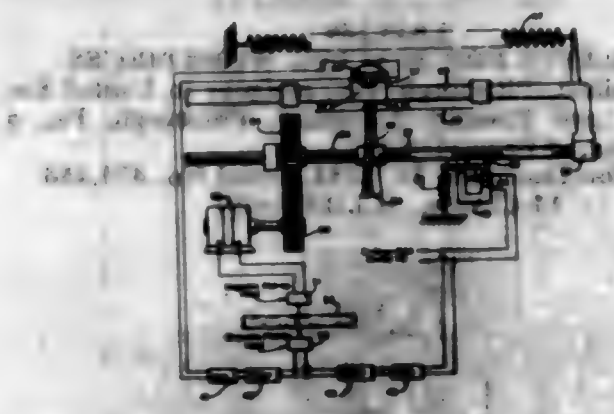


1. A vending machine including in combination a container adapted to hold a stack of articles to be vended, ejecting means associated with said container adapted to expel an article from its stack, an operating member, means for coupling the ejecting means to said operating member, a selecting member adapted to operate the coupling means, a holder for additional objects to be dispensed, discharging means for said additional objects, means for connecting said operating member to said discharging means for actuating the same, said connecting means normally being in inoperative position and means responsive to the expulsion of an article from said stack for rendering said connecting means operative.

2,843,243
PRINTING DEVICE
Earl E. Masterson, Bryn Mawr, Pa., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application August 9, 1955, Serial No. 527,268
17 Claims. (Cl. 197—19)

1. A printer comprising means carrying a series of type elements for printing various characters, said type

elements being located along a helical path, means for feeding the medium on which printing is to be placed past said means, means for substantially continuously rotating the first-named means about the axis of the said helical path and at the same time moving the first-named



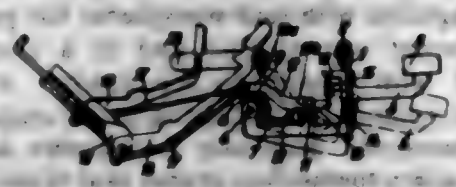
means along said axis so that each type element will pass in substantially continuous succession past each of a plurality of spaced spots on the printing medium, and means operative at selected instants during said substantially continuous rotation for causing selected ones of said type elements to print on said spaced spots.

2,843,244

TYPE LEVER MOTION DEVICES FOR TYPEWRITERS AND SIMILAR MACHINES

Erich Neumann, Bielefeld, Germany

Application December 5, 1955, Serial No. 551,133
8 Claims. (Cl. 197—27)



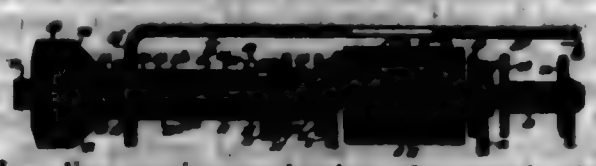
1. A type-bar actuating device for typewriters and like machines, comprising: a plurality of key levers, a key on each key lever, the keys being arranged in rows, intermediate levers connecting the key levers with the type bars, all the intermediate levers of each row being of the same length, and the points of connection of the intermediate levers with the key levers being co-axial for each row of keys, and a tilting bar located behind the points of connection of the intermediate levers to the key levers and forming a fulcrum for the intermediate levers, the position of the fulcrum determining the relative length of the two arms of each intermediate lever, the said tilting bar widening towards the sides of the machine in such a way that from the middle of the machine towards the sides the fulcrum becomes progressively nearer to the keys, so that with the same distance of travel for all the keys each intermediate lever rocks through an angle conforming to the striking path of its associated type bar.

2,843,245

PLATEN LINE SPACING MECHANISM

Milton V. Scozzafava, Arcadia, and Richard E. Busch, La Puente, Calif., assignors to Clary Corporation, San Gabriel, Calif., a corporation of California

Application March 25, 1957, Serial No. 648,354
9 Claims. (Cl. 197—123)



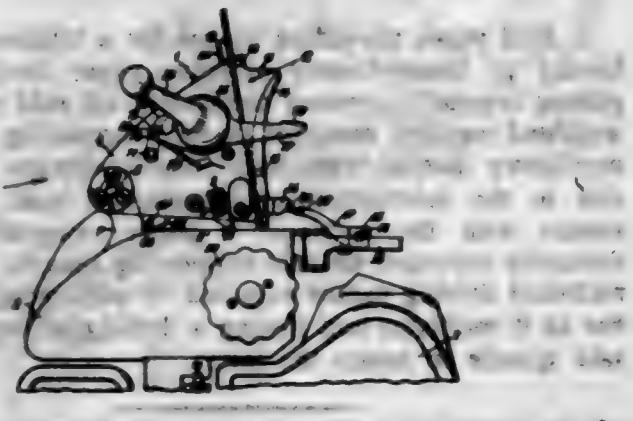
1. In a line spacing mechanism, the combination comprising a rotatable shaft, a paper feed platen operably connected to said shaft, a line spacing wheel slideably keyed on said shaft, actuating mechanism for rotating said wheel, means comprising a knob slideably keyed on said shaft for moving said wheel axially out of cooperative relation with said actuating mechanism, a manually operable release member supported by said knob, a clutching device for clutching said knob to said shaft in different positions, and means responsive to said release member upon movement thereof relative to said knob for releasing said clutching device.

2,843,246

IMPROVEMENTS IN FRONT-FEED ATTACHMENT FOR TYPEWRITERS

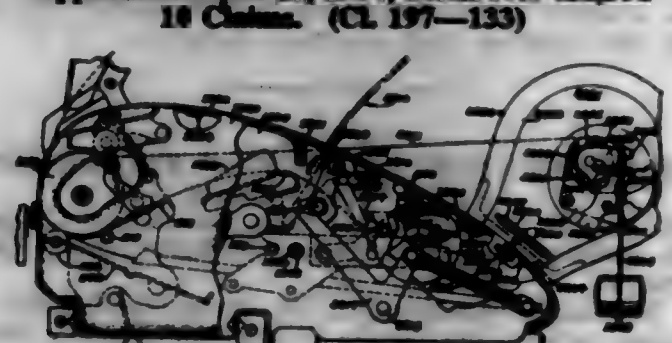
Hans Maurer, Zollikerberg, Zurich, Switzerland, assignor to Ruf-Buchhaltung Aktiengesellschaft, Zurich, Switzerland

Application January 27, 1956, Serial No. 561,874
Claims priority, application Switzerland March 6, 1956
3 Claims. (Cl. 197—128)



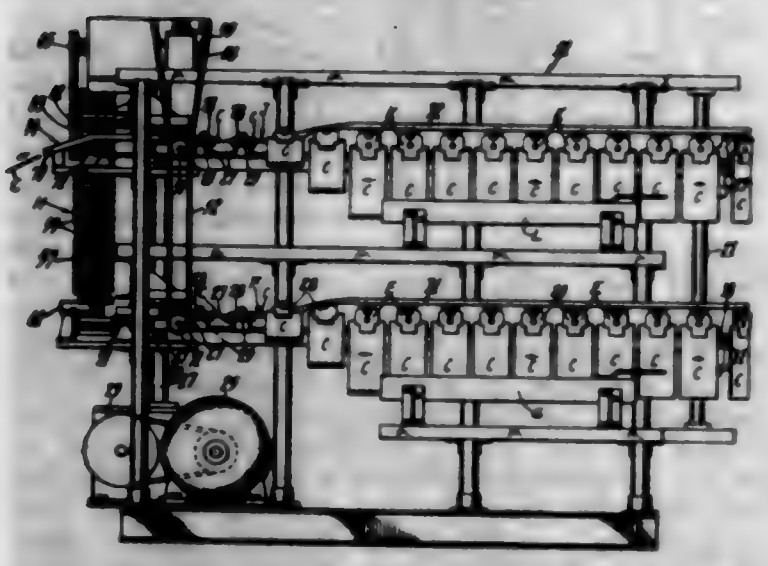
1. In a typewriter having a carriage, a platen on the carriage, and a line-space lever operatively connected with said carriage, a front-feed attachment for the insertion of an account sheet in front of a journal sheet fitted on the typewriter platen, comprising in combination: a structure mounted on the typewriter carriage, a drive shaft journalled in the said structure parallel to the typewriter platen, driving means mounted on the said shaft engaging in operation the account sheet, a spring operatively connected to the said structure and to the said shaft and wound up when turning the said shaft in the sense of inserting the account sheet and biasing the said driving means in the sense of ejecting the said account sheet, a ratchet wheel fixedly mounted on the said drive shaft, an adjustable driving- and indexing-disc journalled on the said structure and in operative connection with the said drive shaft, a control lever pivoted on the said structure, a spring resiliently connecting the said control lever to the said adjustable driving- and indexing-disc in the sense of yieldably transmitting a turning movement of the said control lever into a turning movement of the said disc, a punching device mounted on the said structure normally out of operative engagement both with the typewriter and with the account sheet for punching a marking into the said account sheet, the punching movement being derived from the movement of the line-space lever when the latter is operated to effect the return of the typewriter carriage, and a sensing device mounted in the said structure and operatively connected to the said driving means in the sense of adjusting the same to a position corresponding to the position of the account sheet in which the line to be typed upon of the account sheet is in the appropriate level position, the said sensing device including a rocker lever pivotally mounted on the said structure, a sensing hook arranged on the said rocker lever and adapted to reach into the path of the account sheet, and to sense the marking thereon if any and a lug on said rocker lever in operative co-operation with the said ratchet wheel, the said sensing device being operatively connected to the said control lever and being made ineffective in a rest position of the said control lever.

2,843,247
ROLL PAPER REWINDING MEANS FOR BUSINESS MACHINES
Byron A. Rande, Farmington, Mich., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application April 12, 1954, Serial No. 422,331
10 Claims. (Cl. 197—133)



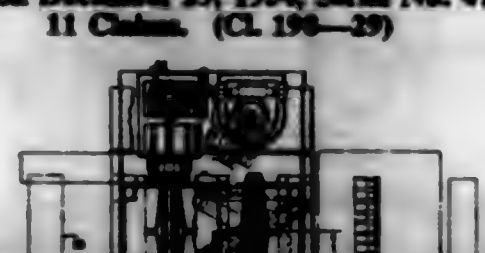
1. Roll paper rewinding means for a business machine having an intermittently movable paper carriage, comprising supporting means mountable on said carriage, a weighted member mounted on said supporting means for oscillatory inertial movement relative thereto to responsive to the intermittent movements of said supporting means with the carriage, a paper rewinding spindle rotatably mounted on said supporting means, and unidirectional driving means actuated by said weighted member as it oscillates and having a driving connection with said spindle to rotate the latter.

2,843,248
APPARATUS FOR TREATING ARTICLES
Karl Bolinger, Cincinnati, Ohio, and Ronald E. J. Nordquist, Summit, N. J., assignors to American Can Company, New York, N. Y., a corporation of New Jersey
Application February 6, 1956, Serial No. 563,621
13 Claims. (Cl. 198—19)



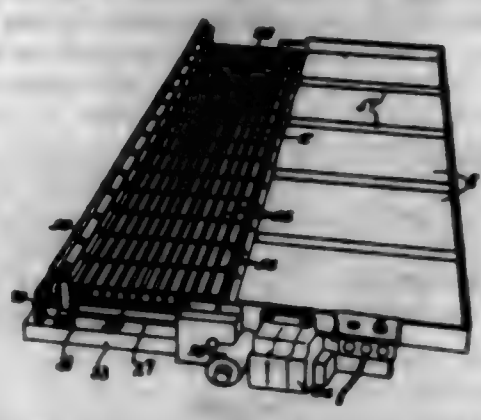
1. An apparatus for treating opposed marginal edge portions of can body blanks, comprising in combination conveyor means for advancing a can body blank along a predetermined path of travel, treating means disposed adjacent said path of travel for treating opposed marginal edge portions of said blank, first gripper means carried on said conveyor means for gripping an upper marginal edge portion of said blank and for holding said blank in a suspended position with its lower marginal edge portion free and exposed for treatment by said treating means, second gripper means also carried on said conveyor means for gripping the treated marginal edge portion of said blank and for holding said blank in a suspended position with its remaining untreated edge portion free and exposed for treatment by said treating means, driving means for said conveyor means, and auxiliary conveyor means disposed adjacent the path of travel of said blank and between said first and second gripper means for reversing the positions of said marginal edge portions and for delivering the reversed blank to said second gripper means.

2,843,249
APPARATUS FOR SPACING WORKPIECES
John A. Holden, Pittsburgh, Pa., assignor to United Engineering and Foundry Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 29, 1954, Serial No. 478,458
11 Claims. (Cl. 198—39)



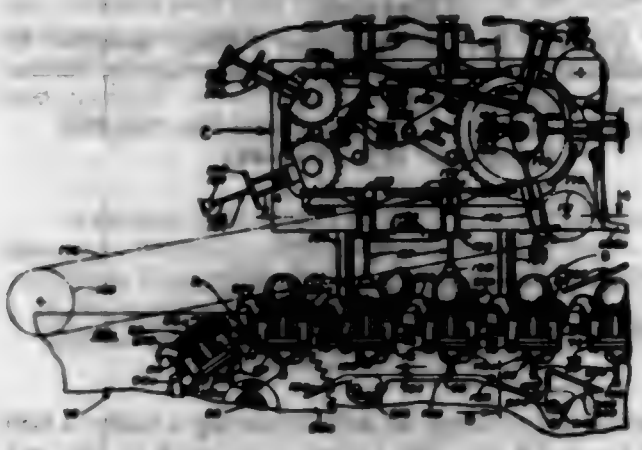
1. Apparatus for use in combination with a roller feed table upon which a plurality of elongated workpieces are deposited comprising a rotatable shaft, a spacer head normally parallel to the rollers of said table, carried by said shaft and having a plurality of notches extending across the length thereof, means for raising and rotating said head to an angular position with respect to said rollers, means engageable with said workpieces for packing them closely adjacent one another and in a clearly defined relationship with respect to the notches in said head whereby on rotation of said head to its original position the workpieces will drop into the notches of said head thereby to space themselves across said table.

2,843,250
EGG HANDLING MECHANISM
Otto C. Niederer, Otto Niederer, and Herbert O. Niederer, Titusville, N. J.
Application September 21, 1953, Serial No. 381,274
1 Claim. (Cl. 198—38)



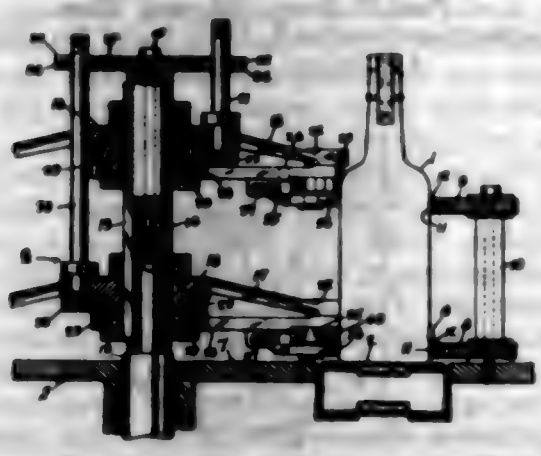
Egg conveying mechanism comprising a frame, a conveyor operable transversely of said frame, longitudinally spaced guide rods extending transversely of said frame across said conveyor, and egg receiving trays mounted adjacent the discharge side of said conveyor to receive eggs carried by said conveyor, said conveyor comprising a plurality of endless chains spaced longitudinally of said frame and operable transversely of said frame, egg carrying rods spaced transversely of said frame and extending longitudinally thereof between said endless chains, said rods being mounted on said chains for movement therewith, one end of each of said rods being mounted so as to precede the other end thereof, drive means for said conveyor and a motor for operating said drive means.

2,843,251
APPARATUS FOR ORIENTING FRUIT
John D. Hoffmann, Jr., and James M. Holt, San Jose, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application June 27, 1955, Serial No. 518,054
15 Claims. (Cl. 198—33)



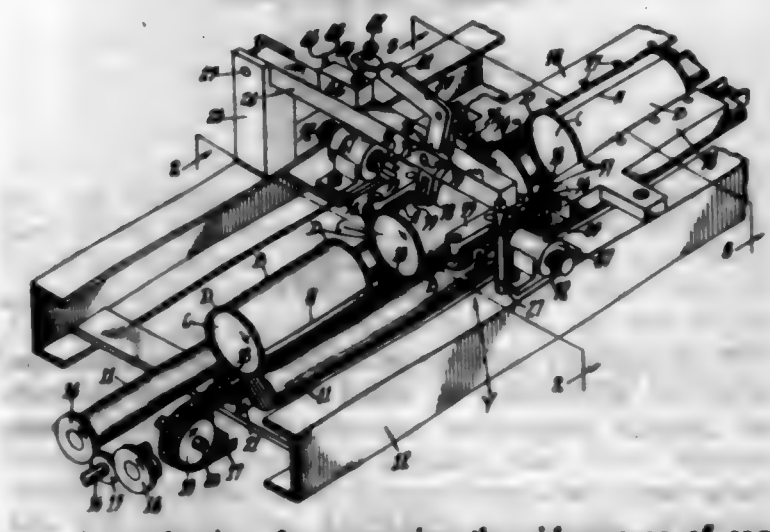
6. Apparatus for orienting fruit having an elongated stem indent, comprising means for supporting a fruit with its stem blossom axis substantially vertical and its stem indent opening downward, means operative to lift the fruit off the supporting means and including an elongated member adapted to interrupt rotation of the fruit about the stem axis by engagement within the elongation of the indent, and means frictionally engageable with the surface of the fruit to increase the pressure contact of the fruit against said fruit lifting means and to induce rotation of the fruit about its stem blossom axis.

2,843,252
SPOTTING DEVICE
William Barton Eddison, Ardsley-on-Hudson, N. Y., and Warren E. Erickson, Madison, Wis., assignors to Gisholt Machine Company, Madison, Wis., a corporation of Wisconsin
Application August 10, 1955, Serial No. 527,566
4 Claims. (Cl. 198—33)



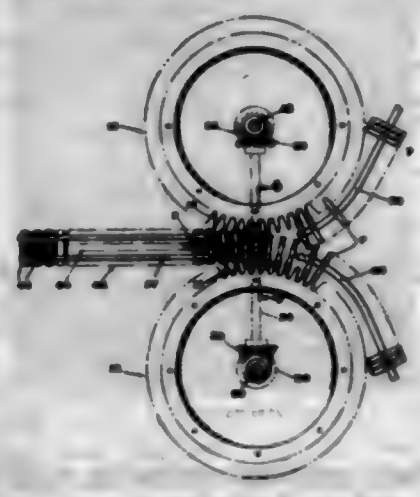
1. In a spotting device for indexing a plurality of successive moving objects during transfer to orient the same to a predetermined angular position as they continue on their transfer course, and wherein the successive objects are moved along an arcuate path and biased into engagement with an arcuate rail frictionally turning the objects upon their own axes to orient the same and wherein the successive objects are moved by a rotary member disposed concentrically relative to the arcuate rail and having means thereon for engaging spotting means on the objects determining a predetermined desired orientation of the objects, a rotary member comprising a vertical rotary post, a hub mounted thereon for rotation therewith, a spider carried by said hub for rotation therewith, a plurality of bell crank levers pivoted in circumferentially spaced relation to the outer ends of the arms of the spider and carrying object engaging rollers and spotting means, a ring gear mounted concentrically on said spider for rotational adjustment relative thereto, a segment gear on the inner end of each said bell crank lever meshing with said ring gear, and means carried by said spider to rotationally adjust and secure said ring gear in selected position, whereby said object engaging rollers may accommodate objects of different sizes.

2,843,253
MECHANISM FOR ARRANGING SIDE SEAMS OF CANS
Howard B. Peterson, San Francisco, and Orlestus G. Brenner, San Bruno, Calif., assignors to American Can Company, New York, N. Y., a corporation of New Jersey
Application March 19, 1956, Serial No. 572,356
9 Claims. (Cl. 198—33)



1. A mechanism for arranging the side seams of can bodies in a predetermined line of travel, comprising in combination means for advancing a can body in an endwise direction, means for rotating said can body on its axis during its advancement, seam detector means disposed adjacent the path of travel of said body and engageable against the surface of said body for detecting its side seam when said seam reaches a predetermined line of travel, clamp means disposed adjacent the path of travel of said can body and operable by said detector means for arresting further rotation of said body to retain said seam in said predetermined line of travel, and means for receiving said can body from said clamping means and for retaining its side seam in said predetermined line of travel during further advancement of the body.

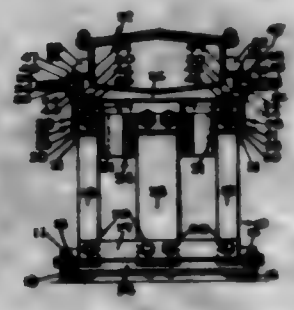
2,843,254
SORTING AND ORIENTING
Gerald L. Vaughan, Rumford, Maine, assignor to Diamond Gardner Corporation, a corporation of Delaware
Application July 29, 1957, Serial No. 674,893
25 Claims. (Cl. 198—33)



1. An apparatus for sorting articles having slotted ends which are randomly disposed in opposite directions

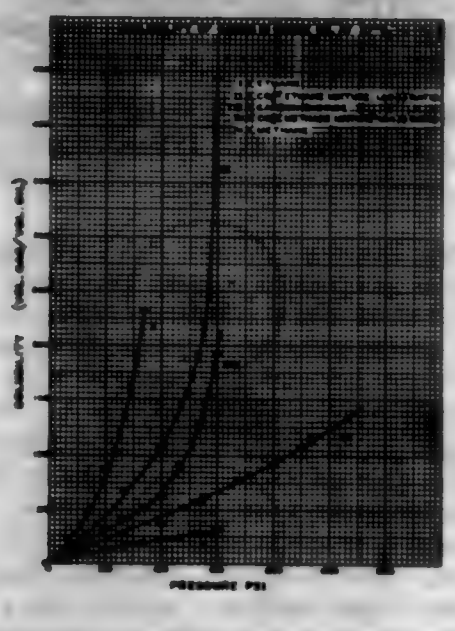
into groups in which corresponding ends are all pointed in the same direction, comprising a pair of slot-engaging members mounted for movement in a common plane in spaced relation to each other, and means for moving slotted-end articles to be sorted between said members with the slotted ends of the articles randomly directed toward one or the other of said members, whereby the slotted end of each article is engaged by one or the other of said members.

2,843,255
CONVEYER APPARATUS
Claus J. Johnson, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio
Application August 31, 1953, Serial No. 377,444
7 Claims. (Cl. 198—220)



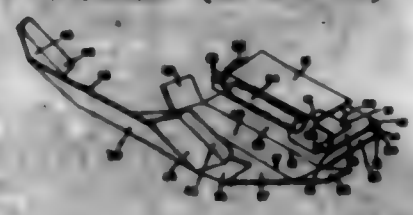
1. A vibratory conveyer mechanism for conveying material the temperature of which may vary widely from the ambient temperature including an elongated trough through which said material is conveyed, an elongated frame means for supporting said trough adapted to vibrate therewith, means interconnecting said trough and said frame means at at least one position along their lengths for controlling the expanding and contracting direction of motion thereof, and other means connecting said trough means and said frame means spaced along the length thereof and including means providing for relative movement between them caused by expansion, contraction and warping of said trough means.

2,843,256
METHANE AND CARBON DIOXIDE SOLUTIONS IN HYDROCARBONS
James W. Martin, Tuckahoe, N. Y., and Frederick A. Hessel, Upper Montclair, Irving P. Hammer, Nutley, and John B. Rust, Verona, N. J., assignors to Oil Recovery Corporation, New York, N. Y., a corporation of New York
Application October 23, 1952, Serial No. 316,491
23 Claims. (Cl. 206—.6)



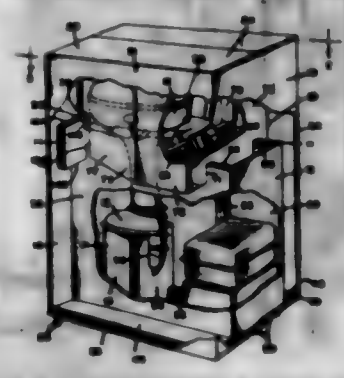
14. A pressure container containing a solution of carbon dioxide and a hydrocarbon gas predominantly methane in a liquid petroleum hydrocarbon fraction, the volume ratio of gas predominantly methane to liquid petroleum hydrocarbon fraction being at least 13 and the volume ratio of carbon dioxide to liquid petroleum hydrocarbon fraction being at least 32.

2,843,257
CARTONS
Harry F. Collins, Jr., Minneapolis, Minn., assignor to Northwestern Corrugated Box Co., Minneapolis, Minn., a corporation of Minnesota
Application January 13, 1956, Serial No. 558,889
2 Claims. (Cl. 206—46)



1. A carton for housing an article having a body, a coil connected to said body and a tube connected to the end of the coil and extending along said body, said carton comprising a bottom having lateral edges, a shelf support extending upwardly from one lateral edge of the bottom, a shelf similar to said bottom extending inwardly from the upper edge of said shelf support and spaced from said bottom, said shelf support being of a height less than the height of the carton, said shelf having an opening therein for the reception of the body of the article and directly supporting said coil, said shelf being of a width less than the width of said bottom, a partition extending upwardly from the lateral edge of said shelf at the side thereof opposite said shelf support and forming a space outwardly of said partition for the reception of the tube of the article, a leg extending downwardly from the partition and resting on said bottom and a wall structure enclosing said previously named parts.

2,843,258
OUTBOARD MOTOR PACKAGE
Paul F. Boeye, Mound, Minn.
Application October 3, 1956, Serial No. 614,656
13 Claims. (Cl. 206—46)



1. In a package for carrying an outboard motor and including a container having a top, a bottom, side walls and end walls, the combination of an insert, U-shaped in form and having spaced legs and a connecting portion therebetween, said insert being of a height less than the height of the container and resting on the bottom thereof and engaging the end walls of the container, the legs of said insert being spaced from the side walls of the container, flanges formed on the lower ends of said legs and engaging the side walls of the container to maintain the spacing between said legs and side walls at the lower ends of said legs, said legs having notches in the upper marginal portions thereof, posts attached to said legs and disposed between said notches and the bottom of the container, a crossbar to which the clamp of the motor may be clamped, said crossbar extending transversely of said insert and being received in said notches,

said crossbar resting on said posts, a shroud overlying said insert and having a transverse member extending across said insert and longitudinal members connected to said transverse member and engaging said side walls, said transverse member having notches therein receiving the upper marginal portions of said legs to maintain the spacing between said legs and side walls at the upper ends of said legs, said shroud engaging the top of the container and means engaging said crossbar from above and holding said crossbar in said notches.

2,843,259
COMMODITY WRAPPER AND PACKAGE
Henry L. Metzger, Castleton-on-Hudson, N. Y., assignor to Fort Orange Paper Company, Castleton-on-Hudson, N. Y., a corporation of New York
Application November 22, 1954, Serial No. 470,272
2 Claims. (Cl. 206—47)



2. A commodity package of the character described comprising a single die-cut blank of paper-board material, scored to provide parallel fold lines, which blank is folded along said fold lines as a tubular sleeve container for a single row of aligned commodity filled truncated conical cups; a plurality of said cups nested in aligned relation in said sleeve; said container including a planular top wall, defined by top parallel fold lines, of a width equal to the smaller diameter of the cups, and substantially smaller than the larger diameter thereof; side walls extending from said top fold lines a distance equal to the height of said cups and terminating at bottom parallel fold lines defining the bottom wall of said container; said side walls having cut-out portions adjacent the top wall only, which cut-outs extend across said top wall to provide a plurality of transverse cup holding straps against adjacent peripheral cup segments to expose the central top portions of the cups while the remaining curved segments of the top portions of said cups penetrate said side wall cut-outs, whereby said cups are each embraced by said straps, bottom wall and on opposite sides by opposite side walls; said bottom wall comprising a first bottom panel extending from one of said bottom parallel fold lines of a side wall to a fold line defining the bottom of said opposite side wall, which bottom panel terminates in an over-folded spoon holding panel-clamp wedged between said cups and adjacent side wall, and a second bottom panel extending from said last named side wall underlying said first bottom panel in face-to-face relation; and means for holding said blank in tubular sleeve formation after the same has been wrapped around said single alignment of cups, said means including two spaced apart slits along the fold line at the juncture of said first bottom panel and its connected side wall, and said second bottom panel terminating in interlocking tabs penetrating said slits.

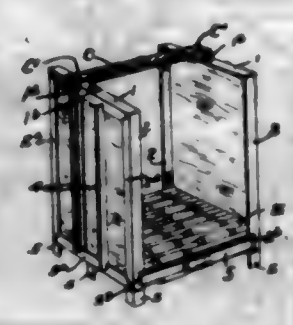
2,843,260
WIRE COIL CONTAINER
Murray M. Sommer, Crawfordsville, Ind., assignor to Mid-States Steel & Wire Co., Crawfordsville, Ind., a corporation of Indiana
Application April 9, 1956, Serial No. 577,102
1 Claim. (Cl. 206—59)

A wire coil support comprising a flat wooden base, wooden runners underlying the base to support it spaced above the floor, an open-work core structure supported on the base and formed of a pair of U-shaped loops of wire arranged with their center portions crossing and the ends of their legs offset to form intermediate angular portions and downwardly extending end portions, the intermediate portions lying against the top of the base and the end portions extending through the base into the runners, staples securing the intermediate portions to the base, the support receiving an annular coil of wire surrounding



the core structure and resting on the intermediate portions of the legs, said coil of wire terminating below the top of the U-shaped loops, and a cover having a centrally apertured top wall overlying said coil and side walls enclosing said coil and secured to the base, the tops of the loops extending through the aperture in the top wall whereby the tops of the loops are left exposed to be engaged by lifting means.

2,843,261
COLLAPSIBLE CONTAINER
Lawrence W. Eppler, Malvern, Ohio, assignor to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey
Application November 16, 1955, Serial No. 547,184
1 Claim. (Cl. 206—65)

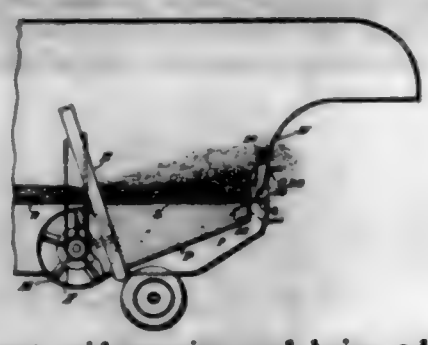


A package comprising a container and a plurality of elongated articles stacked therein, said container consisting of two opposed rectangular rigid wall panels, each having a marginal angle member providing inwardly directed article engaging flanges at the top, side and bottom edges of the facing sides of said wall panels, said bottom flanges having feet integral therewith and the top and side portions having cooperating slots and the wall portions and flanges supporting and confining the ends of the articles stacked therein, and flexible strap means in said slots for releasably drawing the panels together to forcibly clamp the wall portions in engagement with the ends of said articles.

2,843,262
GRAIN SAVING ATTACHMENT
Joseph Greaves, Teston, Mont.
Application January 23, 1957, Serial No. 635,781
6 Claims. (Cl. 209—26)

1. In a harvesting combine, a body, a horizontal screen disposed in said body adjacent the rear end thereof, a grain collecting pan disposed beneath said screen with an upwardly and rearwardly extending passage between same and the rear wall of said body, an elevator with which said pan communicates, a fan having a housing

communicating with said elevator, a chaff dispensing opening in the rear wall of said body rearwardly of and above said screen, a horizontal slat closing the upper end of said passage and whose forward edge is disposed in relatively closely spaced relation to the rear edge of said screen, a grain saving attachment supported on



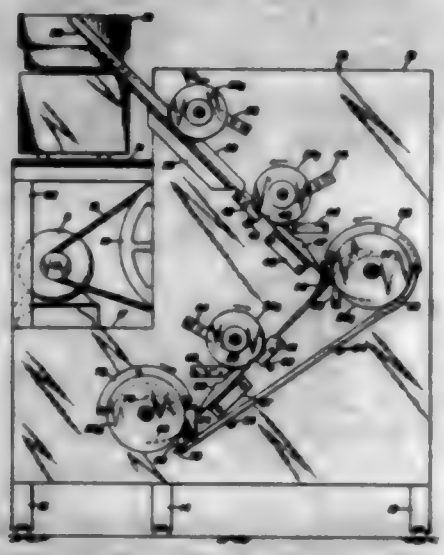
said slat adjacent said opening and being adjustable to vary the operative area thereof, said attachment comprising a vertically disposed panel extended through the space between said slat and said screen, and the lower edge of said panel being provided with a foot member engageable with the bottom wall of said pan.

2,843,263

WAFER GAGER

Robert L. Henry, Jr., Montgomery County, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application February 25, 1955, Serial No. 490,708
2 Claims. (Cl. 209—104)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a gager for rectangular wafers, means to gage said wafers and reject those which are too thick, means to gage one width of said wafers to reject those which are too wide, means for transferring said wafers between said gage means, means to gage said width and reject those which are too narrow, means for transferring said wafers between said width gage means, means to receive said wafers from said latter gage means and to turn said wafers through an angle of ninety degrees, means connected to said turning means to gage the other width of said wafers and reject those which are too wide, means to gage said other width and reject those which are too narrow, and means for transferring said wafers between said latter width gage means.

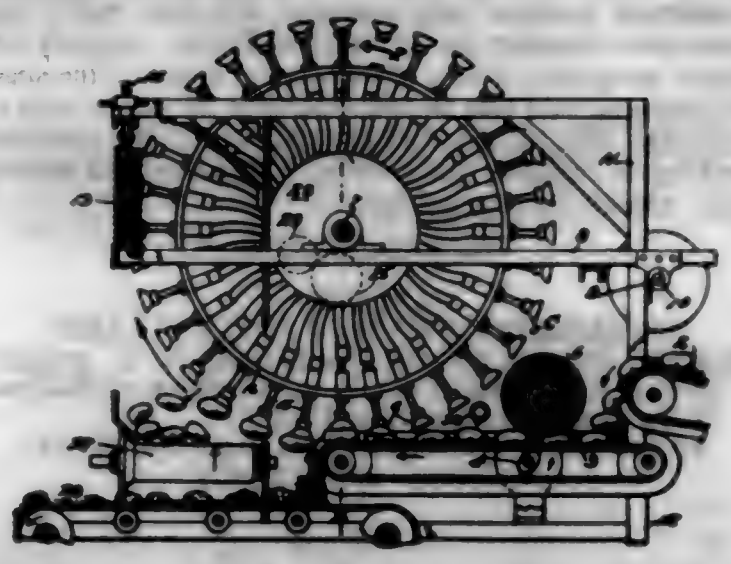
2,843,364

AUTOMATIC, VACUO-PNEUMATIC OBJECT SORTING MACHINE

William T. Pfister, Los Angeles, Calif.

Application June 17, 1954, Serial No. 437,417
8 Claims. (Cl. 209—106)

1. Continuous action apparatus for sorting given-bodies from aggregate; including a rotary carrier having a plurality of peripheral rows of radial suction cups, manifolds connected to transverse rows of the cups along the carrier, a controller device fixed on the carrier and



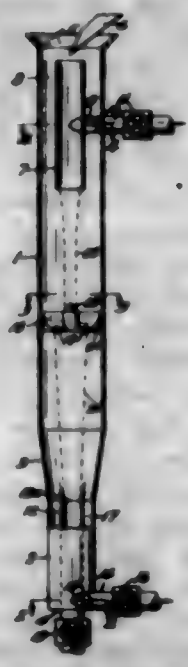
connected to the manifolds, and a vacuum system including a cell bearing snugly on said device to create a vacuum in the manifolds as they come into register with the said cell.

2,843,265

METHOD OF DENSITY SEPARATION

Victor Rukowsky, Rancho Santa Fe, Calif.

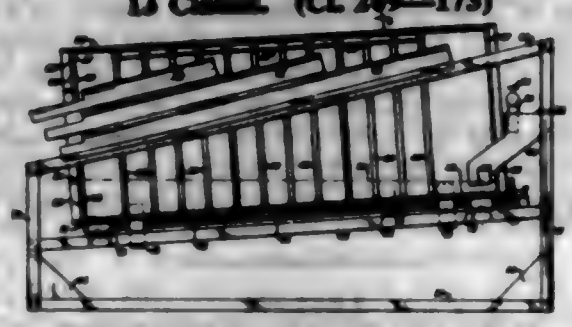
Application July 17, 1956, Serial No. 598,435
7 Claims. (Cl. 209—172.5)



1. In separating a mixture of particulate materials into fractions of differing average specific gravities respectively higher and lower than a selected separating density by a process wherein said mixture is introduced into a separatory medium of predetermined apparent density which is flowing into and spirally around and down within a horizontally confined space at a sufficient angular velocity to create an open downward free vortex, a substantial volume of slurry comprising the flow concentric with and including the open vortex center being discharged downwardly and out of the confined space from an intermediate level therein and the remaining flow being continued around and down within said space and discharged from a level below that of said vortex discharge; the improved method of increasing the separating density which comprises: (*a*) applying to said spirally flowing separatory medium at a level above that of said central vortex discharge an angular deflection sufficient to increase the angular velocity thereof and vertically compress the spiral path of flow, whereby, (1) the spiral path of flow within said confined space is appreciably lengthened, (2)

the apparent separatory suspension density at the outer surface of the confined flow is increased and (3) the apparent separatory suspension density at the central vortex surface is decreased; (*b*) adjusting said angular deflection, with resultant adjustment in angular velocity, and length of spiral path of flow, until the apparent density of the medium at the outer edge of said confined flow approaches the desired separating density; (*c*) feeding the particulate material mixture to be separated to the flowing medium (*d*) and controlling the medium input and discharge rates so that both the adjusted length of spiral path and the adjusted angular velocity are substantially maintained, whereby the average specific gravity of the particulate material in said lower level discharge from said confined space is markedly increased over the maximum average value obtainable in the absence of said angular deflection.

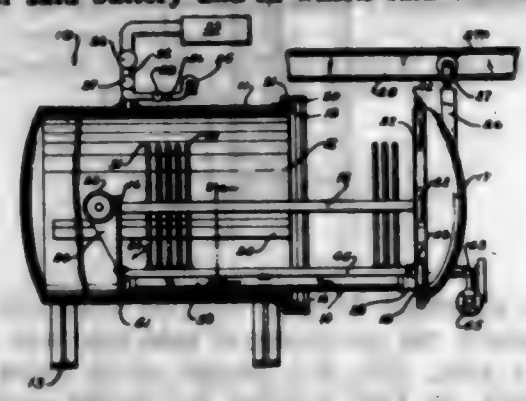
2,843,266
MULTIPLE GRAVITY AND FLOAT CONCENTRATOR
Newton Lee Matthews, Hailey, Idaho
Application April 10, 1957, Serial No. 651,879
13 Claims. (Cl. 209—173)



13. A multiple gravity and float concentrator comprising a frame, a drum mounted for rotation on said frame on an inclined longitudinal axis, said drum being open at both ends, means for rotating said drum, an annular baffle secured to the inner surface of said drum at the lower end, a central discharge opening in said baffle, a plurality of riffle mats, each comprising a strip of flexible material removably disposed in said drum in engagement with the inner surface, spaced inwardly extending annular ribs on each mat providing riffles, a longitudinal inwardly extending fin on each mat, the riffles on each mat being of the same depth with such depth progressively decreasing from the lower to the upper mat, an inwardly extending annular flange at the upper end of said drum providing a central inlet opening, means for feeding water and granular material through said inlet opening into said drum and a plurality of inclined upwardly opening troughs extending into said drum through said discharge opening whereby upon rotation of said drum water and granular material retained by said riffles will be carried upwardly by said fins and deposited in said troughs, there being a separate trough for receiving material from each fin.

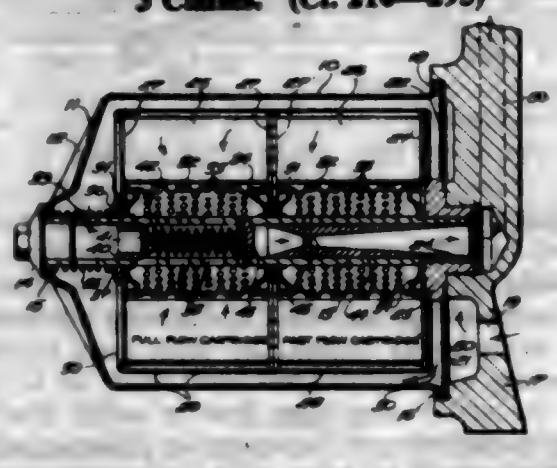
2,843,267
SEPARATION APPARATUS
Kenneth A. Anderson, Silvis, Ill., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application June 27, 1955, Serial No. 518,241
9 Claims. (Cl. 210—236)

1. A pressure leaf filter comprising a horizontal tank open at one end, a carriage movable longitudinally into and out of said tank through said open end of the latter and supporting a battery of vertically extending, primary filter leaves, a cover adapted to close said open end of the tank when said carriage is moved into said tank to dispose said primary filter leaves within the latter, means for normally operating said primary filter leaves within said tank so that solids are deposited on the surfaces of said leaves and filtrate enters the leaves for removal from the tank through a manifold connected to said primary filter leaves, and at least one scavenger filter-leaf pivotally mounted on said carriage for bodily movement with the latter into and out of said tank and for swinging between a vertical, cleaning position depending below said battery of primary filter leaves and an operative position extending under said battery and in which said scavenger filter



leaf extends along the bottom of the tank, when the carriage is moved into the latter, and is operable to remove filtrate from the slurry remaining at the bottom of the tank after the operation of said primary filter leaves so that said cover can then be removed and the carriage withdrawn from the tank to expose the leaves for cleaning without encountering the discharge of wet materials from the open end of the tank.

2,843,268
COMBINED FULL-FLOW AND PART-FLOW OIL FILTERS
Walter V. Kennedy, Central Falls, R. I., assignor to Fram Corporation, Providence, R. I., a corporation of Rhode Island
Application August 5, 1955, Serial No. 526,755
3 Claims. (Cl. 210—295)

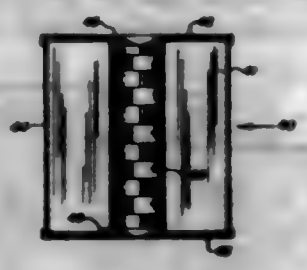


1. Oil filter apparatus provided with a full-flow cartridge and a part-flow cartridge arranged so that both cartridges are subjected to substantially the same upstream oil pressure, a discharge passage for the filtered oil from the first cartridge, a separate discharge passage for the filtered oil from the second cartridge, a venturi tube connected to the first passage so that oil discharged from such passage through this tube will produce a suction action, and means for subjecting the interior of the second discharge passage to this suction action, whereby oil is drawn through the part-flow cartridge and into the stream of oil from the full-flow cartridge.

2,843,269
CENTER TUBES FOR FILTERS
Emery Dudinec, Rahway, N. J., assignor to Purolator Products, Inc., Rahway, N. J., a corporation of Delaware
Application May 16, 1955, Serial No. 508,491
5 Claims. (Cl. 210—437)

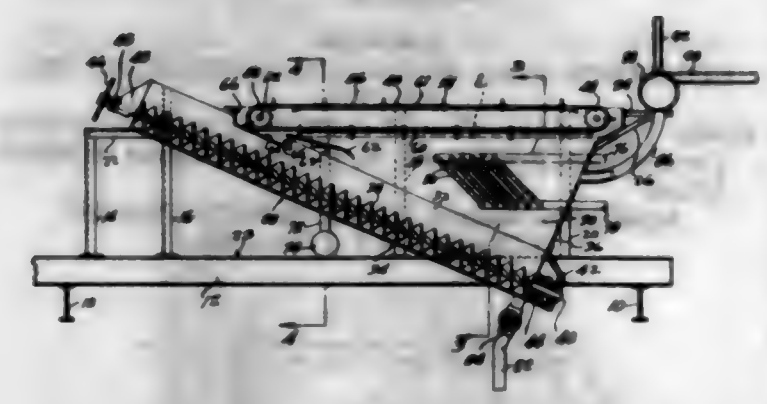
3. In a filter element comprising an annular filter pack, a one piece cylindrical tube inserted in the center of said

pack, said tube comprising two seams located diametrically opposite each other, running the length of the tube and forming a portion thereof, said seams being interconnected by a plurality of semicircular strips, approximately one half of said strips forming one half of the



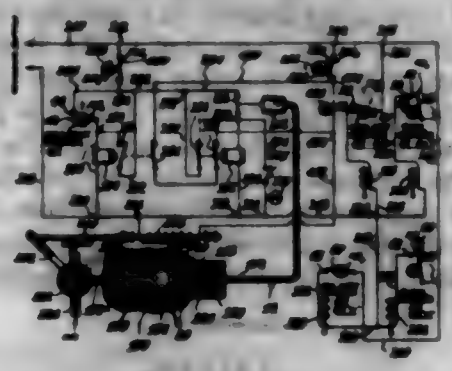
tube and separated by gaps and the remainder of said strips forming the remainder of said tube and also separated by gaps, said first named strips being radially aligned with the gaps between the second named strips and said seams conforming to the curvature of said strips.

2,843,270
SEPARATING CONDITIONER
Jorge A. Acosta, Vero Beach, Fla.
Application May 11, 1956, Serial No. 584,218
3 Claims. (Cl. 210—525)



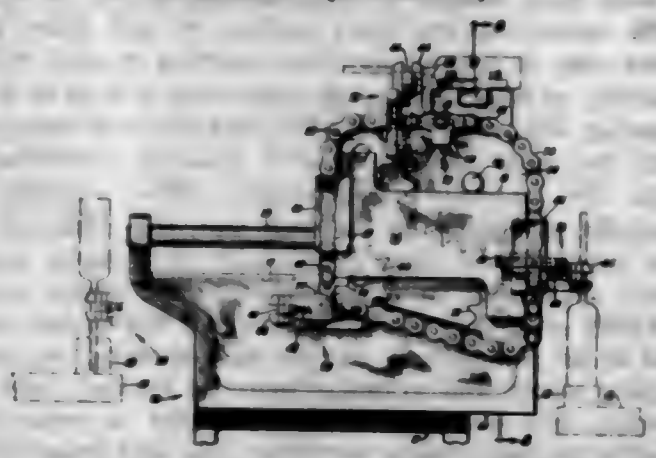
1. In apparatus for separating a liquid slurry into a plurality of components among which are floating solids, a tank confining said slurry; an endless conveyor chain mounted in the top of said tank and having a lower flight extending horizontally within the tank; slats carried by and projecting outwardly from said chain so as to extend into the slurry and skim floating solids therefrom responsive to operating of the conveyor chain; an inclined apron in the path of the slats, said slats wiping over the face of the apron for shifting the solids out of the slurry and up the inclined surface of the apron; and trough means disposed beyond the apron in the sense of the direction of movement of the slats of the lower flight for receiving the solids, the tank having an outlet communicating with the trough means for flow of said solids out of the trough means, said trough means and apron forming beneath the apron a trap for the slurry, the tank having a discharge opening communicating with the trap for passage of the slurry out of the tank, said tank including opposed side walls, the apron and trough means extending transversely of the tank over the full distance between said side walls, said trough means comprising an abutment the bottom edge of which is spaced downwardly a short distance from the bottom edges of the slats and the top edge of which is disposed at an elevation above the bottom edges of the slats in position for limiting the skimmed surface part of the slurry against flow past the trough means in the direction in which said lower flight is moving, said discharge opening communicating with the trap substantially at the level of said abutment.

2,843,271
VACUUM TYPE LEAD WIRE DETECTOR FOR AN AUTOMATIC STEM MACHINE
James Petro, Little Falls, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 23, 1954, Serial No. 477,333
6 Claims. (Cl. 214—1)



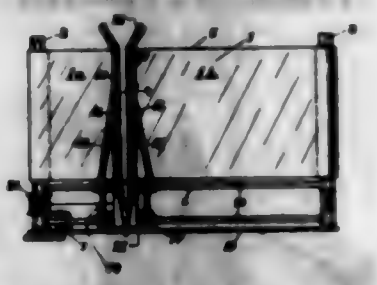
1. A vacuum type lead wire detector comprising hollow lead wire selecting and receiving means, a pressure responsive actuating means connected to one end of said lead wire receiving means, valve means connected to the other end of said lead wire receiving means, evacuating means connected to said valve means and normally communicable with said lead wire receiving means, atmosphere inlet means connected to said valve means, and means operable by said pressure responsive actuating means to operate said valve means to admit air to said lead wire receiving means and to release lead wires therefrom.

2,843,272
TUBE TRANSFER MECHANISM
Henry W. Reeber, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application October 3, 1955, Serial No. 538,844
10 Claims. (Cl. 214—1)



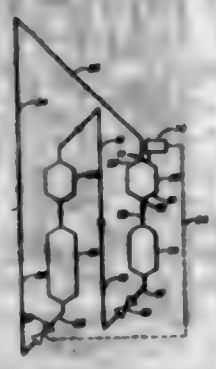
10. A transfer mechanism comprising a reciprocatable carriage and means for reciprocating the same, an endless conveyor on said carriage, equally spaced normally closed tube clasps mounted on said conveyor, means for intermittently moving said conveyor a distance equal to the equal spacing of said clasps, means for opening one only of said clasps at one position in the orbit of the conveyor when the carriage is at one end of its travel, and means for opening one only of said clasps at another position in the orbit of the carrier when the carriage is at the other end of said travel, said means for moving said conveyor comprising a cog in driving relation to the conveyor, a key movable into and out of engagement with the cog, an oscillatable arm slidably retaining the key, a slot in the key, an arcuate way concentric with the axis of the oscillatable arm with the way projecting into the slot, a slide for shifting the way laterally to move the key into and out of engagement with the cog, and a locking nose movable with the slide and spaced from the end of the key to engage the cog when the key moves out of engagement with the cog and to become disengaged with the cog as the key engages the same.

2,843,273
RAIN PROTECTING DEVICE, ESPECIALLY FOR HATCHWAYS ON SHIPS
Olof I. Sundin, Gothenburg, Sweden
Application November 25, 1953, Serial No. 393,114
6 Claims. (Cl. 214—15)



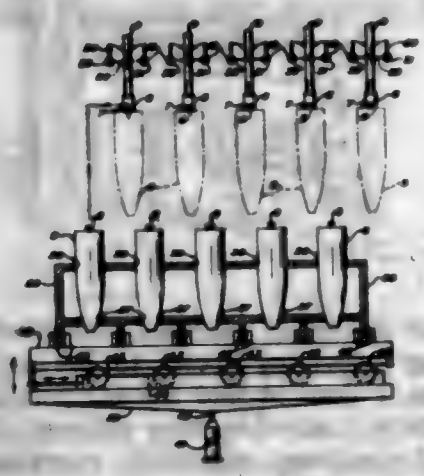
1. A rain guard for the hatches of ships and the like comprising a substantially rectangular fabric body, means supporting the body above the hatch, the fabric body being provided with a slot extending transversely of the body from one edge to the opposite edge thereof, a rope for the loading and unloading of the ship introducible into the ship through the slot in the fabric body, a pair of spaced apart rotatable shafts, each edge of the body remote from the edge adjacent the slot being attached to one of the shafts to permit the body to be wound on one shaft and unwound from the other shaft during rotation of the shafts whereby the transverse slot can be selectively moved in alternate directions, means cooperating with the edges of the body defining the slot to maintain such edges in substantial parallelism, electric motor means, and a device operatively connected with the motor means and located at each edge of the slot and engageable with the rope so that said device causes said motor means to rotate the shaft adjacent the edge of the device engaged by the rope to wind the body on such shaft and move the slot in the direction of such shaft.

2,843,274
FLOW CONTROL BAFFLE FOR GRANULAR MATERIAL
Gael M. Williams, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application November 4, 1955, Serial No. 545,014
2 Claims. (Cl. 214—17)



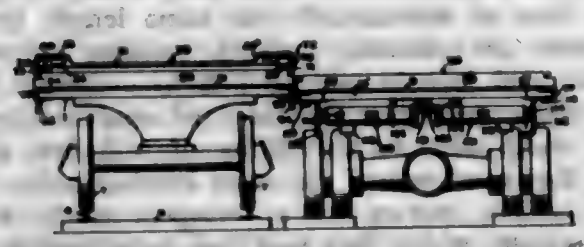
1. A vertical surge tank for a catalyst circulating system, said tank having means therein responsive to the level of the upper surface of granular catalyst accumulated in said tank; said tank comprising a generally cylindrical wall portion, a top portion having an inlet for catalyst, a conical bottom portion having a central outlet for catalyst, and means for minimizing changes in configuration of the upper surface of said accumulated catalyst due to variable rates of flow in said circulating system which would otherwise affect adversely said level-responsive means, said last-named means consisting of a single circular baffle spaced above and coaxial with said outlet, said baffle being substantially parallel to the conical bottom of said tank and provided with a central aperture that is smaller in diameter than the tank outlet and effective to prevent those accumulated catalyst granules nearest the center of said tank from flowing toward said outlet and a higher rate than the accumulated granules nearest the wall of said tank.

2,843,275
ARTICLE TREATING APPARATUS
Albert T. Enk and Henry M. Heyn, Toledo, Ohio, assignors to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application October 18, 1954, Serial No. 462,788
15 Claims. (Cl. 214—18)



1. Article treating apparatus comprising, in combination, a furnace, a cage receiver located adjacent one end of said furnace, a track extending horizontally above said furnace and said cage receiver, a carriage supported by said track for travel therealong, said furnace having a top with a slot extending beneath said track, a plurality of shafts depending from said carriage and arranged to travel through said slot as said carriage travels along said track, fixture means carried by the lower ends of said shafts, a plurality of rods hanging from each of said fixture means, said hanging rods being arranged in a definite pattern, a cage having receptacles for articles to be treated, said receptacles being so arranged as to support such articles in a pattern corresponding to the pattern in which said hanging rods are arranged, means for locating said cage in a definite position on said cage receiver, coupling elements for connecting such articles to the lower ends of said hanging rods, and means for moving said cage receiver to couple said coupling elements and subsequently to remove said cage from such articles.

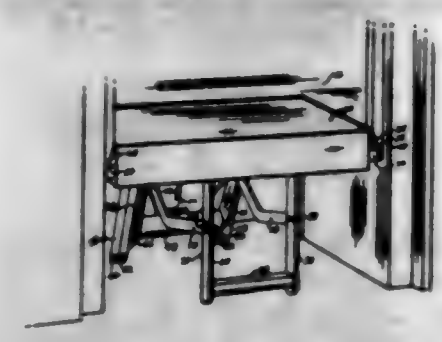
2,843,276
SYSTEM FOR LOADING AND UNLOADING OF TRUCK-TRAILERS AND RAILROAD CARS
Claude L. Copeland, Pittsburgh, Pa.
Application May 17, 1955, Serial No. 508,844
18 Claims. (Cl. 214—38)



1. In a transportation system of the character described, a truck trailer body adapted for interlocking engagement with and selective transfer to and from a truck trailer to a railway flat car, and vice versa, comprising, in combination, a truck trailer body fixedly mounting a plurality of parallel, spaced, subjoined transverse supporting members severally embodying integral depending flanges defining channel sections therebetween, said channel sections severally incorporating hold-downs at both ends thereof, said hold-downs comprising spring-biased

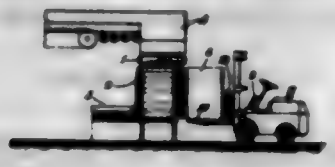
hinge-hooks, and means for simultaneously releasing said hooks, the hold-downs being engageable with fixed members on a subjacent transportation unit.

2,843,277
TRUCK SIDE-LOADER
Walter F. Brennan, Los Angeles, Calif.
Application January 29, 1957, Serial No. 637,836
5 Claims. (Cl. 214—77)



1. In a truck having an enclosed rear storage portion, a side doorway providing access to the inside of said storage portion, a floor in said storage portion, an independently vertically movable floor segment disposed adjacent to said doorway, selectively operable actuating means for moving said floor segment between an uppermost position in which said floor segment is substantially flush with said floor, forming a part of said floor adjacent to said doorway, and a lowermost position substantially below the level of the truck floor, and a ladder depending from the front portion of said floor segment when said floor segment is in its uppermost position at substantially the same level as the truck floor, said ladder folding underneath said floor segment as said segment is lowered, whereby said ladder will not interfere with movement of said floor segment to a position close to the ground.

2,843,278
METHOD OF FEEDING WOOD INTO CONTINUOUSLY OPERATING GRINDERS FOR THE PRODUCTION OF WOOD PULP
Tor G. Qvefander, Karlsnia, Finland
Application July 28, 1955, Serial No. 523,242
4 Claims. (Cl. 214—152)



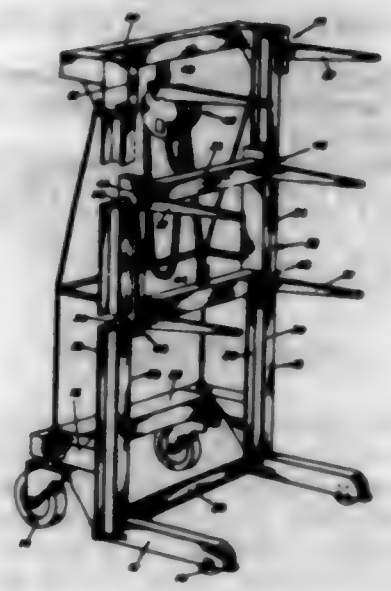
1. The method of feeding wood to the grinder position for the production of wood pulp which comprises, feeding logs of substantially the same length into the upper ends of collecting pockets, building up vertical stacks of said logs in said pockets to a desired height while rigidly confining the sides of said stacks to a desired width and, on the filling of said first pocket, forcing the wood out of the same longitudinally into a second pocket, carried on a transport truck, and of slightly greater width than said first pocket while maintaining said wood in said vertically stacked relation and rigidly confining said sides of said stack in said second pocket, transporting said wood while in said second pocket and bringing the same into alignment with a third pocket, forming the entrance to a grinder, and of slightly greater width than said second pocket and upon achieving said alignment, forcing said wood from said second pocket longitudinally into said third pocket as soon as said third pocket is in a position to receive the same.

2,843,279
METHOD OF STRINGING TOBACCO
Luther I. Covington, Halifax, Va.
Original application March 5, 1954, Serial No. 414,416, now Patent No. 2,776,760, dated January 1, 1957. Divided and this application January 4, 1957, Serial No. 632,445
1 Claim. (Cl. 214—152)



A method of hanging tobacco leaves upon a stick for curing comprising, arranging two groups of leaves with their stems extending in opposite directions and overlapping, tying a loose loop of string around the overlapping stems, dropping the tied bundle with the leaves flat and transversely of the stick with the tying loop overlying the stick and permitting the tied groups to fall on opposite sides of the stick to cause the sides of the tying loop to cross over to form small loops around each group of leaf stems.

2,843,280
LIFT TRUCK STACKER
Alfred Leslie Stoppa, West Flamboro, Ontario, Canada
Application January 23, 1956, Serial No. 560,641
6 Claims. (Cl. 214—620)



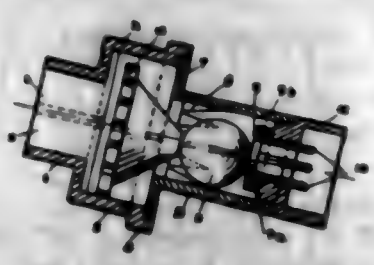
1. In a lift truck: a base therefor; a pair of standards extending upwardly from said base; a pair of forks extending outwardly from said standards; a crossbar resting on said forks at a predetermined location; a pair of downward projections thereon apertured to slide over said forks; a pair of studs projecting downwardly from said crossbar into said apertures, but leaving in said apertures sufficient depth below said studs to receive said forks; downwardly extending holes in each of said forks at said predetermined location adapted to receive said studs; set-screw means extending upwardly through said projections adapted to bear on said forks and upward projections on said bar having a concave upward surface.

2,843,231
NURSING BOTTLE
Amy E. Gallois, New Orleans, La.
Application September 16, 1955, Serial No. 534,753
1 Claim. (Cl. 215—11)



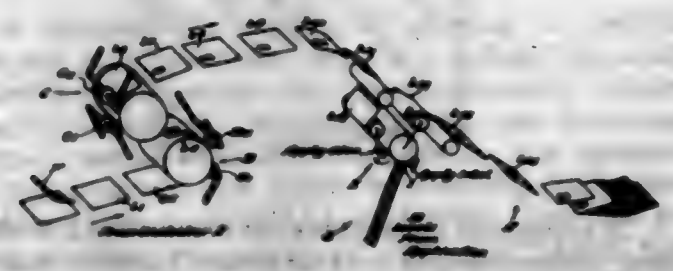
In combination with a bottle having an open outer end having internal threads and external threads, and internally threaded rigid cap threaded upon the outer end of said bottle engaging said external threads, a flexible nipple having a flexible neck and a flexible flange portion, said nipple being adapted to fit within said rigid cap with the cap bearing against said flexible flange, said nipple having a rigid externally threaded insert adapted to be threadedly engaged with said internal threads, and an imperforate cap for sealing the nipple from the fluid in the bottle having a rigid laterally extending portion adapted to fit against the laterally extending portion of said nipple and adapted to be clamped between the flange portion of the nipple and the open outer end of the bottle.

2,843,282
CLOSURES FOR CONTAINERS TO MAKE THE SAME NON-REFILLABLE
José Torres Vellz, Havana, Cuba
Application May 2, 1955, Serial No. 505,495
4 Claims. (Cl. 215—22)



4. A closure for a container or the like to make the same non-refillable, comprising two engaging hollow portions, the first of said portions being adapted to project within the container, the other of said portions being adapted to project without the container, the said other hollow portion comprising three cylindrical coaxial sections of different diameters, the first section constituting the discharging mouth, another of said sections constituting the central section of a diameter larger than the diameter of said first named section, and a third section connected to the central section and of a slightly larger diameter than that of said central section, the first of said sections being divided into two intersecting partitions which extend slightly within said central section and extending laterally in substantial abutting relation with the wall of said central section, wedge shaped elements projecting from said one of said hollow portions and engageable with said valve, said spherical member being limited in its movement by said wedge shaped elements, and a substantially frustum shaped member operable in said other of said hollow portions and projectable within said one of said hollow portions and having its apex end engageable with said spherical member, the base of said frustum shaped member having a plurality of openings.

2,843,283
INTEGRATED IMPRINTING AND LABELLING MACHINE
Ernest J. Sarring, Willow Springs, Otho Kile, Homewood, and Theodore W. Mayer, Chicago, Ill., assignors to R. R. Donnelley & Sons Company, a corporation of Delaware
Application January 3, 1957, Serial No. 632,281
17 Claims. (Cl. 216—1)



1. A machine for imprinting previously printed sheets and preparing them for distribution, comprising: an imprinting mechanism having a plurality of impression members which are provided with different, removable imprinting means, one of said members performing an imprinting function at any given time while others are idle so that said members may function alternatively to continuously imprint previously printed sheets seriatim to provide successive predetermined groups of sheets with different imprints; labelling means for applying labels seriatim to the imprinted sheets in sets which are correlated with the aforesaid groups of sheets; imprinting transfer means for effecting an automatic transfer of the imprinting function from an imprinting impression member to an idle impression member when the last sheet of a predetermined group has been imprinted; and control means for correlating the functioning of the labelling means with the functioning of the imprinting mechanism.

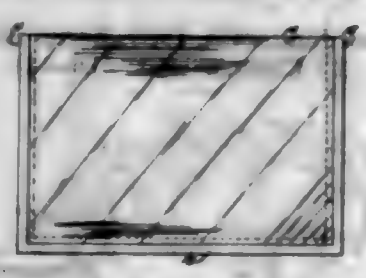
2,843,284
CHICKEN COOP
Abner Carey, Grayville, Ill.
Application September 28, 1953, Serial No. 382,689
1 Claim. (Cl. 217—36)



A chicken coop comprising a bottom, top, side walls and end walls, said top having an opening and a closure member therein, said bottom and top having rounded corners and spaced from each other by a plurality of spaced vertical slats forming said side and end walls, a strap around said slats adjacent the remote ends thereof, each of said straps being continuous around said rounded corners, each of said vertical slats including a pair of stripe with the inside strip being shorter than the outside strip with the inside strip disposed between and abutting the inner faces of said top and bottom and said outside strip is secured to the outer edges of said top and bottom with the ends of said outside strip substantially flush with the outer faces of said top and bottom, said bottom being void of obstructions on the lower surface thereof, and including flooring boards on the upper surface in abutting engagement with the inner surface of the inner

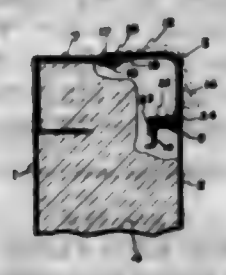
strips adjacent the lower end thereof, said top having ledge forming members on the undersurface thereof for abutting engagement with the inner surface of certain of the inner strips adjacent the upper end thereof.

2,843,285
COLLAPSIBLE CONTAINER FOR LIQUIDS
Reb B. Dodson, Pearl, Tex.
Application September 27, 1956, Serial No. 612,461
4 Claims. (Cl. 220—4)



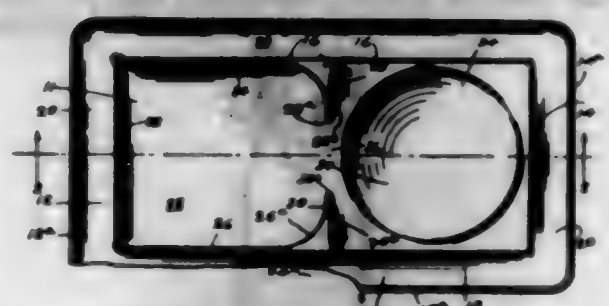
1. A collapsible liquid container comprising a U-shaped frame, channel-shaped in cross section having a base with upwardly extended end sections, panels of transparent material positioned in opposite sides of the frame, and a resilient spacer having a base with upwardly extended end sections positioned between the panels of transparent material providing sealing means at the bottom and ends of the container.

2,843,286
REFRIGERATOR CABINET BREAKER STRIP
John W. Pulaski, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application June 27, 1956, Serial No. 594,188
2 Claims. (Cl. 220—9)



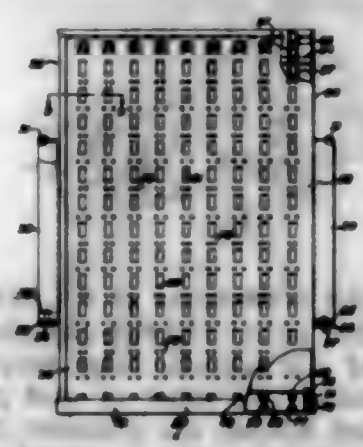
1. A refrigerator cabinet comprising spaced inner and outer shells defining a storage compartment having an access opening at the front thereof, said outer shell having an inwardly extending flange around said access opening and defining a portion of the cabinet face, the marginal edge of said inner shell being reverse bent to form a flange rearwardly of said flange on said outer shell and including a first flat section extending normal to said inner shell outwardly towards said outer shell and a second flat section extending rearwardly from said first section and substantially parallel to the adjacent portion of said shell, and a resilient, flexible breaker strip of insulating material bridging the space between said shells, said breaker strip being of generally right angle cross-section and including a front face forming the remaining portion of the cabinet face and a side face extending perpendicularly from said front face into contact with the marginal edge of said inner shell, said side face including a laterally extending section overlying said first section of said inner shell flange and contacting said first section only adjacent the inner edge thereof and a rearwardly extending section terminating in contact with only said second flat section of said inner shell flange, said front face of said breaker strip including an offset edge defining a first surface contacting the inner edge of said inwardly extending flange on said outer shell and a tongue extending along and in contact with the rear surface of said outer shell flange.

2,843,287
FOOD RECEPTACLE
Harold D. Pixley, Biltmore Forest, N. C.
Application September 7, 1954, Serial No. 454,444
1 Claim. (Cl. 220—20)



A compartmented cereal dish comprising an upper horizontal rectangular wall, a pair of spaced apart side walls depending from opposite sides of said upper wall, a pair of spaced apart end walls depending from opposite ends of said upper wall and having their opposite ends respectively integrally joined to the opposite ends of said side walls, said side walls and said end walls each sloping downwardly and outwardly, a continuous horizontal trough formed integrally with the lower outer portions of said side and end walls, said horizontal upper wall having a deep recess formed in one end portion thereof, an end flange extending integrally upwardly from the end of said upper wall opposite said deep recess, a pair of oppositely disposed upwardly projecting side flanges on opposite side edges of said upper wall extending from said end flange to a point intermediate the ends of said upper wall, and short flanges forming a partial partition between the end portion of said upper wall having said deep recess and the remaining portion of said upper wall.

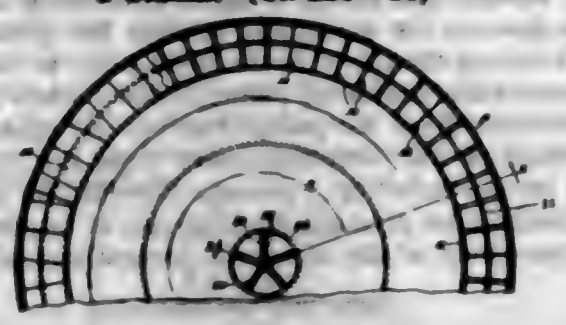
2,843,288
MULTIPLE COMPARTMENT RECEPTACLE
Carl H. Buecker and John R. Cushman, Fort Wayne, Ind., assignors, by mesne assignments, to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application December 4, 1956, Serial No. 626,171
6 Claims. (Cl. 220—22)



6. A receptacle for permitting insertion and withdrawal of discrete elements from either end and any one of a plurality of compartments and for transporting said elements in stacked relation as a unit comprising a plurality of pairs of spaced, parallel plates arranged in aligned, parallel and spaced relation, each of said plates having tabs spaced along the same opposed edges and a narrow portion of said plate along one of the other edges formed at an angle thereto and provided with pairs of spaced apertures arranged both transversely and longitudinally of said plate and in alignment with said tabs and with openings aligned with said pairs of apertures adjacent each end thereof, spacing members formed from each of said plates in alignment longitudinally with said pairs of apertures and therebetween, the spacing members of each

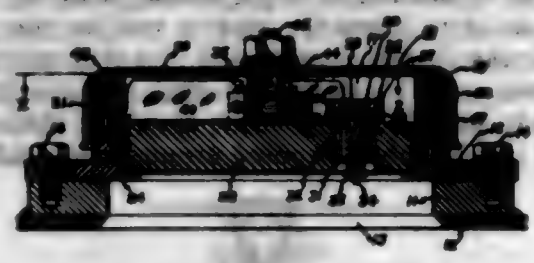
pair of plates extending normal to said plate and toward each other, a plurality of pairs of spaced, parallel partition members arranged in aligned and spaced relation between each pair of said plates and on opposed sides of said spacing members, each of said partition members having spaced tabs along opposed edges thereof for insertion into the apertures in said plates to secure said partition members in a fixed relation thereto and a narrow portion thereof along one of the other edges formed at an angle thereto with flared edges to conform to the formed portion of said plates, side plates provided with apertures spaced along opposite edges thereof, pairs of spaced apertures arranged in alignment both transversely and longitudinally thereof for receiving said tabs on said plates to secure said plates in a fixed relation thereto and openings aligned with said pairs of apertures adjacent each end thereof and having a narrow portion thereof along one of the other edges formed at an angle thereto with flared edges to conform to the formed portion of said plates, members arranged in and extending through the openings in said plates and said side plates for maintaining the spacing between said plates and said partition members at the extremities thereof, said plates, partition members and side plates forming in their assembled relation a plurality of compartments and the formed portions thereof providing said compartments at one end with open ends larger than the other open ends, and an end plate arranged with respect to the other end of the compartments and provided with a plurality of openings aligned with said compartments and having marginal lips on opposed edges thereof for supporting said elements in stacked relation in each of said compartments.

2,843,289
FLOATING ROOF
Reign C. Ulm, Schererville, Ind., assignor to Graver Tank & Mfg. Co., Inc., East Chicago, Ind., a corporation of Delaware
Application August 9, 1956, Serial No. 603,004
2 Claims. (Cl. 220—26)



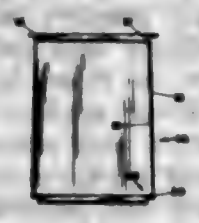
1. In a field storage tank arrangement comprising a cylindrical shell, a roof arranged to float on product stored in the shell, said roof comprising a single deck, a rim peripherally secured adjacent the outer edge of the deck, a plurality of pontoon-like sections peripherally located around the outer edge of the deck, a sump centrally located on the deck and comprising a wall secured to the underside of the deck and defining a sump chamber below said deck, drain means operatively connected to the sump, and means to accommodate selectably variable uniform loading of the central portion of the said roof immediately adjacent said sump so as to provide said deck with a selectably variable positive downward pitch toward said sump, said means comprising a plurality of box-like chambers extending radially outwardly from said sump below said deck, said box-like chambers being radially elongated and provided with equal angular spacing therebetween, said box-like chambers being arranged to selectably receive variable but equal quantities of weighting material, and a unitary annular stress-distributing member continuously connected to the underside of said deck and the outer extremity of said box-like chambers.

2,843,290
PRESSURE RELIEF DEVICE
Chesley F. Hooper, Rome, Ga., assignor to General Electric Company, a corporation of New York
Application April 24, 1957, Serial No. 654,859
8 Claims. (Cl. 220—29)



6. A pressure relief device for covering an aperture in the wall of an enclosure comprising sealing disk means disposed in said aperture, cover means releasably covering said aperture externally of said enclosure, said disk means and cover means defining a chamber in said aperture, valve means in said disk means for admitting fluid above a predetermined pressure to said chamber from said enclosure to effect the release of said cover means, and catch means in said chamber arranged to engage grooves in the wall of said aperture to releasably hold said disk means in said aperture, said catch means being operatively connected to said cover means to effect the release of said disk means upon release of said cover means.

2,843,291
BIN
Alfred Leslie Stoppe, West Flamboro, Ontario, Canada
Application March 12, 1956, Serial No. 570,988
3 Claims. (Cl. 220—97)



1. A bin defined by side and bottom walls, an upper peripheral angle iron defining the upper extremity of said side wall, with the horizontal portion of said angle iron extending outwardly from said side wall and the vertical portion thereof extending downwardly from the inward end of said horizontal portion, a lower angle iron on said base having a horizontal portion extending to the base of the side walls and a vertical portion extending downwardly from the inward end of said horizontal portion, the diameter of the inner face of the vertical portion of the upper angle iron being greater than the diameter of the outer face of the vertical portion of the lower angle iron.

2,843,292
STRAW DISTRIBUTOR
Michel Bachr, Paris, France
Application September 21, 1951, Serial No. 247,708
Claims priority, application France May 21, 1951
4 Claims. (Cl. 221—190)

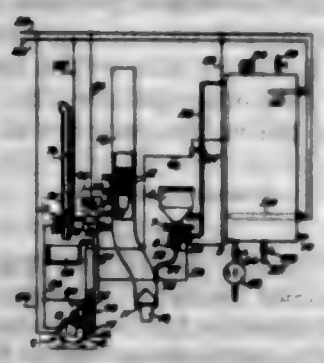
1. A drinking straw dispenser comprising a base, a hollow cylindrical guide member being disposed normal to said base and having an abutment located in a selected position on its external surface, an ejector device mounted on said base and axially in said guide member, a spring disposed around said ejector device, a funnel-shaped member being disposed so as to have its larger diameter in upward position and its lower end engaging said spring so as to be resiliently mounted thereon, a tubular member connected to said funnel-shaped member extending downwardly and providing guide means for said ejector, said funnel-shaped member providing a recep-

tacle, a cylindrical package of straws having both ends cone-shaped to conform to said funnel-shaped member with apertures in said ends and having a large number of straws disposed parallel to the ejector device, a first ring member disposed around the upper end of said package of straws and having a smaller diameter than the package so as to allow the ring to rest on the package, a flexible cap disposed over said first ring member and having two axial cross-slits so that the resulting four corners can be lifted by a straw emerging therethrough, a second ring member disposed around said guide means



and being disposed between said base and said abutment so as to engage said abutment when moved upwardly, at least two tie-rods connecting said first and said second ring members whereby downward pressure on said first ring-member will apply pressure on said package so as to cooperatively compress said spring and allow said funnel-shaped member to move downwardly and said ejector to enter the lower aperture in said package of straws and eject a straw and release of said first ring member will allow said spring to extend and move the second ring up against said abutment so as to return the dispenser to position for dispensing.

2,843,293
AUTOMATIC VENDING MACHINE
Harris G. Burgoyne, Green Bay, Wis.
Application July 9, 1956, Serial No. 596,578
15 Claims. (Cl. 222—129.4)



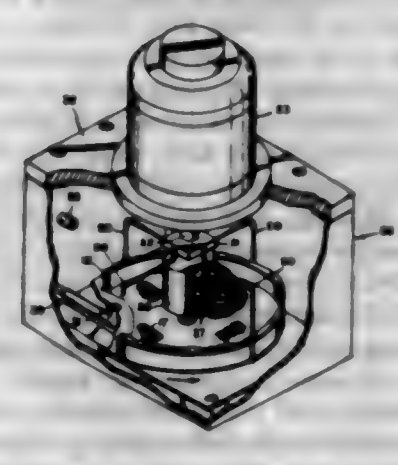
1. A vending machine comprising a storage bin for ingredients, a mixing chamber adapted for communication with said bin, said chamber comprising a first funnel shaped member and a second funnel shaped member, said second member being positioned to receive along its inner walls the discharge of said first member, means arranged between said bin and said chamber for dispensing a measured quantity of ingredients from said bin into said first member, a water delivery conduit leading into said second member and adapted to be connected to a supply of water, valve means arranged within said conduit for providing a measured quantity of water for movement into said second member, nozzle means connected to said conduit and positioned for causing the water to swirl around within said second member, and means for actuating said ingredients dispensing means and said valve means in a predetermined manner to provide movement of the ingredients into said first member, through said first member, into the swirl of water in said second member and out of said second member in solution form.

2,843,294
DISPENSING APPARATUS
Henri A. Chinchole, Paris, France
Application July 5, 1955, Serial No. 520,874
16 Claims. (Cl. 222—162)



14. In a dispenser for lubricants which are stored within a receptacle, means for reciprocating the receptacle along an axis of movement, a fluid pump including a stationary piston and a pump body movable with said receptacle, said pump body including a pump chamber for receiving said piston in response to the movement of said container toward said piston, a sleeve enveloping said piston and supported for movement relative the piston, means for advancing the sleeve to the pump body to cut a lubricant core aligned with the pump chamber when the piston is withdrawn from the pump chamber in response to the movement of the receptacle away from the piston, and outlet means including a passage through the piston for dispensing under pressure the lubricant in response to the next movement of the receptacle toward said piston.

2,843,295
POWDER CLOUD GENERATOR
Eugene C. Ricker, Columbus, Ohio, assignor, by mesne assignments, to Haloid Xerox Inc., a corporation of New York
Application February 18, 1955, Serial No. 489,249
6 Claims. (Cl. 222—189)



1. A powder cloud generator comprising a housing, a porous membrane in said housing, drive means to

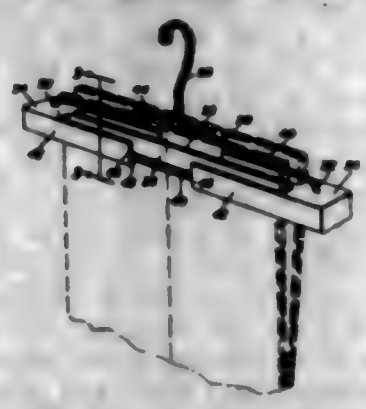
cause movement of said membrane, guide means to support and position said membrane within said housing including a path maintaining at all times at least a portion of said membrane substantially in a horizontal plane, meter means within said housing positioned along the path of movement of said membrane through which said membrane moves in substantially a horizontal plane adapted to meter a uniform amount of powder particles to said membrane as said membrane moves relative thereto and adapted to retain on said membrane against said meter means a supply of powder particles, said meter means being positioned against the top surface of said membrane, input means to supply a flow of gas into said housing, and output means positioned against the underside of said porous membrane adapted to supply an aerosol of powder particles out of said housing, the flow of gas from said input means being first to said housing interior then through said membrane and then out said output tube.

2,843,296
PIN-TYPE ADJUSTING DEVICES FOR DRESS FORMS
Frank Crolus, Chicago, Ill.
Application December 28, 1955, Serial No. 555,850
2 Claims. (Cl. 223—68)



1. An adjusting device for the adjoining sections of a dress form comprising a bar spanning the sections along the inner side, means to attach one end portion of the bar to one of the sections, the bar having a longitudinal series of apertures opposite the other section, and a pin passed through the latter from the outside for direct selective engagement with one of such apertures according to the spacing of the sections, said pin having a head at its outer end and being freely insertible into and removable from the form.

2,843,297
GARMENT HANGER
William S. Jennette, Elizabeth City, N. C.
Application April 27, 1956, Serial No. 581,150
2 Claims. (Cl. 223—95)



1. A trousers hanger comprising a one-piece clampless unit embodying a pair of block-like end members and an interconnecting bar, said bar being rectangular in cross-section and having at least one flat vertical cuff contacting face and being provided along its lower lengthwise edge only of said one face with an outstanding rib, the upper edge of said rib constituting a cuff-edge rest and suspension ledge, a pair of substantially rigid finger-like cuff embracing members connected to said end members and disposed in opposed spaced parallelism relative to said one vertical face of said bar member and provided on their inward surfaces with lengthwise ribs, the latter ribs being spaced from, parallel to, and coplanar with said first named rib, the upper edges of said second named ribs constituting auxiliary cuff rests and suspension ledges, the inner adjacent ends of said finger-like members being spaced apart a distance sufficient to facilitate the steps of manually inserting and removing the cuff-equipped portions of the trousers legs.

2,843,298
TROUSER HANGER
Vladimir Jagr, White Plains, N. Y.
Application February 1, 1957, Serial No. 637,757
1 Claim. (Cl. 223—95)



Apparatus for supporting a pair of trousers comprising, in combination, an independent hanger member adapted to be positioned one in each leg of said trousers, said hanger member comprising a pair of main body portions arranged in side by side relationship and each having a serrated end facing in an opposite outward direction, each of said main body portions having a centrally located longitudinal slot and an upwardly extending tab portion, a fastening member secured to each one of said main body portions in slidable engagement with the longitudinal slot of the other of said main body portions, spring means urging each of said main body portions apart in opposite directions, the serrated portion of each of said main body portions adapted to engage within one side of the trouser leg under the action of said spring means, said spring means including a bow spring having a centrally disposed loop and a fastening loop at each end, each one of said fastening loops being secured to the upwardly extending tab portion of a different one of said main body portions above the level of said fastening means, said centrally disposed loop being adapted to hang from a hanger bracket, said hanger bracket including a V-shaped recess for receiving said centrally disposed loop, and an arcuate portion adapted to be suspended from a stationary support.

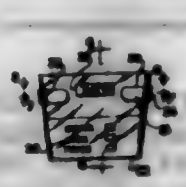
2,843,299
GARMENT HANGER GUARDS
Hubert B. Tillery, Kansas City, Mo., assignor to Tillery Container Company, Kansas City, Mo., a partnership
Application February 21, 1955, Serial No. 489,674
4 Claims. (Cl. 223—98)



1. A garment hanger guard formed from a sheet of relatively stiff paper stock and comprising an elongated supporting portion and flanges extending inwardly from the longitudinal edges of said supporting portion and to-

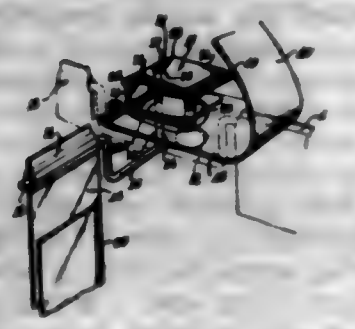
ward each other beneath and in spaced relation to said supporting portion, said flanges having the longitudinal edges thereof disposed in overlapping relation and each of said flanges being provided with means for interlocking said flanges together.

2,843,300
PANTS PROTECTIVE COVERING
Leonard Gladstone, New York, N. Y.
Application April 16, 1957, Serial No. 653,177
4 Claims. (Cl. 223—98)



1. A garment protector, comprising an endless band of transparent thermoplastic material, said band having a tapered shape, tapering in the direction of its length, and a pair of U-shaped clips disposed transversely on the band, said clips being formed of resilient thermoplastic material having a greater thickness than that of said band, each of the clips being secured near the wider end of the band by heat-sealing of the bights of the clips to the band so that the outer ends of the arms of the clips are free from the band, said ends being normally so spaced that when the band is disposed on the midsection of a trousered garment, the arms are biased inwardly to hold the band on the garment.

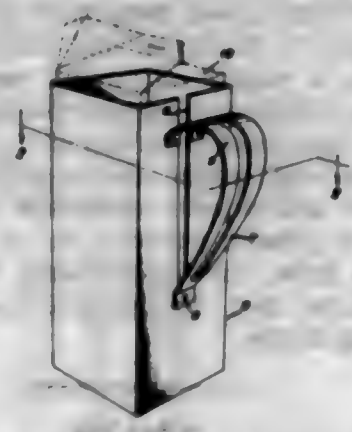
2,843,301
STORAGE RECEPTACLE AND ATTACHMENT MEANS THEREFOR
Erma R. Worthen, Los Angeles, Calif.
Application September 13, 1956, Serial No. 609,639
5 Claims. (Cl. 224—42.45)



1. A clamp adapted for installation in the interior of a moving vehicle and adapted to support a bag which comprises: a U-shaped member adapted to fit over the bottom forwardly projecting flange of the dashboard of the vehicle; an arm extending through said clamp and rotatably journaled therein for pivotal movement in a horizontal plane, said arm projecting downwardly and thence horizontally so as to pass freely beneath said flange; an enlarged head affixed to the top of said arm adjacent said upper side wall; and at least one cavity provided in said upper side wall, one cavity being so positioned as to engage said enlarged head to prevent the pivotal movement of said arm when said arm is in an exposed position.

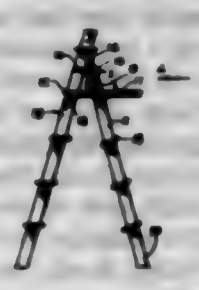
2,843,302
HOLDER FOR POURING CONTAINERS
Edgar M. Bandy, Lindsay, Calif.
Application May 10, 1954, Serial No. 428,738
1 Claim. (Cl. 224—45)

A holder for pouring containers comprising a hollow body having an open top and a closed bottom and a vertical slot in one side thereof extending from said top and terminating in spaced relation to said bottom and whereby said body is adapted to be contracted to grip a container therein, and an outwardly bowed elongated handle of flat material having a lower end attached to said side of the body below and in line with said slot, said handle having a longitudinal central slot therein spaced from said lower end and providing spaced upper ends on the



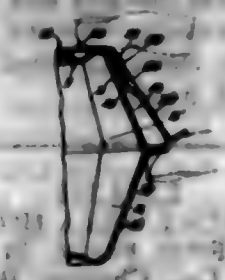
handle and whereby the handle is contractible by squeezing the same, said upper ends of the handle being attached to said side of the body below said top and at opposite sides of the slot in said body whereby the body may be contracted by contracting said handle, said handle flaring edgewise upwardly to space its upper ends at opposite sides of the slot in said body.

2,843,303
EXTENSION STEP LADDER
Roxton C. McKinnie, Los Angeles, Calif.
Application December 28, 1956, Serial No. 629,600
2 Claims. (Cl. 228—17)



1. In a combination step and extension ladder including a pair of front legs and a pair of rear legs having a plurality of steps respectively supported therebetween and in which said rear legs are shorter than said front legs by a given length and pivoted in an upside down position to said front legs at points spaced substantially said given length from the top of said front legs when in a first position to provide a step ladder, and including a pail shelf having a rear portion secured to said front legs for swinging movement to an out of the way position, the improvement comprising: lock receiving means secured to said rear legs immediately below said pail shelf; at least one brace member having one end pivotally secured to one of said rear legs at a point above said shelf and having its other end pivoted to the forward portion of said pail shelf; temporary fastening means on the said other end of said brace for securing said other end of said brace to said lock receiving means whereby said pail shelf serves to support said front and rear legs in the form of a step ladder when in said first position; and means on the upper end of at least one of said front legs for holding the upper portion of at least one of said rear legs when said rear legs are pivoted about said points to an upright position to form an extension ladder, said brace automatically and simultaneously moving said pail shelf to said out of the way position upon said pivoting of said rear legs to said upright position.

2,843,304
MOLDED PULP CARTON LOCK
Richard F. Reifers, Chicago, Ill., assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware
Application November 28, 1952, Serial No. 321,669
5 Claims. (Cl. 229—39)



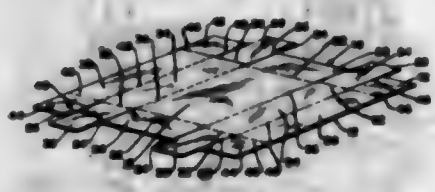
1. A carton of one piece molded pulp construction comprising a cellular bottom section, an inner cellular cover section having integrally connected end and side walls, one of which is integrally hinged to a margin of said bottom section, and an outer cover section having a wall of greater flexibility intermediate its ends than at its ends, which wall is integrally hinged to another margin of said bottom section, said inner cover section wall being molded to define side surfaces of a plurality of cells spaced along its hinge to the bottom section and an aperture in at least one of said surfaces extending downwardly through said hinge of the inner cover section, said hinged outer cover section wall being molded to provide an inwardly projecting locking lug which is latchingly engaged with said aperture when said carton is closed, with the outer cover section nested over the inner cover section.

2,843,305
THICK-SIDED BOX
Chester G. Myers, York, Pa.
Application September 30, 1955, Serial No. 537,615
4 Claims. (Cl. 229—30)



1. A box formed from a blank cut from sheet stock suitable for folding into a box formation, said box comprising in combination, a bottom panel, end-forming panels respectively foldably connected to opposite edges of said bottom panel and extending transversely therefrom, a plurality of pairs of similar side-forming panels, one panel of each pair being foldably connected respectively to the other opposite edges of said bottom panel, a narrow strip of said sheet stock extending between each pair of said side-forming panels and foldably connected at opposite edges respectively to adjacent edges of said pair of panels, the panels of each pair of side-forming panels also being folded into parallelism with each other and extending transversely from said bottom panel and spaced apart by said narrow strip which forms the upper edge of each box side, pairs of additional panels each substantially half as long as a side-forming panel and respectively foldably connected to the opposite ends of said pairs of side-forming panels, there being a space between adjacent edges of each pair of additional panels substantially as wide as said narrow strip when the blank is in flat condition, said additional panels each being folded inwardly upon the side-forming panel to which they are connected, whereby two pairs of flatly abutting additional panels are disposed with the pairs in end-to-end relationship within the space between the panels of each folded pair of side-forming panels to produce box sides of four thicknesses of said sheet stock, said additional panels and side-forming panels of each box side being secured adhesively to comprise rigid laminated sides, and means connecting the ends of said end-forming panels to the ends of said side-forming panels.

2,843,306
BOX
Chester G. Myers, Carl E. Kuhlman, and Martin M. Beckner, York, Pa., assignors to Autokraft Box Corporation, York, Pa., a corporation of Delaware
Application September 2, 1955, Serial No. 532,280
4 Claims. (Cl. 229—34)

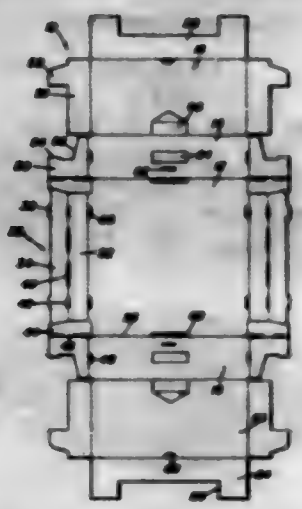


1. A cigar box formed from a flat blank cut from sheet stock suitable for folding into a box formation of rigid sides and ends of multi-layers of said sheet stock and comprising a bottom panel having pairs of opposite side edges, end-forming single panels foldably connected respectively to one pair of opposite edges of said bottom panel and extending upwardly therefrom, pairs of similar elongated foldably connected side-forming panels respectively foldably connected to each other along adjacent longitudinal edges and one of said panels of each pair being foldably connected along its opposite longitudinal edge to the other pair of opposite edges of said bottom panel and extending upwardly therefrom and the other side-forming panel extending downwardly from the upper edge of said one side-forming panel exteriorly thereof, additional panels foldably connected respectively to the opposite ends of both side-forming panels of each pair, said additional panels which are connected to the ends of said one side-forming panel of each pair being folded upon said one side-forming panel and the other side-forming panel of each pair being folded downwardly upon said folded additional panels to form the exterior of said side and also enclose said additional panels between said side-forming panels to form composite box sides of three thicknesses of sheet stock throughout substantially the entire area of said sides, said panels forming said composite box sides being secured together adhesively in flatly abutting relationship and the additional panels connected to the ends of said other side-forming panel of each pair being folded transversely to the ends thereof and respectively into flatly abutting relationship with one surface of the end-forming panels and adhesively fastened thereto, thereby securing the ends of said composite box sides to the ends of said end-forming panels to form a box having ends of two thicknesses of stock throughout substantially the entire area of said ends.

2,843,307
BOX CONSTRUCTION
Joseph Goltz, Pittsburgh, Pa.
Application December 21, 1955, Serial No. 554,525
7 Claims. (Cl. 229—34)

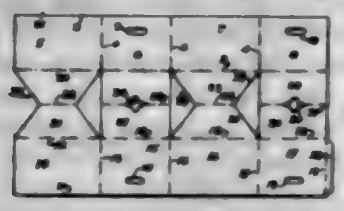
3. A container comprising a bottom, side and end panel means, said bottom panel means having a slot adjacent a pair of opposite edges, said side panel means including an upwardly extending lug thereon for reception in the slots of the bottom panel means of an identical container stacked thereon thereby retaining the stacked containers in aligned relation, said side panel means including an opening therein in spaced relation to the bottom panel means, the upstanding lug on the side panel means having a vertical length longer than the distance between the bottom edge of the opening and the bottom

panel means whereby the upper end portion of the lug may be bent outwardly through the opening and down-



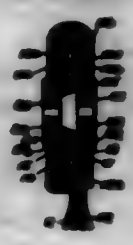
wardly alongside the outer surface of the side panel means thereby interlocking the stacked containers.

2,843,308
DOUBLE-WALLED CONTAINER
Richard E. Paige, New York, N. Y.
Application May 16, 1956, Serial No. 585,225
1 Claim. (Cl. 229—37)



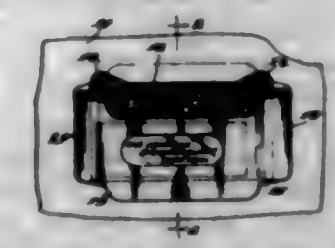
A carton comprising inner and outer shells made up of connected inner and outer panels joined at the sides and disposed in telescoping relation, and portions each connected to the bottom edges of adjacent inner and outer panels, said portions each being doubled along transverse fold lines at the middle thereof to form two superposed sections, all the sections overlapping to form the bottom of said carton; the sections of some of said portions being disposed between the sections of other portions, some of said portions having recesses at the center of the lines of fold thereof, the remaining portions at the ends of the fold lines thereof being seated in said recesses to secure said portions in their bottom forming positions.

2,843,309
TAMPER-PROOF SHIPPING BAG
Oscar G. Wheeler, Newton, Mass., assignor to H. J. Dowd Co. Inc., Cambridge, Mass., a corporation of Massachusetts
Application February 2, 1956, Serial No. 563,960
1 Claim. (Cl. 229—62)



A closure, for a bag having an upper edge, and upper margins defining a mouth and adapted to be disposed flat against each other when the bag is closed, comprising a strip having a first strip portion secured to said bag along one of said margins and second and third strip portions, all said strip portions being of equal width and said strip having a first fold line between said first and second strip portions and a second fold line between said second and third strip portions, said upper edge being disposed along said second fold line, and self-locking fasteners having a first set of elements attached to said first strip portion and a second set of mating elements attached to said second strip portion and engageable with the first set when the strip is folded along said first fold line, said margins and said third strip portion having sets of openings disposed to register with and receive said fastener elements when the strip is folded along both said fold lines.

2,843,310
SHIPMENT DATA HOLDER
Alfred J. Hopkins, River Forest, Ill., assignor to Gaw-O'Hara Envelope Co., Chicago, Ill., a corporation of Illinois
Application January 10, 1956, Serial No. 558,277
2 Claims. (Cl. 229—72)



1. A shipment data holder for attachment to a shipping container, consisting of a rear wall composed of a substantially rectangular sheet of paper or similar fibrous material and provided at each corner of its upper margin with an extension to provide an access tab, a structurally independent front wall of similar material attached to said rear wall along all but its upper margin and leaving said upper margin unattached to provide an entrance opening for the introduction of a data bearing record into the pocket between said walls, said front wall being extended beyond the confines of said rear wall to provide beyond each edge of the rear wall an attaching wing, the rear face of each of said wings being gummed for attachment to a container and one of said wings being folded outwardly along the entrance opening of said pocket and below the upper edge of said rear wall and its tabs to permit unobstructed access to the pocket, said wing being arranged to overlie and close said pocket entrance when the gummed rear surface thereof is applied to the container and when so applied a portion of each of said access tabs remains exposed to provide an access opening thereat.

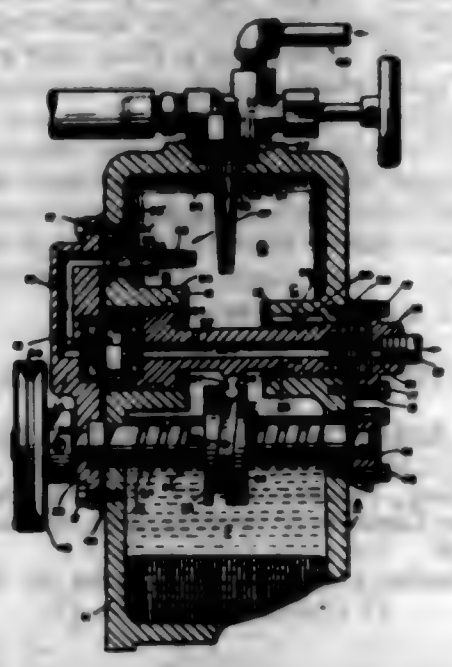
2,843,311
COUPLING DEVICES
Alfred J. Buchi, Winterthur, Switzerland
Application November 14, 1955, Serial No. 546,671
Claims priority, application Switzerland November 27, 1954
7 Claims. (Cl. 230—116)



1. Overhung supported turbo-blower rotor, comprising a separate turbine rotor for a hot actuating medium and a blower rotor for a relatively cool pressure medium and a common rotary hollow shaft rotating with said rotors, the blower rotor having a central integral hub portion protruding from the rear side of said blower, a central prolongation on the turbine disk passing through

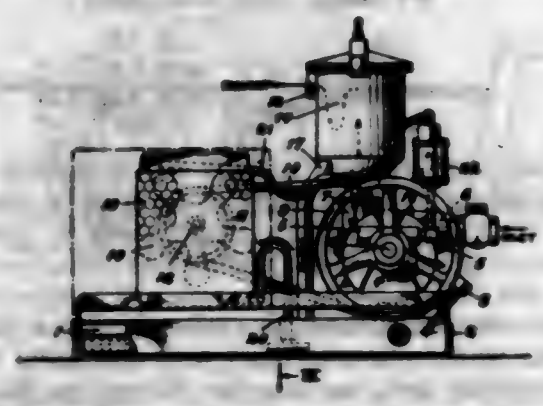
the hollow shaft and screw means associated therewith to clamp the turbine rotor disk to said hub portion, a stationary bearing for said common rotary shaft, said bearing extending axially partially into the hub portion of said blower rotor, said shaft having beyond said stationary bearing a central connecting piece for both said rotors, means for rotational connection of both rotors, means to firmly secure the blower rotor to said central connecting piece at tensioning of said screw means associated with said central prolongation on the turbine rotor, an annular shoulder on said turbine disk projecting axially against said blower hub portion, and centering means to center the turbine rotor with said hollow shaft, said annular shoulder defining a free disk like space between the turbine rotor disk and the thereto opposed faces of the blower hub portion and said connection piece, said space extending from said annular shoulder to said prolongation on the turbine disk.

2,843,312
COMPRESSOR
Pietro Maniscalco, Sr., Chicago, Ill.
Application July 7, 1954, Serial No. 441,907
2 Claims. (Cl. 230—192)



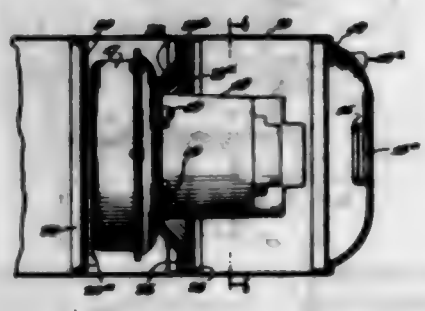
1. A compressor comprising, a hollow upright housing, a pair of transversely-disposed axially alined cylinders integrated with the housing, the cylinders being of exterior diameter approximating one-third of the height of the housing and located intermediate its base and top and dividing the interior into a lubricating chamber below the cylinders and a refrigerant filtering chamber above the cylinders of nearly equal cubic capacity and each greater than the cubical measure of the cylinders extending into the housing, one of the cylinders having an outlet communicating with a refrigerant flow line, inlet and outlet ports located in the housing above the frigerant flow line and the other cylinder, a channelled cylinders and respectively communicating with the reciprocable piston-unit having heads fitting the respective cylinders to effect the compression of a refrigerant and cause a continuous one-way flow movement of the refrigerant to the refrigerant-flow line and through the filtering chamber, check valves associated with the respective cylinders and pistons for controlling the aforesaid compression and movement of the refrigerant, and filter elements connected to the filtering chamber inlet and outlet ports and extending into the filtering chamber with their inner ends closely adjacent each other for filtering out the impurities from the refrigerant in its passage through the filtering chamber before the refrigerant enters the valve-controlled piston-unit channel.

2,843,313
MEANS FOR COOLING HIGH VACUUM ROTARY PUMPS
Ralph D. Parmley, Montclair, N. J., assignor to Leybold Bros., Inc., Newark, N. J., a corporation of New Jersey
Application April 18, 1956, Serial No. 579,088
2 Claims. (Cl. 230—207)



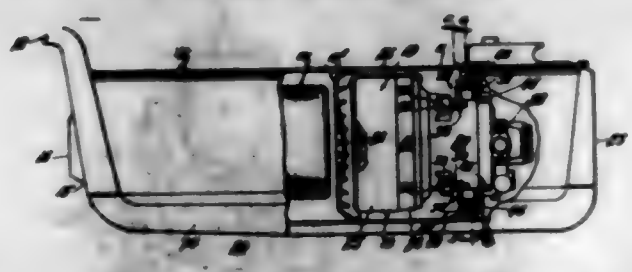
1. In combination, a suitable base, a lubricating oil reservoir housed therein and provided with a filler pipe to keep the oil at the desired level, a high vacuum rotary pump mounted on said base and having a cooled oil inlet, an air inlet and an oil impregnated air discharge outlet, an oil separator surmounting the pump and having an air exhaust port, an inlet connected to the air discharge outlet of the pump, and a drip pipe for the separated oil leading to the reservoir above its oil level, and an oil cooling unit also mounted on said base provided with a pipe leading to the reservoir below its oil level and another pipe leading to the cooled oil inlet of the pump, said pump being operable to draw the oil from the reservoir through the oil cooling unit to said pump.

2,843,314
VACUUM CLEANER SUCTION UNIT
Clarence Ellegard Hansen, Chicago, Ill., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application September 27, 1954, Serial No. 458,597
2 Claims. (Cl. 230—232)



1. In a vacuum cleaner including a horizontal casing, an electric motor structure therein, a fan structure and means attaching the motor and fan structures in alignment to form a horizontal motor-fan unit within the casing, supporting apparatus, comprising: an annular air impervious nonplanar bracket arranged generally vertically attached to and extending around said unit and having its outer peripheral edge portion adjacent to said casing; a resilient gasket embracing said peripheral edge portion; an annular support member attached to said casing and enclosing a portion of said gasket but out of engagement with said bracket; and clamping means spaced from said casing clamping said gasket against said support member and also out of engagement with said bracket so that the bracket and thus the motor-fan unit is supported substantially entirely by said gasket.

2,843,315
MOTOR-FAN UNIT MOUNTING FOR SUCTION CLEANER
Lars Johan Faith-Ell, Stockholm, Sweden, assignor to Aktiebolaget Electrolux, Stockholm, Sweden, a corporation of Sweden
Application May 17, 1955, Serial No. 509,042
Claims priority, application Sweden May 19, 1954
6 Claims. (Cl. 230—235)



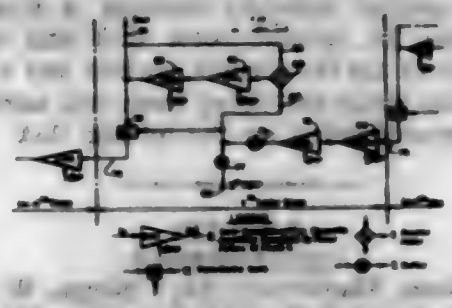
1. In a suction cleaner, a casing having a transverse apertured wall section forming a rim defining an opening, a suction unit, an annular flange on the suction unit, the rim at the inner periphery thereof having a plurality of circumferentially interspaced projections and indentations, the flange at the outer periphery thereof having a plurality of circumferentially interspaced projections and indentations, the projections on the rim and flange being interlocked when the projections on the flange are moved axially of the casing through the indentations in the rim and the rim and the flange are then rotated with respect to one another about an axis extending axially of the casing, a sealing member of annular form at the vicinity of the flange, and fastening means for removably securing the flange and sealing member to the rim with the projections on the flange and rim interlocked, the sealing member and projections on the flange being disposed at opposite faces of the rim when secured to the latter by the fastening means.

2,843,316
MAIL SIGNAL MEANS FOR RURAL MAILBOXES
Alex Ellis Anger, Saco, Maine
Application May 18, 1955, Serial No. 509,202
1 Claim. (Cl. 232—34)



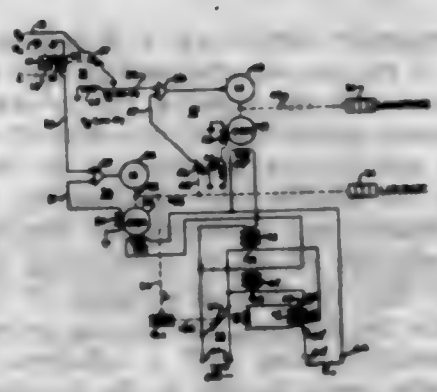
An attachment for a conventional-type rural mailbox door retaining latch which has an end portion fastened atop the box and a portion extending outwardly over and beyond the door and then terminating in an upstanding free end portion, said attachment comprising an adapter, said adapter being in the form of a substantially U-shaped clip having forward and rearward spaced parallel arms connected at corresponding ends by a bight portion, said bight portion being convexly rounded to form a keeper, the lower end of said forward arm being provided with spaced axially aligned hinge knuckles, said arms being adapted to straddle said upstanding free end portion, a signaling flag embodying a staff, a flag attached to one end of the staff, said staff having a lower end providing a hinge knuckle interposed between and aligned with said hinge knuckles and hingedly connected thereto, a prerequisite median portion of said staff having a hook-shaped bend defining a retainer and said retainer being resilient and releasably engageable with said keeper.

2,843,317
PARALLEL ADDERS FOR BINARY NUMBERS
William F. Steagall, Merchantville, N. J., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application October 27, 1954, Serial No. 465,984
16 Claims. (Cl. 235—61)



16. A parallel adder comprising a plurality of interconnected adder stages, one for each bit of a parallel binary digital input, each of said adder stages including a binary counter comprising a pluse type magnetic amplifier and delay means coupling the output of said magnetic amplifier to the input thereof, power pulse means for regularly energizing said magnetic amplifier, a source of digital signal inputs coupled to the input of said binary counter, and carry means responsive to both the output of said binary counter and to said source of digital signals for coupling a carry signal to the input of the binary counter in a next succeeding adder stage.

2,843,318
EARTH ELLIPTICITY CORRECTOR FOR DEAD RECKONING COMPUTER
John W. Gray, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application March 15, 1955, Serial No. 494,585
17 Claims. (Cl. 235—61)



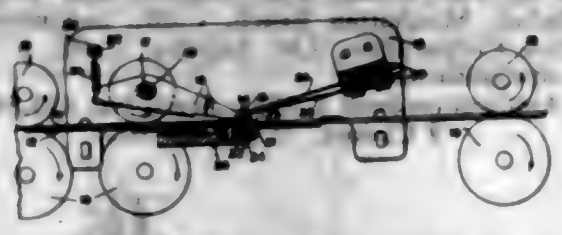
1. In a dead-reckoning navigation device, means for resolving analogue quantities representing linear speed and direction into orthogonal vectorial coordinate quantities, first and second means for converting the respective vectorial quantities into analogue quantities representing instantaneous orthogonal position coordinates on a curved surface defined in terms of angular displacement about an assumed center of curvature, and means for continuously modifying simultaneously the action of both of said integrating means in accordance with a predetermined function to provide instantaneous orthogonal position coordinates in terms of angular distance on a curved surface whose radius of curvature varies according to a known function.

2,843,319

CARD OPERATED ROTARY CONTACT

Fritz A. Deutsch, East Orange, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware

Application October 2, 1956, Serial No. 613,519
8 Claims. (Cl. 235—61.11)



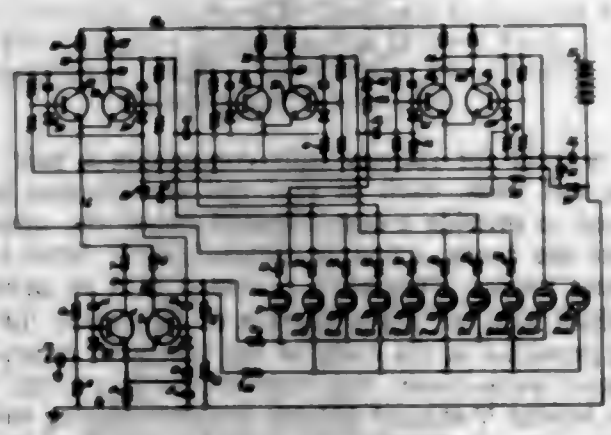
4. A card operated sensing device adapted to effect a series of electrical impulses in accordance with an intermittently spaced series of perforations along a record card, and comprising in combination a gear wheel having teeth for sensing said perforations, and wherein the card sensing teeth serve as electrical contact elements, yieldable support means for said gear wheel, means for moving a record card past said gear wheel, resilient means acting to urge said gear wheel into engagement with the record card so that a pair of adjacent teeth of said gear wheel effect sliding contact along an imperforate face of said card, a fixed electrical contact spaced from the reverse face of said card, and wherein movement of a perforation past said teeth will cause one of said teeth to rock into said perforation, and wherein continued movement of the record card will rotate said gear wheel and bring the teeth thereof successively into wiping electrical engagement with said fixed electrical contact member.

2,843,320

TRANSISTORIZED INDICATING DECADE COUNTER

Hamilton C. Chisholm, Richmond, Calif., assignor to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California

Application December 21, 1956, Serial No. 629,867
9 Claims. (Cl. 235—92)



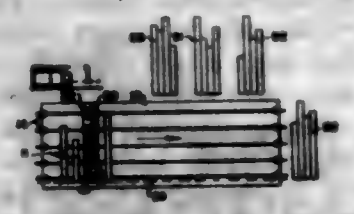
1. In combination, a plurality of electronic counting stages coupled together to form a multi-stage counter, each of said stages having output terminals that assume different electric potentials corresponding to different numerical values registered by that stage, voltage supply means for supplying operating voltage to said counting stages and maintaining the output terminals of one of said stages at average electric potentials different from the average potentials of the output terminals of others of said stages, and a plurality of indicator lamps connected in circuits between the output terminals of said one stage and the output terminals of said other stages so that different ones of said lamps are lit corresponding to different numerical values registered by the multi-stage counter.

2,843,321

ARTICLE TALLYING APPARATUS

Peter Sloan, Vancouver, British Columbia, Canada

Application January 3, 1956, Serial No. 557,159
7 Claims. (Cl. 235—98)



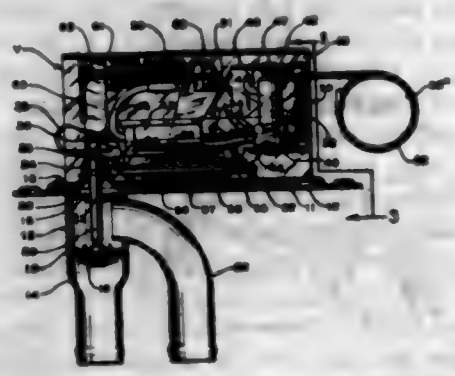
1. In apparatus for tallying articles, such as lumber, of different lengths according to length, conveying means for moving articles along a course substantially normal to the lengths thereof, a datum line extending in the direction of travel of the conveying means near a side thereof and along which an end of each article travels, a plurality of electrical operating units spaced outwardly at predetermined intervals from the datum line and across the course, all said units overlapped by an article moving past them being operated by said article, a counter for and operated by each unit, means operated by each unit for cutting every unit between said each unit and the datum line off from its counter, whereby operation of said each unit and all the units between the latter and the datum line results in the counter of said each unit only being operated, and switch means connected to each counter on the side of the cutoff means thereof remote from said counter, said switch means being positioned to be actuated by each article immediately after the latter has operated the units to operate the counter of the unit farthest from the datum line and operated by said article.

2,843,322

TEMPERATURE CONTROL SYSTEM FOR AUTOMOBILES OR THE LIKE

Eldon D. Raney, Columbus, Ohio, assignor to Ranco Incorporated, Columbus, Ohio, a corporation of Ohio

Application February 18, 1955, Serial No. 489,029
7 Claims. (Cl. 236—37)



7. In combination with a valve, a first lever, an element for actuating said lever, a second lever pivoted intermediate its ends on said first lever and connected with said valve to actuate said valve, two vapor filled expansible devices attached to said first lever and engaging said second lever on opposite sides of the pivot therefor, and means to shield one of said devices from ambient air streams.

2,843,323

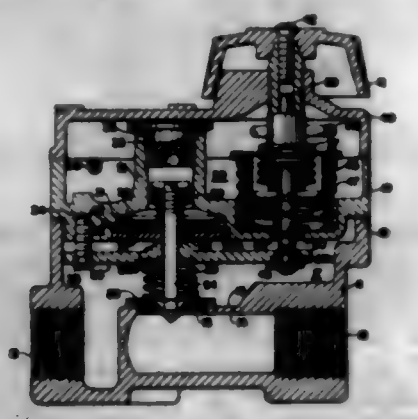
THERMOSTATIC CONTROL DEVICES

James C. Dobbin, Inglewood, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application August 21, 1956, Serial No. 605,351
5 Claims. (Cl. 236—48)

1. A control device comprising a control member having an actuating stem thereon, an annular abutment on said stem, a washer-shaped actuator for said control member being pivoted at its outer edge on a fixed pivot and

having a plurality of radially and inwardly extending tines with their inner ends positioned adjacent to said abutment for engagement therewith, a washer-shaped snap-disc positioned coaxially of and adjacent to said actuator, the inner edge of said snap disc engaging said tines



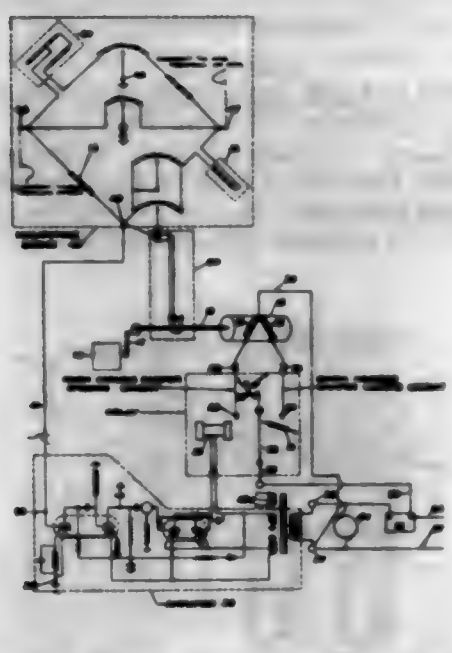
intermediate their ends and the outer edge thereof being pivoted on a fixed pivot, and condition responsive means engaging said actuator between its outer edge and the inner edge of said snap-disc for snapping said control member between its different control positions.

2,843,324

DAMPER CONTROL FOR UNIT VENTILATOR

Forrest G. Baker, Davenport, Iowa, assignor to American Air Filter Company, Inc., Louisville, Ky., a corporation of Delaware

Application April 30, 1954, Serial No. 426,770
2 Claims. (Cl. 236—49)



2. A control system for a ventilator having a motor operated damper to close and open an air flow opening, comprising: an electric operating circuit system for operating the motor in accordance with the position of motor control switch means movable from a neutral position to damper closing and opening positions on opposite sides of neutral; balance means normally operative at a predetermined temperature condition to hold said switch means in neutral, said balance means including means yieldably urging said switch means to its damper closing position and a normally energized thermostatically responsive electric control circuit system yieldably urging said switch in opposition to said yieldable means, said energized circuit system being responsive to temperature conditions rising above said predetermined temperature condition to move said switch means toward its damper opening position; and a power connection for both systems including a main switch unit for energizing and de-energizing said control circuit system; said yieldable means and operating circuit system being operable, upon the deenergization of said control system, respectively to move said switch means to its damper closing position and to operate the damper in the closing direction.

2,843,325

THERMOSTATIC CONTROLS

Harold A. Greenwald, Los Angeles, and William D. Whitaker, Manhattan Beach, Calif., assignors to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application June 1, 1954, Serial No. 433,546
9 Claims. (Cl. 236—102)



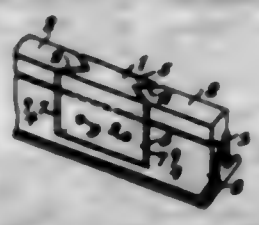
1. A thermostatic control mechanism for a turbine nozzle box comprising: a temperature sensing expansible tube closed at one end, a housing provided at the opposite end of said tube, expansible core means disposed within said tube and having a greater coefficient of expansion than that of said tube, whereby one end of said core means will move toward said housing in response to application of heat to said tube and said core means, a valve within said housing adapted for actuation to a fully open position by elongation of said core means, a piston disposed adjacent to said valve and responsive to fluid pressure to yieldably urge said valve into the closed position; and means for equalizing fluid pressure at opposite ends of said piston when said valve is in a closed position.

2,843,326

JOINTS FOR ABSORBING THE HAMMERING EFFECT OF RAILROAD AND STREETCAR LINE RAILS

Paolo Boy, Rome, Italy

Application November 2, 1954, Serial No. 466,383
2 Claims. (Cl. 238—219)



1. A joint for railway rails comprising a pair of adjacent rail ends, each of said rail ends having a head recessed to provide a seat disposed below the upper surface of the heads, a channel-shaped sleeve fitted on said seat and having a top plate provided with an upper surface flush with the upper surface of the heads, the heads being provided at the ends of the seat with substantially V-shaped projections, the ends of the top plate of the sleeve having V-shaped notches accommodating said projections, the sleeve having spaced vertical side plates between which the rail ends are embraced, and fastening elements extending through said side plates and through the rail ends.

2,843,327

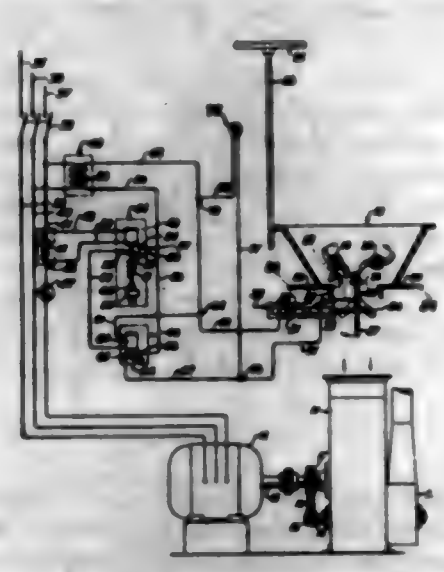
OVERLOAD-UNDERLOAD CONTROL SYSTEM AND METHOD

Arthur G. Nickle, Saginaw, Mich., assignor to Nickle Engineering, Saginaw, Mich.

Application November 6, 1953, Serial No. 390,620
15 Claims. (Cl. 241—35)

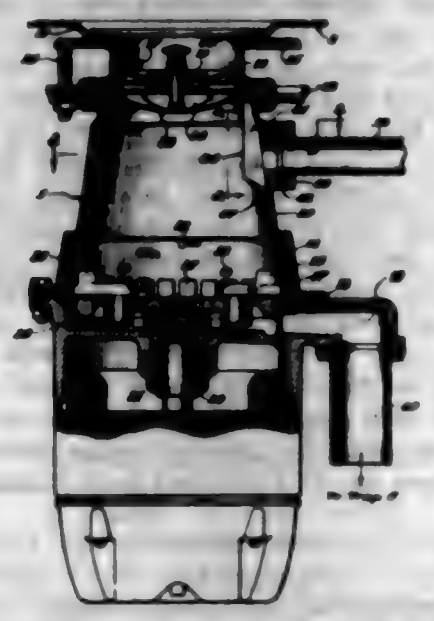
1. In an overload-underload control system that operates on a repetitious cycle for limiting overfeeding and underfeeding of material to a motor driven mill or the like and the motor load being varied to and from between

allowable limits, a housing containing a supply of material to be fed to the mill, a discharge outlet in the housing, flow-interrupting means for the outlet, said means comprising in combination a manually operated valve and an automatically operated oscillatable valve, means for adjusting the manual valve to afford a rate of discharge that will overload the motor beyond a maximum allowable limit when the oscillatable valve is open, means for closing the oscillatable valve when motor load increases to the maximum limit, said closing means being



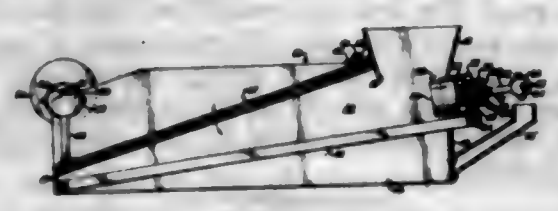
a spring adapted to hold the oscillatable valve closed until motor load decreases to the minimum limit, solenoidally operated means for reopening the closed valve when motor load decreases to the minimum limit, said solenoidally operated means being adapted to hold said valve open to re-establish the overloading discharge rate and complete the cycle, a source of electrical energy, a circuit for the solenoid, electrical controls for opening and closing the circuit, electrical means for sensing the motor load, and means responsive to and load-sensing means for operating the controls.

2,843,328
FOOD WASTE DISPOSER
Peter N. Stoyalch, Chicago, Ill., assignor to General Electric Company, a corporation of New York
Application May 31, 1956, Serial No. 588,392
5 Claims. (Cl. 241—46)



1. A food waste disposer, comprising structure providing a vertical frusto-conical comminution chamber having a principal opening at the top thereof through which to receive waste and a flow of water, a comminution element forming a base for said chamber, said element being rotatable on a vertical axis concentric with said chamber, means for rotating said comminution element at high speed whereby said comminution element will propel the fluid content of said chamber about the wall thereof by centrifugal action, a substantially horizontally disposed conduit communicating with an opening in said chamber wall for the admission of air and water into said chamber, and a rigid baffle member disposed wholly within said chamber and wholly above said rotatable comminution element to intercept said rotating liquid upstream of said chamber wall opening, said baffle having a thin edge portion extending axially of said chamber and traversing the full diameter of said side wall opening, the upstream face of said baffle adjacent the edge portion thereof making an acute angle relative to the axis of said conduit.

2,843,329
ROCK CRUSHER
Newton L. Matthews, Hailey, Idaho
Application January 15, 1957, Serial No. 634,388
4 Claims. (Cl. 241—84)

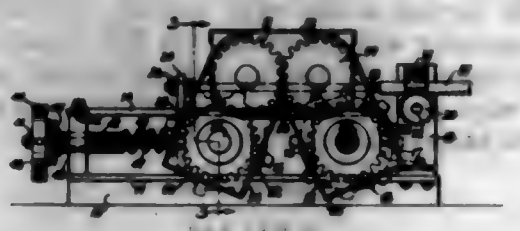


1. A rock crusher comprising an elongated generally rectangular housing having side walls and an end wall and open at the bottom, a feed hopper adjacent said end wall of said housing, a fixed crushing jaw mounted in said housing and inclined downwardly from said end wall beneath said hopper toward the other end of said housing, said fixed jaw comprising a plurality of spaced substantially parallel bars disposed in the same plane, each bar being tapered in cross section with the wider face uppermost, a rock feeder comprising a guide sleeve extending through said end wall between the outlet of said hopper and said fixed jaw, a hollow plunger slidably mounted in said sleeve for reciprocation longitudinally of said fixed jaw, a rock engaging ram slidably mounted in said plunger, a compression spring engaging said ram and said plunger to yieldably drive said ram from said plunger, a rotatably mounted shaft disposed transversely of said housing, an eccentric on said shaft, a connecting rod between said eccentric and said plunger to reciprocate said plunger and ram upon rotation of said shaft to feed rock from said hopper longitudinally of said fixed jaw, a movable jaw pivotally mounted at one end on said housing adjacent said hopper and extending toward the other end of said housing above and in spaced converging relation to said fixed jaw, a transverse crank shaft rotatably mounted on said housing adjacent said other end, eccentrics on said crank shaft and connecting rods between said last named eccentrics and the other end of said movable jaw, whereby upon rotation of said crank shaft to pivotally move said movable jaw toward and away from said fixed jaw rock disposed between said jaws will be crushed with the crushed rock being discharged between the bars of said fixed jaw.

2,843,330
SHAFT PARALLELING AND TIMING DEVICES FOR PAIRED ROLL MACHINES
Theodore J. Gundlach, Belleville, Ill.
Application February 25, 1953, Serial No. 338,867
6 Claims. (Cl. 241—230)

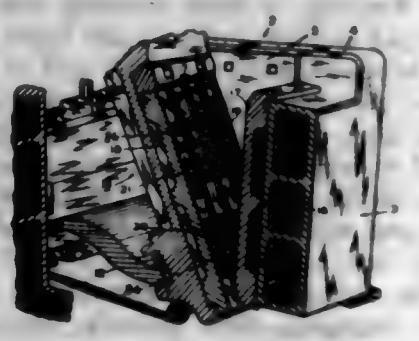
1. In a machine embodying a pair of variably separable rotatable members operable in mutually timed re-

lation, a shaft carrying each of said members, one of said shafts being journalled to rotate on a fixed axis and the other said shaft being subject to lateral displacement toward and away from the fixed shaft, gearing connecting the shafts in timed relation throughout a substantial range of separation of the shafts and rotatable members carried thereby, the gearing including a gear fixed to each shaft and a pair of intermediate gears, a bracket structure for the gearing carried by the roll shafts and formed of articulately connected sections, the bracket structure



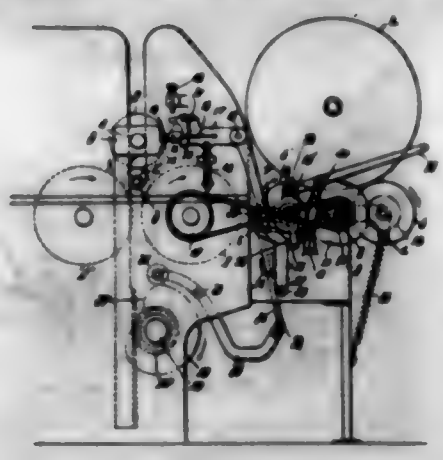
including a first section mounted on one shaft and carrying one said intermediate gear, a second section mounted on the other shaft and carrying another said intermediate gear, and a third section connecting the said intermediate gears, the first and second sections having interfitted teeth to prevent epicyclic movement of said intermediate gears, and means acting responsively to displacement of either end of the displaceable shaft, to impart an identical displacement to the other end of the last said shaft.

2,843,331
JAWS FOR HINGED ROCK CRUSHERS
Melford L. Reeves, Phoenix, Ariz.
Application October 21, 1955, Serial No. 542,827
1 Claim. (Cl. 241—291)



In a rock crusher of the type having a substantially vertical stationary jaw and a movable jaw mounted for swinging movement toward said stationary jaw, invertable jaw liners detachably secured to said jaws, said jaws and said jaw liners being formed substantially straight and said jaw liners each having a wear face formed by a plurality of upstanding equi-spaced parallel ridges, said spaced ridges forming vertically extending corrugations on said wear face to prevent lateral slippage of rocks introduced for crushing between said jaw liners, said wear faces each having a plurality of spaced apart parallel transversely extending horizontal ridges, said transverse ridges extending perpendicularly to said vertical ridges, said spaced transverse ridges forming horizontally extending corrugations on said wear face to prevent vertical slippage of rocks introduced for crushing between said jaw liners, said vertical ridges and said horizontal ridges having the edges thereof disposed toward the opposite jaw liner lying in a single flat plane, said vertical ridges and said horizontal ridges delineating a pair of upper and lower zones of generally square pockets, a central zone of vertically elongated rectangular pockets positioned therebetween and a zone of vertically elongated generally rectangular pockets at the upper and lower ends of said jaw liners with said last named pockets opening upwardly and downwardly respectively.

2,843,332
APPARATUS FOR SHAPING FIBRE LAPS IN A LAP-FORMING MACHINE
Ryuhei Kawamura, Motoyama-cho, Higashinada-ku, Kobe, Kazuo Fujii, Fuse, and Masaru Fujiwara, Yoshida-cho, Hyogo-ku, Kobe, Japan, assignors to Kanegafuchi Spinning Co., Ltd., Tokyo, Japan, a joint-stock company of Japan
Application July 16, 1956, Serial No. 598,197
Claims priority, application Japan July 20, 1955
3 Claims. (Cl. 242—55.1)

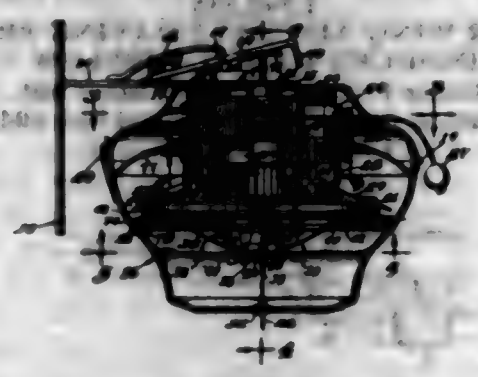


1. An apparatus for shaping and discharging fibre laps in a lap-forming machine of the type having a pair of fluted lap-forming rollers, rack bars or rack heads, a lap roller which is rotated on and by contact with the rotating lap-forming rollers and upon which is wound fibre material, and means to eject the completed lap and deliver a fresh empty lap roller in place of the ejected lap, which apparatus comprises a pair of side frames, a pair of rotating grooved lap shaping rollers, a pair of arms on which said grooved lap shaping rollers are mounted, an axle on said side frames positioned in front of the lap-forming rollers on the lap-forming machine, said arms being rotatably mounted on said axle, the ejected lap being received on said lap shaping rollers for shaping, a latch pivoted on one of said side frames normally engaging one end of one of said arms to restrain the arms and the rotating shaping rollers in the horizontal position of said arms, a rod pivoted on one of said side frames having pawl and latch means mounted on its upper part engageable with one of the rack bars and said rod engageable at its lower end with said latch and rotated by the rack bar to disengage the latch from the arm to release said restraint as the rack bar moves upwardly, a spring connected between the other end of said one of said arms and one of said side frames to pull the said other end of said arms downwardly when said restraint is released so that said arms with said shaping rollers are turned around said axle to roll the shaped lap out of the shaping rollers, adjustable abutment means on said lap-forming means abutted by said pawl and latch means when the rack bar moves further upwardly for disengaging said rod from the rack and permitting said latch to return to the active position engageable with said arm, cam and cam follower engaged by said rack bar, and linkage between said cam follower means and said arms for pulling said arms rearwardly to the original horizontal position where said latch engages the arm again to restrain the arms with the shaping rollers horizontal for receiving the next lap to be ejected from the lap-forming machine.

2,843,333
SPINNING RATCHET REEL
Martin E. Jones, Granite Falls, N. C.
Application September 14, 1954, Serial No. 455,961
2 Claims. (Cl. 242—84.2)

1. In a spinning ratchet reel, a base adapted to be secured to a fishing rod, an arm secured to said base and including a widened end portion, a housing secured

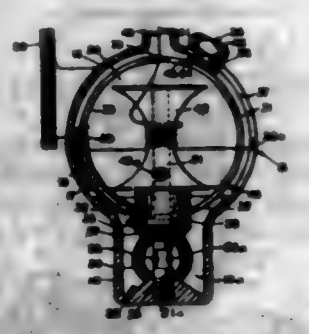
to said widened end portion and including a first and second section, a reel positioned in said housing and secured to said widened end portion, said reel including an annular base provided with a cutout, and a support member positioned in said housing and including a tapered skirt of increased diameter, an end wall on said support member provided with a central opening, the interior of said reel being hollow and defining a chamber, a shaft extending through said reel and including an annular collar seated in the opening in said end wall, there being a longitudinally extending bore in said shaft, said shaft further including a cylindrical portion and a gear member including a plurality of teeth, a spool rotatably positioned in the chamber in said reel and including a hub rotatably mounted on said shaft, a first, second and third annular partition extending outwardly from said hub, a spring member circumposed on said hub and interposed between said first and second partitions, one end of said spring member being connected to said hub and the other end of said spring member being connected to said support member, a pull cord wound on said hub between said second and third partitions and having a finger engaging piece on its free end,



there being an opening in the first section of said housing, said pull cord extending through said support member and through the opening in the first section of said housing, said support member having a fishing line wound thereon, there being an opening in the second section of said housing for the projection therethrough of said fishing line, a pin slidably mounted in the bore in said shaft, a head on the inner end of said pin, a plurality of yieldable body members secured to said head for selectively positioning the fishing line on the support member, a disc rotatably connected to said shaft and to said spool and including an annular flange provided with a plurality of apertures for slidably receiving the ends of said body members, a spring member having one end secured to said arm and including a pair of offset shoulders, a rod pivotally connected to said arm and mounted for movement into and out of engagement with said offset shoulders, a plate secured to said rod and abutting the adjacent end of said pin, a first spring pressed pawl pivotally connected to the end wall of said support member and engaging said gear member, and a second spring pressed pawl pivotally connected to said first partition and engaging said gear member.

2,843,334
SPINNING REEL
Nicholas Clary, Detroit, Mich.
Application January 30, 1956, Serial No. 562,117
6 Claims. (Cl. 242—84.2)

6. A fishing reel comprising an elongated stationary journal member, said reel including supporting means engaging and supporting one end of said journal member, a spool fixed to the opposite end of said journal member and on which a fishing line is adapted to be wound, line guiding means turnably mounted on said journal member and including a portion disposed for oscillating movement in one plane about said spool and for rotary movement around the spool in another plane, said line guiding means being turnably mounted on the journal member between said spool and the first mentioned end of the journal member, said portion of the line guiding means including an eye through which the line is adapted to extend and which is disposed beyond the last mentioned end of said journal member and the forward end of the spool in a casting position of the reel, said portion of the line guiding means being movable in an arc in its first plane of movement for positioning the eye thereof in a position radially spaced from the spool and journal member, a manually actuated means for revolving said line guiding means about the journal member and spool in the other plane of rotational movement thereof whereby



said eye portion will revolve around the spool in a direction for winding the fishing line on the spool, said line guiding means including a member turnably mounted on the journal member between its first mentioned rear end and said spool and a pair of ring members supported thereby in spaced apart parallel relation to one another and in planes disposed substantially parallel to the axis of the journal member, said ring members being disposed loosely around the spool, and said portion of the line guiding means comprising an elongated slide slidably supported by said ring members for movement relative thereto in said first plane of movement and for movement with said ring members around the spool in said other plane of movement.

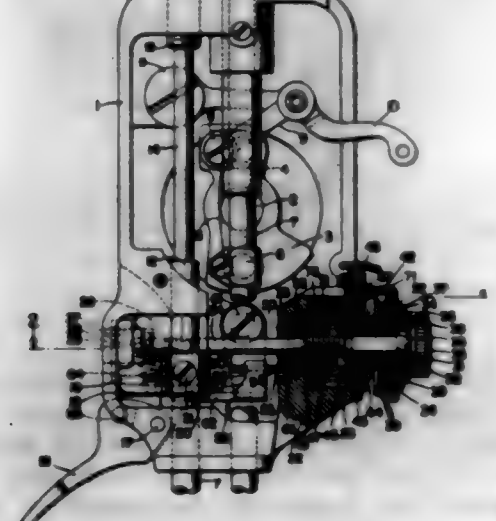
2,843,335
AUTOMATIC REEL
Alfred C. Hoven and Walter E. Nordmark, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application March 14, 1956, Serial No. 571,411
5 Claims. (Cl. 242—107.4)



1. In an automatic reel: a base; a spool rotatably mounted on the base and having a spindle; an elongated flexible element connected to the spool and adapted to be wound onto the spool and unwound therefrom; means for normally yieldingly urging the spool in a winding direction; a detent on the base; a locking member mounted on the spindle for rotation therewith, for limited rotation relative thereto and for sliding movement thereon to positions of engagement with and disengagement from said detent; latch means on the locking member and the spool for maintaining said locking member in its position of disengagement from said detent, said latch means being releasable upon the occurrence of said limited relative rotation between the spindle and the locking member to permit sliding movement of the locking member to its position of engagement with the detent, and said limited relative rotation being effected by the lock-

ing member's own inertia in response to an abrupt jerk on the flexible element and consequent sudden urging of the spindle in an unwinding direction.

2,843,336
THREAD TENSION DEVICE FOR SEWING MACHINES
Edward J. Harbet, South Plainfield, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application October 5, 1955, Serial No. 538,565
7 Claims. (Cl. 242—150)



1. A thread tension device for a sewing machine with a frame having a tension device receiving hole therein, said tension device comprising a rod journaled in said frame and extending into said hole, means for securing said rod against axial movement, a head on said rod, a compression spring disposed within said hole and surrounding said rod, a slide member mounted for axial sliding movement on said rod between said spring and said head, opposed tension discs mounted on said rod between said slide member and said head whereby said spring will bias said slide member outwardly toward said head to resiliently compress the tension discs together between said slide member and said head, threads on said rod, a nut threaded on said rod at the end of said spring opposite from said member, means for securing said nut against rotation and providing for movement thereof axially of said rod whereby when said rod is rotated said nut will be adjusted axially to vary the compression of said spring, and a tension element operatively connected to said slide member for retracting said slide member from operative relation with said tension discs against the action of said spring.

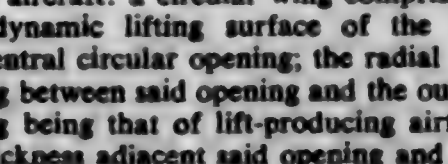
2,843,337
COMPOSITE AIRCRAFT SYSTEM AND METHOD OF FLIGHT
James A. J. Bennett, San Mateo, Calif., assignor to Hiller Helicopters, Palo Alto, Calif., a corporation of California
Application September 29, 1953, Serial No. 382,963
7 Claims. (Cl. 244—2)



1. A rotary wing aircraft tug in which rotor blades provide substantially the sole airfoil lift means and having an undercarriage including a plurality of hollow legs each including a funnel shaped housing at its lower end, and mechanism for detachable connection of said rotary wing aircraft to a fixed wing aircraft to provide a composite aircraft capable of operation as a rotary wing aircraft, said mechanism including pilot controlled movable but rigid and lockable connecting members located in said legs adjacent said housings whereby rigid attachment members on a fixed wing aircraft can be guided by said funnel shaped housings into locking engagement with said lockable connecting members.

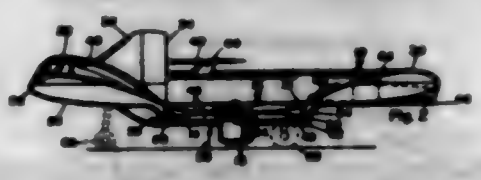
2. The method of operating a rotary wing aircraft as a tug for landing a fixed wing aircraft which comprises forming a composite aircraft by attaching said rotary wing aircraft tug to a fixed wing aircraft in flight at a forward speed such that substantially the entire weight of the fixed wing aircraft is supported by the fixed wings, gradually decreasing the forward speed of the composite aircraft until substantially its entire weight is borne by the lift of the rotary wing aircraft tug, and landing the composite aircraft including the fixed wing aircraft by the lift of the rotary wing aircraft tug.

2,843,338
CIRCULAR WING AIRCRAFT HAVING PRESSURE INDUCED RADIAL AIRFLOW
Homer F. Streib, Chula Vista, Calif.
Application April 28, 1955, Serial No. 504,625
8 Claims. (Cl. 244—12)



1. In an aircraft: a circular wing comprising the principal aerodynamic lifting surface of the aircraft and having a central circular opening; the radial cross section of said wing between said opening and the outer periphery of the wing being that of lift-producing airfoil having a reduced thickness adjacent said opening and an increased thickness at points remote from said opening and having its leading edge at the outer periphery; an impeller operatively mounted in said opening and constituting means for directing a rapid flow of air radially inwardly over the upper surface of said wing from the outer periphery thereof, whereby lift is created; said impeller driving the air downwardly through said opening to supplement said lift; and said leading edge constituting substantially the entire outer periphery of the aircraft.

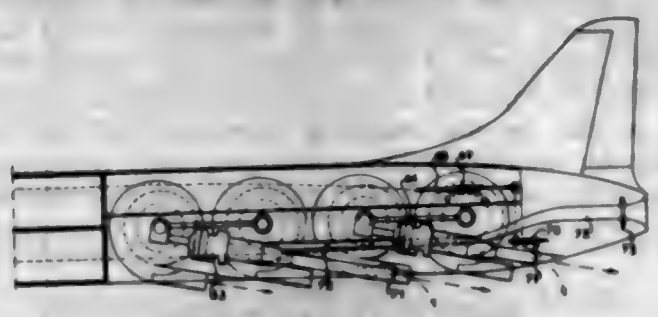
2,843,339
CIRCULAR WING AIRCRAFT HAVING SUCTION INDUCED RADIAL AIRFLOW
Homer F. Streib, Chula Vista, Calif.
Application April 28, 1955, Serial No. 504,626
10 Claims. (Cl. 244—12)



1. In an aircraft: a circular wing having a central circular opening therein; the radial cross section of said wing between said opening and the outer periphery of the wing being that of an efficient, lift-producing airfoil having its leading edge at the outer periphery; a downwardly thrusting impeller operatively mounted in said opening; said wing being hollow and having slots at said periphery and at said opening and cooperating with said impeller to constitute means for inducing flow of air

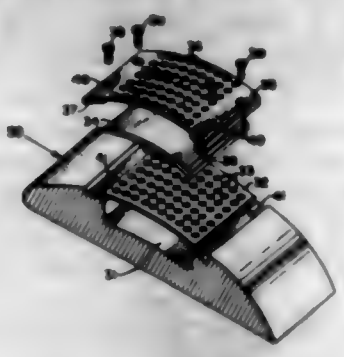
through said wing from said periphery to said opening to augment the mass flow therethrough and to increase the flow over said wing.

2,843,340
JET AIRCRAFT
Michel Henri Marie Joseph Wibault, Paris, France
Application January 3, 1956, Serial No. 557,177
Claims priority, application France January 12, 1955
7 Claims. (Cl. 244—23)



1. In an aircraft, a propulsion system comprising, in combination, at least one turbo-compressor unit obliquely inclined with respect to the line of flight for producing a normally rearwardly and downwardly directed propulsion jet, at least one additional centrifugal air compressor including a rotor driven by said turbo-compressor unit and a spiral-shaped collector designed to discharge the air stream produced by said additional compressor in a substantially tangential direction relative to said rotor, the axis of said rotor extending substantially parallel to the pitch axis of the aircraft and said collector being mounted for rotation about said rotor axis between a position in which it discharges said air stream towards the ground and a position in which it discharges said air stream rearwardly, adjustable means for deflecting said jet from said normal direction thereof to a vertical downward direction, and control means to effect simultaneous adjustment of said jet deflecting means and of said collector to direct both said jet and said air stream in substantially parallel relationship either rearwardly so that said jet and said air stream produce a combined horizontally forward propulsion thrust component, or towards the ground so that said jet and said air stream produce a combined lifting force on the aircraft.

2,843,341
AIRFOILS, VARIABLE PERMEABILITY MATERIAL AND METHOD OF FABRICATION THEREOF
Robert E. Dannenberg, Palo Alto, and James A. Welberg, Menlo Park, Calif., assignors to the United States of America as represented by the Secretary of the Navy
Application January 18, 1956, Serial No. 560,041
8 Claims. (Cl. 244—42)
(Granted under Title 35, U. S. Code (1952), sec. 266)



6. In combination, a body means having a conduit formed therein, vent means for providing communication between said conduit and atmosphere, a variable permeability member having an inner and an outer surface and being disposed adjacent to said vent means for controlling the fluid flow through said vent means, a rigid perforated member secured to said body means and having an inner and an outer surface, the inner surface of said rigid member engaging the outer surface of said variable permeability member for maintaining the latter member in position, said variable permeability member comprising a plurality of superimposed randomly deposited inorganic fibers of substantially constant diameter, each of said fibers being uniformly coated with a heat-curable bonding means, said fibers being bonded to one another at their points of contact, said variable permeability member being of a substantially constant thickness, the density of said variable permeability member having a particular uniform value in the thickness direction at any selected point on the surface thereof, and having different particular uniform values at other selected points on the said surface.

2,843,342
MOBILE HYDRAULIC CATAPULTING APPARATUS
Elmer F. Ward, Pasadena, Calif., assignor to Task Corporation, Pasadena, Calif., a corporation of California
Application September 23, 1955, Serial No. 536,133
14 Claims. (Cl. 244—63)



12. Mobile hydraulic catapulting apparatus, comprising an assembly including a motorized vehicle frame, a hydraulic jet gun and means connecting said gun to a rear portion of the vehicle frame for jetting liquid rearwardly with respect to the direction of forward vehicle movement, means carried by said vehicle frame for charging said gun with liquid and for supplying pressure to liquid in said gun during liquid jetting therefrom, a tow trailer connected to the rear of said vehicle frame, and a plurality of portable guide track sections removably mounted on said trailer for transportation to a launching site, said sections being adapted after removal from said trailer for assembly in end-to-end relation rearward of said jet gun for guiding a jet impelled carriage assembly in catapulting relation with an aircraft.

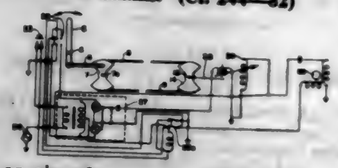
2,843,343
HYDRAULIC IMPULSE CATAPULT AND METHOD FOR LAUNCHING AIRCRAFT
Elmer F. Ward, Pasadena, Calif., assignor to Task Corporation, Pasadena, Calif., a corporation of California
Application September 26, 1955, Serial No. 536,478
14 Claims. (Cl. 244—63)



1. In hydraulic catapulting apparatus for aircraft comprising elongated guide means including a track for guiding launching movement of an aircraft prior to becoming airborne, the combination with said apparatus of a movable carriage engaging said track for guided movement in the launching direction, means carried by said carriage and connectible with said aircraft for directly transferring launching thrust thereto, a hydraulic impulse bucket supported by said carriage, and a variable discharge hydraulic jet gun including a nozzle directed in alignment with the path of bucket travel and toward said bucket for variably jetting a high velocity liquid stream

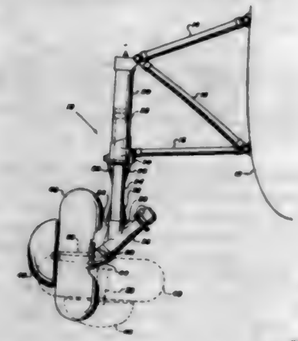
thereagainst with increasing jet discharge during launching to impel said carriage in said launching direction, said gun being supported independently of the carriage.

2,843,344
AIRCRAFT TRIM TAB CONTROL
Harold A. Gibb, San Diego, Calif., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Original application June 2, 1948, Serial No. 30,577, now Patent No. 2,640,665, dated June 2, 1953. Divided and this application April 28, 1953, Serial No. 349,792
3 Claims. (Cl. 244—82)



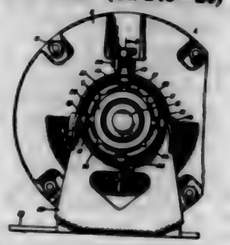
1. In an aircraft control system, a manually operable control member, a control surface movably mounted upon the aircraft, a tab surface pivotally mounted upon said control surface, operating mechanism extending from said control member and arranged for engagement with said control surface for movement thereof, load-sensing means of the multiple coil type coupling said operating mechanism to said control surface and providing for limited relative movement between said operating mechanism and said control surface before there is engagement and movement of said control surface by said operating mechanism, said load-sensing means including a coil type phase shifting transformer adapted for generating a signal proportional to said relative movement between said operating mechanism and said control surface, a source of electrical power, electric power means including an amplifier and a reversible motor for moving said tab surface, and pilot operated switch means for placing said motor in circuit with said amplifier and said power source to thereby actuate said motor for moving said tab surface in the direction corresponding to the direction and magnitude of said relative movement between said operating mechanism and said control surface.

2,843,345
DUAL PURPOSE LANDING GEAR
Igor I. Sikorsky, Easton, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application June 14, 1955, Serial No. 515,360
12 Claims. (Cl. 244—103)



1. Landing gear for rotary wing aircraft including a wheel and axle assembly, an extension extending from said axle at an angle of approximately 45°, a supporting member in which said extension is journalled for rotation between two operative positions of said gear, one in which said axle is horizontal and another in which said axle is vertical, cooperating locking elements carried by said extension and said member and engageable to lock said assembly in either of said operative positions of said gear, means operatively connected to said extension for rotating said extension through 180° to move said assembly from one operative position to the other, cam means operatively connected to said locking elements for releasing said locking elements responsive to the initial rotative movement of said extension and resilient means operatively connected to said extension and said member and cocked by the releasing movement of said cam means for automatically re-engaging said locking elements at the end of said 180° movement of said extension.

2,843,346
RESILIENT MOUNTING
Eldon R. Cunningham, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application September 20, 1956, Serial No. 610,977
5 Claims. (Cl. 248—26)



1. In a machine having a rotatable member and a stationary member provided with a hub; means arranged on said hub for resiliently mounting said machine comprising an annulus formed of relatively rigid material positioned substantially concentric with said hub and outwardly spaced therefrom, a plurality of circumferentially spaced roller members of stiff material positioned between said hub and said annulus, each said roller member rollingly engaging both said hub and said annulus on axes substantially parallel to the axis of said machine, each said roller member having a groove extending therethrough, and spring means extending through said grooves interconnecting said roller members and opposing rolling thereof relative to said hub and said annulus.

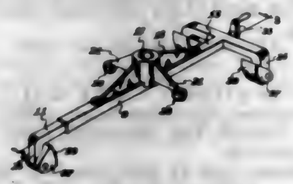
2,843,347
SUPPORT FOR ENGINEER'S PLUMB ROD AND HIGHWAY WARNING SIGNAL
John W. King, Fullerton, Calif.
Application September 13, 1954, Serial No. 455,597
1 Claim. (Cl. 248—44)



A support for a surveyor's target rod comprising a hollow open top base having vertical side walls adapted for loading with bulk material to stabilize the same and being of triangular shape for streamlining to prevent wind

from shifting the same, a vertical socket on said base for holding a target rod upright, said socket being secured to one side wall externally of the base to dispose the same out of bulk material in the base and having a closed bottom for supporting a target rod, a depending bottom prong on said base remote from said one side wall forming a ground engaging fulcrum for leveling the base thereon, and a leveling rod fixed to the bottom of the base and provided with terminal ground engaging jack screws, said rod extending along and parallel to said one wall and outwardly of said base to space the rod remote from said prong and position the jack screws and prong in triangular arrangement with the jack screws spaced outwardly of said base.

2,843,348
DETACHABLE MOUNTING FOR BOAT SEATS
Harry C. Semmels, Tulsa, Okla.
Application May 24, 1956, Serial No. 587,078
2 Claims. (Cl. 248—194)



1. A mounting for a boat seat, comprising in combination, an elongated, longitudinally extensible member adapted to be positioned transversely of a plank seat of a boat, said member having a lower surface adapted to lie flat on the upper surface of said plank seat, a spider mounted on top of said extensible member and intermediate the ends of said extensible member, said spider having a vertical, cylindrical, upwardly-open socket for receiving and rotatably supporting the lower end of a swivel post of a boat seat, said spider having a plurality of webs extending radially from said socket, two of said webs being fastened to and extending along the top of said extensible member on either side of said socket, two others of said webs extending laterally outwardly of said extensible member and comprising stabilized legs terminating downwardly and outwardly of said socket in stabilizer feet, the lower surfaces of said stabilizer feet being coplanar with said lower surface of said extensible member and being adapted to contact said upper surface of said plank seat, downwardly depending legs disposed at both ends of said extensible member, inwardly extending cams mounted for rotation on said legs about axes transverse to said member, said cams having inner arcuate cam surfaces, the upper portions of said cam surfaces being spaced farther from their associated said axes than the lower portions of said cam surfaces, and means for adjusting the length of said extensible member, to cause said cams selectively to grip the opposite side edges of said plank seat between said cams and draw said mounting down onto said plank seat with said stabilizer feet in contact with said upper surface of said plank seat to brace said mounting against lateral tipping, or to release said plank seat.

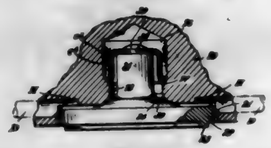
2,843,349
PRESSURE FLUID OPERATED BLOWOUT PREVENTER
Otto Meyer, Ehlershausen über Lehrte, Germany
Application December 27, 1954, Serial No. 477,849
Claims priority, application Germany January 4, 1954
3 Claims. (Cl. 251—2)

1. A valve adapted to be disposed in a pipe line, comprising a tubular housing, a generally cylindrical insert disposed within said housing and formed of elastic material with the inner surface thereof providing an axial flow passage through the valve, said insert having an endless cavity formed in the body thereof in surrounding relation to the flow passage therethrough, means for supplying pressurized fluid to the cavity to expand the same and deform the inner surface of the insert inwardly to constrict the passage therethrough, a pair of cover flanges secured at opposite ends of said housing to retain said insert therein, each of said flanges having an opening therethrough coaxial with said passage, the opposed inner faces of said flanges having frusto-conical



projections to confine deformation of said insert due to expansion of said cavity to an area on the inner surface thereof intermediate the ends of such insert, said insert being formed to conform to the shape defined by the inner surface of said housing and the inner faces of said flanges and to snugly bear against such surfaces when the cavity is collapsed, the ends of said insert bearing against the inner faces of said flanges being of greater Shore hardness than the deformable inner surface portion of the insert, and a two-step pressure converter connected with its low-pressure side through a duct to the flow-passage downstream of the valve, and with its high-pressure side through a duct with said cavity.

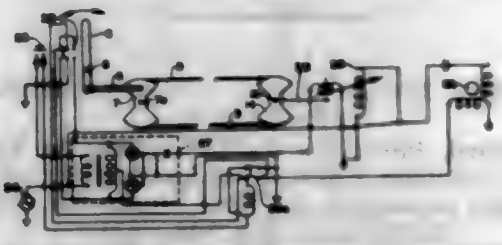
2,843,350
SNAP-ACTION COUPLING
Harold W. Wilson, Fairfield, Conn., assignor to Manning, Maxwell & Moore, Incorporated, Stratford, Conn., a corporation of New Jersey
Application October 29, 1956, Serial No. 619,047
13 Claims. (Cl. 251—86)



1. A coupling for releasably uniting two rigid parts, one of which is of a shape to define the wall of a circular chamber provided with a restricted entrance, said coupling being so constructed and dimensioned that the entire coupling may be passed through said restricted entrance into said chamber, the coupling comprising a unitary piece of stiffly resilient sheet material shaped to provide an end member and side wall, the side wall having slots therein which divide it to form a plurality of legs each of which is integrally joined at one end to the end member, the legs being otherwise free from each other, the end member and the major portion of the side wall of the coupling being capable of freely entering said chamber through said restricted entrance but the terminal portions of the legs being so outwardly flared that they can pass through said entrance only when said terminal portions have been flexed inwardly towards the axis of the coupling, the wall of the chamber comprising a downwardly convergent annular abutment surface whose lower edge defines the upper end of the en-

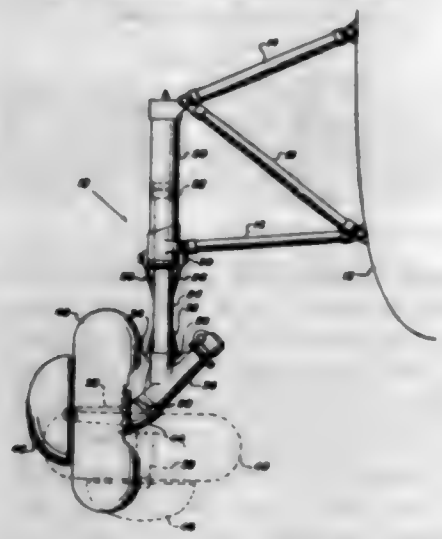
thereagainst with increasing jet discharge during launching to impel said carriage in said launching direction, said gun being supported independently of the carriage.

2,843,344
AIRCRAFT TRIM TAB CONTROL
Harold A. Gibb, San Diego, Calif., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Original application June 2, 1948, Serial No. 30,577, now Patent No. 2,648,665, dated June 2, 1953. Divided and this application April 20, 1953, Serial No. 349,792
3 Claims. (Cl. 244—82)



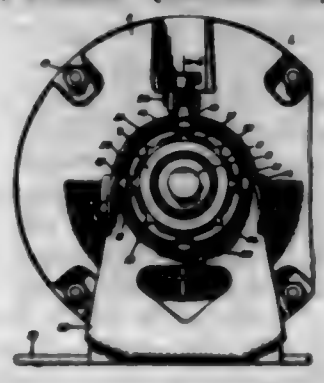
1. In an aircraft control system, a manually operable control member, a control surface movably mounted upon the aircraft, a tab surface pivotally mounted upon said control surface, operating mechanism extending from said control member and arranged for engagement with said control surface for movement thereof, load-sensing means of the multiple coil type coupling said operating mechanism to said control surface and providing for limited relative movement between said operating mechanism and said control surface before there is engagement and movement of said control surface by said operating mechanism, said load-sensing means including a coil type phase shifting transformer adapted for generating a signal proportional to said relative movement between said operating mechanism and said control surface, a source of electrical power, electric power means including an amplifier and a reversible motor for moving said tab surface, and pilot operated switch means for placing said motor in circuit with said amplifier and said power source to thereby actuate said motor for moving said tab surface in the direction corresponding to the direction and magnitude of said relative movement between said operating mechanism and said control surface.

2,843,345
DUAL PURPOSE LANDING GEAR
Igor I. Sikorsky, Easton, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application June 14, 1955, Serial No. 515,360
12 Claims. (Cl. 244—103)



1. Landing gear for rotary wing aircraft including a wheel and axle assembly, an extension extending from said axle at an angle of approximately 45°, a supporting member in which said extension is journalled for rotation between two operative positions of said gear, one in which said axle is horizontal and another in which said axle is vertical, cooperating locking elements carried by said extension and said member and engageable to lock said assembly in either of said operative positions of said gear, means operatively connected to said extension for rotating said extension through 180° to move said assembly from one operative position to the other, cam means operatively connected to said locking elements for releasing said locking elements responsive to the initial rotative movement of said extension and resilient means operatively connected to said extention and said member and cocked by the releasing movement of said cam means for automatically re-engaging said locking elements at the end of said 180° movement of said extension.

2,843,346
RESILIENT MOUNTING
Eldon R. Cunningham, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application September 20, 1956, Serial No. 610,977
5 Claims. (Cl. 248—26)



1. In a machine having a rotatable member and a stationary member provided with a hub; means arranged on said hub for resiliently mounting said machine comprising an annulus formed of relatively rigid material positioned substantially concentric with said hub and outwardly spaced therefrom, a plurality of circumferentially spaced roller members of stiff material positioned between said hub and said annulus, each said roller member rollingly engaging both said hub and said annulus on axes substantially parallel to the axis of said machine, each said roller member having a groove extending therethrough, and spring means extending through said grooves interconnecting said roller members and opposing rolling thereof relative to said hub and said annulus.

2,843,347
SUPPORT FOR ENGINEER'S PLUMB ROD AND HIGHWAY WARNING SIGNAL
John W. King, Fullerton, Calif.
Application September 13, 1954, Serial No. 455,597
1 Claim. (Cl. 248—44)



A support for a surveyor's target rod comprising a hollow open top base having vertical side walls adapted for loading with bulk material to stabilize the same and being of triangular shape for streamlining to prevent wind

from shifting the same, a vertical socket on said base for holding a target rod upright, said socket being secured to one side wall externally of the base to dispose the same out of bulk material in the base and having a closed bottom for supporting a target rod, a depending bottom prong on said base remote from said one side wall forming a ground engaging fulcrum for leveling the base thereon, and a leveling rod fixed to the bottom of the base and provided with terminal ground engaging jack screws, said rod extending along and parallel to said one wall and outwardly of said base to space the rod remote from said prong and position the jack screws and prong in triangular arrangement with the jack screws spaced outwardly of said base.

2,843,348

DETACHABLE MOUNTING FOR BOAT SEATS

Harry C. Sammons, Tulsa, Okla.

Application May 24, 1956, Serial No. 587,078
2 Claims. (Cl. 248—194)



1. A mounting for a boat seat, comprising in combination, an elongated, longitudinally extensible member adapted to be positioned transversely of a plank seat of a boat, said member having a lower surface adapted to lie flat on the upper surface of said plank seat, a spider mounted on top of said extensible member and intermediate the ends of said extensible member, said spider having a vertical, cylindrical, upwardly-open socket for receiving and rotatably supporting the lower end of a swivel post of a boat seat, said spider having a plurality of webs extending radially from said socket, two of said webs being fastened to and extending along the top of said extensible member on either side of said socket, two others of said webs extending laterally outwardly of said extensible member and comprising stabilized legs terminating downwardly and outwardly of said socket in stabilizer feet, the lower surfaces of said stabilizer feet being coplanar with said lower surface of said extensible member and being adapted to contact said upper surface of said plank seat, downwardly depending legs disposed at both ends of said extensible member, inwardly extending cams mounted for rotation on said legs about axes transverse to said member, said cams having inner arcuate cam surfaces, the upper portions of said cam surfaces being spaced farther from their associated said axes than the lower portions of said cam surfaces, and means for adjusting the length of said extensible member, to cause said cams selectively to grip the opposite side edges of said plank seat between said cams and draw said mounting down onto said plank seat with said stabilizer feet in contact with said upper surface of said plank seat to brace said mounting against lateral tipping, or to release said plank seat.

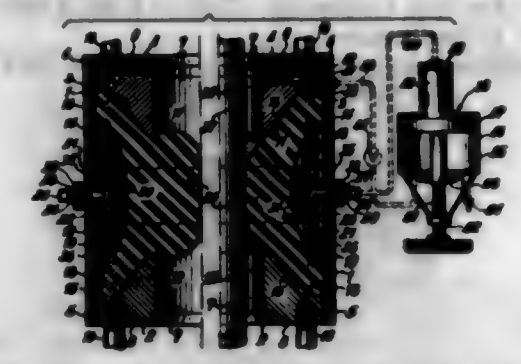
2,843,349

PRESSURE FLUID OPERATED BLOWOUT PREVENTER

Otto Meyer, Ehlershausen über Lehrte, Germany

Application December 27, 1954, Serial No. 477,849
Claims priority, application Germany January 4, 1954
3 Claims. (Cl. 251—2)

1. A valve adapted to be disposed in a pipe line, comprising a tubular housing, a generally cylindrical insert disposed within said housing and formed of elastic material with the inner surface thereof providing an axial flow passage through the valve, said insert having an endless cavity formed in the body thereof in surrounding relation to the flow passage therethrough, means for supplying pressurized fluid to the cavity to expand the same and deform the inner surface of the insert inwardly to constrict the passage therethrough, a pair of cover flanges secured at opposite ends of said housing to retain said insert therein, each of said flanges having an opening therethrough coaxial with said passage, the opposed inner faces of said flanges having frusto-conical



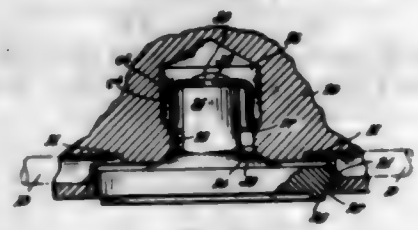
projections to confine deformation of said insert due to expansion of said cavity to an area on the inner surface thereof intermediate the ends of such insert, said insert being formed to conform to the shape defined by the inner surface of said housing and the inner faces of said flanges and to snugly bear against such surfaces when the cavity is collapsed, the ends of said insert bearing against the inner faces of said flanges being of greater Shore hardness than the deformable inner surface portion of the insert, and a two-step pressure converter connected with its low-pressure side through a duct to the flow-passage downstream of the valve, and with its high-pressure side through a duct with said cavity.

2,843,350

SNAP-ACTION COUPLING

Harold W. Wilson, Fairfield, Conn., assignor to Manning, Maxwell & Moore, Incorporated, Stratford, Conn., a corporation of New Jersey

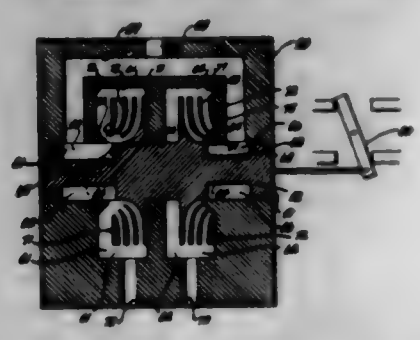
Application October 29, 1956, Serial No. 619,947
13 Claims. (Cl. 251—86)



1. A coupling for releasably uniting two rigid parts, one of which is of a shape to define the wall of a circular chamber provided with a restricted entrance, said coupling being so constructed and dimensioned that the entire coupling may be passed through said restricted entrance into said chamber, the coupling comprising a unitary piece of stiffly resilient sheet material shaped to provide an end member and side wall, the side wall having slots therein which divide it to form a plurality of legs each of which is integrally joined at one end to the end member, the legs being otherwise free from each other, the end member and the major portion of the side wall of the coupling being capable of freely entering said chamber through said restricted entrance but the terminal portions of the legs being so outwardly flared that they can pass through said entrance only when said terminal portions have been flexed inwardly towards the axis of the coupling, the wall of the chamber comprising a downwardly convergent annular abutment surface whose lower edge defines the upper end of the en-

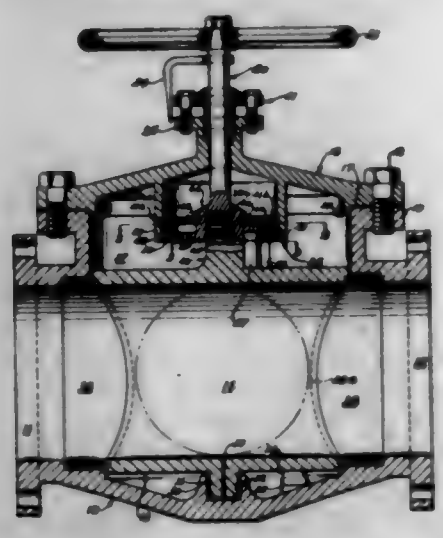
trance passage, the terminal portion of each leg having an end surface shaped for abutting engagement with said abutment surface of the wall of said chamber whereby the coupling is retained within the chamber when once entered therein but is free for rocking motion therein, and means for rigidly attaching the other of said parts to the end member of the coupling.

2,843,351
BALANCED SERVO VALVE
Raymond Howard Griest, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application January 31, 1955, Serial No. 484,966
5 Claims. (Cl. 251—120)



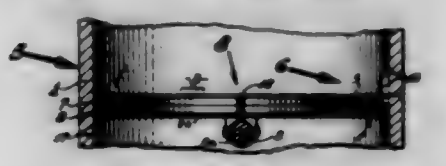
1. In a fluid servo valve having an annular outlet passage and an annular variable fluid valve gap defined by an edge of a stationary valve body and an edge of a valve spool slideable within said valve body whereby the flow of fluid to said outlet passage is varied; a jet directing member within said outlet passage, said jet directing member being circumferentially affixed substantially normal to said valve spool proximate said valve gap, a series of axially spaced annular vanes affixed to said jet directing member in positions overlapping said fluid gap to be successively moved into said fluid gap as said fluid gap is increased, said vanes being of curved cross section and defining a plurality of curved fluid paths having entrances proximate said valve gap for deflecting fluid passing through said valve gap to a direction substantially normal to said sliding member.

2,843,352
PLUG VALVE
Michael Smolensky, Cleveland Heights, Ohio
Application December 7, 1954, Serial No. 473,687
1 Claim. (Cl. 251—165)



In a plug valve wherein there is a valve body, a tapered rotatable valve plug structure having a tapered valve seat fit in the valve body, a stem supporting cap for the body, a valve stem supported by the cap, a threaded connection between the plug structure and the stem, said valve body having a branch sealed by the cap with an internal diameter greater than the diameter of the plug whereby the plug may be inserted in the valve body, said cap being fitted in said body branch and having an internally threaded annular wall depending into the branch of considerably less diameter than the internal diameter of the branch, a threaded split insert comprising two halves of a hollow disk structure threadedly supported by the internal threads of the depending annular wall of the cap at the bottom of the depending annular wall, the bottom portion of the stem being engaged by the split insert to prevent vertical shifting of the stem and having a cam formation housed within a centrally disposed annular cavity within the two halves of the insert, means securing the insert halves to the depending annular wall of the cap with the cam formation of the stem disposed therein, interlocking means disposed between the stem cam and plug structure whereby the stem upon valve-opening rotation thereof may first effect axial movement of the plug structure relative to the body and thereafter turn the plug structure, and said insert having an upper annular flange formed thereon engaging an annular groove formed in the stem to receive the axial thrust of the stem when raising or lowering the plug.

2,843,353
BUTTERFLY VALVE SEAL
Donald S. Mardes, Manhattan Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application April 23, 1954, Serial No. 425,098
3 Claims. (Cl. 251—192)

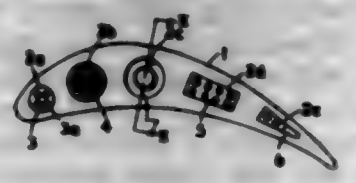


1. A butterfly valve for a fluid carrying conduit comprising: a valve disc the outside diameter of which is smaller than the inside diameter of said conduit, pivotal support means supporting said valve disc in the interior of said conduit so that the entire peripheral edge of said disc is free and unincumbered, said valve disc being pivotal on said support means from a position wherein the interior of said conduit is open to fluid flow to a position wherein said conduit is closed to fluid flow, a groove in the peripheral edge of said valve disc and extending entirely around the circumference thereof, a pair of resilient split sealing rings mounted in said groove with the spaced apart ends of one of said rings rotated in said groove 180° away from the spaced apart ends of the other said ring, the outside diameter of said rings being normally smaller than the inside diameter of said conduit, coupling means engaging the inside periphery of said rings and said disc to prevent relative rotation of said rings in said peripheral groove, and ring expansion means mounted on the interior wall surface of said conduit, said expansion means being located and shaped to enter between said spaced ends of said split rings when said valve disc is pivoted to said position closing said conduit to fluid flow to expand said rings into fluid tight engagement around the entire circumference of the interior wall of said conduit.

2,843,354
TURBINE AND LIKE BLADES
Austin G. Smith, Blaby, England, assignor to Power Jets (Research and Development) Limited, London, England, a British company
Application June 30, 1950, Serial No. 171,263
Claims priority, application Great Britain July 6, 1949
9 Claims. (Cl. 253—39.15)

1. In a combination, a turbine blade having root and tip ends and a portion defining an internal passageway

extending lengthwise of the blade from the root end to the tip end to permit the flow of coolant fluid, and a plurality of elements within said passageway and extending transversely with respect thereto and axially spaced from one another along the longitudinal axis thereof, said elements being apertured to permit the flow of said fluid along the passageway, being in good heat



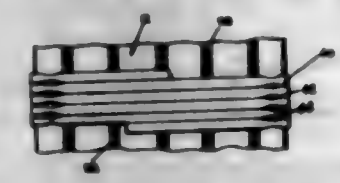
conducting contact at their edges with the passageway-defining portion of the blade and having heat exchange surfaces exposed to the flow of said fluid, said elements being variably spaced along at least part of the passageway so that the area of said heat exchange surfaces per unit length of the passageway varies along at least this part of the passageway.

2,843,355

WIRE WOUND STRUCTURE

Howard J. Findley, Cleveland, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application January 4, 1952, Serial No. 264,943
18 Claims. (Cl. 253—39.15)



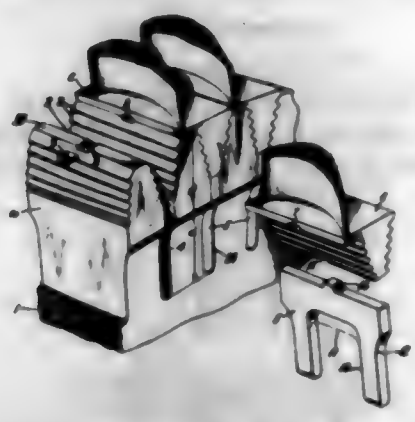
1. A blade comprising a supporting member, and an external surface air foil shaped spirally wound member mounted on the supporting member having a hollow centrally thereof and passage means between the convolutions of the wound member in the air foil surface thereof interconnecting the hollow and the external surface thereof.

2,843,356

TURBO-MACHINE ROTOR ASSEMBLY

Thomas N. Hull, Jr., Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application April 5, 1954, Serial No. 420,835
6 Claims. (Cl. 253—77)



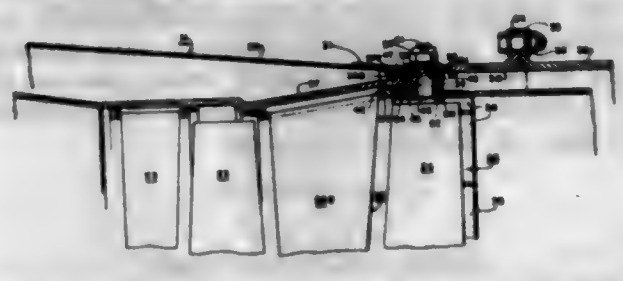
1. In a turbo-machine rotor assembly, a wheel member having a rim portion defining a circumferential row of axially extending dovetail grooves, said rim portion also defining a slot extending axially through the rim at the bottom of each dovetail groove, said slot having a depth at least substantially that of the depth of the dovetail grooves and extending radially across the high temperature rim portion of the wheel, a plurality of buckets each having a dovetail base portion of substantially the same configuration as said dovetail grooves and disposed in one of said grooves, a filler member loosely disposed in and substantially filling each of said slots to substantially prevent leakage of power fluid therethrough, and means preventing axial displacement of the filler member relative to the wheel.

2,843,357

ROTARY FLUID HANDLING APPARATUS

Joseph Philip Spindler, Jr., Prospect Park, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 6, 1955, Serial No. 506,679
8 Claims. (Cl. 253—78)



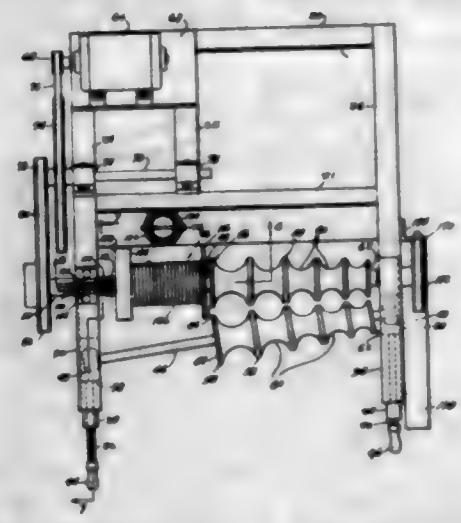
4. In a rotary fluid machine having a bladed rotor, a stationary vane assembly disposed in axial alignment with said rotor and a tubular outer housing encompassing said rotor and said vane assembly, the combination compriaing an annular shroud member connected to said vanes, a plurality of arcuate segments forming an annular liner encompassing said rotor, means for joining said outer housing, said shroud member and said liner together including an annular series of spaced bushings interposed between each of said liner segments and said outer housing, each of said bushings having a main body portion and a recess in the innermost face of said body portion, each of said liner segments having an annular rib received in said recess, said shroud having a peripheral marginal portion disposed in overlapping engagement with said liner, an annular, radially extending flange provided on one of said shroud and said outer housing for maintaining said shroud and said outer housing in predetermined relation to each other, and a plurality of threaded clamping members extending from said liner segments through said bushings and said outer housing.

2,843,358

PIPE PULLING MACHINE

Rral L. Anderson, Odessa, Tex.

Application December 17, 1954, Serial No. 475,949
4 Claims. (Cl. 254—30)



1. In a well casing pipe pulling machine, a frame adapted to rest upon the ground around a well casing, a stationary horizontal rotary shaft journaled on said frame and having thereon an axially elongated pipe gripping roller, a rotary floating horizontal shaft located substantially in the same plane as and positioned at one

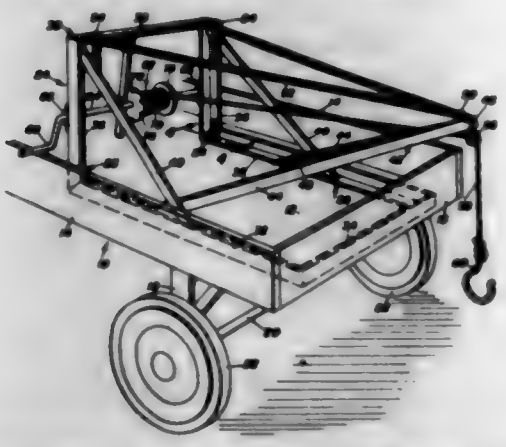
side of said stationary shaft and unconnected to said stationary shaft, said floating shaft having an axially elongated pipe gripping roller thereon, means mounting said floating shaft on said frame for lateral movement toward and away from said stationary shaft and for angulation in said plane relative to said stationary shaft, and adjusting means operatively connected with the opposite ends of said floating shaft for moving said floating shaft toward and away from said stationary shaft and at desired angles relative to said stationary shaft, to cause said gripping rollers to grip a pipe rising from a well casing, and drive means for rotating said stationary shaft in a direction to pull the pipe from the casing, said pipe gripping rollers having longitudinally spaced circumferential pipe engaging grooves, said grooves increasing in width and in diameter from one end of the rollers toward the other end thereof to conformably receive pipe of different diameters.

2,843,359
WEED DIGGING TOOL
Earl E. Franz and Earl E. Franz, Jr., Canton, Ohio
Application March 21, 1956, Serial No. 572,958
4 Claims. (Cl. 254—132)



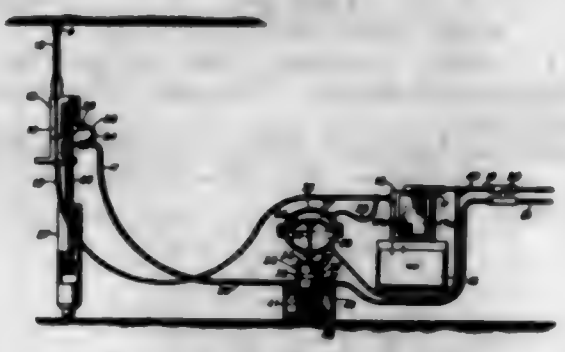
1. A weed digging tool comprising a handle, a pair of bracket members fixed upon the lower end of the handle, substantially flat extensions depending from said brackets and having opposed grooves at their lower edges, a blade slidably located between said extensions and having its side edges located in said grooves, a clamping bolt located through said bracket extensions for clamping said blade therebetween in adjusted position, there being a notch in the forward end of said blade, and the rear end of said blade being curved downwardly, then forwardly and then upwardly forming a substantially cylindrical fulcrum.

2,843,360
WRECKER FRAME ATTACHMENT
Thomas D. Proctor, Cheboygan, Mich.
Application November 15, 1954, Serial No. 468,837
1 Claim. (Cl. 254—139.1)



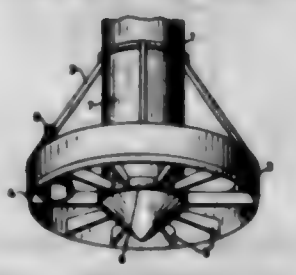
In combination with a child's wagon, a wrecker attachment comprising an elongated frame seated in said wagon, a boom, said frame having pivotally connected to a forward portion thereof said boom, pulley means at an outer end of said boom, a lifting member entrained over said pulley means, winch means carried by the forward portion of said frame, said lifting member being reeled on said winch means, fastening means carried by the forward portion only of said frame securing said frame to said wagon bottom, said fastening means including at least one L-shaped member carried by said frame and having a lower leg, said L-shaped member including a vertical leg joined to said lower leg by a curved portion, an enlarged opening in said wagon bottom, said member having said vertical leg disposed in said opening with said curved portion and said lower leg passed through said opening with said lower leg underlying said wagon body, said curved portion, said lower leg and said opening being of relative proportions whereby said lower leg and said curved portion may be passed through said opening by tipping said frame.

2,843,361
DRILLING SYSTEM
Frederick B. Miller, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application November 22, 1954, Serial No. 470,189
3 Claims. (Cl. 255—58)



1. In a drilling system employing a drill actuated by pressure fluid from a pressure source, a pressure line connecting the drill to the pressure source, means located adjacent the point of drilling for receiving dust and cuttings resulting from the operation of the drill, an eductor line connecting said means with a source of suction, means for removing cuttings and dust transported through the eductor line, a valve in the pressure line effective to regulate the flow of pressure fluid to the drill, and means for controlling the operation of the valve, said controlling means comprising means connected to the eductor line at spaced points thereon and movable in response to differences in the pressure in the eductor line between said points and means interconnecting the last named means and the valve to operate the valve in response to variations of said pressure differences.

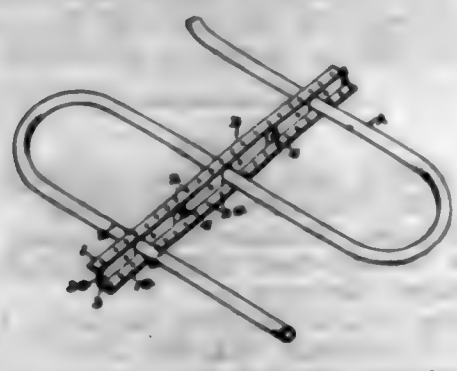
2,843,362
EXCAVATION IMPLEMENT
Wilhelm Degen, Frankfurt am Main, Germany
Application August 28, 1954, Serial No. 451,156
7 Claims. (Cl. 255—61)



1. An implement for excavating and removing compact materials, comprising a shaking device, a vertically downwardly pointing cutting tool and means for securing the cutting tool to the shaking device, the cutting tool including a circumferential downwardly pointing cutting member defining a laterally closed chamber and adapted to encompass the material to be excavated and a plurality of downwardly pointing inner cutting members arranged

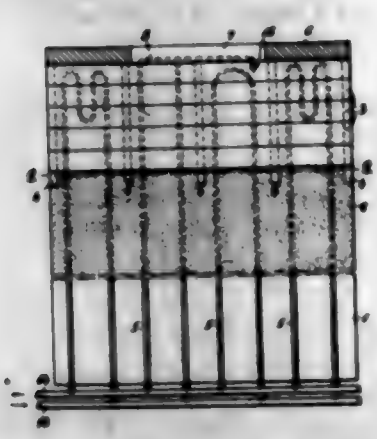
in said chamber and attached to the outer cutting member, the cutting members forming a plurality of compartments in said laterally closed chamber therebetween for holding the excavated material during removal.

2,843,363
TUBING HANGER
John H. Mallender, Alexandria, Va.
Application November 4, 1954, Serial No. 466,884
1 Claim. (Cl. 257—124)



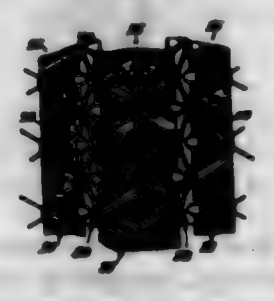
A tubing assembly reversible side for side relative to a support to which it is attached, comprising in combination, a sinuous tube having spaced parallel flights, a pair of longitudinally coextensive, identical angle members each having flanges of substantially equal width, one of said flanges of each angle member being perforated with a series of fastener receiving openings and the other flange having re-entrant spaced notches, said angle members being assembled with the inner faces of their notched flanges secured in abutting aligned relationship and the longitudinal edges of each notched flange abutting the perforated flange of the adjacent angle member to embrace and lock adjacent flights of the tubing thereto, said perforated flanges projecting substantially at right angles to said notched flanges laterally in opposite directions at different elevations relative to the abutting flanges and standing free of said abutting flanges to thereby provide an optional, accessible fastening ground at either side of the assembly.

2,843,364
ROOM HEATING SYSTEMS
Gustaf Kihr, Stockholm, Sweden
Application March 25, 1953, Serial No. 344,565
Claims priority, application Sweden April 18, 1952
3 Claims. (Cl. 257—124)



3. In a room heating system, the combination of a false ceiling of concrete, a layer of sand on said false ceiling, a plurality of hot water conducting pipes entirely embedded in said layer of sand, an external wall extending along one edge of the ceiling, at least one window in said wall, said conducting pipes including a section extending vertically and horizontally beneath the window, a perforated plate covering the vertical and horizontally arranged section beneath the window, and a covering wooden floor comprising laminated boards with the grain of one board crossing the grain direction of the other board, tongue and groove means joining adjacent boards together and said wooden floor resting directly on the sand layer.

2,843,365
HEAT EXCHANGE UNIT CELLULAR CORE
Armstead G. Getz, Lakewood, Ohio, assignor to The Bishop and Babcock Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application February 5, 1954, Serial No. 408,330
5 Claims. (Cl. 257—130)

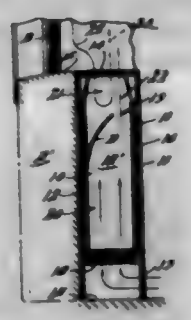


1. In a cellular core for heat exchange units, a plurality of sections respectively comprising two spaced apart sheet metal water walls and a sheet metal separator between said water walls substantially parallel therewith, the water walls of adjacent sections having their front and back marginal portions secured together and being spaced apart therebetween providing water passages between the water walls of adjacent sections, said separator of the respective sections having transversely extending undulatory corrugations providing continuous ribs of undulatory formation lengthwise extending substantially the full width of said separator and outwardly of the latter toward said water walls and said water walls of the respective sections having transverse ribs of zig-zag formation lengthwise extending inwardly of the section toward said separator and defining bays opening in alternately opposite directions toward the ends of the respective water walls, the areas of said water walls between said ribs thereof being flat and said separator ribs spanning the space between said water walls and fitting between the ribs thereof with the crests of the undulations of said separator ribs extending into the bays of said water wall ribs and in cooperation therewith restraining said separator ribs against both transverse and lengthwise movement relative to said water walls, said separator ribs seating at their apices for substantially their full length on said flat areas of said water walls between said ribs thereof in metal to metal contact with said flat areas, the crests of the undulations of the respective separator ribs extending at least to the planes of the crests of the two next adjacent separator ribs at the same side thereof and said separator ribs defining with said water walls undulatory air passages extending from front to back of said section.

2,843,366
CONVECTION HEATER
Tredick K. Hine, Huntington Woods, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application September 16, 1955, Serial No. 534,674
4 Claims. (Cl. 257—136)

1. In a convection heater for use in a room adjacent a cold outside wall, an upright air stack having an air inlet opening into said room adjacent the floor thereof and also having an air outlet opening upwardly into said room adjacent said wall at an upper portion of said stack for vertical passage of heated air into said room, a heating element in said stack between said inlet and outlet for heating air entering said inlet, means to prevent downwardly flowing cold air adjacent said wall from entering said stack through said outlet and thence discharging from said inlet into said room comprising a baffle above said

heating element and underlying a substantial rear portion of said outlet, said baffle extending from the rear of said stack toward the front thereof to define a restricted orifice in said stack between said heating element and outlet, and means located above said heating element and closing the space between said wall and the rear edge of said outlet and also closing the space between said wall and the rear edge of said baffle proximate said wall to block



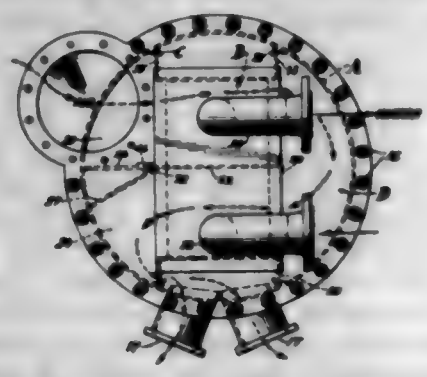
said downwardly flowing cold air from flowing into both spaces, said baffle being arranged to direct upwardly flowing air in said stack toward the front thereof through said orifice, the latter cooperating with said baffle to block cold air flowing downwardly adjacent said wall from above said outlet and to effect reverse flow of said cold air with the warm air flowing upwardly through said orifice.

2,843,367

HEAT EXCHANGER

Anthony D. Bogus and Donald W. Christensen, Racine, Wis., assignors to Young Radiator Company, Racine, Wis., a corporation of Wisconsin

Application May 24, 1955, Serial No. 510,772
2 Claims. (Cl. 257—239)



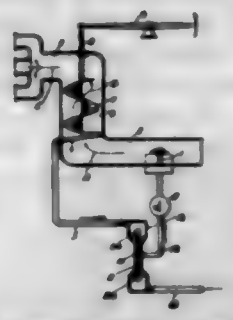
1. A heat exchanger comprising, an open-ended cylindrical distributor manifold having an air inlet and a circumferentially-spaced row of air outlets disposed longitudinally along the exterior of the manifold, an elongated rectangular-cross-section heat-exchanger core formed of a plurality of sections of longitudinally-disposed header-supported tubes spanning and supported on spaced end-tanks, one of which tanks is medially divided and formed with exterior fluid inlet and outlet ports, to provide reverse fluid flow through the tubes between opposite sides of the divide separating the inlet and outlet ports in the one tank and through the opposite end tank, a partition arranged longitudinally of the core medially and full-width thereof between the end tanks, pairs of angle-shaped track-bars each having the external face of one leg bonded to the inner wall of the manifold with the angles of each pair oppositely opposed on opposite sides of a manifold diameter most adjacent the row of manifold outlets, channel-shaped members sealed along the lateral sides of the core with the parallel side flanges of the side members seated in the adjacently-positioned track-bars whereby the manifold space on opposite sides of the core is sealed against intercommunication except transversely through the core around the tubes on opposite sides of the core partition, one of the channel-shaped members forming with the manifold a chamber communicating with the row of outlets but sealed off from the manifold space on opposite sides of the core, and a radially-disposed partition extending longitudinally along one side of the manifold in sealed relation thereto intermediate the air inlet and the row of air-outlets and in sealed coplanar relationship with the core partition to effect a reverse air flow transversely of the core around the tubes thereof between the air inlet on one side of the coplanar arranged partitions and the air-outlets on the opposite side of the coplanar partitions, the flange on the core-side member adjacent the manifold outlets having a series of openings formed therein to afford communication between the other side of the coplanar partitions and the chamber leading to the row of air outlets.

2,843,368

MEANS FOR CARBURETING AIR FOR COMBUSTION IN AN ENGINE

Ekbert O. Schmidt, Stuttgart-Bad Cannstatt, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany

Application October 24, 1955, Serial No. 542,384
2 Claims. (Cl. 261—79)



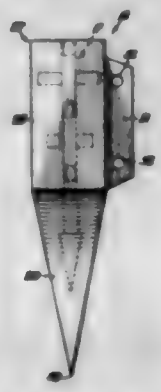
1. In an internal combustion engine the combination comprising an intake manifold, an intake conduit communicating therewith, a carburetor spray nozzle disposed in said conduit, a flexible helical partition within said conduit between said intake manifold and said nozzle, said conduit being provided with a fuel outlet at a point near the bottom end of said helical partition, and adjustable means connected with said partition for variably flexing the same to thereby vary its axial length and its pitch.

2,843,369

IMPACT MEANS FOR BREAKING UP FROZEN GROUND

John H. Simmons, deceased, late of Hazel Green, Wis., by Jeanette Simmons, administratrix, Hazel Green, Wis.

Application November 21, 1956, Serial No. 623,739
1 Claim. (Cl. 262—33)

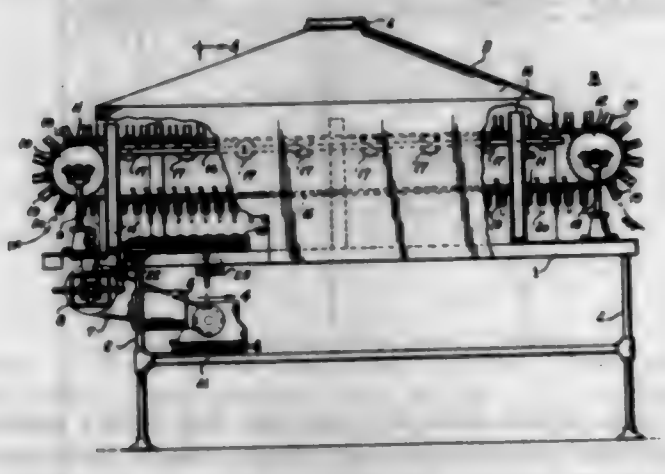


A frostbreaker for breaking up frozen ground and adapted to be lifted and dropped by suitable operating means comprising, in combination, an elongated core of cold rolled steel having laterally extending arms and the lower end chisel shaped, an elongated casing of cast iron embedding said core, the upper section of said core and casing being a rectangular parallelepiped and the lower section being prismoidal to facilitate entry into the ground, and mounting means extending from said upper section for fastening to the operating means.

2,843,370
AUTOMATIC AMPUL DRYING MACHINE

Carl Emil Engel, Ramsey, and Sidney Ernest Harris, Paterson, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

Application January 16, 1956, Serial No. 559,393
5 Claims. (Cl. 263—8)

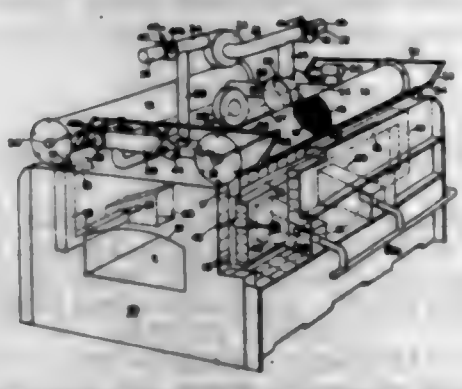


1. An automatic ampul drying machine which comprises an elongated frame mounted on supporting members, a drive shaft suspended from said frame and operatively connected to a driving means, two drive sprocket wheels mounted at opposite sides above a first end of said frame, two idler sprocket wheels mounted at opposite sides above the second end of said frame, an endless chain suspended between the driver and idler sprocket wheels at each side of the frame, an indexing mechanism connecting said drive shaft and said driver sprocket wheels adapted to rotate the driver sprocket wheels and advance the chains intermittently, a plurality of ampul carrier assemblies transversely suspended between the endless chains, each ampul carrier assembly comprising a support bar adapted to be attached by each end thereof to said endless chains, fixed support means suspended from said support bar, a carrier bar attached in a horizontal position to the end of said fixed support means, movable support means attached to said fixed support means by hinge means, a movable companion carrier bar attached in a horizontal position to said movable support means, said movable carrier bar forming an adjustable slot together with said fixed carrier bar, and a counterweight attached to said movable support means in a position remote from the carrier bar and so aligned with respect to the hinge means as to close said slot while the carrier assembly is in ampul transporting position, and a heating device mounted on the frame of said machine.

2,843,371
REGENERATIVE FURNACE

John Thomas Fallon, Otton, Birmingham, England

Application March 30, 1955, Serial No. 498,002
Claims priority, application Great Britain March 31, 1954
10 Claims. (Cl. 263—15)

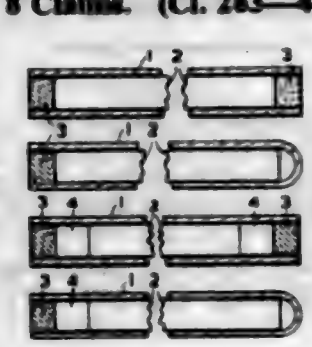


6. A regenerative furnace comprising a working chamber, an exhaust gas duct therefor, a pair of regenerators, an inlet for gaseous fluid, means, e. g. combustion chambers, for supplying heat to such gaseous fluid, reversing valved means for causing the gaseous fluid to flow from the inlet successively through one regenerator, the heating means, the working chamber and the other regenerator to the exhaust duct, with reversal of flow at intervals, said furnace further comprising means operatively connected to said exhaust duct for bleeding a portion of the exhaust gases from the exhaust duct and recirculating such portion through the last mentioned regenerator so that the gases leaving the working chamber are diluted with and somewhat cooled by said bled gases before entering the last mentioned regenerator, said means including a pumping device for compensating the pressure drop across the last mentioned regenerator, the heat supplying means adapted to burn a fuel in the air preheated by the regenerator which for the time being is connected to the gaseous fluid inlet, controllable means for introducing a regulated quantity of atmospheric air into the gases being exhausted from the regenerator which for the time being is connected to the exhaust duct before such gases reach the means by which a portion thereof is bled-off for recirculation through said regenerator, so as to promote or complete the combustion of any unburnt or incompletely burnt fuel remaining in the gases discharged from the working chamber and the conservation of the residual calorific value of the last mentioned gases.

2,843,372
REFRACTORY MATERIALS

Frederick J. Edwards, Newcastle-upon-Tyne, England, assignor to The Thermal Syndicate Limited, Wallsend, England, a British company

Application December 28, 1953, Serial No. 400,537
Claims priority, application Great Britain January 7, 1953
8 Claims. (Cl. 263—46)



1. As an article of manufacture a refractory element comprising, in combination, an elongated hollow member made of impervious refractory material chemically non-reactable with graphite and formed with at least one open end; a graphite reinforcement rod capable of maintaining its strength at high temperature and being of shorter length than said hollow member being located in the same and having one end spaced from said open end; and at least one plug of porous refractory material located at said open end adjacent said one end of said rod so as to close said open end, whereby the strength of said refractory element is maintained at high temperatures due to said graphite reinforcing rod, and whereby gases developed by said graphite reinforcing rod may escape through said plug of porous refractory material.

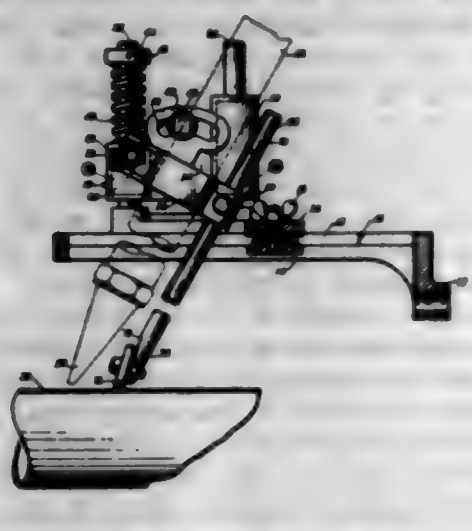
2,843,373
OUT OF ROUND ATTACHMENT

Harold F. Livers, Kansas City, Mo., assignor to Mary Catherine Harter, Tulsa, Okla.

Application January 9, 1957, Serial No. 633,348
2 Claims. (Cl. 266—23)

1. In an out of round attachment for use with a pipe cutting machine having a torch carrying arm member extending in alignment with the longitudinal axis of the pipe, said torch carrying arm having a pair of spaced

arm members, a bracket adjustably secured to the arm members, a pair of spaced shaft members rigidly secured to the bracket member, a sleeve member slidably disposed on each of the shaft members, spring means cooperating with one of the shaft members and corresponding sleeve member for constantly urging the sleeve member in one direction, a clamp member adjustably secured to the sleeve members for receiving a cutting torch, said adjustability of said clamp member permitting varied angu-



lar dispositions of the torch with respect to the outer periphery of the pipe, an indicating roller member adjustably secured to the clamp means and positioned adjacent the outer periphery of the pipe, said roller responding to distortions in the pipe periphery for moving against the action of the spring means and maintaining the torch equidistant from the pipe, and said roller member and torch member disposed between the spaced arm members of the torch carrying arm member.

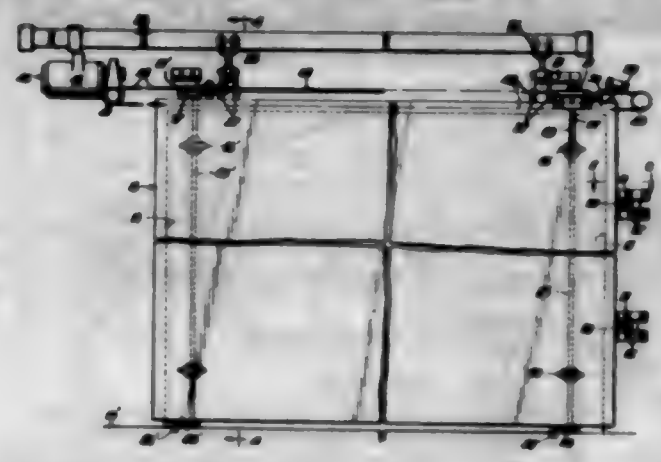
2,843,374
SHELL HARDENED TORSION BAR AND PROCESS OF MAKING SAME
Alfred L. Boegehold, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 16, 1954, Serial No. 443,786
10 Claims. (Cl. 267—57)



1. A torsion bar spring comprising a high carbon steel shaft of circular cross section consisting of .72 to .95% carbon, .30 to .60% manganese, silicon less than .50%, .040% phosphorus (max.), sulphur .050% (max.), and the balance iron, and having a hard surface shell of relatively shallow depth and a softer core portion, the drop in hardness from the hard shell to the core taking place in a relatively short distance inwardly from the hard shell.

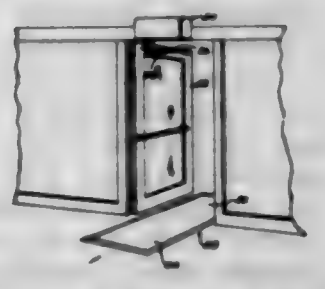
2,843,375
COMBINED SLIDING AND SIDE SEALING DOOR
Robert F. Lesage, Denver, Colo., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill., a corporation of Illinois
Application November 16, 1955, Serial No. 547,188
16 Claims. (Cl. 268—53)

1. In a laterally sealing sliding door construction, the combination of a doorway, a guide track extending substantially parallel to the plane of said doorway, a door adapted to travel along said guide track, an endless chain for propelling the door along said track to a position in registration with the doorway, door shifter mechanism carried by the door, shifter trackways mounted adjacent to said doorway, said shifter mechanism having cooperative engagement with said trackways when the door is in registration with said doorway, and means respon-



sive to said endless chain for actuating said shifter mechanism when the door is in registration with the doorway, whereby to move the door sidewise into sealing engagement with said doorway.

2,843,376
DOOR OPERATORS
Francis J. Ossch, Detroit, and Kenneth Krake, Wayne Township, Mich., assignors to Robot Appliances, Inc., Detroit, Mich., a corporation of Michigan
Application October 4, 1955, Serial No. 538,302
2 Claims. (Cl. 268—65)

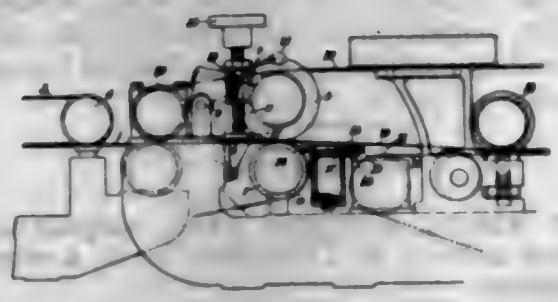


1. A door operator for a swinging door comprising, a support, a reversible electric motor on said support, a speed reduction mechanism on said support disposed laterally of said motor and driven thereby, said speed reduction mechanism including a vertical driving shaft, a slip clutch including a rotatable driving clutch plate attached to said driving shaft adjacent and immediately below said speed reduction mechanism, a driven clutch plate engaging the under face of said driving clutch plate, a door operating arm having one end secured to said driven clutch plate for rotation therewith, a coil spring surrounding said shaft acting against the underside of said arm to urge said driven clutch plate against said driving clutch plate, an operator to actuate a switch to stop operation of said motor in one direction, a second operating member to operate a switch to stop operation of said motor in the opposite direction, and a pair of cams radially spaced on said driven clutch plate respectively to engage and move said operators.

2,843,377
SHEET CUTTING AND LAYING MACHINES OR APPARATUS
James Eckersley Battersby, London, England, assignor to Masson Scott & Company Limited, London, England
Application November 14, 1955, Serial No. 546,637
Claims priority, application Great Britain November 17, 1954
15 Claims. (Cl. 271—76)

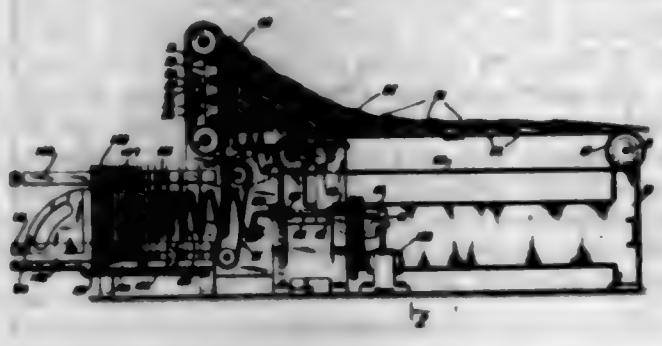
1. Means for delivering sheets cut from webs in at least partly overlapping relation including means for temporarily imparting to the sheets a multiple wave like cross section transverse to their direction of travel for

the purpose of momentarily stiffening the sheets to aid the overlapping thereof, the said means comprising driven elements engaging and feeding the sheets between them and so shaped as to impart to the sheets the aforesaid multiple wave like cross section, and a stationary element having a sheet supporting surface extending in the direc-



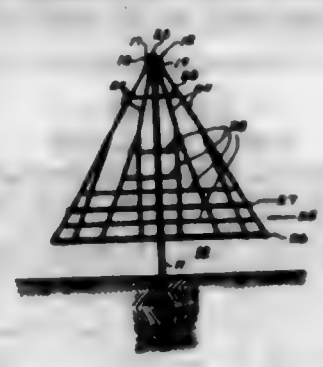
tion of sheet travel for receiving and supporting the travelling sheets as they leave the said driven elements, the said stationary supporting surface having a multiple wave like cross section corresponding to and aligned with the multiple wave form temporarily imparted to each sheet, and means for receiving the sheets leaving said stationary element.

2,843,378
STACKING APPARATUS
Harry W. Fasber, Larchmont, N. Y., assignor to Time, Incorporated, New York, N. Y., a corporation of New York
Application May 22, 1956, Serial No. 586,472
6 Claims. (Cl. 271—87)



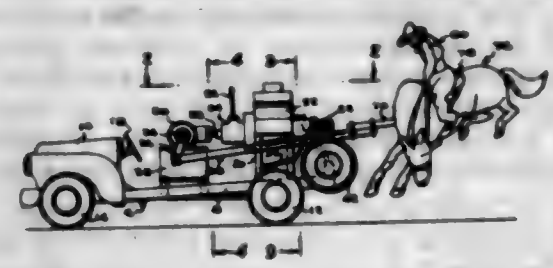
1. A mechanism for stacking a plurality of individual sheets in edgewise fashion which are being fed to said stacking mechanism in a substantially horizontal position on a horizontal moving surface with the forward edge of each sheet overlapping the rear edge of the sheet immediately in front of it and the rear edge of each sheet in contact with said moving surface, which comprises means for arresting the forward motion of said sheets while the continued movement of said surface and the contact between the rear edges and said surface causes the sheets to slide over each other thereby raising the forward edge of each sheet until each sheet is raised in succession to a substantially vertical position, means engaging each sheet in succession while it is in the vertical position to slide it downwardly, guiding means arresting the downward movement of said sheets, and means including a pair of rotating helical members mounted on horizontal axes adapted to engage opposite edges of each successive sheet and in cooperation with said guiding member to convey said sheets while in the vertical position toward a stack-receiving station, said helical members being hollow tubes, one end of each tube being opened and the other end closed, the walls of said tubes having a plurality of holes distributed throughout a substantial portion of its length and adapted to permit passage of air, and means for forcing air in said open ends and through said holes thereby to move said sheets toward said stack-receiving station with minimum contact between the tubes and the sheets.

2,843,379
AMUSEMENT APPARATUS
Oscar K. Merritt, Mount Airy, N. C.
Application January 5, 1956, Serial No. 557,527
3 Claims. (Cl. 272—41)



1. A play apparatus comprising vertical support means, joint means tiltably and rotatably secured to the top free end of said support means, a plurality of flexible long down lines secured at one end to said joint means in inclined relation therewith and in spaced relation therearound, a plurality of flexible short down lines, each being secured at one end to one of said long down lines and extending downwardly therefrom and around at least a portion of the periphery at least sufficient to provide adjacent ladders whereby a child may climb vertically or diagonally, seat means extending completely around said support means in spaced relation therefrom, said seat means having rotational and swinging movement with respect to said support means, the bottom free ends of each of the short and the long down lines connected to said seat means in spaced relation therearound, and at least two cross lines connected to said short and long down lines in vertical spaced relation, said cross lines lying in a plane substantially parallel to said seat means, said short and long down lines and said cross lines providing a plurality of vertically extending ladders.

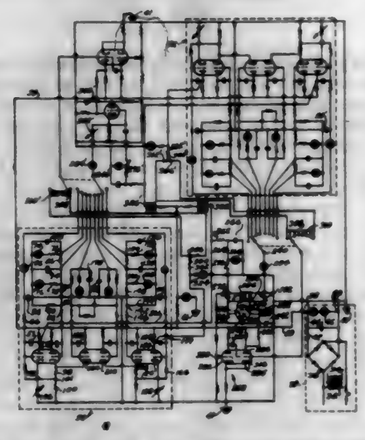
2,843,388
BUCKING HORSE APPARATUS
George F. Simon, Marcus J. Simon, Jerome G. Simon, and Leo F. Simon, all of Colwich, Kans.
Application February 15, 1957, Serial No. 640,545
4 Claims. (Cl. 272—53.1)



1. In bucking horse apparatus, a horizontal base having a forward end and a rear end, a motor mounted on said base between its ends, transverse axle means mounted on the base forwardly of said motor, transmission means operatively connecting the motor with said axle means, said axle means having an axle shaft having laterally outward ends terminating in crank arms having lateral pintles, a pair of laterally spaced free running wheels journaled on said base behind said motor, a generally horizontal oscillating frame having legs disposed at opposite sides of said motor, said frame legs having forward ends which have journals thereon journaled on said pintles and rear ends, cross bar means fixed to and spacing and connecting the rear ends of said legs, said legs having rear end portions freely resting upon said free-running wheels, bracket means rising from said base in the region of said free-running wheels, a transverse rock shaft journaled on said bracket means, arms on said rock shaft carrying hold-down wheels bearing down upon said oscillating frame legs, spring means urging the hold-down wheels down-

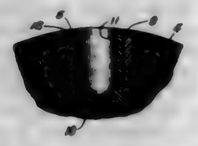
wardly into hold-down engagement with the frame legs, and a boom having a forward end portion fixed to said cross bar means, said boom extending rearwardly from said oscillating frame and having a rear end, and a bucking horse figure mounted on the rear end of the boom.

2,843,381
AIR WAR GAME
Leighton I. Davis, Annapolis, Md.
Application October 6, 1954, Serial No. 460,783
7 Claims. (Cl. 273—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



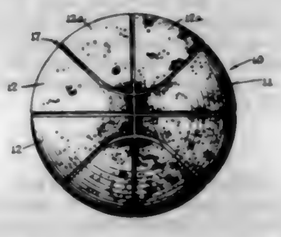
1. An air war game comprising a game assembly divided into a plurality of symmetrical sections, each of said sections including a plurality of electric storage devices, a selector switch operable to be connected to any storage device of an opposed section, a charge forming device, an electric discharge device operable to control flow of a charge from said charge forming device to said selector switch, a first and second control means for said discharge device, said storage devices being connected into a first and a second group, a first circuit means deriving a first potential dependent on the electrical condition of the storage devices of said first group, a first control circuit means responsive to said first potential for impressing control potential on said first control means, a second circuit means deriving a second potential responsive to the electrical condition of the storage devices of said second group, a second control circuit means responsive to said second potential for impressing control potential on said second control means of the opposed section.

2,843,382
RELOCATING HOLES IN BOWLING BALLS
Harold M. Ross, Chicago, Ill., assignor to Wallace A. Erickson & Co., a corporation of Illinois
Application July 18, 1955, Serial No. 522,684
4 Claims. (Cl. 273—63)



1. A method of providing a bowling ball having an original finger hole therein with a substantially cylindrical relocated finger hole defined by a tubular liner comprising, sequentially, forming a relocated finger hole that intersects an original finger hole, said relocated hole being capable of receiving permanent tubular forming means, inserting permanent tubular forming means having a smooth inside surface into said relocated hole, and filling the remaining portion of the original hole with filler material having properties that are analogous to the initial bowling ball material, said forming means serving to exclude filler material from the relocated hole and thereafter providing a tubular protective liner for the relocated finger hole.

2,843,383
PLAYBALL
Ralph F. Wheeler, Springfield, Mass., assignor to A. G. Spalding & Bros., Inc., Chicopee, Mass., a corporation of Delaware
Application January 11, 1955, Serial No. 481,148
1 Claim. (Cl. 273—65)



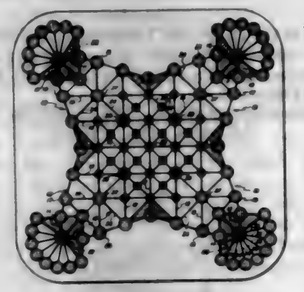
In a basketball having a cover adhered thereto and formed of a pair of dumbbell-shaped units, each unit being bisected longitudinally and transversely to provide an eight panel cover, the improvement wherein all of the edges of the cover forming the seams between the panels have the outer surface removed and are coated and molded to provide a recessed channel groove, the molded coating interlocking and securing the panel edges to the ball to prevent peeling of the cover at the seams and the longitudinal and transverse bisectors forming seams providing cross channels at the poles of the ball to provide improved gripping surfaces for the ball.

2,843,384
GOLF PUTTER
Theodore G. Schmidt, Greenville, Mich.
Application October 31, 1955, Serial No. 543,735
3 Claims. (Cl. 273—80)



1. A putter comprising a shaft which is appreciably shorter than that used in constructing the conventional putter shaft, said shaft being essentially cylindrical in cross-section and including a lower longitudinally flattened finger gripping area and an upper flattened arm contacting area at dimetrically opposite sides of the handgrip, said lower flattened area being adapted for gripping by the fingers of one hand of a user and said upper flattened area being of a length to rest firmly against the forearm of said one hand, and a club head carried by the lower end of the shaft and comprising a polygonally-shaped body to the top central portion of which the shaft is secured in a perpendicular position.

2,843,385
GAME APPARATUS
William F. Hassler, Pasadena, Calif., assignor of fifty percent to Otho I. Cockrell, Covina, Calif.
Application September 10, 1956, Serial No. 608,856
2 Claims. (Cl. 273—131)



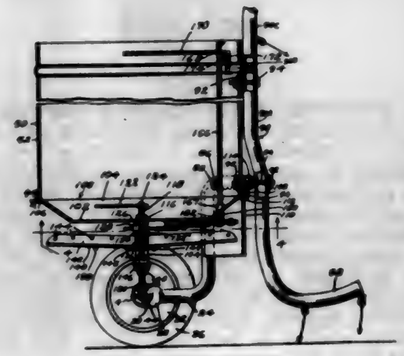
1. A game apparatus for use by a plurality of players comprising a game board, a plurality of differently marked playing pieces movable on the board for each of the plurality of players, a multiplicity of playing spaces disposed on the board and each adapted to receive a playing piece, a playing field on said board including a central playing area defined in part by the multiplicity of playing spaces, a plurality of starting zones each adapted to receive the playing pieces of a player and lying within the playing field and communicating with said central playing area, said starting zones each having an outer apex space and forming with the inner area of the playing field a multipointed star, a network of lines connecting the playing spaces and defining paths of movement for the playing pieces, a plurality of finishing spaces disposed arcuately about each outer apex space of each starting zone remote from the center of the board, and a single path of movement defined by lines radiating from the apex space to each finishing space for moving playing pieces between the apex space and a finishing space, each finishing space about an outer apex space bearing indicia substantially identical to that of a playing piece of the player having a starting zone opposite the starting zone of the respective apex space.

2,843,386
INDICATOR MARKING SYSTEM FOR DICTATING MACHINES
George Taylor Stanton and Ralph Hudson Sherman, Jr., Fairfield, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York
Application May 5, 1953, Serial No. 353,206
8 Claims. (Cl. 274—17)



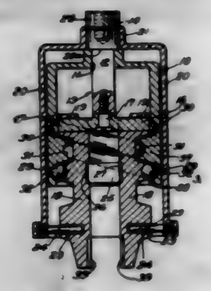
1. In a dictation system, indication marking apparatus comprising a record media, a recording head mechanism arranged to be scanned over said record media, pivoted means for supporting an indicator slip having a pivot axis passing near the top edge of the slip, a marking member hingedly secured to said head mechanism and biased toward said supporting means, an electrically-operated rotary drive mechanism arranged to rotate said supporting means about its axis toward said marking member so as to produce a visible mark on the indicator slip, electrically-operated motion-limiting means having a first condition of operation arranged to limit the extent of said relative motion between said supporting means and said marking member and a second condition of operation in which said relative motion is not so limited, a first manually-operated switch arranged to energize said marking mechanism; and a second manually-operated switch separate from said first manually-operated switch and arranged to control the energization of said rotary drive mechanism and said motion-limiting means.

2,843,387
BROADCAST SEEDER OR SPREADER DEVICE
Paul L. Speicher, Urbana, Ind., assignor to The Cyclone Seeder Co., Inc., Urbana, Ind., a corporation of Indiana
Application June 22, 1955, Serial No. 517,240
2 Claims. (Cl. 275—8)



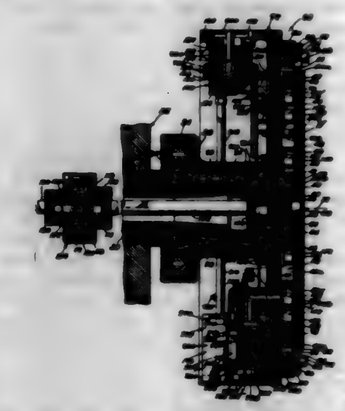
1. A broadcast seeding spreader comprising an inverted substantially U-shaped chassis including a pair of upright laterally spaced parallel tubular arm members having a transverse member integrally connecting the upper ends thereof, a pair of spaced parallel horizontal extensions integrally formed on the lower ends of said arms, an axle shaft extending between and journalled for rotation in the free end portions of said extensions, a wheel mounted on each end of said axle shaft exteriorly of said arm members, means keying said axle shaft for rotation to one of said wheels, a hopper for broadcast material secured to said chassis in vertically spaced relation above said axle shaft, a drive shaft extending through the bottom of said hopper and journalled for rotation therein, a collar journalled on said axle shaft, means in said collar journalling the lower end of said drive shaft, an impeller distributor fixedly mounted on said drive shaft below said hopper, an agitator arm fixedly secured to the upper end of said drive shaft within said hopper, a bevel gear fixedly mounted on said drive shaft adjacent to but spaced from said axle shaft, a ring gear fixedly secured to said axle shaft in meshing relation with said bevel gear whereby rotation of said axle shaft effects simultaneous rotation of said drive shaft, said agitator arm and said impeller distributor, said hopper having a slot formed in the bottom thereof above said impeller distributor, a pair of opposed spaced and confronting brackets secured to said hopper adjacent a pair of opposed ends of said slot, a plate loosely and slidably mounted within said brackets, means mounted on said hopper and connected with said plate to effect adjusting movement of said plate beneath said slot to close said slot on movement toward said drive shaft, a pair of elongated spaced parallel arms fixedly secured to and projecting from said plate, and a cam fixedly connected with said drive shaft for rotation therewith, said last named arms engaging opposite sides of said cam whereby on rotation of said cam said plate is oscillated in a direction generally transverse to the movement of said plate effected by means mounted on said hopper.

2,843,388
SELF-TIGHTENING REVERSIBLE CHUCK
Edward J. Butler, Seekonk, Mass.
Application December 14, 1956, Serial No. 628,357
10 Claims. (Cl. 279—2)



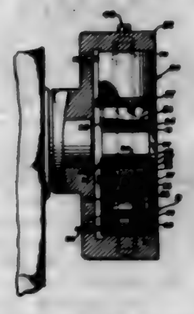
1. A reversible self-tightening chuck comprising a hollow drive element and means for rotating said element about a predetermined axis, a plurality of jaws, means supporting the jaws in said element concentrically to said axis for rotational and radial movement relative thereto, resilient means urging said jaws radially outwardly, said drive element having a plurality of spirally disposed ball guide channels formed internally thereof, said channels decreasing in diameter progressively from the opposite axial ends thereof to a medial axial portion of minimum diameter, said jaws being formed with ball receiving recesses in their outer faces, balls rotatably seated in the respective recesses and movable along said spiral guide channels, the balls being held in said recesses against circumferential displacement relative to their respective jaws.

2,843,389
CHUCK
Harry E. Sloan, Hartford, and Linwood B. Swanson, New Britain, Conn., assignors to The Cushman Chuck Company, Hartford, Conn., a corporation of Connecticut
Application October 28, 1954, Serial No. 465,306
15 Claims. (Cl. 279—3)



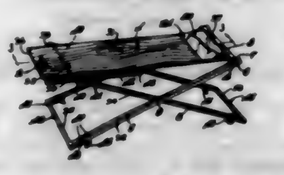
1. A chuck for holding distortable work, comprising a body; spaced projecting rests on said body at the front thereof and arranged to hold properly located and fully engaging work thereon non-distorted with a space between the latter and said body; sealing means on said body at the front thereof arranged to seal said space from the atmosphere when engaged by work on said rests; means including a passage in said body for exhausting air from said space to hold work against said rests; an hydraulic jack on said body having a ram movable in said space into and from engagement with work on said rests; and valve means operable to provide and intercept communication between a supply of operating liquid and said jack.

2,843,390
FLUID OPERATED TESTING MACHINES
Francis C. Huyser, Moline, Ill., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application December 23, 1954, Serial No. 477,175
5 Claims. (Cl. 279—4)



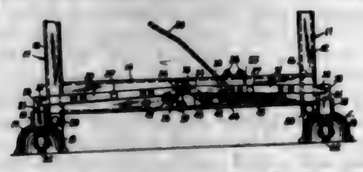
1. In an article gripping device, the combination including jaw means movable radially on a base to engage an article, power operated means connected to said jaw means for exerting a large force on said jaw means to tightly engage the article, and movable position locking means between said jaw means and base, operable to lock said jaw means against movement in releasing direction when said jaw means is extended and tightly engaging the article.

2,843,391
CREEPER WITH ADJUSTABLE SUPPORTING SURFACE
Armand Pelletier, St. Jean, Quebec, Canada
Application September 12, 1955, Serial No. 533,818
2 Claims. (Cl. 280—32.6)



1. A creeper comprising a rectangular panel having top and bottom faces, two U-shaped members pivotally connected at the central portions of their side legs, both side legs of one U-shaped member being disposed internally of the side legs of the other U-shaped member, a yoke member rigidly connected to the top face of said panel adjacent one end thereof with its bent portions spaced outwardly from the sides of said panel, the free ends of the side legs of the outer U-shaped member being pivotally connected to the bent portions of said yoke with the pivotal axis equidistant from the top face of the panel and the corresponding edges of the side legs of said outer U-shaped member, two racks secured to the bottom face of said panel, parallel and adjacent to the sides of said panel, extending from the end of said panel opposite said yoke member, and having ratchet teeth, a transverse rod extending between and secured to the free ends of the side legs of said inner U-shaped member, said transverse rod engaging said ratchet teeth, the reentrant portions of said ratchet teeth being at the same distance from the top face of said panel as the transverse rod is from the corresponding edge of the side legs of said inner U-shaped member, the distance between the inner edge of the cross leg of the outer U-shaped member and the pivotal axis at the free end of its legs being greater than the distance between said pivotal axis and the end of the panel opposite thereto, the distance between the central pivotal connection of the side legs of said U-shaped members and the pivotal axis of the free end of the legs of the outer U-shaped member combined with the distance between said central pivotal connection and the free end of the legs of the inner U-shaped member, being smaller than the distance between the pivotal axis at the free end of the legs of the outer U-shaped member and the opposite end of the panel, the distance between said central pivotal connection and the edge of the panel adjacent the pivotal axis of the outer U-shaped member with the yoke, being smaller than the distance between said central pivotal connection and the inner edge of the cross leg of the inner U-shaped member.

2,843,392
STANDS OR TABLES HAVING RETRACTABLE CASTERS
William Stapkins, St. Louis, Mo.
Application February 11, 1957, Serial No. 639,529
6 Claims. (Cl. 280—44)



1. A stand of the character described comprising a pair of end frames having legs with feet and casters mounted on said legs for projection beyond said legs, a cross piece mounted on each end frame between said legs, a rod element mounted on said cross pieces, a caster-projecting mechanism on each end frame including a pair of arms pivoted on the cross piece, said arms being connected at their outer ends to said casters and overlapping at their inner ends, means connecting said inner ends, a cam element, pivot means mounting the cam element to said cross piece, a first link element attached to said rod element and rotatable therewith, a second link element pivotally connected to said first link element and to said cam element, the cam element engaging said arms to project said casters upon rotation of said rod element, and stop means engaging one of said elements to limit rotation of said cam element and to maintain the cam element in a caster-projecting position.

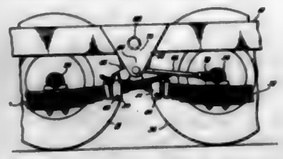
2,843,393
COMBINATION LADDER AND OUTBOARD MOTOR CARRYING HAND CART
Noël L. Dahlander, Sr., New Milford, Pa.
Application November 30, 1955, Serial No. 549,996
1 Claim. (Cl. 280—47.18)

A combination ladder and motor carrying hand cart comprising a first tubular metal section having a pair of stiles having an upper rearward upright portion, and a lower forward upright portion, a cross piece composed of wood connected to the front side of said upper upright portion to receive the clamp of an outboard motor, a plurality of tubular metal rungs connected to the lower forward upright portion with the rungs in one plane and the cross piece in another plane substantially parallel to the plane of the rungs but offset rearwardly of the plane of the rungs, to enable the rungs to form a support for the lower frame of the outboard motor when said first section rests on the ground and the clamp of the outboard motor is being secured to said cross piece, tubular metal handles extending rearwardly at the upper ends of said stiles, a second tubular metal section having a U-shaped extension, enlarged tubular uprights extending up at right angles at the rear of said U-shaped extension, said U-shaped extension having looped end portions extending beyond, and rearward upwardly into engagement with, said enlarged uprights, a shaft extending through said



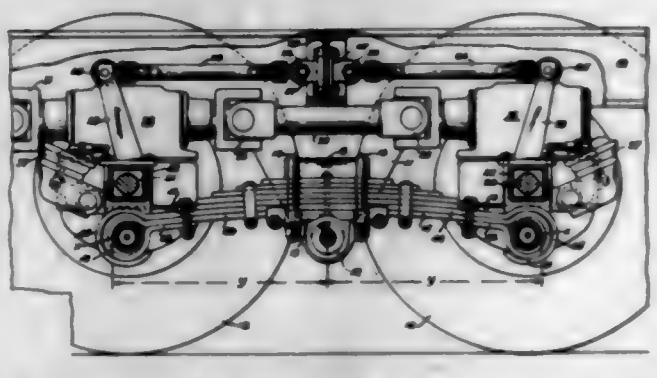
looped end portions, and wheels mounted on the ends of said shaft outside of said looped end portions, said shaft being spaced from said enlarged uprights and from the plane of said U-shaped extension a distance substantially equal to the radius of said wheels, said enlarged uprights telescopically receiving the lower ends of said stiles with said U-shaped extension extending at right angles and forwardly of said stiles.

2,843,394
VEHICLE SUSPENSION MECHANISM
William R. Welch, Houston, Tex., assignor to Koenig Iron Works, Inc., Houston, Tex., a corporation of Texas
Application February 28, 1956, Serial No. 566,602
3 Claims. (Cl. 280—104.5)



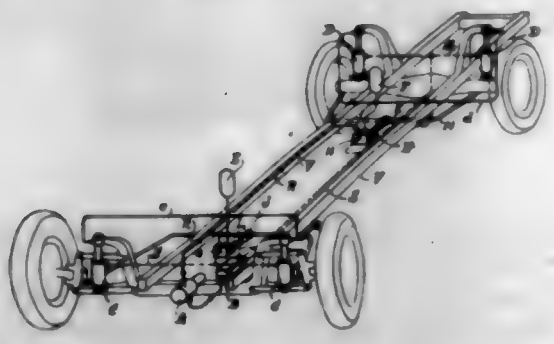
1. In a vehicle having a frame, axles extending laterally of the frame in longitudinally spaced relation to each other for vertical movement relative to the frame, suspension mechanism comprising leaf springs at each side of the frame, means connecting each spring at a point intermediate its ends to one of said axles, the springs of one axle being offset laterally of the frame relative to the springs of the other axle, means connecting one end of each spring to the frame at a point spaced longitudinally from the axles, an elongated rocker pivotally connected mediate its ends to the frame above the springs at each side of the frame between the axles for vertical swinging movement and having longitudinaly spaced plate-like portions, each pair of which is positioned to receive between the plate-like portions one of said springs, and spring bearing elements of U-shape removably mounted on the rockers positioned above the springs and formed with downwardly facing curved bearing surfaces positioned for engagement with the springs at points on the springs between the other ends of the springs and said intermediate points to transmit vertical forces from said axles to said rockers and side wall portions positioned for engagement with the rockers to hold the elements against longitudinal movement relative to the rockers.

2,843,395
REAR END SUSPENSION
George U. Brumbaugh, Palo Alto, Calif., assignor to Peterbilt Motors Company, Oakland, Calif., a corporation of California
Application August 29, 1956, Serial No. 606,890
4 Claims. (Cl. 280—104.5)



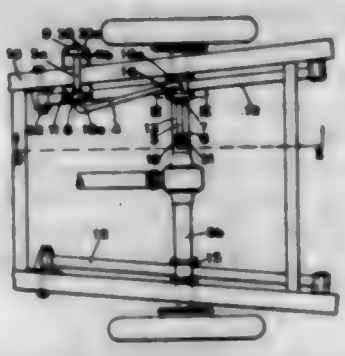
1. A spring-cushioning unit including a spring leaf having a cylindrical eye at its end, a metal bushing fitting snugly in said eye and having an inner periphery eccentric to its outer periphery, to accommodate spring manufacturing tolerances by its rotational position in said eye; a hollow casing having end portions lying at opposite ends of said eye and said bushing and having a central cylindrical member extending between them through said bushing and spaced apart therefrom, and cylindrical rubber bushing means filling the space between said bushing and said cylindrical member, and under compression between the end members of said housing.

2,843,396
LIQUID-PNEUMATIC SPRING SYSTEM
René Lucien, Paris, France, assignor to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M., Fribourg, Switzerland, a corporation of Switzerland
Application May 26, 1954, Serial No. 432,578
Claims priority, application France December 18, 1953
11 Claims. (Cl. 280—124)



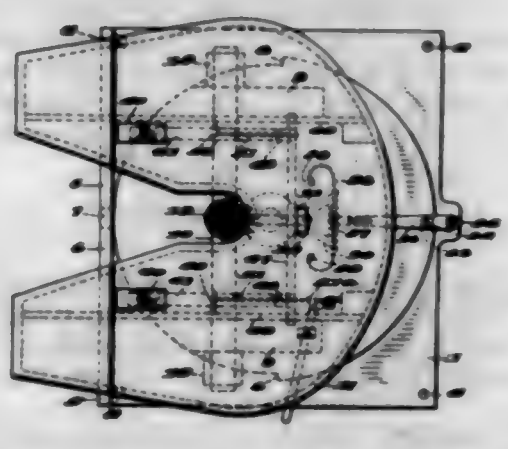
1. A hydropneumatic suspension system for vehicle wheels comprising a liquid pump, a supply circuit for liquid under pressure supplied from the pump, a return circuit, and a tank supplied from the return circuit and supplying the pump; for each transversely related pair of vehicle wheels, a pair of interconnected hydraulic shock absorbers and a connected hydropneumatic accumulator, a liquid distributor, and actuating means for the distributor responsive to a predetermined change of load on the suspended part of the vehicle, the distributor being connected respectively to the supply circuit, to the accumulator and to the return circuit and operative to connect the accumulator selectively to the supply circuit or to the tank; said shock absorbers each comprising a cylinder, a piston movable in the cylinder and having longitudinal passages extending therethrough, valve means operative to restrict the cross-section of the longitudinal passages upon outward movement of the piston in the cylinder, and a hollow open-ended piston rod communicating at one end with the accumulator and at the other end with the inside of the cylinder.

2,843,397
MOTOR VEHICLE SUSPENSION WITH REAR AXLE ANTI-ROLL ROD
Geoffrey Bastow, Alsager, Stoke-on-Trent, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application April 12, 1956, Serial No. 577,822
Claims priority, application Great Britain April 15, 1955
7 Claims. (Cl. 280—124)



1. Suspension means for the rear wheels of a vehicle in which the wheels are carried at the ends of a solid transverse axle supported from a frame having side girders on fore and aft leaf springs of the semi-elliptic type having forward eyes, which suspension includes, in combination, a metal rod of high torsional resistance having a first portion of substantial length, means articulating said portion at two transversely separated points to the rear axle and parallel therewith, a second portion at an angle to the first portion and forwardly projecting therefrom, in substantial horizontal parallelism to the adjacent leaf spring, and a third portion at an angle to the second portion, parallel with the rear axle and means articulating said third portion at two transversely separated points substantially to the vehicle frame.

2,843,398
TURNTABLE FOR FIFTH WHEEL TRAILER COUPLINGS
John N. Apgar, Bound Brook, N. J.
Application July 3, 1957, Serial No. 669,746
2 Claims. (Cl. 280—438)



1. In a tractor-semitrailer coupling, a pair of superposed and pivotally connected lower and upper turntable plates for mounting upon the tractor, said lower turntable plate being stationary and said upper turntable plate being rotatable, a lower forked fifth wheel plate, means including a horizontal rock shaft for supporting said forked fifth wheel plate on said upper turntable plate for rocking movement about an axis parallel with the semitrailer axle, an upper fifth wheel plate and king pin carried by the front end of the semitrailer for engagement with said lower fifth wheel plate, and means for locking said fifth wheel plates together to prevent relative rotation therebetween, said locking means com-

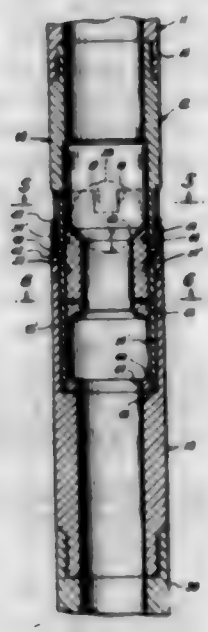
prising a leaf spring, a locking key secured to the rear end of said leaf spring, horizontal pivot means mounting the front end of said spring at the underside of said lower fifth wheel plate thereby to enable said leaf spring to be swung about said pivot means in a vertical plane between an upper position wherein said locking key projects through a slot in said lower fifth wheel plate to engage a slot in said upper fifth wheel plate and a lower position wherein said locking key is disengaged from the slot in said upper fifth wheel plate, a lever extending longitudinally of and beneath said leaf spring and secured intermediate its ends to said pivot means, means securing the rear end of said lever to said leaf spring at a point intermediate the ends of the latter, and a toggle connected to the front end of said lever for actuating the same and said leaf spring between its upper and lower positions, said toggle applying an upward tension to said leaf spring through said lever when said leaf spring occupies its upper position.

2,843,399

SAFETY JOINT WITH DETENT LATCH MEANS DISENGAGEABLE WITHOUT ROTATION

Bryant P. Arterbury, Houston, and Clifford L. Rawe, Dallas, Tex., assignors of thirty-three and one-third percent to Roy L. Arterbury, Houston, Tex.

Application February 16, 1955, Serial No. 488,610
3 Claims. (Cl. 285—3)



1. A safety joint comprising two interlocked sections adapted at its upper end for connection to a pipe string and at its lower end for connection to a tubular element therebelow, said sections having intercommunicating recesses and latching means entirely within said recesses in both sections for locking said sections against relative longitudinal movement, a sleeve having an outer cylindrical surface and slidable downwardly within the said sections and providing a seating surface to receive an operating member passed through said string, said joint having a cylindrical bore extending above and below said recesses and there sealed to said sleeve, and shear pin means affixing said sleeve to one of said sections and in position to restrain said latching means from the interior of said sections, said sections being disengaged without relative rotation by the application of an axially acting force upon said sleeve to shear said shear pin means and move said sleeve from latch restraining position and with cylindrical outer surface contact only with said cylindrical bore to permit said latching means to move within the interior of said cylindrical portion thereby freeing said upper section to be lifted with said pipe string from said lower section.

2,843,400

HANDLE OF SUCTION CLEANERS OR POLISHERS

Pierre Barthelemy Van Doren, Brussels, Belgium, assignor to Le Super, Brussels, Belgium, a Belgian company

Application September 13, 1954, Serial No. 455,624
Claims priority, application Belgium July 22, 1954
1 Claim. (Cl. 285—7)



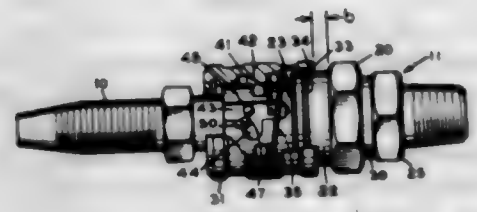
In a detachable coupling for a hollow handle, the combination of a bearing surface provided internally in said handle, said bearing surface being formed by the combination of an inverted truncated cone and of a second truncated cone which is not inverted and which is inside the former, said bearing surface thus forming a double conical recess and said recess corresponding to the shape of the end of an extension tube in which the handle is to be fitted; a shoulder provided internally in said handle at a chosen distance from said bearing surface; a resilient securing ring located on said shoulder; and a plug fitting partially in said handle and screwed in said handle in order to compress said resilient securing ring, the internal diameter of said ring, when not compressed, and of said plug being slightly larger than the external diameter of the part of said tube which cooperates with said ring and plug when the tube is inserted in said handle for the coupling, the shape and the dimensions of the bearing surface and of the corresponding end of the tube being so determined that the external diameter of the portion of said tube comprised between said part and the end thereof is at the most equal to the internal diameter of said ring and said plug.

2,843,401

BAYONET SLOT COUPLING PROVIDED WITH BALL ANTI-FRICTION MEANS ALSO SLEEVE MANIPULATION

Gerald L. Rogers, Olivette, Mo., assignor to Stile-Craft Manufacturers, Inc., a corporation of Missouri

Application August 29, 1957, Serial No. 681,002
16 Claims. (Cl. 285—82)



1. A coupling comprising a male member including a nipple portion provided with a peripheral groove, a female member including a socket portion, radially movable locking elements carried loosely by the socket portion, a sleeve slidably mounted on said female member, the sleeve having a shoulder adapted to cam the locking elements into the socket portion, the socket portion being provided with a longitudinal groove and a latch groove communicating therewith, a ball fixed to said socket portion and located adjacent the juncture of said longitudinal and latch grooves, and a second ball carried by said sleeve and movable in said grooves, the first said ball serving as a bearing for the second ball when moved into and out of the latch groove.

2,843,402

GAS SEAL FOR RELATIVELY ROTATING TUBULAR PARTS OF A BLAST FURNACE

George Hookham, London, England, assignor to John Miles & Partners (London) Limited, London, England, an English company

Application August 25, 1954, Serial No. 452,173
Claims priority, application Great Britain August 25, 1953
1 Claim. (Cl. 285—134)



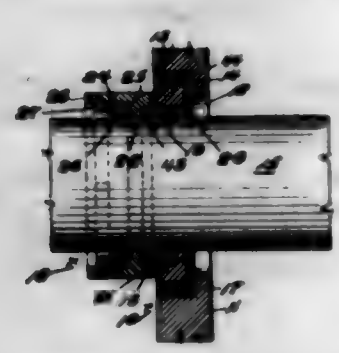
A blast furnace top comprising a large and a small hopper, an external flange formed on the small hopper, an expansion bellows having its upper end removably secured to the small hopper, an annular upper bearing ring recured to the lower end of the bellows so as to be spaced from the small hopper, a casing secured to the large hopper surrounding and spaced from the bellows, an annular lower bearing ring disposed on the casing normally in resilient sliding contact with the upper bearing ring and also spaced from the small hopper, a housing removably secured to the casing, an internal flange on the housing, and an anti-friction bearing housed between the external flange on the small hopper and the internal flange on the housing.

2,843,403

ROTARY SEAL

Robert Stevenson, Wickford, R. I., assignor to Magnetic Seal Corp., a corporation of Rhode Island

Application January 11, 1955, Serial No. 481,179
4 Claims. (Cl. 286—11.15)



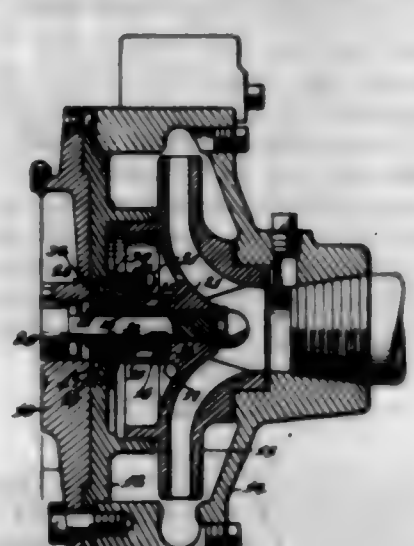
1. A rotary seal to prevent the escape of fluid under pressure from between relatively rotatable parts comprising a housing, a shaft extending through said housing, a first member surrounding said shaft and mounted in said housing and held against rotation relative thereto, said member having an annular sealing surface in a single plane, a second member having an annular sealing surface in a single plane adapted to engage in fluid sealing engagement with the first said annular sealing surface, said second member being mounted on said shaft for rotation therewith, a soft O-ring between one of said parts and the member secured thereto for so mounting the member that it is anchored to its part and yet may have relative axial movement and rocking movement relative to said part for engagement and alignment of said faces, the other member being secured to its part by means which are uniform circularly about the axis of the shaft and springless means consisting of a magnetized material carried by one of said members and material attracted thereby carried by the other member to draw said sealing faces together.

2,843,404

MECHANICAL SEAL ASSEMBLY FOR ROTATING SHAFTS

Ralph W. Janetz, Park Ridge Manor, Ill., assignor to Bell & Gossett Company, Morton Grove, Ill., a corporation of Illinois

Application June 24, 1955, Serial No. 517,826
6 Claims. (Cl. 286—11.15)



1. In a sealing structure, the combination of a wall member through which a rotatable shaft is adapted to extend, and sealing means adapted to encircle the shaft comprising a stationary sealing ring means adapted to abut the wall member, a rotatable sealing ring means adapted to bear against the stationary ring means, spring means for applying pressure to the rotatable ring means, pin means carried by the wall member, a plate slidable on the pin means in coaxial relation to the stationary and rotatable ring means, the plate including an annular lip bearing in an axial direction on the stationary ring means, and other spring means for applying pressure to the plate.

2,843,405

SUPPORTING COLUMN

Josef Kowalik, East Chicago, Ind., assignor to Graver Tank & Mfg. Co., Inc., East Chicago, Ind., a corporation of Delaware

Application March 5, 1956, Serial No. 569,437
1 Claim. (Cl. 287—2)



In a tubular column used to support an elevated tank, said column being formed of permanently joined sections arranged in end to end relationship, the combination of means on the adjacent ends of each section to facilitate erection of the column, said means on one section comprising a tubular section continuously secured to the inner periphery of one section and extending outwardly beyond the end thereof a determined distance, a flat plate secured to and substantially co-extensive with the outermost edge of said tubular section, said flat plate being in determined acute angular relationship to the axis of said column, said means on the other section comprising another flat plate secured to the inner periphery of the other adjacent section and spaced from the end thereof a determined distance related to said first mentioned distance, said other flat plate being in determined acute angular relationship to the axis of the column and equal to said first mentioned

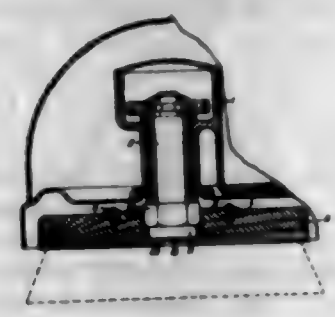
acute angular relation, whereby upon assembling the first mentioned sections to form the column the flat plates may complementally engage each other to arrange the sections in a predetermined manner angularly about their now common axes, said related determined distances being such that upon assembly of the adjacent ends of the sections, said ends are slightly spaced from each other with said tubular section defining the radially inner limit of said space thereby accommodating appropriate weld joining of said first mentioned sections.

2,843,406

COUPLING

Edward John Wray, Barrie, Ontario, Canada, assignor to Canadian General Electric Company, Limited, Toronto, Ontario, Canada, a corporation of Canada

Application January 11, 1954, Serial No. 403,355
2 Claims. (Cl. 287—53)



1. A coupling for a driving member and a driven member which are adapted to rotate in unison at a high speed, said driven member being of such weight as to be subject to rotary unbalance with respect to the driving member at its normal operating speed, said coupling comprising a socket and a shaft, said socket including a tubular section having a portion of non-circular cross-section and an adjacent portion of circular cross-section, said circular portion being approximately tangent to the sides of said non-circular portion and terminating in a radially outwardly flared end portion, said shaft comprising a portion of corresponding cross-section to that of said non-circular portion and an end portion of corresponding cross-section to that of said circular portion, said shaft end portion having an annular groove formed near its end, and a resilient C-shaped spring mounted in and having a portion thereof extending out of said groove, the dimensions of the cooperating portions of said socket and said shaft being such that when said shaft is inserted fully into said socket, said C-shaped spring is disposed adjacent to and contacts said flared end portion of said socket, whereby said spring securely couples said socket and said shaft together in such a manner that the member associated with said socket is well balanced and automatically centered with respect to said shaft and the other member when said members are rotated in unison at high speed.

2,843,467

LATCH FOR ANTI-ROTATIONAL LOCK MEANS

Louis C. Stukenborg, Memphis, Tenn., assignor of fifty percent to Harold V. Utterback, Osyka, Miss.

Application December 18, 1953, Serial No. 397,344
8 Claims. (Cl. 287—60)



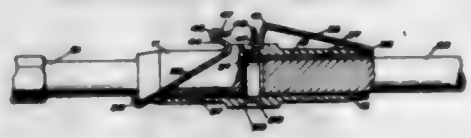
1. In a turnbuckle assembly, an externally threaded, longitudinally grooved member, an internally threaded, longitudinally grooved, hollow, barrel-like member, said members being threadedly engaged with their longitudinal grooves in register, and the wall of said barrel-like member being apertured intermediate the length of said barrel-like member to form at least one transverse aperture communicating from exterior said barrel-like member into the hollow interior thereof, unitary locking means for preventing relative rotation between said members comprising a stem lying exterior to and longitudinally of said barrel-like member, a locking part lying inwardly of said stem and in said registered grooves, means connecting said locking part to one end of said stem, an anchor connected to and projecting inwardly away from the opposite end of said stem and extending through said transverse aperture into said hollow interior, and an arcuate latch hook connected to the distal end of said anchor and projecting outwardly from said distal end alongside and spaced from said anchor through substantially one half the length of said anchor, said hook lying within the hollow interior of said barrel-like member, said hook terminating in an outwardly facing tip, said tip being spaced inwardly from said stem in excess of the thickness of said wall and spaced laterally from said anchor in excess of the diameter of said aperture, said locking means being resilient and biased to urge said stem and said locking part divergingly apart and urging said anchor outwardly from said aperture, said tip engaging the interior of said barrel-like member spaced laterally from the periphery of said aperture to substantially prevent removal of said anchor and hook from said aperture and maintain said locking means in engagement with said assembly.

2,843,468

LOCK FOR TURNBUCKLES

Louis C. Stukenborg, Memphis, Tenn., assignor of fifty percent to Harold V. Utterback, Osyka, Miss.

Application June 27, 1956, Serial No. 594,247
7 Claims. (Cl. 287—60)



1. A lock clip adapted for use with a turnbuckle assembly which includes longitudinally grooved rods and a barrel having grooves complementary to the grooves in said rods, said barrel being centrally transversely apertured to form diametrically opposed apertures, said clip comprising an integral resilient wire-like member including a stem having a length to span from one end of said barrel to one of said apertures, an elongated locking portion adapted for insertion in complementarily registered rod and barrel grooves, an arcuate end portion connecting one end of said stem to said locking portion with said locking portion normally resiliently urged into crossing alongside said stem adjacent said end portion and projecting therebeyond, said locking portion having a length substantially equal to but slightly less than the length of said stem, an anchor portion connected to the other end of said stem, said anchor portion being substantially U-shaped with one leg of the U intersecting said stem portion other end at an acute angle, the other leg of said U being substantially parallel to the first said leg and including a distal end flaring away from the first said leg remote from said stem, said legs being interconnected by an arcuate bight having a diameter less than the diameter of one of said barrel apertures, the material of said clip yielding to permit movement of said stem away from crossing said locking portion when said locking portion is engaged in registered grooves, said movement shifting said anchor to a position in which it is substantially perpendicular relative to said locking portion for entry into a barrel aperture.

2,843,409

DOOR SECURING MEANS FOR REFRIGERATORS

Allan N. Johannesen, Framingham Center, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application August 19, 1955, Serial No. 529,601
3 Claims. (Cl. 292—165)
(Granted under Title 35, U. S. Code (1952), sec. 266)



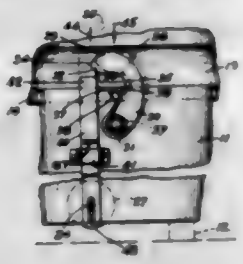
1. A latch mechanism comprising a frame adapted to be mounted on the inner side of a door, a latch member slidably mounted in said frame for movement between a door-latching position and a retracted position, spring means urging the latch member towards the door-latching position, an arm pivoted intermediate its ends to said frame, one end of the arm being engageable with the latch member to move the same to said retracted position when the other end of the arm is moved toward the door, an operating element adapted to be positioned on the outer side of the door, means for connecting said element to said other end of said arm for operating the arm from the outer side of the door, said connecting means being so constructed and arranged as to permit operation of the arm from the inner side of the door even though said operating element is locked against movement.

2,843,410

LATCH FOR AN AUTOMATICALLY RELEASABLE COVER FOR A COOKING UTENSIL

George E. Barnhart, Altadena, Calif.

Application March 1, 1954, Serial No. 413,133
1 Claim. (Cl. 292—254)



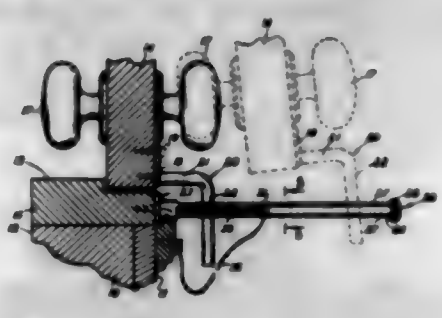
A latch for an automatically releasable cover for a cooking utensil comprising, in combination: a generally L-shaped planar latching member pivotally connected with said utensil and having a free end portion; a cylindrical strike mounted on said cover and positioned for cooperation with said latching member; a latching surface along one edge of said latching member; a pair of cam surfaces on said latching member adjacent said free end portion thereof and angularly extending therefrom, said latching surface being disposed between one of said cam surfaces and the pivotal connection for said latching member; and spring means surrounding said pivotal connection and engageable with said latching member for biasing said latching member in a direction toward positioning of said latching surface in latched cooperation with said strike, the other of said cam surfaces being cooperable with said strike upon closing action of said cover, said one of said cam surfaces being disposed at an angle to and cooperable with a latch release mechanism disposed on said utensil, contact of said cam surfaces with their respective cooperating elements and movement of said cover relative to said utensil serving to pivot said latching member in a direction against said biasing means.

2,843,411

DOOR SAFETY LATCH

William W. Nettleship, Yakima, Wash.

Application June 21, 1956, Serial No. 592,815
2 Claims. (Cl. 292—278)



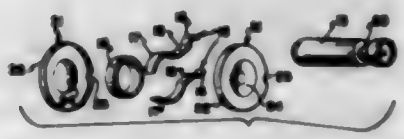
1. In a device for releasably locking a door against opening beyond a predetermined restricted open position, in combination, a latch bar fixed relative to said door and extending substantially parallel to a plane thereof; a bracket secured relative to the frame of said door and having upper and lower way members extending at right angles to the plane of said door in its closed position and disposed to receive said latch bar therebetween; a housing slidable in said way members for restricted rectilinear movement; a latch pivotally carried by said housing and adapted to receive and releasably secure said latch bar, whereby said door may freely move between its closed position and said restricted open position; and manually operable latch actuating means adapted to release said latch from said latch bar, whereby the door may be freed to move to its completely open position.

2,843,412

HANDLE FOR BARREL BOLTS AND CATCHES

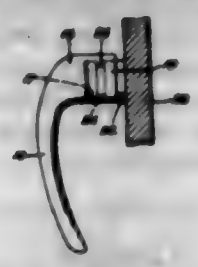
Frank L. Willman, Los Angeles, Calif.

Application December 19, 1955, Serial No. 553,828
5 Claims. (Cl. 292—347)



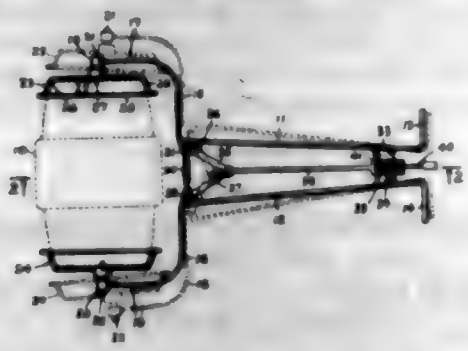
1. A handle for barrel bolts and the like comprising a pair of substantially identically formed frame members, each of said frame members having a smal arcuate portion at one end thereof, a larger arcuate portion at the opposite end thereof and a straight portion therebetween, a substantially circular ring, the larger arcuate portions of said frame members fitting around said ring, said barrel bolt having a plunger, a circumferential groove extending around said plunger, the smaller arcuate portions of said frame members fitting around the opposite sides of said plunger and lying entirely within said groove, and a pair of identically formed circular covers, each of said covers having a flange extending therearound except for a small cut-out portion, each of said covers having a depressed hemispherical portion adjacent the center thereof, said hemispherical portion having a flat portion on the bottom thereof, said covers being disposed on opposite sides of said ring and frame members, with said ring and the larger arcuate portions of said frame members fitting within the circular area defined by the flange and spherical radius of each of said covers, the straight portions of said frame members extending through the cut-out portions of said covers, the flat portions of said hemispherical portions being spot welded to each other.

2,843,413
DETACHABLE DOOR HANDLE
Arthur Seymour Martin, Santa Ana, Calif.
Application May 24, 1954, Serial No. 431,688
5 Claims. (Cl. 292—348)



1. A detachable handle assembly comprising a latch spindle having a keyway adjacent its distal end transverse to the axis of said spindle and inclined from the horizontal when said spindle is in door-latching position, a hollow handle stem arranged to at least partly surround the distal end of said spindle and having an end opening through which said spindle may extend, a ridge transverse to the axis of said spindle on an interior wall surface of said stem and having rectilinear surfaces interlocking with said keyway so as then to prevent removal of said stem from said spindle in the axial direction of said spindle and when so interlocked adapted to turn said spindle in either direction of rotation without rotational relative movement of said spindle and said stem, and a handle on said stem extending at substantially a right angle to and to one side of said stem, so as to be capable of having its center of gravity below said stem when said ridge is in said keyway, said stem having a curved interior surface adjacent said keyway and said spindle having a curved surface concentric with said curved surface of said stem and lying in contact therewith when said ridge is fully interlocked with said keyway.

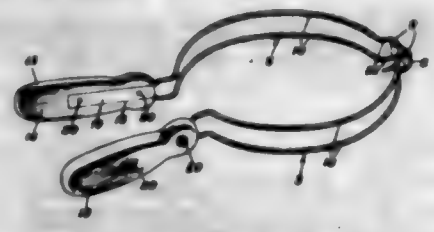
2,843,414
DEVICE FOR HANDLING BARRELS, KEGS AND THE LIKE
Kenneth G. Findlesen, Wyckoff, N. J.
Application July 15, 1955, Serial No. 522,255
8 Claims. (Cl. 294—4)



1. A device for handling barrels and the like having an outer sidewall and generally circular heads comprising a pair of wheel-like clamping elements for engaging the outer sidewall of the barrel adjacent to its heads, arms connected to and supporting each clamping element rotatably and for movement toward and away from each other and means connected to said arms for moving said clamping elements relatively toward and away from each other to engage and release said barrel.

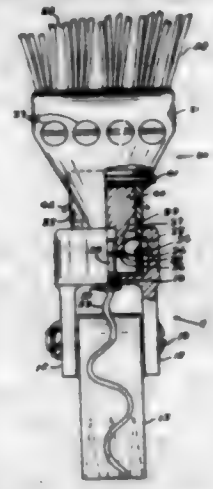
2,843,415
GLASS BAKE OVEN WARE LIFTER
Vearl E. Jacobs, Tulsa, Okla.
Application August 16, 1956, Serial No. 604,479
1 Claim. (Cl. 294—31)

A glass bake oven ware lifter comprising a centrally located hinge, a pair of substantially semi-circular jaws disposed at opposite ends of said hinge, each of said jaws being in the form of a length of wire bent upon itself at intermediate points to provide spaced parallel legs for receiving therebetween ears and flanges of oven ware, and an intermediate bight portion, said legs of each jaw having substantially straight end portions laterally offset therefrom and connected by said bight portions, said hinge being in the form of a flat, straight strap having end portions in the form of vertically disposed elongated hinge eyes, said bight portions extending through said eyes and being rotatably journalled relative to said hinge,



handles on said jaws, said handles having opposed faces, each of said opposed faces having an outer recess terminating in an inner elongated generally U-shaped recess, said legs including end portions having opposed offset ends, said end portions being seated in said inner groove with said opposed offset parts being disposed in overlapping relation, and a retaining plate secured in each of said outer recesses and engageable with said end portion of its respective handle and retaining the respective one of said handles on said leg portions of said jaw.

2,843,416
PARACHUTE RELEASE APPARATUS
Forrest Warren, San Diego, Calif., assignor to the United States of America as represented by the Secretary of the Air Force
Application June 20, 1956, Serial No. 592,700
2 Claims. (Cl. 294—83)



1. In a parachute ground release apparatus wherein a disconnect assembly is utilized to interconnect the parachute riser system of a vehicle and a parachute, and an electrically actuated explosive charge to disconnect said assembly in response to the closing of an impact switch just prior to contact of said vehicle with ground surface, said assembly comprising: a riser support member having a socket at the outer end thereof, said socket provided with a lip portion at the entrance thereto and having a bore extending into the opposite end thereof; a parachute terminal member provided with a tubular portion for insertion into said socket, said tube provided with a ball bearing ring circumferentially disposed about the periphery of said tube, the inner race portion of said bearing slidably carried within said tube with an enlarged portion adapted to displace the balls of said bearing outwardly into locking position within said socket, means positioned in said tube to insure retention of said enlarged portion in position against said ball bearing before release, said primer positioned in said bore at one end of said inner race in such a way that firing of said charge is operative

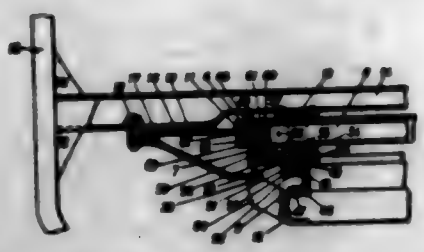
to displace said enlarged portion and said means away from said ball bearings to permit release of said bearings and disconnection of said assembly.

2,843,417

CONNECTING MEANS FOR THE VEHICLES OF LINK-TRAINS

Georg Wahl, Ulm (Danube), Soflingen, and Hans Schwab, Pfaffenhofen, near Neu-Ulm, Germany, assignors to Karl Kassbohrer G. m. b. H., Ulm (Danube), Germany, a firm

Application June 28, 1955, Serial No. 516,482
22 Claims. (Cl. 296—1)



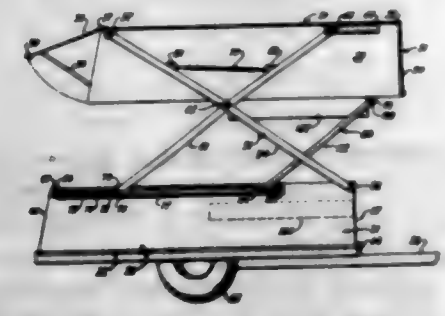
1. An articulated connection for vehicles comprising, in combination, two coaxially superimposed substantially horizontal annular bearings, each bearing having an outer bearing ring, connecting means individually connected with said rings and with a different one of the connected vehicles, each bearing having an inner bearing ring, a substantially horizontal shaft traversing the rotation axes of said bearings and swingably interconnecting said inner bearing rings, a substantially horizontal beam member supported by said bearings and positioned parallel to said shaft and being interposed between and extending substantially transversely to the travelling direction of the connected vehicles, a guide mechanism operatively connected with and interconnecting said bearings and including guide means movable on and guided by said beam member, floor plates operatively connected with said beam member, upright support means connected with said beam member, and a flexible wall mechanism connected with said support means.

2,843,418

EXPANDABLE CAMPING TRAILERS

Charles W. Gray, Walnut Creek, Calif.

Application November 9, 1953, Serial No. 390,793
10 Claims. (Cl. 296—23)



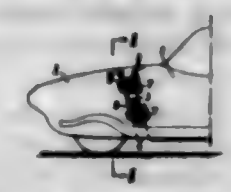
1. A camping trailer comprising a bottom, wheels supporting said bottom, a top, a movable bunk between said top and bottom and means for raising said top and said bunk relative to said bottom, said means comprising a first lever on each side of said trailer, each said first lever being pivotally attached at one end to one end of said bottom and being pivotally attached at the opposite end to the opposite end of said top, a second lever on each side of said trailer, means longitudinally slidably and pivotally connecting one end of each said second lever to one end of said top and the opposite end of said second lever to the opposite end of said bottom, said first lever and said second lever on each side of said trailer being crossed, means pivotally connecting said first and second levers at their intersection, said last mentioned means being pivotally connected to said bunk, a link on each side of said trailer, one end of said link being pivotally connected to the opposite transverse edge of said bunk at one end, means longitudinally slidably and pivotally connecting the opposite end of each said link to said bottom, and means operable simultaneously to slide one end of each said second lever and one end of each said link longitudinally to raise and lower said top relative to said bottom and raise and lower said bunk relative to said bottom, the amplitude of movement of said top being greater than that of said bunk.

2,843,419

SEALING TRANSVERSE WALL FOR AUTOMOBILES

Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany

Application November 9, 1954, Serial No. 467,856
Claims priority, application Germany November 10, 1953
6 Claims. (Cl. 296—39)



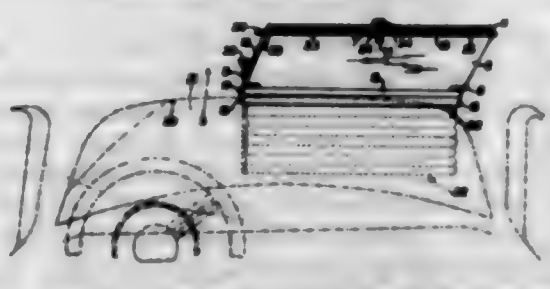
1. A motor vehicle comprising a frame, a car body mounted on said frame including a passenger compartment, an engine, and a partition separating said passenger compartment from said engine, said partition comprising two separate and distinct individual walls, one of said separate and distinct individual walls forming a normally fixed part of said motor vehicle, the second wall forming a separate free and independent portable unit adapted to be separately installed in said motor vehicle and only on said fixed wall, said second of said separate and distinct individual walls being spaced a relatively small distance from said fixed wall and being substantially free of any rigid connection with any other parts of said motor vehicle including the walls of said car body, said second wall having large areas extending over the surface of said fixed wall in nontouching spaced apart relationship therewith, and resilient means comprising at least one elastic connecting element disposed between said separate and distinct individual spaced apart walls for securing said second wall to said fixed wall.

2,843,420

AUTOMATIC PROTECTIVE WINDSHIELD PAD

Arthur Rich, Flushing, N. Y.

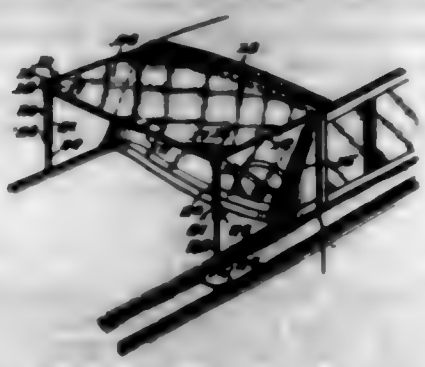
Application January 17, 1956, Serial No. 559,644
2 Claims. (Cl. 296—84)



1. An automatic protective device including a cushioning pad adapted to be disposed relative to a windshield for protecting an occupant of a vehicle when said pad is in active protecting position, stationary mounting means secured within said vehicle for supporting the pad in said active protecting position and also in normal raised position in which the windshield is clear and unobstructed by said pad, said pad consisting of a flexible thickness of resilient material, said stationary mounting means including a tray mounted beneath the roof of said vehicle and

terminating in a forwardly extending pad guide portion inclined downwardly toward the windshield, upwardly extending side flanges on said tray including the forwardly extending pad guide portion to guide the pad in sliding movement along the tray toward the windshield, supporting means for said tray including fastening means for securing the tray to the vehicle roof and a pair of side hooks one on each side of the tray at the forward portion thereof and extending beneath the tray, pad retaining means adapted to retain said pad in its raised position during normal automobile travel and to release said pad in response to a rapid deceleration of the vehicle, said pad retaining means including a transverse stop rod secured to the rear portion of the pad and having portions projecting beyond the lateral edges of said pad, said projecting rod portions engaging said pair of tray side hooks to retain said pad in its active protecting position.

2,843,421
AUTOMOBILE WINDSHIELD AWNING
Nancy E. Shelton, North Little Rock, Ark.
Application February 23, 1955, Serial No. 490,002
1 Claim. (Cl. 296—95)



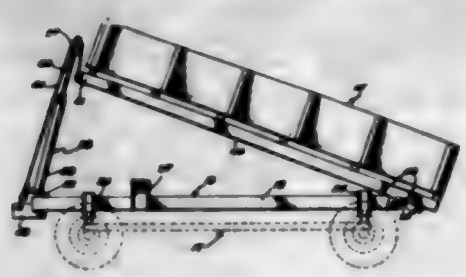
In a windshield awning for a motor vehicle a substantially flat, horizontal strip of rubber-like material, a plurality of suction cups integrally molded in the bottom surface of and spaced along said strip and being adapted to detachably secure said strip to the body of a vehicle adjacent the top margin of the windshield thereof, a generally U-shaped frame of rigid rod material having its ends embedded in the end portions of said strip, and a body of flexible awning material having one margin thereof embedded in a longitudinal edge of said strip and defining a water-tight joint therewith and having its other margins secured to said frame.

2,843,422
SHIFTABLE ROOF STRUCTURE FOR OPEN TOP VEHICLES
James J. Black, Cincinnati, Ohio, assignor to Trailmobile Inc., Cincinnati, Ohio, a corporation of Delaware
Application March 30, 1956, Serial No. 575,181
12 Claims. (Cl. 296—137)



11. A shiftable roof structure for a vehicle body having an open top, said roof structure comprising, a roof disposed over the open top of the body, a pair of longitudinal load bearing rails mounted along the upper portion of said body on opposite sides of the open top, a plurality of load bearing rollers journalled upon the roof along opposite sides and tracked upon said load bearing rails, said rollers normally supporting the roof for lineal motion, restraining means interconnecting the roof and vehicle body and limiting upward motion of said load bearing rollers and roof relative to said load bearing rails, a driving unit in driving connection with the roof, manual control means connected to the driving unit for actuating the driving unit in forward and reverse directions, thereby to shift the roof lineally to an open or closed position relative to the open top of the body, means in the driving unit providing a self-locking action between the driving unit and roof when the manual control means of the driving unit is deactivated, thereby to hold the roof in a selected lineal position, an expansible sealing tube interposed between the surfaces of the load bearing rails and roof along opposite sides of the open top, and a conduit connected to said expansible tube for supplying fluid pressure to said expansible tube and for relieving the same, thereby to expand and contract the tube, said sealing tube, upon being expanded lifting the weight load of the roof from the load bearing rollers and creating a weather seal between the surfaces of the load bearing rails and roof along opposite sides of the open top when the roof is in closed position.

2,843,423
WAGON HOIST APPARATUS
Andrew V. Adams, Osage, Iowa
Application April 28, 1955, Serial No. 504,465
4 Claims. (Cl. 298—22)



1. A wagon box supporting and dumping device for mounting a wagon box on a vehicle chassis comprising a frame adapted for rigid attachment to said vehicle chassis and including two longitudinal U-channel side members, a rear U-channel member connected transversely between and rigidly to said side members, and a front member of heavy construction connected transversely between and rigidly to the front ends of said side members, a lifting power means including a base plate pivotally mounted on the rear upper edge of said front member for pivotal movement about a transverse axis, said lifting power means having a guide, cable-like means slidably positioned in said guide and entirely disposed within the vertical plane of the longitudinal center line of said frame and having its front end secured to said front member forwardly of said base plate and having its rear end adapted for mounting on the wagon box, said side members having downwardly and rearwardly slanted upper surfaces at the rear ends thereof for abutment by said wagon box when in elevated condition.

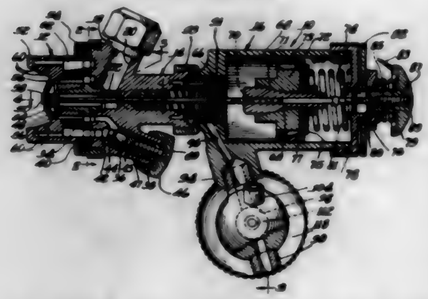
2,843,424
SPRAYING BOOMS
Ewen Anthony Guy Cameron Bruce, Cheltenham, England, assignor to Harry William Weston, Cheltenham, England
Application October 27, 1954, Serial No. 465,054
Claims priority, application Great Britain October 30, 1953
7 Claims. (Cl. 299—30)



1. A spraying boom adapted to be carried by a land vehicle so as to project transversely therefrom, said spraying boom comprising, on one side of the vehicle, a portion

which itself comprises a plurality of sections, hinge means connecting adjacent ends of said sections to each other to permit relative movement between said sections only in the common substantially vertical plane containing said sections, said hinge means confining movement between said sections to said plane but allowing relative angular movement between said sections in said plane about said hinge means to enable said hinge means to rise or fall, and a ground engaging wheel to support said sections at said hinge means whereby the boom is enabled generally to follow the land contours over which it is running and remain rigid in the direction of movement of the boom.

2,843,425
ATOMIZING DEVICE
Jens A. Paasche, Chicago, Ill., assignor to Cline Electric Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application December 23, 1954, Serial No. 477,209
5 Claims. (Cl. 299—148)



1. A spraying device comprising a nozzle member, means for supplying material to be sprayed to said nozzle, a valve for controlling the flow of said spraying material, a body member connected to said nozzle member means disposed within said body member and operable by gas under pressure for actuating said valve, a valve body disposed adjacent and detachably connected to one of said members, said valve body having an inlet adapted to be connected to a source of gas under pressure, said valve body having an outlet operatively communicating with said valve actuating means and a second outlet operatively communicating with said nozzle member, a detachable conduit connecting one of said outlets with one of said members, a movable valve in said valve body for adjusting the pressure of gas passing through said second outlet to the nozzle member independently of the pressure of the gas passing through said first outlet to the valve actuating means, calibrated means on said valve body, and pointer means movable with said movable valve and cooperable with said calibrated means for indicating the pressure adjustment effected by said movable valve.

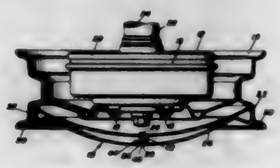
2,843,426
VEHICLE WHEEL
Takeo Nojima, Ota-ku, Tokyo, Japan, assignor to Amagasaki Seitetsu Kabushiki Kaisha, Amagasaki City, Hyogo Prefecture, Japan
Application April 12, 1955, Serial No. 500,923
Claims priority, application Japan September 30, 1954
2 Claims. (Cl. 301—5)

1. A wheel device for transportation use on a supporting surface, comprising a yoke member, a shaft carried by said yoke member in fixed relation thereto, a hollow cylindrical wheel member housing said shaft, for rolling contact with said supporting surface, said yoke member straddling and extending above said wheel member, said shaft having a plurality of cylindrical recesses in the underside thereof, a cup-shaped bearing member in the bottom of each recess, each bearing member having a cylindrical inside surface and a bottom surface substantially perpendicular to said cylindrical surface, and each bearing member having its longitudinal axis inclined at an angle with respect to the vertical line in the vertical plane passing through the line of contact of said wheel member with said supporting surface, a series of relatively small spherical balls within each of said cup-shaped bearing members, said relatively small spherical balls



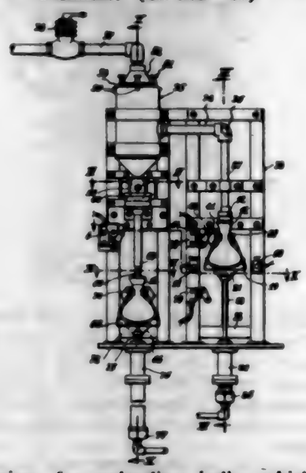
being arranged in circles and bearing against both said bottom surface and said cylindrical inside surface of said bearing members and relatively large spherical balls bearing, respectively, against said circular rows of small balls in each of said bearing members, said relatively large balls having portions projecting downwards beyond the openings of said recesses and bearing against the inner cylindrical surface of said wheel member so as to obtain a physical balance of said shaft with respect to said yoke member.

2,843,427
HUB CAP
Raymond E. Vaughn, Mulhall, Okla., assignor of twenty-five percent to George C. Chiga and twenty-five percent to Sam J. Bell, both of Guthrie, Okla.
Application January 4, 1957, Serial No. 632,466
1 Claim. (Cl. 301—37)



In combination with a vehicle wheel and its outer rim, said wheel rim having a circular outwardly projecting flange, an outwardly bowed strap secured to the wheel rim and having a central threaded aperture therein, a hub cap adapted to be placed over said strap, said hub cap having an outwardly convex central portion with a circular crease portion defining this central portion, and an outwardly projecting ring portion beginning at said circular crease portion, the outer periphery of said ring portion being in contact with said wheel rim, a concentric aperture in said hub cap in overlying relation to said threaded aperture, means passing through said aperture and into said threaded aperture for retaining said hub cap in position on the rim, said retaining means including a bolt and a washer secured to said bolt, said washer rotatably retaining said bolt in said aperture, means on said hub cap for preventing relative rotation between said wheel and said hub cap, said rotation prevention means including an inwardly projecting concentric flange having diametrically opposed notches therein, said notches engaging the outer ends of said strap when the hub cap is installed, said inwardly projecting concentric flange being in contact with said outwardly projecting wheel flange, said crease portion being provided with points of contact with said strap located in spaced relation to the outer edges of said strap.

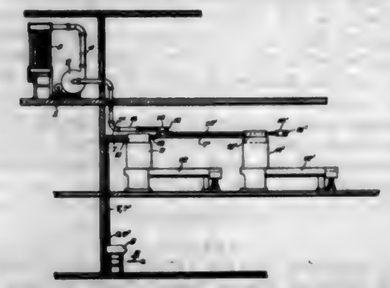
2,843,428
WITHDRAWING MASKING MATERIAL FROM BULBS
Charles R. Edgerly, Bloomfield, N. J., and Robert M. Brady, New York, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 28, 1954, Serial No. 431,048
6 Claims. (Cl. 302—17)



1. Mechanism for unloading bulbs which contain granular masking material after removal from a machine which has processed them by the application of specular coatings to unmasked portions of their interior surfaces, comprising a suction tube, a first bulb support mounted for vertical reciprocation therebeneath to raise a processed loaded bulb to receive said tube for the withdrawal therefrom of masking material, a vacuum line, a hopper at which said line terminates, a solenoid-controlled valve in said line, a switch in the circuit of said valve, closed by movement of said support to up position for opening said valve to evacuate said hopper, a solenoid-controlled gate valve at the outlet from said hopper, normally spring-closed to permit evacuation and prevent said hopper from discharging any contained masking material, a second bulb support mounted for vertical reciprocation beneath said hopper, means operable to automatically cause the simultaneous vertical reciprocation of both said bulb supports in a direction opposite to each other, means connecting said suction tube to said hopper for the discharge of masking material thereinto from a raised bulb on said first support, and switches in the circuit to the solenoid of said gate valve, and respectively closed upon the automatic simultaneous movement of the first bulb support, to its down position and the second bulb support to its up position, for opening said gate valve to discharge any masking material from said hopper into an empty bulb on said second support, in order to arrange for first the flow of masking material from a processed bulb on said first support into said hopper and, thereafter, allow material to flow from said hopper into an empty bulb therebeneath.

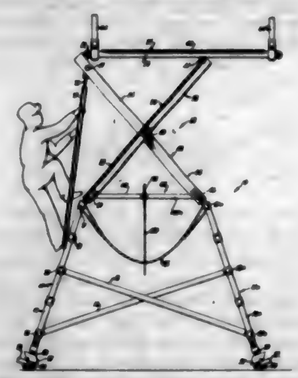
2,843,429
DEVICE FOR CONTROLLING THE FEED OF CUT TOBACCO TO CIGARETTE MAKING MACHINES
Hans Koch, Hamburg-Rahlstedt, and Otto Peters, Hamburg-Lohbrügge Sonnenwerder, Germany, assignors to Kurt Körber & Co. K. G., Hamburg-Bergedorf, Germany
Application May 19, 1955, Serial No. 509,580
Claims priority, application Germany June 4, 1954
4 Claims. (Cl. 302—17)

1. In a device for conveying tobacco to the spreader distributor of a tobacco cigarette making machine, comprising separate feed tables arranged at a remote point from said cigarette making machine, a distributor chamber arranged above the cigarette making machine to periodically feed a predetermined quantity of tobacco to said machine, an exhauster fan connected to said tobacco distributor creating a continuous reduced pressure therein, a tobacco feed duct having a remotely disposed feed inlet adjacent said feed table for feeding tobacco to said distributor chamber, said distributor chamber being provided with a discharge opening adapted to be closed by an exhaust actuated discharge door, a branch pipe connected to said feed duct adjacent said feed table, a normally open flap valve adapted to be moved to a closed



position during evacuation of said distributor chamber and to be opened when the pressure in said feed duct is increased, an electric signal adjacent said branch pipe and remote tobacco inlet thereof, a normally open electric circuit for said electric signal including a source of energy and an electric switch, said electric switch being arranged on said branch pipe in the path of a projection on said flap valve whereby said switch will be maintained in a closed position when the flap valve is in closed relation with respect to the open end of said branch pipe, and vent means for said distributor and spreader chamber to vent said chamber to the atmosphere and permit said discharge door to be opened while simultaneously interrupting the circuit of said signal device and de-energizing said electric signal.

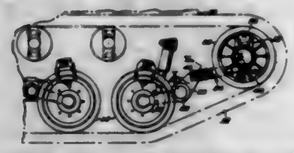
2,843,430
ADJUSTABLE SCAFFOLD
Wallace J. S. Johnson, Berkeley, Calif., assignor to Up-Right, Inc., Berkeley, Calif., a corporation of California
Application March 18, 1957, Serial No. 646,665
8 Claims. (Cl. 304—29)



1. An adjustable scaffold comprising: a first upwardly extending rigid support member; a second upwardly extending rigid support member; a first rigid cross member; a first pivotal connection between one end of said

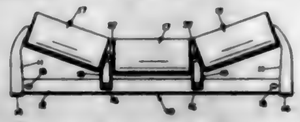
first cross member and said first support member; a second pivotal connection between the other end of the said first cross member and said second support member; a second rigid cross member; a third pivotal connection between one end of said second cross member and said second support member; a fourth pivotal connection between the other end of said second cross member and said first support member, said first and third pivotal connections being the same height from the lower ends of said first and second support members and said second and fourth pivotal connections each being an equal distance below said first and third pivotal connections; a third rigid support member pivotally connected at one end thereof to the upper end of said first support member; a fourth rigid support member pivotally connected at one end thereof to the upper end of said second support member, said third and fourth support members being pivotally connected to each other intermediate their one ends; a rigid platform member pivotally connected at one end thereof to the other end of said third support member and slidably resting intermediate its ends on the other end of said fourth support member; and means for moving said one ends of said third and fourth support members towards and away from each other.

2,843,431
HYDRAULIC TRACK TENSIONING DEVICE
John M. Beaufort, Mercer Island, Wash., assignor to the United States of America as represented by the Secretary of the Army
Application December 28, 1956, Serial No. 631,384
7 Claims. (Cl. 305—9)



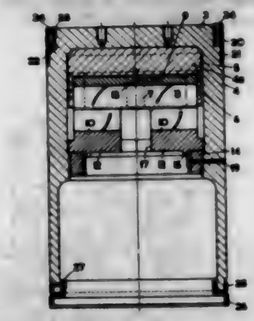
1. In a track tensioning device for a tracked vehicle supported on road wheels comprising, an arm pivotally supported in the vehicle frame, an idler wheel rotatably mounted on said arm, suspension structure supporting said road wheels and a hydraulic cylinder interposed between said arm and said suspension structure whereby said arm and idler wheel may be positioned to adjust the track tension.

2,843,432
IDLER ROLL SHAFT SUPPORT AND INTERLOCK MEANS
Arnie J. Kindig, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio
Application August 26, 1954, Serial No. 452,378
5 Claims. (Cl. 308—20)



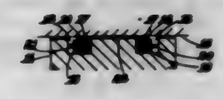
1. Supporting means for a shaft comprising an upwardly directed yoke seating the shaft between the opposite faces thereof, locking means for securing the shaft within the yoke comprising a clip having a shaft engaging portion adapted to engage the shaft opposite the yoke to oppose movement of the shaft out of the yoke, and means securing the clip in shaft-locking position including an abutment having a shoulder facing away from the direction of the yoke, and a leg on the clip extending laterally therefrom engaging the shoulder to prevent movement of the clip upwardly toward the yoke opening and locking the shaft in the yoke.

2,843,433
PISTONS FOR INTERNAL COMBUSTION ENGINES
John Barnard, Teddington, England
Application May 24, 1955, Serial No. 510,787
Claims priority, application Great Britain October 21, 1954
13 Claims. (Cl. 309—14)



1. A piston comprising a head, a strut located beneath said head to support at least the central part of said head and removable from the piston, upper bearing means located beneath and abutting said strut, removable lower bearing pieces and a lower bearing retaining member making screw threaded engagement with a part coupled to said head.

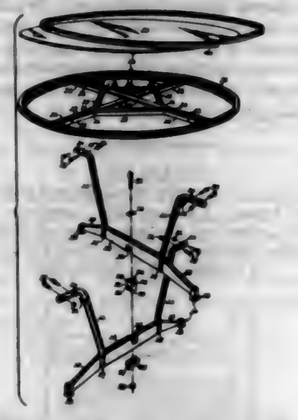
2,843,434
SELF VENTING SEALS
George Orloff and Bernard Charles Smithers, Gloucester, England, assignors to British Messier Limited, Gloucester, England, a British company
Application November 1, 1954, Serial No. 466,124
Claims priority, application Great Britain November 13, 1953
10 Claims. (Cl. 309—23)



1. In a fluid pressure seal between the surfaces of two members which move relatively one inside the other, a plurality of ring-shaped grooves in the surface of one of said members spaced in the direction of relative movement, a plurality of sealing rings of resilient material one in each of said grooves, which sealing rings are in sealing contact both with the bottoms of the said grooves and with the adjacent surface of the other member and are axially spaced from the sides of said grooves, a vent passage in at least one of said sealing rings leading from the clearance space which is bounded by the said surfaces of the relatively moving members and lies between the rings and means resiliently bearing on the vent passage at the end thereof remote from said space and acting as valve means to permit escape of pressure but to prevent return flow of fluid to the said space between the rings.

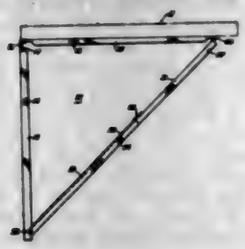
2,843,435
TABLE HAVING PEDESTAL BASE AND TUBULAR COLUMN SUPPORT
Alfred C. Hoven, Walter E. Nordmark, and Bernard E. Rinakus, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application April 19, 1957, Serial No. 653,831
6 Claims. (Cl. 311—1)

1. In a table: a base having a plurality of vertical sockets therein; a plurality of columns having their lower ends seated in said sockets and extending upwardly and outwardly therefrom and terminating in horizontally outwardly extending upper arms; struts each bent to provide end portions embracing adjacent sides of an adjacent pair of upper arms, and to provide angularly disposed intermediate portions connecting said end portions; fastening means securing said end portions of the struts to said



upper arms of the columns; a circular frame secured to the outer extremities of said struts; a round top panel disposed over the upper surfaces of the struts and the circular frame; and an outer rim circumscribing the round top panel and the circular frame for securing the panel to the frame.

2,843,436
WALL MOUNTED FOLDING TABLE
Norvin H. Franks, Chicago, Ill., assignor to Sturdi-Bilt Steel Products Inc., Chicago, Ill., a corporation of Illinois
Application April 17, 1957, Serial No. 653,434
2 Claims. (Cl. 311—18)



1. A wall mounted table comprising a table top and a pair of folding brackets secured to the table top adjacent to the opposite ends thereof and adapted to be secured to a wall to support the top for folding between a closed position adjacent and parallel to the wall to an open position projecting horizontally from the wall, each of the brackets including a vertical channel section mounting strip to be secured to a wall with the channel opening outward, a channel section supporting strip secured to the top with its channel opening downward and of a different width than the mounting strip to interfit with the mounting strip one within the other and hinged to the upper end of the mounting strip, a pair of channel section links hinged respectively to the lower end of the mounting strip and the outer end of the supporting strip, a pivotal and sliding connection between the end of one link and a point spaced from the end of the other link, and a latch member on said one link engageable with the end of the other link when the links are aligned and moved together to hold the links against relative pivotal movement, the links being narrower than the strips and being of different widths and fitting one within the other to be enclosed by the strips when the table is in its closed position.

2,843,437
VERTICALLY ADJUSTABLE TABLE WITH LONGITUDINALLY ADJUSTABLE DUAL PURPOSE LEG STRUCTURES
James R. Dorsey and Wilbert C. Young, Minneapolis, Minn.
Application April 25, 1957, Serial No. 655,085
2 Claims. (Cl. 311—39)



1. A table construction, comprising an elongate table top having ends and longitudinal edges, a pair of tracks secured at each end of the table top to the lower side thereof and extending longitudinally along the edges thereof, a pair of unitary leg structures each disposed beneath a respective end portion of the table top and each having adjacent the edges thereof a pair of elongated support elements, one being substantially longer than the other and one being oriented at an acute angle with the other, said support elements having outer floor-engaging ends and also having rigidly interconnected inner ends, the shorter support elements lying against the lower side of the table top with the outer ends thereof projecting outwardly toward the corresponding ends of the table top, the leg structures also having pivot means adjacent the inner ends of the support elements and projecting therefrom into the tracks to permit swinging of the leg structures and to permit inward and outward movement of the leg structures along the tracks, stationary means on the table top preventing longitudinal movement of the leg structures in both directions when the pivot means are disposed inwardly from the ends of the table top and the shorter support elements lie against the table top with the longer support elements depending therefrom, and means on the table top preventing longitudinal movement of the leg structures when the pivot means are shifted outwardly adjacent the ends of the table top, and the longer support elements lying against the table top and the shorter support elements depending therefrom.

2,843,438
MERCHANDISING MACHINE CABINET
Karl Rothkaupt, Morristown, N. J., assignor to Rowe Manufacturing Co., Inc., Whippany, N. J., a corporation of New York
Application January 17, 1955, Serial No. 482,101
7 Claims. (Cl. 312—222)



1. A merchandising machine cabinet for housing the operating mechanism of a merchandising machine including in combination a base, a back panel supported by said base, said back panel and base being adapted to support said operating mechanism in an exposed position, a cover for enclosing said operating mechanism, means mounting said cover for movement substantially on a level from a position in place on said back panel to a

position free of the back panel, a bracket formed with a surface having a reentrant portion, means mounting said bracket in a fixed position with respect to said base, and means carried by said cover for engagement with said reentrant portion when said cover is moved to a position in place on said back panel and base to enclose said exposed operating mechanism.

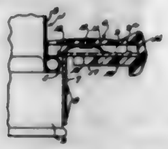
2,843,439
BOOK SUPPORT
James Parker, Glen Ellyn, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application January 24, 1956, Serial No. 561,038
7 Claims. (Cl. 312—233)



1. Means for supporting a plurality of books stacked in substantial alignment and resting on their front edges, the backstrips of said books lying in horizontal plane so as to be readily visible from above, comprising a shelf having a plurality of spaced grooves for the seating of front edges of the covers of the books to be disposed on said shelf, and bosses disposed between said grooves and extending upwardly from the grooves with convex arcuate surfaces for the support of the front edges of the leaves of said books.

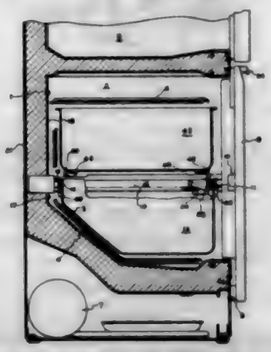
7. A bookcase comprising a horizontal book supporting shelf comprising means for stacking a plurality of books in side by side alignment and resting on their front edges with the backstrips of said books lying in a horizontal plane while permitting sliding removal of said books from said shelf without injury to the binding of said books, said stacking means having a plurality of spaced parallel upwardly extending bosses running the width of said shelf, each of said bosses being spaced apart by means adapted to loosely receive and support the front edges of the covers of said books while leaving the side covers of said books substantially unsupported, and a rigid transparent cover removably disposed over said books arranged on said shelf and normally preventing removal of said books from said shelf by lifting said books, said cover being disposed at such a height above the backstrips of said books as to permit ready insertion of a person's fingers between the cover and said backstrips for convenient removal of an individual volume.

2,843,440
TWO PART CAKE TIN
Ralph B. Billig, Westlake, and Manuel S. Zinkin, Mayfield, Ohio, assignors to Kromex, Inc., Cleveland, Ohio, a corporation of Ohio
Application July 19, 1956, Serial No. 598,807
4 Claims. (Cl. 312—284)



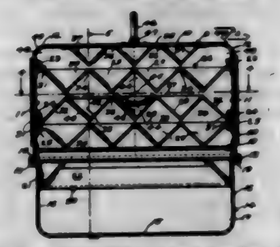
1. In a cake tin, carrier, or the like, a base member, a cake cover member, a handle on said cover member, said cover member having an outwardly protruding lower edge bead, and a pair of opposed handle means on said base member; each of said handle means including a carrier bracket secured to said base member and including a flat section extending outwardly from said base member, a handle slidably engaged with the flat section of said carrier bracket and having a cover member engaging position, and a leaf spring secured intermediate its ends to said handle and engaging said carrier bracket at an end of said spring, said spring at its other end resiliently engaging a corner edge of said carrier bracket to retain said handle resiliently in cover member engaging position, said handle in cover member engaging position engaging said edge bead on said cover member to retain it on said base member when both of said handle means are in their engaging positions.

2,843,441
STORAGE CABINET DRAWER ASSEMBLY
William R. Jewell, Lyndon, Ky., assignor to General Electric Company, a corporation of New York
Application October 16, 1956, Serial No. 616,230
9 Claims. (Cl. 312—301)



6. A cabinet including walls defining a storage compartment having an access opening at the front thereof, a drawer assembly adapted to move within said compartment, said drawer assembly including a pair of opposed interconnected slides forming an open framework, a first storage pan including rim portions engaging said framework for supporting said pan within said open framework, a second storage pan normally disposed above said first pan, means for supporting said second pan within said compartment for normal movement with said drawer assembly, said means comprising a pair of legs engaging said slides adjacent the forward ends thereof, said slides having indentations therein for removably receiving the ends of said legs whereby removal of said legs from said indentations permits said second pan to be moved rearwardly independent of said drawer assembly.

2,843,442
TACKLE BOX
Acey B. Hamm, Fort Worth, Tex.
Application August 6, 1956, Serial No. 602,319
2 Claims. (Cl. 312—311)



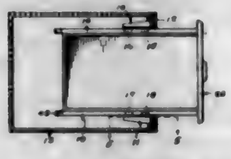
2. A tackle box comprising a top section and a bottom section, said top section including an elongated arch shaped body portion having a top wall and substantially parallel side walls extending downwardly from said top wall, inwardly opening guide channels supported by and extending longitudinally of said side walls, article supporting trays having side edge portions slidably engaging complementary guide channels of the side walls and slidably supported thereby in said arch shaped body portion, means conected to said body portion for closing the ends thereof to retain the trays therein, at least one of said closure means being movably mounted relative to the body portion for sliding movement of the trays to extended positions; said bottom section comprising an elongated open top container including side walls having longitudinally extending outwardly projecting ribs disposed adjacent to the open top thereof and slidably engaging bottommost ones of said guide channels, said bottom section having end walls disposed between and engaging lower portions of said closure means to prevent sliding movement of the top and bottom sections relative to one another except when said movable closure means is in an open position, said end walls terminating below the level of said trays.

2,843,443
SPACE CABINET
Roy C. Martin, Somerville, Mass.
Application June 7, 1957, Serial No. 664,409
2 Claims. (Cl. 312—325)



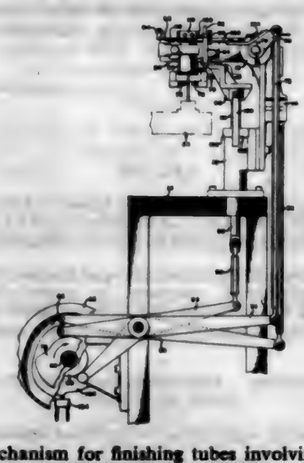
2. A cabinet including a plurality of walls, and a plurality of inclined shelves supported within said cabinet, said shelves and certain of the wall of the cabinet being made of transparent material, and a pair of doors mounted for movement into and out of opening and closing relation with respect to the front of the cabinet, and means for maintaining the doors immobile in their opened or closed position, said means comprising lugs mounted on said doors at the top and bottom thereof, links having their inner ends pivotally connected to said top and bottom walls and the opposite ends of said links being pivotally connected to the lugs on said doors, coil springs having one end connected to said back wall and the opposite ends secured to the links connected to the top wall and the tops of said doors, and pins extending inwardly from the doors for engagement with the outer edges of the side walls when the doors are in open position.

2,843,444
DRAWER SLIDE
Roy A. Nelson, Chatham Township, Morris County, N. J.
Application April 26, 1956, Serial No. 580,734
2 Claims. (Cl. 312—341)



1. A cabinet drawer mounting comprising a pair of brackets, each of said brackets being substantially triangular in formation and having peripheral flanges extending at right angles thereto, each of said brackets having a pair of rollers thereon on the side opposed to said flanges, said brackets also including a base portion of substantially rectangular formation and a pair of mounting flanges extending from the ends of said peripheral flanges at right angles thereto, and a pair of rails adapted to be mounted on the sides of a drawer and positioned over the rollers of the brackets, said rails having stops on inner ends thereof and also having openings for the passage of the rollers therein.

2,843,445
GETTER FLASHING DEVICE
Gene A. Coltrin, Hollidaysburg, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application January 4, 1956, Serial No. 557,308
5 Claims. (Cl. 316—39)



1. In mechanism for finishing tubes involving tipping-off the same and flashing the getter therein, the combination comprising: a tip-off mechanism, a carry-off device, a device for transferring a tube from said tip-off mechanism to said carry-off device a flasher device, movable with the transfer device, and means operative immediately before said tipping-off and during operation of said transfer device to energize the flasher device to flash the getter within the tube.

2,843,446
SIGNAL WAVE GENERATOR FOR RECORDING A CONTROL SIGNAL
James L. Pettus, Encino, and Kurt Singer, North Hollywood, Calif., assignors to Radio Corporation of America, a corporation of Delaware
Application August 1, 1955, Serial No. 525,556
7 Claims. (Cl. 346—74)



1. A signal recording system for recording a constant amplitude, constant wavelength record on a recording medium adapted to vary in speed in the same direction and employing a source of constant voltage, said system comprising a variable speed motor, means for driving said medium in the same direction at different speeds by said motor, a mechanical commutating device driven by said motor, means for connecting said commutating device with said voltage source, said commutating device interrupting the current from said voltage source in accordance with the speed of said motor and said medium, a recording de-

vice, and means for interconnecting said voltage source, said commutator and said recording device for recording said interrupted current as a constant wavelength record on said medium.

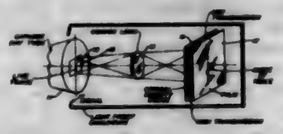
2,843,447

PROBABILITY OSCILLOGRAPH

Bernard M. Oliver, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 1, 1951, Serial No. 254,295
8 Claims. (Cl. 346—110)

1. In a system for drawing the conditional probability function of a message wave, means supplied with an input message wave for deriving signal samples, a light source for forming a line trace of light, means for deflecting the line trace of light in accordance with the amplitude of signal samples, light sensitive recording means in the path of said line trace of light, light absorbing means interposed between said light source and light sensitive means having absorption properties uniform in the direction of beam deflection and varying in accordance with a given function in the direction transverse to



said last mentioned direction, enabling means supplied with the derived signal samples for providing control pulses when the derived signal samples are in a specified amplitude range, and means for utilizing said control pulses for energizing said light source.

CHEMICAL

2,843,448

DYEING AND PRINTING OF CELLULOSE ESTERS AND OF LINEAR AROMATIC POLYESTERS WITH MONO-SULFONATED ANTHRAQUINONES

Ludwig Thummel, Emil Metzger, and Jacques Goenthard, Basel, Switzerland, assignors, by mesne assignments, to Sandoz & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application December 29, 1955
Serial No. 556,037

Claims priority, application Switzerland January 5, 1955

18 Claims. (Cl. 8—57)

1. A process for dyeing and printing articles of cellulose esters and of linear aromatic polyesters, which comprises bringing said articles into contact with a water-soluble acid anthraquinone dyestuff containing a sulfonic acid group in the 2-position of the anthraquinone nucleus as the sole water-solubilizing group, in aqueous medium and at raised temperature and in the presence of a reducing agent selected from the group consisting of zinc-formaldehyde-sulfoxylate, sodium-formadlehyde-bisulfite, sodium-formaldehyde-sulfoxylate, sodium-cellulose-xanthate, a mixture of sodium hyposulfite and an alkali metal carbonate, a mixture of a reducing sugar and an alkali metal carbonate, a mixture of a reducing sugar and an alkali metal hydroxide and a mixture of zinc dust and an alkali metal carbonate, whereby the 2-positioned sulfonic acid group is split off and the dyestuff is drawn onto the said articles in insolubilized form and in a state of molecular subdivision.

2,843,449

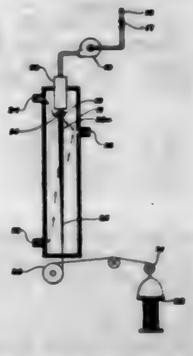
DRY SPINNING PROCESS

David W. Reynolds, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application April 13, 1954, Serial No. 422,963

5 Claims. (Cl. 18—54)

1. The method of forming cellulose organic acid ester filaments having a six-lobe shaped cross-section, which comprises extruding a cellulose organic acid ester filament-forming solution through a spinnerette equipped with six-point star-shaped extrusion orifices and into a dry spinning cabinet, drafting the filaments at a draft ratio within the range of approximately 0.7 to 1.4 while



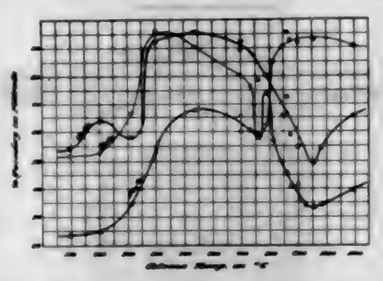
drying the filaments at a temperature within the range of 60 to 90° C.

2,843,450

METHOD OF RECOVERING URANIUM MINERAL VALUES

Harold W. Long, Jr., Bartow, Fla., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application January 18, 1955, Serial No. 482,449
5 Claims. (Cl. 23—14.5)



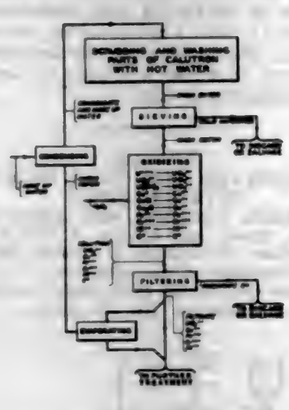
1. The method of recovering mineral values from leached zone material containing uranium and aluminum phosphate, from Florida phosphate pebble overburden, which comprises heat treating the leached zone material at a temperature in the range between about 300° C. and about 1100° C., digesting the heat treated material with aqueous ammonium bisulfate solution in quantity to give between about 55% and about 105% acidulation, separating insoluble material from the digest solution containing water soluble reaction products, and recovering at least one of the aluminum, uranium and phosphate values.

2,843,451

PROCESSES OF RECOVERING URANIUM FROM A CALUTRON

Douglas O. Baird, Berkeley, Calif., and Lloyd R. Zumwalt, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application August 16, 1944, Serial No. 549,780
15 Claims. (Cl. 23—14.5)



1. In a process for recovering uranium values from deposits formed upon the parts of a calutron which parts contain a metal of the group consisting of iron, copper, chromium and nickel, the steps comprising washing said parts with a solvent selected from the group consisting of sulfuric acid containing hydrogen peroxide, hydrochloric acid containing hydrogen peroxide and nitric acid to produce a wash solution containing said uranium and said metals as impurities, treating the wash solution with sodium acetate to precipitate the uranium as sodium uranyl acetate away from the metal impurities in the solution, filtering the solution in order to separate the sodium uranyl acetate precipitate from the metal impurities in the filtrate, dissolving the sodium uranyl acetate precipitate in acid, reducing the uranium in the solution to the uranous state, treating the solution with ammonia to precipitate the uranium as uranous hydroxide away from the sodium in the solution, and then filtering the solution in order to separate the uranous hydroxide precipitate from the sodium in the filtrate.

2,843,452

PRECIPITATION OF PROTACTINIUM

Robert Lee Moore, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application November 2, 1956
Serial No. 620,159
7 Claims. (Cl. 23—14.5)

1. A process of recovering protactinium values from an aqueous nitric acid solution, comprising incorporating a water-soluble salt of a metal selected from the group consisting of divalent tin and divalent lead to said solution, oxidizing the salt whereby the dioxide of said metal is obtained in the form of a precipitate and said protactinium values are carried on said precipitate, and separating said precipitate from said solution.

2,843,453

SEPARATION OF PLUTONYL IONS

Robert E. Connick and William H. McVey, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 18, 1947
Serial No. 742,459

3 Claims. (Cl. 23—14.5)

1. A process of separating plutonyl ions from acetic acid anions contained in an aqueous acidic solution, comprising adding a soluble barium mineral acid salt to said solution, alkalizing said solution whereby a plutonium-containing precipitate forms, and separating said precipitate from the acetic-acid-anions-containing solution.

2,843,454

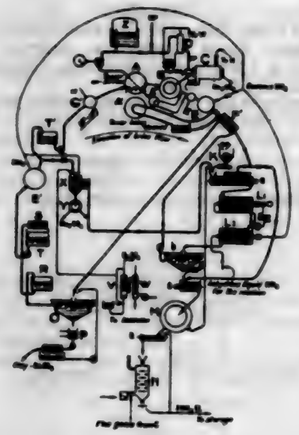
CONVERSION OF SODIUM CHLORIDE INTO SODIUM CARBONATE AND AMMONIA CHLORIDE

Adrien Devaux, Douai, and Marcel Jean, Paris, France, assignors to Societe Chimique de la Grande Paroisse, Azote et Produits Chimiques, Paris, France

Application July 26, 1954, Serial No. 445,568

Claims priority, application France April 5, 1954

2 Claims. (Cl. 23—63)



1. Improvement in the cyclic process of producing sodium carbonate and ammonium chloride, wherein an impure sodium chloride containing SO_4 ions is reacted with CO_2 and NH_3 to form a precipitate of sodium bicarbonate and a mother liquor comprising ammonium chloride and carbon dioxide in solution, the sodium bicarbonate is separated and calcined to produce sodium carbonate and CO_2, while the mother liquor is treated with solid sodium chloride to precipitate ammonium chloride and form a brine for reuse in the cycle, comprising the steps of: adding to the mother liquor substantially an amount of ammonia required to saturate the free carbon dioxide contained in the liquor; adding ammonia to a portion of the brine solution to form anhydrous sodium sulphate; cooling the resultant solution mixture and removing therefrom the sodium sulphate in solid state; and recycling the remaining liquid to the earlier stage in the process where the solid sodium chloride is treated with the mother liquor.

2,843,455

PURIFICATION OF ALUMINUM CHLORIDE

William A. Pardee, Fox Chapel, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application July 21, 1955
Serial No. 523,618
5 Claims. (Cl. 23—93)

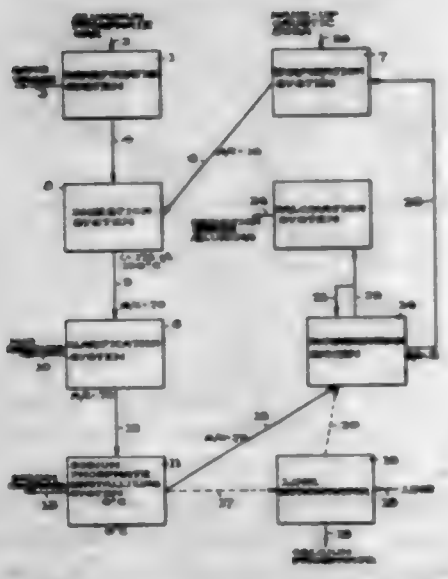
1. The repetitive two-stage cyclic process of removing iron chloride from anhydrous aluminum chloride contaminated with the same which comprises setting up an extended surface of metallic aluminum on an inert supporting material; in the first stage, passing the contaminated aluminum chloride in vapor form at a temperature approximately in the range of 700° to 1200° F. over the said surface of metallic aluminum, thereby reacting the iron chloride with the metallic aluminum and so producing additional aluminum chloride vapors and substituting a deposit of metallic iron for the metallic aluminum; in the second stage, passing additional vapors of contaminated aluminum chloride in vapor form at a temperature approximately in the range of 1600° to 2000° F. over the deposited metallic iron, thereby reacting the aluminum chloride with the metallic iron and so producing additional iron chloride vapors and substituting a deposit of metallic aluminum for the metallic iron; alternately repeating the two-stages; separating the vapors of aluminum chloride which have been reacted with metallic aluminum from those which have been reacted with metallic iron and so separately obtaining the purified aluminum chloride.

2,843,456

PROCESS FOR TREATING ALUMINOUS ORES

John L. Porter, Baton Rouge, La., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application April 27, 1953, Serial No. 351,438
9 Claims. (Cl. 23—143)



1. In an alkaline process for recovering alumina values from ores containing said alumina values principally as aluminum phosphate and said ores also containing appreciable amounts of silicious material, the process of extracting the aluminum phosphate values from the ores without excessive losses of soda and alumina through the formation of insoluble sodium aluminum silicate complexes which comprises digesting said ores in spent caustic soda solutions to extract said aluminum phosphate at temperatures between about 80° C. and the atmospheric boiling point of said solutions, limiting contact of said ores with said caustic soda solutions at the digestion temperatures to a period of time not greater than 30 minutes, and thereafter separating the residues from the pregnant solutions containing the solubilized alumina and phosphate values.

2,843,457

PRODUCTION OF OXY ACIDS OF PHOSPHORUS

John C. Pernert, Niagara Falls, N. Y., assignor to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York

No Drawing. Application November 17, 1954
Serial No. 469,533
9 Claims. (Cl. 23—165)

1. The process which comprises: forming a solution of a sodium phosphite containing sodium bisulfate, the ratio of sodium ion to sulfate ion mole concentration being about 2.0 to 1.0; cooling this solution to a minus twenty-three degree centigrade; separating the resulting crystals by filtration to yield an aqueous solution of phosphorous acid.

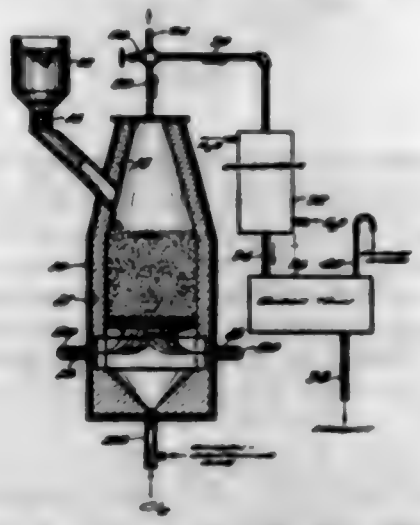
4. The process which comprises: forming a solution of a sodium hypophosphite containing sulfuric acid, the ratio of sodium ion to sulfate ion mole concentration being between about 3.0 and 1.5 to 1.0; cooling this solution to at least a minus fifteen degrees centigrade; separating the resulting crystals by filtration to yield an aqueous solution of hypophosphorous acid.

2,843,458

PROCESS FOR PRODUCING SILICON TETRACHLORIDE

Robert D. Beattie, Cambridge, and Laurent P. Michel, Watertown, Mass., and Charles A. Stokes, Houston, Tex., assignors to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

Application October 20, 1955, Serial No. 541,602
11 Claims. (Cl. 23—205)



1. A process for producing silicon tetrachloride from mixed solid charge materials composed 50–80% of silicon carbide, 3–10% carbon, 17–45% unreduced siliceous matter and the remainder metallic impurities, all percentages being by weight, which comprises subjecting such mixed materials in the form of ultimate particles no larger than about 50 mesh in size and initially preheated to a temperature of at least 900° C. to a stream of chlorine gas and a minor proportion of an oxygen-containing gas, exothermically reacting said solid materials and gases, thereby producing silicon tetrachloride and maintaining reaction temperature, and recovering the silicon tetrachloride thus produced from the other reaction products.

2,843,459

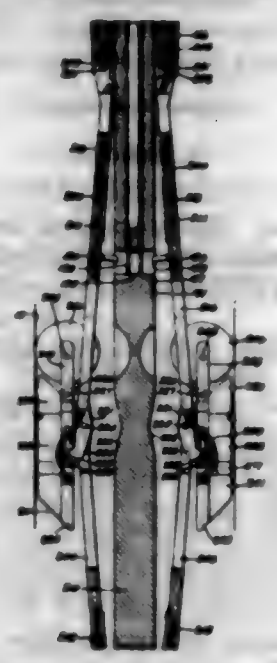
THERMOCHEMICAL LOGGING TOOL

Robert F. Meiklejohn, Los Angeles, Calif., assignor, by mesne assignments, to BJ Service, Inc., Long Beach, Calif., a corporation of Delaware

Application February 7, 1955, Serial No. 486,564
8 Claims. (Cl. 23—253)

1. Well logging apparatus comprising: a supporting structure adapted to be lowered into a well; an expansible and collapsible chamber carried by said structure and con-

taining reagent reactable thermochemically with selected formation fluids; means forming an outlet passage for said reagent from said chamber to the well wall; spring means tending to collapse said chamber to thereby force reagent therefrom through said passage and into contact with the



well wall; means releasably restraining collapse of said chamber under the influence of said spring means; means controllable from the surface of the well for releasing said restraining means; and thermal sensing means adjacent the exit end of said passage for sensing temperature changes induced by said thermochemical reaction.

ERRATUM

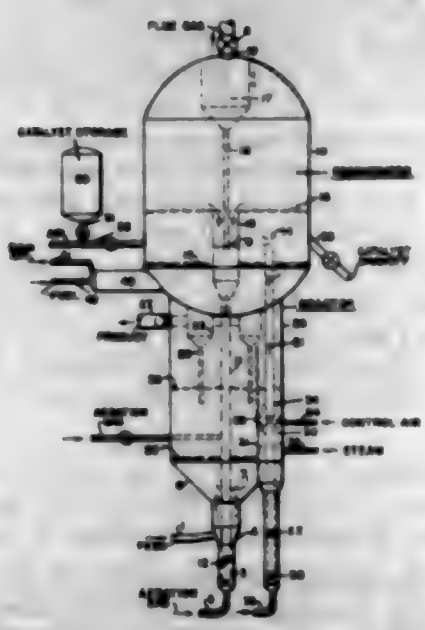
For Class 23—288 see:
Patent No. 2,843,592

2,843,460

CONTACTING OF GASES WITH FLUIDIZED SOLIDS

Daniel S. Berey, Cranford, N. J., and Cyril O. Rhys, Jr., Baytown, Tex., assignors to Standard Oil Development Company, a corporation of Delaware

Application April 7, 1953, Serial No. 347,315
2 Claims. (Cl. 23—288)



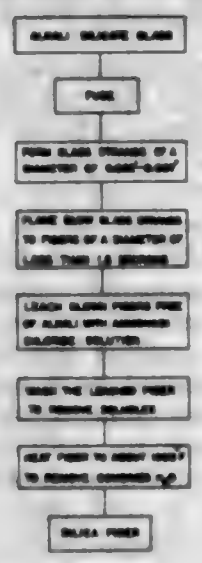
1. In an apparatus for contacting gases with finely divided solids wherein the solids are circulated through two vertically spaced axially aligned reaction chambers, maintained under different gaseous pressures and wherein the solids are circulated from one reaction chamber to the other through internal vertical conduits, the improvement which comprises means for maintaining an effective seal between the two chambers during such circulation, said means comprising a first well section of smaller diameter depending downwardly from the bottom of the lower reaction chamber, an internal vertical conduit forming a standpipe for transferring solids from the upper chamber to the lower chamber having its lower end in open communication with the lower portion of said well section and its upper end in open communication with said upper chamber at a point spaced from the bottom thereof, means for introducing an aerating gas into the bottom portion of said well and into said standpipe in amounts controlled to maintain a dense fluidized body of solids in said well and standpipe capable of generating a hydrostatic head of pressure at the bottom of said well, means for introducing a reactant gas into the lower reaction chamber at a point above the bottom of said well section for a distance such that the hydrostatic pressure seal between the point of introduction of the reactant gas and the base of said well section is at least 2 pounds per square inch, a second well section depending from the bottom of said lower chamber, a second internal vertical conduit forming a riser for transferring solids from the lower reaction chamber to said upper reaction chamber having its lower end in open communication with the lower portion of said second well section and its upper end communicating with the upper reaction chamber, means for introducing an aerating gas into said second well in amounts controlled to maintain a dense fluidized body of solids in said well capable of generating a hydrostatic pressure at the base thereof, means for introducing a gas into said riser at a point above the bottom of said second well for a distance such that the hydrostatic pressure seal between such point and the bottom of said second well is at least 2 pounds per square inch, means for introducing said last named gas into said riser in an amount sufficient to reduce the density of said fluidized body in the upper portion of the riser substantially below the density in said standpipe to thereby effect circulation of the solids in the direction aforesaid and means for controlling the amount of gas introduced into said riser to regulate the rate of flow of the solids between said chambers.

2,843,461

METHOD OF PRODUCING SILICA FIBER

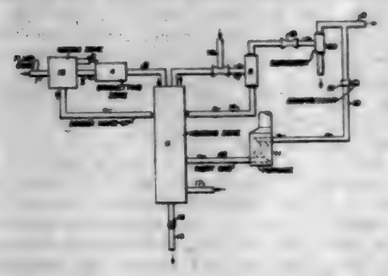
Dominick Labino, Toledo, Ohio, assignor, by mesne assignments, to L. O. F. Glass Fibers Company, Toledo, Ohio, a corporation of Ohio

Application February 11, 1954, Serial No. 409,590
10 Claims. (Cl. 41—42)



1. The process which comprises the step of subjecting alkali silicate fiber having a diameter of less than about 1.5 microns to the action of a solution of ammonium chloride to substantially completely free the fiber of alkali.

2,843,462
HEAT TREATING FLUID COKE BRIQUETTES
James W. Brown, Mountainside, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application July 27, 1955, Serial No. 524,747
3 Claims. (Cl. 44—24)



1. A process for preparing stable briquettes from fluid coke particles which comprises the steps of admixing the particles with an agglutinating carbonaceous binder at a temperature in the range of 200° to 400° F.; molding the resulting mixture into briquettes at a lower temperature, one in the range of 150° to 250° F. and a pressure in the range of 2000 to 20,000 p. s. i.; heat hardening the briquettes at a temperature in the range of 1200° to 2000° F. in a heating zone at a heating rate of 2° to 15° F. 1 min. by countercurrently contacting them with upflowing inert gases at a temperature in the range of 2000° to 3000° F. the total heating time being in the range of 1 to 10 hours; withdrawing evolved, cracked binder vapors along with inert gases from the heating zone; cooling the vapors so as to obtain a condensate having a minimum boiling point in the range of 400° to 700° F., the boiling point and viscosity of the condensate being less than that of the agglutiating carbonaceous binder; recycling this condensate as additional binder to the admixing step and withdrawing stable briquettes from the heating zone, the total amount of binder utilized being in the range of 5 to 25 wt. percent based on the fluid coke particles of which the condensate represents 2 to 10 wt. percent based on the coke particles.

2,843,463
NON-STALLING GASOLINE FUEL COMPOSITIONS
Gardner E. Gaston, Tarentum, and John P. Pellegrini, Jr., Blawnox, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application September 12, 1955
Serial No. 533,920
6 Claims. (Cl. 44—58)

1. A gasoline fuel composition comprising a major amount of a hydrocarbon mixture boiling in the gasoline range that has a 50 percent ASTM distillation point not greater than about 220° F. and that tends to promote stalling of internal combustion engines, and containing a small amount, sufficient to reduce the engine stalling characteristics of the gasoline composition, of oil-soluble Oxo still bottoms obtained by subjecting a mono-olefin containing 6 to 8 carbon atoms to the Oxo synthesis process by hydroformylating the mono-olefin with hydrogen and carbon monoxide in the presence of a hydroformylation catalyst to form an aldehydic product having one more carbon atom per molecule than the original mono-olefin and then hydrogenating the aldehydic product in the presence of hydrogen and a hydrogenating catalyst to form Oxo alcohols containing one more carbon atom per molecule than the original mono-olefin, and distilling overhead from the reaction products at least the major portion of the Oxo alcohols containing one more carbon atom than the mono-olefin, leaving behind a still bottoms product.

2. The composition of claim 1 wherein the hydrocarbon mixture contains additionally about 0.25 to about 0.75 percent by volume of the composition of a light lubricating oil having a viscosity at 100° F. of about 50 to about 500 Saybolt Universal seconds.

2,843,464
NON-STALLING GASOLINE FUEL COMPOSITIONS
Gardner E. Gaston, Tarentum, and Donald W. Howard, Verona, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application April 6, 1956
Serial No. 576,529
7 Claims. (Cl. 44—66)

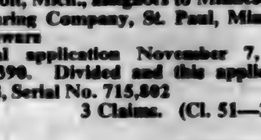
1. A gasoline fuel composition comprising a major amount of a hydrocarbon mixture boiling in the gasoline range that has a 50 percent ASTM distillation point not greater than about 220° F. and that normally tends to promote stalling of internal combustion engines, and containing a small amount, sufficient to reduce the engine stalling characteristics of the gasoline composition, of a member selected from the group consisting of N,N-dialkylol alkanamides, N,N-dialkylol alkenamides, and N,N-dialkylol alkadienamides, whose acyl groups contain 8 to 22 carbon atoms, and whose alkylol groups contain 2 to 3 carbon atoms.

2,843,465
ANTI-FOULING COMPOSITIONS
Venard E. Yust, Alton, and John L. Bame, East Alton, Ill., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
No Drawing. Application March 10, 1953
Serial No. 341,594
13 Claims. (Cl. 44—69)

1. A fuel composition for internal combustion engines consisting essentially of a stable gasoline, a minor effective anti-detonant amount of a tetra lower alkyl lead anti-detonant, and a scavenger mixture for said anti-detonant consisting essentially of a halohydrocarbon scavenger and a phosphorus tri-ester compound selected from the group consisting essentially of alkaryl thiomonophosphates and alkaryl thiomonophosphites, said halohydrocarbon scavenger and said phosphorus compound being present in amounts such that, where (*a*) is the number of mols of said halohydrocarbon scavenger present multiplied by one-half the number of halogen atoms per molecule for each gram atom of lead in the lead anti-detonant present, and (*b*) is the number of mols of said phosphorus compound present multiplied by three-halves, for each gram atom of lead in the lead anti-detonant present, the total of (*a*) plus (*b*) is from about 0.4 to about 2.0, (*b*) is from about 0.01 to about 0.6, and the ratio of (*a*) to (*b*) is from about 3:2 to about 100:1.

2,843,466
FUEL COMPOSITION
Bertrand W. Greenwald, Haddonfield, N. J., assignor to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application April 19, 1957
Serial No. 653,759
6 Claims. (Cl. 44—70)

1. A gasoline fuel containing from 0.002 to about 1.0% based on the weight of the gasoline fuel of an alkyl tetraester having the formula



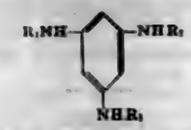
wherein R, R', R", and R"' represent alkyl substituents having from 1 to 6 carbon atoms.

2,843,467
FUEL OILS
Albert G. Rocchini, Springdale, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
No Drawing. Application May 10, 1954
Serial No. 428,842
8 Claims. (Cl. 44—72)

1. A fuel oil composition comprising a major amount of a residual fuel oil yielding a corrosive vanadium-containing ash upon combustion, and a small amount, sufficient to retard the corrosiveness of said ash, of a compound selected from the class consisting of oil-soluble and oil-dispersible organic silicon compounds.

2,843,468
STABILIZED HYDROCARBON COMPOSITIONS AND ANTIOXIDANT THEREFOR
John W. Thompson and Wayne V. McConnell, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application July 22, 1954
Serial No. 445,157
11 Claims. (Cl. 44—74)

7. Gasoline stabilized against oxidation with 0.001–1.0% by weight of an antioxidant of the formula



wherein R_1, R_2 and R_3 are the same alkyl groups of 1–8 carbon atoms.

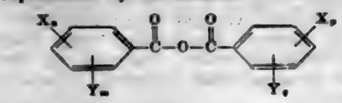
2,843,469
METHODS OF MAKING NON-RIGID ROTATIVE ABRASIVE STRUCTURES
Theodore J. Miller, St. Paul, Minn., and Earl L. Gothier, Detroit, Mich., assignors to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Original application November 7, 1955, Serial No. 545,398. Divided and this application February 17, 1958, Serial No. 715,802
3 Claims. (Cl. 51—297)



1. In the method of forming an abrasive wheel comprised of an annulus of juxtaposed radially extending flap sections of abrasive sheet material having opposed notches therein which align to define opposed lateral grooves adjacent the inner periphery of said annulus and wherein adjacent flap sections are rigidified and firmly rigidly adhesively bonded together over a substantial inner end area to form a rigid reinforced inner rim portion in said structure, the steps comprising manipulating into an annulus a block of said notched flap sections arranged in superposed face-to-back relation, said block being temporarily bound together at the end portions of said flap sections forming the inner peripheral portion of said annulus by a flexible holding member which is affixed to said block, inserting a circular forming member into a groove in each of said lateral surfaces to perfect the shape of said annulus, said sections each being provided with a coating of a liquid curable adhesive resin on each side over a substantial area adjacent the radially inner ends thereof, and curing said resin to a hard firm state.

2,843,470
PROCESS AND PRODUCT
Norman E. Searle, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application February 8, 1957
Serial No. 638,931
3 Claims. (Cl. 71—2.3)

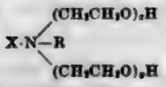
1. The method for the control of undesirable vegetation comprising applying to the locus to be treated, in an amount sufficient to exert herbicidal action, a compound represented by the formula



wherein X is halogen; Y is methyl; *n* and *p* are 2–4; *m* and *q* are 0–2; *n* plus *m* equals 3–4 and *p* plus *q* equals 3–4.

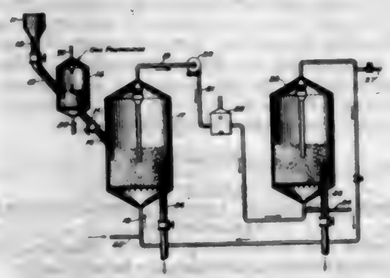
2,843,471
HERBICIDAL COMPOSITIONS OF CONTROLLED WATER SOLUBILITY
Elias Fischer, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application July 23, 1953
Serial No. 369,950
22 Claims. (Cl. 71—2.6)

1. An herbicidal compound having the formula:



wherein X is an herbicidal plant hormone carboxylic acid, R is a radical selected from the group consisting of straight-chain aliphatic hydrocarbon radicals having from 8 to 22 carbon atoms and an abietyl radical, and *x* and *y* are integers, the sum of which is from 2 to 50.

2,843,472
TREATMENT OF MATERIAL CONTAINING IRON
John E. Eberhardt, Bethlehem, Pa., assignor to Bethlehem Steel Company, a corporation of Pennsylvania
Application May 8, 1956, Serial No. 583,473
10 Claims. (Cl. 75—1)



1. In a process for treating an ore bed containing ferric oxide and non-ferric oxides capable of being chloridized, the steps of reducing said oxides a predetermined amount,

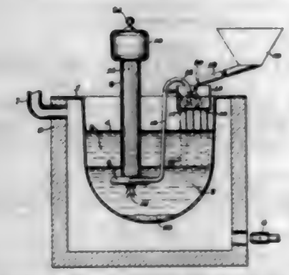
chloridizing the bed at a temperature to change the oxides to chlorides and to form vaporized ferric chloride and water vapor, the amount of oxides reduced before chloridizing being at least stoichiometrically equivalent to the amount of chlorine combining in the chloridizing step with the nickel group metals, removing said ferric chloride vapor and said water vapor from the environment of said bed, forming a gaseous body comprising said ferric chloride vapor and water vapor in a predetermined ratio of ferric chloride vapor to water vapor, the oxygen content of said water vapor being at least sufficient to convert said ferric chloride to ferric oxide, and heating the gaseous body to a temperature from 950° F. to 1700° F. to an amount depending upon said ratio thereby to change most of the ferric chloride vapor to solid ferric oxide and most of the water vapor to hydrochloric acid gas, said temperature being varied inversely with the amount of reduction before chloridizing.

2,843,473

RECLAIMING PARTICULATE MAGNESIUM AND MAGNESIUM-BASE ALLOY SCRAP

Norman R. Colbry, Breckenridge, and Gordon F. Hershey, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application December 29, 1955, Serial No. 556,281
3 Claims. (Cl. 75—63)



1. In a method of recovering finely-divided free flowing magnesium and magnesium-base alloy scrap the steps which comprise bringing together a continuously flowing stream of a molten saline flux derived from a molten body thereof and a continuously flowing stream of the scrap particles so as to rapidly engulf and thereby set the scrap particles with the flux, the said saline flux comprising alkali and alkaline earth metal chloride having a density above that of the molten scrap metal and a temperature of at least 40 centigrade degrees above the melting point of the scrap metal, whereby a slurry is obtained continuously of the scrap metal and the flux, passing the slurry continuously into a pool of the molten metal through a film of flux thereover, said pool floating on the said molten body of the flux, whereby the particles of scrap metal are absorbed by the pool of molten metal and the flux of the slurry thereby denuded of metal descends through the pool of molten metal into the underlying body of flux and maintains a film of the flux thereover, continuously delivering molten flux to the first step, and continuously removing recovered metal from the said pool.

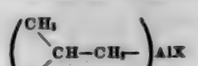
2,843,474

PROCESS FOR THE PRODUCTION OF PURE ALUMINUM

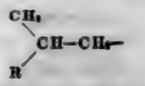
Karl Ziegler and Hans-Georg Gellert, Muelheim-Ruhr, Germany; said Gellert assignor to said Ziegler

No Drawing. Application August 2, 1955
Serial No. 526,083
Claims priority, application Germany August 9, 1954
13 Claims. (Cl. 75—68)

1. A process for the production of pure aluminum from crude aluminum containing impurities which comprises forming an aluminum compound of the general formula



in which R represents a saturated aliphatic radical and X represents a substituent selected from the group consisting of the



radical and a hydrogen atom from the crude aluminum, separating said compound from the impurities of the crude aluminum and then decomposing said compound under the action of heat to form pure aluminum, an olefine and hydrogen.

2,843,475

METHOD OF PRODUCING ALUMINUM

Paul Weiss, Bonn, Germany, assignor to Vereinigte Aluminium-Werke Aktiengesellschaft, Bonn, Germany

No Drawing. Application August 8, 1957
Serial No. 676,910
Claims priority, application Germany March 13, 1954
20 Claims. (Cl. 75—68)

9. A method of producing aluminum from aluminum oxide, comprising the steps of heating a mixture including aluminum oxide, aluminum trisulfide and carbon to a temperature above 1000° C. so as to form a reaction gas including vapors of aluminum subsulfide; withdrawing said vapors of aluminum subsulfide; cooling the thus withdrawn vapors of aluminum subsulfide so as to form metallic aluminum and aluminum trisulfide; and recycling the thus obtained aluminum trisulfide for formation of additional mixture including aluminum oxide, aluminum trisulfide and carbon, which mixture can be further processed to produce metallic aluminum and aluminum trisulfide.

2,843,476

PROCESS FOR REFINING LEAD

Markus Hoffmann, Purley, England, assignor to H. J. Enthoven & Sons Limited, London, England, a British company

Application April 23, 1953, Serial No. 350,642
Claims priority, application Great Britain May 2, 1952
4 Claims. (Cl. 75—78)



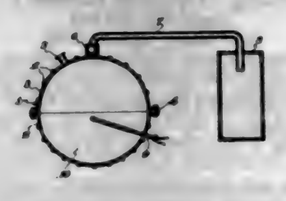
1. The process of treating impure lead and lead alloys containing a plurality of metal impurities which consists in substantially removing from the impure lead or lead alloy, while in a molten condition and in the presence of molten caustic alkali, a selected metal impurity present by pursuing the treatment through the substantial removal of metal impurities, as far as they are present, in the following order until the said selected metal impurity is reached and substantially removed, namely, arsenic, tin, zinc, selenium, tellurium, manganese, copper, iron, cobalt, cadmium, nickel and antimony, by subjecting the impure lead or lead alloy at a temperature of from 300 to 350 degrees centigrade, to vigorous mixing action with dressed and granulated mineral galena as reagent with the molten caustic alkali, in an amount, as predetermined stoichiometrically, to substantially remove the said selected metal impurity together with such of the anteriorly enumerated metal impurities as are present.

2,843,477

METHOD OF PRODUCING TITANIUM

James E. Boegs, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application December 3, 1953, Serial No. 395,887
5 Claims. (Cl. 75—84.5)



1. A process for the preparation of dense fused form of titanium metal which comprises intimately mixing below the ignition temperature of sodium, titanium tetrachloride with solid particles of sodium metal ranging in size from about .005 to 5 mm. diameter and then thermally initiating a self-sustaining reaction between the mixture in a cold reactor free of deleterious impurities by applying heat to a portion of said mixture sufficient to melt the sodium without substantial vaporization of the titanium tetrachloride, maintaining the reactants within said reactor at a temperature sufficient to melt the titanium product and until completion of the reaction, and recovering the titanium metal product from the reaction by-products.

2,843,478

HIGH TEMPERATURE BRAZING ALLOY FOR JOINING FE CR AL MATERIALS AND AUSTENITIC AND FERRITIC STAINLESS STEELS

Ronald R. Cost, Cincinnati, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application October 28, 1957
Serial No. 692,988
1 Claim. (Cl. 75—124)

An alloy consisting of from 19 to 20 weight percent chromium, from 5 to 6 weight percent aluminum, from 9.5 to 10.5 weight percent silicon, from 1.5 to 5 weight percent phosphorus, the balance being iron.

2,843,479

METHOD OF MAKING RUBBER-BOUND FIBROUS PRODUCTS AND THE LIKE

Jay L. Piersol, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application March 16, 1955
Serial No. 494,799
15 Claims. (Cl. 92—21)

1. In a method of uniformly depositing a water-insoluble binder onto filler particles suspended in an aqueous medium, the steps comprising first sensitizing the particles for the uniform deposit thereon of the binder by agitating the particles while dispersed in an aqueous medium having dissolved therein a water-soluble aluminum salt supplying trivalent aluminum ions in excess of those required for sensitizing of the particles, after said particles have been sensitized by the action of said trivalent aluminum ions in said first step adding to said slurry at least one compound of the group consisting of water-soluble polycarboxylic acids and water-soluble salts thereof and agitating the resulting slurry until substantially all said excess trivalent aluminum ions resulting from the first step have been removed from the slurry, then adding to said slurry a dispersion of water-insoluble binder, distributing said binder uniformly throughout said slurry, and depositing said binder as a uniform coating onto said sensitized and treated particles by thereafter adding to said slurry a precipitation agent for said binder and agitating said slurry.

2,843,480

WITHDRAWN

2,843,481

PHOTOGRAPHIC PROCESSES

Elkan R. Blout, Belmont, Saul G. Cohen, Lexington, and Milton Green, Winthrop, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

No Drawing. Application July 19, 1954
Serial No. 444,365
10 Claims. (Cl. 96—29)

6. In a process of forming a silver transfer print by a diffusion-transfer reversal process wherein the latent image is developed by an aqueous composition comprising a silver halide developing agent, an alkali and a silver halide solvent, and unexposed silver halide is transferred to an image-receiving layer to form a positive silver image, the improvement which comprises effecting said development using a monocyclic, N-hydroxyl heterocyclic amine as the developing agent.

2,843,482

PHOTOGRAPHIC BLEACH COMPOSITION

Donald J. Kridel, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application March 30, 1956
Serial No. 574,989
2 Claims. (Cl. 96—60)

1. A dry powder bleach composition which, when dissolved in water, is capable of converting to silver salt only the silver images in a photographic layer containing both silver and dye images, comprising potassium ferricyanide, potassium bromide, borax and boric anhydride.

2,843,483

PHOTOGRAPHIC DEVELOPER

Donald J. Kridel, Walter V. Wadman, and Joseph G. Stampfli, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 3, 1955
Serial No. 538,281
8 Claims. (Cl. 96—66)

1. A photographic developer composition containing an organic silver halide developer, an alkali, a buffer component, a carbonyl bisulfite component consisting of at least one alkali metal carbonyl bisulfite selected from the group consisting of sodium and potassium formaldehyde bisulfite and at least one alkali metal carbonyl bisulfite selected from the group consisting of sodium and potassium carbonyl bisulfite compounds having two to six carbon atoms in the molecule and having a higher dissociation constant than sodium formaldehyde bisulfite.

2,843,484

ALKALIES FOR SINGLE POWDER PHOTOGRAPHIC DEVELOPERS

Ralph W. Bazendale, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application July 18, 1956
Serial No. 598,526
9 Claims. (Cl. 96—66)

3. A stable single powder photographic developer composition which resists deterioration when heated to 120° F. containing an organic silver halide developer, a basic

ingredient selected from the group consisting of alkali borates and sulfites and an alkali hydroxide selected from the group consisting of sodium and potassium hydroxide having a protective coating thereon of the reaction product of the selected alkali hydroxide and an amide selected from the group consisting of urea, formamide and phthalamide.

2,843,485

TRANSFER PROCESS OF PHOTOGRAPHIC PRINTING

Henry C. Yutzy and Herbert B. Cowden, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Original application May 3, 1952, Serial No. 285,855, now Patent No. 2,725,298, dated November 29, 1955. Divided and this application May 17, 1954, Serial No. 430,874

4 Claims. (Cl. 96—76)



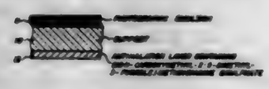
1. A light-sensitive photographic element comprising a support having thereon at least two layers including a substantially unhardened gelatino-silver halide emulsion layer having a dihydroxy diphenyl developing agent incorporated therein, and a layer of unsensitized, substantially unhardened gelatin containing a chemical precipitant for dissolved silver ions coated directly on said emulsion layer and attached to said emulsion layer to permit transfer of dissolved, undeveloped silver ions from said emulsion layer to said gelatin layer containing said chemical precipitant for dissolved silver ions, upon exposure and development of said emulsion layer in a solvent developer, and to form a reversed photographic image in said stratum containing said chemical precipitant for dissolved silver ions, and to permit transfer of a stratum of said gelatin layer containing said reversed photographic image to a dry, absorbent surface, said gelatin layers being not harder than a gelatin layer containing ¼ ounce of formaldehyde per pound of gelatin.

2,843,486

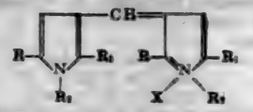
PHOTOGRAPHIC FILTER AND ANTI-HALATION LAYERS

Joseph Bailey, Harrow, England, assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application October 12, 1955, Serial No. 540,081
Claims priority, application Great Britain December 14, 1954
11 Claims. (Cl. 96—84)



1. A photographic element comprising a support having thereon at least one light-sensitive silver halide emulsion layer and a light-screening layer comprising a hydrophilic colloid containing a dye selected from those represented by the following general formula:



wherein R and R_1 each represents a lower alkyl group, R_2 represents a carboxyalkyl group, and X represents an acid radical.

2,843,487

AQUEOUS GELATIN COATING COMPOSITIONS AND THEIR APPLICATION

William J. Knox, Jr., John F. Stemberg, and Charles V. Wilson, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 2, 1955
Serial No. 485,812
11 Claims. (Cl. 96—94)

4. An aqueous gelatin coating composition comprising an aqueous solution of gelatin of 1½–10% concentration containing in dispersion therein a silver halide which solution also contains a small amount of a coating aid selected from the group consisting of the water soluble salts of the esters of aliphatic monohydroxy alcohols of 8–18 carbon atoms and tetracarboxy butane, the water soluble salts of the reaction products which result from heating aliphatic amines of 8–18 carbon atoms with tetracarboxy butane dianhydride and the water soluble salts of the reaction products which result from heating mixtures of aliphatic alcohols and aliphatic amines of 8–18 carbon atoms and tetracarboxy butane dianhydride.

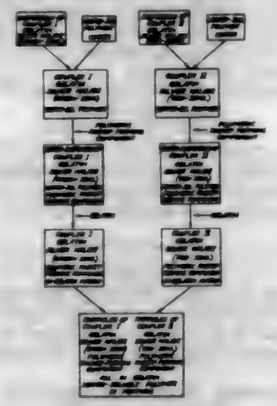
2,843,488

PHOTOGRAPHIC LAYERS CONTAINING THE REACTION PRODUCT OF AMMONIA ON A STYRENE-MALEIC ANHYDRIDE COPOLYMER

Leopold Godowsky, Westport, Conn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Original application April 15, 1950, Serial No. 156,066, now Patent No. 2,698,794, dated January 4, 1955. Divided and this application June 23, 1954, Serial No. 438,667

3 Claims. (Cl. 96—97)



1. Photographic gelatin layers which contain in a minor amount the reaction product of ammonia on a copolymer containing as the main monomers styrene and maleic acid anhydride.

2,843,489

MIXED PACKET PHOTOGRAPHIC EMULSIONS WITH POLYVINYL RESIN CONTINUOUS PHASE

Rumford B. Wilson and William F. Knechel, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application July 29, 1955
Serial No. 525,345
7 Claims. (Cl. 96—98)

1. The method of making a packet photographic emulsion which comprises adding an emulsion of silver halide in protein material to a solution of a water-permeable polyvinyl resin, adjusting the pH of the mixture approximately to the isoelectric point of the protein material, thereby forming packets or particles of the protein material in the resin, cooling and gelling the packet emulsion, and mixing with the emulsion at some stage in the process a dyeing material selected from the class consisting of bleachable dyes and color-forming compounds capable of coupling with the oxidation product of primary aromatic amino developers.

2,843,490

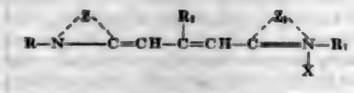
SUPERSENSITIZING COMBINATIONS COMPRISING MESO-SUBSTITUTED CARBOCYANINE DYES AND POLYVALENT METAL SALTS

Jean E. Jones, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application March 8, 1955, Serial No. 493,040
20 Claims. (Cl. 96—104)



1. A washed, photographic silver halide emulsion selected from the group consisting of a washed, photographic silver chloride emulsion and a washed, photographic silver chlorobromide emulsion containing (1) at least one sensitizing dye selected from those represented by the following general formula:



wherein R and R_1 each represents an alkyl group, R_2 represents a member selected from the group consisting of an aryl group, a pyrrl group, and a thienyl group, X represents an acid radical, and Z and Z_1 each represents the non-metallic atoms necessary to complete a heterocyclic nucleus containing five atoms in the heterocyclic ring selected from the group consisting of those of the thiazole series, those of the benzothiazole series, those of the naphthothiazole series, those of the benzoselenazole series, those of the naphthoselenazole series, and those of the benzoxazole series, and (2) from 5 to 35 grams per mol. of silver halide of at least one metal salt selected from those represented by the following general formula:

$$M(X_1)_2$$

wherein M represents a member selected from the group consisting of a cadmium atom and a zinc atom and X_1 represents a member selected from the group consisting of a chlorine atom and a bromine atom.

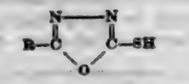
2,843,491

2-MERCAPTO-1,3,4-OXADIAZOLES AS ANTIFOGGANTS

Charles F. H. Allen and John J. Sagura, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application May 23, 1956
Serial No. 586,654
8 Claims. (Cl. 96—109)

1. A photographic silver halide emulsion containing a compound selected from those represented by the following general formula:



wherein R represents a monocyclic aryl group of the benzene series.

2,843,492

ANIMAL FEED MATERIAL

Roger Bart and William B. Williams, Lakeland, Fla., assignors to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application November 25, 1955
Serial No. 549,185
13 Claims. (Cl. 99—6)

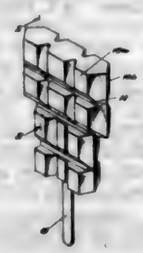
1. An enriched, physically stable, animal feed material, said material being liquid and flowable at temperatures in excess of 32° F. and consisting essentially of liquid molasses having substantially uniformly dispersed therein a solid, particulate calcium phosphate having a particle size not greater than 325 mesh, said calcium phosphate being present in said feed material in an amount by weight between about 2% and about 20% of the weight of said molasses, said molasses and said particulate calcium phosphate being the sole essential ingredients in said product, said particulate calcium phosphate being the only phosphatic material present in said product, and the only water present in said product being that contained in said molasses.

2,843,493

METHOD OF MAKING A FROZEN CONFECTION

Arthur E. Sharples, Jersey City, N. J.

Application June 6, 1956, Serial No. 589,620
4 Claims. (Cl. 99—136)



1. The method of making a frozen comestible having a soft core and a hard frozen skin, which comprises placing a charge of frozen shavings in a mold, heating said charge within said mold to liquefy the surface of said charge contiguous with the mold, and deep freezing the charge in said mold to form the liquefied surface into a hard frozen skin.

2,843,494

WITHDRAWN

2,843,495

STABILIZATION OF ORGANIC COMPOUNDS

Joseph A. Chenicek, Bensenville, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application November 1, 1954
Serial No. 466,210
7 Claims. (Cl. 99—163)

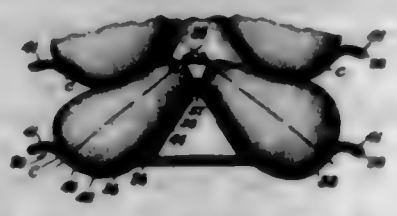
1. A method of stabilizing an organic compound selected from the group consisting of gasoline and lard against deterioration in storage which comprises in-

corporating therein a stabilizing amount of both a 2,4,6-trialkylphenol and a 5-hydroxycoumaran, at least one of the alkyl groups in the 2- and 6-positions of said trialkyl phenol being of branched chain configuration.

2,843,496
MOLDED PULP PEAR TRAY

William M. Altenburg, South Windham, Maine, and James E. Foote, Westport, Conn., assignors to Diamond Gardner Corporation, a corporation of Delaware

Application July 26, 1956, Serial No. 600,243
17 Claims. (Cl. 99—171)



1. A pear tray comprising a body member having a plurality of open top spaced recesses of pear shape, each recess including an enlarged recess portion for receiving the caylx end of a pear and a narrow recess portion for receiving the stem end of the pear, said narrow recess portion being elevated above said enlarged recess portion a distance such that a surface of the stem end of the pear is elevated above the highest surface at the calyx of the pear.

2,843,497
WAX COATINGS CONTAINING SYNERGISTIC ANTIOXIDANTS

Benjamin N. Stuckey and William M. Gearhart, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application February 23, 1955, Serial No. 490,114
2 Claims. (Cl. 106—287)

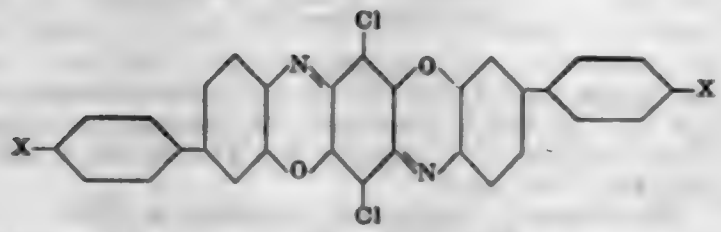
1. A stable concentrated aqueous emulsion adaptable for the coating of flexible sheet pacakaging base materials consisting essentially of a dispersion in about 40 parts by weight of water of about 60 parts by weight of a solution consisting essentially of (*a*) about 20 parts of volume of di-isobutyl adipate as a solvent, (*b*) about 25 parts by volume of glyceryl monostearate as an emulsifier, and (*c*) about 10 parts by volume of a synergistic antioxidant combination of from 1 to 6 parts by weight of tertiary butyl-p-hydroxyanisole and from 9 to 4 parts by weight of 3,5-ditertiary butyl-p-hydroxytoluene.

2,843,498
PIGMENT COMPOSITION

William S. Struve, Carney's Point, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 23, 1954
Serial No. 418,211
7 Claims. (Cl. 106—288)

1. A flocculation-resistant pigment composition comprising an intimate mixture of 75% to 97% by weight of a dioxazine pigment of the formula

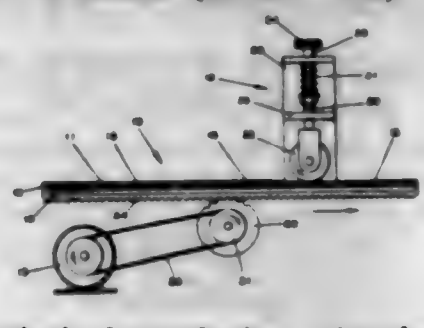


in which X is taken from a group consisting of hydrogen, and halogen substituents chlorine and bromine, together with 3% to 25% by weight of a water-insoluble polyvalent metal salt of an acid selected from the group consisting of 2,9 - diphenyl - 6,13 - dichlorotriphendioxazine monocarboxylic acid, 2,9-diphenyl-6,13-dichlorotriphendioxazine dicarboxylic acid, and 2,9-diphenyl-6,13-dichlorotriphendioxazine disulfonic acid, the polyvalent metal of said salt being a metal selected from the group consisting of calcium, barium, strontium, and aluminum.

2,843,499
PRESSURE TRANSFER OF XEROGRAPHIC IMAGES

Paul G. Andrus, Columbus, Ohio, assignor, by mesne assignments, to Haloid Xerox Inc., a corporation of New York

Application September 25, 1956, Serial No. 612,832
2 Claims. (Cl. 117—17.5)



1. The method of transferring a dry electrostatically-bound loose powder particle image to a transfer member comprising a gelatin layer upon a support base to form a quality transferred xerographic print, said method comprising immersing the transfer member in water at room temperature for more than 10 seconds, removing by squeezing excess water from the transfer member to a point whereat the gelatin layer is characterized by being soft impressionable and substantially nontacky, transferring a loose powder particle image held electrostatically in position on the surface of a xerographic plate comprising a photoconductive insulating layer adhering to a conductive backing member, the photoconductive insulating layer being releasable from the backing member to a conventionally adhesive material, by pressing the gelatin layer of the transfer member against the photoconductive insulating image-bearing surface using sufficient force to thoroughly imbed the powder image in the gelatin layer while the gelatin layer is in the soft condition reached by removing excess water, removing the gelatin layer and the powder image out of contact with the photoconductive insulating layer, and hardening the gelatin layer carrying the powder image by drying.

2,843,500
COATED ALLOYS

Cameron G. Harman, Cleveland Heights, and Loran S. O'Bannon, Columbus, Ohio, assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 27, 1956
Serial No. 561,964
9 Claims. (Cl. 117—23)

1. A structural material consisting of a base of metal the predominant amount of which is metal selected from the group consisting of iron, cobalt, nickel, and any mixtures thereof and a coating of glass firmly bonded thereto, said glass consisting of from 0.3 to 0.7 mole of an alkali metal oxide, from 0.3 to 0.7 mole of strontium oxide, and from 1 to 2.5 moles of silicon oxide.

6. A method of preparing a novel structural material consisting of applying a powdered mixture of from 0.3 to 0.7 mole of alkali metal oxide, from 0.3 to 0.7 mole of strontium oxide and from 1 to 2.5 moles of silicon oxide to the surface of a base of a metal the predominant amount of which is metal selected from the group consisting of iron, cobalt, nickel, and any mixtures thereof, and firing the thus-coated base for from 5 to 10 minutes at a temperature of between 980° and 1235° C.

2,843,501

METHOD FOR THE PRECISION PRODUCTION OF INFILTRATED ARTICLES

John L. Ellis, White Plains, and John D. Kaez, Hastings-on-Hudson, N. Y., John B. Adamec, Closter, N. J., and Claus G. Goetzel, Hastings-on-Hudson, N. Y., assignors to Shutercast Corporation of America, Yonkers, N. Y., a corporation of New York

Application August 1, 1956, Serial No. 601,526
9 Claims. (Cl. 117—50)



1. In a method for producing a precision infiltrated body which comprises producing a sintered porous skeleton body of a high melting point refractory material, supporting the surface of said porous body against a thin yieldable interface of a gravimetrically packed substantially inert ceramic powder of high melting point backed up by a rigid mold surface of heat conductivity of at least about 0.01 cal./cm.^{2}/cm./° C./sec., the thickness of the thin yieldable gravimetrically packed interface being so proportioned relative to the configuration of the skeleton that about an infiltrating end portion of the skeleton where the infiltrant metal predominates the thickness of the thin interface is greater than the interfacial thickness adjacent the skeleton surface away from said infiltrating end portion, raising the temperature of the skeleton uniformly to at least the desired infiltration temperature, infiltrating said uniformly heated skeleton from one end with a molten matrix-forming metal until the skeleton is completely infiltrated and then cooling said infiltrated body from the end opposite the infiltrating end, the infiltrating end portion being the last to cool and solidify.

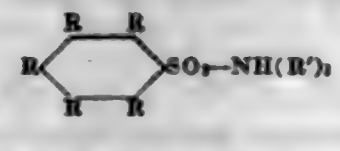
2,843,502

PROCESS OF COATING A FABRIC WITH POLYTETRAFLUOROETHYLENE, THE PRODUCT THEREOF AND THE COATING COMPOSITION THEREFOR

Robert E. Fay, Jr., Highland Mills, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 17, 1954
Serial No. 411,021
14 Claims. (Cl. 117—65)

1. A coating composition comprising an aqueous suspension of polytetrafluoroethylene, 1% to 10% of a water-soluble primary wetting agent and .4% to 10% of an ancillary wetting agent, said percentages being based on the weight of polytetrafluoroethylene, said primary wetting agent being a member of the group consisting of (1) the sodium salt of the sulfuric acid ester of monohydric alcohols comprising predominantly lauryl alcohol and (2) octyl phenyl polyglycol ether, and said ancillary wetting agent being chemically different than said primary wetting agent and having the following empirical formula:



where R is a member of the group consisting of hydrogen and alkyl radicals, at least one R being an alkyl radical, the sum of the carbon atoms in said alkyl radicals being 8 to 22, and where R' is a member of the group consisting of hydrogen, 1 to 8 carbon atom alkyl radicals and 1 to 4 carbon atom monohydroxy alkyl radicals, and the sum of the carbon atoms in the R' radicals is 1 to 12.

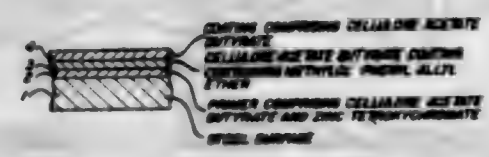
7. The process which comprises bridging the interstices of a woven fabric with the composition of claim 1 and heating the coating to at least 621° F., but below the decomposition temperature of the fabric.

2,843,503

CORROSION RESISTING COATINGS

Martin Salo and Gerard J. Clarke, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application January 8, 1954, Serial No. 403,052
7 Claims. (Cl. 117—85)



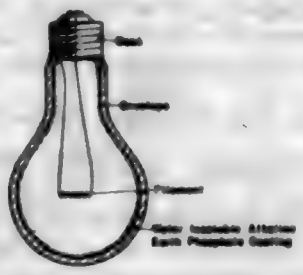
6. A process for providing a corrosion-resisting coating for steel in which at least three successive coatings are applied comprising coating with a primer comprising about 9% cellulose acetate butyrate, 8.6% zinc tetroxychromate, and a solvent mixture consisting of toluene, methyl Cellosolve and ethyl alcohol, applying a second coating comprising 60–95% cellulose acetate butyrate, 5–40% methylol phenyl allyl ether, about 0.3% phosphoric acid, solids basis, and a solvent mixture consisting of xylene, toluene, butyl alcohol, isopropyl alcohol and butyl acetate, and a third coating comprising 9.1% cellulose acetate butyrate and a solvent mixture consisting of xylene, toluene, butyl alcohol, isopropyl alcohol and butyl acetate.

2,843,504

PHOSPHATE COATING OF INCANDESCENT LAMP

Henricus Antonius Van Bakel and Theodorus Adrianus Maria Gast, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application February 14, 1955, Serial No. 487,976
3 Claims. (Cl. 117—97)



1. A process of coating the inner side of an envelope of an incandescent lamp with a light diffusing layer which comprises the steps, preparing a stable suspension of a water-insoluble alkaline earth phosphate in a mixture of water, a water-miscible volatile organic liquid and at least 1.5% based on the weight of phosphate of an acid selected from the group consisting of phosphoric acid and acids that liberate phosphoric acid from the phosphate, applying a layer of the suspension to the inner surface of the envelope, removing excess suspension from the envelope, drying the residual layer and finally heating the dried layer to a temperature of at least 200° C.

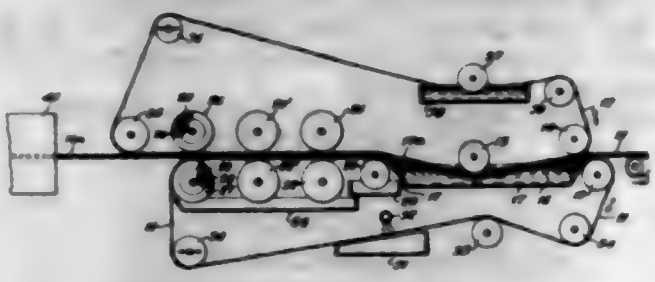
2,843,505

METHOD AND APPARATUS FOR TREATING IMPREGNATED FIBER WEBS

Frederick H. Riedel, Cloquet, Minn., assignor to Wood Conversion Company, St. Paul, Minn., a corporation of Delaware

Application February 4, 1954, Serial No. 408,267

18 Claims. (Cl. 117—102)



1. The method which comprises continuously conveying a porous fiber web in facial contact with at least one open-area carrier, passing the resulting assembly through a bath of impregnating liquid consisting of dispersed solids and volatile dispersing liquid vehicle therefor, thereby filling the pores of said web with said liquid and thereby loading the open-area carrier with said liquid, passing the resulting loaded assembly through at least one area of compression and thereby densifying the web and expressing liquid from the web in part through said carrier, whereby the openings in said carrier retain expressed liquid, passing the resulting assembly through a compression zone and compressing the web over substantially the entire area thereof within said zone including substantially all the area of the web exposed to the open area of said carrier, said last-mentioned compression of the web being effected by pressing onto the carrier the surface of resilient compressing material capable of entering the open areas and therein compressing the web while also compressing the carrier, thereby densifying the web and removing residual liquid from the open area of said carrier and excess liquid from the web, removing the resulting web from the resulting cleaned carrier, and volatilizing from the web the residual liquid vehicle.

2,843,506

PROCESS OF GAS PLATING AN ARTICLE WITH LIGHT METAL

Folsom E. Drummond, Washington, D. C., assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application July 13, 1955, Serial No. 521,922

4 Claims. (Cl. 117—107)

1. A process of gas plating an article with light metal utilizing scrap light metal as a starting material, said process comprising the steps of admixing said scrap light metal with mercury and heating the mixture to form an amalgam of the light metal, continuing the heating of said amalgam at a higher temperature and under non-oxidizing atmospheric conditions to volatilize the mercury leaving a porous mass of substantially pure light metal while retained in said atmosphere, thereafter reacting the resultant porous metal under said non-oxidizing atmospheric conditions with a reactant to form a heat-decomposable compound of the light metal, and contacting the article to be plated with said heat-decomposable light metal compound while heated to a temperature sufficient to decompose said light metal compound and cause deposition of the light metal onto the surface of the article.

2,843,507

CERAMIC COATINGS AND METHODS OF FORMULATION

John V. Long, San Diego, Calif., assignor to Solar Aircraft Company, San Diego, Calif., a corporation of California

Continuation of application Serial No. 133,045, December 15, 1949. This application August 31, 1953, Serial No. 377,381

18 Claims. (Cl. 117—129)



1. An article of manufacture comprising a metallic body having a crystalline structure, and a ceramic coating having a continuous surface consisting essentially of a crystalline or crypto-crystalline structure fire bonded on said body, said coating having a crystalline interlocked permanent bond with said metallic body.

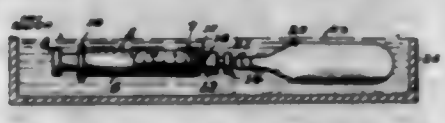
2,843,508

HYPODERMIC SYRINGE DEFREEZING MEANS AND METHOD

Matthew J. Sheft, Passaic, N. J.

Application September 29, 1953, Serial No. 382,916

5 Claims. (Cl. 134—22)



1. The method of releasing a frozen and normally reciprocable piston disposed within a cylinder, comprising filling with an expansible liquid wetting agent a portable receptacle adapted to be freely supported in the hands of a human being, coupling said receptacle to said cylinder to effect open communication between said cylinder and said receptacle, and subjecting said receptacle to a sufficiently higher temperature than said liquid to expand the latter to a degree wherein it is introduced into said cylinder at such a rate that it penetrates and breaks the freezing seal between said piston and said cylinder to force release of said piston.

4. Means for freeing a frozen plunger in a hypodermic syringe of the type having a barrel equipped with a plunger normally reciprocable within the barrel and a coupling element on one end of the barrel for cooperation with coupling means on one end of a hypodermic needle for detachably connecting the needle to said barrel, comprising a portable flask adapted to be freely supported in the hands of a human being and having walls of a material that readily conducts heat, said flask defining a chamber of a constant predetermined volume for containing an expansible liquid and having a single port communicating with said chamber through which said liquid flows, said walls being fixed relative to each other and structurally integrally connected together to maintain the constancy of said volume against variation for effecting flow of said liquid out of said chamber through said port upon expansion of said liquid by heat when said flask is heated to a pre-established degree, and coupling means on said flask substantially like said coupling means on said needle for cooperation with said coupling element for detachably connecting said flask to the barrel to prevent separation of said barrel and said flask under the influence of pressure alone and to establish communication between said flask and the barrel through said port so as to permit flow of said liquid into said barrel from said chamber to engage and release said frozen plunger upon expansion of said liquid into said barrel when said flask is heated to said degree.

2,843,509
PROCESS FOR REMOVAL OF CARBONACEOUS DEPOSITS

Benjamin Arden, Los Angeles, Calif., assignor to Turco Products, Inc., Los Angeles, Calif., a corporation of California

No Drawing. Application May 25, 1955
Serial No. 511,858
11 Claims. (Cl. 134—39)

1. A method of removing from metal parts carbonaceous deposit formed by the pyrolysis of organic materials, which comprises: contacting said parts at a temperature in the range of about 200° F. to 300° F. with an aqueous solution containing from about 4 to about 40% by weight of the solution of alkali metal hydroxide calculated as alkali metal oxide and from about 5 to about 30% by weight of the solution of a polyalkanolamine having a boiling point in excess of about 400° F., said aqueous solution having a boiling point within the range of from about 220° F. to in excess of 300° F. and higher than the said average temperature, and continuing said treatment until said carbonaceous deposit has been removed, and removing said part from contact with the said solution.

2,843,510
CATHODE DEPOLARIZER FOR PRIMARY CELLS WITH ACIDIC ELECTROLYTES

Leslie D. McGraw, Columbus, Ohio, assignor to the United States of America as represented by the Secretary of the Army

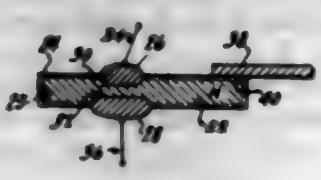
No Drawing. Application September 5, 1956
Serial No. 608,172
4 Claims. (Cl. 136—138)

1. A primary cell comprising an anode; a cathode comprising a finely ground depolarizer mixture of manganic phosphate and an inert electrically conductive material; the manganic phosphate constituting at least 80% of the depolarizer mixture and an acidic electrolyte having a hydrogen ion concentration (pH) of less than about 5.

2,843,511
SEMI-CONDUCTOR DEVICES

Jacques I. Pankove, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application April 1, 1954, Serial No. 420,401
9 Claims. (Cl. 148—1.5)



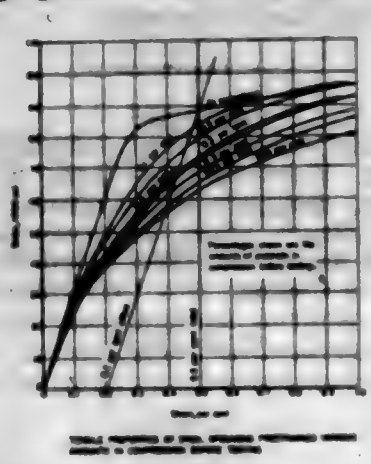
1. A crystalline semi-conductor device including a base of a semi-conductive material, emitter and collector electrodes in contact with said base; said base having a surface region adjacent at least one of said electrodes, said region being of high conductivity and low lateral conductance relative to the bulk of said base, and being of the same conductivity type as the bulk of said base and being separated therefrom by a rectifying barrier.

2,843,512
METHOD OF RELIEVING BAUSCHINGER EFFECT IN OIL WELL DRILL PIPE

Joseph W. Lodge, Sharon Township, Franklin County, Ohio, assignor, by mesne assignments, to The Youngstown Sheet and Tube Company, Youngstown, Ohio, a corporation of Ohio

Application March 24, 1955, Serial No. 496,392
3 Claims. (Cl. 148—4)

1. A method of restoring the elastic limit and yield strength of oil well drill pipe which has been reduced due to Bauschinger effect caused by cold plastic deformation in drilling operations which comprises heat treating



said pipe within the temperature range of from 400° F. to 1250° F.

2,843,513
MIXTURE AND METHOD FOR IMPARTING A CORROSION-RESISTANT SURFACE TO ALUMINUM, ALUMINUM ALLOYS, AND SILVER

Raymond Strickler, Baltimore, Md., assignor to Allied Research Products, Inc., Baltimore, Md., a corporation of Maryland

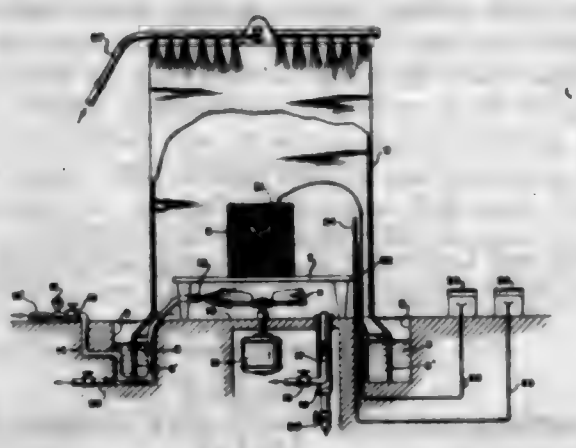
No Drawing. Application July 28, 1954
Serial No. 446,407
21 Claims. (Cl. 148—6.2)

21. An aqueous acid bath for coating aluminum and alloys thereof in which aluminum is the predominant ingredient, of the type wherein the essential coating-producing ingredients are hexavalent chromium and a soluble fluorine-bearing compound in coating-producing proportions; containing, as an addition agent, a quantity of boron (calculated as boric acid) in excess of the amount required for reaction with all of the fluorine present.

2,843,514
METHOD AND APPARATUS FOR HEAT TREATING METAL STOCK

John Henry Kunz, Jr., Waterbury, Conn., assignor to The American Brass Company, Waterbury, Conn., a corporation of Connecticut

Application June 29, 1956, Serial No. 594,750
5 Claims. (Cl. 148—13)



1. In the heat-treatment of metal stock in a bell furnace having a motor-driven fan for providing forced convection currents within the bell and around the stock as it is heated and subsequently cooled, the improvement in cooling the heat-treated stock which comprises directing a spray of water against the rotating blades of the fan, continuously introducing within the bell a stream of inert gas while simultaneously exhausting from within the bell said gas together with water vapor formed by vaporization of the water spray, and discontinuing said water spray when the temperature of the metal stock has been lowered to within the range of about 110° C. and

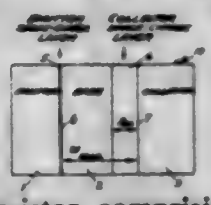
about 125° C. while continuing said introduction and exhaustion of said gas until substantially all water vapor within the bell has been exhausted.

2,843,515

SEMICONDUCTIVE DEVICES

Hermann Statz, Waltham, and Hans Scheukel, Cambridge, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application August 30, 1955, Serial No. 531,560
4 Claims. (Cl. 148—33)



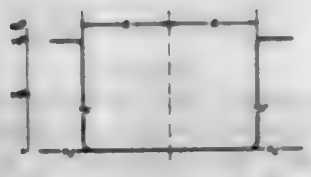
1. A junction transistor comprising a body of semiconductive material selected from the group consisting of germanium and silicon, said body having an emitter region, a base region, and a collector region, the resistivity and width of the base region between said emitter and collector regions being of such value that a voltage applied to said collector will cause an avalanche breakdown at the collector junction before said voltage causes a space-charge existing at said collector to expand and touch said emitter region whereby said junction transistor may exhibit a current amplification factor of at least unity.

2,843,516

SEMICONDUCTOR JUNCTION RECTIFIER

Adolf Herlet, Pretzfeld, Bavaria, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany

Application February 13, 1956, Serial No. 565,144
14 Claims. (Cl. 148—33)



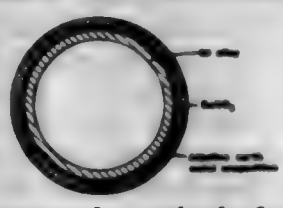
1. A p-n junction rectifier, comprising a semiconductor crystal having a donor-doped n-conductive outer zone, an acceptor-doped p-conductive outer zone, and a middle zone located between, and area-joined with, said outer zones and having lesser impurity-center defect concentration than said outer zones, the dimension of said middle zone from its center to either one of said outer zones being at most twice the high-voltage diffusion length of said semiconductor crystal in said middle zone, said defect concentration of said middle zone being below 10^{15} cm.$^{-3}$, and said outer zones having an impurity-center defect concentration smaller by not more than two powers of ten than the concentration value corresponding to the critical boundary field strength.

2,843,517

ADHERING COATINGS TO CATHODE BASE METAL

Donald R. Kerstetter and Ernest S. Wennis, Emporium, Pa., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts

Application March 24, 1955, Serial No. 496,608
8 Claims. (Cl. 154—129)



1. In the manufacture of a cathode for use in electron tubes and which cathode includes a metal base and a preformed layer of alkaline earth metal compounds, the step of interposing barium nitrate between the metal base and the layer of metal compounds.

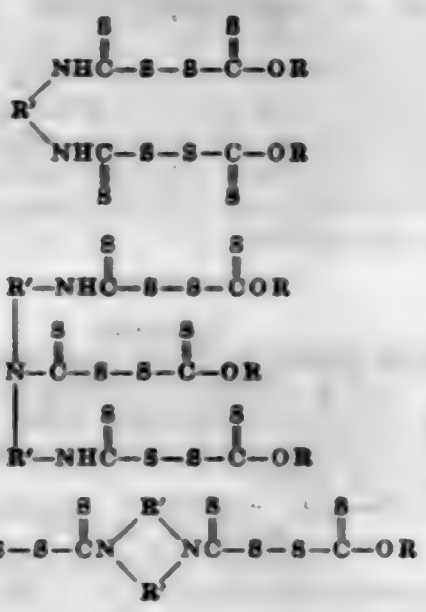
2,843,518

FUNGICIDES AND FUNGICIDAL COMPOSITIONS

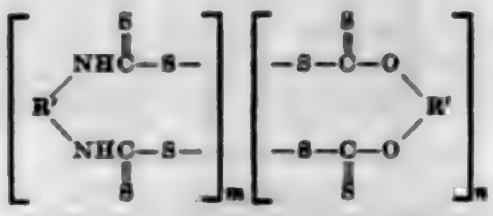
Joseph A. Lambrech, Charleston, and William H. Hensley, St. Albans, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application May 25, 1954
Serial No. 432,331
17 Claims. (Cl. 167—22)

1. As new compositions of matter, compounds of the formulae



and



where R is a member of the group consisting of monocyclic and alkyl groups containing from 1 to 8, inclusive, carbon atoms; R' is an alkylene group containing up to 6, inclusive, carbon atoms; and "*m*" and "*n*," respectively, is an integer from 0 to 4, inclusive, and the sum of "*m*+*n*" is at least 2.

3. A fungicidal composition containing from .005 to 50 parts by weight of a compound defined in claim 1 with sufficient added material to make 100 parts by weight.

2,843,519

PESTICIDAL COMPOSITIONS COMPRISING DIMETHYL CARBAMATES OF DIMETHYL AMINO AND HETERO-SUBSTITUTED METHYL PHENOLS AND METHOD OF USING SAME

Howard M. Fitch, New York, N. Y.

No Drawing. Application November 18, 1952
Serial No. 321,279
16 Claims. (Cl. 167—30)

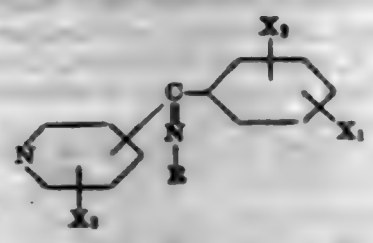
1. A pesticidal composition comprising a toxicant of the formula

$$(R)_2NOCO—A—CH_2Y$$

wherein R is a methyl group, A is selected from the group consisting of phenyl, lower alkyl substituted phenyl, nitrophenyl and chlorophenyl, and Y is selected from the group consisting of dimethylamino, N-piperidino, N-morpholino and N-pyrrolidino, and a non-phytotoxic carrier substance.

2,843,520
PRODUCTS AND PROCESS
Richard S. Kittle, Hockessin, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 25, 1956
Serial No. 593,351
9 Claims. (Cl. 167—33)

3. A compound of the formula



where X_1, X_2, and X_3 are members of the class consisting of hydrogen, lower alkyl, lower alkoxy and halogen groups, and R is a member of the class consisting of hydrogen, lower alkyl, phenyl and lower aliphatic acyl groups.

2,843,521
PHARMACEUTICAL PREPARATIONS
Durward N. Estrekin, New Brunswick, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application May 10, 1955
Serial No. 507,500
3 Claims. (Cl. 167—56)

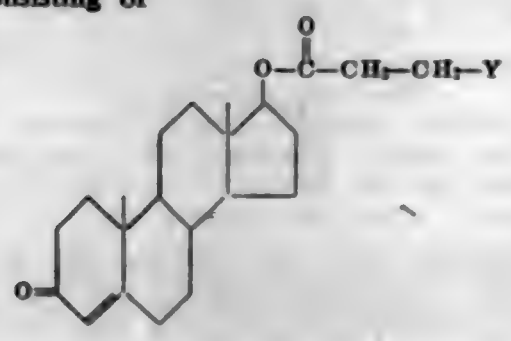
1. A pharmaceutical composition comprising magnesium hydroxide in a stiff gummy gel base, the magnesium hydroxide being present in a range of about 15% to about 60%, based on the weight of the base, and said base essentially comprising starch, glycerin and sorbitol, the glycerin and sorbitol being present in a weight ratio of one part of glycerin to about 0.2–5 parts of soribtol.

2,843,522
PERI-ANAL OINTMENT
Thomas J. Mahon, Englewood, N. J., assignor, by mesne assignments, to Sterling Drug Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application November 17, 1953
Serial No. 392,751
4 Claims. (Cl. 167—63)

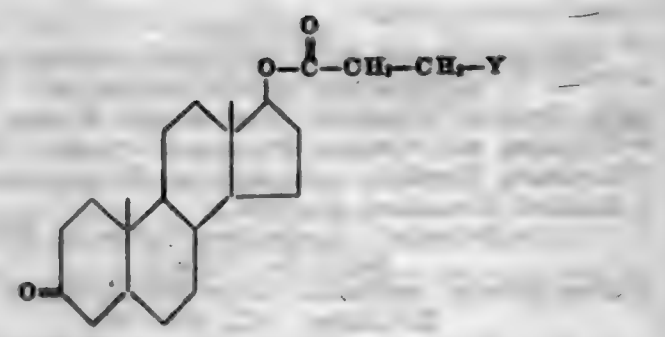
1. A water repellent peri-anal ointment comprising about 50 percent by weight petrolatum, from about 0.05 to 0.2 percent by weight para di-isobutyl cresoxy ethyl dimethyl benzyl ammonium chloride and from about 2 to 10 percent by weight calcium caseinate.

2,843,523
ANDROGENIC COMPOUNDS AND METHODS OF PREPARING THE SAME
Louis Freedman, Mount Vernon, and Seymour L. Shapiro, Hastings on Hudson, N. Y., assignors to U. S. Vitamin Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application July 7, 1955
Serial No. 520,627
8 Claims. (Cl. 167—65)

1. Androgen derivatives which are a member of the group consisting of



and



where Y is halogen.

8. Therapeutic compositions suitable for parenteral administration, comprising a sterile solution of any compound claimed in claim 1, in an non-toxic fatty ester.

2,843,524
PREPARATION OF ADRENOCORTICOTROPHIN BY ADSORPTION ON DIATOMACEOUS EARTH
Irby M. Bunding, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application December 16, 1953, Serial No. 398,625, now Patent No. 2,885,976, dated September 10, 1957, which is a division of application Serial No. 179,650, August 15, 1950, now Patent No. 2,669,536, dated February 16, 1954. Divided and this application December 28, 1956, Serial No. 631,026
3 Claims. (Cl. 167—74)

1. A process for preparing an adrenocorticotrophin substance from a solution containing the substance comprising adsorbing said substance on diatomaceous earth material at a pH above 3.0 and eluting the adsorbed substance at a pH which is lower than the adsorption pH and which is within the pH range from 1.0 to 4.5.

2,843,525
INSULIN SYNTHETIC POLY-AMINO ACID COMPLEXES
Frank Arnold Robinson, Bethnal Green, London, Walter Dickinson, Nottingham, and Vladimir Petrow and Samuel Wilkinson, London, England, assignors to Allen & Hanburys Limited, London, Boots Pure Drug Company Limited, Nottingham, The British Drug Houses Limited, London, and The Wellcome Foundation Limited, London, England, all British companies
No Drawing. Application January 23, 1953
Serial No. 333,012
11 Claims. (Cl. 167—75)

1. A prolonged acting insulin preparation comprising a complex of insulin with a synthetic poly-amino acid, said poly-amino acid having at least eight amino-acid residues and being a polymer of an amino acid selected from the group consisting of lysine, ornithine and arginine.

2,843,526
RADIOACTIVE ANTIBIOTIC
Junius F. Snell, Paterson, N. J., assignor to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application July 22, 1955
Serial No. 523,946
3 Claims. (Cl. 195—80)

1. A process for producing a radioactive tetracycline antibiotic selected from the group consisting of tetracycline, oxytetracycline and chlortetracycline, which comprises cultivating a tetracycline antibiotic producing species of Streptomyces on an aqueous nutrient medium containing less than about 10 g./l. of non-radioactive carbon, under submerged aerobic conditions for substantially between 25 and 75 hours, thereafter adding a radioactive assimilable carbon source selected from the group consisting of a C14-labelled carbohydrate, a C14-labelled fatty acid, a C14-labelled α-amino acid, a C14-labelled carbonate salt, and a C14-labelled bicarbonate salt to said medium and continuing said fermentation until substantial antibiotic activity is obtained.

2,843,527
PRODUCTION OF GRISEOFULVIN IN LOW NITROGEN LEVEL MEDIUM

Alan Rhodes, Bracknell, and Rodger Crosse, Slough, England, and Thomas Primrose Ferguson, Salisbury, Southern Rhodesia, assignors to Glaxo Laboratories Limited, Greenford, England

No Drawing. Application March 26, 1956
Serial No. 573,621
Claims priority, application Great Britain March 28, 1955
21 Claims. (Cl. 195—81)

1. In a process for the production of griseofulvin by culturing a griseofulvin-producing organism in a culture medium which will support the growth of said organism for the production of griseofulvin, the step of culturing said organism under submerged aerobic conditions in a medium including an assimilable source of nitrogen at a level of 0.04% to 0.30% of N, a source of carbon and energy, and nutrient salts.

2,843,528
PRODUCTION OF NON-CORROSIVE NAPHTHAS

William L. Jacobs, Crystal Lake, and Weldon G. Annable, Mundelein, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

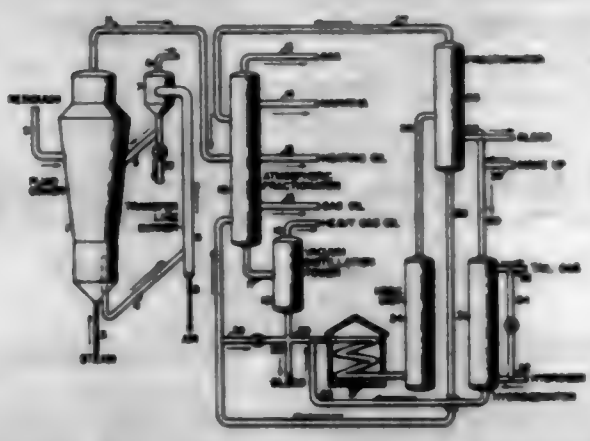
No Drawing. Application August 2, 1955
Serial No. 526,054
12 Claims. (Cl. 196—28)

1. The process for producing special solvent naphthas from petroleum hydrocarbon mixtures containing corrosive sulfur compounds which comprises separating a virgin naphtha fraction from said mixtures, subjecting said fraction to catalytic hydrodesulfurization under conditions such that hydrogen sulfide is produced, separating the hydrogen sulfide so formed to produce a hydrodesulfurized product, subjecting said hydrodesulfurized product to contact with an alkali metal polysulfide solution, separating the naphtha fraction from said solution, subjecting the naphtha fraction to contact with an alkali metal hydroxide solution and separating a naphtha product characterized by its ability to pass the distillation-corrosion test.

2,843,529
UPGRADING OF PETROLEUM OILS

Ralph M. Hill, Mountainside, and Arthur W. Langer, Jr., Nixon, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application August 17, 1954, Serial No. 450,386
1 Claim. (Cl. 196—49)

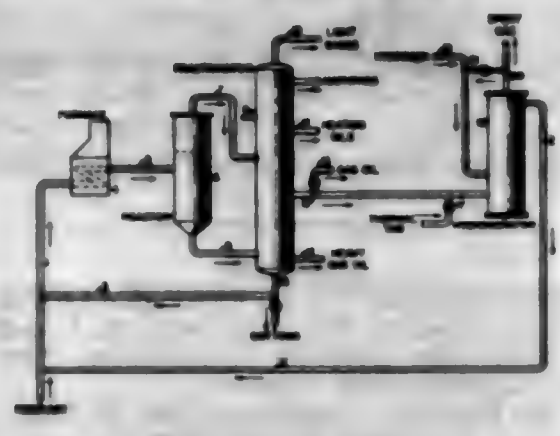


A process for upgrading heavy petroleum oils, which comprises coking an oil by contact with fluidized solids maintained at a temperature in the range of 850° to 1100° F. in a coking zone, separating the effluent therefrom in a separation zone comprising atmospheric and vacuum units to obtain product fractions and a vacuum residuum boiling above 1015° F., admixing said residuum with 0.2 to 2 vol./vol. of a hydrogen donor diluent boiling within the limits of 430° to 650° F., thermally cracking the admixture in liquid phase in the absence of catalyst, recovering a spent diluent fraction from the cracked admixture and returning the lighter portions thereof to said separation zone for further separation, partially hydrogenating said spent diluent fraction, and recycling the material so hydrogenated as said hydrogen donor diluent.

2,843,530
RESIDUUM CONVERSION PROCESS

Arthur W. Langer, Jr., Nixon, and Graham G. Wanless, Westfield, N. J., and Carl S. Carlson, Crystal Lake, Ill., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application August 28, 1954, Serial No. 451,254
4 Claims. (Cl. 196—50)

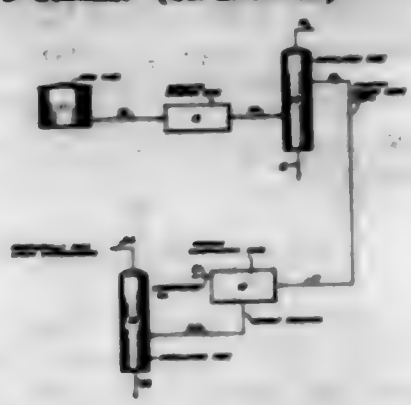


1. A hydrogen donor diluent cracking process which comprises admixing a heavy hydrogen deficient petroleum, oil with 5 to 100 vol. percent of hydrogen donor diluent comprising partial hydrogenated predominately aromatic-naphthenic hydrocarbons boiling above 430° F., the precursor of said hydrogen donor diluent being selected from the group consisting of thermal tars, catalytic cycle stocks, extracts thereof, lube oil extracts and mixtures thereof and thermally cracking non-catalytically in a thermal cracking zone the mixture at a cracking temperature in the range of 800° to 1100° F. under liquid phase conditions to obtain 80 to 98% 1000° F. conversion of said hydrogen deficient oil while continuously removing gasiform conversion products boiling below the boiling range of said diluent, whereby the ratio of unconverted hydrogen donor diluent to unconverted hydrogen deficient oils in the liquid mixture undergoing cracking is substantially increased and efficient utilization is made of unconverted hydrogen donor diluent.

2,843,531
PRODUCTION OF HIGH MOLECULAR WEIGHT AROMATICS

Hampton G. Cornell and Edward F. Wadley, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application July 15, 1954, Serial No. 443,476
3 Claims. (Cl. 196—52)



1. A method for preparing a fraction consisting essentially of cyclic compounds including the steps of catalytically cracking a petroleum gas oil fraction at a tem-

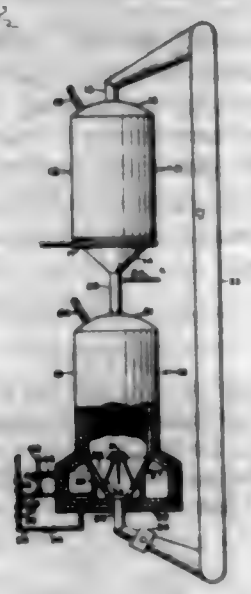
perature within the range of about 800° to 1100° F. to produce a product, distilling said product to separate therefrom a distillate fraction boiling above 650° F., contacting a charge stream consisting of said distillate fraction with liquefied normally gaseous hydrocarbon to separate an asphalt fraction therefrom containing cyclic and non-cyclic components and distilling a charge stream consisting of said separated asphalt fraction to recover a distillate fraction consisting essentially of cyclic compounds.

2,843,532

METHOD FOR CONVERTING HYDROCARBONS

Robert L. McIntire, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application December 18, 1951, Serial No. 260,837
6 Claims. (Cl. 196—55)



2. A process for the pyrolytic conversion of hydrocarbons which comprises in combination the steps of heating pebbles in a pebble heating zone to a desired reaction temperature; gravitating said pebbles into the upper end portion of a reaction zone and downwardly therethrough as a contiguous gas-pervious mass; introducing a first portion of a hydrocarbon feed in gaseous form into the lower axial portion of said reaction zone; preheating a second portion of said hydrocarbon feed to a temperature of between 750° F. and 1200° F. higher than the inlet temperature of said first said feed portion; introducing said preheated second feed portion into the lower peripheral portion of said reaction zone; passing said feeds upwardly through said hot pebble mass in direct heat exchange therewith, whereby at least a portion of each feed is raised to reaction temperature; removing resulting reaction products from the upper end portion of said reaction zone; removing said pebbles from the lower end portion of said reaction zone; and returning said pebbles through said pebble heating zone to the upper end portion of said reaction zone.

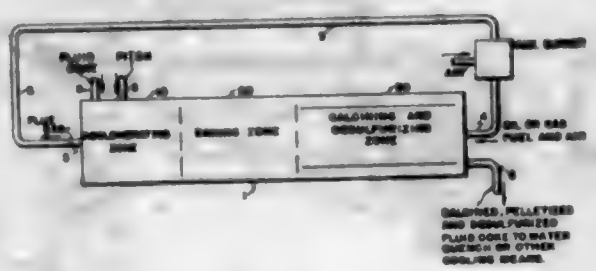
2,843,533

FLUID COKE AGGLOMERATION, CALCINATION AND DESULFURIZATION

Brook I. Smith, Elizabeth, and Fred W. Banes, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 9, 1954, Serial No. 455,039
8 Claims. (Cl. 202—22)

1. In a process for agglomerating, calcining and desulfurizing fluid coke containing a high percentage of sulfur by subjecting a charge of the fluid coke and an agglutinating carbonaceous substance to a tumbling motion on a rotary supporting surface the improvement which comprises providing a plurality of successive sections of increasing temperatures comprising in successive order an agglomerating section, a baking section and a calcining and desulfurizing section, the charge being introduced into the agglomerating section maintained at a temperature in the range of 250° to 1000° F. to effect formation of spheroidal coke agglomerates and partial carbonization of the agglutinating substance, passing the coke agglomerates to the baking section wherein they are maintained at a temperature of 1000° to 1800° F. to completely carbonize and devolatilize the agglutinating



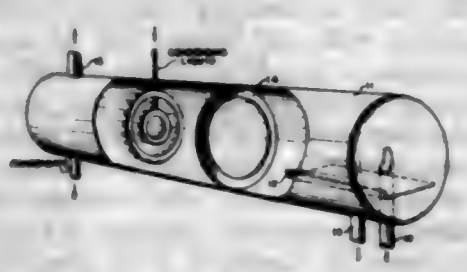
substances and passing the baked agglomerates to the calcining section wherein they are maintained at a temperature in the range of 1800° to 2700° F. by the combustion of a carbonaceous fuel material with an oxygen-containing gas for a period of time in the range of 10 minutes to 4 hours, the heat of the agglomerating and baking sections being supplied by the combustion gases evolved in the calcining section and withdrawing agglomerated and desulfurized coke product.

2,843,534

METHOD AND APPARATUS FOR FEEDING A DISTILLABLE MATERIAL INTO A DISTILLATION ZONE AND CONTROLLING FLOW OF NON-VAPORIZED LIQUID ALONG WALLS OF SAID ZONE

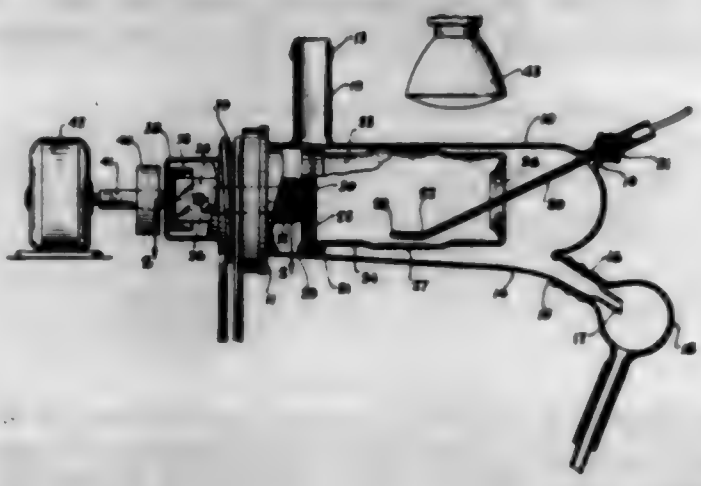
Kenneth A. Harper, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application August 4, 1953, Serial No. 372,348
15 Claims. (Cl. 202—64)



2. Apparatus for flash distilling a distillable liquid material which comprises in combination a substantially horizontally disposed elongated distillation vessel; substantially vertically and tangentially disposed feed means in communication with the inside of one end of said distillation vessel; non-vaporized residue outlet in communication with the inside of the vessel located at the bottom of the feed inlet end of said distillation vessel; distillate outlet in communication with the inside of the vessel located at the top of the vessel on the end opposite the feed inlet end of said distillation vessel; a tangential liquid flow arresting element attached to the inside wall of said distillation zone peripherally removed from the tangential feed inlet opening, said arresting element extending a substantial distance toward, but spaced from the opposite wall of said vessel; and a centrally apertured liquid impervious flow arresting means disposed in an axial direction completely around the inside wall of said distillation zone intermediate its ends to interrupt axial movement of tangential flow of introduced distillable material thereon thereby substantially retaining said liquid in said one of said vessel without substantially obstructing or altering the flow of vapors passing therethrough.

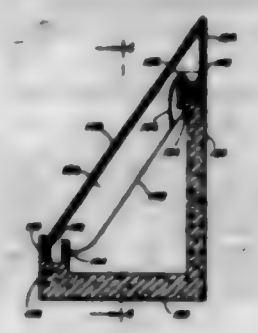
2,843,535
VACUUM STILL
Harold E. Zaugg, Waukegan, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois
Application October 21, 1953, Serial No. 387,491
1 Claim. (Cl. 202—205)



In a vacuum distillation apparatus comprising a substantially cylindrical, infra-red permeable jacket adapted to be closed at one end by abutting closure means, a planar outwardly facing flange on the open end of said jacket and adapted to abut a planar flange on said closure means, a closed end on said jacket, evacuating means for said jacket, a cylindrical vaporizing chamber closed at one end and axially disposed for rotation within said jacket, said chamber having an inwardly turned flange at the open end thereof, condensing means for converting vapors produced in said vaporizing chamber to a distillate, distillate receiving means associated with said jacket, magnetic means for rotating said chamber in response to a motor-driven magnet, and radiant heating means externally disposed of said jacket for heating said chamber; the improvements including a jacket wherein said closed end is spherical in structure and forms a stationary condensing surface, means in fluid-tight association with said closed end of said jacket to allow introduction of a thermocouple therethrough, a distillate collecting depression adjacent the bottom of said jacket, a distillate discharging member communicating with said depression, a distillate receiving member in fluid-tight engagement with said discharging member, and said vaporizing chamber having a central portion of a larger internal diameter than the end portions whereby the distilland will be collected in the central portion.

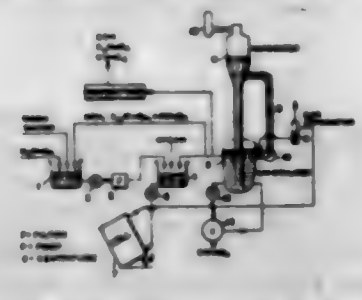
2,843,536
SOLAR STILL WITH MEANS TO CLEAN EVAPORATOR SURFACE
Wadsworth W. Mount, Chatham, N. J., assignor of nine and eight-tenths percent to each of the following: James L. Buckley, Aloise B. Heath, John W. Buckley, Priscilla L. Buckley, Jane B. Smith, William F. Buckley, Jr., Patricia B. Bozwell, Fergus R. Buckley, Maureen Buckley, and Connecticut Bank & Trust Co., guardian of the estate of Carol Buckley, and a two percent interest to C. Dean Reasoner
Application May 10, 1952, Serial No. 287,101
2 Claims. (Cl. 202—234)

1. Solar distillation apparatus including in combination an air-tight housing having a transparent condenser surface forming the upper wall of the housing, an inclined light absorbing capillary sheet mounted within the housing receiving light through said condenser surface and forming an evaporator surface, supply means for feeding salt water to the evaporator and over said evaporator to outlet means through which used salt water may flow from the housing, said supply means comprising a salt water supply trough in the upper part of the housing and extending over the edge of said capillary sheet so that overflow from said supply trough rinses the sheet, capillary wicks feeding salt water from said supply trough to the capillary sheet, means to collect condensed water from said condenser surface, an outlet from the collecting means separated from the salt water outlet means, means for raising the level of the salt water in said supply



trough to overflow the supply means for washing the evaporator surface to remove accumulated salt deposits therefrom and a barrier separating the condensed water outlet means from the salt wash water, said barrier having its upper edge above the lower end of the inclined sheet and preventing access of salt water to the condensed water as the salt water level is raised to wash the entire evaporator surface.

2,843,537
PRODUCTION OF POTASSIUM PERMANGANATE
Milton B. Carus, La Salle, Ill., assignor to Carus Chemical Company, La Salle, Ill., a corporation of Illinois
Application January 9, 1957, Serial No. 633,211
6 Claims. (Cl. 204—82)



1. The process for producing potassium permanganate which comprises providing a concentrated aqueous potassium hydroxide solution of potassium manganate, diluting the solution with aqueous potassium hydroxide product solution containing potassium manganate in a lower concentration, the potassium manganate concentration in the resulting solution being such that subsequent electrolytic oxidation produces a quantity of potassium permanganate within its solubility in the solution after oxidation, electrolytically oxidizing the resulting solution to produce an aqueous potassium hydroxide solution containing potassium permanganate in an increased concentration and potassium manganate in a decreased concentration, and crystallizing the resulting solution to produce crystals of potassium permanganate and a mother liquor being said product solution.

2,843,538
ELECTROLYTIC PROCESS FOR LEACHING PRECIOUS METALS
Ole Wilhelm Haugen, Oslo, Norway
No Drawing. Application October 1, 1954
Serial No. 459,871
4 Claims. (Cl. 204—130)

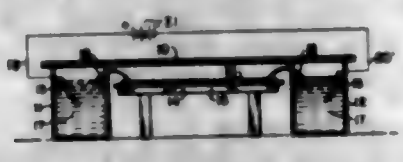
1. In a process for the recovery of precious metals, especially gold and silver, by the cyanide-leaching process, that improvement in leaching the precious metal-containing starting material in a fine state of subdivision comprising the following steps: exposing the starting material to a solution containing about 10,000 grams of an alkali

metal cyanide, 150 grams of an alkali metal hydroxide and 250 grams of slaked lime per cubic meter of said solution, in the presence of oxygen, the ratio of starting material to said solution being about between 1.5 to 1 to about 4 to 1 and simultaneously passing direct electric current at a constant voltage of from 6 to 8 volts through said solution for a period of about 4 to 8 hours with a current consumption of about 1 to 2 amperes per ton of dry starting material, whereby said starting material is leached of its precious metal-containing values in accordance with the equation below, exemplified by gold:

2,843,539
SAMARIUM COMPENSATOR METHOD FOR NUCLEAR REACTOR FUEL
Ira Bernstein, Balboa, Calif., assignor to North American Aviation, Inc.
No Drawing. Application May 16, 1955 Serial No. 508,790
3 Claims. (Cl. 204—154.2)

1. The method of compensating for the excess reactivity provided in a thermal nuclear reactor during the period of samarium-149 build-up comprising initially distributing in a predetermined pattern a mass of natural samarium to provide in the core of said reactor a mass of samarium-149 substantially equal to the mass of steady state samarium-149 in said reactor.

2,843,540
METHOD OF ELECTROPHORESIS OF SERUM PROTEINS
Newton Ressler, Detroit, Mich.
Application June 6, 1956, Serial No. 589,785
1 Claim. (Cl. 204—180)

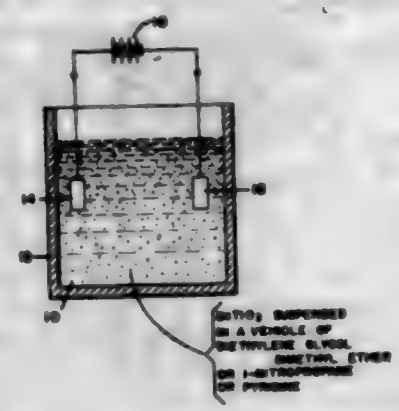


The method of electrophoresis which consists of separately positioning and spacing a pair of confined buffer solutions, supporting throughout the distance between said solutions and at the same level an elongated liquid film of said buffer solution stabilized by the addition thereto of a quantity of a gelling agent while retaining its liquidity, said gelling agent being agar-agar, the proportion of which to the buffer solution in the film ranging between .07–.2% by weight, establishing a closed electrical circuit between the buffer solutions and the ends of said film, immersing a small quantity of migrant solution to be analyzed in said film near one end thereof, continuously passing a direct current of approximately 1–6 volts for each centimeter of distance between the buffer solutions, through the said buffer solution and film for a predetermined number of hours, and maintaining throughout a humid air tight atmosphere continuously around said film to prevent evaporation thereof.

2,843,541
ELECTROPHORETIC DEPOSITION OF BARIUM TITANATE
Seymour Senderoff, Rocky River, Ohio, and Walter E. Reid, Jr., Washington, D. C.
Application May 17, 1956, Serial No. 585,593
9 Claims. (Cl. 204—181)
(Granted under Title 35, U. S. Code (1952), sec. 266)

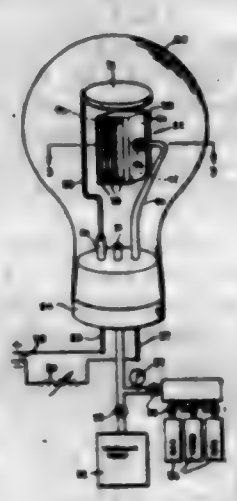
1. The method of coating metal objects with barium titanate comprising: mixing finely ground barium titanate with a vehicle selected from the group consisting of diethylene glycol dimethyl ether, 1-nitropropane, and pyridine, and then coating a metal object with the barium titanate by electrophoresis.

6. An electrophoretic bath for coating metal objects with barium titanate comprising: finely ground barium titanate particles, and a vehicle mixed with said particles



to form a colloidal dispersion, said vehicle being selected from a group consisting of diethylene glycol dimethyl ether, 1-nitropropane, and pyridine.

2,843,542
METHOD AND APPARATUS FOR PRODUCING IMPROVED ABRADING CONTOURS
George F. Callahan, Nashville, Tenn.
Application February 23, 1956, Serial No. 567,358
8 Claims. (Cl. 204—192)

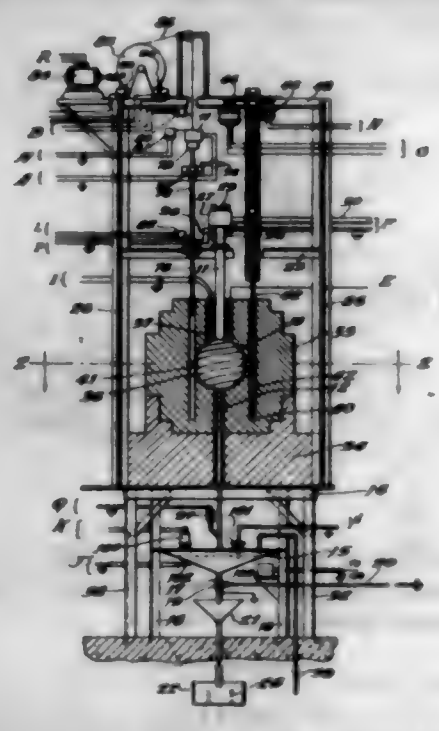


1. A method for producing an improved abrading contour on cutting tools and wear resistant machine parts comprising the steps of heating the actuation areas of the tools and parts by means of a gaseous discharge in a reaction gas to coat the actuation areas with infrangible material, the actuation area of each tool and part being the cathode electrode for the gaseous discharge, and sputtering off a portion of the coating material on the actuation area by means of a gaseous discharge in an inert gas to shape the coating material to the desired contour.

2,843,543
NEUTRONIC REACTOR
Robert F. Christy, Santa Fe, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application October 19, 1945, Serial No. 623,363
25 Claims. (Cl. 204—193.2)

1. A neutronic reactor comprising a vessel having all dimensions from its center to its wall of about 6 inches, a liquid, said vessel substantially filled with said liquid, said liquid comprising an ordinary water solution of a soluble salt of uranium, said uranium having at least about one percent by weight of the fissionable isotope U^{233}, said solution having a concentration of greater than about 10^{-3} atoms of said fissionable isotope per molecule

of water, the quantity of fissionable isotope in solution being in excess of about 500 grams and sufficient to pro-



vide a critical mass in said vessel, and a neutron reflector substantially surrounding said vessel.

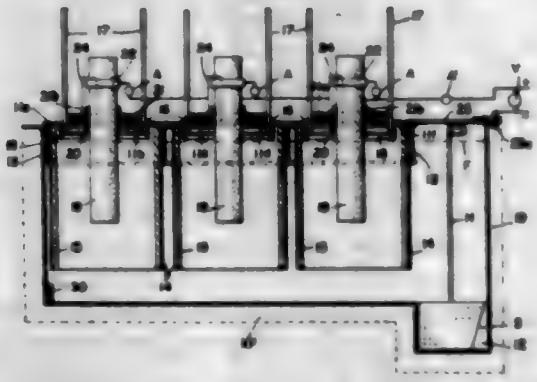
2,843,544

APPARATUS FOR THE CONTINUOUS PRODUCTION OF METALLIC BERYLLIUM

Simon J. Morana, Reading, Pa., assignor to The Beryllium Corporation, Reading, Pa., a corporation of Delaware

Application December 22, 1955, Serial No. 554,796

7 Claims. (Cl. 204—227)



1. Apparatus for the continuous production of beryllium comprising a tank having top, bottom and side walls, a vertically disposed, rod-like anode rigidly supported from the top wall for projection downwardly into said tank, a vertically disposed cylindrical cathode shell rigidly suspended for projection downwardly into said tank in spaced relation to the tank side walls and in spaced concentric surrounding relationship with the said anode, the shell having its lower end open and spaced from the bottom wall of the tank, an electric power source connected to said cathode and anode for electrolyzing a beryllium containing electrolyte in which the cathode and anode are suspended for passage of electric current therebetween through beryllium containing electrolyte to effect formation of beryllium dendrites on the inner wall of said cathode, a ring surrounding said anode and having its periphery disposed closely adjacent to the inner wall of the associated cathode, and means operatively connected to said ring for effecting vertical movement of the ring to remove beryllium dendrides from the wall of the cathode for discharge through the open bottom of the electrode shell during operation of the cell.

2,843,545

SECONDARY OIL RECOVERY BY WATER FLOODING OPERATIONS

Paul A. Wolf, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 12, 1956 Serial No. 558,618

2 Claims. (Cl. 252—8.55)

1. A flooding process for recovering oil from an oil bearing stratum in an earth formation which comprises injecting into the stratum a flooding water containing a water-soluble condensation product obtained by the reaction of from 2.0 to 3.5 molecular proportions of formaldehyde with 1.0 molecular proportion of an aliphatic polyamine having the general formula:

$$H_2N—(—C_nH_{2n}NH—)_x—H$$

wherein n is an integer of from 2 to 3, inclusive, and x is an integer from 1 to 4, inclusive.

2,843,546

LUBRICANT

Wilhelm Dietrich, Fritz Wetter, and Hans Joachim Mertens, Marl, Westphalia, Germany, assignors to Chemische Werke Hüls Aktiengesellschaft, a corporation of Germany

No Drawing. Application August 3, 1953 Serial No. 372,147

Claims priority, application Germany August 13, 1952

1 Claim. (Cl. 252—48.2)

Lubricating composition comprising a lubricant vehicle consisting of mineral oil and about 1% to 10% by weight of a polyalkylene glycol xanthic acid derivative of the general formula

$$R—O—\left[(CH_2)_m—O\right]_n—\underset{\underset{S}{\|}}{C}—S—\left[(CH_2)_p—O\right]_q—X$$

in which R stands for an aliphatic, cycloaliphatic, araliphatic, aromatic, heterocyclic and acyl residue, X stands for a member of the group consisting of hydrogen and ether and ester radicals, n and q are whole numbers from 1 to 20 and m and p are whole numbers from 2 to 4.

2,843,547

ORGANO-METALLIC COMPOUND AND LUBRICATING COMPOSITIONS CONTAINING THE SAME

Thaddeus W. Calmer, Robinson, Ill., assignor to Hall Stewart, Danville, Ill.

No Drawing. Application January 19, 1955 Serial No. 482,888

11 Claims. (Cl. 252—49.7)

1. A lubricating composition comprising a hydrocarbon oil and from 0.02–0.10% by weight of the oil of an organo-metallic compound having substantially the formula MoR_n wherein R is a member of the class consisting of phenyl groups, naphthyl groups, and alkyl substituted phenyl and naphthyl groups wherein each alkyl group has from 1 to 4 carbon atoms, and n is a small whole number of 2–4, inclusive.

7. As a new compound, an organo-metallic compound having substantially the formula MoR_n wherein R is a member of the class consisting of phenyl groups, naphthyl groups, and alkyl substituted phenyl and naphthyl groups wherein each alkyl group has from 1 to 4 carbon atoms, and n is a small whole number of 2–4, inclusive.

2,843,548

RUST PREVENTIVE AVIATION OIL

Roy A. Wentlund, Jr., Linden, and Robert W. Scott, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application October 1, 1954
Serial No. 459,549
1 Claim. (Cl. 252—56)

An aviation engine lubricant composition consisting essentially of about 79 wt. percent of a base oil, obtained by blending 60% by weight of a dewaxed distillate mineral lubricating oil having a viscosity of 50 S. S. U. at 210° F., and 40% by weight of a dewaxed cylinder oil having a viscosity of about 210 S. S. U. at 210° F.; about 9 wt. percent of polyisobutylene having a molecular weight of approximately 14,000, the combination of said mineral lubricating oil and said polyisobutylene having a viscosity of about 115 S. S. U. at 210° F.; about 7 wt. percent of a microcrystalline wax having a melting point of about 189° F. obtained by de-oiling petrolatum produced from solvent dewaxing of cylinder oils and bright stocks; and about 5 wt. percent of sorbitan monooleate.

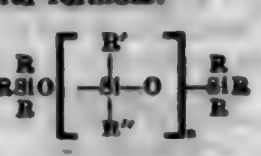
2,843,549

ANTI-SEEP AGENT

William H. Harwood and Warren W. Woods, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

No Drawing. Application August 12, 1954
Serial No. 449,524
8 Claims. (Cl. 252—72)

1. The method of imparting anti-seepage properties to an aqueous ethylene glycol composition which comprises incorporating in said aqueous composition an anti-seep agent, comprising on a weight basis 95 to 99.8 percent of a water insoluble petroleum hydrocarbon boiling within the range of 300 to 630° F.; a non-ionic emulsifying agent wherein said non-ionic emulsifying agent is an ester of a polyhydroxy alcohol with a higher fatty acid, .1 to 2.0 percent; and a liquid organic silicon compound, .1 to 3.0 percent of the general formula:



in which R, R', and R'' represent alkyl, aryl, and alkoxy radicals and *n* represents zero and positive integers and wherein said organic silicon compound is soluble in said petroleum hydrocarbon and insoluble in water in an amount corresponding from about 1 to 3 parts of said anti-seep agent per 100 parts of said aqueous composition.

2,843,550

SYNTHETIC DETERGENT COMPOSITIONS

Richard D. Stayner, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application March 2, 1954
Serial No. 413,713
5 Claims. (Cl. 252—152)

1. A detergent composition consisting essentially of alkali metal salts of sulfated C_2–C_3 alkylolamides of C_{14}–C_{18} hydrogenated tallow fatty acids, alkali metal C_9–C_{18} monoalkyl benzene sulfonate detergent, the former being present in an amount, by weight, of about 15% to 50%, and the latter, 50% to 85%, by weight, of the total of the two, and as a foam-improving agent, about 5% to 70%, by weight, based on the sulfated alkylolamide salt, of a normal, saturated C_{16}–C_{18} aliphatic alcohol.

2,843,551

DEFOAMING COMPOSITION

Francis J. Leonard, Woodside, N. Y., and Arthur De Castro, Irvington, and Thomas F. Groll, Jr., Elizabeth, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application September 20, 1954
Serial No. 457,292
10 Claims. (Cl. 252—358)

1. A defoaming composition consisting essentially of from about 40% to about 80% by weight of a liquid, aliphatic hydrocarbon having a boiling point of at least 150° F., from about 3% to about 12% by weight of an ester of a polyethylene glycol having a molecular weight which is greater than about 400 and an aliphatic carboxylic acid having a carbon chain length of from about 12 to 22 carbon atoms, from about 10% to about 20% by weight of an aliphatic carboxylic acid having a carbon chain length of from about 6 to 22 carbon atoms, from about 1% to about 10% by weight of a hydrocarbon-soluble organo-polysiloxane having from 1 to 3 alkyl radicals per silicon atom, said radicals being selected from the group consisting of methyl, ethyl, propyl and butyl radicals, and the balance of the composition comprising substantially water.

2,843,552

PREPARATION OF ATTRITION-RESISTANT CHROMIA-CONTAINING CATALYST

Charles H. Lechthaler, Woodbury, and William A. Stover, Pitman, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application April 1, 1953, Serial No. 346,062
13 Claims. (Cl. 252—455)

1. In a method for preparing a gel consisting essentially of chromia and at least one oxide selected from the group consisting of alumina, zirconia, magnesia, silica, titania, molybdena, and manganese oxide, the improvement which comprises drying a hydrogel of the aforementioned composition until shrinkage thereof is substantially complete, tempering the dried hydrogel by heating in a non-oxidizing atmosphere at a rate not in excess of about 4° F. per minute to a temperature in the approximate range of 600° F. to 1200° F. until the gel is substantially free of moisture and thereafter subjecting the tempered gel in a dry oxidizing atmosphere containing less than about 10 percent by volume of steam to a temperature in the approximate range of 1200° F. to 1500° F. for a period of at least ½ hour but not exceeding about 96 hours.

2,843,553

BLEND OF DEXTRAN-MODIFIED POLYESTER RESINS WITH METALLO-ORGANO COMPLEXES

Elwood P. Wenzelberger, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

No Drawing. Application January 17, 1955
Serial No. 482,414
4 Claims. (Cl. 260—17.4)

1. As a new composition of matter, a blend of (I) a polyester resin obtained by mixing from 30 to 75% by weight of a substance selected from the group consisting of unsaturated polycarboxylic acids and anhydrides thereof, 15 to 60% by weight of a polyhydric alcohol selected from the group consisting of glycerol and ethylene glycol, and 5 to 25% by weight of a dextran, and heating the resultant mixture at a temperature of 50° C. to 300° C. until a clear, resinous liquid reaction product is produced, and (II) a metallo-organic complex obtained by reacting at 150° C. (*a*) 4.7% to 5.0% by weight of a compound from the group consisting of oxides, hydroxides and salts of a metal from the group consisting of zinc, cadmium, magnesium and lead,

(*b*) 70% to 87.4% by weight of a phenol, and (*c*) 7.9% to 25% by weight of a nitrogen-containing compound of the group consisting of ammonia, ammonium hydroxide and alkylene polyamines.

2,843,554

READY-MIXED ALUMINUM COATING COMPOSITIONS AND ARTICLES COATED THEREWITH

Clyde G. Murphy, Springfield, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 6, 1954
Serial No. 421,441
7 Claims. (Cl. 260—18)

1. A ready-mixed aluminized liquid coating composition characterized by package stability during lengthy storage and retention of leafing value during said storage, comprising an oleoresinous esterified polyether resin, fine particle size leafing-type aluminum pigment in the proportion of 30 to 100 parts for each 100 parts of said esterified polyether resin, and a volatile hydrocarbon solvent for said esterified polyether resin, said aluminum pigment having a fineness corresponding to at least 99.9% passage through a 325 mesh screen and at least 98% passage through a 400 mesh screen and further characterized by an average leafing value of at least 65% measured with a 1.5 gram sample of pigment paste having a non-volatile content of 65% and at least 60% when measured with a 1 gram sample of dry aluminum powder, said oleoresinous esterified polyether resin comprising the esterification product of a mixture of higher fatty acids containing a preponderance of polyethenoid higher fatty acids, rosin acids and an esterifiable polyether resin, said polyether resin comprising the condensation product of a chlorohydrin reacted with a bis (4 hydroxyphenyl) alkane, said chlorohydrin being a member of the group consisting of epichlorohydrin and glyceroldichlorohydrin.

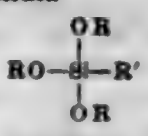
2,843,555

ROOM TEMPERATURE CURING ORGANOPOLYSILOXANE

Charles A. Berridge, Cohoes, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application October 1, 1956
Serial No. 612,952
8 Claims. (Cl. 260—18)

1. The cured composition obtained from a mixture of ingredients comprising (1) a linear, fluid organopolysiloxane containing terminal silicon-bonded hydroxy groups convertible to the cured, solid, elastic state and having a viscosity of from 1,000 to 50,000 centipoises when measured at 25° C., the organic groups of the aforesaid organopolysiloxane being selected from the class consisting of monovalent hydrocarbon radicals and halogenated aryl radicals attached to silicon by carbon-silicon linkages, (2) an alkyl silicate selected from the class consisting of (*a*) monomeric organosilicates corresponding to the general formula



where R and R′ are members selected from the class consisting of alkyl groups and halogen-substituted alkyl groups, and R′, in addition, represents a member selected from the class consisting of aryl, aralkyl, alkaryl, alkoxy, aryloxy groups, and halogenated derivatives of the aforesaid aryl, aralkyl, alkaryl, alkoxy and aryloxy groups and (*b*) liquid partial hydrolysis products of the aforementioned organosilicate monomeric compounds, and (3) a metallic salt of an organic monocarboxylic acid in which the metal ion is selected from the class consisting of lead, tin, zirconium, antimony, iron, cadmium, barium, calcium, titanium, bismuth and manganese.

2,843,556

ENHANCING POT LIFE OF POLYMERIZABLE COATING COMPOSITIONS

Robert W. Moorman, Springdale, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

No Drawing. Application May 9, 1955
Serial No. 507,155
12 Claims. (Cl. 260—28.5)

1. A resinous composition comprising a mixture of (A) a polyester of a dihydric alcohol and an alpha-beta ethylenically unsaturated dicarboxylic acid, (B) a monomer containing a $CH_2=C<$ group, the monomer being present in an amount of about 5 percent to 50 percent by weight based upon the polyester-monomer mixture, and (C) about 0.5 percent to 12 percent by weight of water based upon the total weight of said interpolymerizable components.

2,843,557

COMPOSITION CONTAINING EPOXY RESIN, POLYVINYL CHLORIDE, AND PLASTICIZER

Moyer M. Safford, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application March 8, 1955
Serial No. 493,857
4 Claims. (Cl. 260—30.6)

1. A composition of matter consisting of an admixture of (1) 10–40% of a plasticizer, (2) 5–20% of a mixture of a glycidyl polyether of a dihydric phenol and a polyamide having at least two active amido hydrogens per molecule and wherein the amide group is attached directly to another carbon atom, and (3) 50–70% of polyvinyl chloride, the sum of (1), (2), and (3) being equal to 100%.

2,843,558

COMPOSITIONS COMPRISING ACRYLONITRILE POLYMERS AND DIAMIDES

Yoshisato Fujisaki, Kochi-shi, Kochi-ken, and Hidehiko Kobayashi, Fukuokason, Ena-gun, Gifu-ken, Japan, assignors to Asahi Kasei Kogyo Kabushiki Kaisha, Kita-ku, Osaka, Japan, a corporation of Japan

No Drawing. Application August 21, 1953
Serial No. 375,825
Claims priority, application Japan June 8, 1953
15 Claims. (Cl. 260—32.6)

1. A new composition of matter comprising a polymer of acrylonitrile containing in the polymer molecule at least 85% by weight of acrylonitrile and a compound taken from the class consisting of benzoyl dimethylamide and phthaloyl tetramethyldiamide.

2,843,559

HEAT-RESISTANT ENAMELING PAINT CONTAINING SILICONE RESIN

Murray Kornbluth, New York, N. Y., assignor to the United States of America as represented by the Secretary of the Army

No Drawing. Application December 2, 1957
Serial No. 700,337
12 Claims. (Cl. 260—33.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A high-temperature resistant enameling paint for producing a vitreous enamel anti-corrosion coating on ferrous metal shapes at elevated temperatures, which comprises a vehicle consisting essentially of a silicone polymer varnish for providing a high heat-resisting binder film, and a refractory frit as a pigment base for the paint, the said frit being an aggregate of a plurality of frits having step-wise increasing melting points between approximately 1050° F. and approximately 1600° F. to provide when fused a vitreous enamel coating for the ferrous shape to be protected.

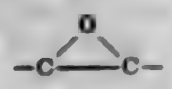
2,843,560

CURED SILICON-CONTAINING PRODUCTS PREPARED FROM POLYEPOXIDES

Thomas F. Mika, Orinda, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application April 30, 1954
Serial No. 426,909
2 Claims. (Cl. 260—42)

2. A silicon-containing resinous product obtained by reacting a polyepoxide containing at least two groups of configuration



which groups are the only reactive groups in the polyepoxide, with a diarylsilanediol.

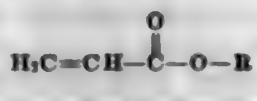
2,843,561

COMPOSITIONS OF INTERPOLYMERIZED VINYL AROMATIC HYDROCARBONS, ACRYLIC ACID ESTERS AND RUBBERY BUTADIENE-STYRENE COPOLYMERS AND METHOD OF MAKING SAME

Francis L. Ingley, Midland, and Daniel Moldovan, Rhodes, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 29, 1955
Serial No. 497,341
8 Claims. (Cl. 260—45.5)

1. A resinous transparent polymeric composition of matter which comprises an interpolymerized solution of from 90 to 95 percent by weight of a mixture of monomers consisting of from 50 to 60 percent by weight of at least one monovinyl aromatic hydrocarbon of the benzene series and from 50 to 40 percent of at least one ester of acrylic acid having the general formula:



wherein R represents an alkyl radical containing from one to four carbon atoms, and from 10 to 5 percent by weight of at least one soluble unvulcanized butadiene copolymer containing in chemically combined form from 40 to 80 percent by weight of butadiene and from 60 to 20 percent of styrene.

2,843,562

CROSS-LINKED GRAFT COPOLYMERS OF VINYL CHLORIDE AND POLYVINYL ALCOHOLS AND PROCESS FOR PREPARING SAME

John R. Caldwell, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application May 29, 1956
Serial No. 587,962
10 Claims. (Cl. 260—45.5)

1. A resinous graft copolymer of (1) from 25 to 49.5% by weight of a vinyl chloride member selected from the group consisting of (*a*) vinyl chloride and (*b*) a mixture consisting of at least 80% by weight vinyl chloride and the remainder of a vinyl ester of a saturated fatty acid of 1 to 4 carbon atoms, (2) from 74.7 to 49.5% by weight of a preformed polymer selected from the group consisting of polyvinyl alcohol and a partially hydrolyzed polyvinyl acetate wherein at least 75% of the vinyl acetate units have been converted to vinyl alcohol units, and (3) from 0.3 to 1% by weight of a cross-linking agent selected from the group consisting of divinylbenzene, diallyl phthalate, triallyl cyanurate, allyl acrylate and ethylene glycol diacrylate, and wherein the said vinyl chloride member and the said cross-linking agent are combined by addition polymerization with the said preformed polymer to give the said graft copolymer.

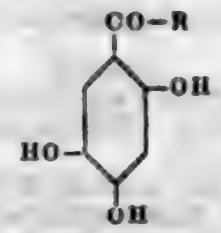
2,843,563

POLYETHYLENE COMPOSITIONS STABILIZED WITH ACYL DERIVATIVES OF 1,2,4-TRIHYDROXYBENZENE

Alan Bell, M B Knowles, and Clarence E. Tholstrup, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application January 27, 1955
Serial No. 484,589
8 Claims. (Cl. 260—45.95)

1. A stabilized polyethylene composition containing from about 0.001 to about 1 percent by weight of an antioxidant compound selected from the group consisting of those having the following formula:



wherein R represents a member selected from the group consisting of an H atom, an alkyl radical containing from 1 to 20 carbon atoms, an alicyclic radical containing from 6 to 20 carbon atoms, an alkenyl radical containing from 2 to 20 carbon atoms, an aromatic radical containing from 6 to 20 carbon atoms and a furyl radical.

2,843,564

CONDENSATION PRODUCTS

Heinz Schultheis, Leverkusen-Bayerwerk, and Detlef Delfs, Opladen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application December 7, 1954
Serial No. 473,748
16 Claims. (Cl. 260—49)

7. As new products the water-soluble condensation products from 1 mol of sulfonic acids of aromatic hydrocarbons containing at least two condensed nuclei, said sulfonic acids being selected from the group consisting of monosulfonic acids, disulfonic acids and mixtures thereof, 0.2–3 mol of a saturated lower aliphatic aldehyde and 0.1–1.5 mol of an o-chlorophenol in which at least one of the ring positions o- and p- is a free position, and 0.1–1 mol of another substituted phenol selected from the group consisting of p-chlorophenol, nitrophenols, 3-chloro-4-nitrophenol, salicylic acid methyl ester, β-naphthol, 1,3-xylenol-4, 1,4-xylenol-5, and 1,2-xylenol-3, said condensation products having been prepared by conducting the condensation in a strongly acid medium until the resulting products are water-soluble.

2,843,565

BUTENYL PHENOL-ALDEHYDE RESINS

Roger M. Christenson, Whitefish Bay, and Lowell O. Cummings and Alfred R. Bader, Milwaukee, Wis., assignors to Pittsburgh Plate Glass Company

No Drawing. Application November 3, 1953
Serial No. 390,088
4 Claims. (Cl. 260—53)

1. A light colored resinous material comprising the product of the acidic condensation of an aldehyde containing only atoms of carbon, hydrogen, and oxygen, with a mixture of butenylphenols containing about 55 percent to 85 percent by weight of ortho- and para-monobutenylphenols, and 15 percent to 45 percent by weight of di- and tributenylphenols.

2,843,566

ALKENYLPHENOL-ALDEHYDE

Roger M. Christensen, Whitefish Bay, and Lowell O. Cummings and Alfred R. Basler, Milwaukee, Wis., assignors to Pittsburgh Plate Glass Company

No Drawing. Application November 3, 1953
Serial No. 390,889
8 Claims. (Cl. 260—53)

1. A light colored resinous material comprising the product of the alkaline condensation of an aldehyde containing only atoms of carbon, hydrogen, and oxygen, with a mixture of butenylphenols containing about 55 percent to 85 percent by weight of ortho- and para-monobutenylphenols, and about 15 percent to 45 percent by weight of di- and tri-butenylphenols.

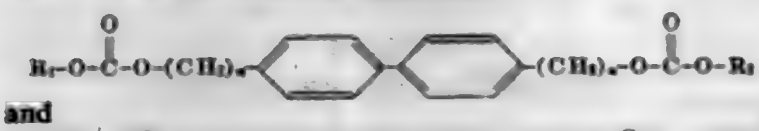
2,843,567

ALKALINE EARTH METAL TITANIUM ALKOXIDE CATALYSTS FOR PREPARING AROMATIC POLYCARBONATES

Jack L. R. Williams and Kenneth R. Dunham, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 20, 1954
Serial No. 476,546
10 Claims. (Cl. 260—77.5)

1. A process for preparing a highly polymeric linear polycarbonate comprising (A) self-condensing a bis-(carbonate) monomer selected from the group consisting of those having the following formulas:



and



wherein R_1 and R_2 each represents a radical selected from the group consisting of lower alkyl radicals containing from 1 to 4 carbon atoms and aryl radicals of the benzene series containing from 6 to 8 carbon atoms and n represents a positive integer of from 2 to 6, (B) in the presence of an ester-interchange catalyst selected from the group consisting of those having the following formula:

$$M(OR)_2Ti(OR)_4$$

wherein M represents a metal selected from the group consisting of magnesium, calcium and strontium and each R represents an alkyl radical containing from 1 to 18 carbon atoms, (C) at an elevated temperature which volatilizes R_1 and R_2 carbonates, (D) the condensation being conducted in an inert atmosphere and (E) the condensation being conducted at a pressure below 15 mm. of mercury pressure during the portion of the condensation following the substantially complete removal of the R_1 and R_2 carbonates volatilized during the earlier part of the condensation.

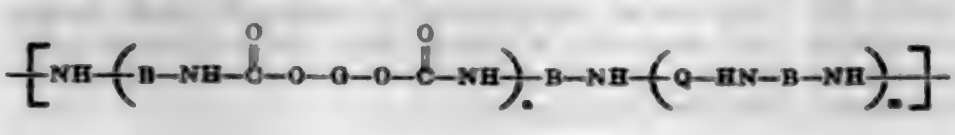
2,843,568

POLYMERIC POLYETHER-POLYURETHANES

Anthony F. Benning, Woodstown, N. J., James G. Burt, Lincoln University, Pa., and Edward K. Gladding, New Castle, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 31, 1955
Serial No. 485,288
19 Claims. (Cl. 260—77.5)

9. A polymer being comprised essentially of structural units having the formula



wherein O—G—O is a long-chain bivalent organic radical having a formula weight of at least 748 and consisting of a plurality of smaller bivalent hydrocarbon radicals linked to one another by chalcogen atoms of atomic weight less than 33, the majority of the said smaller bivalent hydrocarbon radicals being alkylene radicals having up to 10 carbon atoms with at least one of the said smaller bivalent hydrocarbon radicals containing an intralinear carbocyclic ring structure; B is a bivalent organic radical, said radical being inert to isocyanate groups; Q is a radical selected from the group consisting of a carbonyl radical and a nonpolymeric diacyl radical; n is an integer greater than zero; and m is an integer including zero; each of the said structural units being connected to the next by a radical Q having the significance defined above; at least 35% of the total weight of the polymer being the bivalent radicals O—G—O.

2,843,569

ELASTOMERIC POLYURETHANE COMPOSITIONS CONTAINING SIDE CHAIN ALKYLOL GROUPS

Anthony F. Benning, Woodstown, N. J., and Edward K. Gladding, New Castle, Del., assignors to E. I. du Pont de Nemours and Company, a corporation of Delaware

No Drawing. Application August 4, 1955
Serial No. 526,565
6 Claims. (Cl. 260—77.5)

1. Polymeric polyurethanes consisting essentially of substantially equimolar amounts of (1) radicals obtained by removing the terminal chlorine atoms from bis-chloroformates alternating with (2) radicals obtained by removing a hydrogen atom from each of the nitrogen atoms of a diamine, said diamine having at least one primary amine group; with at least 60% of the total weight of the polymer being the polymeric radicals obtained by removing the terminal chlorine atoms from bis-chloroformates having molecular weights of at least 875 and being selected from the class consisting of polyalkyleneether bis-chloroformate, polyalkyleneether-thioether bis-chloroformate, polyalkylenearyleneether bis-chloroformate and polyurethane bis-chloroformate; said polymeric polyurethanes having attached to at least one of the radicals obtained from the diamine a side chain bearing a CH_2OH group, said side chain occurring at least once for every 8000 molecular weight units of said polymeric polyurethane.

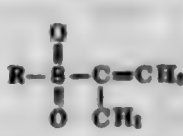
2,843,570

ALKYL AND ARYL ISOPROPENYL SULFONES AND POLYMERS THEREOF

Harry W. Coover, Jr., and Hubert M. Hill, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 31, 1953
Serial No. 377,719
7 Claims. (Cl. 260—79.3)

1. A polymer of a compound having the following formula:



wherein R represents a substituent selected from the group consisting of an alkyl radical containing 1 to 6 carbon atoms and an aryl radical of the benzene series containing from 6 to 9 carbon atoms, which polymer is characterized by high molecular weight and can readily be spun into filaments which exhibit toughness, high tensile strength and high impact strength.

2,843,571

INHIBITION OF POLYMERISATION REACTION

Arthur Middleton Eastham, Ottawa, Ontario, Canada, assignor to Polymer Corporation Limited, Sarnia, Ontario, Canada, a corporation of Canada

No Drawing. Application September 8, 1953
Serial No. 379,086
7 Claims. (Cl. 260—82.1)

1. In the aqueous emulsion polymerisation of compositions selected from the group consisting of butadiene and admixtures of butadiene with a copolymerisable compound the improvement which comprises substantially terminating the polymerization reaction by the addition of an emulsion prepared by emulsifying in water a solution of 2,5-ditertiary buty hydroquinone in a solvent selected from the group consisting of n-octyl alcohol and diisobutyl ketone.

2,843,572

PREPARATION OF VINYLIDENE CHLORIDE INTERPOLYMERS OF IMPROVED SOLUBILITY

Willis C. Wooten, Jr., and Donald J. Shields, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 30, 1954
Serial No. 478,885
7 Claims. (Cl. 260—85.5)

1. The process for producing interpolymers consisting essentially of 5–95% by weight of vinylidene chloride and 95–5% by weight of one different polymerizable monoethylenic monomer, characterized by improved solubility characteristics, which consists in continuously and progressively introducing into a single polymerizing zone under polymerizing conditions incremental portions of (1) monoethenoid monomeric material consisting of vinylidene chloride and a different monomer from the group consisting of acrylonitrile and methacrylonitrile, (2) an aqueous polymerization medium and (3) polymerization catalyst, maintaining each increment of the resulting admixture in said polymerizing zone, while maintaining said polymerizing conditions substantially unchanged, for a time sufficient to effect substantial interpolymerization of said vinylidene chloride and said different monomer, and continuously and progessively withdrawing a dispersion of interpolymer product from said polymerization zone at a rate correlated to the total rate of addition of (1), (2) and (3) whereby the admixture in said polymerizing zone remains substantially unchanged in composition during said continuous introducing of (1), (2) and (3) and said continuous withdrawing of product, said continuous and progressive introducing of each of (1), (2) and (3) being continued at a constant rate substantially throughout the polymerization, said vinylidene chloride and said different monomer being introduced in a constant ratio within the range of 5 to 95% by weight of said vinylidene chloride and from 95 to 5% by weight of said different monomer.

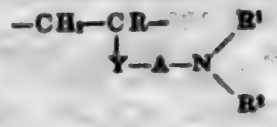
2,843,573

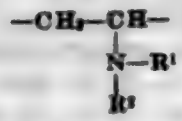
NEW QUATERNARY AMMONIUM COMPOUNDS IN WHICH THE NITROGEN ATOM CARRIES AN ALKOXYMETHYL GROUP

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

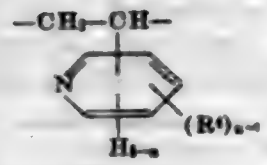
No Drawing. Application March 21, 1955
Serial No. 495,783
13 Claims. (Cl. 260—86.1)

1. A composition comprising a linear addition polymer of polymerizable monoethylenically unsaturated molecular in which at least 5 mole percent of the units thereof have side groups comprising quaternary ammonium nitrogen atoms directly attached to alkoxymethyl groups having from 2 to 5 carbon atoms, said polymer containing from 0 to 95 mole percent of polymerized units selected from the group consisting of acrylates of alcohols having 1 to 12 carbon atoms, and those units having the formulas:





and



where R is selected from the group consisting of hydrogen and methyl, Y is selected from the group consisting of O, —CONR—, and —COO—, A is an alkylene group having 2 to 3 carbon atoms, at least two of the carbon atoms thereof being extended in a chain between the N atom and Y group of the formula, R^1 is a lower alkyl group, R^2 is a lower alkyl group, R^4 is a lower alkyl group, and n is an integer having a value of 1 to 3.

2,843,574

COPOLYMERS OF VINYLIDENE CHLORIDE AND LONG-CHAIN ALKYL ACRYLATES

Edmund F. Jordan, Philadelphia, and William S. Port, Plymouth Valley, Norristown, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application July 11, 1956
Serial No. 597,307
2 Claims. (Cl. 260—86.3)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A copolymer of vinylidene chloride and an alkyl acrylate, said acrylate having 16 to 18 carbon atoms in the alkyl group and constituting about 15 to 40% by weight of the copolymer.

2,843,575

FLUOROPRENE COPOLYMERS

John M. Hoyt, Woodside, N. Y., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application April 23, 1956
Serial No. 579,746
12 Claims. (Cl. 260—87.5)

1. A process for producing an elastomeric polymer which comprises polymerizing a monomeric mixture of fluoroprene and a perhalogenated ethylene selected from the group consisting of trifluorochloroethylene and tetrafluoroethylene, said mixture containing between about 5 mole percent and about 80 mole percent fluoroprene and the remaining major constituent consisting essentially of the perhalogenated ethylene, in the presence of a free radical forming polymerization promoter at a temperature between about —20° C. and about 150° C.

7. An elastomeric copolymer of about 50 mole percent to about 95 mole percent fluoroprene and correspondingly about 50 mole percent to about 5 mole percent of a perhalogenated ethylene selected from the group consisting of trifluorochloroethylene and tetrafluoroethylene.

2,843,576

PRODUCTION OF VINYL COMPOUNDS

James H. Dunn and Percy W. Trotter, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 3, 1953
Serial No. 396,857
5 Claims. (Cl. 260—92.8)

1. A process for polymerizing vinyl compounds comprising conducting the polymerization at a temperature between 0° to 150° C. in an aqueous emulsion system consisting essentially of water, an emulsifying agent and a water insoluble catalyst which is soluble in the vinyl compound to be polymerized, said emulsifying agent being present in a concentration of between about 4 and 8 percent based upon the weight of said vinyl compound.

2,843,577

PROCESS AND CATALYST FOR POLYMERIZATION USING POLYVALENT METAL SALTS AND A REDUCING AGENT PLUS A SULFUR COMPOUND

Herbert N. Friedlander, Homewood, and Omar O. Juveland and Edmund Field, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application October 17, 1955
Serial No. 541,038
18 Claims. (Cl. 260—94.9)

1. A process for the production of a normally solid polymer which comprises contacting a normally gaseous n-alkene under polymerization conditions with a catalyst prepared by mixing a sulfur compound selected from the class consisting of mercaptans and hydrocarbon sulfides with (A) an alkali reagent selected from the class consisting of: (1) alkali metal, (2) alkali metal hydride, (3) hydrocarbon derivative of an alkali metal, and (4) mixtures of said alkali reagents, and with (B) a polyvalent metal salt of a metal selected from groups 4*a*, 5*a*, 6*a* and 8 of the Mendeleeff periodic table, and recovering a polymer thus produced.

17. The catalytic mixture produced by the process which comprises contacting an alkali metal and an inert liquid hydrocarbon medium with a reactive halogen derivative of a hydrocarbon in the presence of a sulfur compound selected from the class consisting of mercaptans and hydrocarbon sulfides under reaction conditions to yield a hydrocarbon derivative of said alkali metal and thereafter contacting the resultant mixture with a polyvalent metal salt of a metal selected from groups 4a, 5a, 6a and 8 of the Mendeleeff periodic table.

2,843,578

THERMOPLASTIC CONDENSATION PRODUCT OF BENZYLATED WOOD WITH ACETOPHENONE AND METHOD OF PREPARING SAME

Walter Eduard Asmus Simon, Kiel-Wellingdorf, Germany, assignor of one-half to Bernard E. Smith, New York, N. Y.

No Drawing. Application November 12, 1953
Serial No. 391,749
2 Claims. (Cl. 260—124)

1. A process for the production of a plastic mass comprising heating benzylated wood with acetophenone at reflux temperature in the presence of an acid catalyst until the product is soluble in cyclohexanone, and then separating the obtained condensation product by precipitation from unreacted acetophenone.

2. As a new composition of matter, the thermoplastic condensation product of benzylated wood with acetophenone.

2,843,579

PREPARATION OF PHOSPHORUS SULFIDE-HYDROCARBON REACTION PRODUCTS

Norman E. Lemmon, Hammond, Ind., Edward N. Roberts, Los Altos, Calif., and Albert H. Sabol, Munster, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application May 31, 1956
Serial No. 585,262
9 Claims. (Cl. 260—139)

1. In the preparation of an oil soluble lubricant additive wherein a normally liquid hydrocarbon is reacted with from about 1% to about 50% of a phosphorus sulfide at a temperature of from about 200° F. to about 600° F. and the resultant reaction product hydrolyzed at a temperature of from about 220° F. to about 500° F. whereby inorganic acids of phosphorus and low molecular weight organic acids of phosphorus are formed, the improvement comprising contacting said hydrolyzed reaction product at a temperature in the range of from about 100° F. to about 212° F. for a period of time sufficient to remove said acids of phosphorus formed by said hydrolysis, with from about 10% to about 200% by volume of a mixture consisting of water and from about 5% to about 95% by volume of a monohydroxy compound selected from the group consisting of phenol and alkyl alcohols having from 1 to about 5 carbon atoms, which monohydroxy compound has a solubility in water of at least about 5% by volume at the contacting temperature, and separating the hydrolyzed reaction product from said monohydroxy compound-water mixture.

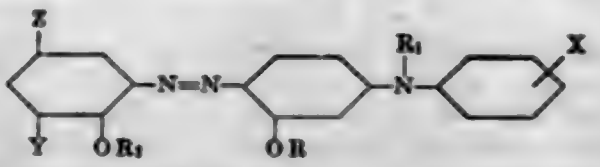
2,843,580

METALLIZED AZO DYES PREPARED BY COUPLING AMINO-PHENOLS TO DIPHENYLAMINES

James M. Straley and David J. Wallace, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 4, 1956
Serial No. 575,953
11 Claims. (Cl. 260—149)

1. As a composition of matter, a complex metal compound which contains a metal selected from the group consisting of chromium, cobalt, copper, iron, manganese, nickel and vanadium in complex combination with a monoazo compound having the following structural formula:



wherein R is selected from the group consisting of hydrogen, alkyl, and hydroxyalkyl; R_1 is selected from the group consisting of hydrogen, alkyl, hydroxyalkyl and chlorine, nitro, alkyl, sulfonamido and haloalkyl, said alkyl, hydroxyalkyl, cyanoalkyl, alkoxy and haloalkyl radicals containing from 1 to 4 carbon atoms.

2,843,581

NEW AZO-DYESTUFFS

Henri Riat, Ariesheim, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application January 9, 1956
Serial No. 557,829
Claims priority, application Switzerland January 14, 1955
8 Claims. (Cl. 260—158)

1. A trisazo dyestuff of the formula

$$R_3—N=N—R_2—N=N—R_1—N=N—R_4$$

in which R_1 represents a dihydroxyaryl radical selected

from the group consisting of the radicals of 1:3-dihydroxybenzene and 1:3-dihydroxynaphthalene, which radical is bound to each of the azo linkages in a position vicinal to a hydroxyl group, R_2 represents a 1:1-diphenyl radical bound to the azo linkages in 4- and 4'-position, R_3 represents a member selected from the group consisting of the radical of a 1-hydroxybenzene-2-carboxylic acid bound in 4-position to the azo linkage and the radical of a 5-pyrazolone bound in 4-position to the azo linkage, and R_4 represents an aryl-thiazolyl-hydroxybenzene radical bound to the azo linkage in ortho-position to the hydroxyl group.

2,843,582

PREPARATION OF FINELY-DIVIDED CELLULOSE DERIVATIVES

Robert S. Voris, Lemont, Ill., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 8, 1954
Serial No. 421,983

5 Claims. (Cl. 260—223)

1. A process for preparing a finely-divided cellulose derivative which comprises preparing a lacquer solution by dissolving a film-forming cellulose derivative of the group consisting of cellulose esters and ethers and mixtures thereof in substantially water-immiscible volatile solvent which boils below the boiling point of water, emulsifying the lacquer solution thus formed in an aqueous phase consisting of water and an emulsifying agent to form a lacquer-in-water emulsion, forming a thin layer of the emulsion on a surface heated to an elevated temperature below the boiling point of water, and evaporating the volatile solvent from the emulsified lacquer without substantial evaporation of water from said emulsion to precipitate the cellulose derivative in finely-divided form in the water of the emulsion.

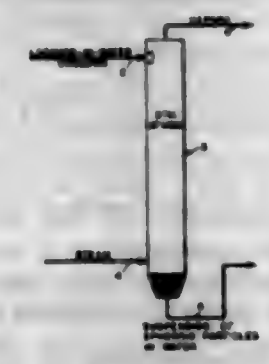
2,843,583

PREPARATION OF FINELY-DIVIDED CELLULOSE DERIVATIVE COMPOSITIONS

Robert S. Voris, Lemont, Ill., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

Application March 3, 1955, Serial No. 491,937

6 Claims. (Cl. 260—223)



1. The process for preparing uniformly small, solid spheroid particles of organosoluble cellulose derivative composition which consists essentially of emulsifying a lacquer in water to form a lacquer-in-water emulsion, said lacquer containing organosoluble cellulose derivative composition dissolved in a low-boiling substantially water-immiscible solvent therefor, said solvent having a boiling point below the boiling point of water, forming fine mist-like droplets of the lacquer-in-water emulsion by spraying said emulsion at a temperature below the boiling point of the lacquer solvent therein into an enclosed vessel containing a steam atmosphere at substantially atmospheric pressure adjacent the top thereof, simultaneously introducing a quantity of steam into the enclosed vessel adjacent the lower end thereof sufficient in total enthalpy content to vaporize substantially all of the low-boiling substantially water-immiscible solvent from the emulsion droplets, evaporating substantially all of the low-boiling substantially water-immiscible solvent from the emulsified lacquer droplets by steam stripping while said emulsified lacquer droplets are descending through the steam atmosphere to precipitate substantially all of the organosoluble cellulose derivative composition as uniformly small, solid spheroids having diameters not exceeding about 5 microns in the water of the descending emulsion droplets, settling the water droplets containing the precipitated spheroids to form a water suspension of said spheroids in the bottom of the vessel, withdrawing vapors consisting essentially of a mixture of solvent vapor and water vapor from the enclosed vessel, and withdrawing the water suspension of solid spheroids from the enclosed vessel.

2,843,584

METHOD OF RECLAIMING THE CONSTITUENTS FROM DOUBLE BASE SMOKELESS POWDER

Robert Rood Buell, Prairie du Sac, Wis., assignor to Liberty Powder Defense Corporation, Baraboo, Wis., a corporation of Delaware

No Drawing. Application March 7, 1955
Serial No. 492,770

6 Claims. (Cl. 260—223)

1. A method for reclaiming nitroglycerin and nitrocellulose from double base smokeless powder grains which comprises mixing the powder grains with a solvent for the nitroglycerin which is a non-solvent for the nitrocellulose, separating the solvent phase from the undissolved nitrocellulose contained in said powder grains and contacting it with silicic acid.

2,843,585

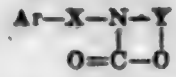
3-ARALKYL-2-OXAZOLIDONES AND 3-ARALKYL-2-PENTOXAZOLIDONES AND THEIR SYNTHESIS

Alexander R. Surrey, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application March 15, 1954
Serial No. 416,401

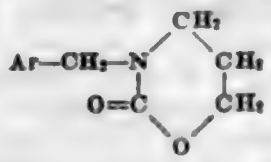
16 Claims. (Cl. 260—244)

1. A compound having the formula



where Ar is a phenyl radical substituted by from one to three radicals selected from the group consisting of halogen, amino, hydroxy, lower alkyl, lower alkoxy, lower alkylmercapto, lower alkylsulfonyl and nitro, X is a lower alkylene radical having from one to four carbon atoms and Y is a lower alkylene radical having from two to six carbon atoms and having its valence bonds separated by from two to three carbon atoms.

9. A 3-(dihalobenzyl)-2-pentoxazolidone having the formula



where Ar is a dihalophenyl radical.

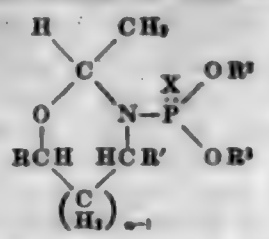
2,843,586

ESTERS OF 2-METHYL-1,3-OXAZOLIDINE-3-PHOSPHONIC ACIDS AND OF 2-METHYL-TETRAHYDRO-1,3-OXAZINE-3-PHOSPHONIC ACIDS, AND THEIR PREPARATION

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application October 29, 1954
Serial No. 465,719
11 Claims. (Cl. 260—244)

1. A composition having the structure of the formula



where n is an integer having a value of 1 to 2, X is selected from the group consisting of oxygen and sulfur, R is selected from the group consisting of hydrogen, cyclohexyl, vinyl, phenyl, and alkyl groups of 1 to 16 carbon atoms, R′ is selected from the group consisting of hydrogen, methyl, and ethyl, R^2 and R^3 are selected from the group consisting of (1) separate groups selected individually from the class consisting of cyclohexyl; alkyl and alkenyl groups of 1 to 18 carbon atoms; phenyl, halophenyl, benzyl, and alkyl benzyl groups of 6 to 20 carbon atoms, and (2) a single saturated alkylene group of 2 to 3 carbon atoms forming with the —O—P—O— linkage a 5-to-6-sided heterocyclic ring.

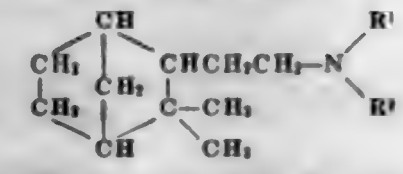
2,843,587

2 AMINO ETHYL 33 DIMETHYL NORCAMPHANE

Peter L. de Benneville, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

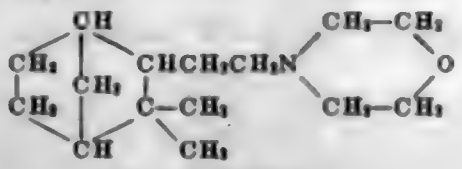
No Drawing. Application June 28, 1955
Serial No. 518,683
7 Claims. (Cl. 260—247)

1. A compound of the formula



where R^1 and R^2 are taken from the class consisting of lower alkyl groups when taken individually and when taken together saturated divalent aliphatic chains of four to five atoms which form a five- to six-sided heterocyclic amine with the nitrogen.

6. The compound



2,843,588

DERIVATIVES OF THIOPHOSPHORIC ACID

Walter Lorenz, Wuppertal-Elberfeld, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application July 17, 1956
Serial No. 598,257
Claims priority, application Germany February 26, 1953
1 Claim. (Cl. 260—248)

The compound having the formula



2,843,589

METHOD FOR HYDROGENATING PYRAZINE AND DERIVATIVES OF PYRAZINE

Joseph J. Scigliano, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 18, 1955
Serial No. 547,854
12 Claims. (Cl. 260—268)

1. Method for hydrogenating a compound selected from the group consisting of pyrazine, alkylpyrazines in which each alkyl substituent contains not more than 4 carbon atoms, and mixtures thereof to corresponding piperazine products which consists of subjecting the pyrazine compound to hydrogen in the presence of a hydrogenation catalyst selected from the group consisting of Raney nickel; supported reduced nickel; supported rhodium; and supported palladium at a hydrogenation-favoring temperature for the catalyst, said temperature being between about 125 and 225° C., and under a pressure between about 200 and 600 pounds per square inch.

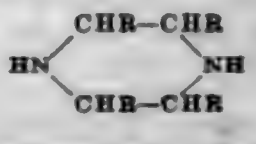
2,843,590

PREPARATION OF PIPERAZINES

Joseph J. Scigliano and Edgar C. Britton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 23, 1956
Serial No. 573,343
13 Claims. (Cl. 260—268)

1. Method for preparing a piperazine product having bromides are employed in place of hydrochlorides. Like- the general formula:



wherein each R is independently selected from the group consisting of a hydrogen atom and an alkyl radical containing from 1 to 4 carbon atoms, from the hydrohalide of an aminoalkylaminoalkanol compound which contains from 4 to 16 carbon atoms in its molecule, said aminoalkylaminoalkanol compound having the general formula:

$$HO—CHR—CHR—NH—CHR—CHR—NH_2$$

wherein, within the foregoing limitation, each R is independently selected from the group consisting of a hydrogen atom and a substituent alkyl radical containing from 1 to 4 carbon atoms, which comprises dispersing the hydrohalide of the aminoalkylaminoalkanol compound in an inert dispersant vehicle; cyclizing the hydrohalide of the aminoalkylaminoalkanol compound by heating it to an elevated temperature while it is being maintained in liquid dispersion in the inert vehicle to convert substantial portions of the hydrohalide of the aminoalkylaminoalkanol compound are converted to a piperazine hydrohalide product in the reaction mass; and thereafter recovering a piperazine product therefrom.

2,843,591

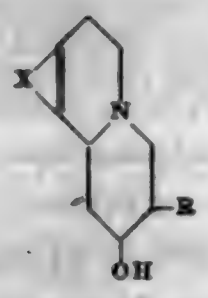
2-HYDROXY-BENZOQUINOLIZINES AND METHOD FOR PREPARING SAME

Arnold Brossi, Otto Schnider, and Max Walter, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application February 4, 1957
Serial No. 637,882
Claims priority, application Switzerland February 8, 1956
5 Claims. (Cl. 260—286)

1. A compound selected from the group consisting of 2-hydroxy-benzo[a]quinolizine bases and therapeutically

acceptable acid addition salts thereof, the bases having the general formula



(I)

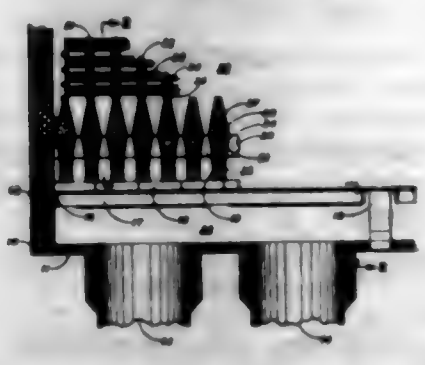
wherein X represents a divalent radical selected from the group consisting of butadien-1,4-ylene, dihydroxy-butadien - 1,4 - ylene, di(lower alkoxy) - butadien - 1,4-ylene, (lower alkylendioxy) - butadien - 1,4 - ylene and 1,4-butylene radicals, and R represents a member selected from the group consisting of lower alkyl, lower alkenyl, lower acyclic alkoxyalkyl, lower cyclic alkoxyalkyl and lower aralkyl radicals.

2,843,592

CATALYST UNIT AND GAS DISTRIBUTOR

Milton Ludwig, Berkeley, and David B. Willmer, Danville, Calif., assignors, by mesne assignments, to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application September 1, 1954, Serial No. 453,668
6 Claims. (Cl. 23—288)



4. A catalyst unit comprising means forming a lower horizontal chamber, a plurality of gas inlets for said chamber, an upper horizontal chamber, a catalyst bed in the bottom of said upper chamber, and a gas-diffusing layer of refractory brickwork between said chambers characterized by substantially venturi-shaped passages therethrough, said venturi-shaped passages being formed by a layer of alternate rows of rectangular units and inverted isosceles trapezoid units and a superposed layer of wedge units whose bases cover the widest end of said trapezoid units, the pressure drop of gas passing through said unit being greatest in said passages, whereby variations of pressure across said lower chamber are prevented from reaching said upper chamber and said catalyst bed.

2,843,593

PROCESS FOR MAKING ESTERS OF DIARYL HYDROXY ACETIC ACIDS

Walter G. Farkas and Leo A. Flexser, Upper Montclair, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application February 28, 1956
Serial No. 568,187
12 Claims. (Cl. 260—294.3)

1. A process for esterifying α,α-diaryl-α-hydroxy acetic acid with an alcohol of a tertiary amine which comprises reacting said alcohol with at least an equivalent proportion of the alkali metal derivative of an alkyl ester of said α,α-diaryl-α-hydroxy acetic acid.

7. A process for the production of a benzilic acid ester of 3-quinuclidinol which comprises reacting said 3-quinuclidinol with about an equivalent proportion of the alkali metal derivative of lower alkyl benzilate.

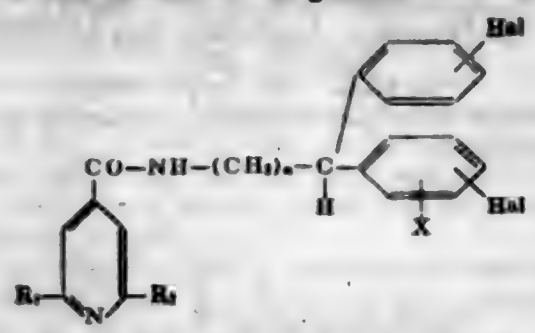
2,843,594

SUBSTITUTED ISONICOTINIC ACID AMIDES AND PROCESS OF PREPARING SAME

Heinrich Leditschke, Frankfurt am Main, and Heinrich Rolly and Heinz Schmidt-Ruppin, Bad Soden (Taunus), Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application May 16, 1956
Serial No. 585,145
Claims priority, application Germany May 20, 1955
8 Claims. (Cl. 260—295)

1. A member selected from the group consisting of isonicotinic acid amides of the general formula:



and lower alkyl halide adducts thereof, wherein *n* stands for an integer from 1 to 2, R_1 and R_2 are each members selected from the group consisting of hydrogen, halogen, lower alkoxy and lower alkylmercapto, X stands for a member of the group consisting of hydrogen, halogen and CH_3, and Hal stands for a halogen atom.

2,843,595

PYRIDYL-BROMOBENZYL-DIALKYL DIAMINES

Hermann Engelhard, Gottingen, Karl Credner, Berlin-Frohnau, and Gerhard Rewanz, Berlin-Tegel, Germany, assignors to Veritas Drug Company Limited, Shrewsbury, England, a British company

No Drawing. Application August 10, 1955
Serial No. 527,652
Claims priority, application Germany August 12, 1954
3 Claims. (Cl. 260—296)

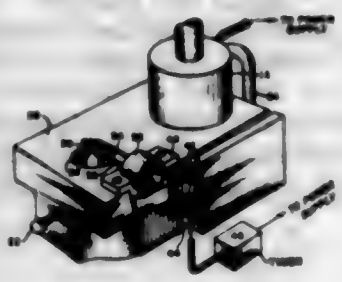
1. A compound selected from the group consisting of N - (2 - pyridyl) - N - m - bromobenzyl - N'.N' - diethyl-ethylene diamine and N-(2-pyridyl)-N-m-bromobenzyl-N'-methyl-N'-ethyl-ethylene diamine.

2,843,596

APPARATUS FOR CATAPHORETIC APPLICATION OF COATINGS

Milton C Hoffman, Emporium, Pa., assignor to Sylvania Electric Products, Inc., a corporation of Massachusetts

Original application September 30, 1949, Serial No. 118,809, now Patent No. 2,699,426, dated January 11, 1955. Divided and this application August 31, 1954, Serial No. 453,263
5 Claims. (Cl. 204—299)



1. A device for applying electrophoretic coating material to conductors including a nozzle having a narrow elongated slot for projecting a jet of liquid suspension of said material, a support adjacent to said nozzle and to one side thereof, for positioning said conductor within said jet with the elongation of the conductor parallel with the elongated slot of the nozzle and means for applying a potential difference between said material and said con-

ductor, said support including a non planar seat having an elongation which is within the axis of the narrow elongated slot for assuring the correct positioning of said conductor within said jet and a switch responsive to the correct placement of said conductor for applying said potential difference to said material and said conductor.

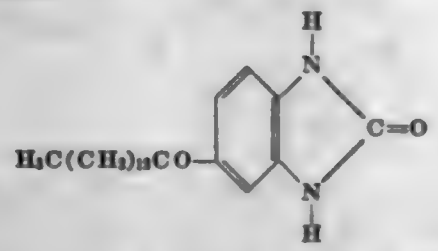
2,843,597

INTERMEDIATE AND PROCESS FOR PRODUCING 5-TETRADECYLBENZIMIDAZOLONE

Robert L. Clark, Woodbridge, and Arsenio A. Pesolano, Colonia, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application July 31, 1956
Serial No. 601,115
2 Claims. (Cl. 260—309.2)

1. 5-myristoylbenzimidazolone represented by the following structure:



2. The process which comprises reacting benzimidazolone with myristoyl chloride in the presence of carbon disulfide and aluminum chloride to form myristoyl benzimidazolone and reacting the latter compound with hydrogen at an elevated temperature in the presence of copper chromite to form 5-tetradecylbenzimidazolone.

2,843,598

PROCESS FOR PREPARING 3-PYRAZOLIDONES

Thomas S. Donovan, Ontario, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 22, 1956
Serial No. 617,290
3 Claims. (Cl. 260—310)

1. The process for the preparation of 1-phenyl-4,4-dimethyl-3-pyrazolidone which comprises heating β-hydroxypivalylphenylhydrazide at a temperature less than about 110° C. in the presence of phosphoric acid as a cyclodehydration catalyst.

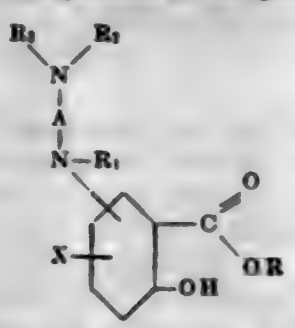
2,843,599

PROCESS FOR THE PRODUCTION OF PHTHALOCYANINE DYESTUFFS

Berthold Bienert and Fritz Baumann, Leverkusen-Bayerwerk, and Manfred Groll, Koln-Stammheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application September 26, 1955
Serial No. 536,784
Claims priority, application Germany September 28, 1954
9 Claims. (Cl. 260—314.5)

1. The reaction product of a member selected from the group consisting of a heavy metal-containing phthalocyanine sulfochloride and the phenyl-substituted derivatives thereof with compounds of the general formula



wherein X represents a member selected from the group consisting of hydrogen and a sulfonic acid group, R is a member selected from the group consisting of hydrogen, a monovalent metal, lower alkyl, cycloalkyl and phenyl, A is a lower alkylene radical and R_1, R_2 and R_3 are selected from the group consisting of hydrogen and lower alkyl, at least one of which is hydrogen.

2,843,600

PREPARATION OF PYRROLIDINONE

Charles H. McKeever, Meadowbrook, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 29, 1956
Serial No. 594,708
4 Claims. (Cl. 260—326.5)

2. A process for preparing pyrrolidinone which comprises mixing a nickel hydrogenation catalyst and an inert organic solvent, supplying hydrogen under pressure to the resulting mixture, agitating and heating the mixture under hydrogen to 150° C. to 260° C., bringing a lower alkyl beta-cyanopropionate into the agitated heated mixture, and holding the temperature of the reaction mixture between 150° C. and 300° C. while the alkyl beta-cyanopropionate is being added thereto.

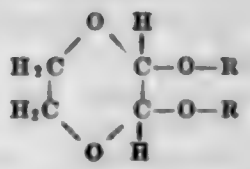
2,843,601

DIOXANES

Nicholas B. Lorette, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 5, 1956
Serial No. 620,183
3 Claims. (Cl. 260—340.6)

1. A dioxane having the structure



wherein R is a radical selected from the group consisting of n-pentyl and isopentyl.

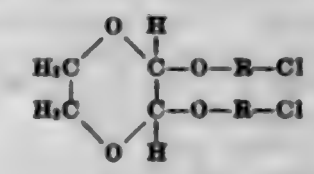
2,843,602

2,3-DI(CHLOROALKOXY)-p-DIOXANES

Nicholas B. Lorette, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 5, 1956
Serial No. 620,284
3 Claims. (Cl. 260—340.6)

1. A 2,3 - di(chloroalkoxy) - p - dioxane having the structure



wherein R represents an alkylene radical containing from 3 to 4 carbon atoms, inclusive.

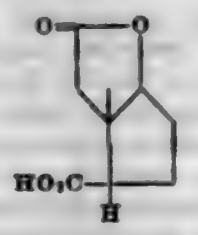
2,843,603

2-METHYL - 2 - CARBOXYMETHYLCYCLOPENTANOL - 3 - CARBOXYLIC ACID LACTONE AND PREPARATION THEREOF

Gilbert J. Stork, Leonia, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New York

No Drawing. Application March 26, 1954
Serial No. 424,793
3 Claims. (Cl. 260—343.3)

3. 2-methyl-2-carboxymethylcyclopentanol - 3 - carboxylic acid lactone of the formula



2,843,604

TWO STEP CONVERSION OF DELTA-TOCOPHEROL COMPOSITIONS

Orris D. Hawks, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application June 8, 1955
Serial No. 514,120
2 Claims. (Cl. 260—345.5)

1. The method of increasing the vitamin E biological activity of a concentrate of tocopherols containing a substantial amount of δ-tocopherol which comprises chloromethylating said concentrate with hydrochloric acid and a member selected from the group consisting of formaldehyde and paraformaldehyde; at a hydrochloric acid normality of about 0.2 to 0.8 in the tocopherol-containing phase of the reaction mixture, reducing the resulting chloromethylated tocopherols to form a mixture comprised of α-tocopherol and β-tocopherol, thereafter subjecting the resulting reduced reaction mixture to a chloromethylation reaction with hydrochloric acid and a member selected from the group consisting of formaldehyde and paraformaldehyde; at a hydrochloric acid normality of about 0.2 to 1.0 in the tocopherol-containing phase of the reaction mixture, and reducing the resulting chloromethylated tocopherol material to α-tocopherol, the second said chloromethylation and reduction reactions being effected directly on α-tocopherol and β-tocopherol in the reaction mixture resulting from the first said chloromethylation and reduction reactions.

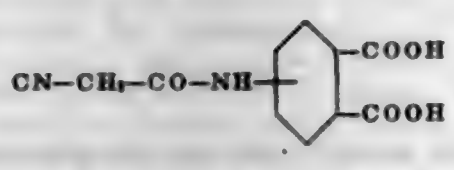
2,843,605

CYANOACETAMIDOPHTHALIC ANHYDRIDES AND DERIVATIVES THEREOF

Donald A. Smith, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 17, 1956
Serial No. 628,507
9 Claims. (Cl. 260—346.3)

1. A compound selected from the group consisting of (1) an acid having the general formula:



(2) a dialkali metal salt of above (1) wherein the alkali metal atoms are the same, and (3) the anhydride of above (1).

2,843,606

METHOD FOR PREPARING HALOGENATED MALEIC ACID, SALTS AND ANHYDRIDES THEREOF

Charles J. Pennino, Hudson, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application February 1, 1955
Serial No. 485,589
9 Claims. (Cl. 260—346.8)

1. A method of preparing salts of dihalomaleic acid comprising reacting an octahalocyclohexene-3-one-1 with an excess of an alkali selected from the class consisting of alkali metal hydroxides, oxides, carbonates and bicarbonates and alkaline earth metal hydroxides in an inert diluent at a temperature ranging from about room temperature to the reflux temperature of the mixture until scission of the cyclohexenone nucleus is effected, the halogen in said maleic acid salts and said octahalocyclohexene-3-one-1 being selected from the class consisting of chlorine and bromine.

8. The method of claim 1 in which the reaction mixture is acidified upon completion of the conversion reaction thereby forming a dihalomaleic acid.

9. The method of claim 8 in which the dihalomaleic acid is heated above its melting point to cause sublimation of the dihalomaleic anhydride.

2,843,607

PROCESS OF PREPARING ESTERS

Marcel Servigne, Sceaux, and Etienne Szarvasi, Clichy, France, assignors to L'Air Liquide Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France

No Drawing. Application November 23, 1954
Serial No. 470,820
Claims priority, application France July 13, 1954
12 Claims. (Cl. 260—347.5)

1. Improvement in the process of preparing esters by reacting a compound selected from the group consisting of acetic anhydride and furoic acid with a compound selected from the group consisting of heptaldehyde, cinnamic aldehyde, furfural, acetaldehyde, ethyl alcohol, propyl alcohol, and heptyl alcohol, comprisig the steps of: simultaneously esterifying and hydrogenating the reactants in the same reaction stage by heating them together in the presence of hydrogen and a hydrogenation catalyst, and thereafter separating the desired ester product from the reaction mixture.

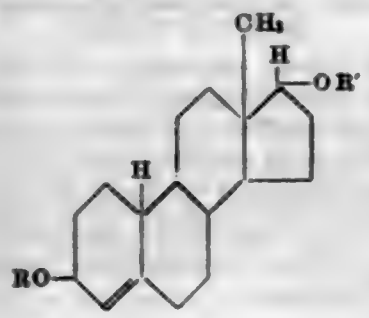
2,843,608

4-ESTRENE-3,17-DIOL, ESTERS AND 17-ALKYL DERIVATIVES

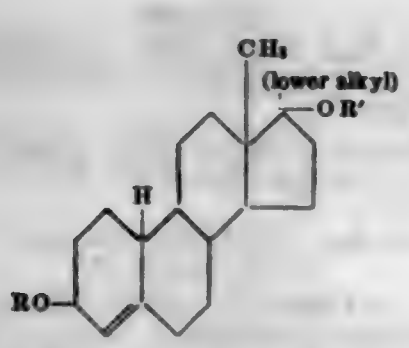
Frank B. Colton, Chicago, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application March 16, 1956
Serial No. 571,872
Claims priority, application Canada October 11, 1955
9 Claims. (Cl. 260—397.5)

1. A member of the class consisting of compounds of the structural formula



and



wherein R and R' are members of the class consisting of hydrogen, benzoyl and acyl radicals derived from saturated aliphatic carboxylic acids containing 1 to 8 carbon atoms.

2,843,609

17-ALKENYL AND ALKYNYL DERIVATIVES OF 4-ESTRENE-3,17-DIOL

Frank B. Colton, Chicago, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application October 10, 1956
Serial No. 615,019

Claims priority, application Canada October 11, 1955

7 Claims. (Cl. 260—397.5)

1. A member of the class consisting of 17α-(lower alkenyl)-4-estrene-3,17-diol and 17α-(lower alkynyl)-4-estrene-3,17-diol.

2,843,610

SEPARATION OF STEROLS FROM DEODORIZER SLUDGES

Winton Brown and Herbert W. Rawlings, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 28, 1957
Serial No. 680,652

12 Claims. (Cl. 260—397.25)

1. The process for separating sterols from fatty materials containing a substantial amount of sterol material which comprises saponifying said fatty material in a methanolic alkaline medium, acidulating the resulting saponified mixture to convert the resulting soaps to free fatty acids and to produce a glycerol-containing phase and a sterol-containing phase, separating the glycerol-containing phase from the reaction mixture, dissolving the remaining sterol-containing phase at an elevated temperature in a solvent medium comprised of 9–100% by volume of methanol, 0–90% by volume of a ketone selected from the group consisting of acetone and methyl ethyl ketone, and 0–10% by volume of water, cooling the resulting solution to selectively crystallize sterols therefrom, and thereafter separating the said crystallized sterols from said solution.

2,843,611

PROCESS FOR MAKING CORTISONE

Gunther S. Fonken, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application September 26, 1952
Serial No. 311,800

8 Claims. (Cl. 260—397.45)

5. A process which comprises mixing 11α,17α,21-trihydroxy-4-pregnene-3,20-dione with about one to four chemical equivalents of chromic acid per mol of 11α,17α-21-trihydroxy-4-pregnene-3,20-dione at below room temperature to produce 17α,21-dihydroxy-4-pregnene-3,11,20-trione, and separating the resulting 17α,21-dihydroxy-4-pregnene-3,11,20-trione.

2,843,612

PROCESS FOR THE PREPARATION OF FATTY AMIDES

Louis Gene Ricciardi, Brooklyn, N. Y., and Joseph Philip Di Geronimo, Jersey City, N. J., assignors to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application February 28, 1955
Serial No. 491,176

8 Claims. (Cl. 260—404)

1. A process for the preparation of fatty acid hydroxy alkyl amides which comprises reacting fatty triglyceride with lower monohydric alcohol in the presence of alkali metal alkoxide having up to about 5 carbon atoms to form a reaction product containing fatty acid monoglyceride, the molar ratio of said fatty triglyceride to said monohydric alcohol being within the range of 1:0.25 to 1:2, and reacting the thus formed fatty acid monoglyceride-containing reaction product with hydroxy alkyl amine selected from the group consisting of hydroxy lower alkyl mono and di amines having up to 4 carbon atoms in each alkyl radical therein to form fatty acid hydroxy alkyl amide.

2,843,613

METHOD OF SEPARATING MOLYBDENUM FROM TUNGSTEN

Robert C. Osthoff, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application May 22, 1956
Serial No. 586,374

4 Claims. (Cl. 260—429)

1. A process of separating tungsten from molybdenum which process comprises (1) treating a solution of salts of tungstic and molybdic acids with a lower dialkyltin dihalide to precipitate a mixture of the lower dialkyltin salts of said acids, (2) digesting this precipitate in concentrated hydrochloride acid to dissolve the lower dialkyltin molybdate and to leave behind a precipitate of the tungsten compound.

2,843,614

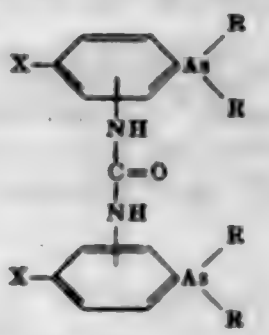
CHEMICAL COMPOSITION

Le Roy W. Clemence, Highland Park, Marlin T. Leffler, Lake Bluff, and Waverly D. Krueger, Winthrop Harbor, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application April 29, 1955
Serial No. 505,042

5 Claims. (Cl. 260—440)

1. A chemical compound selected from the group consisting of the compounds having the general formula:



wherein X is selected from the group consisting of a hydroxy group and a halogen atom and R is selected from the group consisting of —OH and —SCH_2COOH, and the sodium salt thereof.

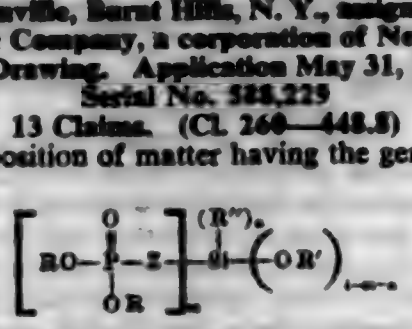
2,843,615

ORGANOPHOSPHORUS-SILICON COMPOSITIONS

Robert G. Linville, Burnt Hills, N. Y., assignor to General Electric Company, a corporation of New York

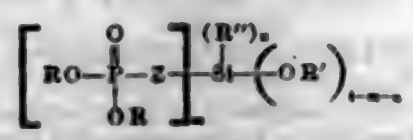
No Drawing. Application May 31, 1956
Serial No. 588,225
13 Claims. (Cl. 260—448.8)

1. A composition of matter having the general formula

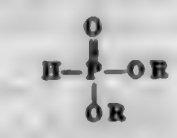


where R is a member selected from the class consisting of monovalent hydrocarbon radicals and monovalent hydrocarbon radicals which are substituted with halogen, R′ is a monovalent hydrocarbon radical, R″ is a member selected from the class consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals, Z is a divalent alkylene radical of from 2 to 4 carbon atoms, *m* is an integer equal to from 1 to 3, and *n* is a whole number equal to from 0 to 2, inclusive, the sum of *m*+*n* not exceeding 3.

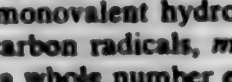
7. The process for making compositions having the formula



which process comprises effecting reaction between a compound having the formula



and an alkenyl organoxy silane of the formula



where R is a member selected from the class consisting of monovalent hydrocarbon radicals and halogen-substituted monovalent hydrocarbon radicals, R′ is a monovalent hydrocarbon radical, R″ is a member selected from the class consisting of monovalent hydrocarbon radicals and halogenated hydrocarbon radicals, *m* is an integer equal to from 1 to 3, *n* is a whole number equal to from 0 to 2, inclusive, the sum of *m*+*n* not exceeding 3, Z is a divalent alkylene radical of from 2 to 4 carbon atoms, and A is an alkenyl radical selected from the class consisting of vinyl, allyl and methallyl radicals, the carbon chain length of Z and A being the same.

2,843,616

TRIALKYL PHOSPHITES AND METHOD OF MAKING SAME

Edgar E. Hardy and Theodor Reetz, Anniston, Ala., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application October 19, 1953
Serial No. 387,052
7 Claims. (Cl. 260—461)

1. The method of producing a trialkyl phosphite, which comprises heating in an inert solvent 1 mol of a phosphorus trihalide of the group consisting of phosphorus trichloride and phosphorus tribromide, and approximately 3 mols of an alcoholate having the structure MOR wherein M is a metal of the group consisting of the alkali metals, the alkaline earth metals, magnesium and aluminum and R is an alkyl radical having up to 4 carbon atoms, in the presence of a catalytic amount of a tertiary amine and separating the resulting trialkyl phosphite.

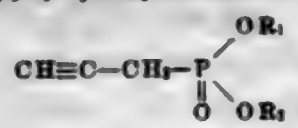
2,843,617

DIALKYL PROPYNYL PHOSPHONATES

Samuel Kaufman, Clayton, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 31, 1956
Serial No. 588,267
6 Claims. (Cl. 260—461)

1. Dialkyl propynyl phosphonates of the structures



where R_1 and R_2 are alkyl radicals containing 1 to 6 carbon atoms.

6. The process of making the compounds of claim 1 which comprises reacting a propargyl halide with a trialkyl phosphite wherein the respective alkyl groups contain from 1 to 6 carbon atoms under refluxing conditions and in the presence of a polymerization inhibitor.

2,843,618

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2,843,619

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2,843,620

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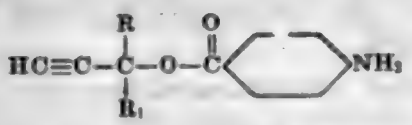
2,843,621

PARA-AMINOBENZOATES OF ETHYNYL-CARBINOLS

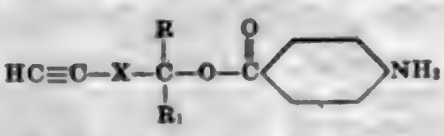
William Oroshnik, Plainfield, and George Karmas, Somerville, N. J., assignors to Ortho Pharmaceutical Corporation, a corporation of New Jersey

No Drawing. Application September 6, 1955
Serial No. 532,771
6 Claims. (Cl. 260—471)

1. A para-aminobenzoate of an ethynylcarbinol selected from the class which consists of a compound of the formula:



in which R is selected from the class consisting of a hydrogen atom and methyl, ethyl, normal propyl, and isopropyl radicals and R_1 is selected from the class consisting of a hydrogen atom and methyl, ethyl, vinyl and phenyl radicals; and a compound of the formula:



in which R and R_1 have the same significance as above and X is selected from the class consisting of methylene, methyl methylene, ethylene, methyl ethylene, vinylene, and methyl vinylene radicals.

2,843,622

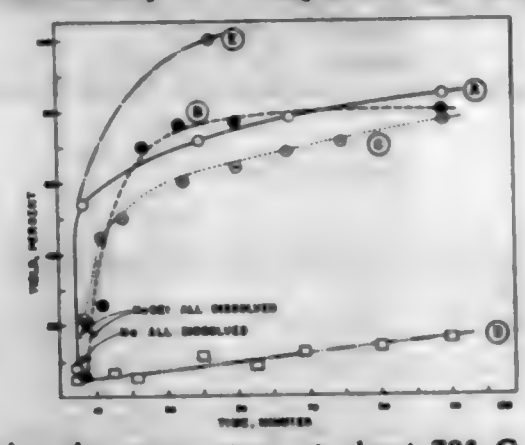
CONDENSATION OF ETHYL ACETATE

Virgil L. Hansley and Stuart Schott, Cincinnati, Ohio, assignors to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia

Application January 28, 1954, Serial No. 406,870
1 Claim. (Cl. 260—483)

In a process in which ethyl acetate is subjected to self-condensation in the presence of a base, the improve-

ment which comprises the steps in combination of reacting ethyl acetate in a 4 to 7 molar excess over the theoretical amount required for the condensation with dispersed metallic sodium having a particle size of 1 to 15 microns initially at a temperature of about 78° C.,



maintaining the temperature at about 78° C. until the sodium has substantially completely dissolved, and thereafter raising the temperature of the reacting mixture during the completion of the reaction period to about 100° C. under superatmospheric pressure of from 15 to 60 p. s. i.

2,843,623

PRODUCTION OF ETHYL ACETOACETATE

Virgil L. Hansley and Stuart Schott, Cincinnati, Ohio, assignors to National Distillers and Chemical Corporation, a corporation of Virginia

No Drawing. Application October 1, 1954
Serial No. 459,833
1 Claim. (Cl. 260—483)

In a process in which ethyl acetate is subjected to self-condensation, the improvement which comprises the steps of continuously reacting sodium with a molecular equivalent of ethanol to form dry-way made finely divided sodium ethoxide, directly and continuously reacting said dry sodium ethoxide with ethyl acetate in the ratio of from 3 to 5 moles of ethyl acetate per mole of sodium ethoxide under pressure of 20–30 p. s. i. in the presence of benzene and at a temperature above 100° C., removing by volatilization under superatmospheric pressure the ethanol substantially as formed as the benzene-ethanol azeotrope said azeotrope containing substantially no ethyl acetate, acidifying the resulting reaction mixture with carbon dioxide, and continuously recovering ethyl acetoacetate therefrom.

2,843,624

RECOVERY PROCESS FOR ESTER CONDENSATION PRODUCTS

Werner C. Muller, Roslyn, N. Y., and Franklyn D. Miller, Cincinnati, Ohio, assignors to National Distillers and Chemical Corporation, a corporation of Virginia

No Drawing. Application December 30, 1955
Serial No. 556,461
2 Claims. (Cl. 260—483)

1. In a process for the preparation of ethyl acetoacetate by condensation of ethyl acetate with an alkaline condensing agent, and subsequently neutralizing the condensation reaction mixture with a mineral acid to produce a neutralized reaction mixture which contains ethyl acetoacetate, unreacted ethyl acetate, ethanol, and a salt formed in the neutralization, the improvement which comprises distilling the entire neutralized condensation reaction mixture in the presence of a sufficient amount of water and under distillation conditions to produce an aqueous overhead distillate stream comprising unreacted ethyl acetate, and ethanol, and substantially free of ethyl acetoacetate and an aqueous bottoms stream comprising ethyl acetoacetate and said salt, and substantially free of ethyl acetate, and recovering ethyl acetoacetate from said bottoms stream.

2,843,625

LOW TEMPERATURE SULFONATION PROCESS

Charles F. W. Gebelein, Butler, Pa., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application September 9, 1955
Serial No. 533,583
3 Claims. (Cl. 260—504)

1. A process of preparing and recovering superior oil-soluble sulfonates in increased yields which comprises contacting a petroleum hydrocarbon oil feed stock dissolved in liquid sulphur dioxide at a maximum temperature of —10° C. with concentrated sulfuric acid in a single treat, removing the sulfur dioxide, neutralizing the resultant total mixture in the presence of 50–150 volume percent based on the feed stock of a C_1–C_4 alcohol with an alkali agent thus forming a product emulsion, countercurrently fractionating the total product emulsion in the presence of a hydrophobic organic solvent extractant capable of selectively extracting oil-soluble sulfonates in an extraction zone at a temperature above 125° F., forming and recovering an extract phase containing oil-soluble sulfonates of high quality.

2,843,626

SULFONATION PROCESS

Charles F. W. Gebelein, Butler, Pa., and Charles A. Reese, Wakefield, Mass., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 20, 1955, Serial No. 535,348
5 Claims. (Cl. 260—505)

1. A process for preparing synthetic alkyl aryl sulfonic acids having a molecular weight in the range of 400 to 900, which comprises mixing a hydrocarbon feed stock free from hydrocarbons having more than one aromatic nucleus, said feed stock having a sulfonatable hydrocarbon content above 60 volume percent and having as reactive ingredients synthetic alkyl benzene hydrocarbons having 1 to 3 alkyl substituents of such size that the alkyl portion of the molecule corresponds to a molecular weight in excess of 240 but the entire molecule has a molecular weight no greater than 390, with an inert, sulfuric acid-treated petroleum distillate oil having a sulfonatable hydrocarbon content of less than 0.5%, a boiling range within the limits of 200° to 800° F., and having a viscosity in the range of 50 to 350 SSU at 100° F., in amounts sufficient to obtain a resulting mixture having a sulfonatable hydrocarbon content above 30 volume percent and a viscosity of less than 450 SSU at 100° F., reacting said resulting mixture with a sulfonating agent in amounts sufficient to provide 2 to 7 mols of SO_3 per mol of sulfonatable hydrocarbon in said resulting mixture, the reaction being carried out at temperatures in the range of 32° to 175° F. for a time in the range of 2 to 90 minutes, separating sludge from the reaction products, and recovering a sulfonic acid-containing acid oil.

2,843,627

RECOVERY OF BENZOIC AND TOLUIC ACIDS FROM DILUTE AQUEOUS SOLUTIONS THEREOF

Robert J. Miller, Lafayette, and Charles E. Bodington, San Anselmo, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application November 7, 1955, Serial No. 545,252
1 Claim. (Cl. 260—525)

A process for the recovery of benzoic and toluic acids having an amide nitrogen content of less than 0.03 percent by weight from a xylene extract containing said acids and their amides, said xylene extract being obtained by extracting with xylene an aqueous solution containing from about 0.1 to about 3 percent by weight

of each of said acids, from about 0.05 to 0.5 percent by weight of the amides of said acids, and from about 5 to about 35 percent by weight of at least one material of the group consisting of sulfuric acid, ammonium sulfate and ammonium bisulfate, which comprises contacting said extract, at a temperature ranging from the reflux temperature of said extract to about 300° F. and at a pressure sufficient to maintain the reactants in the liquid state, with an amount of NaOH 15 to 30 percent in excess of that necessary to neutralize the acids and saponify the acid amides present in the extract, treating the resulting aqueous phase with a mineral acid to form an upper organic phase and a lower aqueous phase, washing the organic phase at a temperature sufficiently high to maintain said organic phase in the liquid state, and distilling the organic phase to recover benzoic and toluic acids having an amide nitrogen content of less than 0.03 percent by weight.

2,843,628

FUMARIC ACID ISOMERIZATION

John B. Rust, Verona, N. J., assignor, by direct and mesne assignments, of one-half to Montclair Research Corporation, Montclair, N. J., a corporation of New Jersey, and one-half to Ellis-Foster Company, a corporation of New Jersey

No Drawing. Application June 23, 1953
Serial No. 363,668
24 Claims. (Cl. 260—537)

1. The process of converting maleic acid to fumaric acid which comprises heating an aqueous solution containing maleic acid with an isomerization agent including a formamidine disulfide.

2,843,629

RECOVERY OF FUMARIC ACID

John B. Rust, Verona, N. J., assignor, by direct and mesne assignments, of one-half to Montclair Research Corporation, Montclair, N. J., a corporation of New Jersey, and one-half to Ellis-Foster Company, a corporation of New Jersey

No Drawing. Application June 23, 1953
Serial No. 363,669
8 Claims. (Cl. 260—537)

1. In a process of treating aqueous waste liquors containing maleic acid for the recovery of fumaric acid therefrom, said waste liquor containing impurities which interfere with isomerization of maleic to fumaric acid said impurities inactivated by a sulfur dioxide agent to prevent interference with fumaric acid recovery, the step of isomerizing the maleic acid in the pressure of a formamidine disulfide isomerizing agent therein to fumaric acid, and recovering the fumaric acid.

2,843,630

PROCESS FOR PRODUCING MONO CHLORO ACETYL CHLORIDE

Richard Norman Lacey and Alan Edward Blades, Hull, England, assignors to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application February 8, 1954
Serial No. 408,993
Claims priority, application Great Britain February 12, 1953
5 Claims. (Cl. 260—544)

1. In a process for the production of monochloroacetyl chloride which comprises reacting chlorine in the vapor phase with ketene, the improvement wherein at least a 50 percent molar excess of ketene is employed and the reaction mixture is maintained at a temperature in the range from 100 to 200° C., whereby a product of monochloroacetyl chloride is obtained which contains less than 7 percent by weight dichloroacetyl chloride.

2,843,631

METHOD FOR THE PRODUCTION OF UNSATURATED ALDEHYDES

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, near Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application May 29, 1956
Serial No. 587,932
Claims priority, application Switzerland May 31, 1955
11 Claims. (Cl. 260—598)

1. A process which comprises acetalizing a member of the group consisting of 2,6,6-trimethyl-1-cyclohexylideneacetaldehyde, 2,6,6-trimethyl-2-cyclohexen-1-ylidene-acetaldehyde, 4-(2,6,6-trimethyl-1-cyclohexylidene)-2-methyl-2-buten-1-al and 4-(2,6,6-trimethyl-2-cyclohexen-1-ylidene)-2-methyl-2-buten-1-al, by treatment with a trilower alkyl ester of a lower orthoalkanoic acid in the presence of an acid condensation agent to obtain the dilower alkyl acetal of the aldehyde, splitting off one mol of alcohol from the acetal thus obtained thereby producing an enol ether and hydrolyzing the enol ether under acid conditions.

10. 1-loweralkoxy-4-(2,6,6-trimethyl - 1 - cyclohexen-1-yl)-2-methyl-1,3-butadiene.

2,843,632

OXO PROCESS

Bernard H. Gwynn and Rex W. Smyth, Fawn Township, Allegheny County, and John V. Ward, Plum Township, Allegheny County, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application September 7, 1956, Serial No. 608,448
6 Claims. (Cl. 260—604)

1. A method of producing aldehydes which comprises reacting an olefin with synthesis gas comprising hydrogen and carbon monoxide in the presence of a metallic hydroformylation reaction catalyst at an elevated pressure and elevated temperature to obtain a hydroformylation reaction product comprising an aldehyde having one more carbon than said olefin and at least one dissolved metal carbonyl, passing said hydroformylation reaction product to a demetalling zone containing calcium carbonate, passing steam to said demetalling zone to raise the temperature of the resulting mixture to a temperature sufficiently high to decompose said metal carbonyl and deposit the corresponding metal on said calcium carbonate, and thereafter separating the treated hydroformylation reaction product from water resulting from condensation of said steam.

2,843,633

PROCESS FOR THE PRODUCTION OF HYDROPEROXIDES

Giulio Natta and Enrico Beati, Milan, Italy, assignors to Montecatini, Società Generale per l'Industria Mineraria e Chimica, a corporation of Italy

No Drawing. Application January 4, 1954
Serial No. 402,129
Claims priority, application Italy January 16, 1953
4 Claims. (Cl. 260—610)

1. The process of preparing cumene hydroperoxide from cumene, which comprises admixing with cumene an amount of methanol equal to 2.5 to 6.25% by volume of the amount of cumene, heating the mixture in an enclosed vessel under a gaseous phase comprising molecular oxygen, and maintaining said vessel for the duration of the process at a temperature between 90 and 120° C. and at a pressure between 8 and 15 atmospheres.

2,843,634

METHOD OF ALKYLATING

Carl F. Prutton, Pompano Beach, Fla., assignor to The Lubrizol Corporation, Wickliffe, Ohio, a corporation of Ohio

No Drawing. Application March 10, 1954
Serial No. 415,430

7 Claims. (Cl. 260—612)

1. A process of preparing alkylated aromatic compounds which comprises the reaction of (*a*) a chlorinated saturated aliphatic hydrocarbon with (*b*) an aromatic compound selected from the class consisting of phenyl ethers, phenyl esters and phenols, said process being carried out at atmospheric pressure, at a temperature within the range of about 70° C. to about 250° C., for a period of time of about one hour to about six hours, in the presence of a catalyst consisting essentially of the combination of acid activated clay and zinc chloride, the concentration of said zinc chloride being within the range of about 5% to about 50% by weight of said acid activated clay, said process being free from the presence of aluminum chloride and ferric chloride.

7. A process of alkylation comprising the step of contacting mono-chlor paraffin wax with diphenyl ether at a temperature between 150° C. to about 250° C. for about 1 hour to about 6 hours in the presence of the catalyst consisting essentially of the combination of acid activated clay and zinc chloride, the concentration of said zinc chloride being in the range of about 5% to about 50% by weight of said acid activated clay, said process being free from the presence of aluminum chloride and ferric chloride.

2,843,635

WATER-SOLUBLE AMMONIUM PENTACHLOROPHENATE

John W. Pennington, Newport, Monmouthshire, England, assignor to Monsanto Chemicals Limited, London, England, a British company

No Drawing. Application January 25, 1957
Serial No. 636,236

Claims priority, application Great Britain
January 25, 1956

5 Claims. (Cl. 260—623)

2. A process for the preparation of ammonium pentachlorophenate, in which vapourised pentachlorophenol is condensed in the presence of excess gaseous ammonia.

2,843,636

RACEMIZATION OF MENTHOL

Albert B. Booth, Jacksonville, Fla., assignor to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application June 15, 1955
Serial No. 515,764

4 Claims. (Cl. 260—631)

1. The process for producing l-menthol from d-menthol which comprises heating d-menthol under a hydrogen pressure in the presence of a hydrogenation catalyst selected from the class consisting of copper chromite, cobalt and nickel at a temperature in the range of about 260° C. to 280° C. for a time sufficient to bring about a substantial racemization of the d-menthol, recovering dl-menthol, from racemization mixture, resolving the recovered dl-menthol to recover l-menthol and a d-menthol fraction, and subjecting the d-menthol obtained from the resolution procedure to the aforesaid racemization procedure.

2,843,637

MANUFACTURE OF TETRACHLOROBENZENE

John T. Clarke and Stephen N. Hall, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application September 23, 1952
Serial No. 311,155

5 Claims. (Cl. 260—650)

2. The process which comprises chlorinating a mixture consisting essentially of 1,2,3-trichlorobenzene and 1,2,4-trichlorobenzene at a temperature of about 10° to 150° C. to produce a mixture comprising 1,2,4-trichlorobenzene and isomers of tetrachlorobenzene, fractionally distilling the mixture to separate the overhead fraction substantially enriched in 1,2,4-trichlorobenzene and to leave a fraction consisting essentially of a mixture of 1,2,3,4-tetrachlorobenzene and 1,2,4,5-tetrachlorobenzene, cooling said mixture to a temperature below about 60° C. to crystallize the 1,2,4,5-tetrachlorobenzene and separating the latter.

2,843,638

DEHYDROCHLORINATION OF TETRACHLOROETHANE

Francis W. Theis, Akron, Kenneth W. Richardson, Jr., Barberton, Douglas H. Eisenlohr, West Barberton, and Robert D. Shelton, Barberton, Ohio, assignors to Columbia-Southern Chemical Corporation

No Drawing. Application November 15, 1954
Serial No. 469,046

17 Claims. (Cl. 260—654)

1. A method of preparing an olefinically unsaturated chlorinated hydrocarbon containing two carbon atoms which comprises establishing at least two dehydrochlorination catalyst zones in series, passing a gaseous mixture initially containing chlorine and tetrachloroethane in a continuously forward moving stream into contact with the first of said zones, substantially completely consuming the chlorine in said first zone, thence passing the stream through the second of said dehydrochlorination catalyst zones while preventing substantial return flow of reaction mixture in the second zone to said first zone.

2,843,639

PROCESS FOR SECURING AND MAINTAINING CATALYST ACTIVITY OF PHOSPHORIC ACID TYPE CATALYSTS

Gordon E. Langlois, El Cerrito, and Willard M. Haunschild, Walnut Creek, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application February 15, 1954
Serial No. 410,436

8 Claims. (Cl. 260—683.15)

1. Process of securing and maintaining a high level of catalyst activity of phosphoric acid type catalysts employed in the conversion of propylene in a hydrocarbon feed, including polymerization and alkylation, said hydrocarbon feed containing basic and acidic catalyst-poisoning polar materials, and, in addition, hydrocarbon-soluble neutral catalyst-poisoning polar materials having boiling points higher than C_3 and C_4 hydrocarbons and unreactive with aqueous caustic and aqueous acid solutions, which comprises treating the hydrocarbon feed, prior to conversion, with a basic reagent to remove acidic polar materials, washing the resulting hydrocarbon feed with water having a pH not exceeding about 8 to remove basic polar compounds, and treating the washed hydrocarbon feed to remove the neutral polar materials.

2,843,640

HYDROCARBON CONVERSION PROCESS EMPLOYING A CATALYST PRETREATMENT

Gordon E. Langlois, El Cerrito, and Edward D. Noble, San Rafael, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application September 30, 1955
Serial No. 537,890

7 Claims. (Cl. 260—683.15)

1. In a hydrocarbon polymerization process wherein a liquefied propylene-containing hydrocarbon material is contacted with a catalyst comprising a thin film of a concentrated mineral acid disposed upon a fresh inert, nonporous, solid, silica-containing support, the improvement which comprises pretreating said fresh support, prior to the disposition of said mineral film acid thereon, by contacting the support for a period of at least 5 minutes with a mineral acid at a temperature of from about 100° to 700° F.

2,843,641

POLYMERIZATION PROCESS FOR PRODUCING HEAVY PROPYLENE POLYMERS

Gordon E. Langlois, El Cerrito, and Paul E. Fischer, Concord, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application January 3, 1956
Serial No. 556,804

2 Claims. (Cl. 260—683.15)

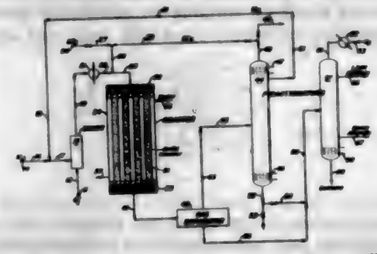
1. A process for producing propylene polymers boiling predominantly in the range of from about 425° to 650° F., which comprises intimately contacting a propylene-containing, normally gaseous hydrocarbon feed and a normally liquid polymer material composed predominantly of propylene tetramer with liquid phosphoric acid of a concentration of from about 110 to 122%, calculated as ortho-phosphoric acid, at a temperature of from about 175° to 325° F., a pressure of from about 200 to 1800 p. s. i. g., and a liquid polymer/propylene weight ratio of from about 3 to 20.

2,843,642

ALKYLATION PROCESS

Joe T. Kelly, Dickinson, Tex., assignor to The American Oil Company, Texas City, Tex., a corporation of Texas

Application September 14, 1956, Serial No. 609,904
10 Claims. (Cl. 260—683.44)



1. An alkylation process wherein an isoparaffin having from 4 to 8 carbon atoms and an olefin having from 2 to 12 carbon atoms are contacted, in a molar ratio of isoparaffin to olefin between about 2 and 50, at a temperature between about —20° C. and 150° C. and a pressure between about 100 and 2000 p. s. i., said pressure being at least sufficient to keep a substantial portion of said reactants in the liquid state, for a time sufficient to permit an appreciable amount of alkylation reaction to take place, in the presence of a catalyst comprising essentially (*i*) an acidic cationic exchange resin and (*ii*) boron trifluoride, said BF_3 being present in an amount in excess of that needed to saturate the resin, a product hydrocarbon mixture is removed from said contacting zone and an alkylate hydrocarbon product is separated from said mixture.

2,843,643

RUBBER CONTAINING DEMETHYLATED WOOD TAR DISTILLATE

William K. T. Gleim, Island Lake, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application May 14, 1956
Serial No. 584,468

6 Claims. (Cl. 260—758)

1. A rubber normally subject to cracking due to ozone containing from about 0.25% to about 10% by weight of demethylated wood tar distillate as a retarder of said cracking.

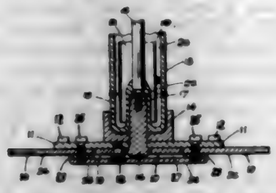
ELECTRICAL

2,843,644

ELECTRODES FOR GLASS MELTING FURNACES

Douglas Graeme Hann, Beckbury, near Shifnal, England, assignor to Elemelt Limited, Bilston, England, a British company

Application September 5, 1956, Serial No. 608,092
Claims priority, application Great Britain
September 9, 1955
15 Claims. (Cl. 13—6)



1. In a glass melting furnace of the kind specified, means for controlling the extraction of heat from the current communicating face of an electrode towards a relatively intensively cooled part of the electrode comprising a thermally resistive layer affording a thermal conductivity less than that of the material from which the main body of the electrode is formed and operatively interposed between such part and the zone of the current-communicating face which would otherwise be overcooled.

2,843,645

METHOD AND APPARATUS FOR REMOVING COMBUSTION CHAMBER DEPOSITS

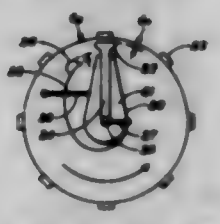
Harrison W. Sigworth and Edward J. McLaughlin, El Cerrito, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Original application June 29, 1953, Serial No. 364,796. Divided and this application August 30, 1957, Serial No. 681,217

4 Claims. (Cl. 123—148)

1. An ignition distributor rotor having a nonconductive body adapted to be connected with a driving shaft, a contact member supported by said body and adapted to engage the central contact of a distributor cap, said cap having a row of equally spaced terminals for con-

nection with spark plugs, a first spark gap electrode supported by said body and connected with the contact, said first electrode extending beyond the rotor body to form an electrically conductive path to said row of terminals, a second spark gap electrode supported by said body, said second electrode forming an electrically conductive path extending outwardly from said body and angularly



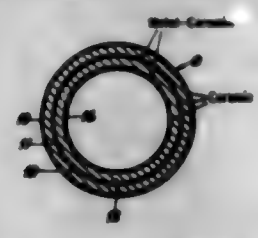
displaced from said first spark gap electrode, and means for connecting said second electrode to said contact, said second spark gap electrode forming spark gap of lesser dimensions with each of the terminals of said row of terminals than the spark gap between said first spark gap electrode and said terminals when said rotor is operated above a predeterminable speed of rotation.

2,843,646

LAMINATED METAL CERAMIC

Louis A. Conant, Tonawanda, N. Y., assignor to Union Carbide Corporation, a corporation of New York

Application June 9, 1953, Serial No. 360,453
12 Claims. (Cl. 136—4)



1. A ceramic object adapted for contact with deleterious reagents such as molten metals comprising a refractory metal ceramic base containing intimately dispersed minute particles of about 50% to 75% by volume of chromium metal and a refractory metal oxide with said chromium metal forming a continuous metal phase therein and having cohesively and thermally secured to at least one contact surface of said refractory metal ceramic base a refractory ceramic coating containing the same refractory metal oxide which is intimately dispersed within said refractory metal ceramic base, said refractory ceramic coating having a thickness between about 0.001 and 0.020 inch.

2,843,647

THERMOELECTRIC GENERATOR AND METHOD OF MAKING THE SAME

Robert F. Anderson, St. Louis Park, Raymond P. Flagg, Mounds Township, Ramsey County, and Ralph T. Oeen, Golden Valley, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application January 20, 1954, Serial No. 405,207
9 Claims. (Cl. 136—4)



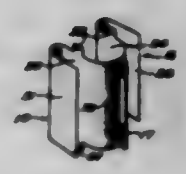
6. The combination comprising a thermopile of dissimilar metals, a metallic protective case enclosing said thermopile and spaced therefrom, and glass between and fused to said thermopile and case, said glass including a mixture of at least ninety percent by weight of glass frit having a high melting point and up to ten percent by weight of glass frit having a much lower melting point and better wetting properties.

2,843,648

THERMOELECTRIC GENERATOR

William A. Ray, North Hollywood, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California

Application October 17, 1955, Serial No. 540,846
6 Claims. (Cl. 136—4)



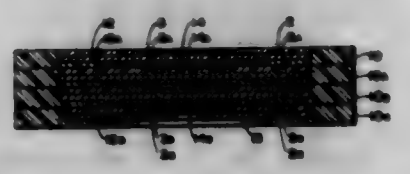
1. A thermoelectric generator comprising a thermocouple consisting of a pair of thin sheets of thermoelectrically dissimilar metals joined together at one of their respective edges and bent to form an elongated main trough, the side walls of said main trough being rebent to form an additional trough at each side of the main trough and inverted relative thereto, each of said troughs being relatively deep and generally U-shaped in cross section, the side walls of the troughs being generally parallel to each other; the junction of said sheets being linear, substantially central of the crook of said main trough, and parallel to the general axis of the main trough; means for heating said junction comprising an elongated electric heating element mounted in said main trough adjacent the junction, said element being substantially parallel to the junction and in spaced relation to the main trough; and means connected to the outer side walls of said additional troughs for connecting the thermocouple in an electric circuit.

2,843,649

MOLDABLE MINIATURE BATTERY

Arnold S. Louis, Riverdale, N. Y., assignor to Myron A. Coler, Scarsdale, N. Y.

Application November 30, 1956, Serial No. 625,364
6 Claims. (Cl. 136—111)



6. A battery assembled from a plurality of cell elements and an end section comolded one to another, said elements comprising thermoplastic hollow spacers each having a stepped inner bore so as to provide a first section having a small internal diameter and a second section having a large internal diameter, a flat annular washer of insulator thermoplastic tightly fitted into said larger internal diameter, flush with the top of said hollow spacer, and comolded thereto, a disc shaped electrode of electrically conductive thermoplastic tightly fitted into said annular washer and molded thereto, an electrochemically active electrode material positioned in said second section of large diameter between said flat annular washer and the flange resulting from the difference in diameter between said first section large internal diameter and said second section small internal diameter, an electrolyte sheet comprising a glass fiber cloth impregnated with polyvinyl alcohol and an electrolyte completely filling the

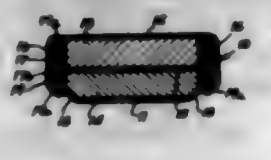
space within said first section of small internal diameter and flush with the outer surface of said spacer, said elements being assembled in a stack with the said annular washer of one element positioned against said electrolyte sheet of the next element, and said end element including an exposed conductive plastic portion and an insulator plastic portion comolded to each other, said conductive plastic portion being positioned in contact with said electrolyte sheet of the end one of said cell elements and said insulator.

2,843,650

SEALING MEANS FOR GALVANIC CELL CASINGS

Pierre A. C. Jacquier, Paris, France, assignor to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme), Romainville, France, a French company

Application February 26, 1957, Serial No. 642,622
Claims priority, application France March 12, 1956
6 Claims. (Cl. 136—111)



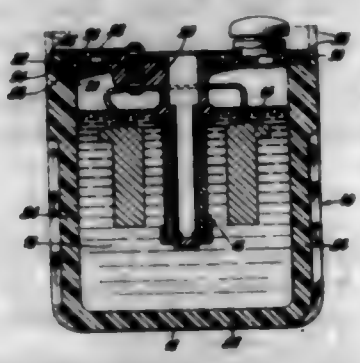
1. A substantially leak-proof casing for a galvanic cell comprising a bottom member and a lid member having a side wall fitted one into the other, said bottom member having a side wall, a substantially inverted U-sectioned insulating bushing mounted on said side wall with its U-bend riding on the rim of said wall, said bushing having its outermost leg increasing outwardly in thickness from the U-bend, said lid member having its rim portion turned down against said bottom member to compress said leg of said bushing between the side walls and also to compress said bushing at its U-bend between the first-named rim and the inner surface of said lid member.

2,843,651

COVER SEAL

James Southworth, Jr., and Harry W. Holland, Rocky River, and John P. Badger, Elmore, Ohio, assignors to Union Carbide Corporation, a corporation of New York

Application September 28, 1956, Serial No. 612,655
5 Claims. (Cl. 136—133)



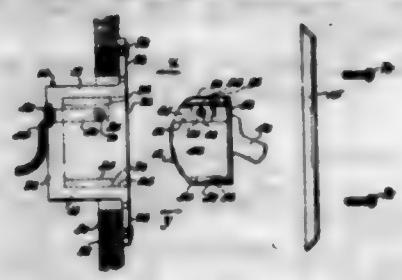
4. In a battery, a fluid seal assembly comprising a casing of thermoplastic material provided with a bottom wall and side walls therefor, each of said side walls having an inner shoulder, a cover for said casing fitting in said casing side walls in supporting relation to said shoulders, and a flowable semi-plastic sealing gasket between said cover and said shoulders, said cover having an upstanding collar at each edge thereof, and held in place compressibly on said shoulder by an overbearing flange of said side walls, said flange having thereon a collar section adaptable to closely mate with said cover, whereby said plastic sealing gasket cover and shoulder form a sealing assembly.

2,843,652

COMBINATION ELECTRICAL OUTLET

Carmen Mancella, New Brunswick, N. J., assignor of one-half to Walter S. Paterson, East Orange, N. J.

Application November 7, 1955, Serial No. 545,284
1 Claim. (Cl. 174—58)



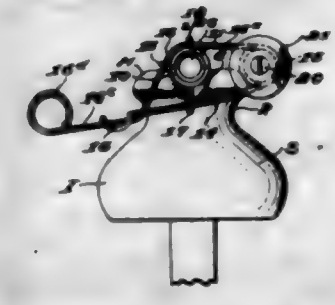
An electrical outlet, which comprises, in combination, an insulated box-like receptacle having side, top, bottom and rear walls, and being open in front, projections on the interior of said top and bottom walls extending from the interior of said rear wall and terminating short of said opening, laterally-yieldable electrical contact members adapted for connection to a source of electric current and positioned adjacent the interior of said side walls, a removable switch comprising recessed means on the top and bottom walls slidably engaging said projections whereby said switch and said receptacle are in flush, telescoping relation to each other, said recessed means terminating anteriorly in stop members adapted for abutment with said projections, recesses in each side wall of said switch having vertical surfaces and electrical contact members therein, flush with said vertical surfaces, whereby when said receptacle and said switch are in flush-fit relation electrical contact is made between their respective electrical contact members and said receptacle and said switch are held together in operating relationship.

2,843,653

CONDUCTOR-INSULATOR CLAMP

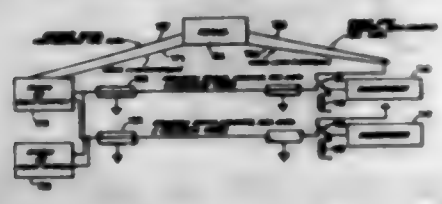
Chauncey C. Mix, deceased, late of Bradford, Pa., by Gladys M Mix, executrix, Bradford, Pa.

Application February 10, 1954, Serial No. 409,474
6 Claims. (Cl. 174—172)



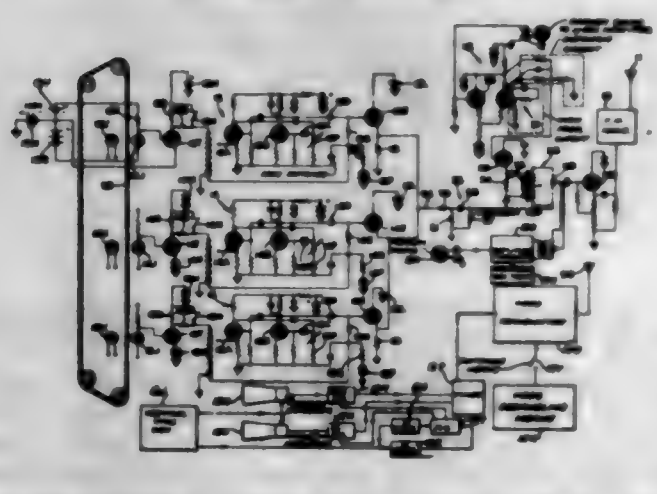
1. A conductor-insulator clamp for use with an insulator having a transverse groove in the upper end and a circumferential recess around the sides thereof, said clamp comprising a pair of oppositely disposed arcuate lower arms resiliently biased toward each other, means connecting said arms at one end and including a pair of catch members, a pair of upper arms, a tubular support for freely surrounding a conductor and including cooperative upper and lower semitubular portions, means connecting said semitubular portions to said pairs of upper and lower arms respectively, and a pair of spring devices respectively connecting one end of one of said upper arms in hinging relation with the free end of one of said lower arms and biasing said arms apart to separate said semitubular portions, whereby said lower arms may be seated in straddling relation in the insulator recess with said lower semitubular portion nested in the insulator groove and after seating the conductor in said lower semitubular portion, said conductor may be enclosed by depressing said upper arms to lower said upper semitubular portion onto said lower portion and respectively securing said upper arms by said catch members.

2,843,654
SUBSCRIPTION TELEVISION SYSTEM USING LAND LINE
Robert E. Gottfried, West Los Angeles, and Allen D. Hoffmann, Los Angeles, Calif., assignors to International Telemeter Corporation, Los Angeles, Calif., a corporation of Delaware
Application December 1, 1951, Serial No. 259,436
19 Claims. (Cl. 178—5.1)



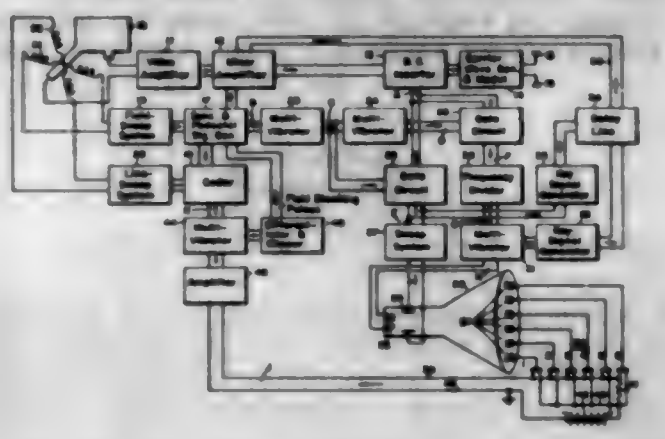
2. In a system of the character described, means at a transmitting station for transmitting a video signal representative of a marquee, means at the receiving station normally effective to receive said transmitted marquee representative video signal, a land line conveying program video to the receiving station, means normally rendering said program video unavailable to the user of the receiving station, coin acknowledgment means at the receiving station, means at the transmitting station for transmitting information as to the value of the transmitted program video, means at the receiving station for receiving such coin value information and for establishing a coin demand, and means rendering said program video available and said marquee representative video signal unavailable upon acknowledgment of said coin demand by said coin acknowledgment means.

2,843,655
SUBSCRIPTION TELEVISION WITH SCRAMBLED TRANSMISSION AND MARQUEE AND BARKER
Robert E. Gottfried, West Los Angeles, Allen D. Hoffmann, Los Angeles, and Louis N. Ridenour, Laguna Beach, Calif., assignors to International Telemeter Corporation, Los Angeles, Calif., a corporation of Delaware
Application December 3, 1951, Serial No. 259,636
11 Claims. (Cl. 178—5.1)



1. In a system of the character described, means at a transmitting station for transmitting both scrambled program video for a portion of the field of a picture and for transmitting video signals representative of a marquee for the remainder of said picture field, means at a receiving station for selectively receiving said marquee representative video and said scrambled video, unscrambling means at the receiver normally ineffective for unscrambling the received scrambled video, means at the transmitting station for transmitting coin demand information to the receiving station, means at the receiving station for establishing a coin demand in accordance with said coin demand information, means at the receiver for acknowledging said coin demand, means actuated upon acknowledgment of said coin demand for rendering said scrambling means effective to unscramble the program video and to produce the unscrambled program video, means at the receiver to visually reproduce only said marquee video and not said program video prior to operation of said coin acknowledgment means, and means to prevent the reproduction of said marquee video responsive to acknowledgment of said coin demand.

2,843,656
SUBSCRIPTION TELEVISION SYSTEM
George V. Morris, Chicago, Erwin M. Roschke, Des Plaines, Walter S. Druz, Chicago, and Bertrand J. Miller, Oak Park, Ill., assignors to Zenith Radio Corporation, a corporation of Delaware
Application April 9, 1952, Serial No. 281,418
34 Claims. (Cl. 178—5.1)

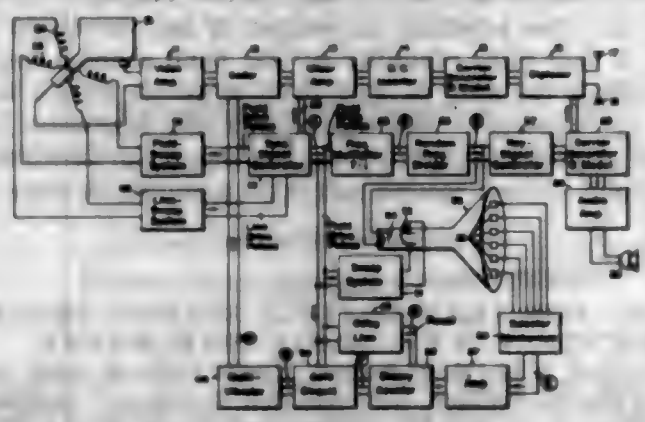


1. An encoding arrangement for a subscription television system comprising: encoding apparatus having a plurality of operating conditions for establishing a corresponding plurality of operating modes in said television system and responsive during any mode-determining interval to the code pattern of an applied signal for selective actuation to one of its aforesaid operating conditions; means for deriving during a mode-determining interval a first control signal including a series of N components which individually and selectively represent one of at least two coding conditions and which collectively represent a first code pattern; a signal source for developing a second control signal including a series of components individually and selectively representing one of said two coding conditions; a conversion mechanism for receiving said first control signal and for utilizing said second control signal selectively to transpose the representation of any component of said first control signal as between said coding conditions to derive a third control signal representing a code pattern determined conjointly by said first and second control signals; and means for applying said third control signal to said encoding apparatus.

2,843,657
SUBSCRIPTION TELEVISION SYSTEM
Robert Adler, Northfield, and Erwin M. Roschke, Des Plaines, Ill., assignors to Zenith Radio Corporation, a corporation of Delaware
Application December 23, 1952, Serial No. 327,576
8 Claims. (Cl. 178—5.1)

1. An encoding arrangement for a subscription television system comprising: encoding apparatus for establishing either one of two different operating modes in said system; means for deriving during each of a series of mode-determining intervals a variable number of control pulses in accordance with an encoding schedule of said system; an actuating circuit having two stable operating conditions and responsive to successive ones of applied pulses to shift from one to the other of said operating conditions; means for applying said control pulses to said actuating circuit so that at the conclusion of each of said mode-determining intervals said actuating circuit assumes one of its aforesaid operating conditions in

response to an even number of said control pulses and assumes the other of its aforesaid operating conditions in response to an odd number of said control pulses; and means, including means coupling said actuating circuit to



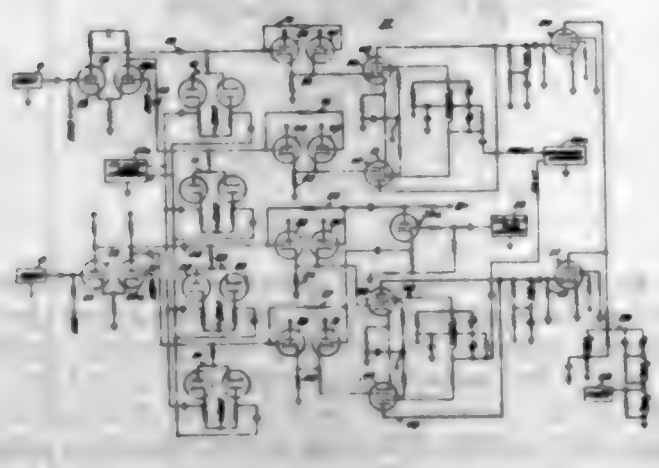
said encoding apparatus, for operating said encoding apparatus to establish an operating mode in said system throughout an ensuing interval in accordance with the operating condition assumed by said actuating circuit at the conclusion of each mode-determining interval.

2,843,658

COLOR BURST INJECTION SYSTEM

Hugh S. Christian, Evanston, Ill., assignor to Raytheon Manufacturing Company, a corporation of Illinois

Application March 11, 1953, Serial No. 341,741
3 Claims. (Cl. 178—5.4)



1. In a multiplexer adaptable for use in color television transmission, a cathode follower mixing circuit comprising a first and second tube, circuit means impressing a derived color signal on said first tube, a clamping circuit cyclically providing a clamped reference voltage and connected to said first tube for clamping said color signal thereto, means connected to said second tube for injecting a burst key-in pulse thereon, and a common cathode resistor for said first and second tube producing a clamped derived color signal having thereon a burst key-in pulse.

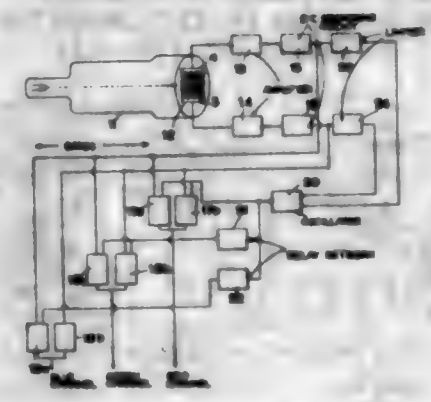
2,843,659

COLOR TELEVISION APPARATUS

Ivanhoe John Penfound James, South Ealing, London, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a British company

Application September 14, 1954, Serial No. 455,975
Claims priority, application Great Britain September 19, 1953
5 Claims. (Cl. 178—5.4)

1. Colour television apparatus comprising an image pick-up tube having a target, a plurality of parallel strip electrodes capacitively associated with said target and extending transverse to the direction of scanning of said target, two conductors connected alternately to said strip electrodes for deriving alternately signals representing portions of a light image projected on said target, a multi-element colour filter for filtering said light image before projection on said target to cause each image portion to consist of a group of colour elements, a plurality of output circuits, and separating means for selectively con-



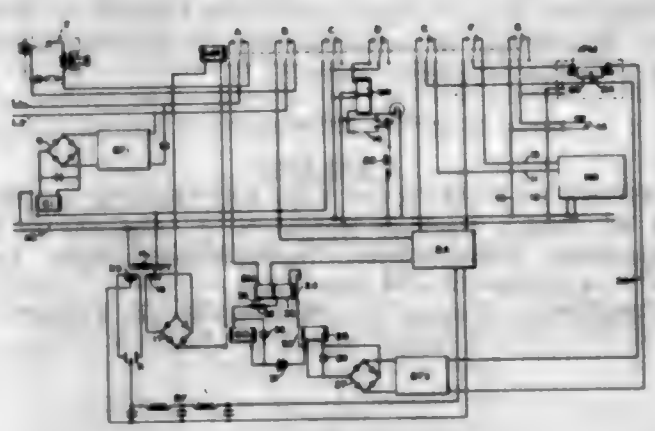
necting said conductors to said output circuits, under the control of the interruptions in the signals derived by said conductors thereby to separate signals representing elements of different colours.

2,843,660

FACSIMILE TELEGRAPH SYSTEM

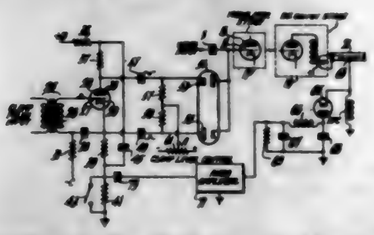
Laurence W. Franklin, Hasbrouck Heights, and Marvin J. Reynolds, Montclair, N. J., assignors to The Western Union Telegraph Company, New York, N. Y., a corporation of New York

Application March 27, 1951, Serial No. 217,818
15 Claims. (Cl. 178—5.6)



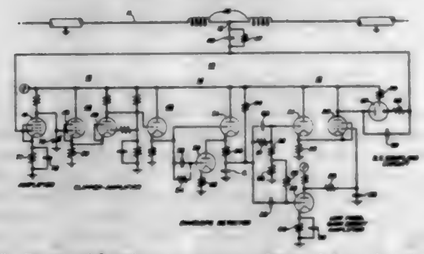
1. A receiving station for the selective reception of telephone and facsimile signals transmitted over a telephone channel, comprising a telephone set normally coupled to said channel, a facsimile recorder, switching means connected to the telephone set and facsimile recorder for selectively coupling either said telephone set or said facsimile recorder to said telephone channel, first relay means for operating said switching means, means responsive to a transfer signal received over said telephone channel to energize said first relay means thereby to disconnect said telephone set from said telephone channel and to connect said facsimile recorder to said telephone channel, reply signal generating means coupled to said telephone channel when said first relay means is energized, means responsive to a testing signal received over said telephone channel to energize said reply signal generating means thereby to transmit a reply signal over said telephone channel, and means responsive to reception of said testing signal over said telephone channel for a time interval greater than a predetermined time interval to deenergize said first relay means thereby to operate said switching means and to couple said telephone set to said telephone channel and to disconnect said facsimile recorder from said telephone channel.

2,843,661
NOISE REDUCTION CIRCUIT FOR TELEVISION TRANSMITTERS
Raymond Lamar Meisenheimer, Delaware Township, Camden County, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 14, 1952, Serial No. 320,394
3 Claims. (Cl. 178—7.1)



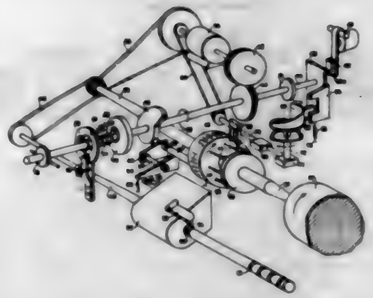
1. A noise reduction circuit for a television transmitter having a modulator stage, a radio frequency output stage electrically coupled to said modulator stage, and a direct current restoration circuit operatively connected to said modulator stage comprising: sampling means coupled to said output stage; peak detecting means coupled to said sampling means to derive a signal representative of the maximum excursions of radio frequency output; said restoration circuit including means, coupled to a source of recurring voltage pulses in said transmitter, for producing a pair of push-pull related pulses for each of said voltage pulses; an impedor so coupled to said restoration circuit that the voltage drop across said impedor elevates said push-pull pulse producing means to a potential positive with respect to a point of zero potential; and means coupling said derived signal across said impedor in inverse phase relationship to variations in said maximum excursions of radio frequency output.

2,843,662
SHUNT CLAMPER OF THE FEEDBACK TYPE
John W. Ricke, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 11, 1954, Serial No. 449,229
3 Claims. (Cl. 178—7.1)



3. In combination, a source of television signals which have recurrent pulses at a nominally fixed amplitude and which may have low frequency amplitude variations due to distortion or interference, output terminals for said signal source, a transmission path interconnecting said source and said output terminals, and a clamper for reducing said low frequency amplitude variations, said clamper comprising a first amplifier device having its input bridged on said line, an envelope detector connected to the output of said first amplifier for deriving from the variation in amplitude of said recurrent pulses a quantized replica of said low frequency amplitude variations, and a coupling circuit for applying the output of said detector to the input of said first amplifier in phase opposition to said low frequency amplitude variations, said coupling circuit comprising a second and third amplifier device, means for connecting said second amplifier device in cathode follower configuration, means for connecting said third amplifier device as an amplifier, a direct-current coupling circuit for applying the output of said envelope detector to said second amplifier device, means for also applying the output of said envelope detector to said third amplifier device, band shaping means for limiting the gain of said third amplifier device to a band of frequencies below one half the repetition frequency of said recurrent pulses, and means for combining the outputs of said second and third amplifier devices.

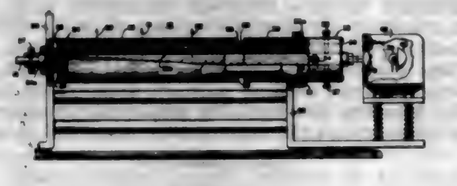
2,843,663
DEVICE FOR TRANSMITTING STATION IDENTIFICATION IN FACSIMILE TELEGRAPHY
Rudolf Hell, Kiel-Dietrichsdorf, Ewald Lifferth, Kiel, and Kurt Reche, Pullach, near Munich, Germany, assignors to Siemens & Halske Aktiengesellschaft, Berlin, Germany, a corporation of Germany
Application August 16, 1954, Serial No. 449,868
Claims priority, application Germany August 14, 1953
19 Claims. (Cl. 178—7.1)



1. In facsimile telegraph apparatus having an image drum carrying symbols to be transmitted and having a scanning element for scanning said symbols together with means for rotating said image drum and for advancing said scanning element relative thereto so as to scan said symbols for transmission thereof, a station name transmitter comprising an arcuate member carrying separate symbols designating the corresponding station name, means for rotating said arcuate member coincident with the rotation of said image drum, means for causing said scanning element to scan said arcuate member spirally to cause transmission of said station identifying symbols carried thereby, and means independent of said scanning element for axially displacing said arcuate member.

2,843,664
TRANSPARENT SCANNING DRUM UTILIZING A LIGHT CONDUCTING ROD
Robert E. Olin, Orudell, N. J., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application September 29, 1954, Serial No. 459,192
4 Claims. (Cl. 178—7.1)

1. In a machine for producing on a record sheet from a transparent image sheet a screened pattern suitable for image reproduction and including a rotatable cylinder for supporting a record sheet and a pair of synchronously reciprocable carriages individually including a recording element for scanning said record-sheet cylinder and an optical pick-up device, apparatus for scanning a transparent image sheet comprising: a transparent image-sheet cylinder rotatable synchronously with said record-sheet cylinder and disposed to be scanned by said pick-up device; a stationary elongated tapered transparent rod extending into said transparent cylinder throughout its length and projecting from one end thereof, said rod having one longitudinal face parallel and opposed to a longitudinal element of said cylinder and having an opposite



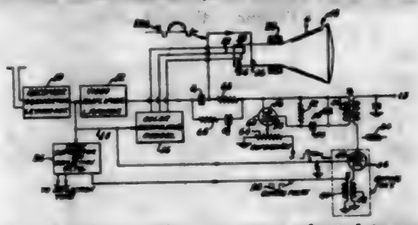
longitudinal face inclined toward said one face in a direction away from said one end of said cylinder; and means for illuminating the end of said rod projecting from said cylinder with substantially uniform intensity over the cross section thereof.

2,843,665
LEVELLING CIRCUITS FOR TELEVISION
Ronald Thomas Clayden, East Sheen, London, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a company of Great Britain
Application December 2, 1952, Serial No. 323,606
Claims priority, application Great Britain December 5, 1951
9 Claims. (Cl. 178—7.2)



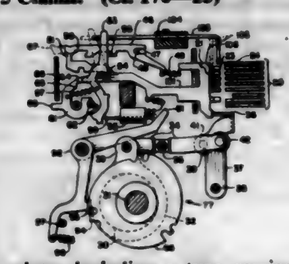
9. Television signal generating apparatus comprising a low velocity pick-up tube including a target and means for generating an electron beam directed with a low velocity at said target, deflecting means for scanning said target with said beam, said deflecting means comprising means for producing a first scanning waveform including line scanning portions and line return portions and a second scanning waveform including field scanning portions and field return portions, means for switching on said beam during line scanning intervals each including a major part of a line scanning waveform portion, means for switching off said beam during inter-line intervals each including a line return waveform portion and a minor part of a line scanning waveform portion and during inter-field intervals each including a field return waveform portion, a path for deriving electrical output signals from said target, said output signals comprising image signals during said line scanning intervals and blanking signals during said interline and inter-field intervals, a series condenser in said path, a source of reference potential, a normally open bi-directional conductive switch closable to connect the output side of said condenser to said source of reference potential, means for closing said switch during major portions of said inter-line blanking intervals which include line return waveform portions to level said output signals with reference to said reference potential, observing means separate from said switch and connected to said path for deriving a potential representing the level of portions of said blanking signals derived during intervals excluding said line return waveform portions, and means for adjusting said reference potential in response to said derived potential.

2,843,666
DIRECT CURRENT INSERTION APPARATUS
Joseph O. Preisig, Trenton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application September 29, 1953, Serial No. 383,109
14 Claims. (Cl. 178—7.3)



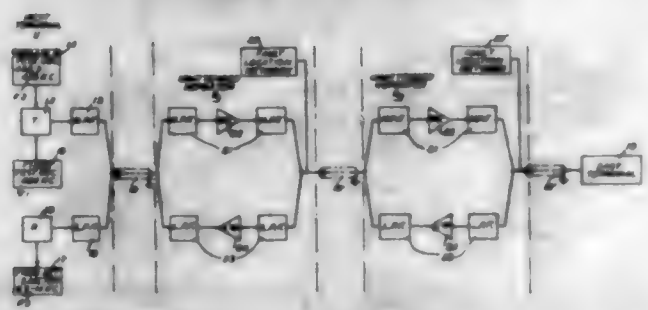
1. In a signal-processing apparatus adapted to operate upon a composite signal which includes regularly recurring reference portions to be clamped to the same level, each of such portions having superimposed thereon an identifying waveform in the form of a burst of sinusoidally varying electrical energy of predetermined frequency, direct current restoring means for maintaining said reference portions at a fixed level, comprising: a utilization circuit for such signal, having an input terminal; capacitive coupling means for applying such signals to said terminal, a source of reference potential; a unilaterally conducting device having at least an electron-emitting electrode and an electron-collecting electrode, one of said named electrodes being connected to such source of potential; means defining a connection between the other of said named electrodes and said terminal in said apparatus to which such signal is applied; means for separating such bursts from such composite signal; and means for coupling said last-named means to an electrode of said unilaterally conductive device for controlling the conduction of said device in such manner as to connect said terminal to such reference potential during the occurrence of such bursts.

2,843,667
LINE FEED SUPPRESSION DEVICE
Ransom D. Shayton, Lombard, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware
Application February 28, 1955, Serial No. 491,015
5 Claims. (Cl. 178—25)



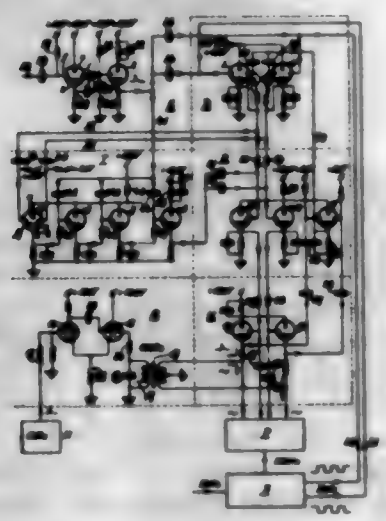
1. In a page printer including a type carriage and a platen carriage, carriage return means, line feed means, character spacing means for moving one carriage with respect to the other, selector mechanism comprising a plurality of code bars arranged in superposed parallel planes, signal responsive means for controlling the permutative positionment of said code bars, a plurality of function bars slidably mounted for movement toward and away from said code bars, said plurality of function bars including normally selective carriage return and line feed function bars, a special function bar invariably operated simultaneously with said carriage return bar, a carriage return auxiliary bar, and means controlled by said carriage return auxiliary bar upon its initial operation for preventing the selective operation of said normally selective line feed function bar and said special function bar.

2,843,668
REPEATER TESTING SYSTEM
Lester M. Ilgenfritz, Mamaroneck, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 27, 1956, Serial No. 606,485
8 Claims. (Cl. 178—69)



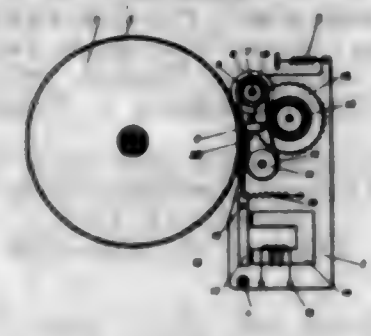
1. In a signaling system comprising an attended station and a plurality of unattended repeater stations geographically separated from said attended station and from each other, a transmission line connecting said attended station and unattended stations for the transmission of intelligence to preselected unattended stations and from the last-mentioned stations back to said attended station via two different frequency bands, means at said attended station for applying to said transmission line a plurality of pairs of test waves of preassigned discrete frequencies lying in a first of said transmission bands and having a difference frequency lying in a second of said transmission bands, frequency selective means at each unattended station for mixing one of said preassigned pairs of said test waves to produce a wave of a difference frequency distinctive of one of said unattended stations, means at each of said unattended stations for returning said difference frequency wave over said transmission line to said attended station, and means at said attended station for detecting the numerical values of the frequency of said returned difference frequency waves and measuring the amplitude thereof for identifying the unattended stations and indicating the transmission conditions thereat respectively.

2,843,669
SYNCHRONIZED GENERATOR
Willem Six, Rudolf Louis Wittebol, and Regnerus Aginus Koolhof, Hilversum, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application October 26, 1954, Serial No. 464,838
Claims priority, application Netherlands October 27, 1953
3 Claims. (Cl. 178—69.5)



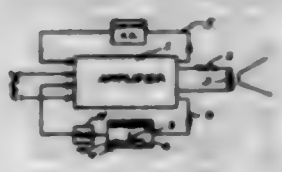
1. A synchronized generator comprising an oscillation generator, a source of synchronizing signals, a phase discriminator connected to compare the phase of said oscillations with that of said synchronizing signals and produce a corrective signal in accordance with the relative phases of said oscillation and said synchronizing signals, means connected to feed said corrective signal to said generator to accelerate or delay said oscillation in accordance with said corrective signal thereby achieving desired synchronization of said oscillation, a free-running auxiliary generator having a frequency substantially equal to a harmonic of the natural frequency of said oscillation generator, and means connected independently of said phase discriminator to synchronize said oscillation generator with said auxiliary generator whereby said oscillation generator continues to be substantially synchronized in the event that said synchronizing signals fail to occur.

2,843,670
DEVICE FOR ELECTRO-MECHANICALLY RECORDING TELEGRAPHIC IMPULSES
Rudolf Heil and Hans Dandt, Kiel-Dietrichsdorf, Germany, assignors to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a German corporation
Application February 11, 1955, Serial No. 487,628
Claims priority, application Germany February 16, 1954
10 Claims. (Cl. 178—96)



1. A device for electro-mechanically recording on a suitable record telegraphic signals comprising a magnet for receiving said signals, a movably mounted armature controlled by said magnet, a printing lever extending from said armature, a stylus element rotatably disposed in a journal carried by said printing lever at one end thereof, said magnet actuating said armature responsive to signals received thereby so as to move said printing lever to move said stylus element into engagement with said record for the purpose of imprinting thereon marks corresponding to said signals, a rotatable resilient ink carrier, means for rotating said ink carrier, said ink carrier being in engagement with said stylus element for continuously rotating and at the same time continuously inking it in any position thereof relative to said record including its operative printing position in engagement with said record and its nonoperative printing position out of engagement with said record.

2,843,671
FEED BACK AMPLIFIERS
Charles A. Wilkins and Herbert W. Sullivan, New York, N. Y., assignors to David Bogen & Company, Inc., a corporation of New York
Application May 19, 1954, Serial No. 430,816
2 Claims. (Cl. 179—1)



1. In an audio frequency amplification system having an input circuit, amplifying means, and an output transformer including a secondary winding, the combination of a secondary circuit including the voice coil of a speaker; a voltage-proportional negative feedback circuit; and a current-proportional feedback circuit in series relation with said voice coil across the terminals of said second-

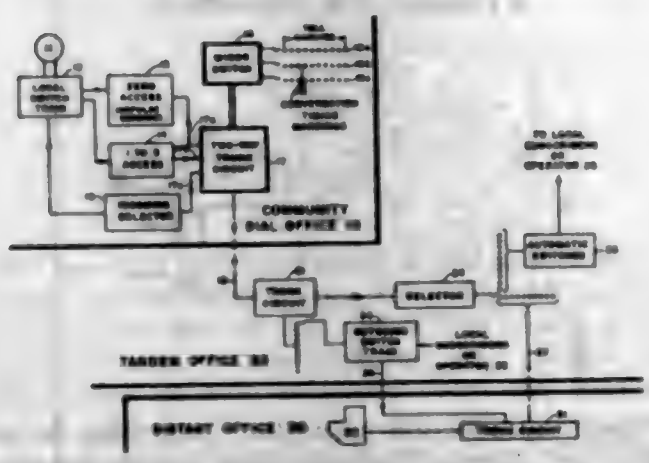
ary winding, with a power lead extending from one terminal of the secondary winding to the voice coil and a return lead extending from the aforesaid current-proportional feedback circuit to the other terminal of the transformer secondary; said current-proportional feedback circuit including a Wheatstone bridge having one branch comprising of a pair of resistors in series and grounded at their junction, and the other branch comprising a potentiometer with a shiftable slider, movable from a positive feedback position through an intermediate zero feedback position to a negative feedback position; a low-pass audio frequency filter and a feedback lead extending from said slider through said filter and through the aforementioned voltage-proportional negative feedback circuit; said negative feedback circuit consisting of a pair of voltage divider resistors in series with each other and extending between the aforementioned power lead and the filter, with a feedback return line extending from the junction between said voltage-divider resistors to the amplifier.

2,843,672

AUTOMATIC TELEPHONE SYSTEM

Ernest H. Gatsert, Rochester, N. Y., assignor to General Dynamics Corporation, a corporation of Delaware

Application November 4, 1955, Serial No. 545,070
18 Claims. (Cl. 179—6.31)



1. In an automatic telephone system, a trunk circuit including talking conductors, means for completing calls of at least two classes through said trunk circuit, means for transmitting digit pulses over said talking conductors through said trunk circuit, means for registering the numerical value of the first digit transmitted through said trunk circuit, means for selectively marking said registering means to indicate said class of calls, means responsive jointly to said marking and to the registration of said digit for providing either coin box tone on a first of said classes of calls or conversation timing and reverse battery answer supervision on another of said classes of calls, means for releasing said register means, and means responsive to answer supervision during said other class of calls for reoperating said register means for conversation timing.

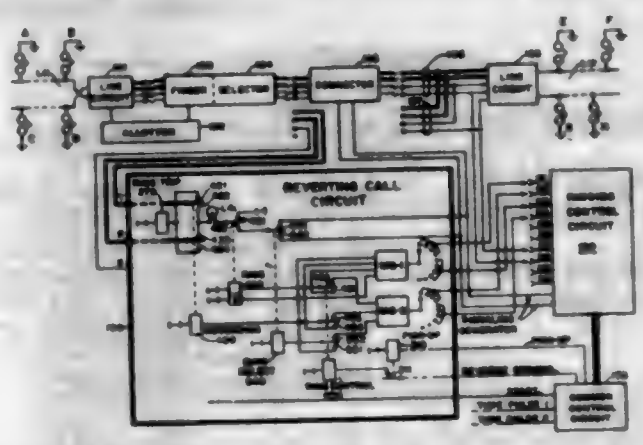
2,843,673

REVERTING CALL CIRCUIT

Robert K. Kaye, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application March 5, 1957, Serial No. 643,979
11 Claims. (Cl. 179—17)

1. In a telephone system, party lines each serving a plurality of subscribers, means for controlling the extension of reverting calls between subscribers served by said party lines, means associated with a plurality of said control means for extending markings and a plurality of signaling currents in time sequence to said control means, each of said markings designating particular subscribers served by said party lines, means responsive to control signals transmitted from calling subscribers for selecting between said markings, and means responsive to said



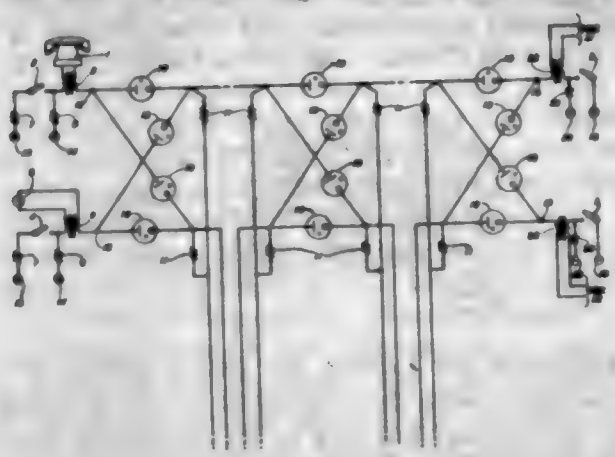
selecting means for transmitting particular ones of said signaling currents to said party lines during periods in said time sequence represented by said selected markings.

2,843,674

MULTIPLE CONNECTION ELECTRONIC SWITCHING NETWORK

Raymond W. Ketchledge, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 20, 1955, Serial No. 509,750
11 Claims. (Cl. 179—18)



1. A communication switching circuit comprising a crosspoint network having input and output sets of terminals, means for defining a plurality of paths between said input and output sets of terminals, and means for establishing paths from a plurality of said input terminals to a single one of said output terminals, said last-mentioned means including means for applying a marking voltage to each of said input terminals through a high resistance and means for applying a marking voltage to said one output terminal through a low resistance.

2,843,675

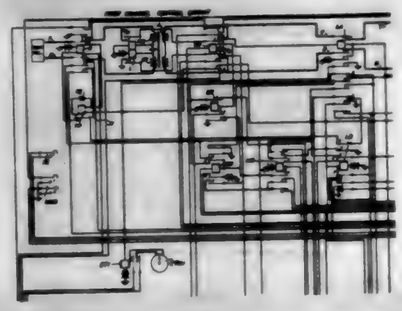
RADIO TELEPHONE DISPATCH CONTROL AND SIGNALING CIRCUIT

Russell W. Collins, Baldwin, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 16, 1955, Serial No. 494,663
50 Claims. (Cl. 179—41)

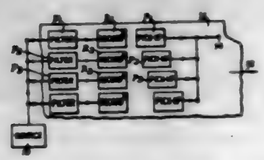
1. A two-way radio telephone communication system having a central station, a plurality of dispatchers' telephone stations, an individual telephone line connecting each of said stations to said central station, a radio transmitter and a radio receiver, individual to said central station, connected to said central station, a plurality of sources of audio frequency tone at said central station, each of said tones of differing frequency, one of said frequencies for calling an individual fleet of mobile

units for each of said telephone stations, means at said central station responsive to the initiation of a call by any one of said telephone stations for automatically



connecting said one station to said transmitter and means at said central station responsive to the initiation of said call for impressing said one station's individual calling tone on the said transmitter.

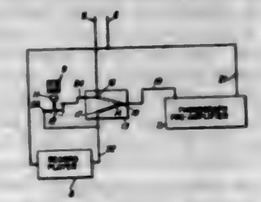
2,843,676
MEANS FOR PRODUCING DISPERSION IN ELECTRICAL OSCILLATIONS
William Halliday, Barkingside, England, assignor to Kelvin & Hughes Limited, Glasgow, Scotland
Application March 4, 1954, Serial No. 414,189
Claims priority, application Great Britain March 6, 1953
8 Claims. (Cl. 179—100.2)



1. Apparatus for varying the phase velocity of input electrical oscillations as a function of the frequency of such oscillations, comprising a magnetic recording body, two electro-magnetic transducer means, means for producing relative motion between said body and said transducer means, one of said transducer means recording electric oscillations on, and the other picking up electric oscillations from, at least one track on said body, the first of said transducer means including at least one transducer and the second said transducer means comprising a plurality of transducers at different distances from the transducer of said first transducer means cooperating therewith, frequency-selective means coupled to each transducer of said plurality, and each passing a different band of frequency, means for applying said input electrical oscillations to said recording transducer means, and means connecting said reproducing transducer means to a common output, said first transducer means comprise a plurality of recording transducers each recording on separate tracks on said body and said second transducer means comprises a reproducing transducer picking up oscillations from each of said separate tracks, said reproducing transducers being at different distances from said recording reproducers along their respective tracks.

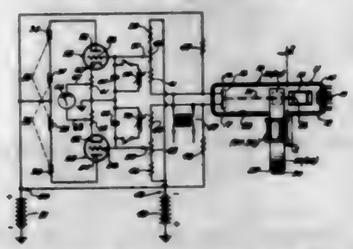
2,843,677
BYPASS CIRCUIT
June Wesley Rush, San Mateo County, Calif.
Application December 21, 1956, Serial No. 629,969
5 Claims. (Cl. 179—100.11)

1. A by-pass circuit including a pre-amplifier, a record player, a supply circuit for supplying energizing current to said pre-amplifier and record player, a stop switch operable by said record player for interrupting said supply circuit, a by-pass switch interposed in the supply circuit between the record player and the pre-amplifier, said by-



pass switch having a pair of contacts on opposite sides of said stop switch, a pivoted arm, adapted to engage either of said contacts whereby current may by-pass said stop switch when in one position.

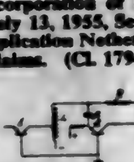
2,843,678
MAGNETIZED RECORD SIGNAL REPRODUCTION SYSTEM
Albert M. Skellett, Madison, N. J., assignor to National Union Electric Corporation, Hatboro, Pa., a corporation of Delaware
Application March 22, 1954, Serial No. 417,667
8 Claims. (Cl. 179—100.2)



1. Signal reproduction apparatus, comprising in combination, an electron discharge tube having means to develop a deflectable electron beam, means defining a magnetic circuit having a gap located within the tube and past which the beam moves, said magnetic circuit having another magnetic gap external of the tube and past which a signal-magnetized record is movable to control the magnetic flux in said circuit and thereby to vary the deflection of said beam in accordance with the signals in said record, a pair of output target electrodes in said tube upon which the beam is arranged normally to impinge in symmetric overlapped relation when said magnetic circuit is in its neutral flux condition, and circuit means also connected to said target electrodes and also controlling the beam deflection for automatically restoring said beam to its normal symmetrical target overlapped position when acted upon by a stray magnetic field of slowly varying intensity, the last-mentioned means comprising a pair of grid-controlled amplifier tubes, a frequency discriminating network connecting each target to the grid of a respective one of said pair of tubes, and a pair of differential magnetizing windings for said magnetic circuit said windings being connected in opposed balanced relation respectively to the anodes of said pair of tubes.

2,843,679
CAPACITY-TYPE TRANSDUCER
Ephraim W. Hogue, Bethesda, Md.
Application August 31, 1953, Serial No. 377,339
8 Claims. (Cl. 179—100.41)

3. An electrostatic transducer comprising a stator and a rotor, said stator having opposed spaced electrically connected conducting surfaces, said rotor being mounted between said surfaces for limited rotary motion as a whole about an axis, conducting surfaces carried by said rotor, one opposite each stator conducting surface and spaced therefrom, each said rotor surface being divided into two electrically separate portions symmetrically disposed with



respect to said axis, said rotor surfaces being smaller in extent than said stator surfaces, diagonally opposite portions of the two rotor surfaces being electrically connected to form two diagonally connected pairs of surfaces.

2,843,680
TELEPHONE RECEIVER ATTACHMENT
Marvin F. Pollard, Ludlow, Mo.
Application June 26, 1956, Serial No. 593,951
1 Claim. (Cl. 179—156)

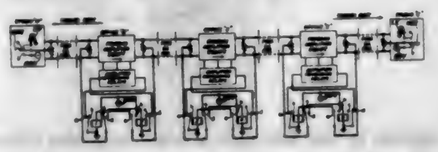


For use on a telephone hand set, an attachment comprising a resilient strap having a covering thereon adapted to fit over the head of the user, a fork having a spindle attached thereto, means mounting said spindle for rotation about an axis coincident with the longitudinal axis of said spindle and on one end of said resilient strap, a pair of trunnions at the outer extremities of said fork establishing an axis of pivotal movement, a clamp carried by said trunnions, and adapted to frictionally engage the hand set of the telephone, said clamp comprising a band having overlapped ends, and means to draw said ends tightly to press the band onto the speaker of the hand set.

2,843,681
TRANSISTOR AMPLIFIER
Adrianus Johannes Wilhelmus Marie van Overbeek, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 13, 1955, Serial No. 521,851
Claims priority, application Netherlands August 4, 1954
4 Claims. (Cl. 179—171)

1. A circuit arrangement comprising a transistor having emitter, collector and base electrodes, a capacitor and an inductor connected in series circuit arrangement with said capacitor, said series circuit arrangement being connected between an emitter and a base electrode of said transistor, means for applying an input signal to said emitter and base electrodes through said series circuit arrangement, said series circuit arrangement being resonant at the frequency of said input signal, means for deriving an output signal from a collector electrode of said transistor, and a resistor connected between a point on said output means and the junction between said capacitor and said inductor, said resistor having a resistance value at which the current flow through the said inductor due to an output signal is substantially negligible.

2,843,682
PROGRAM TRANSMISSION REVERSIBLE NETWORK
John Schreiznayer, Jr., Freeport, N. Y., assignor to American Telephone and Telegraph Company, a corporation of New York
Continuation of abandoned application Serial No. 394,107, November 24, 1953. This application June 29, 1956, Serial No. 594,769
2 Claims. (Cl. 179—171)

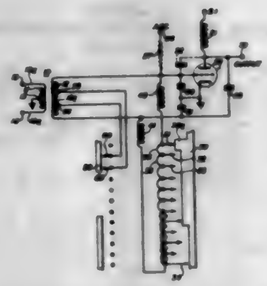


1. A program transmission circuit for controlling a studio start broadcast signal, said circuit interconnecting a first studio and a second studio, said circuit extending in tandem through a chain of amplifier stations intermediate said studios, an amplifier and amplifier reversing means at each of said stations, a control switch for said reversing means at each of said studios, a chain of simplex circuits derived from said transmission circuit interconnecting said switch at said first studio through said reversing means at each of said stations in tandem to said switch at said second studio, means comprising said switches and simplex circuits for directing said amplifiers so as to transmit a program from said first studio over said transmission circuit through all of said amplifiers to said second studio, other means comprising said simplex circuits responsive to the actuation of said switch at said second studio for first consecutively, preconditioning each of said reversing means in the direction from said second studio to said first studio along said transmission circuit, means comprising said simplex circuits responsive to the actuation of said switch at said first studio and incident to said preconditioning for consecutively actuating each of said reversing means along said chain in a direction from said first studio to said second studio, so as to reverse the amplifier nearest said second studio after all others have been reversed, a start broadcast signal connected to said switch at said second studio and means comprising said simplex circuit connected directly to said second studio and incident to the reversal of said amplifier nearest said second studio, for activating said signal, to indicate that said second studio may broadcast without delay as all amplifiers are properly directed.

2,843,683
TELEVISION TUNER INPUT CIRCUIT
Chalmer H. Lewis, Jr., Bloomington, Ind., assignor to Sarkes Tarzian, Inc., Bloomington, Ind., a corporation of Indiana
Application October 26, 1956, Serial No. 618,560
8 Claims. (Cl. 179—171)

1. In a television tuner, an antenna input circuit adapted to receive signals from a low frequency band of V. H. F. television stations and a high frequency band of V. H. F. television stations, comprising an input transformer having a primary and a secondary winding, said primary winding having a center tap connected to ground and said secondary winding having a pair of taps symmetrically spaced from the mid-point of said secondary winding, an amplifier tube including a control grid and an anode, means connecting one end of said secondary winding to said

control grid, means including a neutralizing condenser for connecting said anode to the other end of said secondary winding, station selector switch means, means including said switch means for tuning said secondary winding



to stations in both said high and low frequency television bands, and means including said switch means for connecting said pair of taps together for predetermined ones of said television stations.

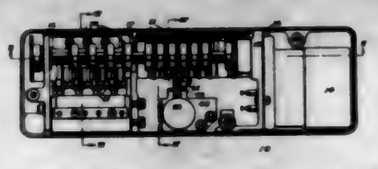
2,843,684
PENCIL HOLDING ACCESSORY FOR TELEPHONE SET
August Guardino, Flushing, N. Y.
Application September 21, 1954, Serial No. 457,475
3 Claims. (Cl. 179—178)



1. A bracket of resilient thin gauge sheet material removably clampable to the wall of a rectangular base of a telephone set wherein the base comprises for adjacent rectangularly arranged vertical walls through one of which a telephone cord projects, and the vertical walls merge at the upper ends into curved walls forming the cradle of the telephone set; the said bracket comprising a pair of broad side arms engageable against an opposed pair of the vertical walls of the base adjacent to the wall with the projecting telephone cord, a broad elongated section continuous with and bridging the side arms at right angles thereto, the elongated section serving to span the wall having the projecting cord, the latter section being notched in its lower edge to accommodate the telephone cord therethrough, and the upper edge of the elongated section extending forwardly to define an open trough for holding a writing instrument.

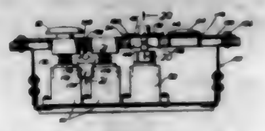
2,843,685
SEQUENCE TIMER
William Q. Nicholson, Pasadena, and Curtis B. Warshawsky, Los Angeles, Calif., assignors to Hycon Mfg. Company, Pasadena, Calif., a corporation of Delaware
Original application September 21, 1953, Serial No. 381,277. Divided and this application March 2, 1956, Serial No. 572,594.
3 Claims. (Cl. 200—37)

1. A sequence timer comprising: a frame; a shaft mounted in the frame for rotation; motor means for rotating the shaft; a plurality of switches aligned generally parallel to the shaft; a rod passing through the aligned switches and disposed generally parallel to the shaft; eccentric bushings supporting the rod in the frame at each end of the rod; means for securing the bushings from



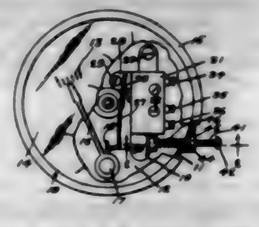
rotation on the frame; and cams disposed on the shaft to actuate the switches in a preselected sequence.

2,843,686
PUSH BUTTON STATIONS
Richard P. Ballou, Hartford, Conn., assignor to Federal Pacific Electric Company, a corporation of Delaware
Original application August 5, 1948, Serial No. 42,718. Divided and this application July 31, 1953, Serial No. 371,526
6 Claims. (Cl. 200—50)



1. In a push-button station, a plurality of push-button switches disposed in side by side relation, each of said switches comprising a casing having companion relatively movable contacts mounted therein and having an axially movable stem for moving one of said contacts in relation to a companion contact, each stem being provided with an operating button which is of larger diameter than the stem, and a locking device positioned between two adjacent switch casings, said locking device comprising a transversely extending movable part pivoted between its ends and having its opposite end portions disposed in the paths of said buttons of the two adjacent switches whereby to prevent operation of one of said two switches during the operation of the other of said two switches, said locking device comprising a support by which said movable part is carried and said switch casings being provided with means in which said support of the locking device has a removable sliding fit.

2,843,687
SAFETY SWITCH
Frank W. Murphy, Tulsa, Okla.
Application July 31, 1956, Serial No. 601,194
5 Claims. (Cl. 200—56)



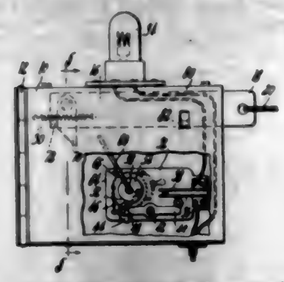
1. A combined gauge and safety switch comprising a gauge body, an indicator hand pivotally mounted in said gauge body, a switch pivotally mounted to said gauge body for movement in a direction toward said indicator hand, a switch actuating arm pivotally carried by said switch for movement in a direction toward said indicator hand, a switch actuating arm actuating pin carried by said indicator hand for moving said actuating arm to switch actuating position upon movement of said indicator hand.

2,843,688
TAPE CONTROLLED APPARATUS
Matthew J. Mason, La Mirada, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application September 4, 1956, Serial No. 607,623
5 Claims. (Cl. 200—61.15)



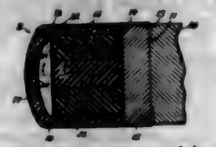
1. A tape controlled switch assembly, comprising: a rotatably mounted tape reel; a movable, spring loaded contact member having a contact end disposed to engage and ride the surface of tape on said reel; a flat contact member pivotally mounted on said reel and swingable between two positions engaging and clearing said tape respectively; and a spring toggle mechanism connected with said flat contact member and spring loading said contact member in each of said positions.

2,843,689
DEVICE FOR TEMPORARILY CLOSING A CIRCUIT
Deering S. Roberts, Marshfield, Mass.
Application June 7, 1954, Serial No. 434,884
4 Claims. (Cl. 200—61.41)



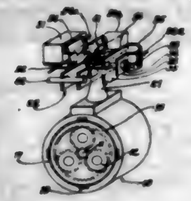
1. A device of the class described, comprising a box, hinge means for attaching said box to a support, an electric switch mounted in said box, tension means extending from said box, switch-closing means in said box operable by outward movement of said tension means to close the switch, delayed-action means for operating independently of said tension means to open said switch after a predetermined interval of time following the closing thereof, and an extensible spring attached to the remote end of said tension means and attachable at its other end to a support.

2,843,690
SAFETY EDGE FOR HANGAR DOOR
Norman K. Miller, Philadelphia, Pa., assignor to Miller Brothers, Upper Darby, Pa., a partnership
Application October 18, 1956, Serial No. 616,732
5 Claims. (Cl. 200—61.43)



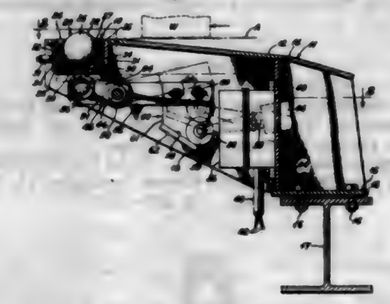
1. In a safety edge for a motor driven door, a base member of foam rubber, a channel member of foam rubber enclosing said base member and having a curved back, said members presenting confronting faces in spaced relation, and a contact strip on each of said faces.

2,843,691
MECHANISM FOR OPERATING A LOAD LIMIT DEVICE IN RESPONSE TO EXCESSIVE LOAD ON A DRIVING MEMBER
Wendell G. Champion, Grand Rapids, Mich., and Thomas Barish, Shaker Heights, Ohio, assignors to Lear, Incorporated, Grand Rapids, Mich., a corporation of Illinois
Application October 20, 1955, Serial No. 541,647
1 Claim. (Cl. 200—61.46)



A non-linear torque overload protector for an electric motor-driven actuator comprising a J-shaped leaf spring with one leg substantially longer than the other, tension means urging said legs together to provide preload on said spring corresponding to a predetermined desired limit of load on said actuator, means applying load to said spring in parallel to said preload and in proportion to actual load on said actuator, and a switch actuated by displacement of said spring when said applied load exceeds said preload and operative to open electrical circuitry controlling said motor when actuated.

2,843,692
SWITCH ACTUATING MECHANISM
Robert G. Staples, Jr., North Wales, Pa., assignor to Link-Belt Company, a corporation of Illinois
Application February 27, 1957, Serial No. 642,761
8 Claims. (Cl. 200—85)

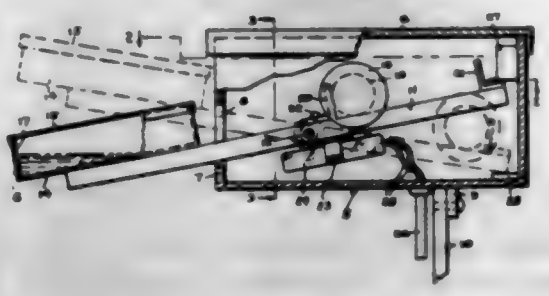


6. An actuating mechanism, comprising a switch, said switch including an operating lever, an upwardly biased slidable plunger adapted to be moved downward by an object moving over it, means for moving said operating lever to activate said switch in response to the up and down movement of said plunger, and means for adjustably shifting the travel range of said operating lever so as to obtain proper switching action of said switch.

2,843,693
RAIN ACTUATED MEANS FOR OPERATING LAWN SPRINKLER SYSTEMS
Bert S. Scriver, Fort Lauderdale, Fla.
Application March 21, 1957, Serial No. 647,588
1 Claim. (Cl. 200—85)

A rain actuated circuit closer for actuating a sprinkler system, comprising a housing and a support therefor, a

rocker arm pivotally disposed in the housing to rock in a vertical plane, one end of the arm projecting beyond the housing, an open receptacle carried upon the extended end of the arm and disposed in a manner to receive and accumulate rainwater, the said receptacle constituting balance means when water is accumulated therein, a shiftable weight disposed upon the arm portion within the housing, means for limiting the shifting movement of the weight, a circuit closer carried by the arm and that serves to establish and interrupt a flow of current to the sprinkler system, the said receptacle when filled to a predetermined level with rainwater serving to overbalance the weight for rocking the arm to a position where the circuit closer interrupts the flow of current to the sprinkler system, the last named movement of the arm causing the weight to



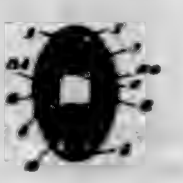
shift to a point adjacent the pivotal means, the said weight overbalancing the receptacle when a predetermined amount of water has evaporated to cause the arm to swing in a reverse direction to actuate the circuit closer to again establish a flow of current to the sprinkler system, the said weight being simultaneously shifted to a greater overbalancing position to maintain the sprinkler system energized until the receptacle has again accumulated the predetermined body of water, the said weight comprises a roller having flanged ends that overlie the edges of the arm, the said roller partaking of a rolling action upon the surface of the arm to and from an overbalancing relation to the receptacle, adjustable stops carried by the arm and whereby to limit the rolling action of the roller and stop means in the housing that are engaged by the inner end of the arm for limiting its vertical swinging movement.

2,843,694

REMOTE CONTROL CABLES

Gérard Bertaux, Jeumont, France, assignor to Forges et Ateliers de Constructions Electriques de Jeumont, Paris, France, a corporation of France

Application August 30, 1954, Serial No. 452,968
Claims priority, application France September 11, 1953
4 Claims. (Cl. 200—86)



1. A cable comprising a deformable sheath, at least one helically wound insulating tape disposed within said sheath, a plurality of flexible bare conductors arranged as contact members having the form of conducting braids comprising non-conducting threads intermixed with metallic wires, said braids having a flattened cross-section and being directly attached on one side of said tape by sewing thereon, whereby said tape is effective to maintain volutes of said conducting braids in spaced relationship from each other a distance such that no electrical contact is provided therebetween and disposed within said outer sheath so that deformation imparted to said cable will cause at least portions of said conducting braids to contact each other.

2,843,695

MAT SWITCHES

Francis J. Ouch, Detroit, and Kenneth Krake, Taylor Township, Wayne County, Mich., assignors to Robot Appliances, Inc., Dearborn, Mich., a corporation of Michigan

Application December 10, 1956, Serial No. 627,194
1 Claim. (Cl. 200—86)



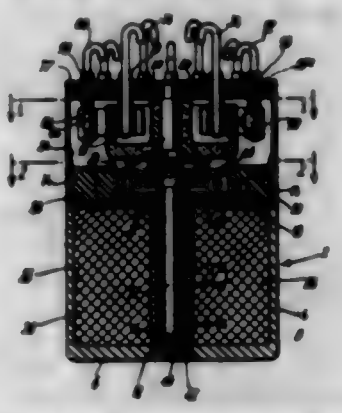
A mat switch comprising, a moisture impervious sheet of metal constituting the base and one contact of the switch, a moisture impervious sheet of resilient metal of lesser thickness than the first and imposed above and in close proximity to the first sheet, said second sheet constituting the other of the switch contacts, separate spacers of adhesive material interposed between said sheets and adhering to one of them, said spacers having a thickness less than the thickness of said resilient sheet and normally spacing said sheets apart, said spacers being spaced apart over the area of said one sheet in rows having the spacers of adjacent rows offset and defining areas of flexibility of the resilient sheet, clamping means connecting said sheets together around the peripheral edges thereof and a rubber mat covering said resilient sheet and clamped by said clamping means to said first sheet and insulating said sheets from each other around the peripheries thereof.

2,843,696

RELAY MECHANISMS

Robert Bruce Sturrup, Westfield, Conn.

Application July 10, 1953, Serial No. 367,313
8 Claims. (Cl. 200—87)



1. A relay comprising a coil for receiving an actuating current, a magnetic stator associated with said coil to receive the magnetic field developed by said coil, two armatures mounted in the magnetic field of said coil for movements in opposite directions with relation to each other and to the coil and stator, and means for connecting said armatures for synchronous movements in opposite directions with relation to each other to form a balanced structure, the armatures and stator having respectively cooperating devices for developing, when current is passed through the coil, attractive and repulsive forces acting on each of said armatures simultaneously to move the armature in the same direction.

2,843,697

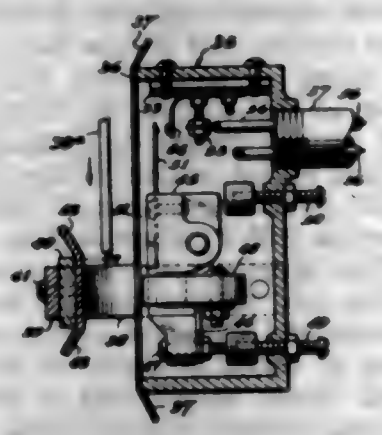
MAGNETIC LEVELING UNIT FOR ELEVATORS

Walter Beck, Rock Island, Ill., assignor, by mesne assignments, to Montgomery Elevator Company, a corporation of Delaware

Application October 20, 1953, Serial No. 387,103
10 Claims. (Cl. 200—87)

1. In a magnetic switch: a frame of non-magnetic material; spaced first and second supports on said frame; a fixed magnet on said first support with one pole adjacent said second support; a rigid carrying member mov-

ably mounted on said second support; a second magnet on said carrying member with its pole like said one pole adjacent said first support and opposed to said one pole, so that the mutual repulsion of said like poles holds the carrying member in a stable position; a fixed switch contact supported by the frame; a movable switch contact supported by the frame in operative relationship to the



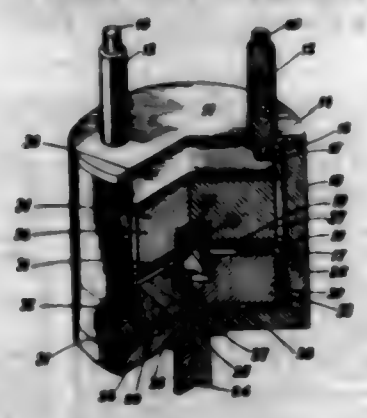
fixed contact, said movable contact occupying a normal first position relative to the fixed contact and being movable to a second position by shifting of the carrying member from said stable position; and a neutralizing member including magnetizable material which may be interposed between said like poles to neutralize said repulsion and attract the second magnet to shift the carrying member from its stable position.

2,843,698

SWITCH MECHANISM

Berthold A. Knauth, High Falls, N. Y.

Application October 11, 1955, Serial No. 539,827
6 Claims. (Cl. 200—87)



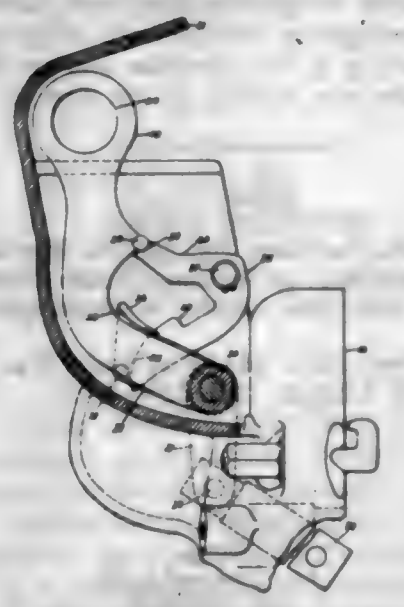
1. A switch mechanism of the character described, adapted for submerged use in the cavity of a fluid flowmeter, comprising an electrically non-conductive housing, a single reciprocable member consisting of a permanent magnet positioned within said housing for high speed vibratory movement therein, said magnet having north and south ploes and a transverse groove therebetween at one end thereof and an electrically conductive surface at the opposite end thereof, a pair of terminals fixedly mounted within one end of said housing and extending into the interior thereof, closely adjacent and adapted directly to be contacted by the electrically conductive surface of said magnet, an electrically non-conductive diaphragm, closing the end of said housing remote from said terminals, having a transverse ridge nested within said groove to prevent angular displacement of said magnet, and a second permanent axially rotatable magnet, having north and south poles, positioned on the opposite side of said diaphragm in spaced relation thereto and freely rotatable at high speed within said housing, alternately to repel and attract said first permanent magnet and to open and close said terminals when said second permanent magnet is rotated, whereby each complete revolution of the rotary magnet is translated into an electric impulse through the medium of the vibratory action of the reciprocating magnet.

2,843,699

SAFETY LOCK-OUT ATTACHMENT FOR AUTOMATIC RECLOSING CIRCUIT BREAKERS

Donald L. Leatherberry, Greensburg, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application May 8, 1956, Serial No. 583,536
8 Claims. (Cl. 200—89)



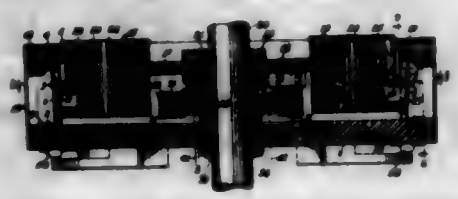
1. In a reclosing circuit breaker having a first and second cooperating contact, at least said first contact being normally automatically operable to open and closed position a predetermined number of times in response to overloads; a manual operating means, a safety lockout operating means; a first and second latch means and a latch engaging means; said latch engaging means being operatively connected to said first contact, said manual operating means being operatively connected to manually operate said first contact; said manual operating means being operatively connectible to said first latch means for moving said first latch means to engage said latch engaging means and maintain said first contact in said open position; said safety lockout operating means being operatively connected to move said second latch to a position for latching said latch engaging means to maintain said first contact in said open position when said first contact is moved thereto.

2,843,700

ROTARY ELECTRICAL RELAY

Osborne I. Price, Frederick, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware

Application October 15, 1953, Serial No. 386,239
6 Claims. (Cl. 200—104)

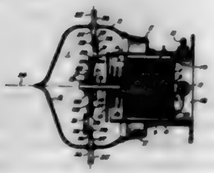


1. In an electrical relay, a base, an annularly-disposed series of armatures of magnetic material movably mounted on said base, an electrical contact associated with and movable with each of said armatures, a stationary contact in position to be engaged by each of said movable contacts, each of said armatures being mov-

able between a closed position in which its associated contact engages said stationary contact and an open position in which its associated contact is free of said stationary contact, a plurality of electro-magnets movable along an arcuate path adjacent said armatures and adapted to act successively on said armatures and by magnetic attraction successively move the armatures and their associated contacts to one of said positions, means for selectively energizing said magnets, bias means for moving said armatures and associated contacts successively to the other of said positions when the magnets have passed, and means for imparting movement to said magnets alternately in opposite directions, said energizing means being arranged to energize one magnet when the magnets are moving in one direction and another magnet when the magnets are moving in the opposite direction

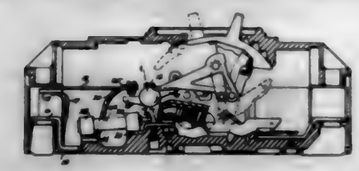
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2,843,701
VACUUM RELAY
Lewis B. Steward, San Jose, and Jack S. Hawkins, Campbell, Calif., assignors to Jennings Radio Manufacturing Corporation, San Jose, Calif., a corporation of California
Application November 28, 1955, Serial No. 549,320
10 Claims. (Cl. 200—104)



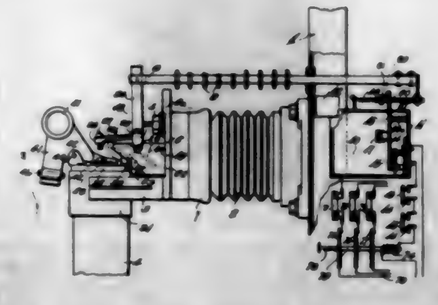
1. A switch comprising a vacuumized envelope, a plurality of spaced contact rods hermetically extending through the wall of the vacuumized envelope and constituting terminal leads on the outside of the envelope and fixed contact rods on the inside thereof, a fixed stem inside the envelope, a movable resiliently supported contact point slidably arranged on the stem to selectively engage resiliently and disengage the fixed contact rods, and means to move the movably resiliently supported contact point to its selected position.

2,843,702
PROTECTIVE DEVICE WITH CURRENT LIMITING MEANS
William Harold Edmunds, Havertown, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application October 22, 1952, Serial No. 316,221
12 Claims. (Cl. 200—114)



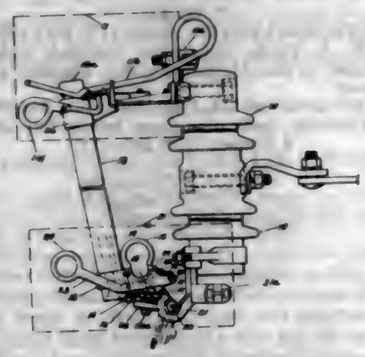
1. In a circuit breaker for use in a low voltage electrical system, which system has an available fault current in excess of the interrupting capacity of the circuit breaker, said circuit breaker having a casing therefor and reduced interrupting capacity duty less than the available abnormal current, and having a pair of cooperating contacts, said pair of contacts having a disengaged and a contact engaged position, said circuit breaker having bias means for biasing one of said contacts toward disengaged position and having latching means for normally maintaining said one of said contacts in contact engaged position against the action of said biasing means, an abnormal current responsive element responsive to abnormal currents in said system, a mechanical linkage extending from said abnormal current responsive element to said latching means to operate said latching means when said abnormal current responsive element operates in response to an abnormal current, said linkage thereupon releasing said latching means to permit said biasing means to operate said one of said contacts to disengaged position, said abnormal current responsive element requiring in excess of a certain period of time to operate in response to the abnormal currents, said circuit breaker being in unitary combination with a current limiting fuse, said current limiting fuse being connected in circuit with said pair of contacts, said current limiting fuse having an electrical characteristic such that it interrupts only abnormal currents of values in excess of the interrupting capacity of said circuit breaker and at least up to the available abnormal current of said system and achieves such interruption in a time interval which is less than the time required by the abnormal current responsive means of said circuit breaker to operate said circuit breaker to disengage said contacts in response to such abnormal currents so that abnormal currents in excess of the interrupting capacity of the circuit breaker are interrupted in said system by said current limiting fuse before said abnormal current responsive means can operate said circuit breaker sufficiently to interrupt the circuit.

2,843,703
FUSE PROTECTIVE SYSTEM
Frederick Yorke Grepe, Toronto, Ontario, Canada, assignor to The Clark Controller Company, Cleveland, Ohio, a corporation of Ohio
Application February 4, 1954, Serial No. 408,886
12 Claims. (Cl. 200—114)



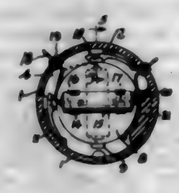
1. In a fuse disconnect mounting and mechanism for supporting a fuse of the cartridge type, comprising supporting means, a pair of laterally open receptacles for the ends of a cartridge fuse, mounted in said receptacles, a movable actuating element for actuating an apparatus associated with the fuse and biased to a normal position, a movable latch element disposed normally in a latching position and latching an end of the cartridge fuse in its associated receptacle, a manually controllable member supported on said end of the cartridge fuse and movable manually to move the actuating element to an actuating position subject to restoration to an unactuating position, lock means to lock the actuating element in actuating position before the cartridge fuse end is withdrawn, the mechanism being operable by movement of the said end of said fuse into the associated receptacle to successively set the latch element and unlock the actuating element for return to its normal position.

2,843,704
LOAD BREAK CUT-OUT
Russell A. Wood, Jeannette, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application March 9, 1955, Serial No. 493,177
21 Claims. (Cl. 200—114)



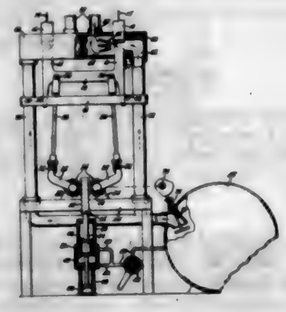
1. In a fuse cut-out comprising an operating means, a fuse tube and a fuse link; a toggle link operatively connected to said fuse tube; a first and second latch for said toggle link; said first latch constructed to maintain said toggle link in the latched position when said fuse link is fused and in the unlatched position when said fuse link is separated; said operating means being manually operable to separate said fuse link during normal load conditions; said operating means operatively connected to move said second latch to latch said toggle link and to subsequently separate said fuse link when said operating means is energized.

2,843,705
MERCURY LIMIT SWITCH
Joseph M. Kalafsky, Cleveland, Ohio
Application March 1, 1955, Serial No. 491,410
6 Claims. (Cl. 200—145)



1. In a mercury switch, the combination of a capsule partly filled with mercury and having electrodes bridged by the mercury in every position of said capsule, means supporting said capsule for rapid rotary flicking motion about an axis effective to part the mercury between the electrodes, external switch contacts in circuit with said capsule adapted to break as a consequence of capsule motion and while the mercury is thus parted, and flicking means for thus flicking said capsule, said flicking means comprising a latch engaged with said means supporting said capsule, a movable switch handle provided with a latch trip arm that first moves toward said latch and then disengages said latch at the terminal portion of the movement of said handle and latch trip arm, and a spring connection between said handle and said means supporting said capsule in which energy is stored for flicking as said latch trip arm thus initially moves toward said latch.

2,843,706
ELECTRIC CIRCUIT BREAKER
John A. Oppel, Aldan, Pa., assignor to General Electric Company, a corporation of New York
Application September 23, 1955, Serial No. 536,138
9 Claims. (Cl. 200—148)



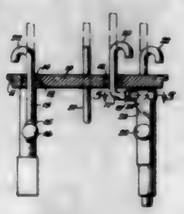
1. In a circuit breaker comprising movable contact structure mounted on a crosshead which is guided for motion in an essentially straight-line path, operating mechanism for driving the crosshead along said path comprising a pair of spaced-apart shafts having stationarily-located axes, a pair of cranks of substantially equal effective length each of which is mounted for pivotal movement on a different one of said shafts, said cranks being symmetrically located with respect to a reference plane which is disposed midway between said shafts and extends parallel to the path of movement of said crosshead, means coupling the outer end of each of said cranks to said crosshead, and means for simultaneously driving said cranks in opposite directions of rotation at substantially the same speed.

2,843,707
ELECTRICAL SAFETY SWITCH
John Berezansky, Mineral Point, and George Gdovichin, Ebensburg, Pa., assignors to Jab Company, Inc., Ebensburg, Pa., a corporation of Pennsylvania
Application May 3, 1955, Serial No. 505,803
2 Claims. (Cl. 200—156)



1. In a mechanism for operation of a power control device wherein a plurality of pulls results in the operation of the control device and a single pull results in the non-operation of the control device comprising a ratchet pawl, a rotatable ratchet wheel having three ratchet teeth therefor and being actuated by movement of said ratchet pawl, a dead center spring pressed lever having an elongated slot therein, a pin on said ratchet wheel and being slidable within said slot of said lever, and one end of said lever being pivotally mounted whereby said pin on said ratchet wheel must be moved an arcuate distance of two ratchet teeth to actuate said dead center spring pressed lever, and said lever having a notch adjacent said slot whereby said ratchet wheel pin will be held prior to the ratchet wheel's movement back past dead center to open said control device.

2,843,708
HEADER FOR ELECTRICAL DEVICES AND METHOD OF MAKING THE SAME
John Schmidt, Chicago, Ill., assignor to Guardian Electric Manufacturing Co., Chicago, Ill., a corporation of Illinois
Application May 31, 1955, Serial No. 511,861
6 Claims. (Cl. 200—166)



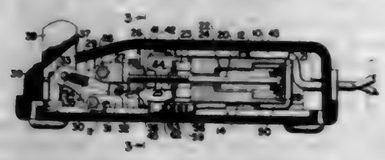
1. In the method of making a header for an electrical device, the steps of piercing a flat contact member formed of hard metal, coating the member with a metal of high electrical conductivity, and thereafter riveting a contact in the pierced opening.

2,843,709
SWITCH WITH ELASTIC CONTACTS
Arnošt Kreisinger, Suchdol, near Prague, Czechoslovakia, assignor to Tesla, národní podnik, Prague-Hloubetin, Czechoslovakia
Application December 27, 1956, Serial No. 630,966
Claims priority, application Czechoslovakia December 31, 1955
6 Claims. (Cl. 200—166)



1. A switch comprising a switch body, resilient U-shaped contacts mounted in the switch body with their bends in the vicinity of the axis of the switch and their elastic ends at the circumference of the switch body, a second bend in each contact in the point of the current supply, a recess in the switch body, the said second bend being adapted to retain by its elasticity the end of the contact in the recess of the switch body, the plane of the first bend of the contact being substantially perpendicular to the plane of the second bend of the contact end placed in the point of the current supply.

2,843,710
CARBON-PILE CONTROLLERS WITH BUILT-IN SNAP ACTION SWITCH
Reynold Happe, Princeton, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application March 23, 1954, Serial No. 418,065
1 Claim. (Cl. 201—51)



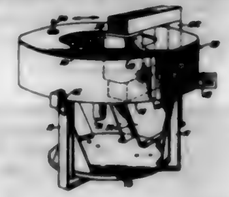
The combination with a carbon compression rheostat having terminals for external connection and including a carbon compression resistor, an operating pull-rod and spring means controlled by said pull-rod to apply variable operative pressure to said resistor, of a snap-action switch normally biased per se to a closed-circuit position, connected electrically in series with said resistor and said terminals and connected mechanically to said pull-rod to be biased to an open-circuit position for an initial range of pressure-increasing movement of said pull-rod and disconnected from said pull-rod for movement thereof beyond said range.

2,843,711
THERMO-ELECTRIC SURFACE HEATERS
Roger D. S. Crick, Harpenden, England, assignor to D. Napier & Son Limited, London, England, a British company
Application July 25, 1956, Serial No. 600,070
Claims priority, application Great Britain July 28, 1955
6 Claims. (Cl. 201—73)



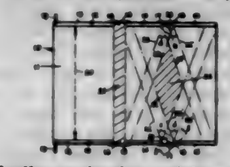
1. A surface heating element of the kind comprising a metallic electric conducting resitance heating layer sandwiched between two insulating layers in which the element is perforated with a plurality of small holes extending through the insulating and metallic conducting layers, and each hole is lined with a layer of insulating material.

2,843,712
INDUCTION HEATING FURNACE AND METHOD OF HEATING
August W. Lillienberg, Chicago, Ill., and George V. Harris, Racine, Wis., assignors to Lindberg Engineering Company, Chicago, Ill., a corporation of Illinois
Application October 3, 1956, Serial No. 613,721
12 Claims. (Cl. 219—10.41)



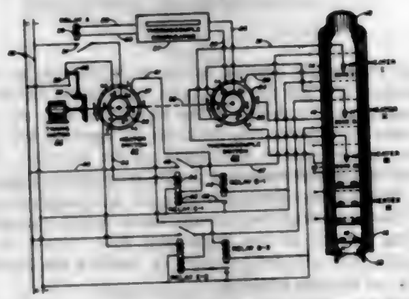
5. An electric heating furnace comprising a hollow outer shell, a heating chamber positioned within said outer shell and thermally insulated therefrom, means for enabling work material to be loaded into and discharged from said heating chamber, actuating means linked to said outer shell for causing said heating chamber to be reciprocated for advancing the work material therein, and transformer primary means inductively coupled to said heating chamber and adapted when energized to cause said chamber and the work material therein to be heated.

2,843,713
ELECTRICALLY HEATED ARTICLES
Willard L. Morgan, Pittsburgh, Pa., assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application August 4, 1954, Serial No. 447,824
7 Claims. (Cl. 219—19)



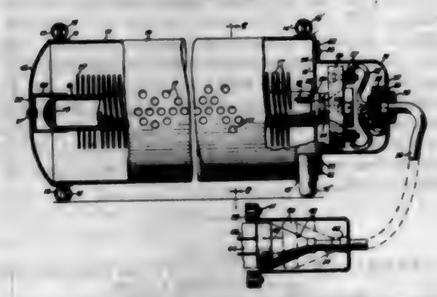
1. An electrically conducting article, comprising a support, an electrically conductive coating on a surface thereof, bus bar elements of relatively higher electrical conductivity than said coating in contact with said coating on said support surface for bringing a major portion of the current carried by the article to said coating, at least one of said bus bar elements being discontinuous along said coated surface and being formed of a plurality of sections having an open area therebetween along said coated surface, the area between said sections serving to reduce the flow of current from the bus bar elements to portions of said coating adjacent said area, and means of relatively higher electrical conductivity than said coating connecting the said bus bar sections together.

2,843,714
TEMPERATURE CONTROLLER FOR AN ADIABATIC VESSEL
Lyman S. Stanton, Novato, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application September 18, 1956, Serial No. 610,514
4 Claims. (Cl. 219—20)



1. In combination with an elongated vessel having a plurality of separate longitudinally spaced heater units for maintaining an adiabatic condition inside said vessel, a first means responsive to the temperature of the vessel shell inside one of said heater, a second means responsive to fluid temperature within said vessel, and substantially opposite said first-named means, means for periodically comparing the response of said first and said second means, and means responsive to said comparison means for controlling the flow of energy to said heater unit.

2,843,715
AUTOMOBILE HEATING DEVICE
Albert A. Paley, Kew Gardens, N. Y.
Application November 14, 1953, Serial No. 392,160
5 Claims. (Cl. 219—34)



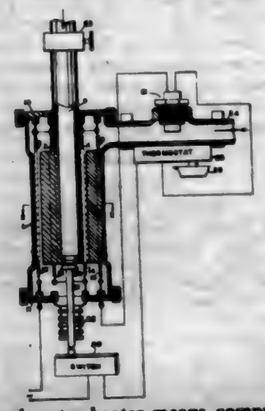
1. In a device of the class described, an elongate heating tube disposed within a cylindrical perforated shell and axially thereof, heating conductors disposed within the tube, a radiating fin structure on the periphery of the tube in the form of a continuous spiral and extending from one end of the tube to the other, end closure walls on the shell of non-planar shape, supporting elements connected to the shell at spaced points and disposed crosswise thereof, said elements being of polygonal shape to space the bottom of the shell from the floor and to prevent rolling of the device thereon, one end of the tube being fixedly fastened to one of said end walls, and a cup-shaped element fastened to the other end wall and receiving the other end of the tube in a slidable relation to permit contraction and expansion of the tube without strain or breakage thereof.

2,843,716
ELECTRICALLY HEATED COOKING EQUIPMENT
Joel A. Del Francia, Los Angeles, Calif.
Application July 6, 1956, Serial No. 596,268
20 Claims. (Cl. 219—37)



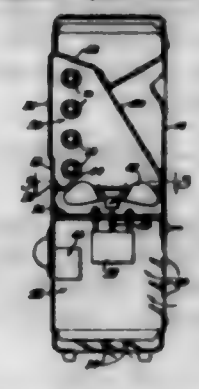
13. Heating means for a relatively heavy horizontal grid plate, comprising an assembly including an electrically energizable radiant heater element having open formation and a horizontally extending tray structure including a heat reflector supporting the heater element for movement under the plate into heating position spaced directly therebeneath, said element being openly exposed to the grid plate, and a connection carried by said assembly to be accessible from the plate front for holding the assembly in said position and releasable to permit removal of the assembly to said front without displacement of the plate.

2,843,717
INDIVIDUAL TAP INSTANTANEOUS WATER HEATER
Glen M. Tracy, Rockville Centre, N. Y.
Application September 18, 1956, Serial No. 610,473
4 Claims. (Cl. 219—39)



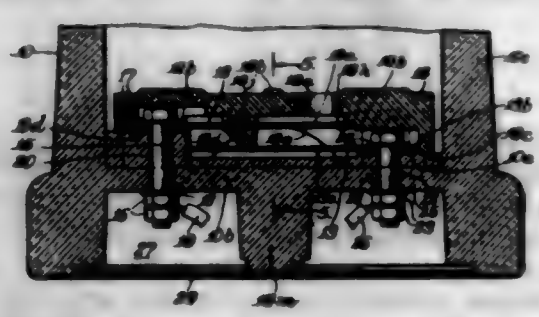
3. Individual water heater means comprising an elongated member having a hollow center and relatively thick walls, a plurality of bores through said walls parallel the axis of said member, heating element means in each of said bores, a flow actuated valve connected at one end of said hollow center of said member, said valve comprising a stem mounted along the axis of said hollow center, a bellows supporting said stem for movement along said axis, a switch connected to be directly actuated by said valve and connected to energize said heating element means, and a thermostat mounted adjacent said member and electrically connected in series with said switch.

2,843,718
AIR HEATER
Alfred J. Huck, St. Louis, Mo., assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Missouri
Application April 29, 1957, Serial No. 655,728
1 Claim. (Cl. 219—39)



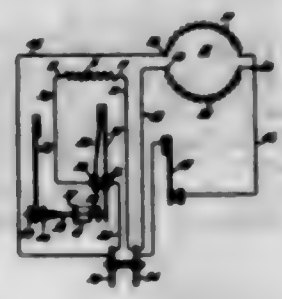
A 240 volt air heater comprising, in combination, a metal casing means defining a space through which air is drawn to be heated and to be discharged from the heater, a ground connection for said casing, horizontal panel means in said space dividing said space into upper and lower regions, heating means in said upper region including an even plurality of similar, 120 volt-rated, heater elements arranged with pairs of said heater elements in series with each other for having a 240 volt source of power impressed safely thereacross, air outlet openings in said casing communicating with said upper region, air inlet openings in said casing communicating with said lower region, said horizontal panel means defining a Venturi opening therethrough the axis of which is disposed vertically, vertically disposed fan means in said Venturi opening for drawing air through said air inlet openings, and through said lower region, and for forcing air through said Venturi opening into said upper region past said heating means and through said air outlet openings, thermostat means for controlling operation of said air heater positioned in said lower region so that it is responsive solely to the temperature of air entering the heater, said horizontal panel shielding the thermostat means therebelow from the heating means thereabove, and the Venturi opening with fan therein preventing any back-flow of heated air from said upper region into said lower region, thereby insuring that said thermostat means senses only the temperature of the air entering the heater, and baffle means in said upper region for assisting in directing the flow of air from said Venturi so as to discharge the heated air laterally from said heater.

2,843,719
BOTTLE WARMER
Hiram Bowen Smith, Madison, and William L. Schulz, Reedsburg, Wis., assignors to Hankscraft Company, Reedsburg, Wis., a corporation of Wisconsin
Application January 12, 1956, Serial No. 558,796
5 Claims. (Cl. 219—40)



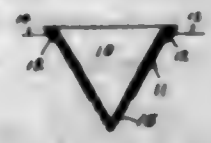
3. A liquid conductor heater comprising, an insulating vessel having a bottom wall, a pair of spaced electrodes extending parallel to each other in said vessel adjacent said bottom wall, said electrodes having oppositely directed tongues projecting therefrom, said bottom wall having parts on which said tongues rest at different elevations spaced from each other and from said bottom wall, terminal posts extending through said bottom wall and connected to said posts, and an insulating plate located above and interlocked with said electrodes.

2,843,720
HEATING AND CONTROL ARRANGEMENT FOR ELECTRICALLY HEATED COOKING RECEPTACLE
Allan M. Young, Meriden, Conn., assignor to General Electric Company, a corporation of New York
Application April 22, 1954, Serial No. 424,954
8 Claims. (Cl. 219—44)



1. In an electric heating device, a receptacle, an electric heating unit for the receptacle, an electric circuit for the heating unit, a switch in the electric circuit, an actuator movable between two positions for opening and closing the switch, spaced abutments on the actuator, a bimetallic thermostat mounted on the receptacle responsive to the temperature thereof having an end positioned between said abutments for moving the actuator, means for adjusting the end of the thermostat with respect to the abutments, and magnetic means for holding the actuator in either of its two positions.

2,843,721
MATERIAL FEEDING DEVICE
Ronald A. Foor, Lakewood, Ohio, assignor to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio
Application April 6, 1955, Serial No. 499,694
2 Claims. (Cl. 219—44)

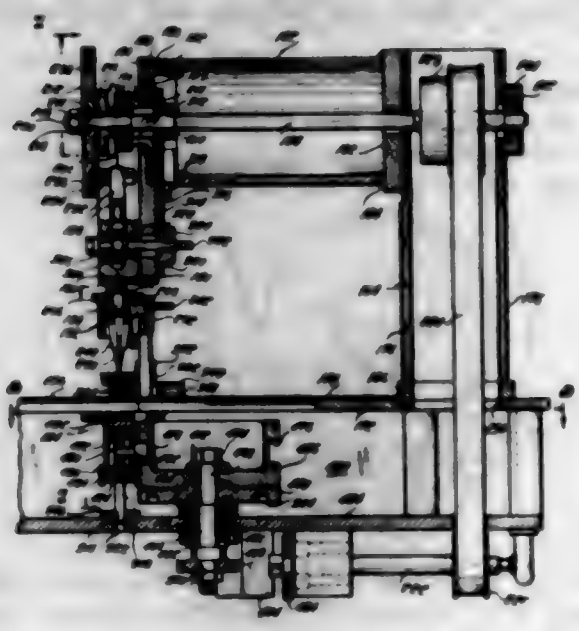


1. A molten material feeder for normally solid ceramic decorating material comprising an elongated V-shaped receptacle having wire mesh screen side wall portions continuous with each other and capable of confining solid ceramic decorating material therein, terminal strips of metal electrically connected to said screen side wall portions along the upper edges thereof, means for passing electricity from one of said strips through the screen side wall portions to the other strip to heat same whereby solid ceramic decorating material adjacent thereto is melted, and means for discontinuing the passage of said electricity thereto.

2,843,722
APPARATUS AND SYSTEM FOR PRODUCING HONEYCOMB CORE
Milton G. Wegeforth, San Diego, Calif., assignor to Solar Aircraft Company, San Diego, Calif., a corporation of California
Application April 2, 1956, Serial No. 575,513
43 Claims. (Cl. 219—80)

1. A device for fabricating a honeycomb structure from transversely corrugated ribbon comprising means for

assembling transversely corrugated ribbon in the form of a cellular honeycomb of adjacently disposed oppositely



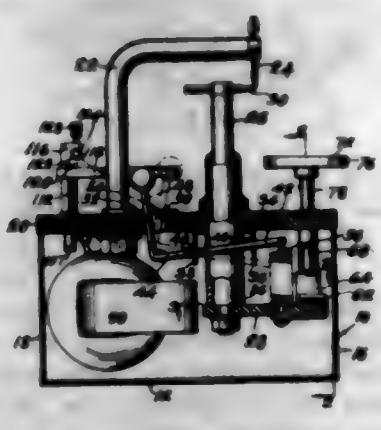
corrugated ribbon sections and means operative during such assembly for bonding the nodes of adjacent ribbon sections together to form a unitary honeycomb structure.

2,843,723

WELDING APPARATUS

Thayer R. Brunson, Denver, Colo., assignor to Rocky Mountain Metal Products Co., Denver, Colo., a corporation of Colorado

Application November 5, 1956, Serial No. 620,243
10 Claims. (Cl. 219—86)



1. In a welding apparatus a fixed post, a movable post, an electrode on each post arranged in opposed relation, pressure means normally holding the electrodes in engagement, and means for moving the electrodes into and out of engagement, said means comprising two spaced hand rest levers and a rocker arm interconnecting the hand rest levers with one another and with the movable post, the rocker arm being operative to effect separation of the electrodes upon both joint and independent movement of the hand rest levers.

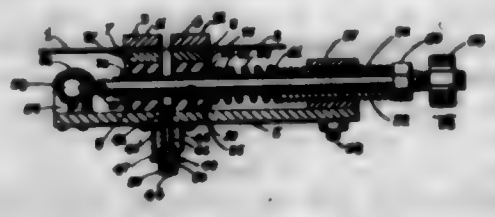
2,843,724

ELECTRIC WELDING METHOD

Albert M. De Gaeta, Brooklyn, N. Y., and Frank W. Klimm, Maywood, N. J.

Application October 10, 1955, Serial No. 539,475
13 Claims. (Cl. 219—96)

1. A method of electrical resistance butt welding, which comprises preparing surfaces of two members to be welded to provide faces that are substantially parallel but with projecting portions providing initial point contact when said members are brought together, positioning said members in predetermined spaced apart relation, exerting on said members a force tending to move them together, restraining said members against movement, electrically connecting said members respectively through a low impedance external circuit to opposite sides of a charged condenser and releasing said members for movement by said force, the configuration of said surfaces, the spacing of said members and the force applied to them



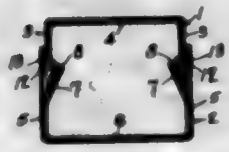
being correlated to provide an electrical resistance between said members on initial contact greater than that of said external circuit and a decreasing contact resistance as the members continue to move toward one another and thereby bring larger areas into contact, the instantaneous discharge of said condenser through said contact resistance between said members producing concentrated localized heat to soften only said faces, and to provide an impact at the end of such movement sufficient to produce a weld between the softened faces of said members.

2,843,725

BOX SECTION AND METHOD OF MAKING

Neil B. Granberg, Wauwatosa, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

Application March 24, 1955, Serial No. 496,397
6 Claims. (Cl. 219—105)



1. A method of forming a box section from a pair of channel members with each member having longitudinally extending flanges joined by a web, which comprises, forming a plurality of depressions in the flanges of one channel member to provide by each depression a surface facing in the same direction as the longitudinal edge of the respective flange and so that said surface is disposed between said edge face and said web and is spaced transversely from the body of each flange, bringing the edges of the flanges of a second channel member in contact with the surfaces of said depressions of the first named channel member, passing a resistance heating current between the edges of the flanges of the second channel member and said depression surfaces, and mashing the flanges and depression surfaces of said channels together to form a welded box member of high strength and rigidity.

2,843,726

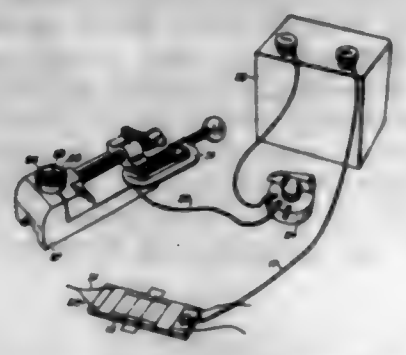
METHOD FOR THE FABRICATION OF VERY SMALL THERMOCOUPLES

Earl F. Kiernan, San Diego, Calif.

Application February 18, 1955, Serial No. 489,310
7 Claims. (Cl. 219—117)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A method of fabricating thermo-couples of fine wire

comprising the step of passing a welding current through at least the ends of a pair of twisted thermo-couple leads



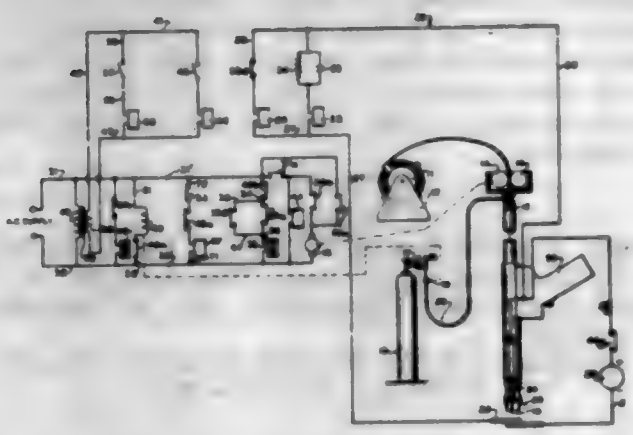
in series with a mercury bath contacting said ends and having an oil surface seal.

2,843,727

METHOD AND APPARATUS FOR GAS SHIELDED LOCALIZED WELDING

William G. Benz, Jr., Rutherford, Jesse S. Sohn, Succasunna, and Richard B. Steele, New Providence, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

Application November 15, 1954, Serial No. 468,662
9 Claims. (Cl. 219—130)



1. The method of gas shielded arc stud welding which comprises situating a gas nozzle in operative relation to a preselected localized region on the workpiece to be welded, discharging a substantially non-turbulent shielding gas envelope from said nozzle to exclude air from said localized region, establishing an arc within said envelope between the localized region and a consumable wire electrode, burning off and depositing filler metal from said electrode, feeding the electrode at a rate substantially equivalent to the burn-off rate of said wire to maintain the arc length substantially constant, extinguishing said arc, continuing the feed of said electrode for a predetermined time after the arc has been extinguished and sufficient to drive said electrode into the molten weld metal, interrupting the electrode feed, maintaining said gas envelope about the molten weld metal until said weld metal has solidified, and cutting off said electrode at a desired length, all of the aforesaid being done while maintaining said gas nozzle in substantially fixed relationship to said workpiece.

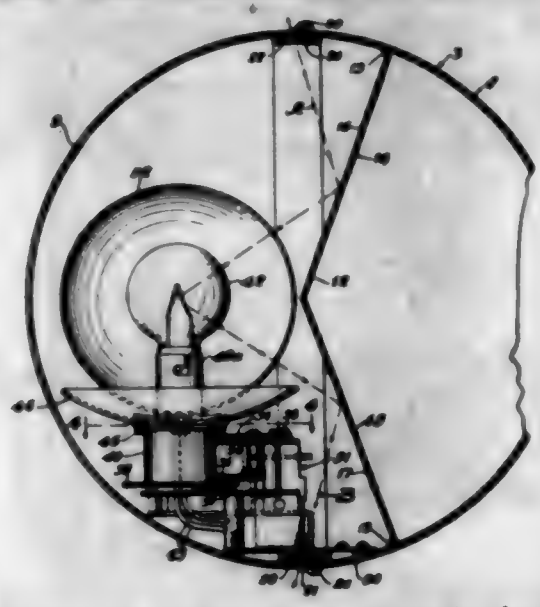
2,843,728

AIRCRAFT LIGHTING AND SIGNALING STRUCTURE

Grant V. W. Roth and Lester V. Walsh, Chicago, Ill.

Application October 7, 1954, Serial No. 460,884
3 Claims. (Cl. 240—7.7)

1. A lighting and signaling structure for aircraft including a housing adapted for attachment to an aircraft wing tip, said housing having an overall, elongated, streamlined configuration, said housing being formed of a pair of longitudinal shell-like inner and outer members, said outer member being formed of light-permeable material, a light source fixed within said outer member at a point intermediate its ends, a reflector movably mounted adjacent said light source within said outer member and means within said outer member for moving said reflector about said light source and a second reflector fixed within said housing and positioned to re-



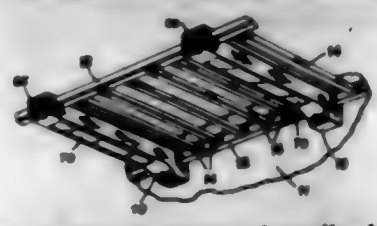
flect light from said light source outwardly through said outer member in a plurality of directions, said second reflector being positioned to receive a beam of light from said first reflector during a portion of the travel of said first reflector about said light source and to direct said last named beam of light through said outer member in a plurality of directions.

2,843,729

ILLUMINATING BAGGAGE RACK

Vincent Materese, Dayton, Ohio, assignor to Mink-Dayton, Inc., Dayton, Ohio, a corporation of Ohio

Application March 30, 1955, Serial No. 497,890
10 Claims. (Cl. 240—7.35)



1. A device of the character described including a plurality of hollow cantilever brackets each having mounting means at one end thereof and each enclosing electrical lighting equipment, said brackets being adapted for mounting in substantially horizontal alignment, channel members connecting adjacent ends of successive said brackets to provide substantially rectangular frameworks, slots in the sides of said brackets for receiving the ends of said channel members, covers for said brackets, fastening means for said bracket covers including bolts extending across said slots within said brackets and providing abutments for said ends of said channel members, channel covers fastened over the open sides of said channel members to provide fully enclosed passageways for electrical wiring between successive said brackets, and cross members supported within said frameworks and spaced to provide for carrying articles thereon.

2,843,730

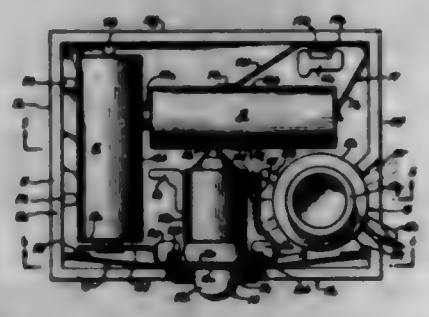
FLASHLIGHT

Sidney Schwartz, New York, N. Y., assignor to Bantam-Lite, Inc., New York, N. Y., a corporation of New York

Application September 24, 1954, Serial No. 458,122
7 Claims. (Cl. 240—10.65)

1. A portable flashlight of the character described comprising a hand-grip size plastic box having a bottom

wall, four side walls and an open face opposite said bottom wall fitted with a removable cover, a pair of battery cells each formed with an axial terminal and a cylindrical container terminal, the first of said cells positioned within the box to extend along a first of said side walls, the second of said cells positioned within the box at right angles to the first cell, the axial terminal of the second cell being in electrical contact with a curved portion of the cylindrical container terminal of said first cell, a second side wall adjacent the first side wall being formed in a mid-portion thereof with a reflector passageway, an incandescent lamp having center and

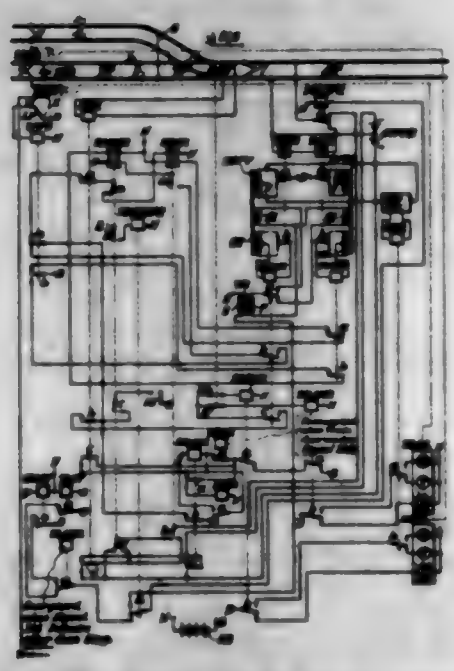


base terminals and a bulb portion extending into said reflector passageway, said incandescent lamp otherwise being positioned within said box to lie parallel to said first battery cell and at right angles to said second battery cell, the lamp center terminal being in electrical contact with a curved portion of the cylindrical container terminal of said second cell, spring means anchored within said plastic box resiliently urging said second battery in an axial direction against said first battery and in a sidewise direction against said lamp center terminal, and switch means connecting the axial terminal of said first battery cell with the base terminal of said incandescent lamp for completing the circuit and lighting the lamp.

2,843,731
POLARIZED TRACK CIRCUIT RAILWAY SIGNALING APPARATUS

Charles B. Shields, Penn Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application January 29, 1953, Serial No. 333,983
5 Claims. (Cl. 246—3)

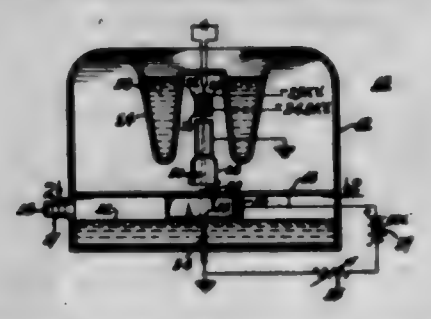


2. In a two directional single track system of signaling, a track section provided with a track circuit at the entering end of the stretch of single track for a given direction of traffic, means including a two-position traffic selector in its normal position for supplying normal code of normal polarity to said track circuit at the leaving end of said section, means including said traffic selector in its reverse position for supplying normal code to reverse polarity to said track circuit at the leaving end of said track section, means for supplying feed-back code of normal polarity during the "off" time of said normal code at the entering end of said section provided said section and the section immediately in advance of it are unoccupied, a first track relay operating when said normal code is of normal polarity, a second track relay operating when said normal code is of reverse polarity, a polar stick traffic direction relay, a polar stick auxiliary relay, said auxiliary relay energized to its normal position only when said traffic direction relay occupies its normal position and said first track relay is operating, said auxiliary relay energized to its reverse position only when said second track relay is operating, said traffic direction relay energized to its reverse position only when said auxiliary relay is reversed and said traffic selector is reversed, and means effective upon the reversal of said traffic direction relay for reversing the polarity of the feed-back code and thereby the direction of traffic over the stretch.

2,843,732
MILLIMETER WAVE GENERATOR

Edward O. Johnson and Karl J. Hernqvist, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application October 21, 1955, Serial No. 541,946
9 Claims. (Cl. 250—17)

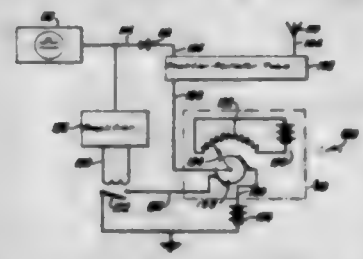


1. A millimeter wave generating device comprising means for producing a dense plasma, said plasma having a density of the order of 10^{15} particles per cubic centimeter, and means for directing an electron stream into said plasma.

2,843,733
SEARCH RECEIVER WITH TRAVELING WAVE TUBE

Richard I. Harrison, Bronx, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application May 23, 1955, Serial No. 510,131
15 Claims. (Cl. 250—20)



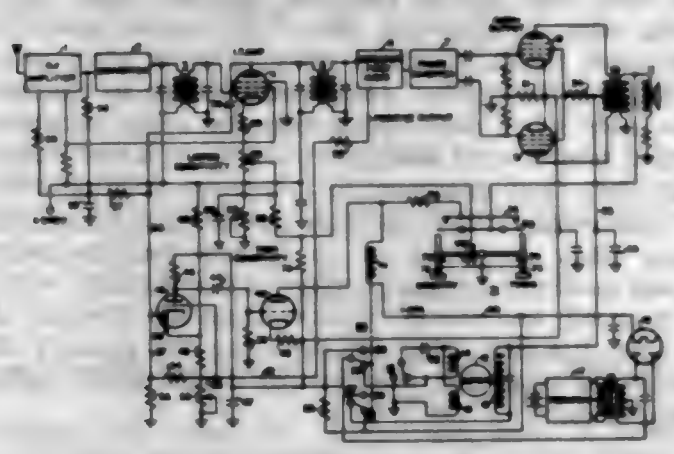
1. A traveling wave tube comprising means for projecting an electron beam along a predetermined beam path and in one direction, an interaction structure including input and output connections and a foreshortened energy guide for transmitting input signal energy along said beam path in the opposite direction, and a region of concentrated attenuation along the length of said interaction structure intermediate said input and output connections dividing said interaction structure into two sections coupled together, the section adjacent said output connection being of a length greater than the other of said sections.

2,843,734

SIGNAL SEEKING RADIO RECEIVER

Charles S. Lerch, Jr., Michael Slavin, Basil P. Hooten, Jr., Frederick E. Churchill, and Chih Chi Hsu, Baltimore, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware

Application February 29, 1956, Serial No. 568,510
14 Claims. (Cl. 250—20)



1. In a signal seeking radio receiver having an audio output amplifier comprising at least one vacuum tube having a plate and a cathode, a source of direct current voltage, a seeking switch, a relay operated switch, a first contact on said relay operated switch, means connecting said direct current power supply to said audio output amplifier in a manner to provide plate supply voltage thereto when said relay operated switch is closed by way of said first contact, a second contact on said relay operated switch, said source of direct current voltage being disconnected from said amplifier when said switch is closed by way of said second contact, said relay actuated switch being closed by way of said first contact when said relay is not energized, a relay control tube having a plate and a cathode, means connecting the cathodes of said control tube and said tube of said audio output amplifier, means connecting the plate of said control tube to said source of direct current voltage by way of the relay of said relay operated switch, said control tube, by virtue of said connection between said cathodes, being in a non-conducting state when said receiver is in operation and said seeking switch is not actuated, and means operated by actuation of said seeking switch to connect said source of direct current voltage to ground through said relay; whereby said relay is energized, said relay operated switch is closed by way of said second contact, said audio amplifier is rendered non-conductive by the disconnection of said source of direct current voltage therefrom and said control tube is rendered conductive by virtue of the connection between said cathodes and maintains said relay in an energized state.

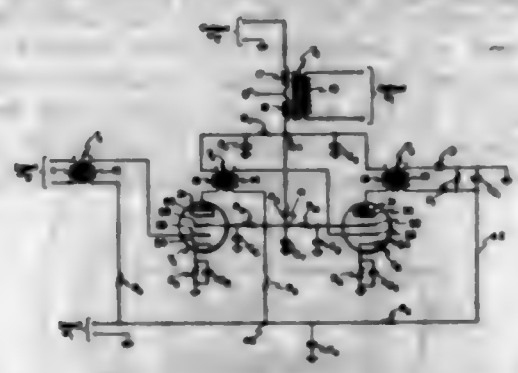
2,843,735

REFLEX AMPLIFIER WITH TWO STAGES CASCADED AT INTERMEDIATE FREQUENCIES AND PARALLELED AT AUDIO FREQUENCIES

Sidney P. Held, Manhattan Beach, Calif.

Application October 3, 1957, Serial No. 687,908
5 Claims. (Cl. 250—20)

1. A vacuum tube amplifier circuit comprising, in combination: first and second vacuum tubes each including a control grid, a cathode and a plate; first and second transformers having the respective primary windings thereof coupled to the plates of said first and second tubes, respectively; an output transformer having the primary winding thereof coupled to the other ends of the primary windings of said first and second transformers; means connected to the primary winding of said output transformer for supplying operating potential to both of said plates; a resistance-capacitance filter circuit connected to one end of the secondary winding of said second transformer; a rectifier element interconnecting said filter circuit with the other end of said secondary winding of said second transformer to provide a series loop circuit; input circuit means for supplying to the control grid of said first tube an intermediate frequency alternating voltage signal whose amplitude is modulated in



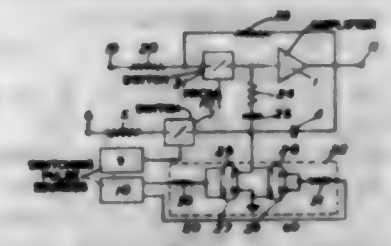
accordance with an audio frequency envelope; means coupling the secondary winding of said first transformer to the control grid of said second tube; and feedback circuit means for coupling an audio feedback signal produced by said filter circuit to the control grids of both said first tube and said second tube simultaneously and in the same phase.

2,843,736

CHARGING OR DISCHARGING CIRCUITS FOR CONDENSERS

Keith Gordon Huntley, Harlington, Hayes, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a British company

Application October 7, 1953, Serial No. 384,540
Claims priority, application Great Britain October 17, 1952
8 Claims. (Cl. 250—27)



1. A circuit for charging or discharging a condenser comprising an amplifier having an input electrode and an output electrode, a negative feedback circuit from said output electrode to said input electrode to lower the output impedance of said amplifier, switch means for rendering said paths selectively effective and ineffective, a condenser having an electrode connected to said output electrode, further switch means connected from the other electrode of said condenser to a point of substantially fixed potential, and an impedance connected from said other electrode of said first condenser to said input electrode whereby said condenser can be charged or discharged to a level representing a potential applied to said input electrode on closing said first and further switch means.

2,843,737

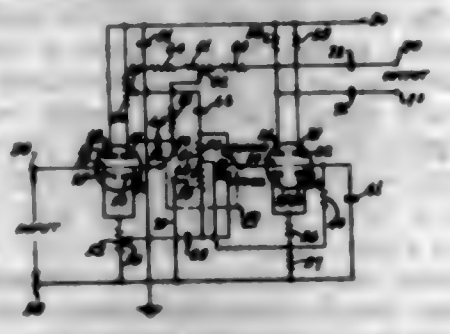
SWEEP EXPANDER BIAS CIRCUIT

Richard P. Valenti, Brooklyn, N. Y., assignor to Radio Corporation of America, a corporation of Delaware

Application September 20, 1954, Serial No. 457,230
5 Claims. (Cl. 250—27)

1. A sweep voltage expander circuit for alternatively producing a normal or a clipped sweep voltage wave in response to an external sweep voltage wave applied to said expander circuit, comprising a first differential amplifier, means connected to said first differential amplifier for applying said external sweep voltage thereto, means connected to said first differential amplifier for deriving

said normal sweep voltage wave therefrom, means connected to said first differential amplifier for deriving said clipped sweep voltage wave therefrom, an output differential amplifier, switching means for alternatively applying said normal sweep voltage wave derived from said first differential amplifier to said output differential amplifier or applying said clipped sweep voltage wave



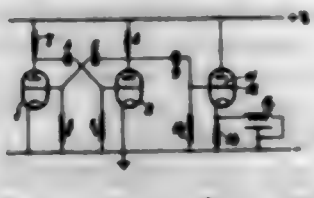
derived from said first differential amplifier to said output differential amplifier, and means cooperating with said switching means for applying a bias voltage proportional to the output voltage of said output differential amplifier to said first differential amplifier when said clipped sweep voltage wave is applied to said output differential amplifier.

2,843,738

CIRCUIT ARRANGEMENT FOR PRODUCING PULSES

Dorus Gerardus Kerker, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 29, 1953, Serial No. 388,975
Claims priority, application Netherlands November 28, 1952
3 Claims. (Cl. 250—36)



1. A circuit arrangement for producing controlled pulses from a free-running oscillator, comprising a free-running pulse generator for producing pulses of a given duration in the absence of control, and a control circuit comprising an amplifier having input and output terminals, means connected to feed said last-named pulses to said input terminal, a reflective delay line connected to said output terminal and having a transit time equal to less than half of said given duration, and means connected for feeding reflected pulses from said delay line to said pulse generator to terminate said pulses of a given duration, whereby said oscillator produces pulses of a desired duration as controlled by said control circuit and produces pulses of approximately the desired duration in the event that said control circuit becomes inoperative.

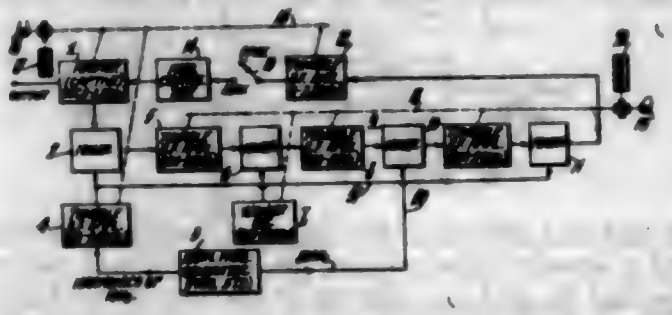
2,843,739

FREQUENCY CONTROL SYSTEM

Arthur C. Stocker, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application December 2, 1954, Serial No. 472,585
10 Claims. (Cl. 250—36)

1. A frequency generation system comprising a captive oscillator whose frequency is to be controlled, means for utilizing solely the output of said oscillator as the output of the system, means for mixing a portion of the output of said oscillator with solely a stabilized standard frequency wave to produce a first beat frequency wave in the radio frequency range, an oscillator, means for mixing the output of said last-mentioned oscillator with said beat frequency wave to produce a second beat frequency wave in the radio frequency range, and means



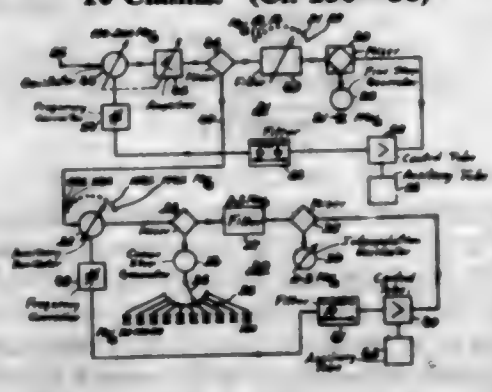
for applying a radio frequency wave representative of said second beat frequency wave to said captive oscillator to lock in its frequency with said representative wave.

2,843,740

HIGH-FREQUENCY MULTI-CHANNEL GENERATOR

Marius Robert Mantz, Jaap Starreveld, and Henri Jacques Soermondt, Hilversum, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application May 3, 1955, Serial No. 505,774
10 Claims. (Cl. 250—36)



1. A stabilized multi-channel generator adjustable in coarse, fine and interpolation frequency steps, comprising a main oscillator having a first frequency corrector coupled thereto, an automatic frequency control loop for stabilizing said main oscillator and comprising a first mixer, means connecting said main oscillator to an input of said first mixer, an auxiliary oscillator connected to an input of said first mixer and having a second frequency corrector coupled thereto, a second mixer, a first filter connected between the output of said first mixer and an input of said second mixer, a fine-step generator connected to an input of said second mixer, and a second filter connected between said frequency corrector and the output of said second mixer, and an auxiliary automatic frequency control loop for stabilizing said auxiliary oscillator and comprising a third mixer, means connecting said auxiliary oscillator to an input of said third mixer, a coarse-step oscillator connected to an input of said third mixer, a fourth mixer, a third filter connected between the output of said third mixer and an input of said fourth mixer, an interpolation oscillator connected to an input of said fourth mixer, and a fourth filter connected between said second frequency corrector and the output of said fourth mixer.

2,843,741

REACTANCE TUBE CIRCUIT

Alvin B. Glenn, Haddonfield, and Robert H. Ray, Moorestown, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application October 17, 1955, Serial No. 540,689
4 Claims. (Cl. 250—36)

1. In a high frequency circuit, in combination: a first electron discharge device having a cathode, a grid, and

an anode, a second electron discharge device having a cathode, a grid, and an anode, means connecting the grid of said second device to operate at zero signal potential, means for feeding a high frequency signal from the anode



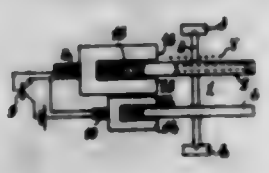
of said first device to the cathode of said second device, and a network intercoupling the anode of said second device and the grid and cathode of said first device to provide a grid-cathode voltage for said first device which lags 90° behind the voltage at the anode of said second device.

2,843,742

DEVICE FOR MAINTAINING MECHANICAL OSCILLATIONS

Johannes Meyer Cluwen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 27, 1955, Serial No. 543,178
Claims priority, application Netherlands November 6, 1954
10 Claims. (Cl. 250—36)



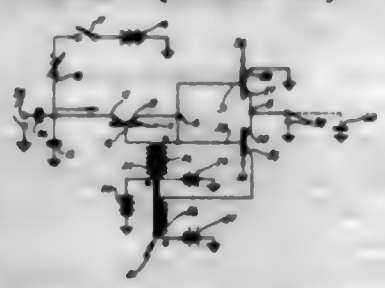
1. Apparatus for maintaining mechanical oscillations, comprising a pickup coil, a permanent magnet system rotatively mounted in operative relation to said pickup coil, means urging a magnet of said system towards a zero position with respect to said pickup coil, said magnet having polarities so arranged with respect to said pickup coil that an electric pulse is produced by the said coil each time said magnet passes through a point near said zero position, means responsive to said pulses for exerting driving force pulses upon said magnet system thereby to sustain said system in oscillatory motion relative to said pickup coil, said pulse responsive means comprising a driving coil mounted in operative relation to said magnet system and means for amplifying said electric pulses connected between the output of said pickup coil and the input of said driving coil, and means for applying an auxiliary force to said magnet to oppose said driving force pulses in a manner whereby resultant driving force pulses which are substantially symmetrical with respect to the passing of said magnet through said zero position are provided.

2,843,743

PULSE GENERATOR

Douglas J. Hamilton, Santa Monica, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application November 4, 1955, Serial No. 544,963
7 Claims. (Cl. 250—36)



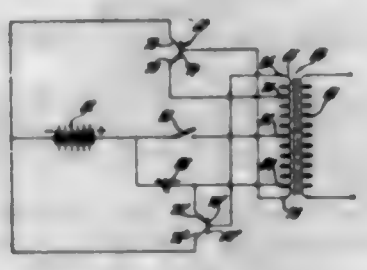
1. A pulse generator comprising: a first oscillator including a first input and a first output circuit; a second oscillator including a second input and a second output circuit, each of said oscillators having at least one quasi-stable state; a pair of output terminals; a signal translating device having a third input and a third output circuit, said third output circuit being connected across said pair of output terminals, said third input circuit being connected to said first output circuit for rendering said signal translating device operative to transfer the signal developed in the output circuit of said first oscillator to said output terminal during the increments of time that said first oscillator is in its quasi-stable state; means for rendering said signal translating device inoperative to translate signals during the increments of time that said first oscillator is not in said quasi-stable state, said second output circuit being connected across said output terminals; circuit means coupled between said second input circuit and said third input circuit for triggering said second oscillator into its quasi-stable state when said signal translating device is rendered inoperative.

2,843,744

TRANSISTOR OSCILLATOR STARTING CIRCUIT

James H. Guyton, Kokomo, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 14, 1955, Serial No. 546,547
7 Claims. (Cl. 250—36)



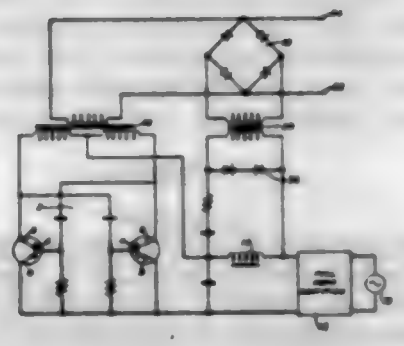
1. A starting circuit for an oscillator which utilizes a transistor amplifying device having collector, emitter, and base electrodes, comprising a voltage source connected between the collector and emitter electrodes, voltage accumulating means and a switch serially connected between the base and emitter electrodes, and a conductive connection between a point intermediate the switch and accumulating means and one terminal of the source.

2,843,745

TONE GENERATOR

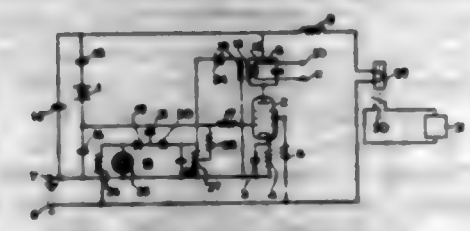
Donald H. Smith, Livingston, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 11, 1956, Serial No. 584,282
3 Claims. (Cl. 250—36)



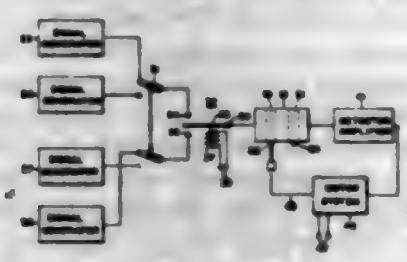
1. A tone generator comprising a source of carrier current, a source of alternating current, means for rectifying said alternating current and producing a direct-current component and a ripple component, means for modulating said carrier current with said ripple component and means for energizing said carrier current source with said direct-current component.

2,843,746
AMPLITUDE CONTROL FOR OSCILLATORS
Willem Koenraad Hofker, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 1, 1956, Serial No. 588,889
Claims priority, application Netherlands June 2, 1955
3 Claims. (Cl. 250—36)



1. An oscillator circuit arrangement containing an amplifier tube provided with feed-back, the feed-back voltage being supplied to the control grid circuit of the amplifier tube through a series circuit determining the oscillator frequency, which control grid circuit includes a variable impedance for the provision of amplitude control, characterized in that the variable impedance comprises at least two series-connected rectifier cells, one end of this series combination being connected to the output circuit of a rectifier circuit arrangement connected to the oscillator output and the other end being connected to a constant reference voltage supply source, while the junction of the series-connected rectifier cells being coupled to the control-grid of the amplifier tube.

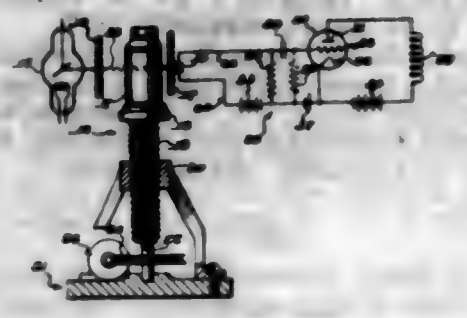
2,843,747
AUTOMATIC ALIGNMENT SYSTEM
Robert B. Ashley, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application March 8, 1957, Serial No. 644,789
16 Claims. (Cl. 250—40)



1. A system for automatically aligning an electronic device having a plurality of interdependent tuned circuits, said system comprising: a pair of signal generators for producing two signals having frequencies and amplitudes such that when these signals energize said electronic device and said electronic device is properly aligned, the amplitudes of the outputs from said electronic device corresponding to these input signals are the same; sampling means for alternately sampling the outputs from said signal generator; leads for connecting the output of said sampling means to the input of said electronic device; a detector for detecting the output of said electronic device; a motor connected to be energized by the output of said detector; and a mechanical connection for connecting the output of said motor to the tuning element of one of said tuned circuits.

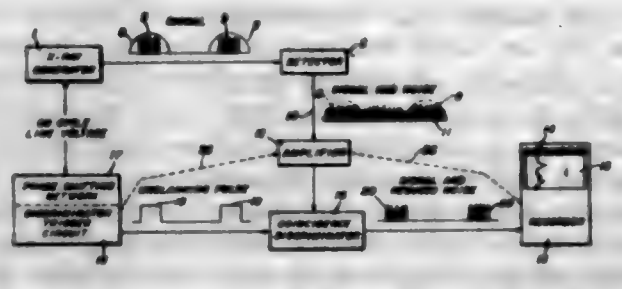
2,843,748
INSPECTION DEVICE
John E. Jacobs, Milwaukee, Wis., assignor to General Electric Company, a corporation of New York
Application August 20, 1951, Serial No. 242,697
10 Claims. (Cl. 250—51)

7. The method of determining the relative density of the constituent material of an examination object, which comprises transmitting a pencil-like beam of X-rays through the object and upon an X-ray sensitive semiconductor element, while continuously rotating the object in the beam to thereby progressively scan the object



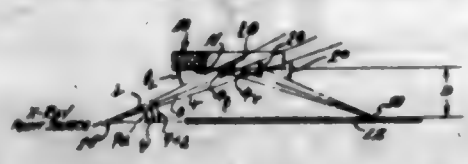
with the beam, and measuring the impedance of said conductor element.

2,843,749
SYSTEM FOR MEASURING X-RADIATION
Avrom M. Koblenz, Bayonne, N. J., assignor to United States Steel Corporation, a corporation of New Jersey
Application August 18, 1955, Serial No. 529,305
17 Claims. (Cl. 250—52)



12. In a system for measuring X-radiations, means for producing diffracted radiations including generator means subject to varying voltage for directing X-ray energy against a target of a material to be examined, a detector for receiving said diffracted radiations and for producing electrical pulses at rates varying with the intensity of the diffracted radiations received thereby, a mechanism for counting and recording said detector pulses, and means controlling the transmission of said detector pulses to said recording mechanism comprising a biasing control circuit normally biased to cut-off and preventing the transmission of detector pulses, a connection for conducting said detector pulses to said biasing circuit, and a trigger circuit comprising a square-wave generator for producing and delivering control pulses synchronously and in phase with said X-ray energy to said biasing circuit to render it conductive when the combined voltage of said detector pulses and control pulses overcomes the cut-off bias thereon.

2,843,750
X-RAY SPECTROMETER
James Hillier, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 7, 1954, Serial No. 473,536
10 Claims. (Cl. 250—53)



1. An X-ray spectrometer comprising a crystal having a selected set of crystal lattice planes, an X-ray sensitive device having a planar surface, means for locating said surface in a plane parallel to said selected set of crystal lattice planes, and means for positioning a substantially point of source of X-rays to be analyzed in the plane of said surface so that radiations from said source will impinge upon said crystal and will be diffracted therefrom onto said surface.

2,843,751

DESIGN, CONSTRUCTION, AND APPLICATION OF A DEVICE FOR OBTAINING RADIOGRAPHS OF MICROSCOPIC OBJECTS IN A COMMERCIAL MODEL ELECTRON MICROSCOPE

Martin Charles Botty, Norwalk, and Frederick George Rowe, Darien, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application February 6, 1956, Serial No. 563,466
4 Claims. (Cl. 250—65)



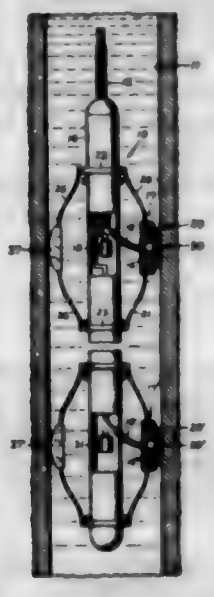
1. An adapter for transforming an electron microscope into an X-ray microscope comprising, in combination, a chamber adapted to be slidably introduced into the pole piece of the second lens of the microscope and comprising, in combination, a hollow chamber member, a second hollow member adjustably positioned therein along the longitudinal axis thereof, said inner member being provided with specimen-holding means and film-holding means separated by a pre-determined distance from each other.

2,843,752

NEUTRON-FLUORESCENCE WELL LOGGING METHOD AND APPARATUS

Clark Goodman, Boston, Mass., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas

Application May 4, 1953, Serial No. 352,755
4 Claims. (Cl. 250—71)



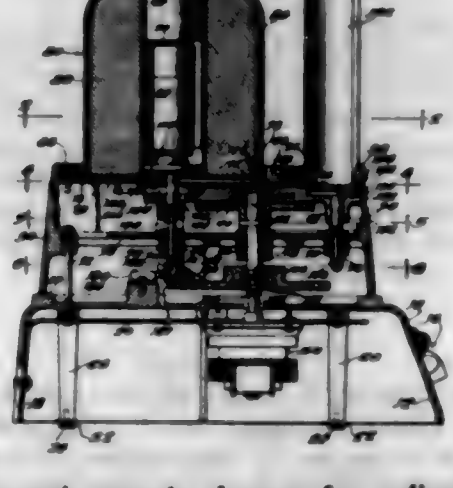
1. In apparatus for investigating earth formations traversed by a bore hole or the like containing a fluid, the combination of an elongated body adapted to be moved through the bore hole, a bore hole wall engaging member, means connecting said wall engaging member with said body for support thereby and for urging one surface of said wall engaging member against the bore hole wall, a source of neutrons mounted in said elongated body and disposed for irradiating through said bore hole fluid the earth formations adjacent said body to produce luminescence in the irradiated earth formations, the energy of said neutrons being moderated by said bore hole fluid, a window in said one surface of said wall engaging member adapted to be transparent to said luminescence, photoelectric means in said wall engaging member and disposed to receive said luminescence through said window from said irradiated earth formations, and means for exhibiting a function of the response of said photoelectric means to said luminescence as said body is moved through the bore hole.

2,843,753

AUTOMATIC SAMPLE CHANGER FOR RADIOACTIVE SAMPLES

Raymond L. Meeder, Palos Heights, Ill., assignor to Nuclear-Chicago Corporation, a corporation of Illinois

Application January 21, 1954, Serial No. 405,309
21 Claims. (Cl. 250—106)



9. An automatic sample changer for radioactive samples comprising a rotatable flat-surfaced carriage having equally spaced from the axis of rotation thereof a plurality of circumferentially spaced substantially identical recesses of a depth to receive a sample holder, dispensing and receiving open-ended magazines each adapted to receive a stack of sample holders, an open-ended shield adapted to hold a radiation counter, means to support the open ends of the magazines and the shield in circumferentially spaced relation facing and closely adjacent to the rotational path of the recesses, elevating means in each recess to raise a sample holder above the surface of the carriage, means to activate and deactivate the elevating means to raise and lower a sample holder in each recess when the recess is positioned at the open end of the shield, and to raise a sample holder as the recess passes the receiving magazine, and means to rotate the carriage to successively position the recesses at the ends of the magazines and the shield, whereby successive sample holders are removed from a stack of sample holders in the dispensing magazine, inserted into and removed from the shield, and then loaded into the end of the receiving magazine.

2,843,754

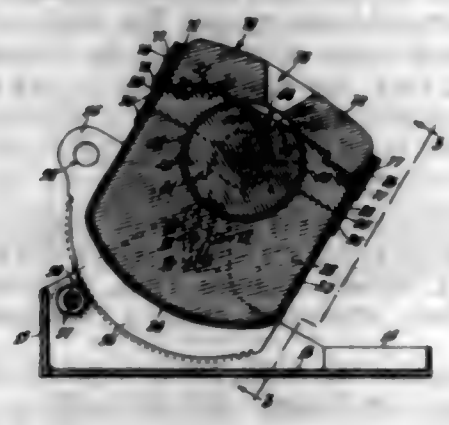
GAMMA-RAY PROJECTORS

Robert B. Costello, Rahway, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application August 18, 1954, Serial No. 450,693
8 Claims. (Cl. 250—106)

8. A projector adapted to employ a radioactive energy source in the subsurface photographic examination of metal objects which comprises an elongated body of dense radiation absorbing material having one end adapted to be pointed at the object to be examined, a chamber of circular section in said elongated body and having a window in the periphery thereof opening externally at

said end, a rotor of circular section substantially complementarily shaped with said chamber and mounted for rotation therein, said rotor formed of dense radiation absorbing material and disposed with its polar axis transverse to the longitudinal axis of said elongated body, said rotor including a central cylindrical portion of maximum diameter flanked by cylindrical portions of lesser diameter, said central cylindrical portion having a peripheral section removed to provide a surface approximately flush with said window when said surface is brought into registry with said window, a recess intermediate the ends



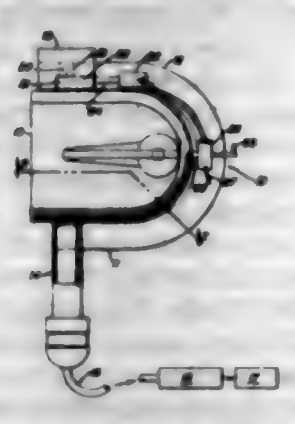
of said surface, radioactive energy source mounting means in said recess, a radioactive energy source mounted on said mounting means, and adapted to extend outwardly beyond the projection of the circular periphery of said rotor, said chamber including a peripheral groove adapted to accommodate said source, and means for rotating said rotor to carry said source into registry with said window for exposure and to remove said source out of registry with said window to a position spaced from the registry position and in which said source is surrounded by said radiation absorbing material.

2,843,755

RADIOACTIVE INSPECTION OF HOUSINGS

William P. Staker and Robert B. Jacobs, Homewood, and Arthur C. Borg, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application September 27, 1954, Serial No. 458,478
4 Claims. (Cl. 250—106)



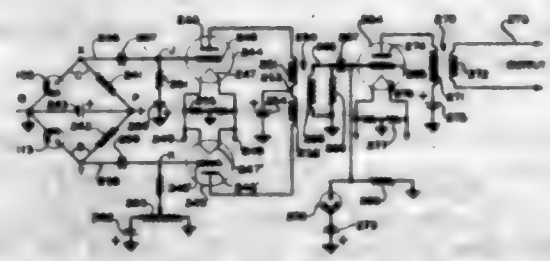
2. An apparatus for inspecting a sealed gear housing for the presence of lubricant therein comprising in combination a bifurcated yoke means having substantially parallel legs and a connecting base portion, a gamma radiation source means supported on one of said legs, a radiation detector means supported by the other of said legs whereby said source means and said detector means are disposed on opposite sides of such a housing, a shutter for said source means, a shutter actuating means carried by said base portion of said yoke means which is rendered operative by placing the yoke means about such housing, the said shutter actuating means including a solenoid means for moving said shutter, a switch means carried by said yoke means, and an exposed contact button normally extending inwardly of said yoke means and closing said switch means to energize said solenoid means and withdraw said shutter to expose said source means.

2,843,756

OPTICAL SCANNING APPARATUS FOR FACSIMILE TRANSMITTERS

Raleigh J. Wise, Arlington, and Garvice H. Ridings, Summit, N. J., assignors to The Western Union Telegraph Company, New York, N. Y., a corporation of New York

Original application June 12, 1946, Serial No. 676,180. Divided and this application July 6, 1951, Serial No. 235,496
2 Claims. (Cl. 250—210)



1. In an optical scanning system for facsimile transmitters, wherein black message copy is scanned, a source of pulsating light provided by an A. C. source representing carrier frequency, a photocell subjected to said pulsating light as modulated by a scanned record, a second photocell exposed directly to said pulsating light and operating in phase with the first photocell, a light transmitting device interposed between said source of light and the second photocell, said device comprising a light wedge of progressively varying transparency being transparent at one end and opaque at the other, means to adjust the position of said device to regulate the intensity of the beam transmitted to the second photocell, means for connecting said photocells in a bridge circuit, means for so conditioning said bridge circuit that excitation of the two photocells during the scanning of white copy background produces no change in potential across the bridge, an amplifier means, means for connecting said amplifier means across the bridge so that variations in the excitation of the first photocell during the scanning of marked areas on the copy produce corresponding changes in potential across the bridge whereby the resultant inverted signals pass to said amplifying tube, biasing means connected to said amplifier means, said biasing means including a third photocell exposed to said source of light whereby the amplifier bias compensates for variations of said light source.

2,843,757

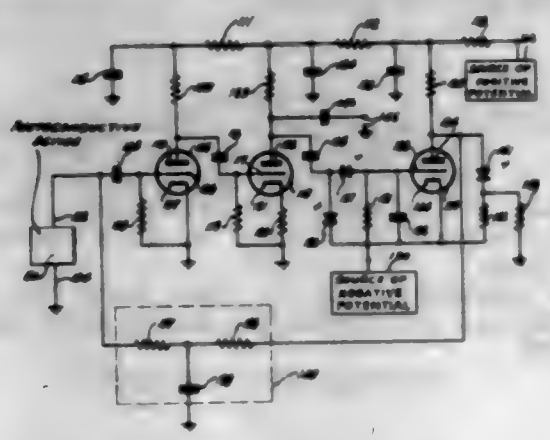
AUTOMATIC GAIN CONTROL CIRCUIT FOR USE WITH PHOTOCONDUCTIVE DEVICES

Ercell E. St. John, Hawthorne, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application August 25, 1955, Serial No. 530,534
5 Claims. (Cl. 250—214)

4. An automatic gain control system for photoelectric circuits comprising a photoconductive device; an amplifier having an input circuit and an output circuit, said input circuit being connected to said photoconductive device, a rectifier connected to the output circuit of said amplifier; and a control means connected between said rectifier means and said photoconductive device, said photoconductive device being responsive to sources of radiation for developing a signal in response to the radiation therefrom impinging on said photoconductive device, said signal being amplified by said amplifier and rectified by said rectifier, the rectified signal being applied to said

control means, said control means being responsive to the amplitude of said rectifier signal to control the con-



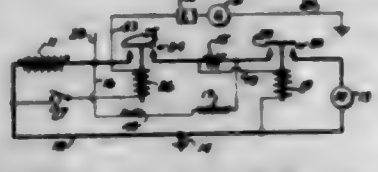
ductivity of said photoconductive device in an inverse ratio to the intensity of said radiation.

2,843,758

ENGINE STARTING CIRCUIT

Benjamin E. Bement, Rivera, Calif.

Application September 12, 1955, Serial No. 533,644
6 Claims. (Cl. 290—36)



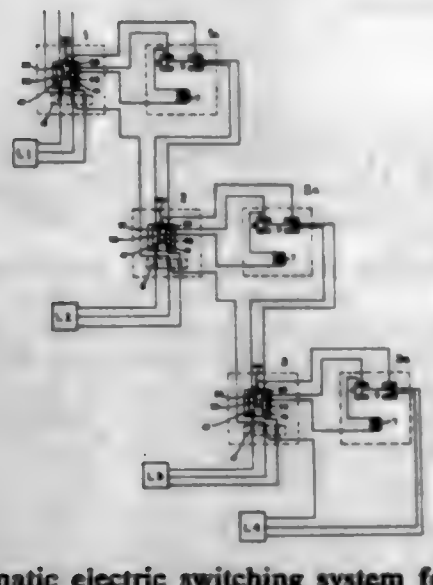
1. A starting circuit for an engine having a starting motor and a main battery; comprising an auxiliary battery; a circuit connecting said main battery in parallel relation to said auxiliary battery; a first normally open switch connected in series relation between said batteries; a second normally open switch connected in series relation between one of said batteries and said starting motor; means for closing said first switch; and means responsive to closing of said first switch for closing said second switch.

2,843,759

AUTOMATIC ELECTRIC SWITCHING SYSTEM

William K. Roots, Brandon, Manitoba, Canada, assignor to Pioneer Electric Brandon Limited, Manitoba, Canada

Application September 24, 1956, Serial No. 611,613
Claims priority, application Canada October 3, 1955
7 Claims. (Cl. 307—34)



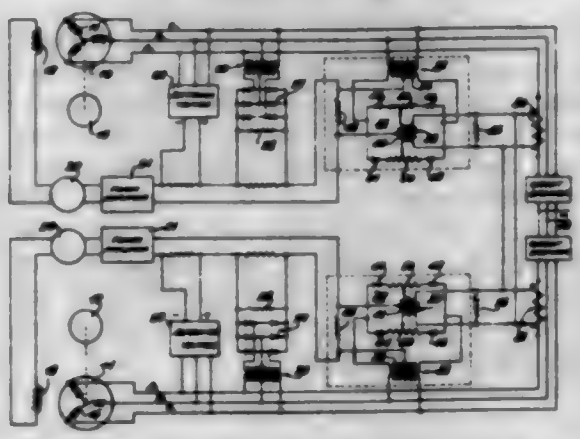
7. An automatic electric switching system for limiting to a predetermined maximum demand the total consumption of current by three loads connected in parallel across a source of supply, said loads being of such a type that if any two of them were "on" at the same time, the predetermined maximum demand would be exceeded, said system comprising; a first switch arranged in series with the second load; a second switch arranged in series with the third load and the first switch; means controlling said first switch, and sensitive to the current drawn by the first load, whereby to cause said first switch to be broken only when said current is in excess of a first predetermined value; and means controlling said second switch, and sensitive to the current drawn by the second load whereby to cause said second switch to be broken only when said last mentioned current is in excess of a second predetermined value; wherein said first predetermined value is less than the current drawn by said first load and said second predetermined value is less than the current drawn by said second load, and wherein each of said loads is thermostatically controlled.

2,843,760

REACTIVE LOAD DIVISION CIRCUIT FOR PARALLEL GENERATOR SYSTEMS

Hermann A. Kahle, Bedford, Ohio, assignor to Jack & Heintz, Inc., Cleveland, Ohio, a corporation of Delaware

Application March 29, 1956, Serial No. 574,823
6 Claims. (Cl. 307—57)



1. In a generating system, first and second synchronous three-phase generators connected in parallel, individual regulating means for each generator responsive to a direct current control signal for controlling the excitation of each of the generators, a current transformer for each generator having its priimary connected in one of the output phases of the corresponding generator, a voltage transformer for each generator having its primary connected across the other two phases of the corresponding generator, phase sensitive rectifying means for each generator comparing the output of the corresponding current transformer and voltage transformer and for providing a direct current output signal dependent on the phase difference between the output of the current transformer and the voltage transformer and having a magnitude also dependent on the magnitude of the output from the current transformer, means connecting the output of each of said phase sensitive rectifying means to the corresponding regulating means, and means interconnecting the secondaries of said current transformer so as to provide a resultant output voltage therefrom only when the currents in the phases of the generator in which the current transformers are connected are unbalanced.

2,843,761

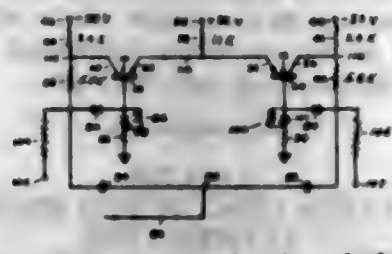
HIGH SPEED TRANSISTOR FLIP-FLOPS

Arthur W. Carlson, Arlington, Mass., assignor to the United States of America as represented by the Secretary of the Air Force

Application July 29, 1954, Serial No. 446,687
4 Claims. (Cl. 307—88.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A high speed transistor flip-flop comprising a pair of transistor devices each including a body, a base elec-

trode in ohmic contact with said body, an emitter electrode and a collector electrode in point contact with said body, a direct low impedance connection connecting said emitter electrodes in back to back relation, a source of substantially constant operating current connected to said common connection, an independent load impedance connected to each of said collector electrodes, an independent



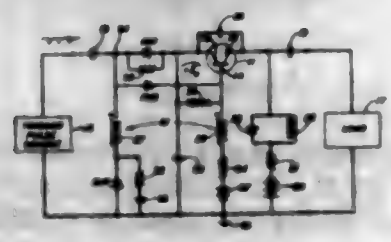
rectifier connected in series circuit relation to each of said base electrodes, said rectifiers being poled in opposition to the direction of major current flow in the respective emitter electrodes, a high impedance reactive shunt connected across said rectifier, and a triggering circuit connected to apply positive impulses to said base electrodes.

2,843,762

BISTABLE TRANSISTOR TRIGGER CIRCUIT

Robert L. Trent, Plackemin, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 25, 1954, Serial No. 464,300
15 Claims. (Cl. 307—88.5)



1. A bistable circuit comprising a transistor having emitter, collector, and base electrodes, a positive feedback circuit coupling said collector and said emitter and giving said circuit a static characteristic having a peak turning point and a valley turning point between which lies a negative resistance region, a source of pulses of one polarity only, a first circuit for applying pulses from said source to said emitter comprising a first asymmetrically conducting impedance device connected between said source and said emitter, a second circuit branching from said first circuit for applying pulses from said source to said base comprising a second asymmetrically conducting impedance device connected between said source and said base, said first and second asymmetrically conducting impedance devices being oppositely poled with respect to said source, a direct current path interconnecting said emitter and base electrodes and including said first asymmetrically conducting impedance device and a third asymmetrically conducting impedance device oppositely poled in said path from said first asymmetrically conducting impedance device, and means for deriving output pulses from said collector electrode.

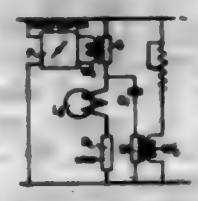
2,843,763

APPARATUS FOR THE SWITCHING OF ELECTRIC POWER CIRCUITS WITHOUT CONTACTS

Wilhelm Kafka, Georg Sichling, and Manfred Tschermak, Erlangen, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt and Erlangen, Germany, a corporation of Germany

Application March 3, 1955, Serial No. 491,983
Claims priority, application Germany March 4, 1954
29 Claims. (Cl. 307—88)

3. Power-circuit switching apparatus, comprising a load circuit, a switching device having a semiconductor member serially connected in said circuit and having control means responsive to a control magnitude for varying the resistance of said member between maximum and minimum limits within a switching interval, said two limits of said member having a ratio of at least 10:1,



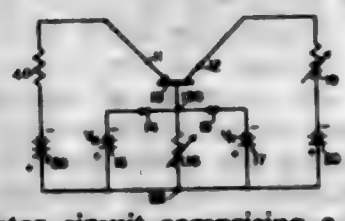
said control means comprising a magnet system having a magnetic field in which said semiconductor member is located and a control circuit inductively linked with said system for varying said field during said interval, and means for reducing the power loss in said member during said interval.

2,843,764

SEMI-CONDUCTOR STABILIZING CIRCUIT

Robert H. Okada, Bryn Mawr, Pa., assignor to Burroughs Corporation, a corporation of Michigan

Application February 20, 1953, Serial No. 337,981
2 Claims. (Cl. 307—88.5)



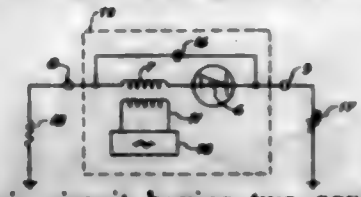
1. A transistor circuit comprising a transistor having an emitter, a collector, and a base, a first resistor, a first substantially constant direct current source of potential and a second resistor connected in the order named between the base and the emitter; said first resistor, a second substantially constant direct current source of potential and a third resistor being connected between said base and said collector; a third substantially constant direct current source of potential and a diode poled to oppose conduction of said third source connected in series across said first resistor; and a fourth substantially constant direct current source of potential and a second diode poled to permit conduction of said fourth source connected in series across said first resistor.

2,843,765

CIRCUIT ELEMENT HAVING A NEGATIVE RESISTANCE

Pierre Roger Raoul Aigrain, Paris, France, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application March 9, 1953, Serial No. 341,290
Claims priority, application France March 10, 1952
3 Claims. (Cl. 307—88.5)



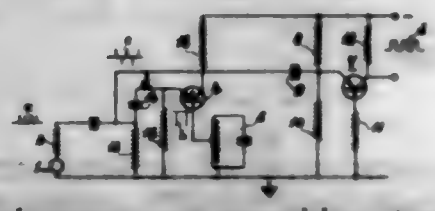
1. An electric circuit having two conditions of equilibrium comprising a semi-conductor-metal contact, a source of direct current connected to said contact, a source of high frequency alternating current, circuit means for connecting said alternating current source in series with said direct current source, the frequency of said alternating current being sufficiently high so that the charge carriers injected in the semi-conductor at a point of the cycle do not disappear completely during one period of the cycle and the characteristic current-voltage curve of the semi-conductor-metal contact will have a portion with a negative slope, and means for varying the potential of

said direct current source between those predetermined values which will cause said semi-conductor-metal contact to operate at one or the other end of said negative slope.

2,843,766
IMPULSE-CONVERTING CIRCUIT-ARRANGEMENT

Gerardus Rosier and Hendrik Volkers, Hilversum, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 19, 1954, Serial No. 470,063
Claims priority, application Netherlands November 28, 1953
4 Claims. (Cl. 307—88.5)

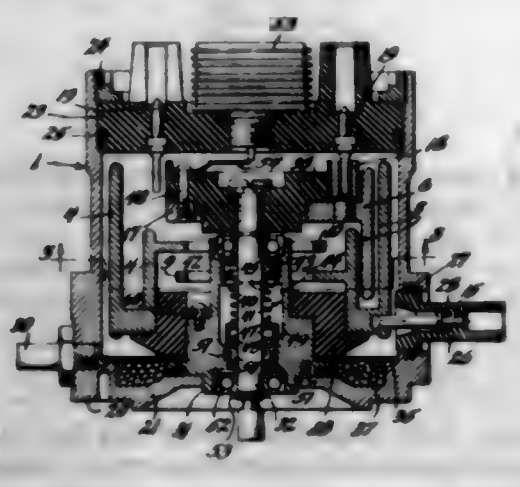


1. A circuit arrangement comprising a transistor having an emitter electrode, a base electrode forming with said emitter electrode an input electrode system and a collector electrode, means for producing a first pulse train of a series of pulses of equal sign and a given repetition frequency, means coupling said first pulse train producing means between one electrode of said input electrode system and a point at ground potential, a positive feedback circuit coupling the other electrode of said input electrode system with said one electrode, said positive feedback circuit comprising means for producing a second pulse train of a series of pulses with a repetition frequency which is a sub-harmonic of said given repetition frequency, said second pulse train producing means being connected to said other electrode, said pulses of said second pulse train having a substantially greater amplitude than those of said first pulse train, and means for comparing said first and second pulse trains in opposite phase thereby to produce a third pulse train comprising a series of positive and negative pulses, said comparing means being connected in series circuit arrangement with said second pulse train producing means and being interposed between the said producing means and a point on the coupling between said first pulse train producing means and said one electrode, and means for deriving said third pulse train from said input electrode system.

2,843,767
ELECTROSTATIC GENERATOR

Howard D. Whitlock, Littleton, Colo., assignor to Hechethorn Manufacturing & Supply Co., Littleton, Colo., a corporation of Colorado

Application March 19, 1956, Serial No. 572,410
9 Claims. (Cl. 310—6)

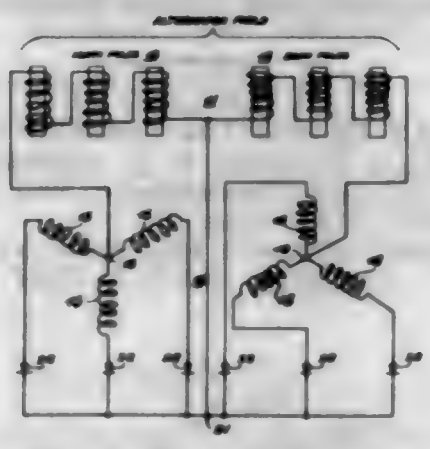


1. In a conductive-conveyor electrostatic generator, the improvement comprising two sets of inductors, each set including a plurality of circularly disposed inductors of arcuate form circumferentially spaced from one another sufficiently to receive a single inductor of the other set therebetween, a pair of rigid conductive rings one for each set and each positioned within the circle of inductors of that set and mechanically supported in a fixed position and electrically connecting the inductors of that set with respect to one another, and an inductor mount supporting the two sets in a common circle with the individual inductors of one set being interposed in the spaces between the inductors of the other set.

2,843,768
EXCITATION CIRCUIT FOR BRUSHLESS ALTERNATOR

Howard M. McConnell, Chagrin Falls, and James N. Ellis, Cleveland, Ohio, assignors to Jack & Heintz, Inc., Cleveland, Ohio, a corporation of Delaware

Application December 3, 1956, Serial No. 625,960
4 Claims. (Cl. 310—68)



1. In an alternator having a main alternator field winding including an N pole winding and an S pole winding and an exciter having an armature winding for providing excitation current for the main alternator field winding, said exciter armature winding comprising a first plurality of star connected phase coils having their one sides connected to a neutral, respective circuit means connecting the other sides of said coils to a junction and each including a rectifying element, all of said elements conducting current in the same direction relative to said junction, a second plurality of star connected phase coils having their one ends connected to a second neutral, respective circuit means connecting the other ends of said coils to said junction and each including a rectifying element, the last-mentioned rectifying elements conducting in the same direction relative to said junction as the first mentioned rectifying elements, means connecting said N pole windings of said alternator between said first neutral and said junction and said S pole windings of said alternator between said second neutral and said junction.

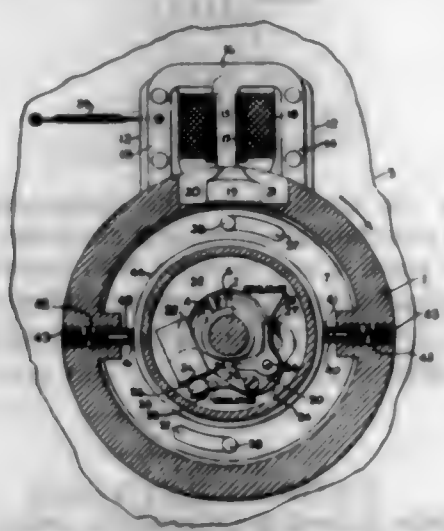
2,843,769
SPARK CONTROL FOR FLYWHEEL MAGNETOS

George F. McGrevy, Agawam, Mass., assignor to Globe-Union Inc., Milwaukee, Wis., a corporation of Delaware

Application October 17, 1956, Serial No. 616,423
4 Claims. (Cl. 310—70)

1. In a flywheel magneto, a stator plate having a hub with a cylindrical bore adapted to be mounted to turn on the outer periphery of a cylindrical pilot flange on the crankcase of an internal combustion engine, through which flange the crankshaft of the engine passes, a flywheel adapted to be fixed to the engine crankshaft, a magnet and pole-piece group, a coil and core group, one such group being fixed to the flywheel and the other to the stator plate, breaker point mechanism mounted on the stator plate and adapted to be actuated by a cam

on said crankshaft, means for limiting the turning of said plate on said flange from a retard to an advance position, said plate having a cylindrical surface coaxial with the pilot flange and crankshaft, a friction clutch element carried by the flywheel and yieldably urged radially inward to engage said cylindrical surface and operable to turn the plate to retard position when the flywheel is



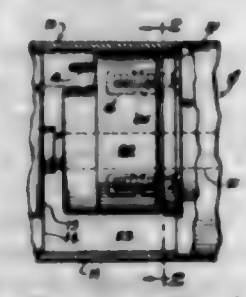
moving at relatively low speeds, resilient means for moving said plate to advance position but ineffective at low flywheel speeds to overcome the force exerted by said clutch element, said clutch element being movable outwardly at high flywheel speeds to decrease its pressure on said cylindrical surface and enable said resilient means to move the plate to advance position.

2,843,770

RADIO NOISE FILTER ASSEMBLY FOR DYNAMO ELECTRIC MACHINE

Theodore F. Knapp and Clarence H. Boyd, Grand Rapids, Mich., assignors to Lear, Incorporated, Grand Rapids, Mich.

Application September 26, 1955, Serial No. 536,517
10 Claims. (Cl. 310—72)



1. A radio noise filter assembly for installation in an electric motor having an outer shell and a shaft projecting from the armature within the shell to define an annular space therebetween comprising a casing having walls defining a pair of adjacent, concentric, toroidal annular compartments of different mean radius and including an annular wall joining said compartments, an inductor positioned in one compartment and a capacitor positioned in the other compartment, and terminal prongs secured to said annular wall.

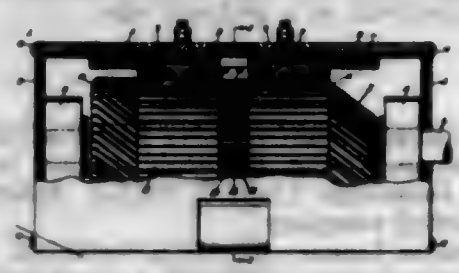
2,843,771

DYNAMOELECTRIC MACHINE

Karl M. Feiertag and Wesley R. Goss, Fort Wayne, Ind., assignors to General Electric Company, a corporation of New York

Application April 27, 1956, Serial No. 581,169
11 Claims. (Cl. 310—236)

1. In a dynamoelectric machine, a cylindrical rotatable armature member having substantially axially extending slots formed adjacent its surface, a winding arranged in said slots, said member being arranged to have a section of decreased radius for a predetermined axial length intermediate its ends so that at least the outer surface of said winding is radially beyond said member



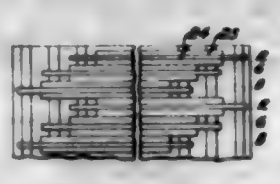
for said predetermined length, said winding surface being formed substantially flat for said predetermined length whereby it is suitable for commutation purposes.

2,843,772

CATHODE RAY TUBE AND TARGET

Paul K. Weimer, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application March 25, 1953, Serial No. 344,497
2 Claims. (Cl. 313—65)



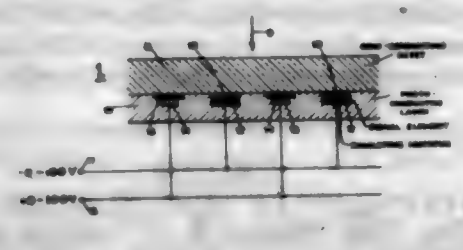
1. A ray sensitive target for a color television pickup tube comprising a transparent insulating support member, a plurality of electrically insulating color filter strips extending across said support member and arranged in groups with the filter strips that pass each color of light interlaced with the filter strips that pass other colors of light, a pair of sets of bus bars in the form of electrically conductive strips deposited on said support member and one set adjacent to each end of said color filter strips, a plurality of transparent conducting signal strips each on a different one of said color filter strips and each contacting one of said bus bars in each of said sets by means of deposited conductive strips, and each of said color filters being positioned between at least one of said bus bars in at least one of said sets and the signal strips on that color filter strip, whereby each of said signal strips is insulated from at least one of said bus bars by means of its insulating color filter strip.

2,843,773

PICK-UP TUBE TARGETS

John Wardley, Hounslow, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a company of Great Britain

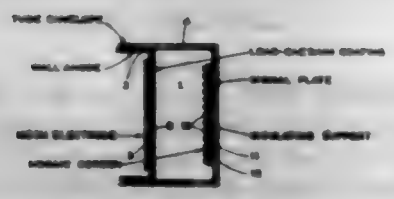
Application August 13, 1956, Serial No. 603,771
Claims priority, application Great Britain August 17, 1955
2 Claims. (Cl. 313—65)



1. A pick-up tube target comprising a plurality of spaced apart conductive signal elements disposed between two resistive layers so that alternate signal elements are in electrical contact with a first of said layers and are insulated from the second layer, and the intervening signal elements are in electrical contact with the second layer and insulated from the first layer, said layers being in electrical contact with each other between said elements, and said first layer comprising a material providing a resistance variable with the intensity of light incident there-

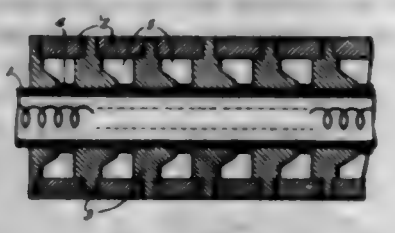
upon, and the second layer comprising a material capable of providing a substantially fixed resistance when the target is incorporated in a pick-up tube.

2,843,774
LIGHT ABSORBENT SURFACES
Harry Cassman, Ealing, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a British company
Application January 27, 1953, Serial No. 333,528
Claims priority, application Great Britain January 28, 1952
5 Claims. (Cl. 313—66)



1. An electron discharge device including a metal member having a black coating applied to a surface of said member and comprising alkali metal and a substance selected from the group consisting of lead, tin, germanium and silicon.

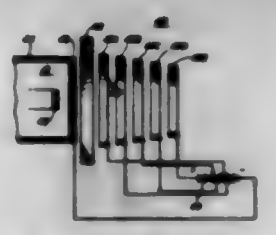
2,843,775
ELECTRON TUBE MAGNETIC FOCUSING DEVICE
Susumu Yasuda, Minato-ku, Tokyo, Japan, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application March 14, 1956, Serial No. 571,507
Claims priority, application Japan June 28, 1955
3 Claims. (Cl. 313—84)



1. A magnetic focusing means for an electron beam tube, having an envelope within which a beam of electrons is projected comprising a plurality of annular magnetic means external of said envelope and positioned in aligned end-to-end spaced relation to provide a cylindrical structure, annular yokes of magnetic material positioned intermediate said magnetic means and extending radially inwardly of said cylinder into proximity with said envelope and spaced apart a predetermined axial length at their inner peripheries to produce magnetic effects in close proximity to the beam, and means for avoiding unwanted resonance effects of the cavities formed intermediate said yokes comprising non-magnetic metallic means intermediate adjacent of said yokes at their inner peripheries, of substantially said predetermined axial length, bridging the gaps between said yokes.

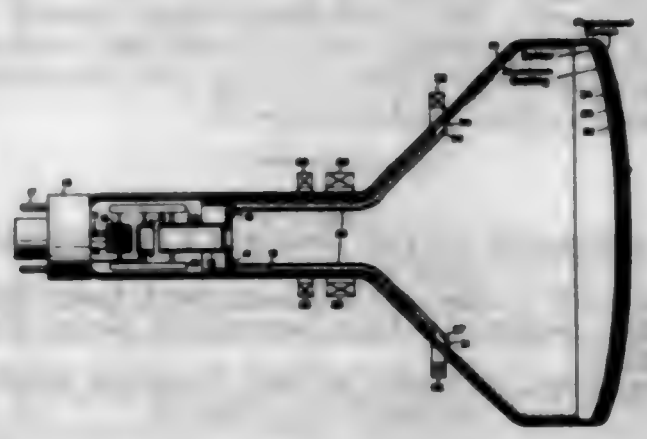
2,843,776
TRAVELING WAVE TUBE ELECTRON GUN
Ping K. Tien, East Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 26, 1953, Serial No. 364,242
3 Claims. (Cl. 313—85)

1. An electron gun for providing an electron beam in which the current increases with distance from the beam axis over substantially the entire beam cross section comprising an electron emissive cathode, a beam forming electrode spaced adjacent to the cathode along the path of desired flow for shaping the electrons emitted into a beam, a succession of cylindrical annular electrodes spaced apart along and surrounding the path of desired flow, successive annular electrodes having their inner diameters decreasing with increasing separation from the cathode for converging the electron beam, the inner surface of each of said annular electrodes being substantially



parallel to the envelope of the converging beam, and means for maintaining successive electrodes at potentials alternately positive and negative with respect to the electrodes proximate thereto, the mean potential of adjacent pairs of electrodes increasing with increasing distance from the cathode.

2,843,777
CATHODE-RAY TUBES
Constantin S. Szegho, Chicago, Ill., assignor to The Rauland Corporation, a corporation of Illinois
Application January 28, 1954, Serial No. 406,750
2 Claims. (Cl. 313—92)

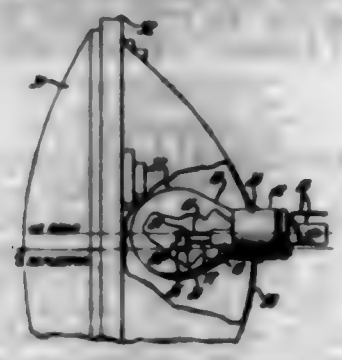


1. In a cathode-ray tube comprising a luminescent screen, means including a cathode and at least one accelerating electrode for projecting an electron beam adapted to cyclically scan the surface of said luminescent screen, and a metallic coating affixed to the surface of said luminescent screen between said luminescent screen and said means, all supported within a substantially evacuated envelope, the improvement comprising a layer of getter material disposed upon said metallic coating between said metallic coating and said means in a position at least partially intercepting the path of said electron beam during at least a portion of each scanning cycle, whereby said getter material is automatically activated by electron bombardment to absorb residual gases in said envelope during normal operation of said cathode-ray tube.

2,843,778
LIGHT BULB
Robert N. Faige, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 22, 1952, Serial No. 327,318
6 Claims. (Cl. 313—113)

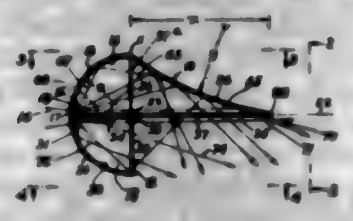
1. In an automotive vehicle lamp, a reflector member having an opening therein and a light bulb having a base mounted in said opening, said light bulb comprising a glass envelope extending from one end of said base and in sealed engagement therewith, a pair of generally parallel leads extending into said envelope from said base, a third lead extending into said envelope from said base, said third lead being displaced from the plane of said pair of leads, a

generally U-shaped filament bridging said pair of leads and lying in a plane angularly disposed thereto, and a second filament electrically connected to said third lead and to one of said pair of leads, one of said filaments being



positioned at the focal point of the reflector and both of said filaments being positioned below the longitudinal axis of said bulb when said lamp is mounted in operative position in a vehicle.

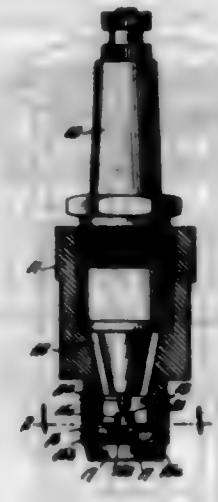
2,843,779
HEADLIGHT
George Durale, San Mariano, Calif.
Application May 6, 1957, Serial No. 657,321
22 Claims. (Cl. 313—114)



1. In a lamp having a central optical axis, the combination comprising: a spherical mirror having a concave side, and having a center of curvature on said axis, said spherical mirror comprising a pair of sectors; a tubular shell attached to a portion of the periphery of the said spherical mirror and extending axially away from said spherical mirror on the concave side thereof to a forward edge of the lamp, said tubular shell including a curved reflecting surface generated by a straight-line generator maintained parallel to said edge, said curved reflecting surface being convex toward the concave side of the spherical mirror and terminating at said edge; first enclosure means joining said edge, the said spherical mirror, and the tubular shell; second enclosure means joining the remainder of the periphery of the spherical mirror, whereby an evacuable enclosed space is provided adjacent the concave side of the spherical mirror; an incandescible filament mounted between each sector and the center of curvature of the spherical mirror; a planar mirror parallel to said axis and to said edge, mounted between said filaments; all of the sectors, shell and curved surface being reflectively coated, and portions of the enclosure means being transparent.

2,843,780
SPARK PLUGS
William Harper, Jr., Huntington, N. Y.; Genevieve G. Harper, executrix of said William Harper, deceased, assignor to Jet Ignition Company, Inc., Larchmont, N. Y., a corporation
Application January 31, 1952, Serial No. 269,232
5 Claims. (Cl. 313—143)

1. In a spark plug, a pair of axially arranged electrodes having opposed convex faces providing a spark gap which is shortest on the axis of the electrodes and increases in length towards the periphery of the electrodes, and means for causing gas to swirl about the axis of the electrodes, so that a spark initiated in the shortest portion of the gap at the axis of the electrodes is drawn laterally away from the axis increasing the



length of the spark and decreasing the amperage of the current across the gap.

2,843,781
SUBLIMATION REDUCING CATHODE CONNECTOR
Donald R. Kerstetter, William E. Boeacher, and James J. Garrett, Emporium, Pa., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application November 1, 1954, Serial No. 465,785
1 Claim. (Cl. 313—178)

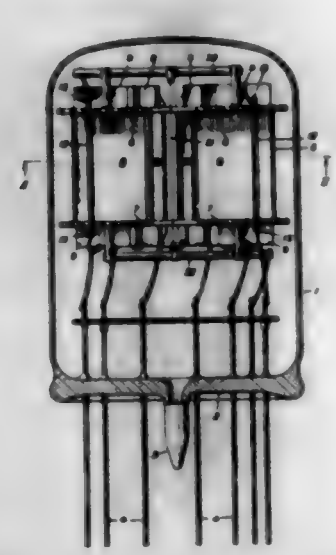


A cathode base comprising an alloy comprised principally of a large percentage of nickel and a much smaller percentage of manganese with insignificant traces of other metals, an electron emissive coating on said base, and a nickel alloy cathode tab with a content of, approximately, 4% of aluminum permanently secured to an uncoated end of said cathode base.

2,843,782
ELECTRIC DISCHARGE TUBES
Arnold Hugh William Beck, Thomas Meirion Jackson, and John Lytollis, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application August 25, 1954, Serial No. 452,034
Claims priority, application Great Britain September 2, 1953
5 Claims. (Cl. 313—189)

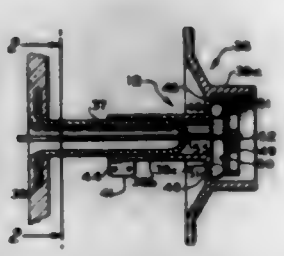
1. An electric glow discharge tube comprising an envelope containing a gaseous medium, a plurality of electrodes including a plurality of pair of anodes each pair of anodes co-operating with a cathode common to the pair to define a pair of discharge gaps having like electrical characteristics and a signal transmission gap between said anodes, with the cathode current divided between the two anodes in such manner that a transmission path for signals over said transmission gap is established between the said two anodes only during a discharge between each of the two anodes of a pair

and the cathode, and means isolating from other like gaps the discharges at separate of said pairs of gaps



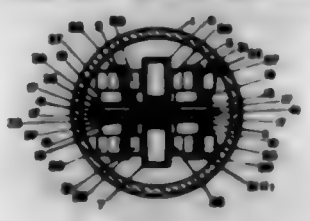
to prevent undesirable cross-fire or cross-talk between the several transmission paths.

2,843,783
SPACER ASSEMBLY
Marvin C. Burk, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 29, 1955, Serial No. 516,457
1 Claim. (Cl. 313—242)



In a vacuum tube the combination of a glass envelope having a metal insert shaped to form an inwardly protruding cylindrical portion, an internal metal shield having a relatively large cylindrical shielding section, a relatively small cylindrical support section and a transverse plate joining said sections, said relatively small cylindrical section slidably fitting over said inwardly protruding metal portion of said envelope, and said relatively small section having an axial slot formed at the end thereof, an ear protruding radially from each edge of the slot, a set screw clamping said ears together to secure said shield to said protruding portion, said transverse plate having a plurality of openings formed therein, an electrode mounted within the relative large cylindrical portion of said shield, said electrode having a flat surface opposed to said transverse plate, a plurality of balls mounted in the respective openings and engaging the flat surface of said electrode, each ball being of larger diameter than its respective opening, a conductor rod secured to said electrode and extending axially through said relatively small cylindrical portion and through the tube envelope, a glass seal connecting said conductor to said metal portion at a position where said flat surface of the electrode is maintained in clamping engagement with said balls and a filament in said envelope, the entire surface of said electrode on the opposite side from said flat surface being imperforate and arranged to collect charged particles from said filament due to the arrangement of said balls and said transverse plate.

2,843,784
SUPPORT FOR STACKED ELECTRODE ASSEMBLY
Bernard Carns, Long Beach, and William R. Wheeler, Wantagh, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application May 26, 1955, Serial No. 511,360
5 Claims. (Cl. 313—256)



1. In combination with the inner leads of an electron tube, an electrode assembly comprising a pair of insulating standards; a plurality of electrodes assembled upon the standards, said electrodes including a centrally disposed cathode, a first anode spacedly assembled on one side of said cathode, a second anode spacedly assembled on the other side of said cathode, a grid disposed between said cathode and the first anode, and a grid disposed between said cathode and the second anode; a plurality of insulating spacing members assembled on said standards and disposed between said electrodes; engaging means attached to said cathode and said grids and engaging said standards; and clamping means attached to said anodes, engaging said standards and clamping the electrodes and the spacing members together on the standards, said clamping means including a first pair of straps and a second pair of straps, said first pair of straps being attached to the first anode and tightly engaging said standards respectively and said second pair of straps being attached to the second anode and tightly engaging said standards respectively; and individual electrical contacting means on said engaging means and on said clamping means and protruding exteriorly of said spacing members and out of the space between the standards, said contacting means being electrically connected to said inner leads, said inner leads and said contacting means supporting said electrode assembly.

2,843,785
THERMAL INSULATION FOR CATHODE
Arthur H. Iversen, Santa Monica, Calif., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application April 19, 1954, Serial No. 424,087
3 Claims. (Cl. 313—292)



1. In a mount, a cathode support comprising a pair of pins, insulating sleeves about the pins, and a pair of insulating washers on each of said sleeves, a cathode tube, rectangular in cross section, said tube being coated

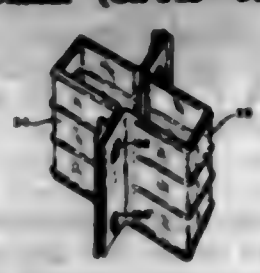
with emissive material on opposite exterior faces thereof, a pair of loop supports of low heat conductivity affixed to said tube in opposed relationship to one another, these supports being affixed to the other exterior faces of the tube, the loop supports being looped over the sleeves and slidably held in between the pairs of washers.

2,843,786
ELECTRON DISCHARGE DEVICES
Thomas E. Talpey, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 26, 1954, Serial No. 445,577
3 Claims. (Cl. 313—294)



1. An electron discharge device comprising a cathode, a control grid, an anode, and means for reducing induced grid noise, said means comprising said anode of a single crystal of metal and means positioning said anode at an angle other than perpendicular to the incidence of electrons from said cathode so that elecrtons elastically reflected by said anode are primarily directed away from said control grid.

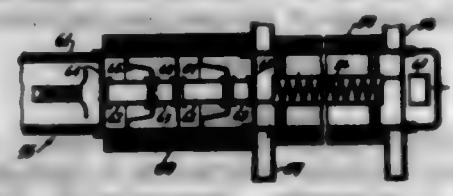
2,843,787
PLATE FIN INSERT
Frederick H. Rinn, Flemington, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application August 8, 1956, Serial No. 602,852
1 Claim. (Cl. 313—356)



An anode and fin insert assembly comprising a pair of complementary anode halves, one half being provided with a flange portion terminating in a bent edge and having tongues struck out therefrom, and the other half anode having a flange portion with a bent edge complementary to the bent edge on the first half and also having apertures receiving the tongues and a fin insert lying between the flange portions and extending within the anode, said fin having a bent edge conforming with and nesting in between the bent edges of the two anode halves and having apertures through which the tongues pass, the tongues being bent over the exposed face of the second half to form a tight assembly of half anodes and insert.

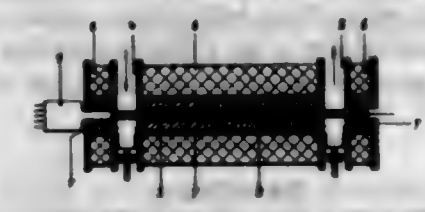
2,843,788
ELECTRON BEAM TUBE
Rolf W. Peter, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application December 3, 1952, Serial No. 323,881
16 Claims. (Cl. 315—3.5)

15. An electron discharge device, comprising elongated wave guiding means capable of propagating a traveling wave therealong, means for projecting an electron beam along said wave guiding means and in energy coupling relation thereto, and means coupled to the beam path intermediate said wave guiding means and said electron beam projecting means for deamplifying the amplitude of a broad band of velocity variations in said beam of which the center frequency corresponds to said wave, said deamplifying means comprising electrode means for



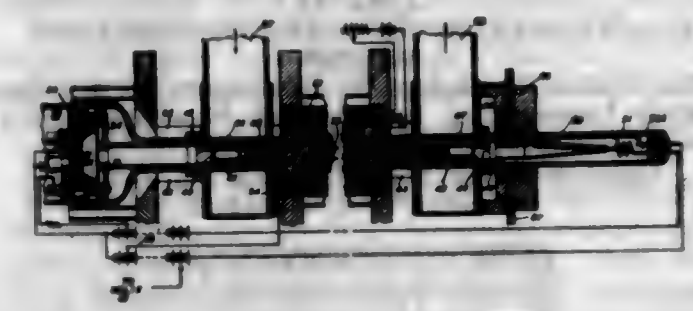
establishing along said path successive regions of high and low direct current voltages of $N/4$ plasma wave lengths in said beam where N is any odd integer and means for establishing along said path an axial magnetic field having a greater intensity in said low voltage region than in said high voltage region.

2,843,789
ARRANGEMENT FOR MAGNETIC BEAM CONCENTRATION
Werner Klein, Korntal, and Walter Friz, Stuttgart, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application July 6, 1953, Serial No. 366,288
Claims priority, application Germany July 5, 1952
1 Claim. (Cl. 315—3.5)



A traveling wave tube amplifier comprising means for producing an electron beam, transmission means for propagating an electromagnetic wave parallel to and adjacent said beam, an enclosing envelope for said transmission means and said wave propagating means, input and output couplers at the ends of said transmission means, and means for concentrating said beam and for attenuating unwanted high frequency components produced in operation of said tube, comprising a sheath of paramagnetic material having a high attenuation factor for said unwanted high frequency waves, external of said envelope but closely adjacent thereto, and a magnetic beam concentrating coil surrounding said sheath substantially throughout the length of said tube.

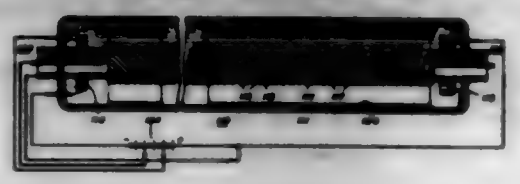
2,843,790
TRAVELING WAVE AMPLIFIER
Cassius C. Cutler, Gillette, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 14, 1951, Serial No. 261,631
4 Claims. (Cl. 315—3.6)



1. In a microwave amplifier, an electron source and a target electrode defining a path, first, second and third coaxially aligned helices along the path, the end turns of the first helix overlapping the initial turns of the second helix and the initial turns of the third helix over-

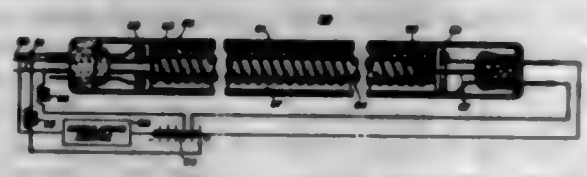
lapping the end turns of the second helix, dielectric spacer rods separating the end turns of the first helix from the initial turns of the second helix and the end turns of the second helix from the initial turns of the third helix, and lossy material distributed on the spacer rods for terminating the helices at the overlapping ends.

2,843,791
TRAVELING WAVE TUBE
John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 30, 1953, Serial No. 345,502
14 Claims. (Cl. 315—3.6)



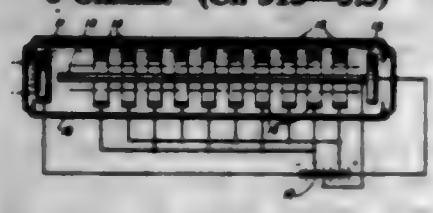
1. In a radio frequency apparatus, an interaction circuit comprising a conductive core member helically grooved and a conductor wound in the grooving to form a helix, said conductor being electrically insulated from said core member, means for projecting an electron stream past said interaction circuit parallel to the axis of the helix for interacting with radio frequency waves traveling therealong, and a coaxial connection coupled to each of the two ends of the interaction circuit comprising an inner member which is an extension of the conductor and an outer member which is an extension of the core member.

2,843,792
TRAVELING WAVE TUBE
John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 30, 1953, Serial No. 345,503
12 Claims. (Cl. 315—3.6)



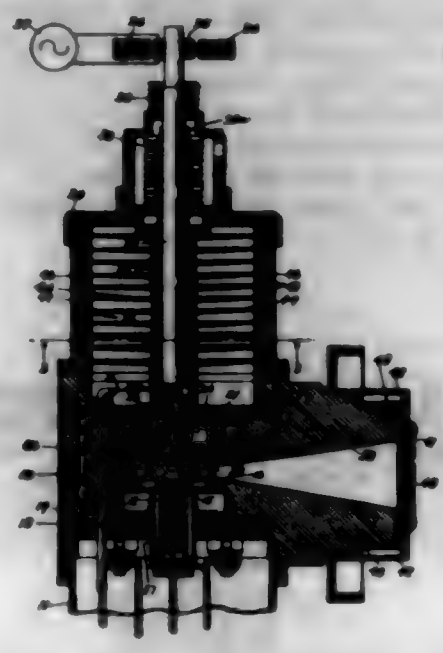
1. In radio frequency apparatus, means for forming and projecting an electron stream, two conductors helically interwound to form a bifilar helix axially disposed parallel to the path of the electron stream, an electrode member disposed along the path coaxial with the bifilar helix, and means for maintaining said conductors and electrode member at different direct-current potentials to focus said electron stream projected between said conductors and said electrode member.

2,843,793
ELECTROSTATIC FOCUSING OF ELECTRON BEAMS
Arthur Ashkin, Irvington, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 26, 1953, Serial No. 364,441
6 Claims. (Cl. 315—3.5)



1. A traveling wave tube comprising an elongated envelope, an electron gun at one end of said envelope for projecting an electron beam having a pair of boundaries along said envelope, electron collector means at the other end of said envelope, means situated in said envelope along the path of said beam for maintaining one boundary of said beam constant, said means including a succession of distinct electrodes adjacent said one boundary and means for maintaining alternate of said distinct electrodes at different potentials, and means situated in said envelope along the path of said beam for maintaining the other boundary of said beam constant without disturbing said one boundary, said last mentioned means including a single electrode extending adjacent said other boundary and means for maintaining said single electrode at a potential less than the mean potential of said alternate distinct electrodes.

2,843,794
TUNING MEANS FOR REFLEX KLYSTRONS
Rudolf C. Hergenrother, West Newton, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application October 14, 1954, Serial No. 462,353
4 Claims. (Cl. 315—5.22)

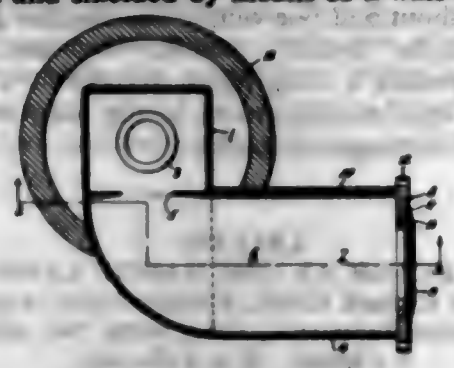


1. A mechanically tunable klystron oscillator comprising a cathode, an anode, first and second grids, a reflector, a plunger movably mounted in an opening in said anode, the inner end of said plunger being formed with a cavity opening to the outer surface of the plunger and so diminished as to form a non-contacting short across the opening in the anode, said reflector being insulatedly mounted on said plunger, said second grid being mounted on said plunger, and means for causing axial movement of said plunger so as to move the second grid with respect to the first grid to vary the operating frequency.

2,843,795
SHIELDED WAVEGUIDE WINDOW
Ralph J. Bondley, Scotia, and Rudolph A. Dehn, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application June 9, 1954, Serial No. 435,476
3 Claims. (Cl. 315—5.39)

1. Apparatus for interaction with an electron beam and the transmission of high frequency electromagnetic energy comprising a chamber having spaced-opposed walls provided with aligned apertures for the passage of an electron beam, a wall connecting said opposed walls and having an aperture therein for the passage of electromagnetic wave energy, a waveguide coupled to said chamber and having an axis extending in a direction perpendicular to the direction of an electron beam passing through the aligned apertures in said spaced opposed

walls, and a dielectric window hermetically sealed to said waveguide and shielded by means of a wall of said waveguide from straight line exposure to an electron beam passing through said aligned apertures.

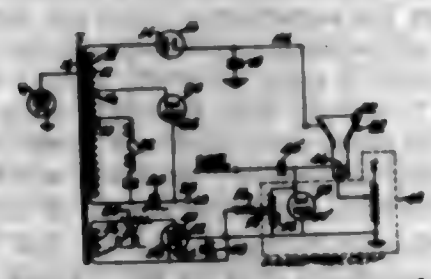


2,843,796

POWER SUPPLY REGULATION

Otto H. Schade, West Caldwell, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application May 27, 1953, Serial No. 357,830
11 Claims. (Cl. 315—22)



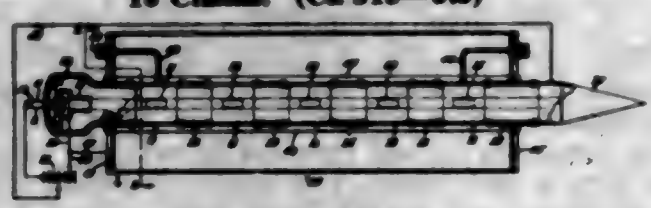
1. A high voltage flyback power supply, which comprises: deflection amplifying means having a load circuit which includes a transformer coupled to said means in current-receiving relationship therewith such that voltage pulses are developed in said transformer during retrace times, means for rectifying said pulses to produce substantially direct current voltage, a load coupled to said rectifying means, a source of signals of varying amplitude coupled to said rectifier load such as to cause said rectifier load to vary, means for deriving from said signals a control voltage representative of such amplitude variations, and means responsive to said last-named means for removing energy from said amplifier load circuit only during retrace times.

2,843,797

SLOW-WAVE STRUCTURES

Malcolm R. Boyd, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application January 25, 1955, Serial No. 483,975
18 Claims. (Cl. 315—3.5)



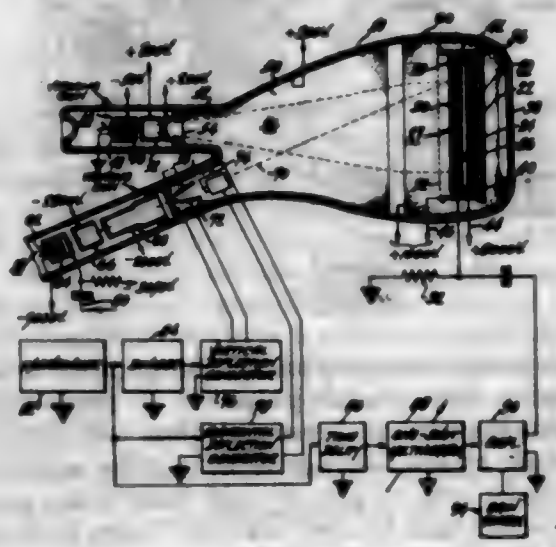
16. In a traveling-wave interaction device including means for producing a beam of electrons, a slow wave structure providing a plurality of filter sections spaced along said beam, said sections each including an element adjacent the beam path for interaction therewith and an elongated conductor surrounding the beam path and said elements, a coupling conductor extending between said interaction member and common conductor, the electromagnetic fields associated with each filter section of said slow wave structure being confined to the region surrounding said coupling conductor and means for coupling energy between an external circuit and one of said filter sections including a conductor extending from the interaction element of that section in a direction displaced from said coupling conductor to provide minimum direct coupling therebetween to minimize the effect of said coupling on the slow wave structure, said output coupling circuit having a characteristic impedance matching that of the slow wave structure.

2,843,798

METHODS AND MEANS FOR UTILIZING A DIRECT-VIEW TYPE ELECTRICAL STORAGE TUBE

Harvey O. Hook, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application May 29, 1953, Serial No. 358,361
10 Claims. (Cl. 315—12)



1. A signal storage system including, an electrical storage tube having an electron permeable charge storage member, means spaced from one side of said charge storage member for providing a stream of electrons for flooding a major portion of the surface of said member, a fluorescent viewing screen spaced from the opposite side of said charge storage member, means for providing a sharply defined and focused beam of electrons, means for deflecting said sharply defined and focused electron beam across said storage member, connection means for a source of signals for modulating said beam during said deflection to write an electrical charge pattern on said member, the charge pattern written on said member modulating the flow of said stream of electrons so that electrons passing through said electron permeable member impinge on said viewing screen and produce a visual display corresponding to said charge pattern, and means coupled to said storage tube for repetitively generating pulses at a predetermined pulse repetition rate for periodically pulsing said charge storage member with respect to said flood beam generating means.

2,843,799

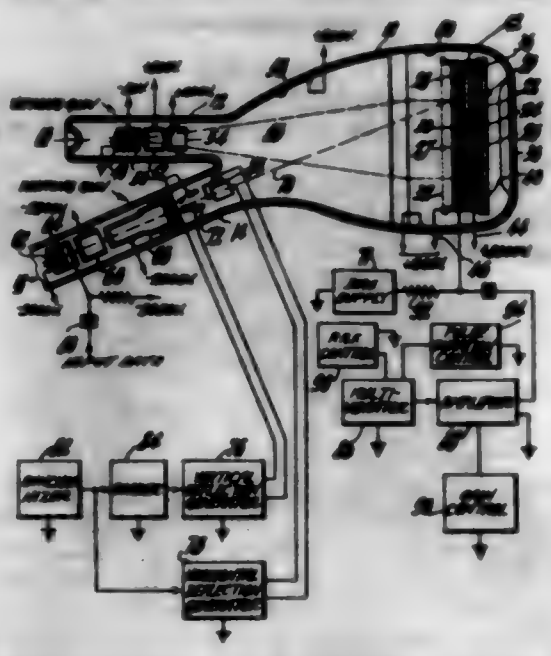
DIRECT-VIEW ELECTRICAL STORAGE TUBE AND METHODS OF OPERATING SAME

Harvey O. Hook and Max Knoll, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application August 14, 1953, Serial No. 374,172
8 Claims. (Cl. 315—12)

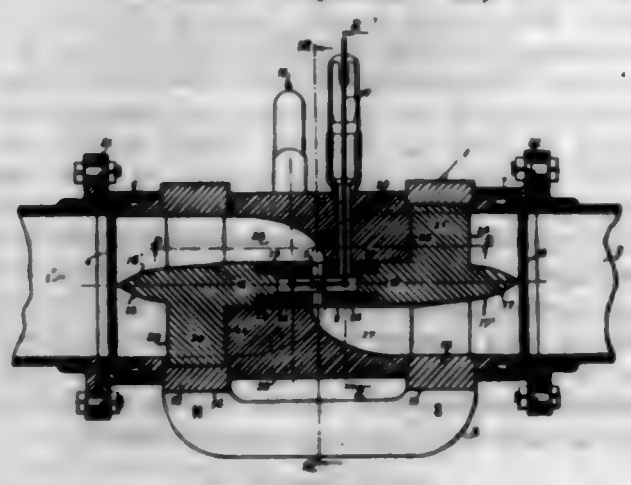
1. A signal storage system including, an electrical storage tube having an electron permeable charge storage member, means spaced from one side of said charge storage member for providing a stream of electrons for flooding a major portion of the surface of said member, a fluorescent viewing screen spaced from the opposite side of said charge storage member, means for providing a sharply defined and focused beam of electrons, means for deflecting said sharply defined and focused electron beam across said charge storage member, connection

means for a source of signals for modulating said beam during said deflection to write an electrical charge pattern on said member, the charge pattern written on said member modulating the flow of said stream of electrons so that electrons passing through said electron permeable member impinge on said viewing screen and produce a



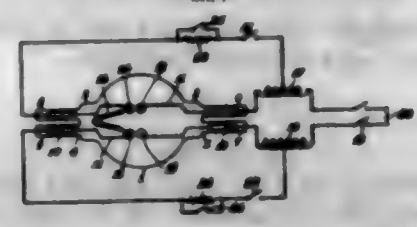
visual display corresponding to said charge pattern, means for generating time-spaced pulses at a predetermined pulse repetition rate, and means coupling said pulse generating means to said storage tube to pulse said charge storage member with respect to said flood beam generating means while said focused electron beam is deflected across said charge storage member.

2,843,800
MAGNETRON TUBE
Pierre G. Marié, Paris, France
Application January 6, 1953, Serial No. 329,885
Claims priority, application France January 16, 1952
11 Claims. (Cl. 315—39)



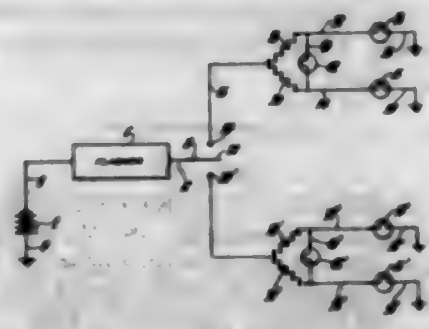
1. An electron discharge tube of the magnetron type for use in amplifying electromagnetic waves, adapted to be coupled between input and output circular wave guides and to accept radiation propagated through the input guide in the TE_{01} circular mode, said tube comprising a cathode, means to concentrate an axial magnetic field about the cathode substantially parallel thereto, and metallic means defining a plurality of input and an equal plurality of output wave guides extending at least in part substantially radially of the cathode and having at least in the portion thereof adjacent the cathode a substantially rectangular cross section, said rectangular guides opening adjacent the cathode in a circular array around the cathode in which input and output guides are alternated, said rectangular guides opening at their radially outward ends into passages communicating with the input and output circular guides, said guide-defining means being electrically insulated from the cathode for the application of anode potential between said part and the cathode, said guide-defining means including for each pair of one input and one output rectangular guide three circumferentially spaced metallic resonant elements adapted to sustain a three-phase voltage at a frequency at or above that corresponding to the long wave length limit of said rectangular guides.

2,843,801
ELECTRICAL DISCHARGE LAMP
Hermann Eduard Krefft, Buenos Aires, Argentina
Application January 2, 1953, Serial No. 329,173
6 Claims. (Cl. 315—48)



1. A high pressure electrical discharge lamp comprising in combination a light transmissive discharge vessel containing an ionizable atmosphere, a plurality of spaced main electrodes for supporting a main arc therebetween, at least one independently operable auxiliary electrode positioned adjacent a main electrode, at least one heating means having terminals, said terminals being connected to a pair of said electrodes within said vessel, at least one of said pair being an auxiliary electrode, separate electrically conductive leads connected to each of said auxiliary and main electrodes through a wall of said vessel, and switch means connected between said auxiliary electrode and a source of current, whereby said auxiliary electrode is energized independently of said main electrodes.

2,843,802
TELL-TALE CIRCUIT
Earl M. Brohl, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 1, 1955, Serial No. 531,967
3 Claims. (Cl. 315—83)



1. A lamp circuit comprising a source of current, a primary circuit, a pair of branch circuits connected in parallel to said primary circuit, each branch comprising a resistance and a primary lamp in series, a tell-tale lamp connected to said branches between the resistance and lamp in each branch, said lamp circuit being effective to illuminate said tell-tale lamp upon failure of either of said primary lamps, and a switch in said primary circuit for selectively energizing and deenergizing said branch circuits.

2,843,803
VACUUM TUBE INPUT CIRCUIT
Franklin E. Talmage, Westmont, and Max Feryszka, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application March 29, 1956, Serial No. 574,779
13 Claims. (Cl. 315—107)

1. An input circuit for a vacuum tube having a cathode electrode terminal and a grid electrode flange, said cir-

cuit comprising a conductive enclosure with an apertured wall adapted to receive a vacuum tube, said enclosure being coupled to the grid flange thereof, a coaxial input line having inner and outer conductors extending into said enclosure, with one conductor coupled to said wall and thru the same to said grid flange; a first transmission line having two conductors coupled to respective ones of



the conductors of said coaxial input line to provide a reactance in shunt therewith; and a second transmission line having one conductor coupled to one of the conductors of said coaxial input line and the other conductor coupled to said cathode terminal to provide a reactance in series between the input line and the electrodes of the vacuum tube.

2,843,804

DEVICE FOR SUPPLYING LIGHTING PANELS

Gesinus Diemer, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application January 29, 1954, Serial No. 407,079
Claims priority, application Netherlands February 3, 1953
7 Claims. (Cl. 315—178)



1. An electro-luminescent lighting panel device comprising a lighting panel comprising an electro-luminescent material and means for energizing said luminescent material, said means comprising an oscillatory circuit for producing an oscillatory voltage having steeply rising wave edges and having an electron discharge tube and a feedback circuit connected thereto and including a capacitor and a resistor, said capacitor and said resistor having values at which the frequency of the voltage of said oscillatory circuit is substantially determined by the magnitudes of the resistance of said resistor and the capacitance of said capacitor, means for supplying an operating voltage to said oscillatory circuit, and means for applying said oscilltory voltage from the output of said oscillatory circuit to said lighting panel.

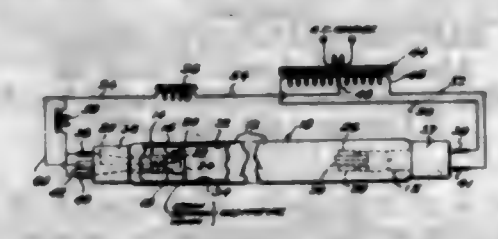
2,843,805

ELECTRIC DISCHARGE APPARATUS

Rolf K. Brodersen, Orange, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 12, 1957, Serial No. 677,624
4 Claims. (Cl. 315—266)

1. Electric discharge apparatus comprising a gaseous discharge device, an energizing circuit, and an auxiliary discharge circuit; said device comprising an envelope containing a plurality of main electrodes, one of which is thermionic and serves as a cathode during the operation of said device, an auxiliary electrode adjacent to and having less electron-emissivity than said cathode, and an ionizable medium including a gaseous atmosphere consisting of argon, krypton and xenon; said energizing circuit comprising a transformer connected to said cathode and the other of said main electrodes and operable when energized to initiate and sustain a controlled gaseous discharge therebetween, and an electrical-energy storage means connected in series with and between said cathode and transformer; and said auxiliary discharge circuit com-



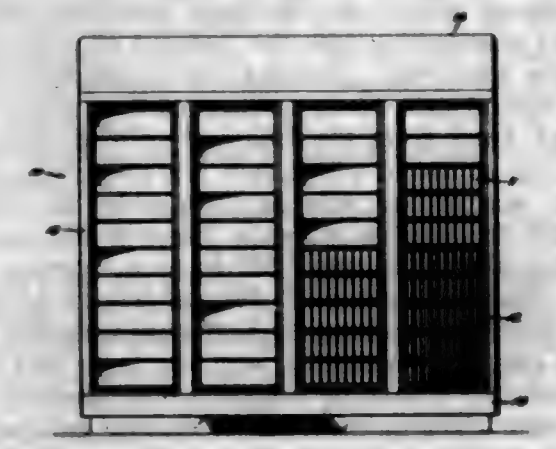
prising conductor means connecting said auxiliary electrode to said energizing circuit and said cathode through the electrical-energy storage means; said electrical-energy storage means being operable to sustain during the operation of said device an intermittent D. C. auxiliary discharge between said cathode and auxiliary electrode of such magnitude and duration that the current from said cathode is maintained above a predetermined value, which condition in conjunction with the additional stabilizing effect produced by the said ionizable medium reduces to a minimum the radio-frequency noise generated by said device over a substantial portion of its life.

2,843,806

CROSS-COOLED CABINET FOR ELECTRICAL EQUIPMENT

Richard J. O'Neill, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

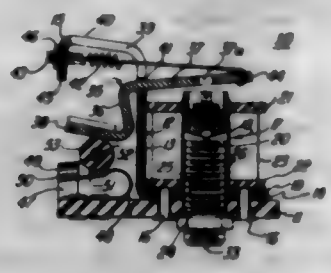
Application April 29, 1955, Serial No. 504,767
2 Claims. (Cl. 317—100)



1. A cabinet wherein cooling air is caused to flow, via isolated and perpendicular channels, past electrical equipment housed therein, said cabinet comprising: a plurality of parallel spaced hollow pillars having openings along the sides thereof to provide for the passage of air between adjacent pillars, each pillar having one end open and the other end closed, said pillars being positioned in such a manner that the one end of one pillar is adjacent the other end of a succeeding pillar; a bottom pan having air intake means and a plurality of air outlet orifices, said bottom pan being rigidly connected to said pillars in such a manner that said air intake means, some of said air outlet orifices and said open-ended pillars form a first set of air ducts; a top pan having a plurality of air intake orifices and air exhaust means, said top pan being rigidly connected to said pillars in such a manner that said air exhaust means, some of said air intake orifices and said open-ended pillars form a second set of air ducts; and a plurality of tiers mounted between each pair of adjacent

pillars and having isolated channels substantially parallel and perpendicular to said first and second sets of air ducts, respectively, said perpendicular channels connecting openings along the sides of adjacent pillars for venting cooling air from said first set of air ducts to said second set of air ducts and said parallel channels connecting the remaining ones of said air outlet orifices with the remaining ones of said air intake orifices for venting cooling air from said bottom pan to said top pan.

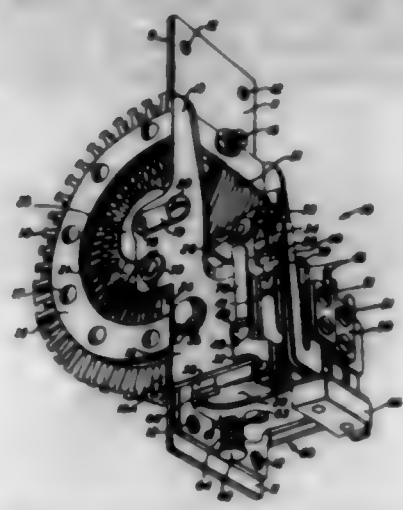
2,843,807
ELECTROMAGNETIC RELAY
Alexander J. Lewus, Cicero, Ill.
Application September 24, 1954, Serial No. 458,241
5 Claims. (Cl. 317—176)



1. An electromagnetic relay comprising a magnetic field element, a longitudinally extending tubular member secured at its inner end to said field element, a longitudinally extending winding carried by said tubular member in surrounding relation therewith and adapted to be energized with an alternating current, a magnetic armature, a pivotal connection between said armature and said field element, said armature having a free end movable toward and away from the outer end of said tubular member, means biasing the free end of said armature away from the outer end of said tubular member, a first longitudinally extending hollow magnetic pole piece secured in the outer end of said tubular member and having an outer end cooperating with the free end of said armature, a second longitudinally extending magnetic pole piece secured within said first pole piece and having an outer end cooperating with the free end of said armature, means for selectively adjusting the longitudinal position of said second pole piece within said first pole piece toward and away from the free end of said armature, a shading coil arranged within said first pole piece and surrounding said second pole piece in order to produce a phase-shift between the magnetic fluxes in said pole pieces when said winding is energized so as to prevent chatter of said armature, said field element having an opening formed therein in longitudinal alignment with said tubular member and communicating with the inner end thereof, a longitudinally extending magnetic core element carried by said field element within said opening and projecting longitudinally into said tubular member and having an outer pole end disposed adjacent to the inner ends of said pole pieces and spaced longitudinally therefrom by a gap positioned within said tubular member and intermediate the ends thereof, and means for selectively adjusting the longitudinal position of said core element in said tubular member so as selectively to adjust the length of the gap between the pole end of said core element and the adjacent inner ends of said pole pieces.

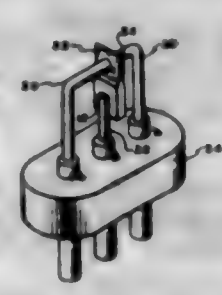
2,843,808
COUNTERBALANCE ASSEMBLY
Leonard E. Barkoff, Deerville, and Henry Walther, Millburn, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 26, 1953, Serial No. 357,686
9 Claims. (Cl. 317—187)

1. An automatic stepping switch comprising a coil frame; a pivoted armature mounted upon said coil frame having a pivot point and a center of gravity located at one side of said point; and a counterbalance assembly mounted upon said point having its center of gravity lo-



cated at the other side of said point whereby said armature and said assembly tend to rotate in opposite directions under linear acceleration, said assembly having a resilient coupling connecting said assembly with said armature.

2,843,809
TRANSISTORS
Arthur A. Varela, Alexandria, Va., assignor to Corvey Engineering Company, Washington, D. C., a corporation of Delaware
Application May 11, 1954, Serial No. 428,892
12 Claims. (Cl. 317—235)



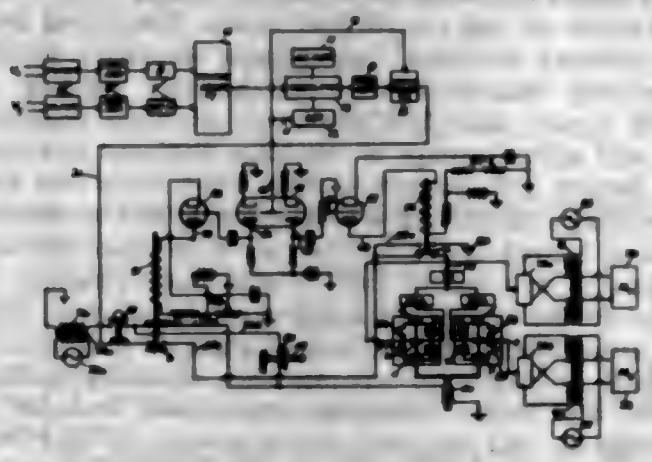
1. A transistor comprising a semiconductor body having surface barriers extending from a common etched edge, and emitter and collector electrodes in intimate contact with said surface barriers.

10. In the manufacture of a surface-barrier transistor, the steps including cutting a substantially rectangular germanium base having a straight edge from a single crystal of N-type germanium, electrolytically excavating opposed surfaces of said base which extend inwardly from said straight edge with a metallic salt as the electrolyte for a predetermined etching interval to form an active semiconductive region having substantially uniformly-spaced surface barriers, and electroplating said surface barriers with the metal ions from said metallic salt for a predetermined plating interval immediately following said etching interval.

2,843,810
ELECTRONIC POSITION AND MOTION CONTROL SYSTEMS
Ames J. Carr, Jr., Lexington, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application December 4, 1953, Serial No. 396,237
8 Claims. (Cl. 318—19)

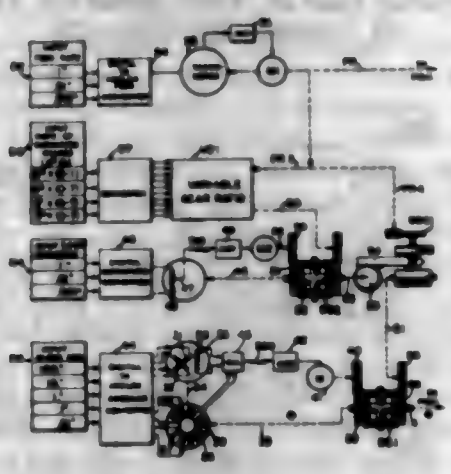
1. In combination, means for converting a stressing force into a proportional voltage, means providing a fixed voltage representative of a desired magnitude of said stressing force, means for comparing said proportional and fixed voltages, means for applying a compensating force when said stressing force deviates from said desired magnitude, said compensating force applying means in-

cluding dynamo-electric means having an energizing circuit responsive to said comparing means, and means



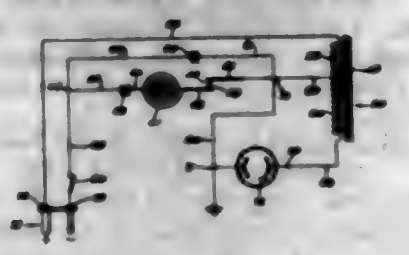
controlled by a rise in said proportional voltage to an abnormally high level for rendering said energizing circuit ineffective.

2,843,811
THREE DIMENSIONAL MACHINE CONTROL SERVOSYSTEM
Robert W. Tripp, Bronxville, N. Y., assignor, by mesne assignments, to Inductosyn Corporation, Carson City, Nev., a corporation of Nevada
Application September 5, 1956, Serial No. 608,024
12 Claims. (Cl. 318—19)



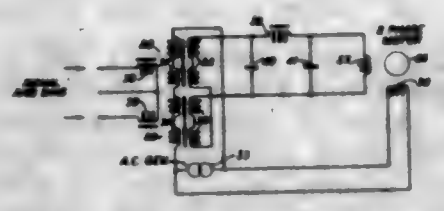
2. A machine control comprising means for supplying input data characteristic of a tool path having X, Y and Z coordinates in three dimensions, means for resolving said data into shaft rotations characteristic of said X, Y and Z coordinates respectively, means for converting each of said shaft rotations to coarse, medium and fine electrical signals, a driven element, and means for servoing said driven element with said signals along a path defined by said input data.

2,843,812
FLASHER MECHANISM
Charles L. Craddock, North Hollywood, Calif., assignor of one-half to J. E. Metcalf, Los Angeles, Calif.
Application October 7, 1954, Serial No. 460,809
3 Claims. (Cl. 318—134)



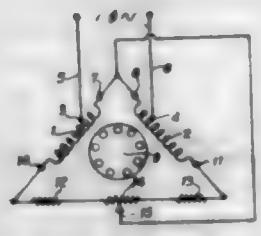
3. In a flasher mechanism the combination of: an electromagnet; an armature; spring means for mounting said armature in closely spaced relation with the core of said magnet and yieldable rapidly towards said core when attracted by said magnet; a contact carried by said means to move said armature as aforesaid; an oscillator having a contact; means rotatably mounting said oscillator whereby rotation thereof in a given direction brings the oscillator contact into engagement with the armature contact; a hair spring rotatably biasing said oscillator to normally produce such an engagement of said contacts; a battery; a diffused junction germanium rectifier; and conductor means providing an electric circuit extending from the positive pole of said battery through said electromagnet, then through said points, and then back through said rectifier to said battery.

2,843,813
MAGNETIC AMPLIFIERS
Lambert W. Stammerjohn, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 28, 1953, Serial No. 400,409
6 Claims. (Cl. 318—207)



1. A magnetic amplifier circuit which comprises at least one saturable reactor having control, power, and output windings, circuit means to supply slowly varying direct control currents to said control winding, circuit means to supply alternating current to said power winding, a π network in the form of a pair of shunt capacitive reactances and an interposed series inductive reactance connected with a first of said capacitive reactances across said output winding, an inductive load, and circuit means to couple said load across the second of said capacitive reactances, said second capacitive reactance being less than the inductive reactance of said load at the frequency of said alternating current and said series inductive reactance being at least partially resonant at the frequency of said alternating current with the reactance of the parallel combination of said second capacitive reactance and said load.

2,843,814
MEANS FOR VARYING THE SPEED OF SINGLE PHASE ELECTRIC INDUCTION MOTORS
Edward William Wilkins, Swindon, England, assignor to The Garrard Engineering and Manufacturing Company, Limited, Swindon, England
Application September 5, 1956, Serial No. 608,115
Claims priority, application Great Britain September 6, 1955
6 Claims. (Cl. 318—220)



1. A variable speed single phase induction motor comprising a rotor; a pair of field windings angularly displaced to provide a rotating field, corresponding terminals of said windings being connected to each other at a common junction; each winding having a tap intermediate its ends and the taps being correspondingly located, said taps being adapted for connection to opposite terminals of a source of single phase alternating current; impedance means connected in parallel with each winding between

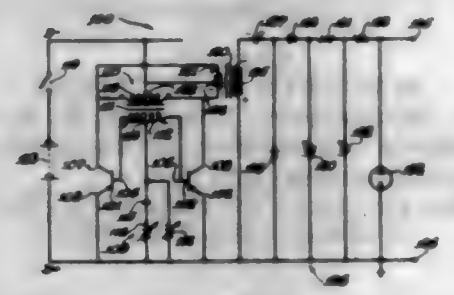
said common junction and the other terminals of the windings; and means operable to vary the proportion of the impedance means in parallel with each winding to vary the speed of said motor.

2,843,815

TRANSISTOR HIGH VOLTAGE POWER SUPPLY

Garth E. Driver, Pasco, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application January 28, 1955, Serial No. 483,186
5 Claims. (Cl. 321—2)



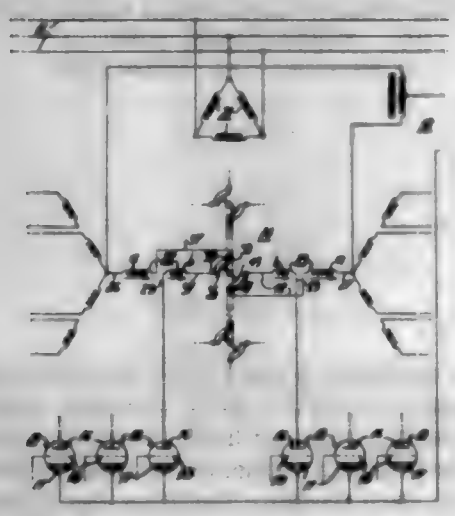
1. A voltage supply comprising a pair of transistors, each transistor having a base, an emitter and a collector electrode, a source of voltage, a transformer having a pair of center-tapped windings, a resistor-capacitor network, the first winding being connected to the base electrodes and the center-tap of the first winding being connected through the network to the emitter electrodes and the source of voltage, a high voltage transformer having an output and a center-tapped input winding, the collector electrodes being connected to the second winding of the transformer and the input winding of the high voltage transformer, the center-tap of the second winding of the transformer and the center-tap of the input winding of the high voltage transformer connected to said source of voltage to impress a bias on the transistors, whereby said transistors in cooperation with said transformer will conduct alternately to produce voltage variations in the output of the high voltage transformer, and means connected to the output of said high voltage transformer to rectify and increase the magnitude of said varying voltage.

2,843,816

RECTIFIER TRANSFORMER HAVING MEANS FOR OBTAINING FORMING VOLTAGES WITHOUT ADDITIONAL WINDINGS

Dalton R. Verner and Lawrence M. Stoakes, Pittsburgh, Pa., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application August 2, 1955, Serial No. 525,848
4 Claims. (Cl. 321—8)



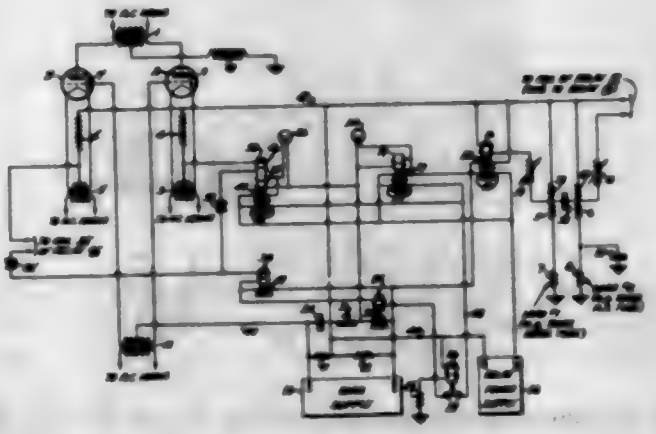
1. An electric current conversion system comprising an alternating current circuit, a direct current circuit, a plurality of ionic valves, three phase transformer means comprising three primary windings connected to said alternating current circuit and secondary windings connected in double star arrangement to said valves to selectively supply operating and forming voltages to said valves, each phase of said transformer means comprising one of said primary windings, four of said secondary windings inductively related to said one primary winding, and switch means, said four secondary windings comprising first and second groups of windings displaced electrically 180 degrees with respect to each other, each said group of windings comprising a main winding and an auxiliary winding having fewer number of turns than said main winding, a first end of each of said main windings connected to the neutral of a different star of said double star arrangement, a first end of each of said auxiliary windings connected to separate ones of said plurality of valves, and means connecting the second ends of said windings in said first and second groups to said switch means to cause said switch in one position to connect said main and auxiliary windings of different groups in additive series relationship to supply operating voltages to said separate valves, and to cause said switch in a second position to connect the main and auxiliary windings of the same group in subtractive series relationship to supply forming voltages simultaneously to said separate valves.

2,843,817

PROTECTIVE CIRCUIT

Lester S. Lappin, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application June 24, 1955, Serial No. 517,733
11 Claims. (Cl. 321—13)



1. In a power supply circuit, a grid-controlled gaseous rectifier for supplying unidirectional power to a load, means for supplying a negative operating bias to the grid of said rectifier, means responsive to an abnormal condition in said circuit for increasing the bias supplied to said grid to a value sufficient to cut off said rectifier, said last-mentioned means acting in response to the cutting off of said rectifier to nullify said increase of bias, and time delay means for delaying the reapplication of said operating bias for a predetermined time interval after said nullification has occurred.

2,843,818

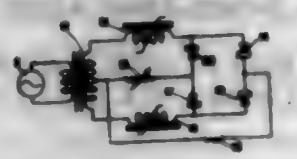
MAGNETIC AMPLIFIER

Martin Mintz, Long Beach, Gerald D. Shere, Temple City, Malcolm F. Thompson, Bellflower, and John J. Wittkopf, Downey, Calif., assignors to North American Aviation, Inc.

Application April 13, 1953, Serial No. 348,472
14 Claims. (Cl. 321—16)

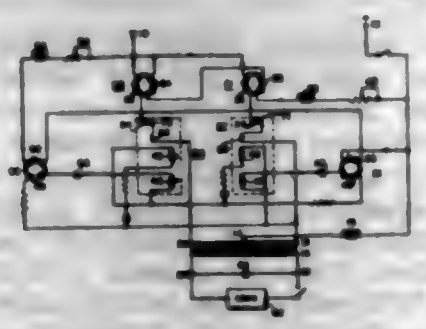
1. In a magnetic amplifier, a saturable reactor, circuit means for allowing current flow in one direction through the load winding of said saturable reactor to a load, reset circuit means for allowing current flow in an opposite direction through said load winding to reset said saturable reactor, and means for controlling the im-

pedance of said reset circuit means whereby the amount of current flow in said opposite direction is controlled



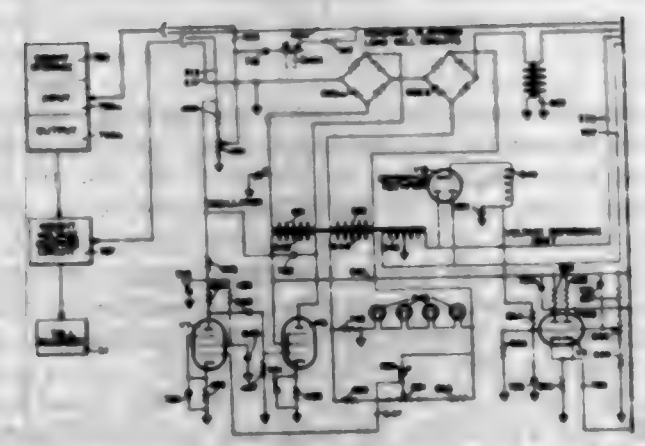
in order to determine the reset level of said saturable reactor.

2,843,819
D. C.-A. C. CONVERTER
Emil A. M. Kittl, Elberon, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application May 4, 1954, Serial No. 427,681
10 Claims. (Cl. 321—49)
(Granted under Title 35, U. S. Code (1952), sec. 266)



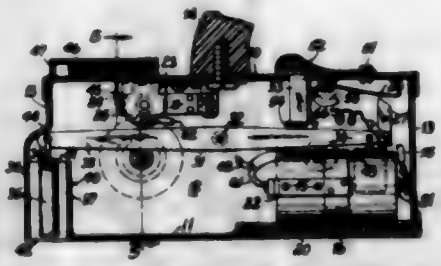
1. A direct-current to alternating-current converter comprising; a source of direct current, a transformer having a primary winding, a first magnetic switch having contacts connecting said direct current through said winding in one direction, a second magnetic switch having contacts connecting said direct current through said winding in the other direction, a first saturable reactor, a first rectifier, and a first actuating coil of said first magnetic switch connected in series across said winding, said rectifier having a first polarity with respect to said winding, a second saturable reactor, a second rectifier, and a first actuating coil of said second magnetic switch connected in series across said winding, said second rectifier having the other polarity with respect to said winding.

2,843,820
VOLTAGE REGULATION APPARATUS
Donald R. Daykin, Vestal, and George R. Stilwell, Jr., Johnson City, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 22, 1955, Serial No. 548,356
3 Claims. (Cl. 323—22)



2. An electronic system for regulating the D. C. voltage of a load circuit comprising a source of unregulated D. C. voltage; an A. C. oscillation generator; an electron discharge voltage regulating device provided with a control grid circuit and with a cathode-anode circuit connected in series circuit between said load circuit and one side of said unregulated voltage source; a manually operable potentiometer connected in shunt to said load circuit; a first amplifier provided with a cathode-anode circuit and with an input circuit; means including a second amplifier and a first resistor connected in the cathode-anode circuit of said first amplifier for regulating the control grid circuit potential of said regulating device according to the first amplifier cathode-anode current flow; an electron discharge control device provided with an input circuit and with a cathode connected to the cathode of said first amplifier; means for applying the potential drop across said manually operable potentiometer to said control device input circuit; means including a second resistor for connecting the commonly connected cathodes of said first amplifier and said control device to one side of said unregulated voltage source; means including a reference rectifier connected to the output of said oscillation generator for applying a D. C. biasing potential corresponding to the amplitude of the oscillation generator A. C. signal to said first amplifier input circuit; and means to control the cathode-anode circuit of said first amplifier and thereby the cathode-anode circuit of said voltage regulating device, including a third resistor for connecting the commonly connected cathodes to the other side of said unregulated voltage source so as to be responsive to the cathode-anode current of said control device and to the current through said second resistor, whereby the voltage of said load circuit is automatically regulated with respect to the unregulated source voltage and maintained at a fixed ratio relative the voltage of said oscillation generator, said fixed voltage ratio being determined by the manual setting of said manually operable potentiometer.

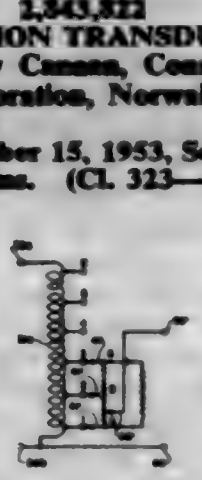
2,843,821
SYSTEM AND DEVICE FOR DETECTING FERROUS METAL
Morton S. Gottlieb, University City, Mo., assignor to Bell Products Co., St. Louis, Mo., a corporation of Missouri
Application April 4, 1955, Serial No. 499,139
4 Claims. (Cl. 324—41)



1. A system in a toy device for detecting ferrous metal including an electrical circuit comprising an electromagnetic vibrator having an armature, a power source operatively connected to said vibrator, an earphone operatively located between and connected to said power source and said vibrator, and a switch in the circuit between said power source and said vibrator, the switch having separate contacts normally held in spaced relation so as to maintain said circuit in an open condition, a rocker arm, a pivot means mounting said arm in said device, one of said contacts being carried by said arm at one side of said pivot means, a permanent magnet carried by said arm at the other side of said pivot means, a pivot pin carried by said armature, an indicating element loosely mounted on said pin, the magnet being attracted to ferrous material to cause displacement of said arm and engagement of said contacts to close said circuit so as to

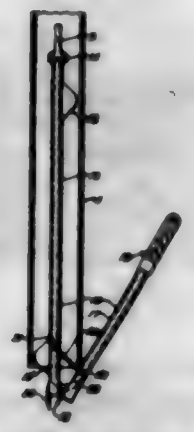
actuate said vibrator and armature, whereby to emit an audible signal in said earphone, and to cause pivotal movement of said indicating element.

2,843,822
PRECISION TRANSDUCER
Larkin B. Scott, New Canaan, Conn., assignor to The Perkin-Elmer Corporation, Norwalk, Conn., a corporation of New York
Application September 15, 1953, Serial No. 380,284
19 Claims. (Cl. 323—43.5)



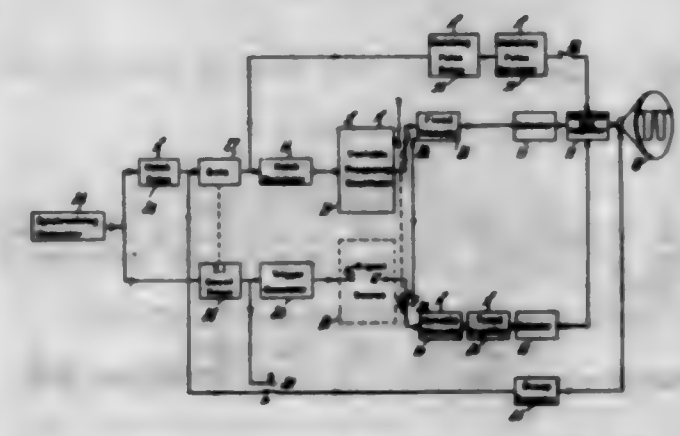
1. An electrical apparatus, which comprises a series of terminals, one of which is a reference terminal, means for maintaining a reference voltage on the reference terminal and voltages of predetermined values relative to the reference voltage on the respective other terminals along the series, and means for deriving voltages intermediate those on the terminals, said means including a continuous electrical path in the form of a closed loop of distributed impedance subdivided into sections by taps at at least three substantially equally spaced points thereon, switching means for connecting pairs of adjacent taps in rotation across successive pairs of adjacent terminals along the series, and a contact movable along that section of the impedance loop between the taps on said section connected to a pair of terminals.

2,843,823
INTERFACE LOCATOR
Charles R. Bayless, Channelview, Tex., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 9, 1955, Serial No. 552,010
8 Claims. (Cl. 324—30)



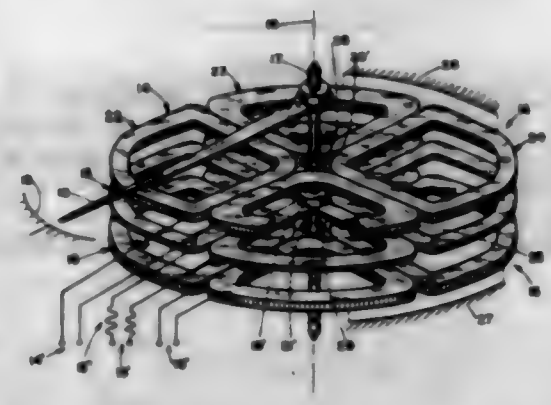
1. A device in the character of a probe for detecting the position in an enclosed chamber of the interface between two immiscible liquids of different electrical conductivity which comprises an articulate slender frame carrying electrodes at one end thereof and means of attachment to a supporting cable at the opposite end thereof, having a flexible joint intermediate the two ends thereof and having the electrode-carrying end normally bent back at said flexible joint toward the opposite end at an angle substantially in excess of 90° and provided with a frangible means connected to the probe on opposite sides of the flexible joint to maintain the device in the bent position; and electrical conductors leading from the said electrodes to the opposite end of said device and therebeyond to an electrical sensing device.

2,843,824
PULSE POWER MEASURING SYSTEM
Carl H. Whittier, Sharon, Mass., assignor to General Communication Co., Boston, Mass., a corporation of Massachusetts
Application April 18, 1956, Serial No. 578,934
14 Claims. (Cl. 324—121)



1. A power measuring system for pulsed radio frequency signals comprising first and second means to attenuate radio frequency signals, said second means including a calibrated adjustable attenuator to provide different amounts of attenuation and to indicate the relation of said amounts, means visually to display radio frequency signals from said attenuation means in demodulated form, means to provide a first radio frequency signal of known power level to serve as a reference for a second pulsed radio frequency signal of unknown power level to be determined, and means alternately to apply one of said signals to said attenuation means to initially balance the amounts of attenuation provided thereby, and thereafter simultaneously to apply said first and second signals to the respective attenuation means to determine the power relation between said signals.

2,843,825
ELECTRODYNAMOMETER
Morley J. Lush, Concord, Mass.
Application October 25, 1955, Serial No. 542,709
1 Claim. (Cl. 324—144)



An electrodynamometer wattmeter system wherein minimum impedance is provided to adapt said wattmeter to use at high frequencies, by means of the use of low inductance coils, such use being made possible by close coupling provided by the use of ninety degree coils in a not more than ninety degree movement operating range, and wherein the range of rotation of said wattmeter from maximum mutual coupling to minimum coupling is no greater than forty-five degrees, said wattmeter system comprising, in combination, a pair of fixed flat plate four coil units and a movable flat plate four coil unit therebetween, said coil units all being in closely adjacent superimposed alignment with each other, each of said coil units formed as a circular, electrically balanced assembly comprising four ninety degree pie-slice segments, and each of

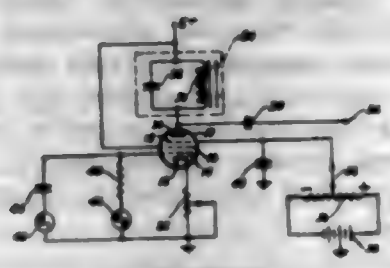
said coil units having a single continuous winding starting at the center of the circle, and on a map reading basis, extending radially north, then arcuately west and south, then radially east to the circle center, then radially north, then arcuately east and south, then radially west to the circle center, then radially south, then arcuately east and north, then radially west to the circle center, then radially south, then arcuately west and north, and finally radially east to the circle center, this whole path being thereafter repeated a number of times, with adjacent ones of said pie-slice coil segments thus in lateral edge abutment along radial legs of said circles, and said adjacent coils thus oppositely wound in such manner as to provide current flow in a single direction in each radial leg and to provide four such radial legs each as a combination of two radial legs formed by abutting coils, said combination radial legs each also providing for all current flow therein in a single radial direction, said combination radial legs together forming a pair of diameter legs, at right angles to each other, and, with respect to each of said diameter legs, said coil winding and arrangement providing for current flow in opposite directions in the two radial legs which form any one of said diameter legs.

2,843,826

MODULATOR SYSTEM

Robert C. Moore, Erdenheim, and George L. Carson, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application May 21, 1953, Serial No. 356,516
9 Claims. (Cl. 332—44)



1. An electrical system comprising a source of a sinusoidal input wave having a given amplitude and a preassigned frequency, a source of a second input wave, non-linear circuit means comprising a single pair of input terminals and a pair of output terminals and having a substantially parabolic transfer characteristic between said input and output terminals exhibiting a positive slope for a first range of values of an input signal, a zero slope for a given value of the said input signal and a negative slope for a second range of values of the said input signal, means for applying the said sinusoidal input wave to said pair of input terminals of said non-linear means at a given average amplitude substantially equal to the said given value of the said input signal, means for applying the said second input wave to said pair of input terminals of said non-linear circuit means, an electrical network parallel-resonant at the said preassigned frequency and coupled to the output of the said non-linear circuit means, and means for deriving from the said electrical network an output wave having a nominal frequency substantially equal to the said preassigned frequency.

2,843,827

ELECTRICAL-LINE TAPPER

Isaac S. Blonder, Roselle, N. J.

Application April 8, 1955, Serial No. 500,222
14 Claims. (Cl. 333—6)

1. In a coaxial-line electrical tapper of the type having a conductive clamping block provided with one or more prods for piercing the outer insulation of the line in order to contact the outer conductor thereof while clamping the line and a pointed terminal prod insulated from the block for piercing the insulation between the inner and outer conductors of the line in order to establish electrical connection with the inner conductor, the combination of a series-connected resistor and capacitor, a coaxial-line connector having an outer conductor and an inner conductor, a helical spring disposed between the



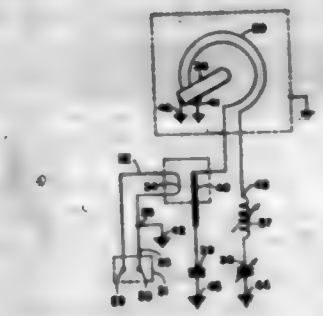
said coaxial-line inner conductor and the capacitor, and means for electrically and mechanically securing the coaxial-line-connector outer conductor to the clamping block while placing the spring under compression to urge the series-connected resistor and capacitor into series connection with the said terminal prod.

2,843,828

ULTRA-HIGH-FREQUENCY CONVERTER FOR VERY-HIGH-FREQUENCY TELEVISION RECEIVER

Emmery J. H. Bussard and Reuben Nathan, Cincinnati, Ohio, assignors to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware

Original application October 18, 1951, Serial No. 251,864, now Patent No. 2,763,776, dated September 18, 1956. Divided and this application October 29, 1952, Serial No. 319,622
3 Claims. (Cl. 333—73)



1. In a U. H. F. converter for a television receiver an antenna coupling circuit comprising a transformer having a single-loop primary and a coupling plate constituting a secondary, said primary and its effective shunt capacitance comprising a broadly tuned primary circuit, a fixed capacitor and a tuning line and adjustable lumped inductance and an adjustable trimmer capacitor serially arranged in a closed loop with said coupling plate to provide a tuned secondary circuit capacitively and inductively coupled to said primary circuit, said tuning line comprising a pair of ribbon-like spaced conductors.

2,843,829

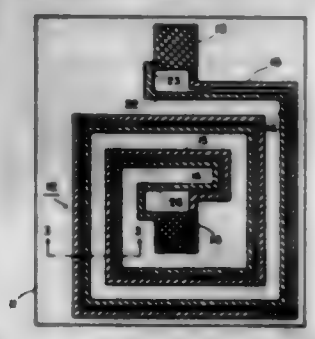
ELECTRICAL INDUCTANCE

Matthew W. Slate, New York, N. Y., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

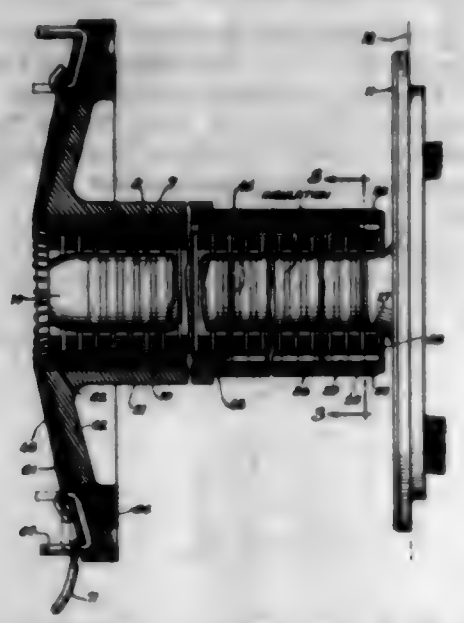
Application December 30, 1952, Serial No. 328,587
6 Claims. (Cl. 336—200)

1. In a planar printed circuit inductance for radio frequency use, having a spiral conductive means fixed to an insulating support, said conductive means being thin

and rectangular in cross section, the improvement including in said conductive means a plurality of conductors in parallel connection, said conductors having a total cross sectional area no greater than the cross sectional area of said conductive means and means rendering the effective electrical impedance of all said conductors substantially equal, said means applied to at least one of said plurality of conductors to change the effective electrical impedance thereof to equal the impedance of the other said conductors whereby the number of sharp edges on which radio frequency currents are concentrated is multiplied and the current carrying capacity of said coil is increased.

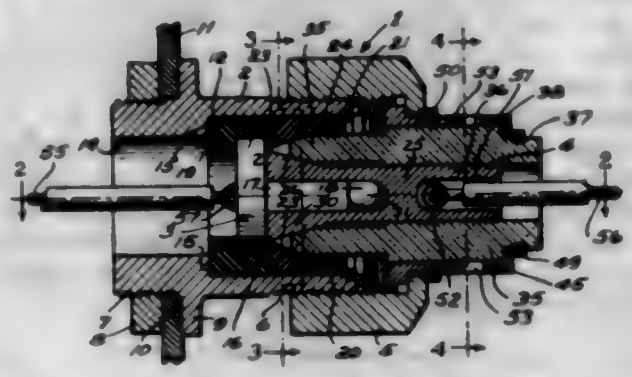


2,843,830
SLIP RING AND BRUSH ASSEMBLY
Leonard C. Blanding, Grand Rapids, Mich., assignor to Lear, Incorporated, Grand Rapids, Mich.
Application November 2, 1953, Serial No. 389,662
4 Claims. (Cl. 339—5)



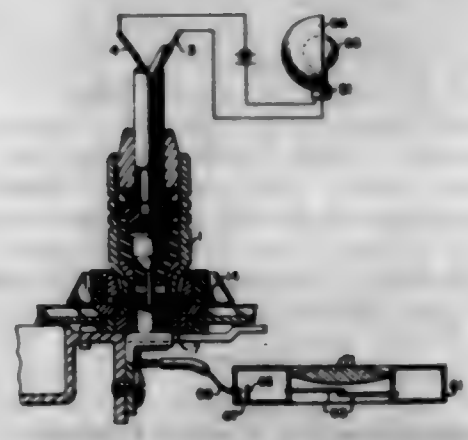
1. A slip ring and brush assembly comprising a slip ring arbor, a plurality of slip rings carried on said arbor and having active faces flush therewith, means at one end of said arbor for rotatably supporting the same, the opposite end of said arbor having a tapered nose, an equal plurality of electrically-insulating brush housings of hollow, cylindrical form and a casing for supporting said housings in face-to-face relation, each housing having an annular recess in one radially-disposed, flat face thereof and the central opening of each holder being of greater diameter than the rings, a brush individual to each housing located in said recess for wiping on an associated slip ring, each brush including a pair of fingers for tangential contact with the ring substantially at the opposite ends of a diameter thereof, an axially-extending conductor for each brush, and said holders as a group having aperture means for passage of said conductors, said brush being radially resilient and having, in the absence of the slip ring, a relaxed position within the area of said central opening and, in the presence of the slip ring, an operative position substantially outside the area of said opening, said recess providing a guide for radial movement of the brush but restraining the brush against appreciable movement axially whereby the slip ring arbor may be moved axially into and out of operative relation with the brushes without damage thereto.

2,843,831
HEAVY DUTY CONNECTOR
Daniel G. Pliskin, Bronx, N. Y., assignor to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware
Application October 18, 1956, Serial No. 616,738
6 Claims. (Cl. 339—89)



1. An electrical connector of the character described comprising a tubular casing which is adapted to be secured in fixed position, a first connecting member secured in fixed position in said casing, a second connecting member which is provided with a pair of opposed jaws between which said first connecting member is adapted to be gripped, a wedging member in which said second connector is slidably mounted, cooperating surfaces between said second connector and said wedging member through which said jaws are cammed into tight engagement with said first connecting member by the longitudinal movement of said wedging member, and means by which longitudinal movement is imparted to said wedging member.

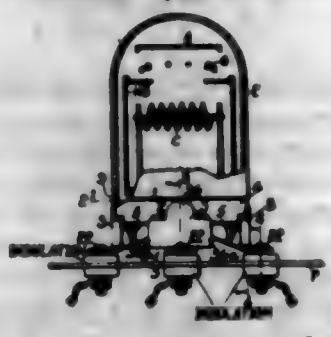
2,843,832
PHOTOGRAPHIC FLASHLIGHT CONNECTION PLUG
Hermann Bretthauer, Braunschweig, Germany, assignor to Franke & Heidecke, Fabrik Photographischer Prazisions-Apparate, Braunschweig, Germany, a German firm
Application October 20, 1953, Serial No. 387,119
Claims priority, application Germany October 23, 1952
5 Claims. (Cl. 339—91)



1. A separable connector for connecting an electric switch of a photographic camera to a flashlight, said connector including a plug having an insulating body and two electrical contacts mounted in said body and connected to said flashlight, a socket mounted on said camera in position to receive said plug therein and having two electrical contacts connected to said switch and positioned to mate with said contacts on said plug when said plug is inserted in said socket, a spring mounted in said socket

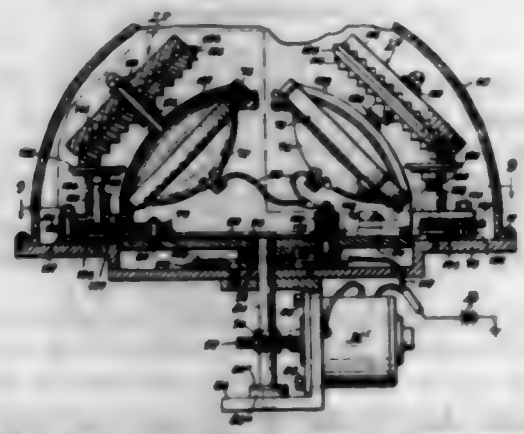
and having two arms substantially parallel to each other and arranged substantially tangentially to said plug on opposite sides thereof when said plug is inserted in said socket, and an annular bead on said plug having a conical forward face to engage said spring arms and displace them laterally while said plug is being inserted in said socket and having an abrupt substantially radial rear face to engage said spring arms and to be retained thereby against removal outwardly from said socket until said spring arms have been displaced, said socket including a fixed member and a rotary member arranged concentrically with respect to each other, said two members having means for spreading said spring arms laterally when one of said members is turned relative to the other, both of said members remaining with said socket when said plug is removed from said socket.

2,843,833
MOUNTING STRUCTURE FOR GAS TUBES
Donald V. Edwards, Montclair, N. J., assignor to Electrons, Incorporated, Newark, N. J.
Application October 6, 1951, Serial No. 250,895
3 Claims. (Cl. 339—93)



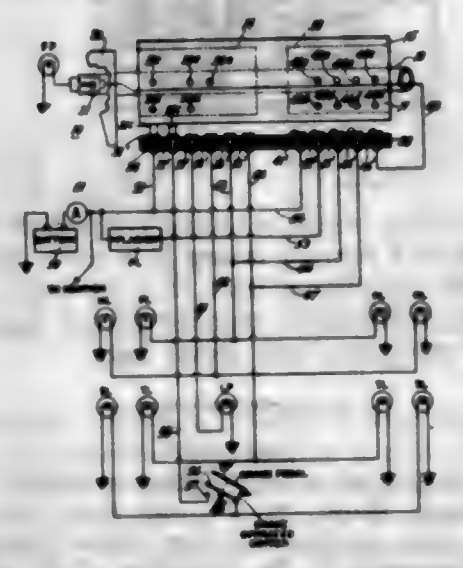
2. In a tube mounting structure of the character described for establishing exposed heat radiating detachable electrical connections with the insulated terminals of a tube supporting body, a tube envelope having a substantially flat circular sealing base, a plurality of electrode lead-in rods sealed in said base at different intervals in a circular row, and a resilient supporting element attached to each lead-in rod and extending radially beyond the periphery of the base for attachment to its insulated terminal of the tube supporting body, each supporting element having an end portion welded to its lead-in rod and being exposed to the outside air for dissipation of heat, and each supporting element being formed with flanges contacting with the base of the tube envelope on opposite sides of the lead-in rod.

2,843,834
SIGNAL LIGHT FOR MARINE AVIATION AND VEHICULAR USE
Grant V. W. Roth and Lester V. Walsh, Chicago, Ill.
Original application April 11, 1952, Serial No. 281,834, now Patent No. 2,719,281, dated September 27, 1955. Divided and this application July 20, 1955, Serial No. 523,161
9 Claims. (Cl. 340—25)



1. A signalling and identification light comprising in combination, a supporting structure, a rotatable base on said supporting structure, a motor adapted to rotate said base, a light source on and rotatable with said base for creating a beam of light, means for moving said beam of light with relation to said base during rotation thereof said light source being fixed in relation to said base, said means including a movable reflecting lens unit positioned in light-receiving relationship to said light source and means including motion-transmitting elements effective to cause simultaneous rotation of said base and said lens unit in response to actuation of said motor.

2,843,835
SIGNAL LAMP SWITCH
Jesse R. Hollins, Brooklyn, N. Y., assignor, by mesne assignments, to Abraham Hollins and Jesse R. Hollins, Brooklyn, and Lewis S. Hollins, Great Neck, and Theodore D. Davidson, New York, N. Y.
Application October 12, 1953, Serial No. 385,433
7 Claims. (Cl. 340—81)

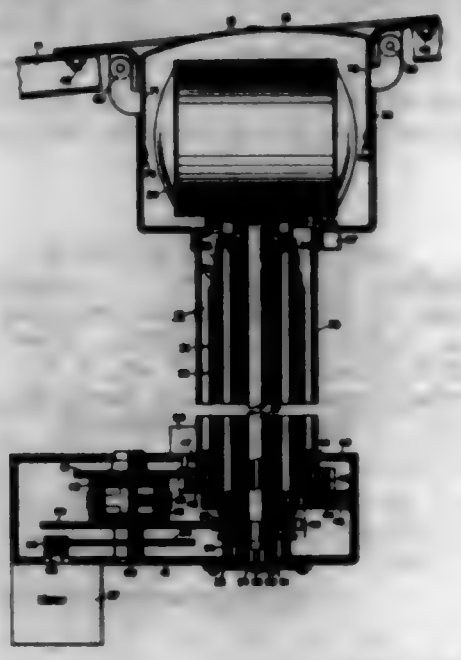


1. For use in a vehicle having a source of electric energy, headlamps, parking lamps, tail lamps, stop lamps, a brake-operated switch in series with said stop lamps, and license plate lamp means; the combination comprising a flasher connected to said source; and a control switch in circuit connection with said source, said flashers, said brake-operated switch, said lamps, and said lamp means; said control switch having an off position, a parking lamps on position, a head lamps on position and a flare position; said control switch, in the off position, connecting said brake-operated switch to said source; said control switch, in the parking lamps on position, connecting said brake-operated switch, said tail lamps, said license plate lamp means, and said parking lamps to said source; said control switch, in the headlamps on position, connecting said brake-operated switch, said tail lamps, said license plate lamp means, and said head lamps to said source; said control switch in the flare position, connecting said parking and tail lamps directly to said flasher, for flashing thereof, and disconnecting said brake operated switch from said source.

2,843,836
WARNING SIGNAL
Eugene F. McDonald, Jr., Chicago, Ill.
Application April 29, 1955, Serial No. 504,857
2 Claims. (Cl. 340—87)

2. A warning signal system for a squad car having a body section of predetermined height and a trunk section of substantially lesser height, said system comprising: a rotatable directional signal light; telescoping support means for said signal light, mounted within said squad car trunk section, said support means being actuatable between a retracted position in which said signal light is concealed within said trunk section of said squad car and an extended position in which said signal light is

supported at a height substantially greater than the height of said body section for signalling purposes; and actuating system, including a motor for actuating said support means between said retracted and extended positions, for controlling the operation of said support means; me-



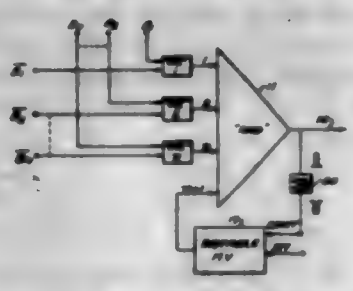
chanical coupling means coupling said signal light to said motor when said support means is in said extended position to rotate said signal light at a relatively slow speed and provide intermittent omnidirectional signalling; and means for energizing said signal light.

2,843,837

DIGITAL COMPARISON GATE

Samuel Thaler, Rome, N. Y., and Ernie R. Ruterman, Douglas, Ariz., assignors to the United States of America as represented by the Secretary of the Air Force

Application December 8, 1955, Serial No. 551,965
1 Claim. (Cl. 340—149)
(Granted under Title 35, U. S. Code (1952), sec. 266)



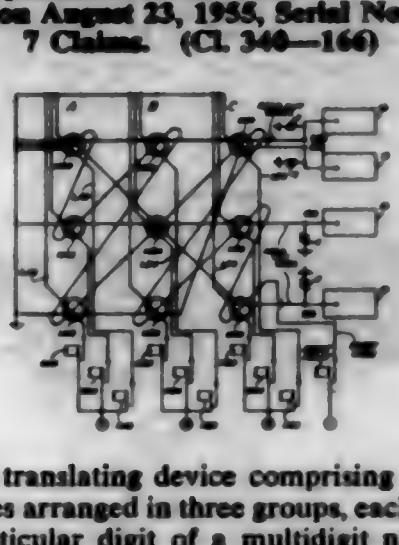
A circuit for comparing two *n*-digit binary numbers one of which is approaching the other in size and for producing a signal when the two numbers become equal, the two binary digits 1 and 0 of said binary numbers being represented by distinguishable electrical signals, said circuit comprising: *n* "or" gates each having first and second input circuits and an output circuit, said "or" gates having the characteristic that a signal appears in the output circuit of the gate only when the signal representing binary digit 1 is applied to at least one of the inputs to the gate, means for applying the signals representing the binary digits of the smaller of said binary numbers to the first input circuits of said "or" gates, means for applying signals representing the complements of the binary digits of the larger of said binary numbers to the second input circuits of said "or" gates, the signals applied to each "or" gate representing digits of corresponding order, an "and" gate having *n*+1 input circuits and an output circuit, said "and" gate having the characteristic that signals must be applied to all its input circuits in order to produce a signal in its output circuit, means connecting the output circuits of said "or" gates to *n* of the input circuits of said "and" gate, means normally applying a signal to the remaining input circuit of said "and" gate, said last named means also being connected to the output circuit of said "and" gate and acting upon the appearance of a signal in said output circuit to remove the signal applied to said remaining input circuit.

2,843,838

FERROMAGNETIC TRANSLATING APPARATUS

George F. Abbott, Jr., New York, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 23, 1955, Serial No. 538,181
7 Claims. (Cl. 340—166)



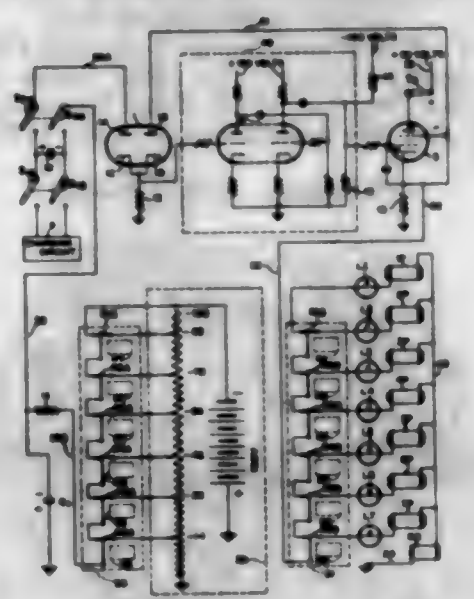
2. A code translating device comprising a plurality of magnetic cores arranged in three groups, each group representing a particular digit of a multidigit number, a plurality of set wires threaded through said cores and adapted when selectively energized to drive certain of said cores to a first magnetic state, a plurality of read-out wires each representative of a particular number and threaded through said cores in a combination individual to said number, a reset wire threaded through all of said cores in the same direction, means for applying a current pulse through said reset wire to drive all of said cores to a second magnetic state and to energize a read-out wire threaded through the cores initially driven to said first magnetic state, and amplitude sensitive apparatus connected to said read-out wires and adapted to identify the read-out wire in which is induced the highest cumulative pulse upon the application of said current pulse to said reset wire.

2,843,839

CLASSIFICATION CIRCUIT

James Mason Cunningham, Endicott, and Donald R. Dayton, Endwell, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application June 19, 1953, Serial No. 362,966
7 Claims. (Cl. 340—172)



1. In a switching circuit of the class described, a first diode, a second diode, and an electron discharge device, said first and said second diodes having a common cath-

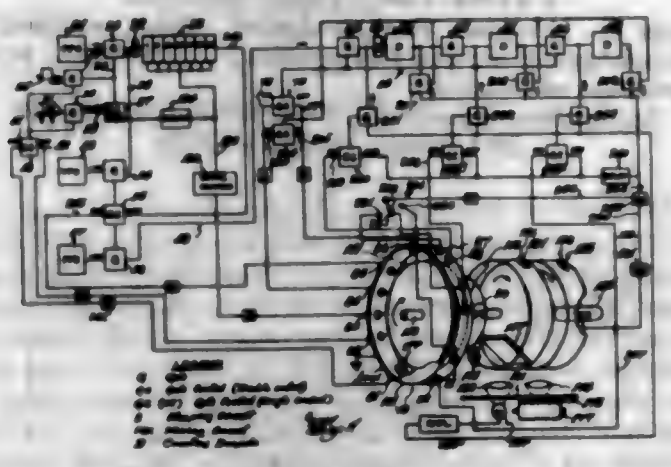
ode circuit; the circuit of said first diode including a source of direct current potential for rendering said first diode conductive; the circuit of said second diode including feedback means connected between said electron discharge device and the anode of said second diode for rendering said second diode conductive in response to the conduction of said electron discharge device; and amplifier means interconnecting the common cathode circuit of said first and second diodes and said electron discharge device for rendering said electron discharge device conductive in response to the conduction of said first diode to thereby render said second diode conductive, whereupon the combined first and second diode current flow through the common cathode resistor renders said first diode nonconductive.

2,843,840

NUMERICAL TABULATOR

John F. Brinster and Erwin Donath, Princeton, N. J., assignors to Applied Science Corporation of Princeton, Princeton, N. J., a corporation of New Jersey

Application December 9, 1953, Serial No. 397,189
14 Claims. (Cl. 340—173)



1. In apparatus for recording symbols respectively corresponding to discrete values of variable electrical data the combination of means supplying a first sequence of electrical impulses representing a multi-place value of said data, means for storing said sequence, a support displaying symbols arranged in series, spaced means respectively aligned with said symbols defining the positions thereof, means responsive to said space means for supplying a second sequence of impulses, means for producing relative displacement between said spaced means and said last mentioned supplying means, said second sequence having a count proportional to the count of said spaced means from an origin, means for comparing said second sequence with the stored impulses of said first sequence representing different places of said value, and means for recording a symbol of said series responsive to a pre-established relationship between the counts of said second sequence and said last-mentioned impulses, said symbol being uniquely defined by said relationship.

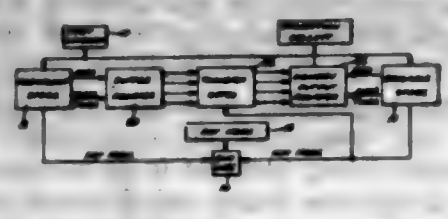
2,843,841

INFORMATION STORAGE SYSTEM

Gilbert W. King, Pacific Palisades, Edwin L. Hughes, Los Angeles, George W. Brown, Pacific Palisades, and Louis N. Ridenour, Los Angeles, Calif., assignors to International Telemeter Corporation, Los Angeles, Calif., a corporation of Delaware

Application September 20, 1954, Serial No. 457,239
15 Claims. (Cl. 340—173)

1. An information storage system comprising the combination of a nonerasable information storage device and an erasable information storage device, means to search said nonerasable storage device for desired information, means to search said erasable storage device for information related to said desired information, means to resolve the information derived from both information storage devices from said searches, a common output device,



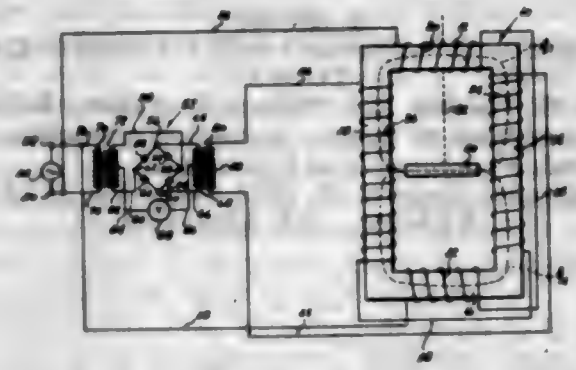
and means to enter said resolved information into said common output device.

2,843,842

TELEMETRIC POSITION SENSING DEVICE

Kenneth L. King, Scarsdale, N. Y., assignor to Norden-Ketay Corporation, New York, N. Y., a corporation of Illinois

Application April 22, 1955, Serial No. 503,231
9 Claims. (Cl. 340—199)



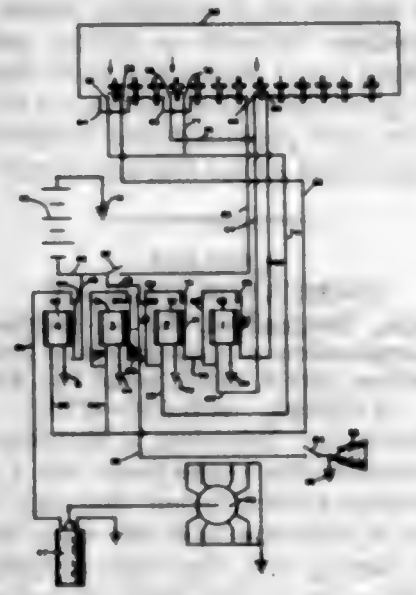
1. A telemetric position sensing device including in combination a magnetic core having a pair of legs and an elongated portion connecting said legs, a first exciting winding carried by one of said legs, a second exciting winding carried by the other of said legs, means for energizing said first and second exciting windings to produce oppositely acting fields of magnetic flux, a sensing winding positioned on said elongated portion in a position to be influenced by both said fields, and a movable magnetic shunt disposed adjacent said elongated portion for movement along the length of said portion to vary the respective flux path lengths of said first and second winding magnetic fields.

2,843,843

USE PREVENTION CIRCUIT AND APPARATUS

Cecil W. Davis, Montgomery, Ala.

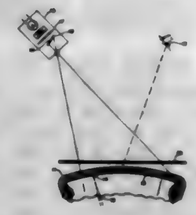
Application March 24, 1955, Serial No. 496,535
6 Claims. (Cl. 340—276)



1. In a use prevention circuit having an ignition circuit, a control circuit and a source of electrical current, a series of holding relays in said control circuit oper-

ably connected so that each of said relays before the last relay in said series of relays is operable to energize the next succeeding relay in said series of relays, control switches respectively interposed in said circuit before each relay of said series of relays to control the energizing thereof, a plurality of series connected decontrol switches in said control circuit, each switch of said decontrol switches being operable to de-energize all of said relays, and an ignition circuit switch means interposed in said ignition circuit, said ignition circuit switch means being operable by said last relay of said series of relays to control said ignition circuit, an alarm circuit connected to said source of current, alarm means connected to said alarm circuit, an actuating switch for actuating said alarm circuit to actuate said alarm means, and a deactuation switch controlled by said last relay of said series of relays for rendering said alarm circuit inoperative when said last relay is energized.

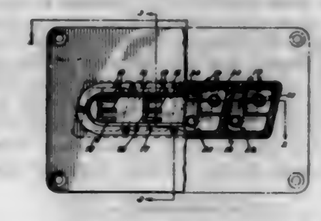
2,843,844
PROJECTING METHOD FOR CATHODE-RAY TUBES
Herbert H. Naidich and William S. O'Hare, Baltimore, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application October 28, 1952, Serial No. 317,226
8 Claims. (Cl. 348—368)



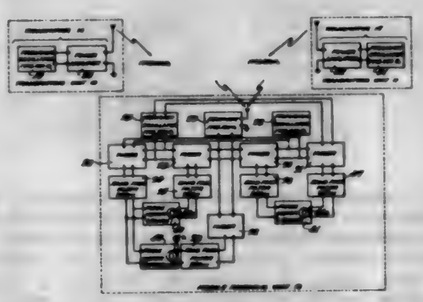
1. The method of projecting reference indicia on the viewing screen of an electron discharge device, said screen being that on which is displayed images produced by an electron stream impinging thereon and being removed from the outer surface of said device by the thickness of the transparent envelope thereof, such that distortion of said indicia caused by refraction is eliminated thereon, comprising: the steps of producing an image of said indicia on a surface corresponding to said screen and formed on a blank having the same radius of curvature, thickness and index of refraction as said envelope; recording said image of said indicia on a recording means from a predetermined position through an optical path which includes said blank; and producing said indicia on said screen by said projection means operating on said recording means from said predetermined position through an optical path equivalent to the first mentioned optical path.

2,843,845
INDICATOR DISPLAY
Anthony Vozza, Bergenfield, N. J., assignor to Sperry Rand Corporation, a corporation of Delaware
Application July 6, 1955, Serial No. 520,234
4 Claims. (Cl. 340—378)

1. An indicator for indicating a plurality of different conditions representable respectively by a plurality of different characters each different character having character elements in common with the other characters, an indicator face having said character elements separately delineated thereon and so relatively spaced and arranged as to cooperate to form a plurality of different characters when predetermined groups of said elements are rendered visible, means for separating said common elements into predetermined, cooperable groups, each separate group adding and eliminating elements from the previously visible group to form said different characters, means associated with each of said groups of elements for rendering the same visible, and means controlled in accordance with a condition to be indicated for operating said last-mentioned means whereby to form the character representative thereof.



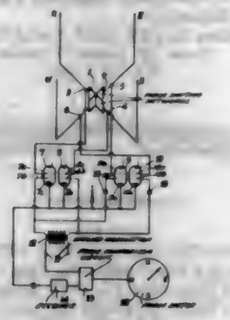
2,843,846
RADIO LOCATION SYSTEM
James E. Hawkins, Broken Arrow, Okla., assignor to Seismograph Service Corporation, Tulsa, Okla., a corporation of Delaware
Application January 21, 1954, Serial No. 405,450
28 Claims. (Cl. 343—105)



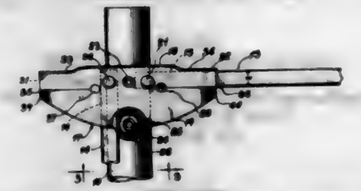
1. Wave signal receiving apparatus for translating at least two space radiated signals into position indications comprising means for receiving said space radiated signals, a first signal generating means for producing a first signal having a frequency related to that of the first of the received signals, a second signal generating means for producing a second signal having a frequency related to that of the second of the received signals, means for comparing the phase of the first received signal with the first generated signal to produce a first position indication representative of the location of said receiving apparatus relative to the source of said first received signal, means for comparing the phase of the second received signal with the second generated signal to produce a second position indication, and means for comparing the phase of the two received signals to provide a third position indication.

2,843,847
RADIO DIRECTION FINDERS
Dennis Byatt, Chelmsford, England, assignor to Marconi's Wireless Telegraph Company Limited, London, England, a British company
Application January 31, 1955, Serial No. 485,089
Claims priority, application Great Britain
February 18, 1954
4 Claims. (Cl. 343—121)

1. A radio direction finder comprising two substantially perpendicular pairs of spaced aerials, two similar phase shifters each having two outputs, one phase shifter being connected between the aerials of each pair whereby a phase shift is produced between the signals received by the two aerials of each pair so that the signals of each pair of aerials, when combined, provide a cardioid polar diagram of reception, means for modulating output signals derived from each of said outputs with modulating signals which are all of the same frequency, the modulating signals applied to the output signals from any two outputs of the same phase shifter being in phase opposition, and the modulating signals applied to the output signals from any two outputs of a different phase shifter being in phase quadrature, a common output circuit means to apply the four resultant modulated signals to said common output circuit, means for producing a reference wave of the same frequency as that of the modulating signals, and phase responsive means responsive to the phase relation between the combined modulating signals and the reference wave for indicating the direction of an incoming signal.



2,843,848
COLLAPSIBLE AND SELF-LOCKING DIPOLE ANTENNA
Carl F. Goudy, Sherburne, N. Y., assignor to Technical Appliance Corporation, Sherburne, N. Y., a corporation of New York
Application June 30, 1955, Serial No. 519,093
7 Claims. (Cl. 343—895)



2. A foldable antenna, comprising an antenna element, a rigid support for said element, a bracket attached to said support, means pivotally attaching said element adjacent one end to said bracket, said bracket having a first integral flexible tongue engaging said element and tending to swing the element towards a collapsed position when in engagement therewith, and a second integral flexible tongue at right angles to the first tongue and arranged to snap into engagement with said element when it is swung from its collapsed position to its final set position whereby said element is positively locked in said set position in mutually perpendicular directions by engagement with both of said tongues.

3. A foldable antenna according to claim 2, in which said bracket is in the form of a channeled sheet metal member and the said antenna element is pivotally attached to the side walls of the channel, said channel having a portion extending at right angles to said support and having a width which is substantially the same as the width of the said end of the antenna element whereby said element is positively locked against swinging movement in mutually perpendicular planes when it is in its said set position.

DESIGNS

JULY 15, 1958

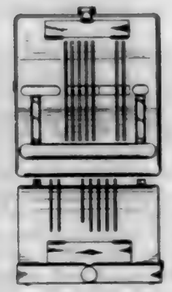
183,191
HAND WASHING AGITATOR
Carl Amm, Forchheim, Germany
Application July 10, 1956, Serial No. 42,196
Term of patent 7 years
(Cl. D49—1)



183,192
SUCTION CLEANER
Carl Eric Sixten Andersson-Sasse, Solna, and Carl Oskar Ernolf, Stora Essingen, Stockholm, Sweden, assignors to Aktiebolaget Electrolux, Stockholm, Sweden, a corporation of Sweden
Application August 12, 1957, Serial No. 47,301
Claims priority, application Sweden February 11, 1957
Term of patent 14 years
(Cl. D9—2)



183,193
CHECKWRITER
Samuel J. Boker, Brooklyn, Gerald S. Lazarus, Bethpage, and Judah R. Sassoon, Jackson Heights, N. Y.
Application February 20, 1958, Serial No. 49,718
Term of patent 14 years
(Cl. D64—11)



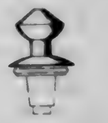
183,194
COMBINED BUMPER AND LAMP UNIT FOR AN AUTOMOBILE
William M. Brownlie, St. Clair Shores, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application July 29, 1957, Serial No. 47,108
Term of patent 7 years
(Cl. D14—6)



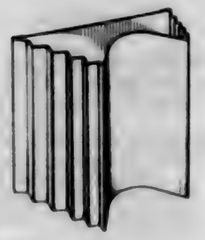
183,195
GASOLINE DISPENSING VEHICLE
Joe S. Cline, Oklahoma City, Okla.
Application December 16, 1957, Serial No. 48,901
Term of patent 14 years
(Cl. D14—3)



183,196
DISPENSING CAP
Leonard M. Collins, Hollywood, Calif., assignor to Pressure Dispensers, Inc., Los Angeles, Calif., a corporation of California
Application April 29, 1957, Serial No. 45,933
Term of patent 14 years
(Cl. D62—2)



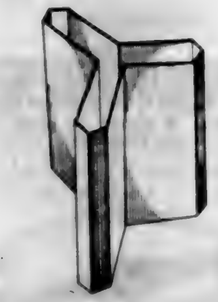
183,197
TROPHY BASE
Ray E. Dodge, Miami Beach, Fla., assignor to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application August 16, 1957, Serial No. 47,385
Term of patent 14 years
(Cl. D29—23)



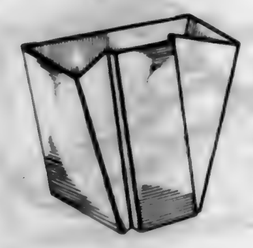
183,198
TROPHY BASE
Ray E. Dodge, Miami Beach, Fla., assignor to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application August 16, 1957, Serial No. 47,388
Term of patent 14 years
(Cl. D29—23)



183,199
TROPHY BASE
Ray E. Dodge, Miami Beach, Fla., assignor to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application August 16, 1957, Serial No. 47,390
Term of patent 14 years
(Cl. D29—23)



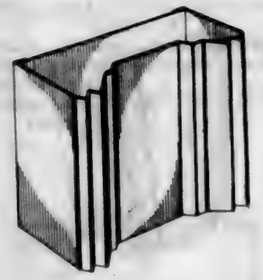
183,200
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,009
Term of patent 14 years
(Cl. D29—23)



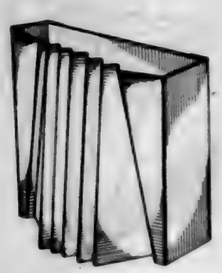
183,201
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,010
Term of patent 14 years
(Cl. D29—23)



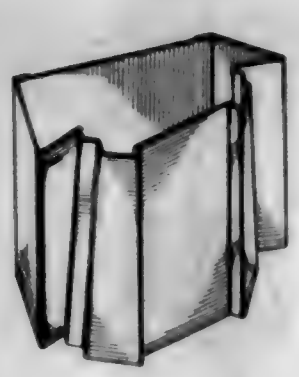
183,202
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,012
Term of patent 14 years
(Cl. D29—23)



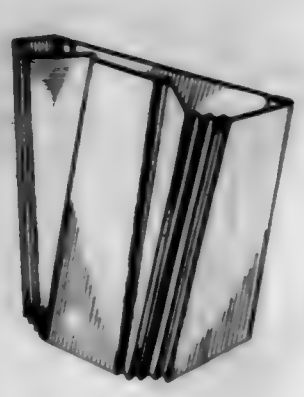
183,203
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,013
Term of patent 14 years
(Cl. D29—23)



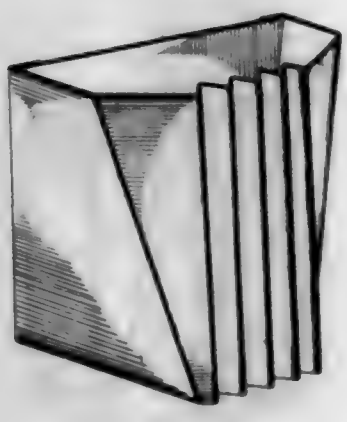
183,204
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,014
Term of patent 14 years
(Cl. D29—23)



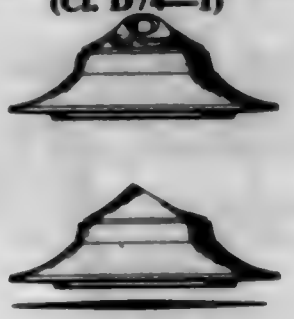
183,205
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,015
Term of patent 14 years
(Cl. D29—23)



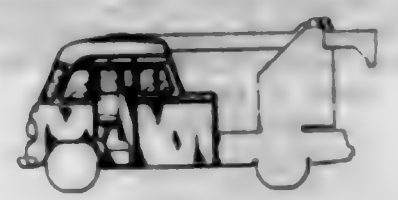
183,206
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,017
Term of patent 14 years
(Cl. D29—23)



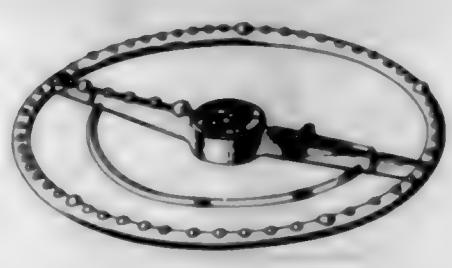
183,207
DESK BASE FOR A WRITING INSTRUMENT OR THE LIKE
Donald W. Doman and Walter Irion Bieger, Janesville, Wis., assignors to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application September 26, 1957, Serial No. 47,875
Term of patent 14 years
(Cl. D74—1)



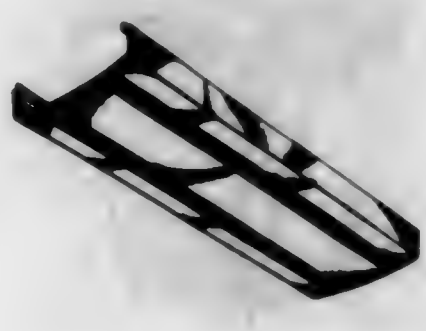
183,208
COMBINED TRUCK AND LIFT
Jay M. Eitel, Los Altos, Calif.
Application January 4, 1957, Serial No. 44,398
Term of patent 14 years
(Cl. D14—3)



183,209
COMBINED ROSARY AND STEERING WHEEL
Herbert L. Fast, Dayton, Ohio
Application August 8, 1955, Serial No. 37,351
Term of patent 14 years
(Cl. D14—30)



183,210
LUMINAIRE LENS
Kurt Franck and Robert G. McPhail, Newark, Ohio, assignors to Holophane Company, Inc., New York, N. Y., a corporation of New York
Application January 3, 1957, Serial No. 44,391
Term of patent 14 years
(Cl. D48—16)



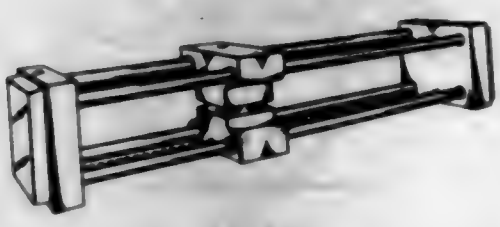
183,211
COMBINATION COSTUMER AND CLOTHES HAMPER
Donald H. Hansen, Oconto Falls, and George L. Haunn, Two Rivers, Wis.
Application June 18, 1957, Serial No. 46,631
Term of patent 14 years
(Cl. D58—4)



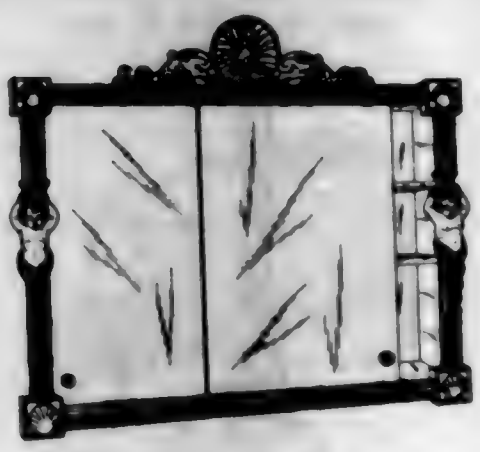
183,212
INDUSTRIAL GAUGING HEAD WITH TRAVERSING MOUNT FOR DETECTING MATERIAL PROPERTIES
Bernard C. Holben, Dublin, Ohio, assignor to Industrial Nucleonics Corporation, a corporation of Ohio
Application May 31, 1957, Serial No. 46,428
Term of patent 14 years
(Cl. D52—1)



183,213
INDUSTRIAL GAUGING HEAD WITH TRAVERSING MOUNT FOR DETECTING MATERIAL PROPERTIES
Bernard C. Holben, Dublin, Ohio, assignor to Industrial Nucleonics Corporation, a corporation of Ohio
Application February 21, 1958, Serial No. 49,752
Term of patent 14 years
(Cl. D52—1)



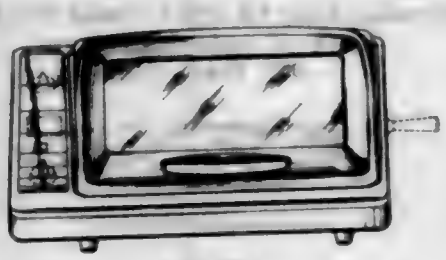
183,214
MEDICINE CHEST
Julius Hurwitz, Bayside, N. Y.
Application December 3, 1957, Serial No. 48,751
Term of patent 14 years
(Cl. D4—3)



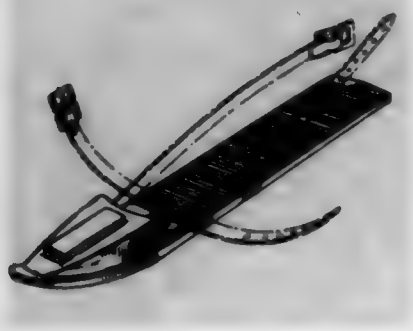
183,215
STAND FOR HOLDING INTRAVENOUS FLUID CONTAINERS OR THE LIKE
Axel E. F. Johnson, Cincinnati, Ohio, assignor to American Hospital Supply Corporation, Evanston, Ill., a corporation of Illinois
Application July 15, 1955, Serial No. 36,986
Term of patent 14 years
(Cl. D33—8)



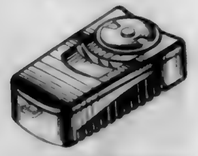
183,216
COMBINATION ROASTER BROILER OR SIMILAR ARTICLE
Carl N. Johnson, Stratford, and Rudolph H. Koepf, Orange, Conn., assignors to General Electric Company, a corporation of New York
Application April 25, 1957, Serial No. 45,881
Term of patent 14 years
(Cl. D81—10)



183,217
SLIDER SKATE
Charles E. Jones, Chicago, and William G. Crowle, Berwyn, Ill., assignors to Manning Manufacturing Corporation, Chicago, Ill., a corporation of Illinois
Application July 15, 1957, Serial No. 46,942
Term of patent 14 years
(Cl. D34—14)



183,218
EXPOSURE METER
Roger B. Kerr, Marblehead, and Walter A. Baldwin, Lynn, Mass., assignors to General Electric Company, a corporation of New York
Application January 20, 1958, Serial No. 49,322
Term of patent 14 years
(Cl. D61—1)



183,219
CLOTHES HANGER OR SIMILAR ARTICLE
Marc S. Landau, Dover, Del., assignor to International Latex Corporation, Dover, Del., a corporation of Delaware
Application August 13, 1956, Serial No. 42,594
Term of patent 14 years
(Cl. D80—8)



183,220
UTENSIL HANDLE
Arthur A. March, Bridgeport, Conn., assignor to Table Appointments, Inc., New York, N. Y., a corporation of New York
Application June 18, 1957, Serial No. 46,689
Term of patent 14 years
(Cl. D44—29)



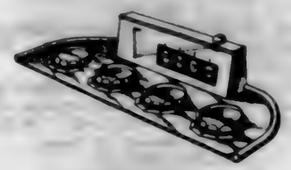
183,221
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application September 27, 1957, Serial No. 47,890
Term of patent 14 years
(Cl. D92—1)



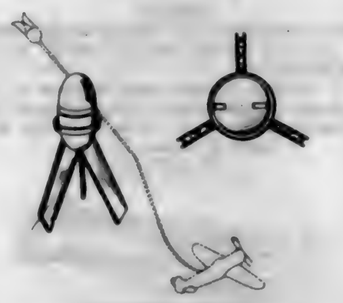
183,222
SHOWER CAP
Harry Mills, New York, N. Y.
Application October 21, 1957, Serial No. 48,169
Term of patent 14 years
(Cl. D3—13)



183,223
GOLF PRACTICE DEVICE
James R. Neiler, Olean, N. Y.
Application November 18, 1957, Serial No. 48,503
Term of patent 14 years
(Cl. D34—5)



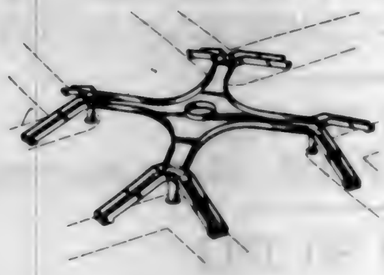
183,224
TOY PYLON OR SIMILAR ARTICLE
Frank Pettit, Union, N. J.
Application September 16, 1957, Serial No. 47,754
Term of patent 14 years
(Cl. D34—15)



183,225
CARPET SCRUBBING MACHINE
Harry D. Resch and Herbert W. Harris, Racine, Wis., assignors to Racine Industrial Plant, Inc., Racine, Wis., a corporation
Application November 19, 1956, Serial No. 43,823
Term of patent 14 years
(Cl. D9—2)



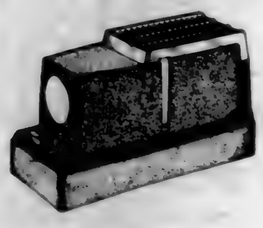
183,226
COMBINED ESCALATORS AND STREET CROSSING UNIT
Byron B. Savage, Oklahoma City, Okla.
Application January 3, 1956, Serial No. 39,561
Term of patent 14 years
(Cl. D13—1)



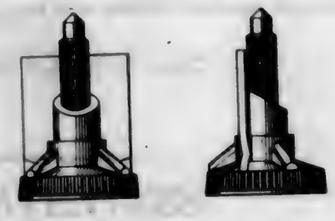
183,227
PLASTIC-BINDING MACHINE
George C. Seeger, Skokie, James K. Duncan, Park Ridge, and John E. Jones, Wilmette, Ill., assignors, by mesne assignments, to American Photocopy Equipment Company, Chicago, Ill., a corporation of Illinois
Application May 28, 1957, Serial No. 46,376
Term of patent 14 years
(Cl. D55—1)



183,228
HOUSING FOR A PICTURE PROJECTOR
Robert L. Smith, Deerfield, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois
Application October 22, 1957, Serial No. 48,205
Term of patent 14 years
(Cl. D61—1)



183,229
COMBINATION FLEXIBLE DISPENSING CLOSURE CAP AND APPLICATOR
Morton B. Stull, Garfield, N. J.
Application October 21, 1957, Serial No. 48,186
Term of patent 14 years
(Cl. D58—26)



183,230
WATER SKI
Erich S. Swenson, Minneapolis, Minn., assignor to The Flour City Ornamental Iron Company, Minneapolis, Minn., a corporation of Minnesota
Application March 7, 1957, Serial No. 45,141
Term of patent 14 years
(Cl. D71—1)



183,231
FIRESET STAND
John B. Turner, Norwich, N. Y., assignor to Bennett-Ireland, Inc., Norwich, N. Y., a corporation of New York
Application October 4, 1956, Serial No. 43,230
Term of patent 14 years
(Cl. D81—24)



183,232
COMBINED RESPIRATOR AND FACE SHIELD
William B. Wines, Towson, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application April 30, 1954, Serial No. 30,288
Term of patent 14 years
(Cl. D83—1)



LIST OF REISSUE PATENTEES

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PATENTS WERE ISSUED ON THE 15TH DAY OF JULY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Compton, Charles E. Advanceable mining machine head and shaft carried bearing support therefor. Re. 24,503, 7–15–58, Cl. 262—7.

Kerwin, Daniel G., to J. B. Nottingham & Co., Inc. Insulating flexible splicer core for plural cable joints and cable splicing method. Re. 24,504, 7–15–58, Cl. 174—138.

Nottingham, J. B., & Co., Inc.: *See*—
Kerwin, Daniel G. Re. 24,504.

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Culbashian, Haig. Apricot tree. 1,732, 7–15–58, Cl. 47—62.

Rodgers, Vincent B. Almond tree. 1,730, 7–15–58, Cl. 47—62.

Tiret, Horace M. Fuchsia plant. 1,731, 7–15–58, Cl. 47—60.

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Johnson, Axel E. F. 183,215.

American Photocopy Equipment Co.: *See*—
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Andersson-Sason, Carl E. S., and C. O. Ernolf, to Aktiebolaget Electrolux. Suction cleaner. 183,192, 7–15–58, Cl. D9—2.

Baldwin, Walter A.: *See*—
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Bell & Howell Co.: *See*—
Smith, Robert L. 183,228.

Bennett-Ireland, Inc.: *See*—
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Bieger, Walter I.: *See*—
Doman, Donald W., and Bieger. 183,207.

Boker, Samuel J., O. S. Lazarus, and J. R. Sassoon. Check-writer. 183,193, 7–15–58, Cl. D64—11.

Brownlie, William M., to Chrysler Corp. Combined bumper and lamp unit for an automobile. 183,194, 7–15–58, Cl. D14—6.

Chicopee Mills, Inc.: *See*—
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Chrysler Corp.: *See*—
Brownlie, William M. 183,194.

Cline, Joe S. Gasoline dispensing vehicle. 183,195, 7–15–58, Cl. D14—3.

Collins, Leonard M., to Pressure Dispensers, Inc. Dispensing cap. 183,196, 7–15–58, Cl. D62—2.

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Dodge, Ray E. and A. W., to Dodge, Inc. Trophy base. 183,206, 7–15–58, Cl. D29—23.

Doman, Donald W., and W. I. Bieger, to The Parker Pen Co. Desk base for a writing instrument or the like. 183,207, 7–15–58, Cl. D74—1.

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Ernolf, Carl O.: *See*—
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Fast, Herbert L. Combined rosary and steering wheel. 183,209, 7–15–58, Cl. D14—30.

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Johnson, Axel E. F., to American Hospital Supply Corp. Stand for holding intravenous fluid containers, or the like. 183,215, 7–15–58, Cl. D32—5.

Johnson, Carl N., and R. H. Koepf, to General Electric Co. Combination roaster broiler or similar article. 183,216, 7–15–58, Cl. D81—10.

Jones, Charles E., and W. G. Crowle, to Manning Mfg. Corp. Slider skate. 183,217, 7–15–58, Cl. D34—14.

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McPhail, Robert G.: *See*—
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Mills, Harry. Shower cap. 183,222, 7–15–58, Cl. D3—13.

Neller, James R. Golf practice device. 183,223, 7–15–58, Cl. D34—5.

Parker Pen Co., The: *See*—
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Savage, Byron B. Combined escalators and street crossing unit. 183,226, 7–15–58, Cl. D13—1.

Seeger, George C., J. K. Duncan, and J. E. Jones, to American Photocopy Equipment Co. Plastic-binding machine. 183,227, 7–15–58, Cl. D65—1.

Smith, Robert L., to Bell & Howell Co. Housing for a picture projector. 183,228, 7–15–58, Cl. D61—1.
Stull, Morton B. Combination flexible dispensing closure cap and applicator. 183,229, 7–15–58, Cl. D68—26.
Swenson, Erich S., to The Flour City Ornamental Iron Co. Water ski. 183,230, 7–15–58, Cl. D71—1.
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Wines, William B. 183,232.
Wines, William B., to Western Electric Co., Inc. Combined respirator and face shield. 183,232, 7–15–58, Cl. D63—1.

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PATENTS WERE ISSUED ON THE 15TH DAY OF JULY, 1958

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Abbott, George F., Jr., to Bell Telephone Laboratories, Inc. Ferromagnetic translating apparatus. 2,843,838, 7–15–58, Cl. 340—166.

Abbott Laboratories: *See*—
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Zaugg, Harold E. 2,843,535.

Ackley, Richard E., to Kiekhaefer Corp. Machine for injecting sand into core molds. 2,842,815, 7–15–58, Cl. 22—10.

Acosta, Jorge A. Separating conditioner. 2,843,270, 7–15–58, Cl. 210—525.

Adamec, John B.: *See*—
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Adams, Andrew V. Wagon hoist apparatus. 2,843,423, 7–15–58, Cl. 298—22.

Adler, Robert, and E. M. Roechke, to Zenith Radio Corp. Subscription television system. 2,843,657, 7–15–58, Cl. 178—5.1.

Aerophysics Development Corp.: *See*—
Cook, Howard L., Clark, Knopp, and Marlow. 2,843,076.

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Aldridge, George L., and L. E. Chambers. Termite control. 2,842,892, 7–15–58, Cl. 43—124.

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All American Engineering Co.: *See*—
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Allen, Charles F. H., and J. J. Sagura, to Eastman Kodak Co. 2-Mercaptol-1,3,4-oxadiazoles as antifoggants. 2,843,491, 7–15–58, Cl. 96—109.

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Allen, Lawrence E., to Allis-Chalmers Mfg. Co. Self-propelled combine. 2,842,925, 7–15–58, Cl. 56—21.

Allen, Robert R., to John Wood Co. Double-acting piston pumps. 2,843,051, 7–15–58, Cl. 103—175.

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Verner, Dalton R., and Stoakes. 2,843,816.

Allison, Hugh V., to American Chain and Cable Co., Inc. Abrasive cutting wheel mounting and guard. 2,842,908, 7–15–58, Cl. 51—267.

Allison, William R. Device for inspecting the accuracy of curvature of optical material and lenses. 2,843,002, 7–15–58, Cl. 88—14.

Altenburg, William M., and J. E. Foote, to Diamon Gardner Corp. Molded pulp pear tray. 2,843,496, 7–15–58, Cl. 99—171.

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Amery, George B. Plotting subsurface seismic reflecting boundaries. 2,842,849, 7–15–58, Cl. 33—79.

Anderson, Kenneth A., to American Machine and Metals, Inc. Separation apparatus. 2,843,267, 7–15–58, Cl. 210—236.

Anderson, Martin O., and E. H. Troselium. Foldable rule. 2,842,850, 7–15–58, Cl. 33—105.

Anderson, Neville R. Grease-lubricated air power cylinder. 2,843,220, 7–15–58, Cl. 184—18.

Anderson, Robert F., R. P. Flagg, and R. T. Osen, to Minneapolis-Honeywell Regulator Co. Thermoelectric generator and method of making the same. 2,843,647, 7–15–58, Cl. 136—4.

Anderson, Ural L. Pipe pulling machine. 2,843,358, 7–15–58, Cl. 254—30.

Andrus, Orrin E., to A. O. Smith Corp. Fluid expansible passage seal. 2,843,052, 7–15–58, Cl. 103—202.

Andrus, Paul G., to Haloid Xerox Inc. Pressure transfer of xerographic images. 2,843,490, 7–15–58, Cl. 117—17.5.

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Apgar, John N. Turntable for fifth wheel trailer couplings. 2,843,398, 7–15–58, Cl. 280—438.

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Aufricht, Gustave. Combined spectacle frame and nasal clamp. 2,843,115, 7–15–58, Cl. 128—76.

Auger, Alas E. Mail signal means for rural mailboxes. 2,843,316, 7–15–58, Cl. 232—34.

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Bacon, John W., Jr., to Northrop Aircraft, Inc. Non-destructive method of testing bonded cellular panels. 2,842,957, 7–15–58, Cl. 73—37.

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Baird, Douglas O., and L. R. Zumwalt, to United States of America, Atomic Energy Commission. Processes of recovering uranium from a calutron. 2,843,451, 7-15-58, Cl. 23—14.5.

Baker, Alfred V., to The Dow Chemical Co. Film clarity measuring apparatus. 2,843,003, 7-15-58, Cl. 88—14.

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Baker, Forrest G., to American Air Filter Co., Inc. Damper control for unit ventilator. 2,843,324, 7-15-58, Cl. 236—49.

Baker, William E., to Bendix Aviation Corp. Motion transmitting means. 2,842,969, 7-15-58, Cl. 74—18.

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Barish, Thomas: *See*—
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Barkoff, Leonard E., and H. Walther, to Bell Telephone Laboratories, Inc. Counterbalance assembly. 2,843,808, 7-15-58, Cl. 317—187.

Barnes, William P. Heel guard for sling pump. 2,842,769, 7-15-58, Cl. 2—22.

Barnhart, George E. Latch for an automatically releasable cover for a cooking utensil. 2,843,410, 7-15-58, Cl. 292—254.

Bart, Roger, and W. B. Williams, to International Minerals & Chemical Corp. Animal feed material. 2,843,492, 7-15-58, Cl. 99—6.

Barvaeus, Alvar E. A. Self-adjusting back support. 2,843,195, 7-15-58, Cl. 155—182.

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Baxendale, Ralph W., to Eastman Kodak Co. Alkalies for single powder photographic developers. 2,843,484, 7-15-58, Cl. 96—66.

Bayless, Charles B., to Gulf Oil Corp. Interface locator. 2,843,823, 7-15-58, Cl. 324—30.

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Beattie, Robert D., L. P. Michel, and C. A. Stokes, to G. L. Cabot, Inc. Process for producing silicon tetrachloride. 2,843,458, 7-15-58, Cl. 23—206.

Beaufort, John M., to United States of America, Army. Hydraulic track tensioning device. 2,843,431, 7-15-58, Cl. 305—9.

Beck, Arnold H. W., T. M. Jackson, and J. Lytollis, to International Standard Electric Corp. Electric discharge tubes. 2,843,782, 7-15-58, Cl. 313—189.

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Beckett, Reginald W. Fluid fuel burner. 2,843,198, 7-15-58, Cl. 158—76.

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Cutler, Cassius C. 2,843,790.
Ilgenfritz, Lester M. 2,843,668.
Ketchledge, Raymond W. 2,843,674.
Oliver, Bernard M. 2,843,447.
Pfann, William G. 2,842,831.
Pierce, John R. 2,843,791.
Pierce, John R. 2,843,792.
Riehe, John W. 2,843,662.
Smith, Donald H. 2,843,745.
Stammerjohn, Lambert W. 2,843,813.
Talpey, Thomas E. 2,843,786.
Tien, Ping K. 2,843,776.
Trent, Robert L. 2,843,762.

Beloit Iron Works: *See*—
Holden, Herbert. 2,843,025.

Belter, Robert H. Front cockpit instrument flying hood. 2,842,868, 7-15-58, Cl. 35—12.

Bement, Benjamin E. Engine starting circuit. 2,843,756, 7-15-58, Cl. 290—36.

Bendix Aviation Corp.: *See*—
Baker, William E. 2,842,969.
Gardner, Paul J. 2,843,142.
Hunter, Gordon S., and Sturges. 2,843,079.
Hurlburt, Charles E. 2,842,968.
Lerch, Charles S., Jr., Slavin, Hooten, Churchill, and Hsu. 2,843,734.
Naidich, Herbert H., and O'Hare. 2,843,844.
Price, Osborne L. 2,843,700.
Voss, Edward A., and Wesolowski. 2,843,073.

Benjamin, Milton L., and F. E. Winnen, to Erickson Tool Co. Method of making expanding mandrels. 2,842,839, 7-15-58, Cl. 29—404.

Bennett, James A. J., to Hiller Helicopters. Composite aircraft system, and method of flight. 2,843,337, 7-15-58, Cl. 244—2.

Bennett, William F. Collapsible utility hook. 2,842,822, 7-15-58, Cl. 24—73.

Benning, Anthony F., J. G. Burt, and E. K. Gladding to E. I. du Pont de Nemours & Co. Polymeric polyether-polyurethanes. 2,843,568, 7-15-58, Cl. 260—77.5.

Benning, Anthony F., and E. K. Gladding, to E. I. du Pont de Nemours and Co. Elastomeric polyurethane compositions containing side chain alkylol groups. 2,843,569, 7-15-58, Cl. 260—77.5.

Benz, William G., Jr., J. S. Sohn, and R. B. Steele, to Air Reduction Co., Inc. Method and apparatus for gas shielded localized welding. 2,843,727, 7-15-58, Cl. 219—130.

Berck, William F., to Ralph N. Brodie Co. Positive displacement type fluid meter. 2,843,094, 7-15-58, Cl. 121—71.

Berezansky, John, and G. Gdvoichin, to Tab Co., Inc. Electrical safety switch. 2,843,707, 7-15-58, Cl. 200—156.

Bergstrand, Andrew P., to Strombeck-Becker Mfg. Co. Toy furniture. 2,842,780, 7-15-58, Cl. 5—29.

Berkley, Howard L., and F. E. Le Count, to Williston Seamless Can Co., Inc. Machines for shaping seamless metal cans and the like. 2,843,070, 7-15-58, Cl. 113—88.

Berlencourt, Paul. Apparatus for applying friction closures to containers. 2,842,924, 7-15-58, Cl. 53—319.

Berridge, Charles A., to General Electric Co. Room temperature curing organopolysiloxane. 2,843,555, 7-15-58, Cl. 260—18.

Berry, Verne H., and A. W. Grant, to United States Rubber Co. Stone rejecting tire tread. 2,843,172, 7-15-58, Cl. 152—209.

Bertagna, Victor B., and J. J. Pfarr, to Northrop Aircraft, Inc. Zero-length launcher. 2,843,020, 7-15-58, Cl. 89—1.7.

Bertaux, Gerard, to Forges et Ateliers de Constructions Electriques de Jeumont. Remote control cables. 2,843,694, 7-15-58, Cl. 200—86.

Beryllium Corp., The: *See*—
Morana, Simon J. 2,843,544.

Bethlehem Steel Co.: *See*—
Eberhardt, John E. 2,843,472.

Bienert, Berthold, F. Baumann, and M. Groll, to Farbenfabriken Bayer Akt. Process for the production of phthalocyanine dyestuffs. 2,843,599, 7-15-58, Cl. 260—314.5.

Billig, Ralph B., and M. S. Ziskin, to Kromex, Inc. Two part cake tin. 2,843,440, 7-15-58, Cl. 312—284.

Bimkus, Bernard E.: *See*—
Hoven, Alfred C., Nordmark, and Bimkus. 2,843,435.

Bishop and Babcock Mfg. Co., The: *See*—
Getz, Arnstead G. 2,843,365.

Black, James J., to Trailmobile Inc. Shiftable roof structure for open top vehicles. 2,843,422, 7-15-58, Cl. 296—137.

Black, Robert H., C. Madsen, and E. C. Neuhaus, to Western Electric Co., Inc. Device with collapsible arbor for forming partially formed part into box-like article. 2,843,175, 7-15-58, Cl. 153—25.

Blades, Alan E.: *See*—
Lacey, Richard N., and Blades. 2,843,630.

Blanding, Leonard C., to Lear, Inc. Slip ring and brush assembly. 2,843,830, 7-15-58, Cl. 339—5.

Blashill, Arthur E. Weaving spindle and wire feed means for wire fabric making machine. 2,843,160, 7-15-58, Cl. 140—92.3.

Bletzinger, John C., W. U. Day, and R. E. Rotlie, to Kimberly-Clark Corp. Sanitary napkin. 2,843,128, 7-15-58, Cl. 128—290.

Block, Lester W.: *See*—
Block, Sydney J. and L. W. 2,843,130.

Block, Sydney J. and L. W., to California Forms, Inc. Brassiere. 2,843,130, 7-15-58, Cl. 128—458.

Blonder, Isaac S. Electrical-line tapper. 2,843,827, 7-15-58, Cl. 333—6.

Blood, Robert H., to Esso Research and Engineering Co. Inflatable packer formation tester with separate production pockets. 2,843,208, 7-15-58, Cl. 166—100.

Blount, Elkan R., S. G. Cohen, and M. Green, to Polaroid Corp. Photographic processes. 2,843,481, 7-15-58, Cl. 96—29.

Bodington, Charles E.: *See*—
Miller, Robert J., and Bodington. 2,843,627.

Boegehold, Alfred L., to General Motors Corp. Shell hardened torsion bar and process of making same. 2,843,374, 7-15-58, Cl. 267—57.

Boeye, Paul F. Outboard motor package. 2,843,258, 7-15-58, Cl. 206—52.

Bofinger, Karl, and R. E. J. Nordquist, to American Can Co. Apparatus for treating articles. 2,843,248, 7-15-58, Cl. 198—19.

Bogen, David & Co., Inc.: *See*—
Wilkins, Charles A., and Sullivan. 2,843,671.

Bogus, Anthony D., and D. W. Christensen, to Young Radiator Co. Heat exchanger. 2,843,367, 7-15-58, Cl. 257—239.

Bonde, Alfons A., and J. S. Di Pasquale. Spring forming apparatus. 2,843,159, 7-15-58, Cl. 140—71.

Bondley, Ralph J., and R. A. Dehn, to General Electric Co. Shielded waveguide window. 2,843,795, 7-15-58, Cl. 315—5.39.

Bonebrake, Gay M., to Wm. Wrigley Jr., Co. Severing and stacking mechanism. 2,843,061, 7-15-58, Cl. 107—7.

Bonnette, Rene W., and R. B. Tassie, to General Electric Co. Movable jaw gun enclosure. 2,843,022, 7-15-58, Cl. 89—37.5.

Booge, James E., to E. I. du Pont de Nemours and Co. Method of producing titanium. 2,843,477, 7-15-58, Cl. 75—84.5.

Bookwalter, William: *See*—
Geraghty, Robert M. 2,843,075.

Booth, Albert B., to The Glidden Co. Racemization of manthol. 2,843,636, 7-15-58, Cl. 260—631.

Boots Pure Drug Co. Ltd.: *See*—
Robinson, Frank A., Dickinson, Petrow, and Wilkinson. 2,843,525.

Borden, Jay R., and A. M. Harja, to Clary Corp. Gyroscopic device. 2,842,967, 7-15-58, Cl. 74—5.1.

Borey, Daniel S., and C. O. Rhys, Jr., to Esso Research and Engineering Co. Contacting of gases with fluidized solids. 2,843,460, 7-15-58, Cl. 23—288.

Borg, Arthur C.: *See*—
Staker, William P., Jacobs, and Borg. 2,843,755.

Borg-Warner Corp.: *See*—
Kitzinger, Joseph A. 2,842,071.

Bornstein, Ira, to North American Aviation, Inc. Samarium compensator method for nuclear reactor fuel. 2,843,530, 7-15-58, Cl. 204—154.2.

Bortolazzo, Frank F. Flying saucer and space patrol toy. 2,842,895, 7-15-58, Cl. 46—47.

Botty, Martin C., and F. G. Rowe, to American Cyanamid Co. Design, construction and application of a device for obtaining radiographs of microscopic objects in a commercial model electron microscope. 2,843,751, 7-15-58, Cl. 250—65.

Boy, Paolo. Joints for absorbing the hammering effect of railroad and streetcar line rails. 2,843,326, 7-15-58, Cl. 238—219.

Boyd, Malcolm R., to General Electric Co. Slow-wave structures. 2,843,797, 7-15-58, Cl. 315—3.5.

Boyd, Clarence H.: *See*—
Knapp, Theodore F., and Boyd. 2,843,770.

Bradley, Robert I. Spring and collet assemblies. 2,842,935, 7-15-58, Cl. 58—115.

Brady Robert M.: *See*—
Edgerly, Charles R., and Brady. 2,843,428.

Bramblett, John J., to Ben Pearson, Inc. Drive means for cotton picking spindles. 2,842,928, 7-15-58, Cl. 56—42.

Brannan, Walter F. Truck side-loader. 2,843,277, 7-15-58, Cl. 214—77.

Bredtschneider, Kurt R. B.: *See*—
Laird, Hubert C., and Bredtschneider. 2,843,152.

Brennan, Joseph B. Apparatus for casting metal. 2,842,820, 7-15-58, Cl. 22—73.

Brenner, Orlestus G.: *See*—
Peterson, Howard B., and Brenner. 2,843,253.

Brent, Robert G., to United States of America, Navy. Chatter-preventing linkage. 2,843,091, 7-15-58, Cl. 121—38.

Bretthauer, Hermann, to Franke & Heidecke, Fabrik Photographischer Prazisions-Apparate. Photographic flashlight connection plug. 2,843,832, 7-15-58, Cl. 339—01.

Brinster, John F., and E. Donath, to Applied Science Corp. of Princeton. Numerical tabulator. 2,843,840, 7-15-58, Cl. 340—173.

British Drug Houses Ltd The: *See*—
Robinson, Frank A., Dickinson, Petrow, and Wilkinson. 2,843,525.

British Messier Ltd.: *See*—
Orloff George, and Smithers. 2,843,434.

Britton, Edgar C.: *See*—
Scigliano, Joseph J and Britton. 2,843,590.

Brodbeck, Almer H., to Food Giant Markets, Inc. Door. 2,843,110, 7-15-58 Cl. 126—190.

Brodbeck, Almer H., and H. C. Reinhart, to Food Giant Markets, Inc. Gas burner head. 2,843,199, 7-15-58, Cl. 158—116.

Brodersen, Rolf K., to Westinghouse Electric Corp. Electric discharge apparatus. 2,843,805, 7-15-58, Cl. 315—266.

Brodie, Ralph N., Co.: *See*—
Berck, William F. 2,843,094.

Brohl, Earl M., to General Motors Corp. Tell-tale circuit. 2,843,802, 7-15-58, Cl. 315—83.

Broscue, William G., Jr., and L. J. Mitter, to Whirlpool Corp. Adjustable broiler. 2,843,104, 7-15-58, Cl. 126—41.

Brossi, Arnold. O. Schnider, and M. Walter, to Hoffmann-La Roche Inc. 2-hydroxy-benzoquinolizines and method for preparing same. 2,843,591, 7-15-58, Cl. 260—286.

Brown, George W.: *See*—
King, Gilbert W., Hughes, Brown, and Ridenour. 2,843,841.

Brown, James W to Esso Research and Engineering Co. Heat treating fluid coke briquettes. 2,843,462, 7-15-58, Cl. 44—24.

Brown, Winton, and H. W. Rawlings, to Eastman Kodak Co. Separation of sterols from deodorizer sludges. 2,843,610, 7-15-58, Cl. 260—397.25.

Browne, Kenneth A., to The Chesapeake and Ohio Railway Co. Coupler apparatus. 2,843,056, 7-15-58, Cl. 105—4.

Bruce, Ewen A. G. C., to H. W. Weston. Spraying booms. 2,843,424, 7-15-58, Cl. 299—30.

Brumbaugh, George U., to Peterbilt Motors Co. Rear end suspension. 2,843,395, 7-15-58, Cl. 280—104.5.

Brunson, Thayer R., to Rocky Mountain Metal Products Co. Welding apparatus. 2,843,723, 7-15-58, Cl. 219—86.

Bryant Chucking Grinder Co.: *See*—
Durland, Philip C. 2,842,900.

Buchi, Alfred J. Coupling devices. 2,843,311, 7-15-58, Cl. 230—116.

Buck, Marvin C., to Phillips Petroleum Co. Spacer assembly. 2,843,783, 7-15-58, Cl. 313—242.

Buckeye Iron & Brass Works: *See*—
Rymills, Alfred W. 2,843,148.

Buckles, Paul M Machine for making vine supporting nets. 2,842,829, 7-15-58, Cl. 28—1.

Buckles, Paul M. Prefabricated vine supporting net. 2,842,898, 7-15-58, Cl. 47—46.

Buecker, Carl H., and J. R. Cushman, to Eastman Kodak Co. Multiple compartment receptacle. 2,843,288, 7-15-58, Cl. 220—22.

Buell, Robert R., to Liberty Powder Defense Corp. Method of reclaiming the constituents from double base smokeless powder. 2,843,584, 7-15-58, Cl. 260—223.

Buescher, William E.: *See*—
Kerstetter, Donald R., Buescher, and Garrett. 2,843,781.

Bührer, Erwin. Method and means for the mechanical preparation of molds from compressed granular material. 2,842,817, 7-15-58, Cl. 22—43.

Bunding, Irby M., to Armour and Co. Preparation of adrenocorticotrophin by adsorption on diatomaceous earth. 2,843,524, 7-15-58, Cl 167—74.

Burger, Martin, to Diamond Gardner Corp. Egg carton setup equipment. 2,843,026, 7-15-58, Cl. 93—37.

Burgoyne, Harris G. Automatic vending machine. 2,843,293, 7-15-58 Cl. 222—129.4.

Burlington Industries Inc.: *See*—
Butler, Vaughn H. 2,842,946.

Burnand, John. Pistons for internal combustion engines. 2,843,433, 7-15-58 Cl. 309—14.

Burroughs Corp.: *See*—
Okada, Robert H. 2,843,764.
Runde, Byron A. 2,843,247.

Burt, James G.: *See*—
Benning, Anthony F. Burt, and Gladding. 2,843,568.

Burton, Charles L., and H. E. van Hoesen, to Research Corp. Air supply control for air hammer. 2,842,938, 7-15-58, Cl. 60—57.

Busch, Richard E.: *See*—
Scorzafava, Milton V., and Busch. 2,843,245.

Bussard, Emmery J. H., and R. Nathan, to Avco Mfg. Corp. Ultra-high-frequency converter for very-high-frequency television receiver. 2,843,828, 7-15-58, Cl. 333—73.

Butler, Edward J. Self-tightening reversible chuck. 2,843,388, 7-15-58, Cl. 279—002.

Butler, Vaughn H. to Burlington Industries, Inc. Adjustable cam for circular knitting machines. 2,842,946, 7-15-58, Cl. 66—156.

Butterworth, Herbert W., and S. P. Morse; said Morse assignor to said Butterworth. Phonograph performance illustrator. 2,843,012, 7-15-58, Cl. 88—28.

Byatt, Dennis, to Marconi's Wireless Telegraph Co. Ltd. Radio direction finders. 2,843,847, 7-15-58, Cl. 343—121.

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Vltavský, Milan. 2,843,093.

Cabot, Godfrey L., Inc.: *See*—
Beattie, Robert D., Michel, and Stokes. 2,843,458.

Caldwell, John R., to Eastman Kodak Co. Cross-linked graft copolymers of vinyl chloride and polyvinyl alcohols and process for preparing same. 2,843,562, 7-15-58, Cl. 260—45.5.

California Forms, Inc.: *See*—
Block, Sydney J. and L. W. 2,843,130.

California Research Corp.: *See*—
Gilman, Harris H. 2,843,138.
Langlois, Gordon E. and Fischer. 2,843,641.
Langlois, Gordon E., and Haunschild. 2,843,639.
Langlois, Gordon E., and Noble. 2,843,640.
Ludwig, Milton, and Willmer. 2,843,592.
Miller, Robert J., and Bodington. 2,843,627.
Postlewaite, William R. 2,843,163.
Sigworth, Harrison W., and McLaughlin. 2,843,643.
Stanton, Lyman S. 2,843,714.
Stayner Richard D. 2,843,550.
Ward, Chester C. 2,843,161.
Williams, Gael M. 2,843,274.

Callahan, George F. Method and apparatus for producing improved abrading contours. 2,843,542, 7-15-58, Cl. 204—192.

Camp, Robert H., and L. A. Ogle, to B and B Mfg. Co., Inc. Jack frames and storage bin construction. 2,842,807, 7-15-58, Cl. 20—1.2.

Campana, Robert J., and E. C. King, to Mine Safety Appliances Co. Pressure gauge for hot liquids. 2,842,964, 7-15-58, Cl. 73—410.

Campbell Erwin A.: *See*—
Woolslayer, Homer J., Jenkins, Turner, and Campbell. 2,843,229.

Campbell, Ned G., E. A. Norman, Jr., and C. A. Reichelderfer, to Norman Products Co. Forced-draft unit heater having outside combustion air source. 2,843,108, 7-15-58, Cl. 126—110.

Canadian General Electric Co., Ltd.: *See*—
Wray, Edward J. 2,843,400.

Canadian Patents and Development Ltd.: *See*—
Habgood, Henry W. 2,843,219.

Cappel, Roy G., to W. Horace Williams Co., Inc. Personnel landing for offshore platforms. 2,842,940, 7-15-58, Cl. 61—48.

Caras, Bernard, and W. R. Wheeler, to Sylvania Electric Products Inc. Support for stacked electrode assembly. 2,843,784, 7-15-58, Cl. 313—256

Cary, Abner. Chicken coop. 2,843,284, 7-15-58, Cl. 217—30.

Carkhuff, Le Roy F., and R. J. Fahey, to Diamond Gardner Corp. Carton closing machine. 2,842,920, 7-15-58, Cl. 53—137.

Carkhuff, Le Roy F., and R. J. Fahey, to Diamond Gardner Corp. Tape moistener. 2,843,082, 7-15-58, Cl. 118—267.

Carle, Joseph T. Gas anchor. 2,843,053, 7-15-58, Cl. 103—203.

Carlson, Arthur W., to United States of America, Air Force. High speed transistor flip-flops. 2,843,761, 7-15-58, Cl. 307—88.5.

Carlson, Carl S.: *See*—
Langer, Arthur W., Jr., Wanless, and Carlson. 2,843,530.

Carlson, Elnar E. Dowel pin relator. 2,842,845, 7-15-58, Cl. 32—67.

Carlstedt, Ragnar L., to D H B Corp. Drilling machines. 2,842,984, 7-15-58, Cl. 77—5.

Carr, Amos J., Jr., to Raytheon Mfg. Co. Electronic position and motion control systems. 2,843,810, 7-15-58, Cl. 318—19.

Carr, William F., to Lear, Inc. Ball type disconnect. 2,843,237, 7-15-58, Cl. 192—40.

Carson, George L.: *See*—
Moore, Robert C., and Carson. 2,843,626.

Carter, Lyle E., and R. D. Ryan. Work holder for lapping machine. 2,842,906, 7-15-58, Cl. 51—216.

Carus Chemical Co.: *See*—
Carus, Milton B. 2,843,537.

Carus, Milton B., to Carus Chemical Co. Production of potassium permanganate. 2,843,537, 7-15-58, Cl. 204—82.

Cassman, Harry, to Electric & Musical Industries Ltd. Light absorbent surfaces. 2,843,774, 7-15-58, Cl. 313—66.

Castelli, Charles, to Johnson & Johnson. Molded plastic stick for a swab. 2,842,790, 7-15-58, Cl. 15—143.

Chambers, Lee E.: *See*—
Aldridge, George L., and Chambers. 2,842,892.

Champion, Wendell G., and T. Barish, to Lear, Inc. Mechanism for operating a load limit device in response to excessive load on a driving member. 2,843,691, 7-15-58, Cl. 200—61.46.

Chapin, Steve J., to Gadget-Of-The-Month Club, Inc. Fireplace box. 2,843,109, 7-15-58, Cl. 126—165.

Chapman, James E., and W. G. Johnston, to the Garrett Corp. Ammunition booster with torque limiting device. 2,843,021, 7-15-58, Cl. 89—33.

Chase, John A., F. J. Pilas, R. K. Wolke, and D. Battstone, to Radio Corp. of America. Apparatus for and method of automatic assembly of electron tube parts to form an electrode cage. 2,842,832, 7-15-58, Cl. 29—25.13.

Chemische Werke Huls Akt.: *See*—
Dietrich, Wilhelm, Wetter, and Mertens. 2,843,546.

Chenicek, Joseph A., to Universal Oil Products Co. Stabilization of organic compounds. 2,843,495, 7-15-58, Cl. 99—163.

Chesapeake and Ohio Railway Co., The: *See*—
Browne, Kenneth A. 2,843,056.

Chicoine, Gordon E., H. B. Gunn, E. T. Mahoney, and D. B. John, to Johnson Fare Box Co. Parking lot control system. 2,842,876, 7-15-58, Cl. 39—1.

Chiga, George C.: *See*—
Vaughn, Raymond E. 2,843,427.

Childers, Warren. Ink conditioning equipment for rotary lithographic press. 2,843,040, 7-15-58, Cl. 101—141.

Chinchole, Henri A. Dispensing apparatus. 2,843,294, 7-15-58, Cl. 222—162.

Chisholm, Hamilton C., to Beckman Instruments, Inc. Transistorized indicating decade counter. 2,843,320, 7-15-58, Cl. 235—92.

Christensen, Donald W.: *See*—
Bogus, Anthony D., and Christensen. 2,843,367.

Christenson, Roger M., L. O. Cummings, and A. R. Bader, to Pittsburgh Plate Glass Co. Butenyl phenol-aldehyde resins. 2,843,565, 7-15-58, Cl. 260—53.

Christenson, Roger M., L. O. Cummings, and A. R. Bader, to Pittsburgh Plate Glass Co. Alkenylphenol-aldehyde resins. 2,843,566, 7-15-58, Cl. 260—53.

Christian, Hugh S., to Raytheon Mfg. Co. Color burst injection system. 2,843,658, 7-15-58, Cl. 178—5.4.

Christy, Robert F., to United States of America, Atomic Energy Commission. Neutronic reactor. 2,843,543, 7-15-58, Cl. 204—193.2.

Chrysler Corp.: *See*—
Hine, Tredick K. 2,843,366.

Churchill, Frederick E.: *See*—
Lerch, Charles S., Jr., Slavin, Hooten, Churchill, and Hsu. 2,843,734.

Chuy, Nicholas. Spinning reel. 2,843,334, 7-15-58, Cl. 242—84.2.

Ciba Ltd.: *See*—
Riat, Henri. 2,843,581.

Cipriani, Chester C., and K. K. Urbanchek, to Surface Combustion Corp. Combustion apparatus having pilot burner with booster. 2,843,107, 7-15-58, Cl. 126—91.

Cities Service Research and Development Co.: *See*—
Greenwald, Bertrand W. 2,843,466.

Clark, Albert G., to General Electric Co. Aircraft engine cartridge starter control system. 2,842,937, 7-15-58, Cl. 60—39.14.

Clark Controller Co., The: *See*—
Grape, Frederick Y. 2,843,703.

Clark, Leon R.: *See*—
Cook, Howard L., Clark, Knopp, and Marlow. 2,843,076.

Clark, Robert L., and A. A. Pessolano, to Merck & Co., Inc. Intermediate and process for producing 5-tetradecylbenzimidazolone. 2,843,597, 7-15-58, Cl. 260—309.2.

Clark, Thomas W., to Coin-a-Matic, Inc. Coin handling apparatus. 2,843,241, 7-15-58, Cl. 193—25.

Clarke, Gerald J.: *See*—
Salo, Martin, and Clarke. 2,843,503.

Clarke, John T., and S. N. Hall, to Ethyl Corp. Manufacture of tetrachlorobenzene. 2,843,637, 7-15-58, Cl. 260—650.

Clary Corp.: *See*—
Borden, Jay R., and Harja. 2,842,967.
Scozzafava, Milton V., and Busch. 2,843,245.

Clauson, Clas W., ½ to J. D. Ramsey. Fabricated resilient bodies. 2,842,778, 7-15-58, Cl. 5—239.

Clayden, Ronald T., to Electric & Musical Industries Ltd. Levelling circuits for television. 2,843,665, 7-15-58, Cl. 178—7.2.

Clem, Bill, and E. J. Gehrke. Convertible pack sack and camp stool frame. 2,843,185, 7-15-58, Cl. 155—150.

Clemence, LeRoy W., M. T. Leffler, and W. D. Krueger, to Abbott Laboratories. Chemical composition. 2,843,014, 7-15-58, Cl. 260—440.

Clewell, Dayton H., to Socony Mobil Oil Co., Inc. Hydrocarbon recovery process. 2,843,207, 7-15-58, Cl. 166—4.

Cline Electric Mfg. Co.: *See*—
Paasche, Jens A. 2,843,425.

Cluwen, Johannes M., to North American Philips Co., Inc. Device for maintaining mechanical oscillations. 2,843,742, 7-15-58, Cl. 250—36.

Cochran, Carl J., to Pittsburgh Plate Glass Co. Process for continuous drying, washing and cutting of vinyl sheeting. 2,842,800, 7-15-58, Cl. 18—48.

Cockrell, Otho L.: *See*—
Hausler, William F. 2,843,385.

Cocks, Walter B., and W. A. Dutton, to Meredith Publishing Co. Apparatus for pressure casting of printing plates. 2,842,818, 7-15-58, Cl. 22—58.

Cohen, Saul G.: *See*—
Blount, Elkan R., Cohen, and Green. 2,843,481.

Coin-a-Matic, Inc.: *See*—
Clark, Thomas W. 2,843,241.

Colbry, Norman R., and G. F. Hershey, to The Dow Chemical Co. Reclaiming particulate magnesium and magnesium-base alloy scrap. 2,843,473, 7-15-58, Cl. 75—63.

Coler, Myron A.: *See*—
Louis, Arnold S. 2,843,649.

Colgate-Palmolive Co.: *See*—
Ricciardi, Louis G., and De Geronimo. 2,843,612.

Collins, Harry F., Jr., to Northwestern Corrugated Box Co. Cartons. 2,843,257, 7-15-58, Cl. 206—46.

Collins, Russell W., to Bell Telephone Laboratories, Inc. Radio telephone dispatch control and signaling circuit. 2,843,675, 7-15-58, Cl. 179—41.

Colton, Frank B., to G. D. Searle & Co. 4-estrene-3,17-diol, esters and 17-alkyl derivatives. 2,843,608, 7-15-58, Cl. 260—397.5.

Colton, Frank B., to G. D. Searle & Co. 17-alkenyl and alkynyl derivatives of 4-estrene-3,17-diol. 2,843,609, 7-15-58, Cl. 260—397.5.

Coltrin, Gene A., to Sylvania Electric Products Inc. Getter flashing device. 2,843,445, 7-15-58, Cl. 316—30.

Columbia-Southern Chemical Corp.: *See*—
Theis, Francis W., Richardson, Eisenlohr, and Shelton. 2,843,635.

Commonwealth Engineering Co. of Ohio, The: *See*—
Drummond, Folsom E. 2,843,506.
Wenselberger, Elwood P. 2,843,553.

Conant, Louis A., to Union Carbide Corp. Laminated metal ceramic. 2,843,646, 7-15-58, Cl. 136—4.

Connick, Robert E., and W. H. McVey, to United States of America, Atomic Energy Commission. Separation of plutonyl ions. 2,843,453, 7-15-58, Cl. 23—14.5.

Consolidated Packaging Machinery Corp.: *See*—
Dimond, George H. 2,842,914.

Continental Oil Co.: *See*—
Harwood, William H., and Woods. 2,843,549.

Cook, Howard L., L. R. Clark, R. F. Knopp, and D. A. Marlow, to Aerophysics Development Corp. Force measuring device. 2,843,076, 7-15-58, Cl. 116—114.

Coons, Curtis C., to The Hoover Co. Surface cleaning tool with pressure and floating brushes. 2,842,792, 7-15-58, Cl. 15—355.

Cooper, Donald L., and H. M. De Vane. Adjustable rear view mirror for trucks. 2,843,018, 7-15-58, Cl. 88—98.

Coover, Harry W., Jr., and H. M. Hill, to Eastman Kodak Co. Alkyl and aryl isopropenyl sulfones and polymers thereof. 2,843,570, 7-15-58, Cl. 260—79.3.

Copeland, Claude L. System for loading and unloading of truck-trailers and railroad cars. 2,843,276, 7-15-58, Cl. 214—38.

Cornell, Hampton G., and K. F. Wadley, to Esso Research and Engineering Co. Production of high molecular weight aromatics. 2,843,531, 7-15-58, Cl. 196—52.

Cornell, Kenneth. Waterproof casing with means establishing movable communication between enclosed apparatus and external parts. 2,842,971, 7-15-58, Cl. 74—18.2.

Coro, Inc.: *See*—
Bangs, Ralph C. 2,842,825.

Correale, James V., Jr.: *See*—
Thauer, Rudolf, Gretder, and Correale. 2,843,120.

Corvey Engineering Co.: *See*—
Varela, Arthur A. 2,843,809.

Coslow, Carl W., and B. Pepperdine, deceased (by D. Pepperdine, administratrix), and C. A. Radcliffe, to The Plomb Tool Co. Compound leverage toggle locking pliers. 2,842,996, 7-15-58, Cl. 81—376.

Cost, Ronald R., to United States of America, Atomic Energy Commission. High temperature brasing alloy for joining Fe, Cr, Al materials and austenitic and ferritic stainless steels. 2,843,478, 7-15-58, Cl. 75—124.

Costello, Robert B., to The M. W. Kellogg Co. Gamma-ray projectors. 2,843,754, 7-15-58, Cl. 250—106.

Covington, Luther J. Method of stringing tobacco. 2,843,279, 7-15-58, Cl. 214—152.

Cowden, Herbert B.: *See*—
Yutzy, Henry C., and Cowden. 2,843,485.

Craddock, Charles L., ½ to J. E. Metcalf. Flasher mechanism. 2,843,812, 7-15-58, Cl. 318—134.

Crake, Wilfred S., to Shell Development Co. Tubing string sand trap. 2,843,054, 7-15-58, Cl. 103—220.

Crane Co.: *See*—
Laird, Hubert C., and Bredtschneider. 2,843,152.

Credner, Karl: *See*—
Engelhard, Hermann, Credner, and Renwans. 2,843,595.

Crick, Roger D. S., to D. Napier & Sons Ltd. Thermo-electric surface heaters. 2,843,711, 7-15-58, Cl. 201—73.

Crohn, Frank. Pin-type adjusting devices for dress forms. 2,843,296, 7-15-58, Cl. 223—68.

Crompton & Knowles Corp.: *See*—
Waterhouse, Lewis O. 2,843,158.

Crosse, Rodger: *See*—
Rhodes, Alan, Crosse, and Ferguson. 2,843,527.

Crowe, Bailey B. Gearing. 2,842,973, 7-15-58, Cl. 74—190.5.

Crusinberry, Thomas F.: *See*—
Schultz, Julius O., and Crusinberry. 2,842,929.

Cue Fastener, Inc.: *See*—
Schwartz, Lawrence. 2,843,156.

Culmer, Thaddeus W., to H. Stewart. Organo-metallic compound and lubricating compositions containing the same. 2,843,547, 7-15-58, Cl. 252—49.7.

Cummings, Lowell O.: *See*—
Christenson, Roger M., Cummings, and Bader. 2,843,565.
Christenson, Roger M., Cummings, and Bader. 2,843,566.

Cunningham, Eldon R., to General Electric Co. Resilient mounting. 2,843,346, 7-15-58, Cl. 248—20.

Cunningham, James M., and D. R. Daykin, to International Business Machines Corp. Classification circuit. 2,843,839, 7-15-58, Cl. 340—172.

Curis, John E. Turning plug freeing device for valves. 2,843,143, 7-15-58, Cl. 137—330.

Curtiss-Wright Corp.: *See*—
Peters, Elwyn H. 2,843,140.

Cushman Chuck Co., The: *See*—
Sloan, Harry E., and Swanson. 2,843,369.

Cushman, John R.: *See*—
Buecker, Carl H., and Cushman. 2,843,288.

Cutler, Camilus C., to Bell Telephone Laboratories, Inc. Traveling wave amplifier. 2,843,790, 7-15-58, Cl. 315—3.6.

Cyclone Seeder Co., Inc., The: *See*—
Speicher, Paul L. 2,843,387.

D H B Corp.: *See*—
Carlstedt, Ragnar L. 2,842,984.

Dahlander, Noel L., Sr. Combination ladder and outboard motor carrying hand cart. 2,843,393, 7-15-58, Cl. 280—47.18.

Daimler-Benz Akt.: *See*—
Maruhn, Herbert F. W. 2,843,231.
Muller, Josef. 2,843,214.
Nallinger, Friedrich K. H., Uhlenhaut, and Schumann. 2,842,980.
Schmidt, Ekhart O. 2,843,368.
Wilfert, Karl. 2,843,419.

Dall, Horace E., to George Kent Ltd. Pressure differential producing device. 2,842,962, 7-15-58, Cl. 73—211.

Dallett, William M. Forming apparatus with pivoted bending arms actuated by flexible members. 2,843,177, 7-15-58, Cl. 153—45.

Dannenberg, Robert E., and J. A. Welberg, to United States of America, Navy. Airfoils, variable permeability material and method of fabrication thereof. 2,843,341, 7-15-58, Cl. 244—42.

Darste, George. Headlight. 2,843,779, 7-15-58, Cl. 315—114.

Daudt, Hans: *See*—
Heil, Rudolf, and Daudt. 2,843,670.

D'Auriac, Paul A., to Etablissements Neyrpic. Shock absorber for docking of ships. 2,842,939, 7-15-58, Cl. 61—48.

Davidson, Theodore D.: *See*—
Hollins, Jesse R. 2,843,835.

Davis, Cecil W. Use prevention circuit and apparatus. 2,843,842, 7-15-58, Cl. 340—276.

Davis, Leighton I. Air war game. 2,843,381, 7-15-58, Cl. 273—1.

Davis, Ralph P., to Walworth Co. Mold forming apparatus. 2,842,816, 7-15-58, Cl. 22—32.

Day, Winterton U.: *See*—
Bietzinger, John C., Day, and Rothe. 2,843,125.

Daykin, Donald R.: *See*—
Cunningham, James M., and Daykin. 2,843,839.

Daykin, Donald R., and G. R. Stillwell, Jr., to International Business Machines Corp. Voltage regulation apparatus. 2,843,820, 7-15-58, Cl. 323—22.

De Benneville, Peter L., to Rohm & Haas Co. 2 amino ethyl 3,3 dimethyl norcamphane. 2,843,587, 7-15-58, Cl. 260—247.

Debuit, Louis, to Etablissements Merlin & Gerin. Recoil mechanism for recoil-operated firearms. 2,843,023, 7-15-58, Cl. 89—132.

De Castro, Arthur: *See*—
Leonard, Francis J., De Castro, and Groll. 2,843,551.

De Gaeta, Albert M., and F. W. Klium. Electric welding method. 2,843,724, 7-15-58, Cl. 219—96.

Degen, Wilhelm. Filter, especially for piped wells. 2,843,209, 7-15-58, Cl. 166—228.

Degen, Wilhelm. Excavation implement. 2,843,362, 7-15-58, Cl. 255—061.

De Geronimo, Joseph P.: *See*—
Ricciardi, Louis G., and De Geronimo. 2,843,612.

De Groff, William B., to Aro Equipment Corp. Pressure fluid operated valve structure. 2,843,092, 7-15-58, Cl. 121—45.

Dehmel, Richard C. Flight computing system and apparatus. 2,842,867, 7-15-58, Cl. 35—12.

Dehn, Rudolph A.: *See*—
Bondley, Ralph J., and Dehn. 2,843,795.

Del Francia, Joel A. Electrically heated cooking equipment. 2,843,716, 7-15-58, Cl. 219—37.

Delfs, Detlef: *See*—
Schultheis, Heins, and Delfs. 2,843,564.

Deschner, Walter W.: *See*—
Eickmeyer, Allen G., and Deschner. 2,842,941.

Deutsch, Fritz A., to Monroe Calculating Machine Co. Card operated rotary contact. 2,843,319, 7-15-58, Cl. 235—61.11.

De Vane, Harvey M.: *See*—
Cooper, Donald L., and De Vane. 2,843,018.

Devaux, Adrien, and M. Jean, to Societe Chimique de la Grande Paroisse, Azote et Produits Chimiques. Conversion of sodium chloride into sodium carbonate and ammonia chloride. 2,843,454, 7-15-58, Cl. 23—63.

De Voss, Edwin A., to Northrop Aircraft, Inc. Beading dies for flanging and ribbing cylindrical member. 2,843,173, 7-15-58, Cl. 153—13.

Dexter, Albert M., Jr., to Pratt & Whitney Co., Inc. Electromechanical memory or synchronizing device. 2,842,851, 7-15-58, Cl. 33—125.

Diamond Gardner Corp.: *See*—
Altenburg, William M., and Foote. 2,843,496.
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Carkhuff, Le Roy F., and Fahey. 2,842,920.
Carkhuff, Le Roy F., and Fahey. 2,843,082.
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Vaughan, Gerald L. 2,843,254.

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Robinson, Frank A., Dickinson, Petrow, and Wilkinson. 2,843,525.

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Diemer, Gesinus, to North American Philips Co., Inc. Device for supplying lighting panels. 2,843,804, 7-15-58, Cl. 315—178.

Dietrich, Wilhelm, F. Wetter, and H. J. Mertens, to Chemische Werke Huls Akt. Lubricant. 2,843,546, 7-15-58, Cl. 252—48.2.

Digby-Smith, Rodman, and R. A. Sefton-Jenkins, to Engineering & Industrial Exports Ltd. Bridges. 2,842,786, 7-15-58, Cl. 14—6.

Di Miscio, William A.: *See*—
Walberg, Nathan C., and Di Miscio. 2,842,812.

Dimond, George H., to Consolidated Packaging Machinery Corp. Single station capping machine. 2,842,914, 7-15-58, Cl. 53—67.

Di Pasquale, Joseph S.: *See*—
Bonde, Alfons A., and Di Pasquale. 2,843,159.

Distillers Co Ltd., The: *See*—
Lacey, Richard N., and Blades. 2,843,630.

Dixon, Joseph Crucible Co., The: *See*—
Statler, Lowell. 2,842,791.

Dobbin, James C., to Minneapolis-Honeywell Regulator Co. Thermostatic control devices. 2,843,323, 7-15-58, Cl. 236—48.

Dodson, Reb B. Collapsible container for liquids. 2,843,285, 7-15-58, Cl. 220—4.

Doll, Henri G., to Schlumberger Well Surveying Corp. Flow measurement in wells. 2,842,961, 7-15-58, Cl. 73—155.

Dolza, John, to General Motors Corp. Charge forming means. 2,843,098, 7-15-58, Cl. 123—119.

Dolza, John, to General Motors Corp. Fuel control. 2,843,100, 7-15-58, Cl. 123—119.

Dolza, John, R. J. Haefner, and G. P. Ransom, to General Motors Corp. Fuel distribution means. 2,843,096, 7-15-58, Cl. 123—119.

Dolza, John, and J. Zimmerman, to General Motors Corp. Fuel enrichment means. 2,843,097, 7-15-58, Cl. 123—119.

Donath, Erwin: *See*—
Brinstar, John F., and Donath. 2,843,840.

Donnelley, R. R., & Sons Co.: *See*—
Sarring, Ernest J., Kile, and Mayer. 2,843,283.

Donovan, Thomas S., to Eastman Kodak Co. Process for preparing 3-pyrazolidones. 2,843,598, 7-15-58, Cl. 260—310.

Doran Brothers, Inc.: *See*—
Marindin, Frederick R. 2,842,913.

Doran, Wilbur R. Tractor-mounted row marker. 2,843,034, 7-15-58, Cl. 97—230.

Dorsey, James R., and W. C. Young. Vertically adjustable table with longitudinally adjustable dual purpose leg structures. 2,843,437, 7-15-58, Cl. 311—89.

Douglas Aircraft Co., Inc.: *See*—
Jones, Sterling B. 2,843,174.

Dow Chemical Co., The: *See*—
Baker, Alfred V. 2,843,003.
Colbry, Norman R., and Hershey. 2,843,473.

Dow Chemical Co., The: *See*—Continued
Ingley, Francis L., and Moldovan. 2,843,561.
Lorette, Nicholas H. 2,843,601.
Lorette, Nicholas H. 2,843,602.
Scigliano, Joseph J. 2,843,589.
Scigliano, Joseph J., and Britton. 2,843,590.
Wolf, Paul A. 2,843,545.

Dowd, H. J., Co., Inc.: *See*—
Wheeler, Oscar G. 2,843,309.

Dresser Industries, Inc.: *See*—
Risley, Roger E., and Hoke. 2,843,155.

Driver, Garth E., to United States of America, Atomic Energy Commission. Transistor high voltage power supply. 2,843,815, 7-15-58, Cl. 321—2.

Druck, Milton G., to Plastimayd Products Corp. Air mattress. 2,842,783, 7-15-58, Cl. 5—348.

Drummond, Folsom E., to The Commonwealth Engineering Co. of Ohio. Process of gas plating an article with light metal. 2,843,506, 7-15-58, Cl. 117—107.

Drus, Walter S.: *See*—
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Dudineck, Emery, to Purolator Products, Inc. Center tubes for filters. 2,843,269, 7-15-58, Cl. 210—437.

Duesenberg, Denny D., to Ford Motor Co. Valve stem seal. 2,842,102, 7-15-58, Cl. 123—188.

Dugan, John W., to Flo-Mix Fertilisers Corp. Applicator foot for soil treatment with ammonia. 2,843,066, 7-15-58, Cl. 111—7.

Dugan, John W., to Flo-Mix Fertilisers Corp. Apparatus for mixing ammonia with water and for introducing the mixture into the soil. 2,843,067, 7-15-58, Cl. 111—7.

Du Mont, Allen B., Laboratories, Inc.: *See*—
Slate, Matthew W. 2,843,829.

Dunham, Kenneth R.: *See*—
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Dunn, James H., and P. W. Trotter, to Ethyl Corp. Production of vinyl compounds. 2,843,576, 7-15-58, Cl. 260—92.8.

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Benning, Anthony F., and Gladding. 2,843,569.
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Kittila, Richard S. 2,843,520.
Murphy, Clyde G. 2,843,554.
Searle, Norman E. 2,843,470.
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Durland, Philip C., to Bryant Chucking Grinder Co. Friction augmenter for internal grinding machines. 2,842,900, 7-15-58, Cl. 51—103.

Dutton, Warren A.: *See*—
Cocks, Walter B., and Dutton. 2,842,818.

Duvall, Walter J. Cylinder lock for sliding doors. 2,842,951, 7-15-58, Cl. 70—151.

Eastham, Arthur M., to Polymer Corp. Ltd. Inhibition of polymerisation reaction. 2,843,571, 7-15-58, Cl. 260—82.1.

Eastman Kodak Co.: *See*—
Allen, Charles F. H., and Sagura. 2,843,491.
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Baxendale, Ralph W. 2,843,484.
Bell, Alan, Knowles, and Tholstrup. 2,843,563.
Brown, Winton, and Rawlings. 2,843,610.
Buecker, Carl H., and Cushman. 2,843,288.
Caldwell, John R. 2,843,562.
Coover, Harry W., Jr., and Hill. 2,843,570.
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Jones, Jean E. 2,843,490.
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Kridel, Donald J., Wadman, and Stampfli. 2,843,483.
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McLeod, John H., and Kingslake. 2,843,011.
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Reise, Max. 2,843,016.
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Williams, Jack L. R., and Dunham. 2,843,567.
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Wooten, Willis C., Jr., and Shields. 2,843,572.
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Eberhardt, John E., to Bethlehem Steel Co. Treatment of material containing iron. 2,843,472, 7-15-58, Cl. 75—1.

Eckel, Oliver C. Acoustic panel assembly apparatus. 2,843,234, 7-15-58, Cl. 189—88.

Eddison, William B., and W. E. Erickson, to Gisholt Machine Co. Spotting device. 2,843,252, 7-15-58, Cl. 198—33.

Edgerly, Charles R., and R. M. Brady, to Westinghouse Electric Corp. Withdrawing masking material from bulbs. 2,843,428, 7-15-58, Cl. 302—17.

Edmunds, William H., to I-T-E Circuit Breaker Co. Protective device with current limiting means. 2,843,702, 7-15-58, Cl. 200—114.

Edwards, Donald V., to Electrons Inc. Mounting structure for gas tubes. 2,843,833, 7-15-58, Cl. 339—93.

Edwards, Frederick J., to The Thermal Syndicate Ltd. Refractory materials. 2,843,372, 7-15-58, Cl. 263—46.

Egley, Floyd C., to Western Tool and Stamping Co. Automotive rideable mowing machine. 2,842,927, 7-15-58, Cl. 56—26.

Eichmeyer, Allen G., and W. W. Deschner, to J. F. Pritchard & Co. Method for purification of carbon dioxide. 2,842,941, 7-15-58, Cl. 62—24.

Elmco Corp.: *See*—
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Electric & Musical Industries Ltd.: *See*—
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Elemelt Ltd.: *See*—
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Ellis-Foster Co.: *See*—
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Ellis, James N.: *See*—
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Ellis, John L., J. D. Knox, J. B. Adamec, and C. G. Gostsel, to Sintercast Corp. of America. Method for the precision production of infiltrated articles. 2,843,501, 7-15-58, Cl. 117—50.

Endicott Johnson Corp.: *See*—
Shultz, Edward L. 2,842,872.

Endicott Machine & Tool Co., Inc.: *See*—
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Engel, Carl E., and S. E. Harris, to Hoffmann-La Roche Inc. Automatic ampul drying machine. 2,843,370, 7-15-58, Cl. 263—8.

Engelhard, Hermann, K. Credner, and G. Renwanz, to Veritas Drug Co. Ltd. Pyridyl-bromobenzyl-dialkyl diamines. 2,843,596, 7-15-58, Cl. 260—296.

Engineering & Industrial Exports Ltd.: *See*—
Digby-Smith, Rodman, and Sefton-Jenkins. 2,842,786.

Enk, Albert T., and H. M. Heyn, to Surface Combustion Corp. Article treating apparatus. 2,843,276, 7-15-58, Cl. 214—18.

Enkelmann, Walter, to Unicorn Engineering Corp. Impingement dry box assembly. 2,842,865, 7-15-58, Cl. 34—159.

Enthoven, H. J., Sons Ltd.: *See*—
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Entrekin, Durward N., to Olin Mathieson Chemical Corp. Pharmaceutical preparations. 2,843,521, 7-15-58, Cl. 167—56.

Epling, Arnold J. Device for applying paste to perfatape. 2,843,083, 7-15-58, Cl. 118—413.

Eppler, Lawrence W., to Republic Steel Corp. Collapsible container. 2,843,261, 7-15-58, Cl. 206—65.

Erickson, Gustaf: *See*—
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Erickson, Warren E.: *See*—
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Esso Research and Engineering Co.: *See*—
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Borey, Daniel S., and Rhys. 2,843,460.
Brown, James W. 2,843,462.
Cornell, Hampton G., and Wadley. 2,843,531.
Gebelein, Charles F. W. 2,843,625.
Gebelein, Charles F. W., and Reass. 2,843,626.
Hill, Ralph M., and Langer. 2,843,529.
Langer, Arthur W., Jr., Wanless, and Carlson. 2,843,530.
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Ethyl Corp.: *See*—
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Dunn, James H., and Trotter. 2,843,576.

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Faeber, Harry W., to Time Inc. Stacking apparatus. 2,843,378, 7-15-58, Cl. 271—87.

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Carkhuff, Le Roy F., and Fahey. 2,843,082.

Fairbanks, Morse & Co.: *See*—
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Fairchild Camera and Instrument Corp.: *See*—
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Faith-Ell, Lars J., to Aktiebolaget Elektrolux. Motor-fan unit mounting for suction cleaner. 2,843,315, 7-15-58, Cl. 230—235.

Falge, Robert N., to General Motors Corp. Light bulb. 2,843,778, 7-15-58 Cl. 313—113.1.

Fallon, John T. Regenerative furnace. 2,843,371, 7-15-58, Cl. 263—15.

Farbenfabriken Bayer Akt.: *See*—
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Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning: *See*—
Leditschke, Heinrich, Rolly, and Schmidt-Ruppin. 2,843,594.

Farkas, Walter G., and L. A. Flexser, to Hoffmann-La Roche Inc. Process for making esters of diaryl hydroxyacetic acids. 2,843,593, 7-15-58, Cl. 260—294.3.

Fay, Robert E., Jr., to E. I. du Pont de Nemours and Co. Process of coating a fabric with polytetrafluoroethylene, the product thereof and the coating composition therefor. 2,843,502, 7-15-58, Cl. 117—95.

Federal Pacific Electric Co.: *See*—
Bellou, Richard P. 2,843,686.

Federighi, George J., and T. H. Noren. Motor-actuated apparatus for injecting drying agents into a rinse-spray system. 2,843,137, 7-15-58, Cl. 134—57

Feiertag, Karl M., and W. R. Goss, to General Electric Co. Dynamoelectric machine. 2,843,771, 7-15-58, Cl. 310—236.

Ferguson, Thomas P.: *See*—
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Findley, Howard J., to Eaton Mfg. Co. Wire wound structure. 2,843,355, 7-15-58, Cl. 253—39.15.

Finley, Harold D. Food receptacle. 2,843,287, 7-15-58, Cl. 220—20.

Finn, Charles O., to The Finn Equipment Co. Fibre mats and method of and apparatus for making the same. 2,842,897, 7-15-58, Cl. 47—9.

Finn Equipment Co., The: *See*—
Finn, Charles O. 2,842,897.

Fischer, Elias, to Armour and Co. Herbicidal compositions of controlled water solubility. 2,843,471, 7-15-58, Cl. 71—2.6.

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Fitch, Howard M. Pesticidal compositions comprising dimethyl carbamates of dimethyl amino and hetero-substituted methyl phenols and method of using same. 2,843,519, 7-15-58, Cl. 167—30.

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Dugan, John W. 2,843,067.

Folwell, John H., and W. C. Eaton, to Eastman Kodak Co. Paper mount for transparencies. 2,842,883, 7-15-58, Cl. 40—158.

Fonken, Gunther S., to The Unjohn Co. Process for making cortisone. 2,843,611, 7-15-58, Cl. 260—397.45.

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Brodbeck, Almer H., and Reinhart. 2,843,109.

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Foor, Ronald A, to The Harshaw Chemical Co. Material feeding device. 2,843,721, 7-15-58, Cl. 219—44.

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Soref, Harry E., and Foote. 2,842,950.

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Franklin, Laurence W., and M. J. Reynolds, to The Western Union Telegraph Co. Facsimile telegraph system. 2,843,660, 7-15-58, Cl. 178—5.6.

Franks, Norvin H., to Sturdi-Bilt Steel Products Inc. Wall mounted folding table. 2,843,436, 7-15-58, Cl. 311—18.

Frans, Earl E., and E. E. Frans, Jr. Weed digging tool. 2,843,359, 7-15-58, Cl. 254—132.

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Freedman, Louis, and S. L. Shapiro, to U. S. Vitamin Corp. Androgenic compounds and methods of preparing the same. 2,843,523, 7-15-58, Cl. 167—65.

Friedlander, Herbert N., O. O. Juveland, and E. Field, to Standard Oil Co. Process and catalyst for polymerisation using polyvalent metal salts and a reducing agent plus a sulfur compound. 2,843,577, 7-15-58, Cl. 260—94.9.

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Gallois, Amy E. Nursing bottle. 2,843,281, 7-15-58, Cl. 215—11.

Ganger, Harry. Sinker. 2,842,889, 7-15-58, Cl. 43—44.99.

Gangi, Ambrose J. Sashless window structure. 2,842,810, 7-15-58, Cl. 20—52.

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Gaston, Gardner E., and D. W. Howard, to Gulf Research & Development Co. Non-stalling gasoline fuel compositions. 2,843,464, 7-15-58, Cl. 44—66.

Gatzert, Ernest H., to General Dynamics Corp. Automatic telephone system. 2,843,672, 7-15-58, Cl. 179—6.31.

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Gebelein, Charles F. W., and C. A. Reass, to Esso Research and Engineering Co. Sulfonation process. 2,843,626, 7-15-58, Cl. 260—505.

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Dolza, John, and Zimmerman. 2,843,097.
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General Precision Laboratory Inc.: *See*—
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General Steel Castings Corp.: *See*—
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George, Warren E., and G. W. McInnich, to Auburn Machine Works, Inc. Hydraulic positioning means for trencher boom. 2,842,873, 7-15-58, Cl. 37—86.
Geraghty, Robert M., to M. Von Radics and W. Bookwalter. Alarm device. 2,843,075, 7-15-58, Cl. 116—60.
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Benning, Anthony F., and Gladding. 2,843,569.
Gladstone, Leonard. Pants protective covering. 2,843,300, 7-15-58, Cl. 223—98.
Glasser, Max E. Respirators for animals. 2,843,110, 7-15-58, Cl. 128—142.
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Glodde, Herman E. Detreading tool. 2,842,833, 7-15-58, Cl. 29—79.
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Goltz, Joseph. Box construction. 2,843,307, 7-15-58, Cl. 229—34.
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Pennino, Charles J. 2,843,606.
Goodwin, Charles M. Water mixing faucet. 2,843,150, 7-15-58, Cl. 137—637.2.
Goroni, Elio. Livebait container. 2,842,890, 7-15-58, Cl. 43—55.
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Gottfried, Robert E., A. D. Hoffman, and L. N. Ridenour, to International Telemeter Corp. Subscription television with scrambled transmission and marquee and barker. 2,843,655, 7-15-58, Cl. 178—5.1.
Gottlieb, Morton S., to Bell Products Co. System and device for detecting ferrous metal. 2,843,821, 7-15-58, Cl. 324—41.
Goudy, Carl F., to Technical Appliance Corp. Collapsible and self-locking dipole antenna. 2,843,848, 7-15-58, Cl. 343—805.
Graham, Leonard C. Double-deck conveyor cleaning device for poultry batteries. 2,843,086, 7-15-58, Cl. 119—22.
Granath, Axel G., to Herbert Simpson Corp. Weight setting device. 2,842,819, 7-15-58, Cl. 22—64.
Granberg, Neil B., to A. O. Smith Corp. Box section and method of making. 2,843,725, 7-15-58, Cl. 219—105.
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Gray, Charles W. Expandable camping trailers. 2,843,418, 7-15-58, Cl. 296—23.
Gray, Elmer C. Automatically centering drawer handle marking device. 2,842,860, 7-15-58, Cl. 33—191.
Gray, Ernest F. Earring clasp with spring bias clamp and means for withholding same. 2,842,944, 7-15-58, Cl. 63—14.
Gray, John W., to General Precision Laboratory Inc. Earth ellipticity corrector for dead reckoning computer. 2,843,318, 7-15-58, Cl. 235—61.
Gray, Beachel L. Poultry drinker. 2,843,087, 7-15-58, Cl. 119—72.
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Grove, Robert K., to Studebaker-Packard Corp. Angle mounted tip engine for aircraft sustaining rotor. 2,843,210, 7-15-58, Cl. 170—135.4.
Grover, Robert R., to Kingsbury Machine Tool Corp. Multiple indexing machine tool with program system. 2,842,985, 7-15-58. Cl. 77—26.
Gruelich, Gerald G. Apparatus for punching corrugated metal plates. 2,843,205, 7-15-58. Cl. 164—90.
Grund, John. Adjustable mattress springs. 2,842,784, 7-15-58, Cl. 5—351.
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Guardino, August. Pencil holding accessory for telephone set. 2,843,684, 7-15-58, Cl. 179—178.
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Gaston, Gardner E., and Pellegrini. 2,843,463.
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Rocchini, Albert G. 2,843,467.
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Hamilton, Douglas J., to Hughes Aircraft Co. Pulse generator. 2,843,743, 7–15–58, Cl. 250—36.
Hamm, Acey B. Tackle box. 2,843,442, 7–15–58, Cl. 312—311.
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Montel, Joseph I., and Hammond. 2,843,139.
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Hansley, Virgil L., and S. Schott, to National Distillers and Chemical Corp. Condensation of ethyl acetate. 2,843,622, 7–15–58, Cl. 260—483.
Hansley, Virgil L., and S. Schott, to National Distillers and Chemical Corp. Production of ethyl acetoacetate. 2,843,623, 7–15–58, Cl. 260—483.
Happe, Reynold, to The Singer Mfg. Co. Carbon-pile controllers with built-in snap action switch. 2,843,710, 7–15–58 Cl 201—51.
Hardy, Edgar E., and T. Reetz, to Monsanto Chemical Co. Trialkyl phosphites and method of making same. 2,843,616, 7–15–58 Cl. 260—461.
Haring, John M., to Nickles Machine Corp. Force feed lubricating device for pistons. 2,843,221, 7–15–58, Cl. 184—18.
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Harman, Cameron G., and L. S. O'Bannon, to United States of America, Atomic Energy Commission. Coated alloys. 2,843,500, 7–15–58, Cl. 117—23.
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Harper, Kenneth A., to Phillips Petroleum Co. Method and apparatus for feeding a distillable material into a distillation zone and controlling flow of non-vaporized liquid along walls of said zone. 2,843,534, 7–15–58, Cl. 202—64.
Harper, Lyndus E. Diaphragm sludge or chemical pump. 2,843,050, 7–15–58, Cl. 103—152.
Harper, William, Jr., deceased; G. G. Harper, executrix, to Jet Ignition Co., Inc. Spark plugs. 2,843,780, 7–15–58, Cl. 313—143.
Harris, George V.: *See*—
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Harris, Herbert W.: *See*—
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Harshaw Chemical Co., The: *See*—
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Harter, Urban H.: *See*—
Powell, William N. 2,843,216.
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Harwood, William H., and W. W. Woods, to Continental Oil Co. Anti-seep agent. 2,843,549, 7–15–58, Cl. 252—72.
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Haugen, Ole W. Electrolytic process for leaching precious metals. 2,843,538 ,7–15–58, Cl. 204—130.
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Hawkins, James E., to Seismograph Service Corp. Radio location system. 2,843,846, 7–15–58, Cl. 343—105.
Hawks, Orris D., to Eastman Kodak Co. Two step conversion of tocopherol compositions. 2,843,604, 7–15–58, Cl. 260—345.5.
Hayford, Richard E., to The Haloid Co. Xerographic apparatus with endless development electrode. 2,843,084, 7–15–58, Cl. 118—637.
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Whitlock, Howard D. 2,843,767.
Heiden, John A., to United Engineering and Foundry Co. Apparatus for spacing workpieces. 2,843,249, 7–15–58, Cl. 198—29.
Heinn Co., The: *See*—
Stevensen, Charles A. 2,842,884.
Heinz, H. J. Co.: *See*—
Merkner, Albert H., and Gutowski. 2,842,912.
Held, Sidney P. Reflex amplifier with two stages cascaded at intermediate frequencies and paralleled at audio frequencies. 2,843,735, 7–15–58, Cl. 250—020.
Hell, Rudolf, E. Lifferth, and K. Reche, to Siemens & Halske Akt. Device for transmitting station identification in facsimile telegraphy. 2,843,663, 7–15–58, Cl. 178—7.1.
Hell, Rudolf, and H. Daudt, to Siemens & Halske Akt. Device for electro-mechanically recording telegraphic impulses. 2,843,670, 7–15–58, Cl. 178—96.
Hellstrom, Axel G.: *See*—
Kogel, Wilhelm G., and Hellstrom. 2,842,943.
Hellwig, Emil C. Aligning guides for pipe bending. 2,842,863, 7–15–58, Cl. 33—207.
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Renie, Jack J., Jones, and Henderson. 2,842,983.
Henry, Elliott A., to Sperry Products, Inc. Ultrasonic wave train generator. 2,842,959, 7–15–58, Cl. 73—67.8.
Henry, Robert L., Jr., to United States of America, Navy. Wafer gager. 2,843,263, 7–15–58, Cl. 209—104.
Hensley, William H.: *See*—
Lambrech, Joseph A., and Hensley. 2,843,518.
Herbst, Edward J., to The Singer Mfg. Co. Thread tension device for sewing machines. 2,843,336, 7–15–58, Cl. 242—150.
Hercules Powder Co.: *See*—
Voris, Robert S. 2,843,582.
Voris, Robert S. 2,843,583.
Hergenrother, Rudolf C., to Raytheon Mfg. Co. Tuning means for reflex klystrons. 2,843,704, 7–15–58, Cl. 315—5.22.
Herngvist, Karl J.: *See*—
Johnson, Edward O., and Herngvist. 2,843,732.
Hershey, Gordon F.: *See*—
Colbry, Norman R., and Hershey. 2,843,473.
Hessel, Frederick A.: *See*—
Martin, James W., Hessel, Hammer, and Rust. 2,843,256.
Heyn, Henry M.: *See*—
Enk, Albert T., and Heyn. 2,843,275.
Hiensch, Johannes N. Moldable body, shaped metal article and method of making the same. 2,842,836, 7–15–58, Cl. 29—182.
High Standard Mfg. Corp., The: *See*—
Hillberg, Robert L. 2,842,885.
Hill, Hubert M.: *See*—
Coover, Harry W., Jr., and Hill. 2,843,570.
Hill, Ralph M., and A. W. Langer, to Esso Research and Engineering Co. Upgrading of petroleum oils. 2,843,529, 7–15–58, Cl. 196—49.
Hillberg, Robert L., to The High Standard Mfg. Corp. Firing pin with plastic sleeve for firearms. 2,842,885, 7–15–58, Cl. 42—69.
Hiller Helicopters: *See*—
Bennett, James A. J. 2,843,337.
Hillier, James, to Radio Corp. of America. X-ray spectrometer. 2,843,750, 7–15–58, Cl. 250—53.
Hillman, Conway D.: *See*—
Keuffel, Carl W., Hillman, and Baker. 2,843,013.
Hindenburg, Eugene D., to Ideal Industries, Inc. Wire stripper. 2,842,992, 7–15–58, Cl. 81—9.5.
Hine, Tredick K., to Chrysler Corp. Convection heater. 2,843,366, 7–15–58, Cl. 257—136.
Hining, Verdus L.: *See*—
Robinson, Lorne M., and Hining. 2,843,144.
Hoffman, Allen D.: *See*—
Gottfried, Robert E., and Hoffman. 2,843,654.
Gottfried, Robert E., Hoffman, and Ridenour. 2,843,655.
Hoffman, Charles L. Portable dressing tray. 2,842,781, 7–15–58, Cl. 5—93.
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Hoffman, Markus, to H. J. Enthoven Sons Ltd. Process for refining lead. 2,843,476, 7–15–58, Cl. 75—78.
Hoffman, Milton C., to Sylvania Electric Products, Inc. Apparatus for cataphoretic application of coating. 2,843,596, 7–15–58, Cl. 204—299.
Hoffmann-La Roche Inc.: *See*—
Broesi, Arnold, Schnider, and Walter. 2,843,591.
Engel, Carl E., and Harris. 2,843,370.
Isler, Otto, Montavon, Ruegg, and Zeller. 2,843,631.
Parkas, Walter G., and Flexser. 2,843,593.
Hofker, Willem K., to North American Philips Co., Inc. Amplitude control for oscillators. 2,843,746, 7–15–58, Cl. 250—36.
Hogue, Ephraim W. Capacity-type transducer. 2,843,679. 7–15–58, Cl. 179—100.41.
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Risley, Roger E., and Hoke. 2,843,155.
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Holdener, Simeon. Movement transmission. 2,842,982, 7–15–58, Cl. 74—600.
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Zakin, Lester. 2,842,776.
Holland, Harry W.: *See*—
Southworth, James, Jr., Holland, and Badger. 2,843,651.
Hollingsworth, John D. End wires. 2,842,802, 7–15–58, Cl. 19—112.
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Hollins, Jesse R. 2,843,835.
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Pernert, John C. 2,843,457.
Hookham, George, to John Miles & Partners (London) Ltd. Gas seal for relatively rotating tubular parts of a blast furnace. 2,843,402, 7–15–58, Cl. 285—134.

Hooper, Chessley F., to General Electric Co. Pressure relief device. 2,843,290, 7–15–58, Cl. 220—29.

Hooten, Basil P., Jr.: *See*—
Lerch, Charles S., Jr., Slavin, Hooten, Churchill, and Hsu. 2,843,734.

Hoover Co., The: *See*—
Coons, Curtis C. 2,842,792.
Hurd, Claud C. 2,842,793.

Hopkins, Alfred J., to Gaw-O'Hara Envelope Co. Shipment data holder. 2,843,310, 7–15–58, Cl. 229—72.

Hosking, Oakley W., to Hosking Patent Corp. Expansible plug for pipes. 2,843,154, 7–15–58, Cl. 138—93.

Hosking Patent Corp.: *See*—
Hosking, Oakley W. 2,843,154.

Houdart, Dominique P. A., to Etablissements Deplirex. Vehicles with expanding bodies. 2,842,972, 7–15–58, Cl. 74—91.

Hoven, Alfred C., and W. E. Nordmark, to American Seating Co. Automatic reel. 2,843,335, 7–15–58, Cl. 242—107.4.

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Howard, Donald W.: *See*—
Gaston, Gardner E., and Howard. 2,843,464.

Howatt, George F., to New England Envelope Mfg. Co. Banding machine. 2,842,915, 7–15–58, Cl. 53—74.

Howe, Harold H. Tubeless tire and wheel combination. 2,843,171 7–15–58, Cl. 152—9.

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Howerton, James: *See*—
Howerton, Harley. 2,842,893.

Hoyt, John M., to Minnesota Mining and Mfg. Co. Fluoroprene copolymers. 2,843,575, 7–15–58, Cl. 260—97.5.

Hsu, Chih C.: *See*—
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Hubl, Johann F., to Landis Machine Co. Feeding mechanism for thread rolling machines. 2,842 900, 7–15–58, Cl. 80—6.

Huck, Alfred J., to Knopp-Monarch Co. Air heater. 2,843,718, 7–15–58, Cl. 219—39.

Hudson, Charles H. Oxygen mask. 2,843,121, 7–15–58, Cl. 128—146.

Hudson, Charles H. Breathing mask. 2,843,122, 7–15–58, Cl. 128—146.

Huet, Raymond J., and G. T. Spare, to United States Steel Corp. Method of working wire and a lubricant therefor. 2,842,837, 7–15–58, Cl. 29—193.

Hughes Aircraft Co.: *See*—
Griest, Raymond H. 2,843,351.
Hamilton, Douglas J. 2,843,743.
Masem, Matthew J. 2,843,688.
O'Neill, Richard J. 2,843,806.
St. John, Ercell E. 2,843,757.

Hughes, Edwin L.: *See*—
King, Gilbert W., Hughes, Brown, and Ridenour. 2,843,841.

Hull, Thomas N., Jr., to General Electric Co. Turbo-machine rotor assembly. 2,843,356, 7–15–58, Cl. 253—77.

Hunt, Harry C., to American Safety Table Co., Inc. Power transmission unit. 2,843,286, 7–15–58, Cl. 192—18.

Hunter, Gordon S., and G. C. Sturges, to Bendix Aviation Corp. Illumination of pointers and dials of indicating instruments. 2,843,079, 7–15–58, Cl. 116—129.

Hunter, William A., and F. Singleton, to T. M. M. (Research) Ltd. Preparation of blended fibrous materials. 2,842,803, 7–15–58, Cl. 19—146.

Hunter, William A., and F. Singleton, to T. M. M. (Research) Ltd. Preparation of blended fibrous materials. 2,842,804, 7–15–58, Cl. 19—146.

Huntley, Keith G., to Electric & Musical Industries Ltd. Charging or discharging circuits for condensers. 2,843,736, 7–15–58 Cl. 250—27.

Hurd, Claud C., to The Hoover Co. Suction cleaning tool with floating and pressure nozzle. 2,842,793, 7–15–58, Cl. 15—359.

Hurlburt, Charles E., to Bendix Aviation Corp. Vertical gyroscope erection system. 2,842,968, 7–15–58, Cl. 74—5.44.

Hursh, Samuel R., and J. B. McWilliams. Railway track ballast tamping apparatus. 2,843,055, 7–15–58, Cl. 104—12.

Huston, Elmo F., to The Ohio Brass Co. Expansion bolt with coil spring having overlapping convolutions and outwardly extending edge. 2,842,999, 7–15–58, Cl. 85—2.4.

Huyser, Francis C., to American Machine and Metals, Inc. Fluid operated testing machines. 2,843,390, 7–15–58, Cl. 279—4.

Hycon Mfg. Co.: *See*—
Nicholson, William Q., and Warshawsky. 2,843,685.

I-T-E Circuit Breaker Co.: *See*—
Edmunds, William H. 2,843,702.
Leatherberry, Donald L. 2,843,699.
Wood, Russell A. 2,843,704.

Ideal Industries, Inc.: *See*—
Hindenburg, Eugene D. 2,842,902.

Ilgenfritz, Lester M., to Bell Telephone Laboratories, Inc. Repeater testing system. 2,843,668, 7–15–58, Cl. 178—69.

Imperial Brass Mfg. Co., The: *See*—
Frank, George E. 2,843,176.

Inductosyn Corp.: *See*—
Tripp, Robert W. 2,843,811.

Ingley, Francis L., and D. Moldovan, to The Dow Chemical Co. Compositions of interpolymerised vinyl aromatic hydrocarbons, acrylic acid esters and rubbery butadiene-styrene copolymers and method of making same. 2,843,561, 7–15–58, Cl. 260—45.5.

Institute de Recherches de la Siderurgie: *See*—
Geley, Jean, and Denis. 2,843,007.

International Business Machines Corp.: *See*—
Cunningham, James M., and Daykin. 2,843,839.
Daykin, Donald E., and Stillwell. 2,843,820.

International Minerals & Chemical Corp.: *See*—
Bart, Roger, and Williams. 2,843,492.

International Standard Electric Corp.: *See*—
Aigrain, Pierre R. R. 2,843,765.
Beck, Arnold H. W., Jackson, and Lytollis. 2,843,782.
Klein, Otto J. 2,842,830.
Klein, Werner, and Friis. 2,843,780.
Yasuda, Susumu. 2,843,775.

International Telemeter Corp.: *See*—
Gottfried, Robert E., and Hoffman. 2,843,654.
Gottfried, Robert E., Hoffman, and Ridenour. 2,843,655.
King, Gilbert W., Hughes, Brown, and Ridenour. 2,843 841.

Isler, Otto, M. Montavon, R. Ruegg, and P. Zeller, to Hoffmann-La Roche Inc. Method for the production of unsaturated aldehydes. 2,843,631, 7–15–58, Cl. 260—598.

Iversen, Arthur H., to Sylvania Electric Products Inc. Thermal insulation for cathode. 2,843,785, 7–15–58, Cl. 313—292.

Jack & Heintz, Inc.: *See*—
Kahle, Hermann A. 2,843,760.
McConnell, Howard M., and Ellis. 2,843,768.

Jacks, James N. Foundation vent covers. 2,843,035, 7–15–58, Cl. 98—29.

Jackson Thomas M.: *See*—
Beck, Arnold H. W., Jackson, and Lytollis. 2,843,782.

Jacobs, John E., to General Electric Co. Inspection device. 2,843 748, 7–15–58, Cl. 250—51.

Jacobs, Robert B.: *See*—
Staker, William P., Jacobs, and Borg. 2,843,755.

Jacobs, Vearl E. Glass bake oven ware lifter. 2,843,415, 7–15–58, Cl. 294—31.

Jacobs, William L., and W. G. Annable, to The Pure Oil Co. Production of non-corrosive naphthas. 2,843,528, 7–15–58, Cl. 196—28.

Jacquier, Pierre A. C., to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Sealing means for galvanic cell casings. 2,843,650, 7–15–58, Cl. 136—111.

Jagr, Vladimir. Trouser hanger. 2,843,298, 7–15–58, Cl. 223—95.

James, Ivanhoe J. P., to Electric & Musical Industries Ltd. Color television apparatus. 2,843,659, 7–15–58, Cl. 178—5.4.

Janets, Ralph W., to Bell & Gossett Co. Mechanical seal assembly for rotating shafts. 2,843,404, 7–15–58, Cl. 286—11.15.

Jardine, John, Ltd.: *See*—
Haslam-Jones, Frank H. 2,843,000.

Jean, Marcel: *See*—
Devaux, Adrien, and Jean. 2,843,454.

Jeannette, William S. Garment hanger. 2,843,297, 7–15–58, Cl. 223—95.

Jeffrey Mfg. Co., The: *See*—
Johnson, Claus J. 2,843,255.
Kindig, Arnie J. 2,843,432.
Miller, Frank C. 2,843,225.

Jenkins, Cecil: *See*—
Woolslayer, Homer J., Jenkins, Turner, and Campbell. 2,843,229.

Jennings Radio Mfg. Corp.: *See*—
Steward, Lewis B., and Hawkins. 2,843,701.

Jerlet, Adolf, to Siemens-Schuckertwerke Akt. Semiconductor junction rectifier. 2,843,516, 7–15–58, Cl. 148—33.

Jet Ignition Co., Inc.: *See*—
Harper, William, Jr. 2,843,780.

Jewell, William R., to General Electric Co. Storage cabinet drawer assembly. 2,843,441, 7–15–58, Cl. 312—301.

Johannesen, Allan N., to United States of America, Army. Door securing means for refrigerators. 2,843,409, 7–15–58, Cl. 292—165.

John Dallas B.: *See*—
Chicoine, Gordon E., Gunn, Mahoney, and John. 2,842,876.

Johnson, Claus J., to The Jeffrey Mfg. Co. Conveyer apparatus. 2,843,255, 7–15–58, Cl. 198—220.

Johnson, Edward O., and K. J. Hernqvist, to Radio Corp. of America. Millimeter wave generator. 2,843,732, 7–15–58, Cl. 250—17.

Johnson, F Helmer, to Rockford Drop Forge Co. Mismatch gauge. 2,842,856, 7–15–58, Cl. 33—172.

Johnson Fare Box Co.: *See*—
Chicoine, Gordon E., Gunn, Mahoney, and John. 2,842,876.

Johnson Gage Development Co., The: *See*—
Johnson, Paul W. 2,842,862.
Johnson, Stanley G. 2,842,861.

Johnson & Johnson: *See*—
Castelli, Charles. 2,842 790.

Johnson, Leonard L., to The Aro Equipment Corp. Power operated ratchet wrench. 2,842,995, 7–15–58, Cl. 81—61.

Johnson, Paul W., to The Johnson Gage Development Co. Lead testing gage for threads and a lead testing roll. 2 842,862, 7–15–58, Cl. 33—199.

Johnson, Stanley G., to The Johnson Gage Development Co. Comparator contractible plug gage. 2,842,861, 7–15–58, Cl. 33—199.

Johnson, Wallace J. S., to Up-Right, Inc. Adjustable scaffold. 2,843,430, 7–15–58, Cl. 304—29.

Johnston, Herrick L., and C. L. Newton, to Herrick L. Johnston, Inc. Apparatus for dispensing gas from a container of liquefied gas. 2,842,942, 7–15–58, Cl. 62—1.

Johnston, Herrick L., Inc.: *See*—
Johnston, Herrick L., and Newton. 2,842,942.

Johnston, Walter G.: *See*—
Chapman, James B., and Johnston. 2,843,021.

Jones, Basil E.: *See*—
Norby, Harold L., and Jones. 2 843,059.

Jones, Cecil B., ½ to J. A. Smith. Combined drag and cultivator. 2,843,032, 7–15–58, Cl. 97—9.

Jones, Jean E., to Eastman Kodak Co. Supersensitising combinations comprising meso-substituted carbocyanine dyes and polyvalent metal salts. 2,843,490, 7–15–58, Cl. 96—104.

Jones, John E.: *See*—
Benie, Jack J., Jones, and Henderson. 2,842,983.

Jones, Martin E. Spinning ratchet reel. 2,843,333, 7–15–58, Cl. 242—84.2.

Jones, Robert C., to Polaroid Corp. Synchronous stereoscopic motion picture projection system. 2,843,005, 7–15–58, Cl. 88—16.6.

Jones, Sterling B., to Douglas Aircraft Co., Inc. Rattle type dimple gun with tool and work heating means. 2,843,174, 7–15–58, Cl. 153—21.

Jordan, Edmund F., Jr., and W. S. Port, to United States of America, Agriculture. Copolymers of vinylidene chloride and long-chain alkyl acrylates. 2,843,574, 7–15–58, Cl. 260—86.3.

Juveland, Omar O.: *See*—
Friedlander, Herbert N., Juveland, and Field. 2,843,577.

Kafka, Wilhelm, G. Sichling, and M. Tschermak, to Siemens-Schuckertwerke Akt. Apparatus for the switching of electric circuits without contacts. 2,843,765, 7–15–58, Cl. 307—88.

Kahle, Hermann A., to Jack & Heintz, Inc. Reactive load division circuit for parallel generator systems. 2,843,760, 7–15–58, Cl. 307—57.

Kahr, Gustaf. Room heating systems. 2,843,364, 7–15–58, Cl. 257—124.

Kaiser Aluminum & Chemical Corp.: *See*—
Porter, John L. 2,843,456.

Kaiser, Johann, to Chr. Mann, Maschinenfabrik. Arrangement for depositing silver in silver cans. 2,842,805, 7–15–58, Cl. 19—159.

Kalafsky, Joseph M. Mercury limit switch. 2,843,705, 7–15–58, Cl. 200—145.

Kanegafuchi Spinning Co., Ltd.: *See*—
Kawasura, Ryuhei, Fujii, and Fujiwara. 2,843,332.

Kappa Trust: *See*—
Luckhardt, Johannes. 2,843,183.

Karmas, George: *See*—
Oroshnik, William, and Karmas. 2,843,621.

Kassbohrer, Karl G. m. b. H.: *See*—
Wahl, Georg, and Schwab. 2,843,417.

Kaufman, Samuel, to Monsanto Chemical Co. Dialkyl propynyl phosphonates. 2,843,617, 7–15–58, Cl. 260—461.

Kawasura, Ryuhei, K. Fujii, and M. Fujiwara, to Kanegafuchi Spinning Co., Ltd. Apparatus for shaping fibre laps in a lap-forming machine. 2,843,332, 7–15–58, Cl. 242—55.1.

Kay Mfg. Corp.: *See*—
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Regan, William G. 2,843 191.
Regan, William G. 2,843,195.
Regan, William G. 2,843,194.

Kaye, Emmanuel: *See*—
Arnot, Alfred E. R., and van Hooydonk. 2,843,141.

Kaye, Robert K., to General Dynamics Corp. Reverting call circuit. 2,843,673, 7–15–58, Cl. 179—17.

Kearney & Trecker Corp.: *See*—
Armitage, Joseph B., Wetzel, Baumbach, and Zankl. 2,843,024.

Kellogg, M. W., Co., The: *See*—
Costello, Robert B. 2,843,754.

Kelly, Joe T., to The American Oil Co. Alkylation process. 2,843,642, 7–15–58, Cl. 260—683.44.

Kelm, Harold M.: *See*—
Rench, Harry D., Harris, Kelm, and Massie. 2,842,788.

Kelvin & Hughes Ltd.: *See*—
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Kem Button Corp.: *See*—
Halbreich, Oscar. 2,843,089.

Kennedy, Walter V., to Fram Corp. Combined full-flow and part-flow oil filters. 2,843,268, 7–15–58, Cl. 210—295.

Kent, George, Ltd.: *See*—
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Dall, Horace E. 2,842,962.

Kent-Moore Organization, Inc.: *See*—
Pyciak, Roman J. 2 842,850.

Kerker, Dorus G., to North American Philips Co., Inc. Circuit arrangement for producing pulses. 2,843,738, 7–15–58, Cl. 250—36.

Kerstetter, Donald R., and E. S. Wennin, to Sylvania Electric Products Inc. Adhering coatings to cathode base metal. 2,843,517, 7–15–58, Cl. 154—129.

Kerstetter, Donald R., W. E. Buescher, and J. J. Garrett, to Sylvania Electric Products Inc. Sublimation reducing cathode connector. 2,843,781, 7–15–58, Cl. 313—178.

Ketchledge, Raymond W., to Bell Telephone Laboratories, Inc. Multiple connection electronic switching network. 2,843,674, 7–15–58, Cl. 179—18.

Keuffel, Carl W., C. D. Hillman, and A. L. Baker, to Keuffel & Esser Co. Alignment telescope. 2,843,013, 7–15–58, Cl. 88—32.

Keuffel & Esser Co.: *See*—
Keuffel, Carl W., Hillman, and Baker. 2,843,013.

Kieffaber, Clarence A., to Strickelber & Sons, Inc. Bread molding machine. 2,843,062, 7–15–58, Cl. 107—8.

Kiekhaefer Corp.: *See*—
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Kiekhaefer, Elmer C. Air cleaner. 2,843,218, 7–15–58, Cl. 183—71.

Kiernan, Earl F. Method for the fabrication of very small thermocouples. 2,843,726, 7–15–58, Cl. 219—117.

Kile, Otho: *See*—
Sarring, Ernest J., Kile, and Mayer. 2,843,288.

Kimberly-Clark Corp.: *See*—
Bleisinger, John C., Day, and Rothe. 2,843,125.

Kindig, Arnie J., to The Jeffrey Mfg. Co. Idler roll shaft support and interlock means. 2,843,432, 7–15–58, Cl. 308—20.

King, Earle C.: *See*—
Campana, Robert J., and King. 2,842,964.

King, Gilbert W., E. L. Hughes, G. W. Brown, and L. N. Ridenour, to International Telemeter Corp. Information storage system. 2,843,841, 7–15–58, Cl. 340—173.

King, John W. Support for engineer's plumb rod and highway warning signal. 2,843,347, 7–15–58, Cl. 248—44.

King, Kenneth L., to Norden-Ketay Corp. Telemetric position sensing device. 2,843,842, 7–15–58, Cl. 340—199.

Kingsbury Machine Tool Corp.: *See*—
Grover, Robert R. 2,842,985.

Kingslake, Rudolf: *See*—
McLeod, John H., and Kingslake. 2,843,011.

Kirschner, Louis A. Drain trap and means for locking same to the waste pipe. 2,843,146, 7–15–58, Cl. 137—433.

Kittila, Richard S., to E. I. du Pont de Nemours and Co. Products and process. 2,843,520, 7–15–58, Cl. 167—83.

Kittl, Emil A. M., to United States of America, Army. DC-AC converter. 2,843,819, 7–15–58, Cl. 321—49.

Kitzinger, Joseph A., to Borg-Warner Corp. Apparatus for increasing blank holding pressure during drawing operation. 2,842,071, 7–15–58, Cl. 113—46.

Kjellsen, Arvid G., to Radio Corp. of America. Light element transport apparatus. 2,842,923, 7–15–58, Cl. 53—236.

Klein, Otto J., to International Standard Electric Corp. Process for the manufacture of selenium rectifier. 2,842,830, 7–15–58, Cl. 29—25.3.

Klein, Werner, and W. Friis, to International Standard Electric Corp. Arrangement for magnetic beam concentration. 2,843,780, 7–15–58, Cl. 315—3.5.

Klika, Zdenek, to Pragodev, vyroba damske a detske konfecke, narodni podnik. Band knife sharpening means. 2,842,907, 7–15–58, Cl. 51—247.

Klimm, Frank W.: *See*—
De Gaeta, Albert M., and Klimm. 2,843,724.

Knapp, Theodore F., and C. H. Boyd, to Lear, Inc. Radio noise filter assembly for dynamo electric machine. 2,843,770, 7–15–58, Cl. 310—72.

Knauth, Berthold A. Switch mechanism. 2,843,698, 7–15–58, Cl. 200—87.

Knechel, William F.: *See*—
Wilson, Ransford B., and Knechel. 2,843,489.

Knoll, Max: *See*—
Hook, Harvey O., and Knoll. 2,843,799.

Knopp-Monarch Co.: *See*—
Huck, Alfred J. 2,843,718.

Knopp, Russell F.: *See*—
Cook, Howard L., Clark, Knopp, and Marlow. 2,843,076.

Knowles, M B: *See*—
Bell, Alan, Knowles, and Tholstrup. 2,843,563.

Knowles, Robert B. Fluid pump. 2,843,040, 7–15–58, Cl. 103—46.

Knox, John D.: *See*—
Ellis, John L., Knox, Adamec, and Goetzel. 2,843,501.

Knox, William J., Jr., J. F. Stenberg, and C. V. Wilson, to Eastman Kodak Co. Aqueous gelatin coating compositions and their application. 2,843,487, 7–15–58, Cl. 96—94.

Kobayashi, Hidehiko: *See*—
Fujisaki, Yoshisato, and Kobayashi. 2,843,558.

Kobleus, Avrom M., to United States Steel Corp. System for measuring X-radiation. 2,843,749, 7–15–58, Cl. 250—52.

Koch, Hans, and O. Peters, to Kurt Korber & Co, K. G. Device for controlling the feed of cut tobacco to cigarette making machines. 2,843,429, 7–15–58, Cl. 302—17.

Koehler Aircraft Products Co.: *See*—
Koehler, Gordon T. and G. J. 2,843,145.

Koehler, Gordon T. and G. J., to Koehler Aircraft Products Co. Valve mechanism. 2,843,145, 7–15–58, Cl. 137—414.

Koehler, Gustave J.: *See*—
Koehler, Gordon T. and G. J. 2,843,145.

Koenig Iron Works, Inc.: *See*—
Welch, William R. 2,843,394.

Kogel, Wilhelm G., and A. G. Hellstrom, to Aktiebolaget Elektrolux. Absorption refrigeration. 2,842,943, 7–15–58, Cl. 62—110.

Koolhof, Regnerus A.: *See*—
Six, Willem, Wittebol, and Koolhof. 2,843,669.

Kopelman, Sadye. Spring wall clips. 2,842,823, 7–15–58, Cl. 24—73.

Kopf, Fridolin: *See*—
Meyer, Gustav, Gros, and Kopf. 2,842,975.

Koppers Co., Inc.: *See*—
Swanson, Arthur. 2,842,945.

Korber, Kurt, to Kurt Korber & Co, K. G. Means for transportation of viscous liquids. 2,843,047, 7–15–58, Cl. 105—84.

Korber, Kurt, & Co. K. G.: *See*—
Koch, Hans, and Peters. 2,843,429.
Korber, Kurt. 2,843,047.
Pollmann, Max. 2,843,132.

Kornbluth, Murray, to United States of America, Army. Heat-resistant enameling paint containing silicone resin. 2,843,559, 7–15–58, Cl. 260—33.4.

Kostka, Charles. Steadying rest for metal lathes. 2,842,998, 7–15–58, Cl. 82—39.

Kottsieper, Edward, to United Aircraft Corp. Automatic tail rotor control. 2,843,211, 7–15–58, Cl. 170—135.22.

Kowalik, Josef, to Graver Tank & Mfg. Co., Inc. Supporting column. 2,843,405, 7–15–58, Cl. 287—2.

Krakauer, Edwin G., to Kay Mfg. Corp. Clip for sinuous furniture spring. 2,843,192, 7–15–58, Cl. 155—179.

Krake, Kenneth: *See*—
Osuch, Francis J., and Krake. 2,843,376.
Osuch, Francis J., and Krake. 2,843,695.

Krefft, Herman E. Electrical discharge lamp. 2,843,801, 7–15–58, Cl. 315—48.

Kreisinger, Arnost, to Tesla, narodni podnik. Switch with elastic contacts. 2,843,709, 7–15–58, Cl. 200—166.

Kridel, Donald J., to Eastman Kodak Co. Photographic bleach composition. 2,843,482, 7–15–58, Cl. 96—60.

Kridel, Donald J., W. V. Wadman, and J. G. Stampfli, to Eastman Kodak Co. Photographic developer. 2,843,483, 7–15–58, Cl. 96—66.

Kromex, Inc.: *See*—
Billig, Ralph B., and Ziskin. 2,843,440.

Krueger, Waverly D.: *See*—
Clemence, Le Roy W., Leffler, and Krueger. 2,843,614.

Kruse, Torvald. Limit stop for bed operating mechanism. 2,843,240, 7–15–58, Cl. 192—143.

Kuhlman, Carl E.: *See*—
Myers, Chester G., Kuhlman, and Beckner. 2,843,306.

Kuhnke, Ervin E. Arched doorway and door. 2,842,808, 7–15–58, Cl. 20—19.

Kumag A. G. Maschinenfabrik: *See*—
Roseck, Kurt. 2,842,989.

Kunz, John H., Jr., to The American Brass Co. Method and apparatus for heat treating metal stock. 2,843,514, 7–15–58, Cl. 148—13.

Kunzel, Horst. Back rest arrangement. 2,843,190, 7–15–58, Cl. 155—178.

L. O. F. Glass Fibers Co.: *See*—
Labino, Dominick. 2,843,461.

Labino, Dominick, to L. O. F. Glass Fibers Co. Method of producing silica fiber. 2,843,461, 7–15–58, Cl. 41—42.

Lacey, Richard N., and A. E. Blades, to The Distillers Co. Ltd. Process for producing mono chloroacetyl chloride. 2,843,630, 7–15–58, Cl. 260—537.

L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude: *See*—
Servigne, Marcel, and Szarvasi. 2,843,607.

Laird, Hubert C., and K. E. B. Bredtschneider, to Crane Co. Combined valve actuating and locking means. 2,843,152, 7–15–58, Cl. 137—797.

Laird, John D. Educational device for use in teaching arithmetic. 2,842,871, 7–15–58, Cl. 35—31.

Lambeck, Raymond P., to United Aircraft Corp. Propeller pitch stop lock. 2,843,212, 7–15–58, Cl. 170—160.32.

Lambeck, Raymond P., and A. V. Pond, to United Aircraft Corp. Hydraulic supply system for an aeronautical propeller or the like. 2,843,140, 7–15–58, Cl. 137—110.

Lambrech, Joseph A., and W. H. Hensley, to Union Carbide Corp. Fungicides and fungicidal compositions. 2,843,518, 7–15–58, Cl. 167—22.

Landis Machine Co.: *See*—
Hubl, Johann F. 2,842,990.

Landman, Herman: *See*—
Landman, Max, Newman, and Landman. 2,843,224.

Landman, Max, J. Newman, and H. Landman. Auxiliary bumper impact absorber. 2,843,224, 7–15–58, Cl. 188—5.

Landrum, William F. Fishing float. 2,842,888, 7–15–58, Cl. 43—44.95.

Langer, Arthur W., Jr.: *See*—
Hill, Ralph M., and Langer. 2,843,529.

Langer, Arthur W., Jr., G. G. Wanless, and C. S. Carlson, to Esso Research and Engineering Co. Residuum conversion process. 2,843,530, 7–15–58, Cl. 196—50.

Langlois, Gordon E., and W. M. Haunschild, to California Research Corp. Process for securing and maintaining catalyst activity of phosphoric acid type catalysts. 2,843,639, 7–15–58, Cl. 260—683.15.

Langlois, Gordon E., and E. D. Noble, to California Research Corp. Hydrocarbon conversion process employing a catalyst pretreatment. 2,843,640, 7–15–58, Cl. 260—683.15.

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Lappin, Lester S., to Radio Corp. of America. Protective circuit. 2,843,817, 7–15–58, Cl. 321—13.

Larson, Larry C. Combination mirror and flushing device. 2,843,019, 7–15–58, Cl. 88—104.

Lasher, Walter R. Clamp installation tool. 2,842,991, 7–15–58, Cl. 81—9.3.

Laubenthal, Omer J. Flexible door. 2,843,201, 7–15–58, Cl. 160—354.

Lazari, Fabrizio, to Montecatini, Societa Generale per l'Industria Mineraria e Chimica. Process for filling and treating pressure capsules for use in non-metallic fuzes. 2,842,909, 7–15–58, Cl. 53—25.

Lazari, Fabrizio, to Montecatini, Societa Generale per l'Industria Mineraria e Chimica. Non-metallic mine fuse. 2,843,042, 7–15–58, Cl. 102—70.

Lear, Inc.: *See*—
Blanding, Leonard C. 2,843,830.
Carr, William F. 2,843,237.
Champion, Wendell G., and Barish. 2,843,691.
Knapp, Theodore F., and Boyd. 2,843,770.
Stoyke, Ludwig T., and Bashniuk. 2,843,162.

Leatherberry, Donald L., to I-T-E Circuit Breaker Co. Safety lock-out attachment for automatic reclosing circuit breakers. 2,843,699, 7–15–58, Cl. 200—89.

Leavitt Machine Co.: *See*—
Ralys, Stanley C. 2,842,901.
Ralys, Stanley C. 2,842,903.
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Lechthaler, Charles H., and W. A. Stover, to Socony Mobil Oil Co., Inc. Preparation of attrition-resistant chromia-containing catalyst. 2,843,552, 7–15–58, Cl. 252—456.

Le Count, Finley E.: *See*—
Berkley, Howard L., and Le Count. 2,843,070.

Leditschke, Heinrich, H. Rolly, and H. Schmidt-Ruppin, to Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning. Substituted isonicotinic acid amides and process of preparing same. 2,843,594, 7–15–58, Cl. 260—295.

Leefer, Bernard I. Apparatus for indicating the condition of filters. 2,843,077, 7–15–58, Cl. 116—117.

Leffler, Marlin T.: *See*—
Clemence, Le Roy W., Leffler, and Krueger. 2,843,614.

Leiman Bros., Inc.: *See*—
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Lemmon, Norman E., E. N. Roberts, and A. R. Sabol, to Standard Oil Co. Preparation of phosphorus sulfide-hydrocarbon reaction products. 2,843,579, 7–15–58, Cl. 260—139.

Leonard, Francis J., A. De Castro, and T. F. Groll, Jr., to Nopco Chemical Co. Defoaming composition. 2,843,551, 7–15–58, Cl. 252—358.

Lerch, Charles S., Jr., M. Slavin, B. P. Hooten, Jr., F. E. Churchill, and C. C. Hsu, to Bendix Aviation Corp. Signal seeking radio receiver. 2,843,734, 7–15–58, Cl. 250—20.

Lesage, Robert F., to Richards-Wilcox Mfg. Co. Combined sliding and side sealing door. 2,843,375, 7–15–58, Cl. 268—53.

Le Super: *See*—
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Lewis, Chalmer H., Jr., to Sarkes Tarzian, Inc. Television tuner input circuit. 2,843,683, 7–15–58, Cl. 179—171.

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Ponce, Lucien G. 2,843,017.

Liberty Powder Defense Corp.: *See*—
Buell, Robert R. 2,843,584.

Lifferth, Ewald: *See*—
Heil, Rudolf, Lifferth, and Reche. 2,843,663.

Lillienberg, August W., and G. V. Harris, to Lindberg Engineering Co. Induction heating furnace and method of heating. 2,843,712, 7–15–58, Cl. 219—10.41.

Lilly, Edith C. Educational apparatus. 2,842,870, 7–15–58, Cl. 35—31.

Limburg, Lillian E. Bobby pin holder and opener. 2,843,136, 7–15–58, Cl. 132—1.

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Lindner, Hellmuth: *See*—
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Lindner, Hugo and Hellmuth, to VEB Vereinigte Strumpfwerke Esda. Knitted fabrics and methods for knitting same. 2,842,947, 7–15–58, Cl. 66—202.

Link-Belt Co.: *See*—
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Linville, Robert G., to General Electric Co. Organophosphorus-silicon compositions. 2,843,615, 7–15–58, Cl. 260—448.8.

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Vitt, George G., Jr. 2,842,774.

Lisiewski, Richard A. Cigar piercer and extractor. 2,843,135, 7–15–58, Cl. 131—255.

Littman, Sydney. Manufacture of garments or articles from sheet material. 2,842,772, 7–15–58, Cl. 2—243.

Livers, Harold F., to M. C. Harter. Out of round attachment. 2,843,373, 7–15–58, Cl. 266—23.

Lloyd, Warren D. Shirt structures. 2,842,770, 7–15–58, Cl. 2—116.

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Walkey, George J., and McGregor. 2,842,801.

Lockshin, Samuel D., to Hampden Specialty Products, Inc. Kneeling stool. 2,843,189, 7–15–58, Cl. 155—166.

Lodge, Joseph W., to The Youngstown Sheet and Tube Co. Method of relieving bauschinger effect in oil well drill pipe. 2,843,512, 7–15–58, Cl. 148—4.

Lofgren, Gustaf E., to Electrolux Corp. Tapered multi-purpose nozzle. 2,842,794, 7–15–58, Cl. 15—417.

Long, Harold W., Jr., to United States of America, Atomic Energy Commission. Method of recovering uranium mineral values. 2,843,450, 7–15–58, Cl. 23—14.5.

Long, John V., to Solar Aircraft Co. Ceramic coatings and methods of formulation. 2,843,507, 7–15–58, Cl. 117—129.

Lorenz, Anton. Article of repose for supporting the body of a person. 2,843,184, 7–15–58, Cl. 155—107.

Lorenz, Walter, to Farbenfabriken Bayer Akt. Derivatives of thiophosphoric acid. 2,843,588, 7–15–58, Cl. 260—248.

Lorette, Nicholas B., to The Dow Chemical Co. Dioxanes. 2,843,601, 7–15–58, Cl. 260—340.6.

Lorette, Nicholas B., to The Dow Chemical Co. 2,3-di(chloroalkoxy)-p-dioxanes. 2,843,602, 7–15–58, Cl. 260—340.6.

Lothrop, John W., and R. R. Wareham, to Polaroid Corp. Photographic apparatus including sheet-arresting and control mechanism. 2,843,029, 7–15–58, Cl. 95—13.

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Louis, Arnold S., to M. A. Coler. Moldable miniature battery. 2,843,649, 7–15–58, Cl. 136—111.

Luboshez, Benjamin E., to Eastman Kodak Co. Prism magnification systems comprising three or more prisms. 2,843,015, 7–15–58, Cl. 88—57.

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Lucien, René, to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M. Liquid-pneumatic spring system. 2,843,396, 7–15–58, Cl. 280—124.

Luckhardt, Johannes, deceased; W. J. F. Luckhardt, sole heir, to N. P. Martin, and O. L. Walter, trustees of Kappa trust. Article of repose for supporting the body of a person. 2,843,183, 7-15-58, Cl. 155—107.
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Lush, Morley J. Electrodynamometer. 2,843,825, 7-15-58, Cl. 324—144.
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Macchione, John M. Apparatus for applying laminations. 2,842,838, 7-15-58, Cl. 29—203.
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Mahon, Thomas J., to Sterling Drug Inc. Peri-anal ointment. 2,843,522, 7-15-58, Cl. 167—63.
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Majeske, Henry L., to American Screen Products Co. Adjustable pivot for door track. 2,842,795, 7-15-58, Cl. 16—130.
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Mann, Chr., Maschinenfabrik: *See*—
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Manspeaker, Robert O. Bakery apparatus and method. 2,843,038, 7-15-58, Cl. 99—438.
Mantz, Marius R., J. Starreveld, and H. J. Suermondt, to North American Philips Co., Inc. High-frequency multichannel generator. 2,843,740, 7-15-58, Cl. 250—36.
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Marden, Donald S., to Northrop Aircraft, Inc. Butterfly valve seal. 2,843,353, 7-15-58, Cl. 251—192.
Marié, Pierre G. Magnetron tube. 2,843,800, 7-15-58, Cl. 315—39.
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Markestein, John, and C. H. Patrie, to General Motors Corp. Railway vehicle suspension. 2,843,057, 7-15-58, Cl. 105—180.
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Martin, James W., F. A. Hessel, I. P. Hammer, and J. B. Rust, to Oil Recovery Corp. Methane and carbon dioxide solutions. 2,843,256, 7-15-58, Cl. 206—0.6.
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Martin, Roy C. Space cabinet. 2,843,443, 7-15-58, Cl. 312,325.
Maruhn, Herbert F. W., to Daimler-Benz Akt. Girder connection for vehicle frames. 2,843,231, 7-15-58, Cl. 180—36.
Masem, Matthew J., to Hughes Aircraft Co. Tape controlled apparatus. 2,843,688, 7-15-58, Cl. 200—61.15.
Mashinter, William H. Metering pump. 2,843,044, 7-15-58, Cl. 103—44.
Mashinter, William H. Metering pump apparatus. 2,843,045, 7-15-58, Cl. 103—44.
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Materese, Vincent, to Mink-Dayton, Inc. Illuminating baggage rack. 2,843,729, 7-15-58, Cl. 240—7.35.
Matras, William F., to Frabill Mfg. Co. Knob and wire hook assembly for fishing and the like. 2,842,887, 7-15-58, Cl. 43—44.95.
Matthews, Newton L. Multiple gravity and float concentrator. 2,843,266, 7-15-58, Cl. 209—173.
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Maurer, Hans, to Ruf-Buchhaltung Akt. Improvements in front-feed attachment for typewriters. 2,843,246, 7-15-58, Cl. 197—128.
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McCarthy, Lawrence A., to Western Electric Co., Inc. Method of assembling articles. 2,842,842, 7-15-58, Cl. 29—505.
McConnell, Howard M., and J. N. Ellis, to Jack & Heintz, Inc. Excitation circuit for brushless alternator. 2,843,768, 7-15-58, Cl. 310—68.
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McDonald, Eugene F. Warning signal. 2,843,836, 7-15-58, Cl. 340—87.
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McGraw, Leslie D., to United States of America, Army. Cathode depolarizer for primary cells with acidic electrolytes. 2,843,510, 7-15-58, Cl. 136—138.
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McGrevy, George F., to Globe-Union Inc. Spark control for flywheel magnetos. 2,843,769, 7-15-58, Cl. 310—70.
McIntire, Robert L., to Phillips Petroleum Co. Method for converting hydrocarbons. 2,843,532, 7-15-58, Cl. 196—55.
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McKee, Russell C., to McKee Bros. Ltd. Pole barns. 2,843,085, 7-15-58, Cl. 119—16.
McKeever, Charles H., Rohm & Haas Co. Preparation of pyrrolidinone. 2,843,600, 7-15-58, Cl. 260—326.5.
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McLeod, John H., and R. Kingslake, to Eastman Kodak Co. Photographic enlargers with scratch elimination. 2,843,011, 7-15-58, Cl. 88—24.
McNamara, John F., to Gulf Oil Corp. Process and apparatus for reducing corrosion in oil wells. 2,843,206, 7-15-58, Cl. 166—1.
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Hursh, Samuel R., and McWilliams. 2,843,055.
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Meeder, Raymond L., to Nuclear-Chicago Corp. Automatic sample changer for radioactive samples. 2,843,753, 7-15-58, Cl. 250—106.
Meiklejohn, Robert F., to BJ Service, Inc. Thermochemical logging tool. 2,843,450, 7-15-58, Cl. 23—253.
Meisenheimer, Raymond L., to Radio Corp. of America. Noise reduction circuit for television transmitters. 2,843,661, 7-15-58, Cl. 178—7.1.
Melamed, Sidney, to Rohm & Haas Co. New quaternary ammonium compounds in which the nitrogen atom carries an alkoxymethyl group. 2,843,573, 7-15-58, Cl. 260—86.1.
Melamed, Sidney, to Rohm & Haas Co. Esters of 2-mehtyl-1,3-oxasolidine-3-phosphonic acids and of 2-methyl-tetrahydro-1,3-oxasine-3-phosphonic acids, and their preparation. 2,843,586, 7-15-58, Cl. 260—244.
Mennesson, Robert, to Societe d'Application et de Constructions pour Materiel Automobile S. A. C. M. A. Devices for measuring the diameter of a cylindrical bore. 2,842,858, 7-15-58, Cl. 33—178.
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Merritt, Oscar K. Amusement apparatus. 2,843,379, 7-15-58, Cl. 272—41.
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Meyer, Orval C. Orchard cultivator. 2,843,033, 7-15-58, Cl. 97—40.
Meyer, Otto. Pressure fluid operated blowout preventor. 2,843,349, 7-15-58, Cl. 251—2.
Michel, Laurent P.: *See*—
Beattie, Robert D., Michel, and Stokes. 2,843,458.
Micro-Master, Inc.: *See*—
Wally, Joseph H., Jr., and Grunwald. 2,843,010.
Mid-States Steel & Wire Co.: *See*—
Sommer, Murray M. 2,843,260.
Mika, Thomas F., to Shell Development Co. Cured silicon-containing products prepared from polyepoxides. 2,843,560, 7-15-58, Cl. 260—42.
Miles, John, & Partners (London) Ltd.: *See*—
Hookham, George. 2,843,402.
Miller, Bernard J. Light transmitting means for endoscopes. 2,843,112, 7-15-58, Cl. 128—6.
Miller, Bertrand J.: *See*—
Morris, George V., Roschke, Drus, and Miller. 2,843,656.
Miller Brothers: *See*—
Miller, Norman K. 2,843,690.

Miller, Casper J. Vibrating couch. 2,843,113, 7–15–58, Cl. 128—33.

Miller, Frank C., to The Jeffrey Mfg. Co. Motor and brake mechanism. 2,843,225, 7–15–58, Cl. 188—78.

Miller, Franklyn D.: *See*—
Muller, Werner C., and Miller. 2,843,624.

Miller, Frederick B., to Goodman Mfg. Co. Drilling system. 2,843,361, 7–15–58, Cl. 255—50.

Miller, Norman K., to Miller Brothers. Safety edge for hangar door. 2,843,690, 7–15–58, Cl. 200—61.43.

Miller, Robert J., and C. E. Bodington, to California Research Corp. Recovery of benzoic and toluic acids from dilute aqueous solutions thereof. 2,843,627, 7–15–58, Cl. 260—525.

Miller, Theodore J., and E. L. Gothier, to Minnesota Mining and Mfg. Co. Non-rigid rotative abrasive structures. 2,842,902. 7–15–58. Cl. 51—193.5.

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Mine Safety Appliances Co.: *See*—
Campana, Robert J., and King. 2,842,964.

Mink-Dayton, Inc.: *See*—
Materese, Vincent. 2,843,729.

Minneapolis-Honeywell Regulator Co.: *See*—
Anderson, Robert F., Flagg, and Osen. 2,843,647.
Dobbin, James C. 2,843,323.

Minnesota Mining and Mfg. Co.: *See*—
Hoyt, John M. 2,843,575.
Miller, Theodore J., and Gothier. 2,842,902.
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Mintz, Martin, G. D. Shere, M. F. Thompson, and Wittkopf, to North American Aviation, Inc. Magnetic amplifier. 2,843,818, 7–15–58, Cl. 321—16.

Mitter, Laurence J.: *See*—
Broene, William G., Jr., and Mitter. 2,843,104.

Mix, Chauncey C., deceased, by G. M. Mix, executrix. Conductor-insulator clamp. 2,843,653, 7–15–58, Cl. 174—172.

Mix, Gladys M.: *See*—
Mix, Chauncey C. 2,843,653.

Moldovan, Daniel.: *See*—
Ingley, Francis L., and Moldovan. 2,843,561.

Monroe Calculating Machine Co.: *See*—
Deutsch, Fritz A. 2,843,319.

Monsanto Chemical Co.: *See*—
Hardy, Edgar E. and Reetz. 2,843,616.
Kaufman, Samuel. 2,843,617.

Monsanto Chemicals Ltd.: *See*—
Pennington, John W. 2,843,635.

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Isler Otto, Montavon, Ruegg, and Zeller. 2,843,631.

Montclair Research Corp.: *See*—
Rust, John B. 2,843,628.
Rust, John B. 2,843,629.

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Lazari, Fabrizio. 2,842,909.
Lazari, Fabrizio. 2,843,042.
Natta, Giulio, and Beati. 2,843,633.

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Montgomery Elevator Co.: *See*—
Beck, Walter. 2,843,697.

Moore, Lee C., Corp.: *See*—
Woolslayer, Homer J., Jenkins, Turner, and Campbell. 2,843,229.

Moore, Robert C., and G. L. Carson, to Philco Corp. Modulator system. 2,843,826, 7–15–58, Cl. 332—44.

Moore, Robert L., to United States of America, Atomic Energy Commission. Precipitation of protactinium. 2,843,452, 7–15–58, Cl. 23—14.5.

Moorman, Robert W., to Pittsburgh Plate Glass Co. Enhancing pot life of polymerizable coating compositions. 2,843,556, 7–15–58. Cl. 260—28.5.

Morana, Simon J., to The Beryllium Corp. Apparatus for the continuous production of metallic beryllium. 2,843,544, 7–15–58, Cl. 204—227.

Morgan, Erving B.: *See*—
Manne, Edward T., Morgan, Oom, Spencer, and Weaver. 2,843,187.

Morgan, Willard L., to Libbey-Owens-Ford Glass Co. Electrically heated articles. 2,843,713, 7–15–58, Cl. 219—19.

Morin, Louis H. Separable fastener with dual size center ledge scoops. 2,842,824. 7–15–58, Cl. 24—205.11.

Morris, George V., E. M. Roschke, W. S. Drus, B. J. Miller, to Zenith Radio Corp. Subscription television system. 2,843,656, 7–15–58, Cl. 178—5.1.

Morse, Samuel P.: *See*—
Butterworth, Herbert W., and Morse. 2,843,012.

Mother's Cake & Cookie Co.: *See*—
Wickstrom, John A. 2,842,922.

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Neumann, Willy. 2,842,974.

Mount, Wadsworth W. Solar still with means to clean evaporator surface. 2,843,536, 7–15–58, Cl. 202—234.

Moutet, André G. L., to "Office National d'Etudes et de Recherches Aeronautiques" (O. N. E. R. A.) Apparatus for measuring the temperatures of gaseous fluids and in particular flames. 2,843,008, 7–15–58, Cl. 88—22.5.

Muller, Josef, to Daimler-Benz Akt. Vehicle wheel suspension. 2,843,214, 7–15–58, Cl. 180—73.

Muller, Werner C., and F. D. Miller, to National Distillers and Chemical Corp. Recovery process for ester condensation products. 2,843,624, 7–15–58, Cl. 260—483.

Munschauer, Frederick E., to Niagara Machine & Tool Works. Straight side punch press. 2,843,204, 7–15–58, Cl. 164—86.

Murphy, Clyde G., to E. I. du Pont de Nemours and Company. Ready-mixed aluminum coating compositions and articles coated therewith. 2,843,554, 7–15–58, Cl. 260—18.

Murphy, Frank W. Safety switch. 2,843,687, 7–15–58, Cl. 200—56.

Murray, George C., and F. T. Stixrud, to Magline Inc. Loading ramp. 2,842,787, 7–15–58, Cl. 14—72.

Myers, Chester G. Thick-sided box. 2,843,305, 7–15–58, Cl. 229—30.

Myers, Chester G., C. E. Kuhlman, and M. M. Beckner, to Autokraft Box Corp. Box. 2,843,306, 7–15–58, Cl. 229—14.

Myers, Philip S.: *See*—
Uyehara, Otto A., and Myers. 2,842,956.

Naidich, Herbert H., and W. S. O'Hare, to Bendix Aviation Corp. Projecting method for cathode-ray tubes. 2,843,844, 7–15–58. Cl. 340—368.

Nallinger, Friedrich K. H., R. E. Uhlenhaut, and R. W. K. Schumann, to Daimler-Benz Akt. Gearshift responsive control arrangement for controlling the amount of injected fuel of an internal combustion engine. 2,842,980, 7–15–58, Cl. 74—472.

Napier, D., & Son Ltd.: *See*—
Crick, Roger D. S. 2,843,711.

Nathan, Reuben: *See*—
Bussard, Emmery J. H., and Nathan. 2,843,628.

National Automatic Tool Co., Inc.: *See*—
Rodal, Ralph. 2,842,986.
Schafer, Robert A. 2,842,987.

National Distillers and Chemical Corp.: *See*—
Hansley, Virgil L., and Schott. 2,843,622.
Hansley, Virgil L., and Schott. 2,843,623.
Muller, Werner C., and Miller. 2,843,624.

National Union Electric Corp.: *See*—
Skellett, Albert M. 2,843,678.

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Neid, Louis J. Door structure for pigeon traps. 2,842,891, 7–15–58. Cl. 43—66.

Nelson, John L., to Food Machinery and Chemical Corp. Cotton topper with hydraulic adjusting means. 2,842,926, 7–15–58 Cl. 56—25.4.

Nelson, Roy A. Drawer slide. 2,843,444, 7–15–58, Cl. 312—341.

Nelson, Russell L. Safety device for laundry extractors. 2,843,239, 7–15–58. Cl. 192—136.

Nelsson, Nels, to United States Gypsum Co. Building construction. 2,843,230, 7–15–58, Cl. 189—35.

Nettleship, William W. Door safety latch. 2,843,411, 7–15–58, Cl. 292—278.

Neuhaus Elmer C.: *See*—
Block, Robert H., Madsen, and Neuhaus. 2,843,175.

Neumann, Erich. Type lever motion devices for typewriters and similar machines. 2,843,244, 7–15–58. Cl. 197—27.

Neumann, Willy, to Motor-Condensator Compagnie, Schlos KG. Cooling means for V-belt pulleys. 2,842,974, 7–15–58, Cl. 74—230.01.

New England Envelope Mfg. Co.: *See*—
Howatt, George F. 2,842,915.

Newman, Joseph: *See*—
Landman, Max, Newman, and Landman. 2,843,224.

Newton, Charles L.: *See*—
Johnston, Herrick L., and Newton. 2,842,942.

Niagara Machine & Tool Works: *See*—
Munschauer, Frederick E. 2,843,204.

Nicholson, William Q., and C. B. Warshawsky, to Hycon Mfg. Co. Sequence timer. 2,843,685, 7–15–58, Cl. 200—37.

Nickelson, Alison W., to Richmond Foundry & Mfg. Co. Block forming machine. 2,842,827, 7–15–58, Cl. 25—103.

Nickle, Arthur G., to Nickle Engineering. Overload-underload control system and method. 2,843,227, 7–15–58, Cl. 241—35.

Nickle Engineering: *See*—
Nickle, Arthur G. 2,843,227.

Nickles Machine Corp.: *See*—
Haring, John M. 2,843,221.

Niederer, Herbert O.: *See*—
Niederer, Otto C., O., and H. O. 2,843,250.

Niederer, Otto: *See*—
Niederer, Otto C., O., and H. O. 2,843,250.

Niederer, Otto C., O., and H. O. Egg handling mechanism. 2,843,250, 7–15–58, Cl. 198—30.

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Noble, Edward D.: *See*—
Langlois, Gordon E., and Noble. 2,843,640.

Nojima, Takeo, to Amagasaki Seitetsu Kabushiki Kaisha. Vehicle wheel. 2,843,426, 7–15–58, Cl. 301—5.

Nopco Chemical Co.: *See*—
Leonard, Francis J., De Castro, and Groll. 2,843,551.

Norby, Harold L., and B. E. Jones, to Pullman-Standard Car Mfg. Co. Railway sleeping car bed latch. 2,843,059, 7–15–58. Cl. 105—317.

Norden-Ketay Corp.: *See*—
King, Kenneth L. 2,843,842.

Nordmark, Walter E.: *See*—
Hoven, Alfred C., and Nordmark. 2,843,335.
Hoven, Alfred C., Nordmark, and Rimkus. 2,843,435.

Nordmark, Walter E., to American Seating Co. Adjustable tilt top table. 2,843,226, 7–15–58, Cl. 188—67.

Nordquist, Ronald E. J.: *See*—
Bofinger, Karl, and Nordquist. 2,843,248.

Noren, Tore H.: *See*—
Federighi, George J., and Noren. 2,843,137.

Norman, Edward A., Jr.: *See*—
Campbell, Ned G., Norman, and Reichelderfer. 2,843,108.

Norman, Einar. Ship's bumper. 2,843,074, 7–15–58, Cl. 114—219.

Norman Products Co.: *See*—
Campbell, Ned G., Norman, and Reichelderfer. 2,843,103.

North American Aviation, Inc.: *See*—
Bornstein, Ira. 2,843,539.
Mintz, Martin, Shere, Thompson, and Wittkopf. 2,843,818.

North American Philips Co., Inc.: *See*—
Cluwen, Johannes M. 2,843,742.
Diemer, Gesinus. 2,843,804.
Hofker, Willem K. 2,843,746.
Kerker, Dorus G. 2,843,735.
Mantz, Marius R., Starreveld, and Suermondt. 2,843,740.
Rosier, Gerardus, and Volkers. 2,843,766.
Six, Willem, Wittelbol, and Koolhof. 2,843,669.
Van Bakel, Henricus A., and Gast. 2,843,504.
Van Overbeek, Adrianus J. W. M. 2,843,681.

Northrop Aircraft, Inc.: *See*—
Bacon, John W., Jr. 2,842,957.
Bertagna, Victor B., and Pfarr. 2,843,020.
De Voss, Edwin A. 2,843,173.
Marden, Donald S. 2,843,353.

Northwestern Corrugated Box Co.: *See*—
Collins, Harry F., Jr. 2,843,257.

Nuclear-Chicago Corp.: *See*—
Meeder, Raymond L. 2,843,753.

O'Bannon, Loran S.: *See*—
Harman, Cameron G., and O'Bannon. 2,843,500.

"Office National d'Etudes et de Recherches Aeronautiques" (O N E R A): *See*—
Moutet, André G. L. 2,843,008.

Ogle, Lawrence A.: *See*—
Camp, Robert H., and Ogle. 2,842,807.

O'Hare, William S.: *See*—
Naidich, Herbert H., and O'Hare. 2,843,844.

Ohio Brass Co., The: *See*—
Huston, Elmo F. 2,842,999.

Oil Recovery Corp.: *See*—
Martin, James W., Hessel, Hammer, and Rust. 2,843,256.

Okada, Robert H., to Burroughs Corp. Semi-conductor stabilizing circuit. 2,843,764, 7–15–58, Cl. 307—88.5.

Olin Mathieson Chemical Corp.: *See*—
Entrekin, Durward N. 2,843,521.

Olin, Robert E., to Fairchild Camera and Instrument Corp. Transparent scanning drum utilizing a light conducting rod. 2,843,664, 7–15–58, Cl. 178—7.1.

Oliver, Bernard M., to Bell Telephone Laboratories, Inc. Probability oscillograph. 2,843,447, 7–15–58, Cl. 346—110.

O'Neill, Richard J., to Hughes Aircraft Co. Cross-cooled cabinet for electrical equipment. 2,843,806, 7–15–58, Cl. 317—100.

Oom, Benjamin J.: *See*—
Manne, Edward T., Morgan, Oom, Spencer, and Weaver. 2,843,187.

Oppel, John A., to General Electric Co. Electric circuit breaker. 2,843,706, 7–15–58, Cl. 200—14.

Orloff, George, and B. C. Smithers, to British Messier Ltd. Self venting seals. 2,843,434, 7–15–58, Cl. 309—23.

Orner, Harry. Ball bearing screw and nut mechanism. 2,842,978, 7–15–58, Cl. 74—459.

Oroshnik, William, and G. Karmas, to Ortho Pharmaceutical Corp. Para-aminobenzoates of ethynylcarbinols. 2,843,621, 7–15–58, Cl. 260—471.

Ortho Pharmaceutical Corp.: *See*—
Oroshnik, William, and Karmas. 2,843,621.

Osen, Ralph T.: *See*—
Anderson, Robert F., Flagg, and Osen. 2,843,647.

Osthoff, Robert C., to General Electric Co. Method of separating molybdenum from tungsten. 2,843,613, 7–15–58, Cl. 260—429.

Osuch, Francis J., and K. Krake, to Robot Appliances, Inc. Door operators. 2,843,376, 7–15–58, Cl. 268—65.

Osuch, Francis J., and K. Krake, to Robot Appliances, Inc. Mat switches. 2,843,695, 7–15–58, Cl. 200—86.

Owens, Robert S. Apparatus and method for making twisted fiber products. 2,842,932, 7–15–58, Cl. 57—35.

Owens, Robert S. Apparatus for twisting and winding multi-ply strands. 2,842,931, 7–15–58, Cl. 57—1.

Owens, Robert S. Stabilized multi-ply yarns. 2,842,934, 7–15–58, Cl. 57—153.

Oyston, Harold J., and W. G. Lumb, to Amalgamated Wireless (Australasia), Ltd. Therapy device. 2,843,129, 7–15–58, Cl. 128—419.

Paasche, Jens A., to Cline Electric Mfg. Co. Atomizing device. 2,843,425, 7–15–58, Cl. 299—148.

Padrick, John R. Earth working method. 2,842,899, 7–15–58, Cl. 47—58.

Pagley, Joseph A. Self-cleaning rake. 2,842,930, 7–15–58, Cl. 56—400.08.

Paige, Richard E. Double-walled container. 2,843,308, 7–15–58, Cl. 229—37.

Pajes, Wolf S. Method of applying indicia to transparencies and method of and apparatus for projecting images of said indexed transparencies upon a screen in reflected light. 2,843,004, 7–15–58, Cl. 88—16.

Paley, Albert A. Automobile heating device. 2,843,715, 7–15–58, Cl. 219—34.

Pangman, William J. Compound prosthesis device. 2,842,775, 7–15–58, Cl. 3—36.

Pankove, Jacques I., to Radio Corp. of America. Semiconductor devices. 2,843,511, 7–15–58, Cl. 148—1.5.

Pardee, William A., to Gulf Research & Development Co. Purification of aluminum chloride. 2,843,355, 7–15–58, Cl. 23—93.

Parker, James, to Sears, Roebuck and Co. Book support. 2,843,439, 7–15–58, Cl. 312—233.

Parkersburg-Aetna Corp.: *See*—
Rosner, Joseph J. 2,843,238.

Parmley, Ralph D., to Leiman Bros., Inc. Means for cooling high vacuum rotary pumps. 2,843,313, 7–15–58, Cl. 230—207.

Parodi, Federico A. Device for vacuum sealing containers. 2,842,916, 7–15–58, Cl. 53—86.

Parodi, Federico A. Device for closing bottles by vacuum with crown type caps and machine that includes the said device. 2,842,917, 7–15–58, Cl. 53—98.

Parodi, Federico A. Apparatus for applying a crown cap to a bottle under vacuum conditions. 2,842,918, 7–15–58, Cl. 53—98.

Paschen, Ludwig, to Wetzell Gummiwerke Akt. Article of repose for supporting the body of a person. 2,843,181, 7–15–58, Cl. 155—47.

Paschold, Ernst, to Gerdes & Co. Injection molding device for thermoplastic materials. 2,842,798, 7–15–58, Cl. 18—30.

Paterson, Walter S.: *See*—
Mansella, Carmen. 2,843,652.

Patrie, Clarence H.: *See*—
Markestein, John, and Patrie. 2,843,057.

Pearson, Ben, Inc.: *See*—
Bramblett, John J. 2,842,928.

Pedersen, Tage V., to Fairbanks, Morse & Co. Engine foundation structure. 2,842,955, 7–15–58, Cl. 72—77.

Pellegrini, John P., Jr.: *See*—
Gaston, Gardiner E., and Pellegrini. 2,843,463.

Pelletier, Armand. Creeper with adjustable supporting surface. 2,843,391, 7–15–58, Cl. 280—32.6.

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Pennington, John W., to Monsanto Chemicals Ltd. Water-soluble ammonium pentachlorophenate. 2,843,635, 7–15–58, Cl. 260—623.

Pennino, Charles J., to The B. F. Goodrich Co. Method for preparing halogenated maleic acid, salts and anhydrides thereof. 2,843,606, 7–15–58, Cl. 260—346.8.

Penther, Carl J., to Shell Development Co. Fluid pressure system including a vibrating throttling valve. 2,843,147, 7–15–58, Cl. 137—487.5.

Pepperdine, Ben: *See*—
Coslow, Carl W., Pepperdine, and Radcliffe. 2,842,996.

Pepperdine, Dora: *See*—
Coslow, Carl W., Pepperdine, and Radcliffe. 2,842,996.

Perkin-Elmer Corp., The: *See*—
Scott, Larkin B. 2,843,822.

Perlin, Fred, to Graflex, Inc. Stereocameras. 2,843,030, 7–15–58, Cl. 95—18.

Pernert, John C., to Hooker Electrochemical Co. Production of oxy acids of phosphorus. 2,843,457, 7–15–58, Cl. 23—165.

Pessolano, Arsenio A.: *See*—
Clark, Robert L., and Pessolano. 2,843,597.

Peter, Rolf W., to United States of America, Army. Electron beam tube. 2,843,788, 7–15–58, Cl. 315—3.5.

Peterbilt Motors Co.: *See*—
Brumbaugh, George U. 2,843,395.

Peters, Elwyn H., to Curtiss-Wright Corp. Rotary hydraulic valve. 2,843,149, 7–15–58, Cl. 137—624.

Peters, Otto: *See*—
Koch, Hans, and Peters. 2,843,429.

Peterson, Howard B., and O. G. Brenner, to American Can Co. Mechanism for arranging side seams of cans. 2,843,253, 7–15–58, Cl. 198—33.

Petro, James, to Westinghouse Electric Corp. Vacuum type lead wire detector for an automatic stem machine. 2,843,271, 7–15–58, Cl. 214—1.

Petrow, Vladimir: *See*—
Robinson, Frank A., Dickinson, Petrow, and Wilkinson. 2,843,525.

Pettus, James L., and K. Singer, to Radio Corp. of America. Signal wave generator for recording a control signal. 2,843,446, 7–15–58, Cl. 346—74.

Pfann, William G., to Bell Telephone Laboratories, Inc. Manufacture of semiconductor devices. 2,842,831, 7–15–58, Cl. 29—25.3.

Pfarr, John J.: *See*—
Bertagna, Victor B., and Pfarr. 2,843,020.

Pfister, William T. Automatic vacuo-pneumatic object sorting machine. 2,843,264, 7–15–58, Cl. 209—108.

Pfizer, Chas., & Co., Inc.: *See*—
Snell, Junius F. 2,843,526.

Philco Corp.: *See*—
Moore, Robert C., and Carson. 2,843,826.
Schnable, George L., and Roschen. 2,842,841.

Phillips Petroleum Co.: *See*—
Ayers, Arnold L., and Scott. 2,842,936.
Burk, Marvin C. 2,843,783.
Harper, Kenneth A. 2,843,534.
McIntire, Robert L. 2,843,532.
Robinson, Lorne M., and Hining. 2,843,144.

Pierce, John R., to Bell Telephone Laboratories, Inc. Traveling wave tube. 2,843,791, 7–15–58, Cl. 315—3.6.

Pierce, John R., to Bell Telephone Laboratories, Inc. Traveling wave tube. 2,843,792, 7–15–58, Cl. 315—3.6.

Piersol, Jay L., to Armstrong Cork Co. Method of making rubber-bound fibrous products and the like. 2,843,479, 7–15–58, Cl. 92—21.

Pilas, Frank J.: *See*—
Chase, John A., Pilas, Wolke, and Battstone. 2,842,832.

Pioneer Electric Brandon Ltd.: *See*—
Roots, William K. 2,843,759.

Pittsburgh Plate Glass Co.: *See*—
Christenson, Roger M., Cummings, and Bader. 2,843,565.
Christenson, Roger M., Cummings, and Bader. 2,843,566.
Cochran, Carl J. 2,842,800.
Moorman, Robert W. 2,843,556.

Plastimayd Products Corp.: *See*—
Druck, Milton G. 2,842,783.

Pliskin, Daniel G., to Sperry Rand Corp., Ford Instrument Co. Division. Heavy duty connector. 2,843,831, 7-15-58, Cl. 339—89.

Ploetz, Edwin C., to A. O. Smith Corp. Method of fabricating glass coated metallic articles. 2,842,840, 7-15-58, Cl. 29—455.

Plomb Tool Co., The: *See*—
Coslow, Carl W., Pepperdine, B. and D., and Radcliffe. 2,842,996.

Polaroid Corp.: *See*—
Blount, Elkan R., Cohen, and Green. 2,843,481.
Jones, Robert C. 2,843,005.
Lothrop, John W., and Wareham. 2,843,029.

Polhemus, John K., to General Aniline & Film Corp. Viewing hood and cover for photographic camera. 2,843,031, 7-15-58, Cl. 95—47.

Politzer, Alfred. Method of producing artificial sponges. 2,842,799, 7-15-58, Cl. 18—48.

Pollard, Marvin F. Telephone receiver attachment. 2,843,680, 7-15-58, Cl. 179—156.

Pollmann, Max, to Kurt Korber & Co., K.-G. Machines for making recessed mouthpieces for filter cigarettes. 2,843,132, 7-15-58, Cl. 131—94.

Polymer Corp. Ltd.: *See*—
Eastham, Arthur M. 2,843,571.

Pomeroy, S. H., Co., Inc.: *See*—
Walsh, William L. 2,843,233.

Ponce, Lucien G., to Libbey-Owens-Ford Glass Co. Rear view mirror assembly. 2,843,017, 7-15-58, Cl. 88—77.

Pond, Anthony V.: *See*—
Lambeck, Raymond P., and Pond. 2,843,140.

Port, William S.: *See*—
Jordan, Edmund F., Jr., and Port. 2,843,574.

Porter, John L., to Kaiser Aluminum & Chemical Corp. Process for treating aluminous ores. 2,843,456, 7-15-58, Cl. 23—143.

Postlewaite, William R., to California Research Corp. Filling device for radioactive tracer injector. 2,843,163, 7-15-58, Cl. 141—366.

Poutre, Paul A.: *See*—
Hubert, James H., and Poutre. 2,843,101.

Powell, Robert A., to Sealol Corp. Comparator having fine adjustment by frame distortion. 2,842,854, 7-15-58, Cl. 33—147.

Powell, William N., 25% to D. A. Rush, U. H. Harter, and G. H. Thompson. Air filter and humidifier. 2,843,216, 7-15-58, Cl. 183—12.

Power Jets (Research and Development) Ltd.: *See*—
Smith, Austin G. 2,843,354.

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Klika, Zdenek. 2,842,907.

Pratt & Whitney Co., Inc.: *See*—
Dexter, Albert M., Jr. 2,842,851.

Preisig, Joseph O., to Radio Corp. of America. Direct current insertion apparatus. 2,843,660, 7-15-58, Cl. 178—7.3.

Prentice, Leon A. Three dimensional cam mechanism. 2,843,095, 7-15-58, Cl. 123—90.

Price, Osborne I., to Bendix Aviation Corp. Rotary electrical relay. 2,843,700, 7-15-58, Cl. 200—104.

Pritchard, J. F., & Co.: *See*—
Eickmeyer, Allen G., and Deschner. 2,842,941.

Procter & Gamble Co., The: *See*—
Harlan, Warren H. 2,842,911.

Proctor, Thomas D. Wrecker frame attachment. 2,843,360, 7-15-58, Cl. 254—139.1.

Prutton, Carl F., to The Lubrizol Corp. Method of alkylating. 2,843,634, 7-15-58, Cl. 260—612.

Pujol, Carlos. Spinning and winding device for textile fibers. 2,842,923, 7-15-58, Cl. 57—58.89.

Pulaski, John W., to General Electric Co. Refrigerator cabinet breaker strip. 2,843,286, 7-15-58, Cl. 220—9.

Pullman-Standard Car Mfg. Co.: *See*—
Norby, Harold L., and Jones. 2,843,059.
Shaver, William R. 2,842,809.

Pure Oil Co., The: *See*—
Jacobs, William L., and Annable. 2,843,528.
Sayre, Allyn T., Jr., Reark, Arens, and Wangelin. 2,842,958.
Uyehara, Otto A., and Myers. 2,842,956.

Purolator Products, Inc.: *See*—
Dudinec, Emery. 2,843,269.

Pyciak, Roman J., to Kent-Moore Organization, Inc. Shaft aligning gauge. 2,842,859. 7-15-58, Cl. 33—181.

Quick, Thomas E. Exhaust fan means. 2,843,036, 7-15-58, Cl. 98—43.

Quiros, Francisco A. Liquid level control. 2,842,970, 7-15-58. Cl. 74—18.1.

Qvefiander, Tor G. Method of feeding wood into continuously operating grinders for the production of wood pulp. 2,843,278, 7-15-58, Cl. 214—152.

Rabben, Ellis L. Photogrammetric caliper. 2,842,846, 7-15-58, Cl. 33—1.

Racine Industrial Plant, Inc.: *See*—
Rench, Harry D., Harris, Kelm, and Massie. 2,842,788

Radcliffe, Charles A.: *See*—
Coslow, Carl W., Pepperdine, and Radcliffe. 2,842,996.

Radio Corp. of America: *See*—
Chase, John A., Pilas, Wolke, and Battstone. 2,842,832
Glenn, Alvin B., and Ray. 2,843,741.
Hillier, James. 2,843,750.
Hook, Harvey O. 2,843,798.
Hook, Harvey O., and Knoll. 2,843,799.
Johnson, Edward O., and Hernqvist. 2,843,732.
Kjellsen, Arvid G. 2,842,923.
Lappin, Lester S. 2,843,817.
Meisenheimer, Raymond L. 2,843,661.
Pankove, Jacques I. 2,843,511.
Pettus, James L., and Singer. 2,843,446.
Preisig, Joseph O. 2,843,666.

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Schade, Otto H. 2,843,796.
Stocker, Arthur C. 2,843,739.
Talmage, Franklin E., and Feryeska. 2,843,803.
Valenti, Richard P. 2,843,737.
Weimer, Paul K. 2,843,772.

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Ramsey, Joseph D.: *See*—
Clausen, Clas W. 2,842,778.

Ranco Inc.: *See*—
Greenawalt, Frederick A. 2,843,151.
Raney, Eldon D. 2,843,322.

Raney, Eldon D., to Ranco Inc. Temperature control system for automobiles or the like. 2,843,322, 7-15-58, Cl. 236—87.

Ransom, George P.: *See*—
Doiss, John, Haefner, and Ransom. 2,843,096.

Ransom, George P., and J. Zimmerman, to General Motors Corp. Fuel metering mechanism. 2,843,099, 7-15-58, Cl. 123—119.

Rapisarda, Edward D., to Gilbert & Barker Mfg. Co. Luminous dial and signs for service station dispensing apparatus. 2,842,880, 7-15-58, Cl. 40—130.

Rasmusson, Marlin B. Stick confection machine. 2,842,921, 7-15-58, Cl. 53—159.

Rauland Corp., The: *See*—
Szegho, Constantin S. 2,843,777.

Rawe, Clifford L.: *See*—
Arterbury, Bryant P., and Rawe. 2,843,389.

Rawlings, Herbert W.: *See*—
Brown, Winton, and Rawlings. 2,843,610.

Ray, Robert H.: *See*—
Glenn, Alvin B., and Ray. 2,843,741.

Ray, William A., to General Controls Co. Thermoelectric generator. 2,843,648, 7-15-58, Cl. 136—4.

Raynolds, David W., to Eastman Kodak Co. Dry spinning process. 2,843,449, 7-15-58, Cl. 18—54.

Raytheon Mfg. Co.: *See*—
Carr, Amos J., Jr. 2,843,810.
Christian, Hugh S. 2,843,658.
Hergenrother, Rudolf C. 2,843,794.
Stats, Hermann, and Schenkel. 2,843,515.

Reark, Don W.: *See*—
Sayre, Allyn T., Jr., Reark, Arens, and Wangelin. 2,842,958.

Reass, Charles A.: *See*—
Gebelein, Charles F. W., and Reass. 2,843,626.

Reche, Kurt: *See*—
Hell, Rudolf, Lifferth, and Reche. 2,843,663.

Reed, John A., to Tootal Broadhurst Lee Co. Ltd. Wrapping of objects or goods in thermoplastic sheet material. 2,842,910, 7-15-58, Cl. 53—33.

Reets, Theodor: *See*—
Hardy, Edgar E., and Reets. 2,843,616.

Reeves, Melford L. Jaws for hinged rock crushers. 2,843,331, 7-15-58, Cl. 241—291.

Regan, William G., to Kay Mfg. Corp. Auxiliary furniture spring. 2,843,191, 7-15-58, Cl. 155—179.

Regan, William G., to Kay Mfg. Corp. Clip for sinuous springs. 2,843,193, 7-15-58, Cl. 155—179.

Regan, William G., to Kay Mfg. Corp. Wire clip for sinuous springs. 2,843,194, 7-15-58. Cl. 155—179.

Reichelderfer, Charles A.: *See*—
Campbell, Ned G., Norman, and Reichelderfer. 2,843,108.

Reid, Walter E., Jr.: *See*—
Senderoff, Seymour, and Reid. 2,843,541.

Reifers, Richard F., to Diamond Gardner Corp. Molded pulp carton lock. 2,843,304, 7-15-58, Cl. 229—29.

Reinhart, Harold C.: *See*—
Brodbeck, Almer H., and Reinhart. 2,843,199.

Reiss, Max, to Eastman Kodak Co. Optical zoom system. 2,843,016, 7-15-58. Cl. 88—57.

Rench Harry D., H. W. Harris, H. M. Kelm, and L. R. Massie, to Racine Industrial Plant, Inc. Carpet scrubbing machine. 2,842,788, 7-15-58, Cl. 15—48.

Renie, Jack J., J. E. Jones and V. W. Henderson. Saw sharpening apparatus. 2,842,983, 7-15-58, Cl. 76—41.

Renwans, Gerhard: *See*—
Engelhard, Hermann, Credner, and Renwans. 2,843,595.

Republic Steel Corp.: *See*—
Eppler, Lawrence W. 2,843,261.

Research Corp.: *See*—
Burton Charles L., and van Hoesen. 2,842,938.
Stork, Gilbert J. 2,843,603.
Streuber, Rudolf G. 2,843,215.

Ressler, Newton. Method of electrophoresis of serum proteins. 2,843,540, 7-15-58, Cl. 204—180.

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Trexler, Philip C. 2,842,773.

Reynolds, Marvin J.: *See*—
Franklin, Laurence W., and Reynolds. 2,843,660.

Rhodes, Alan, R. Crosse, and T. P. Ferguson, to Glaxo Laboratories Ltd. Production of griseofulvin in low nitrogen level medium. 2,843,527, 7-15-58, Cl. 195—81.

Rhodes, Thomas J., to United States Rubber Co. Rubber shaping and vulcanizing apparatus. 2,842,796, 7-15-58, Cl. 18—12.

Rhys, Cyril O., Jr.: *See*—
Borey, Daniel S., and Rhys. 2,843,460.

Riat, Henri, to Ciba Ltd. New azo-dyestuffs. 2,843,581, 7–15–58, Cl. 260—158.

Ricciardi, Louis G., and J. P. De Geronimo, to Colgate-Palmolive Co. Process for the preparation of fatty amides. 2,843,612, 7–15–58, Cl. 260—404.

Rich, Arthur. Automatic protective windshield pad. 2,843,420, 7–15–58, Cl. 296—84.

Richards-Wilcox Mfg. Co.: *See*—
Lesage, Robert F. 2,843,375.

Richardson, Kenneth W., Jr.: *See*—
Theis, Francis W., Richardson, Eisenlohr, and Shelton. 2,843,838.

Richmond Foundry & Mfg. Co.: *See*—
Nicholson, Allson W. 2,842,827.

Ricker, Eugene C., to Haloid Xerox Inc. Powder cloud generator. 2,843,295, 7–15–58, Cl. 222—180.

Ridenour, Louis N.: *See*—
Gottfried, Robert E., Hoffman, and Ridenour. 2,843,655.
King, Gilbert W., Hughes, Brown, Ridenour. 2,843,841.

Ridings, Garvice H.: *See*—
Wise, Raleigh J., and Ridings. 2,843,756.

Riedel, Frederick H., to Wood Conversion Co. Method and apparatus for treating impregnated fiber webs. 2,843,505, 7–15–58, Cl. 117—102.

Rieke, John W., to Bell Telephone Laboratories, Inc. Shunt clamper of the feedback type. 2,843,662, 7–15–58, Cl. 178—7.1.

Rinn, Frederick H., to Sylvania Electric Products Inc. Plate fin insert. 2,843,787, 7–15–58, Cl. 313—356.

Risley, Roger E., and H. L. Hoke, to Dresser Industries, Inc. Pipe repair clamp. 2,843,155, 7–15–58, Cl. 138—99.

Ritzerfeld Gerhard: *See*—
Ritzerfeld, Wilhelm and G. 2,843,039.

Ritzerfeld, Wilhelm and G. Selective printing process and apparatus. 2,843,039, 7–15–48, Cl. 101—132.5.

Roberts, Deering S. Device for temporarily closing a circuit. 2,843,689, 7–15–58, Cl. 200—61.4.

Roberts, Edward N.: *See*—
Lemmon, Norman E., Roberts, and Sabol. 2,843,579.

Robinson, Frank A., W. Dickinson, V. Petrow, and S. Wilkinson, to Allen & Hanburys Ltd., Boots Pure Drug Co. Ltd., The British Drug Houses Ltd., and The Wellcome Foundation Ltd. Insulin synthetic poly-amino acid complexes. 2,843,525, 7–15–58, Cl. 167—75.

Robinson, Lorne M., and V. L. Hining, to Phillips Petroleum Co. Liquid level device. 2,843,144, 7–15–58, Cl. 137—395.

Robot Appliances, Inc.: *See*—
Osuch, Francis J., and Krake. 2,843,376.
Osuch, Francis J., and Krake. 2,843,695.

Rocchini, Albert G., to Gulf Research & Development Co. Fuel oils. 2,843,200, 7–15–58, Cl. 158—117.5.

Rocchini, Albert G., to Gulf Research & Development Co. Fuel oils. 2,843,467, 7–15–58, Cl. 44—72.

Rockford Drop Forge Co.: *See*—
Johnson, F Helmer. 2,842,856.

Rocky Mountain Metal Products Co.: *See*—
Brunson, Thayer R. 2,843,723.

Rodal, Ralph, to National Automatic Tool Co., Inc. Rotary indexing apparatus. 2,842,986, 7–15–58, Cl. 77—64.

Roeber, Henry W., to Sylvania Electric Products Inc. Tube transfer mechanism. 2,843,272, 7–15–58, Cl. 214—1.

Rogers, Gerald L., to Stile-Craft Manufacturers, Inc. Bayonet slot coupling provided with ball anti-friction means also sleeve manipulation. 2,843,401, 7–15–58, Cl. 285—82.

Rohm & Haas Co.: *See*—
De Benneville, Peter L. 2,843,587.
McKeever, Charles H. 2,843,600.
Melamed, Sidney. 2,843,573.
Melamed, Sidney. 2,843,586.

Rolin, Carl G. Work holder. 2,842,005, 7–15–58, Cl. 51—216.

Roll, Edward R. Device for inducing sleep. 2,843,111, 7–15–58, Cl. 128—1.

Rolls-Royce Ltd.: *See*—
Bastow, Geoffrey. 2,843,397.
Gresham, Harold E., and Hall. 2,842,835.

Rolly, Heinrich: *See*—
Leditschke, Heinrich, Rolly, and Schmidt-Ruppin. 2,843,594.

Roots, William K., to Pioneer Electric Brandon Ltd. Automatic electric switching system. 2,843,759, 7–15–58, Cl. 307—34.

Roschen, John: *See*—
Schnable, George L., and Roschen. 2,842,841.

Roschke, Erwin M.: *See*—
Adler, Robert, and Roschke. 2,843,657.
Morris, George V., Roschke, Druz, and Miller. 2,843,656.

Rosier, Gerardus, and H. Volkers, to North American Philips Co., Inc. Impulse-converting circuit-arrangement. 2,843,766, 7–15–58, Cl. 307—88.5.

Ross, Harold M., to Wallace A. Erickson & Co. Relocating holes in bowling balls. 2,843,382, 7–15–58, Cl. 273—63.

Roth, Grant V. W., and L. V. Walsh. Aircraft lighting and signaling structure. 2,843,728, 7–15–58, Cl. 240—7.7.

Roth, Grant V. W., and L. V. Walsh. Signal light for marine aviation and vehicular use. 2,843,834, 7–15–58, Cl. 340—25.

Rothe, Richard E.: *See*—
Bletzinger, John C. Day, and Rothe. 2,843,125.

Rothhaupt, Karl, to Rowe Mfg. Co., Inc. Merchandising machine cabinet. 2,843,438, 7–15–58, Cl. 312—222.

Rowe, Frederick G.: *See*—
Botty, Martin C., and Rowe. 2,843,751.

Rowe Mfg. Co., Inc.: *See*—
Gabrielsen, Christian, and Erickson. 2,843,242.
Rothhaupt, Karl. 2,843,438.

Roseck, Kurt, to Kumag A. G. Maschinenfabrik. Riveting machine. 2,842,989, 7–15–58, Cl. 78—53.

Rosner, Joseph J., to Parkersburg-Aetna Corp. One-way clutch. 2,843,238, 7–15–58, Cl. 192—45.

Rued, Fred H., to Baldwin-Lima-Hamilton Corp. Balancer for water wheels. 2,842,066, 7–15–58, Cl. 73—474.

Ruegg, Rudolf: *See*—
Isler, Otto, Montavon, Ruegg, and Zeller. 2,843,631.

Ruf-Buchhaltung Akt.: *See*—
Maurer, Hans. 2,843,246.

Runde, Byron A., to Burroughs Corp. Roll paper rewinding means for business machines. 2,843,247, 7–15–58, Cl. 197—133.

Rush, Darrel A.: *See*—
Powell, William N. 2,843,216.

Rush, June W. Bypass circuit. 2,843,677, 7–15–58, Cl. 179—1.

Rushton, Eugene R. Universal mortise and boring jig for door locks. 2,843,167, 7–15–58, Cl. 144—76.

Russell, Fred J. Camming lock mechanism. 2,842,952, 7–15–58, Cl. 70—216.

Russell, Roy V.: *See*—
Wiley, Allen D., and Russell. 2,843,179.

Russell, William W.: *See*—
Allen, Herman C., and Russell. 2,842,828.

Rust, John B.: *See*—
Martin, James W., Heasel, Hammer, and Rust. 2,843,256.

Rust, John B., ½ to Montclair Research Corp., and ½ to Ellis-Foster Co. Fumaric acid isomerization. 2,843,628, 7–15–58, Cl. 260—537.

Rust, John B., ½ to Montclair Research Corp., and ½ to Ellis-Foster Co. Recovery of fumaric acid. 2,843,629, 7–15–58, Cl. 260—537.

Ruterman, Ernie R.: *See*—
Thalmer, Samuel, and Ruterman. 2,843,837.

Ryan, Robert D.: *See*—
Carter, Lyle E., and Ryan. 2,842,906.

Rymills, Alfred W., to Buckeye Iron & Brass Works. Soft closing nozzle valve. 2,843,148, 7–15–58, Cl. 137—599.2.

Sabol, Albert R.: *See*—
Lemmon, Norman E., Roberts, and Sabol. 2,843,579.

Safford, Moyer M., to General Electric Co. Composition containing epoxy resin, polyvinyl chloride, and plasticizer. 2,843,557, 7–15–58, Cl. 260—30.6.

Sagura, John J.: *See*—
Allen, Charles F. H., and Sagura. 2,843,491.

St. John, Ercell E., to Hughes Aircraft Co. Automatic gain control circuit for use with photoconductive devices. 2,843,757, 7–15–58, Cl. 250—214.

Salo, Martin, and G. J. Clarke, to Eastman Kodak Co. Corrosion resisting coatings. 2,843,503, 7–15–58, Cl. 117—85.

Samuels, Harry C. Detachable mounting for boat seats. 2,843,848, 7–15–58, Cl. 248—194.

Sanden, Olof J. Rain protecting device, especially for hatchways on ships. 2,843,273, 7–15–58, Cl. 214—15.

Sandoz Trust: *See*—
Thummel, Ludwig, Metager, and Guenthard. 2,843,448.

Sands, Hillard J., to The Harvard Mfg. Co. Bedframe having special end plate and cross rail means therein. 2,842,782, 7–15–58, Cl. 5—282.

Sarkes Tarzian, Inc.: *See*—
Lewis, Chalmer H., Jr. 2,843,683.

Sarring, Ernest J., O. Kile, and T. W. Mayer, to R. R. Donnelley & Sons Co. Integrated imprinting and labelling machine. 2,843,283, 7–15–58, Cl. 216—1.

Saul & Co.: *See*—
Thummel, Ludwig, Metager, and Guenthard. 2,843,448.

Sayles Finishing Plants, Inc.: *See*—
Allen, Herman C., and Russell. 2,842,828.

Sayre, Allyn T., Jr., D. W. Reark, A. H. Arens, and D. J. Wangelin, to The Pure Oil Co. Apparatus for measuring flow characteristics of porous specimens by displacement. 2,842,958, 7–15–58, Cl. 73—38.

Schade, Otto H., to Radio Corp. of America. Power supply regulation. 2,843,796, 7–15–58, Cl. 315—22.

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Sladek, Achilles L. 2,843,060.

Schafer, Robert A., to National Automatic Tool Co., Inc. Machine tool processing apparatus. 2,842,967, 7–15–58, Cl. 77—64.

Schauer, Arlene R. Skirt holding bracket. 2,843,196, 7–15–58, Cl. 155—188.

Schenkel, Hans.: *See*—
Statz, Hermann, and Hans. 2,843,515.

Scherer, R. P., Corp.: *See*—
Scherer, Robert P. 2,842,797.

Scherer, Robert P., to R. P. Scherer Corp. Film forming device. 2,842,797, 7–15–58, Cl. 18—15.

Schindler, Cyril B. Key case and key. 2,842,954, 7–15–58, Cl. 70—456.

Schlumberger Well Surveying Corp.: *See*—
Doll, Henri G. 2,842,961.
Goodman, Clark. 2,843,752.
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Schmidt, Ekhart O., to Daimler-Benz Akt. Means for carbureting air for combustion in an engine. 2,843,368, 7–15–58, Cl. 261—79.

Schmidt, Irene R. Sanitary belt. 2,843,126, 7–15–58, Cl. 128—291.

Schmidt, John, to Guardian Electric Mfg. Co. Header for electrical devices and method of making the same. 2,843,708, 7–15–58, Cl. 200—166.

Schmidt, Theodore G. Golf putter. 2,843,384, 7–15–58, Cl. 273—80.

Schmidt-Ruppin, Heinrich: *See*—
Leditschke, Heinrich, Rolly, and Schmidt-Ruppin. 2,843,594.

Schnable, George L., and J. Roschen, to Philco Corp. Method of soldering leads to semi-conductor devices. 2,842,841, 7–15–58, Cl. 29—495.

Schnadt, Henri. Testing instruments with means for centering test bodies. 2,842,960, 7–15–58, Cl. 73—101.

Schneider, Wilhelm. Injection pumps. 2,843,043, 7–15–58, Cl. 103—40.

Schnider, Otto: *See*—
Brossi, Arnold, Schnider, and Walter. 2,843,591.

Schott, Stuart: *See*—
Hansley, Virgil L., and Schott. 2,843,622.
Hansley, Virgil L., and Schott. 2,843,623.

Schretzmayer, John, Jr., to American Telephone and Telegraph Co. Program transmission reversible network. 2,843,662, 7–15–58, Cl. 179—171.

Schultheis, Heinz, and D. Delfs, to Farbenfabriken Bayer Akt. Condensation products. 2,843,564, 7–15–58, Cl. 260—49.

Schultz, Julius O., and T. F. Cruainberry, to Ford Motor Co. Corn picker snapping rolls. 2,842,929, 7–15–58, Cl. 56—103.

Schuls, William L.: *See*—
Smith, Hiram B. and Schuls. 2,843,719.

Schumann, Richard W. K.: *See*—
Naillinger, Friedrich K. H., Uhlenhaut, and Schumann. 2,842,980.

Schwab, Hans: *See*—
Wahl, Georg, and Schwab. 2,843,417.

Schwabe, Kurt, to Tissomat A. G. Brake tongues for the compartments of shuttle boxes in looms. 2,843,157, 7–15–58, Cl. 139—185.

Schwartz Daniel M., to Elmco Corp. Material handling machine. 2,843,213, 7–15–58, Cl. 180—53.

Schwartz, Kenneth. Walkers' aids. 2,843,180, 7–15–58, Cl. 155—22.

Schwartz, Lawrence, to Cue Fastener, Inc. Apparatus for weaving narrow fabrics such as tapes, ribbons and the like. 2,843,156, 7–15–58, Cl. 139—18.

Schwartz, Sidney, to Bantam-Lite, Inc. Flashlight. 2,843,730, 7–15–58, Cl. 240—10.65.

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Scigliano, Joseph J., and E. C. Britton, to The Dow Chemical Co. Preparation of piperazines. 2,843,590, 7–15–58, Cl. 260—268.

Scott, Cleveland R.: *See*—
Ayers, Arnold L., and Scott. 2,842,936.

Scott, Larkin B., to The Perkin-Elmer Corp. Precision transducer. 2,843,822, 7–15–58, Cl. 328—43.5.

Scott, Masson & Co. Ltd.: *See*—
Battersby, James E. 2,843,377.

Scott, Robert W.: *See*—
Westlund, Roy A., Jr., and Scott. 2,843,548.

Scossafava, Milton V., and R. E. Busch, to Clary Corp. Platen line spacing mechanism. 2,843,245, 7–15–58, Cl. 197—123.

Scriver, Bert S. Rain actuated means for operating lawn sprinkler systems. 2,843,693, 7–15–58, Cl. 200—85.

Seal, Henry R. Dental polishing disk. 2,842,844, 7–15–58, Cl. 32—59.

Sealol Corp.: *See*—
Powell, Robert A. 2,842,854.

Searle, G. D., & Co.: *See*—
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Colton, Frank B. 2,843,609.

Searle, Norman E., to E. I. du Pont de Nemours and Co. Process and product. 2,843,470, 7–15–58, Cl. 71—2.3.

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Parker, James. 2,843,439.

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Digby-Smith, Rodman, and Sefton-Jenkins. 2,842,786.

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Hawkins, James E. 2,843,840.

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Servigne, Marcel, and E. Szarvasi, to l'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude. Process of preparing esters. 2,843,607, 7–15–58, Cl. 260—347.5.

Sevison, Luther E., to H. G. Staude Mfg. Co., Inc. Machine for making plastic boxes. 2,843,027, 7–15–58, Cl. 93—45.

Shapiro, Seymour L.: *See*—
Freedman, Louis, and Shapiro. 2,843,523.

Sharp, John R.: *See*—
Arnot, Alfred E. R., and van Hooydonk. 2,843,141.

Sharples, Arthur E. Method of making a frozen confection. 2,843,493, 7–15–58, Cl. 99—136.

Shaver, William R., to Pullman-Standard Car Mfg. Co. Laterally movable door arrangement. 2,842,809, 7–15–58, Cl. 20—26.

Sheft, Matthew J. Hypodermic syringe defreezing means and method. 2,843,508, 7–15–58, Cl. 134—22.

Shell Development Co.: *See*—
Crake, Wilfred S. 2,843,054.
Mika, Thomas F. 2,843,560.
Penther, Carl J. 2,843,147.
Yust, Venard E., and Bame. 2,843,465.

Shelton, Nancy E. Automobile windshield awning. 2,843,421, 7–15–58, Cl. 296—95.

Shelton, Robert D.: *See*—
Theis, Francis W., Richardson, Eisenlohr, and Shelton. 2,843,638.

Shere, Gerald D.: *See*—
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Sherron, Emmitt B. Self-propelled logging machine for cutting and processing trees. 2,843,165, 7–15–58, Cl. 143—43.

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Shuert, Cecil G. Producing a flush photographic print on a paint surface. 2,843,480, 7–15–58, Cl. 96—27.

Shukay, Thomas R. Apparatus for analysing shock wave pattern. 2,842,809, 7–15–58, Cl. 35—19.

Shultz, Edward L., to Endicott Johnson Corp. Safety shoe. 2,842,872, 7–15–58, Cl. 36—72.

Shumaker, Lawrence E. and C. I. Beck, to Everman Mfg. Co. Land levelers. 2,842,874, 7–15–58, Cl. 37—153.

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Hell, Rudolf, and Daudt. 2,843,670.
Hell, Rudolf, Lifferth, and Reche. 2,843,663.

Siemens-Schuckertwerke Akt.: *See*—
Jerlet, Adolf. 2,843,516.
Kafka, Wilhelm, Sichling, and Techermak. 2,843,763.

Sieverts, William C. Life jacket. 2,842,785, 7–15–58, Cl. 9—20.

Sifrin, Andreas, and O. Lotz, to The Babcock & Wilcox Co. Fuel burning apparatus. 2,843,065, 7–15–58, Cl. 110—28.

Sigworth Harrison W., and E. J. McLaughlin, to California Research Corp. Method and apparatus for removing combustion chamber deposits. 2,843,645, 7–15–58, Cl. 123—148.

Sikorsky, Igor I., to United Aircraft Corp. Dual purpose landing gear. 2,843,345, 7–15–58, Cl. 244—103.

Simmons, Jeanette: *See*—
Simmons, John H. 2,843,369.

Simmons, John H., deceased, by J. Simmons, administratrix. Impact means for breaking up frozen ground. 2,843,369, 7–15–58, Cl. 262—033.

Simon, George F., M. J., J. G., and L. F. Bucking horse apparatus. 2,843,380, 7–15–58, Cl. 272—53.1.

Simon, Jerome G.: *See*—
Simon, George F., M. J., J. G., and L. F. 2,843,390.

Simon, Leo F.: *See*—
Simon, George F., M. J., J. G., and L. F. 2,843,380.

Simon, Marus J.: *See*—
Simon George F., M. J., J. G., and L. F. 2,843,380.

Simon, Walter E. A., one-half to B. E. Smith. Thermoplastic condensation product of benzylated wood with acetophenone and method of preparing same. 2,843,578, 7–15–58, Cl. 260—124.

Simpkins, William. Stands or tables having retractable casters. 2,843,392, 7–15–58, Cl. 280—44.

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Pettus, James L., and Singer. 2,843,446.

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Happe, Reynold. 2,843,710.
Herbst, Edward J. 2,843,336.

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Hunter, William A., and Singleton. 2,842,803.
Hunter, William A., and Singleton. 2,842,804.

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Sire, Edouard M., to Bar-Zim Toy Mfg. Co., Inc. Magnetic toys. 2,842,896, 7–15–58, Cl. 46—238.

Sitte, Heilmuth. Microtome, particularly ultra-microtome. 2,843,014, 7–15–58, Cl. 88—40.

Six, Willem, R. L. Wittebol, and R. A. Koolhof, to North American Philips Co., Inc. Synchronized generator. 2,843,669, 7–15–58, Cl. 178—69.5.

Skellett, Albert M., to National Union Electric Corp. Magnetized record signal reproduction system. 2,843,678, 7–15–58, Cl. 179—100.2.

Sladek, Achilles L., to Schafer Equipment Co. Rotary lading strap anchor. 2,843,060, 7–15–58, Cl. 105—369.

Slate, Matthew W., to Allen B. Du Mont Laboratories, Inc. Electrical inductance. 2,843,829, 7–15–58, Cl. 336—200.

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Slayton, Ransom D., to Teletype Corp. Line feed suppression device. 2,843,667, 7–15–58, Cl. 178—25.

Sloan, Harry E., and L. B. Swanson, to The Cushman Chuck Co. Chuck. 2,843,369, 7–15–58, Cl. 279—3.

Sloan, Peter. Article tallying apparatus. 2,843,321, 7–15–58, Cl. 235—98.

Smith, A. O., Corp.: *See*—
Andrus, Orrin E. 2,843,052.
Granberg, Neil B. 2,843,725.
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Smith, Austin G., to Power Jets (Research and Development) Ltd. Turbine and like blades. 2,843,354, 7–15–58, Cl. 253—39.15.

Smith, Bernard E.: *See*—
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Smith, Brook L., and F. W. Banes, to Esso Research and Engineering Co. Fluid coke agglomeration, calcination and desulfurization. 2,843,533, 7–15–58, Cl. 202—22.

Smith, Donald A., to Eastman Kodak Co. Cyanoacetamidophthalic anhydrides and derivatives thereof. 2,843,605, 7–15–58 Cl. 260—346.3.

Smith, Donald H., to Bell Telephone Laboratories, Inc. Tone generator. 2,843,745, 7–15–58, Cl. 250—36.

Smith, Frank J.: *See*—
Smith, Warren L. and F. J. 2,843,068.

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Smith, Jim A.: *See*—
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Smith, John W., to Grass Valley Products Co. Trash burner cover unit. 2,843,064 7–15–58, Cl. 110—18.

Smith, Warren L. and F. J. Seed tape planter. 2,843,068, 7–15–58, Cl. 111—5.

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Societe Chimique de la Grande Paroisse, Azote et Produits Chimiques: *See*—
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Societe d'Applications et de Constructions pour Materiel Automobile S. A. C. M. A.: *See*—
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Societe des Accumulateurs Fixes et de Traction (Societe Anonyme): *See*—
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Bens, William G., Jr., Sohn, and Steele. 2,843,727.

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Sommer, Murray M., to Mid-States Steel & Wire Co. Wire coil container. 2,843,260, 7–15–58, Cl. 206—59.

Soref, Harry E., and D. J. Foote, to Master Lock Co. Tamperproof locking lever equipped padlocks. 2,842,950, 7–15–58 Cl. 70—38.

Southworth, James, Jr., H. W. Holland, and J. P. Badger, to Carbide Corp. Cover seal. 2,843,651, 7–15–58, Cl. 136—133.

Spalding, A. G., & Bros., Inc.: *See*—
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Spano, Vincent J. Apparatus for forming and pressing garments. 2,842,875 7–15–58, Cl. 38—16.

Spare, Gordon T.: *See*—
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Manns, Edward T., Morgan, Oom, Spencer and Weaver. 2,843,187.

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Spencer, Gerald V., to American Seating Co. Folding chair. 2,843,188, 7–15–58, Cl. 155—142.

Sperry Products, Inc.: *See*—
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Sperry Rand Corp., Ford Instrument Co. Division: *See*—
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Spindler, Joseph P., Jr., to Westinghouse Electric Corp. Rotary fluid handling apparatus. 2,843,357, 7–15–58, Cl. 253—78.

Staker, William P., R. B. Jacobs, and A. C. Borg, to Standard Oil Co. Radioactive inspection of housings. 2,843,755, 7–15–58, Cl. 250—106.

Stallard, Rose G. Adjustable chair seat. 2,843,182, 7–15–58, Cl. 155—88.

Stammerjohn, Lambert W., to Bell Telephone Laboratories, Inc. Magnetic amplifiers. 2,843,813, 7–15–58, Cl. 318—207.

Stampfl, Joseph G.: *See*—
Kridel, Donald J., Wadman, and Stampfl. 2,843,483.

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Lemmon, Norman E., Roberts, and Sabol. 2,843,579.
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Stanton, George T., and R. H. Sherman, Jr., to Dictaphone Corp. Indicator marking system for dictating machines. 2,843,388, 7–15–58, Cl. 274—17.

Stanton, Lyman S., to California Research Corp. Temperature controller for an adibatic vessel. 2,843,714, 7–15–58, Cl. 219—20.

Staples, Robert G., Jr., to Link-Belt Co. Switch actuating mechanism. 2,843,692, 7–15–58, Cl. 200—85.

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Stats, Hermann, and H. Schenkel, to Raytheon Mfg. Co. Semiconductive devices. 2,843,515, 7–15–58, Cl. 148—33.

Staude, H. G., Mfg. Co., Inc.: *See*—
Sevison, Luther E. 2,843,027.

Stayner, Richard D., to California Research Corp. Synthetic detergent compositions. 2,843,550, 7–15–58, Cl. 252—152.

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Surrey, Alexander R. 2,843,585.

Stern, Robert G., and T. C. Wakefield, to United States of America, Navy. Gross weight system for flight trainer. 2,842,868, 7–15–58, Cl. 35—12.

Stevens, Bert V., to Eastman Kodak Co. Adjustable episcopic illumination for the contour projector. 2,843,009, 7–15–58, Cl. 88—24.

Stevens, Herbert A. Key tags. 2,842,877, 7–15–58, Cl. 40—2.

Stevensen, Charles A., to The Heinn Co. Debossed printed book cover. 2,842,884, 7–1–58, Cl. 41—24.

Stevenson, Robert, to Magnetic Seal Corp. Rotary seal. 2,843,403, 7–15–58, Cl. 286—11.15.

Steward, Lewis B., and J. S. Hawkins, to Jennings Radio Mfg. Corp. Vacuum relay. 2,843,701, 7–15–58, Cl. 200—104.

Stewart, Douglass M., to Esso Research and Engineering Co. Deep perforation of subsurface formations. 2,843,041, 7–15–58, Cl. 102—21.6.

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Stopps, Alfred L. Lift truck stacker. 2,843,280, 7–15–58, Cl. 214—620.

Stopps, Alfred L. Bin. 2,843,291, 7–15–58, Cl. 220—97.

Stork, Gilbert J., to Research Corp. 2-methyl-2-corboxymethylcyclopentanol - 3 - carboxylic acid lactone and preparation thereof. 2,843,603, 7–15–58, Cl. 260—343.3.

Stors, Charles R., to Stors Instrument Co. Adenotone. 2,843,128, 7–15–58, Cl. 128—309.

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Stors, Charles R. 2,843,128.

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Stoyke, Ludwig T., and E. Babniuk, to Lear, Inc. Liquid dispensing nozzle and adapted therefor. 2,843,162, 7–15–58, Cl. 141—346.

Stoynich, Peter N., to General Electric Co. Food waste disposer. 2,843,328, 7–15–58, Cl. 241—46.

Straley, James M., and D. J. Wallace, to Eastman Kodak Co. Metallized azo dyes prepared by coupling amino-phenols to diphenylamines. 2,843,580, 7–15–58, Cl. 260—149.

Streib, Homer F. Circular wing aircraft having pressure induced radial airflow. 2,843,338, 7–15–58, Cl. 244—12.

Streib, Homer F. Circular wing aircraft having suction induced radial airflow. 2,843,339, 7–15–58, Cl. 244—12.

Streuber, Rudolf G., to Research Corp. Automatic precipitator control. 2,843,215, 7–15–58, Cl. 183—7.

Stricklen, Raymond, to Allied Research Products, Inc. Mixture and method for imparting a corrosion-resistant surface to aluminum, aluminum alloys, and silver. 2,843,513, 7–15–58, Cl. 148—6.2.

Strombeck-Becker Mfg. Co.: *See*—
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Struve, William S., to E. I. du Pont de Nemours and Co. Pigment composition. 2,843,498, 7–15–58, Cl. 106—288.

Stuckey, Benjamin N., and W. M. Gearhart, to Eastman Kodak Co. Wax coatings containing synergistic antioxidants. 2,843,497, 7–15–58, Cl. 106—287.

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Stukenborg, Louis C., 50% to H. V. Utterback. Lock for turnbuckles. 2,843,408, 7–15–58, Cl. 287—60.

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Sturrup, Robert B. Relay mechanisms. 2,843,696, 7–15–58, Cl. 200—87.

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Suzuki, Kensaku. Apparatus for electro-anesthesia by means of contact electricity. 2,843,127, 7-15-58, Cl. 128—303.1.
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Kerstetter, Donald R., and Wennin. 2,843,517.
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Hunter, William A., and Singleton. 2,842,804.
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Ward, Elmer F. 2,843,343.
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Thauer, Rudolf, H. R. Greider, and J. V. Correale, Jr. Regulating mechanism for inhalation and exhalation with apparatus for supplying oxygen. 2,843,120, 7-15-58, Cl. 128—144.
Theis, Francis W., K. W. Richardson, Jr., D. H. Eisenlohr, and R. D. Shelton, to Columbia-Southern Chemical Corp. Dehydrochlorination of tetrachloroethane. 2,843,638, 7-15-58 Cl. 260—654.
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Thompson, John W., and W. V. McConnell, to Eastman Kodak Co. Stabilized hydrocarbon compositions and antioxidant therefor. 2,843,468, 7-15-58, Cl. 44—74.
Thompson, Lee L. Diverter valve sampler. 2,842,965, 7-15-58, Cl. 73—422.
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Thummel, Ludwig, E. Metzger, and J. Guenthard, to Saul & Co., nominee of Fidelity Union Trust Co., executive trustee under Sandos Trust. Dyeing and printing of cellulose esters and of linear aromatic polyesters with monosulfonated anthraquinones. 2,843,448, 7-15-58, Cl. 8—57.
Tien, Ping K., to Bell Telephone Laboratories, Inc. Traveling wave tube electron gun. 2,843,776, 7-15-58, Cl. 313—85.
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Tillery, Hubert B., to Tillery Container Co. Garment hanger guards. 2,843,299, 7-15-58, Cl. 223—98.
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Tipper, Maynard J. G. Automatic stringing of fastened casing ends. 2,842,919, 7-15-58, Cl. 53—135.
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Tomasaint, Emilia. Folding cabin for camping purposes. 2,842,806, 7-15-58, Cl. 20—2.
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Tracy, Glen M. Individual tap instantaneous water heater. 2,843,717, 7-15-58, Cl. 219—39.
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Travilla, James C., and J. J. Zach, to General Steel Castings Corp. Railway truck bolster structure. 2,843,058, 7-15-58, Cl. 105—230.
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Trexler, Philip C., to Reyniers & Son. Joint for connecting flexible tubular members. 2,842,773, 7-15-58, Cl. 2—270.
Tripp, Robert W., to Inductosyn Corp. Three dimensional machine control servosystem. 2,843,811, 7-15-58, Cl. 318—19.
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CLASSIFICATION OF PATENTS

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NOTE.—First number = class, second number = subclass, third number = patent number

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48: 2,843,801
83: 2,843,802
107: 2,843,803
178: 2,843,804
260: 2,843,805
316— 30: 2,843,445
317— 100: 2,843,806
176: 2,843,807
187: 2,843,808
235: 2,843,809
318— 19: 2,843,810
2,843,811
134: 2,843,812
207: 2,843,813
320: 2,843,814
321— 2: 2,843,815
8: 2,843,816
13: 2,843,817
16: 2,843,818
49: 2,843,819
323— 22: 2,843,820
43. 5: 2,843,822
324— 30: 2,843,823
41: 2,843,821
121: 2,843,824
144: 2,843,825
325— 44: 2,843,826
333— 5: 2,843,827
73: 2,843,828
326— 200: 2,843,829
330— 5: 2,843,830
89: 2,843,831
91: 2,843,832
93: 2,843,833
340— 35: 2,843,834
81: 2,843,835
87: 2,843,836
149: 2,843,837
186: 2,843,838
172: 2,843,839
173: 2,843,840
2,843,841
199: 2,843,842
276: 2,843,843
288: 2,843,844
278: 2,843,845
343— 105: 2,843,846
121: 2,843,847
205: 2,843,848
346— 74: 2,843,446
110: 2,843,447

Classification of Designs

D 3—13: Des. 183,222
D 4— 3: Des. 183,214
D 9— 3: Des. 183,192
Des. 183,225
D13— 1: Des. 183,226
D14— 3: Des. 183,195
Des. 183,208

D14— 6: Des. 183,194
80: Des. 183,209
D20—23: Des. 183,197
Des. 183,198
Des. 183,199
Des 183,200
Des. 183,201

D20—23: Des. 183,202
Des. 183,203
Des. 183,204
Des. 183,205
Des. 183,206
D32— 8: Des. 183,215
D34— 5: Des. 183,223

D34—14: Des. 183,217
18: Des. 183,224
D44—20: Des. 183,220
D48—16: Des. 183,210
D49— 1: Des. 183,191
D62— 1: Des. 183,212
Des. 183,213

D65— 1: Des. 183,227
D68— 4: Des. 183,211
26: Des. 183,229
D81— 1: Des. 183,218
Des. 183,228
D82— 2: Des. 183,196
D84—11: Des. 183,193

D71— 1: Des. 183,230
D74— 1: Des. 183,207
D80— 8: Des. 183,219
D81—10: Des. 183,216
24: Des. 183,231
D83— 1: Des. 183,232
D93— 1: Des. 183,221

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

July 15, 1958 Volume 732 Number 3

TRADEMARKS

NOTICES

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancelation will be proceeded with as in the case of default.

Richard Bradley, Chicago, Ill., Reg. No. 438,205, Canc. No. 7086.

Fred R. Williamson, Chicago, Ill., Reg. No. 568,204, Canc. No. 7098.

Saranac Sales, Inc., New York, N. Y., Reg. No. 432,706. Canc. No. 7104.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

Change in Rules of Practice

Notice was given in the Federal Register of June 6, 1958, (23 F. R. 3968) of the following change in the Rules of Practice which will take effect July 7, 1958:

1. Paragraph (n) of Rule 21 is amended to read as follows:

(n) Search of Patent Office records for purposes not otherwise specified in this section, per hour of search or fraction thereof..... $3.00

2. Paragraph (o) of Rule 21 is deleted.

CONDITION OF TRADEMARK APPLICATIONS AS OF MAY 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	11,801
Date of oldest new application	Oct. 29, 1957
Date of oldest amended application	Oct. 7, 1957

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	11-7-57	10-7-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	10-29-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52, and Certification Marks	11-6-57	12-16-57
Renewals (All Classes)	5-2-58	5-20-58
Sec. 12 (c) Publications (All Classes)	5-10-58	5-26-58

Applications Filed During the Month of May 1958—1,942

Registrations Issued	346—No. 664,218 to No. 664,563
Renewals Issued	56

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $3.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.6.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 28,247. Fleming-Joffe, Ltd., New York, N. Y. Filed Apr. 16, 1957.



No claim is made to the word "Calf" apart from the mark as shown.

For Leather.

First use Mar. 25, 1957.

SN 30,002. Land O'Lakes Creameries, Inc., Minneapolis, Minn. Filed May 15, 1957.



For Field Seeds; Garden Seeds; Seed Corn; Grass Seeds; Lawn Seeds and Farm Seeds.

First use October 1932.

SN 30,243. Haveg Industries, Inc., Wilmington, Del. Filed May 17, 1957.

PLANETON

For High Temperature Resistant Plastic Material Used for Making Parts of Jet Missiles.

First use Apr. 4, 1957.

SN 30,244. Haveg Industries, Inc., Wilmington, Del. Filed May 17, 1957.

MERCURON

For High Temperature Resistant Plastic Material Used for Making Parts of Jet Missiles.

First use Apr. 4, 1957.

SN 30,245. Haveg Industries, Inc., Wilmington, Del. Filed May 17, 1957.

SATELLON

For High Temperature Resistant Plastic Material Used for Making Parts of Jet Missiles.

First use Apr. 4, 1957.

SN 30,246. Haveg Industries, Inc., Wilmington, Del. Filed May 17, 1957.

ORBITON

For High Temperature Resistant Plastic Material Used for Making Parts of Jet Missiles.

First use Apr. 15, 1957.

SN 31,121. Hewitt-Robins Incorporated, New York, N. Y. Filed May 31, 1957.

HEWITEX

For Urethane Foam in Slab and Sheet Form.

First use in or about November 1956.

SN 32,406. Nopco Chemical Company, Harrison, N. J. Filed June 21, 1957.

NOPCOCELL

Owner of Reg. Nos. 121,927, 349,176, and 539,973.

For Polyurethane Foamed Plastic for General Uses.

First use May 20, 1957.

SN 37,006. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Sept. 11, 1957.

ALKYNOL

Owner of German Reg. No. 628,427, dated Oct. 16, 1952.

For Raw and Partly Prepared Resinous Products for Use in the Production of Varnishes, Lacquers, Mordants, Synthetic Plastics, Adhesives, and the Like.

SN 37,989. Uni-Gum Corporation, New York, N. Y. Filed Sept. 27, 1957.

UNI-AGA

For Dry Powdered Seaweed Extract Useful Inter Alia as a Gelling Agent.

First use Jan. 29, 1954.

SN 38,698. Keistone Rubber Co., Inc., Warren, R. I. Filed Oct. 10, 1957.

CELOAIR

For Closed-Cell Sponge Rubber, in Sheet Form, Useful as Insulation, Soundproofing, Shock Cushioning and Vibration Control, and in Making Gaskets, Seals, and Shoe Soles.

First use Sept. 11, 1957.

SN 38,991. The Great Atlantic and Pacific Tea Company, New York, N. Y. Filed Oct. 16, 1957.



For Flower Bulbs.

First use Aug. 29, 1957.

SN 42,215. Haveg Industries, Inc., Wilmington, Del. Filed Dec. 11, 1957.

ASTERON

For High Temperature Resistant Plastic Material Used for Making Parts of Jet Missiles.

First use Nov. 12, 1957.

Class 2—Receptacles

SN 13,938. Henry D. Swarts, d. b. a. Swarts Manufacturing Co., Dorchester, Mass. Filed Aug. 14, 1956.

HERITAGE

For Closet Accessories—Namely, Garment Bags.

First use in May 1956.

SN 36,935. Thermos Limited, London, England. Filed Sept. 9, 1957.

SURINO

Owner of British Reg. No. 760,422, dated Dec. 12, 1956.

For Receptacles and Component Parts Thereof—Namely, Vacuum Flasks; Vacuum Jugs; Vacuum Jars and Their Component Parts; Thermally Insulated Containers of the Portable Picnic Type and Their Component Parts.

SN 39,876. Hammond Iron Works, Warren, Pa. Filed Oct. 31, 1957. Sec. 2(f).

HAMMOND

Owner of Reg. No. 614,637.

For Tanks for Storing Liquids and Floating Covers for Such Tanks.

First use during 1916.

Class 4—Abrasives and Polishing Materials

SN 40,154. South River Sand Company, Old Bridge, N. J. Filed Nov. 5, 1957. Sec. 2(f).



The drawing is lined for the color red. Owner of Reg. No. 564,243.

For Abrasive and Polishing Sands for Sand Blasting.

First use Dec. 26, 1950.

SN 43,346. Seeman Brothers, Inc., New York, N. Y. Filed Jan. 2, 1958.

SAVOY

For Composition for Cleaning and Polishing Automobile Bodies or the Like.

First use Nov. 29, 1957.

SN 43,983. Charles Tompkins, d. b. a. Crystal-Clear Chemical Co., Cambridge, Mass. Filed Jan. 14, 1958.

INVISIBLE

For Polish and Cleaner for Glass, Eyeglasses, Porcelain, and Chromium.

First use Dec. 26, 1957.

SN 44,342. Industrial Soap Company, St. Louis, Mo. Filed Jan. 13, 1958.

FANFARE

For Floor Wax.

First use Dec. 14, 1957.

Class 6—Chemicals and Chemical Compositions

SN 31,082. American Photocopy Equipment Company, Chicago, Ill. Filed May 31, 1957.

FILM-ALL

For Developing and Fixing Solutions.

First use May 8, 1957.

SN 32,543. The Sanfax Company, Atlanta, Ga. Filed June 24, 1957.

SANFAX D-73

The drawing is lined for the color red. Owner of Reg. No. 626,687.

For Chemical Compounds and Mixtures Used as Deodorants in Treatment of Sewerage Plants and in Treatment for Industrial Odors of All Types.

First use in January 1955.

SN 39,107. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed Oct. 17, 1957.

Vangard

For Fungicides and Bactericides.

First use Oct. 7, 1957.

SN 39,717. Fritzsche Brothers, Inc., New York, N. Y. Filed Oct. 29, 1957.

NEUTROLAIR

Owner of Reg. Nos. 299,176 and 417,546.

For Deodorants for Industrial Use.

First use Oct. 17, 1957.

Class 10 — Fertilizers

SN 14,468. Paramount Perlite Co., Paramount, Calif., from Perlites, Inc., Paramount, Calif. Filed Aug. 23, 1956. Sec. 2(f).

SPONGE ROK

Owner of Reg. No. 541,853.
For Inorganic Soil Amendment.
First use Oct. 18, 1948.

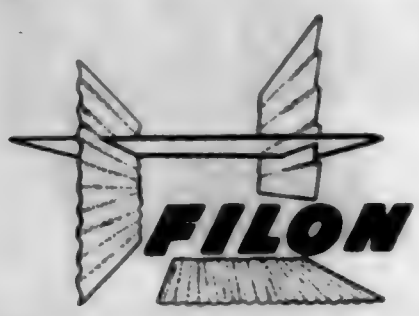
SN 37,878. Hyper-Humus Company, Bryn Mawr, Pa. Filed Sept. 26, 1957.

M C M

For Bacterial Soil Conditioner.
First use Aug. 26, 1957.

Class 12 — Construction Materials

SN 29,890. Filon Plastics Corporation, El Segundo, Calif. Filed May 13, 1957.



Owner of Reg. No. 622,880.
For Translucent Shatterproof Fiber Glass Material in Panels and Sheets.
First use Jan. 2, 1957.

SN 30,098. Mastic Asphalt Corporation, South Bend, Ind. Filed May 15, 1957.

Home-Tex

For Asphalt and Grit Coated Rigid Building Panels.
First use Mar. 26, 1957.

SN 30,660. Huttig Sash & Door Co., St. Louis, Mo. Filed May 24, 1957.

SATIN

Owner of Reg. No. 110,858.
For Millwork—Namely, Cap-Trim; China-Closets Built in; Colonnades; Consoles; Built-in Receptacles for Holding Mirrors; Doors; Window and Door Frames; Mantels; Plate-Rails; Balusters; Columns; Newels; Pedestals; Pilasters; Stair-Rail; Sash; Stair-Work; Casings; Moldings and Wainscoting.
First use Aug. 23, 1915.

SN 32,307. M. C. Gill Corporation, El Monte, Calif. Filed June 20, 1957.

GILLFAB

For Laminated Plastic Structural Sheets and Molded Parts Employing Synthetic Resins and Synthetic or Natural Fillers.
First use May 8, 1957.

SN 32,308. M. C. Gill Corporation, El Monte, Calif. Filed June 20, 1957.

GILLAB

For Laminated Chemically Resistant Structural Material Laminated From Synthetic Resins and Natural and/or Synthetic Fillers.
First use May 8, 1957.

SN 33,108. Johns-Manville Corporation, New York, N. Y. Filed July 2, 1957.

ASBESTOCORE

Owner of Reg. Nos. 118,882, 382,072, and others.
For Thermal Insulation.
First use July 17, 1953.

SN 35,841. Aktieselskabet Skarrehage Molervaerk, Nykobing, Mors, Denmark. Filed Aug. 20, 1957.

MOLER-SUPRA

"Supra" is Latin for "above" or "upon." Owner of Danish Reg. No. 104/1947, dated Jan. 25, 1947; and U. S. Reg. No. 377,430.
For Bricks.

SN 36,252. Tectum Corporation, Columbus, Ohio. Filed Aug. 26, 1957.

Tec-Pan

Owner of Reg. Nos. 443,995 and 598,662.
For Multiple Purpose Building Board Formed of Filamentary and Binder Ingredients.
First use Apr. 25, 1957.

SN 36,382. Lumaside, Inc., Milwaukee, Wis. Filed Aug. 28, 1957.

LUMABOND

Owner of Reg. No. 555,309.
For Building Siding.
First use Aug. 14, 1957.

SN 38,224. Mundet Cork Corporation, North Bergen, N. J. Filed Oct. 2, 1957.

MUNDET'S

Owner of Reg. Nos. 437,244, 441,176, and 587,826.
For Expanded Polystyrene Pipe Covering and Expanded Polystyrene Board.
First use Aug. 7, 1957.

SN 39,181. Arrow Metal Products Corp., Haskell, N. J. Filed Oct. 21, 1957.

ARROW RIVIERA METAL PRODUCTS

For Metal Awnings.
First use Jan. 14, 1956.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 30,566. Chemex Corporation, New York, N. Y. Filed May 23, 1957.

Tubadipdrip

For Teamaker-Drinkmixer.
First use Aug. 10, 1946.

SN 30,673. Mine and Smelter Supply Company, Denver, Colo. Filed May 24, 1957. Sec. 2(f).

GRIGSBY

For Pinch Valves and Parts Thereof—Namely, Flexible Sleeves and Metal Castings for the Valves.
First use on or about Mar. 17, 1938.

SN 31,598. Sidney Louis, d. b. a. Shrell Products, Chicago, Ill. Filed June 7, 1957.

Tend-All HANGER

Applicant disclaims the word "Hanger" apart from the mark as shown.
For Hanger of the Clamp Type for Holding Towels, Napkins, Small Articles of Clothing and the Like.
First use Dec. 4, 1956.

SN 31,942. Opti-Werk G. m. b. H. & Co., Essen, Germany. Filed June 13, 1957.

OPTI-LON

Owner of German Reg. No. 692,850, dated July 14, 1956.
For Slide Fasteners.

SN 31,943. Opti-Werk G. m. b. H. & Co., Essen, Germany. Filed June 13, 1957.

OPTI

Owner of German Reg. No. 645,803, dated Oct. 9, 1953.
For Slide Fasteners.

SN 32,576. A. Richard Ayers, d. b. a. Central Illinois Manufacturing Company, Bement, Ill. Filed June 25, 1957.

PRE-VENT

For Vacuum Pressure Vent Cap for Stationary Gasoline Storage Tanks.
First use Apr. 17, 1957.

SN 33,138. Timothy D. Droney, Jr., Lancaster, Pa. Filed July 3, 1957.

FABULETTE

For Device for Assisting Women in Adjusting the Zippers of Dresses, Gowns, and the Like.
First use Dec. 12, 1956.

SN 34,577. Aluminum Screen Manufacturing Co., d. b. a. Builders Products Co., Miami, Fla. Filed July 30, 1957.

"GLIDE-N'-EASE"

For Combination Curtain Rod, Room Divider, Shower and Tub Enclosure.
First use Feb. 16, 1957.

SN 35,161. Associated Spring Corporation, Bristol, Conn. Filed Aug. 8, 1957.

ENERGY CARTRIDGE

For Spring Device Consisting of a Preassembled Stack of Separate, Connected Spring Washers.
First use Feb. 1, 1957.

SN 37,037. Pneu-Trol Devices, Inc., Chicago, Ill. Filed Sept. 11, 1957.

API

For Automatic Flow Control Valves.
First use Feb. 26, 1957.

SN 39,351. Versa Products Company, Incorporated, Brooklyn, N. Y. Filed Oct. 22, 1957.

VERSA

For Valves for Control of Air, Oil, and Water.
First use on or about Sept. 30, 1949.

SN 39,354. Waterman Industries, Inc., Exeter, Calif. Filed Oct. 22, 1957. Sec. 2(f).

WATERMAN

For Irrigation Valves, Gates, and Gate Lifts.
First use in or before 1935.

SN 39,683. Tipper Tie Products of New Jersey, Inc., Union, N. J. Filed Oct. 28, 1957.

TIPPER TIE

For Fasteners Applied to the Ends of Casings for Sausages and Similar Goods.
First use Apr. 1, 1953.

SN 39,790. Corrosion Proof Fitting Co., Inc., Great Bend, Kans. Filed Oct. 30, 1957.

CAST-ITE

For Couplings for Composition Cement-Asbestos Ducts and Pipes.
First use Feb. 4, 1955.

SN 41,778. The Plas-Tex Corporation, Los Angeles, Calif. Filed Dec. 4, 1957.

PLAS-TEX

Owner of Reg. Nos. 549,440 and 655,656.
For Sink Strainers.
First use Oct. 10, 1942.

SN 41,953. Tubular Structures Corp. of America, Los Angeles, Calif. Filed Dec. 6, 1957.

MAYCO

For Power Actuated Studs and Grommets.
First use Aug. 1, 1957.

SN 42,010. Ferguson Products Company, Inc., Ferguson, Mo. Filed Dec. 9, 1957.

SANIRAK

For Sanitary Cutlery Holder.
First use Mar. 4, 1957.

SN 42,214. The Hampton Works (Stampings) Limited, Birmingham, England. Filed Dec. 11, 1957.

BULLDOG

Owner of British Reg. No. 749,049, dated Dec. 15, 1955.
For Tent Pegs Made of Metal.

SN 42,421. James L. Allen, d. b. a. Chicago Sash Holder Co., La Mesa, Calif. Filed Dec. 3, 1957.

CHICAGO SASH HOLDER CO. CHICAGO

For Sash Holders.
First use June 1925.

SN 42,789. Swingline, Inc., Long Island City, N. Y. Filed Dec. 20, 1957.

SPEEDMATIC

Owner of Reg. Nos. 400,294 and 412,913.
For Staples.
First use June 26, 1940.

SN 42,883. Irrigation Motor & Pump Co., St. Paul, Nebr. Filed Dec. 23, 1957.

Big Squirt

For Irrigators.
First use July 6, 1957.

SN 43,002. Atlas Rigging and Supply Company, Kearny, N. J. Filed Dec. 26, 1957.

ARSCo

For Safety Hooks, Sorting Hooks, Wire Rope Slings, Beam Clamps, Open Wedge Sockets, Overhaul Balls, Sling Chains, Equalizing Thimbles, Box Hooks, Boom Support Assemblies, and Safety Truck Door Ties.
First use April 1956.

SN 43,003. Atlas Rigging and Supply Company, Kearny, N. J. Filed Dec. 26, 1957.

TILTRITE

For Lifting Slings.
First use Aug. 1, 1957.

SN 43,128. Aero Bolt & Screw Co., Inc., Inglewood, Calif. Filed Dec. 30, 1957.

UNISEAL

For Bolts and Screws.
First use in October 1956.

SN 43,129. Aero Bolt & Screw Co., Inc., Inglewood, Calif. Filed Dec. 30, 1957.

ABSCO

For Bolts and Screws.
First use in October 1954.

SN 43,178. Miller and Poston Manufacturing Company, Spokane, Wash. Filed Dec. 30, 1957.

Sure Seal

For Fluid Outlet Gate for Metal Tubing.
First use July 1, 1957.

SN 43,223. W. & W. Tool and Die Mfg. Co., Burlingame, Calif. Filed Dec. 30, 1957.

WATER-SWEEP

For Spray Attachments for Garden Hoses.
First use Dec. 5, 1957.

SN 43,284. U. S. Flexible Metallic Tubing Co., San Francisco, Calif. Filed Dec. 31, 1957.

U.S. FLEX-KEEFLEX QUADRA-SIDE

Owner of Reg. Nos. 607,822 and 613,391.
For Telescopic Expansion Compensators.
First use Feb 1, 1957.

Class 14 — Metals and Metal Castings and Forgings

SN 24,555. American Smelting and Refining Company, New York, N. Y. Filed Feb. 18, 1957.

XXXX

For Babbitt and Antifriction Metals.
First use Mar. 1, 1892.

SN 30,105. North American Philips Company, Inc., New York, N. Y. Filed May 15, 1957.

MOLYSPRAY

For Molybdenum Wire.
First use Apr. 8, 1957.

SN 31,070. Ampco Metal, Inc., Milwaukee, Wis. Filed May 31, 1957.

AMPCO-BRāZ

Owner of Reg. Nos. 117,240, 518,672, and others.
For Metallic Welding Rods Made of Copper-Base Alloys.
First use Apr. 3, 1956.

SN 40,717. Universal-Cyclops Steel Corporation, Bridgeville, Pa. Filed Nov. 14, 1957.

UNIMAG

For Metal Products, Having Specified Magnetic Characteristics, Such as Sheets, Plates, Bars, Strip, Wire, Billets, Forgings, Castings and Special Shapes.
First use Oct. 22, 1957.

Class 15 — Oils and Greases

SN 35,564. Buchanan & Company, Inc., New York, N. Y. Filed Aug. 15, 1957.

COMPRESSOLINE

For Gasoline.
First use July 10, 1957.

SN 35,908. Canfield Oil Company, Cleveland, Ohio. Filed Aug. 21, 1957.

CANSOL

For Motor Oil.
First use June 10, 1957.

SN 38,443. Edick Laboratories, Inc., Milwaukee, Wis. Filed Oct. 7, 1957.

EDI-COTE NO. 103

For Ferro-Bond Reinforced Emulsion of Waxes and Oils for Use as a Concrete Release Agent.
First use Mar. 31, 1954.

SN 39,554. The Standard Oil Company, Cleveland, Ohio. Filed Oct. 25, 1957.

SOHIOLUBE

Owner of Reg. Nos. 235,809 and 562,291.
For Lubricating Oil.
First use 1938.

SN 39,556. The Standard Oil Company, Cleveland, Ohio. Filed Oct. 25, 1957.

SOHIDEX

Owner of Reg. Nos. 555,985 and 562,291.
For Grease.
First use February 1957.

SN 40,775. Rust Master Chemical Corporation, Cambridge, Mass. Filed Nov. 15, 1957.

SLUDG-MASTER

Owner of Reg. Nos. 374,898, 379,341, and others.
For Chemical Compound To Be Added to Automotive Engine Oil To Dissolve Carbon, Sludge and Gum, and Free Sticky Valves and Piston Rings.
First use Nov. 27, 1951.

Class 16 — Protective and Decorative Coatings

SN 2,074. Jerry H. Barnes, d. b. a. Industrial Maintenance Supply, East Cleveland, Ohio. Filed Feb. 6, 1956.

MOTOR ARMOR

For Waterproofing Compound for Electrical Equipment.
First use February 1955.

SN 34,672. Colorificio Italiano Max Meyer S. p. A., Milan, Italy. Filed July 31, 1957.

TINTAL

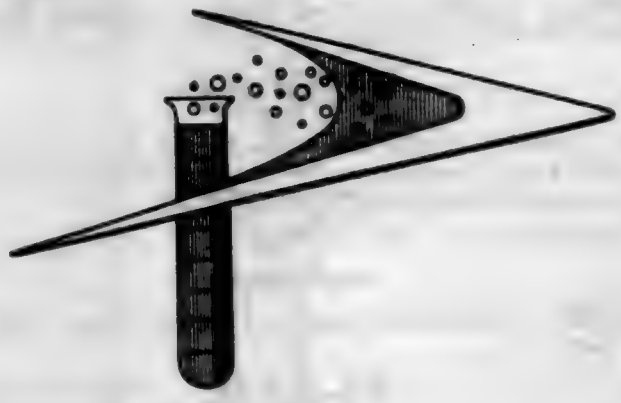
Owner of Italian Reg. No. 3404/56, dated May 21, 1957.
For Colours, Varnishes, Glazes, Lacquers, Preservatives Against Rust, Dyeing Stuffs, Mordants, Resins, Materials in Sheets and Powder for Painters and Decorators.

SN 34,891. William T. Deacon, d. b. a. Solvents and Plastics Company, St. Louis, Mo. Filed July 24, 1957.

SPRAYFOAM

For Protective Coatings of Plastic Material That Incidentally Have Heat Insulating and Sound Deadening Properties, and Which Are Used on Metallic and Non-Metallic Surfaces.
First use Mar. 21, 1957.

SN 41,588. Turco Products, Inc., Los Angeles, Calif. Filed Nov. 29, 1957.



The drawing is lined for red.
For Liquid Coating Composition Containing an Organic Polymer and a Non-Aqueous Solvent To Be Used as a Protective Coating Composition.
First use Oct. 28, 1957.

SN 43,325. Joseph E. Graddy, New York, N. Y., from Monarch Paint Products, Inc., New York, N. Y. Filed Jan. 2, 1958.

ACOUSTEX

For Acoustical Paint.
First use Nov. 14, 1957.

SN 40,715. The Egyptian Lacquer Manufacturing Company, Newark, N. J. Filed Feb. 27, 1958.

EPOXIZE

For Resinous Coating Compositions, Particularly for Application to Metals.
First use Nov. 11, 1957.

Class 17 — Tobacco Products

SN 25,110. Reemtsma Cigarettenfabriken G. m. b. H., Hamburg-Othmarschen, Germany. Filed Feb. 26, 1957.

REEMTSMA
SORTE
»R 6« o/M

No claim is made to the word "Sorte" shown in the drawing. The word "Sorte" means "brand." Owner of German Reg. No. 465,086, dated Apr. 16, 1934.
For Cigarettes.

Class 18 — Medicines and Pharmaceutical Preparations

SN 30,569. Ciba Pharmaceutical Products Inc., Summit, N. J. Filed May 23, 1957.

ORISUL

For Anti-Bacterial Sulfa Drug Preparation.
First use May 17, 1957.

SN 31,383. Chesebrough-Pond's, Inc., New York, N. Y. Filed June 5, 1957.

HIDDEN ACTION

For Hair Tonic and Hair Lotions for the Treatment of Dandruff.
First use Apr. 26, 1957.

SN 33,013. The Warren-Teed Products Company, Columbus, Ohio. Filed July 1, 1957.

ILOPAN

For Medicinal Preparations Containing Pantothenyl Alcohol for Use in Treating or Preventing Conditions Responsive to the Administration of Pantothenic Acid.
First use Apr. 24, 1956.

SN 35,009. The Si-Lak Company, Hospers, Iowa. Filed Aug. 5, 1957.

SI-LAK

For Animal and Poultry Supplements Consisting of Vitamins and Dehydrated Organisms or Molds.
First use June 20, 1956.

SN 38,861. Joseph E. Seagram & Sons, Inc., New York, N. Y. Filed Oct. 14, 1957.

coldene

Owner of Reg. Nos. 630,771, 635,816, and 658,452.
For Chest Rub.
First use Sept. 20, 1957.

SN 41,096. Healthco, Inc., Franklin Square, N. Y. Filed Nov. 21, 1957.

HEALTHCO

For Vitamin Tablets.
First use Oct. 29, 1957.

SN 42,666. Stanford Laboratories, Inc., St. Louis, Mo. Filed Dec. 18, 1957.

THERMOLOID

For Thyroid Preparation.
First use Sept. 6, 1956.

SN 42,720. Rohm & Haas G. m. b. H., Darmstadt, Germany. Filed Dec. 19, 1957.

PLEXIDON

Owner of German Reg. No. 678,969, dated July 13, 1955.
For Synthetic Resins in Powder and Liquid Form for Medicinal and Orthopedic Purposes.

SN 42,963. Buffington's, Incorporated, Worcester, Mass. Filed Dec. 5, 1957.

LIXATONE

For Geriatric Elixir Intended as a Dietary Supplement for Improved Nutrition in the Aged.
First use June 7, 1957.

SN 43,318. Knoll A.-G. Chemische Fabriken, Ludwigshafen (Rhine), Germany. Filed Jan. 2, 1958.

TONIAZOL

Owner of German Reg. No. 552,302, dated Dec. 14, 1942.
For Pharmaceutical Preparations—Namely, Tonic Agent.

SN 44,563. The C. F. Sauer Company, Richmond, Va. Filed Jan. 23, 1958.

SAUER'S

Owner of Reg. Nos. 202,172 and 505,771.
For Liniment for Muscle Soreness and Stiffness.
First use on or about Oct. 10, 1954.

SN 44,728. Mead Johnson & Company, Evansville, Ind. Filed Jan. 27, 1958.

LOFENALAC

For Nutrient for the Prevention of Mental Deficiency.
First use Dec. 16, 1957.

SN 44,743. Organon Inc., Orange, N. J. Filed Jan. 27, 1958.

RAUMALGINE

For Analgesic Preparation.
First use Jan. 16, 1958.

SN 45,534. Cramer Chemical Company, Gardner, Kans. Filed Feb. 10, 1958.

SPRAHALANT

For Nasal Spray.
First use Aug. 5, 1957.

Class 19 — Vehicles

SN 31,237. M–H Equipment Co., Inc., Dallas, Tex. Filed June 3, 1957.

M-H

For Material Handling Equipment, Including Specifically Package Trucks, Hand Trucks, Warehouse Trucks, Box Trucks, Dollies, Platform Trucks and Trucks and Carts of All Sorts Other Than Motor Vehicles Having Incorporated Therein a Power Unit or Motor, and Parts Thereof.
First use on or about June 1, 1955.

SN 33,851. Ferrostaal A. G., Essen, Germany. Filed June 11, 1957.

FERROSTAAL

Owner of German Reg. No. 673,127, dated Mar. 17, 1955.
For Rail Omnibuses; Rail Motor Coaches; Hand and Motor Rail Cycles and Other Rail Vehicles and Their Components; Cars—Namely, Dump, Mine, Automatic, Tipping, Timber, Sisal, Sugar Cane, Banana, Freight, Tank, Special, and Inspection Cars; Axles and Axle Boxes; Wheels and Wheelsets; Tires; Ball Bearings; Shaft Bearings; Draw and Buffing Gears; Buffers and Buffer Springs; Frame Springs; and Pressed and Forged Fittings for Field Railway and Standard Railway Cars.

SN 34,051. Hans Traugott Golde & Co. GMBH, Frankfurt am Main, Germany, d. b. a. Golde Body Parts Division, Detroit, Mich. Filed July 19, 1957.

GOLDE

For Sliding Roofs and Roof Panels for Automobile Bodies and Parts Therefor.
First use 1928; in commerce October 1955.

SN 44,654. Su-Mark, Inc., Walpole, Mass. Filed Jan. 24, 1958.

SUMARK

For Boats.
First use in January 1957.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 19,473. A. O. Lundberg & Son, Inc., Chicago, Ill. Filed Nov. 19, 1956.

CRANKMASTER

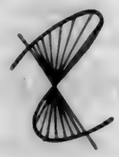
For Electrical Crank for Opening and Closing Awnings, Gates, Ventilators, and Skylights.
First use Mar. 25, 1954.

SN 23,184. The Toledo Trust Company, trustee under George H. Paulsen's Trust No. 2732, d. b. a. Geo. H. Paulsen & Co., Toledo, Ohio. Filed Jan. 24, 1957.

FIDELIPAC

For Endless Magnetic Tape Cartridges for Use in Connection With Recorder Play-Back Instruments.
First use Oct. 16, 1956.

SN 33,310. Ward Leonard Electric Co., Mount Vernon, N. Y. Filed July 5, 1957.



For Electric Illuminating Control Equipment.
First use May 29, 1957.

SN 35,934. Hoffman Electronics Corporation, Los Angeles, Calif. Filed Aug. 21, 1957.

FLOATING SOUND

For Phonographs and Radio-Phonograph Combinations and Parts Thereof Including Speaker Chambers.
First use Jan. 8, 1957.

SN 36,525. Modern Process Co., Phoenix, Ariz. Filed Aug. 30, 1957.

Bandelet

For Rectangular or Triangular Band for Application to the Handle of a Telephone Receiver for the Display of Telephone Listings.
First use Mar. 4, 1957.

SN 38,713. Sarkes Tarzian, Inc., Bloomington, Ind. Filed Oct. 10, 1957.



For Radio and Television Broadcasting Equipment—Namely, Transmitters, Cameras, Projectors, and Microwave Relays; Radio and Television Studio Equipment, Including Monitors, Consoles, Amplifiers, and Picture Signal Generators; Tuners and Capacitors; and Semiconductor Rectifiers.
First use Oct. 10, 1949.

SN 42,328. Webcor, Inc., Chicago, Ill. Filed Dec. 12, 1957.

PRELUDE

For Phonograph and Radio-Phonograph and Parts Thereof.
First use June 15, 1957.

SN 42,329. Webcor, Inc., Chicago, Ill. Filed Dec. 12, 1957.

OVERTURE

For Phonograph and Radio-Phonograph and Parts Thereof.
First use June 15, 1957.

SN 42,342. Bendix Aviation Corporation, Detroit, Mich. Filed Dec. 13, 1957.

BENSEAL

For Electrical Leads and Wiring Harnesses.
First use Oct. 25, 1957.

SN 42,343. Bendix Aviation Corporation, Detroit, Mich. Filed Dec. 13, 1957.

PYGMY

For Electrical Connectors and Parts Thereof.
First use Oct. 29, 1957.

SN 43,344. Bendix Aviation Corporation, Detroit, Mich. Filed Dec. 13, 1957.



For Electrical Connectors and Parts Thereof.
First use Oct. 29, 1957.

SN 42,699. General Electric Company, Schenectady, N. Y. Filed Dec. 19, 1957.

Lighted
ICE

For Electric Lamps.
First use Sept. 3, 1957.

Class 22—Games, Toys, and Sporting Goods

SN 30,712. California Tackle Co., Bell, Calif. Filed Oct. 29, 1957.

FIRE GLASS

For Fishing Rods.
First use Sept. 20, 1957.

SN 41,787. The Worthington Ball Company, Elyria, Ohio. Filed Dec. 4, 1957.

Starfire

For Golf Balls.
First use Nov. 18, 1957.

SN 41,960. The Worthington Ball Company, Elyria, Ohio. Filed Dec. 6, 1957.

White Flite

For Golf Balls.
First use Nov. 21, 1957.

SN 42,401. C. H. Shoff, d. b. a. Shoff Fishing Tackle Co., Kent, Wash. Filed Dec. 30, 1957.

FREAK

For Fishing Spoons.
First use Nov. 27, 1934.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 667,208. Kurt Stoll K. G. Maschinenfabrik, Neidlingen/Teck, Germany. Filed May 27, 1954.

Gusto

Priority claimed under Sec. 44(d) on German application filed Apr. 10, 1954; Reg. No. 705,417, dated Aug. 13, 1957.
For Metal and Wood Working Machines, Chain Mortisers, Cutting Tools, Grinding Machines, Polishing Machines, Mowers, Vacuum Cleaners, Razor and Hair Clippers, Animal Shears, Spray Guns, Sand Blasting Machines, and Concrete Mixers.

SN 26,276. J. Leukart Machine Co., Inc., Columbus, Ohio, from Jay Corporation, Columbus, Ohio. Filed Mar. 15, 1957.



Assignee owner of Reg. No. 639,626.
For Earth Tamper.
First use Dec. 1, 1955.

SN 27,634. Seitz-Werke G. m. b. H., Kreuznach, Rhineland, Germany. Filed Apr. 5, 1957.

Owner of German Reg. No. 353,038, dated June 2, 1926.
For General Line of Industry Products the Same Being Agricultural and Garden Utensils, Cellarage Machines and Apparatus, Pumps, Apparatus for Mineral Water and Foaming Wines, Mixing Trough With Stirrers, Machines for Washing Bottles, Machines for Applying Labels, Machines for Applying and Removing Corks, Filling and Re-Filling Apparatus, Motors, Motor Parts.

SN 28,862. Jari Products, Inc., Minneapolis, Minn. Filed Apr. 25, 1957.

POWERIDE

For Power Units for Propelling Lawn Mowers and Snow Plows.
First use Nov. 17, 1956.

SN 31,011. Dwight E. Hottle, d. b. a. Hottle & Associates and H. & A., Akron, Ohio. Filed May 29, 1957.

Set-T Wrench

Applicant disclaims the word "Wrench" apart from the mark.
For Combination Hand Tool for Setting Golf Tees and for Tightening and Removing Golf Shoe Cleats.
First use May 14, 1957.

SN 36,403. United Steel & Wire Company, Battle Creek, Mich. Filed Aug. 28, 1957.

CREW-CHIEF

For Hydraulic Elevating Maintenance Platforms for Air Lines and Industry.
First use Oct. 29, 1956.

SN 38,599. E & E Engineering, Inc., Detroit, Mich. Filed Oct. 9, 1957.

EEE

For Extension Toggle Clamps, Plunger Clamps, "900 Series" Clamps, Air Cylinder Clamps, Welding Gun Mounting Discs or "Donuts," Burring Tools, and Fixture Pins.
First use June 1, 1954.

SN 39,357. John Wood Company, Muskegon Heights, Mich. Filed Oct. 22, 1957. Sec. 2(f).

Bennett

Owner of Reg. Nos. 507,916 and 522,894.
For Hand-Operated Gasoline, Kerosene, Alcohol, Grease and Oil Pumps; Hand-Operated Grease and Oil Dispensing Pumps for Use in Service Stations and the Like.
First use October 1954.

SN 39,533. C. J. Kroells, d. b. a. Kroells Packing Supply, Lindsay, Calif. Filed Oct. 25, 1957. Sec. 2(f).

TOWT

For Wind Machines.
First use in 1932.

SN 39,756. Starline Inc., Harvard, Ill. Filed Oct. 29, 1957.
Owner of Reg. Nos. 200,639, 584,589, and others.



For Bull Staffs, Floor Scrapers, Litter Carriers, Feed Carriers, Milk Can Carriers, Silage Carriers, Hoists, Trolley Conveyors, Swinging Booms, Two and Three-Way Track Switches, Hay Carriers, Hay Slings, Fork Pulleys, Hay Forks, Hay Carrier Returners, Tackle-Block-Wire Stretchers, Barn Cleaners, Silo Unloaders, Continuous Chain Conveyors, Bunk Cattle Feeders, and Feed Metering Devices for Milking Stalls.
First use in March 1931 on bull staffs.

SN 40,275. U. S. Slicing Machine Company, Inc., La Porte, Ind. Filed Nov. 7, 1957.



The drawing is lined for the color red. Owner of Reg. Nos. 430,451, 191,418, and others.
For Power Operated Meat and Bone Saws, and Parts Thereof.
First use Oct. 3, 1957.

SN 41,373. Hammel, Riglander & Company, Inc., New York, N. Y. Filed Nov. 26, 1957.

REX

Owner of Reg. No. 62,997.
For Watchmakers' Tools—Namely, Roller Removers.
First use in the year 1914.

SN 41,374. Hammel, Riglander & Company, Inc., New York, N. Y. Filed Nov. 26, 1957. Sec. 2(f).

MARSH

For Watchmakers' Tools—Namely, Screw Undercutters.
First use in the year 1900.

SN 42,534. Rotary Drilling Services, Inc., Tulsa, Okla. Filed Dec. 16, 1957.

MUD-CONE

For Units Comprising a Pump, Prime Mover and One or More Hydraulic Cyclones for the Treatment of Drilling Fluids.
First use Sept. 7, 1956.

SN 42,578. Cimex-Fraser Tuson Limited, Orpington, England. Filed Dec. 17, 1957.

SOLO

Owner of British Reg. No. 764,976, dated Apr. 26, 1957.
For Floor Scrubbing and Floor Polishing Machines, None Being for Domestic Use.

SN 43,071. The Cincinnati Milling Machine Co., Cincinnati, Ohio. Filed Dec. 27, 1957.

HYPOWERMATIC

For Milling Machines.
First use on or about Mar. 3, 1955.

SN 43,123. Vaco Products Company, Chicago, Ill. Filed Dec. 27, 1957.

VACO RED CAP

Owner of Reg. No. 426,477.
For Screw Drivers.
First use Nov. 11, 1957.

SN 43,138. Blu Strike Blade Company, New York, N. Y. Filed Dec. 30, 1957.

durex

For Razor Blades.
First use in February 1946.

SN 43,203. Onarud Machine Works, Inc., Niles, Ill. Filed Dec. 30, 1957.

MACH-MIL

For Milling Machines.
First use Sept. 20, 1957.

SN 43,242. Consolidated Sewing Machine Corp., New York, N. Y. Filed Dec. 31, 1957.

EAU CLAIRE

For Sewing Machines and Sewing Machine Parts and Supplies.
First use Nov. 22, 1957.

SN 46,567. Precise Products Corporation, Racine, Wis. Filed Feb. 25, 1958.

VAPOR LUB

For Machine Tool Cooling Systems.
First use March 1956.

SN 46,723. H. Ernault-Batignolles, S. A., Paris, France. Filed Feb. 27, 1958.

H.E.B. PILOT

Owner of French Reg. No. 462,674, dated Feb. 6, 1957 (Seine); Natl. Inst. No. 85,132.
For Lathes.

SN 46,725. H. Ernault-Batignolles, S. A., Paris, France. Filed Feb. 27, 1958.

PILOT

For Lathes.
First use Sept. 10, 1951; in commerce Aug. 3, 1954.

SN 46,727. H. Ernault-Batignolles, S. A., Paris, France. Filed Feb. 27, 1958.

PILOTE

For Lathes.
First use Sept. 10, 1951; in commerce Aug. 3, 1954.

SN 46,826. Griffin Wellpoint Corporation, New York, N. Y. Filed Feb. 28, 1958.

THE GRIFFIN WELLPOINT SYSTEMS

For Wellpoints.
First use Jan. 2, 1947.

SN 46,896. Chempump Corporation, Philadelphia, Pa. Filed Mar. 3, 1958.

CHEMPUMP

Owner of Reg. No. 592,324.
For Combined Pumps and Motors for Pumping Fluids.
First use on or about Sept. 8, 1952.

SN 47,033. Cecil Ernest Watts, Sunbury-on-Thames, Middlesex, England. Filed Mar. 3, 1958.

PARASTAT

Priority claimed under Sec. 44(d) on British Reg. No. 769,311, dated Sept. 16, 1957.
For Machines for Cleaning Gramophone Records and for Applying Antistatic Fluid to Gramophone Records.

Class 26—Measuring and Scientific Appliances

SN 25,997. Nathan K. Morris, d. b. a. N. K. Morris Mfg. Company, Avon by the Sea, N. J. Filed Mar. 12, 1957.

WONDA-SCOPE

For Scientific Instrument Used Variously as a Compass, Binoculars, Telescope, Microscope, Solar Time Clock, Mirror, Reading Lens, Pharyngescope, and for Various Other Similar Uses.
First use July 16, 1950.

SN 26,333. Crane Packing Company, Morton Grove, Ill. Filed Mar. 18, 1957.

LAPMASTER

Owner of Reg. No. 516,046.
For Monochromatic Light Used To Indicate the Flatness of a Polished Surface.
First use June 16, 1948.

SN 27,033. The Magnavox Company, Fort Wayne, Ind. Filed Mar. 27, 1957.

MAGNACARD

For Digital Computers and Data Processing Systems.
First use Feb. 22, 1957.

SN 34,018. Erich Student, d. b. a. Studiophot Company, Cleveland, Ohio. Filed July 18, 1957.

STUDIOPHOT

For Photographic Goods and Supplies—Namely, Cable Releases, Color Filters, Tripods, Selftimers, Swivel Tops, Sunshades, Cameras, Camera Cases, and Lenses.
First use Jan. 22, 1943.

SN 38,233. Milton Roy Company, Philadelphia, Pa. Filed Oct. 2, 1957.

QUANTICHEM

For Colorimetric Analyzing and Recording Apparatus.
First use in May 1957.

SN 38,462. R. O. Hull & Company, Inc., Rocky River, Ohio. Filed Oct. 7, 1957.

ANODICATOR

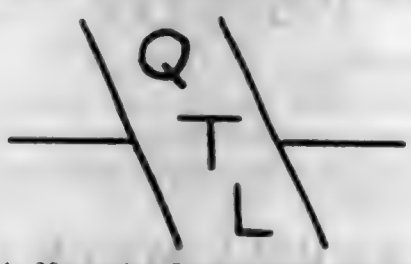
For Device for Determining the Dielectric Strength of Anodic Coatings on Aluminum.
First use Feb. 3, 1957.

SN 38,796. Brite Site Optical Co., Inc., New York, N. Y. Filed Oct. 14, 1957.

BRITE SITE

For Optical Lenses.
First use Jan. 2, 1954.

SN 39,166. John M. van Beuren, d. b. a. Quan Tech Laboratories, Morristown, N. J. Filed Oct. 18, 1957.



For Electronic Measuring Instruments and Devices Such as Ammeters and Volt Meters, Electronic Amplifiers and Components of Electronic Systems Such as Power Supplies.
First use Oct. 3, 1957.

SN 39,356. John Wood Company, Muskegon Heights, Mich. Filed Oct. 22, 1957. Sec. 2(f).

Bennett

Owner of Reg. Nos. 507,918 and 522,894.
For Self-Measuring Gasoline Dispensing Pumps, Power-Operated.
First use Aug. 20, 1954; Apr. 1, 1920 as to "Bennett."

SN 39,363. The George F. Cram Company, Incorporated, Indianapolis, Ind. Filed Oct. 7, 1957.

DUOGYRAL

For Geographical World Globe.
First use Sept. 30, 1957.

SN 39,720. General Aniline & Film Corporation, New York, N. Y. Filed Oct. 29, 1957.

PHOTYPESET

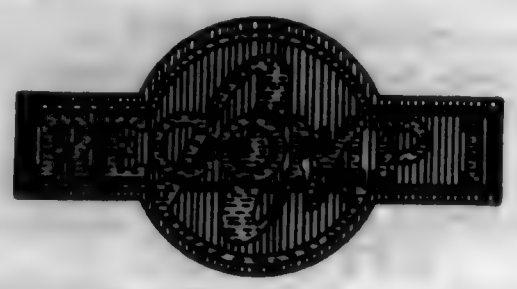
For Light-Sensitive Photographic Materials, Particularly Film and Paper.
First use Oct. 2, 1957.

SN 39,722. General Aniline & Film Corporation, New York, N. Y. Filed Oct. 29, 1957.

TYPOGRAPH

For Light-Sensitive Photographic Material, Particularly Film and Paper.
First use Oct. 2, 1957.

SN 40,186. North American Aviation, Inc., Los Angeles, Calif. Filed Nov. 6, 1957.



The drawing is lined for red and silver.
For Electronic Computers.
First use Jan. 8, 1957.

SN 40,833. Greenberg Engineering Co., Philadelphia, Pa. Filed Nov. 18, 1957.

SORTOMETER

For Apparatus for the Nondestructive Identification of Metals To Indicate Their Composition Characteristics.
First use Nov. 5, 1957.

SN 40,848. Kemart Corporation, San Francisco, Calif. Filed Nov. 18, 1957.

KEMART-PAWO

Owner of Reg. Nos. 550,114 and 574,585.
For Gray Contact Screens Used in the Art of Half-Tone Photography for Making Half-Tones.
First use May 3, 1957.

SN 40,887. Sporlan Valve Company, St. Louis, Mo. Filed Nov. 18, 1957.

See-All

For Devices for Indicating the Presence of Moisture in Refrigerant in Refrigerating Systems.
First use in July 1956.

SN 41,320. Stanley Aviation Corporation, Aurora, Colo. Filed Nov. 25, 1957.

MINI-LAB

For Portable, Self-Contained Laboratory Tool of the Printed Circuit Type for Synthesizing Miniature and Sub-Miniature Circuits From Electronic Components.
First use Oct. 20, 1957.

SN 41,597. Water Products Co., Union, N. J. Filed Nov. 26, 1957.

FLOC-STIR

For Mechanical Laboratory Stirrer.
First use Sept. 26, 1956.

SN 41,780. David M. Potter, d. b. a. Potter Aeronautical Company, Union, N. J. Filed Dec. 4, 1957.

pattermeter

For Flowmeters Including the Sensing Elements Therefor and the Indicators Therefor, Other Indicating Instruments of Various Types—Namely, Recorders, Control Instruments and Flow Switches, Frequency Converters, Frequency Difference Converters, Electronic Counters.
First use in the year 1950 on flowmeters.

SN 42,555. Telequipment Limited, London, England. Filed Dec. 16, 1957.

SERVISCOPE

Owner of British Reg. No. 756,784, dated Aug. 20, 1956.
For Oscilloscopes and Oscillographs.

SN 43,000. Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Dec. 26, 1957.

EFFECTON

Owner of German Reg. No. 704,519, dated July 15, 1957.
For Unexposed Photographic Films.

SN 43,001. Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Dec. 26, 1957.

CORRECTOFLEX

Owner of German Reg. No. 701,586, dated Apr. 5, 1957; and U. S. Reg. No. 649 288.
For Unexposed Photographic Films, Plates, and Papers.

SN 43,158. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company, Rochester, N. Y. Filed Dec. 30, 1957.

LITHALOID

Owner of Reg. No. 295,548.
For Photographic Film.
First use Feb. 23, 1932.

SN 44,602. Clay-Adams, Inc., New York, N. Y. Filed Jan. 24, 1958.

CL ADAMS Y!

Owner of Reg. Nos. 234,920 and 612,700.
For Microscopic Cover Glasses and Microscopic Slides.
First use on or about Nov. 27, 1957.

SN 44,830. Lawler Automatic Controls, Inc., Mount Vernon, N. Y. Filed Jan. 28, 1958.

RECESSO

For Thermostatic Mixing Valve.
First use Nov. 27, 1957.

SN 44,882. Da-Lite Screen Company, Inc., Warsaw, Ind. Filed Jan. 29, 1958.

FLYER

For Motion Picture Screens.
First use Oct. 17, 1957.

SN 44,995. Universal Optical Company Inc., Providence, R. I. Filed Jan. 30, 1958.

LURAFLEX

For Temples for Eyeglasses.
First use Jan. 7, 1958.

SN 45,036. Eugene Dietzgen Co., Chicago, Ill. Filed Jan. 31, 1958.

MINI-FAX

For Light Sensitive Film and Paper, Cameras, Enlargers, Printers, Readers, Developers, Projectors, and Film Processing Apparatus, and Parts for Such Apparatus.
First use on or about Nov. 27, 1957.

SN 45,076. Sburon Optical Company, Inc. (Pennsylvania corporation), Pottsville, Pa., by change of name from Reading Briquet Company, Pottsville, Pa., from Sburon Optical Company, Inc. (New York corporation), Geneva, N. Y. Filed Jan. 31, 1958.

RONDEAN

Owner of Reg. Nos. 377,228, 649,653, and others.
For Spectacle Frames.
First use Aug. 38, 1957.

Class 31—Filters and Refrigerators

SN 45,910. Permanent Filter Corporation, Los Angeles, Calif. Filed Feb. 14, 1958.

PERMESH

For Filtering Devices.
First use Jan. 15, 1958.

SN 45,911. Permanent Filter Corporation, Los Angeles, Calif. Filed Feb. 14, 1958.

PERMAZE

For Filtering Devices.
First use Jan. 15, 1958.

SN 45,912. Permanent Filter Corporation, Los Angeles, Calif. Filed Feb. 14, 1958.

PERMA-MAZE

For Filtering Devices.
First use Jan. 15, 1958.

SN 45,913. Permanent Filter Corporation, Los Angeles, Calif. Filed Feb. 14, 1958.

PERMA-MESH

For Filtering Devices.
First use Jan. 15, 1958.

SN 46,774. Thompson Distributing Co., Algona, Iowa. Filed Feb. 27, 1958.

HARVEST SUPREME

Owner of Reg. Nos. 645,976 and 653,354.
For Refrigerators and Freezers.
First use Oct. 3, 1957.

Class 32—Furniture and Upholstery

SN 42,506. Norman R. Lykes, d. b. a. Norman R. Lykes Company, Scottsdale, Ariz. Filed Dec. 16, 1957.

BED'N CHAIR READER

For Book Support Stand.
First use Sept. 22, 1957.

SN 43,445. L. G. Evans & Company, Chicago, Ill. Filed Jan. 6, 1958.

EVCO

For Wood and Metal Stools, Wood and Metal Benches, Lockers of Metal and Wood, Metal Cabinets and Laminated Wood Tops, and Wood and Steel Homemaking Furniture Including Base Cabinets, Upper Cabinets, Sink Cabinets, Storage Cabinets, Sewing Tables, Plan Tables and Work Tables.
First use Oct. 10, 1954.

SN 44,447. Drexel Furniture Company, Drexel, N. C. Filed Jan. 22, 1958.

TRADEWIND

For Bedroom Furniture—Namely, Dressers, Mirrors, Chests, Beds, and Night Stands, and Dining Room Furniture—Namely, Tables, Buffets, Chinas, Servers, Chairs and Decks, i. e. Any Type of Furniture Placed on a Base With a Part of the Furniture Removable.
First use Dec. 16, 1957.

SN 44,448. Drexel Furniture Company, Drexel, N. C. Filed Jan. 22, 1958.

DECLARATION

For Bedroom Furniture—Namely, Beds, Night Stands, Tables, Dressers, Mirrors, Chests, and Benches; Dining Room Furniture—Namely, Buffets, Tables, Chinas, Serving Carts, Chairs, and Decks, i. e. Any Type of Furniture Placed on a Base With a Part of the Furniture Removable; and Living Room Furniture—Namely, Desks, Tables, Cupboards, Chairs, Cushions, Bookcases, Settles, Ottomans, and Sofas.
First use Nov. 29, 1957.

SN 44,449. Drexel Furniture Company, Drexel, N. C. Filed Jan. 22, 1958.

TRIENNALE

For Bedroom Furniture—Namely, Dressers, Mirrors, Chests, Beds, and Night Stands, and Dining Room Furniture—Namely, Buffets, Tables, Servers, Chairs, and Decks, i. e. Any Type of Furniture Placed on a Base With a Part of the Furniture Removable.
First use Dec. 16, 1957.

SN 47,483. Afco Aluminum Furniture Co., Inc., Miami, Fla. Filed Mar. 11, 1958.



For Stack Chairs, Patio Chairs, Folding Chairs, Club Chairs, Settees, Gliders, Chaises, Folding Chaises, Folding Loungers, Luggage Racks, Foot Stools, Tables, Cushion Chaises, Cushion Gliders, Made of Metal; and Tables for the Accommodation of Toy or Miniature Railway Trains, Made of Masonite and Aluminum or Plywood and Aluminum.
First use August 1953.

SN 49,762. Jamison Bedding, Inc., Nashville, Tenn. Filed Apr. 16, 1958.

POSTURE BRACE

For Mattresses.
First use Apr. 1, 1958.

SN 49,763. Jamison Bedding, Inc., Nashville, Tenn. Filed Apr. 16, 1958.



For Mattresses.
First use Apr. 1, 1958.

Class 33—Glassware

SN 40,647. Blue Ridge Glass Corporation, Kingsport, Tenn. Filed Nov. 14, 1957.

FEUREX

For Flat Glass.
First use Oct. 21, 1957.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 11,224. Carrier Corporation, Syracuse, N. Y. Filed June 29, 1956.

SHIPMASTER

For Air Conditioning, Heating, Ventilating, Humidification, Dehumidification, Air Handling and Air Cleaning Systems, Apparatus, Units, More Particularly for Use on Shipboard.
First use June 21, 1956.

SN 33,824. Montgomery Ward & Co., Incorporated, Chicago, Ill. Filed July 16, 1957.

FAIRWAY

For Furnaces.
First use June 19, 1957.
Subj. to Intf. with SN 37,933.

SN 35,606. United Lighting and Ceiling Co., Oakland, Calif. Filed Aug. 15, 1957.

CEILUME

For Combined Ceiling and Lighting Systems Installed in Buildings To Provide Ceilings and Illumination, and Components of Such Systems.
First use on or about June 15, 1956.

SN 37,933. Auto Flo Corporation, d. b. a. Fairway Division, Detroit, Mich. Filed Sept. 27, 1957.

FAIRWAY

For Humidifiers for Hot Air Furnaces.
First use June 13, 1957.
Subj. to Intf. with SN 33,824.

SN 41,318. Smith Welding Equipment Corporation, Minneapolis, Minn. Filed Nov. 25, 1957.

HANDI-HEET

For Kits Used for Heating, Soldering, Sweating, and Melting and Each Kit Includes a Torch Set, Hose, Torch Lighter, Acetylene Regulator, and Metal Carrying Case.
First use Mar. 1, 1957.

SN 41,634. Heat Timer Corporation, New York, N. Y. Filed Dec. 2, 1957.

ZONVALVE

For Regulating Valve for Steam, Hot Water or Gas, Used for Heating and Air Conditioning.
First use Nov. 19, 1956.

SN 41,859. Tokyo Shibaura Electric Company Limited, Kawasaki-shi, Japan. Filed Dec. 5, 1957.

Toshiba

Owner of Japanese Reg. No. 404,029, dated Oct. 13, 1951.
For Electric Ventilating Fans; Electric Lamp Housings, Stands and Reflectors.

SN 42,938. State Stove and Manufacturing Co., Nashville, Tenn. Filed Dec. 23, 1957.

STATE

For Gas Water Heaters.
First use in 1954.

SN 43,279. The Torrington Manufacturing Company, Torrington, Conn. Filed Dec. 31, 1957.

RADIAX

For Blower Units for Use in Air Conditioning Systems, Heating Systems, and the Like.
First use on or about Dec. 2, 1957.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 39,798. Federal-Mogul-Bower Bearings, Inc., Detroit, Mich. Filed Oct. 30, 1957.

NATIONAL

Owner of Reg. Nos. 322,517 and 322,520.
For Shaft and Face Seals, Comprising Grease and Oil Retainers for Shafts, Journals, Valve Stems, Pistons, Piston Rods, and the Like, Shims, Gaskets, and O Rings.
First use Apr. 25, 1934, on grease and oil retainers.

Class 36—Musical Instruments and Supplies

SN 34,507. Breen & De Rose Records, Inc., New York, N. Y. Filed July 29, 1957.

Purpletone

For Mechanically Grooved Phonograph Records.
First use June 4, 1957.

SN 43,849. Foster M. Hagmann, d. b. a. Del Fi Records, Studio City, Calif. Filed Jan. 13, 1958.

Del Fi

For Mechanically Grooved Phonograph Records.
First use Dec. 2, 1957.

Class 37—Paper and Stationery

SN 11,657. Arrow Brands, Inc., Los Angeles, Calif. Filed July 6, 1956.

ARROW BRANDS

The word "Brands" is disclaimed apart from the mark as shown.
For Wrapping Materials—Namely, Printed and Unprinted Cellophane Sheets and Rolls.
First use about July 1946.

SN 18,987. Anciennes Manufactures Canson et Montgolfier, Societe Anonyme, Vidalon-les-Annonay (Ardeche), France. Filed Nov. 9, 1956. Sec. 2(f) as to "Canson."

LES PAPIERS CANSON

No claim is made to the words "les Papiers" (the papers) apart from the mark as shown.
For Tracing Paper, Graph Paper, Drawing Paper, Sketching Paper, Writing Paper, Adding Machine Tapes, Sketch Books and Pads.
First use January 1953; in the year 1910 as to "Canson"; in commerce March 1953.

SN 26,061. Canadian Wallpaper Manufacturers Limited, Toronto, Ontario, Canada. Filed Nov. 13, 1957.

Jiffy

For Wallpaper.
First use Nov. 1, 1956; in commerce Nov. 1, 1956.

SN 29,139. The Central Ohio Paper Company, Columbus, Ohio. Filed Apr. 30, 1957.

LANCASHIRE

For Writing and Printing Paper.
First use Jan. 1, 1911.

SN 36,398. Romar Tissue Mills, Incorporated, Hardwick, Mass. Filed Aug. 28, 1957.



For Facial Tissues and Toilet Tissues.
First use Aug. 12, 1957.

SN 37,506. Kurtz Bros., Clearfield, Pa. Filed Sept. 19, 1957.

TE-BO-JA

For Loose Leaf Fillers, Writing, Duplicating and Drawing Paper and Tablets, Composition and Note Books.
First use Aug. 1, 1957.

SN 38,424. Bemis Bro. Bag Company, St. Louis, Mo. Filed Oct. 7, 1957.

"DUETTE"

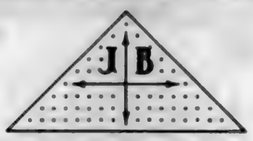
Owner of Reg. Nos. 290,810 and 500,705.
For Paper Bags.
First use Sept. 28, 1957.

SN 39,453. Daniels Manufacturing Company, Rhinelander, Wis. Filed Oct. 24, 1957.

dan·o·x

For Flexible Packaging and Wrapping Paper for Foods or Other Soft Goods.
First use Sept. 9, 1957.

SN 41,773. Nashua Corporation (Delaware corporation), Wilmington, Del., from Nashua Corporation (Massachusetts corporation) Nashua, N. H. Filed Dec. 4, 1957.



For Marking Paper Used in the Manufacture of Various Articles of Clothing.
First use Apr. 29, 1932.

Class 38—Prints and Publications

SN 3,679. Grandma Moses Properties, Inc., New York, N. Y. Filed Mar. 1, 1956.

Grandma Moses.

"Grandma Moses" is the name by which the well known painter, Anna Mary Robertson Moses, is generally known. Consent is of record. Owner of Reg. Nos. 542,032 and 556,305.
For Framed Fabric Prints.
First use May 1, 1953.

SN 22,183. Billy Graham Evangelistic Film Ministry, Inc., d. b. a. World Wide Pictures, Sherman Oaks, Calif. Filed Jan. 7, 1957.

WORLD WIDE

For Motion Pictures of Religious and Moral Character.
First use Sept. 1, 1956.
Subj. to Intf. with SN 22,960.

SN 22,184. Billy Graham Evangelistic Film Ministry, Inc., d. b. a. World Wide Pictures, Sherman Oaks, Calif. Filed Jan. 7, 1957.



The word "Pictures" is disclaimed apart from the mark.
For Motion Pictures of Religious and Moral Character.
First use Sept. 1, 1956.
Subj. to Intf. with SN 22,960.

SN 42,775. The Hopp Press, Inc., New York, N. Y. Filed Dec. 20, 1957. Sec. 2(f).

REVERSO

Owner of Reg. No. 566,433.
For Printed Price Cards and Price Tags.
First use on or about Jan. 3, 1950.

SN 43,176. Miami Beach Sun Publishing Company, Miami Beach, Fla. Filed Dec. 30, 1957.

Florida Sun

For Supplementary Section of a Daily Newspaper.
First use Dec. 8, 1957.

Class 39—Clothing

SN 29,600. Carol Modes Coat & Suit Co., New York, N. Y. Filed May 8, 1957.

PRECIOUS PEARL

For Clothing—Namely, Skirts, Suits, and Coats.
First use Mar. 18, 1957.

SN 30,804. Modern Globe, Inc., Pawtucket, R. I. Filed May 27, 1957.

FAIRSKIN

For Women's Undergarments—Namely, Briefs, Pants, Vests, Tights, Chemises, and Undersuits.
First use on or about Jan. 1, 1940.

SN 31,656. Gimbel Brothers, Inc., New York, N. Y. Filed June 10, 1957.

Sandringham

Owner of Reg. No. 348,550.
For Men's Clothing—Namely, Suits, Coats, Outer Shirts, Underwear, Shoes, Hosiery, Hats, Gloves, Collars, and Neckties.
First use Feb. 13, 1936.

SN 33,801. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed July 16, 1957.

VISAIRE

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use July 8, 1957.

SN 36,957. Columbia Beauty and Barber Supply Company, d. b. a. State and Columbia Beauty and Barbers Supply Company, Columbia, S. C. Filed Sept. 10, 1957.

STA-COL

For Shampoo Capes.
First use June 1945.

SN 37,039. Regal Shoe Manufacturing Company, Whitman, Mass. Filed Sept. 11, 1957.

BLISS ORIGINALS

The word "Originals" is disclaimed apart from the mark as shown.
For Men's Shoes.
First use in September 1955.

SN 37,488. Ellis, Stone & Company, Inc., Greensboro, N. C. Filed Sept. 19, 1957.

Ellis Stone

For Ladies' Shoes.
First use on or about July 1, 1946.

SN 37,838. F. W. Woolworth Co., New York, N. Y. Filed Sept. 25, 1957.

TOPSALL

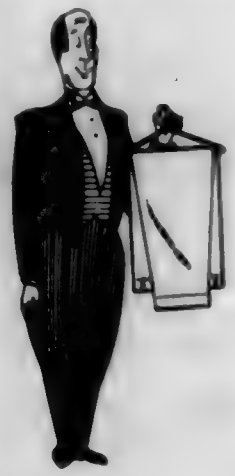
Owner of Reg. No. 267,020.
For Men's and Boys' Headwear.
First use Aug. 12, 1957.

SN 38,511. Wally Sportswear, Inc., New York, N. Y. Filed Oct. 7, 1957.

WALLY
CLASSIC

No claim is made to the word "Classic" apart from the mark shown.
For Ladies' Dresses.
First use in March 1950.

SN 38,969. The Asher Company, Fitchburg, Mass. Filed Oct. 16, 1957.



For Men's and Boys' Trousers.
First use Jan. 11, 1952.

SN 39,269. The Puritan Sportswear Corp., New York, N. Y. Filed Oct. 21, 1957.

Carra-Ban

The drawing is lined for the color gold.
For Men's, Boys', and Women's Sport Shirts, Jackets, Swimwear, Walking Shorts, Sweaters, Play Slacks.
First use Sept. 18, 1957.

SN 39,406. Queen Knitting Mills, Inc., Philadelphia, Pa. Filed Oct. 24, 1957.

IRIS ANN

For Women's Sports and Beachwear of Knitted and Woven Fabrics—Namely, Slacks, Pedal Pushers, Skirts, Shorts, Jamaica Shorts, Bermuda Shorts, Blouses, Playsuits, Jackets.
First use Aug. 26, 1957.

SN 39,915. Sun Valley Manufacturing Co., Boston, Mass. Filed Oct. 31, 1957.

AIRFOAM SANDWICH

For Men's and Women's Jackets and Parkas.
First use Apr. 1, 1955.

SN 40,922. Concord Baby Products, Inc., New York, N. Y. Filed Nov. 19, 1957.



The drawing is lined to represent the colors red and yellow.
No claim is made to the word "Panty" apart from the mark shown.
For Plastic Baby Panties.
First use in June 1956.

SN 40,923. Concord Baby Products, Inc., d. b. a. Jolly Baby Co., New York, N. Y. Filed Nov. 19, 1957.



No claim is made to the representation of the goods.
For Plastic Baby Panties.
First use in June 1957.

SN 41,265. Frank Gallant, Inc., New York, N. Y. Filed Nov. 25, 1957.

GALLANETTE

Owner of Reg. Nos. 629,160 and 647,153.
For Misses' and Ladies' Coats and Suits.
First use Nov. 20, 1957.

SN 43,385. Georgia Bullock, Inc., Los Angeles, Calif. Filed Jan. 3, 1958.

BAREFOOT DRESS

For Wearing Apparel—Namely, Dresses.
First use Aug. 15, 1957.

SN 43,564. Adrian Tabin Corporation, Chicago, Ill. Filed Jan. 7, 1958.

TNT

For Junior and Misses' Dresses.
First use Dec. 3, 1957.

SN 42,690. Model Brassiere Corp., Cortland, N. Y. Filed Jan. 9, 1958.

BAND-O-LINK

For Girdles, Corsets, Brassieres, and Garter Belts.
First use Sept. 2, 1932.

SN 43,000. The Salem Company, Inc., Winston-Salem, N. C. Filed Jan. 9, 1958.

JOAN STEELE

"Joan Steele" is the name of a particular living individual and written consent to the use of this name by applicant is of record.

For Ladies', Girls', and Children's Sportswear—Namely, Shorts, Pedal Pushers, Slacks, and Jeans.
First use Feb. 1, 1957.

SN 43,781. Saks & Company, New York, N. Y. Filed Jan. 10, 1958.

tabarin

Owner of Reg. Nos. 388,095, 388,096, and 528,352.
For Hosiery, Fabric Gloves, and Women's Underwear.
First use Jan. 27, 1941.

SN 43,948. Model Brassiere Corp., Cortland, N. Y. Filed Jan. 14, 1958.

SWANKIES

For Girdles, Corsets, Brassieres, and Garter Belts.
First use Jan. 12, 1933.

Class 40—Fancy Goods, Furnishings, and Notions

SN 42,451. Helene Curtis Industries, Inc., Chicago, Ill. Filed Dec. 16, 1957.

MARDI GRAS

For End Papers for Use in Permanent Waving Hair.
First use on or about Jan. 15, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 37,549. D. D. Bean & Sons Company, Jaffrey, N. H. Filed Sept. 20, 1957.

UNI-LOK

For Woven Fabric Used Principally as Reinforcement in Molded Plastic Articles.
First use July 16, 1957.

SN 37,831. Wallco Kjemisk Industri A/S, Oslo, Norway. Filed Sept. 25, 1957.

WALLCO

Owner of Norwegian Reg. No. 35,147, dated Feb. 3, 1948.
For Dish-Pads and Dish-Cloths.

SN 38,021. Companhia Progresso Industrial do Brasil, Rio de Janeiro, Brazil. Filed Sept. 30, 1957.

BANGÚ

Owner of Brazilian Reg. No. 76,910, dated May 18, 1943.
For Cotton Piece Goods.

SN 38,221. Merit Clothing Company, Mayfield, Ky. Filed Oct. 2, 1957.

PANAGRA

For Fabrics Sold Only in Finished Apparel—Namely, Men's Suits.
First use Sept. 4, 1953.

SN 38,965. A. Alper Inc., New York, N. Y. Filed Oct. 16, 1957.

Azomink

For Fabric in Which Mink Fibers Are Used With Other Fibers.
First use Dec. 3, 1954.

SN 40,270. Sears, Roebuck and Co., Chicago, Ill. Filed Nov. 7, 1957.

SHIR-MAGIC

For Window Curtains.
First use on or about Aug. 26, 1956.

SN 43,021. D. B. Fuller & Co. Inc., New York, N. Y. Filed Dec. 26, 1957.

STALLION

For Drapery Fabrics of Cotton.
First use Apr. 29, 1957.

SN 43,246. Dean Cut-Rate Floor Covering Company, Inc., Newark, N. J. Filed Dec. 31, 1957.

DEAN

For Textile Carpeting and Rugs.
First use in August 1939.

Class 43—Thread and Yarn

SN 39,242. M. K. M. Knitting Mills, Inc., Manchester, N. H. Filed Oct. 21, 1957.

MIRAFIL

Owner of Reg. No. 542,643.
For Yarn of Textured Nylon.
First use Mar. 1, 1957.

SN 43,239. Clifton Yarn Mills, Inc., Clifton Heights, Pa. Filed Dec. 31, 1957.

CLIFDOWN

For Yarns.
First use Dec. 18, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 4,571. Reliance Dental Mfg. Co., Chicago, Ill. Filed Mar. 14, 1956.



Owner of Reg. Nos. 437,235, 586,272, and others.

For Dental and Denture Products—Namely, Dental Impression Plastic Materials; Temporary Plastic Stopping for Use in Tooth Cavities, Comprising Resinous Powder and Liquid To Be Combined To Form a Resinous Product; Dental Resinous Cement for Use in Bonding Inlays, Crowns, Bridges, and Facings on Tooth Structures; Inlay Pattern Material, Comprising Resinous Powder and Liquid To Be Combined To Form a Resinous Product for Use in Making Inlay Patterns; Analgesic Adhesive Paste for Dentures; Plastic Material in the Form of Thin Sheets for Separating Model and Acrylic Denture Material in the Manufacture of Acrylic Dentures; Impression Cement for Use by Dentists To Obtain Exact Impressions of Ridge Tissues in the Mouth; Material for Use in Providing Contours on Dentures; Denture Liners; Plastic Tray Blanks; Dental Articulating Lacquer; Mucosa Lubricant; and Topical Hemostat.

First use spring of 1945.

SN 38,421. Engelhard Industries, Inc., Newark, N. J., by change of name from Baker & Company, Inc., Newark, N. J. Filed Oct. 7, 1957.

CAST-ON

For Staples, Wire, and Foil Made From Precious Metal for Dental Casting.

First use July 26, 1950.

Class 45—Soft Drinks and Carbonated Waters

SN 42,143. Independent Grocers' Alliance Distributing Company, Chicago, Ill. Filed Dec. 10, 1957.

IGA

For Ginger Ale, Soft Drinks, and Carbonated Waters.

First use Sept. 1, 1927.

Class 46—Foods and Ingredients of Foods

SN 680,230. Sinai Kosher Sausage Corp., Chicago, Ill. Filed Jan. 20, 1955.



No claim is made to the exclusive use of the geographical term "Chicago" apart from the mark as shown. The drawing is lined for red. The Hebrew word appearing on the mark when translated into English means "Sinai." Owner of Reg. No. 321,181.

For Meats and Meat Products, viz., Salami, Bologna, Sausages, Cooked, Pickled and Pressed Tongues, Pastroma, Pickled Beef, Cooked Corned Beef, and Cooked and Cured Beef.

First use Mar. 13, 1934.

SN 686,707. John H. Wellons, d. b. a. Wellons Candy Company (not incorporated), Dunn, N. C. Filed May 2, 1955.



For Candy.

First use September 1951.

SN 5,083. Phillips Packing Co., Inc., Cambridge, Md. Filed Mar. 23, 1956.



Owner of Reg. Nos. 336,918, 641,834, and others.

For Canned Soups, Canned Vegetables, and Canned Pork and Beans.

First use Jan. 4, 1956.

SN 6,544. National Tea Co., Chicago, Ill. Filed Apr. 17, 1956.

NATIONAL'S

top treat

For Frozen Confections—Namely, Variously Flavored Ice Cream Packed in Cartons.

First use August 1954.

SN 7,750. Bristol Trading Corp., New York, N. Y. Filed May 7, 1956.

CLEO

For Canned Tomatoes.

First use Apr. 5, 1956.

SN 8,388. Dartmouth Marketing Co., Inc., Chicago, Ill. Filed May 16, 1956.

DARTMOUTH

Owner of Reg. Nos. 550,521 and 604,022.

For Frozen Fruits, Vegetables, Fruit Juices, Poultry, Fruit Pies, Meat Pies, Shrimp, Waffles, Macaroni and Cheese.

First use Aug. 29, 1950, on quick frozen frying chicken.

SN 8,976. Beatrice Foods Co., Chicago, Ill., from New State Ice Company, Oklahoma City, Okla. Filed May 24, 1956.

NEW STATE

For Ice Cream.
First use 1921.

SN 12,420. Sunshine Biscuits, Inc., Long Island City, N. Y., from Gordon Foods, Inc., Atlanta, Ga. Filed July 19, 1956.

RIPLETS

For Potato Chips.
First use Jan. 10, 1955.

SN 13,530. V. F. Garza, d. b. a. Mexican Products Sales Co. and V. F. Garsa and Sons, Indiana Harbor, Ind. Filed Aug. 7, 1956.

EL POPULAR

The English translation of the Spanish words "El Popular" is "the popular one." Owner of Reg. No. 425,258.

For Mexican Style Chili Powder, Mexican Style Chocolate Used in Making Beverages, Mexican Style Canned Beans, Mexican Style Moist Cheese in Envelopes, and Mexican Style Poultry Seasoning Known as "Mole."

First use on or about Mar. 1, 1927, on chocolate.

SN 23,806. The Kalva Corporation, Waukegan, Ill. Filed Feb. 5, 1957.

CANDY CROWN

For Flavored, Edible Coatings for Ice Cream Cones and Ice Cream Novelties.

First use on or about Sept. 19, 1950.

SN 27,889. Reese Finer Foods, Inc., Chicago, Ill. Filed Apr. 10, 1957.

QUEEN LOUISE

Owner of Reg. No. 259,113.
For Brislings.
First use on or about Mar. 18, 1957.

SN 28,859. H. P. Hood & Sons, Inc., Boston, Mass. Filed Apr. 25, 1957.

CHERRY HILL FARM

For Fluid Milk.
First use Jan. 1, 1900.

SN 29,265. Armour and Company, Chicago, Ill. Filed May 2, 1957.

ARMITE

For Nutritional and Meat Flavoring Material Having a Liver Base.

First use Apr. 12, 1957.

SN 29,287. Lincoln Foods, Inc., Lawrence, Mass. Filed May 2, 1957.



LINCOLN

For Flavored Milk Shake Syrup for Food Beverages and Fruit Flavored Syrup for Food Beverages.

First use May 1946 on milk shake syrup.

SN 29,292. Marhoefer Packing Co. of Ohio, Inc., Cincinnati, Ohio. Filed May 2, 1957.

TENDERITE

For Frozen Chopped Beef.
First use Apr. 1, 1957.

SN 30,856. Suni-Citrus Products Company, Haines City, Fla. Filed May 27, 1957.

SUNI-CITROLAS

Owner of Reg. Nos. 353,341 and 375,032.

For Animal Feed Crumbles and Animal Feed Pellets Both Made From a Blend of Citrus Meal, Fines and Molasses Forming a Carbohydrate Concentrate; and Silage Preservative Made From Citrus Meal, Fines, and Molasses.

First use Feb. 23, 1957.

SN 31,302. Arnold Doughnuts, Incorporated, Saylesville, R. I. Filed June 4, 1957.



For Bakery Products—Namely, English Muffins, Doughnuts, and Crullers.

First use Mar. 20, 1957.

SN 31,528. Weldon Farm Products, Inc., New York, N. Y. Filed June 6, 1957.

ALBA

Owner of Reg. Nos. 568,453, 643,686, and others.
For Chocolate Flavored Drinks in Powder Form.
First use May 19, 1957.

SN 33,051. Clark Brothers Chewing Gum Co., Pittsburgh, Pa. Filed July 2, 1957. Sec. 2(f) as to "Clark's."

Clark's

"CINNAMON FOR WHITE TEETH"

No claim is made to the words "Cinnamon for White Teeth" apart from the mark as shown. Owner of Reg. Nos. 381,209, 643,764, and others.

For Chewing Gum.

First use June 3, 1957; at least as early as 1924 as to "Clark's."

SN 33,139. Dubuque Packing Company, Dubuque, Iowa. Filed July 3, 1957. Sec. 2(f).

Iowa Maid

Owner of Reg. No. 580,138.
For Prepared Meats.
First use Apr. 1, 1952.

SN 33,160. "Le Moulin-Legumes," Manufacture d'Emboutissage de Bagnolet (Seine) (M. E. B.) Anciens Etablissements Mantelet & Boucher, Bagnolet (Seine), France. Filed July 3, 1957.

MOULI

Owner of French Reg. No. 310,053, dated Aug. 18, 1936 (Seine); Natl. Inst. No. 263,307.

For Sugar; and Spices and Seasonings—Namely, Pepper, Vanilla Beans, Salt, Nutmeg, Cloves, Cinnamon, Thyme, Bay Leaves, Savory, Celery Seed, Ginger, Marjoram, and Powdered Pimiento.

SN 33,977. Kent Foods, Inc., Kennedyville, Md. Filed July 18, 1957.

PRIDE of KENT

For Lemon Butter.
First use Aug. 20, 1956.

SN 34,135. Henderson Foods, Inc., Wilmington, Calif. Filed July 22, 1957.

RING MASTER

For Canned Dog Food.
First use July 16, 1957.

SN 34,789. Henny Penny Egg Ranches, Pico, Calif. Filed Aug. 1, 1957.

Chicken Little

Owner of Reg. No. 559,710.
For Fresh Eggs.
First use on or about Aug. 15, 1947.

SN 34,810. McCormick & Company, Incorporated, Baltimore, Md. Filed Aug. 1, 1957.

McCORMICK Schilling

Owner of Reg. Nos. 288,287, 645,184, and others.
For Spices, Condiments—Namely, Mayonnaise and Salad Dressing; Instant Dehydrated Potatoes, Chopped Onions, Coffee, and Garlic Puree.
First use July 25, 1956, on spices.

SN 35,414. American Beauty Macaroni Co., Kansas City, Mo. Filed Aug. 13, 1957.

AMERICAN BEAUTY

Owner of Reg. Nos. 88,250 and 575,642.
For Minestrone Italian Style Soup and Ravioli and Meat Balls in Sauce.
First use Oct. 15, 1956.

SN 35,489. Bowman Dairy Company, Chicago, Ill. Filed Aug. 14, 1957.

BOW-BAKE

Owner of Reg. Nos. 511,736, 621,868, and others.
For Baking Compound Consisting of Dried Whey, Soya Flour, and Non-Fat Dry Milk.
First use Apr. 24, 1953.

SN 35,809. Potter-McCune Company, McKeesport, Pa. Filed Aug. 19, 1957.

TASTYMAID

For Jellies, Fruit Preserves, Pancake Syrup, Canned Fruit Juices, Spaghetti, Salad Dressing, Dried Fruits, Coffee, Canned Fruits, Canned Vegetables, Canned Fish, Bottled Olives and Peanut Butter, Canned Apple Sauce, Canned Berries, Canned Seafood, Canned Tomato Juice, Grape Juice, Chili Sauce, Catsup, Hominy, and Honey.
First use 1929.

SN 36,386. A. Michaud Co., Philadelphia, Pa. Filed Aug. 28, 1957.

PRESTIGE

For Fresh Frozen Food Products—Namely, Dressed and Eviscerated Fowl, Fish, Beef, Veal, Pork, and Lamb Steaks; Veal, Pork, Lamb, and Mutton Chops; Beef Patties, Bacon Wrapped Beef Patties, Beef Ribs, and Beef Loin; Veal Cutlets and Breaded Veal Cutlets; Lamb Barbecue; and Chicken Parts.
First use Oct. 10, 1956.

SN 37,163. Hercules Powder Company, Wilmington, Del. Filed Sept. 13, 1957.

JARVIS

For Hydrolyzed Vegetable Protein Food Seasoning.
First use July 19, 1957.

SN 37,572. Gristede Bros., Inc., New York, N. Y. Filed Sept. 20, 1957.

GRISDALE

Owner of Reg. Nos. 328,808 and 184,634.
For Dried, Canned, and Glass Contained Vegetables; Dried and Canned Fruits; Baked Apples; Applesauce; Canned Figs, Fruit Salad, Fruit Cocktail and Prunes; Jams, Jellies, Fruit Preserves, and Marmalades; Fancy and Wild Rice; Soups; Canned Chicken and Egg Noodles; Canned Salmon; Coffee, Tea and Tea Bags; Unshelled Walnuts; Canned Tomato Juice; Tomato Juice Cocktail; Tomato Catsup; Grapefruit Juice and Prune Juice; Chili Sauce; Cranberry Sauce; Mayonnaise; Salad Dressing; Chocolate Pudding and Chocolate Flavored Starch Pudding; Gelatine; Food Flavoring Extracts; Spices; Vinegar; Olives; Olive Oil for Culinary Purposes; and Salt.
First use Jan. 2, 1921.

SN 37,591. Regina Nut Products Corp., Brooklyn, N. Y. Filed Sept. 20, 1957.

CHEE CHEE

For Packed, Prepared Ceci and Fava Beans.
First use May 16, 1957.

SN 37,912. Seabrook Farms Co., Seabrook, Upper Deerfield, N. J. Filed Sept. 26, 1957.

Deerfield

Owner of Reg. No. 519,958.
For Canned and Frozen Vegetables.
First use 1933.

SN 38,516. Wilco Produce Company, Blythe, Calif. Filed Oct. 7, 1957.



The wording "M–M–M, Good!" is disclaimed apart from the mark as shown.

For Fresh Cantaloupes.
First use June 14, 1957.

SN 38,905. Edlo, Inc., San Francisco, Calif. Filed Oct. 15, 1957.

SLIM WHIP

Owner of Reg. Nos. 634,947 and 608,411.
For Cottage Cheese.
First use Sept. 25, 1957.

SN 38,943. Piasten Kakao- und Schokoladenfabrik Gesellschaft mit beschränkter Haftung, Forchheim, Oberfranken, Germany. Filed Oct. 15, 1957.

PIASTEN

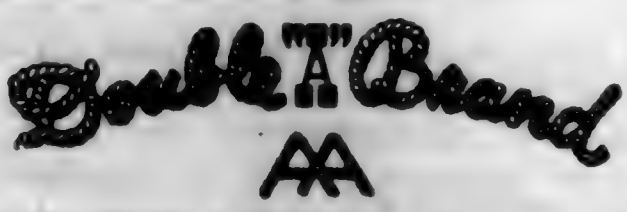
Owner of German Reg. No. 615,673, dated Jan. 16, 1952.
For Cocoa and Candies.

SN 38,945. Real Fresh Milk, Inc., Visalia, Calif. Filed Oct. 15, 1957.

Cow WOW

For Canned Chocolate Flavored Milk Drink.
First use June 14, 1957.

SN 39,179. Arthur I. Appleton, d. b. a. Double "A" Brand, Chicago, Ill. Filed Oct. 21, 1957.



The word "Brand" is disclaimed apart from the mark as shown.

For Sauce for Meat—Namely, Barbecue Sauce.
First use Aug. 28, 1957.

SN 39,253. McLellan Foods, Inc., Belmont, Mass. Filed Oct. 21, 1957.

KAY-DEC

For Prepared Cake Icing.
First use July 1, 1957.

SN 39,272. Realemon-Puritan Co., Chicago, Ill. Filed Oct. 21, 1957. Sec. 2(f).

REALPRUNE

Owner of Reg. Nos. 408,150, 656,534, and others.
For Prune Juice.
First use in January 1951.

SN 39,984. Ocean Garden Products, Inc., San Diego, Calif. Filed Nov. 1, 1957.

OCEAN STAR

For Frozen Fresh Shrimp.
First use Sept. 17, 1957.

SN 40,128. John W. Eshelman & Sons, Lancaster, Pa. Filed Nov. 5, 1957. Sec. 2(f).

LANCASTER

Owner of Reg. No. 523,460.
For Livestock and Poultry Feeds.
First use in January 1917.

SN 40,178. King Candy Company, Fort Worth, Tex. Filed Nov. 6, 1957.

CROWN JEWELS

Owner of Reg. Nos. 527,947 and 656,896.
For Candy.
First use Sept. 1, 1938.

SN 40,525. Wisconsin Malting Co., Milwaukee, Wis. Filed Nov. 12, 1957.

WISYME

For Malt Used as an Animal Feed Supplement.
First use Oct. 17, 1957.

SN 41,552. The Krier Preserving Company, Belgium, Wis. Filed Nov. 29, 1957.

LI'L BRAVE

For Canned Peas.
First use Oct. 4, 1957.

SN 41,904. Arthur A. Frooman, d. b. a. Chef's Special Foods, Chicago, Ill. Filed Dec. 6, 1957.

CHEF'S SPECIAL

For Canned Chili Con Carne.
First use Nov. 6, 1957.

SN 41,945. S. E. Rykoff & Company, Los Angeles, Calif. Filed Dec. 6, 1957.

GOLDEN REY

Owner of Reg. No. 197,958.

For Vegetable Shortening; Cheese; Marshmallows; Potato Chips; Salad Dressing; Vinegar; Fruit Sundae Topping; Canned Fruits; Dried Fruits; Canned Fruit Pie Filling; Mince Meat; Canned Vegetables; Flavored Gelatin; Prepared Puddings; Fruit Jellies; Apple Butter; Canned Fruit Juices; Canned Meat Products—Namely, Corned Beef Hash, Beef Stew, Vienna Sausage, Luncheon Meat; Beef Tamales; Chili Con Carne; Canned Prepared Rice; Prepared Horseradish; Pickles; Pickle Relish; Olives; Anti-Oxidant Preparation for Preserving Foods; Sauce for Meats; Dry Soup Base; Table Syrup; Molasses; Tomato Sauce; Tomato Catsup.

First use Feb. 1, 1924.

SN 41,988. Cashmere Cooperative Association, Inc., Cashmere, Wash. Filed Dec. 9, 1957.



Without waiving common law rights, applicant makes no claim to the word "Brand" apart from the mark.
For Fresh Deciduous Fruits.
First use Apr. 15, 1934.

SN 42,392. Morgan Packing Company, Inc., d. b. a. Edinburg Canning Company, Austin, Ind. Filed Dec. 13, 1957. Sec. 2(f).

MAY-FIELD

For Canned Corn.
First use on or about Jan. 1, 1930.

SN 42,840. Comet Rice Mills, Houston, Tex. Filed Dec. 23, 1957.

NO. 33

For Rice.
First use Feb. 19, 1955.

SN 42,902. Orchard Park Foods, Inc., Buffalo, N. Y. Filed Dec. 23, 1957.

OCEAN BELLE

For Canned Salmon.
First use June 1, 1937.

SN 42,904. Orchard Park Foods, Inc., Buffalo, N. Y. Filed Dec. 23, 1957.

CLEAR RAPIDS

For Canned Salmon.
First use Jan. 9, 1937.

SN 43,204. Paloma Citrus Fruit Association, Visalia, Calif. Filed Dec. 30, 1957.

SUREBEST

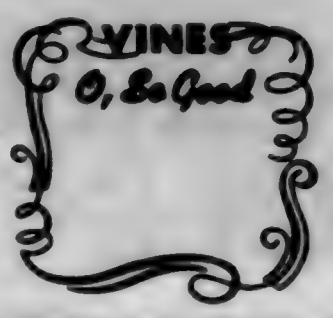
Owner of Reg. No. 380,253.
For Fresh Citrus Fruit.
First use 1921.

SN 43,205. Paloma Citrus Fruit Association, Visalia, Calif. Filed Dec. 30, 1957.

SUREFINE

Owner of Reg. No. 380,254.
For Fresh Citrus Fruit.
First use in 1919.

SN 43,357. C. E. Vines, d. b. a. Vines Poultry Farms, Osgood, Ind. Filed Jan. 2, 1958.



For Fresh and Frozen Fowl—Namely, Turkeys, Chickens and Cornish Game Hens and Eggs.
First use May 1, 1957.

SN 43,373. Central Soya Company, Inc., Fort Wayne, Ind. Filed Jan. 3, 1958.

MASTER MIX

Owner of Reg. Nos. 531,457 and 629,653.
For Livestock Feed.
First use July 10, 1922.

SN 43,525. Lawrence J. Boushey, d. b. a. Lawrence J. Boushey Potato Company, East Grand Forks, Minn. Filed Jan. 7, 1958.

APPLES OF THE EARTH

For Potatoes in Their Natural State.
First use Dec. 18, 1956.

SN 43,609. The Frenchette Co., Inc., New York, N. Y. Filed Jan. 8, 1958.

RUSSIANETTE

For Low Calorie Salad Dressing.
First use Dec. 20, 1957.

SN 43,689. McKemie Distributors, Inc., Dallas, Tex. Filed Jan. 9, 1958.



For Barbecue Seasoning for Meats, Poultry, and Fish.
First use Nov. 26, 1956.

SN 43,742. Cooperative Exporters, Ltd., Copenhagen, Denmark. Filed Jan. 10, 1958.



For Cheese and Cheese Spread.
First use in April 1951; in commerce in August 1952.

SN 43,855. Jackson Produce Company, El Centro, Calif. Filed Jan. 13, 1958.

BRANDED

For Fresh Fruits and Vegetables.
First use Dec. 5, 1957.

SN 44,605. Crown Produce Company, Los Angeles, Calif. Filed Jan. 24, 1958.

ROLEX

For Fresh Persimmons and Fresh Tomatoes.
First use Nov. 23, 1957.

SN 44,615. Gila River Ranch, Inc., Gila Bend, Ariz. Filed Jan. 24, 1958.

THEBA

For Fresh Lettuce.
First use Nov. 26, 1957.

SN 44,616. Gila River Ranch, Inc., Gila Bend, Ariz. Filed Jan. 24, 1958.

GILA

For Fresh Lettuce.
First use Nov. 25, 1957.

SN 44,760. Sunflo Specialty Co. Inc., Richmond Hill, N. Y. Filed Jan. 27, 1958.

SUN-BOW

For Roasted Sunflower Seeds.
First use Nov. 20, 1957.

SN 44,834. Mutual Trading Co., Inc., Los Angeles, Calif. Filed Jan. 28, 1958.

Red ROSE

For Rice.
First use in November 1956.

SN 44,963. Heublein, Inc., Hartford, Conn. Filed Jan. 30, 1958.

TENDER SPRAY

For Meat Tenderizer in Liquid Form.
First use Dec. 3, 1957.

SN 45,087. Wellworth Pickle Co., Paterson, N. J. Filed Jan. 31, 1958.

WELLWORTH

For Pickles and Pickle Relish.
First use 1903.

SN 45,263. Maine Canned Foods Inc., Portland, Maine. Filed Feb. 4, 1958.

DUTCH OVEN

Owner of Reg. No. 354,413.
For Baked Beans Packed in Glass or Tins.
First use Dec. 30, 1936.

SN 45,423. E. H. Swaim, d. b. a. Laurel Biscuit Company, Dayton, Ohio. Filed Feb. 6, 1958.

Laurel

For Crackers and Cookies.
First use January 1956.

SN 45,665. Orleans Seafood Company, New Orleans, La. Filed Jan. 29, 1958.

Orleans

For Canned Seafoods, Especially Canned Shrimp and Canned Oysters.
First use Sept. 25, 1943.

SN 45,783. Campbell Soup Company, Camden, N. J. Filed Feb. 13, 1958.

TV

Owner of Reg. Nos. 605,908 and 597,453.
For Frozen Prepared Dinners, Entrees and Casseroles Composed of Meats, Fish, Shellfish, or Poultry and One or More Vegetables.
First use November 1953 on frozen prepared dinners.

Class 48 — Malt Beverages and Liquors

SN 40,368. Pabst Brewing Company, Chicago, Ill. Filed Nov. 8, 1957. Sec. 2(f).

Pabst

Owner of Reg. Nos. 314,629, 609,742, and others.
For Ale.
First use Nov. 1, 1934.

SN 40,369. Pabst Brewing Company, Chicago, Ill. Filed Nov. 8, 1957. Sec. 2(f).

Pabst
Blue Ribbon

Owner of Reg. Nos. 34,379, 609,742, and others.
For Ale.
First use Nov. 1, 1934.

SN 40,825. Fuhrmann & Schmidt Brewing Company, Shamokin, Pa. Filed Nov. 18, 1957.

F & S

Owner of Reg. No. 614,957.
For Beer.
First use in 1906.

Class 50—Merchandise Not Otherwise Classified

SN 18,267. Bruce P. Robbins Trophies, Inc., Dallas, Tex. Filed Oct. 26, 1956.



Bruce P. Robbins
TROPHIES, INC.

The representation of the trophy is disclaimed.
For Loving Cups, Medallions, and Trophies.
First use Apr. 15, 1953.

SN 32,934. The Excello Paper Products Company, Cincinnati, Ohio. Filed July 1, 1957.

BOTTLE-DEK

For Combination Divider or Separator and Display Sheet for Interposition Between Stacked Layers of Packaged Merchandise.
First use about Nov. 6, 1956.

SN 34,375. Raymond C. Schneider, Palo Alto, Calif. Filed July 25, 1957.

FLEXI-DATABOARD

For Peg Boards, Display Boards, Bulletin Boards.
First use Feb. 25, 1957.

SN 39,028. Addressograph-Multigraph Corporation, Cleveland, Ohio. Filed Oct. 17, 1957.

ADDRESSOGRAPH

Owner of Reg. Nos. 54,097, 553,110, and others.
For Personal and Article Printing and Identifying Devices for Use in Addressing, Imprinting and Similar Machines—Namely, Plates and Cards Before and After the Embossing of Type Characters Thereon.
First use Feb. 1, 1925, on article printing and identifying devices.

SN 40,374. Polychrome Corporation, Yonkers, N. Y. Filed Nov. 8, 1957.

ALKOTE

For Presensitized Aluminum Offset Plates.
First use Apr. 15, 1957.

SN 40,392. Sun Glo Studios, New York, N. Y. Filed Nov. 8, 1957.

PLANT-A-PLATE

Owner of Reg. No. 562,444.
For Combined Plant and Plate Holders.
First use Apr. 26, 1949.

SN 41,107. Metal Foil Products Manufacturing Company, Linden, N. J. Filed Nov. 21, 1957.

BURN-A-FOIL

For Disposable Foil Liners for Burner Drip Pans in Electric and Gas Ranges.
First use November 1957.

SN 41,103. Robert O. Frederiksen, Mountain View, Calif. Filed Nov. 22, 1957.

LIXIT

For Drinking Fountain for Dogs and Other Pets.
First use Nov. 17, 1954.

SN 41,206. Wilson Capilator Corp., Brooklyn, N. Y. Filed Nov. 22, 1957.

CAPILATOR

For Dispensing Cap for Containers Containing Deodorants, Preshaving Lotion, and Insect Repellent.
First use Nov. 8, 1957.

Class 51—Cosmetics and Toilet Preparations

SN 33,362. Ferdinand Mülhens, d. b. a. Eau de Cologne- & Parfümerie-Fabrik Glockengasse No. 4711 gegenüber der Pferdepost von Ferd. Mülhens, Cologne (Rhine), Germany. Filed July 8, 1957.

ELAN

Owner of German Reg. No. 636,774, dated Apr. 14, 1953.
For Cosmetics—Namely, Perfumes, Essential Oils for Inclusion in Perfumes and Cosmetic Products, Face Powder in Solid or Cake Form, Loose Powder for Facial or Other Cosmetic Purposes.

Class 52—Detergents and Soaps

SN 38,960. Yardley & Company Limited, London, England. Filed Oct. 15, 1957.



Owner of British Reg. No. 761,006, dated Jan. 3, 1957; and U. S. Reg. Nos. 162,421, 164,343, and 298,376.
For Toilet Soap.

SN 40,919. Chemical Service of Baltimore, Inc., Baltimore, Md. Filed Nov. 19, 1957.

CREAMYCIN

For Antiseptic Hand Soap for Office and Industrial Use.
First use Nov. 8, 1957.

SN 42,722. Helena Rubinstein, Inc., New York, N. Y. Filed Dec. 19, 1957.

TREE OF LIFE

For Complexion Soap.
First use Jan. 27, 1957.

SN 43,680. Franklin Research Company, Philadelphia, Pa. Filed Jan. 9, 1958. Sec. 2(f).

DUSTCHEK

Owner of Reg. No. 567,509.
For Cleaning Emulsions for Collecting and Removing Dust and Dirt To Be Applied to Dust Mops and Cloths.
First use Jan. 25, 1950.

SERVICE MARKS

Class 102—Insurance and Financial

SN 25,384. Alton Banking & Trust Co., Alton, Ill. Filed Mar. 4, 1957.

THE WEDGE BANK

For Banking Services.
First use Nov. 16, 1946.

Class 103—Construction and Repair

SN 31,069. American Pipe Cleaning Company, Minneapolis, Minn. Filed May 31, 1957.

APCO

For Cleaning and Maintaining for Operative Purposes of Municipal and Industrial Sewers, Storm Sewers and the Like.
First use Jan. 1, 1957.

Class 107—Education and Entertainment

SN 22,181. Billy Graham Evangelistic Film Ministry, Inc., d. b. a. World Wide Pictures, Sherman Oaks, Calif. Filed Jan. 7, 1957.

WORLD WIDE PICTURES

The word "Pictures" is disclaimed apart from the mark.
For Distribution and Rental of Motion Pictures and Photographic Transparencies of Religious and Moral Character.
First use Sept. 1, 1956.
Subj. to Intf. with SN 22,960.

SN 22,182. Billy Graham Evangelistic Film Ministry, Inc., d. b. a. World Wide Pictures, Sherman Oaks, Calif. Filed Jan. 7, 1957.

WORLD WIDE

For Distribution and Rental of Motion Pictures and Photographic Transparencies of Religious and Moral Character.
First use Sept. 1, 1956.
Subj. to Intf. with SN 22,960.

SN 32,904. Bill Burrud Productions, Hollywood, Calif. Filed July 1, 1957.

WANDERLUST

For Title of a Television Travel Program.
First use Feb. 14, 1955.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 30,781. International Association of Tool Craftsmen, Rock Island, Ill. Filed May 27, 1957.

IATC
INTERNATIONAL ASSOCIATION OF TOOL CRAFTSMEN

For Indicating Membership in a Labor or Craft Organization.
First use Oct. 24, 1953.

SN 30,235. Self-Realization Fellowship Church, Inc., Los Angeles, Calif. Filed Aug. 26, 1957.

PARAMHANSA YOGANANDA

For Indicating Membership in Applicant.
First use Aug. 1, 1957.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

664,218. ALGOMA POCAHONTAS AND DESIGN. Island Creek Coal Sales Company. SN 28,944. Pub. 4–29–58. Filed 4–26–57.

664,219. BLACK KNIGHT. John E. Evans & Co. SN 30,643. Pub. 3–4–58. Filed 5–24–57.

664,220. UNITOL. Union Bag-Camp Paper Corporation. SN 32,270. Pub. 4–29–58. Filed 6–19–57.

664,221. CLASSIC. F. C. Donovan, Inc. SN 35,501. Pub. 4–29–58. Filed 8–14–57.

Class 2 — Receptacles

664,222. WHIRL-A-PEST AND DESIGN. Markie C. George, Sr., d. b. a. Whirl-A-Pest Mfg. Co. SN 4,319. Pub. 4–29–58. Filed 3–12–56.

664,223. FOLD-R-LOK-PAK. Milprint, Inc. SN 19,484. Pub. 4–29–58. Filed 11–19–56.

664,224. STA-NEET. Peninsular Plastics Corporation. SN 20,485. Pub. 4–29–58. Filed 12–5–56.

664,225. MOBY DICK. Permacel-Le Page's Inc., by change of name from Permacel Tape Corporation. SN 35,528. Pub. 4–29–58. Filed 8–14–57.

664,226. COOLIE-COASTERS. Automotive Rubber Company, Inc. SN 35,728. Pub. 4–29–58. Filed 8–19–57.

664,227. CAROL. Farrington Manufacturing Company. SN 35,990. Pub. 4–29–58. Filed 8–22–57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

664,228. ELDONIAN. George Sheldon (Walsall) Limited. SN 28,463. Pub. 4–29–58. Filed 4–18–57.

Class 4 — Abrasives and Polishing Materials

664,229. PRESTONE. Union Carbide Corporation. SN 34,311. Pub. 4–29–58. Filed 7–24–57.

664,230. EVEREADY. Union Carbide Corporation. SN 34,314. Pub. 4–29–58. Filed 7–24–57.

664,231. ADAIR-O-SOL. Chempel, Inc. SN 35,493. Pub. 4–29–58. Filed 8–14–57.

664,232. STEEL-CO-LITE. C C Manufacturing Co. SN 35,627. Pub. 4–29–58. Filed 8–16–57.

Class 5 — Adhesives

664,233. TRI-TIX. Tri-Tix, Inc. SN 38,310. Pub. 4–29–58. Filed 10–3–57.

Class 6 — Chemicals and Chemical Compositions

664,234. JAPANESE CHARACTERS. Seiki Konaka. SN 6,530. Pub. 4–29–58. Filed 4–17–56.

664,235. SWIFT-SURE. The Gerson Stewart Corporation. SN 14,652. Pub. 11–5–57. Filed 8–27–56.

664,236. JASMOPHORE. Firmenich, Incorporated. SN 22,361. Pub. 4–29–58. Filed 1–10–57.

664,237. NALQUAT. National Aluminate Corporation. SN 22,764. Pub. 4–29–58. Filed 1–17–57.

664,238. PARA-DRI. Arkansas Company, Inc. SN 27,839. Pub. 4–29–58. Filed 4–10–57.

664,239. M C & B AND DESIGN. The Matheson Co., Inc. SN 27,870. Pub. 4–29–58. Filed 5–27–57.

664,240. SHEEN. Diamond Alkali Company, from Diamond Black Leaf Company. SN 28,030. Pub. 4–29–58. Filed 4–12–57.

664,241. ISO-BRITE. Wagner Brothers, Inc. SN 28,207. Pub. 4–29–58. Filed 4–15–57.

664,242. CELLULUBE. Celanese Corporation of America. SN 28,431. Pub. 4–29–58. Filed 4–18–57.

664,243. POLYCIDE 26. Diamond Alkali Company, from Diamond Black Leaf Company. SN 33,468. Pub. 4–29–58. Filed 7–10–57.

664,244. LOVELY ON. Fumol Corporation. SN 33,871. Pub. 4–29–58. Filed 7–17–57.

664,245. VANOX. R. T. Vanderbilt Company, Inc. SN 34,315. Pub. 4–29–58. Filed 7–24–57.

664,246. VOLTREET. Acme Chemical Company. SN 30,340. Pub. 4–29–58. Filed 8–28–57.

664,247. CARBITRON. Union Carbide Corporation. SN 37,827. Pub 4–29–58 Filed 9–25–57.

Class 7 — Cordage

664,248. ART-TYE. Artistic Ribbon Mfg. Corp. SN 34,485. Pub 4–29–58. Filed 7–9–57

Class 9 — Explosives, Firearms, Equipments, and Projectiles

664,249. H-MANTEL AND DESIGN. Dynamit-Action-Gesellschaft vormals Alfred Nobel & Co. SN 15,879. Pub. 5–28–57. Filed 9–18–56.

664,250. HI-CAP. E. I. du Pont de Nemours and Company. SN 35,988. Pub. 4–29–58. Filed 8–22–57.

664,251. NILITE. E. I. du Pont de Nemours and Company. SN 36,960. Pub. 4–29–58. Filed 9–10–57.

664,252. LYNX. Harrington & Richardson, Inc. SN 38,281. Pub. 4–29–58. Filed 10–3–57.

Class 10 — Fertilizers

664,253. HARDIGREEN. Wilson & Toomer Fertilizer Co. SN 39,022. Pub. 4–29–58. Filed 10–16–57.

664,254. PRIMA-VERA. Romeo Packing Company. SN 39,278. Pub. 4–29–58. Filed 10–21–57.

664,255. ROMEO. Romeo Packing Company. SN 39,279. Pub. 4–29–58. Filed 10–21–57.

664,256. LUCKY GARDNER. Romeo Packing Company. SN 39,280. Pub. 4–29–58. Filed 10–21–57.

664,257. TURFILIZER. Cornell Seed Company. SN 39,789. Pub. 4–29–58. Filed 10–30–57.

664,258. BONNIE LASS. Bonnie Brands, Inc. SN 40,422. Pub. 4–29–58. Filed 11–12–57.

Class 11 — Inks and Inking Materials

664,259. HYFLEX. Sun Chemical Corporation. SN 25,727. Pub. 4–29–58. Filed 3–7–57.

664,260. HYDRAFLEX. Sun Chemical Corporation. SN 25,728. Pub. 4–29–58. Filed 3–7–57.

664,261. ALKYFLEX. Sun Chemical Corporation. SN 25,729. Pub. 4–29–58. Filed 3–7–57.

Class 12 — Construction Materials

664,262. PRESCON. The Prescon Corporation, from Prestressed Concrete Corporation. SN 673,127. Pub. 4–2–57. Filed 9–13–54.

664,263. SIGNODE GRAINGUARD. Signode Steel Strapping Company. SN 18,798. Pub. 4–29–58. Filed 11–5–56.

664,264. TAL-PRES. Perry J. Wilson, d. b. a. Pres Industrial Products. SN 21,390. Pub. 4–29–58. Filed 12–20–56.

664,265. ROYALTY IN STONE AND DESIGN. The Georgia Marble Company. SN 28,145. Pub. 4–29–58. Filed 4–15–57.

664,266. PARKLINE. Parkchester Glass Co. SN 29,230. Pub. 4–29–58. Filed 5–1–57.

664,267. VETRUM. "Vetrum" Soc. A R. L. SN 29,245. Pub. 4–29–58. Filed 5–1–57.

664,268. DIAMONTEX. Gladding, McBean & Company. SN 30,330. Pub. 3–25–58. Filed 5–20–57.

664,269. POLY-PREG. U. S. Polymeric Chemicals, Inc. SN 30,864. Pub. 4–29–58. Filed 5–27–57.

664,270. MILL ART. Hohmeier Mill & Lumber Co. SN 31,842. Pub. 4–29–58. Filed 6–12–57.

664,271. DUROPIPE. Sonoco Products Company. SN 32,858. Pub. 4–29–58. Filed 6–28–57.

664,272. RUB-R-PLAY. The Firestone Tire & Rubber Company. SN 34,048. Pub. 4–29–58. Filed 7–10–57.

664,273. SIL-GAN. Eugene W. Smith. SN 35,818. Pub. 4–29–58. Filed 8–19–57.

664,274. EVANITE. Evans Products Company. SN 36,169. Pub. 4–29–58. Filed 8–26–57.

664,275. SHIELD MASTER. Krueger Manufacturing Company, Inc. SN 37,171. Pub. 4–29–58. Filed 9–13–57.

664,276. TILOSTONE. Tilo Roofing Company, Inc. SN 37,307. Pub. 4–29–58. Filed 9–16–57.

664,277. AETNAWALL. Aetna Steel Products Corporation. SN 37,397. Pub. 4–29–58. Filed 9–18–57.

664,278. TRIPLE A ETC. AND DESIGN. Atlantic Asphalt & Asbestos, Inc. SN 37,767. Pub. 4–29–58. Filed 9–25–57.

664,279. BLACK PANTHER. Mexico Refractories Company. SN 37,798. Pub. 4–29–58. Filed 9–25–57.

664,280. WINDOUT. Winseal Manufacturing Company. SN 37,993. Pub. 4–29–58. Filed 9–27–57.

664,281. LOX SAFE. Redel Incorporated. SN 38,086. Pub. 4–29–58. Filed 9–30–57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

664,282. SERV-IT. West Bend Aluminum Co. SN 31,109. Pub. 2–11–58. Filed 5–31–57.

Class 15 — Oils and Greases

664,283. ROBALUBE. Continental Oil Company. SN 692,046. Pub. 4–29–58. Filed 7–28–55.

664,284. ENGIN-SURANCE. Kerr-McGee Oil Industries, Inc. SN 34,145. Pub. 4–29–58. Filed 7–22–57.

664,285. FINA AND DESIGN. American Petrofina, Incorporated. SN 34,761. Pub. 4–29–58. Filed 8–1–57.

664,286. PEERLESS. The R. J. Brown Company. SN 38,014. Pub. 4–29–58. Filed 9–30–57.

Class 16 — Protective and Decorative Coatings

664,287. EPI-FLEX. McDougall-Butler Co., Inc. SN 27,871. Pub. 4–29–58. Filed 4–10–57.

664,288. SILIKEEP. Glen A. Horn, d. b. a. Blacktop Maintenance. SN 38 749. Pub. 4–29–58. Filed 10–11–57.

664,289. SEALITE. Fischer-Lang & Company, Inc. SN 38,983. Pub. 3–4–58. Filed 10–16–57.

664,290. PHELAN'S LOX QUICK. Phelan-Faust Paint Mfg. Co. SN 40,258. Pub. 4–29–58. Filed 11–7–57.

664,291. U-SPRAY-IT. Sapolin Paints Inc. SN 41,576. Pub. 4–29–58. Filed 11–29–57.

664,292. A-PLEX. Cowman-Campbell Paint Co., Inc. SN 42,842. Pub. 4–29–58. Filed 12–23–57.

664,293. SPARKL-IT. JeMaJo Corp., d. b. a. Sparkl-It. SN 42,884. Pub. 4–29–58. Filed 12–23–57.

Class 17 — Tobacco Products

664,294. TUB AND DESIGN. David Forry Tobacco Company. SN 34,499. Pub. 4–29–58. Filed 7–11–57.

664,295. XX AND DESIGN. David Forry Tobacco Company. SN 34,500. Pub. 4–29–58. Filed 7–11–57.

Class 18 — Medicines and Pharmaceutical Preparations

664,296. TOPOCAINE. Allied Professional Associates, Ltd. SN 1,830. Pub. 4–29–58. Filed 2–1–56.

664,297. WADE'S KOOL FOOT FOR HOT FEET. Van Sickle Company, d. b. a. Wade Pharmacal Co. SN 8,891. Pub. 4–29–58. Filed 5–23–56.

664,298. ACHROCORT. American Cyanamid Company. SN 12,568. Pub. 4–29–58. Filed 5–4–56.

664,299. LOTION-JEL. Grandpa Brands Company, d. b. a. C. S. Dent & Co. SN 19,963. Pub. 4–29–58. Filed 11–27–56.

664,300. TRACO. Neoco Corporation. SN 21,565. Pub. 4–29–58. Filed 12–24–56.

664,301. MEDIC AND DESIGN. Plough, Inc. SN 23,940. Pub. 4–29–58. Filed 2–6–57.

664,302. DELTA-TRIBIOCIN. The Upjohn Company. SN 24,879. Pub. 4–29–58. Filed 2–21–57.

664,303. DEANER. Riker Laboratories, Inc. SN 32,258. Pub. 4–29–58. Filed 6–19–57.

664,304. PANISONE. The Upjohn Company. SN 32,555. Pub. 4–29–58. Filed 6–24–57.

664,305. BIO-OPTEF. The Upjohn Company. SN 32,556. Pub. 4–29–58. Filed 6–24–57.

664,306. TIMCAPS. Lustgarten Laboratories, Inc. SN 32,607. Pub. 4–29–58. Filed 6–25–57.

664,307. NEO-OPTEF. The Upjohn Company. SN 33,305. Pub. 4–29–58. Filed 7–5–57.

664,308. SOLUSONE. The Upjohn Company. SN 33,586. Pub. 4–29–58. Filed 7–11–57.

664,309. FLAVORTABS. White Laboratories, Inc. (new company), from White Laboratories, Inc. SN 33,932. Pub. 4–29–58. Filed 7–17–57.

664,310. STRESSON. C. H. Boehringer Sohn. SN 34,211. Pub. 4–29–58. Filed 7–23–57.

664,311. TONOBESAN. C. H. Boehringer Sohn. SN 34,212. Pub. 4–29–58. Filed 7–23–57.

664,312. PYRIBESON. C. H. Boehringer Sohn. SN 34,213. Pub. 4–29–58. Filed 7–23–57.

664,313. MASTALONE. Chas. Pfizer & Co., Inc. SN 35,805. Pub. 4–29–58. Filed 8–19–57.

664,314. EMBRYOSTAT. Chas. Pfizer & Co., Inc. SN 35,806. Pub. 4–29–58. Filed 8–19–57.

664,315. ZICOL. Benjamin Zirin, d. b. a. Zirin Enterprises. SN 35,897. Pub. 4–29–58. Filed 8–20–57.

664,316. WIPCO. B Y's, Inc., d. b. a. Western Industrial Pharmaceuticals Co. SN 36,837. Pub. 4–29–58. Filed 9–9–57.

664,317. SILAVITE. Hand Medicine Company. SN 37,086. Pub. 4–29–58. Filed 9–12–57.

664,318. VITAL-EYES. Vital Research Corporation. SN 37,828. Pub. 4–29–58. Filed 9–25–57.

664,319. VITA-YUMS. AnDrue Laboratories, Inc. SN 37,848. Pub. 4–29–58. Filed 9–26–57.

664,320. LAN-ALLEN. Lan-Allen Drug & Pharmacal Corp. SN 37,885. Pub. 4–29–58. Filed 9–26–57.

664,321. B–X–L. McKesson & Robbins, Incorporated. SN 38,833. Pub. 4–29–58. Filed 10–14–57.

664,322. DIMOTHYN. Flint, Eaton & Company. SN 39,136. Pub. 4–29–58. Filed 10–18–57.

664,323. HIST-A-CORT-R. Dome Chemicals, Inc. SN 39,202. Pub. 4–29–58. Filed 10–21–57.

664,324. K-PREDNE-DOME. Dome Chemicals, Inc. SN 39,203. Pub. 4–29–58. Filed 10–21–57.

664,325. NERF. Albert L. Martin, d. b. a. Martin's Products. SN 39,245. Pub. 4–29–58. Filed 10–21–57.

664,326. JETREX. Robert Miles Sherman, d. b. a. Special Preparations Company. SN 39,415. Pub. 4–29–58. Filed 10–23–57.

Class 19—Vehicles

664,327. POLYMATIC. Ateliers de la Motobecane. SN 28,901. Pub. 4–29–58. Filed 4–29–57.

664,328. VAN-BRITE. Kessler Products Co., Inc. SN 37,739. Pub. 4–29–58. Filed 9–24–57.

664,329. CARAVAN. Adam Opel Aktiengesellschaft. SN 38,000. Pub. 4–29–58. Filed 9–30–57.

664,330. DESIGN OF KNIGHT. Carpenter Body Works, Inc. SN 38,583. Pub. 4–29–58. Filed 10–9–57.

664,331. SKIPLANE AND DESIGN. Alvin H. Martin, d. b. a. Martin Manufacturing Company. SN 38,621. Pub. 4–29–58. Filed 10–9–57.

Class 21—Electrical Apparatus, Machines, and Supplies

664,332. POPOMATIC. Manley, Inc. SN 13,047. Pub. 4–29–58. Filed 7–30–56.

664,333. DISH-O-LATOR. The Bastian-Blessing Company. SN 14,122. Pub. 4–29–58. Filed 8–17–56.

664,334. RENEWED. International Harvester Company. SN 16,057. Pub. 4–29–58. Filed 10–4–56.

664,335. KD AND DESIGN. Northeast Capital Corporation. SN 19,983. Pub. 4–29–58. Filed 11–27–56.

664,336. DYNA-TOUCH. Hoffman Electronics Corporation. SN 24,980. Pub. 4–29–58. Filed 2–25–57.

664,337. HOFFMAN BEAMRIDER. Hoffman Electronics Corporation. SN 24,981. Pub. 4–29–58. Filed 2–25–57.

664,338. TRANSISTOCOM. Modern Telephones (Great Britain) Ltd. SN 26,845. Pub. 4–29–58. Filed 3–25–57.

664,339. CROUSE HINDS. Crouse-Hinds Company. SN 27,283. Pub. 4–29–58. Filed 4–1–57.

664,340. UNIPOISE. Pickering Associates, Inc. SN 30,679. Pub. 4–29–58. Filed 5–24–57.

664,341. FUTRONIC AND DESIGN. B–I–M Company, Incorporated. SN 31,315. Pub. 4–29–58. Filed 6–4–57.

664,342. BONNY. Bonny Manufacturing Corporation. SN 31,459. Pub. 4–29–58. Filed 6–6–57.

664,343. CHEATER CUBE. B-Columbia Products Co. SN 32,630. Pub. 4–29–58. Filed 6–25–57.

664,344. MA AND DESIGN. Microwave Associates, Inc. SN 32,706. Pub. 4–29–58. Filed 6–27–57.

664,345. ALKENEX. General Electric Company. SN 33,613. Pub. 4–29–58. Filed 7–12–57.

664,346. TRANSAIRE. Preway, Inc. SN 33,638. Pub. 4–29–58. Filed 7–12–57.

664,347. RAY-O-VAC. The Electric Storage Battery Company, from Ray-O-Vac Company. SN 34,738. Pub. 4–29–58. Filed 7–31–57.

664,348. RAY-O-VAC AND DESIGN. The Electric Storage Battery Company, from Ray-O-Vac Company. SN 34,739. Pub. 4–29–58. Filed 7–31–57.

664,349. COLUMBIA. Union Carbide Corporation. SN 34,750. Pub. 4–29–58. Filed 7–31–57.

Class 22—Games, Toys, and Sporting Goods

664,350. BEAR PAW SNO-SKEETERS AND DESIGN. Bilwin Co., Inc., from Wilwin Co. SN 8,106. Pub. 4–29–58. Filed 5–10–56.

664,351. DESIGN OF INDIAN HEAD. Mohawk Sporting Equipment Co. (Ohio corporation), from Mohawk Sporting Equipment Co. (firm). SN 34,366. Pub. 4–29–58. Filed 7–25–57.

664,352. CATALINA RACER. Blazon, Inc. SN 36,561. Pub. 4–29–58. Filed 9–3–57.

664,353. DIZYDAZL. Hugh A. Garvie. SN 36,795. Pub. 4–29–58. Filed 9–6–57.

664,354. TUCO TRIPL-THICK AND DESIGN. The Tuco Work Shops, Incorporated. SN 37,393. Pub. 4–29–58. Filed 8–20–57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

664,355. PDC "AUTOMATIC." Willard F. Thoma, d. b. a. Precision Detroit Company. SN 18,535. Pub. 4–29–58. Filed 10–31–56.

664,356. KNICKERBOCKER. Master Vibrator Company, d. b. a. Knickerbocker Products Company. SN 19,028. Pub. 4–29–58. Filed 11–9–56.

664,357. SLIM JIM. Colonial Knife Company, Inc. SN 22,047. Pub. 7–9–57. Filed 1–3–57.

664,358. TIREMASTER. Salsbury Corporation. SN 22,969. Pub. 4–29–58. Filed 1–22–57.

664,359. CAMEL. Carl E. Carlsen. SN 25,521. Pub. 4–29–58. Filed 3–5–57.

664,360. BURR-BIT AND DESIGN. Vernon Devices, Inc. SN 30,212. Pub. 4–29–58. Filed 5–16–57.

664,361. AUTOMATIC. Jerome J. Sloyan, d. b. a. Automatic Motor Base Co. SN 30,278. Pub. 4–29–58. Filed 5–17–57.

664,362. BESSER-MATIC. Besser Company. SN 30,635. Pub. 4–29–58. Filed 5–24–57.

664,363. AROLUBE. The Aro Equipment Corporation. SN 32,041. Pub. 4–29–58. Filed 6–17–57.

664,364. CROSS-WRAP. Triangle Package Machinery Company. SN 32,267. Pub. 4–29–58. Filed 6–19–57.

664,365. ECLIPSE. The Bastian-Blessing Company. SN 35,026. Pub. 4–29–58. Filed 8–6–57.

664,366. PLAST-O-SEAL. The National Key Co. SN 35,527. Pub. 4–29–58. Filed 8–14–57.

664,367. MERC. Kiekhaefer Corporation. SN 37,434. Pub. 4–29–58. Filed 9–18–57.

664,368. IRON CITY AND DESIGN. Iron City Tool Works, Inc. SN 37,961. Pub. 4–29–58. Filed 9–27–57.

664,369. QUIETOOL. Buckeye Tools Corporation. SN 38,015. Pub. 4–29–58. Filed 9–30–57.

664,370. "IT PRINTS ANYWHERE" AND DESIGN. The Multistamp Company. SN 38,154. Pub. 4–29–58. Filed 10–1–57.

664,371. TRI-MATIC. American Optical Company. SN 38,187. Pub. 4–29–58. Filed 10–2–57.

664,372. SNOW FALL. Wallace Silversmiths, Inc. SN 38,247. Pub. 4–29–58. Filed 10–2–57.

664,373. CONTINENTAL AVIATION AND DESIGN. Continental Aviation and Engineering Corporation. SN 38,347. Pub. 4–29–58. Filed 10–4–57.

664,374. HAWKEYE. Hawkeye Products Corp. SN 38,460. Pub. 4–29–58. Filed 10–7–57.

664,375. MH BLISS ETC. AND DESIGN. E. W. Bliss Company. SN 40,020. Pub. 4–29–58. Filed 11–4–57.

664,376. DORR-OLIVER. Dorr-Oliver Incorporated. SN 40,671. Pub. 4–29–58. Filed 11–14–57.

664,377. SIDE WINDER AND DESIGN. Dealer Associates, Inc. SN 40,820. Pub. 4–29–58. Filed 11–18–57.

664,378. KING. King Automotive Products Co. SN 41,757. Pub. 4–29–58. Filed 12–4–57.

664,379. T8 AND DESIGN. Thompson Products, Inc. SN 42,083. Pub. 4–29–58. Filed 12–9–57.

664,380. TYCHO. Tychb Mfg. Co. SN 42,250. Pub. 4–29–58. Filed 12–11–57.

664,381. LINK-BELT TORQMOUNT AND DESIGN. Link-Belt Company. SN 42,293. Pub. 4–29–58. Filed 12–12–57.

664,382. VANDERCOOK. Vandercook & Sons, Inc. SN 42,559. Pub. 4–29–58. Filed 12–16–57.

664,383. NYSORB. The Barden Corporation. SN 42,575. Pub. 4–29–58. Filed 12–17–57.

664,384. HOFFCO-VEYOR. United States Hoffman Machinery Corporation. SN 42,745. Pub. 4–29–58. Filed 12–19–57.

664,385. EMRO. Ekco Products Company. SN 42,868. Pub. 4–29–58. Filed 12–23–57.

Class 24 — Laundry Appliances and Machines

664,386. SPRUSTEX. Gem, Incorporated, d. b. a. Sprustex Co. SN 35,991. Pub. 4–29–58. Filed 8–22–57.

Class 25 — Locks and Safes

664,387. LATCH-KING. Liberty Hardware Manufacturing Corporation. SN 32,095. Pub. 4–29–58. Filed 6–17–57.

Class 26 — Measuring and Scientific Appliances

664,388. RIMSET. Penn Controls, Inc. SN 26,115. Pub. 12–3–57. Filed 3–13–57.

664,389. STRUCTURIX. Gevaert Photo-Prodecten N. V. SN 30,653. Pub. 4–29–58. Filed 5–24–57.

664,390. DESIGN OF GREEK LETTER OMEGA. B–I–F Industries, Inc. SN 32,452. Pub. 4–29–58. Filed 6–24–57.

664,391. MOVEXAR. Agfa Aktiengesellschaft, für Photofabrikation, now by change of name Agfa Aktiengesellschaft, from Agfa Camera-Werk Aktiengesellschaft. SN 32,571. Pub. 4–29–58. Filed 6–25–57.

664,392. FEK AND DESIGN. Fred E. Klingler Company. SN 34,539. Pub. 4–29–58. Filed 7–29–57.

664,393. UNIGLOW. Radiant Manufacturing Corporation. SN 35,810. Pub. 4–29–58. Filed 8–19–57.

664,394. SUMATIC. Norman E. Summers, d. b. a. Hollywood School Photo Association. SN 37,301. Pub. 4–29–58. Filed 9–16–57.

664,395. TEKK. Kimble Glass Company. SN 37,358. Pub. 4–29–58. Filed 9–17–57.

664,396. BALOMATIC. Bausch & Lomb Optical Company. SN 37,413. Pub. 4–29–58. Filed 9–18–57.

664,397. WINDMARK. Earle F. Hiscock. SN 37,734. Pub. 4–29–58. Filed 9–24–57.

664,398. TEMPELOC. Continental Optical Company, Inc. SN 37,863. Pub. 4–29–58. Filed 9–26–57.

664,399. FILMOVARA. Bell & Howell Company. SN 37,937. Pub. 4–29–58. Filed 9–27–57.

664,400. MICRO-PUPIL. Robert A. Danker, d. b. a. Invisible Lens Service. SN 38,027. Pub. 4–29–58. Filed 9–30–57.

Class 28 — Jewelry and Precious-Metal Ware

664,401. DANEHOF. S. Chr. Fogh. SN 693,542. Pub. 4–29–58. Filed 8–23–55.

664,402. WALLACE SILVERSMITHS. R. Wallace & Sons Manufacturing Company. SN 16,162. Pub. 4–29–58. Filed 9–21–56.

664,403. ARROW AND DESIGN. Cluett, Peabody & Co., Inc. SN 30,228. Pub. 3–4–58. Filed 5–17–57.

Class 29 — Brooms, Brushes, and Dusters

664,404. SPORNETTE. Walter Sporn, d. b. a. Walter Sporn & Co. SN 33,920. Pub. 4–29–58. Filed 7–17–57.

664,405. TIGER BRAND. W. W. Lawrence & Company. SN 35,519. Pub. 4–29–58. Filed 8–14–57.

664,406. SO-CAL. Southern California Disinfecting Company. SN 36,246. Pub. 4–29–58. Filed 8–26–57.

664,407. VANI-PUF. Furlager Manufacturing Co., Inc. SN 39,799. Pub. 4–29–58. Filed 10–30–57.

Class 31 — Filters and Refrigerators

664,408. ISO-FLO. Wagner Brothers, Inc. SN 28,212. Pub. 4–29–58. Filed 4–15–57.

664,409. ZEROLIT. Ion Exchange (Canada) Limited. SN 38,050. Pub. 4–29–58. Filed 9–30–57.

664,410. PARKEREX. Parker Rust Proof Company. SN 38,629. Pub. 4–29–58. Filed 10–9–57.

664,411. DORR-OLIVER. Dorr-Oliver Incorporated. SN 40,670. Pub. 4–29–58. Filed 11–14–57.

664,412. SOUTHERNER. Milto B. Phillips, d. b. a. Phillips Supply House. SN 41,668. Pub. 4–29–58. Filed 12–2–57.

664,413. NORTH. Borg-Warner Corporation. SN 42,438. Pub. 4–22–58. Filed 12–16–57.

664,414. HYDROMATION. Hydromation Corporation. SN 42,867. Pub. 4–29–58. Filed 12–23–57.

Class 32 — Furniture and Upholstery

664,415. RUBBERLACE. Schnadig Corporation, from S. Karpen & Bros., Incorporated. SN 20,757. Pub. 4–29–58. Filed 12–10–56.

664,416. BABI-SWAY. Raymond I. Furrer, d. b. a. Wisconsin Juvenile Furniture Mfg. Co. SN 37,950. Pub. 4–29–58. Filed 9–27–57.

664,417. OMEGA AND DESIGN. The Kenmar Manufacturing Company. SN 38,996. Pub. 2–25–58. Filed 10–16–57.

664,418. A DECORATOR CHAIR. Jamestown Lounge Company. SN 41,822. Pub. 4–29–58. Filed 12–5–57.

664,419. COIL GUARD. Bedding Manufacturers Associates Inc. SN 43,134. Pub. 4–22–58. Filed 12–30–57.

664,420. HASSONETTE. Crawford Manufacturing Co., Inc. SN 43,821. Pub. 4–29–58. Filed 1–13–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

664,421. NIAGARA AND DESIGN. Niagara Blower Company. SN 27,879. Pub. 5–6–58. Filed 4–10–57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

664,422. SHUR-SEAL. Chicago Specialty Manufacturing Co. SN 25,316. Pub. 4–29–58. Filed 3–1–57.

664,423. OILGARD. Beck & Blatchford, Inc. SN 32,450. Pub. 4–29–58. Filed 6–24–57.

664,424. VICTOSEAL. Victor Manufacturing & Gasket Co. SN 38,181. Pub. 4–29–58. Filed 10–1–57.

664,425. SUPER-LON. A. W. Chesterton Company. SN 38,265. Pub. 4–29–58. Filed 10–3–57.

664,426. BLU-LON. A. W. Chesterton Company. SN 38,266. Pub. 4–29–58. Filed 10–3–57.

664,427. WHITE-LON. A. W. Chesterton Company. SN 38 267. Pub. 4–29–58. Filed 10–3–57.

Class 36—Musical Instruments and Supplies

664,428. AUDIO FIDELITY. Audiofidelity, Inc. SN 26,237. Pub. 4–29–58. Filed 3–15–57.

664,429. ROYAL STANDARD. Alwin Rudolf Seidel. SN 29,307. Pub. 4–29–58. Filed 5–2–57.

664,430. HALO AND DESIGN. Record Corporation of America. SN 29,823. Pub. 4–29–58. Filed 5–10–57.

Class 38—Prints and Publications

664,431. ROSSOTTI AD-PACK AND DESIGN. Rossotti Lithograph Corporation. SN 279. Pub. 4–29–58. Filed 1–6–56.

664,432. WEDAY. Paul W. Ihde, d. b. a. Paul Ihde, Photographer. SN 12,276. Pub. 4–29–58. Filed 7–17–56.

664,433. THE D & B DRUG AUDEX. Dun & Bradstreet, Inc. SN 20,367. Pub. 4–29–58. Filed 12–4–56.

664,434. CONTACTO. The Eye Research Foundation. SN 25,850. Pub. 4–29–58. Filed 3–11–57.

664,435. WALT DISNEY'S SCAMP. Walt Disney Productions. SN 36,572. Pub. 4–29–58. Filed 9–3–57.

664,436. THE SKILLET CLUB. General Features Corporation. SN 36,879. Pub. 4–29–58. Filed 9–9–57.

664,437. MEDICAL MIRROR. Francis T. Roberts, d. b. a. Science Editors. SN 37,685. Pub. 4–29–58. Filed 9–23–57.

664,438. GOLD COAST SUN SPOTS. William S. Doyle. SN 38,132. Pub. 4–29–58. Filed 10–1–57.

664,439. THE STUDENT TRAINER. Cramer Chemical Company. SN 39,192. Pub. 4–29–58. Filed 10–21–57.

664,440. ART NATIONAL. Art National Manufacturers Distributing Co. Inc. SN 39,312. Pub. 4–29–58. Filed 10–22–57.

664,441. AIRPIX. Robert Humphrey. SN 39,331. Pub. 4–29–58. Filed 10–22–57.

664,442. CUADERNO TRIMESTRAL ETC. The Christian Science Publishing Society. SN 39,713. Pub. 4–29–58. Filed 10–29–57.

Class 39—Clothing

664,443. KUD-L-DUDS. Charles Pindyck, Inc. SN 14,470. Pub. 4–29–58. Filed 8–23–56.

664,444. ROGERS-RUN-PROOF SATIN-GLO. Kingsboro Mills, Inc. SN 19,718. Pub. 4–29–58. Filed 11–5–56.

664,445. GOODING RUBBER AND DESIGN. Boston Woven Hose & Rubber Company of Pittsburgh, from Benjamin C. Gooding, Jr. SN 20,456. Pub. 4–29–58. Filed 12–5–56.

664,446. SYL-O-FROCK. M. C. Schrank Company. SN 27,536. Pub. 4–29–58. Filed 4–4–57.

664,447. PAUL MANN. Carl Mann Cloak Co. SN 28,615. Pub. 4–29–58. Filed 4–22–57.

664,448. VIYELLA. William Hollins & Company Limited. SN 31,323. Pub. 4–29–58. Filed 6–4–57.

664,449. PAJEES AND DESIGN. S. & R. Infants Wear Company, Inc. SN 33,435. Pub. 4–29–58. Filed 7–9–57.

664,450. PATTI PREEN. Preen Uniforms, Inc. SN 34,009. Pub. 4–29–58. Filed 7–18–57.

664,451. TALL MARSHA YOUNG ORIGINALS. Marsha Young, Inc. SN 34,273. Pub. 4–29–58. Filed 7–23–57.

664,452. SPORTIKINS. Nannette Manufacturing Company, Inc. SN 34,298. Pub. 4–29–58. Filed 7–24–57.

664,453. "P–F" FLYERS. The B. F. Goodrich Company. SN 34,352. Pub. 4–29–58. Filed 7–25–57.

664,454. PLUS DOZEN. Franshaw, Incorporated. SN 34,850. Pub. 4–29–58. Filed 8–2–57.

664,455. MISS ANTELL AND DESIGN. Joseph Antell, Inc. SN 35,160. Pub. 4–29–58. Filed 8–8–57.

664,456. "JEZEBEL." S. D. S. Inc., d. b. a. "Renee of Hollywood." SN 35,208. Pub. 4–29–58. Filed 8–8–57.

664,457. TEENEEZ. Associated Stylists. SN 35,322. Pub. 4–29–58. Filed 8–12–57.

664,458. SPINAMATIC. The Joseph & Feiss Company. SN 35,515. Pub. 4–29–58. Filed 8–14–57.

664,459. MOONBEAMS. Terry Footwear Corporation. SN 35,540. Pub. 4–29–58. Filed 8–14–57.

664,460. BILLTOWN AND DESIGN. Billtown Belt and Trimming Company, Inc. SN 35,619. Pub. 4–29–58. Filed 8–16–57.

664,461. ARK CROWNS THEM ALL AND DESIGN. Crown Hosiery Mills, Inc. SN 35,634. Pub. 4–29–58. Filed 8–16–57.

664,462. PIMS. Eddie Jacobs, Ltd. SN 35,778. Pub. 4–29–58. Filed 8–19–57.

664,463. HARGATE. Goodstein Bros. & Co., Inc. SN 35,926. Pub. 4–29–58. Filed 8–21–57.

664,464. THE WESTBROOKE 400. Samuel E. Schlein, Inc. SN 36,478. Pub. 4–29–58. Filed 8–29–57.

664,465. LORD SAVOY. Penn State Mills, Inc. SN 36,674. Pub. 4–29–58. Filed 9–4–57.

664,466. COY. Ronda-Wear Corporation. SN 36,920. Pub. 4–29–58. Filed 9–9–57.

664,467. ETERNAL YOUTH. Bestform Foundations, Inc. SN 37,067. Pub. 4–29–58. Filed 9–12–57.

664,468. MITTEN-PETS. Point of Promotion, Inc. SN 37,100. Pub. 4–29–58. Filed 9–12–57.

664,469. LIL SNO FOLK. Alpine Togs, Inc. SN 37,400. Pub. 4–29–58. Filed 9–18–57.

664,470. CUDDL'BRA. Stardust, Incorporated. SN 37,457. Pub. 4–29–58. Filed 9–18–57.

664,471. FANTABULOUS. Mitchel Schneider Co. Inc. SN 37,522. Pub. 4–29–58. Filed 9–19–57.

664,472. MOPPER. Woodmere Mills, Inc. SN 41,057. Pub. 4–29–58. Filed 11–20–57.

664,473. CABRITO. Sternin Hosiery Company. SN 41,201. Pub. 4–29–58. Filed 11–22–57.

Class 40—Fancy Goods, Furnishings, and Notions

664,474. LORRAINE. Bolta Comb Company, Inc. SN 35,400. Pub. 4–29–58. Filed 9–13–57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

664,475. IMPERIAL CROWN. Aldon Rug Mills, Inc. SN 33,526. Pub. 4–29–58. Filed 7–11–57.

664,476. PERMA POINT. Aldon Rug Mills, Inc. SN 33,527. Pub. 4–29–58. Filed 7–11–57.

664,477. THREADLOCK. Berkshire Hathaway, Inc. SN 34,768. Pub. 4–29–58. Filed 8–1–57.

664,478. SHAN-SU. The Amalgamated Cotton Mills Trust Limited, d. b. a. Haslams. SN 35,232. Pub. 4–29–58. Filed 8–9–57.

664,479. NANCONA. D. B. Fuller & Co., Inc. SN 36,291. Pub. 4–29–58. Filed 8–27–57.

664,480. WOOD LACE. House Beautiful Curtains, Inc. SN 36,517. Pub. 4–29–58. Filed 8–30–57.

664,481. FAMILY FAIR. Loblaw, Inc. SN 36,599. Pub. 4–29–58. Filed 9–3–57.

664,482. DURA-BACK AND DESIGN. C. G. Trading Corp. SN 36,697. Pub. 4–29–58. Filed 9–5–57.

664,483. FLORENZO. Normandie Bedspread Co. SN 36,734. Pub. 4–29–58. Filed 9–5–57.

664,484. WINTEX. Erwin Mills, Inc. SN 36,871. Pub. 4–29–58. Filed 9–9–57.

664,485. SAGEBRUSH. Erwin Mills, Inc. SN 36,872. Pub. 4–29–58. Filed 9–9–57.

664,486. WINSHEEN. Erwin Mills, Inc. SN 36,873. Pub. 4–29–58. Filed 9–9–57.

664,487. CLARION. Erwin Mills, Inc. SN 37,002. Pub. 4–29–58. Filed 9–11–57.

664,488. 3-D. Erwin Mills, Inc. SN 37,003. Pub. 4–29–58. Filed 9–11–57.

664,489. LINOGENE. Bates Manufacturing Company. SN 37,125. Pub. 4–29–58. Filed 9–13–57.

664,490. LENOLAST. Rayflex Fabrics, Inc. SN 37,188. Pub. 4–29–58. Filed 9–13–57.

664,491. TAFFELAST. Rayflex Fabrics, Inc. SN 37,189. Pub. 4–29–58. Filed 9–13–57.

664,492. FULLERBRITE. D. B. Fuller & Co. Inc. SN 37,252. Pub. 4–29–58. Filed 9–16–57.

664,493. HAPPY HOME. F. W. Woolworth Co. SN 37,328. Pub. 4–29–58. Filed 9–16–57.

664,494. PEBBLESET. R. T. Barwick Mills, Inc. SN 37,407. Pub. 4–29–58. Filed 9–18–57.

Class 43—Thread and Yarn

664,495. HILARY. Clarkson Brothers Limited. SN 36,280. Pub. 4–29–58. Filed 8–27–57.

664,496. SWEET BABY. J. E. Kleiner, Inc. SN 36,662. Pub. 4–29–58. Filed 9–4–57.

Class 44—Dental, Medical, and Surgical Appliances

664,497. FORMA-MOLD. Schur-Fit Mfg. Co., Inc. SN 27,467. Pub. 4–29–58. Filed 4–3–57.

664,498. TRANSONIC. Murray Steingart, d. b. a. States Trading Company. SN 27,471. Pub. 11–12–57. Filed 4–3–57.

664,499. STERI-SYRINGE. General Medical Supply Corp. SN 34,853. Pub. 4–1–58. Filed 8–2–57.

664,500. GERBER AND DESIGN. Gerber Products Company. SN 36,511. Pub. 4–29–58. Filed 8–30–57.

664,501. OHIO JET AND DESIGN. Air Reduction Company, Incorporated. SN 37,396. Pub. 4–29–58. Filed 9–18–57.

664,502. WALLCO. Wall Kjemisk Industri A/S. SN 37,832. Pub. 4–29–58. Filed 9–25–57.

Class 45—Soft Drinks and Carbonated Waters

664,503. MR. ROOT BEER. The Grapette Company, Incorporated. SN 39,060. Pub. 5–6–58. Filed 10–17–57.

Class 46—Foods and Ingredients of Foods

664,504. GRETCHEN GRANT'S. Gretchen Grant Kitchens, Inc. SN 3,292. Pub. 4–29–58. Filed 2–24–56.

664,505. NEPCO AND DESIGN. New England Provision Co., Inc. SN 20,043. Pub. 5–13–57. Filed 11–26–56.

664,506. MORRISON AND SCHIFF INC. AND DESIGN. Morrison & Schiff, Inc. SN 21,385. Pub. 4–29–58. Filed 12–20–56.

664,507. COMBATE. Tostadores y Molinos de Cafe "Combate" S. A. SN 22,261. Pub. 4–29–58. Filed 1–24–57.

664,508. FISCHER'S FLAVOR SEAL AND DESIGN. Henry A. Fischer, d. b. a. Fischer's. SN 24,302. Pub. 4–29–58. Filed 2–12–57.

664,509. PENN BROOK. Pennbrook Milk Company. SN 26,196. Pub. 4–29–58. Filed 3–14–57.

664,510. DESIGN OF GROTESQUE HUMAN MALE. Priester Pecan Company. SN 32,256. Pub. 4–29–58. Filed 6–19–57.

664,511. RALLY. Rochester Dairy Cooperative. SN 34,176. Pub. 4–29–58. Filed 7–22–57.

664,512. HYGOLD. Hygrade Food Products Corporation. SN 34,804. Pub. 4–29–58. Filed 8–1–57.

664,513. DESIGN OF GROTESQUE COWBOY. Top-Hand Dairies, Inc. SN 34,823. Pub. 4–29–58. Filed 8–1–57.

664,514. JEAN LAWSON'S. The Lawson Milk Company. SN 34,964. Pub. 4–29–58. Filed 8–5–57.

664,515. CAPT'N'CAL AND DESIGN. Santa Monica Sea Food Co. SN 36,024. Pub. 4–29–58. Filed 8–22–57.

664,516. McKINLEY QUALITY AND DESIGN. McKinley Produce Company. SN 36,460. Pub. 4–29–58. Filed 8–29–57.

664,517. A-PLUS. Entiat Wenoka Growers, Inc. SN 36,870. Pub. 4–29–58. Filed 9–9–57.

664,518. MALT-EITS. Leaf Brands, Inc. SN 38,998. Pub. 4–29–58. Filed 10–16–57.

664,519. WOODLAND. Standard Brands Incorporated. SN 39,097. Pub. 4–29–58. Filed 10–17–57.

664,520. MAYTIME. Standard Brands Incorporated. SN 39,098. Pub. 4–29–58. Filed 10–17–57.

664,521. SHEFFORD. Standard Brands Incorporated. SN 39,099. Pub. 4–29–58. Filed 10–17–57.

664,522. HI-BLOOM. Central Soya Company, Inc. SN 39,447. Pub. 4–29–58. Filed 10–24–57.

664,523. NORTHERN COMFORT. American Maple Products Corporation. SN 39,700. Pub. 4–29–58. Filed 10–29–57.

664,524. CAYTIN. London Oil Corporation Limited. SN 42,749. Pub. 4–29–58. Filed 8–26–57.

Class 47—Wines

664,525. BERTAROSE. Mediterranean Importing Co., Inc. SN 38,551. Pub. 4–29–58. Filed 10–8–57.

Class 48—Malt Beverages and Liquors

664,526. HAPSBURG. Best Brewing Corporation. SN 38,794. Pub. 4–29–58. Filed 10–14–57.

Class 49—Distilled Alcoholic Liquors

664,527. WHITE EAGLE. National Cordial Co., Inc. SN 25,446. Pub. 4–29–58. Filed 3–4–57.

664,528. LAUREL SPRINGS. Conrad, Incorporated. SN 36,785. Pub. 4–29–58. Filed 9–6–57.

664,529. CONRAD'S. Conrad, Incorporated. SN 36,859. Pub. 4–29–58. Filed 9–9–57.

664,530. ROYAL VELVET. Leroux and Company, Inc. SN 37,887. Pub. 4–29–58. Filed 9–26–57.

664,531. NIKOLAI. Leroux and Company, Inc. SN 36,548. Pub. 4–29–58. Filed 10–8–57.

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664,532. HUMMELWERK. W. Goebel Porsellanfabrik. SN 21,065. Pub. 4–29–58. Filed 12–14–56.

664,533. HOTENTS. Hot Kap Manufacturing Company. SN 30,779. Pub. 4–29–58. Filed 5–27–57.

664,534. CHAMPION. I. F. Schnier Company, Inc. SN 31,269. Pub. 4–29–58. Filed 6–3–57.

664,535. GOLDENPLAST. N. Teitelbaum Sons Inc. SN 31,601. Pub. 4–29–58. Filed 6–7–57.

664,536. UNIBASE. Wells Manufacturing Company. SN 33 389. Pub. 4–29–58. Filed 7–8–57.

Class 51—Cosmetics and Toilet Preparations

664,537. CREST. Helene Curtis Industries, Inc. SN 4,617. Pub. 4–29–58. Filed 3–15–56.

Class 52—Detergents and Soaps

664,538. WHITE SATIN. Angelique and Company, Inc. SN 11,999. Pub. 4–29–58. Filed 7–12–56.

664,539. BLACK SATIN. Angelique and Company, Inc. SN 12,001. Pub. 4–29–58. Filed 7–12–56.

664,540. RED SATIN. Angelique and Company, Inc. SN 12,003. Pub. 4–29–58. Filed 7–12–56.

664,541. GOLD SATIN. Angelique and Company, Inc. SN 12,005. Pub. 4–29–58. Filed 7–12–56.

664,542. MYSTICLENE. Dumas Milner Corporation, from The Mystic Foam Corporation. SN 19,796. Pub. 4–29–58. Filed 11–23–56.

664,543. PINK SATIN. Angelique and Company, Inc. SN 21,114. Pub. 4–29–58. Filed 12–17–56.

664,544. GOLD BRICK. John H. Breck, Inc. SN 28,834. Pub. 4–29–58. Filed 4–25–57.

664,545. SLIX–6. H. V. Smith Company. SN 34,468. Pub. 4–29–58. Filed 7–26–57.

664,546. EVERYTHING BEST LAWRENCE TIGER BRAND ETC. AND DESIGN. W. W. Lawrence & Company. SN 36,901. Pub. 4–29–58. Filed 9–9–57.

664,547. UNDER-GLO. Hillcrest Laboratories, Inc. SN 37,261. Pub. 4–29–58. Filed 9–16–57.

664,548. TRISOLVADIENE. Colonial Alloys Company. SN 38,805. Pub. 4–29–58. Filed 10–14–57.

664,549. SYN-X. Fischer-Lang & Company, Inc. SN 38,984. Pub. 4–29–58. Filed 10–16–57.

664,550. UNIFLEX. Wyandotte Chemicals Corporation. SN 39,113. Pub. 4–29–58. Filed 10–17–57.

Service Marks

Class 102—Insurance and Financial

664,551. GUARD-O-MATIC. The Guardian Life Insurance Company of America. SN 35,931. Pub. 4–29–58. Filed 8–21–57.

Class 103—Construction and Repair

664,552. KNIGHT OIL CO. AND DESIGN. Knight Oil Company, Inc. SN 34,859. Pub. 4–29–58. Filed 8–2–57.

Class 104—Communication

664,553. "YOU'VE NEVER HEARD IT SO GOOD!" KMLA Broadcasting Corporation. SN 36,297. Pub. 4–29–58. Filed 8–27–57.

Class 105—Transportation and Storage

664,554. RED STAR LINE. N. V. Nederlandsch-Amerikaansche Stoomvaart Maatschappij, d. b. a. Holland-America Line. SN 40,593. Pub. 4–29–58. Filed 11–13–57.

Class 107—Education and Entertainment

664,555. DESIGN OF THREE TRIANGLES. Walter V. Clarke, d. b. a. Walter V. Clarke Associates, Inc. SN 37,342. Pub. 4–29–58. Filed 9–17–57.

Certification Mark

Class A—Goods

664,556. FELISOL AND DESIGN. International Association for the Felisol Fastness Label. SN 21,260. Pub. 4–29–58. Filed 12–18–56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 2—Receptacles

664,557. Dairy Aids, Inc., Chicago, Ill. SN 18,719. Filed P. R. 11–5–56. Am. S. R. 4–16–58.

POUR-AID

For Frame-Type Tilting Support for Use With Milk Bottles and Cartons.

First use May 15, 1956.

Class 4—Abrasives and Polishing Materials

664,558. Finishine Laboratories, Inc., Syracuse, N. Y. SN 9,456. Filed P. R. 6–1–56. Am. S. R. 3–24–58.

CREME GLAIZ

For Polish for Furniture, Automobiles, and Hardwood Floors.

First use Jan. 5, 1956.

Class 6—Chemicals and Chemical Compositions

664,559. M'Lady Inc., d. b. a. Barde Manufacturing Company, Tuscaloosa, Ala. SN 16,722. Filed P. R. 10–1–56. Am. S. R. 5–15–58.

PURE AIR

For Household Spray Deodorant.
First use Jan. 6, 1954.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

664,560. Mann Edge Tool Company, Lewistown, Pa. SN 31,828. Filed P. R. 6–4–57. Am. S. R. 4–17–58.

MANN'S Rapid-Weeder

For Garden Tools.
First use Apr. 4, 1957.

Class 34—Heating, Lighting, and Ventilating Apparatus

664,561. American Air Filter Company, Inc., Louisville, Ky. SN 2,737. Filed P. R. 2–10–56. Am. S. R. 5–12–58.

LIGHT/STOP

For Light Impervious Partitions Extending Laterally Along the Top Surface of Heater-Ventilator Units and Flanking Cabinets.
First use Dec. 2, 1955.

Class 46—Foods and Ingredients of Foods

664,562. Franchett's Crullers, Inc., Metuchen, N. J. SN 9,716. Filed P. R. 6–6–56. Am. S. R. 12–31–57.

Franchett's

For Crullers.
First use May 1, 1955.

Service Mark

Class 100—Miscellaneous

664,563.—Little Boys Baseball, Inc., Columbia, S. C. SN 29,156. Filed P. R. 4–30–57. Am. S. R. 12–9–57.

LITTLE BOYS BASEBALL

For Supervised Baseball Program for Boys Between the Ages of 8 and 12.
First use July 15, 1956.

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360,080. UNION CLUB. Cl. 46. 9–6–38.
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Associated Stylists, New York, N. Y. 664,457, pub. 4–29–58. Cl. 39.
Ateliers de la Motobecane, Pantin (Seine), France. 664,327, pub. 4–29–58. Cl. 19.
Atlantic Asphalt & Asbestos, Inc., Stratford, Conn. 664,278, pub. 4–29–58. Cl. 12.
Atlas Imperial Diesel Engine Co., Oakland, Calif. 294,189, canc. Cl. 23.
Audiofidelity, Inc., New York, N. Y. 664,428, pub. 4–29–58. Cl. 36.
Auto Lamp Mfg. Co. : *See*—
Auto Radiator Mfg. Co.
Automatic Motor Base Co. : *See*—
Sloyan, Jerome J.
Automotive Rubber Co., Inc., Detroit, Mich. 664,226, pub. 4–29–58. Cl. 2.
Auto Radiator Mfg. Co., to Auto Lamp Mfg. Co., Chicago, Ill. 361,496, ren. 10–18–58. Cl. 21.
Avonnac Shoe Co., Chicago, Ill. 559,390, canc. Cl. 39.
B-I-F Industries, Inc., Providence, R. I. 664,390, pub. 4–29–58. Cl. 26.
B Y's, Inc., d. b. a. Western Industrial Pharmaceuticals Co., San Francisco, Calif. 664,316, pub. 4–29–58. Cl. 18.
Baitch & Castaldi, Inc., New York, N. Y. 559,367, canc. Cl. 39.
Barclay, Jas., & Co. Ltd., Detroit, Mich. 359,941, ren. 9–6–58. Cl. 49.
Barde Mfg. Co. : *See*—
M'Lady Inc.
Barden Corp., The, Danbury, Conn. 664,383, pub. 4–29–58. Cl. 23.
Bartmann & Bixer, Inc., New York, N. Y. 559,323, canc. Cl. 42.
Bartmann & Bixer, Inc., New York, N. Y. 559,422, canc. Cl. 42.
Barwick, E. T., Mills, Inc., Chamblee, Ga. 664,494, pub. 4–29–58. Cl. 42.
Bastian-Blessing Co., The, Chicago, Ill. 664,333, pub. 4–29–58. Cl. 21.
Bastian-Blessing Co., The, Chicago, Ill. 664,365, pub. 4–29–58. Cl. 23.
Bates Mfg. Co., Lewiston, Maine. 664,489, pub. 4–29–58. Cl. 42.
Bausch & Lomb Optical Co., Rochester, N. Y. 664,396, pub. 4–29–58. Cl. 26.
Bayshore Industries, Inc., Elkton, Md. 559,431, canc. Cl. 39.
Beck & Blatchford, Inc., Chicago, Ill. 664,423, pub. 4–29–58. Cl. 35.
Becker's, Mrs., Noodle Co., Cleveland Heights, Ohio. 559,245, canc. Cl. 46.
Bedding Manufacturers Associates Inc., Philadelphia, Pa. 664,419, pub. 4–22–58. Cl. 32.
Bell & Howell Co., Chicago, Ill. 664,399, pub. 4–29–58. Cl. 26.
Bemis Bro. Bag Co., St. Louis, Mo. 559,460, canc. Cl. 2.
Berkshire Hathaway, Inc., Providence, R. I. 664,477, pub. 4–29–58. Cl. 42.
Besser Co., Alpena, Mich. 664,362, pub. 4–29–58. Cl. 23.
Best Brewing Corp., Chicago, Ill. 664,526, pub. 4–29–58. Cl. 48.
Bestform Foundations, Inc., Long Island City, N. Y. 664,467, pub. 4–29–58. Cl. 39.
Billtown Belt and Trimming Co., Inc., Williamsport, Pa. 664,460, pub. 4–29–58. Cl. 39.
Biltmore Paper Co., Inc., to Biltmore Tissue Corp., New York, N. Y. 360,645, ren. 9–20–58. Cl. 37.
Biltmore Tissue Corp. : *See*—
Biltmore Paper Co., Inc.
Bilwin Co., Inc., from Wilwin Co., Briarcliff Manor, N. Y. 664,350, pub. 4–29–58. Cl. 22.
Blacktop Maintenance : *See*—
Horn, Glen A.
Blason, Inc., Akron, Ohio. 664,352, pub. 4–29–58. Cl. 22.
Bliss, E. W., Co., Pittsburgh, Pa. 664,375, pub. 4–29–58. Cl. 23.
Blue Diamond Coal Co., Knoxville, Tenn., and Cardiff, Ky., to Blue Diamond Coal Co., Knoxville, Tenn. 122,428, ren. 8–20–58. Cl. 1.
Boehringer, C. H., Sohn, Ingelheim am Rhein, Germany. 664,310–12, pub. 4–29–58. Cl. 18.
Bolta Comb Co., Inc., New York, N. Y. 664,474, pub. 4–29–58. Cl. 40.
Bond Shoe Co., Inc., New York, N. Y., to The United States Shoe Corp., Cincinnati, Ohio. 358,878, ren. 7–26–58. Cl. 39.
Bonis Bros. Fur Machinery Corp., New York, N. Y. 361,486, ren. 10–18–58. Cl. 23.
Bonnie Brands, Inc., New York, N. Y. 664,256, pub. 4–29–58. Cl. 10.
Bonny Mfg. Corp., Auburndale, Mass. 664,342, pub. 4–29–58. Cl. 21.
Borg-Warner Corp., Chicago, Ill. 664,413, pub. 4–22–58. Cl. 31.
Boston Woven Hose & Rubber Co. of Pittsburgh, from B. C. Gooding, Jr., Pittsburgh, Pa. 664,445, pub. 4–29–58. Cl. 39.
Bostwick Laboratories, Inc., Bridgeport, Conn. 559,328, canc. Cl. 16.
Breck, John H., Inc., Springfield, Mass. 664,544, pub. 4–29–58. Cl. 52.
Bredin, Lewis L., d. b. a. Vitalitea Products Co., Pacific Palisades, Calif. 559,287, canc. Cl. 46.
Brewer & Co., Inc., Worcester, Mass. 290,038, canc. Cl. 18.
Brown, R. J., Co., The, St. Louis, Mo. 664,286, pub. 4–29–58. Cl. 15.
Buckeye Tools Corp., Dayton, Ohio. 664,369, pub. 4–29–58. Cl. 23.
Buffalo-Eclipse Corp. : *See*—
Eclipse Lawn Mower Co., The.
Bultfabriks Aktiebolaget, Hallstahammar, Sweden. 291,080, canc. Cl. 13.
Bureau of National Affairs, Inc., The, to The Bureau of National Affairs, Inc., Washington, D. C. 360,819, ren. 9–27–58. Cl. 38.
Burnand & Co., Inc., Los Angeles, Calif. 311,944, canc. Cl. 46.
Burrus Mills, Inc. : *See*—
Locke, Jim C.
C C Mfg. Co., Chicago, Ill. 664,232, pub. 4–29–58. Cl. 4.

C. G. Trading Corp., New York, N. Y. 664,482, pub. 4–29–58. Cl. 42.
Cadillac Textiles Inc., Valley Falls, R. I. 559,394, canc. Cl. 42.
Carlsen, Carl E., New York, N. Y. 664,359, pub. 4–29–58. Cl. 23.
Carpenter Body Works, Inc., Mitchell, Ind. 664,330, pub. 4–29–58. Cl. 19.
Carr, John Doughty, Ltd., Leicester, England. 559,315, canc. Cl. 39.
Celanese Corp. of America, New York, N. Y. 664,242, pub. 4–29–58. Cl. 6.
Central Soya Co., Inc., Fort Wayne, Ind. 664,522, pub. 4–29–58. Cl. 46.
Chees Whip, Inc., Buffalo, N. Y. 559,258, canc. Cl. 46.
Chemco Photoproducts Co., to Chemco Photoproducts Co., Inc., Glen Cove, N. Y. 361,019, ren. 10–4–58. Cl. 20.
Chemco Photoproducts Co., Inc.: *See*— Chemco Photoproducts Co.
Chempel, Inc., Camden, N. J. 664,231, pub' 4–29–58. Cl. 4.
Chesterton, A. W., Co., Everett, Mass. 664,425–7, pub. 4–29–58. Cl. 35.
Chicago Specialty Mfg. Co., Chicago, Ill. 664,422, pub. 4–29–58. Cl. 35.
Christian Science Publishing Society, The, Boston, Mass. 664,442 pub. 4–29–58. Cl. 38.
Clairmont-Nichols, Inc., New York, N. Y. 559,359, canc. Cl. 26.
Clarke, Walter V., d. b. a. Walter V. Clarke Associates, Inc., East Providence, R. I. 664,555, pub. 4–29–58. Cl. 107.
Clarke, Walter V., Associates, Inc.: *See*— Clarke, Walter V.
Clarkson Brothers Ltd., Leeds, England. 664,495, pub. 4–29–58. Cl. 43.
Cluett, Peabody & Co., Inc., New York, N. Y. 664,403, pub. 3–4–58. Cl. 28.
Coates & Co. (Plymouth) Ltd., Plymouth, England. 358,958, ren. 7–26–58. Cl. 49.
Colonial Alloys Co., Philadelphia, Pa. 664,548, pub. 4–29–58. Cl. 32.
Colonial Knife Co., Inc., Providence, R. I. 664,357, pub. 7–9–57. Cl. 23.
Columbus Ice Cream Co., to Frecker's Ice Cream Co., Columbus Ohio. 355,019, ren. 3–8–58. Cl. 46.
Comet Tool Co.: *See*— Comet Tools, Inc.
Comet Tools, Inc., to H. Schroeder, d. b. a. Comet Tool Co., New York, N. Y. 359,155, ren. 8–9–58. Cl. 23.
Condon, Maurice L., Co., Inc., White Plains, N. Y. 559,299, canc. Cl. 18.
Continental Aviation and Engineering Corp., Detroit, Mich. 664,373, pub. 4–29–58. Cl. 23.
Continental Oil Co., Ponca City, Okla. 664,283, pub. 4–29–58. Cl. 15.
Continental Optical Co., Inc., Indianapolis, Ind. 664,398, pub. 4–29–58. Cl. 26.
Conrad, Inc., St. Louis, Mo. 664,528–9, pub. 4–29–58. Cl. 49.
Cornell Seed Co., St. Louis, Mo. 664,257, pub. 4–29–58. Cl. 10.
Couri-Amoury Inc., New York, N. Y. 559,262, canc. Cl. 39.
Cowman-Campbell Paint Co., Inc., Seattle, Wash. 664,292, pub. 4–29–58. Cl. 16.
Cramer Chemical Co., Gardner, Kans. 664,439, pub. 4–29–58. Cl. 38.
Crawford Mfg. Co., Inc., Richmond, Va. 664,420, pub. 4–29–58. Cl. 32.
Crookes-Barnes Laboratories, Inc.: *See*— Crookes Laboratories, Inc.
Crookes Laboratories, Inc., New York, N. Y., to Crookes-Barnes Laboratories, Inc., Wayne, N. J. 361,239, ren. 10–11–58. Cl. 18.
Crouse-Hinds Co., Syracuse, N. Y. 664,339, pub. 4–29–58. Cl. 21.
Crown Hosiery Mills, Inc., High Point, N. C. 664,461, pub. 4–29–58. Cl. 39.
Curtis, Helene, Industries, Inc., Chicago, Ill. 664,537, pub. 4–29–58. Cl. 51.
Dairy Aids, Inc., Chicago, Ill. 664,557. Cl. 2.
Danker, Robert A., d. b. a. Invisible Lens Service, Buffalo, N. Y. 664,400, pub. 4–29–58. Cl. 26.
Dan River Mills, Inc., Danville, Va. 559,381, canc. Cl. 42.
Dealer Associates, Inc., Minden, La. 664,377, pub. 4–29–58. Cl. 23.
Dent, C. S., & Co.: *See*— Grandpa Brands Co.
Des Moines Register and Tribune Co.: *See*— Picture Magazines, Inc.
Diamond Alkali Co., from Diamond Black Leaf Co., Cleveland, Ohio. 664,240, pub. 4–29–58. Cl. 6.
Diamond Alkali Co., from Diamond Black Leaf Co., Cleveland, Ohio. 664,243, pub. 4–29–58. Cl. 6.
Diamond Black Leaf Co.: *See*— Diamond Alkali Co.
Diaz, Fidel J., Tampa, Fla. 559,449, canc. Cl. 17.
Disney, Walt, Productions, Burbank, Calif. 664,435, pub. 4–29–58. Cl. 38.
Dome Chemicals, Inc., New York, N. Y. 664,323–4, pub. 4–29–58. Cl. 18.
Donovan, F. C., Inc., Boston, Mass. 664,221, pub. 4–29–58. Cl. 1.
Dorr-Oliver Inc., Stamford, Conn. 664,376, pub. 4–29–58. Cl. 23.
Dorr-Oliver Inc., Stamford, Conn. 664,411, pub. 4–29–58. Cl. 31.
Doyle, William S., Fort Lauderdale, Fla. 664,438, pub. 4–29–58. Cl. 38.
Dresner, S., & Son, Inc., Chicago, Ill. 559,458, canc. Cl. 3.
Dumas Milner Corp., Jackson, Miss., from The Mystic Foam Corp., Cleveland, Ohio. 664,542, pub. 4–29–58. Cl. 52.
Dun & Bradstreet, Inc., New York, N. Y. 664,433, pub. 4–29–58. Cl. 38.
Du Pont, E. I. de Nemours and Co., Wilmington, Del. 358,337, ren. 7–5–58. Cl. 10.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 359,196, ren. 8–9–58. Cl. 46.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 360,075, ren. 9–20–58. Cl. 6.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 664,250–1, pub. 4–29–58. Cl. 9.
Dynamit-Actien-Gesellschaft vormals Alfred Nobel & Co., Troisdorf, Germany. 664,249, pub. 5–28–57. Cl. 9.
E-I-M Co., Inc., Houston, Tex. 664,341, pub. 4–29–58. Cl. 21.
Eastern Color Printing Co., The, Waterbury, Conn. 559,465, canc. Cl. 38.
Eclipse Lawn Mower Co., The, to Buffalo-Eclipse Corp., d. b. a. The Eclipse Lawn Mower Co., Prophetstown, Ill. 358,311, ren. 7–5–58. Cl. 23.
Edwal Laboratories, Inc., The, to Edwal Scientific Products Corp., Chicago, Ill. 359,667, ren. 8–30–58. Cl. 6.
Edwal Scientific Products Corp.: *See*— Edwal Laboratories, Inc., The.
Ekco Products Co., Chicago, Ill. 664,385, pub. 4–29–58. Cl. 23.
Electric Storage Battery Co., The, Philadelphia, Pa., from Ray-O-Vac Co., Madison, Wis. 664,347–8, pub. 4–29–58. Cl. 21.
Elk River Coal and Lumber Co., Dundon, W. Va. 356,884, ren. 5–10–58. Cl. 12.
Encyclopaedia Britannica Films, Inc.: *See*— Erpi Classroom Films Inc.
Entiat Wenoka Growers, Inc., Entiat, Wash. 664,517, pub. 4–29–58. Cl. 46.
Erpi Classroom Films Inc., New York, N. Y., to Encyclopaedia Britannica Films, Inc., Wilmette, Ill. 361,002, ren. 10–4–58. Cl. 38.
Erwin Mills, Inc., Durham, N. C. 664,484–8, pub. 4–29–58. Cl. 42.
Estabelecimentos Manuel da Silva Torrado & Ca. (Irmaos), Sacavem de Baixo and Lisbon, Portugal. 559,240, canc. Cl. 46.
Evans, John R., & Co., Camden, N. J. 664,219, pub. 3–4–58. Cl. 1.
Evans Products Co., Plymouth, Mich. 664,274, pub. 4–29–58. Cl. 12.
Eye Research Foundation, The, Chicago, Ill. 664,434, pub. 4–29–58. Cl. 38.
Fairy Silk Mills, Shillington, Pa. 361,460, ren. 10–18–58. Cl. 39.
Falls City Creamery Co., Falls City, Nebr. 559,417, canc. Cl. 46.
Farrington Mfg. Co., Needham Heights, Mass. 664,227, pub. 4–29–58. Cl. 2.
Fine Organics, Inc., New York, N. Y. 559,324, canc. Cl. 52.
Finishine Laboratories, Inc., Syracuse, N. Y. 664,558. Cl. 4.
Firestone Tire & Rubber Co., The, Akron, Ohio. 664,272, pub. 4–29–58. Cl. 12.
Firma Max Krause: *See*— Krause, Friedrich W.
Firmenich, Inc., New York, N. Y. 664,236, pub. 4–29–58. Cl. 6.
Fischer, Henry A., d. b. a. Fischer's, Milwaukie, Oreg. 664,506, pub. 4–29–58. Cl. 46.
Fischer-Lang & Co., Inc., Frederick, Md. 664,289, pub. 3–4–58. Cl. 16.
Fischer-Lang & Co., Inc., Frederick, Md. 664,549, pub. 4–29–58. Cl. 52.
Fischer's: *See*— Fischer, Henry A.
Flexaide Co., New York, N. Y. 559,274, canc. Cl. 44.
Fliegelman, Israel New York, N. Y. 559,386, canc. Cl. 1.
Flint, Eaton & Co., Decatur, Ill. 664,322, pub. 4–29–58. Cl. 18.
Fogh, S. Chr., Copenhagen, Denmark. 664,401, pub. 4–29–58. Cl. 28.
Ford Motor Co., Dearborn, Mich. 361,140, ren. 10–11–58. Cl. 21.
Foreman & Clark, Los Angeles, Calif. 559,370, canc. Cl. 39.
Forry, David, Tobacco Co., York, Pa. 664,294–5, pub. 4–29–58. Cl. 17.
Forstner Chain Corp., to Forstner, Inc., Irvington, N. J. 359,291, ren. 8–9–58. Cl. 27.
Foster Mfg. Co. Inc., St. Louis, Mo. 559,475, canc. Cl. 13.
Franchett's Crullers, Inc., Metuchen, N. J. 664,562. Cl. 46.
Franshaw, Inc., New York, N. Y. 664,454, pub. 4–29–58. Cl. 39.
Frecker's Ice Cream Co.: *See*— Columbus Ice Cream Co.
Frick Co., Waynesboro, Pa. 358,208, ren. 7–5–58. Cl. 35.
Fuller, D. B., & Co., Inc., New York, N. Y. 664,479, pub. 4–29–58. Cl. 42.
Fuller, D. B., & Co. Inc., New York, N. Y. 664,482, pub. 4–29–58. Cl. 42.
Fumol Corp., Long Island City, N. Y. 664,244, pub. 4–29–58. Cl. 6.
Furlager Mfg. Co., Inc., Corona, N. Y. 664,407, pub. 4–29–58. Cl. 29.
Furrer, Raymond I., d. b. a. Wisconsin Juvenile Furniture Mfg. Co., Racine, Wis. 664,416, pub. 4–29–58. Cl. 32.
Garvie, Hugh A., Denver, Colo. 664,353, pub. 4–29–58. Cl. 22.
Gem, Inc., d. b. a. Sprustex Co., Byhalia, Miss. 664,386, pub. 4–29–58. Cl. 24.
General Electric Co., Bridgeport, Conn. 664,345, pub. 4–29–58. Cl. 21.
General Features Corp., New York, N. Y. 664,436, pub. 4–29–58. Cl. 38.
General Medical Supply Corp., Decatur, Ga. 664,499, pub. 4–1–58. Cl. 44.

George, Markie C., Sr., d. b. a. Whirl-A-Pest Co., Dallas, Tex. 664,222 pub. 4–29–58. Cl. 2.
Georgia Marble Co., The, Tate, Ga. 664,265, pub. 4–29–58. Cl. 12.
Gerber Products Co., Fremont, Mich. 664,500, pub. 4–29–58. Cl. 44.
Gerry Nufoam Shoe Corp., New York, N. Y. 559,311, canc. Cl. 39.
Gerson Stewart Corp., The, Cleveland, Ohio. 664,235, pub. 11–5–57. Cl. 6.
Geuting, A. H., Co., to The Geuting Co., Philadelphia, Pa. 559,196 canc. Cl. 39.
Geuting Co., The: *See*— Geuting, A. H., Co.
Gevaert Photo-Prodecten N. V., Mortsel, Belgium. 664,389, pub. 4–29–58. Cl. 26.
Gladding, McBean & Co., Los Angeles, Calif. 664,268, pub. 3–25–58. Cl. 12.
Glidden Co., The, Cleveland, Ohio. 357,933, ren. 6–21–58. Cl. 16.
Goebel, W., Porzellanfabrik, Oeslau near Coburg, Bavaria, Germany. 664,532, pub. 4–29–58. Cl. 50.
Gooding, Benjamin C., Jr.: *See*— Boston Woven Hose & Rubber Co. of Pittsburgh.
Goodrich, B. F., Co., The, Akron, Ohio. 664,453, pub. 4–29–58. Cl. 39.
Goodstein Bros. & Co., Inc., New York, N. Y. 664,468, pub. 4–29–58. Cl. 39.
Grandpa Brands Co., d. b. a. C. S. Dent & Co., Cincinnati, Ohio. 664,299, pub. 4–29–58. Cl. 18.
Granette Co., Inc., The, Camden, Ark. 664,503, pub. 5–6–58. Cl. 45.
Graton & Knight Co., Inc.: *See*— Graton and Knight Mfg. Co., The.
Graton and Knight Mfg. Co., The, to Graton & Knight Co., Inc., Worcester, Mass. 123,226, ren. 10–22–58. Cl. 35.
Graytogs, Inc., New York, N. Y. 559,397, canc. Cl. 42.
Great American Industries, Inc., Bedford, Va. 559,461, canc. Cl. 2.
Gretchen Grant Kitchens, Inc., Jersey City, N. J. 664,504, pub. 4–29–58. Cl. 46.
Guardian Life Insurance Co. of America, New York, N. Y. 664,551, pub. 4–29–58. Cl. 102.
Gutmann, Carl, & Co., Inc., New York, N. Y. 559,310, canc. Cl. 39.
Hand Medicine Co., New York, N. Y. 664,317, pub. 4–29–58. Cl. 18.
Hanson, Henry L., to Henry L. Hanson Co., Worcester, Mass. 357,446, ren. 6–7–58. Cl. 23.
Hanson, Henry L., Co.: *See*— Hanson, Henry L.
Harrington & Richardson, Inc., Worcester, Mass. 664,252, pub. 4–29–58. Cl. 9.
Haserot Co., The, Cleveland, Ohio. 360,080, ren. 9–6–58. Cl. 46.
Haslams: *See*— Amalgamated Cotton Mills Trust Ltd., The.
Hawkeye Products Corp., Syracuse, N. Y. 664,374, pub. 4–29–58. Cl. 23.
Hillcrest Laboratories, Inc., Chicago, Ill. 664,547, pub. 4–29–58. Cl. 52.
Hiscock, Earle F., Chatham, Mass. 664,397, pub. 4–29–58. Cl. 26.
Hoffman Electronics Corp., Los Angeles, Calif. 664,336–7, pub. 4–29–58. Cl. 21.
Hoffman Specialty Co., Waterbury, Conn., to Hoffman Specialty Mfg. Corp., Indianapolis, Ind. 360,676, ren. 9–20–58. Cl. 13.
Hoffman Specialty Mfg. Corp.: *See*— Hoffman Specialty Co.
Hohmeier Mill & Lumber Co., Chicago, Ill. 664,270, pub. 4–29–58. Cl. 12.
Holland-American Line: *See*— N. V. Nederlandsch-Amerikaansche Stoomvaart Maatschappij.
Hollins, William, & Co. Ltd., Nottingham, England. 559,345, canc. Cl. 39.
Hollins, William, & Co. Ltd., Nottingham, England. 664,448, pub. 4–29–58. Cl. 39.
Hollywood School Photo Association: *See*— Summers, Norman E.
Holmes, Archibald, & Son, Philadelphia, Pa. 559,412, canc. Cl. 42.
Holmes, Archibald, & Son, Philadelphia, Pa. 559,413, canc. Cl. 42.
Horn, Glen A., d. b. a. Blacktop Maintenance, Columbus, Ohio. 664,288, pub. 4–29–58. Cl. 16.
Hot Kap Mfg. Co., Eagle Rock, Calif. 664,533, pub. 4–29–58. Cl. 50.
House Beautiful Curtains, Inc., New York, N. Y. 664,480, pub. 4–29–58. Cl. 42.
Hubbuck, Thomas, & Son Ltd.: *See*— Hubbuck, Thomas, & Son.
Hubbuck, Thomas, & Son, to Thomas Hubbuck & Son Ltd., London, England. 15,094, ren. 7–17–58. Cl. 16.
Hubrite Informal Frocks, Inc., Boston, Mass. 559,469, canc. Cl. 39.
Hudnut, Richard, New York, N. Y. 559,210, canc. Cl. 51.
Humphrey, Robert, Chicago, Ill. 664,441, pub. 4–29–58. Cl. 38.
Huttig Sash & Door Co., St. Louis, Mo. 359,806, ren. 8–30–58. Cl. 6.
Hydromation Corp., Chicago, Ill. 664,414, pub. 4–29–58. Cl. 31.
Hygrade Food Products Corp., Detroit, Mich. 664,512, pub. 4–29–58. Cl. 46.
Ideal Toy Corp., Hollis, N. Y. 559,430, canc. Cl. 22.
Ihde, Paul, Photographer: *See*— Ihde, Paul W.
Ihde, Paul W., d. b. a. Paul Ihde, Photographer, Menominee, Mich. 664,432, pub. 4–29–58. Cl. 38.
International Association for the Feltsol Fastness Label, Zurich, Switzerland. 664,556, pub. 5–29–58. Cl. A.
International Harvester Co., Chicago, Ill. 664,354, pub. 4–29–58. Cl. 21.
International Radio Corp., Ann Arbor, Mich., to Sylvania Electric Products Inc., New York, N. Y. 360,062, ren. 9–6–58. Cl. 26.
Interwoven Stocking Co., New Brunswick, N. J. 360,141, ren. 9–6–58. Cl. 39.
Invisible Lens Service: *See*— Danker, Robert A.
Ion Exchange (Canada) Ltd., Toronto, Ontario, Canada. 664,409, pub. 4–29–58. Cl. 31.
Iron City Tool Works, Inc., Pittsburgh, Pa. 664,368, pub. 4–29–58. Cl. 23.
Island Creek Coal Sales Co., Huntington, W. Va. 664,218, pub. 4–29–58. Cl. 1.
Jackson Electrode Holder Co., The: *See*— Jackson, Honel A.
Jackson, Honel A., d. b. a. The Jackson Electrode Holder Co., Detroit, Mich., to Air Reduction Co., Inc., New York, N. Y. 360,484, ren. 9–20–58. Cl. 21.
Jacobs, Eddie, Ltd., Baltimore, Md. 664,462, pub. 4–29–58. Cl. 39.
Jamestown Lounge Co., Jamestown, N. Y. 664,418, pub. 4–29–58. Cl. 32.
Jayne, Dr. D., & Son, Inc., Philadelphia, Pa., to Sterling Drug Inc., New York, N. Y. 359,796, ren. 8–30–58. Cl. 18.
Jefferson Union Co., Inc., New York and Lockport, N. Y., and Lexington, Mass. 288,070, canc. Cl. 13.
JeMaJo Corp., d. b. a. Sparkl-It, North Hollywood, Calif. 664,293, pub. 4–29–58. Cl. 16.
Joseph & Feiss Co., The, Cleveland, Ohio. 664,458, pub. 4–29–58. Cl. 39.
KMLA Broadcasting Corp., Los Angeles, Calif. 664,553, pub. 4–29–58. Cl. 104.
Karpen, S., & Bros., Inc.: *See*— Schnadig Corp.
Kell, Wilfred B., Clinton, Iowa. 559,487, canc. Cl. 46.
Kenmar Mfg. Co., The, East Palestine, Ohio. 664,417, pub. 2–25–58. Cl. 32.
Kerr-McGee Oil Industries, Inc., Oklahoma City, Okla. 664,284, pub. 4–29–58. Cl. 15.
Kessler Products Co., Inc., Youngstown, Ohio. 664,328, pub. 4–29–58. Cl. 19.
Kiekhaefer Corp., Cedarburg, Wis. 664,367, pub. 4–29–58. Cl. 23.
Kimble Glass Co., Toledo, Ohio. 664,395, pub. 4–29–58. Cl. 26.
Kinetic Chemicals, Inc., Wilmington, Del. 295,850, canc. Cl. 6.
King Automotive Products Co., Rochester, Mich. 664,378, pub. 4–29–58. Cl. 23.
Kingsboro Mills, Inc., Chattanooga, Tenn. 664,444, pub. 4–29–58. Cl. 39.
Kleiner, J. B., Inc., New Rochelle, N. Y. 664,496, pub. 4–29–58. Cl. 43.
Klingler, Fred E., Co., Los Angeles, Calif. 664,392, pub. 4–29–58. Cl. 26.
Knickerbocker Products Co.: *See*— Master Vibrator Co.
Knight Oil Co., Inc., Springfield, Mo. 664,552, pub. 4–29–58. Cl. 108.
Kohnstamm, H., & Co., Inc., New York, N. Y. 559,459, canc. Cl. 6.
Konaka, Seiki, Chuo-ku, Tokyo, Japan. 664,234, pub. 4–29–58. Cl. 6.
Koret of California, Inc., San Francisco, Calif. 559,466, canc. Cl. 39.
Krause, Friedrich W., d. b. a. Firma Max Krause Hamburg, to Max Krause Kom. Ges., Baden, Germany. 353,033, ren. 12–21–57. Cl. 21.
Krause, Max, Kom. Ges.: *See*— Krause, Friedrich W.
Krueger Mfg. Co., Inc., West Palm Beach, Fla. 664,275, pub. 4–29–58. Cl. 12.
Kuhlman, Arthur L., Ann Arbor, Mich. 388,877, canc. Cl. 21.
Kuhlman, Arthur L., Bay City, Mich. 418,502, canc. Cl. 12.
Lan-Allen Drug & Pharmacal Corp., Brooklyn, N. Y. 664,320, pub. 4–29–58. Cl. 18.
Laser, Emily M., Palm Springs, Calif. 559,249, canc. Cl. 44.
Lawrence, A. C., Leather Co., Peabody, Mass., to Swift & Co., Chicago, Ill. 356,267, ren. 4–19–58. Cl. 1.
Lawrence, W. W., & Co., Pittsburgh, Pa. 664,405, pub. 4–29–58. Cl. 29.
Lawrence, W. W., & Co., Pittsburgh, Pa. 664,546, pub. 4–29–58. Cl. 52.
Lawson Milk Co., The, Cuyahoga Falls, Ohio. 664,514, pub. 4–29–58. Cl. 46.
Leaf Brands, Inc., Chicago, Ill. 664,518, pub. 4–29–58. Cl. 46.
Le Fevre, R. T., and J. O. Stevenson, Los Angeles, Calif. 559,360, canc. Cl. 22.
Leonard, Royal, Inc., Glendale, Calif. 559,398, canc. Cl. 39.
Leroux and Co., Inc., Philadelphia, Pa. 664,530–1, pub. 4–29–58. Cl. 49.
Liberty Hardware Mfg. Corp., Long Island City, N. Y. 664,387, pub. 4–29–58. Cl. 26.
Link-Belt Co., Chicago, Ill. 664,381, pub. 4–29–58. Cl. 23.
Liquid Glass Corp., New York, N. Y. 559,278, canc. Cl. 4.
Litt, Jack, Inc.: *See*— Towne Toga, Inc.
Little Boys Baseball, Inc., Columbia, S. C. 664,563. Cl. 100.
Loblaw, Inc., Buffalo, N. Y. 664,481, pub. 4–29–58. Cl. 42.
Locke, Jim C., d. b. a. Jim C. Locke Co., Wharton, to Burrus Mills, Inc., Dallas, Tex. 357,156, ren. 5–24–58. Cl. 46.

Locke, Jim C., Co.: *See*—
Locke, Jim C.
London Oil Corp. Ltd., London, England. 664,524, pub. 4–29–58. Cl. 46.
Lustgarten Laboratories, Inc., Philadelphia, Pa. 664,306, pub. 4–29–58. Cl. 18.
Manley, Inc., Kansas City, Mo. 664,332, pub. 4–29–58. Cl. 21.
Mann, Carl, Cloak Co., Kansas City, Mo. 664,447, pub. 4–29–58. Cl. 39.
Mann Edge Tool Co., Lewistown, Pa. 664,560. Cl. 23.
Mara Laboratories, Inc., The, Harrison, N. J. 559,347, canc. Cl. 18.
Marine Products Co., San Diego, Calif. 559,312 canc. Cl. 46.
Martin, Albert L., d. b. a. Martin's Products, Columbia, S. C. 664,325, pub 4–29–58. Cl. 18.
Martin, Alvin H., d b. a. Martin Mfg. Co., Moundsville, W. Va. 664,331, pub. 4–29–58. Cl. 19.
Martin J. Kendley, Atlanta, Ga., d. b. a. The Standard Feed Milling Co., Hopkinsville, Ky. 559,212, canc. Cl. 46.
Martin Mfg. Co.: *See*—
Martin, Alvin H.
Martin's Products: *See*—
Martin, Albert L.
Master Vibrator Co., d. b. a. Knickerbocker Products Co., Dayton, Ohio. 664,356, pub. 4–29–58. Cl. 23.
Matheson Co., Inc., The, Cincinnati, Ohio. 664,239, pub. 4–29–58. Cl. 6.
McAdams, Harry, d. b a. Tulip Hosiery Finishing Co., Philadelphia, Pa. 559,434, canc. Cl. 105.
McDougall-Butler Co., Inc., Buffalo, N. Y. 664,287, pub. 4–29–58. Cl. 16.
McKesson & Robbins, Inc., New York, N. Y. 664,321, pub. 4–29–58. Cl. 18.
McKinley Produce Co., Piqua, Ohio. 664,516, pub. 4–29–58. Cl 46.
Mediterranean Importing Co., Inc., Long Island City, N. Y. 664,525 pub. 4–29–58. Cl. 47.
Merck & Co., Inc.: *See*—
Sharp & Dohme, Inc.
Merla Tool Co., to Merla Tool Corp., Dallas, Tex. 350,902, ren. 5–17–58. Cl. 23.
Merla Tool Corp.: *See*—
Merla Tool Co.
Mexico Refractories Co., Mexico, Mo. 664,279, pub. 4–29–58. Cl. 12.
Microwave Associates, Inc., Burlington, Mass. 664,344, pub. 4–29–58. Cl. 21.
Mills Industries, Inc., Chicago, Ill. 559,271, canc. Classes 23 and 31.
Milprint, Inc., Milwaukee, Wis. 664,223, pub. 4–29–58. Cl. 2.
Miron Mills, Inc., Clinton, Mass. 559,482, canc. Cl. 42.
M'Lady Inc., d. b. a. Barde Mfg. Co., Tuscaloosa, Ala. 664,559. Cl. 6.
Modern Telephones (Great Britain) Ltd., London, England. 664,338. pub 4–29–58. Cl. 21.
Mohawk Sporting Equipment Co., from Mohawk Sporting Equipment Co., Elyria, Ohio. 664,351, pub. 4–29–58. Cl. 22.
Morrison & Schiff, Inc., Boston, Mass. 664 506, pub. 4–29–58. Cl. 46.
Multistamp Co., The, Norfolk, Va. 664,370, pub. 4–29–58. Cl. 23.
Mystic Foam Corp., The: *See*—
Dumas Milner Corp.
N. V. Nederlandsch-Amerikaansche Stoomvaart Maatschappij, d. b. a. Holland-American Line, Rotterdam, Holland. 664 554, pub. 4–29–58. Cl. 105.
Nannette Mfg. Co., Inc., Philadelphia, Pa. 664,452, pub. 4–29–58. Cl. 39.
National Aluminate Corp., Chicago, Ill. 664,237, pub. 4–29–58. Cl. 6.
National Cordial Co., Inc., Chicago, Ill. 664,527, pub. 4–29–58. Cl. 49.
National Key Co., The, Cleveland, Ohio. 664,366, pub. 4–29–58. Cl. 23.
Neoco Corp., Los Angeles, Calif. 664,300, pub. 4–29–58. Cl. 18.
Newark Packing Co., Newark, N. J. 84 990, canc. Cl. 46.
New England Provision Co., Inc., Boston, Mass. 664,505, pub. 8–13–57. Cl. 46.
Niagara Blower Co., New York, N. Y. 664,421, pub. 5–6–58. Cl. 34
Normandie Bedspread Co., New York, N. Y. 664,483, pub. 4–29–58. Cl. 42.
Northeast Capital Corp., New York, N. Y. 664,335, pub. 4–29–58. Cl. 21.
Organon Inc.: *See*—
Roche-Organon, Inc.
Pacific Distillers, Inc., Culver City, Calif., to Shell Chemical Corp., New York, N. Y. 354,086, ren. 2–1–58. Cl. 16.
Parkchester Glass Co., New York, N. Y. 664,266, pub. 4–29–58. Cl. 12.
Parker Rust Proof Co., Detroit, Mich. 664,410, pub. 4–29–58. Cl. 31.
Patek & Co., San Francisco, Calif. 361,280, ren. 10–11–58. Cl. 6.
Peck & Peck, New York, N. Y. 360,062, ren. 9–6–58, Cl. 39.
Peninsular Plastics Corp., Grand Rapids, Mich. 664,224, pub. 4–29–58. Cl. 2.
Pennbrook Milk Co., Philadelphia, Pa. 664,509, pub. 4–29–58. Cl. 46.
Penn Controls, Inc., Goshen, Ind. 664,388, pub. 12–3–57. Cl. 26.
Penn State Mills, Inc., Allentown, Pa. 664,465, pub. 4–29–58. Cl. 39.
Pennsylvania Salt Mfg. Co., The, Philadelphia, Pa. 559,207, canc. Cl. 52.
Permacel-Le Page's Inc., now by change of name from Permacel Tape Corp., New Brunswick, N. J. 664,225, pub. 4–29–58. Cl. 2.
Permacel Tape Corp.: *See*—
Permacel-Le Page's Inc.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 664,313–14, pub. 4–29–58. Cl. 18.
Phelan-Faust Paint Mfg. Co., St. Louis, Mo. 664,290, pub. 4–29–58. Cl. 16.
Phillips, Milto B., d. b. a. Phillips Supply House, New Orleans, La. 664,412, pub. 4–29–58. Cl. 31.
Phillips Supply House: *See*—
Phillips, Milto B.
Pickering Associates, Inc., Oceanside, N. Y. 664,340, pub. 4–29–58. Cl. 21.
Picture Magazines, Inc., New York, N. Y., to Des Moines Register and Tribune Co., Des Moines, Iowa. 359,169, ren. 8–9–58. Cl. 38.
Pindyck, Charles, Inc., New York, N. Y. 664,443, pub. 4–29–58. Cl. 39.
Pinkussohn, J. S., Cigar Co., Charleston and Columbia, S. C., and Savannah, Ga., to The American Tobacco Co., New York, N. Y. 361,446. ren. 10–18–58. Cl. 17.
Plas-Trix Co., The, Brooklyn, N. Y. 559,363, canc. Cl. 22.
Plough, Inc., Memphis, Tenn. 664,301, pub. 4–29–58. Cl. 18.
Point of Promotion, Inc., New York, N. Y. 664,468, pub. 4–29–58. Cl. 39.
Precision Detroit Co.: *See*—
Thoma, Willard F.
Preen Uniforms, Inc., New York, N. Y. 664,450, pub. 4–29–58. Cl. 39.
Prescon Corp., The, Corpus Christi, Tex., from Prestressed Concrete Corp., Kansas City, Mo. 664,262, pub. 4–2–57. Cl. 12.
Press Industrial Products: *See*—
Wilson, Perry J.
Prestressed Concrete Corp.: *See*—
Prescon Corp., The.
Preway, Inc., Wisconsin Rapids, Wis. 664,346, pub. 4–29–58. Cl. 21.
Priester Pecan Co., Deposit, Ala. 664,510, pub. 4–29–58. Cl. 46.
Prince Macaroni Mfg. Co., Lowell, Mass. 559,244, canc. Cl. 46.
R-Columbia Products Co., Highwood, Ill. 664,343, pub. 4–29–58. Cl. 21.
Radiant Mfg. Corp., Chicago, Ill. 664,393, pub. 4–29–58. Cl. 26.
Rawlings, Betty J., and Richard A. Rawlings: *See*—
Stox.
Rayflex Fabrics, Inc., New York, N. Y. 664,490–1, pub. 4–29–58. Cl. 42.
Ray-O-Vac Co.: *See*—
Electric Storage Battery Co., The.
Raytheon Mfg. Co., Newton, Mass. 559,263, canc. Cl. 26.
Record Corp. of America, Union City, N. J. 664,430, pub. 4–29–58. Cl. 36.
Redel Inc., Anaheim, Calif. 664,281, pub. 4–29–58. Cl. 12.
Red Wing Shoe Co., Inc., Red Wing, Minn., and Dallas, Tex. 559,224, canc. Cl. 39.
Reliable Textile Co., The, to The Reliable Textile Co., Chicago, Ill. 360,523, ren. 9–20–58. Cl. 42.
Renee of Hollywood: *See*—
S. D. S. Inc.
Reynolds Metals Co., Richmond, Va. 559,464, canc. Cl. 2.
Riker Laboratories, Inc., Los Angeles, Calif. 664,303, pub. 4–29–58. Cl. 18.
Roberts, Francis, d. b. a. Science Editors, Louisville, Ky. 664,437, pub. 4–29–58. Cl. 38.
Roche-Organon, Inc., Nutley, to Organon Inc., Orange, N. J. 361,309, ren. 10–11–58. Cl. 18.
Rochester Dairy Cooperative, Rochester, Minn. 664,511, pub. 4–29–58. Cl. 46.
Romeo Packing Co., Half Moon Bay, Calif. 664,254–6, pub. 4–29–58. Cl. 10.
Ronda-Wear Corp., Ronda, N. C. 664,466, pub. 4–29–58. Cl. 39.
Rossotti Lithograph Corp., North Bergen, N. J. 664,431, pub. 4–29–58. Cl. 38.
S. D. S. Inc., d. b. a. Renee of Hollywood, Los Angeles, Calif. 664,456, pub. 4–29–58. Cl. 39.
S. & R. Infants Wear Co., Inc., New York, N. Y. 664,440, pub. 4–29–58. Cl. 39.
Salsbury Corp., Los Angeles, Calif. 664,358, pub. 4–29–58. Cl. 23.
Santa Monica Sea Food Co., Santa Monica, Calif. 664,515, pub. 4–29–58. Cl. 46.
Sapolin Paints Inc., New York, N. Y. 664,291, pub. 4–29–58. Cl. 16.
Schlein, Samuel E., Inc., New York, N. Y. 664,464, pub. 4–29–58. Cl. 39.
Schnadig Corp., from S. Karpen & Bros., Inc., Chicago, Ill. 664,418, pub. 4–29–58. Cl. 32.
Schneider, Benjamin, Philadelphia, Pa. 559,228, canc. Cl. 3.
Schneider, Mitchel, Co. Inc., Brooklyn, N. Y. 664,471, pub. 4–29–58. Cl. 39.
Schnier, I. F., Co., Inc., San Francisco, Calif. 664,534, pub. 4–29–58. Cl. 50.
Schrank, M. C., Co., Bridgeton, N. J. 664,446, pub. 4–29–58. Cl. 39.
Schroeder, Hans: *See*—
Comet Tools, Inc.
Schur-Fit Mfg. Co., Inc., New York, N. Y. 664,497, pub. 4–29–58. Cl. 44.
Science Editors: *See*—
Roberts, Francis.
Scottish Towel Co. Ltd., The, Glasgow and Hillington, Glasgow, Scotland. 559,217, canc. Cl. 42.
Seidel, Alwin R., Saxonia, Germany. 664,429, pub. 4–29–58. Cl. 36.
Sharp & Dohme, Inc., Philadelphia, Pa., to Merck & Co., Inc., Rahway, N. J. 357,119, ren. 5–24–58. Cl. 18.

Sheffield Co., The, New London, Conn. 361,128, ren. 10–11–58. Cl. 51.
Sheldon, George (Walsall) Ltd., Walsall, Staffordshire, England. 664,228, pub. 4–29–58. Cl. 3.
Shell Chemical Corp.: *See*—
Pacific Distillers, Inc.
Sherman, Robert M., d. b. a. Special Preparations Co., New York, N. Y. 664,326, pub. 4–29–58. Cl. 18.
Signode Steel Strapping Co., Chicago, Ill. 664,263, pub. 4–29–58. Cl. 12.
Sloane, W. & J., New York, N. Y. 559,227, canc. Cl. 34.
Sloyan, Jerome J., d. b. a. Automatic Motor Base Co., Windsor, N. J. 664,301, pub. 4–29–58. Cl. 23.
Smith, Eugene W., Chicago, Ill. 664,273, pub. 4–29–58. Cl. 12.
Smith, H. V., Co., St. Paul, Minn. 664,545, pub. 4–29–58. Cl. 52.
Sonoco Products Co., Hartsville, S. C. 664,271, pub. 4–29–58. Cl. 12.
Southern California Disinfecting Co., Los Angeles, Calif. 664,406, pub. 4–29–58. Cl. 29.
Sparkl-It: *See*—
JeMaJo Corp.
Special Preparations Co.: *See*—
Sherman, Robert M.
Spencerian Pen Co., The, to Spencerian Pen Co., Inc., New York, N. Y. 358,562, ren. 5–3–58. Cl. 37.
Spencerian Pen Co., Inc.: *See*—
Spencerian Pen Co., The.
Sporn, Walter, d. b. a. Walter Sporn & Co., Chicago, Ill. 664,404, pub. 4–29–58. Cl. 29.
Sporn, Walter, & Co.: *See*—
Sporn, Walter.
Sprustex Co.: *See*—
Gem, Inc.
Squillante, Vincent J., New York, N. Y. 234,730, canc. Cl. 46.
Standard Brands Inc., New York, N. Y. 664,519–21, pub. 4–29–58. Cl. 46.
Standard Feed Milling Co., The: *See*—
Martin, J. Kendley.
Stardust, Inc., New York, N. Y. 664,470, pub. 4–29–58. Cl. 39.
States Trading Co.: *See*—
Steingart, Murray.
Steingart, Murray, d. b. a. States Trading Co., New York, N. Y. 664,498, pub. 11–12–57. Cl. 44.
Ste. Pierre Smirnoff Fils Inc., New York, N. Y. 334,531, canc. Cl. 49.
Ste. Pierre Smirnoff Fils Inc., New York, N. Y. 334,532, canc. Cl. 49.
Sterling Drug Inc.: *See*—
Jayne, Dr. D., & Son, Inc.
Sternin Hosiery Co., New York, N. Y. 664,473, pub. 4–29–58. Cl. 39.
Stollwerck, A. N., Inc., Camden, N. J. 559,414, canc. Cl. 46.
Stout Irrigation, Inc., Portland, Oreg. 559,462, canc. Cl. 13.
Stox, Chicago, Ill., to Betty J. Rawlings and Richard A. Rawlings, co-partners, d. b. a. Stox Co. 559,352, canc. Cl. 39.
Stox Co.: *See*—
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Summers, Norman E., d. b. a. Hollywood School Photo Association, Los Angeles, Calif. 664,304, pub. 4–29–58. Cl. 26.
Sun Chemical Corp., Long Island City, N. Y. 664,259–61, pub. 4–29–58. Cl. 11.
Sunset International Petroleum Corp.: *See*—
Sunset Oil Co.
Sunset Oil Co., Los Angeles, to Sunset International Petroleum Corp., Beverley Hills, Calif. 361,442, ren. 10–18–58. Cl. 15.
Sunshine Magic: *See*—
Terry, Marion S.
Surgical Instrument Corp., New York, N. Y. 559,344, canc. Cl. 44.
Swift & Co.: *See*—
Lawrence, A. C., Leather Co.
Swift and Co., to Swift & Co., Chicago, Ill. 357,619, ren. 6–7–58. Cl. 5.
Sylvania Electric Products Inc.: *See*—
International Radio Corp.
Teitelbaum, N., Sons Inc., New York, N. Y. 664,535, pub. 4–29–58. Cl. 50
Terry Footwear Corp., New York, N. Y. 664,459, pub. 4–29–58. Cl. 39.
Terry, Marion S., d. b. a. Sunshine Magic, Scituate, Mass. 297,150 canc. Cl. 22.
Thermal Engineering Corp., to Thermal Research Corp., Richmond, Va. 379,674, canc. Cl. 23.
Thermal Research Corp.: *See*—
Thermal Engineering Corp.
Thermoid Co.: *See*—
Thermoid Rubber Co.
Thermoid Rubber Co., Hamilton Township, Trenton, N. J., to Thermoid Co., Trenton, N. J. 123,294, ren. 10–22–58. Cl. 35.
Thermoplex International, Inc., New York, N. Y. 559,268, canc. Cl. 2.
Thoma, Willard F., d. b. a. Precision Detroit Co., Detroit, Mich. 664,355, pub. 4–29–58. Cl. 23.
Thompson Bros. Shoe Co., Brockton, Mass. 559,205, canc. Cl. 39.
Thompson Products, Inc., Cleveland, Ohio. 664,379, pub. 4–29–58. Cl. 23.
Tile Roofing Co., Inc., Stratford, Conn. 664,276, pub. 4–29–58. Cl. 12.
Tilton & Cook Co., Leominster, Mass. 359,980, ren. 9–6–58. Cl. 40.
Timely Clothes, Inc., Rochester, N. Y. 559,411, canc. Cl. 39.
Top-Hand Dairies, Inc., Bartlesville, Okla. 664,513, pub. 4–29–58. Cl. 46.
Tostadores y Molinos de Cafe "Combate" S. A., Chihuahua, Chihuahua, Mexico. 664,507, pub. 4–29–58. Cl. 46.
Towne Togs, Inc., from Jack Litt, Inc., New York, N. Y. 559,451, canc. Cl. 39.
Triangle Package Machinery Co., Chicago, Ill. 664,364, pub. 4–29–58. Cl. 23.
Tri-Tix, Inc., Port Washington, Wis. 664,233, pub. 4–29–58. Cl. 5.
Tru-Fit Products: *See*—
Werndorfer, Joseph.
Tuco Work Shops, Inc., The, Lockport, N. Y. 664,354, pub. 4–29–58. Cl. 22.
Tulip Hosiery Finishing Co.: *See*—
McAdams, Harry.
Tycho Mfg. Co., La Grange, Ill. 664,380, pub. 4–29–58. Cl. 23.
Uneeda Doll Co. Inc., New York, N. Y. 559,365, canc. Cl. 22.
Union Bag-Camp Paper Corp., New York, N. Y. 664,220, pub. 4–29–58. Cl. 1.
Union Carbide Corp., New York, N. Y. 664,229–30, pub. 4–29–58. Cl. 4.
Union Carbide Corp., New York, N. Y. 664,247, pub. 4–29–58. Cl. 6.
Union Carbide Corp., New York, N. Y. 664,349, pub. 4–29–58. Cl. 21.
Union Electric Co. of Missouri, St. Louis, Mo. 559,433, canc. Cl. 100.
Union Fish Co., The, Erie, Pa. 559,225, canc. Cl. 46.
United States Hoffman Machinery Corp., New York, N. Y. 664 384, pub. 4–29–58. Cl. 23.
U. S. Polymeric Chemicals, Inc., Stamford, Conn. 664,269, pub. 4–29–58. Cl. 12.
United States Shoe Corp., The: *See*—
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Upjohn Co., The, Kalamazoo, Mich. 664,302, pub. 4–29–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 664,304–5, pub. 4–29–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 664,307–8, pub. 4–29–58. Cl. 18.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 664,245, pub. 4–29–58. Cl. 6.
Vandercook & Sons, Inc., Chicago, Ill. 664,382, pub. 4–29–58. Cl. 23.
Van Sickle Co., d. b. a. Wade Pharmacal Co., St. Louis, Mo. 664,297, pub. 4–29–58. Cl. 18.
Vernon Devices, Inc., Mt. Vernon, N. Y. 664,360, pub. 4–29–58. Cl. 23.
"Vetrum" Soc. A. R. L., Venezia-Mestre, Italy. 664,267, pub. 4–29–58. Cl. 12.
Victor Mfg. & Gasket Co., Chicago, Ill. 664,424, pub. 4–29–58. Cl. 35.
Vital Research Corp., New York, N. Y. 664,318, pub. 4–29–58. Cl. 18.
Vitalitea Products Co.: *See*—
Bredin, Lewis L.
Voet, Joe: *See*—
Voet, Joseph F.
Voet, Joseph F., d. b. a. Joe Voet, Brawley, Calif. 559,393, canc. Cl. 46.
Voigt Milling Co., Grand Rapids, Mich., 559,392, canc. Cl. 46.
Wade Pharmacal Co.: *See*—
Van Sickle Co.
Wagner Brothers, Inc., Detroit, Mich. 664,241, pub. 4–29–58. Cl. 6.
Wagner Brothers, Inc., Detroit, Mich. 664,408, pub. 4–29–58. Cl. 31.
Wall Kjemiak Industri A/S, Oslo, Norway. 664,502, pub. 4–29–58. Cl. 44.
Wallace, R., & Sons Mfg. Co., Wallingford, Conn. 664,402, pub. 4–29–58. Cl. 28.
Wallace Silversmiths, Inc., Wallingford, Conn. 664,372, pub. 4–29–58. Cl. 23.
Waterloo Corp., New York, N. Y. 559,389, canc. Cl. 16.
Wells Mfg. Co., South Bend, Ind. 664,536, pub. 4–29–58. Cl. 50.
Werndorfer, Joseph, d. b. a. Tru-Fit Products, New York, N. Y. 559,490, canc. Cl. 39.
West Bend Aluminum Co., West Bend, Wis. 664,282, pub. 2–11–58. Cl. 13.
Western Industrial Pharmaceuticals Co.: *See*—
B Y's, Inc.
Westinghouse Electric Corp.: *See*—
Westinghouse Electric & Mfg. Co.
Westinghouse Electric & Mfg. Co., East Pittsburgh, to Westinghouse Electric Corp., Pittsburgh, Pa. 354,878, ren. 3–1–58. Cl. 34.
Where-to-go Bureau, Inc., Boston, Mass. 559,432, canc. Cl. 101.
Whirl-A-Pest Mfg. Co.: *See*—
George, Markie C., Sr.
White Laboratories, Inc., Newark, N. J. 559,309, canc. Cl. 18.
White Laboratories, Inc. (New Company), from White Laboratories, Inc., Kenilworth, N. J. 664,309, pub. 4–29–58. Cl. 18.
Wilson, Perry J., d. b. a. Pres Industrial Products, New Paltz, N. Y. 664,264, pub. 4–29–58. Cl. 12.
Wilson & Toomer Fertilizer Co., Jacksonville, Fla. 664,253, pub. 4–29–58. Cl. 10.
Wilwin Co.: *See*—
Bilwin Co., Inc.
Winseal Mfg. Co., Oakmont, Pa. 664,280, pub. 4–29–58. Cl. 12.
Wisconsin Juvenile Furniture Mfg. Co.: *See*—
Furrer, Raymond I.

Woodmere Mills, Inc., Bennington, Vt. 664,472, pub. 4–29–58. Cl. 39.
Woolworth, F. W., Co., New York, N. Y. 559,409, canc. Cl. 39.
Woolworth, F. W., Co., New York, N. Y. 664,493, pub. 4–29–58. Cl. 42.
Wyandotte Chemicals Corp., Wyandotte, Mich. 664,550, pub. 4–29–58. Cl. 52.
Young, Marsha, Inc., New York, N. Y. 664,451, pub. 4–29–58. Cl. 39.
"Your Video Guide," Atlantic City, N. J. 559,484, canc. Cl. 38.
Zirin, Benjamin, d. b. a. Zirin Enterprises, Hialeah, Fla. 664,315, pub. 4–29–58. Cl. 18.
Zirin Enterprises: *See*— Zirin, Benjamin.

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PATENTS

NOTICES

Adverse Decisions in Interferences

In the designated interferences involving the indicated claims of the following patents final decisions have been rendered that the respective patentees were not the first inventors with respect to the claims listed.

Pat. 2,741,607, T. F. Bradley and A. C. Mueller, Trigiycidyl cyanurate and polymers thereof, decided May 6, 1958, Interference No. 88,171, claims 1, 2, 3, and 4.

Pat. 2,751,161, P. W. Markwood, J. T. Rich, P. D. Lingerfelt, and C. F. Nichols, Doffing a winding machine, decided May 28, 1958, Interference No. 88,327, claims 1 and 2.

Pat. 2,762,597, L. S. Jaworski, One-piece spring metal capacitor case bracket, decided May 23, 1958, Interference No. 88,968, claim 1.

Classification Order No. 250

Classification Order No. 250, dated June 27, 1958, incorporates changes in the following classes:

Classes 40, 46, 53, 62 (complete revision)

The above changes will be incorporated in the Manual of Classification replacement pages dated July 1958.

M. C. ROSA,
Director, Patent Examining Operation.

Classification Order No. 251

The following transfers are hereby ordered to take effect on Tuesday, July 1, 1958:

From Mechanized Examining Division A to Division 31:
Class 260, CHEMISTRY, CARBON COMPOUNDS, Subclasses 94.8, 93.7

From Mechanized Examining Division A to Division 50:
Class 260, CHEMISTRY, CARBON COMPOUNDS, Subclasses 80.7, 82.1–83.3, 83.5, 83.7–85.1, 85.5, 86.1–86.7, 88.7, 89.3, 89.5, 94.2–94.7

From Mechanized Examining Division A to Division 60:
Class 260, CHEMISTRY, CARBON COMPOUNDS, Subclasses 80, 80.3, 80.5, 81, 82, 85.3, 85.7, 87.1, 87.3, 87.5, 87.7, 88.1, 88.3, 88.5, 89.1, 89.7–93.5, 94.1

The mechanization of these subclasses for searching has advanced to a stage at which concurrent examination of applications pending therein is no longer advantageous. Examination of those subclasses presently mechanically searchable will continue in Mechanized Examining Division A and mechanization of the above subclasses will proceed in the Office of Research and Development.

M. C. ROSA,
Director, Patent Examining Operation.

Patents Available for Licensing or Sale

2,626,461. Device for Raising Plaster Board—Handy Man. Ray and Edwin Eliason, Champion, Mich.

General Electric Company is prepared to grant non-exclusive licenses under the following 20 patents upon reasonable terms to domestic manufacturers.

Applications for license under the following patent may be addressed to: General Electric Company, Aircraft Gas Turbine Division, Cincinnati 15, Ohio. Attention, Patent Counsel.

2,370,694. Gas Turbine Arrangement.

Applications for license under the following 4 patents may be addressed to: General Electric Company, Transformer Division 100 Woodlawn Ave., Pittsfield, Mass. Attention, Patent Counsel.

2,307,605. Magnetic Material Heat Treatment.

2,829,355. Winding Transposition for Electrical Apparatus.

2,831,173. Vaporisation Cooled Stationary Electrical Induction Apparatus.

2,834,829. Bushing Terminal Guard.,

Applications for license under the following 12 patents may be addressed to: General Electric Company, Patent Counsel, Measurements and Industrial Products Division, 920 Western Ave., West Lynn 3, Mass.

2,727,121. Electric Heater Terminal.

2,787,908. Instrument Caging Arrangements.

2,796,556. Phase Comparator.

2,810,037. Sensitive Relay.

2,815,479. High Voltage Supply.

2,817,814. Corona Detection Probe.

2,823,545. Magnetic Field Reactor and Systems Therefor.

2,824,264. Electrical Capacitor Assembly.

2,824,281. Method and Apparatus for Measuring Thickness.

2,827,610. Oscillatory Friction Eliminator.

2,828,628. Dynamic Balance System.

2,830,270. Watthour Meter Light Load Plate.

Applications for license under the following 3 patents may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,830,922. Method of Making Cast Magnetic Aluminum-Iron Alloys and Product Thereof.

2,830,953. Silicone Lubricating Oils.

2,831,880. Organosilicon Derivatives of Dicyclopentadienyl Metals and Methods for Preparing the Same.

New Applications Received During May 1958

Patents	6,750
Designs	444
Plant Pats	10
Reissues	42
Total	7,246

Issue

Patents	971	No. 2,843,849 to No.	2,844,819, incl.
Designs	39	No. 183,233 to No.	183,271, incl.
Plant Pats	1	No. 1,733	
Reissues	3	No. 24,505 to No.	24,507, incl.
Total	1,014		

CONDITION OF PATENT APPLICATIONS AS OF MAY 31, 1958

Total number of pending applications (excluding Designs)		208, 262
Total number of pending Design applications		6, 624
Total number of applications awaiting action (excluding Designs)		87, 935
Total number of Design applications awaiting action		3, 087
Date of oldest new application	June	4, 1957
Date of oldest amended application	May	17, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 36, 42, 46, 50, 58, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 60.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 34, 37, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 45, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 9, 20, 29, 32, 36, 40, 52, 56.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE	3, 15, 19, 25, 33, 53, 49, 55, 57.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-30-57	9-4-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	9-26-57	9-6-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	12-3-57	10-29-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	9-13-57	9-26-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	9-6-57	9-6-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	10-1-57	10-24-57
7. (IV) GONSALVES, J. B. (ANDERSON, R. G., acting), Optics	9-11-57	9-9-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-11-57	10-14-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	9-30-57	9-10-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	9-17-57	10-2-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	10-25-57	10-14-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	9-12-57	7-1-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-3-57	9-5-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	9-6-57	8-29-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	9-6-57	9-16-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	8-13-57	8-2-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	10-10-57	10-11-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	9-9-57	9-3-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	9-19-57	9-3-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	9-4-57	9-12-57
21. (III) MADER, R. C., Textiles	7-18-57	7-16-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	9-3-57	9-3-57
23. (VI) SMITH, J., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	5-4-57	5-17-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	11-7-57	11-12-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	8-16-57	8-15-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-1-57	10-3-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	10-16-57	10-17-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	8-25-57	8-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	9-3-57	7-26-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	10-15-57	10-7-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	9-30-57	10-1-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-11-57	9-16-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-15-57	10-7-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	10-3-57	10-2-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	1-2-58	1-3-58
36. (V) CUTTING, C. A., (acting), Measuring and Testing; Automatic Weighers; Weighing Scales	7-5-57	7-2-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	9-4-57	9-10-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthracene, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	11-20-57	12-2-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	11-15-57	11-26-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	11-1-57	11-1-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	9-9-57	8-22-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	9-1-57	9-1-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	9-3-57	9-6-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-4-57	9-3-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	9-13-57	9-13-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	10-2-57	9-10-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	10-2-57	9-16-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	8-16-57	8-23-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	10-7-57	10-14-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	11-1-57	11-5-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	9-5-57	9-6-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	9-6-57	9-3-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	11-19-57	10-7-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	11-4-57	11-6-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	7-9-57	7-5-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	10-8-57	10-1-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	12-10-57	12-2-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	10-30-57	10-8-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	9-11-57	8-26-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	12-23-57	10-18-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	9-3-57	9-3-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	11-6-57	11-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	8-22-57	9-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	9-4-57	8-15-57
65. (V) LISANN, L., Geometric Instruments; Acoustics; Building Structures	9-3-57	8-29-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	9-10-57	9-9-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	11-1-57	10-28-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	10-16-57	10-17-57
CLASS. DIVS. II—LADY, J. E., Oscillators	1-7-58	1-6-58
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	9-3-57	9-9-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	9-16-57	9-10-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	9-3-57	9-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	7-1-57	6-6-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	11-4-57	12-6-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	9-5-57	10-21-57

*Established August 28, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 66

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during July 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,247,345, to 2,251,257, inclusive
Plant Patents ..... Numbers 478 to 479, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE WALTER P. FIELD

No. 6354. Decided April 11, 1958. Petition for rehearing denied June 24, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—MANUFACTURE—SEQUENCE OF ASSEMBLY—SEQUENCE NOT ASCERTAINABLE FROM PRODUCT.

In regard to a contention that a reference discloses "a welted outsole and a shoe upper attached to the welt, rather than a welted upper and an outsole attached to the welt" as required by certain claims to an adhesively bonded shoe, *Held* that the claims "are not drawn to a method of making a shoe, but to the complete shoe," that both appellant and the reference "disclose shoes in which the welt is cemented to both the upper and the outsole," that if the shoe of the reference is "properly made it would be impossible to tell whether the welt had been initially attached to the upper or to the outsole," and that the claims, therefore, do not define a shoe differing in any patentable respect from that disclosed by said reference, in view of another reference showing an adhesive satisfying the claims.

2. SAME—SUBSTITUTION OF ADHESIVES.

Regarding the substitution of a later adhesive for an adhesive earlier used for securing shoe parts, *Held* that the substitution would not involve invention because "the selection of a particular adhesive is merely a matter of choice," and *Held* that the "later adhesive is said to be particularly adapted for securing shoe parts, and would naturally be used to replace earlier types of adhesives used for that purpose."

3. SAME—OMISSION OF ELEMENT—ABSENCE OF SHOWING OF IMPROVED PRODUCT.

In regard to claims to a welted shoe upper, *Held* that the broad statement that the insole is "unribbed" does not confer patentability "since there is nothing to show that the omission of a rib, in and of itself, results in an improved product."

4. SAME—MANUFACTURE—FUNCTIONAL RECITATION RELATING TO METHOD OF MAKING.

"The statement in claims 5 and 6 that an outsole 'later may be attached' to the welted upper does not define structure, but is merely a functional recitation relating to a method of shoe making. Such a limitation cannot confer patentability on a claim to a structure."

5. SAME—REFERENCE SHOWING ADDITIONAL STRUCTURE—OMISSION OF AN ELEMENT FROM REFERENCE.

"Assuming that Goddu's welt is secured to the insole by stitching, as well as by an adhesive, that is not material so far as claims 5, 6, and 16 are concerned, since those claims are not limited to a construction in which the adhesive serves as the only securing means. Moreover, the omission of Goddu's stitching with a corresponding omission of function would not produce a patentably different article. That is especially true in view of Hadaway's use of cement as the sole means of attaching the welt to the upper."

6. SAME—METHOD—SEQUENCE OF STEPS.

"The statement in claims 13, 14, and 17 that the welt is cemented to the upper before the outsole is attached does not constitute a patentable limitation. Goddu evidently considers it desirable to perform those operations at the same time, but there would be no invention in cementing the upper to the welt prior to attachment of the outsole if desired."

7. SAME—PARTICULAR SUBJECT MATTER—SHOE AND METHOD OF MAKING A SHOE.

The refusal by the Board of Appeals of claims to a shoe and method of making a shoe is affirmed.

APPEAL from the Patent Office. Serial No. 126,407.

AFFIRMED.

Arnold C. Rodd for Walter P. Field.

Clarence W. Moore (*D. Kreider* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the Primary Examiner's rejection of claims 2, 3, 5, 6, 15, and 16 of appellant's application for a patent on improvements in the manufacture of shoes, and rejecting claims 13, 14, and 17 of the application on a ground not employed by the Examiner.

Claims 2, 5, and 17 are typical of the rejected claims and read:

2. A shoe construction comprising, in combination, a welted shoe upper, and an outsole secured to the welt of said upper, said shoe upper having a shoe bottom including an unribbed insole, a welt overlying the marginal portion of said shoe bottom in uniform relation to the edge of the shoe upper, and an adhesive selected from the group consisting of polymerized chloroprene, and butadiene-acrylonitrile copolymer associated with a toughening agent for said copolymer, disposed between said marginal portion of the shoe bottom and said welt and adhesively securing them together.

5. A welted shoe upper, to which an outsole later may be attached, comprising, in combination, an upper having a shoe bottom, including an unribbed insole, a welt overlying the marginal portion of said shoe bottom in uniform relation to the edge of the shoe upper, and an adhesive selected from the group consisting of polymerized chloroprene, and butadiene-acrylonitrile copolymer associated with a toughening agent for said copolymer, disposed between said shoe bottom and said welt and adhesively securing them together.

17. The method of securing welting to a shoe upper prior to attaching an outsole, which comprises providing a shoe upper having a shoe bottom including an unribbed insole, providing a strip of welting, and pressing said welting with pressure-sensitive adhesive to the marginal portion of said shoe bottom in uniform relation to the edge of the shoe upper.

The references relied on are:

Goddu, 1,986,723, January 1, 1935.
Hadaway, 2,139,746, December 13, 1938.
Teppema et al., 2,367,629, January 16, 1945.

Appellant's application discloses a shoe and a method of making it in which a shoe upper is lasted over a flat insole. The overlasted margin of the upper has a roughened surface to which has been applied a coating of a pressure-sensitive adhesive such as polymerized chloroprene or butadiene-acrylonitrile copolymer, associated with a toughening agent. The roughened portion of a strip of leather welting, similarly coated with adhesive is progressively applied to and pressed against the marginal portion of the upper, so that the two are firmly bonded together. An outsole may be attached to the welted upper in any suitable manner as by stitching.

The Goddu patent discloses a method of manufacturing a shoe in which the upper is lasted over a flat insole, the overlasted marginal portion of the upper being roughened and coated with pyroxylin cement and allowed to dry. A welt strip, having both its upper and lower surfaces similarly roughened and coated with cement, is secured to the marginal portion of the upper by stitching, and a sole having its marginal lower surface coated with cement is placed over the welted insole. The various cement coatings are activated by applying solvent and pressure is applied to press the sole against the welt and insole, and also to press the welt against the overlasted portion of the upper, thus securing the various parts together. The cementing of the welt to the upper is described as optional.

The Hadaway patent discloses a method in which a welt strip is first secured around the margin of a shoe

sole by cementing, and the marginal portion of an upper which is overlasted on an insole is attached to the welt by cementing. The surfaces to be joined by cementing are roughened before the cement is applied, and the cement used may be either pyroxylin or a pressure-sensitive polymerized chloroprene.

The Teppema et al. patent describes a pressure-sensitive adhesive comprising butadiene-acrylonitrile copolymer and a toughening agent, which is said to be particularly adapted for securing leather and shoe parts.

Claims 2, 3, and 15 were rejected on Hadaway in view of Teppema, the latter cited to show the specific adhesive recited in claims 2 and 3. It is clear that Teppema shows an adhesive satisfying those claims, and that there would be no invention in substituting it for the equivalent adhesive of Hadaway.

[1] It is appellant's contention that Hadaway discloses a welted outsole and a shoe upper attached to the welt, rather than a welted upper and an outsole attached to the welt as required by claims 2, 3, and 15. Those claims, however, are not drawn to a method of making a shoe, but to the complete shoe. Both appellant and Hadaway disclose shoes in which the welt is cemented to both the upper and the outsole. We agree with the Board that if Hadaway's shoe is properly made it would be impossible to tell whether the welt had been initially attached to the upper or to the outsole. Claims 2, 3, and 15, therefore, do not define a shoe differing in any patentable respect from that disclosed by Hadaway, in view of Teppema, and were properly rejected for that reason.

The Goddu patent was the basic reference on which the Board relied in rejecting the remainder of the claims, that patent being interpreted by the Board as disclosing a method of making a shoe in which the welt is attached to the upper by cement alone. Appellant contends that Goddu discloses the use of cement only as an auxiliary means of securing a welt which has already been stitched to the upper. We find it unnecessary to decide as to which of those interpretations is correct since, for the reasons which follow, we are of the opinion that claims 5, 6, 13, 14, 16, and 17 are of such scope as to be unpatentable over Goddu in view of Teppema, even if, as asserted by appellant, Goddu does not disclose the attachment of the welt to the upper by means of cementing without stitching.

Claims 5, 6, and 16, all drawn to a welted shoe upper, were rejected on Goddu on the ground that it would not require invention to substitute the unribbed insole of Hadaway for the ribbed insole of Goddu, or to substitute the pressure-sensitive adhesive of Teppema for the adhesive composition used by Goddu. We agree that the suggested substitutions would not involve invention because [2] the selection of a particular adhesive is merely a matter of choice. Teppema's adhesive is said to be particularly adapted for securing shoe parts, and would naturally be used to replace earlier types of adhesives used for that purpose in processes such as that of Goddu. [3] The broad statement that the insole is "unribbed" does not confer patentability on claims directed to the welted shoe upper, since there is nothing to show that the omission of a rib, in and of itself, results in an improved product. Moreover, Hadaway shows an unribbed inner sole adhesively secured to a welt.

[4] The statement in claims 5 and 6 that an outsole "later may be attached" to the welted upper does not define structure, but is merely a functional recitation relating to a method of shoe making. Such a limitation cannot confer patentability on a claim to a structure. *In re Stattmann*, 32 CCPA (Patents) 813, 146 F.2d 290, 64 USPQ 245.

[5] Assuming that Goddu's welt is secured to the insole by stitching, as well as by an adhesive, that is not material so far as claims 5, 6, and 16 are concerned, since those claims are not limited to a construction in which the adhesive serves as the only securing means. Moreover, the omission of Goddu's stitching with a corresponding omission of function would not produce a patentably different article. That is especially true in view of Hadaway's use of cement as the sole means of attaching the welt to the upper.

In our opinion the Board correctly held that claims 5, 6, and 16 fail to point out any structure involving patentable novelty over the references on which they were rejected.

Claims 13, 14, and 17 are directed to a method of securing welting to a shoe upper prior to attachment of an outsole, which comprises providing the welting in the form of a strip and attaching it to the marginal portion of the bottom of a shoe upper by pressing the two together with a pressure-sensitive adhesive between them. Those claims were held by the Board to be unpatentable over the Goddu patent which, in the opinion of the Board, discloses the manipulative steps set forth in the claims. As above noted, however, when Goddu uses an adhesive between the upper and the welt he secures those two at the time when the outsole is applied instead of prior thereto as required by claims 13, 14, and 17. Notwithstanding that difference, we are of the opinion that claims 13, 14 and 17 do not define methods differing patentably from that of Goddu. The references in those claims to the particular adhesive or type of adhesive used are not important, since the selection of an adhesive is a matter of choice and it would be obvious to substitute a pressure-sensitive adhesive such as that of Teppema for the adhesive employed by Goddu.

[6] The statement in claims 13, 14 and 17 that the welt is cemented to the upper before the outsole is attached does not constitute a patentable limitation. Goddu evidently considers it desirable to perform those operations at the same time, but there would be no invention in cementing the upper to the welt prior to attachment of the outsole if desired.

It is to be noted that there is nothing in claims 13, 14, and 17 to preclude the use of stitching as well as cementing to hold the welt to the upper, and, accordingly, the fact that Goddu may employ such stitching is immaterial.

Claim 17 contains a statement that the shoe bottom includes an unribbed insole, but we agree with the Board that the omission of the Goddu insole rib and its function would not be a matter of invention so far as the process of claim 17 is concerned.

[7] The decision of the Board of Appeals is affirmed.

AFFIRMED.

O'CONNELL, *J.*, was present at the hearing of this appeal, but, because of illness, did not participate in the decision.

JACKSON, *J.*, retired, recalled to participate, was present at the hearing of this appeal but did not participate in the decision.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

1,992,970, E. A. Sperry et al., Hydro-pneumatic automatic pilot; 2,045,579, B. G. Carlson, Automatic level control for aircraft; 2,066,194, M. F. Bates, Automatic spiraling device for aircraft; 2,068,490, H. L. Hull, Position control system; 2,082,662, Sperry, Jr. and Thompson, Gyro-magnetic compasses; 2,115,066, A. S. Riggs, Non-hunting or dead beat remote control; 2,126,918, F. L. Moseley, Electrical control system; 2,270,875, Hanson and Esval, Gyro vertical and automatic pilot for aircraft; 2,357,219, Esval and Frische, Flux valve magnetic compass; 2,372,184, B. G. Carlson, Homing auto pilot for aircraft; 2,372,185, B. A. Wittkuhns, Drift compensator for aircraft; 2,380,435, Frische and Hanson, Aircraft automatic pilot with automatic banking; 2,382,490, Purves and Beach, Magnetic field responsive device; 2,415,429, S. Kellogg, 2nd et al., Aircraft altitude control; 2,415,436, C. A. Frische et al., Automatic pilot with automatic banking; 2,423,236, F. L. Moseley, Radio controlled pilot system; 2,423,237, same; 2,452,479, S. Kellogg, 2nd, Gyroscopic flight instrument; 2,476,273, L. F. Beach, Apparatus sensitive to magnetic fields; 2,496,809, F. L. Moseley, Radio controlled pilot system; 2,511,846, P. Halpert, Automatic pilot follow-up control; 2,539,411, Esval and Frische, Automatic pilot; 2,561,267, R. Hasking, Jr., Gyroscopic control system; 2,567,922, R. S. Brannin et al., Automatic pilot for aircraft; 2,586,634, P. Halpert, Aircraft automatic pilot; 2,613,351, G. L. Lang, Radio navigation device, filed Jan. 17, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 19217, *Sperry Rand Corp.* v. *Lear, Inc.* Order of discontinuance June 5, 1958.

2,045,579. (See 1,992,970.)

2,066,194. (See 1,992,970.)

2,068,490. (See 1,992,970.)

2,082,662. (See 1,992,970.)

2,115,066. (See 1,992,970.)

2,126,918. (See 1,992,970.)

2,215,096(a), W. F. Glaser, Elevator system; 2,284,113, G. Watson, Dispatching and control system for elevators; 2,468,317, same; 2,509,242, Glaser and Hornung, same; 2,634,828, Bruns and Davis, Closure operator control mechanism; 2,662,318, Glaser and Lusti, Elevator dispatching and control system, filed July 20, 1954, D. C., W. D. Ky. (Louisville), Doc. 2812, *Otis Elevator Co.* v. *K. M. White, Inc.* Final judgment; stipulation dismissing complaints, amended answer and counterclaim with prejudice July 16, 1956 (notice received May 28, 1958).

2,215,096(b), W. F. Glaser, Elevator system; 2,284,113, G. Watson, Dispatching and control system for elevators; 2,468,317, same; 2,509,242, Glaser and Hornung, same; 2,634,828, Bruns and Davis, Closure operator control mechanism, filed Sept. 13, 1954, D. C., W. D. Ky. (Louisville), Doc. 2284 [originally filed July 20, 1954, D. C., N. D. Tex. (Fort Worth), Doc. 5646], *Otis Elevator Co.* v. *Hunter-Hayes Elevator Co., Inc.* Final judgment; stipulation dismissing complaints, amended answer and counterclaim with prejudice July 16, 1956 (notice received May 28, 1958).

2,270,875. (See 1,992,970.)

2,284,113, G. Watson, Dispatching and control system for elevators; 2,509,242, Glaser and Hornung, same; 2,662,318, Glaser and Lusti, Elevator dispatching and control system, filed Dec. 15, 1954, D. C., W. D. Ky. (Louisville), Doc. 2980 [originally filed July 20, 1954, D. C., E. D. Wis. (Milwaukee), Doc. 6370], *Otis Elevator Co.* v. *S. Heller Elevator Co.* Final judgment; stipulation dismissing complaints, amended answer and counterclaims with prejudice July 16, 1956 (notice received May 28, 1958).

2,284,113. (See 2,215,096(a).)

2,284,113. (See 2,215,096(b).)

2,304,704, T. A. O'Leary, Screws, filed June 10, 1958, D. C., S. D. N. Y., Doc. 134/223, *Theodor A. O'Leary* v. *Pheoll Mfg. Co. et al.*

2,325,328, B. Hillberg, Combined spreaders and ties for concrete forms, appeal filed Oct. 16, 1957, C. C. A., 2nd Cir., Doc. 24868, *Richmond Screw Anchor Co., Inc.* v. *Superior Concrete Accessories, Inc.* Decree of District Court, Southern District of New York affirmed (notice June 3, 1958).

2,338,911, C. H. Enamer, Machine for applying plastic bindings and the like; 2,582,044, same, Portable punching machine, filed Nov. 13, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1898, *General Binding Corp.* v. *Cummins-Chicago Corp.* By stipulation; complaint and counterclaim dismissed with prejudice Sept. 10, 1957 (notice received June 13, 1958).

2,357,219. (See 1,992,970.)

2,384,706, J. Geralds, Basket structure, filed Feb. 24, 1954, D. C., E. D. N. Y. (Brooklyn), Doc. 13231, *Mid-West Wire Products Co., Inc.* v. *Weil Wire Products Co., Inc.* Judgment of dismissal May 26, 1958.

2,372,184. (See 1,992,970.)

2,372,185. (See 1,992,970.)

2,380,435. (See 1,992,970.)

2,382,490. (See 1,992,970.)

2,415,429. (See 1,992,970.)

2,415,436. (See 1,992,970.)

2,423,236. (See 1,992,970.)

2,423,237. (See 1,992,970.)

2,452,479. (See 1,992,970.)

2,480,116, S. P. Midouhas, Collapsible clothes line, filed July 16, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16724, *Kambap, Inc.* v. *J. F. D. Mfg. Co., Inc.* Order of dismissal June 4, 1958.

2,468,317. (See 2,215,096(a).)

2,468,317. (See 2,215,096(b).)

2,476,273. (See 1,992,970.)

2,496,809. (See 1,992,970.)

2,511,846. (See 1,992,970.)

2,516,085, H. M. McElligott, Process of producing pearlescent articles; 2,648,666, same, Process for producing pearlescent plastic articles; 2,774,991, same, filed June 9, 1956, D. C. N. J. (Camden), Doc. 675/56, *Swedish Crucible Steel Co.* v. *Standard Tool and Heat Co.*

2,517,806, V. W. Farris, Safety valves, filed June 11, 1958, D. C. N. J. (Newark), Doc. 648/58, *Victor W. Farris* v. *Manning, Maxwell & Moore, Inc.*

2,539,411. (See 1,992,970.)

2,558,944. (See 2,535,911.)

2,561,267. (See 1,992,970.)

2,567,922. (See 1,992,970.)

2,586,634. (See 1,992,970.)

2,588,587, M. Perlman, Humidifier; 2,709,427, same, Humidifier for air heating furnace; 2,709,428, same, Humidifiers having supporting arms for evaporator plates; 2,709,429, same, Humidifiers having basket means for pan and plates, filed Oct. 17, 1956, D. C., E. D. Ill. (Chicago), Doc. 56c1716, *Auto Flo Corp.* v. *M. Brucker, Inc.* Dismissed by stipulation without prejudice Jan. 2, 1958 (notice received June 10, 1958).

2,509,242. (See 2,215,096(a).)

2,509,242. (See 2,215,096(b).)

2,509,242. (See 2,284,113.)

2,613,351. (See 1,992,970.)

2,634,828. (See 2,215,096(a).)

2,641,861, G. O. Puerner et al., Lateral timer switch, suit for Declaratory Judgment filed June 1, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c976, *Borg-Warner Corp.* v. *P. R. Mallory & Co., Inc.* Consent judgment; complaint and counterclaim dismissed with prejudice June 3, 1958.

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judgment; patent held valid; suit dismissed without prejudice May 1, 1958.

2,648,998. (See 2,516,065.)

2,650,290, R. K. MacLea, Jr. et al., Pressure responsive device, filed Apr. 21, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 362/58-WB, *General Precision Laboratory, Inc.* v. *Industrial Instrument Corp. and Richard Shipman.* Dismissal by plaintiff of defendant Richard Shipman; stipulation and order transferring this case to United States District Court, South District, Texas (notice June 5, 1958).

2,662,518. (See 2,215,096(a).)

2,662,518. (See 2,284,113.)

2,668,314, M. M. Hurst, Vehicle wheel washing device and method, filed Sept. 6, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1054/57-TC, *M. M. Hurst* v. *Auto-Wheel Steam Cleaner Co.* Consent judgment; complaint dismissed on merits with prejudice; counterclaim dismissed as to plaintiff with prejudice; claim 1 held not infringed (notice May 20, 1958).

2,709,487. (See 2,568,567.)

2,709,488. (See 2,568,567.)

2,709,489. (See 2,568,567.)

2,718,909, G. M. Lees, Flake ice making machine and knife therefor, filed June 5, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c982, *Abshaw Mfg. Co.* v. *Vilter Mfg. Co.* Dismissed by stipulation May 27, 1958.

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2,726,518, R. L. Brugler, Casement window mounted air conditioner, filed Mar. 20, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c508, *Chrysler Corp.* v. *Cory Corp. et al.* Complaint and counterclaim dismissed without prejudice Mar. 19, 1958 (notice received June 13, 1958).

2,732,227, W. K. Teller, Anti-perspirant stick, filed Jan. 25, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1426 (transferred from D. C., M. D. Ga., Doc. 1270), *Pharma-Craft Corp.* v. *F. W. Woolworth et al.* Dismissed by stipulation without prejudice July 1, 1957 (received June 13, 1958).

2,732,919, L. E. Johnson, Jr., Sliding door frame assembly, filed June 1, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c975, *Kennatrack Corp.* v. *Stanley N. Hovard et al.* Dismissed without prejudice (notice June 10, 1958).

2,743,544, C. S. Wilson, Assembly brackets, filed Apr. 15, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17532, *Dee-O-Grilles, Inc. et al.* v. *Ruber Tool & Die Co., Inc.* Order of dismissal June 6, 1958.

2,762,871, Battey and Greene, Spark plug terminal connector, filed Oct. 30, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c1806, *Auburn Spark Plug Co., Inc.* v. *Monaugh Co.* Complaint and counterclaim dismissed on plaintiff's motion (notice June 10, 1958).

2,767,233, T. J. Grecu, Circuit breaker or interrupter, filed May 28, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c960, *Thomas J. Grecu* v. *Protectall Industries, Inc.*

2,774,992. (See 2,516,065.)

2,784,648, Spang and Lasott, Hamburg patty making machine; 2,786,216, Spang and Clarke, same, filed July 26, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c1260, *Needham Mfg. Co., Inc.* v. *Just Rite Seasonings, Inc.* On stipulation cause dismissed without prejudice Feb. 2, 1958 (notice received June 13, 1958).

2,786,231, Sovatkin and Bates, Holders for suture needles, filed June 9, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18767, *American Medical Instrument Corp.* v. *J. Ekier Mfg. Co., Inc.*

2,795,816. (See 2,784,448.)

2,797,461, B. B. Osher, Clip device; 2,828,786, same, Wing assembly for wallets, pass cases and the like, filed June 9, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 18766, *Albany Novelty Mfg. Co. et al.* v. *Kleer-Vu Plastics, Inc.*

2,815,120, N. H. Franks, Shelving unit, filed Dec. 10, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2031, *Norvin H. Franks et al.* v. *Storage Products Corp. et al.* Patent held valid and claims 3 and 4 infringed (notice June 10, 1958).

2,828,799. (See 2,797,461.)

2,830,351, F. S. Miller, Self-centering pneumatic inside line-up pipe clamp assembly, filed June 9, 1958, D. C., N. D. Okla. (Tulsa), Doc. 4516, *Perrault Equipment Co.* v. *Julius Clark et al.*

2,832,513, Doyle and Copenhaver, Process of applying lanolin finish to nylon hosiery etc., filed June 4, 1958, D. C. Del. (Wilmington), Doc. 1999, *W. F. Poncourt Co.* v. *Lanolized, Inc.* Same, filed June 5, 1958, D. C. N. J. (Trenton), Doc. 640/58, *Lanolized, Inc.* v. *F. W. Woolworth Co.*

2,832,848, G. A. Neff, Electrical signal amplifiers, filed May 12, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 438/58-Y, *Neff Instrument Corp.* v. *Cohu Electronics et al.*

Des. 146,181, J. G. Lippincott, Cap for a fountain pen or similar article, filed Jan. 31, 1956, D. C., S. D. N. Y., Doc. 106/362, *Eberhard Faber Pencil Co.* v. *Waterman Pen Co., Inc.* Stipulation and order of dismissal May 20, 1958.

Des. 176,786, W. L. Wolf, Wrapping paper or similar article, filed July 12, 1957, D. C., E. D. Pa. (Philadelphia), Doc. 22918, *Wolf Brothers, Inc.* v. *Kingston Paper Products et al.* Consent decree in favor of plaintiff; injunction granted May 20, 1958.

Des. 175,203, C. H. Clement, Lighting pole; Des. 177,614, same, Horizontal display device, filed June 3, 1958, D. C. Ariz. (Phoenix), Doc. 2289, *Clyde H. Clement* v. *Electrical Development Co.*

Des. 176,267, Meyer and Stahlhut, Reflector for tubular lamp lighting fixtures, filed Dec. 23, 1957, D. C., E. D. Pa. (Philadelphia), Doc. 23808, *Day-Brite Lighting, Inc.* v. *Planned Lighting, Inc.* Consent decree; injunction against defendant granted May 27, 1958.

Des. 177,614. (See Des. 175,203.)

Des. 178,747, Sylvester and Scheiding, Plastic coated sheet material, filed June 4, 1958, D. C. N. J. (Newark), Doc. 635/58, *L. E. Carpenter & Co.* v. *Textron, Inc.*

REISSUES

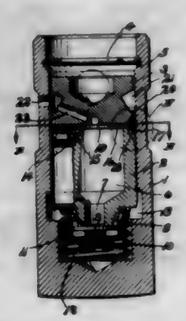
JULY 22, 1958

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,505
ANTITHYROID COMPOUNDS
Claude Rimington, Deanesway, London, Alexander Lawson, Southgate, London, Charles E. Searle, Englefield Green, and Harold Victor Morley, London, England, assignors to National Research Development Corporation, London, England, a British corporation,
No Drawing. Original No. 2,671,088, dated March 2, 1954, Serial No. 278,308, March 24, 1952. Application for reissue June 22, 1956, Serial No. 593,307
Claims priority, application Great Britain April 2, 1951
5 Claims. (Cl. 260—309)

7. The product resulting from the process of producing antithyroid compounds by reacting 2-mercapto glyoxaline having a substituent methyl radical R on the 1-nitrogen atom with a compound selected from the group consisting of ClCOCl and ClCOR' where R' is selected from the group consisting of lower alkyl, benzyl, and mercaptoglyoxalinyl radicals, in the presence of a tertiary base.

24,506
HYDRAULIC TAPPET
John W. Humphreys, Muskegon, Mich., assignor to Johnson Products, Incorporated, Muskegon, Mich., a corporation of Michigan
Original No. 2,784,706, dated March 12, 1957, Serial No. 541,387, October 19, 1955. Application for reissue January 10, 1958, Serial No. 710,384
15 Claims. (Cl. 123—90)



1. A hydraulic tappet plunger adapted to be assembled within a tappet body comprising, a lower plunger member having a liquid supply chamber, open at its upper end, and a valve controlled outlet at its lower end, a thin metal disk over the upper open end of said member having edge portions adapted to bear against the inner sides of the walls of a tappet body in which said plunger is installed, and an upper plunger member having a flat lower side against the upper side of said disk.

24,507
CONTROL DEVICE FOR WINDSHIELD CLEARING SYSTEMS
Leonard C. Neufeld, Des Moines, Iowa, assignor, by mesne assignments, to The Delman Company, Cookeville, Tenn., a corporation of Tennessee
Original No. 2,702,918, dated March 1, 1955, Serial No. 230,363, June 7, 1951. Application for reissue November 29, 1957, Serial No. 700,259
9 Claims. (Cl. 15—250.4)



1. For use with a vehicle having a windshield wiping unit including wipers and a source of power with a control mechanism thereof for operating said wipers, and a windshield washing unit including a nozzle and a pump assembly having a reciprocally movable [foot operated] plunger for supplying fluid under pressure to said nozzle and in which the plunger is projected upwardly from the floor board of the vehicle, a control device for selectively or concurrently operating said two units including a [foot operated] treadle, means pivotally mounting said treadle on said plunger for up and down pivotal movement, and a movable member movably connected to said treadle and to said control mechanism responsive in movement to the pivotal movement of said treadle to control the operation of said wipers, with said plunger being moved by a downward pressure applied on said treadle at said pivot means.

PLANT PATENTS

GRANTED JULY 22, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,733
CHRYSANTHEMUM PLANT
Sidney B. Hutton, Jr., West Grove, Pa., assignor to The Conard-Pyle Company, West Grove, Pa., a corporation of Pennsylvania
Application December 2, 1957, Serial No. 700,243
1 Claim. (Cl. 47—60)

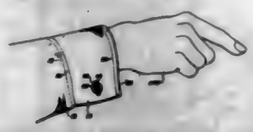
A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and described, characterized particularly as to novelty by its compact and vigorous habit of growth, its large and well-formed blooms, the distinctive Canary Yellow general color tonality of its open blooms, and its suitability for greenhouse pot forcing in the spring, as well as its outstanding value for garden decoration.

PATENTS

GRANTED JULY 22, 1958

GENERAL AND MECHANICAL

2,843,849
GARMENT CONSTRUCTION
Pansy M. Stevenson, Selma, Calif.
Application December 24, 1954, Serial No. 477,552
2 Claims. (Cl. 2—123)



1. A sleeve comprising a sheet of fabric having opposite transverse edges, opposite longitudinal edges and a transverse fold line adjacent to one of said transverse edges; the sheet being transversely folded back upon itself along said transverse fold line to form predetermined inside and outside overlapped panels, the inside panel being that formed by the folded back portion of the sheet; stitching joining the panels together; the panels having V-shaped congruent cut-out portions extended from the transverse fold line longitudinally of the panels providing coterminous apices; the sheet having a longitudinally extended transversely V-shaped pleat formed therein providing an apex fold line extended from the apices of the cut-out portions longitudinally of the sheet, and a pair of juxtaposed facing elongated pleat sections each having outer longitudinal fold lines extended from said transverse fold line on opposite sides of the cut-out portions and apex fold line longitudinally of the sheet; the sheet being wrapped around into tubular form with the apex fold line directed inwardly of the wrapped around sheet, with the facing pleat sections directed outwardly of the wrapped around sheet, and with the inside panel disposed on the inside of the wrapped around sheet; stitching joining the longitudinal edges of the sheet; a button attached on the outside panel adjacent to the cut-out portions and located on one of the pleat sections; the panels including a pair of registered button holes correspondingly located in the pleat section opposite to that on which the button is attached, and stitching joining the panels together around the button hole.

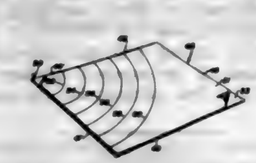
2,843,850
NECKTIE FORM
Truman D. Thurman, Memphis, Tenn.
Application March 8, 1957, Serial No. 644,855
4 Claims. (Cl. 2—148)

1. A necktie comprising an elongated, tubular tie member including front and back panels; and a knot form within said tubular member at the inner ends of the panels, said form comprising a body flexible in transverse and longitudinal directions and so shaped as to impart the simulation of a knot to the front panel when the front panel and back panel are crossed and superposed at the front of the wearer's neck, said form including spaced fastener elements connected to the body thereof in transversely aligned relation and a separable fastener element detachably connectable to the first named fastener elements and disposed exteriorly of the tubular member, whereby to permit extension of the back panel between the first named fastener elements with the second named fastener element extending in back of the back panel



and connected at its opposite ends to both of the first named fastener elements.

2,843,851
METHOD FOR MAKING HOOP SKIRTS
Donnie W. Tate, Jackson, Miss.
Application August 13, 1954, Serial No. 449,762
4 Claims. (Cl. 2—216)



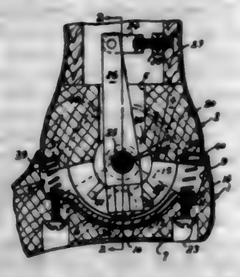
1. The method of making hoop skirts comprising the steps of transversely folding a selected piece of fabric material with the selvage edges coinciding, securing the folded material to a flat surface, inscribing concentric arcs on the upper surface of the upper section of the material with an end of the fold as a center, reversely folding the material along the same fold line, inscribing similar concentric arcs on the upper surface of the upper section of the reversely folded material, folding the material to its original folded position, cutting the material along the fold line to the outermost inscribed arc, cutting the material along the outermost and innermost inscribed arc thereby forming the front and back of the skirt, arranging the cut-out portions with a selvage edge at each side of the skirt and the inscribed arcs in alignment and facing outwardly, sewing the adjacent edges of the material thereby forming a skirt, providing a waist adjusting means, and securing skirt hoops in spaced relation to each other on the surface of the skirt at certain of the inscribed arcs.

2,843,852
REINFORCED SHORTS
Eugene E. Stone III, Greenville, S. C., assignor to Stone Manufacturing Company, Greenville, S. C., a corporation of South Carolina
Application December 12, 1955, Serial No. 552,326
1 Claim. (Cl. 2—225)



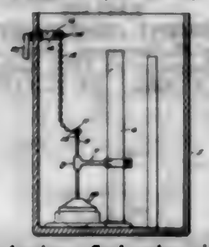
In undergarments of the short type having a trunk and leg portions, a pair of opposed front panel sections joined along first marginal edge portions to form a crotch seam and forming a fly portion therebeyond, a back panel connected to said front panel sections along second marginal edge portions to form the inseams of the leg portions of said garment, the reinforcing patch cemented to each of said front panel sections over the entire area of said patch, each reinforcing patch comprising a fly portion adapted to be secured in the fly portion of the garment, and a leg portion having one edge adapted to be disposed along the crotch seam of the garment and a parallel edge disposed parallel to said crotch seam, said leg portion being of a width less than one half the length of the inseam of the garment, said patches extending the complete length of said first marginal edge portion of the front panel sections into closely adjacent relationship to said second marginal edge portions and extending along said second marginal edge portions of the front panel sections for a distance corresponding to the width of said leg portions of the patch to provide a reinforcing patch on each front panel which is confined to the crotch area of said shorts, each patch composed of fabric having a heat-settable cement covering one face for attachment to the associated front panel section, and moisture-resistant sizing material impregnating the exposed opposite face of the patch to provide a firm backing for the cement-coated face.

2,843,853
CONTROL MECHANISM FOR ARTIFICIAL ANKLE
Hans A. Mauch, Dayton, Ohio
Application November 26, 1956, Serial No. 624,303
20 Claims. (Cl. 3—35)



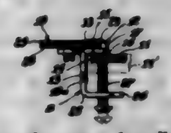
1. In an artificial leg, a shank, a foot pivoted thereto at the lower end, means connecting the foot and the shank for providing that the limit of dorsi-flexion is determined by the shank assuming a vertical in space under load conditions, and means for normally maintaining said foot at right angles to said shank under no-load conditions.

2,843,854
WATER CLOSET FLUSH TANK VALVE OPERATING MECHANISM
Malcolm N. McKinnon, Salt Lake City, Utah
Application August 25, 1955, Serial No. 530,460
1 Claim. (Cl. 4—57)



In a flush tank having a flush valve with a vertical stem rising therefrom, an overflow pipe with a stem guide fixed thereon and a valve lifting lever, a flexible connection between said stem and the free end of said lever, said connection comprising a plurality of hollow balls, links secured between pairs of said balls, said stem having an eye at the upper end thereof of less diameter than the diameter of said balls, one of said links extending through said eye to dispose a ball on each side of said eye, said lever having an opening adjacent the free end thereof, a cotter pin engaging horizontally through said opening, said cotter pin having an eye of less diameter than the diameter of said balls, said eye being disposed laterally of said lever, the other end of said connection having a link extended through said last mentioned eye with a ball positioned on opposite sides of said eye.

2,843,855
CLAMPS
Samuel Hammer, New York, N. Y.
Application February 28, 1956, Serial No. 568,373
6 Claims. (Cl. 4—187)



1. A clamp of the character described, comprising a planar body portion adapted to be oriented in an upright position, a foot portion at the bottom of said body portion, a shoulder next to the top of said body portion, said shoulder having a thickness the top and bottom surfaces whereof are in parallel planes, said foot portion and shoulder being parallel to each other and both projecting laterally from the same side of said body portion, said body portion providing another part at the top thereof projecting in a direction therefrom different from the direction of projection of said shoulder and foot portion and having prop means at its tops above the level of said plane of the top surface of said shoulder and thereby adapted in use to engage a member having clearance above said top surface of said shoulder.

2,843,856
COMBINATION FURNITURE
William R. Brown, Cleveland, Ohio
Application January 18, 1956, Serial No. 559,854
4 Claims. (Cl. 5—16)

1. An article of combination furniture convertible as a davenport and as a bed including a main frame, a bed frame comprising a plurality of sections pivotally connected together and relatively movable to be folded in side by side nested storage position in said main frame when in davenport position and also movable to lie in substantially the same plane in bed position, a davenport backrest hingedly and slidably connected to one of said sections, a davenport seat hingedly connected to said back rest, cooperating means pivotally and slidably connecting said main frame and one of said sections and responsive to a movement of said sections to selectively effect a conversion from a davenport to a bed and vice versa, means for supporting said backrest in substantially upright position on said main frame when in



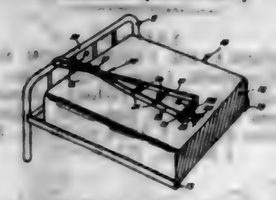
use as a davenport, cooperating means on said main frame and said seat whereby said backrest and seat are projected forwardly and downwardly of said main frame in folded position in converting the article to a bed, said last named means and other cooperating means including a counterbalance block on said main frame, a leg depending from said backrest and operatively having contact with said block in a manner to provide a fulcrum in moving the backrest and seat to davenport position, and a bar depending from one of said bed sections toward said block and operatively having sliding engagement with the inclined surface thereof, thus to facilitate the movement of said bed sections during conversion of the article from davenport to bed position and vice versa.

2,843,857
SPRING ASSEMBLY
Justin J. Wetzler, Evanston, Ill., assignor to The Englander Company, Inc., Chicago, Ill., a corporation of Delaware
Application July 25, 1955, Serial No. 524,114
3 Claims. (Cl. 5—264)



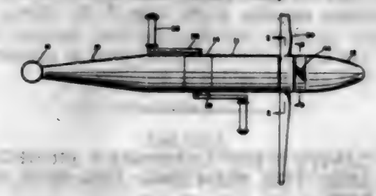
1. In an assembly of the type described a frame member having a first portion and a pair of opposed sections spaced a predetermined distance from each other and extending from opposite margins of and away from one side of said portion, one of said sections having an opening therein adjacent said portion, a coil spring having a pair of adjacent coils respectively disposed along opposite sides of and aggressively engaging said portion therebetween, the coil disposed along said one side of said portion having a diameter similar to said predetermined distance and being wedged between said sections for preventing shifting of the coil spring laterally of said frame member, and one of said coils extending through and being confined by edges of said opening for preventing shifting of the spring longitudinally of said frame member.

2,843,858
LIFT STRAP AND EXERCISER FOR RECUMBENT PERSONS
Burton Bjorklund, Spokane, Wash.
Application March 29, 1954, Serial No. 419,132
8 Claims. (Cl. 5—317)



1. In a self-help invalid implement of the class wherein an otherwise helpless invalid having the use of his arms only may raise himself from a reclining position to a sitting position in bed; the combination with a securing strap adapted to be releasably secured about a fixed element at the foot of a bed; spaced strap elements anchored at one end by said securing strap; metal eyes defining apertures in said last named strap elements and disposed in axially aligned opposed pairs; tubular rods extending one through each said pair of aligned apertures; a tubular hand grip encircling each said rod and maintaining said spaced strap elements in spaced relation; rivets pressed into the hollow centers of said rods and having heads confining said eyes against removal from the rods; and means for releasably securing the free end of the ladder portion against accidental removal from within reach of the recumbent person.

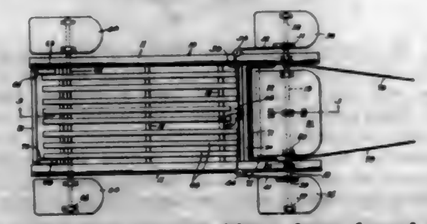
2,843,859
SWIMMER PROPULSION DEVICE
Calvin A. Gongwer, Glendora, and George M. McRoberts III, Sierra Madre, Calif., assignors to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application October 12, 1953, Serial No. 385,488
4 Claims. (Cl. 9—18)



1. A swimmer propulsion device comprising a saddle at its forward end having a streamlined exterior wall converging toward the forward end and having a fluid-tight cavity therein, a center section having a fluid-tight cavity therein and located to the rear of the saddle, a housing located between and joining the saddle and center section, a first hub rotatable relative to the center section and located adjacent to the rear end of said center section, a second hub rotatable relative to said first hub and relative to the housing and located at the rear of said first hub, a tail spinner affixed to said second hub, the saddle, center section, housing, hubs and tail spinner having outer surfaces which are continuous curves, said elements being coaxially assembled to form the device, and presenting an outer streamlined and substantially continuous surface from the saddle to the tail spinner, propellers mounted on each hub, the propellers on one hub being opposite in pitch to the propellers on the other hub, a pair of shafts extending coaxially from the housing to the hubs, each of the shafts being connected to a different one of said hubs, crank and pedal assemblies rotatably mounted to the housing, and driving gear means counterrotatively interconnecting the shafts with the crank and

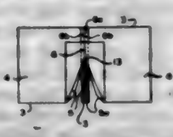
pedal assemblies, whereby the crank and pedal assemblies counter-rotate the hubs and propellers, only the propellers and crank and pedal assemblies protruding substantially from the outer surface of the device.

2,843,860
UNDERWATER VEHICLE OR SLED
Richard L. Grootveld, Leisure City, Fla., assignor of forty percent to John Dylong, Homestead, and thirty percent to Louis R. Dmowski, Leisure City, Fla.
Application August 7, 1956, Serial No. 602,603
1 Claim. (Cl. 9—21)



An underwater sled comprising a frame formed of a pair of parallel tubular side members closed at each end, a tubular runner extending downwardly from each side member, connecting bars secured betweeen said side members, a diving fin rockably carried by the forward end of said frame between said parallel tubular side members, banking fins carried by the forward end of said frame on opposite sides exteriorly of said side members, a transversely extending shaft forming a common pivot for said diving fin and said banking fins, a rock lever, means mounting said lever for substantially universal rocking movement, means connecting said lever with said diving fin whereby forward and backward movement of said lever selectively tilts said diving fin downwardly and upwardly, additional means connecting said lever with said banking fins, whereby lateral tilting of said lever rocks both said banking fins, one banking fin rocking reversely from the other banking fin, an inverted U-shaped leg confining member at the rear of the frame, means adjustably securing said leg confining member to said frame, and a pair of levelling fins fixed to opposite sides of the rear ends of said side members.

2,843,861
DIE CAVITY WITH LATERALLY PROJECTING BLADES FOR SLOTTING THE END OF A BLANK
John E. Gandy, deceased, late of Chippewa Township, Beaver County, Pa., by D. C. Fabiani, administrator, Chippewa Township, Beaver County, Pa., assignor to Townsend Company, New Brighton, Pa., a corporation of Pennsylvania
Application April 13, 1956, Serial No. 578,146
3 Claims. (Cl. 10—11)



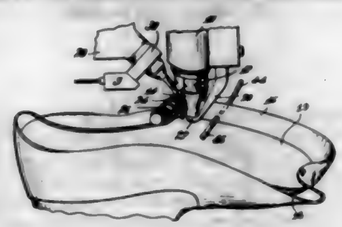
1. Forming apparatus comprising a die cavity open at one end to receive a blank, slotting blades projecting laterally into the die cavity and having cutting edges inclined to the axis of the die cavity and extending inwardly of the die cavity away from said open end of the die cavity and meeting substantially at the axis of the die cavity at a point spaced from the bottom of the die cavity so as to form in the end of a blank forced into the die cavity through the open end thereof slots of progressively increasing depth away from said open end of the die cavity and meeting each other substantially at the axis of the die cavity and means mounted for movement to force a blank inwardly of the die cavity through the open end thereof and onto the slotting blades to slot the blank.

2,843,862
HEADER DIE WITH CONCAVITY IN WALL PORTION OF APERTURE FOR HOLDING UPSET BLANK THEREIN
Ian A. Smith, Willimantic, Conn., assignor to American Screw Company, Willimantic, Conn., a corporation of Rhode Island
Application April 29, 1953, Serial No. 351,902
1 Claim. (Cl. 10—24)



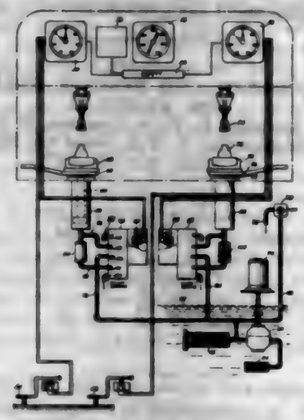
As an article of manufacture, a cold header die having a front end and comprising a hardened steel body having a central aperture for receiving the material to be headed, said aperture having an enlarged portion of relatively short axial dimension adjacent said front end, a reduced portion toward the other end, and an intermediate portion connecting said other portions, the wall of said aperture being formed with a shallow annular concavity in the region of said enlarged portion adjacent said intermediate portion said concavity having a depth sufficient to discourage accidental withdrawal of a headed blank from the aperture but not to provide the blank with a noticeable bulge, said wall being completely free of other annular irregularities.

2,843,863
LASTING MACHINE WITH ADHESIVE DELIVERY CONTROL
Thomas A. Weisz, Plymouth, Mass., assignor to Jacob S. Kamborian, West Newton, Mass.
Application June 7, 1956, Serial No. 589,900
6 Claims. (Cl. 12—8.3)



2. In a lasting machine of the kind in which a pair of rolls turning in opposite directions continuously and uninterruptedly apply a lasting and feeding stress to the lasting margin of a shoe, an applicator nozzle situated at the delivery side of the rolls for delivering adhesive to the shoe within the angle between the stressed margin and the shoe bottom, means operable for controlling the supply of adhesive under pressure to said nozzle, a pressure operated switch for effecting operation of said last-named means, said pressure operated switch being located close to the ingoing side of the rolls opposite the path along which the lasting margin travels, and means at the opposite side of the lasting margin aligned with the pressure operated switch operable in the absence of a lasting margin between it and the pressure operated switch to effect operation of said pressure operated switch.

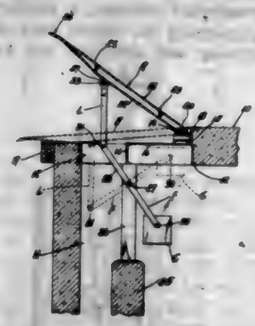
2,843,864
SHOE SOLE ATTACHING MACHINE
Edgar Haas, New York, N. Y., assignor to Herman Schwabe, Inc., New York, N. Y., a corporation of New York
Application May 6, 1955, Serial No. 506,443
9 Claims. (Cl. 12—36)



9. A shoe sole attaching machine comprising a plurality of clamp cylinders and clamp pistons therein each independently movable between a release position for loading or removal of a shoe and a clamping position for securing a sole to a shoe, a common tank for hydraulic fluid, a common pump, a common adjustable pressure relief valve, a common spring operated accumulator connected to the pump, a plurality of solenoid controlled valves each having the housing of a four-way valve but having a special spool for controlling the flow of fluid to the cylinders, each four-way valve having both its cylinder ports connected by separate pipes to one end of its associated clamp cylinder, and each having a check valve in one of said pipes, a plurality of electrical timers each having a scale for adjustment in seconds, a plurality of foot pedal controlled switches, each switch being associated with one of said timers and solenoids and clamp cylinders, circuitry whereby running out of any one of said timers shifts its associated solenoid and terminates the clamping operation of its associated valve and cylinder, said check valves being disposed between each four-way valve and its clamp cylinder whereby the pressure on a clamped shoe will not be relieved upon initiation of a clamping operation on another shoe, the spool of said four-way valve being so designed and related to its housing as to bypass its check valve on termination of a clamping operation, and to then block the pump in order to apply pressure to another clamp cylinder or/and to said accumulator, and a single safety switch in said circuitry for simultaneously terminating the clamping operation of all of said cylinders at any time.

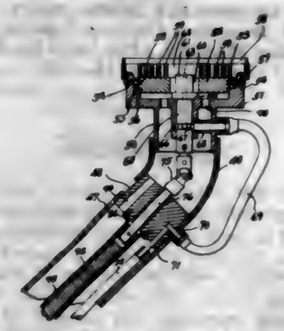
2,843,865
DOCKBOARDS
Martin Loomis, Clare, Mich., assignor to Loomis Machine Company, Clare, Mich.
Application June 2, 1952, Serial No. 291,284
2 Claims. (Cl. 14—71)

1. In combination with a loading dock having a pit therein, support means disposed within said pit, a ramp member bridging said pit, a shaft secured at the rear edge of said ramp member, trunnions mounted at the rear edge of said pit and receiving said shaft so as hingedly to mount said ramp member at the rear edge of said pit for upward swinging movement from a substantially horizontal position, in which the ramp member rests on the forward portion of said dock with its front edge projecting forwardly beyond the plane of the front of said dock, through an arc of such magnitude as to locate said front edge of said ramp member rearwardly of the



plane of the front of said dock, a lever pivotally carried under said ramp member by said support means at a point interjacent its ends, a link pivotally connecting one end of said lever and the ramp member, and a counterweight mounted on the opposite end of said lever.

2,843,866
CEILING, WALL AND FLOOR WASHER
Garson D. Hancock, Hayward, Calif.
Application February 17, 1956, Serial No. 566,195
3 Claims. (Cl. 15—22)

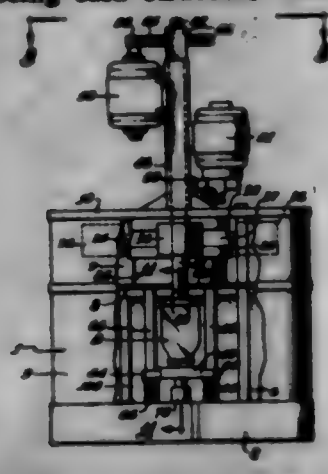


1. In a washing and scrubbing apparatus of the character described, a brush housing having parallel side walls, a brush slidably supported on said side walls in said housing, said brush being formed with a transverse slot, a shaft journaled in said housing perpendicular to said brush, a stud element mounted eccentrically on said shaft and engaging slidably in said slot, said stud element being formed and arranged to reciprocate said brush in said housing in a direction parallel to said side walls responsive to rotation of said shaft, said shaft being formed with a bore extending through and opening at the upper portion of said stud element, said shaft being formed with an annular groove adjacent the lower end of the bore and with a passage connecting said groove to the lower end of said bore, and a conduit mounted in said housing and communicating with said annular groove.

2,843,867
BOTTLE WASHING MACHINE
Cornelius Gray, Sr., Mar Vista, Calif., assignor of forty-five percent to Robert B. Gray, Los Angeles, Calif.
Application August 20, 1956, Serial No. 604,973
11 Claims. (Cl. 15—64)

1. A bottle washing machine, comprising: a rotatable structure having bottle receiving and guiding rings

arranged in a circle for movement about a common axis, each ring adapted to receive an inverted bottle placed axially therein; means for driving said rotatable structure intermittently to cause bottles contained in said rings to dwell at preselected stations; a platform under said structure for supporting the mouth ends of said bottles; a housing enclosing said structure and having a bottle



loading and unloading aperture at one of said stations; a washing compartment under said platform, said platform having an access aperture for axial movement of said bottles into said washing compartment; and a bottle scrubbing means including means for moving said bottle axially from its retaining ring into said compartment, means for rotating said bottle, and internal and external brush elements engageable with the surfaces of said bottle.

2,843,868
DISPOSABLE DOOR MATS
Bruce W. Bergstrom, Clarkson, Ontario, Canada
Application March 19, 1956, Serial No. 572,376
2 Claims. (Cl. 15—215)



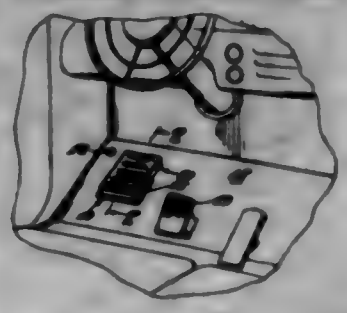
1. A door mat adapted for discard after usage and comprising in combination: an irregularly surfaced fibrous body formed of paper adapted for absorption of moisture and shaped in the form of a sheet; a water-proof coating extending entirely over one surface of said sheet and rendering said surface substantially water impermeable; a latex coating extending over surfaces of said water-proof coating and providing a floor surface gripping medium for said mat rendering the latter safe for use; and a fibrous reinforcing web bonded to said sheet by said water-proofing coating.

2,843,869
ROTARY CLEANING TOOL
Harold W. Hermance, Montclair, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 17, 1956, Serial No. 559,550
5 Claims. (Cl. 15—230)



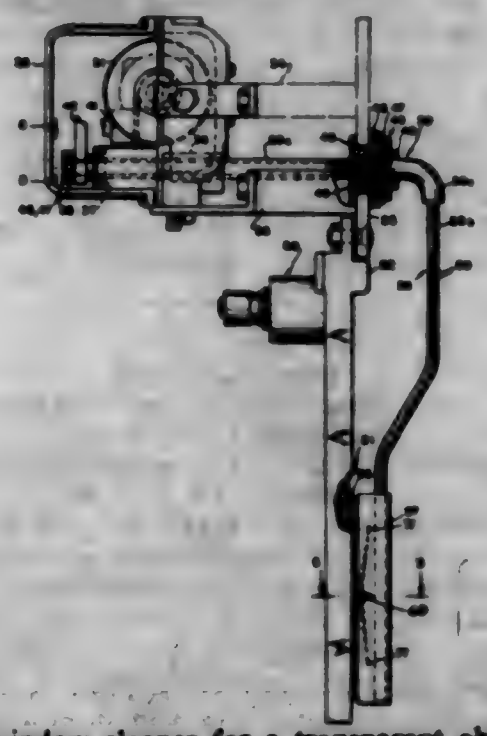
1. In a cleaning tool, a scrubbing unit, and means for grasping said unit, said scrubbing unit comprising a plurality of face-opposed planar scrubbing discs having scrubbing surfaces on both faces, which scrubbing discs are resistant to distortion from pressure applied in a direction perpendicular to the normal common to the planes of said scrubbing discs, a plurality of spacer elements of smaller area interposed alternately between said scrubbing discs, and a shaft on which said scrubbing discs and spacer elements are tightly mounted without freedom for lateral movement along the shaft.

2,843,870
SHOE SCRAPER AND RESIDUE COLLECTOR FOR VEHICLES
Raymond G. Perry, Cranston, R. I.
Application May 3, 1956, Serial No. 582,500
3 Claims. (Cl. 15—237)



1. A scraper and residue collector and storage device comprising, in combination, a receptacle having a bottom wall, a pair of side walls, a lower back wall, and a top wall, one upper end of said receptacle opposite to said back wall being open, said side walls being tapered from a relatively wide dimension adjacent to said back wall to a relatively narrow dimension adjacent to said upper open end thereof, scraper means associated with said top wall for scraping residue from the sole of a shoe comprising a plurality of raised arcuate scraper and collector elements opening into said receptacle towards the lower end thereof, said scraper and collector elements having scraper edges facing toward said open upper end of said receptacle, and means for removably securing said receptacle upon the floor of a vehicle, whereby said top wall is angularly related to said vehicle floor.

2,843,871
WINDOW WIPER WITH HEATED ARM
Foster McMillen, Staten Island, N. Y., assignor to Kearfott Company, Inc., Little Falls, N. J., a corporation of New York
Application August 31, 1955, Serial No. 531,783
5 Claims. (Cl. 15—250.5)



1. In a window cleaner for a transparent observation window pane for use in an environment where one win-

dow surface is exposed to ambient conditions including freezing temperatures, with a consequent possible formation and accumulation of moisture, snow or ice; a wiper to wipe and clear a pre-determined area of the exposed surface of the window pane, to permit an unobstructed view through such wiped area, said wiper comprising a wiper blade of a resilient, deformable self-restoring material, having a shaped wiping edge and a supporting and guiding body for the wiping edge, a re-inforcing and supporting metallic strip for the body; an arm for resiliently supporting and actuating the wiper, and including a resilient element to bias the wiper toward the window; and means for heating the arm in the region of the wiper blade to prevent accumulation of snow or ice at the connection between wiper and arm, that would interfere with the proper orientation of the wiper by nullifying the action of the resilient biasing element, said means including a U-shaped bracket of material of high-heat conducting capacity directly mechanically and thermally connected to the actuating arm along the yoke of the U, with the two side walls of the U extending to include both the metallic backing on the wiper and the resilient biasing element for the wiper, to maintain a heated zone around said strip and said biasing element.

2,843,872
SLIDING DOOR HANGER
Stephen I. Hannon, Pittsburgh, Pa., assignor to McKinney Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 11, 1956, Serial No. 584,298
1 Claim. (Cl. 16—105)



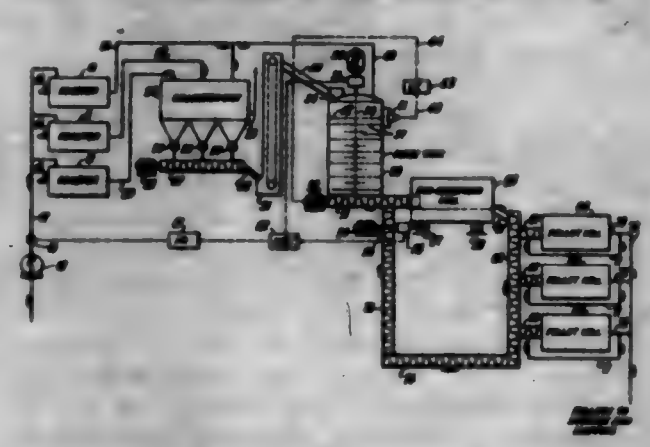
A sliding door hanger comprising a lower bracket adapted to be fastened to the upper part of a door and having a horizontal portion for engaging the top of the door, said bracket having a vertical portion extending downward from the rear side of its horizontal portion and provided with fastener-receiving openings for attaching the bracket to the back of the door, an upper bracket having a horizontal base seated on the horizontal portion of the lower bracket and provided with a slot extended forward from its rear side, a screw extending up through the horizontal portion of the lower bracket and through said base slot, a nut on the upper end of the screw in said slot having flat sides substantially engaging opposite sides of the slot, the nut extending above said base and having laterally projecting portions overlying it to hold the upper bracket tightly against the lower bracket when the screw is tightened, the engaging horizontal surfaces of the two brackets being provided with interengaging teeth, the upper bracket having an upright portion at the rear end of said slot provided with a vertical slot, a vertical plate engaging the front of said upright portion and provided with a threaded hole in front of said slot, a headed screw extending forward through the slot and into said hole, a retaining member mounted on the screw between its head and the upper bracket, the adjoining surfaces of the retaining member and the upper bracket being provided with interengaging teeth to lock said vertical plate against the upper bracket at different levels, and a vertical roller in front of the vertical plate and rotatably mounted thereon for supporting the brackets from a track.

2,843,873
BUTT HINGE LATCH FOR CLOSURE DEVICES
Carl J. Shaver, Fort Lauderdale, Fla.
Application February 14, 1957, Serial No. 640,173
2 Claims. (Cl. 16—144)



2. A latch for a door or the like comprising a pair of complementary hinge plates each having a leaf, the leaf on one plate being adapted to be secured to a door frame and the leaf on the other plate being adapted to be secured on a door, each of the plates having a tubular sleeve on its edge, a pin extending thru the sleeves to provide a hinge on which the door may swing, a disk having upper and lower hub portions, the lower hub portion extending over the sleeve on the fixed plate, means on the lower hub portion to prevent relative rotation between the hub and the fixed plate, the under side of the disk having a downwardly extending rib and a stop shoulder spaced circumferentially from the rib and adjacent thereto, the pin having a head on one end and an adjusting nut screw-threaded on the other end and a spring positioned around the pin between the head of the pin and the top of the hub on the upper side of the disk.

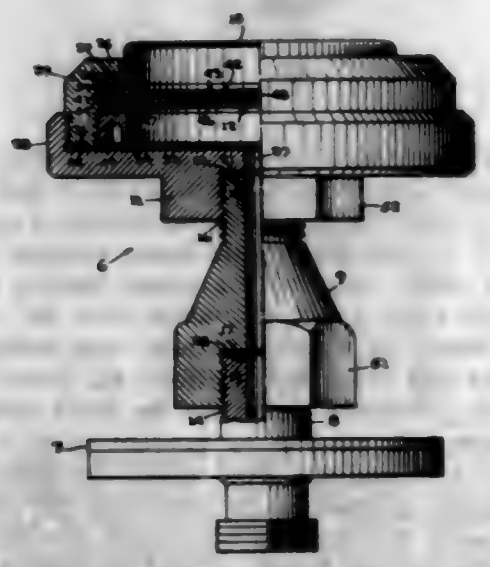
2,843,874
PROCESS AND APPARATUS FOR DENSIFYING AND PELLETING CARBON BLACK
James Q. Wood, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application July 26, 1954, Serial No. 445,621
18 Claims. (Cl. 18—1)



4. Apparatus for pelleting carbon black comprising in combination a series of pellet mills; a pre-densifying mill connected by conveyor means with the feed inlet of each pellet mill; a series of carbon black furnaces or reactors having a common oxygen-containing-gas supply line; means for feeding carbon black from said furnaces to said pre-densifying mill; and means for regulating the rate of densifying in said pre-densifying mill in response to the rate of flow of gas in said supply line.

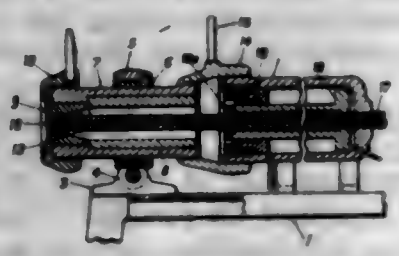
14. A process for pelleting loose carbon black which comprises passing loose black from a carbon black furnace to a degassing zone; agitating said black in said zone so as to partially degas and densify same; passing resulting black to an unobstructed rotary tumbling zone and there tumbling said black under conditions such as to produce a black of substantially uniform density substantially greater than that of the feed to said rotary tumbling zone; regulating the passing of black from said degassing zone to said tumbling zone so as to maintain a constant level of black in said degassing zone; and thereafter pelleting the resulting densified black.

2,843,875
SPINNERETTE ASSEMBLY
Arthur R. Albohn, Whippany, and Gregory M. Moelter, Bernardsville, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application July 12, 1954, Serial No. 442,514
1 Claim. (Cl. 18—8)



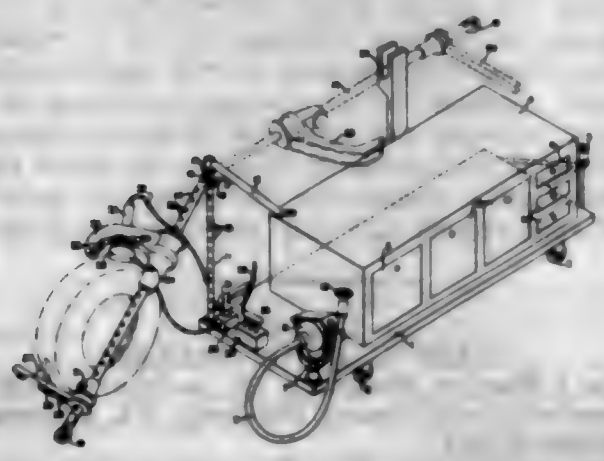
A spinnerette assembly comprising a cup-shaped spinnerette having an annular outwardly projecting lip, an annular internally threaded spinnerette holder for receiving said lip, said holder having an inwardly directed flange at one end thereof provided with a groove for receiving an O-ring, said holder having at the other end thereof a groove for receiving a second O-ring, a rubber O-ring mounted in said first-named groove between said lip and said flange, a filtering assembly mounted adjacent said lip and within said holder, an externally threaded annular retaining ring for pressing said filtering assembly against said lip and for pressing said lip against said rubber O-ring, said retaining ring being screwed into said holder with the external threads of said retaining ring engaging the internal threads of said holder, a second rubber O-ring mounted in said second-named groove between said holder and one end of a collar having a central aperture for the passage of spinning solution therethrough, having an annular shoulder and being internally threaded at said one end to receive said holder, and internally threaded at its opposite end in an opening of lesser diameter than said holder to receive an externally threaded tubular member which is in communication with a source of spinning solution, a third rubber O-ring mounted between one end of said tubular member and said shoulder of said collar and compressed therebetween when said tubular member is threaded in said collar.

2,843,876
PRESS FOR PRODUCING WELDING ELECTRODES COATED WITH WELDING COMPOUND
Max Rubli, Zumikon, Switzerland, assignor to Holding Intercito S. A., Zurich-Oerlikon, Switzerland, a company of Panama
Application February 8, 1955, Serial No. 486,933
Claims priority, application Switzerland February 9, 1954
1 Claim. (Cl. 18—13)



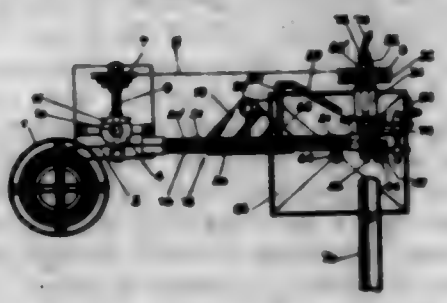
Press for producing welding electrodes coated with welding compound, comprising an extruding cylinder for extruding the compound, means swingably supporting said cylinder on a horizontal axis arranged at right angles to its longitudinal axis, a pressure cylinder, and a releasable coupling interconnecting the cylinders, whereby the cylinder for extruding the compound can be swiveled out of its horizontal position into a vertical one for the purpose of charging it for the squeezing operation.

2,843,877
PORTABLE TIRE REPAIR APPARATUS
Merritt W. Wolfe, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application September 26, 1955, Serial No. 536,689
14 Claims. (Cl. 18—18)



6. Apparatus for repair of a tire by vulcanization while mounted on a vehicle comprising a mobile horizontal platform, a post pivotably mounted on and extending vertically above the platform, a rigid bar, connecting means between one terminus of the bar and the post, adjusting means associated with the connecting means to effect placement of the juncture between the bar terminus and the post at any position intermediate the post length, a first and a second arm slidingly engaging the rigid bar and extending substantially normal to the length thereof, means for rigidly affixing the first and the second arms to the rigid bar at any position intermediate the length of the bar, vulcanizing means adjustably mounted on the second arm and opposed to the first arm, and means to controllably vary the distance between the first arm and the opposed vulcanizing means to firmly clamp the mounted tire therebetween.

2,843,878
APPARATUS FOR MANUFACTURING HELICAL WIRE
Willi Berberich, Heilbronn (Neckar), Germany
Application January 13, 1955, Serial No. 481,597
Claims priority, application Germany January 28, 1954
7 Claims. (Cl. 18—19)



5. Apparatus for making a helix from a thermoplastic wire, comprising, in combination, support means for turnably supporting a reel carrying the thermoplastic wire; a container for hot water carried by said support means; transporting means carried by said support means for transporting the wire from the reel through said container; spindle means carried by said support means

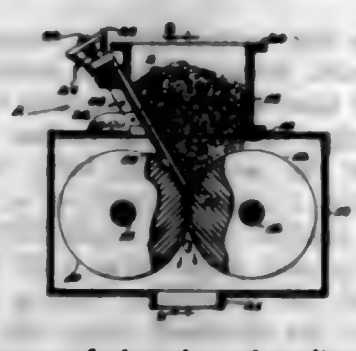
for rotation thereon and for axial movement therealong, said spindle means having a free end portion formed adjacent its extremity with a transverse bore through which the wire is adapted to extend to wind the wire initially on said spindle means; and guide means located about said free end portion of said spindle means and being stationary with respect to the same for guiding the wire wound on said spindle means along a helix of a given pitch.

2,843,879

METHOD AND APPARATUS FOR CONTROLLING MATERIAL FEED AND AIR VENTING IN BRIQUETTING MACHINES

Gustav Komarek and Karl R. Komarek, Chicago, Ill., assignors to Komarek-Greaves and Company, Chicago, Ill., a corporation of Illinois

Application February 8, 1954, Serial No. 408,852
5 Claims. (Cl. 18—21)



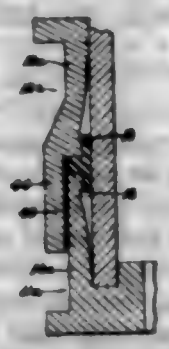
1. An apparatus of the class described, comprising a pair of cooperating press rolls journalled for rotation, briquetting cups carried by said press rolls, a feeder housing surmounting said rolls for discharging material between the same and feed control means comprising an angularly disposed plate within the feeder housing extending into the nip of the rolls, said plate having an uninterrupted surface for guiding and flowing material into the nip of the press rolls, said plate defining with the surface of an adjacent roll an air passage extending outwardly from the nip of the press rolls and through an opening in the housing.

2,843,880

APPARATUS FOR TRANSFER MOLDING

Otto E. Hermanns, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application October 15, 1956, Serial No. 615,810
2 Claims. (Cl. 18—42)



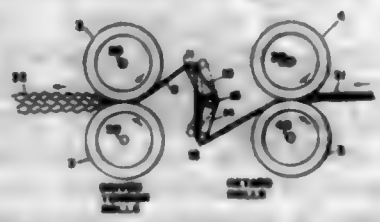
1. Apparatus for forming an annular tire tread member of plastic material by stock transfer, said apparatus comprising a multi-part mold, said mold having first and second annular shell portions, said shell portions telescoping and forming an annular stock receiving cavity having axially opposed stock moving faces, a generally cylindrical core slidably fitting, within said telescoped mold shell portions, a mold cavity face formed in each of said mold shell portions at opposite sides of said opposed stock moving faces, said mold cavity faces forming with said core substantially mold cavities disposed at each side of said axially opposed stock moving faces, said mold cavities being axially symmetrical at all relative positions of said shell portions from the position where said opposed stock moving faces first engage the stock to the position where said faces are brought together to their final position to transfer the stock to said cavities in order to greatly reduce reverse stock flow as the telescopic mold shell portions are brought together.

2,843,881

APPARATUS FOR OPENING CRIMPED CONTINUOUS FILAMENT TOW

William T. Bishop and Lee T. Tichenor, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application June 26, 1956, Serial No. 594,045
5 Claims. (Cl. 19—65)



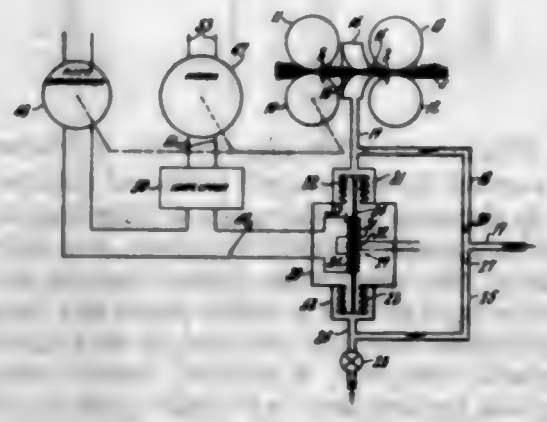
1. In a device for opening continuous multi-filament crimped tow, in combination, a first pair of rubber covered rolls, a second pair of rubber covered rolls, said pairs of rolls being adjustably positioned to form nips between the rolls of each pair and positioned to form a ratch between the pairs of rolls, means including said pairs of rolls for conducting said tow between said pairs of rolls and through said ratch, driving means for driving said pairs of rolls, means associated with said driving means for driving said first pair of rolls at a rate less than said second pair of rolls, whereby a tension is exerted on the tow in said ratch sufficient to straighten out the crimps, and a rockable device positioned adjacent the tow in said ratch adapted to contact said tow and periodically to increase the tension on the tow while it is passing through said ratch.

2,843,882

EVENER

Arthur P. Lewis, Fairhaven, Mass., and Donald C. MacDonald, Ridgewood, N. J., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application June 8, 1955, Serial No. 513,978
15 Claims. (Cl. 19—70)



1. Apparatus for reducing weight variations in a non-twisted textile strand, comprising a first and a second pair of draft rolls, means for rotating the first pair of said rolls at a fixed speed, means for rotating the second pair of said rolls at a base speed, a chamber between said pairs of rolls through which said strand passes, a source of gas under pressure connected through a con-

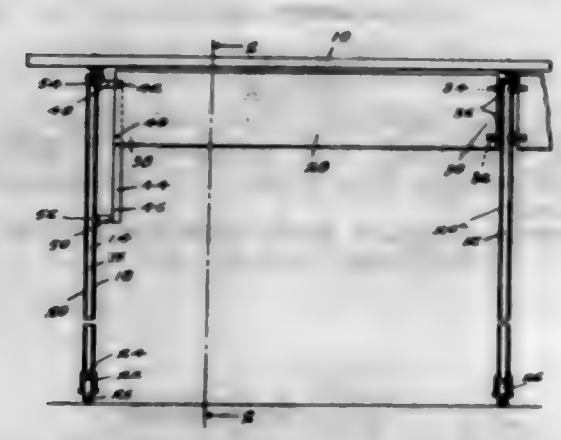
striction to said chamber, means responsive to pressure deviations in said chamber for generating a correcting signal, coupling means for driving the second of said pairs of rolls at speeds differing from its base speed in response to said correcting signal, monitoring means responsive to the speed of said second pair of rolls to generate a monitoring signal responsive to variations from its base speed, and means for combining said monitoring and correcting signals to control said coupling means.

2,843,883
TEXTILE COT
Joseph Rockoff, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio
Application April 23, 1953, Serial No. 350,655
11 Claims. (Cl. 19—143)



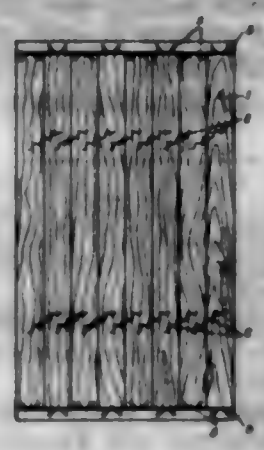
3. In a textile cot having a matrix of oil-resistant synthetic rubber composition that improvement which comprises a plurality of particles of resinous composition and a plurality of fibrous particles embedded therein, said fibrous particles being in substantially parallel alignment within said particles of resinous composition and said particles of resinous composition being so embedded in said matrix that the fibrous particles project at random angles from the surface thereof.

2,843,884
SEAT CONSTRUCTION FOR FOLDABLE BLEACHERS
Harold Clayton Vance, Champaign, Ill.
Application June 1, 1953, Serial No. 358,826
1 Claim. (Cl. 20—1.126)



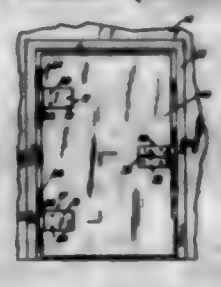
In a foldable bleacher construction a framework including vertical channel shaped posts and collapsible seats pivoted to the tops of said posts, a filler board disposed in edgewise position beneath each seat, said filler boards each having the upper edge thereof spaced beneath its respective seat, a pair of laterally projecting lugs fixed to one post, means securing one end of said board to said lugs on said one post, a vertical bracket arm, means securing said bracket arm to the other end of said board, means supporting said bracket arm in laterally disposed position on an adjacent post, and adjustable stop means carried by the upper ends of said posts for limiting the turning of said seat from a collapsed position to an extended seating position, said filler boards serving as bracing members for said framework and simultaneously serving to prevent the legs of the users from slipping between the seat boards rearwardly.

2,843,885
PROCESS FOR MAKING WOODEN FLOOR PANELS
Maurice Aristide Jeanteiet, Landreville, France
Application June 15, 1956, Serial No. 591,722
3 Claims. (Cl. 20—6)



1. A process for manufacturing wooden fabricated elements for floors, floorings or like coverings, comprising the steps of interconnecting wooden laths into panel form, driving clips of undulated outline into the adjacent portions of the neighboring laths, while arranging said clips in such a slanting position as to cause them to overlap one another over a slight distance for retaining said laths to said panel form, said clips projecting from said panel for permitting sealing into a cement base, immersing the resultant panel into a liquid bath containing a petroleum derivative selected from the group comprising gas oil and fuel oil, at a temperature ranging from 120° to 150° C., for starting distillation of the wood, and maintaining said immersion for a time ranging from three to ten minutes.

2,843,886
JAMB CLAW
Halvard O. Rundberg, Portland, Oreg.
Application July 15, 1955, Serial No. 522,314
1 Claim. (Cl. 20—16)



In combination a panel and hardware for supporting such panel in forming a temporary closure for a building opening, said hardware comprising a rigid claw structure having a catch portion, an intermediate portion, and a flat base portion for rigidly supporting said catch portion spaced from the plane of the surface of the interior side of said panel with said catch portion facing outwardly of one edge of said panel so as to engage behind the frame of said opening, a locking claw structure having a latch portion, an intermediate portion and a flat base portion for supporting said latch portion spaced from the plane of said one surface of said panel and facing outwardly from an opposite edge of said panel so as to engage behind the frame of said opening, said latch portion being rigidly supported by said intermediate portion of said locking claw structure, a spring hinge for rigidly supporting said intermediate portion of said locking claw structure on said base portion of said locking claw structure, said hinge resiliently urging said latch portion toward frame engaging position and providing for withdrawal of said latch portion from said frame engaging position, a handle extending through and pivoted to said base for said locking claw structure at

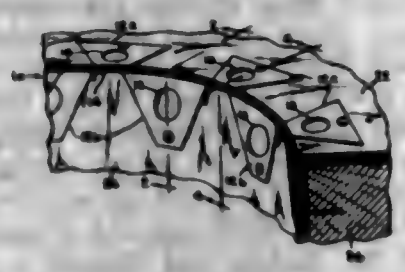
a position spaced from said hinge and having one end extending through said panel to the exterior side thereof, and a link connecting the other end of said handle with the intermediate portion of said locking claw structure to provide for withdrawing said latch portion from said frame engaging position by pivotal movement of said handle from said exterior side of said panel, said base having a rigid portion extending through said panel to said exterior side, and said rigid portion and said handle having aligned apertures adjacent said exterior side of said panel for receiving a locking means.

2,843,887
IMPROVEMENTS IN WINDOW SASH
Nils Folke Ragnar Hoderus, Stockholm, Sweden
Application June 3, 1954, Serial No. 434,217
5 Claims. (Cl. 20—52.2)



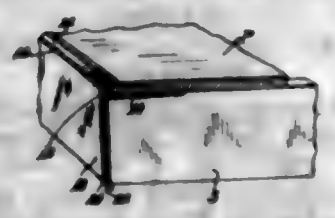
1. A sliding window sash in combination with a stationary window frame, a latch rod provided for rotary mounting on said window sash along each vertical side of the same, extensions on the latch rod provided for engagement with the stationary window frame, an angular actuating lever on the latch rod, which lever is pivotally mounted in the latch rod for swinging motion on a transverse axis, and a fitting provided with a steering recess for the actuating lever of the latch and provided for attachment to the window sash so as to embrace said actuating lever, said actuating lever when occupying a first position in said recess holding the latch rod with its extensions in clamping engagement with the stationary window frame for pressing the slidable window-sash against the stationary window frame in a direction perpendicular to the plane of the window sash, when occupying a second position in said recess holding the latch rod with its extensions in sliding engagement with the stationary window frame, and when occupying a third position in said recess holding the latch rod with its extensions entirely out of engagement with the stationary window frame for removal of the window sash.

2,843,888
ARCH BEAD
Alva Hovey, Antigo, Wis., and Ralph V. Hovey, Bessemer, Mich.
Application June 11, 1953, Serial No. 360,932
1 Claim. (Cl. 20—74)



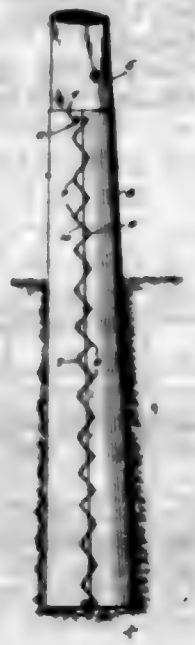
An arch bead comprising an elongated flat strip having a partly open bead along one of its longitudinal edges and having a plurality of cuts in the strip extending from the bead through the opposed longitudinal edge of the strip and defining a plurality of flat tabs, said cuts being oppositely inclined with respect to the bead so the bases of alternate tabs are substantially different in length along the bead.

2,843,889
DECORATIVE MOLDING STRIPS AND THE LIKE
Robert R. Keller, Manchester, N. H.
Application November 4, 1955, Serial No. 544,937
5 Claims. (Cl. 20—74)



2. A molding strip comprising a unitary metallic strip-form body and a relatively thin strip of relatively thin sheet material bonded to the metal as a decorative facing covering a predetermined substantial area of the metallic body, said metallic strip-form body and said facing strip extending in parallelism to an edge of the molding strip, and said edge of the molding strip being bevelled to provide an edge surface composite of metal and facing material, the said bevelled edge surface being in a plane which intersects, at the facing side of the molding strip, a plane perpendicular to the general plane of the facing strip, the area of facing material in said inclined composite surface being relatively little greater than the area of a square-cut edge of the facing strip and greatly exceeded by the area of metal in said beveled edge surface.

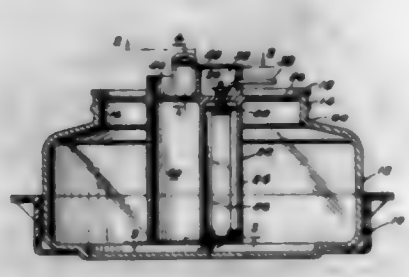
2,843,890
POLE BOOT
Harry L. Cater, Kansas City, Mo.
Application March 5, 1954, Serial No. 414,377
1 Claim. (Cl. 20—100)



A pole boot comprising a body constructed of flexible fireproof sheet metal adapted to be bent around the butt end of a pole, with its adjacent edges overlapped, housing the butt end of the pole, spaced prongs struck from the metal body arranged in vertical rows adjacent to the edges of said body, said prongs extending outwardly out of the plane of the body, the prongs of each row being oppositely inclined relative to the incline of the row of projections on the opposite edge of the sheet, and the prongs of each row being staggered relative to the prongs of the opposite row, a flexible wire lacing member laced over said prongs, engaging about a prong of each row alternately and adapted to draw the overlapped edges of said body together, triangular extensions formed integral with the body at one end thereof, and bent into over-

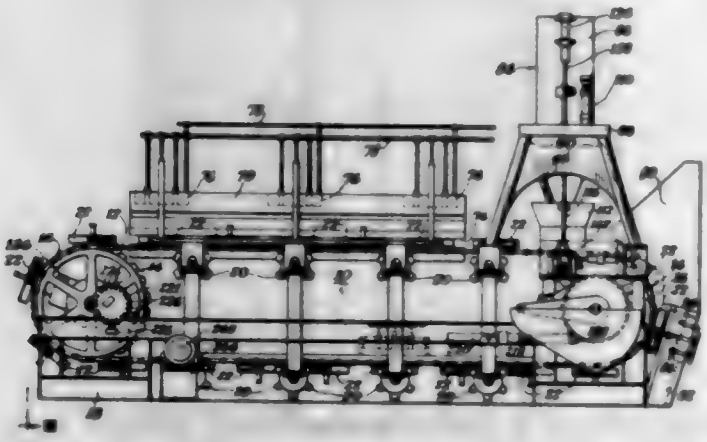
lapping engagement with the butt end of the pole, and means for securing the overlapped extensions together and to the butt end of the pole.

2,843,891
STEAM VAPORIZER
Roy Robert Fisher, Paris, Ky.
Application August 8, 1955, Serial No. 526,810
5 Claims. (Cl. 21—119)



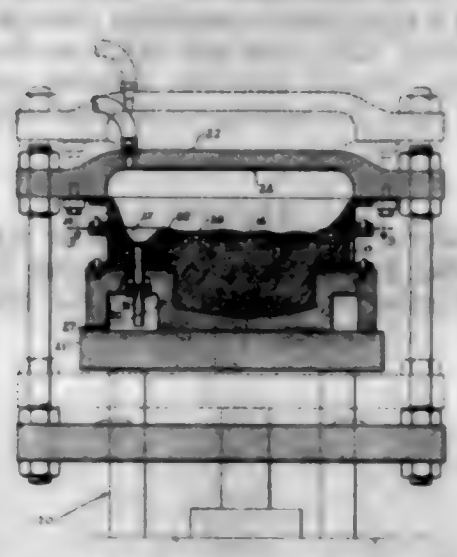
1. An electric steam unit of the type including a vessel having an open top and an electric steam-creating means supported from said top in the vessel, in which the steam-creating unit comprises a vertical chamber in said vessel extending through a top opening in the vessel to a point substantially near the bottom having suitable spaced electrodes therein for creating a potential differential adapted to be connected by liquid in the vessel, a secondary chamber axially co-extensive with said heating chamber and similarly supported, and connected with said heating chamber throughout its length, said heating chamber being closed at the top and said second chamber being open at the bottom to the interior of the vessel and having a steam escape opening at the top thereof.

2,843,892
APPARATUS FOR MAKING SHELL-TYPE MOLDS
Earl F. Sager and Arthur N. Tuttle, Greensburg, Pa., assignors to Walworth Company, Boston, Mass., a corporation of Massachusetts
Application May 6, 1953, Serial No. 353,368
14 Claims. (Cl. 22—20)



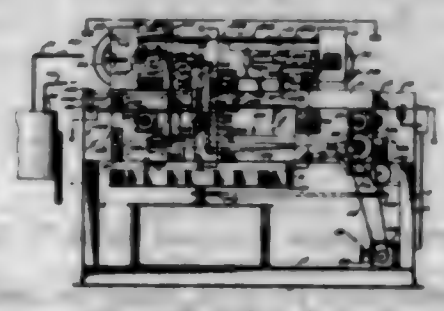
1. Mold forming apparatus comprising in combination, spaced pulley means positioned for rotation on substantially horizontal axes, an endless conveyer mounted on said pulley means for movement in a substantially fixed path, support means pivotally mounted on said conveyer, pattern means secured to said support means, loading means above said conveyer for loading mold forming material on said pattern means, means for rotating said support means on said conveyer for dumping excess mold forming material from said pattern means, oven means above said conveyer defining a heated zone for curing mold forming material on said pattern means, and ejector means for removing finished molds from said pattern means after passage through said zone.

2,843,893
APPARATUS AND METHOD FOR GATING WITH DIAPHRAGM PACKING MACHINES
Kenneth E. Davis, Grosse Pointe Woods, Mich., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
Application March 5, 1957, Serial No. 644,039
9 Claims. (Cl. 22—38)



9. The method of forming a gate cup and sprue hole in the sand in a mold frame in a diaphragm-type packing device which comprises, supporting the diaphragm in an interior circumferential line around the upper end of the gate cup and sprue location of a mold frame filled with sand, arranging a vertically movable sprue-forming pin in the bottom of the gate cup concavity location, applying fluid pressure on the diaphragm to cause it to form a gate concavity with sloping sides within the interior line of support while packing sand in the mold part, the packing action leaving a layer of sand above the end of the sprue-forming pin, moving the pin upward to break the sand layer over its end, and later blowing loose sand out of the gate and sprue.

2,843,894
AUTOMATIC BATTERY PARTS CASTING MACHINE
Herbert C. Winkel, Watervliet, Kenneth G. McGowan, Lawrence, Harry H. Meschke, Benton Harbor, and Charles H. McAlpine, Coloma, Mich.; said McGowan, Meschke and McAlpine assignors to said Winkel
Application March 16, 1955, Serial No. 494,666
13 Claims. (Cl. 22—76)



3. An apparatus adapted for the automatic casting of a plurality of small metal articles, the combination comprising: a frame; mold support means extending longitudinally of said frame and adapted for supporting a mold body; a plurality of mold bodies, having cavities and adapted for passing successively along said mold support means; first conveyor means moving said mold bodies stepwise along said mold support means and returning them from the discharge end of said mold support means to the feeding end thereof; a plurality of covers respectively engageable with said mold bodies; second conveyor means, located above said first conveyor means, for removing said covers from said mold bodies at the discharge end of said mold support means and returning them for placement on said mold bodies

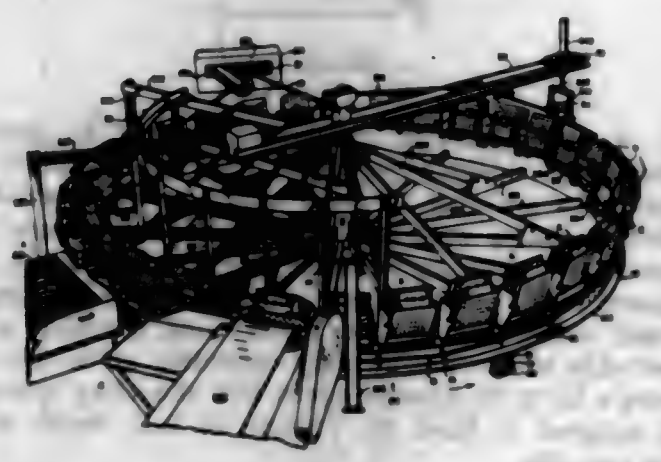
at the feeding end of said mold support means; a metal supplying pot intermediate the ends of said mold support means; control means for said pot for intermittently supplying molten metal into the cavities of said mold bodies; means secured near the discharge end of said mold support means for shearing the sprue from the cast articles at a point spaced from said pot; knock-out mechanism, cooperable with said first conveyor means, for removing cast articles from said mold bodies, and sprue knock-out means, cooperable with said second conveyor means, for removing sprues from said covers; a cam frame comprising at least one elongated member pivoted at one end thereof and extending substantially the full length of said frame, and adapted for limited vertical movement around the point of said pivoting; connectors actuating the knock-out mechanism, the sprue shearing means and the sprue knock-out means in response to movement of said cam frame; and means, acting against said cam frame and operable simultaneously with movement of said molds, for effecting actuation of said cam frame.

2,843,895

APPARATUS FOR USE IN THE CASTING OF METALS

Henry Bertram Hallsworth, Walsall, England, assignor to Rubery, Owen & Co. Limited, Darlaston, England, a limited liability company of Great Britain

Application June 15, 1956, Serial No. 591,581
Claims priority, application Great Britain June 24, 1955
9 Claims. (Cl. 22—77)



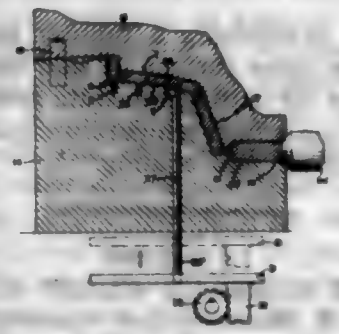
9. Apparatus for use in the casting of metals comprising in combination a rotatable circular carrier means, a plurality of supports arranged around the periphery of said circular carrier means, moulding box receiving means pivotally mounted on said carrier means each of which incorporates a relatively fixed and a relatively displaceable clamping element, said moulding box receiving means tending to assume the horizontal position under the influence of gravity in conjunction with rest means associated with said supports, said carrier means serving to traverse the moulding box receiving means in sequence from a moulding box loading location to a molten metal pouring location, thence to a moulding box unloading station and back to the loading location for a repetition of the cycle, a roller associated with the fixed element of each moulding box receiving means, cam tracks with which said rollers contact as the carrier means rotates whereby the moulding box receiving means and the moulding boxes clamped therein are caused automatically to be tilted into position for pouring as the said means approach the pouring location and are caused automatically to be tilted into position for unloading as the said moulding box receiving means recede from the pouring location and approach the unloading location, clamping pressure exerting means which comes into action automatically for exerting clamping pressure when the moulding box receiving means and the moulding boxes contained therein are tilted preparatory to pouring and which is caused automatically to relieve the clamping pressure upon tilting after pouring and preparatory to unloading, a turnable arm concentric with said circular carrier means, a pouring ladle supported from said arm and means for maintaining constant the pouring height of said ladle.

2,843,896

APPARATUS FOR CASTING TIRE MOLD SEGMENTS

Joseph A. Rinella, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application June 29, 1954, Serial No. 440,130
5 Claims. (Cl. 22—94)



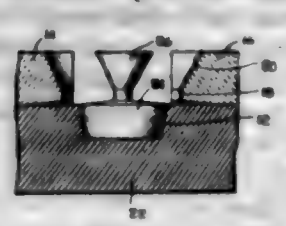
1. A die for molding a tire mold segment having a negative pattern of a tire tread design including spaced undercut rib portions, said die comprising in combination a die cover and a die body separable on a parting face and having surfaces defining a mold cavity; said die body surface having a positive pattern of a segment of a tire tread design including at least one groove engraved thereon, longitudinal means supported within the die body for reciprocating movement in a plane laterally displaced from the sidewalls of said groove, a projection extending from said means and into said groove from the sidewall thereof, said projection defining a restriction with the opposite wall of the groove, said restriction connecting the bottom of the groove with the mold cavity and means for ejecting the casting in a direction parallel to the axis of said longitudinal means whereby the molded segment insert carries said projection above the surface of the die body and an undercut is formed on the casting extending laterally into the rib thereof formed by said mold groove.

2,843,897

MOLD FOR THE CASTING OF NON-FERROUS ALLOYS

Alfred F. Bauer and Charles Pack, Toledo, Ohio, assignors, by mesne assignments, to National Lead Company, New York, N. Y., a corporation of New Jersey

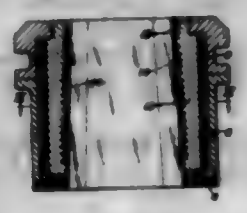
Application October 16, 1952, Serial No. 315,128
7 Claims. (Cl. 22—129)



1. A permanent mold for the casting of pure and solid slugs of non-ferrous alloy for subsequent heating and forging to desired configuration, said permanent mold comprising die portions which are all permanent and relatively movable to free the slug and gate leading thereto, the die surfaces at the slug being made of metal, and the die surfaces at the gate being made of a permanent refractory material in order to retard cooling of the

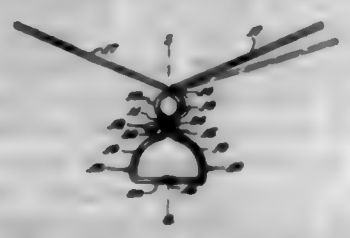
gate and being relatively separable to free the gate and to afford repeated molding operations by means of the same die surfaces at the gate as well as at the slug.

2,843,898
HOT TOP
Robert W. Carter, Library, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application August 3, 1956, Serial No. 602,032
3 Claims. (Cl. 22—147)



1. A hot top comprising a tubular shell, a lining of insulation on the inner surface of said shell, a coating of high temperature air setting moisture resistant cement on said insulation, and a high temperature castable refractory monolithic lining on said coating.

2,843,899
ADJUSTABLE CORSAGE CLASP AND HOLDER
Arosa B. Hommel, Los Angeles, Calif.
Application February 7, 1955, Serial No. 486,587
3 Claims. (Cl. 24—5)



1. A non-perforating, adjustable clasp and holder for corsages and the like comprising: a pair of similar clasping members in cooperative relation about a plane of symmetry, each member being formed to present three parallel and elongated spaced surfaces virtually in the plane of symmetry; a front face portion extending from the first of said spaced surfaces and lying in a plane of between about 60° and 90° to the plane of symmetry; a holding portion extending between the first and second of said spaced surfaces and presenting a concave face to said plane of symmetry; a clamping portion extending between the second and rearwardly disposed third spaced surface, said clamping portion being generally concave and terminating in a rearwardly disposed serrated edge constituting said third spaced surface; means positioned in a region between said holding portion and clamping portion for resiliently holding said members in cooperative relation with spaced surfaces of one member opposing the spaced surfaces of the other member whereby the members may pivot by rolling contact of said first spaced surfaces to separate said rearwardly disposed serrated edges for clamping; and spaced means extending in a direction substantially normal to the plane of symmetry from one of said members through spaced openings provided in the other member for limiting movement of one member with respect to the other in a direction parallel to the plane of symmetry.

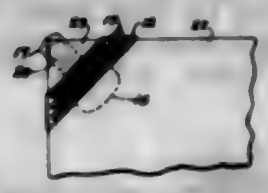
2,843,900
PAPER CLIP
Roscoe H. Nye, Sheridan, Wyo.
Application December 4, 1953, Serial No. 396,189
3 Claims. (Cl. 24—66)

1. A paper clip formed from a length of wire into a pair of opposed spring clasp structures; one of said clasp structures comprising a substantially flat split-ring-like loop having disjointed closely adjacent end portions providing generally radially outwardly projecting extensions from the loop in side-by-side relation, said extensions together affording the second clasp structure and for this purpose having a return bend at a substantial distance from the loop toward one side of the plane of the loop and defining respective clasp arms spaced from the loop-



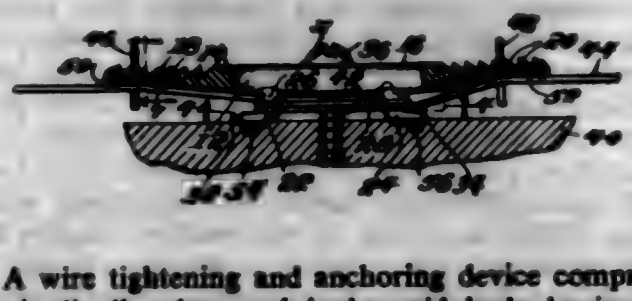
attached radially outwardly projecting parts of the extensions and angled toward the inside of said loop with the free ends of said arms constituting presser formations normally extending into the central area within said loop, said clasp structures being resiliently flexibly separable and adapted to receive papers or the like therebetween, to overlie the loop and extensions, and be clamped thereagainst by said presser formations dimpling and frictionally interlocking the same into the loop.

2,843,901
CORNER PAPER CLIP
Edward Z. Bukowski, Wallingford, Conn.
Application September 9, 1955, Serial No. 533,390
2 Claims. (Cl. 24—66)



1. A paper fastener comprising a pair of parallel metal stripe adapted to extend diagonally about the corner of a plurality of paper sheets to be fastened together, a spacer portion joining said stripe at one end extending at right angles to the planes of said stripe and disposed at an oblique angle with respect to the lengths of said stripe, one of said stripe being provided at its lower side with a downwardly extending guide tab, and having a lip at its opposite upper side extending upwardly and adapted to bend the corners of said sheets down upon said clip.

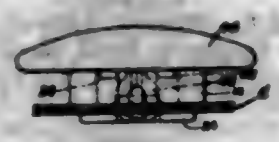
2,843,902
TELEVISION GUY WIRE ADJUSTER AND ANCHOR
Quentin W. Rogers, Eugene, Oreg.
Application June 4, 1954, Serial No. 434,483
5 Claims. (Cl. 24—71.1)



1. A wire tightening and anchoring device comprising a longitudinally elongated body, said body having end portions having upper sides and undersides, said undersides inclining longitudinally outwardly whereby said end portions increase in cross section toward their longitudinally inward ends, said body having a central vertical bore extending therethrough, hooks on and depending from said body at the inward ends of said end portions and located at opposite sides of said bore, said hooks terminating in enlarged terminals having thereon depending sharp edge portions for indenting a supporting surface, wire clamping means on said body end portions, and

a screw extending downwardly through said bore for threading into a supporting surface so as to force said body toward such surface and embeds said sharp edge portions in the surface, an intermediate part of a wire being adapted to be wrapped around said hooks with end portions of the wire positioned on the undersides of said end portions and engaged with said wire clamping means while the screw is backed out and said body can be rotated on the screw to tighten the wire.

2,843,903
FASTENING DEVICE TO RECEIVE A FACING BUTTON
John Chaves, Taunton, Mass.
Application July 2, 1953, Serial No. 365,662
3 Claims. (Cl. 24—107)



1. A fastening device comprising a retainer member having a socket and a plurality of holes therein, an attaching member embodying a plurality of stud members of compressible material and being of such size relative to said holes that they are adapted to enter therein only when compressed, and another attaching member embodying a facing button, and an eye member attached to said facing button and of such size that it is adapted to enter said socket and be retained therein.

2,843,904
SAFETY PIN
Joseph Yeglinski, Greenfield, Mass.
Application May 4, 1956, Serial No. 582,845
1 Claim. (Cl. 24—156)



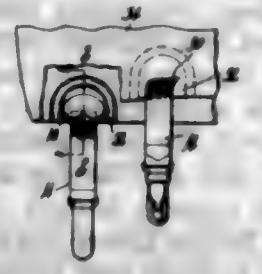
A safety pin comprising a head assembly having a recessed portion along the lower surface of said head and on each side thereof, said head having an indented portion in the rear of said head and a guard extending downwardly from a portion of the head assembly and at right angles thereto and on both sides of said head assembly, a V-shaped retaining flange extending downwardly from the said guard portion and directly beneath the recessed portion, said guard having a groove therein proximate the indented area, a fixed immovable arm extending from said head from within said indented area, a coiled spring formed at the bottom of said immovable arm, said spring having two complete turns therein, a movable arm member extending upwardly from said spring, said spring being at an angle to the plane of the two arms, said angle being of a size that enables the movable arm to be in contact with the V-shaped flange when the said movable arm is both locked and unlocked, said movable arm being movable against the bias of the spring on either side of said indented portion from within said recessed portion, whereby said movable arm may be unlocked or locked within the head.

2,843,905
COTTON BALE TIE BUCKLE
Clarence B. Brubaker, Memphis, Tenn.; Virgil J. Bailey and W. J. Chiapella, administrators of said Clarence B. Brubaker, deceased.
Application March 26, 1954, Serial No. 418,881
2 Claims. (Cl. 24—200)



1. In a bale tie band buckle, a generally C-shaped body of relatively rigid and flexible drawn steel wire comprising a cross bar terminating at its ends in laterally spaced legs, said legs being converging in a direction away from said cross bar, the ends of the legs remote from the cross bar terminating in laterally inwardly extending arms having inward ends, said arms being in longitudinal alignment with each other across said body and the inward ends of the arms being spaced from each other, said cross bar being curved throughout its length in a direction toward said arms in a manner to produce movement of said legs toward each other and reduce the space between the inward ends of the legs whenever bale-compressing pull is exerted in opposite direction by bale tie bands engaged on said cross bar and on said arms.

2,843,906
GARTER WITH TOGGLE SUPPORT
Stig E. Rosenberg, Brockton, Mass.
Application August 2, 1955, Serial No. 525,861
3 Claims. (Cl. 24—201)

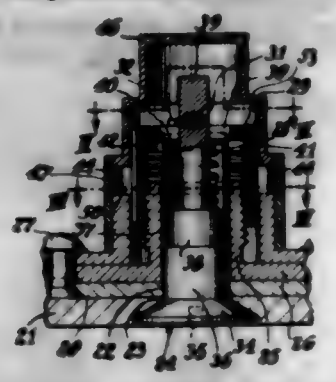


1. A tape having a toggle device at an end thereof, said device comprising a molded plate having an end portion of said tape extending part way across the rear face of the plate and embedded in said face, said plate having an integral rib on the rear face thereof with a face substantially perpendicular to said rear face, said tape having a portion thereof against and interlocked with said face of the rib.

2,843,907
FASTENING DEVICES
Victor F. Zahodiakin, Summit, N. J.
Continuation of abandoned application Serial No. 307,432, September 2, 1952. This application February 7, 1956, Serial No. 563,911
22 Claims. (Cl. 24—221)

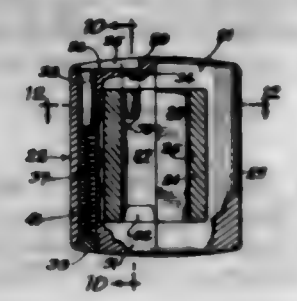
1. A fastening device comprising a stud and socket, said stud having a head and a sleeve guiding portion with a shoulder at the end thereof nearest said head and a stem projecting from the other end, a protuberance projecting laterally from said stem at a distance from said sleeve guiding portion, a sleeve overlapping said sleeve guiding portion and extending toward said protuberance, and said socket having a threaded fixed cylinder and a threaded crown with the threads of the cylinder and crown interengaging and said crown having an end wall with inner and outer surfaces and a slot therethrough for

insertion of the stud stem and protuberance through said wall to locate the protuberance adjacent to said outer surface, a projection on said outer surface for lateral engagement by said protuberance for rotating said crown,



and resilient means pressing the end of the sleeve against said inner surface, rotation of the crown on the threaded interengagement with the fixed cylinder exerting an unyielding pressure longitudinally of the stud between said head and protuberance.

2,843,908
JEWELRY CLASP
Carolyn S. Koelling, Crete, Ill.
Application October 26, 1954, Serial No. 464,765
5 Claims. (Cl. 24—230)



1. A jewelry clasp, comprising separable parts forming the end portions of a bracelet, or the like, engageable with each other to form a clasp having a unitary appearance with each side and edge surface of one part forming a continuation of the corresponding surface of the other part, a first said part having a longitudinally reduced portion with recesses in each of the ends thereof, a second said part having spaced leg portions engageable with said first part to close said recesses, and means for securing said separable parts together, comprising a fixed stud on said second part engageable in a said recess, manually operable locking means comprising a movable stud slidably mounted on said second part for movement into and out of the other said recess, means for limiting such movement of said movable stud to translational movement and spring means housed interiorly of said second part and interconnected between the latter and said movable stud to retain said movable stud in the other recess to prevent separation of said parts.

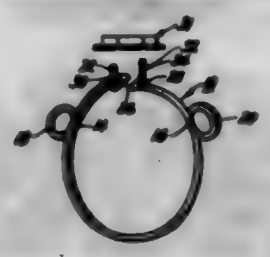
2,843,909
GARTER CLASP WITH INTERLOCKABLE DOUBLE TONGUE
Adolph Ellertsen, Centerreach, N. Y.
Application November 14, 1955, Serial No. 546,541
2 Claims. (Cl. 24—245)

1. A garter clasp of one piece high strength plastic construction, comprising a back frame having means at the upper end thereof to receive a pendant garter strap and a flexible hanger integral with said upper end and depending therefrom, the back frame having openings therein located one above the other and spaced longitudinally from the upper end and a flexible tongue connected to said hanger midway of its ends and having a length sufficient to extend above and below said openings, the upper end portion of said tongue being adapted to be inserted in the upper opening and to have hose folded



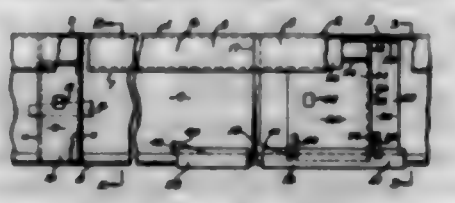
on the same and the lower end portion of said tongue being adapted to enter the lower opening and have hose folded thereon.

2,843,910
CLAMP
Frank G. Mruzek, Detroit, Mich.
Application August 9, 1954, Serial No. 448,510
20 Claims. (Cl. 24—270)



3. A clamp comprising an open ring having a convolute portion affording first adjustment means, said ring terminating in upwardly bent end portions, at least one of which end portions has a bend from the band in first and second respective projections therefrom, and a locking element having at least three openings therein, said openings being selectable in pairs for registry with the upwardly extending ends of said end portions and providing second adjustment means, and said locking element being twistable when registered with said ends to effect a relative rotative movement of said end portions, whereby the locked diameter of said ring may be varied with variations of the pair of openings selected for registry with said ends and with the amount of force applied to said convolute portion.

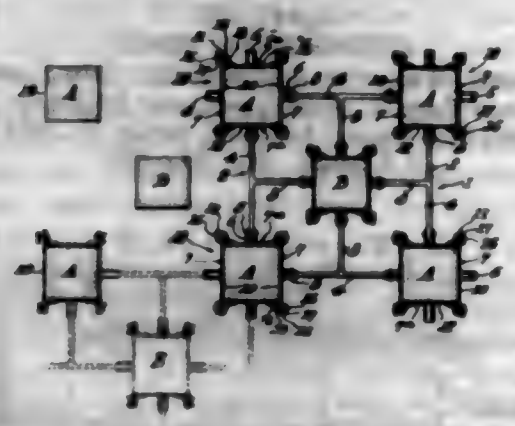
2,843,911
ROAD FORMS
James F. Maine, Euclid, Ohio, assignor to Consolidated Iron-Steel Manufacturing Company, Cleveland, Ohio, a corporation
Application April 15, 1955, Serial No. 501,487
3 Claims. (Cl. 25—118)



1. A road form construction comprising a pair of elongated road form units, in end-to-end abutting relation; each unit being L-shape in cross section provided by a vertical front wall and a horizontal base wall; each front wall bent over rearwardly and downwardly at the top to provide a downwardly open top channel; a coupler L-shape in cross-section provided by a horizontal base wall, and a vertical front wall bent rearwardly and downwardly at the top to provide a downwardly open top channel; a stake box on the rearward side of the coupler comprising a box channel, the web of the box channel extending upwardly diagonally from a welded juncture with the coupler base to the coupler top channel flange, and having a welded juncture therewith, and the side

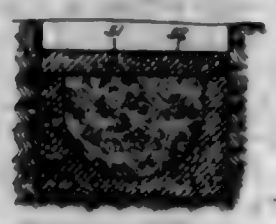
flanges of the box channel having a welded juncture with the front wall of the coupler at a point diagonally below the welded juncture with the top channel flange; longitudinal guide elements on the respective units adjacent their abutting ends providing upwardly diagonally open grooves embracing the lower end of the stake box; the coupler walls and stake box overlapping the adjacent ends of the two units; the said coupler walls and top channels nested within the said walls and top channels of the two units, and maintained nested by the guide elements, thereby maintaining alignment of the unit walls; vertically aligned holes in the box channel web, the coupler base, and one of the unit bases, for receiving a stake driven into the group therethrough.

2,843,912
APPARATUS FOR BUILDING PATIOS
Walter F. Benson, Great Falls, Mont.
Application September 15, 1955, Serial No. 534,533
3 Claims. (Cl. 25—118)



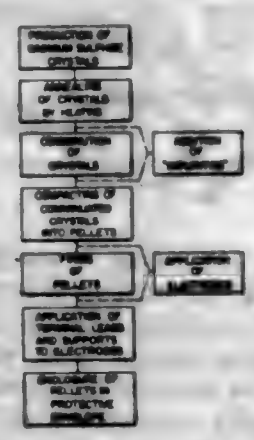
1. Apparatus for use in constructing concrete platforms on a flat surface, comprising a plurality of frames open vertically therethrough and having narrow substantially vertical wall portions cooperating with the flat surface to constitute concrete forms, and spacing means arranged between said frames, said spacing means comprising a plurality of arms, the ends of two of said arms being arranged in alinement and at least one other of said arms being arranged transversely of said two arms, a wall portion of each of said frames being arranged at the end of each of said arms, and means for detachably connecting said frames to said spacing means, said ends of said arms being so spaced from each other and said frames being of such size that when said frames are connected to said connecting means, said frames are all spaced from each other.

2,843,913
METHOD OF FORMING A LIQUID CONVEYING DUCT
Curtis L. Barron, Sacramento, Calif.
Application July 3, 1956, Serial No. 595,667
2 Claims. (Cl. 25—155)



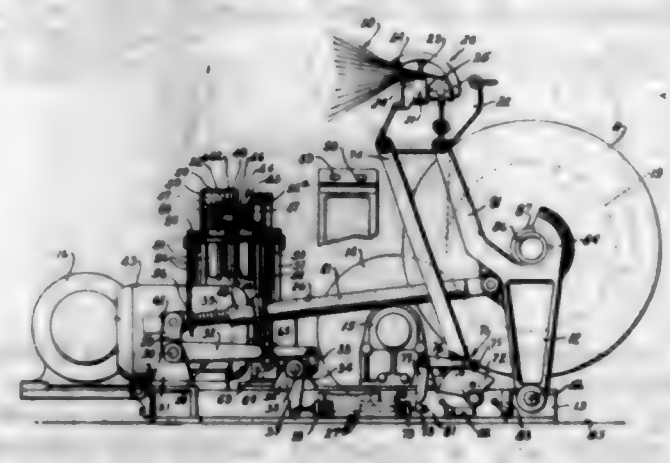
1. The method of forming a concrete duct which includes forming a channel in the ground with a horizontal bottom and vertical sides, suspending a plurality of channel shaped inner forms in the channel, positioning yieldable gaskets between adjacent forms, each gasket having an opening therein conforming in dimensions to the dimensions of said forms pouring concrete in the channel to the level of the upper edge of the inner form, removing the inner form when the concrete has set, filling the channel shaped duct with dirt to the level of the upper edge thereof, forming a flat top wall on the upper edge of the channel-shaped duct with the top wall bearing against the dirt in the duct, and removing the dirt by the placer method.

2,843,914
METHOD OF PRODUCING A PHOTOCONDUCTIVE DEVICE
Frederic Koury, Lexington, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application February 21, 1955, Serial No. 489,412
2 Claims. (Cl. 25—156)



1. The method of producing a photoconductive device of the cadmium sulphide type which comprises heating cadmium sulphide crystals to anneal the crystals and to remove therefrom volatilizable impurities, comminuting the purified crystals to form therefrom granules of smaller size than the original crystals, molding said granules into a coherent pellet, and thereafter heating said pellet to a sintering temperature to cause coalescence of the granules into crystals of size greater than said granules.

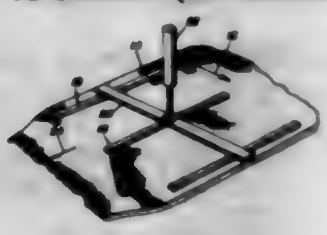
2,843,915
WARPER
Russell P. Drake, Caledonia, Ill., assignor to Barber-Colman Company, Rockford, Ill., a corporation of Illinois
Application April 23, 1954, Serial No. 425,270
13 Claims. (Cl. 28—32)



1. A warper comprising a base, a friction driving drum rotatably mounted on said base to turn about a horizontal axis, a generally upright arm adapted to support a warp beam in peripheral engagement with said drum and pivotally connected to said base to swing away from said drum as yarn is wound on the beam from an empty position on one side of the vertical to a full position on the other side of the vertical whereby the pressure between the beam and the drum due to the weight of the beam generally decreases progressively as the arm swings toward the full position, an elongated link member extensible longitudinally and extending generally transversely of said arm, means pivotally connect-

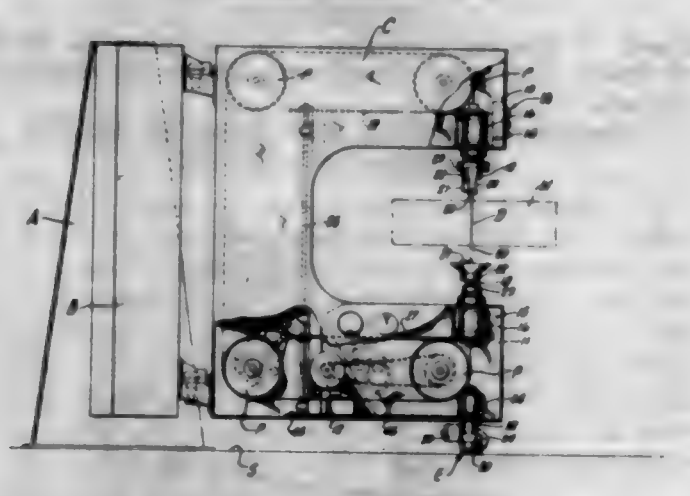
ing said link at one end to said arm and at the other end to said base to permit the link to move upon swinging of the arm, a spring connected to said member to exert a force acting longitudinally of the member and urging said arm toward said drum to hold the beam against the drum, and means operable in response to movement of said link to extend the link and compensate for changes in the spring force due to such movement.

2,843,916
METHOD OF FLUFFING GLASS FIBERS
Thomas R. Simkins, Defiance, Ohio
Application May 17, 1954, Serial No. 430,376
11 Claims. (Cl. 28—72.3)



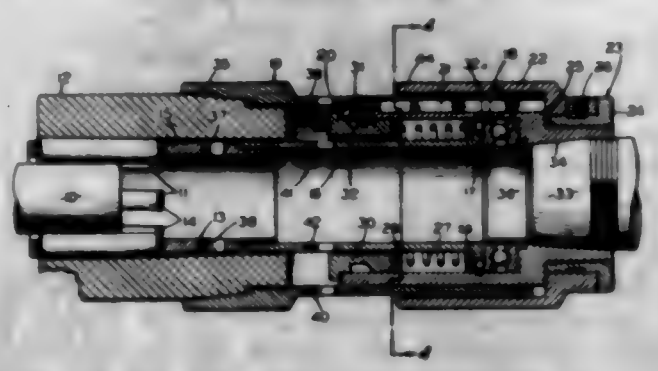
1. A method of expanding a condensed fiber mat in which the fibers are disposed in layers, the fibers within each layer being in parallel relation to one another and the fibers of adjacent layers lying at an angle to one another, said method comprising expanding the mat in a direction substantially perpendicular to the lay of the fibers in the plane of the mat while subjecting the mat to a continuous and substantially unvarying mechanical pressure perpendicular to the plane of the mat only at spaced points thereacross.

2,843,917
BAND SAWING MACHINE
Robert L. Crane and James W. Wilkie, Hopkins, Minn., assignors to Continental Machines, Inc., Savage, Minn., a corporation of Minnesota
Application December 24, 1956, Serial No. 630,171
14 Claims. (Cl. 29—68)



1. A machine tool of the type comprising a C-shaped carrier having spaced apart upper and lower arms defining a working zone therebetween, means mounting the carrier over a supporting surface for horizontal movement in all directions parallel to said surface so that work may be performed by the machine tool as a consequence of movement of the carrier relative to a work piece in the working zone, and a power driven tool element comprising an endless saw band mounted on the carrier with one stretch thereof constrained to linear travel along a vertical path through the working zone, characterized by: upper and lower saw guides in which the saw band is slidably but nonrotatably received; means mounting one of said guides on each arm of the carrier for rotation on a vertical axis coincident with the cutting edge of said stretch of the saw band; handle means mounted on the carrier for rotation in opposite directions; means drivingly connecting said handle means with both saw guides so that the latter may be rotated simultaneously in the same direction by the handle means to effect twisting of that portion of the band between the guides and cutting by the saw band along an irregular line; and power operated means for propelling the carrier in a tool feeding direction relative to a work piece between the carrier arms, comprising a traction wheel on the carrier with its periphery in tractive engagement with the supporting surface, means mounting the traction wheel on the carrier for swiveling movement coaxially of the saw guides and for rotation about a horizontal axis intersecting the swivel axis of the wheel, means drivingly connecting the traction wheel with said saw guides so as to constrain the guide wheel to swiveling motion in unison with rotation of the saw guides and in the same direction that the saw guides are rotated by the handle means, and a motor drivingly connected with said traction wheel for rotating the same about its horizontal axis.

2,843,918
BURNISHING TOOL
Eldo Kimroy Koppelmann, Moberly, Mo., assignor to Madison-Faessler Tool Company, Moberly, Mo.
Application August 14, 1956, Serial No. 603,942
6 Claims. (Cl. 29—90)



1. A roller burnishing tool, comprising: an annular mandrel having the inside diameter thereof formed by a substantially frusto-conical surface; means forming a hollow mandrel shank normally fixed with respect to and extending coaxially from the end of said mandrel adjacent the minor diameter of said frusto conical surface, said mandrel shank means having an annular transverse shoulder on the inner surface of said mandrel shank means, said mandrel shank means including a first and second hollow members in telescoping relationship with each other, one of said members being fixed with respect to said mandrel, and the other of said members being axially slidable but non-rotatable with respect to said first member, said mandrel shank means also including an adjusting member axially fixed but rotatable with respect to said second member and having threaded engagement with said first member, said annular transverse shoulder being fixed with respect to said second member; a roller cage normally disposed within and substantially coaxially with said mandrel, said cage having a plurality of roller-locating slots having the axes thereof disposed in planes at an angle with respect to the axis of said frusto-conical surface, said slots having portions disposed to abut the opposite ends of said rollers on axial movement of said cage with respect thereto; a plurality of substantially frusto-conical rollers, one of said rollers being disposed in each of said slots, said rollers constituting a group establishing a substantially cylindrical inscribed diameter when in engagement with said frusto-conical surface; a cage shank normally fixed with respect to said cage and extending within said mandrel shank, said cage shank having a shoulder opposite said transverse mandrel shank shoulder; thrust bearing means interposed between said shoulders; retainer means normally fixed with respect to said

mandrel shank means; biasing means operative between said cage shank and said retainer means; means for adjusting the axial position of said mandrel with respect to said mandrel shank shoulder; and coupling means for connecting said second member to adriving element.

2,843,919
COLD ROLLING METHOD OF MAKING HOLLOW STEEL BLADES

Ermano Garavento and George G. Walker, Jr., Manchester, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application December 30, 1952, Serial No. 328,694
3 Claims. (Cl. 29—156.8)

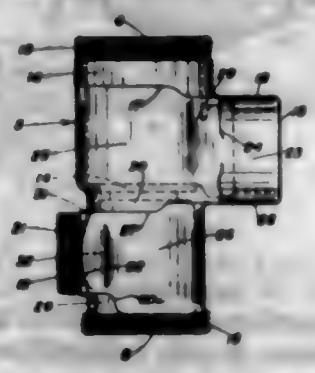


1. The method of making a propeller blade comprising heating a metal tube, shaping the heated tube while supported on a shaped mandrel to provide a finned tube of generally elliptical shape with substantially uniform wall thickness and with solid finned portions of substantially uniform cross section and substantially greater thickness than said wall thickness extending lengthwise of the tube, cold rolling said finned tube while internally supported to reduce and taper the wall thickness and proportionally reduce and taper the fin thickness, removing a portion of the fin at the thicker end of said tube to provide a generally elliptical section with substantially uniform wall thickness including the finned portion, expanding the generally elliptical section into a round section, swaging said round section to gather material and increase the wall thickness, flattening and twisting the finned tube to shape the propeller blade.

2,843,920
METHODS OF FINISHING VALVE BODIES

James J. Swartz, Berwyn, and Irving H. Russell, Oak Park, Ill., assignors to Sloan Valve Company, Chicago, Ill., a corporation of Illinois

Application February 24, 1954, Serial No. 412,154
2 Claims. (Cl. 29—157.1)

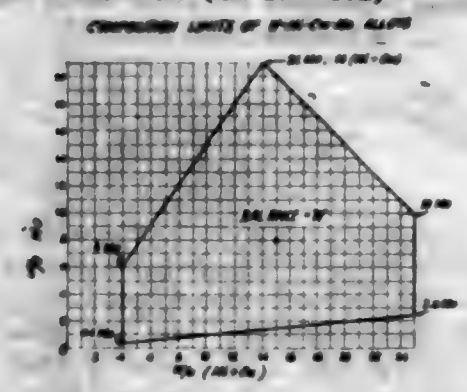


1. The method of making a flush valve body, which includes providing a hollow brass casting having generally radial, tubular projections and a built up portion between the projections and body, including the steps of threading and shaping the opposite ends of the valve body and the outer ends of said projections with truly arcuate circumferential surfaces thereabout, cutting flat surfaces on the upper and lower surfaces of the built up portions, generating a uniform cut about the axis of the valve body from the upper portion thereof in overlapping relation with the upper end surface to a zone spaced below an upper projection by passing a cutting tool into cutting contact with said body, while said body is slowly rotating, from a line of junction between an arcuate shaped side portion of said projection at said built up portion and a reversely curved portion of the body between said projection and the main portion of said body to a similar line of junction on the opposite side surface of said projection, and then passing a cutting tool into cutting contact with said body, while said body is rotating from a similar line of junction between an end of a lower projection to a similarly formed line of junction on the opposite side of said last named projection at said built up portion with said last named cutting contact being made in overlapping relation to the lower shaped surface on the lower end of the valve body and to the first named uniform cut, and thereafter directly plating the surface so formed.

2,843,921
HIGH-STRENGTH HIGH-DENSITY TUNGSTEN BASE ALLOYS

Choh-Yi Ang, Indianapolis, Ind., assignor to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware

Application June 26, 1956, Serial No. 594,039
5 Claims. (Cl. 29—182)



1. A sintered high-density alloy prepared by pressing and sintering particles of the constituents having an average size between 2 and 6 microns, said alloy consisting essentially of at least 65% by weight of tungsten, with nickel and copper in such amounts that their combined weight constitutes 4% to 25% of the weight of the composition and their weight ratio is between 0.5 and 2.5, and molybdenum in an amount from 0.4 to 1.5 times the combined weight of the nickel and copper.

2,843,922
CLAD METAL PACK AND METHOD OF MAKING THE SAME

Donald L. Freyberger, Coatesville, Pa., assignor to Lukens Steel Company, Coatesville, Pa., a corporation of Pennsylvania

Application October 14, 1955, Serial No. 540,452
1 Claim. (Cl. 29—187.5)



A clad metal pack having substantially parallel upper and lower side faces comprising a lower steel backing plate and an upper metallic cladding plate on the upper face of said backing plate, the edges of said cladding plate being spaced inwardly from the edges of said backing plate and aranged in parallel relation thereto, said cladding plate having a different coefficient of linear expansion than said backing plate, a metallic bar spanning the joint between the edges of said plates, said bar being substantially L-shaped in cross section and having its longer leg engaging the outer edge face of said backing plate and the shorter leg having its inner side face engaging the top face of said backing plate, the edge of

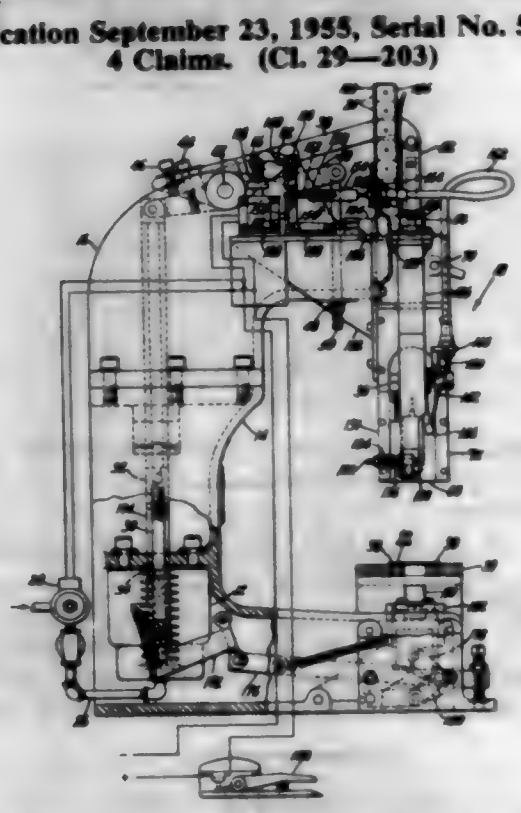
said shorter leg engaging the adjacent edge of said cladding plate, the outer face of said shorter leg being spaced below the upper face of said cladding plate, a weld at the juncture of said last-mentioned faces, said weld being located below the top face of said cladding plate, a weld connecting the lower edge of said longer leg to the adjacent edge of said backing plate, and that portion of said bar adjacent the junction of said legs being spaced from said backing plate to make the bar more readily deformable and to allow for relative expansion between said plates without rupturing the welds as the pack is being rolled.

2,843,923

ASSEMBLING MACHINES

William F. MacKenzie, Hamilton, and Milton H. Roske, Malden, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application September 23, 1955, Serial No. 536,184
4 Claims. (Cl. 29—203)



1. An assembling machine comprising a support for chassis having socket means for receiving the connectors of an article to be mounted, a machine head fixed with respect to said support, a driver bar mounted in said head for movement toward and from the chassis support, said driver bar having an end portion formed to engage the article and an adjacent side portion open to receive each article to be mounted, a raceway in communication with said open side portion when the driver bar is retracted, means for feeding an article into said raceway when the driver bar is being advanced to eject and mount a preceding article from the machine head, and means mounted for movement with the driver bar and for movement transversely into its path for positioning and clamping the article against the article receiving portion of the driver bar for register of said connectors with said socket means.

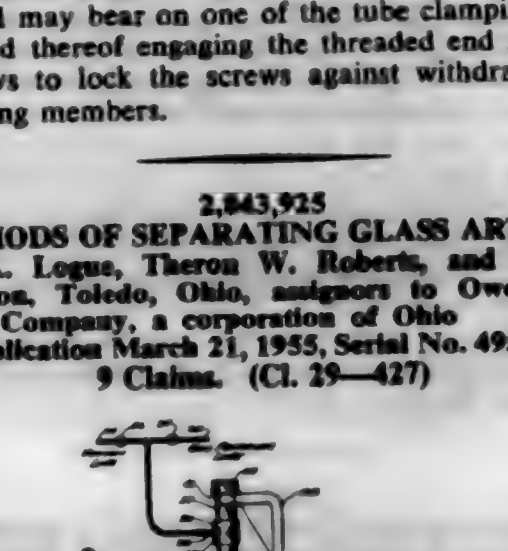
2,843,924

TUBE CLAMPING MEANS

George E. Franck, Riverside, Ill., assignor to The Imperial Brass Manufacturing Company, a corporation of Illinois

Application December 7, 1953, Serial No. 396,649
1 Claim. (Cl. 29—284)

In a tube clamping means having a pair of channel-like members forming a carrier provided with a cross member at one end and a pair of tube clamping blocks at least one of which is slidably supported in the carrier, screw means for forcing said blocks together to clamp a tube therebetween comprising: a pair of aligned annular bearing members fixedly secured in openings in the sides of the carrier, each of said bearing members having an axial length greater than the thickness of the channel-like members; a screw pivotally mounted in each of said bearing members, said screws having threaded end portions terminating in lateral end surfaces; a trunnion pivotally mounted on said bearing members, said trun-



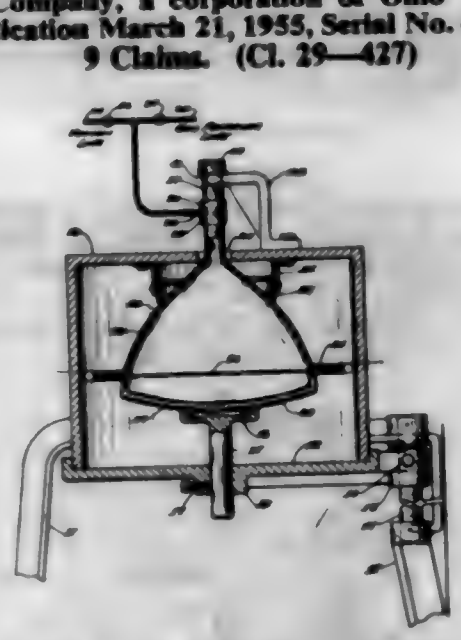
nion having a longitudinal bore the surface of which is flush with the ends of the screws; a thread cut in said bore and on the lateral end surfaces of said screws; and a threaded bolt extending through said bore so that its inner end may bear on one of the tube clamping blocks, the thread thereof engaging the threaded end surface of the screws to lock the screws against withdrawal from the bearing members.

2,843,925

METHODS OF SEPARATING GLASS ARTICLES

James A. Legue, Theron W. Roberts, and Frank O. Swanson, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio

Application March 21, 1955, Serial No. 495,482
9 Claims. (Cl. 29—427)



1. The method of separating a hollow glass article formed from a plurality of shaped hard glass parts joined by a low temperature sealing composition, which method comprises the steps of providing an opening into the interior to thereby evacuate the same, subjecting the sealed joint to sufficient heat to soften the said sealing composition at a temperature of about 850° F., and increasing the pressure within said article from sub-atmospheric to a super-atmospheric pressure to separate the joined parts and cooling the separated parts at a controlled rate.

2,843,926

METHOD OF FORMING A SUPPLY TUBE

Ralph R. Turner, Warwick, R. I., assignor to United Wire & Supply Corporation, a corporation of Rhode Island

Application December 24, 1954, Serial No. 477,539
2 Claims. (Cl. 29—511)

1. The method of forming the end portion of a supply tube which comprises expanding to cylindrical form and

uniform thickness the end portion of a cylindrical tube thus providing a shoulder between the expanded and non-expanded portions of the tube, inserting into the expanded portion and against said shoulder a cylindrical sleeve of uniform thickness and having an outer diameter substan-



tially the inner diameter of the expanded portion, and then reducing both the expanded portion and sleeve simultaneously while maintaining the uniform combined thickness to provide an axially extending taper with its smaller diameter at the end of the tube.

2,843,927
METHOD OF MANUFACTURE OF GEAR TEETH
Arthur J. Stock, Cleveland, Ohio
Application March 3, 1955, Serial No. 491,833
4 Claims. (Cl. 29—545)



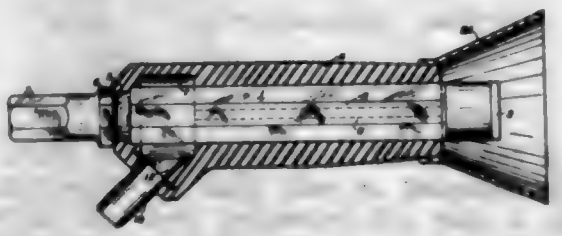
1. A method of making a mechanical component having a plurality of flat-sided teeth of predetermined spacing and pressure angle which includes the steps of feeding stock of uniform thickness through a press provided with a male punch having a preselected width and a female die having a width greater than that of said punch, actuating said press to cause said punch to penetrate said stock and enter said female die whereby said punch effectively shears separate wedge-shaped portions out of said stock prior to entry into said female die to produce rough-tapered walls in the penetrated sections of said stock, feeding said stock through a coining die provided with a male member having teeth of predetermined pressure angle and spacing and an anvil to support said punched stock, and coining said punched stock between the male member and the anvil of said coining die to cause cold plastic flow of the rough-tapered walls of said punched stock to produce a work-hardened mechanical component with a plurality of smooth flat-sided teeth of good grain structure having a spacing and pressure angle exactly conforming to the form of said coining die.

2,843,928
METHOD OF MAKING AN EXPANDABLE FASTENER
John E. Gandy, New Brighton, Pa., assignor to Townsend Company, New Brighton, Pa., a corporation of Pennsylvania
Application October 27, 1954, Serial No. 465,071
2 Claims. (Cl. 29—556)



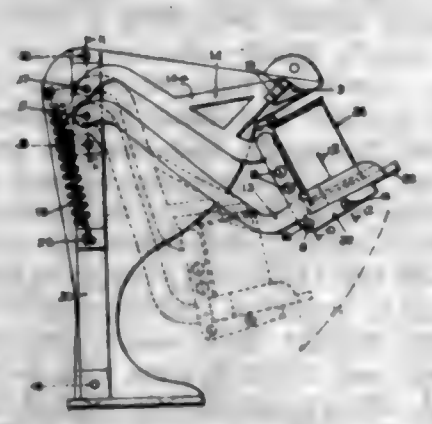
1. A method of making an expandable fastener comprising forming in an end portion of an elongated blank a plurality of slots extending generally longitudinally of the blank, entering the blank at the side thereof and whose bottoms extend at an angle to the axis of the blank so that the slots intersect each other at the end of the blank and become less deep generally radially of the blank in the direction away from the end of the blank, drilling generally axially into the opposite end of the blank an expander pin receiving opening and terminating the drilling when the opening intersects the slots at the sides of the opening but not at the bottom of the opening, leaving at the bottom of the opening an integral web of the material of the fastener connecting the portions intermediate the slots and rupturable when an expander pin is driven home through the expander pin receiving opening to expand the portions of the fastener intermediate the slots.

2,843,929
CHIPPING CHISELS
Frederic Francis Llewellyn Morgan and Eric Basil James, Camborne, England, assignors to Holman Brothers Limited, Camborne, England, a British company
Application July 30, 1956, Serial No. 601,067
Claims priority, application Great Britain August 10, 1955
8 Claims. (Cl. 30—1)



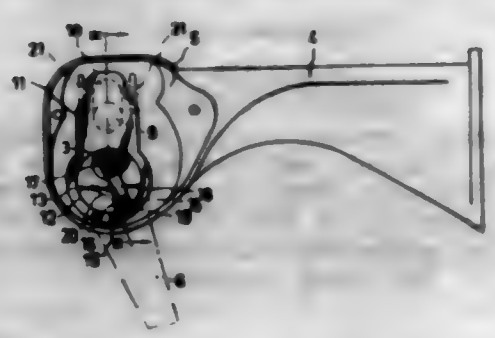
8. For use in combination with a chipping chisel, a tubular sleeve of resilient material having a longitudinal bore adapted to fit closely over the shaft of a chisel and provided adjacent one end with a coupling affording a suction port for connection to a source of suction, the internal surface of the bore of the sleeve being formed with a circumferential locating ridge at one end, and the wall of the sleeve being formed with a longitudinal air duct leading at one end to the suction port and leading at the other end to a suction mouth at the other end of the sleeve.

2,843,930
CAN OPENER
Glen E. Wilmuth, Norman, Okla.
Application June 20, 1957, Serial No. 666,890
4 Claims. (Cl. 30—8)



1. In a device for opening cans, the combination of: a frame, a pair of arms pivotally secured to the frame in vertically spaced relation for movement in a vertical plane, a can holder having a back portion and a base portion extending at a right angle from the back portion, said base portion being of a size to support the bottom of a can, a pair of pins pivotally securing said arms to the back portion of the can holder in vertically spaced relation, the distance between the upper pin and the pivotal connection of the upper arm to the frame being less than the distance between the lower pin and the pivotal connection of the lower arm to the frame to tilt the top of a can in the holder toward the frame when the arms are pivoted upwardly, a projection extending from the upper arm over the can holder, and a cutter secured on said projection in outwardly spaced relation from the back portion of the can holder.

2,843,931
CAN OPENERS
Henning Waldemar Lindahl, Landskrona, Sweden, assignor to AB Lindahls Mekaniska, Landskrona, Sweden, a corporation of Sweden
Application May 23, 1957, Serial No. 661,226
2 Claims. (Cl. 30—9)



1. A can opener comprising a fixed plate, a carrier slidably mounted on said plate for movement parallel thereto, a stub axle extending from said carrier, a can cutting wheel on said axle, a first gear on said axle, said gear being drivingly connected to said cutting wheel, a drive shaft journaled in said fixed plate below said axle, means for rotating said drive shaft, a can feeding wheel non-rotatably attached to said shaft proximate said can cutting wheel, a second gear non-rotatably attached to said shaft below said first gear, an eccentric rotatably mounted on said shaft, said carrier having an eccentric opening in which said eccentric fits, entrainment means detachably connecting said eccentric to said shaft for moving said carrier and thereby moving said cutting wheel and first gear into and out of cooperative can opening relationships with said feeding wheel and second gear respectively when said shaft is rotated, said entrainment means connecting said eccentric to said shaft when the latter is rotated past a shift point in one direction and disconnecting said eccentric from said shaft when the latter is rotated past said shift point in the opposite direction, said entrainment means comprising a radius rod non-rotatably but axially tiltably attached at one of its ends to said shaft, a tooth on said rod adapted to fit into a recess in said eccentric to connect said eccentric to said radius rod and thereby to said shaft, a spring urging said radius rod toward said eccentric, and an entrainment cam on the lower portion of said carrier, said cam being adapted to engage said radius rod adjacent said shift point to tilt said radius rod away from said eccentric when said shaft is rotated in said opposite direction past said shift point, thereby lifting said tooth clear of said recess to detach said eccentric from said shaft, said cam being adapted, when said shaft is rotated in said one direction past said shift point, to lower said radius rod against said eccentric with said tooth fitting into said recess to connect said eccentric to said shaft.

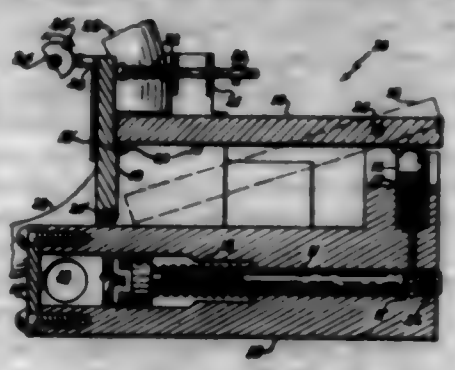
2,843,932
TOOL FOR REMOVING PAINTED-OVER WALLPAPER
Joseph B. Ferguson, Mission, Kans.
Application November 6, 1956, Serial No. 620,743
4 Claims. (Cl. 30—171)

1. A tool for use in preparing for removal of paint covered wallpaper from a wall, said tool including a holder having a clamping head, a cutting element having a plate portion adapted to be clamped in said head, and a series of teeth projecting along one edge of the plate portion and laterally therefrom, said teeth being in the general shape of isosceles triangles and having bases thereof joining with the plate portion and the equal sides terminating in tips providing spaced apart cutting edges



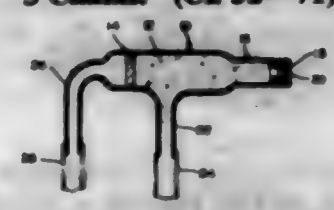
for forming striations in the paint cover when the cutting element of said tool is drawn over the wallpaper.

2,843,933
DELAYED ACTION MECHANICAL ROPE CUTTER
Ernest G. Richards, Alamogordo, N. Mex.
Application January 15, 1958, Serial No. 709,124
4 Claims. (Cl. 30—182)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a cord cutting device, a movable cutter member, a member cooperating with said movable cutter for severing a load carrying cord, means for positioning said cord between said members, means normally biasing said movable cutter toward said cord and said cooperating member, and rotating time controlled means for permitting movement of said movable cutter member to sever said cord at the expiration of a predetermined time interval.

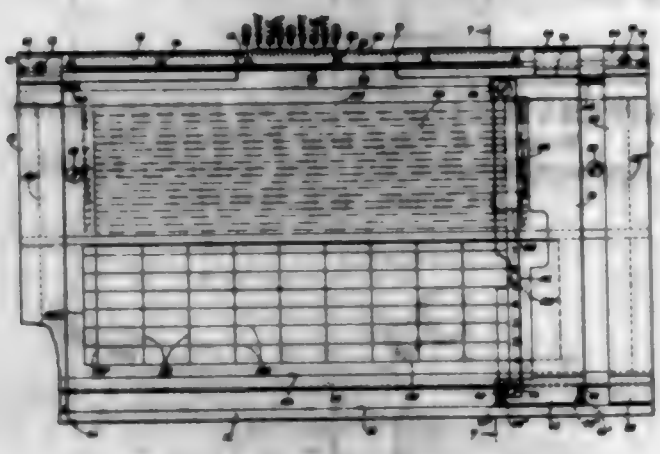
2,843,934
DEVICE FOR DEMONSTRATING EFFECTS OF VARYING INJECTION RATES
Solomon Reznek, Albany, N. Y., assignor to Cook-Waite Laboratories, Inc., New York, N. Y., a corporation of Delaware
Application December 31, 1956, Serial No. 631,534
3 Claims. (Cl. 32—71)



1. A device for demonstrating the dependency of local tissue pressure increase on increasing rate of liquid injection which comprises a chamber filled with liquid, resilient closure means for said chamber, said resilient closure means being puncturable by the needle of a hypodermic syringe while being held in liquid-tight engagement by

the resiliency of the closure material and permitting the driving of liquid from said hypodermic syringe into said chamber under pressure, means for measuring pressure variations in said chamber, and semipermeable means simulating the flow characteristics of liquid through animal tissue and partitioning said chamber from exhaust means.

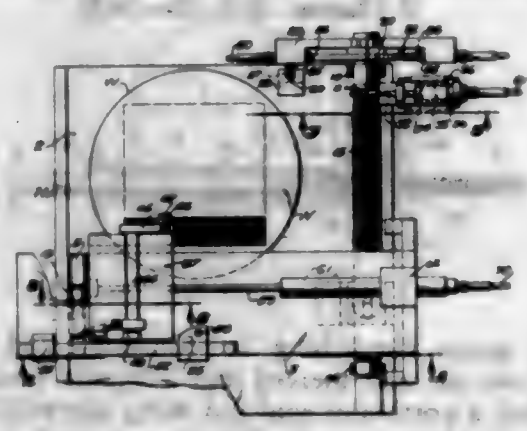
2,843,935
INSTRUMENT FOR MEASURING, INTERPOLATING, PLOTTING AND THE LIKE
Heinz Joseph Gerber, Hartford, Conn., assignor to The Gerber Scientific Instrument Company, Hartford, Conn., a corporation of Connecticut
Application November 23, 1953, Serial No. 393,545
20 Claims. (Cl. 33—1)



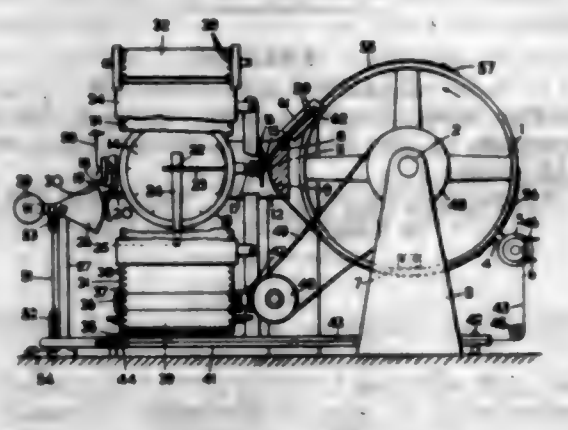
1. In an instrument of the class described, the combination of a longitudinally extending base having a thin front portion immediately adjacent the bottom plane thereof and having a straight longitudinal guideway at the top, a slide rectilinearly movable along the guideway and having a forward projection above the said thin portion of the base, a longitudinally extending coil spring connected at one end with the base and at the opposite end with the said forward projection of the slide and having its convolutions uniformly spaced longitudinally so that the spacings between all of the convolutions are uniformly varied when the spring length is varied by movement of the slide, the spring being located and shaped to enable the several convolutions thereof to constitute graduations closely adjacent the said thin portion of the base and near the front edge thereof, means for limiting slide movement in one direction to provide a minimum spring length and for limiting slide movement in the opposite direction to provide a maximum spring length, and a transparent cover over the spring and over the forward projection of the slide and extending throughout the maximum length of the spring which cover is detachably secured to the said base, the said cover being constructed and arranged for upward removal from the base and the said cover having an inverted channel shape and including two downwardly extending longitudinal flanges one of which is at the rear of the spring and extends downwardly below the level of the top of said spring and the other of which is at the front of the spring and extends downwardly at least approximately to the said thin portion of the base adjacent the front edge thereof.

2,843,936
RULING ENGINE
Richard L. Carrouche, Pasadena, Calif., assignor to California Institute Research Foundation, Pasadena, Calif., a corporation of California
Application December 13, 1954, Serial No. 474,731
3 Claims. (Cl. 33—32)

1. A ruling engine, comprising: a bed, a first carriage having slide bearings resting on said bed; a second carriage having slide bearings resting on said first carriage for movement in a direction transverse to the first carriage; lead screw bearings on said bed; a lead screw resting on said screw bearings; a traveler resting on said lead screw and connected with said first carriage; drive means for intermittently advancing said lead screw to advance said first carriage; drive means for reciprocating said second carriage in a direction transverse to the first carriage; a ruling stylus carried by said second carriage for engagement with a work piece; said bed and carriages being formed of glass and having optically flat bearing ways for engagement by said slide bearings, said lead screw and said carriage drive means including piston and cylinder driven units, remote piston and cylinder driving units and liquid filled connecting tubes whereby said driving units may be positioned in a region remote from said driven units.



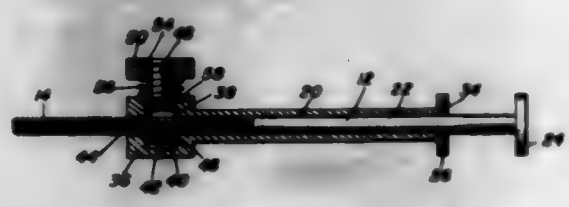
2,843,937
APPARATUS FOR MEASURING AND RECORDING THICKNESS OF PLASTIC FILM
Henry Hans Allen, London, England, assignor to British Celanese Limited, a company of Great Britain
Application June 28, 1956, Serial No. 594,558
Claims priority, application Great Britain July 8, 1955
4 Claims. (Cl. 33—147)



1. Apparatus for measuring and recording variations in thickness of a flexible sheet material, said apparatus comprising a stationary thickness gauge having a movable foot, a stationary anvil rigidly secured in relation to said gauge, advancing mechanism for forwarding the sheet intermittently between said foot and said anvil, means for urging said foot towards said anvil, means for withdrawing said foot out of contact with said sheet before each intermittent movement of said sheet and for releasing said foot into engagement with said sheet after each intermittent movement of said sheet, advancing mechanism for forwarding a strip of recording material and means for recording on said strip variations in the displacement of said foot from said anvil when said foot is

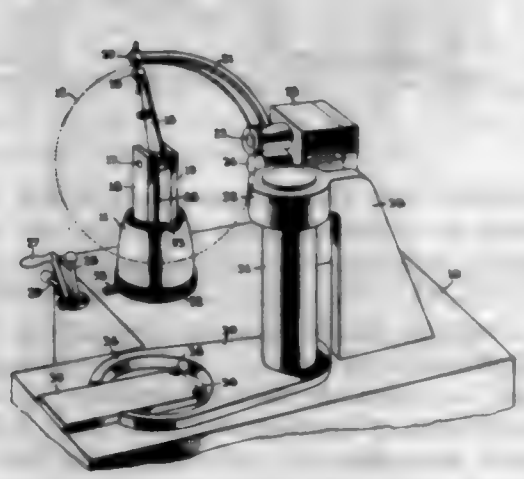
urged towards said anvil, said advancing mechanisms being geared to one another so that the movement of the sheet and the movement of the recording material are related.

2,843,938
HOLE AND SLOT GAUGE WITH THREADED ADJUSTING MEANS
Floyd A. Campbell, Springfield, Ohio
Application February 10, 1956, Serial No. 564,815
5 Claims. (Cl. 33—163)



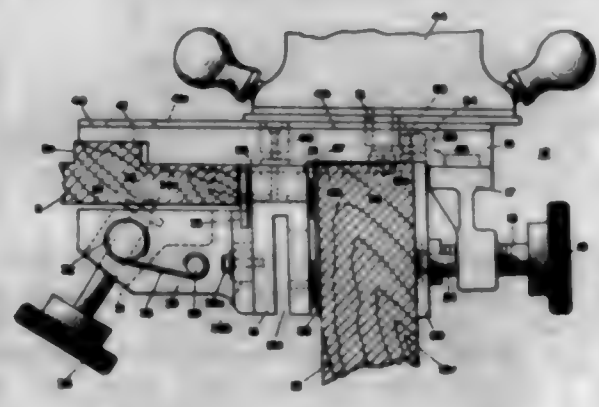
1. A gauge comprising an elongated rod having a pointer on one end thereof and a handle means on the other end, a portion of said rod being screw-threaded, an elongated tubular sleeve slidably mounted on and enclosing a major portion of said rod and having a pointer at one end thereof for association with the pointer on the rod for measuring distances, and means on the other end of said sleeve for engagement with the threaded portion of the rod for securing the sleeve in adjusted position on the rod thereby retaining the pointers in adjusted position, said means including an enlarged end on the sleeve having a laterally extending blind bore therein, said bore extending beyond the center of the sleeve, a collar encircling the threaded portion of the rod and having an oval-shaped bore with the lower portion thereof being screw-threaded for engagement with the threads on the rod, a laterally projecting stud on said collar, said collar being slidably received in said lateral bore, and spring means between the enlarged end of the sleeve and the stud for urging the stud outwardly from the sleeve for resiliently frictionally engaging the threads in the collar with the threads on the rod for retaining the sleeve and rod and the pointers thereon in adjusted position and permitting rotation of the rod with the handle knob for varying the position of the pointers.

2,843,939
GAGING APPARATUS
Willis Fay Aller, Dayton, Ohio, assignor, by mesne assignments, to The Sheffield Corporation, a corporation of Delaware
Application May 21, 1952, Serial No. 289,065
16 Claims. (Cl. 33—174)



11. An apparatus for gaging the curvature of a part spherical surface of an object comprising a base, a support member carried for rotation on said base, said support member having locating means for disposing the center of curvature of an object to be gaged substantially coincident with the axis of rotation of said member, a feeler device including a movable work contactor for engagement with the surface to be gaged, a pivotal support on said base having a pivot axis transverse the axis of rotation of said member and intersecting the center of curvature of the surface to be gaged, an arm on said pivotal support carrying said feeler device for swinging movement about the pivot axis and directing said work contactor substantially radially of an object carried by said support member in gaging position, actuating means for positioning said arm about said pivot axis, and measuring means connected to said feeler device and controlled thereby in accordance with movements of said work contactor within said device as the feeler device and gaged surface are relatively positioned.

2,843,940
APPARATUS FOR ROUTING HINGE SEATS
Warren B. Zern, near Pottstown, Pa.
Application October 9, 1956, Serial No. 614,871
6 Claims. (Cl. 33—197)

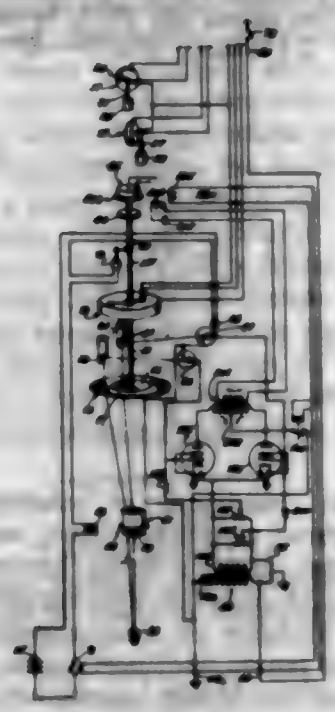


6. Woodworking apparatus for guiding the movement of a cutting tool relative to the edge of a door during the installation of hinge seats therein comprising template means adapted to overlie the hinge seat receiving edge of the door, a stationary surface disposed beneath said template means against which a face of the door is adapted to be positioned with respect to said template means, the open front end of the hinge seat being adapted to be adjacent said first-named door face, movable means for clamping said first-named door face against said stationary surface, and gauge means movable concurrently with adjustment of said movable means for controlling the width of the hinge seat with reference to the other face of the door whereby a predetermined dimension is maintained between said last-named face of the door and the rear of the hinge seat to provide a uniform thickness of uncut material between the rear of the hinge seat and said last-named face of the door regardless of non-uniform thickness of doors.

2,843,941
WELL SURVEYING APPARATUS
James K. Story, Long Beach, Calif., assignor to V. E. Kuster, Long Beach, Calif.
Application October 28, 1954, Serial No. 465,281
21 Claims. (Cl. 33—205.5)

1. Apparatus comprising an instrument body adapted to be lowered into a well bore at the lower end of a suspending line and to be advanced along the bore, means at the surface of the earth adapted to be actuated in accordance with the advancement of said line to thereby be responsive to the course length through which said instrument body is advanced along the bore between two stations, second means responsive to the inclination of

said instrument body in the bore, and computer means responsive to both said first and second means and operable



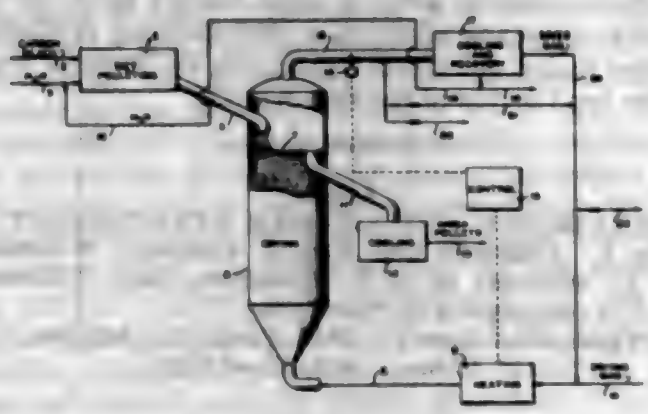
to develop a representation of the vertical distance between the levels of said two stations.

2,843,942

PROCESS FOR DRYING WET CARBON BLACK PELLETS

Travis S. Whitsel, Jr., Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application December 7, 1953, Serial No. 396,503
7 Claims. (Cl. 34—10)



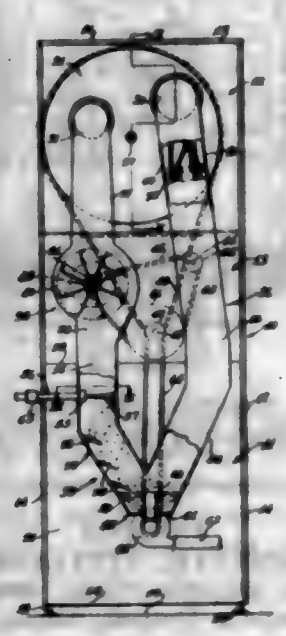
1. A process which comprises forming wet pellets of carbon black by a wet pelleting method, introducing said wet pellets into an upper part of a bed of carbon black pellets maintained under hindered settling conditions in an obstructed drying zone by the passage of a hot drying gas upwardly therethrough; heating said drying gas, prior to contacting with said bed, to supply all of the heat required to raise the temperature of said bed above the boiling point of water under the conditions of contacting, whereby water is vaporized and removed from the pellets and dried pellets are caused to move to an upper portion and wet pellets to a lower portion of said bed; and withdrawing dried pellets from a locus, in an upper part of said bed, remote from that at which wet pellets are introduced, said dried pellets being withdrawn at a temperature above the boiling point of water; withdrawing used drying gas from said bed; and cooling and recovering said dried pellets.

2,843,943

COMBINED WASHER AND DRIER

Peter Eduard Geldhof, Benton Harbor, and Clifton A. Cobb, St. Joseph, Mich., assignors, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware

Application November 2, 1953, Serial No. 389,643
5 Claims. (Cl. 34—75)



1. A substantially closed air circulating system for a hot air drier for clothes and the like comprising, a fan to exhaust substantially spent air from the drier and to force circulation of the air through the system, a condenser to receive the air from the drier, a nozzle in said condenser in the region of the air inlet thereto, means to connect said nozzle to a source of air cleaning liquid coolant to be expelled from said nozzle as a sheet thereof through which the air from said drier passes and is substantially cleaned and dehumidified thereby, a standpipe drain in the bottom of said condenser with an opening of sufficient height above the bottom to form a pool of the liquid thereabout as the liquid flows through the condenser from said nozzle to the drain and through said drain, a return air duct to return air from the condenser to the drier and leading from the lower end of the condenser whereby the air will flow over said pool of liquid at the intersection of the condenser and air duct, and means to periodically increase liquid flow through said condenser to flush the same and to flush lint from the pool surface to improve its condensing action.

2,843,944

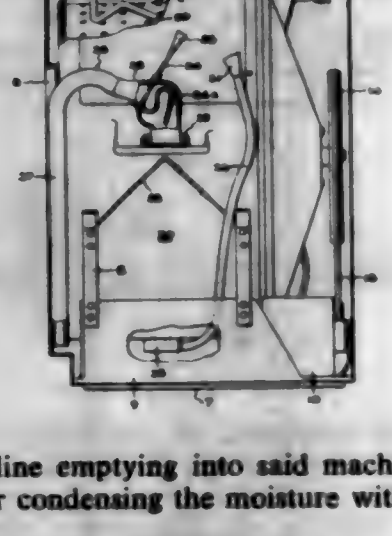
VENTING ARRANGEMENT FOR LAUNDRY MACHINE

John W. Toma and Adrian Fields, Louisville, Ky., assignors to General Electric Company, a corporation of New York

Application February 13, 1956, Serial No. 565,037
6 Claims. (Cl. 34—75)

1. In a laundry machine, a clothes basket having openings therein, an imperforate tub enclosing said basket, heating means for heating the clothes in said basket for extracting moisture therefrom, a vent tube for venting said tub to the surrounding atmosphere, an opening in the wall of said tub connecting said vent tube to the interior of said tub, and a condenser water line for admitting water to said machine for condensing the moisture extracted from said clothes, said condenser water line extending into said vent tube and comprising a plurality of bends within a section of said tube for condensing moisture from the air being discharged through said

tube, thereby substantially to prevent the discharge of moisture through said tube into said room, and said con-



denser water line emptying into said machine at its discharge end for condensing the moisture within said tub.

2,843,945
DOMESTIC APPLIANCE
Ronal H. Whyte, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 2, 1956, Serial No. 595,437
2 Claims. (Cl. 34—82)

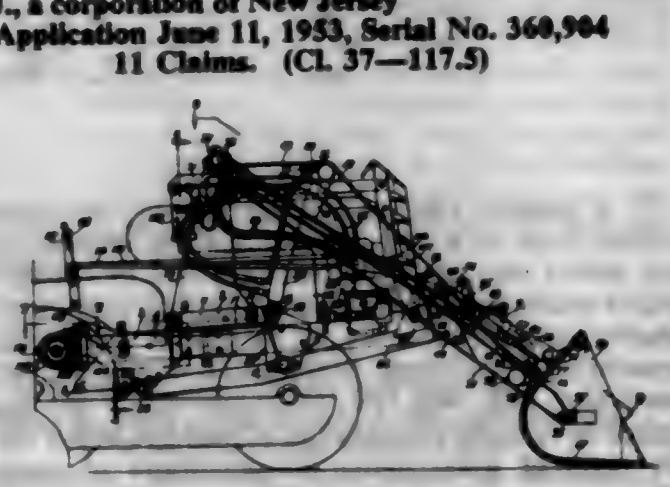
1. A clothes dryer including a cabinet having an access opening and door; said opening having a recessed portion; a gasket in said recessed portion for sealing said door from said access opening; a ring in said recessed portion and spaced from said door by said gasket in a manner to form an air flow passage; said ring having an axially inwardly extending annular flange and an aperture in communication with said air flow passage; a tumbling drum in said cabinet having a front wall and a perforated rear wall; a shaft on said rear wall for rotating said drum; said front wall having an opening formed with an axially outwardly extending drum flange overlying and in spaced relation to the inwardly extending ring flange; a plurality of load bearing shoes disposed in spaced relationship between the upper portions of said ring flange and said drum flange to support said front wall and having non-loading bearing air seals between said shoes; a fixed rear partition in said cabinet adjacent said rear wall; a spherical bearing housing on said partition; a bearing in said housing for journalling said shaft and adapted for universal shoe wear compensating movement within the limits of said flange spacing, thereby to prevent binding said shaft in variations of either horizontal or vertical movement.

2,843,946
MANIKIN DEVICE FOR ILLUSTRATING DYNAMIC MOVEMENT
Weston Crocker Brown, Douglaston, N. Y.
Application November 24, 1954, Serial No. 470,990
2 Claims. (Cl. 35—29)



1. A manikin comprising in combination a base, a vertical rod secured within said base, said manikin comprising a wooden portion being located in the pelvic region of the said manikin and supported by the said vertical rod, a plurality of other wooden blocks located in the abdominal region, the chest region, the head region, the thigh region, the lower leg region, the foot region, the upper arm region, the forearm region and the hand region, of the said manikin, respectively, means for movably securing the said wooden blocks in a position wherein the center of said blocks of said head, chest, abdominal, and thigh regions define a continuous bow-like curve of adjustable substantially constant curvature, the extended lower end of said curve being midway between the knee portions defined between said respective thigh and lower leg portions of the said manikin, the upper end of which is directly above the said lower end of the said curve and within the head region of the said manikin, and the curved portion of which is coincident with the curvature of the pelvic region, the abdominal region, the chest region and the head region of the said manikin, the said chest region also being rotatable about a point located upon the said bow-like curve and allowing a corresponding rotation of the head region, the upper arm region, the forearm region and the hand region of the said manikin.

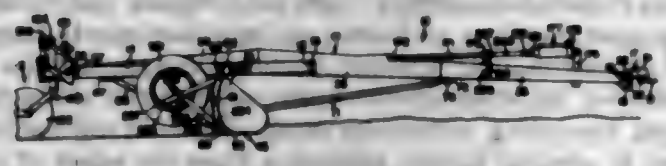
2,843,947
BULLDOZER AND LOADER ATTACHMENT
Arthur C. Anderson and Tengel Andersen, Wildwood, N. J., assignors to A. C. Anderson, Inc., Wildwood, N. J., a corporation of New Jersey
Application June 11, 1953, Serial No. 360,904
11 Claims. (Cl. 37—117.5)



1. In a tractor, a main frame, a secondary frame mounted on the main frame and comprising members at opposite sides respectively of the main frame, each said member having front and rear anchor plates attached to the proximate side of the main frame and an intermediate section uniting and supported by said plates, a bracket mounted on the intermediate section of each member, a shaft journaled in the upper ends of said brackets, a shaft

mounted in the rear anchor plates of the secondary frame, a bulldozer yoke comprising arms journaled respectively on the ends of the last named shaft and extending forwardly at the sides of the main frame, said yoke having at its forward end means for detachably mounting a blade, a loader boom comprising arms secured to the shaft first named and extending forwardly from the latter, said boom being adjustable in vertical planes about the axis of said shaft and straddling the bulldozer yoke when said boom is in a depressed position and said yoke is in a raised inoperative position, hydraulic cylinder means pivotally attached to the secondary frame, means for operatively connecting the cylinder means selectively and individually to the boom and yoke for forcibly traversing said boom and yoke about the axes of their respective shafts, and means for detaching the boom from said tractor when said cylinder is connected to said yoke.

2,843,948
LAND LEVELER
Jesse G. Lindeman, Yakima, and Frank H. Horey, Seattle, Wash., assignors to Deere & Company, Moline, Ill., a corporation of Illinois
Application March 18, 1954, Serial No. 417,105
20 Claims. (Cl. 37—178)



1. In a land leveler, a main generally fore-and-aft extending frame, an earth-scraping blade carried by said frame at a point forward of the rear end thereof, and ground wheel means connected supportingly with the rear end of said frame, the latter comprising a plurality of generally inverted V-shaped members, there being a front member, an intermediate member, and a rear member, each member having side sections the generally vertical dimension of which progressively increases from one end to the other, said members being rigidly joined in end-to-end relation, the side sections at the rear end of the front member having the same dimension as the side sections at the front end of the adjacent intermediate member, and the side sections at the rear end of the intermediate member that is joined to the rear member having the same vertical dimension as the side sections at the front end of the rear member, the angles between the side sections of the several members being substantially the same, the vertical dimension of the side sections of the intermediate member progressively increasing to a maximum at the rear end thereof, and the vertical dimension of the rear member progressively decreasing from the forward end to the rear end thereof, said blade being fastened to said frame at a point adjacent the maximum vertical dimension of said side sections.

2,843,949
ANIMATED DISPLAY DEVICE
William T. Donahoo, Gadsden, Ala.
Application May 13, 1955, Serial No. 508,191
5 Claims. (Cl. 40—28.1)



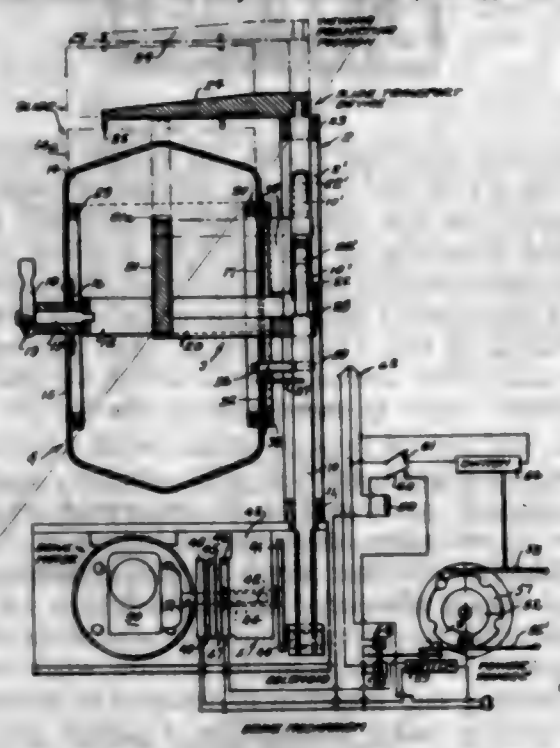
1. In an animated display device, a fixed non-rotatable support member, a pair of aligned animal figures mounted in tandem for individual pivotal movement on said fixed support member with the adjacent ends of said figures overlapping each other and overbalancing the other ends thereof, and a vertically vibrating member mounted beneath the overlapped ends of said figures in position to support said overlapped ends and engage the same as they move downward, whereby substantially continuous oscillatory motion is imparted to said figures upon vibration of said vibrating member.

2,843,950
CHANGEABLE DISPLAY DEVICE
Archie E. Reitz, Los Angeles, Calif.
Application July 3, 1957, Serial No. 669,731
11 Claims. (Cl. 40—34)



1. A display device comprising a pair of traction elements arranged in spaced opposed relation, a circular sheet of flexible material bearing a display on one surface thereof and doubled upon itself along a diameter with said display surface outward, said sheet being sandwiched between said traction elements with its oppositely facing semi-circular halves in non-slip engagement with said traction elements, and means for establishing relative rotation of said elements about an axis concentric with said sheet, whereby said sheet will shift rotatively upon itself to progressively expose said display on each of said halves.

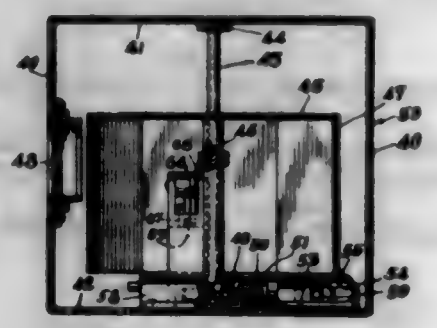
2,843,951
AUTOMATIC TRANSPORT SYSTEM FOR SLIDE PROJECTORS
William H. Richards, Dayton, Ohio
Application March 2, 1954, Serial No. 413,732
7 Claims. (Cl. 40—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



4. Apparatus for automatically presenting slides for viewing comprising a platform, support means extending vertically from said platform having a side extension providing a pivot member, a slotted drum type slide magazine mounted on said pivot member for rotation relative thereto, a rod member mounted in said support means for movement longitudinally thereof, control means for moving said rod member in one direction in timed sequence, an extension mounted on said rod member, for movement

of said rod member relative thereto, extending upwardly of said support means, means connecting said rod member and extension providing a continuously biased relation, a first arm on said rod member extending within said slide magazine having a slide engaging member for engagement of the bottom of a first slide in a selected slot of said magazine, a second arm on said extension outwardly of said support means which support means provides a lower limit stop therefor, depending notched slide engaging elements on said second arm in the plane of the slide engaging member and normally spaced therefrom a greater distance than the height of the slide whereby on actuation of said control means, said slide engaging member will engage the lower surface of said first slide to bring the upper surface of said first slide into engagement with the depending notched elements to provide a biased secured engagement of said first slide and move it clear of the magazine into a viewing position, a ratchet ring incorporated on one side of said magazine remote from said pivot member, and a dog member pivotally mounted on said rod member for periodic engagement with said ratchet ring to rotate said magazine to transport the next slide into the plane of said first and second arms on retraction and release of said first slide by said arms and movement of said rod member in the opposite direction.

2,843,951
MULTI-SIGNALLING DEVICE FOR VEHICLES
William M. Zgraggen, New York, N. Y.
Application December 17, 1954, Serial No. 476,018
1 Claim. (Cl. 40—52)



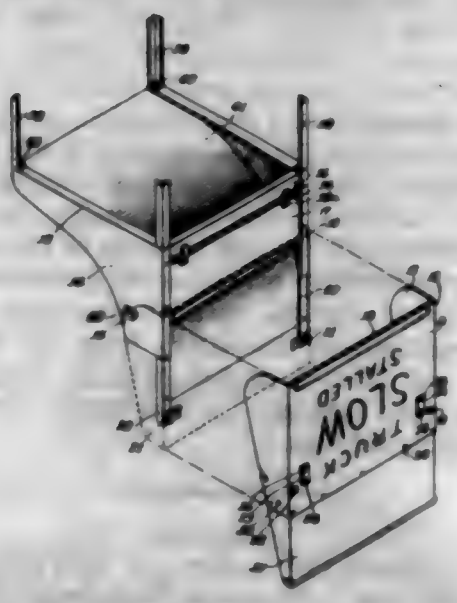
In a visual signalling system, an upright cubical housing having a roof and a floor, a window opening located intermediate the roof and the floor, a vertically disposed axial shaft rotatable in said housing, a wheel including an axial sleeve slidably mounted on said shaft, said wheel having a horizontally disposed circumferential flange, carrying indicia in two axially spaced tiers, said wheel including said sleeve and said flange having an axial length substantially equal to two-thirds of the height of said housing, said spaced tiers of indicia being adapted to be selectively displayed through said window, said wheel being normally positioned in its lowermost position in the housing with the upper tier of indicia in the plane of the window, a linkage connected to said sleeve, electromagnetic means associated with said linkage for raising said wheel from said normal position to position the lower tier of indicia in the plane of the window when energized and permitting said wheel to be lowered to normal position by gravity when deenergized, a second electromagnetic means associated with said wheel for rotating said wheel to position any one of said indicia in one of said tiers adjacent said window, including a single pinion secured to the lower end of said shaft and a rack slidably mounted upon said floor in meshing engagement with said pinion, a plurality of movable stops for stopping rotation of said wheel, means for actuating any one of said stops selectively to stop rotation of the wheel when a selected indicia is positioned adjacent the window, each of said tiers including a blank, said blanks being positioned in vertical alignment on the wheel, said wheel being further normally positioned with the blank of the upper tier adjacent said window.

2,843,953
MOTOR VEHICLE SKID RAIL CONSTRUCTION
William J. McCanless, Asheville, N. C.
Application September 8, 1954, Serial No. 454,760
1 Claim. (Cl. 40—129)



A frame for supporting advertising cards adapted to be secured to the exterior surface of a vehicle body, comprising spaced upper and lower horizontal flanged rails, a central sheet metal horizontal rail comprising a central portion of V-shaped cross section adapted to have its apex extend outwardly from said vehicle body, forming grooves between said apex and said horizontal flanges, said grooves having spaced apertures therein for the reception of securing bolts, upper and lower horizontal flanges extending outwardly from the ends of the legs of the V, vertical flanges extending from the edges of said horizontal flanges and spaced from said surface, and spaced offset portions formed in said vertical flanges.

2,843,954
GUARD
Victor S. Rheeling, Rock Falls, Ill., assignor to Victor S. Rheeling and Harold Berg, copartners, doing business as Rheeling Safety Splash Guard Co.
Application April 25, 1956, Serial No. 580,587
4 Claims. (Cl. 40—129)



1. A dual purpose warning sign and wheel guard for vehicle bodies comprising: a bracket member including an end panel and side panels; means for positioning said bracket member generally rearwardly of said wheel and in relatively close proximity to the upper periphery of said wheel; a frame member including an end sign panel and side panels adapted to be placed on said bracket member, said frame member end panel and side panels arranged to cooperate with said bracket member end panel and side panels to provide a continuous relatively impervious guarding surface about the rear upper periphery and sides of said wheel; substantially unyield-

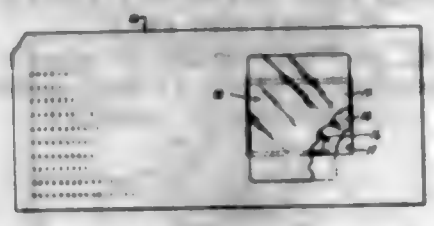
ing rigid means removably attaching said frame member to said bracket member at one area on said frame member; substantially unyielding rigid means removably attaching said frame member to said bracket member at a second area on said frame member that is spaced from said one area; and a collapsible brace means attached to said frame member for supporting the frame substantially erect when it is removed from said body for use as a warning sign.

2,843,955

RECORD CARD AND FILM HOLDER ASSEMBLY

Stanley Engelstein, Roslyn Heights, N. Y., assignor to Enbee Transpereat Specialty Company, Inc., New York, N. Y., a corporation of New York

Application April 5, 1957, Serial No. 650,969
6 Claims. (Cl. 40—158)



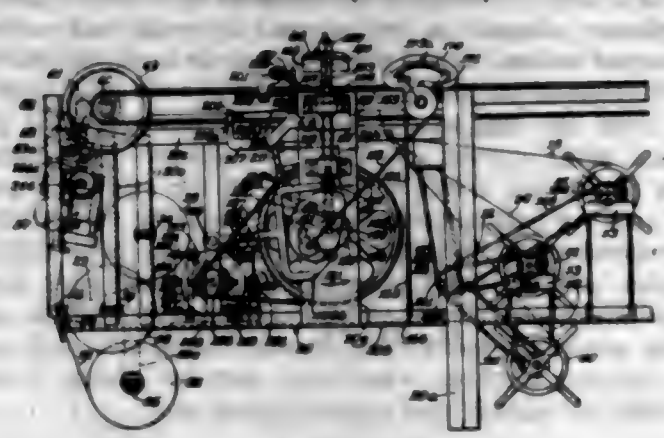
1. A record card and film holder assembly comprising a card having an open window therein, and a film holder mountable in said window including a transparent jacket for displaying a film and releasable means extending from said jacket and integral therewith for securing said jacket to the edges of said window.

2,843,956

TRANSFER MACHINE

Henry Richter, Kankakee, Ill., assignor to Paramount Textile Machinery Co., Kankakee, Ill., a corporation of Illinois

Application August 2, 1954, Serial No. 447,303
13 Claims. (Cl. 41—1)



1. The combination in apparatus for transferring indicia to hosiery, of means for supporting a plurality of tapes each carrying equally spaced raised indicia to be transferred, means for moving said tapes step by step toward a transfer position, means for supporting hosiery in spaced relation while resting on said tapes and moving them step by step to said position, means for synchronizing the movements of the tapes, and means for applying heat and pressure to the tapes at the transfer position.

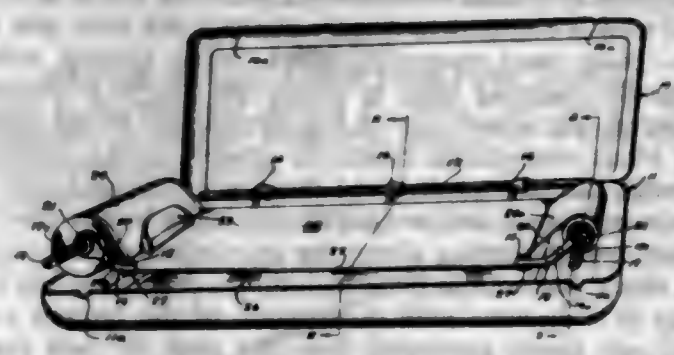
2,843,957

FOOT IMPRESSION DEVICE

Charles A. Hanington, Freeport, N. Y., assignor to The Scholl Mfg. Co., Chicago, Ill., a corporation of New York

Application May 5, 1955, Serial No. 506,244
8 Claims. (Cl. 41—4)

1. A foot impression device which comprises a pair of dish-shaped members arranged to define an elongated box-like container and to receive a recording element, said members being hinged along one side thereof, a frame disposed in the container and spaced slightly from the bottom thereof, a winding and reeling mechanism carried by said frame, a sheet of resilient material fixed



to and tensioned on the frame, and a roll supply of inked material supported at one end of the frame arranged to cooperate with the winding and reeling mechanism and provide a continuous supply of inked material beneath the fixed sheet.

2,843,958

APPARATUS FOR SURFACE TREATING AMPULS

William E. Hughes, Jr., Vineland, N. J., assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application June 8, 1956, Serial No. 590,203
5 Claims. (Cl. 41—9)



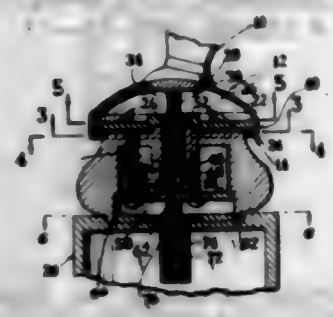
1. In combination a conveyor including an upwardly inclined straight section, said conveyor comprising a frame, a pair of continuously moving parallel horizontally spaced finger chains mounted on the frame for carrying glass ampuls in recumbent positions past a gas injecting station, said gas injecting station being located in the inclined straight section of the conveyor and the ampuls having open stem ends facing in the same direction with their axes normally at right angles to the path of travel of the chains, a stationary gas injector at said station positioned to direct gas generally horizontally into the open stem end of each ampul as it arrives at said station and means for accelerating the advancing movement of the stem end only of each ampul as it approaches the gas injecting station to thereby bring the open stem end into register with the injector prior to arrival of the body portion of the ampul at a position opposite the injector and hold the stem against further forward movement until the ampul body is directly opposite said injector.

2,843,959

ROTATABLE MOUNT FOR TROPHIES

Alfred John Flauder, Trumbull, Conn., assignor to Alexander M. Pistey, Bridgeport, Conn.

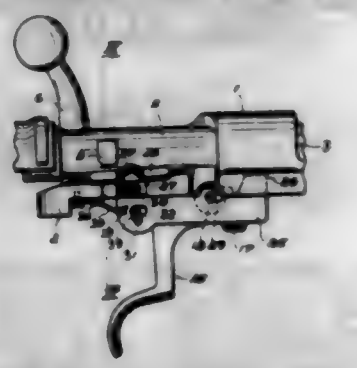
Application July 16, 1956, Serial No. 597,915
1 Claim. (Cl. 41—10)



A trophy comprising a supported object, a dome-shaped base rigid therewith, a bottom closure plate for the base, a hollow mounting block rotatably supporting the base and

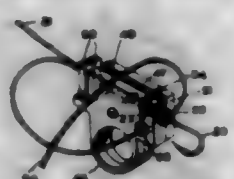
bottom plate, a closure disc on the lower end of the mounting block, and a pedestal connected to the closure disc, the base including a depending threaded stud, the bottom plate including an internally threaded sleeve in which said stud is engaged to fixedly connect the base and bottom plate, said mounting block being formed with a centrally disposed bore in which the sleeve is rotatably engaged, the connection of the closure disc to the mounting block comprising angularly spaced screws extending through the closure disc and threadedly engaged with the mounting block, one of said screws being longer than the others and projecting above the top surface of the mounting block, the bottom plate including a depending lug traveling in a circular path on rotation of the bottom plate, said one screw extending into the path of said lug to limit rotatable movement of the bottom plate and base in opposite directions to slightly less than three hundred and sixty degrees.

2,843,960
SAFETY DEVICE FOR FIREARMS
Sven Gunnar Olof Larsson, Huskvarna, Sweden, assignor to Husqvarna Vapenfabriks Aktiebolag, Huskvarna, Sweden, a corporation of Sweden
Application March 25, 1954, Serial No. 418,703
6 Claims. (Cl. 42—70)



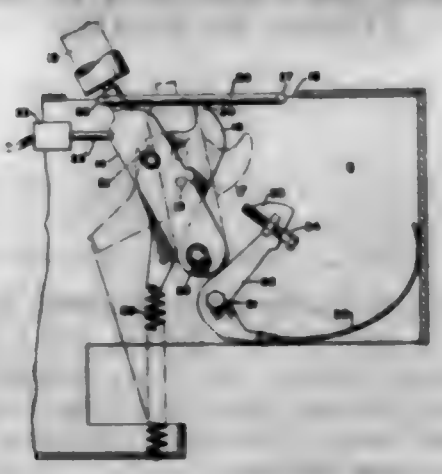
1. A firearm comprising in combination: a breech casing, a breech bolt rotatable and axially displaceable in said casing, an integral handle and an integral rear locking lug on said breech bolt, a forwardly directed bearing surface in said casing engageable by said locking lug when the breech bolt is in firing position, a firing member carried by said breech bolt, a sear pivotally mounted on said casing for releasably holding said firing member in its cocked position, a trigger pivotally connected with said sear whereby motion of the trigger rotates the sear to release the firing member, and a manually operable safety member mounted on said casing for movement substantially in the axial direction of the bolt into and out of locking position with respect to the sear, said member in its locking position engaging one side of said lug to lock the breech bolt against rotation when the latter is in firing position.

2,843,961
HOOK AND LEADER SUPPORTING STRUCTURE
James McKenzie Semple, Alexandria, Va.
Application January 6, 1954, Serial No. 402,508
6 Claims. (Cl. 43—1)



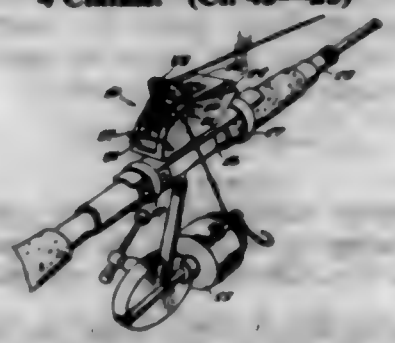
1. In a supporting structure for leadered hooks in which the leader is doubled back from the eye of the hook, a support body, a central slot running longitudinally of said body, a lateral slot disposed in said body at right angles to said central slot, a central recess let into said body in extension of said longitudinal slot and intersecting said lateral slot, strand holding means disposed adjacent the extremity of said longitudinal slot whereby a leadered hook may be inserted into said central recess at the extremity of said longitudinal slot and its doubled leader held under tension therein by said strand holding means, the free end of said leader being passed through said lateral slot under the shank of the hook for the tying of a knot thereabout.

2,843,962
FISHPOLE HOLDER MECHANISM
Joseph B. Porter, Cleveland, Ohio
Application August 16, 1956, Serial No. 604,406
3 Claims. (Cl. 43—15)



1. A fish catching device comprising a base, a spring biased latch member mounted on said base and having both a tension and a released position, a spring actuated pawl releasably engageable with said member and when engaged therewith holding same in the tension position, a fish pole support member movable about a pivot center from a rest to a fish caught position, one of said members having a cam surface, the other of said members having a follower adapted to be engaged by said cam surface when said spring biased member moves from the tension to the released position whereby to move the pole support arm from the rest to the fish caught position, said cam surface being curved and having a center of curvature when the spring biased member is in the tensioned position and the pole support member is in the rest position corresponding to the pivot center of said pole support member whereby said pole support member may move freely under the influence of external forces thereon, said spring actuated pawl having means engageable with said pole support member when said member moves in one direction to release said spring biased arm.

2,843,963
MECHANICAL FINGER FOR SPINNING REEL IN FISHING TACKLE
William C. Butchorn, Staten Island, N. Y.
Application May 21, 1957, Serial No. 660,560
4 Claims. (Cl. 43—25)



1. A mechanical finger for spinning type apparatus comprising, in combination, a housing, a latch pivotally supported within said housing, securement means associated with said latch and said housing for securing a

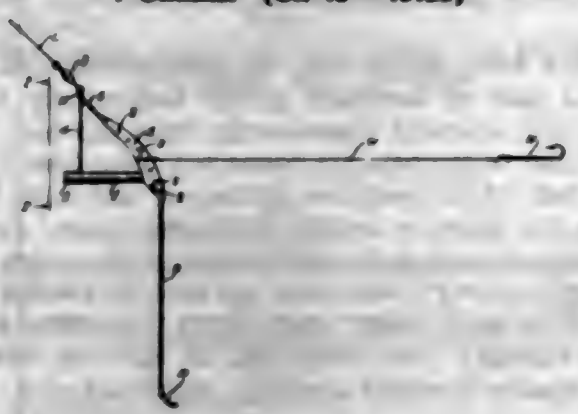
fishing line against movement relative thereto, and manually operated means associated with said latch and said housing for selectively releasing said line from said securement means, said latch including an upwardly disposed extension, said securement means comprising an indent in the forward end of said housing, said line in said secured position extending into said indent and around said forward end of said housing and around the rear side of said extension, said latch further comprising a thumb plate, and said manually operated means comprising a bail pivotally carried by said housing for rotation toward an engaged position with said thumb plate to secure said latch in a normal position with the rear side of said mechanical finger facing away from said forward end of said housing.

2,843,964
DETACHABLE COUPLING FOR FISHHOOKS AND THE LIKE
George W. Smith, Coal City, Ill.
Application April 27, 1955, Serial No. 504,277
8 Claims. (Cl. 43—42.44)



1. In a fishing lure, a hook having a shank with a spherical head portion, and a seating formation for said head portion on the lure and comprising two side-by-side, spaced-apart, circularly-extensive loops integrally connected and dimensioned to loosely receive and retain therebeween said spherical head portion with the shank thereof disposed in the space between said loops, each of the latter having a free end portion and one of said end portions being secured in the lure while the other and second one of said end portions terminates closely adjacent the first thereof to approximately close off entrance of the shank into said space between the loops, but is yieldable to permit forced entrance or retraction of the shank therepast in working said head portion into and out of seated position as aforesaid.

2,843,965
FISHING KITE
Roland A. Whitbeck, Lorain, Ohio
Application June 10, 1955, Serial No. 514,554
7 Claims. (Cl. 43—43.13)



1. A water kite comprising a vane having a forward, a rearward, and lateral edges, and smooth upper and lower faces, respectively, a rudder blade attached to, and disposed with its forward edge near the rear of the vane, said blade lying in a plane extending forwardly and rearwardly of the vane and bisecting the vane laterally and disposed at equal angles to the vane at each side respectively of its intersection therewith, and said blade having a forward edge extending upwardly and forwardly from the rear of the vane into overhanging relation to the upper face of the vane, attaching means at the upper end of the blade adapted for connection to a fish line, said blade having a plurality of holes distributed along its length.

2,843,966
DEPTH REGULATOR FOR FISH LURE
Wayne E. Ingram and Alfred W. Bell, Fort Worth, Tex., assignors to Marine Research, Inc., Fort Worth, Tex., a corporation of Texas
Application February 4, 1957, Serial No. 637,933
3 Claims. (Cl. 43—43.13)



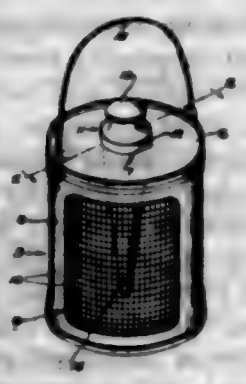
1. A depth regulator for a fish lure, said regulator comprising a vertical fin, a float on the upper portion of said fin, a stabilizing vane transversely secured to the lower portion of said fin, means adapted to facilitate the attachment of a lure to the rear edge of said fin, and means adapted to facilitate the attachment of a trolling line to the forward edge of said fin.

2,843,967
FISHING FLOAT
Hugo W. Kruse, Rockford, Ill., assignor of one-half to Edward A. Mornbech, Rockford, Ill.
Application March 21, 1955, Serial No. 495,737
6 Claims. (Cl. 43—44.95)



1. A fishing float comprising a body buoyant in water, a frame of light gauge spring wire comprising two loops disposed in approximately parallel spaced relationship to bear against opposed areas of said body and retain the same therebetween and means disposed along one side of the body for connecting the loops and biasing the same into clamping engagement with the body and means for attaching a fishing line to the frame.

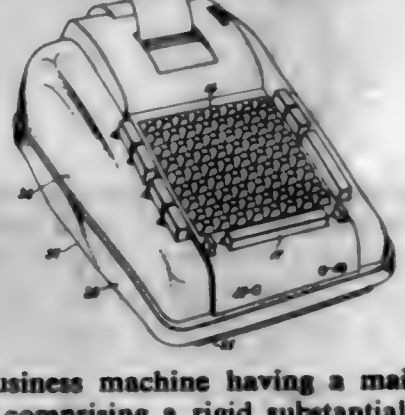
2,843,968
STORING AND DISPENSING APPARATUS FOR CRICKETS
Alfred G. Dohrer, Ceresco, Mich.
Application May 31, 1955, Serial No. 511,918
6 Claims. (Cl. 43—55)



1. In a live cricket storing and dispensing apparatus of the character described, wherein same has a cricket withdrawal opening in the upper portion of same, the combination therewith of a separately removable elon-

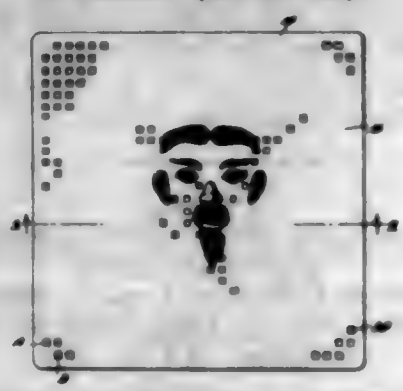
gated tapered closure plug for said opening, said plug having a portion outside of said dispensing apparatus which is larger than said opening while the portion of said plug inside of said dispensing apparatus is smaller than said opening to facilitate withdrawal from same.

2,843,969
MACHINE SUPPORTING STRUCTURE
Jiri M. Nessel, Los Angeles, Calif., assignor to Clary Corporation, San Gabriel, Calif., a corporation of California
Application December 31, 1956, Serial No. 631,926
7 Claims. (Cl. 45—68.1)



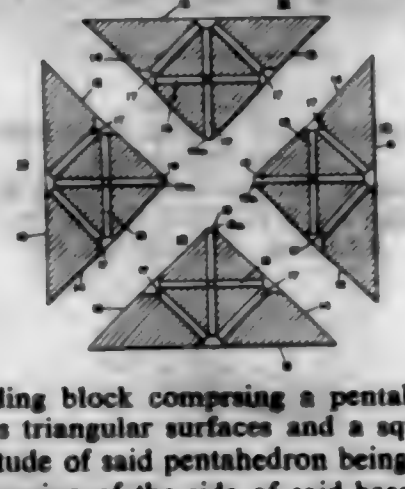
5. In a business machine having a main chassis, the combination comprising a rigid substantially rectangular frame open at its center and surrounding said chassis, a strip of vibration absorbing material located along the top of the sides and ends of said frame, a top cover surrounding the upper portion of said chassis and resting on said strip, a bottom cover surrounding the lower portion of said chassis and having upstanding sides and ends, a second strip of vibration absorbing material located along the top of said sides and ends of said bottom cover, said frame resting on said second strip, and means comprising vibration absorbing material for supporting said bottom cover.

2,843,970
TOY FOR FORMING CARICATURES OR THE LIKE
Henry P. C. Keels, Pittstown, N. J., assignor of one-fifth to Samuel Stearman, Washington, D. C.
Application December 7, 1953, Serial No. 396,536
2 Claims. (Cl. 46—16)



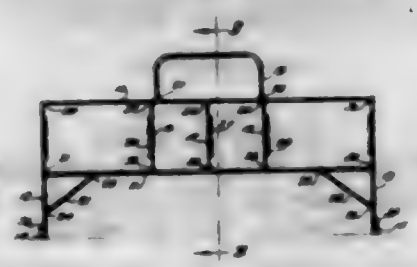
1. A caricature-forming toy comprising a base, said base comprising a self-supporting board providing a substantially mono-planar surface and having a multiplicity of pre-formed equal-sized apertures of square outline therein at predetermined spaced intervals in a plurality of intersecting rows, and a multiplicity of elements, each of said elements comprising an upper portion of irregular outline and cross-sectional contour, the outline and cross-sectional contour of certain of said elements differing from those of others thereof, said irregular outline and cross-sectional contours of said upper portions simulating parts of a human head, and a stem portion of circular cross-section and having its axis extending at a right angle to said upper portion, the upper end of said stem portion terminating in an annular shoulder of larger diameter than said end of the stem portion, and said stem portion being constructed for selective insertion in any one of said apertures of the base optionally at variable distances relative to one another and for firmly holding the elements in position in any of said apertures, whereby the elements thus positioned will form any one of a variety of facial caricatures.

2,843,971
CONSTRUCTION TOY BLOCK
Joseph G. Gardella, Philadelphia, Pa.
Application August 9, 1955, Serial No. 527,335
2 Claims. (Cl. 46—26)



1. A building block comprising a pentahedron having four isosceles triangular surfaces and a square base surface, the altitude of said pentahedron being equal to one-half the dimension of the side of said base surface, each of said surfaces having at least two bores extending from a common point at the center of the respective surfaces into the interior of said block toward opposite surfaces, and said block having an additional bore extending into the interior thereof along the altitude of said pentahedron, each of said bores providing means for receiving an elongated element.

2,843,972
FLORAL DESIGN RACK
Burleigh Cowart, Pascagoula, Miss.
Application June 19, 1956, Serial No. 592,362
2 Claims. (Cl. 47—41)



1. In a floral design rack, the combination which comprises a pair of vertically spaced horizontally disposed bars, posts extended downwardly from the bars and to which ends of the bars are connected, cross bars to which lower ends of the posts are connected, said cross bars retaining the posts in upright positions, spaced vertically disposed rods extended between the bars, angularly shaped members secured to said rods and posts in vertical spaced relation to each other and having upwardly disposed points extended from both sides of the rods and posts, and a handle extended upwardly from said rack.

2,843,973
APPARATUS USED IN COMPRESSION MOULDING OF OBJECTS OF GLASS AND LIKE MATERIAL
Georges Cignet, Reims, France, assignor to Ste: Verreries Charbonneaux, Reims, France, a French body corporate
Application February 1, 1955, Serial No. 485,491
Claims priority, application France February 8, 1954
19 Claims. (Cl. 49—36)

18. In an apparatus for compression moulding objects of a material such as glass and plastic materials capable

of being moulded hot, in combination: a stand; a movable horizontal table disposed on the latter; a lower part of a mould fixed to said table; a driving device for moving the latter and bringing said lower part of the mould into a position for receiving the material to be moulded, into a pressing position and into a position in which the moulded object may be withdrawn; disposed above said lower part of the mould when the latter is in its pressing position, an assemblage of members forming a press head which is vertically movable relative to the stand; a main motor for imparting a vertical reciprocating movement to said head; disposed at the base of the latter, a movable wall which forms the upper part of the mould and comprises on its bottom face projections and recesses for forming complementary recesses and projections in the object to be moulded, at least some of said projections and recesses being prone to bind on the moulded



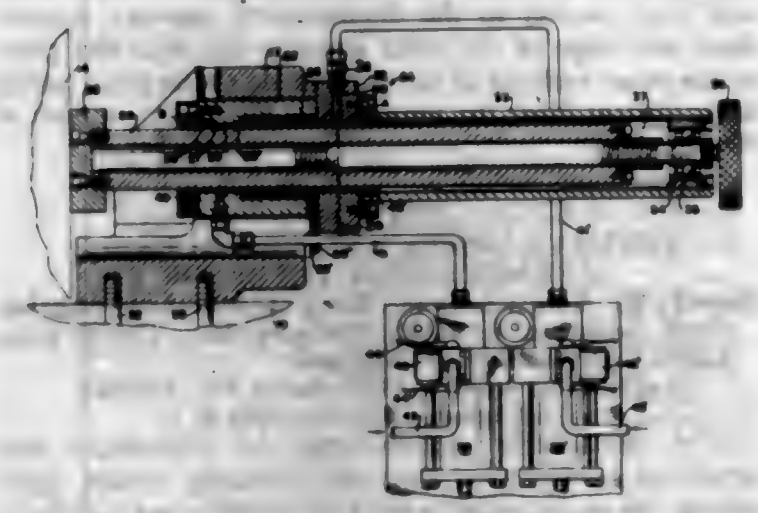
object when the latter shrinks, said wall comprising at least two separate pieces each of which is capable of individual movement relative to the rest of the press head, one piece comprising a peripheral obturating member adapted to be the first to enter into contact with said lower part of the mould so as to form a rim preventing the escape of the material when it is compressed, and the other piece comprising an element for compressing said material in the lower part of the mould; elastic devices connecting said obturating member to the press head so as to permit the latter to continue its downward movement when said obturating member encounters said lower part of the mould; and an auxiliary driving device independent of said main motor for imparting to said element a small withdrawing movement before said press head rises, when the moulded material has solidified sufficiently.

2,843,974

INCREMENTAL FEED MECHANISMS

Greig S. Butterworth, Cincinnati, Ohio, and Edward S. Silver, Brooklyn, N. Y., assignors to Airborne Instruments Laboratory, Inc., Mineola, N. Y., a corporation of Delaware

Application March 25, 1957, Serial No. 648,402
8 Claims. (Cl. 51—103)



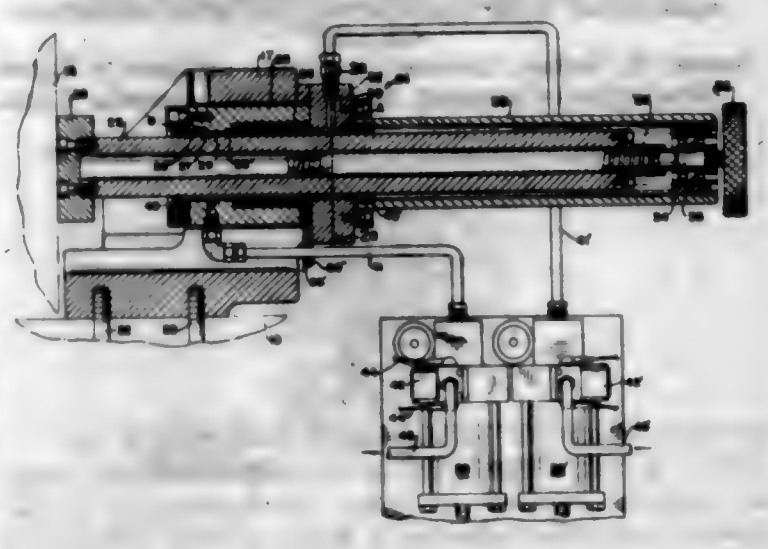
1. A precision incremental feed mechanism which comprises an elongated inner member, an outer member disposed about said inner member and relatively movable in the axial direction with respect to said inner member, a plurality of axially-spaced clamps each mounted on one of said members and releasably actuable to engage the other of said members in clamping relationship, displacement means for producing an incremental relative axial change of the surface elements opposed to said clamps, means for actuating said clamps and displacement means in sequence to produce an incremental relative axial movement between said inner and outer members, and a reversible coarse feed mechanism having driving and driven members connected to said inner and outer members to produce relative axial movement therebetween.

2,843,975

INCREMENTAL FEED MECHANISMS

Lawrence J. Kamm, San Diego, Calif., assignor to Airborne Instrument Laboratory Inc., Mineola, N. Y., a corporation of Delaware

Application March 25, 1957, Serial No. 648,403
14 Claims. (Cl. 51—103)



1. A precision incremental feed mechanism which comprises relatively movable inner and outer members, said outer member being disposed about said inner member and the contacting surfaces thereof having substantially axial symmetry, a plurality of axially-spaced clamps each having metallic clamping means substantially rigidly mounted on one of said members against movement in the axial direction, each of said metallic clamping means being arranged and movable to engage peripherally the opposed surface of the other member with substantially axial symmetry, means for removably applying to said metallic clamping means forces which are substantially symmetrical with respect to said axis, displacement means substantially symmetrically arranged with respect to said axis for producing an incremental relative change of the surface elements engaged by said clamps, and means for actuating said clamps and displacement means in sequence to produce an incremental relative movement between said inner and outer members.

2,843,976

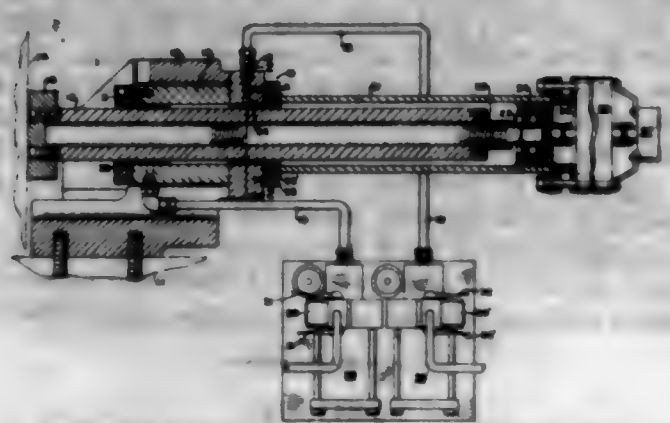
INCREMENTAL FEED MECHANISMS

Edward S. Silver, Brooklyn, N. Y., assignor to Airborne Instruments Laboratory, Inc., Mineola, N. Y., a corporation of Delaware

Application May 21, 1957, Serial No. 660,701
28 Claims. (Cl. 51—103)

1. A precision incremental feed mechanism which comprises a pair of relatively movable members, a plurality of clamps spaced apart in a predetermined direction and releasably actuable to clamp said pair of members together, driving means for applying force to one of said members at a region removed from the region thereof

between said clamps with respect to said predetermined direction, and means for actuating said driving means



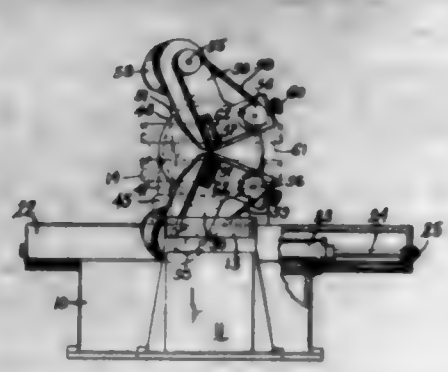
and actuating said clamps in sequence to produce an incremental movement between said members.

2,843,977

MACHINE FOR GRINDING DOUBLE HELICAL GEARS

Austin H. Kuhns, Greenwich, Conn., assignor to Farrel-Birmingham Company, Incorporated, Ansonia, Conn., a corporation of Connecticut

Application January 16, 1956, Serial No. 559,383
5 Claims. (Cl. 51—142)



1. A gear-grinding apparatus comprising an oscillatably supported table for supporting a gear blank, an endless abrasive belt, a set of three suitably supported rollers for supporting said belt and guiding it in a substantially triangular path, means for driving one of said rollers to cause the belt to move across the face of a tooth on the blank, means for moving the belt in a direction generally transverse to the direction of its travel across the face of the tooth and oscillating the gear blank in synchronism with said movement, one of said rollers being of small size and being positioned close to one edge of a tooth on the blank, and another of said rollers being positioned at a greater distance from the axis of the blank than said one roller to move the belt sharply away from the blank.

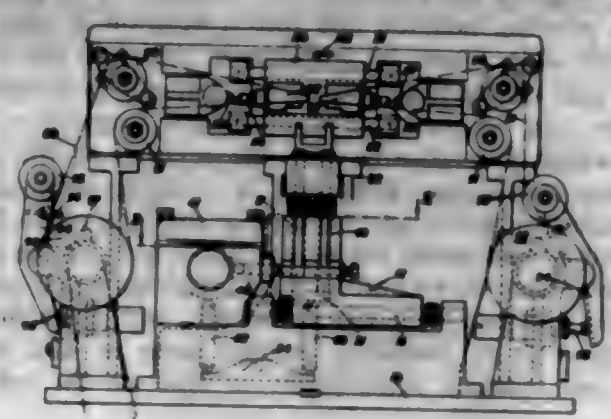
2,843,978

APPARATUS FOR USE IN MACHINING PARTS TO A PREDETERMINED SURFACE CONTOUR

Henry John William Huckstep and John Henry Burness, Liverpool, England, assignors to D. Napier & Son Limited, London, England, a British company

Application November 30, 1956, Serial No. 625,487
Claims priority, application Great Britain December 1, 1955
14 Claims. (Cl. 51—143)

1. Apparatus for machining a workpiece to a predetermined contour comprising a cutting member having an effective cutting surface which is substantially in the form of part of a surface of revolution, means for bringing the cutting member into engagement with the workpiece, and means for moving the workpiece relative to the cutting member in a predetermined manner, to provide the desired contour thereon, including a supporting platform to which the workpiece to be machined can be secured, a pair of supporting members pivotally connected to two spaced points on the platform each supporting member being constrained to move in two directions at right angles to one another and at right angles to the axis of revolution



of the cutting surface and held against rotation about the axis of the cutting surface, and including cam means controlling the movement of each supporting member independently in its direction of movement.

2,843,979

TUMBLING BARRELS AND SCREENS THEREFOR

Joseph Lupo, Mount Vernon, N. Y.

Application November 23, 1955, Serial No. 548,615
1 Claim. (Cl. 51—164)



A tumbling barrel for tumbling articles in an abrasive material, said barrel including a shell having end walls and a peripheral wall, said end walls having means for rotatably supporting the barrel and said peripheral wall being provided with a pair of diametrically opposed openings extending longitudinally thereof between the end walls, a removable closure member for each of said openings, a foraminous panel providing a screen insertable into the barrel through one of said openings so as to subdivide the interior of the shell substantially medially thereof into oppositely disposed compartments each extending longitudinally of the shell, and means on the interior of the shell slidably removably mounting the panel in the shell with one edge of the panel closely adjacent and parallel to one longitudinal side edge of one of the openings and the opposite edge of the panel closely adjacent and parallel to the diametrically opposed longitudinal side edge of the other opening and with the plane of the panel inclined at an acute angle to the plane which is equidistant from the longitudinal side edges of both of the openings.

2,843,980

ABRASIVE WHEEL AND REPLACEABLE ABRASIVE UNIT THEREFOR

Russell W. Bernstein and Aleck Block, Los Angeles, Calif., assignors to Merit Products, Inc., Culver City, Calif., a corporation of California

Application April 8, 1957, Serial No. 651,509
11 Claims. (Cl. 51—193.5)

6. A replaceable abrasive unit for cylindrical hub structures having axial slots and retaining means, comprising: an anchor plate; a stack of flexible sheet members, said stack being divided at one margin to straddle said anchor plate, said sheets having limited compressibility in a direction transverse to said stack; and a plurality of

staples extending transversely through said stack and anchor plate, each staple securing said sheets in a compressed condition to lock said sheets in said stack and to



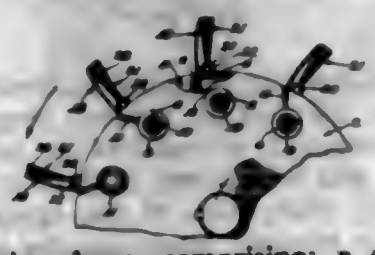
said anchor plate; said anchor plate protruding from said stack to fit a slot of said hub structure and having means for engagement by said retaining means.

2,843,981

ABRASIVE DRUM

Aleck Block, Los Angeles, Calif., assignor to Merit Products, Inc., Culver City, Calif., a corporation of California

Application March 27, 1957, Serial No. 648,876
10 Claims. (Cl. 51—193.7)



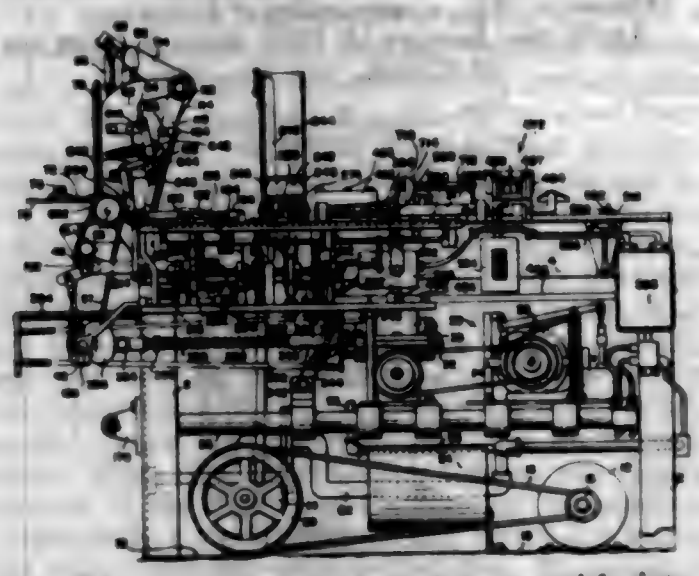
1. An abrasive drum, comprising: a drum structure including end plates and a plurality of storage tubes extending axially between said end plates and spaced equally from a common center; a tubular spindle in each storage tube; each storage tube, its spindle, and at least one of said end plates having axial slits adapted to register; abrasive sheets, each having a retainer element along one margin adapted to be slipped endwise into a spindle as the adjacent margin of said sheet is slipped endwise into the corresponding storage tube; and means for rotating said spindles to wrap said abrasive sheets thereon.

2,843,982

INSERTING APPARATUS

Alten E. Whitecar, Westville, N. J., assignor to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania

Application May 29, 1953, Serial No. 358,285
25 Claims. (Cl. 53—55)



5. Inserting apparatus for inserting an article into a cover sheet comprising means for making a lower fold in a cover sheet and inserting a portion of an article therein, means for heat sealing portions of the cover sheet adjacent to the fold to the portion of the article contained therein, means for making an upper fold in the cover sheet and tucking the upper edge of the upper folded portion of the cover sheet under the upper edge of the lower folded portion of the cover sheet, means for advancing cover sheets successively to each of said means, means for feeding successive cover sheets and articles to the first mentioned means, means for actuating each of said means, and means for sensing the passage of cover sheets and articles and for arresting operation of the actuating means upon failure of the feeding means to properly feed a cover sheet and an article.

2,843,983

MACHINE FOR PANNING DOUGH IN THE MAKING OF BREAD AND THE LIKE

Irving M. Archer, Dallas, Tex., assignor to Campbell Taggart Research Corporation, Dallas, Tex., a corporation of Missouri

Application March 22, 1954, Serial No. 417,897
17 Claims. (Cl. 53—74)



1. In a machine for transferring an article from an upper level to a lower level including, a pair of rollers, means supporting the rollers in parallel relation for planetation about an axis of rotation extending between and parallel with the axis of the rollers and between said levels, coiled metal belts extending around the rollers to provide a moving support for the article, a driving member at the axis of rotation, driven members connected with the respective rollers, a driving connection between the driving and driven members to actuate said belts to carry the article in the direction of one of the rollers, detent means engageable with the roller supporting means to prevent rotation on said axis until an article has been deposited on said belts, an actuating means connected with the detent means, an electrical circuit connected with the detent actuating means, and a contact rod extending transversely under upper runs of the belts and connected into the electric circuit to close said circuit by contact of the belts under weight of the article for closing the electrical circuit to the actuating means for effecting release of the roller supporting means to allow rotation of the roller supporting means for discharging the article to said lower level.

2,843,984

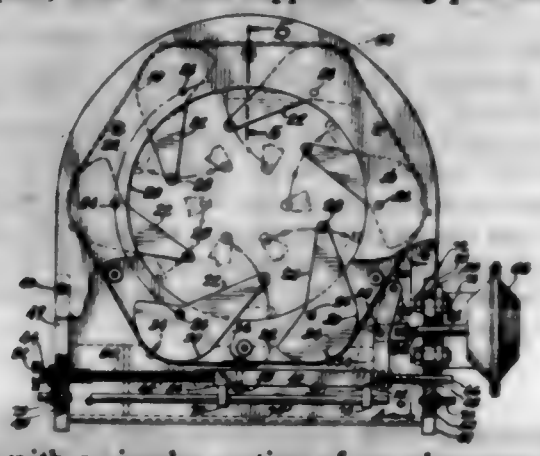
APPARATUS FOR PACKAGING ENVELOPMENT

Leon T. Dunning, Ajax, Ontario, Canada, assignor, by mesne assignments, to Union Carbide Canada Limited, Toronto, Ontario, Canada, a corporation of Canada

Application May 17, 1955, Serial No. 509,015
4 Claims. (Cl. 53—184)

1. An apparatus for use in packaging of an item in an elastic bag whose normal diameter is less than that of said item, which comprises a frame having an opening through which the item is to be passed, a plurality of finger supports, each of said finger supports being pivotally mounted intermediate its ends on a pivot secured to said frame, said pivots being arranged in spaced relationship about said opening, an individual cantilever stretching finger disposed at right angles and secured

adjacent the inner end of each finger to provide a passage into which an item passing through said central opening will pass, each of said supports being provided at its



outer end with a circular section of an edge cam, a band encircling all the edge cams and secured to each section, and means to rotate said band in either direction.

2,843,985

DISPENSING PRESSURE CAN FOR TENNIS BALLS

Hyman Ritzenberg, Arlington, Va.

Application February 8, 1955, Serial No. 486,803
3 Claims. (Cl. 53—235)



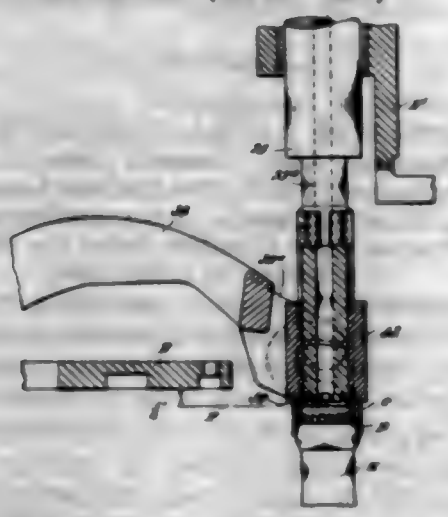
1. A dispenser for tennis balls, comprising a container, a removable self-sealing top covering an opening in said container for admitting tennis balls to said container, said top being sealed by pressure from within said container, means for arranging said contained tennis balls in a progression, means for dispensing said tennis balls in order of said progression, said means being operable from without said container, and a removable ball receiver normally held in sealing relation with said container.

2,843,986

BAND HEIGHT POSITIONER FOR BANDING MACHINES

Sidney T. Carter, Shrewsbury, Mass., assignor to Geo. J. Meyer Manufacturing Co., Cudahy, Wis., a corporation of Wisconsin

Application April 27, 1956, Serial No. 581,043
17 Claims. (Cl. 53—291)



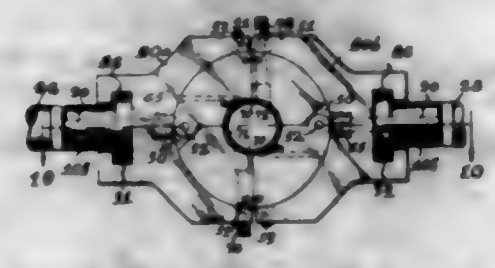
1. Apparatus for applying shrinkable bands to the necks of bottles, said apparatus being of the kind wherein the open band is supported on a generally cylindrical holder directly above and in axial alignment with the bottle and is moved axially downward, from off the holder, until it embraces the bottle neck by an applying element which engages the upper edge of the band, and wherein the bottle rests upon a support below the holder while being banded, in combination, means for moving the applying element relatively to the holder, and means, carried by the applying element, engageable with the bottle so to limit downward motion of the applying element that the trailing edge of the band, when first applied, is always located a predetermined distance from the horizontal plane of the top of the bottle regardless of the height of the bottle.

2,843,987

CAPSULE CRIMPING APPARATUS

Michael A. Lavigne, Verdun, Quebec, Canada

Application September 6, 1956, Serial No. 608,221
16 Claims. (Cl. 53—346)



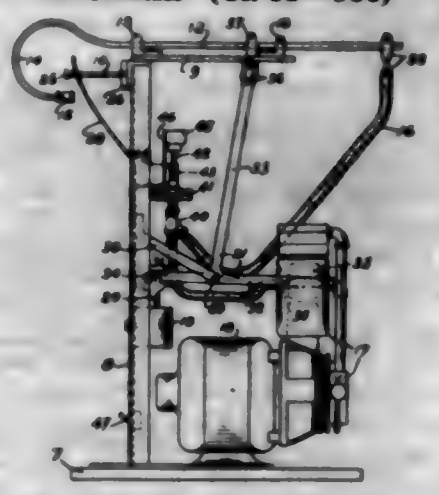
1. An apparatus for crimping deformable metal foil capsules about the neck of a bottle comprising, a pair of opposed crimping jaws mounted for reciprocal movement towards and away from each other in a substantially horizontal plane, each of said opposed jaws being in two centrally hingedly interconnected portions having inner surfaces constituting semi-circular segments which when combined in closed position provide an internal contour of circular conformation corresponding to the external contours of a bottle, a resilient lining in each of said jaws inner surfaces adapted to engage a capsule covering the surface of the upper portion of a bottle placed between said jaws as they are moved towards each other, the advance of said jaws into contact with a bottle being adapted to compress said resilient lining whereby said jaws meet centrally along a diametric center line relative to said bottle and completely surround the upper portion of said bottle to crimp a deformable capsule placed thereon into sealing contact therewith.

2,843,988

APPARATUS FOR OPENING BAGS

Walter S. Thompson, East Lansdowne, Pa., and Sky Rosen, New York, N. Y., assignors to Millprint, Inc., Milwaukee Wis., a corporation of Delaware

Application January 10, 1955, Serial No. 480,966
10 Claims. (Cl. 53—386)



1. A bag opening device comprising, a main upright supporting frame, a spindle mounted on said frame and

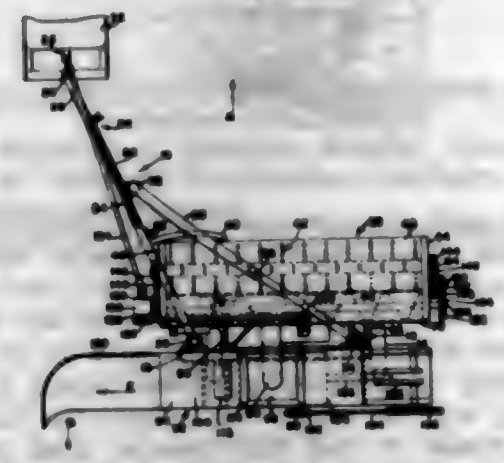
projecting laterally therefrom for suspending a bag to be opened by the mouth portion thereof, means forming a conduit carried by said frame and having one end thereof extending outwardly beyond the end of said spindle for reciprocable movement longitudinally of said spindle and toward and away from the outer wall of the bag, means for creating a suction through said reciprocably movable means during movement thereof away from the bag for opening the same, and means responsive to pressure variations in said conduit forming means for reciprocating the same.

2,843,989

COMBINED HARVESTER AND BALER

Marcus E. McClellan, Ottumwa, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa

Application February 18, 1955, Serial No. 489,036
12 Claims. (Cl. 56—1)



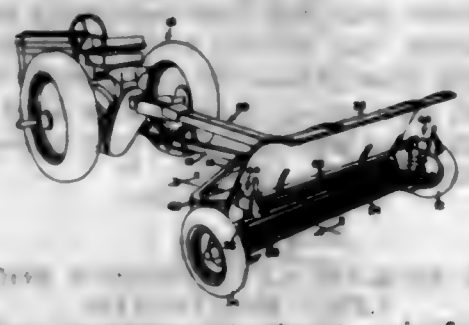
1. A combined harvester and baler, comprising: a mobile main frame adapted to advance over a field of crops; crop-gathering and reducing means carried by the main frame and including a rotor having an elongated shaft mounted with its axis transverse to the line of advance and a plurality of flail-like crop-reducing members carried by and projecting radially from the shaft throughout the length of said shaft, said rotor being rotatable to cause the flail-like members to sweep downwardly and longitudinally to sever the crops from the field and to simultaneously reduce the crops and then to sweep upwardly to lift the severed and reduced crops for transfer thereof rearwardly, said crop-gathering and reducing means including a hood over the rotor to confine the lifted crops and to guide them to the rear, said hood including a rear crop outlet substantially coextensive in length with the rotor; transverse conveyor means on the main frame rearwardly of and substantially coextensive with the crop outlet for receiving crops from the rotor via said outlet, said conveyor means including a relatively narrow rearwardly disposed discharge opening and said conveyor means further including crop-engaging conveyor elements operative to move the received crops transversely to and rearwardly through said discharge opening; blower means carried by the main frame and including a housing having an inlet aligned with and for receiving crops from the aforesaid discharge opening, an outlet and a rotary fan operative to propel the crops forcefully through said outlet; baling means on the main frame, including a bale case having a feed opening aligned with and for receiving crops directly from the blower means outlet so that such crops are preliminarily compacted in the bale case from the force of the crop discharge from the blower means outlet, and baling mechanism in the bale case for forming the received and preliminary compacted crops into bales; and means on the main frame for driving the rotor, the conveyor elements, the blower fan and the baling mechanism.

2,843,990

HAY CONDITIONER ROLL MOUNTING AND ADJUSTMENT MECHANISM

Wilbur J. Coultas, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois

Application March 23, 1956, Serial No. 573,373
11 Claims. (Cl. 56—1)



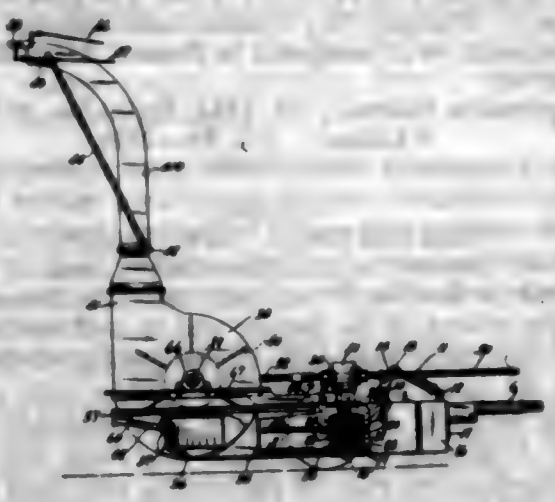
1. In a hay conditioner having a main frame including a pair of horizontally spaced apart supports: roll-mounting and adjusting mechanism, comprising a first horizontal roll journalled at opposite ends on the supports; a second roll closely paralleling the first roll and having opposite ends respectively adjacent the supports; a pair of upright carriers respectively adjacent to the supports, each carrier having a lower end journaling the adjacent end of the second roll, an intermediate portion pivoted on the adjacent support on a transverse axis parallel to and above the second roll, and a terminal upper end, said carriers being selectively swingable in opposite operative and release directions about said axis to move the second roll respectively toward and away from the first roll; a pair of links connected respectively to the upper ends of the carriers and extending in parallelism away from the carriers; a bracket rigid on each support and having an aperture through which the associated link extends to a terminal end beyond said bracket; a pair of coiled compression springs carried respectively by the links between the brackets and the terminal ends of the links; and a pair of reaction members carried respectively by the terminal ends of the links, each spring being normally engaged by and confined between a bracket and the associated reaction member each member being movably carried by its link for selective positioning to normally compress and load the associated spring between said member and the associated bracket for biasing the associated carrier to swing in its aforesaid operative direction or to unload said spring to free said carrier for swinging in its release direction.

2,843,991

ROTARY CUTTER AND SHREDDER

Clarence E. Poehls, Algoma, Wis., assignor to Algoma Foundry & Machine Company, Algoma, Wis., a corporation of Wisconsin

Application June 27, 1956, Serial No. 594,283
3 Claims. (Cl. 56—23)



1. The combination with a rotary mower comprising a generally upright mower shaft provided with blades which

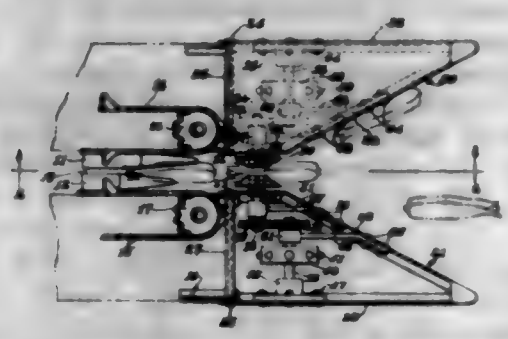
describe a substantially horizontal circular path in the course of shaft rotation, a housing enclosing said blades and having means defining a discharge passage opening from said housing and extending approximately tangentially from said path, and a generally cylindrical blower housing with a substantially tangential outlet duct and having a blower shaft and rotor operatively mounted for rotation therein, said housing being disposed in a generally upright plane which lies substantially on a chord of said path and having an inlet at a level below the axis of said rotor and to which said passage-defining means extends.

2,843,992

EAR PICK-UP ATTACHMENT FOR A CORN HARVESTER

Frank D. Jones, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois

Application July 29, 1957, Serial No. 674,824
7 Claims. (Cl. 56—104)



1. On a corn harvester movable forwardly over a field of row planted corn and having harvesting mechanism forming a stalk passage for successively receiving the stalks of corn as the harvester moves over a row of corn the improvement residing in ear pick-up means comprising: a pair of cooperating rotatable ear pick-up elements on opposite sides of the passage and forwardly of and adjacent to the harvesting mechanism, each of said elements having means thereon for aggressively picking up ears of corn proximate to the ground and dispatching them rearwardly to the harvesting mechanism, and each of the elements being mounted on a respective transverse shaft extending outwardly relative to the passage; a pair of ground engaging wheels on opposite sides of the passage operative to rotate in response to forward movement of the harvester; wheel supporting shafts mounted on the harvester and fixed to the wheels to rotate in unison with the wheels; and transmission means between the wheel-supporting shafts and the transverse shafts for rotating the rotatable elements.

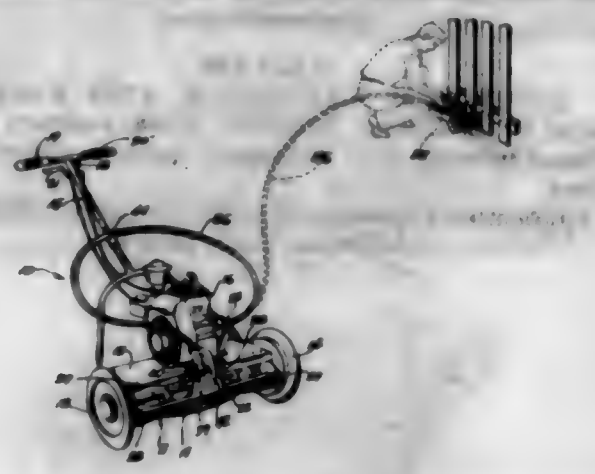
2,843,993

TRIMMER ATTACHMENT FOR POWER MOWER

William C. Gleisner, Jr., Lisbon, and Rudolph J. Wild, Wauwatosa, Wis., assignors to Francis J. Trecker, West Allis, Wis.

Application February 16, 1954, Serial No. 410,516
4 Claims. (Cl. 56—238)

1. In a manually manipulable grass trimming attachment for utilization with a power lawn mower having a rotatable cutting reel and a source of power connected to operate the mower and the cutting reel, a trimmer head unit, a flexible drive shaft operably connected to the power source of the mower and to said trimmer head unit to drive said head unit independently of the operation of the lawn mower and the cutting reel, a pair of brackets attached to the mower and disposed thereon so that a bracket is positioned on each side of the mower beyond the ends of the cutting reel, said brackets being provided with openings, means on said head unit adapted to be freely receivable within the openings in said brackets to unconstrainably support said head unit on the mower in position so that said trimmer head unit may serve as an independently driven secondary cutter for the mower for topping weeds and the like, snap acting retaining means manually actuatable for instant operation to retain said trimmer head unit on the mower in a weed topping position and instantly releasable to free said trimmer head unit so that it may be readily removed from said brackets for use as a manually manipulable independently power operated grass trimmer remotely from the mower irrespective of the operation of the mower and the cutting reel, and a



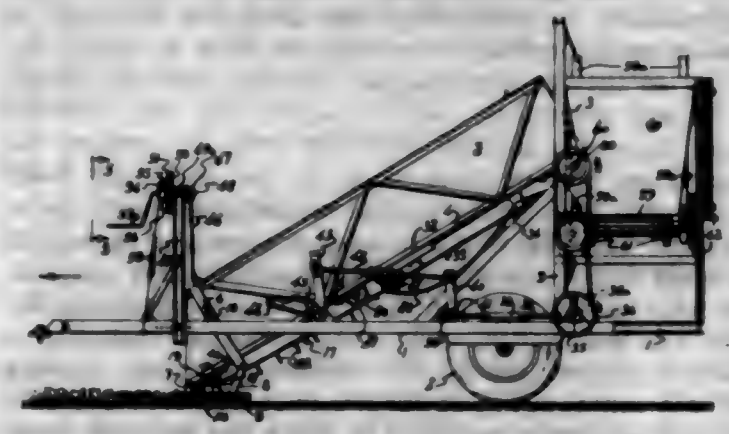
handle on said trimmer head unit to facilitate manual manipulation of said trimmer head unit in an independent trimming operation, whereby said trimmer head unit may be placed in said brackets on the mower and said head unit retained thereon in position to serve as an auxiliary independently operable cutter for the mower or the operator may stop the mower and release the snap acting retaining means to free said trimmer head unit from the mower and then by simply grasping the handle of said head unit out of said brackets to employ the head unit in a grass trimming operation remotely of the mower.

2,843,994

VEGETABLE TOP CLEANING MACHINE

Joseph P. Gomes, Greenfield, Calif.

Application July 6, 1956, Serial No. 596,181
4 Claims. (Cl. 56—345)



1. A vegetable top cleaning machine comprising a main supporting frame having supporting ground wheels, an inclined sub-frame pivotally mounted at its upper rear end on the main frame, the forward end of the sub-frame being adjustable upwardly and downwardly, an inclined vegetable top supporting bed mounted on the sub-frame and having a plurality of laterally spaced apertures therein, adjustable members positioned beneath the bed and arranged to close the apertures in the bed when in one of their adjusted positions, a plurality of endless conveyor chains arranged in substantially parallel relationship and mounted for upward movement over the bed, a plurality of projecting spikes carried by the chains and arranged to engage with and pick up loose vegetable tops from the ground beneath when the forward end of the sub-frame

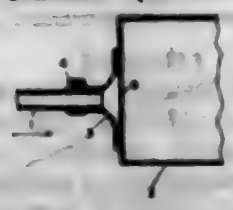
is in a downwardly adjusted position and as the machine moves forwardly, the said spikes being adapted to carry the vegetable tops onto the bed and upwardly over the same, an apertured endless conveyor mounted on the sub-frame and arranged to receive vegetable tops discharged by the spikes from the bed, means supported on the main frame and connected to the forward end of the sub-frame for adjusting upwardly and downwardly the lower end of the sub-frame, a driving shaft mounted on the main frame and arranged for adjustment toward and away from the ground wheels, driving drums keyed to the driving shaft and arranged to operatively engage with the ground wheels when the driving shaft is adjusted toward such ground wheels, means connecting the driving shaft and the forward end of the sub-frame whereby when the forward end of the sub-frame is adjusted downwardly the driving drums will operatively engage with the ground wheels, and means synchronized with the driving shaft and the endless chains and the endless conveyor for simultaneous operation thereof.

2,843,995

THREAD SUCTION INSTALLATIONS FOR SPINNING MACHINES

Joachim Furstenberg, Esslingen Neckar, Germany, assignor to Prosumafil Corporation, Charlotte, N. C., a corporation of Delaware

Application October 9, 1952, Serial No. 313,881
5 Claims. (Cl. 57—34.5)



1. A thread suction arrangement for use with a textile spinning frame including spindles and drafting rollers, said arrangement comprising: a plurality of suction members adapted to be placed adjacent the spindles of the spinning machine, said suction members being freely retractable in an axial direction away from the drafting rollers of the spinning machine; a common collecting conduit extending between said suction members; and resilient hollow sealing elements connected to the suction members and the conduit, forming a connecting passageway therebetween, said sealing elements forming an overcenter connection between the suction members and the collecting conduit, wherein upon initiation of axial retraction of the suction member, the conduit is elastically deformed to aid in this retraction, and upon initiation of movement of the suction member to its operative position, the conduit aids in return of the member to its operative position.

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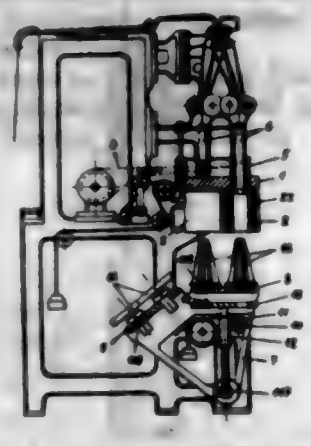
SHIFTABLE BOTTOM PLATE AND CHEESE CARRIER FRAME FOR BOTTOMLESS SUSPENDED SPINNING CANS

Adriano Gardella, Genoa, Italy

Application February 9, 1956, Serial No. 564,563
Claims priority, application Italy February 18, 1955
8 Claims. (Cl. 57—76)

1. A centrifugal spinning frame comprising a bottomless suspended spinning can, a bottom plate under said can and having a friction surface thereon, a member rotatably supporting said bottom plate, said supporting member being axially shiftable away from and towards said can to engage said bottom plate friction surface with the edge of the can, and laterally shiftable supporting means for said supporting member so as to shift said bottom plate laterally away from and towards the axis of the can.

3. A spinning frame according to claim 1 in which said shiftable supporting means comprises a swinging frame, said supporting member being supported on said frame, and cheese carrier means on which the formed thread cheese is discharged from the spinning can and also freely supported on said frame, said frame being swingable to selectively dispose said bottom plate and



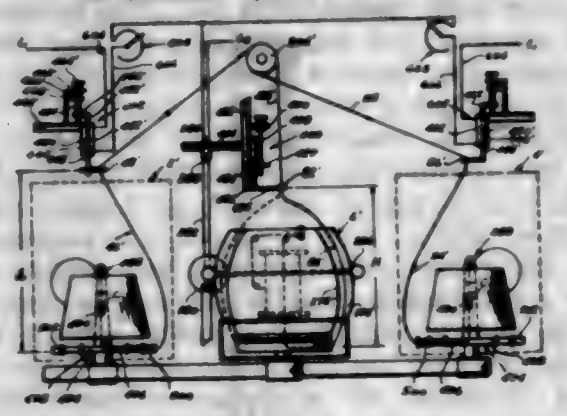
cheese carrier means in axial alignment with said can, said reciprocating means being operative to reciprocate said cheese carrier means as well as said bottom plate supporting member when either is axially aligned with said can.

2,843,997

TWISTING SPINDLE BALLOON CONTROL

Alfred W. Vibber, Ridgewood, N. J.

Application May 8, 1951, Serial No. 225,209
10 Claims. (Cl. 57—58.55)



2. A strand-forming machine comprising a plurality of singles twisters, means for doubling the strands issuing from the singles twisters into a plied strand, each of said singles twisters effecting a twisting operation in a first free-flying balloon, said doubling means effecting a twisting operation in a second free-flying balloon, the machine balancing the sum of the tensions in the first balloons against the tension in the second balloon at medial dimensions of such balloons, means responsive to changes in the diameter of the second balloon, and means operative in response to said means responsive to changes in the diameter of the second balloon to vary the tension of the elongated flexible material in the first balloons, thereby to restore the balance of the first and second balloons, said last named means including means to vary the height of the first balloons.

2,843,998

YARN TWIST CONTROLLER

Otto W. Schlums, Whitinsville, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts

Application February 5, 1957, Serial No. 638,393
3 Claims. (Cl. 57—59)

1. In an up-twister having a driven spindle supporting and rotating a yarn package and having means to withdraw yarn upward from said yarn package, in combination, a controller comprising a control unit having a cross passage to receive yarn from said package and having an axially-disposed and upwardly-opening yarn delivery port,

and said yarn controller being rotatably mounted on the spindle and comprising a hollow cylindrical wall portion with vertically extended and diametrically opposed



slots therein, and with a cross-pin mounted in said wall portion and extending from said to side of said wall portion and perpendicular to the plane of said slots.

2,843,999
ELECTRIC CLOCK
Gordon R. Smyth, Chicago, Ill., assignor to Rubber Products, Inc., a corporation of Illinois
Application November 30, 1953, Serial No. 394,985
6 Claims. (Cl. 58—2)



1. A clock provided with a hollow annular casing, a ring gear in the hollow interior of the casing, a stationary disc secured to the back of the casing, clock hands mounted on the disc for rotation about the axis of the gear, a resilient wire secured to the tip of one of the hands and tensioned to press against the side of the gear with sufficient force to create a driving connection for that hand, and a driving connection between the hands to cause one of them to function as the minute hand and the other as the hour hand.

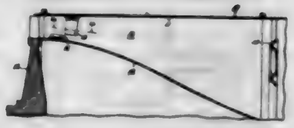
2,844,000
GASOLINE ENGINE EXHAUST FLAME ARRESTOR
Alton Bayne Neild, Jr., Glen Burnie, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application December 9, 1954, Serial No. 474,307
3 Claims. (Cl. 60—29)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In combination with a gasoline driven engine exhaust system, an after-fire arresting device comprising an elongated tube closed at one end and having an inlet adapted for attachment to said exhaust system, an elongated plate member within said tube and extending longitudinally thereof, whereby the tube is divided into two elongated passageways extending substantially the length thereof; said tube having formed therein, at spaced intervals, a plurality of flame dispersion holes for breaking flame into a number of small components, said holes having a total cross-sectional area at least as great as the



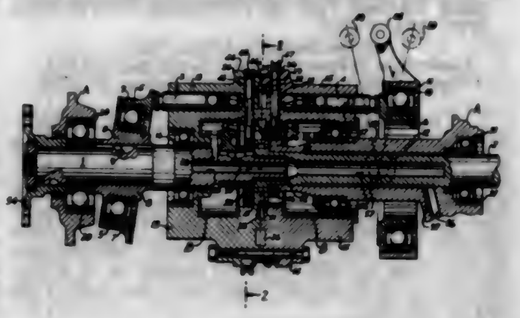
cross-sectional area of said inlet, a fine mesh screen encompassing said tube and means for spacing said screen from said tube, said screen being of a size capable of confining said small flame components within said screen.

2,844,001
FLOW STRAIGHTENING VANES FOR DIFFUSER PASSAGES
Joseph S. Alford, Cincinnati, Ohio, assignor to General Electric Company, a corporation of New York
Application January 6, 1953, Serial No. 329,859
11 Claims. (Cl. 60—35.6)



1. In a diffusing structure for a turbomachine, diverging wall surfaces defining an annular passage, in combination with corotating vortex generating and straightening means carried by said surfaces downstream of said turbomachine, said means comprising vanes extending from said surfaces toward each other, tips of opposing vanes terminating at approximately the same radial location in the annular passage adjacent at least one of said surfaces so that tip vortices of adjacent vanes from opposing surfaces provide boundary layer control.

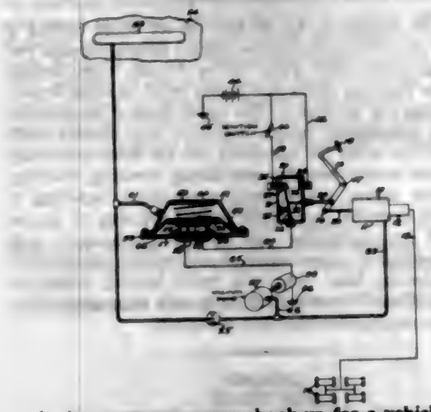
2,844,002
HYDRAULIC PISTON PUMP, PARTICULARLY SUITABLE FOR DIFFERENTIAL HYDRAULIC TRANSMISSIONS
Franco Pavesi, Milan, Italy
Application May 8, 1953, Serial No. 353,850
Claims priority, application Italy May 13, 1952
2 Claims. (Cl. 60—53)



1. In a hydraulic piston pump having a rotatable shaft, a cylinder block disposed about said shaft, said block

being provided with a plurality of cylinders and with a plurality of pistons reciprocally displaceable therein, said shaft carrying wobble plate means inclined relative to the axis of said shaft and successively engageable with said pistons to reciprocate the same sequentially upon rotation of said shaft; a valve block connected with said cylinder block, said valve block being provided with a plurality of circumferentially spaced holes extending radially of said shaft and with a pair of spaced annular chambers disposed concentrically about said shaft, said holes communicating with said cylinders, respectively, and with said spaced chambers, the point of communication of each hole with its respective cylinder lying intermediate its points of communication with said chambers, a valve disposed within each hole for reciprocal movement therein radially of said shaft and provided with a reduced portion intermediate a pair of ends, said valves selectively sealing off the communication between said holes and one of said chambers, respectively, a cam ring arranged eccentrically on said shaft and operatively and successively contacting the adjacent ends of said valves as said shaft rotates relative to said valve block, a recall ring disposed about said shaft and spaced therefrom, said recall ring operatively contacting the other ends of said valves, said cam ring and said recall ring being spaced from each other by the length of each valve, whereby said reciprocal movements of said valves within said holes are governed by said cam ring and said recall ring.

2,844,003
EMERGENCY POWER HOOK-UP FOR BOOSTER BRAKE MECHANISMS
Jeannot G. Ingres, Dearborn, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application August 31, 1953, Serial No. 377,462
6 Claims. (Cl. 60—60)



1. An emergency power hook-up for a vehicle booster brake mechanism wherein such mechanism has a fluid pressure operated booster motor, a brake pedal for controlling such motor and a pipe line connected between the booster motor and a normal source of pressure differential, said hook-up comprising an emergency pressure fluid pump adapted for connection to said pipe line, an electric motor for driving said pump, and means controlling said electric motor, said means comprising a differential pressure-responsive device communicating with said source and including a switch biased to closed position to energize said electric motor, said fluid pressure responsive device being responsive to pressure in said source to hold said switch open when such pressure is present, a second switch in series with said first mentioned switch and arranged to be closed by the brake pedal when the latter is released, and ignition switch means connected in series with said second named switch.

2,844,004
SYSTEM FOR STARTING FORCED FLOW STEAM GENERATORS INCLUDING A PLURALITY OF RESUPERHEATERS
Hans Vogler, Winterthur, Switzerland, assignor to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application June 1, 1954, Serial No. 433,746
Claims priority, application Switzerland August 31, 1953
3 Claims. (Cl. 60—73)



2. In a steam power plant having a plurality of turbines operating at different steam pressures, a forced flow steam generator for producing steam of at least the critical pressure, said steam generator including a combustion gas passage having zones of different temperatures, steam generating tubes and steam superheating tubes located in said gas passage, said steam generating tubes having an inlet, said superheating tubes being connected with said generating tubes for receiving steam therefrom and having an outlet, a steam main connecting the outlet of said superheater with a first one of said turbines, a plurality of resuperheaters individually interposed for steam flow between said turbines and being individually placed in different temperature zones of said combustion gas passage, a first conduit by-passing said first turbine and interconnecting said steam main with the inlet of that one of said resuperheaters which is located in the relatively hottest zone of said gas passage, a second conduit connecting the outlet of said resuperheater which is located in the relatively hottest zone of said gas passage with the inlet of said steam generating tubes, said second conduit by-passing said turbines except said first turbine and by-passing at least one of said resuperheaters which is located in a relatively cold zone of said gas passage, and control valves in said conduits for closing said conduits during normal operation of the steam generator and for opening said conduits during starting of the steam generator.

2,844,005
JETTY INSTALLATION
George W. Rehfeld, Manhattan, Kans.
Application March 24, 1955, Serial No. 496,534
3 Claims. (Cl. 61—3)



1. A jetty installation for protecting the bank of a stream from erosion including a plurality of spaced apart

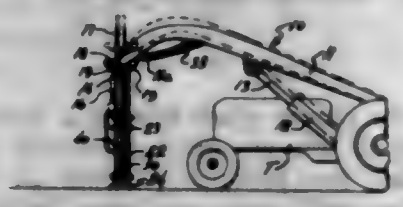
parallel lines of jetties extending transversely relatively to the bank of the stream and having ends remote from the stream and opposite ends in position to be underwashed by water of the stream, anchors connected with said remote ends of the lines of jetties, a tie line extending across the lines of jetties intermediate said ends to provide a substantially fixed section of jetties and a movable end section of jetties in each of said lines of jetties, said movable end sections being adapted to maintain ground contact separately of the fixed sections.

2,844,006

POST DRIVER ATTACHMENT

Mac W. Lutz, Minneapolis, Walter W. Wolfe, Mound, and Robert C. Johnson, Hopkins, Minn., assignors to Superior Separator Company, Hopkins, Minn., a corporation of Delaware

Application March 7, 1955, Serial No. 492,488
8 Claims. (Cl. 61—73)



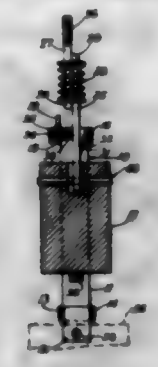
1. In apparatus for use with a tractor having a source of power and an attachment support, a post driver attachment having in combination a support frame, elongated guide members affixed to said support frame and depending therefrom, swingable interconnecting means connected with said frame and connectible to such an attachment support for supporting said frame thereon and permitting pendulum swinging of said guide members into plumb position, a weighted hammer element below the support frame and guided for vertical movement by said guide members, hammer-lifting means secured to said support frame and having flexible power-transmitting means adapted to be connected to such a source of power, said hammer-lifting means including a rigid drive element shiftably mounted adjacent said hammer element for movement longitudinally of said guide members, and a latch member movably mounted on one of said elements and releasably connected to the other of said elements for raising said hammer element when power is supplied to said hammer-lifting means, whereby when said hammer element has been elevated said latch member may be moved to release and permit free falling of said hammer element.

2,844,007

PILE RAISING DEVICE

Owen W. Morehead, Des Moines, Iowa

Application February 17, 1956, Serial No. 566,242
3 Claims. (Cl. 61—73)



1. A pile raising device comprising an upstanding cage including spaced side members, a pair of horizontally-disposed anvil bars arranged in spaced relation positioned on and extending across the upper end of said side members and fixedly secured thereto, a hammer positioned within and connected to said side members for sliding movement into and out of engagement with said anvil bars, means carried by one of said anvil bars for attachment thereto of a hoisting cable, means on the lower end of said cage for detachably securing said cage to a piling to be raised, a first vertically-disposed hoisting link extending loosely between said anvil bars and having its lower end connected to said hammer for lateral movement with respect to said anvil bars, a second vertically-disposed hoisting link arranged so that the portion adjacent the lower end thereof is contiguous to the portion adjacent the upper end of said first link, means connecting said portions together for limited vertical movement relative to each other, means on the upper end of said second link for attachment thereto of a second hoisting cable, releasable cooperating means on one of said anvil bars and said first link for holding said first link against said one anvil bar, and spring means operatively connected to said first link and the other of said anvil bars for biasing said first link toward said one of said anvil bars.

2,844,008

ICE MAKING APPARATUS

Ralph D. Burton, Evansville, Ind., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware

Application September 15, 1954, Serial No. 456,109
8 Claims. (Cl. 62—135)



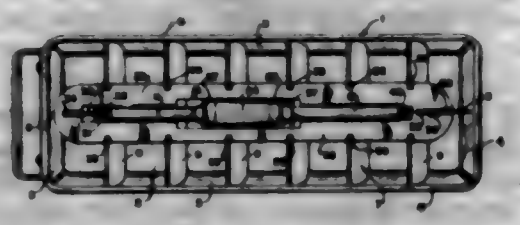
1. In an automatic ice maker, an ice mold having a plurality of ice-forming compartments therein, means for filling the mold with water to be frozen, refrigerating means for freezing the water in the mold, a mold heater for thawing the ice free of the mold, ejector mechanism including mechanical means movable into contact with the ice in the mold for removing the ice from the mold, and control mechanism for said filling, freezing, thawing and ejector means, said control mechanism including a thermostat operable responsive to the freezing of ice in the mold for energizing said ejector mechanism, and means operable by movement of said ejector mechanism for transferring heat from said mold heating means to a portion of said thermostat to reset said thermostat after the ejector mechanism has been energized.

2,844,009

ICE TRAY

Michael K. Buchanan, Norfolk, Va.

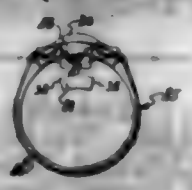
Application December 1, 1954, Serial No. 472,381
4 Claims. (Cl. 62—135)



1. In an ice tray comprising an open top pan, a grid arranged in the pan to divide it into a plurality of compartments, in which the grid comprises a longitudinal member and transverse members, and in which the transverse members are movable with respect to the longitudinal member to release the ice cubes from the tray, that improvement which comprises a pair of members, one

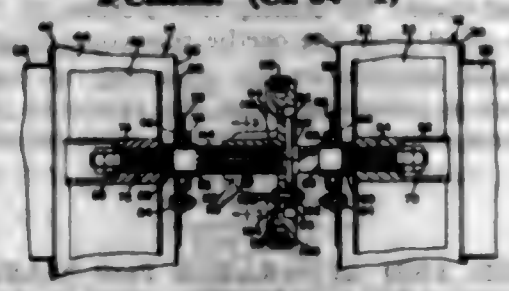
end of one of said members being telescopingly received in one end of the other, said members being provided with communicating bores, a body of liquid within the bores, one of said members being connected to the longitudinal member, the other being operatively connected to the transverse members, and a sleeve of rubber-like material surrounding the joint of the two members forming a fluid-tight seal and being sufficiently elastic to retain its position when the members are extended, the end portions of said members and the interior of said sleeve being provided with cooperating grooves and ribs to secure the sleeve to said members.

2,844,810
FINGER RING SET WITH MAGNETIC SELF-ALIGNING MEANS
Richard E. Wittig, Minneapolis, Minn.
Application April 23, 1956, Serial No. 579,892
3 Claims. (Cl. 63—15.3)



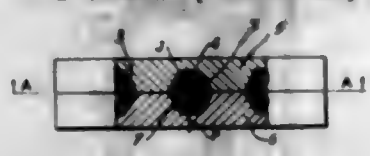
1. A finger ring set comprising two rings of substantially the same interior diameter, each of said rings embodying an ornamental head portion, said head portions having side faces adapted to be positioned in juxtaposed contacting relation on a finger, each head portion having a small strongly magnetized area having the polarity lying transversely to the general plane of the ring, the head portions when in said juxtaposed contacting relation having the magnetic poles of opposite sign together and holding the rings together and axially aligned solely by magnetic force, and said magnetized areas acting, when said head portions become shifted to a misaligned relationship which one another within the range of the magnetic fields of the said magnetized areas, to urge relative axial turning of the rings on the finger to bring the head portions back to properly aligned relationship, the said contacting side faces being smooth to permit sliding movement of one against the other in said axial turning.

2,844,811
SHAFT COUPLING
Robert H. Meier, Des Moines, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application March 10, 1955, Serial No. 493,351
2 Claims. (Cl. 64—1)



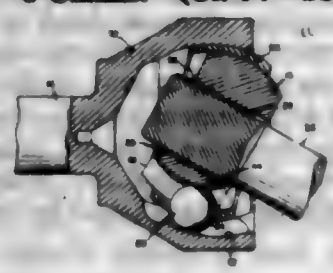
1. A shaft coupling connecting first and second rotor shafts projecting coaxially respectively from first and second coaxially spaced apart shaft supports and toward each other, and respectively having first and second terminal ends spaced axially apart to afford a belt-receiving gap, the shaft supports including first and second bearings journaling the shafts respectively in the supports and fixing the shafts against axial displacement relative to each other and to the supports, said coupling comprising: a hub fixed to the first shaft proximate to and axially back from the terminal end of the first shaft to expose an end portion of the shaft as a pilot, said hub having a connecting portion facing toward the second shaft; a sheave mounted on the second shaft adjacent the terminal end thereof and constrained for rotation with but axially slidable relative to said second shaft so as to be shiftable toward the hub to assume a connected position or, selectively, to be shiftable away from the hub to assume a disconnected position, the sheave in its connected position extending past the terminal end of the first shaft to receive the pilot so as to axially align the first and second shafts, and releasable securing means securing the sheave in its connected position to the connecting portion of the hub for interconnecting the shafts for rotation in unison, said means being releasable to enable axial shifting of the sheave to its disconnected position so as to expose the belt-receiving gap.

2,844,812
VIBRATION ABSORBING TRANSMISSION DEVICES
Antoine Brueder, Paris, France, assignor to Societe Anonyme Andre Citroen, Paris, France, a corporation of France
Application March 5, 1956, Serial No. 569,327
Claims priority, application France September 24, 1955
1 Claim. (Cl. 64—14)



A rotary drive means for enabling the absorption of vibrations of weak amplitude in an axial direction comprising first and second circular rims; said first rim being constituted by corresponding plates each defining radial recesses of trapezoidal cross-section and opening toward the axis of said first rim, said plates cooperating to define hexagonal bores in said first rim, resilient blocks for said bores, said blocks defining surfaces corresponding to an angle of said hexagonal bores, two of said blocks being positioned in each of said bores at opposite angles of the hexagons and defining facing convex surfaces delimiting an opening with concave sides, said second rim being concentric with said first rim and being encircled thereby, radial teeth extending from said second rim into the openings, said radial teeth having concave faces for engaging with the convex surfaces of the blocks, and means on said second rim for connection to a driven shaft.

2,844,813
UNIVERSAL JOINT
Robert E. Spence, St. Clair Shores, Mich., assignor to The Gear Grinding Machine Company, Detroit, Mich., a corporation of Delaware
Application September 4, 1957, Serial No. 681,998
8 Claims. (Cl. 64—21)



1. In a universal joint of the type including inner and outer ball races and adapted to transmit rotary motion between shafts, an annular inner race member having an internally splined portion, a shaft member received in said inner race member and having an externally splined portion engaging the splined portion of said inner race member to provide a non-rotatable connection between said members, a circumferentially extending groove in the splined portion of one of said members and a cir-

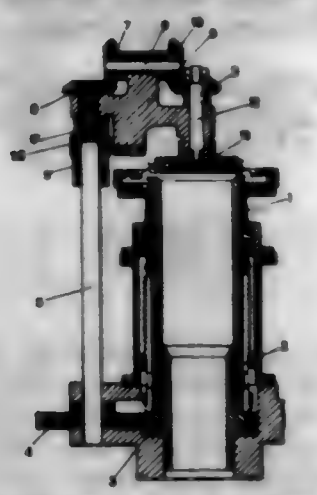
cumferentially extending groove in the other of said members registering with said first-mentioned groove, a flexible snap ring seated in one of said grooves and projecting partly into the other of said grooves to prevent relative axial movement between said members, said snap ring being adapted to be flexed from said one groove farther into said other groove and said other groove being of sufficient depth to accommodate said snap ring when thus flexed, and means providing an access opening in at least one of said members to said snap ring for the insertion of a tool to flex said snap ring as aforesaid.

2,844,814

DRIVE TRANSMISSION IN CIRCULAR HOSIERY AND KNITTING MACHINES WITH COMPENSATION OF THE WEAR IN THE GEAR TEETH

Giuseppe Moretta, Varese, Italy

Application August 10, 1954, Serial No. 448,843
Claims priority, application Italy April 7, 1954
2 Claims. (Cl. 66—28)



1. In a circular hosiery and knitting machine having a vertical central cylinder carried by a drum which is rigidly attached to a gear wheel rotated by a driving shaft, and an instrument head movable vertically with respect to said cylinder and rotatably carrying a vertical shaft concentric with said cylinder and on which is mounted an instrument disc; transmission means for transferring the drive from the central cylinder to the shaft of the instrument disc and comprising a vertical shaft at one side of the central cylinder and having gear means thereon meshing with the gear wheel attached to the drum, said gear means and the gear wheel having a 1:1 ratio so that said shaft at one side of the cylinder is rotated at the same angular speed as the cylinder, a gear train carried by the instrument head and comprising a succession of meshing gears including an input gear axially aligned with said shaft at one side of the cylinder and an output gear fixed on the shaft carrying the instrument disc, said succession of meshing gears all having 1:1 ratios, and vertically separable coupling means including a first coupling element fixed on said shaft at one side of the cylinder and a second coupling element fixed with respect to said input gear of the gear train and meshing with said first element in only one angular position relative to the latter so that the phase relation between the central cylinder and the instrument disc is fixed and automatically reestablished by meshing of said coupling elements.

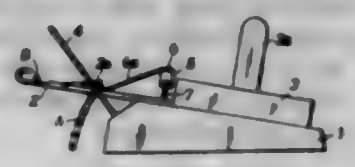
2,844,815

HAND OPERATED KNITTING MACHINE

Ernst Lachsinger, Kusnacht, Zurich, Switzerland, assignor to Fibra A. G., Glarus, Switzerland

Application March 31, 1955, Serial No. 498,385
Claims priority, application Switzerland April 2, 1954
7 Claims. (Cl. 66—60)

1. In a hand operated knitting machine having a support, a needle bed arranged on said support, latch needles guided in said needle bed for movement between a withdrawn and an advanced position, a cam-box slidably arranged on said support for moving said latch-needles between said two positions, a retaining comb mounted upon said support so as to be positioned ahead of the ends of the needles in the withdrawn position of the latter and rearwardly of the ends of the needles in the advanced



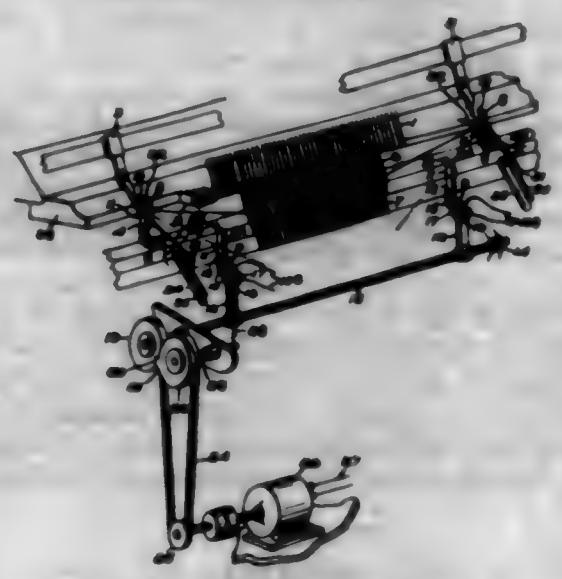
position of the latter, knocking over means arranged rearwardly of said retaining comb and immediately above said latch needles, said knocking over means including resilient means resting directly on said needles and adapted to glide on the latter when these are moved and to knock over the stitches suspended from said needles upon movement of the latter to their withdrawn position.

2,844,816

THREAD PULLER, HOLDER AND CUTTER

Arthur J. Cobert, Cleveland, Ohio, assignor of fifty per cent to Beautiful Brynne, Incorporated, Chattanooga, Tenn., a corporation of Tennessee

Application June 23, 1953, Serial No. 363,591
46 Claims. (Cl. 66—82)



1. In a full-fashioned knitting machine, the combination of a needle row, means to lay thread to said row, means cooperating with said row to knit fabric from said thread and means to draw off the fabric, a portion of said thread extending from the fabric to the thread laying means, and means for pulling said portion of the thread to a point offset from the needle row comprising a guideway, a hook slidable in the guideway to engage said thread portion extending from the fabric to the thread laying means, and means including a cable for moving the hook.

2,844,817

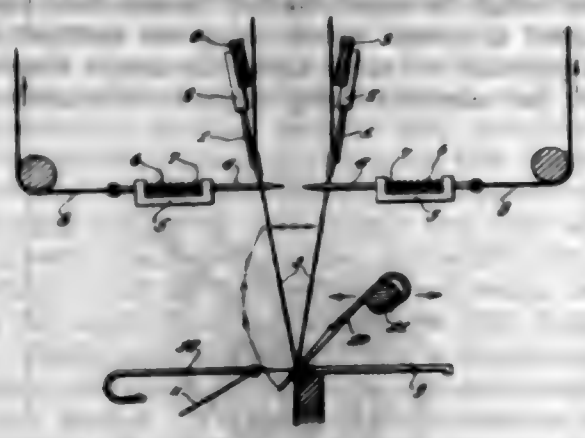
METHOD AND APPARATUS FOR MAKING A FABRIC

Rudolf Dittrich, Marienheide, Germany

Application July 11, 1955, Serial No. 521,334
Claims priority, application Germany July 21, 1954
10 Claims. (Cl. 66—85)

2. A method for the production of arbitrarily patterned textiles, and in particular of curtain fabrics, on stitch-producing machines, for instance crocheting-Galon machines, comprising the steps of aligning a row of crocheting needles in a horizontal plane, guiding each warp thread and each crocheting needle to engage the thread and to crochet it into a strand, arranging a series of filling thread guides, each carrying one filling thread, above

this plane, horizontally moving said guides with a reciprocating motion to the left and right of the associated crocheting needle, positioning the filling threads under the plane of the crocheting needles by means of thread positioning fingers which engage the threads from the upper rear, displacing each filling thread destined to participate



in the formation of a predetermined pattern by means of a Jacquard-controlled pencil arranged above the crocheting needle and movable parallel therewith, and supporting said pencil by a rail moving in the same rhythm as said guide by a distance equal to triple the crocheting needle spacing.

2,844,018

PHOTOFLASH BULBS

Morris Schwartz and William Castadello, Plainville, Conn.

Application December 29, 1951, Serial No. 264,048
2 Claims. (Cl. 67—31)



1. An article of manufacture in form of a string of photoflash bulbs, said string comprising a plurality of transparent individually sealed, substantially rigid envelopes, each including combustible flash producing material and primer means for igniting said combustible material and provided on the outside with a pair of outer contact means connected in series with the primer means through the envelope wall, said contact means being disposed on opposite sides of said envelope closely hugging the respective wall portions thereof, each of the said sealed envelopes constituting a self-contained flash bulb, and relatively easily breakable connecting means between each two adjacent envelopes so as to join the latter to form said string, said envelopes being joined in positions relative to each other in which the respective outer contact means of the envelopes are aligned so as to form two parallel rows of contact means.

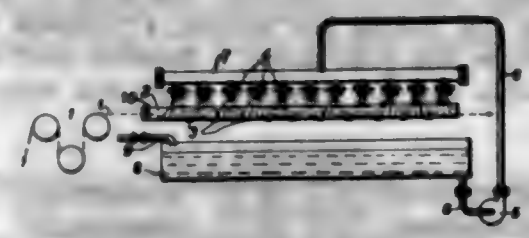
2,844,019

APPARATUS FOR THE AFTERTREATMENT OF ENDLESS CABLES OR TOWS OF ARTIFICIAL FILAMENTS

Max-Otto Schurmann and Hans Haimerl, Dormagen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

Application June 29, 1955, Serial No. 518,874
Claims priority, application Germany July 3, 1954
5 Claims. (Cl. 68—205)

1. Apparatus for the contacting of tows of artificial filaments with liquid which comprises a substantially horizontally extending trough defining a substantially solid bottom support surface, a multiple number of spaced-apart transverse slots defined through the bottom surface of said trough, means defining a multiple number of spray heads positioned above said trough for directing the major portion of liquid therethrough onto the solid portion



of said trough between said slots, means for passing a tow of artificial filaments substantially coaxially along the bottom surface of said trough and means for passing a liquid to said spray heads.

2,844,020

HANDLE AND LATCH OPERATING MEANS FOR DOORS

Jack O. Chittum and Frank S. Fitzgerald, Miami, Fla.

Application November 28, 1956, Serial No. 623,405
7 Claims. (Cl. 70—97)



6. In a door having a stile, a latch element mounted in said stile, and operable in a direction parallel to the length of the stile, an elongated aperture in said stile parallel to said latch element, a lug mounted on said latch element for operating said latch element extending into said elongated aperture, combination handle and latch operating means mounted for sliding movement relative to said aperture, said combination means comprising a pair of handles, each handle including a plate portion, one handle being mounted on one side and the other handle being mounted on the other side of said stile so said plate portions will cover said aperture, each handle having a recessed finger portion and a pair of bosses extending into and slidable within said elongated aperture, the bosses on one said handle being in abutting relation to the bosses on the other said handle, securing means mounted in said bosses to secure said handles together, and means extending rearwardly from at least one of said handles to engage said lug upon sliding of said handle means in said aperture whereby said latch element is operated.

2,844,021

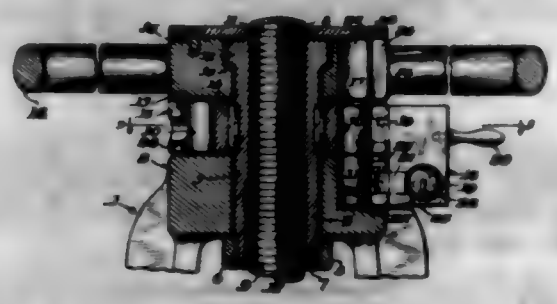
VALVE LOCKING DEVICE

Corwin W. Bryant, Downers Grove, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois

Application April 29, 1955, Serial No. 504,728
10 Claims. (Cl. 70—175)

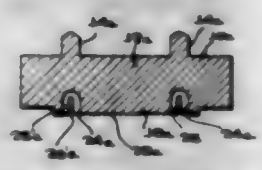
5. In a valve locking mechanism of the character described, the combination of a lock and lock supporting yoke member, a threaded sleeve therefor journalled

within said yoke member, a lock carrying lug having a locking key portion for the lock, a driving ring keyed to said sleeve for rotation therewith and having peripherally arranged laterally positioned apertures for engagement by the lug locking key portion, a rotatable means mounted on the said yoke sleeve, a threaded shaft axially movable within the said threaded sleeve and being actu-



ated by the said rotatable means through said driving ring, the said rotatable means having a central portion with a lateral aperture engageable by the said key portion of the lock carrying lug upon predetermined axial movement of the said lug relative to said central portion, the said sleeve being threadedly connected to said shaft and held in non-rotatable relation to the said driving ring.

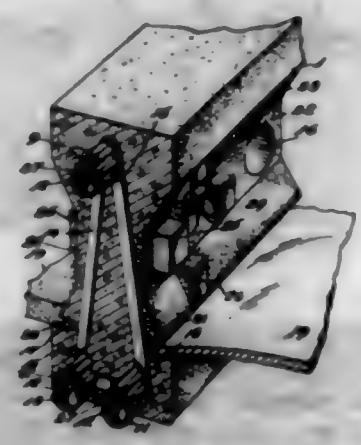
2,844,822
BUILDING BRICK
Michael L. Klem, Philadelphia, Pa.
Application October 5, 1956, Serial No. 614,277
1 Claim. (Cl. 72—38)



A brick comprising a rectangular, elongated body having a top surface, a pair of vertically extending pins integrally formed on the top surface of the body at locations spaced longitudinally of the body upon the longitudinal median line thereof, said pins being spaced inwardly from the ends of the body equal, predetermined distances, the distance between the two pins of the body exceeding the total of the distances between the pins and the adjacent ends of the body by a predetermined extent approximating the thickness of a mortar bond; and shoulder means integrally formed upon the under surface of the body and extending longitudinally of the body upon the longitudinal median line thereof, said means having in its surface a series of serrations defining grooves, said shoulder means having deep recesses and said grooves radiating from the recesses, the shoulders having passage portions extending radially from the recesses through the shoulders and also extending a substantial part at least of the length of the recesses in the walls of the recesses, the recesses being spaced apart correspondingly to the spacing of the pins with the length of each pin being aligned with the length of a corresponding recess, the pins being shorter in length than the length of the recesses and being generally coextensive in length with the parts of the passage portions that extend lengthwise of the recesses.

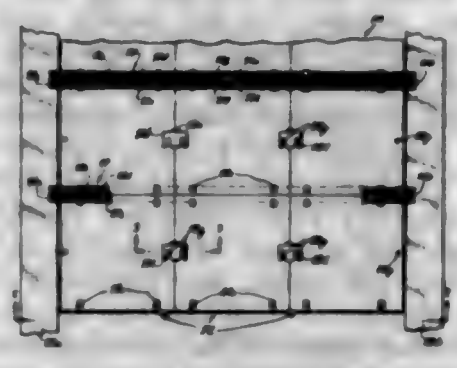
2,844,023
CONCRETE JOISTS
Paul S. Malwurm, Pennsburg, Pa.
Substituted for abandoned application Serial No. 244,343, August 30, 1951. This application September 26, 1957, Serial No. 687,337
1 Claim. (Cl. 72—61)

In a reinforced concrete joist, a plurality of metallic tubular members embedded therein, at least two of said members positioned in spaced relationship within the lower portion of the joist and at least one of said members being positioned in the upper portion of the joist, each member being coextensive in length with the length of the joist, each tubular member having in cross section a relatively wide lower portion and a relatively narrow upper portion, each tubular member having ribs along its length to impart rigidity thereto, said ribs being interrupted at spaced points along the member to provide a plurality of seats along the length thereof, the seats of the members being aligned transversely of the



length of the joist, a plurality of stirrups surrounding the tubes, said stirrups being channel shaped in cross section with the flanges of the channels directed inwardly, said stirrups having recesses in the channels at spaced points and said seats of said tubes disposed within said recesses, a tensioned reinforcing element disposed within each tubular member, each element having ferrules at each end thereof, said elements being positioned within the upper narrow portions of the tubes, said ferrules engaging the ends of said tubular members and maintaining said elements in a tensioned state.

2,844,024
COMBINATION PREFORMED AND CAST-IN-SITU REINFORCED FLOORING STRUCTURE
James Leonard McDonald, New York, N. Y.
Application October 21, 1954, Serial No. 463,769
1 Claim. (Cl. 72—66)



A reinforced concrete structure of the character described supported on a plurality of spaced apart horizontal stringers, said concrete structure comprising prefabricated concrete slab units of uniform shape and size each having an upfacing bonding surface opposite a downfacing finished surface, a poured concrete slab portion of predetermined thickness incorporated as a unitary structure upon said slab units, reinforcing means for said concrete structure extending through said poured concrete slab portion including a plurality of truss joists each horizontally disposed and including three spaced apart elongated bars, a pair of struts and cross tie braces interconnecting said bars to form a rigid structure of triangular cross-sectional contour, a pair of said elongated bars having opposite ends thereof resting on said stringers spanning the distance therebetween, means for interlockingly suspending each of said units in alignment beneath

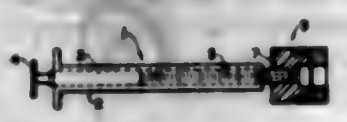
said truss joists as a horizontally disposed supporting surface for the poured concrete slab portion prior to pouring and as a finished exterior undersurface for said concrete structure, said suspending means including spaced apart links upstanding from said bonding surface of each of said units adjacent opposite rim border portions thereof, one end portion of each link being anchored to the slab beneath said bonding surface and the other end portion of each link being hook-shaped and engaging one of the pair of said elongated bars, each of said concrete slab units having edge sides extending between said upfacing and downfacing surfaces formed with complementary ridge and groove aligning portions for said interlocking therebetween, spaced apart headed studs upstanding from said bonding surface of each of said slab units adjacent other opposite rim border portions, and saddle plate straps interlocking pairs of said studs on adjoining units to rigidify the assembly, each of said saddle plate straps having an upstanding ledge formed with a through-opening engaging a reinforcing rod extending into said poured concrete slab portion for a more positive bonding of said prefabricated slab units to the poured concrete slab portion.

2,844,825

TESTING FOR SUSPENDED WATER IN WATER-IMMISCIBLE LIQUIDS

John Ruskin Joyce, Vicars Cross, Chester, Keith Rolls Williams, Northaw, and Donald Anson, Hoole Village, Chester, England, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application March 15, 1957, Serial No. 646,441
Claims priority, application Great Britain March 22, 1956
7 Claims. (Cl. 73—53)



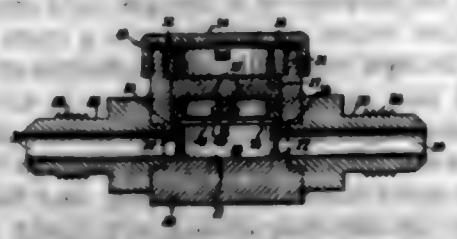
1. A method of detecting the presence of suspended free water in a water-immiscible liquid which comprises passing a sample of said liquid through a liquid-pervious light-colored sheet material on the surface of which has been deposited a dry powdered material insoluble in said liquid and selected from the group consisting of a water-soluble dye and a mixture which in the presence of water reacts to form a substance differing in color from said mixture.

2,844,826

COMBINED MOISTURE AND LIQUID INDICATORS

William F. Wischmeyer and John E. Hoffman, St. Louis, Mo., assignors to Sporlan Valve Company, St. Louis, Mo., a corporation of Missouri

Application June 18, 1956, Serial No. 592,078
14 Claims. (Cl. 73—73)



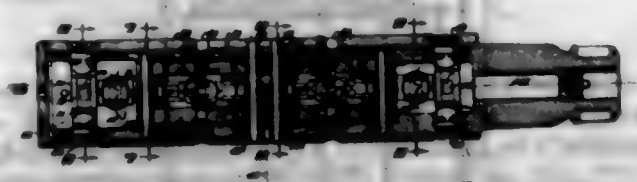
1. In a liquid and moisture indicator for use in a refrigerant system, a body having an internal chamber open at one end, the body being provided with a passage through said chamber, means on said body for placing said passage in the refrigerant line of the system, a transparent element closing the open end of said chamber adjacent said passage, a cup formation within said body enclosed at one end by the transparent element and open at the other end to the refrigerant, and moisture-indicating material located in said cup formation, means enclosing said moisture-indicating material in said cup formation, said means placing said moisture material in operative communication with said passage to permit reaction in response to the amount of moisture contained in the refrigerant, the moisture-indicating material being arranged so that it is visible through said transparent element.

2,844,827

TEMPERATURE COMPENSATED FORCE BALANCE

Robert P. Davie, Manhattan Beach, Calif., assignor, by mesne assignments, to Task Corporation, Pasadena, Calif., a corporation of California

Application June 11, 1956, Serial No. 590,770
17 Claims. (Cl. 73—147)



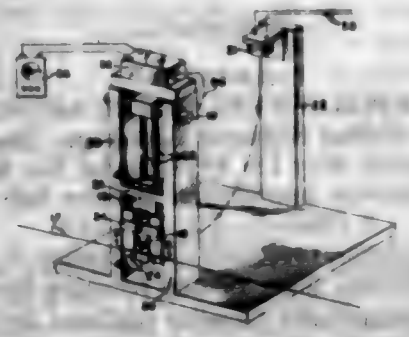
1. A temperature compensated force balance, comprising longitudinally extending means for mounting a test body subject to longitudinal and other than longitudinal loading and heating, a carrier, first connecting means including longitudinal force gages longitudinally spaced apart and intermediate structure in the space between the gages interconnecting said mounting means and carrier for transmitting the bulk of said longitudinal loading in sequence from said mounting means through said structure and gages to said carrier, and other connecting means interconnecting said mounting means and carrier independently of said first connecting means for transmitting the bulk of said other loading from the mounting means to the carrier, said first connecting means being adapted to flex in response to application thereto of other than longitudinal loading and said other connecting means being adapted to flex in response to application thereto of longitudinal loading, whereby said longitudinal force gages are adapted to produce output in response to longitudinal loading applied to said mounting means and substantially no change in output in response to application of other than longitudinal loading to said mounting means and differential heating of said mounting means and carrier.

2,844,828

APPARATUS FOR MEASURING DENIER

Robert E. Benn, Broomall, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application May 26, 1955, Serial No. 511,347
3 Claims. (Cl. 73—160)



1. Apparatus for measuring the denier of cording as a function of displacement amplitude comprising, in combination, (1) a striker head having (*a*) a planar striker face comprising (i) a displaceable member mounted on the striker head so as to be displaceable in a direction perpendicular to the striker face and (ii) rigid isolating means in a fixed position coplanar with and adjacent the outer edges of the displaceable member at all regions of contact of the displaceable member with the cording;

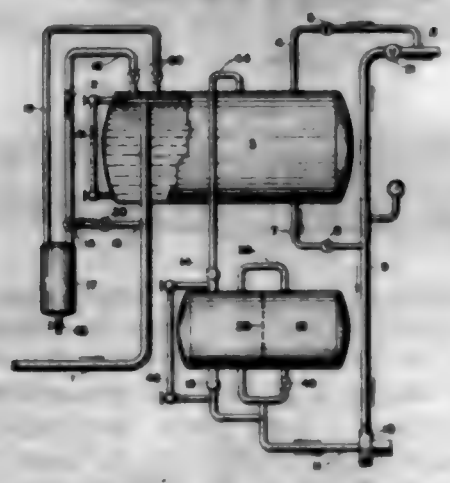
(2) means for causing relative transverse motion at a predetermined velocity between the cording and the striker head so that on contact with the striker face the cording can move the displaceable member relative to the isolating means perpendicular to the striker face; and (3) means for measuring the amplitude of displacement of said displaceable member.

2,844,029

APPARATUS FOR PRODUCING STRIPPER WELLS

Jesse D. Leonard, Big Spring, Tex.

Application November 3, 1954, Serial No. 466,636
1 Claim. (Cl. 73—200)



A device for measuring the oil output of an oil well having an oil pumping unit associated with said oil well comprising a conduit connected to the output end of said pumping unit, a surge tank into which said conduit empties, means for withdrawing gaseous fluid from said surge tank, a second tank having a known capacity, a second conduit connecting said surge tank and said second tank, a pump in said second conduit between said surge tank and said second tank disposed to empty said second tank, a check valve in said second conduit between said surge tank and said pump in fluid communication with said pump and disposed in open position in a direction of flow towards said pump, a float switch secured at the top of said second tank in fluid communication with the interior of said tank and connected with said pump to start said pump, an output conduit in fluid communication with said second conduit and said pump, a check valve in said output conduit in open position in a direction of flow away from said pump, a second float switch connected to said pump and in fluid communication with said second tank to stop said pump when said second tank is empty and means for recording the times and duration of operation of said pumping unit and for continuously recording on a time chart when and how many times said second tank is emptied.

2,844,030

LIQUID-LEVEL INDICATORS

Ivar Wiking Svännel, Kalsinge, Sweden

Application May 15, 1957, Serial No. 659,411
Claims priority, application Sweden July 6, 1956
5 Claims. (Cl. 73—313)

1. A liquid-level indicator comprising a substantially vertical liquid-level tube, means forming two electrically conductive substantially parallel surfaces arranged within said tube longitudinally thereof and insulated from each other, a pair of members being magnetized by opposed polarity and extending each along one of said conductive surfaces, movable roller means disposed in said tube and consisting at least in part of electrically conductive and magnetically permeable material to be held in engagement with the conductive surfaces by the magnetism of said members, thus forming an electrical connection between said surfaces, said roller means being adapted to float on the liquid in said tube and to roll along said conductive surfaces according as the liquid-level fluctuates,



and an electric circuit connected to said surfaces to indicate the position of the movable roller means relative to said conductive surfaces.

2,844,031

THERMOMETER SHIELD

Moses Rosenthal, Newton Center, Mass.

Application March 22, 1957, Serial No. 647,874
3 Claims. (Cl. 73—343)



1. In combination, a tubular member having its ends open and provided on one end with a candy head, sucker or the like, and a conventional thermometer passing through the bore of the tubular member, the bore being of an internal diameter greater than the cross-section of the thermometer and the thermometer being of a length greater than the over-all length of the tubular member.

2,844,032

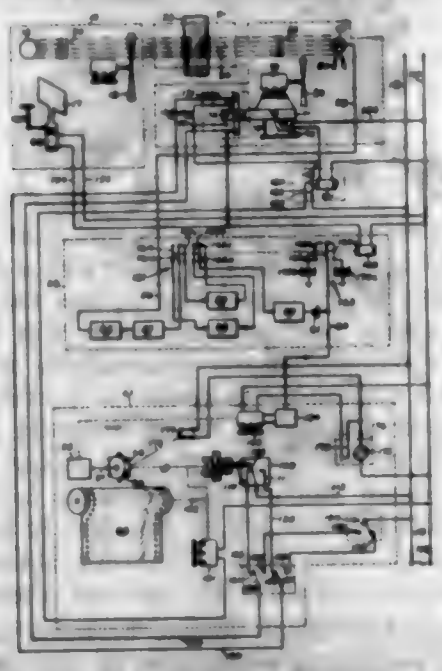
RADIANT ENERGY MEASUREMENT SYSTEM

William S. Tandler, New York, Morris Grossman, Brooklyn, and Richard H. Tourin, Flushing, N. Y., assignors to The Warner & Swasey Research Corporation, Cleveland, Ohio, a corporation of Ohio

Application January 31, 1955, Serial No. 484,884
12 Claims. (Cl. 73—355)

11. Radiant energy measurement apparatus for determining the temperature of a hot gas, said apparatus comprising, source means adapted to pass a beam of infra-red radiation through said gas with consequent partial absorption of said radiation by said gas at an absorption-emission wavelength thereof, shutter means adapted when operative to cut off said beam from passage through said gas, first chopper means for chopping said beam prior to said passage, second chopper means adapted when operative to chop the radiation emanating from said gas, automatic means for controlling as to function performance both said shutter means and said second chopper means to alternately render the same operative in unison during intermittent first periods of rapid recurrence and inoperative in unison during second periods intervening said first periods, said emanating radiation being comprised, accordingly, of chopped emission radiation only in said first periods and of a mixture of chopped partially absorbed radiation and unchopped emission radia-

tion in said second periods, electro-optical means responsive to said emanating radiation at said wavelength for producing an output of electric signals which are respectively of alternating form and of mixed alternating and direct form during said first and second periods, the distinctive forms of said signals corresponding, respectively, with the distinctive forms in said periods of said emanating radiation, a signal transfer network adapted by



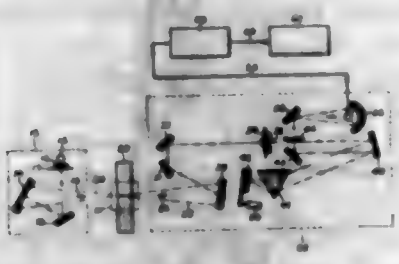
filtering out said direct signals from said second period signals to render the same representative of said partially absorbed radiation only, and recording means responsive to said first period signals and to said filtered second period signals for providing mutually distinct records on a recording medium of the intensities at said wavelength of said partially absorbed and said emission forms of chopped radiation.

2,844,833

RADIANT ENERGY MEASUREMENT METHODS AND APPARATUS

William S. Tandler, New York, Morris Greenman, Brooklyn, and Richard H. Tourin, Flushing, N. Y., assignors to The Warner & Swasey Research Corporation, Cleveland, Ohio, a corporation of Ohio

Application January 31, 1955, Serial No. 484,982
13 Claims. (Cl. 73—355)



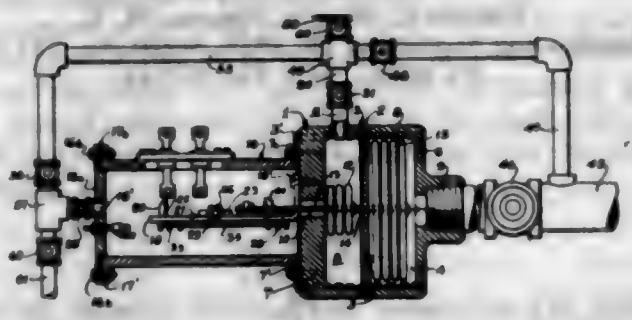
12. Radiant energy measurement apparatus comprising, infra-red source means adapted to pass through a region of hot gas a beam of infra-red radiation, the spectrum of said radiation including an absorption-emission wavelength of a gas constituent having molecular size particles which are at least diatomic and of diverse atom content when diatomic, said radiation being partially absorbed by passage through said gas, means for producing pulsations at a first frequency in the radiation of said beam prior to passage through said gas, means for collecting the radiation departing from said hot gas into an optical path, said departing radiation being comprised of a component of pulsating partially absorbed radiation at said wavelength and a component of radiation emitted by said gas at said wavelength, optical means for confining the spatial distribution of said partially absorbed radiation component at a given point in said path to a fractional cross section area thereof disposed within said path to one side thereof, chopper means projecting at said point into said path from the other side thereof by a distance falling short of said cross section area for producing pulsations at a second frequency in said emission radiation component, detector means in said optical path for producing an output in the form of alternating signals at said first and second frequencies representing respective responses to said pulsating components of partially absorbed and emission radiation, and a pair of signal transfer networks having respective inputs commonly coupled with the output of said detector means and being respectively tuned to said first and second frequencies for separating said admixed signals to each provide a respective output of a separate one of said signals.

2,844,834

MULTIRANGE PRESSURE TRANSDUCER

Louis D. Statham, Beverly Hills, Calif., assignor to Statham Instruments, Inc., a corporation of California

Application August 29, 1955, Serial No. 531,192
18 Claims. (Cl. 73—398)



1. A pressure gauge, comprising a chamber, a diaphragm in said chamber, a port in the wall of said chamber positioned on one side of said diaphragm and adapted for connection to a source of fluid pressure, a second chamber, a second diaphragm in said second chamber, the area of said first diaphragm being substantially greater than the area of said second diaphragm, a port in said second chamber on one side of said second diaphragm and adapted for connection to the said source of fluid pressure, a fluid pressure connection in constantly open communication between said second chamber on the said one side of said second diaphragm and the other side of said first diaphragm, a port in said second chamber on the other side of said second diaphragm, a mechanical connection between said diaphragms, an electrical wire resistance strain gauge comprising a frame, an armature, strain wires connected to said frame and armature, a mechanical connection between said armature and said second diaphragm, a conduit connected to the first-named port and adapted for connection to said source of fluid pressure, a by-pass conduit connected to the first-named conduit and the port in said second chamber positioned on the said one side of said second diaphragm, a valve in said first conduit and a valve in said by-pass conduit.

2,844,935

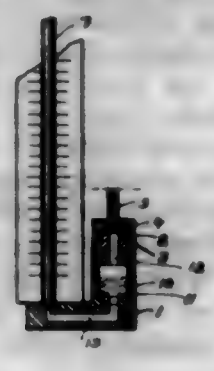
MEANS FOR PREVENTING THE DARKENING OF GLASS TUBES BY THE ACTION OF MERCURY

Holger Hesse, Vedbaek, Denmark

Application October 6, 1954, Serial No. 460,651
Claims priority, application Germany October 19, 1953
1 Claim. (Cl. 73—401)

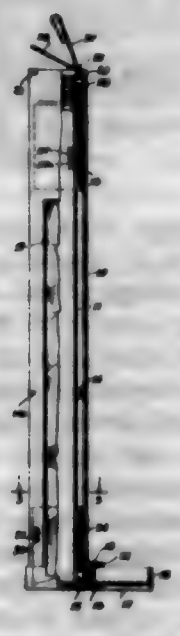
In a measuring device including a quantity of mercury in a closed container having first and second portions, only the first of which is exposed for visual observation, the quantity of mercury passing through the apparatus to occupy different levels in the first portion which is exposed for visual observation and thus indicates the value of a quantity to be measured; the interior of said

second portion being coated with an adhesive substance selected from the group consisting of glue, resin and rubber, the coating covering at least a part of the con-



tainer walls along which the mercury passes and being limited to said second portion and the mercury contacting surface of said second portion being tacky.

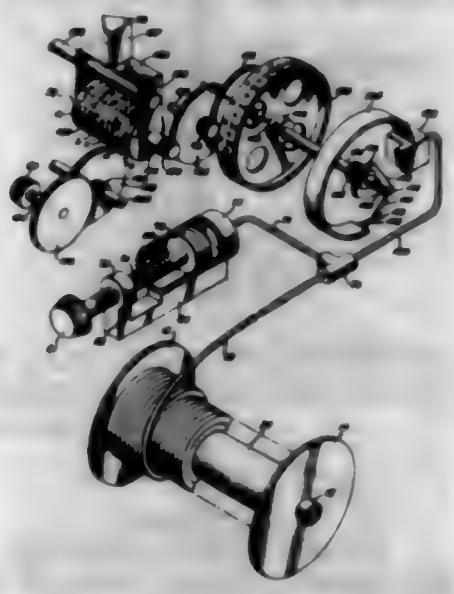
2,844,036
LIQUID SAMPLER
Francis G. Wright, Nassau, N. Y.
Application September 29, 1955, Serial No. 537,380
5 Claims. (Cl. 73—425.4)



1. A liquid sampler comprising a housing, a transparent tube adapted to receive a sample of the liquid to be sampled disposed within said housing, means for supporting the transparent tube for vertical movement within said housing, resilient means for applying a downward force to said transparent tube, a bottom door disposed in sliding relationship to the bottom ends of the housing and transparent tube in a direction that is at right angles to the axis of the transparent tube, means actuable by the downward movement of the transparent tube for sliding the door into sealing position in alignment with but spaced from the bottom end of the transparent tube, and means carried by the bottom end of the transparent tube which will on an additional amount of downward movement of the transparent tube form a seal between the door and the end of the transparent tube.

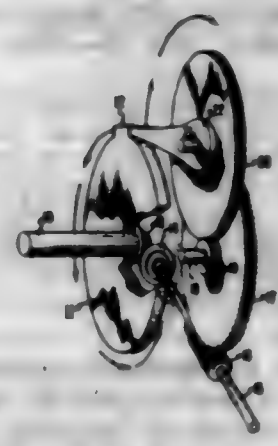
2,844,037
ELEVATION INDICATOR
Jack L. Jordan, Huntington, W. Va.
Application June 29, 1955, Serial No. 518,757
9 Claims. (Cl. 73—432)

1. In a portable surveying instrument, a closed system apparatus utilizing the pressure of a liquid within a flexible tube to measure differences in elevation from a known point, a Bourdon tube connected with said tube, a shaft, said Bourdon tube being arranged to drive said shaft, a feet remaining indicator connected with said shaft, means to adjust and preset the pressure within said tube and said Bourdon tube to a predetermined degree thereby creating an artificial head within said system, a counter geared to



said indicator, and clutch means between said counter and indicator permitting adjustment of said counter independently of said closed system, whereby alterations in pressure within said Bourdon tube due to variations in elevation are recorded as changes in elevation on said counter and said indicator continually records the capacity of the instrument with respect to further traverse thereof from said known point.

2,844,038
BI-DIRECTIONAL MECHANICAL LIMIT STOP SYSTEM OR THE LIKE
Robert C. Danta, Inglewood, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application May 4, 1955, Serial No. 505,925
4 Claims. (Cl. 74—10.2)



1. A bi-directional mechanical limit stop system adaptable for either manual or electric drives including, in combination, a driver shaft; a stop ring mounted upon said driver shaft, said stop ring having a stop tooth; a first gear also mounted upon said driver shaft; a driven shaft disposed parallel to said driver shaft; a second gear mounted upon said driven shaft and mechanically coupled to said first gear by separate gear means; and pawl means fixedly disposed with respect to said second gear and engageable with said stop tooth in a thrust relationship in either of two directions substantially tangential to said stop ring.

2,844,039

DIAL INDICATOR DRIVING ARRANGEMENT

Goert Spekman, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 20, 1955, Serial No. 541,794
Claims priority, application Netherlands November 26, 1954
3 Claims. (Cl. 74—10.7)



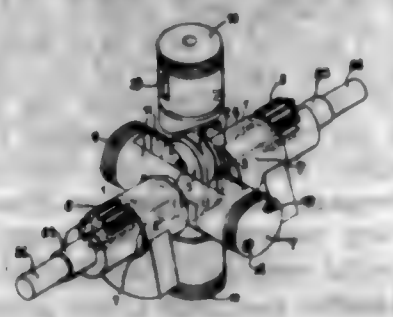
1. A dial indicator driving arrangement comprising a driving shaft, a first drum portion, a helical spring, means for affixing one end of said spring to the cylindrical surface of said first drum portion, said spring being positioned to rest substantially circumferentially on the said cylindrical surface, a second drum portion axially spaced relatively to said first drum portion, a cord, means for affixing one end of said cord to a point on the cylindrical surface of said second drum portion, means for affixing the other end of said cord to the other end of said spring, the intermediate portion of said cord being wound in at least a single turn on the cylindrical surface of each of said first and second drum portions and said driving shaft, and means for guiding said cord from said first drum portion to said second drum portion.

2,844,040

FLUID DISPLACEMENT MACHINE

Charles Bancroft, New Canaan, Conn.

Application May 25, 1953, Serial No. 357,160
2 Claims. (Cl. 74—52)



1. A fluid displacement machine including a plurality of sets of opposed cylinders arranged radially about an axis, a piston in each of the cylinders, struts laterally spaced axially respecting said axis and interjoining the pistons in one of the cylinder sets, a strut positioned between the spaced struts and interjoining the pistons in another of the cylinder sets, cranks journaled to rotate on said axis and positioned on opposite sides of the spaced struts and having arms revolving about said axis, and a crank-shaft journaled by and between the cranks' arms and having crank-arms on the outside of the spaced struts with crank-pins extending therefrom and journaled to and extending through the struts and double crank-arms between the struts and which are joined by a crank-pin journaled to and extending through the strut positioned between the spaced struts.

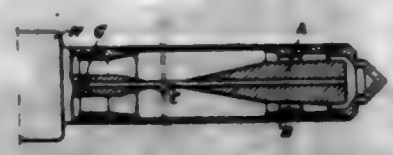
2,844,041

ROTARY VIBRATOR

Oscar Fredrik Beijer, Lidingo, and Sven-Åke Nordegren, Stockholm, Sweden, assignors to Vibro-Plus Corp., Woodside, N. Y., a corporation of Delaware

Application March 16, 1955, Serial No. 494,698
4 Claims. (Cl. 74—87)

1. A conical pendulum type rotary vibrator comprising a rotatable shaft having a substantial resiliently flexible portion, a fixed bearing supporting one end of the shaft and precluding angular deviation thereof at the bearing, a roller body on the other end of the shaft, a roller track positioned substantially coaxially with the bearing and having a diameter increasing in a direction away from the bearing; an annular surface on the roller body adapted to engage the roller track so that the roller body executes a vibration producing planetary movement around the roller track when rotated by the shaft, a counterbalancing portion of the roller body more remote from the bearing



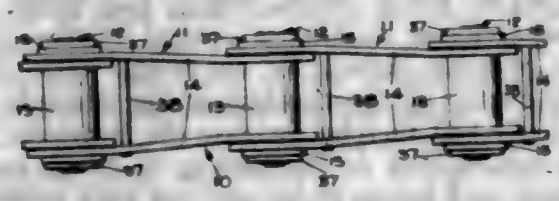
than the annular surface and having a generatrix radially displaced from the roller track when the annular surface is urged into engagement with the roller track with the roller body at rest; the counterbalancing portion having a mass sufficient to generate, during the planetary rolling movement of the roller body along the roller track, a moment around the point of contact between the roller body and the roller track greater than the moment generated around said point of contact by the shaft and portions of the roller body nearer the bearing than the annular surface.

2,844,042

CHAIN

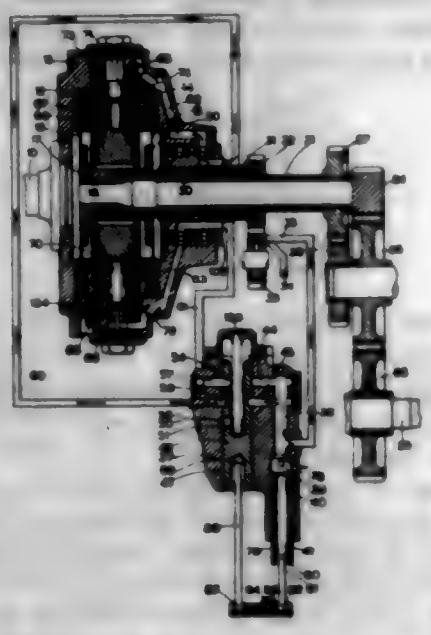
Stanley M. Mercier, Bexley, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio

Application October 27, 1953, Serial No. 388,559
7 Claims. (Cl. 74—245)



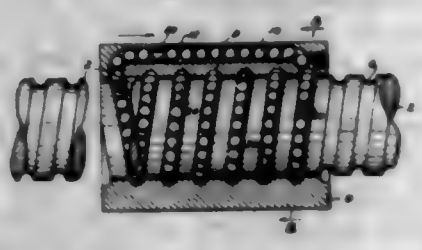
1. A chain particularly adapted to operate at elevated temperatures including a plurality of links, each link including two spaced opposite side strap elements each including a bore adjacent each of the ends thereof, a knuckle having an axial bore and extending into the bores adjacent one end of said side strap elements, weld material permanently fusing said knuckle and said side strap elements, a bushing in said knuckle bore having a shrink fit therein when said chain is at ambient temperature, means forming a pad on each of said side strap elements including a portion projecting into the other of said bores in said side strap elements, each pad having a bore, weld material permanently fusing said projecting pad portions and said side strap elements, said last named bores in the pads being of different diameters and lying substantially upon a common axis, stepped pins interconnecting adjacent links of said chain, said pins each having three different outside diameters and shouldered means projecting axially at its ends, each of said pins extending through the pads of one link and the knuckle and bushing of another link and having a shrink fit with said pads and a non-shrink fit with said bushing when said chain is at ambient temperature, keeper means at the opposite ends of said pins having a shrink fit on said shouldered projection when said chain is at ambient temperature, and weld means securing said keeper means to said pads.

2,844,843
POWER TRANSMISSION APPARATUS
Howard F. Hobbs, Leamington Spa, England, assignor to Hobbs Transmission Limited, Leamington Spa, England
Application April 2, 1956, Serial No. 575,589
Claims priority, application Great Britain April 5, 1955
3 Claims. (Cl. 74—330)



1. A power transmission apparatus comprising an input shaft, at least two hydraulically actuated clutches connected to the input shaft, an output shaft, gearing connecting the clutches to the output shaft by two different transmission ratios respectively, pump means for supplying fluid pressure for engaging the clutches, selector valve means movable to two selected positions alternatively and directing the fluid from the pump to one of the clutches in one selected position and to the other clutch in the other selected position, a relief valve for controlling the hydraulic pressure supplied by the pump to said clutches, spring means urging said relief valve towards valve closing position, a control member operable by the operator, means for conveying initial movement of the control member to said spring means to compress the latter and thereby increase the hydraulic pressure from substantially no pressure up to clutch engagement pressure, and means which conveys later movement of the control member to the selector valve to cause the latter to move from one selected position to the other.

2,844,844
ANTIFRICTION SCREW DEVICE
Raymond S. Cole, Los Angeles, Calif., assignor to Electrical Engineering & Manufacturing Corporation, Los Angeles, Calif., a corporation of California
Application November 21, 1955, Serial No. 547,958
6 Claims. (Cl. 74—424.8)



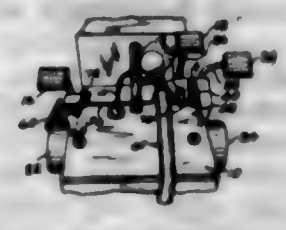
1. A force transmitting device comprising a shaft having a helical groove in its outer surface, a cooperating nut member surrounding the shaft and movable axially relatively thereto and having a helical groove in its bore which is complementary to the groove in the shaft, by-pass means defining with the grooves in the shaft and the cooperating nut member an orbit for guiding balls for re-circulation, a plurality of balls inter-engaged between the shaft and the nut in the grooves thereof and in said by-pass means for transmitting force between the shaft and nut, and cylindrical members disposed at intervals among said balls and having their axes in the direction of movement of the balls.

2,844,845
REMOTE CONTROL DEVICE
Herman Weber and Robert W. Sage, Kalamazoo, Mich., assignors to Shakespeare Products Company, Kalamazoo, Mich., a corporation of Michigan
Application September 18, 1952, Serial No. 310,154
5 Claims. (Cl. 74—503)



1. In a control device the combination of a tubular support having a forwardly facing external shoulder adjacent its front end, a cylindrical head member having an internal forwardly facing recess and sleeved upon said support in abutting relation to said shoulder thereon, the end of said support being turned outwardly into retaining engagement with the bottom of the recess of said head member, said head member having curved segmental angularly spaced adjacent rib-like portions on its front end, said rib portions being spaced from the periphery of the head member, a control rod reciprocable and rotatable in said support and having a longitudinal series of rearwardly facing ratchet teeth, a spring pawl formed integrally of spring stock and comprising a curved springable body portion terminating at one end in an inturned anchoring lug engaged in a recess in one of said rib portions and terminating at its opposite end in an inturned springable jaw portion disposed through opposed openings between said adjacent rib portions transversely across said rod and engaging said control rod under spring stress, said body portion of said pawl being in supported engagement with the peripheries of the rib portions embraced by said body portion when the jaw portion is engaged with the teeth of the control rod and being sprung outwardly therefrom when the control rod is rotated to disengage the jaw portion from the teeth to permit retracting movement of the control rod, and a housing embracing said head member and enclosing and retaining said pawl.

2,844,846
TRACTOR BRAKE CONTROL
Merrill E. Reynolds, Moravia, N. Y.
Application December 10, 1954, Serial No. 474,448
2 Claims. (Cl. 74—542)



2. A pawl actuating accessory for application to a tractor having a floor plate, a foot brake having a ratchet sector beneath said floor plate, and a pivoted pawl in said floor plate for engaging the ratchet, comprising a one piece rock shaft having a central section adapted to extend across the floor plate, said central section at one end having an end portion bent at a right angle to form an arm for engagement beneath the pawl and at its other end, a portion bent at right angles, and reverse bent to form a treadle and extending across the axis of the central section, the free end thereof being adapted to

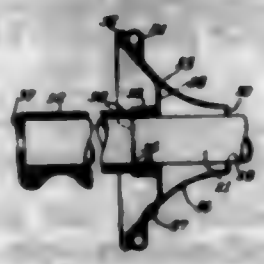
receive a tension spring, said treadle and said arm lying substantially in the same plane, and spaced support straps for said rock shaft, each strap having one end rolled about the rod to form a bearing, and the other end adapted to be secured to said floor plate, said central section being of a length whereby said treadle may be located beyond the edge of the floor plate when the rock shaft is secured in place to the floor plate by said straps, said central section having an offset loop located intermediate said straps for clearing floor plate mounted fixtures, said loop lying in a plane substantially transverse of the plane of said bent ends.

2,844,647

BICYCLE HANDLE BAR GUARD

Edward E. Schaefer, River Forest, Ill., assignor to Wilmer B. Thompson, Quitman, Ga.

Application March 25, 1954, Serial No. 418,569
14 Claims. (Cl. 74—551.8)



1. In combination, a tubular hand grip of flexible material having a substantially closed end and an open end and adapted to be fitted on a vehicle handle bar with said substantially closed end seating against the end of the handle bar, a centrally apertured radially extending guard member adapted to be mounted on the handle bar adjacent the inner end of said grip, and locking means providing a detachable connection between adjacent portions of said grip and said guard member, said flexible grip being retained in distended non-collapsible relation when positioned on the handle bar whereby to prevent detachment of said locking means and thereby retaining the guard member against axial movement on the handle bar.

2,844,648

TORQUE ARMS

Richard A. Bennett, Elkins Park, and William P. Schmid, Drexel Hill, Pa., assignors to The American Pulley Company, Philadelphia, Pa., a corporation of Pennsylvania

Application October 21, 1953, Serial No. 387,414
8 Claims. (Cl. 74—584)



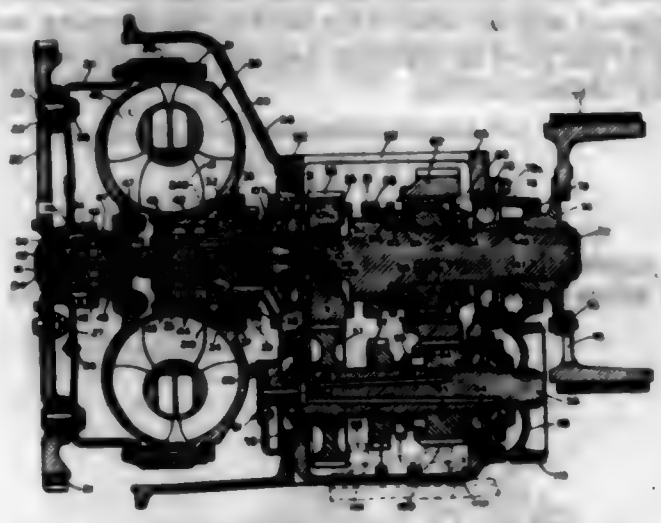
1. A torque arm comprising a cylinder; a component telescoped within the cylinder and having an enlargement at its distal end; a gland with a thread engaged for the purposes of axial adjustment in one end of the cylinder; a bushing through which the telescoped component extends having threaded engagement with the latter of the same pitch as the first mentioned thread, and a sliding key connection with the gland; a helical spring surrounding the telescope component within the cylinder in compression between two collars slidably free on said telescoped component, one collar normally bearing against the inner end of the gland, and the other collar normally bearing against an internal annular shoulder adjacent the opposite end of the cylinder and the enlargement at the corresponding end of the telescoped element, as and for the purpose set forth.

2,844,649

TRANSMISSION

Robert Lapsley, Buchanan, Mich., and Oscar H. Banker, Chicago, Ill.

Original application November 15, 1951, Serial No. 256,406, now Patent No. 2,722,133, dated November 1, 1955. Divided and this application February 17, 1954, Serial No. 414,782
12 Claims. (Cl. 74—732)



1. For use in a torque converter having pump and turbine elements and a transmission having an input shaft and output shaft, first fluid actuated clutch means adapted to lock the pump and turbine elements together for conjoint rotation, gear means between the input and output shafts for effecting a high ratio drive therebetween, the gear means including a gear clutched to the output shaft in one direction of rotation and freely rotatable thereon in the other direction of rotation, second fluid actuated clutch means adapted to lock the input and output shafts together for conjoint rotation, and a source of fluid under pressure, control means comprising the combination of a rectilinearly movable valve, fluid passageways between the source of fluid under pressure and said valve and between said valve and the first and second fluid actuated clutch means, said valve in one position being adapted to place the passageways from the source of fluid under pressure and from the second fluid actuated clutch means in communication, said valve in a second position being adapted to place the passageways from the source of fluid under pressure and from the first and second fluid actuated clutch means in communication, and centrifugally operable means for controlling the position of said valve in response to the speed of rotation of the output shaft.

2,844,650

SIMPLIFIED FREE WHEELING BICYCLE HUB

Ludwig Brendel, Schweinfurt, Germany, assignor to Fichtel & Sachs A. G., Schweinfurt am Main, Bavaria, Germany

Application February 21, 1957, Serial No. 641,617
Claims priority, application Germany February 26, 1956
2 Claims. (Cl. 74—750)



1. In a bicycle hub including a rotatable casing and drive means, gear means within said casing and operatively connected with said drive means, a friction socket disposed within said socket and slidingly engaging said casing, said friction socket being provided with at least one recess, and at least one pawl pivotally connected with said gear means within said casing, said pawl during nor-

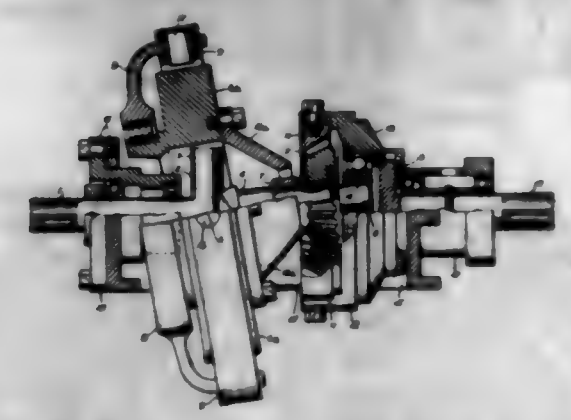
mal driving extending through said recess of said friction socket to engage said casing for driving the latter, the length of said recess being such that it just accommodates the pawl when the latter is in pivoted position extending therethrough, whereby upon termination of rotation of said drive means, continued rotation of said casing will cause said socket to be frictionally carried along, one of said recess edges serving to return the pawl to non-extending position when rotation of the drive means is terminated and the other edge limiting the pivoting movement of the pawl to maintain engagement with the casing during normal driving.

2,844,051

AUTOMATIC TRANSMISSION

Federico Diez Cascajares, Seville, Spain

Application August 14, 1953, Serial No. 374,388
Claims priority, application Spain August 20, 1952
10 Claims. (Cl. 74—751)



1. Transmission apparatus comprising, in combination, support means; a drive shaft mounted for rotation about its own axis on said support means; a driven shaft coaxial with said drive shaft and being mounted for rotation about its own axis on said support means; a first gear fixed to said driven shaft for rotation therewith and being coaxial with said driven shaft; a planetary gear meshing with said first gear and being operatively connected to said drive shaft to be rotated thereby; mounting means mounting said planetary gear for free rolling movement along said first gear and about said axis of said drive shaft, said mounting means having a portion movable in translation with said planetary gear about said axis of said drive shaft; an annular weight extending about the axis of said drive shaft and being universally connected thereto for rotation with said drive shaft about the axis thereof so that said annular weight acts as a gyroscope rotor and tends to assume a predetermined stabilized position as the speed of rotation of said drive shaft increases; and abutment means connected to said weight for rotation therewith and pressing against said portion of said mounting means with an increasing force as the speed of rotation of said drive shaft increases and as said weight approaches said stabilized position thereof so as to gradually restrain said planetary gear against free rolling movement along said first gear as the speed of rotation of said drive shaft increases so that said planetary gear drives said first gear and driven shaft therewith as the speed of rotation of said drive shaft increases.

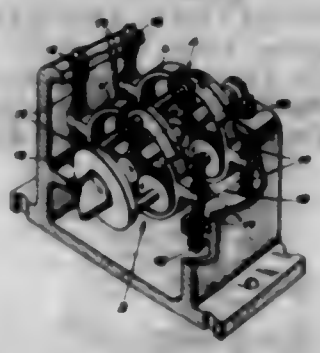
2,844,052

LOAD AND TOOTH-PRESSURE BALANCING MEANS FOR PARALLEL CONNECTED EPICYCLIC GEAR SETS

Wilhelm G. Stoechicht, Munich-Solln, Germany

Application July 8, 1955, Serial No. 520,865
10 Claims. (Cl. 74—801)

1. In an epicyclic gear set, a stationary member, a pair of coaxial shaft members including a relatively low speed shaft, rotatably mounted upon said stationary member, a first planetary gear train, a first pinion carrier structure included in said first planetary gear train, at least one gear pinion rotatably mounted on said first pinion carrier structure, a first rotatable gear wheel, a first substantially stationary concentric gear wheel concentric to said first rotatable gear, said gear pinion of said first pinion carrier structure being in mesh on the one hand with said first rotatable gear wheel and on the other hand with said first substantially stationary concentric gear, a second planetary gear train, a second pinion carrier structure included in said second planetary gear train, at least one gear pinion rotatably mounted on said second pinion carrier structure, a second rotatable gear wheel, a second substantially stationary concentric gear wheel concentric



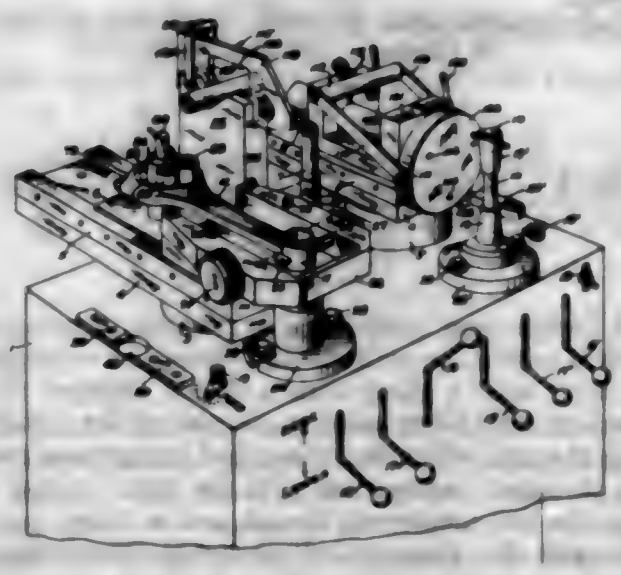
to said second rotatable gear, said gear pinion of said second pinion carrier structure being in mesh on the one hand with said second rotatable gear wheel and on the other hand with said second substantially stationary concentric gear, said first and second pinion carrier structures being connected in parallel one with another and with one of said shaft members for rotation therewith, said first and second rotatable gear wheels being connected with the other of said shaft members for rotation therewith, and balancing means supporting said first and second substantially stationary gear wheels interposed between said concentric gear wheels and said stationary member for equalizing the reaction torques of said first and second substantially stationary concentric gear wheels received by said stationary member.

2,844,053

ENGINE PARTS BORING MACHINE

Frederick A. Wagner and Fred A. Wagner, Livermore, Calif.

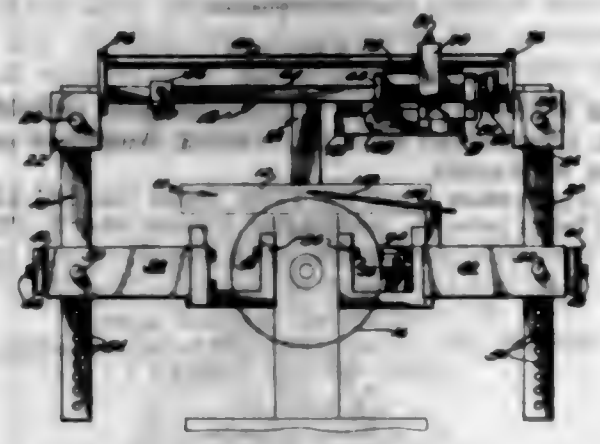
Application November 21, 1955, Serial No. 548,097
15 Claims. (Cl. 77—4)



1. In a boring machine of the character described, the combination of a supporting pedestal, a boring spindle extending upwardly above the pedestal with a boring tool extending laterally from adjacent its upper end, bearing means carried by said pedestal supporting said spindle for rotation, and power means for rotating the spindle, an

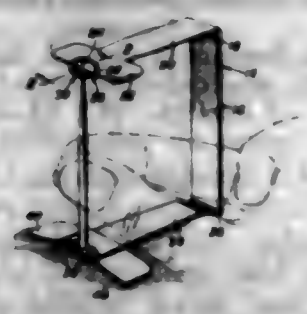
upwardly extending elevating and lowering work carrying ram spaced from said boring spindle, means mounting said ram for vertical movement and rotary movement about its vertical axis, adjustable work securing means carried by the upper end of said ram, a pre-centering device extending upwardly from said pedestal over which the work to be bored is adapted to be centered for boring and the work then rigidly secured to said ram, so that the ram with the adjusted work may be swung on its vertical axis and the work lowered over the boring tool, means locking the ram against further turning, and means for lowering the ram under feed control past the rotating boring tool for boring the work where pre-centered, said ram being raisable again to lift the bored work clear of the boring spindle and swinging away therefrom.

2,844,054
UNIVERSAL DRILL JIG
Edgar M. Bell, Baltimore, and Carl J. Di Julio, Towson, Md.
Application December 6, 1956, Serial No. 626,726
10 Claims. (Cl. 77—64)



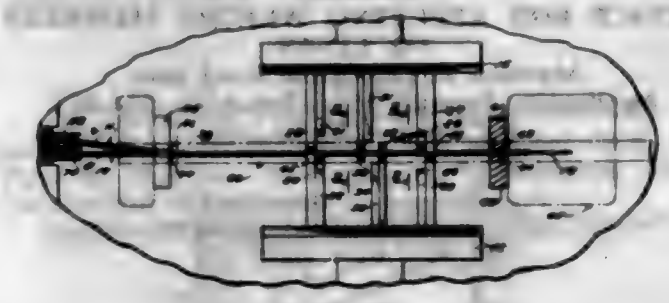
1. In combination with a precision angle generating machine including a rotatably mounted vertical spindle and a horizontal table mounted thereon, a universal drill jig, comprising a bracket fixed to said machine and having a horizontal rail secured thereto above the table level, a right angle arm slidingly mounted on said rail, a radial gauge element fixed to said table for gauging radii from the center of said spindle, a tracer block travelling along said right angle arm, and means interconnecting said gauge arm and said tracer block for positioning said tracer block at a desired location above said table, whereby, by means of the arrangement, holes can be located in a workpiece directly according to dimensions given in polar coordinate form without requiring computation or reference to trigonometric tables.

2,844,055
WATCHMAKER'S HAIRSPRING TOOL
Rufus V. Hall, Fayetteville, N. C.
Application April 10, 1956, Serial No. 577,290
3 Claims. (Cl. 81—6)



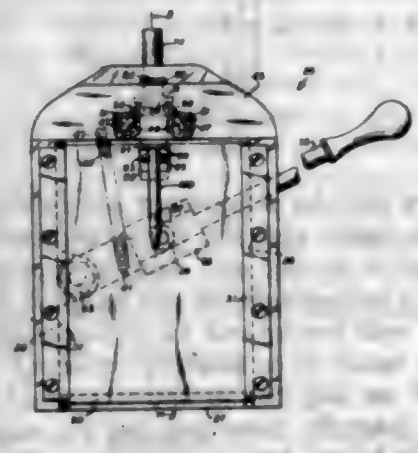
1. For use by a watchmaker, means for removing tangles and distorted twists from the convolutions of a hairspring comprising a portable stand having upper and lower spaced parallel arms provided with bearings, and a spindle embodying a shank having a journal at its lower end removably journaled in the lower bearing, having its upper end tapered and terminating in a needle-like point, said point constituting a second journal and being removably and rotatably mounted in the bearing in the upper arm.

2,844,056
MACHINES FOR CUTTING AND STRIPPING INSULATED CONDUCTORS
Owen C. Sladek, Berwyn, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application July 28, 1955, Serial No. 523,143
6 Claims. (Cl. 81—9.51)



1. A machine for cutting and stripping insulated conductors, which comprises a pair of cutting blades movable from open positions to closed positions for severing a pair of insulated wires, a pair of stripping blades each having a pair of wire-receiving notches and insulation-cutting edges movable from open positions to closed positions for cutting the insulations on the wires, a separator designed to locate the wires in lateral alignment with the notches when the wires are held laterally thereagainst, and means for holding the wires against the separator.

2,844,057
INSULATION STRIPPING APPARATUS
Edwin C. Hardesty, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application September 8, 1955, Serial No. 533,205
4 Claims. (Cl. 81—9.51)



1. Apparatus for stripping insulation from insulated wires having spirally coiled portions therein, which comprises stripping means for engaging the insulation on such wire, an elongated member positioned adjacent to said stripping means for receiving one or more of the convolutions of the spirally coiled portion of the wire, a portion of the wire extending from said elongated member into engagement with said stripping means, and means for causing a relative movement apart of said stripping means and said elongated member whereby the convolutions of the wire positioned on said elongated member tighten about the grip said elongated member and the wire is withdrawn from said stripping means to strip the insulation therefrom.

2,844,058
APPARATUS FOR BENDING TUBES
Fred A. Fasano, New York, N. Y.
Application January 9, 1956, Serial No. 558,881
15 Claims. (Cl. 81—15)



1. A device for bending a tube comprising a sleeve of resilient rubber-like material formed with a longitudinal, radial split, the edges of the sleeve at the split being in abutting relation.

2,844,059
DEVICE FOR APPLYING WEIGHT MEMBERS TO LINES
Matthew E. Lee, South Bend, Ind.
Application June 28, 1956, Serial No. 594,453
9 Claims. (Cl. 81—15)



5. In combination, a body having a chamber for storing weight members and a member-positioning recess, means shiftable relative to said body for advancing members successively from said chamber to said recess, means retaining a member in said recess, and a knife shiftably carried by said body for splitting a member retained in said recess.

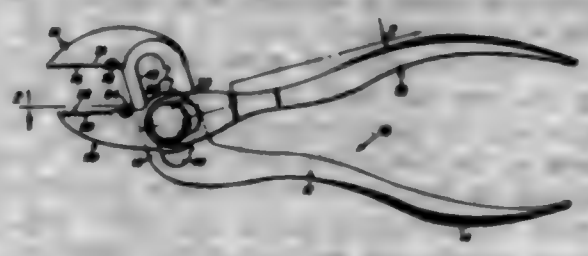
2,844,060
METAL BENDING PRY TOOL
William K. Hagerty, Alhambra, and Charles L. Hagerty, El Monte, Calif.
Application November 2, 1956, Serial No. 628,048
7 Claims. (Cl. 81—15)



1. A pry tool for smoothing out dented portions of an automobile body and the like comprising, an elongated bar having a prying end and an opposite handle end adapted for engagement in one hand of the user for positioning of said prying end in juxtaposition to said dented portion, a hand lever slidably mounted for longitudinal adjustment on said bar to and from said handle end and projecting laterally from said bar for engagement in and by the other hand of the user so as to afford a coordinated leveraging of said prying end against said dented portion, and means for detachably fastening said hand lever in selected longitudinal positions on said bar.

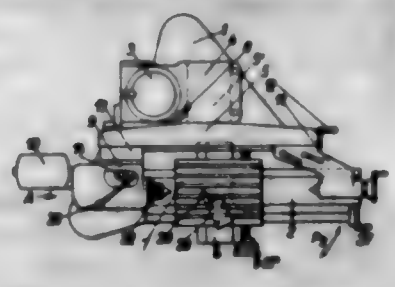
2,844,061
ADJUSTABLE JAW PLIERS
Joseph M. Hendrickson, Bakersfield, Calif.
Application September 25, 1957, Serial No. 686,094
7 Claims. (Cl. 81—356)

1. An improved tool of the pliers type comprising a first handle, said first handle including a hand grip portion at one end thereof, an intermediate offset portion at the opposite end of said first handle, a fixed jaw formed integrally with said offset portion remote from said first handle, a movable jaw slidably mounted on said offset portion for movement towards and away from said fixed jaw, said offset portion having an elongated slot therethrough extending between said first handle and said fixed jaw, a rack extending into said slot from said offset



portion, a drive pin carried by said movable jaw projecting through said slot, said drive pin including an intermediate pinion engaged with said rack whereby when said drive pin is rotated, said drive pin and said movable jaw are moved relative to said fixed jaw, and a second handle connected to said drive pin for rotating said drive pin.

2,844,062
LATHE
Stefan Jakobitz, Vienna, Austria, assignor to Schiesel & Co. Gesellschaft m. b. H., Vienna, Austria, a corporation of Austria
Application April 30, 1956, Serial No. 581,614
Claims priority, application Austria May 3, 1955
13 Claims. (Cl. 82—2)

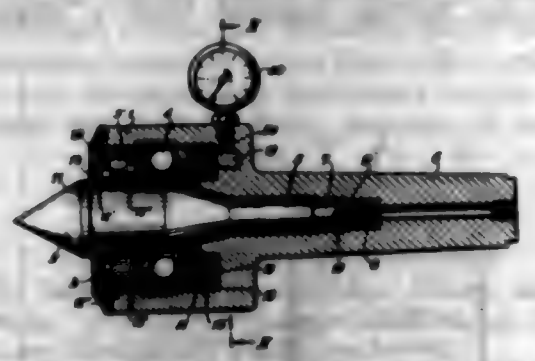


1. A multi-purpose machine tool, comprising two guide members each of which is provided with a guide portion on one side and with a shaft stub on the opposite side, a horizontal support having said shaft stub of one of said guide members rotatably mounted therein, a vertical support connected to said horizontal support and having said shaft stub of the other of said guide members rotatably mounted therein, fixing means for fixing each of said guide members relative to its support in various angular positions, and two carriers, each of which is arranged to be guided on said guide portion of one of said guide members, one of said carriers comprising a headstock and the other of said carriers comprising a cross slide rest.

2,844,063
LIVE CENTER
Günter Horst Röhm, Sontheim (Brenz), Wurttemberg, Germany
Application September 1, 1953, Serial No. 377,931
Claims priority, application Germany September 1, 1952
3 Claims. (Cl. 82—33)

1. In a live center for lathes or similar machines, the combination of a housing forming a socket with an annular groove in the bottom of said socket, a center shaft within said socket coaxially with but spaced from said groove by the inner wall of said groove, annular bearing means in said socket between said shaft and said housing for rotatably supporting said shaft and mounted within the inner wall of said housing so as to be slideable with said shaft in axial direction thereof, an annular member adjacent said bearing means and slideable with-

in said annular groove, thus forming a chamber, an annular cushion of plastic, resilient material within said chamber and having an annular groove therein adjacent the bottom of said chamber, said chamber having a channel extending therefrom, pressure control means and a pressure gauge communicating with said channel and said chamber, and a substantially fluid medium filling said



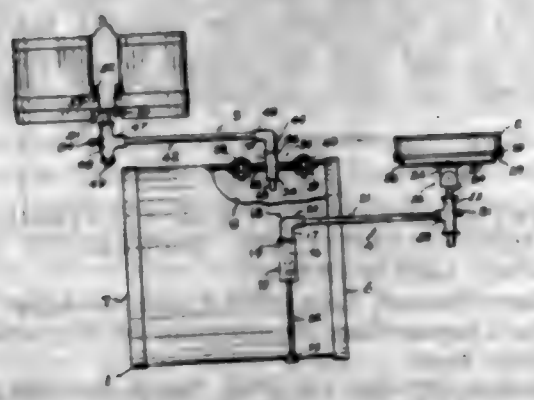
groove in said cushion and being sealed therein by said cushion, said annular member being adapted to compress said cushion when an axial pressure is exerted upon said center, said cushion then transmitting said pressure to said fluid medium to be indicated by said pressure gauge and together with said cushion tending to return said shaft to its original position.

2,844,064

SNARE AND TIMBAL QUICK CHANGE SWIVEL ATTACHMENTS FOR BASS DRUM

Jerome Bendett, Bethpage, N. Y.

Application May 23, 1957, Serial No. 661,056
1 Claim. (Cl. 84—421)



The combination comprising a bass drum having a cylindrical wall body open in its front and rear ends and having front and rear skin heads closing over these open ends, a pivot supporting bracket affixed to the side area of the wall of the bass drum adapted to swivelly support a horizontally disposed instrument supporting arm, wherein the bracket includes a vertically disposed block member having a vertical bore therein opening out of its top wall, an inner face conforming to the outside curvature of the bass drum wall, fastening means arranged to rigidly hold the block to the bass drum wall, a counterbore opening out of the bottom end of the block, and an elongated leg member received at its upper end in the said counterbore and adapted at its other end to rest upon a floor support for the bass drum.

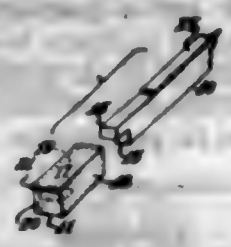
2,844,065

KEY AND KEYBOARD CONSTRUCTION

Merton D. Corwin, Cincinnati, Ohio, assignor to The Baldwin Piano Company, a corporation of Ohio

Application September 13, 1952, Serial No. 309,451
17 Claims. (Cl. 84—423)

1. In a white key assembly for a musical instrument, a plurality of white keys each comprising the combination of a separate shank and a separate key fore-part wider than the said shank, all of the said shanks being substantially identical and all of the said key fore-parts



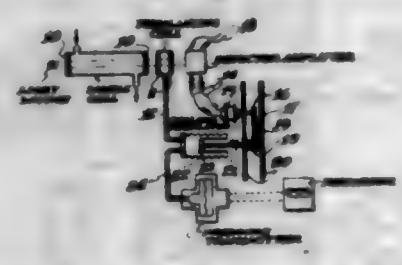
being substantially identical, the said plurality of white keys being characterized by different white keys in which shanks are attached to key fore-parts in different laterally adjusted positions.

2,844,066

METHOD OF PHOTOMETRIC ANALYSIS

Daniel D. Friel, Wilmington, Del., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

Application August 17, 1951, Serial No. 242,347
6 Claims. (Cl. 88—14)



1. In the analysis of fluid materials to determine the percentage content of a preselected component in said fluid materials on the basis of the selective absorption of light by said component in the course of the transmission of a beam of light directed through a light-transmitting sample cell containing a representative sample of said materials and thereafter to light-measuring means, wherein a preselected established value of light transmitted through a given mass of the component analyzed for is chosen as the datum condition of transmitted light, the method of obtaining a quantitative measure of the amount of said component analyzed for in said sample comprising interposing optically in series with said sample cell ahead of said light-measuring means a light-transmitting rebalancing cell containing therein a quantity of said component analyzed for, adjusting said quantity of said component analyzed for contained in said rebalancing cell to thereby attain said datum condition of transmitted light as detected by said light-measuring means, and obtaining an indication of said amount of said component analyzed for in said sample as a function of said quantity of said component analyzed for contained in said rebalancing cell when said datum condition of transmitted light is reached.

2,844,067

METHOD FOR ASCERTAINING THE PERCENTAGE OF BUTTER FAT CONTENT OF MILK

Edward M. Borg, Seattle, Wash.

Application May 25, 1953, Serial No. 357,255
1 Claim. (Cl. 88—14)



The method of determining the butter fat percentage of a batch of milk or the like, comprising diluting a

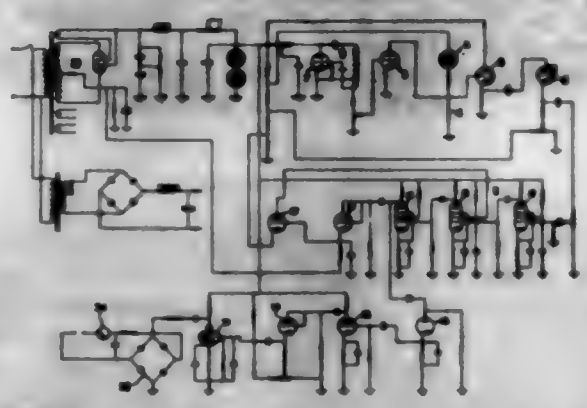
sample of said milk constituting one part with two parts of distilled water, emulsifying the mixture, directing light from an exciter lamp of a predetermined candle power through a color filter and a quantity of said emulsified mixture of predetermined thickness to a photoelectric cell, and measuring the extent of its stimulation by use of a meter having its indicating scale calibrated to show current intensity as butter fat percentages.

2,844,868

APPARATUS FOR INDICATING AND/OR RECORDING THE STRUCTURE OF PAPER

David J. Williams, Ivanhoe, Victoria, Australia, assignor to Australian Paper Manufacturers Limited, South Melbourne, Australia, a company of the State of New South Wales

Application September 28, 1955, Serial No. 535,435
Claims priority, application Australia September 23, 1954
13 Claims. (Cl. 88—14)



1. Apparatus for testing the structure of a moving sheet of paper after it has been formed, comprising: light sensitive means for producing a variable current representative of variations in the transparency of the paper; a light source for projecting a beam of light through said sheet of paper onto said light sensitive means; means for generating an alternating carrier current; a modulator for modulating said carrier current in accordance with the variations in said variable current to produce a modulated carrier current; control means for automatically maintaining the magnitude of said modulated carrier current at a level such as to compensate for variations in said variable current unrelated to the formation of the paper; a demodulator for demodulating said modulated carrier current to produce a component representative of variations in the transparency of the paper due to variations in the formation thereof; and indicating means for indicating the magnitude of said component thereby to obtain an indication representative of the formation of the paper.

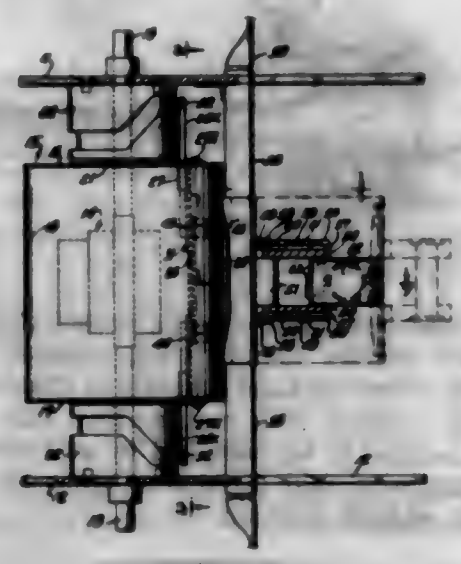
2,844,869

CURVED FILM CAMERA

Luis Azurraga, Mineola, N. Y.

Application April 24, 1957, Serial No. 654,724
5 Claims. (Cl. 88—16)

1. A moving picture panorama camera having a front end and a back end comprising a rotatable cylindrical housing having a top and bottom end wall and a cylinder wall having a front aperture and a rear aperture diametrically opposed to said front aperture, a lens assembly having its lens axis in linear relationship to the center of said front and said rear cylinder apertures, shaft means secured to said cylinder and said lens assembly for rotating them as a unit, a pair of identical apertured fixed cylindrical guide blocks having suitable continuous grooves therein one disposed above the cylinder wall and the other below the cylinder wall, said shaft means freely passing through said pair of guide blocks, an apertured flat plate secured vertically within said cylinder with the center of the aperture in axial relationship to the lens axis, a top and a bottom shutter gate disposed over the rear surface of said flat plate aperture, bar means secured respectively fixedly to said top and said bottom shutter gate and engaging respectively said grooves of the respective top and bottom guide blocks for effecting suitable reciprocal closing of said shutter when the shutter gates are furthest removed from a photographic



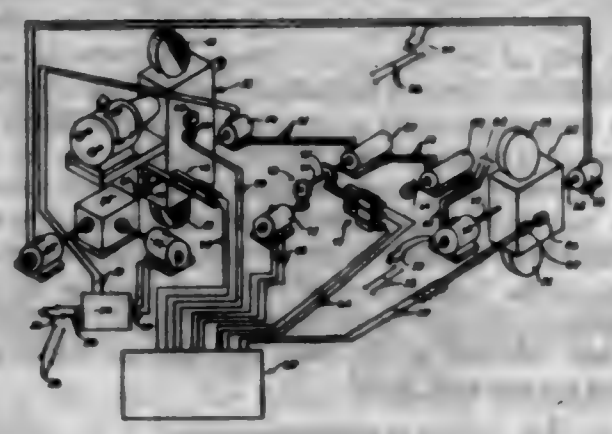
film, gate means secured to the front of said flat plate for fixedly adjusting the size of the light effective aperture of said plate, a curved apertured film holder disposed in the back of said camera and containing a continuous strip of curved photographic film, means for moving said film holder toward and away from said cylinder and the lens therein for focusing radially the film relative to said lens, and means for advancing said film one frame for each revolution of said cylinder.

2,844,870

AUTOMATIC APPARATUS FOR CONTROLLING SYNCHRONIZATION OF DIFFERENT FILM FEEDING MECHANISMS

Willis Robert Dresser, Long Hill, Conn., assignor to The Vitarama Corporation, Huntington, N. Y., a corporation of New York

Application October 25, 1954, Serial No. 464,325
19 Claims. (Cl. 88—16.2)



1. Automatic apparatus for synchronizing films, at least one of which is a motion picture film, said apparatus comprising separate operating mechanism for advancing each of the films, each of the separate mechanisms including a motor, signal impulse devices operated by synchronizing signals on the respective films, a synchronization

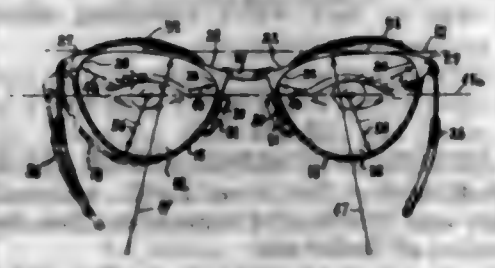
error detector to which synchronization signals are supplied by both of said devices, the detector including control means responsive to differences in the timing of the synchronization signals at said detector resulting from the arrival of the synchronization signal of one film at its signal impulse device ahead of the corresponding signal of the other film, and error correcting mechanism controlled by the control means of the error detector, the error correcting mechanism including means that change the longitudinal positions of the films with respect to one another, and the correcting mechanism having a control that makes the changes occur in steps of one image frame.

2,844,871

OPHTHALMIC MOUNTINGS

Elmer L. Schumacher, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application May 14, 1953, Serial No. 355,067
4 Claims. (Cl. 88—41)



1. An ophthalmic mounting for use with a pair of lenses having their upper contour edge portions curved to arch upwardly and assume a position adjacent the eyebrows of the wearer and having their remaining edge portions of a controlled contour shape and size to provide a maximum field of corrective vision through said lenses, said mounting having a pair of partial metallic rim sections formed of strips of flat resilient sheet stock bent in a transverse direction to form a longitudinal channel inwardly of said sections and each being shaped to follow the sides and the lower contour edges of their respective lens, said rim sections being of a resiliency such as to have a cradle-like gripping action with the lenses and having integrally curved end portions on the nasal and temporal sides thereof of the same cross-sectional shape as the intermediate portions of said rim sections and being shaped to follow the adjacent edges of the lenses and to overlie only a restricted area of the upper nasal and temporal edge portions of the lenses to hold said lenses against displacement upwardly with respect to said rim sections, a bridge member connecting the nasal sides of said rim sections and having relatively large flat end portions shaped to overlie only a side surface of said integral curved end portions of said rim sections on the nasal sides thereof and secured to said curved end portions to render them relatively rigid and shape-retaining, temple endpieces on the upper temporal sides of said rim sections having relatively large flat end portions overlying only a side surface of the curved temporal end portions of said rim sections and secured thereto to render said end portions relatively rigid and shape-retaining, the major portion of said bridge and temple endpieces being located to lie above a horizontal line extending through the lines of straight-ahead vision of the eyes of the wearer through the lenses when the mounting is in position of use on the face, and the upper contour edges of the lenses intermediate said upper integrally curved end portions on the nasal and temporal sides of the lenses being free from obstructions whereby the major portion of the eyebrows of the wearer will be visible when the mounting is viewed from the front.

2,844,872

PHOTOGRAPHIC OBJECTIVE

Herman Lowenthal, Chicago, Ill., assignor to General Scientific Corporation, Chicago, Ill., a corporation of Illinois

Application October 8, 1956, Serial No. 614,592
1 Claim. (Cl. 88—57)



An F:2.7 photographic objective constructed substantially in accordance with the following data:

[Effective focal length (EFL)=100 mm.]
[Back focal distance (BFD)=74.6 mm.]

		Mm.	
I	R_1=	+44.13	
	t_1=	5.00	ND=1.670 V=47.4
	R_2=	+105.00	
	s_1=	0.30	
II	R_3=	+31.00	
	t_2=	9.00	ND=1.617 V=55.0
	R_4=	Plano	
	R_5=	Plano	
III	t_3=	5.00	ND=1.617 V=36.3
	R_6=	+19.23	
	s_2=	13.50	
IV	R_8=	−24.00	
	t_4=	5.00	ND=1.720 V=29.2
	R_7=	−37.00	
	s_3=	0.30	
V	R_8=	−277.80	
	t_5=	11.20	ND=1.651 V=55.8
	R_9=	−33.46	

wherein R_1, R_2 . . . indicate the radii of the individual surfaces counting from the front, t_1, t_2 . . . indicate the axial thicknesses of the individual elements, s_1, s_2 and s_3 indicate the axial air separations between the components, ND is the index of refraction for the sodium D line and V is the Abbe number.

2,844,873

LAUNCHING DEVICE

Carlo Ré, George F. Rice, and Leigh F. Birkeland, Van Nuys, Victor T. Koozin, Woodland Hills, Garnett C. Duncan, Glendale, and Daniel Kinde, Terrance, Calif., assignors, by mesne assignments, to Royal Industries, Inc., Alhambra, Calif., a corporation of California

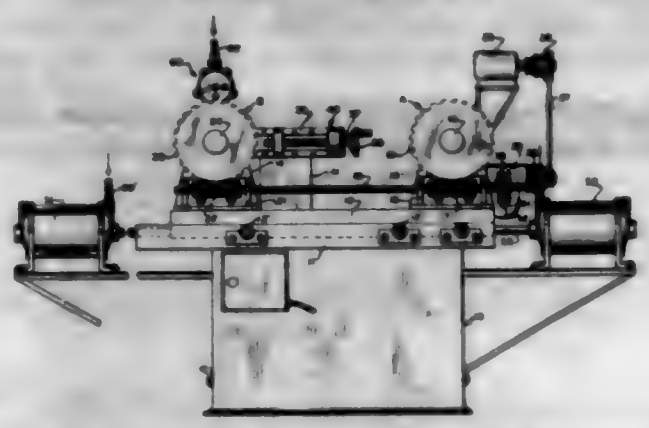
Application April 16, 1954, Serial No. 423,618
6 Claims. (Cl. 89—1.7)



1. In a ripple firing multiple rocket launching device a body having a central rocket tube and a plurality of rocket tubes distributed circumferentially about the center, an aft bulkhead having tube apertures therein coinciding one with each said tube, a circuit holder adapted to be secured to the outside face of the bulkhead between the center tube and the circumferentially disposed tubes, said holder being split between forward and aft faces and having at least one adjacent face grooved for reception of a ripple firing wire circuit member, a ripple firing wire circuit member comprising a direct wire connection for the central rocket, a ground circuit for all said rockets, a series resistance circuit for all said rockets having a connection for each rocket, a separate series-con-

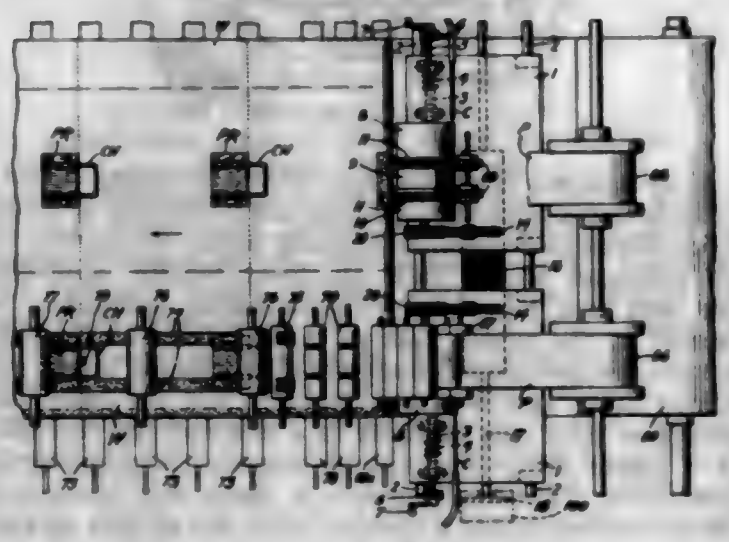
nected resistance between each pair of adjacent connections, and a fused circuit between each connection and the ground including a fuse of lesser resistance than the adjacent resistance adapted to burn through at a predetermined time interval.

2,844,874
PRESSURE CONTACT CONTROL FOR CAM CUTTING MACHINES
Peter Meyer, Watchung, N. J.
Application December 19, 1955, Serial No. 553,898
5 Claims. (Cl. 90—13.4)



1. A cam cutting machine comprising a slide member, a support for a cam blank, a support for a pattern cam, both of said supports being carried by said slide member in axially parallel fixed relation to each other, a tool holder for presenting a tool in cutting engagement with said cam blank, a cam follower disposed in a relatively fixed position adjacent to said pattern cam and adapted to shift said pattern cam by rotation of said pattern cam thereagainst and thereby shift said slide member and cam blank correspondingly with said pattern cam, means for rotating said cam blank and said pattern cam continuously at a constant speed and in unison, means for applying a selected degree of force to said slide member to both hold said tool in contact with said cam blank and said pattern cam in contact with said cam follower, and adjustably movable means adjustable to desired location at a variation in the configuration of said pattern cam said adjustable means rotating with said pattern cam for controlling the degree of force applied to slide said slide member.

2,844,875
MACHINE FOR FORMING AND APPLYING CORD HANDLES TO A PAPER BAG WEB
John S. Davis, Scarborough, and Walter Bochow, Brooklyn, N. Y., assignors to Equitable Paper Bag Co., Inc., Long Island City, N. Y., a corporation of New York
Application December 8, 1954, Serial No. 473,949
19 Claims. (Cl. 93—8)



12. A paper bag web cord handle applying machine including means for guiding a travelling paper bag web along a predetermined path traversing a cord handle applying station, means in advance of said station for applying interspaced spots of adhesive to said web, means at said station for feeding cord handles successively to said web with the legs of these handles in registration with said spots, and means for feeding paper patches to said web on top of said handle legs and in registration with said spots, and means for applying strips of adhesive to said patches prior to their being so fed and so that these strips register with the handle legs, said cord handle feeding means including means for successively feeding handle cord lengths, means for holding the central portion of each of said lengths immovable, means for bending the end portions of each of said lengths to form them into said legs and substantially completely form one of said handles while said central portion is held immovable by said pressing and holding means, said holding means freeing each of said handles for movement after each is formed, means for propelling each of said formed and freed handles with its legs pointing forwardly in the handle propelling direction, and means for guiding said legs of each of said propelled handles to point said legs in said web's travelling direction and effect said registration.

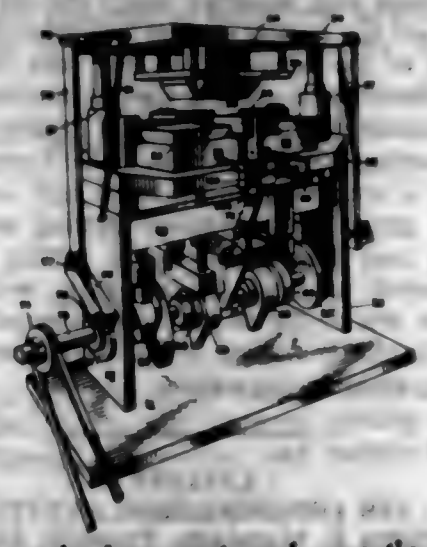
2,844,876
CARTON FORMING APPARATUS
Hans G. Hoffmeister, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application July 15, 1953, Serial No. 368,870
23 Claims. (Cl. 93—51)

1. Apparatus for forming a carton from a blank having a bottom panel and a wall panel slotted to receive a tongue on a second wall panel, said apparatus comprising a die, means for feeding the blank to said die, means cooperating with said feeding means for pre-breaking the slots in the wall panel as the blank is moved toward said die, a plunger movable with respect to said die to propel the blank therethrough, means on the die for folding the slotted panel and the tongue with respect to the bottom panel of said blank, means on the die for opening the slot of the slotted panel, and means on the die for folding said second panel with respect to the bottom panel to advance the folded tongue into said opened slot.

2,844,877
BOX FORMING MACHINE
Fred W. Buhrke, Mount Prospect, Ill., assignor to Fraser Label Company, a copartnership
Application June 27, 1956, Serial No. 594,226
11 Claims. (Cl. 93—51)

5. A box-forming machine comprising, a pair of axially shiftable rectangular-shaped blank-clamping dies, a pair of complementary triangular prismatic dies axially reciprocable of the blank-clamping dies for obliquing border portions of the base part of the blank held between the clamping dies, corner dies reciprocale relative to the blank-clamping dies into the space between the obliquing die ends to fold in the corners of the border portions of

the blank, other dies shiftable relatively of the blank-clamping dies for disposing the border portions of the



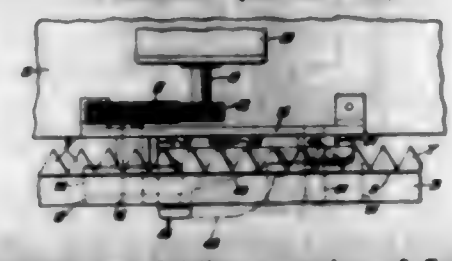
blank normal to the base part, and operating means for effecting the sequential operation of the respective dies.

2,844,678

FOLDING MACHINE FOR THE MANUFACTURE OF PAPERBOARD BOXES AND THE LIKE

Whitney D. Sherman, West Nyack, and Heinz Ahlmeyer, Orangeburg, N. Y., assignors to Continental Can Company, Inc., a corporation of New York

Application July 13, 1953, Serial No. 367,418
4 Claims. (Cl. 93—52)



1. A machine for folding a series of flaps projecting from one side of a continuous paperboard band to break the score line between the flaps and the body of the paperboard band, which comprises driving mechanism for moving the paperboard band in a direction parallel to said score line, a folding sword in the form of a substantially flat untwisted plate having a portion arranged to overlie an area of the flaps outside the score line and a widened portion whose edge extends diagonally across the score line, said first-named portion of the sword lying entirely outside the path of movement of the score line so that the continuous paperboard band can be introduced laterally with unfolded flaps extending above the widened portion of the sword and other unfolded flaps extending below said first-named portion of the sword.

2,844,679

WITHDRAWN

2,844,680

WITHDRAWN

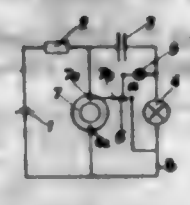
2,844,681

ELECTRICAL FLASHLIGHT DEVICE WITH CONDENSER IGNITION

Ferdinand Wagner and Max Sailer, Munich, Germany, assignors to Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany, a corporation of Germany

Application April 2, 1953, Serial No. 346,466
Claims priority, application Germany April 22, 1952
3 Claims. (Cl. 95—11.5)

1. A photoflash device including a housing for use with a photographic camera which incorporates a shutter mechanism, said device comprising an ignition circuit disposed within said housing, said circuit including a source of electrical energy, a resistor connected in series-circuit relationship to said source, a condenser connected in series-circuit relationship to said resistor, a flashlamp socket mounted on said housing and connected in series-circuit relationship between said source of electrical energy and said condenser, a normally open shutter switch including contacts, coupling means operatively connecting said shutter switch to said shutter mechanism which closes said shutter switch upon actuation of said shutter mechanism, detachable electrical coupling means connecting said shutter switch in parallel across said condenser and said flashlamp socket, means for testing the operative condition of said circuit including a test



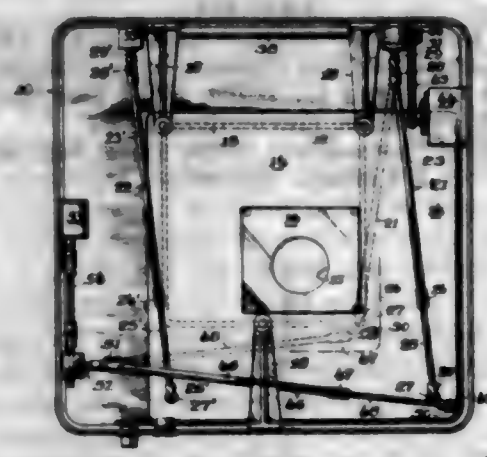
lamp and selector switch means which incorporates selectively inter-connectable contact elements for selectively connecting said test lamp in parallel with said condenser or with said flashlamp socket or for switching off said test lamp from said circuit, one end of said test lamp being connected to the junction point between one plate of said condenser and one end of said flashlamp socket, the other end of said test lamp being connected to one contact element of said selector switch means, another of said contact elements being connected to the junction point between the other plate of said condenser and one contact of said shutter switch, and still another contact element of said selector switch means being connected to the junction point between the other contact of said shutter switch and the other end of said flashlamp socket.

2,844,682

LENS MOUNTING

Delbert T Blatherwick, Chicago, Ill., assignor to Robertson Photo-Mechanix, Inc., a corporation of Illinois

Application October 29, 1953, Serial No. 389,183
8 Claims. (Cl. 95—51)



4. In a lens board mounting system, a supporting frame having an opening, said frame having shoulder portions around said opening forming contact surfaces in a common plane, a lens board mounting plate slidably contacting said surfaces, a lens board mounted on said plate, said lens board and said plate having openings aligned with each other and with the opening in said frame in all positions of said plate, whereby a lens may be secured to said lens board in alignment with all three of said openings, spring pressed means slidably engaging said plate and forcing it into engagement with said contact surfaces, parallel extensible suspension rods pivotally attached at one end to said plate and pivotally attached at

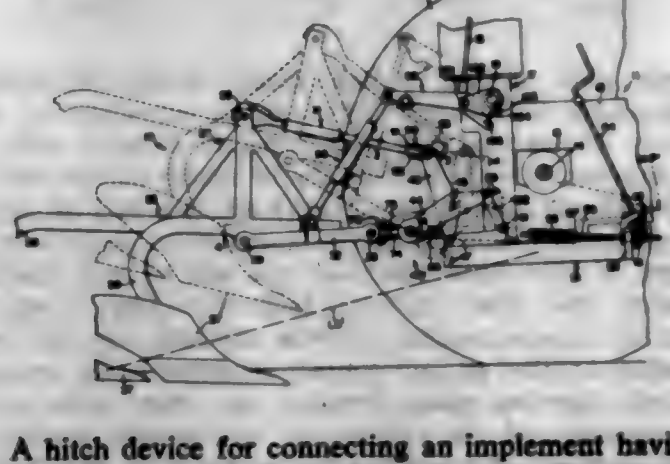
the other end within said supporting frame above said plate, thereby supporting said plate, means for varying the length of said suspension rods, thereby imparting substantially vertical movement to said plate within the confines of said frame, an extensible rod attached pivotally at one end to said plate and attached pivotally at the other end within said supporting frame laterally of said plate, and means for varying the length of said last mentioned rod to impart substantially lateral movement to said plate within the confines of said frame.

2,844,083

HITCH DEVICE

Wallace H. Du Shane, Waterloo, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa

Application April 7, 1953, Serial No. 347,285
23 Claims. (Cl. 97—46.93)



1. A hitch device for connecting an implement having upper and lower, generally horizontally extending attaching links with a tractor, said hitch device comprising a support attachable to the tractor, a pair of pivotally interconnected members swingably connected with said support, means on said members for receiving the front ends of said links, means interconnecting said members for causing them to move together, and spring means acting against one of said members to restrain generally rearward movement of said links when connected with said member.

2,844,084

EDGING TOOL FOR SIDEWALKS AND THE LIKE

Lloyd D. Greenland, Des Moines, Iowa, assignor of one-half each to Verna O. Wade, West Des Moines, and Richard E. Williams, Des Moines, Iowa

Application November 3, 1954, Serial No. 466,483
6 Claims. (Cl. 97—227)



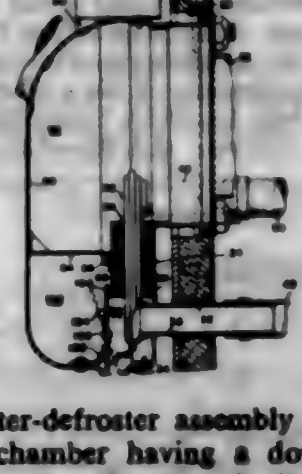
1. A walk edging tool comprising a ground cutting member, a foot rest member, and a generally upright handle, means for pivotally connecting the handle to the cutting member and to the foot rest member adjacent the bottom of the handle, means on said foot rest member adapted to retain it against retrograde movement when the weight of the operator is applied thereto, and to thereby result in movement of the cutting member forwardly when the handle member is moved in one direction, said foot rest member being moved forwardly by movement of the handle in the opposite direction when the weight of the operator on the foot rest member is relaxed, whereby the edging tool is ratcheted forwardly upon oscillation of the handle, said cutting member having two cutting edges thereon, one forwardly thereof for cutting a trench in the ground and one on the top for cutting grass, and a second cutting member rigidly secured to said handle having a cutting edge on the bottom thereof adapted to cooperate with the cutting edge on the top of the first cutting member to cut grass when the handle is moved in the direction to move the first cutting member forwardly.

2,844,085

AIR DISTRIBUTION SYSTEM

Victor E. Mastoianis, Franklin, Mich.

Original application July 28, 1949, Serial No. 107,332. Divided and this application September 24, 1951, Serial No. 247,934
9 Claims. (Cl. 98—2)



1. A car heater-defroster assembly comprising an air outlet plenum chamber having a downwardly directed discharge opening for directing air directly into the passenger compartment of the car, a defroster plenum chamber at the side of said air outlet plenum chamber, said chambers having an air flow passage therebetween adjacent said discharge opening, means for directing heated air into said outlet plenum chamber, a valve having an upper portion movable in said passage to control air flow therethrough and a lower portion movable across said discharge opening, the upper portion of said valve in one position closing the passage between said chamber and the lower portion of said valve in such position having a lower edge at one side of said discharge opening, the upper portion of said valve being movable to open said passage as the lower edge of said valve moves across said discharge opening to restrict air flow therethrough, the lower portion of said valve being inclined to the flow of air in all positions in which it restricts flow of air out of said discharge opening to increase the velocity as the volume of flow is decreased.

2,844,086

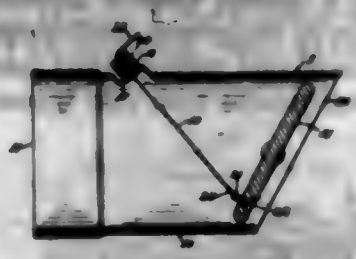
DAMPER ARRANGEMENTS FOR AIR CONDITIONING UNITS

Bruce E. Birdsall, Cincinnati, Ohio, assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application May 26, 1954, Serial No. 432,457
11 Claims. (Cl. 98—38)

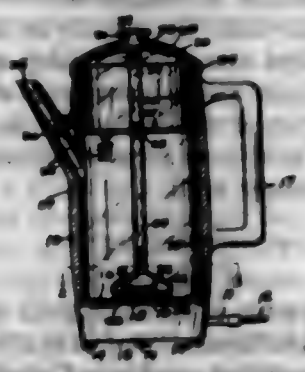
1. In a damper arrangement for use in an air conditioning system to regulate the discharge of conditioned air into a plenum chamber of a room unit, the combination of a sleeve adapted to protrude into the plenum chamber, one end of the sleeve being adapted to be connected to a source of high pressure, high velocity, conditioned air,

said sleeve having its protruding edge extending at an angle other than a right angle to the axis of the sleeve, a butterfly damper mounted in said sleeve adjacent the protruding end of the sleeve in such manner that in fully



open position a portion of the damper protrudes beyond the edge of the sleeve, said damper serving to regulate flow of air through the sleeve, and means for moving said damper.

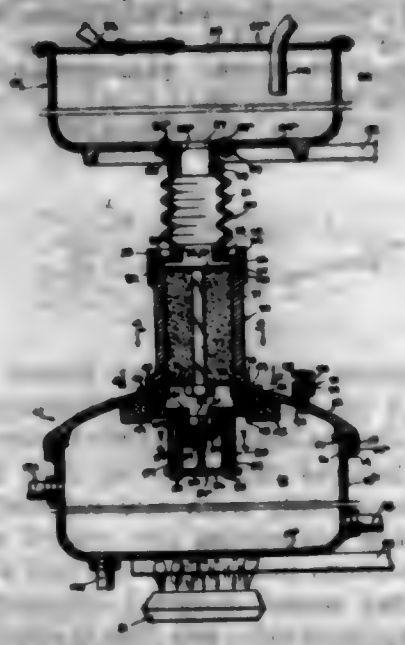
2,844,087
COFFEE MAKER
Marie C. Lockhurst, Sioux Falls, S. Dak.
Application December 21, 1955, Serial No. 554,574
2 Claims. (Cl. 99—285)



1. A coffee maker comprising a metal exterior body including a metal spout portion, a glass insert enclosed by said metal body, said insert being adapted to cover all of the interior portions of said metal body to prevent contact of brewed coffee with any portion of said metal body, said insert including a cylindrical hollow liquid-receiving member snugly engaging the interior of said metal body, a glass tube communicating directly to said liquid-receiving member, said glass tube passing through said spout portion and extending to the discharge end of said spout portion, a glass stem, a glass coffee-receiving cup formed integrally with said stem and having a plurality of lower openings in its bottom wall, means for securing said glass stem to the base of said liquid-receiving member, a metal lid, said lid including a glass lid portion attached to the interior thereof, said metal lid having a central opening, said glass lid portion including a cylindrical portion extending upwardly therefrom to visually determine the condition of coffee in said coffee maker.

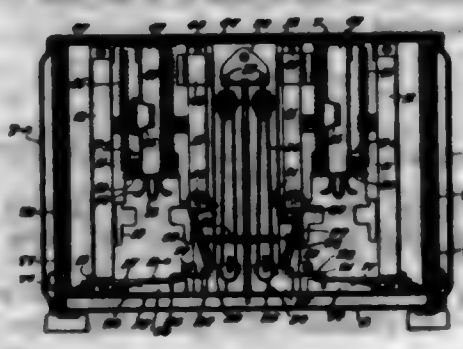
2,844,088
COFFEE PERCOLATOR
Marcel J. von Wertzer, New York, N. Y.
Application December 9, 1954, Serial No. 474,854
3 Claims. (Cl. 99—292)

1. A coffee making apparatus comprising a pressure chamber adapted to be heated for retaining fluid under pressure, a feed chamber disposed in spaced relationship over said pressure chamber and having a central aperture in its bottom wall, a conduit secured adjacent the base of said pressure chamber and leading into the top of said feed chamber, an elongated container having ground coffee retaining screens as bottom and top walls removeably and hermetically secured to the top of said pressure chamber, a bellows conduit removeably and hermetically secured to the top of said container and about said aperture of said feed chamber, and vacuum operated check valve



means secured within said pressure chamber hermetically below said bottom screen of said container.

2,844,089
AUTOMATIC BREAD TOASTERS
Leslie S. Lynch, Jr., Bogota, N. J., assignor to Rudo Associates, Newark, N. J.
Application April 16, 1953, Serial No. 349,182
6 Claims. (Cl. 99—329)



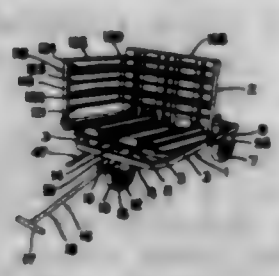
3. An automatic electric toaster including a heating element, a carrier plate vertically movable between raised and lowered positions, a bread slice carrier mounted upon said carrier plate, an electric circuit for energizing the heating element, an electric switch for controlling said circuit including a contact bar carried by said carrier plate for closing and opening said circuit, a detent associated with said carrier plate, a movably mounted jam bar adapted to engage the detent for holding the carrier plate in lowered position and the switch in closed position, a first operating lever for moving said jam bar to cause it to release the detent and permit the return of the carrier plate to its raised position, a second operating lever, an expandable and contractable electric resistance element for operating the second operating lever, a gravity-operated member interposable between the said first and second levers during the movement of the second operating member by the expansion of the resistance element while the carrier plate is held in lowered position and the switch in closed position by engagement of the detent with the jam bar, the said interposable member being operable to variably connect the first operating lever to the second operating lever during the expansion of the resistance element and to rock the first lever upon the movement of the second lever by the contraction of the resistance element and thereby cause release of the detent by the jam bar, and means connecting said interposable member with the carrier plate for removing the interposable member from between the said levers and releasing the first lever upon the return of the carrier plate to its raised position.

2,844,090
GUARD FRAME FOR ELECTRIC TOASTERS
Lawrie L. Witter, Newton Highlands, Mass.
Continuation of abandoned application Serial No. 244,433, August 30, 1951. This application January 11, 1954, Serial No. 403,326
3 Claims. (Cl. 99—339)



1. In combination with an electric toaster of the pop-up type having a top surface rounded laterally downward to and merging into the side walls of the toaster and having two vertically disposed slice receiving slots through and open at and downwardly from said top surface, a one-piece metal frame embodying two spaced and parallel marginal end portions integrally connected at their ends to the ends of two spaced marginal side portions and in a common plane therewith, and fingers spaced inwardly from the side portions and depending integrally from the end portions and extending downwardly into the ends of said slots to anchor the frame in horizontal position on the toaster with said side portions disposed in spaced relation over and above said downwardly rounded top surface above and adjacent to said side walls of the toaster, the frame being open between said marginal portions to wholly expose said slots and the top surface of the toaster therebetween to receive and support a slice of toast horizontally on and in direct contact with said top surface within said marginal portions.

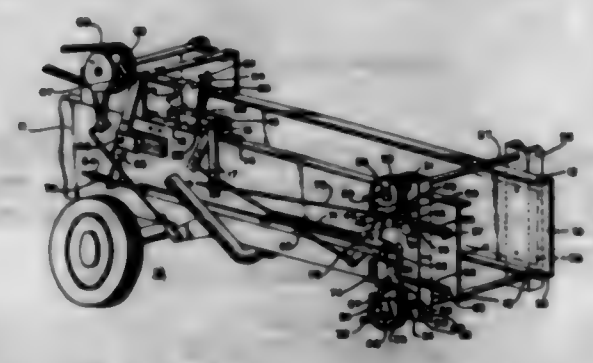
2,844,091
BRICK PACKAGE FORMING MACHINE CONSTRUCTION
Carlton M. Shafer, New Philadelphia, Gilbert E. Neff, Stone Creek, and Alvin C. Marsh, Jr., New Philadelphia, Ohio
Application November 10, 1953, Serial No. 391,216
13 Claims. (Cl. 100—25)



1. A brick package forming machine including a base carriage member, a cradle member, cooperating hinge means on said base carriage and cradle members hingedly connecting said cradle member to said base carriage member, a vertical side gate having an inner face, said gate being hingedly connected to said cradle member, and guide means on said side gate partially extending outward from the inner face of said side gate serving as guides for positioning each layer of bricks in a particular lateral position in a brick package being formed.

2,844,092
AUTOMATIC DENSITY CONTROLLED APPARATUS FOR BALING
William Edwin Davis, Seven Springs, N. C.
Application May 18, 1955, Serial No. 509,373
6 Claims. (Cl. 100—43)

1. In combination in a baling device, means for receiving material to be baled comprising spaced movable walls and means for moving said walls to and from each other, said means for moving said walls comprising a reciprocating member, a pair of spaced levers engageable by said reciprocating member one at a time, a pair of tension members for spacing said walls a desired distance apart, movable means connected to said tension members for adjusting the tension thereof and positioned so as to be moved to a desired tension adjusting position by said levers, means to reciprocate said reciprocating member, means to move said reciprocating member into tension adjusting engagement with said spaced levers one at



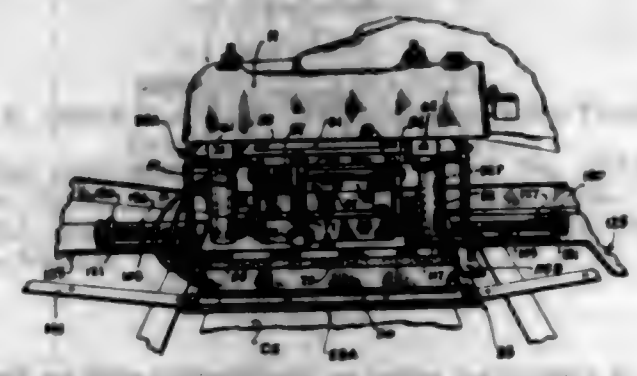
a time, and control means for moving said reciprocating member into a position of engagement with one of said levers in accordance with the density of the material being baled, said control means comprising a density sensing member whereby said spaced movable walls are moved toward each other when the density of the material being baled is relatively low, and away from each other when the density is relatively high.

2,844,093
SELECTIVE TYPE POSITIONING MEANS IN PRINTING CYLINDERS
Friedrich Reitz, Frankfurt am Main Griesheim, Germany, assignor to Telefonbau und Normalzeit G. m. b. H., Frankfurt am Main, Germany
Application August 20, 1956, Serial No. 604,983
6 Claims. (Cl. 101—91)



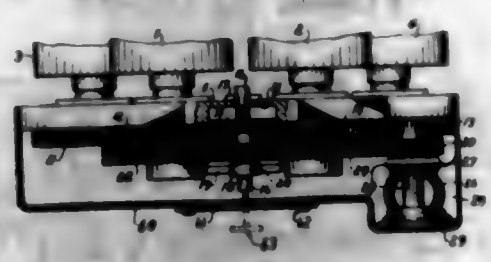
1. A printing cylinder comprising in combination a cylinder body having a recess therein, a rotatable type wheel arranged in said recess, a shaft supporting said type wheel, means for lowering said type wheel and said shaft into said recess to move said type wheel to an ineffective position and for raising said type wheel and said shaft to move said type wheel to an effective position, said lowering and raising means including a supporting lever for said shaft arranged in said recess, fulcrum means for pivoting said supporting lever about an axis parallel to said shaft, and spring means for biasing said supporting lever out of said recess, said printing cylinder further comprising a frame structure arranged in said recess pivotally supporting said supporting lever and supported by said cylinder body, and latching means for latching said supporting lever selectively in said ineffective position and said effective position of said type wheel.

2,844,094
PRINTING MACHINE AND METHOD FOR TRANSFERRING INK BY HEAT AND PRESSURE
John H. Grever, Cleveland Heights, Ohio, assignor to Addressograph-Multigraph Corporation, Wilmington, Del., a corporation of Delaware
Application January 5, 1955, Serial No. 480,632
9 Claims. (Cl. 101—134.5)



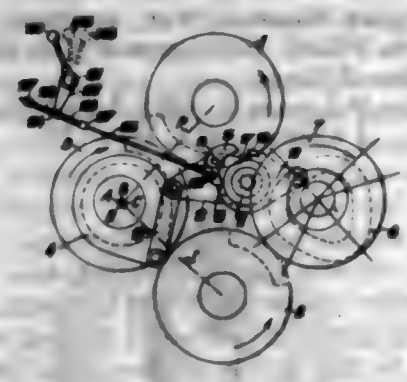
1. A printing machine comprising, an impression plate on which a copy sheet to be printed may be located, a pivotal frame for disposing a master strip bearing images transferable by the simultaneous action of heat and pressure normally in spaced relation from the copy sheet, a yieldable spring arm carried by said frame, a platen adapted to be heated, means disposing said platen normally retracted in spaced relation from said master strip normally disposed as aforesaid, means for advancing the platen through a printing stroke eventually to force said master strip with pressure against the copy sheet on said impression plate, and means carried by said platen for engaging the spring arm on said frame to carry the master strip toward the copy sheet in advance of and spaced from the platen upon advancement of the platen, said spring arm yielding when the master engages the copy to enable the platen to further advance to press the master against the copy.

2,844,095
REVERSIBLE DRIVE FOR ROTARY PRINTING UNIT
Charles A. Harlem, Riverside, Conn., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
Application February 11, 1953, Serial No. 336,235
12 Claims. (Cl. 101—180)



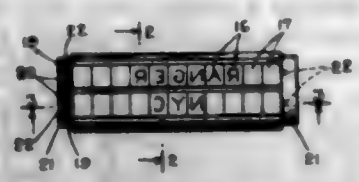
1. In a printing machine unit comprising a pair of printing couples having their shafts journaled in a common frame structure, the combination with the cylinder shafts of a drive mechanism comprising a pair of meshing gears, one gear of the pair being rotatably carried on a said shaft of each of the couples, means for selectively coupling each said gear to its shaft and uncoupling it therefrom, a second gear fixed to each of the two said shafts, the two said second gears being out of mesh, an idle gear for forming a driving connection between the two said second gears, means mounting the idle gear for movement between a position connecting the two said second gears and a position disconnecting them, and means for driving one of the gears of the first mentioned pair.

2,844,096
TRIPPING DEVICE FOR THE BLANKET CYLINDERS IN OFFSET PRINTING MACHINES
Werner Koch, Offenbach am Main, Germany, assignor to Faber & Schleicher Aktiengesellschaft, Offenbach am Main, Germany, a German body corporate
Application March 21, 1955, Serial No. 495,732
Claims priority, application Germany April 3, 1954
5 Claims. (Cl. 101—218)



1. In a tripping device for offset printing machines having a blanket cylinder, a plate cylinder, an impression cylinder, an eccentric bushing for the said blanket cylinder and means for turning the said eccentric bushing so as to trip the blanket cylinder consecutively first to the plate cylinder and then to the impression cylinder, a unidirectly revoluble cam member for controlling the movement of the said eccentric bushing into its tripping on and off positions, a pivotally mounted abutment carrier comprising three abutments for the tripping-on position of said blanket cylinder one for tripping the plate cylinder only, one for tripping successively the plate cylinder and the impression cylinder and one for tripping off at least one of the said plate cylinders prior to the tripping on of the impression cylinder and the said impression cylinder, means for imparting movement from the said cam member to the said abutment carrier, a pawl carrier and a link pivoted thereto and to the said eccentric bushing, and a pivotally mounted pawl on said pawl carrier adapted for contact with either of the said three abutments and to transmit their movements over the said pawl carrier and the said link to the said eccentric bushing.

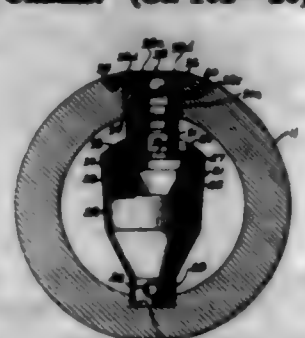
2,844,097
RUBBER STAMPS
Whitney K. Munson, Red Bank, N. J.
Application February 21, 1956, Serial No. 566,799
7 Claims. (Cl. 101—380)



1. A rubber hand stamp of the character described, comprising a supporting body having a flat outer surface, a yieldable channelled backing secured to the flat surface of said body with the channel directed outwardly with respect to said flat surface, a plurality of characterized and blank rubber blocks arranged as an assemblage in the channelled portion of said backing, said blocks having alined apertures arranged wholly within boundaries of the blocks and positioned within the channel of said backing, a straight rod disposed snugly in the apertures of said blocks in alining the blocks one with respect to the other as an assemblage for mounting within the channelled portion of said backing, said rod being completely enveloped by each of said blocks and having ends protruding beyond end blocks disposed on the rod to form mounting ends, and means secured to said supporting body and arranged over the ends of the chan-

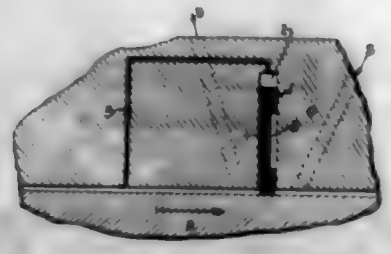
nelled portion of said backing for engaging the mounting ends of said rods in retaining the assemblage of blocks on the rod against displacement from said backing.

2,844,098
APPARATUS FOR SUPPORTING EXPLOSIVE CHARGES IN JET TYPE PERFORATING GUNS
Jacques H. Castel, Houston, Tex., assignor, by mesne assignments, to PGAC Development Co., Houston, Tex., a corporation of Texas
Application February 8, 1951, Serial No. 209,972
3 Claims. (Cl. 102—20)



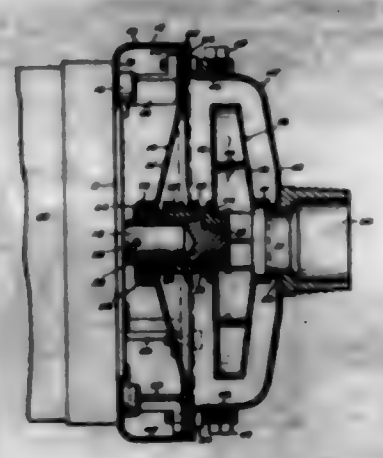
1. In a perforating gun which includes a gun barrel provided with an explosion port in a wall thereof, an assembly for holding a cavitied explosive charge unit in said barrel in axial alignment with said port with the cavitied end of the explosive charge facing said port, comprising a positioning sleeve, means closing said port and supporting said positioning sleeve in axial alignment with said port, said unit being provided with an annular seat adjacent the inner end of said sleeve, and a dish-shaped annular member deformably held between said sleeve and said unit and provided with an outer edge seated on said annular seat, said member having an inner edge surface seating against the inner end of said sleeve and being provided with a flange around said inner edge which projects into said sleeve.

2,844,099
FLOATING NON-STICKING BLADES OR VANES
Joseph Modrey, Schenectady, N. Y., assignor to The Farmingdale Corporation, Farmingdale, N. Y., a corporation of New York
Application June 5, 1956, Serial No. 589,530
4 Claims. (Cl. 103—84)



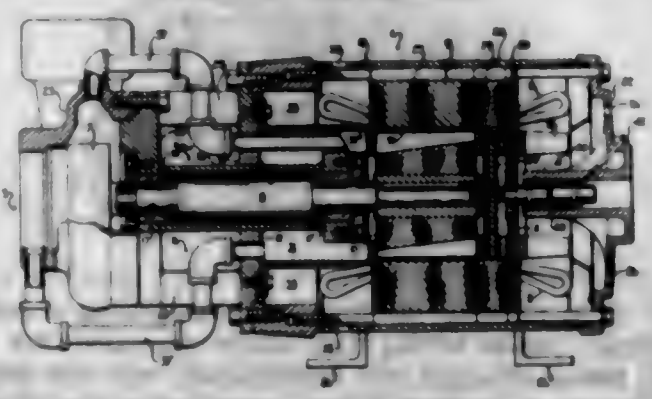
1. In a pump or the like having a stator and a rotor separated by a clearance and provided with means for supplying a viscous fluid to said clearance and means for delivering the fluid therefrom, a blade and mounting therefor comprising, a slot formed in said stator and opening into said clearance, and a wiper or doctor blade fitting freely in said slot, said blade having the cross-sectional form of an elongated rectangle, being so disposed as to present a narrow edge toward the rotor, being provided with a shallow recess so located as to remain wholly within the slot while extending throughout a major part of one side face, and being provided with small holes connecting said recess with the opposite side face.

2,844,100
SHEET METAL CENTRIFUGAL PUMP
Kurt J. Holsicke, Hollywood, Fla.
Application July 6, 1954, Serial No. 441,469
4 Claims. (Cl. 103—87)



1. A centrifugal pump in combination with an electric motor having an extended drive shaft, the pump comprising a cylindrical and forwardly open sheet metal connector that is fixedly connected to the end of the motor concentric thereto and concentric to the shaft, a cover plate overlying the open side of the connector, a bell housing that is concentric with and that overlies the cover plate in fluid tight engagement therewith, a rotary fluid impeller disposed within the housing in axial alignment with the motor shaft, an adaptor connected with the impeller axially thereof and with the adaptor extending through an opening of the cover plate and having driven connection with the motor shaft, a fluid tight seal between the cover plate and the adaptor, the impeller comprising a pair of spaced apart discs and a plurality of radial vanes that are welded to the discs, an axially disposed threaded inlet connection for the housing and a threaded outlet connection for the housing, the connector, the cover plate, the housing and the impeller and its plates all being formed of a polished sheet metal.

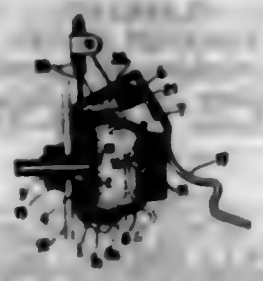
2,844,101
GLANDLESS ELECTRIC MOTOR AND PUMP UNIT
Stanley S. Burns, Wausau, Wis., and Hanns Hornschuch, Easton, Pa., assignors of fifty percent to Marathon Electric Manufacturing Corporation, a corporation of Wisconsin, and fifty percent to Ingersoll-Rand, a corporation of New Jersey
Application September 18, 1957, Serial No. 685,059
8 Claims. (Cl. 103—87)



1. An electric motor and centrifugal pump unit comprising: individual coaxial motor and pump housings, said housings having end walls in opposing spaced apart relation; imperforate duct means rigidly connected to and spanning the distance between said end walls; means within the motor housing coacting with said end wall of the motor housing to define a fluid chamber to which said duct means opens, so that the duct means communicates the fluid chamber with the interior of the pump housing; a rotor for the motor inside said fluid chamber; an impeller for the pump inside the pump housing; a

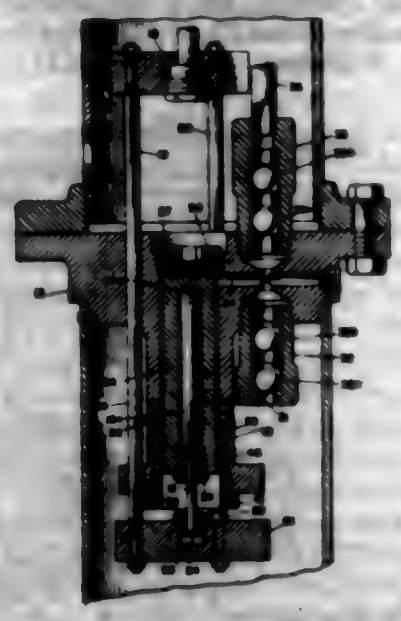
shaft common to said rotor and impeller, said shaft passing through the duct means in spaced relation to the wall thereof; bearing means for said shaft in said duct means so that fluid flowing through the duct means passes through the bearing means; and other duct means communicating said fluid chamber with the interior of the pump housing.

2,844,102
WINDSHIELD WASHER
John R. Oishei, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Original application July 3, 1952, Serial No. 297,607, now Patent No. 2,743,473, dated May 1, 1956. Divided and this application November 3, 1955, Serial No. 544,642
1 Claim. (Cl. 103—148)



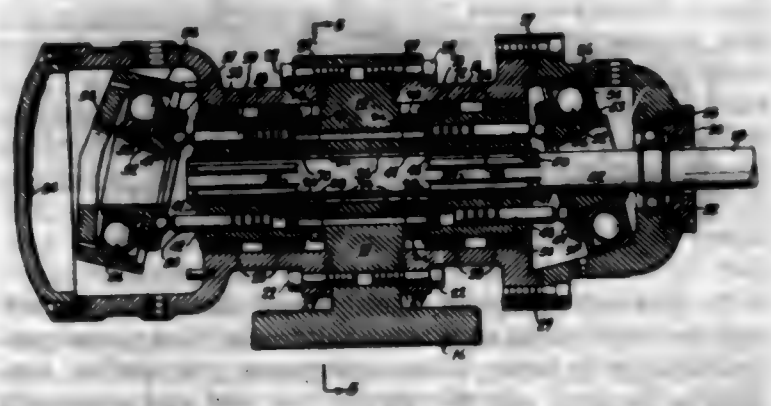
A pump unit comprising a mounting bracket in the form of a body plate having a central opening and a pair of marginal ears, an anchoring member secured to the pump and having a tubular shank passing through the central opening of the plate, a clamping member threaded onto the shank for anchoring the pump to the body of a motor vehicle, a lever pivoted at one end between the said ears and extending over and beyond the body plate to provide a toe-rest on its opposite end, the pump being seated upon the body plate beneath the lever and having a chamber, and a fluid displacing wall operatively engaged by the lever to be actuated thereby.

2,844,103
SELF-ALIGNING PLUNGER DRIVE
Richard Allen Bennett, Elkins Park, Pa., assignor to Milton Roy Company, Philadelphia, Pa., a corporation of Pennsylvania
Application November 26, 1954, Serial No. 471,409
4 Claims. (Cl. 103—153)



1. In a controlled volume pump, the combination of a cylinder block having an elongated plunger chamber open at one end thereof and closed at a discharge end thereof, inlet and outlet valves in flow communication with said discharge end of said chamber, an elongated hollow plunger closed at one end and open at its opposite end disposed for reciprocation between a position substantially filling said chamber to a position largely withdrawn from said chamber, stationary packing means for said plunger forming a liquid seal between said plunger and that portion of said chamber adjacent said open end, driving means for reciprocating said plunger free from development of radial forces of substantial magnitude comprising an elongated actuating element disposed within said hollow plunger, said plunger and said actuating element each having driving surfaces located at opposite end portions of said elongated plunger, the distance between said surfaces on said actuating element being less than between said surfaces on said plunger for alternate engagement of said surfaces at said opposite end portions of said plunger, said actuating element extending outwardly of said hollow plunger through the open end thereof and having radial clearance therewith for relative radial movement between said plunger and said element, and reciprocating means connected to said outwardly extending actuating element for moving said element to engage said driving surfaces located adjacent the closed end of said plunger for moving said plunger into said chamber and for moving said element to disengage said last-named surfaces and to engage said driving surfaces adjacent said open end of said plunger for moving said plunger outwardly of said plunger chamber.

2,844,104
HYDRAULIC DEVICE
Peder K. Wennberg, Manhasset, N. Y., assignor to Wagner Machinery Corporation, Long Island City, N. Y., a corporation of New York
Application June 14, 1954, Serial No. 436,369
11 Claims. (Cl. 103—162)

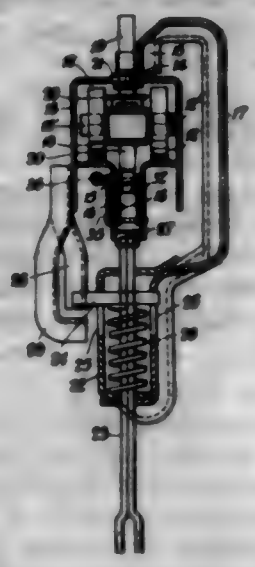


1. In a fluid energy translating device of the type having a valve plate with arcuate ports therein and an adjacent relatively rotatable cylinder barrel containing a plurality of spaced cylinders disposed in registry with the arcuate ports in said valve plate, a sealing structure comprising a raised sealing surface surrounding the arcuate ports in said valve plate, an enlarged bore in the portion of the cylinders disposed adjacent to the valve plate, sleeve means slidably mounted in substantially fluid tight relationship in each of said enlarged bores and extending therefrom into engagement with said raised sealing surface, and a plate member mounted on the extended portions of said sleeve members and disposed adjacent the raised sealing surface in the valve plate.

2,844,105
CONVEYOR SYSTEMS
Donald Mayer King, Hitchin, England
Application June 10, 1952, Serial No. 292,627
Claims priority, application Great Britain June 13, 1951
9 Claims. (Cl. 104—93)

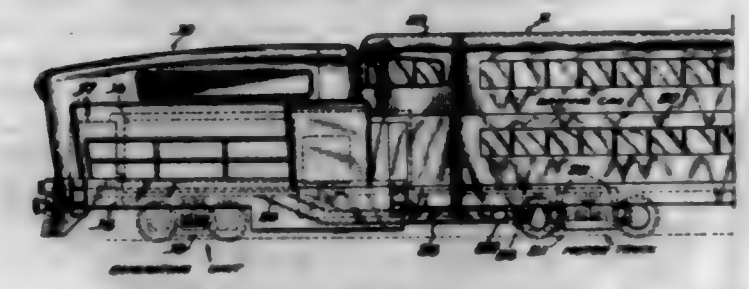
1. A conveyor system comprising an endless chain, driving means for driving said endless chain, a load carrier, wheels riding on said endless chain and directly supporting said load carrier from said endless chain, said wheels being capable of rotation but being normally in non-rotating condition so that said driving means drives said load carrier by driving said endless chain, and

stop means for engaging and stopping said load carrier, said wheels rotating to allow the undisturbed driving of



said endless chain by said driving means upon engagement of said load carrier by said stop means.

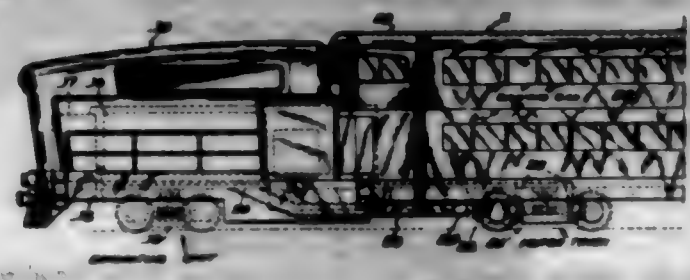
2,844,106
STABILIZER FOR SELF-ENERGIZED MULTIPLE-UNIT RAILROAD CAR TRAINS
Archie M. Miers and William Van Der Sluys, Homewood, Ill., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application November 18, 1953, Serial No. 392,884
10 Claims. (Cl. 105—3)



1. In a self-energized, multiple-unit car train, a driving car unit including a wheeled frame, a separate generating unit including a wheeled frame, a propelling connection between said driving car unit and said generating unit, said connection being rigid with said generating unit, a ball and socket joint pivoting said connection about a center on the driving car unit, a concave sector member on the generating unit curved in a horizontal plane about said center, a convex segment member on said driving car unit curved in a horizontal plane about the same center and received within said concave sector, and a resilient buffer including a wear shoe on one of said units pressed against the said curved member on the other unit.

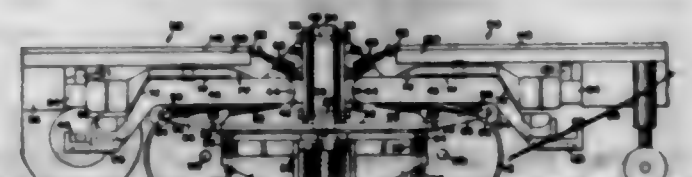
2,844,107
SELF-ENERGIZED MULTIPLE-UNIT RAILROAD CAR TRAIN
Archie M. Miers and William Van Der Sluys, Homewood, Ill., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application February 27, 1956, Serial No. 567,948
4 Claims. (Cl. 105—3)

1. A multiple-unit car train comprising one car unit having a frame mounted on a single truck through a center bearing connection point, an adjacent car unit having a frame supported on a plurality of trucks, and a coupler rigidly connected to the frame of said one car unit and connected to a point on the frame of said adjacent car unit for universal relative pivotal movement about said second mentioned point, the assembly comprising said frame of said one car unit and said coupler being constructed and arranged and being connected to said center bearing such that the center of gravity of said assembly is located between the connection point to said



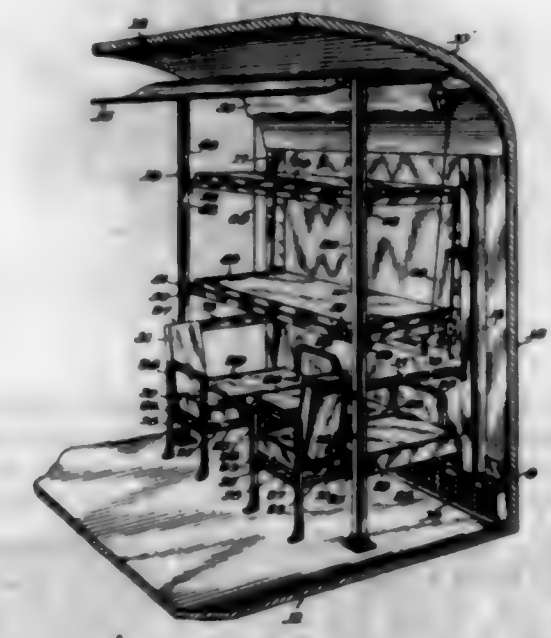
center bearing and said second mentioned point, and said points constitute conjugate centers of percussion and oscillation.

2,844,108
TRAILER TRAIN
Charles L. Madden, Minneapolis, Minn.
Application October 25, 1954, Serial No. 464,370
8 Claims. (Cl. 105—159)



1. In an apparatus for supporting highway trailers comprising a railway truck, a supported platform carried by the railway truck, a swivelly mounted platform supported by the first mentioned platform, an upright member attached to and mounted crosswise of the swivelly mounted platform, two pairs of lifting racks pivotally attached to the upright members, means for raising and lowering the racks, a plate member forming a fifth wheel carried by each pair of arms, and couplers pivotally attached to the upright member.

2,844,109
MULTIPLE BERTH ARRANGEMENT
Kenneth J. Austgen and James E. Candlin, Jr., Hammond, Ind., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application December 22, 1952, Serial No. 327,397
4 Claims. (Cl. 105—321)



3. A sleeping arrangement for an enclosure having a wall, the sleeping arrangement comprising a pair of

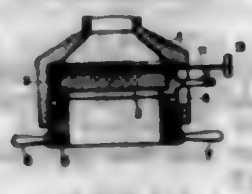
spaced standards positioned in the enclosure and spaced from the wall and secured to the enclosure, a pan having one side pivotally connected to the wall, a first pair of latches positioned on the other side of the pan and secured thereto and engaging either the wall or the pair of standards to hold the pan in a desired position, a first berth having one side pivotally connected to said other side of the pan, releasable means on the first berth and the pan to hold the first berth in the pan, a second pair of latches positioned on the other side of the first berth and secured thereto and engaging the pair of standards to hold the first berth in a horizontal position, a second berth arranged in spaced relation above the first berth and having one side pivotally connected to the wall, a pair of stops on the pair of standards to support the other side of the second berth in a horizontal position, and counterbalancing means connected to the enclosure and the first berth and urging the first berth upwardly and operative to raise the first berth and the pan and by contact of the first berth with the second berth to move the berths and pan to an out of the way position.

2,844,110

DEVICE FOR RAPIDLY AND EASILY INTERCHANGING THE DRAWPLATE IN AUTOMATIC PRESSES FOR SOFT MATERIALS, PARTICULARLY FOR ALIMENTARY PASTE

Mario Braibanti and Giuseppe Braibanti, Milan, Italy

Application June 28, 1955, Serial No. 516,694
Claims priority, application Italy July 26, 1954
1 Claim. (Cl. 107—14)



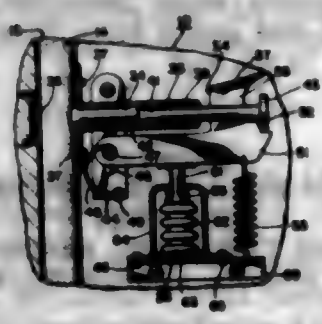
A device for the extrusion of plastic substances comprising a hollow head defining a cylindrical opening and having an internally threaded portion, the interior profile of said hollow head defining a shoulder at which the cylinder terminates, a support plate adapted to be accommodated in said cylindrical opening, said head defining a radial aperture for the insertion and withdrawal of said support plate, means for manually inserting said plate into and withdrawing said plate from the cylindrical opening through the said radial aperture, an extrusion die loosely supported by said support plate but restricted by said support plate against movement due to the movement of extruded substances, a first resilient ring interposed between said shoulder and said support plate with said support plate positioned in the cylindrical opening, a second resilient ring, said first resilient ring defining an annular groove adjacent said head for housing said second resilient ring for preventing the extrusion of substances between the first said resilient ring and said head, said support plate and the first said resilient ring abutting along a plane and cooperatively defining a second annular groove adjacent said head and including the plane, said head defining a groove corresponding with said second annular groove, a cutting wire pivoted at one end to said head and positioned in the second annular and the corresponding grooves and in said plane, the other end of said cutting wire extending through said radial aperture, a handle on said other end for pivoting said cutting wire for cutting through the extruded substances along said plane, and a threaded ring for engaging said internally threaded portion and urging said support plate against said resilient ring thereby locking said support plate in position.

2,844,111

REFRIGERATING APPARATUS DOOR CONTROL MECHANISM

Verlos G. Sharpe, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 8, 1955, Serial No. 533,963
1 Claim. (Cl. 109—63.5)



In a refrigerator, a cabinet structure having a compartment therein provided with an access opening and a door structure for closing the opening, a refrigerating system associated with said cabinet including an evaporator for cooling said compartment and an electrically operated refrigerant translating unit, an electric circuit detachably connected to a source of electric current leading therefrom to said unit, a door blocking element on one of said structures and movable therewith upon transporting the refrigerator from one locality to another, a first spring associated with said blocking element biasing same toward a door blocking position, a shiftable lock for the door blocking element having one part adapted to engage a first portion of said element and another part adapted to engage a second portion of said element opposed to said first portion thereof, a second spring associated with and adapted to act on said lock, a temperature responsive means in said circuit energized thereby overcoming said second spring to hold said one part of the lock in engagement with said first portion of said blocking element whereby to render said first spring ineffective and to cock said element out of door blocking position, a manually actuated latch mechanism separate from and operable independently of said blocking element maintaining said door closed upon temporary interruptions in current to said electric source, said temperature responsive means being deenergized by disconnecting said detachable circuit from its source of electric current for rendering said second spring effective to shift said lock and disengage said one part thereof from said first portion of the blocking element to uncock same and render said first spring effective, said first spring moving said element, in response to an opening movement of said door by operating said latch mechanism, into a position to be engaged by the door for blocking same open ajar with respect to said cabinet to form a gap therebetween for circulation of air ambient the cabinet into said compartment, and said second spring simultaneously shifting said lock to move said another part thereof into engagement with said second portion of said blocking element to provide a rigid backing therefor preventing force applied to the door, while it is blocked open, from closing the gap between said structures.

2,844,112

METHOD OF INHIBITING SLAG FORMATION IN BOILERS AND INHIBITOR MATERIALS FOR USE THEREIN

Nathan William Muller, Clarendon Hills, Ill., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application January 2, 1953
Serial No. 329,463
6 Claims. (Cl. 110—1)

1. Method of inhibiting the formation of slag on the firesides of boilers, which comprises entraining in the

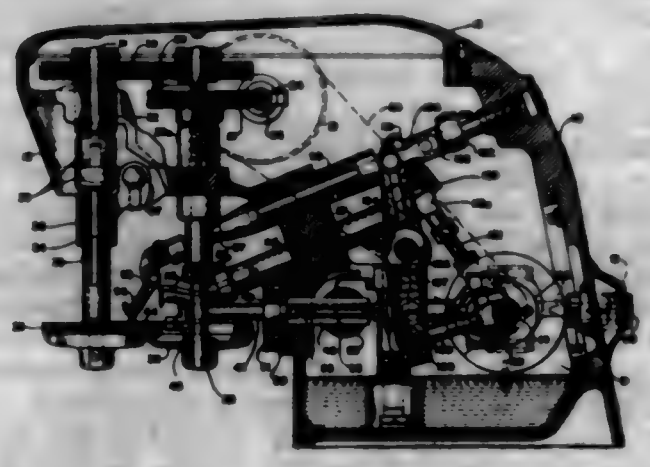
boiler flue gas stream resulting from the combustion of fuel in the boiler at least one basic metallic oxide less basic than oxides of alkali metals in combination with at least one amphoteric metallic oxide that in its higher valence state forms an acidic anhydride capable of displacing sulfur trioxide from sodium sulfate at elevated temperatures, said oxides being present in said boiler flue gases in substantially equal molecular quantities, the total quantity of said oxides being from 1 to 100 parts per million parts of the fuel.

2,844,113

CONTINUOUS FEED NEEDLE FEED SEWING MACHINE

Ned L. Wallenberg, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a corporation of Illinois

Application July 5, 1955, Serial No. 519,811
14 Claims. (Cl. 112—18)



1. In a sewing machine having an enclosed frame and a rotary drive shaft disposed at least in part within said enclosed frame, a pair of rotary work feeding elements adapted to engage and feed work in a manner to present a free edge, connections from said shaft for continuously rotating said elements, stitch forming devices arranged to cooperate with the work adjacent the point at which it is engaged by said work feeding elements, said devices including a reciprocatory needle carrying bar extending from a region within said frame to a region external thereof and a plurality of cooperating thread engaging members adapted to form overedge stitches along the free edge of the work, connections from said shaft for reciprocating said needle bar and operating said members in coordinated relation, a hollow carrier for said needle bar adapted to support and guide the same, a spherical formation on said carrier through which said needle bar is reciprocated, said carrier being arranged to be oscillated about an axis extending transversely through said spherical formation, a spherical seat immovably mounted in a wall of said frame in which said spherical formation is journaled, and means within said enclosed frame for oscillating said carrier about the axis provided by said immovable spherical seat for shifting the needle in the direction of feed whenever it is engaged with the work.

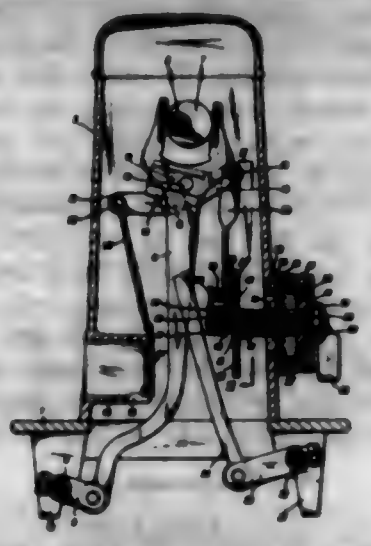
2,844,114

STITCH ADJUSTING DEVICE FOR SEWING MACHINES

Christiaan Joseph Marinus Bosink and Herbert Wenz, Kaiserslautern, Pfalz, Germany, assignors to G. M. Pfaff A.-G., Kaiserslautern, Pfalz, Western Germany

Application September 10, 1956, Serial No. 608,915
Claims priority, application Germany September 12, 1955
4 Claims. (Cl. 112—210)

1. Stitch adjusting mechanism for sewing machines of the type comprising a main shaft including cam means, a feeder advancing shaft and a feeder raising shaft, follower bars operatively connecting said advancing shaft and said raising shaft, respectively, to said main shaft, a stitch setting guide connected to said follower bar for said advancing shaft and a draw bar operatively connecting said guide and said stitch adjusting mechanism, said mechanism including setting shaft extending through the housing of the sewing machine a contact lever connected



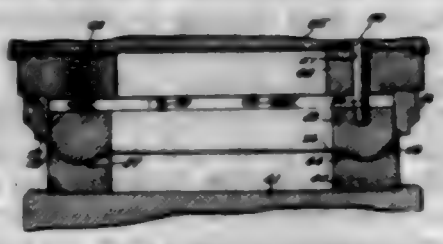
to said draw bar having a follower member, a disk concentric with said setting shaft extending in a plane perpendicularly to said shaft and presenting an aperture receiving said follower member for guiding said draw bar, said aperture being defined by a pair of curved edges extending in said plane at radial distances from the axis of rotation of said disk in inverse relationship to one another and relative to a concentric neutral arc.

2,844,115

APPARATUS FOR MAKING WHEEL COVERS

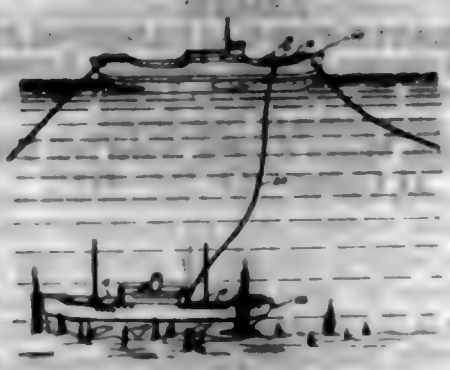
George Albert Lyon, Detroit, Mich.

Original application December 18, 1947, Serial No. 792,511. Divided and this application July 17, 1953, Serial No. 368,735
2 Claims. (Cl. 113—49)



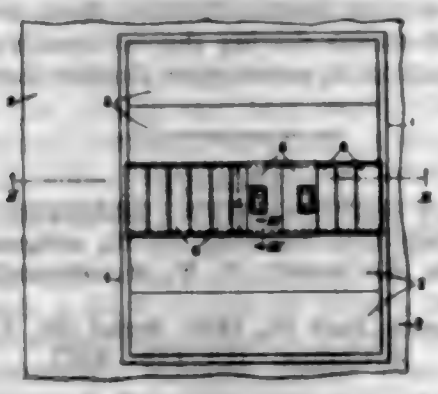
1. In a forming die assembly for vehicle wheel covers, a supporting die for underlying a wheel cover blank and having a ring-shaped upwardly facing element provided with an upwardly facing contoured cover receiving surface and an annular outer peripheral upwardly directed rib with portions thereof at spaced intervals recessed and providing upwardly and outwardly opening clearances interrupting the peripheral continuity of the rib, a hold-down ring member reciprocably cooperative with said supporting ring member to clamp a cover blank between the rings, and a third ring die member relatively reciprocably related to both of said first mentioned ring members and operative upon an upstanding marginal hollow downwardly opening rib having an outer margin with downwardly extending finger extensions on the cover blank and with the cover rib overlying said die rib in upwardly spaced relation, said third ring die member having a continuous annular curling groove within which the cover blank rib is engaged for turning the outer margin of said cover blank rib inwardly under the cover blank rib and for swinging the downwardly extending finger extensions on said outer margin into said clearance recesses while the die rib intermediate said recesses supports the cover blank solidly during action of said third ring die member.

2,844,116
SHIP SALVAGING APPARATUS
John H. Potter, Milwaukee, Wis.
Application August 17, 1956, Serial No. 604,791
3 Claims. (Cl. 114—50)



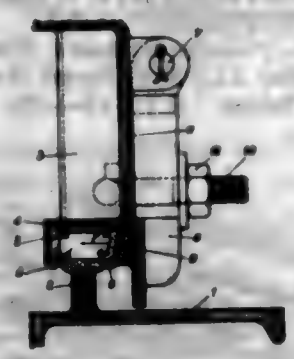
1. In apparatus for raising a sunken ship, a salvage ship, a frame secured to said salvage ship, a hopper assembly mounted on said frame comprising a horizontal cylinder having rear and forward ends, a hopper mounted on said frame having an open lower end in communication with said cylinder at a point intermediate the ends of the cylinder, buoyant bodies in said hopper feeding gravitationally through said open end into the cylinder, a high pressure conduit extending across the forward end of said cylinder with the forward end of the cylinder opening into said conduit, a conveyor hose connected to one end of said conduit for introduction into the hull of a sunken ship, a high pressure pump on the salvage ship having a pressure hose connected to the other end of the conduit, a piston working in said cylinder across the open lower end of the hopper, a piston rod having a forward end pivoted to the piston and a rear end extending out of the rear end of the cylinder, and motor means on said support and connected to the rear end of the piston rod for reciprocating said piston in the cylinder.

2,844,117
DEVICE FOR PROTECTING SHIPS' HOLDS, WAGONS, DURING CARGO WORKING
Robert MacGregor and Joseph MacGregor, Monkseaton, Whitley Bay, England
Application March 8, 1955, Serial No. 493,814
Claims priority, application Great Britain October 14, 1954
5 Claims. (Cl. 114—242)



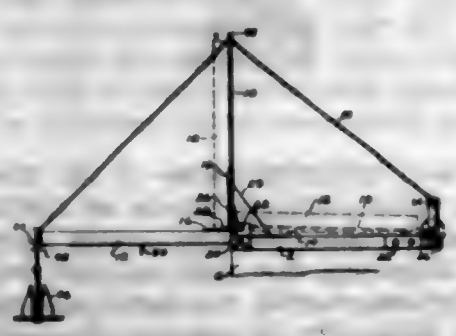
1. Cover device for cargo openings in ship's hatches, railway wagons and the like of the type comprising a series of adjacently aligned movable main cover sections extending across the entire width of said opening, for completely closing said opening and forming a gap between two adjacent main sections by pushing them aside for the passage of the cargo through said hatch, a series of smaller dimensioned complementary cover sections adjacently aligned in a direction which is substantially perpendicular to the direction of alignment of said main cover sections, said smaller sections being supported by the said main sections and spanning said gap, at least one third light section superimposed to and riding over said complementary sections in parallel relationship with said latter sections and a second gap formed by pushing aside two of said complementary sections on the very spot where it is desired to lower the cargo, said light sections temporarily spanning said second gap, and further two portable beams temporarily located on and attached to each of the opposed edges of two adjacent main cover sections after these latter have been moved apart to form said gap therebetween, the said complementary and light covers being adapted to rest on said portable beams.

2,844,118
WATER TIGHT HATCH COVER ARRANGEMENT
Henri Kammerman, Paris, France, assignor to International MacGregor Organization (I. M. G. O.), Casablanca, Morocco, a body corporate of Morocco
Application December 5, 1955, Serial No. 551,163
Claims priority, application France December 28, 1954
11 Claims. (Cl. 114—202)



1. A hatch cover arrangement comprising a hatch opening, guideways on the lateral sides of said hatch opening, at least one hatch cover section for closing said opening provided with means cooperating with said guideways for causing said section to ride over said opening to close and open same, a water tight joint arrangement between said section and guideways comprising a continuously and longitudinally extending channel means pertaining to at least one of said sections and guideways, said channel means having two solid adjacent sides, yieldingly deformable sealing means located in said channel means and between said solid sides thereof, a protruding continuously and longitudinally extending part on at least one of said sections and guideways registering with said sealing means but at a certain distance therefrom, forming thereby a clearance therebetween, outer independent longitudinally extending movable pressure means in parallel relationship with said protruding and sealing means facing one of the sides of said channel means which are not solid, said pressure means being shaped to compress and deform said sealing means to cause them to expand through another not solid side of said channel means, to fill said clearance and to closely fit against said protruding part forming thereby a watertight joint.

2,844,119
HOIST FOR ANCHOR
Lester J. Dugan, Washington, D. C.
Application January 20, 1956, Serial No. 560,317
4 Claims. (Cl. 114—210)



1. An anchor hoist adapted to be mounted on the deck of a boat adjacent the edge thereof including a first davit

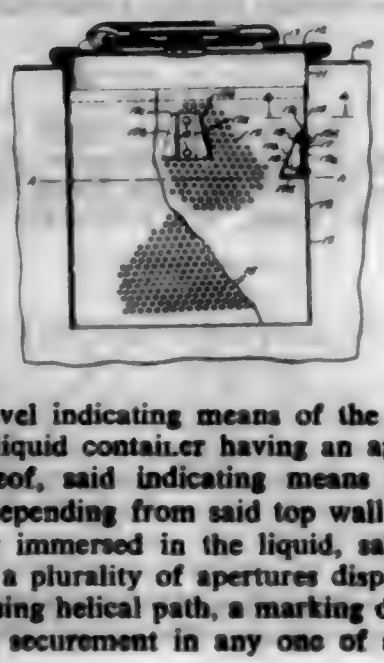
arm pivotally mounted on the deck, a second davit arm pivotally mounted on the deck and overlying said first davit arm, means for moving said second davit arm outboard of said deck through an arc of 180 degrees to a horizontal position, means for moving said first davit arm from the deck to a vertical position, a winch drum positioned adjacent the inboard ends of said arms in their overlying position, flexible means having one end attached to the winch drum and being guided over the free ends of the two davit arms, the other end of said flexible means being attached to the anchor and means for winding the flexible means on said drum to cause the positioning of the said second arm and the anchor on the deck after said first and second arms have been moved to their respective vertical and horizontal positions.

2,844,120
BOAT CONSTRUCTION WITH WELL MOUNTED PROPULSION UNIT
Fred L. Nelson, Eastside, Oreg.
Application May 11, 1956, Serial No. 584,246
3 Claims. (Cl. 115—35)



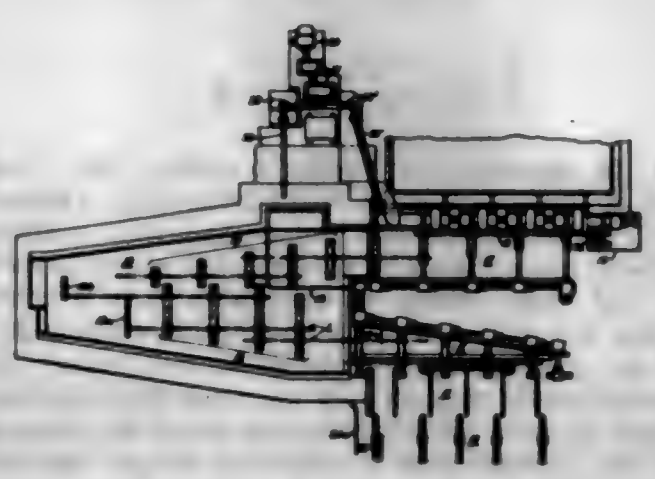
1. A boat construction comprising a hull having a bow and a stern, a well in said hull intermediate said bow and said stern, an outboard motor including a propeller, said outboard motor being disposed in said well and projecting down therethrough, with said propeller being disposed beneath said hull, a turntable rotatably mounted in an upper part of said well, said turntable including a vertically disposed guide, a mounting bracket freely slidably mounted in said guide for vertical movement and being retained in said guide by gravitational forces, said outboard motor being secured to said mounting bracket for rotation with said turntable and being removable with said mounting bracket as a unit.

2,844,121
LIQUID VOLUME-LEVEL INDICATOR
Joseph H. De Frees, Warren, Pa.
Application August 8, 1956, Serial No. 602,864
2 Claims. (Cl. 116—118)



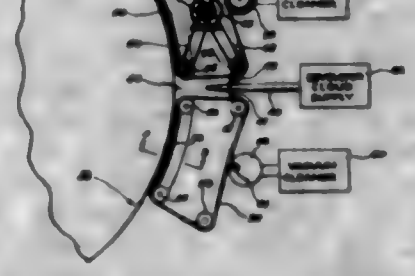
1. Liquid level indicating means of the character described for a liquid container having an aperture in the top wall thereof, said indicating means comprising a tubular skirt depending from said top wall and disposed to be partially immersed in the liquid, said skirt being provided with a plurality of apertures disposed in a vertically progressing helical path, a marking device adapted for removable securement in any one of said apertures whereby small increments of vertical height may be marked by movement of said marking device from one to another aperture along said helical path.

2,844,122
APPARATUS FOR GALVANIZING PIPE
Andrew F. Kritscher, Mount Lebanon Township, Allegheny County, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application March 8, 1956, Serial No. 570,235
11 Claims. (Cl. 118—423)



1. In a pipe-galvanizing apparatus including a tank having inclined entry and exit conveyors side by side at one end thereof, the combination therewith of a tank conveyor comprising a frame overlying said tank, a plurality of feed-in rollers suspended from said frame and journaled at depths therebelow increasing with the distance from said end, a plurality of feed-out rollers suspended from said frame and journaled at depths therebelow increasing with the distance from said end, the feed-out rollers being substantially parallel and adjacent to the feed-in rollers, all said rollers lying substantially in a common inclined plane, said feed-in rollers having helical grooves adapted to move pipe lengths engaged thereby laterally toward the feed-out rollers, said feed-out rollers also having helical grooves, the grooves of the feed-in and feed-out rollers overlapping, whereby the feed-out rollers are adapted to receive pipe lengths on lateral movement thereof from the feed-in rollers and continue the lateral movement thereof, means driving the feed-in rollers in a direction to move pipe lengths thereon from said end into the tank and means driving the feed-out rollers in the opposite direction to move pipe lengths thereon toward said end.

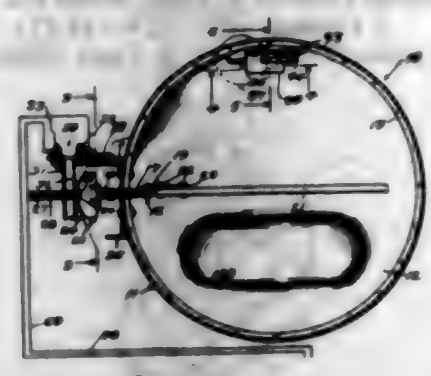
2,844,123
BELT DEVELOPMENT ELECTRODE
Richard E. Hayford, Pittsford, N. Y., assignor to Haloid Xerox Inc., Rochester, N. Y., a corporation of New York
Application June 16, 1955, Serial No. 515,855
8 Claims. (Cl. 118—637)



1. In a xerographic apparatus, the combination comprising a cylindrical xerographic plate with an external

photoconductive insulating layer, a backing plate having a concave surface positioned at a slight distance from the surface of the xerographic plate and shaped to conform to the configuration of that portion of the surface of the xerographic plate over which it is positioned, an endless electrically conductive belt development electrode positioned to move through a path which includes an area of contact with the concave surface of the backing plate, said electrode while in the area of contact with the concave surface of the backing plate being spaced apart from the surface of the xerographic plate, means to apply a xerographic development cloud in the space between said development electrode in area contact with the backing plate and the surface of the xerographic plate, cleaning means positioned along the path of movement of the endless belt development electrode at a point removed from the surface of the xerographic plate, and driving means to move said electrode through said path, said backing plate having means to cause said electrode to conform to the configuration of its surface.

2,844,124
LIVESTOCK WATERING FOUNTAIN
Edward J. Andera, Fort Atkinson, Iowa
Application May 17, 1957, Serial No. 659,919
10 Claims. (Cl. 119—75)



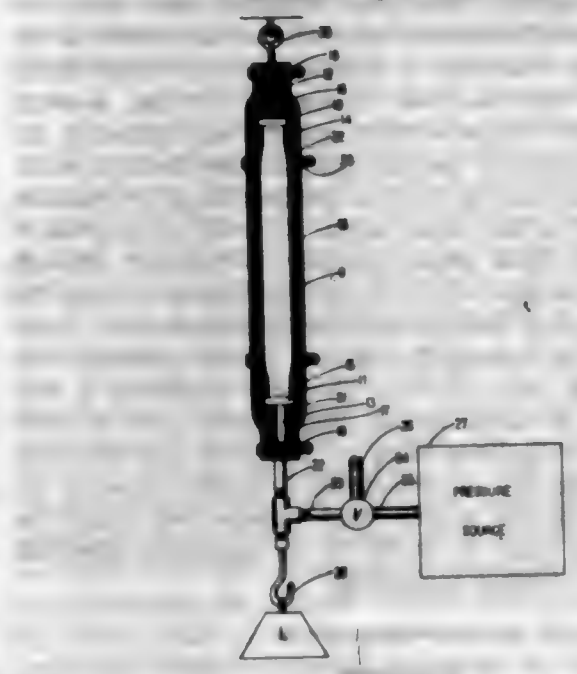
9. In combination with an open top livestock drinking receptacle, a conduit having one end opening through the receptacle bottom and an opposite end adapted to be connected to a source of water supply, control means interposed in said conduit for controlling the supply of water therethrough to the receptacle, an electrically actuated device for operating said control means, a first normally open electric switch for normally maintaining said electrically actuated device de-energized, electrically actuated means for closing said first switch when said electrically actuated means is energized, a second normally open switch, means movably disposed within said receptacle and adapted to be actuated by an animal attempting to drink from the receptacle for closing said second switch for completing an electric circuit to said electrically actuated means, a third switch for closing an electric circuit to said electrically actuated means, means actuated by said electrically actuated means when said second switch is closed for releasing said third switch to assume a circuit closing position, and a timing mechanism controlled by said first switch and operable to effect movement of a part of said last mentioned means to return the third switch to a circuit interrupting position after a predetermined time lapse.

2,844,125
PENCIL TIP
Charles Emory Wohn, Alameda, Calif.
Application April 25, 1955, Serial No. 503,673
5 Claims. (Cl. 120—21)

1. A pencil tip comprising a hollow sheath having a frusto-conical portion, a polyethylene sleeve of continuous annular cross section disposed within said sheath and partially occupying said frusto-conical portion, and integral inwardly projecting splines on the part of said sleeve within said conical portion.



2,844,126
FLUID ACTUATED MOTOR SYSTEM AND STROKING DEVICE
Richard H. Gaylord, Shaker Heights, Ohio, assignor to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application January 20, 1955, Serial No. 483,117
3 Claims. (Cl. 121—48)

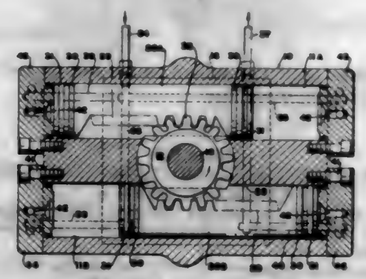


1. In a motor of the expansible chamber class, in combination, a flexible elastomer tube, a coupling member having therein a bore adapted to receive said tube in close fitting relationship to provide a fluid tight seal and having a tapered shoulder on the outer surface, located beyond and tapering inwardly away from the seal, a braided sheath surrounding said tube and extending beyond the sealed end thereof and lying over the shoulder portion of said coupling member and clamping means engaging the extended end of the braided sheath.

2,844,127
FLUID PRESSURE TORQUE CONVERTER
Carl Steiner, Orrville, Ohio
Application March 3, 1955, Serial No. 491,851
8 Claims. (Cl. 121—120)

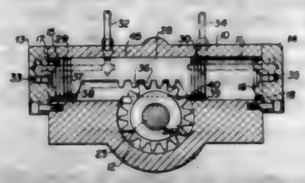
1. A torque converter for converting linear to rotary motion comprising, a housing having first and second

spaced parallel piston chambers, the housing also having a gear chamber interposed between the piston chambers, said chambers being interconnected, a shaft journalled in the housing and having a gear portion in the gear chamber, a first piston carried in the first chamber, a second piston carried in the second chamber, said piston chambers and pistons each having first and second ends, said pistons each having a rack formed intermediate the first and second ends, the racks each being in engagement with the gear, said converter having first and second fluid passages, said first fluid passage being connected to said first piston chamber first end and said second piston chamber second end, said second fluid passage being connected to said first piston chamber second end and said second piston chamber first end, said piston chambers each having a smooth surface, seals carried by each of the pistons at their first and second ends, the seals each being in slidable engagement with one of the piston chamber surfaces, and caps to close the ends of



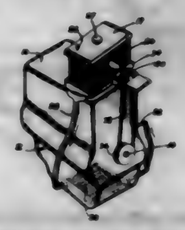
the piston chambers, said gear chamber and said first and second piston chambers intermediate said seals forming a lubricant reservoir, a quantity of lubricant filling the reservoir, said reservoir having a varying contour when said pistons reciprocate to provide self-agitation for the lubricant contained therein, the lubricant being a back-up pressure transmitting fluid to conduct back-up pressure from each seal to the other seals, whereby to provide a device in which fluid under pressure introduced through the first fluid passage will drive the first piston toward the first piston chamber second end and simultaneously drive the second piston toward the second piston chamber first end to cause the racks to drive the gear rotatively in one direction with an equal torque load application by each of the racks on opposite sides of the gear, and whereby to provide a device in which fluid under pressure introduced through the second fluid passage will cause the pistons and the gear to move in the opposite direction under balanced torque conditions.

2,844,128
FLUID PRESSURE TORQUE CONVERTER
Carl Steiner, Orrville, Ohio
Application May 13, 1957, Serial No. 658,631
9 Claims. (Cl. 121—120)



1. A torque converter for converting linear to rotary motion comprising, a housing having first and second inner surfaces defining first and second interconnected chambers respectively, a piston carried in the first chamber, a shaft journalled in the housing, a gear carried by the shaft and disposed in the second chamber, said piston having first and second ends, a first seal carried by the piston at its first end, a second seal carried by the piston at its second end, the seals being in slidable contact with said first inner surface, said piston having a rack formed intermediate the seals, the rack and the gear being engaged for the transmission of force from one to the other, fluid tight closure means to close said first chamber, said converter including fluid passages communicating with said first chamber to conduct fluid under pressure to said chamber to cause the piston to reciprocate, said second chamber and a varying portion of said first chamber intermediate the seals together forming a lubricant reservoir, a quantity of lubricant filling said reservoir, the lubricant serving to prevent migration of said fluid for reciprocation into said reservoir and to transmit pressure from one seal to the other seal such that said other seal is a back up for said one seal, and said piston having a surface opposite said rack forming a bearing surface to absorb thrust from the interaction of said rack and said gear.

2,844,129
TEMPERATURE CONTROL FOR INTERNAL COMBUSTION ENGINE
Earl J. Beck, Jr., and Kenneth N. Tinklepaugh, Oxnard, Calif.
Application October 2, 1956, Serial No. 613,587
3 Claims. (Cl. 123—41.21)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a liquid cooled internal combustion engine having a liquid coolant jacket and a crankcase for containing oil, a boiling-condensing cooling system comprising a condenser disposed above the upper level of the liquid coolant in the jacket and connected to the latter to receive therefrom vapors at the boiling point of the liquid coolant, a heat exchanger disposed below the condenser and in the crankcase, conduit means for conducting condensate substantially at the boiling point directly from the condenser to the heat exchanger without substantial loss of heat, and conduit means for returning the condensate from the heat exchanger to the coolant jacket, the construction and arrangement being such that circulation of the condensate is effected by its difference in density in the system.

2,844,130
INTERNAL-COMBUSTION ENGINE
Willard H. Nordeenen and Alan E. Park, Dubuque, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application November 5, 1956, Serial No. 620,389
5 Claims. (Cl. 123—41.82)

1. In an internal-combustion engine having a cylinder block, a plurality of cylinders opening at one face thereof and a coolant passage, the improvement comprising: a cylinder head mounted on the block at said one face and forming combustion chambers respectively with said cylinders, said head having a face spaced from the block face and further having therein a plurality of passages leading respectively to said chambers and opening at said head face, and said head further having a coolant

passage in communication with the block coolant passage; a plurality of valves carried by the head for respectively controlling said passages; valve operating mechanism mounted on said head face and operatively connected with the valves; and a cover mounted on said



head face over and enclosing said mechanism, said cover having formed therein first passage means in communication with the combustion chamber passages in the head and second passage means in communication with the coolant passage in the head.

2,844,131
RECIPROCATING PISTON MACHINE
John Herbert Beveridge, Duarte, Calif.
Application April 16, 1956, Serial No. 578,373
14 Claims. (Cl. 123—73)



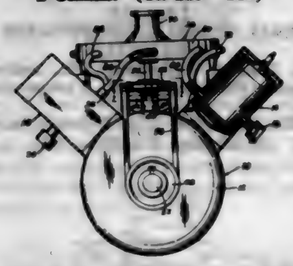
1. Apparatus of the class described comprising a cylinder, a crankcase in communication with said cylinder, a piston reciprocable in said cylinder, a crankshaft rotatably mounted within said crankcase, partition means dividing the interior of the crankcase and the interior of the cylinder below the piston into two mutually isolated chambers during a portion of each revolution of the crankshaft, said partition means including a connecting rod pivotally connected at one end to said piston and at the other end to said crankshaft.

2,844,132
VALVE-OPERATING MECHANISM FOR OVERHEAD VALVE INTERNAL COMBUSTION ENGINES
Ivan N. Monastchieff, Detroit, Mich., assignor to The Austin Motor Company Limited, Birmingham, England
Application June 25, 1957, Serial No. 667,750
Claims priority, application Great Britain July 6, 1956
3 Claims. (Cl. 123—90)



1. Valve-operating mechanism for overhead valve internal combustion engines, comprising a valve-operating rocker formed as a steel pressing with an arcuate or convex valve contacting portion at one end and a part-spherical bearing at the other, and an adjustable spherical fulcrum upon which the said part-spherical bearing seats to vary the valve clearance, said rocker operating as a lever of the third order, the actuating cam operating upon it at a position between its ends.

2,844,133
SUPERCHARGER AND FUEL DISTRIBUTOR SYSTEM FOR V-TYPE INTERNAL COMBUSTION ENGINES
Adam R. Thompson, Plymouth, Ind.
Application August 17, 1954, Serial No. 450,431
2 Claims. (Cl. 123—119)

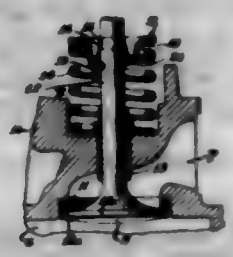


2. The combination, with an engine including a crank case, a drive shaft journaled in and projecting at one end out of the crank case, a fan pulley mounted on the projecting end of the drive shaft and a bank of cylinders having fuel intake ports, of a supercharger comprising: a belt trained about the fan pulley and extending wholly exteriorly of the crank case; a stub shaft rotatably supported on the crank case and also disposed wholly exteriorly of the crank case; direction-changing pulleys mounted on the stub shaft, said belt being trained about the latter pulleys; a supercharger drive shaft journaled at one end on the crank case and extending outwardly from the crank case exteriorly thereof; a pulley rotating with the supercharger drive shaft, said belt after being trained around said direction changing pulleys also being trained around said supercharger drive shaft pulley; a housing supported on the engine adjacent the crank shaft, said housing having a central inlet opening and a wall extending peripherally thereof formed with a circumferential series of outlet ports; a rotor within the housing adapted for forcing fuel through the several outlet ports, said rotor including a series of fins, the supercharger drive shaft extending into the housing and being connected to the rotor for rotation therewith, said fins radiating outwardly from the supercharger drive shaft into wiping contact with said wall; and means providing tubular connections between the several outlet ports and said cylinders, the drive shaft of the engine rotating about a first axis, said stub shaft extending normally to the axis of the engine shaft with the pulleys carried by the stub shaft turning in planes normal to the plane of rotation of the fan pulley, the pulley carried by the supercharger drive shaft rotating in a plane normal to the planes of rotation of the fan pulley and of the pulleys carried by the stub shaft, said supercharger drive shaft extending perpendicularly to the axis of rotation of the engine drive shaft with the rotor turning in a plane parallel to the plane of the pulley carried by the supercharger drive shaft.

2,844,134
VALVE SPRING RETAINER ASSEMBLY
Herbert E. Sietman, Bay Village, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application November 15, 1954, Serial No. 468,748
18 Claims. (Cl. 123—188)

1. A valve spring retainer lock comprising a one-piece

resilient split ring of frusto-conical shape and outwardly



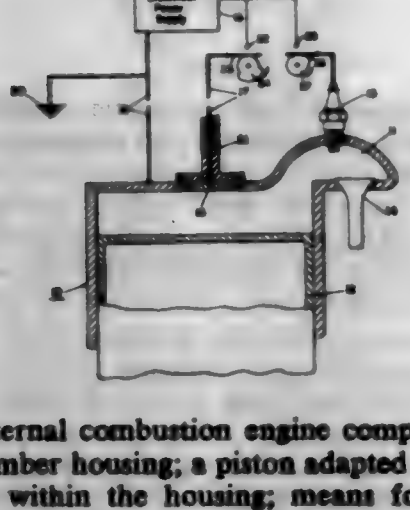
flanged at one end for engagement with a complementally formed valve spring retainer.

2,844,135

INTERNAL COMBUSTION PROCESS AND APPARATUS

Clarence H. Thayer, Wallingford, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application November 8, 1954, Serial No. 467,533
10 Claims. (Cl. 123—191)



1. An internal combustion engine comprising: a combustion chamber housing; a piston adapted for reciprocating motion within the housing; means for supplying a spark to the fuel in the combustion chamber; and means for applying an electrical field to the combustion chamber during the period between the spark and 180° after the spark, the place of application of the field being spaced apart from the place of ignition.

2,844,136

ARCHERY BOW

William M. Folberth, Cleveland, Ohio, assignor to Bear Archery Company, Grayling, Mich., a corporation of Michigan

Application August 13, 1956, Serial No. 603,593
11 Claims. (Cl. 124—23)



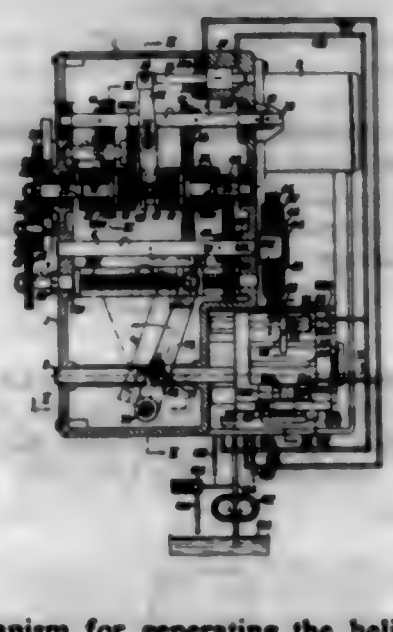
1. An archery bow characterized in that the string has a head on one end which is wider than the string, one end of the bow has a recess in its rear side to receive the head and a groove leading from the recess toward the other end of the bow along the rear side of the bow to receive the string, the groove being narrower than the head so that the head cannot pull out through the groove when the bow is braced, the mouth of the recess being larger than the head, the bow having a bearing disposed rearwardly of the recess, and an elastic cord extending forwardly from said bearing in front of said head under tension to snap the head out of the recess in unbracing the bow.

2,844,137

MECHANISM FOR GENERATING THE HELICAL THREAD ON GRINDING WORMS FOR GEAR GRINDING MACHINES

Alfred Rickenmann, Kusnacht, near Zurich, Switzerland, assignor to Maschinen-Werkzeuge A. G., Zurich, Switzerland

Application September 17, 1956, Serial No. 610,132
Claims priority, application Switzerland June 11, 1956
2 Claims. (Cl. 125—11)



1. A mechanism for generating the helical thread on grinding worms for gear grinding machines operating according to the generating principle, comprising in combination: a base, a spindle journalled in the said base, and in operation carrying the grinding worm to be dressed, a driving mechanism comprising reversing clutch means mounted in said base and in operation coupled to the said spindle, a lead screw mechanism mounted in the said base parallel to the said spindle and comprising a threaded lead screw and a lead screw nut in screw engagement with one another, transmission means journalled on the said base and rotationally coupling the said lead screw mechanism to the said spindle, a dressing carriage mounted on the said base slidably in a direction parallel to the said spindle, a dressing means proper mounted on the said dressing carriage, lever means pivoted on the said base and engaging the said lead screw mechanism with a larger lever arm and the said dressing carriage with a smaller lever arm transmitting axial movement from the said lead screw mechanism to the said dressing carriage at a reduced ratio, adjustment means adapted to adjust in operation the said dressing means proper in a direction perpendicular to the said spindle, and an automatic control system responsive to the position of the said dressing carriage and operatively connected to the said reversing clutch means and to the said adjustment means, sequentially operating the same when the said dressing carriage reaches the end of its working and returning stroke.

2,844,138

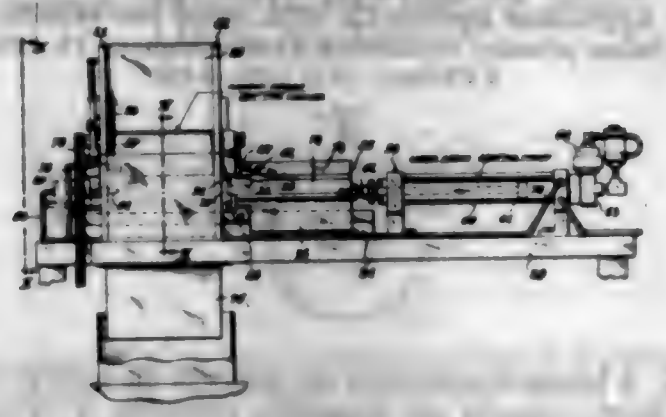
SPLITTING MACHINES

Italo A. Ciaffa, Brooklyn, N. Y., assignor of one-half to Bruno Schneider, Laurelton, N. Y., and Oscar Marquad, Short Hills, N. J.

Application August 23, 1955, Serial No. 529,999
11 Claims. (Cl. 125—24)

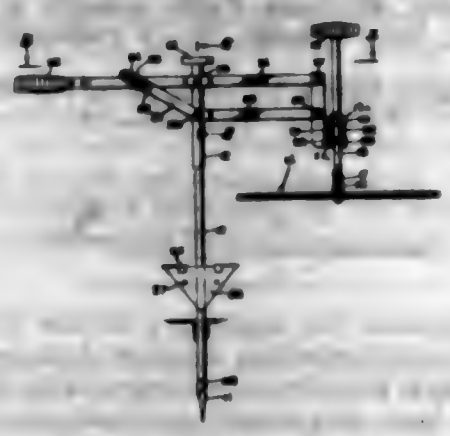
1. A machine of the character described, comprising a pair of rollers for receiving and passing work pieces therebetween, one of said rollers being laterally movable from the other under influence of the thickness of the work piece passing between said rollers, a movable carriage adapted to advance to a position beneath the line of contact of said rollers and retractable from therebeneath, a pointed blade on said carriage positioned to pierce an

edge of the work piece fed between said rollers, driving means for said carriage to and from said position, and a



control for said driving means, said control being activated by the lateral movement of said one roller.

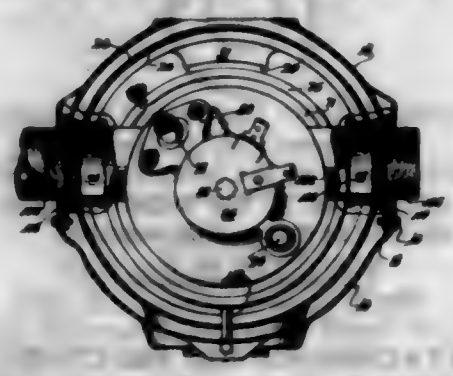
2,844,139
PORTABLE BARBECUE
Don D. Lucas, Bakersfield, Calif.
Application September 1, 1955, Serial No. 532,915
5 Claims. (Cl. 126—30)



1. A barbecue comprising an upright support, a lever pivotally mounted upon said support for swinging movement relatively thereto about a horizontal axis, a link pivotally mounted upon the support in parallel relationship to the lever for swinging movement about a parallel axis, a vertically disposed socket pivotally mounted on the outer ends of the lever and link so that as the lever and link are swung upwardly and downwardly the socket will be maintained vertically disposed in all positions, a locking link pivotally mounted upon said support having a slidable engagement with said lever, means for releasably holding the locking link and a lever against movement relatively to each other so as to hold the lever in adjusted position, a grill, suspending means connected to the grill, said suspending means being rotatably and removably receivable in the socket.

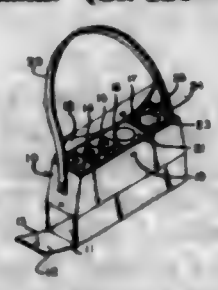
2,844,140
VEHICLE COMBUSTION HEATER
John F. Wein, Indianapolis, Ind., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application September 2, 1955, Serial No. 532,298
4 Claims. (Cl. 126—116)

1. In a burner intended for direct attachment to an automotive vehicle heater heat exchanger, means forming a combustion chamber, means forming an air casing behind said combustion chamber in communication with said combustion chamber, means securing said casing and said chamber forming means together, means providing a housing enclosing said combustion chamber and said casing, said casing having a pair of substantially oppositely extending hollow members communicating from outside said housing with the interior of said casing, a pair of hollow pliable elements secured at one end to said hollow members and passing through and being attached to said housing and serving to support the burner from said housing, one of said pliable elements and its hollow member serving to supply combustion air to said casing, means for restricting the opening through the



other of said hollow members, means for supplying fuel to said combustion chamber, means including perforations through said chamber forming means for conducting air from said casing to said combustion chamber, and means in said chamber forming means for igniting a fuel and air mixture therein.

2,844,141
BABY TRAVEL DINER
Minnie Dougherty, Little Rock, Ark.
Application September 11, 1956, Serial No. 609,322
1 Claim. (Cl. 126—263)



Baby bottle heating apparatus comprising, in combination, a housing having at least two main compartments, a metal insert within one of said compartments, filling said one compartment and having a central bore extending downwardly from the top thereof, a second compartment, an upwardly opening hollow metal insert withing said second compartment, a sponge block disposed within said hollow metal insert, said sponge block having a central longitudinal bore and adapted to be impregnated with water, and a chemically treated heating pad adapted to surround a nursing bottle comprising a hollow cylindrical ring shaped heating pad member having outwardly flared upper edges adapted to receive the bottle, a second hollow cylindrical ring shaped member of absorbent paper having outwardly flared upper edges for receiving said bottle, said bottle and absorbent ring being adapted to be inserted within said sponge bore to impregnate said paper with water, said central bore of said first metal insert adapted to slidably receive said bottle therewithin with said heating pad positioned around the absorbent ring and bottle whereby the contents of said bottle may be chemically heated.

2,844,142
DEVICE FOR CONSTRAINING THE TONGUE
James E. Gibbons, Boston, Mass.
Application October 20, 1954, Serial No. 463,439
6 Claims. (Cl. 128—12)

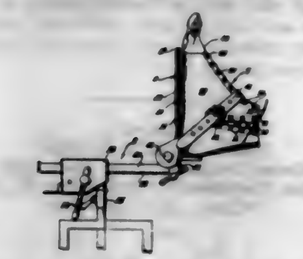
1. A device for supporting the tongue within the mouth at its normal position comprising a pair of flexible substantially circular members of different size, the smaller member normally lying within the larger member with its center located on a diameter of the larger

member, between its center and its rim, and a normally straight element flexible in twist about its axis and in bending at right angles thereto, connected, along the diam-



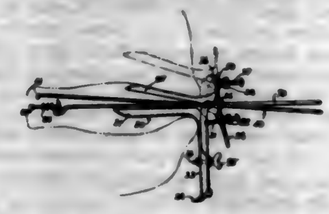
eter which is common to the centers of the two members, at one end to the rim of the larger member and at its other end to the rim of the smaller member.

2,844,143
BOOT ATTACHMENT FOR FRACTURE TABLE
Lawrence R. Swanson, Camarillo, Calif.
Application December 6, 1954, Serial No. 473,257
4 Claims. (Cl. 128—84)



1. A boot for securing a foot to the foot plate of a fracture table comprising: a sole having a channel extending longitudinally therethrough, said channel being shaped to receive and embrace the foot plate and restrain relative movement between said boot and the foot plate; an upper having edges secured to said sole and defining a housing for the foot adapted to cover the foot from below the instep to above the ankle; means on said upper extending from the ankle to the toe for adjusting the instep size thereof; and means on said upper extending from the ankle downwardly towards said sole for adjusting said upper to the size of the ankle.

2,844,144
SURGICAL APPARATUS
John Bruce Massey, Newark, N. J.
Application August 12, 1955, Serial No. 527,927
1 Claim. (Cl. 128—131)



In a surgical apparatus, a vaginal speculum comprising an upper jaw and a lower jaw, each of said jaws having curved outer surfaces and a leg portion extending perpendicularly to the jaw, means adjustably interconnecting the leg portions, means connected with said jaws for maintaining the upper jaw in an adjustable open position in relation to the lower jaw pivotal means securing said leg portions and said jaw portions, and an integrally formed forceps-connecting member connected with said upper jaw and comprising a plate-like support, and an adjustable screw carried by said support.

2,844,145
SELF-CONTAINED BREATHING APPARATUS
Georges Bergé, Madrid, Spain
Application January 12, 1955, Serial No. 481,431
Claims priority, application France January 15, 1954
3 Claims. (Cl. 128—142)



1. A breathing apparatus for divers of the general kind set forth, wherein the apparatus comprises a pressure regulator, and a container for compressed breathable gas, in the form of a volume generated by a closed conical curve moving along a directrix, which is itself a conic but is not necessarily closed, the pressure regulator of the apparatus being placed in the free space by the said volume.

2,844,146
APPLICATOR FOR TUBULAR BANDAGE
Bert D. Perdue, Riverside, Calif., assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York
Application March 22, 1954, Serial No. 417,837
5 Claims. (Cl. 128—157)



1. An applicator for applying a tubular bandage to a part of the body, comprising a pair of elongated confronting shells, means hingedly connecting said shells intermediate of their ends, said shells each having a tapered terminal at one end thereof to provide clearance for manually gripping the tubular bandage when applying the same to the body part and with the terminals joined with inwardly offset extensions on the sides of each shell to increase the bandage gripping area to minimize distortion thereof.

2,844,147
SEGREGATION CHAMBER FOR TRANSFUSION SETS
Robert C. Beuchsman, Richmond, Calif., assignor to Cutter Laboratories, Berkeley, Calif., a corporation of California
Application April 25, 1955, Serial No. 503,684
2 Claims. (Cl. 128—214)



1. An air segregator for transfusion sets comprising: a segregation chamber provided at its upper end with an inlet port and at its lower end with an outlet port, said outlet port being circumscribed by a valve seat extending upwardly into said chamber; an inverted cup disposed in said chamber in vertical alignment with said outlet port; and means within said chamber for constraining said cup to move into registration with said valve seat upon the downward movement of said cup.

2,844,148
HYPODERMIC SYRINGE
Archie Rolfe, Chicago, Ill.
Application October 13, 1955, Serial No. 540,217
1 Claim. (Cl. 128—218)



A syringe type dispenser comprising a barrel, a plunger and plunger rod reciprocable within said barrel, a stationary abutment associated with the rearward portion of said barrel, said plunger rod having an annular recess subetantially at each end and a longitudinally extending recess connecting said annular recesses, said plunger rod having intermediate said annular recesses and connecting therewith a series of longitudinally extending recesses of predetermined lengths with adjacent recesses misaligned to afford a stop at the end of each recess, said abutment being adapted to be selectively disposed in registration with said recesses by movement of said plunger rod, whereby when said longitudinally extending recess is in registration with said abutment said plunger rod may be moved longitudinally within the limits defined by said annular recesses, said abutment when disposed in registration with said series of recesses during the forward travel of said plunger rod being successively engaged by said stops, whereby the movement of said plunger rod is arrested at predetermined increments of travel.

2,844,149
HYPODERMIC CANNULA AND METHOD FOR ATTACHING AN ANNULAR SLEEVE THERETO
Joseph H. Gettig, Malvern, Pa., assignor to J. Bishop & Co. Platinum Works, Malvern, Pa., a corporation of Pennsylvania
Application July 23, 1957, Serial No. 673,702
6 Claims. (Cl. 128—221)



1. The method of securing a tubular sleeve upon a metal cylinder comprising the steps of placing the sleeve concentrically upon the cylinder intermediate its ends, and axially compressing the ends of said sleeve toward each other to form a radial annular projection at the central portion of said sleeve and a radial compression of said sleeve upon said cylinder.

3. A hypodermic cannula comprising a hollow metal tube having an injection point at one end thereof and an annular recessed portion in the outer circumference thereof intermediate its ends, and a metal sleeve concentrically positioned about said tube in said recessed portion thereof, a portion of said sleeve intermediate its ends being formed into a radially extending annular projection.

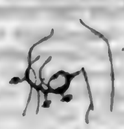
2,844,150
TAMPON
André Draghi, Stamford, Conn.
Application December 5, 1955, Serial No. 550,981
3 Claims. (Cl. 128—285)

3. A vaginal tampon comprising a jacket of relatively non-absorbent filament nylon and supporting means to carry said jacket, said supporting means being of a size, shape, and flexibility such that the tampon may be inserted in the vaginal cavity, and said jacket extending



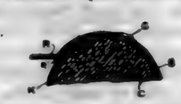
over said supporting means and beyond one end to form at said end a relatively large, loose cap.

2,844,151
BREAST SUPPORTER
Carl R. Lemons, Reseda, Calif.
Application December 19, 1955, Serial No. 553,844
1 Claim. (Cl. 128—477)



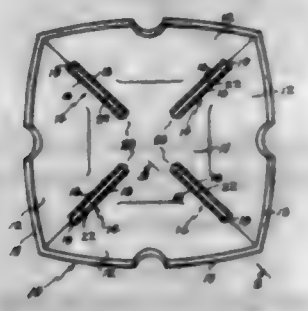
A bust supporter comprising: a pair of bodies, each formed of a soft, self-sustaining resilient material; and an elongate U-shaped resilient wire element, the legs of said elements being turned upwardly with each of the ends thereof embedded, respectively, in one of said bodies; the ends of said elements being curved for anchorage of the two bodies to the element end for internal reinforcement of said bodies, the bight section of said U-shaped wire element having an upward offset to extend between the two breasts of the wearer at the lower side of said breasts, said wire element being so dimensioned as to hold said bodies in compressive engagement with the lateral and under-surface of the breasts, said bodies applying to said breasts upwardly and inward directed forces thereby to displace the two breasts upwardly and towards each other to increase the upward bulge of the two breasts and to narrow and accentuate the cleavage between the two breasts.

2,844,152
CIGARETTE WITH IGNITER ELEMENT AND METHOD OF MAKING SUCH CIGARETTE
Francesco De Capitani, Milan, Italy
Application March 15, 1954, Serial No. 416,256
Claims priority, application Italy March 18, 1953
7 Claims. (Cl. 131—7)



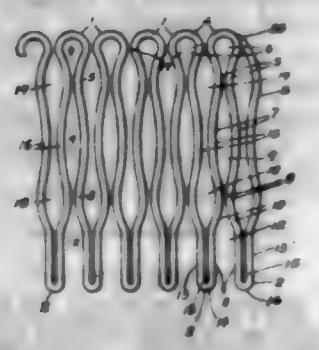
1. In a process for the manufacture of cigarettes in which a flat strip of paper of a width slightly greater than the circumference of the cigarettes is wrapped around a roll of tobacco, that improvement comprising the steps of forming an aperture in said strip of paper, positioning on said strip of paper on the side thereof which will be next to the tobacco roll and over said aperture an element comprising a lighting member of slightly less width than said strip and an igniter rib thereon, said igniter rib lying against said paper strip over said aperture and being longer than said aperture in the longitudinal direction of said strip, and after the strip is wrapped around the roll of tobacco and secured, cutting said wrapped roll transversely to the length thereof through said aperture.

2,844,153
ASH TRAY
Julius Pararra, Bridgeport, Conn.
Application April 25, 1956, Serial No. 580,588
3 Claims. (Cl. 131—240)



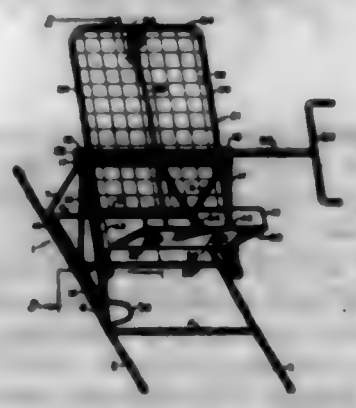
1. An ash tray comprising a body member including bottom and side walls forming a receptacle, a cigarette rest comprising two upright laterally spaced parallel walls extending upwardly from the bottom wall, the upright walls being spaced a distance less than the diameter of a cigarette to form a rest for a lighted cigarette on their top edges, the space between these upright walls being sufficient to receive ashes falling from the cigarette and supply air for combustion to the burning end, and the edges of the upright walls being convexly curved toward a side wall and terminating below its top edge thus forming a curved support for a lighted cigarette placed on these edges to cause it to tip as its inner end burns and becomes overbalanced and rolls down the curved edges to a position against the inner side of the side wall.

2,844,154
HAIR HOLDING DEVICE
Nathan L. Solomon, Englewood, N. J.
Application August 6, 1956, Serial No. 602,325
1 Claim. (Cl. 132—48)



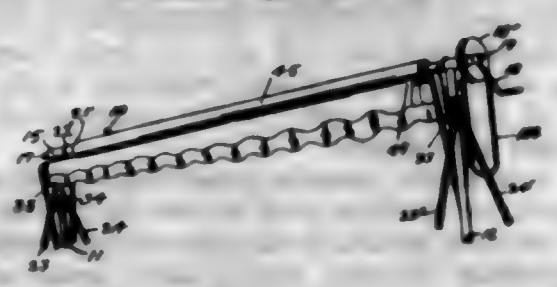
A hair holding device of the character described, comprising a strand-like body of spring material, said body having a plurality of spaced tooth members along opposed edges thereof, the tooth members, at one side edge portion, being rounded, the tooth members, at the opposed side edge portion, being contracted and defined by closely arranged and spaced parallel strands joined in rounded ends, the sides of each of the first named tooth members having, intermediate and spaced from opposed edges of the device, a pair of contracted portions forming, within the confines of said sides of each of the first named members, two hair confining openings and an elongated throat-like opening, said throat-like opening being partially formed by a second named tooth member, one of said hair confining openings of each tooth member being arranged at the first side edge portion of said member, the other confining opening being arranged centrally of said member, the two contractions of the first named members being joined in elongated oppositely curved bow portions centrally of the device, said central bowed portions of adjacent first named members forming, centrally of each of the second named members, a restriction, the rounded ends of adjacent first named members forming, within each of the second named members, a second restriction, and said two restrictions of the second named members forming, within each of the second named members, two hair confining openings.

2,844,155
BAPTISMAL BALANCE
Roger Deavers Hebard, Bartlesville, Okla.
Application June 6, 1955, Serial No. 513,310
2 Claims. (Cl. 134—157)



1. In a baptismal balance the combination of a fulcrum base consisting of two parallel members resting on the floor of a baptismal tank containing water, said fulcrum base having bracing cross members and fulcrum supports mounted generally at right angles to said parallel members, a hinged body carriage rotatably attached to the supported fulcrum secured to said fulcrum supports, said body carriage having a pair of upright parallel members longer than a pair of parallel cross members to all of which are attached netting for support of a candidate for baptism, said body carriage having an adjustable foot platform mounting a toe guard at said carriage's lower extremity, said platform being securely attached to the lower end of an adjusting means which extends to the uppermost portion of said body carriage for movement of said platform parallel to said upright parallel members, said fulcrum base mounting rotational stops for limiting the rotation of said body carriage in opposite directions and manual means aided by buoyance forces of said water in said baptismal tank acting on said candidate and said baptismal balance for rotating that portion of said candidate and said baptismal balance extending below the surface of said water upwardly.

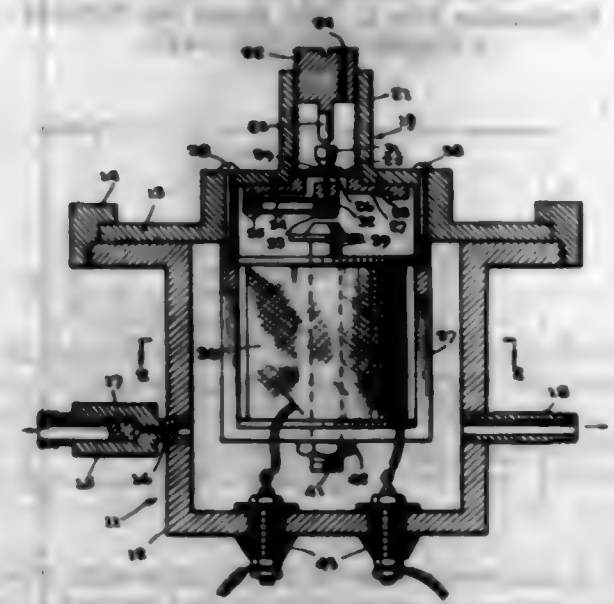
2,844,156
SUNSHADE
Walter J. Reisman, Peoria, Ill.
Application April 30, 1956, Serial No. 581,646
1 Claim. (Cl. 135—5)



A sunshade canopy comprising a pair of spaced parallel upright members, a journal bearing mounted on the upper end of each of said upright members, said journal bearings having their axes aligned, an elongated drum extending between and journalled in said bearings, a pair of oppositely extending U-shaped bows, a vertically extending trackway secured to each of said upright members, a guide bolt vertically slidable in said trackway, said guide bolts each having one end of each of said bows journalled thereon, a flexible member at each end of said drum having one end fixed to said drum and the opposite end fixed to one of said guide bolts whereby on rota-

tion of said drum in one direction said flexible members are wound thereon raising the ends of said bows supported on said guide bolts, a canopy secured medially to said drum, said canopy having its opposite free end edges secured to the opposite bight portions of said bows, and a hand crank secured to said drum.

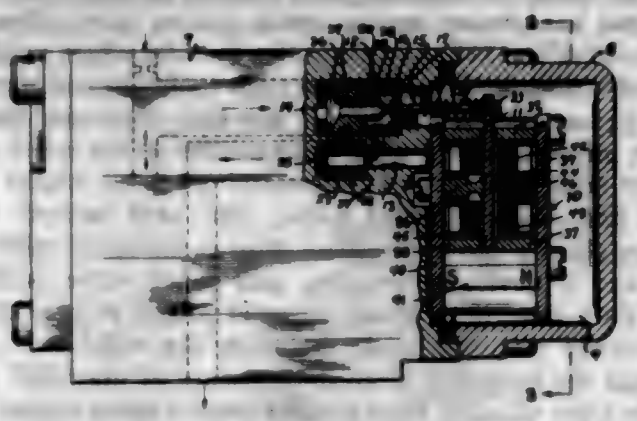
2,844,157
ELECTROPNEUMATIC TRANSDUCER
Leonard Griffith, Edmonton, Alberta, Canada, assignor to Canadian Chemical Company, Ltd., Montreal, Quebec, Canada, a corporation of Canada
Application June 4, 1954, Serial No. 434,618
2 Claims. (Cl. 137—82)



1. A transducer for converting electrical changes into changes in fluid pressure comprising a chamber, an inlet having a restricted aperture therein for introducing a fluid under pressure into said chamber at a limited rate, an outlet from said chamber to which the pressure in said chamber is applied, and a bleed mechanism for permitting the escape of fluid from said chamber at a rate controlled by the electrical changes, said bleed mechanism comprising a tubular housing projecting upwardly from said chamber, a plate having an aperture therein through which fluid can escape from the chamber positioned in said tubular housing, a disc resting on said plate to close said aperture and prevent the flow of fluid therethrough, said disc being positioned so that the pressure of fluid in the chamber will move it away from the aperture, a rod extending downwardly from said disc through said aperture into said chamber, an armature operatively connected to the lower end of said rod, and an electromagnet in said chamber acting on said armature for urging said disc against said aperture.

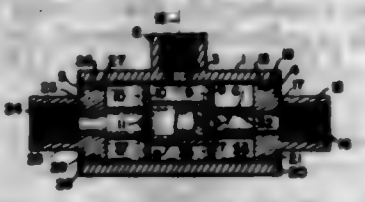
2,844,158
ELECTRO-HYDRAULIC SERVO ACTUATORS
Thomas Howard Carson, Seattle, Wash., assignor to Ex-Cell-O Corporation, Detroit, Mich.
Application August 29, 1955, Serial No. 538,944
7 Claims. (Cl. 137—82)

1. In an electro-hydraulic actuator, a housing formed with a motor chamber and a discharge chamber, a diaphragm mounted between said chambers, a flow restricting member carried by said diaphragm, a nozzle having a supply of high pressure fluid thereto and arranged to discharge into said discharge chamber in restricted relation to said flow restricting member, means for balancing the static pressures in said chambers, an electro-magnetic motor mounted in said motor chamber and having an armature forced toward and away from said diaphragm in response to electric input signals applied to said motor, an adjustment screw threaded into said armature, a stem extending between said screw and flow restricting member for moving the latter in response to movements of said armature thereby obtaining various nozzle back



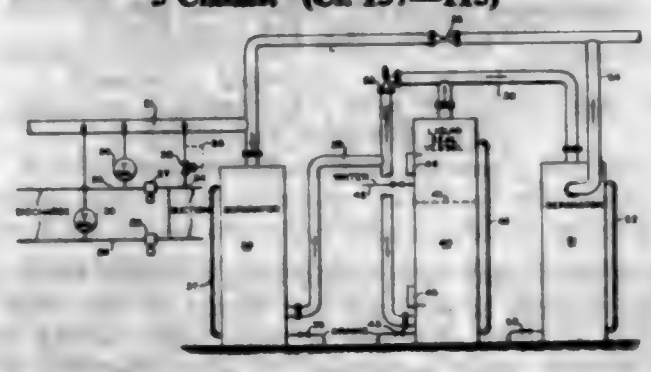
pressures as actuator output signals determined by said electric input signals.

2,844,159
FLOW DIVIDING VALVE
William D. Trethewey, Douglas, Wyo.
Application April 12, 1956, Serial No. 577,797
8 Claims. (Cl. 137—101)



1. A flow-dividing valve for dividing a single stream of fluid into two predetermined streams comprising a tubular body having a single centerwise inlet in its side wall and two opposed outlets at the ends of said body, a cylindrical valve support axially mounted in said body, a spool-shaped valve slide reciprocally mounted on said valve support, port means inclusive of two series of small holes at opposed positions in said valve support, each series of holes being interconnected to a separate passageway in said support and interconnected with its adjacent outlet, said valve slide being arranged to simultaneously close one-half of each of said series of small holes whereby movement of said valve slide to fully close one series of small holes fully opens the opposite series of small holes, and baffle means mounted adjacent each end of said valve slide for effectively dividing said body into a central inlet chamber communicating with said centerwise inlet and a substantially separate outlet chamber communicating with each of said series of holes, an opening of substantially equal area around each said baffle means for fluid passage from said center inlet chamber to each of said outlet chambers.

2,844,160
APPARATUS FOR RECOVERING GASES FROM FLARE LINES
Walter B. Polk, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application August 12, 1955, Serial No. 528,100
5 Claims. (Cl. 137—115)



1. In a gas-handling system having a high pressure portion and a low pressure portion, a relief valve connected

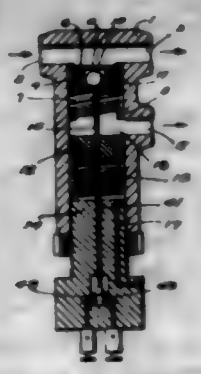
to said high pressure portion, first valve means connecting the outlet of said relief valve to said low pressure portion, said valve means being set to open when the pressure at the relief valve outlet rises to a first predetermined value, a flare line, second valve means connecting the relief valve outlet to the flare line, said second valve means opening when the pressure at the relief valve outlet rises to a second predetermined value higher than said first predetermined value, and said second valve means closing upon a pressure drop at the relief valve outlet, and a device connecting said relief valve outlet to said flare line, said device being arranged to provide unobstructed communication between the relief valve outlet and the flare line when the pressure at the relief valve outlet rises above a third predetermined value higher than said second predetermined value.

2,844,161

FLUID PRESSURE REGULATORS

Fritz Ostwald, Heppenheim, Bergstrasse, Germany, assignor to Alfred Teves Maschinen- und Armaturenfabrik Kommanditt-Gesellschaft, Frankfurt am Main, Germany

Application October 18, 1954, Serial No. 462,981
Claims priority, application Germany December 4, 1953
5 Claims. (Cl. 137—118)



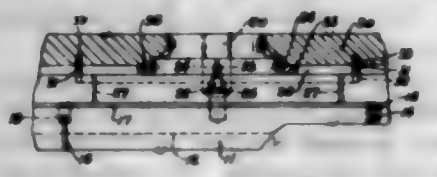
1. A fluid pressure regulator comprising a casing having high pressure and low pressure conduits, a control member slidable in said casing, progressively acting resilient means cooperating with said control member to regulate its sliding movement, a valve movable between open and closed positions intermediate said high pressure and low pressure conduits, piston means movable in said casing independently of said control member and under the influence of fluid pressure exerted thereon, said piston means having means cooperating with said valve to control the movements thereof between said open and closed positions, and progressively acting resilient means cooperating with said piston means to regulate the movement of the same in opposition to the influence of said fluid pressure.

2,844,162

LUBRICATED PLUG VALVE

William Leo Hulslander, Osborne, Pa., assignor to Homestead Valve Manufacturing Company, Coraopolis, Pa., a corporation of Pennsylvania

Application January 6, 1956, Serial No. 557,740
9 Claims. (Cl. 137—246.16)



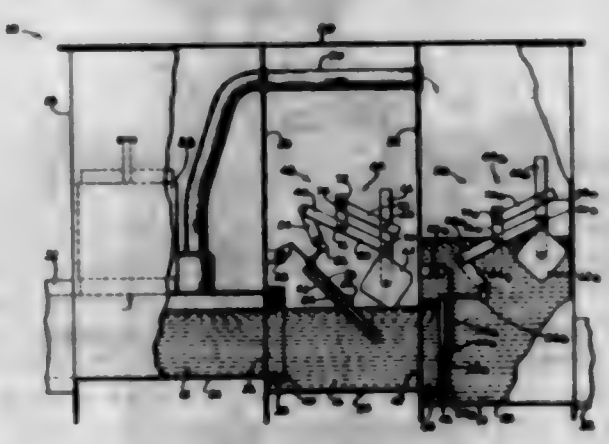
1. A lubricated valve comprising a vented valve body having a head at one end and closed at the other end forming a valve chamber, a plug valve having rotary and limited axial movement in said chamber, a coaxially extending cylindrical surface on said valve plug, a pressure lubricated check ring having an inner annular surface surrounding and sealing on said coaxially extending cylindrical surface and having a top annular surface in sealing engagement with the underside of said head, cooperating annular surfaces on the top of said plug valve and on the underside of said head surrounding said first cylindrical surface and said ring, an annular dam in sealing engagement with said cooperating annular surfaces to produce a lubricant chamber sealed by said dam and said check ring, and a passage entering into said lubricant chamber.

2,844,163

BACKWATER CONTROL DEVICE FOR SEWERS

Otto Steinberg, Plainview, Tex.

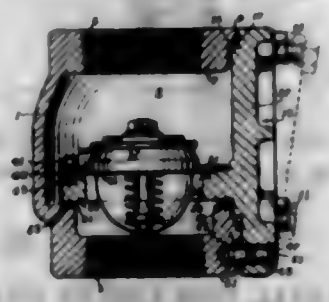
Application July 2, 1956, Serial No. 595,244
4 Claims. (Cl. 137—423)



4. In a backwater control device for sewers, the combination comprising means defining first, second and third substantially closed chambers, inlet means leading into said first chamber for receiving drainage, first connecting means extending between said first and second chambers for carrying the drainage therebetween, second connecting means extending between said second and third chambers for carrying the drainage therebetween, outlet means leading from said third chamber and adapted to be connected to a sewer for carrying the drainage thereto, said first and second connecting means defining respective first and second valve seats facing into said second and third chambers, first and second valve plates movable against and away from said respective first and second valve seats, each of said valve plates being provided with a flexible spring arm having its upper end pivotally supported and its lower end connected to said valve plate for swingably supporting said valve plate, first and second floats disposed inside said second and third chambers for closing said valve plates in response to the rising of backwater therein, and first first and second parallelogram linkages connected between said respective first and second floats and said first and second valves plates, each of said linkages including a first pair of fixed horizontal pivots disposed one above the other, a movable vertical member rigidly secured to the corresponding float and carrying a second pair of horizontal pivots disposed one above the other, upper and lower parallel generally horizontal links extending between the upper and lower pivots of said pairs and supporting said vertical member and the corresponding float for vertical movement, said links being disposed above the level of the corresponding valve plate, one of said links having a lever arm rigidly connected thereto and swingable therewith about the corresponding pivot of said first pair, and an additional link connected between said lever arm and said spring arm of the corresponding valve plate and extending downwardly therebetween, said additional link being connected to an intermodiate point on the corresponding spring arm to flex said spring arm and thereby apply spring pressure to said valve plate, the weight of each linkage and float being effective to bias the corresponding valve plate away from said valve seat

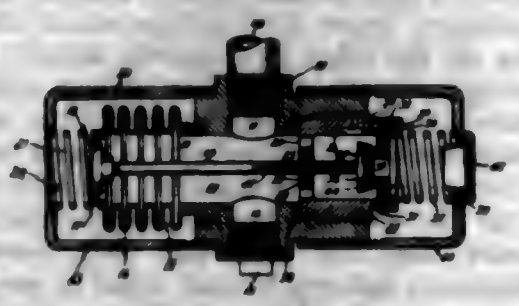
to open position, said second float being disposed at a substantially lower level than said first float and thereby being effective to close said second valve plate prior to closure of said first valve plate, said first float being operative to close said first valve plate in the event that backwater should leak past said second valve plate.

2,844,164
FLOW LINE POPPET TYPE CHECK VALVE
Elmer A. Robbins, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana
Application September 19, 1955, Serial No. 535,105
14 Claims. (Cl. 137—454.6)



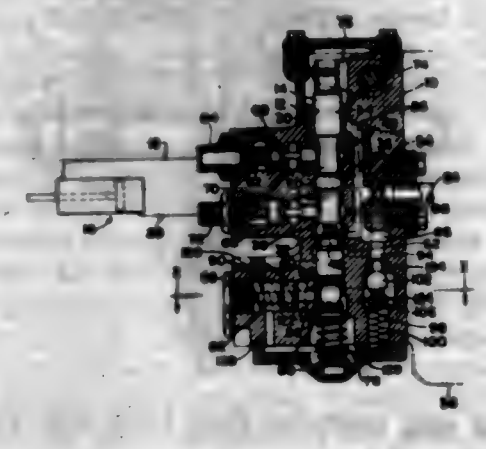
1. In a check valve, the combination of a valve body defining a central chamber with substantially oppositely disposed first and second liquid openings and a lateral opening disposed at one side of and between said first mentioned openings, said body defining substantially planar seats disposed around and substantially normal to the axes of said first and lateral openings respectively, a valve holder removably mounted on said body, having a valve supporting portion, with a valve assembly mounted thereon, adapted to close said first opening and a cap portion adapted to close said lateral opening, yieldable sealing means disposed on said seats, around said first and lateral openings, between the body and the supporting and cap portions respectively, said valve supporting portion and said valve assembly being insertable as a unit through said lateral opening.

2,844,165
PRESSURE VACUUM RELIEF VALVE
Francis Morse, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application November 29, 1954, Serial No. 471,858
7 Claims. (Cl. 137—493.6)



1. A combined pressure-vacuum relief valve comprising a first spring means resiliently holding a first valve disk against a first valve seat, an aperture in said first valve disk, a second valve seat surrounding said aperture, a second spring means resiliently holding a second valve disk against said second valve seat, a metallic bellows having one end closed and the other end communicating with a source of fluid pressure to be controlled, and means cooperating with said bellows for opening one of said valves when the pressure within said bellows is less than a predetermined minimum pressure and for opening the other of said valves when the pressure within said bellows is above a predetermined maximum pressure.

2,844,166
HYDRAULIC DETENT FOR VALVE
John H. Edman, Waterloo, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Original application November 3, 1954, Serial No. 466,649. Divided and this application October 24, 1955, Serial No. 542,449
4 Claims. (Cl. 137—622.5)

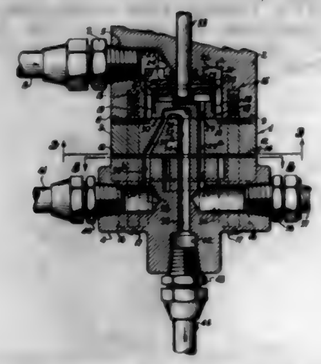


1. In a fluid-pressure-operated control system: a valve housing having inlet, motor and exhaust passages and a control valve movable from a neutral position to an active position and biased for return to said neutral position for controlling said passages, said valve member having a detent-receiving portion; means including a detent chamber having an opening leading to the detent-receiving portion of the valve member when the valve member is in its active position; detent means including a piston in the detent chamber having a detent element projecting through the opening for extension into engagement and retraction out of engagement with the detent-receiving portion of the valve member; yielding means urging the piston in one direction to extend the detent element for releasably locking the valve member in its active position; a relief conduit having inlet and exhaust ends connected respectively to the inlet and exhaust passages and including a first relief valve biased at a certain setting to close the relief conduit against inlet passage fluid pressure and yieldable to excess fluid pressure to open and enable fluid flow through the relief conduit to the exhaust end of said conduit; a second relief valve in the relief conduit downstream of the first relief valve and normally biased to conduit-closing position against relief conduit fluid pressure and at a setting lower than that of the first relief valve; and means including a detent passage connected to the relief conduit intermediate the relief valves and leading to the detent chamber at the side of the piston in opposition to the detent biasing means for supplying relief conduit fluid to the detent chamber at a pressure in accord with the setting of the second relief valve to retract the detent element from engagement with the detent-receiving portion of the control valve member so that said valve member returns to neutral.

2,844,167
PILOT VALVE CONSTRUCTION
David E. Griswold, San Marino, Calif., assignor to Donald G. Griswold, Alhambra, Calif.
Application September 17, 1954, Serial No. 456,772
10 Claims. (Cl. 137—624)

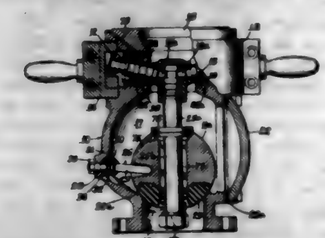
1. A valve, comprising: a body having a chamber for operating fluid under pressure; means for conducting operating fluid to said chamber; housing means forming one wall of said chamber and having two sets of passages; a rotatable member in said chamber provided with ports for selectively admitting said operating fluid into said sets of passages, said housing means having two annular grooves having their upper extremities disposed in a common horizontal plane, each of said grooves being aligned

with and communicating with a different one of said sets of passages, said housing means also having openings to



communicate said operating fluid from said grooves to separate sources of use.

2,844,168
QUICK ACTING VALVE WITH STATIC SEAL
Karl A. Klingler, Naperville, Ill.
Application September 18, 1952, Serial No. 310,249
17 Claims. (Cl. 137—630)



1. A valve structure comprising a casing having inlet and outlet ports and having also an opening in a side wall thereof, a valve element movably positioned in the casing for opening and closing said outlet port, centering arms for maintaining the valve element centered relative to said outlet port, means for operating the valve element including a valve operating lever extending in the direction of its length through said opening in the wall of the casing and into operative connection with a portion of the valve element, and a composite seal for closing the side opening in said casing compriaing a compressible faces portion clamped to the casing, a rigid central portion positioned intermediate the opposite faces of the seal and providing a bearing support for said lever, and flexible sleeve portions extending outwardly from the opposite faces of said seal in sealing engagement with said lever.

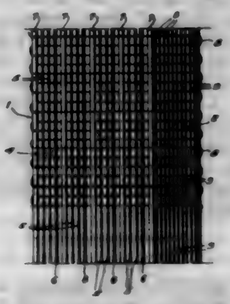
2,844,169
HOSE BALLASTING MEANS
Clayton H. Skinner, Kenmore, N. Y., assignor to Hewitt-Robins Incorporated, Stamford, Conn., a corporation of New York
Application November 19, 1953, Serial No. 393,207
1 Claim. (Cl. 138—25)

A drain hose for a liquid tank roof having a well and adapted to extend from the well, within the tank liquid, to an outlet from the tank, comprising: the combination with a hose and flange of a normally straight, resilient, multiple-strand steel cable within the hose, a lug secured to one end of the cable and having a perforated end portion projecting beyond the cable end, and a bolt passing outwardly through said end portion and into the hose and flange to secure the said cable end thereto, the other end of the cable being free of any



connection with the hose and the said cable being lead-sheathed to cause it to sink in the tank liquid.

2,844,170
STRIP MATERIAL FOR USE IN DEFINING THE FOLD LINES OF COLLARS
Lajos Bihaly, London, England, assignor to Trubenizing Process Corporation, New York, N. Y.
Application December 1, 1955, Serial No. 550,958
Claims priority, application Germany December 15, 1952
12 Claims. (Cl. 139—385.5)

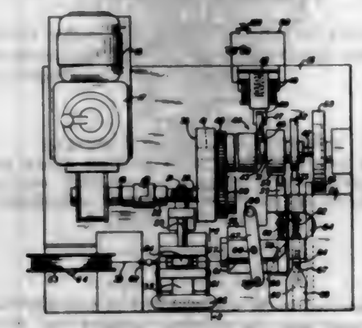


1. Strip material for use in determining the fold line of one-piece collars, essentially consisting of a fabric having on at least one face thereof threads forming latently adhesive first surface portions adapted to become actively adhesive under first predetermined conditions, and having on the other face discrete latently adhesive second surface portions adapted to become actively adhesive under conditions which do not cause activation of said first adhesive surface portions so that a permanent adhesion between said strip material and said one-piece collar or the like may be obtained by activation of said first adhesive substance after said strip material has been preliminarily adhered to said collar in proper position by activation of said second adhesive substance.

2,844,171
WIRE BENDING APPARATUS
Samuel Kahn, Allentown, and Donald S. Magargee, Center Valley, Pa., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 12, 1955, Serial No. 527,935
10 Claims. (Cl. 140—71)

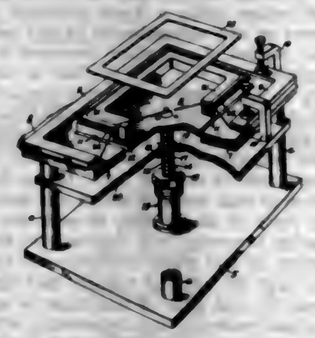
1. An apparatus for forming wires comprising an element of a given thickness mounted at a fixed position and having an outwardly curved forming edge joining parallel side faces, means to position a wire of a predetermined length in a given path at substantially right

angles to the element with substantially the longitudinal center of the wire disposed adjacent the forming edge, a bifurcated first former with legs of given thicknesses and rounded ends adapted to straddle the element, normally positioned away from and in alignment with the element, means operable to move the first former a given distance relative to the element to engage the wire and bend it into a U-shaped form about the forming edge of the element and cause portions of the wire on each



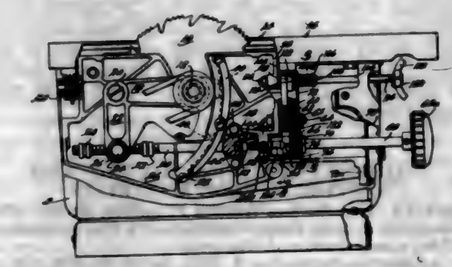
side of the bend to be disposed closely adjacent the side faces, a bifurcated second former with legs adapted to straddle the element and the first former, and means operable to move the second former subsequent to said movement of the first former to cause the second former to bend end portions of the wire around the rounded ends of the legs of the first former and to cooperate with the legs of the first former to complete an M-shaped form of the wire.

2,844,172
SILK SCREEN STRETCHER
Elise F. Harmon, New Bedford, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application November 13, 1953, Serial No. 392,066
1 Claim. (Cl. 140—109)
(Granted under Title 35, U. S. Code (1952), sec. 266)



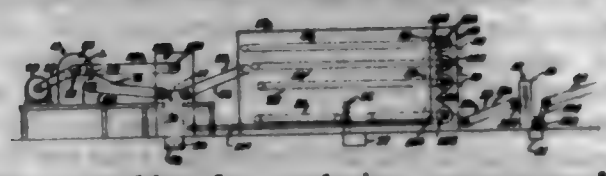
A mechanism for stretching a sheet of fabric material comprising, a base plate having a rectangular configuration, a plurality of posts extending upwardly from and adjacent each corner of said base plate, a supporting table having an upper planar supporting surface and secured to the upper ends of said posts, said supporting table having the same external dimensions as said base plate, a detachable rectangular clamping frame received on said supporting surface, said clamping frame having the same external dimensions as said supporting table and provided with a lower planar gripping surface for gripping said material between said frame and said supporting surface on said table, a plurality of screw clamps for clamping said clamping frame on said supporting table, there being a centrally disposed rectangular opening in said supporting table and spaced uniformly from the inner edges of said clamping frame when in clamping position whereby said supporting surface provides a rectangularly disposed planar supporting surface between said opening and said clamping surface, means for imposing a predetermined stress on said material including a jack, comprising a tubular base secured centrally on said base plate, a jack screw having a longitudinal slot therein received in said tubular base, an operating nut carried by said tubular base and threadably engaging said jack screw, a rectangular platform secured on said jack screw, said platform having a peripheral dimension slightly less than said opening in said supporting table for translation therethrough, a rectangularly disposed rounded molding fixed on said platform and having external dimensions equal to the external dimensions of said platform, means preventing rotation of said platform during said translation through said opening in said supporting table comprising a sub table having external dimensions equal to the external dimensions of said base plate and said supporting table, said sub table having a centrally disposed opening receiving said jack screw, an annular collar rigidly secured to said sub table in said central opening, there being a key integral with said collar and normally riding in said slot in said jack screw, and means adapted to secure a portion of said material in stressed condition for cutting and removal from said mechanism comprising, a detachable rectangular stretching frame having external dimensions slightly less than the internal dimensions of said rounded molding adapted to be slidably received within said rounded molding and a rectangular clamping frame having external and internal dimensions corresponding to the external and internal dimensions of said stretching frame and adapted to be secured over said stressed material on said detachable rectangular frame.

2,844,173
ARBOR SAW WITH SINGLE HANDLE CONTROL OF TILT AND ELEVATION
Walter L. Gaskell, Ypsilanti, Mich., assignor to King-Seely Corporation, Ann Arbor, Mich., a corporation of Michigan
Application September 13, 1954, Serial No. 455,588
3 Claims. (Cl. 143—36)



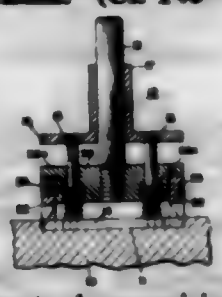
2. In a tilting arbor saw, a frame, a body tiltably mounted on the frame and having means to carry a saw arbor, said frame having a fixed rack member curved about the axis of tilt of said body, a tilt drive shaft carried by said body and extending parallel to the axis of tilt, a gear train carried by said body and meshing with said rack, said gear train being driven by said shaft, and a dust shield carried by said body and encasing said gear train and slidably but sealingly engaging opposite side faces of said rack.

2,844,174
APPARATUS FOR MAKING PAPER-COVERED WOOD VENEER
Richard N. Ware, Jr., and Reginald Cannon, Tallulah, La., assignors to Chicago Mill and Lumber Company, Chicago, Ill., a corporation of Delaware
Application July 7, 1954, Serial No. 441,788
11 Claims. (Cl. 144—279)



1. In a machine for producing paper-covered wood veneer panels, the improvement of a press for pressing the panels when directly superimposed on each other as a single stack, said press having a pair of laterally spaced grooved tracks extending therethrough; a conveyor chain in each of the track grooves of said tracks and supported thereby, and adapted to support a stack of panels; and said press having a bottom platen grooved in alignment with the grooves of the tracks, channels in said grooves of the bottom platen extending beyond the ends of the platen, supports for the extending ends of said channels to raise the channels when the platen is in open position, said channels receiving said chains therethrough to be carried at levels below the active face of the platen when the press is closed and to be carried at levels above the face of the platen when the press is open, and chain tensioning mechanism accommodating movement of the press between open and closed positions while holding the upper runs of the chains in a taut condition in said grooves.

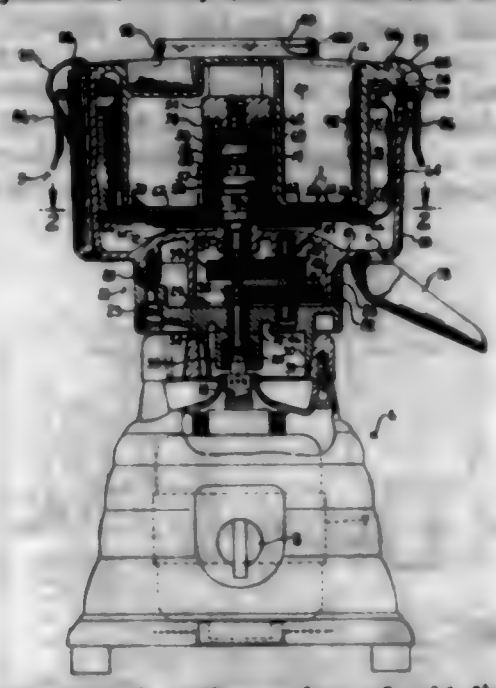
2,844,175
CORNER CUTTING TOOL WITH GAUGE
Warren B. Zora, Montgomery County, Pa.
Application October 13, 1955, Serial No. 540,254
6 Claims. (Cl. 145—25)



1. A corner cutting tool comprising a cutter head having a pair of cutting edges intersecting to form a corner, and gauge means carried by said tool for relative movement toward and away from said cutter head, said gauge means having a structure disposed on each side of said pair of cutting edges and in line with the edges to control the disposition of the cutting edges relative to the work during a cutting operation.

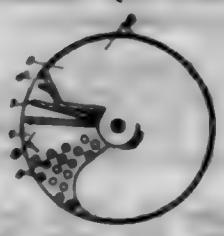
2,844,176
MACHINE FOR JUICING, SLICING, AND SHREDDING FOOD MATERIALS
Howard E. Barrows and William P. Luther, Racine, Wis., assignors to John Oster Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application September 5, 1956, Serial No. 608,155
7 Claims. (Cl. 146—3)

1. A cover for the bowl of a food macerating machine having a macerator therein, comprising a disc-like wall, the outer edge portion of which forms a peripheral flange adapted to have cooperating interfitting relation with the rim of the bowl; a cylindrical wall attached to said disc-like wall and projecting perpendicularly from one face thereof substantially concentric to said flange and inwardly thereof, said cylindrical wall having a free edge; said disc-like wall having an eccentrically located opening therethrough inwardly of but near the cylindrical wall; a flange projecting from the other face of the disc-like wall, bounding and defining said eccentric opening; and a helical wall concentric with and attached to the inside of said cylindrical wall, one end of said helical wall



being connected to the adjacent face of said disc-like wall at a location near the eccentric opening and the other end thereof being at the free edge of the cylindrical wall.

2,844,177
ARRANGEMENT FOR COMMINUTING AND MINCING FOODSTUFF
Richard Denis, Carnieres, Belgium, assignor to Etablissements Simon & Denis, Société Anonyme, Carnieres, Belgium
Application June 3, 1955, Serial No. 513,857
Claims priority, application Belgium November 9, 1954
7 Claims. (Cl. 146—167)

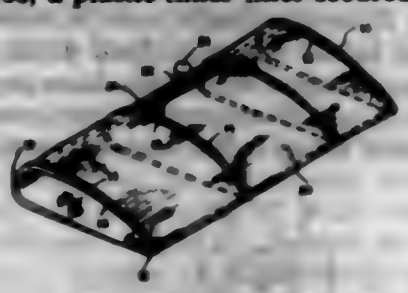


1. An apparatus for subdividing and mincing foodstuff and the like comprising a container including a perforated bottom plate, a worm conveyor adapted to revolve upon an axis perpendicular to said bottom plate, the bottom portion of said worm conveyor extending in close proximity with said bottom plate to urge the material lying on said bottom plate into contacting engagement with the latter thus applying axial pressure to said material, a cutter carried by and integrally with the lower edge of said conveyor worm, and having two arms forming an angle relative to each other facing the direction of movement of said conveyor worm and defining a center at the point of the meeting of said two arms, said cutter opening forwardly with reference to the direction of progression of said worm conveyor and consequently adapted to urge the material towards said center of the angle formed by said arms of said cutter to apply lateral pressure to said material, and cooperating with said bottom plate to comminute said material compressed between said center of said conveyor worm and said bottom plate.

2,844,178
AIRCRAFT JETTISONABLE FUEL TANK
Edwin J. Coleman, Glenbrook, Conn.
Application April 29, 1957, Serial No. 655,784
5 Claims. (Cl. 150—5)

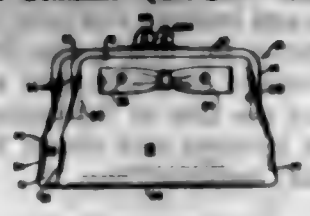
1. A jettisonable aircraft fuel tank comprising a plurality of elliptically-shaped flexible supporting ribs, means mounting said supporting ribs in superposed pairs at spaced intervals along the length of said fuel tank, resil-

last material secured between each superposed pair of supporting ribs, a plastic inner liner secured to a plurality



of inboard supporting ribs, a closable fuel entry means, and an outer cover of relatively stiff material conforming to the configuration of said fuel tank.

2,844,179
LADY'S HANDBAG ASSEMBLY
Richard Koret, Bedford Hills, N. Y., assignor to Koret, Inc., New York, N. Y., a corporation of New York
Application May 28, 1956, Serial No. 587,638
3 Claims. (Cl. 150—28)



1. A lady's handbag assembly comprising in combination a pair of handbags, each handbag comprising a pair of pivotally connected frame members, said frame members being of generally inverted U shape and being pivotally connected at the lower ends of the depending legs of the members, a handbag body connected to each pair of the frame members, said body comprising opposed panels the upper portions of which are attached along their top and side edges to the respective frame members of an interconnected pair, the lower portions of said opposed panels extending below said frame members and being joined along their bottom and side edges, a pair of horizontally spaced snap fastener elements on one of the panels of each handbag body, said snap fastener elements being spaced evenly from the upper portion of the inverted U-shaped frame member engaging said one panel and lying above the lower ends of the said frame member, the snap fastener elements of a pair of handbags being adapted to be interconnected to secure a pair of handbags together.

2,844,180
SAFETY RIM STRUCTURE
Carl J. E. Ommvon, Los Angeles, Calif.
Application April 25, 1955, Serial No. 503,373
1 Claim. (Cl. 152—158)



In a deep well wheel rim structure for a tubeless pneumatic tire, a tire-carrying rim having bead seats, bead-abutting flanges at the outer edges of said bead seats, and a drop-center portion between said bead seats; and a safety rim surrounding said tire-carrying rim for disposition within the tire, said safety rim having a continuous web portion disposed substantially centrally in said drop-center portion of said tire-carrying rim and secured to the latter, said safety rim also having a continuous outer peripheral portion secured to said web portion, said drop-center portion being at least as deep on both sides of said web-portion as the distance the outer peripheral portion extends radially outwardly beyond the diameter of the bead seats, to facilitate mounting and dismounting of the tire over said outer peripheral portion, said outer peripheral portion being of considerably greater diameter than said bead-abutting flanges and of considerably less diameter than the tread portion of the tire; said outer peripheral portion also having an axial extent substantially equal to the axial extent of said tire tread portion, whereby if the tire becomes deflated wheel descent will be limited by contact of said outer peripheral portion of said safety rim with the tread portion of the tire over the entire inner area of the tread portion, for safety and to avoid rim-cutting; both said web portion and said outer peripheral portion of said safety rim being sufficiently but narrowly spaced from the side walls of said drop-center portion of said tire-carrying rim at substantially all points where the web and outer peripheral portions of the safety rim and the side walls of the drop-center portion of the tire-carrying rim are in spaced opposed relationship to permit easy entrance of the tire beads into said drop-center portion when applying and removing the tire.

2,844,181
TIRES
Mart B. Riggs and Robert B. Knill, Akron, Ohio, assignors, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio
Application June 17, 1953, Serial No. 362,182
5 Claims. (Cl. 152—354)

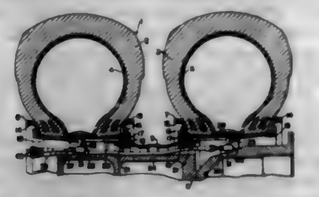


1. A pneumatic tire suitable for use without an inner tube, said tire comprising an open bellied hollow annular body terminating in spaced apart bead portions, said body containing a plurality of plies of vulcanizable rubbery composition reinforced with cords composed of a plurality of synthetic continuous filaments which form interstices in each cord located between adjoining and contacting filaments, said filaments being twisted together to form said cords, said filaments and the interstices formed thereby moving in an in-and-out path along said cords alternately from the interior of each cord to the outer circumferential region of each cord, said interstices when positioned in said outer circumferential region being filled with an impregnant deposited in said cords prior to the reinforcement of the rubbery composition by said cords, said impregnant providing a plurality of interruptions in said interstices which prevent the movement of pressurized air along the path of said interstices, and an inner liner for said tire extending substantially from bead portion to bead portion and adhering to the inner face of said tire, said liner being from 0.010 to 0.125 inch thick and comprising at least one rubber-like material selected from the group consisting of natural rubber, reclaim rubber, and the elastomeric copolymers of butadiene and styrene.

2,844,182
INFLATING VALVE
Frank L. Hall, Palos Verdes Estates, Calif., assignor, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio
Application September 14, 1953, Serial No. 379,869
3 Claims. (Cl. 152—427)

1. In a dual wheel assembly having a pair of similar rims oppositely mounted in the inboard and outboard

position on the wheel with a tire and tube mounted on each of said rims and a spud on each tube extending through an opening in its respective rim, the combination of a generally T-shaped valve adapter attached to the spud of each tube, each of said adapters comprising a body member, means connecting said body member to the spud in airtight relationship, a pair of oppositely disposed identical end portions on said body member and in the operative position, extending in a substantially axial direction, intercommunicating passageways extend-



ing through the body member from each of the end portions and communicating with the interior of the tube through the spud, an extension tube having a valve core in one end thereof removably mounted in one of said end portions, and a plug removably mounted in the other of said end portions thereby providing for interchanging the position of the extension tube and plug in the adapter to selectively control the direction of extension of the extension tube, the valve ends of the extension tubes being positioned in a readily accessible position.

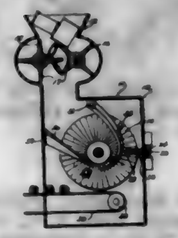
2,844,183
VALVE FOR TUBELESS TIRE
Georgie P. McCord, Oaklandon, Ind., and Alfred N. Ikaayan, Grosse Pointe Farms, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application December 24, 1953, Serial No. 400,162
7 Claims. (Cl. 152—427)



6. A valve assembly comprising, an elastic rubber casing having an axially extending passageway therethrough and having a circumferentially extending groove formed in the exterior surface thereof intermediate its ends, a rigid ring of substantial axial thickness seated in said groove, said ring serving to axially stretch said casing when the valve is inserted in a valve opening in a container wall with the edge of the valve opening extending into said groove but spaced from the base thereof, and a rigid elongated tubular member extending within said passageway, said tubular member having means thereon engaging said casing and anchoring said tubular member within said passageway, said tubular member having means in the interior thereof for securing a check valve therein.

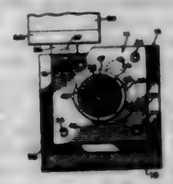
2,844,184
METAL BALLING MACHINES
Gilbert J. Vollmer, Milwaukee, Wis.
Application March 24, 1955, Serial No. 496,417
2 Claims. (Cl. 153—10.5)

1. A metal balling machine including a casing, a hopper at the top thereof, a neck portion between the hopper and said casing, a pair of vaned intermeshed spaced crusher wheels housed in said neck portion for preliminary crushing of metal objects, a drum rotatable about a horizontal axis in the casing, a fixed drum in horizontal coaxial alignment therewith, convex faces on the mutually adjacent sides of said drums, surface means on said drums to catch material being rolled therebetween, a triangular



curved compressor bar pivoted within the casing above said drums and depending downwardly to extend between said convex faces and beneath and around the axis of said drums, spring means for urging the lower end of said compressor bar toward said axis, and a triangular fixed baffle based within the side of the casing inclined downwardly to a point between said drums beneath the plane of the axes thereof.

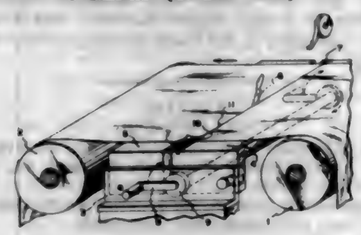
2,844,185
METHOD OF AND APPARATUS FOR BENDING WORKPIECES BY PUSHING THEM INTO A CURVED DIE-CAVITY
Winford L. Englesser, Cincinnati, Ohio, assignor to Englesser Manufacturing Company, Inc., a corporation of Ohio
Application March 9, 1954, Serial No. 414,953
5 Claims. (Cl. 153—48)



1. A die arranged to be mounted upon a press having a relatively movable table and ram, the die adapted to bend a straight length of cylindrical metal stock to a generally curved form along its length, said die comprising a base adapted to be mounted upon the table of the press, a die mounting member rising at right angles from said base, a forming plate attached to the mounting member, said forming plate having an elongated open slot formed therein, said slot comprising a pair of flat bearing surfaces spaced apart from one another residing in right angles to the plane of the forming plate, and extending to the upper edge thereof, said slot being generally curved along its length and providing a die cavity, said mounting member having a flat face enclosing one side of the slot, the other side being open, a closure plate having a flat face, support means on the base connected to the closure plate shiftably supporting the same for movement relative to the forming plate, key means on said support means slidably engaging the closure plate and locking the closure plate against rotary motion relative to the forming plate, said closure plate engaging the forming plate at the open side of said slot to enclose the die cavity, said cavity being generally square in cross section providing flat bearing surfaces tangent to the cylindrical stock about four sides thereof, the cavity having an open end portion at the upper edge of the forming plate, the longitudinal curvature of the die cavity resid-

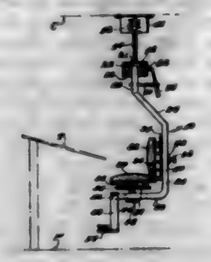
ing in a flat plane and extending through an arc substantially greater than 180 degrees of a circle inscribed about the longitudinal cavity, compression spring means interposed between the closure plate and forming plate, and actuating means connected to the closure plate for forcing the same against the forming plate counter to said compression spring means, the open end portion of said slot being effective to receive and confine an end portion of the straight length of stock with the stock projecting outwardly toward the ram of the press, thereby to be forced lineally into the cavity upon relative movement of the ram and table, the actuating means releasing the closure plate for movement by the compression spring means from the forming plate for removing the formed stock from the open side of the slot.

2,844,186
FILM SPLICING APPARATUS
August Samson, Jr., London, Ontario, Canada, assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application September 30, 1954, Serial No. 459,308
3 Claims. (Cl. 154—42.2)



1. Film splicing apparatus comprising: a support; two adjacent plates attached to said support adapted to receive film on their top surfaces, one being a stationary plate affixed to said support, a second being a plate pivotally secured to said support; means for moving said second plate a controlled distance toward and away from the stationary plate, said means being further adapted to impart a downward then upward movement to the movable plate for accurate overlapping of the film ends; means for holding the film on the top surfaces of said two plates; and a slot in said movable plate transverse to the film to provide a guide for cutting the film.

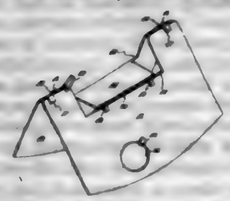
2,844,187
VIBRATION FREE SUPPORT
Thomas Nesbit Scoville, Reading, Pa.
Application October 23, 1956, Serial No. 617,836
10 Claims. (Cl. 155—51)



1. An apparatus for providing a vibration free support comprising a plurality of hangar boxes adapted to be fixed to an overhead support at spaced points, a spring mounted in each of said boxes, a track suspended from said springs, a frame including wheels mounted on said track for movement therealong, and a member including

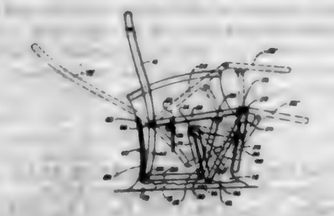
a supporting surface mounted on said frame beneath the wheels, and resilient means interposed between and connecting said member and said frame.

2,844,188
CHILD'S ROCKER TOY
Edward W. Thompson, Spokane, Wash.
Application March 11, 1954, Serial No. 415,467
3 Claims. (Cl. 155—75)



2. A child's rocking toy comprising two side panels, each of said panels having its bottom edge curved upwardly from the center toward the end edges of the panel, each of said panels also being recessed at its upper edges intermediate its outside edges, hinges connecting the upper edges of the panels together, said hinges each comprising two strong cloth straps, each panel having one end of one strap connected to its outer surface and having one end of the other strap connected to its inner surface, a rigid seat member hinged to the panels, said last named member being positioned at the bottom of the recesses and extending transversely between the panels, said hinges securing the seat member being composed of two strong cloth straps extending transversely of the panels and positioned at the bottom of the recesses, the straps being secured at their ends to the panels, and the seat member being secured to the straps for a distance from one side edge of the seat member to a point spaced from the side edge but less than half the width of the seat member in such a manner that the seat member may be forced upwardly and pivoted about one panel as the panels are pushed together for storage, an aperture in each panel positioned in the lower forward portion of the panel, a strong cloth strap extending transversely of the panels and having its ends extending through the apertures and secured to the outside surfaces of the panels, said strap being of a length such that it will limit the spreading of the panels to an angle of approximately 45 degrees, and a handle loop being secured to the top edges of the panels and positioned between the forward hinge and the recesses in the panels, said loop being useable as a hand hold.

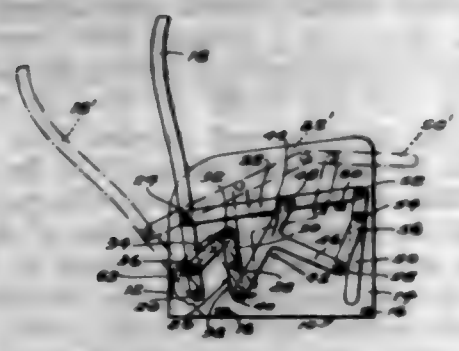
2,844,189
ARTICLE OF REPOSE FOR SUPPORTING THE BODY OF A PERSON
Anton Lorenz, Boynton Beach, Fla.
Application January 7, 1954, Serial No. 402,703
6 Claims. (Cl. 155—106)



1. A reclining chair comprising a support, body-supporting means including a back-rest and seat rockably mounted on said support, a first control element pivotally

mounted on said support and coupled to said body-supporting means so as to be movable by said body-supporting means, a first abutment on said first control element, a second control element pivotally mounted on said support, a second abutment on said second control element for selectively cooperating with said first abutment on said first control element, said second control element being movable independently of said first control element, a leg-rest operatively connected to said seat, leg-rest control means operatively connected to said second control element and to said leg-rest for moving said leg-rest to various elevated positions in response to reclining movement of said back-rest, said leg-rest being coordinated to said back-rest through said first and second control elements and their respective first and second abutments which are in contact with each other, said second control element and said leg-rest control means providing an independent mounting for said leg-rest allowing the occupant of the chair to move said leg-rest to various elevated positions independently of reclining movement of said back-rest, and means operatively connected between said leg-rest and said seat for locking said leg-rest to said seat in various elevated positions to which said leg-rest is brought independently of said reclining movement, said back-rest and seat being movable independently of said leg-rest when said leg-rest is locked in an elevated position wherein said first and second abutments are separated from each other.

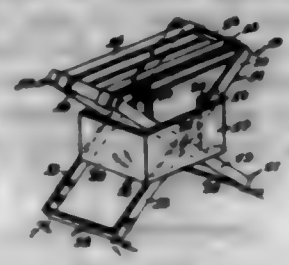
2,844,190
CHAIR WITH RECLINING BACK-REST AND COORDINATED SEAT AND LEG-REST
Anton Lorenz, Boynton Beach, Fla.
Application April 23, 1954, Serial No. 425,253
18 Claims. (Cl. 155—106)



1. An article of repose for supporting the body of a person, comprising in combination: a support, a back-rest pivoted to said support, a seat, the rear end portion of said seat being pivoted to said back-rest at a point above the plane of the pivotal connection between the back-rest and the support, a double-armed controlling element swingably mounted on said support, a connecting link pivoted at different regions thereof to one arm of said double-armed controlling element and to said back-rest at a point below the pivotal connection between said back-rest and said seat, a first link pivoted at different regions thereof to said other arm of said double-armed controlling element and to said seat, a leg-rest swingably mounted on the front portion of said seat, and a second link pivoted at different regions thereof to said leg-rest and to said first link.

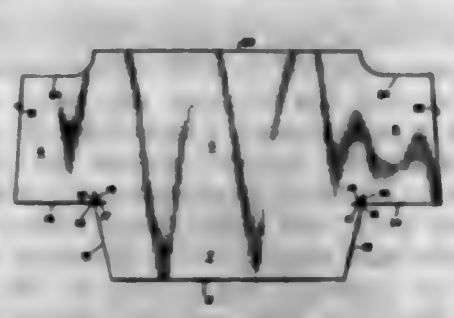
2,844,191
SPORTSMAN'S LUNCH TOTE SEAT
Henry M. Madden, Detroit, Mich.
Application August 20, 1957, Serial No. 679,302
3 Claims. (Cl. 155—150)

1. In a sportman's lunch tote seat, a pair of similar support members of open rectangular formation, each of said support members including a lower first portion, a pair of spaced parallel side portions extending from said first portion, an upper third portion extending between the upper ends of said parallel side portions, said third portion being arranged in spaced parallel relation with respect to said first portion, a plurality of straps extending between the upper third portions and connected thereto, a body member including a vertically disposed end wall



and a pair of spaced parallel vertically disposed side walls extending from said end wall, pins pivotally connecting the side portions of said support members to the side walls of said body member, a pair of flanges on said body member, and said flanges being arranged adjacent the inner surfaces of said support members, and a base releasably positioned in the lower portions of said support members.

2,844,192
SEAT COVER
Louis R. Marquez, Chicago, Ill., assignor to Atlas Specialty Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application June 25, 1956, Serial No. 593,456
2 Claims. (Cl. 155—182)



1. A seat-cushion cover adapted for permanent formation to fit over the top, the front-side and the ends of a seat cushion, the cover comprising a single piece of material cut to form a front flap and two end flaps integral with a body part with each flap of a width greater than the height of the seat cushion over which the cover is to fit, the forward edges of the end flaps being in a straight coplanar relationship with each other and the base fold line of the front flap and with the end edges of the end flaps straight and angled rearwardly inward toward the rear edge of the body part, the front flap being of a width approximately one-half of the transverse dimension of the body part with the ends of the front flap straight and angled forwardly inward toward the front edge of the front flap, the rear edges of the end flaps being disposed in straight coplanar relationship longitudinally of the body part inwardly of the rear edge of the body part, the body part having triangular sections cut out therefrom along the fold lines of the front flap and the respective end flaps inwardly from the juncture of the front edges of the end flaps and the adjacent edges of the front flap and the respective angles formed by the fold lines of the end flaps and front flap, the flaps being foldable transversely of the body part for binding along the adjacent straight edges of the flaps preparatory to having the cover overlaid on a seat cushion for subsequent fastening to a seat-cover frame along the free perimeters of the body part and the three flaps.

2,844,193
ARM REST
Norman E. Lauterbach, Pittsford, N. Y., assignor to Ritter Company, Inc., Rochester, N. Y., a corporation of Delaware
Continuation of abandoned application Serial No. 286,553, May 7, 1952. This application December 26, 1956, Serial No. 630,709
15 Claims. (Cl. 155—198)



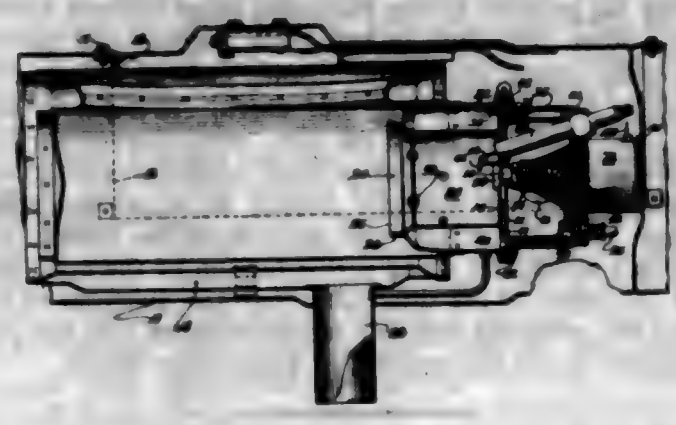
14. A chair comprising, in combination, a frame, a seat and a back carried by said frame, a pair of arm rests each having a support and each having a forward part and a rearward part, pivot means between each of said supports and said frame, each of said pivot means having an axis about which its support rotates and each of said axes extending upwardly and rearwardly toward the back, said supports with the arm rests carried thereby being swingable about said axis from a normal position in which the supports are approximately vertical to a position in which the supports are directed toward each other, said pivot means being adjacent the level of the seat whereby the supports are of substantial height and the amplitude of swing of the arms is relatively large, the upward and rearward direction in which said axes extend resulting in a greater amplitude of movement of the forward parts of the arm rests as compared to the rearward parts thereof when the supports are swung toward each other whereby a child seated in said chair is accommodated by the relatively wide spacing of the rearward parts of the arm rests but is restricted in his movement forwardly in the chair by the close spacing of the forward parts of the arm rests and means for releasably locking said supports in a desired position of adjustment.

2,844,194
PORTABLE POWER-OPERATED TIRE REMOVING TOOL
Don J. Marshall, Baltimore, Md., assignor of one-half to Marshall H. Wentz, Baltimore, Md.
Application October 6, 1954, Serial No. 460,647
1 Claim. (Cl. 157—1.26)



A portable power-operated tool for breaking the bond between a tire rim and the beads of a tire mounted thereon, and for removing said tire from said rim, said rim having an integral bead-engaging flange on one edge and a removable bead-engaging flange on the opposite edge, said tool comprising a curved body of generally I beam cross-section, a tubular portion on one end of said body, a bar slidably received in said tubular portion and having a hook on one end providing an abutment for engaging the edge of said rim opposite said integral flange, means for releasably locking said bar in adjusted position in said tubular portion, a yoke on the opposite end of said body, a fluid pressure cylinder, a cylinder head on one end of said cylinder, a bracket secured to said cylinder head, means pivotally mounting said bracket on said yoke, a piston in said cylinder, a piston rod connected to said piston and extending through said cylinder head towards said bar at an angle thereto away from said body and toward said hook, said piston and piston rod having a length of travel at least as great as the width of said rim, a chisel of generally wedge formation fixed to the end of said piston rod, a second cylinder head on the opposite end of said cylinder, a handle on said cylinder head and a control valve adjacent said handle communicating with said cylinder and a source of fluid pressure to control operation of said piston whereby movement of said piston will move said chisel into engagement with said integral flange and bead and draw said hook into locking engagement with the edge of said rim opposite said integral flange to lock said tool in operative position on said rim, further movement of said piston operating to force said chisel between said bead and said integral flange and break the bond between said bead and said rim solely by the wedging action of said chisel, continued movement of said chisel into engagement with said rim causing said cylinder to pivot on said pivotal mounting and said chisel to force said bead transversely of said rim, into engagement with the other bead to break the bond between said other bead and said rim and remove said tire from said rim, and upon retraction of said piston to move said chisel out of engagement with said rim, said hook will be automatically released from locking engagement with said rim.

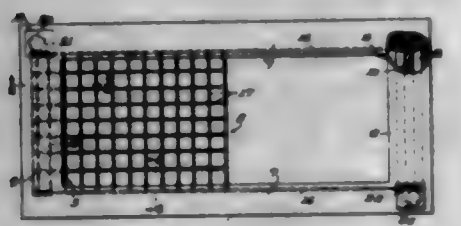
2,844,195
CYCLING BURNER FOR VEHICLE HEATERS
John F. Wein, Indianapolis, Ind., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application September 13, 1955, Serial No. 534,029
1 Claim. (Cl. 158—28)



In a burner for supplying hot products of combustion to the heat exchanger of a sealed combustion heater for an automotive vehicle, a sheet metal cup forming a combustion chamber, a plate secured to the base of said cup, means forming a larger cup, means securing said plate across the mouth of said larger cup, said plate having a central opening therethrough, the base of said combustion chamber cup having a central combustion air and fuel inlet opening in alignment with the last said opening, a generally cylindrical shell enclosing said combustion chamber cup and fitted thereto at the open end thereof, said shell being sealed against the end of said larger cup and closed by said plate thereby to define an annular space between said combustion chamber

cup and said shell, said larger cup having a hollow stem at substantially the axis thereof, a spray nozzle secured in the end of said stem, said nozzle having a tapered forward face adapted to project through said plate central opening and seal said opening when said plate and said larger cup are secured together, said combustion chamber forming cup having air inlet openings formed through the side wall thereof to communicate the interior thereof with said annular space, said plate being formed with a plurality of openings therethrough to communicate the interior of said larger cup with said annular space surrounding said combustion chamber cup, means for supplying air for combustion to said larger cup, means providing a valve seat in said hollow stem immediately adjacent to said nozzle, the passage through said stem providing a practical minimum of volumetric space between said valve and said nozzle, a valve poppet in said hollow stem on the side of said seat opposite said nozzle, resilient means for urging said poppet against said seat, means for supplying fuel under pressure to said hollow stem on the side of said seat away from said nozzle, and an electromagnet assembly secured to the base of said larger cup and sealing the end of said hollow stem and adapted when energized to attract said poppet away from said seat.

2,844,196
SWIMMING POOL PROTECTOR
William W. Jones, Sherman Oaks, Calif.
Application May 3, 1954, Serial No. 427,050
1 Claim. (Cl. 160—26)



In a swimming pool having side and end walls, the end walls having transverse pockets therein, power driven drums longitudinally disposed in the transverse pockets in the end walls, the side walls having track grooves connecting the pockets, cables extending from one end pocket to the other and lying in the track grooves and having their ends wound around the drums, each of the grooves including coextensive slits that extent transversely and open into the pool area, the slits being narrower than the thickness of the cables, a pool protector comprising a sheet of flexible material having its edges extending through the narrow slits and secured to the cables, and lying in a horizontal plane across the top of the pool, and since the depth of the slits is less than the diameter of the cables the protector and any weight thereon will not pull the cables out of the grooves in which they travel.

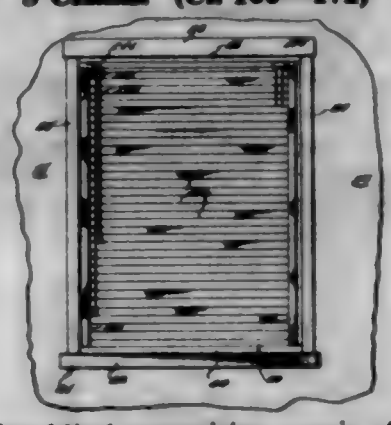
2,844,197
STORM WINDOW AND AWNING UNIT
Francis P. Kelly, Chicago, and John Lee Spezia, Evergreen Park, Ill.
Application April 14, 1955, Serial No. 501,330
4 Claims. (Cl. 160—61)

1. A combined awning and closure assembly for a window frame comprising top and bottom sashes, means hinging the top sash to the top of the window frame accommodating swinging of the top sash outwardly from the window frame, means hinging the top of the bottom sash to the bottom of the top sash accommodating swinging of the bottom sash from a position aligned with the top sash to a position in selected angular relation therewith, a first pair of struts pivoted at one end at each side of the window frame, a second pair of struts pivoted at one end at each side of the window frame in spaced relation from the pivoted ends of the first pair of struts, first brackets slidably connecting the top sash with the first pair of struts, second brackets slidably connecting the bottom sash with the second pair of struts, locking means associated with said brackets to fixedly secure the brackets to the struts, said struts being swingable on their pivots from positions substantially parallel with the



window frame to cooperate with the brackets and clamping means in holding the sashes in closed position to positions tilted outwardly from the window frame to cooperate with the brackets and clamping means in holding the sashes in open awning position away from the window frame, said first and second pairs of struts selectively positioning the top and bottom sashes independently of each other, and pivots associated with said brackets to accommodate swinging of the struts.

2,844,198
VENETIAN BLIND INCLUDING A WASHABLE CLOTH SLAT
John F. Whyte and Anthony Lazorko, Philadelphia, Pa.
Application March 15, 1957, Serial No. 646,334
3 Claims. (Cl. 160—172)



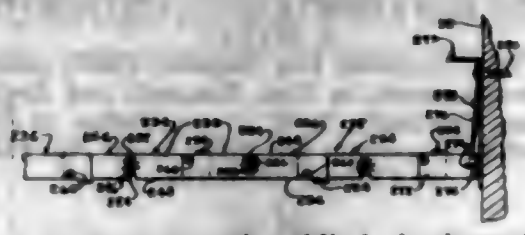
1. A Venetian blind comprising a pair of vertically extending spaced parallel hollow guide members, a plurality of washable cloth slats arranged in vertically spaced parallel relation between said guide members, a slat tensioning support detachably secured to each end of each slat, said slat tensioning supports each being supported for vertical sliding movement in one of said guide members, means extending through said guide members for vertically adjusting said slats, a pair of oppositely disposed yokes, means supporting said yokes in overlying relation with respect to said slats, a pair of spaced parallel upright tapes depending from each of said yokes with said slats extending therebetween, a plurality of transverse tapes extending between and secured to the tapes of each pair of said upright tapes, said transverse tapes being arranged in vertically spaced parallel relation with each of said slats having each of the opposite end portions thereof secured to one of said tapes, and means for tilting said yokes to simultaneously tilt said slats.

2,844,199

VERTICAL VENETIAN BLIND CONSTRUCTION

Maurice E. Achler and Albert H. Milstine, Chicago, Ill., assignors of two-twentieths to Harry Shapiro, Chicago, Ill.

Application August 6, 1953, Serial No. 372,629
3 Claims. (Cl. 160—173)



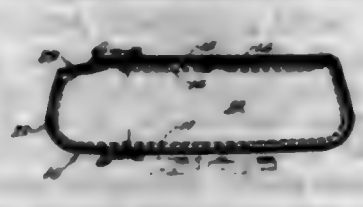
1. In a vertical Venetian blind, horizontal support means, a series of slats depending therefrom in vertical position, a connector stem depending medially from the lower edge of each slat, a chain comprising a plurality of substantially flat links in a horizontal plane with adjacent links being pivotally connected together substantially at their end portions with said end portions in lapped relation, each of said links having an aperture substantially centrally thereof in which is engaged one of said connector stems, each of said links having a lug at one edge of an end portion thereof affording a stop to limit pivotal movement between adjacent links in one direction, said links when said chain is fully extended being arranged in linear alignment, and controlling the spacing between the lower ends of said slats.

2,844,200

PADDED MATERIAL CONSTRUCTION FOR SUN VISOR

Gerhard Herr, Wuppertal-Vohwinkel, and Willy O. Treber, Wuppertal-Elberfeld, Germany, assignors to Gebruder Happich-G. m. b. H., Wuppertal-Elberfeld, Germany

Application November 15, 1956, Serial No. 622,387
Claims priority, application West Germany March 26, 1956
3 Claims. (Cl. 160—354)



1. A sun visor comprising a padding member made of resilient foam plastic, said padding member being provided with a peripheral slot therearound, a resilient wire frame member seated within said slot, said frame member comprising a substantially rectangular loop the top portion of which comprises two sections of wire overlying each other in the plane of said loop to provide a reinforced support bridge, said overlying wire sections at one corner of said loop being formed to provide pocket portions, an exterior plastic foil covering material housing said padding member and wire frame therewithin, a clamping device, and means passing through said clamping device and frame pocket portions securing said clamping device to said visor.

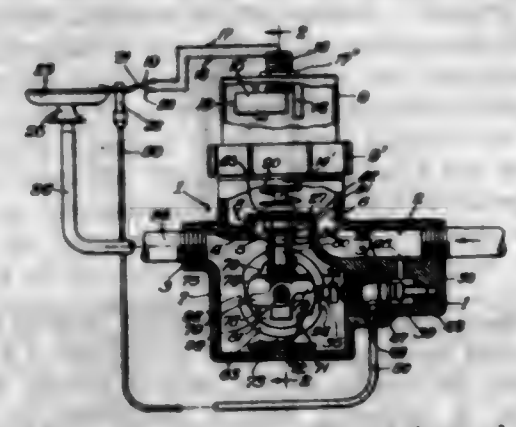
2,844,201

ELECTRO-MAGNETIC SAFETY SHUT-OFF DEVICE WITH TIME DELAY RESET

Oscar J. Leins, Milwaukee, Wis., assignor to Beso Inc., Milwaukee, Wis., a corporation of Wisconsin

Application December 13, 1950, Serial No. 200,615
11 Claims. (Cl. 161—9)

9. A control device having an inlet and having a main and a pilot fuel outlet comprising, a main fuel valve normally operable to permit or prevent fuel flow to said main fuel outlet, resettable safety shut-off means for said main valve, reset means for moving said main valve to open position and resetting said safety shut-off means, time delay means operatively connected to said reset means for delaying the operation thereof, and by-pass valve means operatively cooperating with said reset means for by-



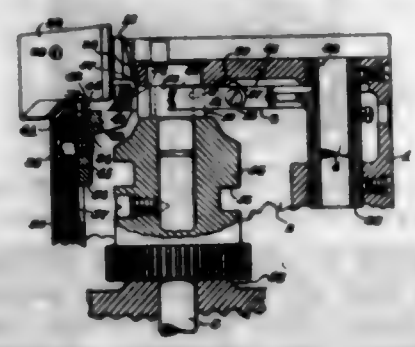
passing fuel from the upstream side of the main valve to said pilot fuel outlet when the main valve is closed during the time delay period of a resetting operation, and for passing fuel to the pilot fuel outlet from the downstream side of said main valve when the latter is open following resetting.

2,844,202

TRIMMING MECHANISM FOR SEWING MACHINES

Bernard N. Pierce, West Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a corporation of Connecticut

Application November 3, 1954, Serial No. 466,611
10 Claims. (Cl. 164—17.5)



1. In a trimming mechanism for a sewing machine having a frame, a rock shaft journaled in said frame, an elongated cutter carrier pivotally supported at one end by said rock shaft, means including a sliding block disposed within a yoke on said carrier adapted to drive said cutter carrier in oscillatory movement about said rock shaft, a plane bearing surface on said frame at one side of said cutter carrier slidably engaging a face of said sliding block, a side bearing surface on the other side of said cutter carrier slidably engaging a mating side bearing surface on said frame, and a transverse wall on said cutter carrier having a surface which projects beyond said plane bearing surface and extends toward said side bearing surface so that lubricant ejected from the space between said sliding block and said plane bearing surface will be intercepted by the transverse wall and directed by centrifugal force towards said side bearing surface.

2,844,203

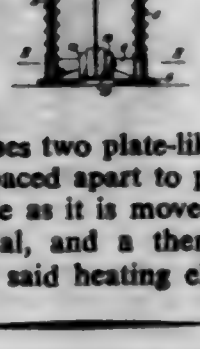
DEVICE FOR MARKING SUPERIMPOSED WEBS OF MATERIAL

Ingeborg Böesl and Karl Bullmer, Stuttgart-Stammheim, and Hugo Rössler, Traunreut, uber Traunstein, Germany, assignors to Karl Bullmer, Stuttgart-Zuffenhausen, Germany, a firm

Application March 8, 1955, Serial No. 493,036
9 Claims. (Cl. 164—89.5)

1. Device for marking superimposed webs of material, comprising a support structure, drive means mounted on

said support structure, a needle for penetrating the webs of material and rotatable by said drive means, means for moving the needle toward and away from webs of material to be penetrated, and heating means for heating the needle before said needle penetrates the said webs, the



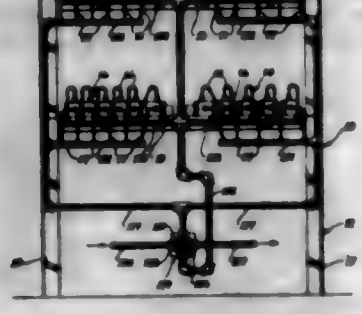
heating means comprises two plate-like heating elements, said elements being spaced apart to provide a gap therebetween for the needle as it is moved toward and away from webs of material, and a thermostat is mounted externally on each of said heating elements.

2,844,204

COMBINED CLAMPING AND PUNCHING APPARATUS

Lawrence Beebee, Manhattan Beach, Calif., assignor to Deeco, Inc., Huntington Park, Calif., a corporation of California

Application September 30, 1954, Serial No. 459,238
1 Claim. (Cl. 164—90)



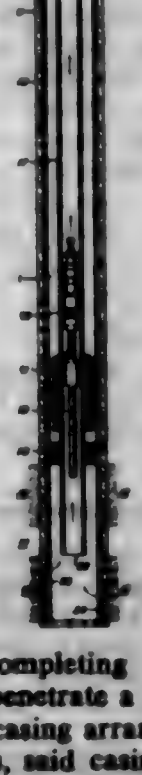
In an apparatus for simultaneously bending, clamping and punching both legs of a generally U-shaped tubular body, a supporting frame, means on said frame defining vertically stacked, generally horizontal elongated supporting members, each of said members having angularly related horizontal end portions and the angularly related portions of each of said members being vertically aligned with the corresponding portion of the other of said members, a plurality of individual double-acting reciprocating fluid motors slidably mounted on each portion of said elongated supporting members for adjustment longitudinally thereof, a clamping member associated with each motor and fixed relatively thereto, an apertured movable clamping member for cooperation with each fixed clamping member and mounted for movement toward and away from the respective fixed clamping member, means connecting each of said movable clamping members to its respective motor for actuation thereby, a punch connected to each of said motors for extension thereby through the corresponding apertured clamping members, said fixed and movable clamping members respectively having opposed concavities therein conforming to the cross-sectional contour of the tubular body, each of the motors and its associated clamping means and punches being adjustable as a unit and all such motors on each end portion being operable in parallel directions perpendicular to the common vertical planes of the body legs, and means for simultaneously directing pressure fluid to either side of all of said motors, each of the movable clamping members being separable from its associated fixed clamping members sufficiently to accommodate the entry of a substantially straight leg between all of said clamping members carried by one of said frame members, whereby a single stroke of each motor first deforms the body into conformity with the angularly related frame end portions, then clamps said deformed body and then punches a hole therein.

2,844,205

METHOD FOR COMPLETING AND SERVICING A WELL

Campbell M. Carothers, Los Angeles, Calif., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application December 28, 1955, Serial No. 554,214
13 Claims. (Cl. 166—4)



1. A method for completing and servicing a well drilled in the earth to penetrate a plurality of productive intervals and having a casing arranged therein perforated in one of said intervals, said casing containing a hydrostatic column of well fluids sufficient to prevent flow into the perforated casing and in which round trips of tubing are avoided, which comprises lowering a tubing string in said well casing having a retrievable pressure recorder arranged therein until the lower end of the tubing is positioned for production from at least said perforated interval, the passageway through the tubing being closed at a level above the pressure recorder, whereby the tubing is free of said well fluids, closing the annular space between the tubing and casing and opening the passageway through the tubing, adjusting the pressure in the well such that pressure from said perforated interval is exerted in said tubing and on said pressure recorder, retrieving said pressure recorder while maintaining the tubing in position whereby the productivity of said perforated interval is indicated by the pressure recorded on said pressure recorder, and then obtaining production from said perforated interval as indicated by the pressure on said pressure recorder.

2,844,206

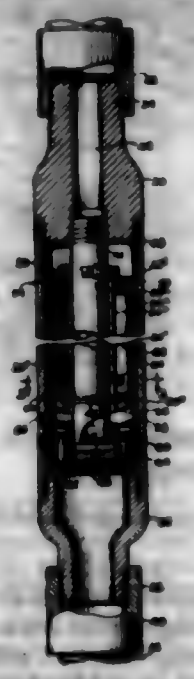
OIL AND GAS FLOW CONTROL DEVICE

Elbert Alford Rodgers, Altus, Okla.

Application September 22, 1954, Serial No. 457,714
8 Claims. (Cl. 166—54)

1. An oil and gas flow control device for a string of tubing suspended in a well, comprising a hollow cylindrical casing secured at its upper end to the string of tubing, a hollow head closing the upper end of the casing, a gas vent located in the casing below said head, a pipe disposed centrally within the casing and extending axially therethrough from a point near the lower end thereof upwardly into said head into communication with the string of tubing, said pipe having an inlet opening near the lower end thereof, a plug mounted in the lower end of

the casing below said pipe, said plug having a plurality of non-axial circumferentially spaced passages extending longitudinally therethrough, an annular float movably mounted on said pipe and spaced therefrom concentrically between said pipe and the walls of the casing, said float being movable axially along the pipe in response to variations in liquid level within the casing, a first annular valve formed on the lower end of the float, a first annular valve seat formed on the plug inwardly spaced from the plurality



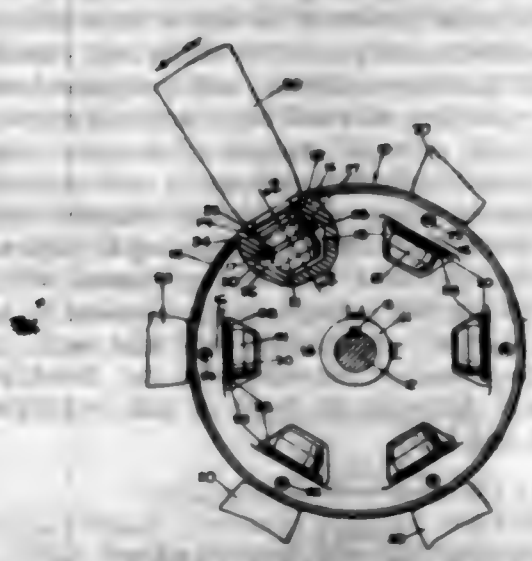
of passages therein for cooperation with said first valve when the float is resting in its lowermost position on said first seat, a second annular valve seat formed on said pipe above the inlet opening therein, and a second valve mounted on the float for engagement with said second valve seat simultaneously with the seating of the first valve on the first valve seat, whereby said valves prevent fluid from flowing from the casing into the pipe when the float is resting in its lowermost position.

2,844,287

ADJUSTABLE FAN BLADE ASSEMBLY

Morton B. Curley, Gahanna, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio

Application August 2, 1955, Serial No. 525,968
2 Claims. (Cl. 170—160.6)



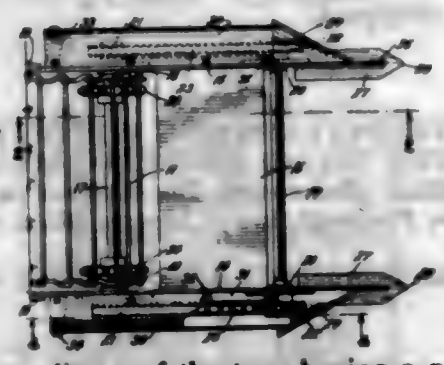
1. In a rotary fan, the combination of a fan blade supporting rotor and a fan blade mounted on the rotor to extend radially therefrom, said rotor comprising a peripheral rim extending in an axial direction and an integral web disposed within the rim, a socket in the rotor formed in the rim and extending radially inwardly therefrom into the web for mounting the fan blade, a hub on the fan blade adapted to be received in the socket and supporting said blade on the rotor, an assembly opening in the rotor disposed radially inwardly beyond the socket, said assembly opening being formed in the rotor web and extending at least the width of the socket, a shank integral with the fan blade hub projecting beyond the socket into said assembly opening, an assembly shoulder formed on the shank adjacent to the socket, a second assembly shoulder formed at the end of the socket and disposed in the assembly opening adjacent to the shoulder on the shank, and fan blade retaining means insertable through the assembly opening in the rotor adapted to be interposed between the fan blade shank and the socket and bearing on the assembly shoulders for securing the fan blade to the supporting rotor and preventing radial displacement of the fan blade during rotation of the rotor, said fan blade retaining means comprising a segmental retaining ring surrounding the fan blade shank, opposite sides of the retaining ring bearing on the assembly shoulders, the segments of the retaining ring being insertable through the assembly opening, and a snap ring embracing the segments of the retaining ring to hold the retaining ring in assembled position.

2,844,208

POTATO DIGGERS

Kendell Thornley, Aberdeen, Idaho

Application February 27, 1956, Serial No. 567,991
1 Claim. (Cl. 171—89)



In a potato digger of the type having a potato elevating chain extending rearwardly and upwardly from a forwardly positioned sprocket shaft, means for loosening the potatoes from the soil and carrying them rearwardly to said elevating chain, comprising: a side plate extending forwardly from said sprocket shaft at each side of said chain; a potato-digging rod rotatably mounted in and extending between said side plates forwardly of and parallel to said sprocket shaft; a platform plate secured to and extending between said side plates rearwardly of said digging rod and forwardly of said sprocket shaft, said platform plate being flat and imperforate and lying in a plane of the axis of said digging rod; power transmission means on the exterior of said side plates transmitting rotation from both extremities of said sprocket shaft to both extremities of said digging rod, means enclosing said power transmission means including a semi-cylindrical member secured to the outer wall of each side plate and a semi-conical cap disposed at the forward end of each semi-cylindrical member and having the axial flat portion thereof secured to the corresponding side plate, and a flat gauge plate secured to the lower edge of the forward portion of each side plate and having a sharpened forward end, said gauge plates being substantially parallel with said platform plate and being disposed beneath the plane thereof and in advance of said digging rod.

2,844,209

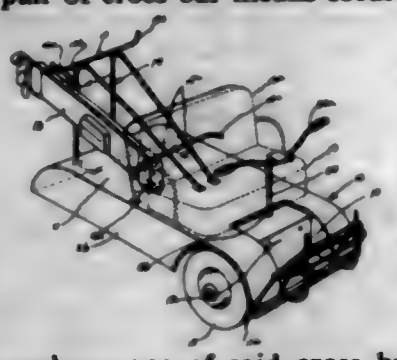
MOTORIZED VEHICLE

Vincent G. Brunderman, Chicago, Ill., assignor to Jetgo Manufacturing Company, Chicago, Ill., a partnership

Application January 17, 1956, Serial No. 559,553
1 Claim. (Cl. 180—89)

A motorized vehicle for transporting golfers and their golf bags around a golf course comprising a rectangular

frame, front and rear wheel means rotatively associated with said frame at opposite ends thereof, prime mover means mounted on said frame and driving said rear wheel means, body means mounted on said frame, seat means mounted on said body means, and a golf bag rack mounted on said body means rearwardly of said seat means, said golf bag rack comprising a pair of spaced knee members secured to said body means longitudinally thereof, and a pair of cross bar means secured transverse



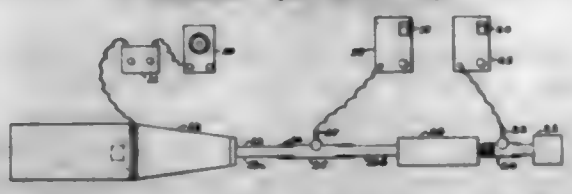
to said knee members, one of said cross bar means being positioned adjacent the knees of said knee members, and the other of said cross bar means being positioned adjacent the ends of said knee members adjacent said seat means whereby a golf bag may be handle-suspended from said knee positioned cross bar means acting as a fulcrum to urge said golf bag upwardly against said other cross bar means to achieve secure mounting of said golf bag without strapping.

2,844,210

MEANS FOR DETERMINING THE EFFECTIVENESS OF SOUND REDUCING MEANS

Donald Y. Milne, Homewood, Ill., assignor to Maremont Automotive Products, Inc., Chicago, Ill., a corporation of Illinois

Application February 17, 1955, Serial No. 488,880
4 Claims. (Cl. 181—.5)



1. An apparatus comprising an audio oscillator, an amplifier for said oscillator and a loudspeaker connected to said amplifier, a pipe of substantially uniform diameter throughout its length, a housing for said loudspeaker associated with one end of said pipe, a muffler having an input side connected to the other end of said pipe, a microphone arranged in said pipe, a sound level meter connected to said microphone, a second pipe of substantially the same diameter as the first-named pipe connected to the output side of the muffler, a microphone arranged in said second pipe, a sound level meter connected to said last-mentioned microphone, and an anti-reflection sound unit disposed in the outlet of said second pipe by which the sound passes out of the system.

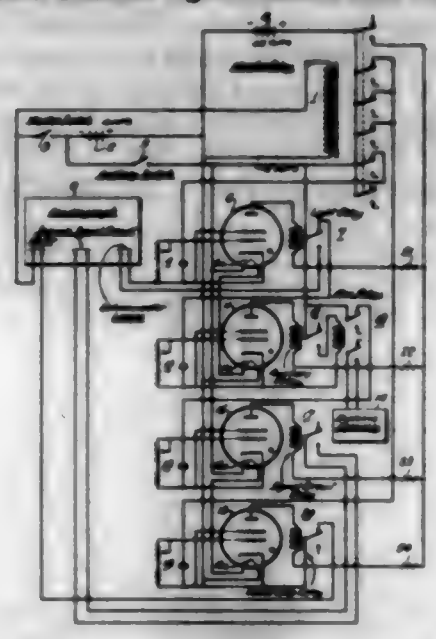
2,844,211

ELECTRONIC AUTOMATIC SEQUENCE TIMERS

Thomas D. Nickerson, Bellaire, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application August 25, 1955, Serial No. 530,544
3 Claims. (Cl. 181—.5)

1. Seismic surveying apparatus comprising an oscillograph including galvanometer lamps and a seismic signal circuit, an explosive assembly and an electronic sequence timer comprising a series of delay means and a plurality of switching means, each of said switching means being coupled to a different delay means and to a succeeding delay means of said series, said different delay means rendering said each switching means operative at a predetermined time, said succeeding delay means being responsive to said each switching means, said galvanometer lamps, said seismic signal circuit and said explosive



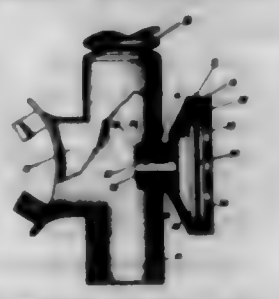
assembly each being responsive to a different one of said plurality of said switching means.

2,844,312

UNDERWATER SPEAKING DEVICE

William P. Hogue and Jack D. McNeal, Long Beach, Calif.

Application April 16, 1956, Serial No. 578,254
1 Claim. (Cl. 181—18)



An underwater speaking device for use with underwater breathing apparatus having a mouthpiece formed in its front portion with a bore, comprising: a generally frusto-conical body having its largest end open and formed with a rearwardly extending annular recess; a circular, flexible diaphragm disposed with the rear end of its recess; an annular protector having a rearwardly extending flange telescopically secured within said recess so as to retain said diaphragm therein, said protector having a water-tight connection with said body, and said protector being formed over a major portion of its area with a plurality of sound-admitting apertures; a neck coaxially extending rearwardly from said body for insertion within said bore, the rear portion of said neck being formed with external threads, and said neck being formed with a coaxial voice conducting passage; a nut element in said mouthpiece threadably engageable with said neck; and a rubber sealing washer encompassing the front portion of said neck between the front of said mouthpiece and the rear of said body.

2,844,313

WATER KNOCKOUT TANKS

Samuel A. Wilson, Minden, La., assignor to National Tank Company, Tulsa, Okla., a corporation of Nevada

Application January 27, 1955, Serial No. 484,453
2 Claims. (Cl. 183—2.7)

1. A free water knockout vessel comprising upper and lower horizontally disposed cylindrical tanks, means for admitting a gas-oil-water mixture to the upper tank wherein free water is separated by gravity from the oil and gas components, means for controlling the liquid level of the

emulsion in the upper tank, a water box in the upper tank, a vertical baffle in the lower tank to provide a left hand and a right hand chamber therein, flow pipe means to communicate free water from the upper tank to the left hand chamber, flow pipe means to communicate water from the left hand chamber to the water box, flow pipe means to control the water level in the water box and



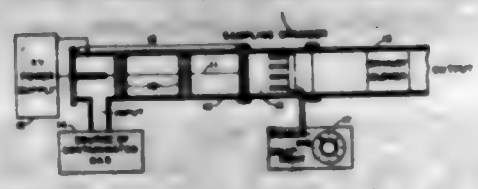
to transport the water to the right hand chamber, means to control the water level in the right hand chamber, drain means in the right hand chamber to discharge water therefrom, means in the upper tank to discharge the gas-oil distillate therefrom, said water in the left hand chamber providing a seal to prevent loss of gas-oil distillate from the vessel.

2,844,214

ELECTROSTATIC PRECIPITATOR

Wayne C. Hall, Ozen Hill, and Dominic S. Toffolo, Camp Springs, Md., and Edward J. West, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy

Application July 11, 1955, Serial No. 521,425
5 Claims. (Cl. 183—7)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An improved electrostatic precipitator comprising means for developing an electrostatic field for negatively charging discrete particles in a gas flow, means for directing a gas flow containing discrete particles through said electrostatic field, means for confining the path of said gas flow through said electrostatic field, at least one chargeable fibrous means of negative polarity transversely disposed within said precipitator and in the path of said gas flow for supplementing the charging action of said electrostatic field, said fibrous means being sufficiently porous to permit passage of said discrete particles, said gas flow confining means forming means for collecting charged particles in a region along the inner surface thereof and parallel with the direction of the gas flow and along the path thereof within the area of said electrostatic field, said means for collecting charged particles being operable to collect particles charged by said electrostatic field and to collect particles charged by said fibrous charging means, said collecting means having a polarity opposite to that of said chargeable fibrous means.

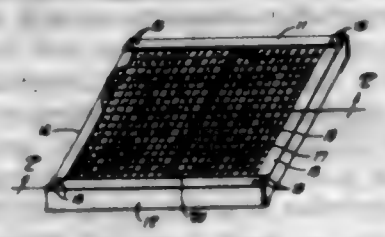
2,844,215

KNOCK-DOWN AIR FILTER

Robert Blank, Cleveland Heights, and Jack Blank, Euclid, Ohio; Bertha Feuster and Goldie Lake, executrices of said Robert Blank, deceased, assignors to said Jack Blank

Application April 25, 1955, Serial No. 503,654
1 Claim. (Cl. 183—49)

In combination with air filtering media, a knock-down air-filter casing for said media, comprising a four sided open framework having sides of sheet metal channels whose walls may be flexed slightly relative one to the other, and which are butted against each other in the framework to provide a light but rigid structure having two open faces, a wire network positioned across each of said open faces, the networks being spaced apart by the filtering media positioned therebetween, with their edge portions positioned in the channels, two of said channels having paired and opposed straight walled tubular ex-



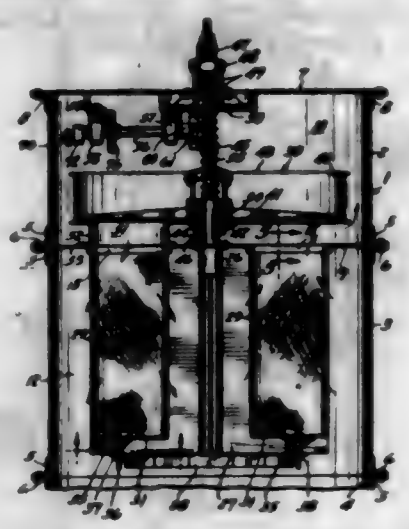
trusions positioned at the ends thereof, on a line lying at an angle of 45° to the long axis of the channels, which interfit paired and opposed holes aligned at a similar angle to the long axis of the remaining two abutting channels in the assembled casing, at the ends thereof, to give the casing rigidity and dimensional stability.

2,844,216

AIR FILTERING APPARATUS

Arden E. Swanson, Minneapolis, Minn., assignor to The Day Company, Minneapolis, Minn., a corporation of Minnesota

Application April 2, 1956, Serial No. 575,667
2 Claims. (Cl. 183—57)



1. In an air filtering apparatus, casing structure defining a separating chamber and a filtered air chamber and at least two outlet passages connecting said chambers, each of said outlet passages being equipped with air filter means, said casing structure having an air inlet passage to said separating chamber adapted to be connected to a source of dust laden air to be cleaned and a discharge passage from said filtered air chamber, air compressor apparatus in said filtered air chamber and comprising a cylinder having a closed end and an opposite open end, and a cooperating piston mounted in said cylinder for reciprocatory movements between the open and closed ends thereof, said closed end of the cylinder having a port and being movable to selectively connect said port to one of said outlet passages at the output side of its respective filter means, the open end of said cylinder communicating with the other of said outlet passages, yielding means urging said piston toward the closed end of said cylinder to produce a reverse air flow into said separating chamber through said one of the outlet passages and its respective filter means and to produce a corresponding displacement of air from the other of said outlet passages and respective filter means without materially disturbing the normal air flow to said separating chamber through said inlet passage, whereby to dislodge dust from the filter means of said one of the outlet passages without affecting the normal air cleaning function of the filter means of the other of said outlet passages,

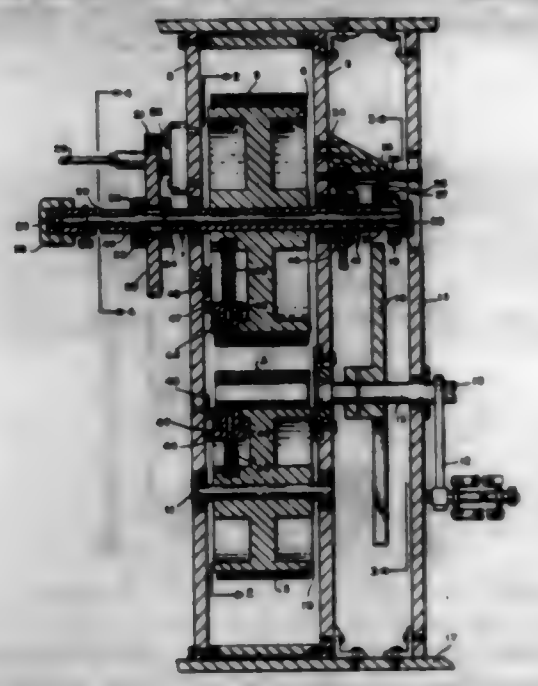
and mechanism for moving said piston in the opposite direction against the bias of said yielding means and including, a rotary drive shaft, a pair of cooperating crank elements one rigidly mounted on said drive shaft and the other journalled on said drive shaft, an abutment on one of said crank elements engageable with the other crank element radially outwardly of said drive shaft to provide driving engagement between said crank elements in one direction but permitting independent swinging movement of the journalled crank element in the same direction, and linkage connecting said journalled crank element to said piston, said crank elements providing a lost motion connection whereby, when said piston reaches its limit of crank element imparted movement against bias of said yielding means, said piston will be moved to its limit of travel in the opposite direction by said yielding means and independently of said drive shaft.

2,844,217

SPRING MOTOR APPARATUS

Morris Kloomer, Bronx, N. Y., assignor to the United States of America as represented by the Secretary of the Army

Application October 4, 1956, Serial No. 614,033
10 Claims. (Cl. 185—37)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A mechanical motor comprising a driven shaft having a reel secured thereon, a spiral power spring secured to said reel and energized by unwinding from its preformed spiral conformation, a second reel connected to the other end of said spring acting as a receiver for the spring when it is deenergized, spring winding means and output means, manual control means acting simultaneously to connect said winding means and disconnect said output means to prepare for a winding cycle said control means acting also to disconnect said winding means and connect said output means to apply power to a load connected to said output and a one-way friction clutch acting to prevent unwinding of the spring during its winding cycle.

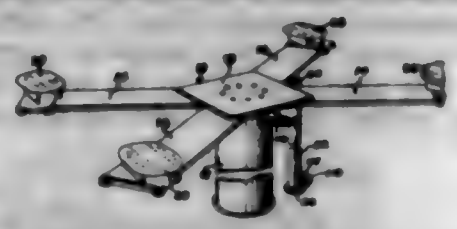
2,844,218

LIFT

Ion V. K. Hott, Dayton, Ohio, assignor to The Joyce-Cridland Company, a corporation of Ohio

Application December 22, 1955, Serial No. 554,771
8 Claims. (Cl. 187—8.49)

1. The combination with a lift superstructure having a plurality of arms fixedly mounted upon a hydraulic piston, said arms being adapted for engaging the under side of automobiles and other vehicles, said superstructure with the piston being rotatable on a vertical axis, said superstructure being longer than it is wide, of means including a post mounted for movement with the superstructure only along a fixed vertical axis for locking said superstructure in a plurality of positions in the plane of rotation.

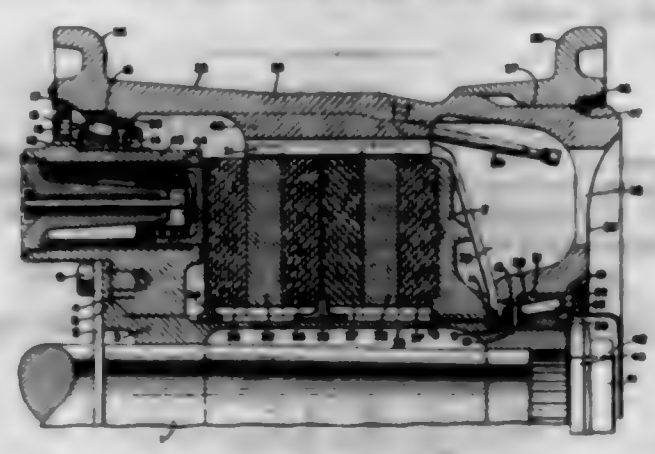


2,844,219

WHEEL AND BRAKE

George H. Collier, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application September 8, 1955, Serial No. 533,867
1 Claim. (Cl. 188—18)



An airplane wheel and brake structure comprising a non-rotatable axle, a brake mounted on said axle and comprising sets of interpolated friction discs, one set of which is non-rotatably carried in axially-movable manner by said axle and the other set of which has outwardly projecting means for engaging a wheel, said brake having a supporting disc at one end thereof, and an open-ended step-bored drum-type wheel adapted to be mounted about said brake by being moved axially thereover, said wheel having a bearing at its larger open end of such large diameter as to be passed over said brake and to be seated on said supporting disc, a disc integral with the opposite end of said wheel, a bearing of smaller size carried by the disc for engaging a smaller portion of said brake adjacent said axle, and radially inwardly directed coupling means on the wheel between said bearings for engaging over said outwardly projecting means of said brake structure in non-rotatable but axially slidable engagement therewith, said supporting disc and said wheel disc being formed over their entire circumferences with circumferentially-spaced large ventilating openings and clearance spaces being provided between the brake and wheel as separated by the radially inwardly directed coupling means to effect through ventilation of the wheel and brake structure in either direction.

2,844,220

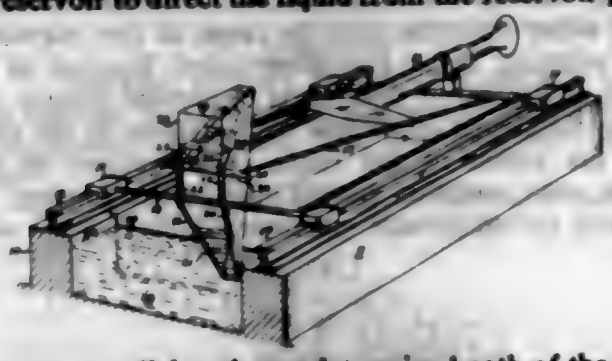
BLADED BRAKING APPARATUS

Egon E. Muehlner, San Diego, Calif., assignor to the United States of America as represented by the Secretary of the United States Air Force

Application December 6, 1955, Serial No. 551,480
14 Claims. (Cl. 188—38)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In combination, a vehicle, means for moving said vehicle in a predetermined path, a liquid reservoir adjacent the path, and blade means mounted on said vehicle, said blade means including a blade having a curved cross

section, said blade extending transversely to the predetermined path of the vehicle, said blade means extending in a direction from the vehicle to pass the blade through the reservoir to direct the liquid from the reservoir parallel



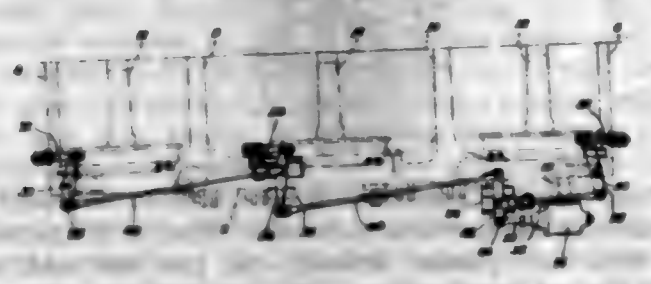
to a plane parallel to the predetermined path of the vehicle and normal to the surface of the liquid in the reservoir to retard the movement of the vehicle when said vehicle follows its path.

2,844,221

TREAD BRAKE ARRANGEMENT

Carl E. Tack, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

Application January 5, 1954, Serial No. 402,261
9 Claims. (Cl. 188—46)



4. In a brake rigging for a six wheel railway car truck, a frame, three supporting wheel and axle assemblies, brake rigging on one side of the truck comprising an actuating cylinder mounted on one end of the truck on the outboard side thereof, said actuating cylinder having a movable piston rod, a live lever having its outboard end connected to the piston rod, a pair of dead levers at opposite ends of the truck, another live lever carried intermediate the ends of the truck, pull rods interconnecting the outboard ends of the dead levers with intermediate portions of the live levers, another pull rod interconnecting extremities of the live levers, and means operatively connected to the rigging to engage the wheels of said assemblies.

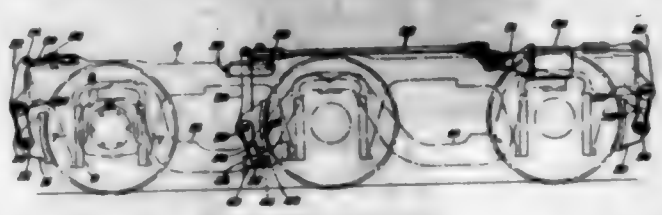
2,844,222

RAILWAY BRAKE

Walter R. Peiania, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

Application October 6, 1954, Serial No. 460,639
10 Claims. (Cl. 188—46)

1. In a single shoe brake arrangement for a railway car truck comprising a frame supported by three wheel and axle assemblies spaced from each other, said assemblies including a center and two end wheels on each side of the truck, the combination of: a friction assembly positioned adjacent and engageable with each of the wheels on one side of the truck, two of said friction assemblies being disposed on the same side of their respective wheels and one of said friction assemblies being disposed in the opposite side of its respective wheel, a dead brake lever pivoted to each friction assembly and fulcrumed to the frame, a power cylinder mounted on the frame adjacent one of said end wheels, the brake levers associated with the end wheels being disposed outwardly thereof, a pair of dead actuating levers fulcrumed intermediate their ends to the frame adjacent the end wheels, the inboard ends of said actuating levers being operatively connected to the upper ends of the brake levers associated with the end wheels, a floating actuating lever having its inboard end operatively connected to the upper end of the center brake lever, a floating cylinder lever having its outboard end operatively connected to the power cylinder, a pull rod interconnecting the



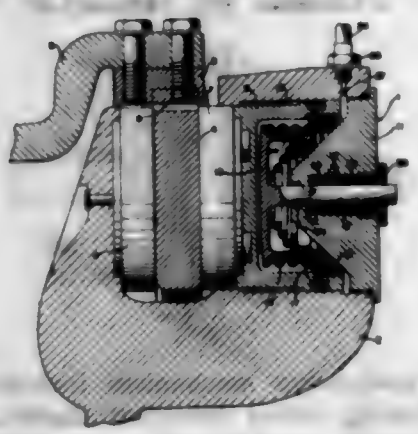
outboard end of one dead actuating lever with the outboard end of the floting actuating lever, another pull rod interconnecting a medial portion of the floating actuating lever with the inboard end of the cylinder lever, and a third pull rod interconnecting a medial portion of the cylinder lever, with the outboard end of the other dead actuating lever.

2,844,223

AUTOMATIC ADJUSTMENT GRIP FOR BRAKES

John W. Runner, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 1, 1955, Serial No. 525,452
1 Claim. (Cl. 188—67)



The combination in an automatic adjustment grip for brakes of a cap having an axial bore and a counterbore, a pin extending through the counterbore and slidably received in the bore, a split sleeve in the counterbore and frictionally engaging the pin, a plurality of split rings frictionally engaging the sleeve to increase its friction on the pin, the rings having a smaller internal diameter before assembly than the external diameter of the sleeve after its assembly, said rings engaging each other side by side, a nut threadable into the end of the counterbore and slidably receiving the pin, and a spacer between the nut and the rings, said nut operating through the spacer to hold the sleeve against the end of the counterbore and to hold the rings between the spacer and the end of the counterbore.

2,844,224

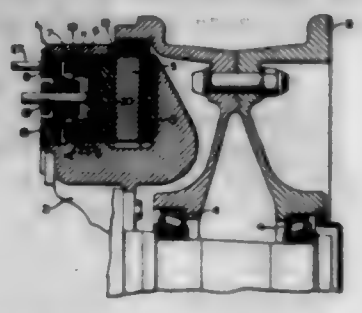
AUTOMATIC BRAKE ADJUSTMENT DEVICE

Carl E. Bricker and Albert W. Cook, Akron, Ohio, assignors to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application November 2, 1955, Serial No. 544,407
9 Claims. (Cl. 188—73)

1. In combination in a brake, a brake disc, a brake housing, said housing having a cylinder therein, a hollow piston slidably positioned in said cylinder, brake block means on said piston for braking contact with said brake disc, an adjustment pin, friction gripping means on said housing engaging said pin for retarding axial movement

of said pin, head means on said pin extending into said piston, spring means based against said head means within said piston for urging said piston and brake block means to inoperative position, means for supplying hydraulic pressure to and within said piston to move said



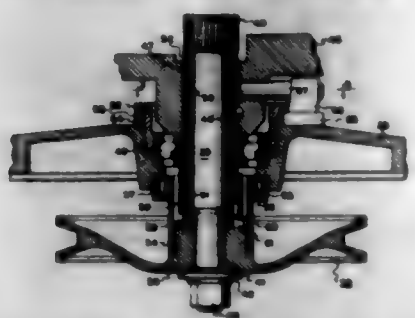
piston for brake action, and a resilient sealing ring between said head means and said piston and mounted upon one of them for engagement with the other to form a seal therebetween to trap hydraulic fluid between said head and said piston when the actuation of the hydraulic pressure supply means is terminated.

2,844,225

DRIVE MECHANISM FOR CLOTHES WASHERS AND THE LIKE

James R. Hubbard, Trenton, N. J., and William E. Viscusi, Louisville, Ky., assignors to General Electric Company, a corporation of New York

Application April 2, 1954, Serial No. 420,594
4 Claims. (Cl. 188—82.4)



1. In a transmission mechanism including a sealed casing and having liquid lubricant therein, a member within said casing rotatable on a substantially vertical axis, a brake band frictionally engaging said casing and having a projecting tab thereon, and a snubber member of airfoil shape with respect to the positive direction of rotation pivotally mounted adjacent its leading edge on said rotatable member radially displaced from the axis thereof and at least partially submerged in the liquid lubricant, the trailing edge of said snubber member being engageable with said brake tab upon rotation of said member in a reverse direction, said trailing edge being elevated by relative motion with respect to the lubricant upon rotation in said positive direction.

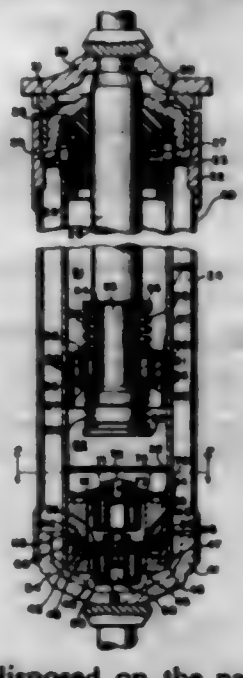
2,844,226

HYDRAULIC SHOCK ABSORBER

Paul J. Long, Jr., and Richard L. Nietert, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 26, 1955, Serial No. 524,340
4 Claims. (Cl. 188—88)

1. A hydraulic shock absorber, comprising, a cylinder having a closure member at each end one of which has oppositely acting valved passages providing for fluid interflow between the cylinder and a fluid reservoir, a reciprocative piston in said cylinder having oppositely acting valved passages for fluid interflow between opposite sides of said piston, said piston having a rod extending slidably through the other closure member, an abutment member in said cylinder between said piston and said valved closure member, and a free partition having oppositely acting valved passages similarly acting to those in said valved closure member slidable in said cylinder between said abutment and said valved closure member non-restrictively with substantially equivalent freedom of movement in either direction with the range of free movement of the partition being a predetermined fraction of the range of movement of said piston to provide thereby substantially unresisted movement of the piston in the cylinder to the extent of the range of movement of said partition, said partition having the portion thereof adjacent said valved closure member provided with a mov-



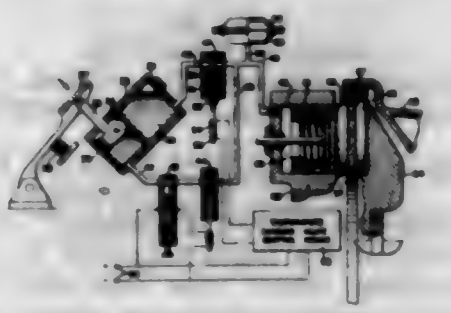
able wall member disposed on the partition normally to provide with the partition a chamber filled with hydraulic fluid from the cylinder between said partition and said valved closure member, the said chamber forming means having a restrictive passage for flow of fluid from the said chamber upon movement of said wall member toward said partition whereby to hydraulically cushion movement of said partition toward said valved closure member upon engagement of said wall member with abutment means in said cylinder adjacent said valved closure member.

2,844,227

APPARATUS FOR ACTUATING FRICTION BRAKES

Edward T. Armstrong, Butler, N. J., assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

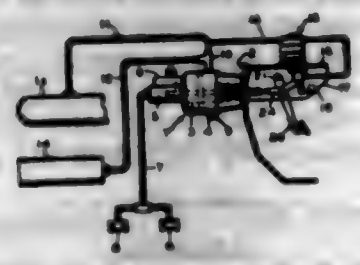
Application January 9, 1956, Serial No. 557,960
5 Claims. (Cl. 188—151)



1. Brake operating apparatus comprising a hydraulic pressure supply system including a positive shut off pressure supply valve, a brake actuating cylinder, a fluid pressure delivery line connecting said pressure supply system to said actuating cylinder, a cut off valve in said delivery line between said supply valve and said actuating cylinder to entrap operating fluid under pressure in said actuating cylinder, means controlled by pressure in said line for closing said cut-off valve at a desired brake actuating pressure, an adjustable bleeder connected to said actuating cylinder and providing a planned decay of brake pressure throughout a brake application period,

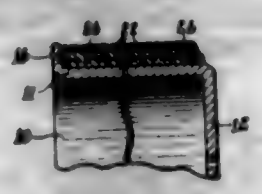
and a surge tank also connected to said actuating cylinder to provide for storage of liquid under pressure when said cut-off valve is closed.

2,844,228
BRAKE PEDAL RATIO CHANGER
Steve Schnell, St. Louis, Mo., assignor to Wagner Electric Corporation, St. Louis, Mo., a corporation of Delaware
Application March 14, 1957, Serial No. 646,846
6 Claims. (Cl. 188—152)



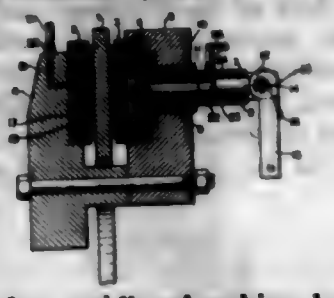
1. In combination with a hydraulic brake system for a motor vehicle including a vacuum operated power brake device having a vacuum source connected thereto for normally developing braking pressures in said hydraulic brake system; a brake applying arm pivotally mounted adjacent to said power brake device and having a brake pedal on its free end for movement toward said power brake device for initiating a braking application, said arm having an elongated slot therein; a link having one end pivotally connected to said power brake device and having a pivotal sliding connection intermediate its ends with the slot of said arm; a servo unit having the other end of said link connected thereto, the servo unit being connected to the vacuum source for holding said link in a first position relative to said arm; yieldable means adapted to move said link to a second position relative to said arm in the event of failure of the vacuum source; said second position of said link with said arm being adapted to move said brake pedal to a position further from said power brake device than said first position of said link with said arm; and means for holding said link in said first position in the event of failure of the vacuum source until said brake pedal is initially moved toward said power brake device to provide a braking application.

2,844,229
WIRE-WOUND BRAKE DRUM OR DISC
Marshall G. Whitfield, Garden City, N. Y.
Application March 31, 1955, Serial No. 498,150
3 Claims. (Cl. 188—218)



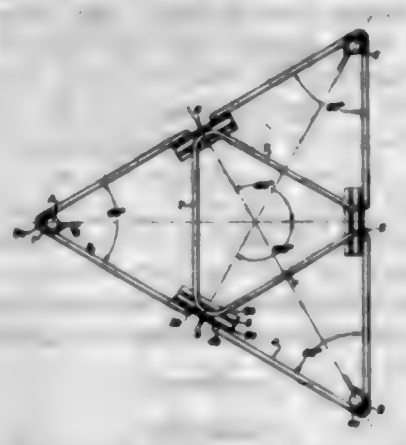
1. A fin-free wire-wound brake drum comprising a ferrous metal flange having an inner surface for contacting a brake shoe, a heat-conductive metal matrix comprising a metal selected from the group consisting of copper, aluminum and magnesium metallurgically bonded to and extending uniformly over the entire peripheral exterior surface of said flange, and a plurality of plies of a high-tensile wire selected from the group consisting of steel, high strength alloy steel and molybdenum wrapped about the entire exterior peripheral surface of said flange, each turn of said wire being spaced from an adjacent turn solely by said matrix and metallurgically bonded with and completely encased in said matrix.

2,844,230
PERMEABLE BRAKE
Edward T. Armstrong, Passaic, N. J., assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application August 4, 1954, Serial No. 447,823
3 Claims. (Cl. 188—264)



1. Apparatus for rapidly absorbing heat in changing the relative velocity of two relatively movable members, a permeable body of bonded nickel shot having a maze of tortuous small passages therethrough and mounted on one of said members for movement into frictional engagement with a surface of the other member, and means for feeding a coolant through said permeable body to the interface of said body and said other member.

2,844,231
METAL TOWER STRUCTURES
Robert W. Weeks, West Chester, Pa., assignor to Wind Turbine Company, West Chester, Pa., a corporation of Pennsylvania
Application June 25, 1956, Serial No. 593,736
4 Claims. (Cl. 189—13)

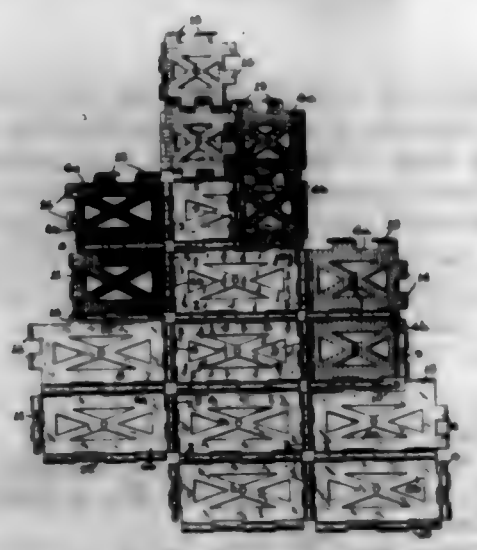


1. A tower structure comprising at least three vertical spars arranged at the corners of a polygon, lateral bracing rigidly connecting each pair of spars together and comprising two rod-like bracing members bent into serpentine form and arranged parallel with each other in a common plane between the pair of spars to be joined together, said bracing members being formed of continuous rod stock throughout the length of said spars, the outer bends of one serpentine bracing member overlapping and being welded to one spar, and the outer bends of the other bracing member overlapping and being welded to the other spar, the inner bends of said serpentine bracing members being arranged in horizontally spaced pairs mid-way of said pair of spars, and a vertical gusset plate joining together each pair of inner bends of said bracing members and having a horizontally extending flange at the top edge thereof and extending inwardly of said tower above the pair of bends joined by said plate to form a climbing step on said tower.

2,844,232
ARTICULATED BEAM STRUCTURE
Michel Le Roy, Paris, France
Application December 31, 1952, Serial No. 328,875
Claims priority, application France March 21, 1952
4 Claims. (Cl. 189—34)

1. An articulated beam structure comprising a first set of rectangular panels pivotally connected to one an-

other and forming a row, successive lateral pairs of similar panels pivotally connected to the opposite lateral sides of successive pairs of panels of said first set in staggered relationship with the pairs of panels of the other set of lateral panels and with the first panel of each lateral pair opposite the second panel of the other lateral pair, the inner sides of the panels of each successive pair of lateral panels having staggered shackles cooperating with complementary staggered shackles at the lateral sides of the panels of the first set and a hinge pin extending through said shackles, spaced shackles on the outer and lower sides of the second panel of each lateral pair,



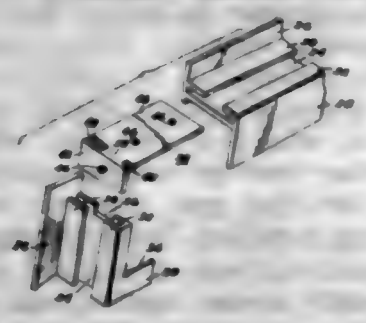
a hinge pin extending through the last named shackles, spaced hook means on the upper and outer sides of the first panel of each lateral pair, the spaced upper hook means being adapted to coact with the hinge pin of the spaced shackles of the lower side of the adjacent panel of the next successive pair and said spaced outer hook means being adapted to engage the pin of the spaced shackles on the outer side of the corresponding opposite lateral pair, means for winding and unwinding said beam structure, means for folding said lateral panels against each other during the unwinding operation, and means for spreading the lateral panels during the winding operation.

2,844,233

WINDOW FRAME ASSEMBLY

Elmer A. Westman, Fenton, Mich., assignor, by mesne assignments, to Valley Metal Products Co., Plainwell, Mich., a corporation of Michigan

Application August 19, 1954, Serial No. 451,006
1 Claim. (Cl. 189—36)



In a window frame connection, the combination including a pair of window frame members disposed in angular relationship with the ends thereof in abutment and forming a right angular corner, each of said members being generally Z-shaped in cross section with the intermediate part of the Z shape disposed substantially perpendicularly with respect to the two end parts thereof, the intermediate part of each Z shape adjacent to its abutting ends provided on its outer face with an outwardly open channel having side walls provided with opposed complementary overhanging parts which overhang the intermediate part of the Z shape, an angular corner piece overlying the abutting ends of said members, said corner piece being provided with angularly disposed leg portions disposed within the channels of the members and resting directly upon the intermediate parts of the Z shapes underneath the overhanging portion of the side walls of the channels, and screw means extending through each of said leg portions between the overhanging parts of the side walls and bearing against the bottom of the channel so as to force said leg portions into frictional engagement with the overhanging parts of the side walls of the channels, one leg portion of the corner piece being provided with opposed complementary notches extending inwardly from the edges of the leg portion and forming a reduced neck portion adjacent to the other leg portion of the corner piece, the intermediate part of the Z shape of the frame member overlaid by said other leg portion of the corner piece being notched inwardly from its end and receiving within said notch the reduced neck of the first mentioned leg portion of the corner piece.

2,844,234

TOGGLE TYPE HOLDING DEVICE

Ernest E. Brandes, Madison, Wis.

Application June 12, 1956, Serial No. 590,956
12 Claims. (Cl. 189—36)



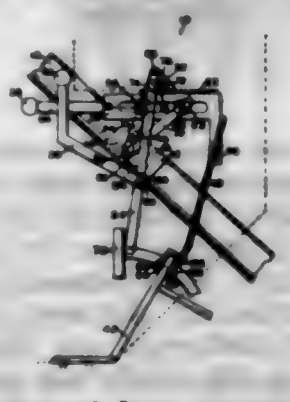
1. A holding device for securing together in abutting relationship the ends of like sheet metal sections having predetermined interior contours providing opposed surfaces spaced a predetermined distance apart laterally of the sections and comprising, in combination, a relatively straight part having substantial longitudinal rigidity, and a part bowed longitudinally and having resilient flexibility between its longitudinal ends, means for providing a hinge connection between adjacent longitudinal ends of the parts and having a hinge axis extending laterally of the parts, and said parts also having opposite end edges substantially parallel to the hinge axis and engageable with said opposed surfaces of the metal sections.

2,844,235

MECHANICAL THROTTLE SPEED CONTROL DEVICE

Jerome A. O'Connor, Council Bluffs, Iowa

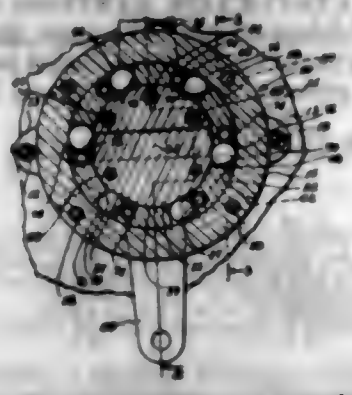
Application January 19, 1955, Serial No. 482,752
4 Claims. (Cl. 192—3)



4. In a speed control for a motor vehicle having an accelerator pedal and a brake pedal, the combination which comprises a horizontally disposed control bar having teeth in the upper surface, an elongated longitudinally disposed slot in the intermediate part, and a knob extended from one end, a support bar mounted

in the vehicle and having a roller extended into the elongated slot of the control bar, a lever also mounted in the vehicle and also having a roller extended into the elongated slot of the control bar, the roller of the support bar being spaced from the roller of the lever and said rollers being positioned whereby the control bar is supported in a horizontal position, a pawl carried by the upper end of the support bar and positioned to coact with the teeth in the upper surface of the control bar for retaining the control bar in adjusted positions, means for manually actuating the pawl to release the control bar, means designed to be attached to the accelerator pedal of the vehicle for engaging the control bar to limit return movement of the accelerator pedal, and means for actuating the pawl to release the control bar upon application of the brake pedal of the vehicle.

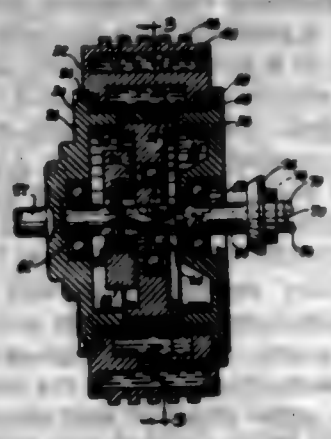
2,844,236
SELF-LOCKING ACTUATOR WITH LOAD RELEASE
Howard W. Cole, Jr., Mountain Lakes, N. J.
Application November 15, 1954, Serial No. 468,633
6 Claims. (Cl. 192—8)



1. A load actuator comprising a housing having inside bearing surfaces and having circumferentially extending slots therein, two overrunning clutches within the housing and facing in opposite directions, each of the overrunning clutches being at a different end of the housing and including a cage with angularly spaced openings therein for holding balls, a cam member located inward of the cages and having cam faces thereon in position to wedge the balls against said bearing surfaces when the cam member moves with respect to either cage in the direction to lock the overrunning clutch of that cage, a primary lever extending through one of the slots and into the housing between the cages, confronting faces of the primary lever and each of the cages providing abutments through which motion of the primary lever in one direction or the other rotates one or the other of the cages, a secondary lever extending through the other slot in the housing and secured to the cam member to form a unitary assembly movable on a bearing surface in the housing about an axis of rotation, and a pivot bearing carried by said assembly and on which the primary lever is angularly movable about an axis eccentric of said axis of rotation of the assembly and a lost motion connection between the primary lever and said assembly for limiting the angular movement of the primary lever about said pivot bearing.

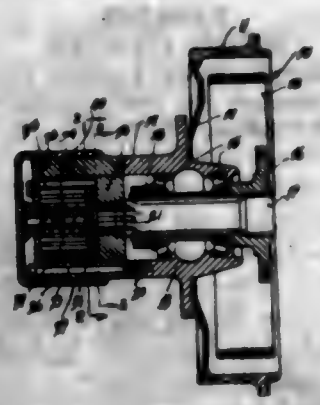
2,844,237
TORQUE CONTROL
William L. Morse, Seattle, Wash.
Application July 7, 1955, Serial No. 520,393
4 Claims. (Cl. 192—60)

1. A variable speed coupling having input and output elements, said coupling comprising a fluid containing means operably connected to one of said elements, said fluid containing means having a flexible wall confronting separate portions connected by restricted passages for supplying fluid to said portions, variable eccentric means connected to the other of said elements and engaging the flexible wall for continuously deforming succeeding por-



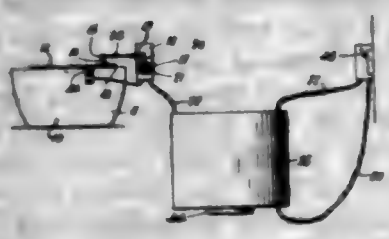
tions of said fluid containing means, and control means for positioning said eccentric means for regulating the speed at the output.

2,844,238
FRONT WHEEL CLUTCH MECHANISM FOR MOTOR VEHICLES
Clark E. Peterson, Spokane, Wash.
Application March 7, 1955, Serial No. 492,726
5 Claims. (Cl. 192—67)



1. In a motor vehicle having a driven axle, a driving wheel adapted to be journaled coaxial with said axle; a hub housing coaxial with said wheel; a clutch member movable axially within the limits of said hub housing and fixed against rotation relative thereto; said clutch member being adapted for connection to said axle at one extreme of its axial movement and disconnection therefrom at the opposed extreme, whereby said wheel is adapted to be selectively and releasably associated with said axle; a hub cap threadedly associated with said hub housing and movable axially thereof by means of said threads; and a connecting rod interconnecting said hub cap and said clutch member whereby threaded axial movement of said hub cap imparts axial movement to said clutch member.

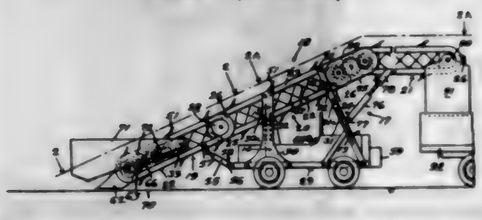
2,844,239
COVER LOCK AND CENTRIFUGAL SWITCH CONTROL THEREFOR
George A. Batson and George A. Peterman, Los Angeles, Calif.
Application June 26, 1956, Serial No. 594,007
1 Claim. (Cl. 192—136)



A centrifugal locking switch for use with an extractor including a hinged lid, said locking switch comprising an

obliquely angled locking arm fixed to said lid, a laterally movable lid locking bar pivotally connected at one end to said arm, a solenoid coil disposed adjacent the other end of said bar, a solenoid core movable upon energization of said coil to a position to block sliding movement of said bar, an electric circuit for said coil, a motor in said circuit, a shaft rotatable by said motor, a pair of supporting arms carried by said shaft, a pair of L-shaped centrifugal arms each having its short leg pivotally connected to the upper extremity of one of said supporting arms at an intermediate point, the long legs of said centrifugal arms being normally vertically disposed when said motor is deactuated, a weight at the lower free end of each long arm, the inner end of each short arm being arcuate, interlocking teeth in the outer face of each arcuate end, the upper edges of said short arm being upwardly inclined to form a point when said L-shaped centrifugal arms are at rest, a switch in said circuit including a resilient switch arm positioned above said point, normally held in open position when said motor is deenergized, energization of said motor causing said rotation of said L-shaped arms to cause said weights to pivot the short legs of said L-shaped arms to align their upper edges horizontally, permitting closure of said circuit to energize said solenoid coil and lock said lid against opening.

2,844,240
WOOD LOADER
Elbert C. Buck, Lufkin, Tex.
Application January 18, 1957, Serial No. 634,865
6 Claims. (Cl. 198—7)



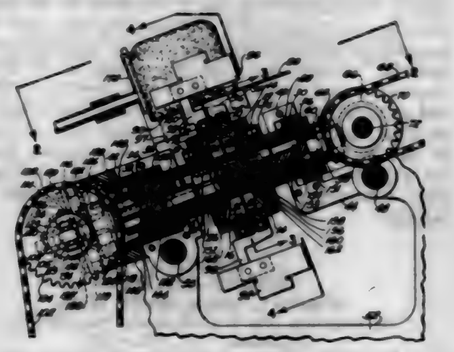
1. A loader for ricked wood comprising, in combination with a self-propelled vehicle, a load conveyor comprising a forward section, an intermediate section and a rear section, each of said sections including a frame having spaced substantially parallel frame sides, uprights fixed to and rising from the sides of said vehicle and secured to the frame of said intermediate section for supporting the intermediate section above the vehicle, longitudinally thereof and at an incline, means pivotally connecting the rear end of the frame of said forward section to the lower end of the frame of said intermediate section for vertical swinging movement of the forward section relative to the intermediate section, means swingably connecting an inner end of the frame of said rear section to the upper end of the frame of said intermediate section, ram means connected to an end of the vehicle and to the frame of the forward section for raising and lowering the forward section relative to the intermediate section, a second ram means extending between and connected to the frame of said rear section and certain of said uprights for raising and lowering the rear section relative to the intermediate section, each of said sections being provided with an endless conveyor, a power source supported by the frame of one of said sections for driving the endless conveyor thereof, means forming driving connections between the endless conveyors of the different sections for causing said endless conveyors to be driven in unison, each of said endless conveyors having outwardly projecting wood propelling hooks, each of the frame sides having an upper surface, the upper surfaces of the frame sides of each of said sections being adapted to support the load being propelled by the hooks of the upper flight of the endless conveyor thereof traveling along said upper surfaces, the adjacent end portions of said endless conveyors being disposed relative to one another whereby the load will be propelled continuously by the hooks of the different conveyors from end-to-end of the loader, shoes connected to and extending downwardly and forwardly from the lower end of the frame of said forward section for supporting said lower end of the frame of said forward section and the propelling hooks, passing therearound, above and out of contact with the ground, said shoes being supported by the frame of said forward section to straddle the hooks and having upwardly and rearwardly inclined upper edges adapted to deflect the wood to be loaded upwardly and toward the lower end of the forward section and into a position to be engaged by the hooks, means pivotally connecting said shoes to the frame of said forward conveyor section, and ram means connected to the frame of said forward section and to said shoes for rocking the shoes vertically about the pivots thereof.

2,844,241
CONVEYOR SYSTEMS
Donald Mayer King, Stevenage, England
Application October 27, 1953, Serial No. 388,533
Claims priority, application Great Britain October 28, 1952
5 Claims. (Cl. 198—110)



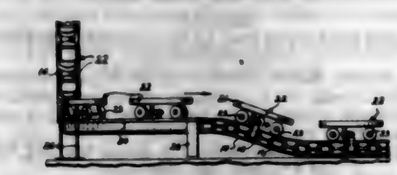
1. A conveyor system comprising two endless chains disposed in spaced parallel relation and driven at different speeds, a plurality of load carriers each freely supported simultaneously on both of said chains, and means for effecting a driving connection between a selected one of said chains and each of said load carriers.

2,844,242
INFEED CONVEYOR FLIGHT ADJUSTING MECHANISM
George Pamulino, Fresh Meadows, N. Y., assignor to American Machine & Foundry Company, a corporation of New Jersey
Application August 2, 1956, Serial No. 601,733
11 Claims. (Cl. 198—168)



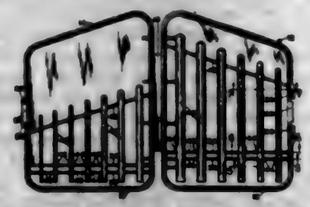
1. In an article conveyor having adjacent endless chains and article engaging flights mounted on each chain at equidistantly spaced points therealong, the flights on one chain being so spaced with respect to the flights on the other chain as to provide article receiving and conveying pockets, a hollow drive shaft, first and second bevel gears, hubs on said bevel gears loosely mounted on said shaft, first and second sprockets respectively mounted on the hubs of said bevel gears and engaging said chains, a pinion mounted in said hollow shaft coupled to said bevel gears and adapted upon rotation to rotate said bevel gears in opposite directions about said shaft, a rack extending axially in said shaft and engaging said pinion to determine the rotational position thereof, a third bevel gear coaxial with said shaft and provided with a central threaded aperture, a screw positioned in said threaded aperture, means to control the rotation of said third bevel gear to drive said screw, means to prevent rotation of said screw to limit the movement thereof to axial motion, and means to couple said screw to said rack whereby rotation of said third bevel gear adjusts the relative positions of said sprockets.

2,844,243
CARRIER-TYPE CONVEYORS
Milton J. Christianson, Chicago, and William F. Stephen, Elmwood Park, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application May 29, 1956, Serial No. 588,008
4 Claims. (Cl. 198—189)



1. In a conveyor, a flexible conveyor element, a tubular guide circular in cross section for guiding the conveyor element along a path including horizontal and vertical curves, said tube having a slit extending along the upper portion thereof, a lug rigidly secured to a link of the chain and projecting upwardly through the slit, a pair of guide rails having flat horizontal upper surfaces secured to the tube in positions bracketing the slit, a roller car, and link means securing the car to the lug in such a manner as to prevent horizontal pivotal movement between the car and the lug to locate the car in a position riding on the rails.

2,844,244
MOLDED PLASTIC CONTAINER FOR DRILLS AND THE LIKE
Henry Lloyd Hanson, Worcester, Mass.
Application May 23, 1956, Serial No. 586,862
1 Claim. (Cl. 206—17)



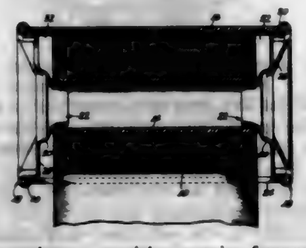
A molded plastic case for holding and displaying small drills of different sizes, said case comprising a rimmed drill-holding part including a generally flat central portion, means on said portion to hold the drills, and drills held by said means, said means including a pair of narrow partitions, spaced pairs of distortable resilient spaced ears on said partitions extending outwardly therefrom and in the plane thereof and defining pairs of recesses of different sizes to receive the drills, said ears extending toward each other in pairs and defining restricted entrances to the recesses, there being a drill in each pair of recesses of like size, said partitions being integral with the said central portion and said recesses of each pair being aligned to hold its drill transversely to the partitions and in fixed position relative thereto and to the case, said drill-holding part, its central portion, and the ears all being of a semi-rigid self-sustaining but distortable resilient plastic.

2,844,245
CARTON FOR ATTACHMENT TO A CONTAINER
Leonard J. Gruber and Marvin S. Fessenden, Cincinnati, Ohio, assignors to The Central Carton Company, Cincinnati, Ohio, a corporation of Ohio
Application July 8, 1957, Serial No. 670,468
5 Claims. (Cl. 206—47)



1. A carton for attaching to a cylindrical container having a flanged closure which comprises a main panel, there being a substantially circular line of weakening in said main panel of a diameter sufficiently great to pass the flange of the closure, a substantially circular line of perforations substantially coaxial with the line of weakening and spaced thereinside, the diameter of the line of perforations being less than the diameter of the closure, and a plurality of substantially radial cuts connecting the lines of weakening with the line of perforations to define a plurality of radially inwardly extending teeth, a back panel spaced from the main panel, side wall panels connecting side edges of the main and back panels, an end panel hinged to one end of the back panel, a second end panel hinged to one end of the main panel and foldable inside of the first mentioned end panel, there being a slot between the main panel and the second mentioned end panel at the hinge line, and a tab hinged to the first mentioned end panel for extending through the slot inside of and substantially flatwise against the main panel, the tab overlying at least one of the teeth.

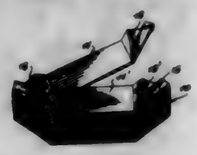
2,844,246
FOIL CONTAINER
Lewis A. Kingsley, Beverly Hills, Calif.
Application September 20, 1956, Serial No. 610,964
1 Claim. (Cl. 206—52)



A foil container comprising a pair of concentric tubes, the outer tube having a slot therein, the inner tube having a foil of the type utilized in a hot stamping process wrapped thereon the end of which projects through said slot, a pair of planar end pieces for said container having the outer periphery of each engaging said outer tube and each having a central tubular flange, the free end

portion of said flange being tubular and having an outer diameter smaller than the inner diameter of said inner tube, said free end portion projecting into said inner tube and rotatably supporting said inner tube, each of said flanges intermediate its extremities having a pronounced annular shoulder thereon, said shoulder having an outer diameter greater than the inner diameter of said inner tube and serving to limit lateral movement of said inner tube, said shoulders being spaced from said planar end pieces leaving an area within the container to accommodate unraveling and telescoping of the foil and permitting the inner tube and foil wound thereon to revolve with a minimum of friction.

2,844,247
NEST OF DISPOSABLE ASH TRAYS
Wallace E. Jones, Rocky River, Ohio
Application October 7, 1955, Serial No. 539,154
3 Claims. (Cl. 206—56)



1. A nest of disposable tray forms comprising, a continuous strip of foil material having a series of individual tray forms formed therein in side-by-side integrally connected relationship, evenly spaced transverse fold lines formed in said continuous foil strip adjacent the connected boundaries of said series of individual tray forms, each of said individual tray forms comprising a flat central bottom portion with a wall extending from the perimeter thereof for forming a central article receiving and retaining hollow, the central hollows of said individual tray forms alternately opening toward opposite sides of said continuous foil strip, said continuous foil strip being folded in accordion fashion back upon itself along said fold lines with said individual trays in nested relationship within each other, and said continuous foil strip having a slit on each of said boundaries therein for facilitating separation of each of said individual tray forms from an adjoining tray form.

2,844,248
COIN DISPLAY HOLDER
Carmen S. Tiberio, Spartanburg, S. C.
Application October 16, 1956, Serial No. 616,209
3 Claims. (Cl. 206—53)



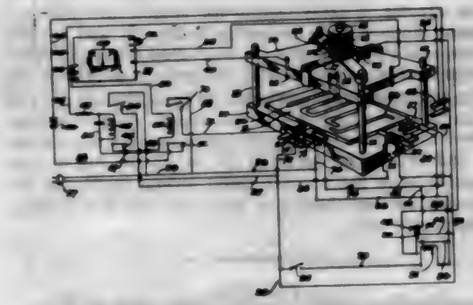
1. A coin display holder of the character described comprising: a substantially flat, elongated container closed at one end and open at its other end, a removable slide insertible in the container through the open end thereof, said slide having coin receiving openings therein, opposed shoulders in the container and on the slide adjacent the open end of said container, a sealing element between said shoulders, and means for releasably securing the slide in the container, said means including a substantially channel-shaped lever cam pivotally mounted on the container and engageable with one end portion of the slide for forcing same tightly into said container, said lever cam having means for the reception of said one end portion of said slide and for frictionally retaining said lever cam in operative latching position.

2,844,249
PACKAGED COMMODITY
Albert E. Gibson, Jr., York, Pa., assignor to The Dentists' Supply Company of New York, a corporation of New York
Application August 17, 1954, Serial No. 450,359
7 Claims. (Cl. 206—84)



5. A method of hermetically sealing a heat-sensitive commodity within a container open at one end and sealed at the other comprising the steps of placing said commodity within said container, and hermetically sealing the open end of said container by means of heat to fuse portions of the walls of said container together while minimizing the transfer of heat to said commodity within said container by reflecting said heat from the commodity within said container.

2,844,250
MEANS FOR TESTING ELECTRONIC CIRCUIT COMPONENTS
Jack E. Bayha, South Ozone Park, N. Y., and Francis J. Burger, Leonia, N. J., assignors to Emerson Radio and Phonograph Corporation, New York, N. Y., a corporation of New York
Application September 28, 1953, Serial No. 382,729
15 Claims. (Cl. 209—81)



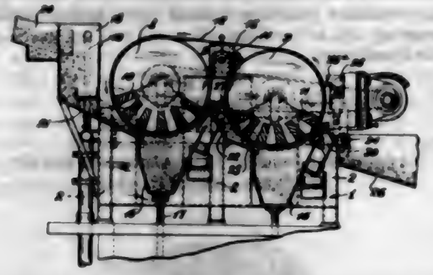
7. In a device for testing printed circuits for discontinuities in conductors and short circuits between conductors, in combination, a support for printed circuit units to be tested, a panel movable toward and away from a printed circuit unit on said support, a plurality of pairs of contacts insulatingly mounted on said panel, each contact being in position to engage one end of a printed circuit unit conductor when the panel is in one extreme of its movement, an impedance between the second of each pair of contacts and the first of a succeeding pair forming a series circuit, an impedance bridge having a standard impedance connected as one arm thereof and said series circuit connected through the first contact of the first pair and the second contact of the last pair as another arm thereof, means for moving said panel to position to engage said contacts with the printed circuit conductors, switch means operated by said impedance bridge when energized, and means mounted on said support and energized by said switch means to eject a tested printed circuit unit therefrom, said means ejecting said units in two different directions depending upon whether said series circuit impedance matches said standard impedance or differs therefrom.

2,844,251
PICKING AND CLEANING APPARATUS
Franklin J. Le Roy, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio
Application August 10, 1953, Serial No. 373,104
6 Claims. (Cl. 209—216)



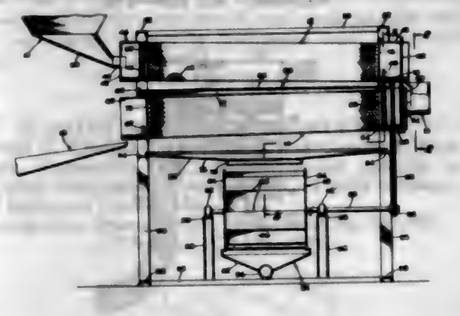
6. Magnetic separating apparatus for picking pieces of magnetic material from a mixture of magnetic and non-magnetic materials, said apparatus including means for carrying said mixture of materials, picker means including magnet means for picking magnetic pieces from said mixture, said picker means including means for carrying materials from said magnet means, and a second picker means including magnet means for picking magnetic pieces of material from the first said picker means.

2,844,252
MAGNETIC SEPARATOR
Edward M. Furness, Silver Bay, Minn., assignor to Reserve Mining Company, Duluth, Minn., a corporation of Minnesota
Application July 14, 1955, Serial No. 522,063
8 Claims. (Cl. 209—223)



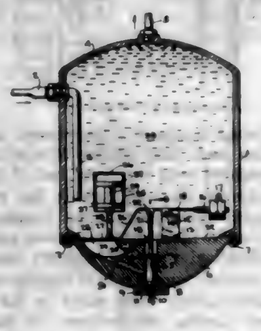
7. A magnetic separator comprising a horizontal drum mounted for rotation upon its axis, a chute provided with a discharge end for delivering material to a point adjacent the lower portion of the drum, an endless belt engaging the periphery of the said drum and including the lower portion thereof adapted to travel in the same direction as the drum is rotated, the direction of rotation of the drum being such that the travel of the belt is in the same direction as material moving through the chute, the said chute directing the material into contact with the belt, a hopper mounted beneath said drum, rotatable belt supporting means mounted at the side of the drum in the direction of belt travel, stationary magnetic means within the said drum for creating a magnetic field at the lower portion of the drum and below a horizontal plane through the axis of the drum, said rotatable supporting means engaging with the belt and biasing the belt so that it engages with a considerable area of the lower drum surface to a point above the influence of the magnetic field on said side of the drum and guiding the belt in a path such that the belt leaves the drum substantially tangential to the drum at a horizontal diameter whereby the material separates from the belt when the belt leaves the influence of the magnetic field and while the belt is in engagement with the drum, and means located adjacent the drum and the point thereof where the belt passes out of the influence of the magnetic field for receiving the magnetic separated material from the belt and discharging said material.

2,844,253
MEANS AND METHOD FOR SEPARATING HONEY AND WAX FROM A HONEY-WAX MIXTURE
Charles L. Everett, Wellington, Nev.
Application May 16, 1955, Serial No. 508,685
12 Claims. (Cl. 210—77)



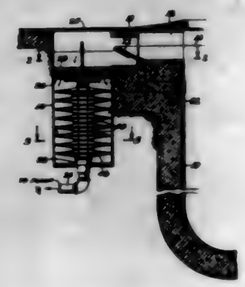
1. A method of separating wax from a wax-honey mixture which comprises placing a quantity of the wax-honey mixture in a hollow rotary screen of circular cross-sectional configuration and rotating the screen at a speed to cause the wax to form a single roll-shaped body of substantially less diameter than the inside diameter of the screen thereby to cause the wax body to rotate on its axis faster than the screen to express the honey out of the wax body for drainage through the screen and to cause the rotating wax body to pick up stray particles of wax from the inner surface of the screen.

2,844,254
APPARATUS FOR REMOVING WATER FROM ORGANIC LIQUIDS AND FUELS
Ulric F. Anstey, Brooklyn, N. Y.
Application June 16, 1955, Serial No. 515,869
2 Claims. (Cl. 210—114)



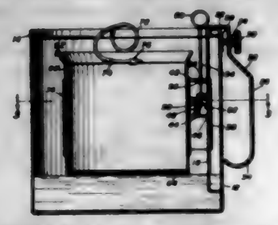
1. In an apparatus for removing water from immiscible liquids comprising a closed container, an inlet and an outlet in said container the improvement which comprises, a lever pivoted on the bottom of said container, a float on one side of said pivot and a counterweight on the other side thereof, said counterweight balancing said float, a needle valve in said bottom, a seat for said valve, a link between said valve and said lever, a passage from said container to said valve, a drain from said valve leading out of said container, said float being filled with oil, a depression in said bottom, said float being at least partially within said depression, said passage being within said bottom and leading from said depression to said valve.

2,844,255
COMBINATION FILTER AND SURFACE SKIMMER
David K. Cavenah, North Hollywood, and Paul J. Steffen, Los Angeles, Calif., assignors to Landon, Inc., North Hollywood, Calif., a corporation of California
Application April 6, 1956, Serial No. 576,660
5 Claims. (Cl. 210—170)



1. A filtering and skimming unit comprising: a collector tank having an open top adjacent the ground surface, a branch on said tank communicating with the surface water level in a pool, a surface skimming device in said branch, a filtering device in said tank below the level of said skimming device, a removable cover between said skimming device and said filter, and a vacuum cleaner attachment in said collector tank between said cover and said filter.

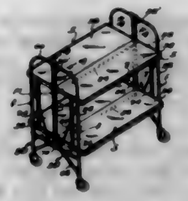
2,844,256
BRUSH HOLDER AND FILTER
Floyd A. Campbell, Springfield, Ohio
Application August 13, 1956, Serial No. 603,486
7 Claims. (Cl. 210—251)



1. A paint brush holder for attachment to a receptacle having an open end, said holder comprising a bracket clampingly mounted over the open end of the receptacle, an annular member disposed within the receptacle and vertically slidably mounted on the bracket, means for locking said annular member in adjusted position on said bracket, a cylindrical member slidably mounted within said annular member, spring means urging said cylindrical member upwardly away from paint in the receptacle, a screen member closing the bottom of said cylindrical member for straining paint as it enters the cylindrical member during depression thereof whereby the screen member will limit the movement of a paint brush into the paint.

2,844,257
CONVERTIBLE FURNITURE PIECE
Samuel Friedman, Brooklyn, N. Y., assignor to Re-Ly-On Metal Products, Inc., Brooklyn, N. Y., a corporation of New York
Application October 25, 1954, Serial No. 464,389
3 Claims. (Cl. 211—2)

1. A convertible furniture piece comprising an open frame disposed in a medial plane, a first shelf hinged to said frame on one side and a second shelf hinged to said frame on the other side of said medial plane, said shelves being movable between dropped unfolded horizontal positions lying normal to said medial plane and folded-up vertical positions lying parallel to said medial plane of said open frame, a pair of vertical side frames hinged to said open frame on each side of the medial plane thereof, the side frames of each pair being disposed one at one end and the other at the other end of the open frame, the said side frames being each movable about its hinged axis between an unfolded position lying normal and a folded-up position lying parallel to the medial plane of said open frame and in folded-over relation to



said folded-up shelves, and a tensioned spring for the side frames at each end of the open frame anchored at its opposite ends to such side frames, the anchoring points of said tensioned spring being arranged on opposite sides of and in the plane of the hinged axes of such side frames, whereby when such side frames are moved to their unfolded positions they are retained in such positions by the positioning of the spring in the plane of the side frames and when such side frames are moved from their unfolded positions toward their folded positions, the spring acts to resiliently bias the side frames to their folded positions.

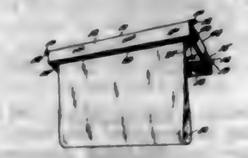
2,844,258
RACK WITH POCKETS
Merle F. Faber, Millbrea, Calif.
Application June 11, 1954, Serial No. 436,199
5 Claims. (Cl. 211—14)



1. A rack for holding articles which are substantially circular in a transverse section perpendicular to the axis of said articles, said rack including a substantially circular planar plate body member having legs for spacing the plate from a supporting surface, a plurality of circular pocket openings in the plate body for receiving the articles therein, said openings having downturned flanged lips at the edge of the openings, said plate body having integral upformed strips providing hinges at opposite diametral positions adjacent the periphery, said plate body having a latch opening therethrough adjacently spaced radially inwardly from one of said hinge strips to provide a lock space between the hinge and the latch opening, an arcuate bail handle member having an arc substantially similar to the arc of the periphery of the plate body and having a degree of resiliency between its ends due to its arc, said bail having at its opposite ends hinge pin portions turned inwardly relatively in the plane of the bail and swivelly engaged under the hinge strips, said hinge pin portions each having a terminal end portion thereof extending inwardly beyond the hinge strip and turned at an angle thereto and providing a tongue substantially perpendicular to the plane of the bail, the said tongues being turned in opposite directions relatively and one of said tongues being adapted to turn downwardly into said latch opening when the opposite

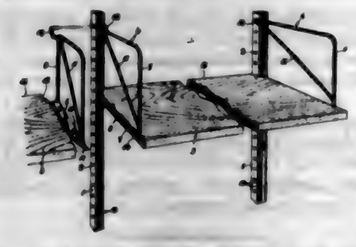
ends of the bail are relatively contracted radially and the bail is collapsed downwardly to overlie the peripheral portion of the plate body, said one tongue being adapted for snapping to a position overlying the lock space of the plate body responsive to the resilience of the bail when the bail is moved to an upstanding position perpendicular to the planar body.

2,844,259
TOWEL HOLDERS
Frank D. Haines, Ambler, Pa.
Application March 14, 1955, Serial No. 493,946
5 Claims. (Cl. 211—16)



1. A support for a towel band in free vertically pendant position or horizontally held stored position comprising a horizontally disposed frame open at the bottom and having spaced parallel front and rear portions and spaced parallel side portions, a towel supporting member removably mounted in said frame in contiguous spaced relation to said front frame portion and extending between said side portions, said towel supporting member having a pair of horizontal vertically spaced bar portions and disposed interiorly of said towel band with the upper bar portion in continuous engagement with the towel band, and a horizontally movable member carried by said frame and extending between said side frame portions, said movable member having a bar movable between said bar portions and engageable exteriorly with said towel band for moving said towel band to a horizontal folded storage position with said towel band in engagement with said bar portions.

2,844,260
WALL BOOKSTACKS
Harald Oskar Lundqvist, Geneva, Switzerland
Application January 23, 1956, Serial No. 560,819
Claims priority, application Sweden February 16, 1955
2 Claims. (Cl. 211—90)



1. In a wall bookstack comprising a set of shelves, each shelf including a shelf proper and means for supporting the same including a lateral support, means for detachably connecting the same to the shelf proper, said lateral support consisting of an inverted U-shaped frame at each end of each shelf proper of rod-like material, spaced vertical carrier bars adapted for attachment to a wall, a row of vertically spaced transverse apertures in each carrier bar, said means for supporting said shelf proper further including a hook element rigidly mounted on each lateral support and interconnecting the same, said hook element being adapted to engage one of said transverse apertures and forming a pivot axis for said lateral support, said carrier bars each having at least one longitudinal groove, each carrier bar having at least one face through which said aperture extends and another face at right angles thereto on which said groove extends, said groove being adapted to support one of the lateral supports of said U-shaped frame when each of said shelves is in its position of use, said hook element extending in a diagonal direction from one lateral support which may be swung about the pivot axis of said hook element until the said lateral support is disengaged from said shelf proper.

2,844,261
STORAGE SHELVING CONSTRUCTION
William E. Chalmers, Halethorpe, and George J. Hoffman, Catonsville, Md.; said Chalmers assignor to Yankee Engineering Company, Inc., a body corporate of Baltimore County, Md.
Application September 25, 1956, Serial No. 611,882
2 Claims. (Cl. 211—90)



1. In a shelving structure, a longitudinal bar having a plurality of aligned openings therein, a series of horizontal U-shaped loops, legs extending from opposite ends of said loops, the adjacent legs of adjacent loops extending in parallel proximity to each other, the ends of said legs extending through said openings in said bar and welded to the bar, the legs and loops projecting laterally from the bar at an approximately right angle thereto forming a supporting shelf, and welding securing the outer end of each leg of each loop to the adjacent leg of an adjacent loop.

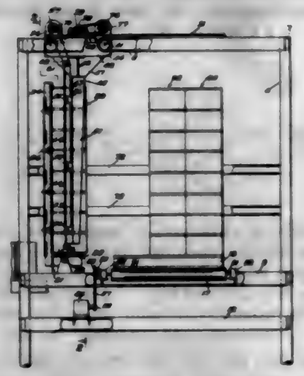
2,844,262
SHELF ASSEMBLIES
David Maldon James, Chichester, England
Application February 10, 1956, Serial No. 564,807
Claims priority, application Great Britain
February 22, 1955
2 Claims. (Cl. 211—148)



1. For a multi-tiered rack assembly having wire mesh trays with non-circular section rims supported one above the other by interposed struts, a strut unit comprising a plurality of spring wires secured side by side in substantially co-planar relationship, the wires being bent over at one end to form a substantially right-angled shoulder and the two outermost wires having extensions at the ends thereof remote from said shoulder which are first bent back in a direction opposite to the shouldered wire ends and are thence returned under said shoulder at an acute angle to the plane of the wires to form upwardly directed

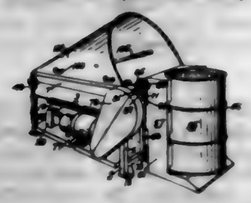
hooks, a bearer bar which spans the wires adjacent said hooks to overlie the hook mouths and returned hook means on said shoulder, said unit being adapted to extend under tension between two superposed trays with the lower tray rim held firmly in the upwardly directed hook means by the bearer bar and the shoulder held in seating relationship under the upper tray rim by engagement of the returned hook means in the upper tray mesh.

2,844,263
ARTICLE TRANSFER MECHANISM
John A. Dreyer, Hayward, Calif., assignor to Benner Newman, Inc., Oakland, Calif., a corporation of California
Application January 27, 1955, Serial No. 484,444
7 Claims. (Cl. 214—1)



1. Apparatus for moving articles from a first position to a second position comprising: a generally U-shaped rigid frame having the legs thereof downwardly directed and being open at the front and rear thereof for receiving and discharging an article from both sides thereof, means for supporting said frame and for moving said frame along a defined path in a direction generally normal to the plane thereof, and means on said legs selectively movable inwardly and outwardly for clamping and releasing an article positioned therebetween, said means including a plurality of pads each having a screw operatively connected thereto, and drive means for rotating all of said screws in unison.

2,844,264
APPARATUS FOR HANDLING SHORTENING OR LIKE MATERIAL
Henry Glenn Stirn, San Mateo, Robert Wolcott Smith, San Carlos, and Edward Beam Stirn, Palo Alto, Calif., assignors to Ferry Sheet Metal Works, Inc., San Francisco, Calif., a corporation of California
Application March 4, 1953, Serial No. 340,346
12 Claims. (Cl. 214—314)



12. In combination, a tank assembly involving a frame, a tank supported by said frame, means for emptying the contents of a container into said tank when such contents is of the nature of shortening or the like, said means including a carriage supportable in dumping position with respect to said tank assembly for holding a container to be emptied, heating means included in said carriage and adapted, when energized to heat the walls of a container held therein, and a heatable bar disposed across the discharge opening of a container when supported by said carriage in said dumping position.

2,844,265
HYDRAULIC GOOSENECK
Walter G. Clark, Charleston, W. Va.
Application February 9, 1956, Serial No. 564,446
3 Claims. (Cl. 214—506)



3. In combination, a tractor vehicle and a trailer, said trailer comprising an elongated flat body, a gooseneck, means detachably coupling said gooseneck with said trailer, a pair of confronting channel-shaped guides carried by the forward portion of said gooseneck, a pair of slide bars engaging said guides, a connecting plate fixed between the lower ends of said bars, a fifth wheel coupling pin carried by said plate, hydraulic means connected with said plate for raising or lowering the forward end of said gooseneck, a pair of chains, means securing one end of each chain to the tractor frame, and a pair of hooks carried by said guides adjacent the upper end thereof whereby said chains may be adjustably secured at the opposite ends thereof and effect upward rocking of the rear of the gooseneck with downward movement of said slide bars and plate.

2,844,266
RECEPTACLE CLOSURE
George Douglas Hofe, East Orange, N. J.
Application April 1, 1955, Serial No. 498,568
10 Claims. (Cl. 215—64)



1. A closure for a receptacle having a dispensing opening comprising clip means adapted to engage the inner wall of the receptacle including a pin-like element adapted to extend across the opening, said clip means being an inverted, generally U-shaped member having a pair of legs conforming to the portion of the receptacle wall engaged thereby and being interconnected by said pin-like element, and a disc tiltably mounted on said element serving as a closure for the opening upon attachment of said clip means to the receptacle.

2,844,267
COMBINED DRINKING STRAW AND BOTTLE CAP
Peter Petriccione, Brooklyn, N. Y.
Application November 5, 1956, Serial No. 620,433
3 Claims. (Cl. 215—100)

1. A combined closure and sipper for bottles comprising a cap adapted for sealing engagement with a bottle, a sealing gasket underlying the cap and having an opening and an air vent, and a straw extending through said opening and terminating at one end between the gasket and cap, said closure further including a liner interposed between the cap and the gasket and overlying said end of the straw, said end of the straw being extended angularly to the remainder of the length of the straw and being flattened against the gasket, the liner having a tab extending radially outwardly of the cap, the cap being formed with a diametrically extending slot through which the tab projects, the liner being of a readily tearable ma-



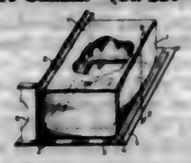
terial for tearing the same and removing a portion thereof responsive to pull on the tab, said end of the straw being disposed below and aligned with the slot and the removable portion of the liner and adapted to be exposed responsive to removal of said liner portion.

2,844,268
EGG PACKING MATERIAL
Harry E. Lambert, Gary, Ind., assignor, by mesne assignments, to Central Fibre Products Company, Quincy, Ill., a corporation of Delaware
Application January 17, 1952, Serial No. 266,946
3 Claims. (Cl. 217—26.5)



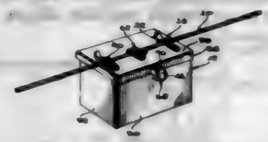
1. A molded pulp egg packing material embodying therein a sheet-like body having right angled rows of spaced apart hollow egg receiving seats on one side thereof, each seat including an annular ridge at the top and inner and outer walls extending angularly downwardly in opposite directions therefrom, the inner wall forming an upwardly opening cup, the bottom portion of the outer wall joining the body of the material, by a rounded inside corner on the upper face thereof and by an outside corner on the lower face of the bottom end of the outer wall, there being an annular recess at the bottom end of said outer wall adjacent said outside corner and extending about the circumference thereof, the annular wall surface of said recess having an angularity different from that of said outer wall.

2,844,269
CONTAINER
William F. Durbin, Hartville, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application December 13, 1954, Serial No. 474,667
16 Claims. (Cl. 220—1)



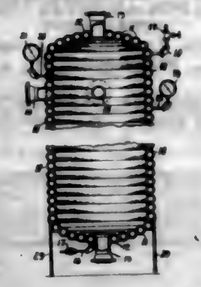
1. A closed container for confining fluid therein including means to prevent appreciable lose of the confined fluid from the container if a sudden rupture occurs in one or more of the container walls, the container normally confining the fluid therein until a rupture occurs said means comprising a fluid-impervious flexible member normally in the unextended position and means to extend the flexible member adjacent to and in substantial contact with at least the container wall in which the rupture occurs and to substantially cover said wall, thereby providing an undamaged fluid-confining wall structure to cover the ruptured wall and prevent further loss of fluid from the container.

2,844,270
CLOTHES PIN BOX
Joseph W. Kopka, Wilson, Kans.
Application August 24, 1956, Serial No. 606,914
1 Claim. (Cl. 220—1)



In combination, a clothesline, a container having an open top, a lid hinged on the container for closing over the top, spring clip means on said lid clamping the clothesline between the clip means and said lid and mounting the container on the clothesline to slide along the clothesline, and a brake pivoted on the lid at one side of the clothesline, said brake having a wedge on one end thereof engageable over the clothesline to hold the container in a selected position on the clothesline to which the container is slid.

2,844,271
PRESSURE TANK
Edgar A. Shelton, Ponca City, Okla., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware
Application March 14, 1955, Serial No. 493,955
2 Claims. (Cl. 220—3)

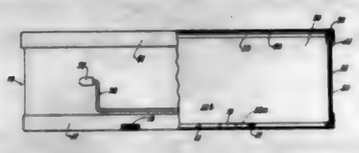


1. A pressure tank comprising a plurality of closed circular sections of pipe in juxtaposition ad welded together to enclose a chamber; each pipe section having at least one port therein which connects with similar ports in the adjacent pipe sections; means for introducing fluids into and withdrawing fluids from said chamber; means for maintaining a fluid inside said pipe sections at a pressure different from the pressure of the fluid inside said chamber; and means for indicating when the pressure of the fluid inside the pipe sections varies from a predetermined range.

2,844,272
COLLAPSIBLE LUNCH BOX
Robert Mayer, Scarsdale, and Murray Corson, New York, N. Y.
Application February 12, 1954, Serial No. 409,894
5 Claims. (Cl. 220—6)

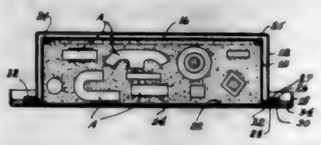
1. A collapsible lunch box comprising, in combination, a substantially rectangular base including a substantially flat bottom wall having a substantially perpendicular and relatively narrow peripheral flange; a pair of first walls

hingedly connected to said base adjacent one pair of opposite edges of the latter inwardly of the peripheral flange by a hinge pin extending along in direct engagement with the base; a pair of second walls hingedly connected to said base adjacent the other pair of opposite edges of the latter inwardly of the peripheral flange by a hinge pin extending along in direct engagement with the base and each overlapping the hinge connections of the first walls; each wall having an outwardly projecting flange along its upper edge perpendicular to the wall and terminating in a downwardly directed lip parallel to the wall; spring means biasing each first wall to swing away from said base to an erected position; means on each sec-



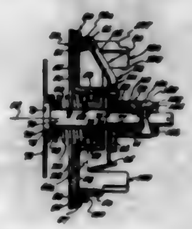
ond wall, engageable with a first wall, limiting movement of said first walls to an erected position substantially normal to said base; said first walls, in the erected position, holding said second walls in the erected position; the peripheral flange on said base limiting movement of said second walls to an erected position substantially normal to said base; and a substantially rectangular cover arranged to overlie said walls when the latter are collapsed against said base, and having a peripheral flange arranged to frictionally embrace the peripheral flange on said base; the flange on said cover being arranged to frictionally engage the downwardly directed lips of said walls in the erected position of the latter.

2,844,273
CONTAINER FOR ARTICLES UNDER HEAT TREATMENT
George A. Samuel, Trenton, N. J., assignor to Metal Diffusions, Inc., Philadelphia, Pa., a corporation of New Jersey
Application March 18, 1953, Serial No. 343,218
10 Claims. (Cl. 220—9)



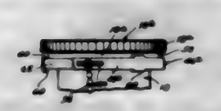
1. A container of the character described constructed of heat resisting material adapted to withstand an elevated processing temperature comprising in combination, a tray having an outer wall and a bottom, an inner casing open at its top and resting with its bottom in said tray, a cover fitting within said inner casing, said cover being downwardly offset around its edges, thereby forming a continuous upper channel between said cover and the wall of said casing, said channel being filled with a powdered sealing material comprising an inert refractory powder and an oxygen absorbing powdered metal, an outer casing open at its bottom and resting over said inner casing in said tray, said outer casing having an integral outwardly projecting canopy, the bottom edge of which coincides with the bottom edge of said outer casing and rests upon the bottom of said tray, said canopy forming a continuous lower channel surrounding said outer casing and facing the bottom of said tray; and a layer of powdered sealing material in said tray filling all the space up to a predetermined level between the outer wall of said tray and the wall of said inner casing.

2,844,274
FILLER CAP
Edward H. Kellah, West Covina, Charles A. Vinton, Alhambra, and Robert L. Burcham, Los Angeles, Calif., assignors to Universal Metal Products, Incorporated, Alhambra, Calif., a corporation of California
Application April 28, 1954, Serial No. 426,119
14 Claims. (Cl. 220—25)



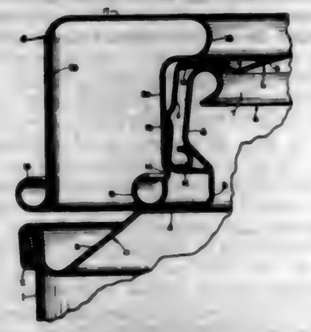
1. A filler cap for an opening that extends inwardly from a surface and has locking formations inward of the surface, said filler cap comprising a cap body having an axial bore, peripheral sealing means adapted to seal the opening when the cap body is inserted therein, a control stud mounted in the bore of the cap body and axially and rotatably movable with respect thereto, a locking member mounted on the stud inwardly of the cap body and axially and rotatably movable with respect to the stud, the locking member being adapted to enter the opening when in one rotational position and to engage the locking formations of the opening when in another rotational position, a radially extending lug fixedly mounted on the stud inwardly of the cap body, structure on the locking member forming an axially extending guideway adapted to receive the lug by virtue of relative axial movement of the stud and the locking member in one direction and thereby to positively prevent relative rotation of the stud and locking member, and structure on the locking member forming a face cam adapted to engage the lug by virtue of relative rotation of the stud and the locking member only when the lug is free of the said guideway, and to cause relative axial movement of the stud and the locking member in the opposite direction.

2,844,275
CLOSURE RETAINER KIT
Mary L. Keller, Santa Monica, Calif.
Application February 1, 1957, Serial No. 637,734
1 Claim. (Cl. 220—38.5)



A kit of the character described comprising a split clamping band for encircling the depending annular flange of a filling neck closure cap, said band having ends terminating in spaced radial apertured ears, a clamping bolt traversing said ears for contracting the band on said flange, an eye on and projecting laterally from said band, a chain having an upper end secured to said eye, and an anchor adapted to be secured to a filling neck associated with the closure cap to which the lower end of the chain is secured, said clamping band having opposed edges carrying circumferentially spaced pairs of upper and lower inwardly projecting flanges for clamping engagement with the upper and lower sides of an outwardly projecting annular rib on the depending flange of a closure cap, said eye being struck out of an intermediate portion of the band.

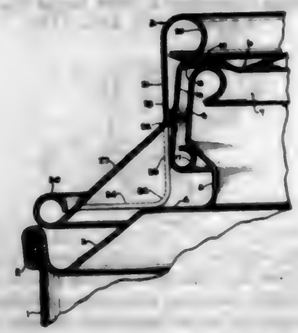
2,844,276
DUAL RING ELEMENT CONTAINER CLOSURE
James W. Dinsmoor, Hazelcrest, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
Application September 4, 1956, Serial No. 607,644
2 Claims. (Cl. 220—55)



1. In a container and dual closure combination comprising a generally cylindrical container having a mouth interiorly of and conjoined with said container wall forming an upper chime, said mouth extending inwardly and upwardly from said chime to form a tapered throat terminating in an annular bead defining the lip of said container mouth, spaced below said opening an inwardly disposed annular groove defining a horizontal stop in said tapered throat, and said dual closure comprising an inner container-stoppering disk element about the periphery of which depend a plurality of flexible fingers, the tips of which are adapted to be distended outwardly over the top portion of said tapered throat to engage said annular groove, and a ring element adapted to circumscribe and compress said fingers into locked position in and about said container groove; the improvement in the ring element which comprises a dual walled ring of inverted generally U-shaped cross-section, the inner vertical annular wall of said ring originating in an annular bead extending vertically upwardly and drawn centrally inwardly at a fixed height to form an annular lip of lesser diameter than said wall, an annular top section extending horizontally outwardly from said lip to a radius substantially equivalent to the radius of the correlated container wall, a second annular wall depending vertically from the outer radius of said ring top section concentric with said first wall, said second wall terminating in a second annular bead, said first and inner bead adapted to rest upon the horizontal terminus of the stop section below the peripheral groove of the container mouth and said second and outer bead adapted to superimposed alignment concentric with and substantially of the same diameter as the chime of said container.

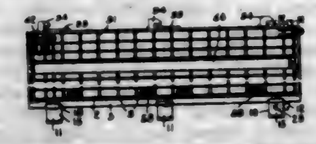
2,844,277
SINGLE RING ELEMENT CONTAINER CLOSURE
George E. Wagner, Chicago, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
Application September 4, 1956, Serial No. 607,645
3 Claims. (Cl. 220—55)

3. In a container and dual closure combination comprising a generally cylindrical container having a generally conical mouth interiorly of and conjoined with said container wall forming an upper chime, said mouth extending inwardly and upwardly from said chime to form a tapered throat terminating in an annular bead defining the mouth of said container top, spaced below said opening an inwardly disposed annular groove defining a horizontal stop in said tapered throat, and said dual closure comprising an inner container-stoppering disk, element about the periphery of which depend a plurality of flexible fingers, the tips of which are adapted to be distended outwardly over the top portion of said tapered throat to engage said annular groove, and a ring element adapted to circumscribe and compress said fingers into locked position in and about said container groove; the improvement in the ring element which comprises a single ring element originating in an annular bead of less diameter than the inner disk element and extending downwardly a distance sufficient to encompass and compress against the depending fingers of said disk and thereafter expanding downwardly and



outwardly to form a flanged skirt, said skirt in turn terminating in an annular bead concentric with, of substantially the same diameter as, but spaced above, said container chime and adapted to contact with said chime under compressive loads on said container mouth; and equidistantly spaced about the periphery of said skirt a plurality of indented L-shaped sections, the vertical wall of said L being a continuation of the vertical depending annular wall of said ring and the horizontal base of said L adapted to rest upon the lower horizontal terminus of said stop below the peripheral groove in the container mouth.

2,844,278
MATERIALS HANDLING CONTAINER
Charles C. Averill, Albion, Mich., assignor to Union Steel Products Company, Albion, Mich.
Application November 26, 1954, Serial No. 471,413
8 Claims. (Cl. 220—97)



1. In a walled materials handling pallet, the combination of a deck bed provided with walls and comprising side members and cross members extending between the side members, the side members being of upwardly facing channel section and having opening in their inner flanges, a deck mounted on and fixedly secured to said deck bed members, legs comprising top members having upwardly projecting flanges adjacent their outer sides and upwardly projecting lugs spaced laterally from the flanges and relative to each other, said deck side members being disposed on said leg top members between the flanges and adjacent lugs and fixedly secured thereto, the deck cross members being disposed in said openings in said inner flanges of said deck side members and between said pairs of lugs of the top leg members and fixedly secured thereto, at least one of the legs having a locking dog pivotally mounted thereon for vertical swinging movement, a detent for holding said dog in retracted position, and stacking holders on opposed walls adapted to receive the legs of a superimposed pallet and provided with leg engaging

hooks facing in the same direction and with which the legs of a superimposed pallet may be slidably engaged, at least one holder member of each pallet being provided with a keeper with which the locking dog of a superimposed pallet may be engaged and thereby prevent sliding disengagement of the legs from the hooks of said stacking holders.

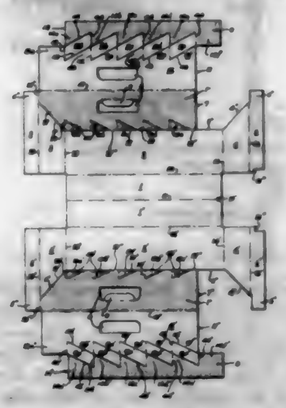
2,844,279
FOLDING CARRIER FOR BOTTLES
Imre A. Kovach, Ithaca, N. Y.
Application November 8, 1956, Serial No. 621,073
1 Claim. (Cl. 220—110)



In a folding carrier, the combination of a pair of wire handle bails having horizontal cross-portions for a handle and downwardly diverging side portions forming a trapezoidal structure of wires mainly in tension and with a minimum of cantilever stresses for supporting a load, said wire side portions being spaced from each other to maintain a clearance therebetween, spacers for each pair of said side portions to hold them at the desired clearance, a pair of load supporting bases pivotally attached to the lower outer ends of the downwardly diverging side portions of said bails, each load supporting base being pivotally attached to a separate bail so that it may be folded up independently of the other base and bail, the pivotal axes for folding being close to the inner edges of said bases and substantially in the planes of the handle bails, a pair of wire side holding frames one for the outer side of each base, each of said side holding frames having a pair of vertical runs pivotally attached at their lower ends near to the outer corners of their respective base and having a horizontal run extending substantially parallel to the outer edge of its base and parallel to the plane of the handle bails so as to hold a load in place, and a pair of wire end holding frames similar in general conformation to the side holding frames and pivotally attached thereto near the ends of the horizontal run of said side holding frames, each of said end holding frames having a horizontal run between the end holding portions and with their horizontal runs lying between the spaced side portions of the pair of wire handle bails, whereby either or both of the load supporting bases and their wire holding frames may be folded together into a compact form or opened independently or jointly to carry a half or full load respectively.

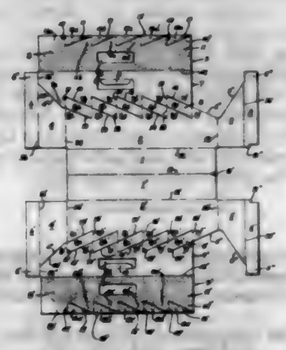
2,844,280
MULTI-CELLED ARTICLE CARRIERS
William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware
Application September 21, 1954, Serial No. 457,426
5 Claims. (Cl. 220—113)

1. A multi-cell twin compartment article carrier formed from a single blank of sheet material including, a bottom panel, a pair of side panels foldably connected to the opposite side edges of the bottom panel, a pair of end panel sections at each end of the carrier foldably connected to adjacent end edges of the side panels, a pair of inner center partition sections foldably connected to both pairs of end panel sections and extending along the longitudinal mid-section of the carrier and projecting above the side panels, a pair of outer center partition sections secured to the outside faces of said inner center partition sections and forming therewith a four-ply handle part for the carrier, a series of inclined cross partition straps arranged in spaced cell-forming relation and integrally hinged along vertical scores to the lower portion of each of said inner center partition sections, a connecting band secured to the inside face of each side panel and having the lower ends of the adjacent cross partition straps integrally hinged thereto by vertical extending scores, each



of said outer center partition sections presenting reinforcing segments integrally hinged thereto along vertical extending scores and respectively secured to the adjacent series of cross partition straps, one of said inner partition sections having a leg portion extending downwardly from one end thereof and below the adjacent cross partition straps, and a center divider panel integrally hinged to the lower end of said leg portion and extending upwardly between said inner center partition sections.

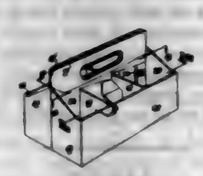
2,844,281
MULTI-CELLED ARTICLE CARRIERS
William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware
Application September 21, 1954, Serial No. 457,510
9 Claims. (Cl. 220—113)



1. A multi-cell twin compartmented article carrier formed from a single blank of sheet material including, a bottom panel, a pair of side panels foldably connected to the opposite side edges of the bottom panel, a pair of end panel sections at each end of the carrier foldably connected to the adjacent end edges of the side panels, a pair of inner center partition sections integrally hinged along the upper horizontal edge thereof to a pair of outer center partition sections, said inner and outer center partition sections being secured together in overlapped

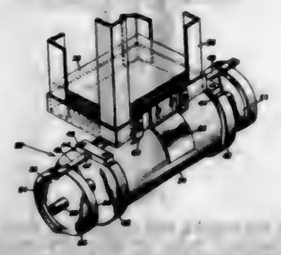
relationship and providing a plural-ply center partition and handle forming structure for the carrier which is foldably connected at the ends thereof to both pairs of end panel sections and extends along the longitudinal mid-section of the carrier and projects above the side panels and has a finger insertion opening therein, a series of main cross partition straps arranged in spaced cell-forming relation and integrally hinged along vertical scores to the lower portion of each of the two outer center partition sections and integrally hinged at the other ends thereof to the adjacent side panels, a series of secondary cross partition elements complementary to said main cross partition straps and integrally hinged to the corresponding lower portion of each of said inner center partition sections along vertical scores which are in substantial folding registry with adjacent vertical scores which hinge the main cross partition straps to the adjacent outer center partition section, said secondary cross partition elements being secured to the adjacent series of main cross partition straps, at least one of said inner center partition sections having an end extension and a lateral extension integral therewith and positioned along the longitudinal mid-section of the carrier and providing a center divider for the twin compartments thereof.

2,844,282
CELLULAR BOTTLE CARRIER
Claude D. Painter, San Francisco, Calif., assignor to Karry-All, Inc., a corporation of California
Original application October 6, 1953, Serial No. 384,390. Divided and this application September 11, 1956, Serial No. 611,897
1 Claim. (Cl. 220—115)



A one-piece article carrier blank of flexible paperboard stock, comprising two sets of side wall, end wall and longitudinal partition and handle-forming panels, the respective panels of each of said sets being integrally connected by vertical creases in the order named, a one-piece bottom-forming panel disposed between and integrally connected by horizontal creases to adjacent bottom-defining margins of said side wall panels, transverse partition sections integrally hinged by vertical creases to said partition and handle-forming panels and comprising cutouts therefrom swingable about those hinge creases out of the planes of the respective last named panels, one of said cutouts in each set being spaced within the borders of the corresponding partition and handle-forming panel and extending across the hinge line of the other cutout, so that the hinge of the latter cutout is integrally connected at the top and bottom to its panel, and a handle-reinforcing panel, extending completely around its handle opening, associated with each of said sets of panels, each of said reinforcing panels being integrally hinged by a vertical crease to an end of the corresponding partition and handle-forming panel and being separated at least in part by a cut from a top defining margin of the adjacent end and side wall panels of each of said last named sets, the outer margin of each reinforcing panel lying substantially outwardly, in the lateral sense, of the outer margin of its associated partition and handle-forming panel, and opposed outer margins of said side wall panels lying substantially inwardly of the outer margins of said respective partition and handle-forming panels, each reinforcing panel occupying a space between said separating cut therefor and a longitudinal projection of said outer margin of its associated partition and handle-forming panel.

2,844,283
ARTICLE DISPENSING MECHANISM FOR VENDING MACHINES
George W. Whitehead, Des Moines, Iowa
Application June 5, 1953, Serial No. 359,930
4 Claims. (Cl. 221—42)



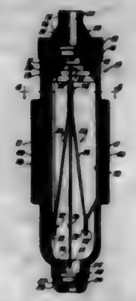
3. In a device for dispensing folded articles, support means, spaced cam plates rigidly fixed to said support means, a shaft extending between and rotatably journaled on said cam plates, a cylinder fixedly mounted on said shaft, an article container disposed above said cylinder having a substantially open bottom, a guide plate mounted on one end of said cylinder, guide means on said guide plate, a finger reciprocably and swivelly mounted on said guide means, a cam track on said cam plate, cam followers on said finger engaging said track, said track being shaped to swivel and reciprocate said finger toward and away from and into the open bottom of said container upon rotation of the shaft.

2,844,284
DISPENSING APPARATUS
Arthur H. Ackerman, Jr., Jackson, Mich.
Application July 29, 1955, Serial No. 525,301
10 Claims. (Cl. 222—139)



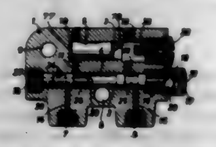
1. A device of the class described, comprising: a body portion provided with a pair of vertically disposed, spaced apart bores; said bores extending to the upper surface of said body portion and being open to the atmosphere at said surface; means for covering the upper ends of said bores; a transverse bore in the lower part of said body portion communicating with the lower ends of said vertical bores; a shaft rotatably mounted in said transverse bore; a knob threadably mounted on one end of said shaft adapted to abut one side of said body portion; a handle forming knob threadably mounted on the other end of said shaft adapted to abut the other side of said body portion; stop means mounted on said body portion to limit rotation of said handle forming knob; spring means interconnecting said body portion and handle forming knob for biasing said handle forming knob into a predetermined position; a pair of spaced apart pockets in said shaft arranged to register with the lower ends of said vertical bores when the shaft is in a first position; a base fixedly mounted on the lower side of said body portion; a funnel formed in said base; a pair of ports in the lower side of said body portion below said shaft and adapted to register with the pockets in said shaft when said shaft is turned to a second position; and, said ports being in communication with said funnel.

2,844,285
DETERGENT METERING AND DISPENSING DEVICE
George W. Moran, Dallas, Tex.
Application January 31, 1955, Serial No. 485,214
4 Claims. (Cl. 222—212)



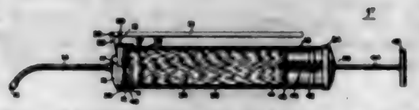
1. A fluid measuring and dispensing device comprising an elongate resilient body of generally cylindrical shape, an integral, elongate boss formed longitudinally on each side of said body, said bosses being in diametrically opposed relationship, a one-way valve in each end of said body to admit fluid at one end and to release the same at the opposite end of said body, a leaf spring assembly in said body comprising an elongate mounting plate anchored at its ends at opposite ends of said body in a plane at right angles to the plane in which said elongate bosses are disposed and whose width is substantially equal to the inner diameter of said body and a leaf spring attached to each side of said mounting plate and engaging the walls of said body opposite said elongate bosses to exert a force resisting pressure simultaneously imposed on said bosses tending to compress said body.

2,844,286
DISPENSER FOR LUBRICANTS
Johann Lipinski, Prembaum, near Vienna, Austria, assignor to Alex. Friedmann Kommanditgesellschaft, Vienna II, Austria, a firm
Application March 22, 1954, Serial No. 417,779
Claims priority, application Austria March 27, 1953
7 Claims. (Cl. 222—250)



1. A dispenser for dispensing lubricants from a single supply line subjected to varying pressure to several points of lubrication, comprising a first cylinder bore, a feed piston slidable in said first cylinder bore and having two end faces and working spaces at both ends of the said first cylinder bore bounded by the said end faces of the feed piston, a second cylinder bore, a control piston slidable in said second cylinder bore and having two end faces, an inlet connected to the said single supply line and several outlets, control channels connecting the said first cylinder bore to the said second-named cylinder bore, ports connecting the said inlet and outlets to the said second-named cylinder bore, control recesses in one of the said pistons, the said control piston having two terminal positions and connecting in each of the said terminal positions one of the said working spaces, bounded by the said two end faces of the said feed piston, with the said inlet and the working space bounded by the other end face with one of the said outlets alternatively, spring means forcing the said control piston into one of its terminal positions, the said control recesses, ports and control channels connecting the end face of said control piston opposite to the said spring means with the said inlet, the pressure being applied to the said last-named end face from the supply line against said spring means, the control piston being held by the said spring means in the one terminal position until the said feed piston has completed its feed stroke for feeding lubricants to one of the outlets and is moved into the other terminal position when the pressure in the supply line has increased further so that the spring force is overcome, whereby the pressure in the supply line causes the return movement of the feed piston for feeding lubricant to the other outlet.

2,844,287
GREASE GUN CONVERSION UNIT
William H. Brandt, Emerson, Nebr., and Earl H. Martin, Sioux City, Iowa
Application August 10, 1956, Serial No. 603,383
4 Claims. (Cl. 222—326)



1. In combination with a standard grease gun having a barrel portion, and a forward nozzle portion, a conversion unit for reception into said barrel comprising a cylindrical grease receiving member, said member being detachably connected to said forward nozzle portion, a cylindrical carton containing grease, said cylindrical grease receiving member being of lesser diameter than said barrel to thereby provide an annular cylindrical space therebetween, the walls of said carton being received in said space when the contents of said carton are thrust forwardly into said grease receiving member, said cylindrical carton being approximately the length of said barrel, and a reciprocating piston in said barrel portion of said gun being adapted to be received within said carton.

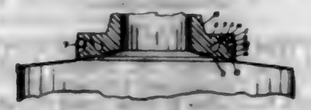
2,844,288
HOUSEHOLD ROASTERS
Francis B. Crowley, Detroit, Mich.
Application September 17, 1954, Serial No. 456,681
3 Claims. (Cl. 222—466)



1. A roaster open at the top, the roaster having a horizontally-disposed bottom and an upwardly-rising wall, the wall being provided with a slot extending from the upper rim of the wall downwardly to a level spaced from said bottom to form a pouring outlet, and a plurality of handle means for lifting of said roaster, one of said handle means being secured to the wall across the slot at a level above the lowest point of said slot.

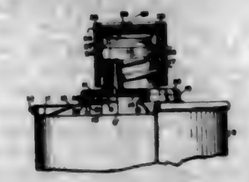
2,844,289
ADAPTOR FOR NOZZLE, SPOUT, COUPLER, OR THE LIKE
Axel E. Ogren, Cleveland, Ohio, assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
Application June 1, 1956, Serial No. 588,841
8 Claims. (Cl. 222—499)

1. An adaptor for a substantially tubular opening comprising a tubular member having a resiliently flexible outwardly flaring skirt at one extremity, an external peripheral flange integral with and depending from said skirt, the side of said flange away from said skirt being shaped to define a circumferential depending portion adapted to co-act with the extremity of said tubular



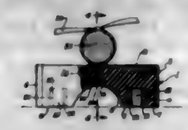
opening to limit the extent of insertion therein, whereby said flange is bent back upon said skirt on insertion in said opening, and means for limiting the extent of bending back of said flange.

2,844,290
DETERGENT CAN
William J. Slade, Haddonfield, N. J., assignor to Crown Cork & Seal Company, Inc., Philadelphia, Pa., a corporation of New York
Application July 27, 1955, Serial No. 524,787
2 Claims. (Cl. 222—562)



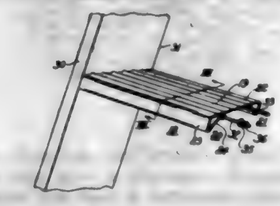
1. A cylindrical container having a metal end, a projection on said end having a flat surface and an integral shoulder extending inwardly and downwardly therefrom, a plastic pouring spout having a cylindrical neck portion provided with an opening and a flange portion located at the base of the pouring spout, said flange having a flat surface engaging the flat surface of the projection, a depending skirt on said pouring spout flange formed with an internal groove for receiving in frictional, resilient, sealing relation the said shoulder of the projection, the lower edge of said skirt of the flange also engaging the adjacent top surface of the end of the container, said container opening through its flat surface in said end into the opening of the pouring spout, the pouring spout terminating in an upper, cylindrical, rounded bead portion of lesser diameter than said neck portion, and the outer wall of said pouring spout being adapted to receive a closure.

2,844,291
UTILITY CARRIERS
Otis D. McPheeters, Covina, Calif.
Application May 14, 1956, Serial No. 584,582
1 Claim. (Cl. 224—42.1)



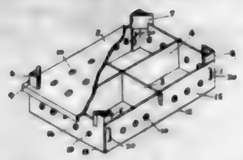
In a utility carrier, a resilient body having a top surface and a base surface, the said body on its base surface being transversely channeled intermediate its length to provide a pair of foot portions with each foot portion formed with a transverse recess extending inwardly from said base surface, pairs of spaced apart pole pieces in each recess, magnets interposed between said pairs of pole pieces, and means for securing work to the top surface of said resilient body, the said means being secured to said body intermediate its length and in the zone of said channel, said transverse channel being substantially semi-circular in form and said body being formed with a bore substantially dividing the semi-circular portion into quadrants, the said means for securing work comprising ties passed through said bore and secured to the body.

2,844,292
STEPLADDERS
Howard B. Rich, Carrollton, Ky.
Application April 21, 1955, Serial No. 502,878
2 Claims. (Cl. 228—58)



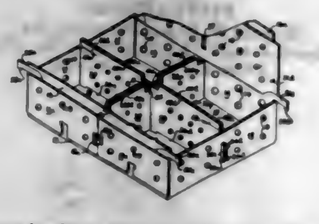
1. A ladder which comprises a pair of side rails, a plurality of sheet metal step members spanning said rails, each of said step members comprising a step portion, downwardly projecting flanges along the lengthwise edges of said step portion, upwardly and inwardly projecting flanges on the lower edges of the first mentioned flanges, and return bend beads on the upper edges of the second mentioned flanges, said return bend beads abutting the underside of the step portion, and a pair of tension rods underlying the step portion of each step member, each tension rod being received inside one of the beads, the step portion resting on the beads supported by the tension rods.

2,844,293
CORNER CONSTRUCTION FOR A CHICK BOX
Anthony Murdock Whitney, Winchendon, Mass., assignor to New England Wooden Ware Corporation, Winchendon, Mass., a corporation of Massachusetts
Application February 17, 1955, Serial No. 488,854
2 Claims. (Cl. 229—6)



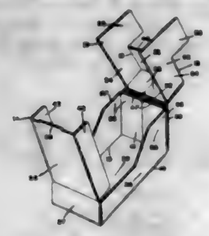
1. A one-piece chick box providing integral corner posts higher than the box sides for the spacing above its top of another superimposed box, said box comprising a rectangular bottom, four integral side walls rising from the respective edges of said bottom at right angles thereto, and connected to each other at their adjoining terminal portions to provide the four corners of said box, the construction at each box corner comprising a first side wall whose proximate vertical edge is approximately alined with said box corner, a second side wall having its proximate terminal portion substantially higher than said first side wall, and having an integral lengthwise extension of substantially the same increased height which is folded inwardly at right angles on the line of said box corner and attached to the inside proximate surface of said first side wall, the upper edge of said second side wall, substantially at the beginning of its higher terminal portion, being formed with a narrow vertical notch, and the upper portion of said integral extension having a free flap extension bent backwardly, crosswise of said box corner, and entered in said notch, thereby to form with the other right angled upper edges of said higher terminal portion an integral corner post of substantially triangular cross section.

2,844,294
CHICK CARTON
Alfred A. Williams, Charlotte, N. C., assignor to Old Dominion Box Company, Inc., Charlotte, N. C., a corporation of North Carolina
Application December 12, 1955, Serial No. 552,526
8 Claims. (Cl. 229—6)



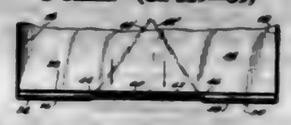
1. A carton having a bottom wall, end walls, side walls, lid portions hingedly connected to said side walls, end wall flaps hingedly connected to said end walls, locking tabs provided on the outer extremities of said end wall flaps, each of said side walls having an elongated slot provided in a medial portion thereof, said locking tabs positioned in said elongated slots to maintain the end and side walls of the carton in a perpendicular relation to the bottom wall of the carton, and said end flap locking tabs having formed integral therewith projecting portions extending outwardly beyond the side walls of the carton to space the same from adjacent cartons.

2,844,295
BOXES
Richard H. Williams, Minneapolis, Minn., assignor to Northwestern Corrugated Box Co., Minneapolis, Minn., a corporation of Minnesota
Application January 31, 1955, Serial No. 484,900
4 Claims. (Cl. 229—33)



1. An angle-shaped box having a body and a wing issuing outwardly therefrom to form a bight therebetween, said box including a bottom wall common to said body and wing, an outer end wall for said body having one end connected to one end of said bottom, a top wall for said body having one end connected to the other end of said outer end wall, an inner end wall for said body having one end connected to the other end of said top wall, an outer end wall for said wing having one end connected to the other end of said bottom wall, a top wall for said wing having one end connected to the other end of said outer end wall of said wing and extending up to said inner end wall of said body, side wall flaps connected at certain of their outer lateral marginal portions to the lateral marginal portions of the bottom wall and extending upwardly therefrom to form side walls for both the body and the wing, angle-shaped wall structures having legs angularly disposed relative to one another, certain of the legs thereof being connected at their inner marginal portions and at a locality adjacent the companion legs to the lateral marginal portions of said inner end wall for the body, said legs lying inwardly of and being juxtaposed relative to said side wall flaps, and with their outermost edges engaging the bottom wall and top wall of said body, said attached legs underlying the top wall of the wing and engaging the underside thereof, and means for securing the parts together.

2,844,296
LOCK BOTTOM FOR PAPERBOARD CONTAINER
Lawrence M. Soja, Chicago, Ill., assignor to Stone Container Corporation, Chicago, Ill.
Application November 8, 1956, Serial No. 621,134
1 Claim. (Cl. 229—39)

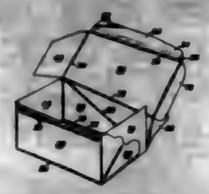


A collapsible, re-usable container of stiff paperboard material adapted to support a substantial weight therein, comprising a sleeve of substantially rectangular cross-section having front, rear and opposite side walls and an open bottom end, a rectangular pressure flap having one edge thereof hingedly connected to the lower edge of said front wall, a rectangular locking flap having one edge thereof hingedly connected to the lower edge of said rear wall, said flaps having substantially the same configuration as the cross-section of said sleeve, said locking flap having a pair of slots in the intermediate body portion thereof extending transversely of the hinged connection thereof, said slots each being spaced from an adjacent end of the locking panel a distance approximately equal to one fourth of the panel's length, a friction flap hingedly connected to the lower edge of each of said side walls, said last flaps each including a pair of segments comprising, a first segment of isosceles trapezoidal configuration, the trapezoidal segment being connected to the said lower side wall edge along the entire extent thereof and the width of each trapezoidal segment considered transverse to its hinge connection being substantially equal to approximately one fourth of the length of said locking flap, the second segment of each friction flap being of elongated rectangular form and having a hinge connection with the respective trapezoidal segment and the width of said second segments being substantially equal to the length of said slots, said pressure, locking, and friction flaps being disposable in said open bottom end of said sleeve in the provision of a multi-ply closure formation and wherein said locking flap is disposed substantially in the plane of the lower edges of said front, rear and side walls, the said trapezoidal segments being disposed beneath said locking flap and the said rectangular segments extending through said slots and being disposed in overlying relation between said pressure flap and said locking flap, the said rectangular segments being of a length substantially equal to the distance between said slots and having the adjacent faces thereof in frictional engagement and the opposite faces thereof in frictional engagement with the pressure flap and the locking flap, whereby the weight of the contents of the container press the said rectangular segments together and against the locking flap frictionally locking same to prevent their separation and withdrawal from the slots.

2,844,297
COLLAPSIBLE CARTON
Raynor M. Holmes, Newark, N. Y., assignor to Bloomer Bros. Company, Newark, N. Y., a corporation of New York
Application June 23, 1955, Serial No. 517,427
5 Claims. (Cl. 229—41)

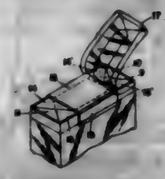
1. A collapsible carton having a self-erecting bottom comprising a one-piece blank cut, scored and folded to form foldably connected front, rear, side and closure walls, a detachable connection between said closure wall

and the free edge of said front wall, top and bottom closure flaps foldably connected with said walls at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps, each of said outer flaps being secured to the adjacent inner flap for forming the bottom of the carton in two sections, each of said outer flaps being formed with a fold line and foldable inwardly about said fold line together with the associated one of said inner flaps upon relative lateral shifting of said walls to collapsed position, said bottom closure flaps being moved to erected closed position normal to said



walls by erecting movement of said walls, and locking means on said top closure flaps for locking said top flaps in closed position in the erected position of the carton, said rear wall being formed with a score line extending thereacross, said detachable connection being adapted to be broken for moving said closure wall to open position, and said rear wall folding backwardly along said score line for allowing said closure wall to move to said open position and for allowing one of said bottom sections to move out of engagement with the other said bottom sections for partially unfolding said carton and exposing the contents thereof.

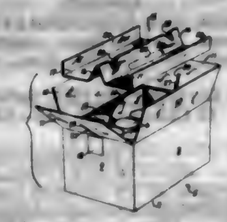
2,844,298
TAPELESS UNFOLDABLE CLOSURE FOR CIGARETTE PACKAGES
Bernard J. Tamarin, Flourtown, Pa.
Application September 3, 1954, Serial No. 454,087
5 Claims. (Cl. 229—51)



1. A moisture resistant package comprising an inner wrapper bent to form an end closure having unfoldable flap sections precut therefrom, means forming a bight normally holding said unfoldable flap sections in downfolded position by the engagement of their inner edges under an edge of the bight, and a sheath having a readily severable strip bonded to one of said unfoldable flap sections at an area remote from its unfolding line and where resistance to the withdrawal and unfolding thereof is relatively low.

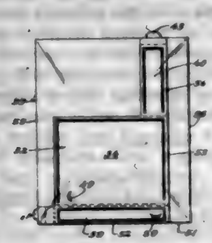
2,844,299
BEVERAGE COOLER CARTON
David E. Kessler, Cincinnati, Ohio, and Theodore F. Hauf, Milwaukee, Wis., assignors to Pabst Brewing Company, Peoria Heights, Ill., a corporation of Delaware
Application June 17, 1957, Serial No. 666,988
5 Claims. (Cl. 229—52)

1. A shipping package, comprising: a plurality of similar containers; a carton enclosing said containers, said carton having side and end walls with a height substantially greater than that of the containers so as to provide a space in the carton above the containers, a bottom wall connected with said side and end walls, and flaps folded inwardly from said side and end walls to define a top wall closing the top of the carton; a handle and filler forming member in said space, said handle and filler member being made from a unitary blank and having a pair of similar edgewise adjacent substantially coplanar panels resting upon and covering the containers in the carton, and a pair of upstanding flanges on the adjacent edges of the panels having their upper edges connected with one another and defining a ridge to have supporting engagement with the underside of the top wall, whereby the handle and filler member inhibits up and down move-



ment of the containers in the carton, said flanges having lengthwise extending grip forming slots therein and notches opening to their upper edges at locations spaced inwardly of their ends; and said carton flaps which overlie the opposite end portions of said ridge having openings therein which substantially register with the ridge in the filler forming position of sad member and which define downwardly facing shoulders on the flaps when the latter are in substantially upright handle retaining positions, said shoulders being engageable in the notches in said flanges to interlock the member with the carton when the member is in its handle forming position.

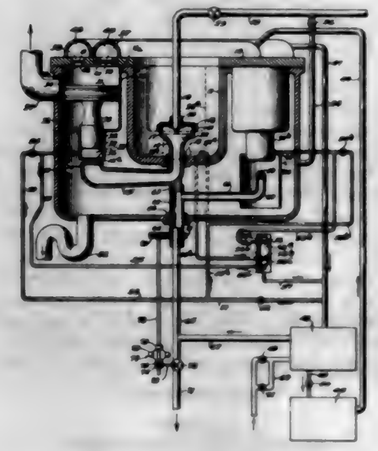
2,844,300
SLICED MEAT PACKAGE
Reynolds Guyer, St. Paul, Minn., assignor to Waldorf Paper Products Company, Ramsey County, Minn., a corporation of Minnesota
Application April 2, 1954, Serial No. 423,490
1 Claim. (Cl. 229—87)



A package for bacon and the like, the package including a rectangular sheet of flexible lining material and a blank of relatively stiff paperboard secured thereto, the paperboard being cut and creased to provide a rectangular base panel, a generally rectangular cover panel hingedly secured to one edge of the base panel and extending substantially the full length of said one edge, said cover panel, when folded over said base panel, covering only the marginal portion thereof, leaving the major portion of the base panel exposed, an edge panel hingedly secured to the base panel edge opposite said one edge and being of a width substantially less than the length of said edges, said edge panel, when folded to overlie said base panel, having an edge registering with an edge of said base panel and leaving the major portion of the base panel exposed, a locking tongue on the end

of the said edge panel and cooperable locking means on said cover panel, said edge panel overlapping said cover panel in folded condition of said flaps, said lining sheet extending laterally beyond the remaining edges of the remaining edges of said base panel with edges of the lining sheet parallel to the edges of said base panel, and a locking flap hinged to an end of said cover flap and foldable beneath said base panel, and including cooperable locking means on said base panel engageable therewith.

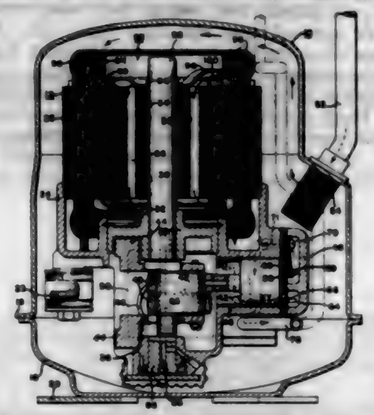
2,844,301
COMPRESSOR FOR REFRIGERATION SYSTEM
Alwin B. Newton, Wichita, Kans., assignor to The Coleman Company, Inc., Wichita, Kans., a corporation of Kansas
Application December 23, 1954, Serial No. 477,364
13 Claims. (Cl. 230—53)



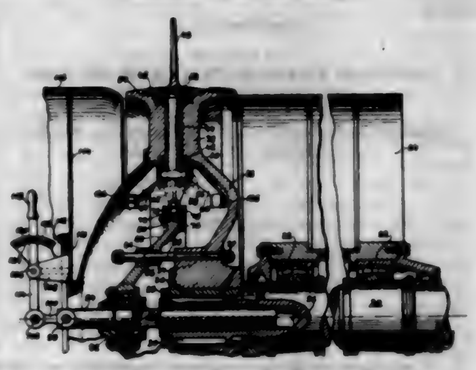
1. In apparatus of the character described, at least one one cylinder having an enlarged end portion and a reduced end portion, an enlarged piston mounted for reciprocatory movement in the enlarged end portion of said cylinder, a piston of reduced diameter mounted for reciprocatory movement in the reduced end portion of said cylinder, means rigidly connecting said pistons together, said cylinder being provided with a valve-equipped inlet port and a valve-equipped outlet port both adjacent the upper end of said enlarged end portion of the cylinder, means for providing a heat-expansible fluid in the cylinder portion of reduced diameter, and means for alternately heating and cooling said cylinder at the end thereof of reduced diameter.

2,844,302
REFRIGERATING APPARATUS
John Welbel, Jr., Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 29, 1955, Serial No. 549,713
4 Claims. (Cl. 230—58)

1. In a sealed motor-compressor unit, a sealed casing, a frame supported in said casing, a shaft journaled in said frame, a motor rotor secured to said shaft, a motor stator having a central opening surrounding said rotor and supported within said casing, compressor means drivingly connected to said shaft, inlet means for supplying a relatively cool gas to be compressed into said casing in the area surrounding said motor rotor and stator, means for directing said gas into thermal exchange relationship with said stator and thereafter downwardly through said central opening before entering said compressor means, said last-named means comprising a cup-shaped gas directing baffle secured to said rotor and having a portion disposed adjacent a portion of said stator.

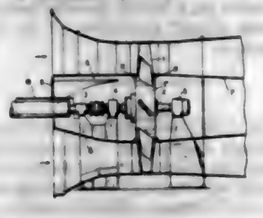


2,844,303
AXIAL BLOWERS OR FANS
Svend Helge Kristiansen, Naestved, Denmark, assignor to Nordisk Ventilator Co., Aktieselskab, a corporation of Denmark
Application August 27, 1957, Serial No. 306,669
3 Claims. (Cl. 230—114)



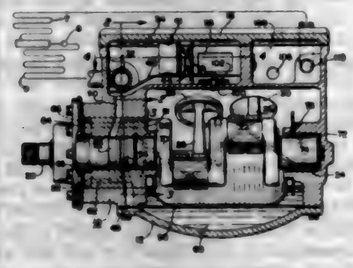
1. In an axial fan, for use in connection with a driving shaft, in combination, a hollow hub member mounted on said driving shaft, said hub including a hub ring, at least two wings journalled in said hub ring rotatably about their longitudinal axes, each wing comprising a wing blade and a root shaft, said hub ring having a through bore for each of said root shafts, each root shaft mounting inside said hub ring a laterally extending adjusting arm, an inwardly extending actuating pin connected to said adjusting arm, an adjusting shaft mounted for reciprocation coaxially with said hub, an adjusting disk member rotatably mounted on said adjusting shaft, means operable for restraining axial displacement of said adjusting disk relative to said adjusting shaft, at least one driving stud interconnecting said hub member and said adjusting disk member for securing the same rotational speed of said two members, said adjusting disk having a peripheral groove opposite each of said actuating pint, each actuating pin engaging said groove, means operable for axially displacing said adjusting shaft thereby to adjust the axial position of said disk and by way of said actuating pin and said adjusting arm to adjust the pitch of each wing, at least two counterweights secured to the root shaft of each wing and disposed inside the peripheral surface of said hub ring, said two counterweights being positioned on either side of the main plane of each wing, and the inertia momentum of each wing with all members secured thereto including the said root shaft and said counterweights being approximately equal with respect to all planes coincident with the axis of rotation of the wing.

2,844,304
AXIAL FLOW FANS OR AXIAL FLOW PUMPS
Jan C. Bunnet, Hengelo (O.), Netherlands, assignor to Koninklijke Machinefabriek Gebr. Stork & Co. N. V., Hengelo (O.), Netherlands
Application October 3, 1956, Serial No. 613,659
Claims priority, application Netherlands October 18, 1955
2 Claims. (Cl. 230—120)



1. An axial flow impeller apparatus comprising an annular casing having an inlet end, bearings in said casing, a shaft journaled in said bearings and extending longitudinally of said casing, an impeller including a hub mounted on said shaft and blades extending from said hub, a stationary hollow body in said casing at the suction side of said impeller, said body surrounding said shaft and extending substantially from the inlet end of said casing to the impeller hub and being substantially contiguous with the circumference of said hub with said impeller blades extending beyond the circumference of said body, said hollow body including a front wall and enclosing the bearings on the inlet side of said impeller, and an inspection door in said body front wall and giving access to said bearings for inspecting and servicing said bearings.

2,844,305
REFRIGERATING APPARATUS
Richard J. Becht and John Henry Heldorn, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 3, 1953, Serial No. 389,982
9 Claims. (Cl. 230—206)



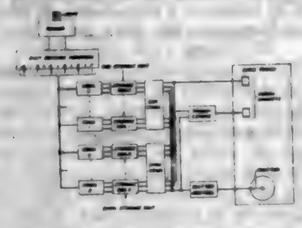
1. In a refrigerating system wherein a mixture of refrigerant and oil are circulated through a closed circuit, a compressor including a housing having cylinder bores formed therein and having a crankcase which forms an oil storage sump, a crankshaft in said housing, crankshaft bearing means in said housing, said crankshaft having offset crank portions projecting into the oil sump, an oil excluding baffle supported from said crankcase, surrounding the lower portion of said crankshaft and serving to prevent the oil in said sump from coming in direct contact with said crankshaft, piston means within said cylinder bores and operated by said crankshaft, cylinder head means secured to said housing and having inlet and outlet ports formed therein, means forming a common suction chamber in an upper portion of said housing communicating with said inlet ports, said chamber having an inlet through which a mixture of oil and gas to be compressed enters said chamber, said chamber having outlet means spaced from said inlet, a false floor in said chamber spaced from the bottom of said chamber and having means for the passage of oil from above the false floor to a point below the floor, and pump means operatively connected to said shaft and communicating with said suction chamber and said oil storage sump for pumping oil from said suction chamber into said oil storage sump.

2,844,306
COMBINATION VENTILATING FAN WITH LIGHT AND REFLECTOR
Harry Broadwin, Lawrelton, N. Y., assignor to Perfect-Line Manufacturing Corporation, Hicksville, N. Y., a corporation of New York
Application August 8, 1955, Serial No. 526,913
1 Claim. (Cl. 230—249.5)



In combination with a wall type ventilating fan of the character described, a front cover plate for said fan having a grilled apertured design formed therein, an electric light mounted on said cover plate and above said apertured design, an arcuate reflector mounted above said light to cause its rays to be reflected downwardly over said grilled apertured design, said reflector adapted to be mounted removably above said light and over the top edge of said cover plate by inserting its vertical depending flange between the back of said cover plate and the wall in which the fan is mounted, and an electric switch mounted behind said apertured cover plate having a pull chain extending outwardly through an aperture thereof for operating the fan and/or the light and/or both.

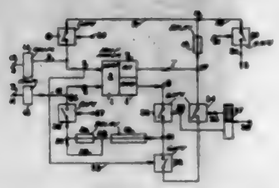
2,844,307
RECORD-CONTROLLED APPARATUS
Amos E. Joel, Jr., South Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 29, 1952, Serial No. 268,880
8 Claims. (Cl. 235—61.1)



4. A record-controlled apparatus for producing individual punched cards for each of a plurality of sensable entries contained on a continuous record, each of the entries including an index denoting the number of cards

required for the entry, the order in which said cards are to be produced, and an arbitrary character specific to each of said records to be recorded thereon comprising in combination, means for sensing each of the entries on said record, means responsive to said sensing means sensing an entry for registering said entry, translating means responsive to the operation of said registering means for transforming a part of said registered entry, and means jointly responsive to the operation of said registering means and said translating means for producing a number of punched cards for the entry, and for producing said cards in the order denoted by the index of the entry, each of said cards containing a part of the entry as registered in said operated register, the remainder of the entry as transformed by said operated translating means and the arbitrary character specific thereto.

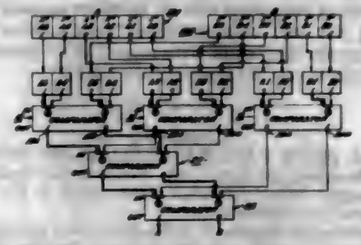
2,844,308
CIRCUITS FOR THE ADDITION AND SUBTRACTION OF NUMBERS
Roger Robert Dussine, Paris, France, assignor to Societe d'Electronique et d'Automatisme, a corporation of France
Application April 15, 1952, Serial No. 282,387
Claims priority, application France April 17, 1951
29 Claims. (Cl. 235—61)



1. In a calculator for selective addition and subtraction of at least one pair of numbers represented in binary fashion by coded trains of electric pulses, a single half-adder including input means for receiving said coded trains, phase comparing means for determining pulse coincidence and pulse anticoincidence between said coded pulse trains and separate outputs under control of said phase comparing means for producting respectively at least one train under control of pulse coincidence and at least another train under control of pulse anticoincidence, means for delaying each of said output trains by predetermined time intervals, means for feeding back delayed output pulses into said input means so as to arrive there at successive pulse periods respectively but out of phase with the incoming pulse trains; and means for selecting from said anticoincidence output, output pulses of predetermined phase relation with the one and the other of said incoming pulse trains.

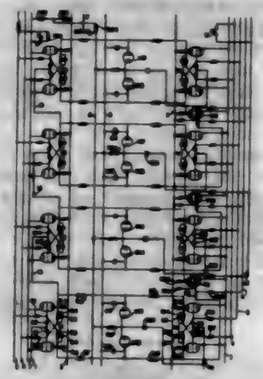
2,844,309
COMPARING SYSTEM
William R. Ayres, Oaklyn, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 28, 1952, Serial No. 321,697
12 Claims. (Cl. 235—61)

1. Apparatus for comparing two binary numbers each represented by a plurality of coexistent signals of either of two types, one signal for each binary digit, said apparatus comprising means for ordering each number into smaller groups of digits, the same number order being maintained in each group, the order of each group being determined by the order of the digits within each group, separate first means to compare each of the same order groups in each number with each other in accordance with their value as separate binary numbers to provide an output indicative of which group is greater, separate second means to compare the outputs of each of the adjacent order first comparing means as binary numbers with the higher order comparing means output being evaluated as a higher order digit, and successive com-



paring means to successively compare preceding comparing means outputs on a binary number value basis to provide a resultant output indicative of the comparison of said two numbers.

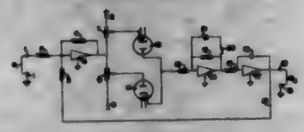
2,844,310
DATA COLUMN SHIFTING DEVICE
John Robert Cartwright, Letchworth, England
Application February 11, 1953, Serial No. 336,399
Claims priority, application Great Britain May 17, 1950
13 Claims. (Cl. 235—61)



1. In a shifting register a first and second static data-registering device each having two possible states, for each said device a first conductor and a second conductor each having one of two electric potentials in accordance with the state of said device, a first pair of resistors in series connecting said first conductor of said first device and said first conductor of said second device, a second pair of resistors in series connecting said second conductors of said devices, the potentials applied to either said pair of resistors being substantially equal and unequal when said devices are in the same states and different states respectively, two diodes having one pair of corresponding electrodes commoned and the other electrodes each connected to the centre points of a pair of said resistors, a source of bias voltage applied to said commoned electrodes rendering either of said diodes conductive and non-conductive when the potentials applied to the pair of resistors connected to that diode are and are not equal at one of said potentials respectively, a pulse input and a pulse output connected to said commoned electrodes and circuit means connected to said output for changing the state of one of said data-registering devices when a pulse appears at said output, a low potential point, and a low impedance pulse path connected between each of said other electrodes and said low potential point, whereby when said devices are in the same state, one of said diodes is rendered conductive and a pulse applied to said input is shunted through said conductive diode

and said pulse path before reaching said output whereas when said devices are in different states, neither of said diodes is rendered conductive and a pulse applied to said input is transmitted unattenuated to said output and the said devices are brought into the same state.

2,844,311
ELECTRICAL SIMULATOR FOR MECHANICAL LOST-MOTION AND THE LIKE
Richard V. Beum, Phoenix, Ariz., assignor to Goodyear Aircraft Corporation, Akron, Ohio, a corporation of Delaware
Application April 3, 1953, Serial No. 346,747
14 Claims. (Cl. 235—61)



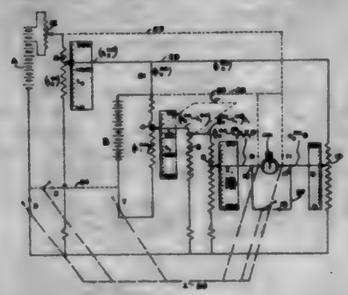
1. Electrical means for simulating a system having dead-space and the like, comprising a direct-coupled negative-feedback summing amplifier adapted to receive a waveform input electrically simulating a system, a variable-resistor voltage-divider network having a direct-current potential imposed thereon and coupled to the output of said summing amplifier, a pair of diodes coupled to said voltage-divider network to selectively conduct negative and positive voltages when in excess of or equal to amounts determined by the setting of the voltage-divider network, said coupling being the cathode of the first diode connected to the movable element of one variable-resistor in said voltage-divider network, said variable resistor having the positive direct-current potential imposed on one side thereon, the plate of the second diode being connected to the movable element of the other variable-resistor in said voltage-divider network, said variable-resistor having a negative direct-current potential imposed thereon, the plate of the first diode and the cathode of the second diode being connected, a direct-coupled negative-feedback sign-changing amplifier coupled to the output of said diodes, a condenser, switching means for connecting the condenser across the sign-changing amplifier, a direct-coupled negative-feedback integrating amplifier coupled to the output of said sign-changing amplifier, a feedback connection from the output of said integrating amplifier to the input of the summing amplifier, and output terminals connected to the output of the integrating amplifier.

2,844,312
RADIATION INTENSITY DOSAGE ANALOGUE COMPUTER
James M. McCampbell, San Francisco, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application April 16, 1953, Serial No. 349,328
2 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An analogue computer for use in solving radiation problems inherent in the equation

$$(t_2^{0.2}-t_1^{0.2})I_1 5=t_2^{0.2}D$$

in which t_1 is time of entry, t_2 is time of exit, I_1 is radiation intensity at t_1, and D is the dosage received; said computer including null balance indicating means, a grounded direct-current power supply, a manually-settable non-linear potentiometer having one end electrically coupled to the positive side of the battery and the other end grounded, a second direct-current power supply, a second manually-settable non-linear potentiometer having one end electrically connected to the positive side of said power supply and the other end electrically connected to the negative side of said power supply whereby said second power supply is floating with respect to ground, a slider arm for each of said first and second potentiometers, a multiplying circuit electrically connected between said second slider arm and said null balance indicating means, a third potentiometer having one of its ends grounded and its opposite end electrically connected to said first potentiometer slider arm, a slider arm for said third potentiometer, and an electrical conduit connecting said third potentiometer slider arm to said null balance indicating means, said out-puts of said multiplying circuit and said third potentiometer slider arm being electrically fed into opposite sides of said null balance indicating means whereby said means indicates a null balance when said out-puts are equal in amount, said out-put of said first potentiometer slider arm being

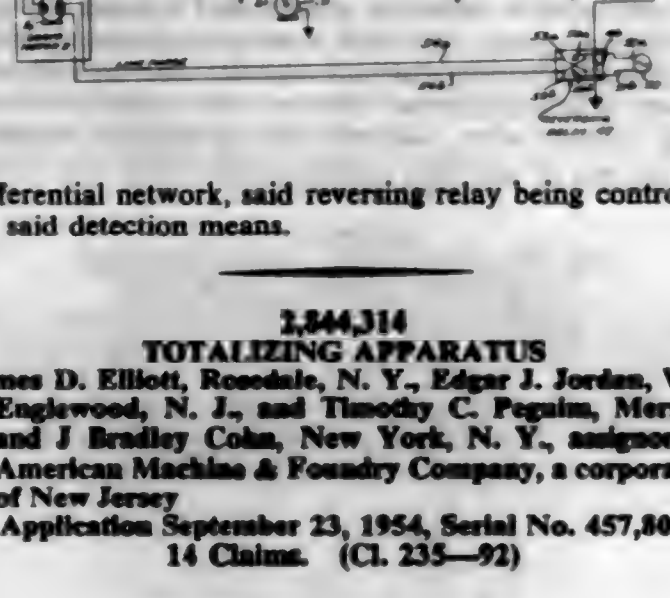


electrically coupled to said second potentiometer at the end connected to said second power supply positive side whereby said floating property of said second power supply electrically accomplishes the subtraction term of the equation, said subtraction then being applied by said second slider arm to said multiplying circuit the product of which is fed into said null balance indicator, and said $t_2^{0.2}D$ term of the equation being electrically produced by feeding said out-put of said first potentiometer slider arm into said third potentiometer, said non-linear properties of said first and second potentiometers being determined in accordance with the exponential values of the equation, and said third potentiometer being proportioned to dosage, whereby any term of the equation can be ascertained from a particular slider arm reading by setting the other slider arms at known values and manipulating said particular slider arm to obtain a null condition at said null balance indicator.

2,844,313
AMBIGUITY RESOLVER FOR A NAVIGATION POSITION INDICATOR
Victor H. Seliger, Kew Gardens, N. Y., assignor to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware
Application January 24, 1957, Serial No. 636,059
5 Claims. (Cl. 235—61)

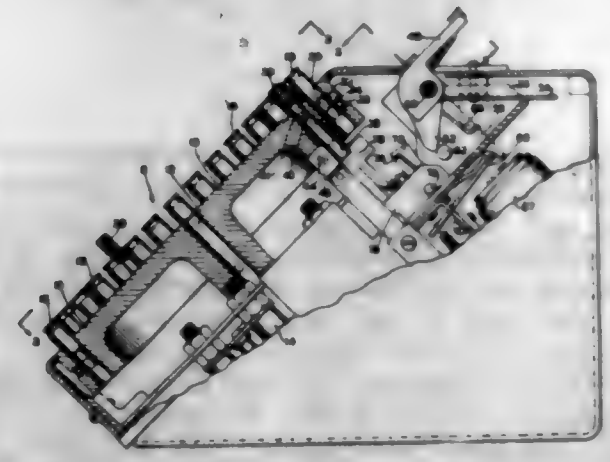
1. An ambiguity resolver comprising a non-ambiguous means for generating in flight the approximate distance from one of three ground stations, an ambiguous means for convertably generating in flight a true distance or an erroneous distance from said one of the three ground stations; said ambiguous means including a two phase polar bearing motor, an A. C. voltage source and a reversing relay connected between said A. C. voltage source and the said two phase polar bearing motor; a differential network connected between said ambiguous means and said non-ambiguous means and detection means connected to the said differential network and to the said

ambiguous means for converting the output of the said ambiguous means in accordance with the output of said



differential network, said reversing relay being controlled by said detection means.

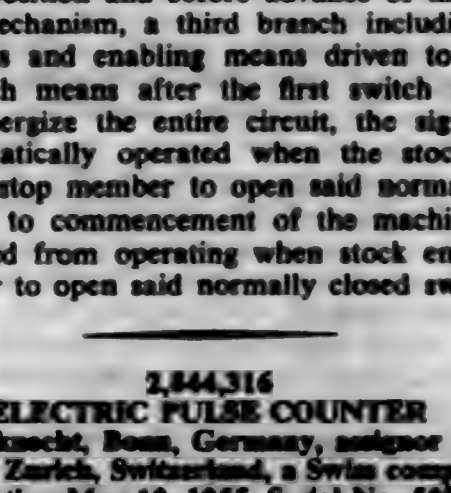
2,844,314
TOTALIZING APPARATUS
James D. Elliott, Rosedale, N. Y., Edgar J. Jordan, West Englewood, N. J., and Timothy C. Peguim, Merrick, and J Bradley Cohn, New York, N. Y., assignors to American Machine & Foundry Company, a corporation of New Jersey
Application September 23, 1954, Serial No. 457,808
14 Claims. (Cl. 235—92)



1. A counter actuator for counting individual eggs of numerical group units and partial counts of less than such units comprising cam means to activate a counter, means to move said cam, stop means to arrest said cam at group unit intervals, said stop means being yieldably movable to an inoperative position, other stop means normally in inoperative positions and selectively movable to operative position to arrest said cam at any selected partial count, and an actuating member operative when energized to move any of said stop means into inoperative position whereby said stop means will automatically return to an operative position and said other stop means will remain in inoperative position.

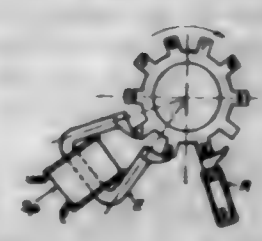
2,844,315
STOCK EXHAUSTION WARNING AND COUNTER FOR AUTOMATIC SCREW MACHINES
Robert Zelinsky, Chicago, Ill.
Application February 7, 1955, Serial No. 486,391
15 Claims. (Cl. 235—92)

1. In a conventional automatic screw machine employing a stock feed mechanism to intermittently advance stock toward a revolving tool turret to be machined and the turret carries a stop member which it rotates to a position intercepting the path of movement of the stock prior to the start of a machining cycle: the herein invention which comprises a stock counting and exhaustion warning system capable of operation correlated with the cyclic operation of the screw machine, said system comprising, a multi-branched electrical circuit having a source of power and a signal device connected to be selectively energized from said source at a predetermined portion of the operating cycle of the machine, a first branch including a switch connected between said source and device urged to a normally closed condition and capable of being opened by the stop member when said member is engaged by stock, a second branch including first switch means and cam means driven to close the switch means after the turret has revolved the stop mem-



ber to said position and before advance of the stock by said feed mechanism, a third branch including second switch means and enabling means driven to close the second switch means after the first switch means are closed to energize the entire circuit, the signal device being automatically operated when the stock fails to engage said stop member to open said normally closed switch prior to commencement of the machining cycle and prevented from operating when stock engages said stop member to open said normally closed switch.

2,844,316
ELECTRIC PULSE COUNTER
Werner Liebknecht, Bonn, Germany, assignor to Elmeco A. G., Zurich, Switzerland, a Swiss company
Application May 10, 1955, Serial No. 507,424
Claims priority, application Germany May 11, 1954
1 Claim. (Cl. 235—92)

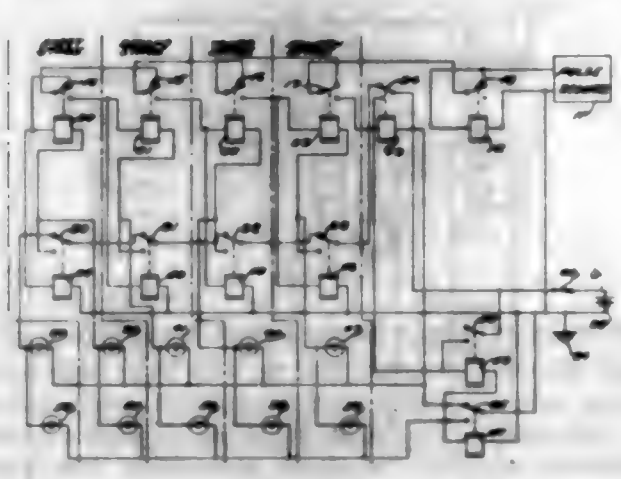


An electric pulse counter, comprising a rotary wheel inducing a magnetic field and having a plurality of uniformly spaced poles, two magnets having pole shoes, each of said pole shoes having a main portion and a tapered portion extending in a direction opposite to the direction of rotation of said wheel, said pole shoes being so located adjacent to different poles of the wheel that when the main portion of the pole shoe of one magnet is located directly opposite one pole of the wheel solely the tapered portion of the pole shoe of the other magnet is located directly opposite another pole of the wheel, and an exciter winding operatively connected with at least one of said magnets.

2,844,317
IMPULSE COUNTING CIRCUIT
Harry R. Shillington, Glen Ellyn, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application September 13, 1955, Serial No. 533,941
2 Claims. (Cl. 235—92)

1. An electrical impulse counting circuit, comprising a first series of normally grounded impulse count indicators forming a plurality of counting stages, a second series of impulse count indicators connected in parallel

with the first series of indicators, power supply means for actuating the indicators, a first chain of relays, a second chain of relays, first switching means associated with and actuated by the first relay chain for sequentially connecting the first series of indicators and the second chain of relays to the power supply means, second switching means associated with and actuated by the second chain of relays for sequentially connecting the relays of the first chain



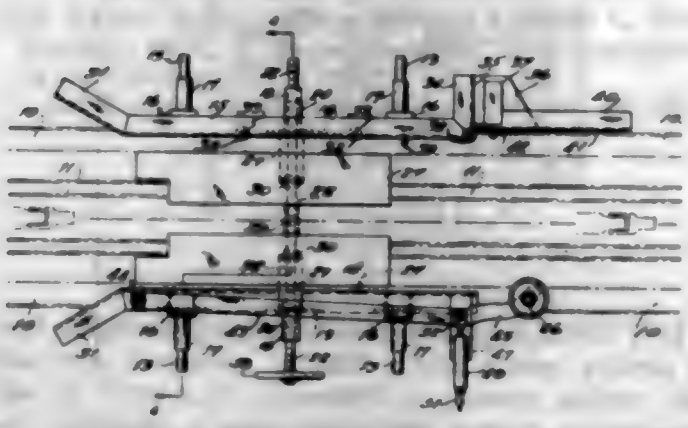
to a source of impulses to be counted, connecting means responsive to the next impulse following actuation of the last indicator in the first series for disconnecting said first series from ground and connecting the second series of indicators thereto whereby additional impulses operate the counting circuit to sequentially connect the indicators in the second series to the power supply means to actuate said indicators.

2,844,318

COUNTING DEVICE FOR CONVEYOR MECHANISMS

Wayne C. Garner and Guy Brookshire, Fort Worth, Tex., assignors of one-third to V. W. Boswell, Fort Worth, Tex.

Application February 28, 1955, Serial No. 490,867
8 Claims. (Cl. 235—98)



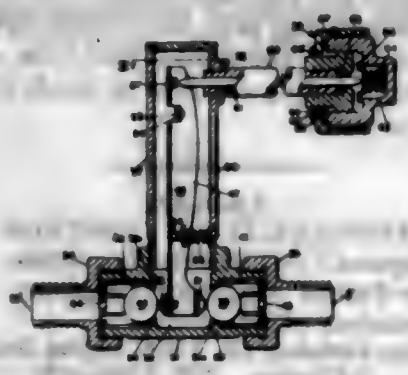
1. In a conveying and counting mechanism for packaged commodities, in combination with a moving conveyor having a driving unit, a counting mechanism comprising a pair of rigid rails aligned with a section of said conveyor and adjustable with respect to each other transversely of said conveyor, an angular guide on each of said rails directed oppositely from the movement of said conveyor, one of said rails having a right angular portion opposite its guide member defining an offset in the conveyor, an arm pivoted at one end to the opposing rail near the guide thereon and extending along said rail in the direction of movement of said conveyor and inclined inwardly at its free end, a roller on the free end of said arm, a spring tensioning said arm inwardly and having an adjustment, and a counting device arranged opposite said arm at the end of the opposing rail engageable by a package contacting said roller.

2,844,319

THERMOSTATIC VALVE STRUCTURES

William L. McGrath, Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware

Application December 10, 1954, Serial No. 474,315
14 Claims. (Cl. 236—1)



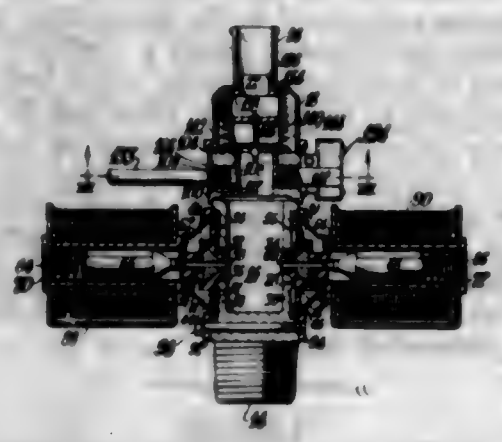
3. In a valve structure, the combination of a housing having an inlet therein and an outlet therein, said housing having a passage therethrough connecting the inlet and the outlet, said passage having two ports therein, valve members cooperating with the ports to close one of the ports responsive to the direction of flow of medium entering the passage, a lever in said housing adapted to engage the valve member closing a port, means to move an end of said lever in an arcuate direction to urge the port closing valve member toward an open position to regulate flow of medium through the passage whereby, under one set of operating conditions, said means, in response to an increase in temperature in an area being treated, urges said lever to actuate the valve member closing a port to increase flow of medium through the passage while, under a second set of operating conditions, said means, in response to an increase in temperature in an area being treated, urges the lever to actuate the second valve member to decrease flow of medium through the passage, guide members in said passage guiding movement of said valve members toward and from the ports and stop members in said passage to prevent movement beyond a predetermined point of the valve members toward the inlet and outlet.

2,844,320

DEVICE FOR PROPORTIONING DIFFERENT TEMPERATURE FLUIDS

Paul E. Cate, Knoxville, Tenn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application September 2, 1955, Serial No. 532,256
4 Claims. (Cl. 236—12)



1. A device for proportioning different temperature fluids comprising a valve body having a pair of inlet passages for different temperature fluids, a pair of valve means in said body for controlling said passages respectively, electrically operable means for operating said valve means, a substantially cylindrical hollow projection on said body communicating with said inlet passages and

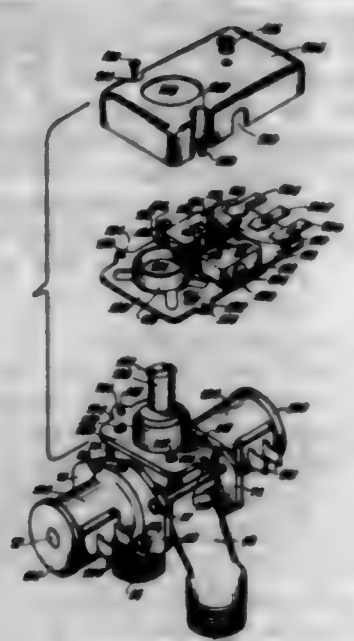
forming an outlet therefor, a substantially cylindrical bimetal element extending around said projection and subject to the temperature of the fluid in said outlet, said element having a relatively stationary end and a free end movable in response to temperature variations in the outlet fluid, switch means operably associated with said free end for operation thereby, and circuit connections between said switch means and said electrically operable means effective for causing alternative operation of said valve means for proportioning the flow of fluids from said inlet passages to said outlet.

2,844,321

PROPORTIONATE FLOW CONTROL DEVICE

Jack Witherspoon, Jr., Knoxville, Tenn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application October 16, 1956, Serial No. 616,167
4 Claims. (Cl. 236—12)



1. A device for proportioning different temperature fluids comprising a valve body having a pair of inlet passages for different temperature fluids, a pair of valve means in said body for controlling said passages respectively, electrically operable means for operating said valve means, a substantially cylindrical hollow projection on said body communicating with said inlet passages and forming an outlet therefor, support means carried on said body and apertured to receive said projection, a substantially cylindrical bimetal element extending around said projection and subject to the temperature of the fluid in said outlet, said element having a relatively stationary end secured to said support means and a free end movable in response to temperature variations in the outlet fluid, a pair of switch means mounted on said support means and operably associated with said free end for alternative operation thereby, and circuit connections between said switch means and said electrically operable means effective for causing alternative operation of said valve means for proportioning the flow of fluids from said inlet passages to said outlet.

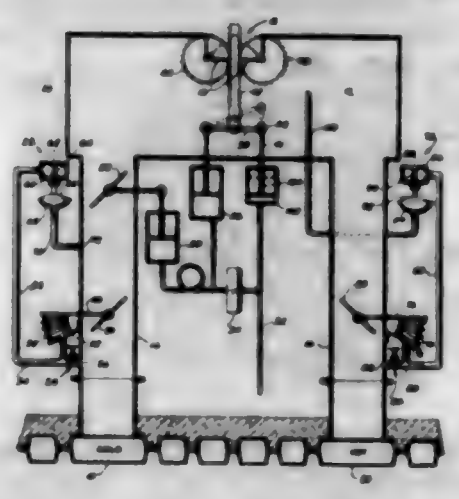
2,844,322

AIR DISCHARGE OUTLET UNIT

Glenn E. Krutz, Sewickley, Pa., assignor to H. H. Robertson Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application May 24, 1957, Serial No. 661,388
9 Claims. (Cl. 236—13)

1. In a dual duct air conditioning system, an air discharge outlet unit having a mixing chamber, a discharge outlet, and dual inlet stacks adapted for connection to dual air supply ducts, a thermostatically controlled damper in one of said stacks responsive to room temperature, a pressure reduction inlet damper in the second inlet stack responsive to the prevailing pressure in said mixing chamber, and a thermostatically controlled damper in said discharge outlet also responsive to room temperature,



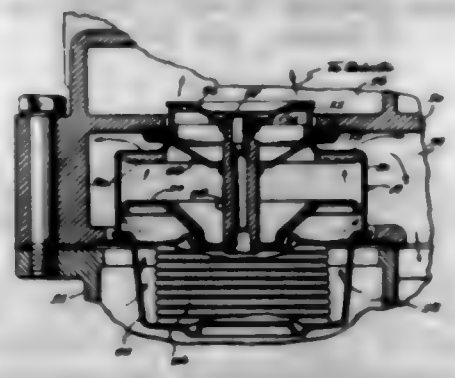
the movement of said discharge outlet damper being correlated to the movement of said inlet dampers and proportionate to the prevailing pressure in said mixing chamber to provide a substantially constant discharge velocity of conditioned air from said outlet under varying conditions of pressure of air being supplied from said inlet stacks.

2,844,323

THERMOSTAT FOR ENGINE COOLING SYSTEMS

William A. Engstrom, Muskegon, Mich., assignor to Continental Motors Corporation, Muskegon, Mich., a corporation of Virginia

Application March 15, 1952, Serial No. 276,844
3 Claims. (Cl. 236—34.5)

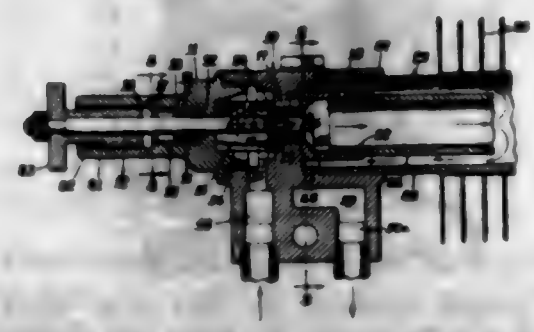


1. In a liquid cooled internal combustion engine having a cooling system and a radiator connected with said engine cooling system, a thermostat supported in said engine cooling system and comprising a thermally responsive expansible bellows immersed in the water in said engine cooling system, a casing having hot water outlet means connected with the radiator, and valve means connected with said thermally responsive expansible bellows and associated with said hot water outlet means and operable to open said outlet means in response to a predetermined increase in temperature of the water in said engine cooling system, said valve means provided with a cylindrical flange extending into and disposed concentrically with respect to said pipe and having a predetermined axial length to provide and maintain a constant fixed small opening for a relatively small range of water temperature rise substantially immediately subsequent to the initial opening of said valve means and operable when said flange moves out of said hot water outlet to rapidly and progressively open in response to further temperature rise of the coolant in said engine cooling system.

2,844,324
RADIATOR INLET VALVE

Elwood H. Stenich, Chicago, and Edward B. Moore, La Grange Park, Ill., assignors to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware

Application June 27, 1952, Serial No. 295,987
2 Claims. (Cl. 237—73)

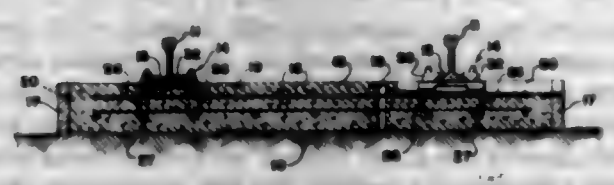


1. In combination with a steam heated radiator having a steam inlet end and a condensate discharge end arranged in close relation to each other, a valve structure including a housing provided with portions defining steam delivery and condensate discharge passages attached to the inlet and discharge ends, respectively, of said steam heated radiator, a valve for controlling the delivery of steam to the radiator in quantities to produce condensation therein, and a flow restricting plug removably positioned in said discharge passage and provided with a continuously open discharge orifice therein of relatively small size whereby condensate collects adjacent the orifice to prevent the discharge of steam; a wall of the said discharge passage and the flow restricting plug being positioned in contiguous heat transfer relation to a wall of said steam delivery passage, whereby the heat from the steam in said delivery passage is transmitted through the said valve housing to the said plug and to the condensate in the discharge passage so as to prevent freezing of the latter in cold weather.

2,844,325
RAILWAY TRACK CONSTRUCTION

Carl Weber, New York, N. Y., and Kenneth L. Henson, Rochelle Park, N. J., assignors, by mesne assignments, to Carl Weber, New York, N. Y.

Application January 13, 1955, Serial No. 481,585
4 Claims. (Cl. 238—7)

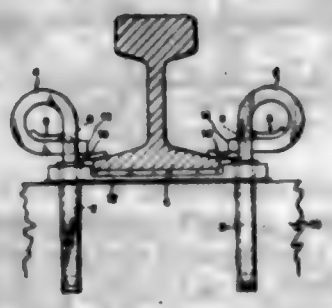


1. A railway track comprising a rail-supporting slab of concrete having reinforcing elements embedded therein, rails laid on and supported by said slab, rail chairs comprising metallic plates embedded in said slab with their upper surfaces substantially flush with the upper surface of the slab, said rail chairs being disposed beneath the rails and at intervals along the length of each rail with the end portions of each chair plate projecting substantially beyond each side edge of the overlying rail base, each projecting end portion of each chair plate being provided with a housing forming an enclosure about the undersurface thereof and further having an aperture extending therethrough into said enclosure, said rail chairs being securely attached to the concrete reinforcing elements, and fastening means extending through said apertures and engaging the projecting end portions of the chair plates within said enclosures and securing said rails to said chair plates.

2,844,326
RESILIENT RAIL SPIKE WITH A RESILIENT CLIP

Josephus A. C. van der Weyden, Helmond, Netherlands, assignor to Everts & van der Weyden N. V., Helmond, Netherlands, a limited liability company of the Netherlands

Application December 21, 1954, Serial No. 476,772
Claims priority, application Netherlands January 21, 1954
2 Claims. (Cl. 238—349)

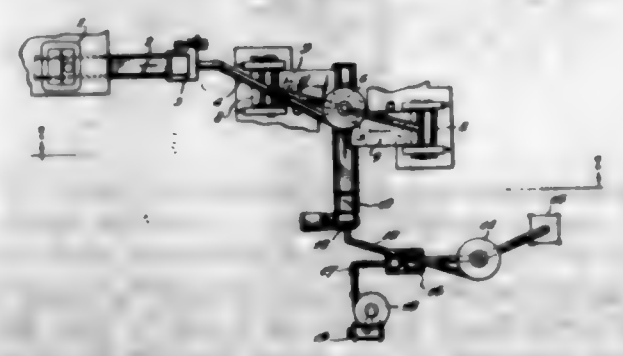


1. A rail fastening device comprising a spike; said spike including two legs, a bridge piece and helicoidal windings connecting the legs with the bridge piece; and a substantially T-shaped clip comprising a cross member supportable within the helicoidal windings and an offset member coupled to said cross member and supportable against the bridge piece of said spike.

2,844,327
PROCESS FOR PREPARING A MOLDABLE COMPOSITION

Richard M. Bateman, Berkley, and Norman E. Hollis, Westchester, Ill., assignors to The Richardson Company, Melrose Park, Ill., a corporation of Ohio

Application March 12, 1954, Serial No. 415,872
11 Claims. (Cl. 241—3)



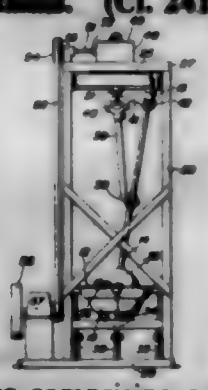
1. A process for preparing a moldable heat-curable composition having a controlled heat history including initially mixing the ingredients comprising the composition at a gradually increasing temperature which approaches but is maintained below the critical temperature of said composition to form a homogeneous mass, comminuting said mass immediately after mixing to a predetermined particle size, immediately cooling said comminuted mass, subjecting said cooled comminuted mass to a working and shearing operation at an elevated temperature but below the critical temperature of said composition whereby the ingredients of the composition are further dispersed and intimately mixed and formed into a shaped plastic mass having an elevated temperature, comminuting said plastic mass to a predetermined particle size immediately after said working and shearing operation and immediately cooling the particles to remove the heat acquired during said working and shearing operation, whereby substantially all of the heat history of said composition is acquired during the initial mixing and the working and shearing operation.

2,844,328
FLAPPER MILL FOR GRINDING SUSPENSIONS OF VERMICULITE
Benjamin H. Rouse, Le Roy, Kans.; Ruth M. Rouse, administratrix of said Benjamin H. Rouse, deceased, assignor of one-half to O. G. Rouse, Russell, Kans.
Application May 22, 1956, Serial No. 586,427
3 Claims. (Cl. 241—46)



1. A flapper mill comprising a drum having a cylindrical inner surface, a shaft rotatably mounted in said drum, means for rotating said shaft, a plurality of arms secured to said shaft in a helical spiral and extending approximately radially from said shaft, means at the ends of said arms for propelling the material toward one end of said drum, said arms comprising a flat elongate plate with the radial centerline of said plate approximately normal to the axis of rotation of said shaft, said plate being severely twisted by approximately 180°, the axis of the twist being the radial centerline of said flat elongate plate thereby providing the arms with double cupped parts, the forward surfaces of which apply force components on the material in both a radial outward and longitudinal direction relative to said axis of rotation.

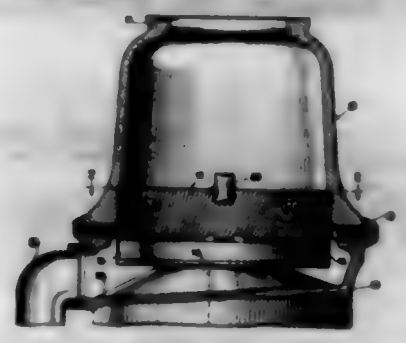
2,844,329
CRUSHER AND GRINDING MACHINE
John B. Doty, San Francisco, Calif.
Application December 8, 1955, Serial No. 551,773
5 Claims. (Cl. 241—199)



1. An ore crusher comprising a frame, a mortar positioned in the lower part of the frame, a gear housing rotatably mounted in the upper part of the frame, a second thrust bearing positioned between the upper surface of the gear housing and upper part of the frame, a shaft mounted in an inclined position with the lower end extended into the mortar and the upper end rotatably mounted by a first thrust bearing in the gear housing, the mounting of the shaft in the gear housing being spaced from the axis of the rotary mounting of the housing in the frame, a pestle carried by the lower end of the shaft and positioned to coact with the mortar, and means for rotating the gear housing and shaft on which the pestle is carried.

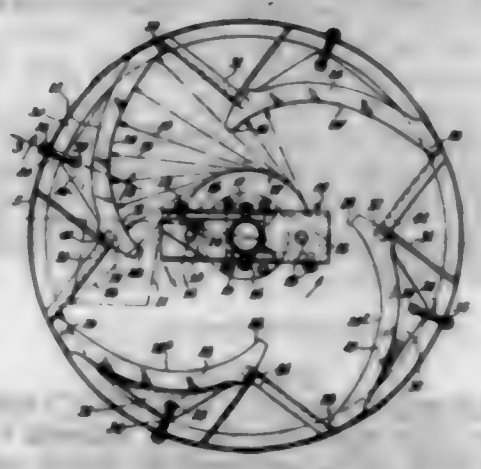
2,844,330
GARBAGE DISPOSAL APPARATUS
Joseph P. Lanfear, Jackson Heights, N. Y., assignor of fifty percent to Edward F. Leary, Washington, D. C., and fifty percent to Drainall Corporation, New York, N. Y.
Application November 26, 1954, Serial No. 471,420
4 Claims. (Cl. 241—257)

1. In a grinder, a motor-driven rotor comprising a generally disc-like member mounted to rotate about a generally vertical axis and provided on its periphery with a circular series of saw teeth, the upper surface of said rotor being formed with vane means, a stator having a circular series of tooth-like elements in opposed closely-spaced relation to the saw teeth for cooperating therewith to grind material resting on the rotor and which is urged



to rotate around therewith by said vane while being thrown centrifugally against the tooth-like elements, and means for yieldably holding said vane means in normal exposed position protruding above the rotor surface but permitting same to be depressed to inactive position when material jams between the vane means and the stator.

2,844,331
IMPACT CRUSHER
Charles A. Adams, Wurtsboro, N. Y.
Application December 17, 1953, Serial No. 398,775
7 Claims. (Cl. 241—275)

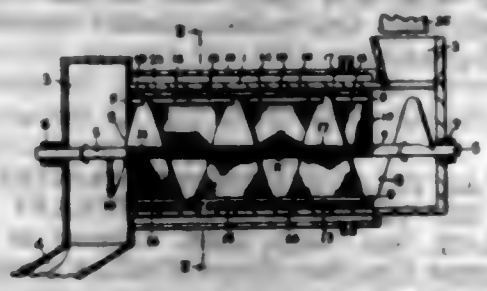


4. In an impact crusher, a housing, a centrifugal impeller mounted for rotation in said housing, an inlet to said impeller, a plurality of impact plates in said housing, each said impact plate comprising a generally arc shaped plate member, said generally arc shaped plate member being tipped in said housing so as to position one end adjcent said housing and the other end adjacent said impeller, each said impact plate member when in said position having its front impact surface formed and positioned substantially normal to the trajectories of particles thrown centrifugally against it by said impeller, abutment means formed on the inside of said housing to abut said rear side of said generally arc shaped plate means to sustain the same in the position aforesaid, and means for drawing said arc shaped impact plate members on to said abutment means.

2,844,331
SHREDDING MACHINES
Arthur Henry Girbow, Bell Green, Coventry, England, assignor to Courtaulds Limited, London, England, a British company
Application January 18, 1955, Serial No. 482,617
Claims priority, application Great Britain February 24, 1954
4 Claims. (Cl. 241—276)

1. A drum shredder for shredding alkali cellulose comprising a horizontal drum, fixed four-sided pyramidal teeth lining the inner surface of the drum, an inlet at

one end of the drum, an outlet at the other end of the drum, a screw mounted for rotation within the drum for conveying alkali cellulose from the inlet to the outlet, at least one toothed bar mounted on the periphery of the screw adjacent the fixed four-sided pyramidal teeth and parallel with the axis of rotation of the screw, the

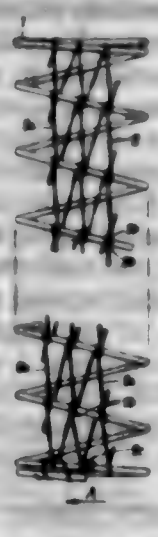


toothed bar being provided with saw-toothed ridges adjacent the inlet for chopping the alkali cellulose conveyed by the screw into coarse pieces against the fixed pyramidal teeth and adjacent the outlet with pyramidal teeth for tearing and opening the coarse pieces of alkali cellulose against the fixed pyramidal teeth.

2,844,333
RESILIENT BOBBIN

Eric Brown Davidson, London, England, assignor to Davidson Springs Limited, London, England, a British company

Application September 20, 1955, Serial No. 535,437
Claims priority, application Great Britain September 21, 1954
2 Claims. (Cl. 242—118.11)



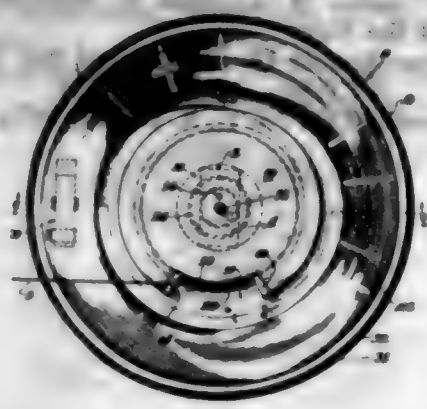
1. A skeleton core structure comprising a radially expanded helical spring, and a length of wire laced progressively in substantially equally spaced turns around adjoining coils of the spring from one end of the latter to the other, said turns being spaced to maintain the spring in a partially expanded condition by abutment of adjacent turns, the spacing of adjacent turns permitting a determinable radial expansion of the spring.

2,844,334
STRAP DISPENSER

Robert C. Luth, Chicago, Ill., assignor to Signode Steel Strapping Company, Chicago, Ill., a corporation of Delaware

Application May 4, 1955, Serial No. 505,945
11 Claims. (Cl. 242—128)

1. A strap dispenser including in combination means supported for rotation and adapted to support a mill wound coil of strap with its axis generally parallel to the axis of rotation of said means, means supported by and rotatable with said coil supporting means and about which a coil of ribbon wound strap may be formed which also is adapted to be supported by said coil supporting means, the withdrawal of strap from the center of said ribbon wound coil rotating said coil supporting means when the friction between the ribbon wound coil and

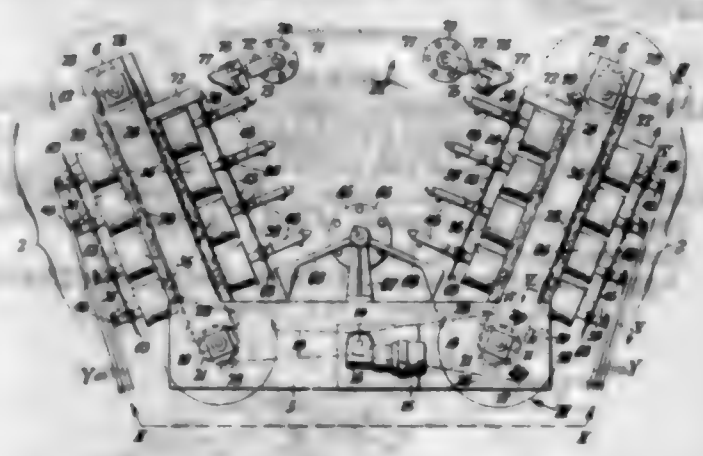


said coil supporting means and said last named means is sufficient to overcome the forces resisting rotation of said coil supporting means and the coils.

2,844,335
CREEL

William L. Freese, Gastonia, N. C., assignor to Cocker Machine & Foundry Company, Gastonia, N. C., a corporation of North Carolina

Application May 25, 1955, Serial No. 511,044
9 Claims. (Cl. 242—131.1)



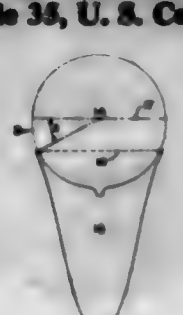
1. In a creel, a framework with two straight-away upright wings disposed in angular relation to each other; vertical shafts journalled in opposite ends of the respective wings and having wheels respectively secured to them adjacent their upper and lower ends; endless carriers connecting corresponding pairs of the wheels of the wings; sets of laterally-spaced vertical bars extending at intervals between the straight runs of the carriers at the inner and outer sides of the respective wings; yarn package holders vertically spaced on the bars of the two sets; yarn guides supported by the individual bars respectively adjacent the yarn package holders thereon, said guides being individually movable from an operative position to a retracted position to facilitate threading of the yarns through them; means for simultaneously actuating the carriers of the two wings to bring the groups of yarn packages and the associated yarn guides at the outer sides of the wings, after the yarn supply on the packages is substantially depleted, to the innersides of the wings for replacement by fresh packages; automatic means for incidentally moving the guides associated with the groups of substantially depleted packages to threading position in preparation for threading of the yarns of the new packages; and means automatically operative as the groups of new yarn packages are progressed from the inner sides of the two wings by another actuation of the carriers, to restore the associated yarn guides to operative position.

2,844,336

FAST RISING BALLOON

Henry J. Masteubrook, Falls Church, Va., assignor to the United States of America as represented by the Secretary of the Navy

Application August 15, 1955, Serial No. 528,565
1 Claim. (Cl. 244—31)
(Granted under Title 35, U. S. Code (1952), sec. 266)



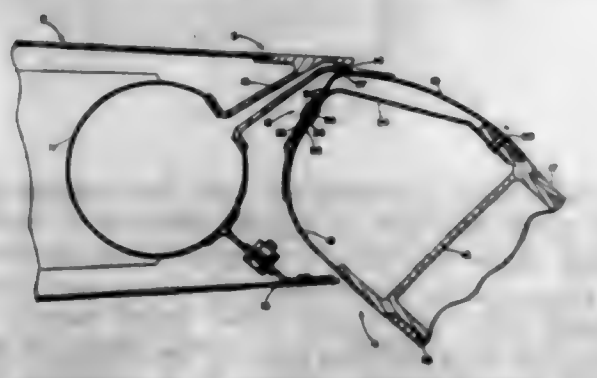
A fast rising high altitude balloon comprising a gas-tight spherical balloon made of extensible material, an inverted conical skirt of extensible material circumferentially attached to said spherical balloon along a minor circle located a distance from a parallel major circle of said spherical balloon which corresponds to a length of arc between said circles required to subtend an angle of from about 30 to 60 degrees, said angle of attachment providing a stabilizing couple which maintains stability during ascent, and said spherical balloon and said conical skirt being unrestrained in their natural ability to extend during ascent.

2,844,337

AIRCRAFT CONTROL ARRANGEMENT INCORPORATING DEFLECTABLE SURFACE AND BOUNDARY LAYER CONTROL JETS

Robert B. MacArthur, Los Angeles, and Dwight F. Swearingen, Hawthorne, Calif., assignors to North American Aviation, Inc.

Application November 23, 1956, Serial No. 623,910
5 Claims. (Cl. 244—42)



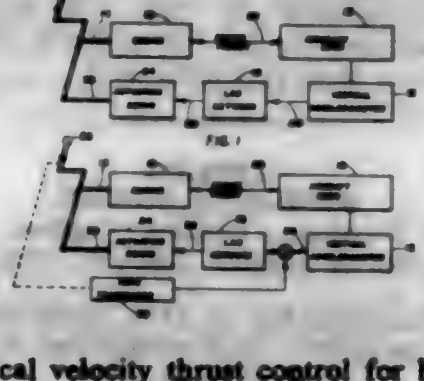
1. In combination, a primary airfoil having a rearwardly opening recess within its trailing edge defined by upper and lower fixed trailing edge portions, a movable control surface member having spaced upper and lower surfaces and having its leading edge mounted for pivotation within said recess, said control surface member having its leading edge comprised of rigid upper and lower connecting skin members and forming a load sustaining auxiliary airfoil, a deflectable sheet metal panel having its rearward end rigidly attached to said control surface member on its upper surface and extending forwardly and downwardly around said upper skin member in spaced relation therefrom to form a predeterminately positioned aerodynamically efficient surface contour for both undeflected and deflected positions of said control member as it is pivoted relative to said primary airfoil, said panel having its forward end slidably secured to the leading edge of said control surface member for limited movement relative thereto whereby said panel may be deflected downwardly relative to said rigid upper skin member, the upper fixed trailing edge portion of said primary airfoil including an abutment portion projecting over said deflectable panel and engageable thereby upon pivotal movement of said control surface member to thereby deflect said panel and effect a seal between said abutment portion and said deflectable panel, said abutment portion being provided with discharge nozzles therein aligned to discharge substantially rearwardly across said deflectable panel and substantially tangentially thereto when said control surface member is in a deflected position.

2,844,338

VERTICAL VELOCITY THRUST CONTROL FOR HOVERING V. T. O. AIRCRAFT

Ivan W. Keith, San Diego, Calif., assignor to The Ryan Aeronautical Co., San Diego, Calif., a corporation of California

Application January 3, 1956, Serial No. 557,879
3 Claims. (Cl. 244—77)



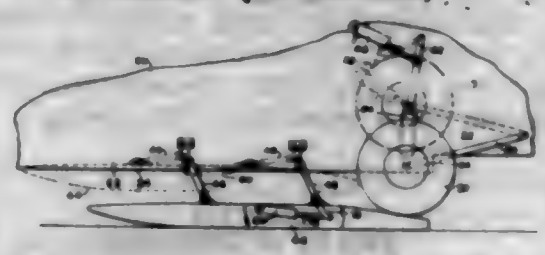
1. A vertical velocity thrust control for hovering vertical take-off and landing aircraft comprising: a throttle, sensitive vertical acceleration sensing means; said sensing means comprising a vertical accelerometer producing an electrical signal proportionate to the acceleration; automatic throttle positioning means operably connecting said first mentioned means and said throttle; said throttle positioning means comprising a servomechanism controlled by the electrical signal from the said vertical accelerometer; signal delay means operably interposed between said first mentioned means and said second mentioned means; and means to render said second mentioned means inoperative during motion of the throttle control lever; said signal delay means comprising a network capable of receiving said acceleration signal and producing a velocity signal; said velocity signal being directed to said throttle positioning means.

2,844,339

AIRCRAFT LANDING GEAR

Oleg Stroukoff, Trenton, N. J.

Application March 1, 1954, Serial No. 413,136
5 Claims. (Cl. 244—102)



5. In an aircraft having a tricycle landing gear comprising a retractable nose wheel and a pair of retractable main wheels disposed aft and spaced laterally of the aircraft center of gravity, the combination of a pair of skis disposed generally forward of the main wheels and aligned longitudinally therewith; parallel linkage strut means pivotally connected to fore and aft portions of said skis and to the aircraft, and mounting said skis on the aircraft for downward, rearward, and upward swinging movement of said skis from a retracted to an extended position, wherein said strut means are inclined downwardly and rearwardly, said parallel linkage strut

means being so connected to the aircraft and so proportioned that when said skis are in their said extended position, aft portions of said skis engage beneath the main wheels when the latter are in their extended position, to thereby limit further rearward and upward movement of said skis, said skis when in their extended position and engaged with the main wheels also being disposed so as to stably support the entire weight of the aircraft independently of the nose wheel; and power-operated means connected to said strut means for effecting said swinging movement of the skis.

2,844,340

WEIGHT ACTUATED ARRESTING CABLE CONTROL MEANS FOR AIRCRAFT

Charles J. Daniels and Donald R. Doolittle, Wilmington, Del., assignors to All American Engineering Company, Wilmington, Del., a corporation of Delaware

Application October 16, 1956, Serial No. 616,329
9 Claims. (Cl. 244—110)



1. In combination with a runway and an aircraft having a landing gear provided with an arresting cable engaging hook pivotally secured thereto, a hook engageable arresting cable loosely disposed transversely of said runway, and elongated deformable resilient means disposed between said runway and said cable and extending transversely of the runway in continuous supporting relation to the cable, whereby upon said landing gear passing over said cable and said deformable resilient means, the latter is initially distorted and immediately thereafter resumes its undistorted form with a resulting reaction thereof and an upward catapulting of said cable into the path of said hook.

2,844,341

FOOD CHOPPER SUPPORT

Paul I. Kircher, Plainville, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a corporation of Connecticut

Application April 22, 1954, Serial No. 424,807
3 Claims. (Cl. 248—1)



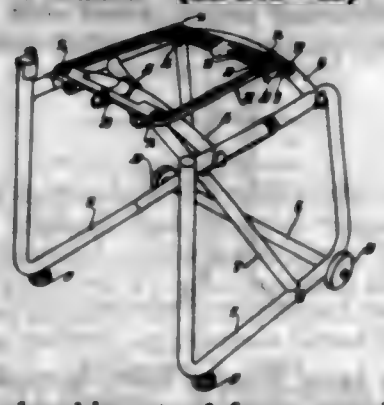
1. A support for a food chopper of the type wherein the chopper has a manually rotatable crank for the operation thereof comprising an elongated base member longitudinally extending at right angles to the axis of the crank, retractable stop means pivotally mounted adjacent a long side of said base member for movement about an axis parallel with said long side between a first position beneath the base member and a second position depending downwardly from said base member spaced outwardly from said long side, said stop means having a surface which extends normal to the bottom of said base member and faces inwardly of said base member when the stop means is in said second position for engagement with the edge of a table and the like.

2,844,342

MACHINE STAND WITH FLOATING TOP

Walter A. Anderson, Trumbull, Conn., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware

Application December 29, 1953, Serial No. 400,999
5 Claims. (Cl. 248—13)



5. A shock absorbing stand for supporting a business or the like machine having reciprocating parts, said stand comprising a base, a unitary machine receiving section, pivotal means on said base to support the front edge of said receiving section, a channel member and a pair of spaced rollers therein to support the rear of said section for horizontal movement about said pivotal means, said rollers rotatable on axes whose center lines pass through said pivotal means on said base and adjustable resilient means connected between said base and said section to dampen movement of said section relative to said base.

2,844,343

FLATIRON SAFETY STAND

Harold M. Bergner, Bronx, N. Y.

Application November 17, 1954, Serial No. 469,474
1 Claim. (Cl. 248—117.2)



A safety flatiron stand comprising upper and lower plates having in general the shape of the outline of a flatiron having a heel and a toe, said upper plate having a plurality of drip openings, the upper plate being provided with a plurality of small openings disposed inwardly the outline thereof and uniformly spaced therefrom, a plurality of peg members passing through said lower plate inwardly the outline thereof and extending upwardly through the openings in said upper plate, rounded stop members on the upper ends of said peg members, a collar on each peg member to secure the latter in the lower plate, and helical spring members disposed about at least two peg members adjacent the portion of the stand adapted to receive the heel of an iron and about at least one peg adjacent the portion of the stand adapted to receive the toe of the iron, said helical springs urging the unloaded upper member upwardly against said rounded stop members, when said upper plate is unloaded and compressible when a flat iron is on said upper plate.

2,844,344

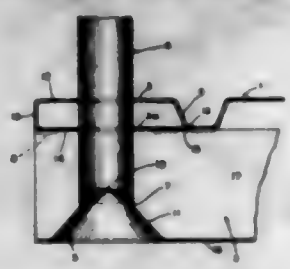
TIERING PALLET CONSTRUCTION

Joseph C. Streb and George B. Bole, Canton, Ohio, assignors to The Union Metal Manufacturing Company, Canton, Ohio, a corporation of Ohio

Application September 22, 1953, Serial No. 381,606
1 Claim. (Cl. 248—120)

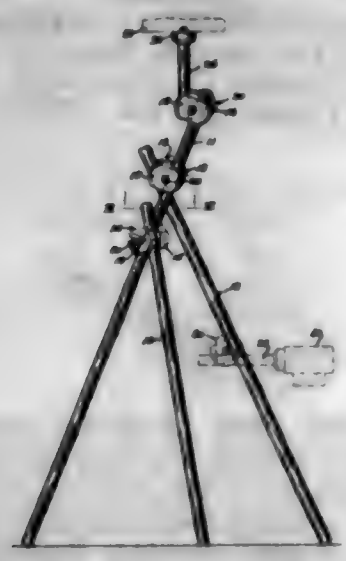
In a tiering pallet, a rectangular, corrugated sheet metal platform portion provided at two opposite edges

with downwardly extending support members, the support members being channel-shaped and having a base portion and upstanding leg portions, said channel-shaped support members extending the entire length of said two opposite platform edges and transversely of the corrugations, said platform also being provided at its two opposite ends with downturned and inturned edge portions with the inturned edge portions being spaced from the platform



portions, there being aligned holes formed at each platform corner in the platform and inturned edge portion thereof, there being a straight sided arcuate top conically shaped dimple formed in the support member base portion at each pallet corner in alignment with and extending upwardly toward said holes, and said upstanding channel leg portions protecting said dimples from injury when the pallet is handled by lifting means.

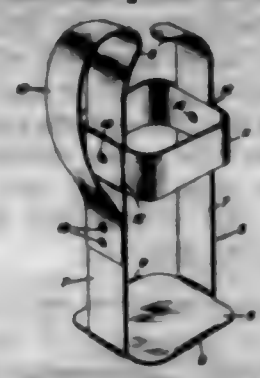
2,844,345
TRIPODS AND CLAMPS THEREFOR
Harley B. Sherman, Gainesville, Fla.
Application March 10, 1955, Serial No. 493,500
2 Claims. (Cl. 248—122)



1. A tripod for adjustably supporting a camera, comprising three one-piece legs, a separate individual leg clamp detachably carried by each of two legs for precision independent longitudinal adjustment of said two legs upon the third leg, said leg clamps being adjustably attached to said third leg at spaced positions thereon, an attachment arm, means for securing a camera to said arm, and a separate clamp substantially similar to said leg clamps detachably carried by said arm for detachably securing said arm to a selected leg.

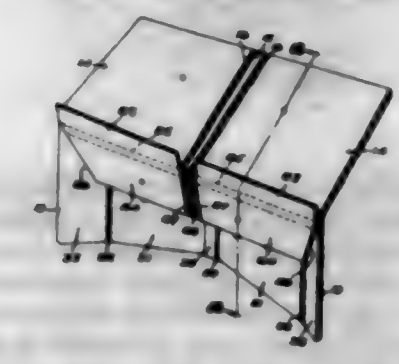
2,844,346
BOTTLE HOLDER
David A. Six, Lafayette, La.
Application November 16, 1955, Serial No. 547,096
1 Claim. (Cl. 248—141)

A bottle holder comprising a substantially U-shaped frame including a base engageable beneath a bottle and further including a pair of spaced, opposed, upstanding resilient arms for receiving the bottle therebetween, said arms comprising outwardly extending, substantially U-shaped intermediate portions and terminating in inwardly curved upper end portions yieldingly engageable with the upper portion of the bottle, and a substantially square band, for the reception of the bottle, pivotally mounted for rotation in a vertical plane in said substantially U-



shaped intermediate portions of said arms and adapted to seat transversely therein for frictional retention thereby when in operative position.

2,844,347
PORTABLE LECTERN OR THE LIKE
Glenn C. Henry, Otisfield, Maine
Application November 18, 1954, Serial No. 469,664
3 Claims. (Cl. 248—198)

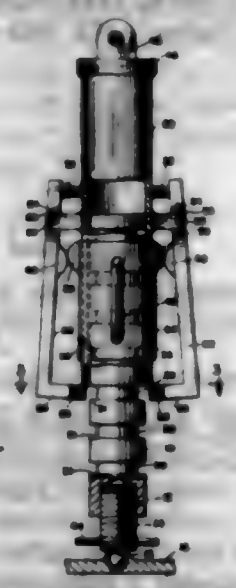


1. A portable lectern and the like comprising a pair of hinged covers, a pair of supports each hinged to a respective one of said covers at an angle to the hinge axis of the covers, said supports also being hinged together with the axis thereof disposed with reference to said other axes to open and close in response to the opening and closing of said covers, and ledge means hinged to said supports for movement into a ledge defining angular relation thereto and including portions then engaging said covers as braces, and elastic members connecting said ledge means to the support to which it is hinged and operable to yieldably urge said ledge means into said angular relation once their movement has been initiated.

2,844,348
ADJUSTABLE SUPPORT
Thomas H. Jordan, Chicago, Ill.
Application November 8, 1955, Serial No. 545,658
2 Claims. (Cl. 248—354)

1. A supporting apparatus comprising a tube having an open end, a cylindrical plunger telescopically arranged within said tube and extensible from the open end thereof, said plunger having a plurality of longitudinally spaced peripheral grooves defined by annular axially facing shoulders, means mounted on said tube for transmitting loads from said tube to said plunger substantially throughout the area of a selected shoulder, said means comprising a pair of longitudinally extending levers pivotally mounted on opposite sides of said tube and extending to the open end thereof, a foot section on each of said levers projecting toward said plunger, a semi-circular locking shoe on each of said foot sections opening toward said plunger, said locking shoes being in a common plane and together forming a split ring selectively engageable in said grooves to rest on the respective one of said shoulders, said shoes being of a width to engage the open end of said tube when seated in one of said grooves, means on

said levers to allow limited movement of said foot sections axially of said tube and cause said shoes to bear against the end of the tube when under load, and means for locking said shoes in said grooves comprising a sleeve



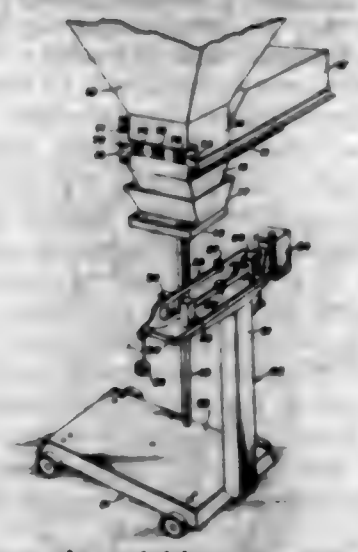
slidably mounted on said tube and having diametrically opposed end slots for receiving said foot sections whereby the lower marginal edges of said sleeve will overlap and envelop the outer periphery of said shoes, said sleeve being slidable along said tube to release said shoes.

2,844,349

AUTOMATIC WEIGHER WITH DRIBBLE FEED CONTROL

Francis M. Hudson, Filer, Idaho, assignor to Associated Seed Growers, Inc., New Haven, Conn., a corporation of Idaho

Application July 12, 1951, Serial No. 236,349
7 Claims. (Cl. 249—63)



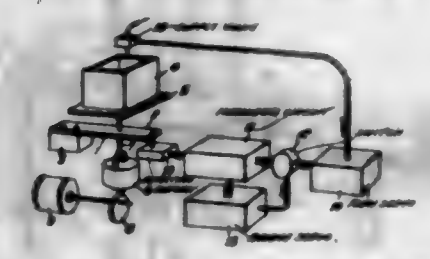
1. An automatic weighing apparatus for goods flowing by gravity into bags each bag being filled with a quantity of material having a predetermined weight, provided with a hopper having a delivery opening and a chute delivering the material into the bags to be filled, comprising a weighing scale with a platform assembly including a main and an auxiliary platform, a weighing scale beam provided with a weight counterbalancing the predetermined weight filled into each bag, weight responsive means inserted between the main platform and the auxiliary platform operated by a predetermined weight less than the full weight of the quantity of material filled into each bag, a slide between said hopper and said chute closing the delivery opening, compressed air operated means for moving said slide at high speed across the delivery opening, a movable stop arresting said slide near the end of its movement, electric control means, including a switching means operated by the weight responsive means, controlling the admission of compressed air to the compressed air operated means for moving the slide into a partially closed position, a scale beam operated control means operated by the complete balancing of the scale beam and including a photoelectric cell and a switching means operated by the same, and a further electrically controlled compressed air operated means operated by the last named switching means for removing the movable stop arresting said slide and producing complete closure of the delivery opening.

2,844,350

LIQUID WEIGHING AND DISPENSING DEVICE

Edward Hall Higham and Horace Augustus Thomas, Bebington, England, assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine

Application January 24, 1952, Serial No. 268,096
Claims priority, application Great Britain
February 2, 1951
11 Claims. (Cl. 249—63)



1. Apparatus for filling containers with a predetermined weight of material, which apparatus comprises in combination a member capable of being deformed by a load, a detecting element having an electrical parameter which is a function of the deformation, a measuring circuit responsive to said detecting element and capable of producing an electrical signal which is a function of said parameter, adjusting means responsive to said signal for adjusting at least one of the aforenamed components, namely the member, the detecting element, and the measuring circuit, by an amount which is a function of the deformation standard weight moving means for loading said member with a standard weight before measurement of the deformation and for removing the load due to the standard weight after measurement of the deformation, a flow controller, and a control device responsive to said signal for actuating the flow controller to introduce a preestablished weight of material into the container which is a function of the deformation by the standard weight.

2,844,351

FLUID FLOW CONTROL

Richard Charles Smith, Hollywood, Calif., assignor to Don Baxter, Inc., Glendale, Calif., a corporation of Nevada

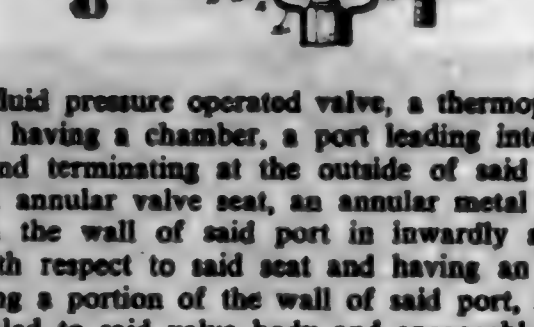
Application April 17, 1953, Serial No. 349,440
4 Claims. (Cl. 251—4)



1. In a fluid control device, including a flexible tubing, two control members each mounted for relative rotation about the longitudinal axis of the flexible tubing and each fixed to the tubing for twisting said tubing about

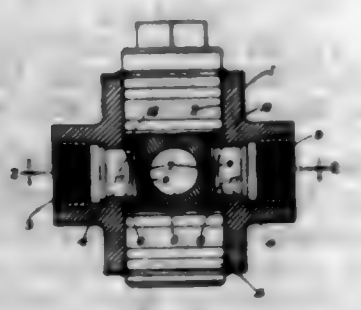
said axis for closing the passage therethrough, the tubing extending through and beyond said members, said members having contact faces, means allowing the points at which the members are fixed to the tubing to move inwardly against a longitudinal outward force when the tubing is twisted.

2,844,353
THERMOPLASTIC VALVE
Robert R. Dahl, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application December 31, 1954, Serial No. 479,046
7 Claims. (Cl. 251—48)



1. In a fluid pressure operated valve, a thermoplastic valve body having a chamber, a port leading into said chamber and terminating at the outside of said valve body in an annular valve seat, an annular metal insert recessed in the wall of said port in inwardly spaced relation with respect to said seat and having an inner wall forming a portion of the wall of said port, a diaphragm sealed to said valve body and engageable with said seat to block the passage of fluid through said port, and a metallic passageway member extending from said diaphragm for providing a close surface coacting with the inner wall of said insert upon valve closing movement.

2,844,353
SEAL FOR PLUG VALVES
Albert G. Gurries, Redwood City, Calif.
Application February 28, 1955, Serial No. 491,157
2 Claims. (Cl. 251—175)



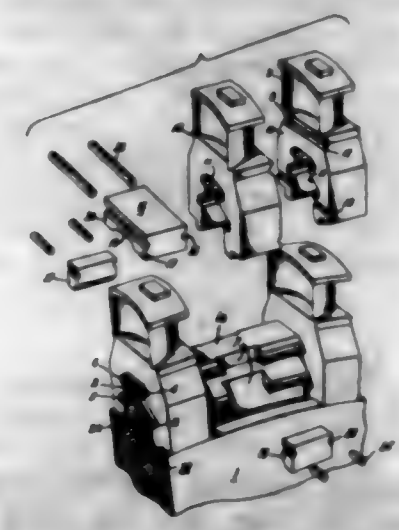
1. A seal for a plug valve, said valve including a body having a bore, and a plug turnable in the bore, the plug having a passage therethrough and the body having ports communicating with the bore in position to register with the plug passage, and one of which ports is arranged for connection to a source of pressure; the plug being formed with a cup-like socket in position to aline with said one port when the valve is closed and larger than said port, and a flexible seal-forming cup disposed in fitting relation in the socket and arranged at its outer end to pressingly engage the wall of the bore about the port, said cup including an integral solid bottom member, said bottom member being flexible and the central portion thereof being concave relative to the bottom of the socket and initially spaced therefrom.

2,844,354
ROTOR BLADE AND METHOD OF MAKING SAME
Elmer P. Warnken, Cincinnati, Ohio, assignor to Cincinnati Testing & Research Laboratories, Cincinnati, Ohio, a partnership
Application April 8, 1954, Serial No. 421,799
4 Claims. (Cl. 253—77)



4. A turbine rotor which comprises a shaft, a pair of dished molded discs mounted on said shaft, each of said molded discs being composed of thermosetting resin having therein stressed reinforcing strands of fibre glass which subject the resin of the disc to radial compression forces, each molded disc having a substantially flat central portion, a rim radially displaced from the central portion, and a sloping portion connecting the rim and the central portion, the central portions of said discs being in contacting back-to-back relation, and the rims thereof being axially spaced to form an annular groove, a ring in said groove, means for securing the ring to the rims of the discs, said ring having key slots therein, and turbine blades mounted in said key slots, the rims of the discs overlying ends of the key slots to retain the blades in the key slots.

2,844,355
TURBINE BUCKET WHEEL
Andrew W. Rankin, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application May 19, 1954, Serial No. 430,814
3 Claims. (Cl. 253—77)



1. A turbo-machine bucket-wheel assembly compriaing a disk member having an imperforate rim portion defining a circumferential dovetail, and a circumferential groove at the base of the dovetail on either side thereof, a row of buckets each having a base defining a conjugate dovetail groove adapted to engage the rim dovetail, the rim also defining at least one notch opening extending radially across the rim portion defining the dovetail through which the buckets are inserted during assembly, and means located between buckets disposed adjacent the notch opening for closing the notch opening to prevent relative movement between the disk member and the buckets, said means including a fork member having legs disposed in the notch opening, a pair of similar rectangular members disposed in the portion of the circumferential grooves in radial alignment with the notch opening.

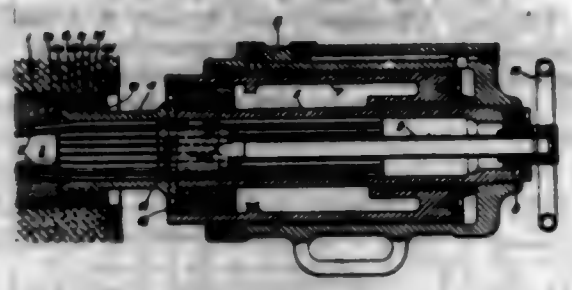
the circumferential dimension of said fork and rectangular members being substantially equal to that of the notch opening, and cooperating axially extending key means interengaging the fork and rectangular members with the buckets adjacent the notch opening to prevent radial displacement of the fork and rectangular members relative to the disk member, the cooperating key means between the fork member and the adjacent buckets being disposed at a location radially beyond the imperforate rim of the disk member.

2,844,356

HYDRAULIC JACK FOR TENSIONING REINFORCING WIRES OF PRESTRESSED CONCRETE STRUCTURES

Erwin Siegfried, Zollikofen, near Berne, Switzerland, assignor to Losinger & Co. A. G., Berne, Switzerland

Application April 2, 1956, Serial No. 575,646
Claims priority, application Switzerland April 15, 1955
1 Claim. (Cl. 254—29)



In a hydraulic jack for use in tensioning reinforcing wires of a prestressed concrete structure which wires are held fast in an anchoring head and have free end portions protruding outwardly from the head, said jack including a jacking means having a central tubular section having an end portion adapted to be passed over the end portions of the wires and subsequently secured to the anchoring head by a rotational movement of the jacking means; the improvement which comprises a bearing mounted within the central tubular section at the end remote from the said end portion, a rod rotatably mounted within the bearing and extending coaxially within the tubular section, a freely accessible handle member rigidly connected to the rod outwardly of the bearing; said handle being accessible to hold the rod against rotational movement while said end portion is being connected to the head by rotative movement of the jacking means and wing means rigidly secured to the rod and extending radially and longitudinally thereof and adapted to fit between adjacent wire end portions to restrain them from rotation during the rotative movement of the jacking means.

2,844,357

APPARATUS FOR ORIENTING TOOLS IN A BORE HOLE

Roland Ring, Houston, Tex., assignor to Sperry-Sun Well Surveying Company, Philadelphia, Pa., a corporation of Delaware

Application October 4, 1955, Serial No. 538,320
9 Claims. (Cl. 255—1.6)

1. Apparatus for orienting a tool carried by a drill stem in a bore hole comprising a magnetic element carried by the lower portion of a drill stem, an instrument arranged to pass through said drill stem and come to rest in a predetermined longitudinal position therein, pendulous means mounted within said instrument for rotation on an axis extending longitudinally of said instrument in response to inclination of said instrument, a magnet and means mounting said magnet within said instrument in the vicinity of said magnet element when said instrument has come to rest in said predetermined position, said mounting means providing for rotation of said magnet on an axis extending longitudinally of said instrument in response to said magnetic element and for movement of a portion of said magnet generally longitudinally of said instrument in response to said magnet element, one of said pendulous means and said magnet including means



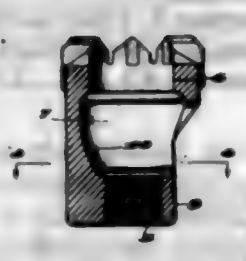
mounting a record member moveable therewith and the other mounting means for engaging the surface of a mounted record member, said record mounting means and said engaging means being positioned to provide engagement of said engaging means and a positioned record member upon longitudinal movement of said magnet in response to said magnet element.

2,844,358

PERCUSSION DRILL BIT

Carl Borje Eberman and Bengt Erik Ragnwald Lofqvist, Sandviken, Sweden, assignors to Sandvikens Jernverks Aktiebolag, Sandviken, Sweden, a corporation of Sweden

Application June 11, 1956, Serial No. 590,619
Claims priority, application Sweden August 12, 1955
7 Claims. (Cl. 255—63)



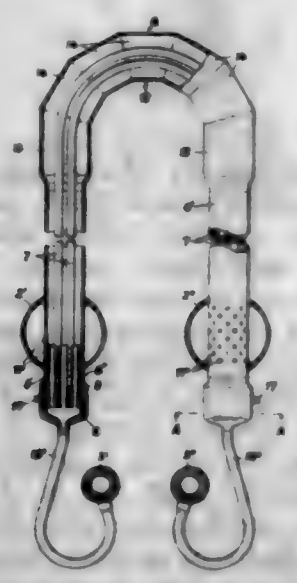
1. A percussion drill bit of the core drill type comprising a head portion and a shank portion, said head portion having an annular cutting face surrounding a circular opening, said shank portion being externally cylindrical and of smaller external diameter than the external diameter of said cutting face, said shank portion having means at the end farthest removed from said cutting face for attachment to a drill rod of smaller external diameter than the external diameter of said shank portion, said shank portion having a cylindrical cavity therein which communicates with and is of larger diameter than said circular opening, the side wall of said shank portion having a discharge opening therein the minimum dimension of which is at least equal to the inner diameter of said circular opening, the outer surface of said shank portion having a depressed area extending from said discharge opening to the end of said shank portion remote from said head portion, said depressed area being of greater width than said discharge opening, and means within said cylindrical cavity for breaking a core cut by said bit as it moves upwardly therein.

2,844,359
MEANS FOR COOLING OR HEATING OF MATERIALS
Karl Bertil Amerbod, Sandviken, Sweden, assignor to Sandvikens Jernverks Aktiebolag, Sandviken, Sweden, a corporation of Sweden
Application May 1, 1956, Serial No. 581,923
Claims priority, application Sweden May 6, 1955
5 Claims. (Cl. 257—23)



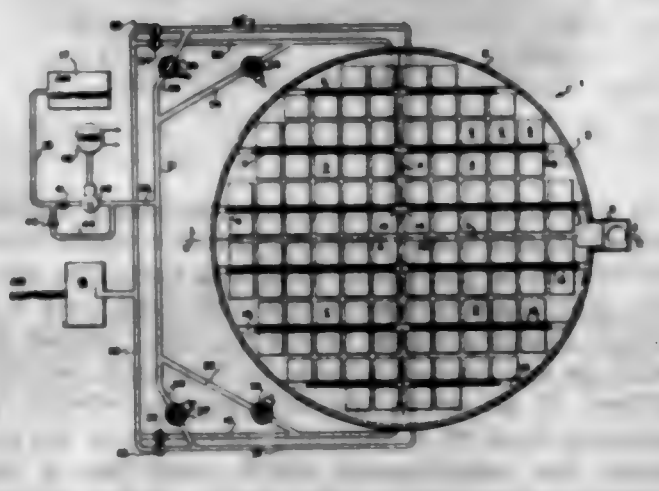
1. Means for cooling or heating a material which is supported upon a moving, thin endless conveyor belt said means including a container located below that part of the conveyor belt which carries the material and said container containing a body of heat-transfer liquid which liquid is fed to the container under positive pressure and with which body of liquid the underside of the belt is in contact, characterized in that relatively non-deformable mechanical belt-supporting means are provided substantially within the container, and characterized in that the container is associated with at least two support devices to each of which is secured a resilient barrier strip substantially parallel with the side edges of the belt and extending against the under side of the belt forming an upper side border of the container and arranged to permit a sidewise outflow of liquid between the belt and said resilient barrier strip under impression of the positive pressure of the liquid in a subtantially continuous and uniform sheet along substantially the whole length of the strip, said relatively non-deformable mechanical support means being positioned beside said strips and support devices, the uppermost parts of the relatively non-deformable mechanical support means being at substantially the same level as the upper borders of the resilient strips in loaded condition.

2,844,360
HEAT EXCHANGER
Alfred Ilari, Winterthur, Switzerland, assignor to Sulzer Freres Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application September 7, 1956, Serial No. 609,049
Claims priority, application Switzerland January 27, 1954
4 Claims. (Cl. 257—221)



1. A heat exchanger for indirectly transferring heat between fluids of different temperatures, comprising a continuous tubular shell having a hair-pin configuration and including a curved portion and two straight end portions, an inlet header connected with one of said end portions for supplying one of the heat exchanging fluids into said shell, an outlet header connected with the other of said end portions for removing the heat exchanging fluid from said shell, two tube plates individually having an annular rim extending coaxially of and being connected with the outer end of one of said end portions for closing the ends of said shell, each of said tube plates having a plurality of bores extending parallel to the longitudinal axis of said shell, a plurality of tubes placed in parallel relation inside and longitudinally of said tubular shell, the ends of said tubes being individually received in said bores, each of said tube plates having an outer face, and two covers individually having a cylindrical rim portion extending coaxially of said shell and abutting against and being connected with one of said faces, said tube plates being the only connection between said covers and said end portions, an inlet pipe connected with one of said covers for supplying the second fluid to said tubes, and an outlet pipe connected with the other of said covers for removing the second fluid from said tubes.

2,844,361
METHOD AND APPARATUS FOR BLENDING FULVERULENT MATERIAL
Harry J. Dilcher, Allentown, and Robert B. Frost, Catasauqua, Pa., assignors to Fuller Company
Application June 28, 1955, Serial No. 518,536
25 Claims. (Cl. 259—1)

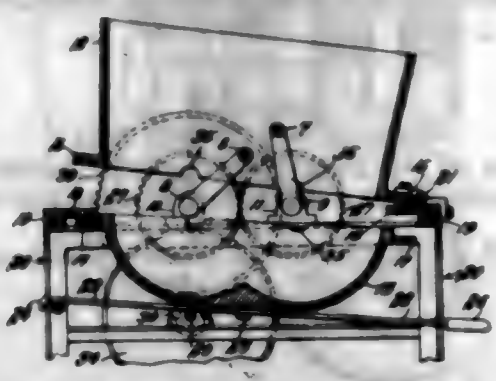


1. The method of blending fluidizable pulverulent material which comprises maintaining a body of material to be blended, separately and simultaneously disseminating a gas upwardly substantially throughout different vertical communicating sections of the body of the material, the gas disseminated into at least one section being introduced in pulses and in such volume and at such pressure as to cause a fluidization of the pulverulent material in that section, the duration of the respective periods of each pulse cycle being such that during fluidization of said one section the material therein is repeatedly buoyed up and then at least partially collapsed, the gas disseminated into a contiguous section being in such volume and at such pressure as to aerate the material in that section but not to bring it to a fluidized state, the fluidization of the material in said one section, in conjunction with the mere aeration of the material in the contiguous section causing the material to flow upwardly in said one section and to spill over into the contiguous section and the material in the contiguous section to flow into the section being fluidized.

2,844,363
DOUGH MIXING AND KNEADING MACHINE
Louis G. Lombi, West Englewood, N. J.
Application July 31, 1956, Serial No. 601,261
1 Claim. (Cl. 259—104)

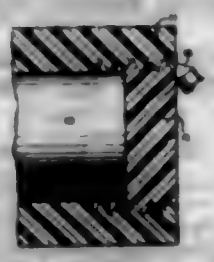
Dough mixing and kneading machine, comprising a frame having an open table top, parallel fixed bearings on said frame at opposite ends of said table top, beater shafts including beaters journalled in parallel relation

in said bearings, a hopper comprising upper and lower sections separable on a line coinciding with said table top, the upper hopper section having side flanges resting on said table top and the lower hopper section having flanges engaging the underside of said table top, fastenings extending through said flanges and portions of the table top intermediate the same securing said hopper sections in assembled but relatively separable relation independently of the beater shafts, intermeshing gears on



the outer ends of said beater shafts at the outer sides of the fixed bearings, drive gearing connected in driving relation with said interconnected beater shafts and leverage means connected with the lower hopper section for lowering or raising the same in respect to the table top and having an operating handle located at the front of the machine for effecting raising and lowering of said lower hopper section from a position at the front of the machine clear of the gearing described.

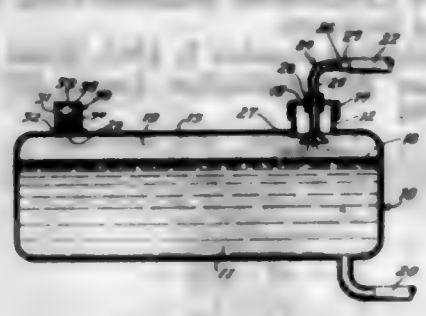
2,844,363
ANTICORROSIVE SEALED MAGNETIZED STIRRING BAR
Robert C. Clark, Arlington, Va.
Application October 4, 1955, Serial No. 538,541
2 Claims. (Cl. 259—144)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A magnetic stirring bar comprising a magnetized metallic rod element enclosed in a continuous homogeneous casing of a plastic of the polytetrafluoroethylene type, said casing having a cylindrical chamber closed by a closure plug of the same material as the walls of the cylindrical chamber in threaded engagement therewith under radial compressional contact, said plug and casing being sealed near their outer ends through a fused zone in the material of the sealed parts extending only around the outer marginal edge of the interface between the plug and casing and spaced from the rod by the intervening material of the casing and plug, whereby the magnetized rod element encased in the polytetrafluoroethylene type material is free of the deleterious effect of the high fusing temperature of the polytetrafluoroethylene type material.

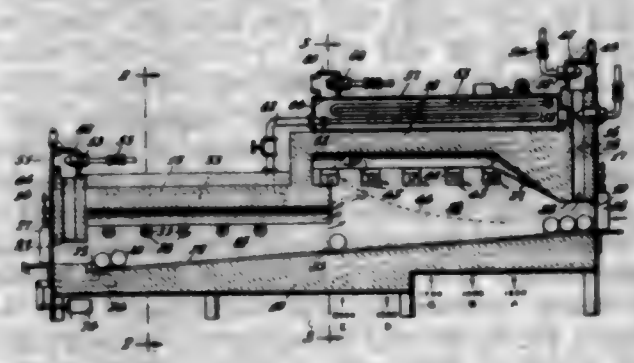
2,844,364
FUEL SUPPLY SYSTEM FOR INTERNAL COMBUSTION ENGINES
Joseph Epifanio, Sr., and Joseph Epifanio, Jr., Paulsboro, N. J.
Application October 28, 1955, Serial No. 542,624
4 Claims. (Cl. 261—119)

2. A fuel line system for an internal combustion engine and a liquid fuel-holding tank having a removable closure cap on an upper region of said tank, said system comprising a conduit having one end adapted for connection to the intake manifold of an internal combustion engine, a tube connected at one end to the other end of said conduit and passing downwards through the cap into the interior region of said tank above the fuel surface, the intake manifold vacuum serving to draw vaporized fuel from said tank inwards through said tube and conduit to



said manifold, and a normally closed spring biased one way valve located in a wall portion of said tank above said fuel surface, said valve opening in response to vacuum communicated to said tank from said intake manifold to admit air to said tank for mixture with the fuel vapor being conducted to said manifold, whereby a continuous supply of fuel vapor-air mixture is adapted to be conducted to said manifold during engine operation.

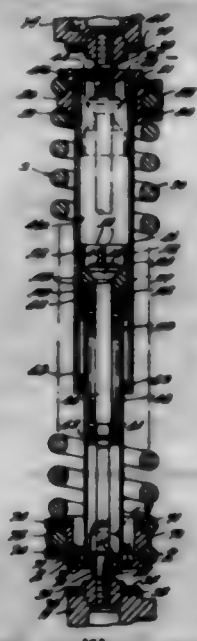
2,844,365
FURNACE FOR NEUTRAL HEATING OF METAL WITH NEUTRAL PREHEAT
Frank A. Rusciano, New York, N. Y., assignor to Metallurgical Processes Co., Newark, N. J., a corporation of New Jersey
Application April 9, 1954, Serial No. 422,013
2 Claims. (Cl. 266—5)



2. A furnace for the neutral heating of metal comprising a heating chamber having an inlet opening and an outlet opening, a hearth extending therethrough from the inlet opening to the outlet opening for the transit of work through the chamber, a stepped roof for said chamber having a low section extending from a medial point toward said outlet end and a relatively higher section extending from said medial point toward said inlet end, whereby to form a final heating zone and an initial heating zone, means for introducing heated combustion products of an air deficient mixture of fuel and air into said final heating zone, venting means for the chamber disposed adjacent the inlet opening at a level above the hearth approximately on an extension of the roof line of said final heating zone, suction producing means for said venting means whereby said combustion products will be drawn along said hearth without substantial change of direction from said final heat zone through said initial heating zone to said venting means to thereby form a protective blanket over said work, means for progressively adding supplemental air to said chamber in said initial heating zone at a level substantially above said roof line to produce progressive burning of said combustion products at the upper surface of said blanket as they pass to said venting means, a door normally clos-

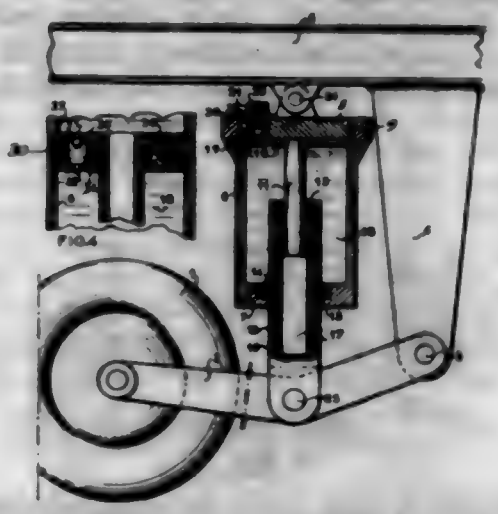
ing said outlet opening, a normally closed vent for said final heating zone disposed adjacent to said door and means for concurrently opening said door and vent.

2,844,366
SPRING SNUBBER UNIT
John P. Butterfield, Grosse Pointe Park, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Original application October 9, 1953, Serial No. 385,249. Divided and this application August 18, 1954, Serial No. 450,766
2 Claims. (Cl. 267—1)



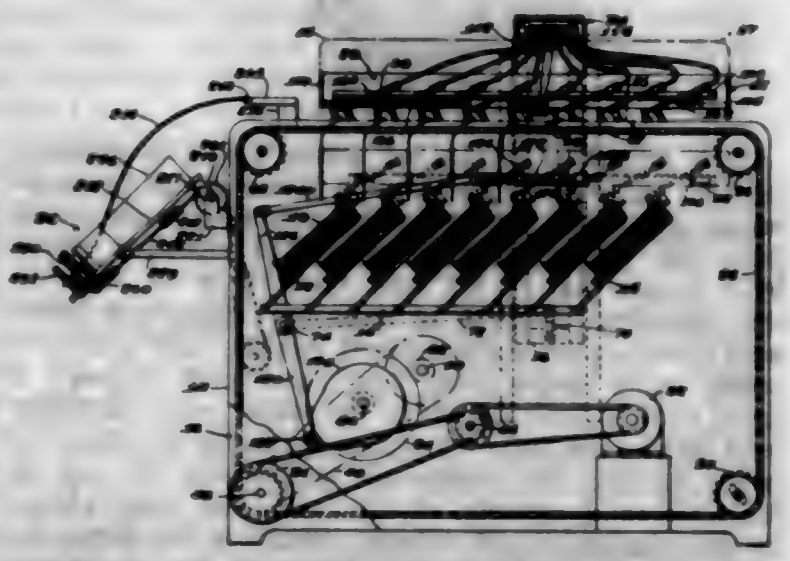
1. A double acting resilient suspension unit comprising a first tubular barrel, a plurality of radially expansible, sleeve-like, friction shoes concentrically mounted in said first barrel and arranged for axial movement relative to said first barrel, wedge-like shoe expander ramp means carried by each of said shoes, a plunger rod extending axially through a portion of said first barrel, said plunger rod having a formation thereon engageable with the wedge-like ramp means on said shoes, a wedge element movably mounted on said rod having a ramp portion engageable with the wedge-like ramp means on said shoes so as to sandwich the shoe ramps between said formation on said plunger rod and said wedge element, a floating guide washer surrounding said rod adjacent said wedge element, a precompressed spring carried by said rod having an end thereof reacting against said floating guide washer, said spring continuously applying a force to said wedge element to radially expand said friction shoes into engagement with the inner surface of said barrel with a substantially constant force irrespective of the load normally applied to the suspension unit, means carried by the plunger rod to provide for the connection of said rod to a first member, means carried by said first barrel to provide for the connection of said first barrel to a second member and guide means extending between said first barrel and said plunger rod to rigidly resist rocking movement of said first barrel relative to said plunger rod, said guide means comprising a second barrel fixedly connected to and surrounding said plunger rod and arranged concentrically within and contiguous to said first barrel for axial movement relative thereto, said second barrel having an end portion thereof guidingly engaged with said floating guide washer, annular bearing means, spaced axially from the floating guide washer, extending between said first and second barrels and sealing off the space therebetween against entrance of foreign matter, said floating guide washer and annular bearing means cooperating with said barrels to rigidly resist relative axial rocking between the plunger rod and said first barrel, and load supporting resilient means connected between said plunger rod and said first barrel.

2,844,367
RESILIENT SYSTEM
Jean Mercier, New York, N. Y.
Application August 27, 1956, Serial No. 606,272
6 Claims. (Cl. 267—15)



1. A resilient system comprising, in combinaton: a high pressure container provided with two opposed heads one of which is closed while the other one is provided with a bore, a solid cylindrical rod rigid with said closed head and extending within said container in co-axial relationship with said bore, a hollow plunger engaged with a tight fit in said bore and in telescoping relationship with said rod, means to fill with a medium of low compressibility all the space within said container externally of said rod and plunger, and means to establish a communication between the inner space of said plunger and the atmosphere.

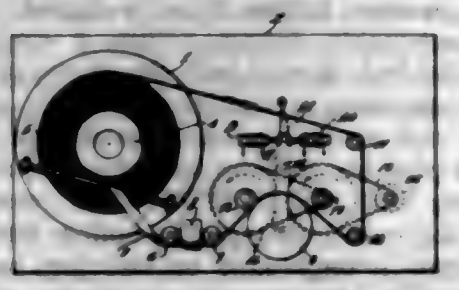
2,844,368
SHEET COLLATING MACHINE
Robert G. Dexter, Lexington, and John A. Willett, Boston, Mass., assignors, by mesne assignments, to Cummington Corporation, Boston, Mass., a corporation of Massachusetts
Application October 6, 1954, Serial No. 460,666
15 Claims. (Cl. 270—58)



1. In a collating machine, in combination, a plurality of stacks of sheets disposed in spaced relation, vertically reciprocable suction units for withdrawing the uppermost sheet from each stack and for supporting the same in a substantially vertically suspended position and with the spaced and suspended sheets in substantially parallel relation and in alignment in one direction, a travelling platform having a stop thereon and movable in a horizontal plane to engage successive spaced and vertically suspended sheets and to move them to a horizontal position on the platform while retained by said suction units, means for releasing successive sheets from their respective suction units in timed relation to the movement of

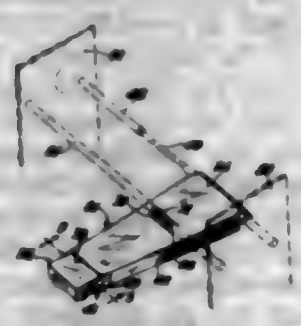
said platform, successive released sheets sliding on the platform and on adjacent underlying sheets and coming to rest against said stop whereby to form a collated group of sheets in superposed relation on said platform, said sheet releasing means including a suction manifold adapted for connection to a source of suction, a plurality of spaced ports in said manifold in movable valve means controlling said ports, and mechanism for operating said valve means to effect opening of successive spaced ports to the atmosphere in timed relation to the travel of said platform.

2,844,369
TAPE DRIVE MECHANISM
Herbert Singer, West Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 1, 1955, Serial No. 544,118
6 Claims. (Cl. 271—2.18)



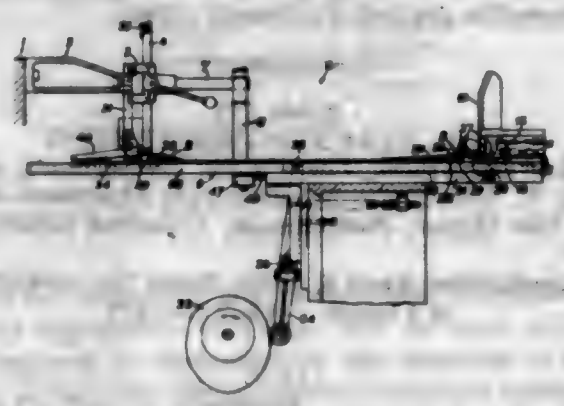
1. A tape recorder of the type employing a reel containing a continuous tape which is adapted to unwind from the inner turn adjacent the hub of said reel and to rewind about the outer peripheral surface of said reel, said recorder comprising a pair of spaced rotatable capstans in the path of travel of said tape, an idler pressure roller continuously engaging said tape and positioned between said capstans, a pivoted support for said roller, actuating means for shifting said support about its pivot to move said roller into selective tape-driving engagement with said capstans, and driving means for said capstans including a power source and means between said power source and said capstans for driving the respective capstans at two different speeds.

2,844,370
PAPER EJECTOR
Wilbur E. Thomas, Wayne, N. J.
Application May 6, 1955, Serial No. 506,411
19 Claims. (Cl. 271—42)



1. A paper ejector comprising a housing, rollers rotatably mounted on the housing, a dress having a high coefficient of friction on the rollers one roller being mounted in an elongated slot in the housing, said slot being positioned in proximity with a second roller so that the one roller may move lengthwise in the slot into binding contact with the second roller.

2,844,371
SHEET FEEDING DEVICES OF THE RECIPROCATING TOOTH TYPE
Tom Rowlands and Henry James Hubbard, Deptford, London, England, assignors to Molins Machine Company, Limited, Deptford, London, England, a British company
Application May 2, 1955, Serial No. 505,498
Claims priority, application Great Britain May 4, 1954
1 Claim. (Cl. 271—44)



Board feeding apparatus comprising a magazine in which boards are piled, a reciprocable main pusher having a tooth face adapted to move the lowest board out of the magazine, an auxiliary reciprocating pusher having a tooth face arranged first to engage said board and move it into a position where it can be engaged by the main pusher, said auxiliary pusher being located at the commencement of a board feeding operation in such position as to support the pile of boards on its upper surface and having a supplementary board support fixed to it ahead of the tooth face thereof, and at a lower level than that of said upper surface, pivoted ledges the upper faces whereof are spring-urged into contact with the lower face of the pile and over which a fed board passes, whereupon the ledges spring up into contact with the next board of the pile, said ledges having surfaces extending downward from their upper faces to provide stops preventing retraction of a fed board, means to operate the auxiliary pusher to move it backward from the aforesaid pile supporting position to permit the lowest board to drop onto the supplementary support, said means thereafter moving the auxiliary pusher forward so that its tooth face engages said board and pushes it forward beyond the upper faces of the pivoted ledges, and means for operating the main pusher to thereupon engage the fed board and move it out of the magazine, said main pusher having a lip above its tooth face to overlie the upper surface of the board.

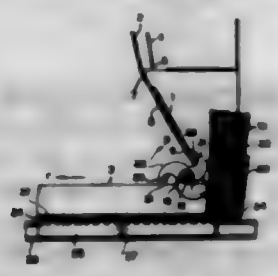
2,844,372
STRIPPER MECHANISM
Julius Gus Liebenow, Berwyn, and Gilbert I. Liebenow, Mount Prospect, Ill.
Application September 28, 1955, Serial No. 537,243
1 Claim. (Cl. 271—63)



Apparatus for lifting and delivering die-cut sheets from a press cylinder, comprising a set of tapes; pulley means for each tape; a pair of tape frame brackets for connecting the pulley means with the cylinder so that an upper run of each tape extends in a plane adjacent to and slightly below a line tangent to the top of the cylinder, said plane sloping downwards from the cylinder; and a

set of lifting fingers secured to the tape frame brackets between the pulley means and the cylinder one in longitudinal alignment with each tape, each lifting finger having a substantially flat top surface extending from adjacent the cylinder to adjacent the pulley means in a plane slightly below and relatively rising to the plane of the upper run of the delivery tapes, whereby die-cut sheets can be lifted and smoothly transferred from the cylinder to the tapes in spite of a tendency of inner portions thereof to sag into a catenary curve.

2,844,373
MAIL STACKING EQUIPMENT
Frederick van Marle, The Hague, Netherlands, assignor to N. V. Technische Maatschappij Marchand-Andriessen, The Hague, Netherlands, a limited liability company
Application April 5, 1955, Serial No. 499,359
4 Claims. (Cl. 271—87)



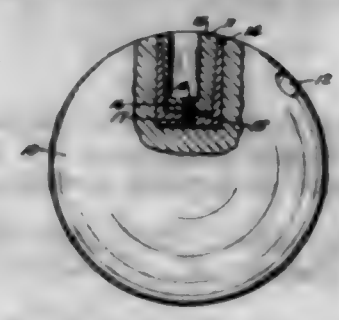
1. Mail handling equipment comprising a chute, a receptacle having rollers on the bottom thereof and a front wall, a track for said rollers inclined toward said chute, the rear wall of said chute extending into said receptacle, means delivering successive mail pieces to the floor of said receptacle with their surface parallel to the front wall thereof, said means automatically moving said receptacle against the inclination of said track as successive mail pieces are delivered to the bottom thereof, said receptacle being removable at will from said tracks.

2,844,374
ELECTRICAL GUESSING GAME
Anthony J. French, Waterloo, N. Y.
Application December 27, 1955, Serial No. 555,422
1 Claim. (Cl. 273—1)



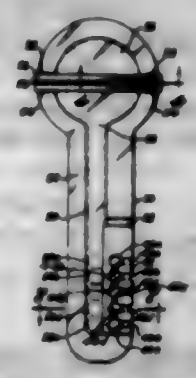
In a game, a table having flat surface and two opposed edges, two equal rows of signaling devices located upon said surface, the number of signalling devices in each row being equal to the number of numerals in a predetermined sequence of such numerals and each device corresponding to a numeral of said sequence, each row being located adjacent a separate edge, two other equal rows of signalling devices, each signalling device in any one of said other rows corresponding to a different sum of two numerals of the first-mentioned row, each of the second-mentioned rows being located close to one of said opposed edges, the first-mentioned rows being located upon said surface opposite each other and between the second-mentioned rows, a separate switch for each of said signaling devices, two master switches, said separate switches and said master switches being carried by said table and located below said opposed edges thereof, the separate switches for the signalling devices adjacent a particular edge and the master switch of that player being mounted on the table below the edge relating to such player, and means operatively connecting said master switches with said signaling devices.

2,844,375
ADJUSTABLE GRIP FOR BOWLING BALL
Leonard R. Nestor, St. Paul, Minn.
Application October 28, 1951, Serial No. 252,363
7 Claims. (Cl. 273—63)



1. In a bowling ball, a grip structure comprising: an outwardly opening hollow frustum-shaped tapered plug member removably fitting within a correspondingly tapered radial hole in said ball, the degree of taper being such that said plug is frictionally tightly retainable in said hole: and actuating means located at the interior end of said plug for drawing said plug into said hole and for expelling said plug from frictional retention within said hole; the outwardly opening hollow interior of said plug providing a finger-hole of said grip and affording access to said actuating means.

2,844,376
PROBABILITY INDICATOR AND GAME DEVICE
Harry W. Purdy, Inglewood, Calif.
Application June 30, 1954, Serial No. 440,433
6 Claims. (Cl. 273—144)



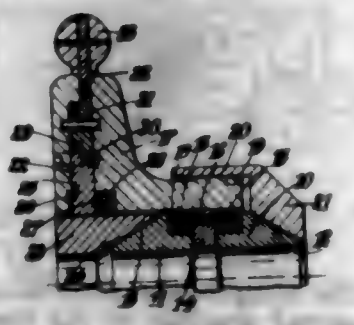
1. Apparatus for determining probability by indicating the correlation between a first plurality of members having distinguishable characteristics and a second plurality of members having characteristics corresponding to the members in the first plurality, including: first and second shell portions shaped to provide a chamber for facilitating the mixing of the first members and to provide a column for receiving the first members after their mixing; a flange on each of the first and second shell portions for providing for the fixed positioning one shell portion relative to the other; the flanges being shaped at a position adjacent the column to receive the members in the second plurality in removable relationship to provide for a disposition of the members in any particular pattern and for an alignment between members in the first and second pluralities; there being slots in the flanges at positions adjacent the chamber; and ratchet means having a plurality of teeth, the ratchet means being supported within the slots for movement of the teeth in a particular direction through the slots to provide an indication of the number of columns produced by the first members and the number of correlations between the first and second members resulting from the production of such columns.

2,844,377

CHUCKS WITH JAWS CONNECTED TOGETHER BY RUBBER BONDED THERETO

Harold Samuel Hull, Westminster, London, and Raymond Jack Baker, East Twickenham, England

Application September 30, 1953, Serial No. 537,863
7 Claims. (Cl. 279—58)



1. A chuck comprising two axially adjustable body parts each formed with a conical socket, a carrier plate disposed between the two sockets and having a central aperture, two separate sets of jaws one on each side of said carrier plate and having inclined outer edges engaging said conical socket and rubber members bonded between the faces of said carrier plate and said jaws, and means for imparting relative axial movement to said adjustable body parts.

2,844,378

DETACHABLE TOOL FASTENING MEANS

Lawrence V. Whistler and Lawrence V. Whistler, Jr., Lawrence, N. Y.

Application July 5, 1957, Serial No. 670,940
8 Claims. (Cl. 279—97)



1. A cylindrical tool member and a part having a sleeve portion fitting slidably thereon, said tool member having an annular groove therein, said sleeve portion having a pair of parallel transverse openings extending generally tangent to said tool member at opposite sides thereof whereby said openings register with the annular groove in said tool member when the latter and said part are in desired assembled positions, a U-shaped locking member having a pair of legs disposed in said openings and adapted to pass through said annular groove to lock the tool member and said part against relative axial movement, a detent member comprising a reduced extension of one of said legs including detent means for arresting said U-shaped locking member before complete withdrawal from said openings but with said legs withdrawn from locking engagement with said annular groove.

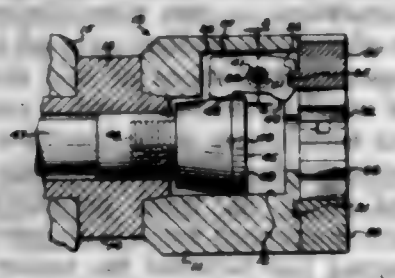
2,844,379

LEVER ACTUATED CHUCK

Edward A. Schulz, Clarendon Hills, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application October 28, 1954, Serial No. 465,181
3 Claims. (Cl. 279—120)

1. In a chucking device the combination of a chuck body, a jaw mounted for movement on said body, a lever for actuating said jaw to and from open and closed positions and having a pair of cam surfaces on its ends, a pivot pin having a first cylindrical portion mounted in said body for oscillatable movement and having a second cylindrical portion eccentrically disposed relative to the first cylindrical portion for pivotally supporting the lever intermediate its ends, means for turning the pin to adjust the axis of pivotal movement of said lever, means for locking said pin in adjusted position, and a cam element



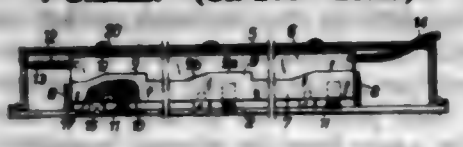
supported on said body for reciprocable movement and alternately engageable with said cam surfaces and operable in response to movement in one direction to engage one cam surface for actuating the lever and moving the jaw to its closed position and locking it in said position and operable in response to movement in the opposite direction to engage the other cam surface for actuating said lever and moving said jaw to its open position and locking it in said position.

2,844,380

CLIMBING AND BRAKING DEVICE FOR SKIS

Emile Tribelhorn, Vevey, Switzerland

Application May 2, 1956, Serial No. 582,125
Claims priority, application Switzerland May 9, 1955
4 Claims. (Cl. 280—11.13)



1. For use with a ski, a climbing and braking device movable between two end positions, said device comprising an elongated, closed box adapted to be mounted on the edge of the ski, two rails arranged in said box, one of said rails being movable in longitudinal direction of the ski and the other of these rails being movable vertically thereto, both of said rails having a plurality of protuberances and recesses, the protuberances of one rail being adapted to engage, in one end position of the device, the recesses of the other of said rails, said vertically movable rail cooperating with a plurality of taps parallely movable between two end positions in accordance with the position of the device, said box having openings in one wall fittingly receiving said taps, the latter being, in one end position of the device, substantially flush with the outer surface of said wall and projecting, in the other end position of the device, beyond said wall, manual operating means being provided for displacing the first mentioned rail horizontally, the said protuberances and recesses on said rails cooperating to cause a horizontal movement of said first rail to impart a vertical displacement of said second vertically movable rail for moving said taps from one end position into the other.

2,844,381

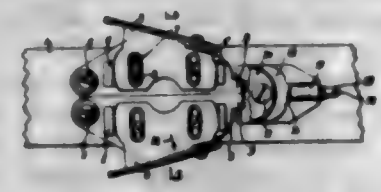
AUTOMATICALLY RELEASABLE SAFETY ARRANGEMENT FOR SECURING A SKI TO A SKIER'S BOOT

Charles Francois Tronchet, Cluses, France

Application November 10, 1954, Serial No. 468,101
Claims priority, application France March 23, 1954
1 Claim. (Cl. 280—11.35)

In combination with a ski, a shoe-securing arrangement comprising two pivots rigid with the ski, arranged

symmetrically to either side of the longitudinal axis of the ski, two similar plates pivotally secured to said pivots and adapted to slide over the upper surface of the ski into forwardly directed interengaging operative positions, cooperating jaws rigid with the outer front sections of the two plates and adapted to enclose a shoe toe between them, tenons projecting to the front of each plate and engaging each other when said plates are in their forward interengaging positions, a cam pivotally secured to the ski at a point of the longitudinal axis of the ski to the front of the operative positions of said tenons, and the rear surface of which is provided with a recessed section adapted to face each tenon in its operative position and to hold the interengaging tenons fast inside it, said cam being provided along its front periphery with three notches of which the central notch is diametrically aligned with the contacting line between the tenons and the two others are arranged symmetrically to either side of the



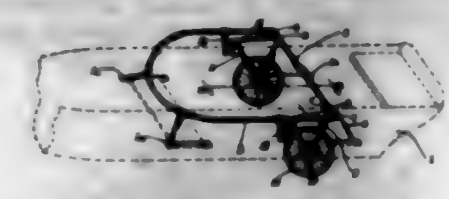
first notch, a projecting member slidingly carried axially of the ski to engage the central notch in the cam, adjustable elastic means urging said projecting member into engagement with said central notch to hold the cam in the position for which its rear recessed section operatively engages the two interengaging tenons, said interengaging tenons being adapted when subjected to a stress exerted laterally by the shoe on one of the jaws, to urge the corresponding side of the recessed section laterally and thereby make the projecting member recede out of its notch against the action of said elastic means and allow the cam to rock past it and to shift said side of the recessed section away from its normal symmetrical position with reference to the ski axis, whereby the two tenons are released with reference to each other, the projecting member holding then the cam in its angularly shifted position through engagement with the corresponding lateral notch.

2,844,382
SIMPLIFIED IDLER ARM ADJUSTER
James B. Dick, Birmingham, Ala.
Application August 27, 1954, Serial No. 452,572
5 Claims. (Cl. 280—95)



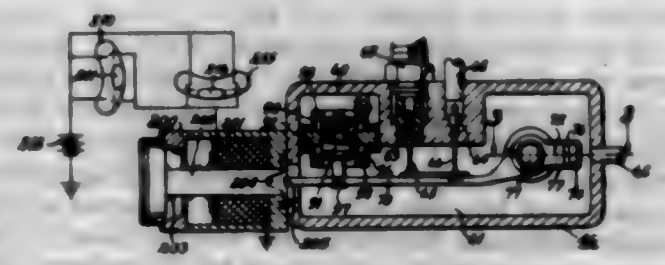
3. In combination with an idler arm assembly including a bracket having a horizontal portion, a bearing block extending vertically through said horizontal portion, and an idler arm having an upwardly extending pin threadably mounted in said block, the provision of an adjuster comprising a horizontal arm having a centrally disposed slot in one end thereof defining a pair of legs adapted to encompass said block, a hook formed at the free end of each of said legs and adapted to encompass one side of said horizontal portion, a U-shaped member having an outer leg formed integrally with the other end of said horizontal arm, and an inner leg adapted to bear against said pin.

2,844,383
BOAT CARRIER HAVING INDIVIDUALLY SUSPENDED WHEELS
Lester W. Doster, Reading, Pa.
Application May 24, 1954, Serial No. 516,883
2 Claims. (Cl. 280—124)



1. A boat carrier comprising a plurality of pipe portions detachably connected together in the form of a closed loop extending in a horizontal plane, said portions comprising a straight, transversely extending, axle forming portion and a U-shaped portion whose extremities are connected to the ends of said axle-forming portion, suspension means supported by said U-shaped and straight portions for attachment to inside parts of the boat, a pair of triangular side frames extending downwardly at right angles to said loop, each frame including two downwardly converging forked sections terminating in a bearing, a bicycle wheel mounted on each bearing, the top ends of the rearmost of said sections having sleeve bearings journaled to the end portions of said straight portion, a pair of hangers depending from the legs of said U-shaped portion, a pair of springs for yieldably resisting pivotal movements of said side frames about said straight pipe section as an axis, each spring having one end connected to one of said hangers and the other end connected to the foremost corner of one of said triangular side frames, whereby a spring suspension is provided for the boat and whereby the parts of said carrier may be easily disassembled and stored in a space having very small width.

2,844,384
CONTROL APPARATUS FOR FLUID SUSPENSION SYSTEM
George W. Jackson, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 18, 1956, Serial No. 592,065
7 Claims. (Cl. 280—124)



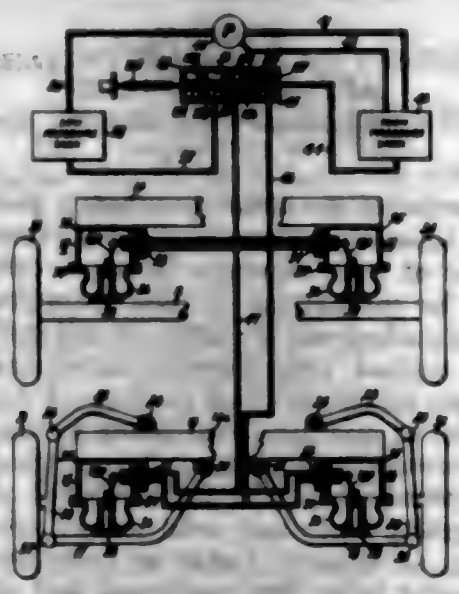
1. Control apparatus for regulating supply and exhaust of fluid to and from an expansible fluid spring for a motor vehicle to maintain a regulated clearance height between the sprung mass and the unsprung mass of the vehicle, comprising, expansible fluid spring means supporting a sprung mass upon an unsprung mass, correcting control means actuated by a change in clearance height between the sprung mass and the unsprung mass to effect clearance height correction and having a neutral position in which it is ineffective for clearance height correction, and other control means actuated in response to a change in attitude of the sprung mass relative to the unsprung mass effective to retain said correcting control means in its neutral position during the period of said change in attitude.

2,844,385

RIDE HEIGHT CONTROL VALVE

John F. Pribonic, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 18, 1957, Serial No. 634,866
8 Claims. (Cl. 280—124)



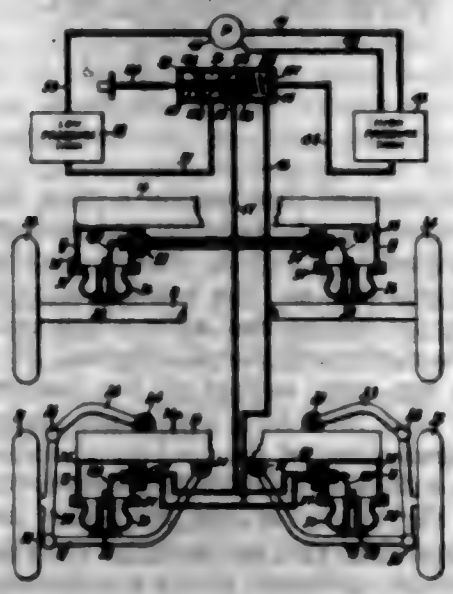
1. A control valve for regulating clearance height between the axle and chassis of a vehicle, comprising, a valve body having fluid inlet passage means for supplying fluid to a fluid spring and fluid outlet passage means for exhausting fluid from a fluid spring, independently acting valve elements controlling opening and closing of said passage means, an actuating member responsive to changes in clearance height between the axle and chassis of a vehicle engageable with said valve elements to effect opening and closing of the same, and passage means in said valve body connecting with said outlet passage means and having valve means therein providing for flow of fluid from the outlet passage means into the fluid spring in bypass relation to the valve element controlling said outlet passage.

2,844,386

RIDE HEIGHT CONTROL VALVE

John F. Pribonic, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 18, 1957, Serial No. 634,929
4 Claims. (Cl. 280—124)



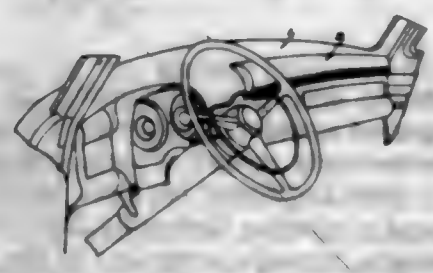
1. In a fluid suspension system for controlling the clearance height between the unsprung mass and the sprung mass of a vehicle, a fluid spring positioned between an unsprung mass and a sprung mass of a vehicle, a fluid pressure source, a first control means responsive to changes in clearance height between the unsprung mass and the sprung mass controlling supply of fluid from said source to said spring and exhaust of fluid from said spring to maintain thereby a normal predetermined clearance height between the sprung mass and the unsprung mass, and a second control means under control of the operator of the vehicle effective to supply fluid from said source to said exhaust of said first control for supply of fluid pressure from said source to said spring through said exhaust and effect an above normal clearance height between the sprung mass and the unsprung mass.

2,844,387

PREFABRICATED CRASH CUSHION

Harold Kenneth Shaw, Chicago, Ill., assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York

Application January 10, 1956, Serial No. 558,332
1 Claim. (Cl. 280—150)



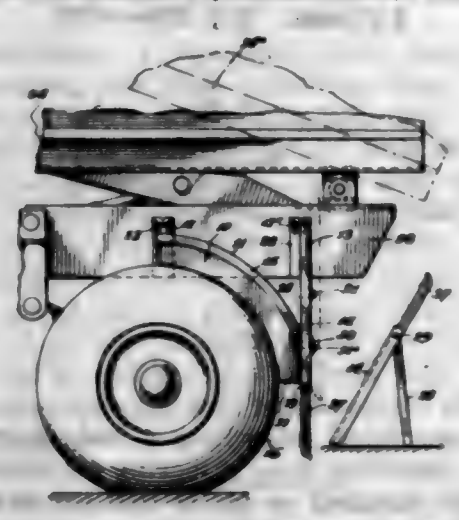
A crash cushion for attachment to the instrument panel of an automobile, comprising a transversely concavo-convex elongated body portion of cushioning material, a covering over the convex face of said body portion, a transversely extending strip of double-faced adhesive tape at each end of the concave face of said body part, and a plurality of longitudinally extending and laterally spaced strips of double-faced adhesive tape between said end strips.

2,844,388

TRUCK WHEEL GUARD AND SUPPORT FOR WARNING SIGN

Victor S. Rheeling, Rock Falls, Ill., assignor to Victor S. Rheeling and Harold Berg, co-partners, doing business as Rheeling Safety Splash Guard Co.

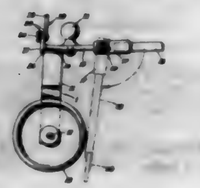
Application October 2, 1956, Serial No. 613,575
5 Claims. (Cl. 280—152)



1. A wheel guard for a vehicle structure comprising: an arcuate shield adapted to be mounted to overlie a portion of the periphery of said wheel when in operative position to arrest movement of particles thrown rearwardly by the rotary motion of said wheel, a mounting means including a pair of brackets adapted to be secured to a vehicle frame member, said brackets having spaced supporting members fixed to opposite end portions of said shield to secure said shield in operative position, the rear one of said supporting members extending generally in an upright direction and having an exposed outer surface

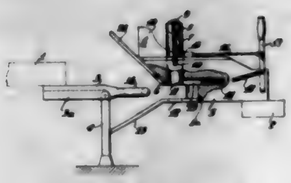
of a size to mount a warning device for said vehicle, and means on said upright supporting member for attaching said warning device.

2,844,389
BOAT TRAILER DOLLY
Charles L. Burnett, Folsom, Calif.
Application March 4, 1957, Serial No. 643,670
3 Claims. (Cl. 280—476)



3. A detachable dolly for supporting the forwardly projecting tongue of a trailer, comprising a frame adapted to upstand, transversely spaced ground engaging wheels on the frame, a short horizontal bar fixed to the upper end of the frame and projecting forwardly therefrom, a stub tongue transversely pivotally connected at the rear end to the front end of the bar, the stub tongue being swingable from a forwardly projecting position to a position folded relative to the frame, means on the front end of the stub tongue for connection to a flexible pull member, an upstanding transversely extending guide structure on the frame adjacent the rear of the bar, said structure defining a transversely elongated vertically narrow slot, the trailer tongue projecting through said slot, the front end of the trailer tongue overhanging the bar, and a detachable swivel hitch connecting the front end of the trailer tongue and said bar.

2,844,390
TRACTOR HITCH OF THE AUTOMATIC COUPLING TYPE HAVING CONNECTION FACILITATING MEANS
Leonard L. Smith, Denver, Pa.
Application November 30, 1956, Serial No. 625,529
2 Claims. (Cl. 280—477)



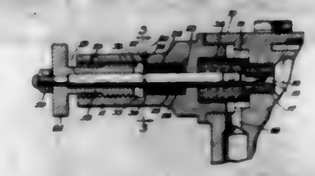
1. A tractor hitch comprising a body portion having a vertically extending hole, a locking pin slidable in said hole, a roller mounted on top of said pin and having an axle, a pair of springs whose upper ends are connected to the ends of said axle and the lower ends of which are connected to said body so as to bias the pin downwardly into locking position, a cam horizontally slidable on said body and engageable with said roller, a control lever for sliding said cam, a spring biased latch engageable in a notched out portion of said pin, and a seat formed in said body adjacent the lower end of said pin for receiving a coupling ring of a drawn implement, said latch being engageable by said coupling ring to unlatch said pin and allow it to move through said coupling ring and effect locking of the implement to the hitch.

2,844,391
SEAL FOR FLUID COUPLINGS
Kenneth A. Albers, Minneapolis, Minn., assignor to Char-Lynn Co., Minneapolis, Minn., a corporation of Minnesota
Application August 5, 1954, Serial No. 448,658
2 Claims. (Cl. 286—7)



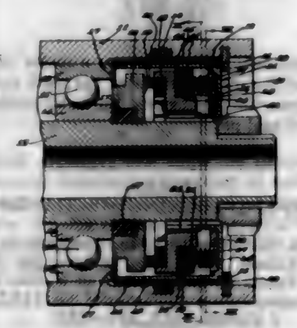
1. In a device of the class described, a pair of members having adjacent surfaces in slidably removable relationship, one of said members having a cylindrical internal bore for the passage of fluid therethrough opening at its said surface and the other of said surfaces forming a solid surface area movable across said opening at right angles thereto to resist the flow of fluid through said bore, one of said members having an annular channel opening toward the adjacent surface of the other member and disposed in coaxial circumscribed relationship with said opening when said solid surface area is across said opening, an annular gasket of relatively soft rubber-like material being first positioned and wholly contained within said channel and having a cross-sectional width less than the cross-sectional width of said channel, and an O-ring of relatively hard rubber-like material being next positioned within said channel in abutting relationship with said gasket, said O-ring having inner and outer diameters substantially equal to the inner and outer diameters of said annular channel, whereby said O-ring is maintained against radial movement within said channel but is axially movable toward the adjacent surface of said other member.

2,844,392
PACKING GLAND FOR VALVE STEM
Elwood H. Stonich, Chicago, and Edward B. Moore, La Grange Park, Ill., assignors to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware
Original application June 27, 1952, Serial No. 295,987. Divided and this application August 25, 1954, Serial No. 452,186
4 Claims. (Cl. 286—7)



1. A packing gland structure for a valve stem comprising, in combination, a housing formed with an axial bore providing a packing chamber having a cylindrical side wall and an end wall and the housing being formed with a transverse slot having end walls which extend radially outwardly from the cylindrical side wall of the packing chamber to the outer surface of the housing, said end walls are at least 180° from each other measured on the slotted circumference of the packing chamber side wall, a valve stem extending through said axial bore, and means for sealing the space between the valve stem and the housing comprising packing material positioned in said packing chamber, a helical spring surrounding said valve stem within said packing chamber in a position to exert pressure against the packing material to force it into sealing engagement with the valve stem and the side wall of said chamber, and an abutment plate for said spring positioned in said transverse slot perpendicular to the longitudinal axis of said chamber for holding said spring under compression, and the said abutment plate being formed with an opening for receiving said valve stem, whereby the abutment plate is held against movement in said transverse slot.

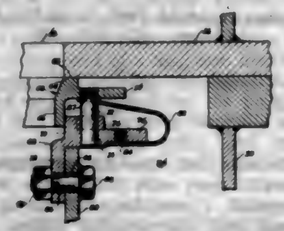
2,844,393
SHAFT SEAL WITH RADIALLY COMPACTING SEALING SURFACES
Hans Jensen, Chicago, Ill., assignor to Gits Bros. Mfg. Co., a corporation of Illinois
Application May 12, 1954, Serial No. 429,157
2 Claims. (Cl. 286—11.14)



1. A shaft seal including a pair of coaxial rings having means defining relatively rotatable sealingly engageable annular surfaces, a support member for carrying one of said rings and including a cylindrical wall and a radially extending wall, a radial rigid surface on said one ring axially facing said radial wall of the support member and a cylindrical surface facing said cylindrical wall of the support member, and means for providing a fluid seal between said support and said one ring for allowing axial movement of said ring relative to said cylindrical wall to maintain said annular surfaces in pressure engagement, comprising first and second annular washers of heat-resistant resiliently deformable material having annular edge portions adjacent said cylindrical wall of said support member and opposite annular edge portions adjacent said cylindrical surface of said one ring, a third annular washer of relatively highly deformable material between said first and second washers and having an annular edge portion sealingly engaged with said cylindrical wall and an opposite annular edge portion sealingly engaged with said cylindrical surface, a fourth washer of rigid material in axial facing relation to said second washer, said first washer axially facing said radial surface of said one ring, and spring means acting between said radially extending wall of said support and said fourth washer for squeezing said first, second and third washers between the rigid fourth washer and said rigid radial surface on said one ring for exerting squeezing forces on said first and second washers whereby the resilient washers will evenly transmit axial pressure to the third washer between them and force the edges thereof into pressure engagement with said cylindrical wall and cylindrical surface.

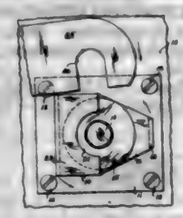
2,844,394
AXIALLY BIASED SEGMENTS FOR CIRCUMFERENTIAL SEAL IN AIR HEATER ROTOR
John C. Vickland, Wellsville, N. Y., assignor to The Air Preheater Corporation, New York, N. Y., a corporation of New York
Application June 29, 1953, Serial No. 364,806
1 Claim. (Cl. 286—23)

A sealing device adapted to preclude the flow of gaseous fluid between fixed and relatively movable housing members comprising; an annular sealing bracket concentric with the rotatable housing member and fixed to an end edge thereof, said annular sealing bracket including a lateral flange extending radially outward between the relatively rotatable members; an arcuately divided sealing ring bridging the space between the annular sealing bracket and the fixed housing members adapted to provide a series of sealing segments including integral flanges extending radially outward into axially spaced relation with the



flanged portion of the sealing bracket; and positioning and driving means comprising a pair of pins extending axially between each segment of the sealing ring flange and the flanged portion of the sealing bracket and connecting said sealing bracket and said sealing ring segments for relative axial movement, said driving means being arcuately spaced to permit the center of gravity of each arcuate segment to lie adjacent a straight line extending therebetween.

2,844,395
ARM-BRACE-SECURING MEANS
Vyrl E. Cadwell, Botna, Iowa
Application March 26, 1957, Serial No. 648,715
4 Claims. (Cl. 287—1)



1. In combination, a fastening device comprising a base, a horizontal stub shaft extending from said base, an arm having a notch in its under side, near one of its ends, and detachably embracing said stub shaft, a flat member rotatably mounted on said stub shaft; said flat member having one of its end portions bent first outwardly and then back upon itself to form a retainer plate, a projection on the other end of said flat member extending over at least a part of said arm when said flat member is in one position of its rotation on said stub shaft, and a washer fixed on said stub shaft and loosely extending between said retainer-plate portion and said flat member.

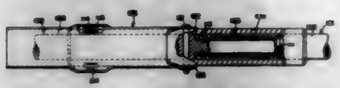
2,844,396
HANDLE BAR STEM
Raymond M. Krakoc and John J. Kostrewa, Detroit, Mich., assignors to Evans Products Company, Plymouth, Mich., a corporation of Delaware
Application November 25, 1955, Serial No. 548,995
11 Claims. (Cl. 287—54)



1. A single piece handle bar stem constructed of tub-

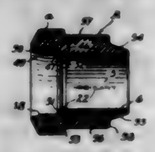
ing having an end adapted to be received by a steering post and having its other end flattened and reversely bent to form an aperture to receive the handle bar.

2,844,397
HITCH DEVICE
Wallace H. Du Shane, Waterloo, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application March 26, 1953, Serial No. 344,866
4 Claims. (Cl. 287—60)



2. An adjustable link structure comprising a pair of axially adjustable parts each including a sleeve section interiorly threaded, a rotatable shaft having a threaded section at each end, said threaded sections respectively engaging said sleeve sections, an outer sleeve enclosing said sleeve sections, means connecting the outer sleeve with said rotatable shaft, said outer sleeve having a pair of diametrically aligned apertures therein communicating with the adjacent portions of the associated inner sleeve section, a locking member movable generally radially in each of said apertures, and a handle for rotating said outer sleeve, said handle including spaced apart means engageable with the outer portions of both of said locking members for forcing the latter inwardly into locking engagement with the associated inner sleeve section.

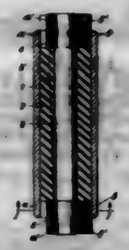
2,844,398
RUBBER INSERT WITH LUBRICANT CHANNEL
Eldon Paul Neher, Logansport, Ind., assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio
Application March 30, 1955, Serial No. 497,932
10 Claims. (Cl. 287—85)



1. A tubular elastic rubber member having a central opening therein, a lubricant groove in said member around the periphery of said opening and spaced from the end of said member, and a thin flexible lip forming one side of said groove, said opening being enlarged outwardly of said lip.

2,844,399
ROTARY JOINT
Giovanni Bonmarini, Rome, Italy, assignor to "ESI" Etablissement Sciences Techniques, Vaduz, Liechtenstein, a Liechtenstein company
Application August 3, 1955, Serial No. 526,212
Claims priority, application Italy June 30, 1955
4 Claims. (Cl. 287—85)

1. A rotary elastic joint for connecting link members in endless conveyors and like devices, which comprises in combination a substantially rigid elongated shell, a substantially rigid pin disposed axially in said shell, a sleeve made of elastic material interposed between said pin and said shell being mounted on the said pin and substantially filling said shell, said pin having reduced ends each defining a shoulder, the reduced ends projecting from the ends of the shell, a limiting member mounted on each reduced end of the pin, each of said limiting members being longitudinally bored axially of the joint and having a portion radial to the pin larger than a portion in a diametrically opposite direction, each of said limiting members



disposed in said shell abutting along a sector of its outer surface against the inner surface of the shell and along a sector of its inner surface against the outer surface of the reduced end of said pin.

2,844,400
COUPLING-AND-LOCKING MECHANISM FOR KITCHEN DEVICES
John E. Snell, Kansas City, Mo., assignor to John C. Hockery, Kansas City, Mo., trustee for Henry J. Taige and Foster L. Taige, south of Kansas City, Mo.
Application June 6, 1955, Serial No. 513,212
5 Claims. (Cl. 287—103)

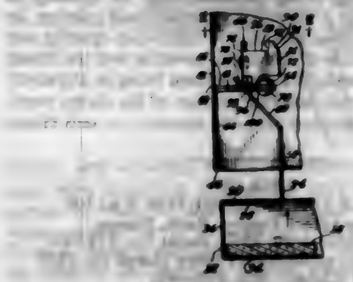


1. A coupling-and-locking mechanism comprising a post, the top of said post formed cylindrical in shape and having a surface closing the top thereof, a walled flange-receiving channel within said post and penetrating said surface, a cap on said post fitting and rotatable about the top cylindrical portion thereof, means rotatably coupling said cap to the post and a slot in said cap congruent with the top opening into said channel when said cap is rotated so the slot is above the channel; an engaging member for said post having a channel-engaging flange depending therefrom, said flange being formed in length and cross section to essentially fill the flange-receiving channel in the post, and a notch in the top portion of one edge of said flange engageable by the edge of the cap slot when the cap is rotated.

2,844,401
LATCH
Jack Kaufman, Chicago, Ill., assignor to Compco Corporation, Chicago, Ill., a corporation of Illinois
Application February 4, 1955, Serial No. 486,089
7 Claims. (Cl. 292—80)

7. In a latching mechanism for a device having a movable member with a latch-actuating member having a stiff inclined tongue immovably mounted therein; a latching member mounted in stationary position in said device, said latching member having a flexible spring arm connected at one end to a mounting member, a plurality of catch members mounted in staggered relationship one with the other on the free end of said spring arm, said

spring arm and catch members adapted to be flexed by said tongue to move in a path the plane of which intersects the path of movement of said movable member and latch actuating member whereby said catch members ride upon said tongue until moved into cooperating relationship with said latch actuating member so that one



of said catch members first stops the inward movement of said movable member and another of said catch members then latches the same in closed position, said latching member and said actuating member further cooperating to release one from the other when said movable member is again urged inwardly.

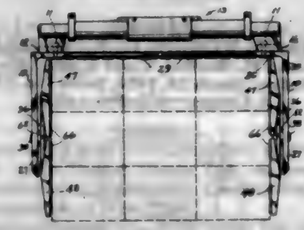
2,844,402
MAGNETIC LATCH
Philip G. Hughes, Anchorage, Ky., assignor to General Electric Company, a corporation of New York
Application August 22, 1957, Serial No. 679,585
7 Claims. (Cl. 292—251.5)



1. A magnetic latch assembly for releasably holding a door member in a closed position against a cabinet member, comprising a magnet and first and second pole pieces associated with said magnet, means mounting said magnet and said pole pieces on one of said members with said pole pieces being disposed on opposite sides of said magnet and with at least said first pole piece being pivotally mounted, armature means on the other of said members opposite said pole pieces for contacting said pole pieces, whereby said door member is held closed by the attraction between said pole pieces and said armature means, said first pole piece having a protruding arm for engaging said other member, and manually operable means for pivoting said first pole piece to break the contact between said first pole piece and said armature means and to move said arm against said other member, whereby said door member is forced open by the movement of said arm.

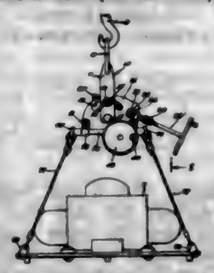
2,844,403
LOAD CLAMPING APPARATUS FOR LIFT TRUCKS
Stanley E. Farmer and Harry F. Weibert, Portland, Oreg., assignors to Cascade Manufacturing Company, Portland, Oreg., a corporation of Oregon
Application December 26, 1956, Serial No. 630,557
3 Claims. (Cl. 294—67)

1. In clamping apparatus for a lift truck, a pressure plate assembly for applying pressure to the opposite sides of a load comprising an elongated upright arm base member having a pair of vertically spaced support projections projecting outwardly to one side thereof, said support projections occupying a common vertical plane, a pair of vertically spaced elongated load arm members arranged transversely of said arm base member inwardly thereof, a pivot connection connecting one of said load arm members intermediate its ends to each of said support projections, the pivot connection accommodating pivotal movement of the load arm member about a vertical pivot axis, each of said load arm members terminating at each of its ends in a pair of vertically spaced leg portions located one above and one below the support projection mounting the load arm member, the spacing between the leg portions at each end of a load arm member enabling the load arm member to swing into the vertical plane occupied by the support projections, the pivot connection for one load arm member being vertically aligned with the pivot connection for the other load arm member, a pair of elongated upright pressure plates arranged side-



by-side inwardly of said load arm members, and a pair of pivot connections connecting each of said pressure plates to one end of a leg portion of each of said load arm members, one of said pressure plates being connected to the adjacent legs of said load arm members and spaced to one side of the pivot connections between the load arm members and the arm base member, the other of said pressure plates being connected to the adjacent legs of said load arm members spaced to the other side of the pivot connections between the load members and the arm base member, the pivot connections for each pressure plate being vertically aligned and accommodating pivotal movement of the plate about a vertical axis, said pair of pivot connections between each pressure plate and one end of each load arm member comprising a pivot connection with each of the pair of leg portions at the end of the load arm member, each of said pivot connections including an elastic deformable seat thereby to allow limited rocking movement.

2,844,404
ADJUSTABLE LINK ASSEMBLY FOR A CRANE HOOK
Allen S. Haugh, Los Angeles, and George M. Fox, Maywood, Calif.
Application October 29, 1953, Serial No. 389,138
15 Claims. (Cl. 294—74)



1. An adjustable link assembly for supporting a load by a crane hook at variable angular positions therebetween, said link assembly comprising a support member adapted to be attached to a crane hook, a body mem-

ber, means for supporting said body member by said support member pivotally about a first axis, first means operatively connected to said support member and said body member for pivotally adjusting the relative angular position between said support member and said body member around said first axis, a rod rotatably mounted on said body member about a second axis positioned at an angle to said first axis, a pair of yokes extending transversely of and non-rotatably secured to said rod in axially spaced relationship therealong for supporting a load, and second means operatively connected to said rod and said body member for adjusting the relative angular position between said rod and said body member around said second axis, said first and second angular adjusting means providing for relative pivotal adjustment about said first and second axes respectively of a load supported by said yoke means.

2,844,405
VEHICLE WINDOW GUIDING MEANS
John H. Roethel, Coral Gables, Fla.
Application March 14, 1956, Serial No. 571,455
6 Claims. (Cl. 296—44.5)



1. In a vehicle body having a window opening defined by a frame structure curved from the bottom of said opening to the top thereof, and a well for receiving a curved window panel movable into and out of said opening, the combination of a unitary upright track means mounted intermediate and substantially parallel to the longitudinal edges of said well, a carrier member secured to the lower edge of said window panel, antifriction means carried by said carrier member engaging the side surfaces of said track means at vertically spaced points of contact to provide stability as said panel is moved up and down, and coacting means on said carrier member and track means operative to change the angular inclination of said window panel laterally relative to said frame structure after predetermined movement of said carrier member along said track means.

2,844,406
SUN VISOR MOUNTING MEANS
Gerhard Herr, Wuppertal-Vohwinkel, and Willy O. Treber, Wuppertal-Elberfeld, Germany, assignors to Gebruder Happich-G. m. b. H., Wuppertal-Elberfeld, Germany
Application December 17, 1956, Serial No. 628,829
Claims priority, application West Germany August 24, 1956
2 Claims. (Cl. 296—97)



1. In combination with a sun visor adapted to be mounted on a support rod, said visor having a frame formed of a wire loop, the upper portion of said loop comprising two sections of wire which at one corner thereof are in spaced parallel relationship to each other, a padding member containing said frame within the peripheral edges thereof, and an outer covering housing said padding member and frame, a mounting device comprising a clamp member straddling said frame at said one corner thereof, means passing through the side walls of said clamp member and the spaced wire sections at said one corner of the frame securing said clamp member to said frame, said clamp member being substantially concealed within said outer covering, said clamp member being provided with a longitudinally extending support rod receiving portion, said outer covering being provided with an opening to permit insertion of a support rod within said portion, an apertured cap member mounted to cover said opening and to straddle a portion of said outer covering and the clamp member therebeneath, the cap aperture being in alignment with the support rod receiving portion of the clamp member, and means securing said cap member to said clamp member.

2,844,407
SHOWER-BATH DISTRIBUTOR VALVE
Jacques-Albert Deport, Paris, France
Application March 28, 1956, Serial No. 572,756
Claims priority, application France March 22, 1955
1 Claim. (Cl. 299—84)



A shower-bath apparatus, comprising: a distributor valve having a water admission chamber connectible to a water supply pipe, and two distribution channels, one of said channels at its inner end having a portion of narrow cross-sectional area, followed by a flared, frusto-conical portion; an admission pipe for delivering soap into said frusto-conical portion; a check valve in said admission pipe for preventing flow of liquids outwardly therethrough; a pair of valves, each valve having an actuating stem, one valve controlling communication between said chamber, and said one channel, the other valve controlling communication between said chamber and the other channel; a rotatable actuating lever movable into two terminal positions and an intermediate position; a cam disc having a face bearing against said valve stems for actuation thereof, said face having a raised planar portion perpendicular to the axis of rotation thereof for bearing against the stem of said other valve, said face also having a portion sloping away therefrom for bearing against the stem of said one valve, said cam disc in the intermediate position of said actuating lever having its face bearing against said stems and permitting both of said valves to close, said cam disc in one terminal position of said actuating lever having its raised planar portion engaging the stem of said other valve, whereby said other valve is opened to permit flow of water through said other channel, said cam disc in the other terminal position of said actuating lever having its sloping portion engaging the stem of said one valve, whereby said one valve is opened to admit water to said one channel, whereby soap is aspirated into said one channel and is mixed with water, said one valve being in an unstable condition when open so that it is automatically urged to return to a closed condition, and said other valve being in a stable condition when open.

2,844,408
NOZZLES
Johannes Dickmann and Gustav-Adolf Estenorer, Karlsruhe, Germany, assignors to Waldemar Feerstner (Trustee as Total Kommanditgesellschaft Feerstner & Co.), Mannheim, Germany, a German company
Application February 15, 1957, Serial No. 641,936
Claims priority, application Germany February 25, 1956
7 Claims. (Cl. 299—120)

1. A nozzle for atomising liquids, comprising means defining an outer flow passage, means operatively associated with the first said means and defining an inner flow passage, the flow passages being concentric one with the other, and two twist-imparting devices disposed one in each such flow passage for imparting a twisting movement to a medium flowing through the



nozzle, and adjusting means operatively associated with said twist imparting devices for varying the twist imparted by each of said devices, such adjusting means being adapted for varying the twist in different directions from a neutral position in which the devices impart no twist to the medium flowing through the nozzle.

2,844,409
WHEEL MOUNTING MEANS
Carolus L. Ekstergian, Media, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
Application June 4, 1953, Serial No. 359,456
5 Claims. (Cl. 301—36)



1. Wheel mounting means comprising in combination, a hub body, an annular series of clamping stud bolts carried by said hub body, piloting means for an inner wheel body on said hub body, inner and outer wheel bodies or disks having holes which are countersunk at each end mounted on said stud bolts, the outer wheel body, at least, having oversized holes receiving said stud bolts, and clamping nut means on said stud bolts, each clamping nut means comprising an inner tapered piloting element entering a hole in the wheel body and a surrounding flat-faced flange element which clamps against a flat-faced portion on the outer surface of the wheel body around the hole, the parts being so formed and proportioned that substantially all of the clamping pressure is exerted from the nut through the flange along lines which do not make a large angle with the bolt axis and with little permissive springiness and that substantially no pressure is exerted through the piloting element in the countersunk bolt hole, the piloting element, when the nut is fully tightened on the flange element, standing clear and free from pressure at the end and at least partly on the sides.

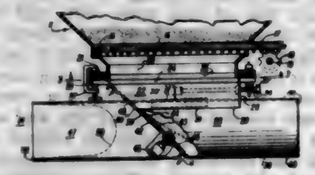
2,844,410
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application September 30, 1955, Serial No. 537,703
13 Claims. (Cl. 301—37)

1. In a wheel structure, a wheel having a flanged drop center type tire rim including joined radial and axial flanges in the latter of which is an annular shoulder defining a tire bead safety groove on the inside of the rim, an inner cover member having retaining means capable of snap-on retaining engagement in the safety groove behind the shoulder with the retaining means having an extension extending generally axially outwardly, and an outer cover member having a portion capable of snap-on retaining engagement with said inner cover member and



having spaced recesses in axial alignment and engagement with said extensions to insure co-rotation of the inner and outer cover members.

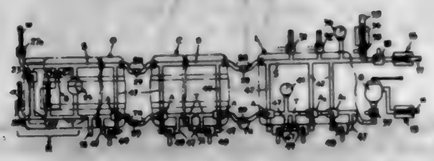
2,844,411
APPARATUS FOR UNLOADING HOPPERS
Edmund R. Aller, Ogden Dunes, Ind., assignor to General American Transportation Corporation, Chicago, Ill., a corporation of New York
Application February 7, 1955, Serial No. 486,581
8 Claims. (Cl. 302—51)



1. Apparatus for unloading pulverulent material from a main hopper provided with a bottom outlet, said apparatus comprising an auxiliary hopper adapted to be detachably secured to said main hopper below said bottom outlet and communicating therewith and provided with a bottom opening, a casing carried by said auxiliary hopper below said bottom opening and communicating therewith, whereby pulverulent material is fed from said main hopper through said bottom outlet into said auxiliary hopper and thence therefrom through said bottom opening into said casing, said casing including a downwardly and forwardly directed rear wall and a connecting forwardly directed bottom wall, said rear wall having an air inlet opening therein disposed somewhat above said bottom wall, the front of said casing also being provided with a suction outlet opening therein, whereby air is fed through said air inlet opening forwardly over said bottom wall into said casing and mixed with the pulverulent material therein and the resulting conveying air laden with the pulverulent material is drawn forwardly through said casing and thence therefrom through said suction outlet opening, and a valve element arranged in said casing in covering relation with said air inlet opening and pivoted adjacent to the upper portion thereof upon said rear wall for movements into closed and open positions with respect to said air inlet opening, whereby the weight of said valve element biases it toward its closed position and the pressure of the air fed through said air inlet opening forwardly into said casing biases said valve element toward its open position, said valve element being disposed below said bottom opening so that the pulverulent material fed from said auxiliary hopper through said bottom opening into said casing falls upon said valve element and also biases it toward its closed

position, and wherein the pulverulent material falling upon said valve element moves downwardly and forwardly thereon toward said bottom wall and into the air fed through said air inlet opening forwardly over said bottom wall into said casing.

2,844,412
AIR-BRAKE SAFETY SYSTEM
Charles B. Parker and Robert L. Bibb, Nashville, Tenn., assignors to First American National Bank, Nashville, Tenn., as trustee
Application June 25, 1954, Serial No. 439,368
6 Claims. (Cl. 303—86)



1. A fluid pressure brake system comprising a train line, brake mechanisms communicating with said train line and adapted to be applied by a reduction in the normal pressure of said train line, a signal line, a signal device communicating with said signal line and adapted to be actuated by a substantial increase in the normal pressure of said signal line, a by-pass line communicating said train line with said signal line, a by-pass valve in said train line communicating the portion of the train line on one side of said valve with said bypass line, said valve opening communication through said train line and closing communication to said by-pass line when said valve is open, and said valve closing communication through said train line and opening communication between said portion of the train line and said by-pass line when said valve is closed, the normal pressure in said train line exceeding the normal pressure in said signal line by an amount sufficient to apply the brake mechanisms controlled by said portion of the train line and to actuate the signal device when said valve is closed.

2,844,413
POWERED TRACK FOR HAND TRUCKS AND THE LIKE
Joseph Harold Gates, Woodland Hills, Calif., and Dale Gates, Milroy, Ind.
Application December 17, 1954, Serial No. 475,879
14 Claims. (Cl. 305—10)



1. A tread type vehicle support including, supporting sprockets, a chain having links and engaged over the sprockets, and tire units carried by the chain and each including, a block with flat bottom, top, side and end faces, and a coupling having a base flush with said bottom face and having flanges projecting from the base and imbedded in the block, said base being fastened to ears projecting from the chain.

2,844,414
WEDGE LOCK TOOL-HEAD FASTENER
Charles F. Brownfield, Chicago, Ill.
Application October 10, 1956, Serial No. 615,194
1 Claim. (Cl. 306—33)

A unit for connecting together a tool-head having an opening therethrough to receive the attaching end of a wooden handle therefor and the handle, said handle having slots in the side walls of its end terminating in notches, said unit having a cap portion and a pair of depending spring fingers, each of said fingers having an inturned end edge portion, said cap portion adapted to overlie the end of a tool-head and handle connected together with said spring fingers extending down through the opening in said tool-head and lying in said slots in the side walls of said handle with the inturned end ledge portions of the same engaging the notches in the body of



said handle, said cap portion adapted to overlie the opening in the tool-head against the end of said handle, said cap portion having a wedge portion centrally thereof extending into a crack in the end of said wooden handle to expand the sides of the same against the walls of the opening in said tool-head, the attaching end of said handle being tapered inwardly from said notches, said notches being spaced a sufficient distance below the tool-head so that means such as a screwdriver blade may be used to pry said inturned end edge portions of said fingers out of said notches for easy removal of said tool-head.

2,844,415
HYDRAULIC PIVOT
William V. Ryder, Jr., Marblehead, Mass., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application September 27, 1955, Serial No. 537,017
7 Claims. (Cl. 308—2)



3. A hydraulic pivot comprising a pair of spaced apart members, an incompressible bellows assembly rigidly secured to each of said members with the assembly axis perpendicular to each of said members, a link pivotally secured to one of said members along an axis perpendicular to and intersecting the axis of said bellows assembly, and a pivotal connection between said link and the other of said members disposed parallel to the pivotal connection of said link and the first named member.

2,844,416
BEARING MEANS AND METHOD OF MAKING SAME
Victor A. Zaverukha, Trumbull, Conn., assignor to The Coulter & McKenzie Machine Co., Inc., Bridgeport, Conn., a corporation of Connecticut
Application June 28, 1954, Serial No. 439,715
9 Claims. (Cl. 308—3)

1. In a way or bearing, a continuous base, a hardened liner engaging and extending over the base for the full

length of the liner, said liner comprising a flat, thin strip of hardened metallic material under longitudinal tension,



and means passing through the liner and into the base and securing the tensioned liner to the base.

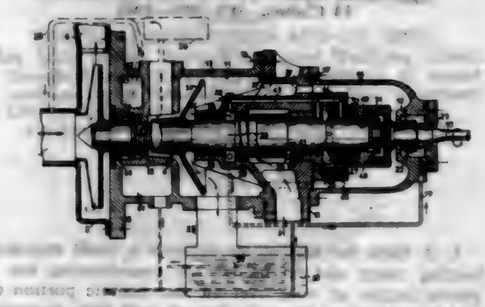
2,844,417
BEARING STRUCTURE
Gail R. Sutherland and Arlo E. Broad, Ottumwa, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application December 14, 1955, Serial No. 553,075
3 Claims. (Cl. 308—15)



1. A bearing structure, comprising: a stub shaft having a free end and an opposite headed end; a bearing of the type having inner and outer races and a circumferential row of balls therebetween, said bearing being mounted on the shaft via said inner race with one side of said inner race abutting the headed end of the shaft and the free end of said shaft projecting axially beyond the other side of the bearing; a pair of complementary plate-like members respectively having coaxial central cup portions facing each other to embrace the outer race of the bearing from opposite sides, one of the cup portions being coaxially open to enable the free end of the shaft to project therethrough and the other cup portion having a radial wall portion overlapping the headed end of the shaft so that said headed end is axially confined between the one side of the inner race and said wall portion, said plate-like members having flat portions extending radially outwardly from the cup portions to congruent marginal edges and said flat portions being secured together in face-to-face contact in a radial plane normal to the shaft axis and including the centers of the balls in said row; and means on the members providing a pair of diametrically opposed radially outwardly opening pintle-receiving pockets, said means at each pocket including complementarily formed marginal edge portions of the members displaced symmetrically from said radial plane so that the pockets are coaxial on a line in said plane and intersecting the shaft axis.

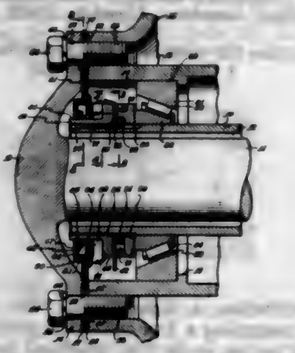
2,844,418
SHAFT SEAL
Pierre Audemar, Mulhouse, France, assignor to Societe Alsacienne de Constructions Mecaniques, Mulhouse (Haut-Rhin), France, a French company
Application October 16, 1957, Serial No. 689,294
Claims priority, application France April 25, 1957
13 Claims. (Cl. 308—36.3)

1. In combination with a fluid-actuating apparatus, a casing enclosing said apparatus and a shaft carrying said apparatus and extending through said casing; a shaft seal for said fluid, said seal comprising means forming a first chamber which encloses said shaft and is located adjacent to said casing, means forming a second chamber which encloses said shaft and is located adjacent to and in communication with the first chamber, means transmitting under pressure a second fluid to the second chamber and from the second chamber to the first chamber, a pump transmitting the first-mentioned fluid from said casing to the first chamber, whereby the first-mentioned fluid and the second fluid are mixed in the first chamber, means communicating with the first chamber



for separating the mixture, and means connected with the last-mentioned means and with said casing for transmitting the separated first-mentioned fluid back to said casing.

2,844,419
REAR AXLE SEAL
Dallas E. Shepherd, Compton, Calif.
Application June 11, 1956, Serial No. 590,697
4 Claims. (Cl. 308—187.1)



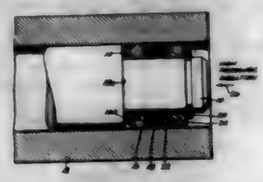
1. An anchored seal for a vehicle wheel comprising an axle housing, a hub surrounding said housing providing a bearing pocket therebetween and a bearing ring assembly mounting the hub on the housing, an axle extending through and spaced from the housing and a cap forming part of the axle closing an outer end of said pocket and having a flange overlying said hub, matching bolt holes in said hub and said flange and bolts secured in said holes for attaching said hub to said flange, the end of said axle housing having a longitudinal key-way and sealed means for adjusting said bearing ring assembly comprising a bearing race adjustment nut threadable on said housing to a position against said bearing ring assembly, said nut having an axial projection thereon, and an adjusting nut washer slidable over said housing having a plurality of circumferentially spaced projection receiving holes and a key thereon receivable in said key-way, a lock ring slidable over said housing to a position against said adjusting nut washer, a key on said ring receivable in said key-way, a seal plug filling said key-way to a depth abutting the key on said ring, and a flanged lock nut threadably engaging said housing and said seal plug to a position against said ring.

2,844,420
INSERT BEARING STRUCTURE AND SHIM THEREFOR
Thomas J. Allen, Los Angeles, Calif.
Application April 19, 1946, Serial No. 663,494
14 Claims. (Cl. 308—244)



1. A shim for disposition between a shaft engaging bearing insert and its holder for compensating for a greater degree of wear over an intermediate portion of said insert than at the ends thereof, said shim comprising a metal sheet of foil-like thickness and of such thickness and flexibility as to be readily distortable about said insert, the intermediate portion of said shim which is designed to be disposed adjacent the portion of the insert having the the greater degree of wear being at least substantially twice the thickness of one of the portions of the shim to be disposed adjacent the ends of the insert.

2,844,421
SEALING STRUCTURE
Richard L. Hayman, Flintridge, Calif., assignor to Haskel Engineering Associates, Glendale, Calif., a copartnership
Application November 5, 1954, Serial No. 467,818
1 Claim. (Cl. 309—23)



In combination, a high pressure two stage sealing structure comprising a first cylindrical portion, a second cylindrical portion in the first cylindrical portion, a non-galling expansible metallic sealing member on said second cylindrical member and sealing against the first cylindrical member, elastic gasket means on said second cylindrical member for sealing against said first cylindrical member, a cold flowing cylindrical barrier of plastic material, such as Teflon, interposed between said sealing member and said gasket means and being of sufficient length, to at all times, space said gasket means from said sealing member for preventing said gasket means from becoming squeezed into the annular space between said metaillic sealing member and said first cylindrical member, said sealing member having an annular grooved portion which defines an outer deformable annular lip with a portion of said cylindrical barrier being disposed in said annular grooved portion, said barrier being effective to flow under pressure and to transmit forces developed on said gasket means to said metallic sealing member to deform said annular lip radially outwardly against said first cylindrical member, said elastic gasket means being deformable for sealing against said cylinder, said elastic gasket means being deformed at lower pressures to provide a seal between said first and second cylindrical means, and at high pressures said sealing means exerts forces on said barrier to deform said lip outwardly sufficiently to provide a seal between said first and second sylindrical members.

2,844,422
PISTON RING
Felix Wankel, Lindau, Germany, assignor, by mesne assignments, to Rand-Goetze Corporation, Cleveland, Ohio, a corporation of Ohio
Application December 5, 1956, Serial No. 626,398
5 Claims. (Cl. 309—44)



1. In a two-part piston ring unit, a cylinder wall contacting flange mounted upon a base portion, said base portion having an expansion ring receiving groove, and an expansion ring, the outer side of said expansion ring being adapted to be seated in said groove, said flange extending approximately right-angularly to said expansion ring, said flange being of such resilience as to flex responsively to the application of gaseous pressures thereto, a piston having an expansion ring groove, the inner side of said expansion ring being adapted to be received in said last-named expansion ring groove.

2,844,423
FLANGE TYPE PISTON RING
Hartmut Arnold, Burscheid, near Koln, Germany, assignor, by mesne assignments, to Rand Goetze Corporation, Cleveland, Ohio, a corporation of Ohio
Application January 22, 1957, Serial No. 635,483
Claims priority, application Germany February 22, 1956
4 Claims. (Cl. 309—44)

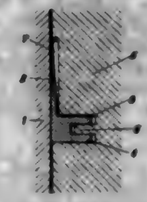


1. In a one-piece flange ring adapted to be mounted in the piston of an internal combustion engine, a carrier portion, an upstanding portion extending upwardly approximately normal to a radial plane through said carrier portion, said upstanding portion tapering to a flexible, cylinder wall contacting member, said member being sufficiently flexible to be responsive to gaseous pressures, a ring groove in said piston, said carrier portion being adapted to be mounted in said ring groove, said carrier portion being provided with multiple, lateral chambers, said chambers being bounded by interiorly extending flanges, whereby combustion gases under pressure flex said member outwardly in sealing relationship with the cylinder of said engine, and said chambers prevent by-passing of said gases between said ring and said ring groove.

2,844,424
PISTON SEALING MEANS
Rolf Friedrich Goetze, Burscheid, near Cologne, Germany, assignor, by mesne assignments, to Rand-Goetze Corporation, Cleveland, Ohio, a corporation of Ohio
Application February 13, 1957, Serial No. 639,591
Claims priority, application Germany February 20, 1956
4 Claims. (Cl. 309—44)

1. A piston packing primarily adapted for use upon a cylinder-engaging piston of an internal combustion engine and comprising a piston ring having an L-shape

configuration in cross section, annular ring receiving grooves in said piston, said ring including a thin axial part adapted to engage the wall of said cylinder and a radially extending carrier part provided at its inner circumference with at least two annular projections adapted



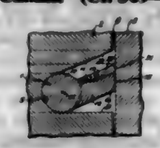
to seat in said grooves, said grooves and said projections forming a labyrinth-like packing preventing passage of combustion gases therethrough, said axial part being tapered substantially its full length toward its free end and being of a material and proportion to flex upon the application of pressure to the inner side thereof.

2,844,425
PACKING RING
Max Adolf Müller, Koln, Germany, assignor, by mesne assignments, to Rand Goetze Corporation, Cleveland, Ohio, a corporation of Ohio
Application March 19, 1957, Serial No. 647,141
1 Claim. (Cl. 309—44)



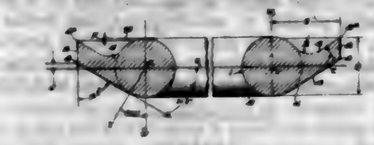
A packing ring made of hard material and intended for sealing pistons, shafts, rods and the like, which consists of a rounded back portion and a flange portion inclined towards the direction of influx of the medium to be sealed off, said flange portion being pressed by said medium against the surrounding wall of the cylinder or the like in which said piston, shaft, rod or the like operates, said rounded back portion being lodged in an equally rounded groove of said piston, shaft, rod or the like, in which the center of gravity of the ring section is situated within said back portion of the ring between its back surface and a plane put parallel to the axis of said piston or the like through the center or focus of the curvature of said back portion.

2,844,426
TORSION PISTON RING
Wolfgang Glaser, Burscheid, near Koln, Germany, assignor to Goetzewerke Friedrich Goetze Aktiengesellschaft, Burscheid, near Koln, Germany, a corporation of West Germany
Application October 1, 1957, Serial No. 687,473
11 Claims. (Cl. 309—44)



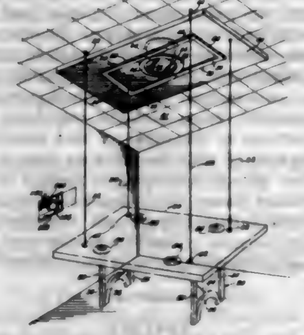
1. A sealing ring element having in cross section an approximately semicircular support engaging portion, a centrally located center of rotation in said portion, said portion graduating to an extended flange of a material and proportion as to flex about said center and provided with a cylindrical wall contacting face, said face having at least a portion thereof made of a material softer than the material of said flange, the greater portion of said face being positioned to one side of a lateral plane running through said center of rotation.

2,844,427
TORSION COMPRESSION AND OIL RING
Max Adolf Müller, Koln (Rhine), and Wolfgang Glaser, Burscheid, near Koln, Germany, assignors, by mesne assignments, to Rand Goetze Corporation, Cleveland, Ohio, a corporation of Ohio
Application January 19, 1956, Serial No. 560,262
16 Claims. (Cl. 309—45)



1. A piston ring element having in cross section an approximately semi-circular piston engaging portion, said portion having a centrally located center of rotation, said portion graduating to an extended flange of a material and proportion as to flex about said center and provided with a cylinder wall contacting face, the greater portion of said face being positioned to one side of a lateral plane running through said center of rotation.

2,844,428
CEILING-SUSPENDED ELEVATABLE TABLE
John W. Puntenney, Los Angeles, Calif.
Application October 22, 1956, Serial No. 617,457
11 Claims. (Cl. 311—17)

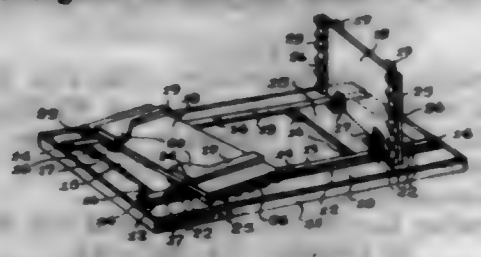


1. A furniture combination for use in a room, comprising: a table; means including cable means to raise and lower the table between a lower position for normal use and an overhead position, said cable means extending downward from the ceiling of the room and being detachable from the table to permit the cable means to be retracted to the ceiling when the table is at its lower position; and weight means for said cable means to facilitate lowering the cable means from the ceiling for attachment to the table.

2,844,429
LAP TRAY WITH ADJUSTABLE LEG-ENGAGING MEANS
Epiriam Frey, Flint, Mich.
Application December 5, 1956, Serial No. 626,362
5 Claims. (Cl. 311—25)

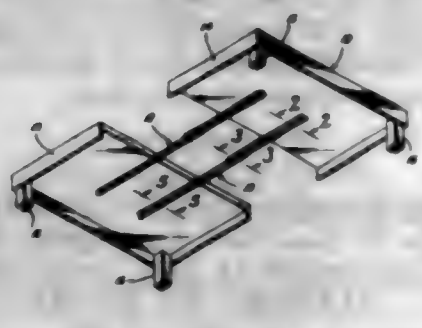
1. A lap tray that is supported by engagement of the legs of a user therewith, said lap tray comprising a substantially rectangular tray top, a pair of spaced parallel longitudinally extending trackways affixed to the under-

side of said tray top, a pair of support plates each slidably mounted in said trackways, a leg-abutting panel hingedly connected to the underside of each of said plates and each swingable toward the other from a position at



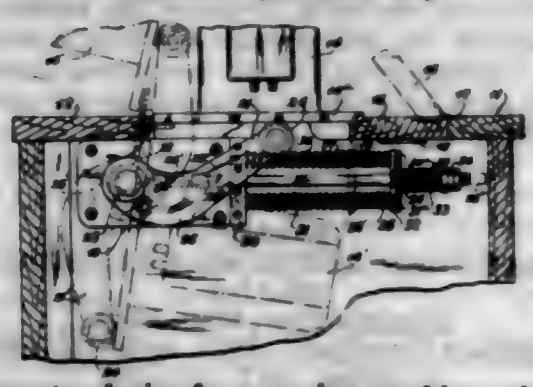
substantially right angles to said tray top to a position substantially parallel to said tray top, and means automatically latching said plates in preselected positions in said trackways upon swinging of said leg-abutting panels to positions at substantially right angles to said tray.

2,844,430
SLIDE ASSEMBLY FOR SLIDABLY CONNECTING RELATIVELY MOVABLE PARTS
Earl M. Bogar, Jr., Houston, Tex.
Application November 29, 1956, Serial No. 625,101
3 Claims. (Cl. 311—71)



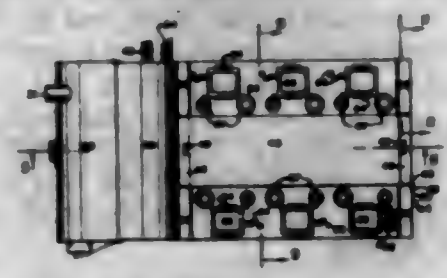
1. A slide assembly for slidably connecting relatively movable table top parts comprising inner and outer, telescopingly arranged, channel shaped members longitudinally slidable relative to each other, each of said members having a central web and curved marginal portions of U-shape in cross-section, said marginal portions of one of said members being slidably interfitted with said marginal portions of the other of said members, means for securing one of said members to one of said parts and the other of said members to another of said parts and anti-friction means of U-shape in cross-section disposed between and in engagement with the exterior of said marginal portions of said inner part and the interior of said marginal portions of said outer part.

2,844,431
BOOSTER ARM FOR DROP HEAD SEWING MACHINE
Sidney J. Hamlett, Parma, Ohio, assignor to White Sewing Machine Corporation, Cleveland, Ohio, a corporation of Delaware
Application September 27, 1955, Serial No. 536,886
3 Claims. (Cl. 312—30)



1. A booster device for a sewing machine cabinet having an opening and a sewing machine head pivoted to the cabinet permitting it to be swung from a lowered inoperative position within the cabinet upwardly through the opening to sewing position; said device comprising a support adapted to be secured to the cabinet within the latter and provided with a fixed horizontal pivot pin, a booster arm swingably mounted adjacent one of its ends on said fixed pivot pin while its opposite end is free and is adapted to engage the underside of the sewing machine head during the swinging movements of the latter, and a force applying mechanism operatively associated with said booster arm to apply forces thereto and to the sewing machine head to facilitate the raising and lowering of the latter and including a force rod slidable in said support in substantially the same horizontal plane as said fixed pivot pin and movable linearly in a direction extending transversely of said pin toward and from the latter, a link bodily movable relative to said support and pivotally connected at one end to the end of said rod that is adjacent said pivot pin and pivotally connected at its opposite end to said booster arm at a location offset downwardly and to one side with respect to the swinging axis of said arm on said pivot pin, and spring means operatively associated with said rod to exert forces thereon which vary sequentially during the swinging movement of the booster arm and the sewing machine head to apply through said link varying torque forces to said arm, said force rod at its end that is remote with respect to said link mounting an abutment element, while said spring means includes a pair of supporting rods parallel to said force rod on opposite sides thereof and having one of their ends fixed in said support while the other of their ends is provided with a stop head, a plate slidable on all of said rods, coil springs surrounding said supporting rods with one end abutting said support and the opposite end abutting said plate, a coil spring surrounding the force rod intermediate said plate and the abutment element thereon, and sleeve means limiting the compression of said last mentioned spring between said plate and said abutment element.

2,844,432
FOOD SERVICE UNIT
Raymerd D. Freer, Gillette, Wyo.
Application August 15, 1955, Serial No. 528,186
7 Claims. (Cl. 312—228)



1. A unit of the character described comprising a sink having a drain equipped with a garbage disposal unit and served by a water supply line, burners mounted for operation at one side of said sink, a cooking plate hinged at the side of the sink adjacent said burners for selective adjustment between superposition over the burners and inversion over the sink, means served by said water supply line selectively actuable for the ejection of spray from said sink against the surface of the cooking plate inverted thereover, troughs fixedly outstanding in spaced parallelism from the side of the sink remote from said burners, drains connecting said troughs with said garbage disposal unit, panels invertible in closing relation with said troughs, place settings on and invertible with said panels, means selectively actuable to simultaneously and similarly position said panels relative to their associated troughs, means served by said water supply line selectively actuable for the ejection of spray from said troughs against the surfaces of the panels closed thereover, and an open-sided frame altitudinally reciprocable between said invertible panels in table-completing relation therewith.

2,844,433
METHOD OF MANUFACTURE FOR ELECTRIC DISCHARGE DEVICES
Ralph L. Meyer, Elgin, and Serge Palmer, Elmhurst, Ill., assignors to The Rauland Corporation, a corporation of Illinois
No Drawing. Application November 21, 1952
Serial No. 321,933
6 Claims. (Cl. 316—22)

1. In the manufacture of an electric discharge device having an envelope enclosing an anode, a cathode having a surface of a heat-decomposable compound, and a control electrode, the method of neutralizing undesirable electron-emissive deposits in said device comprising the following steps: evacuating said envelope; heating said cathode to decompose said compound and form on said surface an electron-emissive substance, which may concurrently cause formation of undesirable electron-emissive deposits on said envelope, said anode, or said control electrode; filling said envelope with an oxidizing atmosphere and maintaining said atmosphere for a time sufficient to oxidize any undesirable electron-emissive deposits present within said device; exhausting said envelope before oxidation of more than a superficial portion of said electron-emissive substance occurs; and sealing said envelope.

2,844,434
MAGNETIC RECORDING
Arthur D. Beard, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 31, 1952, Serial No. 302,013
10 Claims. (Cl. 346—74)

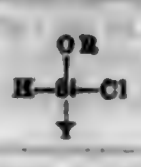


1. In a magnetic recording system the combination comprising a plurality of recording heads, each of said heads comprising a core structure of magnetic material having a gap for establishing a signal recording flux and another gap spaced therefrom providing a higher reluctance than said signal gap, and means for reducing the reluctance of said other gap of each of said heads, said means including members of magnetic material selectably movable with respect to different ones of said heads.

CHEMICAL

2,844,435
PROCESS FOR PREPARING POLYSILOXANES
George H. Wagner, Clarence, N. Y., and Charles E. Erickson, New Brunswick, N. J., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application April 25, 1955
Serial No. 503,779
2 Claims. (Cl. 23—14)

1. A process for preparing hydrogen-containing polysiloxanes which comprises heating substituted silanes of the type:



where R is an alkyl radical and Y is a radical taken from the group consisting of chlorine atoms and alkoxy groups, in the presence of a catalyst taken from the group consisting of the chlorides of aluminum and boron to its boiling temperature under reflux conditions and when Y is a chlorine atom recovering a siloxane polymer having the repeating unit:

$$[HSiOCl]$$

and when Y is an alkoxy group recovering a siloxane polymer having the repeating unit:

$$[HSiO_{1.5}]$$

2,844,436
MANUFACTURE OF FINELY-DIVIDED COMPOUNDS OF CERTAIN ELEMENTS
Chester L. Baker, Narberth, and John Frankie Austin, Philadelphia, Pa., assignors to Philadelphia Quartz Company, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application November 28, 1952
Serial No. 323,164
16 Claims. (Cl. 23—51)

1. In the manufacture of finely-divided products, the process which consists essentially in dissolving in water a water-soluble salt selected from a class consisting of the alkali metal zincates, aluminates, berylliates and polyphosphates, in amount sufficient to produce a solution capable of being concervated with a viscosity of at least about 0.5 poise, mixing with the resulting colloidal solution a coacervating agent in amount tending to produce coacervation, then mixing in within a period of less than 10 seconds and before the appearance of more than a faint haze in the solution an aqueous solution of an insolubilizing agent capable of precipitating an insoluble compound when reacted with said salt; said insolubilizing agent being added in such manner that no substantial concentration or temperature changes take place during the actual formation of the insoluble particles; and recovering the resulting finely-divided particles substantially free from gel.

2,844,437
STABILIZED LOW REACTION RATE SODIUM ACID PYROPHOSPHATE
Leroy A. Kramer, Olympic Fields, and Lowell E. Netherton, Park Forest, Ill., assignors to Victor Chemical Works, a corporation of Illinois
No Drawing. Application February 21, 1955
Serial No. 489,794
5 Claims. (Cl. 23—106)

1. A stabilized sodium acid pyrophosphate containing from 0.05 to 0.3% CaO and from 0.05 to 0.3% Al_2O_3 having a pH value from about 4.0 to 4.4 and having a reaction rate with sodium bicarbonate in an aqueous dough suspension of 20–25% of the total gas in 2 minutes at 27° C., said sodium acid pyrophosphate having been produced by reacting a sodium-containing base with phosphoric acid containing, in solution, the calcium and aluminum stabilizing agents, and heating the resultant reaction product at a temperature of about 225° to 240° C. until the product is converted to the acid pyrophosphate compound.

2,844,438
METHOD OF PRODUCING POTASSIUM AND AMMONIUM ALUMS
Herbert H. Peckham, New Castle, and Stewart L. Harris II, Claymont, Del., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
No Drawing. Application March 29, 1956
Serial No. 574,619
10 Claims. (Cl. 23—118)

1. The process of making molded blocks of an alum selected from the group consisting of potassium alum

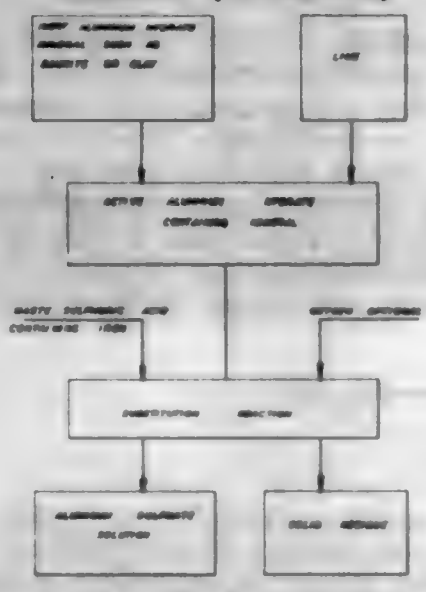
and ammonium alum comprising forming a boiling solution in water containing substantially equimolar proportions of aluminum sulfate and a salt of the group consisting of potassium sulfate and ammonium sulfate and 12 to 14 mols of water for each mol of one of said sulfates, flowing the boiling solution into molds and cooling the mold contents and substantially solid.

2,844,439

PRODUCTION OF ALUMINUM SULPHATE FROM WASTE MATERIALS

Chris Schurr, Philadelphia, Pa.

Application September 10, 1956, Serial No. 608,937
4 Claims. (Cl. 23—123)



1. The process of treating inert aluminum hydrate containing mineral, which comprises reacting finely divided inert aluminum hydrate mineral with finely divided quick lime in water, then reacting the above product with sulphuric acid solution containing iron while oxidizing the iron to ferric iron and proportioning the reacting ingredients to maintain a pH on the acid side of 3.5, and separating the aluminum sulphate produced from the solid residue.

2,844,440

REGENERATION OF CAUSTIC SOLUTIONS CONTAINING MERCAPTANS

Percy Hainsworth, Sunbury-on-Thames, England, assignor to The British Petroleum Company Limited

No Drawing. Application September 20, 1954
Serial No. 457,279
Claims priority, application Great Britain
September 24, 1953
8 Claims. (Cl. 23—184)

1. In the method of regenerating a mercaptan-containing caustic alkali solution by contacting the solution in the absence of an organic oxidation catalyst with an oxidizing gas selected from the class consisting of air and oxygen, the improvement which comprises, introducing the gas into the solution in the form of bubbles at least as small as the bubbles produced by passing said gas through a metal sinter having a pore diameter of 10 microns at a gas rate and in an amount sufficient to effect an oxidation rate of at least about 0.05% wt. per hour of mercaptan sulphur removed.

2,844,441

PROCESS OF PURIFYING LIQUID SILICON HALIDE

Remo Angelo Pellin, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 26, 1954
Serial No. 471,497
7 Claims. (Cl. 23—205)

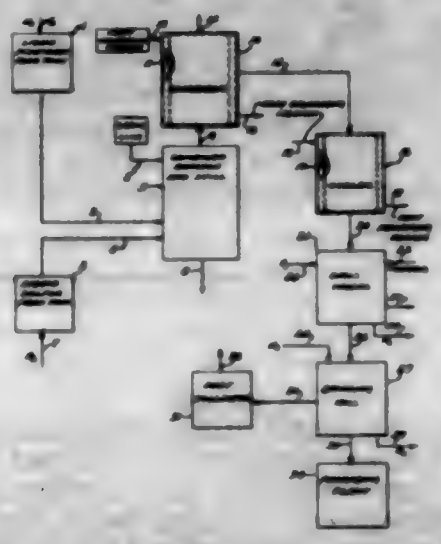
1. A process for purifying a liquid silicon halide comprising extracting impurities from said halide by commingling the same with an immiscible, inorganic acid selected from the group consisting of liquid sulfuric acid and liquid phosphoric acid, separating the silicon halide and the acid containing the extracted impurities before substantial decomposition of the silicon halide occurs, and recovering the hyperpure silicon halide which results.

2,844,442

METHOD OF PREPARING BRIGHT YELLOW COLORED SULFIDES

John W. Lefferge, Lynnfield Center, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Original application July 23, 1954, Serial No. 445,349. Divided and this application May 20, 1957, Serial No. 660,487
7 Claims. (Cl. 23—206)



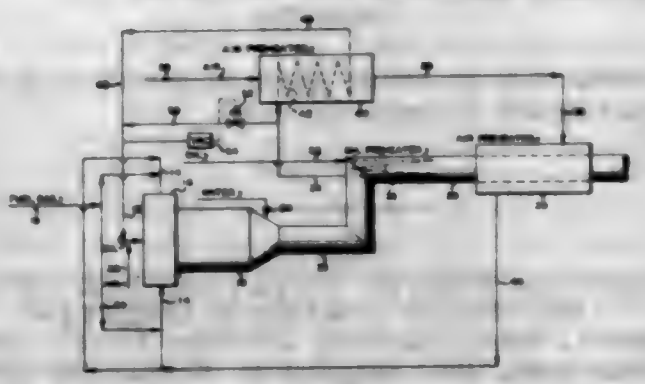
1. A method of preparing bright yellow colored phosphorus sulfides which comprises introducing boric oxide into a mass of darkly colored phosphorus sulfide, and subjecting the resulting product to distillation to separate said phosphorus sulfide in the form of a product having a bright yellow color, said boric oxide being employed in an amount sufficient to produce said color improvement.

2,844,443

METHOD AND APPARATUS FOR OIL PREHEAT FOR CARBON BLACK FURNACE

William R. King, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application March 28, 1957, Serial No. 647,469
10 Claims. (Cl. 23—209.6)



1. In a process for producing carbon black by partial combustion of an oil feed with free-oxygen-containing gas in a combustion zone wherein the oil feed is preheated before introduction to said zone, the improvement comprising passing said feed in indirect heat exchange with the gaseous effluent from said combustion zone to preheat same to a temperature above the desired preheat temperature but below incipient cracking temperature; passing a first portion of the resulting preheated feed in indirect heat exchange with a heat exchange fluid so as to reduce its preheat temperature; mixing the resulting

first portion at lower temperature with a second portion of said preheated feed at higher temperature; proportioning said first and second portions of preheated feed so as to obtain the desired preheat temperature; and passing the resulting preheated feed to said combustion zone.

7. Apparatus comprising in combination a carbon black furnace having an oil injection line, an air injection line, and a gaseous effluent line; an indirect heat exchanger in said effluent line; an inlet oil line and a first effluent oil line connected with said exchanger; a fluid indirect heat exchanger connected in said oil effluent line having means for passing fluid therethru in indirect heat exchange with oil; a second oil effluent line from said fluid heat exchanger connected with said oil injection line; an oil by-pass line from said first effluent oil line to said second effluent oil line; and means for regulating the flow of oil thru said by-pass line.

2,844,444

PROCESS OF PELLETIZING METAL SILICATES

Merrill E. Jordan, Walpole, Mass., assignor to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

No Drawing. Application March 19, 1954
Serial No. 417,517
2 Claims. (Cl. 23—313)

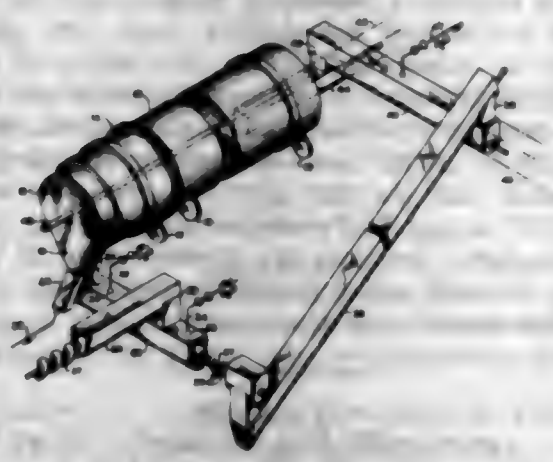
1. The process of producing tenacious, dustless, free-flowing pellets of metal silicates such as wollastonite, talc, aluminum silicate and iron silicate which are naturally non-agglomerative, comprising the steps of first grinding the raw silicate to a maximum average particle size of less than 2.0 microns and an apparent density of about 25–30 lbs./cu. ft., wetting the ground silicate with at least 100% by weight of water, drying the wetted and ground silicate and thereby transforming it into a cake having a moisture content of 1 to 10%, breaking the cake into agglomerates of irregular shape and greater particle size than 2.0 microns by passing its material through a coarse screen, and then agitating the agglomerates in a revolving drum and thereby converting them to pellets having an apparent density of 40 to 50 lbs./cu. ft.

2,844,445

PROCESS AND APPARATUS FOR PELLETING CARBON BLACK

George J. Webster and Wilson H. Rushford, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

Application November 12, 1954, Serial No. 468,369
11 Claims. (Cl. 23—314)



1. Apparatus comprising a rotatable pellet mill having a rotatable cylindrical shell wherein powdered material is pelleted by tumbling and cascading from the inner surface of said shell, a feed inlet line at one end and a pellet outlet at the opposite end; means connected with said pellet outlet for separating effluent pellets into a product stream and a recycle stream; a recycle conveyor-mixer connected with said means so as to receive recycle pellets; a feed conveyor connected with an intermediate section of said conveyor-mixer for feeding powdered pelletable material thereto; separate conveyor means connected with the downstream end of said conveyor-mixer and leading to said feed inlet line; spraying means in said conveyor-mixer upstream of said feed conveyor; and spraying means in said conveyor-mixer intermediate said feed conveyor and said conveyor means.

6. A process for pelleting hot carbon black comprising passing a feed as hereinafter described to a rotating pellet mill so as to form pellets therein by tumbling and cascading said black from the inner surface of the rotating shell of said mill; withdrawing a stream of pellets from said mill and dividing same into a product stream and a recycle stream; spraying water onto the pellets in said recycle stream in an amount in the range of 2 to 24 pounds per 100 pounds of carbon black which wets said black without forming a mud thereof; admixing with said recycle stream a stream of loose flocculent carbon black so as to prepare a moist feed for said mill; mechanically agitating and mixing said feed for a substantial period whereby pelleting thereof is initiated; and thereafter passing said moist feed to said mill.

2,844,446

STABILIZATION OF HYDROCARBON DISTILLATES

Henry A. Cyba, Chicago, and Ralph B. Thompson, Hinsdale, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application February 2, 1956
Serial No. 562,939
5 Claims. (Cl. 44—63)

1. Fuel oil normally susceptible to sediment formation in storage containing a compound selected from the group consisting of a bis-tetrahydropyrimidine joined at the 2-position through a divalent hydrocarbon radical and the amides, salts and acid salts of said bis-tetrahydropyrimidine, said compound having the property of and being present in sufficient amount to retard said sediment formation.

2,844,447

GASOLINE FUEL COMPOSITIONS

Samuel M. Darling, Lyndhurst, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 29, 1953
Serial No. 401,838
4 Claims. (Cl. 44—69)

1. A composition of matter consisting essentially of gasoline, a knock-suppressing amount of tetraethyl lead and dialkyl sulfite, represented by the formula R_2SO_3, wherein R is a lower alkyl radical containing from 1 to 4 carbon atoms, the dialkyl sulfite and tetraethyl lead being present in a molecular ratio ranging from about 1:100 to about 1:1.

2,844,448

FUELS CONTAINING A DEPOSIT-CONTROL ADDITIVE

Robert Y. Heisler and Stanley R. Newman, Fishkill, and Norman Alpert, Poughkeepsie, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 23, 1955
Serial No. 554,925
13 Claims. (Cl. 44—70)

1. A normally liquid hydrocarbon fuel for internal combustion engines containing a polyglycol carbonate ester having a carbon to oxygen weight ratio below 2.5

and a boiling point above 650° F. and the following general formula

$$R'OOCO(RO)_nCOOR''$$

wherein R is a divalent aliphatic hydrocarbon radical containing at least 2 carbon atoms, R' and R'' are aliphatic hydrocarbon radicals containing between 3 and 18 carbon atoms and *n* is an integer having a value of 2 to 10, said glycol carbonate ester being present in an amount sufficient to reduce the deposit-forming property of said fuel.

2,844,449

FUELS CONTAINING A DEPOSIT-CONTROL ADDITIVE

Kenneth L. Dille, Robert Y. Heisler, and Stanley R. Newman, Fishkill, and Norman Alpert, Poughkeepsie, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 23, 1955
Serial No. 555,193
13 Claims. (Cl. 44—70)

1. A normally liquid hydrocarbon fuel for internal combustion engines containing a glycol bis(glycol ether carbonate) having a carbon to oxygen weight ratio below 2.5 and the general formula

$$R'O(CH_2CH_2O)_xOCO(R\bar{O})_nCO(OCH_2CH_2)_xOR'$$

wherein R is a divalent aliphatic hydrocarbon radical containing 2 to 3 carbon atoms, R' is an aliphatic hydrocarbon radical containing 2 to 18 carbon atoms, *x* has a value of 1 to 4 and *n* has a value of 1 to 4, said glycol derivative being present in an amount sufficient to reduce the deposit-forming properties of said fuel.

2,844,450

FUELS CONTAINING DEPOSIT-CONTROL ADDITIVES

Robert Y. Heisler, Stanley R. Newman, and Kenneth L. Dille, Fishkill, and Norman Alpert, Poughkeepsie, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application January 18, 1956
Serial No. 559,761
8 Claims. (Cl. 44—70)

1. A normally liquid hydrocarbon fuel for internal combustion engines containing a carbonic acid diester of an aliphatic alcohol and of a polyglycol monoether of the following general formula

$$R(OR')_nOCOOR''$$

wherein R is a monovalent hydrocarbon radical containing 6 to 18 carbon atoms, R' is a divalent aliphatic hydrocarbon radical containing 2 to 3 carbon atoms, R'' is an aliphatic hydrocarbon radical containing 1 to 14 carbon atoms, and *n* has a value of 3 to 15, said carbonic acid diester being present in an amount sufficient to reduce the deposit-forming properties of said fuel.

2,844,451

FUELS CONTAINING DEPOSIT CONTROL ADDITIVES

Norman Alpert, Poughkeepsie, and Robert Y. Heisler and Stanley R. Newman, Fishkill, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 24, 1956
Serial No. 567,445
9 Claims. (Cl. 44—70)

1. A normally liquid hydrocarbon fuel for internal combustion engines containing a polymethylene glycol bis(glycol ether carbonate) of the general formula

$$R'O(CH_2CH_2O)_xOCOROCO(OCH_2CH_2)_xOR'$$

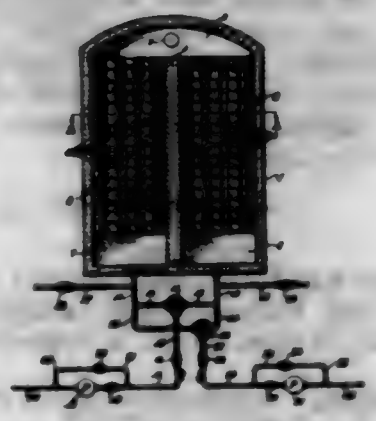
wherein R is a divalent symmetrical polymethylene radical containing 4 to 10 carbon atoms, R' is an aliphatic hydrocarbon radical containing 1 to 12 carbon atoms and *n* has a value of 1 to 6, said glycol derivative having a carbon to oxygen weight ratio below 2.5 being present in an amount sufficient to reduce the deposit-forming properties of said fuel.

2,844,451

SELF-SUSTAINING REGENERATIVE PROCESS

Rudolph L. Hasche, Johnson City, Tenn.

Application April 5, 1950, Serial No. 154,185
6 Claims. (Cl. 48—196)



1. A self-sustaining regenerative process for continuously effecting endothermic reactions with fluid reactants which comprises flowing a non-flammable mixture containing hydrocarbon and air through continuous channels of a regenerative mass progressively hotter in the direction of gas flow to pre-heat said mixture and effect incipient endothermic cracking of the hydrocarbon in the regenerative mass to produce a flammable mixture, flowing the flammable mixture through a combustion and endothermic alteration zone simultaneously to burn a portion of the hydrocarbon and endothermically to alter substantially all of the remainder of said hydrocarbon, said burning supplying all of the required heat for said endothermic alteration and producing a gaseous effluent having a temperature higher than that of the regenerative mass, flowing the said effluent through continuous channels of a second regenerative mass progressively cooler in the direction of flow to quench said effluent and to transfer the sensible heat thereof to the second regenerative mass in an amount substantially equivalent to the amount of sensible heat removed from the first regenerative mass in the pre-heating step, rapidly reversing the flow of non-flammable gaseous feed mixture when the temperature of the first regenerative mass falls below that effective to pre-heat the said gas and by incipient cracking produce a flammable mixture and the temperature of the second regenerative mass rises above that effective to quench the effluent; the period of residence of the gases undergoing treatment in each of the regenerative masses not exceeding about 0.3 second, the period of residences of the gases undergoing treatment in said combustion and thermal alteration zone not exceeding about 0.05 second, said residence periods being calculated at atmospheric pressure, the pressure drop of the gases passing through said regenerative masses not exceeding about five pounds per square inch.

2,844,453

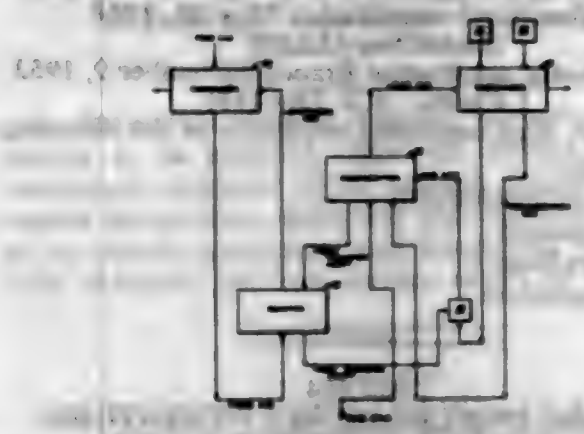
SYNTHESIS GAS MANUFACTURE

Nunser Martin Kapp, Swarthmore, and Frederick William Sullivan III, Media, Pa., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

Application November 6, 1953, Serial No. 390,692
2 Claims. (Cl. 48—196)

1. In the method of continuously producing synthesis gas by the reaction of a normally gaseous hydrocarbon

with a reducible metal oxide donor material to form as gaseous products CO and H_2, the improvement which comprises circulating said metal oxide donor material in admixture with an inert inorganic molten heat transfer agent through a reaction zone while at a temperature in the range of 1400–2000° F., passing such normally gaseous hydrocarbon at a temperature below that of said molten agent into said admixture in said reaction zone to effect reaction between said donor material and said hydrocarbon with reduction of said donor material to



lower valence state, withdrawing from said reaction zone molten heat transfer agent containing said donor material in lower valence state and passing the withdrawn admixture to a reheating and regenerating zone, contacting said last-mentioned admixture in said last-mentioned zone with heated oxygen-containing gas to restore said donor material to its original metal oxide form while simultaneously effecting reheating of the heat transfer agent, returning said restored donor material and said reheated transfer agent to said reaction zone, and continuously withdrawing gaseous products from said reaction zone.

2,844,454

BIOLOGICAL TOXICANT

Gail H. Birum, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 25, 1954
Serial No. 412,622
8 Claims. (Cl. 71—2.7)

4. The method of destroying undesirable plants which comprises applying to said plants a herbicidal quantity of a herbicidal composition comprising a complex addition product having the formula

$$\left[R-\begin{matrix}R'\\ \\ R''\end{matrix}\right]_n HgX_2$$

in which X is selected from the class consisting of chlorine, bromine and iodine, n is an integer of 1 to 2 and R, R′ and R″ are alkoxy radicals of from 1 to 8 carbon atoms.

2,844,455

FERTILIZER MANUFACTURE

Jay C. Harris, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 25, 1953
Serial No. 382,457
4 Claims. (Cl. 71—40)

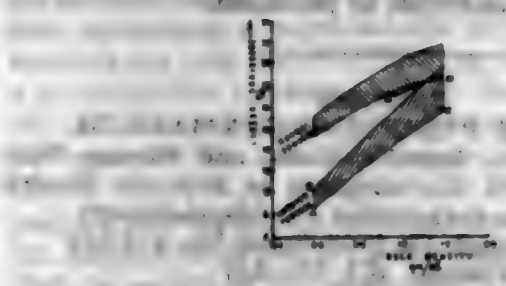
1. In the process of producing superphosphate fertilizers by the acidulation of natural phosphates, the improvement comprising carrying out said acidulation with an acid selected from the group consisting of sulfuric acid and phosphoric acid in the presence of an alkali metal alkylbenzene sulfonate having from 4 to 6 carbon atoms in the alkyl portion thereof.

2,844,456

PRODUCTION OF NICKEL OR IRON POWDER

David M. Llewelyn, Sunnybank, Clydach, Alexander R. Simpson, Brynmill, Swansea, and De Witt H. West, Port Eynon, Swansea, Wales, assignors to The International Nickel Company, Inc., New York, N. Y., a company of Delaware

Application December 14, 1954, Serial No. 475,136
13 Claims. (Cl. 75—.5)



1. Process for the production of light nickel or iron powder of the type consisting of aggregates of interlocking chains and fibres, having a linear shrinkage on sintering low in relation to its bulk density, wherein nickel or iron carbonyl vapour is thermally decomposed in a heated free space in the pressure of 0.01 to 0.08% of oxygen promoting the formation of nuclei for the carbonyl decomposition with the addition of a diluent gas in amount from 20% to 50% of the gases entering the decomposer to counteract the effect of the presence of said nuclei on the bulk density of said product.

2,844,457

LUMP ORES AND METHODS OF PRODUCING THEM

Charles R. Amberg, Cortlandt Township, Westchester County, N. Y., assignor to Blocksl Iron Corporation, Albany, N. Y., a corporation of New York

No Drawing. Application November 22, 1954
Serial No. 470,523
17 Claims. (Cl. 75—3)

1. The method of producing lump ore from finely divided metal-containing materials, comprising the steps of admixing the finely divided material with at least one of the group consisting of the oxides and hydroxides of alkaline earth metals and reacting the resulting mixture with carbon dioxide in the presence of up to about 10% moisture in the admixture.

2,844,458

METHOD OF INTRODUCING TITANIUM INTO MOLTEN METALS AND COMPOSITION FOR SUCH PROCESS

John H. Hillman III, Pittsburgh, Pa.

No Drawing. Application January 28, 1954
Serial No. 406,888
1 Claim. (Cl. 75—27)

An addition material to be charged directly into a heat of steel comprising at least 50% of a mixture of powdered metal of the group consisting of aluminum and magnesium and an oxide of a metal of the group consisting of titanium and chromium in the ratio of one part by weight of aluminum to two parts of metal oxide, said material also containing calcium carbonate with one additional part of the powdered metal for each three parts of calcium carbonate, the calcium carbonate being in the range of 10% to 50% of the total mass, the material being bonded into a mass by lime as a bonding medium.

2,844,459

METHOD FOR THE PRODUCTION OF CADMIUM

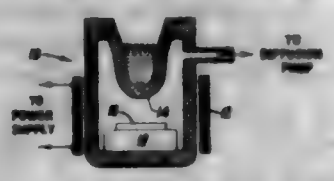
James L. Wyatt, South Euclid, Ohio, assignor to Horizons Incorporated, Princeton, N. J., a corporation of New Jersey

No Drawing. Application February 17, 1956
Serial No. 566,100
8 Claims. (Cl. 75—71)

1. A process for producing metallic cadmium which comprises: forming a fused melt consisting of at least

one salt from the group consisting of alkali metal halides and alkaline earth metal halides; introducing a reducible cadmium compound into the melt; maintaining the melt and the reducible compound at a temperature at which cadmium metal has an appreciable vapor pressure; introducing a reducing agent into said melt, thereby effecting simultaneous reduction and distillation of the cadmium, separating the cadmium metal from the melt as a vapor and recovering the cadmium so produced.

2,844,460
METHOD OF PURIFYING GERMANIUM
George B. Finn, Jr., Ipswich, Mass., and Sumner Mayburg, Bayside, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application March 10, 1954, Serial No. 415,310
2 Claims. (Cl. 75—84)



1. The method of removing traces of copper and the like from crystalline germanium, including the steps of forming a wafer of such germanium and treating the wafer in a vacuum at a pressure not higher than 10^{-4} mm. of mercury and at a temperature in the approximate range of between 500° C. and 950° C.

2,844,461
METHOD FOR THE PREPARATION OF ZINC
James L. Wyatt, South Euclid, Ohio, assignor to Horizons Incorporated
No Drawing. Application February 21, 1955
Serial No. 489,783
8 Claims. (Cl. 75—86)

1. A process for the reduction of a reducible zinc compound which comprises establishing a fused bath of at least one alkali metal chloride salt, introducing a zinc compound and a reducing agent into the fused bath, effecting reduction of the zinc compound in said fused bath at a temperature below the boiling point of zinc metal, recovering zinc from the gaseous effluent from fused salt bath.

2,844,462
RECOVERY OF ZINC
James L. Wyatt, Cleveland, Ohio, assignor to Horizons Incorporated, a corporation of New Jersey
No Drawing. Application May 2, 1957
Serial No. 656,497
1 Claim. (Cl. 75—86)

In a process for recovering the zinc content of zinc containing materials which consist of a metallic zinc core associated with a covering layer of non-metallic reducible zinc containing compounds which includes: forming an inert stable heating and dispersing medium consisting essentially of at least one halide from the group consisting of alkali metal halides and alkaline earth metal halides by melting said halide; introducing into said medium, an impure zinciferous crude material consisting of a metallic zinc core associated with a covering layer of non-metallic reducible zinc compounds; and while it is being dispersed and heated, contacting the said crude material with a reducing agent from the group consisting of carbon, carbon monoxide and hydrocarbon gases; and thereafter recovering the zinc metal product; the improvements which comprise: (1) maintaining an atmosphere above the heating and dispersing medium which is non-oxidizing toward zinc and (2) maintaining the heating and dispersing medium, the reducing agent and the dispersed crude material at a temperature and under a pressure such that the zinc metal in the system is evolved from the bath as a vapor, and (3) thereafter recovering the metallic zinc from the vapor evolved into said non-oxidizing atmosphere.

2,844,463
MAGNESIUM-BASE ALLOYS
René Lucien, Paris, and Emile Tetart, Louvie-Juzon, France, assignors to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M., Fribourg, Switzerland, a corporation of Switzerland
No Drawing. Application May 26, 1954
Serial No. 432,575
Claims priority, application France November 9, 1953
1 Claim. (Cl. 75—168)

Magnesium alloy consisting essentially of the following:
6 to 7% of zinc
0.5 to 1.5% of mischmetall
0.5% of aluminum
0.01% of beryllium
Residue: magnesium

2,844,464
METHOD FOR CHEMICALLY TREATING WOOD PARTICLES
Thomas Oregon Lawton and Filmore Gilkeson Wilson, Greenville, S. C.
Application December 7, 1954, Serial No. 473,526
5 Claims. (Cl. 92—7)



1. A method of chemically treating wood particles for the production of wood pulp comprising introducing a chemical liquor having the wood particles therein into the top of one side of a long U-shaped vessel while such vessel is substantially submerged within a liquid of substantially the same specific gravity as the chemical liquor, and allowing the liquor to flow out of the top of the other side of the U-shaped vessel while the chemical treatment takes place continuously under high pressure near the bottom of the vessel.

2,844,465
PHOTOGRAPHIC PROCESS
Lyman Chalkley, Prince Georges County, Md.
No Drawing. Application March 17, 1954
Serial No. 416,565
5 Claims. (Cl. 96—48)

1. A photographic process comprising the steps of printing out an image by ultraviolet radiation upon material sensitized with a hydrophobic amino triphenylmethane dye cyanide activated by an organic activator boiling below 325° C. at a pressure of 760 mm. of mercury selected from the group consisting of veratrole, resorcinol dimethyl ether, an ethylene glycol ether, a phosphoric acid ester of a monohydroxy compound, an aromatic amine containing a hydrogen atom on the nitrogen atom, a nitrile in which the cyano group is attached to a carbon

atom which also holds a hydrogen atom, an aromatic carbinol and a lower aliphatic alcohol and fixing the image by blowing a stream of air over the print until the activator is completely removed.

2,844,466

GROWTH PROMOTANT SUBSTANCES

Alan B. Rogers, Evergreen Park, and John F. Roland, Jr., Glenview, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application October 2, 1953
Serial No. 383,918
11 Claims. (Cl. 99—2)

1. An animal nutrient material characterized by containing as an essential ingredient therein at least one compound composed of the cationic fragment of a quaternary ammonium surfactant and the anionic fragment of an anionic surfactant, said compound being substantially insoluble and non-surface active in water.

2,844,467

ADDITION OF UREA ASCORBATE TO BREAD DOUGH AND RESULTING PRODUCT

Simeon Lyon Ruskin, New York, N. Y., assignor to Union Carbide Corporation, New York, N. Y., a corporation of New York

No Drawing. Application October 4, 1954
Serial No. 461,249
4 Claims. (Cl. 99—90)

1. In the making of bread, the step of adding to the dough a urea ascorbate during the kneading of the dough.

2,844,468

SOY PROTEIN WHIPPING COMPOSITIONS AND PROCESS FOR THE PREPARATION THEREOF

Robert C. Gunther, Galesburg, Ill., assignor to Gunther Products, Inc., Galesburg, Ill., a corporation of Illinois

No Drawing. Application April 26, 1955
Serial No. 504,169
8 Claims. (Cl. 99—114)

1. A whipping composition comprising the following components on a dry basis by weight:

	Percent
Enzyme modified soy protein	70–90
Gelatin	3–15
Sequestering, edible, water soluble polyphosphate	5–15
Sodium aluminum sulfate	0–5

2,844,469

PRESSURIZED SALAD DRESSING AND METHOD OF PREPARING THE SAME

Daniel Melnick, Teaneck, and Jack Akerboom, Bridgeton, N. J.

No Drawing. Application August 18, 1955
Serial No. 529,316
22 Claims. (Cl. 99—144)

1. A composition of matter adapted to be dispensed from a pressurized container for use as a salad dressing comprising an emulsion of fat particles dispersed in an aqueous medium having a pH of about 3 to 5, said emulsion containing an edible emulsifying agent and an edible acidifying agent, said fat containing a hydrogenated vegetable fat and having a melting point between about 80° and 110° F. and a setting point between about 55° and 90° F., said fat particles being homogeneous in composition and having an average size of less than about 10 microns, and the fat being between about 20 and 50% by weight of the emulsion and said emulsion being free flowing at room temperature

2,844,470

PRESSURIZED FOOD DRESSING

Jack Akerboom, Bridgeton, and Daniel Melnick, Teaneck, N. J., assignors to The Best Foods, Inc., New York, N. Y., a corporation of New Jersey

No Drawing. Application July 24, 1956
Serial No. 599,678
13 Claims. (Cl. 99—144)

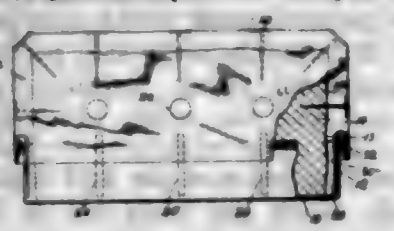
1. An edible composition comprising an emulsion of fat particles dispersed in an aqueous medium, said emulsion containing a water-soluble protein-containing pasteurized egg yolk material, said egg yolk material having a pasteurization constant of more than 100 and less than 400,000, said fat having a melting point between about 80° and 120° F., and a setting point between about 55° and 90° F., said fat particles being homogeneous in composition and having an average size of less than about 10 microns, and the fat being between about 20 and 50% by weight of the emulsion.

2,844,471

PACKAGE CONTAINING ARTICLE WITH DELICATE SURFACE

Johanna C. Boardway, Claremont, N. H.

Application April 12, 1957, Serial No. 652,473
2 Claims. (Cl. 99—171)



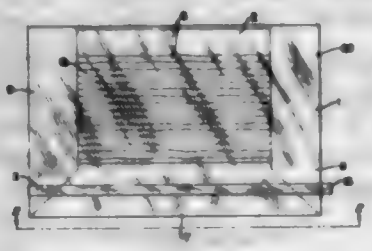
1. A package comprising a flat support with upturned margins, a body of soft, shape-retaining material resting on said support, a flexible wrapper covering the top and sides of said body and extending to said margins of the support, a plurality of pins with heads of substantial diameter partially inserted in the top and sides of said body at spaced intervals and arranged to hold said wrapper out of contact with said body, and removable means securing said wrapper to said margins.

2,844,472

METHOD OF PACKAGING BACON STRIPS

John F. Ehrenfried, Akron, and Leo J. Von Gunten, Clinton, Ohio, assignors to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

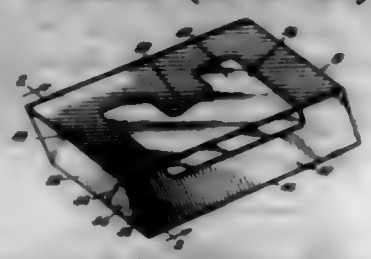
Application June 14, 1955, Serial No. 515,482
2 Claims. (Cl. 99—174)



1. The method of packaging strips of bacon in a relatively flat foldable holder, a transparent overwrap of rubber hydrochloride film and a tear tape which is heat sealable to the film, the tear tape being in a roll, which method comprises applying the overwrap to the bacon strips in overlapped relation on the holder with at least the bottom edge of the holder folded forwardly and covering only part of the bacon strips, bringing the edges of the overwrap into overlapping relation at the back side of the holder and heat sealing the overlapped portions near one edge thereof, uniting one end of the tear tape to the exposed surface of said heat-sealed overlapped portions while the overwrap is still tacky from the heat-sealing operation, and then folding the tear tape over said edge,

unrolling the tear tape from the roll and uniting it to the front of the overwrap across the entire front of the package and cutting a length of the tear tape from the roll with its end extending beyond the opposite edge of the holder.

2,844,473
SLICED FOOD PACKAGE
Oscar E. Selferth and Calvin T. Royston, Madison, Wis., assignors to Oscar Mayer & Co., Inc., Chicago, Ill., a corporation of Illinois
Application July 6, 1955, Serial No. 520,218
12 Claims. (Cl. 99—174)



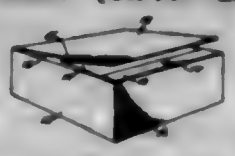
1. A package comprising a predetermined quantity of a food product which is in the form of a plurality of relatively thin elongate slices thereof, which slices are arranged in face engaging edge supported and tilted relation and which provide a mass having a cross section in the form of a parallelogram, and a wrapper of relatively stiff bendable material enclosing said product, said wrapper having connected panels forming top and bottom walls, front and rear side walls which are tilted rearwardly at an acute angle relative to the bottom wall, and end walls extending between the end edges of the front and rear walls which end walls are in the form of a parallelogram whereby the product is inclosed in the wrapper and the slices thereof are supported in tilted relation therein.

2,844,474
PACKAGING AND PROCESSING OF POULTRY
Alvin I. Nelson, Champaign, Ill., assignor to International Minerals and Chemical Corporation, Chicago, Ill., a corporation of New York
Application April 29, 1957, Serial No. 655,896
7 Claims. (Cl. 99—174)



1. An eviscerated fowl, hermetically sealed and cooked in an evacuated, skin-tight, impervious plastic film, said film extending in tubular form completely through the abdominal cavity of said fowl and covering the interior and exterior surfaces thereof.

2,844,475
DISPOSABLE PRESSURE COOKER PACKAGE OF FROZEN FOOD
James F. Barnes, Van Nuys, Calif., and Elmer F. Rebbeln, St. Louis, Mo., assignors to Foil Process Corporation, Van Nuys, Calif., a corporation of California
Application January 4, 1955, Serial No. 479,739
3 Claims. (Cl. 99—192)



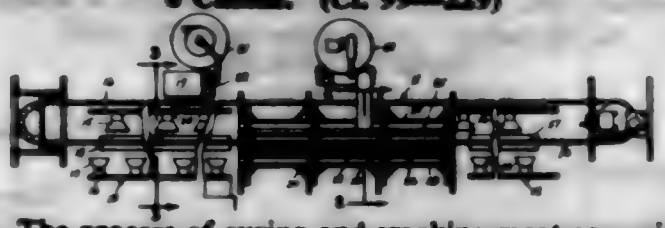
1. A disposable pressure cooker and package, comprising a box formed of metal foil sheet material, and a frozen food product therein containing water for cooking said product, the upper portion of said box being folded downwardly along one edge of said box and extending substantially to the opposite edge thereof, and a steam outlet port in said box adjacent said opposite edge and communicating with the interior of said box through said downwardly-folded box portion, said box being closed except for said steam outlet port.

2,844,476
PROCESS OF COMMINUTING AND DEHYDRATING FOODS
Eugene J. Elvecha, Washington, D. C.
No Drawing. Application July 29, 1953
Serial No. 371,155
4 Claims. (Cl. 99—199)

1. A method for simultaneously comminuting and dehydrating foodstuffs, comprising: freezing said foodstuffs to provide relatively large frozen pieces, subjecting the surfaces of said frozen pieces to continuous absorptive and abrasive action by agitating said pieces in contact with at least approximately equal proportions by weight of relatively dry hygroscopic food powder while said surfaces are at substantially freezing temperature and the interiors of said pieces are below freezing temperature, and continuing the agitation of said frozen pieces with said food powder to continuously abrade particles from the frozen pieces and expose, thaw, and dehydrate layer after layer of the frozen pieces.

2,844,477
WITHDRAWN

2,844,478
PROCESS OF SMOKING MEAT
Jack W. Hanley, Indianapolis, and Howard Ned Drandt, Beech Grove, Ind., assignors to Kingan, Inc., Indianapolis, Ind., a corporation
Application January 31, 1955, Serial No. 484,912
6 Claims. (Cl. 99—229)



1. The process of curing and smoking meat comprising the steps of injecting a curing solution into said meat, raising the temperature of the surface of said meat within the range of 200° F. to 250° F. over a period of approximately four minutes, holding said surface temperature constant and raising the internal temperature of said meat to the range of 115° F. to 130° F. within a period of twenty-five to forty minutes, creating an electrostatic field of thirty thousand to fifty thousand volts, circulating smoke through said electrostatic field at the rate of forty feet per minute to one hundred sixty feet per minute, passing said meat through said field and smoking said meat for a period of approximately four minutes, and fixing said smoke on the surface of said meat by raising the surface temperature of said meat to the range of 200° F. to 250° F. for a period of approximately four minutes.

2,844,479
ELECTRICAL JOINT COMPOSITION
Mike A. Miller, New Kensington, Pa., assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application June 29, 1950
Serial No. 169,294
6 Claims. (Cl. 106—14)

1. An anhydrous composition of matter which when placed in a joint between solid metallic electrical conduc-

tors, serves to reduce the electrical resistance between said conductors, said composition containing as its essential and sole active component a reaction product of anhydrous hydrofluoric acid and a substituted oxazoline containing not less than eight carbon atoms, the substituents in said substituted oxazoline being selected from the class of straight chain groups composed of carbon and hydrogen and carbon, hydrogen and oxygen, said hydrofluoric acid being reacted with said substituted oxazoline without decomposition, the amount of hydrofluoric acid in said reaction product being between 0.5 and 20% by weight of the reaction product, said reaction product being characterized by insolubility in water and miscibility in hydrocarbon grease and oil.

2,844,480
HYDRAULIC CEMENT COMPOSITIONS FOR WELLS

George E. Greminger, Jr., Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 31, 1956
Serial No. 588,252
4 Claims. (Cl. 106—93)

1. A cement composition useful in the form of a pumpable aqueous slurry for cementing earthen wells and which exhibits a low water loss and a retarded time to reach an unpumpable set consisting essentially of a hydraulic cement and from about 0.3 to about 1.0 percent by weight of said cementitious material of a water-soluble carboxymethyl methyl cellulose.

2,844,481
MILK SOLIDS COMPOSITIONS AND METHOD OF MAKING

Martin F. Langworthy, Lowell, Mich.

No Drawing. Application May 11, 1953
Serial No. 354,483
17 Claims. (Cl. 106—146)

3. In a method of preparing valuable products from a liquid milk product, the steps which comprise adding an aqueous solution of sodium carbonate to a liquid milk product to render the latter alkaline, separating the solution from any precipitated solids, admixing aqueous hydrochloric acid with said solution in amount sufficient to reduce the pH of said solution to a pH in the range of 0.0 to 4.0 whereby to form a precipitate and whereby also to form a foam which rises to the surface, removing said foam, allowing said foam to drain at least partially whereby to recover the solids of said foam, and then adding an aqueous solution of sodium carbonate to said recovered solids from said foam.

2,844,482
ADHESIVE COMPOSITION

Donald F. Mackey, Memphis, Tenn., assignor, by mesne assignments, to The Buckeye Cellulose Corporation, Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application September 12, 1955
Serial No. 533,897
6 Claims. (Cl. 106—154)

4. A protein-containing liquid adhesive composition capable of producing a water-resistant bond and particularly suitable for solid fiber laminating consisting essentially of, by weight, about 49.4% water, about 24.6% kaolinite clay, about 17.3% of a substantially unhydrolyzed, chemically isolated, soybean protein, about 1.7% sodium sulfite, about 6.9% of a 5% aqueous solution of glyoxal and a small amount of tetrasodium pyrophosphate as a clay dispersing agent, the said composition being characterized by a pot life of at least about 72 hours.

2,844,483
PLASTICISERS

Frederick Ernest King, London, England, assignor to British Celanese Limited, a British company

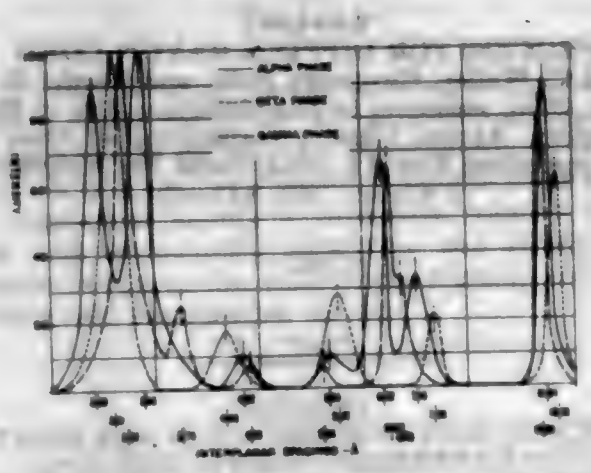
No Drawing. Application July 18, 1956
Serial No. 596,844
Claims priority, application Great Britain July 19, 1955
6 Claims. (Cl. 106—180)

1. A composition having a basis of cellulose acetate plasticised with the aid of an ester selected from the class consisting of the pentaacetate of 2:2:6:6-tetramethylol cyclohexanol and nuclear monomethyl substitution derivatives thereof.

2,844,484
ORGANIC PIGMENTS

Albert D. Reddinger, Wilmington, Del., and William S. Struve, Chatham, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 22, 1955, Serial No. 523,699
4 Claims. (Cl. 106—288)

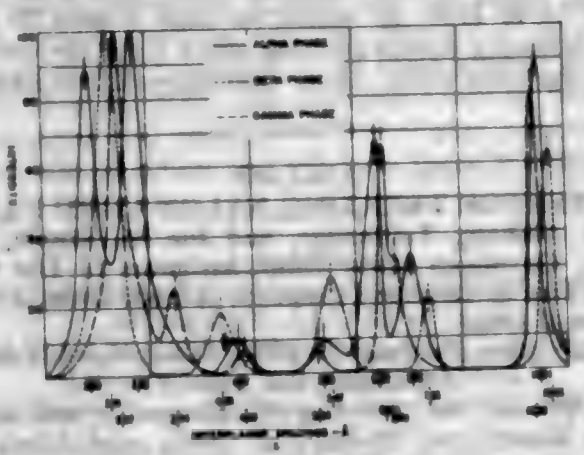


1. As a new red pigment, linear quinacridone in alpha crystal phase characterized by an X-ray diffraction pattern showing two closely related strong lines with interplanar spacings of 3.46 A. and 3.19 A., a third line of similar intensity with an interplanar spacing of 14.24 A., two lines of moderate intensity with interplanar spacings of 6.32 A. and 7.13 A. and two weak lines with interplanar spacings of 5.30 A. and 4.27 A., said alpha crystal phase quinacridone having a surface area of at least 60 square meters per gram.

2,844,485
ORGANIC PIGMENTS

William S. Struve, Chatham, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 22, 1955, Serial No. 523,754
10 Claims. (Cl. 106—288)



1. A new bluish red to violet pigment comprising linear quinacridone in the beta crystal phase characterized by an X-ray diffraction pattern exhibiting two strong lines corresponding to interplanar spacings of 3.31 A. and

15.23 A. and exhibiting three other lines of lesser intensity corresponding to interplanar spacings of 7.55 A., 5.47 A. and 4.06 A., said beta crystal phase quinacridone having a surface area of at least 60 square meters per gram.

2,844,486
WATER DISPERSIBLE TALC PIGMENT COMPOSITION

Richard S. Lamar, La Canada, Calif., assignor to Sierra Talc & Clay Company, South Pasadena, Calif., a corporation of California

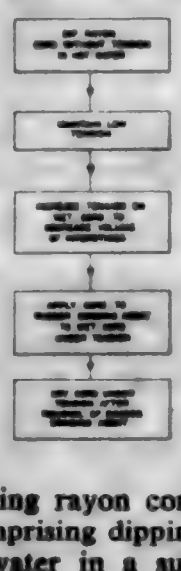
No Drawing. Application December 26, 1956
Serial No. 630,447
11 Claims. (Cl. 106—308)

1. A strongly hydrophilic talc pigment comprising finely comminuted talc particles having their surfaces at least partly coated with a nonionic surfactant having a hydrophobic portion chemically bound to a hydrophilic portion consisting of polyethylene oxide groups.

2,844,487
PROCESS FOR DIPPING RAYON CORD

Richard C. Waller, Cuyahoga Falls, and Daniel D. Ray, Kent, Ohio, assignors to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application May 19, 1954, Serial No. 430,996
1 Claim. (Cl. 117—7)



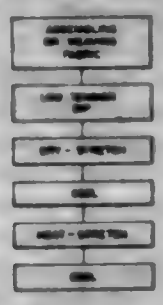
A method of treating rayon cord which is to be imbedded in rubber comprising dipping continuous filament rayon cord in hot water in a substantially tensionless condition, maintaining the cord in a tensionless condition during and after the hot water dip until the cords are plasticized and the interstices between the cord filaments are filled with water, increasing the tension of the thus wetted and plasticized cord to decrease the volume of the interstices between the filaments of the cord, applying an aqueous solution of a cord to rubber bonding agent to the thus wetted and plasticized cord, and while said cord is under said increased tension, of a concentration of 15 to 25% by weight to form a cord to rubber bond, removing excess bonding agent from the cord, and drying the cord while under said increased tension.

2,844,488
PROCESS FOR TREATING NYLON CORD FABRIC

Jess W. Meberg, Tallmadge, and Joe M. Ripple, Silver Lake, Cuyahoga Falls, Ohio, assignors to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application February 2, 1955, Serial No. 485,682
4 Claims. (Cl. 117—7)

1. A process for reducing the elongation and increasing the dimensional stability of nylon cord fabric comprising, dipping the cord under low tension in an aqueous solution of a nylon cord to rubber bonding agent, drying the dipped cord at a temperature of 200 to 370° F. under a stretching tension of from .6 to .8 gram per denier, and subjecting the dried cord to heat at a temperature approximating that of the melting point of the individual cords for an interval of time less than that re-

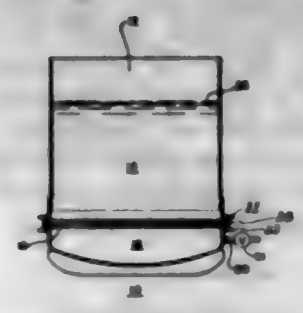


quired to melt the cords and simultaneously stretching the cords under tension sufficient to stretch the cord 5 to 12%.

2,844,489
FLUIDIZED BED COATING PROCESS

Erwin Gemmer, Frankfort am Main, Germany, assignor to Knapsack-Griesheim Aktiengesellschaft, Knapsack, near Koln, Germany, a German company

Application December 20, 1957, Serial No. 704,106
6 Claims. (Cl. 117—20)



1. The process of forming a layer of material on a surface of an article which comprises forming a fluidized bed consisting of a dense phase bounded by an upper free surface by passing a distributed ascending current of gas at a predetermined pressure through a mass of solid, pulverulent, layer-forming material containing particles therein which sinter when heated, immersing the article surface in said dense phase while said article is heated to a temperature below the deterioration temperature of the article but at least as high as the sintering temperature of said particles, moving said article surface to and fro while it is immersed thereby to produce a uniform layer of said material on said surface, and cooling the article.

2,844,490
TEXTILE DECORATING AND TEXTILE PRINTING PASTE

Wolfgang Lehmann, Leverkusen-Bayerwerk, Ferdinand Münz, Koln-Stammheim, Otto Bayer, Leverkusen-Bayerwerk, and Helmut Kleiner, Opladen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application October 6, 1953
Serial No. 384,514
Claims priority, application Germany October 20, 1952
10 Claims. (Cl. 117—38)

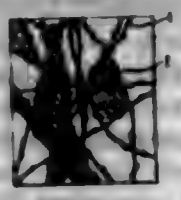
1. A printing paste consisting essentially of an aqueous solution of a salt of a high molecular weight compound containing epoxy groups and, in addition, groups selected from the group consisting of primary and secondary amine groups, said compound being obtained by reaction of a compound selected from the group consisting of epichlorohydrin and dichlorohydrin with a compound selected from the group consisting of ammonia, an alkylamine and aliphatic polyamines at temperatures up to about 100° C., a thickening agent and a pigment.

6. The process for decorating textiles which comprises applying to said textiles a printing paste as claimed in claim 1 and developing at temperatures from 80 to about 200° C.

2,844,491
PAPER-LIKE PELLICLE AND METHOD FOR PRODUCING SAME

James K. Hubbard, Longview, Wash., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application April 29, 1955, Serial No. 505,940
6 Claims. (Cl. 117—65)

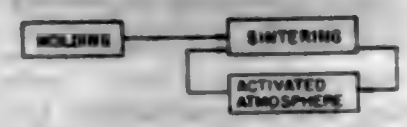


1. A process of preparing a paper-like pellicle which comprises impregnating an unwoven web of a molecularly oriented synthetic condensation polyamide fiber with an aqueous dispersion of an N-alkoxymethylpolyamide and thereafter subjecting the impregnated mass to heat and pressure.

2,844,492
METHOD OF PRODUCING HEAT RESISTING METALLIC MATERIALS AND FORMED BODIES

Erich Fitzer, Vienna, Austria, assignor to Siemens-Planiawerke Aktiengesellschaft fuer Kohlefabrikate, Meitingen, near Augsburg, Germany, a corporation of Germany

Application February 23, 1954, Serial No. 411,949
Claims priority, application Austria February 26, 1953
4 Claims. (Cl. 117—66)



1. Method of producing high-melting material from a base metal taken from transition metals of the fourth to sixth groups of the periodic system of elements by reaction at elevated temperature of one of said metals with a vaporized halide compound of a semi-metal taken from the group consisting of silicon and boron, comprising forming a vaporized halide of said semi-metal, activating said halide prior to reaction with the base metal by large area contact at elevated temperature with a corresponding metallic semi-metal to form an unstable halide compound, and thereafter causing reaction of said activated halide compound with said base metal, the temperature incident to activation of said halide compound exceeding the temperature required for reaction with said base metal.

2,844,493
HIGH RESISTANCE PHOTOCONDUCTOR

Herbert Schlosser, Cleveland Heights, Ohio, assignor to Horizons Incorporated

Application February 11, 1955, Serial No. 487,691
12 Claims. (Cl. 117—211)

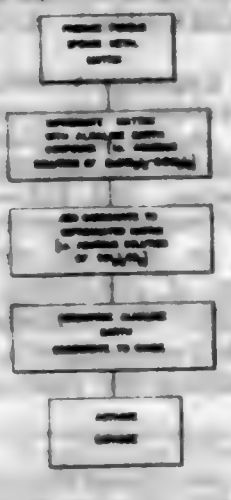


1. A transparent light sensitive assembly composed of a support and a coating thereon consisting of a photoconductive material having a resistivity in the dark of the order of 10^{13} ohm centimeters and a resistance decrease factor of at least about 100 when illuminated, said coating consisting essentially of a composition of arsenic and sulfur in which the relative proportion of arsenic to sulfur is greater than 1 mol of arsenic:5 mols of sulfur and less than equimolar.

2,844,494
METHOD OF PRODUCING ELECTRON EMITTING CATHODES

Edward F. Rexer, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application October 21, 1953, Serial No. 387,537
9 Claims. (Cl. 117—213)

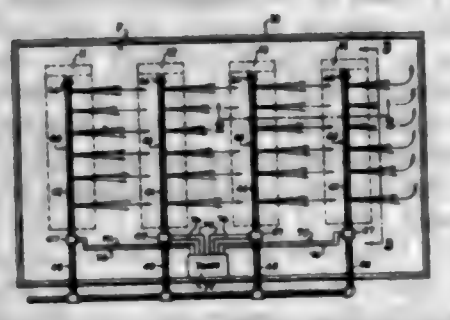


1. The method of producing an electron emitting cathode body which comprises the steps of impregnating a previously formed porous base metal matrix by exposing said matrix to a solution including a solute of an alkaline earth compound adding a carbonate solution to said matrix, and subsequently converting said alkaline earth carbonate in-situ to the oxide form thereof, and thence activating said impregnated matrix.

2,844,495
METHOD FOR CLEANING TEXTILE MACHINES AND THE FLOORS THEREBENEATH

John R. Long, Hickory, N. C., assignor to Parks-Cramer Company, Fitchburg, Mass., a corporation of Massachusetts

Application September 11, 1952, Serial No. 309,862
6 Claims. (Cl. 134—37)



1. A method of sweeping lint, fly and the like across the floor of a room having a plurality of textile machines therein by moving air across the floor beneath said machines which comprises introducing air under pressure to each of said machines and directing the air transversely to each of said machines in the same general direction beneath each machine with sufficient force to sweep the floor beneath said machine and the next adjacent machine in said direction and the aisle space therebetween.

2,844,496
FORMATION OF CORROSION RESISTANT FILMS ON ALUMINUM

Isaac Laird Newell, Wethersfield, Conn., and Ernest Alfred Walen, Longmeadow, Mass.

No Drawing. Application February 25, 1957
Serial No. 641,807
18 Claims. (Cl. 148—6.21)

1. A composition of matter for use in providing corrosion resistant films on aluminum and alloys thereof consisting essentially of, in 100 parts, about 5 to 72 parts by weight of sulfamic acid; about 1 to 16 parts by weight

of an alkali metal fluoride; about .3 to 34 parts by weight of an alkali metal nitrate, and about 11 to 80 parts by weight of a compound chosen from the group consisting of chromic acid, alkali metal chromates and alkali metal dichromates.

2,844,497

METHOD OF APPLYING SULFIDE COATING ON WIRES FOR DRAWING AND COMPOSITION THEREFOR

John A. Henricks, Logansport, Ind., assignor to Devex Corporation, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 7, 1956
Serial No. 626,842
6 Claims. (Cl. 148—6.24)

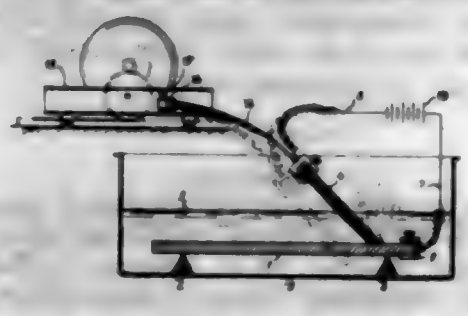
1. The method of reducing the abrasive nature of the mill scale formed on steel at elevated temperatures, comprising the steps of precoating the ferrous surface with a fusible alkaline film containing sulfur that will thermally react with iron to form a fusible ferrous film and thereafter annealing the steel.

2,844,498

METHOD AND MEANS FOR SURFACE-HARDENING OF STEEL

Nicolas Monnavieff, Paris, France

Application March 9, 1955, Serial No. 493,285
Claims priority, application France March 18, 1954
4 Claims. (Cl. 148—10.5)



1. A method for hardening a steel surface consisting in scanning the said surface with at least one carbon electrode in a mass of uninflammable liquid, while passing an electric current through said electrode and said surface so as to generate a traveling arc, whereby each successive scanned area of said surface is heated and treated with carbon from said electrode and then tempered under the cooling action of said liquid, said electric current having such a power and said scanning being effected at such a speed, that it determines a succession of arcs due to contact breaks resulting from the irregularities of said surface, said surface being previously provided with corrugations extending transversely to the direction of scanning of said electrode so as to regulate the generation of breaking arcs by creating artificially additional surface irregularities.

2,844,499

METHOD OF REMOVING OXYGEN FROM TITANIUM METAL

Eugene Wainer, Cleveland Heights, Ohio, assignor to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey

No Drawing. Application November 8, 1955
Serial No. 545,798
6 Claims. (Cl. 148—13.1)

2. The method of removing oxygen from oxygen containing titanium metal which comprises bringing together in the presence of carbon a molten alkali metal-titanium double fluoride, in which the titanium is tetravalent and a solid impure titanium metal interstitially containing oxygen at an elevated temperature within the range of about 780° C. to about 1150° C. under an inert atmosphere, and separating the solid titanium metal with a diminished oxygen content from the reaction mixture.

2,844,500

METHOD FOR HEAT TREATING BEARINGS AND PRODUCT THEREOF

Lucien Perm, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France, French works

No Drawing. Application July 25, 1956
Serial No. 599,912
Claims priority, application France September 7, 1955
3 Claims. (Cl. 148—31.55)

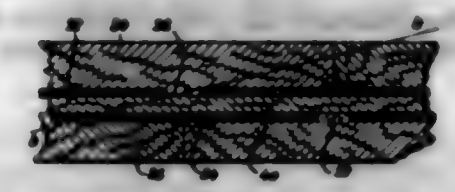
1. A process of treating bearings consisting essentially of 0.8 to 1.3 percent carbon, 0.8 to 2.0 percent silicon, 0.2 to 0.8 percent manganese, 0 to 3 percent chromium, 0 to 2.5 percent molybdenum and the remainder substantially iron which comprises heating said bearings to a temperature of from 50 to 80° C. above the eutectoid transformation temperature, quenching said bearings at a temperature from 180 to 250° C. and cooling said bearings at a temperature below —20° C.

2,844,501

FIRE-RETARDING BOARD

Jens C. Snither, Ringkov, Denmark, assignor of one-half to Soren Clausen, Aarhus, Denmark

Application December 28, 1953, Serial No. 400,594
Claims priority, application Denmark December 30, 1952
1 Claim. (Cl. 154—44)



A fire-retarding board, consisting of slats of wooden material, having at their side edges grooves of different depths, so arranged that channels will be formed when the slats are joined edge to edge, said channels being so disposed on at least two different planes that the channels on one plane are displaced in relation to the channels on the other plane, said channels enclosing strips of asbestos.

2,844,502

METHOD OF BONDING ELASTOMERS TO OTHER MATERIALS AND ADHESIVE COMPOSITIONS USED THEREFOR

Homer W. Paxton, Passaic, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application August 31, 1954
Serial No. 453,415
13 Claims. (Cl. 154—139)

1. An adhesive composition comprising a soluble, processable, chemical adduct of maleic anhydride and an elastomer selected from the class consisting of Hevea rubber; synthetic, rubbery homopolymers of an conjugated diolefin; rubbery heteropolymers of at most 85% of a monoolefinic compound and at least 15% of a conjugated diolefin; and rubbery copolymers of from about 95% to about 99% of isobutylene and from about 5% to about 1% of a conjugated diolefin; and in addition a cashew nut shell oil-modified phenol-aldehyde resin.

10. A method of bonding an elastomer to other materials by applying and interposing between said elastomer and the other material a cement of an adhesive composition as set forth in claim 1, and heating the assembly until the elastomer and the other material are firmly bonded together.

2,844,583

1,1-DIMETHYL-2,2-DI-(1-CYANOETHYL) HYDRAZINE, METHOD OF PREPARING, AND COMPOSITIONS AND METHOD FOR CONTROLLING NEMATODES

Robert P. Parker, Ridgewood, and John F. Hosier, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 26, 1956
Serial No. 573,683
5 Claims. (Cl. 167—22)

3. A nematocidal composition comprising a pesticidal adjuvant as an inert carrier, and as the essential active ingredient the compound: 1,1-dimethyl-2,2-di-(1cyanoethyl) hydrazine.

2,844,584

1,1,2-TRI-(1-CYANOETHYL) HYDRAZINE, METHOD OF PREPARING, AND COMPOSITIONS AND METHODS FOR CONTROLLING NEMATODES

Robert P. Parker, Ridgewood, and John F. Hosier, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 26, 1956
Serial No. 573,683
5 Claims. (Cl. 167—22)

3. A nematocidal composition comprising a pesticidal adjuvant as an inert solid carrier and as the essential active ingredient the compound: 1,1,2-tri-(1-cyanoethyl) hydrazine.

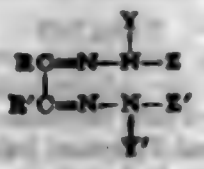
2,844,585

FUNGICIDAL COMPOSITIONS COMPRISING PHENYLOSAZONES

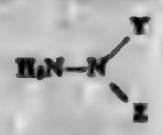
Robert E. Miller and Van R. Gaertner, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 21, 1954
Serial No. 457,551
16 Claims. (Cl. 167—30)

1. A fungicidal composition comprising water, an emulsifying agent and an osazone selected from the class consisting of those osazones having the formula

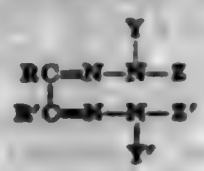


in which R and R' are selected from the class consisting of hydrogen, aliphatic and aromatic hydrocarbon radicals containing from 1 to 12 carbon atoms, and nitro-substituted aryl radicals of from 6 to 12 carbon atoms, Y and Y' are selected from the class consisting of aliphatic and aromatic hydrocarbon radicals containing from 1 to 12 carbon atoms and Z and Z' are selected from the class consisting of hydrogen and Y and Y', and those osazones derived from a reducing saccharide and a substituted hydrazine of the formula

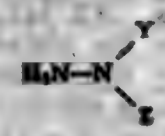


in which Y and Z are as herein defined.

10. The method of inhibiting the development of rust on wheat which comprises applying to the wheat a rust inhibiting quantity of a fungicidal composition comprising an osazone selected from the class consisting of those osazones having the formula



in which R and R' are selected from the class consisting of hydrogen, aliphatic and aromatic hydrocarbon radicals containing from 1 to 12 carbon atoms, and nitro-substituted aryl radicals of from 6 to 12 carbon atoms, Y and Y' are selected from the class consisting of aliphatic and aromatic hydrocarbon radicals containing from 1 to 12 carbon atoms and Z and Z' are selected from the class consisting of hydrogen and Y and Y', and those osazones derived from a reducing saccharide and a substituted hydrazine of the formula



in which Y and Z are as herein defined.

2,844,586

FUNGICIDAL COMPOSITIONS

Roy H. Jenkins, Jr., Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 16, 1955
Serial No. 494,892
5 Claims. (Cl. 167—30)

1. A process of preserving a material normally susceptible to fungicidal attack which comprises applying to the material a minor amount of a fungicidal composition comprising an active fungicide selected from the group consisting of the copper and zinc salts of para-substituted lower alkyl benzoic acids and a fungicidal adjuvant therefor.

2,844,587

DDT STABILIZED COMPOSITIONS

Ralph Rodriguez-Torrent, Winter Park, and Robert M. Fitzwater, Orlando, Fla.; dedicated to the Public

No Drawing. Original application March 17, 1953, Serial No. 342,999, now Patent No. 2,788,307, dated April 9, 1957. Divided and this application December 16, 1956, Serial No. 630,425
2 Claims. (Cl. 167—30)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A composition of matter comprising DDT—20–30%, alkylated naphthalene—60–70%, emulsifier—3–10%, and sodium thiosulfate—0.1–2.0%.

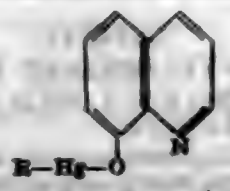
2,844,588

SUBSTITUTED MERCURIC 8-HYDROXY QUINOLINATES

Robert O. Weiss, West Milford, and Seymour J. Lederer, East Paterson, N. J., assignors to Metalsalts Corporation, Hawthorne, N. J., a corporation of Nevada

No Drawing. Application June 10, 1955
Serial No. 514,748
9 Claims. (Cl. 167—33)

1. Compounds having the following general formula:



wherein R is a radical taken from the class consisting of methyl and ethyl, said compounds having both a substantial degree of volatility at room temperatures and a substantial degree of solubility in water.

4. Process of disinfecting seeds and plants which comprises applying to them an aqueous solution of a compound as defined in claim 1.

2,844,509

PREVENTION AND SUPPRESSION OF COCCIDIOSIS IN POULTRY WITH 2,2'-THIOBIS(2,4-DICHLOROPHENOL)

Frederick Coulston, Rensselaer, and Emery W. Dennis, Albany, N. Y., assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application July 20, 1956
Serial No. 599,034
6 Claims. (Cl. 167—53.1)

1. A composition for the prevention and suppression of coccidiosis in poultry which comprises a poultry feed and dispersed therein as an effective anticoccidial ingredient 2,2'-thiobis(2,4-dichlorophenol).

2,844,510

PHOSPHORIC ACID DERIVATIVES OF 1-PHENYL-2,3-DIMETHYL-4-AMINO-5-PYRAZOLONE

Walter Lorenz and Hans Henecka, Wuppertal-Elberfeld, Germany, assignors to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 4, 1956
Serial No. 626,873
6 Claims. (Cl. 167—65)

1. A compound selected from the group consisting of 1 - phenyl - 2,3 - dimethyl - 4 - amino - 5 - pyrazolone-N-phosphoric acid bis-dilower alkyl amides and 1-phenyl-2,3-dimethyl-4-amino-5-pyrazolone - N - phosphoric acid ethylester dilower alkyl amides.

4. As a chemotherapeutical agent a mixture of amidopyrine and a compound selected from the group consisting of 1-phenyl-2,3-dimethyl-4-amino-5-pyrazolone-N-phosphoric acid bis-dilower alkyl amides and 1-phenyl-2,3-dimethyl-4-amino-5-pyrazolone - N - phosphoric acid ethylester dilower alkyl amides.

2,844,511

PROCESS FOR PREPARING IMPROVED ACTH

Norman G. Brink, Westfield, Frederick A. Kuehl, Jr., Rumson, and Karl Folkers, Plainfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 14, 1956
Serial No. 621,984
15 Claims. (Cl. 167—74)

1. The process of converting an ACTH substance, derived from pituitary glands and characterized as having both adrenocorticotropic and antidiuretic activity, to an ACTH hydrolysate having substantially unimpaired adrenocorticotropic activity and substantially no antidiuretic activity, which comprises heating a solution of said ACTH substance in an aqueous non-oxidizing mineral acid, the normality of said solution being between about 0 2 N and 0.6 N throughout the heating period, at a temperature between about 60 and 115° C., for a period of time varying from a minimum of about fifteen minutes when utilizing hydrolysis conditions within the range 0.3 N acid at about 100–115° C. to 0.6 N acid at about 8–1° C., to a maximum of about two hours when utilizing hydrolysis conditions within the range 0.2 N acid at about 100–115° C. to 0.6 N acid at about 60–80° C.

2,844,512

FUMAGILLIN ENVELOPED IN FATTY OR WAXY SUBSTANCE AND ENCLOSED IN ULTRAVIOLET OPAQUE CONTAINER

Thomas E. Eble, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 5, 1954
Serial No. 467,228
3 Claims. (Cl. 167—83)

1. An ultraviolet opaque soft elastic capsule containing crystalline fumagillin completely enveloped in an air-impervious, edible mass selected from the class consisting of fatty and waxy materials in the proportions of from 0.5 to 25 parts of said edible mass for each part of fumagillin.

2,844,513

PROCESS FOR SPLITTING RACEMATES

Albert Wettstein and Ernst Vischer, Basel, and Charles Meystre, Arlesheim, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application July 18, 1956
Serial No. 598,542
Claims priority, application Switzerland July 28, 1955
12 Claims. (Cl. 195—3)

1. Process for splitting racemates of d,l-steroids, wherein a d,l-steroid is subjected to the action of oxidizing enzymes at least one of the positions 6, 7, 11, 15 and 16 so as to as to oxidize only the d-form and separating the resulting oxidized d-form and the unoxidized l-form.

2,844,514

PROCESS FOR THE PRODUCTION OF NUCLEOTIDES

Samuel A. Morell, Whitefish Bay, Samuel H. Lipton, Milwaukee, and Alexander Frieden, Whitefish Bay, Wis., assignors to Pabst Brewing Company, Milwaukee, Wis., a corporation of Delaware

No Drawing. Application November 4, 1953
Serial No. 390,242
4 Claims. (Cl. 195—38)

1. The process which comprises hydrolyzing ribonucleic acid with magnesium oxide at a temperature of about 140–150° C. so that the final pH is about 8–8.5 to produce a mixture of ribonucleosides, precipitating nucleotides present in said mixture with a soluble salt of lead, separating the precipitate, crystallizing the resulting ribonucleoside mixture to produce a crystal fraction and a mother liquor fraction, and treating at least one of said fractions separately with inorganic phosphate, yeast enzymes and a sugar at a temperature of about 22–28° C. and about until a maximum consumption of phosphate has taken place to produce a mixture of ribonucleotides.

2,844,515

MEDIUM AND METHOD FOR THE MASS CULTURE OF MICROORGANISMS

Harry Sobotka, New York, Seymour H. Hutner, Hastings on the Hudson, and Herman Baker, Flushing, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

No Drawing. Application July 17, 1953
Serial No. 368,834
22 Claims. (Cl. 195—100)

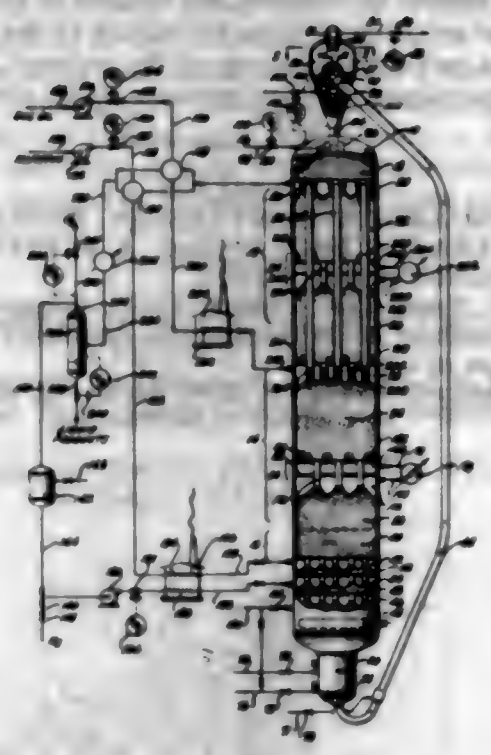
1. A process for the mass culture of a microorganism which comprises growing said microorganism in a medium for said microorganism containing those elements necessary in trace amounts for the growth of said microorganism, said elements being present in said medium in amounts sufficient to support a heavy growth of said microorganism therein, together with a non-metabolizable chelating agent selected from a group consisting of ethylenediamine tetraacetic acid, the tetrasodium salt of said acid and the calcium disodium salt of said acid, said chelating agent capable of forming soluble, non-metabolizable complexes with said elements, said chelating agent being present in said medium in an amount sufficient to reduce the effective concentration of the trace elements therein below their microorganism growth inhibitory value and a non-metabolizable pH buffer for said medium selected from a group consisting of triethanolamine, dihydroxyethyl ethylenediamine, tris-hydroxyamino methane, 2-amino-2-methyl propane diol, trans-aconitic acid and tetracarboxybutane, said buffer being in an amount sufficient to maintain said medium during the growth of said microoganism at a pH in the range suitable for the growth of said microorganism.

2,844,516

COMBINED HYDRODESULFURIZATION AND REFORMING PROCESS AND APPARATUS THEREFOR

Clyde H. O. Berg, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application March 22, 1954, Serial No. 417,568
14 Claims. (Cl. 196—28)



1. A process for the simultaneous desulfurization and reforming of gas-oil and naphtha hydrocarbon fractions in the presence of a recirculating stream of hydrocarbon conversion catalyst which comprises recirculating said catalyst through a hydrocarbon contacting zone containing a desulfurization zone and a subjacent reforming zone, and through a catalyst regeneration zone, dividing the regenerated catalyst into a first and second catalyst stream prior to passage of said catalyst through said contacting zone, passing said first catalyst stream into and directly through said desulfurization zone as a downwardly moving bed by gravity in direct contact with hydrocarbons passing therethrough and then through a solids flow rate control zone into said reforming zone, passing said second catalyst stream as a downwardly moving bed by gravity indirectly through said desulfurization zone in indirect heat exchange relation thereto and out of direct contact with said hydrocarbons and through said solids flow rate control zone into said reforming zone for combination therein with said first catalyst stream, subsequently passing the combined catalyst stream downwardly by gravity as a moving bed through said reforming zone, maintaining said desulfurization zone at a hydrocarbon desulfurization temperature and at a superatmospheric pressure, maintaining said reforming zone at a substantially higher hydrocarbon reforming temperature and at substantially the same superatmospheric pressure, passing a naphtha hydrocarbon fraction and hydrogen through said reforming zone in direct contact with said combined catalyst stream, combining a gas oil hydrocarbon fraction with the thus treated naphtha fraction flowing from said reforming zone, passing the naphtha, gas oil, and hydrogen mixture thus formed into said contacting zone at a point between said desulfurization and reforming zones and upwardly through said desulfurization zone in contact with said first catalyst stream alone, removing a contacting zone effluent therefrom, cooling and partially condensing said effluent, separating an uncondensed hydrogen-rich gas, recirculating at least part thereof through said contacting zone, passing said combined catalyst stream from said reforming zone downwardly by gravity through a solids feeder zone, controlling therein the absolute circulation rate of said catalyst in said process, removing the combined catalyst stream from said contacting zone, regenerating said catalyst in said regeneration zone by contact with an oxygen-containing gas, elutriating catalyst fines from the regenerated catalyst by disengaging spent regeneration gases therefrom through a variable area of a conveyed dense mass of said catalyst, subsequently treating the regenerated catalyst with a hydrogen-containing gas to remove residual sulfur from said catalyst, and passing the thus treated regenerated catalyst back into said contacting zone for repassage therethrough.

10. An apparatus for the contacting of two fluid streams with a recirculating stream of granular solid contact material which comprises an elongated vertical contact column adapted to the downward passage by gravity of a moving bed of solid granular contact material and provided at successively lower levels therein with a solids hopper and seal section, a first treating section, a solids flow rate control section, a second treating section, a contact material stripping section, and a reciprocating solids feeder section, a solids inlet conduit at the top of said column, an inlet conduit for a first solids stream from said hopper into the top of said first treating section, at least one elongated conduit for a second solids stream opening from said hopper and extending entirely through said first treating section through said solids flow rate control section into the top of said second treating section, a solids outlet conduit for said first solids stream opening from the bottom of said first treating section through said solids flow rate control section into the top of said second treating section, means below said first treating section in said solids flow rate control section for controlling the relative flow rates of said first and second solids streams, at least one heat exchange means disposed along each of said first and second treating sections, means for passing fluid from said sections respectively into and through said heat exchange means and back into said treating sections, a solids outlet at the bottom of said column communicating with a solids regenerator, a solids-receiving vessel communicating with said regenerator and with the solids inlet to said column, means for passing a treating fluid upwardly through said solids inlet and into said solids-receiving vessel, controllable outlet means for disengaging a fluid from a dense mass of solids in said solids-receiving vessel to elutriate solids fines, means for introducing one fluid stream at the bottom of said first treating section, means for introducing another fluid stream into the bottom of said first treating section, means for conducting fluid flow opening from the top of said second treating section and into the bottom of said first treating section, effluent outlet means for removing a fluid effluent at the top of said first treating section, cooling and condensing means communicating with said effluent outlet means and communicating with vapor-liquid separator means, and a vapor recycle conduit and pump means communicating from said separator means and opening into the bottom of said column through a vapor heating means.

2,844,517

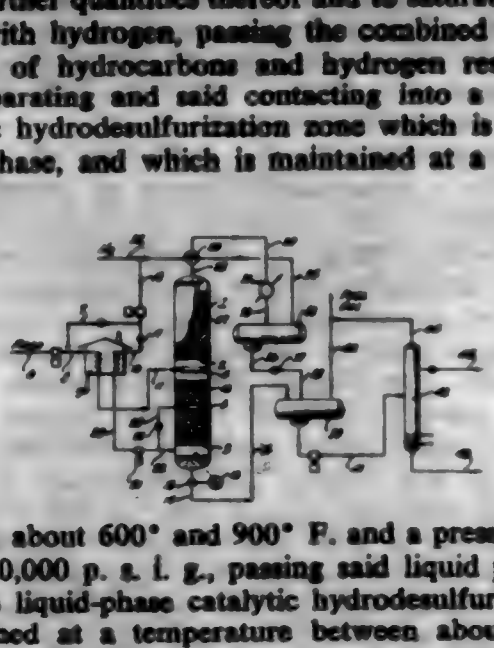
HYDROCARBON DESULFURIZATION PROCESS

Texas V. Inwood, La Habra, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application July 26, 1954, Serial No. 445,704
16 Claims. (Cl. 196—28)

1. In a method for the catalytic hydrodesulfurization of a mineral oil fraction containing hydrocarbon components which are normally liquid and hydrocarbon com-

ponents which are normally gaseous under the conditions of temperature and pressure to be utilized in the hereinafter specified vapor-phase hydrodesulfurization, the improvement which comprises separating said mineral oil fraction into a vapor phase and a liquid phase in equilibrium with each other at approximately the conditions of pressure and temperature to be employed for said vapor-phase hydrodesulfurization, subsequently contacting said liquid phase with preheated hydrogen to evaporate further quantities thereof and to saturate said liquid phase with hydrogen, passing the combined vapor-phase mixture of hydrocarbons and hydrogen resulting from said separating and said contacting into a vapor-phase catalytic hydrodesulfurization zone which is free of any liquid phase, and which is maintained at a temperature



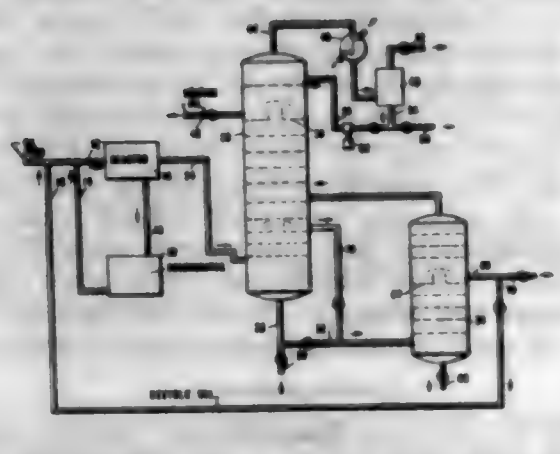
between about 600° and 900° F. and a pressure between 0 and 10,000 p. s. i. g., passing said liquid phase into a separate liquid-phase catalytic hydrodesulfurization zone maintained at a temperature between about 500° and 800° F. and a pressure between about 500 and 12,000 p. s. i. g., supplying at least sufficient hydrogen to said liquid-phase hydrodesulfurization zone to maintain said liquid phase saturated with hydrogen during treatment, and withdrawing desulfurized liquid product and desulfurized gaseous product respectively from said liquid-phase and vapor-phase hydrodesulfurization zones, each of said hydrodesulfurization zones containing a granular catalyst including an active component selected from the class consisting of transitional metal oxides and sulfides.

2,844,518

CONVERSION OF HYDROCARBONS

Forrest H. Blanding and Walter J. Schmidt, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application March 16, 1954, Serial No. 416,462
5 Claims. (Cl. 196—50)



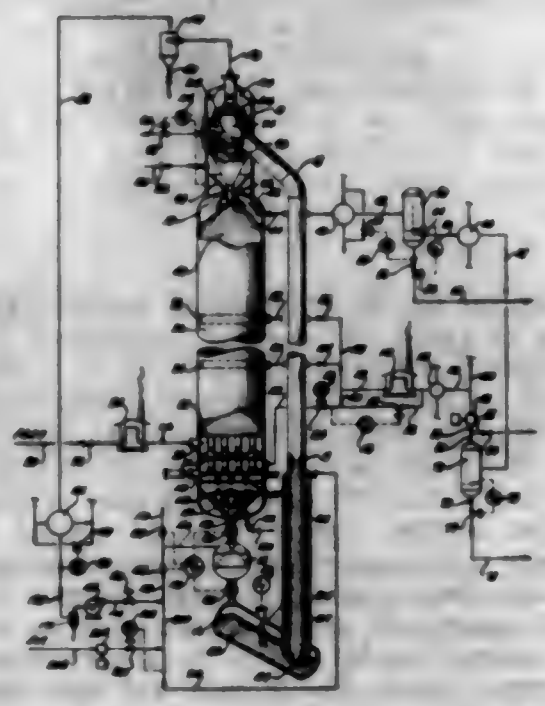
1. In a catalytic cracking process wherein virgin hydrocarbon oil having a boiling range of about 600°–1050° F. is cracked in the presence of a catalyst and the vaporous cracked products are continuously fractionated into gasoline, heating oil, cycle oil and bottoms, and cycle oil is to be continuously recycled to the cracking step and the selected cycle oil fraction is cracked to extinction, the improvement which comprises carrying out the cracking step at a relatively low total conversion to coke, gasoline and lighter products below about 49% by weight calculated on a once through basis, continuously fractionating the cracked products to recover a cycle oil fraction boiling between about 675° and 900° F., recycling at least 50% by volume of said selected cycle oil fraction on the virgin oil feed to the cracking step, the amount of recycle oil being related to the weight per cent of total carbon in the rings of the aromatic ring hydrocarbon compound content of the virgin oil feed and also to the amount of virgin oil feed corresponding in boiling range to that of said selected recycle oil fraction, the amount of recycle oil for a selected set of conditions increasing as the weight percent total carbon in the rings of the aromatic ring hydrocarbon compound content increases in the virgin oil feed.

2,844,519

HYDROCARBON CONVERSION PROCESS AND APPARATUS EMPLOYING A CONVEYANCE-REGENERATION ZONE

Raoul P. Voell, Los Angeles, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application June 25, 1954, Serial No. 439,380
20 Claims. (Cl. 196—50)



1. In a solids-fluid contacting process wherein a stream of granular solid contact material is recirculated through a fluid contacting zone and then upwardly as a moving bed through a solids regeneration zone, a fluid is passed through said contacting zone in direct contact with said contact material therein, a conveyance-regeneration fluid is passed upwardly through said conveyance-regeneration zone at a rate sufficient to maintain a substantial pressure gradient therein and to convey said material therethrough and to regenerate it, and a force is applied against the regenerated material discharging therefrom to maintain it at a bulk density substantially equal to its static bulk density, the improvement which comprises recirculating said regeneration-conveyance fluid from the outlet of said conveyance-regeneration zone through a cooling zone, cooling said fluid therein to dissipate at least part of the heat of regeneration contained as sensible heat in said fluid, adding additional regeneration fluid to the cooled fluid, passing the cooled fluid through a fluid preheating zone in indirect heat exchange with at least the first part of said conveyance-regeneration zone to absorb heat of regeneration therefrom, and injecting the preheated fluid into the inlet of said conveyance-regeneration zone to convey and regenerate said contact material.

2,844,520

CATALYTIC CRACKING

Clare Kenneth Viland, Martinez, Calif., assignor to Tidewater Oil Company, a corporation of Delaware

No Drawing. Application September 16, 1955
Serial No. 534,832
10 Claims. (Cl. 196—50)

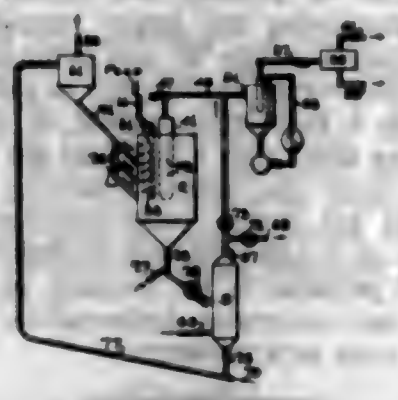
1. In a process of catalytic cracking hydrocarbon oil wherein a hydrocarbon distillate having a boiling range between about 400° F., and 1050° F. and a non-basic nitrogen content not over about 0.1% by weight, is subjected to cracking in the presence of an active cracking catalyst to produce substantial amounts of gasoline components, the improvement which comprises adding to said distillate, prior to contact with said catalyst, a sufficient quantity of non-basic organic nitrogen compound to increase by at least 0.1% the non-basic nitrogen content of the distillate.

2,844,521

HIGH TEMPERATURE COKING FOR CHEMICAL PRODUCTION

Charles E. Jahnig, Red Bank, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application October 23, 1952, Serial No. 316,382
4 Claims. (Cl. 196—52)



1. A process for converting a volatilizable material which comprises preheating particulate solids to above 1000° F., introducing solids so preheated with a tangential component of motion and at a substantial velocity into an elongated vertical reaction zone of circular cross-section, flowing said particulate solids around the periphery of said reaction zone as a defined stream whereby the central portion of said reactor is substantially free of solids, spraying said volatilizable material from points along a longitudinal discharge line within the central area of said reaction zone radially outward against said particulate solids whereby said volatilizable material upon contact with the particulate solids evolves vaporous conversion products, radially withdrawing said vaporous conversion products from the periphery towards the central area of said reaction zone through a longitudinally elongated collection zone in the said central area whereby said vaporous conversion products and said volatilizable material undergo intimate countercurrent heat exchange, passing the vaporous conversion product so withdrawn to a recovery zone and withdrawing spent particulate solids from the lower portion of said reaction zone.

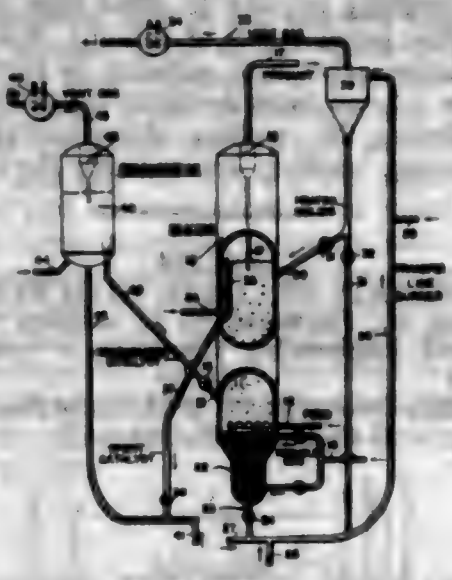
2,844,522

METHOD OF HEAT SUPPLY FOR A CATALYTIC HYDROFORMING PROCESS THROUGH THE USE OF INERT HEAT-CARRYING MATERIAL

Walter A. Rex, Westfield, and Charles E. Jahnig, Red Bank, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 31, 1952, Serial No. 328,842
8 Claims. (Cl. 196—52)

1. The method of supplying heat to an endothermic hydroforming process for the catalytic treatment of a hydrocarbon feed stock involving the use of a finely divided solid catalyst containing particles within the size range of about 20 to 100 microns in diameter, which comprises maintaining said catalyst in the form of a turbulent fluid bed within a deep reaction zone by upflowing vapor, continuously introducing into said fluid bed relatively coarse solid particles of hot inert heat-carrying material having at least the same particle density as the fluidized catalyst and a particle diameter within the range from about 300 to 700 microns, continuously removing from the bottom of the said reaction zone a



stream of said coarse solid particles stripped substantially free of catalyst and hydrocarbon vapors, conveying said coarse particles upwardly through a vertically disposed conduit by the carrying action of a burning stream of air and combustible fuel, simultaneously heating said coarse solid particles in said conduit while conveying them to an upper level, separating the hot coarse solids from the conveying gas stream at said upper level and returning said hot coarse solids downwardly therefrom into a point within said reaction zone below the bed level of the fluidized catalyst maintained therein.

2,844,523

METHOD OF MAKING CATALYSTS

Preston L. Veltman, Severna Park, and Leon L. Barad, Baltimore, Md., and Roger W. Richardson, Baton Rouge, La., assignors of one-half each to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut and Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application January 19, 1955
Serial No. 482,872
7 Claims. (Cl. 196—52)

1. A process of preparing silica alumina catalysts containing high amounts of alumina in excess of about 20% consisting of preparing a silica hydrosol having a pH below about 5.5, effecting partial gelation of the silica hydrosol at said pH, then adding an acidic aqueous aluminum salt solution to said partially gelled silica hydrosol and thereby lowering the pH of the mixture, holding the resultant mixture for a limited time at the lowered pH, then adding only a sufficient amount of an aqueous solution of ammonia with agitation to raise the pH of the mixture to about 4.0 to 5.0 and cause the combination of alumina with the silica, aging the resulting mixture for a period of time to effect slow and substantially complete precipitation of alumina, then adding additional aqueous ammonia with agitation to raise the pH to about 6.5 to 7.5 and cause precipitation of the remaining alumina, dewatering the suspension of silica-alumina hydrogel, and then drying, washing and redrying the gel particles to produce an improved catalyst.

6. A process for cracking hydrocarbon oils which comprises passing the oil under cracking conditions through a cracking zone containing a silica-alumina catalyst con-

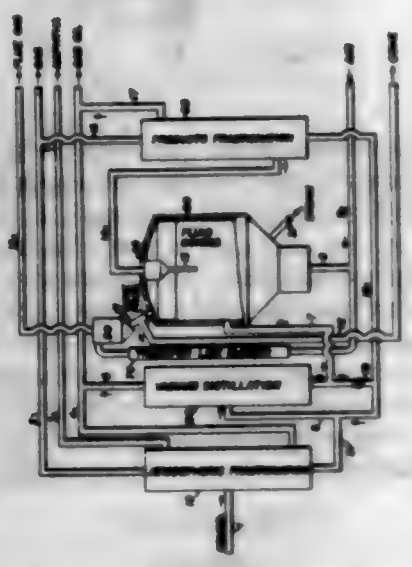
taining in excess of about 20% alumina prepared by a process consisting of forming a silica hydrosol having a pH below about 5.5, effecting partial gelation of said hydrosol at said pH, adding to said partially gelled silica hydrosol an acidic aqueous aluminum salt solution and thereby lowering the pH of the mixture, holding the resultant mixture for a limited time at the lowered pH, adding thereto with agitation an amount of alkaline agent sufficient to raise the pH of the mixture to about 4.0 to 5.0 and cause the combination of alumina with the silica, aging the resulting mixture to effect slow and substantially complete precipitation of alumina, then adding additional alkaline agent with agitation to raise the pH to about 6.5 to 7.5 and cause precipitation of the remaining alumina, filtering the resulting silica-alumina composite, and then drying, washing, and redrying the composite.

2,844,524

INTEGRATION OF COKER WITH REFINERY

Henry Ernst, Jr., Fanwood, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application December 18, 1953, Serial No. 399,036
2 Claims. (Cl. 196—55)



2. A process of coking residual oils which comprises admixing a topped crude feed from an atmospheric distillation zone with a recycled impurity containing bottoms fraction, separating the resulting mixture in a vacuum distillation zone into a light product fraction substantially free from impurities and a heavy tar containing the bulk of said impurities, subjecting said heavy tar to conditions of coking of a temperature in the range of above 900° to 1050° F. and a vapor residence time of about 5 to 30 seconds in a coking zone containing a bed of relatively dense fluidized coke particles to produce hydrocarbon vapors and carbonaceous residue which is deposited on said coke, separating from said hydrocarbon vapors in a fractionation zone a relatively heavy impurity containing bottoms fraction boiling above about 1000° F. and recycling and blending this fraction as aforesaid.

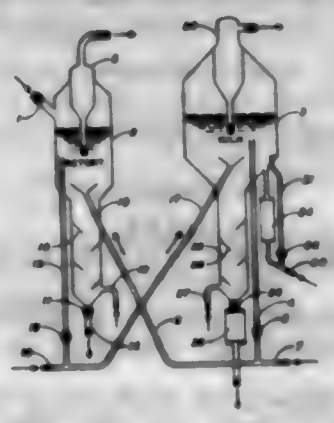
2,844,525

FLUID RETORTING PROCESS

John W. Scott, Jr., Berkeley, and James B. Cull, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application November 13, 1953, Serial No. 391,999
5 Claims. (Cl. 202—14)

1. In a process for retorting particulate oil-bearing solids to recover therefrom valuable hydrocarbons vapors by subjecting said solids to retorting temperatures in a dense, turbulent bed of solids stably fluidized by an upwardly flowing gas in a retorting zone, the steps comprising feeding solid particles of raw oil-bearing minerals to said zone, said feed containing appreciable members of particles of such size that they are incapable by themselves of being stably fluidized at the gas rate employed in said zone; separately withdrawing the larger retorted bing particles from an elutriation section of said retorting zone; withdrawing the remaining retorted bing from said retorting zone and passing it along with an oxygen-containing gas into a combustion zone, said oxygen-containing gas being introduced into the latter zone at a rate sufficient to maintain the retorted bing in a stable fluidized condition within said combustion zone; burning the combustibles associated with the retorted bing in said



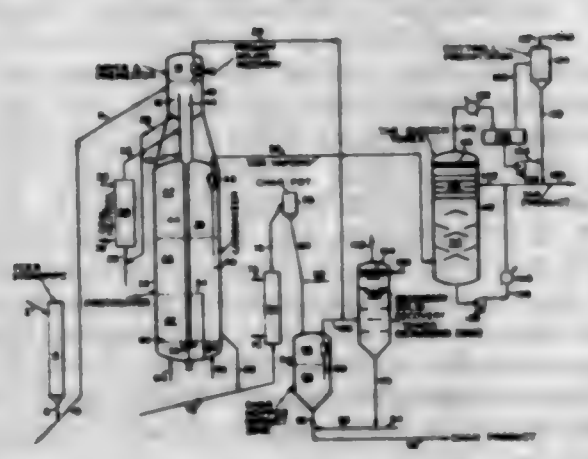
combustion zone to produce hot burned bing solids; separately withdrawing the larger burned bing solids from an elutriation section of said combustion zone so as to reduce the average particle size in said combustion zone; recycling a substantial portion of the remaining hot burned bing along with a fluidizing gas to the retorting zone to supply the heat of retorting, said burned bing-containing gas stream being introduced into said retorting zone at a rate sufficient to stably fluidize the incoming feed particles in the presence of the recycled burned bing; and recovering hydrocarbon vapors from said retorting zone as a product.

2,844,526

METHOD FOR CARBONIZING CARBONACEOUS MATERIALS

Marvin F. Nathan, New York, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

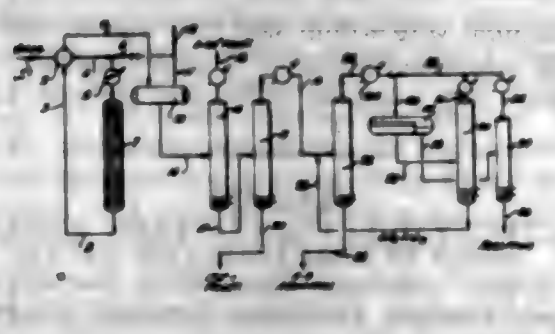
Application May 16, 1956, Serial No. 585,334
7 Claims. (Cl. 202—27)



1. In the process for treatment of carbonaceous solids to remove volatile constituents therefrom in which the solids are heated in a drying zone in a dense phase fluidized bed to remove water therefrom, gases leaving said dense phase bed are subjected to solids recovery treatment for removal of the major portion of the solids entrained therein, the dry solids from said dense phase bed are passed into a carbonization zone wherein a char product is formed, the char product is removed from the carbonization zone, cooled and accumulated in a product zone, the improvement which comprises passing the gases from the drying zone after solids recovery

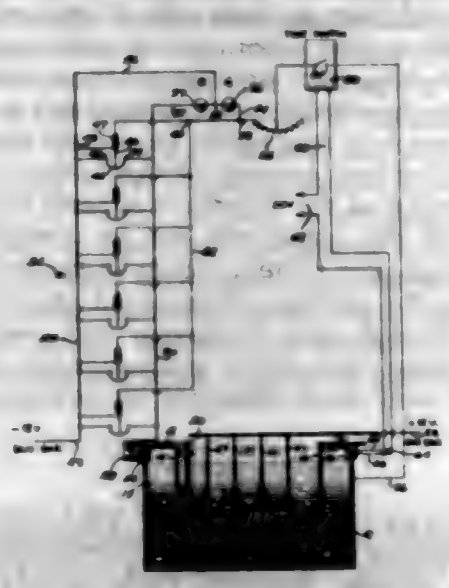
treatment to remove the major portion of the solids entrained therein a scrubbing zone, contacting said substantially solids free gases while in the scrubbing zone with a liquid to form a solids-liquid slurry, removing the solids-liquid slurry from said scrubbing zone and combining therewith char products from said product zone.

2,844,527
SEPARATION OF C–9-ALKARYL HYDROCARBONS BY AZEOTROPIC DISTILLATION
Art C. McKinnis, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application November 16, 1953, Serial No. 392,129
3 Claims. (Cl. 202—42)



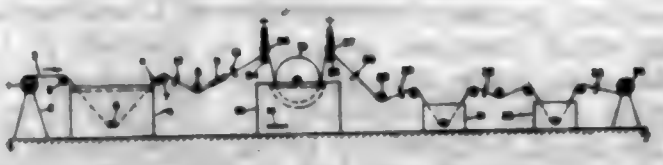
2. A process for recovering C–9 alkaryl hydrocarbons from catalytically reformed gasoline which comprises fractionating said gasoline to obtain a predominantly aromatic fraction boiling between about 160° and 170° C., subjecting said fraction to azeotropic distillation with nitromethane, removing overhead an azeotrope of nitromethane and non-aromatic hydrocarbons, and recovering as bottoms a paraffin-free, naphthene-free aromatic hydrocarbon fraction.

2,844,528
BARREL PLATING
August R. Hoffmann, Cleveland, Ohio
Application June 21, 1954, Serial No. 438,281
4 Claims. (Cl. 204—23)



1. An electroplating system for a movable article comprising a metallic plating tank for containing electrolyte, a rotatable barrel composed of electrically insulating material adapted to receive an article to be plated and to be lowered into the tank and supported therein, internal cathode contacts means in said barrel for contacting such articles, anode bars immersed in the tank composed of the metal to be plated on the article adapted to be received in the barrel, first and second bus bars for supplying electric current to the tank, electrical connections between the first of said bus bars, said tank and said anodes, electrical connections between the second of said bus bars and the internal cathode contact means, a control device interposed in one of said connections and comprising first and second plates of highly conducting metal separated from each other by a plurality of unitary, contact-making units mounted between said plates in electric conducting relation, each of said units having therein electrical contacts one of which is connected to one of said plates and the other is connected to the other of said plates, a plurality of solenoid windings, each in operating relation to one of said contacts for closing said contacts when the solenoid is energized, each of said solenoid windings being connected at one end to the second of said bus bars, and at the other end being connected to a common terminal, a time switch having a pair of contacts, said time switch contacts being connected between said solenoid common terminal and said first bus bar, a green signal lamp connected across said solenoid windings in shunt therewith, a red signal lamp connected between said conducting plates, and means in said time switch for closing the time switch contacts after the barrel is immersed in the electrolyte, whereby the current flow commences only after the article-containing barrel has been immersed in the electrolyte and terminates after a predetermined time selected as sufficient for the desired thickness of coating upon the article in the barrel.

2,844,529
PROCESS AND APPARATUS FOR RAPIDLY ANODIZING ALUMINUM
Alexander Cybriwsky and Nicholas Mostovych, Louisville, Ky., assignors to Reynolds Metals Company, Louisville, Ky., a corporation of Delaware
Application January 17, 1955, Serial No. 482,072
6 Claims. (Cl. 204—28)

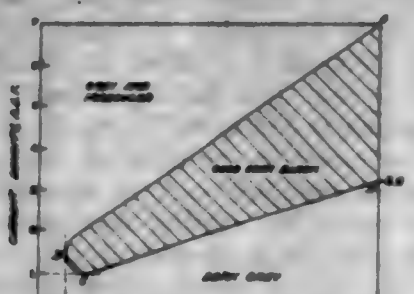


1. A method of anodizing a surface of an anode composed of aluminum which comprises: introducing said anode into an acidic electrolytic anodizing liquid bath in a manner maintaining a predetermined surface area of said anode in active contact with said bath; passing an electric current from said anode through the bath at a predetermined rate to maintain a high anodizing current density over said active surface area; conditioning the bath to maintain its temperature below a value at which substantial dissolution of aluminum from said active surface area occurs; and maintaining a temperature differential of at least 10° F. between said anode and said bath by continuously engaging another surface of said anode in heat exchange relationship with a conditioning surface while said predetermined anode surface is subjected to said anodizing current.

2,844,530
BLACK NICKEL PLATING
Waclaw Andrew Wesley, Plainfield, and Burton Bower Knapp, Westfield, N. J., assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
Application February 15, 1957, Serial No. 640,373
15 Claims. (Cl. 204—40)

4. A process for electrodepositing attractive black finishes on metallic articles which comprises subjecting the article to be blackened to the action of an aqueous electroplating solution having a pH within a range of at least as low as about 2.3 and up to about 5.5 and containing from 7.5 g. p. l. to about 45 g. p. l. of ammonium chloride, about 7.5 g. p. l. to about 30 g. p. l. of sodium thiocyanate, from 15 g. p. l. to about 60 g. p. l. of zinc chlo-

ride, and nickel chloride hexahydrate, the nickel chloride hexahydrate concentration and current density being re-



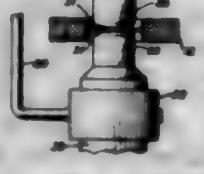
lated such that the correlation falls within the shaded area ABCDA of the accompanying graph.

2,844,531

METHOD OF PRODUCING CAVITIES IN SEMICONDUCTIVE SURFACES

Morton B. Prince, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 24, 1954, Serial No. 431,867
13 Claims. (Cl. 204—143)



1. The method of producing a localized cavity of a prescribed peripheral configuration in a semiconductive body which comprises mounting an electrode of a material more noble than said body material against the surface of the body coincident with the desired location of the cavity, said electrode having a configuration parallel to and adjacent said body surface corresponding to that of said cavity periphery and furthermore having a shape such that the maximum area of said surface initially contacted by said electrode is equivalent to the area of a circle 50 mils in diameter, applying pressure to said electrode in a direction normal to said surface thereby maintaining said electrode in contact with said surface, and immersing the surface and electrode in the vicinity of and including the regions of contact between the electrode and the body in an electrolyte in which the product of the electrochemical reaction at the body-electrolyte interface is soluble to form a galvanic couple.

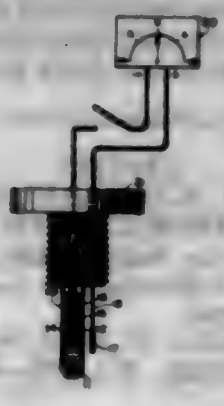
2,844,532

APPARATUS FOR DETERMINING SPECIFIC GRAVITY OF AN ACID SOLUTION

Joseph C. White, Hyattsville, Md., and Sigmund Schuldiner, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy

Application October 19, 1956, Serial No. 617,207
1 Claim. (Cl. 204—195)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A system for remotely determining the specific gravity of an acid solution of a storage battery which comprises a glass electrode assembly and a counter electrode adapted to be positioned within a battery and suspended within an acid solution within said battery, said glass electrode assembly comprising a glass tube having a glass membrane on the end thereof, an acid of known specific gravity within said tube, a glass insulated platinum wire within said glass tube, said platinum wire having a lead dioxide coated end extending beyond said glass insulation and suspended in the acid within said tube and positioned adjacent said glass membrane, said counter electrode comprising a lead dioxide coated platinum wire positioned adjacent to said electrode assembly, and a high impedance voltmeter connected to said glass insu-



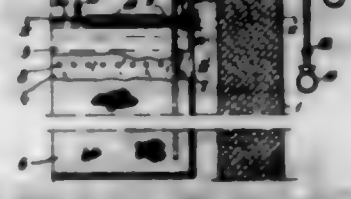
lated platinum wire within said tube and to said counter electrode positioned adjacent to said electrode assembly to measure any potential difference between said electrodes.

2,844,533

ELECTROLYTE LEVEL CONTROL ARRANGEMENT IN ELECTROLYTIC CELLS

Sigurd Arther Asmerud, Thamshavn, Norway, assignor to Pyror Limited, Pembroke, Bermuda, a corporation of Bermuda

Application May 20, 1954, Serial No. 431,199
Claims priority, application Norway May 26, 1953
7 Claims. (Cl. 204—257)



1. In an electrolytic cell having a partition comprising a diaphragm between anode and cathode spaces and with a liquid inlet on one side of the partition and a liquid outlet on the other, one of said spaces thus constituting an inlet space and the other an outlet space, tubular means mounted in said partition and extending from said inlet space to said outlet space, and level controlled flow control means on said tubular means in said outlet side responsive to the difference in level between the inlet side and the outlet side for so controlling flow of liquid through said tubular means to the outlet side as to compensate for deficiencies in liquid supply to said outlet space through said diaphragm with respect to liquid discharge from said outlet space through said outlet so as to keep said level difference approximately constant.

2,844,534

HIGH MOLECULAR WEIGHT BRANCHED-CHAIN ETHERS OF LUBRICATING GRADE

Delmer L. Cottle, Highland Park, Arnold J. Morway, Clark Township, Union County, and David W. Young, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application October 28, 1952
Serial No. 315,842
9 Claims. (Cl. 252—32)

1. An ether of the general formula R—O—R′, wherein R and R′ are the hydrocarbon radicals of Oxo alcohols having about 10 to 20 carbon atoms per molecule, said Oxo alcohol being an isomeric mixture of branched chain alcohols produced by the catalytic carbonylation of olefins selected from the group consisting of polymers and copolymers of C_3 and C_4 olefins with CO and H_2 at temperatures of about 300 to 400° F., under pressures

of about 2,500 to 4,000 p. s. i. g., in the presence of a cobalt catalyst to form an aldehyde, followed by catalytic hydrogenation of said aldehyde to form said Oxo alcohol.

6. A lubricating grease comprising as a lubricating oil constituent a lubricating proportion of an ether of the general formula R—O—R', wherein R and R' are the hydrocarbon radicals of Oxo alcohols having about 10 to 20 carbon atoms per molecule, said Oxo alcohol being an isomeric mixture of branched-chain alcohols produced by the catalytic carbonylation of olefins selected from the group consisting of polymers and copolymers of C_3 and C_4 olefins with CO and H_2 at temperatures of about 300 to 400° F., under pressures of about 2,500 to 4,000 p. s. i. g., in the presence of a cobalt catalyst to form an aldehyde, followed by catalytic hydrogenation of said aldehyde to form said Oxo alcohol, and a grease thickening proportion of a grease thickener.

8. A composition of matter comprising a major proportion of a synthetic rubber and a minor plasticizing proportion of an ether having the general formula R—O—R', wherein R and R' are the hydrocarbon radicals of Oxo alcohols having about 10 to 20 carbon atoms per molecule, said Oxo alcohol being an isomeric mixture of branched-chain alcohols produced by the catalytic carbonylation of olefins selected from the group consisting of polymers and copolymers of C_3 and C_4 olefins with CO and H_2 at temperatures of about 300 to 400° F., under pressures of about 2,500 to 4,000 p. s. i. g., in the presence of a cobalt catalyst to form an aldehyde, followed by catalytic hydrogenation of said aldehyde to form said Oxo alcohol.

2,844,535

ALKALINE EARTH METAL PETROLEUM MAHOGANY SULFONATES

Manuel Elsner, Petrolia, Pa., assignor to L. Sonneborn Sons, Inc., a corporation of Delaware

No Drawing. Application June 18, 1953
Serial No. 362,692
3 Claims. (Cl. 252—33)

1. Process for the production of oil solutions of basic alkaline earth metal petroleum mahogany sulfonates having low alkalinity, which comprises passing oxygen in contact with an anhydrous petroleum oil solution of an alkaline earth metal petroleum mahogany sulfonate containing a substantial quantity of a member selected from the group consisting of oxides and carbonates of said alkaline earth metal dispersed therein at a temperature of about 250–350° F. and continuing said contacting with said oxygen for a period of time sufficient to produce an alkaline earth metal petroleum mahogany sulfonate of an alkaline earth metal content in excess of that contained in the normal alkaline earth metal petroleum mahogany sulfonate and of a substantially reduced alkalinity.

2,844,536

HIGH TEMPERATURE COMPLEX GREASE MANUFACTURING PROCESSES

Arnold J. Morway, Clark, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 30, 1954
Serial No. 426,928
3 Claims. (Cl. 252—39)

1. A process for the preparation of a high temperature lubricating grease composition wherein a major proportion of the lubricating oil in the final composition has not been subjected to high temperatures above about 350° F. which comprises the steps of forming at a temperature in the range of 450° to 500° F., a complex-thickened grease from a lubricating oil, an alkaline earth metal soap of a grease-making acid having in the range of 12 to 30 carbon atoms per molecule, and an alkaline earth metal salt of a monocarboxylic acid having in the range of 1 to 6 carbon atoms per molecule, with the mole ratio of salt to soap being in the range of 10:1 to 50:1, admixing at a temperature in the range of 300° to 350° F. a minor amount of said complex-thickened grease with a major amount of simple soap grease formed from a lubricating oil and an alkaline earth metal soap of a grease-making acid having in the range of 12 to 30 carbon atoms per molecule, in proportion such that the mole ratio of salt to soap in the finished formulation is in the range of 1:1 to 15:1 and the total salt-soap content thereof is in the range of 5 to 30% by weight, and homogenizing the admixture to obtain the finished composition.

2,844,537

HOMOGENEOUS LITHIUM BASE LUBRICATING GREASE COMPOSITIONS

Paul R. McCarthy, Allison Park, and Thomas R. Orem, Blawnox, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application January 19, 1956
Serial No. 560,061
8 Claims. (Cl. 252—41)

1. A lubricating grease composition comprising a lubricating oil thickened to a grease with a lithium soap of a mixture of saturated, unsubstituted fatty acids having at least 12 carbon atoms, said mixture containing acids having at least 20 carbon atoms and acids having less than 20 carbon atoms, the ratio of acids having at least 20 carbon atoms to acids having less than 20 carbon atoms ranging from 1:10 to 1:1.

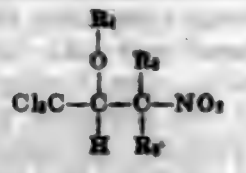
2,844,538

EXTREME PRESSURE LUBRICANT

Robert H. Krug, Cornwall, N. Y., and Otto C. Elmer, Akron, Ohio, assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application September 16, 1955
Serial No. 534,886
9 Claims. (Cl. 252—51)

1. An improved lubricant composition comprising a major amount of a base oil selected from the group consisting of mineral lubricating oils and polyesters of aliphatic carboxylic acids and a minor amount of a compound having the following general formula:



wherein R_1 is selected from the group consisting of hydrogen and an acyl radical having from 2 to 3 carbon atoms, and R_2 and R_3 are selected from the group consisting of hydrogen, methyl and ethyl, said minor amount being sufficient to improve the extreme pressure properties of the base oil.

2,844,539

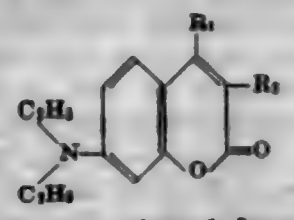
WATER SOLUBLE BRIGHTENER COMPOSITION

Robert Sidney Long, Bound Brook, and Julius Jacob Leavitt, Plainfield, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 6, 1955
Serial No. 506,664
10 Claims. (Cl. 252—301.2)

1. A solid optical bleaching composition comprising a mixture of 1 part, calculated on the free base, of a

strong inorganic acid salt of an optical bleaching agent of the formula:



wherein R_1 and R_2 are selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, and a jointly formed trimethylene bridge, with from 3 to 15 parts of an organic acid selected from the group consisting of oxalic, maleic, fumaric, tartaric, and benzene phosphonic acids, characterized by the property of long storability in a humid atmosphere.

2,844,540

METHOD OF MAKING AN ELECTRO-LUMINESCENT PHOSPHOR

Richard M. Ruion, Wenham, and Keith H. Butler, Marblehead, Mass.

No Drawing. Application December 17, 1952
Serial No. 326,586
3 Claims. (Cl. 252—301.6)

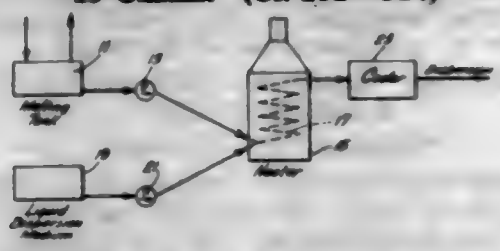
1. The method of making an electroluminescent phosphor, which method comprises: mixing manganese-activated zinc silicate, stannic chloride, alcohol and formaldehyde into a substantially uniform paste, the stannic chloride being ½% to 5% of the weight of the mixture, evaporating excess solvents, and heating the resultant dried mixture in a reducing atmosphere.

2,844,541

PRODUCTION OF DISPERSIONS

Lincoln Thomas Work, Maplewood, N. J., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware

Application September 9, 1955, Serial No. 533,328
13 Claims. (Cl. 252—314)



1. A method for producing a dispersion of a first normally solid substance in a liquid dispersion medium which is a non solvent therefor comprising simultaneously passing said first substance and said liquid together in a stream through a heating zone; heating said mixture sufficiently to melt said first substance and to vaporize at least a substantial part of said liquid to vapor, while maintaining said first substance in a liquid condition; subjecting said mixture and said vapor to high velocity of at least 25 feet per second and turbulent flow sufficient to break up said first substance to liquid particles of extremely fine size; and cooling said mixture and vapor, resolidify the particles of said first substance, to condense said vapor and form a dispersion of extremely fine particles of said first substance in said liquid dispersing medium.

2,844,542

COPRECIPITATED HYDROFORMING CATALYSTS

John A. Hinlicky, Irvington, and George E. Seniuk, Roselle, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application January 2, 1953
Serial No. 329,452
4 Claims. (Cl. 252—466)

1. The method of preparing a platinum-on-alumina catalyst for the treatment and conversion of hydrocarbons which comprises combining in solution of an alcohol having 3 to 5 carbon atoms per molecule a minor amount of a platinum salt and a relatively large amount of an aluminum alcoholate, simultaneously hydrolyzing the aluminum alcoholate and precipitating platinum from said solution by the addition thereto of ammonium hydroxide, drying the deposit thus obtained to obtain a hydrous alumina having a finely divided platinum deposit colloidally dispersed therethrough, reducing this deposit to platinum and recovering a catalyst comprising from about 0.05% to 5% by weight of platinum based on alumina.

2,844,543

TRANSPARENT PHOTOCONDUCTIVE COMPOSITION

Richard A. Fotland, Cleveland, Ohio, assignor to Horizons Incorporated

No Drawing. Application March 18, 1955
Serial No. 495,327
3 Claims. (Cl. 252—501)

1. An evaporated transparent photoconductive material consisting essentially of As_2S_3 and between about 2.5% and 10% by weight of Se.

2,844,544

ADDITIVE FOR COPPER GRAPHITE BRUSH

Dimiter Ramadanoff, Berea, Ohio, assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application March 8, 1955
Serial No. 493,069
2 Claims. (Cl. 252—503)

1. An electrical contact brush consisting of about 30% to 75% copper, 25% to 70% graphite, 0.1% to 5% boron nitride and 1% to 10% lead, said boron nitride and lead rendering said brush substantially resistant to dusting conditions and imparting longer wear life thereto.

2,844,545

METHOD FOR THE POLYMERIZATION OF OLEFIN OXIDES WITH FERRIC COMPOUNDS

Alexej Bohumil Borkovec, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 14, 1956
Serial No. 584,452
7 Claims. (Cl. 260—2)

1. Method for polymerizing a lower olefin oxide that contains not more than 4 carbon atoms in its molecule to form a solid polymeric material which comprises mixing the oxide with a minor proportion of a catalyst compound having the general formula: $Fe(OR)_3$, wherein R is selected from the group consisting of alkyl radicals containing from 1 to 4 carbon atoms, haloalkyl radicals containing from 1 to 4 carbon atoms and aromatic hydrocarbon radicals containing from 6 to 10 carbon atoms and heating the mixture to maintain it at a temperature between about 40° C. and 150° C. for a sufficient period of time to polymerize the oxide.

2,844,546

CATION EXCHANGE RESINS HAVING PHOSPHORUS ACID FUNCTIONAL GROUPS AND METHOD OF PREPARATION THEREOF

Irving M. Abrams, Redwood City, Calif., assignor to Chemical Process Company, San Francisco, Calif., a corporation of Nevada

No Drawing. Application April 27, 1953
Serial No. 351,464
4 Claims. (Cl. 260—2.2)

1. The method of preparing a water insoluble polymerizate of a polyvinylaryl compound containing a

phosphorus atom linked to an aryl nucleus and to an ionizable group which comprises treating a water insoluble copolymer of styrene and divinylbenzene with phosphorous trichloride in the presence of aluminum chloride and hydrolyzing the chlorine atoms attached to the phosphorus atoms of the resultant product.

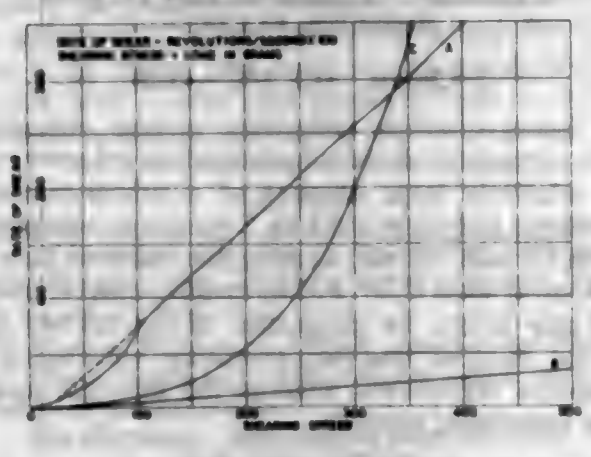
2,844,547

AQUEOUS TEXTILE PRINTING EXTENDERS COMPRISING A GALACTOMANNAN, A WATER SOLUBLE FERROUS SALT, METHOD OF PREPARING AND TEXTILE FABRIC TREATED THEREWITH

Frank A. Sheldon, Magnolia, N. J., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

Application April 4, 1956, Serial No. 576,154

12 Claims. (Cl. 260—17.3)



1. A composition of matter comprising an aqueous dispersion of a water dispersible galactomannan produced from seed endosperms of the plant family Leguminosae, said aqueous dispersion containing from about 2% to about 8% by weight of said galactomannan, and also containing from about 0.4% to about 10% by weight of the dry galactomannan of a water-soluble ferrous salt.

2,844,548

METHOD FOR THE INCORPORATION OF LIGNIN INTO SYNTHETIC RUBBER

Henry E. Haxo, Jr., Bloomfield, and George S. Mills, Clifton, N. J., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 28, 1954
Serial No. 446,394

6 Claims. (Cl. 260—17.5)

1. The method of preparing synthetic rubber in admixture with 25 to 75 parts of lignin per 100 parts of synthetic rubber which comprises mixing an amount of synthetic rubber latex containing 25% to 75% of said 100 parts of synthetic rubber with an aqueous alkali solution containing substantially all said 25 to 75 parts of lignin adding an amount of acid to the mixture to co-precipitate the synthetic rubber and lignin in the mixture and to provide excess acid to coagulate the remaining synthetic rubber when added in latex form to this first co-precipitate, mixing synthetic rubber latex containing the remaining 75% to 25% of said 100 parts of synthetic rubber with the first synthetic rubber-lignin co-precipitate whereby the added latex is coagulated in the presence of said first co-precipitate by said excess acid, and filtering the thus formed mixed coagulum, said synthetic rubber latex being an aqueous emulsion polymerizate of material selected from the group consisting of butadienes-1,3 and mixtures of butadienes-1,3 with compounds containing a single $CH_2{=}C<$ group which are copolymerizable with butadienes-1,3.

2,844,549

METHOD FOR THE INCORPORATION OF LIGNIN INTO SYNTHETIC RUBBER

Raoul L. Provost, West Cheshire, Conn., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 28, 1954
Serial No. 446,397

6 Claims. (Cl. 260—17.5)

1. The method of preparing synthetic rubber in admixture with 25 to 75 parts of lignin per 100 parts of synthetic rubber which comprises mixing an amount of synthetic rubber latex containing 25% to 75% of said 100 parts of synthetic rubber with an aqueous alkali solution containing substantially all the 25 to 75 parts of lignin, co-precipitating the mixture, mixing synthetic rubber latex containing the remaining 75% to 25% of said 100 parts of synthetic rubber with the first synthetic rubber-lignin co-precipitate without coagulation of the added latex and after such mixing coagulating the added latex in the presence of said first co-precipitate, and filtering the thus formed mixed coagulum, said synthetic rubber latex being an aqueous emulsion polymerizate of material selected from the group consisting of butadienes-1,3 and mixtures of butadienes-1,3 with compounds containing a single $CH_2{=}C<$ group which are copolymerizable with butadienes-1,3.

2,844,550

POLYMETHYL SILOXANE HEAT RESISTANT INK

Robert G. Hay, deceased, late of Gainesville, Ga., by Lois V. Hay, administratrix, Flowery Branch, Ga., assignor to Lockheed Aircraft Corporation, Burbank, Calif.

No Drawing. Application October 15, 1953
Serial No. 386,489

1 Claim. (Cl. 260—18)

A non-etching ink capable of withstanding temperatures up to 1,000° F. comprising on an approximate part by weight basis from 0.5–85 parts of a polymethyl siloxane resin in which the ratio of CH_3:Si atoms ranges from a ratio of 1:2 to 1:5; from 2–14 parts of a thinner selected from the group consisting of toluene, acetone, and xylene; from 0.1 to 10 parts of sodium lauryl sulfate; from 0.1 to 8 parts of a drying agent selected from the group consisting of lead naphthenate, cobalt naphthenate, lead resinate, lead linoleate, manganese resinate, manganese linoleate, cobalt resinate and cobalt linoleate, and from 0.1 to 15 parts of pigment selected from the group consisting of carbon black, cupric oxide and lead dioxide.

2,844,551

ALUMINUM COMPOUNDS AND THE PROCESS OF PREPARING THEM

Ludwig Orthner and Martin Reuter, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst A. G., vormals Meister Lucius & Brüning, Frankfurt am Main Hochst, Germany, a company of Germany

No Drawing. Application April 7, 1953
Serial No. 347,399

Claims priority, application Germany April 9, 1952
14 Claims. (Cl. 260—18)

4. The process for preparing high molecular acid aluminum alcoholates containing less than one acid radical per aluminum atom which comprises reacting at a temperature ranging from about 40° C. to 140° C. an aluminum alcoholate containing up to four carbon atoms in the alcohol radicals with less than the equimolar amount of a monobasic organic acid capable of forming salts with aluminum, whereby a primary monosalt of the aluminum alcoholate is first formed and the monosalt reacts further with the excess alcoholate.

2,844,551
STABILIZATION OF MIXTURES OF POLYAMIDE, EPOXY RESIN SOLUTIONS WITH FORMIC ACID
David Glaser, St. Paul, Minn., assignor to General Mills, Inc., a corporation of Delaware
No Drawing. Application February 23, 1954
Serial No. 412,995
3 Claims. (Cl. 260—18)

1. A mixture of an epoxy resinous material containing terminal epoxy groups, and a polyamide having an amine number of at least 50 and being derived from the reaction of polymeric fat acids and a polyalkylene polyamine, the mixture being stabilized against gelation by means of formic acid varying in quantity from 25 to 100% of the quantity equivalent to the free amine groups in the polyamide resin.

2,844,553
POLYHYDRIC PHENOL-ALDEHYDE-EPIHALOHYDRIN RESINS
Robert S. Taylor, Oak Lawn, and Lynwood N. Whitehill, Homewood, Ill., assignors to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application April 24, 1953
Serial No. 351,834
13 Claims. (Cl. 260—19)

1. A hydrophobic resinous material formed from (*a*) a dihydric polynuclear phenol containing at least one aldehyde reactive position and having the formula:

HO—Ar—(Q)$_{n-1}$—Ar—OH

wherein Ar is an aromatic nucleus containing one aldehyde reactive position, Q is selected from the group consisting of oxygen, sulphur, carbonyl, alkylene, and alkylidene radicals of 1 to 6 carbon atoms, and *n* is from 1 to 2, (*b*) an aldehyde, and (*c*) an epihalohydrin, by condensing said phenol with from 0.25 to 0.65 mol of said aldehyde for each mol of said phenol, and subsequently reacting at a temperature below about 155° F. the resultant phenol-aldehyde condensation product with an epihalohydrin in the presence of a base in an amount sufficient to provide about 1 mol of epihalohydrin for each of the phenolic hydroxyls in said condensation product.

2,844,554
COMPOSITIONS CONTAINING DIISOCYNATE-LINKED POLYURETHANE ELASTOMER AND BEESWAX
Robinson F. Nichols, Cuyahoga Falls, and Leonard C. Kreider, Wadsworth, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
No Drawing. Application January 3, 1955
Serial No. 479,642
3 Claims. (Cl. 260—28)

1. A composition of matter comprising a diisocyanate-linked condensation polyurethane elastomer obtained by reaction of a material selected from the group consisting of polyesters, polyesteramides and polyalkylene ether glycols with an organic diisocyanate having isocyanate groups as the sole reactive groups, and a small amount of beeswax to improve the processing characteristics of said elastomer.

2,844,555
SOLUTIONS OF PLASTICIZED PERFLUOROCHLOROCARBON POLYMERS, METHOD OF PREPARATION, AND PROCESS OF COATING WIRE THEREWITH
Herbert J. Pasmine, Englewood, and John M. Wrightson, North Bergen, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application December 29, 1949, Serial No. 135,614
17 Claims. (Cl. 260—33.8)

1. A solution comprising a plastic polymer of trifluorochloroethylene dissolved in a saturated perfluorochlorocarbon having at least two carbon atoms per molecule at a temperature of at least about 110° C., the concentration of plastic polymer in said solution being between about 1 and about 10 weight percent, said solution containing in addition, as plasticizer, a polymer of trifluorochloroethylene having a molecular weight not higher than that of the waxy polymer.

2,844,556
PROCESS FOR THE PROMOTION OF THE LOW HYSTERESIS PROCESSING OF RUBBER USING IODOFORM
Kenneth W. Doak, Bloomfield, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application May 31, 1955
Serial No. 512,301
5 Claims. (Cl. 260—41.5)

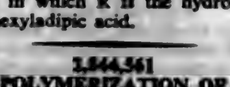
1. A process which comprises mixing vulcanizable aliphatic conjugated diolefin hydrocarbon polymer rubber with a relatively large amount of a rubber-reinforcing carbon black and from 0.75 to 5 parts of iodoform per 100 parts of said rubber, heating the mixture at a temperature of at least 275° F. but insufficiently elevated to substantially injure the properties of the rubber, masticating the mixture and incorporating vulcanizing and other desired ingredients, shaping the mixture, and vulcanizing the shaped mixture.

2,844,557
POLYHALOCARBON COATING COMPOSITION
Pierre R. Welch, Washington, D. C.
No Drawing. Original application February 9, 1954, Serial No. 409,267, now Patent No. 2,777,783, dated January 15, 1957. Divided and this application October 22, 1956, Serial No. 617,661
9 Claims. (Cl. 260—43)

1. A coating composition comprising a uniform non-aqueous-liquid dispersion of particles of a normally solid fusible polyhalocarbon resin of about 0.1 to about three micron size, the halocarbon monomer from which said resin is formed being a halogen substituted low molecular weight hydrocarbon selected from the group consisting of unsaturated aliphatic and unsaturated alicyclic hydrocarbons in which the hydrogen atoms are entirely substituted by halogen atoms, at least one of which is fluorine and at least one of which is a halogen other than fluorine, said monomer having an ethylenic bond in the molecule, and a film forming synthetic extender resin other than a polyhalocarbon resin, said extender resin when applied to a substrate and upon being heated to the temperature and for the time necessary to fuse the polyhalocarbon resin, having good spreading and flow-out characteristics, forms a uniform coherent film tenaceously adhering to the substrate without decomposing or volatilizing, the dispersed polyhalocarbon resin particles being homogeneously distributed throughout said film, the dispersing medium being a volatile organic liquid solvent for the extender resin and being present in an amount to form a compatible liquid dispersion of said resins, the polyhalocarbon resin comprising about 5% to about 70% by weight and the extender resin comprising about 95% to about 30% by weight of the total of said resin components in said composition.

2,844,558
DIALKENYL BETA-CYANOETHANEPHOSPHONATE AND POLYMERS AND COPOLYMERS THEREOF
Arthur Dock Fen Toy and Robert S. Cooper, Park Forest, Ill., assignors to Victor Chemical Works, a corporation of Illinois
No Drawing. Application September 22, 1953
Serial No. 381,765
16 Claims. (Cl. 260—45.4)

15. A copolymer of a di beta, gamma alkenyl beta-cyanoethanephosphonate having the formula:



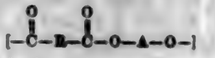
wherein the "R" groups are the same and a member of the class consisting of allyl and methallyl radicals, and a polymerizable member of the group consisting of methyl methacrylate, diallyl phthalate, styrene, vinyl acetate, and a partially polymerized unsaturated polyester containing an alkenyl-aryl cross-linking agent and the reaction product of an alpha, beta ethylenically unsaturated polycarboxylic acid, a saturated polycarboxylic acid free of non-benzoid unsaturation and at least one glycol.

2,844,559
GLYCOLIC ACID AS A CORROSION INHIBITOR IN MIXTURES OF ETHYLENIC MONOMERS AND POLYESTERS OF ALPHA ETHYLENIC DICARBOXYLIC ACIDS
Earl E. Parker, Milwaukee, Wis., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
No Drawing. Application June 17, 1954
Serial No. 437,586
8 Claims. (Cl. 260—45.4)

1. An interpolymerizable mixture of (A) a monomer containing a >C=CH$_2$ group, (B) a polyester of a dihydric alcohol and an alpha-beta ethylenic dicarboxylic acid and, (C) glycolic acid, the latter being in an amount of about 0.01 to 5 percent based upon the interpolymerizable mixture.

2,844,560
POLYESTERS FROM DICYCLOHEXYLADIPIC ACID, COPOLYMERS THEREOF, AND PROCESS OF MAKING SAME
Harry Greenberg and Raymond W. Horst, Cincinnati, Ohio, assignors to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application June 15, 1955
Serial No. 515,792
12 Claims. (Cl. 260—45.4)

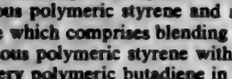
1. A polyester containing units of the following structure



wherein A is the hydrocarbon portion of a glycol and R is the hydrocarbon portion of a dicarboxylic acid, and further characterized by containing a unit of the foregoing structure in which R is the hydrocarbon portion of α,α'-dicyclohexyladipic acid.

2,844,561
DISPERSION POLYMERIZATION OF FORMALDEHYDE IN THE PRESENCE OF AN ORGANIC SYNTHETIC POLYMER
Max Fredrick Bechtold, Kennett Square, Pa., and Robert Neal MacDonald, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 30, 1953
Serial No. 365,278
7 Claims. (Cl. 260—45.5)

1. A normally solid, synthetic, film-forming composition resulting from the polymerization of formaldehyde in a liquid hydrocarbon medium containing a dissolved organic polymeric substance selected from the group consisting of (*a*) homopolymers of tertiary-amino-substituted olefins, (*b*) homopolymers of esters of N-dihydrocarbon-substituted aminoalcohols with an acid having the formula:



wherein R is selected from the group consisting of hydrogen, alkyl, aralkyl, and cycloalkyl, (*c*) copolymers of the said tertiary-amino-substituted olefins and an ester of an alcohol containing 6–18 carbon atoms and the above-described acid, and (*d*) copolymers of said esters of N-dihydrocarbon-substituted aminoalcohols and an ester of an alcohol containing 6–18 carbon atoms and the above-described acid, said organic polymeric substance having an inherent viscosity of at least 0.1 measured at 25° C. on a 0.1% weight:volume concentration in benzene; said composition comprising a high molecular weight polymer of formaldehyde chemically combined with 0.001%–20% by weight of said organic polymeric substance, said composition being characterized by exhibiting an inherent viscosity of at least 1.0 measured at 60° C. on a 0.5 weight percent solution of said composition in p-chlorophenol containing 2% by weight of alpha-pinene, said composition being further characterized by having a degree of toughness of at least 1.0.

2,844,562
METHOD OF MIXING RESINOUS POLYMERIC STYRENE WITH A RUBBERY BUTADIENE POLYMER
Alvin R. Ingram, Glenshaw, Pa.
No Drawing. Application May 16, 1955
Serial No. 508,827
5 Claims. (Cl. 260—45.5)

1. Method of making thermoplastic compositions containing a resinous polymeric styrene and a rubbery polymeric butadiene which comprises blending 75 to 97 weight parts of a resinous polymeric styrene with 25 to 3 weight parts of a rubbery polymeric butadiene in the presence of a metal peroxide of the group consisting of MgO_2, CaO_2, ZnO_2, SrO_2, BaO_2, PbO_2 and mixtures thereof in amounts from about 0.03 to 0.15 weight parts zinc peroxide equivalent per 100 weight parts of said blended polymeric styrene and polymeric butadiene by mechanically mixing said ingredients into a uniform mass at a temperature from about 280° F. to about 450° F. for a time sufficient to attain homogeneity as determined by disappearance of pearly luster of said compositions.

2,844,563
DECOLORIZATION OF POLYVINYL ALCOHOL
Edward P. Czerwin, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application March 30, 1956
Serial No. 574,978
4 Claims. (Cl. 260—45.9)

1. Polyvinyl alcohol color stabilized with between about 0.05 and 0.5% by weight of formamidine sulfinic acid based on the weight of the polyvinyl alcohol.

2,844,564
AGGLOMERATES AND METHODS FOR MAKING
Donald W. Hayes, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
No Drawing. Application March 12, 1954
Serial No. 415,948
6 Claims. (Cl. 260—45.95)

1. The method for preparing an agglomerated compounding ingredient for rubber which comprises mixing

a powdered vulcanization accelerator selected from the group consisting of tetramethyl thiuram disulfide, tetraethyl thiuram disulfide, tetramethyl thiuram monosulfide, zinc dimethyl dithiocarbamate, zinc diethyl dithiocarbamate and zinc dibutyl dithiocarbamate and a latex containing a volatile stabilizer selected from the group consisting of ammonia, dimethyl amine, and morpholine and an antioxidant for the rubber portion of said latex, said latex being selected from the group consisting of natural rubber latex, polychloroprene latex, polybutadiene latex, the latices of the rubbery copolymers of butadiene and styrene, and the latices of the rubbery copolymers of butadiene and acrylonitrile, the vulcanization accelerator being present in 100 parts by weight, the latex being present in an amount to provide from 4 to 10 parts rubbery hydrocarbon by weight per 100 parts by weight of accelerator, the volatile stabilizer being present in an amount to provide at least 1 part by weight per 100 parts by weight of accelerator, the total water content of the mixture ranging from 10 to 30% of the total weight of the mass, forming agglomerates of said mixture, drying the agglomerates to remove water and the volatile stabilizer and collecting the dried agglomerates.

2,844,565

AGGLOMERATES AND METHODS FOR MAKING

Donald W. Hayes, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

4 Claims. (Cl. 260—45.95)
No Drawing. Application March 12, 1954
Serial No. 415,949

1. The method for preparing an agglomerated compounding ingredient for rubber which comprises mixing mercaptobenzothiazyl disulfide with a latex containing a volatile stabilizer selected from the group consisting of ammonia, dimethyl amine, and morpholine and an antioxidant for the rubber portion of said latex, said latex being selected from the group consisting of natural rubber latex, polychloroprene latex, polybutadiene latex, the latices of the rubbery copolymers of butadiene and styrene, and the latices of the rubbery copolymers of butadiene and acrylonitrile, the mercaptobenzothiazyl disulfide being present in 100 parts by weight, the latex being present in an amount to provide from 4 to 10 parts rubbery hydrocarbon by weight per 100 parts by weight of mercaptobenzothiazyl disulfide, the volatile stabilizer being present in an amount to provide at least 1 part by weight per 100 parts by weight of mercaptobenzothiazyl disulfide, the total water content of the mixture ranging from 35 to 50% of the total weight of the mass, forming agglomerates of said mixture, drying the agglomerates to remove water and the volatile stabilizer and collecting the dried agglomerates.

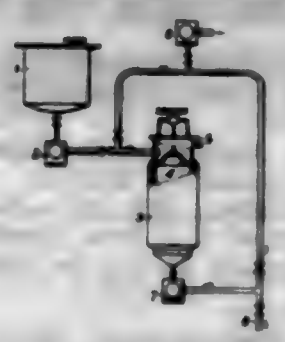
2,844,566

PRODUCTION OF POLYTHIOETHERS

Herbert Schwarz, Leverkusen-Bayerwerk, Wilhelm Kallert, Koln-Stammheim, Cornelius Mühlhausen, Leverkusen-Bayerwerk, and Hans Holtschmidt, Koln-Stammheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

Application December 5, 1955, Serial No. 551,165
Claims priority, application Germany December 4, 1954
7 Claims. (Cl. 260—79)

7. In the manufacture of a polythioether having terminal hydroxyl groups and a molecular weight of at least about 800 by a process comprising condensing a thioether glycol and a polyhydric alcohol, the method of separating volatile cyclic by-products formed during the condensation from the polythioether which comprises flowing a stream of the mixture during the final stages of the condensation over a heated surface whereby said volatile cyclic by-products are distilled and distillation of the polythioether is avoided.



2,844,567

VISCOUS POLYCARBOXYLATE ADDUCTS FROM BUTADIENE-TYPE RUBBERS

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 27, 1953
Serial No. 351,511
19 Claims. (Cl. 260—83.3)

1. A viscous adduct of (1) a rubber-like synthetic product selected from the class consisting of polymerization products of aliphatic, dienic hydrocarbons of from 4 to 8 carbon atoms and copolymerization products of said hydrocarbons with unsaturated, organic substances capable of copolymerizing therewith with (2) an transester having the formula

$$\begin{array}{l} ROOC.C{-}Y' \\ \quad\quad | \\ Y{-}C.COOR' \end{array}$$

in which R and R' are selected from the class consisting of alkyl radicals of from 1 to 8 carbon atoms, alkoxyalkyl radicals of from 2 to 8 carbon atoms, alkylmercaptoalkyl radicals of from 4 to 8 carbon atoms, alicyclic radicals of from 3 to 6 carbon atoms, aryl radicals of from 1 to 12 carbon atoms and aralkyl radicals of from 7 to 11 carbon atoms and the furfuryl and tetrahydrofurfuryl radicals, and Y and Y' are selected from the class consisting of hydrogen, chlorine and the methyl radical, from 1 to 2 moles of said ester being combined at each of at least 5 percent of the olefinic units of said rubber-like synthetic product, said adduct having been prepared by heating the polymerization product with the ester at a temperature of from 150° C. to 225° C.

11. The method which comprises heating at a temperature of from 150° C. to 225° C. a rubber-like butadiene-styrene copolymer with an alkyl fumarate in which the alkyl radical has from 1 to 8 carbon atoms and recovering from the resulting reaction product a viscous adduct in which from 1 to 2 moles of said fumarate are combined at each of at least 5 percent of the butene units of said rubber-like synthetic product.

2,844,568

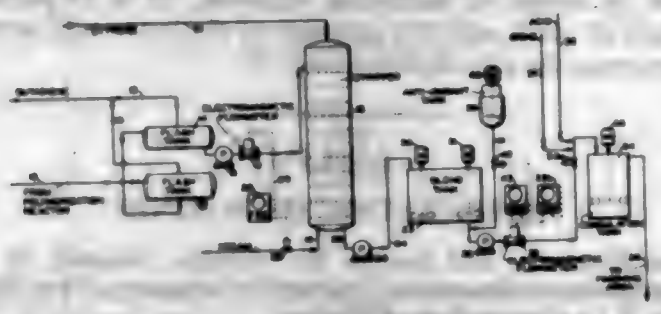
INDICATING AND/OR CONTROL SYSTEM AND METHOD

Clyde W. Mertz, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application October 10, 1955, Serial No. 539,517
14 Claims. (Cl. 260—83.7)

2. The method of determining the flow rate of a synthetic butadiene-styrene latex rubber which comprises flowing said latex between a pair of electrodes positioned along a line substantially perpendicular to the path of latex flow, inducing an alternating electromagnetic field in said latex at the region of said electrodes and generally perpendicular to a line connecting said electrodes, and indicating the resulting electrical potential appearing across said electrodes.

5. The method of stripping unreacted monomers from a butadiene-styrene latex which comprises flashing said latex to remove unreacted butadiene, passing the resulting latex containing unreacted styrene between a pair of electrodes and thence to a stripping zone, contacting said latex with steam in the stripping zone to remove said unreacted styrene, producing an alternating electromagnetic field having a component perpendicular to said



electrodes, producing an output representative of the resulting electrical potential appearing between said electrodes, and regulating the amount of steam supplied to the stripping zone in accordance with said output so as to maintain a predetermined relationship, within the range of 50 to 150 pounds of steam per hour per gallon per minute of latex, between the steam and latex fed to the stripping zone.

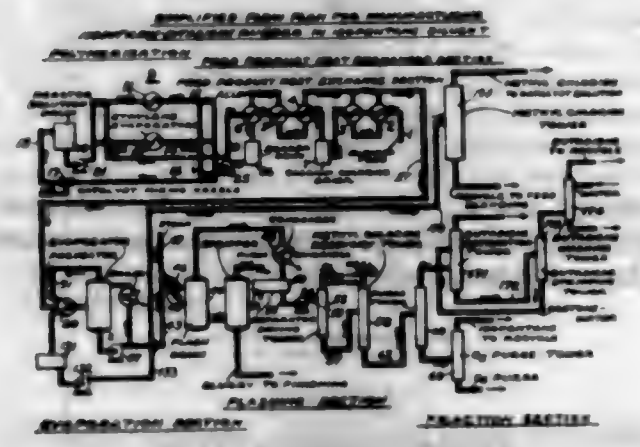
2,844,569

SOLUTION PROCESS FOR MAKING ISOBUTYLENE-DIOLEFIN SYNTHETIC RUBBER

Arthur Donald Green, Westfield, Edward J. Gornowski, Cranford, Harold W. Scheifline, Elizabeth, and Stanley E. Jaros, Plainfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application November 5, 1954, Serial No. 466,976

19 Claims. (Cl. 260—85.3)



1. In a polymerization process for manufacturing an isobutylene-diolefin synthetic rubber, the steps in combination of circulating a cold mixture of polymerizable unsaturated reactants comprising a major proportion of isobutylene and a minor proportion of a multiolefin of 4 to 14 carbon atoms and 3 to 25 volumes, per volume of reactants, of a C_2 to C_6 saturated hydrocarbon solvent for both the unsaturates and polymer, having a boiling point within the range of −40° C. to +69° C., at a polymerization temperature of about −40° C. to −103° C., adding thereto during circulation sufficient Friedel-Crafts active metal halide polymerization catalyst dissolved in a low-freezing non-complex forming solvent, to effect substantial polymerization of the reactants but not more than required to produce a pumpable dilute polymer solution of not over 5% concentration having a viscosity within a flowable range and having good heat transfer and catalyst dispersion, withdrawing from the circulating system as a continuing stream a portion of said cold dilute polymer solution, replacing the withdrawn polymer solution by a steady stream of fresh feed of mixed unsaturated reactants and solvent, cooling said fresh feed first by countercurrent heat-exchange with the withdrawn stream of cold dilute polymer solution to cool said feed to a temperature close to polymerization temperature, and to warm the withdrawn cold dilute polymer solution nearly to the temperature of the incoming feed, and finally cooling said feed, prior to feeding it into the circulating polymerization system, to the desired polymerization temperature by heat-exchange with a liquid cooling medium which boils at the desired polymerization temperature heating the withdrawn dilute polymer solution further to the boiling point of the solvent therein and continuing the heating to evaporate a major proportion of said solvent and unreacted reactants till a hot concentrated still-flowable polymer solution of 10–35% polymer is obtained, and finally discharging the hot concentrated polymer solution into hot water to evaporate remaining solvent and reactants and to make a slurry of polymer and water, and recovering and recycling evaporated solvent and reactants as fresh feed.

2,844,570

PRODUCTION OF HIGHLY HYDROXYALKYLATED POLYVINYL ALCOHOLS

Aubrey Ernest Broderick, South Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application November 17, 1953 Serial No. 392,769

3 Claims. (Cl. 260—91.3)

1. Process for making water-soluble hydroxyalkyl ethers of polyvinyl alcohols which are soluble in dioxane, which comprises reacting at temperatures within the range between about 10° C. and about 45° C. an alkylene oxide having 2 to 3 carbon atoms with a polyvinyl alcohol in the ratio of at least about 4 parts by weight of the alkylene oxide per part by weight of the polyvinyl alcohol, while dispersed in a volatile organic liquid which is a solvent for the resultant hydroxyalkylated product, in the presence of an inorganic alkaline condensation catalyst, neutralizing the resultant reaction mixture, and recovering therefrom the hydroxyalkyl polyvinyl alcohol.

2,844,571

PRODUCTION OF HIGHLY HYDROXYALKYLATED POLYVINYL ALCOHOLS

Aubrey E. Broderick, South Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application May 9, 1956 Serial No. 583,632

13 Claims. (Cl. 260—91.3)

1. As new products, hydroxyalkyl ethers of polyvinyl alcohols selected from the class consisting of the hydroxyethyl and hydroxypropyl ethers of polyvinyl alcohols, which ethers contain at least about 4.5 parts by weight of hydroxyalkyl residues per part by weight of polyvinyl alcohol residues and are soluble in acetonitrile and in dioxane.

2,844,572

VISCOSITY CONTROL AND STABILIZATION OF HALOGENATED HYDROCARBON RESINS WITH METALLIC SALTS OF OXYGEN ETHER ACIDS

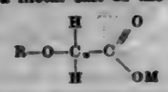
Floyd R. Hansen, Bedford, and Stanley B. Elliott, Walton Hills, Ohio, assignors to Ferro Chemical Corporation, Bedford, Ohio, a corporation of Ohio

No Drawing. Application July 6, 1954 Serial No. 441,671

5 Claims. (Cl. 260—92.8)

1. A composition of matter comprising an intimate admixture of a halogenated hydrocarbon resin and from about 0.1% to about 8.0% by weight of said resin of a

stabilizing and viscosity reducing compound said compound comprising a metal salt of the formula



where R represents a radical of 4 to 20 carbons selected from the group consisting of alkyl, aryl, alkaryl and aralkyl, *n* is an integer of 1 to 3 and M is a metal selected from the group consisting of cadmium, zinc and tin.

2,844,573

CATALYTIC HYDROGENATION

Earl W. Glucksmann and William E. Woesner, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 23, 1955
Serial No. 555,191
2 Claims. (Cl. 260—92.8)

1. The method of catalytically hydrogenating polyvinyl chloride by reacting said polyvinyl chloride with hydrogen in the presence of a palladium catalyst under sufficiently high temperature and pressure and for a sufficient length of time to replace at least 20% of the chlorine atoms with hydrogen atoms.

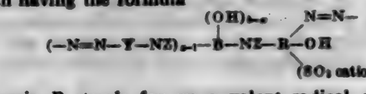
2,844,574

AZO DYES AND THEIR METHOD OF PREPARATION

Bela Gaspar, Beverly Hills, and Paul Daniel Dreyfuss, Van Nuys, Calif.; said Dreyfuss assignor, by direct and mesne assignments, to Bela Gaspar, Beverly Hills, Calif.

No Drawing. Original application November 5, 1948, Serial No. 58,619, now Patent No. 2,644,753, dated July 7, 1953. Divided and this application June 3, 1953, Serial No. 361,443
8 Claims. (Cl. 260—144)

1. A polymeric azo dye which is non-diffusing in photographic gelatin comprising a plurality of radicals each having the formula



wherein B stands for an *x* valent radical of a *b*-basic organic acid $B(OH)_b$, *x* stands for an integer of from 2 to 3, *b* is an integer at least equal to *x* and not greater than 3, Z stands for a radical selected from the group consisting of hydrogen, ethyl and phenyl radicals, R is a naphthalene nucleus, *m* is an integer of from one to two, Y stands for a bivalent aromatic radical, and where the azo groups shown in the formula are part of a total of *n'* azo groups, said *n'* groups being arranged in a plurality of dye units each containing an aromatic nucleus connected to an azo group, said dye units being separated from each other by heteronuclear bonds which interrupt the conjugation of the polymeric chain, each unit comprising

$$a=\frac{n'}{n} \text{ azo groups}$$

where *a* stands for an integer of from one to four, where $n'=a.n$ is greater than *b*, and where *n* is the total number of said dye units.

2,844,575

PROCESS FOR THE PREPARATION OF CELLULOSE ACETATE IN AN ESTERIFICATION MEDIUM OF ACETIC ACID, ACETIC ANHYDRIDE, METHYLENE CHLORIDE AND SULFURIC ACID

Robert H. Wells, Union, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application March 23, 1956
Serial No. 573,339
2 Claims. (Cl. 260—227)

1. Process for the manufacture of cellulose acetate which comprises pretreating cellulose with, for each 100 parts by weight of cellulose, a pretreating agent consisting essentially of from 20 to 100 parts by weight of acetic acid, and contacting the pretreated cellulose with an acetylation medium containing, for each 100 parts by weight of cellulose, 2.7 to 10.0 mols of acetic anhydride, 750 to 5000 parts by weight of methylene chloride, and 3 to 15 parts by weight of sulfuric acid, and, for each 100 parts by weight of methylene chloride, 10 to 50 parts by weight of acetic acid the presence of the latter acid serving to increase the esterification rate.

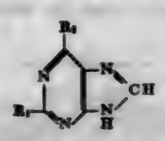
2,844,576

PREPARATION OF PURINES

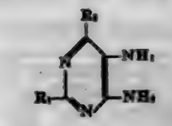
Leon Goldman and Joseph W. Marsico, Nanuet, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 23, 1955
Serial No. 548,534
11 Claims. (Cl. 260—256)

1. The method of preparing purines of the formula:



wherein R_1 and R_2 are members selected from the group consisting of halogen, hydroxy, amino, lower alkyl, dilower alkylamino, and lower alkyl mercapto which comprises heating 4,5-diaminopyrimidine of the formula:



wherein R_1 and R_2 have the meaning hereinbefore assigned with a lower alkyl orthoformate in the presence of a lower alkanoyl anhydride.

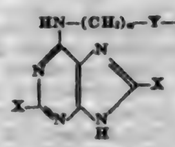
2,844,577

PURINE DERIVATIVES

Donald S. Acker, Brookside Park, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 16, 1956
Serial No. 585,179
6 Claims. (Cl. 260—256)

1. A purine of the formula



wherein *n* is a plural integer not greater than 3, *m* is a cardinal number not greater than 4, X is a member of the class consisting of hydrogen and chlorine and Y is a member of the class consisting of oxygen and sulfur.

4. 2,8-dichloro-6-(2-methoxyethylamino)purine.

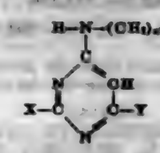
2,844,578

PYRIMIDINE DERIVATIVES

Donald S. Acker, Brookside Park, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 14, 1955
Serial No. 534,397
4 Claims. (Cl. 260—256.5)

1. A compound represented by the formula



wherein X is a member of the group consisting of hydrogen, hydroxyl, amino, chloro, bromo, thiol and methyl radicals, Y is a member of the group consisting of hydrogen, methyl and amino radicals, Z is a heterocyclic 5-membered ring containing at least 3 carbon atoms and up to 2 hetero atoms selected from the class consisting of oxygen, sulfur and nitrogen, and *n* is an integer of from 1 to 6.

2. 4-furfurylamino-2-mercaptopyrimidine.

2,844,579

PROCESS FOR THIAMINE MONONITRATE

Richard J. Turner, Fanwood, and George J. Schmitt, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 25, 1955
Serial No. 530,637
8 Claims. (Cl. 260—256.6)

1. A process for the isolation of thiamine mononitrate from aqueous solutions of thiamine sulfate which comprises adding at least a substantially stoichiometric amount of a water-soluble nitrate of a cation whose nitrate and sulfate are both soluble to at least the extent of 10% in cold water and precipitating the thiamine mononitrate by the addition of sufficient alkaline reagent to produce a pH of 4.5 to 7.5, the alkaline reagent being selected from the group consisting of the hydroxides, carbonates, and bicarbonates of cations whose nitrates and sulfates are both soluble to at least the extent of 10% in cold water.

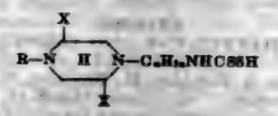
2,844,580

(1-PIPERAZINYL) ALKYLDITHIOCARBAMIC ACIDS

Bruce A. Ashby, Schenectady, N. Y., and Edgar C. Britton and Lee H. Horsley, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

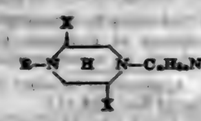
No Drawing. Application September 9, 1957
Serial No. 682,606
5 Claims. (Cl. 260—268)

1. A (1-piperazinyl)alkyldithiocarbamic acid having the formula



wherein R represents a member selected from the group consisting of hydrogen and lower aminoalkyl, each X represents a member selected from the group consisting of hydrogen and methyl and *n* represents an integer of from 2 to 4, inclusive.

5. A method for the preparation of (1-piperazinyl)-alkyl dithiocarbamic acids which comprises the step of reacting an aminoalkyl piperazine with carbon disulfide said aminoalkyl piperazine having the formula



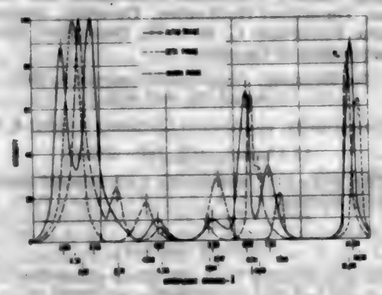
wherein R represents a member selected from the group consisting of hydrogen and lower aminoalkyl, each X represents a member selected from the group consisting of hydrogen and methyl and *n* represents an integer of from 2 to 4, inclusive.

2,844,581

ORGANIC PIGMENTS

Charles W. Manger, Irvington, and William S. Struve, Chatham, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application November 22, 1957, Serial No. 698,151
7 Claims. (Cl. 260—279)



1. As a new red pigment, linear quinacridone in gamma crystal phase, characterized by an X-ray diffraction pattern exhibiting three strong lines corresponding to interplanar spacings of 13.58 A., 6.41 A. and 3.37 A., and four relatively weak lines corresponding to interplanar spacings of 6.70 A., 5.24 A., 4.33 A. and 3.74A.

3. A process for preparing a gamma crystal phase linear quinacridone pigment characterized by an X-ray diffraction pattern exhibiting three strong lines corresponding to interplanar spacings of 13.58 A., 6.41 A. and 3.37 A., and three relatively weak lines corresponding to interplanar spacings of 5.24 A., 4.33 A. and 3.74 A., which comprises salt milling linear quinacridone and contacting the milled mixture with dimethyl formamide to insure the gamma crystal phase, said salt milling being continued until the surface area of the pigment is at least 60 square meters per gram, separating the salt and the dimethyl formamide and recovering a gamma crystal phase quinacridone pigment.

2,844,582

HETEROCYCLIC ARYL PHOSPHORUS ESTERS

Charles F. Raley, Jr., San Antonio, Tex., assignor to the United States of America as represented by the Secretary of the Air Force

No Drawing. Application July 17, 1956
Serial No. 598,487
4 Claims. (Cl. 260—289)

1. A compound selected from the group consisting of diphenyl 3-pyridyl phosphate, diphenyl 8-quinolyl phosphate, and dinaphthyl 3-pyridyl phosphate.

2,844,583

PRODUCTION OF 2-METHYL-5-ETHYLPYRIDINE

Arthur W. Schnizer and Adin L. Stautzenberger, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application October 20, 1952
Serial No. 315,813

5 Claims. (Cl. 260—290)

1. In the process for the production of 2-methyl-5-ethylpyridine by the reaction of paraldehyde with ammonia, the improvement which comprises increasing the yield of 2-methyl-5-ethylpyridine by adding to the reaction mixture the less volatile products of the reaction of paraldehyde with ammonia to produce 2-methyl-5-ethylpyridine, said less volatile products comprising those which distill, under reduced pressure, at a temperature above the distillation range of 2-methyl-5-ethylpyridine.

2,844,584

SULFONIC ACID CONDENSATION PRODUCTS AND METHODS OF PRODUCING THE SAME

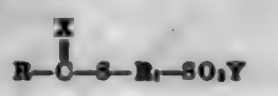
Wolfgang Gündel, Duesseldorf-Oberkassel, and Hermann Haas, Duesseldorf-Holthausen, Germany, assignors to Bohme Fettchemie G. m. b. H., Duesseldorf, Germany, a corporation of Germany

No Drawing. Application August 3, 1954
Serial No. 447,665

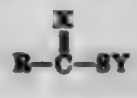
Claims priority, application Germany August 4, 1953

15 Claims. (Cl. 260—293.4)

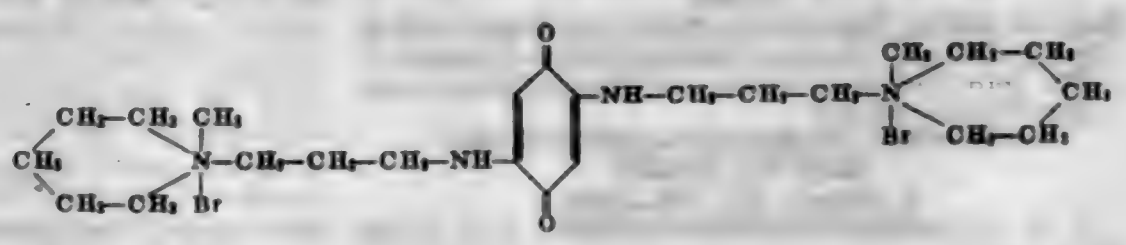
1. The process of producing a compound having the structural formula



wherein R is selected from the group consisting of alkyl, aryl, alkoxy, amino, monoalkylamino, dialkylamino and piperidino, X is selected from the group consisting of oxygen and sulfur, R_1 is lower aliphatic with more than two carbon atoms and Y is selected from the group consisting of hydrogen, alkali metal and ammonium, which comprises subjecting a compound having the structural formula

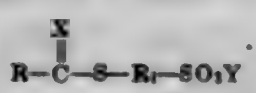


wherein R, X and Y have the meaning above indicated, to a condensation reaction with a lower aliphatic sultone,



and separating the reaction product from the reaction mass.

10. Compounds having the structural formula



wherein R is selected from the group consisting of alkyl, aryl, alkoxy, amino, monoalkylamino, dialkylamino and piperidino, X is selected from the group consisting of oxygen and sulfur, R_1 is lower aliphatic with more than two carbon atoms and Y is selected from the group consisting of hydrogen, alkali metal and ammonium.

2,844,585

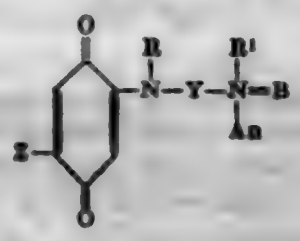
QUATERNARY AMMONIUM ALKYLAMINO-BENZOQUINONES

Chester J. Cavallito, Decatur, Ill., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

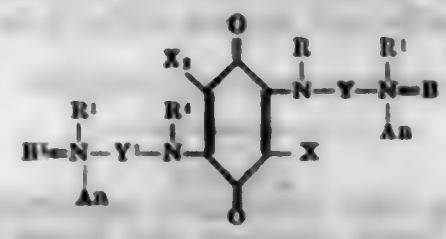
No Drawing. Application December 21, 1955
Serial No. 554,396

15 Claims. (Cl. 260—294.7)

1. A compound selected from the group of quaternary ammonium compounds having the formulas



and



where Z is a member of the class consisting of hydrogen, lower alkylamino radicals, and di-(lower alkyl)amino radicals; R and R^4 are members of the class consisting of hydrogen and methyl; R^1 is a member of the class consisting of lower alkyl radicals, lower alkenyl radicals, and (monocyclic aryl)methyl radicals containing 7–10 carbon atoms selected from the group consisting of the benzyl, lower alkoxybenzyl, halobenzyl, lower alkylbenzyl, nitrobenzyl, lower alkylmercaptobenzyl, lower alkanoylaminobenzyl, lower alkylsulfonylbenzyl, cyanobenzyl, and (trifluoromethyl)benzyl radicals; Y and Y^1 are each a lower alkylene bridge interposing 2–5 carbon atoms between the two nitrogen atoms connected by the bridge; N=B and N=B^1 are members of the class consisting of 1-piperidyl, 4-morpholinyl, 4-thiamorpholinyl, 1-pyrrolidyl, and di-(lower alkyl)amino radicals; X^1 and X^2 are identical members of the class consisting of hydrogen, chlorine, and bromine; and An is a non-toxic anion.

14. 2,5-bis-[3-(1-piperidyl)propylamino] - p - benzoquinone bis-methobromide, having the formula

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2,844,586

METHAPYRILENE AND THENYADIL NICOTINATE

Edgar A. Ferguson, Jr., Brooklyn, N. Y.

No Drawing. Application March 15, 1956
Serial No. 571,611
5 Claims. (Cl. 260—294.8)

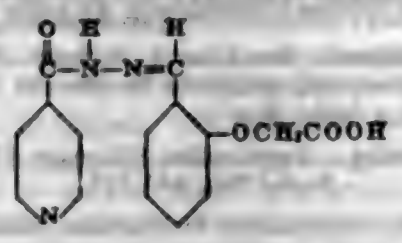
1. As a new composition of matter, a salt of a substance selected from the group consisting of 2-((2-dimethylamino-ethyl)-2-thenylamino) pyridine and 2-((dimethylamino-ethyl)-3-thenylamino) pyridine and an acid selected from the group consisting of pyridine-2-carboxylic acid and pyridine-3-carboxylic acid.

2,844,587
CARBOXYHISTADYL AND ANALOGS
Edgar A. Ferguson, Jr., Brooklyn, N. Y.
No Drawing. Application January 14, 1957
Serial No. 633,843
5 Claims. (Cl. 260—294.8)

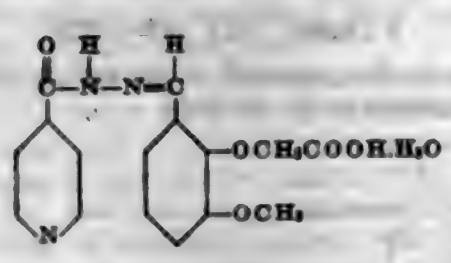
1. A compound selected from the group consisting of 2-[(2-dimethylaminoethyl) - 2 - thienylamino] - pyridine-3-carboxylic acid; 2-[(2 - dimethylaminoethyl) - 2 - thienylamino]-pyridine-5-carboxylic acid; 2-[(2-dimethylaminoethyl)-3-thienylamino] - pyridine - 3 - carboxylic acid; and 2-[(2 - dimethylaminoethyl) - 3 - thienylamino]pyridine-5-carboxylic acid.

2,844,588
ISONICOTINYL HYDRAZONES OF CERTAIN FORMYL PHENOXY ACETIC ACIDS
Charles O. Siebenmann and Alfonsas Zabrys, Toronto, Ontario, Canada, assignors to Minister of National Health and Welfare, representing Her Majesty the Queen, in right of Canada
No Drawing. Application January 9, 1956
Serial No. 557,846
2 Claims. (Cl. 260—295)

1. A new compound selected from the group consisting of—



and

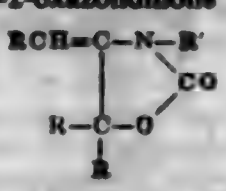


2,844,589
PROCESS FOR THE PREPARATION OF Δ^2-OXAZOLINE
Lawrence G. Hess, Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Application June 5, 1953
Serial No. 359,970
5 Claims. (Cl. 260—307)

1. A process for the preparation of Δ^2-oxazoline which comprises heating N-(2-hydroxyethyl)formamide at an elevated temperature in the range 150° C. to 250° C. under reduced pressures in the presence of a dehydrating agent selected from the group consisting of aluminum oxide, iron oxide, sulfuric acid and diatomaceous earth and recovering the Δ^2-oxazoline thus produced.

2,844,590
4-ALKYLIDENE-2-OXAZOLIDONES AND PROCESS
Margaret D. Cameron, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application October 1, 1956
Serial No. 612,975
17 Claims. (Cl. 260—307)

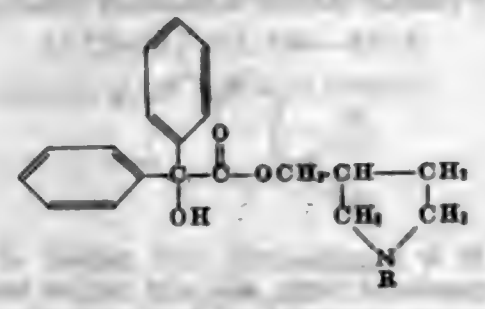
1. A 4-alkylidene-2-oxazolidinone of the formula



where R represents a substituent selected from the class consisting of hydrogen and hydrocarbon radicals of from 1 to 16 carbon atoms and R' represents a radical selected from the class consisting of hydrogen and hydrocarbon radicals of from 1 to 16 carbon atoms substituted by from 0 to 5 halogen atoms, said halogen atoms having an atomic weight of from 30 to 100.

2,844,591
1-SUBSTITUTED-3-PYRROLIDYLMETHYL BENZILATES AND SALTS THEREOF
Rolland Frederick Feldkamp and Yao Hua Wu, Evansville, Ind., assignors to Mead Johnson & Company, Evansville, Ind., a corporation of Indiana
No Drawing. Application October 14, 1955
Serial No. 540,606
14 Claims. (Cl. 260—326.3)

1. A member of the group consisting of a 1-substituted-3-pyrrolidylmethyl benzilate having the formula



and the acid addition and quaternary ammonium salts thereof wherein R is selected from the group consisting of lower alkyl, alkenyl, and phenyl lower alkyl.

2,844,592
PREPARATION OF CONVERSION PRODUCTS OF PENTAERYTHRITE DICHLOROHYDRINE MONOSULFUROUS ACID ESTERS
Helmut Pietsch and Horstmar Nagel, Duesseldorf, Germany, assignors to Henkel & Cie. G. m. b. H., Duesseldorf-Holthausen, Germany, a corporation of Germany
No Drawing. Application July 8, 1952
Serial No. 297,952
Claims priority, application Germany July 20, 1951
14 Claims. (Cl. 260—333)

1. Process for the preparation of conversion products of pentaerythrite dichlorohydrine monosulfurous acid ester, which comprises reacting pentaerythrite dichlorohydrine monosulfurous acid ester with a saponifying agent selected from the group consisting of HCl, H_2SO_4, KOH, and NaOH, and recovering the conversion products formed thereby.

2,844,593
CYCLIC ACETALS
Edward F. Riener, Haddonfield, N. J., and W E Craig and Thomas J. Durkin, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application December 27, 1954
Serial No. 477,938
5 Claims. (Cl. 260—340.7)

1. A process for preparing cyclic acetals of the formula



which comprises reacting a compound of the formula

$$(4\text{-R phenyl})_2C{=}CHCl$$

an alkaline catalyst, and a glycol of the formula

HOAOH

at a reacting temperature between 150° and 250° C., R being a member of the class consisting of hydrogen, fluo-

rine, chlorine, and bromine, and A being an alkylene chain having two to three carbon atoms between the indicated oxygen atoms and containing a total of not over 12 carbon atoms.

2,844,594

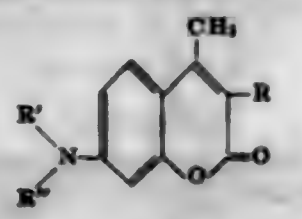
3-ARYL-7-DIALKYLAMINOCOUMARINS

Robert Sidney Long, Bound Brook, and Mario Scalera, Somerville, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 21, 1955
Serial No. 535,737

6 Claims. (Cl. 260—343.2)

6. Compounds represented by the formula:



in which R is a carbocyclic aryl radical of less than three six-membered rings, said aryl radical being chosen from the group consisting of hydrocarbon aryls, lower alkylated aryls, chlorinated aryls, lower alkoxylated aryls, nitrated aryls, sulfonated aryls and carboxylated aryls, and R′ and R‴ are lower alkyl groups.

2,844,595

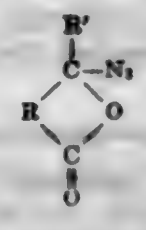
ORGANIC AZIDES OF THE PHTHALIDE TYPE

Samuel W. Walsbrot, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application May 24, 1954
Serial No. 432,815

9 Claims. (Cl. 260—343.3)

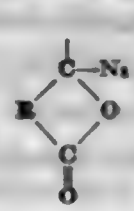
1. As a new composition of matter, an organic azidolactone having the general structural formula



in which R is a radical selected from the group consisting of ortho and peri residues of aromatic hydrocarbon nuclei and a substituted vinylene having the general formula



where R″ and R‴ are a constituent selected from the group consisting of bromine, chlorine and hydrogen and in which R′ is a radical selected from the group consisting of hydrogen, aryl, fused aryl and



2,844,596

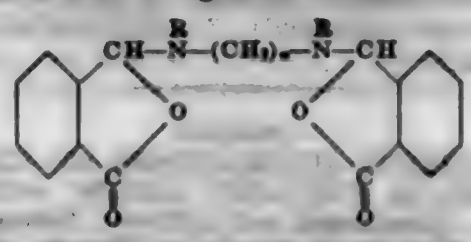
DIPHTHALIDES

Donald D. Wheeler and David C. Young, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 5, 1956
Serial No. 595,845

6 Claims. (Cl. 260—343.3)

1. A diphthalide having the formula



wherein R represents a member of the group consisting of hydrogen, alkyl, aryl and aralkyl, and *n* is an integer of from 2 to 6, inclusive.

2,844,597

BLUE LEVELING DYESTUFFS OF THE ANTHRAQUINONE SERIES

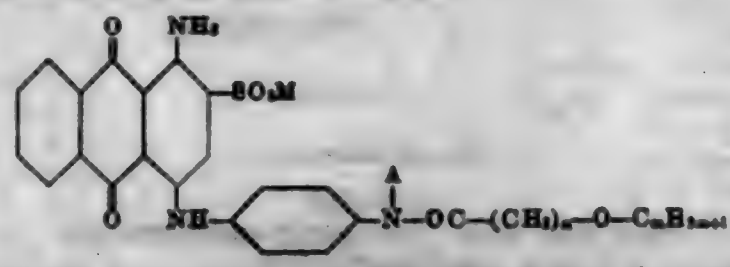
Jacques Guenthard, Basel, and Richard Roth, Rheinfelden, Switzerland, assignors to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application February 25, 1957
Serial No. 641,812

Claims priority, application Switzerland March 29, 1956

6 Claims. (Cl. 260—372)

1. A blue leveling dyestuff of the anthraquinone series which corresponds to the formula



wherein A represents a member selected from the group consisting of hydrogen and methyl, M represents a monovalent cation, *n* represents one of the integers 1 and 2, and *m* represents one of the integers 2, 3, 4 and 5.

2,844,598

DISPERSE DYESTUFFS OF THE ANTHRAQUINONE SERIES

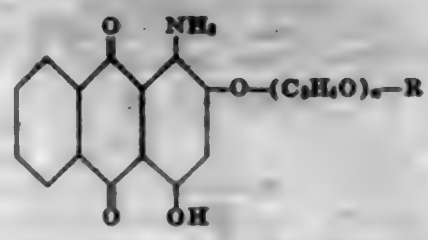
Jacques Günthard, Basel, Switzerland, assignor to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application December 21, 1956
Serial No. 629,779

Claims priority, application Switzerland December 30, 1955

5 Claims. (Cl. 260—380)

1. A disperse dyestuff of the anthraquinone series which corresponds to the formula



wherein *n* is one of the integers 2 and 3, and R represents an alkyl radical containing 1 to 6 carbon atoms.

2,844,599

POLYALKYLENEPOLYAMINES

John L. Rendall and Donald R. Husted, St. Paul, Minn., assignors to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application July 16, 1953, Serial No. 299,924, now Patent No. 2,721,887, dated October 25, 1955, which is a division of application Serial No. 94,933, May 23, 1949, now Patent No. 2,716,616, dated August 30, 1955. Divided and this application October 22, 1954, Serial No. 477,418

4 Claims. (Cl. 260—389)

2. The polyalkylenepolyamines of the formula

$$(Ar)_3C\cdot NH(CH_2CH_2NH)_yH$$

where Ar is an aromatic hydrocarbon radical and y is an integer from 1 to 3.

2,844,600

22-CYANOHYDRINS OF BIS-NOR CHOLEN-AL COMPOUNDS

Raymond L. Pederson, Kalamazoo Township, Kalamazoo County, and Arnold C. Ott, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application October 10, 1955 Serial No. 539,672

24 Claims. (Cl. 260—397.3)

1. The 22-cyanohydrin of a bisnor-17(20)-cholen-22-al substituted in the 3-position by a group selected from hydroxy, acyloxy wherein the acyl group is of a hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive, and keto.

18. A process for the production of a 3-oxygenated 17-ketosteroid selected from the group consisting of 17-ketoandrostanes and 17-ketoetiocholanes, which comprises: reacting a 3-oxygenated bisnor-17(20)-cholen-22-al wherein the 3-oxygenated group is selected from the class consisting of hydroxy, acyloxy wherein the acyl group is of an organic carboxylic acid containing from one to eight carbon atoms, inclusive, and keto with hydrogen cyanide to obtain the cyanohydrin of the corresponding 3-oxygenated bisnor-17(20)-cholen-22-al and subjecting the thus obtained cyanohydrin to ozonolysis to obtain the corresponding 3-oxygenated 17-ketosteroid.

2,844,601

3-OXYGENATED BISNOR-17(20)-CHOLEN-22-OLS

Raymond L. Pederson and Erik H. Jensen, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application October 10, 1955 Serial No. 539,673

16 Claims. (Cl. 260—397.3)

1. A compound selected from the group consisting of 3-oxygenated bisnor-17(20)-cholen-22-ol and 3-oxygenated bisnor-17(20)-cholen-22-ol 22-acylates and the corresponding nuclearly unsaturated compounds having a double bond at a position of the nucleus selected from 4(5) and 5(6), wherein the acyl group is that of a hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive, and wherein the 3-oxygenated group is selected from the class consisting of keto, hydroxy and acyloxy, wherein the acyl group is defined as above.

13. A process for the production of a 17-ketosteroid selected from the group consisting of 3-oxygenated 17-ketoandrostanes and 17-ketoetiocholanes which comprises: reacting a 3-oxygenated bisnor-17(20)-cholen-22-al wherein the 3-oxygenated group is selected from the class consisting of hydroxy, acyloxy, wherein the acyl radical is of an organic carboxylic acid, containing from one to eight carbon atoms, and keto with a metal borohydride to reduce the 22-aldehyde group and to obtain the corresponding 3-oxygenated bisnor-17(20)-cholen-22-ol and subjecting the thus obtained 3-oxygenated bisnor-17(20)-cholen-22-ol to ozonolysis to obtain the corresponding 3-oxygenated 17-ketosteroid.

2,844,602

4-METHYL TESTOSTERONE COMPOUNDS

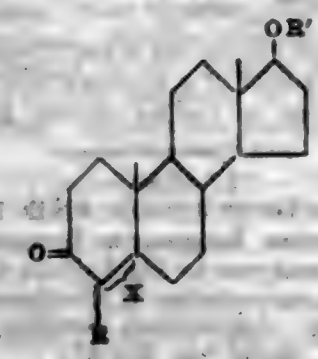
Howard J. Ringold and George Rosenkranz, Mexico City, Mexico, assignors to Syntex S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Application January 29, 1957 Serial No. 636,859

Claims priority, application Mexico January 31, 1956

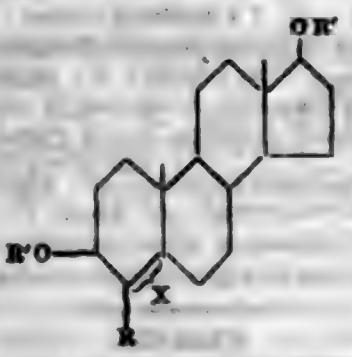
34 Claims. (Cl. 260—397.4)

7. A compound of the following formula



wherein R is selected from the group consisting of alkyl and aralkyl, R′ is selected from the group consisting of hydrogen and acyl and X is selected from the group consisting of a double bond between C–4 and C–5 and a saturated linkage between C–4 and C–5.

21. A compound of the following formula:



wherein R is selected from the group consisting of alkyl and aralkyl, R′ is selected from the group consisting of hydrogen and acyl, and X is selected from the group consisting of a double bond between C–4 and C–5 and a saturated linkage between C–4 and C–5.

2,844,603

PROCESS FOR OXIDATION OF STEROIDS WITH PEROXYTRIFLUOROACETIC ACID

Edwin J. Strojny, Skokie, and Willard M. Hoehn, Wilmette, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Illinois

No Drawing. Application July 5, 1955 Serial No. 520,124

1 Claim. (Cl. 260—397.5)

A process for the preparation of 3β,17β-diacetoxyandrostane which comprises treating 3β-acetoxyallopregnan-20-one with a substantially stoichiometric amount of peroxytrifluoroacetic acid at a temperature between −15° C. and +50° C.

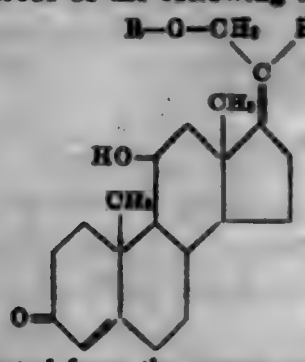
2,844,604

STEROIDS

John A. Hogg, Kalamazoo Township, Kalamazoo County, Philip F. Beal, Portage Township, Kalamazoo County, and Frank H. Lincoln, Jr., Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application June 10, 1955
Serial No. 514,785
6 Claims. (Cl. 260—397.45)

1. 11β,21-dihydroxy-4,17(20)-[cis]-pregnadiene-3-one and 21-esters thereof of the following formula



wherein R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

2,844,685

ORGANIC COMPOUNDS AND PROCESS

Raymond L. Pederson, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application October 10, 1955
Serial No. 539,671
21 Claims. (Cl. 260—397.47)

1. A 20-halobisnorcholan-22-al seleced from the group consisting of 3-ketobisnor-20-halo-4-cholen-22-al; 3-ketobisnor-20-halocholan-22-al; 3-ketoallobisnor-20-halocholan-22-al, 3-hydroxybisnor-20-halocholan-22-al and 3-acyloxybisnor - 20 - halocholan - 22 - al; 3 - hydroxyallobisnor - 20 - halocholan - 22 - al and 3-acyloxyallobisnor-20-halocholan - 22 - al, 3 - hydroxybisnor - 20 - halo - 5-cholen-22-al and 3-acyloxybisnor-20-halo-5-cholen-22-al; 3,11 - diketobisnor - 20 - halo - 4 - cholen - 22 - al, 3-ketobisnor - 11α - hydroxy - 20 - halo - 4 - cholen - 22-al, 3-ketobisnor-11β-hydroxy-20-halo-4-cholen-22-al and 3,6-diketobisnor-20-halocholan-22-al, wherein the halogen atom has an atomic weight of 34 to 81, inclusive, and wherein the acyl group is of an organic carboxylic acid containing from one to eight carbon atoms, inclusive.

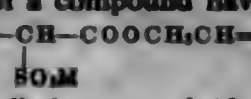
2,844,606

POLYMERIZABLE ESTERS OF ALPHA-SULFONATED FATTY ACIDS

Raymond G. Bistline, Jr., Philadelphia, William S. Port, Norristown, Alexander J. Stirton, Philadelphia, and James K. Weil, North Wales, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

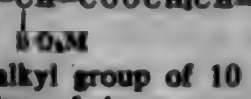
No Drawing. Application June 24, 1955
Serial No. 517,953
6 Claims. (Cl. 260—400)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A polymer of a compound having the formula



wherein R is an alkyl group of 10 to 20 carbon atoms and M is a member of the group consisting of Na, K, Li, and NH_4.

4. A stable emulsion comprising water, oil and a polymer of a compound having the formula



wherein R is an alkyl group of 10 to 20 carbon atoms and M is a member of the group consisting of Na, K, Li, and NH_4 as the emulsifying agent.

2,844,607

PROCESS FOR THE MANUFACTURE OF SULFOBO-ALKYLESTERS OF FATTY ACIDS

Harold Guebin and Frederick J. Zeiman, Roselle, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

Application August 9, 1956, Serial No. 603,866
5 Claims. (Cl. 260—400)



1. Process for the production of sulfoethylesters of fatty acids, which comprises forming a slurry by mixing together dry sodium-isethionate in coursely pulverized form with a fatty acid halide, delivering said slurry to a surface heated to an elevated temperature swept by rapidly moving members so as to produce a thin film of reaction product on said heated surface and simultaneously causing attrition of said film by violent turbulence effected by the said rapidly moving members, the turbulence and temperature being maintained until the reaction between the sodium-isethionate and the fatty acid halide is substantially complete, the attrition being utilized to separate the reaction product from said surface.

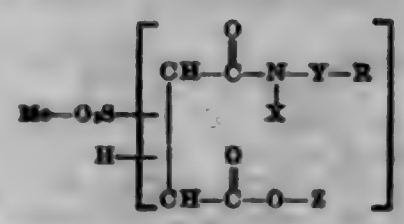
2,844,608

SULFODICARBOXYLIC ACID COMPOUNDS

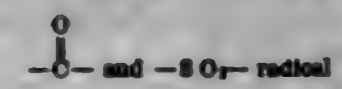
Walter Hagge and Mathieu Quoedvlieg, Leverkusen-Bayerwerk, and Herbert Hempel, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application January 25, 1954
Serial No. 406,864
Claims priority, application Germany January 26, 1953
6 Claims. (Cl. 260—401)

1. Sulfodicarboxylic acid compounds of the general formula



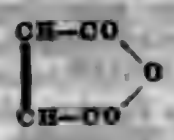
wherein Me is a member of the group consisting of an alkali metal and the ammonium radical, X is a member of the group consisting of hydrogen and an alkyl group, Y is a member of the group consisting of the



R is an alkyl group of 6–18 carbon atoms and Z is a lower alkyl group.

4. Process for the production of sulfocarboxylic acid compounds of the general formula indicated in claim 1,

which comprises reacting maleic anhydride of the formula



at elevated temperature with an amide of a member of the group consisting of aliphatic carboxylic and sulfonic acids containing an alkyl group of 6–18 carbon atoms at a molecular ratio of 1:1, esterifying the reaction product with a saturated lower alkanol and contacting the esterified product with an alkali bisulfite.

2,844,609

PREPARATION OF AMIDES

Giuliana C. Tesoro, Dobbs Ferry, N. Y., assignor to Onyx Oil & Chemical Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application June 29, 1955
Serial No. 518,959
14 Claims. (Cl. 260—404)

1. The method of producing amides from higher fatty acid esters of the class consisting of the lower alkanol esters and glyceride esters of higher fatty acids and high boiling alkanolamines of the class consisting of primary and secondary alkanolamines which comprises heating a mixture of the high boiling alkanolamine and a sodium methoxide catalyst to a temperature of about 55°–75° C. and gradually adding the cold fatty acid ester to the amine and catalyst while maintaining a vacuum.

2,844,610

PURIFICATION OF ACYLAMINO CARBOXYLIC ACIDS

Werner Freudenberg, Camp Hill, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 2, 1956
Serial No. 595,118
4 Claims. (Cl. 260—404)

1. Process for the production of fatty acylamino compounds in high yield and in pure form, which comprises reacting an amine with a fatty acid halide in the presence of an alkali metal hydroxide in dilute solution at a pH above 9.5 and at a temperature below about 50° C. whereby there is formed the acylamino compound and, as contaminants, alkali metal salts of the fatty acid, alkali metal halide, unreacted amine and minor amounts of other by-products, and at the completion of the reaction adding to the reaction mixture from 5% to 50% by weight of a water-soluble lower alkanol and lowering the pH of the reaction mixture so as to cause the said contaminants promptly to precipitate out in excellent filterable condition and the acylamino compound to go into solution in aqueous lower alkanol, and then distilling off the alkanol and water from said aqueous solution of acylamino compound to obtain said acylamino compound free from impurities and in high yield.

2,844,611

MANUFACTURE OF ACYLAMINO CARBOXYLIC ACIDS

Werner Freudenberg, Camp Hill, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 2, 1956
Serial No. 595,140
7 Claims. (Cl. 260—404)

1. In an acylation reaction wherein a carboxylic acid acyl halide is reacted with an amine in the presence of dilute alkali at a pH of approximately 9.5, the step of adding to the reaction mixture an amount of a water-soluble lower alkanol sufficient to produce a high yield of fatty acylamino compound.

2,844,612

PRODUCTION OF ESTERS FROM CARBON MONOXIDE, HYDROGEN, AND OLEFIN

Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Rubrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a German corporation

No Drawing. Application November 5, 1953
Serial No. 390,413
Claims priority, application Germany November 27, 1952
6 Claims. (Cl. 260—410.9)

1. Process for the production of esters which comprises contacting an olefinic hydrocarbon having a carbon number above C_{20} and boiling above 320° C. with a carbon monoxide hydrogen-containing gas having a $CO:H_2$ ratio of about 2:1 to about 50:1 at a temperature of 100–200° C. and a pressure of between 100 and 300 atmospheres in the presence of an oxo-catalyst, and recovering an ester.

2,844,613

ALKALI REFINING RICE OIL IN THE PRESENCE OF A OH GROUP-CONTAINING ADDITIVE

Edwin R. Cousins, New Orleans, La., and Sakuntala Bhodhiprasert and Rabieb Prachankadee, Bangkok, Thailand, assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application January 24, 1955
Serial No. 483,846
9 Claims. (Cl. 260—425)

9. A process of alkali refining, with a comparatively low refining loss, a hard to refine crude natural glyceride oil which exhibits a refining loss of more than about four times the free fatty acid content when refined by the AOCS Test Method Ca9a–52, which comprises alkali refining the oil by the AOCS Test Method Ca9a–52 in the presence of about from 0.5 to 5 weight percent based on the weight of the crude oil of at least one —OH group-containing compound selected from the group consisting of sugars and 2 to 5 carbon atom polyhydric aliphatic alcohols.

2,844,614

BIS(FLUOROETHYL) MERCURIALS AND METHOD OF PRODUCING THEM

Carl G. Krespan, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 7, 1957
Serial No. 632,679
5 Claims. (Cl. 260—431)

1. A method for preparing bis(fluoroethyl)mercurials which comprises reacting mercuric fluoride with a fluoroolefin of the formula $CXY{=}CF_2$ wherein X and Y are selected from the group consisting of hydrogen and halogen.

2,844,615

PROCESS FOR MAKING COMPLEX COMPOUNDS FROM ALUMINIUM HYDROCARBONS AND ALKALI FLUORIDES

Karl Ziegler and Roland Köster, Mulheim (Ruhr), and Herbert Lehmkuhl, Oberhausen-Sterkrade, Germany, assignors to Karl Ziegler, Mulheim (Ruhr), Germany, a corporation

No Drawing. Application September 9, 1953
Serial No. 379,294
Claims priority, application Germany September 26, 1952
16 Claims. (Cl. 260—448)

1. A new complex compound having the formula:

$$[Al(R_3R')]_xMeF$$

in which R represents a member selected from the group consisting of lower alkyl and phenyl radicals, R′ represents a member selected from the group consisting of lower alkyl and phenyl radicals and hydrogen, Me represents an alkyl metal and x is a whole number from 1 to 2.

2,844,616

PROCESS FOR REACTING DI-ORGANO SUBSTITUTED DITHIOPHOSPHORIC ACID COMPOUNDS AND EPOXIDES

John F. McDermott, Springfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Original application October 27, 1950, Serial No. 192,617. Divided and this application September 9, 1952, Serial No. 308,692

9 Claims. (Cl. 260—461)

1. A process which comprises the steps of reacting a di-organo substituted dithiophosphoric acid with an epoxide at a temperature below 95° C. and for a period less than two hours and recovering the reaction product thereof, the organo groups of the dithiophosphoric acid containing in the range of 3–17 carbon atoms per radical and being selected from the group consisting of aliphatic, alicyclic, mono-alkyl phenyl radicals and sulfurized derivatives thereof, and said epoxide containing in the range of 2–8 carbon atoms per molecule and being selected from the group consisting of epoxy-alkanes, epoxy-alkenes and styrene oxide.

2,844,617

PRODUCTION OF NEUTRAL ESTERS OF ORTHOPHOSPHORIC ACID

Heinz Jonas, Leverkusen-Wiesdorf, and Werner Thrumm, Leverkusen-Schlebusch, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application August 14, 1953
Serial No. 374,431

Claims priority, application Germany August 23, 1952

4 Claims. (Cl. 260—461)

1. A process of producing a neutral, water-insoluble ester of orthophosphoric acid which comprises intimately contacting a water-insoluble ester selected from the group consisting of alkyl and alkaryl tri-esters of phosphorous acid and halogen derivatives thereof, with an aqueous solution of a salt of hypochlorous acid at a temperature between about 0 and 50° C.

2,844,618

POLYPHOSPHONATES

John H. Johnson and Joseph E. Fields, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 25, 1954
Serial No. 439,486

16 Claims. (Cl. 260—461)

1. A liquid mixture of adducts in which adducts there are chemically combined from 2 to 50 moles of an alkyl vinylphosphonate in which the alkyl radical has from 1 to 8 carbon atoms with 1 mole of a compound which is a solvent for said phosphonate and which is selected from the class consisting of alkyl and dialkyl benzenes having from 1 to 3 carbon atoms in the alkyl radical, normally liquid alkyl phosphites having from 1 to 8 carbon atoms in the alkyl radical and halogenated alkanes having from 1 to 2 carbon atoms and containing at least 3 halogen atoms attached to the same carbon atom.

2,844,619

PROCESS FOR THE DEODORIZATION OF O,O-DIMETHYL-DITHIO-PHOSPHATE OF DIETHYL MERCAPTO-SUCCINATE

Juan Nobrera Escobar, Madrid, Spain

No Drawing. Application June 6, 1955
Serial No. 513,571

Claims priority, application Spain April 12, 1955

1 Claim. (Cl. 260—461)

A process for the deodorization of O,O-dimethyl-dithio-phosphate of diethyl mercapto-succinate, which consists essentially in the gradual addition to the said O,O-dimethyl-dithio-phosphate of diethyl mercapto-succinate, with stirring, of an aqueous sodium hypochlorite solution containing 47 to 50 parts by volume of hypochlorite per thousand parts by volume of solution, 50 parts by volume of the said solution being added for each 100 parts by volume of O,O-dimethyl-dithio-phosphate of diethyl mercapto-succinate, continuing the stirring for about 30 minutes after completion of such addition, thereafter allowing the mixture to cool to room temperature, and separating the deodorized product from the hypochlorite solution.

2,844,620

PROCESS FOR THE DEODORIZATION OF O,O-DIMETHYL-DITHIOPHOSPHATE OF DIETHYL MERCAPTOSUCCINATE

Juan Nobrera Escobar, Madrid, Spain

No Drawing. Application August 1, 1955
Serial No. 525,777

Claims priority, application Spain May 21, 1955

2 Claims. (Cl. 260—461)

1. A process for the deodorization of odoriferous O,O-dimethyl dithio-phosphate of diethyl mercapto-succinate which comprises subjecting the odoriferous O,O-dimethyl dithio-phosphate of diethyl mercapto-succinate to the oxidizing action of sodium hypochlorite by gradually adding an aqueous sodium hypochlorite thereto while simultaneously passing through the reaction mixture a current of dry air under pressure until substantially all volatile vapors have been liberated, said dry air being saturated with a mixture of nitrobenzene and amyl acetate, and liberated volatile vapors being passed to the atmosphere, thereafter cooling the reaction mixture to ambient temperature and separating the resultant deodorized O,O-dimethyl dithio-phosphate of diethyl mercapto-succinate from said reaction mixture.

2,844,621

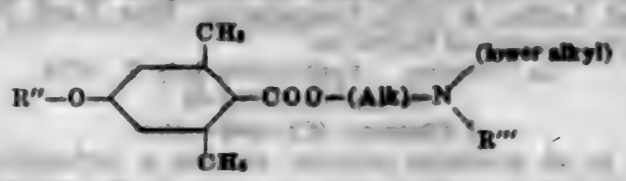
ALKYLAMINOALKYL 4-ALKOXY-2,6-DIALKYLBENZOATES

Jack Bernstein and Barbara Stearns, New Brunswick, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application November 1, 1955
Serial No. 544,363

3 Claims. (Cl. 260—473)

1. A compound selected from the group consisting of free bases of the general formula



wherein R″ is a member of the group consisting of methyl and ethyl, Alk is a lower alkylene, and R‴ is a member of the group consisting of hydrogen and lower alkyl; and the acid-addition salts thereof.

2,844,623

KETENE REACTIONS

Gene I. Fisher, Corpus Christi, Tex., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application June 28, 1954
Serial No. 439,927
15 Claims. (Cl. 260—486)

1. Process which comprises reacting ketene and formaldehyde by continuously contacting said reactants in the vapor phase at a temperature of above about 100° C. in the presence of a Friedel-Crafts catalyst to produce a gaseous reaction product containing the acryly radical.

2,844,623

DIAMMONIUM ETHYLENE BISDITHIOCARBAMATE

Elmer A. Fike, Nitro, W. Va., assignor to Roberts Chemicals, Inc., Nitro, W. Va., a corporation of West Virginia

No Drawing. Application April 1, 1955
Serial No. 498,757
3 Claims. (Cl. 260—500)

1. Diammonium ethylene bisdithiocarbamate.

2,844,624

SULFONATION PROCESS WITH EMPHASIS ON ECONOMY OF SULFONATING AGENT

Herman S. Bloch, Skokie, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application May 21, 1956
Serial No. 585,959
9 Claims. (Cl. 260—505)

1. A process for effecting mono-sulfonation of a sulfonatable hydrocarbon which comprises mixing said hydrocarbon with an oleum containing from 5 to about 65% by weight of free sulfur trioxide derived as hereinafter indicated, the amount of said oleum corresponding to a molar ratio of free sulfur trioxide in said oleum to said hydrocarbon of from about 0.9 to 1 to about 4 to 1, while maintaining the resulting mixture of oleum and hydrocarbon at a sulfonation temperature, thereafter adding water in an amount corresponding to the formula: $X=1+2N-2(1-N')$, wherein X is equal to the amount of water added, 2N is equal to the number of moles of sulfuric acid in said oleum, and N' is equal to the number of moles of free sulfur trioxide in said oleum, separating a resulting sulfuric acid monohydrate phase from an upper layer comprising predominately the monohydrate of the resultant hydrocarbon sulfonic acid and adding sufficient sulfur trioxide to said sulfuric acid monohydrate phase to form said oleum in the amount and at the sulfur trioxide concentration utilized in said sulfonation reaction, as aforesaid, and supplying the oleum thus formed from the sulfuric acid monohydrate phase to the sulfonation reaction as said sulfonating agent.

2,844,625

p-AMINOSALICYLIC ACID

Albert P. Castiglia, Elkhart, Ind., assignor to Miles Laboratories, Inc., Elkhart, Ind., a corporation of Indiana

No Drawing. Application September 13, 1954
Serial No. 455,781
3 Claims. (Cl. 260—519)

1. The process of producing a pure, dense form of p-aminosalicylic acid which comprises dissolving an alkali metal salt of said acid in a water-isopropanol medium and acidifying the solution thus formed to precipitate a dense p-aminosalicylic acid.

2,844,626

PROCESS FOR THE MANUFACTURE OF ADIPIC ACID

Jonas Kamlet, New York, N. Y., assignor to The Goodyear Tire & Rubber Company, a corporation of Ohio

No Drawing. Application May 27, 1955
Serial No. 511,796
4 Claims. (Cl. 260—537)

1. A process for the manufacture of adipic acid by the oxidation of at least one member of the group consisting of cyclohexanol and cyclohexanone which comprises the steps of adding (*a*) the compound to be oxidized and (*b*) an oxygen-containing gas to (*c*) an aqueous solution of nitric acid containing a catalytic amount of an oxidation catalyst comprising a compound of a metal selected from the group consisting of vanadium, copper, manganese, cobalt, molybdenum, nickel, lead, chromium, iron and mercury, said solution having a nitric acid concentration of from 4 N to 10 N, continuously cooling said solution and adding the compound to be oxidized at such a rate as to maintain the temperature of the reaction mixture between 60° C. and 70° C., adding said oxygen-containing gas in an amount in excess of that required to oxidize the oxides of nitrogen produced substantially to nitrogen dioxide and continually circulating the gases through the reaction mixture.

2,844,627

PRODUCTION OF HALOACIDS

Herman D. Noether, Kew Gardens, N. Y., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application March 16, 1953
Serial No. 342,717
12 Claims. (Cl. 260—539)

1. Process for the production of a halocarboxylic acid from a cyclic ketone, which comprises oxidizing a ketone which is an oxo-substituted hydrocarbon having its keto carbonyl group in a cycloparaffinic ring of 5 to 7 carbon atoms with an aqueous mixture of hydrogen peroxide and sulfuric acid to produce a reaction product containing a lactone and said sulfuric acid, the reactants being maintained at a temperature of at least about 30° C. during the mixing of said ketone, hydrogen peroxide and sulfuric acid, and reacting a hydrohalogen acid selected from the group consisting of hydrochloric and hydrobromic acids with said reaction product to produce a halocarboxylic acid.

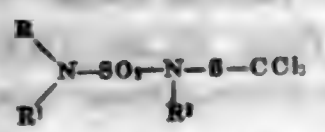
2,844,628

PERCHLORO-METHYL-MERCAPTAN DERIVATIVES AND PRODUCTIONS

Engelbert Kuhle, Koln-Stammheim, Richard Wegler, Leverkusen, and Ferdinand Grewe, Koln-Stammheim, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application March 27, 1956
Serial No. 574,111
Claims priority, application Germany April 7, 1955
9 Claims. (Cl. 260—551)

3. N-perchloro-methylsulphene - substituted sulfamides of the general formula



in which R, R^1 and R^2 each stand for a member selected

from the group consisting of hydrogen, alkyl and aryl radicals.

2,844,629

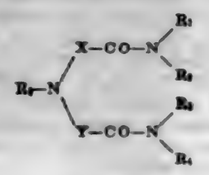
FATTY ACID AMIDES AND DERIVATIVES THEREOF

William F. Bruce, Havertown, and Roy S. Hanslick, Philadelphia, Pa., assignors to American House Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application April 25, 1956
Serial No. 580,454

8 Claims. (Cl. 260—561)

1. A compound of the group consisting of di-fatty acid amides and the non-toxic, acid-addition salts thereof, said amides having the formula



wherein R_1, R_2, R_3 and R_4 represent alkyl radicals in which the number of carbon atoms of the four radicals together total from 12 to 26 with no radical having more than 12 carbon atoms; while R_5 stands for a member of the group consisting of hydroxyethyl, hydroxypropyl, hydroxybutyl and the C_2 and C_4 lower alkyl acid esters thereof, while X and Y represent divalent alkylene radicals of 1 to 2 carbon atoms.

2,844,630

NITROSATION PROCESS

William G. Johnson, Woodbury, N. J., and William H. Reedy, Jr., Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 1, 1955
Serial No. 550,456

3 Claims. (Cl. 260—566)

1. A process for the nitrosation of an organic compound containing a ketonic carbonyl alpha to an activated methylene group which is to be nitrosated, comprising contacting the compound with nitric oxide and air in the presence of catalytic amounts of hydrochloric acid at a temperature in the range of about 0° C. to about 50° C.

2,844,631

DI(META-XYLYLENE) TRIAMINE

John B. Wilkes, Albany, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application March 30, 1956
Serial No. 574,961

1 Claim. (Cl. 260—570.9)

The compound di(meta-xylylene) triamine.

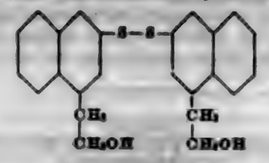
2,844,632

NEW COMPOSITION OF MATTER

Teh-Fu Yen, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application June 12, 1956
Serial No. 590,842
1 Claim. (Cl. 260—608)

As a new composition of matter, bis-(4-beta-hydroxyethyl-1-naphthyl) disulfide defined by the formula:



2,844,633

PROCESS FOR PREPARATION OF FATTY ALCOHOLS

Frederic François Albert Braconier, Plainevaux, and Henri Le Bihan, Liege, Belgium, assignors to Societe Belge de l'Azote et des Produits Chimiques du Marly, Liege, Belgium

No Drawing. Application July 3, 1956
Serial No. 595,596
Claims priority, application Great Britain July 28, 1955
6 Claims. (Cl. 260—638)

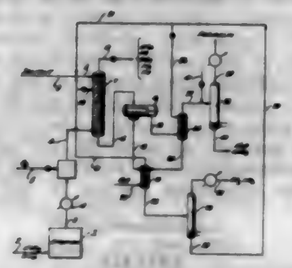
1. A process for the production of a higher fatty alcohol from a corresponding fatty acid comprising reacting the acid with an excess of methanol to produce the methyl ester of said acid in the presence of a catalyst, while maintaining a temperature of 325 to 375° C. and a pressure of at least 300 atmospheres at which both the water formed by the reaction between the acid and the methanol, and at least part of the excess methanol, are decomposed to yield active hydrogen, whereby the said methyl ester is reduced by the hydrogen thus produced to the corresponding fatty alcohol.

2,844,634

RECOVERY OF NITROMETHANE FROM NITRATION MIXTURES

Art C. McKinnis, Long Beach, Calif., assignor, by mesne assignments, to Collier Carbon and Chemical Corporation, a corporation of California

Application April 30, 1956, Serial No. 581,639
8 Claims. (Cl. 260—644)



8. A method for recovering nitromethane from a gaseous mixture containing formaldehyde, said gaseous mixture resulting from the nitration of a lower aliphatic hydrocarbon with nitric acid, which comprises contacting said gaseous mixture with both water and a halogenated aromatic hydrocarbon, thereby forming a water phase rich in formaldehyde and an organic phase rich in nitromethane, contacting said two phases with each other to establish equilibrium, separating the equilibrated organic phase and recovering nitromethane therefrom.

2,844,635

SIDE CHAIN HALOGENATION OF SUBSTITUTED AROMATIC COMPOUNDS

Rowland H. Mayor, Cuyahoga Falls, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 28, 1954
Serial No. 458,983
9 Claims. (Cl. 260—651)

1. A process for effecting side-chain halogenation of an aromatic hydrocarbon compound containing aliphatic side-chains in the presence of a material which catalyzes nuclear halogenation and in the presence of light, which comprises heating and reacting said aromatic compound with a halogen selected from the group consisting of chlorine and bromine in the presence of an open chain alkylene polyamine.

2,844,636

PREPARATION OF FLUORINE COMPOUNDS

Robert Neville Haszeldine, Cambridge, England, and Hyman Iserson, Philadelphia, Pa., assignors to Pennsalt Chemicals Corporation, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application May 24, 1956
Serial No. 586,900
Claims priority, application Great Britain July 1, 1955
9 Claims. (Cl. 260—653)

1. A method for the manufacture of 1,1,2,3,4,4-hexafluorobutane, which comprises reacting perfluorocyclobutene with hydrogen in the presence of elemental iodine.

ELECTRICAL

2,844,637

GASTIGHT INSTRUMENT SHELL FOR FURNACES

Alfred Edouard Borel, Neuchatel, and Jean-Pierre Borel, Vevey, Switzerland

Application August 31, 1953, Serial No. 377,646
Claims priority, application Switzerland
September 5, 1952
4 Claims. (Cl. 136—4)



1. A thermocouple adapted for use within a furnace at temperatures in the range of 800° to 1200° C. comprising a pair of similar heated gas pervious metal tubes having spaced proximate walls and being closed at one end, an adherent layer of glass impermeable to gases interposed between said walls and having a coefficient of thermal expansion substantially equal to that of each of said tubes, said material softening within said temperature range and each of said tubes having a softening temperature above 1200° C., and a thermoelectric responsive element disposed within said tubes.

2,844,638

HEAT PUMP

Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application January 4, 1954, Serial No. 401,799
7 Claims. (Cl. 136—4)



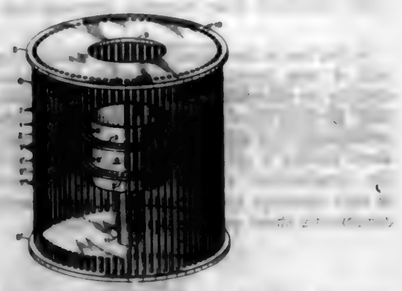
5. A thin panel thermopile comprised of a perforated plate of insulating material, plugs constituted of dissimilar thermoelectric alloys, dissimilar ones of said plugs being disposed alternately within said perforations, the ends of said plugs protruding a short distance through both sides of said insulating plate, strips of conducting material, said strips connecting said plugs in series relationship, a source of potential, said series circuit being connected across said source of potential, said connecting strips providing heat absorbing "cold" junctions on one side of said insulating plate and heat liberating "hot" junctions on the other side of said insulating sheet, and sheets of electricity insulating but heat conducting material thermally and electrically isolated from each other sheathing both sides of said plate to electrically insulate said "hot" and "cold" junctions.

2,844,639

THERMO-ELECTRIC GENERATOR

Kenneth C. Jordan, Dayton, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

Application October 20, 1955, Serial No. 541,865
4 Claims. (Cl. 136—4)



4. Thermo-electric generator apparatus for generating electricity from a source of heat comprising: a thermally conductive container for receiving said source, said container being provided with first and second annular rings in thermal contact therewith, each ring being provided with a plurality of spaced apertures therein for receiving thermocouple junctions, an outer envelope member comprising a pair of end plates and a plurality of rods connected between said plates in cylindrical configuration about said container, said rods being electrically conductive and said end plates being electrical insulators, a first of said plates being provided with an aperture for admitting a heat source into said container, and means forming a thermopile provided with hot and cold junctions connected in electrical series relationship comprising first and second groups of thermocouple wires, each said hot junction being disposed in one of said apertures in thermal contact therewith but electrically insulated therefrom, each said cold junction being formed from one of said rods and a wire from each of said groups connected thereto.

2,844,640
CADMIUM SULFIDE BARRIER LAYER CELL
Donald C. Reynolds, Springfield, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application May 11, 1956, Serial No. 584,403
4 Claims. (Cl. 136—89)
(Granted under Title 35, U. S. Code (1952), sec. 266)

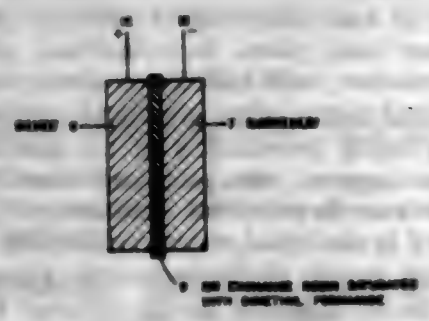
4. A cadmium sulfide composite cell consisting of an N-type cadmium sulfide crystal, and a P-type semiconductor contacting the N-type cadmium sulfide crystal and wherein the P-type semiconductor consists of a material selected from the group: cuprous oxide, cuprous sulfide, cupric sulfide and selenium, and inclusive of a first electrical contact attached to the cadmium sulfide crystal, and a second electrical contact attached to the semiconductor for making available the continuous withdrawal of electrical energy from the two contacts when solar energy is applied to the cell.

2,844,641
WAFER-TYPE CELLS FOR DRY BATTERIES AND METHOD FOR MAKING SAME
Maurice Lang, Long Beach, and Tellef A. Terjesen, Bronx, N. Y., assignors to United States Electric Mfg. Corporation, New York, N. Y., a corporation of New York
Application October 12, 1954, Serial No. 461,733
4 Claims. (Cl. 136—111)



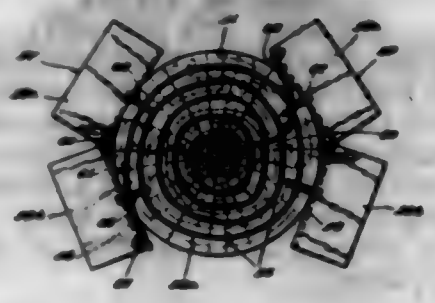
4. For use in the manufacture of a wafer-type Leclanche cell, a step product constituting a duplexed strip including an elongated zinc sheet and a paper lining sheet, said product further comprising a flexible electrically non-conductive sheet disposed on the paper lining, said sheet having a series of through openings aligned with the longitudinal axis of the sheet, a depolarizing mix in said openings and a protective web overlying the non-conductive sheet and the openings therein.

2,844,642
ION EXCHANGE RESIN BATTERY
Meyer Schwarz and Philip J. Franklin, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Army
Application January 11, 1957, Serial No. 633,801
1 Claim. (Cl. 136—153)
(Granted under Title 35, U. S. Code (1952), sec. 266)



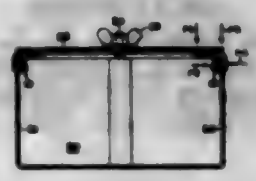
An ion exchange resin cell comprising: a magnesium first electrode; a silver second electrode; and a sheet of sulfonated polystyrene interposed between said electrodes, said sheet being saturated with dimethyl formamide.

2,844,643
TRANSMISSION LINE SUPPORT
Thomas N. Cofer and Anton J. Borchert, Springfield, Ill.
Original application August 20, 1947, Serial No. 769,756. Divided and this application August 11, 1952, Serial No. 303,688
2 Claims. (Cl. 174—6)



1. A ground anchor for use with a wooden pole having an end embedded in the ground and a bore defined through the embedded end, first and second angulated bearing plates each of which includes a vertical pole engaging portion and a pair of spaced horizontal ground engaging portions depending from the vertical portion, the vertical portion being bent intermediate its ends so that at least two sections of the vertical portion are in engagement with the pole, first and second angle irons each of which includes a vertical pole engaging flange and a vertical ground engaging flange in which there is provided a slot for accommodating the vertical portion of one of the bearing plates at a position adjacent the bend thereof so that the pole engaging portion of the angle iron is disposed between the pole and the two sections of the vertical pole engaging portion, means for fixedly securing each of the angle irons to one of the bearing plates thereby to orient each angle iron generally perpendicularly to the horizontal ground engaging portion of its associated bearing plate, an aperture defined in the pole engaging portion of each of the angle irons, means including a bolt passing through the apertures in both of said angle irons and through the bore of the pole for fixedly securing said bearing plates and angle irons on opposite sides of the pole, and means for securing the vertical pole engaging portions of each of said bearing plates to said pole.

2,844,644
DETACHABLE SPRING CONTACT DEVICE
Robert G. Soule, Jr., Manlius, N. Y., assignor to General Electric Company, a corporation of New York
Application December 20, 1954, Serial No. 629,724
4 Claims. (Cl. 174—35)



1. A detachable spring contact device comprising, first and second pressure exerting surfaces in spaced and generally parallel relationship to each other, a first pressure receiving surface extending between and in generally perpendicular relationship to said first and second pressure exerting surfaces, a pressure transmitting surface in spaced and generally parallel relationship to said second pressure exerting surface; said second pressure exerting surface being disposed between said first pressure exerting surface and said pressure transmitting surface; said first and second pressure exerting surfaces, said first pressure receiving surface and said pressure transmitting surface being formed by a first portion of a continuous sheet of mechanically resilient and electrically conducting material, said first portion of said continuous sheet

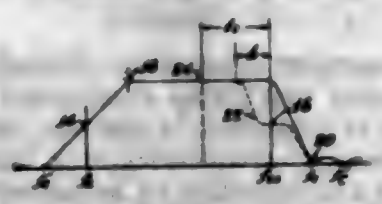
thereby forming a member having a cross-section which is generally S-shaped, the open loop of said S formed by said first pressure exerting surface, said first pressure receiving surface, and said second pressure exerting surface being adapted to be placed in frictional engagement around a top edge of a side of an electrical shielding receptacle; said continuous sheet of material being further extended from the portion forming said pressure transmitting surface to form a second pressure receiving surface, said second pressure receiving surface forming an angle of greater than 90° and less than 180° with said pressure transmitting surface so as to extend generally away from and above said first pressure receiving surface; said continuous sheet of material having a plurality of parallel notches extending through said second pressure receiving surface and into said pressure transmitting surface to divide said surfaces into a plurality of spring contact fingers adapted to be engaged by the under surface of the cover of said electrical shielding receptacle.

2,844,645

COLOR TELEVISION RECEIVER, INTERMEDIATE FREQUENCY AMPLIFIER

Gordon L. Fredendall, Huntingdon Valley, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application August 15, 1952, Serial No. 304,553
2 Claims. (Cl. 178—5.4)
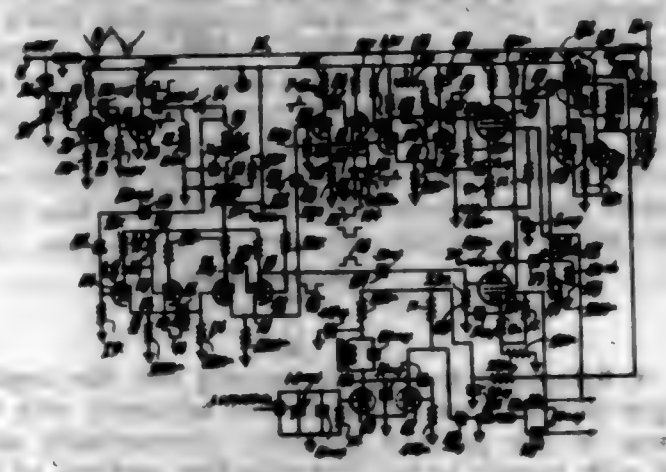


1. In a color television receiver adapted to receive a composite color television signal comprising a main picture carrier modulated by video signals representative of luminance information and additionally modulated by a modulated color subcarrier, chrominance information being conveyed by the sidebands of said modulated color subcarrier, and adapted to convert said received signal to occupy a predetermined band of intermediate frequencies, the frequency of the picture carrier of said converted signal being located near one edge of said band, the frequency of the color subcarrier of said converted signal being located near the opposite edge of said band such that the sideband of said subcarrier furthest removed from said picture carrier is more restricted in bandwidth than the other sideband of said color subcarrier, an intermediate frequency amplifier for amplifying said converted signal, said amplifier comprising means for providing said amplifier with a sloping frequency response characteristic for frequencies within a first portion of said band extending from said one edge, the picture carrier frequency of said converted signal falling intermediate the extremities of said first band portion, means for providing said amplifier with a substantially flat frequency response characteristic for frequencies within a second portion of said band adjacent said opposite edge, said second band portion being centered about the color subcarrier frequency of said converted signal, and means for providing said amplifier with a substantially flat frequency response characteristic for frequencies within a third portion of said band intermediate said first and second band portions, said third band portion encompassing a segment of said other sideband furthest removed from said color subcarrier, said second named means providing a level of response for said amplifier in said second band portion which is substantially lower than the level of response provided for said amplifier in said third band portion by said third named means.

2,844,646

TELEVISION TEST APPARATUS

Steven Wisnik, Brooklawn, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 1, 1954, Serial No. 465,267
10 Claims. (Cl. 178—5.4)



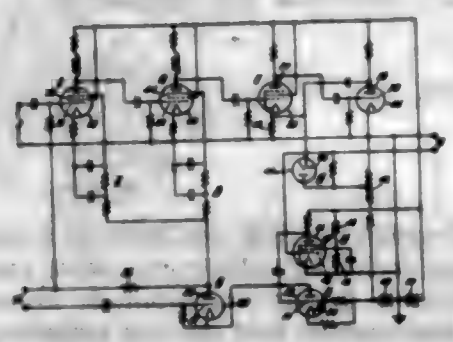
1. Color television test signal generating apparatus for use in a television system in which a horizontal blanking pulse is transmitted between successive television line scansions, said apparatus comprising: gating means operating in synchronism with such line scansions for producing a first burst of carrier wave of fixed frequency timed to occur just after a horizontal blanking interval and a second burst of carrier wave of the same frequency as said first frequency timed to occur just prior to the next horizontal blanking interval; a source of a monochrome television signal; and adder means coupled to said source and said first-named means for combining said first and second bursts with such monochrome television signal in such manner that said bursts are confined exclusively to the intervals between such blanking intervals.

2,844,647

AMPLIFIER-LIMITER CIRCUIT

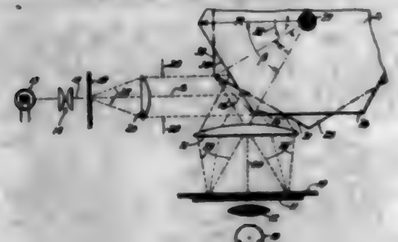
Winslow Leroy Hurford, Oaklyn, N. J., assignor to General Electric Company, a corporation of New York

Application February 10, 1954, Serial No. 409,307
7 Claims. (Cl. 178—7.1)



5. In a signal amplifying system for amplifying a signal having a constantly recurring portion, apparatus for limiting the amplitude of said amplified signal comprising means responsive to said amplified signal to produce a first control signal only when the amplitude of said amplified signal is to be limited, pulse generating means responsive to said first control signal to initiate the generation of a pulse, pulse termination means responsive to the first occurrence of said constantly recurring portion of said amplified signal after said generated pulse is initiated to terminate said generated pulse, integrating means responsive to said generated pulse to integrate said generated pulse to produce a second control signal, and means responsive to said second control signal to limit the amplitude of said amplified signal.

2,844,648
SCANNING MIRROR
Adolph H. Rosenthal, Forest Hills, N. Y., assignor to Fairchild Camera and Instrument Corporation, Syosset, N. Y., a corporation of Delaware
Application April 23, 1954, Serial No. 425,243
3 Claims. (Cl. 178—7.1)



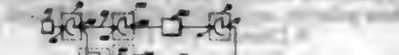
between said detector and said control element and further resistor means coupled to said control element as a discharge path for said capacitor means, the values of said capacitor means and said further resistor means being selected to form a self-biasing network for said control element for establishing a bias having a tendency to vary in the opposite sense to the aforementioned tendency in response to such variations in the aforesaid picture content, so that the bias on said control element is substantially independent of changes in picture content in the aforesaid composite video signal.

2,844,650
TELETYPEWRITER SYSTEMS OR THE LIKE
Oscar B. Dutton, Redondo Beach, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application March 2, 1954, Serial No. 413,629

channel, means for adding in a common circuit to each one of said amplitude-modulated pulses a constant amplitude auxiliary pulse voltage synchronous with said one of said amplitude-modulated pulses, a utilization circuit, and means for applying the whole of the added voltages of said amplitude modulated and auxiliary pulses to said utilization circuit, whereby non-zero signals representing each of said channels are obtained in said utilization circuit in the event that any of said amplitude-modulated pulses have momentarily a zero amplitude.

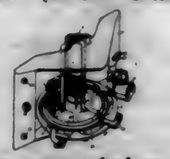
2,844,652
SWITCH DEVICE FOR MULTIPLEX CHANNEL TRANSMISSION RECEIVERS
André Eugène Pinet, Maisons Alfort, France
Application September 16, 1953, Serial No. 380,422
Claims priority, application France October 3, 1952

on a free bank-side terminal trunk of said group of s
tors, for producing a pulse train corresponding to
marked terminal trunk in said multichannel pulse t
mission circuit, means in said common control ci
responsive to the receipt of a setting-initiating cond
over a wiper-side terminal trunk of said group of sele
to which said marking condition has been extended
allotting a free one of said master selector circuits
use on a call, a bank-side electronic storage circu
each said master selector circuit, a pulse-selection ga
said common control circuit for controlling the co
tion of said multichannel pulse transmission circu
each said bank-side electronic storage circuit, mea
said common control circuit, responsive to the re



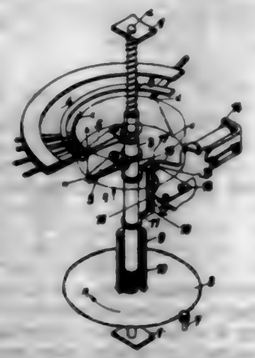
reducing the reverse flow therethrough which would tend to place the potential of the calling line on each other line, whereby the accidental grounding of any line other than the calling line leaves the common line relay operable over the calling line.

2,844,655
MOTOR-DRIVEN ROTARY TELEPHONE SWITCHING MECHANISM
Friedrich Sommer, Berlin-Nikolassee, and Helmut Hofmann and Hans Eder, Munich, Germany, assignors to Siemens & Halske Aktiengesellschaft, Munich, Germany, a German corporation
Application January 18, 1952, Serial No. 267,870
Claims priority, application Germany March 14, 1951
6 Claims. (Cl. 179—27.51)



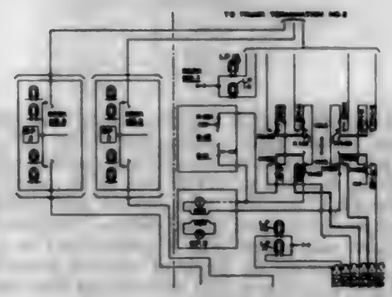
1. In a motor-driven rotary telephone switch having a frame and having a drive wheel rotatably mounted on said frame and a motor for rotating such drive wheel to rotate wipers relative to bank contacts disposed on one side of said frame, said drive wheel carrying cam means; a device for controlling the operation of said motor, said device comprising a plurality of sets of control contacts, means for mounting said control contacts on the underside of said frame, an operating lever for each set of control contacts, and means for pivotally mounting each operating lever for operative actuation by said cam means.

2,844,656
TELEPHONE SELECTOR SWITCH WITH COMMON DRIVE FOR VERTICAL AND ROTARY WIPER MOTION
Willy Lohs, Munich, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany
Application May 16, 1955, Serial No. 508,592
In Germany September 30, 1949
Public Law 619, August 23, 1954
Patent expires September 30, 1969
10 Claims. (Cl. 179—27.52)



1. A selector switch comprising bank contacts, wipers for selective engagement with said bank contacts, a carrier for said wipers, a common drive device for imparting to said carrier and therewith to said wipers vertical and rotary motions, respectively, to move said wipers selectively into engagement with said bank contacts, said drive device comprising a first screw-threaded vertically and rotatably movable element connected with said wiper carrier and a second solely rotatable screw-threaded element geared to said first element, a driving member fixedly connected with said second element, means for rotating said driving member to rotate said second element to impart rotation to said first element in identical direction during the setting operation of said wipers and during the release thereof, and guide means for said first vertically and rotatably movable element comprising two members, a first one of said guide members being fixedly connected with said wiper carrier, and a magnet for controlling a second one of said guide members, said guide members cooperating to hold said first element against rotation for the purpose of converting torque placed thereon by said second element into vertical motion of said wiper carrier and the wipers carried thereby.

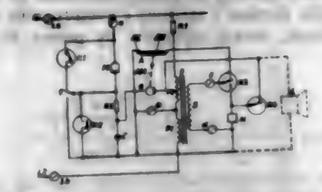
2,844,657
MULTIPLED KEY-ENDED TRUNK TERMINATION
Herbert M. Bliss, Indianapolis, Ind.
Application May 23, 1955, Serial No. 510,402
11 Claims. (Cl. 179—48)



1. In a telephone system, a trunk, a termination for said trunk, a plurality of stations connected to said termination, each of said stations comprising means for answering calls, a plurality of means for detecting signals, a plurality of relays, said relays being individual to said stations for energizing one of said signal detecting means, a circuit for operating said relays, means operative in response to a signal transmitted to said termination from said trunk for completing said circuit, means for opening said circuit, means comprising said answering means of any one of said stations for operating said circuit opening means, and means comprising said any one station answering means for maintaining the one of said relays associated with said any one line in operated condition, whereby all of said signal detecting means are energized in response to a first signal transmitted to said termination and only said signal detecting means energized by the one of said relays associated with said any one station may be energized in response to signals transmitted after the operation of said any one station answering means.

2,844,658
ARRANGEMENT FOR TELEPHONES WITH AN AMPLIFYING DEVICE CONNECTED IN SERIES WITH THE RECEIVER CAPSULE
Klaus Wernick, Ludwigsburg, Wurttemberg, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application November 23, 1955, Serial No. 548,685
4 Claims. (Cl. 179—81)

1. An amplifying arrangement for a telephone substation comprising a pair of line conductors, coupling means for coupling said substation to said line conductors, a handset comprising a microphone, a receiver, amplifying means having an input and an output, and switch means adapted in a first position to shunt said microphone, connect said input to said coupling means and said output in



series with said receiver and in a second position to couple said microphone to said conductors and said receiver to said coupling means, thereby to selectively increase the output level of said receiver.

2,844,659
TWO-WAY COMMUNICATION UNIT
Walter H. Shaw, Longport, N. J., assignor to Shawco Laboratories, Inc., Northfield, N. J., a corporation of New Jersey
Application December 14, 1953, Serial No. 397,880
12 Claims. (Cl. 179—81)



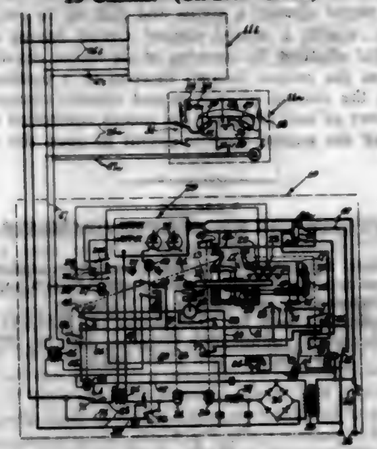
1. A two-way communication unit having terminals for connection to a telephone line comprising a loudspeaker channel including an amplifier, a microphone channel including an amplifier, and relay means having contacts for concurrently connecting said line terminals to both of said channels for two-way communication over said line and having contact-actuating means energizable by impulses transmitted to said unit over said line.

2,844,660
CIRCUIT ARRANGEMENT FOR CONTROLLING THE OPERATION OF KEY-CONTROLLED TELEPHONE SELECTION APPARATUS
Kurt Fischer, Munich, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich, Germany, a corporation of Germany
Application February 4, 1955, Serial No. 486,229
Claims priority, application Germany February 26, 1954
15 Claims. (Cl. 179—90)



1. In key-controlled apparatus for effecting number selection in a telephone system or the like, a plurality of selection keys for respectively marking impulse series to be transmitted, a plurality of saturable core chokes, and means for respectively connecting said chokes with said keys for magnetically storing in said chokes the impulses respectively marked by the actuation of said keys.

2,844,661
REMOTELY-CONTROLLED DICTATION-RECORDING SYSTEMS
Richard Kobler, New York, N. Y., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application February 1, 1954, Serial No. 407,277
13 Claims. (Cl. 179—100.1)



1. In a remotely-controlled dictation-recording system comprising an attendant's station including a dictating machine having a record support and record-cooperable translating means: the combination of a remote dictator's station comprising a transducer means and an on-off station switch; an audio system comprising said transducer and translating means, an interstation circuit, means to connect said transducer means to said interstation circuit when said station switch is in "on" position, and an amplifier characterized as requiring a heat-up period after application of electric power thereto to render the amplifier operative; a warning tone source at said attendant's station connected to said interstation circuit for producing a warning signal via said transducer means when said station switch is moved to "on" position; means for causing application of electric power to said amplifier when said station switch is moved to "on" position; and means responsive to said amplifier reaching operating condition for disconnecting said warning source from said interstation circuit.

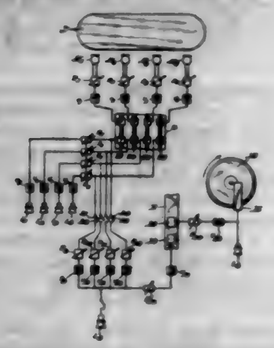
2,844,662
ANNUNCIATING WEIGHING MACHINE
David V. Brothers and Francis D. Ammon, Los Angeles, Calif., assignors, by direct and mesne assignments, to Talking Scales, Inc., a corporation of California
Application November 12, 1954, Serial No. 468,294
9 Claims. (Cl. 179—100.1)



1. An annunciating weighing scale including the combination of a depressible platform upon which a person may stand to be weighed, a movable record capable of carrying a plurality of record grooves bearing messages to be announced, an electric motor with a driving con-

nection to the record for driving the same, a motor circuit for driving the motor, a first control circuit with means for closing the same by the depression of said platform, a relay switch having an electro-magnet connected into the first control circuit, an armature cooperating with the electro-magnet to be attracted and released thereby, means cooperating with the armature for closing the motor circuit; a stylus and pick-up to cooperate with the record, a second control circuit having means therein for effecting the opening of the motor circuit; and means on the record located thereon in a position for effecting the closing of said second control circuit after the delivery of said message, and means controlled by the closing of the second control circuit to open the motor circuit.

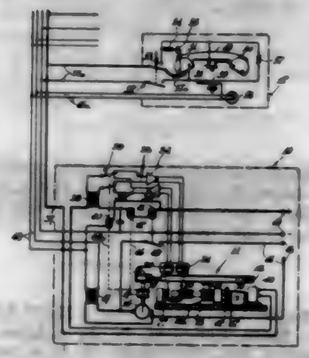
2,844,663
APPARATUS FOR RECORDING ORCHESTRAL SOUND
Hans Friese, Karlsruhe-Durlanden, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany
Application July 26, 1955, Serial No. 524,554
Claims priority, application Germany July 29, 1954
5 Claims. (Cl. 179—100.1)



1. In a system for recording sounds emanating from a single unitary source such as an orchestra, means forming a plurality of first transmission channels for simultaneously picking up sounds emanating from spatially separated portions of said single sound source and for transmitting such sounds, a magnetic carrier, a record head for each first channel cooperating with said magnetic carrier for simultaneously recording upon respectively different tracks thereof the sounds respectively transmitted over said first transmission channels, a plurality of second transmission channels, a reproduce head for each second channel cooperating with said magnetic carrier for respectively picking up the sounds recorded on the tracks thereof by said first-named record heads, means in each second transmission channel for separately regulating the sounds picked up by the corresponding reproduce heads, means for mixing the sounds transmitted over said second transmission channels, and means for recording said mixed sounds on a single reproduce member as a unitary reproduction of said sound source.

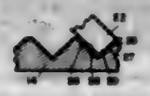
2,844,664
REMOTELY-CONTROLLED DICTATION-RECORDING SYSTEM
Martin J. Kutik, New York, N. Y., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application May 9, 1956, Serial No. 583,717
6 Claims. (Cl. 179—100.1)

1. In a remotely-controlled dictation-recording system including a dictating machine provided with a record support and with a translating-head carriage, one of which devices is mounted for traveling movement relative to the other, and a dictator's station including a transducer means and operable controls for said machine; the combination of a drive mechanism for said machine; circuit means for connecting said transducer means and controls to said machine to enable operation of the machine from the dictator's station; a reciprocable element in said machine; means operable by power from said



drive mechanism when said one device reaches a prescribed end zone on the record for actuating said reciprocable element; and means controlled by said reciprocable element for producing periodic momentary interruptions in the circuit of said transducer means to provide a warning signal to the dictator of a character ineffective to destroy the intelligibility of the signals transmitted between the dictator's station and the dictating machine.

2,844,665
MAGNETIC RECORDING DEVICE
Theodore H. Mann and Theodore G. Mann, Los Angeles, Calif., assignors to Sound Engineering, Los Angeles, Calif., a partnership
Application April 15, 1954, Serial No. 423,456
6 Claims. (Cl. 179—100.2)



1. A recording and reproducing device comprising a magnetic recording and reproducing head having a two-faced contacting foot, one face being a non-activated wear-resisting guide face and the other face of said contacting foot being a magnetic recording-reproducing face, said faces being disposed at an angle to each other, and means to support said head over a grooved body upon which the magnetic record may be impressed.

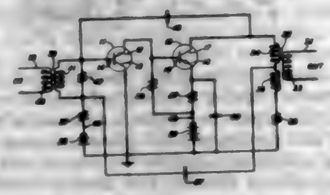
2,844,666
TELEPHONE HOLDERS
Frank E. Monsler, Berkeley, Calif.
Application June 7, 1954, Serial No. 434,927
5 Claims. (Cl. 179—146)

1. Means for holding and positioning a telephone having a base having a rearward portion having cushion feet, a telephone dial and a telephone cord, on a desk or the like having a side and a top surface, comprising a bracket having means for attachment to the side of a desk or the like and having an upwardly and outwardly inclined support portion for the rearward portion of the base of the telephone and including spaced recesses provided in the outer edge of the inclined support portion for reception of the cushion feet at the rear end of the base for retaining the telephone in predetermined position, said inclined portion terminating at its outer end in back stops formed perpendicular to the inclined por-



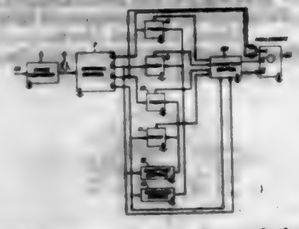
tion for the base, whereby the telephone is supported and retained in an angular position for direct visibility and accessibility of the telephone dial.

2,844,667
CASCADE TRANSISTOR AMPLIFIERS
Robert E. Yaeger, Rochester, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 11, 1954, Serial No. 409,684
8 Claims. (Cl. 179—171)



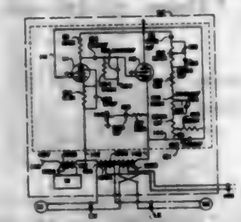
2. A cascade amplifier which comprises first and second transistors of like conductivity type each having a semiconductive body and an emitter electrode, a collector electrode, and a base electrode, means providing a signal input path and a first D.-C. path interconnecting the base and collector electrodes of said first transistor, means providing a signal output path and a second D.-C. path interconnecting the collector and emitter electrodes of said second transistor, an interstage network including a third D.-C. path interconnecting the emitter electrode of said first transistor and the base electrode of said second transistor and a fourth D.-C. path interconnecting the collector electrode of said first transistor and the emitter electrode of said second transistor, whereby a net phase reversal at signal frequencies exists between the base electrode of said first transistor and the collector electrode of said second transistor, a negative feedback path interconnecting the base electrode of said first transistor and the collector electrode of said second transistor, and means to supply direct operating potentials to both of said transistors simultaneously from a minimum number of D.-C. sources which comprises a first source of direct potential poled to bias the collector electrode of said first transistor in the reverse direction connected between the base and collector electrodes of said first transistor in said first D.-C. path and a second source of direct potential poled to bias the emitter electrode of said second transistor in the forward direction connected between the emitter electrode of said second transistor and the collector electrode of said first transistor in the portion of said fourth D.-C. path common to said second D.-C. path, the magnitude of the potential provided by said second source being greater than that provided by said first source, whereby the emitter electrode of said first transistor is also biased in the forward direction and the collector electrode of said second transistor is also biased in the reverse direction.

2,844,668
PULSE SERIES ANALYZER
Fred West, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 7, 1955, Serial No. 480,384
7 Claims. (Cl. 179—175.2)



1. A system for measuring the intervals between successive ones of a series of control pulses, comprising switching means to which said pulses are applied, said switching means having a plurality of output terminals, said switching means adapted to respond to said pulses to produce a series of gating potentials in sequence at said output terminals for intervals corresponding to the intervals between successive ones of said control pulses, a plurality of timer means connected respectively to said output terminals, each of said timer means adapted to produce a timing potential proportional to the duration of the gating potential at the output terminal to which such timer means is connected, an oscilloscope, and a connecting control for selectively connecting pairs of said timer means to said oscilloscope at the instants of occurrence of preselected ones of said gating potentials.

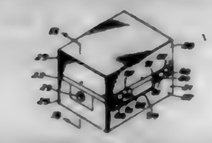
2,844,669
NEGATIVE-IMPEDANCE REPEATER HAVING GAIN CONTROLS
Raymond J. Arndt, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application May 10, 1955, Serial No. 507,441
7 Claims. (Cl. 179—175.31)



1. In a negative-impedance type of repeater for reducing the loss in strength of signals transmitted within a given frequency range over an associated transmission line, a local network having impedance characteristics over the frequency range similar to those of the transmission line, an amplifier having a principal and an auxiliary signal-input path and having a signal-output path, circuit means for effectively connecting both the line and the local network in the signal-output path of the amplifier to comprise load elements which consume output power according to their respective impedances, circuit means for applying signals to the principal signal-input path of the amplifier according to signal power consumed in one of said load elements, and means for variably controlling the amount by which the said loss in signal strength is reduced, comprising means for obtaining auxiliary signals proportional to the total output power of the amplifier and for applying them to the auxiliary signal-input path of the amplifier in opposition to the said signals in its principal signal-input path, the last

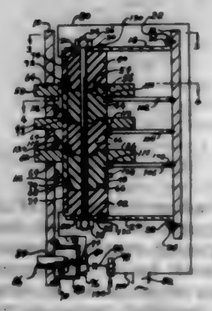
said means including adjustable means for varying the proportionality between the auxiliary signals and the said total output power throughout the said frequency range.

2,844,670
ROTARY CAM SWITCHES
Paul Witte, Philadelphia, Pa., assignor of forty percent to Morris Michael Marks
Application December 30, 1953, Serial No. 401,121
14 Claims. (Cl. 200—27)



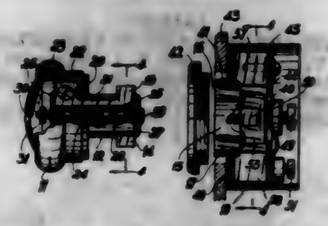
1. A rotary cam switch comprising a mounting device having a substantially longitudinal axis, a rotary shaft disposed along said axis, a cam assembly mounted on said shaft and substantially non-rotatable with respect thereto, a displaceable staging carried by said mounting device and comprising a track formed along an arc which is substantially coaxial with said axis but whose path defines a plane which is substantially perpendicular to said axis; said track having mounted thereon a micro-switch device, a cam follower extending from said micro-switch device operably to actuate the same; said cam assembly comprising a spacer member, sheaves disposed on either side of said spacer member, and cam segments radially supported by said spacer member; means for releasably interlocking said segments with said sheaves, with said segments in substantially fixed position with respect to the peripheries of said sheaves; said peripheries and said segments when in said fixed position, being disposed within the path of said follower.

2,844,671
ELECTRIC COMBINATION SWITCH
Lewis Goral, Berkley, Mich.
Application August 8, 1955, Serial No. 527,019
7 Claims. (Cl. 200—43)



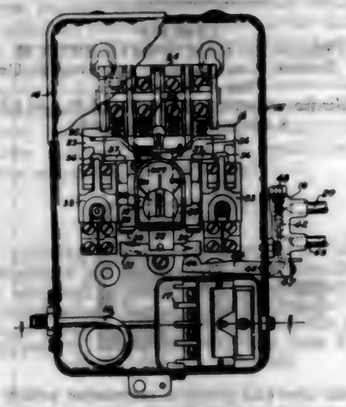
1. In a switch of the class described: a front wall; a back wall spaced apart from said front wall; means securing said walls together; a pair of arms mounted on said back wall and extending forwardly therefrom toward said front wall; a shaft mounted between said arms; a first rotor mounted on said shaft adjacent one of said arms; a second rotor mounted on said shaft adjacent the other of said arms; means for releasably fixing said first and second rotors on the adjacent arm; a conductor mounted in each of said first and second rotors; circuit means connecting the conductors in said first and second rotors to a power source and to a device to be controlled by said switch; a plurality of rotatable rotors mounted on said shaft between said first and second rotors; a conductor in each of said rotatable rotors; each of said rotatable rotors being made from a dielectric material and being provided with a dial adapted to extend through said front wall; means for limiting the rotation of said rotatable rotors in one direction; and, means for aligning the conductors in said rotatable rotors with the conductors in said first and second rotors, when said rotatable rotors are turned in the other direction, whereby the circuit for operating the solenoid will be completed.

2,844,672
ELECTRIC OUTLET SOCKET AND PLUG
Mario Sambonet, Milan, Italy, assignor to Italo Rizzieri, Milan, Italy
Application July 6, 1954, Serial No. 441,455
Claims priority, application Italy July 3, 1953
8 Claims. (Cl. 200—51.09)



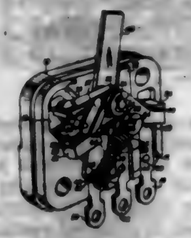
1. An electric outlet of the type described, comprising a plug member having a cylindrical plug of non-conductive material, conductive contact arms radially extended from the end portion of said cylindrical plug, a conductive head axially arranged at the end of said plug, and binding means to connect said contact arms and said conductive head to power conductor connected to the serviced apparatus, and respectively to a conductor grounded to the body of the serviced apparatus; and a socket member comprising a receptacle body of non-conductive material having an opening comprising a circular centre portion and radial slots extended thereabout for passage of said cylindrical plug and of said contact arms when in one of determined first angular positions in respect to said socket member, a resilient first conductive contacting member connected to ground positioned at the center of said receptacle body to abut on and to resiliently exert an axial opposition to said plug on the conductive head thereof as said plug is axially inserted into said receptacle body through said opening, power resilient contacting members connected to power wires positioned inside said receptacle body about the position of said plug as inserted thereinto and to be contacted by said contact arms as said inserted plug is rotated to a third position angularly spaced from said first position, stop means co-operating with said resilient first contacting member for removably keeping said inserted plug in a second angular position intermediate between said first and said third angular position and in which at least one of said contact arms does not contact any power contacting member, a non-conductive member movably supported inside said receptacle body and positioned between one of said power contacting members and the position of said plug as inserted in said receptacle body, an opening in said non-conductive member designed for passage of one of said contact arms as the said plug is angularly positioned in its said third position and spring means for having said non-conductive member instantaneously inserted between said power contacting member and the contact arm contacting thereon as said plug is caused to rotate from said third position towards said second position, and when said contact arm is still in contacting relationship with said power contacting member.

2,844,673
MAGNETICALLY ACTUATED SWITCH AND COMPRESSOR UNLOADER
Paul F. White, Glen Ellyn, Ill., assignor to Furnas Electric Company
Application August 31, 1953, Serial No. 377,539
1 Claim. (Cl. 200—82)



In a control switch and unloading valve assembly for an electric motor driven compressor, a housing, an automatic electromagnetic control switch for the compressor propelling motor confined within said housing and having a vertically reciprocable inverted T-shaped armature provided with a horizontal cross-bar cooperable with the poles of a magnet and which is movable upwardly against said poles by magnetic influence to operate the motor and downwardly away from said poles by gravity to stop the motor, an unloading valve for the compressor mounted upon said housing closely adjacent to said control switch and having a vertically reciprocable plunger provided with a laterally projecting lower end extending outwardly of said housing, and a lever having its medial portion pivotally secured to said housing and its opposite ends slidably cooperable with bottom surfaces of said armature cross-bar and said valve plunger projection respectively to transmit reciprocating motion from the armature to the unloading valve.

2,844,674
SNAP SWITCH
Carl P. Anderson, Evanston, Ill., assignor to Kleinschmidt Laboratories, Inc., Deerfield, Ill., a corporation of Delaware
Application March 22, 1954, Serial No. 417,548
22 Claims. (Cl. 200—61.16)



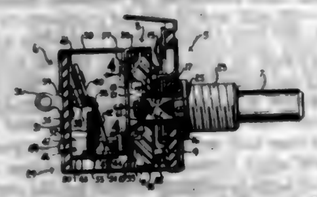
1. In an electric snap switch, an insulating block, a stationary electrical contact secured thereto, a rocker member pivoted on said block, a contact carried on said rocker member engageable with said stationary contact, an operating lever for rocking said rocker member to engage and disengage said contacts, and means in engagement with said member and said operating lever for producing continually increasing engaged contact pressure between initiation of contact disengagement and the instant of disengagement, upon movement of said operating lever.

2,844,675
TENSION RESPONSIVE SWITCH
Victor R. Edgar, Rockton, Ill., assignor to Warner Electric Brake & Clutch Company, Beloit, Wis., a corporation of Illinois
Application June 28, 1956, Serial No. 594,614
3 Claims. (Cl. 200—61.19)



1. A tension responsive switch comprising a hollow casing having an opening, spaced insulated contacts within said casing secured to a wall thereof and disposed on opposite sides of the axis of said opening, a resilient split ring of C-shape encircling said contacts within said casing and stressed to contract into engagement therewith when free, means on said casing supporting said ring intermediate its ends with the ends of the ring on either side of said axis and between said contacts and said opening, an insulating plug having an end insertable through said opening along said axis and between said ring ends to separate the latter and expand the ring out of engagement with said contacts, said plug having notches opening laterally therefrom for receiving said ring ends when the plug end is in abutment with the adjacent sides of said contacts.

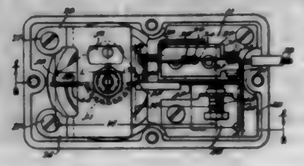
2,844,676
COMBINATION SNAP ACTION PUSH-PULL SWITCH AND VARIABLE RESISTOR
Wayne A. Burden, Elkhart, and Donald A. Pierce, South Bend, Ind., assignors to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana
Application July 30, 1956, Serial No. 601,059
3 Claims. (Cl. 200—67)



1. An electric snap switch comprising: a housing having a cylindrical side wall and having a substantially flat wall of insulative material providing a terminal head closing the rear of the housing; a pair of stationary contacts fixed on the inner side of the terminal head and having forwardly facing contact surfaces transversely spaced from the side wall and from one another along substantially a diameter of the housing so as to be located at substantially the widest part of the housing; a T-shaped contactor in the housing having its head electrically insulated from its stem and transversely overlying the stationary contacts, the stem of the contactor crossing the housing axis and having its base closely adjacent to the side wall of the housing; an actuating member adjacent to the base of the contactor; means on said actuating member supporting the T-shaped contactor at its base for back and forth pivotal motion about an axis parallel to the terminal head so that the head of the contactor may be swung toward and from the terminal head between a rearwardly tilted contact bridging position and a forwardly tilted switch open position; a spring connected in overcenter relation between the contactor and

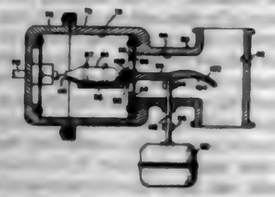
a fixed part on the housing for yieldingly holding the contactor in either its forwardly or rearwardly tilted positions; guide means fixed on the housing near the side wall thereof and supporting the actuating member for motion in opposite directions axially of the housing to carry the pivoted base of the contactor toward and from the terminal head, to one side or the other of a straight line along which biasing force is exerted on the contactor by said overcenter spring; and means on said actuating member providing an actuator adjacent to the front of the housing by which the actuating member may be shifted back and forth so as to effect snap actuation of the contactor in either direction as a consequence of shifting of said actuating member in the opposite direction to and beyond a position at which the pivoted base of the contactor stem passes through said line along which biasing force is exerted on the contactor.

2,844,677
SWITCH MECHANISM
Tore B. Hansson, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan
Application November 13, 1956, Serial No. 621,614
5 Claims. (Cl. 200—67)



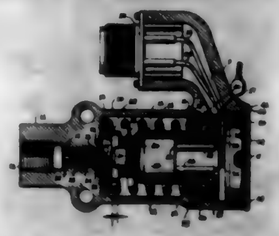
1. In a switch mechanism, a switch comprising a pair of contacts movable between open and closed positions, an arm connected to said switch and movable between a first position causing said switch to be opened and second position causing said switch to be closed, means holding one end of said arm against movement, a cam mounted for rotation in either direction, and a pair of lobes on said cam extending in opposite directions and engageable with said arm at spaced locations on the same side thereof, the first of said lobes extending away from the stationary end of said arm, said second lobe extending toward said stationary end, whereby said first lobe engages said arm at a location spaced further away from said stationary end than said second lobe, said first lobe being longer than said second lobe in such proportion that said arm will move between its said positions upon the application of a predetermined torque to said cam regardless of the direction of said torque.

2,844,678
SUMP PUMP SYSTEM
Axel L. Nielsen, Hazel Park, Mich.
Application April 28, 1953, Serial No. 349,911
2 Claims. (Cl. 200—81.5)



1. A control device for a pump having a discharge line, comprising a movable switch actuator, a float carried by said device in position to be elevated by liquid to be pumped, said float being operatively connected to said actuator to move said actuator in switch closing direction when so elevated, a blade connected to said actuator including a portion adapted to be located in the flow of liquid discharged in said discharge line, said actuator and blade being pivotally mounted relative to said device, and a mercury switch carried by said actuator for movement therewith.

2,844,679
PRESSURE RESPONSIVE SWITCH
Selby W. Brewer, Los Angeles, and Ivan J. Umbarger, Sun Valley, Calif.
Application March 1, 1954, Serial No. 413,009
5 Claims. (Cl. 200—82)



1. A fluid operated pressure responsive switch for use in high pressure fluid system comprising: a casing having an enlarged chamber therein, a reduced bore opening at its inner end into said chamber and adapted to have its outer end connected to said fluid system, a piston movable in said bore, a radially enlarged pressure plate within and spaced from the walls of said chamber and bearing at its center against the piston, cooperating means on the piston and plate providing substantially point contact therebetween whereby the plate is adapted to tilt relative to the piston, said piston and plate being urged in one direction under the action of the pressure fluid in said system, means including a coil compression spring in said chamber having a diameter substantially larger than that of the piston and bearing against said plate for biasing the latter and said piston in the opposite direction, a switch cage fixed to said casing and disposed in said chamber within said spring, and switch means carried by said cage and including operating means engaging said plate.

2,844,680
TWO-NOTE SOLENOID SWITCH MECHANISM
James W. Christy, Cincinnati, and Joseph McEvoy, Batavia, Ohio, assignors to Nutone, Inc., a corporation of New York
Application January 18, 1957, Serial No. 634,847
12 Claims. (Cl. 200—87)



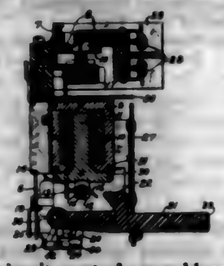
1. A solenoid-actuated switching mechanism for a solenoid apparatus having a primary solenoid and a secondary solenoid, said primary solenoid having a shiftable plunger, a solenoid coil for propelling the plunger forwardly in a power stroke, and yieldable means normally urging said plunger to retracted position; said switching mechanism comprising, a stationary electrical contact device, a movable contact-actuating element pivotally connected to said plunger for movement therewith in a path relative to the said contact device, said element having a swinging portion and being shiftable in response to impact forces relative to the plunger to an active or inactive position and being effective to actuate said contact device when in said active position, the actuating element residing in said inactive position during the forward power stroke of the plunger upon energization of said coil, and shifting to an active position in response to impact force at the limit of said power stroke, the contact-actuating element remaining in said active position during motion of the plunger toward said retracted position by said yieldable means upon deenergization of said coil, said actuating element thereby actuating the contact device during the said retracting stroke, said contact device making and breaking an electrical circuit upon being actuated and thereby adapted to be electrically connected to a secondary solenoid to energize the same momentarily in response to actuation of the contact device by said actuating element, said contact-actuating element shifting to said inactive position in response to impact force at the limit of the retracting stroke of said plunger.

2,844,681
AUTOMATIC ELECTRIC CUT-OUTS
Alfred Eppinger and Heinrich Busch, Ludenscheid, Germany, assignors to Busch-Jaeger Duroner Metallwerke Aktiengesellschaft, Ludenscheid, Germany
Application June 9, 1955, Serial No. 514,176
Claims priority, application Germany June 10, 1954
19 Claims. (Cl. 200—88)



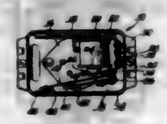
1. An automatic circuit-interrupter comprising fixed contacts, cooperating relatively movable contacts, a manual operating mechanism for said movable contacts, excess current responsive trip means for tripping said operating mechanism, a pair of molded insulating blocks arranged in abutting relation, said pair of blocks having pairs of complementary recesses in the abutting surfaces thereof and each of said pair of blocks having additional recesses in the surfaces thereof remote from said abutting surfaces, said fixed contacts, said movable contacts, said operating mechanism and said trip means being arranged in said complementary and in said additional recesses and supported therein by said pair of blocks, and an outer housing accommodating said pair of blocks.

2,844,682
OVERLOAD RELAY AND MAGNETIC SWITCH ASSEMBLY
William C. Furnas, Batavia Township, Ill., assignor to Furnas Electric Company, Batavia, Ill., a corporation of Illinois
Application July 8, 1957, Serial No. 670,488
8 Claims. (Cl. 200—88)



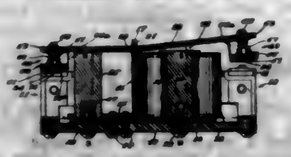
1. An electric circuit control assemblage comprising, a support, fixed switch contacts mounted upon said support, movable switch contacts cooperable with said fixed contacts to make and break the circuit, an electromagnet also mounted upon said support and having an armature for reciprocating said movable contacts, means operatively connecting said armature with said movable contacts and having thereon an inclined surface, an overload relay likewise mounted upon said support and being provided with a reset plunger, and a reset plunger actuating member having thereon a wedge cooperable with said inclined surface to positively hold said movable contacts separated from said fixed contacts to the maximum extent whenever said relay is being reset.

2,844,683
KEYING AND CODING DEVICE
Arthur H. Maciazewski and Richard Goldstein, River Forest, Ill., assignors to A. R. F. Products, Inc., River Forest, Ill., a corporation of Illinois
Application February 9, 1954, Serial No. 409,109
5 Claims. (Cl. 200—99)



1. A keying and coding device comprising a base, a substantially rigid member, a pivotal mount comprising a spring mounting said rigid member on said base, said rigid member comprising a substantially L-shaped arm, said spring being affixed to one leg of the L-shaped arm, a stop mounted from said base and against which the other leg of said L-shaped arm moves, a flexible vibrating reed of predetermined frequency mounted on said other leg and set in vibration by movement of said other leg against said stop, resilient means carried by said rigid member in proximity to said reed, and electrical contact means carried respectively by said reed and said resilient means and opened and closed many times upon vibration of said flexible reed as effected by movement of said other leg against said stop.

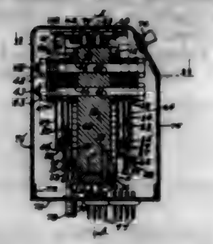
2,844,684
ELECTRICAL CONTACTOR
Warren W. Anderson, Mount Prospect, and Donald J. Hammerand, Chicago, Ill., assignors to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware
Application January 7, 1955, Serial No. 480,504
6 Claims. (Cl. 200—93)



1. An electrical contactor assembly comprising in combination, a pair of spaced contacts, a permanent magnet having a relatively high degree of residual magnetism, an electromagnet having a fixed core separate from said permanent magnet and in opposite polarity thereto whose polarity is reversed with respect to the polarity of the permanent magnet; means defining a magnetic yoke common to both magnets including a base plate engaging said permanent magnet and said core, a magnetizable armature positioned to overlap both magnets and having one end engageable with the permanent magnet and its other end engageable with the electromagnet; said armature when in one extreme position being disposed within the magnetic field of the permanent magnet and operative to establish an electrical circuit through said contacts, and an armature support connecting said base and the armature medially of the latter and serving as a

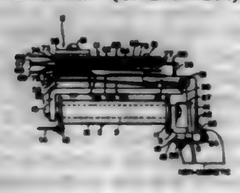
common path for the magnetic flux of both magnets, whereby the energization of the electromagnet sets up magnetic flux in said common yoke in opposition to the residual magnetism of said permanent magnet and effects release of said armature for movement thereof out of the magnetic field of said permanent magnet.

2,844,685
SENSITIVE RELAY
Floyd J. Bydalek, Gerald E. Dietz, and Adolph J. Hilgert, Milwaukee, and Russell B. Matthews, Wauwatosa, Wis., assignors to Beso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application March 24, 1953, Serial No. 344,386
14 Claims. (Cl. 200—104)



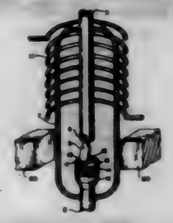
1. In a compact highly sensitive relay or the like adapted for uniform operation at widely variant temperatures, the combination of: a frame having a transverse extent and having an elongated stem portion projecting normal to said transverse extent; a U-shaped magnet core having a pair of legs positioned on opposite sides of and extending in the same general direction as said stem, said legs terminating in pole faces and being fixedly connected to said transverse frame extent adjacent said pole faces, said core also having a closed end portion extending around the end of said stem opposite said transverse extent and free to move relative to said extent and stem, said stem being provided with a longitudinal bore; and a longitudinal pin having a portion positioned in said stem bore, the closed end portion of said core being provided with a longitudinal bore in which a portion of said pin is positioned to provide a longitudinally slidable connection between said stem and the closed end portion of the core, said connection preventing relative transverse movement therebetween while permitting longitudinal movement therebetween.

2,844,686
ELECTROMAGNETIC COUNTING DEVICE AND CONTACT BANK
Richard P. Arthur, Hinsdale, Ill., assignor, by mesne assignments, to International Telephone and Telegraph Corporation, a corporation of Maryland
Original application November 17, 1951, Serial No. 256,888. Divided and this application July 5, 1955, Serial No. 519,791
2 Claims. (Cl. 200—104)



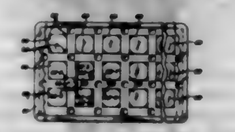
1. In an electromagnetic relay device, an electromagnet, a series of armatures and means pivotally supporting them side by side in a row in operative association with the electromagnet for movement transverse of the row, sets of contact blades and means for supporting them at one end side by side in a parallel row in operative association with the armatures respectively, each set of contact blades including a relatively fixed blade and a relatively movable blade controlled by the associated armature to move its free end into and out of contact with its fixed blade, an adjusting member extending along the row of contact blades in effective mechanical engagement with each of the relatively fixed blades to determine the location of the contact end thereof remote from their support means, means for adjustably supporting the adjusting member at such a location as to secure the optimum point of contact closure and opening with respect to armature movement, and post-like support means included in the last said means and extending between adjacent ones of said armatures.

2,844,687
ELECTROMECHANICAL SWITCHING ELEMENT
Arthur H. Gottfried, Ramsey, and Kurt Rauth, Long Branch, N. J., assignors to the United States of America as represented by the Secretary of the Army
Application August 3, 1956, Serial No. 602,896
5 Claims. (Cl. 200—112)
(Granted under Title 35, U. S. Code (1952), sec. 266)



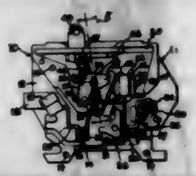
1. An electromagnetic switch comprising a gas-tight envelope having an inert atmosphere therein, first and second electrically connectable rigid electrodes at least one of which is of magnetic material within said envelope in spaced relation and having external electrical connections for insertion in an electric circuit, a rigid armature of magnetic material pivoted to said first electrode and extending toward the second electrode, a fine mesh metallic fabrication secured to said second electrode a supply of mercury on said fabrication, said fabrication having interstices charged with mercury, a contact secured to said fabrication in position to be engaged by said armature to make electrical contact therewith, said contact being fed by capillary action with a film of mercury from the said supply, a magnetic system including an electromagnet positioned outside said envelope acting to immerse said armature in its field and a source of rapidly modulated current connected to said electromagnet.

2,844,688
ELECTROMAGNETIC SWITCHING
William G. Pfann, Far Hills, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 23, 1956, Serial No. 624,018
3 Claims. (Cl. 200—112)



1. A switching device comprising insulating base plate means having mounted thereon a plurality of spaced rectangular blocks arranged so as to define a number of intersecting channels, each of said blocks including electroconductive corner portions, said corner portions extending through said plate means to provide terminal portions therebeyond, a depression in said plate means at each channel intersection, non-magnetic electroconductive movable globule means disposed in one of said depressions in contact with the block corners adjacent thereto, potential means for connection to selected contacted terminal portions for thereby causing an electric current to flow through said movable means in a given direction, and magnetic means for establishing flux lines about said globule at an angle to said given direction, whereby said globule means may be selectively moved from one to another of said depressions.

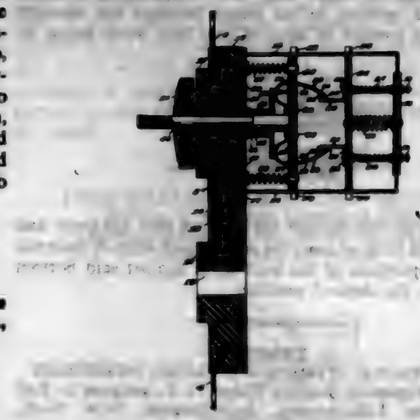
2,844,689
CIRCUIT BREAKER
William H. Middendorf, Covington, Ky., assignor to The Wadsworth Electric Manufacturing Company, Inc., Covington, Ky., a corporation of Kentucky
Application June 21, 1956, Serial No. 592,777
4 Claims. (Cl. 200—116)



1. In a circuit breaker having a housing, a stationary contact, a movable contact adapted for engagement with the stationary contact, the combination of a switch arm supporting said movable contact, a carrier member, said carrier member being formed of a conductive metal, current responsive tripping means for releasably latching the carrier member, said tripping means including a current carrying bi-metallic strip, and core carried by said bi-metallic strip and disposed for engagement with said carrier member, a flexible conductor electrically interconnecting said bi-metallic strip and said switch arm, said carrier member being configurated to form a crotch, a bearing member formed of non-conducting material disposed in said crotch, the end of said switch arm remote from said movable contact being pivotally supported by said bearing member, and means including an over center spring for actuating the switch arm to open the contacts upon release of said carrier.

2,844,690
CIRCUIT BREAKER FOR INDIVIDUAL CIRCUITS
Dominick A. Lombardo, New Canaan, Conn.
Application September 17, 1956, Serial No. 610,168
7 Claims. (Cl. 200—116)

4. A circuit interrupter comprising a pair of spaced, fixed, insulating base members, a pair of slides of insulating material mounted between said fixed base members and biased apart toward said base members, the bias of one slide toward one member being greater than the bias of the other slide toward the other base member, a contact supported on each of said slides, one of said contacts being of bimetallic material and shaped to bow away from its supporting slide and then curved toward its supporting slide to pass through an opening therein so as to engage its end portion in latching engagement with the contact supported by the second slide, said bimetallic contact being deformable upon flow of excessive current through the contact to release said latching engagement of the contacts, means on one of said fixed base members passing therethrough and engaging the bowed portion of the bimetallic contact to vary the curvature thereof, said means exerting less pressure on the bimetallic contact than is exerted by the bias urging of the bimetallic contact supporting slide toward said one fixed base member, and additional means extending through said one fixed base member to engage the bimetallic contact supporting slide



and move it against its bias toward said other slide member to reengage the contacts in latching arrangement after separation thereof.

2,844,691
HIGH VOLTAGE ELECTRIC FUSE
John C. Howell, Griffin, Ga., assignor to Southern States Equipment Corporation, a corporation of Georgia
Application September 16, 1957, Serial No. 683,936
3 Claims. (Cl. 200—120)

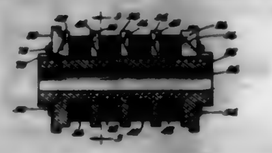


1. A high voltage electric fuse comprising a hollow fuse tube constructed of glass fabric bonded together with epoxy resin, a fiber liner bonded to the inner surface of said tube, a sleeve-like resistor formed of carbon particles embedded within and bonded to said glass fabric with said epoxy resin and extending from adjacent one end of said tube toward the other end thereof for a portion only of the length of said tube, the resistance of said resistor being in the range of three to twenty megohms per square inch, terminal structure mounted on said one end of said tube, and a fastening pin extending through said terminal structure and through the wall of said tube and engaging said resistor to secure said terminal structure in position on said tube and to form an electrical connection between said resistor and said terminal structure.

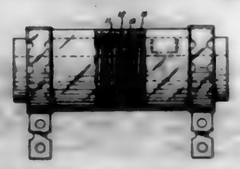
2,844,692
PILE RESISTOR
Louis H. Berkelhamer, Chicago, Ill., assignor to David T. Siegel, Glencoe, Ill.
Application May 19, 1953, Serial No. 356,070
10 Claims. (Cl. 201—63)

1. An electrical resistor, comprising a core, a plurality of flanges extending radially from said core, each of said flanges having an opening therethrough with bottom surfaces, a strip of material extending along the surface of said core and the bottom surfaces of said openings, a plurality of wire coils having superimposed turns wound on said core between said flanges, lead wires connecting

an outer turn of at least some of said coils with an inner turn of adjacent coils, said lead wires being directed through the opening in the flange between the adjacent coils, and a portion of each of said lead wires being directed against the bottom surfaces of said openings and beneath said strip of material so that said strip of material holds said portions of the lead wires against said bottom surfaces in the desired position.



2,844,693
WIRE-WOUND VITREOUS ENAMEL RESISTORS
Merle D. Rigterink, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 25, 1954, Serial No. 464,298
10 Claims. (Cl. 201—63)



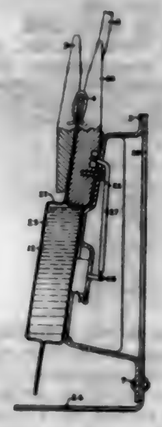
1. An electrical resistor comprising a metal resistance wire wound on a ceramic core, a ceramic enamel undercoat bonded to said wire and said ceramic core, said undercoat consisting essentially of a continuous vitreous phase of an enamel which is a member of the group consisting of alkali metal borosilicate enamels and lead borosilicate enamels, said vitreous phase having finely divided particles of refractory material dispersed therethrough, which refractory material constitutes a solid second phase within the molten fluid vitreous phase during firing, and a ceramic enamel outercoat bonded to said undercoat, said outercoat consisting essentially of a lead borosilicate enamel.

2,844,694
RADIANT HEATER AND REPLACEABLE ELEMENT THEREFOR
Fredrick L. Lefebvre, Twinsburg, Ohio
Application January 25, 1954, Serial No. 405,948
3 Claims. (Cl. 201—67)



1. In a heating unit of the class described, in combination, a hollow sheath, a first contact member at one end of the sheath, a second contact member at the other end thereof, a heating element in said sheath having a first contact part removably engaged with said second contact member, and a second contact part of said element removably seated in said first contact member, said element comprising a coil member connecting said first and second parts, said first contact part and said coil being formed to enter said sheath through said first contact member.

2,844,695
FOOD PACKAGE AND APPARATUS FOR HEATING
Douglas K. McLean, Dallas, Tex.
Original application April 25, 1955, Serial No. 503,017. Divided and this application February 24, 1956, Serial No. 568,377
7 Claims. (Cl. 219—19)



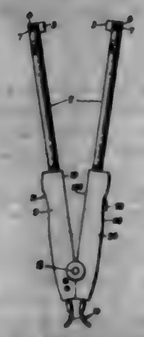
1. An apparatus for supporting a wrapped package of dielectric layers of material in a substantially vertical position comprising a supporting bracket, a thermostat mounted on the bracket, the wrapped package being supported on the bracket at an angle such that gravity causes the wrapped package to force itself against the thermostat, an electric resistance heating element located between the dielectric layers of material that constitute the wrapped package with the thermostat adjacent to the electric resistance heating element, and a clamping device on the bracket to support the wrapped package by means of a flap of the wrapped package, said clamping device delivering electric current to the electric resistance heating element and said resistance having ends that terminate in a single flap constituting an integral portion of the wrapped package by means of dual electrodes located at a fixed distance apart matching terminal ends of the electric resistance heating element located between the layers of dielectric material constituting a wrapped package.

2,844,696
SNOW MELTING MAT
Byron K. Custer, Jr., Johnstown, Pa.
Application August 14, 1957, Serial No. 678,092
9 Claims. (Cl. 219—19)



2. A melting mat comprising a sheet of electrically insulative material having an electrically conductive heating coil embedded therein, a heat conductive wire mesh overlying said sheet, a tread of electrically insulative material positioned over said wire mesh and bonded to said wire mesh and said sheet sandwiching said wire mesh between said tread and said sheet, said mat being formed in sections, each of said sections having metallic ground strips secured thereto on opposite sides thereof, said wire mesh being connected to said ground strips, adjacent of said ground strips being bolted together.

2,844,697
ELECTRIC SOLDERING TOOLS
James William Emmerson, Bexleyheath, England
Application January 23, 1956, Serial No. 560,615
Claims priority, application Great Britain January 24, 1955
10 Claims. (Cl. 219—36)



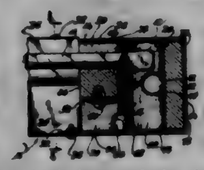
1. Electric soldering apparatus comprising first and second longitudinally-extending handles made of electrically insulating material, a pivotal connection between the handles near one end thereof, first and second electrically conductive arms mounted on the other ends of the first and second handles respectively in such manner as to be readily detachable, a respective electrode holder connected to the outer end of each conductive arm, a bifurcation in each electrode holder, two electrodes each having a portion inserted between the branches of a respective bifurcation and each extending towards the other electrode, a respective fastening member passing through each said portion and the branches of the associated bifurcation to secure the electrodes to the holders, a conductor in each handle for making an electrical connection between the associated conductive arm and an external circuit, a switch in the first handle for making and breaking said electrical connection, and resilient means effective between the two handles for urging said other ends apart.

2,844,698
CIGAR LIGHTERS
Raphael J. Costanzo, Bridgeport, Conn.
Application October 28, 1955, Serial No. 543,301
5 Claims. (Cl. 219—32)



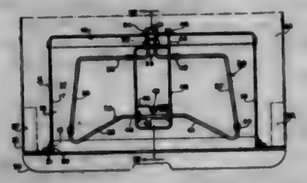
2. A cigar lighter having a retaining cup and a rivet connected to said cup substantially centrally thereof, an electrical heating element adapted to be positioned in said cup, said element comprising a stamped, sheet metal disk having a center cut-out portion forming an aperture for receiving said rivet, said aperture having a larger diameter than said rivet so that said element is spaced therefrom, a plurality of concentrically spaced current carrying portions spatially disposed about said rivet, said current carrying portions carrying a divided current, web portion connecting said concentric current carrying portions, said web portions carrying the full terminal current, a first terminal means connecting the outer periphery of the outer most current carrying portion to said cup and a second terminal means connecting the inner periphery of said inner most concentric current carrying portion to said rivet to form a combination series-parallel circuit.

2,844,699
HIGH HEAT INFRARED LAMP HOLDER
William J. Mulcella, Cleveland, Ohio
Application June 8, 1955, Serial No. 514,016
7 Claims. (Cl. 219—34)



1. A holder for a high heat tubular infrared element of the quartz tube type having end terminals fitted with lead wires, comprising, in combination, a pair of spaced electrical and thermal insulating block members each having an opening therein to receive a terminal end of a quartz tube with the major portion of the latter bridging between said block members, a heat radiating member mounted on each terminal of the tube in thermal contact therewith, a terminal strip fixed to each block member and to which a lead wire of the tube is secured to fasten the tube to said block member, and a housing enclosing said block members in spaced relationship and having an open side to expose the tube, said housing having a plurality of small openings adjacent said heat radiating members through which heat may be dissipated.

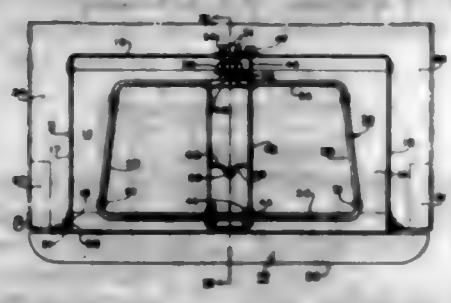
2,844,700
HEATING APPARATUS
Harry Krug, Newburgh, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 16, 1955, Serial No. 547,094
5 Claims. (Cl. 219—35)



1. A sheathed electrical resistance heater for a rectangular box-shaped oven having its greatest heat losses along a door forming a vertical front side thereof, said heater being bent in a planar loop having a front bowed heating portion, a pair of straight sides converging in the direction away from said front portion and a rear heating portion extending between said sides, the front corners of said heater formed by junctions of said sides and said front portion being more widely spaced than the rear corners of said heater formed by the junctions of said sides and said rear heater portion, said front heater portion being longer than said rear portion to supply additional heat along said door to overcome the greater heat losses when said heater is supported near the bottom of said oven with said front portion along said door, said front portion comprising a pair of straight sections extending from the front corners and converging inwardly toward the center of said loop to provide

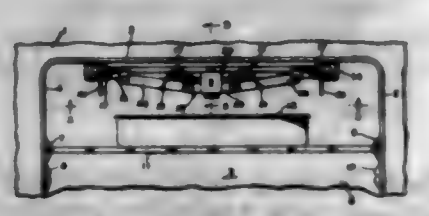
a supply of heat to the center of the oven to maintain a more nearly uniform temperature throughout the oven interior and to reduce the amount of heat radiated directly from said front heater portion to said door.

2,844,701
HEATING APPARATUS
Eugene J. Barnett, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 22, 1955, Serial No. 548,311
5 Claims. (Cl. 219—35)



1. A sheathed electrical resistance heater for an oven that is rectangular in horizontal cross section and has greater heat losses along the front side thereof, said heater having a tubular sheath forming a planar loop having a pair of straight sides, said sides being joined by transversely extending front and rear heater portions, said front portion being longer than said rear portion, said sides converging toward said rear portion, said heater having uniform resistance per unit length to provide uniform heat output per unit length around said loop when energized, an electrical connector attached to said rear heater portion, said heater providing a heating pattern symmetrical about a plane extending normal to said loop centrally from the front to the rear thereof, said heater providing more heat along the front of the oven to help maintain a uniform temperature throughout the oven when the heater is placed near the bottom thereof with the front heater portion positioned along the front of the oven, said heater having means for supporting it spaced above the bottom wall of said oven.

2,844,702
BROILING OVEN
James E. Staatz, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application December 12, 1956, Serial No. 627,820
1 Claim. (Cl. 219—35)



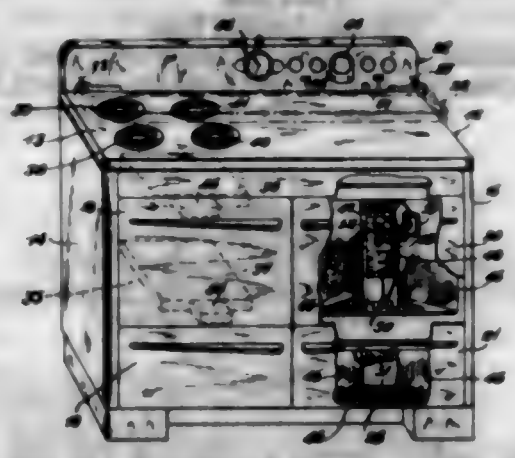
A broiling oven comprising a compartment including top, bottom and side walls, an electric heating unit adjacent said top wall, said heating unit including a plurality of parallel elongated heater sections and a plurality of elongated reflectors each pivotally mounted adjacent one of said heater sections for movement about an axis parallel to the major axis of the heater section associated therewith, a plurality of rack support members located on said side walls, a food broiling rack within said compartment, said rack support members being constructed and arranged to support said rack at a plurality of distances from said heating unit, a plurality of link members interconnecting said reflectors for coordinated movement, and manually adjustable means associated with one of said links for positioning said reflectors so as to concentrate the heat radiated from said heater sections on food supported on said broiling rack, said manually adjustable means including a rotary control knob in operative engagement with one of said link members.

2,844,703
ELECTRIC RANGE OVEN
Marvin E. Prather, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application December 24, 1956, Serial No. 630,224
1 Claim. (Cl. 219—35)



An electric range oven comprising first and second side walls, and top, bottom and rear walls defining an oven compartment, a heating unit including first, second and third resistor elements supported in end to end relation within a tubular metal sheath, electrical terminals connected to one end of each of said first and third resistor elements, the adjacent ends of said first and second resistor elements within said sheath being connected by a first electrical connector of negligible resistance, the adjacent ends of said second and third resistor elements being connected by a second electrical connector of negligible resistance, said heating unit being formed in substantially rectangular shape and horizontally disposed in said compartment adjacent said bottom, side and rear walls, said first and second connectors being located in said sheath so as to be adjacent said first and second side walls respectively, said bottom wall having first and second projecting portions located so as to support the portions of said sheath surrounding said first and second connectors respectively, each of said first and second projecting portions being integral with said bottom wall and including substantially vertical wall sections indented upwardly from the plane of said bottom wall, whereby the portions of said sheath surrounding said resistors are supported in spaced relation from said walls.

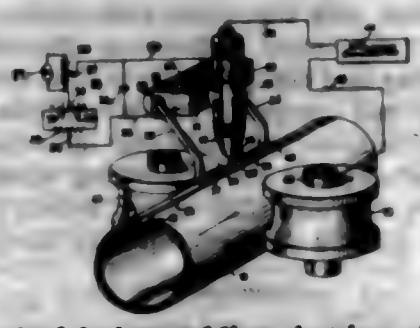
2,844,704
COMBINATION RANGE AND HOT WATER HEATER
Emmett F. Kennedy, Maple Heights, Ohio, assignor to The Cleveland Heater Company, Cleveland, Ohio, a corporation of Ohio
Application September 15, 1953, Serial No. 380,316
1 Claim. (Cl. 219—37)



In a combination electric range and hot water heating appliance comprising a range cabinet including a top, end walls, a front wall and a back wall, electric heating elements mounted on said top and electric switch mechanisms controlling the various heating stages of said elements, a hot water tank including heating elements and controls therefor mounted in said range cabinet, the improvement comprising a removable panel having an open back positioned at the back of said range at the top

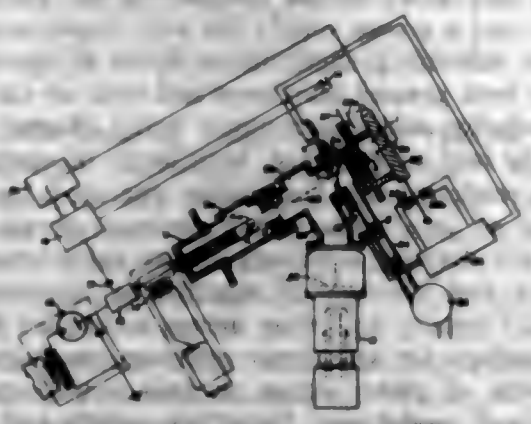
thereof, the switch mechanisms for said range heating elements being mounted in the rear of said panel, bolts secured to the bottom of said panel and projecting into cooperating apertures along the rear margin of said range top, whereby said panel may be lifted upwardly from its engagement with said range top and placed with its forward face against the range top whereby ready access is afforded through said open panel back to said switch mechanisms and associated parts, for the purposes described.

2,844,705
WELDING METHOD AND APPARATUS
Howard J. Bowman, East Troy, and Elmer W. Williams, Muskego, Wis., assignors to Trent Tube Company, East Troy, Wis., a corporation of Wisconsin
Application December 29, 1955, Serial No. 556,174
10 Claims. (Cl. 219—61)



1. A method of fusion welding abutting edges of tubular stock formed with a longitudinally extending seam of said abutting edges, and by means of a non-consumable arc welding electrode, which comprises: progressively feeding said stock longitudinally past said electrode, with said seam in close proximity to said electrode and while maintaining an arc therebetween, and concurrently subjecting said arc to a magnetic field of varying intensity and polarity defined in a longitudinally extending zone disposed in the general direction of feeding, thereby concurrently sweeping said arc transversely back and forth across said seam without requiring movement of said welding electrode.

2,844,706
METHOD OF PRODUCING MINUTE PERFORATIONS IN SOLID BODIES BY THERMAL IMPACT EXERTED BY CONCENTRATED CORPUSCULAR RAYS
Albert Lorenz, Hanau (Main), Germany, assignor, by mesne assignments, to Engelhard Industries, Inc., a corporation of New Jersey
Application August 19, 1954, Serial No. 451,024
Claims priority, application Germany August 21, 1953
9 Claims. (Cl. 219—69)



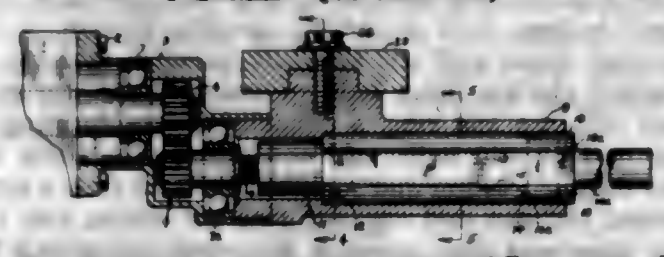
1. In the method of producing minute perforations through a solid body by means of thermal impact provided by a directed and concentrated corpuscular beam electrically generated in vacuum, comprising maintaining said concentrated beam on said body until a perforation is produced therethrough, permitting said beam to pass through said perforation onto a chargeable electrode until said perforation attains predetermined dimensions, and terminating said beam automatically by means of response of said electrode, said electrode response activating a switch means for terminating said beam.

2,844,707
MANUFACTURE OF RADIATION DETECTORS AND THE LIKE
Roy P. Mazzagatti, Bellaire, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application June 24, 1954, Serial No. 439,884
5 Claims. (Cl. 219—74)



1. The method of attaching two tubular members of stainless steel or the like, which comprises placing said members in alignment in a generally horizontal position with their peripheries in contact with each other, rotating said members around their longitudinal axis while welding at a location along the contacting members where the inner and outer surfaces of the joint to be connected are at different elevations while maintaining in an atmosphere of a first inert gas the outer surfaces of the joint to be connected and while maintaining within said members and in the vicinity of said joint an atmosphere of a second inert gas, the one of said gases that is supplied from below the weld-joint being lighter than air and the other of said gases that is supplied from above the weld-joint being heavier than air, thereby to displace oxidizing gases from the vicinity of said weld-joint.

2,844,708
WELDING ELECTRODE ACTUATOR
Sidney M. Harvey, Grosse Pointe, Mich.
Application March 27, 1957, Serial No. 648,900
5 Claims. (Cl. 219—86)

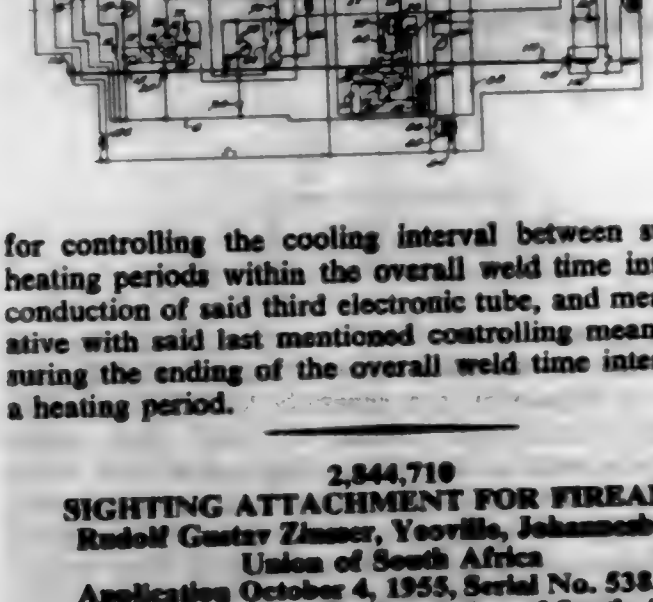


1. An electrode actuator for spot welding, comprising a feed screw, a motor rotatively driving such screw, a nut threaded upon and reciprocable forward and back by the screw, a sleeve having its axis aligned with that of the screw, means interconnecting the nut and sleeve for reciprocation in unison, means for guiding the sleeve and restraining it from rotation, and a welding electrode holder carried and reciprocatory by said sleeve.

2,844,709
WELDER CONTROL SYSTEM
Robert C. Mierendorf and Clarence W. Porter, Milwaukee, Wis., assignors to Square D Company, Detroit, Mich., a corporation of Michigan
Application January 15, 1954, Serial No. 404,370
7 Claims. (Cl. 219—114)

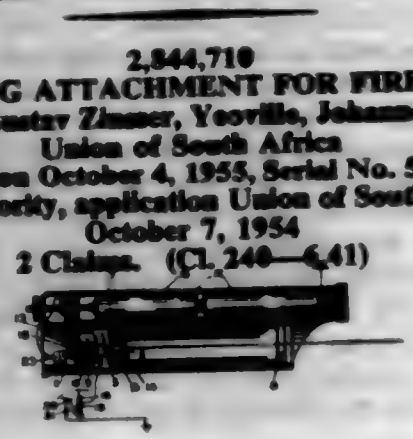
1. In a welder control system for electrically welding work by passing current therethrough between electrodes pressed thereagainst, the combination comprising; means including a first electronic tube for controlling an overall weld time interval by conduction of said first electronic

tube, means including a second electronic tube for controlling the length of individual heating periods within said overall interval by conduction of said second electronic tube, during which heating periods current is passed through the work, means including a third electronic tube



for controlling the cooling interval between successive heating periods within the overall weld time interval by conduction of said third electronic tube, and means operative with said last mentioned controlling means for insuring the ending of the overall weld time interval with a heating period.

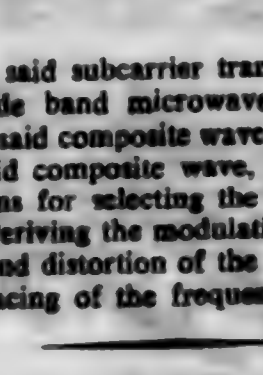
2,844,710
SIGHTING ATTACHMENT FOR FIREARMS
Rudolf Gustav Zinsser, Yeoville, Johannesburg, Union of South Africa
Application October 4, 1955, Serial No. 538,465
Claims priority, application Union of South Africa October 7, 1954
2 Claims. (Cl. 240—6.41)



1. A sighting attachment for a firearm having a barrel and a finger trigger, including an elongated tubular assembly supported on the barrel, said assembly including a pair of tubular structures, a tubular cap closing one end of the first of said structures, said cap having a dish-shaped bottom with a central opening therein, a ring supported inside said one structure adjacent said cap, an elongated electric lamp bulb mounted in the space between said cap and ring, a condensing lens forming the front part of said bulb, said condensing lens being normally disposed within and supported by said ring, a spring disposed between said cap and ring for urging said bulb away from said ring, a lens in the other end of said first tubular structure in line with said condensing lens, an electric battery mounted in the second of said tubular structures, means of electrical connection between said battery and said filament, including a control switch mounted on the finger trigger so that a single movement of the finger of the user of the firearm closes the switch and actuates the trigger, and means including a screw member protruding through the opening in the cap and engaging said bulb, for adjusting the position of the bulb with respect to the ring.

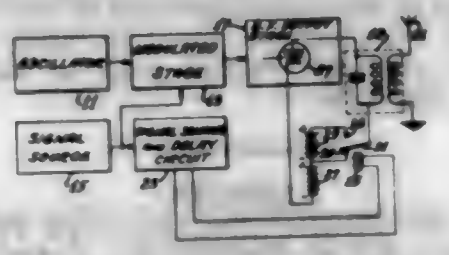
2,844,711
MULTIPLE FREQUENCY CHANNEL MULTIPLEX COMMUNICATION SYSTEM
John F. Byrne, Elmhurst, and William L. Firestone, Chicago, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application June 8, 1953, Serial No. 360,292
3 Claims. (Cl. 250—15)

1. In a frequency division multiplex communication system, a plurality of at least 20 frequency modulation subcarrier transmitters individually modulated by signals to be transmitted, said subcarrier transmitters having center frequencies substantially uniformaly spaced within a frequency range which has an upper limit two times the lower limit thereof, which frequency range extends between 300 and 1200 kilocycles, said subcarrier transmitters providing frequency modulated waves having deviations of the order of 7 kilocycles, means for combining



the waves from said subcarrier transmitters into a composite wave, wide band microwave transmitting means for transmitting said composite wave, and receiving means for receiving said composite wave, said receiving means including portions for selecting the individual subcarrier waves and for deriving the modulating signals therefrom, with the noise and distortion of the system being reduced by the close spacing of the frequency modulated waves.

2,844,712
AUTOMATIC POWER REDUCER FOR TRANSMITTERS
Pedro J. Nolzoux, Buenos Aires, Argentina, assignor to Radio Corporation of America, a corporation of Delaware
Application January 14, 1954, Serial No. 404,848
The terminal fifteen years of the term of the patent to be granted has been disclaimed
2 Claims. (Cl. 250—17)

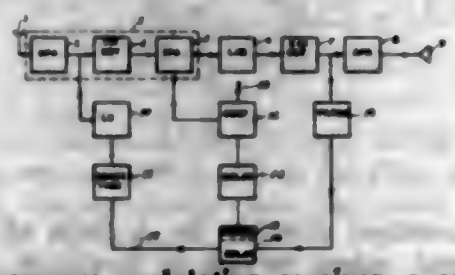


2. In a radio transmitter, an automatic power reducer arrangement comprising a source of modulation frequency signals representing intelligence to be transmitted, a radio frequency output stage providing an output radio frequency carrier modulated by signals from said source, a sensing and delay circuit coupled to the output of said source, and a power supply for said output stage providing two different predetermined levels of operating plate voltage both greater than zero and both of the same relative polarity, said power supply being adapted to be connected to said output stage, both levels of operating plate voltage rendering said transmitter operative for the transmission of intelligence; said sensing circuit including means for deriving a voltage whose value represents the presence and absence of modulation frequency signals from said source, and relay means controlled by said derived voltage for selectively applying the higher of said two levels of plate voltage to said output stage in the presence of modulation frequency signals and for applying the lower of said two levels of plate voltage to said output stage in the absence of modulation frequency signals, whereby said transmitter transmits different finite output powers both greater than zero in response to the application of said two levels of plate voltage to said output stage.

2,844,713
SUPERHETERODYNE RECEIVER WITH OFF-TUNE SQUELCH CIRCUIT FOR AUTOMATIC FREQUENCY CONTROL

Alfred M. Zuckerman, Valley Stream, N. Y., assignor to David Bogen & Company, Inc., a corporation of New York

Application March 1, 1955, Serial No. 491,301
5 Claims. (Cl. 250—20)

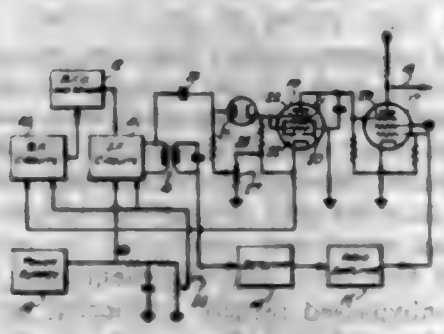


1. In a frequency modulation receiver, a cascade arrangement of a radio frequency amplifier, a first detector, an intermediate frequency amplifier and a second detector; and a local oscillator controlling the input of said first detector, means under control of the output of said second detector for controlling the frequency of said local oscillator, and means under control of the output of said intermediate frequency amplifier for enabling said frequency control means under control of an intermediate frequency signal amplitude above a predetermined value and after predeterminedly fixed time delay; said enabling means including a pair of serially connected diodes, one of which is normally blocked at a signal below a predetermined amplitude and the other being normally unblocked; there being provided means for unblocking the first diode and blocking the second diode under control of a signal exceeding said predetermined amplitude; and delay means under control of said second diode for enabling said frequency control means at a predetermined time interval after the blocking of said second diode.

2,844,714
RADIO RECEIVER MUTING CONTROL CIRCUIT

Jules Cardon, Garden City, and Frederick G. Richter, Woodside, N. Y., assignors to Servo Corporation of America, New Hyde Park, N. Y., a corporation of New York

Application December 30, 1955, Serial No. 556,674
3 Claims. (Cl. 250—20)

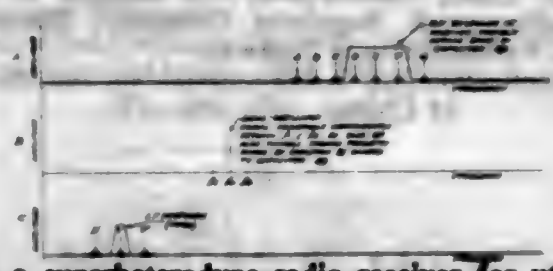


1. In a radio receiver, radio-frequency circuits, intermediate-frequency circuits, audio-frequency detector means coupled to said intermediate-frequency circuits, gating means having a control-input connection and connected to the output of said audio detector, whereby said gating means will deliver an audio output depending upon the control effected at said control-input connection, and control means for said control-input connection comprising a gated-beam pentode having an output connected to said control-input connection, means interconnecting the control and suppressor grids of said pentode and coupling the same to said intermediate-frequency circuit, said last-defined means including a detector and adjustable means for variably biasing the detector output to said control and suppressor grids, whereby the intermediate-frequency signal level at which said pentode is driven to cut-off may be selectively varied, and a single common B-supply connected to said radio-frequency circuits and to said intermediate-frequency circuits and to said pentode.

2,844,715
RADIO RECEIVER

Samuel M. Goldfus, Chicago, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application February 6, 1956, Serial No. 563,469
5 Claims. (Cl. 250—20)

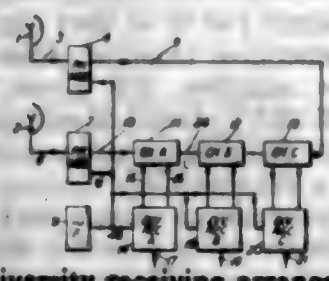


1. In a superheterodyne radio receiver for utilizing a plurality of signals extending through a frequency band, the combination of a radio frequency signal-selecting network having a relatively wide pass band for the simultaneous selection of a plurality of such signals, first variable capacitor means for tuning said network through the frequency band, converter means including local oscillator for developing a heterodyne signal and including an inductance coil and further including second variable capacitor means mechanically coupled to said first variable capacitor means for varying the frequency of said heterodyne signal, said converter means including a portion for beterodyning the heterodyne signal with the signals selected by said radio frequency selecting network to obtain a corresponding plurality of intermediate frequency signals, an intermediate frequency selecting network having a relatively narrow pass band for selecting a single one of the intermediate frequency signals, a tuning slug movable coaxially in said inductance coil of said local oscillator to provide independent variation of the frequency of the heterodyne signal to change the one of said intermediate frequency signals selected by said intermediate frequency selecting network, a drive shaft for said first and second variable capacitor means, a cord and pulley drive coupling said drive shaft to said first and second variable capacitor means, and a longitudinally movable control shaft mounted within said drive shaft coaxially therewith axially aligned with and connected to said tuning slug.

2,844,716
RADIO DIVERSITY RECEIVING SYSTEM

Bent Bülow Jacobsen, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application March 28, 1957, Serial No. 649,285
Claims priority, application Great Britain April 10, 1956
9 Claims. (Cl. 250—20)



1. A radio diversity receiving arrangement of the type in which radio energy particular to a given communication channel is received on each of two spaced antennae simultaneously and the antenna outputs are combined through adjustable phasing means individual to said given channel prior to demodulation, comprising local modu-

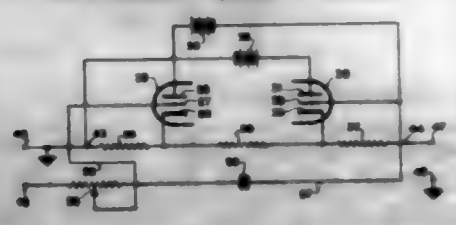
lating means for differentially phase-modulating the antenna outputs at a given low frequency prior to their combination, means for deriving from the combined antenna outputs the envelope wave of amplitude modulation due to said differential phase modulation, and means for automatically controlling the adjustment of said phasing means according to the phase of the envelope wave component of said given frequency.

2,844,717

CONTROL APPARATUS

Robert J. Ehret, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application July 3, 1953, Serial No. 365,982
10 Claims. (Cl. 250—27)



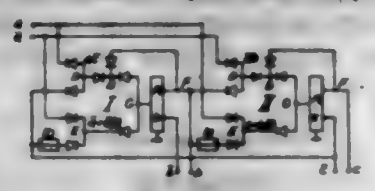
1. In an electrical controller circuit, the combination comprising, a pair of independently energized electronic amplifying devices each having an input and an output, a controller input circuit and a controller output circuit, means connecting the output of each of said devices in opposition to the other of said devices in said controller output circuit, a degenerative feedback connection from said controller output circuit to said controller input circuit, and means connecting the output of each of said devices to the input of the other of said devices so that unbalance conditions in said devices will be balanced in said controller output.

2,844,718

PULSE GENERATING AND DISTRIBUTING DEVICES

Maurice Guerin, Argenteuil, and Paul Pierre Namian, Asnieres, France, assignors to Societe d'Electronique et d'Automatisme, Courbevoie, France

Application December 22, 1953, Serial No. 399,787
Claims priority, application France January 24, 1953
18 Claims. (Cl. 250—27)



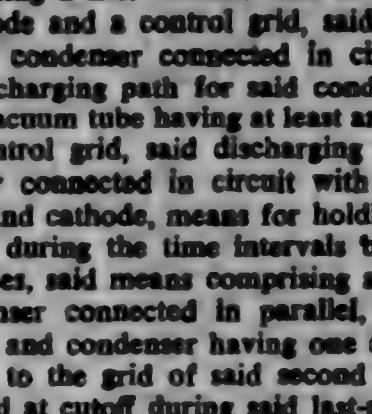
1. In a device for generating and distributing to separate channels a plurality of clock pulse synchronization signals having predetermnied phase shifts with respect to each other, a corresponding plurality of pulse regenerative amplifiers including separate outputs for at least some of them, means including a source of initiating signals for sequentially initiating operations of each one of said pulse regenerative amplifiers under control of a main synchronization signal and of at least one of the outputs from a pulse regenerative amplifier other than said one pulse regenerative amplifier, and means for forming a maintenance signal under control of said main synchronization signal and for maintaining said sequentially initiated operation during a predetermined interval of time under control of said maintenance signal; each of said pulse regenerative amplifiers being provided with a gating circuit and a feedback connection from the output of said pulse regenerative amplifier to one input of said gating circuit, its other input receiving the initiating signal, and a further junction circuit combining the signal resulting from the gating circuit with said maintenance signal, and controlling activation in said pulse regenerative amplifier.

2,844,719

ENVELOPE DETECTOR

John W. Bixby, Basking Ridge, and Allen Slocum, Westfield, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 11, 1954, Serial No. 449,144
3 Claims. (Cl. 250—27)



1. An envelope detector for a train of substantially unidirectional pulses varying in amplitude about a reference value comprising a condenser for storing voltages proportional to amplitude variations of input pulses relative to the reference value, a charging path for said condenser comprising a first vacuum tube having at least an anode, a cathode and a control grid, said charging path including said condenser connected in circuit with said cathode, a discharging path for said condenser comprising a second vacuum tube having at least an anode, a cathode and a control grid, said discharging path including said condenser connected in circuit with said last-mentioned anode and cathode, means for holding said second tube at cutoff during the time intervals between successive input pulses, said means comprising a resistor and a further condenser connected in parallel, said last-mentioned resistor and condenser having one common terminal connected to the grid of said second tube, said first tube being held at cutoff during said last-mentioned time intervals by the voltage charge on said storing condenser, means for applying the input pulses simultaneously to said grid of said first tube and a second common terminal of said resistor and further condenser, said second tube being driven into conduction to partially discharge said storing condenser substantially at a constant rate in response to input pulses of one amplitude relative to said reference value, said first tube being driven into conduction to increase the charge on said storing condenser in response to input pulses of a different amplitude relative to said reference value, said charging and discharging paths having such mutual time rates that the net voltage charge placed on said storing condenser is substantially zero in response to input pulses of an amplitude substantially equal to said reference value, said charging and discharging paths having such further mutual time rates that the voltage charge on said storing condenser reaches a magnitude which is substantially equal to the amplitude of the input pulses during the occurrences thereof, and means to reduce the gain of said second tube for permitting said last-mentioned condenser to receive charge through said first tube, said last-mentioned means comprising an unbypassed resistor connected in the cathode circuit of said second tube.

2,844,720

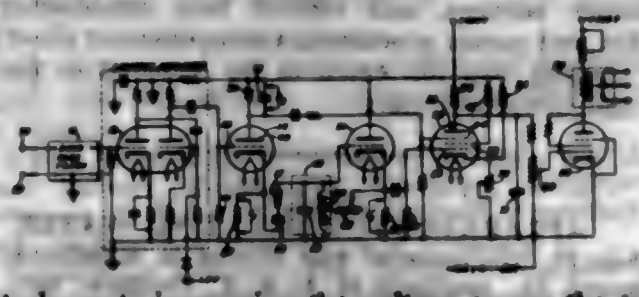
FREQUENCY SHIFT DISCRIMINATOR

Everett A. Gilbert, Denville, N. J., assignor to Radio Frequency Laboratories, Inc., Boonton, N. J., a corporation of New Jersey

Application December 6, 1954, Serial No. 473,091
11 Claims. (Cl. 250—27)

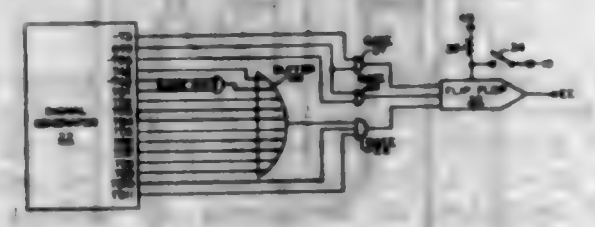
1. Apparatus for producing a variation in a D.-C. output voltage in accordance with the frequency variation of an applied signal voltage from a predetermined reference frequency, said apparatus comprising an electron tube having a cathode, an anode and two control grids, a D.-C. voltage source connected to the anode through a resistor, means impressing a first voltage on

one of the control grids which voltage is displaced substantially 90 degrees relative to the applied signal voltage, a tuned circuit resonant at the said predetermined reference frequency, and energized by the signal voltage,



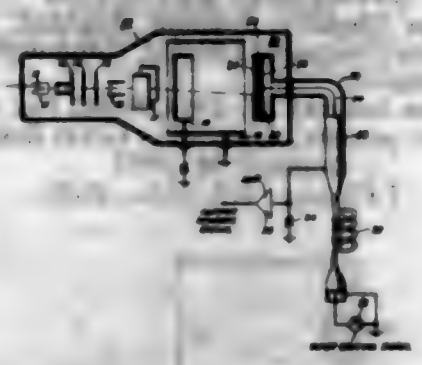
circuit elements impressing the voltage across the tuned circuit to the second control grid of the tube, and means regeneratively feeding energy into the tuned circuit to compensate for its losses.

2,844,721
SIGNAL GENERATOR ERROR DETECTOR
Morse Mishkow, Bronx, N. Y., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application December 10, 1954, Serial No. 474,476
8 Claims. (Cl. 250—27)



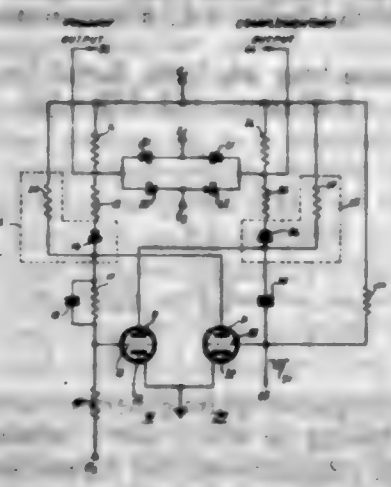
1. Error checking apparatus for checking errors in a signal generator which responds to a standard signal by generating a plurality of signals which are time oriented comprising first means for checking certain of the signals against other of the signals during a period of time when said certain of the signals are normally absent, second means for checking certain of the signals which normally occur simultaneously with the standard signal against the standard signal and an indicating means settable by either said first or said second means for indicating when no signals are being generated by said signal generator, when extra signals are being generated by said signal generator or when signals are incorrectly time oriented.

2,844,722
ELECTRON DISCHARGE DEVICES
Marion E. Hines, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 4, 1955, Serial No. 486,221
19 Claims. (Cl. 250—27)



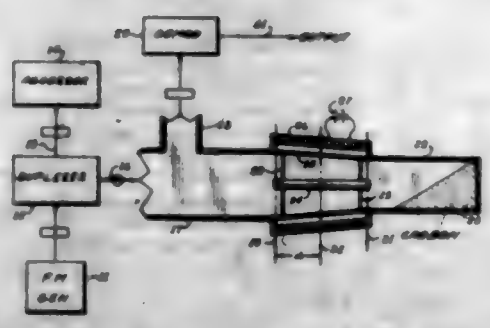
1. An electron discharge device comprising a back plate, dielectric target means in contact with said back plate, an electrode positioned to the other side of said dielectric means than said back plate, electron gun means for projecting a beam of electrons through said electrode and against said dielectric means, and means comprising said gun means, said back plate and said electrode for storing information on said dielectric means and for receiving stored information from said dielectric means, said last-mentioned means further comprising an intermittent voltage source and a coaxial line connected to said source and having its inner and outer conductors individually connected to said back plate and said electrode.

2,844,723
STABLE TRIGGERED CIRCUIT HAVING NOVEL OUTPUT CIRCUITS
Donald C. Jameson, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application February 10, 1956, Serial No. 564,674
7 Claims. (Cl. 250—27)



1. A triggerable circuit comprising a pair of electron discharge devices each having an anode, cathode and a grid electrode, a common circuit connection for each of said cathode electrodes, a cross coupling network connected from said anode electrode of at least one of said devices to the grid electrode of the other device whereby the circuit has at least a single stable state, means for applying trigger signals to at least said device having its anode connected to said network to cause said circuit to respond thereto, an anode circuit for each of said devices including individual impedance means connected to said anodes, clamping means connected to each of said anode circuits for limiting the output voltage swings derived from said impedance means of said anode circuits and means connected to said anode circuits for rendering said clamping means ineffective at least during the interval said circuit is changing state in response to the trigger signals.

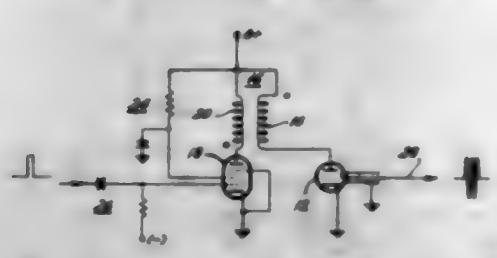
2,844,724
MICROWAVE FREQUENCY MODULATION TRANSDUCER
Julius T. Fraser, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application May 22, 1957, Serial No. 660,906
5 Claims. (Cl. 250—27)



1. A microwave frequency modulation transducer comprising, a round tapered microwave waveguide having a radius becoming progressively smaller from one end to the other, whereby said tapered waveguide possesses a range of cutoff frequencies, said tapered waveguide con-

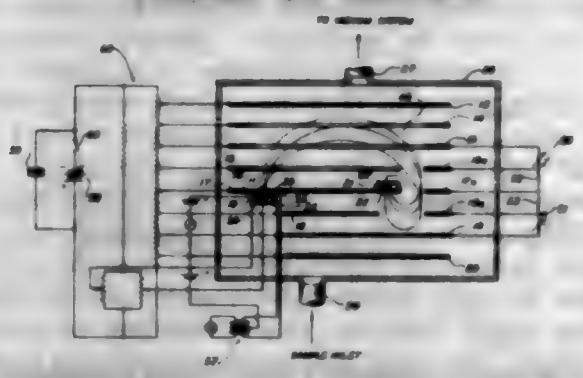
taining microwave field rotating means producing a rotation of microwave energy which is proportional to the length of travel therealong by said microwave energy, means applying to said one end of the tapered waveguide a frequency-modulated microwave field in a transversely polarized mode having a frequency band within said range of cutoff frequencies of said tapered waveguide, and means adjacent to said one end of the tapered waveguide for receiving and conducting field energy reflected from said tapered waveguide at an amplitude representative of the angular rotation thereof.

2,844,725
PULSED OSCILLATOR SYSTEM
Thomas J. Ryan, Langhorne, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application May 24, 1956, Serial No. 586,965
8 Claims. (Cl. 250—36)



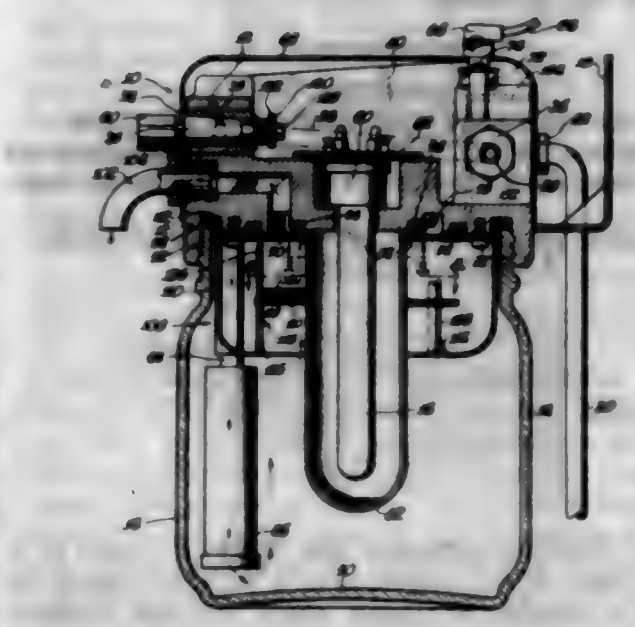
1. A radio frequency pulse generator circuit comprising a magnetron having an anode and a cathode, said magnetron having the characteristic that it generates substantially no radio frequency energy at anode potentials below a first value and generates sustained oscillations at anode potentials within a selected range of potentials, the upper and lower limits of said selected range being greater than said first value, a source of anode supply potential, a pulse transformer having a primary winding and a secondary winding, the secondary winding of said pulse transformer being connected in series circuit with said source of anode supply potential, said series circuit being connected between said anode and said cathode of said magnetron, the potential supplied by said source of anode supply potential being less than said first value, and means for supplying a signal to the primary of said pulse transformer, thereby to produce a voltage pulse across said secondary winding, the sum of the potential supplied by said source of anode supply potential and the potential appearing across said secondary winding of said pulse transformer being equal to a potential in said selected range.

2,844,726
MASS SPECTROMETRY
Charles F. Robinson, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application May 18, 1955, Serial No. 509,142
9 Claims. (Cl. 250—41.9)



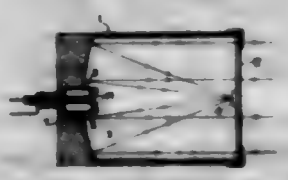
1. In a crossed-field mass spectrometer the combination of an analyzer chamber, a plurality of electric field establishing electrodes disposed about said analyzer chamber for establishing a potential gradient, means generating a magnetic field having a direction parallel to said electric field establishing electrodes, an ion source for propelling a beam of ions into said analyzer chamber, an apertured plate suspended within said analyzer chamber between said electric field establishing electrodes, and means generating a compensating electric field for causing said ion beam to be focussed in the plane of said apertured plate.

2,844,727
APPARATUS FOR TREATING WATER
Arthur H. Maciszewski and Milton S. Riddiford, River Forest, Ill., assignors to A. R. F. Products, Inc., River Forest, Ill., a corporation of Illinois
Application September 25, 1953, Serial No. 382,398
21 Claims. (Cl. 250—43)



1. A water treating apparatus comprising a base, a source of germicidal disinfecting radiation mounted on said base, a casing mounted on said base, and readily removable therefrom said casing being positioned concentric with respect to said source of radiation and forming a closed chamber in cooperation with said base, an inlet and an outlet for said chamber, and a baffle mounted on said base and disposed concentric with respect to said source of radiation, said baffle including a cylindrical portion extending into said chamber and an inturned flange formed on the end of said cylindrical portion extending into said chamber, said flange being directed toward said source of radiation and spaced a short distance therefrom to divide said chamber into two sections.

2,844,728
RADIATION DETECTOR
Charles Walter Munday, London, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company
Application January 27, 1954, Serial No. 406,476
Claims priority, application Great Britain January 30, 1953
7 Claims. (Cl. 250—43.5)



1. An infra-red radiation detector which comprises a chamber, which is provided with one wall which is transparent to the radiation, and a facing wall one portion of which has a reflecting concave surface and another portion of which is formed by a flexible diaphragm mounted

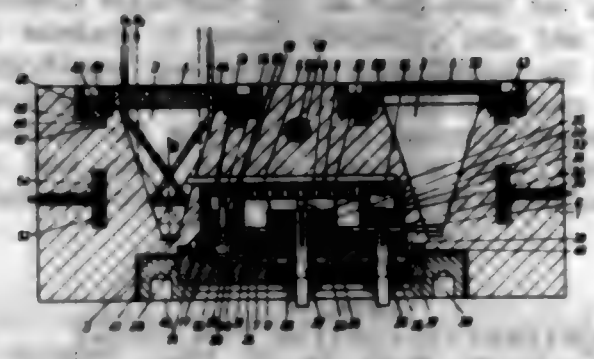
contiguous to said reflecting surface and means for the measurement of the movement of said flexible diaphragm in response to pressure variation in said detector.

2,844,729

DEVICE FOR THE QUANTITATIVE DETERMINATION OF GASEOUS INFRARED-ABSORBING MATERIAL

Karl Heinz Winterling, Koenigstein (Taunus), and Alexander Kewert, Kelsterbach, Germany, assignors to Hartmann & Braun Aktiengesellschaft, Frankfurt am Main, Germany, a corporation of Germany

Application June 14, 1954, Serial No. 440,881
Claims priority, application Germany June 19, 1953
6 Claims. (Cl. 250—43.5)



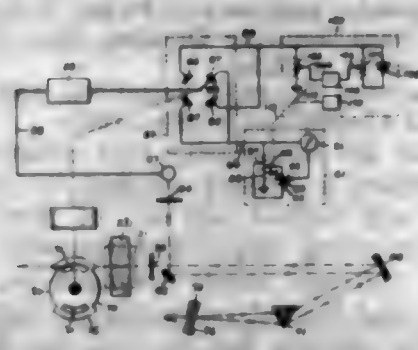
3. A device for analysing mixtures by means of infra-red radiation comprising two sources of infra-red radiation and means for producing two respective beams therefrom; two containers for gas having infra-red transparent portions for passage of the respective beams through the containers; means for periodically interrupting the beams; a metallic block having a pair of opposite faces and provided with a pair of chamber recesses of circular cross section in one face, and axially parallel, the recesses being in optical alinement with the respective beams; infra-red transparent window plates covering the recesses to form gas-receiving chambers; the block being provided with a cylindrical recess in the opposite face to form a condenser chamber and axially parallel with the pair of chamber recesses; a membrane condenser in the condenser chamber; and means for establishing communication between the condenser chamber and the respective gas-receiving chambers, the axes of said receiving chambers being perpendicular to the plane of the membrane of said membrane condenser.

2,844,730

DUAL WAVELENGTH RADIANT ENERGY MEASUREMENT SYSTEMS

William S. Tandler, New York, Morris Grossman, Brooklyn, and Richard H. Tourin, Flushing, N. Y., assignors to The Warner & Swasey Research Corporation, Cleveland, Ohio, a corporation of Ohio

Application January 31, 1955, Serial No. 485,262
29 Claims. (Cl. 250—43.5)



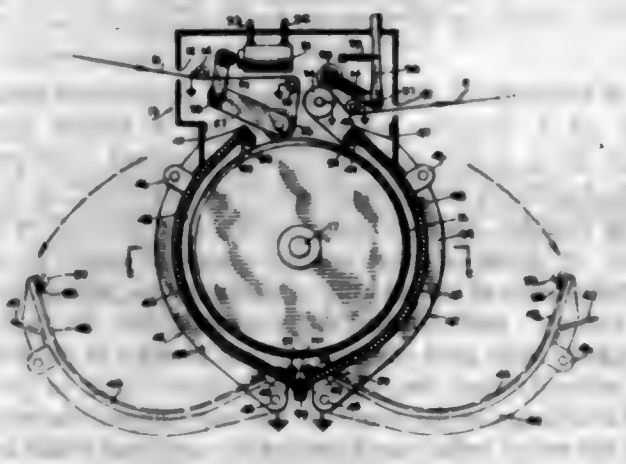
22. Apparatus for determining by measurement of radiation the absorptivity at a given absorption wavelength of a high temperature gas, said apparatus comprising, source means adapted to develop in an optical path which passes through said gas a beam of infra-red radiation with a spectrum which includes a first wavelength the same as said absorption wavelength and a second wavelength different from any wavelength of said gas giving substantial absorption at said temperature said radiation being partially absorbed at absorption wavelengths of said gas during passage therethrough, chopper means disposed in said optical path between said source means and said gas for chopping said radiation to permit passage thereof through said gas only during intermittent time periods, infra-red filtering means cyclically operable to limit in alternation during said periods the partially absorbed radiation in said path to one and then the other of first and second components thereof respectively comprised of radiation at substantially said first wavelength and at substantially said second wavelength, detector means responsive to said components to produce first and second electric signals at an output thereof as respective quantitative indications of the intensities, referenced to a standard intensity, of said first and second components, electric signal distribution means connected in circuit with said detector means and adapted when cyclically operated in synchronism with said infra-red filtering means to distribute said first and second signals from said output into respective first and second channels, means for synchronizing the cyclical operations of said infra-red filtering means and said distribution means, electric filter means in circuit with said detector and distribution means to eliminate from said channels a continuous signal generated by said detector means responsive to emission radiation from said gas, and correction means responsive to said distributed second signal for modifying the quantitative value of said distributed first signal as a function of the quantitative value of said distributed second signal, said correction means providing for automatic correction of said distributed first signal.

2,844,731

FILM TREATMENT

Seymour Plonsky, Elmhurst, and Ho Chow, New York, N. Y., and Alfred Schneider, Belleville, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application April 22, 1955, Serial No. 503,074
23 Claims. (Cl. 250—49.5)



3. Apparatus for subjecting a film to a high voltage electrical discharge, comprising a pair of electrodes between which the film is passed, one of said electrodes being grounded and enclosing the major portion of the periphery of the other electrode, means whereby a sheet of dielectric material is releasably and firmly held against the said one electrode and out of contact with the other electrode, and means for pressing the film being treated firmly against one of the electrodes.

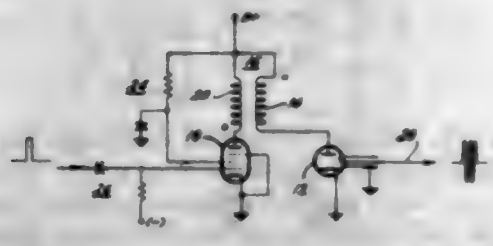
taining microwave field rotating means producing a rotation of microwave energy which is proportional to the length of travel therealong by said microwave energy, means applying to said one end of the tapered waveguide a frequency-modulated microwave field in a transversely polarized mode having a frequency band within said range of cutoff frequencies of said tapered waveguide, and means adjacent to said one end of the tapered waveguide for receiving and conducting field energy reflected from said tapered waveguide at an amplitude representative of the angular rotation thereof.

2,844,725

PULSED OSCILLATOR SYSTEM

Thomas J. Ryan, Langhorne, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application May 24, 1956, Serial No. 586,965
8 Claims. (Cl. 250—36)



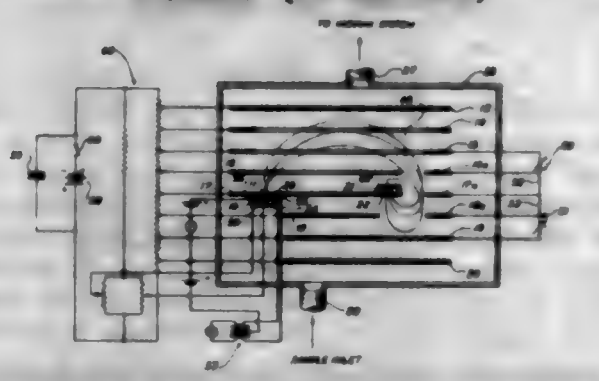
1. A radio frequency pulse generator circuit comprising a magnetron having an anode and a cathode, said magnetron having the characteristic that it generates substantially no radio frequency energy at anode potentials below a first value and generates sustained oscillations at anode potentials within a selected range of potentials, the upper and lower limits of said selected range being greater than said first value, a source of anode supply potential, a pulse transformer having a primary winding and a secondary winding, the secondary winding of said pulse transformer being connected in series circuit with said source of anode supply potential, said series circuit being connected between said anode and said cathode of said magnetron, the potential supplied by said source of anode supply potential being less than said first value, and means for supplying a signal to the primary of said pulse transformer, thereby to produce a voltage pulse across said secondary winding, the sum of the potential supplied by said source of anode supply potential and the potential appearing across said secondary winding of said pulse transformer being equal to a potential in said selected range.

2,844,726

MASS SPECTROMETRY

Charles F. Robinson, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application May 18, 1955, Serial No. 589,142
9 Claims. (Cl. 250—41.9)



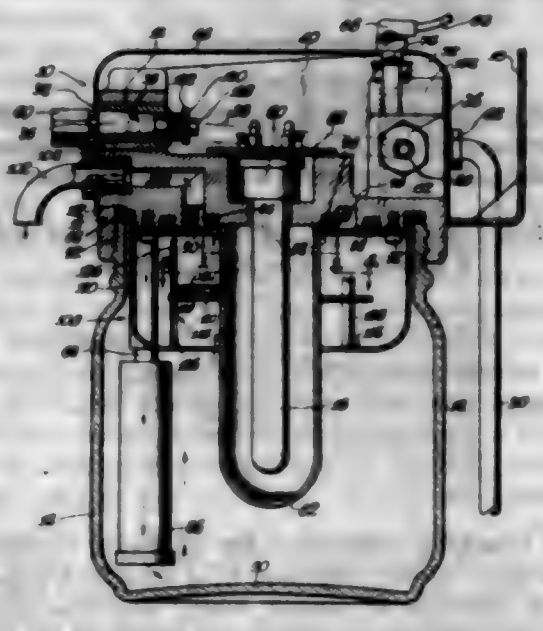
1. In a crossed-field mass spectrometer the combination of an analyzer chamber, a plurality of electric field establishing electrodes disposed about said analyzer chamber for establishing a potential gradient, means generating a magnetic field having a direction parallel to said electric field establishing electrodes, an ion source for propelling a beam of ions into said analyzer chamber, an apertured plate suspended within said analyzer chamber between said electric field establishing electrodes, and means generating a compensating electric field for causing said ion beam to be focussed in the plane of said apertured plate.

2,844,727

APPARATUS FOR TREATING WATER

Arthur H. Maciurzyki and Milton S. Riddiford, River Forest, Ill., assignors to A. R. F. Products, Inc., River Forest, Ill., a corporation of Illinois

Application September 25, 1953, Serial No. 382,398
21 Claims. (Cl. 250—43)



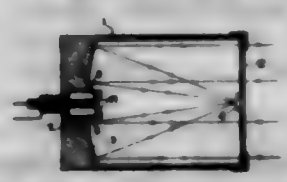
1. A water treating apparatus comprising a base, a source of germicidal disinfecting radiation mounted on said base, a casing mounted on said base, and readily removable therefrom said casing being positioned concentric with respect to said source of radiation and forming a closed chamber in cooperation with said base, an inlet and an outlet for said chamber, and a baffle mounted on said base and disposed concentric with respect to said source of radiation, said baffle including a cylindrical portion extending into said chamber and an inturned flange formed on the end of said cylindrical portion extending into said chamber, said flange being directed toward said source of radiation and spaced a short distance therefrom to divide said chamber into two sections.

2,844,728

RADIATION DETECTOR

Charles Walter Munday, London, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

Application January 27, 1954, Serial No. 406,476
Claims priority, application Great Britain January 30, 1953
7 Claims. (Cl. 250—43.5)



1. An infra-red radiation detector which comprises a chamber, which is provided with one wall which is transparent to the radiation, and a facing wall one portion of which has a reflecting concave surface and another portion of which is formed by a flexible diaphragm mounted

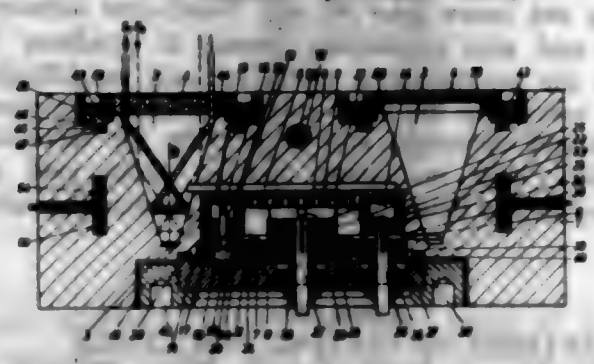
contiguous to said reflecting surface and means for the measurement of the movement of said flexible diaphragm in response to pressure variation in said detector.

2,844,729

DEVICE FOR THE QUANTITATIVE DETERMINATION OF GASEOUS INFRARED-ABSORBING MATERIAL

Karl Heinz Wintering, Koenigstein (Taunus), and Alexander Kowert, Kelsterbach, Germany, assignors to Hartmann & Braun Aktiengesellschaft, Frankfurt am Main, Germany, a corporation of Germany

Application June 14, 1954, Serial No. 440,881
Claims priority, application Germany June 19, 1953
6 Claims. (Cl. 250—43.5)



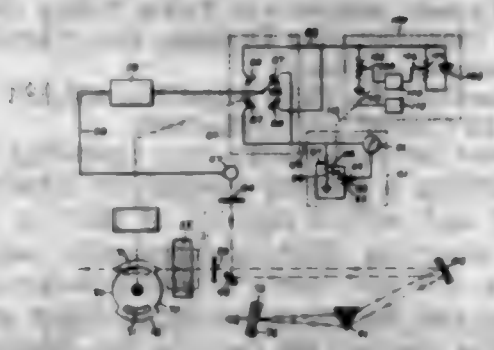
3. A device for analysing mixtures by means of infra-red radiation comprising two sources of infra-red radiation and means for producing two respective beams therefrom; two containers for gas having infra-red transparent portions for passage of the respective beams through the containers; means for periodically interrupting the beams; a metallic block having a pair of opposite faces and provided with a pair of chamber recesses of circular cross section in one face, and axially parallel, the recesses being in optical alinement with the respective beams; infra-red transparent window plates covering the recesses to form gas-receiving chambers; the block being provided with a cylindrical recess in the opposite face to form a condenser chamber and axially parallel with the pair of chamber recesses; a membrane condenser in the condenser chamber; and means for establishing communication between the condenser chamber and the respective gas-receiving chambers, the axes of said receiving chambers being perpendicular to the plane of the membrane of said membrane condenser.

2,844,730

DUAL WAVELENGTH RADIANT ENERGY MEASUREMENT SYSTEMS

William S. Tandler, New York, Morris Grossman, Brooklyn, and Richard H. Tourin, Flushing, N. Y., assignors to The Warner & Swasey Research Corporation, Cleveland, Ohio, a corporation of Ohio

Application January 31, 1955, Serial No. 485,262
29 Claims. (Cl. 250—43.5)



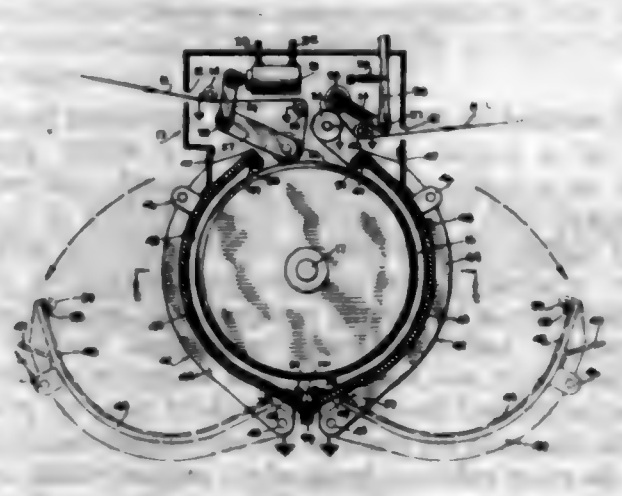
22. Apparatus for determining by measurement of radiation the absorptivity at a given absorption wavelength of a high temperature gas, said apparatus comprising, source means adapted to develop in an optical path which passes through said gas a beam of infra-red radiation with a spectrum which includes a first wavelength the same as said absorption wavelength and a second wavelength different from any wavelength of said gas giving substantial absorption at said temperature said radiation being partially absorbed at absorption wavelengths of said gas during passage therethrough, chopper means disposed in said optical path between said source means and said gas for chopping said radiation to permit passage thereof through said gas only during intermittent time periods, infra-red filtering means cyclically operable to limit in alternation during said periods the partially absorbed radiation in said path to one and then the other of first and second components thereof respectively comprised of radiation at substantially said first wavelength and at substantially said second wavelength, detector means responsive to said components to produce first and second electric signals at an output thereof as respective quantitative indications of the intensities, referenced to a standard intensity, of said first and second components, electric signal distribution means connected in circuit with said detector means and adapted when cyclically operated in synchronism with said infra-red filtering means to distribute said first and second signals from said output into respective first and second channels, means for synchronizing the cyclical operations of said infra-red filtering means and said distribution means, electric filter means in circuit with said detector and distribution means to eliminate from said channels a continuous signal generated by said detector means responsive to emission radiation from said gas, and correction means responsive to said distributed second signal for modifying the quantitative value of said distributed first signal as a function of the quantitative value of said distributed second signal, said correction means providing for automatic correction of said distributed first signal.

2,844,731

FILM TREATMENT

Seymour Pionsky, Elmhurst, and Ho Chow, New York, N. Y., and Alfred Schneider, Belleville, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application April 22, 1955, Serial No. 503,074
23 Claims. (Cl. 250—49.5)



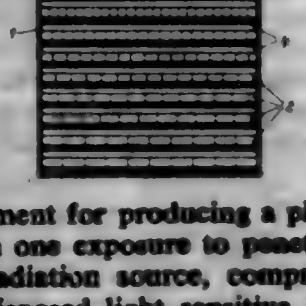
3. Apparatus for subjecting a film to a high voltage electrical discharge, comprising a pair of electrodes between which the film is passed, one of said electrodes being grounded and enclosing the major portion of the periphery of the other electrode, means whereby a sheet of dielectric material is releasably and firmly held against the said one electrode and out of contact with the other electrode, and means for pressing the film being treated firmly against one of the electrodes.

2,844,732

PRODUCING PLURAL PHOTOGRAPHIC IMAGES IN ONE EXPOSURE

Josef-Heinrich Hartmann, Erlangen, Germany, assignor to Siemens-Reiniger-Werke Aktiengesellschaft, Erlangen, Germany, a corporation of Germany

Application March 27, 1956, Serial No. 574,227
Claims priority, application Germany April 9, 1955
11 Claims. (Cl. 250—65)



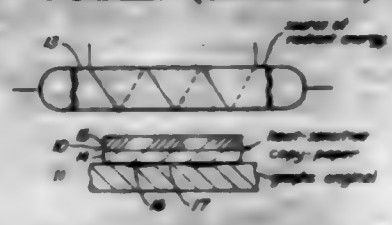
1. An arrangement for producing a plurality of photographic images in one exposure to penetrating rays emanating from a radiation source, comprising a plurality of successively disposed light sensitive layers, amplification foils containing fluorescent substances respectively disposed with respect to the individual light sensitive layers so as to effect amplification of the exposure illumination thereof, color substances for each of said amplification foils, said color substances being operative to weaken the light emanating from said amplification foils in the direction of said light sensitive layers, the color density in said color substances per unit area thereof diminishing from amplification foil to amplification foil with increasing spacing from said radiation source for the purpose of obtaining in said one exposure uniform illumination of said light sensitive layers and thereby identical images responsive to identical development of said light sensitive layers.

2,844,733

REFLEX THERMOPRINTING

Carl S. Miller, St. Paul, and Carl A. Kuhrmeyer, New Canada Township, Ramsey County, Minn., assignors to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application April 2, 1956, Serial No. 575,435
4 Claims. (Cl. 250—65)



1. A method for the production of permanent facsimile copies of a graphic original having a visible graphic pattern on a visibly contrasting background, said pattern and background being differentially reflective of intense radiant energy, said method comprising placing over the graphic original a heat-sensitive rapidly-reactive copy-paper capable of absorbing a substantial proportion of said energy, and irradiating the original through the copy-paper with said intense radiant energy at sufficiently high intensity and for sufficiently short time to provide a visible change in the areas of the copy-paper corresponding to the more reflective areas of the original while avoiding visible change in areas corresponding to the less reflective areas.

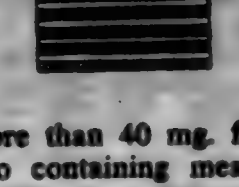
2,844,734

ARRANGEMENT FOR PRODUCING PLURAL PHOTOGRAPHIC EXPOSURES

Josef-Heinrich Hartmann, Erlangen, Germany

Application April 5, 1956, Serial No. 576,421
Claims priority, application Germany May 14, 1955
29 Claims. (Cl. 250—65)

1. An arrangement for producing in a single illumination operation, with penetrating rays emanating from a suitable source, a plurality of photographic exposures, comprising a plurality of successively disposed light sensitive layers, a plurality of amplification foils each containing fluorescent substance, each light sensitive layer being respectively in engagement with a separate amplification foil for amplifying the exposure illumination of the corresponding light sensitive layer, at least those of said amplification foils lying nearest to said ray source



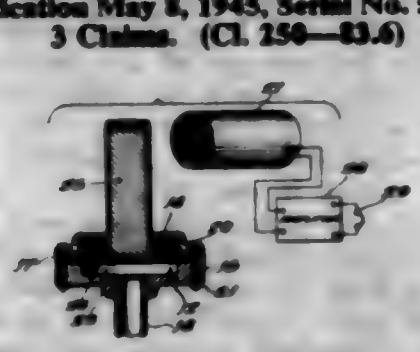
containing not more than 40 mg. fluorescent substance per cm.^{2} and also containing means to graduate the degree of the amplification effect of said amplification foils with respect to the light sensitive layers respectively in engagement therewith and to provide for increasing amplification with increasing spacing from said ray source, said means being transparent to penetrating radiation.

2,844,735

METHOD OF TESTING FOR LEAKS

Edward C. Crentz, Santa Fe, N. Mex., William A. McAdams, Richland, Wash., and Martyn H. Foss, Santa Fe, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application May 8, 1945, Serial No. 592,721
3 Claims. (Cl. 250—83.6)



1. The method of testing the fluid leakage of the jacket of a jacketed body, comprising the steps of: submerging the jacketed body in an atmosphere of a radioactive gas under pressure, the radioactive emanations from said gas being sufficiently penetrating to penetrate the jacket of the jacketed body, removing the jacketed body from said atmosphere, and examining the jacketed body for leaks by determining the presence of pockets of the gas within the jacket by measuring the emanations from said gas exterior to the body, said emanations penetrating the jacket from within.

2,844,736

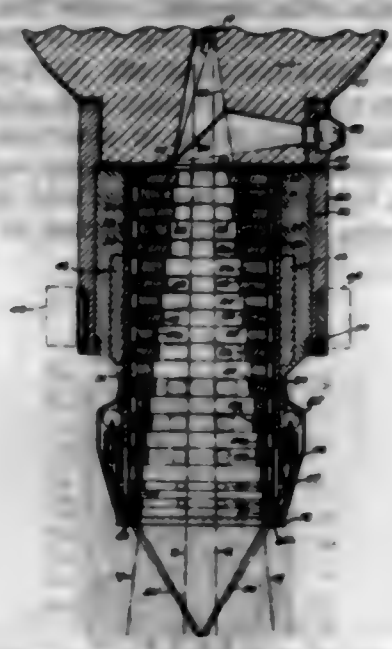
COLLIMATOR FOR HIGH ENERGY X-RAY BEAM

Harold E. Johns and John A. MacKay, Saskatoon, Saskatchewan, Canada, assignors to Picker X-Ray Corporation Waite Manufacturing Division, Inc., Cleveland, Ohio, a corporation of Ohio

Application May 18, 1954, Serial No. 430,584
22 Claims. (Cl. 250—105)

1. A collimator for high energy rays emanating from a source, comprising a housing adapted for attachment to a source of said rays, a plurality of three or more layers of ray absorbing diaphragms movably mounted in said housing and said layers arranged progressively from the source end thereof outwardly to define an enclosed rectangular aperture for the rays, the diaphragms in each of said layers being adjustable in two directions at right angles to each other to provide square and elongated rectangular apertures as desired, and control means operatively connected with said diaphragms, said

connections holding the inner edges of said diaphragms nearest said rays in progressively diverging relation in a direction away from said source in a plurality of adjusted positions thereof, the inner edges of a plurality of said diaphragms lying along the slanting sides of an imaginary cone, the sides of which extend through said source.



2,844,737

SEMI-CONDUCTIVE MATERIALS

Edwin E. Hahn, Melvin L. Schultz, and George A. Morton, Princeton, and Albert G. Morris, Lawrenceville, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application October 30, 1953, Serial No. 389,232
15 Claims. (Cl. 250—211)

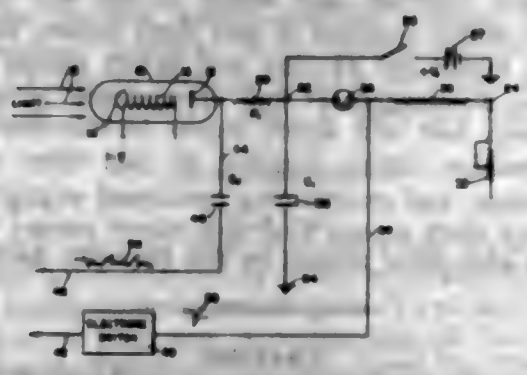
1. Crystalline semi-conductive germanium having incorporated in its crystal lattice conductivity type-determining impurities consisting essentially of two opposite conductivity types, impurities of one of said types being provided by an element more than one column removed from the fourth column of the periodic table according to Mendeleeff, and impurities of the other one of said types being provided by an element adjacent the fourth column of said periodic table, there being at least as many atoms of said other impurity present as of said one impurity in said crystalline germanium.

2,844,738

LIGHT RESPONSIVE APPARATUS

Dwin R. Craig, Falls Church, Va., assignor to Logetronics, Inc., Alexandria, Va., a corporation of Delaware

Application June 19, 1956, Serial No. 592,437
6 Claims. (Cl. 250—214)



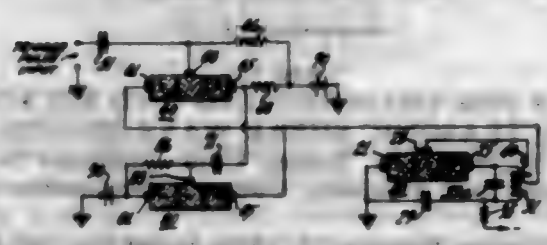
1. A light responsive switch comprising a photosensitive device having an anode and a cathode, a capacitor having a first plate connected to said anode and a second plate maintained at a ground potential, a charging circuit connected to said first plate including a normally open switch and a potential source, a trigger circuit connected to said first plate including a variable voltage source, a discharge device and a resistor in series, and an output circuit connected to said trigger circuit intermediate said discharge device and resistor, said discharge device having a non-conducting condition of substantially constant high resistance isolating said capacitor against discharge therethrough.

2,844,739

SAWTOOTH CURRENT WAVE GENERATOR

Jack Avins, Staten Island, N. Y., assignor to Radio Corporation of America, a corporation of Delaware

Application July 1, 1953, Serial No. 365,430
The terminal fifteen years of the term of the patent to be granted has been disclaimed
1 Claim. (Cl. 307—88.5)



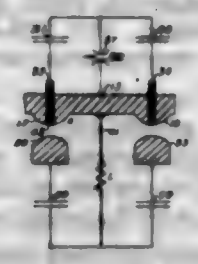
In a system including a source of periodic pulses, a sawtooth current wave generator comprising the combination of a first transistor including base, emitter, and collector electrodes, a load circuit including an inductive load and a potential source connected between said emitter and collector electrodes, means coupled to said base electrode for normally rendering the transistor current path between said emitter and collector electrodes conductive and including a second transistor which is normally conducting and which normally provides a connection between said base electrode and a source of forward biasing potential, means for periodically cutting off said second transistor and thereby opening the connection between said base electrode and said forward biasing potential source in response to said periodic pulses, means additionally coupled to said base electrode for periodically rendering said current path non-conducting and including a third transistor which is normally non-conductive but which is rendered conducting in response to a cut off of said second transistor, said third transistor, when conductive, providing a connection between said base electrode and a source of reverse biasing potential, a coil inductively coupled to said inductive load for deriving a pulse therefrom when said current path is rendered non-conductive, and means for applying said derived pulse to said base electrode.

2,844,740

MULTIPLE SPARK GAP SWITCH

Aldred E. Schofield, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application October 2, 1957, Serial No. 687,840
6 Claims. (Cl. 307—109)



4. In combination, a multi-pole spark gap switch comprising a metallic plate having a plurality of protuberances on one surface thereof, and a triggering probe insulatingly supported in each of said protuberances and extending through the apex thereof, a plurality of individual electrodes insulatingly supported from each other

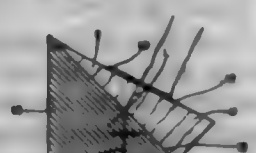
and each of which is spacedly supported in opposition to a protuberance, a plurality of triggering capacitors each having two terminals, one each of said capacitors having one terminal connected to a respective electrode, the other terminal of all of said triggering capacitors being connected together and to one contact of a triggering switch, the other contact of said triggering switch being connected to said metallic plate; a main condenser being composed of a plurality of unit condensers, each of said unit condensers having two terminals, one each of said unit condensers having one terminal connected to one of said insulated electrodes, the other terminals of all of said unit condensers being connected together and to one terminal of a load, the other terminal of the load being connected to said metallic plate.

2,844,741

MEANS FOR TRANSMITTING AND RECEIVING ULTRASONIC SHEAR WAVE MOTION

Andrew M. Murdoch, Bethel, Conn., assignor to Sperry Products, Inc., Danbury, Conn., a corporation of New York

Application January 31, 1956, Serial No. 562,461
2 Claims. (Cl. 310—8.5)



1. A transducer for producing and receiving ultrasonic transverse wave motion in a specimen comprising a piezoelectric element adapted to generate longitudinal vibrations, a first wedge having an entering surface in effective engagement with the piezoelectric element so that longitudinal vibrations are generated in said wedge, said wedge having a leaving surface, a second wedge having an entering surface in engagement with the leaving surface of the first wedge so that the longitudinal vibrations in the first wedge will cause vibrations in the second wedge, the acoustic velocity of the second wedge being greater than the acoustic vibration of the first wedge, the angle between the entering and leaving surface of the first wedge being at least equal to the critical angle where longitudinal waves no longer exist in the second wedge and only transverse waves remain therein, said second wedge having a leaving surface adapted to engage the entering surface of a specimen.

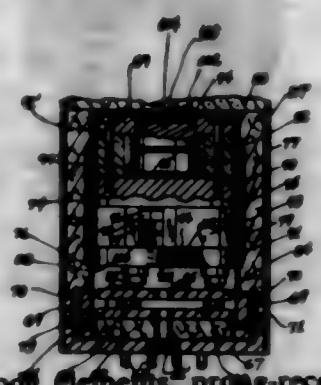
2,844,742

TEMPERATURE-CONTROLLED ENCLOSURE FOR ELECTRICAL COMPONENTS

Ramón Font, Richmond Hill, N. Y., assignor to Premier Research Laboratories, Inc., New York, N. Y., a corporation of New York

Application November 16, 1953, Serial No. 392,291
3 Claims. (Cl. 310—9)

1. A temperature-controlled crystal assembly comprising a base, depending contact prongs secured to said base for connection to an external circuit, upstanding contact prongs on the peripheral portion of said base electrically connected to certain of the depending prongs, a housing member, said housing member including a ring element detachably secured on the peripheral portion of said base, contact means on said ring element conductively engaged with said upstanding contact prongs and being disengageable therefrom when the ring element is detached from said base, an inner shell secured to said ring element, a heater winding mounted on said inner shell, said winding being electrically connected to said contact means, three horizontal, spaced metal electrode elements mounted in said inner shell, threaded plugs in the center portions of the top and bottom electrode elements adapted to be adjusted relative to the intermediate electrode element, respective piezo-electric crystal plates clamped to the top and bottom surfaces of the intermediate electrode element, three contact prongs rigidly secured to the lower electrode element, one of said last-named prongs being in electrical contact with said lower electrode element, the other two of said last-named prongs being insulated from said lower electrode element and being electrically connected to the respective



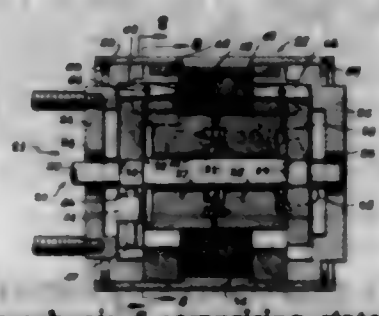
remaining electrode elements, prong-receiving means on said base conductively engaging said last-named three contact prongs and being electrically connected to certain of the remaining first-named depending contact prongs, and a thermostat mounted on said base subjacent said lower electrode element and being electrically connected to other of the remaining first-named depending contact prongs and being adapted to control the energization of said heater winding in accordance with the temperature of the space in the inner shell below the three metal electrode elements.

2,844,743

DETENT MECHANISMS

James P. Watson, Whittier, Calif.

Application May 28, 1957, Serial No. 662,174
10 Claims. (Cl. 310—37)



1. Detent mechanism comprising stator means, rotor means rotatably mounted with respect to said stator means, shaft means rotatably mounted with respect to said stator means, movable detent means for effecting engagement between said stator means and said shaft means to inhibit rotation of said shaft means, and detent actuating means for causing said detent means to effect successive disengagement and engagement between said shaft means and said stator means in response to rotor means position during rotation of said rotor means in one direction, and maintaining continued engagement between said shaft means and said stator means upon rotation of said rotor means in the opposite direction.

2,844,744

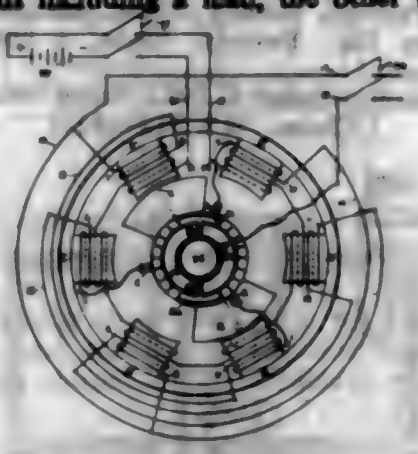
ELECTROMAGNETIC DIRECT CURRENT MOTOR WITHOUT WINDING ON THE ARMATURE

Alexander Meier, Baltimore, Md.

Application September 19, 1955, Serial No. 534,969
4 Claims. (Cl. 310—46)

1. A dynamoelectric machine comprising a shaft, a laminated two pole rotor and a commutator on said shaft,

said commutator having two diametrically opposed groups of electrically connected segments, a stator with six poles on each of which there are located two windings, the first windings of each pair of diametrically opposite poles being connected in series by means of jumpers to form three groups of windings, the ends of which groups on one side are connected to form a star the common point of which is adapted to be connected to one side of a power line by means including a lead, the other ends of these



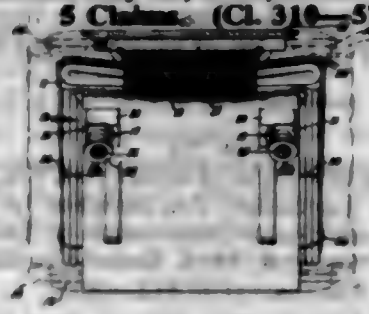
three groups of the said first windings being connected to three brushes positioned to alternately come into contact with said two groups of segments of the commutator, the said two groups of commutator segments being connected electrically to a contact ring on the armature shaft by means of two jumpers, means including a brush for connecting said contact ring to the other side of a power line, and means adapted to connect the second windings on said poles to power terminals.

2,844,745

FLUID-COOLED DYNAMOELECTRIC MACHINE

Clarence L. Hamm, Marblehead, Mass., assignor to General Electric Company, a corporation of New York

Application July 13, 1953, Serial No. 367,380
5 Claims. (Cl. 310—57)



1. A totally enclosed dynamoelectric machine having a rotor and a stator, a frame surrounding said stator, said stator having a core provided with lugs for attachment to said frame, said stator being provided with a winding having end turns, and a continuous plastic tube having one portion tightly spiraled around each end turn in contact therewith and a second portion spiraled around said lugs in intimate contact with said core, said tubing being adapted to carry a fluid for cooling said machine.

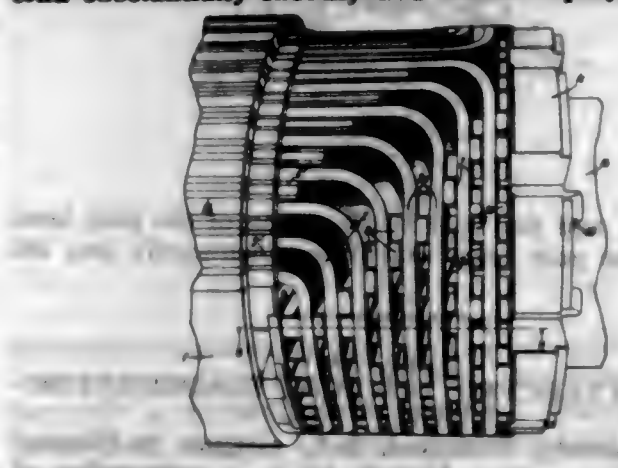
2,844,746

SUPPORT MEANS FOR ROTOR END WINDINGS OF DYNAMOELECTRIC MACHINES

Almy D. Coggeshall, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application February 17, 1956, Serial No. 566,128
4 Claims. (Cl. 310—65)

1. A dynamoelectric machine rotor having conductors disposed in axial slots in the rotor body and which conductors define a plurality of axial spaced radially extending rows of circumferentially entending conductor end portions, support means disposed between said rows of conductor end portions for maintaining the radial and axial alignment of said rows, said support means consisting of corrugated members in which the corrugations extend substantially radially and define a polygonal cross-



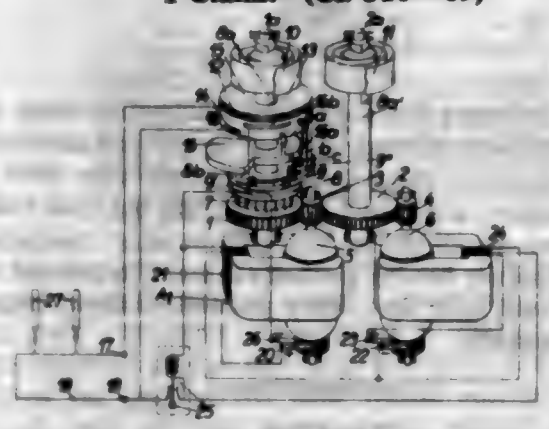
section in a plane normal to the radius of the rotor, whereby said rows are supported against axial displacement by a series of spaced columns along a substantial part of said circumferentially extending conductor end portions.

2,844,747

DYNAMO-ELECTRICAL IGNITING MACHINE

Hans Schaffler-Glösel, Vienna, Austria

Application April 5, 1955, Serial No. 499,458
Claims priority, application Austria May 5, 1954
1 Claim. (Cl. 310—69)



A dynamoelectrical igniting machine comprising at least two mainsprings, at least two electrically connected armatures arranged one beside the other with their axes parallel, each of said armatures being arranged to be driven by one of said mainsprings, means positively mechanically coupling said armatures, a single firing mechanism associated with all said armatures, a relay having a normally open contact in series with the output of the machine and responsive to a predetermined minimum electrical operating parameter of the machine, and a contacting device electrically connected to the output of the machine and mechanically connected to one of said armatures and operable thereby to limit the delivery of power by the machine to a predetermined period of time.

2,844,748

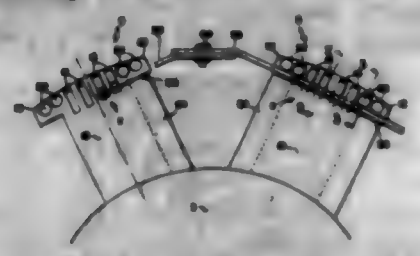
SYNCHRONOUS MOTOR ROTOR CONDUCTOR BAR CONSTRUCTION

Charles C. Hutchins and Blair C. Seaman, Ridgway, Pa., assignors to The Electric Products Company, Cleveland, Ohio, a corporation of Ohio

Application April 12, 1955, Serial No. 500,919
8 Claims. (Cl. 310—183)

1. Synchronous motor salient pole construction comprising a pole member having a body portion adapted to be encircled by a pole winding and having a head portion of greater transverse dimension than the body portion and extending over the pole winding on the pole

body, the pole head portion being formed with longitudinally extending slots for the reception of cage con-

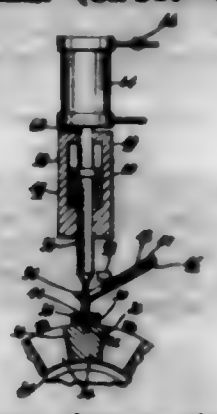


ductor bars, and the slots in the region of the pole head overlying the pole body extending downwardly into the pole body.

2,844,749
DYNAMO ELECTRIC MACHINE COMMUTATOR CONNECTION

Karl P. Shetterly, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 13, 1955, Serial No. 521,793
11 Claims. (Cl. 310—234)

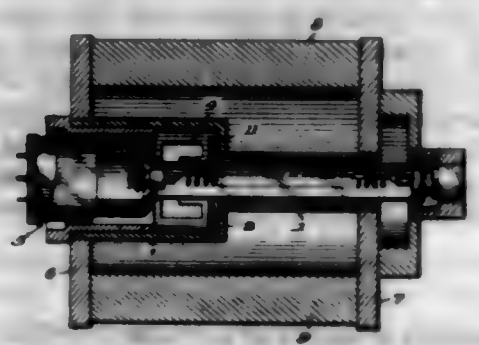


1. In an armature for a dynamo electric machine, having a commutator formed at least in part of electrically conductive material and a slotted armature core with wire windings thereon, a means for connecting the lead ends of the wire core windings to the commutator comprising; a separate fastener having portions thereof in contact with portions of said wire and other portions thereof impaled in said commutator.

2,844,750
FOCUSED ELECTRON FLOW ELECTRON TUBE FOR VERY HIGH FREQUENCIES

Werner Veith and Paul Meyerer, Munich, Germany, assignors to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany

Application July 18, 1955, Serial No. 522,615
Claims priority, application Germany September 22, 1954
14 Claims. (Cl. 313—84)

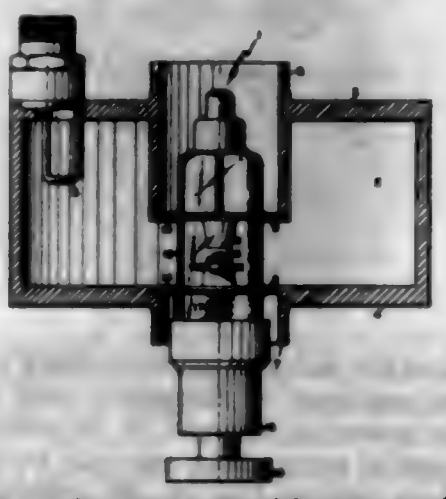


1. A focused electron flow electron tube for very high frequencies comprising a magnet system including permanent magnet means, tubular means connected with said permanent magnet means forming an inner longitudinally extending chamber for guiding the electron flow along an extended path formed thereby, said tubular means comprising an enlarged portion disposed at least at one end of said magnet system and a narrower portion axially extending therefrom, a plurality of parts forming the transition from said narrower to said enlarged portion, said parts being arranged for variable magnetic connection to affect the magnetic impedance at said transition so as to produce a predetermined field progression within said narrower portion of said chamber.

2,844,751
ELECTRODE STRUCTURE FOR GASEOUS DISCHARGE DEVICES

Thomas G. Prescott, Beverly, Mass., assignor to Bomac Laboratories Inc., Beverly, Mass., a corporation of Massachusetts

Application September 8, 1953, Serial No. 378,798
1 Claim. (Cl. 313—217)

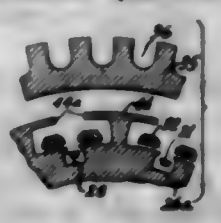


A transmit-receive tube comprising an envelope of a dielectric material, a pair of opposed hollow frusto-conical electrodes sealed in spaced relationship and axial alignment at intermediate portions of said envelope defining therebetween a capacitive discharge gap, each of said electrodes having a large disc formed at one end with a portion of the outer periphery of said disc extending through said envelope, at least one of said electrodes being axially adjustable, said adjustable electrode having a spherical extension of reduced cross section enclosing the end thereof, the opposed electrode having an open tip portion, said spherical extension having a diameter less than the diameter of the opening in the tip of said opposed electrode.

2,844,752
ELECTRON DISCHARGE DEVICE

Merle V. Hoover, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application March 9, 1956, Serial No. 570,532
14 Claims. (Cl. 313—307)



1. An electron tube comprising an anode, a beam former spaced from said anode and having an elongated recessed portion, said recessed portion having a throat substantially narrower than the inner part thereof, and an elongated cathode extending along and within the inner part of said recessed portion, the width of said cathode being approximately equal to the width of said throat.

2,844,753
TRAVELING WAVE TUBE

Calvin F. Quate, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application April 3, 1953, Serial No. 346,620
17 Claims. (Cl. 315—3.5)

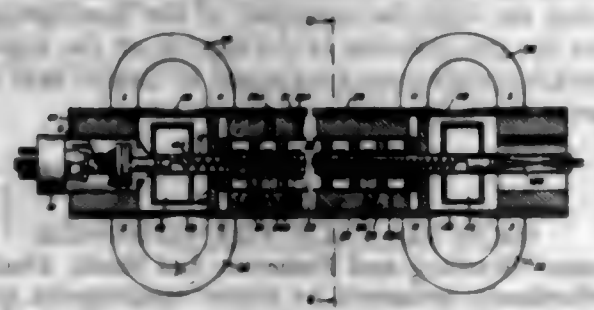
1. In a device which utilizes the interaction between a traveling wave and an electron stream, an electron

source and target defining therebetween a path of electron flow, a two conductor coaxial transmission line disposed along the path of flow having a hollow inner member of a first diameter disposed around the path of flow and a hollow outer member of a larger diameter disposed around the inner member, and characterized in that the hollow inner member includes a plurality of discrete slots



axially and symmetrically disposed at periodic intervals along its length for the penetration therethrough of electric fields of an electromagnetic wave propagating along the two conductor transmission line for interaction with the electron flow, the axially disposed slots at adjacent intervals being shifted circumferentially with respect to each other.

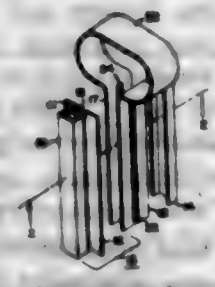
2,844,754
ELECTRON BEAM FOCUSING SYSTEM
Paul P. Cioffi, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 29, 1953, Serial No. 351,977
17 Claims. (Cl. 315—3.5)



14. In combination, a traveling wave tube comprising means forming an electron stream, an interaction circuit for propagating electromagnetic waves in coupling relation with the electron stream, and a focusing system for keeping the electron stream in alignment with the interaction circuit in its travel therepast comprising a permanent magnet structure extending along the path of flow having a magnetic axis transverse to the path of flow and a pair of longitudinally extending unlike pole faces adjacent said path of flow, one of said pole pieces being of north polarity and the other of south polarity, and a succession of laterally disposed pole pieces, each apertured for passage of the electron stream and spaced apart along the path of flow for forming two interleaved sets of pole pieces, one of said sets being in magnetic contact with the north pole face of the permanent magnet structure and the other set in magnetic contact with the south pole face of said structure, for forming a time-constant spatially-alternating magnetic field along the path of electron flow.

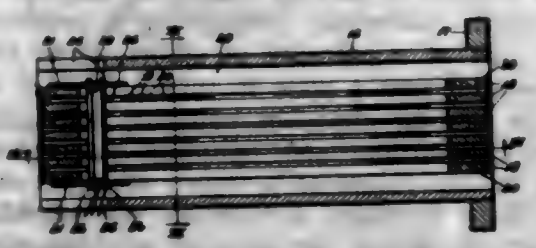
2,844,755
ELECTRON DISCHARGE DEVICE
Robert Adler, Northfield, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware
Application June 29, 1953, Serial No. 364,764
7 Claims. (Cl. 315—5.24)

1. A beam-deflection oscillator comprising: an electron gun for projecting a sheet-like beam of electrons along a predetermined path; a collector electrode disposed transversely across said electron-beam path in spaced relation to said electron gun; means including a pair of deflector-receptor electrodes of predetermined effective length disposed on opposite sides of said beam path intermediate said electron gun and said collector electrode for establishing a beam-electron transit time, through the portion of said path corresponding to said predetermined effective length, of five-fourths of a pre-



determined resonance period; and an inductive load interconnecting said deflector-receptor electrodes to form therewith a resonant circuit having a resonance period substantially equal to said predetermined resonance period.

2,844,756
ELECTRON DISCHARGE DEVICE WITH RESONATOR
Gesinus Diemer, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 11, 1951, Serial No. 261,102
Claims priority, application Netherlands December 29, 1950
11 Claims. (Cl. 315—5.49)

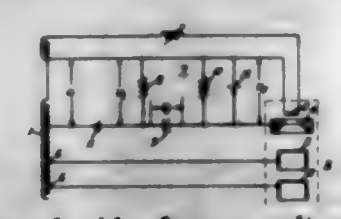


1. An electrical device adapted for operation in the extremely-high-frequency range, comprising a resonator body, said resonator comprising a planar conductive frame member and a plurality of conductive taut wires mounted on and across said frame member, opposite ends of each of said wires being secured to and in electrical engagement with opposite sides of said conductive frame member, said wires being substantially parallel to one another and lying substantially in a single plane and being spaced apart from one another a distance small relative to their length, said wires each having a length approximately equal to one-half of a wavelength of the operating frequency of said device, means for projecting an electron beam close to and past said resonator in a direction substantially parallel to the plane of said wires and substantially normal to the length direction of said wires whereby the electrons in the beam traverse the space between successive wires in the time of about a half-period of said operating frequency to effect interaction between said beam and said wires and thereby cause successive wires of said resonator to oscillate in phase opposition, and means coupled to said resonator for abstracting high frequency energy therefrom.

2,844,757
BIAS FOR ELECTRON BEAM APPARATUS
Willem F. Westendorp, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 2, 1956, Serial No. 595,504
4 Claims. (Cl. 315—14)

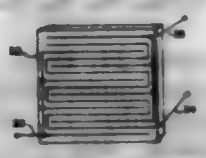
3. A circuit for producing a pulse output in response to each cycle of an input voltage, wherein the time of occurrence of each pulse in a cycle and the length of each pulse is independent of the magnitude of the input voltage, said circuit comprising: asymmetric means for rec-

tifying said input voltage, means responsive to the output of said asymmetric means for producing a reference voltage in bucking relation thereto and of a magnitude proportional to said input voltage, voltage divider means for



applying a portion of said reference voltage to the output of said circuit, and means responsive to said input voltage when it exceeds said reference voltage for applying a substantially short circuit across the output of said circuit.

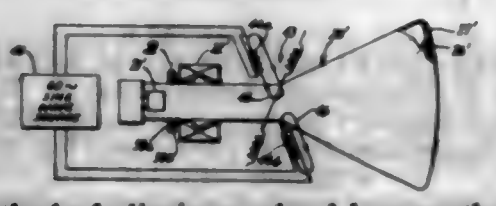
2,844,758
METHOD OF MAKING MULTICOLOR CATHODE-RAY TUBE SCREENS
Jennings B. Dow, Jamaica, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application August 30, 1954, Serial No. 453,053
13 Claims. (Cl. 315—21)



1. The method of making multicolor cathode-ray tube screens which comprises: positioning a conductor pattern for each of a plurality of colors in an evacuated atmosphere adjacent a plate in such a manner as to resemble the desired phosphor patterns; individually and successively admitting and agitating phosphors corresponding to said colors to a region adjacent said plate; and selectively imposing a potential on individual conductor patterns during admission of corresponding phosphors successively to attract said phosphors to said plate in registry with the corresponding conductor patterns.

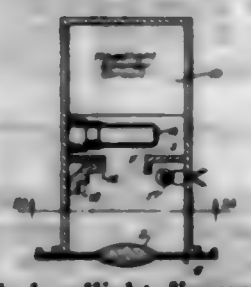
8. A cathode ray image reproducing tube including a source of an electron beam and a fluorescent screen, said screen being comprised of a transparent plate, a plurality of groups of areas of mutually insulated conductive material mounted on said plate, each of said groups being provided with a coating of material capable of emitting light of different colors when excited by said beam, a common electrical connection for each group of areas, one of said conductive areas being arranged in the form of a sinuous line and a group of strips arranged in interlaced relation with said first group.

2,844,759
APPARATUS AND METHOD FOR OVERCOMING SCANNING ERROR EFFECTS IN PLURAL BEAM CATHODE RAY TUBES
James S. Bryan, Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application July 18, 1955, Serial No. 522,648
10 Claims. (Cl. 315—27)



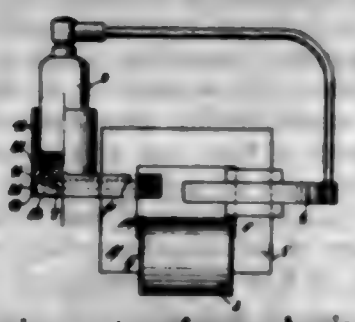
7. The method of aligning a plural beam cathode ray tube assembly, said assembly including means for producing a plurality of electron beams, a fluorescent beam-intercepting structure, means for establishing the region in which said beams cross over within said tube, and a deflection yoke having a yoke center region, said method comprising the steps of energizing said yoke so as to produce two oppositely polarized magnetic fields of approximately equal strength which are transverse to the longitudinal axis of said tube, said fields being so disposed that they substantially cancel one another in the paraxial region, and varying the relative positions of said yoke and said crossover regions until all of the respective areas of impingement of said beams on said beam intercepting structure are at a minimum.

2,844,760
HEADLIGHT DIMMER COMBINED WITH AUTOMOBILE LIGHT
Jacob Rabinow, Takoma Park, Md.
Application April 29, 1955, Serial No. 504,983
5 Claims. (Cl. 315—83)



1. In an automobile headlight dimmer, a unitary structure combining an automatic headlight dimmer and a signal light, said structure having a single means for gathering the light for actuation of the headlight dimmer and for the transmission of the light from the signal light, and switch circuit means arranged to disable said dimmer whenever the light source is energized.

2,844,761
HIGH VOLTAGE TRANSFORMER
Johannes Nieuwag and Hubertus Jan Smitz, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application September 26, 1955, Serial No. 536,527
Claims priority, application Netherlands October 4, 1954
4 Claims. (Cl. 315—105)

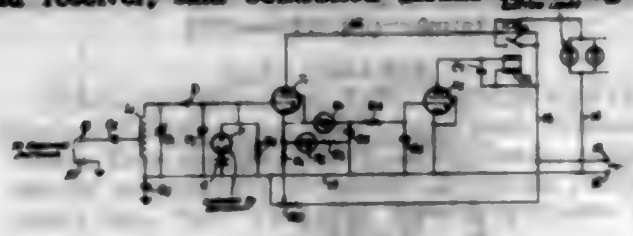


1. In combination, a transformer having a ferromagnetic core and wound on said core a primary winding and a secondary winding adapted to supply heating current for the cathode of a discharge tube, and means for receiving and supporting said discharge tube in an operating position, said tube supporting means being mounted on said ferromagnetic core and comprising two portions, one of said portions substantially enclosing said secondary winding, the other of said portions being adapted to receive said discharge tube.

2,844,763
ILLUMINATION CONTROL
Philip A. Duryee, Seattle, Wash.
Application September 29, 1953, Serial No. 383,052
12 Claims. (Cl. 315—159)

11. In a lighting circuit remote control system for inspection of premises, the combination comprising a source of illumination, switch means actuatable for energizing

said source, a receiver of radiant energy, and means controlled by said receiver and in turn connected for actuating said switch means to energize said illumination source substantially instantly on reception of radiant energy in said receiver, said controlled means including holding



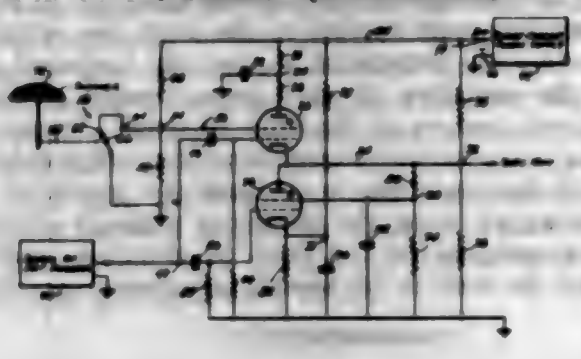
means operated by said receiver and in turn controlling said switch means for delaying deactuation of said switch means for a predetermined holding period following termination of the radiant energy received in said receiver, which holding period materially exceeds the period of actuation of said switch means.

2,844,763

COINCIDENCE TRIGGERED GATE GENERATOR

Robert L. Wyckoff, Natick, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application November 19, 1954, Serial No. 470,147
5 Claims. (Cl. 315—166)



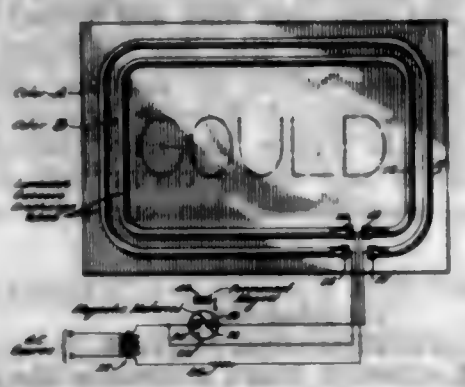
1. A coincidence triggered gate generator comprising a first electrical common; a second electrical common; a series-connected high resistance and first large condenser connected between said first and second electrical commons; a first shield grid thyratron; a current limiting resistor connected between the plate of said first thyratron and the junction between said high resistance and said first condenser; a normally-closed switch which when actuated is open-circuited for an instant, said switch being connected between the screen grid of said first thyratron and said second electrical common; a second screen grid thyratron connected in series with said first thyratron; a second large condenser several times the size of said first condenser connected between the cathode of said second thyratron and said second electrical common; resistive voltage divider means connected between said first electrical common and said second electrical common; the screen grid and cathode of said first thyratron and of said second thyratron being connected to said voltage divider means, a first input grid resistor and a second input grid resistor connected between said second electrical common and the control grids of said first thyratron and said second thyratron respectively; a small condenser connected between the screen grid of said second thyratron and said second electrical common; said first and second electrical commons being adapted to be connected to a direct current power supply; the control grids of said thyratrons being adapted to be coupled to a source of continual evenly-spaced short duration pulses; said switch being adapted to be actuated by a cyclically movable member; whereby the control grid to cathode bias and the screen grid to cathode bias of said thyratrons normally prevent initiation of conduction therethrough, but when said switch is actuated and a trigger pulse is coupled to the control grid of said first thyratron, said first thyratron conducts permitting said small condenser to charge to arm said second thyratron for conduction and when a succeeding trigger pulse is coupled to the control grid of said second thyratron, said second thyratron conducts permitting said second condenser to charge, both thyratrons becoming automatically extinguished when said first condenser discharges to a voltage at which it cannot sustain conduction in the thyratrons, whereby there is generated a steep-sided pulse at the cathode of said first thyratron whose length is equal to the period of the trigger pulses.

2,844,764

ANIMATED ELECTRIC DISPLAY SYSTEM

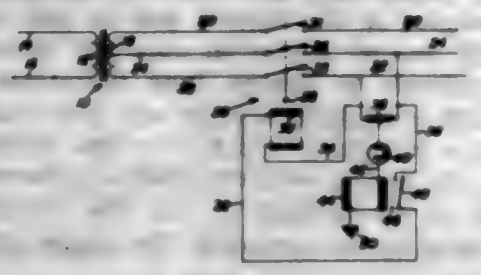
Samuel Gould, Culver City, Calif., assignor to GHN Neon Sign Company, Culver City, Calif., a partnership

Application May 4, 1956, Serial No. 582,698
2 Claims. (Cl. 315—183)



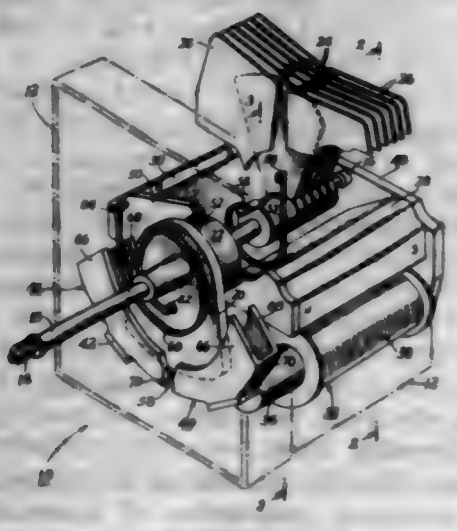
1. In an animated electric display system, a first luminous discharge tube including an elongated transparent tubular element having a pair of cathodes at the respective ends thereof and containing a rarefied atmosphere of an inert gas, a second luminous discharge tube including an elongated transparent tubular element having a pair of cathodes at the respective ends thereof and likewise containing a rarefied atmosphere of an inert gas, said first luminous discharge tube having a discharge voltage threshold higher than the discharge voltage threshold of the second luminous discharge tube, a transformer having a primary winding and a secondary winding, means for connecting the primary winding of the transformer to a source of alternating current energy, a common electrical connection of essentially zero inductance extending from one of the cathodes of each of the discharge tubes to one side of the secondary winding, a second electrical connection of essentially zero inductance extending from the other cathode of the first discharge tube to the other side of the secondary winding, a variable resistance gaseous discharge control tube having an enclosing envelope containing a gaseous atmosphere within a predetermined pressure range and the control tube having a first electrode connected to the other cathode of the second luminous discharge tube and having a second electrode connected to the other side of the secondary winding, and magnetic means externally of the enclosing envelope of the control tube and independent of current flow through the first and second luminous discharge tubes for varying the internal resistance of the control tube between a relatively low value at which the second luminous discharge tube discharges and reduces the voltage across the secondary winding below the discharge voltage threshold of the first luminous discharge tube and a relatively high value at which the second luminous discharge tube is effectively deactivated and the voltage across the secondary winding raises the value sufficient to cause the first luminous discharge tube to be discharged.

2,844,765
PROTECTIVE CIRCUITRY
Peter A. Sosnoski, Shamokin, Pa.
Application December 6, 1954, Serial No. 473,413
5 Claims. (Cl. 317—18)



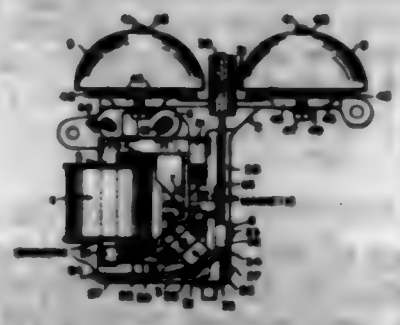
1. A safety system for an electrical circuit comprising a transformer having a primary connected to a source of electrical power and a secondary connected to the electrical circuit including live wires and a neutral wire to be protected, a trip line comprising a resistor connected between one of said live wires and said neutral wire, a circuit breaker having switch elements in each of said lines to open and close said lines and located between said secondary and said trip line, a supply circuit connected across said resistor for actuating said circuit breaker, a relay connected between ground and the neutral point of said resistor, said relay controlling the flow of current in said supply circuit, and a voltage limiting device connected between said relay and said resistor.

2,844,766
POSITIONING MOTOR
Graydon Smith, Concord, Mass., assignor to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts
Application September 16, 1954, Serial No. 456,537
11 Claims. (Cl. 317—172)



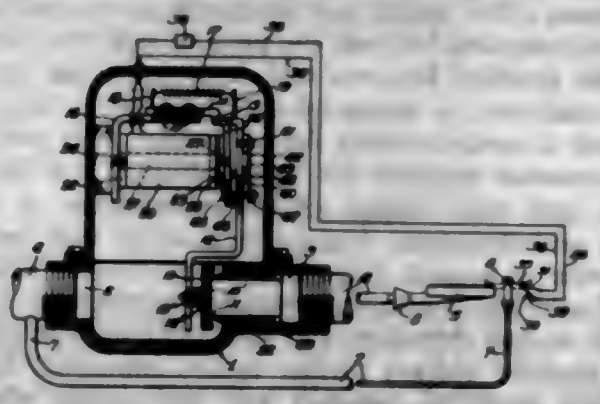
1. A positioning motor comprising: a frame; a rotatable member supported by said frame on at least one bearing defining an axis of rotation; a fan-shaped arm of magnetic material fixed to said member with the major surface of said arm perpendicular to the axis of rotation of said member; a pair of curved pole pieces symmetrically positioned relative to said arm across two air gaps and relative to each other across one air gap, each pole piece having a front and rear surface parallel to each other and between which said arm is centered and free to move farther into one pole piece and out of the other and vice versa so that the force exerted on said arm by said pole pieces is primarily rotational; and means including two electromagnets and said pole pieces for generating in accordance with an input signal a magnetic field around each of said pole pieces, said fields being shaped so that when of substantially equal intensity said arm can dwell in any position within its range of rotation and when said fields are unequal in intensity said arm is rotated about said axis of rotation with a substantially uniform force.

2,844,767
TELEPHONE SUBSTATION RINGERS
Joseph F. Houdek, Jr., Elmhurst, Ill., assignor to International Telephone and Telegraph Company, a corporation of Maryland
Application September 29, 1954, Serial No. 459,135
2 Claims. (Cl. 317—177)



1. A polarized electromagnetic device including a winding, a magnetic core for the winding, and an armature, with operating air gaps between armature and core, the core and armature being cooperatively arranged in the general form of a rectangle, means for suspending the armature for a turning movement about an intermediate portion thereof to shorten either said gap while lengthening the other, a magnetic shunt bar and a permanent magnet located within the rectangle, the shunt bar shunting the core, the permanent magnet extending from an intermediate portion of the shunt bar to a point close to the said intermediate portion of the armature to polarize the armature with respect to the core, the armature and the core each comprising a generally L-shaped portion with the operating air gaps being located at diagonally opposed corners of the said rectangle, means for guiding the core for movement along the armature-core diagonal of the rectangle to regulate the length of the said operating air gaps, the shunt bar slidingly overlapping the extremities of the core to maintain uniform shunting of the core in its several adjustment positions.

2,844,768
ELECTROMAGNETIC OPERATOR
Adolph J. Hilgert, Milwaukee, Wis., assignor to Ross Inc., a corporation of Wisconsin
Application March 16, 1953, Serial No. 342,536
16 Claims. (Cl. 317—198)



1. In apparatus of the class described, in combination, a power unit for energization from a source of electric energy, an armature having a retracted position separated from said power unit by an air gap, said power unit, when energized, exerting magnetic attraction for actuating said armature to attracted position, a work performing member, and energy storing force transmitting connection means operatively interposed between said armature and said member for storing energy therein during predetermined movement of said armature toward attracted position, said energy storing means having, under the energy storing action of said armature, an energy storing rate which substantially follows the relationship between the magnetic attraction of said power unit for said armature and the armature air gap, the energy stored in said energy storing means becoming effective following said

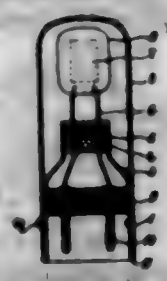
predetermined movement of said armature to cause said member to perform work when the air gap of said armature is reduced to a value approaching that which affords maximum magnetic attraction of said power unit for said armature.

2,844,769

SEMI-CONDUCTOR ELECTRODE SYSTEMS

Johannes Erbslöh, Jan Kamerman, and Wilhelmus Antonius Roovers, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 19, 1954, Serial No. 470,038
Claims priority, application Netherlands December 24, 1953
5 Claims. (Cl. 317—234)



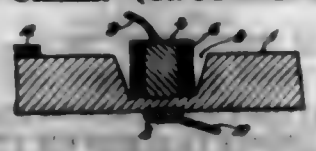
1. An electrode system comprising a tubular base member, an insulating closing member secured in one end of said base member and defining at the other end a cavity, a semi-conductor device mounted on said base member adjacent said one end and remote from said other end and including at least one terminal member sealed within and passing through said insulating member and extending into said cavity, a hollow, cap-like member surrounding said base member and said semi-conductor device mounted thereon and being secured to said base member at said other end thereof and thus at an area remote from said semi-conductor device.

2,844,770

SEMI-CONDUCTIVE DEVICE AND METHOD OF PRODUCING SAME

Jan Cosmund van Vessem, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application May 16, 1955, Serial No. 508,661
Claims priority, application Netherlands May 18, 1954
7 Claims. (Cl. 317—234)



5. A semi-conductive device comprising a semi-conductive member having a recess in a surface portion thereof, and an electrode arranged in said recess and alloyed to the semi-conductive member to alter a portion of the conductivity thereof, said electrode having an elongated portion spaced from the walls of the semi-conductive member defining the recess.

2,844,771

HIGH-TENSION BARRIER-LAYER RECTIFICATION UNIT FOR INSTALLATION IN THE HIGH-TENSION GENERATOR OF AN X-RAY APPARATUS

Johannes Seidel and Lothar Meier, Erlangen, Germany, assignors to Siemens-Reiniger-Werke Aktiengesellschaft, Erlangen, Germany

Application January 15, 1957, Serial No. 634,276
Claims priority, application Germany January 23, 1956
6 Claims. (Cl. 317—234)

1. A high-tension barrier-layer rectification unit for insertion in the high-tension part of an X-ray apparatus, comprising a plurality of rod-shaped insulating containers, so arranged that their longitudinal axes are situated next to each other, with quadratic rectifying elements stacked along in the longitudinal direction of the containers, the rectifying columns being housed in containers



of pressed insulating material of which the exterior cross section is also quadratic, the containers being provided with slots in their longitudinal direction so that a substantial portion of the edge surface of the rectifying elements is exposed and the containers being held by an insulating carrier which is common thereto.

2,844,772

SEMI-CONDUCTIVE DEVICE AND METHOD FOR MAKING SAME

Fritz Well, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application July 21, 1955, Serial No. 523,483
Claims priority, application Netherlands July 23, 1954
7 Claims. (Cl. 317—235)



5. In a heat-sensitive, semi-conductive device comprising an envelope with thin, lead-in wires sealed in said envelope, the improvement comprising a metal layer provided on a lead-in wire external to the envelope but adjacent thereto, the combined wire and layer having a diameter exceeding that of the portion of the wire inside the envelope and possessing sufficient mass to provide a significant improvement in heat dissipation of the device when energized.

2,844,773

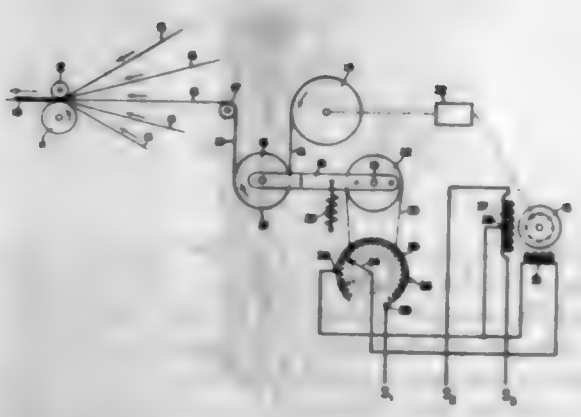
INDUCTION MOTOR CONTROL SYSTEMS

Edgar P. Turner, Watchung, and John A. Herr, Garwood, N. J., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application April 2, 1957, Serial No. 650,257
5 Claims. (Cl. 318—6)

3. A system for feeding wire to a cabling machine comprising cable-driving means and individual supply reels for feeding wire to the cable-driving means, a low-inertia induction motor for driving each supply reel, each motor having a main winding with a mid-tap and a control winding, a three-phase electric power source having one phase connected to said main winding, a dancer roll riding on the wire between the supply reel and the cable driving means and biased to form a wire loop which varies in size responsive to the difference in the wind-up and supply feed rates of the wire, a variable,

single-winding transformer connected at least in part between the mid-tap of the main winding of the motor and the common junction of the other two phases of said source, an intermediate tap for the transformer, and a



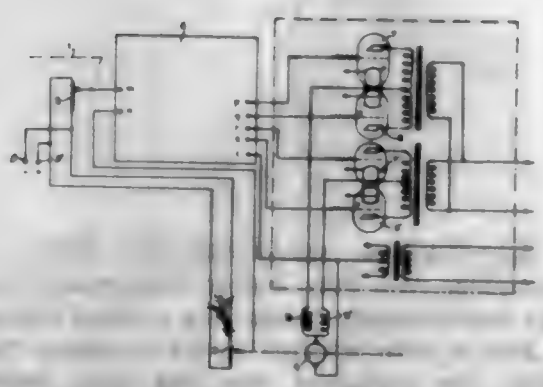
sliding contact for the transformer operatively connected to the dancer roll to move in response to changes in the size of the wire loop, said control winding being connected between the slider and the intermediate tap of the transformer.

2,844,774

ELECTRICAL FOLLOW-UP SYSTEM

Georges Rapp, Malakoff, France, assignor to Society Sirelec, Issy-les-Moulineaux, France, a corporation of France

Application August 2, 1954, Serial No. 447,100
Claims priority, application France June 30, 1954
5 Claims. (Cl. 318—29)



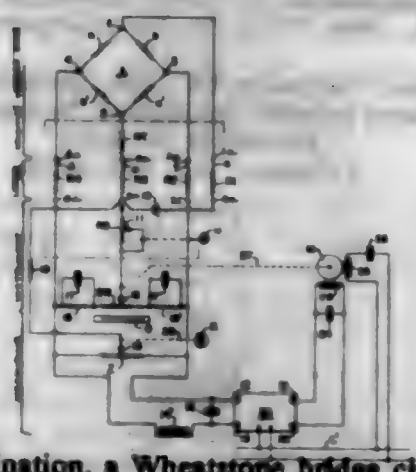
1. A servomechanism comprising a movable control member, a servo-member, an electric motor for driving the said servo-member, a plurality of thyratrons for energizing said motor, means to apply to the anodes of the thyratrons an alternating voltage, two potentiometers mounted in parallel with one another and having sliders respectively controlled by the said control member and by the said servo-member, a source of a continuous voltage supplying the two potentiometers, means to amplify the error signal difference of potential existing between the sliders of said two potentiometers, means for controlling the said thyratrons by this error signal comprising means to obtain a voltage representing the rate of change of said signal when it varies, a plurality of vacuum tubes, first means for applying to the grids of said tubes an alternating voltage having the same frequency as the voltage applied to the anodes of the thyratrons but dephased from said voltage, second means for applying to the grids of said tubes the sum of the amplified error signal and of its rate of change function, means to apply to the grids of the thyratrons the impulses produced in the output circuits of the said vacuum tubes, and a voltage limiter in the input circuit of the said vacuum tubes to prevent their saturation by the amplified error signal.

2,844,775

SERVOMOTOR SELFBALANCING MEASURING APPARATUS

Robert L. Miller, Hatboro, and William H. Wannamaker, Jr., Philadelphia, Pa., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application January 14, 1955, Serial No. 481,834
21 Claims. (Cl. 318—29)



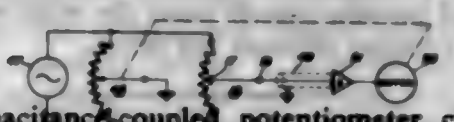
1. In combination, a Wheatstone bridge circuit having a pair of input terminals and a pair of output terminals, a rebalancing circuit having six terminals and comprising bridge energizing means, span adjusting means, zero adjusting means including a slidewire resistance having a shiftable contactor, rebalancing means including a slidewire resistance having a shiftable contactor, a reversible motor for actuating said last named shiftable contactor and an amplifier for controlling said motor, the input of said amplifier being connected to the first two of said six terminals, said zero adjusting means and said rebalancing means being connected in parallel to the second two of said six terminals, said energizing means being connected to the third two of said six terminals, both of the said shiftable contactors being connected to one of said last two named terminals, said span adjusting means being included in the connection connecting said second named shiftable contactor to one of said last two named terminals, two leads connecting the first two of said six terminals to the output terminals of said bridge circuit, two leads connecting the second two of said six terminals to the output terminals of said bridge, and two leads connecting the third two of said six terminals to the input terminals of said bridge.

2,844,776

SERVOMOTOR CAPACITANCE-COUPLED POTENTIOMETER WIPER CIRCUIT

John Dimeff, San Jose, Calif.

Application November 15, 1955, Serial No. 547,051
4 Claims. (Cl. 318—29)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A capacitance coupled potentiometer circuit comprising: input terminals for connection across a source of A. C. potential, a resistor connected across said input terminals, a movable contactor, means for mounting said movable contactor for movement parallel to and at a predetermined distance from said resistor to be thereby capacitively coupled thereto, output terminal means adapted to be connected to an external circuit and means interposed between said movable contactor and said output terminal means operative to prevent loading of said contactor by said external circuit.

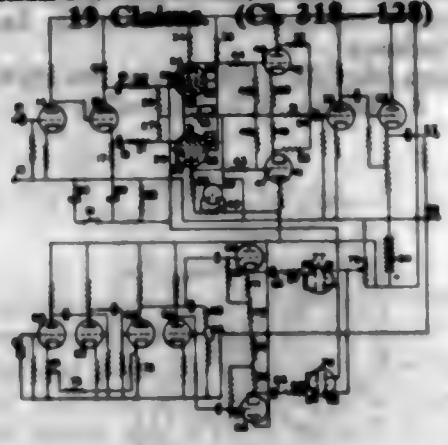
3. The device of claim 1 wherein said last mentioned means comprises a conventional potentiometer having the

resistive portion thereof connected in parallel with the resistive portion of said capacitance-coupled potentiometer and the wiper arm thereof coupled to a point of reference potential, a high gain amplifier, circuit means coupling the input circuit of said high gain amplifier to said movable contactor, a motor, circuit means coupling said motor to the output circuit of said high gain amplifier, and means mechanically coupling the shaft of said motor to said wiper arm.

2,844,777
VIBRATOR SERVO AMPLIFIERS

James A. Ross, San Fernando, Calif., assignor to Ling Electronics, Inc., Culver City, Calif., a corporation of California

Application November 16, 1955, Serial No. 547,234
19 Claims. (Cl. 318—128)



1. In an electromechanical system for producing mechanical vibration according to alternations of electrical energy of chosen parameters, means for controlling a characteristic of said vibration regardless of the variation of an operating property of said system affecting said characteristic which comprises push-pull electric amplifying means in said system the amplification of which is alterable by electrical energy, electromechanical means to produce electrical energy proportional to said characteristic of vibration electrically connected to said amplifying means to symmetrically alter the amplification thereof in the sense required to control said characteristic of vibration.

2,844,778
PROTECTIVE ARRANGEMENT FOR STATOR MOTORS

Richard E. Seely, Fort Wayne, and Marvin E. Snyder, Kendallville, Ind., assignors to General Electric Company, a corporation of New York

Application September 12, 1957, Serial No. 683,618
9 Claims. (Cl. 318—221)

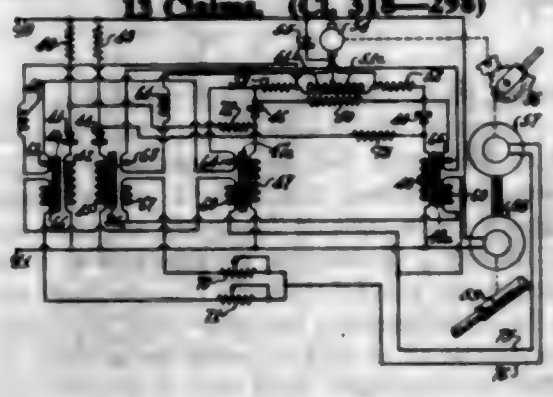


1. A switch comprising a member movable manually from a first position to a second position, spring means biasing said manually movable member to said first position, a bimetallic element secured to move with said manually movable member and having a contact secured thereon in electrical contact therewith, said element being deformable from a first shape below a predetermined temperature to a second shape above the predetermined temperature, and a stationary contact, said contacts being in electrical engagement when said manually movable member is in said second position with said element having said first shape, said contacts being separated when said manually movable member is in said first position and when said manually movable member is in said second position with said element having said second shape.

2,844,779
MAGNETIC AMPLIFIER MOTOR CONTROL SYSTEM

Ernst F. W. Alexanderson, Schenectady, N. Y.

Application March 31, 1954, Serial No. 420,111
13 Claims. (Cl. 318—298)



13. In a control system for a motor of the type having an armature and a pair of field windings for controlling the direction of rotation of said armature depending on the relative amount of current flowing in the respective windings, the combination comprising, alternating current supply means, a first magnetic amplifier stage comprising a pair of magnetic amplifiers each including a load winding, means including a common resistor element connecting the motor field windings with said supply means each in series with one of said amplifiers and the load winding thereof, control means for said system having a signal input circuit for said first magnetic amplifier stage comprising a control winding coupled with each load winding for controlling the current flow therein, a second magnetic amplifier stage connected in cascade with said first magnetic amplifier stage and including a load winding and a rectifier connected in series with said supply means, signal input means for said second magnetic amplifier stage for controlling the current flow in the load winding thereof in accordance with the current flow in the load windings of said first magnetic amplifier stage comprising a signal coupling circuit connection from said first magnetic amplifier stage at the junction of the field windings and the common resistor element to the connection between the rectifier and load winding of said second magnetic amplifier stage, and means connecting the motor armature in circuit with the rectifier and load winding of said second magnetic amplifier stage.

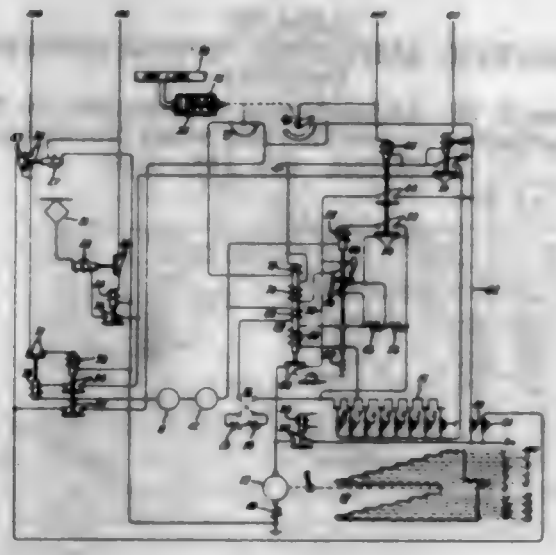
2,844,784
DYNAMIC BRAKE CONTROL

Ira W. Lichtenfels, Harborcreek, Pa., assignor to General Electric Company, a corporation of New York

Application February 25, 1955, Serial No. 490,561
12 Claims. (Cl. 318—367)

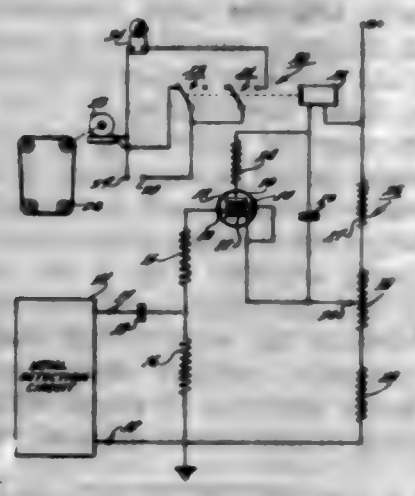
1. A dynamic braking control circuit for a traction motor having a load resistor connected thereacross to provide a loop circuit, comprising a controller connected to shunt portions of the load resistor in a predetermined arrangement, a controller motor drivingly connected to said controller and adapted to intermittently operate at a predetermined speed, a calibrating relay having an armature, an operating coil and contacts, said armature being biased to normally shunt said contacts, said relay coil being electrically connected in circuit with said loop circuit to sense the current therein, said contacts being

electrically connected between said controller motor and a source of power for said controller motor during dynamic braking, a calibrating resistor connected in series with said relay coil to determine the current in said loop circuit at which said relay will initially energize to open said contacts and stop said controller motor to prevent further shunting of said load resistor, means for



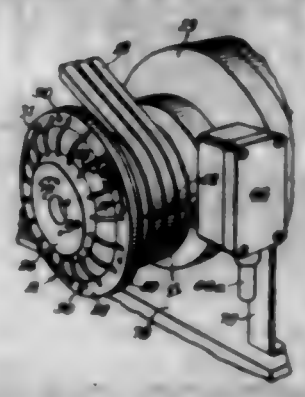
automatically recalibrating said calibration relay after the initial energization thereof to determine the current value at which said calibration relay will de-energize to start said controller motor and re-energize thereafter to stop said controller motor and prevent shunting said load resistor whenever a predetermined current value in said loop circuit is reached.

2,844,781
THYRATRON CIRCUIT
William M. Adelman, Merchantville, and Helmuth F. Schneider, Westville, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application September 24, 1954, Serial No. 458,244
2 Claims. (Cl. 318—445)



1. A metal detector apparatus, comprising a metal detection circuit that provides an electrical output impulse in response to the presence of a conductive particle in a product to be inspected, equipment for handling said product, electrical mechanism for operating said product handling equipment, said electrical mechanism including a relay having an operating winding, a circuit for operating and automatically recycling said relay comprising a thyratron having an anode, a cathode, and a control electrode, a voltage divider, a source of direct current operating potential, one end of said voltage divider being connected to a point of reference potential, the other end of said voltage divider being connected to said source of operating potential, an anode current limiting resistor, said anode being connected in series with said anode resistor and said relay operating winding to said other end of said voltage divider, a capacitor for controlling of recycling time of said thyratron after ionization connected between said cathode and the junction of said operating winding and said anode current limiting resistor, said control electrode being resistively coupled to said point of reference potential, said cathode being connected to a point on said voltage divider intermediate the ends thereof for maintaining said cathode at a higher potential than said control electrode whereby said thyratron is normally deionized, and means for coupling the output impulses from said metal detection circuit to said control electrode for firing said thyratron.

2,844,782
POWER TRANSMISSION UNITS WITH THERMAL OVERLOAD CUTOUT
Starr S. Westworth, Mishawaka, Ind., assignor to Dodge Manufacturing Corporation, Mishawaka, Ind., a corporation of Indiana
Application May 31, 1956, Serial No. 588,350
8 Claims. (Cl. 318—472)

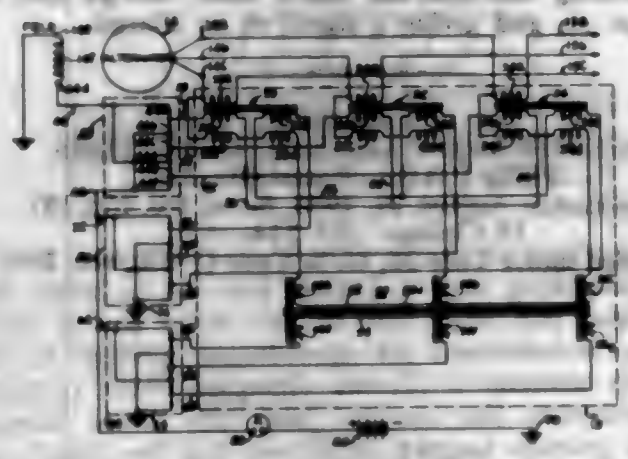


1. Power transmission unit with thermal overload cutout, comprising a motor, a hollow rotor housing having a sleeve part rigid therewith fixed on the shaft of the motor, a hub telescoped on the housing sleeve and relatively rotatable thereon, a sheave on said hub, a rotor rigid with said hub enclosed in said housing and having a vane projecting into the periphery thereof, a discrete flow charge in said housing displacable by centrifugal force toward the periphery of the housing during rotation of the rotor housing to compact about said vane to establish a driving connection between the housing and the rotor, a device exteriorly carried by the housing adjacent its periphery having a member urged to a position beyond the periphery of the housing, said device including a heat responsive detent normally retaining the member within the said periphery, and switch mechanism carried by the motor having two selective positions and having an element arranged to be tripped by said member when the latter is beyond the said periphery to actuate the switch to one of said selective positions.

2,844,783
FIELD CURRENT SUPPLY SYSTEM FOR AN ALTERNATOR
James I. Chandler, Metamora, and Charles C. Roe, Peoria, Ill., assignors to LeTourneau-Westinghouse Company, Peoria, Ill., a corporation of Illinois
Application June 9, 1955, Serial No. 514,184
19 Claims. (Cl. 322—27)

1. A field current supply system for an alternator having a D.-C. field winding and a three phase A.-C. armature winding with three line terminals and in which a substantially constant volts per cycle output value is desired over a range of operating frequencies, load current, and power factor values, the system comprising: battery means to supply predetermined constant no-load field current; a rectifier having a D.-C. output circuit and an A.-C. input circuit; means connecting the D.-C. output circuit in series with said first means and the alternator field; a first transformer having a secondary

winding connected to the A.-C. input circuit of the rectifier and a pair of primary windings; means connecting one primary winding of the transformer to one line terminal to carry A.-C. load current; a second transformer having a primary winding and a secondary winding; means defining a series circuit from said terminal through the other primary winding of the first transformer and the primary winding of the second transformer to a point of



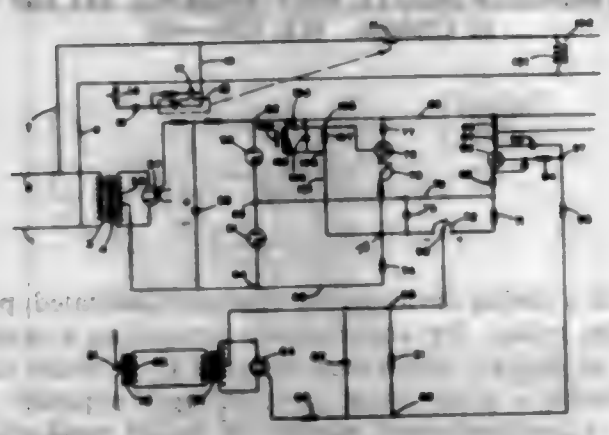
neutral potential, whereby current flow through said other primary winding is substantially in phase with current flow in said one primary winding at low lagging power factor load current; second rectifier means having an A.-C. input circuit and a D.-C. output circuit, the D.-C. output circuit being connected in charging relation to the battery and the A.-C. input circuit being connected to the secondary winding of the second transformer to restore the no-load battery drain.

2,844,784

CURRENT COMPENSATOR CONTROL FOR WELDING CIRCUIT

Theodore R. Thomas, Farmington, Mich., assignor to Robotron Corporation

Application July 15, 1953, Serial No. 368,153
18 Claims. (Cl. 323—18)



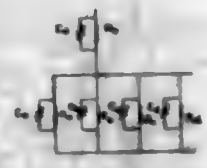
1. In apparatus automatically responding to changes in magnitude of welding current and adjusting same to maintain welding heat at a constant value, the combination comprising: a pair of terminal points; means including an adjustable phase shift circuit for controlling heat, the adjustment thereof responding to variations in potential difference between said pair of terminal points; means including a pair of resistances in series and responsive to the magnitude of current flowing through the primary winding of the welding transformer; and feed back means for adjusting the value of one of said resistances and thereby adjusting said potential difference; means further modifying the value of said one resistance for modifying said potential difference in a limited heat raising direction during heat off periods in the welding cycle and other means superseding said last-named means during heat on periods of said cycle.

2,844,785

PRECISION RESISTOR NETWORK

Bernard Bernbaum, Elizabeth, N. J., assignor to The Daven Company, Livingston, N. J., a corporation of New Jersey

Application April 2, 1956, Serial No. 575,414
7 Claims. (Cl. 323—74)



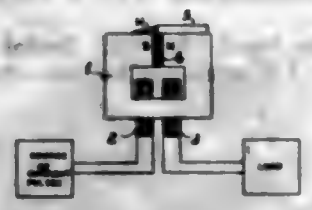
5. In a precision resistor network to be connected into an electrical circuit carrying audio frequency waves, a plurality of resistors, means for mounting said resistors in spaced relation, terminals to continuously connect said resistors into the electrical circuit, each of said resistors connected at one end to a terminal common to all said resistors, each of said resistors having its respective other end connected to a terminal independently of any other resistor to allow all said resistors to be connected into the electrical circuit at one time relative each other in any predetermined combination, adjustable means on each of said resistors to adjust their respective residual reactive components, and means constituting a reference to which each of said resistors can be adjusted by its respective adjustable means.

2,844,786

MAGNETIC SYSTEM

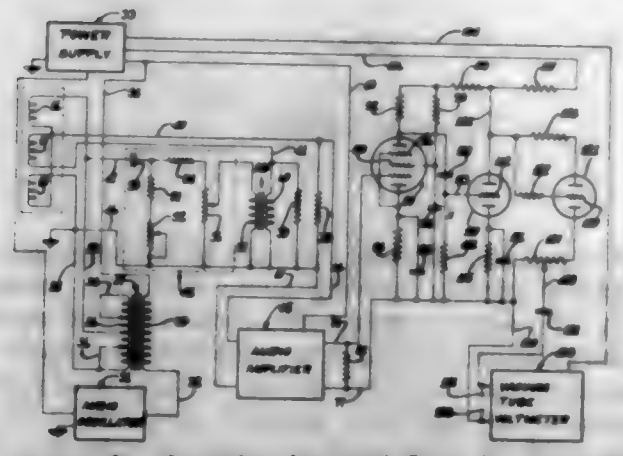
Arend Thomas van Urk and Johannes Meyer Clowes, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application July 22, 1954, Serial No. 445,068
Claims priority, application Netherlands April 23, 1951
4 Claims. (Cl. 323—92)



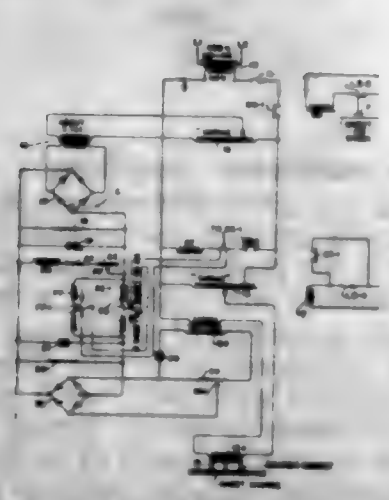
1. A pulse transformer comprising a ferromagnetic core saturating at a given field strength H_s and defining an air-gap therein, primary and secondary windings on said core, a thin flat permanent magnet disposed in said air-gap and defining with said core a low reluctance, closed magnetic circuit free of short-circuit windings, said magnet being magnetized in its thin direction and having a field intensity at which said core is saturated in one direction in the absence of current through said windings, said permanent magnet consisting of an electrically non-conductive permanent magnetic material having a non-cubic crystal structure and a coercive field strength ${}_BH_C$ of at least 750 Oersted and a vanishing field strength ${}_IH_C$ at least 1.2 times greater than the coercive field strength ${}_BH_C$ and a ratio of remanence B_r to coercive field strength ${}_BH_C$ of less than 4:1, said magnet being adapted to withstand demagnetization without the use of short-circuit windings, and means to supply a current pulse to said primary winding to reverse the flux flow through said magnet and to cause said core to saturate in an opposite direction at a flux value limiting the reversing field strength through said magnet to a value less than the vanishing field strength of the magnet.

2,844,787
MEANS FOR DETECTING FLAWS
Joseph Arthur McCann, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application October 9, 1952, Serial No. 313,855
11 Claims. (Cl. 324—37)



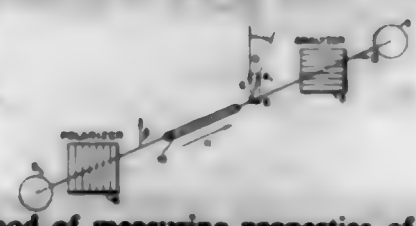
1. Means for detecting internal flaws in a tubular article, comprising a probe for insertion into said article and having a pair of oppositely wound exciting coils for generating magnetic fields in the tubular wall of said article, coil means for generating a signal in response to an unbalance in said magnetic fields due to a flaw in said article, a phase shifting network having an input in parallel with said exciting coils and an output in series with said coil means, the resultant unbalance signal from said coil means including a harmonic which is especially sensitive to flaws in said article, and means responsive to said harmonic of said resultant signal to indicate flaws in said article, said last mentioned responsive means comprising means for clipping the portions of the resultant signal of one polarity, and means for differentiating the clipped signal.

2,844,788
MAGNETIC SHEET DETECTING MEANS
Edwin M. Callender, Cynwyd, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
Application April 18, 1955, Serial No. 501,873
1 Claim. (Cl. 324—34)



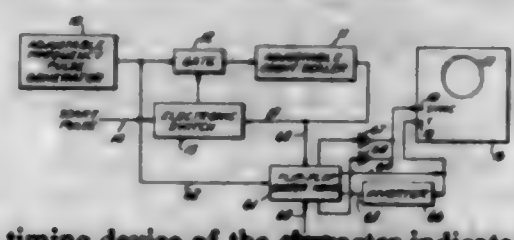
Means for detecting the thickness of a sheet charge of magnetizable sheets and discriminating between a greater or less number of sheets of a given thickness, comprising in combination, a polarized differential relay, means for supplying a rectified alternating reference current from a source to one side of said differential relay, a search detector electromagnet adapted to be brought into engagement with a sheet charge, means for supplying alternating current of selected voltage from the same source to the coil of said magnet, means including a transformer for supplying rectified alternating current from the supply line of said magnet to the side of said differential relay opposite that supplied with reference current, and a voltage drop resistance in the secondary circuit of the transformer between said magnet coil and differential relay for registering voltage changes at the magnet coil for different numbers of sheets in a charge, and a second oppositely polarized and connected differential relay in parallel with the first said differential relay, the first relay distinguishing between a lesser and greater sheet charge and giving a signal at a greater sheet charge and the second relay distinguishing between the lesser sheet charge and no charge or air and giving a signal at no charge.

2,844,789
MICROWAVE MAGNETIC DETECTORS
Phillip J. Allen, Forestville, Md.
Application August 19, 1953, Serial No. 375,307
16 Claims. (Cl. 324—43)
(Granted under Title 35, U. S. Code (1952), sec. 266)



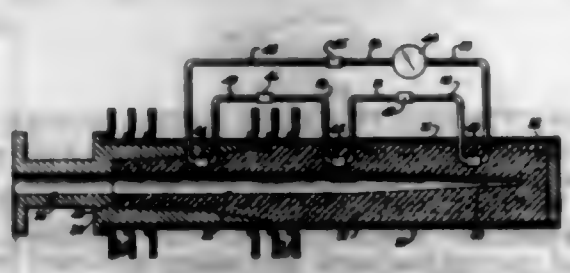
1. The method of measuring properties of a magnetic field comprising the steps of inserting a ferromagnetic spinel element into the field to be measured, propagating a plane polarized electro-magnetic wave through a path including said spinel element, detecting the change in polarization of said wave after passing through said element, and adjusting the orientation of the path of propagation of said wave relative to the direction of the magnetic field to be measured until said change in polarization is maximum.

2,844,790
INTERVAL TIMER
Thomas W. Thompson, Denville, and Charles K. Rayneford, Summit, N. J., assignors to Vitro Corporation of America, New York, N. Y., a corporation of Delaware
Application June 12, 1953, Serial No. 361,160
15 Claims. (Cl. 324—68)



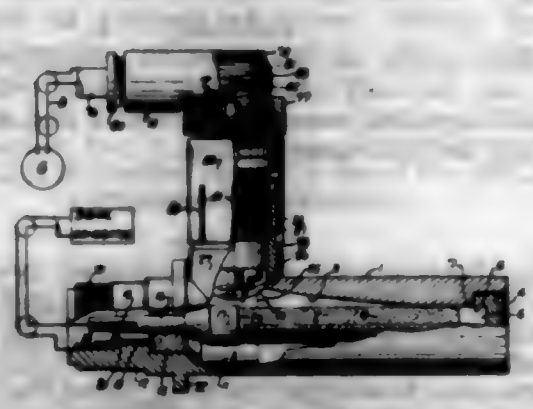
10. In a timing device of the character indicated, pulse-generator means for continuously generating a train of pulses of known recurrence frequency, a count scaler for counting a given count representing a sequence containing a predetermined number of pulses produced by said generator and developing a control signal upon achievement of said given count, gate means connecting said generator to said scaler, externally-controlled opening means for said gate means, gate-closing means connecting the output of said scaler to said gate means, whereby the output of said scaler may not only close said gate means but may also provide an internally developed control signal, external-connection means for receiving an externally developed control signal, measuring means including an indicator and a switch being connected to the output of said scaler and to said external-means, said switch having a first control connection responsive to one of said control signals and having a second control connection responsive to the other of said control signals, said switch connecting said generator means to said indicator without polarity reversal for one controlled operation thereof.

2,844,791
MICRO WAVE POWER MEASURING INSTRUMENT
Robert B. Jacques, Columbus, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application March 4, 1952, Serial No. 274,800
2 Claims. (Cl. 324—95)



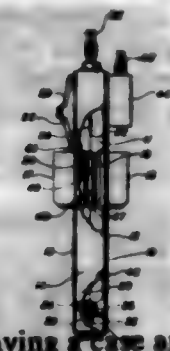
1. In a wave guide dummy load, an outer metallic shell closed at one end thereof, a wave guide connector seated in the other end of said shell and having an internal opening therethrough for transmission of high-frequency electromagnetic energy, a member of lossy material within said shell between said connector and said closed end and having an internal opening aligned with said internal opening in said connector to form a continuation thereof and extending to a point adjacent said closed end, said openings being of the same size at the junction therebetween and said opening in said member having a tapered terminal end portion so as to minimize reflection of energy transmitted into said connector, and energy receiving and measuring means located at a point along said internal opening in said member spaced a substantial distance from said connector to minimize reflection of energy transmitted into said connector.

2,844,792
HIGH FREQUENCY ELECTRICAL METER CARTRIDGE
James R. Bird, Chagrin Falls, and Henry J. Calderhead, Euclid, Ohio, assignors to Bird Electronic Corporation, Cleveland, Ohio, a corporation of Ohio
Application November 26, 1952, Serial No. 322,768
20 Claims. (Cl. 324—95)



1. A cartridge assembly for attachment to the tubular conductor of a high frequency electrical line to obtain a signal from electrical energy carried by the line, said assembly comprising a hollow conductive body having an internal partition dividing the interior into chambers opening through opposite ends of the body, a rectifier disposed in one of the body chambers, said rectifier having contact elements at opposite ends, one element being secured to the partition and the other element projecting beyond one end of the body, a circular capacitor having central and peripheral elements, means mounting the capacitor across the chamber opening at the other end of the body, a resistor, conductors connecting the resistor to said other of the rectifier contact elements and to the central capacitor element, and contact means making electrical connection with the capacitor elements.

2,844,793
GALVANOMETER
John R. Tavis, Los Angeles, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application December 19, 1952, Serial No. 326,899
1 Claim. (Cl. 324—154)



In a galvanometer having a case and magnet pole pieces extending inwardly of the case to define an intervening gap, the combination comprising upper and lower spaced sythetic jewel bobbins made of aluminum oxide, a wire coil suspended in the gap and composed of a plurality of turns of wire wound about the bobbins, upper suspension means anchored at one end to the case and having at its opposite end a loop circumscribing the upper bobbin, lower suspension means anchored at one end to the case and having at its opposite end a loop circumscribing the lower bobbin, one end of the wire coil being bonded to one leg of the upper suspension loop, the other end of the coil being bonded to one leg of the lower suspension loop, a polymerizable adhesive attaching the coil and the respective suspension loops to the bobbins.

2,844,794
TESTING DEVICE
Floyd H. Wright, Fort Wayne, Ind., and Harold F. Winderl, Syracuse, N. Y., assignors to General Electric Company, a corporation of New York
Application December 27, 1955, Serial No. 555,400
6 Claims. (Cl. 324—158)

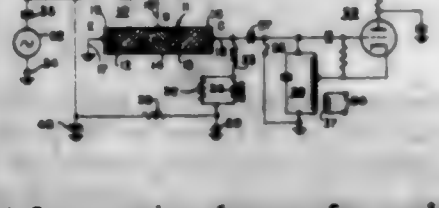


1. A rotor testing device comprising a stator core member having an interior slotted surface and having an approximately 180 degree span, said core member being positioned with the interior surface thereof facing in a generally upward direction, main and auxiliary windings arranged thereon and displaced in phase from each other, housing and supporting means therefor including bearing supports on each side of said core member and concentric therewith, said bearing supports being adapted to receive the shaft of rotor member to support the same concentrically and coaxially with said core member.

2,844,795
TRANSISTOR REACTANCE DEVICE
Frederick G. Herring, Wantagh, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application March 31, 1954, Serial No. 420,224
15 Claims. (Cl. 332—16)

1. A transistor reactance device operative to develop a controllable reactance over a wide range of frequencies

which may be above the signal-amplification frequency range of a transistor comprising: a body having two portions separated by an intermediate portion of semiconductive material presenting a space-charge region about the junctions of said portions; emitter and collector connections to said two portions and a base connection to said intermediate portion; circuit means including means having a very high impedance to signals in said first mentioned range for supplying a bias voltage in the forward direction between said emitter and base connections and including means having a very high impedance to



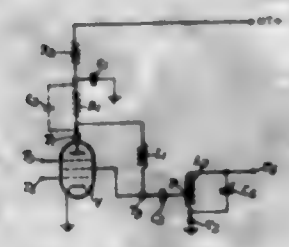
signals in said first-mentioned range for applying a bias voltage in the reverse direction between said collector and base connections whereby said body has a reactance at the junction of said portions between said collector and base connections; means for applying a control voltage between at least one of said emitter and collector connections and said base connection to develop between said collector and base connections a variation of said reactance related to the magnitude of said control voltage; and output circuit means coupled to said collector and emitter connections.

2,844,796

PHASE-MODULATORS

Michael Otto Felix, Hamilton, Ontario, Canada, assignor to British Telecommunications Research Limited, Taplow, England

Application December 27, 1955, Serial No. 555,676
Claims priority, application Great Britain January 4, 1955
5 Claims. (Cl. 332—23)



1. A phase modulator comprising a network of impedance devices, first, second and third terminals on said network, a first impedance device Z_1 connected between said first and second terminals, a second impedance device Z_2 connected between said first and third terminals, a third impedance device Z_3 connected between said second and third terminals, means providing two oscillatory carrier currents of the same frequency but amplitude-modulated in opposite senses, connections for passing one of said amplitude-modulated currents through the network from the first terminal to the second terminal, connections for passing the other of said amplitude-modulated currents through the network from the third terminal to the second terminal, and an output circuit connected across said third impedance device Z_3, the impedance devices Z_1 and Z_2 respectively including reactive impedances of opposite sign, at least one of the two impedance devices Z_1 and Z_2 including a resistive impedance component and the impedance devices Z_1 and Z_2 having phase angles which differ from one another by more than $\pi/2$ radians.

2,844,797

TRAVELING WAVE ELECTRON DISCHARGE DEVICES

Edward C. Dench, Needham, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware

Application October 23, 1953, Serial No. 387,968
16 Claims. (Cl. 332—25)



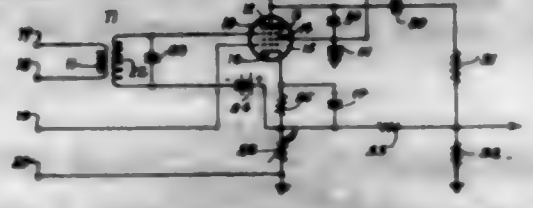
1. A traveling wave electron discharge device comprising a periodic delay structure, a first electrode spaced from and coextensive with said delay structure to form an interaction region therebetween, a second electrode positioned within said interaction space in loose coupling relationship with said structure, and means for supplying a modulation potential to said second electrode for effecting frequency modulation of said device.

2,844,798

CARRIER SUPPRESSED MODULATOR

William K. Squires, Snyder, N. Y., assignor to Sylvania Electric Products, Inc., a corporation of Massachusetts

Application December 14, 1954, Serial No. 475,044
7 Claims. (Cl. 332—44)



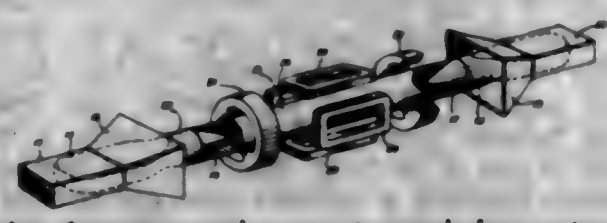
1. Signal translating apparatus, comprising a signal translating tube having at least a cathode, a control electrode, a screen electrode, a suppressor electrode and an anode, means for impressing a first signal between said suppressor electrode and said cathode, means for impressing a second signal between said control electrode and said cathode, means for deriving an output signal from said anode, a first capacitor connected between said screen electrode and a point of fixed potential, and a second capacitor connected between said screen electrode and said last named means.

2,844,799

GUIDED WAVE TRANSMISSION SYSTEM

Arthur G. Fox, Rumson, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application September 15, 1955, Serial No. 534,423
16 Claims. (Cl. 333—31)



1. An electromagnetic wave transmission system comprising first and second wave guiding sections of all-dielectric material, a wave guiding section comprising dielectric material having gyromagnetic properties interposed longitudinally between said first and second sections, said gyromagnetic section having one end contiguous to said first section and the other contiguous to said second section, means for applying a magnetic field

to said gyromagnetic section, and a medium consisting solely of dielectric material separating said gyromagnetic wave guiding section from said means and surrounding said first and second sections, said dielectric medium having a dielectric constant substantially different from that of said gyromagnetic and first and second sections, whereby a substantial portion of the wave power is conveyed in an electromagnetic field surrounding said sections.

2,844,808

ELECTRICAL CIRCUIT COUPLING APPARATUS

Charles Richard Ellis and Glenn M. Reinsmith, Syracuse, N. Y., assignors to General Electric Company, a corporation of New York

Application July 29, 1953, Serial No. 371,180
13 Claims. (Cl. 333—33)



1. An impedance transformer for coupling together a first and second circuit, comprising an electrically conductive slotted shield, a pair of conductors spaced with respect to said shield, one of said conductors comprising a hollow outer conductor forming an electrical transmission line with the other conductor of said pair, and an inner conductor forming a coaxial conductor transmission line with said hollow conductor, said outer conductor being slotted for a portion of its length, means for connecting said outer and other conductor to said first circuit, means for connecting said inner and outer conductor to said second circuit, means for providing a predetermined matching of impedances of said first and second circuits comprising means mounted on one side of said shield and passing through the slot in said shield for selectively electrically connecting any one of a plurality of points on said inner conductor, and spaced along its length, through the slot in said outer conductor with the other conductor of said pair.

2,844,881

LOW PASS FILTER UNITS FOR HIGH FREQUENCY SIGNAL CIRCUITS

Samuel Saberoff, Havertown, Pa., assignor to Barker and Williamson, Inc., a corporation of Pennsylvania

Application December 30, 1953, Serial No. 401,294
6 Claims. (Cl. 333—79)



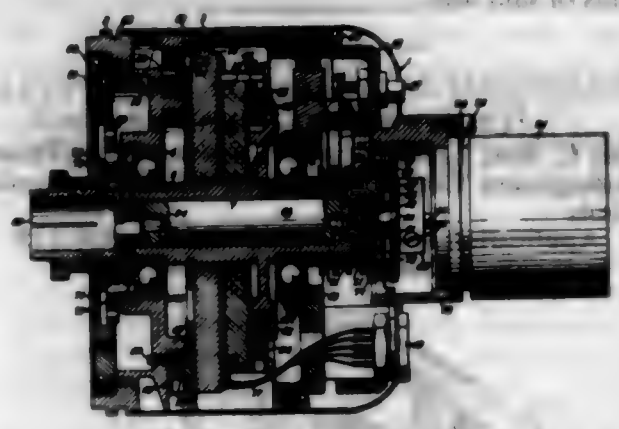
1. A low-pass high frequency filter structure comprising, in combination, an elongated conductive shield casing having end plates connected by a single inductive partition member extending longitudinally thereof and dividing the interior of the casing into two chambers, a plurality of successive series-connected filter inductors arranged along said partition member alternately in the one and the other of said chambers in substantially decoupled relation, shunt filter capacitor means carried by and arranged along the partition member having insulated electrodal elements connected to the junctions of said series-connected inductors, and said partition member providing a common electrodal element and circuit return path for said capacitor means.

2,844,902

ROTARY POSITION MEASURING TRANSFORMER

Robert W. Tripp, Bronxville, and James L. Winget, Harrison, N. Y., assignors to Inductosyn Corporation, Carson City, Nev., a corporation of Nevada

Application January 28, 1957, Serial No. 636,623
7 Claims. (Cl. 336—123)



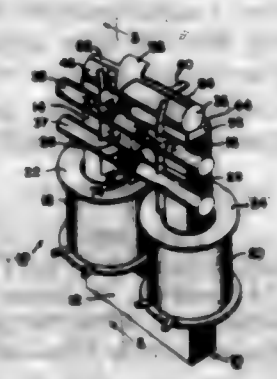
1. A rotary transformer comprising a casing having therein closely spaced stator and rotor disks of insulating material, said stator having a central hole, a transformer winding on each of the adjacent faces of said disks, all of said windings having radial conductors with one conductor per pole, a hollow shaft, means supporting said rotor on said hollow shaft, bearing means on said casing supporting said hollow shaft, a drive shaft in said hollow shaft, said drive shaft extending through said hole in said stator, a drive coupling, a flexible bellows connecting said coupling and one end of said drive shaft, and another bellows connecting the other end of said drive shaft and the corresponding end of said hollow shaft.

2,844,903

CONTROLLABLE INDUCTORS AND METHODS OF ASSEMBLY

Elie Arthur Favreau, Jr., Stamford, and Herbert Rothkind, Westport, Conn., assignors to C. G. S. Laboratories, Inc., Stamford, Conn., a corporation of Connecticut

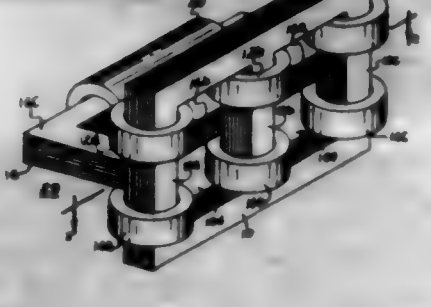
Application August 31, 1956, Serial No. 607,492
15 Claims. (Cl. 336—155)



3. An improved controllable inductor having a generally U-shaped control yoke structure with a pair of upstanding legs projecting from a back portion of said yoke structure, a plurality of saturable rod-like elements spanned between said legs, a pair of control winding portions wound around each of said legs, a pair of retaining clips each having a generally L-shaped cross sectional configuration with a first face adapted to rest against a side surface of one of said legs and a second face adapted to rest against the back surface of one of said legs, each clip having a blade portion projecting downwardly therefrom adapted to slide within one of said windings, said blade portion being deformed out of its own plane, thereby resiliently binding within the winding so as to hold the clip firmly against the leg, an edge of said first face of each clip having at least two openings therein, each of said openings including tapered rod-gripping means, one of said rod-like elements being fitted into each of

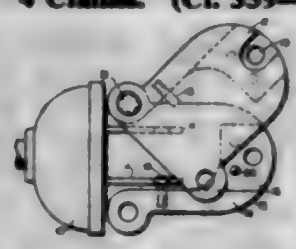
said openings, said tapered means resiliently urging the respective element into the associated opening, an upper finger projecting upwardly from said first face and being bent inwardly, a thumb extending up from said second face and being bent inwardly, said upper finger and thumb coacting to hold one of said elements firmly adjacent to the ends of said legs.

2,844,804
CONTROL TRANSFORMER
Charles C. Roe, East Peoria, Ill., assignor to LeTourneau-Westinghouse Company, Peoria, Ill., a corporation of Illinois
Application July 6, 1955, Serial No. 520,215
1 Claim. (Cl. 336—160)



A control transformer comprising in combination: a first magnetic core defining a plurality of magnetic legs connected by magnetic portions to define flux paths through the legs; spaced coils on the legs respectively, and encircling said paths, the coils being in pairs, each coil of each pair being in spaced relationship with the other coil of such pair, the legs and coils being positioned to define aligned exposed side core areas straddled by the pairs of coils, respectively; a saturable magnetic core having a face seating against said areas to define a flux bridge between said areas to receive flux from the first core and hence define a leakage flux path between the coils straddling said areas, respectively, said last core having a leg in spaced relation to said face and defining a flux path through the portions of said saturable magnetic core adjacent said areas; and a winding on the last core located on said leg and in spaced relation to the first core to develop magnetomotive force operable to create flux threading the last core adjacent said face to generate saturating magnetic flux in response to current flow in said last winding and thereby control the quantity of magnetic flux shunting between said areas.

2,844,505
PLUG LOCKING AND PROTECTING DEVICE
George H. Darrell, Dedham, Mass.
Application February 17, 1956, Serial No. 566,116
4 Claims. (Cl. 339—37)



3. A plug locking device comprising two supplementary casing parts having opposed ribs providing an aperture open at one end, a tine-engaging element fixed in one part and projecting transversely into the aperture, means connecting the parts of the casing for pivotal movement to and from superposed relation, and means for locking the casing parts together when in superposed relation.

2,844,806
BATTERY POST SEALER
Charles C. McKissick, El Cerrito, Calif.
Application May 25, 1956, Serial No. 587,228
4 Claims. (Cl. 339—116)



1. A corrosion-resistant terminal structure for batteries comprising, in combination with a battery housing including a flat top wall, and with a battery post extending upwardly from said top wall and formed at its lower end with a circumferentially extending base flange bearing against the top wall: a sealing device comprising a hollow body portion of inverted cup shape wholly closed at its upper end and including a side wall sealably contacting the surface of the battery post over the full length of the portion of the battery post that extends from the base flange to the upper extremity thereof, said body portion being of electrically conductive material; a wholly planiform, outwardly directed, circumferential flange integrally formed upon the lower end of the body portion and extending about the body portion in a plane perpendicular to the length of the body portion, said flange being substantially greater in outer diameter than the outer diameter of the base flange, defining a marginal portion on the last named flange extending outwardly beyond the outer periphery of the base flange, said second named flange being in face-to-face, sealing contact at the underside thereof with the upper surface of the base flange; and a gasket compressible at least in a direction longitudinally of the body portion and formed, in its uncompressed condition, to a thickness greater than that of the base flange, said gasket being of annular formation and extending continuously about the full circumference of the flange, the gasket having a top surface secured to the underside of said marginal portion of the second named flange, the inner diameter of the gasket being slightly greater than the outer diameter of the base flange, said gasket being held under compression between said top wall of the battery housing and the marginal portion of the second named flange and being compressed to a thickness matching that of the base flange.

2,844,807
ELECTRON TUBE SOCKET OR THE LIKE FOR PRINTED CIRCUITS
Lorne D. McMullin, Camden, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 11, 1955, Serial No. 481,141
The terminal fifteen years of the term of the patent to be granted has been disclaimed
7 Claims. (Cl. 339—193)



1. A mounting structure for electronic tubes and like plug-in devices adapted to be connected with a printed circuit, comprising in combination, a socket element hav-

ing spaced elongated pin contact receptacles for establishing electrical connections, a plurality of parallel spaced mounting boards having a plurality of printed conductors thereon, means mechanically and electrically connecting said receptacles to said printed conductors with said receptacles at substantially right angles to said boards, and extended terminal means for electrically connecting said printed conductors with a printed electrical circuit on a printed circuit board and for mechanically mounting and holding said mounting structure wherein said mounting boards are substantially at right angles to said printed circuit board

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2,844,808
ELECTRICAL CONNECTOR
Charles L. East, Healdsburg, Calif.
Application April 6, 1955, Serial No. 499,560
2 Claims. (Cl. 339—244)



1. In an electrical connector comprising an externally threaded bolt bifurcated longitudinally to form two leg portions having an elongated slot therebetween, a member slidable within said slot between said leg portions having a transverse wire seat portion extending outwardly at both ends from said bolt and having a pair of spaced apart depending legs, a nut in threaded engagement with said bolt and in supporting relation to the ends of said seat portion of said member, the lower ends of the legs of said member being bent outwardly to form foot portions to embrace the underside of said nut and to mutually lock said member and nut together for movement with respect to said bolt; means for securing said nut against removal from threaded engagement with said bolt while enabling the insertion of a wire conductor between the leg portions of said bolt comprising a bridge interconnecting the leg portions of said bolt and adapted to be straddled by the legs of said slidable member, said bridge defining with said bolt oppositely directed channels comprising extensions of said slot, the legs of said member above the foot portions thereof being adapted to be disposed within said slot and within said channel extensions thereof, and means defining a laterally directed wire entry slot through one of the leg portions of said bolt, said wire entry slot communicating with the space between said leg portions above said slidable member when said nut is in its lowermost position on said bolt.

2,844,809
COMPRESSIONAL WAVE TRANSDUCERS
Laurence Batchelder, Cambridge, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application January 5, 1955, Serial No. 479,987
9 Claims. (Cl. 340—10)



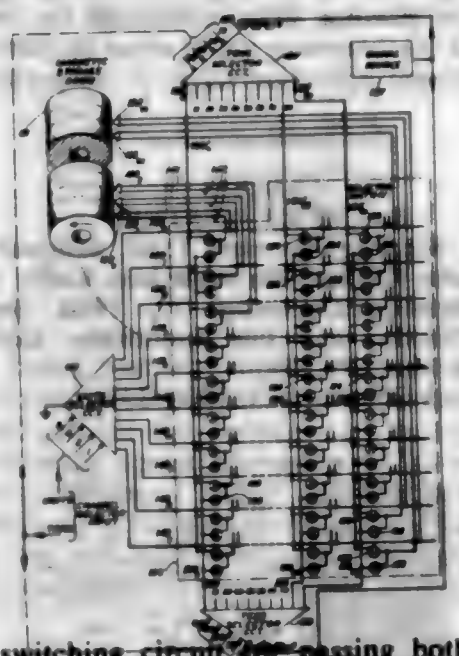
1. A compressional wave transducer comprising a plurality of rows of oscillatory elements mounted with their principal oscillatory surfaces in a common plane and their major axes perpendicular to this plane, and compliant material occupying the space between the oscillatory elements extending from their bases up to a distance of approximately a quarter of a wavelength at the operating frequency from the principal oscillatory surfaces of said oscillatory elements such as to provide a minimum impedance at the inner portions of said oscillatory elements and provide a maximum impedance at the principal radiating surfaces.

2,844,810
SAFETY EXIT ALERT FOR AUTOMOBILES
Gordon H. Steele, Jr., Washington, D. C.
Application March 2, 1956, Serial No. 569,850
2 Claims. (Cl. 340—87)



1. In a vehicle having a door adjacent the driver, a housing fixed in the free edge of the door, a pair of light bulbs in said housing, means connecting said light bulbs with a source of current supply, a spring closed switch in the frame of the vehicle at the hinged edge of said door interposed in said connecting means, a blinker switch also interposed in said connecting means connected to both of said bulbs for alternately lighting said bulbs when said door is opened and a sight tube projecting from said housing and extending through the inner side of said door.

2,844,811
SWITCHING CIRCUITS
William H. Burkhart, East Orange, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Application August 20, 1952, Serial No. 305,467
2 Claims. (Cl. 340—166)



1. A switching circuit for passing both positive and negative signals between a signal line and a selected one of a plurality of signal receiving-transmitting devices, comprising: a matrix having a set of conductors designated as rows and a pair of sets of conductors designated as columns, a source of reference potential, means for connecting said source of reference potential to one of said row conductors, a signal line, means for connecting said signal line to one of said column conductors and to the corresponding paired one of said column conductors.

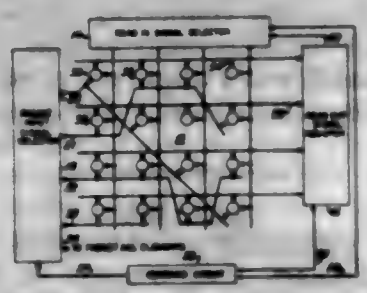
a plurality of signal receiving-transmitting devices each having a pair of terminals respectively connected with one terminal to a respective one of said row conductors, a plurality of unilateral conducting devices each respectively connected for current flow in one direction between the other terminal of a respective one of said signal receiving-transmitting devices and a respective one of said column conductors of one set of column conductors, and a like plurality of unilateral conducting devices each respectively connected for current flow opposite to said one direction between the other terminal of a respective one of said signal receiving-transmitting devices and the corresponding paired one of said column conductors of the other set of column conductors, whereby signals positive relative to said source of reference potential are routed by one set of column conductors and signals negative relative to said source of reference potential are routed by the other set of column conductors between the selected one of said signal receiving-transmitting devices and the signal line.

2,844,812

VARIABLE MATRIX FOR PERFORMING ARITHMETIC AND LOGICAL FUNCTIONS

Isaac Levin Auerbach, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application December 4, 1952, Serial No. 324,114
23 Claims. (Cl. 340—174)



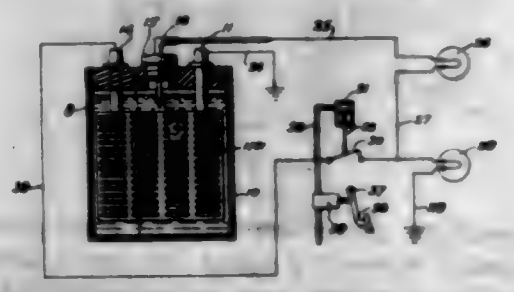
4. A network of static magnetic elements connected in a matrix type network, each of said elements being capable of assuming either of two stable magnetic remanence conditions, a circuit for selectively presetting different combinations of the elements in one remanence condition, and means for passing signals through the matrix as different preset combinations are in effect to thereby cause different functional operation steps to be performed on the signals.

2,844,813

BATTERY TESTER

Henry J. Schultz, Hayward, Calif., assignor to Brooks Walker, San Francisco, Calif.

Original application December 27, 1954, Serial No. 447,815. Divided and this application October 26, 1956, Serial No. 619,658
3 Claims. (Cl. 340—249)



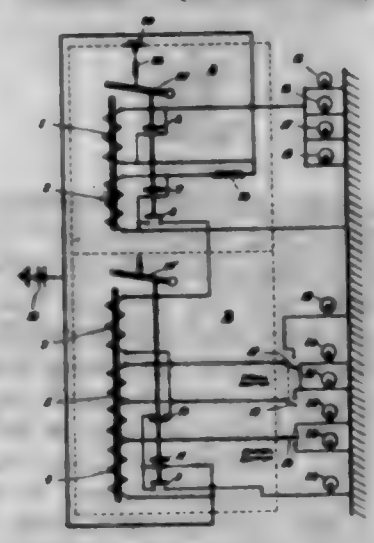
1. In a vehicle, the combination including a battery of the wet-cell type having at least two poles one of which is grounded and the other ungrounded; a probe supported from above the battery liquid in a cell having said grounded pole and extending down into the liquid when said liquid is at its high normal level; a stoplight in said vehicle having one side grounded; a low-battery-liquid-level indicator light, having one side grounded; an electric circuit connecting said ungrounded pole to said stoplight and, in parallel with said stoplight, through said indicator light to said probe; and a switch in said circuit operable at will by an operator of said vehicle for closing said circuit, whereby said stoplight and said indicator lights are both lighted if said probe is in contact with said battery liquid, the failure of said indicator light to burn, indicating that either the indicator light is burned out, the switch is faulty, or the battery liquid level low.

2,844,814

SUPERVISORY ELECTRIC SIGNAL APPARATUS, PARTICULARLY FOR AUTOMOTIVE VEHICLES

Wilhelm Pavel, Pullach, near Munich, Germany

Application December 5, 1956, Serial No. 626,487
Claims priority, application Germany February 28, 1956
6 Claims. (Cl. 340—251)



1. On a vehicle having a plurality of parallel connected electric devices, the combination of a signalling apparatus for indicating to the driver the occurrence of troubled condition of said devices, said signalling apparatus comprising an electromagnetic buzzer relay having mutually opposed magnetizing windings and having spring-biased armature means controlled by said windings, said armature means having respective normally open contacts connected across said windings for short-circuiting them when said armature picks up, a current source, one of said windings being connected to said source and poled for a magnetic-force direction opposed to that of the armature spring bias, a load circuit comprising said parallel-connected load devices and being connected in series with said other winding to said source, said other winding having a smaller number of ampere turns than said one winding whereby said armature is normally subjected to a resultant magnetic force weaker than the spring bias, said magnetic force being larger than said spring bias when the current in said load circuit decreases to a given value below normal.

2,844,815

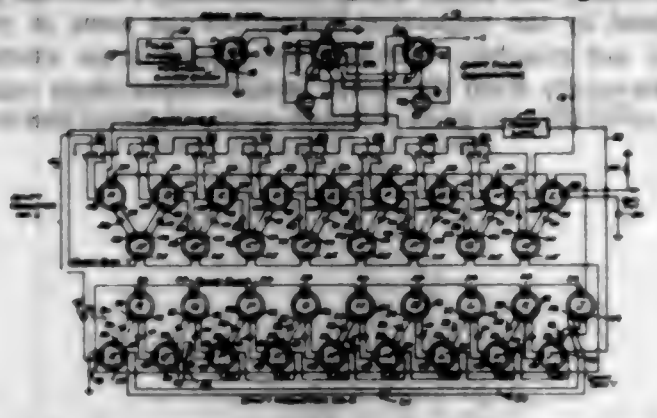
BEACON CODERS

Morris Winick, deceased, late of Belmont, Mass., by Martha R. Winick, administratrix, Belmont, Mass., assignor to American Machine & Foundry Company, a corporation of New Jersey

Application October 26, 1953, Serial No. 388,362
11 Claims. (Cl. 340—354)

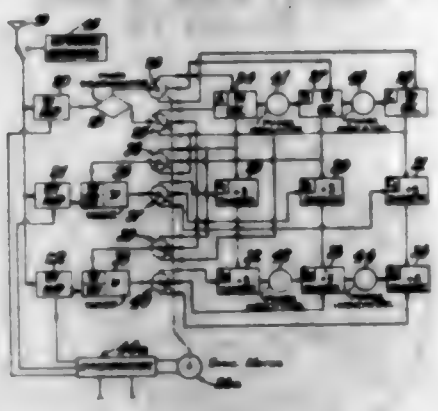
1. A coder comprising a first magnetic binary shift register having a plurality of stages, a second magnetic binary shift register having an equal plurality of stages plus an additional stage, means for cycling said registers for shifting a code stored in said first register out of said first register, and for shifting a "one" stored in the first

stage of said second register through said second register, said means including a shift pulse generator, a signal source connected to said generator, means actuated by a signal from said source for causing said generator to cycle said registers twice only, means connecting all of said stages of said second register with said generator



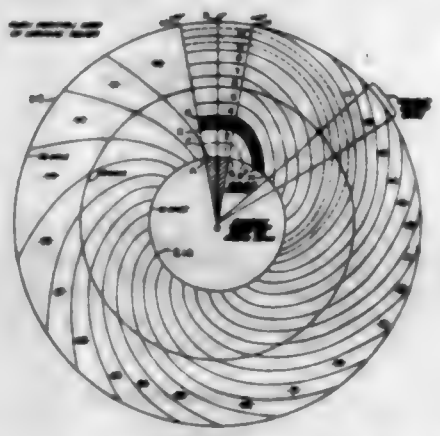
except the last stage in order of said second register for supplying signals to said means of said generator for causing said generator to continue to cycle said registers, and means including switches conecting said last stage of said second register with all of the stages of said first register for resetting the code in said first register.

2,844,816
RADIO NAVIGATION SYSTEMS
William Joseph O'Brien and Harold George Hawker, London, England, assignors to The Decca Record Company Limited, London, England, a British company
Application March 7, 1955, Serial No. 492,592
Claims priority, application Great Britain March 8, 1954
18 Claims. (Cl. 343—105)



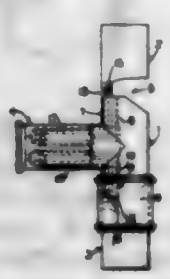
12. A hyperbolic radio navigation system in which, at a mobile receiver, a phase comparison is made between signals derived from transmissions from a pair of spaced stations, which system comprises a master station having means for intermittently radiating a plurality of signals of different frequency in fixed multiple phase relation, the frequency difference of two of the radiated signals being a sub-multiple of all the frequencies, a slave station spaced from the master station and having means for intermittently radiating signals of the same frequencies as are radiated by the master station and in fixed phase relation therewith, the signals of each frequency being radiated from the slave station during the intervals between radiation of signals of corresponding frequency from the master station, and a mobile receiver, which receiver comprises means for receiving and separating the signals from the master and slave stations, a pair of sources of locally generated signals, means for synchronising the output of one of the sources in phase and frequency with received master signals of one frequency, means for synchronising the output of the other source in phase and frequency with received slave signals of said one frequency, a first frequency dividing means for dividing the output of the first source to said sub-multiple frequency, means for phase-locking the first dividing means utilising the signals received from the master station, a second frequency dividing means for dividing the output of the second source to said sub-multiple frequency, means for phase-locking the second dividing means utilising the signals received from the slave station and a phase indicator for indicating the phase relationship of the outputs from the two dividing means.

2,844,817
LANDING TRAFFIC CONTROL SYSTEM
David J. Green, Pacific Palisades, Calif., assignor to Gilfillan Bros., Inc., Los Angeles, Calif., a corporation of California
Application February 18, 1952, Serial No. 272,140
12 Claims. (Cl. 343—112)



1. In a system of the character described means deriving an electrical quantity representing a moving zone in space, means deriving a video echo signal from aircraft in said zone, and means comparing said video signal with said electrical quantity for deriving a control voltage, and means for controlling the flight of said aircraft in accordance with said control voltage developed by said comparing means to maintain said aircraft in a predetermined position in said zone.

2,844,818
ANTENNA
Andrew Alford, Cambridge, Mass.
Application July 22, 1953, Serial No. 369,613
17 Claims. (Cl. 343—767)



11. A broad band cylindrical conductive antenna having a slot substantially transverse to its axis, said slot extending all around the periphery of the cylinder, means feeding the slot across one point of its periphery, said slot having peripheral length not less than .4λ where λ corresponds to a frequency within the operating band whereby the radiation from said slot is substantially directional away from the point of feed in the plane of the slot.

2,844,819
GUIDE ARM FOR RADIO TOWER OR THE LIKE
Johnnie Andrews, Fort Worth, Tex.
Application January 14, 1957, Serial No. 634,116
2 Claims. (Cl. 343—874)

1. A microwave radio installation for transmitting high frequency radio signals comprising a radio tower having radio antennae and reflectors therefor and mounted at the upper portion of the tower, guy cables for maintain-

ing the tower in upright position and having their lower ends spaced from the legs of the tower, and means in-



terposed between the guy cables and the upper portion of the radio tower for preventing twisting of the said upper portion of the tower and the parts carried thereby so as to keep the reflectors properly beamed at all times, said means comprising flat and rigid anti-torque arms having their upper ends pivotally connected with the opposite sides of the tower at the upper ends thereof and their opposite ends connected to the upper ends of the guy wires, said cables being substantially within the plane defined by the respective flat anti-torque arms to which they are attached, the said anti-torque arms extending downwardly from the tower at an oblique angle and being of at least as great a length as the width of the tower.

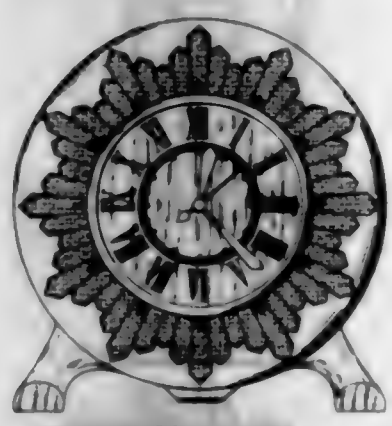
DESIGNS

JULY 22, 1958

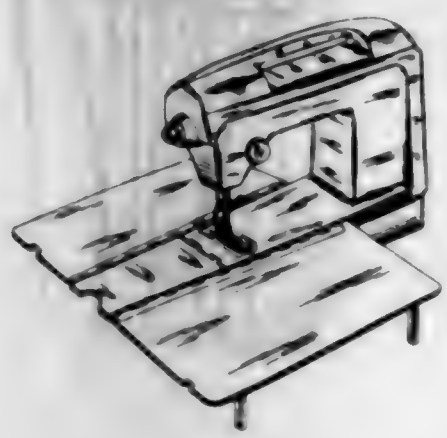
183,233
PILOT'S SEAT
Kenneth Ahrens, Freeport, N. Y.
Application January 15, 1958, Serial No. 49,262
Term of patent 14 years
(Cl. D15—8)



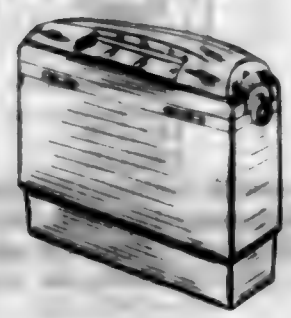
183,234
CLOCK
John L. Allen, Bodfish, Calif.
Application June 7, 1957, Serial No. 46,524
Term of patent 14 years
(Cl. D42—7)



183,235
PORTABLE SEWING MACHINE
Richard H. Arbib, New York, N. Y., assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware
Application August 26, 1957, Serial No. 47,503
Term of patent 14 years
(Cl. D70—1)



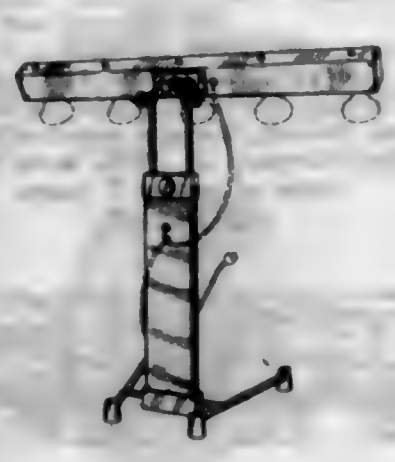
183,236
HOUSING FOR A PORTABLE SEWING MACHINE
Richard H. Arbib, New York, N. Y., assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware
Application August 26, 1957, Serial No. 47,504
Term of patent 14 years
(Cl. D70—1)



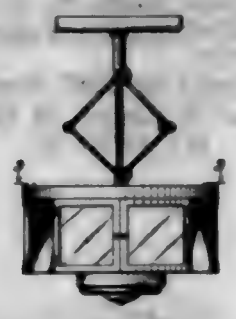
183,237
DRILL BIT
Thomas W. Aven, Jr., Garland, Tex., assignor of one-third to Thomas D. Copeland, Jr., Garland, Tex., an individual
Application September 16, 1955, Serial No. 37,963
Term of patent 14 years
(Cl. D54—4)



183,238
SUN LAMP
Charles E. Branick, Fargo, N. Dak.
Application July 5, 1957, Serial No. 46,845
Term of patent 14 years
(Cl. D48—20)



183,239
SUSPENDED CABINET AND LIGHT COMBINATION
Merton F. Brooks, Adams City, Colo.
Application March 20, 1957, Serial No. 45,361
Term of patent 14 years
(Cl. D48—3)



183,240
CHAIR
Morton R. Cohen, Chicago, Ill.
Application February 12, 1958, Serial No. 49,611
Term of patent 14 years
(Cl. D15—1)



183,241
ARMCHAIR
Morton R. Cohen, Chicago, Ill.
Application February 12, 1958, Serial No. 49,616
Term of patent 14 years
(Cl. D15—1)



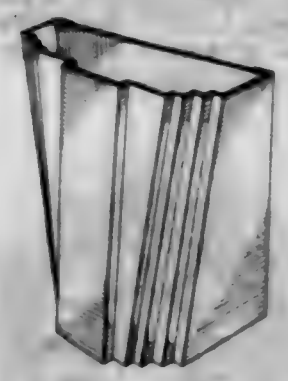
183,242
MOTOR COACH
Clarence V. Crockett, Bloomfield Hills, and Roland E. Gegoux, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 20, 1958, Serial No. 49,715
Term of patent 7 years
(Cl. D14—3)



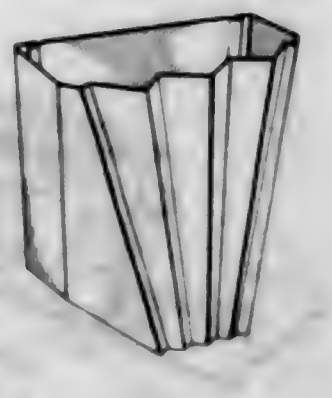
183,243
CLOCK
Ellsworth R. Dunz, La Salle, Ill., assignor to General Time Corporation, New York, N. Y., a corporation of Delaware
Application November 8, 1957, Serial No. 48,385
Term of patent 14 years
(Cl. D42—7)



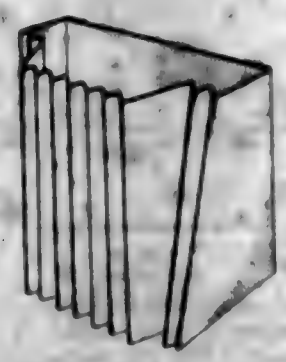
183,244
TROPHY BASE
Ray E. Dodge, Miami Beach, Fla., assignor to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application August 16, 1957, Serial No. 47,393
Term of patent 14 years
(Cl. D29—23)



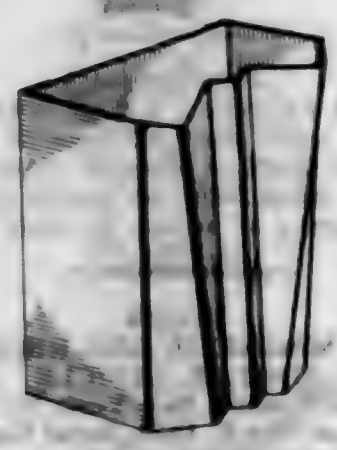
183,245
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,016
Term of patent 14 years
(Cl. D29—23)



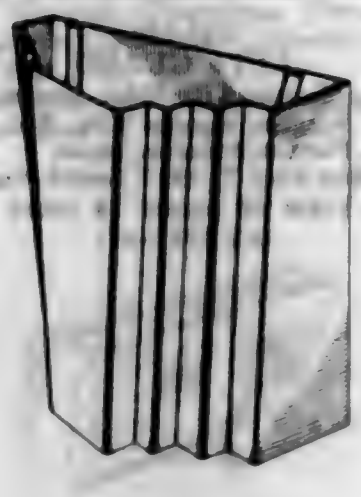
183,246
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,019
Term of patent 14 years
(Cl. D29—23)



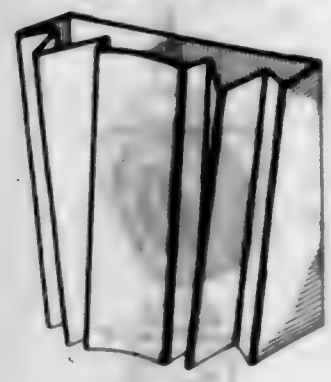
183,247
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,020
Term of patent 14 years
(Cl. D29—23)



183,248
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,022
Term of patent 14 years
(Cl. D29—23)



183,249
TROPHY BASE
Ray E. Dodge and Ada W. Dodge, Miami Beach, Fla., assignors to Dodge, Inc., Chicago, Ill., a corporation of Illinois
Application December 23, 1957, Serial No. 49,023
Term of patent 14 years
(Cl. D29—23)



183,250
PAIR OF GOGGLES
Julius Ellman, Brooklyn, N. Y.
Application June 24, 1957, Serial No. 46,698
Term of patent 14 years
(Cl. D57—1)



183,251
ASHTRAY
Luther W. Evans, Richmond, Va.
Application May 15, 1957, Serial No. 46,185
Term of patent 14 years
(Cl. D85—2)



183,252
PHOTOGRAPHIC SHUTTER
Kurt Gebele, Munich, Germany, assignor to Hans Deckel, Munich, Germany, and Friedrich Wilhelm Deckel, Zug, Switzerland
Application November 19, 1956, Serial No. 43,806
Claims priority, application Germany May 18, 1956
Term of patent 7 years
(Cl. D61—1)



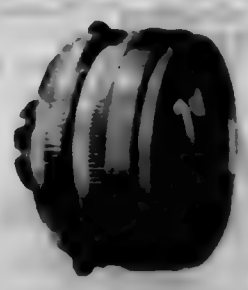
183,253
PHOTOGRAPHIC SHUTTER
Kurt Gebele, Munich, Germany, assignor to Hans Deckel, Munich, Germany, and Friedrich Wilhelm Deckel, Zug, Switzerland
Application November 19, 1956, Serial No. 43,807
Claims priority, application Germany May 18, 1956
Term of patent 7 years
(Cl. D61—1)



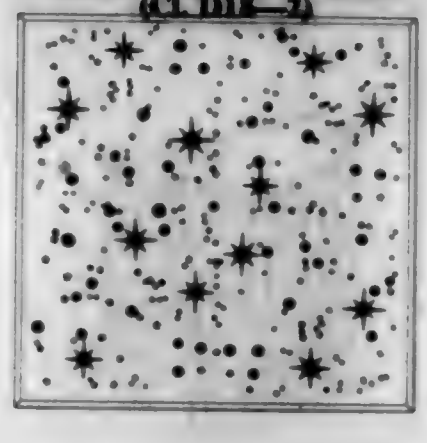
183,254
INTERCHANGEABLE PHOTOGRAPHIC ASSEMBLY
Kurt Gebele, Munich, Germany, assignor to Hans Deckel, Munich, Germany, and Friedrich Wilhelm Deckel, Zug, Switzerland
Application November 19, 1956, Serial No. 43,809
Claims priority, application Germany May 18, 1956
Term of patent 7 years
(Cl. D61—1)



183,255
INTERCHANGEABLE PHOTOGRAPHIC ASSEMBLY
Kurt Gebele, Munich, Germany, assignor to Hans Deckel, Munich, Germany, and Friedrich Wilhelm Deckel, Zug, Switzerland
Application November 19, 1956, Serial No. 43,810
Claims priority, application Germany May 18, 1956
Term of patent 7 years
(Cl. D61—1)



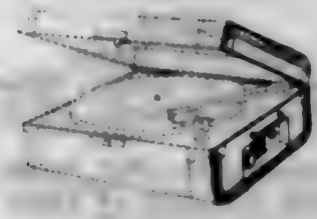
183,256
CEILING TILE OR THE LIKE
Robert F. Green, East Hempfield Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application February 4, 1957, Serial No. 44,733
Term of patent 14 years
(Cl. D18—2)



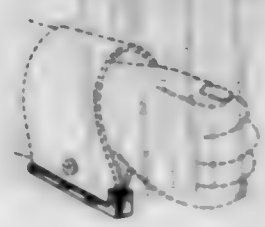
183,257
SOCK
Otis W. Holder, Mount Airy, and Walter M. Brown, Jr., Burlington, N. C., assignors to Browns Hosiery Mills, Inc., Burlington, N. C., a corporation of North Carolina
Application March 17, 1958, Serial No. 50,052
Term of patent 14 years
(Cl. D47—7)



183,258
PORTABLE MAGNETIC DISC RECORDER OR SIMILAR ARTICLE
Paul E. King, New York, N. Y.
Application May 9, 1956, Serial No. 41,410
Term of patent 14 years
(Cl. D56—4)



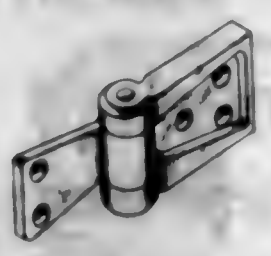
183,259
CUFF GUARD
John M. Lyles, Kansas City, Mo., assignor of one-third to Phillip P. Scaglia, Kansas City, Mo., and one-third to Harold G. Parrott, Mission, Kans.
Application May 7, 1957, Serial No. 46,056
Term of patent 14 years
(Cl. D17—7)



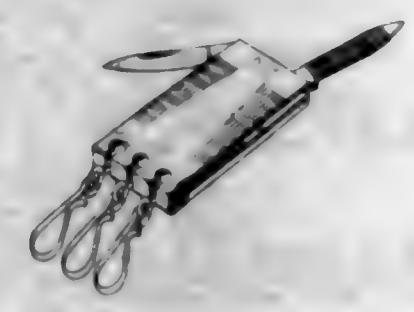
183,260
STAPLER OR SIMILAR ARTICLE
Herbert W. Marano, Summit, N. J., assignor to Wilson Jones Company, Chicago, Ill., a corporation of Massachusetts
Application October 31, 1957, Serial No. 48,301
Term of patent 14 years
(Cl. D74—1)



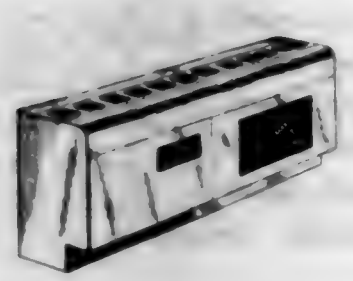
183,261
DOOR HINGE
Charles F. Mink, Port Chester, N. Y.
Application December 18, 1957, Serial No. 48,947
Term of patent 14 years
(Cl. D10—9)



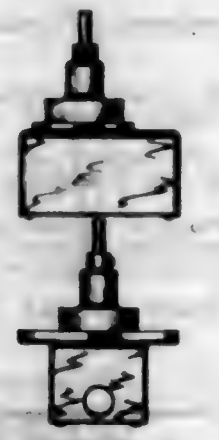
183,262
COMBINED KNIFE AND KEY HOLDER
Wallace A. Monson, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn.
Application August 14, 1957, Serial No. 47,364
Term of patent 14 years
(Cl. D87—3)



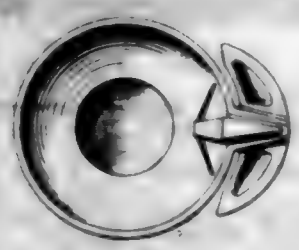
183,263
ROOM HEATER OR SIMILAR ARTICLE
Edward A. Norman, Jr., Charles A. Reichelderfer, and Herman G. Raymer, Columbus, Ohio, assignors to Norman Products Company, Columbus, Ohio, a corporation of Ohio
Application December 16, 1954, Serial No. 33,578
Term of patent 7 years
(Cl. D81—19)



183,264
CENTRIFUGAL SWITCH
Earl R. O'Cathey, Pomona, Calif., assignor to Ever Manufacturing Co., Pomona, Calif.
Application August 30, 1956, Serial No. 42,787
Term of patent 14 years
(Cl. D26—13)



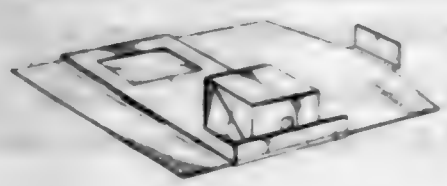
183,265
DRINKING CUP
John E. Press, Niles, and John Mark, Chicago, Ill., assignors to Federal Tool Corporation, Chicago, Ill., a corporation of Illinois
Application May 6, 1957, Serial No. 46,038
Term of patent 14 years
(Cl. D44—9)



183,266
TRANSIT CONCRETE MIXER
Evan S. Prichard, La Canada, Calif., assignor to Cook Bros. Equipment Co., Los Angeles, Calif., a corporation of California
Application October 10, 1955, Serial No. 38,315
Term of patent 7 years
(Cl. D14—3)



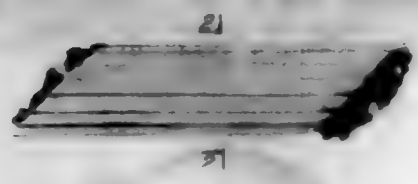
183,267
COMBINED COLLAPSIBLE TRANSPARENCY VIEWER AND PICTURE FOLIO OR THE LIKE
Samuel Raber, Beverly Hills, and Noel Adolph Petter, Glendale, Calif.
Application May 10, 1957, Serial No. 46,094
Term of patent 14 years
(Cl. D61—1)



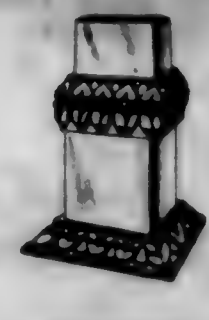
183,268
SPOON OR THE LIKE
Joseph Rector, New York, N. Y., assignor to Amorex Trading Corporation, New York, N. Y., a corporation of New York
Application May 23, 1957, Serial No. 46,297
Term of patent 3½ years
(Cl. D54—12)



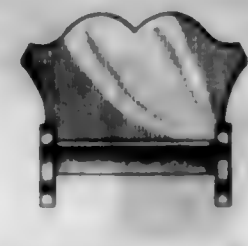
183,269
FOOD PRODUCT
Angelo Ronzoni, Great Neck, N. Y.
Application April 10, 1958, Serial No. 50,421
Term of patent 14 years
(Cl. D8—1)



183,270
TABLE LIGHTER
Philip M. Ross, Bradford, Pa.
Application August 13, 1957, Serial No. 47,345
Term of patent 14 years
(Cl. D48—27)



183,271
BOOK REST
Robert Schattler, Park Ridge, and James V. Gangi, Chicago, Ill., assignors to Bible Holder Mfg. Co., Inc., Chicago, Ill., a corporation of Illinois
Application November 8, 1957, Serial No. 48,380
Term of patent 14 years
(Cl. D33—3)



LIST OF REISSUE PATENTEES

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PATENTS WERE ISSUED ON THE 22ND DAY OF JULY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Delman Co., The: *See*—
Neufeld, Leonard C. Re. 24,507.

Humphreys, John W., to Johnson Products, Inc. Hydraulic tappet. Re. 24,506, 7–22–58, Cl. 123—90.

Johnson Products, Inc.: *See*—
Humphreys, John W. Re. 24,506.

Lawson, Alexander: *See*—
Rimington, Claude, Lawson, Searle, and Morley. Re. 24,505.

Morley, Harold V.: *See*—
Rimington, Claude, Lawson, Searle, and Morley. Re. 24,505.

National Research Development Corp.: *See*—
Rimington, Claude, Lawson, Searle, and Morley. Re. 24,505.

Neufeld, Leonard C., to The Delman Co. Control device for windshield clearing systems. Re. 24,507, 7–22–58, Cl. 15—250.4.

Rimington, Claude, A. Lawson, C. E. Searle, and H. V. Morley, to National Research Development Corp. Antithyroid compounds. Re. 24,505, 7–22–58, Cl. 260—309.

Searle, Charles E.: *See*—
Rimington, Claude, Lawson, Searle, and Morley. Re. 24,505.

LIST OF PLANT PATENTEES

Conard-Pyle Co., The: *See*—
Hutton, Sidney B., Jr. 1,733.

Hutton, Sidney B., Jr., to The Conard-Pyle Co. Chrysanthemum plant. 1,733, 7–22–58, Cl. 47—60.

LIST OF DESIGN PATENTEES

Ahrens, Kenneth. Pilot's seat. 183,233, 7–22–58, Cl. D15—6.

Allen, John L. Clock. 183,234, 7–22–58, Cl. D42—7.

Amerex Trading Corp.: *See*—
Rector, Joseph. 183,268.

Arbib, Richard H., to White Sewing Machine Corp. Portable sewing machine. 183,235, 7–22–58, Cl. D70—1.

Arbib, Richard H., to White Sewing Machine Corp. Housing for a portable sewing machine. 183,236, 7–22–58, Cl. D70—1.

Armstrong Cork Co.: *See*—
Green, Robert F. 183,256.

Aven, Thomas W., Jr., ¼ to T. D. Copeland, Jr. Drill bit. 183,237, 7–22–58, Cl. D54—4.

Bible Holder Mfg. Co., Inc.: *See*—
Schuttler, Robert, and Gangi. 183,271.

Branick, Charles E. Sun lamp. 183,238, 7–22–58, Cl. D48—20.

Brooks, Merton F. Suspended cabinet and light combination. 183,239, 7–22–58, Cl. D48—3.

Brown & Bigelow: *See*—
Monson, Wallace A. 183,262.

Brown, Walter M., Jr.: *See*—
Holder, Otis W., and Brown. 183,257.

Browns Hosiery Mills, Inc.: *See*—
Holder, Otis W., and Brown. 183,257.

Cohen, Morton R. Chair. 183,240, 7–22–58, Cl. D15—1.

Cohen, Morton R. Armchair. 183,241, 7–22–58, Cl. D15—1.

Cook Bros. Equipment Co.: *See*—
Prichard, Evan S. 183,266.

Copeland, Thomas D., Jr.: *See*—
Aven, Thomas W., Jr. 183,237.

Crockett, Clarence V., and R. E. Gegoux, to General Motors Corp. Motor coach. 183,242, 7–22–58, Cl. D14—3.

Dang, Ellworth R., to General Time Corp. Clock. 183,243, 7–22–58, Cl. D42—7.

Deckel, Friedrich W.: *See*—
Gebele, Kurt. 183,252.
Gebele, Kurt. 183,253.
Gebele, Kurt. 183,254.
Gebele, Kurt. 183,255.

Deckel, Hans: *See*—
Gebele, Kurt. 183,252.
Gebele, Kurt. 183,253.
Gebele, Kurt. 183,254.
Gebele, Kurt. 183,255.

Dodge, Ada W.: *See*—
Dodge, Ray E. and A. W. 183,245–183,249.

Dodge, Inc.: *See*—
Dodge, Ray E. 183,244.
Dodge, Ray E. and A. W. 183,245–183,249.

Dodge, Ray E., to Dodge, Inc. Trophy base. 183,244, 7–22–58, Cl. D29—23.

Dodge, Ray E., and A. W., to Dodge, Inc., Trophy base. 183,245, 7–22–58, Cl. D29—23.

Dodge, Ray E. and A. W., to Dodge, Inc., Trophy base. 183,246, 7–22–58, Cl. D29—23.

Dodge, Ray E., and A. W., to Dodge, Inc., Trophy base. 183,247, 7–22–58, Cl. D29—23.

Dodge, Ray E., and A. W., to Dodge, Inc., Trophy base. 183,248, 7–22–58, Cl. D29—23.

Dodge, Ray E., and A. W., to Dodge, Inc., Trophy base. 183,249, 7–22–58, Cl. D29—23.

Elman, Julius. Pair of goggles. 183,250, 7–22–58, Cl. D57—1.

Eror Mfg. Co.: *See*—
O'Cathey, Earl R. 183,264.

Evans, Luther W. Ashtray. 183,251, 7–22–58, Cl. D85—2.

Federal Tool Corp.: *See*—
Press, John E., and Mark. 183,265.

Gangi, James V.: *See*—
Schuttler, Robert, and Gangi. 183,271.

Gebele, Kurt, to H. and F. W. Deckel. Photographic shutter. 183,252, 7–22–58, Cl. D61—1.

Gebele, Kurt, to H. and F. W. Deckel. Photographic shutter. 183,253, 7–22–58, Cl. D61—1.

Gebele, Kurt, to H. and F. W. Deckel. Interchangeable photographic assembly. 183,254, 7–22–58, Cl. D61—1.

Gebele, Kurt, to H. and F. W. Deckel. Interchangeable photographic assembly. 183,255, 7–22–58, Cl. D61—1.

Gegoux, Roland E.: *See*—
Crockett, Clarence V., and Gegoux. 183,242.

General Motors Corp.: *See*—
Crockett, Clarence V., and Gegoux. 183,242.

General Time Corp.: *See*—
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Green, Robert F., to Armstrong Cork Co. Ceiling tile or the like. 183,256, 7–22–58, Cl. D18—2.

Holder, Otis W., and W. M. Brown, Jr., to Browns Hosiery Mills, Inc. Sock. 183,257, 7–22–58, Cl. D47—7.

King, Paul E. Portable magnetic disc recorder or similar article. 183,258, 7–22–58, Cl. D56—4.

Lyles, John M., ¼ to P. P. Scaglia and ¼ to H. G. Parrott. Cuff guard. 183,259, 7–22–58, Cl. D17—7.

Marano, Herbert W., to Wilson Jones Co. Stapler or similar article. 183,260, 7–22–58, Cl. D74—1.

Mark, John: *See*—
Press, John E., and Mark. 183,265.

Mink, Charles F. Door hinge. 183,261, 7–22–58, Cl. D10—9.

Monson, Wallace A., to Brown & Bigelow. Combined knife and key holder. 183,262, 7–22–58, Cl. D87—3.

Norman, Edward A., Jr., C. A. Reichelderfer, and H. G. Raymer, to Norman Products Co. Room heater or similar article. 183,263, 7–22–58, Cl. D61—19.

Norman Products Co.: *See*—
Norman, Edward A., Jr., Reichelderfer, and Raymer. 183,263.

O'Cathey, Earl R., to Eror Mfg. Co. Centrifugal switch. 183,264, 7–22–58, Cl. D26—13.

Parrott, Harold G.: *See*—
Lyles, John M. 183,259.

Petter, Noel A.: *See*—
Raber, Samuel, and Petter. 183,267.

Press, John E., and J. Mark, to Federal Tool Corp. Drinking cup. 183,265, 7–22–58, Cl. D44—9.

Prichard, Evan S., to Cook Bros. Equipment Co. Transit concrete mixer. 183,266, 7–22–58, Cl. D14—3.

Raber, Samuel, and N. A. Petter. Combined collapsible transparency viewer and picture folio or the like. 183,267, 7–22–58, Cl. D61—1.

Raymer, Herman G.: *See*—
Norman, Edward A., Jr., Reichelderfer, and Raymer. 183,263.

Rector, Joseph, to Amerex Trading Corp. Spoon or the like. 183,268, 7–22–58, Cl. D54—12.

Reichelderfer, Charles A.: *See*—
Norman, Edward A., Jr., Reichelderfer, and Raymer. 183,263.

Ronsoni, Angelo. Food product. 183,269, 7–22–58, Cl. D8—1.

Rose, Philip M. Table lighter. 183,270, 7-22-58, Cl. D48—27.
Scaglia, Phillip P.: *See*—
Lyles, John M. 183,256.
Schuttler, Robert, and J. V. Gangi, to Bible Holder Mfg. Co., Inc. Book rest. 183,271, 7-22-58, Cl. D33—3.
White Sewing Machine Corp.: *See*—
Arbib, Richard H. 183,235.
Arbib, Richard H. 183,236.
Wilson Jones Co.: *See*—
Marano, Herbert W. 183,280.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 22ND DAY OF JULY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

AB Lindahls Mekaniska: *See*—
Lindahl, Henning W. 2,843,931.

A. R. F. Products, Inc.: *See*—
Maciszewski, Arthur H., and Goldstein. 2,844,668.
Maciszewski, Arthur H., and Riddiford. 2,844,727.

Aanneröd, Sigurd A., to Pyror Ltd. Electrolyte level control arrangement in electrolytic cells. 2,844,533, 7–22–58, Cl. 204—257.

Abrams, Irving M., to Chemical Process Co. Cation exchange resins having phosphorus acid functional groups and method of preparation thereof. 2,844,546, 7–22–58, Cl. 260—2.2.

Achler, Maurice E., and A. H. Milstine, Sr., to H. Shapiro. Vertical Venetian blind construction. 2,844,199, 7–22–58, Cl. 160—173.

Acker, Donald S., to E. I. du Pont de Nemours and Co. Purine derivatives. 2,844,577, 7–22–58, Cl. 260—254.

Acker, Donald S., to E. I. du Pont de Nemours and Co. Pyrimidine derivatives. 2,844,578, 7–22–58, Cl. 260—256.5.

Ackerman, Arthur H., Jr. Dispensing apparatus. 2,844,284, 7–22–58, Cl. 222—130.

Adams, Charles A. Impact crusher. 2,844,331, 7–22–58, Cl. 241—275.

Addressograph-Multigraph Corp.: *See*—
Gruver, John H. 2,844,094.

Adelman, William M., and H. F. Schneider, to Radio Corp. of America. Thyratron circuit. 2,844,781, 7–22–58, Cl. 315—445.

Adler, Robert, to Zenith Radio Corp. Electron discharge device. 2,844,755, 7–22–58, Cl. 315—5.24.

Aerojet-General Corp.: *See*—
Gongwer, Calvin A., and McRoberts. 2,843,859.

Agfa Akt.: *See*—
Wagner, Ferdinand, and Sailer. 2,844,081.

Ahlmeyer, Heins: *See*—
Sherman, Whitney D., and Ahlmeyer. 2,844,078.

Airborne Instruments Laboratory, Inc.: *See*—
Butterworth, Greig S., and Silver. 2,843,974.
Kamm, Lawrence J. 2,843,975.
Silver, Edward S. 2,843,976.

Air Preheater Corp., The: *See*—
Vickland, John C. 2,844,394.

Akerboom, Jack: *See*—
Melnick, Daniel, and Akerboom. 2,844,469.

Akerboom, Jack, and D. Melnick, to The Best Foods, Inc. Pressurized food dressing. 2,844,470, 7–22–58, Cl. 99—144.

Albers, Kenneth A., to Char-Lynn Co. Seal for fluid couplings. 2,844,391, 7–22–58, Cl. 284—7.

Albohn, Arthur R., and G. M. Moelter, to Celanese Corp. of America. Spinneretts assembly. 2,843,875, 7–22–58, Cl. 18—8.

Alexanderson, Ernst F. W. Magnetic amplifier motor control system. 2,844,779, 7–22–58, Cl. 318—298.

Alford, Andrew. Antenna. 2,844,818, 7–22–58, Cl. 343—767.

Alford, Joseph S., to General Electric Co. Flow straightening vanes for diffuser passages. 2,844,001, 7–22–58, Cl. 60—35.6.

Algoma Foundry & Machine Co.: *See*—
Poehls, Clarence E. 2,843,991.

All American Engineering Co.: *See*—
Daniels, Charles J., and Doolittle. 2,844,340.

Allen, Henry H., to British Celanese Ltd. Apparatus for measuring and recording thickness of plastic film. 2,843,937, 7–22–58, Cl. 33—147.

Allen, Philip J. Microwave magnetic detectors. 2,844,789, 7–22–58, Cl. 324—43.

Allen, Thomas J. Insert bearing structure and shim therefor. 2,844,420, 7–22–58, Cl. 308—244.

Aller, Edmund E., to General American Transportation Corp. Apparatus for unloading hoppers. 2,844,411, 7–22–58, Cl. 302—51.

Aller, Willis F., to The Sheffield Corp. Gaging apparatus. 2,843,939, 7–22–58, Cl. 33—174.

Allied Chemical & Dye Corp.: *See*—
Peckham, Herbert H., and Harris. 2,844,454.

Alpert, Norman: *See*—
Dille, Kenneth L., Heisler, Newman, and Alpert. 2,844,449.
Heisler, Robert Y., Newman, and Alpert. 2,844,448.
Heisler, Robert Y., Newman, Dille, and Alpert. 2,844,450.

Alpert, Norman, R. Y. Heisler, and S. B. Newman, to The Texas Co. Fuels containing deposit control additives. 2,844,451, 7–22–58, Cl. 44—70.

Aluminum Co. of America: *See*—
Miller, Mike A. 2,844,479.

Amberg, Charles R., to Blocked Iron Corp. Lump ores and methods of producing them. 2,844,457, 7–22–58, Cl. 75—3.

American Cyanamid Co.: *See*—
Goldman, Leon, and Marsico. 2,844,576.
Long, Robert S., and Leavitt. 2,844,539.
Long, Robert S., and Scalera. 2,844,594.
Parker, Robert P., and Hosler. 2,844,503.
Parker, Robert P., and Hosler. 2,844,504.
Turner, Richard J., and Schmitt. 2,844,579.

American Home Products Corp.: *See*—
Bruce, William F., and Hanslick. 2,844,629.

American Machine & Foundry Co.: *See*—
Elliott, James D., Jordan, Pegnim, and Cohn. 2,844,314.
Panuline, George. 2,844,242.
Winick, Morris. 2,844,815.

American Optical Co.: *See*—
Schumacher, Elmer L. 2,844,071.

American Pulley Co., The: *See*—
Bennett, Richard A., and Schmid. 2,844,048.

American Radiator & Standard Sanitary Corp.: *See*—
Ryder, William V., Jr. 2,844,415.

American Screw Co.: *See*—
Smith, Ian A. 2,843,862.

American Steel Foundries: *See*—
Polanin, Walter R. 2,844,222.
Tack, Carl E. 2,844,221.

Ammen, Francis D.: *See*—
Brothers, David V., and Ammen. 2,844,662.

Andera, Edward J. Livestock watering fountain. 2,844,124, 7–22–58, Cl. 119—75.

Anderson, A. C., Inc.: *See*—
Anderson, Arthur C., and Andersen. 2,843,947.

Anderson, Arthur C., and T. Andersen, to A. C. Anderson, Inc. Bulldozer and loader attachment. 2,843,947, 7–22–58, Cl. 37—117.5.

Andersen, Carl P., to Kleinschmidt Laboratories, Inc. Snap switch. 2,844,674, 7–22–58, Cl. 200—61.16.

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Anderson, Arthur C., and Andersen. 2,843,947.

Anderson, Walter A., to Underwood Corp. Machine stand with floating top. 2,844,342, 7–22–58, Cl. 248—13.

Anderson, Warren W., and D. J. Hammerand, to Vapor Heating Corp. Electrical contactor. 2,844,684, 7–22–58, Cl. 200—93.

Andrew, Johnnie. Guide arm for radio tower or the like. 2,844,819, 7–22–58, Cl. 343—874.

Ang, Choh-Yi, to P. R. Mallory & Co., Inc. High-strength high-density tungsten base alloys. 2,843,921, 7–22–58, Cl. 29—182.

Annerhed, Karl B., to Sandvikens Jernverks Aktiebolag. Means for cooling or heating of materials. 2,844,359, 7–22–58, Cl. 257—23.

Ansley, Ulric F. Apparatus for removing water from organic liquids and fuels. 2,844,254, 7–22–58, Cl. 210—114.

Anson, Donald: *See*—
Joyce, John B., Williams, and Anson. 2,844,025.

Archer, Irving M., to Campbell Taggart Research Corp. Machine for panning dough in the making of bread and the like. 2,843,983, 7–22–58, Cl. 53—74.

Armour and Co.: *See*—
Rogers, Alan B., and Roland. 2,844,466.

Armstrong, Edward T., to The Goodyear Tire & Rubber Co. Apparatus for actuating friction brakes. 2,844,227, 7–22–58, Cl. 188—151.

Armstrong, Edward T., to The Goodyear Tire & Rubber Co. Permeable brake. 2,844,230, 7–22–58, Cl. 188—264.

Arndt, Raymond J., to International Telephone and Telegraph Corp. Negative-impedance repeater having gain controls. 2,844,669, 7–22–58, Cl. 179—175.31.

Arnold, Hartmut, to Rand Goetze Corp. Flange type piston ring. 2,844,423, 7–22–58, Cl. 309—44.

Arthur, Richard P., to International Telephone and Telegraph Corp. Electromagnetic counting device and contact bank. 2,844,686, 7–22–58, Cl. 200—104.

Ashby, Bruce A., E. C. Britton, and L. H. Horsley, to The Dow Chemical Co. (1-piperazinyl) alkyldithiocarbamic acids. 2,844,580, 7–22–58, Cl. 260—268.

Associated Seed Growers, Inc.: *See*—
Hudson, Francis M. 2,844,349.

Atlas Specialty Mfg. Co.: *See*—
Marques, Louis R. 2,844,192.

Audemar, Pierre, to Societe Alsacienne de Constructions Mecaniques. Shaft seal. 2,844,418, 7–22–58, Cl. 309—36.3.

Auerbach, Isaac L., to Burroughs Corp. Variable matrix for performing arithmetic and logical functions. 2,844,812, 7–22–58, Cl. 340—174.

Austgen, Kenneth J., and J. E. Candlin, Jr., to Pullman-Standard Car Mfg. Co. Multiple berth arrangement. 2,844,109, 7–22–58, Cl. 105—321.

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Baker, Chester L., and Austin. 2,844,436.
Austin Motor Co. Ltd., The: *See*—
Momtchiloff, Ivan N. 2,844,132.
Australian Paper Manufacturers Ltd.: *See*—
Williams, David J. 2,844,068.
Averill, Charles C., to Union Steel Products Co. Materials handling container. 2,844,278, 7–22–58, Cl. 220—97.
Avins, Jack, to Radio Corp. of America. Sawtooth current wave generator. 2,844,739, 7–22–58, Cl. 307—88.5.
Ayres, William R., to Radio Corp. of America. Comparing system. 2,844,309, 7–22–58, Cl. 235—61.
Azarraga, Luis. Curved film camera. 2,844,069, 7–22–58, Cl. 88—16.
Bailey, Virgil J.: *See*—
Brubaker, Clarence B. 2,843,905.
Baker, Chester L., and J. F. Austin, to Philadelphia Quartz Co. Manufacture of finely-divided compounds of certain elements. 2,844,436, 7–22–58, Cl. 23—51.
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Sobotka, Harry, Hutner, and Baker. 2,844,515.
Baker, Raymond J.: *See*—
Hull, Harold S., and Baker. 2,844,377.
Baldwin Piano Co., The: *See*—
Corwin, Merton D. 2,844,065.
Bancroft, Charles. Fluid displacement machine. 2,844,040, 7–22–58. Cl. 74—52.
Banker, Oscar H.: *See*—
Lapsley, Robert, and Banker. 2,844,049.
Baral, Leon L.: *See*—
Veitman, Preston L., Baral, and Richardson. 2,844,523.
Barber-Colman Co.: *See*—
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Barden, Wayne A., and D. A. Pierce, to Chicago Telephone Supply Corp. Combination snap action push-pull switch and variable resistor. 2,844,676, 7–22–58, Cl. 200—67.
Barker and Williamson, Inc.: *See*—
Sabaroff, Samuel. 2,844,801.
Barnes, James F., and E. F. Rebholz, to Foil Process Corp. Disposable pressure cooker package of frozen food. 2,844,475, 7–22–58, Cl. 99—192.
Barnett, Eugene J., to Westinghouse Electric Corp. Heating apparatus. 2,844,701, 7–22–58, Cl. 219—35.
Barron, Curtis L. Method of forming a liquid conveying duct. 2,843,913, 7–22–58, Cl. 25—155.
Barrows, Howard E., and W. P. Luther, to John Oster Mfg. Co. Machine for juicing, slicing and shredding food materials. 2,844,176, 7–22–58, Cl. 146—3.
Barshay, Bernard, to The Daven Co. Precision resistor network. 2,844,785, 7–22–58, Cl. 323—74.
Barton, Ralph D., to Whirlpool Corp. Ice making apparatus. 2,844,008, 7–22–58, Cl. 62—135.
Baso Inc.: *See*—
Bydalek, Floyd J., Dietz, Hilgert, and Matthews. 2,844,655.
Hilgert, Adolph J. 2,844,768.
Leins, Oscar J. 2,844,201.
Batchelder, Laurence, to Raytheon Mfg. Co. Compressional wave transducers. 2,844,809, 7–22–58, Cl. 340—10.
Bateman, Richard M., and N. E. Hollis, to The Richardson Co. Process for preparing moldable composition. 2,844,327, 7–22–58, Cl. 241—3.
Batson, George A., and G. A. Peterman. Cover lock and centrifugal switch control therefor. 2,844,239, 7–22–58, Cl. 192—136.
Bauer, Alfred F., and C. Pack, to National Lead Co. Mold for the casting of non-ferrous alloys. 2,843,897, 7–22–58, Cl. 22—129.
Baum, Richard V., to Goodyear Aircraft Corp. Electrical simulator for mechanical lost-motion and the like. 2,844,311, 7–22–58, Cl. 235—61.
Baxter, Don, Inc.: *See*—
Smith, Richard C. 2,844,351.
Bayer, Otto: *See*—
Lehmann, Wolfgang, Muns, Bayer, and Kleiner. 2,844,490.
Bayha, Jack E., and F. J. Burger, to Emerson Radio and Phonograph Corp. Means for testing electronic circuit components. 2,844,250, 7–22–58, Cl. 209—81.
Beacham, Robert C., to Cutter Laboratories. Segregation chamber for transfusion sets. 2,844,147, 7–22–58, Cl. 128—214.
Beal, Philip F.: *See*—
Hogg, John A., Beal, and Lincoln. 2,844,604.
Bear Archery Co.: *See*—
Folberth, William M. 2,844,136.
Beard, Arthur D., to Radio Corp. of America. Magnetic recording. 2,844,434, 7–22–58, Cl. 346—74.
Beautiful Bryans, Inc.: *See*—
Cobert, Arthur J. 2,844,016.
Becht, Richard J., and J. H. Heldorn, to General Motors Corp. Refrigerating apparatus. 2,844,305, 7–22–58, Cl. 230—206.
Bechtold, Max F., and R. N. MacDonald, to E. I. du Pont de Nemours and Co. Dispersion polymerization of formaldehyde in the presence of an organic synthetic polymer. 2,844,561, 7–22–58, Cl. 260—45.5.
Beck, Earl J., Jr., and K. N. Tinklepaugh. Temperature control for internal combustion engine. 2,844,129, 7–22–58, Cl. 123—41.21.
Beebee, Lawrence, to Deeco, Inc. Combined clamping and punching apparatus. 2,844,204, 7–22–58, Cl. 164—90.
Beijer, Oscar F., and S.-A. Nordegren, to Vibro-Plus Corp. Rotary vibrator. 2,844,041, 7–22–58, Cl. 74—87.
Bell, Alfred W.: *See*—
Ingram, Wayne E., and Bell. 2,843,966.
Bell Telephone Laboratories, Inc.: *See*—
Cioffi, Paul P. 2,844,754.
Fox, Arthur G. 2,844,799.
Hermance, Harold W. 2,843,860.
Hines, Marion E. 2,844,722.
Joel, Amos E., Jr. 2,844,307.
Pfann, William G. 2,844,688.
Prince, Morton B. 2,844,531.
Quate, Calvin F. 2,844,753.
Rieke, John W., and Slocum. 2,844,710.
Rigterink, Merle D. 2,844,693.
West, Fred. 2,844,668.
Yaeger, Robert E. 2,844,667.
Bendett, Jerome. Snare and timbal quick change swivel attachments for bass drum. 2,844,064, 7–22–58, Cl. 84—421.
Benink, Christiaan J. M., and H. Wens, to G. M. Pfaff, A.-G. Stitch adjusting device for sewing machines. 2,844,114, 7–22–58, Cl. 112—210.
Benn, Robert E., to E. I. du Pont de Nemours and Co. Apparatus for measuring denier. 2,844,028, 7–22–58, Cl. 73—160.
Benner Nowman, Inc.: *See*—
Dreyer, John A. 2,844,263.
Bennett, Richard A., to Milton Roy Co. Self-aligning plunger drive. 2,844,103, 7–22–58, Cl. 103—153.
Bennett, Richard A., and W. P. Schmid, to The American Pulley Co. Torque arms. 2,844,048, 7–22–58, Cl. 74—594.
Benson, Walter F. Apparatus for building patios. 2,843,912, 7–22–58, Cl. 25—118.
Berberich, Willi. Apparatus for manufacturing helical wire. 2,843,878, 7–22–58, Cl. 18—19.
Berg, Clyde H. O., to Union Oil Co. of California. Combined hydrodesulfurization and reforming process and apparatus therefor. 2,844,516, 7–22–58, Cl. 196—28.
Berg, Harold: *See*—
Rheeling, Victor S. 2,843,954.
Rheeling, Victor S. 2,844,388.
Bergé, Georges. Self-contained breathing apparatus. 2,844,145, 7–22–58, Cl. 128—142.
Bergner, Harold M. Flatiron safety stand. 2,844,343, 7–22–58, Cl. 248—117.2.
Berkelhamer, Louis H., to D. T. Siegel. Pile resistor. 2,844,692, 7–22–58 Cl. 201—63.
Bernstein, Jack, and B. Stearns, to Olin Mathieson Chemical Corp. Alkylaminoalkyl 4-alkoxy-3,6-dialkylbenzoates. 2,844,621, 7–22–58, Cl. 260—473.
Bernstein, Russell W., and A. Block, to Merit Products, Inc. Abrasive wheel and replaceable abrasive unit therefor. 2,843,980, 7–22–58, Cl. 51—193.5.
Best Foods, Inc., The: *See*—
Akerboom, Jack, and Melnick. 2,844,470.
Beveridge, John H. Reciprocating piston machine. 2,844,131, 7–22–58, Cl. 123—73.
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Cousins, Edwin R., Bhodhiprasart, and Prachankadee. 2,844,613.
Bibb, Robert L.: *See*—
Parker, Charles B., and Bibb. 2,844,412.
Bihaly, Lajos, to Trubenising Process Corp. Strip material for use in defining the fold lines of collars. 2,844,170, 7–22–58, Cl. 139—385.5.
Bird Electronic Corp.: *See*—
Bird, James R., and Calderhead. 2,844,792.
Bird, James R., and H. J. Calderhead, to Bird Electronic Corp. High frequency electrical meter cartridge. 2,844,792, 7–22–58, Cl. 324—95.
Birdsall, Bruce E., to Carrier Corp. Damper arrangements for air conditioning units. 2,844,066, 7–22–58, Cl. 98—38.
Birkeland, Leigh F.: *See*—
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Birum, Gail H., to Monsanto Chemical Co. Biological toxicant. 2,844,454, 7–22–58, Cl. 71—2.7.
Bishop, J., & Co., Platinum Works: *See*—
Gettig, Joseph H. 2,844,149.
Bishop, William T., and L. T. Tichenor, to Eastman Kodak Co. Apparatus for opening crimped continuous filament tow. 2,843,881, 7–22–58, Cl. 19—65.
Bistline, Raymond G., Jr., W. S. Port, A. J. Stirton, and J. K. Weil, to United States of America, Agriculture. Polymerizable esters of alpha-sulfonated fatty acids. 2,844,606, 7–22–58, Cl. 260—400.
Bjorklund, Berma. Lift strap and exerciser for recumbent persons. 2,843,858, 7–22–58, Cl. 5—317.
Blanding, Forrest H., and W. J. Schmidt, to Esso Research and Engineering Co. Conversion of hydrocarbons. 2,844,518, 7–22–58, Cl. 196—50.
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Blank, Robert and J. 2,844,215.
Blank, Robert, deceased, and J. Blank; B. Fenster and G. Lake, executrices, to J. Blank. Knock-down air filter. 2,844,215, 7–22–58, Cl. 183—49.
Blatherwick, Delbert T., to Robertson Photo-Mechanix, Inc. Lens mounting. 2,844,082, 7–22–58, Cl. 95—51.
Blinn, Herbert M. Multiplied key-ended trunk termination. 2,844,657, 7–22–58, Cl. 179—48.
Bloch, Herman S., to Universal Oil Products, Co. Sulfonation process with emphasis on economy of sulfonating agent. 2,844,624, 7–22–58, Cl. 260—505.
Block, Aleck: *See*—
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Block, Aleck, to Merit Products, Inc. Abrasive drum. 2,843,981, 7–22–58, Cl. 51—193.7.
Blocked Iron Corp.: *See*—
Amberg, Charles R. 2,844,457.
Bloomer Bros. Co.: *See*—
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Blumer, Manuel, to L. Sonneborn, Sons, Inc. Alkaline earth metal petroleum mahogany sulfonates. 2,844,535, 7-22-58, Cl. 252—33.

Boardway, Johanna C. Package containing article with delicate surface. 2,844,471, 7-22-58, Cl. 99—171.

Bochow, Walter: *See*—
Davis, John S., and Bochow. 2,844,075.

Bogen David & Co., Inc.: *See*—
Zuckerman, Alfred M. 2,844,713.

Bogar, Earl M., Jr. Slide assembly for slidably connecting relatively movable parts. 2,844,430, 7-22-58, Cl. 311—71.

Bohme Fettchemie G. m. b. H.: *See*—
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Bole, George B.: *See*—
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Bomac Laboratories Inc.: *See*—
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Bonmartini, Giovanni, to "Eat" Etablissement Sciences Techniques. Rotary joint. 2,844,399, 7-22-58, Cl. 287—85.

Borchers, Anton J.: *See*—
Cofer, Thomas N., and Borchers. 2,844,643.

Borel, Alfred E. and J.-P. Gastight instrument shell for furnaces. 2,844,637, 7-22-58, Cl. 136—4.

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Borel, Alfred E. and J.-P. 2,844,637.

Borg, Edward M. Method for ascertaining the percentage of butter fat content of milk. 2,844,067, 7-22-58, Cl. 68—14.

Borgstrom, Bruce W. Disposable door mats. 2,843,868, 7-22-58, Cl. 15—215.

Borkovec, Alexej B., to The Dow Chemical Co. Method for the polymerization of olefin oxides with ferric compounds. 2,844,545, 7-22-58, Cl. 260—2.

Bösel, Ingeborg, K. Bullmer, and H. Rösler, to K. Bullmer. Device for marking superimposed webs of material. 2,844,203, 7-22-58, Cl. 104—89.5.

Boswell, V. W.: *See*—
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Bowman, Howard J., and E. W. Williams, to Trent Tube Co. Welding method and apparatus. 2,844,705, 7-22-58, Cl. 219—61.

Braconier, Frederic F. A., and H. Le Bihan, to Societe Belge de l'Azote et des Produits Chimiques du Marly. Process for preparation of fatty alcohols. 2,844,638, 7-22-58, Cl. 260—638.

Braibanti, Giuseppe: *See*—
Braibanti, Mario and G. 2,844,110.

Braibanti, Mario and G. Device for rapidly and easily interchanging the drawplate in automatic presses for soft materials, particularly for alimentary paste. 2,844,110 7-22-58, Cl. 107—14.

Brandes, Ernest E. Toggle type holding device. 2,844,234, 7-22-58, Cl. 189—36.

Brandt, William H., and E. H. Martin. Grease gun conversion unit. 2,844,287, 7-22-58, Cl. 222—326.

Breed, Arie E.: *See*—
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Brendel, Ludwig, to Fichtel & Sachs A. G. Simplified free wheeling bicycle hub. 2,844,050, 7-22-58, Cl. 74—750.

Brewer, Selby W., and I. J. Umbarger. Pressure responsive switch. 2,844,679, 7-22-58, Cl. 200—82.

Bricker, Carl E., and A. W. Cook, to The Goodyear Tire & Rubber Co. Automatic brake adjustment device. 2,844,224, 7-22-58, Cl. 188—73.

Brick, Norman G., F. A. Kuehl, Jr., and K. Folkers, to Merck & Co., Inc. Process for preparing improved acth. 2,844,511, 7-22-58, Cl. 167—74.

British Celanese Ltd.: *See*—
Allen, Henry H. 2,843,937.
King, Frederick E. 2,844,483.

British Petroleum Co. Ltd., The: *See*—
Hainsworth, Percy. 2,844,440.

British Telecommunications Research Ltd.: *See*—
Felix, Michael O. 2,844,796.

Britton, Edgar C.: *See*—
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Broadwin, Harry, to Perfect-Line Mfg. Corp. Combination ventilating fan with light and reflector. 2,844,306, 7-22-58, Cl. 230—249.5.

Broderick, Aubrey E., to Union Carbide Corp. Production of highly hydroxyalkylated polyvinyl alcohols. 2,844,571, 7-22-58, Cl. 260—91.3.

Broderick, Aubrey E., to Union Carbide Corp. Production of highly hydroxyalkylated polyvinyl alcohols. 2,844,570, 7-22-58, Cl. 260—91.3.

Brookshire, Guy: *See*—
Garner, Wayne C., and Brookshire. 2,844,318.

Brothers, David V., and F. D. Ammen, to Talking Scales, Inc. Annunciating weighing machine. 2,844,662, 7-22-58, Cl. 179—100.1.

Brown, William R. Combination furniture. 2,843,856, 7-22-58, Cl. 5—16.

Brown, Wolstan C. Manikin device for illustrating dynamic movement. 2,843,946, 7-22-58, Cl. 35—29.

Brownfield, Charles F. Wedge lock tool-head fastener. 2,844,414, 7-22-58, Cl. 306—33.

Brubaker, Clarence B., deceased; V. J. Bailey and W. J. Chiapella, administrators. Cotton bale tie buckle. 2,843,905, 7-22-58, Cl. 24—200.

Bruce, William F., and R. S. Hanslick, to American Home Products Corp. Fatty acid amides and derivatives thereof. 2,844,629, 7-22-58, Cl. 260—561.

Brueder, Antoine, to Societe Anonyme Andre Citroen. Vibration absorbing transmission devices. 2,844,012, 7-22-58, Cl. 64—14.

Brunderman, Vincent G., to Jetco Mfg. Co. Motorized vehicle. 2,844,209, 7-22-58, Cl. 180—89.

Bryan, James S., to Philco Corp. Apparatus and method for overcoming scanning error effects in plural beam cathode ray tubes. 2,844,759, 7-22-58, Cl. 315—27.

Bryant, Corwin W., to Crane Co. Valve locking device. 2,844,021, 7-22-58, Cl. 70—175.

Buchanan, Michael K. Ice tray. 2,844,009, 7-22-58, Cl. 62—135.

Buck, Elbert C. Wood loader. 2,844,240, 7-22-58, Cl. 198—7.

Buckeye Cellulose Corp., The: *See*—
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Budd Co., The: *See*—
Callender, Edwin M. 2,844,788.
Davis, Kenneth E. 2,843,893.
Ekseryian, Carolus L. 2,844,409.

Buhrke, Fred W., to Fraser Label Co. Box forming machine. 2,844,077, 7-22-58, Cl. 93—51.

Bukowski, Edward Z. Corner paper clip. 2,843,901, 7-22-58, Cl. 24—66.

Bull, Edgar M., and C. J. Di Julio. Universal drill jig. 2,844,054, 7-22-58, Cl. 77—64.

Bullmer, Karl: *See*—
Bösel, Ingeborg, Bullmer, and Rösler. 2,844,203.

Burcham, Robert L.: *See*—
Kellish, Edward H., Vinton, and Burcham. 2,844,274.

Burger, Francis J.: *See*—
Bayha, Jack E., and Burger. 2,844,250.

Buri, Alfred, to Sulzer Freres, Societe Anonyme. Heat exchanger. 2,844,360, 7-22-58, Cl. 257—221.

Burkhart, William H., to Monroe Calculating Machine Co. Switching circuits. 2,844,811, 7-22-58, Cl. 340—166.

Burness, John H.: *See*—
Huckstep, Henry J. W., and Burness. 2,843,978.

Burnett, Charles L. Boat trailer dolly. 2,844,389, 7-22-58, Cl. 280—476.

Burns, Stanley S., and H. Hornschuch, 50% to Marathon Electric Mfg. Corp. and 50% to Ingersoll-Rand. Glandless electric motor and pump unit. 2,844,101, 7-22-58, Cl. 103—87.

Burroughs Corp.: *See*—
Auerbach, Isaac L. 2,844,812.

Busch, Heinrich: *See*—
Eppinger, Alfred, and Busch. 2,844,681.

Busch-Jaeger Durenor Metallwerke Akt.: *See*—
Eppinger, Alfred, and Busch. 2,844,681.

Busquet, Jan C., to Koninklijke Machinefabriek Gebr. Stork & Co., N. V. Hengelo (O). Axial flow fans or axial flow pumps. 2,844,304, 7-22-58, Cl. 230—120.

Buteborn, William C. Mechanical finger for spinning reel in fishing tackle. 2,843,963, 7-22-58, Cl. 43—25.

Butler, Keith H.: *See*—
Rulon, Richard M., and Butler. 2,844,540.

Butterfield, John P., to Chrysler Corp. Spring snubber unit. 2,844,366, 7-22-58, Cl. 267—1.

Butterworth, Greig S., and E. S. Silver, to Airborne Instruments Laboratory, Inc. Incremental feed mechanisms. 2,843,974, 7-22-58, Cl. 51—103.

Bydalek, Floyd J., G. E. Dietz, A. J. Hilgert, and R. B. Matthews, to Basso Inc. Sensitive relay. 2,844,685, 7-22-58, Cl. 200—104.

Byrne, John F., and W. L. Firestone, to Motorola, Inc. Multiple frequency channel multiplex communication system. 2,844,711, 7-22-58, Cl. 250—15.

C. G. S. Laboratories, Inc.: *See*—
Favreau, Elie A., Jr., and Rosbkind. 2,844,803.

Cabot, Godfrey L., Inc.: *See*—
Jordan, Merrill E. 2,844,444.

Cadwell, Vyrl E. Arm-brace-securing means. 2,844,395, 7-22-58, Cl. 287—1.

Calderhead, Henry J.: *See*—
Bird, James R., and Calderhead. 2,844,792.

California Institute Research Foundation: *See*—
Carrouche, Richard L. 2,843,936.

California Research Corp.: *See*—
Scott, John W., Jr., and Cull. 2,844,525.
Wilkes, John B. 2,844,631.

Callender, Edwin M., to The Budd Co. Magnetic sheet detecting means. 2,844,788, 7-22-58, Cl. 324—34.

Cameron, Margaret D., to Monsanto Chemical Co. 4-alkylidene-2-oxazolidones and process. 2,844,590, 7-22-58, Cl. 260—307

Campbell, Floyd A. Hole and slot gauge with threaded adjusting means. 2,843,938, 7-22-58, Cl. 33—163.

Campbell, Floyd A. Brush holder and filter. 2,844,256, 7-22-58, Cl. 210—251.

Campbell Taggart Research Corp.: *See*—
Archer, Irving M. 2,843,983.

Canada, Minister of National Health and Welfare, representing Her Majesty the Queen in the right of: *See*—
Siebenmann, Charles O., and Zubrys. 2,844,588.

Canadian Chemical Co., Ltd.: *See*—
Griffith, Leonard. 2,844,157.

Candlin, James E., Jr.: *See*—
Austgen, Kenneth J., and Candlin. 2,844,109.

Cannon, Reginald: *See*—
Ware, Richard N., Jr., and Cannon. 2,844,174.

Cardon, Jules and F. G. Richter, to Servo Corp. of America. Radio receiver muting control circuit. 2,844,714, 7-22-58, Cl. 250—20.

Carlo, Ré, G. F. Rice, L. F. Birkeland, V. T. Koozin, G. C. Duncan, and D. Kinda, to Royal Industries, Inc. Launching device. 2,844,078, 7-22-58, Cl. 89—1.7.

Carothers, Campbell M., to Esso Research and Engineering Co. Method for completing and servicing a well. 2,844,205, 7-22-58, Cl. 166—4.

Carrier Corp.: *See*—
Birdsall, Bruce E. 2,844,086.
McGrath, William L. 2,844,310.

Carrouche, Richard L., to California Institute Research Foundation. Ruling engine. 2,843,836, 7-22-58, Cl. 33—82.

Carson, Thomas H., to Ex-Cell-O Corp. Electro-hydraulic servo actuators. 2,844,158, 7-22-58, Cl. 137—82.

Carter, Robert W., to United States Steel Corp. Hot top. 2,843,898, 7-22-58, Cl. 22—147.

Carter, Sidney T., to Geo. J. Meyer Mfg. Co. Band height positioner for banding machines. 2,843,986, 7-22-58, Cl. 53—291.

Cartwright, John R. Data column shifting device. 2,844,310, 7-22-58, Cl. 235—61.

Cascade Mfg. Co.: *See*—
Farmer, Stanley E., and Weinert. 2,844,403.

Castedello, William: *See*—
Schwartz, Morris, and Castedello. 2,844,018.

Castel, Jacques H., to PGAC Development Co. Apparatus for supporting explosive charges in jet type perforating guns. 2,844,098, 7-22-58, Cl. 102—20.

Cate, Paul E., to Robertshaw-Fulton Controls Co. Device for proportioning different temperature fluids. 2,844,320, 7-22-58, Cl. 236—12.

Cater, Harry L. Pole boot. 2,843,890, 7-22-58, Cl. 20—100.

Cavallito, Chester J., to Sterling Drug, Inc. Quaternary ammonium alkylaminobenzoquinones. 2,844,585, 7-22-58, Cl. 260—294.7.

Cavenah, David K., and P. J. Steffen, to Landon, Inc. Combination filter and surface skimmer. 2,844,255, 7-22-58, Cl. 210—170.

Celanese Corp. of America: *See*—
Albohn, Arthur R., and Moelter. 2,843,875.
Fisher, Gene J. 2,844,622.
Noether, Herman D. 2,844,627.
Plonsky, Seymour, Chow, and Schneider. 2,844,731.
Schnizer, Arthur W., and Stautzenberger. 2,844,583.
Wells, Robert H. 2,844,575.

Centolella, Albert P. to Miles Laboratories, Inc. p-Aminosalicylic acid. 2,844,625, 7-22-58, Cl. 260—519.

Central Carton Co., The: *See*—
Gruber, Leonard J., and Fessenden. 2,844,245.

Central Fibre Products Co.: *See*—
Lambert, Harry E. 2,844,268.

Chalkley, Lyman. Photographic process. 2,844,465, 7-22-58, Cl. 96—48.

Chalmers, William E., and G. J. Hoffman; said Chalmers assor. to Tankee Engineering Co., Inc. Storage shelving construction. 2,844,261, 7-22-58, Cl. 211—90.

Chandler, James L., and C. C. Roe, to LeTourneau-Westinghouse Co. Field current supply system for an alternator. 2,844,783, 7-22-58, Cl. 322—27.

Char-Lynn Co.: *See*—
Albers, Kenneth A. 2,844,391.

Chaves, John. Fastening device to receive a facing button. 2,843,903, 7-22-58, Cl. 24—107.

Chemical Process Co.: *See*—
Abrams, Irving M. 2,844,546.

Chiapella, W. J.: *See*—
Brubaker, Clarence B. 2,843,905.

Chicago Mill and Lumber Co.: *See*—
Ware, Richard N., Jr., and Cannon. 2,844,174.

Chicago Telephone Supply Corp.: *See*—
Barden, Wayne A., and Pierce. 2,844,670.

Chittum, Jack O., and F. S. Fitzgerald. Handle and latch operating means for doors. 2,844,020, 7-22-58, Cl. 70—97.

Chow, Ho: *See*—
Plonsky, Seymour, Chow, and Schneider. 2,844,731.

Christiansen, Milton J., and W. F. Stephen, to Western Electric Co., Inc. Carrier-type conveyors. 2,844,243, 7-22-58, Cl. 198—189.

Christy, James W., and J. McEvoy, to Nutone, Inc. Two-note solenoid switch mechanism. 2,844,680, 7-22-58, Cl. 200—87.

Chrysler Corp.: *See*—
Butterfield, John P. 2,844,366.

Ciaffa, Italo A., ¼ to B. Schneider and O. Marquad. Splitting machines. 2,844,138, 7-22-58 Cl. 125—24.

Ciba Pharmaceutical Products Inc.: *See*—
Wettstein, Albert, Vischer, and Meystre. 2,844,513.

Cincinnati Testing & Research Laboratories: *See*—
Warnken, Elmer P. 2,844,334.

Cioffi, Paul P., to Bell Telephone Laboratories, Inc. Electron beam focusing system. 2,844,754, 7-22-58, Cl. 315—3.5.

Clark, Robert C. Anticorrosive sealed magnetized stirring bar. 2,844,361, 7-22-58, Cl. 259—144.

Clark, Walter G. Hydraulic gooseneck. 2,844,265, 7-22-58, Cl. 214—506.

Clary Corp.: *See*—
Nessel, Jiri M. 2,843,909.

Clausen, Soren: *See*—
Snitker, Jens C. 2,844,501.

Cleveland Heater Co., The: *See*—
Kennedy, Emmett F. 2,844,704.

Clevite Corp.: *See*—
Gaylord, Richard H. 2,844,126.

Clignet, George, to Ste: Verreries Charbonneaux. Apparatus used in compression moulding of objects of glass and like material. 2,843,973, 7-22-58, Cl. 49—36.

Cluwen, Johannes M.: *See*—
Van Urk, Arend T., and Cluwen. 2,844,786.

Cobb, Clifton A.: *See*—
Geldhof, Peter E., and Cobb. 2,843,943.

Cobert, Arthur J., 50% to Beautiful Bryans, Inc. Thread puller, holder and cutter. 2,844,016, 7-22-58, Cl. 66—82.

Cocker Machine & Foundry Co.: *See*—
Freese, William L. 2,844,335.

Cofer, Thomas N., and A. J. Borchers. Transmission line support. 2,844,643, 7-22-58, Cl. 174—6.

Coggeshall, Almy D., to General Electric Co. Support means for rotor end windings of dynamo-electric machines. 2,844,748, 7-22-58, Cl. 310—65.

Cohn, J Bradley: *See*—
Elliott, James D., Jordan, Fegnin, and Cohn. 2,844,314.

Cole, Howard W., Jr. Self-locking actuator with load release. 2,844,236, 7-22-58, Cl. 192—8.

Cole, Raymond S., to Electrical Engineering & Mfg. Corp. Antifriction screw device. 2,844,044, 7-22-58, Cl. 74—424.8.

Coleman Co., Inc., The: *See*—
Newton, Alwin B. 2,844,301.

Coleman, Edwin J. Aircraft jettisonable fuel tank. 2,844,178, 7-22-58, Cl.150—0.5.

Collier Carbon and Chemical Corp.: *See*—
McKinnis, Art C. 2,844,634.

Collier, George H., to The Goodyear Tire & Rubber Co. Wheel and brake. 2,844,219 7-22-58, Cl. 188—18.

Compco Corp.: *See*—
Kaufman, Jack. 2,844,401.

Consolidated Electrodynamics Corp.: *See*—
Robinson, Charles F. 2,844,726.
Tavis, John R. 2,844,793.

Consolidated Iron-Steel Mfg. Co.: *See*—
Maine, James F. 2,843,911.

Continental Can Co., Inc.: *See*—
Sharman, Whitney D., and Ahlmeyer. 2,844,078.

Continental Machines, Inc.: *See*—
Crane, Robert L., and Wilkie. 2,843,917.

Continental Motors Corp.: *See*—
Engstrom, William A. 2,844,323.

Continental Oil Co: *See*—
Shelton, Edgar A. 2,844,271.

Cook, Albert W.: *See*—
Bricker, Carl E., and Cook. 2,844,224.

Cook-Waite Laboratories, Inc.: *See*—
Resnek, Solomon. 2,843,934.

Cooper, Robert S.: *See*—
Toy, Arthur D. F., and Cooper. 2,844,558.

Corson, Murray: *See*—
Mayer, Robert, and Corson. 2,844,272.

Corwin, Merton D., to The Baldwin Piano Co. Key and keyboard construction. 2,844,065, 7-22-58, Cl. 84—423.

Costanzo, Raphael J. Cigar lighters. 2,844,096, 7-22-58, Cl. 219—32.

Cottle, Delmer L., A. J. Morway, and D. W. Young, to Esso Research and Engineering Co. High molecular weight branched-chain ethers of lubricating grade. 2,844,534, 7-22-58, Cl. 252—32.

Coulston, Frederick, and E. W. Dennis, to Sterling Drug Inc. Prevention and suppression of coccidiosis in poultry with 2,2'-thiobis (2,4-dichlorophenol). 2,844,509, 7-22-58, Cl. 167—53.1.

Coultas, Wilbur J., to Deere & Co. Hay conditioner roll mounting and adjustment mechanism. 2,843,990, 7-22-58, Cl. 56—1.

Coulter & McKenzie Machine Co., Inc., The: *See*—
Zaveruha, Victor A. 2,844,416.

Courtaulds Ltd.: *See*—
Girbow, Arthur H. 2,844,332.

Cousins, Edwin R., S. Bhodhipraseart, and R. Prachankadee, to United States of America, Agriculture. Alkali refining rice oil in the presence of an OH group-containing additive. 2,844,613, 7-22-58, Cl. 260—425.

Cowart, Burleigh. Floral design rack. 2,843,972, 7-22-58, Cl. 47—41.

Craig, Dwin R., to Logetronics, Inc. Light responsive apparatus. 2,844,736, 7-22-58, Cl. 250—214.

Craig, W. E.: *See*—
Biener, Edward F., Craig, and Durkin. 2,844,593.

Crane Co.: *See*—
Bryant, Corwin W. 2,844,021.

Crane, Robert L., and J. W. Wilkie, to Continental Machines, Inc. Band sawing machine. 2,843,917, 7-22-58, Cl. 29—68.

Creutz, Edward C., W. A. McAdams, and M. H. Foss, to United States of America, Atomic Energy Commission. Method of testing for leaks. 2,844,735, 7-22-58, Cl. 250—83.6.

Crowley, Francis B. Household roasters. 2,844,288, 7-22-58, Cl. 222—466.

Crown Cork & Seal Co., Inc.: *See*—
Slade, William J. 2,844,290.

Cull, James B.: *See*—
Scott, John W., Jr., and Cull. 2,844,525.

Cummington Corp.: *See*—
Dexter, Robert G., and Willett. 2,844,368.

Curley, Morton B., to The Jeffrey Mfg. Co. Adjustable fan blade assembly. 2,844,207, 7-22-58, Cl. 170—160.6.

Custer, Byron K., Jr. Snow melting mat. 2,844,696, 7-22-58, Cl. 219—19.

Cutter Laboratories: *See*—
Beacham, Robert C. 2,844,147.

Cyba, Henry A., and R. B. Thompson, to Universal Oil Products Co. Stabilization of hydrocarbon distillates. 2,844,446, 7-22-58, Cl. 44—63.

Cybriwsky, Alexander, and N. Mostovych, to Reynolds Metals Co. Process and apparatus for rapidly anodising aluminum. 2,844,529, 7-22-58, Cl. 204—28.

Cherwin, Edwin P., to E. I. du Pont de Nemours and Co. Decolorization of polyvinyl alcohol. 2,844,563, 7-22-58, Cl. 260—45.9.

Dahl, Robert R., to The Dole Valve Co. Thermoplastic valve. 2,844,352, 7-22-58, Cl. 251—48.

Daniels, Charles J., and D. B. Doolittle, to All American Engineering Co. Weight actuated arresting cable control means for aircraft. 2,844,340, 7-22-58, Cl. 244—110.

Dantz, Robert C., to Hoffman Electronics Corp. Bi-directional mechanical limit stop system or the like. 2,844,035, 7-22-58, Cl. 74—10.2.

Darling, Samuel M., to The Standard Oil Co. Gasoline fuel compositions. 2,844,447, 7-22-58, Cl. 44—69.

Darrell, George H. Plug locking and protecting device. 2,844,808, 7-22-58, Cl. 339—37.

Daugherty, Minnie. Baby travel diner. 2,844,141, 7-22-58, Cl. 126—263.

Daven Co., The: *See*—
Barshay, Bernard. 2,844,785.

Davidson Springs Ltd.: *See*—
Davidson, Eric B. 2,844,333.

Davidson, Eric B., to Davidson Springs Ltd. Resilient bobbin. 2,844,333, 7-22-58, Cl. 242—118.11.

Davis, Robert P., to Tank Corp. Temperature compensated force balance. 2,844,027, 7-22-58, Cl. 73—147.

Davis, John S. and W. Bochow, to Equitable Paper Bag Co., Inc. Machine for forming and applying cord handles to a paper bag web. 2,844,075, 7-22-58, Cl. 93—8.

Davis, Kenneth R., to The Budd Co. Apparatus and method for gating with diaphragm packing machines. 2,843,892, 7-22-58. Cl. 22—38.

Davis, William E. Automatic density controlled apparatus for baling. 2,844,092, 7-22-58, Cl. 100—43.

Day Co., The: *See*—
Swanson, Arden E. 2,844,216.

Dayton Rubber Co., The: *See*—
Rockoff, Joseph. 2,843,883.

Dazzi, Joachim, to Monsanto Chemical Co. Viscous polycarboxylate adducts from butadiene-type rubbers. 2,844,567, 7-22-58, Cl. 260—83.3.

De Capitani, Francesco. Cigarette with igniter element and method of making such cigarette. 2,844,152, 7-22-58, Cl. 131—7.

Decca Record Co. Ltd., The: *See*—
O'Brien, William J., and Hawker. 2,844,816.

Deeco, Inc.: *See*—
Beebee, Lawrence. 2,844,204.

Deere & Co.: *See*—
Coultas, Wilbur J. 2,843,990.
Jones, Frank D. 2,843,992.
Lindeman, Jesse G., and Horey. 2,843,948.

Deere Mfg. Co.: *See*—
Du Shane, Wallace H. 2,844,083.
Du Shane, Wallace H. 2,844,397.
Edman, John H. 2,844,166.
McClellan, Marcus E. 2,843,980.
Meier, Robert H. 2,844,011.
Nordenson, Willard H., and Park. 2,844,130.
Sutherland, Gail E., and Breed. 2,844,417.

Deeter, Lester W. Boat carrier having individually suspended wheels. 2,844,383, 7-22-58, Cl. 280—124.

De Frese, Joseph H. Liquid volume-level indicator. 2,844,121, 7-22-58, Cl. 116—118.

Dench, Edward C., to Raytheon Mfg. Co. Traveling wave electron discharge devices. 2,844,797, 7-22-58, Cl. 332—25.

Denis, Richard, to Establissements Simon & Denis, Société Anonyme. Arrangement for comminuting and mincing foodstuff. 2,844,177, 7-22-58, Cl. 146—107.

Dennis, Emery W.: *See*—
Coulston, Frederick, and Dennis. 2,844,509.

Dentists' Supply Co. of New York, The: *See*—
Gibson, Albert E., Jr. 2,844,249.

Deport, Jacques-Albert. Shower-bath distributor valve. 2,844,407, 7-22-58, Cl. 299—84.

Dexex Corp.: *See*—
Henricks, John A. 2,844,497.

Dexter, Robert G., and J. A. Willett, to Cummington Corp. Sheet collating machine. 2,844,368, 7-22-58, Cl. 270—58.

Diamond Gardner Corp.: *See*—
Ringler, William A. 2,844,280.
Ringler, William A. 2,844,281.

Dias Cascajares, Federico. Automatic transmission. 2,844,061, 7-22-58, Cl. 74—751.

Dick, James B. Simplified idler arm adjuster. 2,844,382, 7-22-58, Cl. 280—93.

Dickmann, Johannes, and G. Eutenauer, to Waldemar Foerstner (tradeis as Total Kommanditgesellschaft Foerstner & Co.) Nozzles. 2,844,408, 2-77-58, Cl. 299—120.

Diemer, Gesinus, to North American Philips Co., Inc. Electron discharge device with resonator. 2,844,756, 7-22-58, Cl. 315—5.49.

Dietz, Gerald R.: *See*—
Bydalek, Floyd J., Dietz, Hilgert, and Matthews. 2,844,685.

Di Julio, Carl J.: *See*—
Bull, Edgar M., and Di Julio. 2,844,054.

Dilcher, Harry J., and R. B. Frost, to Fuller Co. Method and apparatus for blending pulverulent material. 2,844,361, 7-22-58, Cl. 259—1.

Dille, Kenneth L.: *See*—
Heisler, Robert Y., Newman, Dille, and Alpert. 2,844,450.

Dille, Kenneth L., R. Y. Heisler, S. R. Newman, and N. Alpert, to The Texas Co. Fuels containing a deposit-control additive. 2,844,449, 7-22-58, Cl. 44—70.

Dimeff, John. Servomotor capacitance-coupled potentiometer wiper circuit. 2,844,776, 7-22-58, Cl. 318—29.

Dimmock, James W., to The Sherwin-Williams Co. Dual ring element container closure. 2,844,276, 7-22-58, Cl. 220—55.

Distillers Co. Ltd., The: *See*—
Munday, Charles W. 2,844,728.

Dittrich, Rudolf. Method and apparatus for making a fabric. 2,844,017, 7-22-58, Cl. 66—85.

Dmowski, Louis E.: *See*—
Grootveld, Richard L. 2,843,860.

Doak, Kenneth W., to United States Rubber Co. Process for the promotion of the low hysteresis processing of rubber using iodoform. 2,844,556, 7-22-58, Cl. 260—41.5.

Dodge Mfg. Corp.: *See*—
Wentworth, Starr E. 2,844,782.

Dohrer, Alfred G. Storing and dispensing apparatus for crickets. 2,843,968, 7-22-58, Cl. 43—55.

Dole Valve Co., The: *See*—
Dahl, Robert R. 2,844,352.

Donahoe, William T. Animated display device. 2,843,949, 7-22-58, Cl. 40—28.1.

Doolittle, Donald B.: *See*—
Daniels, Charles J., and Doolittle. 2,844,340.

Dow Chemical Co., The: *See*—
Ashby, Bruce A., Britton and Horsley. 2,844,580.
Borkovec, Alexej B. 2,844,545.
Greminger, George K., Jr. 2,844,480.
Wheeler, Donald D., and Young. 2,844,596.

Dow, Jennings B., to Hazeltine Research, Inc. Method of making multicolor cathode-ray tube screens. 2,844,758, 7-22-58, Cl. 315—21.

Draghi, André. Tampon. 2,844,150, 7-22-58, Cl. 128—285.

Drainall Corp.: *See*—
Lanfear, Joseph P. 2,844,330.

Drake, Russell P., to Barber-Colman Co. Warper. 2,843,915, 7-22-58, Cl. 28—32.

Draudt, Howard N.: *See*—
Hanley, Jack W., and Draudt. 2,844,478.

Dresser, Willis E., to The Vitarama Corp. Automatic apparatus for controlling synchronisation of different film feeding mechanisms. 2,844,070, 7-22-58, Cl. 88—16.2.

Dreyer, John A., to Benner Nowman, Inc. Article transfer mechanism. 2,844,263, 7-22-58, Cl. 214—1.

Dreyfuss, Paul D. P.: *See*—
Gaspar, Bela, and Dreyfuss. 2,844,574.

Dugan, Lester J. Hoist for anchor. 2,844,119, 7-22-58, Cl. 114—210.

Duncan, Garnett C.: *See*—
Carlo, Re, Rice, Birkeland, Koonin, Duncan, and Kinde. 2,844,073.

Dunning, Leon T., to Union Carbide Canada Ltd. Apparatus for packaging envelopment. 2,843,984, 7-22-58, Cl. 53—184.

Du Pont de Nemours, E. I., and Co.: *See*—
Acker, Donald S. 2,844,577.
Acker, Donald S. 2,844,578.
Bechtold, Max F., and MacDonald. 2,844,561.
Benn, Robert E. 2,844,028.
Cherwin, Edward P. 2,844,563.
Friel, Daniel D. 2,844,066.
Hubbard, James K. 2,844,401.
Johnson, William G., and Reedy. 2,844,630.
Krespan, Carl G. 2,844,614.
Manger, Charles W., and Struve. 2,844,581.
Pellin, Remo A. 2,844,441.
Reidinger, Albert D., and Struve. 2,844,484.
Struve, William S. 2,844,485.
Sunnen, August, Jr. 2,844,186.

Durbin, William F., to The Goodyear & Rubber Co. Container. 2,844,269, 7-22-58, Cl. 220—1.

Durkin, Thomas J.: *See*—
Biener, Edward F., Craig, and Durkin. 2,844,593.

Duryee, Philip A. Illumination control. 2,844,762, 7-22-58, Cl. 315—159.

Du Shane, Wallace H., to Deere Mfg. Co. Hitch device. 2,844,083, 7-22-58, Cl. 97—46.93.

Du Shane, Wallace H., to Deere Mfg. Co. Hitch device. 2,844,397, 7-22-58, Cl. 287—60.

Dussine, Roger R., to Societe d'Electronique et d'Automatisme. Circuits for the addition and subtraction of numbers. 2,844,306, 7-22-58, Cl. 235—61.

Dutton, Oscar B., to Hoffman Electronics Corp. Teletypewriter systems or the like. 2,844,650, 7-22-58, Cl. 178—051.

Duty, John B. Crusher and grinding machine. 2,844,329, 7-22-58, Cl. 241—199.

Dylong, John: *See*—
Grootveld, Richard L. 2,843,860.

East, Charles L. Electrical connector. 2,844,608, 7-22-58, Cl. 339—244.

Eastman Kodak Co.: *See*—
Bishop, William T., and Tichenor. 2,843,881.

Eberman, Carl B., and B. E. R. Lofqvist, to Sandvikens Jernverks Aktiebolag. Percussion drill bit. 2,844,358, 7-22-58, Cl. 255—63.

Eble, Thomas E., to The Upjohn Co. Fumigillin enveloped in fatty or waxy substance and enclosed in ultraviolet opaque container. 2,844,512, 7-22-58, Cl. 167—83.

Eder, Hans: *See*—
Sommer, Friedrich, Hofmann, and Eder. 2,844,655.

Edgar, Victor R., to Warner Electric Brake & Clutch Co. Tension responsive switch. 2,844,675, 7-22-58, Cl. 200—61.19.

Edman, John H., to Deere Mfg. Co. Hydraulic detent for valve. 2,844,166, 7-22-58, Cl. 137—622.5.

Ehrenfried, John F., and L. J. Von Gunten, to The Goodyear Tire & Rubber Co. Method of packaging bacon strips. 2,844,472, 7-22-58, Cl. 99—174.

Ehret, Robert J., to Minneapolis-Honeywell Regulator Co. Control apparatus. 2,844,717, 7-22-58, Cl. 250—27.

Ellertsen, Adolph. Garter clasp with interlockable double tongue. 2,843,909, 7-22-58, Cl. 24—245.

Ekbergian, Carolus L., to The Budd Co. Wheel mounting means. 2,844,409, 7-22-58, Cl. 301—36.

Electric Products Co., The: *See*—
Hutchins, Charles C., and Seaman. 2,844,748.

Electrical Engineering & Mfg. Corp.: *See*—
Cole, Raymond S. 2,844,044.

Elliott, James D., R. J. Jordan, T. C. Pegnim, and J. B. Cohn, to American Machine & Foundry Co. Totalizing apparatus. 2,844,314, 7–22–58, Cl. 235—92.

Elliott, Stanley B.: *See*—
Hansen, Floyd R., and Elliott. 2,844,572.

Ellis, Charles R., and G. M. Reinsmith, to General Electric Co. Electrical circuit coupling apparatus. 2,844,800, 7–22–58, Cl. 333—32.

Elmeco A. G.: *See*—
Liebknecht, Werner. 2,844,316.

Elmer, Otto C.: *See*—
Krug, Robert H., and Elmer. 2,844,533.

Emmerson, James W. Electric soldering tools. 2,844,697, 7–22–58, Cl. 219—26.

Emerson Radio and Phonograph Corp.: *See*—
Bayha, Jack E., and Burger. 2,844,250.

Enbee Transparent Specialty Co., Inc.: *See*—
Engelstein, Stanley. 2,843,955.

Engelhard Industries, Inc.: *See*—
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Engelstein, Stanley, to Enbee Transparent Specialty Co., Inc. Record card and film holder assembly. 2,843,955, 7–22–58, Cl. 40—158.

Enghauser Mfg. Co., Inc.: *See*—
Enghauser, Winford L. 2,844,185.

Enghauser, Winford L., to Enghauser Mfg. Co., Inc. Method of and apparatus for bending workpieces by pushing them into a curved die-cavity. 2,844,185, 7–22–58, Cl. 153—48.

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Engstrom, William A., to Continental Motors Corp. Thermostat for engine cooling systems. 2,844,323, 7–22–58, Cl. 236—34.5.

Epifanio, Joseph, Jr.: *See*—
Epifanio, Joseph, Sr., and Joseph Epifanio, Jr. 2,844,364.

Epifanio, Joseph, Sr., and Joseph Epifanio, Jr. Fuel supply system for internal combustion engines. 2,844,364, 7–22–58, Cl. 261—119.

Eppinger, Alfred, and H. Busch, to Busch-Jaeger Durenor Metallwerke Akt. Automatic electric cut-outs. 2,844,681, 7–22–58, Cl. 200—88.

Equitable Paper Bag Co., Inc.: *See*—
Davis, John S., and Bochow. 2,844,075.

Erickson, Charles E.: *See*—
Wagner, George H., and Erickson. 2,844,435.

Erkelens, Johannes, J. Kamerman, and W. A. Roovers, to North American Phillips Co., Inc. Semi-conductor electrode systems. 2,844,769, 7–22–58, Cl. 317—234.

Ernst, Henry, Jr., to Esso Research and Engineering Co. Integration of coker with refinery. 2,844,524, 7–22–58, Cl. 196—55.

Esso Research and Engineering Co.: *See*—
Blanding, Forrest H., and Schmidt. 2,844,518.
Carothers, Campbell M. 2,844,205.
Cottle, Delmer L., Morway, and Young. 2,844,534.
Ernst, Henry, Jr. 2,844,524.
Green, Arthur D., Gornowski, Scheeline, and Jaros. 2,844,569.
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"Est" Etablissement Sciences Techniques: *See*—
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Dickmann, Johannes, and Euteneuer. 2,844,406.

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Faber & Schleicher Akt.: *See*—
Koch, Werner. 2,844,096.

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Farbenfabriken Bayer Akt.: *See*—
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Lehmann, Wolfgang, Munz, Bayer, and Kleiner. 2,844,490.
Schurmann, Max-Otto, and Haimerl. 2,844,019.
Schwarz, Herbert, Kallert, Mühlhausen, and Holtschmidt. 2,844,566.

Farbwerke Hoechst AG., vormals Meister Lucius & Brüning: *See*—
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Farmer, Stanley E., and H. F. Weinert, to Cascade Mfg. Co. Load clamping apparatus for lift trucks. 2,844,403, 7–22–58, Cl. 294—67.

Farmingdale Corp., The: *See*—
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Farrel-Birmingham Co., Inc.: *See*—
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Fasano, Fred A. Apparatus for bending tubes. 2,844,058, 7–22–58, Cl. 81—15.

Fayram, Elke A., Jr., and H. Roshkind, to C. G. S. Laboratories, Inc. Controllable inductors and methods of assembly. 2,844,803, 7–22–58, Cl. 336—155.

Feldkamp, Rolland F., and Y. H. Wu, to Mead Johnson & Co. 1-substituted-3-pyrrolidylmethyl benzilates and salts thereof. 2,844,591, 7–22–58, Cl. 260—326.3.

Felix, Michael O., to British Telecommunications Research Ltd. Phase-modulators. 2,844,794, 7–22–58, Cl. 332—23.

Fenster, Bertha: *See*—
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Ferguson, Edgar A., Jr. Methadyrilene and thenfadil nicotinate. 2,844,586, 7–22–58, Cl. 260—294.8.

Ferguson, Edgar A., Jr. Carboxyhistadyl and analogs. 2,844,587, 7–22–58, Cl. 260—294.8.

Ferguson, Joseph B. Tool for removing painted-over wallpaper. 2,843,932, 7–22–58, Cl. 30—171.

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Fibra A. G.: *See*—
Luchsinger, Ernst. 2,844,015.

Fichtel & Sachs A. G.: *See*—
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Fields, Adrian: *See*—
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Fike, Elmer A., to Roberts Chemicals, Inc. Diammonium ethylene bisdithiocarbamate. 2,844,623, 7–22–58, Cl. 260—500.

Finn, George B., Jr., and S. Mayburg, to Sylvania Electric Products Inc. Method of purifying germanium. 2,844,460, 7–22–58, Cl. 75—84.

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Byrne, John F., and Firestone. 2,844,711.

First American National Bank: *See*—
Parker, Charles B., and Bibb. 2,844,412.

Fischer, Kurt, to Siemens & Halske Akt. Circuit arrangement for controlling the operation of key-controlled telephone selection apparatus. 2,844,660, 7–22–58, Cl. 179—90.

Fisher, Gene J., to Celanese Corp. of America. Ketene reactions. 2,844,622, 7–22–58, Cl. 260—486.

Fisher, Roy H. Steam vaporiser. 2,843,801, 7–22–58, Cl. 21—119.

Fitzer, Erich, to Siemens-Plania-Werke Akt., Fuer Kohlefabrikate Method of producing heat resisting metallic materials and formed bodies. 2,844,492, 7–22–58, Cl. 117—66.

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Chittum, Jack O., and Fitzgerald. 2,844,020.

Fitzwater, Robert M.: *See*—
Rodriguez-Torrent, Ralph, and Fitzwater. 2,844,507.

Flauder, Alfred J., to A. M. Pistey. Rotatable mount for trophies. 2,843,959, 7–22–58, Cl. 41—10.

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Foil Process Corp.: *See*—
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Foss, Martyn H.: *See*—
Creutz, Edward C., McAdams, and Foss. 2,844,735.

Fotland, Richard A., to Horizons Inc. Transparent photoconductive composition. 2,844,543, 7–22–58, Cl. 252—501.

Fox, Arthur G., to Bell Telephone Laboratories, Inc. Guided wave transmission system. 2,844,799, 7–22–58, Cl. 333—31.

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Haugh, Allen S., and Fox. 2,844,404.

Foxboro Co., The: *See*—
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Fraser, Julius T., to General Precision Laboratory Inc. Microwave frequency modulation transducer. 2,844,724, 7–22–58, Cl. 250—27.

Fraser Label Co.: *See*—
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Fredendall, Gordon L., to Radio Corp. of America. Color television receiver, intermediate frequency amplifier. 2,844,645, 7–22–58, Cl. 178—5.4.

Freer, Raynerd D. Food service unit. 2,844,432, 7–22–58, Cl. 312—228.

Freese, William L., to Cocker Machine & Foundry Co. Creel. 2,844,335, 7–22–58, Cl. 242—131.1.

French, Anthony J. Electrical guessing game. 2,844,374, 7–22–58, Cl. 273—1.

Freudenberg, Werner, to General Aniline & Film Corp. Purification of acylamino carboxylic acids. 2,844,610, 7–22–58, Cl. 260—404.

Freudenberg, Werner, to General Aniline & Film Corp. Manufacture of acylamino carboxylic acids. 2,844,611, 7–22–58, Cl. 260—404.

Frey, Ephriam. Lap tray with adjustable leg-engaging means. 2,844,429, 7–22–58, Cl. 311—25.

Freyberger, Donald L., to Luhans Steel Co. Clad metal pack and method of making the same. 2,843,922, 7–22–58, Cl. 29—187.5.

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Friel, Daniel D., to E. I. du Pont de Nemours & Co. Method of photometric analysis. 2,844,066, 7–22–58, Cl. 88—14.

Friese, Hans, to Siemens & Halske Akt. Apparatus for recording orchestral sound. 2,844,663, 7–22–58, Cl. 179—100.1.

Frost, Robert B.: *See*—
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Fuller Co.: *See*—
Dilcher, Harry J., and Frost. 2,844,361.

Furnas Electric Co.: *See*—
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Furnas, William C., to Furnas Electric Co. Overload relay and magnetic switch assembly. 2,844,682, 7–22–58, Cl. 200—88.

Furness, Edward M., to Reserve Mining Co. Magnetic separator. 2,844,252, 7–22–58, Cl. 209—223.

Furstenberg, Joachim, to Pneumafil Corp. Thread suction installations for spinning machines. 2,843,995, 7–22–58, Cl. 57—34.5.

G H N Neon Sign Co.: *See*—
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Gandy, John E., deceased, by D. C. Fabiani, administrator, to Townsend Co. Die cavity with laterally projecting blades for slotting the end of a blank. 2,843,861, 7–22–58, Cl. 10—11.

Gandy, John E., to Townsend Co. Method of making an expandable fastener. 2,843,928, 7–22–58, Cl. 29—556.

Garaventa, Ermano, and G. G. Walker, Jr., to United Aircraft Corp. Cold rolling method of making hollow steel blades. 2,843,910, 7–22–58, Cl. 29—156.8.

Gardella, Adriano. Shiftable bottom plate and cheese carrier frame for bottomless suspended spinning cans. 2,843,996, 7–22–58, Cl. 57—57.76.

Gardellin, Joseph G. Construction toy block. 2,843,971, 7–22–58, Cl. 46—26.

Garner, Wayne C., and G. Brookshire, ⅛ to V. W. Boswell. Counting device for conveyor mechanisms. 2,844,318, 7–22–58, Cl. 235—98.

Gaskell, Walter L., to King-Seely Corp. Arbor saw with single handle control of tilt and elevation. 2,844,173, 7–22–58, Cl. 143—36.

Gaspar, Bela: *See*—
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Gaspar, Bela, and P. D. P. Dreyfuss; said Dreyfuss assor. to said Gaspar. Azo dyes and their method of preparation. 2,844,574, 7–22–58, Cl. 260—144.

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Gates, Joseph H. and D. Powered track for hand trucks and the like. 2,844,413, 7–22–58, Cl. 305—10.

Gaylord, Richard H., to Clevite Corp. Fluid actuated motor system and stroking device. 2,844,126, 7–22–58, Cl. 121—48.

Gear Grinding Machine Co., The: *See*—
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Geldhof, Peter R., and C. A. Cobb, to Whirlpool Corp. Combined washer and drier. 2,843,943, 7–22–58, Cl. 34—75.

Gemmer, Erwin, to Knapsack-Griesheim Akt. Fluidized bed coating process. 2,844,489, 7–22–58, Cl. 117—20.

General American Transportation Corp.: *See*—
Aller, Edmund R. 2,844,411.

General Aniline & Film Corp.: *See*—
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Freudenberg, Werner. 2,844,611.
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General Electric Co.: *See*—
Alford, Joseph S. 2,844,001.
Coggeshall, Almy D. 2,844,746.
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Hamm, Clarence L. 2,844,745.
Hubbard, James R., and Viscusi. 2,844,225.
Hughes, Philip G. 2,844,402.
Hurford, Winslow L. 2,844,647.
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Prather, Marvin E. 2,844,703.
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General Precision Laboratory Inc.: *See*—
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General Scientific Corp.: *See*—
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General Tire and Rubber Co., The: *See*—
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Gerber Scientific Instrument Co., The: *See*—
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Gettig, Joseph H., to J. Bishop & Co. Platinum Works. Hypodermic cannula and method for attaching an annular sleeve thereto. 2,844,149, 7–22–58, Cl. 128—221.

Gibbons, James E. Device for constraining the tongue. 2,844,142, 7–22–58, Cl. 128—12.

Gibson, Albert E., Jr., to The Dentists' Supply Co. of New York. Packaged commodity. 2,844,249, 7–22–58, Cl. 206—84.

Gilbert, Everett A., to Radio Frequence Laboratories, Inc. Frequency shift discriminator. 2,844,720, 7–22–58, Cl. 250—27.

Gilfillan Bros., Inc.: *See*—
Green, David J. 2,844,817.

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Gits Bros. Mfg. Co.: *See*—
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Glaser, David, to General Mills, Inc. Stabilization of mixtures of polyamide, epoxy resin solutions with formic acid. 2,844,552, 7–22–58, Cl. 260—18.

Glaser, Wolfgang: *See*—
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Glaser, Wolfgang, to Goetzewerke Friedrich Goetz Akt. Torsion piston ring. 2,844,426, 7–22–58, Cl. 309—44.

Gleisner, William C., Jr., and R. J. Wild, to F. J. Trecker. Trimmer attachment for power mower. 2,843,993, 7–22–58, Cl. 56—238.

Gluesenkamp, Earl W., and W. E. Weesner, to Monsanto Chemical Co. Catalytic hydrogenation. 2,844,573, 7–22–58, Cl. 260—92.8.

Goetze, Rolf F., to Rand Goetze Corp. Piston sealing means. 2,844,424, 7–22–58, Cl. 309—44.

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Gongwer, Calvin A., and G. M. McRoberts, to Aerojet-General Corp. Swimmer propulsion device. 2,843,859, 7–22–58, Cl. 9—18.

Goodrich, B. F., Co., The: *See*—
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Nichols, Robinson F., and Kreider. 2,844,554.

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Hayes, Donald W. 2,844,565.
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Mayor, Rowland H. 2,844,685.
Meberg, Jess W., and Ripple. 2,844,488.
Riggs, Mart B., and Knill. 2,844,181.
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Goral, Lewis. Electric combination switch. 2,844,671, 7–22–58, Cl. 200—43.

Gornowski, Edward J.: *See*—
Green, Arthur D., Gornowski, Scheeline, and Jaros. 2,844,569.

Gottfried, Arthur H., and K. Ikrath, to United States of America, Army. Electromechanical switching element. 2,844,687, 7–22–58, Cl. 200—112.

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Grace, W. R., & Co.: *See*—
Veltman, Preston L., Baral, and Richardson. 2,844,523.

Gray, Cornelius, Sr., 45% to R. B. Gray. Bottle washing machine. 2,843,867, 7–22–58, Cl. 15—64.

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Gray, Cornelius, Sr. 2,843,867.

Green, Arthur D., E. J. Gornowski, H. W. Scheeline, and S. E. Jaros, to Esso Research and Engineering Co. Solution process for making isobutylene-diolefin synthetic rubber. 2,844,569, 7–22–58, Cl. 260—85.3.

Green, David J., to Gilfillan Bros., Inc. Landing traffic control system. 2,844,817, 7–22–58, Cl. 343—112.

Greenberg, Harry, and R. W. Horst, to National Distillers and Chemical Corp. Polyesters from dicyclohexyladipic acid, copolymers thereof, and process of making same. 2,844,560, 7–22–58, Cl. 260—45.4.

Greenland, Lloyd D., ⅓ each to V. O. Wade and R. E. Williams. Edging tool for sidewalks and the like. 2,844,084, 7-22-58, Cl. 97—227.

Greninger, George K., Jr., to The Dow Chemical Co. Hydraulic cement composition for wells. 2,844,480, 7-22-58, Cl. 106—93.

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Griffith, Leonard, to Canadian Chemical Co., Ltd. Electropneumatic transducer. 2,844,157, 7-22-58, Cl. 137—82.

Griswold, David E., to D. G. Griswold. Pilot valve construction. 2,844,167, 7-22-58, Cl. 137—624.

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Grootveld, Richard L., 40% to J. Dylong and 30% to L. E. Dmowski. Underwater vehicle or sled. 2,843,860, 7-22-58, Cl. 9—21.

Grossman, Merrie: *See*—
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Tandler, William S., Grossman, and Tourin. 2,844,033.
Tandler, William S., Grossman, and Tourin. 2,844,730.

Gruber, Leonard J., and M. S. Fessenden, to The Central Carton Co. Carton for attachment to a container. 2,844,245, 7-22-58, Cl. 206—47.

Gruver, John H., to Addressograph-Multigraph Corp. Printing machine and method for transferring ink by heat and pressure. 2,844,094, 7-22-58, Cl. 101—154.5.

Guenthard, Jacques, and R. Roth, to Sandoz A. G. Blue leveling dyestuffs of the anthraquinone series. 2,844,597, 7-22-58, Cl. 260—372.

Guerin, Maurice, and P. P. Namian. Societe d'Electronique et d'Automatisme. Pulse generating and distributing devices. 2,844,718, 7-22-58, Cl. 250—27.

Gulf Research & Development Co.: *See*—
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Gündel, Wolfgang, and H. Haas, to Bohme Fettchemie G. m. b. H. Sulfonic acid condensation products and methods of producing the same. 2,844,584, 7-22-58, Cl. 260—293.4.

Günthard, Jacques, to Sandoz A. G. Disperse dyestuffs of the anthraquinone series. 2,844,598, 7-22-58, Cl. 260—380.

Gunther Products, Inc.: *See*—
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Gunther, Robert C., to Gunther Products, Inc. Soy protein whipping compositions and process for the preparation thereof. 2,844,468, 7-22-58, Cl. 99—114.

Gurries, Albert G. Seal for plug valves. 2,844,353, 7-22-58, Cl. 251—175.

Gushin, Harold, and F. J. Zelman, to General Aniline & Film Corp. Process for the manufacture of sulphoalkylesters of fatty acids. 2,844,607, 7-22-58, Cl. 260—400.

Guyer, Reynolds, to Waldorf Paper Products Co. Sliced meat package. 2,844,300, 7-22-58, Cl. 229—87.

Haas, Edgar, to Herman Schwabe, Inc. Shoe sole attaching machine. 2,843,864, 7-22-58, Cl. 12—36.

Haas, Hermann: *See*—
Gündel, Wolfgang, and Haas. 2,844,584.

Hagerty, Charles L.: *See*—
Hagerty, William K. and C. L. 2,844,060.

Hagerty, William K. and C. L. Metal bending pry tool. 2,844,060, 7-22-58, Cl. 81—15.

Hagge, Walter, M. Quaedvlieg, and H. Hempel, to Farbenfabriken Bayer Akt. Sulfodicarboxylic acid compounds. 2,844,608, 7-22-58, Cl. 260—401.

Hahn, Edwin E., M. L. Schultz, G. A. Morton, and A. G. Morris, to Radio Corp. of America. Semi-conductive materials. 2,844,737, 7-22-58, Cl. 250—211.

Haimerl, Hans: *See*—
Schurmann, Max-Otto, and Haimerl. 2,844,019.

Haines, Frank D. Towel holders. 2,844,259, 7-22-58, Cl. 211—16.

Hainsworth, Percy to The British Petroleum Co. Ltd. Regeneration of caustic solutions containing mercaptans. 2,844,440, 7-22-58, Cl. 23—184.

Hall, Frank L., to The Goodyear Tire & Rubber Co. Inflating valve. 2,844,182, 7-22-58, Cl. 152—427.

Hall, Rufus V. Watchmaker's hairspring tool. 2,844,055, 7-22-58, Cl. 81—6.

Hall, Wayne C., D. S. Toffolo, and E. J. West, to United States of America, Navy. Electrostatic precipitator. 2,844,214, 7-22-58, Cl. 183—7.

Hallsworth Henry B., to Rubery, Owen & Co., Ltd. Apparatus for use in the casting of metals. 2,843,895, 7-22-58, Cl. 22—77.

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Hayford, Richard E. 2,844,123.

Hamlett, Sidney J., to White Sewing Machine Corp. Booster arm for drop head sewing machine. 2,844,431, 7-22-58, Cl. 312—30.

Hamm, Clarence L., to General Electric Co. Fluid-cooled dynamoelectric machine. 2,844,745, 7-22-58, Cl. 310—57.

Hammer, Samuel. Clamps. 2,843,853, 7-22-58, Cl. 4—187.

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Hancock, Garson D. Ceiling, wall and floor washer. 2,843,866, 7-22-58, Cl. 15—22.

Hanington, Charles A., to The Scholl Mfg. Co., Inc. Foot impression device. 2,843,957, 7-22-58, Cl. 41—4.

Hanley, Jack W., and H. N. Draudt, to Kingan, Inc. Process of smoking meat. 2,844,478, 7-22-58, Cl. 99—229.

Hannon, Stephen J., to McKinney Mfg. Co. Sliding door hanger. 2,843,872, 7-22-58, Cl. 16—105.

Hansen, Floyd R., and S. B. Elliott, to Ferro Chemical Corp. Viscosity control and stabilization of halogenated hydrocarbon resins with metallic salts of oxygen ether acids. 2,844,572, 7-22-58, Cl. 260—92.8.

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Hanson, Henry L. Molded plastic container for drills and the like. 2,844,244, 7-22-58, Cl. 206—17.

Hansson, Tore B., to King-Seeley Corp. Switch mechanism. 2,844,677, 7-22-58, Cl. 200—67.

Hardesty, Edwin C., to Western Electric Co., Inc. Insulation stripping apparatus. 2,844,057, 7-22-58, Cl. 81—9.51.

Harless, Charles A., to R. Hoe & Co., Inc. Reversible drive for rotary printing unit. 2,844,096, 7-22-58, Cl. 101—180.

Harmon, Elise F., to United States of America, Army. Silk screen stretcher. 2,844,172, 7-22-58, Cl. 140—109.

Harris, Jay C., to Monsanto Chemical Co. Fertilizer manufacture. 2,844,455, 7-22-58, Cl. 71—40.

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Peckham, Herbert H., and Harris. 2,844,436.

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Hartmann, Josef-Heinrich, to Siemens-Reiniger-Werke Akt. Producing plural photographic images in one exposure. 2,844,732, 7-22-58, Cl. 250—65.

Hartmann, Joseph-Heinrich. Arrangement for producing plural photographic exposures. 2,844,734, 7-22-58, Cl. 250—65.

Harvey, Sidney M. Welding electrode actuator. 2,844,706, 7-22-58, Cl. 219—86.

Hasche, Rudolph L. Self-sustaining regenerative process. 2,844,452, 7-22-58, Cl. 48—196.

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Hasseldine, Robert N., and H. Iserson, to Pennsalt Chemicals Corp. Preparation of fluorine compounds. 2,844,636, 7-22-58, Cl. 260—653.

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Haxo, Henry E., Jr., and G. S. Mills, to United States Rubber Co. Method for the incorporation of lignin into synthetic rubber. 2,844,548, 7-22-58, Cl. 260—17.3.

Hay, Lois V: *See*—
Hay, Robert G. 2,844,550.

Hay, Robert G., deceased, by L. V. Hay, administratrix, to Lockheed Aircraft Corp. Polymethyl siloxane heat resistant ink. 2,844,550, 7-22-58, Cl. 260—18.

Hayes, Donald W., to The Goodyear Tire & Rubber Co. Agglomerates and methods for making. 2,844,564, 7-22-58, Cl. 260—45.95.

Hayes, Donald W., to The Goodyear Tire & Rubber Co. Agglomerates and methods for making. 2,844,565, 7-22-58, Cl. 260—45.95.

Hayford, Richard E., to Haloid Xerox Inc. Belt development electrode. 2,844,123, 7-22-58, Cl. 118—637.

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Heisler, Robert Y., S. R. Newman, and N. Alpert, to The Texas Co. Fuels containing a deposit-control additive. 2,844,448, 7-22-58, Cl. 44—70.

Heisler, Robert Y., S. R. Newman, K. L. Dille, and N. Alpert, to The Texas Co. Fuels containing deposit-controlled additives. 2,844,450, 7-22-58, Cl. 44—70.

Hemel, Albert, to International Telephone and Telegraph Corp. Single-relay line circuit. 2,844,654, 7-22-58, Cl. 179—18.

Hempel, Herbert: *See*—
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Henricks, John A., to Devex Corp. Method of applying sulfide coating on wires for drawing and composition therefor. 2,844,497, 7-22-58, Cl. 148—6.24.

Henry, Glenn C. Portable lectern or the like. 2,844,347, 7-22-58, Cl. 248—198.

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Herr, Gerhard, and W. O. Treber, to Gebruder Happich G. m. b. H. Padded material construction for sun visor. 2,844,200, 7-22-58, Cl. 160—354.

Herr, Gerhard, and W. O. Treber, to Gebruder Happich G. m. b. H. Sun visor mounting means. 2,844,406, 7-22-58, Cl. 296—97.

Herr, John A.: *See*—
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Herring, Frederick G., to Hazeltine Research, Inc. Transistor reactance device. 2,844,795, 7-22-58, Cl. 332—16.
Hess, Lawrence G., to Union Carbide Corp. Process for the preparation of 4-hexanediol. 2,844,630, 7-22-58, Cl. 260—397.
Hesse, Holger. Means for preventing the darkening of glass tubes by the action of mercury. 2,844,035, 7-22-58, Cl. 73—401.
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Hillman, John H., III. Method of introducing titanium into molten metals and composition for such process. 2,844,458, 7-22-58, Cl. 75—27.
Hines, Marion E., to Bell Telephone Laboratories, Inc. Electron discharge devices. 2,844,722, 7-22-58, Cl. 250—27.
Hinlicky, John A., and G. E. Serniuk, to Esso Research and Engineering Co. Coprecipitated hydroforming catalysts. 2,844,542, 7-22-58, Cl. 252—466.
Hobbs, Howard F., to Hobbs Transmission Ltd. Power transmission apparatus. 2,844,043, 7-22-58, Cl. 74—330.
Hobbs Transmission Ltd.: *See*—
Hobbs, Howard F. 2,844,043.
Hockery, John C.: *See*—
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Harless, Charles A. 2,844,095.
Hoehn, Willard M.: *See*—
Strojny, Edwin J., and Hoehn. 2,844,803.
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Hofman, August R. Barrel plating. 2,844,528, 7-22-58, Cl. 204—23.
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Dutton, Oscar B. 2,844,650.
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Hoover, Merle V., to Radio Corp. of America. Electron discharge device. 2,844,752, 7-22-58, Cl. 313—307.
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Wyatt, James L. 2,844,462.
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Ashby, Bruce A., Britton, and Horsley. 2,844,580.
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Greenberg, Harry, and Horst. 2,844,560.
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Parker, Robert P., and Hosler. 2,844,503.
Parker, Robert P., and Hosler. 2,844,504.
Hott, Ira V. K., to The Joyce-Cridland Co. Lift. 2,844,218, 7-22-58, Cl. 187—8.49.
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Hovey, Alva and R. V. 2,843,888.
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Huckstep, Henry J. W., and J. H. Burness, to D. Napier & Son Ltd. Apparatus for use in machining parts to a predetermined surface contour. 2,843,978, 7-22-58, Cl. 51—142.
Hudson, Francis M., to Associated Seed Growers, Inc. Automatic weigher with dribble feed control. 2,844,349, 7-22-58, Cl. 249—63.
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Hughes, William E., Jr., to Owens-Illinois Glass Co. Apparatus for surface treating ampuls. 2,843,958, 7-22-58, Cl. 41—9.
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Ingram, Wayne E., and A. W. Bell. Depth regulator for fish lure. 2,843,966, 7-22-58, Cl. 43—43.13.
Ingres, Jeannot G., to Kelsey-Hayes Co. Emergency power hook-up for booster brake mechanisms. 2,844,003, 7-22-58, Cl. 60—60.
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Arthur, Richard P. 2,844,686.
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Inwood, Texas V., to Union Oil Co. of California. Hydrocarbon desulfurization process. 2,844,517, 7-22-58, Cl. 196—28.
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Jacobsen, Bent B., to International Standard Electric Corp. Radio diversity receiving system. 2,844,716, 7-22-58, Cl. 250—20.
Jacques, Robert B., to Thompson Products, Inc. Micro wave power measuring instrument. 2,844,791, 7-22-58, Cl. 324—95.
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Johns, Harold E., and J. A. McKay, to Picker X-Ray Corp., White Mfg. Division, Inc. Collimator for high energy X-ray beam. 2,844,736, 7-22-58, Cl. 250—105.

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Johnson, William G., and W. H. Reedy, Jr., to E. I. du Pont de Nemours and Co. Nitrosation process. 2,844,630, 7-22-58, Cl. 260—566.

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Jones, Frank D., to Deere & Co. Ear pick-up attachment for a corn harvester. 2,843,992, 7-22-58, Cl. 56—104.

Jones, Wallace E. Nest of disposable ash trays. 2,844,247, 7-22-58, Cl. 206—56.

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Jordan, Jack L. Elevation indicator. 2,844,037, 7-22-58, Cl. 73—432.

Jordan, Kenneth C., to United States of America, Atomic Energy Commission. Thermo-electric generator. 2,844,639, 7-22-58, Cl. 136—4.

Jordan, Merrill E., to Godfrey L. Cabot, Inc. Process of Pelletizing metal silicates. 2,844,444, 7-22-58, Cl. 23—313.

Jordan, Thomas H. Adjustable support. 2,844,348, 7-22-58, Cl. 248—354.

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Kautz, Glenn E., to H. H. Robertson Co. Air discharge outlet unit. 2,844,322, 7-22-58, Cl. 236—13.

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Keller, Mary L. Closure retainer kit. 2,844,275, 7-22-58, Cl. 220—58.5.

Keller, Robert R. Decorative molding strips and the like. 2,843,889, 7-22-58, Cl. 20—74.

Kellogg, M. W., Co., The: *See*—
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Kelly, Francis P., and J. L. Spezia. Storm window and awning unit. 2,844,197, 7-22-58, Cl. 160—61.

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Kennedy, Emmett F., to The Cleveland Heater Co. Combination range and hot water heater. 2,844,704, 7-22-58, Cl. 219—37.

Kepka, Joseph W. Clothes pin box. 2,844,270, 7-22-58, Cl. 220—1.

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King, Donald M. Conveyor systems. 2,844,105, 7-22-58, Cl. 104—93.

King, Donald M. Conveyor systems. 2,844,241, 7-22-58, Cl. 198—110.

King, Frederick E., to British Celanese Ltd. Plasticisers. 2,844,483, 7-22-58, Cl. 106—180.

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Kingsley, Lewis A. Foil container. 2,844,246, 7-22-58, Cl. 206—62.

Kircher, Paul J., to Landers, Frary & Clark. Food chopper support. 2,844,341, 7-22-58, Cl. 248—1.

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Anderson, Carl P. 2,844,674.

Klem, Michael L. Building brick. 2,844,012, 7-22-58, Cl. 72—38.

Klingler, Karl A. Quick acting valve with static seal. 2,844,168, 7-22-58, Cl. 137—630.

Klosner, Morris, to United States of America, Army. Spring motor apparatus. 2,844,217, 7-22-58, Cl. 185—37.

Knapp, Burton B.: *See*—
Wesley, Waclaw A., and Knapp. 2,844,530.

Knapsack-Griesheim Akt.: *See*—
Gemmer, Erwin. 2,844,429.

Knill, Robert B.: *See*—
Riggs, Mart B., and Knill. 2,844,181.

Kobler, Richard, to McGraw-Edison Co. Remotely-controlled dictation-recording systems. 2,844,661, 7-22-58, Cl. 179—100.1.

Koch, Werner, to Faber & Schleicher Akt. Tripping device for the blanket cylinders in offset printing machines. 2,844,096, 7-22-58, Cl. 101—218.

Koelling, Carolyn S. Jewelry clasp. 2,843,906, 7-22-58, Cl. 24—230.

Komarek-Greaves and Co.: *See*—
Komarek, Gustav and K. R. 2,843,879.

Komarek, Gustav and K. R., to Komarek-Greaves and Co. Method and apparatus for controlling material feed and air venting in briquetting machines. 2,843,879, 7-22-58, Cl. 18—21.

Komarek, Karl R.: *See*—
Komarek, Gustav and K. R. 2,843,879.

Koninklijke Machinefabriek Gebr. Stork & Co., N. V. Hengelo (O): *See*—
Busquet, Jan C. 2,844,304.

Koozin, Victor T.: *See*—
Carlo, Re, Rice, Birkeland, Koozin, Duncan, and Kinda. 2,844,073.

Koppelmann, Eldo K., to Madison-Faessler Tool Co. Burnishing tool. 2,843,918, 7-22-58, Cl. 29—90.

Koret, Inc.: *See*—
Koret, Richard. 2,844,179.

Koret, Richard, to Koret, Inc. Lady's handbag assembly. 2,844,179, 7-22-58, Cl. 150—28.

Köster, Roland: *See*—
Ziegler, Karl, Köster, and Lehmkuhl. 2,844,615.

Kowert, Alexander: *See*—
Winterling, Karl H., and Kowert. 2,844,729.

Kostrewa, John J.: *See*—
Krokos, Raymond M., and Kostrewa. 2,844,806.

Koury, Frederic, to Sylvania Electric Products Inc. Method of producing a photoconductive device. 2,843,814, 7-22-58, Cl. 25—156.

Kovach, Imre A. Folding carrier for bottles. 2,844,379, 7-22-58, Cl. 220—110.

Kramer, Leroy A., and L. E. Netherton, to Victor Chemical Works. Stabilized low reaction rate sodium acid pyrophosphate. 2,844,437, 7-22-58, Cl. 23—106.

Kraus, Harry, to Westinghouse Electric Corp. Heating apparatus. 2,844,700, 7-22-58, Cl. 219—35.

Kreider, Leonard C.: *See*—
Nichols, Robinson F., and Kreider. 2,844,554.

Krespan, Carl G., to E. I. du Pont de Nemours and Co. Bis (fluorethyl) mercurials and method of producing them. 2,844,614, 7-22-58, Cl. 260—431.

Kristianssen, Svend H., to Nordisk Ventilator Co., Aktieselskab. Axial blowers or fans. 2,844,308, 7-22-58, Cl. 230—114.

Kritscher, Andrew F., to United States Steel Corp. Apparatus for galvanizing pipe. 2,844,122, 7-22-58, Cl. 118—423.

Kroger, Marlin G., to Motorola, Inc. Television receiver. 2,844,649, 7-22-58, Cl. 178—7.3.

Krokos, Raymond M., and J. J. Kostrewa, to Evans Products Co. Handle bar stem. 2,844,396, 7-22-58, Cl. 287—54.

Krug, Robert H., and O. C. Elmer, to The Texas Co. Extreme pressure lubricant. 2,844,538, 7-22-58, Cl. 252—51.

Kruse, Hugo W., ½ to E. A. Morsbach. Fishing float. 2,843,967, 7-22-58, Cl. 43—44.96.

Kuba, Samuel, and D. S. Magargee, to Western Electric Co., Inc. Wire bending apparatus. 2,844,171, 7-22-58, Cl. 140—71.

Kuehl, Frederick A., Jr.: *See*—
Brink, Norman G., Kuehl, and Folkers. 2,844,511.

Kuhle, Engelbert, R. Wegler, and F. Grewe, to Farbenfabriken Bayer Akt. Perchloro-methyl-mercaptan derivatives and productions. 2,844,628, 7-22-58, Cl. 260—551.

Kuhns, Austin H., to Farrel-Birmingham Co., Inc. Machine for grinding double helical gears. 2,843,977, 7-22-58, Cl. 51—142.

Kuhrmeyer, Carl A.: *See*—
Miller, Carl S., and Kuhrmeyer. 2,844,733.

Kummerman, Henri, to International MacGregor Organisation (I. M. G. O.) Water tight hatch cover arrangement. 2,844,118, 7-22-58, Cl. 114—202.

Kuster, V. E.: *See*—
Story, James K. 2,843,941.

Kutik, Martin J., to McGraw-Edison Co. Remotely-controlled dictation-recording system. 2,844,664, 7-22-58, Cl. 179—100.1.

Lake, Goldie: *See*—
Blank, Robert and J. 2,844,215.

Lamar, Richard S., to Sierra Talc & Clay Co. Water dispersible talc pigment composition. 2,844,486, 7-22-58, Cl. 106—308.

Lambert, Harry E., to Central Fibre Products Co. Bag packing material. 2,844,268, 7-22-58, Cl. 217—26.5.

Landers, Frary & Clark: *See*—
Kircher, Paul J. 2,844,241.

Landon, Inc.: *See*—
Cavenah, David K., and Steffen. 2,844,255.

Lanfear, Joseph P., 50% to E. F. Leary and 50% to Drainall Corp. Garbage disposal apparatus. 2,844,220, 7-22-58, Cl. 241—257.

Lang, Maurice, and T. A. Terjesen, to United States Electric Mfg. Corp. Wafer-type cells for dry batteries and method for making same. 2,844,641, 7-22-58, Cl. 136—111.

Langworthy, Martin F. Milk solids compositions and method of making. 2,844,481, 7-22-58, Cl. 106—146.

Lapsley Robert, and O. H. Banker. Transmission. 2,844,049, 7-22-58, Cl. 74—732.

Larsson, Sven G. O., to Husqvarna Vapenfabriks Aktiebolag. Safety device for firearms. 2,843,960, 7-22-58, Cl. 42—70.

Lauterbach, Norman E., to Ritter Co., Inc. Arm rest. 2,844,193, 7-22-58, Cl. 155—195.

Lavigne, Michael A. Capsule crimping apparatus. 2,843,987, 7-22-58, Cl. 53—246.

Lawton, Thomas O., and F. G. Wilson. Method for chemically treating wood particles. 2,844,464, 7-2-58, Cl. 92—7.

Lazorko, Anthony: *See*—
Whyte, John F., and Lazorko. 2,844,198.

Leary, Edward P.: *See*—
Lanfear, Joseph P. 2,844,220.

Leavitt, Julian J.: *See*—
Long, Robert S., and Leavitt. 2,844,539.

Le Bihan, Henri: *See*—
Braconier, Frederic F. A., and Le Bihan. 2,844,683.

Lederer, Seymour J.: *See*—
Weiss, Robert O., and Lederer. 2,844,508.

Lee, Matthew H. Device for applying weight members to lines. 2,844,059, 7-22-58, Cl. 81—15.

Lefebvre, Fredrick L. Radiant heater and replaceable element therefor. 2,844,694, 7-22-58, Cl. 201—67.

Lefforge, John W., to Monsanto Chemical Co. Method of preparing bright yellow colored sulfides. 2,844,442, 7-22-58, Cl. 23—206.

Lehmann, Wolfgang, F. Munz, O. Bayer, and H. Kleiner, to Farbenfabriken Bayer Akt. Textile decorating and textile printing paste. 2,844,490, 7-22-58, Cl. 117—38.

Lehmkuhl, Herbert: *See*—
Ziegler, Karl, Koster, and Lehmkuhl. 2,844,615.

Leins, Oscar J., to Base Inc. Electro-magnetic safety shut-off device with time delay reset. 2,844,201, 7-22-58, Cl. 161—9.

Lemons, Carl R. Breast supporter. 2,844,151, 7-22-58, Cl. 128—477.

Leonard, Jesse D. Apparatus for producing stripper wells. 2,844,029, 7-22-58, Cl. 73—200.

Le Roy Franklin J., to The Jeffrey Mfg. Co. Picking and cleaning apparatus. 2,844,251, 7-22-58, Cl. 209—216.

Le Roy, Michel. Articulated beam structure. 2,844,232, 7-22-58, Cl. 189—34.

LeTourneau-Westinghouse Co.: *See*—
Chandler, James I., and Roe. 2,844,783.
Roe, Charles C. 2,844,804.

Lever Brothers Co.: *See*—
Higham, Edward H., and Thomas. 2,844,350.

Lewis, Arthur P., and D. C. MacDonald, to United States Rubber Co. Evener. 2,843,882, 7-22-58, Cl. 19—70.

Lichtenfels, Ira W., to General Electric Co. Dynamic brake control. 2,844,780, 7-22-58, Cl. 318—367.

Liebenow, Gilbert I.: *See*—
Liebenow, Julius G. and G. I. 2,844,372.

Liebenow, Julius G. and G. I. Stripper mechanism. 2,844,372, 7-22-58, Cl. 271—63.

Liebknecht, Werner, to Elmeco A. G. Electric pulse counter. 2,844,316, 7-22-58, Cl. 235—92.

Lindahl, Henning W., to AB Lindahls Mekaniska. Can openers. 2,843,931, 7-22-58, Cl. 30—9.

Lindeman, Jesse G., and F. A. Horey, to Deere & Co. Land leveler. 2,843,948, 7-22-58, Cl. 37—178.

Lindenblad, Nils E., to Radio Corp. of America. Heat pump. 2,844,638, 7-22-58, Cl. 136—4.

Ling Electronics, Inc.: *See*—
Ross, James A. 2,844,777.

Lipinski, Johann, to Alex Friedmann Kommanditgesellschaft. Dispenser for lubricants. 2,844,286, 7-22-58, Cl. 222—250.

Lipton, Samuel H.: *See*—
Morell, Samuel A., Lipton, and Frieden. 2,844,514.

Llewelyn, David M., A. B. Simpson, and D. H. West, to The International Nickel Co., Inc. Production of nickel or iron powder. 2,844,456, 7-22-58, Cl. 75—0.5.

Lockheed Aircraft Corp.: *See*—
Hay, Robert G. 2,844,350.

Lofqvist, Bengt E. R.: *See*—
Eberman, Carl B., and Lofqvist. 2,844,358.

Logetronics, Inc.: *See*—
Craig, Dwin R. 2,844,738.

Logue, James A., T. W. Roberts, and F. O. Swanson, to Owens-Illinois Glass Co. Methods of separating glass articles. 2,843,925, 7-22-58, Cl. 29—427.

Lohs, Willy, to Siemens & Halske Akt. Telephone selector switch with common drive for vertical and rotary wiper motor. 2,844,656, 7-22-58, Cl. 179—27.52.

Lombardo, Dominick A. Circuit breaker for individual circuits. 2,844,690, 7-22-58, Cl. 200—116.

Lombi, Louis G. Dough mixing and kneading machine. 2,844,362, 7-22-58, Cl. 259—104.

Long, John R., to Parks-Cramer Co. Method for cleaning textile machines and the floors therebeneath. 2,844,495, 7-22-58, Cl. 134—37.

Long, Paul J., Jr., and R. L. Nietert, to General Motors Corp. Hydraulic shock absorber. 2,844,226, 7-22-58, Cl. 188—88.

Long, Robert S., and J. J. Leavitt, to American Cyanamid Co. Water soluble brightener composition. 2,844,539, 7-22-58, Cl. 252—301.2.

Long, Robert S., and M. Scalera, to American Cyanamid Co. 3-Aryl-7-dialkylaminocoumarins. 2,844,594, 7-22-58, Cl. 260—343.2.

Loomis Machine Co.: *See*—
Loomis, Martin. 2,843,865.

Loomis, Martin, to Loomis Machine Co. Dockboards. 2,843,865, 7-22-58, Cl. 14—71.

Lorenz, Albert, to Engelhard Industries, Inc. Method of producing minute perforations in solid bodies by thermal impact exerted by concentrated corpuscular rays. 2,844,706, 7-22-58, Cl. 219—69.

Lorenz, Anton. Article of repose for supporting the body of a person. 2,844,189, 7-22-58, Cl. 155—106.

Lorenz, Anton. Chair with reclining back-rest and coordinated seat and leg-rest. 2,844,190, 7-22-58, Cl. 155—106.

Lorenz, Walter, and H. Henecka, to Schenley Industries, Inc. Phosphoric acid derivatives of 1-phenyl-2,3-dimethyl-4-amino-5-pyrazolone. 2,844,510, 7-22-58, Cl. 167—65.

Losinger & Co. A. G.: *See*—
Siegfried, Erwin. 2,844,356.

Lowenthal, Herman, to General Scientific Corp. Photographic objective. 2,844,072, 7-22-58, Cl. 88—57.

Lucas, Don D. Portable barbecue. 2,844,139, 7-22-58, Cl. 126—30.

Luchsinger, Ernst, to Fibra A. G. Hand operated knitting machine. 2,844,015, 7-22-58, Cl. 66—60.

Lucien, René, and E. Tetart, to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M. Magnesium-base alloys. 2,844,463, 7-22-58, Cl. 75—168.

Luckhurst, Marie C. Coffee maker. 2,844,087, 7-22-58, Cl. 99—285.

Lukens Steel Co.: *See*—
Freyberger, Donald L. 2,843,922.

Lundqvist, Harald O. Wall bookstacks. 2,844,260, 7-22-58, Cl. 211—90.

Lupo, Joseph. Tumbling barrels and screens therefor. 2,843,979, 7-22-58, Cl. 51—164.

Luth, Robert C., to Signode Steel Strapping Co. Strap dispenser. 2,844,334, 7-22-58, Cl. 242—128.

Luther, William P.: *See*—
Barrows, Howard E., and Luther. 2,844,176.

Lutz, Mac W., W. W. Wolfe, and R. C. Johnson, to Superior Separator Co. Post driver attachment. 2,844,006, 7-22-58, Cl. 61—73.

Lynch, Leslie S., Jr., to Rudo Associates. Automatic bread toasters. 2,844,089, 7-22-58, Cl. 99—329.

Lyon, George A. Apparatus for making wheel covers. 2,844,115, 7-22-58, Cl. 113—49.

Lyon, George A. Wheel cover. 2,844,410, 7-22-58, Cl. 301—37.

MacArthur, Robert B., and D. F. Swearingen, to North American Aviation, Inc. Aircraft control arrangement incorporating deflectable surface and boundary layer control jets. 2,844,337, 7-22-58, Cl. 244—42.

MacDonald, Donald C.: *See*—
Lewis, Arthur P., and MacDonald. 2,843,882.

MacDonald, Robert N.: *See*—
Bechtold, Max F., and MacDonald. 2,844,561.

MacGregor, Joseph: *See*—
MacGregor, Robert and J. 2,844,117.

MacGregor, Robert and J. Device for protecting ships' holds, wagons, during cargo working. 2,844,117, 7-22-58, Cl. 114—202.

Maciszewski, Arthur H., and R. Goldstein, to A. R. F. Products, Inc. Keying and coding device. 2,844,683, 7-22-58, Cl. 200—90.

Maciszewski, Arthur H., and M. S. Riddiford, to A. R. F. Products, Inc. Apparatus for treating water. 2,844,727, 7-22-58, Cl. 250—43.

MacKay, John A.: *See*—
Johns, Harold E., and MacKay. 2,844,736.

MacKenzie, William F., and M. H. Roske, to United Shoe Machinery Corp. Assembling machines. 2,843,928, 7-22-58, Cl. 29—203.

Madden, Charles L. Trailer train. 2,844,108, 7-22-58, Cl. 105—159.

Madden, Henry M. Sportsman's lunch tote seat. 2,844,191, 7-22-58, Cl. 155—150.

Madison-Faessler Tool Co.: *See*—
Koppelmann, Eldo K. 2,843,918.

Magargee, Donald S.: *See*—
Kuba, Samuel, and Magargee. 2,844,171.

Maine, James F., to Consolidated Iron-Steel Mfg. Co. Road forms. 2,843,911, 7-22-58, Cl. 25—118.

Malwurm, Paul S. Concrete joists. 2,844,023, 7-22-58, Cl. 72—61.

Mallory, P. R., & Co., Inc.: *See*—
Ang, Choh-Yi. 2,843,921

Manger, Charles W., and W. S. Struve, to E. I. du Pont de Nemours and Co. Organic pigments. 2,844,581, 7-22-58, Cl. 260—279.

Mann, Theodore G.: *See*—
Mann, Theodore H. and T. G. 2,844,665.

Mann, Theodore H. and T. G., to Sound Engineering. Magnetic recording device. 2,844,665, 7-22-58, Cl. 179—100.2.

Marathon Electric Mfg. Corp.: *See*—
Burns, Stanley S., and Hornschuch. 2,844,101.

Maremont Automotive Products, Inc.: *See*—
Milne, Donald Y. 2,844,210.

Marks, Morris M.: *See*—
Witte, Paul. 2,844,670.

Marquad, Oscar: *See*—
Ciaffa, Italo A. 2,844,138.

Marquez, Louis R., to Atlas Specialty Mfg. Co. Seat cover. 2,844,192, 7-22-58, Cl. 155—182.

Marsh, Alvin C., Jr.: *See*—
Shafer, Carlton M., Neff, and Marsh. 2,844,091.

Marshall, Don J., ½ to M. H. Wenti. Portable power-operated tire removing tool. 2,844,194, 7-22-58, Cl. 157—1.26.
Marsico, Joseph W.: *See*—
Goldman, Leon, and Marsico. 2,844,576.
Martin, Earl H.: *See*—
Brandt, William H., and Martin. 2,844,287.
Maskey, Donald F., to The Buckeye Cellulose Corp. Adhesive composition. 2,844,482, 7-22-58, Cl. 106—154.
Massey, John D. Surgical apparatus. 2,844,144, 7-22-58, Cl. 128—131.
Mastenbrook, Henry J., to United States of America, Navy. Fast rising balloon. 2,844,336, 7-22-58, Cl. 244—31.
Matthews, Russell B.: *See*—
Bydalek, Floyd J., Dietz, Hilgert, and Matthews. 2,844,685.
Matulaitis, Victor E. Air distribution system. 2,844,085, 7-22-58, Cl. 98—2.
Mauch, Hans A. Control mechanism for artificial ankle. 2,843,853, 7-22-58, Cl. 3—35.
Mayburg, Summer: *See*—
Finn, George B., Jr., and Mayburg. 2,844,460.
Mayer, Oscar, & Co., Inc.: *See*—
Seiferth, Oscar E., and Royston. 2,844,473.
Mayer, Robert, and M. Corson. Collapsible lunch box. 2,844,272, 7-22-58, Cl. 220—6.
Mayor, Rowland H., to The Goodyear Tire & Rubber Co. Side chain halogenation of substituted aromatic compounds. 2,844,635, 7-22-58, Cl. 260—651.
Mazzagatti, Roy P., to The Texas Co. Manufacture of radiation detectors and the like. 2,844,707, 7-22-58, Cl. 219—74.
McAdams, William A.: *See*—
Creuts, Edward C., McAdams, and Foss. 2,844,735.
McAlpine, Charles H.: *See*—
Winkel, Herbert C., McGowan, Meschke, and McAlpine. 2,843,894.
McCampbell, James M., to United States of America, Navy. Radiation intensity dosage analogue computer. 2,844,312, 7-22-58, Cl. 235—61.
McCanless, William J. Motor vehicle skid rail construction. 2,843,953, 7-22-58, Cl. 40—129.
McCann, Joseph A., to Thompson Products, Inc. Means for detecting flaws. 2,844,787, 7-22-58, Cl. 324—37.
McCarthy, Paul R., and T. R. Orem, to Gulf Research & Development Co. Homogeneous lithium base lubricating grease compositions. 2,844,537, 7-22-58, Cl. 252—41.
McClellan, Marcus E., to Deere Mfg. Co. Combined harvester and baler. 2,843,989, 7-22-58, Cl. 56—1.
McCord, Georgie P., and A. N. Iknayan, to United States Rubber Co. Valve for tubeless tire. 2,844,183, 7-22-58, Cl. 152—427.
McDermott, John P., to Esso Research and Engineering Co. Process for reacting di-organo substituted dithiophosphoric acid compounds and epoxides. 2,844,616, 7-22-58, Cl. 260—461.
McDonald, James L. Combination preformed and cast-in-situ reinforced flooring structure. 2,844,024, 7-22-58, Cl. 72—66.
McEvoy, Joseph: *See*—
Christy, James W., and McEvoy. 2,844,680.
McGowan, Kenneth G.: *See*—
Winkel, Herbert C., McGowan, Meschke, and McAlpine. 2,843,894.
McGrath, William L., to Carrier Corp. Thermostatic valve structures. 2,844,319, 7-22-58, Cl. 236—1.
McGraw-Edison Co.: *See*—
Kobler, Richard. 2,844,661.
Kutik, Martin J. 2,844,664.
McKinney Mfg. Co.: *See*—
Hannon, Stephen J. 2,843,872.
McKinnis, Art C., to Union Oil Co. of California. Separation of C-9 alkaryl hydrocarbons by azeotropic distillation. 2,844,527, 7-22-58, Cl. 202—42.
McKinnis, Art C., to Collier Carbon and Chemical Corp. Recovery of nitromethane from nitration mixtures. 2,844,634, 7-22-58, Cl. 260—644.
McKinnon, Malcolm N. Water closet flush tank valve operating mechanism. 2,843,854, 7-22-58, Cl. 4—57.
McKissick, Charles C. Battery post sealer. 2,844,906, 7-22-58, Cl. 339—116.
McLean, Douglas K. Food package and apparatus for heating. 2,844,695, 7-22-58, Cl. 219—19.
McMillen, Foster, to Kearfott Co., Inc. Window wiper with heated arm. 2,843,871, 7-22-58, Cl. 15—250.5.
McMulkin, Lorne D., to Radio Corp. of America. Electron tube socket or the like for printed circuits. 2,844,807, 7-22-58, Cl. 339—193.
McNeal, Jack D.: *See*—
Hogan, William F., and McNeal. 2,844,212.
McPheeters, Otis D. Utility carriers. 2,844,291, 7-22-58, Cl. 224—42.1.
McRoberts, George M.: *See*—
Gongwer, Calvin A., and McRoberts. 2,843,859.
Mead Johnson & Co.: *See*—
Feldkamp, Rolland F., and Wu. 2,844,591.
Meberg, Jess W., and J. M. Ripple, to The Goodyear Tire & Rubber Co. Process for treating nylon cord fabric. 2,844,488, 7-22-58, Cl. 117—7.
Meier, Alexander. Electromagnetic direct current motor without winding on the armature. 2,844,744, 7-22-58, Cl. 310—46.
Meier, Lothar: *See*—
Seidel, Johannes, and Meier. 2,844,771.
Meier, Robert H., to Deere Mfg. Co. Shaft coupling. 2,844,011, 7-22-58, Cl. 64—1.
Melnick, Daniel: *See*—
Akerboom, Jack, and Melnick. 2,844,470.
Melnick, Daniel, and J. Akerboom. Pressurized salad dressing and method of preparing the same. 2,844,469, 7-22-58, Cl. 99—144.
Mercier, Jean. Resilient system. 2,844,367, 7-22-58, Cl. 267—15.
Mercier, Stanley M., to The Jeffrey Mfg. Co. Chain. 2,844,042, 7-22-58, Cl. 74—245.
Merck & Co., Inc.: *See*—
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Merit Products, Inc.: *See*—
Bernstein, Russell W., and Block. 2,843,980.
Block, Aleck. 2,843,981.
Merrow Machine Co., The: *See*—
Pierce, Bernard N. 2,844,202.
Mertz, Clyde W., to Phillips Petroleum Co. Indicating and/or control system and method. 2,844,588, 7-22-58, Cl. 200—83.7.
Meschke, Harry H.: *See*—
Winkel, Herbert C., McGowan, Meschke, and McAlpine. 2,843,894.
Metal Diffusions, Inc.: *See*—
Samuel, George A. 2,844,273.
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Rusciano, Frank A. 2,844,365.
Metalsalts Corp.: *See*—
Weiss, Robert O., and Lederer. 2,844,508.
Meyer, Geo. J., Mfg. Co.: *See*—
Carter, Sidney T. 2,843,986.
Meyer, Peter. Pressure contact control for cam cutting machines. 2,844,074, 7-22-58, Cl. 90—13.4.
Meyer, Ralph L., and S. Paksaver, to The Rauland Corp. Method of maufacture for electric discharge devices. 2,844,433, 7-22-58, Cl. 316—22.
Meyerer, Paul: *See*—
Veith, Werner, and Meyerer. 2,844,750.
Meystre, Charles: *See*—
Wettstein, Albert, Vischer, and Meystre. 2,844,513.
Middendorf, William H., to Wadsworth Electric Mfg. Co., Inc. Circuit breaker. 2,844,689, 7-22-58, Cl. 200—116.
Mierendorf, Robert C., and C. W. Porter, to Square D Co. Welder control system. 2,844,709, 7-22-58, Cl. 219—114.
Miers, Archie M., and W. Van Der Sluys, to Pullman-Standard Car Mfg. Co. Stabilizer for self-energized multiple-unit railroad car trains. 2,844,106, 7-22-58, Cl. 105—3.
Miers, Archie M., and W. Van Der Sluys, to Pullman-Standard Car Mfg. Co. Self-energized multiple-unit railroad car train. 2,844,107, 7-22-58, Cl. 105—3.
Miles Laboratories, Inc.: *See*—
Centolella, Albert P. 2,844,625.
Miller, Carl S., and C. A. Kuhrmeyer, to Minnesota Mining and Mfg. Co. Reflex thermoprinting. 2,844,733, 7-22-58, Cl. 250—65.
Miller, Mike A., to Aluminum Co. of America. Electrical joint composition. 2,844,479, 7-22-58, Cl. 106—14.
Miller, Robert R., and V. R. Gaertner, to Monsanto Chemical Co. Fungicidal compositions comprising phenylosasones. 2,844,505, 7-22-58, Cl. 167—30.
Miller, Robert L., and W. H. Wannamaker, Jr., to Minneapolis-Honeywell Regulator Co. Servomotor self-balancing measuring apparatus. 2,844,775, 7-22-58, Cl. 318—29.
Mills, George S.: *See*—
Haxo, Henry E., Jr., and Mills. 2,844,548.
Milne, Donald Y., to Maremont Automotive Products, Inc. Means for determining the effectiveness of sound reducing means. 2,844,210, 7-22-58, Cl. 181—5.
Milprint, Inc.: *See*—
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Milstine, Albert H.: *See*—
Achler, Maurice E., and Milstine. 2,844,199.
Minkow, Morse, to Underwood Corp. Signal generator error detector. 2,844,721, 7-22-58, Cl. 250—27.
Minneapolis-Honeywell Regulator Co.: *See*—
Ehret, Robert J. 2,844,717.
Miller, Robert L., and Wannamaker. 2,844,775.
Rexer, Edward F. 2,844,494.
Minnesota Mining and Mfg. Co.: *See*—
Miller, Carl S., and Kuhrmeyer. 2,844,733.
Passino, Herbert J., and Wrightson. 2,844,555.
Rendall, John L., and Husted. 2,844,509.
Miskella, William J. High heat infrared lamp holder. 2,844,699, 7-22-58, Cl. 219—34.
Modrey, Joseph, to The Farmingdale Corp. Floating non-sticking blades or vanes. 2,844,099, 7-22-58, Cl. 109—84.
Moelter, Gregory M.: *See*—
Albohn, Arthur R., and Moelter. 2,843,875.
Molins Machine Co., Ltd.: *See*—
Rowlands, Tom, and Hubbard. 2,844,371.
Momtchiloff, Ivan N., to The Austin Motor Co., Ltd. Valve-operating mechanism for overhead valve internal combustion engines. 2,844,132, 7-22-58, Cl. 123—90.
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Burkhart, William H. 2,844,811.
Monsanto Chemical Co.: *See*—
Birum, Gail H. 2,844,454.
Cameron, Margaret D. 2,844,500.
Daxzi, Joachim. 2,844,567.
Gluesenkamp, Earl W., and Weesner. 2,844,573.
Harris, Jay C. 2,844,455.
Johnson, John H., and Fields. 2,844,618.
Lefforge, John W. 2,844,442.
Miller, Robert R., and Gaertner. 2,844,505.
Monsler, Frank E. Telephone holders. 2,844,666, 7-22-58, Cl. 179—146.
Moore, Edward B.: *See*—
Stonich, Elwood H., and Moore. 2,844,324.
Stonich, Elwood H., and Moore. 2,844,392.
Moran, George W. Detergent metering and dispensing device. 2,844,283, 7-22-58, Cl. 222—212.
Morehead, Owen W. Pile raising device. 2,844,007, 7-22-58, Cl. 61—73.
Morell, Samuel A., S. H. Lipton, and A. Frieden, to Pabst Brewing Co. Process for the production of nucleotides. 2,844,514, 7-22-58, Cl. 195—30.

Moretta, Giuseppe. Drive transmission in circular hosiery and knitting machines with compensation of the wear in the gear teeth. 2,844,014, 7–22–58, Cl. 66—28.

Morgan, Frederic F. L., and R. B. James, to Holman Brothers Ltd. Chipping chisels. 2,843,929, 7–22–58, Cl. 30—1.

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Morrisch, Edward A.: *See*—
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Morse, Francis, to General Electric Co. Pressure vacuum relief valve. 2,844,165, 7–22–58, Cl. 137—493.6.

Morse, William L. Torque control. 2,844,237, 7–22–58, Cl. 192—60.

Morton, George A.: *See*—
Hahn, Edwin E., Schultz, Morton, and Morris. 2,844,737.

Morway, Arnold J.: *See*—
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Byrne, John F., and Firestone. 2,844,711.
Goldfus, Samuel M. 2,844,715.
Kroger, Marlin G. 2,844,649.

Mouravieff, Nicholas. Method and means for surface-hardening of steel. 2,844,498, 7–22–58, Cl. 148—10.5.

Mrazek, Frank G. Clamp. 2,843,910, 7–22–58, Cl. 24—270.

Muehlner, Egon E., to United States of America, Air Force. Bladed braking apparatus. 2,844,220, 7–22–58, Cl. 188—38.

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Müller, Max A., to Rand Goetze Corp. Packing ring. 2,844,425, 7–22–58, Cl. 309—44.

Muller, Max A., and W. Glaser, to Rand Goetze Corp. Torsion compression and oil ring. 2,844,427, 7–22–58, Cl. 309—45.

Muller, Nathan W., to National Cylinder Gas Co. Method of inhibiting slag formation in boilers and inhibitor materials for use therein. 2,844,112, 7–22–58, Cl. 110—1.

Munday, Charles W., to The Distillers Co. Ltd. Radiation detector. 2,844,728, 7–22–58, Cl. 250—43.5.

Munson, Whitney K. Rubber stamps. 2,844,097, 7–22–58, Cl. 101—380.

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Murdoch, Andrew M., to Sperry Products, Inc. Means for transmitting and receiving ultrasonic shear wave motion. 2,844,741, 7–22–58, Cl. 310—8.5.

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Nagel, Horstmar: *See*—
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Napier, D., & Son Ltd.: *See*—
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Muller, Nathan W. 2,844,112.

National Distillers and Chemical Corp.: *See*—
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National Lead Co.: *See*—
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National Tank Co.: *See*—
Wilson, Samuel A. 2,844,213.

Nebrera Escobar, Juan. Process for the deodorization of o,o-dimethyl-dithio-phosphate of diethyl mercapto-succinate. 2,844,619, 7–22–58, Cl. 260—461.

Nebrera Escobar, Juan. Process for the deodorization of o,o-dimethyl-dithiophosphate of diethyl mercaptosuccinate. 2,844,620, 7–22–58, Cl. 260—461.

Neff, Gilbert E.: *See*—
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Neher, Eldon P., to The General Tire and Rubber Co. Rubber insert with lubricant channel. 2,844,398, 7–22–58, Cl. 287—85.

Neild, Alton B., Jr., to United States of America, Navy. Gasoline engine exhaust flame arrestor. 2,844,000, 7–22–58, Cl. 60—29.

Nelson, Alvin L., to International Minerals and Chemical Corp. Packaging and processing of poultry. 2,844,474, 7–22–58, Cl. 99—174.

Nelson, Fred L. Boat construction with well mounted propulsion unit. 2,844,120, 7–22–58, Cl. 115—35.

Nessel, Jiri M., to Clary Corp. Machine supporting structure. 2,843,969, 7–22–58, Cl. 45—68.1.

Nestor, Leonard R. Adjustable grip for bowling ball. 2,844,375, 7–22–58, Cl. 273—63.

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Newell, Isaac L., and E. A. Walen. Formation of corrosion resistant films on aluminum. 2,844,496, 7–22–58, Cl. 148—6.21.

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Alpert, Norman, Heisler, and Newman. 2,844,451.
Dille, Kenneth L., Heisler, Newman, and Alpert. 2,844,449.
Heisler, Robert Y., Newman, and Alpert. 2,844,448.
Heisler, Robert Y., Newman, Dille, and Alpert. 2,844,450.

Newton, Alwin B., to The Coleman Co., Inc. Compressor for refrigeration system. 2,844,301, 7–22–58, Cl. 230—53.

Nichols, Robinson F., and L. C. Kreider, to The B. F. Goodrich Co. Compositions containing diisocyanate-linked polyurethane elastomer and beeswax. 2,844,554, 7–22–58, Cl. 260—28.

Nickerson, Thomas D., to The Texas Co. Electronic automatic sequence timers. 2,844,211, 7–22–58, Cl. 181—.5.

Nielsen, Axel L. Sump pump system. 2,844,678, 7–22–58, Cl. 200—81.5.

Nieswaag, Johannes, and H. J. Smits, to North American Philips Co., Inc. High voltage transformer. 2,844,761, 7–22–58, Cl. 315—105.

Nietert, Richard L.: *See*—
Long, Paul J., Jr., and Nietert. 2,844,226.

Noether, Herman D., to Celanese Corp. of America. Production of haloacids. 2,844,627, 7–22–58, Cl. 260—539.

Noiseux, Pedro J., to Radio Corp. of America. Automatic power reducer for transmitters. 2,844,712, 7–22–58, Cl. 250—17.

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Nordenson, Willard H., and A. E. Park, to Deere Mfg. Co. Internal-combustion engine. 2,844,130, 7–22–58, Cl. 123—41.82.

Nordisk Ventilator Co., Aktiebolakab: *See*—
Kristiansen, Svend H. 2,844,303.

North American Aviation, Inc.: *See*—
MacArthur, Robert B., and Swearingen. 2,844,337.

North American Philips Co., Inc.: *See*—
Diemer, Gesinus. 2,844,756.
Erkelens, Johannes, Kamerman, and Roovers. 2,844,760.
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Spakman, Geert. 2,844,039.
Van Urk, Arend T., and Cluwen. 2,844,786.
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Nutone, Inc.: *See*—
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Nye, Roscoe H. Paper clip. 2,843,900, 7–22–58, Cl. 24—66.

O'Brien, William J., and H. G. Hawker, to The Decca Record Co. Ltd. Radio navigation systems. 2,844,816, 7–22–58, Cl. 343—105.

O'Connor, Jerome A. Mechanical throttle speed control device. 2,844,235, 7–22–58, Cl. 192—3.

Ogren, Axel E., to The Sherwin-Williams Co. Adaptor for nozzle, spout, coupler, or the like. 2,844,289, 7–22–58, Cl. 222—499.

Oishei, John R., to Trico Products Corp. Windshield washer. 2,844,102, 7–22–58, Cl. 103—148.

Old Dominion Box Co., Inc.: *See*—
Williams, Alford A. 2,844,294.

Olin Mathieson Chemical Corp.: *See*—
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Omeron, Carl J. E. Safety rim structure. 2,844,180, 7–22–58, Cl. 152—158.

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Orem, Thomas R.: *See*—
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Orthner, Ludwig, and M. Reuter, to Farbwerke Hoechst AG., vormals Meister Lucius and Brüning. Aluminum compounds and the process of preparing them. 2,844,551, 7–22–58, Cl. 260—18.

Oster, John Mfg. Co.: *See*—
Barrows, Howard E., and Luther. 2,844,176.

Ostwald, Fritz, to Alfred Teves, Maschinen- und Armaturenfabrik Kommandit-Gesellschaft. Fluid pressure regulators. 2,844,161, 7–22–57, Cl. 137—116.

Ott, Arnold C.: *See*—
Pederson, Raymond L., and Ott. 2,844,600.

Owens-Illinois Glass Co.: *See*—
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Logue, James A., Roberts, and Swanson. 2,843,925.

PGAC Development Co.: *See*—
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Pabst Brewing Co.: *See*—
Kessler, David E., and Hauf. 2,844,290.
Morell, Samuel A., Lipton, and Frieden. 2,844,514.

Pack, Charles: *See*—
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Panuline, George, to American Machine & Foundry Co. Infeed conveyor flight adjusting mechanism. 2,844,242, 7–22–58, Cl. 198—168.

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Pararra, Julius. Ash tray. 2,844,153, 7–22–58, Cl. 131—240.

Park, Alan E.: *See*—
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Parker, Charles B., and R. L. Bibb, to First American National Bank. Air-brake safety system. 2,844,412, 7–22–58, Cl. 303—86.

Parker, Earl E., to Pittsburgh Plate Glass Co. Glycolic acid as a corrosion inhibitor in mixtures of ethylenic monomers and polyesters of alpha ethylenic dicarboxylic. 2,844,559, 7–22–58, Cl. 260—45.4.

Parker, Robert P., and J. F. Hosler, to American Cyanamid Co. 1,1-dimethyl-2,2-di-(1-cyanoethyl) hydrazine, method of preparing, and compositions and method for controlling nematodes. 2,844,503, 7–22–58, Cl. 167—22.

Parker, Robert P., and J. F. Hosler, to American Cyanamid Co. 1,1,2-tri-(1-cyanoethyl) hydrazine, method of preparing and compositions and methods for controlling nematodes. 2,844,504, 7-22-58, Cl. 167—22.

Parks-Cramer Co.: *See*—
Long, John R. 2,844,495.

Partl, Wilhelm. Supervisory electric signal apparatus, particularly for automotive vehicles. 2,844,814, 7-22-58, Cl. 340—251.

Passino, Herbert J., and J. M. Wrightson, to Minnesota Mining and Mfg. Co. Solutions of plasticised perfluorochlorocarbon polymers, method of preparation, and process of coating wire therewith. 2,844,555, 7-22-58, Cl. 260—33.8.

Pavesi, Franco. Hydraulic piston pump, particularly suitable for differential hydraulic transmissions. 2,844,002, 7-22-58, Cl. 60—53.

Paxton, Homer W., to United States Rubber Co. Method of bonding elastomers to other materials and adhesive compositions used therefor. 2,844,502, 7-22-58, Cl. 154—139.

Peckham, Herbert H., and S. L. Harris, II, to Allied Chemical & Dye Corp. Method of producing potassium and ammonium alums. 2,844,438, 7-22-58, Cl. 23—118.

Pederson, Raymond L., and A. C. Ott, to The Upjohn Co. 2,2-cyanohydrins of bis-nor cholen-al compounds. 2,844,600, 7-22-58, Cl. 260—397.3.

Pederson, Raymond L., and E. H. Jensen, to The Upjohn Co. 3-oxygenated bisnor-17(20)-cholen-22-ols. 2,844,601, 7-22-58, Cl. 260—397.3.

Pederson, Raymond L., to The Upjohn Co. Organic compounds and process. 2,844,605, 7-22-58, Cl. 260—397.47.

Pegnim, Timothy C.: *See*—
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Pellin, Remo A., to E. I. du Pont de Nemours and Co. Process of purifying liquid silicon halide. 2,844,441, 7-22-58, Cl. 23—205.

Pennsalt Chemicals Corp.: *See*—
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Peras, Lucien, to Regie Nationale des Usines Renault. Method for heat treating bearings and product thereof. 2,844,500, 7-22-58, Cl. 148—21.55.

Perdue, Bert D., to The Scholl Mfg., Co., Inc. Applicator for tubular bandage. 2,844,140, 7-22-58, Cl. 128—157.

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Broadwin, Harry. 2,844,306.

Perry, Raymond G. Shoe scraper and residue collector for vehicles. 2,843,870, 7-22-58, Cl. 15—237.

Peterman, George A.: *See*—
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Peterson, Clark E. Front wheel clutch mechanism for motor vehicles. 2,844,238, 7-22-58, Cl. 192—67.

Petriccione, Peter. Combined drinking straw and bottle cap. 2,844,267, 7-22-58, Cl. 215—100.

Pfaff, G. M., A.-G.: *See*—
Benink, Christiaan J. M., and Wenz. 2,844,114.

Pfann, William G., to Bell Telephone Laboratories, Inc. Electromagnetic switching. 2,844,688, 7-22-58, Cl. 200—112.

Philadelphia Quartz Co.: *See*—
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Philco Corp.: *See*—
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Ryan, Thomas J. 2,844,725.

Phillips Petroleum Co.: *See*—
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Mertz, Clyde W. 2,844,568.
Polk, Walter B. 2,844,160.
Webster, George J., and Rushford. 2,844,445.
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Pietsch, Helmut, and H. Nagel, to Henkel & Cie, G. m. b. H. Preparation of conversion products of pentaerythrite dichlorohydrine monosulfurous acid esters. 2,844,592, 7-22-58, Cl. 260—333.

Pinet, André E. Modulation limiter for multiplex pulse communication systems. 2,844,651, 7-22-58, Cl. 179—15.

Pinet, André E. Switch device for multiplex channel transmission receivers. 2,844,652, 7-22-58, Cl. 179—15.

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Pittsburgh Plate Glass Co.: *See*—
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Plonsky, Seymour, H. Chow, and A. Schneider, to Celanese Corp. of America. Film treatment. 2,844,731, 7-22-58, Cl. 250—49.5.

Pneumafil Corp.: *See*—
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Poehls, Clarence E., to Algoma Foundry & Machine Co. Rotary cutter and shredder. 2,843,991, 7-22-58, Cl. 56—23.

Polanin, Walter R., to American Steel Foundries. Railway brake. 2,844,222, 7-22-58, Cl. 188—46.

Polk, Walter B., to Phillips Petroleum Co. Apparatus for recovering gases from flare lines. 2,844,160, 7-22-58, Cl. 137—115.

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Porter, Joseph B. Fishpole holder mechanism. 2,843,962, 7-22-58, Cl. 43—15.

Potter, John H. Ship salvaging apparatus. 2,844,116, 7-22-58, Cl. 114—50.

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Prather, Marvin B., to General Electric Co. Electric range oven. 2,844,708, 7-22-58, Cl. 219—35.

Premier Research Laboratories, Inc.: *See*—
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Prescott, Thomas G., to Bomac Laboratories Inc. Electrode structure for gaseous discharge devices. 2,844,751, 7-22-58, Cl. 313—217.

Pribonic, John F., to General Motors Corp. Ride height control valve. 2,844,385, 7-22-58, Cl. 280—124.

Pribonic, John F., to General Motors Corp. Ride height control valve. 2,844,386, 7-22-58, Cl. 280—124.

Prince, Morton B., to Bell Telephone Laboratories, Inc. Method of producing cavities in semiconductive surfaces. 2,844,531, 7-22-58, Cl. 204—143.

Provost, Raoul L., to United States Rubber Co. Method for the incorporation of lignin into synthetic rubber. 2,844,549, 7-22-58, Cl. 260—17.5.

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Pullman-Standard Car Mfg. Co.: *See*—
Austgen, Kenneth J., and Candlin. 2,844,109.
Miers, Archie M., and Van Der Sluys. 2,844,106.
Miers, Archie M., and Van Der Sluys. 2,844,107.

Puntenney, John W. Ceiling-suspended elevatable table. 2,844,428, 7-22-58, Cl. 311—17.

Purdy, Harry W. Probability indicator and game device. 2,844,376, 7-22-58, Cl. 273—144.

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Quaedvlieg, Mathieu: *See*—
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Quate, Calvin F., to Bell Telephone Laboratories, Inc. Traveling wave tube. 2,844,753, 7-22-58, Cl. 315—3.5.

Rabinow, Jacob. Headlight dimmer combined with automobile light. 2,844,760, 7-22-58, Cl. 315—83.

Radio Corp. of America: *See*—
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Avins, Jack. 2,844,739.
Ayres, William R. 2,844,309.
Beard, Arthur D. 2,844,434.
Fredendall, Gordon L. 2,844,645.
Hahn, Edwin E., Schultz, Morton, and Morris. 2,844,737.
Hoover, Merle V. 2,844,752.
Lindenblad, Nils E. 2,844,638.
McMullin, Lorne D. 2,844,807.
Noiseux, Pedro J. 2,844,712.
Singer, Herbert. 2,844,369.
Wlasuk, Steven. 2,844,646.
Gilbert, Everett A. 2,844,720.

Raife, Archie. Hypodermic syringe. 2,844,148, 7-22-58, Cl. 128—218.

Raley, Charles F., Jr., to United States of America, Air Force. Heterocyclic aryl phosphorus esters. 2,844,582, 7-22-58, Cl. 260—289.

Ramadanoff, Dimiter, to Union Carbide Corp. Additive for copper graphite brush. 2,844,544, 7-22-58, Cl. 252—503.

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Arnold, Hartmut. 2,844,423.
Goetze, Rolf F. 2,844,424.
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Muller, Max A., and Glaser. 2,844,427.
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Rankin, Andrew W., to General Electric Co. Turbine bucket wheel. 2,844,355, 7-22-58, Cl. 253—77.

Rapp, Georges, to Society Sirelec. Electrical follow up system. 2,844,774, 7-22-58, Cl. 318—29.

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Ray, Daniel D.: *See*—
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Raynsford, Charles K.: *See*—
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Raytheon Mfg. Co.: *See*—
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Dench, Edward C. 2,844,797.

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Barnes, James F., and Rebholz. 2,844,475.

Reedy, William H., Jr.: *See*—
Johnson, William O., and Reedy. 2,844,530.

Regie Nationale des Usines Renault: *See*—
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Rehfeld, George W. Jetty installation. 2,844,005, 7-22-58, Cl. 61—3.

Reidinger, Albert D., and W. S. Struve, to E. I. du Pont de Nemours and Co. Organic pigments. 2,844,484, 7-22-58, Cl. 106—288.

Reiman, Walter J. Sunshade. 2,844,156, 7-22-58, Cl. 135—5.

Reinsmith, Glenn M.: *See*—
Ellis, Charles R., and Reinsmith. 2,844,800.

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Rickenmann, Alfred. 2,844,137.

Reitz, Archie E. Changeable display device. 2,843,950, 7-22-58, Cl. 40—34.

Reitz, Friedrich, to Telefonbau und Normalzeit G. m. b. H. Selective type positioning means in printing cylinders. 2,844,093, 7-22-58, Cl. 101—91.

Re-Ly-On Metal Products, Inc.: *See*—
Friedman, Samuel. 2,844,257.

Rendall, John L., and D. R. Husted, to Minnesota Mining and Mfg. Co. Polyalkylenepolyamines. 2,844,599, 7-22-58, Cl. 260—389.

Reserve Mining Co.: *See*—
Furness, Edward M. 2,844,252.

Reuter, Martin: *See*—
Orthner, Ludwig, and Reuter. 2,844,551.

Rex, Walter A., and C. E. Jahnig, to Esso Research and Engineering Co. Method of heat supply for a catalytic hydroforming process through the use of inert heat-carrying material. 2,844,522, 7-22-58, Cl. 196—52.

Rexer, Edward F., to Minneapolis-Honeywell Regulator Co. Method of producing electron emitting cathodes. 2,844,494, 7-22-58, Cl. 117—213.

Reynolds, Donald C., to United States of America, Air Force. Cadmium sulfide barrier layer cell. 2,844,640, 7-22-58, Cl. 136—89.

Reynolds, Merrill E. Tractor brake control. 2,844,046, 7-22-58, Cl. 74—542.

Reynolds Metals Co.: *See*—
Cybriwsky, Alexander, and Mostovych. 2,844,529.

Resnek, Solomon, to Cook-Waite Laboratories, Inc. Device for demonstrating effects of varying injection rates. 2,843,934, 7-22-58, Cl. 32—71.

Rheeling Safety Splash Guard Co.: *See*—
Rheeling, Victor S. 2,843,954.
Rheeling, Victor S. 2,844,388.

Rheeling, Victor S., to V. S. Rheeling and H. Berg, d. b. a. Rheeling Safety Splash Guard Co. Guard. 2,843,954, 7-22-58, Cl. 40—129.

Rheeling, Victor S., to V. S. Rheeling and H. Berg, d. b. a. Rheeling Safety Splash Guard Co. Truck wheel guard and support for warning sign. 2,844,388, 7-22-58, Cl. 280—152.

Rice, George F.: *See*—
Carlo, Ré, Rice, Birkeland, Koosin, Duncan, and Kinda. 2,844,073.

Rich, Howard B. Stepladders. 2,844,202, 7-22-58, Cl. 228—58.

Richards, Ernest G. Delayed action mechanical rope cutter. 2,843,933. 7-22-58, Cl. 30—182.

Richards, William H. Automatic transport system for slide projectors. 2,843,951. 7-22-58, Cl. 40—36.

Richardson Co., The: *See*—
Bateman, Richard M., and Hollis. 2,844,327.

Richardson, Roger W.: *See*—
Veltman, Preston L., Baral, and Richardson. 2,844,523.

Richter, Frederick G.: *See*—
Cardon, Jules, and Richter. 2,844,714.

Richter, Henry, to Paramount Textile Machinery Co. Transfer machine. 2,843,956, 7-22-58, Cl. 41—1.

Rickenmann, Alfred, to Reishauer-Werkzeuge A. G. Mechanism for generating the helical thread on grinding worms for gear grinding machines. 2,844,137, 7-22-58, Cl. 125—11.

Riddiford, Milton S.: *See*—
Maciszewski, Arthur H., and Riddiford. 2,844,727.

Rieke, John W. and A. Slocum, to Bell Telephone Laboratories, Inc. Envelope detector. 2,844,719, 7-22-58, Cl. 250—27.

Riener, Edward F., W E Craig, and T. J. Durkin, to Rohm & Haas Co. Cyclic acetals. 2,844,593, 7-22-58, Cl. 260—340.7.

Riggs, Mart B., and R. B. Knill, to The Goodyear Tire & Rubber Co. Tires. 2,844,181. 7-22-58, Cl. 152—354.

Rigterink, Merle D., to Bell Telephone Laboratories, Inc. Wire-wound vitreous enamel resistors. 2,844,693, 7-22-58, Cl. 201—63.

Rinella, Joseph A., to The Goodyear Tire & Rubber Co. Apparatus for casting tire mold segments. 2,843,896, 7-22-58, Cl. 22—94.

Ring, Roland, to Sperry-Sun Well Surveying Co. Apparatus for orienting tools in a bore hole. 2,844,357, 7-22-58, Cl. 255—1.6.

Ringler, William A., to Diamond Gardner Corp. Multi-celled article carriers. 2,844,280, 7-22-58, Cl. 220—113.

Ringler, William A., to Diamond Gardner Corp. Multi-celled article carriers. 2,844,281, 7-22-58, Cl. 220—113.

Ringold, Howard J., and G. Rosenkrans, to Syntex S. A. 4-methyl testosterone compounds. 2,844,602, 7-22-58, Cl. 260—397.4.

Ripple, Joe M.: *See*—
Meberg, Jess W., and Ripple. 2,844,466.

Ritter Co., Inc.: *See*—
Lauterbach, Norman R. 2,844,193.

Ritzenberg, Hyman. Dispensing pressure can for tennis balls. 2,843,985. 7-22-58, Cl. 53—235.

Rivoche, Eugene J. Process of comminuting and dehydrating foods. 2,844,476, 7-22-58, Cl. 99—199.

Robbins, Elmer A., to Tokheim Corp. Flow line poppet type check valve. 2,844,164, 7-22-58, Cl. 137—454.6.

Roberts Chemicals, Inc.: *See*—
Fike, Elmer A. 2,844,623.

Roberts, Theron W.: *See*—
Logue, James A., Roberts, and Swanson. 2,843,925.

Robertshaw-Fulton Controls Co.: *See*—
Cate, Paul E. 2,844,320.
Witherspoon Jack, Jr. 2,844,321.

Robertson, H. H., Co.: *See*—
Kauts, Glenn E. 2,844,322.

Robertson Photo-Mechanix, Inc.: *See*—
Blatherwick, Delbert T. 2,844,082.

Robinson, Charles F., to Consolidated Electrodynamics Corp. Mass spectrometry. 2,844,726, 7-22-58, Cl. 250—41.9.

Robotron Corp.: *See*—
Thomsen Theodore R. 2,844,784.

Rockoff, Joseph, to The Dayton Rubber Co. Textile cot. 2,843,883, 7-22-58, Cl. 19—148.

Rodgers, Elbert A. Oil and gas flow control device. 2,844,206, 7-22-58, Cl. 166—54.

Rodriguez-Torrent, Ralph, and R. W. Fitzwater; dedicated to the public. DDT stabilized compositions. 2,844,507, 7-22-58, Cl. 167—30.

Roe, Charles C.: *See*—
Chandler, James I., and Roe. 2,844,783.

Roe, Charles C., to Le Tourneau-Westinghouse Co. Control transformer. 2,844,804, 7-22-58, Cl. 336—160.

Roethel, John H. Vehicle window guiding means. 2,844,405, 7-22-58, Cl. 296—44.5.

Rogers, Alan B. and J. F. Roland, Jr., to Armour and Co. Growth promotant substances. 2,844,466, 7-22-58, Cl. 99—2.

Rogers, Quentin W. Television guy wire adjuster and anchor. 2,843,902, 7-22-58, Cl. 24—71.1.

Röhm, Günter H. Live center. 2,844,063, 7-22-58, Cl. 82—33.

Rohm & Haas Co.: *See*—
Riener, Edward F., Craig, and Durkin. 2,844,593.

Roland, John F., Jr.: *See*—
Rogers, Alan B., and Roland. 2,844,466.

Roovers, Wilhelmus A.: *See*—
Erkelens, Johannes, Kamerman, and Roovers. 2,844,769.

Rosen, Shy: *See*—
Thompson, Walter S., and Rosen. 2,843,988.

Rosenberg, Stig E. Garter with toggle support. 2,843,906, 7-22-58, Cl. 24—201.

Rosenkrans, George: *See*—
Ringold, Howard J., and Rosenkrans. 2,844,602.

Rosenthal, Adolph H., to Fairchild Camera and Instrument Corp. Scanning mirror. 2,844,648, 7-22-58, Cl. 178—7.1.

Rosenthal, Monto. Thermometer shield. 2,844,031, 7-22-58, Cl. 73—343.

Roshkind, Herbert: *See*—
Favreau, Elie A., Jr., and Roshkind. 2,844,803.

Roske, Milton H.: *See*—
MacKenzie, William F., and Roske. 2,843,823.

Ross, James A., to Ling Electronics, Inc. Vibrator servo amplifiers. 2,844,777, 7-22-58, Cl. 318—128.

Rösler, Hugo: *See*—
Bösel, Ingeborg, Bullmer, and Rösler. 2,844,203.

Roth, Richard: *See*—
Guenthard, Jacques, and Roth. 2,844,597.

Rottig, Walter, to Ruhrchemie Akt. Production of esters from carbon monoxide, hydrogen and olefin. 2,844,612, 7-22-58, Cl. 260—410.9.

Rouse, Benjamin H., deceased; R. M. Rouse, administratrix, ⅓ to O. G. Rouse. Flapper mill for grinding suspensions of vermiculite. 2,844,328, 7-22-58, Cl. 241—46.

Rouse, O. G.: *See*—
Rouse, Benjamin H. 2,844,328.

Rouse, Ruth M.: *See*—
Rouse, Benjamin H. 2,844,328.

Rowlands, Tom, and H. J. Hubbard, to Molins Machine Co., Ltd. Sheet feeding devices of the reciprocating tooth type. 2,844,371. 7-22-58. Cl. 271—44.

Roy, Milton, Co.: *See*—
Bennett, Richard A. 2,844,103.

Royal Industries, Inc.: *See*—
Carlo, Ré, Rice, Birkeland, Koosin, Duncan, and Kinda. 2,844,073.

Royston, Calvin T.: *See*—
Seiferth, Oscar E., and Royston. 2,844,473.

Rubber Products, Inc.: *See*—
Smyth, Gordon R. 2,843,999.

Rubery, Owen & Co., Ltd.: *See*—
Hallsworth, Henry B. 2,843,895.

Rubli, Max, to Holding Intercito SA. Press for producing welding electrodes coated with welding compound. 2,843,876. 7-22-58 Cl. 18—13.

Rudo Associates: *See*—
Lynch, Leslie S., Jr. 2,844,089.

Ruhrchemie Akt.: *See*—
Rottig, Walter. 2,844,612.

Rulon, Richard M., and K. H. Butler. Method of making an electroluminescent phosphor. 2,844,540, 7-22-58, Cl. 252—301.6.

Rundberg, Halvard O. Jamb claw. 2,843,886, 7-22-58, Cl. 20—16.

Runner, John W. to The Goodyear Tire & Rubber Co. Automatic adjustment grip for brakes. 2,844,223, 7-22-58, Cl. 188—67

Rusciano, Frank A., to Metallurgical Processes Co. Furnace for neutral heating of metal with neutral preheat. 2,844,365, 7-22-58, Cl. 266—5.

Rushford, Wilson H.: *See*—
Webster, George J., and Rushford. 2,844,445.

Ruskin, Simon L., to Union Carbide Corp. Addition of urea ascorbate to bread dough and resulting product. 2,844,467, 7-22-58. Cl. 99—90.

Russell, Irving H.: *See*—
Swartz, James J., and Russell. 2,843,920.

Ryan Aeronautical Co., The: *See*—
Keith, Ivan W. 2,844,338.

Ryan, Thomas J., to Philco Corp. Pulsed oscillator system. 2,844,725, 7-22-58, Cl. 250—36.

Ryder, William V., Jr., to American Radiator & Standard Sanitary Corp. Hydraulic pivot. 2,844,415, 7-22-58, Cl. 308—2.

Sabaroff, Samuel, to Barker and Williamson, Inc. Low pass filter units for high frequency signal circuits. 2,844,801, 7-22-58. Cl. 333—79.

Sage, Robert W.: *See*—
Weber, Herman, and Sage. 2,844,045.

Sager, Earl F., and A. N. Tuttle, to Walworth Co. Apparatus for making shell-type molds. 2,843,892, 7-22-58, Cl. 22—20.

Sailer, Max: *See*—
Wagner Ferdinand, and Sailer. 2,844,031.

Sambonet, Mario, to Italo Rissieri. Electric outlet socket and plug. 2,844,672, 7-22-58, Cl. 200—51.09.

Samuel, George A., to Metal Diffusions, Inc. Container for articles under heat treatment. 2,844,273, 7-22-58, Cl. 220—9.

Sandos A. G.: *See*—
Guenthard, Jacques, and Roth. 2,844,597.
Günthard, Jacques. 2,844,598.

Sandvikens Jernverks Aktiebolag: *See*—
Annerhed, Karl B. 2,844,350.
Eberman, Carl B., and Lofqvist. 2,844,358.

Scalera, Mario: *See*—
Long, Robert S., and Scalera. 2,844,594.

Schaefer, Edward E., to W. B. Thompson. Bicycle handle bar guard. 2,844,047, 7-22-58, Cl. 74—551.8.

Schaffer-Gloesl, Hans. Dynamo-electrical igniting machine. 2,844,747, 7-22-58, Cl. 310—69.

Scheeline, Harold W.: *See*—
Green, Arthur D., Gernowski, Scheeline, and Jaros. 2,844,560.

Scheuley Industries, Inc.: *See*—
Lorenz, Walter, and Henecka. 2,844,510.

Schiesel & Co. Gesellschaft m. b. H.: *See*—
Jakoblitz, Stefan. 2,844,062.

Schlosser, Herbert, to Horizons Inc. High resistance photoconductor. 2,844,493, 7-2-58, Cl. 117—211.

Schlumo, Otto W., to Whitin Machine Works. Yarn twist controller. 2,843,998, 7-22-58, Cl. 57—59.

Schmid, William P.: *See*—
Bennett, Richard A., and Schmid. 2,844,048.

Schmidt, Walter J.: *See*—
Blanding, Forrest H., and Schmidt. 2,844,518.

Schmitt, George J.: *See*—
Turner, Richard J., and Schmitt. 2,844,579.

Schneider, Alfred: *See*—
Plonsky, Seymour, Chow, and Schneider. 2,844,731.

Schneider, Bruno: *See*—
Ciaffa, Italo A. 2,844,138.

Schneider, Helmuth F.: *See*—
Adelman, William M., and Schneider. 2,844,781.

Schnell, Steve, to Wagner Electric Corp. Brake pedal ratio changer. 2,844,228, 7-22-58, Cl. 188—152.

Schniser, Arthur W., and A. L. Stautzenberger, to Celanese Corp. of America. Production of 2-methyl-5-ethylpyridine. 2,844,583, 7-22-58, Cl. 260—290.

Schofield, Aldred E., to United States of America, Atomic Energy Commission. Multiple spark gap switch. 2,844,740, 7-22-58, Cl. 307—109.

Scholl Mfg. Co., Inc., The: *See*—
Hanington, Charles A. 2,843,857.
Shaw, Harold K. 2,844,387.

Schuldiner, Sigmund: *See*—
White, Joseph C., and Schuldiner. 2,844,532.

Schultz, Henry J., to B. Walter. Battery tester. 2,844,813, 7-22-58, Cl. 340—249.

Schultz, Melvin L.: *See*—
Hahn, Edwin E., Schultz, Morton, and Morris. 2,844,737.

Schulz, Edward A., to Western Electric Co., Inc. Lever actuated chuck. 2,844,379, 7-22-58, Cl. 279—120.

Schumacher, Elmer L., to American Optical Co. Ophthalmic mountings. 2,844,071, 7-22-58, Cl. 88—41.

Schurmann, Max-Otto, and H. Haimerl, to Farbenfabriken Bayer Akt. Apparatus for the aftertreatment of endless cables or tows of artificial filaments. 2,844,019, 7-22-58, Cl. 68—205.

Schurr, Chris. Production of aluminum sulphate from waste materials. 2,844,439, 7-22-58, Cl. 23—123.

Schwabe, Herman, Inc.: *See*—
Haas, Edgar. 2,843,864.

Schwartz, Morris, and W. Castedello. Photoflash bulbs. 2,844,018, 7-22-58, Cl. 67—31.

Schwarz, Herbert, W. Kallert, C. Mühlhausen, and H. Holtschmidt, to Farbenfabriken Bayer Akt. Production of polythioethers. 2,844,566, 7-22-58, Cl. 260—79.

Schwarz, Meyer, and P. J. Franklin, to United States of America, Army. Ion exchange resin battery. 2,844,642, 7-22-58, Cl. 136—153.

Scott, John W., Jr., and J. B. Cull, to California Research Corp. Fluid retorting process. 2,844,525, 7-22-58, Cl. 202—14.

Scoville, Thomas N. Vibration free support. 2,844,187, 7-22-58, Cl. 155—51.

Seaman, Blair C.: *See*—
Hutchins, Charles C., and Seaman. 2,844,748.

Searle, G. D., & Co.: *See*—
Strojny, Edwin J., and Hoehn. 2,844,603.

Seely, Richard E., and M. E. Snyder, to General Electric Co. Protective arrangement for stator motors. 2,844,778, 7-22-58, Cl. 318—221.

Seidel, Johannes, and L. Meier, to Siemens-Reiniger-Werke Akt. High-tension barrier-layer rectification unit for installation in the high-tension generator of an X-ray apparatus. 2,844,771, 7-22-58, Cl. 317—234.

Seiferth, Oscar E., and C. T. Royston, to Oscar Mayer & Co., Inc. Sliced food package. 2,844,473, 7-22-58, Cl. 99—174.

Seliger, Victor H., to Sperry Rand Corp., Ford Instrument Co. Division. Ambiguity resolver for a navigation position indicator. 2,844,313, 7-22-58, Cl. 235—61.

Semple, James M. Hook and leader supporting structure. 2,843,961, 7-22-58, Cl. 43—1.

Serniuk, George E.: *See*—
Hinlicky, John A., and Serniuk. 2,844,542.

Servo Corp. of America: *See*—
Cardon, Jules, and Richter. 2,844,714.

Shafer, Carlton M., G. E. Neff, and A. C. Marsh, Jr. Brick package forming machine construction. 2,844,091, 7-22-58, Cl. 100—25.

Shakespeare Products Co.: *See*—
Weber, Herman, and Sage. 2,844,045.

Shapiro, Harry: *See*—
Achler, Maurice E., and Milstine. 2,844,199.

Sharpe, Verlee G., to General Motors Corp. Refrigerating apparatus door control mechanism. 2,844,111, 7-22-58, Cl. 109—83.5.

Shaw, Harold K., to The Scholl Mfg. Co., Inc. Prefabricated crash cushion. 2,844,387, 7-22-58, Cl. 280—150.

Shaw, Walter H., to Shawco Laboratories, Inc. Two-way communication unit. 2,844,659, 7-22-58, Cl. 179—81.

Shawco Laboratories, Inc.: *See*—
Shaw, Walter H. 2,844,659.

Sheffield Corp., The: *See*—
Aller, Willis F. 2,843,930.

Sheldon, Frank A., to The Sherwin-Williams Co. Aqueous textile printing extenders comprising a galactomannan, a water soluble ferrous salt, method of preparing and textile fabric treated therewith. 2,844,547, 7-22-58, Cl. 260—17.3.

Shell Development Co.: *See*—
Joyce, John R., Williams, and Ames. 2,844,025.

Shelton, Edgar A., to Continental Oil Co. Pressure tank. 2,844,271, 7-22-58, Cl. 220—3.

Shepherd, Dallas E. Rear axle seal. 2,844,419, 7-22-58, Cl. 308—187.1.

Sherman, Harley B. Tripods and clamps therefor. 2,844,345, 7-22-58, Cl. 248—122.

Sherman, Whitney D., and H. Ahlmeyer, to Continental Can Co., Inc. Folding machine for the manufacture of paperboard boxes and the like. 2,844,078, 7-22-58, Cl. 93—62.

Sherwin-Williams Co., The: *See*—
Dimmock, James W. 2,844,276.
Ogren, Axel E. 2,844,289.
Sheldon, Frank A. 2,844,547.
Taylor, Robert S., and Whitehill. 2,844,553.
Wagner, George E. 2,844,277.

Shetterly, Karl P., to General Motors Corp. Dynamo electric machine commutator connection. 2,844,749, 7-22-58, Cl. 310—235.

Shillington, Harry R., to Western Electric Co., Inc. Impulse counting circuit. 2,844,317, 7-22-58, Cl. 225—92.

Siebenmann, Charles O., and A. Zubrys, to Minister of National Health and Welfare, representing Her Majesty the Queen in right of Canada. Isonicotinyl hydrazones of certain formyl phenoxy acetic acids. 2,844,588, 7-22-58, Cl. 260—295.

Siegel, David T.: *See*—
Berkelhamer, Louis H. 2,844,692.

Siegfried, Erwin, to Losinger & Co. A. G. Hydraulic jack for tensioning reinforcing wires of prestressed concrete structures. 2,844,356, 7-22-58, Cl. 254—29.

Siemens Edison Swan Ltd.: *See*—
Flood, John E. 2,844,653.

Siemens & Halske Akt.: *See*—
Fischer, Kurt. 2,844,660.
Friess, Hans. 2,844,663.
Lohs, Willy. 2,844,656.
Sommer, Friedrich, Hofmann, and Eder. 2,844,655.
Veith, Werner, and Meyerer. 2,844,750.

Siemens-Plania-Werke Akt., Fuer Kohlefabrikate: *See*—
Fitzer, Erich. 2,844,492.

Siemens-Reiniger-Werke Akt.: *See*—
Hartman, Josef-Heinrich. 2,844,732.
Seidel, Johannes, and Meier. 2,844,771.

Sierra Talc & Clay Co.: *See*—
Lamar, Richard S. 2,844,486.

Sietman, Herbert E., to Thompson Products, Inc. Valve spring retainer assembly. 2,844,134, 7-22-58, Cl. 123—188.

Signode Steel Strapping Co.: *See*—
Luth, Robert C. 2,844,334.

Silver, Edward S.: *See*—
Butterworth, Greig S., and Silver. 2,843,974.

Silver, Edward S., to Airborne Instruments Laboratory, Inc. Incremental feed mechanisms. 2,843,976, 7-22-58, Cl. 51—103.

Simpkins, Thomas B. Method of fluffing glass fibers. 2,843,916, 7-22-58, Cl. 28—72.3.

Simpson, Alexander B.: *See*—
Llewelyn, David M., Simpson, and West. 2,844,456.

Singer, Herbert, to Radio Corp. of America. Tape drive mechanism. 2,844,369, 7-22-58, Cl. 271—2.18.

Singer Mfg. Co., The: *See*—
Turner, Edgar P., and Herr. 2,844,773.

Six, David A. Bottle holder. 2,844,346, 7-22-58, Cl. 248—141.

Skinner, Clayton H., to Hewitt-Robins Inc. Hose ballasting means. 2,844,169, 7-22-58, Cl. 138—25.

Slade, William J., to Crown Cork & Seal Co., Inc. Detergent can. 2,844,290, 7-22-58, Cl. 222—562.

Sladek, Owen C., to Western Electric Co., Inc. Machines for cutting and stripping insulated conductors. 2,844,054, 7-22-58, Cl. 81—9.51.

Sloan Valve Co.: *See*—
Swartz, James J., and Russell. 2,843,920.

Slocum, Allan: *See*—
Rieke, John W., and Slocum. 2,844,719.

Slower, Carl J. Butt hinge latch for closure devices. 2,843,873, 7-22-58, Cl. 16—144.

Smith, George W. Detachable coupling for fishhooks and the like. 2,843,964, 7-22-58, Cl. 43—42.44.

Smith, Graydon, to The Foxboro Co. Positioning motor. 2,844,766, 7-22-58, Cl. 317—172.

Smith, Ian A., to American Screw Co. Header die with concavity in wall portion of aperture for holding upset blank therein. 2,843,862, 7-22-58, Cl. 10—24.

Smith, Kline & French Laboratories: *See*—
Whitecar, Alten E. 2,843,962.

Smith, Leonard L. Tractor hitch of the automatic coupling type having connection facilitating means. 2,844,390, 7-22-58, Cl. 280—477.

Smith, Richard C., to Don Baxter, Inc. Fluid flow control. 2,844,351, 7-22-58, Cl. 251—4.

Smith, Robert W.: *See*—
Stirm, Henry G., Smith, and Stirm. 2,844,264.
Smits, Hubertus J.: *See*—
Nieuwaag, Johannes, and Smits. 2,844,761.
Smyth, Gordon R., to Rubber Products, Inc. Electric clock. 2,843,999, 7-22-58, Cl. 58—2.
Snell, John E., to J. C. Hockery, trustee, and H. J. and F. L. Talge. Coupling-and-locking mechanism for kitchen devices. 2,844,400, 7-22-58, Cl. 287—103.
Snitker, Jens C., ¼ to S. Clausen. Fire-retarding board. 2,844,501, 7-22-58, Cl. 154—44.
Snyder, Marvin E.: *See*—
Seely, Richard E. and Snyder. 2,844,778.
Sobotka, Harry, S. H. Hutner, and H. Baker, to United States of America, Navy. Medium and method for the mass culture of microorganisms. 2,844,515, 7-22-58, Cl. 195—100.
Societe Almaicnne de Constructions Mecaniques: *See*—
Audemar, Pierre. 2,844,418.
Societe Anonyme Andre Citroen: *See*—
Brueder, Antoine. 2,844,012.
Societe Belge de l'Azote et des Produits Chimiques du Marly: *See*—
Braconier, Frederic F. A., and Le Bihan. 2,844,633.
Societe d'Electronique et d'Automatisme: *See*—
Dussine, Roger R. 2,844,308.
Guerin, Maurice, and Namian. 2,844,718.
Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M.: *See*—
Lucien, René, and Tetart. 2,844,463.
Society Sirelec: *See*—
Rapp, Georges. 2,844,774.
Soja, Lawrence M., to Stone Container Corp. Lock bottom for paperboard container. 2,844,296, 7-22-58, Cl. 229—39.
Solomon, Nathan L. Hair holding device. 2,844,154, 7-22-58, Cl. 132—48.
Sommer, Friedrich, H. Hofmann, and H. Eder, to Siemens & Halske Akt. Motor-driven rotary telephone switching mechanism. 2,844,655, 7-22-58, Cl. 179—27.51.
Sonneborn, L., Sons, Inc.: *See*—
Blumer, Manuel. 2,844,535.
Soonoeki, Peter A. Protective circuitry. 2,844,765, 7-22-58, Cl. 317—18.
Soule, Robert G., Jr., to General Electric Co. Detachable spring contact device. 2,844,644, 7-22-58, Cl. 174—35.
Sound Engineering: *See*—
Mann, Theodore H. and T. G. 2,844,665.
Southern States Equipment Corp.: *See*—
Howell, John C. 2,844,691.
Spakman, Geert, to North American Philips Co., Inc. Dial indicator driving arrangement. 2,844,039, 7-22-58, Cl. 74—10.7.
Spence, Robert E., to The Gear Grinding Machine Co. Universal joint. 2,844,013, 7-22-58, Cl. 64—21.
Sperry Products, Inc.: *See*—
Murdoch, Andrew M. 2,844,741.
Sperry Rand Corp., Ford Instrument Co. Division: *See*—
Seliger, Victor H. 2,844,313.
Sperry-Sun Well Surveying Co.: *See*—
Ring, Roland. 2,844,357.
Spezia, John L.: *See*—
Kelly, Francis P., and Spezia. 2,844,197.
Sporlan Valve Co.: *See*—
Wischmeyer, William F., and Hoffman. 2,844,026.
Square D Co.: *See*—
Mierendorf, Robert C., and Porter. 2,844,709.
Squires, William K., to Sylvania Electric Products, Inc. Carrier suppressed modulator. 2,844,798, 7-22-58, Cl. 332—44.
Staats, James E., to General Electric Co. Broiling oven. 2,844,702, 7-22-58, Cl. 219—35.
Standard Oil Co. (Ohio), The: *See*—
Darling, Samuel M. 2,844,447.
Statham Instruments, Inc.: *See*—
Statham, Louis D. 2,844,034.
Statham, Louis D., to Statham Instruments, Inc. Multirange pressure transducer. 2,844,034, 7-22-58, Cl. 73—398.
Stautzenberger, Adin L.: *See*—
Schuiser, Arthur W., and Stautzenberger. 2,844,583.
Ste: Verreries Charbonneaux: *See*—
Cignet, Georges. 2,843,978.
Stearman, Samuel: *See*—
Keuls, Henry P. C. 2,843,970.
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Steele, Gordon H., Jr. Safety exit alert for automobiles. 2,844,810, 7-22-58, Cl. 340—87.
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Steinberg, Otto. Backwater control device for sewers. 2,844,163, 7-22-58, Cl. 137—423.
Steiner, Carl. Fluid pressure torque converter. 2,844,128, 7-22-58, Cl. 121—120.
Stephen, William F.: *See*—
Christianson, Milton J., and Stephen. 2,844,248.
Sterling Drug, Inc.: *See*—
Cavallito, Chester J. 2,844,585.
Coulston, Frederick, and Dennis. 2,844,509.
Stevenson, Pansy M. Garment construction. 2,843,849, 7-22-58, Cl. 2—123.
Stewart-Warner Corp.: *See*—
Wein, John F. 2,844,140.
Wein, John F. 2,844,195.
Stirm, Edward B.: *See*—
Stirm, Henry G., Smith, and Stirm. 2,844,264.
Stirm, Henry G., R. W. Smith, and E. B. Stirm, to Ferry Sheet Metal Works, Inc. Apparatus for handling shortening or like material. 2,844,264, 7-22-58, Cl. 214—314.
Stirton, Alexander J.: *See*—
Bintliff, Raymond G., Jr., Port, Stirton, and Weil. 2,844,606.
Stock, Arthur J. Method of manufacture of gear teeth. 2,843,927, 7-22-58, Cl. 29—445.
Stoecklight, Wilhelm G. Load and tooth-pressure balancing means for parallel connected epicyclic gear sets. 2,844,052, 7-22-58, Cl. 74—801.
Stone Container Corp.: *See*—
Soja, Lawrence M. 2,844,296.
Stone, Eugene E., III, to Stone Mfg. Co. Reinforced shorts. 2,843,852, 7-22-58, Cl. 2—225.
Stone Mfg. Co.: *See*—
Stone, Eugene E., III. 2,843,852.
Stonich, Elwood H., and E. B. Moore, to Vapor Heating Corp. Radiator inlet valve. 2,844,224, 7-22-58, Cl. 237—73.
Stonich, Elwood H., and E. B. Moore, to Vapor Heating Corp. Packing gland for valve stem. 2,844,392, 7-22-58, Cl. 286—7.
Story, James K., to V. E. Kuster. Well surveying apparatus. 2,843,941, 7-22-58, Cl. 33—205.5.
Streb, Joseph C., and G. B. Bole, to The Union Metal Mfg. Co. Tiering pallet construction. 2,844,344, 7-22-58, Cl. 248—120.
Strojny, Edwin J., and W. M. Hoehn, to G. D. Searle & Co. Process for oxidation of steroids with peroxytrifluoroacetic acid. 2,844,603, 7-22-58, Cl. 260—397.5.
Stroukoff, Oleg. Aircraft landing gear. 2,844,339, 7-22-58, Cl. 244—102.
Struve, William S.: *See*—
Manger, Charles W., and Struve. 2,844,581.
Reidinger, Albert D., and Struve. 2,844,484.
Struve, William S., to E. I. du Pont de Nemours and Co. Organic pigments. 2,844,485, 7-22-58, Cl. 106—288.
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Kapp, Numer M., and Sullivan. 2,844,453.
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Burl, Alfred. 2,844,360.
Vogler, Hans. 2,844,004.
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Thayer, Clarence H. 2,844,135.
Sunnen, August, Jr., to E. I. du Pont de Nemours and Co. Film splicing apparatus. 2,844,186, 7-22-58, Cl. 154—42.2.
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Lutz, Mac W., Wolfe, and Johnson. 2,844,006.
Sutherland, Gail R., and A. E. Breed, to Deere Mfg. Co. Bearing structure. 2,844,417, 7-22-58, Cl. 308—15.
Svännel, Ivar W. Liquid-level indicators. 2,844,030, 7-22-58, Cl. 73—313.
Swanson, Arden E., to The Day Co. Air filtering apparatus. 2,844,216, 7-22-58, Cl. 183—57.
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Swanson, Lawrence R. Boot attachment for fracture table. 2,844,143, 7-22-58, Cl. 128—84.
Swartz, James J., and I. H. Russell, to Sloan Valve Co. Methods of finishing valve bodies. 2,843,920, 7-22-58, Cl. 29—157.1.
Swearingen, Dwight F.: *See*—
MacArthur, Robert B., and Swearingen. 2,844,337.
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Koury, Frederic. 2,843,914.
Squires, William K. 2,844,798.
Syntex S. A.: *See*—
Ringold, Howard J., and Rosenkranz. 2,844,602.
Tack, Carl E., to American Steel Foundries. Tread brake arrangement. 2,844,221, 7-22-58, Cl. 188—46.
Talge, Foster L.: *See*—
Snell, John E. 2,844,400.
Talge, Henry J.: *See*—
Snell, John E. 2,844,400.
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Brothers, David V., and Ammen. 2,844,662.
Tamarin, Bernard J. Tapeless unfoldable closure for cigarette packages. 2,844,298, 7-22-58, Cl. 229—51.
Tandler, William S., M. Grossman, and R. H. Tourin, to The Warner & Swasey Research Corp. Radiant energy measurement system. 2,844,032, 7-22-58, Cl. 73—355.
Tandler, William S., M. Grossman, and R. H. Tourin, to The Warner & Swasey Research Corp. Radiant energy measurement methods and apparatus. 2,844,033, 7-22-58, Cl. 73—355.
Tandler, William S., M. Grossman, and R. H. Tourin, to The Warner & Swasey Research Corp. Dual wave length radiant energy measurement systems. 2,844,730, 7-22-58, Cl. 250—43.5.
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Chalmers, William E., and Hoffman. 2,844,261.
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Davie, Robert P. 2,844,027.
Tate, Donnie W. Method for making hoop skirts. 2,843,851, 7-22-58, Cl. 2—216.
Tavis, John R., to Consolidated Electrodynamics Corp. Galvanometer. 2,844,793, 7-22-58, Cl. 324—154.
Taylor, Robert S., and L. N. Whitehill, to The Sherwin-Williams Co. Polyhydric phenol-aldehyde-epihalohydrin resins. 2,844,553, 7-22-58, Cl. 260—19.
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Tesoro, Giuliana C., to Onyx Oil & Chemical Co. Preparation of amides. 2,844,609, 7-22-58, Cl. 260—404.
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Texaco Development Corp.: *See*—
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Texas Co., The: *See*—
Alpert, Norman, Heisler, and Newman. 2,844,451.
Dille, Kenneth L., Heisler, Newman, and Alpert. 2,844,449.
Heisler, Robert Y., Newman, and Alpert. 2,844,448.
Heisler, Robert Y., Newman, Dille, and Alpert. 2,844,450.
Krug, Robert H., and Elmer. 2,844,538.
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Thayer, Clarence H., to Sun Oil Co. Internal combustion process and apparatus. 2,844,135, 7–22–58, Cl. 123—191.

Thomas, Horace A.: *See*—
Higham, Edward H., and Thomas. 2,844,350.

Thomas, Wilbur E. Paper ejector. 2,844,370, 7–22–58, Cl. 271—42.

Thompson, Adam R. Supercharger and fuel distributor system for V-type internal combustion engines. 2,844,133, 7–22–58, Cl. 123—119.

Thompson, Edward W. Child's rocker toy. 2,844,188, 7–22–58, Cl. 155—75.

Thompson Products, Inc.: *See*—
Jacques, Robert B. 2,844,791.
McCann, Joseph A. 2,844,787.
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Thompson, Ralph B.: *See*—
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Thompson, Thomas W., and C. K. Raynsford, to Vitro Corp. of America. Interval timer. 2,844,790, 7–22–58, Cl. 324—68.

Thompson, Walter S., and S. Rosen, to Miliprint, Inc. Apparatus for opening bags. 2,843,988, 7–22–58, Cl. 53—386.

Thompson, Wilmer B.: *See*—
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Thomsen, Theodore R., to Robotron Corp. Current compensator control for welding circuit. 2,844,784, 7–22–58, Cl. 323—18.

Thornley, Kendell. Potato diggers. 2,844,208, 7–22–58, Cl. 171—89.

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Jonas, Heins, and Thraum. 2,844,617.

Thurman, Truman D. Necktie form. 2,843,850, 7–22–58, Cl. 2—148.

Tiberio, Carmen S. Coin display holder. 2,844,248, 7–22–58, Cl. 206—83.

Tichenor, Lee T.: *See*—
Bishop, William T., and Tichenor. 2,843,881.

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Tinklepaugh, Kenneth N.: *See*—
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Tandler, William S., Grossman, and Tourin. 2,844,033.
Tandler, William S., Grossman, and Tourin. 2,844,730.

Townsend Co.: *See*—
Gandy, John E. 2,843,861.
Gandy, John E. 2,843,928.

Toy, Arthur D. F., and R. S. Cooper, to Victor Chemical Works. Dialkenyl beta-cyanoethanephosphonate and polymers and copolymers thereof. 2,844,558, 7–22–58, Cl. 260—45.4.

Treber, Willy O.: *See*—
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Herr, Gerhard, and Treber. 2,844,406.

Trecker, Francis J.: *See*—
Gleisner, William C., Jr., and Wild. 2,843,993.

Trent Tube Co.: *See*—
Bowman, Howard J., and Williams. 2,844,705.

Trethewey, William D. Flow dividing valve. 2,844,159, 7–22–58, Cl. 137—101.

Tribelhorn, Emile. Climbing and braking device for skis. 2,844,380, 7–22–58, Cl. 280—11.13.

Trico Products Corp.: *See*—
Oishei, John R. 2,844,102.

Tripp, Robert W., and J. L. Winget, to Inductosyn Corp. Rotary position measuring transformer. 2,844,802, 7–22–58, Cl. 336—123.

Tronchet, Charles F. Automatically releasable safety arrangement for securing a ski to a skier's boot. 2,844,381, 7–22–58, Cl. 280—11.35.

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Turner, Edgar P., and J. A. Herr, to The Singer Mfg. Co. Induction motor control systems. 2,844,773, 7–22–58, Cl. 318—6.

Turner, Ralph R., to United Wire & Supply Corp. Method of forming a supply tube. 2,843,926, 7–22–58, Cl. 29—511.

Turner, Richard J., and G. J. Schmitt, to American Cyanamid Co. Process for thiamine mononitrate. 2,844,579, 7–22–58, Cl. 260—256.6.

Tuttle, Arthur N.: *See*—
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Brewer, Selby W., and Umbarger. 2,844,079.

Underwood Corp.: *See*—
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Union Carbide Corp.: *See*—
Broderick, Aubrey E. 2,844,571.
Broderick, Aubrey E. 2,844,570.
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Ramadanoff, Dimiter. 2,844,544.
Ruskin, Simon L. 2,844,467.
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Union Metal Mfg. Co., The: *See*—
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Union Oil Co. of California: *See*—
Berg, Clyde H. O. 2,844,516.
Inwood, Texas V. 2,844,517.
McKinnis, Art C. 2,844,527.
Vaell, Raoul P. 2,844,519.

Union Special Machine Co.: *See*—
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United Shoe Machinery Corp.: *See*—
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Union Steel Products Co.: *See*—
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United Aircraft Corp.: *See*—
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United States Electric Mfg. Corp.: *See*—
Lang, Maurice, and Terjesen. 2,844,641.

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Agriculture: *See*—
Bistline, Raymond G., Jr., Port, Stirton, and Weil. 2,844,606.
Cousins, Edwin R., Bhodhiprasart, and Prachankadee. 2,844,613.

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Muehlner, Egon E. 2,844,220.

Raley, Charles F., Jr. 2,844,582.
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Army: *See*—
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Navy: *See*—
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Mastenbrook, Henry J. 2,844,336.
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Neild, Alton B., Jr. 2,844,000.
Sobotka, Harry, Hutner, and Baker. 2,844,515.
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Haxo, Henry E., Jr., and Mills. 2,844,548.
Lewis, Arthur P., and MacDonald. 2,843,882.
McCord, Georgie P., and Iknayan. 2,844,183.
Paxton, Homer W. 2,844,502.
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United States Steel Corp.: *See*—
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Kritscher, Andrew F. 2,844,122.

United Wire & Supply Corp.: *See*—
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Universal Metal Products, Inc.: *See*—
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Universal Oil Products Co.: *See*—
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Cyba, Henry A., and Thompson. 2,844,446.

Upjohn Co., The: *See*—
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Hogg, John A., Beal, and Lincoln. 2,844,604.
Pederson, Raymond L. 2,844,605.
Pederson, Raymond L., and Jensen. 2,844,601.
Pederson, Raymond L., and Ott. 2,844,600.

Vaell, Raoul P., to Union Oil Co. of California. Hydrocarbon conversion process and apparatus employing a conveyance-regeneration zone. 2,844,519, 7–22–58, Cl. 196—50.

Valley Metal Products Co.: *See*—
Westman, Elmer A. 2,844,233.

Vance, Harold C. Seat construction for foldable bleachers. 2,843,884, 7–22–58, Cl. 20—1.126.

Van Der Sluys, William: *See*—
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Miers, Archie M., and Van Der Sluys. 2,844,107.

Van der Weyden, Josephus A. C., to Everts & van der Weyden N. V. Resilient rail spike with a resilient clip. 2,844,320, 7–22–58, Cl. 238—349.

Van Marle, Frederick, to N. V. Technische Maatschappij Marchand-Andriessen. Mail stacking equipment. 2,844,373, 7–22–58, Cl. 271—87.

Van Urk, Arend T., and J. M. Cluwen, to North American Philips Co., Inc. Magnetic system. 2,844,786, 7–22–58, Cl. 323—92.

Van Vessem, Jan C., to North American Philips Co., Inc. Semi-conductive device and method of producing same. 2,844,770, 7–22–58, Cl. 317—234.

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Stonich, Elwood H., and Moore. 2,844,324.
Stonich, Elwood H., and Moore. 2,844,392.

Veith, Werner, and P. Meyerer, to Siemens & Halske Akt. Focused electron flow electron tube for very high frequencies. 2,844,750, 7–22–58, Cl. 313—84.

Veltman, Preston L., L. L. Baral, and R. W. Richardson, ½ to W. R. Grace & Co., and ½ to Esso Research and Engineering Co. Method of making catalysts. 2,844,523, 7–22–58, Cl. 196—52.

Vibber, Alfred W. Twisting spindle balloon control. 2,843,997, 7–22–58, Cl. 57—58.55.

Vibro-Plus Corp.: *See*—
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Vickland, John C., to The Air Preheater Corp. Axially biased segments for circumferential seal in air heater. 2,844,394, 7–22–58, Cl. 286—23.
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Vischer, Ernst: *See*—
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Vogler, Hans, to Sulzer Freres, Societe Anonyme. System for starting forced flow steam generators including a plurality of resuperheaters. 2,844,004, 7–22–58, Cl. 60—73.
Vollmer, Gilbert J. Metal balling machines. 2,844,184, 7–22–58, Cl. 153—10.5.
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Von Wertzar, Marcel J. Coffee percolator. 2,844,088, 7–22–58, Cl. 99—292.
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Wagner, Ferdinand, and M. Sailer, to Agfa Akt. Electrical flashlight device with condenser ignition. 2,844,081, 7–22–58, Cl. 95—11.5.
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Wagner, Frederick A. and Fred A. 2,844,053.
Wagner, Frederick A. and Fred A. Engine parts boring machine. 2,844,053, 7–22–58, Cl. 77—4.
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Wagner, George H., and C. E. Erickson, to Union Carbide Corp. Process for preparing polysiloxanes. 2,844,435, 7–22–58, Cl. 23—14.
Wainer, Eugene, to Horizons Titanium Corp. Method of removing oxygen from titanium metal. 2,844,499, 7–22–58, Cl. 148—13.1.
Waisbrot, Samuel W., to The Goodyear Tire & Rubber Co. Organic azides of the phthalide type. 2,844,595, 7–22–58, Cl. 260—343.3.
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Walker, George G., Jr.: *See*—
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Waller, Richard C., and D. D. Ray, to The Goodyear Tire & Rubber Co. Process for dipping rayon cord. 2,844,487, 7–22–58, Cl. 117—7.
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Ware, Richard N., Jr., and R. Cannon, to Chicago Mill and Lumber Co. Apparatus for making paper-covered wood veneer. 2,844,174, 7–22–58, Cl. 144—279.
Warner Electric Brake & Clutch Co.: *See*—
Edgar, Victor R. 2,844,675.
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Tandler, William S., Grossman, and Tourin. 2,844,032.
Tandler, William S., Grossman, and Tourin. 2,844,033.
Tandler, William S., Grossman, and Tourin. 2,844,730.
Warnken, Elmer P., to Cincinnati Testing & Research Laboratories. Roter blade and method of making same. 2,844,354, 7–22–58, Cl. 253—77.
Watson, James P. Detent mechanisms. 2,844,743, 7–22–58, Cl. 310—37.
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Weber, Carl, and Henson. 2,844,325.
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Weber, Herman, and R. W. Sage, to Shakespeare Products Co. Remote control device. 2,844,045, 7–22–58, Cl. 74—503.
Webster, George J., and W. H. Rushford, to Phillips Petroleum Co. Process and apparatus for pelleting carbon black. 2,844,445, 7–22–58, Cl. 23—314.
Weeks, Robert W., to Wind Turbine Co. Metal tower structures. 2,844,231, 7–22–58, Cl. 189—13.
Weesner, William R.: *See*—
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Wischmeyer, William F., and J. E. Hoffman, to Sporlan Valve Co. Combined moisture and liquid indicators. 2,844,026, 7-22-58, Cl. 73—73.

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Wyckoff, Robert L., to United States of America, Navy. Coincidence triggered gate generator. 2,844,763, 7-22-58, Cl. 315—166.

Yaeger, Robert E., to Bell Telephone Laboratories, Inc. Cascade transistor amplifiers. 2,844,667, 7-22-58, Cl. 179—171.

Yeglinski, Joseph. Safety pin. 2,843,904, 7-22-58, Cl. 24—156.

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OFF

July

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

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TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 67,002 (THERMOS), The American Thermos Bottle Co., Double-walled glass vessels with vacuum between the walls; **Reg. No. 176,064**, same, Temperature-retaining vessels; **Reg. No. 220,816**, same, filed June 10, 1926, D. C. Conn. (New Haven), Doc. 7230, *The American Thermos Products Co. v. Aladdin Industries, Inc.*

Reg. No. 125,561 (DESIGN OF A STEEL POST), Chicago Steel Post Co., Metallic fence posts; **Reg. No. 366,962** (RED TOP), Inland Steel Co., same, filed Feb. 2, 1937, D. C., N. D. Ill. (Chicago), Doc. 57c182, *Inland Steel Co. v. Missouri Rolling Mill Corp.* Plaintiff is entitled to recover from defendant damages for infringement (notice June 10, 1958).

Reg. No. 176,064. (See Reg. No. 67,002.)

Reg. No. 220,816. (See Reg. No. 67,002.)

Reg. No. 246,122 (ELECTRO-MATIC), Ward-Love Pump Corp., Water-softening apparatus and parts therefor, filed Jan. 12, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c99, *The Permutit Co. v. Electronics Water Purifier Co., Inc.* Trademark held valid and infringed; injunction issued (notice June 11, 1958).

Reg. No. 513,462 (TINTZ), Tints Shampoo Co., Shampoo; **Reg. No. 511,262**, same, Hair rinse, hair coloring, hair touch-up pencil, shampoo, filed May 21, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c910, *The Fleetwood Co. v. Stinecoy Drug Co.* Dismissed by stipulation Oct. 21, 1957 (notice received June 13, 1958).

Reg. No. 196,972 (SANITIZED), Sanitised, Inc., Antiseptic chemical compound in liquid form, imparting to textiles a degree of active-anti-septicism etc., filed June 11, 1958, D. C., S. D. N. Y., Doc. 134/248, *Sanitised, Inc. v. Boyle-Midway, Inc.*

Reg. No. 388,437 (VENTALARM), Scully Signal Co., Liquid level indicators for liquid fuel tanks and the like; **2,790,216**, F. P. Scully, Fitting for carrying signalling and gauging units, filed Apr. 7, 1958, D. C. Mass. (Boston), Doc. 58/369–M, *Scully Signal Co. v. Oil Burner & Heating Supply Co.*

Reg. No. 379,296 (LAS PALMAS AND DESIGN), Ramirez and Feraud Chili Co., Canned Spanish red chili sauce and canned beans with chili sauce; **Reg. No. 562,054** (LAS PALMAS), same, filed Jan. 19, 1956, D. C., S. D. Calif. (Los

CONDITION OF TRADEMARK APPLICATIONS AS OF MAY 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	11, 801
Date of oldest new application	Oct. 29, 1957
Date of oldest amended application	Oct. 7, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. B. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	11-7-57	10-7-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	10-29-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52, and Certification Marks	11-8-57	12-16-57
Renewals (All Classes)	5-2-58	5-20-58
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Applications Filed During the Month of May 1958—1,942

Registrations Issued	317—No. 664,564 to No. 664,880
Renewals Issued	64

For the quarter April 1, 1958 through June 30, 1958

Applications filed	5814
Registrations issued	3648
Renewals issued	885
Cancellations under section 8	1288

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

Angeles), Doc. 19355–WM, *Ramirez & Feraud Chili Co. v. Las Palmas Food Co. of California.* Summary judgment; injunction restraining defendants from infringement of trademark "Las Palmas"; order for defendants to dissolve or to change name to eliminate "LAS PALMAS" (notice June 10, 1958).

Reg. No. 383,618 (CARNIVAL AND DESIGN), Joseph Berger, Hosiery and underwear, filed Mar. 22, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17442, *Joseph Berger & Sons v. Carnival Creations, Inc.* Order of dismissal June 6, 1958.

Reg. No. 387,997 (MEAL A MINT), W. J. Gruber, Sandwiches, relish, sauce and pickles, filed Feb. 11, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c248, *Wm. J. Gruber et al. v. B/G Foods, Inc.* Complaint and counterclaim dismissed with prejudice June 10, 1958.

Reg. No. 505,962. (See Reg. No. 125,561.)

Reg. No. 511,302. (See Reg. No. 319,402.)

Reg. No. 562,466 (SPRAY NET), Helene Curtis Industries, Inc., Wave set, filed Jan. 5, 1956, D. C., S. D. N. Y., Doc. 106/84, *Helene Curtis Industries, Inc. v. The Wells Corp.* Stipulation and order of voluntary dismissal June 11, 1958.

Reg. No. 572,679 (CADILLAC AND DESIGN), Irving Schwartz, doing business as Jerith Mfg. Co., Combination storm screen and sash, filed Aug. 30, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17967, *Jerith Mfg. Co., Inc. v. Cadillac Storm Window Corp.* Order of dismissal June 10, 1958.

Reg. No. 582,054. (See Reg. No. 379,295.)

Reg. No. 586,510 (DEE), Dee Sportswear, Men's sportswear such as sport shirts, filed June 3, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 530/58–HW, *Dee Sportswear v. Mr. Dee of California.*

Reg. No. 586,945 (TETRA), The Tetra Co., Gauzes, bandages, compresses and elastic bandages, filed Jan. 11, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c55, *The Tetra Co. v. Merck & Co., Inc.* On stipulation; cause dismissed with prejudice (notice June 10, 1958).

Reg. No. 588,738 (BETTER HOMES & GARDENS CHRISTMAS IDEAS), Meredith Publishing Co., Periodic publications, filed May 28, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c966, *Meredith Publishing Co. v. Fawcett Publications, Inc.*

Reg. No. 600,018 (PLAYBOY), HMH Publishing Co., Inc., Monthly magazine; **Reg. No. 632,412**, same, Phonograph records, filed Dec. 18, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2059, *HMH Publishing Co., Inc. v. Playboy Records, Inc. et al.* Defendant Playboy Records, Inc. dismissed without prejudice; defendants James Dawson and John Carlo permanently enjoined from infringing Trademark "PLAYBOY" (notice Dec. 13, 1957) (notice received June 13, 1958).

Reg. No. 632,412. (See Reg. No. 600,018.)

Erratum

In the OFFICIAL GAZETTE, issue of June 17, 1958, page TM 67, under the heading Trademark Suits, third paragraph should have read as follows:

Reg. No. 230,296 (HONEY-KRUST AND DESIGN), Grocers Baking Co., Inc., Bread, filed Dec. 28, 1929, D. C., W. D. Ky. (Louisville), Doc. 34, *Grocers Baking Co. v. E. L. Sigler.* Final judgment; petition dismissed Feb. 15, 1943 (notice received May 7, 1958). Same, appeal, filed Dec. 5, 1942, C. C. A., 6th Cir., Doc. 9133, *Grocers Baking Co. v. E. L. Sigler.* Judgment of District Court reversed May 5, 1942.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 30,196. The Sexauer Co., Brookings, S. Dak. Filed May 16, 1957.

Perfection

For Lawn Seed and Field Seeds.
First use Feb. 5, 1957.

SN 31,125. J. Oliver Johnson Seed Company, Chicago, Ill. Filed May 31, 1957.

COUNTRY SQUIRE

For Grass Seeds.
First use Mar. 1, 1957.

SN 31,402. Mr. and Mrs. C. E. Knowlton, d. b. a. Knowlton Hereford Farm, Bellefontaine, Ohio. Filed June 6, 1957.

CEK

For Registered Polled Hereford Cattle.
First use on or about July 1, 1951.

SN 34,093. U. S. Handbag Corporation, New York, N. Y. Filed July 19, 1957.

PLYLEATHER

For Leather in the Hide.
First use June 4, 1956.

SN 35,808. Polymer Corporation Limited, Sarnia, Ontario, Canada. Filed Aug. 19, 1957.

KRYFLEX

Owner of Canadian Reg. No. 106,777, dated May 24, 1957; and U. S. Reg. No. 604,374.
For Synthetic Rubber.

SN 38,790. Atlantic Perlite Company, Washington, D. C. Filed Oct. 14, 1957.

MIKRO-PERL

For Aggregate.
First use Sept. 24, 1957.

SN 39,029. E. B. & A. C. Whiting Company, Burlington, Vt. Filed Oct. 31, 1957.

CALABRO

For Strands of Plastic or Other Synthetic Monofilaments Useful in the Manufacture of Brooms, Brushes, and the Like.
First use Aug. 29, 1957.

SN 40,027. C. G. Trading Corp., New York, N. Y. Filed Nov. 4, 1957.

DURA-SCRIM

For Laminated Product Made of Jute Fibers Used as a Reinforcement for Paper and Paper Products.
First use Sept. 20, 1957.

Class 2—Receptacles

SN 36,321. S. & S. Industrial Products Corp., New York, N. Y. Filed Aug. 27, 1957.

GOLDEN WEAVE

For Receptacles for Waste Paper, Receptacles for Magazines, Receptacles for Napkins, Receptacles for Plants, Receptacles for Food—Namely, Trays.
First use July 2, 1957.

SN 38,090. St. Clair Plastics, Inc., Watervliet, N. Y. Filed Sept. 30, 1957.

Spinc

For Flower Pots and Planters.
First use May 18, 1956.

SN 38,356. Illinois Tool Works, Chicago, Ill. Filed Oct. 4, 1957.

HI-CONE

For Portable Carriers for Containers, Such as Bottles, Cans, Jars, Cartons, and the Like.
First use July 3, 1957.

SN 38,632. Plaxall, Inc., Long Island City, N. Y. Filed Oct. 9, 1957.

SLIDEPLAX

For Boxes and Formed Containers Used for Packaging and Made of Thermoplastic Materials Sold Empty in the Trade.
First use July 31, 1956.

SN 39,408. Narragansett Wire Co., Pawtucket, R. I. Filed Oct. 28, 1957.

PULL-REEL

For Composite Package Having a Reel Therein for Dispensing Wire, Cable, and the Like.
First use November 1956.

SN 40,145. Plaxall, Inc., Long Island City, N. Y. Filed Nov. 5, 1957.

SNAPLAX

For Boxes and Formed Containers Used for Packaging and Made of Thermoplastic Materials Sold Empty in the Trade.
First use Oct. 1, 1957.

SN 41,510. George E. Belderwell, d. b. a. Ideal Reel Company, Paducah, Ky. Filed Nov. 29, 1957.

CAL-TIE

For Dispensing Reels.
First use November 1955.

SN 41,582. Sun Tube Corporation, Hillside, N. J. Filed Nov. 29, 1957.

Unitainer

Owner of Reg. No. 344,151.
For Collapsible Metal Containers.
First use Apr. 15, 1957.

SN 41,818. Household Inventions Syndicate, Calgary, Alberta, Canada. Filed Dec. 5, 1957.

POSTIE'S DELITE

Owner of Canadian Reg. No. 105,561, dated Jan. 18, 1957.
For Receptacle for the Delivery of Mail, Parcels, Newspapers, and Circulars.

Class 4—Abrasives and Polishing Materials

SN 44,873. Camp Chemical Co. Inc., Brooklyn, N. Y. Filed Jan. 29, 1958.

CAMP

Owner of Reg. No. 549,463.
For Metal and Silver Polishes and Pastes.
First use Mar. 1, 1947.

Class 5—Adhesives

SN 31,602. Testworth Products Corp., Itasca, Ill. Filed June 7, 1957.

ZYP

Owner of Reg. No. 598,937.
For Liquid Rubber Latex Base Adhesive for Use in Sealing Rolled Carpet Wrappings, Also Known as a Carpet Wrap Sealer.
First use on or about Aug. 18, 1953.

SN 40,945. Hercules Powder Company, Wilmington, Del. Filed Nov. 19, 1957.

Red Stave

Owner of Reg. Nos. 207,980 and 237,175.
For Wall Paper Paste.
First use Oct. 23, 1957.

Class 6—Chemicals and Chemical Compositions

SN 20,770. Donald E. Level, d. b. a. Metal Mate Chemical Co., St. Louis, Mo., from Metal Mate Chemical Co., St. Louis, Mo. Filed Dec. 10, 1956.

METAL MATE

For Two Chemical Preparations, One for the Lubrication of a Lead Paddle and the Other a Preparation in the Nature of a Flux for Soldering.
First use May 8, 1956.

SN 29,251. Spencer Chemical Company, Kansas City, Mo. Filed May 1, 1957.

BRICKAID

For Additive Used in the Manufacture of Bricks.
First use Mar. 19, 1957.

SN 29,777. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen on Rhine, Germany. Filed May 10, 1957.

LURON

For Leather Dressings and Synthetic Resins.
First use Aug. 25, 1954.

SN 30,153. Fine Organics, Inc., New York, N. Y. Filed May 16, 1957.

SLIP-EZE

For Chemical Composition for Modifying Plastics.
First use Dec. 31, 1956.

SN 37,675. Phoenix Closet Accessories, Inc., New York, N. Y. Filed Sept. 23, 1957.

Princess House

Owner of Reg. No. 395,108.
For Household Deodorant.
First use Aug. 1, 1957.

Class 9—Explosives, Firearms, Equipments, and Projectiles

SN 42,051. The Poly Choke Company, Incorporated, East Hartford, Conn. Filed Dec. 9, 1957.

POLY-MATIC

For Barrel-Choking Devices for Firearms.
First use Sept. 30, 1957.

SN 43,314. Jet Research Center, Inc., Arlington, Tex. Filed Jan. 2, 1958.

STAR-JET

For Shaped Explosive Charge Perforating Units for Use in Perforating Oil Wells and the Like.
First use Oct. 4, 1957; Sept. 17, 1957, as to mark without the hyphen.

SN 43,366. American Cyanamid Company, New York, N. Y. Filed Jan. 3, 1958.

CYANAMID

For Electric Blasting Caps; and High Explosives, i. e., Dynamite.
First use Feb. 15, 1957, on electric blasting caps.

SN 43,756. Hartford Gun Choke Co., Inc., Wethersfield, Conn. Filed Jan. 10, 1958.

ADJUSTOMATIC

For Shot Gun Chokes.
First use Oct. 30 1957.

Class 10 — Fertilizers

SN 9,669. Richlawn of Ft. Worth, Inc., Fort Worth, Tex. Filed June 5, 1956.



The words "The Lawn Spray Nutrient" are disclaimed apart from the mark as shown. The drawing is lined for black and green.
For Balanced Water Solution of Soil Nutrients and Insecticides, in Liquid Form for Application to Lawns, Shrubbery, and Garden Plants, as a Fertilizer and for the Destruction of Predatory Insects.
First use Sept. 1, 1955.

Class 11 — Inks and Inking Materials

SN 41,277. Horder's, Incorporated, Chicago, Ill. Filed Nov. 25, 1957. Sec. 2(f).

SHADE-TONE

Owner of Reg. No. 352,170.
For Typewriter Ribbons and Carbon Papers.
First use June 21, 1935.

Class 12 — Construction Materials

SN 697,201. United States Plywood Corporation, New York, N. Y. Filed Oct. 26, 1955.

WELDWOOD FLEXIBLE WOOD-TRIM

Exclusive use of the words "Flexible Wood-Trim" is disclaimed apart from the mark. Owner of Reg. Nos. 203,931, 315,978, and 286,555.
For Veneer.
First use Apr. 18, 1955.

SN 25,987. Douglas Holt (Estd. 1919) Limited, New Addington, Surrey, England. Filed Apr. 23, 1958.

FIREGUM

For Preparations in Mastic Form for Use in Packing, Stopping, Hermetically Sealing, Jointing, and Caulking.
First use Jan. 26, 1957; in commerce Jan. 26, 1957.

SN 32,309. M. C. Gill Corporation, El Monte, Calif. Filed June 20, 1957.

GILLITE

For Laminated Panels Translucent and/or Light in Weight Laminated From Synthetic Resins and Synthetic or Natural Fillers.
First use May 8, 1957.

SN 35,842. Aktieselskabet Skarrehage Molervaerk, Nykobing, Mors, Denmark. Filed Aug. 20, 1957.

MOLER-HIPOR

Owner of Danish Reg. No. 1885/1946, dated Nov. 30, 1946; and U. S. Reg. No. 377,436.
For Bricks.

SN 39,254. The Metalloy Products Co., Hudson, Mich. Filed Oct. 21, 1957.

ALUMI-SPAN

For Demountable Piers of the Type Which Extend From a Shore Line Out Over Water.
First use Mar. 6, 1957.

SN 39,318. The Celotex Corporation, Chicago, Ill. Filed Oct. 22, 1957.

CELO-SEAL

Owner of Reg. Nos. 654,324, 619,302, and 570,115.
For Asphalt Shingles.
First use June 26, 1957.

SN 40,174. Internationella Siporex, AB, Stockholm, Sweden. Filed Nov. 6, 1957.

ZEPREX

For Structural and Insulating Material of Light-Weight Concrete Formed Into Building Slabs, Roofing, Floor and Wall Slabs, Beams, Blocks, Insulating Slabs, and as a Fire Resistant Core Material for Doors, Partition Panels and Building Panels Over Which Decorative Faces Are Applied.
First use July 13, 1953; in commerce July 13, 1953.

SN 43,247. Dean Cut-Rate Floor Covering Company, Inc., Newark, N. J. Filed Dec. 31, 1957.

DEAN

For Floor and Wall Coverings, Including Asphalt, Rubber and Vinyl Tile, Felt Linings, and Enamel Surface Coverings.
First use in August 1939.

SN 43,292. American Rubber Sales Co., Minneapolis, Minn. Filed Jan. 2, 1958.

Regent

For Rubber Tile Used for Flooring Purposes.
First use on or about Aug. 1, 1957.

SN 43,393. Mexico Refractories Company, Mexico, Mo. Filed Jan. 3, 1958.

LO-ERODE

For Castable Refractory Materials.
First use Nov. 15, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 23,830. Roberts Manufacturing Co., Los Angeles, Calif. Filed Feb. 5, 1957.

RIPPLETRIM

For Metal Carpet Edge Binder Bars.
First use July 18, 1956.

SN 23,832. Roberts Manufacturing Co., Los Angeles, Calif. Filed Feb. 5, 1957.

GRIPPER-EGE

For Metal Carpet Edge Binder Bars.
First use Oct. 9, 1950.

SN 27,327. MacLean-Fogg Lock Nut Company, Chicago, Ill. Filed Apr. 1, 1957.

TWO-WAY

For Lock Nuts.
First use Sept. 7, 1956.

SN 30,709. The American Hardware Corporation, New Britain, Conn. Filed May 27, 1957.

TOP-RAILER

For Door Closers.
First use Feb. 26, 1957.

SN 35,325. Calnail, Inc., Visalia, Calif. Filed Aug. 12, 1957.

CAL-NAILS

For Nails.
First use Mar. 18, 1957.

SN 36,198. The Linemaster Switch Corporation, Woodstock, Conn. Filed Aug. 26, 1957.

L

For Strain Relief Grommet Assemblies for Use With Electrical Cords and Cables.
First use Mar. 12, 1957.

SN 30,938. Anchor Post Products, Inc., Baltimore, Md. Filed Nov. 1, 1957.

SUBURBANAIRE

For Fencing.
First use Aug. 10, 1957.

SN 40,439. William A. De Vellier, Hollywood, Calif. Filed Nov. 12, 1957.

TWIN torque

For Screws.
First use Oct. 21, 1957.

SN 40,500. Roberts Manufacturing Co., Los Angeles, Calif. Filed Nov. 12, 1957.

ANKRETE

For Carpet Anchoring Strips for Holding Carpet in Position on Floors and Studs for Securing Such Strips to Concrete Floors.
First use in January 1957.

SN 40,514. Teale Machine Company, Inc., Rochester, N. Y. Filed Nov. 12, 1957.

"TEALESOCKET"

For Set Screws.
First use Oct. 12, 1957.

SN 41,008. Dunlop Tire and Rubber Corporation, Buffalo, N. Y. Filed Nov. 20, 1957.

Duthane

Owner of Reg. No. 652,547.
For Casters for Furniture With Tires of Polyurethane Elastomer.
First use Oct. 25, 1956.

SN 41,955. Waldes Koh-I-Noor, Inc., Long Island City, N. Y. Filed Dec. 6, 1957.

QAF

For Fasteners of the Bolt and Nut Type.
First use on or about June 1, 1957.

SN 42,326. Villa Products Company, Minneapolis, Minn. Filed Dec. 12, 1957.

CHECK-MATE

For Hydraulic Door Closer.
First use Sept. 23, 1957.

Class 15—Oils and Greases

SN 25,884. Petrolite Corporation, St. Louis, Mo. Filed Mar. 11, 1957.

B

Owner of Reg. Nos. 164,657 and 601,226.
For Microcrystalline Waxes.
First use May 31, 1935.

SN 34,955. K-P Industries, Inc., Chicago, Ill. Filed Aug. 5, 1957.

KAR-AID

For Additive for Lubricating Oil for Internal Combustion Engines for Improving General Lubrication Functions.
First use at least as early as Oct. 31, 1956.

SN 39,171. Cities Service Oil Company, New York, N. Y. Filed Oct. 18, 1957.

CITEX

Owner of Reg. No. 231,505.
For Refined or Unrefined Petroleum Products, With or Without Admixture of Other Materials, for Lubricating, Cutting, Cooling, Tempering and Quenching, and Oils and Greases.
First use on or about Feb. 1, 1927.

SN 40,370. Penn-Port Oil Company, Philadelphia, Pa. Filed Nov. 8, 1957.

DIAMOND-PORT

The drawing is lined to indicate that the background is in the color red, but no claim is made to the color. Owner of Reg. No. 628,547.
For Lubricating Oils and Greases.
First use in 1952.

SN 41,633. Radiator Specialty Company, Charlotte, N. C. Filed Dec. 5, 1957.

TRANSEAL

For Lubricant Additive—Namely, Automatic Transmission Sealer and Conditioner.
First use Nov. 26, 1957.

Class 16—Protective and Decorative Coatings

SN 35,090. William T. Deacon, d. b. a. Solvents and Plastics Company, St. Louis, Mo. Filed Aug. 7, 1957.

FOAMGUARD

For Liquid Composition for Producing Protective Coatings on Cellular Plastic Materials.
First use June 21, 1957.

SN 44,874. Camp Chemical Co. Inc., Brooklyn, N. Y. Filed Jan. 29, 1958.

CAMP

Owner of Reg. No. 549,463.
For Varnishes, Floor Coatings, and Roof Coatings.
First use Mar. 1, 1947.

Class 18—Medicines and Pharmaceutical Preparations

SN 30,745. Dallas Management, Inc., d. b. a. Vita-Time Corp. of America, Long Beach, Calif. Filed May 27, 1957.

TRAVEL PAK

For Vitamins and Food Supplements.
First use May 10, 1957.

SN 38,576. Yoshitomi Pharmaceutical Industries Limited, Higashi-ku, Osaka, Japan. Filed Oct. 8, 1957.

OPROMAZIN

オプロマジン

The Japanese characters are the Japanese translation of the mark "Opromazin." Owner of Japanese Reg. No. 506,817, dated Aug. 25, 1957.
For Anesthetics and Neuroplegics.

SN 39,412. Helena Rubinstein, Inc., New York, N. Y. Filed Oct. 23, 1957.

BEAUTY FOR LIFE

For Vitamin Preparation.
First use July 8, 1957.

Class 19—Vehicles

SN 29,666. Societe Anonyme Andre Citroen, Paris, France. Filed May 6, 1957.

CITSAFE

Owner of French Reg. No. 460,149, dated Oct. 10, 1956 (Seine); Natl. Inst. No. 79,792; and U. S. Reg. Nos. 558,421, 558,422, and 612,966.
For Automobiles and Spare Parts Therefor, More Particularly, Servo-Control and Suspension Devices.

SN 34,689. General Motors Corporation, Detroit, Mich. Filed July 31, 1957.

COOL-PACK

For Air Conditioning for Motor Vehicles.
First use July 10, 1957.

SN 38,705. The Mt. Pitt Company, d. b. a. The Loading Service Company, Medford, Oreg. Filed Oct. 10, 1957.

LIFT TEE

For Floating Braces for Freight Vehicles.
First use Sept. 20, 1957.

SN 40,179. The McNeil Machine & Engineering Company, Akron, Ohio. Filed Nov. 6, 1957.

LINCOLN

Owner of Reg. Nos. 430,242, 548,490, and others.
For Portable Apparatus for Use in Draining the Oil From Automobiles, Consisting of a Platform on Wheels, Means for Securely Holding a Lubricant Drum on the Platform, a Cover

for the Drum and a Drain Tube and Funnel for Receiving the Oil and Conducting It Into the Drum.
First use Aug. 29, 1957; November 1939 as to "Lincoln."

SN 40,359. Midwestern Industries Corporation, Grabill, Ind. Filed Nov. 8, 1957. Sec. 2(f).

Crosby

For Boats.
First use on or about Nov. 1, 1947.

SN 44,536. General Motors Corporation, Detroit, Mich. Filed Jan. 23, 1958.

CAMEO

For Trucks.
First use Mar. 25, 1955.

SN 44,865. Bendix Aviation Corporation, Detroit, Mich. Filed Jan. 29, 1958.

OCM

For Vehicle Brakes, Parts Thereof, and Brake Units and Parts Thereof—Namely, Backing Plates, Brake Elements Including Brake Shoes and Brake Adjustors.
First use Nov. 19, 1957.

SN 45,038. Dorsett Plastics Corporation, Santa Clara, Calif. Filed Jan. 31, 1958.



For Boats of Plastic Bonded Glass Fibers, the Latter in the Form of Glass Cloth, Glass Mat and Chopped Fibers.
First use on Oct. 2, 1957.

Class 20—Linoleum and Oiled Cloth

SN 41,887. Carthage Mills Incorporated, Carthage, Cincinnati, Ohio. Filed Dec. 6, 1957.

VINYL-BRIGHT

For Plastic Floor Covering.
First use Nov. 18, 1957.

SN 43,248. Dean Cut-Rate Floor Covering Company, Inc., Newark, N. J. Filed Dec. 31, 1957.

DEAN

For Floor and Wall Coverings of Linoleum or Linoleum-Like Composition in Roll, Rug, or Tile Form.
First use August 1939.

SN 43,594. Congoleum-Nairn Inc., Kearny, N. J. Filed Jan. 6, 1958.

VISCOUNT

For Plastic Coverings of the Smooth Surface, Resilient Type for Surfaces Such as Floors, Walls, Countertops, and the Like in the Form of Rolls, Rugs, and Tiles.
First use Dec. 24, 1957.

SN 43,952. G. C. Murphy Company, McKeesport, Pa. Filed Jan. 14, 1958.

SHAMROCK

For Hard Surface Floor Coverings, Linoleum.
First use Jan. 24, 1956.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 19,105. Cresco Industries, Inc., Cresco, Iowa. Filed Nov. 13, 1956.

WARMA-BED

For Animal Warming Apparatus Comprising an Electrical Heating Element Sealed Within a Tray-Like Metal Container.
First use Aug. 18, 1956.

SN 29,022. Burndy Corporation, Norwalk, Conn. Filed Apr. 29, 1957.

THERMOLINK

For Insulated Electrical Conductor Splices for Use in High Temperature Environment.
First use Jan. 20, 1955.

SN 29,824. Rocky Mountain Metal Products Co., Denver, Colo. Filed May 10, 1957.

ROCKY MOUNTAIN

For Electrical Welding, Soldering and Polishing Machines and Accessories Therefor.
First use on or about Dec. 1, 1955.

SN 29,914. Johnsen Design Service, Hanover, N. J. Filed May 13, 1957.

JETTRON

For Electronic Components—Namely, Sockets for Micro-Miniature Ceramic Tubes.
First use Jan. 21, 1957.

SN 30,667. Micamold Electronics Manufacturing Corporation, Brooklyn, N. Y. Filed May 24, 1957.

"MOTORLYTIC"

For Capacitors.
First use Apr. 5, 1954.

SN 31,096. Eries Manufacturing Co., Erie, Pa. Filed May 31, 1957.

ERIE GRATE MAGNET

Applicant disclaims the words "Grate Magnet" apart from the mark as shown. Owner of Reg. No. 540,182.
For Magnetic Separating Equipment.
First use Jan. 2, 1953.

SN 31,264. The Electric Storage Battery Company, Philadelphia, Pa., from Ray-O-Vac Company, Madison, Wis. Filed June 3, 1957.

DIPLOMAT

For Flashlights and Flashlight Cases.
First use Mar. 7, 1957.

SN 31,661. Oxford International Corporation, Highland Park, Ill. Filed June 12, 1957.

TIGER-EYE

For Bicycle Headlights and Bicycle Horns.
First use Mar. 1, 1956.

SN 36,140. Mark E. Warren, Anderson, S. C. Filed Aug. 26, 1957.

DIXIE-MAID

For Electrically Operated Milk Churns.
First use Jan. 10, 1940.

SN 37,064. Argonne Electronics Mfg. Corp., Jamaica, N. Y. Filed Sept. 12, 1957.

Argonne

For Phonograph Pickups, Cartridges and Pickup Arms, Coils, Microphones and Earphones, Telegraph Keys, Sound Stands, Control Relays, Volume Controls, Variable Capacitors, P. M. Speakers, Antennas, Transistor Transformers, Sub-miniature Volume Controls and Transistors.
First use Feb. 11, 1955.

SN 39,215. Ferro Dynamics Corporation, Lodi, N. J. Filed Oct. 21, 1957.

SONORAMIC

For Raw Magnetic Recording Tape.
First use Sept. 12, 1957.

SN 39,634. Insul-8-Corp., San Carlos, Calif. Filed Oct. 28, 1957.

INSUL 8

The word "Electronics" is disclaimed apart from the mark as shown.
For Closed Circuit Television System Comprising Camera, Control Unit, and Associated Accessories.
First use May 9, 1957.

SN 39,777. Burndy Corporation, Norwalk, Conn. Filed Oct. 30, 1957.

MOLIMITER

For Electrical Connectors.
First use in 1939.

SN 40,036. Burgess Battery Company, Freeport, Ill. Filed Nov. 4, 1957.

SATELLITE

For Flashlights.
First use Oct. 15, 1957.

SN 40,265. Sears, Roebuck and Co., Chicago, Ill. Filed Nov. 7, 1957.

MEDALIST

For Television Sets.
First use on or about May 14, 1956.

SN 40,551. Burgess Battery Company, Freeport, Ill. Filed Nov. 13, 1957.

ESCORT

For Flashlights.
First use Oct. 24, 1957.

SN 40,915. Burndy Corporation, Norwalk, Conn. Filed Nov. 19, 1957.

HYSOKET

For Electrical Connectors.
First use in December 1954.

SN 42,482. Jerrold Electronics Corporation, Philadelphia, Pa. Filed Dec. 16, 1957.

TELE-TROL

For Television Modulating and Demodulating Equipment.
First use July 18, 1957.

SN 42,937. State Stove and Manufacturing Co., Nashville, Tenn. Filed Dec. 23, 1957.

STATE

For Electric Water Heaters.
First use in 1947.

SN 43,569. United States Steel Corporation, Pittsburgh, Pa. Filed Jan. 7, 1958.

AMERITE

Owner of Reg. No. 287,244.
For Electrical Wire and Cable.
First use Mar. 18, 1913.

SN 43,650. Enco Manufacturing Company, Chicago, Ill. Filed Dec. 16, 1957.

ENCO TINY TITAN

For Magnetic Base Tools Comprising Magnifier Holders, Lamp Holders, and Test Indicator Holders.
First use Mar. 2, 1953.

SN 43,832. Electronic Secretary Industries, Inc., Waukesha, Wis. Filed Jan. 13, 1958.

Electronic Secretary

Owner of Reg. No. 568,705.
For Telephone Answering Apparatus and Electronic Sound Recording and Reproducing Apparatus for Use Therewith.
First use Sept. 30, 1952.

Class 22—Games, Toys, and Sporting Goods

SN 33,952. The Joseph Dixon Crucible Company, Jersey City, N. J. Filed July 18, 1957.

THE MODERN PLAYWAY

For Educational Playthings for Children—Namely, Jungle Gyms, Play Blocks, Teeter-Totters, and the Like.
First use 1928.

SN 37,220. Chamberlin Metal Products Co., Chicago, Ill. Filed Sept. 16, 1957.

CATALINA

For Golf Carts.
First use July 2, 1956.

SN 39,376. Billard Barbell Company, Inc., Mansfield, Pa. Filed Oct. 23, 1957.

GOLDEN TRIUMPH

For Barbells.
First use in or about 1951.

SN 39,472. Klasgo Manufacturing Company, Pittsburgh, Pa. Filed Oct. 24, 1957.

KLASGO

For Motivated Toys Simulating Antique and Modern Structures Such as Miniature Water Mills, Toy Hydraulic Pump Houses, Miniature Hydraulic Pumps, and Log Cabins.
First use Sept. 30, 1957.

SN 39,523. Floyd D. Rector, Inglewood, Calif., from Mary Lou Everett, d. b. a. Mirro Lure Mfg. Co., Inglewood, Calif. Filed Oct. 25, 1957.

MIRRO LURE

No claim is made to the word "Lure."
For Artificial Fishing Lures.
First use in September 1941.

SN 42,500. Liberty Distributors Group, Philadelphia, Pa. Filed Dec. 16, 1957. COLLECTIVE MARK.

SPORTMASTER

For Fishing Tackle and Equipment—Namely, Fishing Poles, Lines, Leaders, Lures, Floats, Hooks, Nets, and Tackle Boxes.
First use November 1954.

SN 42,597. The Pyramid Rubber Company, Ravenna, Ohio. Filed Dec. 17, 1957.

EVENFLO

For Toy Nursing Units Comprising Toy Nursing Bottles, Nipples, Nipple Retaining Screw Caps, and Seal Discs.
First use on or about Jan. 1, 1953.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 644,847. Jiffy Products Co., Inc., Dallas, Tex. Filed Apr. 7, 1953.

JIFFY

For Digging Teeth or Points and Adapters Therefor for Use on Excavating Buckets.
First use Apr. 14, 1946.

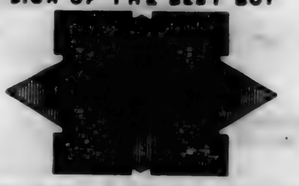
SN 675,535. Bokum Tool Company, Detroit, Mich. Filed Oct. 27, 1954.

Rapidor
BOKUM—DETROIT—38

Applicant disclaims the term "Bokum-Detroit-38" when used separate and apart from the mark as shown.
For Turning, Threading, and Grooving Tools for Roughing, Semi-Finishing, Finishing, Cutting Off, Threading for Use on Lathes, Turret Lathes, Planing Machines, and Automatic Machines.
First use January 1950.

SN 33,073. H. D. Hudson Manufacturing Company, Chicago, Ill. Filed July 2, 1957.

SIGN OF THE BEST BUY



Although the drawing is lined for red and yellow, color is not claimed as a feature. Owner of Reg. Nos. 223,040, 639,015, and others.
For Sprayers and Dusters and Parts Thereof; Sprayer, Fire, Barrel, and Bucket Pumps; Pumps and Pump-Actuated Water Supply Systems; Bull Staffs; Chain and Lever Hoists; Commercial, Industrial, and Farm Overhead Conveying and Unloading Systems and Equipment; and Garden Tools.
First use July 1, 1946.

SN 34,607. David W. Hall, Jr., Chicago, Ill. Filed July 30, 1957.



For Garden Tools.
First use July 15, 1957.

SN 35,326. The Cincinnati Milling Machine Co., Cincinnati, Ohio. Filed Aug. 12, 1957.



For Grinding Wheel Truing Attachment.
First use on or about Dec. 6, 1956.

SN 36,119. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Aug. 23, 1957.

REFLECTO

For Stainless Steel Flatware, i. e., Knives, Forks, and Spoons.
First use June 26, 1957.

SN 37,617. American Saw and Tool Company, Louisville, Ky. Filed Sept. 23, 1957.



For Taps, Dies, Tap Wrenches, Reamers, Die Stocks, Screw Extractors, Collets, and Router Bits.
First use approximately 1930.

SN 37,751. The Skookum Company, Inc., Portland, Oreg. Filed Sept. 24, 1957.

SKOOKUM

For Logging Tools—Namely, Hoisting Blocks, Sheaves, Shackles, Swivels, Hooks, Sleeves, Clevises, Tongs, Bars, Hammers, Mauls, Sledges, Splitting Wedges, Chisels, Axes, Fairleads, Cable Ferrules, and Collars and Eye-Splice Fittings, Weighted Balls, Chains, and Chain Components, High Climbers, Safety Belts and Pads and Spurs, Pike Pole Points and Ferrules, Separating Wedges, Cold Flow Ferrule Presses, and Water Rams.
First use in the year 1922.

SN 38,440. Dola Corporation, El Monte, Calif. Filed Oct. 7, 1957.

SAND-O-PLANE

For Sanding Attachments for Electric Hand Drills.
First use Mar. 21, 1957.

SN 39,236. Lundell Manufacturing Co., Cherokee, Iowa. Filed Oct. 21, 1957. Sec. 2(f).



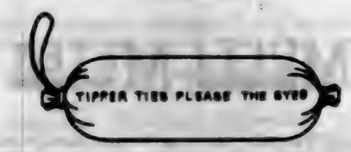
For Hay-Chopping Farm Machine.
First use Mar. 1, 1945.

SN 39,468. J & J Manufacturing & Sales Corporation, San Marino, Calif. Filed Oct. 24, 1957.

KWIK-FLARE

For Flaring Tool Useful to Mechanics.
First use Sept. 26, 1957.

SN 40,092. Tipper Tie, Inc., Union, N. J. Filed Nov. 4, 1957.



For Casing Fastening Machines and Supplies Therefor.
First use Sept. 2, 1957.

SN 40,180. The McNeil Machine & Engineering Company, Akron, Ohio. Filed Nov. 6, 1957.



Owner of Reg. Nos. 430,242, 548,490, and others.
For Portable and Stationary Apparatus Operated Electrically, Pneumatically or Manually, of Automatic, Semiautomatic and Manual Types, for Pumping Lubricants and Other Fluids, Including Lubricant Pumps, Lubricant Guns, Lubricant Injectors, Pressure-Fluid Distribution Systems, Hose Couplers, Reels and Air Couplers; and Blow Guns—Namely, Valved Air-Blast Nozzles for Cleaning Purposes.
First use Aug. 29, 1957; 1922 as to "Lincoln."

SN 40,377. Ross & Son, Brownwood, Tex. Filed Nov. 8, 1957.

ROSS PORTA-PLANT

For Concrete Batch Plant.
First use Jan. 1, 1957.

SN 40,437. D & P Manufacturing, Inc., Clearfield, Utah. Filed Nov. 12, 1957.

LITE

For Portable Conveyors for Loading and Elevating Baled Products, Construction Materials, and Granular Substances Such as Sand, Gravel, and Cement.
First use Feb. 28, 1956.

SN 41,717. The Russell Manufacturing Company, Middletown, Conn. Filed Dec. 3, 1957.

RUSLON

For Molded Fabric Oilless Antifriction Bearings for Automotive, Aero, and Industrial Uses.
First use in January 1953.

SN 42,192. Amsco Packaging Machinery, Inc., Long Island City, N. Y. Filed Dec. 11, 1957.

AMSCOMATIC

For Automatic Sealing Machines, and Conveyors for Use Therewith.
First use Apr. 1, 1957.

SN 42,414. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Dec. 13, 1957.

IMAGINATION

For Stainless Steel Flatware, i. e., Knives, Forks, and Spoons.
First use Nov. 18, 1957.

SN 43,698. The Porter-Cable Machine Company, Syracuse, N. Y. Filed Jan. 9, 1958.

PORTER-CABLE MARK XXVI

Owner of Reg. Nos. 618,619 and 640,651.
For Power Operated Lawn Mowers.
First use Feb. 20, 1957.

SN 43,899. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Jan. 13, 1958.

PINE CONE

For Stainless Steel Flatware, i. e., Knives, Forks, and Spoons.
First use Nov. 15, 1957.

SN 44,279. Hammond Machinery Builders, Inc., Kalamazoo, Mich. Filed Jan. 20, 1958.

HAMMOND FLAT FINISHER

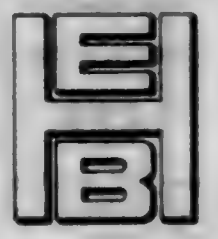
For Machines for Grinding, Polishing, and Deburring Flat Work.
First use October 1956.

SN 45,762. D. B. Smith & Company, Inc., Utica, N. Y. Filed Feb. 12, 1958.

SNARK

For Hand and Power Operated Sprayers.
First use Jan. 27, 1958.

SN 46,726. H. Ernault-Batignolles, S. A., Paris, France. Filed Feb. 27, 1958.



Owner of French Reg. No. 462,456, dated Jan. 25, 1957 (Seine); Natl. Inst. No. 84,477.
For All Machine Tools.

Class 26—Measuring and Scientific Appliances

SN 18,541. American Blueprint Co., Inc., New York, N. Y. Filed Nov. 1, 1956.

AMCO

Owner of Reg. No. 521,767.
For Drawing Equipment—Namely, Slide Rules, Drawing Instruments, Triangles, T Squares, Drawing Boards, and Drawing Tables.
First use in or about the spring of 1935.

SN 28,078. Universal Screen Co., Inc., Clinton, Mass. Filed Apr. 12, 1957.



For Projection Screens.
First use Jan. 4, 1957.

SN 28,313. Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany, by change of name from Agfa Aktiengesellschaft für Photofabrikation, Leverkusen-Bayerwerk, Germany. Filed Apr. 17, 1957.

ISORAPID

Owner of German Reg. No. 135,443, dated Oct. 17, 1910.
For Photographic Plates and Films.

SN 28,430. Eugen Bauer Gesellschaft mit beschraenkter Haftung, Stuttgart-Unterturkheim, Germany. Filed Apr. 18, 1957.

ELECTRO-MASTER

For Cinecameras, Exposure Meters Operated by a Photoelectric Cell.
First use Mar. 27, 1957.

SN 29,865. Carl Braun, Camerawerk, Nurnberg, Nurnberg, Germany. Filed May 13, 1957.

PAXETTE

Owner of German Reg. No. 623,738, dated July 22, 1952.
For Cameras.
Subj. to Intf. with SN 26,964 and SN 41,601.

SN 30,029. Saburo Matsumoto, d. b. a. Asahi Optical Co., Ltd., Chuo-ku, Tokyo, Japan. Filed May 14, 1957.

TAKUMAR

For Lenses (for Cameras, Motion Picture Projectors, Slide Projectors, Etc.).
First use May 1, 1952; in commerce June 1, 1956.

SN 30,672. Micro-Master, Inc., Kansas City, Mo. Filed May 24, 1957.

MICRO-MASTER

Owner of Reg. No. 609,909.
For Cameras and Projectors and Suction Boards, Electronic Timers for Said Cameras and Projectors, Photosensitive Film, Photosensitive Paper, Photosensitive Cloth, Photographic Negatives, and Film Inspection Boxes.
First use in November 1953 on photographic negatives.

SN 30,914. J. E. Lonergan Co., Philadelphia, Pa. Filed May 28, 1957.



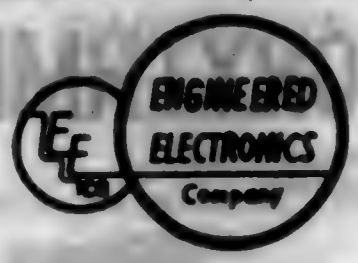
For Pressure Gauges With Bourdon Tube.
First use Jan. 18, 1957.

SN 34,250. N'Land Industries, Inc., Lewiston, Idaho. Filed July 23, 1957.

MULTI METER

For Liquid Fertilizer Metering Device, More Particularly, a Multiple Outlet Spraying or Pumping Device for Liquid Fertilizer.
First use June 27, 1956.

SN 35,760. Engineered Electronics Company, Santa Ana, Calif. Filed Aug. 19, 1957.



For Electronic Circuit Plug-In Units, Electronic Circuit Computer Units, Amplifiers, Electronic Decimal Counters, Stepping Switches, Electronic Equipment Racks.
First use Aug. 20, 1956.

SN 36,327. Vector Manufacturing Company, Inc., Jenkintown, Pa. Filed Aug. 27, 1957.



For Oscillators and Parts Thereof.
First use June 4, 1957.

SN 36,355. Cleveland Instrument Company, Cleveland, Ohio. Filed Aug. 28, 1957.

INDI-AC

For Precision Industrial and Scientific Laboratory Measuring Apparatus—Namely, Electronic Gaging Equipment for Dimensional Inspection and Control Applications in Gage Rooms, Tool Rooms, and Production Departments.
First use in or about January 1952.

SN 36,356. Cleveland Instrument Company, Cleveland, Ohio. Filed Aug. 28, 1957.

MICRO-AC

For Precision Industrial and Scientific Laboratory Measuring Apparatus—Namely, Electronic Gaging Equipment for Dimensional Inspection and Control Applications in Gage Rooms, Tool Rooms, and Production Departments.
First use in or about January 1952.

SN 36,357. Cleveland Instrument Company, Cleveland, Ohio. Filed Aug. 28, 1957.

PAR-AC

For Precision Industrial and Scientific Laboratory Measuring Apparatus—Namely, Electronic Gaging Equipment for Dimensional Inspection and Control Applications in Gage Rooms, Tool Rooms, and Production Departments.
First use in or about January 1952.

SN 36,657. Nathaniel P. Halperin, d. b. a. Southern Precision Instrument Co., San Antonio, Tex. Filed Sept. 4, 1957.

OPTEX

For Binoculars, Telescopes, Microscopes, Cameras, and Camera and Photographic Accessories—Namely, Camera Lenses, Exposure Meters, Flash Guns, and Delayed-Action Timers.
First use May 10, 1957.

SN 37,232. Automation Products, Inc., Houston, Tex. Filed Aug. 12, 1957.

DYNATROL

For Electro-Magnetic Vibrator Control Device for High or Low Fluid Level Detection.
First use July 1, 1954.

SN 37,546. Assembly Products, Inc., Chesterland, Ohio. Filed Sept. 20, 1957.

LOAD SENTRY

For Measuring and Scientific Appliances—Namely, Electrical Circuit Overload Control Having a Meter With Electrical Contacts.
First use July 31, 1957.

SN 37,606. Earl J. Wells, d. b. a. Wells Mfg. Co., Comptche, Calif. Filed Sept. 20, 1957.

DING-GO

For Thermostatic Temperature Alarm.
First use July 15, 1957.

SN 39,061. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company. Filed Oct. 17, 1957.

LECTROX

For Xerographic Plates.
First use Sept. 26, 1957.

SN 41,702. Goshi-Gaisha Kobayashi Seiki Seisakusho, d. b. a. Kobayashi Seiki Seisakusho Co., Naka-Gun, Ibaragi-Ken, Japan. Filed Dec. 3, 1957.

KOPIL

For Camera Accessories Including Self-Timer, Range Finder, Folding Bellowscope, Filter, Tripod, Lens Shades, Extender, Extension Tube, Exposure Meter, Viewer, Proxiscope, Bellowscope Jr., Tripod Head, Tape Measure, Microscope Adapter Polarizing, Polari-Vue Screen, Slide Projection, Flash Units, Lens for Camera and Polascreen Filter.
First use July 20, 1950; in commerce July 20, 1950.

SN 41,751. Fenwal Incorporated, Ashland, Mass. Filed Dec. 4, 1957.

JOURN-A-LARM

Owner of Reg. No. 569,792.
For Thermal Responsive Apparatus Comprising a Thermostatic Switch for Detecting and Signalling a Condition of Overheating of Bearings as in Railway and Other Equipment.
First use in June 1948.

SN 43,050. Therm-O-Disc, Incorporated, Mansfield, Ohio. Filed Dec. 26, 1957.

Therm-O-Disc

Owner of Reg. No. 516,007.
For Thermostats and Temperature Control Devices.
First use Feb. 6, 1947.

SN 43,643. Symington Wayne Corporation, Salisbury, Md., from The Wayne Pump Company, Salisbury, Md. Filed Jan. 8, 1958.

BLEND-MASTER

For Measuring Fluid Dispensing Pumps.
First use Apr. 10, 1957.

SN 44,060. Backster Associates, Inc., New York, N. Y. Filed Jan. 16, 1958.

AUTONOMETER

For Physiological or Psychological Machine To Measure Reactions of the Autonomic Nervous System of an Individual or Group.
First use Sept. 15, 1957.

SN 45,075. Shuron Optical Company, Inc. (Pennsylvania corporation), Pottsville, Pa., by change of name from Reading Briquet Company, from Shuron Optical Company, Inc. (New York corporation), Geneva, N. Y. Filed Jan. 31, 1958.

RONPIERCE

Owner of Reg. Nos. 377,228, 649,683, and others.
For Spectacle Frames.
First use Aug. 1, 1957.

SN 45,097. Admiral Photo Products Co., Chicago, Ill. Filed Feb. 3, 1958.

SNIP/SNAP

For Photographic Slide Mounts.
First use on or about Dec. 1, 1954.

SN 45,376. Daystrom, Incorporated, Murray Hill, N. J. Filed Feb. 6, 1958.

MIRROBAND

For Thermometers.
First use in December 1957.

SN 45,410. Rapp Foreign Trade Corp., New York, N. Y. Filed Feb. 6, 1958.

ADMIRAL

For Portable Depth Gauges, Portable Depth Gauges With Wrist Strap for Attachment to the Wrist of a Diver; and Accessories for the Aforesaid Depth Gauges—Namely, a Fluid Compass and a Maximum Depth Indicator Selectively Attachable to the Gauge Casing as Cover Therefor.
First use in February 1957.

SN 45,568. Albert Hiller Jr., Dornstetten, Germany. Filed Feb. 10, 1958.

DUO LUX

For Photographic Devices and Attachments To Set Off Flash Lights and Lamps and Reflectors, Containers and Cable Leads for Photo Flash Devices for Cameras.
First use in January 1951; in commerce in January 1951.

SN 45,600. Packard-Bell Computer Corporation, Los Angeles, Calif. Filed Feb. 10, 1958.

TRICE

For Electronic Computing Machines.
First use Dec. 4, 1957.

SN 45,618. Kenneth Smith, sometimes d. b. a. Kenneth Smith Golf Club Co., Kansas City, Mo. Filed Feb. 10, 1958.

PRORYTHMIC

For Weighing Scales.
First use Feb. 10, 1957.

SN 45,619. Kenneth Smith, Kansas City, Mo. Filed Feb. 10, 1958.

LŌ RYTHMTC

For Weighing Scales.
First use during 1935.

Class 29—Brooms, Brushes, and Dusters

SN 40,607. Pro-Phy-Lac-Tic Brush Company, Florence, Mass. Filed Nov. 13, 1957.

GG

For Tooth Brushes.
First use Oct. 24, 1957.

Class 32—Furniture and Upholstery

SN 45,646. Kolcraft Products, Inc., Chicago, Ill. Filed Feb. 10, 1958.

DURALINE

For Spring Construction for Crib Mattresses.
First use Dec. 26, 1957.

SN 49,291. Nachman Corporation, Chicago, Ill. Filed Apr. 8, 1958.

SURE-TOPPER

For Spring Assemblies and Elements of Same.
First use Mar. 24, 1958.

SN 50,054. Hardman Tool & Engineering Co., Los Angeles, Calif. Filed Apr. 21, 1958.

Starest

For Chairs.
First use Mar. 20, 1958.

SN 50,218. Cole Steel Equipment Co., Inc., New York, N. Y. Filed Apr. 23, 1958. Sec. 2(f).

COLE

For Office Furniture and Storage, Utility, and Filing Cabinets.
First use May 2, 1933.

SN 50,219. Cole Steel Equipment Co., Inc., New York, N. Y. Filed Apr. 23, 1958.

PRONTO

For Storage, Utility, and Filing Cabinets.
First use May 2, 1933.

SN 50,229. Harvest House, Inc., Orchard Park, N. Y. Filed Apr. 23, 1958.

EASYBABY

For Baby Chairs.
First use on or about Aug. 25, 1952.

SN 50,651. Scroll, Inc., Miami, Fla. Filed Apr. 29, 1958.



For Solid Wrought Aluminum Furniture of Both Indoor and Outdoor Type.
First use Dec. 10, 1957.

Class 33—Glassware

SN 37,214. Berton's, Inc., Chicago, Ill. Filed Sept. 16, 1957.

MEDIC

For Glass Cocktail Mixers.
First use Aug. 7, 1957.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 17,862. Silas P. Beal, Jr., d. b. a. Food Service Equipment Co., Oakland, Calif. Filed Oct. 22, 1956.



For Food Serving and Handling Equipment—Namely, Broilers, Fans, Food Warmers, Fudge Warmers, Hoods, Hot Plates, Hot Tables, Mixers, Ovens, Ranges, Roll Warmers, Steam Kettles, Steam Tables, Stoves, Toasters, Ventilators, Waffle Bakers, and Water Heaters.
First use during March 1951.

SN 36,115. Sulzer Bros., Ltd., New York, N. Y. Filed Aug. 23, 1957.

DOR-less-DOR

For Air Curtains or Barriers for Building and Room Entrances, Replacement Parts and Controls Therefor.
First use Feb. 12, 1957.

SN 42,635. Comstock-Castle Stove Company, Quincy, Ill. Filed Dec. 18, 1957.



For Ranges, Ovens, Broilers, and Griddles for Cooking.
First use Nov. 26, 1957.

SN 42,936. Fasco Industries, Inc., Rochester, N. Y. Filed Dec. 19, 1957.



For Ventilating Fans, Circulating Fans, Portable Window Fans, Portable Casement Fans, Oscillating Fans, Pedestal Fans, and Hassock Fans.
First use Oct. 11, 1957, on portable window fans.

SN 43,580. National Union Electric Corporation, Columbus, Ohio. Filed Jan. 8, 1958.

CERAMIflex

For Combustion Chambers for Furnaces.
First use Nov. 11, 1957.

SN 43,846. E. C. Geiger, North Wales, Pa. Filed Jan. 13, 1958.

MIST-A-MATIC

For Mist Propagating System and a Cooling System and Humidifying System, Including the Misting and Air Conditioning in Greenhouses and Nurseries in Horticultural, Floricultural and Agricultural and Allied Applications.
First use Mar. 22, 1957.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 35,429. Graton & Knight Company, Inc., Worcester, Mass. Filed Aug. 13, 1957.



Owner of Reg. Nos. 127,615, 439,073, and others.
For Belting.
First use on or about July 17, 1957.

SN 39,797. Federal-Mogul-Bower Bearings, Inc., Detroit, Mich. Filed Oct. 30, 1957.

NATIONAL

Owner of Reg. No. 322,517.
For Shaft and Face Seals, Comprising Grease and Oil Retainers for Shafts, Journals, Valve Stems, Pistons, Piston Rods, and the Like; Shims; Gaskets; and O Rings.
First use in 1923, on shims and grease and oil retainers for shafts.

Class 36—Musical Instruments and Supplies

SN 30,194. Schulmerich Carillons, Inc., Sellersville, Pa. Filed May 16, 1957. Sec. 2(f).

SCHULMERICH

Owner of Reg. Nos. 539,248 and 554,351.
For Electronic Bell Music Instruments and Parts Thereof.
First use Mar. 21, 1955.

SN 44,278. Foster M. Hagmann, d. b. a. Edsel Records, Studio City, Calif. Filed Jan. 20, 1958.

EDSEL

For Mechanically Grooved Phonograph Records.
First use Dec. 2, 1957.

SN 44,708. Herts Music-All Instrument Co., Newark, N. J. Filed Jan. 27, 1958.

SAX-O-MATIC

For Straps for Musical Instruments.
First use Dec. 16, 1957.

SN 45,056. London Records, Inc., New York, N. Y. Filed Jan. 31, 1958.

FELSTED

For Grooved Phonograph Records.
First use on or about Nov. 7, 1957.

Class 37—Paper and Stationery

SN 642. Vereinigte Papierwerke Schickedanz & Co., Nurnberg, Germany. Filed Dec. 13, 1956.

FAVORIT

Owner of German Reg. No. 275,402, dated Nov. 18, 1921.
For Cellulose Wiping Sheets and Tissues, Cellulose Handkerchiefs, Cellulose Napkins, and Cellulose Mats.

SN 18,980. The Aetna Casualty and Surety Company, Hartford, Conn. Filed Nov. 9, 1956.

Planrite

For Accordion-Type Plastic Folder for Insurance Policies.
First use Sept. 14, 1956.

SN 24,037. Eastfair Products, Easton, Conn. Filed Feb. 8, 1957.

POC-KITS

For Packets Comprising Sanitary Tissues and Dispensing and Disposing Cartons Therefor.
First use Jan. 30, 1957.

SN 28,268. Pak-Well Paper Products Company, Portland, Oreg. Filed Apr. 16, 1957. Sec. 2(f).

PAK-WELL

Owner of Reg. No. 555,155.
For Paper Merchandise Bags and Wrappers.
First use in February 1952.

SN 29,425. Cragstan Corporation, New York, N. Y. Filed May 6, 1957.

CRAGSTAN

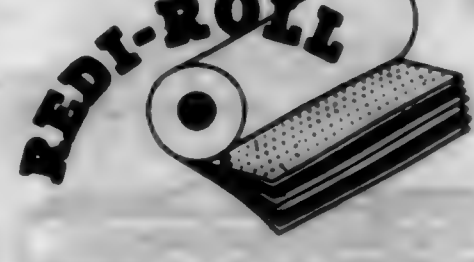
Owner of Reg. No. 575,510.
For Address Books and Desk Sets Consisting of a Desk Pad for Holding a Blotter and a Holder for Letters.
First use August 1956.

SN 30,960. Venus Pen & Pencil Corporation, Hoboken, N. J. Filed May 28, 1957.

VENUS 365

Owner of Reg. Nos. 40,090, 373,311, and others.
For Ball Point Pens.
First use May 22, 1957.

SN 32,514. Mellon Corp., New York, N. Y. Filed June 24, 1957.



The representation of the goods is disclaimed apart from the mark as shown.
For Duplicating Pattern Paper.
First use Apr. 29, 1957.

SN 38,357. Johnson & Johnson, New Brunswick, N. J. Filed Oct. 4, 1957.

BELLEVIEW

Owner of Reg. Nos. 56,288 and 522,716.
For Towels of Paper or Cellulose.
First use January 1957.

SN 41,739. Arkell and Smiths, Canajoharie, N. Y. Filed Dec. 4, 1957.

PLASTOWELD

For Paper Bags.
First use May 10, 1957.

Class 38—Prints and Publications

SN 28,934. Fairchild Publications, Inc., New York, N. Y. Filed Apr. 26, 1957. Sec. 2(f).

THE MATERIAL OF FASHION

Owner of Reg. No. 565,432.
For Newspaper Column or Columns.
First use Apr. 9, 1951.

SN 29,852. Howard R. Garis, Amherst, Mass. Filed May 3, 1957.



Owner of Reg. No. 402,467.
For Series of Books.
First use Jan. 1, 1910.

SN 31,452. American School Publishing Corporation, New York, N. Y. Filed June 6, 1957. Sec. 2(f).

SCHOOL EQUIPMENT NEWS

For Professional Business Journal.
First use in May 1928.

SN 31,453. American School Publishing Corporation, New York, N. Y. Filed June 6, 1957. Sec. 2(f).

SCHOOL EXECUTIVE

For Professional Business Journal.
First use in 1923.

SN 32,218. United Newspapers Magazine Corporation, New York, N. Y. Filed June 18, 1957.

Picture Poll

For Syndicated Magazine or Newspaper Column or Section.
First use May 19, 1957.

SN 32,868. United Newspapers Magazine Corporation, New York, N. Y. Filed June 28, 1957.

A THIS WEEK BOOKCERPT

For Syndicated Magazine or Newspaper Column or Section.
First use June 9, 1957.

SN 34,880. The Lawyers' Co-Operative Publishing Company, Rochester, N. Y. Filed Aug. 2, 1957. Sec. 2(f) as to "The Annotated Reports System."



For Books and Instruction Charts, Issued in a Series.
First use 1954; at least as early as 1923 as to "The Annotated Reports System."

SN 34,890. American City Magazine Corporation, New York, N. Y. Filed July 19, 1957.

MUNICIPAL INDEX

For Purchasing Guide and an Annual Directory.
First use in 1924.

SN 35,044. Louis Gerstensang, Brooklyn, N. Y. Filed Aug. 6, 1957.

OUR ARMY

For Magazine.
First use Aug. 1, 1957.

SN 36,712. The Hearst Corporation, New York, N. Y. Filed Sept. 5, 1957.

MRS. FITZ'S FLATS

For Series of Cartoons or Comic Strips.
First use Jan. 3, 1957.

SN 38,190. The Merrill Anderson Company, Inc., New York, N. Y. Filed Oct. 2, 1957.

FORESIGHT

For Monthly Publication Devoted to Wills, Estates, and Trusts.
First use in February 1954.

SN 38,375. Nursing Home Administrator, Inc., New York, N. Y. Filed Oct. 4, 1957.

NURSING HOME ADMINISTRATOR

For Periodical.
First use Sept. 1, 1951.

SN 39,834. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Oct. 30, 1957.

AGRADATA

For Periodical Devoted to the Publication of Agricultural News.
First use in August 1957.

SN 42,899. Virginia G. Newitt, Wheaton, Ill. Filed Dec. 23, 1957.

FUN FORUM

For Magazine Column.
First use October 1956.

SN 43,111. The Purdue Frederick Company, New York, N. Y. Filed Dec. 27, 1957.

G-I TRACTS

For Periodical Publication Devoted to Gastroenterology and Related Subjects.
First use Aug. 31, 1956.

SN 43,207. Pepperidge Farm Incorporated, Norwalk, Conn. Filed Dec. 30, 1957.

MENU MAGIC

For Recipe Pamphlet Published Periodically.
First use Dec. 5, 1957.

Class 39 — Clothing

SN 4,121. C. Hart Manufacturing Company, Columbus, Ohio. Filed Mar. 8, 1956.

VESTEE

For Jackets Adapted To Be Worn as Outer Garments.
First use in or about 1933.

SN 30,434. Life Lift Corporation, Marion, Ohio. Filed May 21, 1957.

LIFE LIFT

For Shoes.
First use in May 1956.

SN 32,488. Globe Mills, Inc., West Leesport, Pa. Filed June 24, 1957.

LEESPORT

Owner of Reg. Nos. 347,447 and 536,500.
For Men's, Women's, and Children's Underwear and Sportswear—Namely, Knit Polo Shirts, Waists, and Pajamas.
First use Jan. 1, 1929.

SN 34,851. Future Fashions, Inc., New York, N. Y. Filed Aug. 2, 1957.

"GLOBE TRAVELER"

For Ladies' Dresses.
First use June 15, 1957.

SN 37,429. Good Luck Glove Company, Carbondale, Ill. Filed Sept. 18, 1957.

BROWN BOMBER

Owner of Reg. No. 519,871.
For Work Gloves Made of Leather and Fabric.
First use Jan. 15, 1941.

SN 37,812. Revelation Bra Co., Inc., Cambridge, Mass. Filed Sept. 25, 1957.

Airielle

For Brassieres.
First use Sept. 11, 1957.

SN 38,220. The Manhattan Shirt Company, New York, N. Y. Filed Oct. 2, 1957.

MANSTAY

For Men's Outer Dress and Sport Shirts.
First use June 27, 1956.

SN 38,635. Rogers Peet Company, New York, N. Y. Filed Oct. 9, 1957.

RP T&A

The lining shown on the drawing is solely for shading and does not represent color. Owner of Reg. Nos. 418,430 and 550,125.
For Suits, Coats, Topcoats, Raincoats, Sweaters, Shirts, Hose, and Shoes.
First use Sept. 7, 1957, on suits.

SN 38,636. Rogers Peet Company, New York, N. Y. Filed Oct. 9, 1957.

Rogers Peet
CAMPUS TESTED AND APPROVED

The wording "Campus Tested and Approved" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 418,430 and 550,125.
For Suits, Coats, Topcoats, Raincoats, Sweaters, Shirts, Hose, and Shoes.
First use Sept. 7, 1957, on suits.

SN 38,820. Haspel Brothers, Inc., New Orleans, La. Filed Oct. 14, 1957.

FEATHER HEATHER

For Men's and Boys' Suits, Coats, Pants, Trousers, and Vests.
First use January 1957.

SN 39,057. Glidesgame Corporation, New York, N. Y. Filed Oct. 17, 1957.

GILDONA

For Sweaters.
First use Oct. 10, 1957.

SN 39,233. Max H. and D. M. Kessler Company, Atlanta, Ga. Filed Oct. 21, 1957.

ELBERTA

For T-Shirts, Undershorts, Infants' Wear—Namely, Panties, Shirts, Gowns, Binders, Bibs, Sacques, Kimonos, Dresses, Diapers and Receiving Blankets, Jackets, Briefs and Sweaters.
First use in March 1955.

SN 39,239. M. K. M. Knitting Mills, Inc., Manchester, N. H. Filed Oct. 21, 1957.

GLEN GORDON

For Sweaters.
First use Apr. 23, 1954.

SN 39,336. M & B Headwear Company, Incorporated, Richmond, Va. Filed Oct. 22, 1957.

SIZE -O- MATIC

For Hats and Caps for Men and Boys.
First use Mar. 1, 1956.

SN 39,402. Chris Laganas Shoe Company, Lowell, Mass. Filed Oct. 23, 1957.

Royal Cadet

Owner of Reg. No. 610,762.
For Men's and Boys' Leather Shoes.
First use on or about Apr. 1, 1955.

SN 39,626. N & W Industries, Inc., Lynchburg, Va. Filed Oct. 30, 1957.

Hustlers

The lining does not represent color.
For Western Style Jeans, Shirts, Pants and Jackets for Men, Women, and Boys.
First use Aug. 15, 1957.

SN 40,342. Halper Brothers, Inc., New York, N. Y. Filed Nov. 8, 1957.

Marisias

For Hats and Hat Bodies.
First use Oct. 11, 1956.

SN 40,424. J. Capps & Son, Ltd., Jacksonville, Fla. Filed Nov. 12, 1957.

CO-ORDO

For Men's Suits.
First use Oct. 17, 1957.

SN 40,556. Cisco, Inc., New York, N. Y. Filed Nov. 13, 1957.

HUDSON BAY

For Woolen Sport Shirts.
First use Oct. 14, 1957.

SN 40,558. Cluett, Peabody & Co., Inc., New York, N. Y. Filed Nov. 13, 1957.

TARGET

For Outer Shirts.
First use Sept. 18, 1957.

SN 40,578. Mr. John, Inc., New York, N. Y. Filed Nov. 13, 1957.

JONATHAN JR.

For Ladies' Hats.
First use Sept. 1, 1955.

SN 40,728. Freeman Shoe Corporation, Beloit, Wis. Filed Nov. 15, 1957.

TOWN SQUIRES

For Men's Shoes Constructed of Leather, Rubber, Fabric, or Combinations Thereof.
First use Oct. 23, 1957.

SN 40,960. Pantsmaker, Inc., New York, N. Y. Filed Nov. 19, 1957.

Pantsmaker

Applicant disclaims the word "Pantsmaker" alone and apart from the mark as shown.
For Women's Pants.
First use on or about Sept. 23, 1957.

SN 41,196. Sidele Fashions, Inc., Philadelphia, Pa. Filed Nov. 22, 1957.

MISS FASHIONALITY

Owner of Reg. No. 429,659.
For Women's Blouses, Skirts, and Shirts.
First use Nov. 4, 1957; Apr. 8, 1946, as to "Fashionality."

SN 41,369. J. Freezer & Son, Inc., New York, N. Y. Filed Nov. 26, 1957.

Little Miss Monocle

Insofar as "Little Miss" is a size designation, no claim to its exclusive use is made. Owner of Reg. No. 630,512.
For Children's and Misses' Shirts.
First use Feb. 1, 1957.

SN 42,413. United States Rubber Company, New York, N. Y. Filed Dec. 13, 1957.



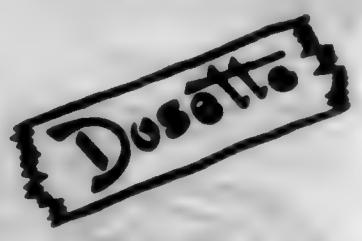
For Shoes.
First use July 17, 1957.

SN 44,096. International Latex Corporation, Dover, Del. Filed Jan. 16, 1958.

PLAYETTE

For Girdles.
First use Nov. 15, 1957.

SN 44,266. Dorothy E. Doster, d. b. a. Doster Hosiery Mills, Hollywood, Fla. Filed Jan. 20, 1958.



For Women's Hosiery.
First use in August 1950.

SN 44,371. Character Foundations, Inc., New York, N. Y. Filed Jan. 21, 1958.

AD-LIB

For Girdles.
First use Dec. 13, 1957.

SN 44,414. Saks & Company, New York, N. Y. Filed Jan. 21, 1958.

SAKSTOP

Owner of Reg. Nos. 304,947 and 341,691.
For Women's, Misses', and Children's Coats and Top Coats.
First use July 29, 1957.

SN 44,630. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed Jan. 24, 1958.

OVERETTE

For Brassieres.
First use Dec. 30, 1957.

SN 44,713. The Kaynee Company, Cleveland, Ohio. Filed Jan. 27, 1958.

POISON IVY

For Children's Shirts.
First use Jan. 17, 1958.

Class 40—Fancy Goods, Furnishings, and Notions

SN 43,563. Supply Manufacturing Co., Inc., New York, N. Y. Filed Jan. 7, 1958.

"AQUALON"

For Belt Backing.
First use Nov. 26, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 37,383. J. P. Stevens & Co., Inc., New York, N. Y. Filed Sept. 17, 1957.

PIMAMIST

Owner of Reg. No. 634,902.
For Cotton Piece Goods.
First use July 15, 1957.

SN 39,905. Skulman Fabrics, Inc., Paterson, N. J. Filed Oct. 31, 1957.



Owner of Reg. No. 589,640.
For Fabrics in the Piece Made of Plastic and Cotton, for Use in Making of Drapery Lining.
First use Oct. 10, 1957.

SN 40,512. Sun-Weave Linen Corp., New York, N. Y. Filed Nov. 12, 1957.



The drawing is lined for the color green.
For Table Linens, Napkins, Towels, and Appliance Covers.
First use in December 1953.

SN 40,589. Modiglass Fibers, Inc., Bremen, Ohio. Filed Nov. 13, 1957.

MODIGLASS

For Decorative Fabrics and Industrial Fabrics of Glass Fibers Alone and in Combination With Other Fibers.
First use Feb. 7, 1957.

SN 41,816. Hockmeyer Bros. Inc., New York, N. Y. Filed Dec. 5, 1957. Sec. 2(f).

HOCKMEYER

For Textile Fabrics in the Piece Composed of Corduroy.
First use in 1920.

SN 43,417. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Jan. 6, 1958.

MARINER

For Fine Textured Carpets.
First use Sept. 3, 1957.

SN 43,447. D. B. Fuller & Co. Inc., New York, N. Y. Filed Jan. 6, 1958.

MESANGE

For Textile Fabrics in the Piece of Cotton and Rayon.
First use June 3, 1957.

SN 43,448. D. B. Fuller & Co. Inc., New York, N. Y. Filed Jan. 6, 1958.

FAUVETTE

For Textile Fabrics in the Piece of Cotton and Rayon.
First use July 1, 1957.

Class 43 — Thread and Yarn

SN 30,881. The American Thread Company, New York, N. Y. Filed May 28, 1957.

STAR MULTILOCK

For Thread.
First use May 2, 1957.

SN 39,037. Emile Bernat & Sons Company, Jamaica Plain, Mass. Filed Oct. 17, 1957.

PIGTAIL PET PAKS

For Packages Containing Material for Making Toy Animals and Dolls, the Principal Material Being Yarn.
First use Aug. 13, 1957.

SN 43,687. Ludlow Manufacturing & Sales Co., Needham, Mass. Filed Jan. 9, 1958.

Lindan

For Jute Yarn.
First use in October 1955.

Class 46 — Foods and Ingredients of Foods

SN 8,619. Bluhill Foods, Inc., Denver, Colo. Filed May 21, 1956. Sec. 2(f).

KREAMY SPRED

For Peanut Butter.
First use on or about Dec. 13, 1944.

SN 9,332. Henry Becker & Son, Inc., Roseland, N. J. Filed May 31, 1956. Sec. 2(f) as to "Becker" and the map of New Jersey.

Becker
In Harmony With Your Good Health

Applicant disclaims the slogan "In Harmony With Your Good Health" apart from the mark as shown in the drawing. Owner of Reg. Nos. 288,319, 291,871, 297,853, and others.
For Cottage Cheese, Liquid Milk, Liquid Cream, Chocolate Flavored Liquid Milk, Fresh Eggs, and Sweet Cream Butter.
First use Mar. 27, 1952.

SN 22,776. The Taylor Provisions Co., Trenton, N. J. Filed Jan. 17, 1957.

TAYLOR HAM

Applicant makes no claim to exclusive rights in the word "Ham." The drawing is lined to indicate the color red. Owner of Reg. Nos. 61,356, 634,912, and others.
For Packaged Chopped Smoked Ham.
First use June 27, 1956.

SN 39,900. Standard Brands Incorporated, New York, N. Y. Filed Oct. 31, 1957.

ROYAL

Owner of Reg. Nos. 145,488, 600,807, and others.
For Gelatin Dessert and Gelatin Aspic.
First use May 20, 1924.

Class 47 — Wines

SN 40,752. John Harvey & Sons Ltd., Bristol, England. Filed Nov. 15, 1957.

HUNTING

Owner of U. S. Reg. No. 281,798.
For Port.
First use 1911; in commerce 1911.

SN 40,753. John Harvey & Sons Ltd., Bristol, England. Filed Nov. 15, 1957. Sec. 2(f).

BRISTOL MILK

Owner of Reg. Nos. 603,702 and 300,796.
For Sherry.
First use 1796; in commerce 1908.

SN 40,754. John Harvey & Sons Ltd., Bristol, England. Filed Nov. 15, 1957. Sec. 2(f).

BRISTOL DRY

Owner of Reg. Nos. 605,589 and 800,796.
For Sherry.
First use during September 1947; in commerce September 1947.

SN 40,755. John Harvey & Sons Ltd., Bristol, England. Filed Nov. 15, 1957.

SHOOTING

For Sherry.
First use 1918; in commerce 1934.

Class 49—Distilled Alcoholic Liquors

SN 40,051. Gordon's Dry Gin Company Limited, Linden, N. J. Filed Nov. 4, 1957. Sec. 2(f).

GORDON'S

Owner of Reg. Nos. 341,156, 301,216, and 620,990.
For Gin, Vodka, and Alcoholic Cocktails.
First use at least as early as the year 1855 on gin.

Class 50—Merchandise Not Otherwise Classified

SN 17,810. Hills Bros. Coffee, Inc., San Francisco, Calif. Filed Oct. 19, 1956.

TASTE-LOK

For Inner Seals for Containers.
First use Oct. 11, 1956.

SN 17,811. Hills Bros. Coffee, Inc., San Francisco, Calif. Filed Oct. 19, 1956.



For Inner Seal for Containers.
First use Oct. 11, 1956.

SN 27,719. Peterson Rockhill Corporation, Seattle, Wash. Filed Apr. 8, 1957.

MAGIC CARPET

For Plastic Film Material Adapted To Cover the Ground for Improving Crop Growing Conditions.
First use Feb. 15, 1957.

SN 30,472. A. W. Bierlin Co., Ambler, Pa. Filed May 22, 1957.

LUB-KODE

For Lubrication Identification Discs Made of Plastic.
First use Oct. 30, 1956.

SN 33,319. Albina Engine & Machine Works, Portland, Oreg. Filed July 8, 1957.

HI-CLIMBER

Owner of Reg. No. 631,469.
For Suspended Scaffolding.
First use on or about June 14, 1957.

SN 36,557. William J. Anderson, New York, N. Y. Filed Sept. 3, 1957.

FLOWERAMA

For Vegetative Growing Units Comprising Seeds, Chemicals, and Binders or Carriers.
First use Apr. 23, 1957.

SN 41,320. Milt Story, New York, N. Y. Filed Nov. 25, 1957.

TRICKY TITLES

For Humorous or Cartoon-Type Fanciful Characters Made of Plastic and Used as Premium Items With the Sale of Merchandise, and/or Imprinted or Interwoven in Items of Wearing Apparel.
First use Nov. 16, 1956.

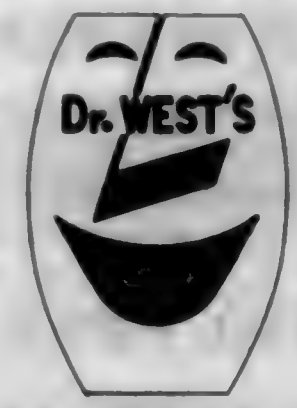
SN 41,400. Milt Story, New York, N. Y. Filed Nov. 26, 1957.

FUNNY FOTOS

For Humorous or Cartoon-Type Fanciful Characters Made of Plastic or Other Material, To Be Used as Premium Items With the Sale of Merchandise.
First use Dec. 26, 1956.

Class 51—Cosmetics and Toilet Preparations

SN 24,015. Weco Products Company, Chicago, Ill. Filed Feb. 7, 1957. Sec. 2(f) as to "Dr. West's."



The drawing is lined for the color red. Applicant disclaims the words "Denture Cleanser." Owner of Reg. Nos. 550,582, 332,971, and others.
For Denture Cleanser.
First use Jan. 7, 1957.

Class 52—Detergents and Soaps

SN 644,053. Whink Products Company, Eldora, Iowa. Filed Apr. 2, 1953.



Owner of Reg. No. 525,281.
For Toilet Cleaning Compound and Rust Stain Remover.
First use since on or about Feb. 16, 1953, on toilet cleaning compound.

SN 35,339. Electronic Solvents, Inc., East Orange, N. J. Filed Aug. 12, 1957.

E. S. I.-KLEEN KLEER

For Cleaning Preparation for Use on Television Tubes, Chrome, Windshields, Windows, Walls, Tiles, Mirrors, Refrigerators, Porcelain, Plastic, and Kitchen Cabinets.
First use July 1, 1956.

SN 38,693. Hercules Chemical Co., Inc., New York, N. Y. Filed Oct. 10, 1957.

HERCULES

For Drain Pipe, Toilet Bowl, Tile and Porcelain, Storage Tank, Floor, Cesspool, Boiler and Heating System Cleaners, Rust and Stain Remover, Soot Destroyer, and Water and Oil Absorber.
First use Nov. 17, 1915, on drainpipe cleaner.

SN 39,366. American-Marietta Company, Chicago, Ill. Filed Oct. 23, 1957.

TWIST

For Liquid Brush Cleaner.
First use on or about Sept. 27, 1957.

SN 40,538. Duraclean Company, Deerfield, Ill. Filed June 24, 1957.

DURAFOAM

For Liquid Cleaning Compounds for Cleaning Rugs, Carpets, Fabrics, Woodwork, and Other Materials.
First use Aug. 11, 1955.

SN 42,660. The Procter & Gamble Company, Cincinnati, Ohio. Filed Dec. 18, 1957.

GERMISTAT

For Ingredient in an All-Purpose Cleaner Which Inhibits Growth of Bacteria.
First use Oct. 18, 1957.

SN 43,049. Harold F. Ritchie, Inc., Clifton, N. J. Filed Dec. 26, 1957.

SILVIKRIN

Owner of Reg. No. 340,183.
For Shampoo.
First use on or about June 13, 1956.

SN 43,729. Armour and Company, Chicago, Ill. Filed Jan. 10, 1958.

CREED

Owner of Reg. Nos. 416,310 and 440,909.
For Bath and Toilet Soap in Bar Form.
First use Dec. 11, 1957.

SN 43,854. Industrial Soap Company, St. Louis, Mo. Filed Jan. 13, 1958.

FANFARE

For Laundry Detergent.
First use Dec. 14, 1957.

SN 43,906. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Jan. 13, 1958.

SPRAY-ALTREX

For Alkaline Cleaning Compound.
First use Aug. 28, 1956.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

664,564. SUNSHINE AND DESIGN. Inter-State Nurseries, Incorporated. SN 24,442. Pub. 5–6–58. Filed 2–14–57.

664,565. CALYPSO CALF. Fleming-Joffe, Ltd. SN 28,240. Pub. 5–6–58. Filed 4–16–57.

664,566. OMICRON. Omicron Products, Inc. SN 29,818. Pub. 5–6–58. Filed 5–10–57.

664,567. THE SEXAUER CO. ETC. AND DESIGN. The Sexauer Co. SN 31,027. Pub. 5–6–58. Filed 5–29–57.

664,568. STEEL-FLO. American Colloid Company. SN 34,902. Pub. 5–6–58. Filed 8–5–57.

664,569. PUFF. Seton Leather Company. SN 35,129. Pub. 5–6–58. Filed 8–7–57.

664,570. 660 AND DESIGN. The Sexauer Co. SN 35,951. Pub. 5–6–58. Filed 8–21–57.

664,571. NPI. Nutrilite Products, Inc. SN 36,310. Pub. 5–6–58. Filed 8–27–57.

664,572. COL-O-FOAM. Columbus Coated Fabrics Corporation. SN 36,358. Pub. 5–6–58. Filed 8–28–57.

664,573. MI-PET. Middle West Distributors, Inc. SN 36,724. Pub. 5–6–58. Filed 9–5–57.

664,574. BUCKITE. Ohio Lime Company. SN 37,170. Pub. 5–6–58. Filed 9–13–57.

664,575. UNION CAMP. Union Bag-Camp Paper Corporation. SN 37,990. Pub. 5–6–58. Filed 9–27–57.

664,576. UNION CAMP AND DESIGN. Union Bag-Camp Paper Corporation. SN 37,991. Pub. 5–6–58. Filed 9–27–57.

Class 2 — Receptades

664,577. TOASTER-REDI. Milprint, Inc. SN 21,178. Pub. 5–6–58. Filed 12–17–56.

664,578. LE GRACIEUX AND DESIGN. Paul Escaut Societe Anonyme. SN 28,040. Pub. 5–6–58. Filed 4–12–57.

664,579. STONE-COR. Stone Container Corporation. SN 33,650. Pub. 5–6–58. Filed 7–12–57.

664,580. STONE-COR AND DESIGN. Stone Container Corporation. SN 34,087. Pub. 5–6–58. Filed 7–19–57.

664,581. PLAS-TEX AND DESIGN. The Plas-Tex Corporation. SN 36,472. Pub. 5–6–58. Filed 8–29–57.

664,582. SIMPLEX. Ames Safety Envelope Company. SN 36,555. Pub. 5–6–58. Filed 9–3–57.

664,583. PEERLESS. Ames Safety Envelope Company. SN 36,556. Pub. 5–6–58. Filed 9–3–57.

664,584. SERV-KING. Gotham Industries, Inc. SN 36,582. Pub. 5–6–58. Filed 9–3–57.

664,585. GAYTIME. Home Decorators, Inc. SN 36,886. Pub. 5–6–58. Filed 9–9–57.

Class 4 — Abrasives and Polishing Materials

664,586. GOLDEN TREATED. American Buff Company. SN 34,495. Pub. 5–6–58. Filed 7–29–57.

Class 6 — Chemicals and Chemical Compositions

664,587. DOCTOR. Juan Llurba. SN 685,727. Pub. 5–6–58. Filed 4–18–55.

664,588. AMBERETCH. Brasnell Company. SN 24,916. Pub. 5–6–58. Filed 2–25–57.

664,589. CALGLOW. Hagan Chemicals & Controls, Inc. SN 29,634. Pub. 5–6–58. Filed 4–8–57.

664,590. PHEMADYN. United States Movidyn Corporation. SN 29,673. Pub. 5–6–58. Filed 5–8–57.

664,591. HAPPY COOKING. Fuelane Corporation. SN 32,674. Pub. 5–6–58. Filed 6–26–57.

664,592. DE-SCENT. Lever Brothers Company. SN 35,106. Pub. 5–6–58. Filed 8–7–57.

664,593. BEAM. Hagan Chemicals & Controls, Inc. SN 35,431. Pub. 5–6–58. Filed 8–13–57.

664,594. AGFACOLOR. Agfa Aktiengesellschaft, by change of name from Agfa Aktiengesellschaft für Photofabrikation. SN 36,142. Pub. 5–6–58. Filed 8–26–57.

664,595. ESTERAZOL. Compagnie Francaise des Matieres Colorantes, Société Anonyme. SN 38,566. Pub. 5–6–58. Filed 10–8–57.

Class 7 — Cordage

664,596. RED LETTER 8 AND DESIGN. Jesse C. Stewart Company. SN 8,721. Pub. 10–30–56. Filed 5–21–56.

664,597. SHELL. Sacos y Tejidos Dominicanos, C. por A. SN 36,475. Pub. 5–6–58. Filed 8–29–57.

664,598. SUNRAY. Academy Ribbon Mills. SN 36,830. Pub. 5–6–58. Filed 9–9–57.

Class 8 — Smokers' Articles, Not Including Tobacco Products

664,599. EVER-FRESH. Lane, Limited. SN 33,357. Pub. 5–6–58. Filed 7–8–57.

664,600. FILTEK. Telex, Inc. SN 35,704. Pub. 5–6–58. Filed 8–16–57.

664,601. OLDE LONDON. Larus & Brother Company. SN 36,290. Pub. 5–6–58. Filed 8–27–57.

Class 10 — Fertilizers

664,602. NITRO-FORM ETC. AND DESIGN. Nitro-Form Agricultural Chemical Company. SN 32,565. Pub. 5–6–58. Filed 6–20–57.

664,603. MEM. International Minerals & Chemical Corporation. SN 33,969. Pub. 5–6–58. Filed 7–18–57.

Class 11 — Inks and Inking Materials

664,604. CILCO. Commercial Ink & Lacquer Co. Inc. SN 22,797. Pub. 5–6–58. Filed 1–18–57.

664,605. ENCORE. Burroughs Corporation. SN 37,940. Pub. 1–7–58. Filed 9–27–57.

Class 12 — Construction Materials

664,606. SONOBATTS. Owens-Corning Fiberglas Corporation. SN 29,092. Pub. 5–6–58. Filed 4–29–57.

664,607. TARBLOK. Basic, Incorporated. SN 29,778. Pub. 5–6–58. Filed 5–10–57.

664,608. GENERAL PLASTICS ETC. AND DESIGN. The General Tire & Rubber Company. SN 34,694. Pub. 5-6-58. Filed 7-31-57.

664,609. WINNEBAGO. The Combination Door Co. SN 36,282. Pub. 5-6-58. Filed 8-27-57.

664,610. TIMBLEND. Roddis Plywood Corporation. SN 38,232. Pub. 5-6-58. Filed 10-2-57.

664,611. AJUST-A-RAIL. Locke Manufacturing Co. SN 38,476. Pub. 5-6-58. Filed 10-7-57.

664,612. GLAS-TOP. West Coast Roofing Company, d. b. a. Glas-Top Products. SN 38,515. Pub. 5-6-58. Filed 10-7-57.

664,613. "HARTCO." Tibbals Flooring Company. SN 38,674. Pub. 5-6-58. Filed 10-14-57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

664,614. CAPTIVE SEAL. Bergen Research Engineering Corp. SN 20,567. Pub. 5-6-58. Filed 12-7-56.

664,615. BY-PASS MASTER. Weather Products Inc. SN 30,865. Pub. 5-6-58. Filed 5-27-57.

664,616. PULSAIR. Kirk-Young Machine Company. SN 32,826. Pub. 5-6-58. Filed 6-28-57.

664,617. BURNDY. Burndy Corporation. SN 34,659. Pub. 5-6-58. Filed 7-31-57.

664,618. GLACERAMIC. Dudley Industrial Corp. SN 34,932. Pub. 5-6-58. Filed 8-5-57.

664,619. MULTIMATIC. Grinnell Corporation. SN 34,944. Pub. 5-6-58. Filed 8-5-57.

664,620. GENT-L-GRIP. Harold Bradley, d. b. a. Better Way Products Co. SN 35,321. Pub. 5-6-58. Filed 8-12-57.

664,621. "TAP-LOK." Groov-Pin Corporation. SN 35,589. Pub. 5-6-58. Filed 8-15-57.

664,622. S & J. Shand and Jurs Co. SN 35,691. Pub. 5-6-58. Filed 8-16-57.

664,623. VENTLOK. Ventfabrics, Inc. SN 35,829. Pub. 5-6-58. Filed 8-19-57.

664,624. YALE. The Yale & Towne Manufacturing Company. SN 35,961. Pub. 5-6-58. Filed 8-21-57.

664,625. ENDWELDUR. American Chain & Cable Company, Inc. SN 35,965. Pub. 5-6-58. Filed 8-22-57.

664,626. AJAX. American Chain & Cable Company, Inc. SN 35,966. Pub. 5-6-58. Filed 8-22-57.

664,627. M & D AND DESIGN. M & D Store Fixtures, Inc. SN 41,288. Pub. 5-6-58. Filed 11-25-57.

Class 15 — Oils and Greases

664,628. DU Z-MOR. Topsail Lubricants, Inc. SN 5,009. Pub. 11-5-57. Filed 3-21-56.

664,629. STARLIGHT. Continental Oil Company. SN 33,132. Pub. 5-6-58. Filed 7-3-57.

664,630. P-H. Industrial Oil Corporation. SN 35,432. Pub. 5-6-58. Filed 8-13-57.

Class 16 — Protective and Decorative Coatings

664,631. "ARNOLTONE." Arnolt Corporation. SN 33,325. Pub. 5-6-58. Filed 7-8-57.

664,632. BRUTEM. Industrial Waterproofing Company. SN 34,952. Pub. 5-6-58. Filed 8-5-57.

664,633. EVERDURE. Breining Brothers, Inc. SN 40,022. Pub. 5-6-58. Filed 11-4-57.

664,634. BOM-KOTE. Robert J. Merki, d. b. a. The B. O. M. Company. SN 41,920. Pub. 5-6-58. Filed 12-6-57.

Class 17 — Tobacco Products

664,635. ORIENTA. Lane, Limited. SN 33,356. Pub. 5-6-58. Filed 7-8-57.

664,636. JULEP. Lane, Limited. SN 34,293. Pub. 5-6-58. Filed 7-24-57.

Class 18 — Medicines and Pharmaceutical Preparations

664,637. SYSTONE. Systone Medicine Company. SN 660,904. Pub. 12-14-54. Filed 2-10-54.

664,638. DESIGN OF SHIELD AND BANDS. Schering Aktiengesellschaft. SN 697,855. Pub. 5-6-58. Filed 11-7-55.

664,639. DOESMORE. Elsie B. Erwin, administratrix of the estate of Willard B. Erwin, d. b. a. Doesmore Co., from Willard B. Erwin (deceased). SN 9,850. Pub. 12-18-56. Filed 6-8-56.

664,640. STAPHYLOMYCIN. American Cyanamid Company. SN 13,696. Pub. 5-6-58. Filed 10-23-57.

664,641. SKERF. Harry J. Ottersen, Jr., d. b. a. The Canker-Ese Co. SN 15,818. Pub. 5-6-58. Filed 9-17-56.

664,642. QUIVET. American Cyanamid Company. SN 15,934. Pub. 5-6-58. Filed 10-23-57.

664,643. NU-YOU. L. I. Laboratories. SN 22,822. Pub. 5-6-58. Filed 1-18-57.

664,644. PROFEM. Schering Corporation. SN 28,461. Pub. 5-6-58. Filed 4-18-57.

664,645. ENOVID. G. D. Searle & Co. SN 30,840. Pub. 12-10-57. Filed 5-27-57.

664,646. UNICAP M. The Upjohn Company. SN 33,925. Pub. 5-6-58. Filed 7-17-57.

664,647. STAMIN-ATOM AND DESIGN. Benjamin Zirin, d. b. a. Zirin Enterprises. SN 35,895. Pub. 5-6-58. Filed 8-20-57.

664,648. ACID-TROL. F & F Laboratories, Inc. SN 37,249. Pub. 5-6-58. Filed 9-16-57.

664,649. IMPERIAL. H. Clay Glover Co., Inc. SN 37,254. Pub. 5-6-58. Filed 9-16-57.

664,650. DICTYCIDE. Imperial Chemical Industries Limited. SN 37,879. Pub. 5-6-58. Filed 9-26-57.

664,651. PARESULFA. The William A. Webster Company. SN 39,694. Pub. 5-6-58. Filed 10-28-57.

664,652. CHLORAMORAL. Irwin, Neisler and Co. SN 39,731. Pub. 5-6-58. Filed 10-29-57.

Class 19 — Vehicles

664,653. BLUE CHIP TOW-PILOT. Pilot Distributing Co. SN 13,777. Pub. 5-6-58. Filed 8-10-56.

664,654. MASTERCRAFT. Mastercraft Trailers, Inc. SN 16,899. Pub. 5-6-58. Filed 10-3-56.

664,655. TUGSTER. Hyster Company (Nevada corporation), from Hyster Company (Oregon corporation). SN 38,752. Pub. 5-6-58. Filed 10-11-57.

Class 21 — Electrical Apparatus, Machines, and Supplies

664,656. DICTOGRAPH. Dictograph Products Company, Inc. SN 7,579. Pub. 10-23-56. Filed 5-3-56.

664,657. DESIGN OF CROWN AND CIRCLES. Chicago Telephone Supply Corporation. SN 36,351. Pub. 5-6-58. Filed 8-28-57.

664,658. BEAUTY WARM. Electric Parts Corporation. SN 36,455. Pub. 5-6-58. Filed 8-29-57.

664,659. UNITRODE. Great Lakes Carbon Corporation. SN 36,513. Pub. 5–6–58. Filed 8–30–57.

664,660. ANATHERM. Anaconda Wire and Cable Company. SN 36,645. Pub. 5–6–58. Filed 9–4–57.

664,661. DOR-TENDA. Weather-Seal, Inc. SN 36,944. Pub. 5–6–58. Filed 9–9–57.

664,662. FIRE-SPY. Ullman Devices Corp. SN 36,986. Pub. 5–6–58. Filed 9–10–57.

664,663. HYLOK. Burndy Corporation. SN 36,993. Pub. 5–6–58. Filed 9–11–57.

664,664. HYFEN. Burndy Corporation. SN 36,994. Pub. 5–6–58. Filed 9–11–57.

664,665. LIMITRON. McGraw-Edison Company. SN 37,092. Pub. 5–6–58. Filed 9–12–57.

664,666. SPIRACODE. Alphaduct Wire & Cable Company. SN 37,121. Pub. 5–6–58. Filed 9–13–57.

664,667. CAPITOL AND DESIGN. Capitol Records, Inc. SN 37,129. Pub. 5–6–58. Filed 9–13–57.

664,668. X–L. Essex Electronics. SN 37,152. Pub. 5–6–58. Filed 9–13–57.

664,669. SORENG AND DESIGN. Controls Company of America. SN 37,230. Pub. 5–6–58. Filed 9–16–57.

664,670. FOX. Fox Products Company. SN 38,681. Pub. 5–6–58. Filed 10–10–57.

Class 22 — Games, Toys, and Sporting Goods

664,671. AMERICAN LADY HAGEN. Wilson Sporting Goods Co. SN 27,760. Pub. 5–6–58. Filed 4–8–57.

664,672. INTERNATIONAL HAGEN AND DESIGN. Wilson Sporting Goods Co. SN 27,761. Pub. 5–6–58. Filed 4–8–57.

664,673. QUEEN ROYAL. United States Rubber Company. SN 27,997. Pub. 5–6–58. Filed 4–11–57.

664,674. COSMOPOLITAN. Cosmopolitan Doll and Toy Corporation. SN 28,927. Pub. 12–10–57. Filed 4–26–57.

664,675. POLAR FLY. Maurice L. Vaughn, d. b. a. Vaughn Bait Co. SN 34,095. Pub. 5–6–58. Filed 7–19–57.

664,676. RIDE-N-GLIDE. Schroeder Co. SN 37,817. Pub. 5–6–58. Filed 9–25–57.

664,677. WETZELL AND DESIGN. Wetzell Gummiwerke Aktiengesellschaft. SN 37,835. Pub. 5–6–58. Filed 9–25–57.

664,678. HI-FLIER. The Hi-Flier Manufacturing Co. SN 37,876. Pub. 5–6–58. Filed 9–26–57.

664,679. PRO-BATS AND DESIGN. Professional Bat Company. SN 37,904. Pub. 5–6–58. Filed 9–26–57.

664,680. BIG BOY. The Hi-Flier Manufacturing Co. SN 38,044. Pub. 5–6–58. Filed 9–30–57.

664,681. TRAWLON. Momoi Company, Inc. SN 38,067. Pub. 5–6–58. Filed 9–30–57.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

664,682. HYDRO-LINE. Wolverine Paper Converting Machinery Corporation. SN 26,907. Pub. 5–6–58. Filed 3–25–57.

664,683. INTERLUDE. Lyon Incorporated. SN 32,191. Pub. 5–6–58. Filed 6–18–57.

664,684. QUEEN'S FANCY. Lyon Incorporated. SN 32,192. Pub. 5–6–58. Filed 6–18–57.

664,685. RIGID-PRESS. The Cincinnati Shaper Co. SN 33,209. Pub. 5–6–58. Filed 7–5–57.

664,686. SHURE-TEMP. A. O. Smith Corporation. SN 34,563. Pub. 5–6–58. Filed 7–29–57.

664,687. KING KARVER AND DESIGN. The Delsam Co. SN 35,335. Pub. 5–6–58. Filed 8–12–57.

664,688. SCREW KING. The American Pulley Company. SN 36,418. Pub. 5–6–58. Filed 8–20–57.

664,689. PAT CUTTER'S AND DESIGN. Cattaraugus Cutlery Company. SN 37,415. Pub. 5–6–58. Filed 9–18–57.

664,690. THE MULTI-SPREAD. Arthur A. Hurt. SN 38,751. Pub. 5–6–58. Filed 10–11–57.

664,691. HIGHWAY H AND DESIGN. Highway Trailer Company. SN 41,812. Pub. 5–6–58. Filed 12–5–57.

664,692. RED RAM. Chrysler Corporation. SN 41,890. Pub. 5–6–58. Filed 12–6–57.

Class 26 — Measuring and Scientific Appliances

664,693. VAREC. Vapor Recovery Systems Company. SN 3,491. Pub. 5–6–58. Filed 2–27–56.

664,694. GEOMETRIC DESIGN. Bernard V. Strianese, d. b. a. Ackerman Engravers. SN 4,859. Pub. 5–6–58. Filed 3–19–56.

664,695. CIG-ALARM. Paul J. Showstack, d. b. a. Cig-Alarm Company. SN 18,026. Pub. 5–6–58. Filed 10–23–56.

664,696. OPTICA MILANO AND DESIGN. Optica S. p. A. SN 22,949. Pub. 5–6–58. Filed 1–22–57.

664,697. STROBOMITE. Graflex, Inc. SN 23,550. Pub. 5–6–58. Filed 1–31–57.

664,698. FILM-A-RECORD. Sperry Rand Corporation. SN 24,804. Pub. 5–6–58. Filed 2–20–57.

664,699. COMPILOT. Anschütz & Company, Gesellschaft mit beschränkter Haftung. SN 27,005. Pub. 5–6–58. Filed 3–27–57.

664,700. FP LAB-CREST AND DESIGN. Fischer & Porter Company. SN 29,531. Pub. 5–6–58. Filed 5–7–57.

664,701. PULTRATOR. Packard Bell Electronics Corporation. SN 30,822. Pub. 5–6–58. Filed 5–27–57.

664,702. DUALET. General Aniline & Film Corporation, d. b. a. Ansco. SN 32,947. Pub. 5–6–58. Filed 7–1–57.

664,703. FRIDEN. Friden, Inc., by change of name from Friden Calculating Machine Co., Inc. SN 38,141. Pub. 5–6–58. Filed 10–1–57.

664,704. T. W. O. C. AND DESIGN. Trans-World Optical Corp. SN 38,170. Pub. 5–6–58. Filed 10–1–57.

664,705. METRONITE. Metropolitan Refining Co., Inc. SN 38,222. Pub. 5–6–58. Filed 10–2–57.

664,706. SALES-TRONIC. The National Cash Register Company. SN 38,226. Pub. 5–6–58. Filed 10–2–57.

664,707. DELINEASCOPE. American Optical Company. SN 38,416. Pub. 5–6–58. Filed 10–7–57.

664,708. FOX. Fox Products Company. SN 38,682. Pub. 5–6–58. Filed 10–10–57.

664,709. TWIN-VUE. Phillips Lens Co., Inc. SN 38,708. Pub. 5–6–58. Filed 10–10–57.

664,710. DIGISYN. Adcon Corporation. SN 38,794. Pub. 5–6–58. Filed 10–14–57.

664,711. PROPO-MATIC. Leslie Co. SN 38,829. Pub. 5–6–58. Filed 10–14–57.

Class 27 — Horological Instruments

664,712. ANDRE BONNARD. Finlay Departments, Inc. SN 30,760. Pub. 5–6–58. Filed 5–27–57.

Class 28 — Jewelry and Precious-Metal Ware

664,713. NOBKE. Bishara M. Lawrence. SN 15,282. Pub. 5–6–58. Filed 9–7–56.

664,714. WYNBRIER. Bullock's, Inc. SN 36,051. Pub. 5–6–58. Filed 8–23–57.

Class 29—Brooms, Brushes, and Dusters

664,715. GOLDEN TOUCH. Whiting-Adams Company, Inc. SN 32,221. Pub. 1-7-58. Filed 6-18-57.

Class 30—Crockery, Earthenware, and Porcelain

664,716. GREEN THUMB. Green Thumb Products. SN 636,126. Pub. 3-22-55. Filed 10-3-52.

664,717. SOOTY. Sooty Concessions Limited. SN 700,264. Pub. 5-6-58. Filed 12-19-55.

Class 32—Furniture and Upholstery

664,718. VISTAMATIC. Carter-Parratt Limited. SN 7,508. Pub. 5-6-58. Filed 5-3-56.

664,719. IT'S THE HIDDEN QUALITY ETC. AND DESIGN. The Basic-Wits Furniture Industries, Incorporated. SN 40 805. Pub. 5-6-58. Filed 11-18-57.

Class 34—Heating, Lighting, and Ventilating Apparatus

664,720. KNICKERBOCKER. Master Vibrator Company, d. b. a. Knickerbocker Products Company. SN 19,029. Pub. 5-6-58. Filed 11-9-56.

664,721. IHE AND DESIGN. Industrial Heat Engineering Company. SN 30,253. Pub. 5-6-58. Filed 5-17-57.

664,722. VAPORMATIC. The Bastian-Blessing Company. SN 32,045. Pub 5-6-58. Filed 6-17-57.

664,723. NATIONAL OF CALIFORNIA. National Welding Equipment Company. SN 32,204. Pub. 5-6-58. Filed 6-18-57.

664,724. EUREKA WILLIAMS AIR-O-MATIC AND DESIGN. Eureka Williams Corporation. SN 34,679. Pub. 5-6-58. Filed 7-31-57.

664,725. NPC GLASS-LINED AND DESIGN. National Propane Corporation. SN 35,279. Pub. 5-6-58. Filed 8-9-57.

Class 36—Musical Instruments and Supplies

664,726. DICTOGRAPH. Dictograph Products Company, Inc. SN 7,580. Pub. 10-23-56. Filed 5-3-56.

664,727. EA AND DESIGN. Beverly Merrill, d. b. a. Expériences Anonymes. SN 29,889. Pub. 5-6-58. Filed 5-13-57.

Class 37—Paper and Stationery

664,728. CHEK-TAB. Chicago Show Printing Company, d. b. a. Mystik Adhesive Products. SN 694,854. Pub. 5-6-58. Filed 9-19-55.

664,729. NU-GREEN. Western Tablet & Stationery Corporation. SN 1,554. Pub. 4-8-58. Filed 1-26-56.

664,730. SEL-TRAVEX. Sel-Index Manufacturing Corp. SN 11,110. Pub. 5-6-58. Filed 6-27-56.

664,731. RIGIDCOR AND DESIGN. Menasha Wooden Ware Corporation. SN 22,559. Pub. 5-6-58. Filed 1-14-57.

664,732. TRANSPORT. International Paper Company. SN 24,778. Pub. 5-6-58. Filed 2-20-57.

664,733. NULOG. Frank P. Davis, d. b. a. Nulog Products. SN 27,190. Pub. 5-6-58. Filed 3-29-57.

664,734. NEOCOLOR. Fabrique Suisse de Crayons Caran d'Ache S. A. SN 32,937. Pub. 5-6-58. Filed 7-1-57.

664,735. KOH-I-BALL. L. & C. Hardtmuth, Inc. SN 34,240. Pub. 5-6-58. Filed 7-23-57.

664,736. DESIGN OF LUMBERJACK. Groveton Papers Company. SN 35,190. Pub. 5-6-58. Filed 8-6-57.

Class 38—Prints and Publications

664,737. HOME FURNISHINGS DAILY. Fairchild Publications, Inc. SN 27,590. Pub. 5-6-58. Filed 4-5-57.

664,738. WORLD NEIGHBORS AND DESIGN. World Neighbors, Inc. SN 27,652. Pub. 5-6-58. Filed 4-5-57.

664,739. MOTOR WEST. Motor West Publishing Co., Inc. SN 33,089. Pub. 5-6-58. Filed 7-2-57.

664,740. TODAY'S DESIGN BY DAB. Today's Design, Inc. SN 35,957. Pub. 5-6-58. Filed 8-21-57.

664,741. THE UNIVERSITY OF MIAMI ETC. AND DESIGN. The University of Miami. SN 36,546. Pub. 5-6-58. Filed 9-30-57.

664,742. REAL-X-AIR-CISES. James L. Careskey. SN 36,690. Pub. 5-6-58. Filed 9-5-57.

664,743. OVERFLOW. The Upjohn Company. SN 39,848. Pub. 5-6-58. Filed 10-30-57.

664,744. BONNIE. The McNaught Syndicate, Inc. SN 40,068. Pub. 5-6-58. Filed 11-4-57.

Class 39—Clothing

664,745. CIRCULAR DESIGN. Thorer & Company. SN 663,331. Pub. 5-6-58. Filed 3-9-54.

664,746. FREDERICK'S. Frederick's of Hollywood, Inc. SN 696,973. Pub. 9-11-56. Filed 10-24-55.

664,747. LINK CUFF. Cluett, Peabody & Co., Inc. SN 7,762. Pub. 5-6-58. Filed 5-7-56.

664,748. TRAPEZE. Youthcraft Creations, Inc. SN 13,711. Pub. 4-16-57. Filed 8-9-56.

664,749. SLACKORAMA. College-Town Sportswear. SN 14,128. Pub. 4-30-57. Filed 8-17-56.

664,750. FRONTLINE. Gann Hosiery Mills Company. SN 20,181. Pub. 5-6-58. Filed 11-30-56.

664,751. IRONWEAR INSURED AND DESIGN. Manchester Hosiery Mills. SN 20,762. Pub. 5-6-58. Filed 12-10-56.

664,752. FULWILINE AND DESIGN. Maria Wighardt, nee Weber, d. b. a. Hermann Wighardt Textilwerk, Fulda. SN 26,662. Pub. 5-6-58. Filed 3-21-57.

664,753. BONNIE. Dundee Mills, Inc. SN 26,795. Pub. 11-26-57. Filed 3-25-57.

664,754. WUNDA SILK. Le Roy Knitted Sportswear, Inc. SN 26,949. Pub. 5-6-58. Filed 3-26-57.

664,755. WEAR-A-BLANKET. Wear-A-Blanket, Inc. SN 27,475. Pub. 5-6-58. Filed 4-3-57.

664,756. "BRA-O-MINE." Teenform Foundations, Inc. SN 27,752. Pub. 5-6-58. Filed 4-8-57.

664,757. TRENCHER. Trencher of Old New York, Inc. SN 28,895. Pub. 5-6-58. Filed 4-25-57.

664,758. WOVEN-GARD. Industrial Gloves Company. SN 29,535. Pub. 5-6-58. Filed 5-7-57.

664,759. PERF-O-STAT. International Shoe Company. SN 29,725. Pub. 5-6-58. Filed 5-9-57.

664,760. BURMA-BIBAS. Burma-Bibas, Inc. SN 31,381. Pub. 5-6-58. Filed 6-5-57.

664,761. NYLACE "TOP-N-TOE." Berkshire Knitting Mills. SN 33,043. Pub. 5-6-58. Filed 7-2-57.

664,762. SARITA. Shapiro Bros. Shoe Co. Inc. SN 23,840. Pub. 5-6-58. Filed 7-16-57.

664,763. ARTISTRY IN FURS AND DESIGN. Feldsott Bros. & Hecht, Inc. SN 34,047. Pub. 5-6-58. Filed 7-19-57.

664,764. COUNTRY CUPBOARD. The Country Cupboard, Inc. SN 34,486. Pub. 5-6-58. Filed 7-17-57.

664,765. INVERGARRY. Saks & Company. SN 35,006. Pub. 5–6–58. Filed 8–5–57.

664,766. COOL TIMERS AND DESIGN. H. Childs & Co., Inc. SN 35,035. Pub. 5–6–58. Filed 8–6–57.

664,767. HUG-A-BRA. Helen of Troy, Inc. SN 35,047. Pub. 5–6–58. Filed 8–6–57.

664,768. PEDICROSS. Supowitz Brothers. SN 35,397. Pub. 5–6–58. Filed 8–12–57.

664,769. ALDUS. A. I. Duckwall Stores Company. SN 35,637. Pub. 5–6–58. Filed 8–16–57.

664,770. PARKWAY. Clarence M. Salzer. SN 35,685. Pub. 5–6–58. Filed 8–16–57.

664,771. THE STREAMLINER AND DESIGN. Feldan Brothers, Inc. SN 35,763. Pub. 5–6–58. Filed 8–19–57.

664,772. AMSL. Scott & Williams, Incorporated. SN 35,952. Pub. 5–6–58. Filed 8–21–57.

664,773. TREASURE ISLAND. Supowitz Brothers. SN 36,116. Pub. 5–6–58. Filed 8–23–57.

664,774. FEATHER-FLEX AND DESIGN. Knipe Bros., Incorporated. SN 36,197. Pub. 5–6–58. Filed 8–26–57.

664,775. DELGADO. Phelps Shoe Company, Ltd. SN 36,223. Pub. 5–6–58. Filed 8–26–57.

664,776. ACTIONAIRE. Pioneer Industries, Inc. SN 36,224. Pub. 5–6–58. Filed 8–26–57.

664,777. ANCESTOR. Plymouth Hosiery Mills, Inc. SN 36,225. Pub. 5–6–58. Filed 8–26–57.

664,778. WALK-O-PEDIC AND DESIGN. Nu-Way Shoe Company, Inc. SN 36,465. Pub. 5–6–58. Filed 8–29–57.

664,779. STEWART DOUGLAS. A. I. Meyer Corporation. SN 36,907. Pub. 5–6–58. Filed 9–9–57.

664,780. ENGAGE. Biflex Foundations, Inc. SN 36,950. Pub. 5–6–58. Filed 9–10–57.

664,781. PENDENNIS. Merit Clothing Company. SN 37,583. Pub. 5–6–58. Filed 9–20–57.

664,782. DAISYTOGS AND DESIGN. Dazian's, Inc. SN 37,637. Pub. 5–6–58. Filed 9–23–57.

664,783. DAISYETTES. Dazian's, Inc. SN 37,638. Pub. 5–6–58. Filed 9–23–57.

664,784. DAISYKINS. Dazian's, Inc. SN 37,639. Pub. 5–6–58. Filed 9–23–57.

664,785. DAISYTARDS. Dazian's, Inc. SN 37,640. Pub. 5–6–58. Filed 9–23–57.

664,786. DAISYTIGHTS. Dazian's, Inc. SN 37,641. Pub. 5–6–58. Filed 9–23–57.

664,787. DAISYSKINS. Dazian's, Inc. SN 37,642. Pub. 5–6–58. Filed 9–23–57.

664,788. GOLDEN TREASURE. Peter Pan Foundations, Inc. SN 37,673. Pub. 5–6–58. Filed 9–23–57.

664,789. HIDDEN ASSET. Peter Pan Foundations, Inc. SN 37,674. Pub. 5–6–58. Filed 9–23–57.

664,790. WEMBLEY, JR. Wembley, Inc. SN 37,701. Pub. 5–6–58. Filed 9–23–57.

664,791. WEYBRIDGE. Julius Garfinckel & Co., Incorporated. SN 37,727. Pub. 5–6–58. Filed 9–24–57.

664,792. PAVILION. Hat Corporation of America. SN 37,733. Pub. 5–6–58. Filed 9–24–57.

664,793. GINGHAM GIRL AND DESIGN. Levin & Co. Inc. SN 38,057. Pub. 5–6–58. Filed 9–30–57.

664,794. SUD'N'WEAR. White Stag Mfg. Co. SN 38,100. Pub. 5–6–58. Filed 9–30–57.

Class 40 — Fancy Goods, Furnishings, and Notions

664,795. SAFETY GUARD ETC. AND DESIGN. Ambassador Leather Products, Inc. SN 22,230. Pub. 2–25–58. Filed 12–12–56.

664,796. FULLINE. The James Company of Hickory, N. C., Inc. SN 33,157. Pub. 5–6–58. Filed 7–3–57.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

664,797. SONNET. D. B. Fuller & Co., Inc. SN 26,542. Pub. 5–6–58. Filed 3–20–57.

664,798. PINTO. The General Tire & Rubber Company. SN 27,298. Pub. 5–6–58. Filed 4–1–57.

664,799. DURATEX. The General Tire & Rubber Company. SN 27,299. Pub. 5–6–58. Filed 4–1–57.

664,800. EINIGER BALSA. Einiger Mills, Inc. SN 31,390. Pub. 3–18–58. Filed 6–5–57.

664,801. FABULASTIC. Ansonia Mills Incorporated. SN 31,890. Pub. 5–6–58. Filed 6–13–57.

664,802. DOMINO. Charles Bloom, Inc. SN 32,458. Pub. 5–6–58. Filed 6–24–57.

664,803. LOOM 88. S. Augstein & Co. Inc. SN 33,039. Pub. 5–6–58. Filed 7–2–57.

664,804. NEVASAG. Clarence A. Ross. SN 33,173. Pub. 5–6–58. Filed 7–3–57.

664,805. WP AND DESIGN. West Point Manufacturing Company. SN 34,025. Pub. 5–6–58. Filed 7–18–57.

664,806. TIMMINKA. E. F. Timme & Son, Inc. SN 35,398. Pub. 5–6–58. Filed 8–12–57.

664,807. MOS-TEX. Ferdinand W. Mosterts & Sons, Inc. SN 37,331. Pub. 5–6–58. Filed 9–16–57.

664,808. BAGPIPER. Quality Looms, Inc. SN 37,371. Pub. 5–6–58. Filed 9–17–57.

664,809. LISBON. E. T. Barwick Mills, Inc. SN 37,408. Pub. 5–6–58. Filed 9–18–57.

664,810. APOLLO. E. T. Barwick Mills, Inc. SN 37,409. Pub. 5–6–58. Filed 9–18–57.

664,811. DATELINE. E. T. Barwick Mills, Inc. SN 37,410. Pub. 5–6–58. Filed 9–18–57.

664,812. VALLEJO. E. T. Barwick Mills, Inc. SN 37,412. Pub. 5–6–58. Filed 9–18–57.

664,813. DURA-LOFT. Lockport Felt Company, Inc. SN 37,508. Pub. 5–6–58. Filed 9–19–57.

664,814. BALLERINA. Rhea Manufacturing Company. SN 37,740. Pub. 5–6–58. Filed 9–24–57.

664,815. COM-PLEAT. Wyner Fabrics, Ltd. SN 37,839. Pub. 5–6–58. Filed 9–25–57.

664,816. DAN ROYAL. Dan River Mills, Incorporated. SN 38,024. Pub. 5–6–58. Filed 9–30–57.

Class 43 — Thread and Yarn

664,817. FAMILY FAIR. Loblaw, Inc. SN 36,597. Pub. 5–6–58. Filed 9–3–57.

Class 44 — Dental, Medical, and Surgical Appliances

664,818. FLEXIKON. Medical Fabrics Co., Inc. SN 697,383. Pub. 11–20–56. Filed 10–31–55.

Class 46 — Foods and Ingredients of Foods

664,819. MINNESOTA. Minnesota Paints, Inc. SN 641,568. Pub. 5–6–58. Filed 1–30–53.

664,820. JUBILEE. Anderson, Clayton & Co. SN 18,401. Pub. 5–6–58. Filed 10–30–56.

664,821. SWISS HOLIDAY. Stauffer & Sons, Incorporated. SN 18,801. Pub. 4–15–58. Filed 11–5–56.

664,822. FLAV-A-REDI. Elnor Provision Co., Inc. SN 25,243. Pub. 5–6–58. Filed 2–28–57.

664,823. HINDERAKE. Louis Milani Foods, Inc. SN 27,452. Pub. 5–6–58. Filed 4–3–57.

664,824. BRAKE. Louis Milani Foods, Inc. SN 30,101. Pub. 5–6–58. Filed 5–15–57.

664,825. SEA BOY AND DESIGN. Franco-Italian Packing Company. SN 34,849. Pub. 5–6–58. Filed 8–2–57.

664,826. MONTREAT. Fine Products Corporation. SN 36,651. Pub. 5–6–58. Filed 9–4–57.

664,827. PROZATE. Hercules Powder Company. SN 37,162. Pub. 5–6–58. Filed 9–13–57.

664,828. EMPEROR AND DESIGN. Budget Saver Markets. SN 37,556. Pub. 5–6–58. Filed 9–20–57.

664,829. KC. Ronald Funk, d. b. a. Funk Produce Company. SN 38,449. Pub. 5–6–58. Filed 10–7–57.

664,830. VEGETONE. Farmers Chemical Company. SN 38,743. Pub. 5–6–58. Filed 10–11–57.

664,831. JERSEY SOUPER. Venice Maid Co., Inc. SN 38,779. Pub. 5–6–58. Filed 10–11–57.

664,832. SPUTNIK. Leaf Brands, Inc. SN 39,146. Pub. 5–6–58. Filed 10–18–57.

664,833. PERMA-STABIL. Sunkist Growers, Inc. SN 39,427. Pub. 5–6–58. Filed 10–23–57.

664,834. SALAD MATE. Jennings Food Products Company. SN 39,810. Pub. 5–6–58. Filed 10–30–57.

664,835. TALKER "SPEAKS FOR ITSELF" AND DESIGN. Markesan Canning Company. SN 39,972. Pub. 5–6–58. Filed 11–1–57.

664,836. DESERT-AIRE. Raymond A. Costa, d. b. a. Ray Costa Distributing Co. SN 40,435. Pub. 5–6–58. Filed 11–12–57.

Class 47 — Wines

664,837. CHILEAN RIESLING ETC. AND DESIGN. Viña San José-Tocornal. SN 695,195. Pub. 5–6–58. Filed 9–22–55.

Class 49 — Distilled Alcoholic Liquors

664,838. HUDSON'S BAY AND COAT OF ARMS DESIGN. The Governor and Company of Adventurers of England Trading Into Hudson's Bay, d. b. a. Hudson's Bay Company. SN 5,037. Pub. 5–6–58. Filed 12–11–56.

Class 50 — Merchandise Not Otherwise Classified

664,839. HUMMELKINDER. W. Goebel Porzellanfabrik. SN 21,064. Pub. 5–6–58. Filed 12–14–56.

664,840. NIGHT HAWK. D. and H. Corporation. SN 27,423. Pub. 5–6–58. Filed 4–3–57.

664,841. DENWOOD. Denver Wood Products Company. SN 35,500. Pub. 5–6–58. Filed 8–14–57.

664,842. PLASTAN. George O. Jenkins Company. SN 37,963. Pub. 5–6–58. Filed 9–27–57.

Class 51 — Cosmetics and Toilet Preparations

664,843. CLAIR-ECLAT. International Affiliated Corp. SN 661,804. Pub. 7–6–54. Filed 3–2–54.

664,844. MASKODOR. Dodge & Olcott, Inc. SN 4,005. Pub. 5–6–58. Filed 3–7–56.

664,845. LEADING LADY AND DESIGN. The Fuller Brush Company. SN 17,271. Pub. 6–4–57. Filed 10–11–56.

664,846. WHITE HORSE AND DESIGN. Gala of London Limited. SN 24,155. Pub. 1–21–58. Filed 2–11–57.

Class 52 — Detergents and Soaps

664,847. BYET. Incentive Sales Inc. SN 24,096. Pub. 5–6–58. Filed 2–19–57.

664,848. SWOOSH. Snyder Chemical Company. SN 33,649. Pub. 5–6–58. Filed 7–12–57.

664,849. GLOWING STAR. S. E. Rykoff & Company. SN 36,234. Pub. 4–8–58. Filed 8–26–57.

Service Marks

Class 100 — Miscellaneous

664,850. NRDGA RETAIL RESEARCH INSTITUTE AND DESIGN. National Retail Merchants Association Inc., by change of name from National Retail Dry Goods Association. SN 24,448. Pub. 5–6–58. Filed 2–14–57.

664,851. FAT BOY DESIGN. Jerrico, Incorporated. SN 28,788. Pub. 5–6–58. Filed 4–24–57.

Class 102 — Insurance and Financial

664,852. ACTIONEERING. Actioneering. SN 25,109. Pub. 5–6–58. Filed 2–26–57.

664,853. COLLEGE CLUB AND DESIGN. College Club Program, Inc. SN 27,420. Pub. 5–6–58. Filed 4–3–57.

Class 104 — Communication

664,854. FAIRCAST. Faircast System. SN 18,000. Pub. 5–6–58. Filed 10–23–56.

Class 105 — Transportation and Storage

664,855. ICX. Illinois-California Express, Inc. SN 39,625. Pub. 5–6–58. Filed 10–28–57.

664,856. ICX AND DESIGN. Illinois-California Express, Inc. SN 39,626. Pub. 5–6–58. Filed 10–28–57.

664,857. ICX ETC. AND DESIGN OF SIGN AND MAN. Illinois-California Express, Inc. SN 39,730. Pub. 5–6–58. Filed 10–29–57.

Class 107 — Education and Entertainment

664,858. DETECT-A-TOWN. King Broadcasting Company. SN 24,597. Pub. 5–6–58. Filed 2–18–57.

Collective Membership Marks

Class 200

664,859. CTDC & HU OF C & V INC AND DESIGN. Chicago Truck Drivers, Chauffeurs, and Helpers Union of Chicago and Vicinity, Local 705 (Independent). SN 32,433. Pub. 5–6–58. Filed 5–20–57.

664,860. RING GUILD OF AMERICA RGA AND DESIGN. Ring Guild of America, Inc. SN 40,531. Pub. 5–6–58. Filed 10–24–57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 1 — Raw or Partly Prepared Materials

664,861. Patjo Leather Corp., New York, N. Y. SN 30,262. Filed P. R. 5–17–57. Am. S. R. 5–5–58.

PAT-EENA

For Processed Leather Hides.
First use Apr. 26, 1957.

Class 12 — Construction Materials

664,862. Mayfield Manufacturing Co., Birmingham, Ala. SN 4,132. Filed P. R. 3–8–56. Am. S. R. 4–17–58.

MULTI-PITCH

For Roof Flashings Made of Lead.
First use Jan. 31, 1956.

Class 17 — Tobacco Products

664,863. Liggett & Myers Tobacco Company, New York, N. Y. SN 30,255. Filed P. R. 5–17–57. Am. S. R. 5–6–58.



The drawing is lined to represent blue, red, and gold, respectively.
For Cigarettes.
First use May 1, 1957.

TM 138

Class 18 — Medicines and Pharmaceutical Preparations

664,864. Hand-Care, Incorporated, Chicago, Ill. SN 29,800. Filed P. R. 5–10–57. Am. S. R. 5–9–58.

Brush-on Stop Bite

For Combination Package Containing a Pharmaceutical Preparation Consisting of a Plastic Powder and Liquid Activating Agent Which, When Applied to the Fingernails, Forms a Hard Surface To Discourage Fingernail Biting.
First use Mar. 5, 1957; May 25, 1955, as to the words "Brush-On."

Class 19 — Vehicles

664,865. International Manufacturing Co., Roxbury, Mass. SN 2[illegible],111. Filed P. R. 1–4–57. Am. S. R. 5–23–58.

ZIP-APART

For Car-Beds and Seats.
First use Sept. 10, 1954.

664,866. Clement-Braswell, Inc., Shreveport, La. SN 45,017. Filed 1–31–58.

CLEMENT

For Dump Trailers.
First use on or about Aug. 15, 1949.

Class 22 — Games, Toys, and Sporting Goods

664,867. Cosmopolitan Doll and Toy Corp., Jackson Heights, N. Y. SN 27,777. Filed P. R. 4–9–57. Am. S. R. 5–27–58.

Ginger Doll Dress-of-the-Month Club

For Doll Dresses.
First use Mar. 10, 1956.

Class 24 — Laundry Appliances and Machines

664,868. Miele & Cie., Gutersloh, Germany. SN 6,543. Filed P. R. 4–17–56. Am. S. R. 2–20–57.

Miele

Owner of German Reg. Nos. 267,154, dated June 14, 1921, and 374,582, dated Sept. 20, 1927.
For Household and Kitchen Devices, Such as Washing Machines, Automatic Washing Machines, Ironing Machines, Laundry Centrifuges, Laundry Wringers, Laundry Presses, Garment Pressing Machines, Laundry Scales, Heated Laundry Mangles, and Laundry Dryers, and Parts Thereof.

Class 34 — Heating, Lighting, and Ventilating Apparatus

664,869. The Vulcan Radiator Company, Hartford, Conn. SN 24,536. Filed P. R. 2-15-57. Am. S. R. 5-6-58.

SILL TRIM

For Heating Radiators Including Finned-Tube Radiator Elements and Enclosures Therefor.
First use in November 1955.

Class 39 — Clothing

664,870. Pendleton Woolen Mills, Portland, Oreg. SN 7,837. Filed P. R. 5-7-56. Am. S. R. 5-2-58.



The drawing is lined for blue and gold.
For Men's Wear—Namely, Dress Shirts, Sport Shirts, Jackets, Sport Coats, Trousers, Lounging Robes, Mufflers, Socks, and Caps; and Women's Wear—Namely, Coats, Jackets, Skirts, Walking Shorts, Pedal Pushers, Slacks, Lounging Robes, Sweaters, Weskits, and Collars.
First use Dec. 31, 1910.

664,871. Louis Goldsmith, Inc., Philadelphia, Pa. SN 22,533. Filed P. R. 1-14-57. Am. S. R. 12-4-57.

THE YOUNG-IN-BUILD

For Coats, Vests, and Trousers.
First use Nov. 30, 1956.

664,872. Imperial Shirt Corp., New York, N. Y. SN 26,944. Filed P. R. 3-26-57. Am. S. R. 4-22-58.

FIRM STAY

For Men's and Boys' Sport and Dress Shirts.
First use Mar. 8, 1957.

664,873. Duofold Inc., Mohawk, N. Y. SN 30,239. Filed P. R. 5-17-57. Am. S. R. 5-16-58.

POWDER-SNOW BLUE

For Sports Underwear—Namely, Shirts, Drawers, Tights, and Union Suits for Men, Women, Girls, and Boys.
First use May 13, 1957.

664,874. Peter Pan Foundations, Inc., New York, N. Y. SN 32,961. Filed P. R. 7-1-57. Am. S. R. 5-22-58.



For Brassieres.
First use Apr. 15, 1957.

664,875. Templeton Glove Company, Inc., Fonda, N. Y. SN 33,301. Filed P. R. 7-5-57. Am. S. R. 5-29-58.

SNO-MIT

For Gloves and Mittens.
First use Dec. 3, 1956.

Class 46 — Foods and Ingredients of Foods

664,876. Henry J. Schnakenberg, d. b. a. Henry's, Westfield, N. J. SN 688,361. Filed P. R. 5-26-55. Am. S. R. 4-19-57.

HENRY'S ORIGINAL LEMON-CHIP

For Ice Cream.
First use Apr. 16, 1955.

664,877. James Weiss, d. b. a. Master Products Company, Chicago, Ill. SN 15,848. Filed P. R. 9-17-56. Am. S. R. 5-15-58.

MRS. LELAND'S

For Candy.
First use Jan. 10, 1956.

664,878. Hammond Mills, Inc., Oklahoma City, Okla. SN 18,245. Filed P. R. 10-26-56. Am. S. R. 3-13-58.



The colors indicated by the linings are red, green, and yellow.
For Cattle and Dairy Feed, Poultry, Swine, Horse, Mule, Rabbit, and Goat Feed.
First use Feb. 1, 1956.

664,879. Bowman Apple Products Co., Inc., Mount Jackson, Va. SN 22,415. Filed P. R. 1-11-57. Am. S. R. 4-11-58.

PrunApple

For Blend of Prune and Apple Juices.
First use Jan. 4, 1957.

664,880. Savini Food Specialties, Inc., East Boston, Mass. SN 31,233. Filed P. R. 6-4-57. Am. S. R. 5-12-58.

AVELLINO

For Italian Style Canned Soups and Sauces—Namely, Spaghetti Sauce (Meatless), Spaghetti Sauce With Mushrooms, and Pizza Sauce.
First use Feb. 15, 1957, on sauces.

TRADEMARK REGISTRATIONS RENEWED

120,751. ESTO SOL TESTIS AND REPRESENTATION OF LION AND DESIGN. Cl. 42. 3-5-18.
121,544. REPRESENTATION OF ROUND DOT. Cl. 40. 5-7-18.
121,560. VIM. Cl. 44. 5-7-18.
122,069. PURITAN AND DESIGN. Cl. 46. 6-25-18.
122,801. CELLULAK. Cl. 21. 9-17-18.
122,924. RHODIONE. Cl. 51. 9-24-18.
122,961. MEN'S WEAR. Cl. 38. 10-1-18.
123,014. CLIPPER. Cl. 37. 10-8-18.
123,032. A ROYAL GAME OF INDIA. Cl. 22. 10-8-18.
123,033. PARCHEESI. Cl. 22. 10-8-18.
123,314. LIBERTY. Cl. 10. 10-29-18.
123,390. SHAW AND DESIGN. Cl. 47. 10-29-18.
347,910. BRADWAY CHOCOA AND DESIGN. Cl. 46. 7-13-37.
354,930. PLASTERITE. Cl. 16. 3-1-38.
354,983. HYDRO-PRUF. Cl. 16. 3-1-38.
355,920. VOSEMAR. Cl. 51. 4-5-38.
356,611. CROSSWORD ANAGRAMS. Cl. 22. 5-3-38.
356,739. LEISURE WEAR. Cl. 39. 5-10-38.
356,789. GOUDY BOND AND DESIGN. Cl. 37. 5-10-38.
356,793. DIESEL AND DESIGN. Cl. 23. 5-10-38.
356,819. THOMAS' WHOLESALE GROCERY AND KINDRED TRADES REGISTER. Cl. 38. 5-10-38.
356,916. JUNIOR CLIQUE. Cl. 39. 5-17-38.
356,944. TREY AND DESIGN. Cl. 46. 5-17-38.
357,284. H L C KITCHEN KRAFT ETC. AND DESIGN. Cl. 30. 5-31-38.
357,477. FASHIONFIT BY JAY KNIT. Cl. 39. 6-7-38.
357,601. THE DEXTROSE DIGEST. Cl. 38. 6-7-38.
357,676. AUSCOLIFT. Cl. 23. 6-14-38.
357,891. GALVADULL. Cl. 14. 6-21-38.
357,954. BROWN'S SELECT FRESH FROZEN AND DESIGN. Cl. 46. 6-21-38.
358,123. FORMANIL. Cl. 6. 6-28-38.
358,372. PARAGRAM. Cl. 37. 7-12-38.
358,436. N B C. Cl. 46. 7-12-38.
358,454. STUCCOLITE. Cl. 16. 7-12-38.
358,656. CO-NIB. Cl. 18. 7-19-38.
359,062. RIB MOUNTAIN LAGER. Cl. 48. 8-2-38.
359,180. BAKELITEMS. Cl. 38. 8-9-38.
359,360. CLEARATE AND DESIGN. Cl. 46. 8-16-38.
359,414. REAL GOLD. Cl. 45. 8-16-38.
359,540. CELEBRATION. Cl. 47. 8-23-38.
359,826. REAL GOLD. Cl. 46. 8-30-38.
359,929. TOASTMASTER. Cl. 21. 9-6-38.
359,999. WELD-EDGE. Cl. 40. 9-6-38.
360,379. YORKAIRE. Cl. 34. 9-13-38.
360,380. GRAN AGUANTE AND REPRESENTATION OF MAN. Cl. 46. 9-13-38.
360,511. ORANGEBURG. Cl. 21. 9-20-38.
360,533. NO-CRETE. Cl. 21. 9-20-38.
360,605. VENUS CALF. Cl. 1. 9-20-38.
360,614. OUTLINE DESIGN OF A MINARET. Cl. 18. 9-20-38.
360,774. ORANGEBURG. Cl. 12. 9-27-38.
360,786. PARAGON. Cl. 39. 9-27-38.
360,890. PERFECT POSTURE. Cl. 32. 9-27-38.
360,983. PRESCOTT. Cl. 23. 10-4-38.
361,015. ROSE-X. Cl. 52. 10-4-38.
361,136. PAUL BUNYAN. Cl. 46. 10-11-38.
361,240. UNIVERSITY AND DESIGN. Cl. 42. 10-11-38.
361,270. HI-HI. Cl. 17. 10-11-38.
361,388. MAICO. Cl. 44. 10-18-38.
361,405. ARNOLD AND DESIGN. Cl. 23. 10-18-38.
361,489. JEWEL. Cl. 12. 10-18-38.
361,633. RED STREAK AND DESIGN. Cl. 4. 10-25-38.
361,657. IMPERVEX. Cl. 21. 10-25-38.
361,666. DINING CAR. Cl. 46. 10-25-38.
361,835. MOLLE. Cl. 23. 11-1-38.
361,875. RAY-BAN. Cl. 26. 11-1-38.

TRADEMARK REGISTRATIONS CANCELED

Section 8

85,289. REPRESENTATION OF RUBBER HEEL. Cl. 39. 2-6-12.
85,828. FIRO. Cl. 35. 3-19-12.
291,241. ROYALITE. Cl. 12. 2-2-32.
292,957. ROYAL. Cl. 23. 3-29-32.
293,540. WHYMSY'S. Cl. 39. 4-26-32.
534,437. FRANKIE BRA. Cl. 39. 12-5-50.
537,683. SKAMPERETTE PAN-T-TUNE AND DESIGN. Cl. 39. 3-13-51.
556,037. HOLLYWOOD. Cl. 37. 3-11-52.

The following registrations issued June 3, 1952

559,495. PLASCO. Cl. 12.
559,500. PARAGON. Cl. 13.
559,502. HARRELL'S CHAMPION. Cl. 23.
559,505. ALL SPORTS. Cl. 38.
559,506. AIRE WARE. Cl. 13.
559,512. NAGS FOTO LINE PATTERNS AND DESIGN. Cl. 26.
559,513. THE HOUSE OF YEARS AND DESIGN. Cl. 2.
559,516. HOBBY TOOLS AND DESIGN. Cl. 23.
559,518. SYMMETRAY. Cl. 2.
559,519. HANG-IT-ALL. Cl. 13.
559,520. BARROWELD AND DESIGN. Cl. 2.
559,521. POLYSEAL. Cl. 2.
559,522. SANI-AIRE. Cl. 6.
559,523. KORID. Cl. 6.
559,524. FLATURI. Cl. 23.
559,539. DYOMEB. Cl. 39.
559,545. ROSE IN THE VINE. Cl. 28.
559,546. RADIO AND TELEVISION MIRROR. Cl. 38.
559,549. REPEL-A-RAT. Cl. 6.
559,550. M-D. Cl. 52.
559,551. S C. Cl. 52.
559,552. BONOMOLD-O. Cl. 51.
559,554. FRATEX. Cl. 2.
559,555. FRATEX FASHIONS AND DESIGN. Cl. 2.
559,556. SCALE-A-JUST. Cl. 26.
559,563. BARRETT AND DESIGN. Cl. 1.
559,571. DESIGN OF CHEF'S HEAD. Cl. 23.
559,579. DANBURY AND DESIGN. Cl. 52.
559,581. WEISEL'S ETC. AND DESIGN. Cl. 46.
559,583. JETRON SILICONE AND DESIGN. Cl. 52.
559,584. DANBURY AND DESIGN. Cl. 4.
559,599. G. I. AND DESIGN. Cl. 51.
559,604. KORN BARBER. Cl. 44.
559,605. MATTHEWS. Cl. 26.
559,606. W. N. MATTHEWS CORP. AND DESIGN. Cl. 26.
559,608. DISPLA-MOBILE. Cl. 38.

559,621. GOLDEN LIGHT AND DESIGN. Cl. 46.
559,627. THAT'LL BE THE DAY!. Cl. 38.
559,630. WELLOCT AND DESIGN. Cl. 23.
559,634. WHERE IN NEW YORK. Cl. 38.
559,636. P-62. Cl. 18.
559,639. VANGUARD. Cl. 26.
559,645. WOR PRODUCT POLL. Cl. 38.
559,648. IPCO. Cl. 23.
559,651. FAR FAMED. Cl. 39.
559,655. WAYCUP COFFEE. Cl. 46.
559,656. C AND TRIANGLE DESIGN. Cl. 46.
559,659. TRIMESTRAL DE LA CHRISTIAN SCIENCE. Cl. 38.
559,662. BRAIN BLOCK. Cl. 26.
559,663. "SHOW-TOP." Cl. 39.
559,672. VERVE. Cl. 6.
559,674. CYANA. Cl. 1.
559,676. THE FOREVER PORTRAIT. Cl. 38.
559,685. ACCENT ON CHRISTMAS. Cl. 38.
559,690. BETWEEN THE LINES. Cl. 38.
559,701. UNCLE BEN. Cl. 107.
559,711. PRESTO AND DESIGN. Cl. 13.
559,712. KEE-LIEVE. Cl. 51.
559,723. HEADY TURNY. Cl. 22.
559,724. MULTI PUZZLE. Cl. 22.
559,725. MARRIAGE MAGAZINE. Cl. 38.
559,728. LOCKERBASKET. Cl. 3.
559,730. LUSTRE CHROME AND DESIGN. Cl. 16.
559,732. LIKE-U'D-PICK. Cl. 46.
559,733. STRAIT SHOOTER. Cl. 22.

Section 18

126,785. VIKING. Cl. 16. 9-30-19.
270,178. VULCANIA. Cl. 46. 4-29-30.
378,641. RUSTENDA. Cl. 6. 6-11-40.
422,540. HY-KO. Cl. 6. 7-30-46.
530,051. STILL-FUL. Cl. 21. 8-29-50.
591,796. KOLORKOTE. Cl. 16. 6-22-54.
650,114. PETAL-LIFT. Cl. 39. 8-13-57.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

294,029. BLACK DRAUGHT ETC. AND DESIGN. Cl. 18. 5-17-32. The Chattanooga Medicine Company, Chattanooga, Tenn. Amended: In the statement, column 1, lines 25 through column 2, line 2 are deleted, and the drawing is amended to appear:



361,427. BOYCO AND DESIGN. Cl. 23. 10-18-38. Boyle Manufacturing Company, Inc. United States Steel Corporation, Pittsburgh, Pa. Amended: In the statement, column 2, lines 3 through 5 are deleted, and the drawing is amended to appear:

BOYCO

510,662. MON-KEY AND DESIGN. Cl. 21. 6-7-49. Electric Eye Equipment Company, Danville, Ill. Corrected: In the heading, signature, certificate lines 4 and 15, statement line 1 and declaration line 3 "Corporation" should be deleted and *Company* should be inserted.

536,612. POLY-VI-SOL. Cl. 18. 1-16-51. Mead Johnson & Company, Evansville, Ind. Amended: In the statement, line 8 "liquid" is deleted.

541,462. FOSLUBE AND DESIGN. Cl. 6. 4-24-51. Heintz Manufacturing Company, assignor to The Pennsylvania Salt Manufacturing Company. Pennsalt Chemicals Corporation, Philadelphia, Pa. Amended to appear:

FOSLUBE

549,548. FEWEL'S AND DESIGN. Cl. 46. 10-16-51. Fewel Bros. Packing Company. West Coast Growers & Packers, Inc., Selma, Calif. Amended: In the statement, column 1, line 16 through column 2, line 4 are deleted and *The trademark was first used and first used in commerce among the several States which may lawfully be regulated by Congress on September 6, 1944.* is inserted, and the drawing is amended to appear:

FEWEL'S

552,181. FOSRINSE AND DESIGN. Cl. 6. 12-18-51. Heintz Manufacturing Company, assignor to The Pennsylvania Salt Manufacturing Company. Pennsalt Chemicals Corporation, Philadelphia, Pa. Amended to appear:

FOSRINSE

574,653. FIVE STAR AND DESIGN. Cl. 46. 5-19-53. Burrus Mills, Incorporated, doing business under the name and style of Burrus Feed Mills, Dallas, Tex. Amended to appear:

5 STAR

580,185. DRI-POWR AND DESIGN. Cl. 52. 9-22-53. Clarence M. Wynn, doing business as Wynoil Laboratories. Clarence M. Wynn, doing business as Dri-Powr Co., Azusa, Calif. Amended: In the heading, certificate lines 4 and 14 and statement column 1, line 4 "Wynoil Laboratories" is deleted and *Dri-Powr Co.* is inserted and in column 2, lines 10 and 11 are deleted, and the drawing is amended to appear:

DRI-POWR

589,758. WONDER-UNDER. Cl. 42. 5-11-54. Pellon Corporation, New York, N. Y. Amended: In column 2, lines 1 and 2 the description of goods is deleted and *Fabrics made by bonding a mixture of natural fiber staples, or a mixture of synthetic fiber staples, or a mixture of natural and synthetic fiber staples* is inserted.

592,868. PELLON AND DESIGN. Cl. 1. 7-27-54. Pellon Corporation, New York, N. Y. Amended: In column 2, lines 1 through 7 the description of goods is deleted and *Fabrics made by bonding a mixture of natural fiber staples, or a mixture of synthetic fiber staples, or a mixture of natural and synthetic fiber staples* is inserted.

594,573. PELLON. Cl. 42. 8-31-54. Pellon Corporation, New York, N. Y. Amended: In column 2, lines 1 through 4 the description of goods is deleted and *Fabrics made by bonding a mixture of natural fiber staples, or a mixture of synthetic fiber staples, or a mixture of natural and synthetic fiber staples* is inserted.

599,211. PELLON. Cl. 1. 12-14-54. Pellon Corporation, New York, N. Y. Amended: In column 1, line 4 through column 2, line 5 the description of goods is deleted and *Fabrics made by bonding a mixture of natural fiber staples, or a mixture of synthetic fiber staples, or a mixture of natural and synthetic fiber staples* is inserted.

657,389. ACEC AND DESIGN. Cl. 21. 1-21-58. Ateliers de Constructions Electriques de Charleroi, Brussels, Belgium. Amended: In column 2, lines 4 and 5 "oscillographs, electric counters, impulse generators," lines 6 through 8, "Wilson chambers, spectrographs, isotopic tracers, radiation detectors," lines 12 and 13 "telemeters," and lines 15 and 16, "electric pumps and hydraulic turbines" are deleted.

660,429. TRITLE'S. Cl. 51. 4-8-58. Tritle Laboratories, assignor to John B. Mitchell, Seattle, Wash. Corrected: In column 1, line 2 after "Wash." *assignor to John B. Mitchell, 15106 Tenth Avenue, Southwest, Seattle, Wash.* should be inserted.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

114,505. DU LAX. Cl. 6. Robert Lich. 12-19-16. New Cert. Sec. 7(c), to Geigy Chemical Corporation, Ardsley, N. Y., 7-22-58.

370,087. ADALLOY. Cl. 14. Adirondack Foundries and Steel, Inc. 8-15-39. New Cert. Sec. 7(c), to Consolidated Foundries and Mfg. Corp., Wilmington, Del., 7-22-58.

564,942. LEDERHOSEN BY EDELWEISS AND DESIGN. Cl. 39. Dorothy S. Curtis. 10-7-52. New Cert. Sec. 7(c), to Seattle Woolen Company, Inc., Tacoma, Wash., 7-22-58.

569,914. GOLDRING. Cl. 30. Saul J. Karns, doing business under the name of Samco Products Co. 2-3-53. New Cert. Sec. 7(c), to Recoton Corporation, Long Island City, N. Y., 7-22-58.

575,775. RANCHER'S PRIDE AND DESIGN. Cl. 46. Washington Creamery Company, assignor to Rancher's Pride Foods. 6-16-53. New Cert. Sec. 7(c), to Acme Poultry Company, Seattle, Wash., 7-22-58.

581,118. SEA LEGS AND DESIGN. Cl. 19. Milton H. Penney, doing business as Penney Woodcraft Industries. 10-13-53. New Cert. Sec. 7(c), to Nelson Lambert, Defiance, Ohio. 7-22-58.

592,817. RANCHER'S PRIDE AND DESIGN. Cl. 46. Rancher's Pride Foods. 7-20-54. New Cert. Sec. 7(c), to Acme Poultry Company, Seattle, Wash., 7-22-58.

INDEX OF REGISTRANTS

JULY 22, 1958

(Registered; Renewed; Canceled; Amended, Disclaimed, Corrected, etc.; New Certificates; 12c Publications.)

Abrasive Co., to Simonds Abrasive Co., Philadelphia, Pa. 361,683, ren. 10–25–58. Cl. 4.
Academy Ribbon Mills, Burbank, Calif. 664,598, pub. 5–6–58. Cl. 7.
Acme Poultry Co.: *See*—
Washington Creamery Co.
Actioneering, Detroit, Mich. 664,852, pub. 5–6–58. Cl. 102.
Adcon Corp., Boston, Mass. 664,710, pub. 5–6–58. Cl. 26.
Adirondack Foundries and Steel, Inc., to Consolidated Foundries and Mfg. Corp., Wilmington, Del. 370,087, new cert. Cl. 14.
Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany, by change of name from Agfa Aktiengesellschaft fur Photofabrikation. 664,594, pub. 5–6–58. Cl. 6.
Agfa Aktiengesellschaft fur Photofabrikation: *See*—
Agfa Aktiengesellschaft.
Akerman Engravers: *See*—
Strianese, Bernard V.
Aktiebolaget Bofors, Bofors, Sweden. 559,552, canc. Cl. 51.
Allied Chemical & Dye Corp., New York, N. Y. 559,563, canc. Cl. 1.
Alphaduct Wire & Cable Co., New Brunswick, N. J. 664,666, pub. 5–6–58. Cl. 21.
Ambassador Leather Products, Inc., New York, N. Y. 664,795, pub. 2–25–58. Cl. 40.
American Aniline Products, Inc., New York, N. Y., to Koppers Co., Inc., Pittsburgh, Pa. 358,123, ren. 6–28–58. Cl. 6.
American Buff Co., Chicago, Ill. 664,586, pub. 5–6–58. Cl. 4.
American Chain & Cable Co., Inc., Bridgeport, Conn. 664,625–6, pub. 5–6–58. Cl. 12.
American Colloid Co., Chicago, Ill. 664,568, pub. 5–6–58. Cl. 1.
American Cyanamid Co.: *See*—
MacGregor Instrument Co.
American Cyanamid Co., New York, N. Y. 664,640, pub. 5–6–58. Cl. 18.
American Cyanamid Co., New York, N. Y. 664,642, pub. 5–6–58. Cl. 18.
American Cyanamid Co., New York, N. Y. 559,674, canc. Cl. 1.
American Optical Co., Southbridge, Mass. 664,707, pub. 5–6–58. Cl. 26.
American Pulley Co., The, Philadelphia, Pa. 664,688, pub. 5–6–58. Cl. 23.
American Zyloptic Co., Inc., New York, N. Y. 559,639, canc. Cl. 26.
Ames Safety Envelope Co., Somerville, Mass. 664,582–3, pub. 5–6–58. Cl. 2.
Anaconda Wire and Cable Co., New York, N. Y. 664,660, pub. 5–6–58. Cl. 21.
Anchor Plastics Co., Inc., New York, N. Y. 559,521, canc. Cl. 2.
Anderson, Clayton & Co., Dallas, Tex. 664,820, pub. 5–6–58. Cl. 46.
Anschutz & Co., Gesellschaft mit beschrankter Haftung, Kiel-Wik, Germany. 664,699, pub. 5–6–58. Cl. 26.
Anseo: *See*—
General Aniline & Film Corp.
Ansonia Mills Inc., East Taunton, Mass. 664,801, pub. 5–6–58. Cl. 42.
Apothecarie Hall Co., to The Hubbard-Hall Chemical Co., Waterbury, Conn. 123,314, ren. 10–29–58. Cl. 10.
Arkansas Co., Inc., Newark, N. J. 354,983, ren. 3–1–58. Cl. 16.
Arma Corp., Brooklyn, N. Y. 559,662, canc. Cl. 26.
Arnolt Corp., Warsaw, Ind. 664,631, pub. 5–6–58. Cl. 16.
Ateliers de Constructions Electriques de Charlerol, Brussels, Belgium. 657,389. Am. 7(d). Cl. 21.
Augstein, S. & Co. Inc., College Point, N. Y. 664,803, pub. 5–6–58. Cl. 42.
Auto Specialties Mfg. Co., St. Joseph, Mich. 357,076, ren. 6–14–58. Cl. 23.
B. O. M. Co., The: *See*—
Merkl, Robert J.
Bakelite Corp., to Union Carbide Corp., New York, N. Y. 359,180, ren. 8–9–58. Cl. 38.
Barmon Brothers Co. Inc., Buffalo, N. Y. 356,916, ren. 5–17–58. Cl. 39.
Barwick, E. T., Mills, Inc., Chamblee, Ga. 664,809–12, pub. 5–6–58. Cl. 42.
Basic, Inc., Cleveland, Ohio. 664,607, pub. 5–6–58. Cl. 12.
Basic Publications, Inc., New York, N. Y. 559,725, canc. Cl. 38.
Basic-Witz Furniture Industries, Inc., The, Waynesboro, Va. 664,719, pub. 5–6–58. Cl. 32.
Bastian-Blessing Co., The, Chicago, Ill. 664,722, pub. 5–6–58. Cl. 34.
Bausch & Lomb Optical Co., Rochester, N. Y. 361,875, ren. 11–1–58. Cl. 26.
Bergen Research Engineering Corp., Teterboro, N. J. 664,614, pub. 5–6–58. Cl. 13.
Berger-Amour Studios, Chicago, Ill. 559,608, canc. Cl. 38.
Berkshire Knitting Mills, Reading, Pa. 664,761, pub. 5–6–58. Cl. 39.
Better Way Products Co.: *See*—
Bradley, Harold.
Biflex Foundations, Inc., New York, N. Y. 664,780, pub. 5–6–58. Cl. 39.
Blair, J. C., Co., Huntingdon, Pa., to Western Tablet & Stationery Corp., Dayton, Ohio. 123,014, ren. 10–8–58. Cl. 37.
Bloch Brothers Tobacco Co., The, Wheeling, W. Va., to Philip Morris Inc., New York, N. Y. 361,270, ren. 10–11–58. Cl. 17.
Blom, Knut A., Lakewood, Ohio. 559,556, canc. Cl. 26.
Bloom, Charles, Inc., New York, N. Y. 664,802, pub. 5–6–58. Cl. 42.
Bowen & Co.: *See*—
Bowen, William S.
Bowen, William S., d. b. a. Bowen & Co., Westfield, N. J. 559,656, canc. Cl. 46.
Bowman Apple Products Co., Inc., Mount Jackson, Va. 664,879. Cl. 46.
Boyle Mfg. Co., Inc. United States Steel Corp., Pittsburgh, Pa. 361,427. Am. 7(d). Cl. 23.
Bradley, Harold, d. b. a. Better Way Products Co., Branchville, N. J. 664,620, pub. 5–6–58. Cl. 13.
Bradway Chocolate Co., to O. B. Bradway, d. b. a. Bradway Chocolate Co., New Castle, Ind. 347,910, ren. 7–13–58. Cl. 46.
Bradway, Otis B.: *See*—
Bradway Chocolate Co.
Braznell Co., St. Louis, Mo. 664,588, pub. 5–6–58. Cl. 6.
Breining Brothers, Inc., Hoboken, N. J. 664,633, pub. 5–6–58. Cl. 16.
Brown Packing Co., to Brown's Frosted Foods, Inc., Philadelphia, Pa. 357,954, ren. 6–21–58. Cl. 46.
Brown's Frosted Foods, Inc.: *See*—
Brown Packing Co.
Budget Saver Markets, Berkeley, Calif. 664,828, pub. 5–6–58. Cl. 46.
Buffalo Evening News: *See*—
Buffalo Evening News, Inc.
Buffalo Evening News, Inc., Buffalo, N. Y., from E. H. Butler, individually and as trustee under the last will and testament of E. H. Butler, deceased, d. b. a. Buffalo Evening News. 559,701, canc. Cl. 107.
Bullock's, Inc., Los Angeles, Calif. 664,714, pub. 5–6–58. Cl. 28.
Bunyan, Paul, Foods, Inc., Seattle, Wash. 361,136, ren. 10–11–58. Cl. 46.
Burma-Bibas, Inc., New York, N. Y. 664,760, pub. 5–6–58. Cl. 39.
Burndy Corp., Norwalk, Conn. 664,617, pub. 5–6–58. Cl. 13.
Burndy Corp., Norwalk, Conn. 664,663–4, pub. 5–6–58. Cl. 21.
Burroughs Corp., Detroit, Mich. 664,605, pub. 1–7–58. Cl. 11.
Burrus Feed Mills: *See*—
Burrus Mills, Inc.
Burrus Mills, Inc., d. b. a. Burrus Feed Mills, Dallas, Tex. 574,653. Am. 7(d). Cl. 46.
Butler, Edward H.: *See*—
Buffalo Evening News, Inc.
Canker-ene Co., The: *See*—
Ottersen, Harry J., Jr.
Capitol Records, Inc., Los Angeles, Calif. 664,667, pub. 5–6–58. Cl. 21.
Careskey, James L., Dallas, Tex. 664,742, pub. 5–6–58. Cl. 38.
Carr Fastener Co., to United-Carr Fastener Corp., Cambridge, Mass. 121,544, ren. 5–7–58. Cl. 40.
Carter-Parratt Ltd., London, England. 664,718, pub. 5–6–58. Cl. 32.
Cattaraugus Cutlery Co., Little Valley, N. Y. 664,689, pub. 5–6–58. Cl. 23.
Chattanooga Medicine Co., The, Chattanooga, Tenn. 294,029. Am. 7(d). Cl. 18.
Chef-Way, Inc., Kansas City, Mo. 559,571, canc. Cl. 23.
Chicago Show Printing Co., d. b. a. Mystik Adhesive Products, Chicago, Ill. 664,728, pub. 5–6–58. Cl. 37.
Chicago Telephone Supply Corp., Elkhart, Ind. 664,657, pub. 5–6–58. Cl. 21.
Chicago Truck Drivers, Chauffeurs, and Helpers Union of Chicago and Vicinity, Chicago, Ill. 664,859, pub. 5–6–58. Cl. 200.
Childs, H., & Co., Inc., Pittsburgh, Pa. 664,766, pub. 5–6–58. Cl. 39.
Chipman's, Chas., Sons Co., Inc., New York, N. Y. 559,651, canc. Cl. 39.
Christian Science Publishing Society, The, Boston, Mass. 559,659, canc. Cl. 38.
Chrysler Corp., Highland Park, Mich. 664,692, pub. 5–6–58. Cl. 23.
Cig-Alarm Co.: *See*—
Showstack, Paul J.
Cincinnati Shaper Co., The, Cincinnati, Ohio. 664,685, pub. 5–6–58. Cl. 23.
Cleary, W. A., Corp., New Brunswick, N. J. 359,360, ren. 8–16–58. Cl. 46.
Clement-Braswell, Inc., Shreveport, La. 664,866. Cl. 19.
Cluett, Peabody & Co., Inc., Troy, N. Y. 664,747, pub. 5–6–58. Cl. 39.

College Club Program, Inc., Brookline, Mass. 664,853, pub. 5–6–58. Cl. 102.
College-Town Sportswear, Boston, Mass. 664,749, pub. 4–30–57. Cl. 39.
Columbia Publications, Inc., New York, N. Y., and Holyoke, Mass. 559,505, canc. Cl. 38.
Columbiana Boiler Co.: *See*—
Oaks & Barrow, Inc.
Columbus Coated Fabrics Corp., Columbus, Ohio. 664,572, pub. 5–6–58. Cl. 1.
Combination Door Co., The, Fond du Lac, Wis. 664,609, pub. 5–6–58. Cl. 12.
Comex Trading Co., Inc., New York, N. Y., to Pedro Domecq, S. A., Jerez de la Frontera, Spain. 359,540, ren. 8–23–58. Cl. 47.
Commercial Ink & Lacquer Co. Inc., Fair Lawn, N. J. 664,604, pub. 5–6–58. Cl. 11.
Commercial Solvents Corp., New York, N. Y. 559,636, canc. Cl. 18.
Compagnie Francaise des Matieres Colorantes, Societe Anonyme, Paris, France. 664,595, pub. 5–6–58. Cl. 6.
Consolidated Foundries and Mfg. Corp.: *See*—
Adirondack Foundries and Steel, Inc.
Continental-Diamond Fibre Corp.: *See*—
Irvington Varnish & Insulator Co.
Continental Oil Co., Ponca City, Okla. 664,629, pub. 5–6–58. Cl. 15.
Controls Co. of America, Schiller Park, Ill. 664,669, pub. 5–6–58. Cl. 21.
Corn Products Refining Co.: *See*—
Corn Products Sales Co.
Corn Products Sales Co., to Corn Products Refining Co., New York, N. Y. 357,601, ren. 6–7–58. Cl. 38.
Cosmopolitan Doll and Toy Corp., Jackson Heights, N. Y. 664,674, pub. 12–10–57. Cl. 22.
Cosmopolitan Doll and Toy Corp., Jackson Heights, N. Y. 664,867. Cl. 22.
Costa, Ray, Distributing Co.: *See*—
Costa, Raymond A.
Costa, Raymond A., d. b. a. Ray Costa Distributing Co., Yuba City, Calif. 664,836, pub. 5–6–58. Cl. 46.
Country Cupboard, Inc., The, New Canaan, Conn. 664,764, pub. 5–6–58. Cl. 39.
County Laboratories Ltd.: *See*—
Moore, Thomas.
Crescent Insulated Wire & Cable Co., Trenton, N. J. 361,057, ren. 10–25–58. Cl. 21.
Crocker, H. S., Co., Inc., d. b. a. Crocker-Union and California Artists, San Bruno, Calif. 559,685, canc. Cl. 38.
Crocker-Union and California Artists: *See*—
Crocker, H. S., Co., Inc.
Cudahy Packing Co., The, Chicago, Ill., and Omaha, Nebr., to The Cudahy Packing Co., Omaha, Nebr. 122,069, ren. 6–25–58. Cl. 46.
Curtis, Dorothy S., to Seattle Woolen Co., Inc., Tacoma, Wash. 564,942, new cert. Cl. 39.
D. and H. Corp., La Grange, N. C. 664,840, pub. 5–6–58. Cl. 50.
Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany. 356,793, ren. 5–10–58. Cl. 28.
Danbury Rubber Co., Inc., The, Danbury, Conn. 559,579, canc. Cl. 52.
Danbury Rubber Co., Inc., The, Danbury, Conn. 559,584, canc. Cl. 4.
Dan River Mills, Inc., Danville, Va. 664,816, pub. 5–6–58. Cl. 42.
Davis, Frank P., d. b. a. Nulog Products, Annandale, Va. 664,733, pub. 5–6–58. Cl. 37.
Dazian's, Inc., New York, N. Y. 664,782–7, pub. 5–6–58. Cl. 39.
Delsam Co., The, Wilmington, Del. 664,687, pub. 5–6–58. Cl. 23.
Denver Wood Products Co., Denver, Colo. 664,841, pub. 5–6–58. Cl. 50.
Dictograph Products Co., Inc., Jamaica, N. Y. 664,656, pub. 10–23–56. Cl. 21.
Dictograph Products Co., Inc., Jamaica, N. Y. 664,726, pub. 10–23–56. Cl. 36.
Dodge & Olcott, Inc., New York, N. Y. 664,844, pub. 5–6–58. Cl. 51.
Doesmore Co.: *See*—
Erwin, Elsie B.
Domecq, Pedro, S. A.: *See*—
Comex Trading Co., Inc.
Donehian, Paul S., Hartford, Conn. 559,518, canc. Cl. 2.
Dri-Powr Co.: *See*—
Wynn, Clarence M.
Duckwall, A. L., Stores Co., Pueblo, Colo. 664,769, pub. 5–6–58. Cl. 39.
Dudley Industrial Corp., Santa Clara, Calif. 664,618, pub. 5–6–58. Cl. 13.
Dundee Mills, Inc., Griffin, Ga. 664,753, pub. 11–26–57. Cl. 39.
Duofold Inc., Mohawk, N. Y. 664,873. Cl. 39.
Ehniger Mills, Inc., New York, N. Y. 664,800, pub. 3–18–58. Cl. 42.
Eisendrath, B. D., Tanning Co., Racine, Wis. 360,605, ren. 9–20–58. Cl. 1.
Elbon Laboratories, Inc.: *See*—
McNulty, William J.
Electric Eye Equipment Co., Danville, Ill. 510,662, cor. Cl. 21.
Electric Parts Corp., Georgetown, Ky. 664,658, pub. 5–6–58. Cl. 21.
Elmore Silver Co., Inc., The, Meriden, Conn. 559,545, canc. Cl. 28.
Elnor Provision Co., Inc., Cleveland, Ohio. 664,822, pub. 5–6–58. Cl. 46.
Erwin, Elsie B., administratrix of the estate of Willard B. Erwin, d. b. a. Doesmore Co., from Willard B. Erwin (deceased), Bolivar, Mo. 664,639, pub. 12–16–56. Cl. 18.
Erwin, Willard B.: *See*—
Erwin, Elsie B.
Escaut, Paul, Societe Anonyme, French Assoc., Alfortville (Seine), France. 664,578, pub. 5–6–58. Cl. 2.
Essanar Co., Inc., to Selchow & Righter Co., New York, N. Y. 123,032, ren. 10–8–58. Cl. 22.
Essanar Co., Inc., to Selchow & Righter Co., New York, N. Y. 123,033, ren. 10–8–58. Cl. 22.
Essex Electronics, Berkeley Heights, N. J. 664,668, pub. 5–6–58. Cl. 21.
Eureka Williams Corp., Bloomington, Ill. 664,724, pub. 5–6–58. Cl. 34.
Experiences Anonymes: *See*—
Merrill, Beverly.
F & F Laboratories, Inc., Chicago, Ill. 664,648, pub. 5–6–58. Cl. 18.
Fabrique Suisse de Crayons Caran d'Ache S. A., Geneva, Switzerland. 664,734 pub. 5–6–58. Cl. 37.
Faircast System, Hamilton, Mass. 664,854, pub. 5–6–58. Cl. 104.
Fairchild Co., Chicago, Ill., to Fairchild Publications, Inc., New York, N. Y. 122,961, ren. 10–1–58. Cl. 38.
Fairchild Publications, Inc.: *See*—
Fairchild Co.
Fairchild Publications, Inc., New York, N. Y. 664,737, pub. 5–6–58. Cl. 38.
Farmers Chemical Co., Kalamazoo, Mich. 664,830, pub. 5–6–58. Cl. 46.
Feldan Brothers, Inc., New York, N. Y. 664,771, pub. 5–6–58. Cl. 39.
Feldsott Bros. & Hecht, Inc., New York, N. Y. 664,763, pub. 5–6–58. Cl. 39.
Fewel Bros. Packing Co. West Coast Growers & Packers, Inc., Selma, Calif. 549,543. Am. 7(d). Cl. 46.
Fibre Conduit Co., The, to Orangeburg Mfg. Co., Inc., Orangeburg, N. Y. 360,511, ren. 9–20–58. Cl. 21.
Fibre Conduit Co., The, to Orangeburg Mfg. Co., Inc., Orangeburg, N. Y. 360,533 ren. 9–20–58. Cl. 21.
Fibre Conduit Co., The, to Orangeburg Mfg. Co., Inc., Orangeburg, N. Y. 360,774, ren. 9–27–58. Cl. 12.
Fine Products Corp., Augusta, Ga. 664,826, pub. 5–6–58. Cl. 46.
Finlay Departments, Inc., New York, N. Y. 664,712, pub. 5–6–58. Cl. 27.
Fischer & Porter Co., Hatboro, Pa. 664,760, pub. 5–6–58. Cl. 26.
Fleming-Joffe, Ltd., New York, N. Y. 664,565, pub. 5–6–58. Cl. 1.
Fox Products Co., Philadelphia, Pa. 664,670, pub. 5–6–58. Cl. 21.
Fox Products Co., Philadelphia, Pa. 664,708, pub. 5–6–58. Cl. 26.
Francine of France, Inc., Chicago, Ill. 534,437, canc. Cl. 39.
Franco-Italian Packing Co., Terminal Island, Calif. 664,825, pub. 5–6–58. Cl. 46.
Frechtmann, Jean, New York, N. Y. 559,724, canc. Cl. 22.
Frederick's of Hollywood, Inc., Hollywood, Calif. 664,746, pub. 9–11–56. Cl. 39.
Friden Calculating Machine Co., Inc.: *See*—
Friden, Inc.
Friden, Inc., by change of name from Friden Calculating Machine Co., Inc., San Leandro, Calif. 664,703, pub. 5–6–58. Cl. 26.
Fuelane Corp., Liberty, N. Y. 664,591, pub. 5–6–58. Cl. 6.
Fuller Brush Co., The, Hartford, Conn. 664,845, pub. 6–4–57. Cl. 51.
Fuller, D. B., & Co., Inc., New York, N. Y. 664,797, pub. 5–6–58. Cl. 42.
Funk Produce Co.: *See*—
Funk, Ronald.
Funk, Ronald, d. b. a. Funk Produce Co., Aberdeen, Idaho. 664,829, pub. 5–6–58. Cl. 46.
Gala of London Ltd., London, England. 664,846, pub. 1–21–58. Cl. 51.
Gann Hosiery Mills Co., Durham, N. C. 664,750, pub. 5–6–58. Cl. 39.
Garden Hose Spray Co., Inc., The, Cambridge, Mass. 361,405, ren. 10–18–58. Cl. 23.
Garfinckel, Julius, & Co., Inc., New York, N. Y. 664,791, pub. 5–6–58. Cl. 39.
Geigy Chemical Corp.: *See*—
Lich, Robert.
General Aniline & Film Corp., d. b. a. Anaco, New York, N. Y. 664,702, pub. 5–6–58. Cl. 26.
General Teleradio, Inc., Carteret, N. J. 559,645, canc. Cl. 38.
General Tire & Rubber Co., The, Akron, Ohio. 664,608, pub. 5–6–58. Cl. 12.
General Tire & Rubber Co., The, Akron, Ohio. 664,798–9, pub. 5–6–58. Cl. 42.
Glas-Top Products: *See*—
West Coast Roofing Co.
Globe Democrat Publishing Co., St. Louis, Mo. 559,090, canc. Cl. 38.
Globe Roofing Products Co., Inc., Whiting, Ind. 361,489, ren. 10–18–58. Cl. 12.
Glover, H. Clay, Co., Inc., West Hempstead, N. Y. 664,649, pub. 5–6–58. Cl. 18.
Goebel, W., Porzellanfabrik, Oeslau near Coburg, Bavaria, Germany. 664,839, pub. 5–6–58. Cl. 50.
Goldsmith, Louis, Inc., Philadelphia, Pa. 664,671. Cl. 39.
Gotham Industries, Inc., Chicago, Ill. 664,584, pub. 5–6–58. Cl. 2.
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The, d. b. a. Hudson's Bay Co., Winnipeg, Manitoba, Canada. 664,838, pub. 5–6–58. Cl. 49.
Graflex, Inc., Rochester, N. Y. 664,697, pub. 5–6–58. Cl. 26.

Greater Enterprises Co., Spartanburg, S. C. 559,599, canc. Cl. 51.
Great Lakes Carbon Corp., New York, N. Y. 664,659, pub. 5–6–58. Cl. 21.
Green Thumb Products, Toledo, Ohio. 664,716, pub. 5–27–58. Cl. 30.
Grinnell Corp., Providence, R. I. 664,619, pub. 5–6–58. Cl. 13.
Groov-Pin Corp., Ridgefield, N. J. 664,621, pub. 5–6–58. Cl. 13.
Groveton Papers Co., Groveton, N. H. 664,736, pub. 5–6–58. Cl. 37.
Haase, Wilbert W., Co., Forest Park, Ill. 559,495, canc. Cl. 12.
Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. 664,589, pub. 5–6–58. Cl. 6.
Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. 664,592, pub. 5–6–58. Cl. 6.
Hammond Mills, Inc., Oklahoma City, Okla. 664,878. Cl. 46.
Hand-Care, Inc., Chicago, Ill. 664,864. Cl. 18.
Hardtmuth, L., & Co., Inc., Bloomsbury, N. J. 664,735, pub. 5–6–58. Cl. 37.
Hardy, James G., d. b. a. James G. Hardy & Co., to James G. Hardy & Co., Inc., New York, N. Y. 361,240, ren. 10–11–58. Cl. 42.
Hardy, James G., & Co., Inc.: *See*—
Hardy, James G.
Harrell, Dewey B., d. b. a. Harrell Sewing Machine Co., Wichita, Kans. 559,502, canc. Cl. 23.
Harrell Sewing Machine Co.: *See*—
Harrell, Dewey B.
Hat Corp. of America, Norwalk, Conn. 664,792, pub. 5–6–58. Cl. 39.
Heintz Mfg. Co., to The Pennsylvania Salt Mfg. Co. Pennsalt Chemicals Corp., Philadelphia, Pa. 541,462. Am. 7(d). Cl. 6.
Heintz Mfg. Co., to The Pennsylvania Salt Mfg. Co. Pennsalt Chemicals Corp., Philadelphia, Pa. 552,181. Am. 7(d). Cl. 6.
Helen of Troy, Inc., New York, N. Y. 664,767, pub. 5–6–58. Cl. 39.
Henry's: *See*—
Schnakenberg, Henry J.
Hercules Powder Co., Wilmington, Del. 664,827, pub. 5–6–58. Cl. 46.
Hi-Flier Mfg. Co., The, Decatur, Ill. 664,678, pub. 5–6–58. Cl. 22.
Hi-Flier Mfg. Co., The, Decatur, Ill. 664,680, pub. 5–6–58. Cl. 22.
Highway Trailer Co., Edgerton, Wis. 664,691, pub. 5–6–58. Cl. 23.
Hollins Mill (Manchester) Ltd., The: *See*—
Jones Brothers Ltd.
Home Decorators, Inc., Newark, N. Y. 664,585, pub. 5–6–58. Cl. 2.
Hubbard-Hall Chemical Co., The: *See*—
Apothecaries Hall Co.
Hudson's Bay Co.: *See*—
Governor and Co. of Adventurers of England Trading into Hudson's Bay, The.
Hurt, Arthur A., Spencer, Iowa. 664,690, pub. 5–6–58. Cl. 23.
Hyster Co., Portland, Oreg., from Hyster Co. 664,655, pub. 5–6–58. Cl. 19.
Illinois-California Express, Inc., Denver, Colo. 664,855–7, pub. 5–6–58. Cl. 105.
Imperial Chemical Industries Ltd., Millbank, London, England. 664,650, pub. 5–6–58. Cl. 18.
Imperial Shirt Corp., New York, N. Y. 664,872. Cl. 39.
Incentive Sales Inc., New York, N. Y. 664,847, pub. 5–6–58. Cl. 52.
Industrial Gloves Co., Danville, Ill. 664,758, pub. 5–6–58. Cl. 39.
Industrial Heat Engineering Co., Greenville, S. C. 664,721, pub. 5–6–58. Cl. 34.
Industrial Oil Corp., Warren, Pa. 664,630, pub. 5–6–58. Cl. 15.
Industrial Waterproofing Co., Houston, Tex. 664,632, pub. 5–6–58. Cl. 16.
Institutional Products Corp., New York, N. Y. 559,648, canc. Cl. 23.
International Affiliated Corp., Wilmington, Del. 664,843, pub. 7–6–54. Cl. 51.
International Mfg. Co., Roxbury, Mass. 664,865. Cl. 19.
International Milling Co.: *See*—
Midland Flour Milling Co., The.
International Minerals & Chemical Corp., Chicago, Ill. 664,603, pub. 5–6–58. Cl. 10.
International Paper Co., New York, N. Y. 664,732, pub. 5–6–58. Cl. 37.
International Shoe Co., St. Louis, Mo. 664,759, pub. 5–6–58. Cl. 39.
Inter-State Nurseries, Inc., Hamburg, Iowa. 664,564, pub. 5–6–58. Cl. 1.
Irvington Varnish & Insulator Co., Irvington, N. J., to Continental-Diamond Fibre Corp., Newark, Del. 122,801, ren. 9–17–58. Cl. 21.
Irwin, Neisler and Co., Decatur, Ill. 664,652, pub. 5–6–58. Cl. 18.
James Co. of Hickory, N. C., Inc., The, Hickory, N. C. 664,796, pub. 5–6–58. Cl. 40.
Jayknit Co. Inc., New York, N. Y. 357,477, ren. 6–7–58. Cl. 39.
Jenkins, George O., Co., Bridgewater, Mass. 664,842, pub. 5–6–58. Cl. 50.
Jennings Food Products Co., Geneva, N. Y. 664,834, pub. 5–6–58. Cl. 46.
Jerrico, Inc., Lexington, Ky. 664,851, pub. 5–6–58. Cl. 100.
Jetron Co., Milwaukee, Wis. 559,583 canc. Cl. 52.
Jones Brothers Ltd., to The Hollins Mill (Manchester) Ltd., Manchester, England. 120,751, ren. 3–5–58. Cl. 42.
Juliana Lingerie, Inc., New York, N. Y. 559,663, canc. Cl. 39.
Karns, Saul J., d. b. a. Samco Products Co., to Recoton Corp., Long Island City, N. Y. 569,914, new cert. Cl. 36.
Kayser, Julius, & Co., New York, N. Y. 293,540, canc. Cl. 39.
Kerns, J. F., Co., Chicago, Ill. 591,796, canc. Cl. 16.
Kimberly-Clark Corp.: *See*—
Munising Paper Co., The.
King Broadcasting Co., Seattle, Wash. 664,858, pub. 5–6–58. Cl. 107.
Kirk-Young Machine Co., East Walpole, Mass. 664,616, pub. 5–6–58. Cl. 13.
Klean-it Co.: *See*—
Potts, Orion A.
Knickerbocker Products Co.: *See*—
Master Vibrator Co.
Knipe Bros., Inc., Ward Hill, Mass. 664,774, pub. 5–6–58. Cl. 39.
Koppers Co., Inc.: *See*—
American Aniline Products, Inc.
Kroger Co., The, Cincinnati, Ohio. 559,732, canc. Cl. 46.
L. L. Laboratories, Orlando, Fla. 664,643, pub. 5–6–58. Cl. 18.
La Cell Industries, Inc., Brooklyn, N. Y. 559,723; canc. Cl. 22.
Laher Spring and Tire Corp., Oakland, Calif. 530,051, canc. Cl. 21.
Lakeland Highlands Cooperative Association, Highland City, Fla. 356,964, ren. 5–17–58. Cl. 46.
Lane, Ltd., New York, N. Y. 664,599, pub. 5–6–58. Cl. 8.
Lane, Ltd., New York, N. Y. 664,685–6, pub. 5–6–58. Cl. 17.
Lanmark Co., Astoria, Long Island, N. Y. 559,712, canc. Cl. 51.
Larus & Brother Co., Richmond, Va. 664,601, pub. 5–6–58. Cl. 8.
Laucks, I. F., Inc., Seattle, Wash., to Monsanto Chemical Co., St. Louis, Mo. 354,930, ren. 8–1–58. Cl. 16.
Laucks, I. F., Inc., Seattle, Wash., to Monsanto Chemical Co., St. Louis, Mo. 358 454, ren. 7–12–58. Cl. 16.
Laughlin, Homer, China Co., The, Newell, W. Va. 357,284, ren. 5–31–58. Cl. 30.
Lawrence, Bishara M., San Francisco, Calif. 664,713, pub. 5–6–58. Cl. 28.
Leaf Brands, Inc., Chicago, Ill. 664,882, pub. 5–6–58. Cl. 46.
Le Roy Knitted Sportswear, Inc., Los Angeles, Calif. 664,754, pub 5–6–58. Cl. 39.
Leslie Co., Lyndhurst, N. J. 664,711, pub. 5–6–58. Cl. 26.
Lever Brothers Co., New York, N. Y. 664,592, pub. 5–6–58. Cl. 6.
Levin & Co. Inc., New York, N. Y. 664,793, pub. 5–6–58. Cl. 39.
Lich, Robert, to Geigy Chemical Corp., Ardsley, N. Y. 114,505, new cert. Cl. 6.
Liebovitz, S., & Sons, Inc., to Truval Shirt Co., Inc., New York, N. Y. 360,786, ren. 9–27–58. Cl. 39.
Liggett & Myers Tobacco Co., New York, N. Y. 664,863. Cl. 17.
Lluriba, Juan, Havana, Cuba. 664,587, pub. 5–6–58. Cl. 6.
Loblaw, Inc., Buffalo, N. Y. 664,817, pub. 5–6–58. Cl. 43.
Locke Mfg. Co., Lodi, Ohio. 664,611, pub. 5–6–58. Cl. 12.
Lockport Felt Co., Inc., Newfane, N. Y. 664,813, pub. 5–6–58. Cl. 42.
Lyon Inc., Detroit, Mich. 664,683–4, pub. 5–6–58. Cl. 23.
M & D Store Fixtures, Inc., La Puente, Calif. 664,627, pub. 5–6–58. Cl 13.
Macfadden Publications, Inc., New York, N. Y. 559,546, canc. Cl. 38.
MacGregor Instrument Co., Boston, Mass., to American Cyanamid Co., New York, N. Y. 121,560, ren. 5–7–58. Cl. 44.
Maico Electronics, Inc.: *See*—
Watson, Leland A.
Manchester Hosiery Mills, Manchester, N. H. 664,751, pub. 5–6–58. Cl. 39.
Markesan Canning Co., Markesan, Wis. 664,835, pub. 5–6–58. Cl. 46.
Mason, Dudley L., d. b. a. Mason Products Co., Cincinnati, Ohio. 559,522, canc. Cl. 6.
Mason Products Co.: *See*—
Mason, Dudley L.
Master Products Co.: *See*—
Weiss, James.
Master Vibrator Co., d. b. a. Knickerbocker Products Co., Dayton, Ohio. 664,720, pub. 5–6–58. Cl. 34.
Mastercraft Trailers, Inc., Middletown, Conn. 664,654, pub. 5–6–58. Cl. 19.
Matthews, W. N., Corp., St. Louis, Mo. 559,605, canc. Cl. 26.
Matthews, W. N., Corp., St. Louis, Mo. 559,606, canc. Cl. 26.
Mayfield Mfg. Co., Birmingham, Ala. 664,862. Cl. 12.
McGraw-Edison Co.: *See*—
McGraw Electric Co.
McGraw-Edison Co., St. Louis, Mo. 664,665, pub. 5–6–58. Cl. 21.
McGraw Electric Co., Chicago, to McGraw-Edison Co., Elgin, Ill. 359,929, ren. 9–6–58. Cl. 21.
McNaught Syndicate, Inc., The, New York, N. Y. 664,744, pub. 5–6–58. Cl. 38.
McNulty, William J., Montclair, to Elbon Laboratories, Inc., Sparta, N. J. 358,656, ren. 7–19–58. Cl. 18.
Mead Johnson & Co., Evansville, Ind. 536,612. Am. 7(d). Cl. 18.
Medical Acoustic Instrument Co.: *See*—
Watson, Leland A.
Medical Fabrics Co., Inc., Paterson, N. J. 664,818, pub. 11–20–56. Cl. 44.
Menasha Wooden Ware Corp., Menasha, Wis. 664,731, pub. 5–6–58. Cl. 37.
Merit Clothing Co., Mayfield, Ky. 664,781, pub. 5–6–58. Cl. 39.

Markl, Robert J., d. b. a. The B. O. M. Co., Chicago, Ill. 664,634, pub. 5–6–58. Cl. 16.
Merrill, Beverly, d. b. a. Experiences Anonymes, New York, N. Y. 664,727, pub. 5–6–58. Cl. 36.
Metropolitan Refining Co., Inc., Long Island City, N. Y. 664,705, pub. 5–6–58. Cl. 26.
Meyer, A. L., Boston, Mass. 664,779, pub. 5–6–58. Cl. 39.
Middle West Distributors, Inc., River Forest, Ill. 664,575, pub. 5–6–58. Cl. 1.
Midland Flour Milling Co., The, Kansas City, Mo., to International Milling Co., Minneapolis, Minn. 360,380, ren. 9–13–58. Cl. 46.
Miele & Cie., Gütersloh, Germany. 664,868. Cl. 24.
Milani, Louis, Foods, Inc., Los Angeles, Calif. 664,823–4, pub. 5–6–58. Cl. 46.
Milprint, Inc., Milwaukee, Wis. 664,577, pub. 5–6–58. Cl. 2.
Minervini, John, Hoboken, N. J. 279,178, canc. Cl. 46.
Minnesota Paints, Inc., Minneapolis, Minn. 664,819, pub. 5–6–58. Cl. 46.
Mitchell, John B.: *See*—
Tritle Laboratories.
Mollé Co., The, Bedford, Ohio, to Sterling Drug Inc., New York, N. Y. 361,835, ren. 11–1–58. Cl. 23.
Momoi Co., Inc., Los Angeles, Calif. 664,681, pub. 5–6–58. Cl. 22.
Monsanto Chemical Co.: *See*—
Laucks, I. F., Inc.
Moore Co., The, Charleston, W. Va. 559,728, canc. Cl. 2.
Moore, Thomas, d. b. a. The Vosemar Co., Bury, to County Laboratories Ltd., d. b. a. The Vosemar Co., Stanmore, Middlesex, England. 355,920, ren. 4–8–58. Cl. 51.
Morris, Philip, Inc.: *See*—
Bloch Brothers Tobacco Co., The.
Mosterts, Ferdinand W., & Sons, Inc., Philadelphia, Pa. 664,807, pub. 5–6–58. Cl. 42.
Motor West Publishing Co., Inc., Orange, Calif. 664,739, pub. 5–6–58. Cl. 38.
Munising Paper Co., The, Chicago, Ill., to Kimberly-Clark Corp., Neenah, Wis. 356,789, ren. 5–10–58. Cl. 37.
Mutual Orange Distributors, to Real Gold Co., Redlands, Calif. 359,414, ren. 8–10–58. Cl. 45.
Mutual Orange Distributors, to Real Gold Co., Redlands, Calif. 359,826, ren. 8–30–58. Cl. 46.
Mystik Adhesive Products: *See*—
Chicago Show Printing Co.
National Auto Glass Specifications: *See*—
Tracy, Madison H.
National Biscuit Co., New York, N. Y. 358,436, ren. 7–12–58. Cl. 46.
National Cash Register Co., The, Dayton, Ohio. 664,706, pub. 5–6–58. Cl. 26.
National Propane Corp., New Hyde Park, N. Y. 664,725, pub. 5–6–58. Cl. 34.
National Retail Dry Goods Association: *See*—
National Retail Merchants Association Inc.
National Retail Merchants Association Inc., by change of name from National Retail Dry Goods Association, New York, N. Y. 664,850, pub. 5–6–58. Cl. 100.
National Welding Equipment Co., San Francisco, Calif. 664,723, pub. 5–6–58. Cl. 34.
Nelson Lambert: *See*—
Penney, Milton H.
New York Belting & Packing Co. Ltd., New York, N. Y., and Passaic, N. J. 85,828, canc. Cl. 35.
New York Herald Tribune Inc., New York, N. Y. 559,634, canc. Cl. 38.
Nitro-Form Agricultural Chemical Co., Woonsocket, R. I. 664,602, pub. 5–6–58. Cl. 10.
Nulog Products: *See*—
Davis, Frank P.
Nutrilite Products, Inc., Buena Park, Calif. 664,571, pub. 5–6–58. Cl. 1.
Nu-Way Shoe Co., Inc., New York, N. Y. 664,778, pub. 5–6–58. Cl. 39.
Oaks & Barrow, Inc., Columbiana, Ohio, to The Columbiana Boiler Co. 559,520, canc. Cl. 2.
Ohio Lime Co., Woodville, Ohio. 664,574, pub. 5–6–58. Cl. 1.
Omicron Products, Inc., New York, N. Y. 664,566, pub. 5–6–58. Cl. 1.
Optica S. p. A., Milan, Italy. 664,696, pub. 5–6–58. Cl. 26.
Orangeburg Mfg. Co., Inc.: *See*—
Fibre Conduit Co., The.
Ottersen, Harry J., Jr., d. b. a. The Canker-ese Co., Seattle, Wash. 664,641, pub. 5–6–58. Cl. 18.
Owens-Corning Fiberglas Corp., Toledo, Ohio. 664,606, pub. 5–6–58. Cl. 12.
Packard Bell Electronics Corp., Los Angeles, Calif. 664,701, pub 5–6–58. Cl. 26.
Palmer Welloct Tool Corp., Meadville, Pa. 559,630, canc. Cl. 23.
Panther Oil & Grease Mfg. Co., Fort Worth, Tex. 559,550, canc. Cl. 52.
Panther Oil & Grease Mfg. Co., Fort Worth, Tex. 559,551, canc. Cl. 52.
Paragon Oil Co., Inc., Long Island City, N. Y. 358,372, ren. 7–12–58. Cl. 37.
Paragon Utilities Corp., New York and Brooklyn, N. Y. 559,500, canc. Cl. 13.
Parker Brothers, Inc., Salem, Mass. 356,611, ren. 5–3–58. Cl. 22.
Parris Mfg. Co., Clarinda, Iowa. 559,733, canc. Cl. 22.
Patek and Co., San Francisco, Calif. 559,672. Cl. 6.
Patjo Leather Corp., New York, N. Y. 664,861. Cl. 1.
Pellon Corp., New York, N. Y. 589,758. Am. 7(d). Cl. 42.
Pellon Corp., New York, N. Y. 592,888. Am. 7(d). Cl. 1.
Pellon Corp., New York, N. Y. 594,573. Am. 7(d). Cl. 42.
Pellon Corp., New York, N. Y. 599,211. Am. 7(d). Cl. 1.
Pendelton Woolen Mills, Portland, Oreg. 664,870. Cl. 39.
Pendergast, Raymond F., Chicago, Ill. 559,604, canc. Cl. 44.
Penney, Milton H., d. b. a. Penney Woodcraft Industries, to Nelson Lambert, Defiance, Ohio. 581,118, new cert. Cl. 19.
Penney Woodcraft Industries: *See*—
Penney, Milton H.
Pennsalt Chemicals Corp.: *See*—
Heintz Mfg. Co.
Pennsylvania Salt Mfg. Co., The: *See*—
Heintz Mfg. Co.
Peter Pan Foundations, Inc., New York, N. Y. 650,114, canc. Cl. 39.
Peter Pan Foundations, Inc., New York, N. Y. 664,788–9, pub. 5–6–58. Cl. 39.
Peter Pan Foundations, Inc., New York, N. Y. 664,874. Cl. 39.
Peters & Russell, Inc., Springfield, Ohio. 559,524, canc. Cl. 23.
Petrolite Corp. Ltd., Webster Groves, Mo. 559,523, canc. Cl. 6.
Phelps Shoe Co., Ltd., Shreveport, La. 664,775, pub. 5–6–58. Cl. 39.
Phillips Lens Co., Inc., Middlesex, N. J. 664,709, pub. 5–6–58. Cl. 26.
Pilot Distributing Co., Battle Creek, Mich. 664,653, pub. 5–6–58. Cl. 19.
Pioneer Industries, Inc., Darby, Pa. 664,776, pub. 5–6–58. Cl. 39.
Plas-Tex Corp., The, Los Angeles, Calif. 664,581, pub. 5–6–58. Cl. 2.
Plastic Film Products Corp., Akron, Ohio. 559,554, canc. Cl. 2.
Plastic Film Products Corp., Akron, Ohio. 559,555, canc. Cl. 2.
Plymouth Hosiery Mills, Inc., High Point, N. C. 664,777, pub. 5–6–58. Cl. 39.
Potts, Orion A., d. b. a. Klean-it Co., Youngstown, Ohio. 378,641, canc. Cl. 6.
Prescott Co., The, Menominee, Mich. 360,983, ren. 10–4–58. Cl. 23.
Professional Bat Co., Little Falls, N. Y. 664,679, pub. 5–6–58. Cl. 22.
Quality Looms, Inc., New York, N. Y. 664,808, pub. 5–6–58. Cl. 42.
Raab, M. H., -Meyerhoff Co., Inc., Philadelphia, Pa. 356,730, ren. 5–10–58. Cl. 39.
Rancher's Pride Foods: *See*—
Washington Creamery Co.
Rancher's Pride Foods, to Acme Poultry Co., Seattle, Wash. 592,817, new cert. Cl. 46.
Real Gold Co.: *See*—
Mutual Orange Distributors.
Recoton Corp.: *See*—
Karns, Saul J.
Reeves Brothers, Inc.: *See*—
Thurston Cutting Corp.
Revere Rubber Co., Chelsea, Mass. 85,280, canc. Cl. 39.
Rhea Mfg. Co., Milwaukee, Wis. 664,814, pub. 5–6–58. Cl. 42.
Ring Guild of America, Inc., New York, N. Y. 664,860, pub. 5–6–58. Cl. 300.
Roddis Plywood Corp., Marshfield, Wis. 664,610, pub. 5–6–58. Cl. 12.
Roeclux Chemical Co. Inc., Brooklyn, N. Y. 361,015, ren. 10–4–58. Cl. 52.
Ross, Clarence A., New York, N. Y. 664,804, pub. 5–6–58. Cl. 42.
Rykoff, S. E., & Co., Los Angeles, Calif. 664,849, pub. 4–8–58. Cl. 52.
S & S Industries, Inc., New York, N. Y. 559,519, canc. Cl. 18.
Sacos y Tejidos Dominicanos, C. por A., Ciudad Trujillo, Dominican Republic. 664,597, pub. 5–6–58. Cl. 7.
Saks & Co., New York, N. Y. 664,765, pub. 5–6–58. Cl. 39.
Salser, Clarence M., Cincinnati, Ohio. 664,770, pub. 5–6–58. Cl. 39.
Samco Products Co.: *See*—
Karns, Saul J.
Savini Food Specialties, Inc., East Boston, Mass. 664,880. Cl. 46.
Schering Aktiengesellschaft, Berlin, Germany. 664,638, pub. 5–6–58. Cl. 18.
Schering Corp., Bloomfield, N. J. 360,614, ren. 9–20–58. Cl. 18.
Schering Corp., Bloomfield, N. J. 664,644, pub. 5–6–58. Cl. 18.
Schnakenberg, Henry J., d. b. a. Henry's, Westfield, N. J. 664,876. Cl. 46.
Schon, Bernhard, Potts Point, Sydney, New South Wales, Australia. 559,539, canc. Cl. 39.
Schroeder Co., McGregor, Iowa. 664,676, pub. 5–6–58. Cl. 22.
Scott & Williams, Inc., Laconia, N. H. 664,772, pub. 5–6–58. Cl. 39.
Searle, G. D., & Co., Skokie, Ill. 664,645, pub. 12–10–57. Cl. 18.
Seattle Woolen Co., Inc.: *See*—
Curtis, Dorothy S.
Seaver Co.: *See*—
Seline, S. A.
Selchow & Righter Co.: *See*—
Eseanar Co., Inc.
Sel-Index Mfg. Corp., Burbank, Calif. 664,730, pub. 5–6–58. Cl. 37.
Seline, S. A., d. b. a. Seaver Co., Omaha, Nebr. 559,549, canc. Cl. 6.
Seton Leather Co., Newark, N. J. 664,569, pub. 5–6–58. Cl. 1.
Sexauer Co., The, Brookings, S. Dak. 664,570, pub. 5–6–58. Cl. 1.
Sexauer Co., The, Brookings, S. Dak. 664,567, pub. 5–6–58. Cl. 1.
Seymour of Sycamore, Inc., Sycamore, Ill. 559,730, canc. Cl. 16.

Shand and Jurs Co., Berkeley, Calif. 664,622, pub. 5–6–58. Cl. 13.
Shapiro Bros. Shoe Co. Inc., Auburn, Maine. 664,762, pub. 5–6–58. Cl. 39.
Shaw, Alex D., & Co., to Munson G. Shaw Co. Inc., New York, N. Y. 123,390, ren. 10–29–58. Cl. 47.
Shaw, Munson G., Co. Inc.: *See*—
Shaw, Alex D., & Co.
Showstack, Paul J., d. b. a. Cig-Alarm Co., Boston, Mass. 664,695, pub. 5–6–58. Cl. 26.
Simonds Abrasive Co.: *See*—
Abrasive Co.
Skamperette Co., New York, N. Y. 537,683, canc. Cl. 39.
Sleepy Hollow Craftsmen, Inc., Cincinnati, Ohio. 559,676, canc. Cl. 38.
Sloane, W. & J., New York, N. Y. 559,513, canc. Cl. 2.
Smith, A. O., Corp., Milwaukee, Wis. 664,686, pub. 5–6–58. Cl. 23.
Snell-Jones Tack Corp., Rockton, Mass. 559,711, canc. Cl. 18.
Snyder Chemical Co., Akron, Ohio. 664,848, pub. 5–6–58. Cl. 52.
Societe Chimique des Usines du Rhone Anciennement Gilliard, P. Monnet et Cartier, to Societe des Usines Chimiques Rhone-Poulenc, Paris, France. 122,924, ren. 9–24–58. Cl. 51.
Societe des Usines Chimiques Rhone-Poulenc: *See*—
Societe Chimique des Usines du Rhone Anciennement Gilliard, P. Monnet et Cartier.
Sommers, G., & Co., St. Paul, Minn. 126,785, canc. Cl. 16.
Sooty Concessions Ltd., London, England. 664,717, pub. 5–6–58. Cl. 30.
Sperry Rand Corp., New York, N. Y. 664,698, pub. 5–6–58. Cl. 26.
Standard Milling Co., Chicago, Ill. 559,621, canc. Cl. 46.
Stauffer & Sons, Inc., Blue Mounds, Wis. 664,821, pub. 4–15–58. Cl. 46.
Sterling Drug Inc.: *See*—
Molle Co., The.
Stewart, Jesse C., Co., Pittsburgh, Pa. 664,596, pub. 10–30–56. Cl. 7
Stone Container Corp., Chicago, Ill. 664,579–80, pub. 5–6–58. Cl. 2.
Strianese, Bernard V., d. b. a. Ackerman Engravers, New York, N. Y. 664,694, pub. 5–6–58. Cl. 26.
Sunkist Growers, Inc., Los Angeles, Calif. 664,633, pub. 5–6–58. Cl. 46.
Supowitz Brothers, Pittsburgh, Pa. 664,768, pub. 5–6–58. Cl. 39.
Supowitz Brothers, Pittsburgh, Pa. 664,773, pub. 5–6–58. Cl. 39.
Systone Medicine Co., Cincinnati, Ohio. 664,637, pub. 12–14–54. Cl. 18.
Teenform Foundations, Inc., New York, N. Y. 664,756, pub. 5–6–58. Cl. 39.
Telex, Inc., St. Paul, Minn. 664,600, pub. 5–6–58. Cl. 8.
Templeton Glove Co., Inc., Fonda, N. Y. 664,875. Cl. 39.
Thomas Publishing Co., New York, N. Y. 356,819, ren. 5–10–58. Cl. 38.
Thorer & Co., Offenbach am Main, Germany. 664,745, pub. 5–6–58. Cl. 39.
Thurston Cutting Corp., to Reeves Brothers, Inc., New York, N. Y. 359,999, ren. 9–6–58. Cl. 40.
Tibbals Flooring Co., Oneida, Tenn. 664,613, pub. 5–6–58. Cl. 12.
Timme, E. F., & Son, Inc., New York, N. Y. 664,806, pub. 5–6–58. Cl. 42.
Today's Design, Inc., Burlington, Vt. 664,740, pub. 5–6–58. Cl. 38.
Topsail Lubricants, Inc., Kenmore, N. Y. 664,628, pub. 11–5–57. Cl. 15.
Tracy, Madison H., d. b. a. National Auto Glass Specifications, Detroit, Mich. 559,512, canc. Cl. 26.
Trans-World Optical Corp., New York, N. Y. 664,704, pub. 5–6–58. Cl. 26.
Trencher of Old New York, Inc., New York, N. Y. 664,757, pub. 5–6–58. Cl. 39.
Tritle Laboratories, to J. B. Mitchell, Seattle, Wash. 660,429, cor. Cl. 51.
Truval Shirt Co., Inc.: *See*—
Liebovits, S., & Sons, Inc.
Ullman Devices Corp., Norwalk, Conn. 664,662, pub. 5–6–58. Cl. 21.
Union Bag-Camp Paper Corp., New York, N. Y. 664,575–6, pub. 5–6–58. Cl. 1.
Union Carbide Corp.: *See*—
Bakelite Corp.
United Aircraft Products, Inc., Dayton, Ohio. 559,506, canc. Cl. 13.
United-Carr Fastener Corp.: *See*—
Carr Fastener Co.
United States Movidyn Corp., Chicago, Ill. 664,590, pub. 5–6–58. Cl. 6.
United States Rubber Co., New York, N. Y. 291,241, canc. Cl. 12.
United States Rubber Co., New York, N. Y. 292,957, canc. Cl. 23.
United States Rubber Co., New York, N. Y. 664,673, pub. 5–6–58. Cl. 22.
United States Steel Corp.: *See*—
Boyle Mfg. Co., Inc.
University of Miami, The, Coral Gables, Fla. 664,741, pub. 5–6–58. Cl. 38.
Upjohn Co., The, Kalamazoo, Mich. 664,646, pub. 5–6–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 664,743, pub. 5–6–58. Cl. 38.
Utility Tools Inc., New York, N. Y. 559,516, canc. Cl. 23.
Vapor Recovery Systems Co., Compton, Calif. 664,693, pub. 5–6–58. Cl. 26.
Vaughn Bait Co.: *See*—
Vaughn, Maurice L.
Vaughn, Maurice L., d. b. a. Vaughn Bait Co., Smithville, Tenn. 664,675, pub. 5–6–58. Cl. 22.
Venice Maid Co., Inc., Vineland, N. J. 664,831, pub. 5–6–58. Cl. 46.
Ventfabrics, Inc., Chicago, Ill. 664,623, pub. 5–6–58. Cl. 13.
Vina San Jose-Tocornal, Santiago, Chile. 664,837, pub. 5–6–58. Cl. 47.
Vosemar Co., The: *See*—
Moore, Thomas.
Vulcan Radiator Co., The, Hartford, Conn. 664,869. Cl. 34.
Wakefield Coffee Co.: *See*—
Wakefield Coffee Co. of California.
Wakefield Coffee Co. of California, d. b. a. Wakefield Coffee Co., Glendale, Calif. 559,655, canc. Cl. 46.
Wanamaker, John, Philadelphia, Philadelphia, Pa. 360,890, ren. 9–27–58. Cl. 32.
Washington Creamery Co., to Rancher's Pride Foods, to Acme Poultry Co., Seattle, Wash. 575,775, new cert. Cl. 46.
Watson, Leland A., d. b. a. Medical Acoustic Instrument Co., to Maico Electronics, Inc., Minneapolis, Minn. 361,388, ren. 10–18–58. Cl. 44.
Wausau Brewing Co., Wausau, Wis. 359,062, ren. 8–2–58. Cl. 48.
Wear-A-Blanket, Inc., Cleveland, Ohio. 664,755, pub. 5–6–58. Cl. 39.
Weather Products Inc., Hialeah, Fla. 664,615, pub. 5–6–58. Cl. 13.
Weather-Seal, Inc., Barberton, Ohio. 664,661, pub. 5–6–58. Cl. 21.
Webster, William A., Co., The, Memphis, Tenn. 664,651, pub. 5–6–58. Cl. 18.
Weisel & Co., Inc., Milwaukee, Wis. 559,581, canc. Cl. 46.
Weiss, James, d. b. a. Master Products Co., Chicago, Ill. 664,877. Cl. 46.
Wembley, Inc., New Orleans, La. 664,790, pub. 5–6–58. Cl. 39.
West Coast Growers & Packers, Inc.: *See*—
Fewel Bros. Packing Co.
West Coast Roofing Co., d. b. a. Glas-Top Products, Oakland, Calif. 664,612, pub. 5–6–58. Cl. 12.
Western Tablet & Stationery Corp.: *See*—
Blair, J. C., Co.
Western Tablet & Stationery Corp., Dayton, Ohio. 664,729, pub. 5–6–58. Cl. 37.
West Point Mfg. Co., West Point, Ga. 664,805, pub. 5–6–58. Cl. 42.
Wetzell Gummiwerke Aktiengesellschaft, Hildesheim, Germany. 664,677, pub. 5–6–58. Cl. 22.
Wheeling Corrugating Co., Wheeling, W. Va. 357,891, ren. 6–21–58. Cl. 14.
White Stag Mfg. Co., Portland, Oreg. 664,794, pub. 5–6–58. Cl. 39.
White-Washburne Co., Inc., Hinsdale, N. H. 556,037, canc. Cl. 37.
Whiting-Adams Co., Inc., Boston, Mass. 664,715, pub. 1–7–58. Cl. 29.
Wighardt, Hermann, Textilwerk Fulda: *See*—
Wighardt, Maria, nee Weber.
Wighardt, Maria, nee Weber, d. b. a. Hermann Wighardt Textilwerk Fulda, Fulda, Germany. 664,752,, pub. 5–6–58. Cl. 39.
Wilkinson, Fritz, Point Lookout, Long Island, N. Y. 559,627, canc. Cl. 38.
Williamson Candy Co., Chicago, Ill. 361,666, ren. 10–25–58. Cl. 46.
Wilson Sporting Goods Co., River Grove, Ill. 664,671–2, pub. 5–6–58. Cl. 22.
Wolverine Paper Converting Machinery Corp., Detroit, Mich. 664,682, pub. 5–6–58. Cl. 23.
World Neighbors, Inc., Washington, D. C. 664,738, pub. 5–6–58. Cl. 38.
Wright, Dode, Kansas City, Mo. 422,540, canc. Cl. 6.
Wyner Fabrics, Ltd., New York, N. Y. 664,815, pub. 5–6–58. Cl. 42.
Wynn, Clarence M., d. b. a. Wynoil Laboratories. Clarence M. Wynn, d. b. a. Dri-Powr Co., Azusa, Calif. 580,185. Am. 7(d). Cl. 52.
Wynoil Laboratories: *See*—
Wynn, Clarence M.
Yale & Towne Mfg. Co., The, New York, N. Y. 664,624, pub. 5–6–58. Cl. 13.
York Ice Machinery Corp., York, Pa., to Borg-Warner Corp., Chicago, Ill. 360,379, ren. 9–13–58. Cl. 34.
Youthcraft Creations, Inc., New York, N. Y. 664,748, pub. 4–16–57. Cl. 39.
Zirin, Benjamin, d. b. a. Zirin Enterprises, Hialeah, Fla. 664,647, pub. 5–6–58. Cl. 18.
Zirin Enterprises: *See*—
Zirin, Benjamin.

U. S. GOVERNMENT PRINTING OFFICE: 0—1958

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

July 29, 1958 Volume 732 Number 5

PATENTS

NOTICES

Foreign Patents Received in the Scientific Library as of June 30, 1958

Country	Date received	Highest number
Australia		
(*Abstracts*)	June 20, 1958	33,029
(*Patents*)	June 20, 1958	212,617
Austria	June 16, 1958	197,700
Belgium	June 3 1958	533,500
Canada	June 23, 1958	559,129
Denmark	May 2, 1958	84,325
Egypt	Mar. 24, 1958	1,069
Finland	Mar. 19, 1958	29,227
France		
(*Patents*)	June 23, 1958	1,156,300
(*Additions*)	June 16, 1958	68,650
Germany		
(*Auslegeschriften*)	June 18, 1958	1,027,600
(*Patents*)	Mar. 11, 1958	1,010,864
Great Britain	June 27, 1958	796,580
India	May 5, 1958	58,166
Ireland	Apr. 9, 1958	21,450
Italy	June 27, 1958	553,200
Japan	May 19, 1958	2,900
Netherlands	June 5, 1958	88,293
Norway	June 9, 1958	91,473
Philippines	June 29, 1956	217
Poland	June 11, 1958	40,656
Sweden	June 23, 1958	163,067
Switzerland	June 23, 1958	329,275
Yugoslavia	Feb. 17, 1955	16,461

Australia: First 2,000 incomplete
Belgium: First printed 493,079
Canada: First printed 453,748
Czechoslovakia: Latest 81,300/1952
Finland: First printed 19,428
First 500 incomplete
Hungary: First received 5,792
Latest 140 582/1951
Ireland: Missing 1–10,000
Italy: First 243,000 incomplete
Russia: Latest 2496/1928
Yugoslavia: First received 10,001

Classification Order No. 252

The following class transfer, for concurrent reclassification and examination of applications pending therein, is directed to take effect on Monday, July 7, 1958:

From Division 33 to Classification Division V:
Class 72, MASONRY AND CONCRETE STRUCTURES

M. C. ROSA,
Director, Patent Examining Operation.

Patents Available for Licensing or Sale

2,803,888. Apparatus for Lyophilising Products Contained in Small Bottles. Santiago Cerletti, Milan, Italy. Correspondence to: Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,810,362. Speed Indicators. Ottar Landheim, 819 58th St., Brooklyn, N. Y.

2,836,843. Leveler. Edward J. Gallagher, Jr., 3501 Ednor Road, Baltimore 18, Md.

General Electric Company is prepared to grant non-exclusive licenses under the following 22 patents upon reasonable terms to domestic manufacturers.

Applications for license may be addressed to: General Electric Company, Appliance & Television Receiver Division, Appliance Park, Louisville 1, Ky.

2,745,710. Center Guide Support for Refrigerator Vegetable Pan.

2,782,831. Automatic Gauge for Press Brakes.

2,823,962. Bearing Assembly and Clothes Dryer Equipped Therewith.

2,824,385. Water Spreader for Clothes Drying Machine.

2,824,386. Moisture Condensing System for Clothes Drying Machines.

2,826,217. Restrictor Valves.

2,826,388. Shelf Support.

2,826,442. Latch Mechanism.

2,826,471. Frozen Fruit Juice Dispenser.

2,828,178. Refrigerator Compartment Shelf and Guard Assembly.

2,829,838. Waste Disposal Apparatus.

2,829,840. Waste Disposal Apparatus.

2,829,841. Waste Disposal Apparatus.

2,830,363. Method for Making a Tubular Element.

2,830,750. Variable Displacement Rotary Pump.

2,830,863. Cabinet Hanger.

2,832,208. Adjustable Vibration Sensing Means for Laundry Machines.

2,836,186. Washing Apparatus With Tub Sealing System.

2,836,305. Adjustable Shelf Structure.

2,836,349. Compression Arrangement.

2,836,453. Adjustable Magnetic Door Latch.

2,836,697. Electric Range.

New Applications Received During May 1958

Patents	6,750
Designs	444
Plant Pats	10
Reissues	42
Total	7,246

Issue

Patents	805	No. 2,844,820 to No. 2,845,624, incl.
Designs	24	No. 183,272 to No. 183,295, incl.
Plant Pats	6	No. 1,734 to No. 1,739, incl.
Reissues	2	No. 24,508 to No. 24,509, incl.
Total	837	

CONDITION OF PATENT APPLICATIONS AS OF MAY 31, 1958

Total number of pending applications (excluding Designs)	208, 262
Total number of pending Design applications	6, 624
Total number of applications awaiting action (excluding Designs)	87, 935
Total number of Design applications awaiting action	3, 067
Date of oldest new application	June 4, 1957
Date of oldest amended application	May 17, 1957

M. C. ROGA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 32, 48, 49, 50, 55, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 45, 51, 54, 58.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 38, 56, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-30-57	9-4-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	9-26-57	9-9-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	12-3-57	10-29-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	8-13-57	8-26-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminuters; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	8-8-57	8-6-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	10-1-57	10-24-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. O., acting), Optics	9-11-57	9-9-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-11-57	10-14-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	9-30-57	9-10-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	9-17-57	10-3-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	10-28-57	10-14-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	9-13-57	7-1-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-3-57	9-3-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	9-6-57	8-23-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	9-5-57	9-16-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	8-13-57	8-3-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	10-10-57	10-11-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	9-3-57	9-3-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	9-10-57	9-3-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	9-4-57	9-12-57
21. (III) MADER, R. C., Textiles	7-18-57	7-16-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	9-3-57	9-3-57
23. (VI) SMITH OW, I., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	8-4-57	8-17-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	11-7-57	11-13-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	9-16-57	9-15-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-1-57	10-3-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	10-16-57	10-17-57
28. (VI) BRAUNER, E. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyors; Pressure Modulating Relays; Wheel Substitutes	8-26-57	8-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	9-3-57	7-26-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	10-15-57	10-7-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	9-30-57	10-1-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-11-57	9-16-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-18-57	10-7-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	10-3-57	10-2-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	1-2-58	1-3-58
36. (V) CUTTING, C. A., (acting), Measuring and Testing; Automatic Weighers; Weighing Scales	7-8-57	7-2-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	9-4-57	9-10-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carboxylic or Acrylic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	11-20-57	12-2-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	11-15-57	11-25-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	11-1-57	11-1-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	9-9-57	8-22-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	8-1-57	8-1-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	9-3-57	9-5-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	9-4-57	9-3-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	9-13-57	9-13-57
46. (I) WILES, W. G. (CAMPBELL, E. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	10-3-57	9-10-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	10-2-57	9-16-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	8-16-57	8-22-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	10-7-57	10-14-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	11-1-57	11-6-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	9-5-57	9-6-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	9-4-57	9-3-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Feed Apparatus; Closure Operators	11-19-57	10-7-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	11-4-57	11-6-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	7-9-57	7-5-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	10-8-57	10-1-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	12-10-57	12-3-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	10-30-57	10-8-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	9-11-57	8-29-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	12-22-57	10-18-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	9-3-57	9-3-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	11-5-57	11-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	8-22-57	9-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	9-4-57	8-15-57
65. (V) LIBANN, I., Geometric Instruments; Acoustics; Building Structures	9-3-57	8-29-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	9-10-57	9-9-57
68. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	11-1-57	10-25-57
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CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	8-3-57	9-9-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	9-16-57	9-10-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	9-3-57	9-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	7-1-57	6-6-57
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DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	9-6-57	10-21-57

*Established August 22, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 66

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during July 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents	Numbers 2,247,345, to 2,251,257, inclusive
Plant Patents	Numbers 478 to 479, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals
District of Columbia Circuit

MARCALUS MANUFACTURING COMPANY, INC.
v.
ROBERT C. WATSON, COMMISSIONER OF PATENTS

No. 14306. Decided June 26, 1958

[— U. S. App. D. C. —; — F.2d —; — USPQ —]

1. TRADEMARKS — REGISTRABILITY — QUESTION WHETHER GOODS "MAY BE" DISTINGUISHED BY MARK IS A QUESTION OF FACT—MAY BE PRESUMED WHERE MARK IS DISTINCTIVE OR UNIQUE—NO PRESUMPTION WHERE MARK IS A COMMON BASIC SHAPE.

"It is, of course, a question of fact whether a given mark is a means whereby the applicant's goods 'may be' distinguished from the goods of others, and in the case of a distinctive or unique mark this quality may readily appear and thus be presumed. But where the mark consists solely of a common basic shape, such as an oval, we think it not proper to presume that such a mark is a means whereby the goods may be distinguished and thus entitled to be registered."

2. APPEAL TO U. S. COURT OF APPEALS, DISTRICT OF COLUMBIA CIRCUIT—TRADEMARKS—APPLICANT'S RIGHTS UPON RE-APPLYING FOR REGISTRATION AFTER REFUSAL BY COURT NOT DECIDED.

After finding no error in the District Court's conclusion that evidence offered by appellant was insufficient to show the public had in fact come to accept a maroon oval by itself as a symbol of applicants' goods, *Held* that "We need not reach or decide what will be appellant's rights if he re-applies for registration and submits more persuasive evidence to overcome the presumption that a non-distinctive oval by itself is not a mark whereby appellant's 'goods . . . may be distinguished.'"

APPEAL from the United States District Court for the District of Columbia.

AFFIRMED.

J. Preston Swecker (*William L. Mathis* and *Robert F. Beck* of counsel) for Marcalus Manufacturing Co. Inc.

Clarence W. Moore, Solicitor, United States Patent Office, for the Commissioner of Patents.

Before FAHY, DANAHER and BURGER, *Circuit Judges*

PER CURIAM:

Appellant sold paper products in wrappers which bore a maroon oval with the registered name "Marcal" and other words superimposed in the oval in white letters. This case arose when appellant sought to register the maroon oval by itself, without any wording.[1] The Patent Office refused registration, and appellant filed an action in the District Court under 15 U. S. C. § 1071 and 35 U. S. C. § 145. The District Court dismissed the complaint, concluding that the various maroon ovals by themselves were not in fact distinguishing marks for appellant's products.

Appellant argues that the statute does not allow refusal of registration of a mark on account of its nature, where the mark is a means whereby the goods "*may* be distinguished" from the goods of others.[2] [1] It is, of course, a question of fact whether a given mark is a means whereby the applicant's goods "may be" distinguished from the goods of others, and in the case of a distinctive or unique mark this quality may readily appear and thus be presumed. But where the mark consists solely of a common basic shape, such as an oval,[3] we think it not proper to presume that such a mark is a means whereby the goods may be distinguished, and thus entitled to be registered. The District Court properly received evidence offered by appellant to show the public had in fact come to accept the oval by itself as a symbol of appellant's goods, and we think there was no error in concluding that the evidence was insufficient.[4] [2] We need not reach or decide what will be appellant's rights if he re-applies for registration and submits more persuasive evidence to overcome the presumption that a non-distinctive oval by itself is not a mark whereby appellant's "goods . . . may be distinguished."[5]

AFFIRMED.

[1] The court below found that the oval without words had never been used on packages sold to the public, although appellant's shipping cartons (not ordinarily visible to the public) sometimes bore the oval by itself.

[2] Trademark Act of 1905, 33 Stat. 725, 15 U. S. C. § 85. This act has been superseded by the Lanham Act of 1946, 60 Stat. 428, 15 U. S. C. § 1052, but appellant's application was filed at a time when the 1905 act was still in effect. The pertinent language is substantially the same in both acts.

[3] While neither party made an issue of it, we note that the maroon oval sought to be registered by appellant varied in shade and shape on the wrappers for different products. It would appear, although of course we do not decide, that such variations in the mark bear upon the question of non-registrability.

[4] *See Hygienic Products Co. v. Coe*, 68 App. D. C. 98, 85 F.2d 264 (1936), where a yellow rectangle with a blue border was allowed registration in light of evidence that the public actually identified the goods by means of that mark. See also *Application of Hillerich & Bradsby Co.*, 204 F.2d 287 (CCPA 1953).

[5] The Patent Office readily concedes that a common basic shape may be registered, "provided it is in fact the distinguishing mark of the applicant . . ."

U. S. Court of Customs and Patent Appeals

MEDICATED PRODUCTS CO. v. ALICE JEWELRY CO.

No. 6363. Decided May 23, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. TRADEMARKS—CONFUSING SIMILARITY—PAST DECISIONS.

"We have repeatedly held that past decisions on confusing similarity are of little assistance in new fact situations wherein entirely different marks and products are involved."

2. SAME—CONSIDERED IN THEIR ENTIRETIES.

"Trademarks must be considered in their entireties."

3. SAME—CONFUSING SIMILARITY—"THE BRIDAL PAIR" AND "BRIDE'S PRIDE."

In regard to the mark "The Bridal Pair" for earrings, necklaces, keyrings, bracelets, and anklets and the mark "Bride's Pride" for wedding and engagement rings, *Held* that, while both marks contain the implication of a "bride" and the second words both begin with "P", they "are so different in sound, appearance and meaning that their concurrent use is not likely to confuse or deceive."

APPEAL from the Patent Office. Opposition No. 34,226.

AFFIRMED.

James R. McKnight for Medicated Products Co.

Elliot A. Salter for Alice Jewelry Co.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the decision of the Commissioner of Patents dismissing an opposition to application Serial No. 666,826 to register the mark "The Bridal Pair" for earrings, necklaces, keyrings, bracelets, and anklets made wholly or in part of precious metal, by the owner of Registration No. 551,057, issued November 20, 1951, of "Bride's Pride" for wedding and engagement rings. Applicant alleges use since January 10, 1954.

Neither party took testimony, opposer has submitted on brief and the applicant has filed none.

In affirming the Examiner, the Commissioner was of the opinion that "likelihood of confusion must be determined by considering the commercial impressions created by the marks in their entirety and not by dissecting the marks and comparing portions thereof. The marks 'The Bridal Pair' and 'Bride's Pride' do not look alike or sound alike, nor do they stimulate the same mental association or impressions. Under such circumstances, there is no likelihood of confusion or mistake of purchasers."

Appellant-opposer's brief sets forth a hypothetical situation wherein a fiancé first buys an engagement or wedding ring, and then, some time later, is allegedly confused as to trademarks when he purchases earrings, anklets, etc. The brief also cites a number of cases in which the court held marks entirely different from those here considered, to be confusingly similar. [1] We have repeatedly held that past decisions on confusing similarity are of little assistance in new fact situations wherein entirely different marks and products are involved.

[2] Trademarks must be considered in their entireties. [3] While it is true in the instant case that both marks contain the implication of a "bride" and that the second words both begin with "P," we believe that the involved marks are so different in sound, appearance and meaning that their concurrent use is not likely to confuse or deceive.

Therefore, the decision of the Commissioner of Patents is affirmed.

AFFIRMED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,501,681, B. Rosenberg, Window curtains, **filed** Apr. 10, 1956, D. C., S. D. N. Y., Doc. 108/311, *Cameo Curtains, Inc. v. Cortley Curtain Corp.* Stipulation and order of discontinuance June 16, 1958.

2,806,518, D. W. Fentress, Apparatus for making flexible tubing, **filed** June 9, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 561/58–BH, *Pleasonics Corp. v. Stainless Steel Products, Inc.*

2,541,092, R. M. Page, Radio frequency pulse transmission; **2,554,515**, Young and Page, Radio ranging system; **2,559,657**, same, Sweep generation; **2,809,994**, same, Pulse echo ranging cathode-ray tube sweep system; **2,610,319**, R. M. Page, Radio echo apparatus; **2,629,866**, same, Position indicating apparatus; **2,677,127**, same, Radio echo indicating apparatus; **2,668,746**, Young and Page, Impedance control coupling and decoupling system; **2,779,939**, R. M. Page, Indicating systems; **2,809,296**, Philpott and Page, Pulse transmitting systems, **filed** June 12, 1958, D. C., S. D. Tex. (Houston), Doc. 11958, *La Verne R. Philpott et al. v. Bendix Aviation Corp. et al.*

2,551,789, F. M. Pence, Kitchen range; **Des. 154,874**, same, Domestic range or similar article, **filed** July 9, 1953, D. C., S. D. Calif. (Los Angeles), Doc. 15702–WM, *Thermador Electrical Manufacturing Co. v. Western-Holly Appliance Co.* Final judgment; claims 1 and 12 of Patent No. 2,551,789 held valid and not infringed; Design Patent 154,874 held invalid Apr. 30, 1958.

2,554,515. (See 2,541,092.)

2,559,657. (See 2,541,092.)

2,565,042, H. P. Phillips, Piston rings, **filed** Mar. 17, 1952, D. C., W. D. Mich. (Grand Rapids), Doc. 2011, *Perfect Circle Corp. v. Hastings Mfg. Co.* Judgment entered; patent held invalid June 17, 1958.

2,577,710, E. G. McDonough, Permanent waving compositions and method, suit for Declaratory Judgment filed June 5, 1952, D. C., S. D. N. Y., Doc. 76/145, *Rayette, Inc. et al. v. Sales Affiliates, Inc.* Consent judgment; patent held invalid; defendant enjoined; counterclaim dismissed June 9, 1958.

2,599,994. (See 2,541,092.)

2,610,319. (See 2,541,092.)

2,614,008, J. T. Lascari, Dry cleaning method and apparatus, **filed** Aug. 20, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17918, *The Tex-Tone Corp. v. Cleaners Sales & Equipment Corp.* Order of dismissal June 10, 1958.

2,626,841, L. R. Potter, Self-aligning bearing; **2,724,172**, same, Method of forming a self-aligning bearing, **filed** Oct. 17, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20002–WB, *Southwest Products Co. v. Aetna Steel Products Corp.* Patents held valid and infringed; defendants restrained (notice June 12, 1958).

2,629,866. (See 2,541,092.)

2,637,481, C. Adams, Sr., Display carton for fruits and vegetables, **filed** Mar. 6, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17368, *Carl Adams, Sr. et al. v. Standard Folding Trays Corp.* Order of dismissal June 6, 1958.

2,635,755, T. W. Nichols, Toy cap pistol and cartridge, **filed** June 12, 1958, D. C., S. D. Tex. (Houston), Doc. 11959, *Nichols Industries, Inc. v. Hubley Mfg. Co., Inc. et al.*

2,671,537, J. Moon, Derrick mounting for portable drilling and servicing rigs, **filed** Feb. 27, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 289/57–WM, *James Moon et al. v. Cabot Shops, Inc. et al.* Patent held valid and not infringed; complaint dismissed (notice June 10, 1958).

2,675,845, E. I. Wolper, Flashing safety lamp, **filed** Feb. 26, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 17347, *Edward I. Wolper v. Patco Products Co., Inc.* Order of dismissal June 6, 1958.

2,677,127. (See 2,541,092.)

2,681,673, B. A. Mackey, Drill bit, **amended** complaint filed June 28, 1954, D. C., N. D. Ill. (Chicago), Doc. 53c1240, *Bruce A. Mackey et al. v. Sears, Roebuck & Co.* Cause dismissed; judgment for defendants Oct. 29, 1957 (notice received July 1, 1958).

2,688,746. (See 2,541,092.)

2,689,134, A. Lachance, Nestable cart, **filed** Nov. 30, 1955, D. C., S. D. N. Y., Doc. 105/187, *Armand Lachance et al. v. George W. Cocklin et al.* Patent held invalid; complaint dismissed June 12, 1958.

2,691,860, Leeds and Sweete, Crayon sharpener, **filed** June 4, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c990, *Leeds Sweete Products, Inc. v. Binney & Smith, Inc.*

2,693,554, S. D. Vigren et al., Electrical control magnets, **filed** June 13, 1958, D. C., S. D. N. Y., Doc. 134/200, *Stan Daniel Vigren et al. v. Western Electric Co., Inc. et al.*

2,694,588, C. B. Wooden, Seal for tractor bearings, **filed** June 13, 1958, D. C. Oreg. (Portland), Doc. 9855, *Adrian J. McDeMoude v. Cornelius B. Wooden et al.*

2,710,678, J. T. Bibb et al., Suspended ceiling construction, **filed** June 16, 1958, D. C., S. D. N. Y., Doc. 583/58–Y, *Lok-Products Co. v. Olympic Steel Products et al.*

2,724,172. (See 2,626,841.)

2,737,426, W. F. Peterson, Trunk piston; **2,737,427**, W. M. Venner et al., same, **filed** June 11, 1958, D. C., S. D. Ohio (Cincinnati), Doc. 4250, *Sterling Aluminum Products, Inc. v. Aluminum Industries, Inc.*

2,737,427. (See 2,737,426.)

2,740,735, Eesman and Kiscel, Portable air conditioning apparatus, filed July 8, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1141, *Keko Co., Inc.* v. *Parker Metal Products.* Final consent decree; patent held valid; defendants enjoined Dec. 28, 1956 (notice received June 13, 1958).

2,788,868, F. T. Anderson, Ignition apparatus, filed Feb. 4, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 95/58, *Co-operative Industries, Inc.* v. *Charles G. Friable et al.* Consent judgment; patent held valid and infringed; defendants permanently restrained (notice June 12, 1958).

2,761,266, L. Arnett, Coffee brewer, filed Sept. 19, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1547, *United Coffee Corp.* v. *National Coffee Corp. et al.* Stipulation of dismissal with prejudice (notice June 10, 1958).

2,778,989. (See 2,541,092.)

2,800,266. (See 2,541,092.)

2,800,844, M. Maccaferri, Plastic wall tile for packing, filed Jan. 20, 1956, D. C., S. D. N. Y., Doc. 129/72, *The Tile-Rite Co.* v. *Mastro Plastics Corp. et al.* Stipulation and order of discontinuance with prejudice June 12, 1958.

2,817,732, Pinkard and Quinn, Safety switch, filed June 10, 1956, D. C., E. D. La. (New Orleans), Doc. 8021, *The Parish Co.* v. *Reed Unit-Fuse, Inc.*

2,822,806, W. Hastings, Portable exercising device, filed June 5, 1956, D. C. Minn. (Minneapolis), Doc. 458/196, *Whitney Hastings et al.* v. *Jerrold Stephan Co.*

2,824,978, M. Nappe, Sealed pad, amended complaint filed June 13, 1958, D. C., Dist. of Col., Doc. 1357/58, *Morits Nappe* v. *Woodward & Lothrop, Inc.*

Re. 23,862, R. J. Oace et al., Insulating tape, filed June 20, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1051, *Johnson & Johnson et al.* v. *Minnesota Mining & Mfg. Co.* Dismissed by stipulation without prejudice Jan. 14, 1957 (notice received June 13, 1958).

Des. 184,574. (See 2,551,780.)

Des. 188,830, S. A. Tarrson, Gum ball dispensing machine, filed June 18, 1958, D. C., S. D. N. Y., Doc. 134/363, *Sidney A. Tarrson Co.* v. *Levy & Rosenthal, Inc.*

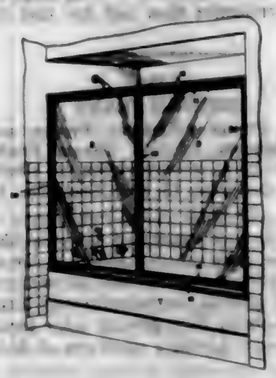
Des. 190,942, L. P. Reed, Handbag, filed Sept. 20, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 18015, *Pat Reed Originals, Inc.* v. *Eastern Seal Plastic, Inc.* Order of dismissal June 10, 1958.

REISSUES

JULY 29, 1958

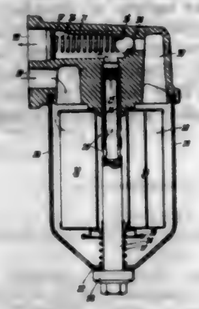
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,588
SHOWER DOOR ENCLOSURE STRUCTURE
Harold Greenman, Chicago, Ill.
Original No. 2,761,533, dated September 4, 1956, Serial No. 420,075, March 31, 1954. Application for reissue February 26, 1958, Serial No. 716,521
2 Claims. (Cl. 189—46)



1. A shower-enclosure structure comprising, a door-panel frame the top and bottom members of which are identical substantially h-shaped in cross-sectional form and the side members of which are identical substantially U-shaped in cross-sectional form, the four members embracing the door panel with its perimeter seated in the channel parts of the respective members, angle brackets secured to the transverse base within the abutting ends of the frame members for securing the members to each other around the panel, *suspension rollers journalled on the flange part of said top member,* a channel-shaped suspension fixture having spaced roller runways on the interior thereof located at points intermediate the base and the outer ends of the parallel parts of the fixture, a second fixture for parallel disposition below the suspension fixture and formed with separate parallel guideways to receive the flange part on the lower door-panel frame member, the jamb fixtures each being of a length greater than the height of the panelled door and seated in the ends of the suspension member with the transverse roller guideways of the suspension member resting on the upper ends of the jamb fixtures to support the suspension fixture in place above the second fixture.

24,589
LIQUID FILTRATION
Kenneth Ernest Buckmaster, Redbridge, Southampton, England, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original No. 2,792,124, dated May 14, 1957, Serial No. 386,926, October 19, 1953. Application for reissue September 11, 1957, Serial No. 683,434
Claims priority, application Great Britain November 28, 1952
5 Claims. (Cl. 210—487)



1. A liquid filter having a filter element which comprises a central perforated tube, a pair of end plates joined by said tube, a plurality of main folds of sheet material extending outwardly and in spaced relation around said tube and fixed to said end plates, each of said main folds comprising two contacting layers of sheet material extending close up to said tube, and at least one of said main folds having a portion of one of its layers spaced from said tube formed into an outwardly extending branch fold of contacting layers forming exterior walls of said branch fold.

PLANT PATENTS

GRANTED JULY 29, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,734
CARNATION
Wahsmann G. McLellan, Jr., Atherton, Calif., assignor to E. W. McLellan Company, Mount Eden, Calif., a corporation of California
Application July 30, 1957, Serial No. 675,236
1 Claim. (Cl. 47—60)

The new and distinct variety of carnation plant substantially as herein described and illustrated.

1,735
VARIETY OF STRAWBERRY
Earl V. Goldsmith, deceased, late of Morgan Hill, Calif., by Margaret S. Goldsmith, executrix, San Jose, and Harold E. Thomas, Morgan Hill, Calif.; said Margaret S. Goldsmith assignor to The Strawberry Institute of California
Application June 29, 1956, Serial No. 595,038
1 Claim. (Cl. 47—62)

A new and distinct variety of strawberry plant, substantially as herein described, characterized by its small

size and moderate vigor; by its large glossy wedge shaped fruit which are produced over a long fruiting season; by its ability to produce a large crop during the first growing year; and its good carrying quality when shipped to markets out of State.

1,736
VARIETY OF STRAWBERRY
Earl V. Goldsmith, deceased, late of Morgan Hill, Calif., by Margaret S. Goldsmith, executrix, San Jose, and Harold E. Thomas, Morgan Hill, Calif.; said Margaret S. Goldsmith assignor to The Strawberry Institute of California
Application June 29, 1956, Serial No. 595,039
1 Claim. (Cl. 47—62)

A new and distinct variety of strawberry plant, substantially as herein shown and described, characterized by its rugged plant which is tolerant of the virus diseases; and by its high production, its bright, glossy, round conic to long conic fruit which carries well on the market.

1,737
VARIETY OF STRAWBERRY
Earl V. Goldsmith, deceased, late of Morgan Hill, Calif., by Margaret S. Goldsmith, executrix, San Jose, and Harold E. Thomas, Morgan Hill, Calif.; said Margaret S. Goldsmith assignor to The Strawberry Institute of California
Application June 29, 1956, Serial No. 595,040
1 Claim. (Cl. 47—62)

A new and distinct variety of strawberry plant, substantially as herein shown and described, characterized by a large vigorous plant which bears long conical, glossy fruit having excellent shipping and processing qualities; and by its capacity to fruit well the first year in cool areas and its ability to produce a high yield during a long fruiting season.

1,738
PEACH TREE
Frederic W. Anderson, Merced, Calif., assignor to Klus Bros., Reedley, Calif., a partnership doing business under the fictitious name of Reedley Nursery
Application December 27, 1957, Serial No. 705,728
1 Claim. (Cl. 47—62)

A new and distinct variety of peach tree, as illustrated and described, which bears large, firm, yellow-fleshed, freestone fruit having a yellow surface color partially blushed with red, and particularly characterized by ripening approximately one week later than the Royal Hale and J. H. Hale peaches and about with the Rio Oso Gem peach; further characterized—as compared with said Rio Oso Gem peach—by general similarity in size, color, and firmness of flesh, but being more nearly round, with a smooth instead of a rough suture line, a delicate flavor with less acidity, and better eating quality; and additionally characterized by the tree being larger, and more vigorous and productive than said Rio Oso Gem peach tree.

1,739
HIBISCUS PLANT
Eugène Godin, Clamart-Malabry, France, assignor, by mesne assignments, to Gulf Stream Products, Inc., Wachapreague, Va., a corporation of Virginia
Application December 13, 1957, Serial No. 702,744
1 Claim. (Cl. 47—60)

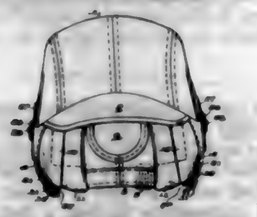
A new and distinct variety of hibiscus plant of the *Hibiscus syriacus* class, substantially as herein shown and described, characterized particularly as to novelty by its strong habit of growth, its exceptionally large flowers, and the clear Lobelia Blue general color tonality of its flowers, said flowers having a small eye of Bishop Violet color.

PATENTS

GRANTED JULY 29, 1958

GENERAL AND MECHANICAL

2,844,820
NOISE PROTECTIVE DEVICE
Harry W. Austin, Monroeville, Robert R. Hornichel, Pittsburgh, and Don E. Stetson, Penn Township, Pa., assignors to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 29, 1955, Serial No. 531,128
13 Claims. (Cl. 2—6)



1. An adjustable ear pad support for use in a noise protective device provided with a head-supported member and ear pads, said adjustable support comprising an ear cup supporting the ear pad, the base of the ear cup having an inner and an outer wall forming a pocket therebetween, the outer wall being provided with a restricted opening communicating with the pocket, an adjusting member slidably received within the pocket and having fastening means extending through the opening of the outer wall to secure the adjusting member to the head-supported member, whereby the ear cup may be slidably displaced relative to the adjusting member and the fastening means.

2,844,821
TIE ORNAMENTS
William O. Shertz, Los Angeles, Calif.
Application November 13, 1956, Serial No. 621,864
4 Claims. (Cl. 2—154)



1. A bow necktie comprising a continuous length of fabric having a front panel, a second panel, a back panel and a neckband when formed into a bow, said front panel defining an opening therethrough adapted to receive a removable ornament, said second panel defining a longitudinal slot coextensive with said opening when said tie is formed to a bow, said slot having a length substantially greater than the length of said opening.

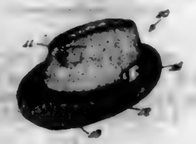
2,844,822
CAP WITH HAVELOCK
Ralph W. Persico, Philadelphia, Pa., and Michael P. Carbucci, Natick, Mass., assignors to the United States of America as represented by the Secretary of the Army
Application April 3, 1956, Serial No. 575,918
5 Claims. (Cl. 2—172)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a cap having a substantially cylindrical side wall portion and a crown portion; the improvement comprising a havelock for said cap, said havelock having an upper edge secured to side and rear portions of said side wall portion in the region of said crown portion, said havelock being formed with a plurality of parallel horizontal creases providing fold lines, said creases defining a series of horizontal panels, there being a top panel overlying side and rear portions of said side wall portion and a plurality of depending panels, each depending



panel having a height not greater than the height of said top panel, said depending panels when folded on said creases to a folded position providing a concentric series of panels between said top panel and at least the rear and sides of said side wall portion of said cap, and means for readily releasably securing all of said panels in said folded position.

2,844,823
TWO-TONE HAT AND METHOD OF MAKING SAME
Charles R. Havens, Norwalk, and Gerry A. Magrath, East Norwalk, Conn., assignors to Hat Corporation of America, Norwalk, Conn., a corporation of Delaware
Application August 19, 1957, Serial No. 678,764
4 Claims. (Cl. 2—194)



1. A two-tone fur felt hat having an integral crown portion and brim portion of substantially uniform thickness, the entire brim portion being of feltable fur fibers forming one color and the crown portion being of a blend of feltable fur fibers at least one of which is different in color from the fur in said brim portion to form a crown portion of contrasting color to said brim portion.

2,844,824
UNIFORM CAP WITH SEPARABLE CROWN
Bernard Weinstein, Woburn, Mass., assignor to Bancroft Cap Company, Framingham, Mass., a corporation of Massachusetts
Application March 27, 1956, Serial No. 574,146
4 Claims. (Cl. 2—195)

1. A uniform cap comprising a relatively stiff headband adapted to encircle a wearer's head and having an upper edge, a strip having an inverted channel-shaped portion with depending legs and having a relatively stiff bead projecting sidewise from said channel-shaped portion, said strip being mounted on said upper edge with one said

leg secured inside and another said leg secured outside the headband and said bead projecting outward from the headband, and a crown having a lower margin closely surrounding the outside of said headband and engaged under said bead, said crown being removable from said



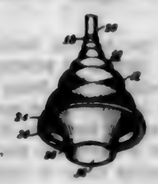
headband and retained thereon by engagement of said margin with said bead, and said headband being capable of limited flexure to permit said margin to be slid up over said bead thereby permitting removal of the crown from the headband.

2,844,825
BATHTUB HEATING ASSEMBLIES
Ebert R. Gemarke, Oconomowoc, Wis.
Application May 9, 1957, Serial No. 658,187
2 Claims. (Cl. 4—179)



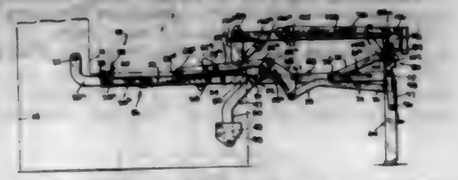
2. In combination with a bathtub having a frontal flange extending downwardly beyond the tub portion to form a wall, said wall having a grilled opening, a floor surface under the tub having an aperture therein, a hot air duct having its discharge end in said aperture to supply heat under the tub and within said frontal wall, and a plurality of externally concave rings arranged progressively smaller from bottom to top crowning the discharge end of said hot air duct to diffuse heat laterally under said tub portion.

2,844,826
PRESSURE DEVICE
Samuel S. Chelton, Highland Park, N. J.
Application August 3, 1954, Serial No. 447,525
1 Claim. (Cl. 4—257)



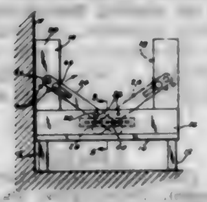
A pressure device comprising a flexible bell-shaped generally hemispherical member terminating in a plane forming a large open end at substantially its maximum diameter, and a hollow substantially tubular flexible guide member having a large end and a small end, said large end of said guide member being secured to the inner wall of said bell-shaped member inwardly of the large open end thereof, said guide member extending from its area of attachment to said bell-shaped member outwardly beyond the plane of said large open end of said bell-shaped member and terminating in said small end, the portion of the bell-shaped member at said large open end set off by the attachment of said guide member defining a lip, said guide member thus being adapted to be inserted into a conduit and said lip being adapted to prevent the backsplash of water during operation.

2,844,827
PULL-OUT BEDS
Albert M. Bank, Jersey City, and Alex J. Katz, Belleville, N. J., assignors to Super Sagless Spring Company, Hoboken, N. J., a partnership composed of Albert M. Bank and Sylvia Bank
Application September 16, 1955, Serial No. 534,506
7 Claims. (Cl. 5—13)



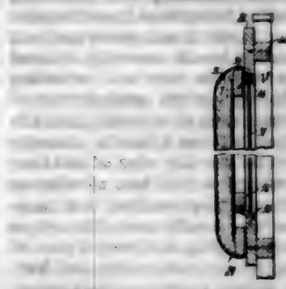
1. A pull out bed comprising a bed frame, a collapsible bed comprising a head section, means to connect said head section at its rear end to the frame, an intermediate section pivoted at its rear end to the front end of the head section, a fold section pivoted at its rear end to the front end of the intermediate section, a foot section pivoted at its rear end to the front end of the fold section, a leg pivoted to the pivotal connection between the intermediate section and fold section, a lever pivoted medianly the ends thereof to the intermediate section, a first link connecting one arm of the lever with the leg, a member pivoted to the bed frame at one end, and connected at its other end to the other arm of the lever, a second link connecting said other end of said member to the head section, said intermediate section being formed with a longitudinal slot, a pin passing through said slot, a third link pivoted about the axis of said pin, and being formed with a longitudinal slot, a pin on an intermediate portion of the second link passing through the slot in the third link, said fold section being formed with a longitudinal slot, an arm pivoted at one end to said leg, a second member pivoted at one end to the other end of said last arm, said second member carrying a pin adjacent its other end received within the slot in the fold section, a fourth link connecting said last mentioned pin with an intermediate portion of the foot section, and a fifth link connecting the pin in the slot of the intermediate section with an intermediate portion of the fourth link.

2,844,828
CONVERTIBLE BED
George Stark, Brooklyn, N. Y.
Application March 19, 1956, Serial No. 572,245
1 Claim. (Cl. 5—45)



A convertible sofa comprising a cushioned main frame, arms pivotally connected at one end to the main frame, at approximately its longitudinal center, a cushioned backrest carried by said arms, said arms being movable to selected positions, the backrest in a first position being disposed vertically along one longitudinal edge of the frame to serve as a back cushion, in a second position being disposed vertically along the opposite longitudinal edge to serve as a guardrail, and in a third position being disposed horizontally beyond one of said edges to extend the main frame in a transverse direction for providing a wide bed, means to lock the arms and backrest against relative movement in selected positions to which the arms are swung, and means to lock the arms against movement relative to the main frame in said selected position of the arms, said arms pivoting on the main frame about an axis extending longitudinally of the main frame, and swinging in vertical planes at opposite ends of the main frame, the backrest extending between the arms and being connected at its ends to the arms, for swinging movement about an axis paralleling that of the arms, said first-named means including spring-loaded detents on the arms, said backrest having openings each registrable with a detent in a selected position of adjustment, said second means comprising a pin insertable through the main frame, the arms having openings registrable with the pin in each position to which the arms are swung.

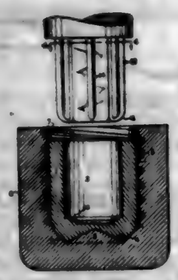
2,844,829
TILTING BACK REST FOR BED
William G. Levy, North Conway, N. H.
Application March 14, 1956, Serial No. 572,046
1 Claim. (Cl. 5—327)



A bed back rest which comprises a vertically disposed headboard for the bed, a pair of vertically disposed guide rods mounted on the headboard, a cushion having a rigidly constructed frame and a body supporting face covering and concealing said rods, a pair of rearwardly extending upwardly tilted eyelets secured to the upper portion of said cushion frame, said eyelets receiving said rods and permitting tilting the cushion forwardly over the bed and sliding movement thereof on said pair of rods, said cushion and eyelets being constructed and arranged to permit the cushion in said tilted position to be supported by the bed, a horizontal bar mounted on the rear of said frame below said eyelets, said bar having an angled bottom surface, and a support on the headboard cooperating with said bar to support the cushion in a vertically disposed storage position, said support comprising a ledge having an angled upper surface adapted to engage and interlock with the aforementioned surface of said bar to retain said cushion in its said storage position.

2,844,830
METHOD OF RADIALLY EXTRUDING PORTIONS OF A HOLLOW BLANK TO FORM EXTERNAL THREADS OF WAVE FORM
Edwin R. Evans, Detroit, Mich., assignor to Lock Thread Corporation, a corporation of Delaware
Original application June 9, 1949, Serial No. 98,139. Divided and this application April 5, 1954, Serial No. 424,978
3 Claims. (Cl. 10—10)

1. The method of forming a male screw thread, said method consisting in forming a substantially cylindrical blank of a diameter substantially equal to the root diameter of the required thread, and having a central socket extending from at least one end of the blank, inserting such blank in a substantially cylindrical die chamber which substantially conforms in diameter to the blank and is peripherally formed with a thread serving as a matrix for the required thread, and extruding the blank into said matrix by driving into said central socket a punch having a greater diameter than the diameter of



said socket, said punch being peripherally shaped to exert greater expansive pressure along certain radii of the blank than at points between such radii and having a total capacity for displacing the material of said blank slightly less than that required to completely fill the matrix with the extruded material of said blank so as to impart a superficial wave form to the surface of the extruded thread.

2,844,831
SHOE UPPER SHAPING MACHINES
Frank E. Stratton, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Original application August 21, 1953, Serial No. 375,692, now Patent No. 2,799,875, dated July 23, 1957. Divided and this application January 31, 1956, Serial No. 562,481
5 Claims. (Cl. 12—12.1)



5. In a shoe machine a back line wiper, a pair of breast line wipers, a first arm on which the back line wiper is mounted, two arms for mounting the breast line wipers, respectively, a first carrier for mounting the first arm, a second carrier for mounting the two arms, means for moving the first carrier to adjust the position of the back line wiper heightwise of a last in the machine, means for moving the second carrier to adjust the positions of the breast line wipers lengthwise of the last, an actuator for the back line wiper, two actuators for the breast line wipers, respectively, and connections between the actuators and the wipers, respectively, constructed and arranged to accommodate the adjustments of the respective wipers.

2,844,831
METHODS OF MAKING SLIP-LASTED PLATFORM SHOES

Fred T. MacKenzie, Beverly, and Edward Quinn, Saugus, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application April 12, 1956, Serial No. 577,699
2 Claims. (Cl. 12—142)



1. That improvement in methods of making slip-lasted platform shoes, which consists in providing a flat shoe upper, a flat sock lining of relatively thin, flexible material and a flat platform sole thicker than the sock lining, all of the parts being cut with different outlines patterned from a shoe and the upper and the sock lining each having an outline matching that of the platform sole but with an excess width along the margin of the sock lining approximately equal to the thickness of the platform sole, securing one surface of the platform sole to the central area of the sock lining to stiffen said area with the excess width of the sock lining projecting beyond the edge face of the platform sole, superposing the margin of the upper on the flat sock lining with sections of their edges in substantial register, and progressively stitching the otherwise unattached superposed margins of the upper to the sock lining with the stitches outside the edge face of the platform sole to enable the sock lining to bend about the platform sole edge, which method includes the step of clamping only those successive portions of the superposed margins of the sock lining and upper projecting beyond the platform sole about the point of stitching operations while leaving the entire stiffened area of the sock lining unclamped, whereby to enable the operator to conform the upper to the platform sole outline, including portions of reverse bends and to permit the attachment of the upper with a seam without puckers.

2,844,833
SHOE WITH A LEATHER SOLE AND/OR HEEL PROVIDED WITH RUBBER INSERTS

Alois Odermatt, Zurzach, Switzerland

Application August 31, 1956, Serial No. 607,507
Claims priority, application Switzerland August 4, 1956
1 Claim. (Cl. 12—146)

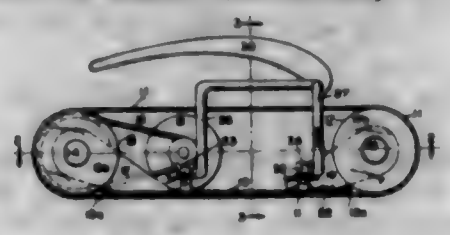


A method of inserting rubber plugs into holes extending through an outsole of a shoe and having cross-sectional areas smaller than the normal cross-sectional areas of the rubber plugs; comprising the steps of providing an integral extension on each plug projecting axially from the latter and having a relatively smaller cross-sectional area, initially passing said extension of each plug through the related hole of the outsole, pulling axially on said extension so that the resistance to the entry of the plug into the hole results in axial elongation of the plug and a corresponding reduction of its cross-sectional area sufficient for insertion of the plug into the related hole, releasing the axial pull on the extension of each plug following the insertion of the latter in the related hole to permit the cross-sectional area of the inserted plug to expand within the hole for locking the plug in the outsole, and then severing said extensions from said plugs.

2,844,834
POLISHING DEVICE

Jim Z. Nishioka, John Day, Oreg.

Application November 7, 1956, Serial No. 624,187
4 Claims. (Cl. 15—99)



1. In a polishing device of the character described, a substantially rectangular base member, a pair of brackets secured near one end of said base member and located inwardly from the side edges respectively of said base member, a roller rotatably mounted on said brackets, an electric motor mounted on said base member, a driving belt connecting said roller with said motor, a second pair of brackets adjustably mounted near the opposite end of said base member, cooperating engaging elements carried by said second pair of brackets and said base member for setting said second pair of brackets in desired adjustable position, a second roller rotatably mounted on said second pair of brackets, an endless polishing belt extending around said rollers and passing beneath said base member and encompassing the space in which said motor and said pairs of brackets are located, a handle assembly attached to said base member on opposite sides and extending around and above the side edges of the upper stretch of said polishing belt and terminating in a handle centrally spaced above said polishing belt, said handle assembly hinged to said base member on one side edge of said base member and removably secured to said base member on the opposite side edge of said base member, and cooperating engaging means on said handle assembly and on said second pair of brackets holding said second pair of brackets firmly against said base member when said handle assembly is secured in normal position on said device.

2,844,835
TUFTED BRUSH CONSTRUCTION

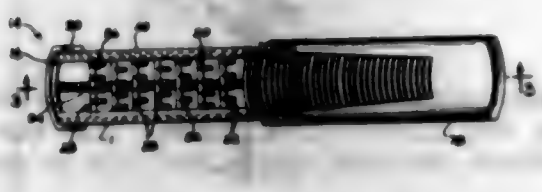
John B. Benyak, Cleveland, Ohio, assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application May 23, 1955, Serial No. 510,283
8 Claims. (Cl. 15—179)



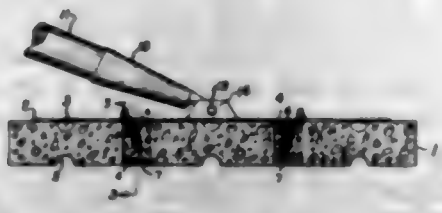
1. A rotary brush comprising a metal disc having a central opening for mounting on a mandrel or the like and a large number of small circular apertures uniformly circumferentially located adjacent the outer periphery of said disc, the edges of such apertures being beveled, a U-shaped metal tubular member of circular cross-section pivotally mounted in each such aperture with the respective ends thereof extending generally radially outwardly of said disc on each side thereof, and a bundle of wire brush bristle material inserted through each said tubular member with the respective ends of said bundles extending generally radially outwardly to form a circular brush face, the end portions of said tubular members being compressed to spread the emergent bristle material into generally flat fan-shaped layers lying substantially in the plane of said disc.

2,844,836
FOLDING BRUSH
Irving Mark, Chicago, Ill., assignor to Lester R. Pallet, Chicago, Ill.
Application November 7, 1956, Serial No. 620,880
5 Claims. (Cl. 15—203)



3. In a folding brush, the combination comprising a body, a plurality of bristle shafts rotatably received in said body, each of said shafts having a plurality of bristles mounted thereon, said bristles and said shafts being swingable between an erected position with said bristles extending outwardly from said body and a folded position with said bristles received within said body, each of said shafts having an individual spring connected between said shaft and said body and biasing said shaft into its erected position, a cover slidable along said body between open and closed positions and having a portion engageable with said successive shafts for swinging said bristles and shafts into their folded positions during movement of said cover into its closed position, said springs being operative to swing said bristles and shafts into their erected positions during opening movement of said cover, a locking member movable in said body between locking and unlocking positions and having means for locking said shafts in their erected positions with said locking member in said locking position, and means operable by said cover for moving said locking member to said locking position near the end of the opening movement of said cover while moving said locking member to its unlocking position near the beginning of the closing movement of said cover.

2,844,837
MOP HEAD FOR WINDOW CLEANING
John J. Mackert, Detroit, Mich.
Application September 4, 1956, Serial No. 607,849
2 Claims. (Cl. 15—244)



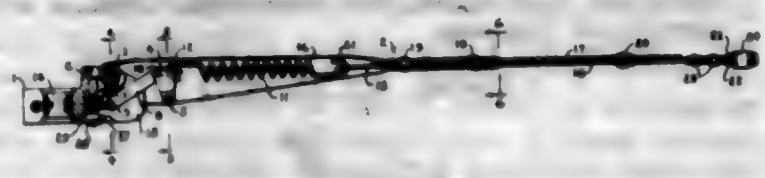
2. A mop head comprising a resilient absorbent cellular sponge block having a work-engaging front face and an opposed rear face and opposed end faces and formed with notches extending toward each other from the end faces and with a socket elongated between the end faces and terminally opening in said notches, and disposed substantially midway between said front and rear faces, a carrier plate having a front face forming a seat for the block, means for connecting a handle member to the carrier plate, an elongated latch member extending freely through said socket for detachably securing the block to the plate, means in said notches and inwardly spaced from said end faces of the block for releasably maintaining the latched position of the latch member whereby the block is so applicable to the plate that said front and rear faces may be reversed, and the latch member and said means for maintaining its latched position are safeguarded against contact with work engaged by the sponge block.

2,844,838
WINDSHIELD WIPER ARM ASSEMBLY
Fred A. Krohm, Hobart, Ind., assignor to The Anderson Company, a corporation of Indiana
Application July 1, 1954, Serial No. 440,603
12 Claims. (Cl. 15—255)



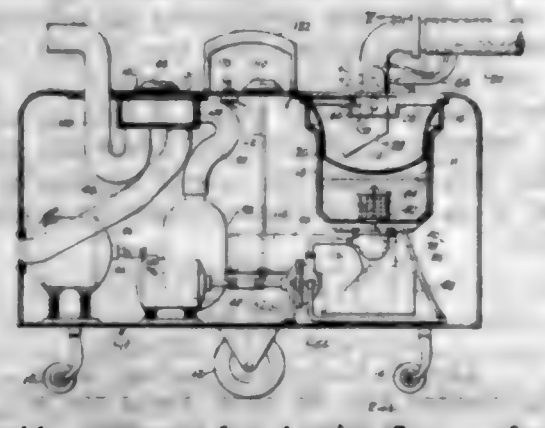
9. A windshield wiper arm comprising an inner section and an outer blade carrying channel section pivotally connected to the inner section, a device comprising a movable member supported on the outer section at a location spaced from the pivotal connection between the arm sections and a member operatively connecting the inner section and the movable member, and tension means connected to the device and to said outer section, said device and said tension means being disposed substantially within the confines of said outer section.

2,844,839
WINDSHIELD WIPER ARM ASSEMBLY
Fred A. Krohm, Hobart, Ind., assignor to The Anderson Company, a corporation of Indiana
Application January 3, 1955, Serial No. 479,288
20 Claims. (Cl. 15—255)



20. A windshield wiper arm comprising an inner section and an outer blade carrying assembly pivotally connected to the inner section, manually adjustable means carried by the inner section, a device comprising a pair of members pivotally connected together and respectively pivotally connected to the adjustable means and outer assembly at fixed locations, and biasing means operatively connected to said outer assembly and device.

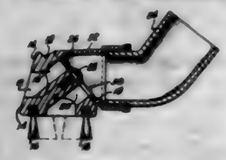
2,844,840
COMBINATION WET MOP, DRY MOP, AND VACUUM CLEANER
Ruben L. Gray, Philadelphia, Pa.
Application April 22, 1955, Serial No. 503,154
1 Claim. (Cl. 15—321)



A portable apparatus for cleaning floor surfaces comprising a mobile housing having a top wall provided with an opening, an upstanding flange positioned within said housing and extending about the perimeter of said opening and having the upper end attached to said top wall, an outer water receptacle having an open top positioned within said housing and having the open top dependingly attached to the lower end of said flange, an inner water receptacle provided with an open top positioned within and spaced from the outer receptacle and having the

open top removably seated on the open top of said outer receptacle, valve means in said inner receptacle for controlling the flow of water from said inner receptacle into said outer receptacle, an openable and closable door normally closing the top wall opening, a downwardly concavely curved dust bag positioned within said inner receptacle and said flange and having the upper end detachably secured to said door and said flange, a vertically disposed conduit extending through and fixedly mounted in said door and having the lower end discharging into said dust bag and having the portion adjacent the upper end exteriorly of said door, a suction head, conduit means connecting the upper end of said conduit to said suction head, said suction head being provided with means adapted to receive and hold a mop, a pump having an outlet side and an inlet side positioned within said housing, an inlet pipe connecting said pump inlet side to said outer receptacle, a connecting conduit supported in said door, conduit means connecting the outlet side of said pump to one end of said connecting conduit, conduit means connecting the other end of said connecting conduit to said suction head, a vacuum blower in said housing, and a duct having the inlet end opening through said flange and having the outlet end connected to said blower.

2,844,841
DUAL PURPOSE NOZZLE
Carl George Borgquist, Stamford, Conn., assignor to Electrolux Corporation, Old Greenwich, Conn., a corporation of Delaware
Application June 6, 1955, Serial No. 513,384
2 Claims. (Cl. 15—417)



1. A dual purpose suction cleaner nozzle comprising an elongated body having three angularly disposed elongated faces two of which constitute work faces disposed at approximately 45 degrees to the third face, said body having suction passages providing communication between said work faces and said third face, and said suction passages terminating in spaced openings in said third face, a suction connection member having a wall of a size and shape to cover both of said spaced openings and rotatably joined to a tube for connection with a source of suction, said wall having an opening adapted to selectively communicate with one of said suction passages, said suction connection member and said elongated body being rotatably united so that the wall of said suction connection member will cover the openings in said third face and with the axis of rotation of said tube disposed at an angle of approximately 45 degrees to said third face.

2,844,842
CONCEALED HINGE
Alan C. Nelson, Greenfield, Mass.
Application July 30, 1956, Serial No. 601,044
3 Claims. (Cl. 16—164)

1. A blind hinge assembly comprising a pair of superposed plates, an upper pair of superposed leaf members hingedly connected together at their uppermost ends and respectively hingedly connected to one and the other of said plates at their lower ends, and a lower pair of superposed leaf members hingedly connected together at their lowermost ends and respectively hingedly connected to one and the other of said plates at their upper ends, the axes of the hinged connections of the upper leaf members to said plates being superposed and the corresponding axes of the lower leaf members likewise being superposed, the axes of all the hinged connections of the upper leaf members intersecting a line normal to said super-



posed plates and the axes of all the hinged connections of the lower leaf members intersecting a line also normal to said plates, said lines of intersection defining a vertical plane and with said intersecting axis lines forming the following angular relationship, in which:

a=the inner angle between the said vertical plane and either of the two pairs of said superposed axes,
c=the outer angle between the said vertical plane and the axis of the said hinged connection between either pair of leaf members,

and

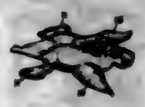
$2a+c$=less than 180°.

2,844,843
MEANS FOR SUSPENSION OF WINDOW SASHES
Maurice F. Logan, Grosse Pointe Park, Mich.
Application November 26, 1954, Serial No. 471,429
5 Claims. (Cl. 16—197)

1. Means for supporting a first element, a vertically slidable window sash in various positions of adjustment in a second element, a window frame and wherein said first element has a side stile provided with a vertical groove; comprising a flexible basket-weave sleeve and a vertical rod axially passing through said sleeve, one of the elements being stationary, spring means associated with the sleeve to extend it longitudinally to cause said sleeve to grip the rod, and means responsive to the movement of the first element, under manual force, to compress the sleeve longitudinally to cause its radial expansion to release its grip upon the rod.

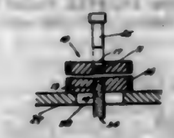
2,844,844
METHOD OF PREPARING EDIBLE FOWL
Peter A. Sieczkiewicz, Westerly, R. I., assignor of one-half to Salvatore R. Rizzo, La Puente, Calif.
Application February 14, 1956, Serial No. 565,347
7 Claims. (Cl. 17—45)

5. The method of preparing an edible, dressed fowl provided with neck and rear openings, comprising the steps of: successively disjointing certain of the bones within said fowl; successively separating said bones from



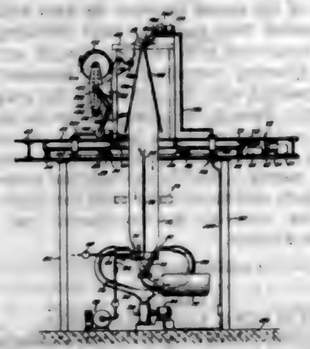
the flesh of said fowl; progressively removing said bones through said neck opening; and, turning back portions of the flesh of said fowl as said bones are removed.

2,844,845
DIE STRUCTURE FOR FORMING POWDER PARTICLES INTO STRAND-SHAPED BODIES
Friedrich Krall, Reutte, Austria, assignor to Schwarzkopf Development Corporation, New York, N. Y., a corporation of Maryland
Application December 20, 1955, Serial No. 554,384
2 Claims. (Cl. 18—12)



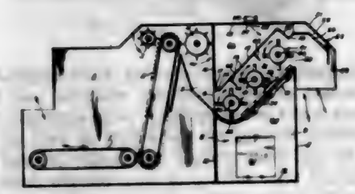
1. In a die for forming out of powder particles of solid material a continuous self-supporting compacted strand of said material, a female die structure formed of a plurality of at least three adjoining complementary die segments having complementary inwardly facing concave shaping surfaces bounding an axially extending die channel, said concave shaping surfaces defining a continuous curved channel surface in which powder particles entering the receiving end of said channel are compacted into a strand which is advanced to the opposite discharge end of said channel, a cooperating plunger for compacting powder particles delivers to the receiving end of said channel into a strong, compacted strand-shaped body and advancing the compacted strand in the direction to the discharge end of said channel and discharging therefrom the so-formed strand, said die channel being of sufficient length for developing along its channel surfaces frictional resistance sufficient to provide the required powder compacting pressure at the discharge end of said die channel, said segments having junction surfaces extending outwardly from said channel, an elastic restraining structure engaging outer surfaces of said segments and elastically restraining said segments in their inward position in which said segments maintain mutual engagement along said junction surfaces, the inner end regions of said junction surfaces adjoining said channel surface merging tangentially into adjoining concave shaping surfaces of the respective die segments, and in combination therewith, a strong backing structure supporting and underlying the discharge side of said die structure and having a backing surface against which the facing radially outward regions of said segments rest, said backing structure having a backing opening underlying the facing radially inward regions of said die segments, each of said die segments being of substantial radial length, the radially inward regions of each of said die segments having a length at least half of their radial length extending over said backing opening whereby said die segments will be caused to tilt with their radially inward regions into said backing opening under excessive rise of the frictional forces developed along said channel surfaces.

2,844,846
PLASTIC FILM EXTRUDER
Carl A. Kronholm, Yonkers, N. Y., assignor to Chester Packaging Products Corp., Yonkers, N. Y., a corporation of New York
Application September 2, 1954, Serial No. 453,872
6 Claims. (Cl. 18—14)



5. Plastic film extrusion apparatus comprising in combination: an extruder including a die shaped to form plastic material into thin-walled tubing; means for applying a sleeve of cooling gas to the exterior walls of the plastic tubing shortly after extrusion thereof from said die; pinch rollers spaced a substantial distance from said die and from said means for applying cooling air, to receive and flatten the tubing; means for winding the film product into a roll thereof after it passes between said pinch rollers, the assembly of such pinch rollers and winding means being mounted for relative rotation with respect to the assembly comprising the extruder and gas applying means, said relative rotation being about the axis of the extruded tubing, the gas applying means and extruder however being fixed against relative rotation with respect to each other.

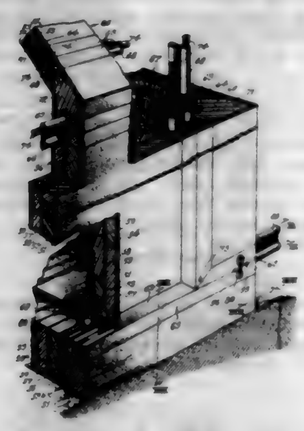
2,844,847
COTTON CLEANING SYSTEM AND APPARATUS
Lofton H. Smith, Chattahoochee, Ga.
Application July 27, 1951, Serial No. 238,820
5 Claims. (Cl. 19—67)



5. A cotton cleaning system which comprises the combination with a blending feeder having an intake for receiving cotton and a discharge end for delivering a partially opened cotton output from the discharge end, of a cotton preopening and cleaning unit comprising a casing having a passage therein having a lower end and an upper end, the lower end of the passage communicating with the discharge end of the blending feeder for receiving the partially opened cotton output from the blending feeder, the said passage being defined between a perforate top plate and grid means spaced from the top plate in parallelism therewith, cotton-engaging baffle means extending from the perforate top plate into the passage, the said grid means including a fixed grid portion and an ad-

justable grid portion, the latter including a fixed grid plate and a plurality of spaced freely and independently vibratory grid bars having upper ends loosely received in the fixed grid plate, an adjustable plate spaced below the fixed grid plate receiving lower ends of the grid bars and maintaining the bars loosely received in the fixed grid plate, and means for adjusting the plate and grid bars relative to the said fixed plate for adjustably varying the angular slope of the spaces between the bars while maintaining unimpeded free and individual vibrating movements of the respective grid bars; a series of cotton pre-opening and cleaning instrumentalities mounted in the passage and coacting with the grid means for progressively passing cotton through the passage from the lower end to the upper end thereof while subjecting the cotton to successive and sequential pre-opening and cleansing stages as the cotton moves upwardly through the passage, and a discharge chute communicating with the upper end of the passage for receiving the pre-opened and cleaned cotton from the passage.

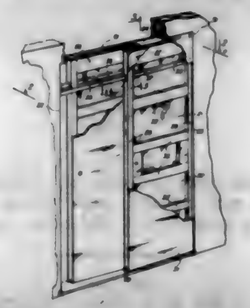
2,844,848
BUILDING CONSTRUCTION
Kibbey W. Couse, Newark, and Robert D. Keehn, Hillside, N. J., assignors to Couse Manufacturing, Inc., Newark, N. J., a corporation of New Jersey
Application November 3, 1955, Serial No. 544,753
6 Claims. (Cl. 20—2)



1. A composite panel comprising a rectangular body portion formed of heat-insulating material and having fragile edges, and a relatively hard, tough and rigid margin piece extending throughout the length of each of opposite edges of said body portion and rigidly secured thereto, the exposed edge surface of each margin piece being provided with a slot communicating with an enlarged pocket, said slot and pocket extending from end to end of the margin piece and being adapted to receive an end of a dumbbell-shaped connecting unit for connecting the margin pieces to other similar margin pieces.

2,844,849
SLIDING DOOR
Thomas J. Kelly, Scarsdale, N. Y.
Application September 26, 1957, Serial No. 686,532
6 Claims. (Cl. 20—19)

1. A sliding door comprising a door having within its upper part a horizontal passage extending from one vertical edge to the other parallel to and between the faces of the door, said passage being shaped to receive a supporting rod freely traversing same, and bearing means mounted within the door and disposed to bear on said



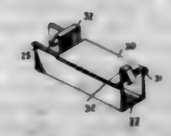
rod traversing the passage, for supporting the door in sliding relation.

2,844,850
AWNING WINDOW STRUCTURE AND LOCK THEREFOR
Morris M. Eisenberg, Clarence, Mo.
Application August 16, 1956, Serial No. 604,523
14 Claims. (Cl. 20—42)



12. A window lock and operator comprising, a housing having side and edge walls, a pivot pin passing through said side walls, a locking plate pivotally mounted on said pivot pin in said housing, an elongated actuating arm connected to said locking plate and being continuously outside said housing, a locking lug on said locking plate, a cam member pivotally passing through said side walls and having a cam surface, and a handle mounted on said cam member on the outside of one of said side walls, said cam surface engaging said locking lug on rotation of said locking plate through a small angle to lock said locking plate in position.

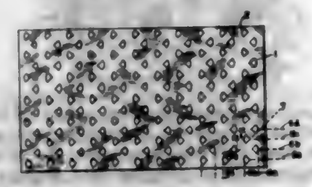
2,844,851
AWNING ASSEMBLY
Narcisse M. Acosta, Kenner, La.
Application December 26, 1951, Serial No. 263,298
13 Claims. (Cl. 20—57.5)



1. A metallic awning assembly comprising at least one channel shaped main cross member having a bottom, resilient sides and an outwardly projecting flange on each side, a plurality of channel shaped top pans disposed transversely of said cross member and having bottoms and parallel sides projecting upward from the bottoms, a plurality of channel shaped top covers having bottoms, downwardly projecting sides and a flange projecting inwardly from each side, said covers being positioned above, parallel to and overlapping the adjacent sides of each pair of pans, and a clip carried on the cross members between each pair of pans, said clip having an arm projecting over the adjacent side of each pan and seated on the inwardly projecting flange of the cooperating cover,

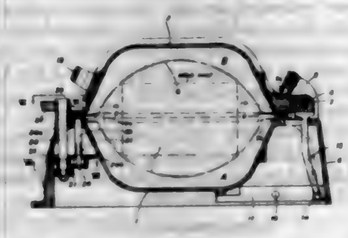
together with two oppositely disposed hooks each receiving one of the flanges of the cross member, said hooks being so spaced as to permit said flanges to be moved laterally into or out of said hooks only by compressing the resilient sides of the cross member to deform it from its normal configuration.

2,844,852
TRUSS
Paul D. West, Colorado Springs, Colo.
Application August 19, 1957, Serial No. 678,775
5 Claims. (Cl. 20—92)



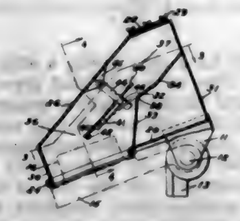
2. A connector plate or gusset for securing abutting wooden structure members together comprising a relatively thin metal sheet having a series of teeth punched therefrom and extending unidirectionally from said plate, said teeth being generally triangular in planar arrangement and each extending outwardly to a sharpened apex, said teeth being concavely curved toward its vacated hole in profile, said teeth being arranged in rows, said rows of teeth being alined along parallel, perpendicular, and diagonal lines, alternate rows of teeth along the parallel and perpendicular lines extending in the same direction, said teeth being arranged so that alternate teeth along diagonal lines and alternate rows of parallel and alternate rows of perpendicular teeth are facing in opposite directions, and said teeth being arranged so that the points of adjacent teeth along diagonal lines are offset one from the other.

2,844,853
APPARATUS FOR PRODUCING SHELL MOLDS
George William Taylor, Staines, John Edward Worthington, Whitton, and Michael John Sargeaunt, London, England, assignors to Polygram Casting Co. Limited, London, England
Application June 2, 1953, Serial No. 359,062
Claims priority, application Great Britain February 26, 1953
1 Claim. (Cl. 22—31)



Apparatus for making a shell mold assembly from two half molds comprising in combination, two rigid members, hinge means connecting said members together to permit one to be swung away from the other, a non self-supporting flexible diaphragm mounted on each member, and means for causing fluid pressure to be applied to the outer faces of the diaphragms, whereby, when the rigid members are brought together with a shell mold assembly between them and the fluid pressure is applied, pressure is applied to the outer surfaces of the mold assembly.

2,844,854
SANDBOX CONSTRUCTION FOR SHELL MOLDING MACHINES
Paul Klamp, Detroit, Mich., assignor to Mechanical Handling Systems, Inc., Detroit, Mich., a corporation of Michigan
Application July 1, 1954, Serial No. 440,604
11 Claims. (Cl. 22—35)



10. A mold forming composition container for a shell molding machine of the type having a pivotal axis upon which the container is mounted for movement between a normal position and a depositing position, said container having a top provided with an opening adapted to be registered with a pattern, said opening being spaced laterally from said pivotal axis, the internal volume of said container being composed of two sections, one a storage section and the other a dispensing section, said dispensing section being adjacent said opening and said storage section projecting laterally from said dispensing section, said storage section and said dispensing section each including a wall panel forming a surface across which the mold forming composition moves in shifting from one section to the other upon movement of said container from normal position to depositing position and return, said wall panels intersecting on a line substantially parallel to said pivotal axis with the included angle between said wall panels being greater than 90°.

2,844,855
METHOD OF PRODUCING CASTINGS WITH ONE OR MORE INTERNAL PASSAGES
Ernest Reginald Gadd and Dennis Frederick Bernard Tedds, Bristol, England, assignors, by mesne assignments, to Bristol Aero-Engines Limited, Bristol, England, a British company
Application November 1, 1954, Serial No. 466,136
Claims priority, application Great Britain November 5, 1953
10 Claims. (Cl. 22—284)



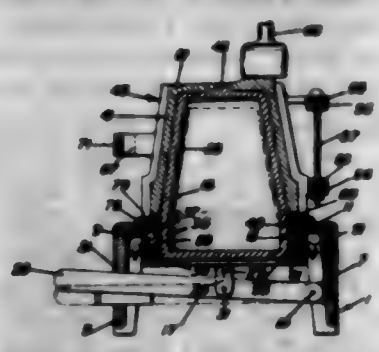
1. A method for producing a metal casting having a group of internal passages, which method comprises shaping each of a pair of metal sheets to form the sheet into a series of passage wall parts of passages corresponding to and grouped in the relation required for the passages in the casting with a flange part on each side of and running the whole length of each such wall part, joining said sheets together with the flange parts of one overlying the flange parts of the other to form a unitary core having passages corresponding to and grouped in the relation required for the passages in the casting, supporting said core in a mould of the required casting with the passages in the core at the position required for the passages in the casting and then casting the casting in the mould.

2,844,856
FLEXIBLE BUCKLE COVER FOR BUCKLE SHOES
Francis J. Mueller and Anna Mueller, Trenton, N. J.
Application May 23, 1955, Serial No. 510,176
1 Claim. (Cl. 24—175)



A buckle cover for a shoe having a strap and buckle for securing the shoe on a foot, said cover comprising a relatively thin and bendable sheet of greater length and width than said buckle, said cover having transverse slots at its respective ends of a width sufficiently narrow to closely fit over the strap, the ends of said cover being adapted to be return bent over the ends of the buckle so that the buckle is substantially concealed from frontal view, and held in such relation by frictional engagement of the edges of the slots with the sides of the strap.

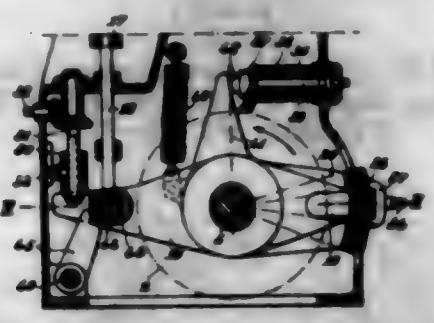
2,844,857
MOLDING APPARATUS FOR FLOWER POTS
Melvin F. Jones, Tampa, Fla.
Application July 20, 1953, Serial No. 369,194
1 Claim. (Cl. 25—22)



Apparatus for molding a pot comprising a base having a central top opening, an annular removable pallet on said base having an opening of the same size as said top opening concentric thereto, an open top shell having a lower end seating on said pallet and removable therefrom, a core extending upwardly through said openings in spaced relation to said shell to mold material between said shell and core into a flower pot, said core having cylindrical portion slidably depending through said openings and being movable upwardly into molding position and gravitating downwardly through said openings into stripped position, a vertically movable lever operatively connected to said core for upward swinging to move the core upwardly, and a displaceable wedge mounted in said base for holding said lever in upswung position, said pallet having an upstanding annular flange at its inner edge engaging said shell and centering the shell on said pallet and being provided with a top groove to seat and stabilize a molded flower pot for removal with said pallet, and a pair of opposite hand grips on said pallet for removing the same.

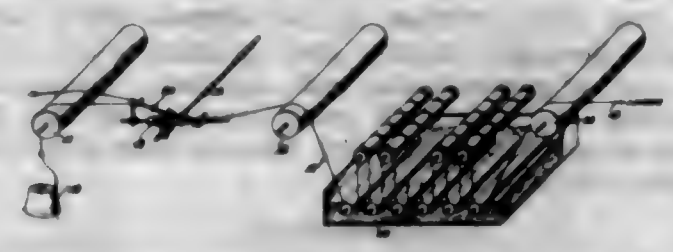
2,844,858
CERAMIC PRESS
Otto Assmann, Selb, Bavaria, Germany, assignor to Dorst-Keramikmaschinen-Bau, Kochel, Upper Bavaria, Germany, a partnership
Application July 13, 1955, Serial No. 521,862
Claims priority, application Germany July 13, 1954
5 Claims. (Cl. 25—93)

1. A press having exchangeable dies for molding objects of dry pulverized ceramic materials which comprises in combination a press ram, means to drive said press ram, a shaft connected to be driven by said driving means, two cams shaped to cause separate movements for producing the motions of the die and driven by said shaft, a withdrawal rod, means for adjusting said movements independently of each other and a continuously adjustable differential gear to transmit the cam motions to the said withdrawal rod, the said last recited gear comprising a compensating lever rotatably mounted on the main shaft of the machine, a bevel gear mounted at



one end of said compensating lever, a pair of bevel gear sectors mounted so as to be pivotable about said main shaft and in mesh with said bevel gear, the other end of said compensating lever carrying said withdrawal rod, and means for adjusting the amplitude of the pivotal movements of said two bevel gear sectors from zero to a maximum value.

2,844,859
THREADING-IN PARALLEL ENDS
Ernest J. Grisot, Jr., Asheville, N. C., assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application December 17, 1951, Serial No. 262,145
3 Claims. (Cl. 28—22)

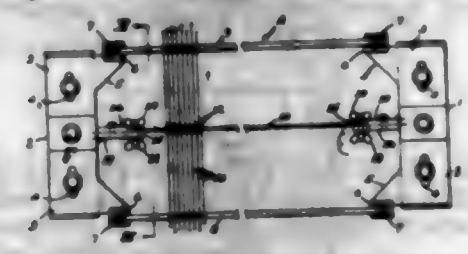


1. Threading-in apparatus comprising means for drawing a plurality of threads in spaced generally parallel relation, means to deliver threads to said drawing means, a pneumatic temporary collecting device disposed beneath the thread path between said drawing means and said delivery means, a knife mounted on said collecting device with its cutting edge disposed beneath and transversely of the plane of movement of the threads and lying between the point of temporary collection and the drawing means above the former but below the latter, a knife guard mounted on said temporary collecting device with its thread guiding surface disposed parallel to and above the cutting edge of said knife and lying between the point of temporary collection and the knife, a thread guide between said delivery means and said temporary collecting device, another thread guide between said temporary collecting device and said drawing means, said two guides defining a sloping thread path extending across said thread guiding surface and above but free from contact with the edge of the knife.

2,844,860
WARPING MACHINE STOP MOTION
Edward M. Ayars and William P. Crawley, Swarthmore, Pa., and Richard E. Cornwell, Claymont, Del., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application February 14, 1955, Serial No. 488,833
4 Claims. (Cl. 28—51)

1. A yarn warping frame comprising end supports, a first yarn introduction guide bar extending between and secured to the end supports, a second yarn discharge

guide bar extending between and secured to the end supports which bar lies opposite to and is spaced apart from the first guide bar, an upper electrode bar positioned intermediate of the guide bars and extending between and secured to the end supports, a second electrode bar positioned immediately below the upper electrode bar, a double acting drop wire positioned over the upper and lower electrode bars through which drop wire is threaded a yarn end, said drop wire being capable of being raised or low-



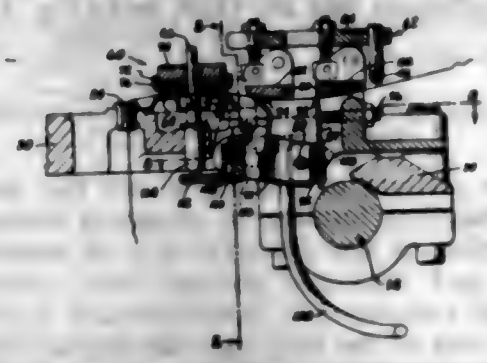
ered in accordance with the degree of tension within the yarn end when traveling, whereby when the tension within the traveling yarn end exceeds predetermined high or low limits the drop wire will contact and actuate either the lower or the upper electrode bar to initiate the immediate termination of the yarn warping apparatus, and means for retaining the drop wire in the upward or excess tension position after the warping operation has been terminated because of excess tension in the yarn.

2,844,861

SLUB-CATCHING DEVICE

Ferdinand F. Stange, Westfield, and Calvin P. Bullard, East Longmeadow, Mass., assignors to Foster Machine Company, Westfield, Mass., a corporation of Massachusetts

Application December 6, 1954, Serial No. 473,098
5 Claims. (Cl. 28—64)



1. A slub-catcher for winding machines comprising a guide member for yarn passing through the winding machine to a package, at least one slub-catching blade held in slub-intercepting relation to the guide member and openly movable away from the guide member, means coupled to the blade for effecting opening movement of the blade away from the guide member, actuating apparatus set in motion by a break in the yarn for engaging the means on the blade and moving said means in the blade-opening direction, movable tensioning members for placing the yarn under tension, and a pivoted lever adapted to move one tension member away from the other, said lever being actuated by the actuating member for the slub-catching blade to move the tension member at the same time the slub-catching blade is moved away from the guide member.

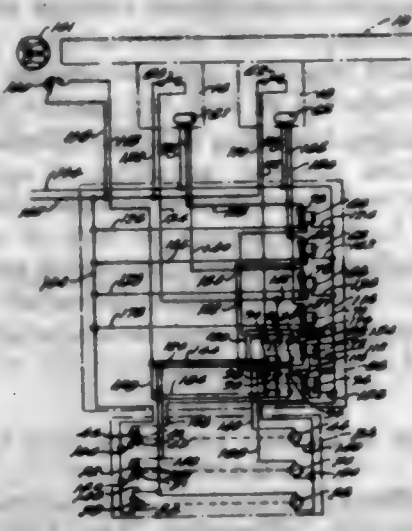
2,844,862

MACHINE TOOL AND METHOD OF PROGRAMING THE OPERATION THEREOF

Ralph E. Cross, Grosse Pointe Shores, Mich., assignor to The Cross Company, Detroit, Mich., a corporation of Michigan

Application July 8, 1953, Serial No. 366,713
8 Claims. (Cl. 29—1)

8. In combination with a pair of machines having cutting tools therein, an electrical operating and control circuit for each of said machines, each circuit having a normally open switch adapted to be closed once for each operation of the machine associated with said circuit, an electrically operated mechanism including indexable switch elements in said circuits each manually initially positionable to designate the estimated life span of tools in the machine in circuit therewith, and electrical actuators for said switch elements, a timer mechanism operable by closing of said normally open switches for ener-



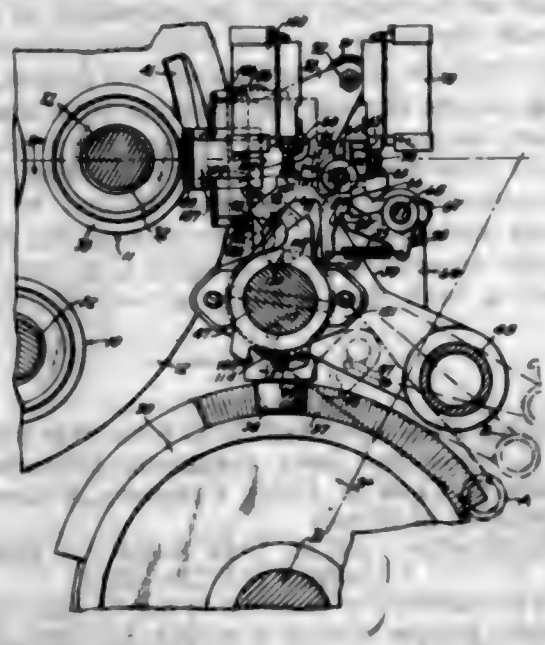
gizing said electrical actuators for a predetermined period of time so as to index said indexable switch elements once for each operation of the machine, and means in said operating and control circuits controlled by said indexable switch elements for operating said electrical actuators and said machines in alternate cycles wherein each machine is normally operated repeatedly and in uninterrupted sequence during its operating cycle for a length of time measured by the initial position of the indexable switch element associated with said machine.

2,844,863

STOCK-FEED MECHANISM

Arthur H. Jobert, New Britain, Conn., assignor to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut

Application November 15, 1954, Serial No. 468,779
14 Claims. (Cl. 29—37)



1. In an automatic bar machine or the like, a frame, stock-chucking means, stock-feeding means including longitudinally reciprocable feed-slide means for feeding stock to said chucking means, longitudinally acting resilient means urging said feed-slide means in a stock-feeding direction, cam means in driving relation with said feed-slide means against the action of said resilient means and for retracting the same, elongated guide means for said slide means and including an elongated bar, said bar

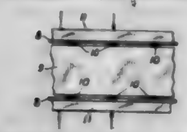
being longitudinally slidable in said frame, first abutment means coacting between said frame and said bar and determining a limit of forward feed of said bar, spring means continuously reacting between said frame and said bar and urging said bar to the said forward limit, second abutment means cooperating between said bar and said slide means for determining a limit of resiliently urged forward-feed movement of said slide means, manually operable actuating means for said feed-slide means and connected in angular-displacement relation with said bar, and means including a cam effective upon angular displacement of said manually operable means to effect an incremental withdrawal of said bar against the action of said spring means; whereby, if said feed-slide means is in a forward-feed position, actuation of said manually operable means will through said abutment incrementally withdraw said feed-slide means, so that, in subsequently starting the machine, further actuation of said manually operable means will assure resiliently loaded incremental feed of the stock until the stock has been chucked.

2,844,864

METHOD OF MAKING I-BEAMS FOR VEHICLE FRAMES

Arnold G. Schilberg, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

Application January 10, 1955, Serial No. 480,783
1 Claim. (Cl. 29—155)



A method of making an I-beam for an X-member of an automobile frame, comprising forming a pair of flanges from suitable plate metal stock, forming a flat web member of varying longitudinal edge contour from suitable plate stock, bending said flanges so that they will conform to the edge contour of said web upon assembly, embossing a row of integral longitudinally spaced projections along the longitudinal axis of each flange, placing the web between the flanges so that the upper and lower edges of said web are in contact with the extremities of the projections with the edges of said web being thereby spaced slightly from the inner surfaces of said flanges, passing a welding current through the structure from one flange to the other, the current passing through the projections and softening them due to the resistance heating action, and simultaneously applying pressure normal to and along the outer surface of the flanges to weld the flanges and web edges together into an integral unit, the welding of the web to both flanges being accomplished simultaneously.

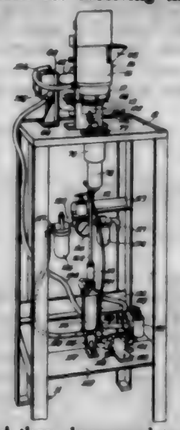
2,844,865

MACHINE FOR ASSEMBLING NEEDLE BEARINGS

Bates C. Cook and John Jokubonis, Chicago, Ill., assignors to Cook & Chick Company, Chicago, Ill., a corporation of Illinois

Application April 25, 1956, Serial No. 580,572
9 Claims. (Cl. 29—201)

1. In a machine for assembling needle bearings, a bearing needle hopper having a cylindrical bottom opening, a shaft mounted for turning movement extending downward in said hopper coaxially with said opening, a member on the lower end of said shaft extending into said opening defining therewith a vertically disposed annular recess of uniform radial extent open at its top for reception of a set of bearing needles, the inner bottom surface of said hopper being inclined downward to said recess, means for turning said shaft, receiving means having an annular recess of uniform radial extent closed at its bottom and open at its top and underlying and aligned with said hopper recess, means for moving said receiving means to an upper position in cooperating relation to said hopper recess for receiving therefrom a set of



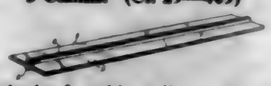
bearing needles and then downward to a lower position clear of said hopper, and means for opening the bottom of said hopper recess when said receiving means reaches its said upper position and closing the bottom of said hopper recess when said receiving means starts downward.

2,844,866

METHOD OF MAKING SLIDERS

Milton L. Godfrey, Conneaut Lake, Pa., assignor to Talon, Inc., a corporation of Pennsylvania

Application July 28, 1955, Serial No. 525,033
3 Claims. (Cl. 29—409)



1. The method of making sliders for slide fasteners which comprises forming an elongated continuous thickened portion on one side of a strip of material centrally thereof, said thickened portion being substantially V-shaped in cross-section, simultaneously forming on the opposite side of the strip centrally thereof another elongated continuous thickened portion substantially rectangular-shaped in cross-section, deforming and flattening both of said thickened portions at spaced intervals so as to provide a strip having a series of spaced-apart substantially diamond-shaped thickened portions on one side of the strip and a series of spaced-apart substantially rectangular-shaped lug portions on the opposite side thereof, forming wing portions to either side of each of and partly including said diamond-shaped thickened portions so as to provide a series of connected slider blanks, cutting said slider blanks from said strip, and finally bending said wings of each of said slider blanks at said diamond-shaped thickened portion toward one another into substantially parallelism so as to compress said thickened portion therebetween with said rectangular-shaped lug extending outwardly from one of said wing portions.

2,844,867

DIP BRAZING

Donald E. Wersz, Baltimore County, and Melvin M. Schwartz, Baltimore, Md., assignors to The Martin Company, Middle River, Md., a corporation of Maryland

No Drawing. Application June 24, 1955
Serial No. 517,924
2 Claims. (Cl. 29—487)

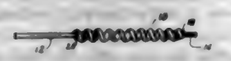
1. A method of dip-brazing parts of titanium using high melting point brazing material and a molten salt bath of inert material, which comprises the steps of assembling the parts to be joined, placing the high melting point brazing material at the juncture of the parts, preheating the assembled parts to a temperature in the range of approximately 700° F. to 800° F., dipping the assembled parts into the molten salt bath maintained at a temperature in the range of approximately 2100° F. to 2300° F. to melt the brazing material and braze the parts together, and removing the parts from the salt bath and permitting the salt to remain on the parts to exclude the air while the parts are cooling.

2,844,868

METHOD OF JOINING REFRACTORY METALS

James E. Cline, Brookline, and John P. Jasionis, Belmont, Mass., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts

Application June 1, 1954, Serial No. 433,467
2 Claims. (Cl. 29—498)



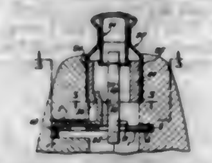
1. A method of making cathodes, including the steps of coating a cylindrical metal base with a thin layer of ruthenium powder, wrapping a molybdenum mesh around the coated base, heating the assembly of base and mesh to a temperature in the range of 1150° C. to 1400° C. to form a preliminary bond between the base and mesh, and thereafter heating the assembly to a temperature in the range of 1900° C. to 2100° C.

2,844,869

SHEARING HEAD CLAMPING MEANS FOR ELECTRIC SHAVER

Samuel Kahn, Bridgeport, Conn., assignor to Schick Incorporated, Stamford, Conn., a corporation of Delaware

Application January 26, 1954, Serial No. 406,179
4 Claims. (Cl. 30—43)



4. In an electric shaver of the kind including a case incorporating jaws, a shearing head unit located in the jaws and lug means accessible from the underside of the head unit, the improvement which comprises: head unit locking means associated with the case beneath the head unit, including an element slidably mounted in the case beneath and transversely of the jaws for linear movement into engagement with a side face of the said lug means to clamp the head unit laterally against a jaw face, and a separate actuator for said element projecting from beneath the head at one end thereof.

2,844,870

SAFETY RAZOR WITH IMPROVED HANDLE

Rafael P. Roces and Albert C. Capotosto, Manila, Republic of the Philippines

Application December 2, 1954, Serial No. 472,752
5 Claims. (Cl. 30—35)

1. A safety razor comprising a head, a handle to which the head is attached including a rigid sleeve, a coil spring mounted within the sleeve for sliding movement longitudinally of the sleeve to locate the coil spring alternatively in a position entirely within the sleeve and in positions projecting different distances from one end of the sleeve, the spring having its coils within the sleeve fitting in relatively close relation to the wall of the sleeve to be engaged by said wall to restrict the lateral flexing of the portion of the spring enclosed by the sleeve, means for



fixedly attaching the head to one end of the coil spring, and means for clamping the coil spring to the sleeve to hold the spring in adjusted position longitudinally of the sleeve.

2,844,871

FORK FOR THE SANITARY PREPARATION OF FOODSTUFFS

Thomas S. Sanner, Hooversville, Pa.

Application December 16, 1955, Serial No. 553,516
1 Claim. (Cl. 30—129)



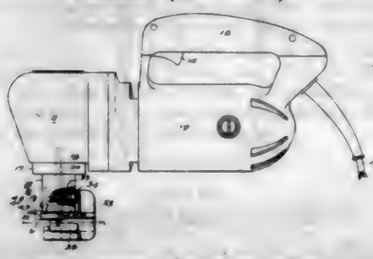
A cooking implement of the character described comprising a fork having a tined head and a shank extending therefrom, a handle for the shank, a slide element on the shank and arms extending from the slide element forwardly and having portions projecting between the tines of the fork head, said element being in the form of a plate having a slot therein for receiving the shank, said shank being tapered to permit the plate to bind against the same when in retracted position.

2,844,872

SHEET METAL NIBBLING TOOL

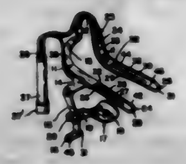
Israel J. Yermish, Philadelphia, Pa., assignor to Fenway Machine Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application May 7, 1956, Serial No. 583,181
6 Claims. (Cl. 30—228)



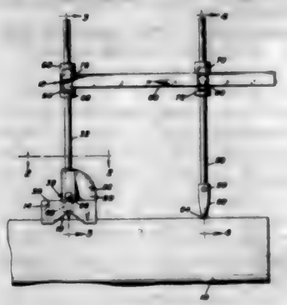
1. In a motor operated hand held nibbling tool for slitting sheet material, a reciprocable punch, a fixed guide section for said punch having a punch backing part terminating in a die support part, a die plate carried by said die support part, said die plate being notched to provide a pair of laterally spaced arms defining therebetween all but one side of a die opening, said arms being respectively in engagement with opposite sides of said punch backing part to prevent lateral displacement of the die plate with respect to said punch backing part, said one side of the die opening being defined by the frontal face of the latter, and means for shifting said die plate to thereby vary the size of said die opening and/or take up wear on the die plate including adjustable fixed means carired by said die support part for securing said die plate against displacement forwardly of said punch backing part.

2,844,873
COMBINATION SALIVA EJECTOR AND COTTON ROLL HOLDER
Edward D. Bober, Detroit, Mich.
Application December 27, 1955, Serial No. 555,464
3 Claims. (Cl. 32—33)



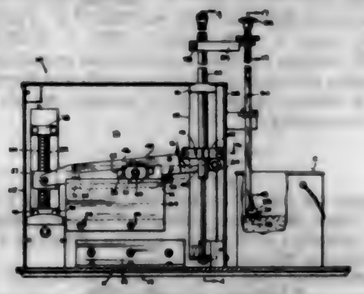
1. An aspirator device to support an absorbent dental roll or the like, comprising apertured hollow tubing formed to provide laterally spaced buccal and lingual portions which are positionable in use adjacent the respective buccal and lingual tooth aspects of a patient's lower jaw, said tubing having provision outwardly of the patient's mouth for communication with a source of vacuum, and a jaw clamp operatively connected to said tubing, comprising an elongated ratchet element extending externally of the patient's mouth and having a series of longitudinally spaced teeth, and a jaw engaging element of substantially integral, one-piece construction slidingly engaging said last named element and having releasable ratchet engagement with the same said jaw engaging element being provided with an apertured portion loosely receiving said ratchet element in said sliding engagement, and being proportioned as to thickness at the apertured portion to be received between a pair of said teeth to effect said ratchet engagement.

2,844,874
PIPE MARKING DEVICE
Francis P. Sury, Glen Dale, W. Va.
Application August 9, 1956, Serial No. 603,109
3 Claims. (Cl. 33—21)



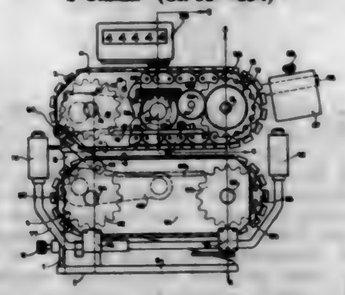
1. In a pipe marking device, the combination of a first rod and a second rod, a base having an opening in it and adapted to seat upon a pipe which is to be marked, said opening having straight sides that are parallel to each other, means at the lower end of said rod and having straight sides contacting the first mentioned straight sides to constrain the movement of said first rod, pivot bolt connecting the last mentioned means to said base so that the movement of said first rod is constrained to pivotal, a second rod, a holder for a scriber at the lower end of said second rod, a graduated bar, a pair of sleeves freely slidable on said first and second rods, means securing said graduated bar to one of said sleeves, means adjustably securing said graduated bar to the other of said sleeves so that said second rod is adjustable with respect to said first rod and on said graduated bar.

2,844,875
FLUID MEASURING DEVICE
Nicholas Grubelic, Williston Park, N. Y.
Application December 9, 1954, Serial No. 474,145
17 Claims. (Cl. 33—126.7)



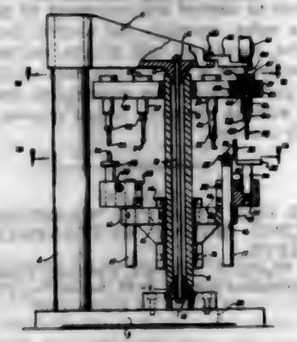
7. In a measuring machine for liquids, the combination comprising a lever member having a fulcrum intermediate its ends, a vertical screw, a follower threaded on said screw and pivoted to one end of said lever, manually operable means to turn said screw to move said one end of said lever up and down between two limits, and calibrated means associated with said manually operable turning means to indicate the position of said one end of said lever between said two limits, abutment means operative to prevent further actuation of said manually operable means when operated beyond either one of said two limits, manually operable means to vary the position of said intermediate fulcrum with respect to the ends of said lever, and a vertical measuring rod means for indicating height of liquid cooperatively connected with the other end of said lever to be vertically moved in dependence upon the positions of said manually operable turning means and said manually operable fulcrum position varying means.

2,844,876
MEASURING MACHINE
Charles F. Van Hook, Fair Lawn, N. J.
Application March 10, 1954, Serial No. 415,355
1 Claim. (Cl. 33—134)



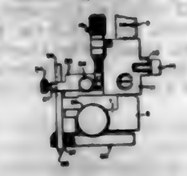
A linear measuring machine of the kind described comprising in combination a support, a pair of opposed tractive units movably mounted on the support for movement toward and away from each other, each tractive unit including spaced rotatably mounted sprockets, an endless articulated roller chain engaging the sprockets, the chain having a material-engaging surface spaced outwardly of the link center line, and means engaging the roller chain for maintaining the material-engaging surface in a straight line between the sprockets, one of said units including means for recording the lineal movement of the chain, means connecting the units for effecting equal movement of the tractive units toward and away from each other, and means for biasing the units toward each other.

2,844,877
GAUGE TOOL
Bruce W. Magolis, Dearborn, Mich.
Application August 10, 1956, Serial No. 603,272
15 Claims. (Cl. 33—147)



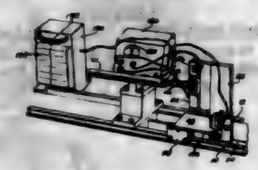
1. A gage tool comprising two parallel, aligned support members; means mounting said support members for rotary movement about the same axis; dial indicator means fixedly positioned adjacent one of said support members; a plurality of work-engaging members movably mounted in said one support member for selective alignment with the dial indicator means in accordance with the rotated position of said one support member; a plurality of work-positioning anvils mounted on the other support member in alignment with the work-engaging members and dial indicator means in accordance with the rotated position of said other support member; at least two of said work-engaging members having differently dimensioned work-engaging surfaces and at least two of the anvils having differently contoured work-engaging surfaces; whereby selection in the measuring process is available, both as to the work dimension and work configuration, without replacing the work-engaging members or anvils on the support members.

2,844,878
COMBINED MICROMETER INSTRUMENT
Alexander Zwierzynski, New York, N. Y.
Application February 15, 1956, Serial No. 565,592
1 Claim. (Cl. 33—170)



An instrument for measuring height, cavity and hole depth as well as inside and outside dimensions comprising a caliper having a rigid fixed jaw provided with inside and outside measuring surfaces and having a bar with spaced rear external serrations and a movable jaw with inside and outside measuring surfaces, said jaw having a hollow box portion slidable upon said bar, sight means on said box over said bar, a locking cam pivotally mounted at the rear of said box, a finger piece for swinging said cam into engagement with any one of said serrations on said bar said jaw adjustable on said bar by means of a micrometer mounted on said box on the opposite side of said bar from said finger piece; a clamping base having upwardly extending adjustable clamping means securing said fixed jaw; a hole in said base; a slotted saddle mounted on said movable jaw; said saddle bearing adjustable feeler point means overlying said hole in said base.

2,844,879
GAGING MECHANISM
Richard E. Roeger, Maple Heights, Ohio, assignor to Cleveland Instrument Company, Cleveland, Ohio, a corporation of Ohio
Application November 6, 1953, Serial No. 390,672
7 Claims. (Cl. 33—174)



1. A gaging device for measuring the true diameters of circular surfaces of an object by simultaneously exploring the surfaces on opposite ends of the diameters and comparing deviations of these surfaces from that of a master reference surface, said device comprising a base, flat co-planar ways secured to said base, a base plate secured to and adapted to slide on said ways, a first measuring head post rigidly secured to said base plate, a pair of opposed, vertically aligned measuring heads secured to said post and having mutually opposed gaging tips projecting therefrom, a pair of spaced, horizontally projecting probes each fulcrumed to one of said measuring heads, a second measuring head post rigidly secured to said base plate, a master measuring head secured to said second post and having a gaging tip projecting downwardly therefrom, a master probe fulcrumed to said master measuring head and horizontally projecting therefrom, a master reference block secured to said base for contact with said master probe, an object locating support secured to said base and adapted to locate the interior surface of an object with respect to said mutually opposed gaging tips, means for moving said base plate along said ways whereby said pair of probes engage and explore on the true diameters of the said surface of an object aligned in said support, and said master probe simultaneously engages and explores longitudinally along the reference surface of the said master reference block, and means for algebraically adding the radial displacement of the pair of probes and comparing this sum to twice the displacement of the master probe normal to the surface of the master reference block, whereby the difference between the algebraic sum of the radial displacement of the pair of probes and twice the displacement of the master probe normal to the surface of the master reference block represents the amount of deviation of the workpiece from standard.

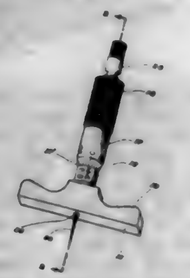
2,844,880
DIAMETER DIFFERENTIAL GAUGE
Rudolph Brunner, Dallas, Tex.
Application October 11, 1954, Serial No. 461,432
4 Claims. (Cl. 33—178)



1. As a new article of manufacture, a measuring instrument comprising an elongated base having downwardly divergent side portions defining an apex coextensive with the longitudinal axis of the base, the base having a hole adjacent one end of its apex traversing its longitudinal axis and a threaded hole in its end intersecting the first hole, a substantially U-shaped bracket having legs of unequal length, the shorter of the legs being slidable in the first hole, a pointer gauge slidably

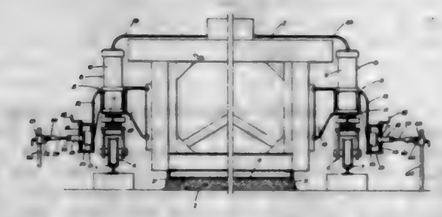
adjustable on the longer leg of the bracket, means for holding the gauge in adjusted position on the longer leg, and means in the threaded hole for securing the shorter leg to hold the bracket in adjusted position in relation to the base.

2,844,881
MICROMETER BORE GAUGE
Werner W. Stunkel, Skokie, Ill.
Application June 28, 1955, Serial No. 518,529
2 Claims. (Cl. 33—178)



1. A micrometer bore gauge comprising an elongated body having a flat underside, a barrel extending laterally from said body, a thimble having a diameter greater than the diameter of said barrel, and positionable over the outer circumference of said barrel, an inner sleeve carried by said thimble and engageable with an inner portion of said barrel for rotatably connecting said thimble to said barrel for longitudinal movement thereover, a measuring rod freely carried by said thimble and projecting into said barrel, said rod tapered over a predetermined length of one end with said end adapted to be projected out of an aperture formed in said underside of said body when said thimble is moved over said barrel, said barrel and said thimble bearing scales of graduations, with the graduations of each of said scales corresponding to a frictional value of the diameter of the tapered end of said rod and with the graduations of the scale on said barrel being in direct proportion to the length of displacement of the tapered end of said rod from said barrel, and an adjusting nut threadably carried at one end of said rod adjacent to and engageable with one free end of said thimble for adjusting the amount of displacement of said tapered end of said rod relative to said barrel and the scale thereon.

2,844,882
AUTOMATIC LEVELING MECHANISM FOR CONCRETE SLAB LAYING MACHINES
Wilbur Earley and Robert L. Puckett, Stockton, Calif., assignors to Guntert & Zimmerman Const. Div., Inc., a corporation of California
Application October 17, 1955, Serial No. 540,808
16 Claims. (Cl. 33—185)



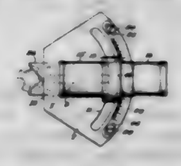
4. In a concrete slab laying machine which includes a frame structure, ground supported trucks on opposite sides of the frame structure, and vertical jack units connecting the frame structure and the trucks and providing for vertical adjustment of the frame structure relative to the trucks; ground supported grade wires extending along the path of movement of the machine to the sides of the same, means to control the movement of each jack unit including a valve, normally idle electric devices to actuate the valve, circuits for said devices, and normally open switches interposed in the circuits, said switches comprising feeler and contact strips arranged to straddle one of the grade wires in normally spaced relation thereto and transversely thereof.

2,844,883
DEVICE FOR LOCATING, MEASURING, AND PLACING BOUND BUTTONHOLES AND POCKETS
Muriel A. Schwarz, Fairfield, Conn.
Application June 3, 1955, Serial No. 513,037
6 Claims. (Cl. 33—190)



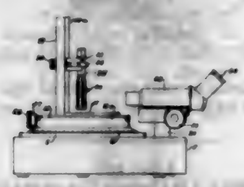
1. In a buttonhole locating device of the character described, an elongated base structure having transverse locating means at one end for alignment of an edge of a garment in which a buttonhole is to be formed, a pair of spaced upright pins mounted on the base structure on a line at right angles to said locating means, two pairs of spaced upright pins mounted on the base structure spaced from the said locating means amounts indicating distances corresponding to the distances of the opposite ends of the buttonhole from said means, and said latter pairs of pins being each located on lines at right angles to the line of the first pair of pins and located at a given distance from the opposite side edges of the base structure.

2,844,884
INSTRUMENT FOR MEASURING THE RADIAL HOOK OR RAKE OF TAPS
Robert W. Grady, West Hartford, Conn.
Application January 15, 1954, Serial No. 404,175
8 Claims. (Cl. 33—201)



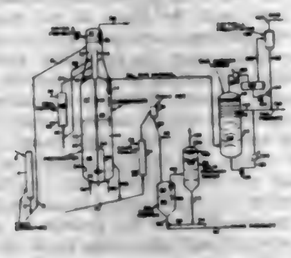
1. A tap rake or hook measuring instrument including a base, adjustable means on said base for supporting a tap, a table slidable upon said base and having a front edge portion engageable with the crests of teeth of said tap, measuring means adjustable about a center point located at the said edge portion, the said tap being rotatable in said supporting means to permit alignment of the points at the crests of the tap teeth to be measured with the said center point, an arcuate scale on said table adjacent to the path of movement of said measuring means, and an indicator movable with said measuring means and cooperative with the said scale to indicate the position of the measuring means about the said center point.

2,844,885
INSTRUMENT FOR MEASURING RAKE OR HOOK ANGLE
Robert W. Grady, West Hartford, Conn.
Application August 10, 1954, Serial No. 448,902
13 Claims. (Cl. 33—201)



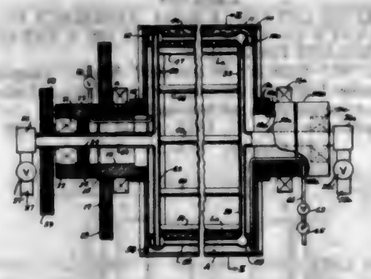
1. An instrument for measuring the rake or hook angle of the teeth of a tap, said instrument including a base, a carrier member rotatable relatively to said base, a post extending perpendicularly from said carrier member, means on said post for supporting said tap with the points at the crests of its teeth lying along the axis of rotation of said carrier member, stationary means on said base for viewing said teeth and including a visible reference line extending parallel to said axis of rotation, and cooperating scale and indicator means on said carrier member and said base for indicating the angle through which said carrier member is turned.

2,844,886
TREATMENT OF CARBONACEOUS SOLIDS
Marvin F. Nathan, New York, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application September 5, 1956, Serial No. 608,147
8 Claims. (Cl. 34—10)



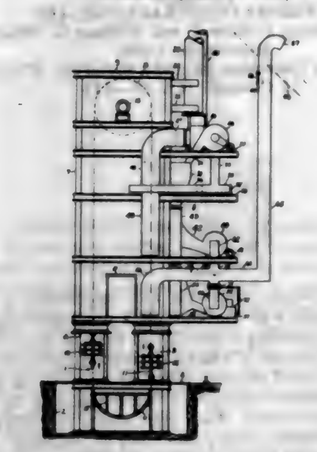
1. A process for drying finely divided solids wet with a liquid material which comprises maintaining a dense phase bed of wet solids under fluidizing conditions superposed by a dilute phase of said solids in a drying zone at a temperature above the boiling point of the liquid wetting material, maintaining a second dense phase bed of said solids under fluidizing conditions at a higher temperature in a second zone disposed in open communication with said drying zone for entrance of vapors from each of said zones into said dilute solids phase in said drying zone, introducing wet solids to said drying zone, retaining said solids in said drying zone to effect a desired drying thereof, passing solids from said second zone to said drying zone to supply the heat required for said desired drying, removing dried solids from said drying zone, passing said removed solids in indirect heat exchange with a heated fluid, introducing the heated removed solids into said second zone to provide the higher temperature maintained therein, yielding released vapor from said dilute solids phase in said drying zone, and yielding solids from the second zone.

2,844,887
DRYER
Lloyd Hornbostel, Beloit, Wis., assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application February 8, 1957, Serial No. 638,955
5 Claims. (Cl. 34—119)



1. A dryer drum comprising a cylindrical shell, a head closing each end of the shell, first means corotatably mounting said shell and said heads, a steam inlet line leading into the shell through one of said heads, a plurality of steam conduits mounted adjacent the inside wall of said shell receiving steam from said inlet line, a steam exhaust drainage line leading from the shell through one of said heads receiving steam from said steam conduits, and second means corotatably mounting said steam inlet line, conduits and drainage line for rotation relative to said heads and shell.

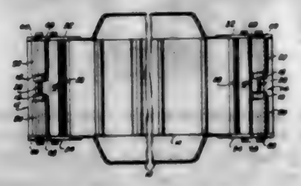
2,844,888
COOLING SYSTEM FOR INDUSTRIAL OVENS
Charles H. Barnett, Shaker Heights, Ohio, assignor to The Foundry Equipment Company, Cleveland, Ohio, a corporation of Ohio
Application June 9, 1954, Serial No. 435,445
8 Claims. (Cl. 34—208)



1. A cooling system for an industrial oven in which work being processed is moved in a predetermined path, comprising a series of three blowers equipped with distributing means for flowing air over the work as it moves in the oven and arranged to be operative successively with respect to the moving work, air intake means for the first such blower operative to supply ambient air thereto after first subjecting such air to heat from the oven to warm the same, inlet mean for supplying the second blower with ambient air selectviely from within and without the building structure in which the oven is located, refrigeration means for chilling the air supplied the oven by the third blower, and means for recirculating at least a

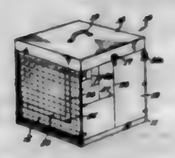
portion of the air flow produced in the oven by the third blower after passing over the work and again being chilled by said refrigeration means.

2,844,889
SEALING MEANS FOR A ROLL ASSEMBLY IN THE ENTRANCE OR EXIT PASSAGE OF A PRESSURE OR VACUUM CHAMBER
Lawrence W. Corbett, Worcester, Mass., assignor to Bachmann Uxbridge Worsted Corporation, Uxbridge, Mass., a corporation of Massachusetts
Application May 27, 1955, Serial No. 511,670
21 Claims. (Cl. 34—242)



1. Means for effecting an air tight seal between a passage wall and the perimeter of a roll assembly which comprises, inflatable means, a number of integrated seal members, means for supporting said means for pressing against said wall and also in the direction of the perimeter of said assembly, said seal members being disposed in abutting relation providing a continuous seal around the perimeter of said assembly the parts of which are movable individually into contact with respective portions of the perimeter of said assembly, and means for inflating said inflatable means to press said seal members individually against the perimeter of said assembly.

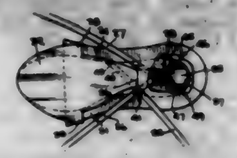
2,844,890
MATHEMATICS TEACHING AID
Gerald A. Oliver, Fullerton, and William G. Weathers, Hawthorne, Calif.
Application December 20, 1954, Serial No. 476,253
11 Claims. (Cl. 35—31)



1. A mathematics teaching aid comprising a wall, markings on said wall marking off a predetermined area in unit squares forming a plurality of rows of said squares, a plurality of groups of blocks positioned along different ones of said rows of squares, different ones of said groups comprising different numbers of blocks less than the number of squares in said rows, and means mounting said blocks for movement along said rows of markings to different positions therealong opposite different groups of said squares.

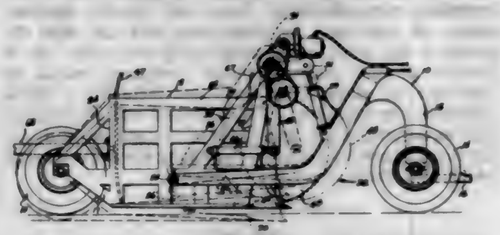
2,844,891
SHOE PROVIDED WITH RESILIENTLY YIELDABLE ELEMENT
Jack Meltzer, Hollywood, Calif.
Application August 2, 1955, Serial No. 526,001
11 Claims. (Cl. 36—58.5)

1. In a shoe, a sole structure including a sock lining, the rear part of the sock lining having an aperture therein extending along a transverse line just forward of the heel region, a bridging element having its front end anchored to the forward region of the sole structure and a rear end extending downwardly through said aperture to a concealed position beneath said socket lining, and a stretch-



able elastic connecting said rear end of the bridging element to the rear edge portion of the sole structure.

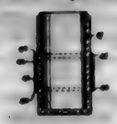
2,844,892
EXCAVATING, LOADING, AND CARRY-OFF EARTH WORKING MACHINE
Walter Carston, Delano, Calif.
Application November 16, 1956, Serial No. 622,666
1 Claim. (Cl. 37—4)



In an excavating machine, a mobile frame, a horizontally disposed scoop having an open front end and including a bottom, a pair of side walls rising from said bottom, an end frame extending between the rear ends of and attached to said side walls and to the rear end of said bottom, and an excavating blade extending along the front end of said bottom, positioned transversely of said mobile frame with the blade of said scoop facing forwardly of said end frame and connected to said mobile frame for movement from the horizontal position to a position in which the bottom of said scoop is in an upwardly forwardly sloping direction, a loader unit including an inverted U-shaped auxiliary frame arranged transversely of and above said mobile frame and having the free ends of the legs thereof adjacent to and forwardly of said excavation blade, said auxiliary frame being connected by the bight thereof to said mobile frame for swinging movement from the position in which said leg ends are adjacent said excavating blade to a position in which said leg ends are swung away from the open end of said scoop, means operatively connected to said legs for effecting the swinging movement of said auxiliary frame, a pair of vertically disposed discs arranged in spaced relation, positioned between said legs and connected to said legs for swinging movement therewith and for rotational movement together in the clockwise direction, means operatively connected to said discs for effecting the rotational movement of said discs, a pair of upstanding pusher blades arranged in superimposed spaced relation extending between said discs and connected to said discs for rotational movement in the counterclockwise direction with respect to said discs in response to rotational movement of said discs in the clockwise direction whereby said pusher blades remain in the upstanding position upon execution of rotational movement of said discs in the clockwise direction and are simultaneously movable along an orbital path into and out of the portion of said scoop adjacent said excavating blade to thereby move the dirt excavated by said excavating blade into and piled within said scoop, an end gate positioned within said scoop and normally adjacent said end frame of said scoop and movable away

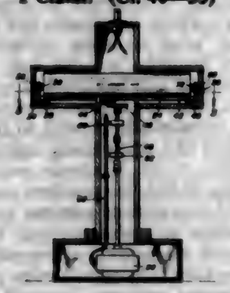
from said end frame when said auxiliary frame legs are in the swung-away position to unload the dirt piled within said scoop, and means operatively connected to said end gate for effecting the movement thereof.

2,844,893
CONTAINERS
Joseph Keller, Flushing, N. Y.
Application March 20, 1953, Serial No. 343,641
4 Claims. (Cl. 40—4)



1. A container comprising a cylindrical side wall having a bottom wall and provided with a removable top, a pair of spaced, parallel annular ridges formed on the outer surface of said side wall providing an annular groove therebetween, a resilient transparent sleeve embracing said side wall between said ridges, the top and bottom edges of said sleeve engaging respective ridges, and said sleeve being split so as to accommodate a label between the sleeve and the side wall within the said groove between the ridges, said sleeve being of greater length than the circumference of the side wall within the groove so that the opposite ends of the sleeve overlap to embracingly engage the side wall and frictionally retain the label in place between the sleeve and the side wall.

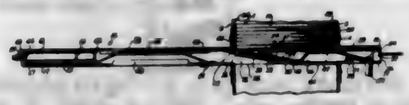
2,844,894
DISPLAY DEVICE
Richard M. Marshall, Rapid City, S. Dak.
Application September 17, 1956, Serial No. 610,228
1 Claim. (Cl. 40—33)



A display device comprising a base, a cruciform shaped member secured to said base and rising upwardly therefrom, said member including an upright portion and a cross arm, said cross arm being hollow and having an opening in one face thereof, a drum in said cross arm in alignment with said opening, drive means for driving said drum connected thereto, said means including a motor in said base, a drive shaft driven by said motor extending upwardly within said upright portion, a driven shaft in said cross arm, gears interconnecting said drive shaft and said driven shaft, pulley means interconnecting said driven shaft and said drum, a lamp socket mounted on said member, and means connecting said lamp socket and said drive means to a source of electrical power.

2,844,895
PROJECTION SLIDE CHANGING DEVICE
Sydney Braunberger, Lawrence, N. Y.
Application February 4, 1957, Serial No. 638,011
7 Claims. (Cl. 40—79)

1. A slide changing device for slides of varying thicknesses for use in combination with a projector comprising a transverse hollow frame having one end open, a pair of spaced vertical side walls, a slide receiving aperture within one of said walls, a slide ejecting aperture within the other of said walls, and a projection aperture within said walls transversely spaced from said receiving and ejecting apertures, a slide transfer member transversely slidable within said hollow frame for transferring slides from the receiving aperture to the projecting aperture, a longitudinally movable vertical stop plate within said frame and aligned with said receiving aperture, said stop plate having a flat surface at said



aperture and angled at one end, said angled end being provided with an elongated horizontal guide slot, a pin having a handle within said slot and cooperating with said frame whereby transverse movement of said angled end shifts said flat surface of said stop plate longitudinally towards or away from said receiving aperture to limit the longitudinal forward distance a slide may enter said receiving aperture, slide injection and ejection magazines longitudinally aligned with said receiving and ejection apertures and pressure means associated with said injection magazine to propel slides towards said vertical slide stop plate.

2,844,896
MULTIPLE GAME OR BLACKBOARD
Joseph S. Karuc, Clifton, N. J.
Application September 28, 1956, Serial No. 612,638
2 Claims. (Cl. 40—102)



1. A display device comprising in combination a plurality of generally similar boards, a frame having means pivotally mounting each of the boards at one edge thereof so that they may rotate singly and in multiple continuously through 360° in a forward direction about a common axis through a display zone, and yieldable escapement means on the frame for stably retaining a stack of boards against movement in a rearward direction from said display zone while permitting movement of the boards through said display zone in the forward direction, said escapement means including a latch member yieldable in the forward direction coacting with one of the other edges of the boards.

2,844,897
SIGN DISPLAY RACK
Byron Vance, Jr., Memphis, Tenn., assignor of one-half to Walter H. Mootze, Memphis, Tenn.
Application March 7, 1957, Serial No. 644,645
8 Claims. (Cl. 40—125)

5. In a sign display device, container means comprising a framework having an open front and an open rear for respectively displaying a selected sign surface, said frame including opposite side sections; each said side section comprising vertical side members forming part of

said framework and each including a side flange, said flanges being interconnected in spaced apart relation to provide an elongated vertical guide slot, standard means comprising a pair of front legs and a pair of rear legs, opposite studs pivotally interconnecting said front legs respectively with said rear legs, said studs projecting through and slidably engaging said slots and terminating in enlarged heads lying inwardly of said flanges shiftably



attaching said legs to said side sections for relative vertical shift along said side sections; stop means carried by said side members engaging the upper extremities of said legs remote from said studs with said legs extending downwardly therebelow and said studs seating in the lower ends of said slots to support said container in display position, said legs being retractable under stud shift along said slots to a retracted storage position in which said legs nestingly embrace said side members.

2,844,898
ANIMATED DEVICES
Milton D. Youngren, Glencoe, Ill.
Application December 27, 1955, Serial No. 555,589
9 Claims. (Cl. 40—126)



1. An animated display device, comprising a base member made of sheet material and having adjacent upper and lower panels, means joining said panels at opposite edges thereof, an upright display panel made of sheet material and having mounting tab means on its lower end, said upper panel having slot means disengageably receiving said mounting tab means, said upper panel having a pair of longitudinally spaced transversely extending slots therein, a slider made of sheet material and having opposite end portions extending through said slots to mount said slider on said base member for sliding movement between said upper and lower panels, said upper panel having a longitudinal slot therein, said slider having an upright portion folded upwardly therefrom and extending upwardly through said longitudinal slot for movement adjacent said upright display panel, an animating element made of sheet material and movably mounted on said upright display panel, and means forming an operating connection between said upright portion of said slider and said animating element for moving said animating element in response to movement of said slider.

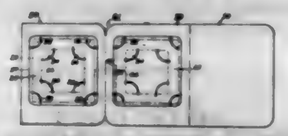
2,844,899
DISPLAY DEVICE
Nicholas Guida, Great Neck, N. Y., assignor, by mesne assignments, to Visa-Matic Corporation, New York, N. Y., a corporation of New York
Application April 7, 1954, Serial No. 421,530
2 Claims. (Cl. 40—130)

1. An advertising display device comprising in combination with a source of light, a pair of parallel sheets of polarizing material affixed on one side of said source with the polarizing axes of said sheets at right angles to one another, the adjacent flat sides of said sheets being spaced from one another, an endless band of flexible transparent material, means forming a trackway for said band with said band passing around a closed circuit substantially parallel between said sheets and around the



opposite side of said source, means for moving said band around said circuit, bi-refringent material constituting advertising indicia on said band, said indicia moving with said band along a path between said sheets, and other bi-refringent material disposed over a portion of the said adjacent flat sides of one of said sheets for transmitting diffused light across only a portion of said path.

2,844,900
PHOTOGRAPH ALBUM LEAF
Robert Miller, Forest Hills, N. Y.
Application March 18, 1954, Serial No. 417,197
1 Claim. (Cl. 40—158)



An album comprising a sheet of material, said material being scored at intervals to provide a first end print mounting portion, an opposite end flap portion and an intermediate print mounting portion, said portions being relatively pivotally movable with respect to each other, said first and said intermediate portions each including a print mounting section depressed laterally below but being substantially parallel to the plane of one side of said sheet and substantially centrally of their respective portions, a set of corner receiving mounting means consisting of flap-like members integral with each of said first and intermediate portions positioned spatially and being within and substantially in the plane of said depressed sections respectively in opposed pairs, each of said pairs being adjacent opposite edge portions of their respective depressed sections, a second set of opposed mounting means consisting of flap-like members within and substantially in the plane of each of said depressed portions respectively, the latter members being laterally inwardly of the respective first mentioned set of corner receiving mounting means.

2,844,901
DISPLAY ASSEMBLY
Harry Eisen, Los Angeles, Calif.
Application August 20, 1956, Serial No. 605,084
13 Claims. (Cl. 40—158)



1. A display assembly comprising: a sheet having guide means therein; a cover overlying said sheet and

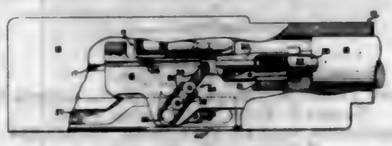
concealing guide means; and manually operable means cooperating with said guide means to sever said cover along a path defined by said guide means.

2,844,902
FOUNTAIN PEN PISTOL
Sol Harry Gaylord, Jr., and James Tollinger, Chicago, Ill., assignors to Gaylord Products, Incorporated, Chicago, Ill., a corporation of Delaware
Application August 12, 1954, Serial No. 449,416
2 Claims. (Cl. 42—1)



1. A single shot pistol simulating the appearance of a fountain pen, comprising a stock having coaxial front and rear bores spaced apart by a recoil wall having a firing pin aperture, a barrel threaded into said front bore and having a breech to receive a cartridge, a carrier mounted for reciprocative movement in said ear bore and having a transverse slot and an axial bore, a firing pin on the forward end of said carrier to project through said aperture and engage and fire a cartridge positioned in said breech when the carrier is moved in a forward direction, a cocking arm having a base mounted in said slot on said carrier to be manually engaged by the thumb of the user to retract the carrier, resilient means to move said carrier in a forward direction, said cocking arm projecting laterally through a slot in said stock and extending a substantial distance along the barrel toward the front end of the latter to facilitate cocking and firing of the pistol by the thumb when the stock is engaged in the palm of the hand of the user, and a latch slidably mounted within the axial bore of said carrier and engaged by said resilient means to detachably secure said cocking arm on said carrier.

2,844,903
VARIABLE LENGTH BOLT LEVER
Richard H. Colby, South Hadley, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application November 17, 1955, Serial No. 547,591
4 Claims. (Cl. 42—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



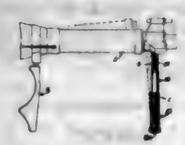
1. In a gun including a receiver with a cartridge ejection port in the bottom thereof, a cam provided in the receiver, a feeder on the receiver for inclosing cartridges, a recoil unit slidably disposed in the receiver for reciprocal operation, a barrel, and a bolt in the recoil unit respectively disposed to chamber the cartridges and to retain the chambered cartridges in the barrel in the battery position for discharge thereof, a crank device for operating the bolt comprising an arm provided on the recoil unit for engagement with the cam, and an extension secured to the bolt, said extension being disposed in said arm for telescopic operation during the reciprocal operation of the recoil unit for maintaining contiguous relation of the feeder and the recoil unit.

2,844,904
FIREARM HAVING A FLOATING RECEIVER
Wallace R. Butler, Branford, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Original application July 29, 1955, Serial No. 525,136. Divided and this application October 17, 1956, Serial No. 616,543
3 Claims. (Cl. 42—75)



2. In a firearm having a one piece stock including a receiver cavity formed in the stock, the combination therewith of: a barrel-receiver assembly comprising a recoil block including a mounting boss rigidly mounted in the stock for removably carrying one end of the assembly and cooperating inclined surfaces formed upon the assembly and the stock respectively for urging the assembly upon the boss and towards the recoil block and a screw directly engaging the barrel and the stock for securing the barrel to the stock whereby the receiver spans the stock cavity.

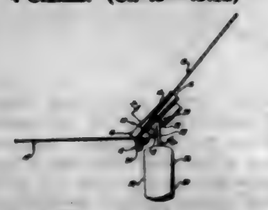
2,844,905
TELESCOPIC UNIPOD
C Walton Musser, Albert Benditt, and Lloyd W. Insetta, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application November 21, 1952, Serial No. 321,962
6 Claims. (Cl. 42—94)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A unipod comprising first, second, third and fourth cylindrical sleeves arranged in telescopic relation respectively one within the other, the external surface of said first sleeve being threaded throughout the greater portion of its length, the cylindrical surface of said second sleeve being cut away to provide at least one finger extending longitudinally from an end thereof, the inner surface of said finger being provided with a rib disposed in threaded engagement with the threaded surface of said first sleeve whereby said first sleeve is adapted for rotatable adjustment longitudinally with respect to said second sleeve between a position fully inserted within said second sleeve to a position substantially withdrawn therefrom, a portion of the inner surface of said third sleeve adjacent the end thereof respectively associated with said second sleeve's finger being provided with an annular shoulder which has at least one portion cut away to provide a longitudinally disposed groove, said second sleeve finger being disposed within said groove whereby said second and

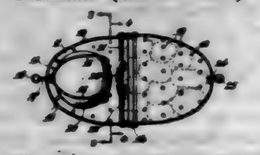
said third sleeves are slidably adjustable in a longitudinal direction with respect to each other, said third sleeve's annular shoulder being provided with thread means disposed in threaded engagement with said first sleeve's threaded surface, the opposite end of said third sleeve being cut away to provide at least one resilient longitudinally extending finger, locking means extending radially outwardly from the free end of said finger, at least one boss on the outer surface of said third sleeve, said fourth sleeve having locking means on the inner surface thereof disposed complementary to said finger's locking means, at least one longitudinally extending groove on the inner surface of said fourth sleeve, said third sleeve's boss being disposed within said groove, and biasing means carried by said second sleeve urging said third sleeve's resilient finger outwardly into locking engagement with said fourth sleeve's locking means.

2,844,906
SINKER RELEASE
Bruce B. Phillips, San Pablo, Calif.
Application October 17, 1955, Serial No. 540,788
4 Claims. (Cl. 43—43.12)



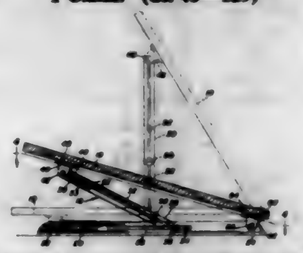
1. For use in trolling: a sinker release including a body member slidably carried on a fishing line and having a pin engaging means, and a pin having a line engaging eye at one end slidable on the fishing line following the body member, said body member and pin comprising a releasable sinker supporting means wherein, when the line following the eye of the pin is wrapped back around the shank portion of the pin and the pin then engaged in the pin engaging means of the body member, said pin will be adapted to support a sinker and to fix the position of the pin, body member and supported sinker, respectively, along the length of the line as the same are moved through the water in trolling, said pin being responsive to a sudden pull on the line following the release to release the pin from the pin engaging means for the body member to drop free the sinker, and whereafter said body member and pin are each freely slidable on the line.

2,844,907
FISH CHUM DISPERSER
Percy Merton, Oradell, N. J.
Application October 12, 1955, Serial No. 539,962
2 Claims. (Cl. 43—44.99)



1. A chum dispenser comprising a pair of upper and lower hollow portions separably joined at substantially the mid point of the length thereof, the lower portion having a removable closure at the upper end thereof, having fish hook connecting means at the lower end thereof and being adapted to contain chumming material, the upper portion having an aperture at the upper end thereof, a clamping member within said upper portion having an extension adapted to receive a fish line attaching means, said extension extending through the aperture and being reciprocatable therein, the clamping member having an articulated extension within the upper portion having opposed flexible loop members adapted to clamp and hold a float member therebetween whereby the float member may be forced to reciprocate by jiggling the fish line and contact the closure for the lower portion or may pivot about said articulation and contact the wall of the upper portion to thereby agitate the chumming material in said lower portion and to create noises which may attract fish.

2,844,908
ADJUSTABLE DRAWING EASEL
John M. Moore, Amarillo, Tex.
Application September 16, 1956, Serial No. 608,849
1 Claim. (Cl. 45—129)



An attachment to convert an ordinary drawing board of the type which has a planar bottom surface that ordinarily rests directly on a table top or other inanimate planar supporting surface, said attachment comprising a pair of supporting assemblies constructed and arranged to hold the drawing board in selected angular positions, each assembly comprising an elongated flat base which has feet along one longitudinal edge thereof, an elongate slot generally parallel to the longitudinal axis of said elongate base and located between the ends of the base, a first elevated arm having an elongated slot, means consisting of a bolt and nut passed through said slot in said base and said slot in said arm to hold said arm in a selected position with respect to said base and at one extremity of said arm, a bolt in the other extremity of said arm, a second elevating arm having a slot through which the second mentioned bolt is passed, a nut on said second mentioned bolt to hold said arms fastened together in a selected adjusted position of extension and retraction, said second arm having an inner end, a third bolt passed through said inner end of said second arm and located in said slot in said first arm, a nut on said third bolt to aid in holding said first and second arms in selected adjusted positions of extension and retraction, a bolt in the outer extremity of said second arm, a bracket depending from the undersurface of said drawing board near the outer end of the drawing board, said bracket having an opening, a fourth bolt in said opening and passed through said second arm to thereby pivotally attach said second arm to said drawing board near the outer end thereof, a mounting bracket depending from the undersurface of said drawing board near the inner edge thereof and having a flattened portion which is parallel to the flat base and which is fitted thereagainst, and a pivot connecting said second bracket to said flat base to thereby pivotally connect said drawing board to said flat base.

2,844,909
CASTER HOLDERS
Andrew Perchinsky, Binghamton, N. Y., assignor to George E. Treyz, Binghamton, N. Y.
Application April 15, 1957, Serial No. 653,834
4 Claims. (Cl. 45—137)

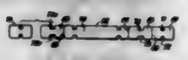
1. A support of the character described comprising, a metal cup having side walls, end walls and a bottom, an

undulated metal strip fitted within the cup and curved downwardly within the same to provide an arcuate supporting surface for a caster fitted into the cup and rested upon the strip, the strip having end portions resting on the upper edges of the end walls and extended



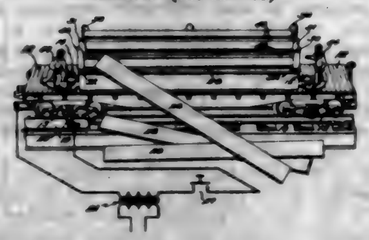
down over and into close contact with the outer surfaces of said end walls for the entire height of said end walls, and fastening means extending through said downwardly-extending parts of the strip and into the end walls for attaching the end portions of the strip to the end walls of the cup.

2,844,910
CONSTRUCTION UNIT
Thomas R. Korchak, Kansas City, Kans., assignor to Southern Ice Cream Company, Kansas City, Mo., a corporation of Missouri
Application October 3, 1957, Serial No. 688,010
3 Claims. (Cl. 46—28)



1. A stick construction unit comprising a three dimensional elongate body element having a length greater than its width and thickness, said body element also of substantially rectangular shape whereby to have at least substantially parallel longitudinal edges and at least substantially like, opposed, end edges, a weakened line of severance extending across the width of the body element at least substantially at right angles to its longitudinal axis whereby to define at least two segments of the body element, the longitudinal edges of the body element, where contacted by the weakened line of severance, inwardly formed in at least substantially V-shaped indentations, at least one notch in each longitudinal edge of each of said segments adapted to interlock one of said segments with at least another similar segment having at least one notch therein of like character, each said notch of a width at least equal to the thickness of the body element, the free ends of the body element before severance of the segments thereof from one another so formed as to at least substantially match the form of the previously connected ends of the segments after severance.

2,844,911
LUMBER UNLOADING TOY FREIGHT CAR
William R. Smith, Hamden, and Gabriel R. Monaco, New Haven, Conn., assignors to The A. C. Gilbert Company, New Haven, Conn., a corporation of Maryland
Application October 3, 1956, Serial No. 613,711
9 Claims. (Cl. 46—40)



1. A toy railway open elongated flat car electrically operative to unload individual lumber boards more than half as long as said car, comprising a chassis of the flat-car type supported on wheeled trucks, a bin-like superstructure on said chassis fashioned to form a rectangular elongate board stacking space bordered by upstanding posts of corner forming cross sectional shape, actuating means on said chassis at the rear of said space mounted to move crosswise thereof in a path and direction to engage and displace the long edges of said boards from said space at least one at a time, and a normally idle electromagnetic prime mover connected when electrically energized to actuate said means in said path and direction.

2,844,912
RUBBER OCTOPUS
John A. Sebesta, Long Island City, N. Y.
Application March 4, 1957, Serial No. 643,587
6 Claims. (Cl. 46—92)



1. A toy octopus for insertion in a water tank, comprising a hollow, bulbous head forming an air chamber, said head having at its upper end an outlet port for air trapped in the chamber, and a plurality of tentacle-simulating arms extending from the base of the head, one arm having a longitudinal bore forming an air passage and said passage being in communiction with the chamber, said one arm being connectible at its outer end in communication with an air supply source for anchoring said one arm at its outer end and for feeding air through the bore into the chamber to trap the air in the chamber, thus to cause the octopus to rise slowly, following trapping of a predetermined quantity of air therein, toward the surface of the tank, and to settle slowly to the bottom following discharge of the trapped air through said port, the other arms being solidly formed from end to end thereof and being of a non-buoyant material, said other arms extending radially from the base of the head to stabilize the head against inversion during its rising and falling movements, the head having an opening at its lower end providing an escape aperture on lateral tilting of the head to a slight extent, responsive to upward movement of the head about the anchored outer end of said one arm, said escape aperture cooperating with the air outlet port to discharge air at the upper limit of the movement of the head.

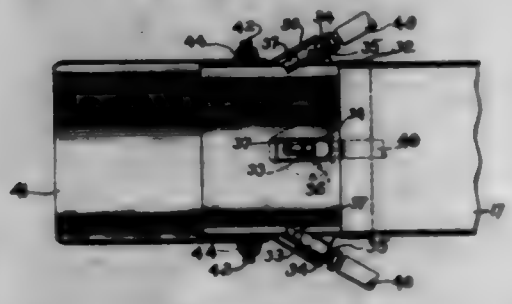
2,844,913
WRAPPER AND CLAMP FOR BUDDING AND GRAFTING
Alfred P. Brill, Jr., De Land, Fla.
Application January 29, 1957, Serial No. 636,923
2 Claims. (Cl. 47—6)



1. A device of the class described comprising a pair of hingedly connected handles provided with finger grips

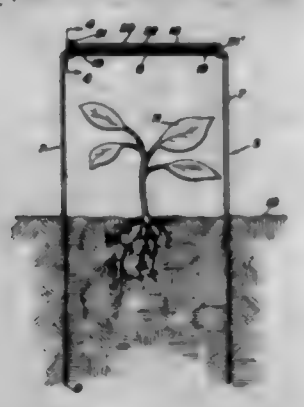
and also with jaws, said jaws having inwardly converging free edge portions and being further provided with outstanding hook-like sheet material penetrating and anchoring prongs, and a strip of elastic sheet material having end portions superimposed upon the exterior surfaces of the respective jaws and free end portions attached removably and adjustably to the selected prongs, the intermediate portion of said sheet material being disposed between said jaws so that it may be fashioned temporarily into a tensioned saddle which, in turn, may be wrapped around the portion of the stock and inserted graft as desired.

2,844,914
NOZZLE ASSEMBLY FOR MULCH SPREADERS AND THE LIKE
Charles O. Finn, Cincinnati, Ohio, assignor to The Finn Equipment Company, Cincinnati, Ohio, a corporation of Ohio
Application September 24, 1956, Serial No. 611,666
6 Claims. (Cl. 47—9)



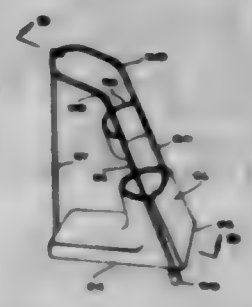
1. In a blower pipe for spreading mulch fibres and other materials capable of being air borne, a nozzle assembly at the discharge end of said pipe comprising a tubular housing provided with a plurality of spaced nozzle holders disposed at such an angle to the flow axis of the pipe that the longitudinal axes thereof slope in the direction of flow and converge towards the flow axis of the pipe, nozzle members removably supported in said holders and provided with orifices at their inner ends so shaped as to effect spreading of material issuing therefrom into streams that converge adjacent the outlet of said housing, and means for supplying said nozzles with fluid material under pressure, the material issuing through said orifices as a fog or spray.

2,844,915
PLANT PROTECTOR
William L. Woelk, Salem, Oreg., assignor of fifty percent to Eugene E. Laird, Salem, Oreg.
Application April 11, 1955, Serial No. 500,561
1 Claim. (Cl. 47—28)



A plant protector of the character described comprising: pairs of anchoring posts, and a top adapted to be stretched between said posts, said top including a wire frame comprising longitudinal side members including end loops slidably and removably engaged with the posts over the upper ends thereof and further including cross-members extending between said longitudinal members at spaced points, said top still further including a perforated flexible sheet covering mounted on the frame, said covering comprising hems on its longitudinal marginal portions enclosing the longitudinal members of said frame, and means for supporting the top at spaced points between the pairs of posts, the last named means comprising a plurality of substantially U-shaped supports including horizontal bight portions engaged beneath the top, and hold-down rods pivotally mounted on the bight portions of the supports for traversing the top and including end hooks on one end engaged with said bight portions of the supports, said rods paralleling said bight portions when in operative position.

2,844,916
PLANT SUPPORTING VASE
Lawrence N. Rapp, Morton, Ill.
Application May 18, 1956, Serial No. 585,721
2 Claims. (Cl. 47—41)

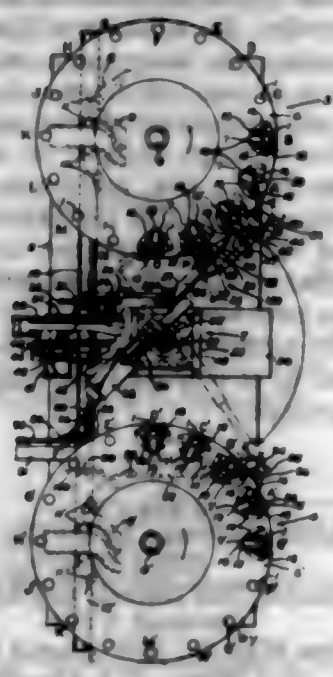


1. A plant-supporting vase comprising a support including a horizontally-disposed base, and a pair of laterally-spaced legs rising from said base and sloping toward said base, a receptacle having an open top and including a flat bottom having spaced side edges and a front and a rear edge, a straight wall rising from the front edge of said bottom and sloping toward the rear edge of said bottom, and an apron rising from and extending about the rear edge and side edges of said bottom and secured to said straight wall, a mounting projection on the receptacle flat bottom, said receptacle being positioned upon said base so that the straight wall is between said legs and having its mounting projection received within said base, and a concavely-curved trough positioned above said receptacle so that its top is between said legs and slopes in a direction complemental to the slope of said receptacle straight wall, said trough being fixedly attached to said legs.

2,844,917
LAMP SEALING APPARATUS
Richard Gladen Caldwell, Flora, Miss., assignor to General Electric Company, a corporation of New York
Application October 21, 1953, Serial No. 387,494
5 Claims. (Cl. 49—2)

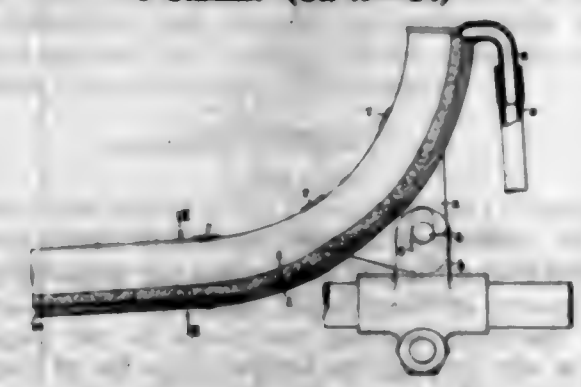
4. A transfer mechanism for picking up vertically extending lamps at one position and delivering them inverted to another position comprising a horizontally extending transfer arm, an envelope holder attached to said arm adjacent its outer end and comprising a pair of pivotally mounted lamp gripping jaws, a rotatably mounted vertically extending hollow support shaft supporting said transfer arm for oscillation in a horizontal plane between a lamp pick-up position and a lamp delivery position, means for oscillating said vertically extending hollow support shaft to oscillate said arm between said positions, means on said transfer arm connected to said gripping jaws for closing said jaws upon an envelope at the pick-up position and for opening said jaws at the delivery position, a slide member vertically reciprocable through said vertically extending hollow support shaft, means interconnecting said slide member and said horizontal arm to translate vertical reciprocation of the former into rotation of the latter about its

axis, and means connected to said slide member for vertically reciprocating it during oscillation of said transfer



arm from said pick-up position to said delivery position in order to invert the lamp envelope.

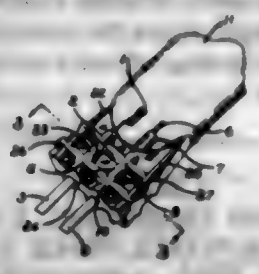
2,844,918
CHUTE FOR CONVEYING MOLTEN GLASS PARISONS
Edmond Van de Walle, Charles Van de Walle, and Emile Bonnefoy, La Varenne, France, assignors to Société Anonyme dite: Jerome & Bonnefoy & Cie, Courbevoie (Seine), France
Application June 22, 1956, Serial No. 592,662
5 Claims. (Cl. 49—14)



1. A chute for continuously distributing molten-glass parisons onto a working table, which comprises a trough-like member having a concave cross-section with the concavity turned upwards and an arcuate longitudinal contour with a substantially vertical upper portion to receive said parisons and a substantially horizontal and rectilinear lower end portion to deliver said parisons, a sheet of relatively thick soft woven material lining the concave inner surface of the trough, and means for continuously soaking the woven material.

2,844,919
QUARTZ-TO-METAL FOIL PRESS SEAL
Ernest Benjamin Power, Kenton, England, assignor to General Electric Company, a corporation of New York
Application January 19, 1952, Serial No. 267,297
Claims priority, application Great Britain March 21, 1951
1 Claim. (Cl. 49—92.5)

A quartz-to-metal seal comprising a generally flat thin quartz press and a metal conductor extending through said press, said conductor having relatively stout end sections emerging from said press at either end joined to a thin metal foil center section completely embedded in and hermetically united with said press substantially in the medial plane thereof, said press being provided with embossments in the form of narrow ridges, one of said embossments being longitudinal to the press and overlying said conductor and others of said embossments being



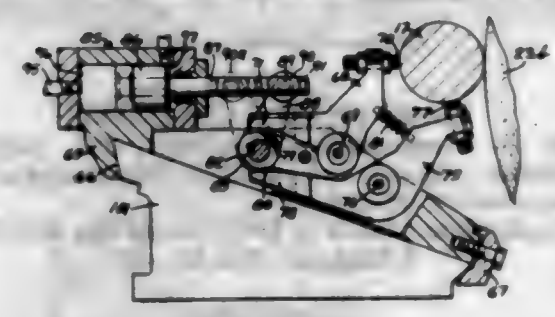
transverse to the press and overlying the junctures of the foil section with the end sections of said conductor, said embossments serving to limit plastic flow of quartz in molding the seal and to strengthen said press.

2,844,920
HONING APPARATUS
Glen M. Calvert, Detroit, Mich.
Application August 13, 1956, Serial No. 603,479
15 Claims. (Cl. 51—34)



10. Honing apparatus for honing the tapered bore of a workpiece, comprising reciprocable and rotatable spindle means, honing means adapted to be disposed in the tapered workpiece bore and including a honing head disposed adjacent to but beyond one end of said spindle means, means for connecting said honing head to the spindle means for rotation therewith and also for holding the honing head against reciprocable travel with the spindle means, said honing head having taper guide means conforming to the taper of the workpiece bore and said honing means including a honing device, and means for pivotally connecting said honing device to said spindle means for travel along said guide means angularly with respect to the travel of the spindle means.

2,844,921
GRINDING MACHINE-STEADYREST
Olva E. Hill, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application January 24, 1955, Serial No. 483,475
3 Claims. (Cl. 51—103)



1. In a grinding machine having a rotatable work support and a transversely movable rotatable grinding wheel, a feeding mechanism to impart a transverse feeding movement to the grinding wheel, a steadyrest having a pivotally mounted arm, an adjustable steadyrest shoe thereon arranged to swing in a substantially horizontal direction, a second pivotally mounted arm, an adjustable steadyrest shoe thereon arranged to engage the underside of the work piece being ground, means normally to maintain said shoes in an inoperative position, means including a rotatable cam in engagement with both of said

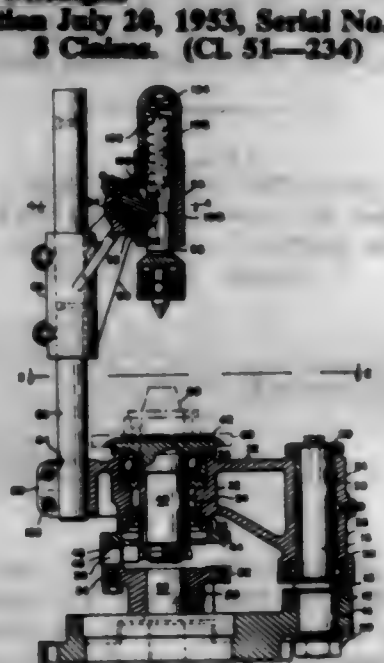
pivotally mounted arms simultaneously to swing said arms to move said shoes into operative engagement with a work piece being ground, and means actuated by and in timed relation with said feeding mechanism to actuate said cam to cause said shoes to move into an operative position when the grinding wheel has advanced to a predetermined extent.

2,844,922

APPARATUS FOR FINISHING A SURFACE OF A WORK PIECE

Otto Thiel, Detroit, Mich., assignor to Midwest Supply and Manufacturing Company, Ferndale, Mich., a corporation of Michigan

Application July 28, 1953, Serial No. 369,186
8 Claims. (Cl. 51—234)



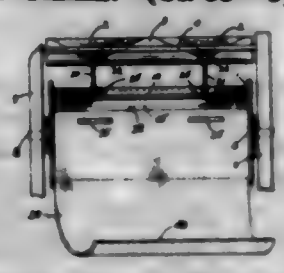
1. In apparatus for finishing a surface of an irregular work piece, a base, an arm carried by said base for oscillating movement about a first fixed axis, a work support on said arm comprising a rotary spindle provided with a work holder adjacent one end thereof and having its axis parallel to said first fixed axis, work drive means on said base comprising a driver mounted adjacent the opposite end of said spindle for rotation about a second fixed axis parallel to said first fixed axis, and spaced therefrom a distance substantially equal to the spacing between said first fixed axis and the axis of said work support, means adjacent said first named spindle end for oscillating said arm to one side of a position in which the axis of said work support is in alignment with said second fixed axis, and means coupling said driver to said spindle to drive said work spindle in rotation as said arm is oscillated.

2,844,923

WARP BEAM PACKAGING

Quentin E. Hargenrater, Meadville, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application March 2, 1955, Serial No. 491,704
8 Claims. (Cl. 53—3)



1. A method for packagaing a warp beam having a warp wound thereupon comprising the steps of applying face-to-face a pair of adhesive strips to opposite sides and across a portion of the warp not yet wound onto the beam and which is still connected with the source of supply, positioning a guard strip of paper upon the surface of the warp package collected upon the beam so that it will move directly under the adhesive strips upon rotation of the beam, rotating the beam in a winding direction a sufficient amount to wind thereupon that portion of the warp with the adhesive strips applied thereto and to leave one of the adhesive strips exposed on the beam, narrowing the warp to form a tow, positioning the leading edge of an outer wrapper adjacent the exposed adhesive strip, further rotating the beam until the trailing edge of the wrapper laps the leading edge and several convolutions of the tow have been wound around the wrapper, severing the tow from its supply, drawing the tow down tight upon the convolutions of tow around the wrapper, and securing the tow to the wrapper.

2,844,924

METHOD AND APPARATUS FOR ASSEMBLING RIVETS

Jerry F. Hamlin, San Rafael, and Louis Newman, Oakland, Calif.

Application May 20, 1957, Serial No. 660,135
11 Claims. (Cl. 53—26)



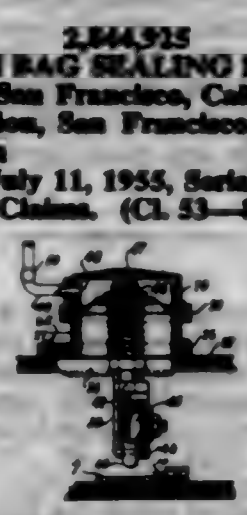
1. The method of assembling hollow rivets having a head at one end thereof comprising the steps of arranging a plurality of rivets into a single file with their heads in one direction, holding the rivets in the single file, passing a wire through the hollow single file of rivets, upsetting one end of the wire to form a rivet upsetting surface on said end, and forming a rivet retaining enlargement on the other end of the wire.

2,844,925

VACUUM BAG SEALING MACHINE

Ralph S. Randall, San Francisco, Calif., assignor to Vac-U-Pak Corporation, San Francisco, Calif., a corporation of California

Application July 11, 1955, Serial No. 521,176
6 Claims. (Cl. 53—86)



6. In a machine of the character described, a platform having a ribbon of soft material mounted transversely thereon, the platform being adapted to receive an open-ended bag thereon rearwardly of the ribbon and with the open end overlying the ribbon, and means overlying the

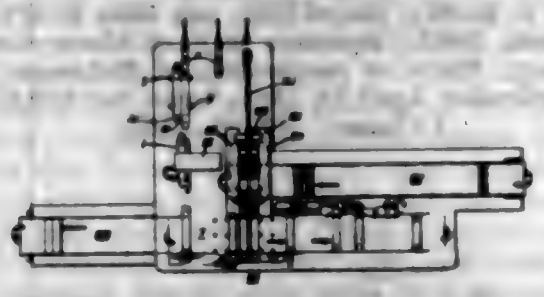
forward edge of the ribbon for anchoring the extreme end of the bag thereto, and a heat-sealing element movable over the ribbon rearwardly of the anchoring means and co-operable with the ribbon in sealing the bag, the heat-sealing element having a suction-responsive diaphragm for operating the same, with means for delaying action of the diaphragm until a desired degree of vacuum has been obtained.

2,844,926
MACHINE FOR SPREADING HALVED FRUIT ON DRYING TRAYS
David W. Matteo, San Jose, Calif.
Application April 13, 1956, Serial No. 578,128
7 Claims. (Cl. 53—160)



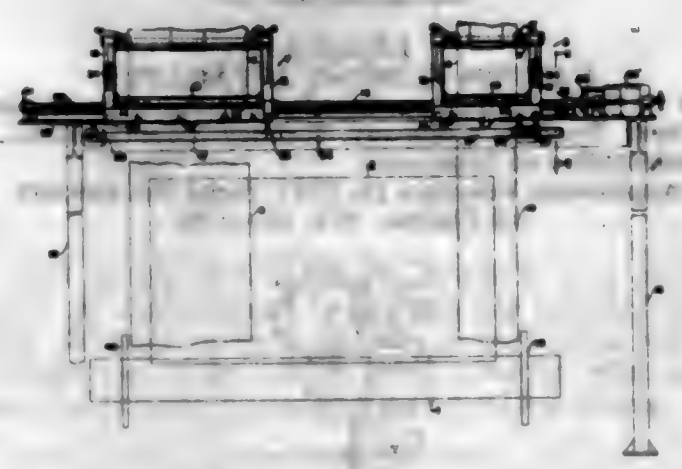
7. In combination with a machine for erecting halved, pitted fruit cup-side-up and spreading it in a layer over a drying tray, wherein a multiple troughed erecting member is mounted over a rearwardly moving conveyor for drying trays, drive means are connected to the erecting member to reciprocate it longitudinally of the troughs therein, and a transfer apron is hingedly connected to the terminal end of the troughed erecting member and slopes downwardly and rearwardly therefrom in the direction of conveyor movement for transferring erected fruit leaving the erecting member to a drying tray therebeneath; a support plate hingedly mounted on a fixed axis beneath the hinged connection of the apron to the erecting member and extending downwardly and rearwardly therefrom and terminating substantially in line with, and beneath, the rear end of the apron in its rearward limit of reciprocating movement.

2,844,927
BOX FOLDING AND LOADING MACHINE
Jesse J. Warner, Palo Alto, Calif.
Application May 20, 1953, Serial No. 288,786
36 Claims. (Cl. 53—186)



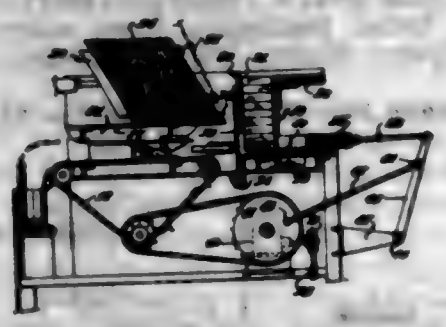
1. Apparatus for packaging goods comprising, in combination, a pair of endless conveyors supported in substantially parallel positions relative to each other for at least a part of their length and arranged adjacent to each other for at least a portion of the parallel relationship, one of said conveyors being adapted for supporting goods to be packaged and the other of said conveyors being adapted for supporting cartons wherein goods from said one conveyor are to be packaged, means for moving the conveyors in opposite directions relative to each other and intermittently and for arresting their motion at time periods when the conveyors are so alined relative to each other that goods loaded upon one conveyor are alined with cartons on the other conveyor, goods transfer means alined with the conveyors and located at a transfer station in the region where the conveyors extend parallel to each other to shift goods from one conveyor into the cartons of the other therewith aligned conveyor during arrested conveyor motion, and means located adjacent to the carton carrying conveyor at points ahead and behind the goods transfer station for initiating a closure of the conveyor carried cartons from each end, the closure of the carton end remote from the loading end being effected first and followed by the closure of the other end subsequent to transference of goods therein and during arrested conveyor motion.

2,844,928
WRAPPING MACHINE
Everett W. Clem, Shrewsbury, Mass., assignor to Rice Barton Corporation, Worcester, Mass., a corporation of Massachusetts
Application April 21, 1955, Serial No. 502,916
8 Claims. (Cl. 53—198)



1. A wrapping machine having a movable end-wrap carriage, screw means for moving said carriage longitudinally of said wrapping machine, a guide rail for guiding said carriage, a reciprocal piston mounted on said carriage, means for reciprocating said piston, a threaded half-nut carried by said piston for engagement with said screw means, locking means carried on said piston for engagement with said guide rail, said threaded half-nut engaging said screw means at one extreme limit of the reciprocal travel of said piston for moving said carriage, and said locking means engaging said guide rail at the other extreme limit of the reciprocal travel of said piston to lock said carriage against movement.

2,844,929
MECHANISM FOR FORMING AND FILLING CIGARETTE CARTONS
William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application May 26, 1955, Serial No. 511,195
6 Claims. (Cl. 53—230)



1. In mechanism of the class described, a support, means for forming an assembly of articles on said support, means adjacent said support defining a constricted throat of a size to receive said assembly of articles, means for delivering a carton blank between said support and said throat, said carton blank consisting of a plurality of body walls having end closure flaps, abutment means for positioning said blank with an intermediate body wall thereof opposite said assembly of arti-

cles, a pusher for moving said assembly of articles and said blank into said throat, whereby said throat acts to fold the body walls of said blank about three sides of said assembly of articles, said pusher including a plurality of thin spaced apart fingers extending outwardly therefrom and underlying the articles in said assembly, conveyor means for continuously moving said blank and assembly of articles through said throat, said conveyor including abutments movable between the fingers of said pusher to engage and carry said blank and assembly of articles through said throat, drive means for moving said pusher and said conveyor in timed relation, and stationary sweep means in said throat effective against the movement of said blank and assembly of articles through said throat to fold and secure the end flaps of said carton blank.

2,844,930

CARTON CLOSING APPARATUS

Iver L. Nelson, Minneapolis, Minn., assignor to Waldorf Paper Products Company, Ramsey County, Minn., a corporation of Minnesota

Application February 11, 1957, Serial No. 639,562
14 Claims. (Cl. 53—376)



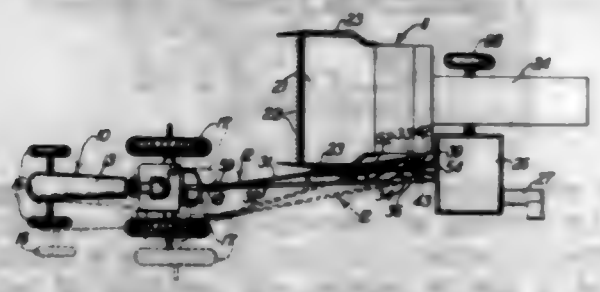
1. An apparatus for closing a carton having a hinged cover provided with a locking tab, and a front wall including a locking slot, the apparatus including a carton conveyor, means engageable with said cover for folding the cover downwardly, a projectable and retraction member movable with said carton inwardly of said locking tab, means engageable with said tab as it moves on said conveyor for folding said tab over said projection, means movable with said conveyor engaging said tab on opposite sides of said projection for bending the side edges of the tab toward said carton front wall and into said locking slot and means for retracting said projectable means when the side edges of said tab extend through said slot.

2,844,931

DRAWBAR FOR DRAFT CONNECTING BETWEEN A TRACTOR AND A TRAILING IMPLEMENT

Houston N. Irvine, Burlington, Iowa, assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application July 18, 1955, Serial No. 522,767
1 Claim. (Cl. 56—20)



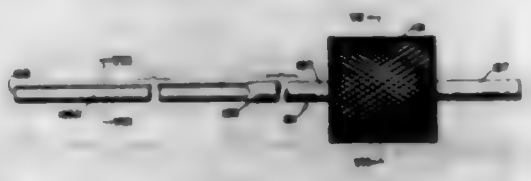
In combination with a towed implement of substantial height, a drawbar structure having three draft connections to said implement, two of said connections being laterally spaced and the other disposed a substantial distance above and laterally displaced from each of the first-mentioned two, the upper connection and one of the lower connections being universal hinge connections, the other lower connection including forward and rearward adjusting means to shift the forward end of the drawbar laterally of the implement by swinging the drawbar on said hinge connections.

2,844,932

COTTON PICKING SPINDLE MEANS

John J. Brumblett, Pine Bluff, Ark., assignor to Ben Pearson Incorporated, Pine Bluff, Ark., a corporation of Arkansas

Original application November 9, 1955, Serial No. 545,965. Divided and this application October 10, 1956, Serial No. 615,111
8 Claims. (Cl. 56—50)



1. Cotton picking spindle means adapted for use in cotton picking machines, comprising a spindle having a cylindrical portion, a drive roller fixed to said cylindrical portion intermediate the length of said portion with sections of said portion projecting oppositely beyond said roller to provide means adapted to engage machine-carried bearings, a cotton picking portion integrally connected with one of said sections in alinement with said cylindrical portion, said cotton picking portion being of substantially square cross section and of a length in excess of the length of said cylindrical portion, the cross-sectional area of said cotton picking portion being substantially uniform throughout the length of said cotton picking portion and being less than the cross-sectional area of said cylindrical portion, said cotton picking portion including two pairs of elongated substantially flat faces extending substantially throughout its length, the faces of each pair being parallel, and the faces of one pair being perpendicular to the faces of the other pair, said faces being interconnected at their edges by coextensive surfaces.

2,844,933

CORN PICKER

Clarence B. Richey, Royal Oak, and John F. O'Donnell, Rochester, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application April 23, 1956, Serial No. 579,816
3 Claims. (Cl. 56—104)



1. In a corn picker, a pair of spaced, counter-rotating, juxtapositioned snapping rolls, one roll being positioned at a higher level than the other and the rolls being inclined forwardly and downwardly, a frame for rotatably supporting the snapping rolls, a pair of flare sheets mounted on the frame, and a pair of gathering points mounted on the forward end of the frame, the flare sheets defining the two sides of a generally vertical slot leading rearwardly to the space between the snapping rolls and then an upwardly diverging slot extending upwardly from adjacent said rolls, one flare sheet being positioned on

each side of said slot, one of the flare sheets generally overlying the snapping rolls and having a rounded leading edge of generally uniform inclination, and the other flare sheet having a rounded leading edge of rearwardly increasing inclination for supporting and guiding stalks of corn into the snapping rolls and projecting above the level of the first-mentioned flare sheet in the zone of the rear portions of the snapping rolls.

2,844,934

ADJUSTABLE LAWN TRIMMER

Raymond R. Carlton, Portland, Oreg., assignor to Oregon Saw Chain Corp., Portland, Oreg., a corporation of Oregon

Application January 3, 1957, Serial No. 632,343
1 Claim. (Cl. 56—256)



In a lawn and garden trimming tool, a handle, a bracket on one end of such handle having a leg extending generally parallel to said handle, an axle carried by said bracket, a rotatable ground engaging wheel mounted on said axle, a shearing disc coaxially mounted on said axle between said bracket leg and said wheel and fixed to the latter for rotation therewith, an elongate shear plate pivotally mounted on said axle between said bracket leg and said wheel, said shear plate having a lower part defining a pair of spaced shear blades for cooperation with said shearing disc, an adjustment lever pivotally mounted on said axle on the side of said bracket leg opposite said shear plate and extending generally upwardly along said leg and resiliently engaging the same, bolt means extending through said bracket leg above said axle securing said lever to said shear plate, said bracket leg having a transverse slot through which said bolt means passes, and cooperating means on said bracket leg and said lever for holding said lever in various positions of adjustment comprising a knob means protruding from said leg and an aperture formed in said lever for receiving said knob in the medial position of adjustment of said plate, said slot being formed so that said bolt engages the corresponding end thereof in a desired limit position of said plate, and said lever having a width such that upon movement of said shear plate to a limit position said knob engages a side edge of said lever, said lever being adapted to be manually biased away from said leg and out of engagement of said knob to permit movement of the lever in adjustment of the position of the shear plate.

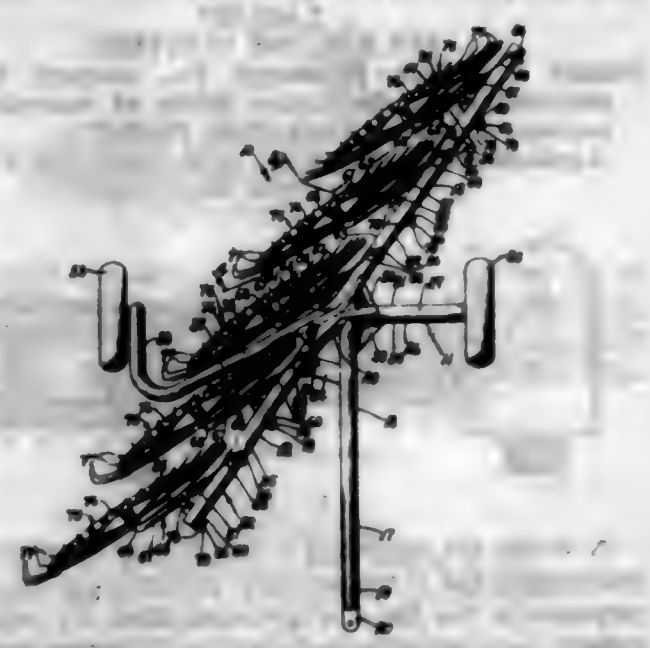
2,844,935

ROTARY SIDE DELIVERY WHEEL RAKE

Morris R. Cooley, Tulare, Calif., assignor, by mesne assignments, of one-half to Herbert A. Huebner, Los Angeles, and one-half to Richard M. Worrel, Fresno, Calif.

Application June 3, 1955, Serial No. 513,111
12 Claims. (Cl. 56—377)

1. A rake comprising elongated beam members rigidly secured together in angular relation and providing a rigid assembly of legs in the general form of an X horizontally disposed, ground support wheels mounted adjacent to the extremities of one of the legs of the X in substantial axial alignment, substantially parallel bearings mounted along the other leg of the X obliquely to the axis of the support wheels, a plurality of rotary raking wheels arranged in echelon along the leg mounting the bearings, means engaged in the bearings individually mounting the raking wheels for free rotation and floating elevational movement in substantially equally spaced parallel planes, and



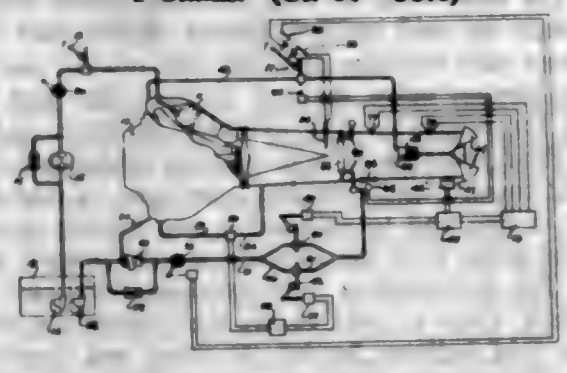
a draft tongue secured to the assembly at a position within an angle formed by the legs and extended therefrom obliquely to both the axis of the wheels and the bearings, one of the legs mounting a support wheel being extended between a pair of adjacent raking wheels.

2,844,936

CONTROL OF REHEAT IN TURBOJET ENGINES

Howard S. Fowler, Ottawa, Ontario, and Douglas A. J. Millar, Cyrville, Ontario, Canada, assignors to National Research Council, Ottawa, Canada, a body corporate of Canada

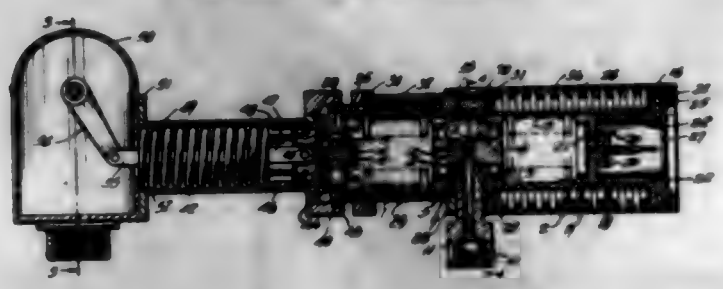
Application July 15, 1955, Serial No. 522,259
1 Claim. (Cl. 60—35.6)



In a turbojet engine of the type having a main combustion stage and a reheat combustion stage, a jetpipe, a variable-area propulsion nozzle at the rear end of said jetpipe, means for controlling the area of said nozzle, reheat fuel supply means including a main reheat fuel throttle arranged to exert a coarse control on the quantity of reheat fuel admitted to the engine and a trim reheat fuel throttle arranged to exert a fine control on the quantity of reheat fuel admitted to the engine, means for regulating the setting of said main throttle, means for regulating the setting of said trim throttle, means for determining the actual instantaneous area of opening of said nozzle, and means for determining the ratio of the absolute compressor exit pressure and the absolute turbine exit pressure, said nozzle opening area determining means being connected to said means regulating the setting of said main throttle so as automatically to vary the quantity of reheat fuel admitted by said main throttle on variation of said nozzle opening area by an amount theoretically necessary to maintain the velocity of the gases passing through said nozzle at a substantially constant predetermined value, and said pressure ratio determining means being connected to said means regulating the setting of said trim throttle

so as automatically to vary the passage of reheat fuel therethrough on variation of said ratio in a manner to maintain said ratio at a substantially constant predetermined value.

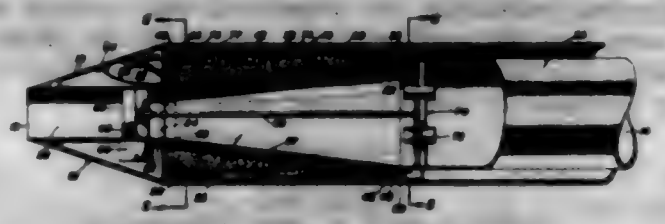
2,844,937
JET ENGINE CONTROL
Stanley J. Mikina, Pittsburgh, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 16, 1955, Serial No. 553,668
1 Claim. (Cl. 60—39.09)



A device for operating a fuel supply means and a potentiometer for a temperature control in a jet engine in response to the force of pressure from the engine compressor in excess of a predetermined compressor pressure, comprising a casing having a cover on one end, a cylinder with a piston secured to the other end of said casing having an aperture opening into said casing, a rotatable shaft operatively connected to said piston and controlling said fuel supply and potentiometer in response to motion of said piston, a housing mounted in concentric spaced relation within said casing defining a space therebetween, said housing having an outwardly turned flange on its end adjacent the casing cover, said housing being movable toward and away from said cylinder aperture, resilient means mounted in said space between said casing and housing having one end acting on said housing flange, means on said casing extending into said space engaging the other end of said resilient means for exerting a force on said resilient means urging said housing away from said cylinder aperture and toward said casing cover, a poppet valve secured to the other end of said housing for engaging said cylinder aperture and transmitting fluid pressure to said cylinder when said housing is moved toward said cylinder, a bellows in said housing secured at one end to said valve and having its interior communicating with the passage in said poppet valve, a conduit for transmitting fluid pressure from said engine compressor fixed to said casing and extending into said housing, said bellows having its other end fixed to said conduit, the passage in said conduit communicating with the interior of said bellows, so that fluid from said compressor may be transmitted through said bellows and valve to said piston when the force of said fluid is sufficient to move said housing in fluid transmitting engagement with said cylinder, said casing having an opening permitting passage of fluid from said valve when its pressure is insufficient to move said housing in engagement with said cylinder.

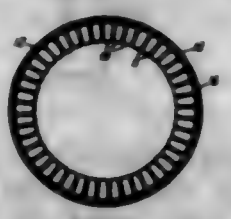
2,844,938
FUEL PRESSURING SYSTEM FOR SUPERSONIC RAM-JET
John P. Longwell, Scotch Plains, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 11, 1952, Serial No. 281,735
9 Claims. (Cl. 60—39.48)

1. In combination, a projectile body having an outer wall and an inner wall in the form of an elongated tubular duct, a diffuser in said duct, a compressible wall located between said inner and outer walls, anchoring means for said compressible wall, a first chamber having fuel therein and defined by the wall of said diffuser and said compressible wall, said outer wall and said compressible wall defining a second chamber, nozzle means connected with said first chamber and located



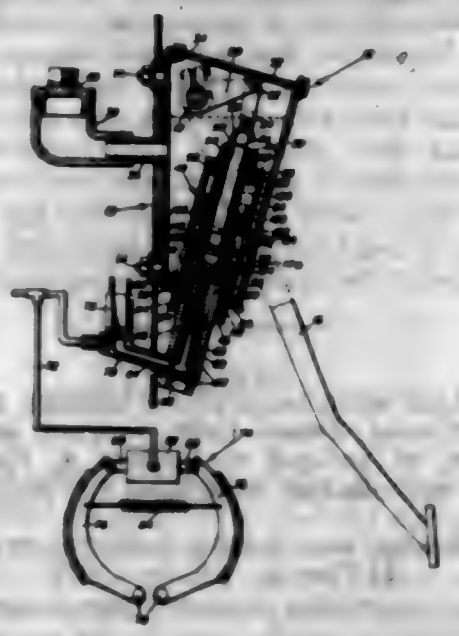
within said duct, and vapor pressure producing means in said second chamber and adjacent said compressible wall for compressing said wall and forcing fuel through said nozzle means into said duct.

2,844,939
TUBE-BUNDLE COMBUSTION CHAMBER
Frederick E. Schultz, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application October 4, 1954, Serial No. 459,921
3 Claims. (Cl. 60—39.69)



2. A tube-bundle combustion chamber for high temperature combustion comprising a plurality of tubes secured together to form a hollow elongated combustion chamber, a rubber coating surrounding the chamber and forming a fluid impervious layer for preventing leakage of combustion gases between said tubes, and binding means surrounding said coating for keeping it in intimate contact with the tubes and for maintaining said chamber in a predetermined shape against the forces set up by the pressure of the combustion gases tending to separate the tubes.

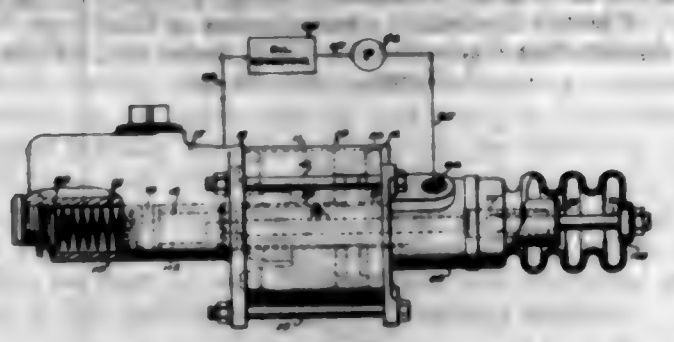
2,844,940
MASTER CYLINDER
Clarence W. Huber, Milan, Ohio
Application June 22, 1953, Serial No. 363,319
3 Claims. (Cl. 60—54.6)



1. A hydraulic master cylinder assembly comprising a reservoir casing, an elongated cylinder disposed in said casing and having an enlarged bore at one end and a reduced bore at its other end, said casing having an opening through which said cylinder passes, a shoulder in

said cylinder and seated on said casing around said opening, an actuating plunger reciprocable within both bores of said cylinder, a first piston carried by said plunger reciprocable within said enlarged bore, a second piston reciprocable within said reduced bore in the path of movement of said plunger and engageable therewith upon predetermined movement of the same, a seat member carried by said plunger, said first piston being slidably carried on said plunger in spaced relation to said seat member, a first spring disposed between and seated on said seat member and one side of said first piston, said seat member having a portion engaged with the inner surface of said cylinder for guiding the plunger therein, and a second spring seated on the opposite side of said first piston and said cylinder and reacting on said first piston in opposition to said first spring.

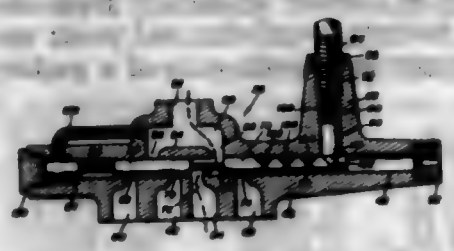
2,844,941
BOOSTER BRAKE MECHANISM
David T. Ayers, Jr., Birmingham, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application June 9, 1954, Serial No. 435,487
15 Claims. (Cl. 60—54.6)



15. A booster brake mechanism comprising a motor having a cylinder provided with a pressure responsive unit therein dividing said cylinder to form a pair of motor chambers, one of which is an outlet chamber, a pair of heads connected to the ends of said cylinder, a master cylinder carried by the one of said heads adjacent said outlet chamber and having a fluid displacing piston therein, an inlet passage formed in the other head, a rod slidable through said pressure responsive unit and having a force transmitting head at one end provided with lost motion connection with said master cylinder piston, and a valve surrounding and spaced from said rod to form therewith a fluid passage normally communicating with said inlet passage and with both of said motor chambers, said valve and said pressure responsive unit having portions cooperating, upon movement of said valve from a normal position, for disconnecting said motor chambers from each other and for connecting the other of said motor chambers to said inlet passage, said pressure responsive unit having mechanical connection with said master cylinder piston to impart movement to the latter when said motor is energized, and a constantly operating pump having an outlet in communication with said inlet passage and an inlet communicating with said outlet chamber whereby, when said valve is normally positioned, there will be a constant flow of hydraulic fluid through said motor.

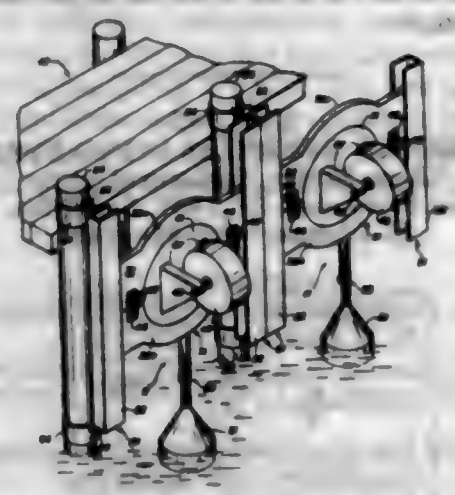
2,844,942
VALVE
Eugene R. Reynolds, McAllen, Tex.
Application February 12, 1957, Serial No. 639,787
9 Claims. (Cl. 60—97)

1. A hydraulic system comprising a hydraulic fluid supply line and a return line, first and second lines, a four-way valve disposed intermediate said supply line, said return line, and said first and second lines, a plurality of double acting hydraulic motors, said hydraulic motors each having a first and second end, said first line being connected to said first ends, a control valve, said second line being connected to said control valve, said control valve including a plurality of flow passages, there being one flow passage for each hydraulic motor, third lines connecting said flow passages with said second ends, said



control valve including a shiftable valve member for selectively individually communicating said flow passages with said second line, shift means for automatically shifting said valve member in response to pressure differentials in said first and second lines.

2,844,943
PIER BUMPER
William T. Kennedy, Long Beach, Calif.
Application June 2, 1953, Serial No. 359,240
4 Claims. (Cl. 61—48)
(Granted under Title 35, U. S. Code (1952), sec. 266)

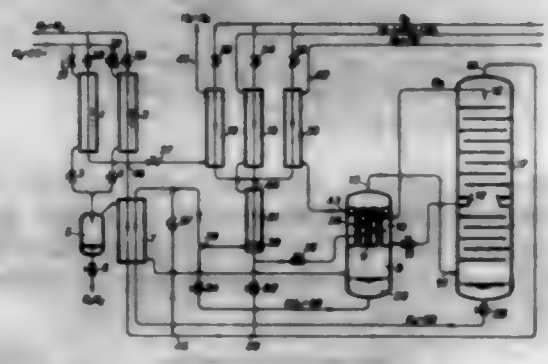


1. A pier bumper for attachment to the pilings of a pier comprising a pair of grooved guides, means for securing said guides to said pier piling in vertical spaced apart relation, a panel mounted in said guides for vertical movement therein, a disc rotatably mounted on said panel with its axis horizontal and normal to the side of said pier, a pair of spaced apart normally extending roller support members secured to the face of said disc, a shaft secured near the end of said support members, a roller rotatably mounted on said shaft, the axis of said shaft and roller being parallel to the side of said pier and spaced laterally from the axis of said disc.

2,844,944
PROCESS FOR OBTAINING A GAS FRACTION WHICH IS HIGHLY RICH IN CARBON MONOXIDE FROM A CARBON MONOXIDE CONTAINING GAS MIXTURE
Rudolf Becker, Munich-Solln, Germany, assignor to Gesellschaft für Linde's Eismaschinen Aktiengesellschaft, Munich, Germany
Application December 5, 1955, Serial No. 551,161
Claims priority, application Germany December 7, 1954
4 Claims. (Cl. 62—25)

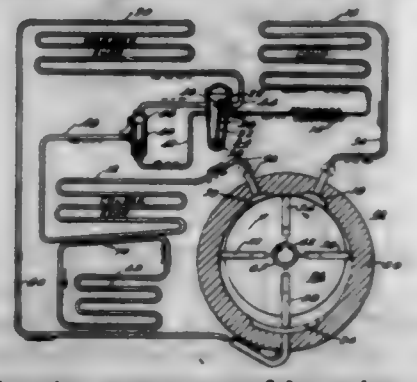
1. A process for obtaining a gas fraction which is highly rich in carbon monoxide from a crude, compressed gas mixture, consisting of a major proportion of hydrogen and a minor proportion of carbon monoxide, together with impurities such as methane, argon, oxygen, nitrogen and the like, comprising the steps of cooling the compressed, crude mixture to low temperatures to form a supercooled crude mixture in a first heat-exchange with

a substantially pure nitrogen and hydrogen mixture, in a second heat-exchange with evaporating rich carbon monoxide-nitrogen liquid fraction, and in a third heat-exchange with an evaporating poor carbon monoxide-nitrogen liquid fraction, collecting a condensate consisting essentially of carbon monoxide from said supercooled, crude mixture, supplying said crude gas mixture and liquid nitrogen to opposite ends of a washing column



to produce the poor carbon monoxide nitrogen fraction, the substantially pure nitrogen and hydrogen, and the rich carbon monoxide-nitrogen fraction, withdrawing the poor carbon monoxide-nitrogen fraction from said column as an intermediate fraction containing less than 5% carbon monoxide and supplying evaporating liquid from said condensate to the latter fraction to produce a highly rich gas fraction.

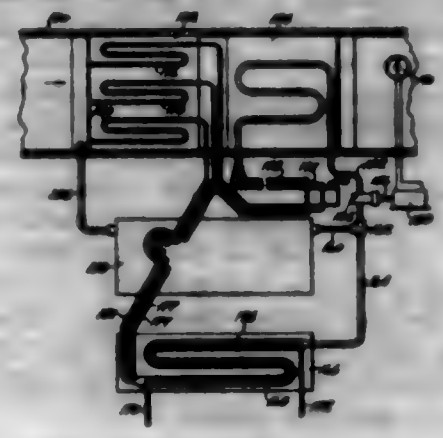
2,844,945
REVERSIBLE REFRIGERATING SYSTEMS
Glenn Muffly, Springfield, Ohio
Application September 19, 1951, Serial No. 247,239
22 Claims. (Cl. 62—160)



1. In a two-temperature refrigerating system, two evaporators of which one is cooled to a lower temperature than the other, pressure reducing means providing two stages of pressure reduction in series to feed liquid refrigerant to said one evaporator, and means for causing said one evaporator to act as a condenser while refrigerant flows through one of said stages of pressure reduction and the other of said stages is bypassed.

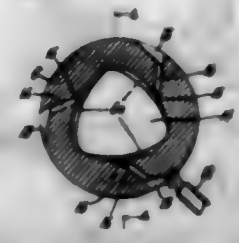
2,844,946
AIR CONDITIONING DEVICE WITH REHEAT MEANS
Donald A. Bauer, Michigan City, Ind.
Application March 16, 1955, Serial No. 494,745
1 Claim. (Cl. 62—173)

An air conditioning device comprising a housing having an air inlet and an air outlet, a direct expansion coil, a reheat coil, said coils being mounted in said housing in sequence, a compressor connected to said expansion coil, a condenser, a line connecting said condenser to said compressor, a line connecting said condenser and said direct expansion coil, a line connected to said reheat coil and branching from the line between said compressor and condenser, a line connecting said reheat coil to the line between said expansion coil and said condenser, a modulating valve in said branch line, and means responsive to a variable for modulating said valve said expansion coil comprising a plurality of sections, said second named line and said last named line cooperating to define a supply of



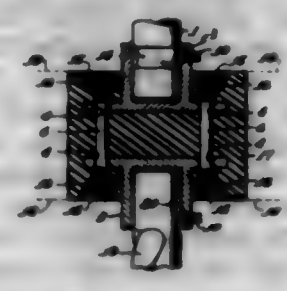
condensed refrigerant to said expansion coil divided equally between said sections.

2,844,947
LUBRICATION SYSTEM FOR "TOLYGON" TYPE SHAFT COUPLING
Eugene E. Shipley, Middleton, Mass., assignor to General Electric Company, a corporation of New York
Application December 31, 1956, Serial No. 631,961
7 Claims. (Cl. 64—6)



5. In a polygon type shaft coupling having external and internal members with mating generally polygon surfaces, the combination of means for supplying a lubricating liquid to the minimum radius points of the mating polygon surfaces comprising at least one pickup scoop formed in the external coupling member, means for directing liquid into the scoop, and conduit means in the external member for conducting liquid picked up by the scoop inwardly to at least one minimum radius point of the polygon surfaces.

2,844,948
TORQUE TRANSMITTING AND CUSHIONING MEANS
Ralph Herbert Jarvis, Bell, Calif.
Application January 23, 1956, Serial No. 560,526
4 Claims. (Cl. 64—11)



1. A flexible coupling comprising a body of resilient enveloping material, longitudinally spaced internal circular elements in co-axial alignment in said body, said longitudinally spaced internal circular elements having a plurality of holes therein, the edges of said holes being rounded and smooth, fibrous material passing through said holes the ends of said fibrous material being frayed in the resilient material, an element fixed to the center of one of said longitudinally spaced internal circular elements suitable for a driving means, an element fixed to the center of the other said longitudinally spaced internal circular element suitable for a driven means,

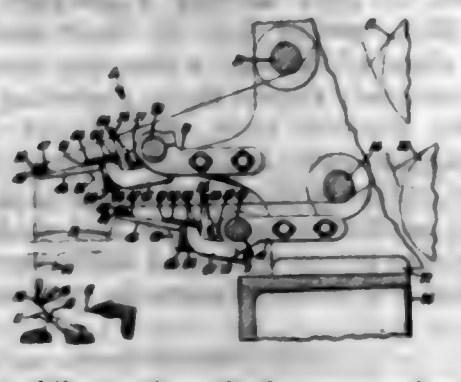
said element suitable for a driving means and said element suitable for a driven means being in co-axial alignment and said resilient enveloping material being in a state of compression between said circular elements.

2,844,949
PINNING CONSTRUCTION FOR UNIVERSAL JOINT
George B. Stillwagon, Jr., Dayton, Ohio, assignor of one-half to Kenneth G. Fraser, Dayton, Ohio
Application May 5, 1955, Serial No. 506,240
4 Claims. (Cl. 64—17)



1. Pinning construction for a universal joint comprising a block having normally disposed borings, a pin positioned in one of said borings, said pin having a flattened mid-portion and adjacent shoulders, a pair of hollow cylindrical arms positioned in the ends of the remaining boring, radially outwardly projecting thickened portions on the inner ends of said arms, said thickened portions forming shoulders to prevent the release of said arms from said block, said shoulders also engaging the first named shoulders on said pin to prevent removal of said pin from said block, and means seated within the hollow portions of said arms holding said thickened portions in the radially outwardly projecting position.

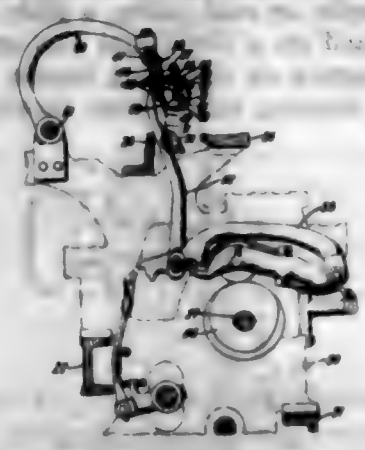
2,844,950
YARN TENSIONING MEANS FOR KNITTING MACHINES
Frank P. Trumpio, Temple, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a corporation of Pennsylvania
Application March 13, 1956, Serial No. 571,316
8 Claims. (Cl. 66—86)



1. A yarn guiding and tensioning means for warp knitting machines or the like, comprising a support member, an arm, a yarn guide rod carried by said arm, a resilient spring member connecting said arm to said support member and permitting relative movement between said arm and said support member, and resilient means between said arm and support member acting to resist said relative movement in one direction.

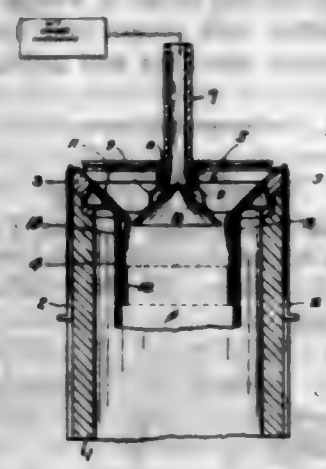
2,844,951
MEANS FOR FORMING DROPPED LOOPS IN FABRIC BLANKS
Rudolph Anke, Reading, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a corporation of Pennsylvania
Application March 13, 1956, Serial No. 571,318
4 Claims. (Cl. 66—89)

1. In a full-fashioned knitting machine having spring bearded needles, a narrowing frame and means for operating said narrowing frame during fashioning cycles of the machine to engage and remove loops of a knitted fabric formed on said needles and for transferring said loops to adjacent needles to fashion the fabric, the improvement comprising means for causing at least one needle to drop its loop during a fashioning cycle including a point for closing the beard of said one needle without engaging a loop thereon, a lever on one end of which said point is mounted, a link pivotally mounted on said narrowing



frame and having its free end pivotally connected to the other end of said lever, a second link pivotally mounted on said narrowing frame and having its free end pivotally connected to said lever intermediate said point and said pivotal connection with said first link, and means for moving the pivotal mounting for said first link to move said lever and point between an active position, in which said point engages said one needle, and an inactive position in which said point is above and to the back of the needle.

2,844,952
FABRIC TENSIONING METHOD AND MECHANISM
Joseph Wawzonek, Cumberland, R. I., assignor to Hemphill Company, Pawtucket, R. I., a corporation of Massachusetts
Application May 5, 1955, Serial No. 506,106
9 Claims. (Cl. 66—147)

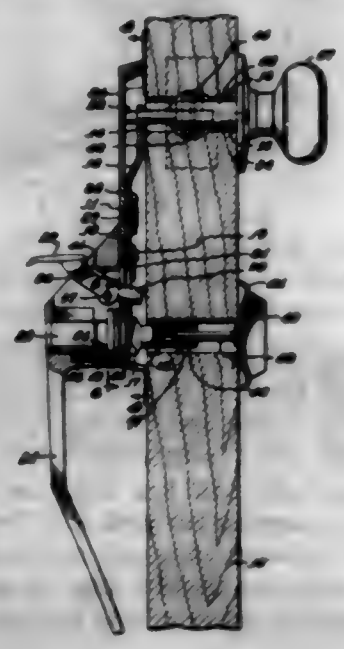


6. In a circular knitting machine having a needle bearing cylinder and means for producing knitted fabric to be drawn downwardly within said cylinder, means for discharging a stream of air substantially concentric to said cylinder and downwardly thereof to tension said fabric as it is knitted throughout substantially the entire cycle of knitting thereof.

2,844,953
FRONT DOOR LOCK
Carl C. Hillgren, Newport Beach, Calif.
Application September 6, 1955, Serial No. 532,703
7 Claims. (Cl. 70—146)

4. A combination lock and latch set for a door having outside and inside faces comprising a housing having an open side adapted to be applied to the door, a knob assembly adapted to be mounted on the inside face of

the door and anchoring means adapted to be secured between the knob assembly and said housing, a plate pivotally secured between opposite ends of said housing, a latch bolt adapted to be mounted horizontally in said door in operative engagement with the knob assembly and a spindle extending between one end of said plate and said latch bolt in operative engagement with the latch bolt, said plate having an aperture adjacent the other end, a door handle on said casing, a plate tilting member pivotally mounted on a horizontal axis on said housing, said member having an operating handle extending outwardly of the housing and a plate moving element ex-



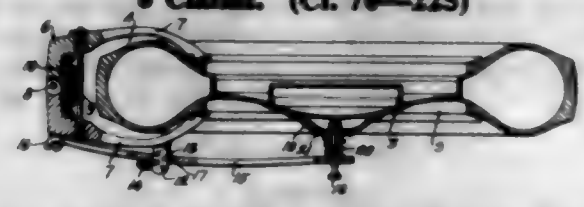
tending into said aperture, and a cam element having alternative tilted positions at opposite sides of said aperture for right-hand and left-hand operation, said cam element being subject to camming engagement with said plate moving element whereby to enable operation of said latch bolt by said operating handle, means forming a recess at one end of said plate, a bolting member rotatably mounted in the door and having a bolting handle at the inside face of the door, a wedge on said bolting member lying within said recess and having alternative positions respectively blocking and unblocking operation of said plate.

2,844,954

WHEEL CLAMP

Frank P. Marugg, Denver, Colo.

Application March 7, 1955, Serial No. 492,523
8 Claims. (Cl. 70—225)



3. In a device for immobilizing a vehicle having wheels bolted thereon of the type having clamp means embracing the periphery of the wheel, an arm extending to the center of the wheel from the clamp means and a bell depending from the arm in position to cover the bolts, the improvement that comprises: a compression spring between the arm and bell urging said bell against the wheel to prevent removal of said wheel.

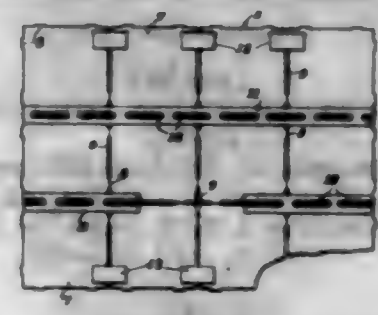
2,844,955

MULTIPLE TILE UNIT

Eldred A. Talbott, South Pasadena, Calif.

Application February 7, 1955, Serial No. 486,637
3 Claims. (Cl. 72—22)

1. A multiple tile unit comprising plural rows of tiles in edge-to-edge abutment, each said tile being provided with protruding edge lugs and the lugs of adjacent tiles being engaged and defining through spaces between the adjacent tiles and along the line where the same join, and a separate flexible tape disposed along each line joining



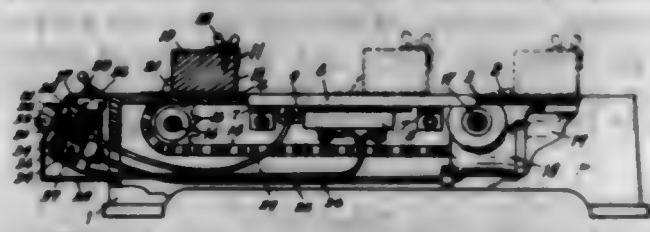
adjacent rows of tiles and adhesively connected to the tiles to connect the tiles of each row and the rows of tiles together, the tape being substantially narrower than a row of tiles to leave an expanse of such row of tiles exposed between the tapes.

2,844,956

APPARATUS FOR TESTING HOT BLEED AND RUB PROPERTIES OF PRINTED HEAT SEALABLE PAPER

Hugh C. Smith, Parchment, Mich., assignor to Kalamazoo Vegetable Parchment Company, Parchment, Mich.

Application April 2, 1956, Serial No. 575,517
10 Claims. (Cl. 73—15.6)



10. An ink testing apparatus comprising a flat faced way having a hot plate opening therein, there being a feed table portion at the front of said opening, and a work receiving table portion at the rear thereof, said way having parallel longitudinally extending slots, one at each side of said hot plate opening, a hot plate arranged in said hot plate opening with its upper surface slightly above the plane of the way, a conveyor provided with a pair of transversely aligned flights projecting through said slots on the rearward travel thereof, said conveyor extending both forwardly and rearwardly of the hot plate, and a work holder block of such length as to overlie said slots when positioned upon said feed table portion of said way and be picked up by said flights, translated across the hot plate and delivered upon the receiving portion of said way.

2,844,957

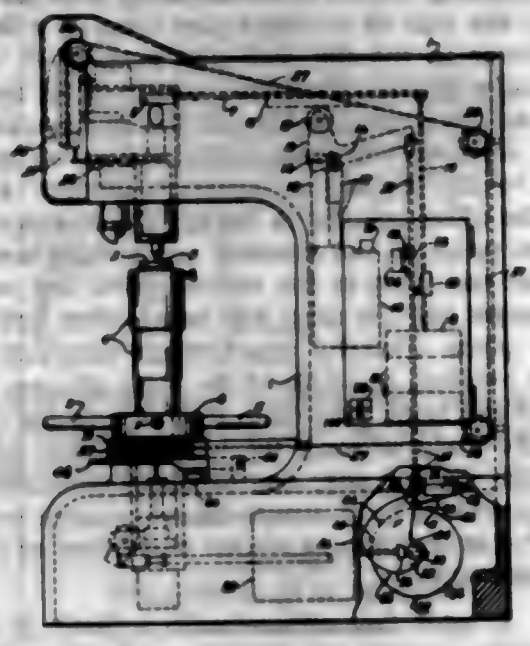
MOTORIZED HARDNESS TESTER

Louis Small, Detroit, Mich., assignor to Service Diamond Tool, Ferndale, Mich., a company of Michigan

Application February 14, 1955, Serial No. 487,767
11 Claims. (Cl. 73—83)

1. A hardness testing machine comprising a work-supporting member, a penetrator member, means for applying a load to and removing a load from one of said members, said means including a load-carrying arm, motor means for moving said arm in one direction to effect removal of the load and permitting it to move in the opposite direction to effect application of the load, a rod between said arm and motor means for translating movement of the motor means into load-removal movement of the arm, a rotary cam between said rod and motor means, said cam having a rod-engaging portion of changing radial thickness for moving the rod means during load-removal movement and having a pocket portion of lesser radial thickness than the aforesaid portion for per-

mitting movement of the rod free of the cam during load application, first switch means actuated at entrance of the rod into the pocket portion for automatically switching off the motor means, and second switch means actu-



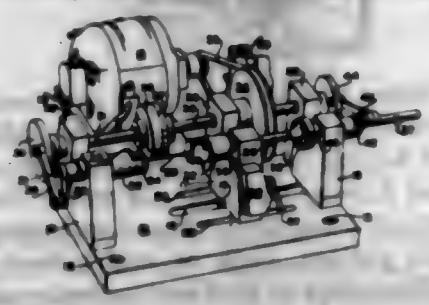
ated by a predetermined movement of the rod into the pocket portion for automatically switching on the motor means so as to energize it for effecting the load removal operation.

2,844,958

TORSION FATIGUE TESTING MACHINE FOR WIRE

John A. Bennett and Harry C. Burnett, Bethesda, Md., assignors to the United States of America as represented by the Secretary of the Army

Application November 9, 1956, Serial No. 621,481
7 Claims. (Cl. 73—91)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In apparatus for determining the torsional fatigue life of the type of wire employed in the formation of coil springs, a pair of spaced apart chucks for securely holding the ends of a test length of the wire therebetween, a crank arm fixedly associated with each of said chucks, a wheel mounted on either end of a shaft disposed for uniform rotation about an axis parallel to the test length of wire, crank lever means pivotally connected between each of said wheels and each of said crank arms for converting the rotary motion of the former to uniform oscillatory movement of the latter whereby said chucks are rotated accordingly, means for circumferentially positioning the points of connection between each crank lever and wheel to change the phase relationship of said chucks and effect a corresponding increase or decrease in the magnitude of the torsional stress imparted to the wire by the rotation of said chucks in opposite directions, and means for totaling the cyclic rotations of said chucks.

2,844,959

FORCE MEASURING INSTRUMENT

Albert M. Grunn, Quincy, Mass.

Application February 17, 1955, Serial No. 488,746
4 Claims. (Cl. 73—141)

1. A force measuring instrument comprising an elongated body member, a cantilever spring arm secured in the body and having a tongue portion, the body having at its end portions overlying said tongue and defining a slot within which the tongue is free to move slightly, a strain gage on the cantilever arm, and a force-applying



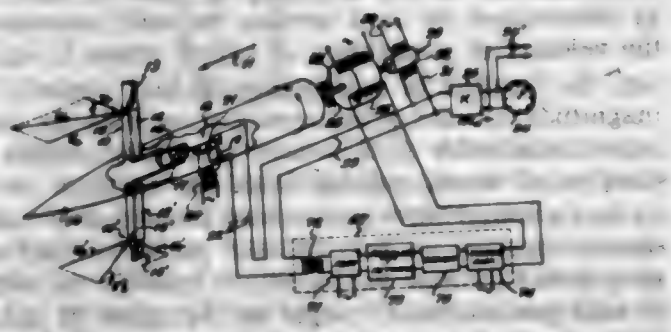
member secured to the tongue symmetrically extending therefrom and passing through said overlying portions of the body, the overlying portions of the body being formed with spring-receiving chambers on opposite sides of the tongue to accommodate centralizing coil springs.

2,844,960

AIR SPEED MEASURING DEVICE

Basil Staroe, Massapequa, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application November 30, 1953, Serial No. 395,178
21 Claims. (Cl. 73—181)



21. Apparatus for measuring the displacement of a body along a direction with respect to a fluid mass surrounding the body, comprising an element carried by the body to lie in the relative fluid stream, means mounting said element for rotation about an axis parallel with the direction, means imparting an auxiliary displacement at right angles to said direction to said element about said axis, means responsive to the auxiliary displacement of said element effective to derive a first quantity proportional to the auxiliary displacement, means responsive to the relative fluid flow at the element effective to derive a second quantity proportional to the cotangent of the angle made with the direction by the flow streamlines of the resultant relative fluid flow at the element, and means responsive to said quantities for computing the product of the said first and second quantities effective to derive a third quantity proportional to the displacement.

2,844,961

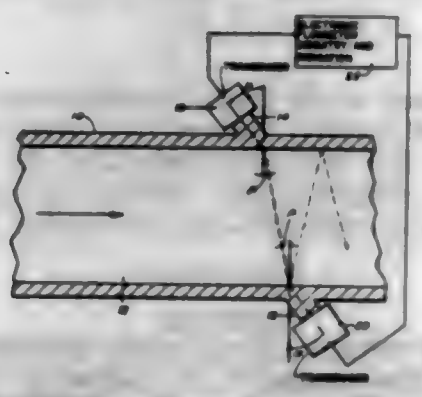
ULTRASONIC FLOWMETER TRANSDUCER MOUNTING

Albert L. Hedrich, Bethesda, and Don R. Pardue, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Army

Application January 11, 1957, Serial No. 633,804
1 Claim. (Cl. 73—194)
(Granted under Title 35, U. S. Code (1952), sec. 266)

In apparatus for measuring the velocity of flow of a medium by means of sound waves, said apparatus incorporating first and second transducers located at up-

stream and downstream positions relative to one another, said transducers being adapted to alternately function as transmitter and receiver so as to cause sound waves to travel alternately in upstream and downstream directions between said transducers, the difference in phase delay between the upstream and downstream sound waves being a measure of the rate of flow of the medium, improved mounting means for said transducers to permit the measurement of the velocity of flow of a medium in a metallic conduit without producing harmful reflection effects, said improved mounting means comprising: first and second metallic bosses formed on the external surface of said conduit and disposed substantially obliquely opposite to one another, each of said first and second bosses having a surface adapted to receive said first and second transducers respectively, each transducer being mounted on its boss so that when it functions as a transmitter it will propagate a sound wave through said boss toward said medium at a predetermined angle to a line perpendicular to the direction of flow of said medium as determined by said surface on said associated boss, the velocity of popagation of sound waves in said medium, the location of said bosses on said conduit, and the magnitude of said predetermined angle being chosen in accordance with Snell's law governing angles of refraction of waves passing from one medium to another so that a sound wave propagated from one of said transducers through its boss at said predetermined angle is propagated through said medium through the other boss at said predetermined angle to the other of said transducers, sound waves reflected from the interior surfaces of said conduit in the vicinity of said other boss thereupon passing down said conduit away from said transducers, thereby eliminating any reflection effects.

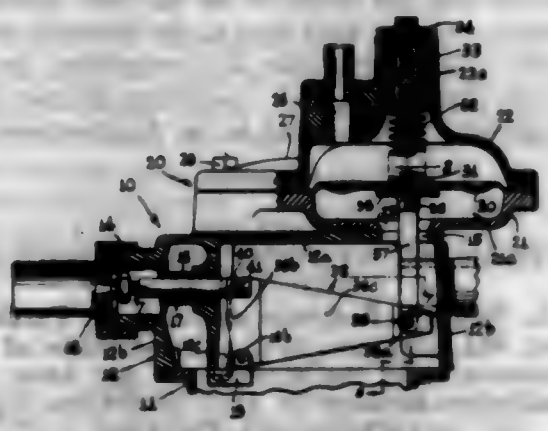


2,844,962

COMBINATION REGULATOR AND METER INDEX RING MOUNTING

Paul V. Rasko, Bridgeport, and Fairchild Whitworth, Fairfield, Conn., assignors to The Sprague Meter Company, Bridgeport, Conn., a corporation of Connecticut

Application August 9, 1954, Serial No. 448,585
6 Claims. (Cl. 73—199)



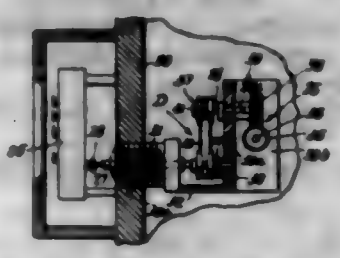
6. A top for a gas meter having an inlet port, a top reading register and a pressure regulator having a diaphragm therein mounted on said top in offset relation to said inlet and register, said top comprising a body portion including integral enclosing walls having the inlet port for connection to a gas supply and having an integral top wall provided with the top reading register and an offset opening therein communicating with the pressure regulator, the axis of the inlet port lying in a first plane perpendicular to the top wall and parallel to a second plane passing through the center of the offset opening in the top wall, a valve carried by the top and movable axially of the inlet port to control the passage of gas therethrough to the meter, a regulator plunger extending through the offset opening in the top and connected to the diaphragm to be moved thereby, and a sheet metal plate having one end lying in the second plane and connected to the plunger and the other end being offset and lying in said first plane whereby interference therewith by the register is avoided, one edge of the plate adjacent the last-mentioned end being pivoted to the housing and the other edge of the plate adjacent the last-mentioned end being spaced from the first edge and drivingly connected to the valve to provide a lever arm to insure positive movement of the valve in response to pivotal movement of the plate by the diaphragm.

2,844,963

TEMPERATURE AND PRESSURE COMPENSATING DEVICE FOR GAS METERS

Charles W. Stewart, Fairfield, Conn., assignor to The Sprague Meter Company, Bridgeport, Conn., a corporation of Connecticut

Application October 7, 1955, Serial No. 539,112
2 Claims. (Cl. 73—233)



1. In a gas meter having a metering mechanism including a meter spindle in combination with an index registering mechanism having an index spindle for recording the amount of a gas flowing through said meter, the improvement of a compensating drive means including a pair of expansible, split pulleys, each of said pulleys consisting of two half portions, one of said pulleys being connected to the meter spindle and the other said pulley being connected to said index spindle, belt means connecting said pulleys to operatively connect said metering mechanism in driving relationship with said registering mechanism; and a Sylphon bellows responsive to temperature and pressure operatively connected with each of said pulleys, one of said bellows being connected to and between the half portions of one of said pulleys and the said other bellows being connected to the outside of one half of said other split pulley, so that said temperature and pressure acting on said gas causes said bellows to proportionately vary the effective circumference of said pulleys whereby the ratio between the metering mechanism and registering mechanism is proportionately increased or decreased accordingly so that the amount of gas flowing to the meter is accurately recorded.

2,844,964

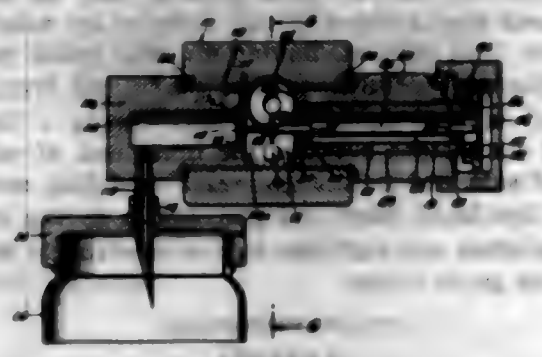
LIQUID SAMPLER

Francis W. Gulbert, Los Angeles, Calif.

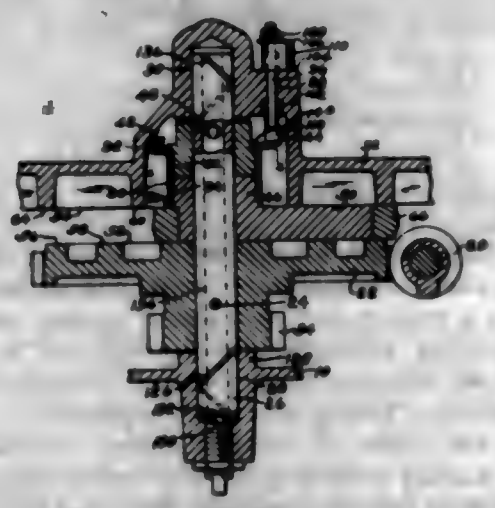
Application December 6, 1952, Serial No. 324,481
6 Claims. (Cl. 73—422)

1. In a device for collecting samples from a stream of fluid: means forming an orifice for the passage of fluid; a member having a surface cooperating with the orifice to define a flow path through the orifice; said member hav-

ing a stem aligned with the orifice; a sleeve supporting the stem; means adjustably mounting the sleeve for movement in a direction longitudinally of the stem for varying the size of the flow path through said orifice; and means for moving said member through repeated cycles with respect to the orifice.



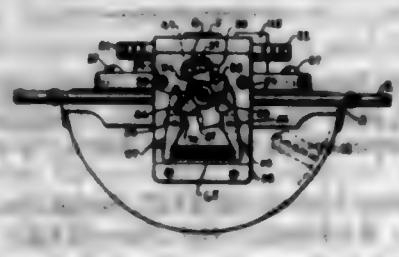
2,844,965
WASHING MACHINES
Charles R. Stelljes, Fayetteville, and John P. Flannery, Syracuse, N. Y., assignors, by mesne assignments, to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware
Application February 18, 1953, Serial No. 337,546
3 Claims. (Cl. 74—70)



1. In an agitator drive control for washing machines, a driving gear, a shaft for supporting said gear, an eccentric mounted on said shaft, and freely rotatable relative to said gear, said eccentric and gear having contacting bearing faces, and helical spring clutch means mounted upon and concentric with said shaft, and including a helical resilient clutch member, for coupling said eccentric to said gear on rotation in one direction a peripherally notched circular member journaled coaxially about said said shaft adjacent one end of said helical clutch member, and having means for engaging one end of the clutch member, and stationary control means for entering a notch of said circular member stopping the rotation of one end of said helical clutch spring to uncouple the clutch means.

2,844,966
WINDSHIELD WIPER FLUID MOTOR
Fred A. Krolen, Hobart, Ind., assignor, by mesne assignments, to The Anderson Company, a corporation of Indiana
Original application March 28, 1949, Serial No. 83,896, now Patent No. 2,698,607, dated January 4, 1955. Divided and this application October 8, 1954, Serial No. 461,895
12 Claims. (Cl. 74—97)

1. A valve acting mechanism comprising a support, a shaft extending from the support, a reversible element for supporting a valve disposed on said shaft for movement with respect thereto, a cam member rotatably mounted on said shaft and having diametrical opposed cam faces, said cam member being adapted to actuate said element, an actuating member fixed on said shaft and adapted to actuate said cam member, rockers pivotally disposed



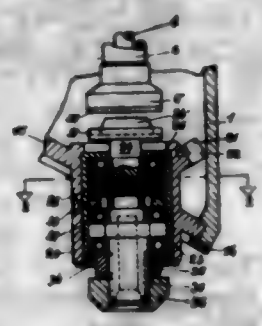
on opposite sides of said cam member and adapted to engage the respective cam faces of said cam member; and resilient means associated with said rockers whereby to urge said rockers toward said cam member.

2,844,967
SHIFTING ARRANGEMENT FOR CHANGE GEAR TRANSMISSIONS
Felix Leber, Köln-Riehl, Germany
Application November 9, 1955, Serial No. 545,907
Claims priority, application Germany November 12, 1954
6 Claims. (Cl. 74—335)



1. A shifting arrangement including a shift fork movable along a certain straight path for change gear transmissions, which comprises in combination: a fluid operable movable member arranged for movement substantially parallel to said straight path of said shift fork, connecting rod means, and universal joint means respectively associated with said connecting rod means and connecting the same with said movable member and said shift fork.

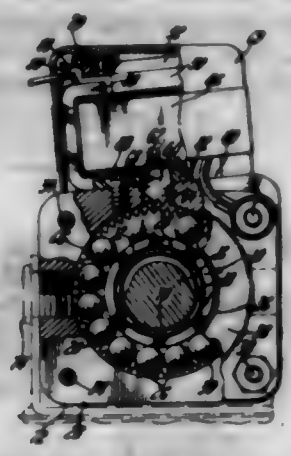
2,844,968
MACHINE TOOL DRIVING ARRANGEMENT
Friedrich Schwab, Stuttgart-Riedenberg, Germany
Application March 15, 1956, Serial No. 571,815
Claims priority, application Germany November 18, 1952
8 Claims. (Cl. 74—421)



1. In a driving arrangement for a machine tool, in combination, support means having a cylindrical socket; a cylindrical housing located in said socket, engaging said support means at said socket thereof, and being removably connected to said socket; a first shaft supported for rotation about its axis in said housing and extending beyond one end thereof, said first shaft being adapted to be placed in driving engagement with a drive spindle of the machine tool; a second shaft spaced coaxially from said first shaft and supported in said housing for rotation about its axis, said second shaft extending beyond an opposite end of

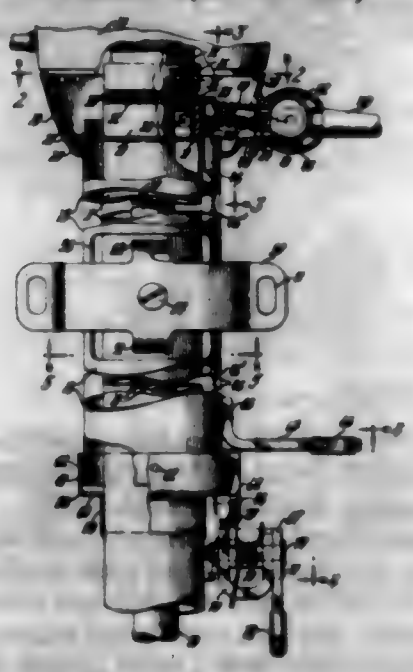
said housing and being adapted to be connected to a tool; and gear means in said housing cooperating with said first and second shafts for driving said second shaft at a speed different from said first shaft.

2,844,969
MECHANICAL MOVEMENT DEVICE
Thomas E. Lohr, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 18, 1957, Serial No. 646,810
9 Claims. (Cl. 74—424.8)



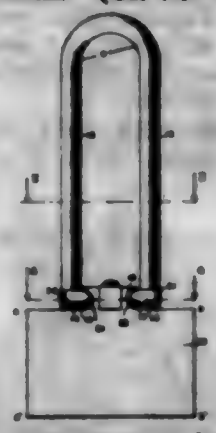
8. A mechanical movement device comprising, first and second rotatable members, means interconnecting said members for axial movement of said first member relative to said second member upon relative rotational movement therebetween, a non-rotatable member, instantaneously and positively engageable means for selectively clutching said first member to said non-rotatable member to secure said first member against rotation, said means including a plurality of teeth on said first member and a plurality of teeth movably supported on said non-rotatable member for engagement with said teeth on said first member to thereby positively secure said first member to said non-rotatable member, and means for selectively operating said positively engageable means.

2,844,970
TRANSMISSION CONTROL EXTERNAL TUBE
Clovis W. Lincoln, Saginaw, Mich., Henry D. Spiekerman, Encino, Calif., and Philip B. Zeigler, Saginaw, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 16, 1954, Serial No. 449,832
9 Claims. (Cl. 74—484)



1. In a transmission control assembly, a support extending longitudinally along an axis, a control tube positioned externally around said support and extending axially of said support, a member rotatably mounted on said support and extending radially beyond said control tube, one end of said control tube being secured to said member to rotatably support said control tube on said support, a hand lever pivoted to said member for axial pivotal movement, said member having an axial guide recess located adjacent the inner end of said hand lever, a rod positioned in said guide recess and having a free face, a pivotal connection between the inner end of said hand lever and said rod permitting relative sliding movement between the hand lever and rod, and a spring engaging said hand lever and said free face of said rod to hold said rod in said guide recess.

2,844,971
LOCKING MECHANISM WITH PASSAGE OF THE MOBILE MEMBER THROUGH A DEAD POINT POSITION
Louis Debuit, Grenoble, France, assignor to Etablissements Merlin & Gerin, Grenoble, France
Application October 4, 1954, Serial No. 460,119
Claims priority, application France December 23, 1953
1 Claim. (Cl. 74—527)

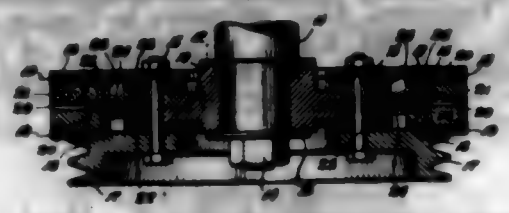


A locking hinge arrangement including a stationary element and a swingable element, one of said elements including a portion having a planar surface and a projection extending therefrom, said projection having oppositely facing, parallel, generally half cylindric concavities, each concavity having one side tangential to said planar surface, the other of said elements including spaced portions having parallel generally half cylindric convexities of slightly greater dimension than said concavities and extending one toward each said concavity, means applying resilient force to one of said elements so as to urge the respective concavities and convexities toward one another, a pivot pin at right angles to said convexities at one end thereof and parallel to said planar surface to position said convexities to normally extend into and be embraced by said concavities, the axis of said pivot pin being disposed parallel to said planar surface and located at a distance therefrom equal to the radius of said convexities, said planar surface being tangential to the curves defining said respectively cooperable concavities and convexities, and the said dimensions of said convexities being such that the planes containing the tangents to each convexity at its lines of contact with the corresponding concavity remote from said planar surface are substantially parallel to said planar surface whereby when said convexities are embraced by said concavities said convexities will be pressed by a force substantially along diameters of said convexities against said planar surface.

2,844,972
VIBRATION DAMPER
Charles B. Spase, Syracuse, N. Y., assignor to Lipe-Rollway Corporation, Syracuse, N. Y., a corporation of New York
Application October 16, 1953, Serial No. 386,598
8 Claims. (Cl. 74—574)

1. A torsional vibration damper comprising a driving member and an inertia member, said inertia member com-

prising an annular mass, a first damping element engaging said driving member, and a second damping element engaging said annular mass, means for making relatively



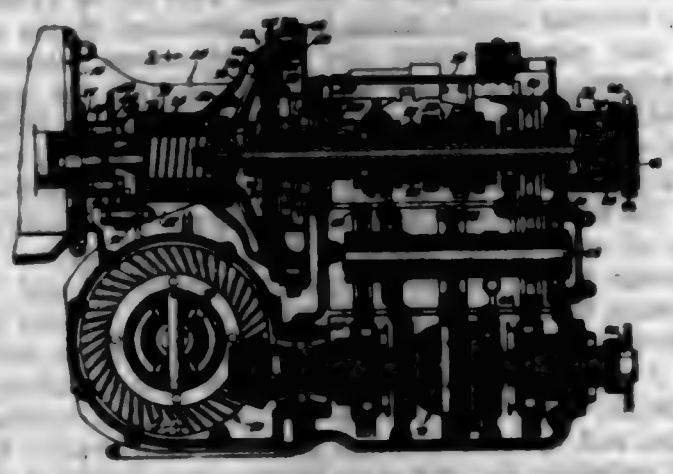
ineffective said first damping element at relatively high speeds, said second damping element being relatively effective at high speeds to damp low amplitude high frequency vibration.

2,844,973

REMOTE CLUTCH ASSEMBLY FOR MOTOR VEHICLES

Claude Hill, Kenilworth, England, assignor to Harry Ferguson Research Limited, Abbotswood, Stow-on-the-Wold, England

Application April 6, 1955, Serial No. 499,733
Claims priority, application Great Britain April 9, 1954
17 Claims. (Cl. 74—700)



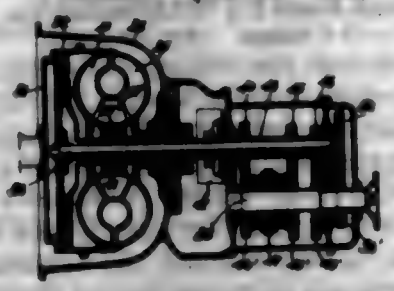
1. In an automotive vehicle, the combination comprising an engine having a crankshaft, a housing having a forward portion attached to the engine, change speed gearing disposed in said housing and including an input member, a flywheel spaced from said engine, and means for transmitting driving torque from said crankshaft to said flywheel including a torsionally rigid hollow member connected therebetween, said member and said flywheel forming therebetween a clutch chamber, a clutch plate disposed in said chamber adjacent said flywheel, a friction disc interposed between said plate and said flywheel and rigidly secured to said input member, and a single spring in said chamber compressed against said plate for normally urging said disc into driving engagement with said flywheel.

2,844,974

POWER-TRANSMISSIONS IN PARTICULAR FOR MOTOR VEHICLES

Leon Salves, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France

Application May 4, 1953, Serial No. 352,723
Claims priority, application France May 17, 1952
4 Claims. (Cl. 74—720)



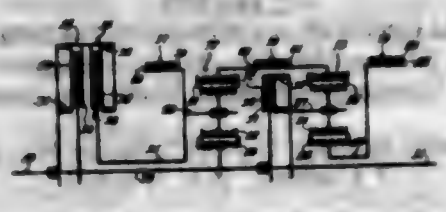
1. A transmission mechanism for an engine-driven vehicle comprising, in combination, a casing, a driving shaft, a hydraulic converter having an impeller element rigidly connected with said driving shaft, a reaction element in said converter, a one-way brake connecting said reaction element with said casing, a turbine element in said converter, a first shaft portion coaxial with the driving shaft and rigidly connected to the turbine element, a second shaft portion co-linear with said first shaft portion and driven thereby, two pinions carried by said second shaft portion, a driven shaft parallel to the driving shaft, two driven pinions carried by said driven shaft loosely mounted thereon and in constant meshing relationship with the pinions carried by the second shaft portion, said four pinions providing two reduced transmission ratios, a unidirectional coupling having an outer member and an inner-member carried by said driven shaft between said pinions, an externally-operated slidable sleeve for selectively connecting each of said pinions on the driven shaft to said outer member, a primary shaft coaxial with the driving shaft, a friction clutch for connecting said driving shaft with said primary shaft, a pinion carried by said primary shaft, a second pinion carried by said driven shaft in constant meshing engagement with the pinion on the primary shaft, said two last-named pinions providing the maximum transmission ratio of the mechanism.

2,844,975

PLANETARY GEARING DESIGNS

Donald W. Kelbel and Palmer Orr, Muncie, Ind., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application July 18, 1956, Serial No. 598,763
9 Claims. (Cl. 74—759)



9. In a transmission, the combination of a drive shaft, a driven shaft, a first planetary gear set and a second planetary gear set each of which comprises a sun gear element and a ring gear element and a planet gear in mesh with said sun gear element and said ring gear element and a planet gear carrier element, a pair of clutches connecting two of said elements of said first gear set to said drive shaft, the third of said elements of said first gear set being connected to one of said elements of said second gear set and a brake for holding a second one of said elements of said second gear set, the third of said elements of said second gear set being connected to said driven shaft, said clutches and said brake when all are engaged completing a change speed drive from said drive shaft to said driven shaft, and a third clutch for connecting together an element of said second gear set and an element of said first gear set for completing another reduced speed power train from said drive shaft to said driven shaft when one of said first-named clutches and said brake are also engaged and for completing a direct drive between said shafts when said third clutch and the other of said first-named clutches are engaged.

2,844,976

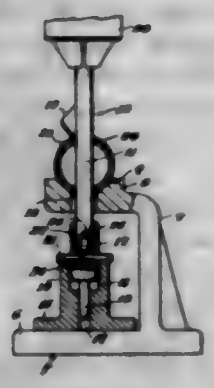
DE-BURRING DEVICE

Alexander J. Knevich, Manchester, Conn., assignor to The United Tool and Die Company, Hartford, Conn.

Application January 21, 1955, Serial No. 483,310
2 Claims. (Cl. 77—4)

2. A de-burring device including a base having a supporting surface thereon, an upright portion on said base having an overhanging work supporting portion, a V groove in said work supporting portion adapted to re-

ceive a workpiece, said overhanging portion having a hole extending downwardly through the bottom of said V groove, a guide member mounted upon said supporting surface in axial alignment with said hole, a hole in said guide member, a plunger slidable in said hole of said guide member, a hole in said plunger in axial alignment with said hole in said bottom of said V groove, a rotating pin extending across said hole in said plunger



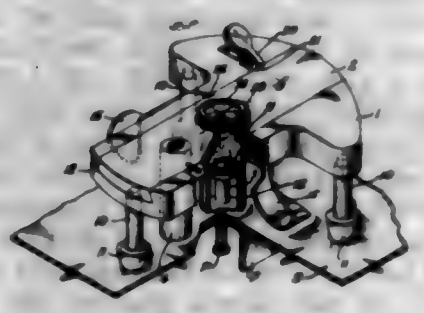
and adapted to engage a notch in the end of a de-burring tool extending downwardly through said hole in said bottom of said V groove so as to rotate said plunger, a guide pin extending through and projecting from the opposite sides of said plunger, and a guide surface on said guide member engageable by said guide pin for moving said guide plunger in accordance with the formation of said guide surface and thereby axially moving said de-burring tool during the rotation thereof.

2,844,977

MAGNETIC ALIGNMENT TOOLS

William L. Morse, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application January 24, 1957, Serial No. 636,141
7 Claims. (Cl. 77—62)



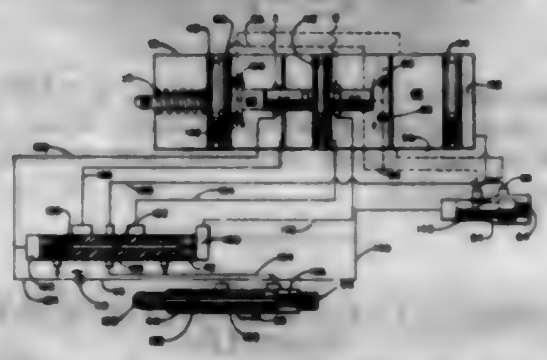
1. A tool for drilling a hole through a work piece in axial alignment with a hole in a second piece when the latter hole is obscured by the work piece, in which hidden hole a magnetically attractive pilot pin is centered, said tool comprising a table and means to support the same generally parallel to the work piece, a slide guided by said table for movement in the plane of the table through a given distance between a first and a second position, a drill guide supported upon said slide and oriented perpendicularly to the plane of the table, a magnet support also supported upon said slide, a magnet supported from said magnet support for independent movement into alignment with the pilot pin when the magnet, through bodily movement of the table, and with the slide in a first position, comes into such alignment, means to indicate such alignment of the magnet, the magnet support and the drill guide being spaced apart by a distance, in the direction of movement of the slide relative to the table, equal to such given distance, to bring the drill guide into axial alignment with the aligned position of the magnet, by shifting of the slide through such distance to its second position.

2,844,978

RIVET SQUEEZER

Richard R. Wyland, Wichita, Kans., and Wendell H. Hunter, Ferguson, Mo., assignors to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware

Application October 8, 1956, Serial No. 614,415
8 Claims. (Cl. 78—42)



1. A device having work operating means powered by external low pressure fluid supply means, comprising: a hydraulic ram piston and cylinder connected to said operating means to power the same by a stroke in one direction, a pump piston and cylinder in which the piston is mounted to reciprocate between ends of its cylinder, said external supply means being connected to the ends of said pump cylinder and control means interposed therebetween alternately directing fluid from the supply means to opposite ends of said pump cylinder to reciprocate said pump piston, a pair of slave pistons and cylinders connected to said pump piston and of smaller diameter and the slave pistons reciprocating on each reciprocation of said pump piston, a fast approach piston and cylinder having an in-put side connected to said low pressure fluid supply means and having an out-put side connected directly to said ram cylinder by means including a one-way valve and said out-put side containing a hydraulic fluid, said out-put side of said fast approach piston and cylinder forming a source of hydraulic fluid and cylinders for said slave pistons and cylinders connected to said hydraulic fluid source and to said ram cylinder by lines having interposed valve means directing hydraulic fluid alternately from each slave piston and cylinder to said ram cylinder during a power stroke and drawing a supply of hydraulic fluid from said source during an intake stroke, whereby said fast approach piston supplies hydraulic fluid to said ram cylinder at lower pressure comparable to the pressure of said low pressure supply means in a single stroke upon initiation of operation of the device to initially move said ram piston under low pressure and said slave pistons thereafter supply hydraulic fluid to said ram cylinder at a higher pressure increasing at each stroke of said pump piston to move said ram piston under increasingly high pressure when resistance is incurred to the operation of said work operating means.

2,844,979

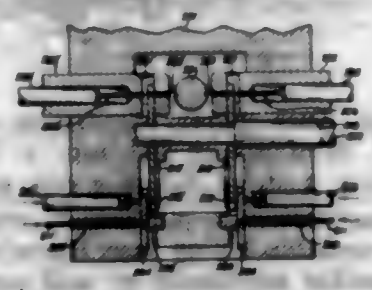
PINNING MACHINE

Ernest M. Schiller, Lyndhurst, Philip A. Saunders, East Cleveland, and William B. Landgraf, Cleveland Heights, Ohio, assignors to General Electric Company, a corporation of New York

Application April 27, 1953, Serial No. 351,092
3 Claims. (Cl. 78—49)

1. A heading unit for cutting short pieces from wire stock to form slugs and for staking the slugs into openings in the side of hollow shells to form lateral pins thereon, comprising a stud having an end adapted to enter said shells, a body having a channel therethrough lateral to said stud, an opening through said body approximately normal to said channel and terminating thereat, means for feeding wire through said opening into said channel and for pressing the end of said wire against the wall of said channel opposite said opening, a cutter mov-

able through said channel for shearing off the portion of said wire projecting thereinto to form a slug, a heading sleeve reciprocable in a direction toward and away from said slug and having a sized passageway therethrough with a lateral aperture opening into said channel, means for advancing said cutter through said channel to shear off a slug and transfer it through said aperture into said



passageway, means for advancing said heading sleeve against said shell on said stud, a heading punch reciprocable through said passageway, and means for advancing said heading punch through said passageway to force said slug into the opening in said work piece and to head it up therethrough against said heading stud whereby to stake said slug to said shell.

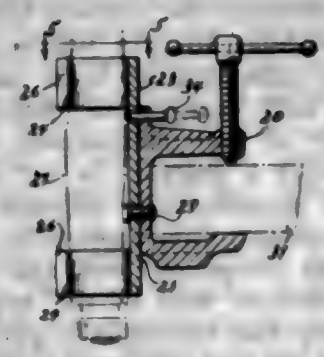
2,844,980
SPLIT-SHOT SINKER SETTING TOOL WITH PIVOTED JAW AND MAGAZINE
Richard W. Johnson, Lafayette, Calif.
Application April 27, 1956, Serial No. 581,106
5 Claims. (Cl. 81—15)



1. In a split-shot sinker setting tool, the combination of an open ended tubular magazine for containing a number of split-shot and forming a handle of the tool, a fixed jaw disposed outwardly from the open end of said tubular magazine against which a single split-shot may repose, a movable jaw interposed between said fixed jaw and the end of said tubular magazine, said movable jaw being pivotally mounted to permit a split-shot to pass thereover when in one position and to engage and compress a split-shot against said fixed jaw when in another position, an operating lever for moving said movable jaw from one to the other of said positions, and a shot retaining detent at the open end of said magazine for releasing said shot one at a time as said operating lever is moved into said one position.

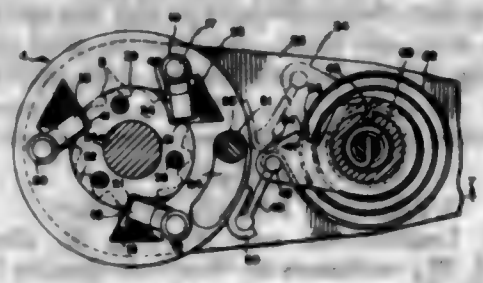
2,844,981
SUPPORT MEANS FOR TOGGLE-ACTUATED WRENCHES AND THE LIKE
George J. Stolne, Glencoe, Ill.
Application February 25, 1955, Serial No. 490,469
1 Claim. (Cl. 81—41)

A device for supporting a toggle wrench or the like comprising a metal member having spaced portions each formed into a socket of generally C-shaped cross section and both being in registering alignment and arranged to receive a stationary-jaw handle of a toggle wrench, the portion of said member intermediate said sockets being substantially flat and having a series of arcuately arranged apertures therein, a C-clamp pivotally secured to said member at a point coincident with the center of the arc of said apertures, said clamp being adapted to secure said member to a supporting surface, and a pin slidably carried in said clamp and arranged to be selectively received in one of said apertures to lock said member in a



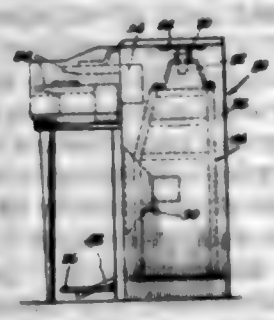
selective angular position of adjustment relative to said clamp.

2,844,982
RATCHET-TYPE, MANUALLY ACTUATED, ROTARY IMPACT TOOL
Oscar J. Swenson, Branford, Conn.
Application June 21, 1956, Serial No. 592,988
14 Claims. (Cl. 81—52.3)



1. In a manually operable impact tool, the combination of a rotatable tool head for engaging a threaded type fastening, manually actuated driving means including a rotor surrounding said tool head, driving connections between said rotor and said tool head, an operating handle movable relative to said rotor and being a protective cover for said driving connections, cam means depending from said handle for disengaging said driving connections when movement of said head is resisted by a predetermined force, said rotor being movable relative to said tool head upon said disengagement, spring means coupling said handle and said rotor for storing energy from said relative movement of the handle, means for releasing said stored energy upon said disengagement of driving connections to move said rotor relative to said tool head, and means for re-engaging said driving connections to convert kinetic energy of said rotor movement to impact force on said tool head.

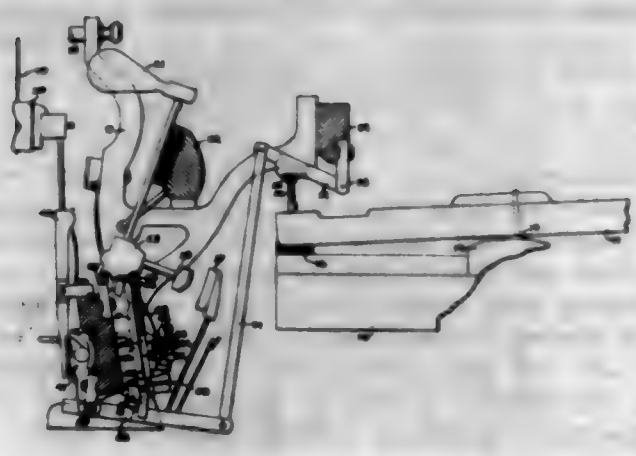
2,844,983
REED BOX FOR ELECTRONIC ORGAN
Fred H. Osborne, Snyder, and Howard G. Bauer, Tonawanda, N. Y., assignors to The Rudolph Wurlitzer Company, North Tonawanda, N. Y., a corporation of Ohio
Application May 21, 1953, Serial No. 356,552
8 Claims. (Cl. 84—1.04)



1. An electric organ comprising an organ cabinet; a wind chest in said cabinet, said wind chest comprising an intermediate wall, a peripheral wall encompassing said intermediate wall and substantially perpendicular thereto, an end wall on said peripheral wall substantially

parallel to said intermediate wall and spaced therefrom, said end wall, said intermediate wall, and said peripheral wall defining an air chamber, a centrifugal air impeller in said chamber mounted for rotation about an axis substantially perpendicular to said intermediate wall and extending axially substantially from said intermediate wall to said end wall, said impeller being mounted substantially centrally of said intermediate wall, said intermediate wall having a plurality of air apertures therethrough generally symmetrically disposed about said impeller, reed supporting means carried by said intermediate wall and said peripheral wall and spaced in part from said intermediate wall in the opposite direction from said end wall and substantially parallel to said intermediate wall, said reed supporting means, said intermediate wall, and said peripheral wall defining a plurality of air return channels to said impeller, and cover means on said peripheral wall and said reed supporting means defining therewith a plurality of inlet channels from said air apertures to said reed supporting means; a plurality of vibratory reeds in said wind chest disposed in groups respectively between said linet channels and said return channels and continuously vibrated by air moved by said impeller; means for converting the oscillations of said reeds into electrical oscillations; and means for changing the electrical oscillations into audible organ tones.

2,844,984
UPRIGHT PIANO ACTION
Charles H. Duesenbrook and Norman K. Duesenbrook, Rockford, Ill., assignors to Wood & Brooks Company, Buffalo, N. Y., a corporation of New York
Application July 13, 1953, Serial No. 367,583
5 Claims. (Cl. 84—240)



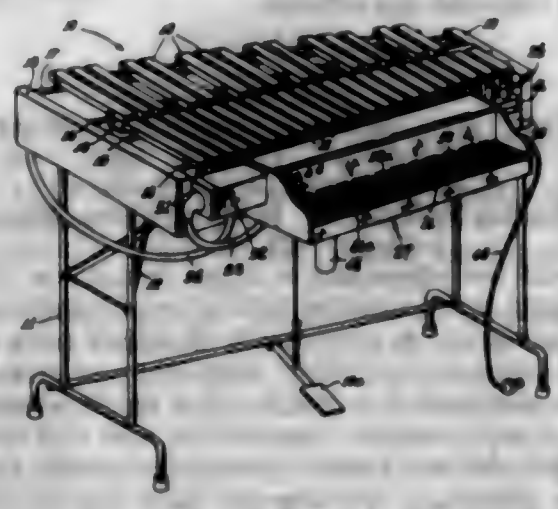
3. In an upright piano action, the combination of, an upright hammer shank pivoted at its lower end and having adjacent the pivot a downwardly facing butt knuckle, a whip lever disposed below said pivot and swingable upwardly in response to depression of a key, a jack engageable at its upper end with said knuckle and fulcrumed on said whip lever to move vertically therewith and to swing horizontally into and out of engagement with said knuckle, a downwardly facing regulating button, a member continuously disengaged from said knuckle and hammer and engageable with said button, a spring acting on said member to urge the latter toward said button, stationary means supporting said spring, a stop on said jack limiting the movement of said member by said spring, and means providing lost motion between said member and jack and mounting the member for upward movement with said jack and lever until said member engages said button and is blocked thereby against further movement as permitted by said lost motion, said last mentioned means providing for swinging of said member about an axis paralleling the fulcrum of said whip lever and movable bodily therewith.

2,844,985
QUICK-CHANGE STRING TUNER
Cress R. Ferriera, Colesna, Calif.
Application June 6, 1955, Serial No. 513,187
6 Claims. (Cl. 84—312)



1. An electric steel guitar comprising an elongated body having a substantially flat top, a head portion, and a tail portion, a string bridging and supporting nut fixed in said head portion, a plurality of string anchoring and manually regulable tuning keys operatively mounted in said head portion outwardly of said nut, a plurality of arms having upper ends pivotally mounted in said tail portion, there being one arm for each string, each arm serving to bridge, tension and anchor its cooperating string, a plurality of strings having corresponding ends passing over said nut and adjustably attached to their respective tuning keys, median portions of said strings being stretched across said top and the other end portions of said strings being stretched across the upper pivoted ends of their respective arms and the terminals of the strings being secured to and thus anchored on said arms below the plane of the pivot points of said arms so that movement of the arms in either direction serves to either tighten or loosen the string and vary the pitch of the string, said nut and said arms being the sole means for supporting and suspending the strings spaced in playing positions above said top, said tuning keys serving, as usual, to establish the given pitch for each string, said arms cooperating with said tuning keys to effect quick-change tuning needs while the guitar is in use, and a bank of optionally adjustable side-by-side selector levers pivotally mounted in said tail portion outwardly of the arms, there being one lever for each arm and each lever being aligned and coplanar with its companion arm and having a handle portion fully exposed and accessible for selective viewing and use, said levers having abutting and camming contact with their respective arms so that when properly actuated by said levers, the latter serve to adjust the arms and in this manner to either raise or lower the pitch of the particular string which is acted upon.

2,844,986
MEANS FOR PLAYING A PERCUSSION INSTRUMENT OF THE VIBRAPHONE, ETC., TYPE
Ernest J. Bode, Fairfield, Conn.
Application August 24, 1955, Serial No. 530,256
5 Claims. (Cl. 84—405)



1. An attachment for a percussion instrument of the type having outer side rails supporting a plurality of tuned bars in a single, substantially horizontal plane com-

prising a pair of elongate support members extending along said side rails and having electromagnetic strikers thereon disposed below and adapted to strike the underside of the tuned bars, a keyboard mounted on one of said support members, and means including cable means electrically connecting each of the strikers to a key on the keyboard whereby the instrument can be played electrically from the keyboard or by mallets.

2,844,967

MULTI-COLOR TELEVISION VIEWER FOR CHILDREN

Robert S. Parker, Dover, N. J.

Application July 27, 1954, Serial No. 446,031
1 Claim. (Cl. 88—1)



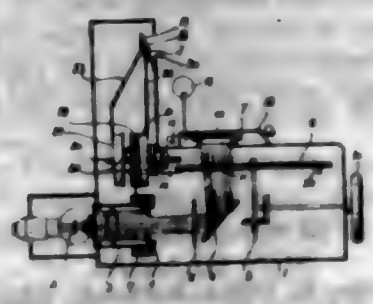
In a multi-color viewer, the combination which comprises a color disc of translucent material, a mounting disc positioned on the face of the color disc and concentric therewith, a strap having a buckle therein, an a pin extended through the color and mounting discs and strap for securing the discs to the strap, said color disc having radially disposed divisional lines dividing an area on the periphery into segments, and the segments being of different colors, each segment having a nose receiving notch positioned midway of the length thereof and extended inwardly from the peripheral edge of the color disc whereby with one of the notches positioned on the nose of a wearer and with the strap extended around the back of the head the lines of sight from the eyes of the wearer pass through the color portion of the segment in which the nose receiving notch is positioned.

2,844,988

APPARATUS FOR DETERMINING NECESSARY CORRECTIONS OF AT LEAST THREE CONSTITUENT COLORS OF A COLORED IMAGE

Octave Lise and Jacques Lise, Paris, France

Application August 3, 1955, Serial No. 525,952
Claims priority, application France April 15, 1955
6 Claims. (Cl. 88—14)



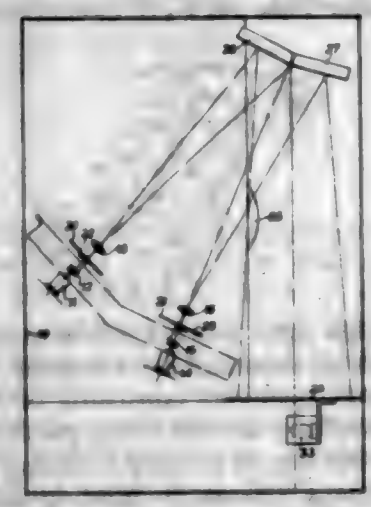
1. Apparatus for determining necessary corrections of at least three constituent colours of a coloured image for reproducing purposes, comprising: a source of light of constant intensity and constant colour-temperature; an optical condenser for giving a substantially parallel beam from said source; a diaphragm having a continuously variable aperture interposed on said beam; rotatable means for varying said diaphragm-aperture; at least two moving scales associated with a fixed scale; means for conjointly controlling the movement of the said diaphragm and the said moving scales; means for directing the said beam on a photographic negative comprising the said image; at least three color screens; means for successively interposing said colour screens between the said diaphragm and the said negative; a photo-electric cell disposed behind the said negative; and indicating means actuated by the said cell to obtain transmission through said negative for each of said screens, whereby the indication obtained with one of the said screens interposed is again repeated with a second screen by varying the diaphragm-aperture, with consequent displacement of at least one of the two said moving scales, the operation being repeated for the next successive screen with a correcting movement of the diaphragm and consequent movement of the third moving scale with respect to the other two scales, whereby one is enabled after the final indication to read from the scale the values of the color filters required for reproducing said negative.

2,844,989

MEANS FOR MEASURING SMALL DEGREES OF OPTICAL DENSITY

William J. Price and Alfred Mayer, Clifton Junction, Manchester, England, assignors to Magnesium Elektron Limited, Clifton Junction, Manchester, England

Application September 12, 1955, Serial No. 533,554
Claims priority, application Great Britain September 15, 1954
2 Claims. (Cl. 88—14)



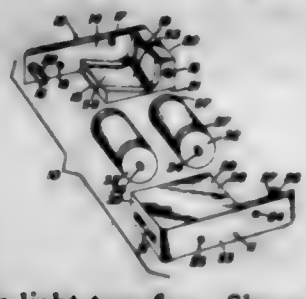
1. A spectrographic analysis apparatus comprising a viewing screen, means for mounting a plate having spectrum lines thereon, an optical system for projecting a magnified image of said spectrum lines on said screen, means for mounting a second plate having spectrum lines thereon, an optical system for projecting a second magnified image of the spectrum lines on said second plate on said screen, a slit in said screen disposed parallel to said spectrum line images, adjustable means for positioning a line of said first image in juxtaposed alignment with a line of said second image, adjustable means for superimposing one of said spectrum line images over said slit, means for reciprocating said screen transversely of said superimposed line image, the length of travel of said screen being greater than the width of said superimposed line image whereby said slit will move from one side of said superimposed line image beyond the opposite side and return, a light sensitive device disposed in the path of light passing through said slit, a cathode ray oscilloscope having vertical and horizontal input circuits, said reciprocating means being connected to the horizontal input circuit of said oscilloscope to provide a time base and the output of said light sensitive device being connected to the vertical input circuit of said oscilloscope whereby the height of the pattern on the screen of said oscilloscope will indicate the density of said superimposed line image with respect to the position of said slit.

2,844,990
METHOD AND APPARATUS FOR PRODUCING COLOR EFFECTS IN PROJECTED PICTURES
Josef Nagler and Josef Nagler, Jr., Vienna, Austria
Application November 9, 1954, Serial No. 467,843
Claims priority, application Austria November 11, 1953
16 Claims. (Cl. 88—16.4)



11. For use in a black-and-white television system, a cinematograph film comprising frames in which each picture element of the frames which is to appear colored on the screen of a television receiver is recorded on the film in successive frames of a periodically recurring series of successive frames in a permutation of light, light-dark contrasts, and dark so as to produce by intermittent excitation of the human eye subjective color impressions in accordance with the Fechner-Benham phenomenon.

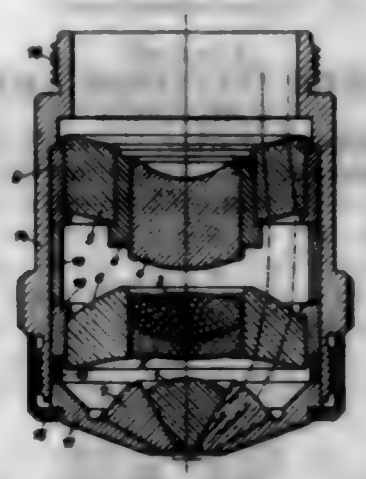
2,844,991
LIGHT TRAP
Gerald J. Bodgley, District Heights, Md.
Application May 14, 1954, Serial No. 430,605
2 Claims. (Cl. 88—17)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A removable light trap for a film magazine comprising a single pair of substantially identical body members, each of said body members consisting of a block portion and a side wall affixed to said block portion, each of said block portions having an arcuate face and a substantially planar face, means releasably holding said body members in light omitting relationship with said arcuate faces of said block portion in face to face relationship, thereby forming a single pair of sockets extending the full width of the block portion, a film entrance provided to one of said sockets, a film exit provided to the other of said sockets, a metallic roller rotatably mounted in each of said sockets, the axes of said sockets and said rollers being offset on oppoiste sides of a longitudinal central plane passing through the ends of said body members, a guide on each of said body members extending substantially tangentially from said socket towards said other socket and crossing a line joining the centers of said rollers to define a slot tangentially joining opposite surfaces of said sockets, whereby an S-shaped film guiding path is provided through said trap preventing leakage of light therethrough.

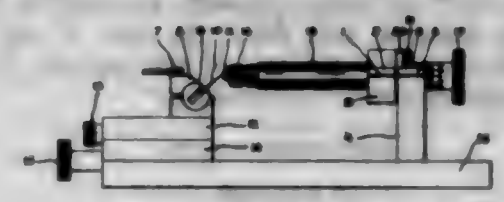
2,844,992
MICROSCOPE OBJECTIVES FOR EPI-MICROSCOPES
Eugen Bernhardt, Heidenheim (Brenz), Germany, assignor to Carl Zeiss, Heidenheim (Brenz), Wurttemberg, Germany
Application June 14, 1954, Serial No. 436,345
Claims priority, application Germany June 13, 1953
2 Claims. (Cl. 88—39)

1. Microscope objective lens system operated in common and fitted together with a ring-shaped dark-field illuminator for incident light in a common tubular body having means for attaching it to the lower end of the body tube of a microscope, said illuminator including at least one ring-shaped light condensing lens element having a central boring, at least one lens element of said microscope objective lens system being positioned in the central boring of said light condensing lens element to have its optical axis in coincidence with the optical axis of said



light condensing lens element, the outer marginal portion of said microscope objective lens element having conical shape of identical angle of cone to receive said microscope lens element, the inner space between the boring wall of said light condensing lens element and the cylindrical outer marginal portion of said microscope objective lens system being filled with light-impervious cement.

2,844,993
MICROTOME
Charles E. Soderquist, Jr., Chicago Heights, Ill., assignor, by mesne assignments, to Instrument & Development Products Co., a corporation of Illinois
Application March 29, 1955, Serial No. 497,670
2 Claims. (Cl. 88—40)



1. A micro-positioning assembly comprising a base, a tube mounted on the base and having on one end thereof a specimen-holding member and on the other end thereof a threaded member, a coiled spring within the tube, and a manually rotatable second threaded member engaging the first threaded member and abutting against one end of the spring to compress the spring, whereby the specimen-holding member is varied in position in microscopic amounts with respect to the base by the stress, such variation being linear with the rotation of the threaded member.

2,844,994
CONVERTIBLE SUNBATHING-EYESHIELD AND SUN GLASSES
Irving H. Filler, Bethesda, Md.
Application March 20, 1956, Serial No. 572,713
2 Claims. (Cl. 88—41)

1. A sunbathing-eyeshield convertible to sun glasses, comprising the combination of two opaque frames, one frame for each eye, each frame having a substantially oval shaped periphery which is to conform with that of the socket of the human eye so as to cover no portion of the face other than the eye-lids and the area of the eye socket alone in order to prevent the formation of a disfiguring ring of unexposed skin in the area of the eye, and that has an edge curved to fit flush and conform to the contours of

the fleshy and skeletal structure around the socket of the eye in a manner to exclude all light rays, each frame having a circular viewing aperture, a fixed polarizing sheet mounted on each frame covering said aperture, a rotatable circular polarizing sheet with means mounting said rotatable polarizing sheet on said frame, said rotatable polar-



izing sheet being superposed over said fixed polarizing sheet whereby said rotatable polarizing sheet may be rotated with respect to said fixed polarizing sheet so that the light transmission of said elements may be varied through a range from zero to maximum, and operable means connected with each movable polarizing sheet for rotating the latter with respect to its fixed polarizing sheet.

2,844,995

PRE-POSITIONING LENS RIMS AND CONNECTING SUPPORT FITTINGS THEREFOR

Austin B. Belgard, Evanston, Ill.

Application February 12, 1952, Serial No. 271,245
2 Claims. (Cl. 88—42)



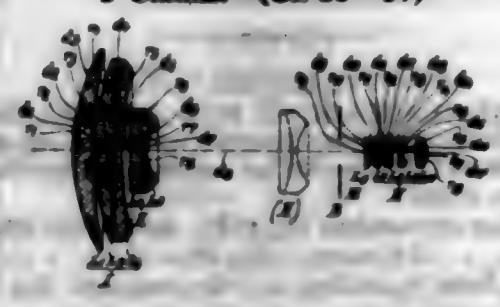
1. In an eyeglass structure equipped to provide adjustment thereof to accommodate individual facial shapes, a pair of lens rims each having a generally non-circular and horizontally elongated configuration and each being provided with an upper inner corner having a generally arcuate periphery, and a bridge connected to each of said rims along the upper inner corners thereof, said bridge having a pair of arcuate grooves adapted to receive the upper inner corners of said rims and having resilient walls extending along said grooves for frictionally and yieldably engaging said rims, whereby said rims may be rotated while frictionally engaged by said bridge into selected angular positions during adjustment of said eyeglass structure according to individual facial shapes.

2,844,996

VARIFOCAL PHOTOGRAPHIC OR CINEMATOGRAPHIC OBJECTIVE

Günter Klemt, Kreuznach, Rhineland, Germany, assignor to Jos. Schneider & Co., Kreuznach, Rhineland, Germany, a German firm

Application February 3, 1956, Serial No. 563,355
Claims priority, application Germany February 8, 1955
3 Claims. (Cl. 88—57)



1. A varifocal lens system comprising an axially movable positive front component consisting of a forward lens member and a rear lens member air-spaced from each other, said rear lens member being composed of a positive and a negative lens cemented together; an axially movable negative intermediate component also composed of a positive and a negative lens cemented together and having a substantially non-concave forward surface and a distinctly concave rear surface; a fixed rear component in the form of a single positive lens; and a main objective comprising four single air-spaced lenses following said rear component and including a positive first lens, a second lens in the shape of a positive meniscus, a biconcave third lens and a positive fourth lens, said forward lens member and said rear lens member being each a positive meniscus turning its concave side toward said intermediate component, said second lens turning its concave surface toward said third lens.

2,844,997

PHOTOGRAPHIC OBJECTIVE

Günther Lange, Konigsbronn, Wurttemberg, Germany, assignor to Carl Zeiss, Heidenheim (Brenz), Wurttemberg, Germany

Application November 26, 1956, Serial No. 624,355
Claims priority, application Germany December 6, 1955
2 Claims. (Cl. 88—57)



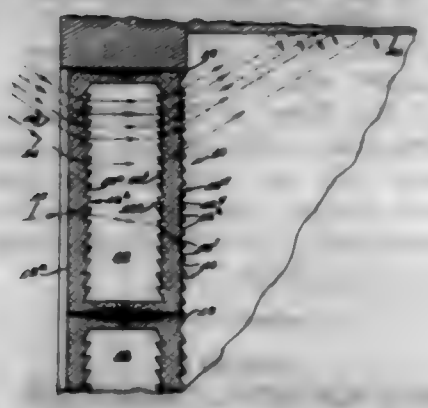
1. A photographic objective comprising at least seven lens elements arranged as at least five axially aligned and air spaced components to form a wide angle objective having a long back focal intercept greater than the focal length for use on the so called single-lens reflex camera, and including at least one front meniscus-shaped dispersive component with the convex side towards the object and the concave side towards the diaphragm, the second component being an asymmetrical collective component with the more deeply curved surface on the side further from the object, the radius of this surface being more than one third of the radius of the front surface of this component, the axial separation between the dispersive front component and the diaphragm being not less than $0.5\times f$ and at most $10\times f$, where f is the focal length of the whole objective, the air space between said dispersive front component and said asymmetrical component being at least $0.20\times f$ and at most $0.70\times f$, the third component being double convex and following the said second component and having its front surface convex towards the object and with a radius of curvature within the limits $0.35\times f$ and $0.80\times f$ and between said third component and the diaphragm at least one further component shaped such that between them and said third component at least one air space is formed whose bounding surfaces turn their convex sides towards the said diaphragm, the radius of each said bounding surfaces lying between the limits of $-2.5\times f$ and $-0.25\times f$, and the quotient of the radii of the two surfaces bounding said air space lying between the limits of 0.5 and 2.0, and the length of the said air space lying between the limits 0.5% and 10.0% of the sum of the absolute values of the radii of the two surfaces bounding said air space, and the last component of the objective being formed as a convergent doublet adjoining and following the air space which includes the diaphragm.

2,844,998

GLASS BUILDING BLOCK HAVING LIGHT-DIRECTING PROPERTIES

Harvard B. Vincent, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application October 21, 1954, Serial No. 463,729
1 Claim. (Cl. 88—60)



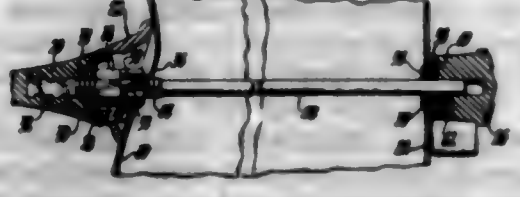
A hollow glass building block comprising an outer face having an external surface adapted for exposure to a light source and an inner face interconnected to said outer face about the periphery of the block, said outer face and said inner face having opposed internal surfaces in spaced relationship on which are respectively formed a multiplicity of cooperating light-directing prisms, said inner face additionally having an external room-facing surface similarly formed with light-directing prisms, said room-facing prisms providing alternate upwardly and downwardly facing surfaces adapted to cooperate with the prisms formed on the internal surfaces of both said faces to redirect substantially all of the incident light received upon the exterior surface of said outer face upwardly and outwardly from said inner face, a layer of opaque material covering said downwardly facing surface portions of said room-facing prisms to prevent outwardly and downwardly directed stray light transmission, said opaque material having a heat emissivity factor substantially lower than the heat emissivity factor of said glass block to diminish outwardly and downwardly directed solar heat radiation.

2,844,999

REAR VIEW MIRROR

Hugo H. Wendela, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 25, 1954, Serial No. 464,338
2 Claims. (Cl. 88—93)



1. In a remote control rear view mirror assembly for attachment to spaced wall panels and including a mirror supporting member and a base member for receiving said supporting member, said base and supporting members each being formed to provide cooperating parts of a ball and socket joint and each being disposed externally of the outermost of said spaced wall panels, and a remote control rod connected to said supporting member and extended through said base member and adapted to be extended through each of said spaced wall panels; means providing for the pre-assembly of said supporting member, base member and remote control rod and the pre-tensioning of said ball and socket joint parts in secure frictional and relatively movable relation which comprises, a recess formed within the surface of said base member next adjacent the outermost of said wall panels against which it is to be disposed, and spring means operatively engaged and disposed wholly within said recess between the innermost end of said recess and said control rod, said control rod including adjustable spring stop means threaded thereon and engaging said spring means for adjustable tensioning thereof, and said spring means providing the sole means of tensioning and holding said ball and socket joint parts in engagement.

2,845,000

REAR VIEW MIRROR

Charles E. Morley, Grosse Pointe, Mich.

Application September 14, 1955, Serial No. 534,273
2 Claims. (Cl. 88—98)



1. In a rear view mirror construction having a supporting base adapted to be secured to a vehicle, a stem rigidly secured to and projecting from the base, and a ball rigidly carried by the stem, a mirror head mounted for angular movement with respect to the base about the first and second of three perpendicular axes, the third axis being perpendicular both to the stem and to the plane of the mirror, whereby its mirror reflecting surface is movable throughout all positions which affect the reflected angle of vision, said mirror head comprising integrated shell and mirror portions, such shell and mirror portions being spaced from each other, said shell portion having a straight slot formed in an edge portion thereof, said slot being located so that a portion thereof extends away from the mirror in a direction substantially perpendicular to the mirror surface, means mounting said mirror head nonconcentrically on said ball, said ball being accommodated within such space between the said shell and mirror portions with the stem projecting outwardly from, and through said slot in the shell in a direction generally parallel to the plane of the mirror, the base being outside and spaced from the shell, friction means within and secured to the shell and coacting with the ball and shell to define a mirror-supporting socket portion rockable on the ball and to yieldably oppose such rocking and thereby yieldably oppose angular movement of the mirror head with respect to the ball and stem, said mirror head being angularly movable in the plane of the slot about a first axis which extends through the center of the ball perpendicularly to the stem, said mirror head being also angularly movable about a second axis which extends through the center of the ball parallel to said stem, the opposite sides of said slot being parallel to one another and fitted closely with respect to opposite sides of the stem at positions spaced from the center of the ball to prevent angular movement of said mirror and shell portions about a third axis which extends through the center of the ball perpendicular to said first and second axes whereby eccentric swivel movement of said mirror head in the plane of the mirror about its nonconcentric mounting is restrained.

2,845,001

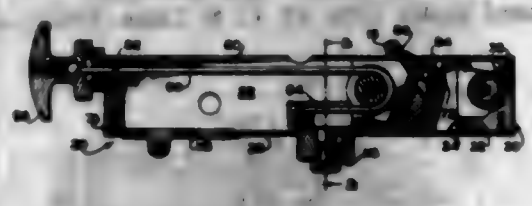
MANUAL CHARGER FOR A FIREARM

Robert L. Hilberg, West Cheshire, Conn., assignor to the United States of America as represented by the Secretary of the Army

Application November 30, 1955, Serial No. 550,233
3 Claims. (Cl. 89—1)

1. For a firearm having a bolt mounted for longitudinal movement between a recoil and a battery position, a charger for retracting the bolt to the battery position including a hollow case, handle means, an actuating

member mounted in said case for slidable movement responsive to a force against said handle means, an arm pivotably mounted to said actuating means for releasably engaging said actuating means to said bolt for actuation thereof to said recoil position, lock means for releasably locking the bolt between the recoil and battery positions, cam means for pivoting said arm to release the bolt



from said actuating means when the bolt is adjacent the recoil position, a bobbin rotatably mounted in said case, a coil spring prestressed so as to resiliently coil tightly upon itself and around said bobbin and having an outer end attached to said actuating means for retracting said actuating means to normal position after said spring is unwound by said actuating means during actuation of the bolt.

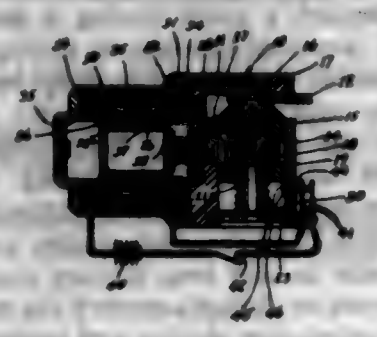
2,845,862
EJECTION DEVICE
Joseph I. Ackerman, Jr., Arlington, Mass., Phillip B. Edwards, Berryville, Va., Richard M. Smith, Elkton, Md., Clinton F. Brundage, Mahwah, N. J., and Martin Dwyer, Elkton, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 29, 1957, Serial No. 674,991
7 Claims. (Cl. 89—1)



1. A signalling device of the character disclosed comprising a tubular casing having a quantity of smoke signalling material disposed therein, a main support block threaded within one end of said casing and having a bore concentrically formed therein, a circular plate enclosing the outer end of said support block and detachably secured thereto, an expelling block assembly releasably locked within said support block and having an explosive filled chamber formed in one end thereof in communication with an inside surface of said plate, means including a plurality of balls controlled by said plate for locking the expelling block assembly within said bore until the plate has been detached, means including a resilient spring for expelling the expelling block assembly from said bore as the block assembly is unlocked, and manipulative means for firing said explosive thereby to suddenly detach the plate from said main support block and cause the expelling block to be ejected from said main support block and thus provide an egress for said smoke signalling material.

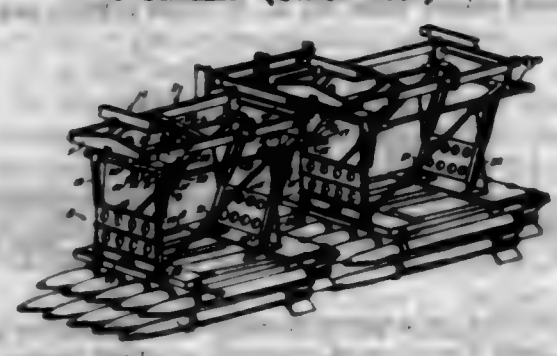
2,845,863
BOMB ARMING SYSTEM
Stephen E. Thomas, Fort Wayne, Ind., assignor to The Magnavox Company, Fort Wayne, Ind., a corporation
Application August 22, 1956, Serial No. 529,799
5 Claims. (Cl. 89—1.5)

1. A bomb arming solenoid system comprising a casing having a bomb arming ring retainer, a plunger slidable in said casing and spring-biased into engagement with said retainer for holding said ring, a solenoid mounted to one side of said plunger on said casing and including a latch operatively associated with said plunger for locking or unlocking said plunger with respect to said retainer, a normally open electrical switch mounted in said casing in the way of said plunger and operable in response to releasing movement thereof, and an energiz-



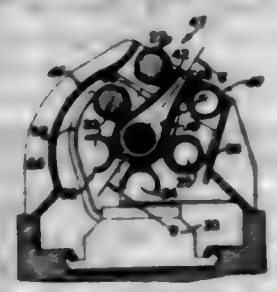
ing circuit coupled to said solenoid and including a normally open, manually operable, control switch and said plunger operable switch in series for actuating said latch when both of said switches are closed.

2,845,864
ROCKET LAUNCHING SYSTEM
Quinton C. Johnson, Torrance, Calif., assignor to the United States of America as represented by the Secretary of the Air Force
Application July 7, 1954, Serial No. 441,963
8 Claims. (Cl. 89—1.7)



1. A rocket system for projecting rockets from a vehicle comprising a series of platforms, means connected to said platform for releasably mounting rockets thereon, separate control means for extending and retracting each of said platforms connected therewith, means operatively associated with each of said platforms, said rockets, and said control means to prevent retraction of a platform before all rockets are released therefrom, and means interconnecting said series of platforms and said control means to prevent projection of a succeeding platform until the previous platform has been retracted.

2,845,865
RELINKING FEEDER
Charles H. Stevens, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application January 31, 1956, Serial No. 562,618
1 Claim. (Cl. 89—33)
(Granted under Title 35, U. S. Code (1952), sec. 266)



In a gun supplied with cartridges by an ammunition belt comprised of a plurality of links for slidably receiving the cases of the cartridges and provided with tabs extending from the front and rear ends, the combination of a rotatable drum, a plurality of chambers in said drum,

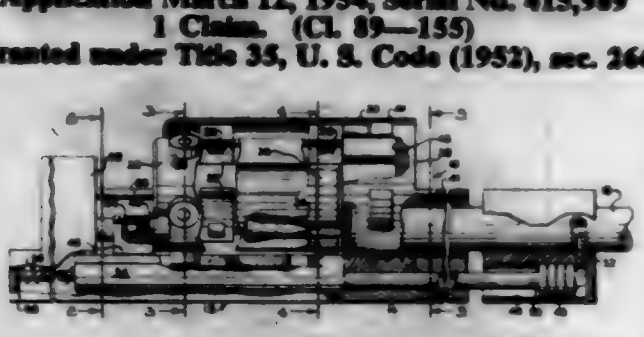
actuator means for rotating said drum to sequentially align said chambers to a charging, a firing and an extraction station, sprocket means joined to said drum for rotation therewith and engaged with the ammunition belt for actuation thereof, a guide having a pair of grooves for respectively receiving the tabs to slidingly guide said links into alignment with the ramming station, a rammer actuated by said actuator means for ramming the cartridges from the ones of the links aligned with the ramming station into the corresponding ones of said chambers, a loop portion of said guide extending from the ramming station to the extraction station and out of the gun, groove means in said loop portion continuing from said pair of grooves to slidingly receive the tabs and guide the links to the extraction station and subsequently from the gun, and extractor means for removing the fired cases from said drum into the ones of the links aligned with the extraction station.

2,845,896

ROLLER DRUM SUPPORT FOR A REVOLVER-TYPE GUN

John F. O'Brien, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application March 12, 1954, Serial No. 415,989
1 Claim. (Cl. 89—155)
(Granted under Title 35, U. S. Code (1952), sec. 266)



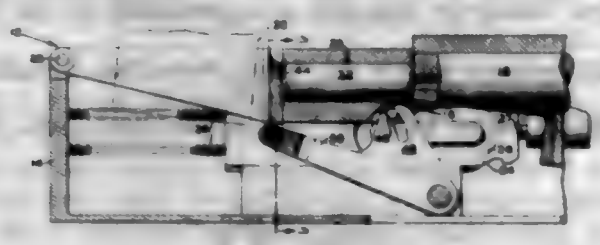
A revolver-type automatic weapon comprising a barrel, a recoil unit for support thereof, a drum having spaced chambers for cartridges, a support for said drum secured to said recoil unit, forward and rearward sets of rollers axially jounaled in said support, and a pair of circumferential bands on said drum corresponding to said sets of rollers for engagement therewith for rotational displacement of said chambers.

2,845,897

PIVOTED CHAMBER WEAPON

John F. O'Brien, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application August 18, 1955, Serial No. 529,365
9 Claims. (Cl. 89—155)
(Granted under Title 35, U. S. Code (1952), sec. 266)



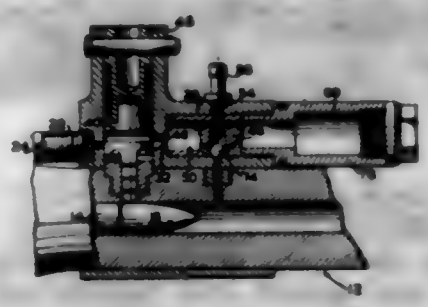
1. A gun comprising a recoil unit including a barrel, a device with a chamber transversely pivoted for displacement thereof between stations including a firing station for axial alignment of said barrel and said chamber for discharge of cartridges therein and a station for charging the cartridges in said chamber, and an indexing mechanism including a discharge gas piston and an actuator in engagement therewith disposed for rearward and forward operation responsive to the discharge, said device being disposed to engage said actuator for reciprocation of said chamber between said stations, responsive to the operation.

2,845,898

VALVE ADJUSTMENT MEANS FOR A GAS-OPERATED FIREARM

Irving H. Atwood, Jr., Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application April 15, 1957, Serial No. 653,046
1 Claim. (Cl. 89—193)
(Granted under Title 35, U. S. Code (1952), sec. 266)



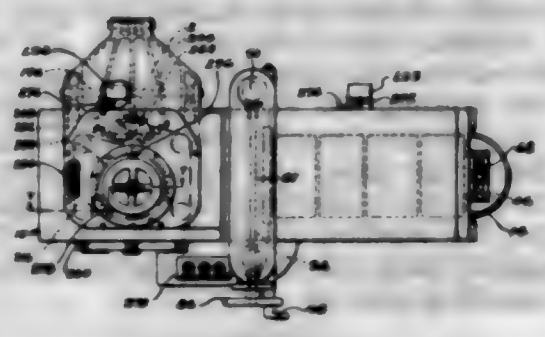
In a firearm having a barrel with a bore and an operating mechanism provided with a piston, a gas system for actuating the operating mechanism including a valve slidingly mounted in a housing fixed to the barrel, a stem portion extending from said valve into the bore for engagement by the projectile of a cartridge chambered in the barrel, an end portion on said stem portion exposed to the gas pressure in the bore resulting from the discharge of the chambered cartridge for maintaining said valve in the closed position until after the projectile exits from the bore, a spring for biasing said valve to an open position after the projectile exits from the bore, a chamber for storing gases, passage means for bleeding gases from the bore to said chamber during flight of the projectile along the bore, ball check means cooperating with said passage means for trapping the gases in said chamber after the projectile exits from the bore, adjustment means cooperating with said ball check means for regulating the amount of gases bled from the bore to said chamber, and communicating means cooperating with said valve member for discharging the gases in said chamber against the piston when said valve member is in the open position.

2,845,909

APPARATUS FOR SHAVING PRINTING PLATES

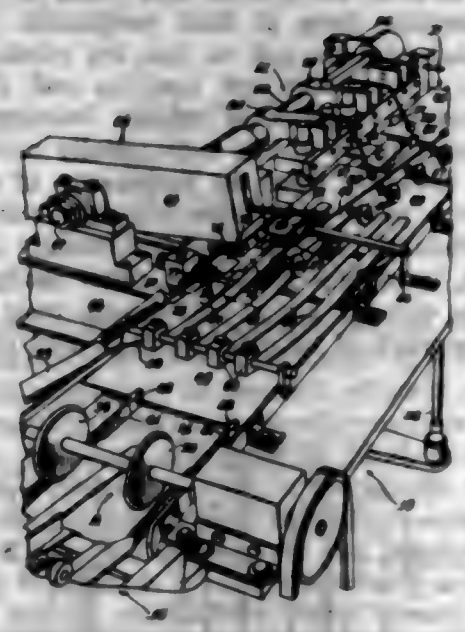
Louis E. Mueller, Detroit, Mich., assignor to The Rapid Electrotype Company, Cincinnati, Ohio, a corporation of Ohio

Application July 1, 1954, Serial No. 440,639
8 Claims. (Cl. 90—25)



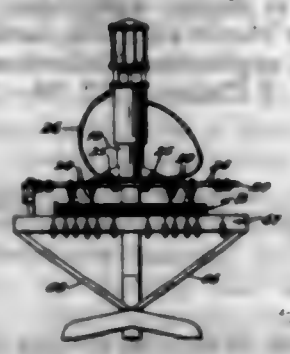
1. In a printing plate shaving machine having a translatable table movable beneath a shaving blade, an adjustable platen assembly movable toward and away from said table, said assembly comprising a platen having a plurality of upstanding threaded studs integrally secured thereto, a support plate overlying said platen and having a plurality of openings respectively overlying said studs, internally threaded elements rotatably received in the openings, means connected to said elements effective to prevent movement of said elements axially of said openings, and drive means for turning all of said elements simultaneously.

2,845,010
METHOD AND APPARATUS FOR FORMING COVERED INDEX TABS ON SHEETS
Lloyd T. Keenan, Oak Park, Ill.
Application July 6, 1955, Serial No. 520,204
27 Claims. (Cl. 93—1)



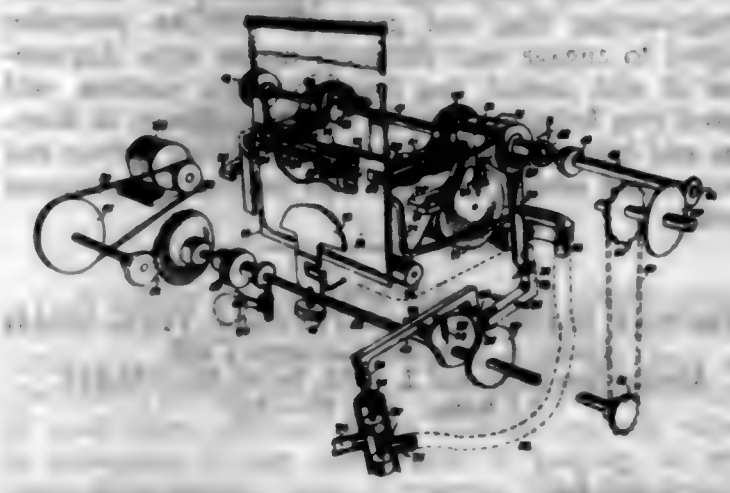
5. The method of forming covered index tabs on sheets which comprises the steps of folding an elongated strip of tab covering material longitudinally, cutting the folded strip at longitudinally spaced intervals with incomplete transverse cuts extending partially across the width of the strip from the open edge thereof toward the folded edge thereof whereby to provide a plurality of folded cover elements interconnected in end-to-end relation by restricted uncut connecting portions along the folded edge of the strip, feeding the preformed strip longitudinally and aligning the terminal cover element at the leading end of the strip in straddled relation over the edge of a sheet, applying pressure to said terminal cover element for bonding the same to the sheet, cutting the adjacent connecting portion whereby to sever the terminal cover element from the remainder of the strip, and thereafter cutting the edge of the sheet to form a new edge with a covered tab projecting outwardly therefrom.

2,845,011
STRIPPING MACHINE
Hugh K. Schilling, Minneapolis, Minn., assignor to Horton Manufacturing Co., Inc., Hennepin County, Minn., a corporation of Minnesota
Application May 4, 1955, Serial No. 505,947
18 Claims. (Cl. 93—36)



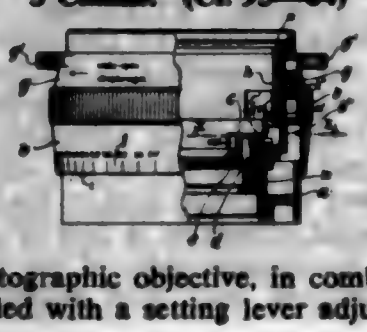
8. A stripping device comprising a table including a generally rectangular frame, a series of parallel supports slidably supported by and extending between two parallel sides of said frame, said supports being movable toward and away from the remaining parallel sides of said frame, a plate parallel to said table and relatively movable toward and away from said table, said plate having parallel edges, a series of punch supports beneath said plate between two parallel sides thereof, means on the end of said punch supports adjustably connecting the same in adjusted position to said plate, and punches adjustably supported by said punch supports, said punches extending downwardly toward said table and arranged to extend between said supports forming a part of said table.

2,845,012
FILM MAGAZINE FOR PHOTOTYPOGRAPHICAL MACHINES
James C. Plasteras, Lynbrook, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York
Application June 10, 1954, Serial No. 435,765
10 Claims. (Cl. 95—4.5)



1. In or for a phototypographical machine, the combination of a film capable of being advanced endwise through the machine in step by step fashion and upon which transverse type lines are photographed one after another in spaced relation, a pair of punches for producing perforations in the film at the opposite ends of each type line and outside of the photographic area, said perforations bearing a predetermined relationship to each type line, a corresponding pair of dies to cooperate with the punches, means for operating the punches after each line has been photographed, first, to effect the perforation of the film and, later, to withdraw the punches from the perforations in the film, means for moving the punches and their cooperating dies in the direction of advance of the film after the punches have perforated the film but before they are withdrawn from the dies to advance the film the required distance for interline spacing, means for restoring the punches and the dies to their original film perforating position after the punches have been withdrawn from the dies following the advance of the film, releasable means for holding said film at the photographic position, and means coordinated with the punch operating mechanism for actuating said holding means before the punches have been withdrawn from the film and for releasing said holding means after the said punches have again perforated the film.

2,845,013
DIAPHRAGM-ADJUSTING MECHANISM FOR PHOTOGRAPHIC OBJECTIVES
Karl Heinz Schütz, Kreuznach, Rhineland, Germany, assignor to Jos. Schneider & Co., Optische Werke, Kreuznach, Rhineland, Germany, a German firm
Application January 17, 1956, Serial No. 559,738
Claims priority, application Germany January 22, 1955
3 Claims. (Cl. 95—64)



1. In a photographic objective, in combination, a diaphragm provided with a setting lever adjustable between

positions of minimum and maximum opening, a fixed support for said diaphragm, said setting lever being provided with a pivot rotatably held on said support, spring means engaging said setting lever and urging same toward said position of minimum opening, a diaphragm-setting ring rotatable on said support about said diaphragm and provided with a curvilinear guiding surface, a follower member on said pivot rigidly connected by it with said setting lever, said follower member being normally urged by said spring means into camming engagement with said guiding surface, abutment means on said follower member, and a control ring rotatable on said support about said diaphragm independently of said diaphragm-setting ring and provided with an extension adapted to engage said abutment means upon displacement of said control ring from a normal position, said control ring being operable by such engagement to disengage said follower member from said guiding surface and to move said setting lever into said position of maximum opening.

2,845,814

TWO-WAY PLOW WITH UNIVERSAL TOOL HEAD

Harry A. Pursche, Gardena, Calif.

Application February 2, 1953, Serial No. 334,643
4 Claims. (Cl. 97—26)



1. In a two-way plow, the combination of: a frame having a longitudinally extending beam projecting rearwardly therefrom; a carrier mounted on the rearwardly projecting portion of said beam for rotation about the axis thereof, said carrier including a plate fixed to and defining a straight side edge of said carrier extending continuously for substantially the entire length of said carrier, said plate extending obliquely to the axis of said beam and intersecting said axis rearwardly of the projecting end of said beam so that the rearward surface of said plate is unobstructed from end to end and said plate being provided with a series of apertures extending along the length thereof; a plurality of brackets; fastening elements passing through selected ones of said apertures for securing said brackets to said plate at any desired positions along the length thereof; a plow standard secured to each bracket and having right- and left-hand ground engaging tools at opposite ends thereof; and means on the frame for rotating said carrier about said axis.

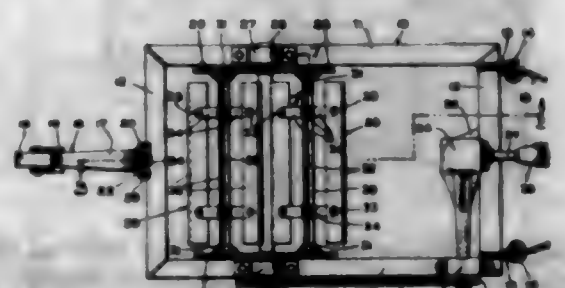
2,845,815

AGRICULTURAL MACHINE

Clarence P. Carawan, Camden, S. C., assignor of one-fourth to Austin Sheheen, one-fourth to George Sheheen, and one-fourth to L. C. Cable, all of Camden, S. C.

Application April 17, 1956, Serial No. 578,695
2 Claims. (Cl. 97—40)

1. An agricultural machine for chopping surface brush and tilling the soil and spading in the chopped surface brush in one operation comprising, a substantially horizontal support frame, vertically adjustable wheel means engaging the upper surface of the soil and carrying the support frame and adapted to support the support frame at selected adjusted elevations, a pair of main bearings mounted upon the opposite sides of the support frame, a transverse horizontal main shaft journaled within the main bearings, a pair of substantially vertical relatively large substantially circular plates rigidly mounted upon the main shaft for rotation therewith and arranged inwardly of and adjacent to the sides of the support frame, the relatively large substantially circular plates being relatively thin at their peripheries and being free from elements connecting them at their peripheries and which would contact with the soil so that the substantially circular plates will readily sink into the soil during their rotation, transverse pairs of tubular bearings mounted upon the inner faces of the substantially circular plates and spaced inwardly from the peripheries of said plates, the transverse pairs of tubular bearings being substantially equidistantly spaced circumferentially of the circular plates, transverse horizontal cutter shafts extending between the circular plates and having their ends journaled in the pairs of tubular bearings, said cutter shafts



being spaced radially inwardly from the peripheries of the substantially circular plates for substantial distances, circumferentially equidistantly spaced radial spokes secured to each cutter shaft and extending radially outwardly beyond the peripheries of the substantially circular plates during their rotation, substantially horizontal cutter blades arranged between the substantially circular plates and secured to the outer ends of said spokes and extending radially outwardly beyond the substantially circular plates during their rotation with respect to such plates, the horizontal cutter shafts and the tubular bearings being spaced radially inwardly from the cutter blades and the peripheries of the substantially circular plates, and speed reducing gearing connected with the main transverse shaft to positively rotate the same at a relatively low speed and turning the lower portions of the substantially circular plates in a forward direction with respect to the travel of the main frame.

2,845,816

VENTILATING DEVICE ESPECIALLY FOR A MOTOR DRIVEN VEHICLE

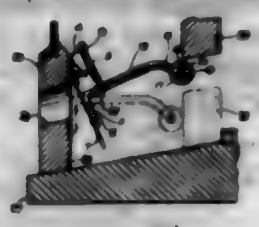
Hendrik Ter Steege, Amsterdam, Netherlands

Application March 12, 1956, Serial No. 570,818
Claims priority, application Netherlands March 16, 1955
8 Claims. (Cl. 98—2)



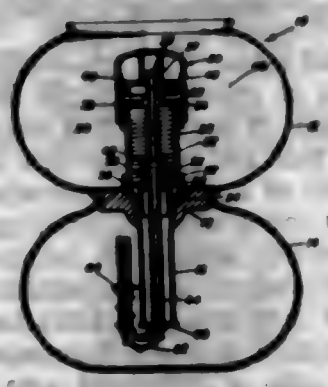
1. A ventilating device for moving vehicles, vessels and the like having an aperture therein comprising a frame secured around the edge of said aperture, an inner frame in said frame, a panel fitted over the aperture, means for attaching said panel to said inner frame for moving said panel relative to said inner frame to space said panel from said inner frame to leave a smaller space between one side edge of said panel toward one end of the vehicle and said inner frame than between the side edge of said panel toward the other end of the vehicle and said inner frame, and quick releasing means releasably securing said inner frame to said frame.

2,845,017
DIRECT STORM WINDOW VENT CONTROL
William M. Murphy, Cleveland, Ohio
Application July 5, 1955, Serial No. 520,852
5 Claims. (Cl. 98—97)



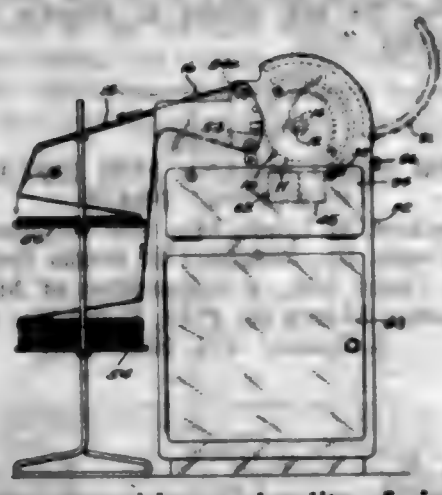
1. A storm window vent control unit of the class described comprising, a mounting element of relatively long narrow form adapted to be fastened adjacent an opening, a closure member consisting of a flat member for covering such an opening, said member being pivotally connected to the element aforesaid at one edge thereof, an operating arm extending from the closure member, a resilient roller mounted on the free end of said arm, said roller being engageable by a window sash or the like to cause said closure member to move toward and away from the opening mentioned, and spring means connected to the mounting element and the arm, tending to pivot the closure member toward open position, said mounting element being a flat strip member formed with a stop portion integral therewith extending from the edge thereof adjacent the closure member to limit the pivotal movement of said closure member.

2,845,018
COFFEE MAKER
George Turke, Sr., Hinsdale, Ill., assignor of one-half to Rose Turke, Hinsdale, Ill.
Application June 28, 1955, Serial No. 518,641
3 Claims. (Cl. 99—292)



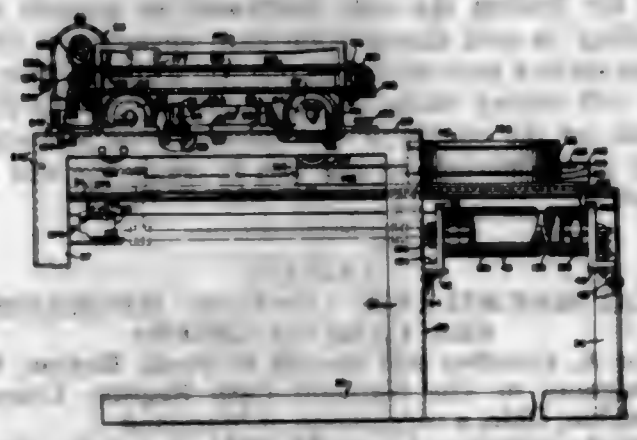
3. A coffee maker comprising a lower pot, an upper brewing chamber having a stem extending therefrom which is disposed within the pot, a filter unit in said brewing chamber and comprising a housing, liquid conducting means extending from the housing and removably disposed in said stem for holding said housing in place within said chamber, lateral openings forming liquid passageways in said housing, a strainer disposed in said housing and covering said lateral openings so that liquid flowing between the pot and chamber passes therethrough, a tube extending through said stem and having one end in communication with the upper part of said pot in order to be sensitive to the pressure therein, a pressure outlet tube connected to the housing, means releasably connecting said first mentioned tube and said pressure tube, and a valve for said tubes carried by the housing for venting said pot to relieve a portion of the pressure therein in order to accelerate the return of liquid from said brewing chamber to said pot.

2,845,019
MEDIUM SPEED PRINTER
Rudy C. Stiefel, Woodside, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application May 16, 1955, Serial No. 508,427
11 Claims. (Cl. 101—96)



1. A printer comprising a plurality of similar coaxial wheels, each bearing a series of characters, a shaft, means connecting said wheels for rotation with said shaft and operable to permit said wheels to be stopped independently of each other, selector means operable on said wheels in succession to stop said wheels in position to bring selected characters along a printing line, and printing means following the operation of said selector means and operable to imprint the selected characters in succession positioned along said line, and means for retarding the operation of said printing means in relation to the operation of said selector means, to interpose a phasic offset between the operation of the selector means and that of the printing means equivalent to a predetermined number of character bearing wheels.

2,845,020
AUTOMATIC SILK SCREEN CERAMIC PRINTING MACHINE
José Vallein Fernández, East Liverpool, Ohio
Application December 31, 1956, Serial No. 631,717
17 Claims. (Cl. 101—126)



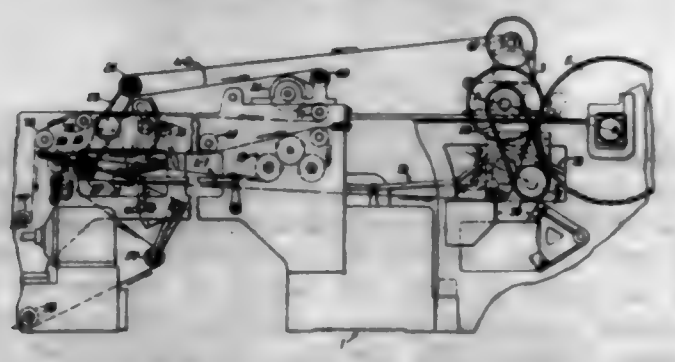
1. An automatic silk-screen ceramic printing machine comprising a supporting structure having a top frame and guide rail members thereunder, a centering device and carrier slidable upon said guide rail members between starting and printing positions, an ink transfer belt supporting structure mounted on the top frame, belt supporting rollers lying on opposite ends of said belt supporting structure, an ink transfer belt movable over the rollers and the transfer belt supporting structure, said centering device adapted to underlie the transfer belt when in the printing position, a silk screen mounted on the top frame and overlying the top of the transfer belt, a squeegee assembly operable over the silk screen to force ink through the silk screen to impress the transfer belt on its top side with a pattern, air pressure means operable upon the bottom side of said belt to force the belt into the centering

device and to print the ceramic article contained therein, and automatic power means for effecting in sequence the movement of the centering device into the machine, the forcing of the belt upon the ceramic article, the return of the centering device to its starting position, the advancement of the transfer belt and the driving of the squeegee over the silk screen to prepare the belt for another printing cycle.

2,845,021
WEB FEED MEANS FOR ROTARY PRINTING PRESS

Carl W. Pinckert, St. Louis, Mo., and Raymond E. White, East St. Louis, Ill., assignors to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri

Application March 28, 1955, Serial No. 497,192
3 Claims. (Cl. 101—228)



1. In a web printing press having a printing couple operable in cycles in each of which the web is intermittently gripped and fed forward for an interval and then released for another interval, an excess of web being fed forward each time the web is gripped, and means for driving the couple for operation thereof to feed the web forward during the one interval and for releasing the web during the other interval of the cycle, that improvement which comprises the provision of a pair of intermittent-grip web feed rolls, one of said rolls having a raised surface portion extending longitudinally thereof adapted upon rotation of the rolls for intermittent engagement with the other roll, and means for continuously driving said feed rolls from the press in the direction for feeding the web backwards an amount corresponding to said excess upon each engagement of said raised surface portion of said one roll with the other, said feed roll driving means being correlated with the driving means for the couple in such manner that said engagement occurs during the intervals in which the web is released.

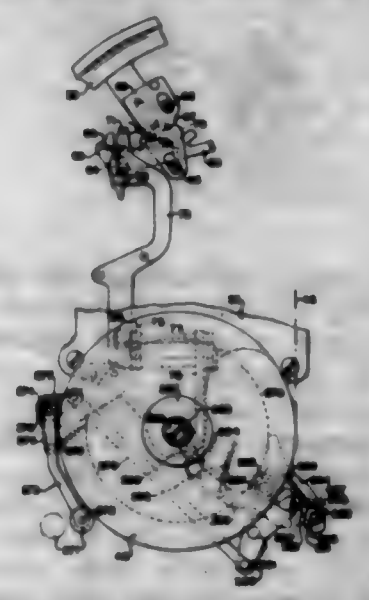
2,845,023
MACHINE-RELEASE CONTROL MECHANISM FOR CASH REGISTERS

Mayo A. Goodbar and Russell G. Pratt, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland

Original application March 22, 1952, Serial No. 278,063, now Patent No. 2,730,038, dated January 10, 1956. Divided and this application June 22, 1955, Serial No. 517,322

4 Claims. (Cl. 101—288)

1. In a machine of the class described, constructed and arranged to perform operations in which record materials such as labels and receipts are printed and issued, said machine having a supply roll of record material, the combination of sensing means maintained in yielding engagement with the periphery of the supply roll to sense the outside diameter thereof; a lever operatively connected to the sensing means and movable in unison therewith; means including a clutch control element movable in one direction to initiate operation of the machine; obstructing means movable into the path of the clutch control element to obstruct its movement in said one direction; spring means for moving the obstructing means into an obstructing position; a control surface on the obstructing means terminating at one end in a shoulder; and a projection on the lever coacting with the control surface as long as the outside diameter of the supply roll is greater than a permissible minimum to retain said obstructing means against movement into the path of the



clutch control element, said sensing means operating to cause said lever to move the projection past said shoulder when the outside diameter of the supply roll decreases below the permissible minimum to free the obstructing means for movement under the influence of said spring means into the path of the clutch control element to prevent machine operation and thus serve as a warning that the supply of record material is nearing exhaustion.

2,845,023
MECHANICAL PRINTING OF DAYLIGHT FLUORESCENT COMPOSITIONS

Joseph L. Switzer, Cleveland Heights, and Robert C. Switzer, South Euclid, Ohio, assignors to Switzer Brothers, Inc., Cleveland, Ohio, a corporation of Ohio

No Drawing. Application February 21, 1950
Serial No. 145,592
14 Claims. (Cl. 101—426)

1. The method of printing daylight fluorescent media comprising the steps of applying to a mechanical printing plate a relatively fluid and tacky daylight fluorescent composition comprised of a dispersed solvated daylight fluorescent fluoragent and a vehicle containing a non-volatile, transparent, relatively solidifiable component, the proportion of said fluoragent to said solidifiable component not exceeding the maximum concentration at which said fluoragent will exhibit daylight fluorescence; depositing, from said plate onto a delineated area of a receiving structure in a substantially uniform thickness, a volume of said composition providing an amount of fluoragent per unit of area between the maximum and minimum required to exhibit daylight fluorescence of full chroma and purity of hue; solidifying said component to a relatively non-tacky condition while retaining therein said fluoragent in a daylight fluorescent state; and removing the portion, if any, of said relatively fluid composition not retained in said solidified component.

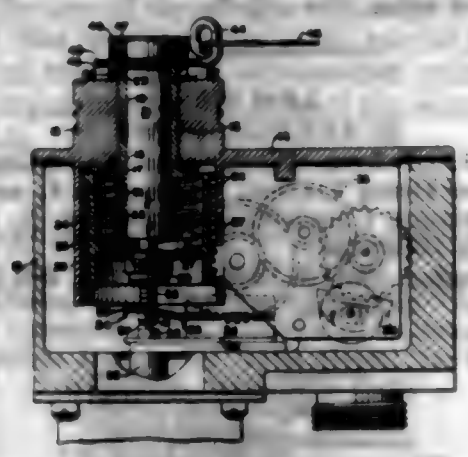
2,845,024
SAFETY ARMING DEVICE

Robert E. Greene, Jr., Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application January 8, 1953, Serial No. 330,367
3 Claims. (Cl. 102—4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

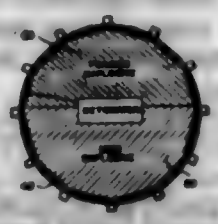
1. In an arming device, a fixed member, a movable member slidably mounted in said fixed member, a trans-

verse bore in said fixed member, a safety pin freely received in said bore, spring means biasing said movable member for movement in one direction, means on said movable member engaged by said pin for preventing movement of said movable member in said one direction, interlocking means on said pin and on said fixed member and adapted to be engaged by the biasing action of the spring means for preventing withdrawal of said pin, means including an arming wire insertable in said fixed member and engageable with said means on



said movable member for movement of said movable member in a direction opposite to said one direction for disengaging said interlocking means and releasing said pin for withdrawal thereof, insertion of said arming wire serving to prevent movement of the movable member by said spring means until the arming wire is withdrawn, and a removable annular member sleeved about said fixed member and engageable by said pin to prevent removal of the annular member, said annular member having means for preventing complete insertion of the arming wire until said pin is withdrawn.

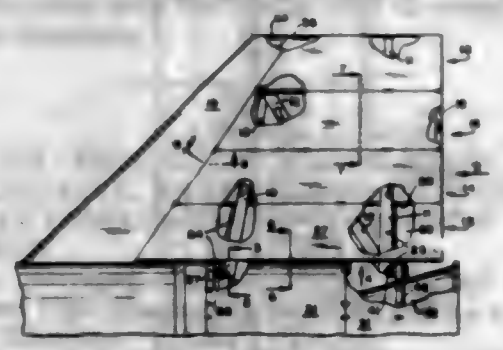
2,845,025
LOW DENSITY CELLULAR EXPLOSIVE FOAM AND PRODUCTS MADE THEREFROM
Howard J. Stark, Arlington, Va.
Continuation of abandoned application Serial No. 185,900, September 20, 1950. This application August 23, 1954, Serial No. 451,723
2 Claims. (Cl. 102—10)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A floating mine comprising a casing, a detonator mechanism carried with said casing, a solid high explosive carried inside part of said casing and a foamed water impervious buoyant explosive, the cells of which are substantially non-communicating, filling the remaining space in said casing.

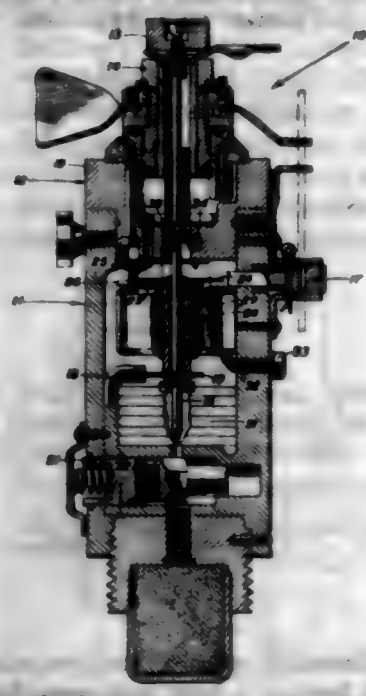
2,845,026
MULTIPLE BOX FIN
Bernard Smith, China Lake, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application November 17, 1953, Serial No. 392,777
1 Claim. (Cl. 102—50)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A stabilizing fin for use on a missile, comprising; a plurality of elongated box sections formed of sheet material, each being shaped as a substantially isoceles trapezoid in cross section and of the same cross section throughout its length, and of greater height between the transverse parallel walls than in transverse thickness between the tapering side walls, adjacent sections, in a direction toward an outer edge of the fin, being of diminishing thickness and disposed in superposed relationship, with the narrower transverse wall of one section abutting the wider transverse wall of an adjacent section, aligned apertures in certain of the parallel walls, reinforcing members disposed within the sections and extending through certain of the apertures, means securing the sections and reinforcing members together to form a unitary structure,



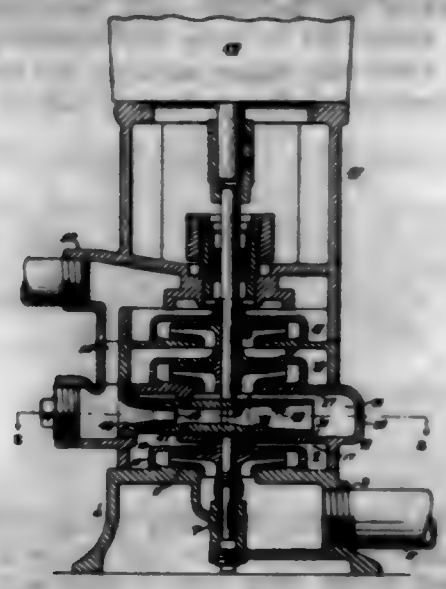
said reinforcing members including a pair of spars and a strut extending between an outer end of one of the spars to an inner end of the other spar, a plate secured to an inner end of each spar, means rigidly securing one of the plates to a rocket nozzle in a predetermined alignment, and means for slideably securing the other plate to the rocket nozzle in such manner to permit relative motion between the nozzle and fin under temperature differences between the fin and nozzle, but maintaining the fin in said alignment.

2,845,027
REMOTE CONTROL FUZESETTER
Richard Aiken, Washington, D. C.
Application November 18, 1954, Serial No. 469,867
3 Claims. (Cl. 102—82)
(Granted under Title 35, U. S. Code (1952), sec. 266)



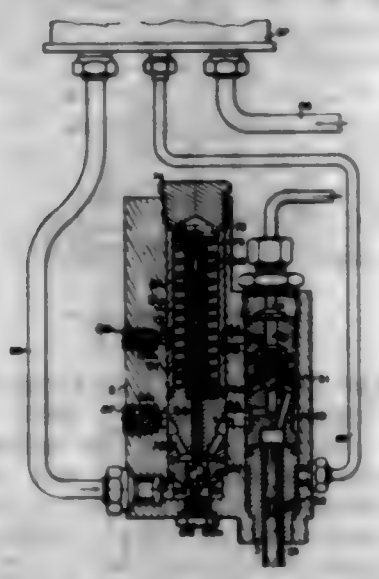
1. In a mechanical time fuze of the type having a timing disc provided with a notch and a timing disc lever for time setting the fuze, a synchro motor having a shaft and positioned within the fuze, an actuating disc operatively connected to and rotated with the shaft of said synchro motor in response to the operation of said motor, means on said actuating disc in engagement with the timing disc lever to position said lever about the periphery of the timing disc in predetermined spaced relation with respect to the notch in the timing disc so as to time set the fuze in response to operation of said motor, and electrical connecting means for connecting said synchro motor to the exterior of the fuze.

2,845,025
SHALLOW WELL EXPANDED OUTPUT PUMP
Floyd M. Nash, Kensington, and Albert A. Crivelli, El Cerrito, Calif., assignors to Jacuzzi Bros., Incorporated, a corporation of California
Application October 25, 1954, Serial No. 464,436
5 Claims. (Cl. 103—5)



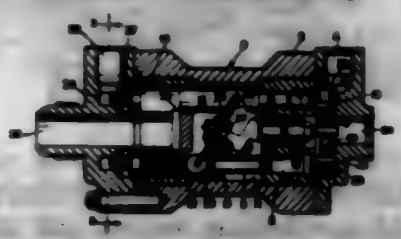
1. A shallow well type pump assembly having means for coupling a suction line thereto, an injector involving a nozzle and a Venturi, an impeller stage having its suction end in flow connection with the entire output from said injector, means for directing a portion only of the output of said pump assembly to said nozzle, and pump means for continuously feeding liquid from such suction line to said Venturi at positive pressure.

2,845,029
HYDRAULIC PUMPS
Jean Louis Grutzmuller, Paris, France
Application February 3, 1954, Serial No. 408,906
Claims priority, application France February 5, 1953
3 Claims. (Cl. 103—40)



1. In a combination with a reciprocating pump comprising a barrel having a bore accommodating the piston and the inlet and outlet valves of the pump, a second bore in said barrel, a feed-rate regulator mounted in said second bore and including three cylindrical members fitting closely in said bore in stacked relationship, the first of said members having an inlet passage, the second member having an axial bore and a passageway interconnecting said inlet passage of the first member with said inlet valve of the pump, and the third member forming a chamber having a radial port communicating with said outlet valve of the pump whereby the delivery pressure of said pump is communicated to said chamber, a check valve in said inlet passage of the first member, a plunger slidable in said axial bore of the second member and having one end adapted to contact said check valve and its other subjected to said delivery pressure in said chamber, and calibrated spring means in said chamber arranged to urge said plunger away from said check valve, said delivery pressure in said chamber acting in opposition to said spring means to move the plunger so as progressively to limit the opening of said check valve as the pump delivery pressure increases and ultimately to close the check valve when said delivery pressure reaches a predetermined value.

2,845,030
SCAVENGE PUMP
Arthur H. La Febvre, Washington Township, Bergen County, and Henry Troeger, Ramsey, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application April 6, 1953, Serial No. 499,579
2 Claims. (Cl. 103—49)



1. A fluid motor-pump comprised of a plurality of pairs of interconnected axially aligned pistons, one piston of said pair being a driving piston and the other piston of said pair being a driven piston, block means having two rings of equally-spaced cylinders which reciprocably receive in alignment said pairs of driving and driven pistons to form a ring of driving cylinders and a ring of driven cylinders, a single axial intake passage with said ring of driven cylinders connected to the inner ends of the cylinders having the driven pistons therein, each of said pairs of pistons being interconnected by rigid structures each of which includes a rotatively-mounted slotted ball, a circular nutating plate rotatively mounted on the inner end of an eccentric crank inwardly of said rigid structures and having the peripheral edge thereof reciprocably received in the slots in the balls of said structure, the outer end of said crank having an axially mounted shaft carrying rotary valve means for supplying and releasing fluid to and from the outer ends of said driving cylinders, said valve means being constructed to provide fluid from a peripheral annulus and to release fluid through a single axial flow path.

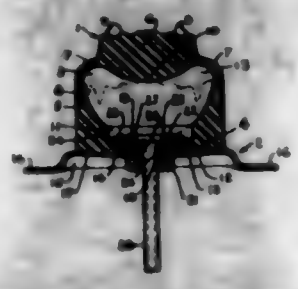
2,845,031
GEAR TOOTH CONSTRUCTION FOR ROTARY FLUID METERS
Francis W. Guilbert, Los Angeles, Calif.
Application January 13, 1953, Serial No. 331,023
1 Claim. (Cl. 103—126)



In a rotor structure for hydraulic apparatus: a pair of rotors having interengaging teeth, there being troughs intermediate the teeth of each rotor for accommodating the teeth of the other rotor, the troughs of each rotor clearing the crowns of the teeth of the other rotor; each tooth having opposite operative sides; one side of each

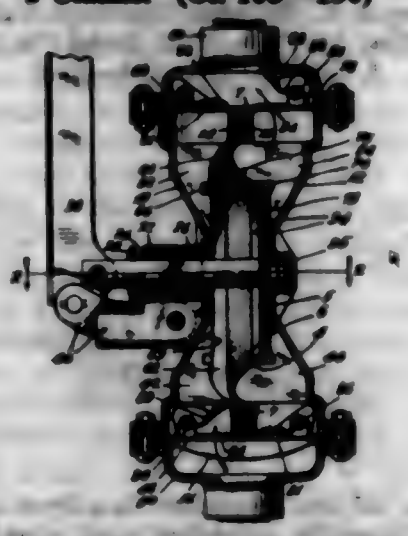
tooth of each rotor forming with the correspondingly angularly situated sides of the other teeth of that rotor, a first set of sides; the remaining sides of the teeth of each rotor forming a second set of sides; the sides of the first sets of sides engaging each other in sequence; the sides of the second sets of sides engaging each other in sequence; and slot forming means provided only in the sides of the first set of one of the rotors, and extending throughout the working depth of the sides of the first set; the sides of the second set of the other of the rotors being unslotted; the size of the troughs with respect to the teeth being such that engaging sides of the second sets of sides move out of engagement simultaneously with the movement into engagement of the sides of the second sets next in succession.

2,845,892
PUMP FOR USE WITH A WINDSHIELD WASHER SYSTEM
Fred A. Krohm, Hobart, Ind., assignor to The Anderson Company, a corporation of Indiana
Application January 25, 1954, Serial No. 406,838
4 Claims. (Cl. 103—148)



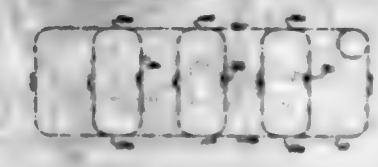
1. A pump of the kind described comprising a one-piece resilient cylindrical body having a chamber, said body including a base portion provided with an opening communicating with the chamber and a side wall having an outer cylindrical surface and an inner surface, said body also including a plunger having an inner surface substantially conforming to the inner surface on the side wall and an annular hinge portion joining the side wall and plunger in a manner whereby the plunger may be telescoped into the chamber to engage the inner surface of the side wall and thereby substantially fully occupy the chamber to substantially completely evacuate any fluid therein, the arrangement being such that the inner surface of the side wall, the inner surface of the plunger and the inner surface of the hinge portion define the chamber.

2,845,893
DIAPHRAGM PUMP
George W. Wright, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana
Application July 8, 1954, Serial No. 442,878
5 Claims. (Cl. 103—150)



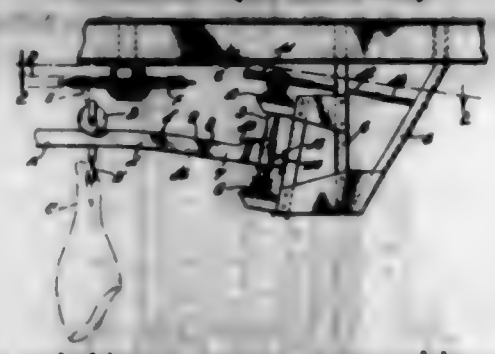
1. A diaphragm pump adapted to work against both a suction head and a discharge head, comprising relatively reciprocable inner and outer peripheral diaphragm supports for supporting the inner and outer peripheries of an annular diaphragm wall, an annular diaphragm wall connected to and extending between said inner and outer peripheral supports, said wall being deeply arched in cross section between said supports and being supported in arched form, casing means forming displacement chambers respectively at the concave side and the convex side of said arched wall, inlet and outlet valves for said chambers, and means to reciprocate one of said peripheral supports to cause said diaphragm wall to sweep said displacement chambers.

2,845,934
CONVEYOR SYSTEM INCORPORATING POWER TROLLEY LINE, BRANCH FREE TROLLEY LINE, AND AUTOMATIC LOAD TRANSFER THEREBETWEEN
Homer S. Harrison, Detroit, Mich., assignor to Allied Steel and Conveyors, Inc., Detroit, Mich., a corporation of Michigan
Application June 29, 1953, Serial No. 364,758
30 Claims. (Cl. 104—96)



1. In an overhead trolley conveyor system, a power trolley conveyor track, driven trolleys on said track provided with load suspension means, a free trolley conveyor track in fixed relation to said power conveyor track and having a nonparallel transfer section adjacent said power track, a free trolley riding in said free track and having load suspension means adapted to extend adjacent to the load suspension means of a driven trolley when both trolleys are at said transfer section, a load hanger, means on said hanger for alternately engaging the load suspension means of both driven and free trolleys, means on said load hanger for effecting a free trolley drive coupling with a driven trolley when suspended from either trolley at said transfer section, said respective means being adapted in response to the conjoint movement of said driven trolley, free trolley and load hanger along said nonparallel transfer track sections to effect a transfer of said load hanger from one to the other of said trolleys.

2,845,935
SWING SWITCH
Joseph Doria Z. Peltier, L'Assomption, Quebec, Canada
Application January 11, 1956, Serial No. 553,538
11 Claims. (Cl. 104—103)



10. In a switching arrangement comprising an ingoing rail and an outgoing rail having spaced terminal portions and making an angle with each other, the ingoing rail being positioned at a level higher than the outgoing rail; a pivotally mounted rail length having its pivotal axis generally disposed at the meeting point of the theoretical extensions of said ingoing and outgoing rails, and vertically inclined downwardly towards said ingoing rail and downwardly away from said outgoing rail said rail

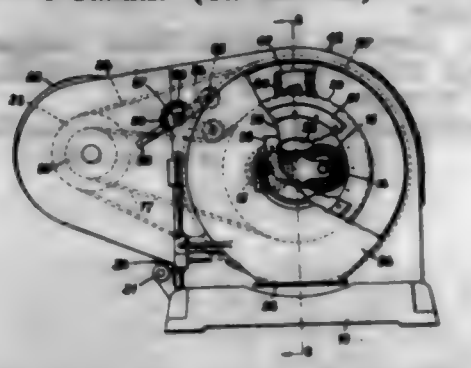
length having an operative edge, and being mounted with said edge in a substantially horizontal plane intermediate the levels of said ingoing and outgoing rails when it is in an angular position intermediate the angular positions of said rails, whereby the operative edge of said rail length assumes a position upwardly inclined from the horizontal when it is generally aligned with said ingoing rail and a position downwardly inclined from the horizontal when it is generally aligned with said outgoing rail.

2,845,036

PELLET MILL

Chester Donald Fisher, Muncy, Pa., assignor to Sprout, Waldron & Company, Inc., Muncy, Pa., a corporation of Pennsylvania

Application March 5, 1954, Serial No. 414,274
6 Claims. (Cl. 107—14)



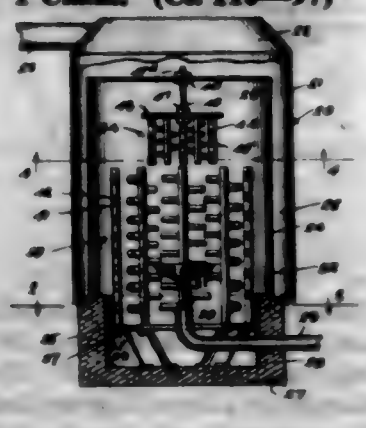
1. In a pellet mill of the character described and having a generally circular pellet forming die with substantially radial extrusion perforations therein, a rotatable carrier for said die adapted to rotate said die about the axis thereof at a predetermined peripheral speed, and means for extruding material to be pelleted outwardly through said perforations upon rotation of said die, the combination which comprises a circular bearing surface around the circumference of said rotatable carrier, a ring member surrounding said carrier and carried by said bearing surface, means for rotating said ring member around said carrier with respect thereto, a cut-off knife for cutting material extruded from said die into pellets, means for mounting said cut-off knife on said ring member and disposed to contact material extruded from said die immediately adjacent the outer surface of said die, and means for varying the speed of said ring member and said cut-off knife with respect to said die for controlling the amount of material extruded through said die between successive cuttings by said knife.

2,845,037

HEAT RETAINING MEANS FOR FURNACES

Bert Buhr, Dubuque, Iowa

Application July 22, 1955, Serial No. 523,663
1 Claim. (Cl. 110—97)



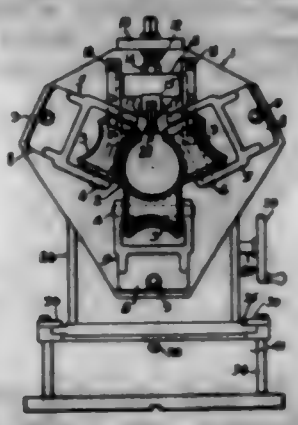
A furnace having an inner wall, an outer wall, a dome for said outer wall, a top for said inner wall, said walls being interconnected at their lower ends, said inner wall having openings therethrough adjacent its lower end, a burner centrally located in the lower end portion of said inner wall, a lower heat retaining unit comprising a relatively large ring positioned below said burner in concentric relation thereto, a plurality of circumferentially spaced vertically extending posts affixed to said ring, and a plurality of vertically spaced horizontal arms extending from each side of each of said posts, and an upper heat retaining assembly comprising a relatively small disc centrally suspended from the top for said inner wall, a plurality of circumferentially spaced dependent rods affixed to said disc and extending to approximately the same horizontal plane in which lie the upper ends of said posts, and a plurality of vertically spaced horizontal arms extending from each side of each of said rods.

2,845,038

SEAM GUIDE ASSEMBLY

Thomas J. Crawford, Berkley, Mich.

Application August 9, 1954, Serial No. 448,671
6 Claims. (Cl. 113—59)



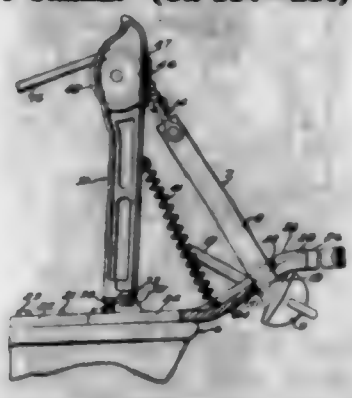
5. In tube welding apparatus wherein a tubular blank having spaced-apart converging longitudinal edges is advanced through welding means operative to weld such edges together, a seam guide assembly adjacent and in advance of such welding means, said assembly comprising a blade adapted to engage in the seam of the blank defined by such edges to locate and space apart the same, support means mounting said blade with the plane thereof generally radial relative to the longitudinal axis of the blank, means for adjustably positioning said blade in its plane toward and away from such axis, the blade being of variable thickness in its radial extent, whereby varying degrees of separation of the seam edges of the blank may be had by such adjustable positioning of the blade, and means for rotating said support means about such axis to adjust the blade rotatively while maintaining the general radial disposition thereof.

2,845,039

ANCHOR HOIST

Vernon E. Robbins, Hayward, Calif.

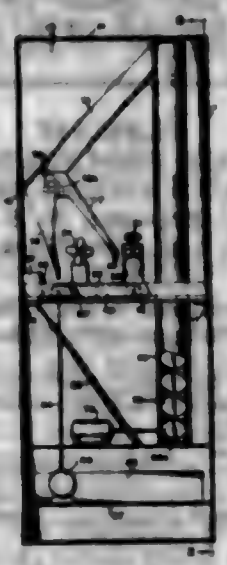
Application April 16, 1956, Serial No. 578,441
6 Claims. (Cl. 114—210)



1. A device of the character described comprising a generally horizontally extending base member, an arm, means pivotally attaching the lower end of said arm to an upper surface portion of said base member, the distal

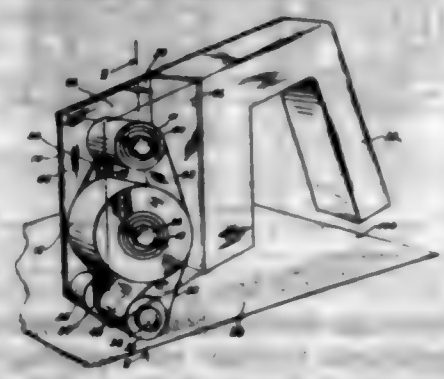
end of said arm having a sheave rotatably mounted thereon, said base member having a fixed extension angularly offset from the general plane of said member and having a slotted distal end portion, and said slotted portion having opposed guide means thereon for guiding an anchor shank within such portion.

2,845,040
BREADING MACHINE
Clyde Elbert Ray, Kokomo, Ind.
Application October 5, 1955, Serial No. 538,585
2 Claims. (Cl. 118—13)



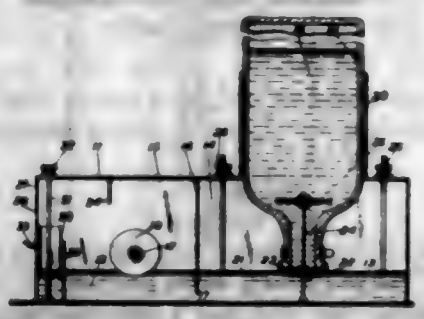
1. A machine for applying crumbs to an article of food comprising a framework having two channels arranged in substantially opposed relation with the channels facing one another, means to detachably connect the channels at one end, a pair of upstanding channel shaped columns projecting upwardly from the other end of said first-mentioned channels, a transom removably connected to the upper ends of said columns, a hand screw threaded through said transom and rotatably secured to a leaf spring extending into both of said columns, a bearing block in each of said columns connected to said spring, a presser roller having flanges at its ends rotatably mounted in said bearing blocks, a belt conveyor assembly including a pair of U-shaped frame members pivotally connected together by their bight portions, outwardly opening journal receiving recesses in the outer ends of the said U-shaped frame, a flanged roller rotatably mounted in the bearing recesses of each U-shaped frame, a pressure plate pivotally mounted to the bight portion of one U-shaped frame, a transverse member extending between the legs of said one of said U-shaped frame, a pair of springs on said transverse member urging said pressure plate out of the plane of said U-shaped frame, a shield mounted on the other U-shaped frame, a scraper extending diagonally of the legs of said one U-shaped frame and extending downwardly therefrom, a conveyor belt mounted on said rollers on said U-shaped frames and adapted to contact said pressure plate, shield and scraper, means to maintain said U-shaped frames in one plane, said U-shaped frames with the conveyor being receivable in the inwardly facing channels of said framework with one of said rollers adapted to be positioned under the presser roller mounted in said columns, an extension of a journal from the other of said conveyor rollers and projecting through said framework and having a gear thereon, a shaft having a gear cooperating with the gear of said journal extension, means to rotate said shaft and thereby said conveyor, a cabinet having a pair of supporting ledges therein, a pair of angle members arranged in spaced parallel relation between said ledges for receiving said first mentioned channel framework, a hopper located below said angle members and adapted to receive particulate material, an upwardly extending screw conveyor for raising material from the bottom of said hopper upwardly, a chute extending from the upper end of said screw conveyor, having a pair of branches, one branch having its discharge adjacent the feed end of said belt conveyor, and the other branch having its discharge adjacent the discharge end of said belt conveyor, a screen mounted in said chute, means to vibrate said screen, means to urge particulate material into said screw conveyor, air circulating means for removing dust, and a grating mounted on said angle members adjacent the discharge end of said belt conveyor for receiving articles covered with said particulate material.

2,845,041
ADHESIVE APPLICATOR DEVICE
Andrew B. Kurn, New York, N. Y.
Application February 16, 1955, Serial No. 488,620
2 Claims. (Cl. 118—257)



1. A device for applying pressure-sensitive transferring type tape comprising: a housing having an opening through which a strip of said tape may project for application upon a surface disposed externally of said housing, a tape roll disposed within said housing, a feed roller disposed at least partially externally of said housing, and a take-up roller adapted to conduct said strip of tape away from said feed roller, said take-up roller being driven by said feed roller and being provided with slipping clutch means to permit adjustment for the size of the coil of tape as the same enlarges; said slipping clutch means including a rigid spool, a sleeve of resilient material having an outside diameter which is slightly larger than the inside diameter of said take-up roller, said sleeve being mounted upon said rigid spool, said take-up roller being positioned upon said sleeve, whereby upon the transmission of motion to said rigid spool, said take-up roller may be driven at an angular velocity less than that of said spool.

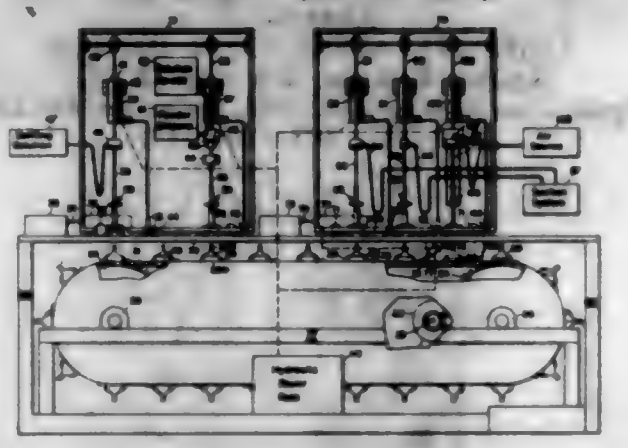
2,845,042
APPARATUS FOR SPRAYING TEXTILES
Graham Hales, Ickenham, England, and Herbert Alfred Vedden, Ruabon, Wales, assignors to Monsanto Chemicals Limited, London, England, a British company
Application November 2, 1953, Serial No. 389,772
Claims priority, application Great Britain November 11, 1952
2 Claims. (Cl. 118—300)



1. Apparatus for spraying textile materials comprising a closed container adapted to contain a pool of liquid, a horizontal drive shaft mounted in said container, a plurality of axially spaced discs mounted on said shaft and being adapted to dip into said pool and pick up and spin

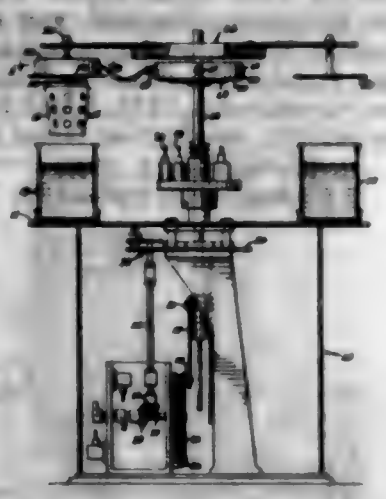
off liquid, baffle means intermediate said discs to collect extraneous spray or splash which would otherwise impede the passage of spray issuing from the discs, said container having an elongated aperture therein so positioned that spray tangent to the top edge of said discs passes through it.

2,845,043
CATHODE-RAY TUBE MANUFACTURING APPARATUS
Jerome J. O'Callaghan, Skokie, Ill., assignor to The Rauland Corporation, a corporation of Illinois
Application July 30, 1956, Serial No. 600,851
23 Claims. (Cl. 118—466)



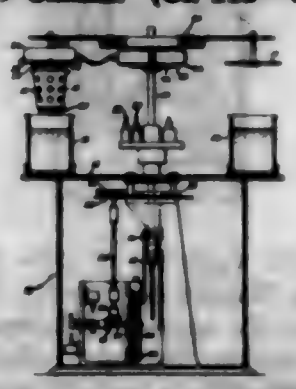
1. In a machine wherein a movable carriage member supports apparatus utilized for applying luminescent screens to a cathode-ray tube bulb carried on a conveyor member moving at a predetermined speed, a system for synchronizing movement of said carriage with that of said conveyor comprising: means including a hydraulic actuator for moving said carriage member; valve means coupled to said actuator; an operating element, movable with one of said members, for said valve means; and means, including a cam-surface movable with the other of said members and engageable with said operating element, for actuating said valve means to effect an increase in carriage speed when said carriage lags behind said conveyor and to effect a decrease in carriage speed when said carriage leads said conveyor.

2,845,044
AUTOMATIC IMMERSION APPARATUS
Harry Cohen, New York, N. Y., assignor to Technicon International Ltd., New York, N. Y., a corporation of New York
Application June 25, 1954, Serial No. 439,397
12 Claims. (Cl. 118—425)



1. Apparatus for treating histologic tissue to prepare it for microscopic examination by immersion of the tissue for predetermined periods of time in liquids contained within a plurality of receptacles, respectively, arranged laterally of each other, comprising conveyor means mounted for vertical movement for lowering a tissue holder into and raising it out of one of said receptacles and for lowering the tissue holder into another of said receptacles, for immersion of the tissue in said receptacles, respectively, means carried by said conveyor and operatively connected to said tissue holder for moving the latter vertically up and down in each of said receptacles for imparting vertical reciprocatory motion to the tissue within the liquid in each of said receptacles, said last means comprising a pivoted member and means for connecting said pivoted member to said holder; and power actuated means operatively connected to said pivoted member for oscillating the latter in a vertical plane and thereby actuating said means for moving the tissue holder up and down in each of the receptacles.

2,845,045
APPARATUS FOR PROCESSING HISTOLOGIC TISSUE AND OTHER MATERIALS
Edwin C. Weishopf, Brewster, N. Y., assignor to Technicon International, Ltd., New York, N. Y., a corporation of New York
Application December 8, 1954, Serial No. 473,979
19 Claims. (Cl. 118—612)



1. In automatic immersion apparatus having a conveyor movable up and down and laterally for transferring a material holder from one to another of a plurality of liquid receptacles arranged laterally of each other; means for imparting vertical reciprocating motion to said material holder, the distance through which said material holder is reciprocated being substantially less than the up and down movement of said material holder for transferring the latter from one receptacle to another, and additional means movable with said material holder for moving the liquid in the receptacle in relation to the material, said additional means being carried by said material holders.

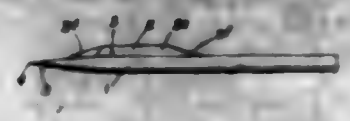
2,845,046
WATER SUPPLYING DEVICE FOR POULTRY
Harold W. Hart, Glendale, Calif.
Application September 26, 1955, Serial No. 536,339
12 Claims. (Cl. 119—75)



1. A poultry watering device for use in a watering system having a water supply pipe having a hole in a side thereof, comprising: a valve body having an inner end held in said hole, said body having an axial bore; an annular seat element carried by said body at said inner end thereof and arranged coaxial therewith, said seat element having a conical seat; a stem loosely slidable in said bore and through said seat element, said stem having a rounded outer end projecting beyond the outer end of the body; and a resilient valving element universally mounted on the inner end of the stem and having an

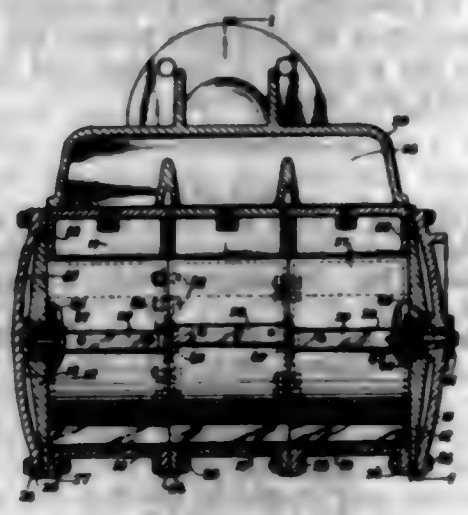
internal conical surface adapted to normally engage against said conical seat to close the valve in response to water pressure in the pipe exerted against the valving element, said universally mounted valving element being self-adjusting on the stem to provide a positive leakproof engagement, said stem and valving element being slidable to a position to disengage said valving element from said seat in response to a light force exerted axially against said rounded outer end of the stem.

2,845,047
WRITING INSTRUMENT
Scott W. McKendree, Klamath Falls, Oreg.
Application November 19, 1956, Serial No. 623,163
3 Claims. (Cl. 136—102)



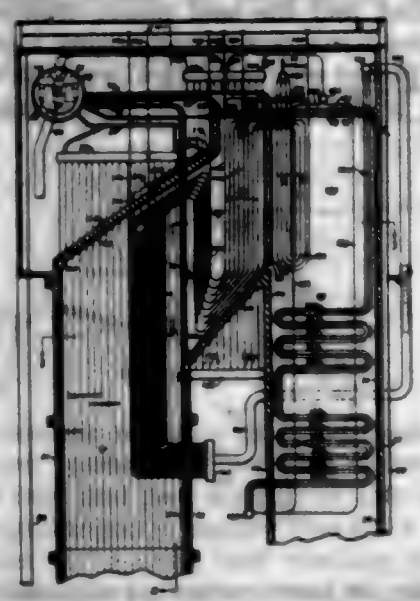
1. A writing instrument comprising an elongated barrel of generally cylindrical section terminating in a writing point, and an elongated shoulder projecting radially from said barrel and terminating at one end adjacent said writing point, said shoulder being of general triangular section with its base being narrower than the diameter of said barrel conforming to the peripheral outline of said barrel and with its apex spaced therefrom, the point of merger of the two sides of said shoulder and said barrel thus defining plural finger positioning recesses.

2,845,048
ROTARY LIQUID MOTORS
John Fraser, Tolworth, Surbiton, England, assignor to Avery-Hardoll Limited, Tolworth, Surbiton, England
Application June 22, 1954, Serial No. 438,578
Claims priority, application Great Britain July 1, 1953
7 Claims. (Cl. 121—84)



1. A fluid motor comprising a plurality of open-sided casing members each having its inner peripheral wall formed as a vane-guiding surface, means to secure said casing members together in side-by-side relation to define a single chamber, side plates closing the ends of said chamber, a plurality of rotor members each substantially equal in width to one of said casing members, substantially radial slots in each of said rotor members the slots in all the rotor members being equally angularly spaced, vanes slidable in said radial slots, means securing said rotor members rigidly together to form a single rotor with the slots in adjacent rotor members angularly spaced to a small extent such that corresponding vanes of adjacent rotor members overlap one another circumferentially but are located axially of the rotor so that each vane is retained within the width of the rotor member in which is it mounted, and means supporting said rotor for rotation in the casing chamber.

2,845,049
VAPOR GENERATING AND SUPERHEATING UNIT WITH AN INTEGRAL SUPERHEATER HAVING RADIANT AND CONVECTION SECTIONS
Heinrich Nunninghoff, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application September 1, 1955, Serial No. 531,943
7 Claims. (Cl. 122—478)

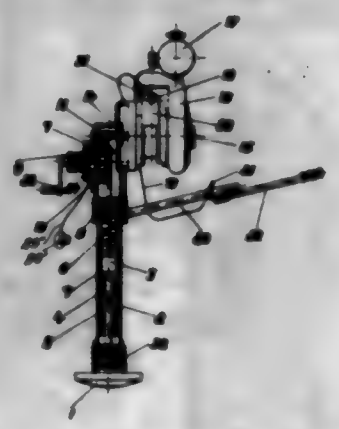


1. In a vapor generating and superheating unit having roof and wall means defining a vertically elongated radiation chamber having a gas outlet at one side of the upper part thereof and a laterally extending gas pass connected to said gas outlet, a combination radiant and convection vapor superheater comprising a predominantly radiant section formed by a first group of vertical tube panels relatively widely spaced transversely of said radiation chamber and extending in front of said gas outlet, each of said panels being formed by a row of closely spaced vertically extending tubes having their upper end portions bent laterally and arranged in two diverging tube groups extending into said gas pass below said roof, a second group of vertical tube panels in said gas pass having a transverse spacing substantially one-half that of the first group of tube panels, each of said second group tube panels being formed by a row of closely spaced vertically extending tubes connected at their upper ends to and forming a continuation of the tubes of a corresponding diverging tube group and having their lower ends bent laterally within said gas pass, a predominantly convection superheater section comprising a third group of vertical tube panels in said gas pass downstream of said second group and having a transverse spacing similar to the spacing of said second group, each of said third group tube panels being formed by a row of vertical tubes having their lower ends connected to and forming a continuation of the bent lower ends of corresponding tubes in said second group panels, said third group tube panel rows having a substantially greater tube-to-tube spacing than the tubes in the first and second group panels, whereby a plurality of parallel continuous uninterrupted vapor flow passages are provided through said first, second and third groups of tube panels, means for pendently supporting the first group of tube panels, and means for pendently supporting said third group of tube panels.

2,845,050
DRIVEN HAND-GUIDED WORKING DEVICES FOR RECIPROCATING MOVEMENTS
Hermann Wacker and Peter Wacker, Ebenhausen-Ingolstadt, Germany
Application November 15, 1954, Serial No. 468,908
13 Claims. (Cl. 123—7)

1. In a hand guided working device for reciprocating or vibrating movements having a housing including a tool,

an internal combustion engine interchangeably mounted on said housing and having its longitudinal axis disposed parallel to and spaced apart from the longitudinal axis of said tool, said internal combustion engine including a driving shaft, a pinion, a bearing supporting said pinion, the latter being removably secured to the said driving shaft and a power transmission operated by said pinion for reciprocating movement of said tool, the said pinion, the said bearing and the said power transmission being disposed in said housing and comprising a gear cooperating with said pinion and carrying a crank drive, a cylinder reciprocating in said housing, a piston axially movable



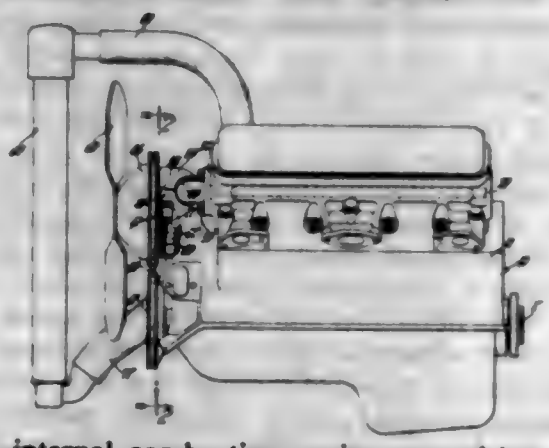
in said cylinder, at least one spring disposed at each side of said piston in said cylinder, and a ram rod between said piston and said tool for common reciprocating movement of the latter, and starter means operatively connected with the said gear said driving shaft having at one end a conically reduced portion and a threaded end portion and said pinion having a cylindrical bore including inner thread complementary to said threaded end portion and a conically expanding bore complementary to said conically reduced portion of said driving shaft, the thread of said end portion running counterwise to the direction of rotation of said engine, thereby providing a reliable and easily removable drive connection.

2,845,051

COOLING SYSTEM FOR ENGINES

Clayton B. Leach, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 30, 1954, Serial No. 440,345
8 Claims. (Cl. 123—41.29)



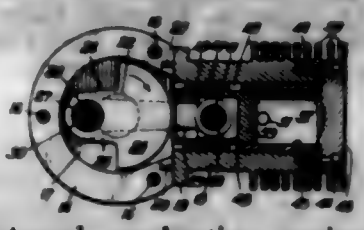
3. An internal combustion engine comprising a cylinder block having a cooling liquid chamber formed therein, an engine head for said block for closing the outer ends of the cylinders in said block and having a cooling liquid chamber formed therein, a cooling radiator for said engine, a cooling liquid pump for said engine and having a pump inlet and a pump outlet, means for connecting said pump outlet directly to said cooling liquid chamber in said head for supplying cooling liquid to said head, a cooling liquid outlet connected to said head for exhausting said cooling liquid from said chamber in said head, said cooling liquid outlet being adapted to be connected to said pump inlet through said cooling liquid radiator, restricted cooling liquid outlet passage means extending between said chamber in said head and said chamber in said block, and restricted outlet means formed in said block and connecting said chamber in said block with said pump inlet, whereby said cooling liquid passes only from said head to said block.

2,845,052

INTERNAL COMBUSTION ENGINE

Alex D. Okonski, Chicago, Ill.

Application December 5, 1956, Serial No. 626,347
5 Claims. (Cl. 123—73)



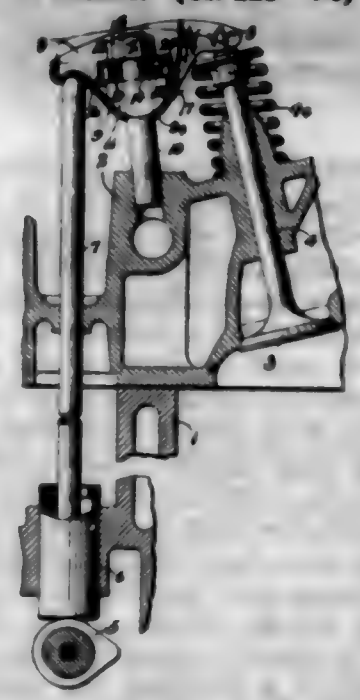
1. In an internal combustion engine, a cylinder, a closed crank case communicating with the interior of the cylinder, a sleeve lining the inner wall of the cylinder, a piston reciprocable in said sleeve and slidably fitting the same, the end of said sleeve above the piston defining a combustion chamber, said sleeve provided with a fuel inlet port and an exhaust port offset from one another axially of the sleeve, said piston adapted in its reciprocating movement to uncover one or the other of said ports, the stroke length of the piston being so related to the ports so as to cut off both ports during the greater portion of the piston's stroke but that at the upper end of its stroke fuel is admitted through said inlet port to the underside of the piston and that at the lower end of its stroke burned gases will escape from the exhaust port, said sleeve further provided with an elongated groove in the outer face of the sleeve extending longitudinally thereof and communicating at its lower end with the crank case and having a port at its upper end communicating with the chamber, whereby fuel compressed within the crank case may be by-passed around the sleeve and piston when the piston is at the lower end of its stroke and introduced into the chamber.

2,845,053

MECHANICAL LASH REMOVAL STRUCTURE

John W. Humphreys, Muskegon, Mich., assignor to Johnson Products, Inc., Muskegon, Mich., a corporation of Michigan

Application July 31, 1957, Serial No. 678,755
8 Claims. (Cl. 123—90)



1. In an internal combustion engine having a cam operated push rod and a spring valve with valve stem, the

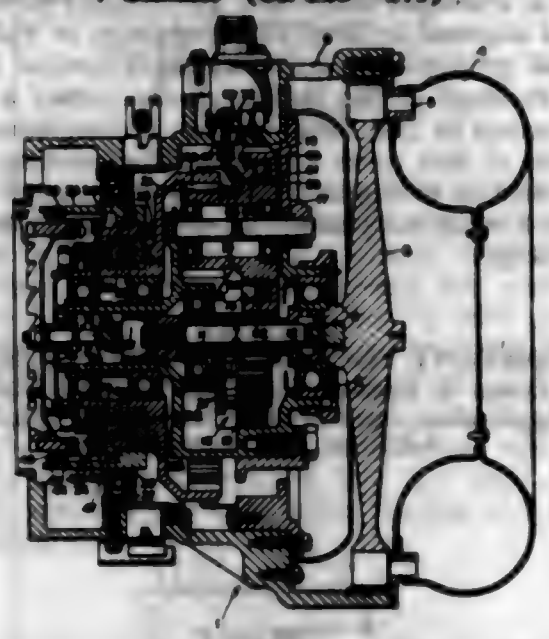
outer ends of said push rod and valve stem being spaced from each other, and a rocker arm between said push rod and valve stem bearing against the outer ends thereof at its ends, the improvement comprising: means for pivotally and outwardly and inwardly movably mounting said rocker arm between its ends, and spring biased cam means for maintaining the ends of the rocker arm against the outer ends of said push rod and valve stem under longitudinal elongation and shortening of the lengths of the push rod and valve stem caused by changing temperature conditions.

2,845,054

PNEUMATIC ENGINE STARTER

Raymond D. Palfreyman, Clifton, and Henry Troeger, Ramsey, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application September 15, 1954, Serial No. 456,167
7 Claims. (Cl. 123—179)



1. A pneumatic engine starter comprising a housing, a turbine supported in the housing, duct means for conveying a supply of pressure air to drive the turbine, a pinion gear operable by the turbine, a plurality of surrounding gears operable by the pinion gear, an annulus gear operable by the surrounding gears, a screw shaft, a slip clutch engaging the annulus gear with the screw shaft, a travel nut axially movable along the outer surface of the screw shaft, said screw shaft having a shoulder extending outwardly for limiting the axial outward movement of said travel nut, an annular starter jaw member slidably splined to the interior surface of the travel nut, said travel nut having a ring which projects radially inwardly in front of the outer transverse end of said screw shaft, a wavy washer spring interposed between the starter jaw member and said ring, said spring biasing said starter jaw member against a stop attached to said travel nut, means cooperating with said travel nut to oppose rotation of the travel nut with the screw shaft so as to effect axial movement of the travel nut along the screw shaft upon rotation of the screw shaft, said spring being arranged to bias against axially-inward movement of said starter jaw member when said spring and jaw member are axially advanced with the travel nut for engagement with an engine jaw so that said spring cushions the starter jaw member.

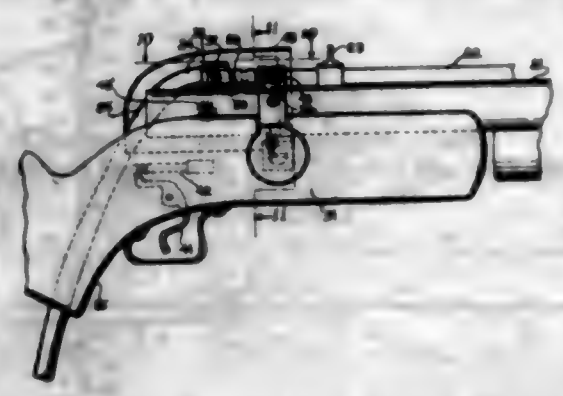
2,845,055

AIR RIFLE

Edward James Collins and James Lee Collins, West Los Angeles, Calif., assignors, by direct and mesne assignments, to Lyndon A. Durant, Chicago, Ill.

Application March 19, 1955, Serial No. 497,584
12 Claims. (Cl. 124—11)

1. In combination, a rifle having a trigger and a barrel through which is pneumatically fired a shot, a shot storage container remotely located with respect to said rifle, a loading and firing tube in communication between said container and the barrel of said rifle, a shot arresting means provided in said rifle between said tube and said barrel for positioning a shot to be fired therefrom, said means including a friction choke connection between said tube and said barrel, a barrel blocking pin in spaced relation to said choke and between which a shot is arrested, means for sequentially admitting low



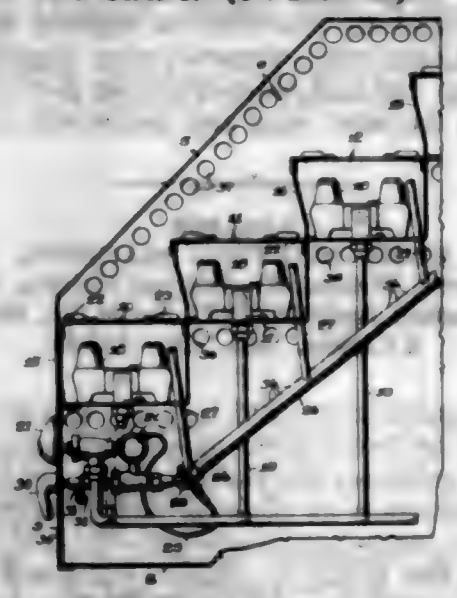
and high pneumatic pressure into said loading and firing tube, said low pneumatic pressure delivering a shot through said tube and past said choke into shot arresting position, electromagnetic means energized by actuation of said trigger for moving said blocking pin from shot arresting position, said high pneumatic pressure being admitted into said tube when said electromagnetic means is energized for firing a shot from said arrested position when said blocking pin has been removed from pin blocking position by said electromagnetic means.

2,845,056

COOKING STOVE

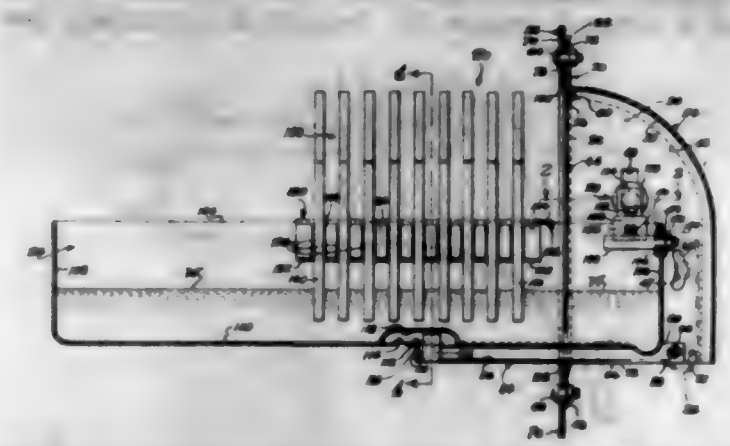
John E. Chambers, Shelbyville, Ind., assignor to Chambers Corporation, a corporation of Indiana

Application May 24, 1952, Serial No. 289,863
5 Claims. (Cl. 126—39)



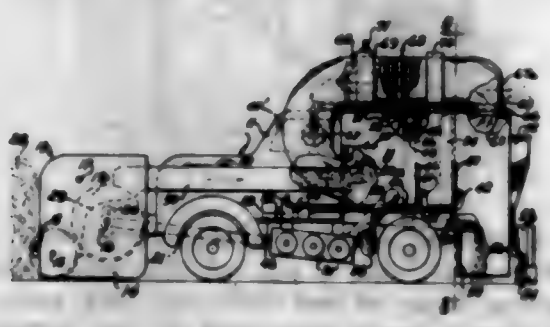
1. In a cooking stove, a frame comprising a front wall, a back wall, and a pair of end walls connecting corresponding edges of said front and back walls, a plurality of burner boxes supported in tier formation in said frame, the cross sectional area of said frame in a horizontal plane being less than the total cross sectional area of said burner boxes taken in a horizontal plane at the top of each of said burner boxes, each of said burner boxs having a front wall, a rear wall and a bottom wall, and a burner mounted on the bottom wall of each of said burner boxes, the front wall of each of said burner boxes above the front one sloping forwardly in an upward direction from the upper edge of the rear wall of the burner box positioned immediately in front thereof to deflect the hot exhaust gases from each of said burners forwardly of the burners positioned at a higher level.

2,845,857
FURNACE-INSTALLED HUMIDIFIER
Roy P. Skerritt, Detroit, Mich., assignor to Economatic Products Company, Detroit, Mich., a corporation of Michigan
Application January 4, 1954, Serial No. 402,975
3 Claims. (Cl. 126—113)



1. A furnace-installed humidifier comprising a mounting structure including a mounting bracket adapted to be secured adjacent an opening in the furnace wall and having a humidifier pan support including a fulcrum thereon, an elongated humidifier pan tiltably mounted upon said fulcrum at a location providing a greater volume of water in said pan rearwardly of said fulcrum than forwardly thereof and arranged to project through said opening into the interior of said furnace, a water supply valve arranged to discharge into the forward portion of said pan and including a valve seat element and a valve nozzle element, and valve-operating mechanism connected to one of said valve elements and responsive to the tilting of said pan upon said fulcrum for opening and closing said valve, said mounting bracket having side wings spaced apart from one another and projecting outwardly therefrom on opposite sides of said pan, one of said valve elements being mounted on one of said wings and said valve-operating mechanism being mounted on the other wing and operatively connected to said pan.

2,845,858
SNOW MELTING MACHINE
Sanford L. Wadsworth, Jackson Heights, N. Y.
Application April 14, 1955, Serial No. 501,313
2 Claims. (Cl. 126—343.5)



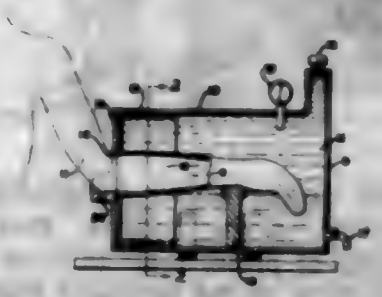
1. A snow melting machine comprising a melting chamber having a snow inlet duct in one side thereof, a gas recirculating duct connected between another side of the melting chamber and the one side thereof, said duct at its connection with the one side of the chamber surrounding and concentric with said snow inlet duct to produce a suction effect upon the snow entering the chamber through the snow inlet duct and to diffuse the snow entering the melting chamber, and a fuel and air consuming gas turbine engine in said recirculating duct to reheat, reburn and supply hot snow melting gases to the melting chamber.

2,845,859
BOILING KETTLE
John P. Kelleher, Renton, Wash.
Application May 6, 1957, Serial No. 657,437
2 Claims. (Cl. 126—386)



2. A boiling kettle, comprising: a kettle-shaped body having at its upper margin a flange in the form of a groove which in cross-section, along a radius of the kettle, has a curve which terminates in a downwardly directed portion; a cover for said kettle adapted to seat within said groove at a distance below said downwardly directed portion and disposed to direct escaping steam or water vapor into said groove; said cover having a central dome to insure drainage to the margin of the cover; a pouring spout formed in said flange groove; a complementary lip extension of said cover and means for assisting in positioning said lip in alignment with said spout and adjacent thereto; a weighted portion formed on said cover adjacent said lip.

2,845,860
CONSTANT VOLUME PRESSURE PICK-UP
James A. Remsen, Cleveland Heights, Ohio
Application April 1, 1954, Serial No. 420,396
1 Claim. (Cl. 128—2.05)

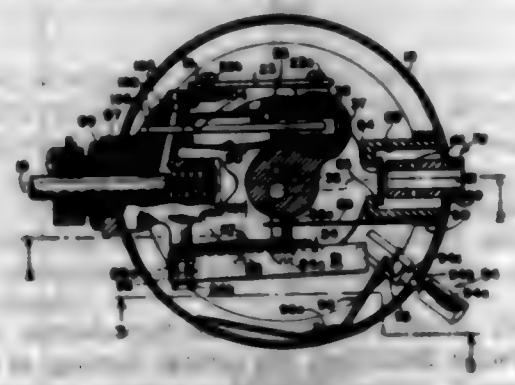


A blood pressure recording apparatus comprising a rigid container, an opening in said container through which a portion of the body may be admitted, incompressible fluid in said container, a flexible diaphragm connected to the opening in said container, shaped in the form of the portion of the body over which it is adapted to be placed, and pressure responsive means attached to the wall of the container for recording variations in pressure of the incompressible fluid means, means on said container for retaining a portion of the body in constant volume relationship with the container.

2,845,861
DEVICES FOR FACILITATING BREATHING AND PRODUCING ARTIFICIAL RESPIRATION
Maurice Harry Goodner, Red Bank, N. J., assignor to Stephenson Corporation, Red Bank, N. J., a corporation of New Jersey
Application May 27, 1955, Serial No. 511,581
19 Claims. (Cl. 128—29)

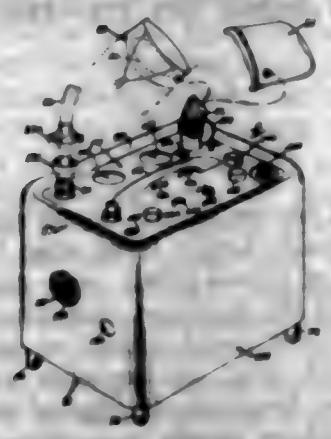
1. A resuscitator comprising a casing, a pair of spaced flexible diaphragms dividing the interior of said casing into three chambers, a floating valve housing suspended by said diaphragms, means for centering the valve housing within the casing and preventing it from being displaced angularly, a valve chamber within said housing, the axis of said valve chamber being parallel to the axis of said diaphragms, a gas inlet coupling extending into said casing between said diaphragms, and a flexible gas conduit within said casing connecting said inlet coupling to said valve chamber, said floating housing carrying a pair of gas pas-

sages communicating with the respective ends of said valve chamber, a valve closure element slideable in said valve chamber, and a supporting arm therefor fixed at its outer end and extending from the casing wall into said valve chamber substantially normal to the valve chamber whereby axial movement of said floating valve housing will shift said valve closure element between the ends of said valve chamber, alternatively to close said respective gas passages, said valve housing including a venturi passage extending between the middle one of said three chambers and a second of said chambers, and a first venturi



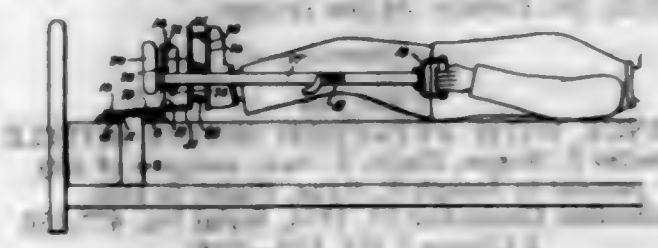
jet fed by one of said gas passages which is closed by movement of said valve housing in a direction away from said second chamber, and a second venturi jet fed by the other of said gas passages, said first venturi jet being directed into said venturi passage to drive gas from said middle chamber and said second jet being directed into said venturi passage to drive gas from said second chamber into said middle chamber, a gas administering conduit extending from said second chamber, said casing having an atmospheric opening into the third of said chambers, and a gas escape valve leading out of said middle chamber.

2,845,063
RESPIRATOR PUMPING APPARATUS
Nelson G. Kling, Roslyn, and Thomas C. Huxley III, Manhasset, N. Y., assignors to Coolidge, Ltd., Chauncey, N. Y., a corporation of New York
Application July 17, 1956, Serial No. 598,453
6 Claims. (Cl. 128—30)



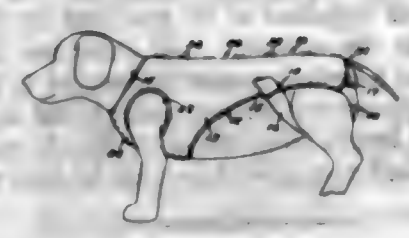
1. In a respirator pump for rhythmically varying fluid pressure in a device for inducing breathing, an expansible and contractible air chamber adapted to be connected to a respirator device in fluid-flow relation thereto, drive means for cyclically expanding and contracting said chamber for inducing a rhythmic flow of air to and from said chamber, said drive means having provision for the releasable connection of a hand crank thereto for manual operation of said pump and a motor having an operative connection with said drive means for automatic operation of said pump, said motor being mounted for bodily movement relative to said drive means, whereby to release said operative connection of said motor and said drive means for manual operation of said pump, said drive means including first shaft means mounting a driven member, a drive member mounted by said motor and in normal driving engagement with said driven member, a driven gear keyed to said shaft means, a drive gear in mesh with said driven gear, second shaft means including said releasable connection provision for the hand crank and mounting said drive gear, and said motor being movable to disengage said drive member from said driven member, whereby the hand crank is effective to operate said drive gear for operating said pump.

2,845,063
EXERCISING DEVICE
Charles S. Allen, Bakersfield, Calif.
Application January 3, 1957, Serial No. 632,306
5 Claims. (Cl. 128—32)



2. An exercising device comprising a base plate, means for securing said base plate to a support, arms rising from said base plate, a vibrator including a supporting plate mounted on said arms, pedals supported adjacent to said vibrator, mechanism for transmitting vibrations from said vibrator to said pedals, and straps connected with said vibrator supporting plate, said straps adapted to be pulled by the patient holding the patient's feet firmly against the pedals, during the operation of said vibrator.

2,845,064
ORTHOPEDIC ANIMAL BRACE
Pearl L. Walsh, Sturgis, Mich., assignor to Freeman Manufacturing Company, Sturgis, Mich., a corporation of Michigan
Application April 11, 1955, Serial No. 500,376
4 Claims. (Cl. 128—78)

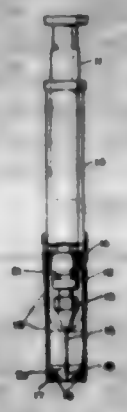


2. An orthopedic animal brace comprising a body encircling member of flexible fabric provided with a pair of elongated pockets paralleling and overlying the spine of an animal wearing said member, an elongated metal bar received in each of said pockets, and means connected to said body encircling member to adjust and secure said pockets in relation to one another to bring said bars in overlying relation to one another along and over the spine zone.

2,845,065
DECEPTION ELEMENT FOR HYPODERMIC SYRINGES
Daniel Gabriel, Bonny Blue, Va.
Application February 5, 1954, Serial No. 408,358
8 Claims. (Cl. 128—215)

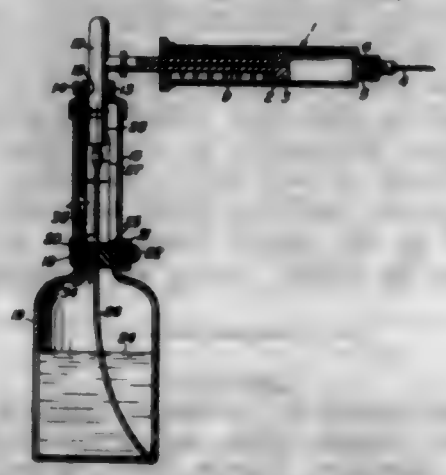
1. In hypodermic syringes employing a syringe casing with a needle disposed at one end portion thereof, an element mounted on the casing and having a large diameter end portion enveloping the needle of the syringe to substantially conceal said needle, said element being in the form of an elongated yieldable walled tubular body, the wall of said element being foldable and movable

longitudinally of the casing and needle in the operation of injecting the needle into the body of a patient, and



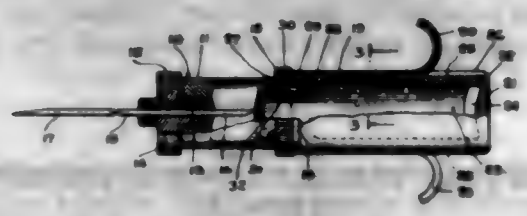
means, at the upper end portion of said element, for positioning the element on the syringe.

2,845,666
SYRINGE WITH ATTACHED SERUM BOTTLE
Charles T. Hoppe, Platte, S. Dak., assignor of fifty percent to Joseph T. Ryan, Platte, S. Dak.
Application December 23, 1954, Serial No. 477,158
3 Claims. (Cl. 128—218)



1. A syringe of the class described comprising in combination, a serum container, a hollow handle attached at one end to the container, an adapter supported in the other end of the handle and having a passage therein, a syringe attached at its rear end to the adapter, a check valve in the adapter, said container including a resilient seal, and a hollow needle connected to the adapter and adapted to penetrate the seal and extend into the container to supply serum from the container to said syringe, and a vent for said container mounted in said seal.

2,845,867
VIALS CONTAINING MEDICATION UNDER PRESSURE
Daniel Gabriel, Bonny Blue, Va.
Application July 1, 1955, Serial No. 519,482
8 Claims. (Cl. 128—218)



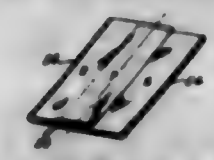
1. A vial for use in conjunction with hypodermic needle units of the character described, said vial having a pierceable stopper normally sealing the vial and retaining a liquid under pressure within the vial, whereby, in piercing the stopper by the needle of a hypodermic needle unit, the characterized liquid is automatically discharged through the needle of said unit, and said vial having, on opposed walls thereof, longitudinal grooves for reception of parts on said unit.

2,845,868
DETACHABLE STUB NEEDLE FOR HYPODERMIC SYRINGES
Daniel Gabriel, Bonny Blue, Va.
Application March 26, 1953, Serial No. 344,789
6 Claims. (Cl. 128—221)



1. A stub needle structure for hypodermic syringes of the character described, the syringe having, at one end portion thereof, means forming a tubular externally tapered portion, a hypodermic needle unit detachably mounted with said tapered portion, said unit including a body having a large diameter bore therein, one end of the bore being tapered to fit the tapered tubular end of said syringe, a stub tubular needle mounted in said tubular tapered end of the syringe and having a large diameter collar fitting on the end of said tapered tubular portion, the outer end of the needle being abruptly tapered to form a pointed end, and said needle, adjacent the large diameter collar, having a tapered portion engaging said first named means in retaining the needle against accidental displacement therefrom.

2,845,869
DIAPER
Samuel F. Jamison, Springfield, Mass., and James A. O'Connor, Jr., and Kenneth J. Osgood, Hillsdale, N. J., assignors to Chicopee Manufacturing Corporation, a corporation of Massachusetts
Application April 16, 1956, Serial No. 578,339
14 Claims. (Cl. 128—284)

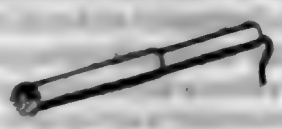


1. A prefolded woven diaper comprising at least one folded, wear-resistant, single layer edge formed from a single layer strip of woven fabric, said strip being folded about a line within the strip and extending longitudinally thereof, an absorbent panel joined to one longitudinal edge of the folded strip, and another absorbent panel joined to the other longitudinal edge of the folded strip, each of said absorbent panels comprising a plurality of layers of gauze diaper fabric woven integral with said single layer strip, and said panels being permanently secured together in folded position, whereby a prefolded gauze diaper with a wear-resistant edge is provided.

2,845,870
COMPRESSED FIBER ABSORPTION DEVICE AND METHOD OF MAKING
Albert W. Lewing, Monson, Mass., assignor to Tampax, Incorporated, Palmer, Mass., a corporation of Delaware
Application June 8, 1953, Serial No. 360,872
12 Claims. (Cl. 128—285)

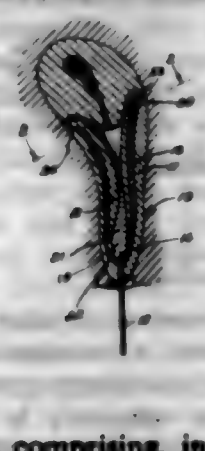
1. The method of making an absorbent pad of absorbent cotton fibers, which comprises the steps of dis-

tributing onto the fibers a hydrophilic water soluble plasticizer therefor, working the fibers to distribute the plasticizer, storing the cotton for a substantial time, compressing a predetermined weight of said cotton into a predetermined volume and holding it under compression until the fibers are set in forms corresponding to a desired density.



8. An absorption device of the character described for fluid absorption comprising as a fluid absorbing means a compressed mass of absorbent cotton fibers, said mass having a self-sustained density in the range of approximately 0.3 to 0.7 gram per cubic centimeter, and said fibers carrying at least 0.1% of a water soluble hydrophilic plasticizer therefor effecting stable compression at said density.

2,845,071
VAGINAL TAMPON
Elmer C. Wade, Campbell, Calif.
Application August 21, 1956, Serial No. 605,361
1 Claim. (Cl. 128—285)



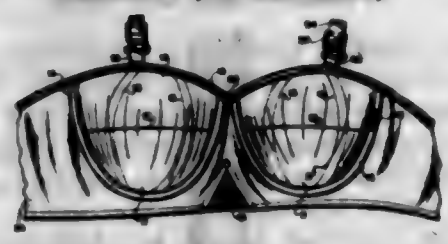
A vaginal tampon comprising, in combination, a hollow intermediate liquid impervious member closed at one end and open at the opposite end having a plurality of peripheral pleats for accommodating limited expansion and contraction in a radial direction, said pleats increasing in size toward the upper open end of the intermediate layer to provide a flaired contour, an outer layer of soft liquid absorbent material enclosing said intermediate layer, an inner layer of soft liquid absorbent material within said intermediate layer, the upper edges of said upper and inner layers extending upwardly beyond the upper edge of said intermediate layer and being secured together independently of said intermediate layer, said intermediate and inner layers being flared outwardly for partially receiving therewithin the neck of the uterus, the outer layer adapted to extend into the vaginal canal, said inner layer providing a fluid receiving reservoir, a string extending through the closed end of said outer, intermediate and inner layers and having an enlargement at its inner end, said enlargement being sealed to said intermediate layer, a hollow elongated cylindrical container open at one end and closed at the opposite end, said open end of said cylindrical container slidably receiving said outer, intermediate and inner layers inwardly therethrough with said pleated portions of said intermediate layer in a closed position, said closed end of said container defining a circular opening, an elongated hollow cylindrical plunger slidably received within said circular opening of said cylindrical container, the inner end of said plunger having a radially outwardly extending flange for abutment with said respective layers, and said string extending outwardly through said plunger through said inner end thereof.

2,845,072
SURGICAL KNIFE
William A. Shafer, Erie, Pa.
Application June 21, 1955, Serial No. 516,967
2 Claims. (Cl. 128—303.14)



1. A surgical knife comprising a casing, a shaft mounted in said casing for reciprocating movement and having an end portion extending outwardly of said casing, a blade detachably secured to said shaft, drive means in said casing for reciprocating said shaft, and control means for controlling the frequency of the reciprocatory movement imparted to said shaft by said drive means, said drive means including a piezoelectric crystal connected to said shaft, said control means comprising a variable audio oscillator coupled through an amplifier to said piezoelectric crystal.

2,845,073
NON-SAGGING BRASSIERE
Ekdal Sutton, Nanuet, N. Y.
Application April 17, 1956, Serial No. 578,613
1 Claim. (Cl. 128—465)

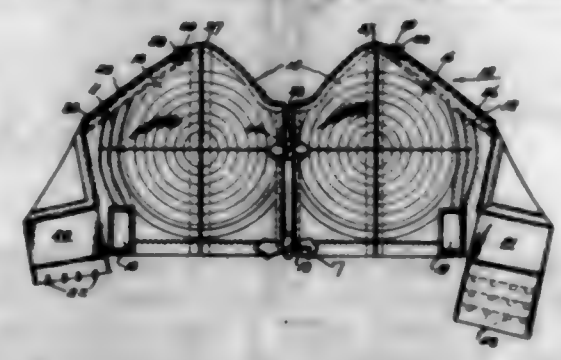


A brassiere, comprising a pair of interconnected fabric concavo-convex shaped breast cups, said cups having a curved upper marginal seam, a pair of U-shaped stiffening wires located within U-shaped seams terminating at said upper seam, and a pair of curved, spaced ribs extending from the base of each wire to the upper seam, said ribs each including a strip of soft resilient material, a fabric reinforcing layer secured thereto, a fabric cover fitted over the strip and layer, said ribs being stitched to the concave side of said cups, said reinforcing layers holding said cups in uplifted condition, and a triangular elastic insert interposed in the interconnection between the cups at the bottom ends thereof.

2,845,074
BRASSIERE
Norma M. Davis and George W. Davis, Chicago, Ill.
Application June 4, 1957, Serial No. 663,528
2 Claims. (Cl. 128—472)

1. A shoulder strapless brassiere comprising a body member of tough, fairly rigid yet pliable material of the class consisting of bone, metal and plastic, said body

member formed into a pair of U-shaped members with open tops and a smaller member extending between the inner bottom portions of said pair of U-shaped members and forming a lower connecting member, an upper connecting member spaced above said lower connecting member extending between said pair of U-shaped members, fabric attached to and covering said body member, said fabric extending between and above and forming with said U-shaped members a pair of breast receiving cups, a back band attached to said fabric adjacent the outer bottom portion of each U-shaped member, means on each band for detachably attaching said bands at their



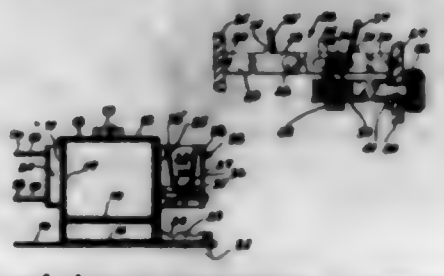
outer ends, a pair of diagonal bands, each diagonal band attached at its upper end to said fabric adjacent but short of the top of a cup member, and attached at its lower end to the adjacent back band intermediate its end, said lower and said upper connecting members adapted to rest on the sternum of the user as a sternal lock and providing a primary vector for support of the brassiere, said diagonal bands by virtue of their said points of attachment to said fabric and to said back bands providing winged vectors inextricably coordinating, cooperating and integrating with said primary vector to support the brassiere on the wearer without shoulder straps.

2,845,075
CIGARETTE-HOLDER WITH DENICOTINIZING FILTER WITH DOUBLE EJECTOR
Achille Savinelli, Milan, Italy
Application March 17, 1954, Serial No. 416,819
1 Claim. (Cl. 131—182)



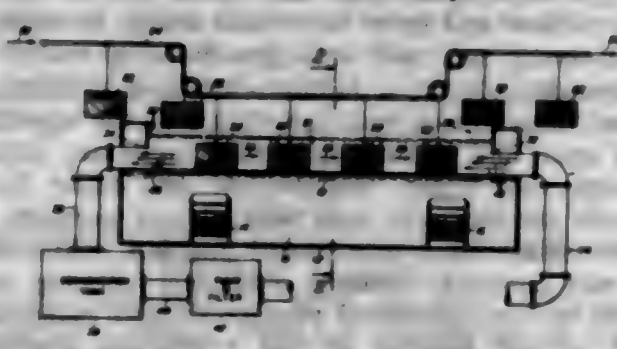
A cigarette holder having a cartridge for a filter and comprising a mouthpiece, first and second cylindrical tubular body sections having ends correspondingly threaded for mutual endwise engagement, said first and second sections having their opposite ends provided with inwardly directed abutments, said first section having a length substantially equal to that of the cartridge, said mouthpiece having an inner end slidably mounted within said first section for movement between its extremities and limited in movement by the abutment of said first section to prevent disengagement in one direction therefrom, said mouthpiece having its inner end normally adjacent the abutment of the first section, a cartridge seat having a length of less than one half the length of said first section and being detachably engaged in said mouthpiece for engaging one extreme end of the cartridge and supporting the cartridge in such a manner that the same extends slightly out of said first section when said mouthpiece is in the normal position, a cigarette seating member frictionally engaged in said second section and defining an aperture substantially coaxial with the cylindrical sections, an elongated ejector extending through the aperture and including flanged ends to avoid disengagement from said cigarette seating member, said ejector being adapted to engage by means of one of its flanges a cartridge positioned in said first section and seated in said cartridge seat, and a spring on said ejector intermediate said cigarette seating member and said one flange to urge said cigarette seating member against the abutment in said second section and to urge said one flange against the cartridge to position the same firmly in its seat whereby the movement of said mouthpiece operating through said cartridge and ejector may serve to eject a cigarette and, with said second section removed, to eject the cartridge.

2,845,076
PIPE CLEANER AND ASH TRAY
Arthur A. Osterpard, Freeport, Ill.
Application September 1, 1955, Serial No. 532,086
3 Claims. (Cl. 131—246)



3. A pipe bowl cleaner comprising a compartment open at the top and bottom, a rectangular bridge secured at opposite ends within said compartment, a first pin piercing said bridge near one end, a pipe scraping blade rotatably mounted at its lower end on said pin, stop means for limiting rotation of said pipe bowl scraping blade, said bridge having laterally aligned elongated slots near the other end thereof, a second pin slidably mounted within said elongated slots, a second bowl scraping blade rotatably mounted on its lower end on said second pin, stop means adapted to limit rotation of said second blade, and manually operable means for adjusting the position of said second pin and scraper blade relative to said first blade.

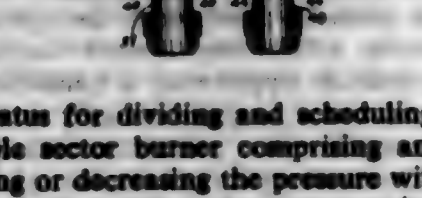
2,845,077
ULTRASONIC CLEANING APPARATUS
Norman G. Branson, Stamford, Conn., assignor to Branson Instruments, Inc., Stamford, Conn., a corporation of Connecticut
Application August 2, 1956, Serial No. 601,661
8 Claims. (Cl. 134—111)



1. Ultrasonic cleaning apparatus comprising focused compressional wave generating means for setting up compressional wave energy in a surrounding medium directed toward a distant focal point, an enclosure for contain-

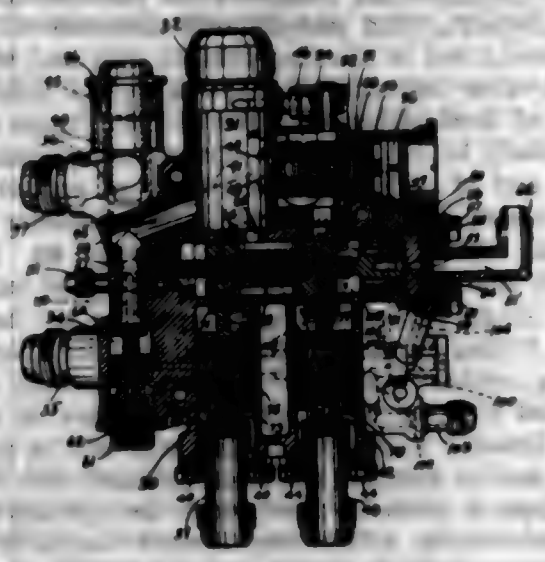
ing both a cleaning liquid and an object to be cleaned, said enclosure being so disposed that said generating means lies without and said focal point lies within its confines, and liquid confining means associated with said generating means and said enclosure for supporting a body of liquid therebetween encompassing the entire path of energy transmission between said generating means and said enclosure, said liquid having good compressional wave energy propagating properties, whereby the input power-to-cleaning ratio is decreased for a cleaning liquid having poorer compressional wave propagating properties than said last mentioned liquid.

2,845,078
PORTABLE STRUCTURE
John H. Singleton, Prattville, Ala.
Application March 13, 1956, Serial No. 571,267
3 Claims. (Cl. 135—5)



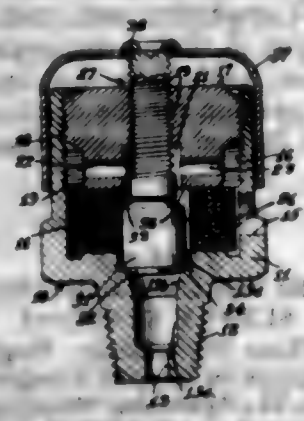
1. A portable and collapsible shelter comprising a pair of end supports, a roof support and a roof covering thereon, said end supports each comprising a single standard having upper and lower connecting frogs rigidly mounted at its upper end, a ridge pole lying in the same vertical plane with said standards and rigidly secured to the upper frog of each of said standards, horizontal cross arms and inclined rafters having the inner ends of each secured to the lower and upper frogs respectively, said cross arms and rafters extending from opposite sides of each standard, roof eave members, frogs connecting the outer ends of said rafters and cross arms to each other and to said eave members, said eave members having pins thereon projecting therebeneath, said roof covering comprising a sheet of a pliable material disposed over said ridge pole, said rafters and said eave members, means on said covering detachably engaging said pins.

2,845,079
FUEL FLOW DIVIDER
Forest F. Hutton, Anderson, Ind., assignor to The Pierce Governor Company, Inc., Anderson, Ind., a corporation of Indiana
Application February 6, 1956, Serial No. 564,101
17 Claims. (Cl. 137—118)



1. Apparatus for dividing and scheduling flow of fuel to a multiple sector burner comprising an inlet, means for increasing or decreasing the pressure within said inlet, a first valve having spring means responsive to relatively low inlet pressure permitting said valve to open and supply fuel to a first sector of said burner, second, third, and fourth valves each including spring means for normally holding said valves in closed position, means for coupling said second, third, and fourth valves to second, third, and fourth sectors of said burner, a flow-divider valve coupled to said inlet and including spring means responsive to a predetermined higher pressure for permitting said flow-divider valve to open, a passage coupling said flow-divider valve to said second valve, whereby said second valve opens in response to said higher pressure to permit fuel flow to a second sector of said burner, a selector valve coupled between said flow-divider valve and said third and fourth valves and normally operative to isolate said third and fourth valves to maintain them in closed position, and a squirt-flow valve coupled to said control means and said selector valve and responsive to a predetermined third value of pressure for opening said selector valve and admitting pressure from said flow-divider valve to said third and fourth valves, thereby to supply fuel to the third and fourth sectors of said burner.

2,845,080
AUTOMATIC OR MANUAL HOT WATER VENT VALVE ASSEMBLY
El Roy J. Kraft, Des Plaines, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application September 10, 1954, Serial No. 455,287
5 Claims. (Cl. 137—197)



1. An air vent valve comprising a body member having a central cavity and an inlet and an outlet, said cavity providing a fluid passageway between said inlet and said outlet, a bushing received within said cavity in said body member in adjustable position, a valve element adjustably positionable along said bushing, said valve element including an enlarged end portion having a pair of spaced valve seating surfaces, means in said body member providing a rigid seat for one of said surfaces, means in said bushing providing a rigid seat for the other of said surfaces, said valve element being moveable to place said surfaces selectively on their respective seats, and an expansible hygroscopic means disposed in said cavity between said bushing and said body member in circumscribing relation to a portion of said valve element, said hygroscopic means being arranged to absorb liquid passing between said inlet and said outlet and to close off said outlet after absorption of a substantial amount of said liquid.

2,845,081
DRAIN VALVES
Robert H. George, Melrose Park, Pa.
Application June 9, 1954, Serial No. 435,405
3 Claims. (Cl. 137—204)

1. A drain valve for condensate comprising a housing made of separable parts, a condensate inlet connection at one end of said housing, a bushing fixedly mounted within said housing subdividing the interior thereof into a valve chamber extending interiorly to said one end of said

housing and an operating chamber extending interiorly to the other end of said housing, said housing at said one end having a first valve seat in said valve chamber facing towards said bushing, said bushing having in said valve chamber a valve seat facing toward said first valve seat, an actuating pressure fluid inlet connection at the opposite end of said housing and in communication with said operating chamber, a piston mounted in said operating chamber between said bushing and said actuating pressure fluid connection, said housing having a drain connection from said operating chamber, a first valve member slidably supported in said bushing and having a portion movable in said valve chamber seating on the valve seat on



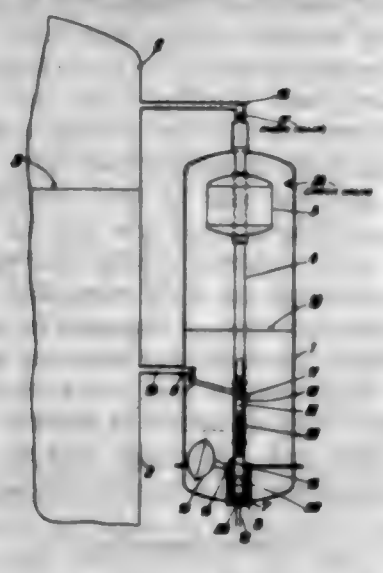
said bushing and shutting off communication between said valve chamber and said drain connection, said first member having another portion in said operating chamber and in engagement with said piston, a second valve member in said valve chamber for engagement with the first valve seat and cutting off communication between said inlet connection and said valve chamber, a resilient member interposed between said valve members to impel the same toward their respective seats, said first valve member having a portion in sliding engagement with said second valve member, said piston moving said first valve member to open position for the discharge of fluid from the valve chamber through said operating chamber to said drain connection.

2,845,682

AUTOMATIC AIR VOLUME CONTROL FOR LIQUID SUPPLY SYSTEMS

Otto Kracht and Hans Schumacher, Werdohl, Westphalia, Germany, assignors to Kracht Pumpen- und Motorenfabrik G. m. b. H., Werdohl, Westphalia, Germany

Application December 15, 1953, Serial No. 398,376
Claims priority, application Germany December 15, 1952
1 Claim. (Cl. 137—209)



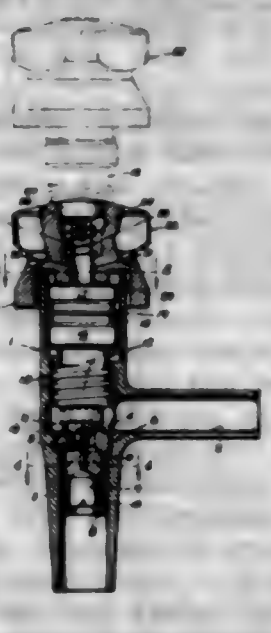
An automatic air volume control for liquid supply systems comprising a pressure tank, a regulator tank laterally attached to said pressure tank by a liquid flow connection between said pressure tank and said regulator tank and an air flow connection between said pressure tank and said regulator tank, a discharge port in the floor of said regulator tank, a float stem having a lower end controlling said discharge port, a float secured to said float stem, valve means controlling said liquid flow connection, means actuating said valve means, said valve actuating means being controlled by said float stem inversely to the control of said discharge port, so that the liquid flow connection is open when the discharge port is closed and vice versa a two-armed lever pivotally mounted on the inner wall of said regulator tank, an auxiliary float secured to one arm of said lever, the other arm of said level engaging said float stem and holding said float stem after said auxiliary float has been lifted sufficienty to open the discharge port, a check valve in said air flow connection allowing flow of air only from said regulator tank into said pressure tank, and an inwardly opening check valve in the wall near the top of said regulator for admitting air from the atmosphere into said regulator when the air pressure in said regulator drops below atmospheric pressure.

2,845,663

FLUID CONTROL VALVE WITH SUPPLEMENTAL CHECK VALVE

Clinton L. Graybill, Superior, Mont.

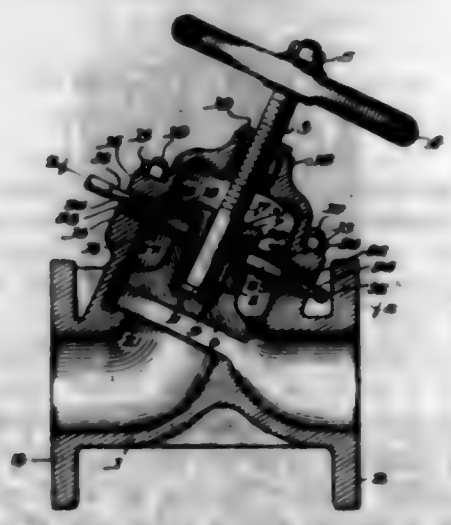
Application February 10, 1955, Serial No. 487,245
1 Claim. (Cl. 137—329.2)



A valve of the character described comprising in combination a hollow cylindrical valve housing internally threaded for a portion of its length and having a top and bottom valve seat formed on the interior thereof and an outlet opening adjacent one of said valve seats, a manually actuated cylindrical valve body externally threaded for a portion of its length at one of its ends and thereby threadedly mounted within the valve housing for rotatable and reciprocal movement with respect thereto and for cooperating with said top valve seat, a valve for said bottom valve seat slidably mounted within the valve housing and in abutting contact with said manually actuated valve and actuated into a closed position by pressure of fluid within the valve housing upon opening said manually actuated valve a predetermined degree, the opposite end of said valve body being of an outside diameter substantially equal to the inside diameter of said cylindrical valve housing and having an annular groove formed therein of a width equal to at least one-half the length of said threaded portion of the valve body, an O-ring disposed within said annular groove and in rolling contact with the peripheral surface of said groove and with the inner peripheral surface of said cylindrical housing whereby a rolling seal will be provided between and in minimal frictional contact with both of said peripheral surfaces throughout the operative range of said valve body, a limit stop formed externally of the valve housing near its upper end, a handwheel slidably and yieldingly attached to the manually actuated valve and having an annular skirt portion surrounding the upper end of the valve body in concentric spaced relation thereto, a limit stop formed on the inner periphery of

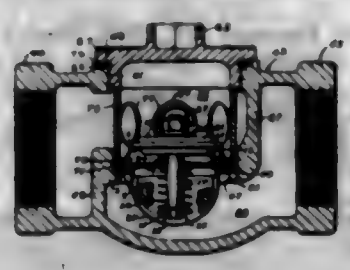
the skirt portion of said handwheel and adapted for contact with said limit stop on the valve housing upon rotation of the handwheel to open the manually actuated valve, whereby said handwheel can be lifted to clear its limit stop from said limit stop on the valve housing to permit further rotation of the handwheel to thereby disengage the manually actuated valve from its threads to permit removal of the valve body in its entirety from the interior of the valve housing.

2,845,084
FLUID COOLED DIAPHRAGM VALVE
Gustav C. Detlefson, Chicago, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application January 4, 1954, Serial No. 401,778
3 Claims. (Cl. 137—340)



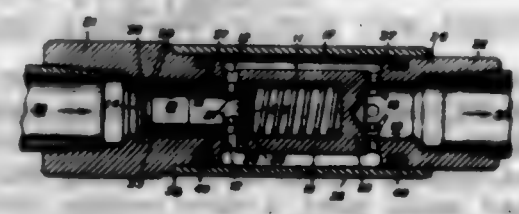
1. In a flexible valve diaphragm having an internal chamber defined by a top wall portion and a bottom wall portion, a rim portion joining the peripheries of said wall portions, the diaphragm having at least one inlet and one outlet passage traversing said peripheral rim portion, at least one supporting member positioned substantially in a central portion of said internal chamber, the said supporting member comprising a transverse diaphragm portion having spaced apart arcuate wall portions joining said top wall and said bottom wall portions, the said transverse diaphragm portion being positioned in the said chamber between the respective inlet and outlet passages.

2,845,085
SEPARABLE, YIELDABLE MOUNTING FOR VALVES
Elmer A. Robbins, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana
Application December 12, 1955, Serial No. 552,552
18 Claims. (Cl. 137—454.6)



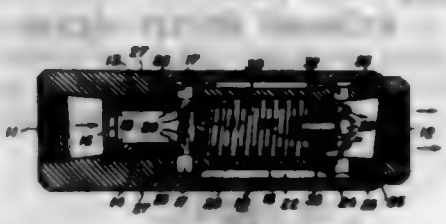
1. In a valve structure, a body defining a fluid passage having an inlet and an outlet and having a central axis and a surface disposed substantially coaxial with said passage, a unitary valve assembly including a member having a seat, a guide means, a poppet mounted in said guide means for cooperation with said seat and means for urging said poppet toward said seat, said member having a sealing surface disposed substantially coaxial with said first mentioned surface and spaced radially therefrom, a yieldable gasket disposed between said surfaces and means for deforming said gasket into sealing contact with said surfaces.

2,845,086
FLOW REGULATORS
William Waterman, Wilmette, Ill., and Donald A. Stark, Mentor, Ohio; said Stark assignor to said Waterman
Application May 19, 1953, Serial No. 355,940
8 Claims. (Cl. 137—504)



6. A flow regulator comprising in combination a tubular housing having an interior cylindrical passage closed at one end, a radial port in the wall of the cylindrical passage for flow leaving the latter, a hollow piston having a sliding fit in said passage and controlling said port, a metering orifice in said piston to pass flow to its interior and to said port, a spring bearing against said piston and seated against the closed end of said cylindrical passage for counterbalancing fluid pressure against said piston, and a separate sleeve around said housing and spaced therefrom to provide a passage for flow leaving said port, packing adjacent the ends of said sleeve for sealing the same around said housing, said housing having an opening downstream of said port and the closed end of said cylinder connecting said passage with the tubular interior of said housing beyond said closed end to provide an escape conduit for said flow.

2,845,087
MODULATING REGULATORS
William W. Thomas, Chicago, Ill., assignor to William Waterman, Evanston, Ill.
Application December 30, 1953, Serial No. 401,140
6 Claims. (Cl. 137—504)

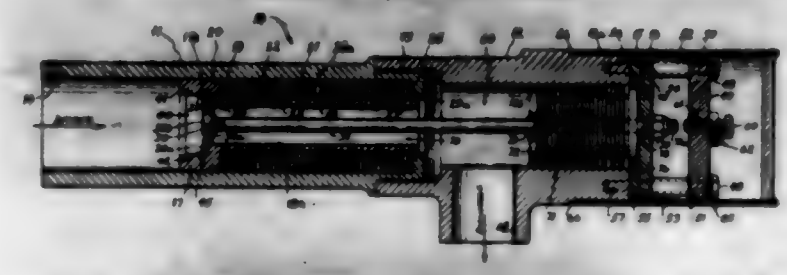


1. A flow regulator of the character described comprising in combination a valve housing having inlet, outlet and a cylindrical fluid passage connecting inlet and outlet and provided with a port, a piston valve exposed to the forces of fluid slidable in said passage and adapted to throttle said port to control the rate of flow, said piston having therein a metering orifice through which the flow passes to reach said port, said orifice being only slightly restricted to produce only enough pressure drop to actuate said valve, a spring resisting the movement of said valve, an auxiliary passage by-passing said port, said piston valve having a small supplemental orifice to admit a small flow to said auxiliary passage arranged transversely to the direction of movement of said valve and adapted to produce a substantial pressure drop acting on said piston valve to supplement the pressure drop through said metering orifice and thereby to increase the throttling action of said valve and reduce the rate of flow through said regulator as the fluid pressure increases.

2,845,008
RELIEF VALVE

Morris A. Crossman, Brooklyn, and Daniel M. Pattarini, Glen Cove, N. Y., assignors to Target Rock Corporation, Huntington, N. Y., a corporation of New York

Application June 10, 1953, Serial No. 360,748
8 Claims. (Cl. 137—508)

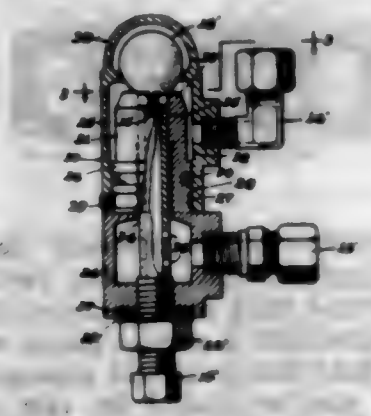


1. A relief valve for a fluid pressure system comprising a housing having intake and discharge ports, a valve seat member slidably mounted within said housing, and having an opening therein communicating with said discharge and intake ports, a valve member normally engaging the valve seat, thereby closing said opening in said valve seat member, said valve and valve seat members being movable in one direction by the fluid pressure, adjustable means for limiting the movement of said valve member in said one direction, the further movement of the valve seat member relative to the valve member producing separation therebetween, thereby opening said valve seat member opening, a spring bellows within said housing and engaging said valve seat member for urging said seat member in the opposite direction and for maintaining said seat member and housing in a pressure tight relationship, and spring means including a member slidably received within said housing and in communication with said discharge port, said slidable member being connected to the valve member, whereby the spring means urges said valve member in the opposite direction and for eliminating the effect of varying back pressures at the discharge port.

2,845,009
VALVES

Chester R. Nichols, Sycamore, Ill., assignor to Elgin Softener Corporation, Elgin, Ill., a corporation of Illinois

Original application January 27, 1954, Serial No. 406,419. Divided and this application March 12, 1954, Serial No. 415,764
8 Claims. (Cl. 137—513.5)

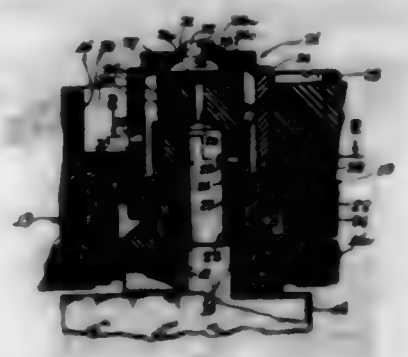


5. A check valve structure comprising two interconnected hollow body parts whose connected male and female portions are assembled in swivelled relationship permitting disposition of inlet and outlet fittings radially connected to said parts at any desired angle with respect to one another for widened adaptability of the structure, the male portion on one of said body parts being of elongated tubular form having a bore longitudinally thereof and a valve seat at the outer end of said bore, a check valve element arranged to engage said valve seat when fluid flows in one direction through the bore, said male portion having an elongated metering slot provided therein longitudinally thereof communicating with the bore and opening inwardly away from said valve seat, whereby to allow fluid to bypass said check valve when seated, and a tubular member adjustable endwise in the bore in said male portion so that its one end is adjustable along said slot and accordingly regulates the bypass flow therethrough.

2,845,090
PRESSURE RELEASE VALVE FOR BATTERY CELLS

Ernest Rost, Morristown, N. J., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware

Application January 27, 1955, Serial No. 484,338
2 Claims. (Cl. 137—515.3)

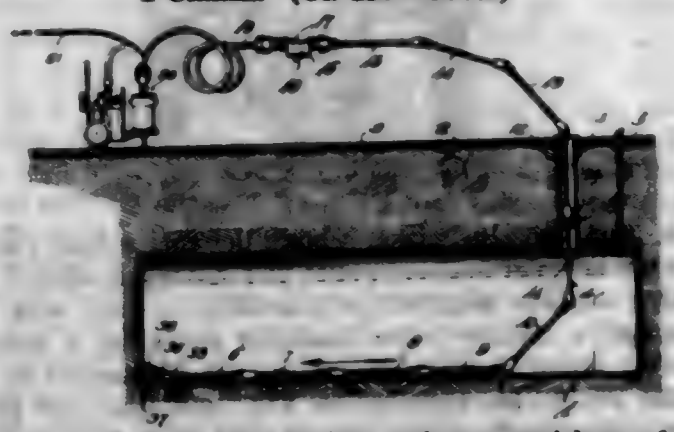


1. A pressure release valve comprising a flanged tubular member adapted to fit the filler opening of a battery cell, said tubular member having an axial opening therethrough and provided with a valve seat at its outer end; a cap of yieldable material fitting over the outer end of said tubular member with its surrounding wall under tension to close said opening except at pressures sufficient to provide for escape of gas between said surrounding wall and tubular member; a plunger at the outer end of said tubular member for pressing the end wall of the cap against said seat to seal said opening at pressures above said predetermined value; and extending integral wall on said cap embracing said plunger; and a cylindrical housing member secured to the flanged end of said tubular member and having an opening in the end wall through which extends an outer end portion of said plunger, said tubular member, plunger and housing member being metal parts, and said cap and extending integral wall comprising a sheath around said plunger and protecting it from metal-to-metal contact with the other of said metal parts.

2,845,091
TANK CLEANING APPARATUS

Clifford H. Nose, Pikesville, Md., assignor to Maryland Engineering Company, Pikesville, Md., a co-partnership

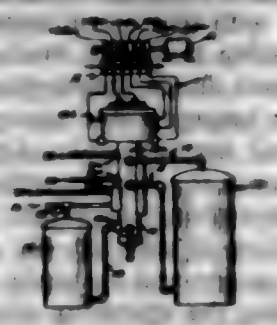
Application January 18, 1954, Serial No. 404,531
2 Claims. (Cl. 137—577.5)



1. A terminus for a tubular probe comprising a hollow tubular end section having a surface-engaging face

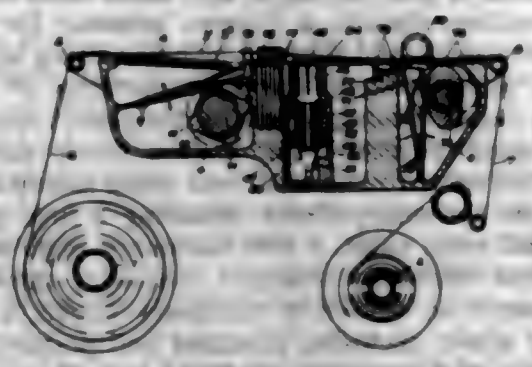
disposed at an acute angle to the axis of the end section, said end section having an orifice in said surface engaging face disposed at an angle to the axis of the hollow tubular end section, and a roller journaled adjacent the end of said surface-engaging face offset from the axis of said hollow tubular end section.

2,845,992
VALVE SYSTEM FOR WATER SOFTENERS
Donald R. Vosseller, Chicago, Ill.
Application October 4, 1954, Serial No. 459,949
4 Claims. (Cl. 137—633)



1. In a control valve for water softening apparatus the combination comprising a valve housing having a longitudinal bore, a plurality of ports in said housing, a valve shaft slidably mounted in said housing, a plurality of piston elements mounted on said shaft in sealingly sliding engagement with the bore of said housing, said piston elements being adapted to form a plurality of chambers within said housing whereby said valve simultaneously controls the flow of different fluids through said ports; a positioner for said valve stem comprising a housing, a portion of said valve stem slidingly mounted in said positioner housing, a positioner piston mounted on said valve stem portion, four outlet ports in said housing disposed along the length thereof adapted to vent pressurized, untreated water, inlet ports on said housing adjacent the ends thereof adapted to admit pressurized untreated water; and an automatic regulator for said positioner having at least two inlet valve elements and four drain valve elements, said inlet valve elements being connected with a source of pressurized fluid and one of said inlet ports, said drain valve elements being connected with a drain and one of said outlet ports, and timing means for selectively operating together one of said inlet valve elements and one of said outlet valve elements.

2,845,993
METHOD OF AND MEANS FOR WEAVING
Hans-Joachim Dietzsch, Konstanz, Boden See, and Otto Dietzsch, Radolfzell, Germany, assignors to Trikotfabriken J. Schiesser A. G., Radolfzell, Boden See, Germany, a corporation of Germany
Application July 28, 1953, Serial No. 369,098
Claims priority, application Germany July 22, 1952
19 Claims. (Cl. 139—12)



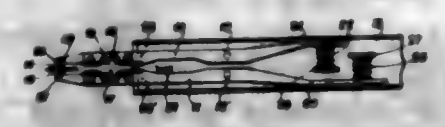
1. A method for weaving, comprising the steps of moving the warp threads perpendicularly to the plane of the warp between a first end position and a second end position by means of two forces, one of said forces being relatively strong and intermittently acting on all warp threads, tending to move same into the second end position, the other force being relatively weak and acting permanently in the direction toward the first end position, of locking selected warp threads in the second end position by a third force for forming a shed, of shifting the phase of the movements of juxtapositioned warp threads for forming waves travelling in the direction of the pick, of moving shuttles in the ventral segments of the waves, and of beating up the weft threads according to the progress of the travelling waves.

2,845,994
METHOD AND APPARATUS FOR FORMING DECORATIVE FABRICS
George L. Mills, Auburn, Maine, assignor to Bates Manufacturing Company, a corporation of Maine
Application January 27, 1955, Serial No. 484,397
2 Claims. (Cl. 139—47)



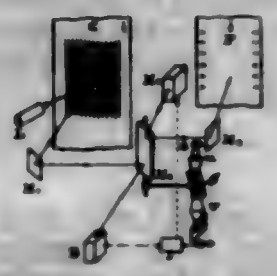
1. In a method of forming cut pile fabrics by leno action crossing of warp yarns over pile-forming wires which extend warpwise, the steps of interlacing warp and filling threads to form a ground fabric, interlacing warpwise a decorating thread into the ground fabric at relatively widely spaced apart points, interlacing the decorating thread in the ground fabric at two closely spaced points intermediate each pair of consecutive widely spaced points, the thread intermediate said two closely spaced points overlying the pile-forming wire, holding and guiding by means of the pile-forming wire the decorating thread offset from the plane of the fabric between the closely spaced points of interlacing as the fabric advances during weaving, interposing means in the path of travel of the portion of the decorating thread which is offset from the plane of the fabric intermediate the two closely spaced interlacing points to cause the thread to be severed between the two closely spaced points and subsequently causing the severed threads to be disengaged from their respective closely adjacent points of interlacing, thereby to form tufts secured to the fabric at said relatively widely spaced points.

2,845,995
THREAD CLAMP HAVING TWO MOVABLE JAWS
Erwin Pfarrwaller, Winterthur, Switzerland, assignor to Sulzer Frères, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application October 11, 1954, Serial No. 461,625
Claims priority, application Switzerland October 29, 1953
9 Claims. (Cl. 139—127)



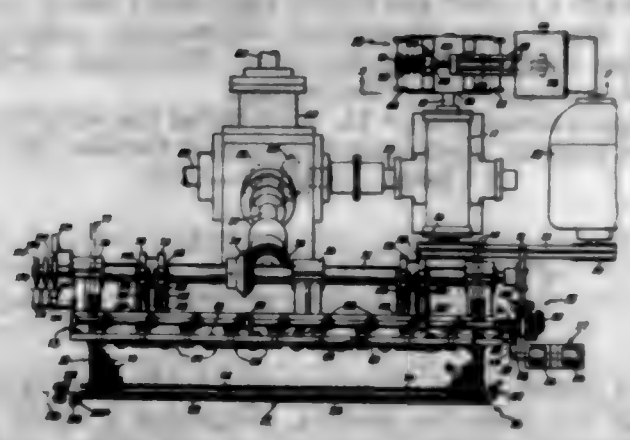
1. A thread clamp for temporarily holding one or more threads in a loom for weaving, comprising a holder, two jaw members movably mounted on said holder, resilient means associated with said jaw members for pressing said jaw members against each other for gripping a thread, and an abutment mounted on said holder and adapted to abut against and to limit the closing movement of one of said jaw members.

2,845,096
DEVICE FOR PRODUCTION OF CONTROL PATTERNS FOR LOOMS
Philippe Pasquet, Lyon, France
Application December 3, 1952, Serial No. 323,759
Claims priority, application France December 13, 1951
3 Claims. (Cl. 139—319)



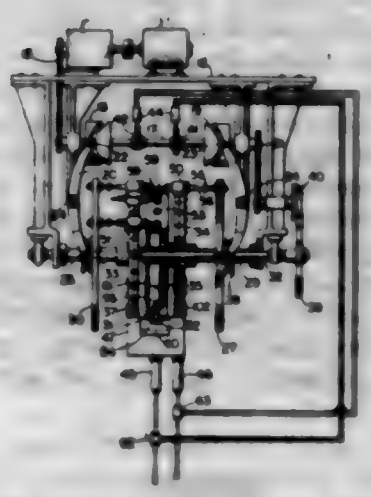
1. Apparatus for the production of a weave control transparency, said control transparency having opaque areas which define control information adapted for use by a loom, said control information being provided both with respect to a particular color of a design and with respect to a weave pattern of a fabric to be woven by said loom and in which the design is to be incorporated, said apparatus comprising a color information film which, when exposed and developed, will provide color information for said control transparency; a multi-colored drawing upon which said design appears; monochromatically responsive scanning means for scanning said drawing with respect to a particular color thereof; light modulation means for exposing said film, said light modulation means being connected for response to said scanning means; means interposed between said scanning means and said light modulation means for interrupting said response at predetermined intervals to produce a checkerboard pattern on said control film, said checkerboard pattern being modified in accordance with color information derived from said scanning means; a weave pattern film having opaque areas defining the locations of thread crossings in said fabric; a further film, and photographic exposure means for combining the information on said weave pattern film and on said color information film in superposed relationship on said further film, said further film when exposed and developed, constituting said control transparency.

2,845,097
QUILL DRIVE MECHANISM AND ELECTRICAL CONTROLS
Robert A. Christy, Park Forest, and Lee L. Levitt, Blue Island, Ill., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application August 16, 1952, Serial No. 304,814
19 Claims. (Cl. 140—3)



1. In a wire fabric weaving machine adapted to weave a wire fabric consisting of a plurality of spaced louver wires extending across the fabric and a plurality of pairs of warp wires extending lengthwise of the fabric with each pair of warp wires being twisted together between each adjacent pair of louver wires to hold the louver wires in place, the combination of means defining a channel adapted to receive the louver wires, means intermittently operable for advancing the louver wires into said channel, a plurality of spaced rotatable quills each adapted to receive a pair of the warp wires and twist them together adjacent to the louver wire disposed in said channel to provide a twist in said warp wires between each adjacent pair of louver wires, a driving motor, means drivingly connecting said louver wire advancing means with said motor, means drivingly connecting said quills and said motor and normally effective to actuate said quills to cause twisting of the pairs of warp wires in timed sequence with the intermittent operation of said louver wire advancing means, a brake for the machine, an engaging solenoid and a disengaging solenoid respectively operable for engaging and disengaging said brake, an operating circuit for said solenoids and said motor, and a control solenoid for said operating circuit and having an armature movable into a first position for completing the operating circuit for the brake disengaging solenoid and the motor and movable into a second position for completing the operating circuit for said brake engaging solenoid and simultaneously breaking the operating circuit for the motor.

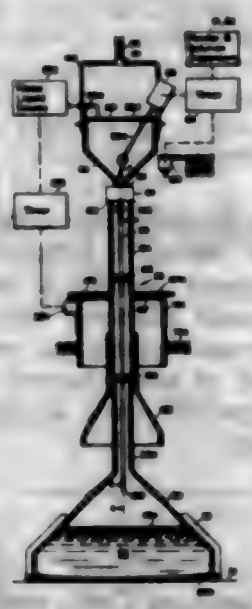
2,845,098
STEM PROCESSING MACHINE
James Christofferson, West Newbury, Mass., assignor to Columbia Broadcasting System, Inc., Danvers, Mass., a corporation of New York
Application December 19, 1952, Serial No. 326,811
3 Claims. (Cl. 140—71.5)



1. Apparatus for bending leads in electron tube button stems comprising, a supporting framework, a motor and reduction gear mounted on said framework, a cam shaft mounted on said framework and driven by said reduction gear, a main shaft mounted on said framework, a Geneva gear affixed to said main shaft to impart periodic motion thereto, a Geneva actuator for driving said Geneva gear, said Geneva actuator being driven by said cam shaft, a turret having a plurality of radially extending heads spaced about its periphery, said heads being adapted to receive said button stems, said turret being affixed to said main shaft and being rotatable therewith, a first stationary sleeve enclosing a first end portion of said main shaft, a first stationary plate mounted on said first stationary sleeve, a stationary master gear also mounted on said first stationary sleeve, a second stationary sleeve enclosing a second end portion of said main shaft, said turret being affixed to said main shaft at a central point between said first and second stationary sleeves, first and second bushings mounted on said first and second sleeves at points substantially equidistant, from said turret, first and second drive plates mounted

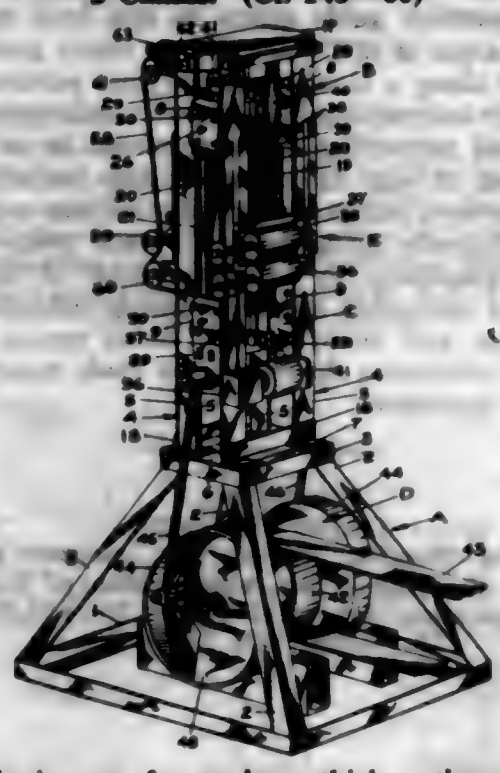
on said first and second bushings and axially movable thereon, first and second barrel cams mounted adjacent the extremities of said cam shaft, first and second arms pivotally mounted on said framework between said cam shaft and said main shaft, first and second cam followers affixed to said first arms at the ends adjacent said barrel cams, said barrel cams being grooved to carry said cam followers through periodic movements axially of said cam shaft during rotation thereof, the other ends of said first and second pivot arms being affixed to said first and second drive plates, each of said turret heads having a gear fixed thereto and meshing with said stationary master gear to provide rotation of said heads through a predetermined angle at each rotary movement of said turret, a plurality of bending tools clamped in opposing relationship about the periphery of said first and second stationary plates, said bending tools being arranged in pairs at rest positions of said turret as determined by the movement of said Geneva gear, a plurality of drive disks adjustably affixed adjacent the peripheries of said first and second drive plates, said drive disks being arranged to contact said bending tools, rotation of said barrel cam and said Geneva gear being synchronized such that at each rest period of said turret said drive plates move inwardly toward each other to actuate said bending tools and outwardly during rotational movement of said turret, said heads being rotated at each rotational movement of said turret to present a different lead of said button stems to said bending tools at each rest position of said turret.

2,845,099
SCREENING DISPENSER FOR CATHODE-RAY TUBE MANUFACTURING APPARATUS
James S. Bailey, Chicago, Ill., assignor to The Rauland Corporation, a corporation of Illinois
Application September 17, 1956, Serial No. 610,239
8 Claims. (Cl. 141—91)



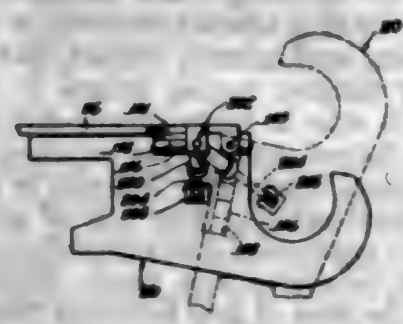
1. A luminescent-powder-slurry dispenser for use with cathode-ray tube manufacturing apparatus upon which a bulb containing a pool of settling solution is supported with its neck portion uppermost comprising: a hopper for storing said powder slurry; a conduit depending downwardly from said hopper and movable to project its lower end into said bulb to a position above the surface of said settling solution; valve means for establishing the flow of said powder slurry from said hopper through said conduit; means for opening said valve means in response to disposition of said lower end within said bulb; a source of rinse medium; and means coupled to said rinse medium source for flushing said hopper and conduit with said rinse medium, in timed relation with the opening of said valve means, while said lower end is disposed within said bulb.

2,845,100
LIGHTWEIGHT RECIPROCATING SASH GANG SAW
William R. Jalosky, Muskegon, Mich.
Application May 4, 1955, Serial No. 505,936
3 Claims. (Cl. 143—60)



2. A ripping saw for sawing a thick section of material into several thin sections comprising a base, a frame rigidly mounted on said base, a sash reciprocally mounted in said frame, said frame comprising a pair of parallel spaced guideways, said guideways each comprising a set of two parallel spaced tracks having similarly shaped surfaces facing each other, said sash comprising parallel side supports, saw blade support means rigidly mounted on the top and bottom portions of said side supports, a plurality of saw blades extending between and supported by said support means, said side supports having adjusting means located intermediate its ends for adjusting the length of said side supports thereby providing means for increasing the distance between said saw blade support means for applying a tension to said saw blades, and trolley units mounted on each of said side members, said trolley units comprising four wheels adapted to rotate about parallel axes and all on the same plane, said wheels being arranged so that for each set of tracks two of said wheels ride on the shaped surface of one track and the other two wheels ride on the shaped surface of the other tracks, and means for reciprocating said sash in a direction parallel to said guideways whereby said wheels will ride back and forth on said guideways thereby directing the path of said sash and said saw blades.

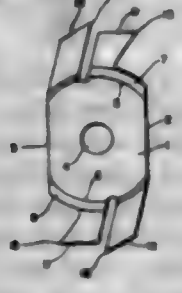
2,845,101
TIMBER SHEARING HEAD
Cyrus Earl Hoadley, Kankakee, Ill., assignor to Manco Mfg. Co., Bradley, Ill., a corporation of Illinois
Application August 31, 1955, Serial No. 531,768
9 Claims. (Cl. 144—34)



3. A cutter head for severing trees and the like comprising body means having a lateral opening for receiv-

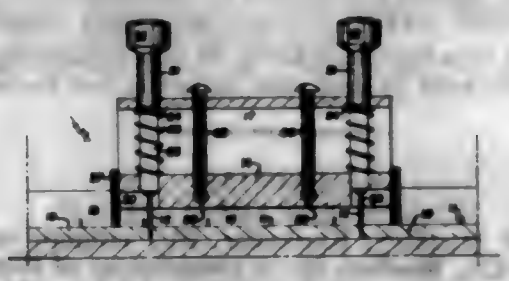
ing a tree or the like to be severed, said body means including a hook portion defining a portion of said opening and adapted to be passed around said tree, shearing blade means slidably carried by said body means for movement across said opening and toward and away from said hook portion, guide means on said body means for one side margin of said blade means, which guide means is disposed along a closed side marginal portion of said body means and substantially traverses said opening, and an elongated supporting member secured to an opposite side margin of said blade means and including a bifurcated forward end portion having sections respectively overlying opposite surfaces of said blade means and extending substantially to a forward edge of said blade means, and adjustable abutment means extending from said sections and clamping said blade means therebetween for restraining flexing of the blade means during a shearing operation.

2,845,102
DADO CUTTERS
Albert Fred Woodell, Dallas, Tex., assignor to Rotex Mfg. Co., Dallas, Tex., a corporation of Texas
Application May 3, 1957, Serial No. 656,899
12 Claims. (Cl. 144—235)



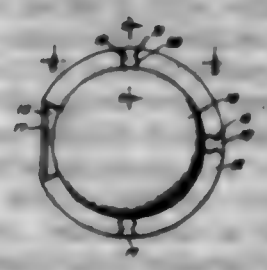
5. A dado cutter comprising a flat disk having opposed arcuate margins, a first pair of opposed teeth extending outwardly from said margins and being offset from said disk, said first pair of teeth being parallel, a second pair of teeth extending outwardly from said margins in laterally offset relation to said disk and being at a small angle to said disk, and means for mounting said disk on a saw arbor.

2,845,103
TACK STRIP NAILER
Earle K. Sypher, Denver, Colo.
Application April 23, 1956, Serial No. 580,017
3 Claims. (Cl. 145—46)



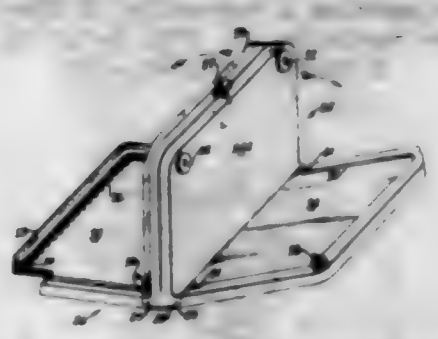
1. A nailer applicable to the installation of tack strips characterized by attaching nails perpendicularly outstanding from end-fixed relation therewith in a uniformly-spaced succession longitudinally thereof, said nailer comprising a rigid member having flanges to straddle the width of a tack strip in longitudinally-shiftable relation with portions thereof wherein the attaching nails have been seated, drivers reciprocably mounted in said member in a spacing corresponding with that of said attaching nails for aligned registration with adjacently-paired attaching nails of an associated strip, means resiliently urging said drivers to the limit of their extension from said member away from the strip, and guide means to register said drivers with the attaching nails.

2,845,104
PLASTIC CONTAINERS WITH HINGED RELATIVELY MOVABLE PARTS
Morris Frankel, Teaneck, N. J.
Application October 5, 1956, Serial No. 614,189
4 Claims. (Cl. 150—.5)



1. A plastic container of the character described, comprising two substantially similar dish-shaped parts, integral means hingedly coupling said parts, the parts having outwardly projecting flanges alined one with the other and extending the major portion of the length of the periphery of said parts and terminating in flange ends adjacent said integral means, interengaging means alined and spaced circumferentially of the flanges for detachably coupling said flanges in securing the parts in closed position one upon the other, said hinge means comprising parts disposed intermediate and in alinement with the flange ends, and a straight round hinge portion joining said hinge parts.

2,845,105
NOTEBOOK
Eleanor Nona, Wantagh, N. Y.
Application March 5, 1957, Serial No. 644,996
2 Claims. (Cl. 150—28)



1. A two-piece notebook-purse combination comprising a purse element having a substantially flat base; a double platform element secured at its median area to said base of said purse element, said double platform element having opposed platforms each having a U-shaped channel, each of said channels having a pair of cut-outs at their respective ends to facilitate insertation of a flat rigid element.

2,845,106
RESILIENT ECCENTRIC LOCK RING
Reuben C. Baker, Coalinga, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application November 30, 1953, Serial No. 395,003
1 Claim. (Cl. 151—19)

In a threaded joint: a male member having an external thread received within an internal thread of a female member; said female member having a counterbore longitudinally to one side of its internal thread and extending to an end of said female member, said counterbore having a smooth inner wall surrounding said male member, the periphery of said male member within said counterbore and outwardly thereof being smooth, said wall being slightly eccentric with respect to the smooth periphery of said male member to provide an annular space between said wall and periphery that converges arcuately in opposite directions; and an expan-

sible and contractible ring segment extending slightly more than 180 degrees and movable longitudinally into said counterbore and annular space from said end of said female member, after said external thread has been received within said internal thread, the inner surface of said segment being smooth and having a normal radius of curvature less than the radius of curvature of the smooth periphery of said male member when said segment is out of said space and unrestrained, said segment being expanded for lateral placement on the smooth periphery of said male member and location in said



annular space and contracting therein so that the inner surface of said segment conforms to and grips the smooth periphery of said male member, the outer surface of said segment being smooth and conforming to the curvature of said counterbore wall when said segment is in said annular space, the inner and outer surfaces of said segment converging arcuately toward each other in opposite directions in conformance with the convergence of said annular space to be wedged between said wall and periphery of said male member and prevent relative arcuate motion between said members in both directions.

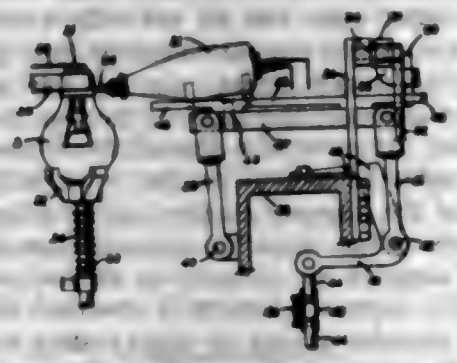
2,845,187

LAMP BASING APPARATUS

Charles E. Beck, East Cleveland, Ohio, assignor to General Electric Company, a corporation of New York; patent dedicated to the Public insofar as it relates to lamps and lamp parts to the extent stated in document recorded in the United States Patent Office, January 4, 1954, Liber U–238, page 394

Original application December 26, 1951, Serial No. 263,438. Divided and this application December 22, 1953, Serial No. 399,742

1 Claim. (Cl. 153—1)



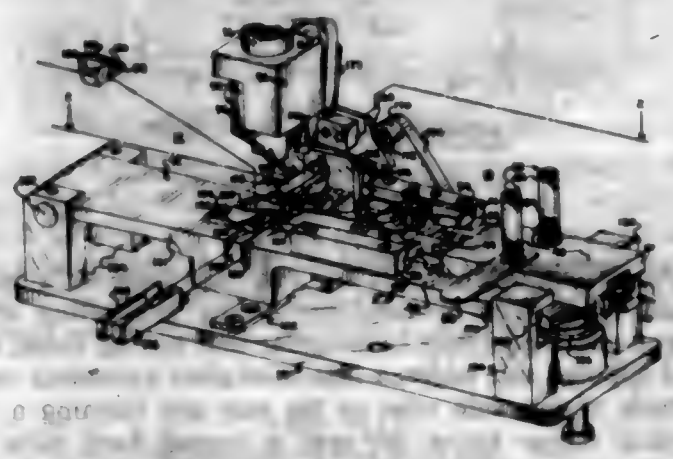
Lamp manufacturing apparatus comprising means for holding at a peening station a glass bulb with a base fitted thereon and a lead-in wire wedged between said bulb and base and extending longitudinally therebetween and with the bulb and base oriented to present said lead-in wire at a predetermined angular position in said holding means, a vibrator mounted at said station in a position to be located in apposition to the side of said base in which said lead wire is wedged, a peening tool fastened to said vibrator, means for first advancing said vibrator toward said holding means to cause said tool to engage the side of the base of a lamp presented at said station, and means for then moving said vibrator transversely of said holding means to carry said tool around a portion of the circumference of said base and across said lead-in wire, and means for actuating in proper time relation said means for advancing the vibrator and said means for moving the vibrator.

2,845,108

ELECTRICAL TERMINAL APPLICATOR

Kemper M. Hammell, Harrisburg, Pa., and Karlis Duka, deceased, late of Harrisburg, Pa., by Mrs. Karlis Duka, administratrix, Harrisburg, Pa.; said Hammell assignor to AMP Incorporated, a corporation of New Jersey

Application June 13, 1955, Serial No. 521,966
(Filed under Rule 47(a) and 35 U. S. C. 116)
10 Claims. (Cl. 153—1)



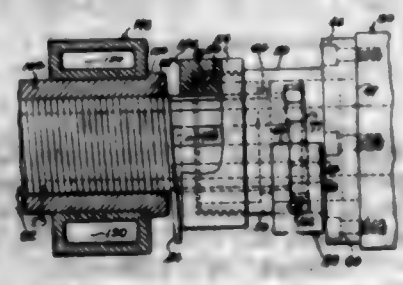
1. An applicator mechanism for applying to a conductor a connector having a ferrule-forming ear comprising an anvil resiliently mounted on the press bed of said mechanism and having a die face for supporting the connector in crimping position, guiding means in said die face, a ram movable toward and away from said bar, a crimping die on said ram for cooperation with said die face on movement of said ram toward said bar to curl the ear to form a ferrule, said guiding means being positioned to deflect the ear end across the bottom of the ferrule, the resilient mounting for said anvil being sufficiently stiff to maintain said die face in fixed position during ferrule formation, an indentor fixed relative to the press bed and relatively slidable in a channel in said anvil for indenting the ferrule bottom, and means coupled to said ram for depressing said anvil after ferrule formation to cause said indentor relatively to slide in said channel.

2,845,169

MACHINE FOR FORMING HELICALLY-WOUND LAMINATED TUBES

Ervin J. Schneider, Detroit, Mich.

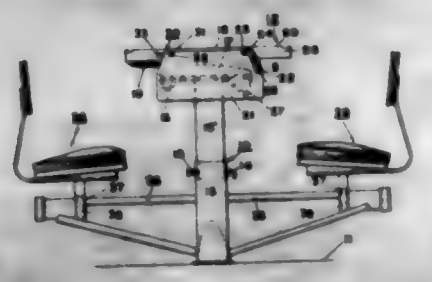
Application December 31, 1954, Serial No. 479,192
7 Claims. (Cl. 154—1.3)



1. A machine for making a helically-wound laminated tube from an elongated continuous flexible strip, comprising a frame, a shaft including a strip-winding mandrel rotatably mounted in said frame and disposed in tangential winding relationship with said strip, a hollow member having a strip-confining bore disposed in radially-disposed co-axial encircling relationship with said mandrel, means for rotating said mandrel to wind said strip helically

thereon, means comprising axially-movable pusher elements disposed circumferentially around said mandrel for pushing the wound convolutions of said strip axially along said mandrel into said bore into side-to-side engagement with one another, and means for supplying heat to said bore, and means for advancing said pusher elements axially along said mandrel.

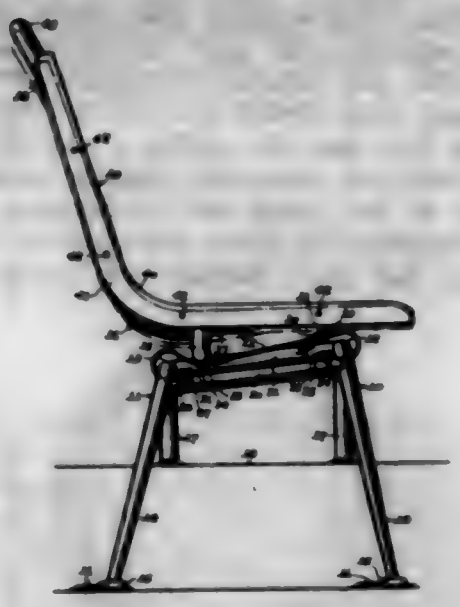
2,845,110
CONVERTIBLE TABLE-BENCH ASSEMBLY
Milton Birch Grawl, Glen Mills, Pa.
Application February 9, 1956, Serial No. 564,593
1 Claim. (Cl. 155—43)
(Granted under Title 35, U. S. Code (1952), sec. 266)



An article of furniture for use as a table or a bench which comprises a stanchion fixedly supporting at its upper end a generally rectangular seat having front, rear and opposed side edges, a first fixed plate extending transversely of one side edge of the seat and forming a first vertical flange above the seat, a second fixed plate extending transversely of the other side edge of the seat and forming a second vertical flange above the seat, each of said flanges providing a front vertical edge portion adjacent the front edge of the seat and a rear vertical edge portion adjacent and beyond the rear edge of the seat, a slot in each of said rear vertical edge portions, each slot being generally vertical and terminating in an upper generally horizontal locking area, a rectangular table top having front, rear and opposed side edges, said opposed side edges of the table top being spaced apart to be received between and in closely adjacent relation with said flanges, each of said opposed side edges of the table top having a lug extending laterally therefrom, one of said lugs being received in one of said slots and the other lug being received in the other of said slots when the article of furniture is assembled, said lugs being movable into the upper locking area of the slots to position the table top in horizontal position with its lower face in closely adjacent relation with the upper face of the seat and said lugs being movable downwardly of the slots when the table top is tilted from its horizontal position to provide a back rest for the seat, abutment means on the lower face of the seat and adjacent its rear edge to maintain the table top in its tilted position and said stanchion being adjustable upwardly or downwardly to accommodate the article of furniture for use as a table or as a bench.

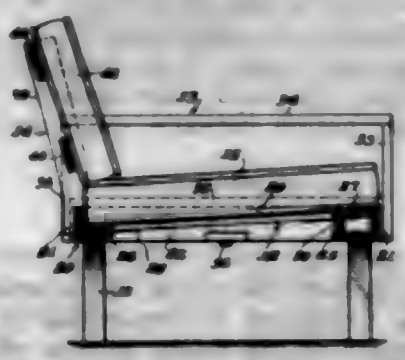
2,845,111
VEHICLE CHAIR
Chester J. Barecki and Bror W. Henrikson, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application March 25, 1957, Serial No. 648,351
7 Claims. (Cl. 155—53)

7. In a chair structure: a base providing parallel front and rear supports; a pair of laterally spaced springs comprising metal straps connected at the front and rear to said supports respectively, said springs extending rearwardly, then upwardly and then forwardly from the rear support; and a rigidly connected chair seat and back mounted on said springs for floating movement, the seat having mountings on the forward portions of the springs adjacent said front support and having independent mountings on the rearward portions of the springs substantially forwardly of said springs' rearwardmost parts



whereby the rear part of the rigidly connected seat and back floats more freely than the front part thereof.

2,845,112
CONVERTIBLE FURNITURE
Martin Borsuztein, Berkeley, Calif.
Application January 10, 1957, Serial No. 633,440
3 Claims. (Cl. 155—112)



1. Convertible furniture comprising a rectangular frame having supporting legs thereon and formed with side, front and back members, an arm rest on a side member, said arm rest having depending portions nesting with complementary portions on the side member with means for securing the arm rest and the side member releasably together, the front and back members each having an upper edge and an inwardly extending ledge thereon, a removable support element resting within the frame and upon the ledges, one of the ledges being wider than the other, the support element having a depending cleat adjacent but spaced from one edge, the cleat being adapted to seat on the wider ledge, and the other side of the support element being adapted to seat on the narrow ledge when the support element is in one position to support the element in an inclined position, but when the support element is reversed the edges of the support element having its edges resting on the ledges to support the support element in a flat position.

2,845,113
STUDY BOARD ATTACHMENT FOR ARM CHAIRS
James H. Keel, Lenoir, N. C.
Application March 6, 1956, Serial No. 569,764
3 Claims. (Cl. 155—123)

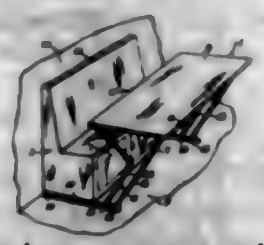
1. The combination with a hollow chair arm having a broad top, said top having a longitudinally extending slot therethrough, of a movable board normally housed in vertical position within said hollow arm and of such size as to pass freely through said slot, means at the upper end of said board for limiting its downward movement, and a

vertically disposed pivot pin hingedly connected with the other end of said board and of a diameter slightly smaller than the width of said slot, whereby when said board is



lifted out of said slot, said pin enters the slot, and stop means at the lower end of said pin for preventing it from passing out through said slot and for thus limiting the upward movement of said board.

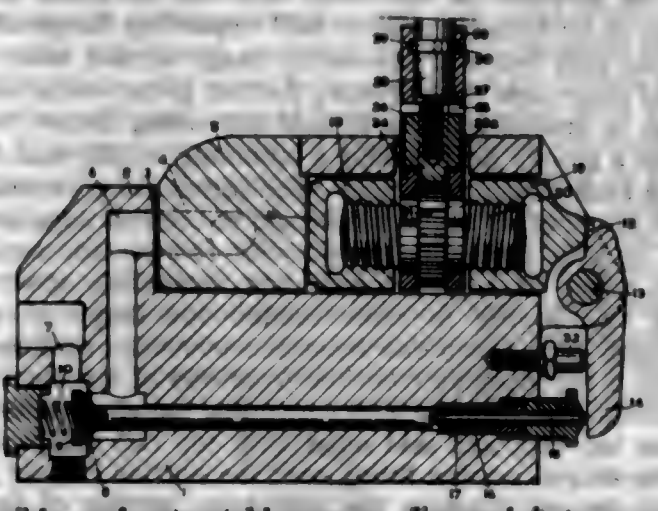
2,845,114
COMBINATION SEAT AND TABLE
Lawrence K. Edwards, Glendale, Mo.
Application January 13, 1954, Serial No. 403,682
16 Claims. (Cl. 155—124)



12. In combination, a seat, a table top, and means for mounting the top for swinging movement between a retracted position above the seat and a forward position wherein it is located outward away from the seat comprising a rigid U-shaped frame, one portion of said U-shaped frame extending horizontally lengthwise under the table top and supporting the top and having a pivotal connection with the top, the frame being pivotally mounted with respect to the seat for swinging movement on a horizontal axis adjacent the floor and parallel to the seat, said U-shaped frame restraining said top against movement in all degrees of freedom except tilting on the axis of said pivotal connection and movement with said frame toward and away from the seat, supporting and stabilizing means for the top constituted by at least one rear leg having a pivotal connection with the top spaced from the said one portion of the U-shaped frame for restraining the tilting of the top to maintain the top substantially horizontal, and a stop on one of the frame and seat elements engageable by said supporting and stabilizing means for limiting the outward swing of the top whereby said U-shaped frame and said supporting and stabilizing means act as the sole support for the top in the forward position of the top.

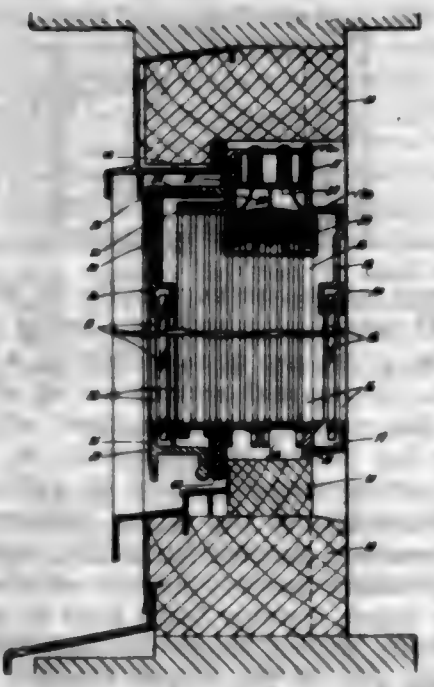
2,845,115
MAZOUT BURNERS
Madeleine Paulin, Marseille, France
Application May 10, 1955, Serial No. 507,210
Claims priority, application France May 14, 1954
4 Claims. (Cl. 158—73)

1. In a burner assembly for liquid fuel, a burner, a mounting block having a shoulder to form a seat and a seating surface on said shoulder, said block including a passage for liquid fuel opening at the seating surface of the shoulder, and the burner including a fuel inlet opening at its surface seating against the shoulder and corresponding in position to the passage therein, a spring-loaded fuel control valve disposed in the fuel supply passage and biassed into closed position, an operating member for said valve movably mounted on the block in spaced relationship with respect to the burner at the side thereof remote from the seating surface, and an



extensible and retractable means disposed between the burner and the valve operating member so as, when extended, to abut against said burner to force said burner against said seating surface and abut against said operating member, to transmit the force of the extensible and retractable means to the valve to open said valve.

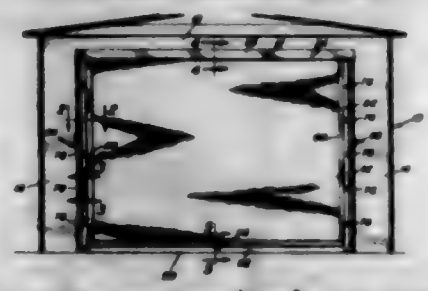
2,845,116
WINDOW STRUCTURE
Eric Sigfrid Persson, Malmo, Sweden
Application March 3, 1955, Serial No. 491,909
Claims priority, application Sweden March 23, 1948
1 Claim. (Cl. 160—34)



In a window structure for closing a window opening in the wall of a building for admission of light and air, comprising a rectangular frame to be mounted with two of its sides in vertical position and with its two other sides as bottom and top, respectively, of said frame, and a double sash composed of an inner sash mounted for swinging movement in said frame from shut position therein through an angle of about 180° about a horizontal median axis, and an outer sash mounted on said inner sash for swinging movement therewith and in relation thereto, the combination comprising each of said inner and outer sashes being composed of a one-piece metal bar bent to U-shaped formation with rounded corners between its bottom portion and integral legs forming bottom and vertical sides, respectively, of the respective sash, and a straight sash top rail extending between the free ends of said legs and forming right angles with them and being detachably secured at its ends to said

ends of said legs, each of said legs of said U-formation of said inner sash being pivoted intermediate its ends to one of the vertical sides of said frame, said detachable sash top rail having a depending flange for hiding a blind to be mounted on said inner sash top rail inside thereof and to be housed between said depending flange of said inner sash and said depending flange of said outer sash, said inner sash top rail being formed in the inside thereof and in spaced relation to said depending flange thereon with a groove for receiving a mounting bar for said blind, and each of said inner and outer sashes being provided in the inside of its U-formation and in the free edge portion of its said depending flange with recesses for receiving the edges of a glass pane, said detachable inner sash top rail having in cross section the shape of a hat section with crown and front and rear brim portions and with a veil hanging from the front end of the front brim portion and forming said depending flange of said inner sash top rail, and said outer sash top rail comprising a strip-shaped portion fitting over the portion of said inner sash top rail forming the rear brim portion of the hat section, a flange projecting upwards from one longitudinal edge of said strip portion for contact with the portion of said inner sash top rail forming the rear side of the crown of the hat section, and said depending flange of said outer sash top rail being provided on said strip-shaped portion adjacent the other longitudinal edge thereof.

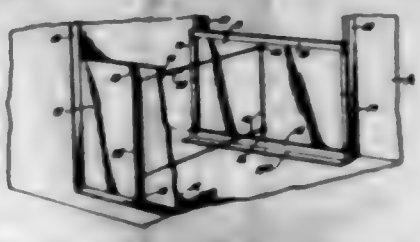
2,845,117
ROLLAWAY SCREEN
David A. Barry, Joliet, Ill.
Application June 13, 1955, Serial No. 514,984
1 Claim. (Cl. 160—269)



A rollaway screen construction for an opening between vertical side members comprising a spring tensioned horizontal roller at the top of said opening, a flexible screen member for closing said opening having side edges adjacent said side members and an upper edge attached to said roller for rolling of said screen on said roller to raise said screen member, pairs of vertical angle bars at each side edge of the screen member at opposite sides of the screen member for guiding said screen member during raising thereof, the bars of the pairs at one side of the screen member being fixed to said side members, vertically spaced blocks on each side member at the opposite side of the screen member, rotary crank handle shafts journaled in said blocks and on which the other angle bars of the pairs are slidable laterally for clamping the side edges of said screen member between the angle bars of the pairs, and cams on said shafts rotatable thereby against said other angle bars for sliding the latter laterally, said other angle bars having transverse slots therein through which said shafts extend and which slidably guide said other angle bars.

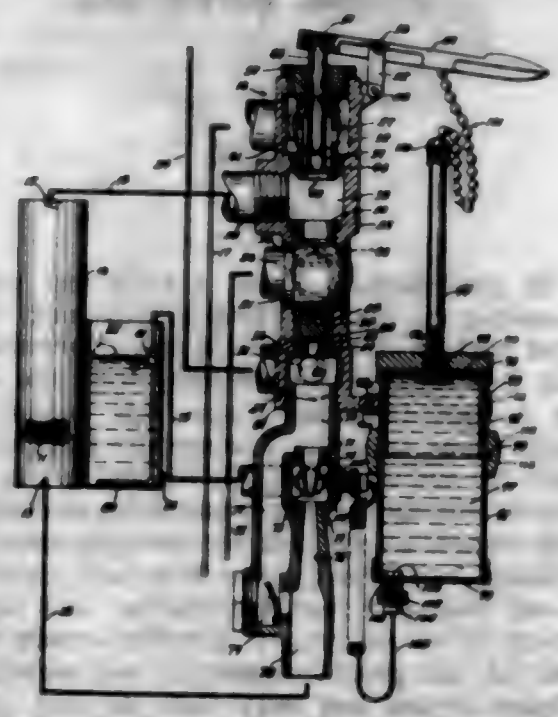
2,845,118
CAR CLOSURES
Barton H. Ford, Omaha, Nebr., assignor, by mesne assignments, to Ford Grain Door Company, Omaha, Nebr., a corporation of Nebraska
Application August 29, 1956, Serial No. 606,928
4 Claims. (Cl. 160—368)

1. In a car having a pair of oppositely-disposed door openings equipped with door frames, temporary door closures secured to said frames across said openings and comprising flexible sheet members, a brace bar at the outer side of each sheet and accessible from within the car, each said bar having a plurality of vertically-spaced lugs extending through said sheet and having inner por-



tions provided with apertures for receiving a tie member, said lugs being in the form of flat piercing webs extending longitudinally of the bar to form a narrow, vertical slit within the sheet door, said lugs being spaced from the edges of the bar, and tie member means engaging the lugs of said oppositely-disposed bars.

2,845,119
HYDRAULIC TIMER
Frederick D. Gageler, Loveland, Ill., assignor to Aquamatic Inc., a corporation of Illinois
Application May 7, 1953, Serial No. 353,654
3 Claims. (Cl. 161—1)



1. An hydraulic timer comprising an elongated cylindrical housing having a length much greater than the diameter thereof, a flexible cup shaped diaphragm attached to said housing intermediate the ends thereof, a top wall attached to the upper end of said housing and defining an air chamber therein between said top wall and said diaphragm, said top wall having an opening therein communicating the air chamber with the atmosphere, said diaphragm having a cylindrical wall shaped and dimensioned when undistended to extend from the point of attachment of said diaphragm upwardly into said air chamber in substantial conformity with the cylindrical housing, an integral flexible top wall on said diaphragm shaped and dimensioned to substantially conform to said top wall when said diaphragm is undistended, a bottom wall attached to said housing and defining a liquid chamber therein between said bottom wall and said diaphragm, passage means having a high liquid flow impedance communicating with the liquid chamber through the bottom wall, means communicating with said passage means for selectively passing liquid under pressure through the passage means into said liquid chamber and for withdrawing liquid through said passage means from said liquid chamber whereby air under atmospheric pressure in the air chamber forces the diaphragm downwardly

in said housing, and means attached to the top wall of the diaphragm and extending loosely through said opening in the top wall of the housing providing a lost motion connection between said diaphragm to the device to be operated thereby.

2,845,120

PARKING TIME REGISTER

Jean Drouet l'Hermine, Paris, France, assignor to Etablissements Pylot, Vaduz, Liechtenstein, a corporation of Liechtenstein

Application August 15, 1955, Serial No. 528,452
Claims priority, application France September 1, 1954
5 Claims. (Cl. 161—15)



1. In a parking time register in combination, time measuring means, manually operable stop means operatively connected to the time measuring means and movable between an operative position in which said stop means stops operation of the time measuring means and an inoperative position in which the stop means permits operation of the time measuring means, visual means associated with the stop means and moved by said stop means to a first position when the stop means moves to said operative position and to a second position when the stop means moves to said inoperative position, whereby operation and non-operation of the time measuring means may be visually ascertained, locking means operatively connected to the time measuring means for automatically stopping the time measuring means from operating at the end of a predetermined period of measured time, a delayed action mechanism operatively connected to the stop means said stop means operatively connecting the delayed action mechanism with the time measuring means in said operative position, whereby the delayed action mechanism is driven by the time measuring means, and said delayed action mechanism being disconnectable from the time measuring means in said inoperative position, means for automatically disconnecting the delayed action mechanism from the time measuring means when said time measuring means has operated for a fraction of said predetermined period of measured time after the stop means has been brought to said inoperative position, movable responsive means operatively connected to the delayed action mechanism and said delayed action mechanism moves the responsive means from a first position to a second position when the delayed action mechanism is disconnected from the time measuring means.

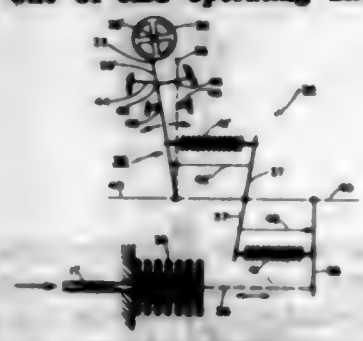
2,845,121

BALANCE STARTER MECHANISM

Leland K. Spink and Claude D. Young, Foxboro, Mass., assignors to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts

Application August 26, 1955, Serial No. 530,715
1 Claim. (Cl. 161—15)

For use in an intermittently operated flow and recorder system wherein an intermitter concurrently operates a flow valve and the movement of a recording chart under a predetermined independent programming arrangement, a recording chart movement system comprising, in combination, a clock mechanism for producing said chart movement, and means for starting and stopping said clock mechanism, said means comprising a snap lever arrangement for stopping and starting the balance wheel of said clock mechanism, and a pneumatic arrangement for operating said snap lever arrangement in response to a predetermined pneumatic signal from said intermitter, said pneumatic arrangement comprising a bellows for receiving said predetermined signal and for producing a movement in response thereto, and said snap lever arrangement comprising a central pivot, an operating arm movable about said pivot in to and out of peripheral engagement with said balance wheel to stop and start said clock, a spring in the form of a wide, shallow V-mounted transversely of said operating arm, a pin mounted on said operating arm for sliding engagement with the central portion of the convex side of said V-spring, an intermediate arm movable about said pivot relative to said operating arm, a coil spring connection between said intermediate arm and said operating arm to oppose the pivotal separation of said operating and intermediate arms, a rigid bar secured to one of said operating and intermediate



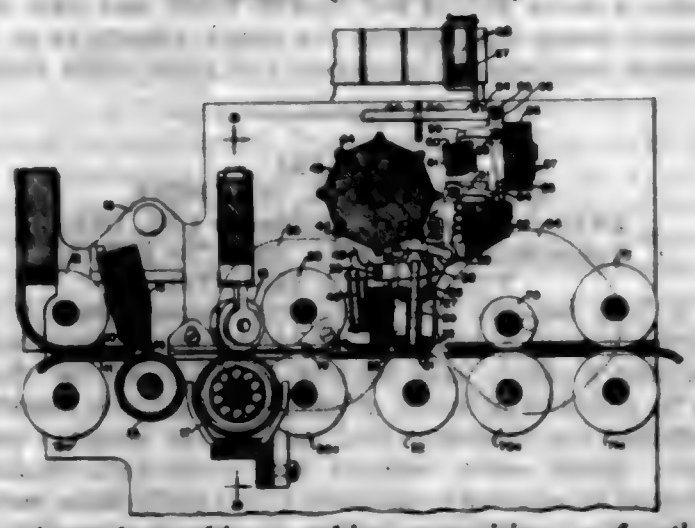
arms and arranged to engage the other of said operating and intermediate arms to oppose pivotal movement of said operating and intermediate arms toward each other beyond a minimum defined by the length of said rigid bar, an actuating arm movable about said pivot relative to said intermediate arm, coil spring and rigid bar connections between said actuating arm and said intermediate arm in like but opposite fashion with respect to said coil spring and rigid bar arrangement between said operating arm and said intermediate arm in relation to the overall pivotal movement of said snap lever arrangement, and means for transferring said bellows movement to said actuating arm whereby said pneumatic signal in one direction causes separation of said intermediate arm and said actuating arm against the bias of said coil spring therebetween until said bias is strong enough to move the whole of said snap lever arrangement by forcing said operating arm pin past the apex of said transverse spring.

2,845,122

HIGH SPEED PUNCH

Clair D. Lake, Binghamton, and Wesley Pfaff, Endicott, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

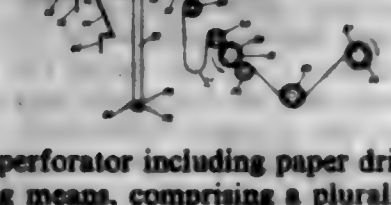
Application December 24, 1954, Serial No. 477,456
16 Claims. (Cl. 164—113)



1. A card punching machine comprising, perforating means having a first movement in unison with moving

cards to be perforated and a second movement between perforating and non-perforating positions, actuating means rotatably moving in timed relation to said first movement of said perforating means and including plural successively presented actuators each effective upon selection mechanically to drive said perforating means in at least one direction between said perforating and non-perforating positions thereof, and means for selectably interconnecting said actuators and said perforating means to effect selectable cycles of perforation operation.

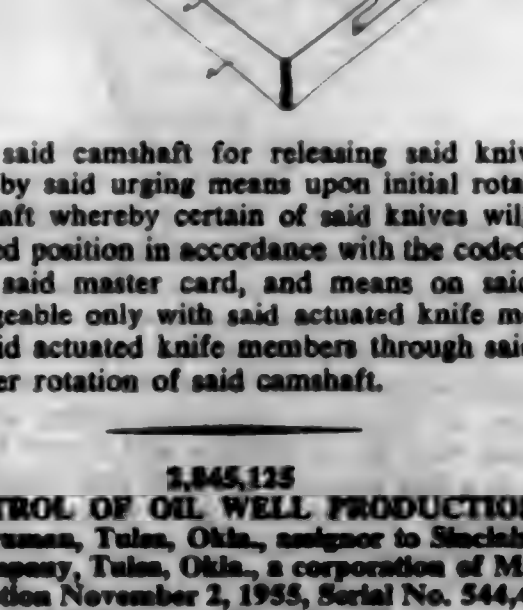
2,845,123
PERFORATOR DEVICE
Blackwell K. Murchison, deceased, late of Brooklyn, by Bessie F. Murchison, executrix, Brooklyn, N. Y.
Application January 17, 1955, Serial No. 482,042
2 Claims. (Cl. 164—113)



1. A paper perforator including paper drive means and paper punching means, comprising a plurality of electromagnets which are individually energizable upon receipt of successive electrical pulses, a paper drive roller operative to move a paper past the paper punching means, said punching means including a plurality of punch rods longitudinally movable into and out of engagement with said paper, a pair of perforated plates supporting the paper between them for engagement with said punch rods, said rods being movable by coacting arms, a continuously rotating friction drum, links between said arms and said friction drum, bell cranks connected to said electromagnets and actuated thereby, pull rods interconnecting said bell cranks and said links, whereby the bell cranks are actuated to pull the pull rods and to bring the links into engagement with said friction drum, thereby causing the links to actuate the coacting arms and to thrust the punch rods into punching engagement with the paper to effect punching of the paper, a paper take-up roller, a motor driving said take-up roller, and slack loop control means for stopping the motor responsive to the relative positions of the take-up and paper drive rollers.

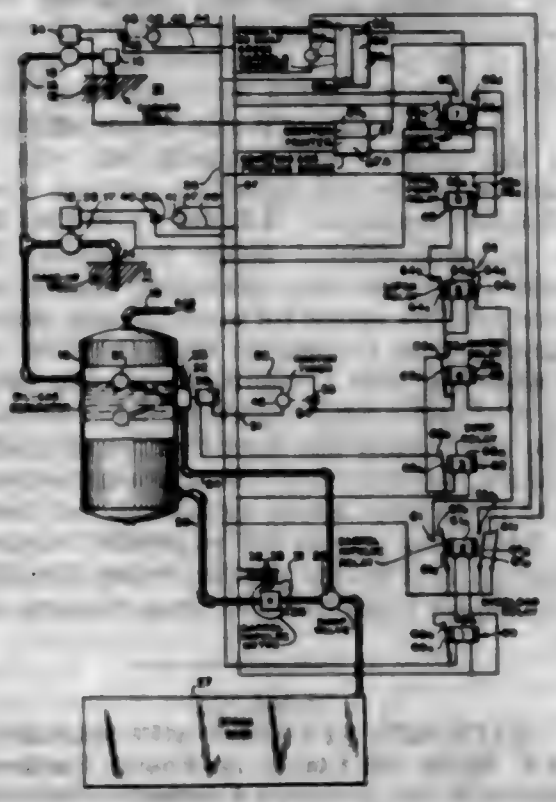
2,845,124
SHEET CODING MACHINE
Edward L. Kulhavy, Oklahoma City, Okla.
Application July 5, 1955, Serial No. 519,733
3 Claims. (Cl. 164—114)

1. In a machine for code-cutting paper sheets in accordance with a perforation coded master card, means forming a slot in said machine for receiving the sheets to be coded, a plurality of sheet cutting knife members shiftable independently into and out of actuated positions, feeler means integral with each knife member adapted to sense the presence of a card perforation, means forming a second slot in said machine for receiving a coded master card with the coding perforation of the coded card in longitudinal alignment with said knife member feeler means whereby said feeler means may enter the master card coding perforations to select which knife members may be moved into actuated positions, means independently urging each of said knife members into actuated position, a camshaft extending transversely of and rotatably mounted in said machine, said shaft normally retaining said knives in their non-actuated positions,



means on said camshaft for releasing said knives for movement by said urging means upon initial rotation of said camshaft whereby certain of said knives will move into actuated position in accordance with the coded designation on said master card, and means on said camshaft engageable only with said actuated knife members to force said actuated knife members through said sheet upon further rotation of said camshaft.

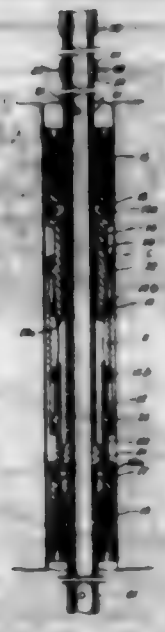
2,845,125
CONTROL OF OIL WELL PRODUCTION
Paul W. Truman, Tulsa, Okla., assignor to Sinclair Oil & Gas Company, Tulsa, Okla., a corporation of Maine
Application November 2, 1955, Serial No. 544,431
4 Claims. (Cl. 166—52)



1. An apparatus for controlling oil production from a plurality of oil wells which comprises conduit means connected to receive the oil output of each of said wells, timer means for controlling oil flow from said wells to said conduit means whereby oil flow is scheduled from different wells in a sequence of at least two successive operating periods, means for adjusting oil flow at a predetermined rate from each of said wells except the wells scheduled to flow in the last period of the sequence, counting means connected to said conduit means for counting the oil flow therethrough, and means operatively

responsive to said counting means connected to terminate oil flow to said conduit means from the wells scheduled to flow in the last operating period of the sequence at a predetermined total oil flow through said conduit means during said sequence.

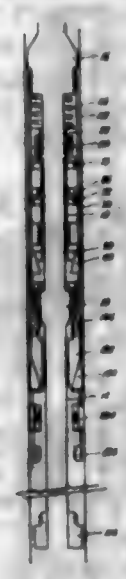
2,845,126
WELL PACKERS
Cicero C. Brown, Houston, Tex.
Application October 3, 1952, Serial No. 312,938
11 Claims. (Cl. 166—119)



1. In a well packer having pipe gripping slips, a slip expander for moving said slips into pipe gripping contact with a well pipe, and a well tubing extending through said slip expander, the improvement residing in a cam expansible means carried by said slip expander for longitudinal movement therewith, a cam means on said tubing adapted to contact said cam expansible means to prevent relative longitudinal movement between said slip expander and said tubing, and a cam on said cam means and a cam surface on said cam expansible means engageable with each other for expanding said cam expansible means radially outwardly upon a rotation of said cam means relative to said cam expansible means to effect a release of the contact of said cam expansible means and said cam means to permit longitudinal movement of said tubing with respect to said expander.

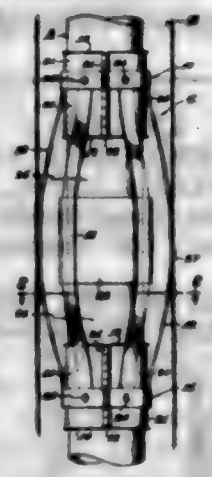
2,845,127
WELL PACKER
Neil T. Brown, Houston, Tex.
Application July 31, 1953, Serial No. 371,461
6 Claims. (Cl. 166—134)

1. A retrievable well packer comprising a tubular mandrel adapted to be connected to an operating string, an expansible packer element around the mandrel, a lower anchoring assembly around the mandrel beneath and positioned for engagement with said element, and including means positioned for frictional engagement with a surrounding well casing to resist movement of the lower assembly in the casing, and means engageable with the packer element and movable into gripping engagement with the casing upon downward movement of the mandrel relative to the lower assembly and thereafter out of such gripping engagement upon upward movement of the mandrel relative to the lower assembly, an upper anchoring assembly around the mandrel above and positioned for engagement with said element and including a slip expander movable longitudinally relative to the mandrel, slips carried by the upper assembly and engageable with said expander upon downward movement of the expander relative to the slips to expand the slips into gripping engagement with the casing to anchor the upper assembly in the casing, means movable with the mandrel and engageable with said expander to urge the slips toward casing-engaging position upon downward move-



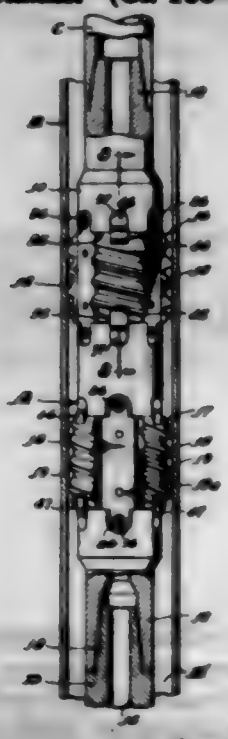
ment of the mandrel relative to the upper assembly, fluid pressure actuated means for applying a downward force to said expander and means on the mandrel positioned for engagement with the expander upon upward movement of the mandrel relative to the upper assembly to move the slips out of such gripping engagement.

2,845,128
CASING CENTRALIZER AND WALL SCRATCHER
Earnest H. Clark, Jr., Downey, and Thomas J. Carter, San Marino, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application April 26, 1954, Serial No. 425,642
9 Claims. (Cl. 166—173)



1. In apparatus adapted to be mounted on well conduits: a supporting member having a generally cylindrical portion to fit on a well conduit and a lateral outwardly disposed circumferential channel-shaped portion comprising longitudinally spaced flanges separated by a web integral therewith which is substantially parallel to said cylindrical portion, one of said flanges being integral with said cylindrical portion and having circumferentially spaced openings; circumferentially spaced spring members disposed around said supporting member and having end portions overlying the exterior of said cylindrical portion and extending through said openings into said channel shaped portion, said end portions terminating within said channel shaped portion and adjacent the other of said flanges and engaging the inner surface of said web; and means for securing said spring members to said channel shaped portion.

2,845,129
CASING SCRAPER
John R. Baker, Pasadena, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application September 26, 1955, Serial No. 536,486
10 Claims. (Cl. 166—173)



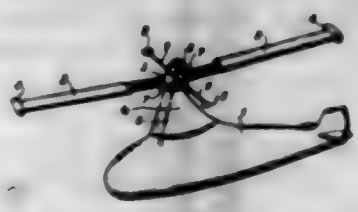
1. In a casing scraper: a main body attachable to a drill string and having a groove therein; a scraper blade in said groove shiftable laterally therein and adapted to extend outwardly of said body, said blade having side margins; and at least one leaf spring in said groove substantially coextensive in length with said blade, said spring having a central portion engaging the base of said groove and side margins engaging the side margins of said blade, said central portion being free from engagement with said blade and said side margins of said spring being free from engagement with said base of said groove, whereby said blade is urged outwardly of said body; and means for limiting lateral outward movement of said blade in said groove.

2,845,130
APPARATUS FOR BRIDGING AND CEMENTING WELL CASING
Benjamin Lewis Austin, Long Beach, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application August 19, 1952, Serial No. 305,137
16 Claims. (Cl. 166—187)



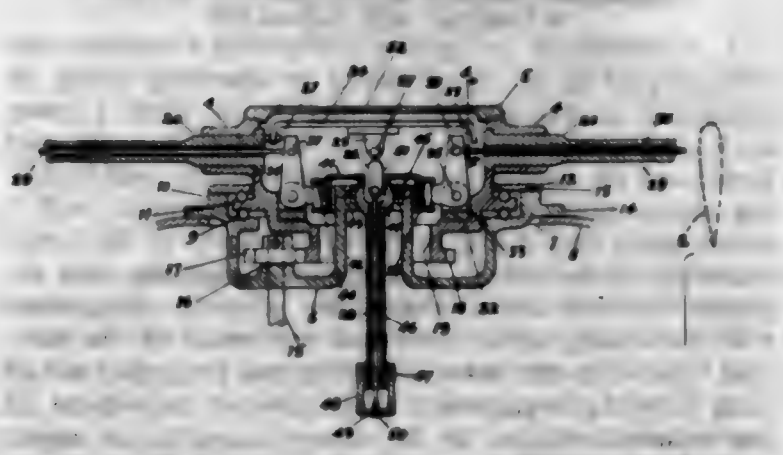
1. In apparatus of the character described: tubular means adapted to form part of a conduit string positionable in a well bore; an inflatable packing structure on said tubular means; said tubular means having an annular chamber therein communicable with the interior of said packing structure; means in said chamber responsive to fluid under pressure in said tubular means for forcing an inflating fluid in said chamber into said structure to inflate the same; means providing fluid communication between the interior of said tubular means and said means in said chamber; said tubular means having a port to one side of said structure through which fluid can pass between the interior and exterior of said tubular means; and valve means movable along said tubular means to control passage of fluid through said port.

2,845,131
ROTOR ARRANGEMENT FOR ROTARY WING AIRCRAFT
Theodor Laufer, Neuilly-sur-Seine, France, assignor to Societe Nationale de Constructions Aeronautiques du Sud-Ouest, Paris, France, a company of France
Application June 7, 1954, Serial No. 434,925
Claims priority, application France June 11, 1953
10 Claims. (Cl. 170—160.13)



1. A rotor arrangement for a rotary wing aircraft having mean and cyclic pitch control means comprising, in combination, two diametrically opposed suitably driven blades, a balancer extending in a diametral plane substantially at right angles to the aligned longitudinal axes of said blades, an attachment system to secure said blades to said balancer for pitch adjustment about said longitudinal axes and for free flapping each about an axis at right angles to said longitudinal axis, means including a swivel joint to pivot said balancer on said aircraft, said attachment system including means to exert, between said balancer and each blade, a returning torque urging both said balancer and said blades towards a relative position corresponding to a well-defined nominal pitch of said blades with respect to the plane of rotation of said balancer and means to operatively connect said blades directly with said pitch control means.

2,845,132
CONTROLLING APPARATUS FOR HELICOPTER VANES AND BLADES
Harry W. Hochgraf, Massapequa, N. Y.
Application June 14, 1955, Serial No. 515,353
8 Claims. (Cl. 170—160.25)



1. Controlling mechanism for a helicopter having a body, a housing affixed to the body, a rotor mounted on the housing, means in the housing for turning the rotor, radial blades carried by the rotor, vanes pivotally supported on the blades perpendicular to the plane of revolu-

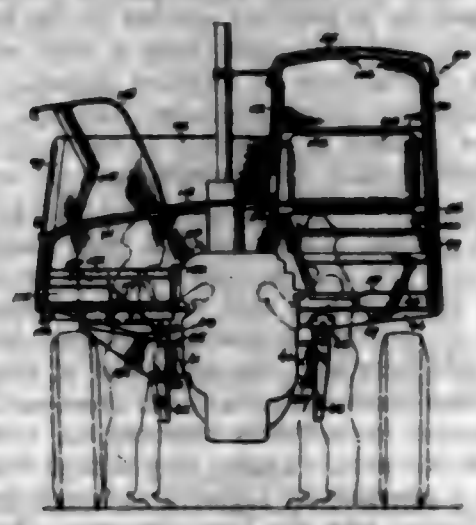
tion, a circular tiltable head having a track around its outer circumference, within the rotor and carried by the housing, means exterior to the housing affixed to said head for adjusting the head at a desired angle and means comprising members connected to the vanes and engaged by said track for periodically swinging said vanes to propel the helicopter in flight, said blades having trunnions at their inner ends, the rotor having bearings for said trunnions, a stud on each trunnion, a member engaging said studs at its ends, and a rod joined to said member and projecting out of the housing, said rod being movable lengthwise to set the blades at a desired angle to lift and support the helicopter, said means affixed to said head enveloping the last-named rod.

2,845,133

CAB-BESIDE-ENGINE VEHICLE

Robert C. Nemir and Gideon Kramer, Seattle, Wash., assignors, by mesne assignments, to Pacific Car and Foundry Company, a corporation of Washington

Application June 14, 1954, Serial No. 436,569
16 Claims. (Cl. 180—69)



9. In an automotive vehicle, in combination: a main frame providing transversely spaced longitudinally extending principals located one at one side and the other at the other side of the longitudinal median line of the vehicle, an engine supported from the main frame so as to occupy a position between said principals, an outrigger frame deriving its support from the main frame and extending laterally from said main frame, a driver's cab sustained by said outrigger frame so as to occupy a position alongside the engine, and a housing for the engine, the driver's cab extending well above the engine housing and having windows at the front and at both sides of the portion thereof which projects above the engine housing, said outrigger frame comprising members at each end secured to and projecting laterally from the main frame together with a longitudinal member extending as a stringer between said end members, said longitudinal stringer, the two end members, and the adjacent longitudinal principal of the main frame defining an opening the plan dimensions of which are sufficient to permit a person servicing the engine to stand erect therein.

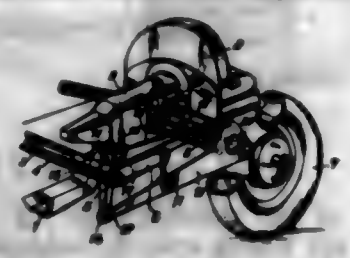
2,845,134

INDIVIDUAL WHEEL SUSPENSION FOR THE DRIVING WHEELS OF AUTOMOTIVE VEHICLES

Franz Xaver Reimspieß, Stuttgart, Germany, assignor to Dr. Ing. h. c. F. Porsche K.-G., Stuttgart, Zuffenhausen, Germany

Application May 14, 1953, Serial No. 354,991
Claims priority, application Germany May 28, 1952
6 Claims. (Cl. 180—73)

1. In an individual wheel suspension for the driving wheels of motor vehicles in which the motor vehicle includes a body and a pair of driving wheels mounted opposite each other, a rocking brace for each driving wheel extending longitudinally of the vehicle, an individual axle on which said wheel is mounted, one end of said rocking brace being connected with said axle adjacent to said wheel and movable with the wheel relative to the body of the vehicle, a lever pivoted intermediate its ends to the body of the vehicle adjacent the other end of the rocking brace thereby providing two lever arms, said other end of the rocking brace being attached to the free end of one of said lever arms and supported thereby from



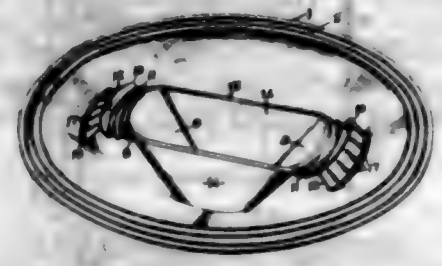
the vehicle body, spring means supporting the body of the vehicle relative to said wheel, said rocking brace together with the wheel being movable longitudinally relative to the body of the vehicle in response to shocks received by the wheel, and a second spring means operatively associated with the other lever arm for opposing the pivoting of said lever and said relative longitudinal movement of the rocking brace, whereby shocks applied in the longitudinal direction of the vehicle travel are absorbed by the second spring means and not transmitted to the vehicle body to a substantial extent.

2,845,135

AUXILIARY WAVE PROPAGATING AND DIRECTING ATTACHMENT FOR LOUDSPEAKER DIAPHRAGMS

Abraham B. Cohen, Bronx, and Sidney E. Levy, White Plains, N. Y.; said Cohen assignor, by mesne assignments, to Arthur Bienenfeld, New York, N. Y.

Application September 26, 1955, Serial No. 536,624
5 Claims. (Cl. 181—31)



4. An attachment for vibratory loudspeaker diaphragm assemblies, comprising a longitudinally extended horn-like member having one end adapted to be connected to the diaphragm assembly for vibration therewith, said member expanding in cross-sectional area towards its opposite end and having a generally rectangular mouth, and said member having a laterally projecting flange adjacent its mouth and adapted to be secured to the diaphragm aforesaid, said flange having a compliant portion adjacent to the point of attachment of the flange to the diaphragm.

2,845,136

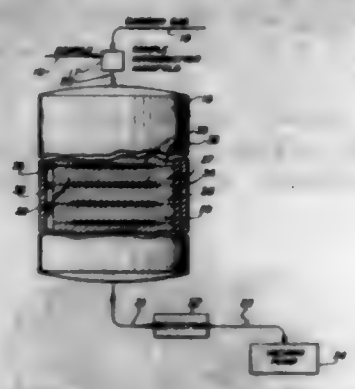
CHROMATOGRAPHY

Charles F. Robinson, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application September 12, 1955, Serial No. 533,563
5 Claims. (Cl. 183—2)

1. In a column for the chromatographic separation of a gas sample flowing through the column from a fluid inlet to a fluid outlet, the combination comprising a plurality of structurally stable permeable refractory wafers of a diameter approximating the inside diameter of the column disposed in substantially uninterrupted face-to-

face contact transversely in the column between said fluid inlet and said fluid outlet, the several wafers constituting means to impart substantially uniform distribution of flowing gas throughout substantially the entire cross-sectional area of the column and throughout that portion



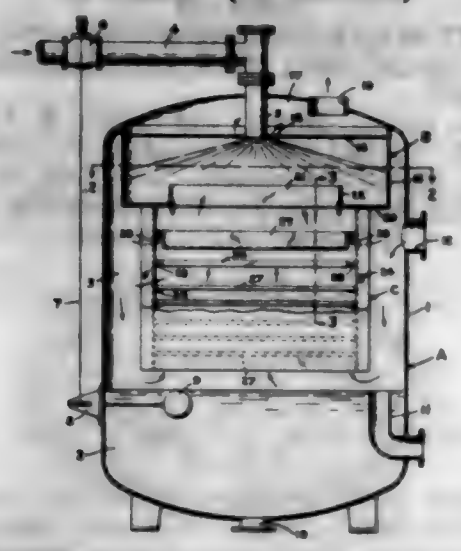
of the length of the column filled by the wafers, and means sealing the wafers with the column wall to prevent gas flow between the circumference of the individual wafers and the walls of the column whereby gas flowing through the column is constrained to pass sequentially through the several wafers.

2,845,137

MULTI-STAGE DEAERATOR WITH CONTROLLED COUNTERCURRENT STEAM FLOW PATH

Joseph F. Sebald, Bloomfield, N. J., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware

Application February 27, 1956, Serial No. 567,889
14 Claims. (Cl. 183—2.5)



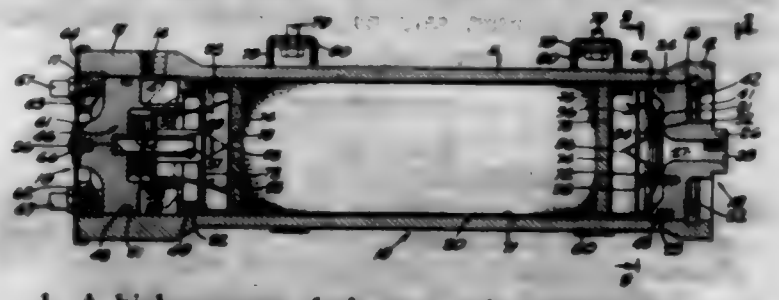
3. In a multistage deaerator including a tower having a fluid storage space and a steam space above said fluid storage space, the combination of a first heating and deaerating stage disposed at the upper end of said tower including, means for redistributing deaerated fluid from said first heating and deaerating stage, and means forming an outlet in said redistributing means, at least one other heating and deaerating stage disposed in the steam space adjacent said redistributing means and its outlet means to receive fluid therefrom and to pass non-condensed steam and non-condensible gases thereto in countercurrent flow relationship, said other heating and deaerating stage having an opening at its lower end in communication with said steam space to pass deaerated fluid to said fluid storage space and to receive steam from said steam space for countercurrent flow through said respective heating and deaerating stages, means to by-pass a portion of said steam from said steam space to said first stage in predetermined ratio to the quantity flowing through the open end of said other mentioned stage whereby the velocity of the steam flowing through said other mentioned stage will be controlled, and a vent means on said tower communicating with said first stage to pass residual non-condensed steam and non-condensible gases from said tower, all of said heating and deaerating stages being structurally separate and distinct from the steam space within which they are disposed.

2,845,138

DESICCATOR UNIT

Robert A. Gageby, Woodland Hills, Calif., assignor, by mesne assignments, to Wells Industries Corporation, North Hollywood, Calif., a corporation of California

Application December 27, 1955, Serial No. 555,336
3 Claims. (Cl. 183—4.8)



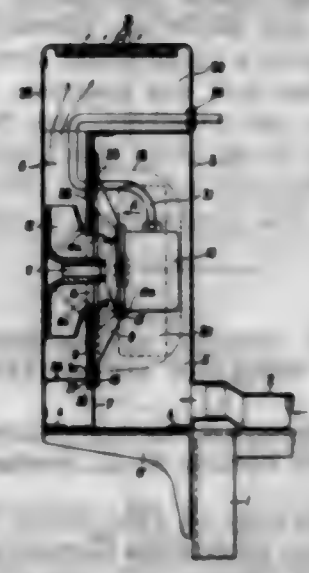
1. A high-pressure desiccator unit adapted for use in a gas line operating under thousands of pounds pressure and arranged to be serviced quickly in the field without special tools, said unit comprising a thick-walled cylinder with a central bore of uniform diameter adapted to house a normally sealed desiccant cartridge easily punctured as an incident of assembly to said unit, removable sealing plugs closing the opposite ends of said cylinder including an infrequently removed first plug and a quickly removable second plug, said first plug having a snug sliding fit with the wall of said bore and an O-ring filled groove in its peripheral side wall cooperating with said bore wall to provide a readily-separable high-pressure seal with said bore wall, the outer end of said bore having an annular groove of rectangular cross-section opening radially inward immediately adjacent the exterior radial face of said first plug, a keeper ring of high shear strength formed in a plurality of segments adapted for assembly into said groove with the inner rim thereof overlapping the outer rim of said first plug, and a readily removable spring keeper for holding the segments of said keeper ring assembled within said groove.

2,845,139

AIR EXHAUSTING AND FILTERING ARRANGEMENT

Helmut Berberich, Westheim, near Augsburg, and Fritz Krähenbütz, Haunstetten, Germany, assignors to Thoma Company, Zurich, Switzerland, a firm

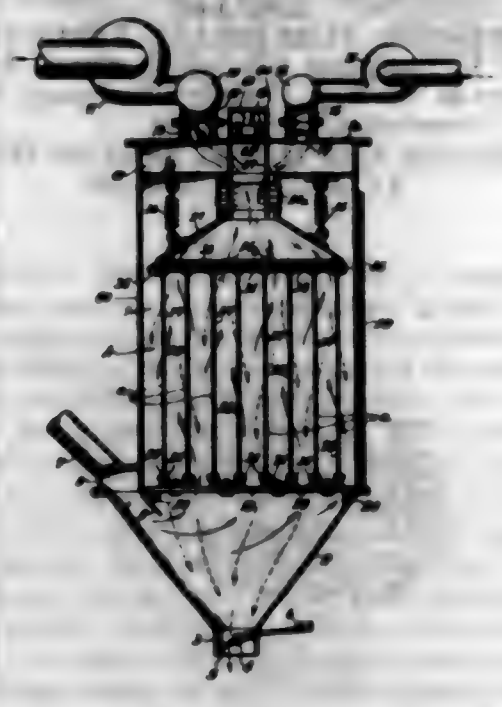
Application October 28, 1955, Serial No. 541,802
Claims priority, application Germany April 25, 1955
10 Claims. (Cl. 183—37)



1. Exhaustive and filtering arrangement for a spinning machine and comprising, in combination a housing hav-

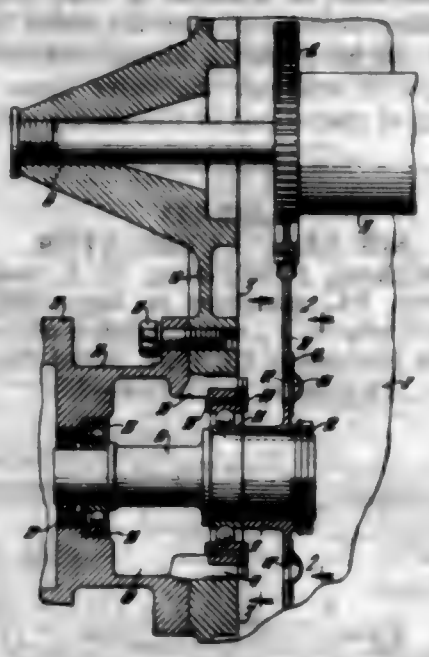
ing an aperture and including a detachable closure means closing said aperture, said housing being adapted to be secured to the spinning machine with said aperture located remote from said spinning machine; upright partitioning wall means located in said housing and having an opening located opposite said aperture, said partitioning wall means defining in said housing two chambers connected by said opening; air inlet means on said housing communicating with one of said chambers and adapted to communicate with a thread ends sucking device of the spinning machine; air outlet means on said housing communicating with the other of said chambers; a supporting member including an annular member located in the region of said opening, and supporting legs; attaching means detachably securing said annular member to said partitioning wall means; a dished filter basket secured to said annular member and located in said one chamber; an exhauster unit passing through said annular member and said opening and including an electric motor supported on said legs at least partly located within said filter basket in said one chamber, and an impeller wheel located in said other chamber, the center of gravity of said exhauster unit being substantially located in the plane of said partitioning wall means; and a spiral-shaped guide wall fixedly secured to said closure means and transversely projecting from the same into said other chamber, said guide wall having a free edge in sealing engagement with said partitioning wall and defining with said closure means and said partitioning wall a spiral-shaped pressure case for said impeller wheel, said pressure case communicating with said outlet means whereby upon removal of said closure means with said spiral shaped guide wall, said supporting member together with said exhauster unit can be removed from said housing through said aperture.

2,845,140
FILTER SET FOR DUST-FILTER-PLANTS
Heinrich Löhr, Hannover, Germany
Application July 22, 1954, Serial No. 445,066
8 Claims. (Cl. 183—54)



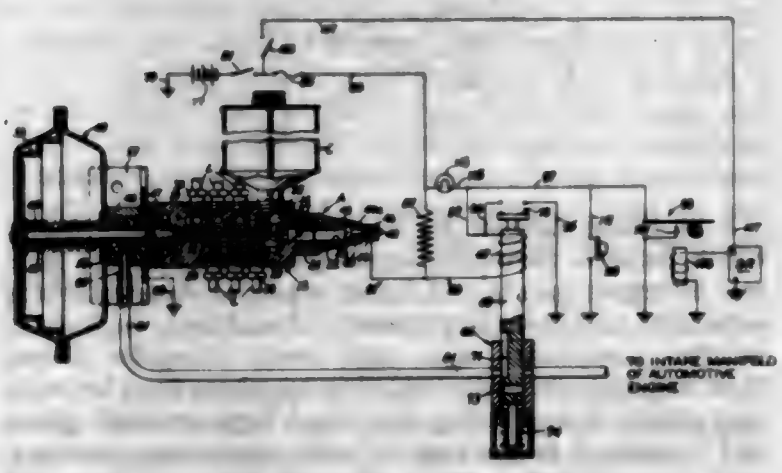
1. In a filter, a filter element comprising a frame, at least one fabric sheet supported by said frame, a support means supported by said frame adjacent said sheet and defining a longitudinally extending slot adjacent said sheet, said sheet being provided with a longitudinally extending looped portion extending through said slot, and retaining means for preventing withdrawal of said looped portion through said slot, whereby said sheet is restrained from flexing.

2,845,141
ACCESSORY OILING SYSTEM
Arthur H. Mauck, Indianapolis, and John M. Zorad, Danville, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 30, 1955, Serial No. 550,044
1 Claim. (Cl. 184—6)



In an engine, in combination, a case normally containing oil diffused therein in operation of the engine, a support having a chamber therein, one end of the chamber communicating with the interior of the case through oil inlet openings, a first bearing adjacent the said one end of the chamber, the oil inlet openings being disposed around and adjacent to the first bearing, a second bearing in the chamber remote from the said one end, a shaft mounted in the bearings, a gear disk on the shaft within the case adjacent the first bearing and having holes through the disk adjacent the oil inlet openings, the gear disk including an impeller adapted to propel air with oil diffused therein through the openings into the chamber to lubricate the second bearing, the impeller being defined by scoops mounted on the gear disk overlying the holes through the disk, and means defining an oil drain from the chamber into the case.

2,845,142
LUBRICATING SYSTEM
Rudy F. Schneller, O'Fallon, Mo., assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application February 23, 1956, Serial No. 567,130
9 Claims. (Cl. 184—7)



1. In a lubricating system for an automotive vehicle, said vehicle having an engine, an intake manifold for the engine in which a vacuum is drawn when the engine is running, and a starter switch for the engine, said system being of the class comprising a lubricant injector, a

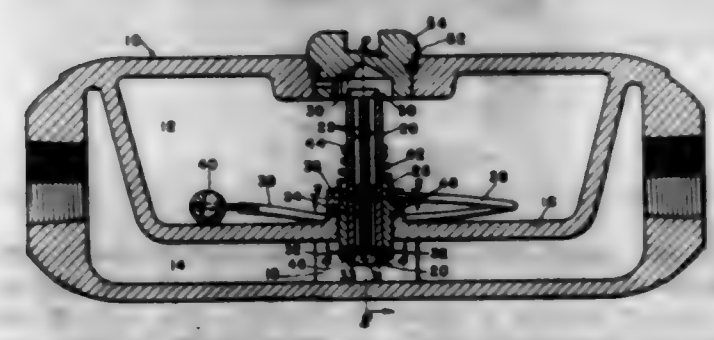
vacuum-operated motor for operating the injector, and means for connecting the vacuum motor to the manifold including an electrically controlled valve which when deenergized vents the vacuum motor while holding vacuum in the manifold and which when energized connects the vacuum motor and the manifold, the improvement comprising the provision of a counting relay interconnected with said starter switch so that the relay is energized each time the starter switch is closed and interconnected with said valve to energize the valve upon a predetermined number of operations of the starter switch.

2,845,143

AIR LINE LUBRICATOR

Edward F. Wickens, Phillipsburg, N. J., and Ewald H. Kurt, Easton, Pa., assignors to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey

Application November 23, 1955, Serial No. 548,696
12 Claims. (Cl. 184—55)



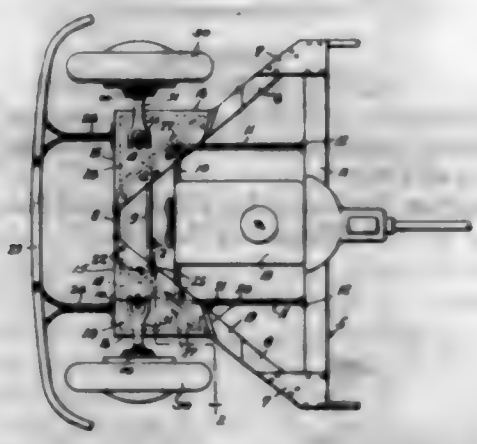
1. An air line lubricator comprising, a casing having an oil chamber therein and an air conduit therethrough, and means having an air inlet passage communicating said conduit with the interior of the oil chamber and an oil passage for the flow of oil from the chamber to said conduit, said means including a valve for simultaneously restricting flow area through said passages.

2,845,144

SHEAR PIN BRAKE FOR AUTO BUMPERS

Frank W. Bohn, Scranton, Pa.

Application February 16, 1956, Serial No. 565,877
2 Claims. (Cl. 188—1)



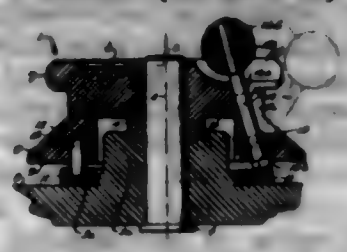
1. A brake element for use in a motor vehicle frame which includes forwardly converging bars fixed at their rear divergent ends to said frame, a pair of shear members secured to and extending laterally of said bars, each shear member comprising upper and lower triangular plates, right angularly related connecting members fixed between said plates, a connecting bar fixed between said plates and connected to the ends of said connecting members, said connecting bar being disposed inwardly from the base line of each plate to thereby provide relatively wide flanges for engagement over the upper and lower sides of said converging bars, said flanges having elongated openings, and frangible bolts extending through said openings and said converging bars.

2,845,145

FRICTION LOCKING DEVICE

Charles M. Lee, Rochester, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force

Application August 30, 1954, Serial No. 453,169
4 Claims. (Cl. 188—71)



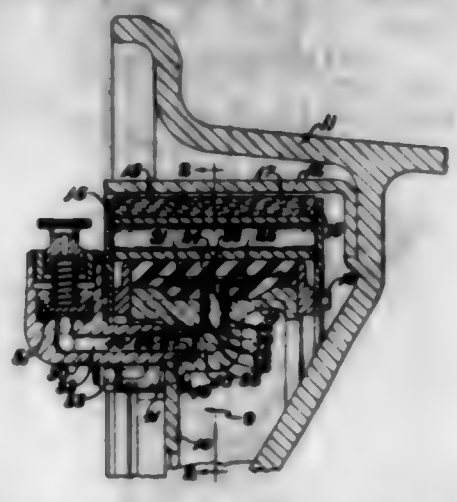
1. In a toggle lever frictional locking rotary adjustment device, a rotary adjusting member having a central axis, a concentric friction locking plate interengaged for rotation with said member and axially movable thereon toward and away from said rotary member, a toggle lever pivoted for swinging movements in said adjustment member in a radial plane through said central axis toward and away from said axis through a transverse plane perpendicular to said radial plane intersecting said plate parallel to said axis, said lever having a camming extremity at one side of its pivot disposed for camming engagement with said plate during swinging movement of the lever in said radial plane through said transverse plane and an actuating lever arm extending in the opposite direction from the lever pivot terminating in an actuating handle located outwardly away from said plate beyond the rotary member for a convenient manual actuation, said rotary actuating member being radially slotted therethrough outwardly from said lever pivot away from said plate to accommodate predetermined limited radial swinging movement of said lever arm, the radial inner and outer ends of said radial slot forming abutment means for limiting swinging movement of said actuating lever and located at predetermined points at the opposite sides of said transverse plane.

2,845,146

EXPANDER TUBE BRAKE STRUCTURE

Benjamin F. Jones and Kenneth R. Durst, Troy, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application April 15, 1955, Serial No. 501,545
1 Claim. (Cl. 188—78)



A brake structure comprising a torque frame having an annular peripheral flange and an inwardly extending radial flange, an expansible member seated on and extending circumferentially around said peripheral flange, a rotatable drum concentrically surrounding said expansible member in radially spaced relation, a non-rotatable braking member engaged with said torque frame and disposed between said drum and said expansible member and being movable into braking engagement with the drum by distension of said expansible member under fluid pres-

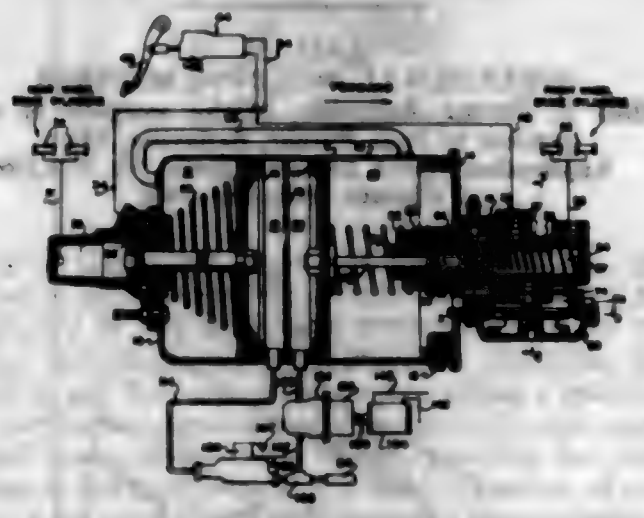
sure, a boss disposed between said peripheral flange and said radial flange, a fluid-conducting passage through said boss opening at one end into said peripheral flange and opening at its opposite end into said radial flange, a nipple integral with said expansible member through which fluid is admitted into said member, the nipple having a smooth external surface seated snugly in the passage at said peripheral flange and an annular resilient sealing member surrounding a portion of the nipple within the passage to provide fluid-tight frictional engagement between the nipple and said passage whereby the nipple is adapted for axial slidable movement for insertion and removal, and a fluid-supply nozzle through which fluid is supplied to said passage, said nozzle having an end portion having a smooth external surface seated snugly in the passage at said radial flange and an annular resilient sealing member surrounding the end portion of the nozzle within the passage to provide fluid-tight frictional engagement between the end portion and said passage whereby the end portion of the nozzle is adapted for axial slidable movement for insertion and removal, and said nozzle having a body portion abutting said radial flange in the region thereof surrounding the passage, and means for fastening said body portion of the nozzle against said region of the radial flange.

2,845,147

BOOSTER BRAKE MECHANISM

Edward Govan Hill, Birmingham, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware

Application October 13, 1955, Serial No. 540,241
9 Claims. (Cl. 188—152)



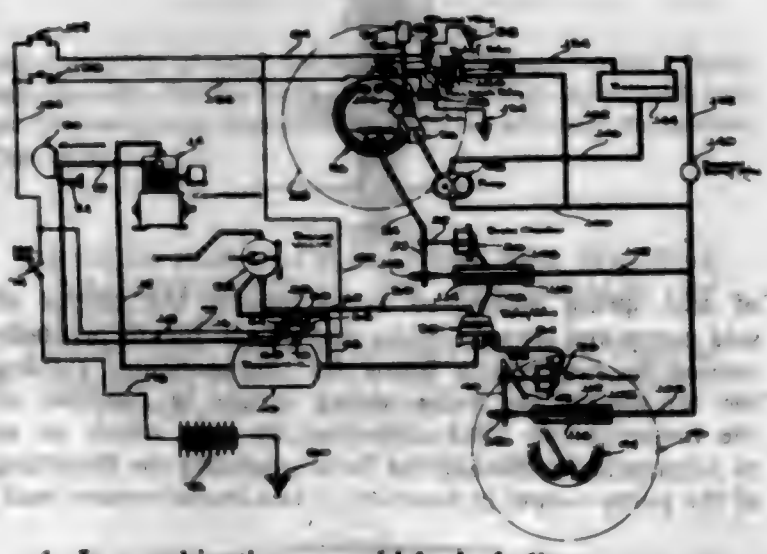
5. A booster brake mechanism for a motor vehicle having front and rear wheel cylinders, a first hydraulic chamber connected to the front wheel cylinders, a first plunger movable in one direction in said chamber to displace fluid therefrom, a second hydraulic chamber connected to the rear wheel cylinders, a second plunger movable in said second chamber to displace fluid therefrom, a first motor unit having a pressure responsive member connected to said first plunger, a second motor unit having a second pressure responsive member connected to said second plunger, said motor units having separate variable pressure chambers, a control valve mechanism connected to a source of fluid pressure and having separate fluid lines leading to said variable pressure chambers and connected to supply fluid from said source to such chambers upon operation of said valve mechanism, a master cylinder having a pedal, a hydraulic line connecting said master cylinder to said first hydraulic chamber back of said first plunger whereby pedal displaced fluid from said master cylinder will assist said first motor unit in displacing fluid from said first hydraulic chamber, means connected to utilize fluid flowing through said hydraulic line for operating said valve mechanism, and auxiliary means connected to restrict the flow of pressure fluid through one of said fluid lines into the variable pressure chamber of said first motor unit and connected to be operated below a predetermined vehicle speed.

2,845,148

EMERGENCY BRAKE FOR TRAILERS

William C. Sturgill, Columbia, S. C.

Application July 31, 1956, Serial No. 601,224
3 Claims. (Cl. 188—152)



1. In combination, a vehicle including a support, a ground-engaging wheel journaled on said support having an inboard side, a brake incorporated in said wheel having an applying rod extending inboardly from the wheel, a bracket fixed on said support at the inboard side of the wheel, a vertical sleeve slidably and pivotally mounted on said bracket for rocking movement toward and away from the inboard side of the wheel, a wheel-driven shaft fixedly journaled in said sleeve and having outboard and inboard ends, a friction drum fixed on the outboard end of said shaft, gearing mounted on said support with which the inboard end of said shaft is operatively connected, an auxiliary pump driven by said gearing, a fluid pressure operated brake actuator fed by said pump, means operatively connecting said actuator to said brake applying rod, spring means yieldably urging said wheel-driven shaft in an outboard direction to engage said friction drum with the wheel, retracting means connected to said shaft operable to retract the shaft from wheel engaging position against the resistance of said spring means, latch means for latching said shaft in an inboard retracted position comprising a dog on said shaft and a retractable latch bar with which said dog is engageable as the shaft is retracted, operating means for said latch bar and said retracting means, valve means connected between said auxiliary pump and said reservoir including a valve which is open when said shaft is in the retracted position and which is closed when said shaft is in the wheel engaging position and permitting fluid pressure to return from said auxiliary brake actuator when said brakes are to be released, said valve having a portion engageable by said dog to open the valve as the wheel-driven shaft is moved toward retracted position, and an auxiliary pressure reservoir in circuit with said pump and said valve means.

2,845,149

LOAD RESPONSIVE FLUID BRAKE

Charles Stern and Robert Gallay, Geneva, Switzerland

Application May 24, 1954, Serial No. 431,946
8 Claims. (Cl. 188—195)

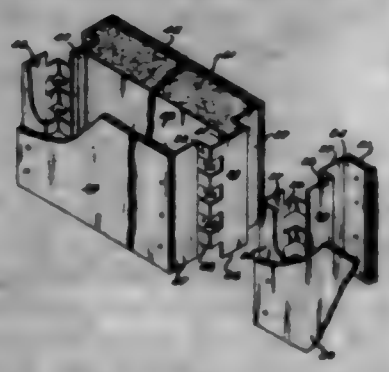
1. In a motor vehicle, the combination with at least one of the vehicle wheels, of a fluid-pressure braking device comprising a fluid-pressure circuit, a gearwheel pump inserted in said circuit and dividing the same into a suction part and a pressure part, the driving pinion

of said pump being solidly connected with said wheel and the housing of said pump being fastened to a non-rotating part of the vehicle, a valve inserted in the pressure part of said circuit, spring means for holding said valve in open position, means operable by the driver of the vehicle for actuating said valve against the action



of said spring means, so as to throttle the output of said pump and thereby brake said wheel; means pivotally carried by the vehicle frame for automatically varying the tension of the valve spring means in function of the instantaneous load supported by said wheel, so as to automatically modify the force opposing the throttling of the pump output in function of said instantaneous load.

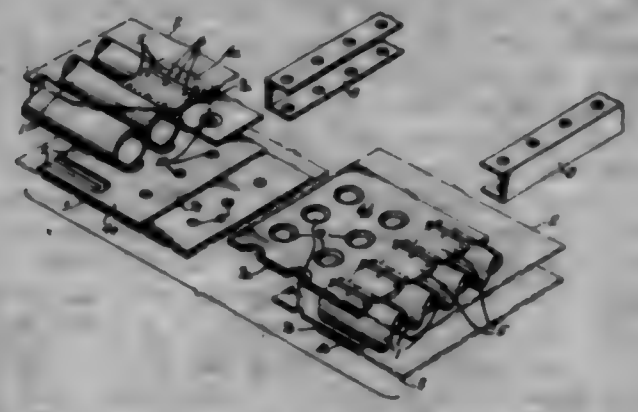
2,845,150
LIGHT GAUGE METAL BUILDING CONSTRUCTION
Robert E. McBerty, Galion, Ohio
Application July 24, 1952, Serial No. 300,663
2 Claims. (Cl. 189—34)



1. A building panel comprising spaced inner and outer rectangular sheets of nonmetallic material, a thin metal frame member disposed between said sheets along all four edges of the sheets and forming therewith a box like unit, said frame members being secured to the edges of the sheets maintaining the sheets in spaced parallel relation, a layer of insulation material adjacent to and covering the inner side of said outer sheet between said frame members, said layer of insulation having a thickness less than the space between said sheets to provide an air space between the insulation material and the inner sheet and a vapor barrier sheet covering the inner sheet at that side thereon adjacent the air space.

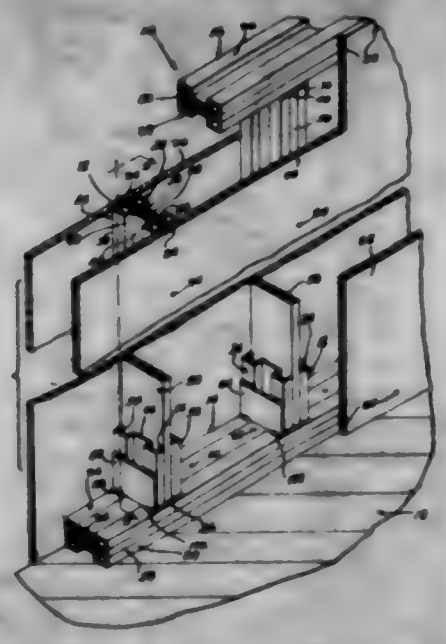
2,845,151
TUBE SKIN JOINT STRUCTURE
Richard S. Reinhold, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application October 4, 1955, Serial No. 538,435
6 Claims. (Cl. 189—34)

1. In combination with two stressed airplane wing panels which are disposed in a common plane and contiguously along a common edge that is directed transversely to the direction of maximum stress, each panel incorporating a plurality of tubes extending contiguously side by side in the direction of such maximum stress and hence terminating, in each panel, adjacent the common edge, each panel also incorporating inner and outer skin sheets placed tangent to and joined to the tubes of the respective panels; a joint structure connecting the contiguous edges of the panels and including reinforcing plates which are substantially continuous along one edge but repeatedly slotted inwardly from the opposite edge, the slots being of such width, relative to the thickness of the plate, and spaced at intervals corresponding to the



spacing between tube axes, to define fingers which straddle the ends of the several tubes and which at their outer surfaces lie in a plane tangent to the several tubes, to contact the interior face of a skin sheet, one such plate being so positioned and secured to the straddled tubes at each face of each panel, and the continuous edges of the two plates at the corresponding surfaces of the respective panels extending beyond the ends of the tubes and being overlapped, and means joining the overlapped plate edges for transmission of stresses from one panel to the other.

2,845,152
STRUCTURAL BUILDING MEMBER
Arthur E. Parent, Belleville, Mich., assignor of ninety percent to Jane Parent, Belleville, Mich.
Application March 13, 1956, Serial No. 571,196
2 Claims. (Cl. 189—44)



1. A metal structural building member for receiving driven fasteners and the like therein comprising first and second mating members including a central body portion terminating in opposed angularly related end flange portions extending laterally in the same direction from the central body portion, the end portions of said first and second mating members being secured at their opposite ends in overlying and underlying relationship, respectively, longitudinal rib portions extending the length of the central body portions of the mating members and extending toward each other terminating in spaced web portions defining an uninterrupted slot between said mating members, a first filler member secured between

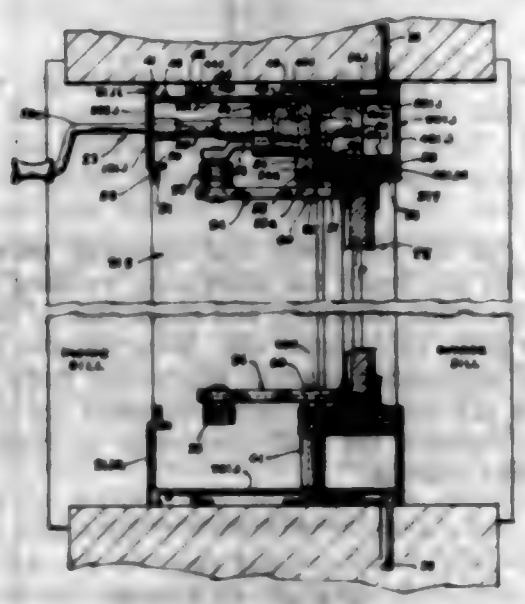
the spaced web portions defining the longitudinally extending slot portion of the mating members and providing an exposed edge portion for receiving driven fasteners therein and resisting compressive forces between the mating members, one of the mating members including a transverse aperture portion extending through the web portion thereof and presenting an exposed intermediate nailing portion of the first filler member, and a second filler member disposed in the rib portion containing the transverse aperture portion for receiving therethrough a driven fastener element extendible into the transverse aperture of said web portion and the exposed nailing portion of the first filler member.

2,845,153

WINDOW STRUCTURES

John C. West, Chicago, Ill., assignor to Protex Weatherstrip Manufacturing Co., Chicago, Ill., a corporation of Illinois

Application April 26, 1954, Serial No. 425,534
10 Claims. (Cl. 189—62)



1. In a jamb and clip assembly for jalousie type windows, a jamb comprising a metal member with a first side adapted to abut against the vertical edge of the wall opening and second side constituting a mounting face parallel to said first side, said member having a relatively broad vertically extending undercut groove in said second side and having a separately formed retaining bar along one edge of the groove serving to define a portion of such groove, a flat rigid sealing strip mounted longitudinally in said groove and having a flat rigid structural sealing surface adapted to be urged outwardly beyond and in parallel relation to said second side of said member, spring means in said groove to yieldingly urge said strip outwardly, interlocking means on the strip within the groove to limit outward movement of said strip, a plurality of panel-mounting clips and shouldered pivot screws upon which said clips are respectively mounted and said screws being extended through said bar into said member in perpendicular relation to said second face to hold the bar in place and provide pivots about which the panel-mounting clips may be moved in sealing relation to said rigid sealing strip.

2,845,154

SASH CONSTRUCTION

Brainard Duffield, Berkeley, Calif.

Application October 5, 1954, Serial No. 460,475
6 Claims. (Cl. 189—76)

1. A sash bar involving a face member, a backing member, means for forcing said members into clamping engagement following installation of glass between the same, said means involving a longitudinal web extending from said face member in the direction to be occupied by the backing member, tensioning means mounted on said backing member, a clip affixed to said tensioning means for engagement with said web follow-



ing assembly of said members, and means on said backing member for forcibly closing said clip upon said web as its associated tensioning means is adjusted to tension the same.

2,845,155

DEVICES FOR FACILITATING THE MANUAL TRANSPORTATION OR PORTERAGE OF LUGGAGE

Thomas Ralph Sneyd-Kynnersley, Mayfield, England

Application February 9, 1956, Serial No. 564,682
Claims priority, application Great Britain February 11, 1955
4 Claims. (Cl. 190—57)



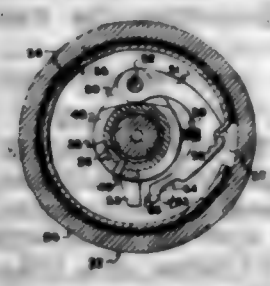
1. An assembly for transportation of luggage for use with a wheeled carrier applied to and supporting one edge of the luggage, the combination comprising a strap circumventing said luggage such that the strap passes over the supported edge and edges parallel thereto, a flexible and resilient pad applied to the edge diagonally opposed to the supported edge, said pad defining an opening through which said strap is threaded, an oblong handle member for applying tension to said strap and having one end bearing and pivoting on said pad, said handle member defining a longitudinal opening through which said strap is threaded, the end of said handle member being shaped to seat firmly on said pad when the handle strap engaging means is angularly disposed with respect to the surface of the luggage and tension is applied to said strap.

2,845,156

TORQUE TRANSMISSION AND AUTOMATIC BRAKING MEANS FOR CLOTHES WASHERS AND THE LIKE

Carl S. Dayton, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

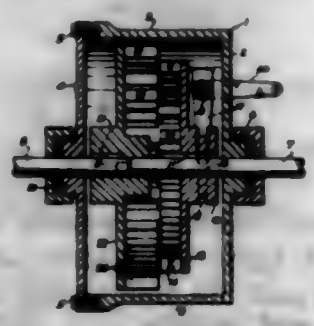
Application December 16, 1953, Serial No. 398,547
2 Claims. (Cl. 192—8)



1. In a transmission, a driven shaft, a stationary housing having bearing means rotatably supporting said driven shaft and having an internal annular braking surface concentric with the axis of rotation of said driven shaft, a hub secured to said driven shaft, a latch arm pivotally

mounted on said hub for movement in a plane substantially perpendicular to said shaft axis, said latch arm having a generally arcuate shape of inside radius approximating the hub radius whereby said latch may occupy a position contiguous to the exterior surface of said hub, cam means on the end of said latch arm opposite its pivotal mounting, a driving shaft including driving means engageable with said cam means to cam said latch inwardly and transmit driving torque through said hub to said driven shaft, resilient means biasing said latch outwardly, a resilient brake band frictionally engaging said internal annular braking surface stationary with respect to said housing during rotation of said driven shaft and having an internally projecting tab thereon, and a catch surface formed on a portion of said latch arm and engageable with said tab when said latch arm moves outwardly under the influence of said resilient means, thereby to rotate said brake band with respect to said braking surface to retard rotation of said driven shaft.

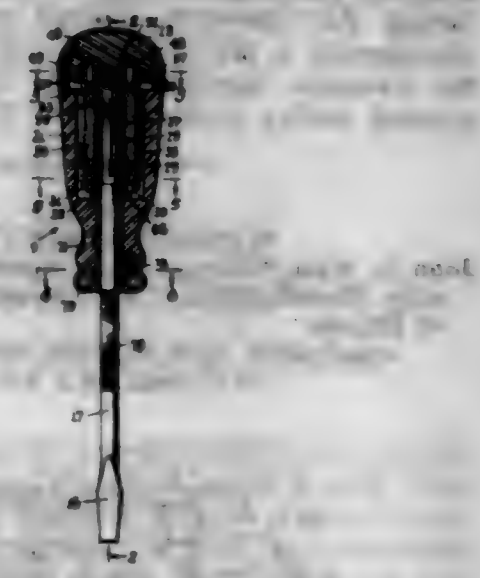
2,845,157
MAGNETIC FLUID CLUTCH WITH PERMANENT MAGNETS
Carlos Harvey Gambell, Malibu, Oreg.
Application February 1, 1955, Serial No. 485,350
1 Claim. (Cl. 192—31.5)



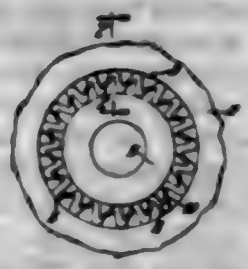
A power transmission mechanism comprising a housing, a driven shaft extending into one end of said housing, a drive shaft extending into the other end of said housing and piloted in said driven shaft in axial alignment therewith, a first clutch member comprising a disc slidably mounted upon and rotatable with said drive shaft, a second clutch member comprising a disc of greater diameter than said disc of the first clutch member fixedly secured to said driven shaft, each of said discs being provided with a single row of horizontally extending permanent magnets having inner and outer edges and affixed in circumferential spaced relation on its peripheral portion, the outer edges of the magnets on the first clutch member being of a polarity opposite to that of the inner edges of the magnets on said second clutch member, a mixture of oil and comminuted iron within said housing, mechanical means for moving said first clutch member toward or away from said second clutch member to thereby vary the mutual attraction of the magnets from maximum to minimum and whereby increase in the viscosity of said mixture from minimum to maximum will increase the coupling effect of said magnets.

2,845,158
CLUTCH FOR HAND TOOL
Porter S. Morgan, Westport, Conn., assignor to I. L. Hartenberg, Fairfield, Conn., as trustee
Application April 23, 1952, Serial No. 283,353
10 Claims. (Cl. 192—44)

1. In a clutching device, a rotatable shaft; a roller assembly including at least one friction roller in a planetary relation to the shaft and geared to the shaft for rotation about its own axis by the shaft when revolution about the shaft is prevented, and for bodily revolution about the shaft axis by the shaft when roller rotation is inhibited; a rotor rotatable on the same axis as said shaft; and oppositely facing pairs of wedging surfaces carried by said rotor in the revolution path in either direction of movement of said roller assembly for wedging said roller assembly against roller rotation when revolved relative to said rotor into frictional relationship with said surfaces under the influence of the shaft gearing to lock said shaft and rotor together for rotary driving of one by the other; and manually settable means carried by the motor for preventing wedging contact between the roller assembly and either one of the wedging surface pairs, said means also being settable in an intermediate inoperative position where both pairs of wedging surfaces can engage the roller assembly for driving connection between the shaft and rotor in both directions of relative rotation.



2,845,159
SPRAG CLUTCH
Howard F. Stephenson, Pinkville, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 18, 1954, Serial No. 411,045
2 Claims. (Cl. 192—45.2)



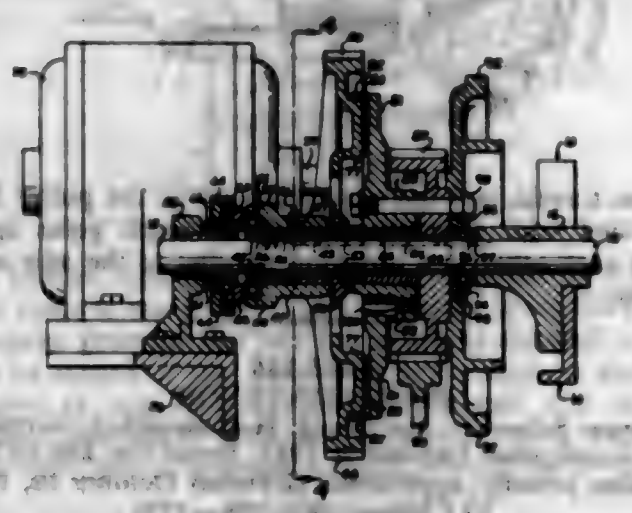
1. A sprag clutch comprising a pair of relatively rotatable members respectively provided with inner and outer opposing raceways in radial spaced coaxial relation, an annular clutch member having a continuous wave contour throughout its periphery, the clutch member including circumferentially spaced sprags and spring portions, each sprag having inner and outer rounded ends for raceway engagement, each spring member extending between a pair of adjacent sprags and having inner and outer ends respectively integral with the inner and outer rounded ends of the adjacent sprags, the interconnected sprags and springs being in divergent relation with respect to a radius of the clutch member passing through the interconnected ends of the sprag and spring member, each sprag being substantially rigid, and each spring member being resiliently flexible and thinner than a sprag and yieldably urging the rounded sprag ends individually and simultaneously into raceway engagement.

2,845,160

CLUTCH CONTROL FOR LOOM SHAFT DRIVE

Edward F. Bahan, Greenville, S. C., assignor to Bahan Textile Machinery Company, Inc., Greenville, S. C., a corporation of South Carolina

Application April 6, 1953, Serial No. 346,923
9 Claims. (Cl. 192—66)



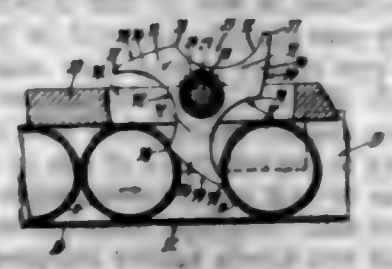
1. Drive means for a loom comprising a drive shaft, a friction disc mounted on the shaft, a disc friction gear rotatably and slidably mounted on said shaft, pressure applying means for moving said disc friction gear axially on said shaft into driving engagement with said friction disc, said disc friction gear having a hub portion, a sleeve surrounding said shaft adjacent said hub portion and fixed against rotation relative to said shaft, a tubular insert fixed in said hub portion and surrounding said sleeve with a working clearance, lubricant sealing means between said sleeve and the end of said insert adjacent said friction disc, a thrust bearing mounted in one end of said hub portion and adapted to be engaged by said pressure applying means, said hub portion having means therein for admitting lubricant therethrough, said tubular insert having an annular groove therein in alinement with said means in said hub portion, and said tubular insert also having a plurality of openings therein communicating with said annular groove to permit lubricant to flow therethrough, whereby the working clearance between said tubular insert and said sleeve may be lubricated, while the driving engagement between said disc friction gear and said friction disc is maintained free from lubricant due to the presence of said sealing means.

2,845,161

CAN FEEDING APPARATUS

Frederic F. Lerch, Fairport, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application April 19, 1956, Serial No. 579,355
3 Claims. (Cl. 193—32)



1. An apparatus for feeding cans, comprising in combination a runway for guiding cans along a predetermined path of travel, a rotatable element mounted for free rotation adjacent said runway, said element having radial prongs movable into and out of said path of travel of said cans and engageable by said cans to rotate said element and thus insert said prongs successively between adjacent cans moving through said runway, each of said prongs having a foot for spreading said adjacent cans apart, said foot having a toe section engageable against one of said adjacent cans and a heel section engageable against the other of said adjacent cans, said toe section being spaced a greater distance than said heel section from the center of rotation of said rotatable element to transmit the pressure exerted by said cans against one of said sections as a modified pressure to the cans engageable with the other of said sections to control the pressure on the cans moving past said element.

2,845,162

END OF SHEET INDICATING DEVICE

Alfredo Enrique Picard, Buenos Aires, Argentina

Application September 14, 1955, Serial No. 534,216
8 Claims. (Cl. 197—133)



1. In a typewriter having a carriage, a roller platen mounted on said carriage and having a roller platen shaft, a keyboard in front of said roller platen, and paper supporting means in the rear of said roller platen, an end of page announcing device comprising a first friction means rigidly mounted on said roller platen shaft, a second friction means spaced apart from said first friction ring and also mounted on said roller platen shaft, an indicating drum having a graduated periphery loosely mounted on said shaft between said first and second friction means and adjacent said first friction means, an exploring member loosely mounted on said roller platen shaft between said first and said second friction means and adjacent said second friction means, an elastic member in abutting contact with said indicating drum and said exploring member, said paper supporting means having a first slot, said exploring member having a free end portion adapted to enter said first slot, and a locking lever pivotally supported on said carriage, said indicating drum having a second slot capable of facing said locking lever, said locking lever being capable of entering said second slot thereby locking said indicating drum, said locking lever having an end portion, said end portion facing said exploring member which is capable of engaging and driving said locking lever thereby removing said locking lever from said second slot.

2,845,163

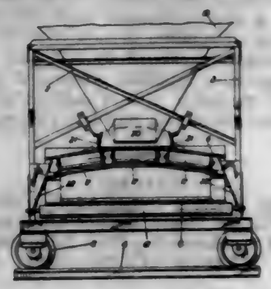
ENDLESS BELT CONVEYOR SYSTEM

George H. Pattinson, Staines, England

Application October 25, 1954, Serial No. 464,462
2 Claims. (Cl. 198—1)

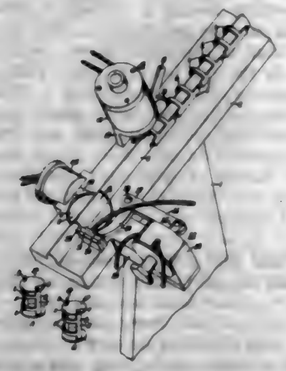
1. An endless belt conveyor for the bulk conveyance of wet materials, such as gravel, comprising a smooth endless belt having an upper run inclined upwardly along its length at an angle to the horizontal and in the direction of travel of the upper run, a portion of the upper run of said belt nearest the lower end thereof being level transversely to its width, and the remainder of the upper run of said belt sloping downwardly in opposite directions from the central part thereof over the major part of its width, and guide strips positioned above the upper run of said belt and extending along the length of said belt over said portion of said upper run and over only the initial part of the remainder of the upper run of said belt, whereby the wet material being conveyed is guided only during the initial period of draining on the said portion of the

upper run and along the initial part of the remainder of the upper run, and the liquid in the wet material can



drain to the longitudinal side edges of the belt on the remainder of the upper run.

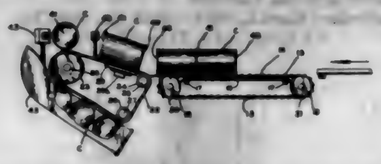
2,845,164
ELEMENT FEEDING ARRANGEMENT
Alfred R. Stahl, Garnet Lake, N. Y., assignor to General Electric Company, a corporation of New York
Application November 18, 1953, Serial No. 392,902
15 Claims. (Cl. 198—33)



4. In a machine for assembling elements of electron discharge tube devices including an assembly station, the combination comprising; means for feeding individual ones of said elements to said assembly station, said feeding means normally feeding said elements indiscriminately in a desired orientation and in an undesired orientation, a turntable located along the path of said feeding means, contact means engageable by a predetermined portion of an element upon arrival of said element on said turntable in an undesired orientation to effect rotation of said turntable in said path of said feeding means and thereby alter the orientation of said element in said path to said desired orientation, and means for insuring good contact between said contact means and said element.

2,845,165
CAN ALIGNING MEANS
Bruce G. Copping, Akron, Ohio, assignor to Aikron, Inc., Cuyahoga Falls, Ohio, a corporation of Ohio
Application December 6, 1955, Serial No. 551,304
13 Claims. (Cl. 198—33)

1. In combination, means for conveying an empty cylindrical steel container having an open end and a closed end with its longitudinal axis approximately parallel to the direction of movement of the conveying means, and magnetic means disposed near the discharge end of the conveying means and engaged therewith for magnetically changing the position of the container so that its longitudinal axis is disposed at a right angle to its former direction of travel on the conveying means, said conveyor means thereafter moving the container through a path normal to the longitudinal axis thereof, said magnetic means comprising a pulley over which the conveying



means travels, and the curved surface of the pulley being provided with magnetic north and south poles spaced from each other in a direction parallel to the axis of the pulley.

2,845,166
BELT CONVEYOR
Werner Schaeffer, Hoverweg, Hoffnungsthal, Germany
Application October 2, 1951, Serial No. 249,237
Claims priority, application Germany October 16, 1950
23 Claims. (Cl. 198—129)



1. Belt conveyor for bulk material, comprising at least one endless belt, at least a single rope extending along the belt and serving as a power-transmitting and hauling means, and fastening means attached along edges of the belt, the fastening means of one edge being shaped to interlock with the fastening means of another edge, the fastening means of both edges, when interlocked, joining the edges of the belt to the rope.

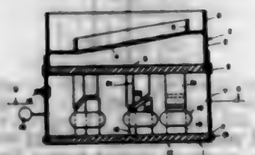
2,845,167
AUGER CONVEYOR HAVING TELESCOPING CHARACTERISTICS
Byard J. Helken, Atlantic, Iowa
Application October 25, 1956, Serial No. 618,216
4 Claims. (Cl. 198—213)



4. In a material conveyor, two telescoping cylinders, each having a material passageway part, an auger rotatably non-slidably mounted in one of said cylinders, a second auger rotatably non-slidably mounted in the other said cylinder; said two augers having their adjacent ends in mesh with each other, a releasable means for securing said two augers against independent rotation, a manual means extending to the outer end of one of said cylinders for rotating one of said augers independent of the other said auger when said releasable means is not functioning for securing said two augers against independent rotation, and a means for rotating the other said auger.

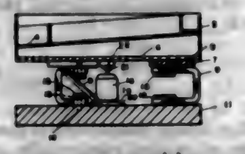
2,845,168
VIBRATORY CONVEYOR
Floyd E. Smith and Charles L. Loverscheck, Erie, Pa.
Application November 26, 1954, Serial No. 471,192
5 Claims. (Cl. 198—220)

1. A parts feeder comprising a hopper having a helical shaped track therein, a base, means to support said hopper on said base, said means comprising a container having flexible walls, a solenoid attached to the base with a core attached to said hopper in spaced relation to said solenoid, the pole face of said solenoid being disposed at an acute angle to the plane of said base and the pole face of said core being parallel to the pole face of the solenoid, and means to excite said solenoid to attract said



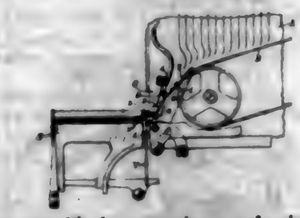
core toward said solenoid imparting a torsional and an axial force to said hopper, said container being filled with gas under pressure and said hopper being attached to said base by means of said flexible member, said gas pressure adapted to urge said hopper upward and said flexible member adapted to urge said hopper to bring said pole faces into spaced relation to said solenoid pole faces.

2,845,169
VIBRATORY CONVEYOR
Floyd Edward Smith, Erie, Pa.
Application December 16, 1954, Serial No. 475,807
6 Claims. (Cl. 198—220)



1. A vibratory conveyor comprising a support, a conveyor adapted to convey articles disposed adjacent said support, resilient means to support said conveyor on said support and to guide said conveyor in a helical path, and means to apply an intermittent torsional force to said conveyor whereby said conveyor is moved intermittently in a helical path guided by said guide means and articles carried by said conveyor are moved in a helical path, said means to apply force comprising a motor having its shaft disposed axially of said conveyor and having a rotor attached to said shaft and said conveyor and a stator attached to said support.

2,845,170
TYPOGRAPHICAL COMPOSING MACHINES
Paul Hilpman, Garden City, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York
Application April 2, 1957, Serial No. 650,195
10 Claims. (Cl. 199—27)



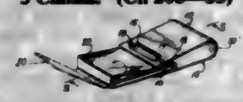
1. A typographical composing mechanism including, in combination, a horizontally disposed assembler wherein the matrices are composed in line, an inclined conveyor belt for delivering the matrices to the assembler, an assembler chute leading downwardly from the discharge end of the belt to the entrance to the assembler, a stacking element arranged to engage the matrices one after another as they leave the chute and advance them into the assembler, and means for directing an air blast downwardly upon the matrices as they pass through the assembler chute to aid them in being properly presented to the stacking element.

2,845,171
DRAW BENCH
Lothar S. Heym, Youngstown, Ohio
Application January 26, 1956, Serial No. 561,559
6 Claims. (Cl. 205—3)



3. In a draw bench having a carriage traversable thereon and a die stand adjacent one end, the improvement in workpiece drawing means comprising: workpiece gripper jaw means mounted on said carriage; a fluid cylinder to operate said jaw means; a hook pivotally secured to said carriage to engage carriage traversing means on said draw bench; a fluid cylinder vertically to pivot said hook; a hook latch pivotally secured to said carriage; a fluid cylinder to pivot said latch; fluid pressure means connected to said die stand; a pair of fluid coupling means mounted on said carriage to make fluid tight engagement with said die stand fluid pressure means; the first of said coupling means being connected to said hook and latch cylinders, the other of said coupling means being connected to said hook, latch and jaw cylinders respectively, and valve means selectively to direct fluid pressure into either of said coupling means, whereby fluid pressure in said first coupling means is directed to said hook and latch cylinders to elevate and unlatch said hook, and fluid pressure in said other coupling means is directed to said jaw cylinder to close said jaws in a gripping manner on a workpiece, to said latch cylinder to hold said latch in a disengaged position, and to said hook cylinder to lower said hook into engagement with said carriage traversing means.

2,845,172
MATCHHOLDER
Doris I. Fridolph, Pasadena, Calif.
Application June 13, 1956, Serial No. 591,151
3 Claims. (Cl. 206—33)



2. A protective holder for book matches having a striking surface comprising a channel shaped enclosure having outwardly extending leg members, one of said members having a length slightly less than the length of said matches and an elongated opening spaced from the outer edge thereof, and a flange on the outer end of said one member lying in a plane substantially parallel to the last said member and spaced therefrom, said other member having a length at least equal to the length of said matches and positioned relative to said one member whereby said matches when positioned within said enclosure will be held firmly in place therein and upon lengthwise withdrawal from between the legs will engage said flange to limit further outward movement and expose the striking surface.

2,845,173
PACKAGE FOR STERILE ARTICLES
Arthur J. Langdon, East Hampton, Conn.
Application July 29, 1955, Serial No. 525,193
2 Claims. (Cl. 206—63.2)

2. In the combination of a disposable envelope and a sterile article contained within the envelope, said en-

velope being composed of thin flexible air-impervious material and comprising a body section in which the article is received, said body section having sealed side and bottom edges and an open mouth at its upper end, and a closure section having sealed side and top edges telescoped over the upper end of the body section and sealed to itself and to the body section along a locus extending laterally of the closure section and spaced



downwardly from said mouth, the side and top edges of the closure section being spaced outwardly of the side edges and mouth of the body section sufficiently to permit severing of the closure section along the side and top thereof to provide a pair of flaps on opposite sides of said mouth with the top and side edges of the flaps spaced sufficiently from said mouth to permit subsequent separation of the flaps to expose said mouth without any contaminating contact therewith.

2,845,174
COUPLING DEVICE FOR CONTAINERS
George P. Zielsmer, Jr., New York, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application April 22, 1955, Serial No. 503,290
8 Claims. (Cl. 206—65)



1. In a unit package of rectangular fibre containers having at their top ends surrounding peripheral laterally projecting ledges, said containers being disposed in juxtaposed relation with portions of said ledges arranged in transverse parallel relation and other portions of said ledges arranged in endwise longitudinally aligned relation, said longitudinally aligned portions being united by coupling means to form the package, the improvement wherein said coupling means is an elongated channel shaped rigid coupling member having top and bottom legs in locking engagement with corresponding faces of said ledges to secure said containers together as a package.
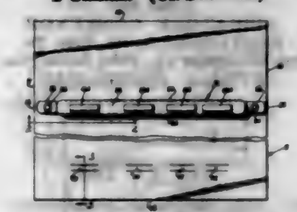
2,845,175
COUPLING DEVICE FOR CONTAINERS
Edward O. Thea, Newark, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application April 25, 1955, Serial No. 503,511
14 Claims. (Cl. 206—65)

1. In a unitary package comprising a pair of independent rectangular fibre containers having surrounding peripheral laterally projecting ledges, said containers being disposed in juxtaposed relation with portions of said ledges arranged in transverse parallel relation and other portions of said ledges arranged in endwise longitudinally aligned relation, the combination therewith of a pair of elongated channel shaped rigid coupling members arranged in spaced relation and having top and bottom legs clamped over and connecting adjacent opposed portions of said longitudinally aligned ledges for securing said containers together, and a rigid bridge member extending under said transverse parallelly related ledges



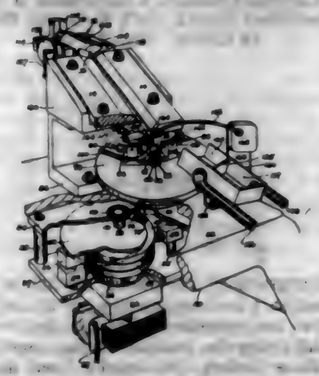
between and connecting said coupling members to hold said coupling members against lateral displacement from said longitudinally aligned ledges.

2,845,176
DISPLAY DEVICE
Donald L. Wicks, Minneapolis, Minn., assignor to Foley Manufacturing Company, Minneapolis, Minn., a corporation of Minnesota
Application November 14, 1955, Serial No. 546,405
2 Claims. (Cl. 206—80)



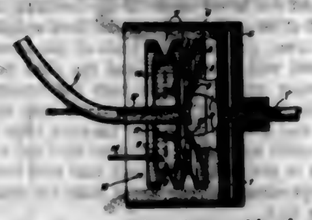
1. A display device comprising a planar placard having a plurality of parallel substantially co-extensive score lines forming a plurality of integral defined band portions, said band portions being depressed forwardly from the surface of said placard, a rack bar member removably secured to said placard, said rack bar member comprising a portion spaced from said placard and providing a plurality of forwardly extending band members, one of each of said band members being positioned in vertical alignment with one of said integral band members.

2,845,177
INSPECTION MECHANISM
Wallace W. Perkins, West Hartford, and Warren E. Dion, Forestville, Conn., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 25, 1956, Serial No. 593,504
13 Claims. (Cl. 209—111)



1. An inspection mechanism for a member having a surface of revolution comprising a support for receiving the member, means providing a light source directed onto said surface of revolution, a photoelectric device responsive to the reflection of said light source from said surface, indicating mechanism responsive to the photoelectric device, and means directing fluid against said surface to support and rotate said member and to remove all loose material therefrom during the inspection of the surface.

2,845,178
CENTRIFUGALS
Walter Reddelberg, Starnberg, Germany, assignor to Krauss-Maffei A. G., Munich-Allach, Germany
Application February 23, 1955, Serial No. 490,103
7 Claims. (Cl. 210—213)



1. Centrifugal comprising, in combination, a centrifugal drum member having an inner cylindrical face adapted to receive slurry; a pusher member located in said drum member and extending across the axis thereof; shifting means engaging one of said members for shifting the same along said axis; a feed pipe having a free outlet end portion extending into said drum member substantially along the axis thereof; and an annular distributing means formed with a central opening through which said pipe extends, said distributing means having an end wall adjacent said pusher member extending about said feed pipe and connected to said pusher member to define with the latter a passage through which slurry moves from the feed pipe to form a cake at the inner face of the drum member, and said distributing means having an annular outer wall extending from the periphery of said end wall away from said pusher member and providing a uniform thickness in the cake during shifting of said one member along said axis, said annular outer wall being formed with at least a pair of annular grooves of trapezoidal cross section each having sides which approach each other as they approach said axis and said grooves being separated from each other by annular wall portions extending in the direction of said axis and concentric therewith, and said annular outer wall being formed with cutouts at said grooves so that treating fluids may be directed through said cutouts to the cake, whereby said annular wall portions will prevent mixing of said fluids during shifting of said one member.
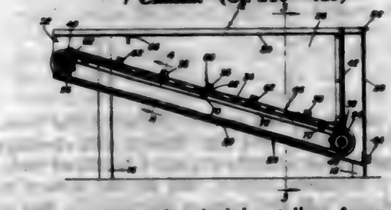
2,845,179
PRIMER UNIT FOR WATER FILTERING SYSTEM
Saul Riole, Jamaica, N. Y., and John Bantz, Darien, Conn.
Application January 13, 1956, Serial No. 558,940
7 Claims. (Cl. 210—315)

1. A primer filter unit for water filtering tanks which comprises an individual housing means for attaching the housing to the upper open end of a filtering tank to provide in effect, a cover therefor, a cover for the upper end of the housing to which access can be had to the interior of the primer unit, conduit means on the lower end of said primer through which water can be directed from the water main thereto, an integral base portion surrounding the conduit means, a vertically-extending perforated tube releasably supported upon said base portion and extending upwardly to and within the cover, and filtering material wound tightly upon said perforated tube, a second perforated tube concentric with the one perforated tube and extending upwardly from said base portion to said cover, filtering material wound tightly upon said perforated second tube, and a mesh basket supported in



said unit housing and surrounding said tubes, said mesh basket adapted to contain water softening material, and said tubes and filtering material being removable through the cover opening of the housing as a unit.

2,845,180
SELF-UNLOADING DRAIN PAN
Millard F. McAfee, San Angelo, Tex., assignor of one-half to Omer A. Dreiling, San Angelo, Tex.
Application July 6, 1955, Serial No. 520,272
7 Claims. (Cl. 210—413)

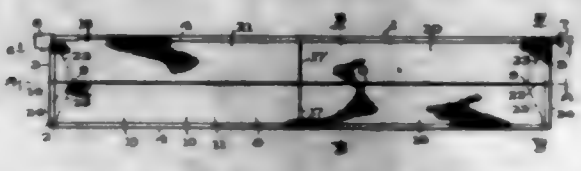


1. An apparatus for draining tallow from dehydrated solids comprising a supporting frame, a tallow receiving pan carried by said frame, means for draining tallow from said pan, means for removing the dehydrated solids from which the tallow has drained from said pan, said pan including an imperforate tallow receiving bottom and sides, a perforated false bottom parallel to and disposed above said imperforate bottom upon which the dehydrated solids rests, supporting rods secured to said sides and forming a rest on which said false bottom is mounted, said removing means comprising an endless chain conveyor having one run overlying said false bottom and a second run overlying said imperforate bottom, one of said runs having elements thereon for breaking congealed dehydrated solids on said false bottom after tallow drainage therefrom and for moving these solids off the false bottom, said pan being longitudinally inclined from a horizontal plane and having a perforated back wall above said false bottom adjacent the lower end of said pan, said imperforate bottom extending downwardly beyond said perforated back wall for catching tallow flowing through said back wall.

2,845,181
FILTER ELEMENT
Sidney A. Rathe and William F. Van Loenen, Baton Rouge, La., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
Application November 26, 1954, Serial No. 471,366
6 Claims. (Cl. 210—486)

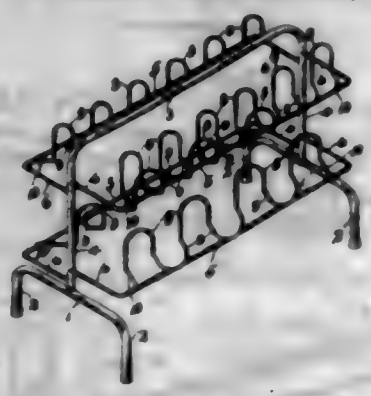
1. A filter element comprising a frame having a pair of longitudinal and end members, screen surrounding substantially all of the exterior frame surface of said

frame members and extending throughout the area defined by said frame to provide spaced opposing side screen portions, said side portions of screen being secured together between terminal points spaced from said end members



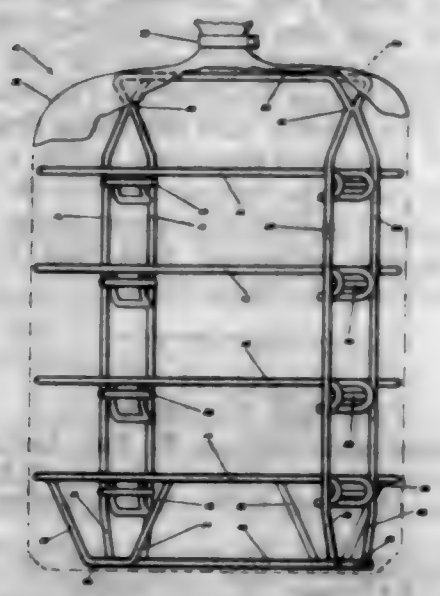
along a longitudinal line substantially parallel to and spaced from said longitudinal members, whereby upper and lower filtrate zones are defined within the confines of said screen which intercommunicate between said terminal points and said end members.

2,845,182
SHOE RACK
Truman L. Atkinson, Ludington, Mich.
Application May 13, 1954, Serial No. 429,442
5 Claims. (Cl. 211—37)



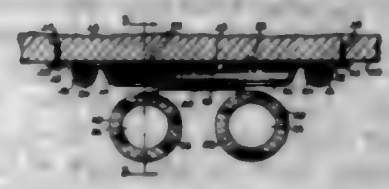
5. A rack comprising two spaced vertical tubular posts, each having an opening in a side thereof, said openings being substantially horizontally aligned, a U-shaped member having a horizontal section and an end section at each end thereof, said end sections extending to and at their free ends passing through said post openings, each end section at its free end being doubled back for forming an upwardly extending hook within and engaging against opposite inner surfaces of each of the associated posts to hold said member in substantially horizontal position.

2,845,183
PIE RACK
Sidney M. Paulsen, Minden, Nebr.
Application June 29, 1954, Serial No. 440,122
3 Claims. (Cl. 211—41)



1. In a pie carrying rack, the combination which comprises oppositely positioned pairs of vertically disposed rods, said rods being connected at their upper ends with transversely disposed bars positioned to provide a handle and at their lower ends with transversely disposed bars positioned to retain the pairs of rods in vertically disposed positions, the transversely disposed bars connecting the upper and lower ends of the pairs of rods being integral with said rods, vertically spaced horizontally positioned cross bars connecting the rods of each of said pairs, a plurality of upper and intermediate pie plate receiving rings having hook-like clips at one side and inwardly inclined latching clips on the opposite side with the clips including spaced parallel rods extended from opposite sides of the ring and positioned in a plane extended through the elements of the ring, said rods being bent upon themselves providing upper and lower arms and the lower arms of the hook-like clips being parallel to the upper arms and the lower arms of the latching clips being positioned at an angle slightly less than a right angle to the upper arms, the extended ends of the lower arms being connected with cross bars, and the clips being positioned to coact with the cross bars for retaining the rings in position in the rack, and a lower ring also having hook-like and inwardly inclined latching clips thereon positioned to coact with the lower cross bars for retaining the lower ring in position in the rack and said lower ring also having depending brackets at the sides for assisting in supporting the rack.

2,845,184
COMBINATION HOLDER FOR PENCILS, ENVELOPES, AND CUPS OR THE LIKE
Ray A. Hayden and Bernard J. Tonning, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application May 31, 1955, Serial No. 511,867
3 Claims. (Cl. 211—87)



1. A holder adapted for attachment to the substantially vertical, flat rear surface of a pew or the like, comprising: a body formed of sheet metal so as to provide end flanges adapted for flush attachment to said flat surface and a rear wall spaced rearwardly of said flat surface and provided with vertically extending forwardly embossed ridges dividing the space between said rear wall and said flat surface into compartmented receptacles, said body having closure flanges extending forwardly from its lower rearward edge to form closures for the lower ends of said receptacles, and a metal strip secured to the rear surface of said body's rear wall, said strip having oppositely laterally extending arms curled rearwardly, inwardly and then forwardly to form a pair of vertically disposed cylindrical sockets adapted to receive cups or the like therein.

2,845,185
SHOE HANGER
Howell W. Winderweedle, Jr., Jacksonville, Fla.
Application October 5, 1954, Serial No. 460,301
1 Claim. (Cl. 211—114)

A collapsible rack for shoes and like articles comprising: a plurality of flat, elongated, rectangular shelves each of which is formed as a rigid, imperforate plate member, said shelves lying in spaced horizontal planes and being aligned in a vertical direction to define a series of similarly aligned, article-receiving compartments; a pair of flexible side walls extending the full length of said series, said side walls being of a width substantially equal to the length of the shelves and being respectively connected to the opposite longitudinal edges of the

several shelves to close said compartments at opposite sides thereof while leaving the compartments open at the ends of the shelves, said side walls folding inwardly within the compartments for collapsing of the rack in said vertical direction; and means for suspending the rack from an overhead support comprising a shank straight from end to end thereof, said shank extending transversely of the shelves, the side walls having openings immediately below the uppermost shelf, the shank rotatably engaging adjacent its ends in said openings of the respective side walls with the shank underlying the uppermost shelf over the full distance between the openings, the ends of the shank projecting beyond the respective side walls, radial extensions on the ends of the shank lying in a common plane including the shank, and suspension hooks formed on the outer ends of the ex-



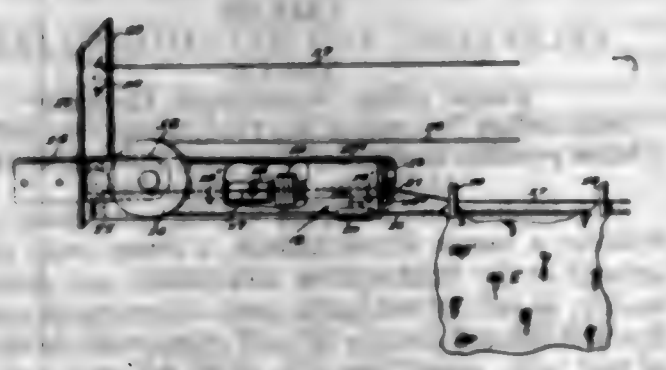
tensions for engaging an overhead support, said extensions swinging, on rotation of the shank, about the axis of the shank in planes spaced outwardly from the side walls, said hooks and extensions projecting above the upper ends of the side walls in one position to which the extensions are swung, and extending downwardly from the shank when the extensions are swung 180° from said positions so as to be disposable wholly below the plane of the uppermost shelf in the collapsed condition of the rack, said shank being supported against downward movement from said uppermost shelf wholly by the side walls and being engaged against upward movement by said uppermost shelf, the underside of the uppermost shelf being spaced vertically from the axis of the shank a distance not less than the maximum dimensions of the shank measured at any location along its length in a direction radially from said axis.

2,845,186

CLOTHES LINE AND CLOTHES PIN ASSEMBLY

Gerhard Schwan, Edmonton, Alberta, Canada

Application June 13, 1956, Serial No. 591,071
6 Claims. (Cl. 211—119.11)



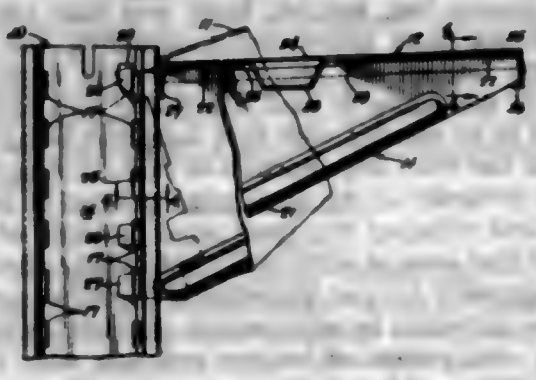
1. A structure of the kind described comprising an endless clothes line movable about a pair of pulleys, a clothes pin container disposed between said pulleys adjacent the lower run of the said clothes line, and means for delivering clothes pins from said container in succession into adjacency to said lower run of the clothes line, said means comprising an endless line having the lower run thereof movable through said container and on which said clothes pins are movably supported.

2,845,187

SHELF ASSEMBLY

Louis R. Bianchi, Philadelphia, Pa., assignor to Proctor & Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application January 19, 1955, Serial No. 482,900
4 Claims. (Cl. 211—136)



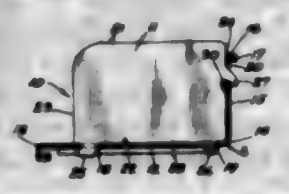
1. In a shelf assembly, an upright composed of a vertical base portion having along one edge thereof an outwardly projecting flange, wall means along the juncture of said flange with said base portion defining a series of apertures each having one edge disposed in the flange and the opposite edge disposed in the base portion, the wall defining said opposite edge being disposed at an obtuse angle to the outer surface of said vertical base portion, and a bracket member engaged with said upright and having means to prevent lateral displacement thereof in the plane of said base portion, said means including one finger formed with a lug laterally offset a distance less than the thickness of said vertical base portion engaged with the said opposite edge wall of a selected aperture to prevent lateral displacement of the bracket in one direction, and a second finger formed to project through a second aperture with its one surface engaged flush against said base portion and with its opposite surface abutting the said one side edge of the aperture to prevent lateral displacement of said bracket in the other direction.

2,845,188

SHELF AND DIVIDER UNIT

Paul A. Rosenquist, Warren, and Robert E. Sandberg, North Warren, Pa., assignors to Deluxe Metal Furniture Company, New York, N. Y., a corporation of Pennsylvania

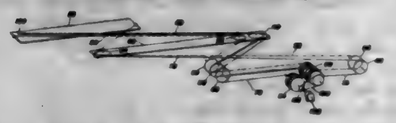
Application May 1, 1958, Serial No. 732,195
3 Claims. (Cl. 211—184)



1. A shelf and divider unit for vertical filing of file folders, envelopes, papers, and the like, comprising a unitary sheetmetal shelf including a substantially flat elongated bottom panel having parallel front and rear edges, a back panel having a top edge portion and having a bottom edge portion integral with the rear edge portion of the bottom panel and said back panel extending upwardly from the rear edge of said bottom panel in substantially perpendicular relation thereto, said back panel having a height substantially less than the front to rear depth of said bottom panel, said shelf having

three spaced rows of elongated narrow spaced apart transversely aligned slots therein, the slots in said bottom panel extending transversely thereacross and the slots in said back panel extending vertically therein, said rows of slots extending longitudinally of the shelf in parallel relation to the front and rear edges of said bottom panel with a first one of said rows of slots being spaced inwardly from but adjacent to the front edge of said bottom panel, each of said slots in said first row having a front edge portion and a rear edge portion, a second row of said slots being located closely adjacent the top edge of said back panel, and the other row of said slots being located intermediate said first and second rows of slots adjacent the rear edge portion of said bottom panel, a plurality of divider panels each comprising a rigid flat sheet having top, bottom, front and rear edge portions and having three spaced apart mounting lugs projecting from the bottom and rear edge portions thereof substantially in the plane of said flat sheet, said lugs being so spaced as to register with said slots and being positioned therein, the front edge portion of said dividers being positioned inwardly of the front edge portion of said bottom panel and adjacent the front edge portions of said slots in said first row of slots, and said dividers being removably mounted on and maintained in stable vertical position on said shelf by engagement of said lugs in said slots and by engagement of bottom and rear edge portions of said dividers with said bottom and back panels, respectively.

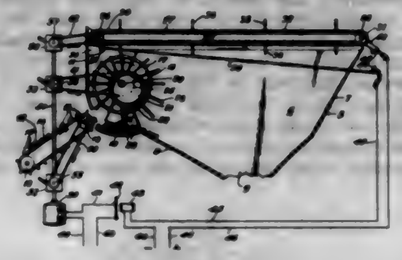
2,845,189
AUTOMOBILE PARKING APPARATUS
Leon Donald Sanders, York, Pa., assignor to Systematic Parking Company, York, Pa., a body corporate
Application January 18, 1957, Serial No. 635,050
8 Claims. (Cl. 214—16.1)



1. In an organization of the type described, an elevator having a pair of opposed sides from which material may be discharged and received, a dolly mounted on said elevator for movement transversely of said sides to and from the elevator with said dolly normally occupying a central position between said sides, means for effecting such movement including an extension slide parallel with said dolly and motor driven transversely of said sides between a position where it is centrally disposed between said sides and positions where it extends from either of said sides substantially the full length of the slide, cable means effectively interconnecting the dolly and the slide such that as the slide is moved in one direction the dolly is moved relative to said slide in the same direction, and means operative in response to operation of the motor driven slide to effectively lengthen the cable means that is effective to move the dolly during its movement from and to its central position so that it will occupy a predetermined position relative to the slide when the slide is in its extreme extended positions.

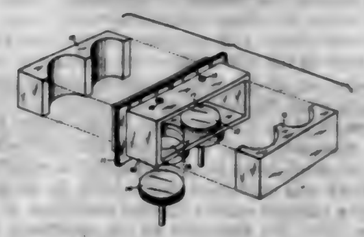
2,845,190
HOPPER CONTROL MECHANISMS
Richard Cronzburg, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany
Application October 7, 1955, Serial No. 539,244
Claims priority, application Germany October 12, 1954
7 Claims. (Cl. 214—17)

7. In a feed control mechanism, a hopper having feed and discharge openings, means for feeding material to said feed opening, a distributor wheel rotatably mounted in said hopper adjacent said feed opening, a series of pins adapted to be projected from said wheel to engage material during the lower portion of their travel and move the material across said hopper, an endless conveyor having one end pivoted to the upper end of the hopper so that the free end will swing upwardly away therefrom, motor means for driving said distributor wheel and end-



less conveyor, a control member mounted in said hopper and movable upwardly in response to the level of material in said hopper, a circuit for said motor means having a source of electrical energy, and a switch contact on the endless conveyor adapted to be engaged by the control member when the level of material in the hopper reaches a predetermined height to interrupt the circuit in said motor means.

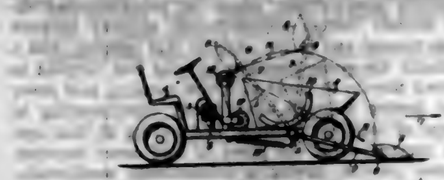
2,845,191
AIR LOCK DEVICE
Franklin McDermott, Darien, Conn., assignor to Lever Brothers Company, New York, N. Y., a corporation of Maine
Application February 5, 1957, Serial No. 638,417
7 Claims. (Cl. 214—17)



5. An air lock comprising a housing, a pair of closely fitting blocks adapted to slide into opposite sides of the housing, said blocks each having shaped cavity means in one face and cooperating to form a chamber to enclose a substantially complementary-shaped article within the housing, piston means adapted to move within the chamber to draw in or displace fluid therefrom, and vent means adapted to conduct fluid into and out of said chamber.

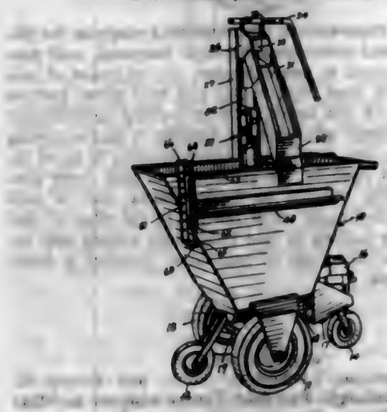
2,845,192
EXCAVATING AND SELF-LOADING DUMP TRUCK
Kasper Klaus, Mennedingen, Germany
Application November 15, 1955, Serial No. 555,222
Claims priority, application Germany November 16, 1954
15 Claims. (Cl. 214—78)

1. A loading and dumping vehicle comprising in combination a motor driven chassis, a dump body pivotally secured at the front end of said chassis and tiltable forwardly, a pair of swingable arms rotatably secured at a first end thereof directly to said chassis one on each side of said body, power means to swing the other end of said arms through a predetermined path, a shovel mounted between said pair of arms at the said other end and arranged to be turned in front and above the said body, the said arms formed to be of such length as to permit



forward pivoting of said body in all shovel positions in the predetermined path.

2,845,193
TRAVELING FEED CART
Milton V. Schubert, Jr., and Joseph B. Mango, Jr., Columbia City, Ind., assignors to LML Engineering & Manufacturing Corp., a corporation of Indiana
Application March 21, 1957, Serial No. 647,623
2 Claims. (Cl. 214—83.18)



1. In a traveling device for intermittently depositing feed in a receptacle, a feed hopper, a stationary feed lift tube extending vertically above the hopper, a feed-lifting auger adapted to lift feed from the hopper to the upper extremity of the lift tube, power means carried on the traveling device having driving connection with said feed-lifting auger, a stationary feed discharge chute mounted on the upper terminus of the lift tube, said discharge chute depending angularly from the lift tube and terminating laterally beyond the margin of the hopper, a feed return chute mounted in side-by-side relation to the lift tube and terminating in overlying relation to the hopper, said lift tube having a first opening therein communicating with the discharge chute and a second opening therein spaced above the first opening communicating with said return chute, and a manually operable gate movably supported at the junction of the lift tube and the discharge chute, said gate cooperating with the discharge chute for selectively depositing the feed lifted through said tube into either the return chute or the discharge chute depending on the operative position of said gate, and yieldable means carried on said hopper adapted to engage the receptacle to properly position the terminus of the discharge chute with relation thereto.

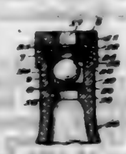
2,845,194
STIRRER ASSEMBLY
Raymond F. Donnelly, Merrick, N. Y.
Application June 25, 1956, Serial No. 593,475
6 Claims. (Cl. 215—12)

1. A stirrer assembly comprising a base having a flat circular portion and an annular flange portion projecting substantially at right angles from such flat portion, said base being adapted to fit on the bottom of a container for beverages and the like with the flange portion embracing the container side wall, a plurality of elongated members formed integrally with such flange portion of the base and



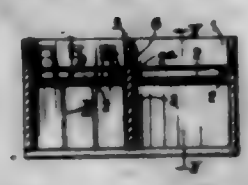
extending therefrom in circumferentially spaced-apart relation, and breakaway lines defining individual ends of said elongated members in the flange portion, said members being adapted to overlie the side wall of such container and to be usable as stirrers upon detachment from the assembly.

2,845,195
NON-REFILLABLE STOPPER
Juan Bautista Della Libera, Havana, Cuba
Application July 1, 1953, Serial No. 519,475
1 Claim. (Cl. 215—32)



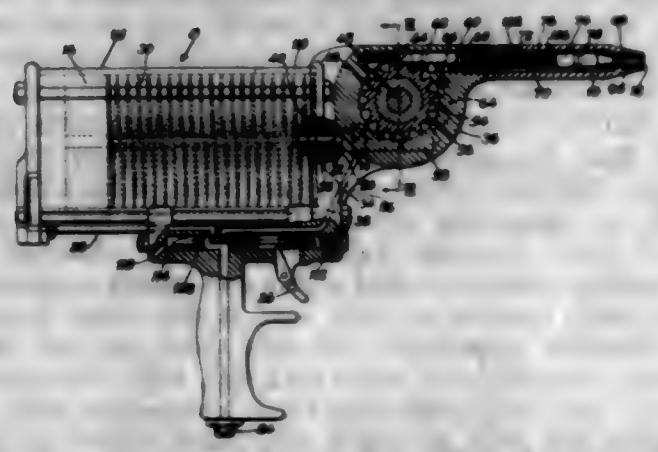
In a non-refillable container, a neck portion on said container having a passage therethrough and opening through the top thereof, said passage including a relatively narrow orifice spaced from the top of said neck portion and four stepped chamber portions of successively greater diameter between said orifice and said top, the first chamber immediately above said orifice being relatively deep, the second chamber being relatively shallow and the third and fourth chambers being of intermediate depth, an upstanding annular flange in the bottom and spaced from the side walls of said first chamber in surrounding relation to said orifice and having a coplanar upper edge forming a valve seat, a disc valve in said first chamber cooperative with said valve seat and of a diameter to completely cover said seat, said valve having radially projecting separators freely engageable with the chamber side walls to center said valve relative to said seat and form passages between the periphery of the valve and the chamber walls, a ball weight in said first chamber above said disc valve to urge said valve on said seat, a cylindrical member having a diameter substantially equal to and snugly seated in said second chamber and having an overall height substantially equal to the combined depth of said second and third chambers, said cylindrical member having in its underside a dished recess for partially receiving said ball to permit unseating of said disc valve and also having radial channels extending from said recess to the periphery of said member and of a depth greater than the depth of said second chamber and forming passages through said second chamber between said first and third chambers, said cylindrical member having on its upper surface a plurality of concentric rings of spaced upstanding segmental flanges in staggered relation, and an annular disc sealed in said fourth chamber and bearing on said upstanding segmental flanges to retain said cylindrical member in fixed position. the central opening in said annular disc having a diameter smaller than that of the inner ring of segmental flanges.

2,845,196
BOTTLE CRATES
Percy Charles Brett, Beamwood, and Cecil Roy Brett, Purley Way, England
Application November 28, 1955, Serial No. 549,479
Claims priority, application Great Britain December 15, 1954
1 Claim. (Cl. 217—19)



In an open topped crate having a dividing partition to form compartments with side walls and bottom walls, strips positioned in a horizontal plane around the interior side walls of the compartments and along the opposite sides of the dividing partition, said strips being vertically spaced a distance at least greater than one-half the height of the said walls of the compartments, and said strips being formed with a flat side secured to the side walls and said opposite sides of the dividing partition and a curved side projecting into each respective compartment to thereby retain cylindrical articles with reduced neck portions in said compartments when said crate is full and is turned bottom-up.

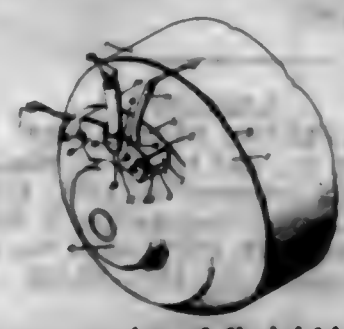
2,845,197
POWER RIVET SETTING TOOLS HAVING ANGULARLY ADJUSTABLE NOSEPIECES
Charles Newstead, Birmingham, England, assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application February 13, 1956, Serial No. 565,228
Claims priority, application Great Britain March 22, 1955
6 Claims. (Cl. 218—47)



1. A power actuated tool, for setting rivet assemblies by tensioning a mandril portion of an assembly, comprising: mandril engaging means operatively movable in one direction axially of the mandril to grip and tension the mandril; a driving member; power means for operatively moving the driving member in a direction other than in said one direction; and pivotally adjustable motion transmitting means positively coupling the mandril engaging means with said driving member; whereby the angular relationship between the direction of movement of said engaging means in said one direction may be varied relatively to the direction of movement of said driving means.

2,845,198
ELECTRICAL TERMINAL BOX AND COVER THEREFOR
Karl M. Feierbg, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application August 26, 1954, Serial No. 452,393
1 Claim. (Cl. 220—3.8)

An electrical terminal box having a plurality of joined walls defining a box opening, at least one of said walls having formed therein an aperture adapted to receive an electrical conductor, at least one of said walls having a substantially semi-circular recess of predetermined diameter formed therein approximately midway between the ends thereof and at the edge of said opening, and a substantially flat cover member for said box adapted to be secured thereto to cover said box opening, said cover member having a shape substantially corresponding to the shape of said box opening, and having at least one portion curved out of the plane of said cover member, said cover portion having a substantially semicircular cross-section at the edge of said cover member and having a curved cross-section of diminishing scope as the distance from said cover member edge increases, said portion being formed at approximately the midpoint of said cover member edge, said recess and said cover portion at said edge of the cover member having substantially the same diameter and forming together a lead-receiving opening when one side of said cover member is faced toward said box opening, the remainder of said cover portion then being adapted to accommodate part of said lead, said semi-circular cover portion at the edge of said cover member seating in said recess and sealing said recess when the other side of said cover member is faced toward said box.

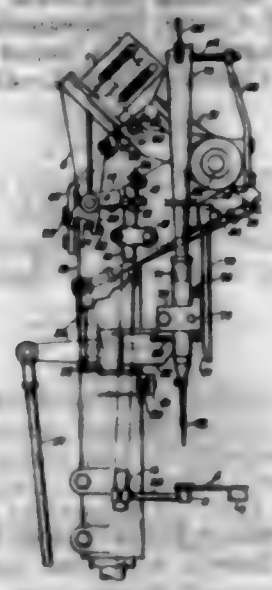


2,845,199
CONTAINER
Laurel E. Putnam, Livingston, N. J., and Robert E. Turner, Pittsburgh, Pa.; said Turner assignor to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania, and said Putnam assignor to Superior Air Products Company, Newark, N. J., a corporation of Delaware
Application January 6, 1955, Serial No. 480,222
4 Claims. (Cl. 220—15)



1. A container for liquid oxygen and the like, comprising an inner vessel, an insulating jacket surrounding the inner vessel and defining an evacuated insulation space between said vessel and said jacket, said jacket having a hollow neck portion, inlet and outlet connections communicating with said vessel, a supporting fitting affixed to said jacket within said neck portion thereof, a tubular member affixed adjacent one end thereof to said fitting and extending into said vessel, said member being affixed to said vessel for suspending the latter within said jacket, a plurality of generally spherical flexible bumpers, and bracket means for mounting said bumpers on the outer wall of said vessel within said insulation space and in a plane below the median plane of said vessel, said bumpers being substantially equally spaced around the periphery of said vessel and being arranged so as to be in contact with the outer wall of said vessel but slightly spaced from the inner wall of said jacket when said vessel is in a vertical position to prevent excessive motion of said vessel relative to said jacket.

2,845,200
WIRE FEEDING APPARATUS
Lee E. Dills, Cleveland, and John H. Hollopeter, Mayfield Heights, Ohio, assignors to General Electric Company, a corporation of New York
Application September 10, 1956, Serial No. 608,976
2 Claims. (Cl. 221—210)



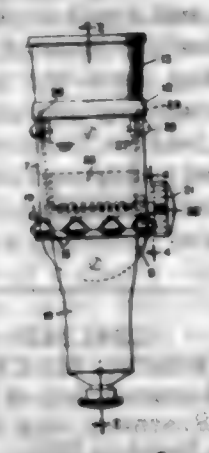
1. In combination with a carrier having a plurality of heads thereon and means for indexing the carrier to carry the heads intermittently to a plurality of stations, a wire feeding apparatus at one of said stations comprising a hopper adapted to hold a quantity of wires at an angle to the vertical, a transfer member comprising a pick-up tip portion adapted to grip a single wire, means mounting said member for movement of the tip portion in a vertical plane from a pick-up position at said hopper to a delivery position whereat the wire is held in a substantially vertical position above the head at said station, means to effect gripping of a wire by said tip portion at the pick-up position and release of the wire at said delivery position, a vertically arranged funnel mounted to receive the wire released by said tip portion, a movable guide tube below and in alignment with said funnel to receive the wire therefrom, means mounting said guide tube for vertical reciprocation to carry the lower end thereof alternately downward into registry with the head at said station and upward out of the path of the heads during the indexing movement thereof, operating means synchronized with the carrier indexing means to carry said guide tube downward upon entry of a head into said one station and upward prior to indexing of the head away from said station, and independent operating means synchronized with the carrier indexing means to initiate movement of said transfer member to pick-up position prior to upward movement of said guide tube whereby to minimize the time of delivery of a wire from said hopper into the head at said station.

2,845,201
POSITIVE LOCKING SPOUT FOR SEALED CANS
Louis Henry, Carlton, Oreg.
Application April 18, 1955, Serial No. 501,978
1 Claim. (Cl. 222—89)



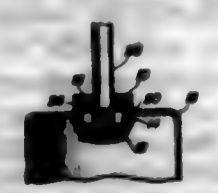
A re-usable spout for metal cans comprising a hollow cylindrical body fitted with a removable cap, a rounded metal tube of oval cross-section fitted securely into the said body, the protruding end of said tube cut on an angle for reasonable penetrating characteristics, two sets of slots cut laterally in the said tube on each side of the same and at right angles to the longitudinal axis of the same, beginning where the tube emerges from the body described and diametrically opposite one another across the broadest diameter of the tube, a sponge elastic gasket over the tube and resting against the shoulder of the body, the said gasket of such thickness that it covers a majority of the said slots, whereby the sharp end of the tube can be forced into a liquid container cutting an oval hole therein, in turn making it possible by subsequent pressure to compress the above-mentioned gasket and, finally, by a twisting motion, to cause the above-mentioned slots to mate with the cut edges of the container across the narrower dimension of the hole cut in the same thus providing a spout locked and sealed in place but which can be removed at will by a reverse of the insertion process.

2,845,202
TOOTHPASTE DISPENSER
William H. J. Downey, Wilmington, Del.
Application October 31, 1956, Serial No. 619,598
2 Claims. (Cl. 222—97)



1. A dispenser for a tube of toothpaste including a frame having an opening and a bayonet slot in opposed walls thereof, the bayonet slot being in communication with one edge of the wall, a bifurcated shaft, between the furcations of which the closed end of the tube is inserted, one furcation extending beyond the terminal of the other furcation to provide a pintle adapted to be received in the opening in the dispenser frame, the opposite end of said shaft being adapted to be received in the bayonet slot, a winding member connected to one terminal of said bifurcated shaft for rotating the latter, and means carried by said frame in engagement with the tube to collapse the portion of the tube upon which it bears, to force the toothpaste out of the open end of the tube, when the winding member is operated.

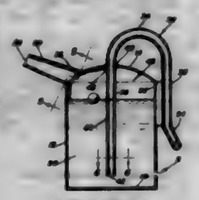
2,845,203
FILLING AND SEALING DEVICE
Norman Potash, Baltimore, Md.
Application April 21, 1955, Serial No. 503,044
6 Claims. (Cl. 222—394)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A filling and dispensing valve for pressurized containers comprising an upper body portion and a lower valve portion connected by an intermediate necked portion said necked portion being axially extensible and of

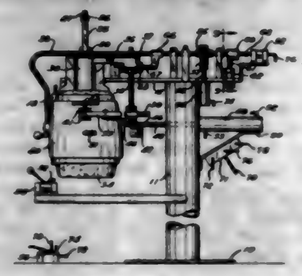
lesser diameter than both said body and valve portions, said necked portion having radial openings therethrough and said body and necked portions having an axial opening connecting with said radial openings.

2,845,204
EXPLOSION-PROOF CONTAINER FOR INFLAMMABLE LIQUIDS
Malcolm L. Raymond, Johnstown, Pa.
Application March 18, 1957, Serial No. 646,594
3 Claims. (Cl. 222—468)



1. An explosion-proof container for inflammable liquids comprising a can having a pouring spout provided with valving means, a substantially U-shaped pipe having a bight portion and a pair of limb portions, one limb portion projecting into the space of the can and having its lower end terminating above the bottom of the can and also having a slot extending approximately from one end to the other end of said one limb portion, the other limb portion being exteriorly disposed and fastened to the can and the bight portion being arched and cooperating with the top of the can and providing a carrying handle.

2,845,205
PRESSING MACHINE
Samuel Rosenthal, deceased, late of Shaker Heights, Ohio, by Leighton A. Rosenthal and Charlotte R. Kramer, executors, Shaker Heights, Ohio
Application July 15, 1957, Serial No. 671,948
7 Claims. (Cl. 223—73)



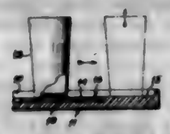
1. A machine for pressing the top portion of trousers and the like comprising a vertical mandrel, opposed side wings fulcrumed thereto, a piston cylinder assembly mounted on said mandrel, linkage connected thereto for swinging said wings outwardly, a pair of heated shoes engageable with the outer side walls of said wings fulcrumed on said wings, a second piston cylinder assembly, linkage connected thereto for swinging said shoes against and away from the side walls of said wings, a third piston cylinder assembly, a rod embodying a horizontal and a depending section reciprocated thereby, a third shoe mounted on the outer depending end thereof for clamping engagement with the overlapped material of the fly of the trousers, means on the horizontal section of said rod operable upon rotation thereof to actuate the last named cylinder into retracted position, a valve engageable with the end of the horizontal end of said rod controlling the movement of the first named piston cylinder assembly, and a second valve for manual operation and independent the first named valve to control the actuation of the second named piston cylinder assembly.

2,845,206
SHAKE HOLDER
Eugene J. Carrie, Minneapolis, Minn.
Application April 27, 1954, Serial No. 426,000
1 Claim. (Cl. 224—46)



A tool for use with a building wall having overlapped shingles attached thereto, said tool comprising a receptacle having a base and having side walls including a rear side wall and defining an interior chamber for receiving and retaining construction materials, an upstanding tongue fixedly formed integrally with and lying in the plane of said rear wall to be inserted between an overlying shingle and an underlying shingle of such a wall to be gripped thereby and for urging said rear wall into engagement with the underlying shingle, and a depending handle fixedly secured to said receptacle in spaced relation with the rear wall thereof and having a support member thereon and extending transversely thereof into the plane of said tongue and transversely thereto for engaging the building wall to cooperate with said tongue in supporting said receptacle on the building wall.

2,845,207
SERVING TRAY AND RECEPTACLE SET
Max Klingbeiler, Elmhurst, Ill.
Application August 20, 1954, Serial No. 451,314
6 Claims. (Cl. 224—48)

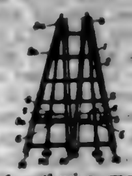


1. In a tray and receptacle set, the combination comprising a serving tray having a magnetically active member and a magnetically inert member adjacent said active member, said tray having an upper face defining a relatively smooth common supporting surface overlying both said members, and a receptacle having a base dimension adapting it to fit primarily on said active member as well as primarily on said inert member, said receptacle having a magnetically active element and being susceptible of being slid along said supporting surface from said active member to said inert member by the deliberate application of an external force thereto, said receptacle being freely removable from said inert member.

2,845,208
TRAVELING STEP LADDER
Florentin J. B. Antonietti, Herzogenaurach, Germany
Application March 11, 1955, Serial No. 493,600
Claims priority, application France March 18, 1954
2 Claims. (Cl. 228—15)

1. In a ladder having a device enabling its moving without descending therefrom, two propelling shafts, two

adherent shoes at the lower ends thereof, two cross-pieces holding the ladder in spread position, pivoting means provided on said cross-pieces for receiving said



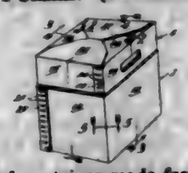
shafts with a free lengthwise movement thereof in a vertical plane, and locking means for locking said shafts in a vertical position, said shafts being pushed downwards with a resilient force in said locking position.

2,845,209
CUP-SHAPED CAPSULES
Otto Johannes Brown, Slough, England
Application October 29, 1954, Serial No. 465,667
Claims priority, application Great Britain December 22, 1953
4 Claims. (Cl. 229—4.5)



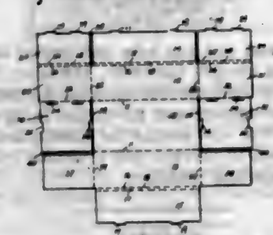
1. A cup-shaped capsule of soft metal foil, wherein on pattern of indentations consisting of narrow grooves is impressed on the outer surface of the capsule and a different pattern of indentations consisting of narrow grooves is impressed on the inner surface of the capsule in which the lines of one pattern cross those of the other pattern, whereby intimate nesting of stacked capsules one within the other is avoided.

2,845,210
CONTAINER FOR BULK PACKAGE PARTS
John P. Fischer, Monroe, Mich., assignor to River Raisin Paper Company, Monroe, Mich., a corporation of Michigan
Application May 22, 1953, Serial No. 356,816
11 Claims. (Cl. 229—14)



1. An open-end container made from a single sheet of material comprising, four side walls forming a closed structure when the abutted edges are secured together, a first pair of opposite side walls being provided at one end with hinged side flaps folded inwardly against said walls, said folded side flaps having integrally connected hinge wing panels on the sides thereof extending inwardly and forming an inner corner structure at each corner of said container, a second pair of opposite side walls against which said wing panels abut having hinged side locking flaps at the same end as that from which the flaps on said first said side wall extend folded inwardly against the second said walls and of a reduced width to lie between said wing panels, an end wall provided by a first pair of end flaps hingedly attached to said first pair of side walls, a second pair of end flaps hingedly attached to said second pair of side walls and overlapping said first pair of end flaps, said end flaps extending from the side wall at the end opposite to that having the side flaps, means for detachably fastening said end flaps together, said fastening means comprising a plurality of apertures in one pair of said end flaps, a plurality of hinged tabs on the other pair of said end flaps arranged to fit into and extend through said apertures, and means for simultaneously locking said tabs in said apertures and said side flaps in place.

2,845,211
FIBREBOARD CONTAINER
William E. Hauck, Indianapolis, and Harold W. Layne, Beech Grove, Ind., assignors to Inland Container Corporation, Indianapolis, Ind., a corporation
Application September 26, 1955, Serial No. 536,674
1 Claim. (Cl. 229—34)

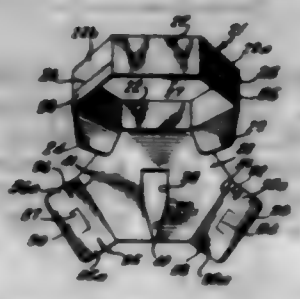


An open top container formed of a single substantially rectangular blank of corrugated fibreboard, comprising a bottom panel having free ends and defined by longitudinal fold lines in the mid portion of said blank and extending from end to end thereof, outer side walls projecting from said longitudinal fold lines, an inner side wall hinged to the outer longitudinal edge of each outer side wall and of a breadth substantially equal to that of the latter but of a length slightly less than the length of said bottom, outer end panels hingedly connected to the outer ends of one of said outer side walls equal in breadth to the latter and of a length substantially equal to the breadth of said bottom panel, an inner end panel hinged to the outermost longitudinal edge of one of said outer end panels equal in breadth to the adjacent inner side panel and of equal length with its connected outer end panel, an inner bottom panel hingedly connected along one longitudinal edge to the inner edge of each of the aforesaid outer end panels and of a breadth substantially equal to the breadth of said bottom panel, a middle end wall hingedly connected at one end to each of the outer ends of the other of said outer side walls and of slightly less breadth than the latter, each inner bottom panel having spaced openings adjacent to its line of fold and notches midway its longitudinal edges, the outer longitudinal edges of said inner side walls having outwardly projecting locking tabs to engage in said notches when the inner bottom panels are moved to a position overlying said bottom panel, and locking tabs projecting from the outer edges of the inner end walls of the first named inner side wall spaced apart a distance equal to the spacing of said spaced openings in the said inner bottom panels to engage and interlock therein when said inner end walls are folded over said middle end walls and in parallelism with the adjacent outer end panels, the corrugations in said blank running at right angles to said longitudinal fold lines, whereby the double thickness side walls and the triple thickness end walls have the corrugations extending vertically.

2,845,212
PROTECTING ARTIFICIAL FLOWERS ON WOMEN'S OUTERGARMENTS
Kibby Gerowin, Belle Harbor, N. Y.
Application January 14, 1955, Serial No. 481,754
1 Claim. (Cl. 229—39)

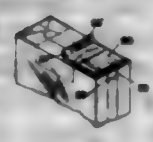
A protector for ornament attached to a garment and adapted to be supported by said ornament, said protector

comprising; a base portion having slot means in an enlarged inner end central of the base portion and opening on one edge thereof said slot means being adapted to straddle the point of attachment of said ornament, a rim-like portion hingedly connected to said base on one side thereof and embracing said ornament, tab means spaced apart from one another and spaced apart from the hinged



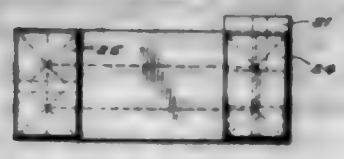
connection of said rim and base and having interlocking portions formed integral therewith, and spaced apart slot means formed in said rim-like member substantially parallel to the base thereof, said tab means being adapted to be inserted in said slot means for interlocking said rim and base portions to prevent said protector from becoming detached from said ornament.

2,845,213
PACKAGE WITH TEAR TAB OPENING MEANS
Bernard J. Tamaris, Ploertown, Pa.
Application June 10, 1953, Serial No. 360,789
4 Claims. (Cl. 229—51)



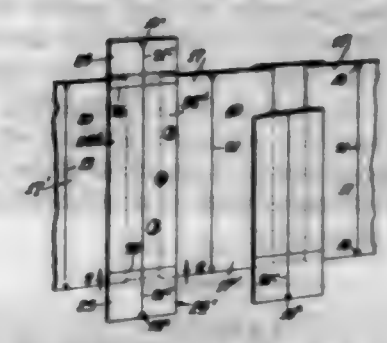
1. A package comprising an inner wrapper bent to form an end closure having an unfoldable tuck and unfoldable flaps partially overlying said tuck and containing transverse slits, a pull strip peelably attached to the outer surface of said tuck and terminating adjacent to said slits, said strip being partly overlaid by and partly overlying said flap sections, an outer sheath bent to form an end closure having a tuck overlying said tuck first named and flaps partially overlying and bonded to said second named tuck, said pull strip being bonded to the inner surface of said second named tuck, the last named flaps containing transverse slits, and a tab bonded to said second named flaps and sealing the slits therein, said tab having a free lip through which a single pull will impart stress detaching from the package said tab and the sheath flaps bonded thereto and unfolding said first named tuck and the flaps overlying such tuck.

2,845,214
BAG
Arno Finke, Lengerich, Germany, assignor to Firma Windmöller & Hölscher, Lengerich, Germany
Application July 14, 1954, Serial No. 443,391
Claims priority, application Germany July 16, 1953
4 Claims. (Cl. 229—62.5)



1. A container comprising, in combination, a tubular casing of rectangular cross-sectional configuration and made of a material capable of being folded, said casing being formed at opposite ends thereof, respectively, with a pair of closure assemblies each being substantially normal to the longitudinal axis of said casing and each being constituted by one of two folded portions of said casing located at said opposite ends thereof, respectively, one of said folded portions including a fold having an inner edge spaced from said longitudinal axis of said casing; conduit means for placing the interior of said casing in communication with the exterior thereof, said conduit means also being made of a material capable of being folded and being associated with said one folded portion of said casing in such manner as to form a passage through that closure assembly which is constituted by said one folded portion, said conduit means having inner and outer end portions, said inner end portion opening within said casing and being spaced from said axis thereof a distance at least as great as the distance which said inner edge of said one folded portion is spaced from said axis and said outer end portion extending outwardly beyond said casing and being capable of being folded back upon itself in such a manner that said outer end portion of said conduit means is substantially flush with said last-mentioned closure assembly; and securing means for securing said outer end portion of said conduit means to said last-mentioned closure assembly when the former is folded back upon itself and is substantially flush with said last-mentioned closure assembly.

2,845,215
WRAPPERS
Clarence W. Vogt, Wenton, Conn.
Original application October 28, 1948, Serial No. 56,942, now Patent No. 2,705,104, dated March 29, 1955. Divided and this application September 3, 1954, Serial No. 454,016
5 Claims. (Cl. 229—87)



1. As an article of manufacture, an enwrapment formed with a box plait adapted to be opened to form a channel, a reinforcing strip carrying adhesive areas, the reinforcing strip being adhesively secured to the enwrapment along and adjacent to the plait and extending along the box plait beyond the edges of the enwrapment to maintain the plait therein, and means forming a longitudinally extending weakened line on the reinforcing strip facilitating its division into two reinforcements, whereby light pressure exerted on the upper surface of said strip will divide it and open the box plait to form the channel, the reinforcements stiffening opposite walls of the channel which is adapted to be closed at both ends by folding the extending portions of the strip in an overlapping relationship.

2,845,216
CENTRIFUGAL APPARATUS FOR THE CIRCULATION OF FLUIDS
Jean Sallon, Paris, France, assignor to Societe Anonyme des Etablissements Neu, a corporation of France
Application October 23, 1953, Serial No. 388,819
Claims priority, application France November 15, 1952
2 Claims. (Cl. 230—127)

1. A centrifugal apparatus for the circulation of fluids comprising, in combination, a rotatably mounted centrifugal wheel, a fixed casing surrounding said wheel, said casing having a discharge aperture for removing the fluid impelled by said wheel, a rotary diffuser extending radially from the periphery of said wheel in said casing, said diffuser being integral with said wheel and thereby

rotatable therewith at the same angular velocity and said diffuser having two axially-spaced-apart axially-outer surfaces spaced from the axially-inner surfaces of said diffuser and auxiliary vanes extending axially from both axially-outer surfaces of said diffuser at a plurality of circumferentially spaced-apart points, said vanes lying in the space between said axially-outer surfaces of said



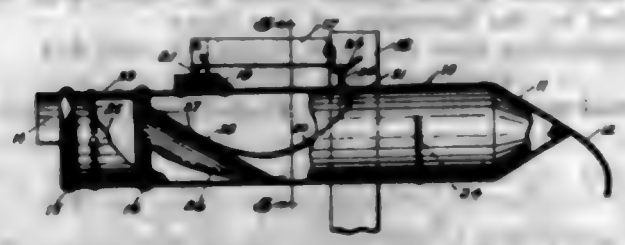
diffuser and the axially-inner surfaces of said casing but being spaced substantially from said last-named surfaces and said vanes having radial dimensions substantially less than the radial dimensions of said wheel, said auxiliary vanes being radially spaced from the axis of said wheel a distance greater than the radius of the periphery of said wheel.

2,845,217

NEWSPAPER DELIVERY RECEPTACLE

Francis G. Jacques, West Roxbury, Mass.

Application April 14, 1955, Serial No. 501,243
5 Claims. (Cl. 232—39)



1. A supported receptacle for receiving deliveries of articles such as newspapers, envelopes and the like, comprising an elongate container having an open end and a closed end, a support for said container, first co-acting means on said support and container for detachably pivotally mounting the closed end portion of the container on said support, second co-acting means on said support and container for releasably mounting the open end portion of the container on the support with the longitudinal axes of the container generally in a horizontal plane, whereby said container may swing by gravity about the pivot at said first co-acting means to a position in which the closed end of the container becomes disposed at a substantially higher elevation than the open end in response to release of the container at said second co-acting means, and a resilient clamp within said container for clamping an article inserted within said container through the open end thereof and for holding said article against dropping out of the container when its said open end swings downwardly.

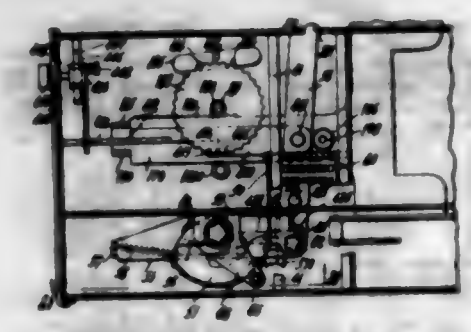
2,845,218

COMPUTING MACHINES

William L. Tancred, Wethersfield, Conn., assignor, by mesne assignments, to John H. Reid, Hartford, Conn., and Sidney W. Felton, Salem, Mass., as trustees

Original application August 18, 1949, Serial No. 110,988, now Patent No. 2,753,111, dated July 3, 1956. Divided and this application May 28, 1956, Serial No. 587,758
1 Claim. (Cl. 235—60)

A computing machine comprising a totalizer, actuator racks operatively associated with said totalizer, longitudinally movable differential members resiliently connected to said actuator racks, a reciprocative under-carriage yieldingly connected to said differential members for driving said members and their associated actuator racks, a manually operable drive member, resilient means connecting said drive member and said under-carriage, said



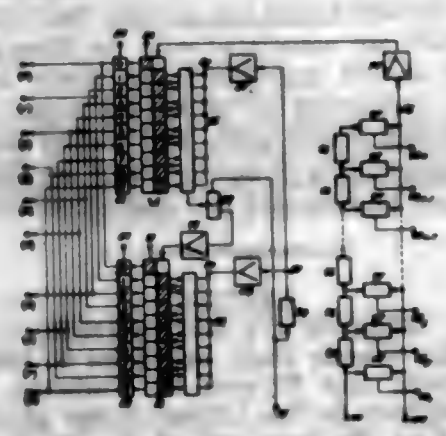
under-carriage having associated therewith means limiting its speed of operation comprising a weight, means supporting said weight for oscillatory motion, and means actuated by said under-carriage for oscillating said weight and thereby producing vibration of said machine which tends to avoid sticking of relatively movable parts.

2,845,219

REPRESENTATION TRANSLATION OF ELECTRIC MAGNITUDE

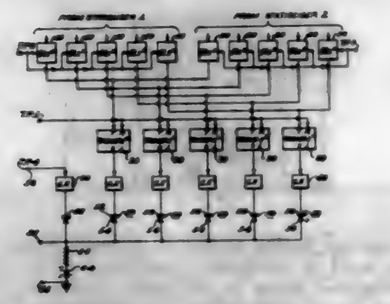
Gérard Jean René Piel, Paris, France, assignor to Societe d'Electronique et d'Automatisme, Paris, France, a corporation of France

Application May 31, 1951, Serial No. 229,033
Claims priority, application France June 7, 1950
5 Claims. (Cl. 235—61)



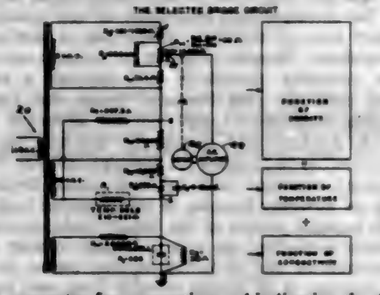
1. A scale-conversion apparatus for converting a numerical quantity expressed in the binary scale of notation to the corresponding expression of said quantity in the denary scale of notation, comprising: a step-by-step impulse-counter channel; a chain of cascade-connected bi-stable switching devices in said channel; a normal actuation path for said channel; means for applying binary-code impulses to said normal actuation path, adapted to advance said counter by one step for each applied impulse; a plurality of impulse transfer stages; one separate actuation path for said stages; means for applying an auxiliary impulse to said separate path during each impulse period of the binary code; means for individually connecting the outputs of said transfer stages to the outputs of said switching devices; means for preventing delivery of an output impulse from said transfer stage unless the corresponding switching device is in an operative condition; means for connecting the output of each said transfer stage to an input of one of said switching devices, whereby an output impulse transmitted by said transfer stage advances said counter by as many steps as will cause it to register double the count recorded in respect of the binary code impulse which permitted the passage of said output impulse from the transfer stage.

2,845,220
ELECTRONIC COMPARATOR DEVICE
Lowell S. Beauky and Linder C. Hobbs, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application June 27, 1952, Serial No. 296,856
7 Claims. (Cl. 235—61)



1. A system for comparing a first and a second binary coded item comprising a plurality of trigger circuits in independent stages, each of said circuits having a first and a second stable state, each of said trigger circuits being associated with the same binary digit position in both said items, a source of timing pulses, means to set all said trigger circuits to said first stable state responsive to a first of said timing pulses, means responsive to a second of said timing pulses to drive to said second stable state all those of said trigger circuits associated with the binary digit positions in said first item which are binary ones, means responsive to a third of said timing pulses to restore to said first state all those of said trigger circuits which are in their said second stable state and which are associated with the binary digit positions in said second item which are binary ones and to drive all the remaining so associated trigger circuits to their said second stable state, and means responsive to a fourth of said timing pulses to detect the restoration of all said triggers to their said first stable condition.

2,845,221
BUOYANCY RECORDER
Allyn C. Vine, Woods Hole, and John F. Holmes, Falmouth, Mass., and Wyman C. Rutledge, Elmsford, N. Y., assignors to the United States of America as represented by the Secretary of the Navy
Application September 11, 1953, Serial No. 379,748
3 Claims. (Cl. 235—61)

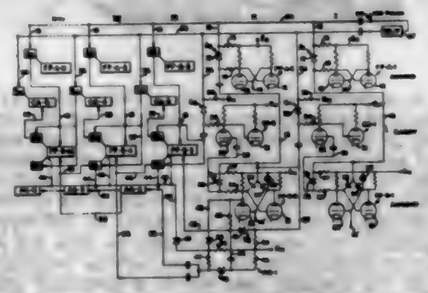


1. In apparatus for computing and indicating the density of sea water according to a mathematical equation of the form

$$\log(\text{density}+K_3)=\tfrac{1}{n}\log[(C+K_2)^n-K_5]-K_1T^n+\log K$$

wherein K_1, K_2, K_3, K_4, K_5 and n represent empirically obtained constants, T represents sea water temperature in degrees Fahrenheit and C represents the electrical conductivity of sea water in mhos/c.c., in combination, a potential source, a thermometer bulb whose electrical resistance varies according to a known function of temperature, a resistance bridge energized from said source and having said bulb in one arm thereof, said bridge having bridge arm ratios and resistances selected such that the unbalance voltage thereof in response to temperature values corresponds to the temperature term $-K_4T^n$ of the aforesaid equation, a conductivity cell whose resistance is a function of the cell dimensions and the specific resistance of the fluid in which it is immersed, means for energizing said conductivity cell from said source, said energizing means including series and shunt resistances having values selected such that the voltage across said cell corresponds to the conductivity term $\frac{1}{n}\log[(C+K_2)^n-K_5]$ of said equation, a slide wire energized from said potential source and having a slider selecting a local voltage as a function of the position thereof, a balancing network combining the algebraic summation of the voltage corresponding to said temperature term and the voltage corresponding to said conductivity term with said local voltage to produce a difference voltage and a servo system responsive to said difference voltage to position said slider in a direction tending to reduce said difference voltage to zero, whereby the position of said slider is a measure of said sea water density when said difference voltage is zero.

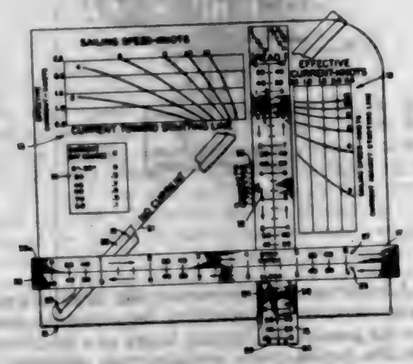
2,845,222
HIGH SPEED PARALLEL TYPE BINARY ELECTRONIC ADDER
Joseph F. Genna and Robert E. Staicup, Indianapolis, Ind., assignors to the United States of America as represented by the Secretary of the Navy
Application May 19, 1954, Serial No. 431,014
8 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An electrical circuit for adding binary numbers corresponding to decimal numbers comprising; a plurality of binary digital stages, each including an addend register unit, an augend register unit, and a carry register unit, each said register unit having two digital states, and means for controlling the digital state of said addend and augend register units representative of binary numbers; add pulse means coupling the digital stages in parallel by add pulse branch couplings, each add pulse branch coupling being to the augend and the carry register units in each digital stage in that sequence; means in each said add pulse branch coupling controlled by each addend register unit to block in one digital state and to pass in the other digital state an add pulse to the corresponding augend and carry register units, and second means in each add pulse branch coupling between said first-mentioned means and said carry register unit controlled by each augend register unit to block in one digital state and to pass in the other digital state the add pulse passed by said first-mentioned means to the corresponding carry register unit; delay pulse means, delayed in coincidence after each add pulse a predetermined short period of time, coupling the digital stages in parallel

by delay pulse branch couplings to each augend register unit except that of least digital significance; and means in each delay pulse branch coupling controlled by said carry and said augend register units to block and to pass delay pulses of said delay pulse means to condition said augend register units in one and the other of said digital states producing a sum of binary digits in said augend register units added by the addend and augend register units.

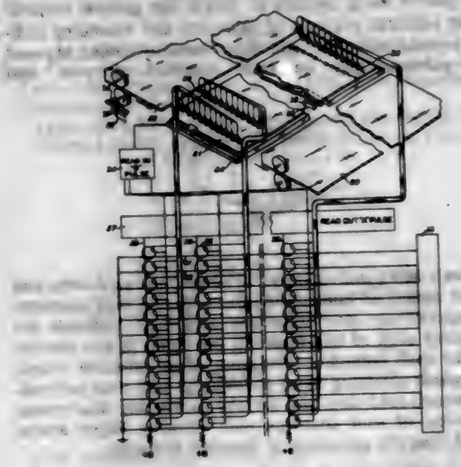
2,845,223
BOAT CALCULATOR
Joseph M. Mahoney, Yonkers, N. Y.
Application April 5, 1957, Serial No. 651,000
1 Claim. (Cl. 235—61)



A calculator comprising a flat base having an elongated groove in the upper face thereof, two elongated side pieces fixedly secured to said upper face, the side pieces being disposed parallel to and one on either side of the base groove, an elongated groove in each of the confronting surfaces of said side pieces, a transparent plate slidably mounted on said base having opposite edges thereof disposed in the side piece grooves, an axis having a scale laid out thereon slidably mounted in the base groove, another axis having a scale laid out thereon mounted on the transparent plate, said other axis being at 90° to the first mentioned axis, and an arm having a line laid out thereon pivotally secured to said base.

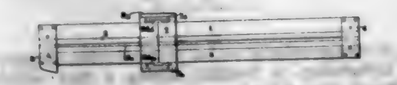
2,845,224
CARD COMPARING MEANS
Frederick Murray Donner, Johnson City, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 23, 1955, Serial No. 510,403
10 Claims. (Cl. 235—61.7)

6. In a punched card operated business machine, a sensing station having an array of electrodes arranged in columns and rows and equal in number to the possible number of holes that might be punched in a said card, each said electrode being capable of closing an electrical circuit when and if it encounters a punched hole upon proper seating of a said card at said sensing station, a matrix of magnetic core storage devices arranged in a like array of columns and rows and equal in number to said number of electrodes, an individual read in circuit interlinked with each said core and terminating in a corresponding one of said electrode circuit closers, means for driving any core in a binary 1 state to its normal binary 0 state and reading out such change in state, means for thereafter driving an electrode selected core from its binary 0 state to its binary 1 state and reading in such change of state, said driving means being operated in sequence column by column, merging circuits simultaneously responsive to read out and read in signals, comprising means responsive to read out signals for prolonging and applying such signals, a plurality of 1st coordinate matrix conductors, each said conductor corresponding to a row of said cores, means responsive to read in signals for applying such signals to a plurality



of 2nd coordinate matrix conductors, each said conductor corresponding to a row of said cores, and And circuit at the crossing point of each said 1st coordinate conductor and said 2nd coordinate conductor having an input connected to each of said coordinate conductors and an output connected to a machine control signal circuit.

2,845,225
SLIDE RULE
François Durand, Le Vesinet, France
Application December 26, 1956, Serial No. 630,649
Claims priority, application France December 29, 1955
6 Claims. (Cl. 235—70)

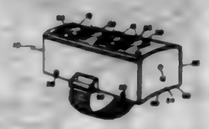


1. Slide rule comprising two fixed bars rigid with each other, a movable slide slidably mounted between said bars, a pair of plates disposed on either sides of the slide rule and constituting the runner thereof, assembling means between said plates for fastening the latter in the longitudinal direction while permitting a limited relative movement thereof in the transverse direction, at least two longitudinal guide grooves in the slide rule, at least one side wall of each groove being formed on the movable slide, one of said grooves being formed on one face of the slide rule and the other groove on the other face, ribs rigid with the inner faces of said plates and projecting into said groove, resilient means bearing on said fixed bars and urging said plates, whereby the ribs of said plate will not contact the walls of said movable slide when said plates are not moved in the transverse direction.

2,845,226
WRIST TYPE TOTALIZER
Harry D. Cummings, San Diego, and Harry D. Doucett, Escondido, Calif.
Application April 27, 1953, Serial No. 351,424
1 Claim. (Cl. 235—117)

A wrist type totalizer comprising a case having a plurality of parallel slots on one side thereof, a shaft longi-

todinally mounted in said case, a plurality of digit elements rotatably mounted on said shaft and having rims protruding through said slots for finger operation of said elements, raised guards integral with said case and slightly spaced from the corresponding slots and rims; said guards being arcuate to follow the general contour of the adjacent portions of said rims and extending radially beyond said rims, said digit elements having exposed hub portions and numerals inscribed thereon, said



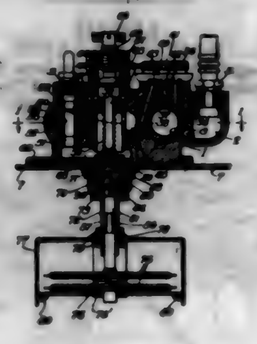
numerals being individually visible through said slots, and ratchet means on confronting faces of said digit elements and operatively interconnecting said digit elements for advancing each of said elements one-tenth of one revolution for each complete revolution of an adjacent wheel, said guards shielding those portions of said rims protruding through said slots and thereby preventing inadvertent advancing of said elements and allowing finger access to said rims for actuation of the digit elements.

2,845,227
CONSTRUCTION OF A STEAM EXHAUST VALVE FOR VENTING RADIATORS
Michael J. De Leonardis, Valley Stream, N. Y.
Application July 18, 1956, Serial No. 598,717
2 Claims. (Cl. 236—66)



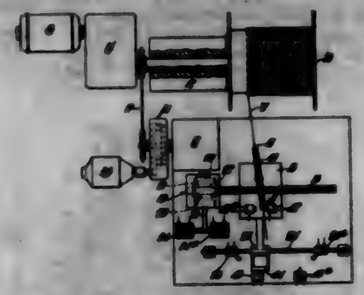
1. A steam exhaust valve assembly for venting radiators comprising, a housing having a port adjacent its upper end, means for interconnecting said housing and a radiator portion of a steam heating system said means comprising a steam supply port and a liquid condensate return port, a tubular valve support member having an annular forward portion extending through said port and fixed therein in a manner providing a seal between its outer surface and the housing and defining a vent port concentric with the port in the housing wall, the body of said valve support extending into the housing and having a portion of its wall cut away to prevent the accumulation of sediment within said support member, and to give entrance to the bifurcated upper end of a bi-metal arm, a bi-metal arm the upper end of which is bifurcated, means for supporting said bi-metal arm within said housing with its bifurcated upper end extending into the said cut away portion of said support member, and a valve member contained within said support member and movable axially within said support member for opening and closing the port defined by the forward end of said support member, said valve member being slotted intermediate its ends to make sliding engagement with the arms of the bifurcated upper end of said bi-metal arm whereby as said arm is bent or straightened in response to temperature variations said valve member is moved within said support member for opening and closing the port defined by the forward portion of said valve support member.

2,845,228
CONTROL APPARATUS FOR FLUID FUEL BURNING APPARATUS
Stephen L. Kiltz, Whitefish Bay, and Russell B. Matthews, Wauwatosa, Wis., assignors to Bose Inc., Milwaukee, Wis., a corporation of Wisconsin
Application October 13, 1953, Serial No. 385,828
2 Claims. (Cl. 236—99)



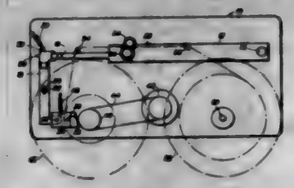
1. A highly sensitive thermostatically operated gaseous fuel control valve for controlling the supply of gaseous fuel to the gaseous fuel burning heater of a fowl brooder or the like having means comprising an apertured wall defining an enclosure in which the air temperature is to be controlled within a predetermined limited range above the temperature of the environment external to said enclosure, said control valve comprising a control body for disposition substantially entirely externally of said enclosure wall, a valve seat within said valve body, a valve member within said control body cooperable with and movable toward and away from said valve seat, tubular guide and support means carried by said control body and having a portion for extension through said wall aperture into said enclosure, retainer means on the extended end of said guide and support means comprising a plurality of arms having spaced end portions, a retainer plate, and means affording a quick detachable connection of the periphery of said plate to said arm end portions supporting said plate in a plane substantially normal to the axis of said tubular guide and support means, force transmitting means comprising a small diameter valve pin within said tubular guide and support means, said pin having one end sealingly and slidably extending into said control body with a low friction fit and into engagement with said valve member, and a larger diameter pin having a loose axial sliding fit within said guide and support means, said larger pin having one end projecting from said guide and support means and the other end engageable with said valve pin, cooperating shoulder means on said larger pin and said guide and support means preventing removal of said larger pin from said guide and support means, and an hermetically sealed expansible and contractible thermostatic bellows element having a volatile fluid fill disposed intermediate said spaced arm end portions and having one end wall abutting the exposed end of said larger diameter pin, said element also having an opposite end wall abutting said retainer plate, the abutting connections of said thermostatic element with said larger pin and retainer plate permitting ready removal of said element from said retainer means and said force transmitting means on release of said quick detachable connection of said retainer plate and said arm end portions, and said shoulder means preventing disassembly of said force transmitting connection during such removal.

2,845,229
METHOD AND APPARATUS FOR SPOOLING WIRE
George L. Bliss, Cleveland, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey
Application June 3, 1954, Serial No. 434,298
12 Claims. (Cl. 242—25)



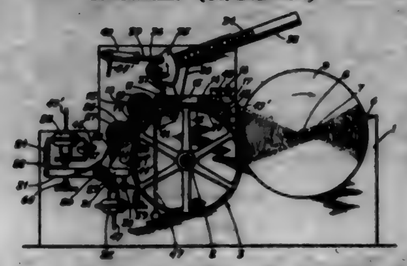
1. A wire spooling apparatus comprising a spool adapted to have wire wound thereabout in layers, drive means for rotating said spool, a traversing carriage adapted to travel back and forth along the length of said spool and guide the wire in its approach, drive means for said carriage adapted to move it through a major portion of the length of said spool at a preset constant rate with respect to that of said spool independently of the angular relation of the wire to the spool and to reverse the direction of travel of said carriage when it reaches positions opposite the ends of the layers of wire on said spool, and means controlled by the angular relation of the wire to the spool for accelerating said carriage only as it approaches its reversal points when the carriage lags behind the wire on the spool.

2,845,230
MECHANISM FOR WIRE AND TAPE RECORDING AND PLAYING APPARATUS
Robert B. Rhoades, Coloma, Mich., assignor to V-M Corporation, Benton Harbor, Mich., a corporation of Michigan
Application April 26, 1954, Serial No. 425,402
1 Claim. (Cl. 242—55.12)



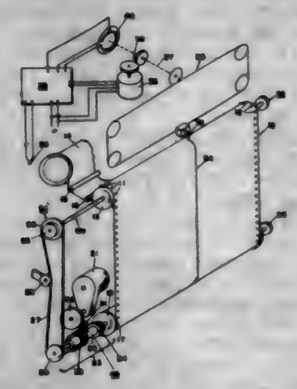
A mechanism for use in a tape recorder and player comprising a chassis, a take-up reel and a free running supply reel rotatably mounted on said chassis, a capstan rotatably mounted on said chassis, a carriage arm pivoted on said chassis, a pressure roller carried by said arm for selective engagement with said capstan, an operating member mounted on said chassis for reciprocation and having an operating connection with said carriage arm so that reciprocation of said member serves to move alternately said roller into and out of engagement with said capstan, a brake shoe movably mounted on said chassis for selective operative engagement with said take-up reel, said brake shoe serving to stop rotation of said take-up reel almost instantaneously, said brake shoe having an operative connection with said operating member, a selectively operable locking device on said chassis operatively engageable with said operating member for locking the latter in brake-applying position, a spring yieldably urging said brake shoe out of operative engagement with said take-up reel, the connections between said operating member, said carriage arm and said brake shoe providing disengagement of said pressure roller from said capstan prior to brake-applying actuation of said brake shoe when said operating member is operated.

2,845,231
MACHINE FOR WINDING WEB ROLLS
Karl Elmer Linge Greitzs, Lilla Edet, Sweden, assignor to Lilla Edets Pappersbruks A.-B., Lilla Edet, Sweden, a corporation of Sweden
Application February 17, 1955, Serial No. 488,865
Claims priority, application Sweden March 6, 1954
13 Claims. (Cl. 242—56)



1. A machine for winding a web from a large supply roll into smaller rolls comprising a drum adapted to feed the web from the supply roll, two winding stations situated at the periphery of the drum and in series in the direction of the travel of the web, said stations being passed through by each smaller roll, means for cutting said web before a smaller roll leaves the second winding station, a winding roller driven in the same direction as said drum, a freely rotatable load roller elevatable by a smaller roll as it increases in size during the winding of the web thereon, said winding roller, load roller and said feeding drum together defining said first winding station, said winding roller being swingable away from said drum at a certain predetermined diameter of a smaller roll for permitting the smaller roll to fall down to the second winding station.

2,845,232
CHART-DRIVE MECHANISM FOR A STRIP-CHART RECORDER
Curtis R. A. Johnson, Flourtown, and Albert E. Paschkis, Philadelphia, Pa., assignors to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania
Application August 30, 1955, Serial No. 531,314
7 Claims. (Cl. 242—67.2)



1. A chart-driving mechanism for an indicating and recording instrument of the type in which chart paper

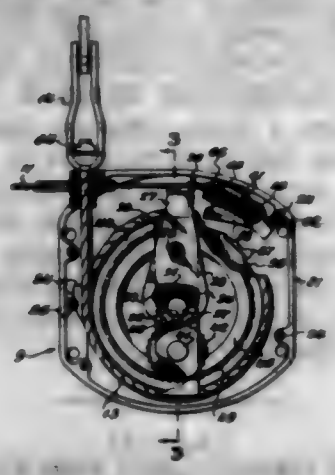
is advanced by a chart-driving roll, and the recorded portions of the chart are stored on a chart-takeup roll, said driving mechanism comprising a driving motor, rotatable supporting means for one end of the chart-takeup roll, driven means mounted concentrically with respect to said supporting means and connected to said driving motor, a one-way clutch on said supporting means for providing a driving connection between said driven means and said supporting means, means for connecting said supporting means and the chart-driving roll to drive the chart-driving roll from said motor by way of said one-way clutch and said supporting means, said connecting means including speed-reducing means for driving the chart-driving roll at a rate of speed of rotation less than the speed of said supporting means, and a slip clutch mounted on said supporting means adjacent a side of said driven means opposite from said one-way clutch for imparting to the chart-takeup roll a rate of driving speed controlled by slippage in said slip clutch created by tension exerted upon the chart paper as it passes between the chart-driving roll and the chart-takeup roll.

2,845,233

SAFETY APPARATUS

Leo A. Pfankuch, La Canada, and Robert J. Wrighton, Tarzana, Calif., assignors, by mesne assignments, to Pacific Scientific Aeroproducts, Glendale, Calif., a corporation of California

Application February 10, 1953, Serial No. 336,126
13 Claims. (Cl. 242—107.4)



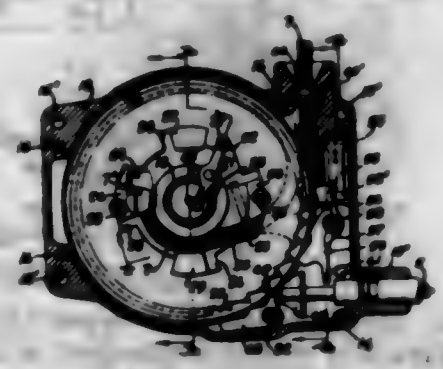
1. A safety device comprising a casing, a U-shaped lever having two leg portions, the lever being rotatably mounted in the casing, the lever having a pair of aligned openings in the lower ends of the two legs defining a plurality of opposed pairs of recesses, spring means for urging said lever in one pivoting direction, a center pin mounted on the lever through the openings with the ends of the pin extending into elongated slots in the casing, the pin being adapted to fit into any of the pairs of recesses, a cable reel mounted on the pin between the two legs, a cable wound on the reel, resilient means coupled to the cable reel and tensioned so as to wind the cable on the reel, the cable unwinding from the reel responsive to pulls on the cable below a predetermined acceleration, the center pin riding in one pair of said recesses during rotation of the cable reel in the unwind direction, an inertia wheel rotatably mounted on said center pin, means for gearing said inertia wheel to said cable reel whereby said wheel rotates with said reel during rotation below said predetermined acceleration, said inertia member restraining rotation of the reel at said predetermined acceleration to thereby cause said cable reel and center pin to be displaced radially, said pin moving within the confine of the slots in said casing, said lever pivoting under urging of said spring means to catch said center pin in another pair of recesses in said lever legs, said center pin and reel being held in said displaced position, and means operable upon said displacement to lock said cable reel from rotation in the unwind direction.

2,845,234

SAFETY APPARATUS

Clifford E. Cushman, Burbank, and Robert J. Wrighton, Tarzana, Calif., assignors, by mesne assignments, to Pacific Scientific Aeroproducts, Glendale, Calif.

Application December 3, 1953, Serial No. 396,638
14 Claims. (Cl. 242—107.4)



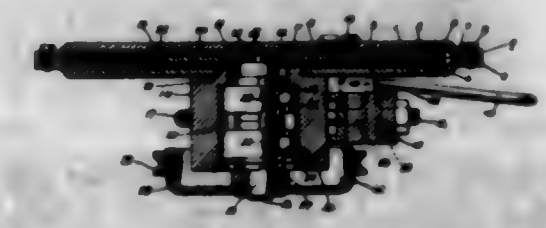
1. A safety device for mounting in a vehicle to restrain the movement of a body within the vehicle when the body is subjected to relatively high acceleration movement relative to the vehicle comprising a cable adapted to be coupled to the body, a cable reel rotatably mounted in said device, resilient means coupled to said reel for rotating said reel in one direction to wind up said cable, said reel rotating in the other direction to unwind the cable responsive to forces exerted by a pull on the cable, an inertia member rotatably mounted in said device, said inertia member rotating in unison with said reel during rotation thereof in the unwind direction below a predetermined acceleration, said reel rotating relative to said inertia member during rotation of said reel at the predetermined acceleration due to an abnormal acceleration of the cable, and means operated in response to the relative rotation between the reel and inertia member for stopping rotation of said reel in the unwind direction to thereby restrain movement of the body in the vehicle.

2,845,235

ELECTROMAGNETIC WIRE TENSION DEVICE

Albert F. Wilcox, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application June 25, 1954, Serial No. 439,250
2 Claims. (Cl. 242—155)



1. A wire tensioning device comprising a substantially annular coil, means adapted to connect said coil to an electric power source thereby to energize said coil, a housing comprising a casing portion of magnetic material extending around said coil, said casing portion and the inner surface of said coil forming a substantially disc shaped enclosure, a predetermined amount of magnetic powder loosely arranged within said enclosure, a disc shaped member of magnetic material within said enclosure, said member of magnetic material having a periphery tapered substantially to a knife edge, a shaft rotatably mounted within said housing, said member of magnetic material being secured to said shaft so as to be rotatable therewith, and a pulley member secured to said shaft so as to be rotatable therewith, said pulley member being adapted to be rotated by the wire to be tensioned, said coil being effective when energized to cause magnetic

flux to pass through said casing portion and said enclosure whereby said powder tends magnetically to link said casing member to said rotatable member thereby to impede rotation thereof.

2,845,236

COMBINED APPENDIX AND INFLATION TUBE

Raymond I. Hakenauld, St. Paul, Minn., assignor to the United States of America as represented by the Secretary of the Air Force

Application September 19, 1956, Serial No. 610,876
4 Claims. (Cl. 244—31)



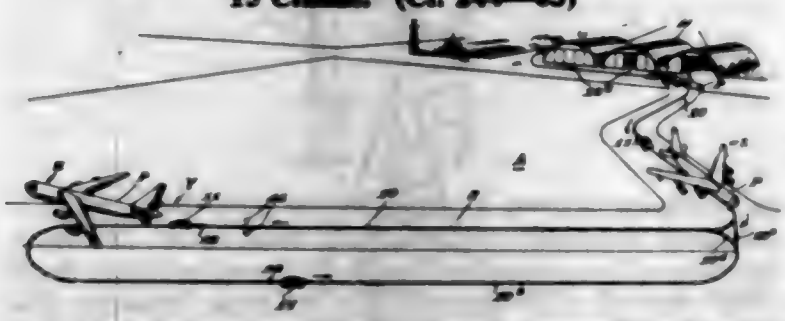
1. A meteorological balloon comprising a balloon envelope of substantially spherical configuration, an appendix extending downwardly from said envelope and tapering into a bottom inflation opening adapted to be connected to a source of gas supply, said appendix having a circumferentially disposed aperture at an intermediate portion thereof, and means for suspending a load from said envelope, said means comprising a suspension rope attached to said envelope, a load-supporting ring attached to said suspension rope, and a load-line extending through said aperture attached to said load-supporting ring and adapted to be attached to a load.

2,845,237

PUSHER-TYPE CATAPULT SYSTEM

Donald B. Doolittle and Raymond B. Janney II, Wilmington, Del., assignors to All American Engineering Co., Wilmington, Del., a corporation of Delaware

Application June 15, 1956, Serial No. 591,685
15 Claims. (Cl. 244—63)



1. An airplane accelerating system, comprising in combination with a runway, a guide track in said runway, a high powered, high speed pusher means having a forward pushing engagement with an airplane, a take-off station on said runway, means adjacent said station for cutting-off the power to said pusher means, brake means towed by said pusher means and cooperating with said track, and means adjacent said power cut-off means for effecting operation of said brake means on said track to bring the pusher means to rest subsequent to take-off of the airplane.

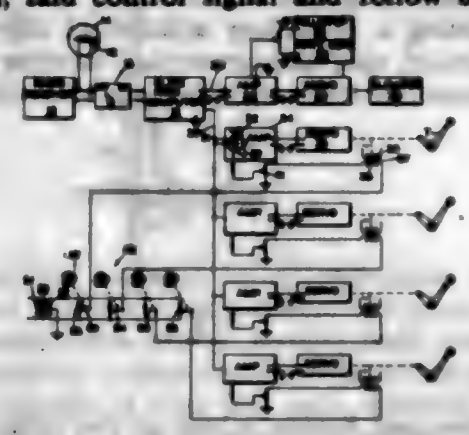
2,845,238

REMOTE CONTROL DEVICE

Charles R. Bull, Bergenfield, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application December 10, 1953, Serial No. 397,358
5 Claims. (Cl. 244—77)

1. In an automatic control system for an aircraft, first means for controlling the pitch attitude of the craft, second means for controlling the power developed by said craft, third means responsive to change in position of said craft from a predetermined position for developing a control signal coordinately controlling said first and second means, fourth means for developing a follow up signal corresponding to the extent of operation of said second means, said control signal and follow up signal



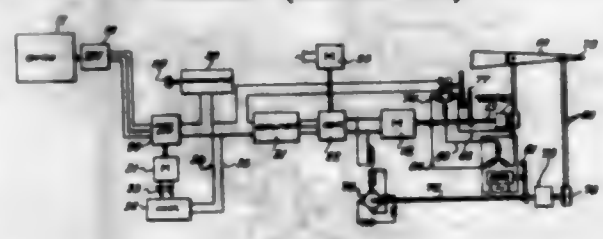
normally being connected in opposed relation to provide a resultant signal for said second means, and means for developing an adjusting signal for opposing said follow up signal for controlling said second means said adjusting means serially connected to said fourth means and operative independently of said third means while said third means is operative to supply signals to said second means.

2,845,239

OBJECT CONTROLLING SERVO SYSTEM

Percy Halpert, Hempstead, and Robert S. Curry, Jr., Baldwin, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware

Original application May 6, 1949, Serial No. 91,844. Divided and this application February 8, 1955, Serial No. 486,769
9 Claims. (Cl. 244—77)



1. An automatic pilot for aircraft having a main control surface for moving said craft about an axis thereof to correct for transient moments thereof about said axis and a trim tab for moving said surface to correct the craft attitude for persistent moments about said craft axis, a first motor operatively connected to the main control surface, a second motor operatively connected to the trim tab, first means for producing a signal in accordance with displacement of the craft from a reference position about said axis and for supplying said signal to said motors, repeatback means for producing a signal in accordance with the displacement of the main control surface from a null position and for supplying the same to said motors in a sense to oppose the signal of said first signal means, third signal means for providing a signal in accordance with the displacement of the trim tab from a null position, and means for modifying the signal of said repeatback means in accordance with said third signal means.

2,845,240

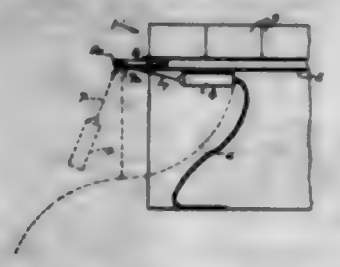
PENDULUM EJECTION SYSTEM

Clifton W. Marshall, El Centro, Calif.

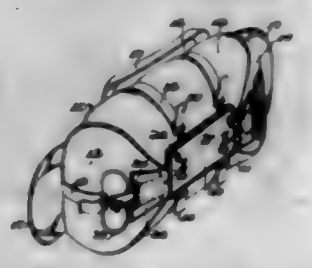
Application November 7, 1956, Serial No. 620,992
8 Claims. (Cl. 244—137)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. Means for ejecting an extraction parachute from the open rear end of the cargo space of a cargo type airplane,

said means comprising an elongated monorail support mounted in said cargo type airplane adjacent the open rear end thereof an extraction parachute deployment bag in depending releasable suspension from said monorail support, a bracket attached to the aft end of said monorail, and an interconnecting member between said deployment bag and said bracket, said bracket member constituting a pendulum attachment clip slotted at one end thereof, said interconnecting member consisting of a pendulum line fastened at one end thereof to said deployment bag and having a loop at the other end thereof in releasable engagement with the slotted end of said pendulum attachment clip, said deployment bag adapted to be released from its releasable suspension from said monorail support to swing in a pendulum arc under action of gravity about the suspension between the loop of said pendulum line and the slotted end of said pendulum attachment clip, said loop becoming disengaged from said slotted end on said deployment bag reaching the vertical, 90°, point in said arc to thereby extract said deployment bag from said airplane cargo space.



2,845,241
PARACHUTE RELEASE MECHANISM
Adolphus Samms, United States Army
Application December 1, 1955, Serial No. 550,505
6 Claims. (Cl. 244—148)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The combination with a parachute pack having overlapping flaps and cooperating rotatable locking cones and grommets for holding the flaps closed about a parachute, of release mechanism for releasing the grommets from the locking cones and comprising a pair of locking pins projecting through openings in the locking cones, a cable connected to the other pin and extending toward one edge of the pack, a second cable connected to the other pin and extending toward the opposite edge of the pack, and means operatively connecting the pins to withdraw both pins from the cones when either of the cables is moved in the direction of its length away from the locking pins.

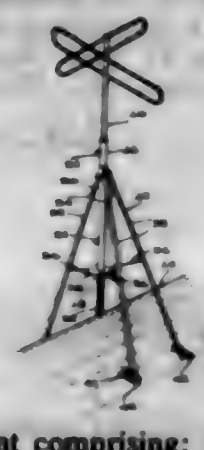
2,845,242
PIVOTABLE SUPPORTING FIXTURES FOR TILTABLE MIRRORS
Erich Hanck, deceased, late of Wilhelmshaven, Germany, by Gertrud Hanck, sole heir, Wilhelmshaven, Germany, assignor to Rokal G. m. b. H., Lobberich, Lower Rhine, Germany
Application April 19, 1955, Serial No. 502,479
1 Claim. (Cl. 248—28)

An articulated joint for forwardly tilting mirrors having a horizontally disposed lower edge pivoted about an axis adjacent and parallel to said lower edge and for frictionally holding said mirror in its tilted position, said joint comprising two horizontally spaced mirror holding arms having channel sections surrounding portions of the side edges of the mirror adjacent the ends of said lower edge, substantially rectangular fastening plate members adapted to be rigidly affixed to an upright wall surface, each of said fastening plate members being provided with a web protruding at right angles from the mirror facing side of said fastening plate member, a bolt for pivotally connecting one of said arms to one of said fastening plates, said web extending at a right angle to said bolt and providing a support for the head end of said bolt with the inner side of said web providing a braking surface, a projecting portion protruding from the surface of said fastening plate



member at a distance from said web, said projecting portion having a bore for receiving spring means and a cylindrical nut which is fastened to the free end of said bolt, and a clamping block with a bore for said bolt being interposed between said projecting portion and said arm, the side of said block facing said arm serving as braking surface and the opposite side of said block being in contact with said spring means, said block having a lower portion protruding into an aperture in said fastening plate member, said aperture being of a configuration to allow lateral movement of said lower protruding portion but preventing rotational movement thereof.

2,845,243
ANTENNA MOUNT
Lloyd W. Mowers and Harvey V. Kuhlmann, Northwood, Iowa
Application February 11, 1955, Serial No. 487,637
1 Claim. (Cl. 248—48)



An antenna mount comprising: an elongated, tubular, vertically extending mast socket open at its upper end; a base plate closing the lower end of the socket, said plate including a marginal portion projecting laterally outwardly from the socket; means on the socket for clampably engaging an antenna therein; a pair of identical but opposite leg attachment plates fixed to the socket intermediate the ends of the socket, each plate having upwardly convergent side edges symmetrically arranged in respect to the length of the socket at opposite sides thereof, said plates lying in downwardly divergent planes symmetrically arranged in respect to the length of the socket at opposite sides thereof, corresponding side edges of the plates being in registration with each other transversely of the socket; pairs of legs, one for each plate, each pair being coplanar with its associated plate and the legs of each pair being respectively in longitudinal alignment with the respective sides of their associated plate, the legs of each pair being pivotally connected intermediate their ends to their associated plate for

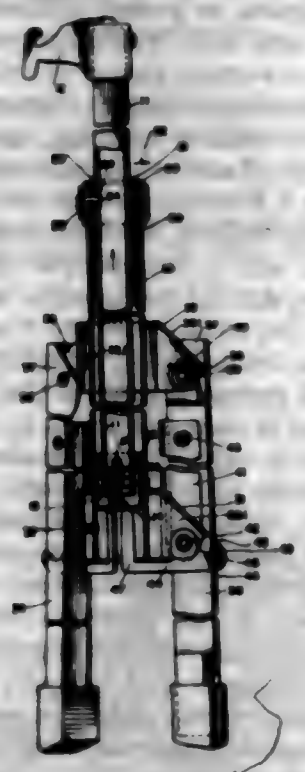
swinging movement about axes normal to the plane of their associated plate and disposed symmetrically in respect to the socket at opposite sides thereof, each leg including a portion projecting across the plane of its associated plate for engaging a side edge of the plate on swinging movement of the leg in one direction to limit swinging of the legs in said direction; elongated brace rods rigid at one end with the respective legs and projecting radially of the socket from the legs, said marginal portion of the base plate having openings angularly spaced about the socket, the rods having extensions at their other ends removably engaged in said openings on swinging of the legs in said direction to positions in which said portions of the legs are in engagement with the side edges of their associated plates; and supporting-surface engaging feet on the several legs, formed as short bars pivoted on the lower ends of the legs for swinging movement about axes parallel to the pivot axes of the legs.

2,845,244

TRIPOD

Frank J. Prokop, Chicago, Ill., assignor to Da-Lite Screen, Inc., Chicago, Ill., a corporation of Illinois

Application July 30, 1954, Serial No. 446,757
5 Claims. (Cl. 248—171)



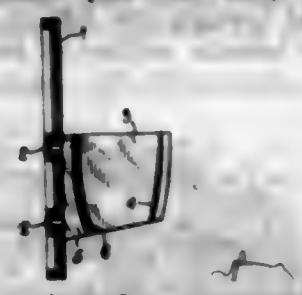
1. In a portable screen stand, a tubular standard, an extension rod slidable longitudinally within said standard, latch means adapted to hold said extension rod in extended and retracted positions in said standard, a bracket member fixed on the lower end of said standard, a bracket member slidably mounted on said standard, each said bracket member being of inverted annular cup-shape comprising a top wall having a central opening fitting snugly about the sides of said standard and having side walls bearing longitudinally against said standard, said side walls having integral outwardly extending flutes therein, each flute forming a pair of spaced hinge lugs, hinge pins carried by said hinge lugs, legs for said standard pivoted on said hinge pins of said slidable bracket member, links each pivoted at one end to one of said legs and at the other end to a respective hinge pin on said fixed bracket member, latch dogs mounted on the hinge pins of said lower bracket member, each dog having a latch hook portion for latching engagement with a respective said leg and each having a tail portion extending into and axially of said standard, and spring means interposed between said extension rod and said tail portions and adapted to normally urge said dogs to their latching position when the rod is fully retracted in the standard.

2,845,245

WALL HOLDER FOR ELECTRIC SHAVER

Norman A. Gray and Curtis D. Mabry, Stamford, Conn., assignors to Schick Incorporated, Lancaster, Pa., a corporation of Delaware

Application October 19, 1953, Serial No. 386,708
2 Claims. (Cl. 248—314)



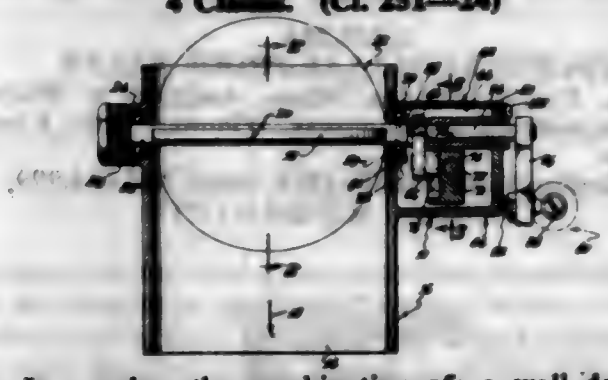
1. A wall holder adapted to accommodate electric shaver bodies of different cross sectional dimensions comprising the combination with a vertical back plate and a pair of horizontally spaced curved arms projecting forwardly therefrom and, at their free ends, directed toward one another, of a pair of horizontally spaced, vertical ribs projecting from the back plate on each side of the vertical center line thereof between the said arms, the forward edges of the ribs being of curved form and projecting a greater distance at their lower than at their upper ends, and the outer rib of each pair being of greater depth than the inner rib of each pair, the said ribs and arms thereby defining a plurality of receiving and supporting cavities for shavers of differing cross section.

2,845,246

ACTUATING TORQUE EQUALIZING DEVICE

Fredric J. Dixon, Los Angeles, Calif., assignor to Telecomputing Corporation, a corporation of California

Application September 12, 1955, Serial No. 533,814
4 Claims. (Cl. 251—24)



1. In a valve, the combination of: a wall defining a fluid passage and having a pair of spaced ports therein communicating with the fluid in said fluid passage; a butterfly valve member located for rotation in said fluid passage between said ports and during its arc of rotation controlling flow of fluid into one of said ports by overlying the same; a first actuator connected to said valve member for energizing the same; and a second fluid pressure responsive actuator connected to said valve member and energizable by fluid transmitted to opposite sides thereof through said ports to equalize the force which must be imposed by said first actuator on said valve member to cause the energization thereof.

2,845,247

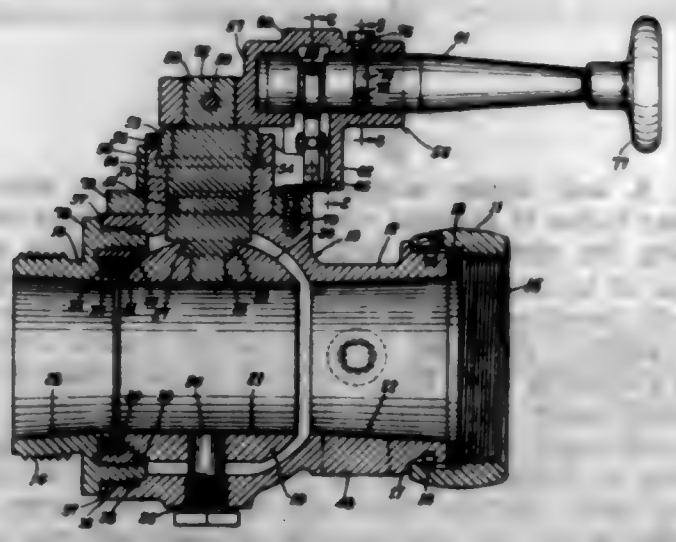
CONTROL VALVE FOR FIRE HOSE LINES

Earl J. Housekeeper, Rutherford H. Hunter, and Carl J. Braun, Wooster, Ohio, assignors, by mesne assignments, to The Fyr-Fyter Company, Dayton, Ohio, a corporation of Ohio

Original application November 13, 1951, Serial No. 256,095, now Patent No. 2,665,879, dated January 12, 1954. Divided and this application July 23, 1953, Serial No. 377,564
3 Claims. (Cl. 251—171)

1. In a control valve having a housing and a tubular ball shut-off rotatably mounted between inlet and outlet

ports in said housing, a resilient sealing ring removably mounted around one of said ports for slidably seating on the ball surface, said ring having a rounded inner edge engaging the ball and a body portion extending axially with respect to said ports, one of said housing ports being embodied in a sleeve member removably mounted in said housing and having an annular portion fitting the inner annular surface of said sealing ring with



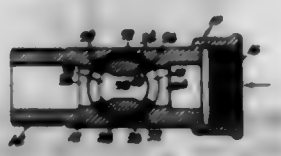
the inner end of said annular portion spaced from the ball, and a clamping ring screwed into said sleeve member and abutting the outer annular surface of said sealing ring to clamp it against said housing annular portion, said clamping ring having an inner annular surface terminating in a curved shoulder spaced from the ball for fitting over a portion of the rounded edge of said sealing ring.

2,845,248

NON-STICKING LEAK-PROOF VALVE

Elmer A. Fuglie, Winona, Minn., assignor to Winona Tool Manufacturing Company, Winona, Minn., a partnership

Application September 9, 1954, Serial No. 454,999
2 Claims. (Cl. 251—175)



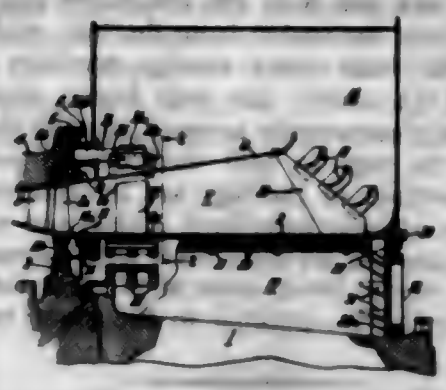
1. A valve, comprising a casing containing a cylindrical cavity, said casing formed with a pair of spaced openings communicating with the cavity and constituting an inlet and outlet with respect thereto, a cylindrical core formed with a stem that projects from one axial end of said core and penetrates said casing to provide the only rotative support for said core with respect to said cavity, said core formed with a broad transverse kerf in the oppoiste axial end thereof which extends throughout the major portion of the core and divides said core into two spaced segmental portions each of sufficient arcuate length to close one opening in said casing, and a pair of curved imperforate shields of greater vertical length than said segmental portions and formed with flanged lateral edges loosely mounted on the segmental portions with the flanged edges embracing the limits of the segmental portions and one vertical limit of each shield extending beyond one limit of the respective segmental portion, said shields forming a liner to prevent any metal-to-metal contact between the core and the cavity, said shields being of substantially uniform thickness and consisting entirely of a tough non-tearing plastic material that is impervious to fluids passed through the valve.

2,845,249

EXHAUST CASING ASSEMBLY FOR GAS TURBINE POWERPLANT

William G. Taylor, Scotia, and Goodwin H. Howe, Jr., Ballston Lake, N. Y., assignors to General Electric Company, a corporation of New York

Application March 27, 1957, Serial No. 648,963
7 Claims. (Cl. 253—39)



5. A high temperature turbine powerplant having a rotor with an axial flow bucket wheel, a first main support means, an exhaust casing assembly located adjacent the bucket wheel and having radially spaced inner and outer walls which define an annular discharge passage for the bucket wheel, second means slidably securing the outer wall to the first support means to permit differential thermal expansion therebetween, third means supporting the exhaust casing from the first support means whereby the inner wall is free to expand and contract in response to differential thermal expansion relative thereto, said third support means comprising a plurality of circumferentially spaced struts each having a first end portion secured to the inner wall and extending radially outward through the turbine discharge passage, and a second end portion extending through an opening defined by the outer wall, and resilient means supporting the struts from the first support means, the resilient means comprising a plurality of circumferentially disposed leaf springs secured at their ends to the first support means and at their midpoints to the struts to permit the inner wall to expand while maintaining the inner wall of the discharge passage concentric with respect to the bucket wheel, sealing means located radially within the inner exhaust casing wall and disposed adjacent the bucket wheel to prevent leakage between the bucket wheel and inner wall, and fourth means cooperating with the sealing means and inner wall for supporting the sealing means relative to the inner wall, whereby the inner wall is free to expand relative to the sealing means without affecting the seal between the inner wall and bucket wheel.

2,845,258

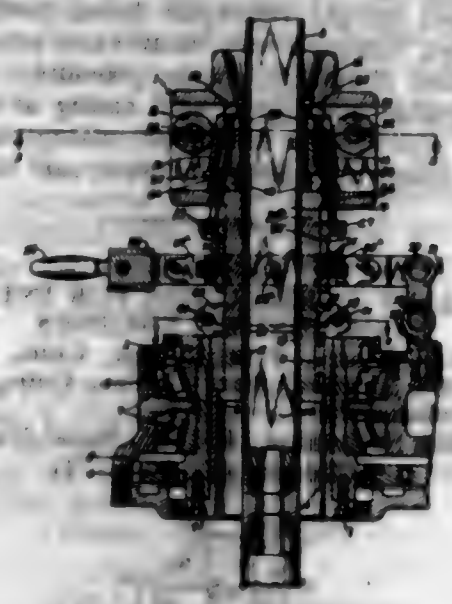
CHUCK MECHANISM FOR OIL WELL DRILLING APPARATUS

Charles F. Ball, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application September 1, 1953, Serial No. 377,843
11 Claims. (Cl. 255—23)

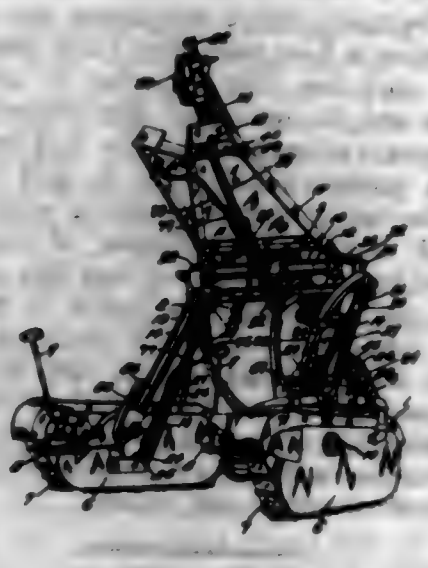
1. The combination of a rotation mechanism having rotating means including a driver for rotating a kelly, said driver having an opening through which the kelly extends, there being a slight clearance between the walls of said opening and the exterior surface of the kelly, said driver having driving surfaces drivingly engaging complemental surfaces on the kelly for rotating the latter, whereby the driving surfaces of the driver may move out of exact alignment with the engaged complemental surfaces of the kelly as the latter is rotated, a chuck mechanism, and means for rotatably mounting said chuck mechanism on said rotating means for rotation therewith and for limited rotation relative thereto about the axis of rotation of said driver, said chuck mechanism being supported by said rotating means and

carrying chuck jaws for engaging the complemental driver engaging surfaces of the kelly irrespective of



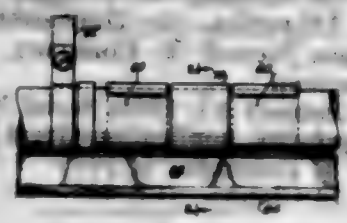
alignment of said driver surfaces with said complemental driver engaging surfaces of the kelly.

2,845,251
MOBILE ROCK DRILL RIG
Douglas R. Barton and John C. Curtis, Newport, N. H., assignors to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 3, 1956, Serial No. 575,777
26 Claims. (Cl. 255—51)



1. A drill rig comprising a mobile base, a boom structure for supporting a drilling tool and pivotally mounted on said base to swing in vertical planes with respect thereto including an inner pivoted boom frame and an outer boom frame pivotally supported by said inner boom frame, a transverse pivotal connection between said boom frames, said boom frames being foldable about said pivotal connection closely together into positions of substantial parallelism and swingable angularly widely apart, and an elongated guide frame pivotally mounted at its forward portion on the outer portion of said outer boom frame and providing guiding means for a drilling tool, means for pivotally mounting said guide frame on said outer boom frame to provide for such pivoting thereof, means for swinging said boom frames about their respective pivots to vary the supported position of said guide frame, and means for swinging said guide frame about its pivot relative to said outer boom frame in any angular positions of said boom frames about their respective pivots.

2,845,252
HEATING SYSTEM
John S. Parkinson, Plainfield, and William A. Jack, Hampton, N. J., assignors to Johns-Manville Corporation, New York, N. Y., a corporation of New York
Original application August 13, 1946, Serial No. 690,236, now Patent No. 2,800,308, dated July 23, 1957. Divided and this application October 11, 1955, Serial No. 539,751
5 Claims. (Cl. 257—124)



1. In a panel ceiling for a heat transfer system including a plurality of spaced apart fluid conducting pipes and a plurality of panels arranged in a plane to form a ceiling surface, that improvement in which the panels have integral flanges oppositely disposed on the panel and said flanges have arcuate extremities which engage the pipes and provide both support means for the panels from the pipes and heat conduction between the pipes and the panels, at least part of the arcuate extremity of one flange of a panel facing in the same direction as at least part of the arcuate extremity of the oppositely disposed flange of said panel.

2,845,253
HEATING OR COOLING BUILDINGS
Egon Ruata, Neuchatel, Switzerland
Application March 24, 1955, Serial No. 496,518
Claims priority, application Switzerland May 12, 1954
1 Claim. (Cl. 257—136)



Apparatus for conducting temperature-modifying fluids for the heating or cooling of a room having a flat wall surface and a floor surface comprising a heating panel arranged parallel to and spaced from the wall surface, said heating panel consisting of a plurality of horizontal tubes of rectangular cross-section arranged in side-by-side superposed aligned relationship with the shorter sides of adjacent tubes being contiguous, said tubes lying in a vertical plane parallel to and spaced from said room wall surface, the lower edge of said heating panel being spaced from said floor surface, and a vertical collector tube arranged at each end of and in communication with said flat tubes; and a horizontal convector positioned intermediate said heating panel and its associated wall surface and being in communication with said vertical collector tubes, said convector having a vertical dimension which is less than the vertical dimension of said heating panel and being positioned vertically intermediate the upper and lower ends thereof, said convector consisting of a plurality of horizontal tubes of rectangular cross-section arranged in side-by-side superposed aligned relationship in a vertical plane with the shorter sides of adjacent tubes being contiguous, and a corrugated metal sheet secured on each side of said convector tubes intermediate the heating panel and the convector tubes on one side and the wall surface and the convector tubes on the other side, the corrugations of said sheets extending in the vertical direction along the entire height of the convector, the crests of the corrugations of one of said sheets being secured to said heating panel and the crests of the

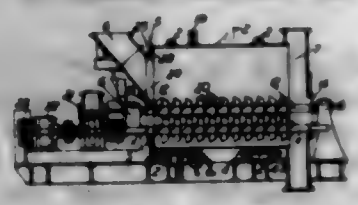
corrugations of the other of said sheets being secured to the wall surface, whereby said heating panel forms an open-ended vertical shaft along the associated wall surface to direct a convection flow of heated air vertically along the entire wall surface toward the upper portion thereof.

2,845,254

ROTARY DRUM MIXERS AND LIKE APPARATUS

Peter Howden, Misterton, via Doncaster, England, assignor to Ernest Newell & Company, Misterton, via Doncaster, England

Application January 13, 1956, Serial No. 559,050
Claims priority, application Great Britain December 8, 1955
14 Claims. (Cl. 259—3)



1. An end seal construction for a rotary drum apparatus of the kind comprising a rotary drum and a stationary end plate structure incorporating a feed opening, said end seal construction comprising an inwardly projecting annular flange secured to an end face of the drum, an annular member projecting from the stationary end plate structure axially into the drum with slight clearance between its outer surface and the annular flange, and a series of deflecting blades extending inwardly from the inner periphery of the drum in spaced circumferential relationship with their tips lying close to the outer surface of the annular member, the blades having their faces inclined inwardly from the end of the drum and rearwardly with respect to the direction of rotation of the drum.

2,845,255

MIXING APPARATUS FOR FEEDS AND THE LIKE

Joseph Stanley Herr, Nottingham, Pa.

Application April 3, 1956, Serial No. 575,889
4 Claims. (Cl. 259—6)



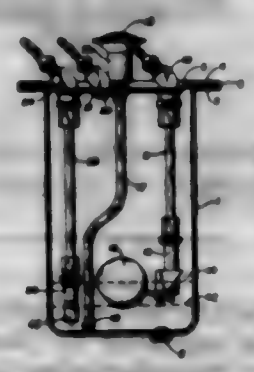
1. Mixed for feeds and the like, comprising casing means defining a main mixing chamber and an ante-mixing chamber, means providing a passage placing said chambers in intercommunication at the bottom, said casing means being formed with an inlet opening at the bottom of said ante-mixing chamber, a horizontal screw conveyor entering said inlet opening chamber having its shaft extending through both chambers and said passage, the bottoms of said chambers being shaped to form a housing for the lower part of said conveyor, the upper part being open to said chambers, an upstanding conveyor for each chamber at an intermediate point therein, the lower ends of said upstanding conveyors being in operative proximity to said horizontal conveyor, the vane of said horizontal conveyor being discontinuous at said passage and at the foot of each upstanding conveyor, thereby defining pairs of sections of said vane in each of said chambers, the sections in said ante-chamber being pitched in the same direction, to feed toward said passage and the sections in said main chamber being relatively oppositely pitched to feed toward the upright conveyor in said main chamber, said upright conveyors being pitched to feed in an upward direction and being open peripherally to said respective chambers, means providing a gate controlled discharge opening in said casing at the foot of the upright conveyor in said main mixing chamber, and a gate for closing the passage between said chambers.

2,845,256

AUXILIARY CARBURETOR FOR INTERNAL COMBUSTION ENGINES

Fred G. Van Matre, Fort Collins, Colo., assignor to Gas-Go Corporation, Fort Collins, Colo., a corporation of Colorado

Application September 16, 1955, Serial No. 534,721
5 Claims. (Cl. 261—72)



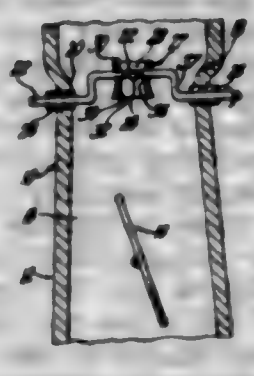
1. In an auxiliary carburetor arranged for connection to the intake manifold of an internal combustion engine and which has a small fuel reservoir through which air is bubbled to vaporize fuel under the influence of the suction of the main engine carburetor, the improvement which comprises a float controlled valve mounted in said reservoir, a fuel line interconnected to said float controlled valve and the main fuel line between the engine fuel pump and carburetor whereby fuel may be maintained at a predetermined level in said reservoir, an outlet for the fuel in said reservoir, a valve in said outlet arranged to permit withdrawal of fuel from said reservoir and prevent entrance of fuel into said reservoir, and means for connecting said outlet to the main fuel line of the vehicle on which it is mounted between the vehicle fuel tank and the vehicle fuel pump whereby there is a continuous recycling of fuel through the reservoir on engine operation and a reverse flow of fuel in the main fuel line withdraws a portion of fuel from said small reservoir through said outlet.

2,845,257

CARBURETOR

Arthur A. Veyhdeke, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 14, 1955, Serial No. 546,573
6 Claims. (Cl. 261—76)



1. A device for mixing a secondary fluid with a primary fluid comprising, a member having a passage ex-

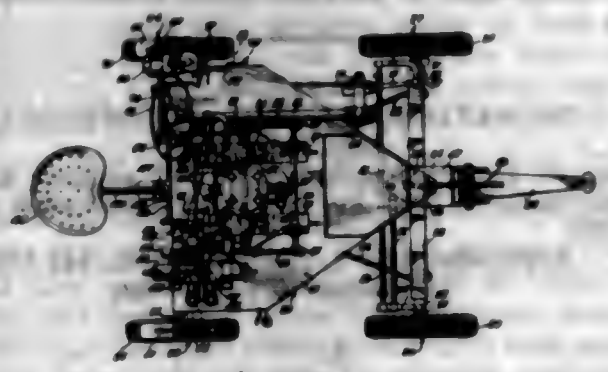
tending therethrough for the flow of said primary fluid, a sleeve disposed in said passage and having a passage extending axially thereof, said sleeve member being adapted to rotate about a line normal to the axes of said passages for orienting the axis of said second passage to the direction of said flow of primary fluid through said first passage, said sleeve being radially spaced from the passage permitting the quantity of air flow through the first passage to be substantially unaffected by the axial orientation of the second passage, a jet disposed in said sleeve for discharging said secondary fluid into the passage in said sleeve for mixing with said primary fluid.

2,845,258

IMPACT TYPE CONCRETE BREAKING MACHINE

Walter V. Cornett, Los Angeles, Calif.

Continuation of abandoned application Serial No. 104,569, July 13, 1949. This application March 31, 1955, Serial No. 498,361
1 Claim. (Cl. 262—15)



A concrete breaking machine comprising a frame, a pair of spaced front wheels supporting the forward end of said frame, a pair of spaced rear wheels supporting the rearward end of said frame, driving means for one of said rear wheels, control means at the rear of said frame for controlling said driving means, a vertically reciprocable hammer assembly mounted on the longitudinal center line of the vehicle adjacent the rear end thereof but forwardly of said rear wheels, means for steering said front wheels including a generally longitudinally extending steering shaft disposed in laterally offset relationship to the longitudinal center line of the vehicle to clear and pass by said hammer assembly and terminating at the rear of said frame in a steering wheel, control means for actuating said hammer assembly including mechanism terminating in a handle offset laterally from the longitudinal center line of the vehicle on the opposite side from said steering wheel, and an operator's seat disposed and mounted on the rear of said frame substantially on the longitudinal center line of the vehicle whereby an operator may manipulate said steering wheel and said control handle for the hammer assembly with opposite hands.

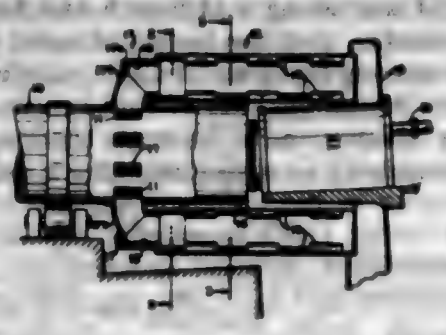
2,845,259

COMBINED KILN AND COOLER

Knud Henriksen, Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a corporation of New Jersey

Application September 27, 1955, Serial No. 536,976
Claims priority, application Denmark October 7, 1954
7 Claims. (Cl. 263—32)

1. The combination with an inclined rotary kiln having a plurality of openings through its shell wall adjacent its lower end, of a cooling chamber of annular cross-section mounted coaxially on the kiln to rotate therewith and to enclose its lower end and project beyond that end of the kiln, the lower end of the chamber being open, a casing into which the lower end of the chamber extends, means for conducting material issuing from the openings through the kiln shell into the chamber, and lifter elements on the



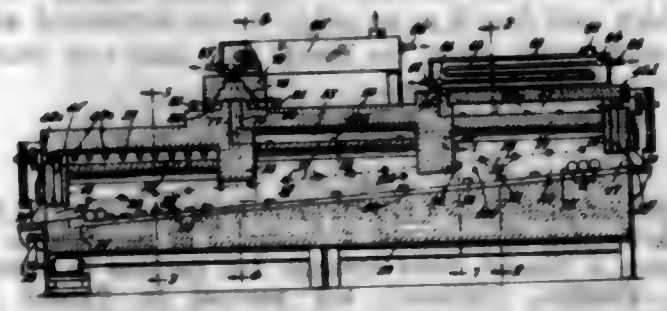
inner surfaces of both the inner and outer walls of the chamber.

2,845,260

NEUTRAL HEATING WITH CONTROLLED PREHEAT

Frank A. Rusciano, New York, N. Y., assignor to Metallurgical Processes Co., Newark, N. J., a corporation of New Jersey

Application April 9, 1954, Serial No. 422,074
17 Claims. (Cl. 266—5)



1. A furnace for the scale-free heating of metal comprising a heating chamber having an inlet opening at one end for the admission of work and an outlet opening at the opposite end for the removal of work, a partial barrier extending transversely across said chamber to form an initial heating zone and a succeeding heating zone having a restricted passageway therebetween only sufficient for the convenient passage of work from the initial zone to the succeeding zone, burners extending into said chamber in each of said zones, means for supplying fuel and air to the burners of said initial heating zone having a ratio to produce combustion products which are scaling to metal above a predetermined temperature, separate means for supplying fuel and air to the burners of the succeeding zone in a ratio to produce reaction products which are non-scaling to metal above said predetermined temperature, means responsive to the surface temperature of metal passing through said initial heating zone for controlling the supply of fuel and air to such zone to thereby restrict said surface temperature to a value below said predetermined temperature, separate venting means for each of said zones and means for controlling the relative rate of venting through said separate venting means.

2,845,261

METAL MELTING FURNACE

Alfons Alfred Furczyk, Wyncote, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania

Application November 16, 1954, Serial No. 469,183
4 Claims. (Cl. 266—33)

1. In a metal melting furnace, the combination of structure forming a furnace including an elongated chamber having side walls, roof and hearth, said chamber being provided with a charge opening in one end thereof, a loading platform extending beyond said opening as a continuation of said hearth, means adjacent to said opening to supply bodies of metal one after the other to said platform and hearth to be moved therealong, a row of

radiant cup type burners located in and forming a portion of the walls of said chamber substantially throughout the length of and along said hearth and focused on the bodies of metal to melt the bodies of metal progressively as they are moving along said hearth, a collecting pan for melted metal at the one end of said hearth remote from said charge opening and at an angle thereto, one wall of said pan comprising an outlet including a weir over which



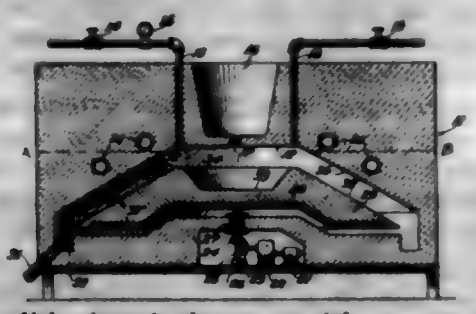
metal can continuously flow from said pan, mechanism to support said furnace structure for tilting movement around an axis perpendicular to its length, and means to adjust said mechanism to tilt said structure from a normal position in which said hearth is at an angle to the horizontal and said pan is horizontal to a position in which said pan is at an angle to the horizontal with said weir raised above the metal level and said hearth is substantially horizontal.

2,845,262

APPARATUS FOR CONDITIONING MATERIALS

Frank Fessler, Newark, N. J., assignor of ten percent to James J. Gautat, East Orange, ten percent to Edwin W. Phillips, Millburn, ten percent to Patrick F. McDevitt, Jersey City, ten percent to Charles W. Hutchinson, Chatham, five percent to Arthur J. Blake, Jersey City, and fifteen percent to Raymond J. Lamb, Ridgewood, N. J.

Application June 26, 1957, Serial No. 668,183
8 Claims. (Cl. 266—34)



1. A conditioning device comprising a rotatable member, a chamber enclosing the member, a means for rotating the member, portions of the rotatable member's outer surface throughout its length extending in a generally outward and downward direction in general opposition to material rebounded from the inner surface of the chamber, portions of the inner surface of the chamber throughout its length similarly extending in a generally outward and downward direction in general opposition to material rebounded and centrifugally discharged from the member, and said surfaces arranged in predetermined spaced relation to each other.

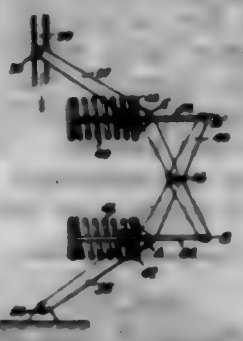
2,845,263

LOAD-BALANCING DEVICE

Konrad Gund, Erlangen, Germany

Application July 17, 1952, Serial No. 299,468
Claims priority, application Germany July 30, 1951
8 Claims. (Cl. 267—1)

1. A load balancing device comprising a load lever having one end thereof connected with a load which acts thereupon with constant force exerted in constant direction, means for guiding the corresponding end of said load lever for displacement along a predetermined path, a leverlike member having one end thereof pivotally disposed for angular displacement about a relatively fixed point, an intermediate double-armed lever, common pivot means for interlinking said double-armed lever midway thereof with the other ends of said load lever



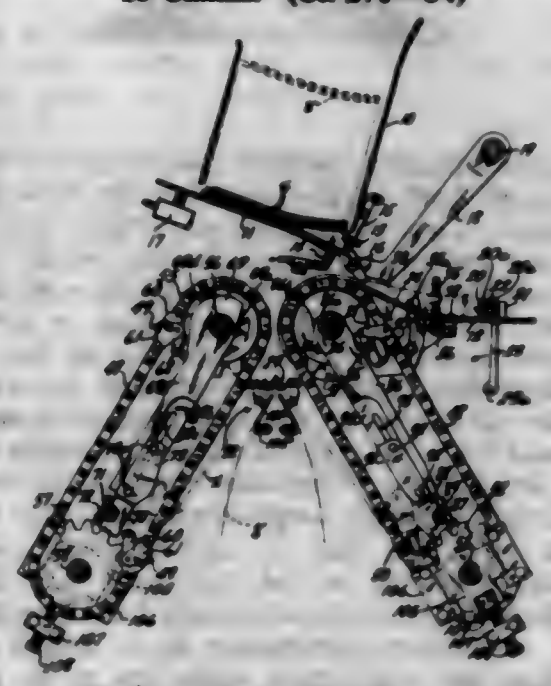
and said leverlike member, respectively, a pair of load balancing springs, means for linking corresponding ends of said springs and said load lever and said leverlike member, respectively, and means respectively in engagement with the other end of each spring for transmitting the force thereof to an arm of said double-armed lever.

2,845,264

SIGNATURE FEEDING AND OPENING MECHANISM

Harry W. Faeber, Larchmont, N. Y., assignor to Time, Incorporated, New York, N. Y., a corporation of New York

Application July 8, 1954, Serial No. 442,149
15 Claims. (Cl. 270—54)

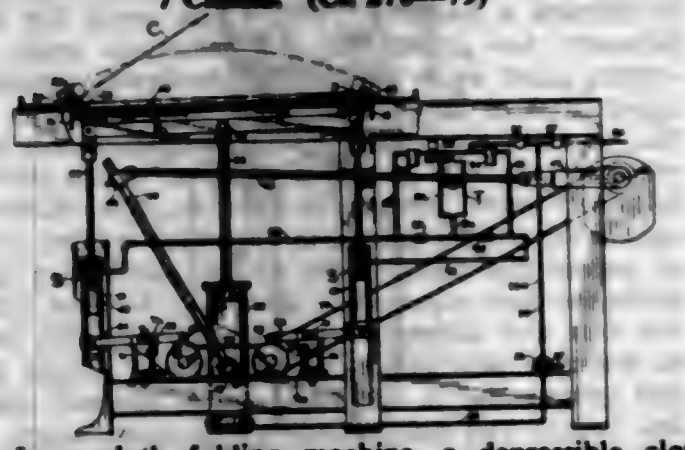


1. In a collating system wherein a plurality of different folded signatures stored in separate bins are assembled in book form on a continuous conveyor which moves from bin to bin in proper sequence, the combination of signature releasing means associated with each bin, a pair of sheet retaining members, said sheet retaining members traveling in synchronism in separate closed paths, the paths converging and then diverging, grippers traveling in a closed orbital path for feeding the open end of the released signature to the point at which the paths of the sheet retaining members converge, means for closing the grippers on the leading edge of the signature, means for actuating the sheet retaining members whereby they first cooperate to cause one of the sheet retaining members to engage one leaf of the signature before the other sheet retaining member engages the other leaf of the signature, means for opening the grippers, the leaves of the signature being separated as the sheet retaining members diverge, and means for releasing the sheet retaining members at the appropriate time to permit the signatures to be delivered to the conveyor.

2,845,265
CLOTH FOLDING MACHINE

Ralph S. Gamble, Oxford, and Leland F. Remington, Worcester, Mass., assignors to Curtis & Marble Machine Company, Worcester, Mass., a corporation of Massachusetts

Application December 12, 1955, Serial No. 552,372
7 Claims. (Cl. 270—79)

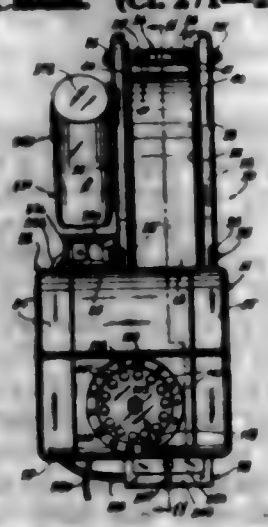


1. In a cloth folding machine, a depressible cloth table having spaced edge portions, a pair of fixed upper cloth-clamping jaws and a pair of movable lower cloth-clamping jaws, all associated with said spaced edge portions, a cloth-folding blade mounted to swing back-and-forth over said table and from edge to edge thereof, means to continuously oscillate said blade from one edge portion to the other of said table in a folding cycle effective to fold and deposit the cloth in superposed layers on said table and to insert the edges of the cloth folds between said upper and lower clamping jaws, means to normally and yieldingly maintain said table edge portions and said lower clamping jaws in elevated cloth-clamping position, a separate hydraulic device operatively connected to each lower clamping jaw and to the associated table edge portion and effective to depress said jaw and said edge portion a predetermined distance, control mechanism therefor effective to selectively activate each hydraulic device separately and alternatively to depress the associated table edge portions and movable clamping jaws to release the associated cloth edge portions to permit insertion of additional cloth folds, and means to progressively shift downward the locus of the lower limit of depression of each movable clamping jaw and associated table edge portion as the thickness of the load of folded cloth increases.

2,845,266
TAPE DISPENSER

Herbert W. Hempel, Belleville, Ill., assignor to Marsh Stencil Machine Company, Belleville, Ill., a corporation of Illinois

Original application February 9, 1951, Serial No. 210,155, now Patent No. 2,757,738, dated August 7, 1956. Divided and this application March 26, 1956, Serial No. 573,763
12 Claims. (Cl. 271—2.4)

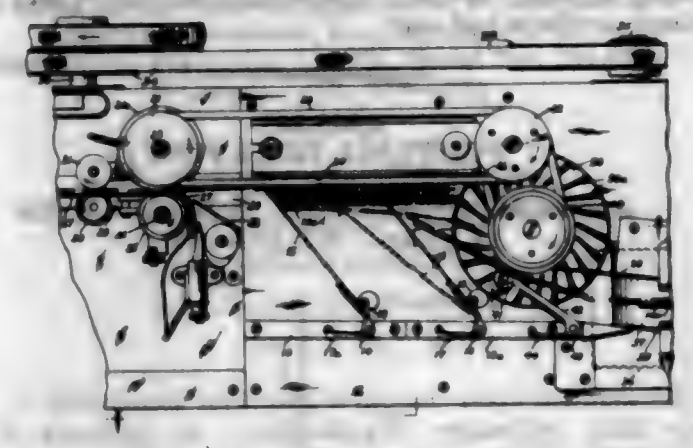


1. A power driven tape measuring and dispensing machine comprising, in combination, a support, a tape segment selector and measuring unit mounted on said support, a tape feed wheel rotatably mounted on said support, power mechanism operatively connected to said feed wheel for driving the same upon actuation of said tape segment selector and measuring unit, said unit including a manually rotatable lead member and a power driven rotatable follower member, means actuated upon movement of said lead member out of indexing relation with said follower member to effect power actuation of the latter, said follower member being power rotated until it again indexes with said lead member.

2,845,267
MAIL HANDLING EQUIPMENT

Ernest Persson, New York, N. Y., assignor to International Postal Supply Company of New York, Lewistown, Pa., a corporation of New York

Application February 19, 1957, Serial No. 641,123
10 Claims. (Cl. 271—34)



1. In mail handling equipment or the like, a receiving magazine with an associated transverse intercepting member in front of a rear entrance through which upright-positioned thin flat work pieces such as letter mail or cards or the like are inserted on edge in touching contiguity alongside one another and alongside an exit side of the magazine by forward movement along an insert path into front end engagement with said intercepting member, feed mechanism operating effectively in a vertical plane at said exit side for engaging the contiguous upright face of one after another of the inserted work pieces to feed them on edge from the magazine to a single-file course, and continually running means moving across and past said insert path and transversely toward said exit side for engaging the inserted work pieces to shift them sidewise, while standing on edge, away from said magazine entrance and crowd them laterally together against the feed mechanism for effective feed receiving coaction with said feed mechanism.

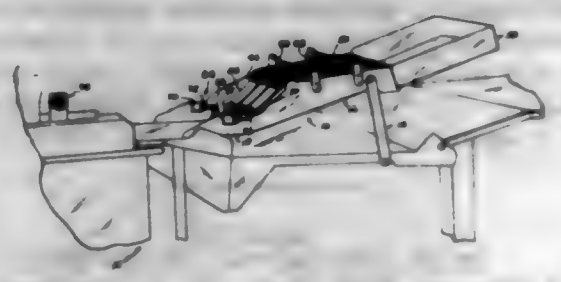
2,845,268
SELECTOR ATTACHMENT FOR ADDRESSING MACHINES

Hugh J. Shields, Aurora, Colo., assignor to United States of America as represented by the Secretary of the Air Force

Application June 25, 1956, Serial No. 593,776
4 Claims. (Cl. 271—64)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A card selector for sequentially selecting a card from a number of cards, comprising, in combination, a selector device attached to an addressing machine frame and comprising a combined, rotatably mounted actuator and single groove cam, an electrical circuit controller having a pair of electrical contacts normally separated to circuit-open position by said cam and moved to engaged, circuit-closed position on rotation of said cam to register

said cam groove therewith, a card separating device mounted on said addressing machine frame and having a rotatably mounted card pick-up device with a pair of spaced electrical contact arms, electromagnetic means mounted on said addressing machine adjacent said spaced electrical contact arms and electrically connected to said circuit



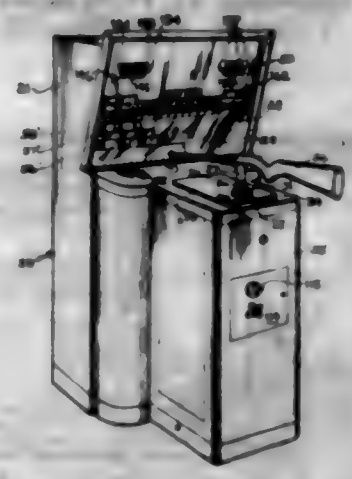
controller to intermittently attract and rotate said card pick-up device to pick up a selected card on engagement between said pair of electrical contacts, and actuating means operated by the addressing machine and engaged with said actuator to continuously rotate said combined actuator and cam.

2,845,269
FOOTBALL GOAL POST
Charles Simmons, Elkins, W. Va.
Application April 18, 1955, Serial No. 502,036
1 Claim. (Cl. 273—55)



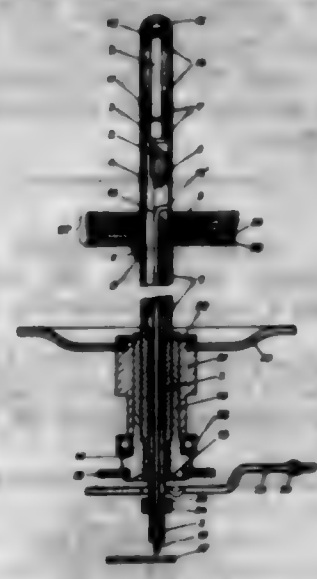
A football goal post comprising a first pair of spaced, parallel upright members inserted into a supporting ground surface, a first transverse member extending between said pair of spaced parallel upright members in spaced parallel relation to said ground surface and generally at the center of the vertical dimension of the upright members, said transverse member having a longitudinal dimension substantially equal to that of said first pair of parallel upright members, a second pair of spaced upright members positioned between said first pair of parallel upright members and attached to said first transverse member, said second pair of spaced upright members having a longitudinal dimension substantially greater than said first pair of parallel upright members, a second transverse member extending between said second pair of parallel upright members in spaced relation to said ground surface and the first transverse member, the distance of the second transverse member from the ground surface being substantially equal to that of the upper end of said first pair of parallel upright members, the distance between the upright members of the second pair being substantially equal to the distance between the upright members of the second pair and the adjacent upright member of the first pair.

2,845,270
ELECTRICALLY CONTROLLED MARKSMANSHIP PRACTICE APPARATUS
Lyndon A. Durant, Chicago, Ill.
Application November 16, 1954, Serial No. 469,158
2 Claims. (Cl. 273—101.2)



1. A target practicing apparatus of the class described comprising a playing circuit, including a manually operated switch, a conditioning circuit for conditioning the playing circuit for play, means for effecting operation of the conditioning circuit, a timing circuit, said manually operated switch being operative upon initial actuation to render the timing circuit effective independently of said playing circuit and means actuated by the manually operated switch after a predetermined number of actuations thereof and upon completion of the play for rendering said playing circuit and timing circuit ineffective.

2,845,271
RECORD CHANGING DEVICE
Paul Scheller, Wuppertal-Barmen, and Walter Oldenburg and Josef Ciniotti, Kiel, Germany, assignors to Electroacustic G. m. b. H., Kiel, Germany, a German corporation
Application June 16, 1954, Serial No. 437,169
4 Claims. (Cl. 274—10)



1. A gramophone record changing device, comprising a turn-table spindle for supporting a stack of record discs, said spindle having an upright tubular member provided in its upper end with more than two longitudinal slots open at the top and located in different axial planes of said member, said member having between each two of said slots a top edge sloping downward in outward direction; a control rod longitudinally displaceable within said tubular member and projecting upwardly and downwardly out of said tubular member; inherently resilient supporting means rigidly secured to said control rod at a location above said tubular member and having as many arms as said tubular member has slots, said arms extending downwardly from said location in said different respec-

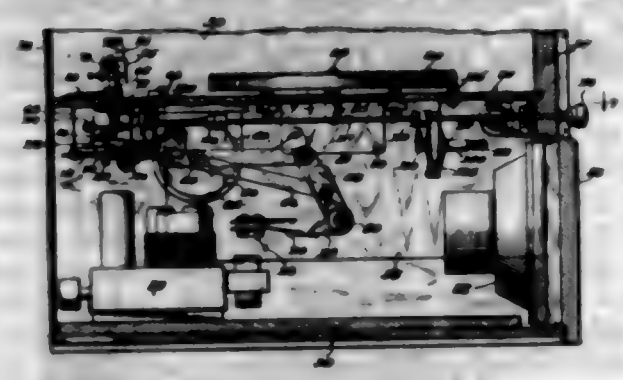
tive planes and being elastically displaceable radially in said respective planes, each of said arms having at its lower end a nose protruding outwardly through one of said respective slots of said tubular member, said noses having each a planar and normally horizontal top face for supporting the record stack and having an inwardly sloping side face; a sleeve axially displaceable on said control rod above said supporting means, a plurality of spring strips connected with said sleeve and extending downwardly therefrom, said spring strips being peripherally separated from each other so as to form longitudinal slots intermediate said strips, said arms of said supporting means normally extending into said respective intermediate slots, each of said spring strips having at its lower end an outwardly projecting portion for clamping the penultimate record of the stack and having an inwardly inclined slide edge underneath said projecting portion, said slide edge being engageable with said outwardly sloping upper edges of said tubular member; an abutment fastened to the upper end of said control rod, and a compression spring surrounding said control rod and having one end abutting against said abutment and the other end against said sleeve to exert pressure upon said sleeve.

2,845,272

TONE ARM ACTUATING MECHANISM

Benedict R. Kamler, South Haven, Mich., assignor to Edward Gray, Chicago, Ill.

Application November 5, 1952, Serial No. 318,901
11 Claims. (Cl. 274—14)



11. In phonograph mechanism, the combination with a turntable for supporting a record to be played and means for rotating the turntable, of a tone arm, a universal mounting for the tone arm including a swivel post journalled for rotation on a vertical axis and to which the tone arm is horizontally pivoted, mechanism for actuating the tone arm including means for elevating and lowering the tone arm and other means for oscillating the tone arm from a non-playing position to a playing position over the turntable and return, a manually manipulatable selector rod for also actuating the tone arm and independently of the mechanism, means mounting the selector rod for reciprocating movements toward and from the swivel post, cam means rendered operative by the selector rod for elevating the tone arm when the rod is moved to an operative position, a friction wheel fixed to the swivel post, a second friction wheel fixed to the selector rod, said wheels being spaced when the rod is retracted and the tone arm is in lowered position, said second friction wheel however having engagement with the first mentioned friction wheel when the rod is in operative position to thus enable rotation of the swivel post and oscillation of the tone arm by rotation of the selector rod, and a movable member which is rendered operative when the tone arm is in a non-playing position for locking the selector rod preventing operation thereof for actuating the tone arm.

2,845,273

MAGNETIC WORK HOLDER

John H. Shafer, Cogan Station, Pa., assignor of fifty per cent to Clay Whitmoyer, Washingtonville, Pa.

Application October 25, 1956, Serial No. 618,240
6 Claims. (Cl. 279—1)



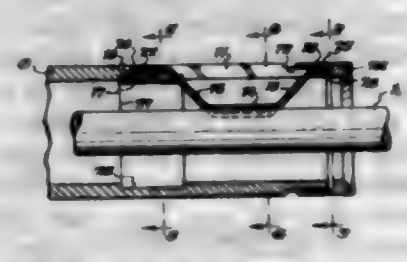
1. A work holder for magnetic chucks comprising: a base of magnetic material for mounting on the chuck, a work engaging jaw mounted on said base for reciprocation to engage and disengage the work, and means mounted on the base for reciprocating the jaw and operable by the magnetism of the chuck for engaging said jaw with the work.

2,845,274

FEED CHUCKS

Anders Adolf Petersen, Elmira, N. Y., assignor to Hardinge Brothers, Inc., Elmira, N. Y.

Application September 1, 1955, Serial No. 531,896
9 Claims. (Cl. 279—23)



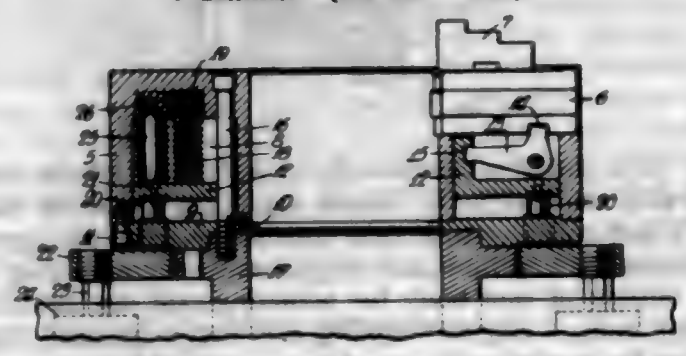
1. A feed chuck including a tubular body member having a plurality of longitudinally extending slots arranged at intervals about the periphery thereof intermediate of the ends of said body member, a spring in each of said slots having its ends connected with said body member at the ends of a slot and having its middle portion bowed into said body member, one end of said spring being bifurcated to straddle a part of said body member at one end of a slot, and means for applying pressure on the other end of said spring in the direction of the length of the spring.

2,845,275

LEVER ACTUATED CHUCK

Walter F. Skillin, New Britain, Conn., assignor to Union Manufacturing Company, New Britain, Conn., a corporation of Connecticut

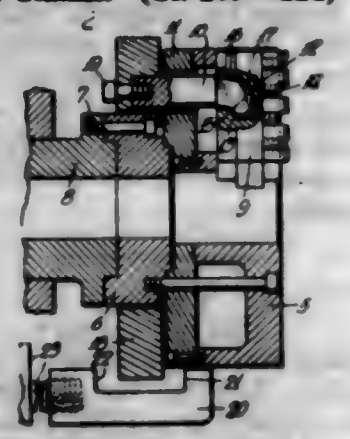
Application May 23, 1955, Serial No. 510,125
7 Claims. (Cl. 279—119)



4. In a chuck, a chuck body, a plurality of chuck jaws movable thereon, said body having a cylinder-like chamber therein, a piston-like actuator in said chamber, bell cranks connecting said chuck jaws and said actuator for moving said jaws upon movement of said actuator, preloaded springs in said body and engaging said piston-like actuator for urging the same in one direction, said chuck body having a back plate, pilot means extending through said back plate for urging said piston-like actuator in a

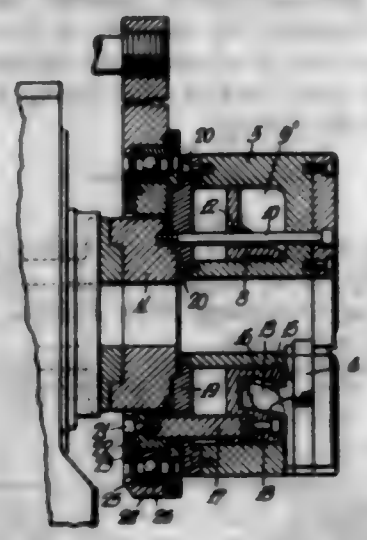
direction in opposition to the spring movement, and power means external to said chuck body for urging said pilot means.

2,845,276
CHUCK
Walter F. Skillin, New Britain, Conn., assignor to Union Manufacturing Company, New Britain, Conn., a corporation of Connecticut
Application May 23, 1955, Serial No. 510,124
11 Claims. (Cl. 279—121)



4. In a chuck, a chuck body, a chuck jaw movable radially thereon, a pilot actuator movable axially of said chuck body, said pilot actuator and said jaw having coacting wedging surfaces at sharp angles to produce a fast movement of said jaw and at slight angles to produce a feed and locking movement of said jaw upon a generally axial movement of said actuator.

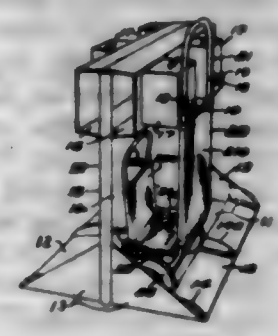
2,845,277
CHUCK
Walter F. Skillin, New Britain, Conn., assignor to Union Manufacturing Company, New Britain, Conn., a corporation of Connecticut
Application May 23, 1955, Serial No. 510,126
7 Claims. (Cl. 279—121)



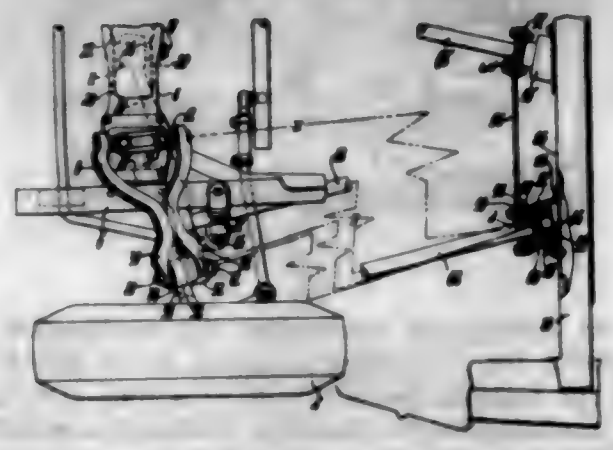
1. In a chuck, a chuck body, a plurality of chuck jaws movable on said body, chuck actuating means in said body and coacting with said jaws for moving the latter, means projecting into said body and carried by a ring at the outside of said body for actuating said jaw actuator in said body, a ring surrounding said first-mentioned ring, means for moving said second ring, and anti-friction bearing members interposed between said rings.

2,845,278
LUGGAGE CART AND DISPENSER
Lenore K. Broeler, Fredonia, N. Y.
Application January 5, 1953, Serial No. 329,570
14 Claims. (Cl. 280—36)

13. A system for servicing luggage which comprises, at least one coin-operated luggage cart dispensing unit, luggage carts each having a handle portion, said dispensing unit defining opposed stall portions open from opposite end portions thereof to individually receive and position said carts therein and having coin-operated latching means at said stall portions to receive and latch-engage the handle portion of each of said luggage carts, each of said luggage carts having a luggage-receiving collapsible swing frame thereon, said swing frame having an upturned forward end portion mounted for a push-in collapse of said swing frame, and said dispensing unit having a backing member associated with its said stall portions to engage said forward end portion and collapse said swing frame by moving it upwardly when one of said carts is moved into one of said stall portions.

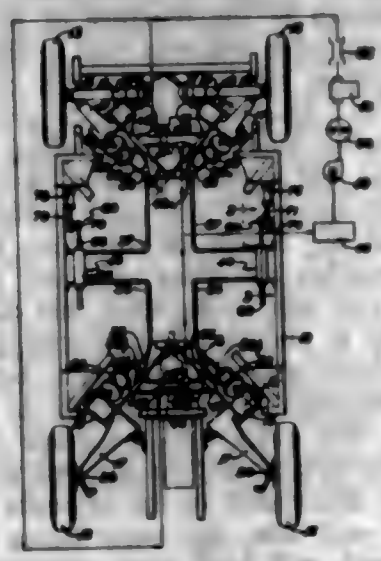


2,845,279
VEHICLE TORSION SPRING SUSPENSION
Von D. Polhemus, Franklin, and Max Ruegg, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 31, 1954, Serial No. 453,269
5 Claims. (Cl. 280—96.2)



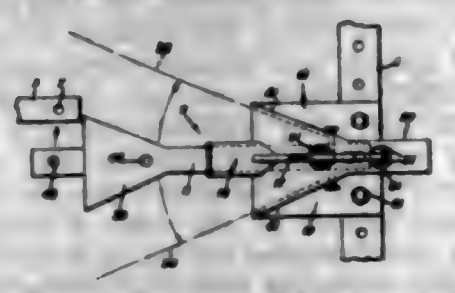
1. In a vehicle frame, a pair of road wheels, independent suspension means operatively connecting each of said wheels to said frame, said means comprising spaced transversely extending upper and lower arms, pivot means connecting the inner ends of each of said arms to said frame, said pivot means including flexible cushioning means, a steering knuckle mechanism for each of said wheels, pivot means connecting the outer ends of said arms to said steering knuckle mechanism, a pair of laterally spaced torsion bars, means connecting the forward end of each of said bars respectively to each of said lower arms respectively, a pair of transversely spaced flexible supports for the rear ends of said bars, said supports being secured to said frame, and common elongated anchor means extending transversely between the rear ends of said torsion bars for resisting torsional deflections of said bars, said anchor means being rigidly connected at one end to one of said bars and at the other end to the other of said bars, both said anchor means and said rear ends of said torsion bars being supported by said flexible supports.

2,845,280
HYDRAULICALLY INTERCONNECTED SPRING SUSPENSION SYSTEM
Alvin S. Kretz, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application September 27, 1955, Serial No. 536,997
13 Claims. (Cl. 280—104)



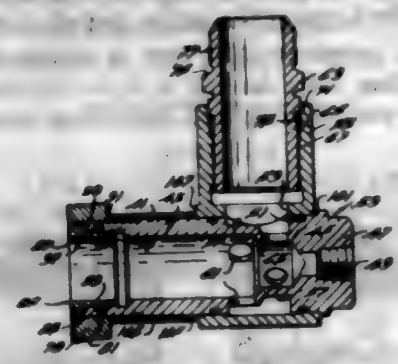
1. A spring suspension system for a vehicle having a load-carrying frame, wheels and wheel-mounting means connected to the frame for movement of the wheels relative to the frame, the system comprising a spring engaged with each said wheel mounting means and an adjacent portion of said frame, a hydraulic circuit interconnecting the spring of one wheel with a spring of another wheel, said circuit comprising means responsive to deflection of either of said springs to communicate a proportion of the deflecting force to the other spring and arranged to deflect the latter oppositely to impart a leveling force to the portion of the frame adjacent the latter, and means interposed in said circuit for elastically resisting said communication of deflecting forces between said springs to resist pitching motion of the frame relative to the wheels, means operable in response to actuation of the braking system of the vehicle for providing increased resistance to the communication of deflecting forces between said wheel springs when the vehicle brakes are applied.

2,845,281
HITCHES
Lum J. Holder and Otis R. Green, Lamesa, Tex.
Application April 29, 1957, Serial No. 655,573
1 Claim. (Cl. 280—478)



A hitch for coupling a tow vehicle to a trailing device comprising a rectangular plate attachable to the rear end of a tow vehicle with its longitudinal center aligned with the longitudinal center of the tow vehicle, a draft tongue longitudinally slidable rearwardly and laterally swingable on said plate to align the same with a coupling pin on said trailing device and longitudinally slidable forwardly and laterally swingable on said plate into alignment with the longitudinal center of said plate to align said tongue with the longitudinal center of the tow vehicle, coacting devices on said plate and tongue camming the tongue laterally into alignment with said longitudinal center of said plate in response to forward sliding of said tongue, locking means for locking the tongue to the plate when said tongue is slid forwardly and cammed into alignment with said center of the plate including a vertical socket on said plate, and holddown means on said plate for said coupling pin, said locking means comprising a locking pin slidable in said socket upwardly and downwardly into locking and unlocking position, and a vertically swingable hand lever pivoted on said socket and operatively connected to said locking pin, said holddown means comprising a holddown plate on said lever movable upwardly and downwardly thereby from and into holddown position relative to said coupling pin.

2,845,282
PIPE CONNECTOR HAVING ADJUSTABLE ELBOW
Otto Mueller, Dearborn, Mich.
Application September 9, 1953, Serial No. 184,054
2 Claims. (Cl. 285—159)

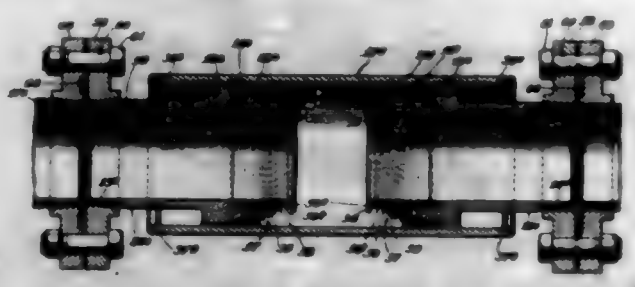


1. In combination, a panel having a threaded aperture extending only part way through toward the inside of the panel and a reduced diameter aperture coaxial with the threaded aperture extending the rest of the way through the panel and providing a shoulder facing toward the outside of the panel, an inner member having an end threaded into said threaded aperture, said member having a straight fluid passage opening out said end, said passage being enlarged adjacent said end to provide a shoulder facing said panel shoulder but spaced therefrom, a bushing fitting in the end of said fluid passage having a flange portion seated on the panel shoulder spaced from the member shoulder and having a flat end face, an O-ring between the bushing and member shoulders serving to press the bushing against the panel shoulder to provide an initial seal between the flat end face and the shoulder of the aperture of the panel, an O-ring between the outer bushing wall and the wall of the enlarged aperture of the conduit member for sealing the joint therebetween, said fluid passage terminating short of the other end of the inner member, said member having an outer peripheral shoulder facing the outer surface of said panel, an outer member swivelly mounted on the inner member and seated against said outer shoulder, an annular spacer surrounding the inner member between the outer surface of the panel and the adjacent annular face of the outer member and serving to press said member against the outer shoulder of said inner member, said outer member having a fluid passageway disposed at a right angle to the fluid passageway of the inner member in communication therewith in any rotative position thereof.

2,845,283
VARIABLE LENGTH JOINT WITH BALLS AND SOCKETS FOR UNIVERSAL MOVEMENT
Henry S. Kuhn, Park Ridge, Ill., assignor to Rotherm Engineering Company, Inc., Chicago, Ill., a corporation of Illinois
Application November 3, 1954, Serial No. 466,688
1 Claim. (Cl. 285—166)

A liquid-tight and gas-tight extensible and universally movable expansion joint assembly, comprising a cylindrical metal housing tube of sufficient length to provide

an extension space at each of its ends, said housing tube having a cylindrical bore open at both ends, and having an inner peripheral groove of rectangular cross section adjacent each end, a flat, resilient, split metal ring expanded into each of said grooves and presenting a wide inner stop surface in each end of said bore, a tubular metal fitting in each end of said bore, and comprising an outwardly extending tube with an outer threaded end, said tube having an outer diameter smaller than the inner diameter of the split ring in each case, and having a through bore communicating with the bore in the other fitting through said housing tube, each fitting having on its inner end a partially spherical enlargement having a radial outer surface facing toward said split ring in each case, but spaced therefrom, said enlargement having an annular partially spherical convex surface engaging universally the inner bore of said housing tube, said spherical surface being formed on a relatively large radius, providing a narrow, sharply tapered groove between the enlargement and the housing tube bore at the inner end of each fitting, each fitting having a larger counterbore at its inner end, a metal spring supporting tube having a tight frictional fit in the counterbore in each fitting, and extending inwardly in each



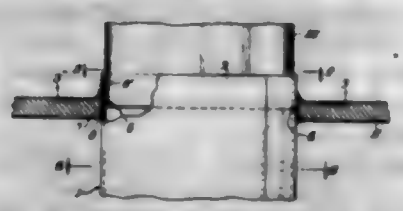
case, and having a radial flange projecting outwardly at the inner end of each spring supporting tube, a narrow annular packing ring of "Teflon," having a cylindrical outer surface engaging the wall of the bore of the housing tube, and having an inner, annular, concave, partially spherical surface engaging the spherical enlargement of each fitting, and tapered outwardly to a V-shaped edge complementary to the annular groove about each spherical enlargement, each packing ring having an inner plane radial surface at its inner end, an annular metal seating ring having a radial flange engaging the inner plane surface of each packing ring, and having a cylindrical flange forming a spring seat, and slidably mounted in the cylindrical bore of said housing tube, and a tapered coil spring having its larger end engaging in said spring seating ring, and its smaller end engaging the radial flange of said spring supporting tube, about which said coil spring is located, said spring acting on said packing ring in each case, and reacting on said radial flange to drive each packing ring into sliding sealing engagement with the inside of said housing tube and the outside of said spherical enlargement independently of the other spring and packing ring.

2,845,284

HEAT EXCHANGER COUPLING UTILIZING BOTH A LOCK AND A LAP SEAM

Elmer V. Kallstrom, Racine, Wis., assignor to Modine Manufacturing Company, Racine, Wis., a corporation of Wisconsin

Application September 17, 1953, Serial No. 380,857
2 Claims. (Cl. 285—192)



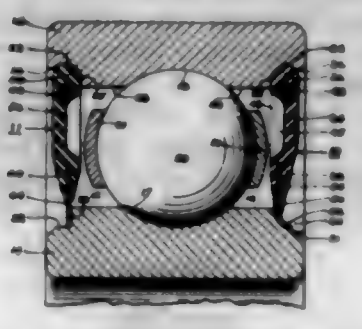
1. In a header and seamed tube assembly for a heat exchanger, the combination of a header member having an aperture therein, a flattened seamed tube comprising a strip of sheet material shaped to form a tubular body having a longitudinally extending joint formed by the longitudinal edges of the sheet at an edge of the tube, said edges being bent to provide complemental interlocking U-shaped channels forming a lock seam of four thicknesses of material, said lock seam extending inwardly with respect to the tube side wall, said strip having notches therein at the juncture of the longitudinal edges and an end edge whereby said U-shaped channels terminate at points spaced from such end edge, said notches being of a transverse width to provide a simple overlap of material along the longitudinal edges of said notches, with the side walls of the tube having its external surface of substantialy uniform cross sectional configuration throughout the length of the tube, the transverse edges of said notches extending angularly rearward with respect to said end edge of the tube, said end of the tube being positioned in and closely conforming to the aperture in said header member, the latter being deformed adjacent the periphery of said aperture to axially offset such periphery with respect to the plane of the header member in a direction toward the adjacent tube end, forming an annular depression in the opposite face of said member about said tube, the latter being positioned in said aperture with said lock seam terminating substantially at the bottom of said depression, and bonding material positioned in said depression operative to secure the header member and tube in fluid tight relation.

2,845,285

DEMOUNTABLE CLOSURE

Leland D. Cobb, Forestville, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 3, 1955, Serial No. 512,946
5 Claims. (Cl. 286—11)



1. In a closure for demountable positioning across an annular lubricant chamber between a pair of relatively rotatable members one of which has an annular surface facing towards the other member, an inherently resilient elastomeric closure washer demountably seated in sealing engagement against said annular surface and extending generally radially across the lubricant chamber into spaced relation with said other relatively rotatable member, a substantially radially disposed annular side wall on said other relatively rotatable member, a flexible thin annular metal member gripped by the resilient closure washer, said annular metal member having an imperforate annular lip radially extending from the closure washer into laterally spaced parallel proximity with said annular side wall.

2,845,286

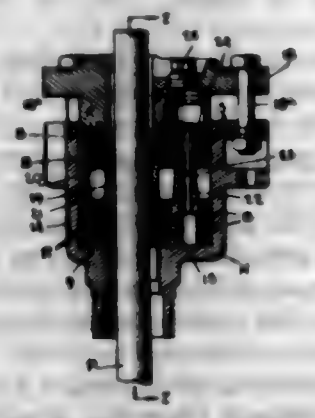
PACKING FOR POLISH RODS

Harold Case and Warren C. Ames, New York, N. Y., assignors to The Marlo Company Inc., New York, N. Y., a corporation of New York

Application March 29, 1956, Serial No. 574,917
4 Claims. (Cl. 286—16)

1. In final combination with a vertical polish-rod, a stuffing-box through which said polish rod extends vertically and axially, a packing in said stuffing box, said

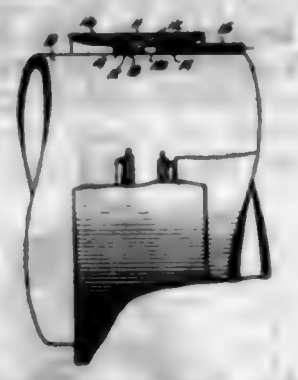
packing including upper and lower superposed annular blocks which have proximate horizontal faces and remote horizontal faces; said blocks being made of material which is resilient, somewhat compressible and hard; said blocks fitting against the interior vertical face of said stuffing box; the lower block having a vertical inner annular recess which extends below its respective proximate face, the upper block having a vertical inner annular recess which extends above its respective proximate face, said recesses having horizontal end-walls at their opposed lower and upper ends, said end-walls having vertical polish-rod bores through which said polish rod extends; respective ring inserts located in said respective vertical recesses, each ring insert abutting a respective end-wall; said ring inserts having respective upstanding slots, and being made of material which is permanently deformable and compressible under applied vertical pressure of said blocks when said blocks are forced vertically towards each other in said stuffing box; said blocks have through-and-through upstanding slits from the walls of said recesses to the vertical edge walls of said blocks; said blocks being sufficiently spreadable at their said slits for easy seating of said ring inserts in said recesses; the



outer annular faces of said ring inserts fitting closely in said recesses; the inner annular faces of said ring inserts fitting closely against said polish-rod in an initial assembly of said polish rod and blocks and ring inserts; said stuffing box having a rigid support for the bottom face of said bottom block; pressure means for downwardly forcing said upper block towards said lower block and for exerting vertical pressure on said ring inserts to change said initial assembly to a final combination, said blocks being sufficiently hard and said ring inserts being sufficiently permanently yieldable under said vertical pressure to permanently decrease the original height of said ring inserts and to permanently decrease their original internal diameters by cold-molding the interior annular faces of said ring inserts against said polish rod; said final combination having the proximate horizontal faces of said blocks abutting each other under said vertical pressure, the proximate ends of said ring inserts abutting each other under said vertical pressure, the total height of said ring inserts being permanently less than their original total height, the internal diameters of said ring inserts being permanently less than their original internal diameters, and the inner annular faces of said ring inserts being in tight, sealing contact with said polish-rod.

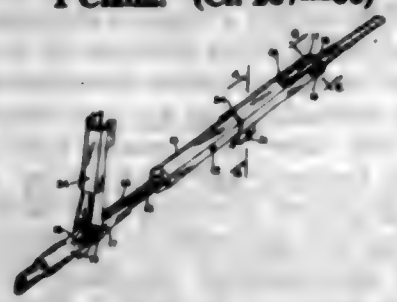
2,845,287
CENTER TAPERED STOP COLLAR ASSEMBLY
Jesse E. Hall, Sr., Weatherford, Tex.
Application December 14, 1954, Serial No. 475,227
2 Claims. (Cl. 287—52.09)

1. A stop collar assembly for mounting tools on the exterior of pipe or tubular casing comprising a sleeve whose inside diameter provides an easy sliding fit upon the casing, oppositely inclined circular surfaces internally of the sleeve tapering from its outer edges toward its mid section, the greatest inside diameter of the sleeve being adjacent the edges, the lesser diameter at the mid section, wedge rings possessing an internal diameter at least equal to the outer diameter of the casing when mounted thereon and an outer diameter less than the greatest internal diameter of the sleeve when mounted on



the casing, said wedge rings when positioned between the casing and the inclined surfaces of the inner faces of the sleeve adapted to cooperate with the collar and casing surfaces with longitudinal movement of the collar upon the casing to rigidly fix the collar thereto.

2,845,288
LOCKING TURNBUCKLE
Albert Cierpik, Jr., Massapequa Park, N. Y., assignor to Phillips Screw Company, a corporation of Delaware
Application February 15, 1954, Serial No. 410,334
1 Claim. (Cl. 287—60)



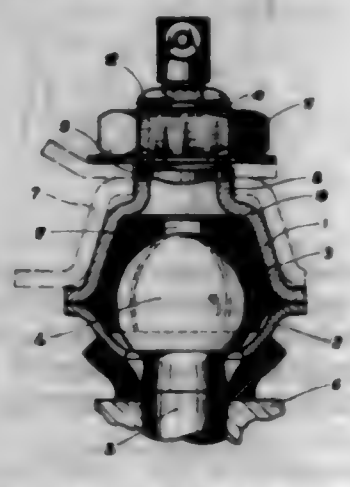
A turnbuckle comprising an elongate hexagonal barrel having an axial threaded bore, an eyebolt having an eyed head and a cooperatively threaded shank engaged in said bore, a unitary sheet metal locking member having a forked end for receiving said bolt head, a pin passing through said forked end and said head for pivotally mounting said member upon said eyebolt, the other end of said locking member being formed to snap over and lockingly engage said barrel, said locking member terminating short of the free end of said shank by a distance substantially equal to the diameter of said shank whereby said shank must be threaded into said barrel by at least said distance to permit engagement of said locking member with said barrel.

2,845,289
SHAPE RETAINER
Ernest G. Cleogna, New York, N. Y.
Application May 13, 1954, Serial No. 429,597
5 Claims. (Cl. 287—77)



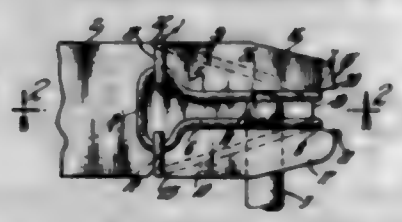
1. A connector means for joining together the ends of a hat wire, comprising an annular member constituting a coil having a substantially straight, elongate projecting end portion for attachment to the hat wire, and having a crimp disposed in said end portion and extending transversely thereof; and a substantially straight slender member adapted to be secured to the hat wire and to extend through said coil, said slender member having an integral hook adjacent one end, said hook being engageable with and disengageable from said crimp when the member is disposed in the coil, thereby to clasp together or unclasp the said members.

2,845,290
BALL JOINT
Josef H. Latzen, Schurkenfeld, Stromp, Germany, assignor to A. Ehrenreich & Cie, Duesseldorf-Oberkassel, Germany
Application September 26, 1956, Serial No. 611,882
Claims priority, application Germany October 21, 1955
2 Claims. (Cl. 287—90)



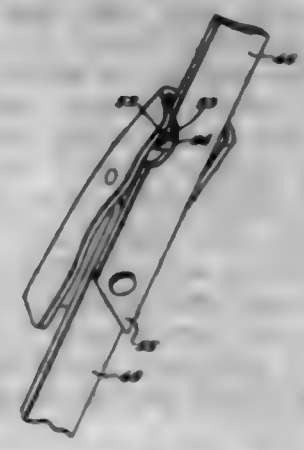
1. In combination in a ball joint for wheel suspensions of vehicles, which includes a stud and a ball head thereon to be journalled in said ball joint: a lower socket, an upper socket connected to said lower socket and forming a housing therewith, said upper socket being provided with a hollow cup-shaped extension extending outwardly from said upper socket in the direction of the longitudinal axis thereof and having its outside provided with a thread so as to form a threaded shank for said housing to permit connection of the latter to a motor vehicle, an elastic insert arranged between and confined by said housing and said ball head and provided with an inner surface having a contour corresponding to the outer contour of said ball head and engaging the same, the interior of said cup-shaped extension forming a lubricant-receiving chamber, a plate interposed between said elastic insert and said cup-shaped extension to prevent said elastic insert from displacing itself into said cup-shaped extension, and passage means extending through said plate and said insert and establishing communication between said chamber and the outer surface of said ball head.

2,845,291
RETAINING CLIP AND ASSEMBLY
Bewley D. Priestman, Livonia, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 25, 1955, Serial No. 483,940
3 Claims. (Cl. 287—91)



1. In combination, a plate having a wedge-shaped end and defining a central opening adjacent said end, said plate defining a pair of notches disposed in opposite edges thereof, a resilient wire clip comprising a loop portion terminating in a first pair of spaced portions extending across said opening to said end, said first pair of spaced portions terminating in respective connecting portions extending transversely of said plate, a second pair of spaced portions extending from said respective connecting portions, each of said second pair of spaced portions terminating in a transverse locking portion, said locking portions adapted to be spread by coaction with said wedge-shaped end and each being disposed in a different one of said notches, and a rod extending transversely of said plate through said opening and between the spaced portions of said first pair in frictional engagement therewith.

2,845,292
BRACE LOCKING DEVICE
Robert M. Dunning, St. Paul, and Harold R. Nielsen, Mendota, Minn.; said Dunning assignor to said Nielsen
Application February 21, 1956, Serial No. 567,042
3 Claims. (Cl. 287—99)



1. A lock for toggle links including a pair of toggle links, means pivotally connecting said links, said links extending beyond the pivot to form extended portions, a channel-shaped member pivotally supported intermediate its ends on the extended portion of one link, a pivot extending through the sides of the channel-shaped member and extending transversely of said one link and forming the pivotal connection between said channel-shaped member and said one link, said channel-shaped member being pivotal between two extreme positions, the sides of said channel-shaped member embracing a portion of the other link at a point spaced from the pivotal connection between the links in one of said extreme positions and when said links are aligned in extended position, the sides of said channel-shaped member embracing the extended portion of said other link in the other extreme position thereof, the extended portion of said other link having one side thereof cut away to permit pivotal movement of said extended portion between the sides of the channel-shaped member while the channel-shaped member is in said other extreme position.

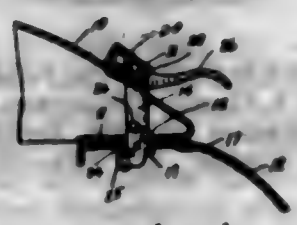
2,845,293
CONSUMABLE ELECTRODE
Victor A. Peckham, Jr., Pittsburgh, Pa., assignor to Universal-Cyclops Steel Corporation, Bridgeville, Pa., a corporation of Pennsylvania
Application April 1, 1957, Serial No. 649,875
6 Claims. (Cl. 287—104)



1. A consumable electrode comprising a plurality of short bars composed essentially of metal particles compressed together, the bars being arranged in two ver-

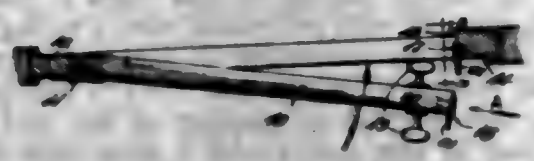
tically extending rows disposed face to face and the bars in each row being staggered relative to those in the other row, the adjoining faces of the two rows of bars being provided with interengaging teeth extending transversely thereof to hold the bars against vertical movement relative to one another, and means spaced vertically along the electrode holding the two rows of bars face to face with their teeth engaging.

2,845,294
CASKET LATCH
Ray E. Peterson, Danville, Ill., and David C. Bell, Richmond, Ind.
Application May 14, 1956, Serial No. 584,516
3 Claims. (Cl. 292—128)



1. A latch device adapted to be mounted on an inclined surface and to latch against an underlying horizontal anhoring rail, said device comprising a supporting base having laterally extending ear members and including an extension in the form of an elongated channel, the axis of said channel forming an oblique angle with the plane of said ears and extending generally normal to the plane of the anchoring rail, a substantially L-shaped dog having one leg extending within said channel and the other leg protruding therefrom to form a handle, a pivot carried by said channel and supporting said one leg adjacent its free end, a latching abutment carried by the free end of said one leg and engageable with said anchoring rail, and means for urging said latching abutment into engagement with said anchoring rail comprising a spring mounted on said supporting base and bearing on the junction of said legs.

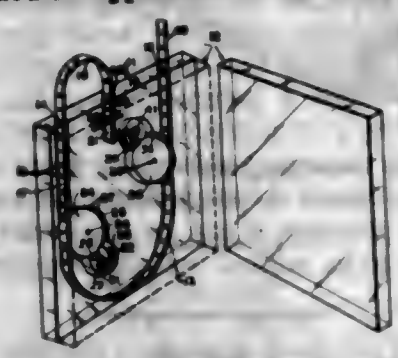
2,845,295
DOOR HASP
William Clarke, West Hollywood, Fla.
Application April 29, 1954, Serial No. 426,526
1 Claim. (Cl. 292—281)



For use with a door and its associated jamb, a pair of duplicate complementary members each having a base plate, an outwardly extending apertured projection, and a shoulder angularly and integrally interconnecting the plate and projection whereby they lie in parallel but slightly spaced planes, one of said projections extending downwardly, the other of said projections extending upwardly, one of said base plates attachable to the free edge of the door, the other base plate attachable to the jamb vertically adjacent to the base plate attached to the door, with said projections in face-to-face registry when said door is in closed position relative to said jamb, whereby a padlock may interconnect said projections.

2,845,296
SEAL LOCKS
Raymond Leo Stegmaier, Arlington, Va.
Application September 7, 1956, Serial No. 608,638
4 Claims. (Cl. 292—323)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A seal lock comprising a housing having a base plate, a channel in said base plate terminating at its ends in openings through said base plate; a band having perforations along its length in said channel; one end of said band extending through one of the channel openings and being formed into a loop with the loop end fastened into said base plate; at least two sproket wheels in said base plate rotatably positioned for sequential engagement with said band perforations; at least two ratchets, one of said ratchets being positioned to engage one of said sprocket wheels, the other of said ratchets being positioned in opposition to said one ratchet to engage the other of said sprocket wheels, said ratchets being spring-loaded into engagement with their respective sprocket wheels; a cap plate irremoveably fastened to said base plate so as to prevent access to said sprocket wheels, ratchets and channel-contained band; the other end of said band extending through the other channel opening so that as said other end of said band is pulled out of said base plate said band is moved along said channel and said loop is decreased in compass so as to be tightened around an object to be sealed.



2,845,297
ZIPPER ACTUATING DEVICE
Raymond C. Doop, New York, N. Y.
Application May 20, 1955, Serial No. 509,752
4 Claims. (Cl. 294—1)



3. A device for manipulating a slide fastener in which there is an element having an eyelet, comprising a rod having spherical button mounted on a stud projecting at one end and adapted to detachably engage said eyelet; a collar rotatable on the stud; and a clasp hinged on the collar for engaging the button.

2,845,298
TILTABLE HOUSE TRAILER CONSTRUCTION
Otto R. Stoces, Chicago, Ill.
Application April 28, 1956, Serial No. 579,553
6 Claims. (Cl. 296—35)

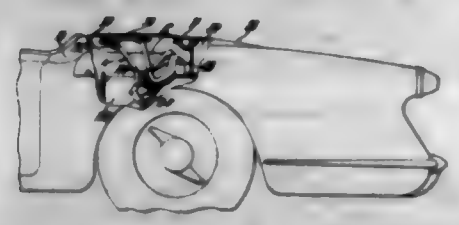
1. A house trailer comprising, in combination, a horizontal transporting frame having a width not exceeding the legally permissible width for transport along a public highway, an elongated trailer body normally mounted on

said frame and having a generally rectangular cross section with a height not exceeding said width and a width substantially in excess of such permissible width, and



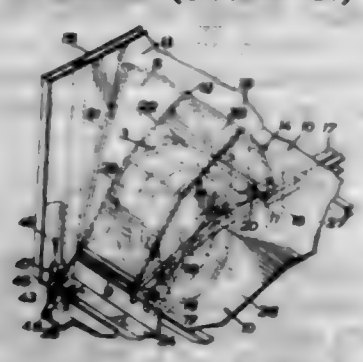
means rockably mounting said trailer body on said transporting frame about a longitudinal axis whereby for transportation purposes it can be positioned substantially at right angles to its normal operative position.

2,845,299
VEHICLE TOP COMPARTMENT COVER MECHANISM
Kenneth A. Pickering, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 20, 1954, Serial No. 405,186
2 Claims. (Cl. 296—136)



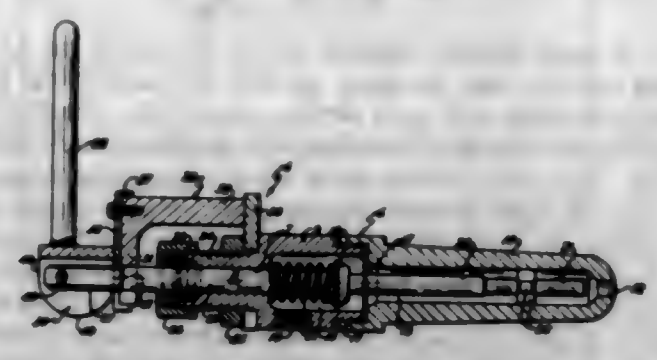
1. A cover mechanism for a vehicle top compartment comprising a cover, a horizontal shaft, journal means for supporting said shaft in said compartment, linkage systems spaced along said shaft and arranged to be driven in unison by the latter, each of said linkage systems having supporting means spaced from and below said journal means and spaced connections to said cover, one of said spaced connections being slidable with relation to the said cover, and said spaced connections of each of said systems comprising upwardly extending links with intermediate portions arranged to overlap when said shaft is rotated in one direction thereby reducing the horizontal dimensions of said mechanism at said intermediate portions.

2,845,300
LOAD CARRYING TIPPING VEHICLES
Ernest Haughton, Scarth Hill, Ormskirk, England, assignor to The Lord Mayor, Aldermen and Citizens of Liverpool, England
Application September 21, 1954, Serial No. 457,509
Claims priority, application Great Britain October 1, 1953
11 Claims. (Cl. 298—17)



1. A load carrying tipping vehicle having a rearwardly tipping body the floor of which has openings in the region of the rear wheels through which the wheels can project when the body is in its normal position and having wheel arches rearwardly hinged to the body floor and fitting in and closing said openings and relatively to which the body is angularly displaceable on tipping to result in downward retraction of the wheel arches from the body on tipping, each of said wheel arches having a rearward crown portion which when the body is in its normal position inclines upwardly and forwardly relatively to the floor and meets a forward arcuate crown portion which extends downwardly and forwardly close to the forward margin of its opening in the floor, said rearward crown portion lying close to the floor when the body is tipped with the arcuate crown portion remaining close to the forward margin of its opening in the floor, whereby to reduce the obstruction of the wheel arch to the discharge of the contents of the vehicle.

2,845,301
VALVED INJECTOR NOZZLE
Paul J. Martin, Chesterton, Ind.
Application October 10, 1956, Serial No. 615,123
2 Claims. (Cl. 299—59)

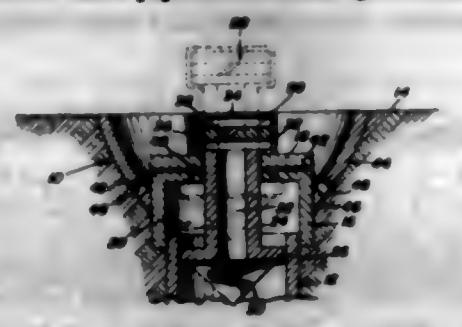


1. A valved injector nozzle comprising a housing having an axially extending opening which includes a valve chamber and a flow passage in adjoining relation, one end of said opening being restricted to provide a nozzle orifice at the outer end of said flow passage, an annular valve seat at the junction of said passage and chamber and facing in an axial direction toward said chamber, a valve in said chamber for engagement with said valve seat to disconnect said flow passage with respect to said chamber, an operating stem extending through said housing opening and movable axially with respect thereto, said valve being mounted on said stem at a point intermediate its ends for movement thereby to and from a position in seating engagement with said valve seat, a spring in said chamber biasing the movement of said valve and stem to a closed position in which said valve is engaged with said valve seat, a clean-out plunger on one end of said stem received in said orifice with a snug slide fit when said valve is in its seated position, the other end of said stem projecting outwardly from said housing at the outer end of said chamber and providing an operating part, and means for manually actuating said operating part to move said stem and valve axially from said position against the action of said biasing spring to unseat said valve and withdraw said plunger from said orifice.

2,845,302
DRAIN FOR SPRINKLER
Hobart W. Hauf, Oceanside, Calif.
Application October 23, 1956, Serial No. 617,820
1 Claim. (Cl. 299—61)

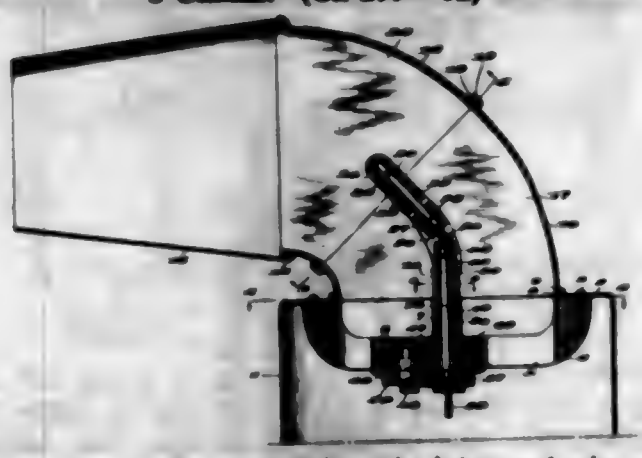
A sprinkler head comprising an open top casing having water drain openings therein adjacent its bottom, a cylindrical open bottom housing depending through the bottom of the casing and rising therein, said housing being adapted for threading of its bottom onto a vertical water pressure pipe to receive water under pressure from said pipe, said housing having a side wall and having a top wall provided with a central opening therein, water drain channels in said top wall around said opening com-

municating with said casing and with the interior of said housing for draining water from said housing into said casing to drain out of said drain openings, a hollow stem slidably depending through said opening in the top wall and gravity actuated downwardly in the absence of water pressure in said pipe and housing, a water discharge



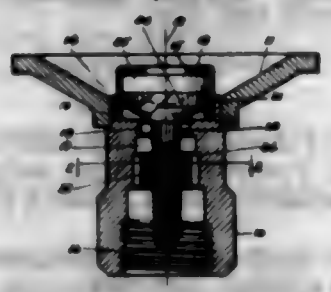
nozzle on said stem above said top wall responsive to water pressure from said line to lift said stem, and a circumferential flange on said stem below said top wall seating against said top wall and closing said channels from said housing in response to lifting of said stem whereby to prevent discharge of water under pressure through said channels from said pipe.

2,845,303
AIR NOZZLE
James F. King, Jr., Winston-Salem, N. C., assignor to The Bahnson Company, Winston-Salem, N. C., a corporation of North Carolina
Application January 6, 1955, Serial No. 480,224
8 Claims. (Cl. 299—62)



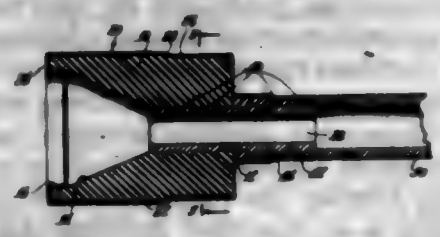
1. An air nozzle comprising air inlet and air outlet tubular sections connected together and forming an elbow for delivery of air therethrough, a first drive shaft arranged internally of and connected to said air inlet section for rotating the same about its base line, and a second drive shaft concentric with said first drive shaft and connected to said air outlet section through a universal joint.

2,845,304
SPRINKLER HEAD
Gerard N. Stolma, Edwin J. Krook, and Louis R. King, Grand Rapids, Mich., assignors to Dexter Industries, Inc., Grand Rapids, Mich.
Application July 9, 1956, Serial No. 596,733
4 Claims. (Cl. 299—120)



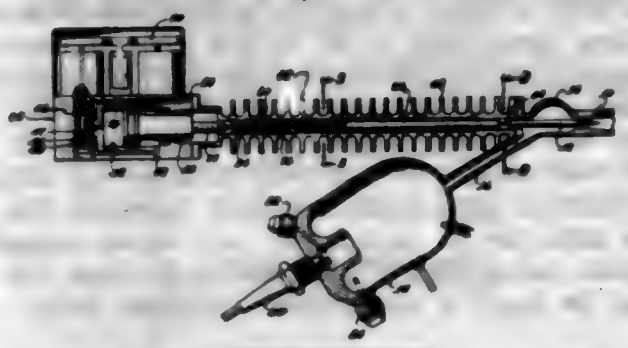
4. A sprinkler head, comprising: a body member, said body member having a bore, a conduit communicating with said bore and extending through said body portion and having a smaller diameter from that of said bore and also having an annular shoulder extending between said conduit and said bore; a member disposed within said conduit and fixed with respect thereto, said member having a threaded hole coaxial with said bore, and said threaded member occupying less than the full cross-section of said conduit at said member exclusively of said threaded hole; a valve member having a threaded shank engaging said threaded hole, and including a head having a diameter greater than that of said conduit at said shoulder, and having a driving recess in the side opposite from said shank, said head having a series of slots spaced about the periphery thereof and inclined to the axis of said shank; and means forming a chamber closely surrounding said head and communicating with said conduit, said chamber being fixed with respect to said body member and having an orifice coaxial with said conduit.

2,845,305
SPRAY HEAD
Manuel Leaf, New York, N. Y.
Application December 6, 1956, Serial No. 626,649
15 Claims. (Cl. 299—141)



1. A spray head comprising a body of substantially uniform transverse section having a passageway formed longitudinally therethrough, said passageway having a cylindrical inner end portion and a widening outer portion continuous with said inner portion and forming a frusto-conical outer chamber, and a shell, including a tubular portion adapted to extend a substantial portion of the length of said body and an end wall, said shell fitted snugly over the outer face of said body with said end wall disposed against the outer end face thereof, said end wall having a plurality of apertures formed therein overlying said chamber, and means interengaging the inner end portion of said shell with said body.

2,845,306
HOT GAS VALVE FOR TURBINE SPEED CONTROL
George P. Carver, Northridge, Calif., assignor, by mesne assignments, to Sundstrand Machine Tool Co., Rockford, Ill., a corporation of Illinois
Application March 13, 1956, Serial No. 571,215
4 Claims. (Cl. 299—150)

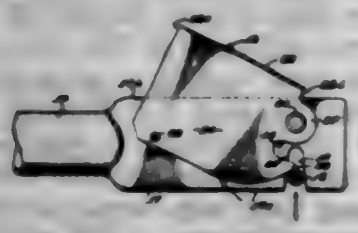


1. A hot gas valve including a nozzle having a throat, a needle valve having a needle, said needle partially closing said throat, a long hollow stem connected to said needle for actuating said needle, a valve housing having a plurality of external, heat-radiating ribs and a cylindrical bore for accommodating said stem, a flexible rod, or shaft, connected to the outer end of said stem, a seal surrounding the mid-portion of said shaft and movable therewith; said seal forming a sliding fit with the wall of said cylindrical bore; and a servo-mechanism connected to said shaft for moving said needle valve with respect to said nozzle.

2,845,307
DETACHABLE COUPLING FOR SCAFFOLD ELEMENTS

Tracy S. Holmes, Santa Monica, Calif., assignor to Superior Scaffold Company, Culver City, Calif., a corporation of California

Application April 19, 1954, Serial No. 423,885
8 Claims. (Cl. 304—46)

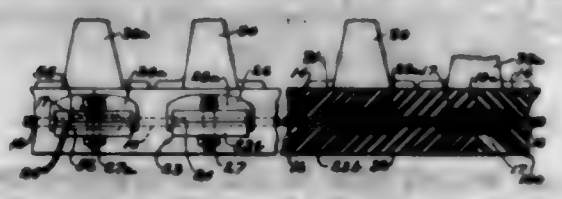


1. In combination: a scaffold structure having a pin; a brace element having a recess extending inwardly from one side thereof for receiving said pin, said recess forming a seat opposed to the mouth of said recess; a latch member pivoted on an axis transverse to the element; the center of gravity of the member being substantially spaced from said axis; said member having a latching projection; said projection being positioned by the weight of said member to extend across said recess when said element is so oriented that said recess opens in a direction having a downward component; the member being angularly movable to an inoperative position in which said projection substantially clears the recess; the bottom of said recess being located between the projection and said axis when said projection is in operative position; the distance between the projection and the seat when the member is in operative position corresponding substantially to the thickness of the pin.

2,845,308
SEGMENTED TRACK

George W. Woltemar, Valencia, Pa., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application April 28, 1954, Serial No. 426,874
7 Claims. (Cl. 305—10)



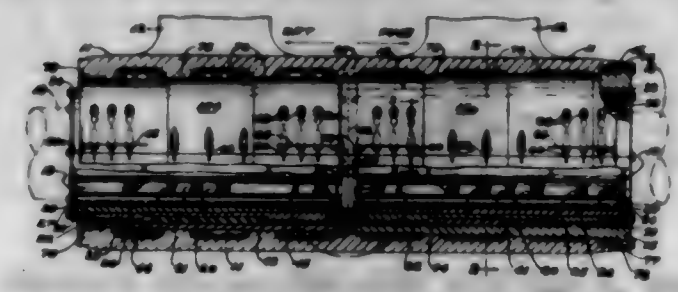
1. In a track for track-laying vehicles, a segmental body including flexible metal stranded cabels having ends disposed in laterally-spaced parallel relation to each other in a common plane and terminating at each end of the body, a single anchor bar at each end of the body extending transversely to all of said ends of the cables and having one side directed toward said body into which the ends of the cables project into the anchor bar, each anchor bar exerting lateral gripping pressure on each end of said cables which pressure progressively increases in a direction away from said body to secure the ends of the cable to the anchor bar, and means engageable with said anchor bars at each end of the body for connecting the body to an adjacent segmental body.

2,845,309
JOURNAL BEARING ASSEMBLY

Alvin S. Krotz, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application May 10, 1954, Serial No. 428,416
7 Claims. (Cl. 308—26)

1. A journal bearing assembly comprising a pair of coaxially-aligned rigid cylindrical sleeves each adapted to surround axially adjacent portions of a single shaft journal, a journal layer of resilient rubber material interposed between the interior of each of said sleeves and the shaft journal for resiliently supporting the shaft journal during rotation of the shaft, the journal layer including parallel lands extending lengthwise of each sleeve and lengthwise-extending grooves intermediate said lands to distribute lubricant to said lands, each sleeve having a body of rubber circumferentially surrounding the ex-

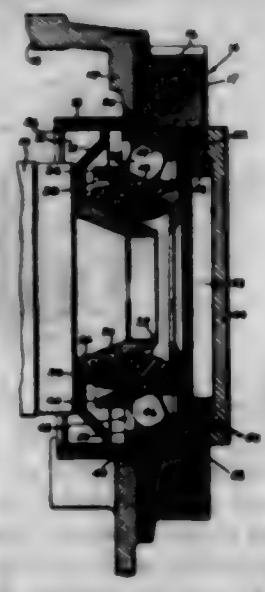


terior thereof medially of the sleeve, and a cylindrical outer shell concentrically surrounding both of said sleeves and to which each of said bodies of rubber is secured, the outer shell maintaining substantial radial compression in each of said bodies of rubber and being receivable in a rigid support for the shaft, said sleeves being suspended within the outer shell solely by said bodies of rubber.

2,845,310
JOURNAL BOX

Walter A. Bullus, Kearny, N. J., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 24, 1956, Serial No. 561,029
10 Claims. (Cl. 308—41)



1. A journal box having an axle mounted therein for rotational and axial movement, an end cap demountably secured to said journal box and including a cylindrical sleeve portion coaxially disposed with said axle, a seat member movable endwise in said sleeve portion and engageable with the end of said axle, a resilient cushion mounted on said seat member, a thrust bearing slidably mounted in the end cap and mounted on said cushion, and resilient means disposed within said end cap urging said bearing toward said axle.

2,845,311
ANTIFRICTION BEARING

Leland D. Cobb, Forestville, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 26, 1954, Serial No. 425,651
3 Claims. (Cl. 308—216)

1. In an antifriction bearing having a pair of race rings, rolling elements engaging the race rings, a separator circumferentially spacing the rolling elements, one of the race rings having an annular metal body portion

provided with a peripherally extending groove, an annular insert of a hard wear-resistant alloy integrally welded to the periphery of the annular body portion and lining said groove, said insert having a raceway formed therein and receiving the rolling elements, said lining having



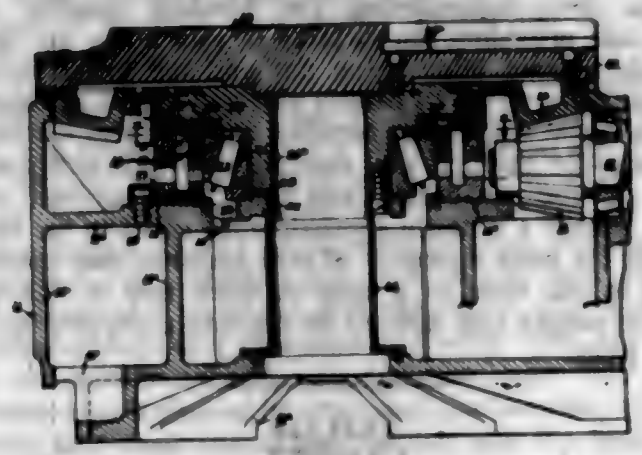
a cylindrical land at one side of the raceway and slidably supporting the separator, and said insert comprising an alloy having a hardness much greater than that of the annular body portion and which will not be permanently deformed under impact of the rolling elements at high operating temperatures of the bearing.

2,845,312

MOUNT FOR MACHINE TOOL WORK SUPPORT

John C. Hollis, Fond du Lac, Wis., assignor to Giddings & Lewis Machine Tool Company, Fond du Lac, Wis., a corporation of Wisconsin

Application July 28, 1954, Serial No. 446,196
6 Claims. (Cl. 308—227)



1. For use in a mount for a machine tool work support which is rotatable about a vertical axis, a preassembled and replaceable bearing unit comprising, in combination, a one-piece foundation ring having inner and outer upstanding annular concentric walls defining a downwardly opening annular groove therebetween and terminating in horizontal upper end surfaces, a subtable overlying said ring and having a centrally depending spindle disposed within said ring, a roller bearing radially interposed between said ring and spindle and having a wedge-shaped outer race on the inner surface of said inner wall and a wedge-shaped inner race on said spindle, retaining means mounted on the upper surface of said inner wall and extending radially inward from said inner wall to define an axial abutment for said outer race, a retaining collar secured in axially adjustable relation on the lower end of said spindle to define an axial abutment for said inner race and afford selected preloading of said roller bearing, and a thrust bearing interposed between the underside of said table and the upper surface of said outer wall.

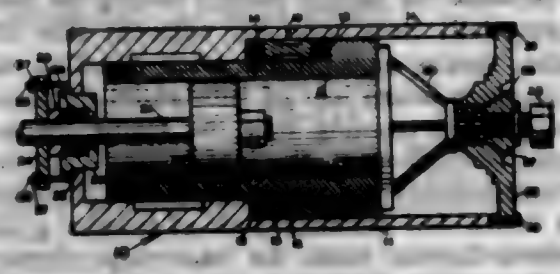
2,845,313

APPARATUS FOR COMPRESSING PUMP LINER PACKING

Walter J. Bossen, Miami, Fla., and Robert S. Longwell, Piedmont, Calif.

Application July 5, 1955, Serial No. 519,816
3 Claims. (Cl. 309—3)

1. In a reciprocating pump having a casing, a cylinder lining slidably mounted in said casing, packing means mounted between said casing and said cylinder lining, the combination comprising a cylinder head mounted on said casing and having a pressure chamber, a ram mounted in said pressure chamber and extending beyond said cyl-



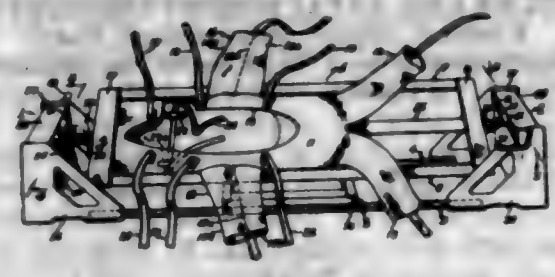
inder head, a liner cage extending between said cylinder liner and said ram, a duct extending through said cylinder head and communicating with said pressure chamber and valve means mounted in said duct for controlling the flow of fluid through duct.

2,845,314

DEVICE FOR POSITIONING AND RESTRAINING LIVE BODIES

Leonard Long, Atlanta, Ga.

Application October 26, 1955, Serial No. 542,836
10 Claims. (Cl. 311—5)



1. A device for supporting a live body comprising a pair of spaced support elements, flexible tension means mounted on one of said elements and normally extending therefrom toward the other of said support elements, and body engaging means disposed intermediate said support elements and having one end thereof normally operably related with said flexible tension means and having the other end thereof normally supported by said other support element, biasing means operably related with said tension means and tending to retract said tension means into said one support element when dissociated from said body engaging means, and manually operable means for imparting a desired tension force to said flexible tension means and to said body engaging means.

2,845,315

UTILITY SHELF FOR AN AUTOMOBILE INSTRUMENT PANEL

Charles M. McCoy, Prestonsburg, Ky.

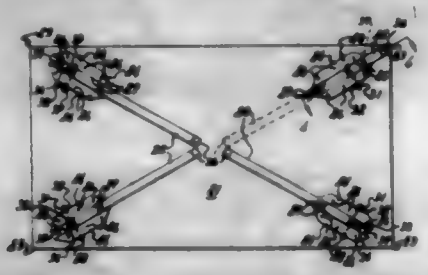
Application March 18, 1957, Serial No. 646,683
5 Claims. (Cl. 311—21)



1. In a utility shelf for an automobile instrument panel, the combination with an instrument panel spaced forwardly of the conventional fire wall and having an elongate horizontal rectangular opening therein, of a rectangular frame having elongate side channel members and a back channel member connecting the side members, the channels of said members being directed in-

wardly toward one another, the frame being open at its forward end, means securing the forward ends of the side members to the back of the instrument panel at opposite ends of said opening with the web portions of the channels between the flanges thereof having the inner surfaces substantially flush with the adjacent side edges of the opening, means securing the back panel to said fire wall, an elongate board leaf of subetantial thickness slidable through said opening into the frame through the open forward end thereof, the leaf having opposing side edge portions slidably supported in the side channel members, said board leaf having a pair of tubular guide passages formed therein from the back edge thereof and extending forwardly through a subetantial extent of the length of the leaf, guide rods fixed to the back channel member and each extending forwardly into a guide passage, coil spring means encircling each rod and interposed between the back channel and the back edge of the panel and compressed by and upon movement of the panel into the frame, and latching means between the panel and a part of the frame for releasably holding the panel in the frame against forward outward projection by the compressed springs.

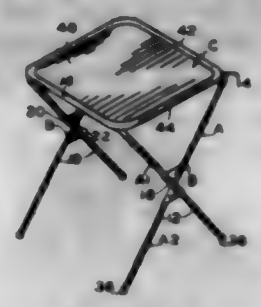
2,845,316
FURNITURE LEG ATTACHMENT CONSTRUCTION
Walter C. Bailey, Hillsborough, Calif.
Application May 3, 1956, Serial No. 582,489
4 Claims. (Cl. 311—77)



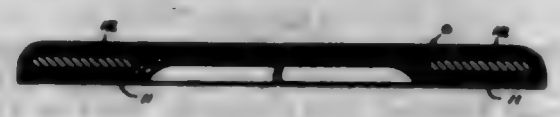
1. In an article of furniture, an elongated, substantially horizontal member, at least one leg for said horizontal member disposed in position of use slanted downwardly-outwardly relative to said horizontal member, and attachment means to attach said leg and horizontal member together, said leg having its upper end cut at an angle to its length and the cut end being positioned to bear against the underside of said horizontal member throughout substantially the entire area of said cut end, said attachment means comprising a first guide block on the underside of said horizontal member and having a first surface bearing against a first side of the upper end of said leg, a second guide block on the underside of said horizontal member and having a second surface bearing against a second side of the upper end of said leg opposite said first side, said guide blocks being independent of each other, means independently fastening said guide blocks to the underside of said horizontal member, and a hinge pin passing through said guide blocks and the upper inner corner of said leg.

2,845,317
BRACKET FOR COLLAPSIBLE STAND
Leonard Orman, Philadelphia, Pa.
Application June 13, 1957, Serial No. 665,423
2 Claims. (Cl. 311—79)

1. In a collapsible stand having a pair of U-shaped support members pivotally secured to each other by a pin intermediate the ends of adjacent leg portions, a bracket comprising a planar portion of substantially X-shaped configuration pivotally mounted on said pin and spaced between adjacent leg portions, a pair of ears extending outwardly at right angles from said planar portion on one diagonal thereof, and a second pair of ears extending inwardly at right angles from said planar portion on the other diagonal thereof whereby the pivotal opening movement of said support members may be limited.

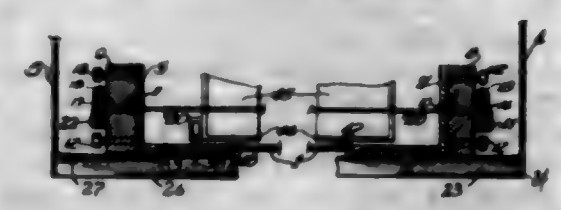


2,845,318
REINFORCED MOLDED DESK TOPS
Joseph L. Brewster and John Riker Proctor, Camden, and Edward F. Edgren, Jr., Boothbay Harbor, Maine
Application December 14, 1956, Serial No. 628,293
4 Claims. (Cl. 311—106)



1. A top for tables and desks, comprising a molded body of superimposed glass fibre mats and a thermosetting resin impregnating and bonding together said mats and providing the surfaces of said body, the upper surface of said body being flat and the lower surface thereof being flat in its central part and including depending marginal supporting portions and material extending substantially through said marginal portions and spaced from the top and bottom and from the inner and outer edges thereof a distance approximately equal to the thickness of the body interiorly of said portions, said material being in the form of a strip of stock that is relatively light in weight and difficult to fracture compared to the body stock.

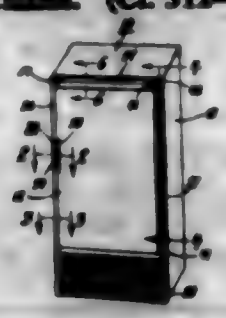
2,845,319
CABINET
William M. Menkemeir, Baltimore, Md.
Application November 30, 1955, Serial No. 549,967
2 Claims. (Cl. 312—183)



1. In a cabinet including a continuous rigid bottom throughout its entire width and length having at least one section adjacent one end and above said bottom having a length of substantially one half the length of the bottom enclosed by a fixed top, two side walls and an outer end, the inner end of the enclosed section above the said bottom being removable, the area of the open end of the cabinet being of at least the same area as that of the outer end of the closed section, a plurality of tightly drawn parallel wires extending throughout the length of the bottom and fixedly positioned slightly above the said bottom, and corresponding parallel tightly drawn wires extending throughout the length of the cabinet and the bottom adjacent the top of the cabinet, parallel and equal distance from the bottom wires, for forming corresponding channels between the top and bottom wires for guiding a display board supported on its edge on the bottom of the cabinet in a vertical position as it is moved back and forth over the bottom and in and out of the closed area, said tightly stretched wires are secured across the

cabinet by an adjustable bar and individual clamping means at each end of each wire supported by the bar adjacent the outer surface thereof.

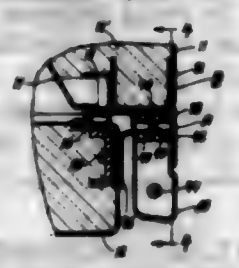
2,845,320
REFRIGERATOR CABINET CONSTRUCTION
Orson V. Saunders and James A. Wallace, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 10, 1957, Serial No. 658,414
11 Claims. (Cl. 312—204)



1. In a refrigerator, a cabinet having insulated walls forming a food storage compartment therein provided with a front access opening, a door for said opening arranged to seal against a part of the front of said cabinet insulated walls adjacent the compartment opening, hinge means for pivotally mounting said door on said cabinet, said hinge means comprising a door supporting element secured to the front face of said cabinet and carrying a hinge pin spaced forwardly of said face, said hinge means also comprising a wing member secured to said door and surrounding said hinge pin, an uninsulated wall extension trim strip on the front of said cabinet at the hinged side of said door, said wall extension trim strip being in sections above and below the hinge means and each section having an end terminating in close proximity to said hinge wing, brackets mounted on the front face of said cabinet for receiving and removably attaching the sections of said wall extension trim strip upon the cabinet, the sections of said wall extension trim strip being substantially U-shaped in cross-sectional contour and enclosing said door supporting element and the hinge pin thereon to conceal them, and said wing of the hinge means substantially filling the space between ends of the sections of said wall extension trim strip and being shaped to conform to outer wall surfaces of said sections to provide a smooth matching continuation of certain surfaces thereof in the vicinity of said hinge means when said door is closed.

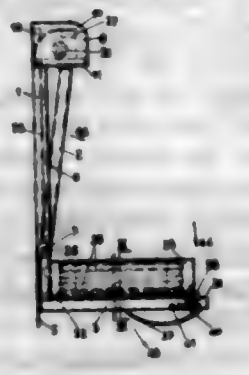
8. In a refrigerator, a cabinet having insulated walls defining a food storage compartment therein provided with an access opening in the front of said cabinet, a door on said cabinet arranged to engage a front part of the insulated walls thereof adjacent said compartment access opening for closing same, hinge means on one side of said door for pivotally mounting same upon said cabinet, said hinge means including a door hanging member secured to the front face of said cabinet, a wing member secured to said door and a hinge pin carried by one member and extending into the other of said members, an uninsulated wall extension on the front of said cabinet for the side thereof at said door hinging, said wall extension comprising a hollow trim strip having leg portions abutting said cabinet and a portion intermediate said leg portions thereof projecting forwardly of the cabinet front face along the hinged side of said door, said trim strip being in sections above and below the hinge means with each section having an end terminating in close proximity to said hinge wing member, brackets mounted on the front part of said cabinet for receiving and attaching the sections of said trim strip to the cabinet, said sections of the hollow trim strip enclosing said brackets and said door hanging member to conceal them, and said wing member of the hinge means substantially filling the space between said ends of the trim strip sections and being shaped to conform to the contour of certain outer surfaces of said sections, when said door is closed, whereby to provide a smooth matching continuation of said surfaces in the vicinity of said hinge means.

2,845,321
REFRIGERATING APPARATUS
Orson V. Saunders and Milton G. Betz, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 24, 1956, Serial No. 618,846
5 Claims. (Cl. 312—214)



1. In a refrigerator, a cabinet having insulated walls, said cabinet having an open front food storage compartment therein, a door for closing the open front of said food storage compartment, a door seal strip arranged between said door and the front edges of said insulated walls, a plurality of mounting brackets secured to the front edges of said insulated walls on opposite sides of said door opening, hinges for said door having a first hinge element secured to said door and a second hinge element secured to the front edge of said insulated walls and joined to one another by means of a hinge pin disposed forwardly of said cabinet, trim strip means enclosing said hinge elements and said hinge pin, a door latch secured to the front edge of said insulated walls, said trim strip means comprising a U-shaped trim strip extending forwardly from the front edges of said insulated walls and serving to conceal said door seal strip when the door is closed and serving to enclose said mounting brackets and door latch, and means for removably securing said U-shaped trim strip to said brackets with the open end of the U abutting a portion of said insulated walls.

2,845,322
CASING
Wilhelm Squindo, Lausanne, Switzerland, assignor to Marcel Jeannet, New York, N. Y.
Application June 29, 1956, Serial No. 594,998
Claims priority, application Switzerland June 15, 1956
2 Claims. (Cl. 312—233)



1. A device for supporting a directory or the like, comprising a boxlike support including a substantially vertical back plate having means for attachment to a support, longitudinal side flanges and an open bottom housing at the top of said back plate and projecting beyond said flanges, a book supporting member including a traylike portion having side walls and angularly projecting arms at one end, means pivotally mounting the free ends of said arms on the bottom portions of said side flanges and

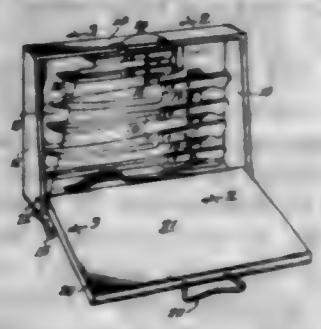
enabling swinging of said member between a substantially vertical closed position and an open position with the traylike portion extending forwardly from said back plate, releasable latch means on said traylike portion and said housing and cooperative to retain said book supporting member in closed position, lamp means in said housing for projecting light down through the open bottom of said housing to illuminate said book supporting member when the latter is in open position, switch means controlling said lamp means, means on one of said arms for actuating said switch means to energize said lamp means when said book supporting member is in open position, at least one of said side walls being pivotally mounted on said traylike portion to swing between a closed position generally perpendicular to said traylike portion and an open position generally parallel with said portion, and book retaining means on said pivotal side wall for removable attachment to the back of a book.

2,845,323

CUTLERY CABINET

Leslie W. Selbert, Jr., Northbrook, Ill., assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois

Application November 23, 1955, Serial No. 548,687
3 Claims. (Cl. 312—244)



1. A case for culinary implements comprising a horizontal base, a rear wall rising upwardly from said base, opposed upright end walls rising upwardly from said base, an upper wall connecting the upper edges of said end walls and the upper edge of said rear wall, said end walls and upper wall cooperating with said base to define a hollow frame in forwardly projecting relation to said rear wall with the forward edges thereof in rearwardly and upwardly inclined relation to said base, a lid forming a closure for such case and of such peripheral contour as to fit within the area bounded by said base, upper and end walls when in closing relation to said case, said upper wall having a slot extending rearwardly from the forward edge thereof and rearwardly of a plane parallel to said rear wall and bisecting said base, a handle projecting upwardly from the edge of the lid facing said upper wall of the case in which slot said handle has clearance for engagement with the rear limits of said slot whereby the case is adapted to be lifted by said lid in response to lifting force applied to said handle, and a conection between said lid and said case about which said lid may be rocked between an upright position within the confines of said base, upper and end walls and a reclined position in forwardly extending relation to said base, and forwardly facing means on said rear wall for the reception and storage of a plurality of culinary implements in spaced apart relation.

2,845,324

GAS DISCHARGE TUBE

John F. Hemey, Bloomfield, Alan D. White, Plainfield, and Douglas M. Sharp, Allendale, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application December 3, 1954, Serial No. 472,932
4 Claims. (Cl. 316—26)

1. A method of producing a cold cathode for a gas discharge device comprising providing a low-work-function metal within a gas discharge device, said discharge device having a conductive member therein, establishing an electric discharge between said low-work-function



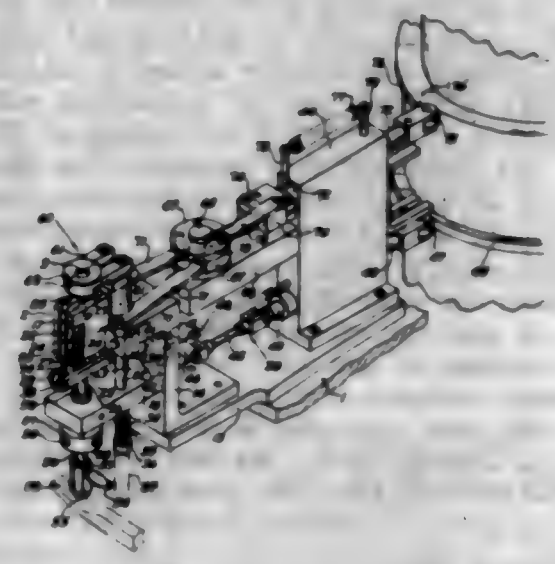
metal as cathode and said conductive member as anode to provide an overlaying layer of said low-work-function metal upon said conductive member to act as the cathode surface for the normal discharge in said device.

2,845,325

ELECTRIC LAMP MAKING APPARATUS

August W. Seitz, Euclid, Ohio, assignor to General Electric Company, a corporation of New York

Application September 24, 1956, Serial No. 611,717
6 Claims. (Cl. 316—31)



1. Sealing-in apparatus for electric incandescent lamps comprising a head for supporting in sealing relation an assembly of a lamp mount, a glass bulb and a glass exhaust tube, said head comprising a holder member provided with a mount-supporting top seating surface and a mount centering pin upstanding from said surface, a pair of jaw arms pivotally mounted on said holder member and having opposed jaw ends located on diametrically opposite sides of said mount pin, said jaw arms being spring-biased to normally close against and clamp a pair of lead-in conductors against opposite sides of said mount pin with their lower ends seated against the said seating surface, said holder member having an exhaust tube receiving bore extending vertically therethrough and through said mount pin, exhaust tube seat means on said holder member for supporting an exhaust tube by its lower end within said bore and with its upper end projecting a short distance above the top of said mount pin, said seat means having a passageway communicating with the interior of the exhaust tube when seated endwise thereagainst, means connecting said passageway to a supply of non-oxidizing gas at low pressure, and bulb holder means mounted on said holder member above the said seating surface thereof for holding a lamp bulb in a vertical neck-down position over the said lead-in conductors and with its neck end surrounding the projecting upper end of the exhaust tube in said holder member.

CHEMICAL

2,845,326
DIAZOTIZABLE AMINE COMPOSITIONS

Clemens Strock, Londonville, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 8, 1955
Serial No. 527,175
18 Claims. (Cl. 8—46)

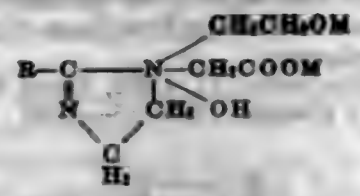
1. A composition having a pH of at least 7 comprising about 10 to 30 percent of a diazotizable primary amine compound devoid of solubilizing groups, an alkali metal nitrite in at least an equimolar amount relative to said amine compound, about 10 to 50 percent of a mixture of a non-ionic surface active agent containing a polyoxyalkylene chain and derived from a reactive hydrogen-containing compound, and a water-soluble cationic surface active quaternary ammonium compound, said mixture containing about 0.2 to 1 part of said cationic compound for each part of said non-ionic agent an amount of an inert, organic, water-miscible, solvent for said amine compound sufficient to yield a substantially stable liquid dispersion, and an amount of water sufficient to keep said nitrite in stable dispersion.

2,845,327
METHOD OF PRODUCING VISCOSE RAYON

Marion R. Lytton, West Chester, and George F. Mueller, Wyncote, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application November 3, 1954
Serial No. 466,654
7 Claims. (Cl. 18—54)

7. In a method of producing shaped bodies of regenerated cellulose consisting substantially entirely of skin the steps which comprise adding to and incorporating in viscose from about 0.5% to about 6% of a modifier selected from the group consisting of cycloimidine derivatives and mixtures of cycloimidine derivatives, based on the weight of the cellulose in the viscose, the cycloimidine derivatives corresponding to the general formula



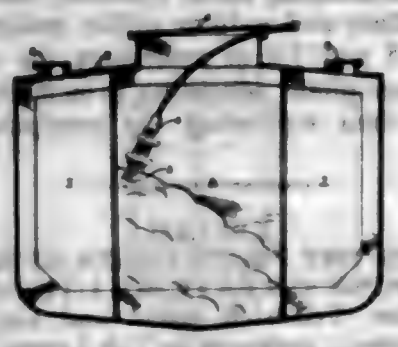
where M is an alkali metal and R is an aliphatic radical containing from 5 to 23 carbon atoms, and extruding the viscose into an aqueous spinning bath containing from 10% to about 25% sodium sulfate, from about 3% to 15% zinc sulfate and sulfuric acid in an amount exceeding the slubbing point but not exceeding about 8%.

2,845,328
METHOD OF INHIBITING CORROSION IN TANKERS

Alan H. Fleishhacker, San Francisco, Calif.

Application December 6, 1954, Serial No. 473,158
10 Claims. (Cl. 21—2.5)

10. The method of protecting the interior metal compartment of a tanker ship after an oil cargo has been discharged from said compartment and which compartment is adapted to carry water ballast on a return trip, which comprises inhibiting corrosion of the metal in said compartment which would otherwise be caused by said water ballast by forming a fog of a solution of a water insoluble corrosion inhibitor dissolved in a water insoluble carrier, directing the fog into the interior of said compartment before said water ballast is added to the compartment, filling said compartment with said fog to form a protective film of said corrosion inhibitor on the all exposed interior surfaces of said compartment, said

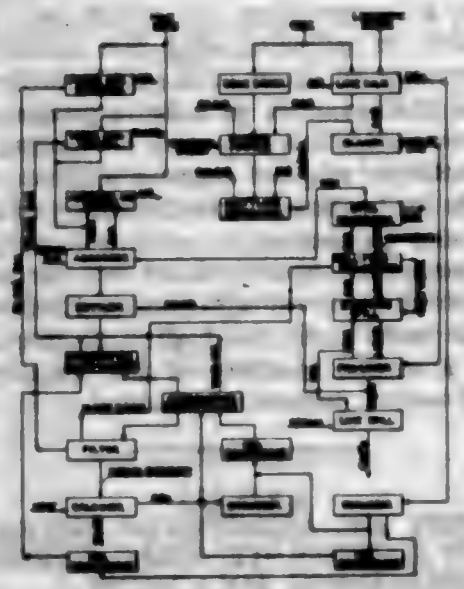


corrosion inhibitor and said carrier being substantially non-volatile at the temperatures to which they are subjected while in said compartment, and then introducing water ballast into said compartment.

2,845,329
PROCESS FOR MAKING SODIUM CARBONATE AND ACETYLENE

Joseph A. Neubauer and Francis W. Theis, Pittsburgh, Pa., assignors to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

Continuation of application Serial No. 535,109, September 19, 1955. This application July 29, 1957, Serial No. 674,852
11 Claims. (Cl. 23—63)



1. A method of preparing acetylene and sodium bicarbonate which comprises the steps of: (1) calcining calcium carbonate to produce carbon dioxide and calcium oxide, (2) heating calcium oxide thus obtained with carbon to produce calcium carbide, (3) reacting resulting calcium carbide with water to produce acetylene and calcium hydroxide and separating the products, (4) reacting calcium hydroxide so obtained with ammonium chloride to produce ammonia and calcium chloride, (5) reacting ammonia produced in step (4) and carbon dioxide produced in step (1) with sodium chloride to produce ammonium chloride and sodium bicarbonate, (6) separating ammonium chloride from sodium bicarbonate and (7) recycling ammonium chloride thus produced to step (4).

2,845,330

METHOD OF RECOVERING CYANIDES FROM WASTE AQUEOUS SOLUTIONS CONTAINING METAL CYANIDES

Walter Zabban, Pittsburgh, Pa., assignor to Artemas F. Holden, Detroit, Mich.

No Drawing. Application August 15, 1955
Serial No. 528,539
15 Claims. (Cl. 23—79)

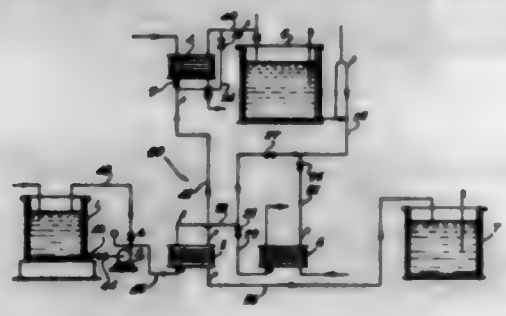
1. The method of recovering cyanides from waste aqueous solutions containing metal cyanides, comprising adding copper sulfate and sodium sulfite, maintaining a pH of between 6.5 and 7.5 to precipitate the cyanide compounds, the precipitate consisting principally of cuprous cyanide, and then separating the precipitate from the solution.

2,845,331

PROCESS FOR THE PRODUCTION OF HYDROXYL AMINE SULFATE SOLUTIONS

Alfred Schäffler, Friedrich Bach, and Gerhard Meier, Leuna, Germany, assignors to Veb Leuna-Werke "Walter Ulbricht," Leuna, Germany

Application April 3, 1956, Serial No. 575,879
10 Claims. (Cl. 23—117)



1. A process for the production of aqueous hydroxyl amine sulfate solutions, comprising the steps of heating a first quantity of an aqueous solution of a compound having the formula $HON(SO_3Me)_2$ wherein Me is selected from the group consisting of ammonium, potassium and sodium, to a temperature at which an exothermic hydrolysis sets in, allowing said first quantity of said solution thereafter to stand until said hydrolysis is completed and a first quantity of a hot aqueous solution of hydroxyl amine sulfate is obtained, dissipating heat from said first quantity of said hot aqueous solution of hydroxyl amine sulfate for heating a second quantity of an aqueous solution of said compound, to at least a temperature at which an exothermic hydrolysis of said second quantity of solution is initiated, and allowing said second quantity thereafter to stand until the hydrolysis therein is completed and a second quantity of hot aqueous solution of hydroxyl amine sulfate is obtained.

2,845,332

PRODUCTION OF AMMONIUM SULFATE AND FERROUS CARBONATE FROM FERROUS SULFATE-CONTAINING SOLUTIONS

Carl F. Allison and George M. Dreher, Mount Lebanon Township, Allegheny County, and Charles A. Trathowen, McKeesport, Pa., assignors to Jones & Laughlin Steel Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application September 24, 1954
Serial No. 458,266
7 Claims. (Cl. 23—119)

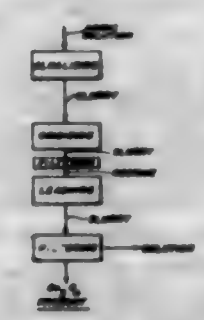
1. The process of producing iron-free ammonium sulfate from an aqueous solution of ferrous sulfate obtained from waste pickle liquor comprising adding to said solution a member of the group consisting of ammonium carbonate, ammonium bicarbonate, ammonium carbamate, and mixtures thereof whereby said ferrous sulfate is converted into ferrous carbonate and ammonium sulfate, then adding to said solution a strong base, then heating said solution to drive off dissolved CO_2 therefrom, the amount of strong base being adjusted to bring the pH of said solution after removal of dissolved CO_2 to a value not less than about 9, whereby all said ferrous carbonate is precipitated, and removing said precipitated ferrous carbonate.

2,845,333

PROCESS OF SEPARATING COBALT AND NICKEL VALUES

Felix A. Schaufelberger, Rye, N. Y., assignor to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware

Application June 21, 1955, Serial No. 516,824
11 Claims. (Cl. 23—183)



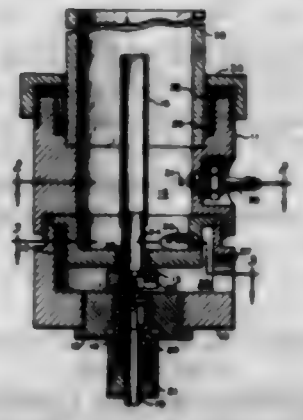
1. A process for treating an acidic solution containing cobalt values and a small amount of nickel values which comprises the steps of: treating said solution with sufficient alkaline reagent until a pH of at least 7.5 is reached whereby all the cobalt and nickel values are converted to their corresponding metal hydroxides and are insolubilized therein, subjecting the latter alkalized mixture to the action of an oxygen-enriched gas at a temperature ranging of from about 25° C. to about 100° C., separating the oxidized mixture to recover all the nickel and cobalt values as solids, leaching the latter solids mixture with an aqueous ammoniacal ammonium sulfate reagent to solubilize selectively the nickel values present therein, effecting separation of the thus-leached mixture to remove the remaining cobalt value as a solid, and recovering a substantially nickel-free cobalt oxide product.

2,845,334

METHOD FOR TESTING FUELS

Robert L. Brace and Robert M. Schirmer, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application December 17, 1954, Serial No. 475,936
2 Claims. (Cl. 23—230)



1. The method of determining the combustion cleanliness of a carbon containing fuel which comprises spraying from a nozzle the fuel to be tested into a combustion zone through a tube of substantially greater internal diameter than that of said nozzle, which tube is positioned at least in part in the combustion zone, directing a gaseous oxidant into the combustion zone, initiating combustion in the combustion zone, continuing to direct said fuel and oxidant into said combustion zone for a predetermined time under carbon depositing incomplete combustion conditions, removing the tube from the combustion chamber

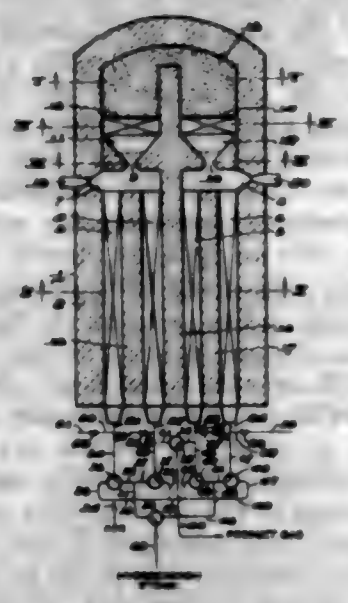
and nozzle, and thereafter weighing said tube whereby the weight of the resulting carbon deposit may be determined.

2,845,335

REGENERATIVE PROCESSES AND APPARATUS

Rudolph Leonard Hasche, Johnson City, Tenn., assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware

Application March 20, 1952, Serial No. 277,685
9 Claims. (Cl. 23—288)



1. A furnace adapted to the thermal conversion of gaseous reactants comprising in combination a heat insulating shell, two pairs of regenerative masses communicatively connected one pair with the other pair and located within said shell, a reaction chamber located within said shell intermediate the communicating ends of said pairs of regenerative masses, said reaction chamber being communicatively connected to each pair of regenerative masses through a mixing device comprising a mass of material having a plurality of passages passing therethrough and through a mixing chamber of a restricted cross section, the limits of said reaction chamber being defined by the mass of material of each mixing device and by said insulating shell said regenerative masses having a plurality of substantially straight uninterrupted unobstructed flues passing therethrough, said flues having a maximum free cross-sectional distance not greater than 0.75 in. and the ratio of the total volume of the flues in each regenerative mass to the total volume of the mass in which said flues are located not exceeding 1:3, said flues being arranged in staggered rows, each of said flues in each row being substantially equidistantly spaced from the two closest flues in each adjacent row and the two closest flues in the same row.

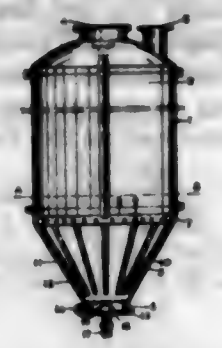
2,845,336

STATIC HYDROLYSER

Joël Guyonnaud, Paris, France

Application March 20, 1956, Serial No. 572,773
Claims priority, application France March 25, 1955
2 Claims. (Cl. 23—290)

1. A static hydrolyser, particularly for use in the production of furfural, comprising a tank including an upper vertically disposed cylindrical portion open at its lower end to a lower inverted conical portion, said tank having material charging and steam discharge openings in the upper part of its cylindrical portion, and a discharge opening at the lower end of the conical portion, an annular steam pipe mounted within the tank adjacent its inside wall approximately at the junction between the lower end of the cylindrical portion and the upper end of the inverted conical portion, said steam pipe having a first series of spaced steam outlet holes positioned in its upper part to direct jets of steam upwardly parallel to and along the inside wall of the cylindrical portion of the tank for dislodging material adherent to said wall, and a second series of spaced steam outlet holes at its inner face positioned to direct jets of steam radially inwardly to move dislodged material inwardly and tend to keep such material centrally in the tank, and a plurality of other steam pipes connected at intervals along and depending from the annular steam pipe and lying below said annular pipe along the internal wall of the conical portion, said other



steam pipes being closed at their lower ends and having along their length a first series of spaced steam outlet holes positioned to direct jets of steam downwardly and away from the axis of the conical portion thereof onto the internal wall thereof for dislodging material from such wall, and a second series of spaced steam outlet holes in said other steam pipes positioned to direct steam jets upwardly and inwardly towards the axis of the conical tank portion, thereby to keep said dislodged material central of the conical portion.

2,845,337

METHOD OF ALTERING CRYSTALLIZING CHARACTERISTICS OF CALCIUM SULFATE

Clyde B. Myers, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application July 31, 1952
Serial No. 302,001
6 Claims. (Cl. 23—300)

1. The method of altering the crystal habit and tendency for crystal over-growth of calcium sulfate deposited from concentrated calcium chloride-containing brine having a relatively low concentration of sulfate ion, which includes the steps of adding to a body of such brine an alkali metal salt of a hydrolyzate obtained by the alkaline hydrolysis of lignin sulfonic acid, said hydrolyzate having carboxyl groups and at least some residual sulfonic acid groups in the molecules thereof, and subjecting said brine to agitation, following the addition thereto of said salt.

2,845,338

FUEL ADDITIVE FOR REMOVING AND INHIBITING FIRESIDE DEPOSITS

John W. Ryznar, La Grange Park, and Harris Thompson, Downers Grove, Ill., assignors to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application October 15, 1953
Serial No. 386,383
24 Claims. (Cl. 44—5)

1. An additive composition for a carbonaceous fuel consisting essentially of an intimate mixture of a compound of a metal selected from the group consisting of copper, cobalt, manganese, iron and calcium which is effective in lowering the ignition temperature of carbon and a magnesium compound from the group consisting of magnesium oxide and magnesium compounds decomposing to magnesium oxide under combustion conditions, the weight ratio of said magnesium compound, expressed as Mg, to said compound of a metal, expressed as said metal, being within the range of 5:1 to 35:1, and said

additive composition being effective to inhibit slag formation when a fraction of a percent thereof by weight is added to a carbonaceous fuel.

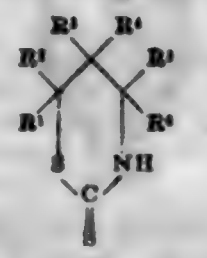
2,845,339

METHOD OF DEFOLIATING PLANTS

Henry Blaustone, Cleveland Heights, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application March 29, 1954
Serial No. 419,586
5 Claims. (Cl. 71—2.5)

1. A method of defoliating plants which comprises applying to the plants in an amount sufficient to effect defoliation a compound having the formula



wherein R^1, R^2, R^3, R^4, R^5, and R^6 are selected from the group consisting of hydrogen, alkyl, aryl, alkaryl, and aralkyl radicals.

2,845,340

METHOD OF MAKING COMPLEX FERTILIZER

Kurt H. Karbe and Wilhelm F. Boos, Castrop-Rauxel, Westphalia, Germany, assignors to Gewerkschaft Victor, Castrop-Rauxel, Westphalia, Germany

No Drawing. Application January 13, 1955
Serial No. 481,689
Claims priority, application Germany January 19, 1954
2 Claims. (Cl. 71—39)

1. A method of making a complex fertilizer, which includes the steps of: breaking up raw phosphate by means of nitric acid, admixing thereto magnesium sulphate ($MgSO_4$), neutralizing the thus obtained mixture up to a pH value of between 4 and 5 while adding thereto a potash salt at the latest when said mixture has reached a pH value of 4 to 5, continuing the neutralization of the thus obtained mixture up to a pH value of approximately 7.5, simultaneously introducing ammonia and carbonic acid up to a pH value of approximately 8.5, and increasing the CO_2 content of the mixture up to approximately 3.5% CO_2.

2,845,341

PROCESS FOR PURIFYING REFRACTORY METAL SUBCHLORIDE COMPOSITIONS

Edwin Randolph Marshall and Leon Allen Monson, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 15, 1955
Serial No. 501,734
12 Claims. (Cl. 75—1)

1. A method for purifying a molten impurity-contaminated salt composition comprising a subchloride of a group IV–A metal selected from the group consisting of titanium, zirconium and hafnium and a chloride of a metal selected from the group consisting of alkali and alkaline earth metals, which comprises adjusting the average valence of the group IV–A metal present in said composition through reaction with a reducing agent to a value ranging from 2.0 to 2.9 to insolubilize soluble impurities present therein, effecting said reaction at a temperature between the melting point and below the volatilization temperature of said composition, and then removing the insolubilized material from the composition.

2,845,342

METHOD OF RECOVERING FERROCHROMIUM

Marvin J. Udy, Niagara Falls, N. Y., assignor to Strategic-Udy Metallurgical & Chemical Processes Limited, Hamilton, Ontario, Canada

No Drawing. Application March 12, 1953
Serial No. 342,017
7 Claims. (Cl. 75—11)

1. The method of producing ferrochromium of controlled carbon content which comprises smelting a charge comprising chromite ore in a three-phase submerged arc electric furnace in the presence of an amount of carbon sufficient to effect reduction to the metallic state of substantially all of the iron of the chromite ore but insufficient to effect reduction to the metallic state of all of the iron and all of the chromium of the chromite ore and forming a molten product containing molten metal and molten slag containing in oxide form the unreduced chromium of the chromite ore, introducing the molten product thus produced, including the molten metal and the molten slag, into an open-arc electric furnace to form therein a molten bath comprising molten metal covered by a layer of molten slag, placing on the surface of the layer of molten slag, at points remote from the arcing zones of the furnace electrodes, finely divided solid carbonaceous material and maintaining the layer of molten slag by means of combined electric arc and resistance heating at a temperature sufficiently high to promote and effect reduction to the metallic state of the chromium of the chromium oxide contained in the slag and permit the metallic chromium thus produced to pass downwardly through the residual molten slag and enter the molten metal beneath the slag with the production of molten ferrochromium containing iron and chromium of the original chromite ore, and separating the ferrochromium from the residual slag.

2,845,343

METHOD FOR CONTROLLING THE BATH TEMPERATURE IN A BLAST FURNACE

Kuro Kanamori, Suginami-ku, Tokyo-to, Japan, assignor of one-half to Yawata Seitetsu K. K. (Stock Company), Chiyoda-ku, Tokyo-to, Japan

Application January 15, 1954, Serial No. 404,258
Claims priority, application Japan August 10, 1953
5 Claims. (Cl. 75—41)



1. A method for controlling the bath temperature in a blast furnace which contains molten pig iron in the hearth thereof, which comprises forcing water under pressure and in the form of finely divided liquid particles directly into the said molten pig iron, whereby a temperature change in the bath temperature is achieved incidental to the heating of the water and the change thereof from the liquid phase into the gaseous phase in situ in the molten pig iron.

2,845,344
PROCESS FOR PURIFYING MERCURY
Walter J. Sakowski, Youngstown, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
No Drawing. Application October 26, 1954
Serial No. 464,918
7 Claims. (Cl. 75—81)

1. A process for purifying mercury containing alloying metal impurities, which metal impurities are not effectively removed by treatment with dilute aqueous mineral acids alone, which comprises agitating the mercury in contact with an aqueous acid solution of a mineral acid and an ammonium salt of a mineral acid, in which solution the mineral acid and the ammonium salt are each present in an amount of at least about 1% by weight, whereby metal impurities contained in the mercury are removed in the aqueous solution.

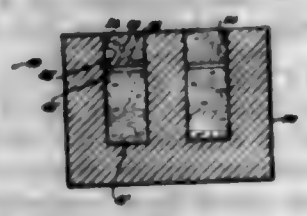
2,845,345
LOW-ALLOY HIGH-STRENGTH STEEL
John A. Bauscher, Jr., Penn Township, Allegheny County, Bernard J. Kelly, West View, and John W. Stewart, Penn Township, Allegheny County, Pa., assignors to United States Steel Corporation, a corporation of New Jersey
No Drawing. Application September 13, 1955
Serial No. 534,172
2 Claims. (Cl. 75—126)

1. A low-alloy high-strength steel characterized in the hot rolled condition by a yield point in excess of 50,000 p. s. i. in sections from ⅛ to 1½ inches without substantial variation within such thickness range, a Charpy keyhole notch transition temperature below about —50° F. in ½ inch and below about 0° F. in 1½ inch sections and the absence of nickel, cobalt, columbium, tantalum and tungsten, said steel containing

.05 to .25 carbon
.50 to 1.50 manganese
.10 to 1.00 silicon
.30 to 1.00 chromium
.15 to .50 copper
.02 to .10 vanadium
.01 to .10 acid soluble aluminum

the total of the carbon and vanadium being less than .28%, balance iron and other elements in amounts which do not adversely affect the properties, said elements being proportioned to produce a microstructure of ferrite and fine pearlite after air-cooling from hot rolling temperatures.

2,845,346
METHOD OF FORMING POROUS CEMENTED METAL POWDER BODIES
Joseph P. Scanlan, Yonkers, and Louis Alter, Bronx, N. Y., assignors to Schwarzkopf Development Corporation, a corporation of Maryland
Application January 13, 1954, Serial No. 403,795
5 Claims. (Cl. 75—208)



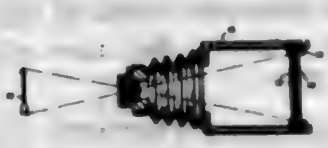
1. A process of making a shaped body out of a sintered porous base-metal particle skeleton having at least one region which contains inter-connected pores which are free of infiltrant metal and at least one other region containing inter-connected pores filled with an infiltrant metal having a lower melting point than said base metal, the procedure comprising the steps of providing a shaped skeleton of base metal particles bonded together by partial sintering, providing said skeleton with at least two regions separated by a barrier region containing particles of an addition metal which at the elevated temperature of molten infiltrant metal suppresses the flow of molten infiltrant metal into the pores of said barrier region, completing the sintering of said skeleton while providing a molten infiltrant for infiltration into the pores of said body from one side of said barrier region whereby said barrier region prevents the molten infiltrant metal from infiltrating into said other region past said barrier region.

2,845,347
APPARATUS AND METHOD FOR DIGESTING
Hugh J. Byrne, Seattle, Wash.
Application May 18, 1953, Serial No. 355,662
20 Claims. (Cl. 92—7)



20. In the production of pulp, the method of cooking fibrous materials in a body of cooking liquor in a vessel which comprises straining cooking liquor through a screen located beneath the surface of the body of cooking liquor in the vessel and, adjacent to such screen, projecting a jet of steam into the mass of fibrous material and thereby effecting heating of the liquor and agitation of such fibrous material adjacent to the screen.

2,845,348
ELECTRO-PHOTOGRAPHIC MEANS AND METHOD
Hartmut Kallmann, Queens, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application January 4, 1952, Serial No. 265,023
5 Claims. (Cl. 96—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A method of practicing electro-photography comprising preparing an uncharged thin layer containing a photo conductive phosphor, exposing said layer to a pattern of light to be reproduced thereby to produce a latent image of conductivity in said layer, then electrically charging said layer in darkness after said exposure, developing said image in darkness by presenting said layer closely adjacent to a quantity of freely displaceable fine particles capable of attraction to said charged layer in an amount selectively proportional to the energy in the various areas of the pattern and fixing the particles in their respective positions to produce a permanent print.

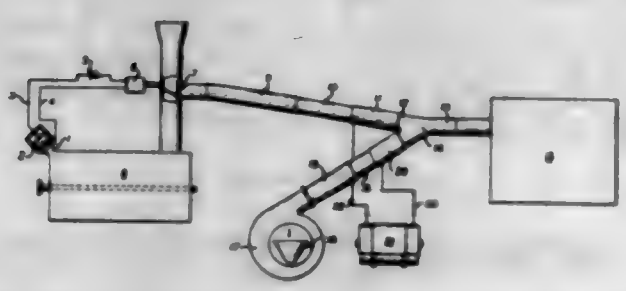
2,845,349
PHOTOGRAPHIC DEVELOPERS
George Schwarz, Glen Head, N. Y., assignor to Powers Chemco, Inc., Glen Cove, N. Y., a corporation of New York
No Drawing. Application September 7, 1955
Serial No. 533,010
3 Claims. (Cl. 96—66)

1. A photographic developer comprising an organic silver-halide developing agent, an alkali sulfite and an amount sufficient to form from 1 to 35 grams per liter when dissolved in water of a compound selected from the group consisting of kojic acid and its water soluble salts.

2,845,350
PROCESS FOR PREPARING STERILIZED CONCENTRATED MILK AND PRODUCT PRODUCED THEREBY
Donald F. Wilcox, Mill Valley, Calif., assignor to Foremost Dairies, Inc., San Francisco, Calif., a corporation of New York
No Drawing. Application January 30, 1956
Serial No. 562,036
7 Claims. (Cl. 99—55)

1. The method of preparing stable, homogenized, high-temperature short-time sterilized, concentrated, liquid milk products possessing substantially normal viscosity and a stable fat emulsion, which comprises the addition of an extract of the seaweed *Chondrus crispus* to the unsterilized milk in quantities ranging from approximately 0.0075% to approximately 0.020% by weight of the concentrated milk product.

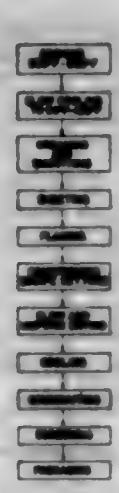
2,845,351
METHOD OF AROMATIZING COFFEE
Sydney N. Baruch. New York, N. Y.
Application October 3, 1957, Serial No. 688,091
2 Claims. (Cl. 99—71)



1. A method of adding the selected aroma of roasting coffee to powdered coffee comprising producing an electric charge of one polarity on the aroma-bearing particles, producing an electric charge of the opposite polarity on the powdered coffee, and combining the aroma-bearing particles and the powdered coffee in an electrically neutral environment whereby the same are electrically attracted to each other.

2,845,352
FUDGE-MAKING PROCESS
Henry E. Peck, Fairport, and Jes V. Sidenius and Claude Russell Derby, Little Falls, N. Y., assignors to Chr. Hansen's Laboratory, Inc., Little Falls, N. Y., a corporation of New York
Application December 5, 1956, Serial No. 626,483
10 Claims. (Cl. 99—134)

1. The process of making a reconstitutable, stable, particulate candy product which rewets rapidly and which may be converted to a smooth-textured, relatively uniform, fine-grained fudge product upon mixing with water, heating, and cooling, comprising compressing a mass of a cooked, creamed, fudge candy to form a ribbon-like sheet, reducing said sheet to discrete flakes, progressively reducing the moisture content of said flakes, and comminuting said dried flakes to obtain the desired dry, stable, particulate product.



2,845,353
LIQUID SWEETENING COMPOSITION AND METHOD OF PREPARING THE SAME
Charles Riffkin, Highland Park, and Gilman N. Cyr, New Brunswick, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application February 28, 1957
Serial No. 642,949
6 Claims. (Cl. 99—141)

1. A stable liquid sweetening composition essentially comprising an aqueous solution of a saccharin salt and a salt of cyclohexylsulfamic acid, a substantial portion, up to approximately half, of the total cation of these salts being magnesium, the remainder being a soluble-salt-forming cation.

2,845,354
METHOD FOR PREVENTING COAGULATION OF TABLE SALT AND THE RESULTING PRODUCT
Tetsuo Ogawa, Tokyo, Seiichi Maeda, Kawasaki-shi, and Junko Ozawa, Tokyo, Japan
No Drawing. Application June 28, 1955
Serial No. 518,658
Claims priority, application Japan December 29, 1954
8 Claims. (Cl. 99—143)

1. A method for preventing coagulation of table salt by moisture comprising coating crystals of table salt with 2 to 10% by weight glutamic acid.

2,845,355
STABILIZATION OF CITRUS CONCENTRATES WITH FUMARIC ACID OR ITS SALTS
Robert J. McColloch, Pasadena, and Bruno Gentili, Glendale, Calif., assignors to the United States of America as represented by the Secretary of Agriculture
No Drawing. Application July 11, 1956
Serial No. 597,306
6 Claims. (Cl. 99—155)
(Granted under Title 35, U. S. Code (1952), sec. 266)

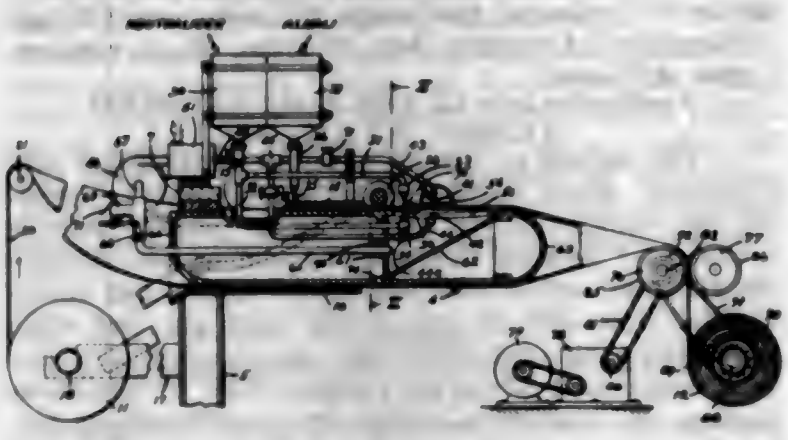
1. The method of increasing the cloud stability of a citrus juice concentrate which comprises incorporating into a 4- to 8-fold citrus juice concentrate solely about from 0.05 to 0.5%, based on the weight of the reconstituted juice, of an additive selected from the group consisting of fumaric acid and the non-toxic salts thereof, packaging and freezing the concentrate containing incorporated additive, and maintaining it under freezing conditions, at about 0° F., until it is to be used.

2,845,356
PROCESS OF PREPARING AN IN-CAN BAKED CANNED CAKE PRODUCT
Donald A. Battista, Philadelphia, Pa.
Application September 14, 1956, Serial No. 609,979
3 Claims. (Cl. 99—172)



1. The process of preparing cake comprising preparing a batter having sufficient water to provide a moisture content of not more than 34% by weight in the cake after baking and other ingredients which provide a pH value of 4.3 to 5.5 in the cake after baking, loading a container with said batter, partially sealing the loaded container by clinching a cover thereto to provide an obstructed opening intermediate the peripheral edge of the cover and the container, baking said batter in said container at a temperature of approximately 330° to 340° F., completely sealing the container immediately after the baking of the batter in the container to close the obstructed opening and thereafter quickly cooling the sealed container to create a vacuum of at least 26½ in. of Hg therein.

2,845,357
MANUFACTURING OF FLEXIBLE SHEETS INTO CASINGS
David T. Milne, Fredericksburg, Va., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application October 6, 1954, Serial No. 460,571
4 Claims. (Cl. 99—176)



1. In a process for the production of tubular casings by the steps of guiding a continuous running length of an alkali-soluble, water-insoluble sheet material longitudinally to a forming position, continuously shaping the sheet into a tubular form with the edges overlapped, applying an alkaline solution to at least one of the overlapping edges to make it adhesive before bringing the edges together, and then pressing the overlapping edges together as a sealed joint to form a tubular casing, the improvement comprising neutralizing the excess alkaline medium in the joint by applying thereto an aqueous substantially neutral solution of a salt which reacts with the alkaline medium to form a neutral product and a volatilizable product, and then drying, said neutralizing solution being chemically inert with respect to the casing material.

2,845,358
METHOD OF PRESERVING FRESH FROZEN PORK TRIMMINGS
Lloyd A. Hall and Harry L. Gleason, Chicago, Ill., assignors to The Griffith Laboratories, Inc., a corporation of Illinois
No Drawing. Application August 29, 1955
Serial No. 531,399
4 Claims. (Cl. 99—194)

1. The method of preserving fresh frozen pork trimmings during extended passage of time up to one year without the development of rancidity of the fat content and off-flavor caused by deterioration of the protein content, which consists essentially in applying an antioxidizing amount of a pork compatible, nontoxic antioxidant, the antioxidant being combined with a working carrier comprising a compound of the class consisting of salt, sugar and edible oils, to unfrozen, uncured fresh pork trimmings, freezing said antioxidant-treated pork trimmings under deep freezing conditions, and maintaining the frozen pork trimmings in the stored frozen state for an extended period of time up to one year during which time the antioxidant penetrates into and through the interior of the pork, through action of the working carrier, said antioxidant being applied in an amount sufficient to exert an antioxidizing effect during the entire storage period.

2,845,359
ASPHALT COMPOSITION
Murray H. Edson, Rahway, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application December 29, 1953, Serial No. 400,964
4 Claims. (Cl. 106—14)

1. A non-gelling composition consisting essentially of a voltatile hydrocarbon oil and in the range of about 15 to 80% by weight, based on the total composition, of an asphalt prepared by mixing a residual oil and about 0.1 to 5 weight percent P_2O_5 in the absence of free oxygen at a temperature in the range of about 300° to 550° F.

2,845,360
EXPLOSION RESISTANT REFRACTORY CASTABLE
Donald F. King and Albert L. Renkey, Pittsburgh, Pa., assignors to Harbison-Walker Refractories Company, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application December 11, 1956
Serial No. 627,567
3 Claims. (Cl. 106—104)

1. An explosion resistant refractory castable consisting essentially of refractory aggregate selected from the group consisting of alumina and alumina silica aggregate and a high alumina, calcium aluminate cement which has an Al_2O_3 to CaO ratio of about 2:1 to 6:1 by weight and containing boric acid in an amount of about 0.02 to 1.5 percent based on the weight of the mixture.

2,845,361
VISCOSITY CONTROLLING METHOD
John R. Maddox, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
No Drawing. Application February 27, 1956
Serial No. 567,713
5 Claims. (Cl. 106—123)

1. In the method of forming a gelled composition comprising (1) about 70%–30% by weight tall oil containing at least about 30% by weight fatty acids and (2) about 30%–70% by weight petroleum oil having an aniline point in the range of about 150°–225° F. containing sufficient aromatic constituents to render said petroleum oil compatible with the limed tall oil by adding sufficient lime to give an acid number of less than

about 8 to a mixture of the tall oil and the petroleum oil heated to a temperature in the range of about 300°–385° F., the improved method of reducing the viscosity of said gelled composition maintained in said temperature range which comprises adding rosin thereto.

2,845,362
MANUFACTURE OF PROTEIN FIBERS
Herschel Sidney Jenkins, Chesterfield, Va., John R. Magee, Jr., Norwich, Conn., Herbert Seth Morgan, Jr., Chesterfield, Va., and Bernard M. Saffian, Norwich, Conn., assignors to Virginia-Carolina Chemical Corporation, Richmond, Va., a corporation of Virginia
Application December 3, 1956, Serial No. 626,807
18 Claims. (Cl. 106—153)



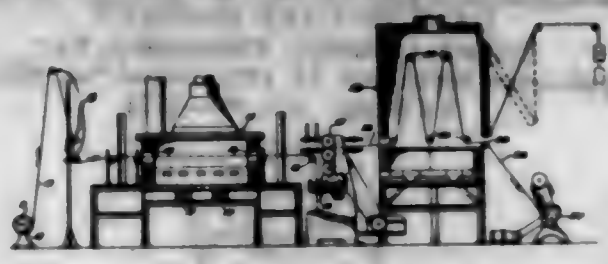
1. In a process for the production of prolamine fibers comprising the steps of dissolving the prolamine in an aqueous alkaline solution and spinning the resulting solution into an acidic coagulating bath the improvement which consists in incorporating from about 0.01% to about 2.5% of a water-soluble ionizable salt of the group consisting of sodium sulfide, sodium sulfate, ammonium sulfate, sodium sulfite, sodium chloride, calcium chloride, aluminium sulfate, sodium hydrosulfite, ammonium chloride and sodium thioglycolate based upon the weight of the prolamine in said solution.

2,845,363
METHOD OF MAKING STABLE CACTUS MUCILAGE
Gregoire Gutzeit, Highland, Ind., assignor to General American Transportation Corporation, Chicago, Ill., a corporation of New York
No Drawing. Application August 11, 1953
Serial No. 373,665
2 Claims. (Cl. 106—205)

1. The method of forming a stable reagent to flocculate mineral suspensions by adding an amount of said reagent up to 0.3% of the solids in said suspensions, which comprises: grinding up cactus leaves and stems; mixing the ground vegetable matter with boiling water in the ratio of two pounds solids to from three to four gallons boiling water; boiling the mixture at atmospheric pressure to macerate the vegetable matter; separating the solids from the liquor; concentrating the liquor ten to twenty times by evaporation; filtering the concentrate through activated carbon to remove suspended solids; precipitating the filtered concentrate in from two to three volumes of water soluble aliphatic alcohols from the group consisting of methyl, ethyl, isopropyl and butyl alcohol; separating the precipitate from the liquid; drying and powdering the precipitate; soaking the active mucilage so formed in a small amount of cold water; and adding sufficient water to form a solution of 1% to 2% mucilage.

2,845,364
PROCESS FOR BURNING SIZE FROM GLASS FABRIC AND COATING THE RESULTING FABRIC
Jack H. Waggoner, Newark, Ohio, assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application March 1, 1954, Serial No. 413,344
10 Claims. (Cl. 117—46)

6. A process as defined in claim 2, in which said zone is an upright elongated zone having entrance and exit openings at its opposed ends, and including the step of



guiding said fabric to move longitudinally through said zone while in a substantially planar configuration.

2,845,365
ALUMINUM IRON ALLOY
Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut
No Drawing. Application September 15, 1953
Serial No. 380,359
7 Claims. (Cl. 117—65)

1. The method of producing an elongated strip of substantially homogeneous alloy composed of an iron-rich material and an aluminum-rich material, which comprises coating a strip of iron-rich material with the aluminum rich material in substantially the desired alloy proportions, oxidizing the exposed aluminum-rich surface, whereby a protective refractory layer is formed, rolling the coated strip into a helical compact, whereby aluminum-rich coatings of different parts of said strip will be in immediate adjacency, subjecting said compact to a non-oxidizing atmosphere, and in said non-oxidizing atmosphere fixing the aluminum in the iron by a relatively slow traverse of the melting point of aluminum and thereafter diffusing the aluminum into the iron by holding said compact in said atmosphere at an elevated temperature in the range 2000° F. to 2400° F., and continuing such diffusion until substantially homogeneously alloyed strip results.

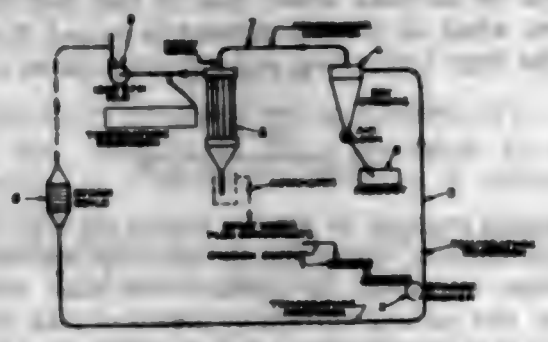
2,845,366
COATING ARTICLES WITH METAL
Albert W. Schroeder, La Grange, Ill., assignor to Chicago Metallizing Company, Inc., Chicago, Ill., a corporation of Illinois
Application July 16, 1956, Serial No. 597,979
4 Claims. (Cl. 117—65)

1. The method of coating a ferrous metal object with aluminum, which method comprises the steps of cleaning and roughening the surface to be coated, spraying a coating of liquified aluminum on said surface, displacing air from contact with said coated surface and covering the same with an oxygen-free inert gas, and while maintaining said covering of inert gas, heating the object to a temperature above the melting point of aluminum to fuse said aluminum coating into a substantially impervious layer securely bonded to the surface of said object.

2,845,367
PREPARATION OF DUSTLESS STARCH
Edward E. Alt, Jr., Hillsdale, N. J., and Robert J. Davis, Guadalajara, Jalisco, Mexico, assignors to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey
Application August 1, 1956, Serial No. 601,530
2 Claims. (Cl. 127—32)

1. A process for gelatinizing and drying moist starch in one operation which comprises subjecting moist starch containing about 25 to about 45 percent of moisture and in finely divided form to treating in a flash drier wherein the inlet drying air has a wet bulb temperature within the range of about 170° F. to and including superheated steam and a dry bulb temperature within the range of

the wet bulb temperature to that at which the starch decomposes and separating the moist air from the resultant gelatinized and dried starch and removing such starch



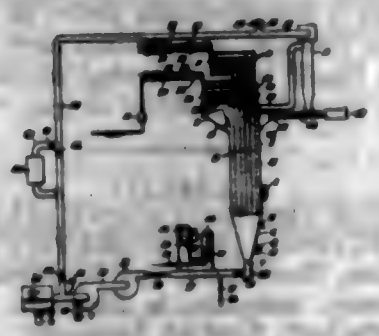
from the system and treating said moist air to adjust it to the aforementioned wet and dry bulb temperatures and returning it to said flash drier along with additional moist starch to be dried.

2,845,368

DEXTRINIZATION PROCESS

Ralph E. C. Fredrickson, Decatur, Ill., assignor to A. E. Staley Manufacturing Company, Decatur, Ill., a corporation of Delaware

Application May 27, 1954, Serial No. 432,653
16 Claims. (Cl. 127—38)



1. The method of dextrinizing starch which comprises introducing a bed of starch powder into a vessel, maintaining an upward flow of gas through said bed by introducing the gas from beneath said bed and withdrawing it from an outlet above the top of said bed, the upward velocity of said gas flow being sufficient to suspend and vigorously agitate the starch particles within said bed but insufficient to convey a substantial portion of the starch out through said upper outlet, heating said bed of starch in said agitated condition to dextrinizing temperature and maintaining said dextrinizing temperature until the desired degree of dextrinization is obtained.

2,845,369

ION EXCHANGE PURIFICATION OF FRUCTOSE SOLUTION

Raymond V. Davis, Chicago, and Ira B. Cushing, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application August 29, 1955
Serial No. 531,251
6 Claims. (Cl. 127—46)

1. A process of purifying sugar solutions to improve the color stability thereof which comprises raising the pH of a solution of an Acetobacter oxidized polyhydric sugar alcohol containing potential color-forming bodies to a pH in excess of about pH 7 and not substantially above pH 11 to cause the said color-forming bodies to condense, and intimately contacting the said solution containing the condensed color-forming bodies with a mass of strongly acidic cation exchange resin and thereafter contacting with a mass of strongly basic anion exchange resin, and the contact between the said solution and each said resin being terminated before an appreciable amount of the fructose therein is degraded; whereby elimination of a substantial proportion of the color-forming bodies responsible for the formation of color when autoclaving the said solution is effected.

2,845,370

SEMI-CONDUCTOR CRYSTAL RECTIFIERS

Pierre Raoul Roger Aigrain, Paris, France, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 5, 1953
Serial No. 372,611
Claims priority, application France August 7, 1952
2 Claims. (Cl. 148—1.5)

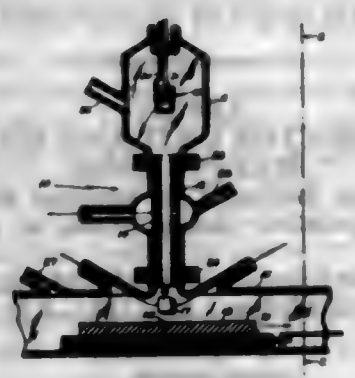
1. A process for producing a P–N junction in a point-contact germanium semiconductor device of one conductivity type, the point contact containing an impurity to produce a conductivity opposite to that of the semiconductor, comprising heating said semiconductor device to a temperature at which the semiconductor becomes intrinsic, and then applying current of sufficient magnitude through the point contact and semiconductor to heat the semiconductor to a temperature between 500° C. and 550° C., whereby the impurity on said point contact diffuses into a limited region of said semiconductor forming a P–N junction.

2,845,371

PROCESS OF PRODUCING JUNCTIONS IN SEMICONDUCTORS

Charles G. Smith, Weston, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application November 27, 1953, Serial No. 394,684
6 Claims. (Cl. 148—1.5)



1. The method of making a junction in a body of semiconductor material, said method comprising providing a single crystal of semiconductor material selected from the group consisting of germanium and silicon, doping said crystal with an initial concentration of a first and a second electrical conductivity-type determining impurity element, one of said impurity elements having a substantially higher rate of evaporation from said crystal than the other of said impurity elements for the same condition of temperature, and heating a predetermined area of said crystal of said semiconductor material to cause said doping element having the higher rate of evaporation to evaporate from said crystal thereby providing a predominance of the other of said impurity elements in said predetermined area.

2,845,372

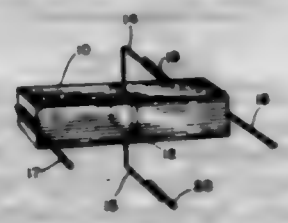
GROWN JUNCTION TYPE TRANSISTORS AND METHOD OF MAKING SAME

Morton E. Jones and Willis A. Adcock, Dallas, Tex., assignors to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware

Application May 10, 1954, Serial No. 428,472
7 Claims. (Cl. 148—1.5)

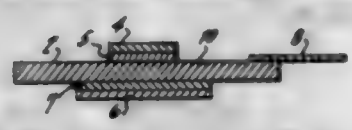
1. A grown crystal junction transistor, that comprises an n-p-n silicon crystal segment, the collector section of

which contains about 0.5 to 2.0×10^{-7} antimony atoms per silicon atom, the base layer of which contains about the same proportion of antimony atoms plus about 2.5



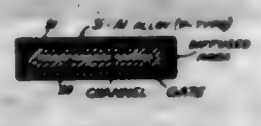
to 10×10^{-7} atoms of aluminum per atom of silicon, and the emitter section of which contains about the same proportions of antimony and aluminum plus at least about 4×10^{-8} atoms of arsenic per atom of silicon.

2,845,373
SEMI-CONDUCTOR DEVICES AND METHODS OF MAKING SAME
Herbert Nelson, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 1, 1954, Serial No. 433,351
8 Claims. (Cl. 148—1.5)



6. A semi-conductor device comprising a body of semi-conductive silicon and an electrode in which said electrode consists essentially of an alloy of about 30%–90% lead by weight, 10%–70% gold by weight, and ½%–10% by weight of a donor impurity selected from the group consisting of arsenic, phosphorus, and antimony based on the total weight of the combined lead and gold.

2,845,374
SEMICONDUCTOR UNIT AND METHOD OF MAKING SAME
Morton E. Jones, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application May 23, 1955, Serial No. 510,422
10 Claims. (Cl. 148—1.5)



1. A transistor device comprising a block of semiconductor material with a melting point greater than 1400° C. and containing an impurity producing therein a conductivity of one type, and a material producing an opposite type conductivity alloyed and diffused into at least one surface of said semiconductor block at a temperature of from 1000° C. to 1400° C. over a period of from 10 to 50 hours whereby a graded p-n junction is produced, said material being diffused to a depth such that a narrow region of said one type conductivity is provided in the path of current flow between input and output connections to said block.

2,845,375
METHOD FOR MAKING FUSED JUNCTION SEMICONDUCTOR DEVICES
Andre R. Gobat, North Caldwell, and Henry G. Nordlin, Livingston, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application June 11, 1956, Serial No. 590,454
5 Claims. (Cl. 148—1.5)

1. In a method for preparing a p-n junction in a semiconductor unit of substantially uniform resistivity wherein said unit comprises first and second portions with an intermediate portion therebetween of reduced cross-sectional area, whereby the temperature of said intermediate portion will be elevated above that of said first and second portions when an electric current is passed through said unit; the steps comprising making connections to said first

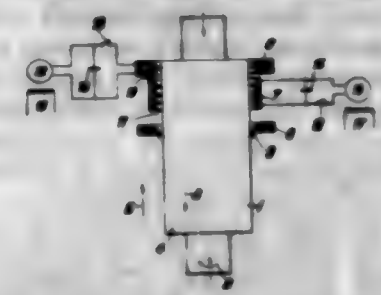


and second portions to form a circuit through said intermediate portion, disposing an alloying material having significant impurities in contact with said intermediate portion, and passing current by means of said connections through said intermediate portion sufficient to elevate the temperature thereof to alloy thereto said alloying material.

2,845,376
METHOD OF COATING METAL SURFACES WITH PHOSPHATE
Montagu Hyams, London, England, assignor, by direct and mesne assignments, to Nelson Chemical Company, Detroit, Mich., a copartnership
No Drawing. Application June 9, 1953
Serial No. 360,597
5 Claims. (Cl. 148—6.15)

5. Process of providing upon the surface of metal an adherent coating of insoluble metal phosphate which comprises applying a phosphatizing liquid to a metal surface to form a film thereon, and subsequently, while said film is still in the liquid state, applying steam to said film to complete the phosphate coating action.

2,845,377
METHOD FOR THE INDUCTIVE HARDENING OF ELONGATED WORKPIECES
Gerhard Seulen, Remscheid, and Winfried Conzert, Krefeld, Germany, assignors to Deutsche Edelstahlwerke Aktiengesellschaft, Krefeld, Germany
Application March 2, 1956, Serial No. 569,087
Claims priority, application Germany March 18, 1955
4 Claims. (Cl. 148—10.5)



1. A forward feed process of surface hardening ferrous rolls, by inductive heating and quenching, which comprises rapidly heating the rolls by means of at least one leading inductor to the temperature suitable for hardening, maintaining the said temperature by means of a following inductor, and then quenching the rolls and controlling the leading inductor independently of the following inductor and in timed relation to the relative movement so that the heating effect of the said leading inductor is reduced when an edge of the workpiece is in the effective range thereof and whilst the following inductor or heater remains in operation.

2,845,378
METHOD OF FORMING A FRICTIONAL ELEMENT AND PRODUCT
John E. Derelch, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
No Drawing. Application February 7, 1955
Serial No. 486,737
9 Claims. (Cl. 154—52)

9. A friction element including a frictional surface layer comprising a hard, heat-resistant mixture of asbestos

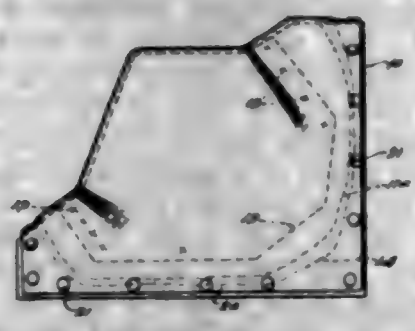
filler and a cohydrolyzate of a mixture of 80 mol percent phenyl silicon trichloride and 20 mol percent ethyl silicon trichloride, said layer having bonded thereto a backing layer of a phenolic resin.

2,845,379

METHOD OF MAKING A TEMPLATE

Stanley I. Bey, Hazel Park, Mich., assignor, by mesne assignments, to Chrysler Corporation, a corporation of Delaware

Application September 9, 1953, Serial No. 379,249
3 Claims. (Cl. 154—110)



1. The method of reproducing an irregular surface contour of a model or article, including the steps of coating said surface with a thermoplastic parting film, applying over said coated surface separate layers of liquid thermosetting resinous plastic material and fiber glass cloth, stretching a substantially air impermeable plastic film so as to deform the latter in accordance with the contour of the outer surface of said material and cloth and securing the latter film to said model tightly over said outer surface, curing said material directly on the model to produce a flexible wall template, and removing the template from the model.

2,845,380

EMULSIFIER MIXTURE, METHOD OF PREPARING SAME, AND BIOCIDAL COMPOSITIONS THEREWITH

Raymond L. Mayhew, Phillipsburg, and Leslie G. Nunn, Plainfield, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 16, 1953
Serial No. 392,508
18 Claims. (Cl. 167—42)

1. An emulsifying mixture comprising about 95 to 15 parts by weight of a surface active alkylaryl polyoxyalkylene glycol ether in which the aryl radical is substituted by from 1 to 3 alkyl radicals, at least one of which contains at least 4 carbon atoms, and the polyoxyalkylene chain contains from 3 to 7 oxyalkylene groups, and about 5 to 85 parts by weight of a water soluble salt of a member of the group consisting of the sulfate and phosphate esters of one of the above defined polyglycol ethers.

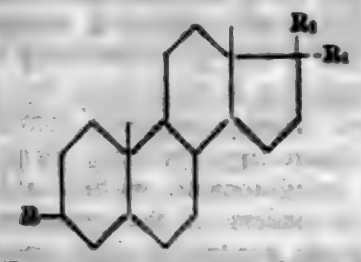
2,845,381

PREPARATIONS FOR THE TREATMENT OF THE HUMAN SKIN CONTAINING ANDROSTANE DERIVATIVES

Walter Joseph Tindall, London, England, assignor, by mesne assignments, to Organon Inc., Orange, N. J., a company of New Jersey

No Drawing. Application August 20, 1954
Serial No. 451,283
Claims priority, application Great Britain August 26, 1953
9 Claims. (Cl. 167—90)

1. Cosmetic preparation for the treatment of human skin, comprising a topical ointment vehicle and at least a single steroid of the formula:



wherein R is a member selected from the group consisting of hydroxyl and oxo, R_1 is of the group consisting of α-ethinyl and α-hydroxyl, and R_2 is of the group of β-hydroxyl and hydrogen.

2,845,382

CYCLIC PROCESS FOR THE REMOVAL OF HYDROGEN SULFIDE FROM HIGH TEMPERATURE GASEOUS STREAMS WITHOUT REDUCTION IN TEMPERATURE

Leonard N. Lenn, Media, and Paul M. Fitts, Secane, Pa., assignors to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application April 23, 1954
Serial No. 425,312
4 Claims. (Cl. 196—28)

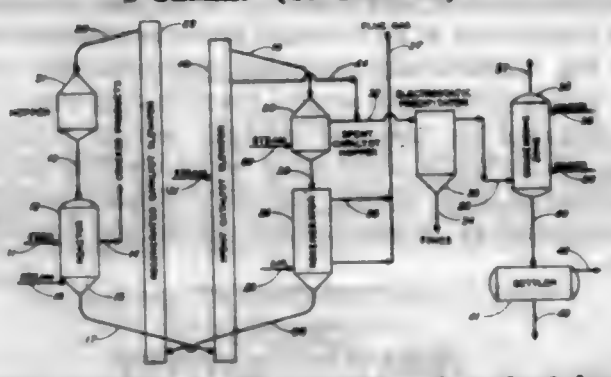
1. A cyclic process for the removal of hydrogen sulfide from the high temperature gaseous product stream of a hydrodesulfurization process prior to the introduction of such high temperature product stream into a catalytic reforming process in which product stream the hydrogen sulfide is essentially the only acidic component followed by regeneration of the reagent used for such removal, which comprises contacting the gaseous stream at a temperature between 600° F. and 1000° F. with a solid reagent consisting essentially of pellets of an alkaline earth metal hydroxide to produce pellets of the corresponding alkaline earth metal sulfide and a hydrogen sulfide-free gaseous stream, discontinuing contacting the gaseous stream with the solid reagent, converting the pellets of alkaline earth metal sulfide back to the hydroxide by treating the sulfide formed with an oxygen-containing gas and an aqueous solution of an alkali metal compound from the group consisting of alkali metal hydroxides and alkali metal sulfides, removing the aqueous alkali metal polysulfide thus produced from the pellets of alkaline earth metal hydroxide and reintroducing the gaseous stream to the bed of solid reagent pellets.

2,845,383

METHOD FOR CONTROLLING ATMOSPHERIC POLLUTION

Robert R. Bowles, Jr., Orinda, and Irving C. Brown, Jr., Berkeley, Calif., assignors, by direct and mesne assignments, to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application December 31, 1954, Serial No. 479,013
5 Claims. (Cl. 196—52)



1. In a process wherein a hydrocarbon feed is catalytically cracked under elevated pressures and temperatures in a reaction zone in the presence of a downwardly moving particulate cracking catalyst, from which zone cracked product gases are removed and from which spent

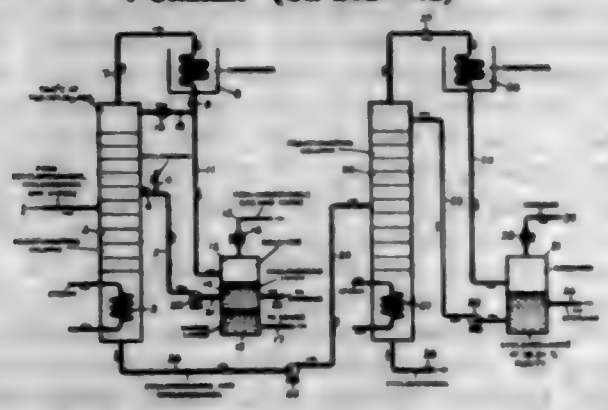
catalyst is withdrawn and is thereafter contacted with an oxidizing gas in a regeneration zone, from which latter zone regenerated catalyst is returned to the said reaction zone and a flue gas containing odor and color-contributing impurities is discharged into the atmosphere, the improvement which comprises contacting said spent catalyst with steam in a primary stripping zone, said stripping zone being located within said reaction zone, at a pressure in excess of the pressure maintained in said reaction zone; contacting said spent catalyst in a secondary stripping zone with further quantities of steam at substantially atmospheric pressure; separating said strippant streams from the contents of said stripping zones; passing said separated streams into a separation zone at an elevated temperature to remove catalyst dust from said streams; passing the dust-free strippant streams into a condensing zone wherein the components of said streams boiling above about 100° F. are liquefied; and passing the uncondensed components of said streams into the atmosphere.

2,845,384

DISTILLATION OF CYCLOHEXANONE FROM MIXTURES CONTAINING CYCLOHEXANONE, CYCLOHEXANOL, AND WATER

Robert L. Williston, Kenmore, N. Y., assignor to Allied Chemical Corporation, New York, N. Y., a corporation of New York

Application March 12, 1956, Serial No. 570,891
4 Claims. (Cl. 202—42)



1. A continuous process for separation and purification of cyclohexanone from cyclohexanone containing water and cyclohexanol as impurities which comprises continuously feeding a stream of impure cyclohexanone into a fractionating zone, continuously introducing cyclohexene into said fractionating zone to form an azeotrope with the water in said impure cyclohexanone, continuously removing as vapor from the fractionating zone the azeotrope composed of water and cyclohexene leaving dehydrated cyclohexanone containing cyclohexanol as bottoms in the fractionating zone, continuously condensing said vapor azeotrope, continuously withdrawing said dehydrated cyclohexanone containing cyclohexanol from the fractionating zone, passing said dehydrated cyclohexanone-cyclohexanol to a second fractionating zone maintained at an absolute pressure below about 100 mm. Hg, continuously removing cyclohexanone vapor of high purity from said second fractionating zone leaving cyclohexanol as bottoms in said second fractionating zone, continuously condensing and collecting said cyclohexanone of high purity, and continuously withdrawing cyclohexanol as bottoms from the second fractionating zone.

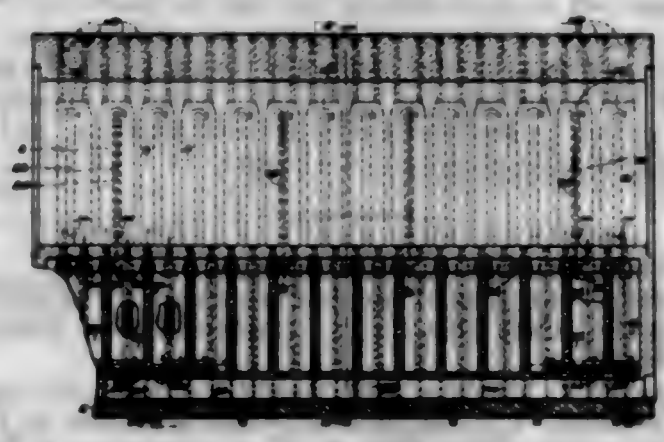
2,845,385

COKE OVEN BATTERY

Joseph Van Acheren, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware

Application April 26, 1954, Serial No. 424,334
10 Claims. (Cl. 202—141)

1. In a total underjet coke oven battery comprising an upper masonry mass mounted on a lower concrete pad supported from below by subadjacent beams on columns to leave an accessible basement space underneath the pad for access in regulation of the battery, with a series of alternate horizontal coking chambers and intermediate heating walls constituted of top interconnected vertical combustion flues for reversal in flow in the upper portion of the masonry mass, regenerator pillar walls below and parallel to said coking chambers and heating walls, and a crosswise row of regenerator compartments between each two pillar walls communicably connected in pairs by regenerator ducts with the flues to form all "on" compartments on one side and all "off" compartments on the opposite side of each of the pillar walls; the improvement comprising: void vent expansion joint passages arranged crosswise of said battery in each said pillar wall throughout the height of the regenerator compartments and terminating at their upper parts at the base of the tops of the pillar walls with continuous inlet means thereto beneath the concrete pad for continuous inflow of atmospheric air and outlet duct means from the vent passages extending through a wall between the vertical flues to the top thereof where the reversal inflow takes place; staggered expansion joints running crosswise of the battery in the tops of the pillar walls between the tops of the void vent passages and the lower portions of the heating walls; said regenerator ducts and ventilating outlet duct means extending through the tops of the pillar walls wholly inside the confines of, and devoid of intersection with, said staggered ex-



pansion joints; a pair of sole flues extending under each crosswise row of compartments above the pad; sole flue bypass ducts disposed between the top of the pad and the tops of the sole flues along one side of each row of compartments and individually communicating with intermediate compartments above the sole flues, and waste gas ducts likewise disposed along the same side of the rows of compartments and individually connecting the alternate compartments of each crosswise row with one of the sole flues of the pair below the row for outflow in "off" operation; sole flue bypass ducts similarly disposed along the opposite side of each row of compartments and individually communicating with alternate compartments above the sole flues of the rows of compartments, and waste gas ducts similarly disposed along the opposite sides of the rows of compartments and individually connecting the intermediate compartments of the rows with the other of the pairs of sole flues beneath the rows for outflow in "off" operation concurrently with the "off" operation of the alternate compartments of each row; the sole flues beneath each row of compartments being otherwise closed to gas flow relative to each other at well as to all compartments of the rows; an air header below one sole channel of each row of compartments with separate riser conduits leading to the individual sole flue bypass ducts of alternate compartments and to the individual waste gas ducts of the intermediate compartments of a row above, and a lean gas header below

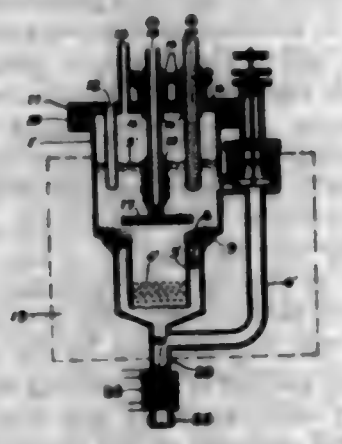
the other sole channel of each row of compartments with separate riser conduits leading to the individual sole flue bypass ducts of the intermediate compartments and to the individual waste gas ducts of the alternate compartments of the row above; individual orificed throttling means insertable through the riser conduits for said sole flue bypass ducts into position in the line of flow through the bypass ducts from the headers to control the flow from the headers to the compartments, and individual blind throttling means insertable through the riser conduits for said waste gas ducts into position in the line of flow through the waste gas ducts from the compartments to control the flow from the compartments to the sole flues while preventing the flow of air or gas thereto from the headers, for regulation of the pressures in the individual compartments individually and separately during inflow and outflow through the compartments; and the headers and riser conduits for each row of compartments being interconnected with each other for their finally connected relation relative to their compartments of the regenerator system, and interconnected to the headers for the adjacent rows of compartments, to form the mold for the concrete of the oven pad horizontally throughout the same, and the so interconnected headers being mounted directly on the first aforesaid subadjacent beams on columns to constitute the aforesaid intermediate supporting base for the concrete pad.

2,845,386

PRODUCTION OF METALS

Carl Marcus Olson, Newark, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application March 16, 1954, Serial No. 416,517
9 Claims. (Cl. 204—64)



1. A process for the production of a metal selected from the group consisting of titanium, zirconium and vanadium from an oxidic composition thereof which comprises circulating a molten halide salt composition of an alkaline earth metal selected from the group consisting of calcium, barium and strontium initially through an anode portion and a cathode portion of an electrolytic cell to partially reduce said salt and dissolve therein the free alkaline earth metal formed, thence passing the resulting molten salt mixture into a suitable chamber confining the oxidic composition, passing the molten salt effluent from the chamber to the anode portion of said cell where it is being subjected to electrolytic action with evolution of carbon monoxide by interaction of the oxygen content of the salt with a carbon anode, continuing the flow of salt composition into the cathode portion of the cell where the alkaline earth metal content of the salt composition is being restored, passing the cell effluent to the said chamber to complete the cyclic system, continuing the circulatory movement until carbon monoxide is no longer evolved at the anode and recovering the metal of high purity from the chamber.

2,845,387

METHOD OF ELECTRODEPOSITING METALS

George L. Schnable, Lansdale, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application November 1, 1955
Serial No. 544,375
14 Claims. (Cl. 204—64)

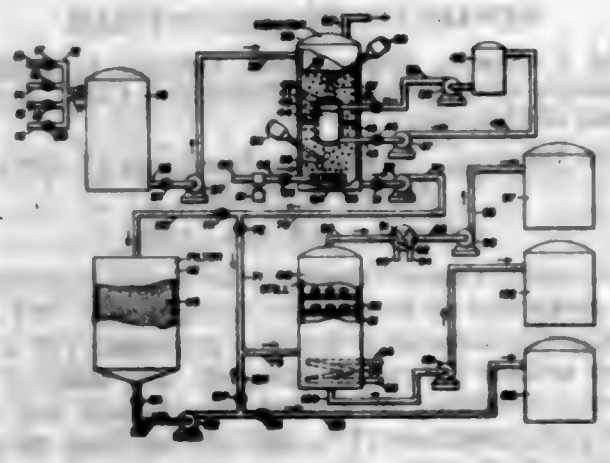
1. The method of electrodepositing indium metal which comprises electrolyzing, between an anode and a cathode, a salt of indium in which the indium is in a valent state below 3 in solution in a molten salt bath consisting essentially of said indium salt and other salt selected from the group consisting of a zinc halide and a combination of a zinc halide and an ammonium halide, whereby indium metal is deposited at the cathode.

2,845,388

STABILIZATION OF PETROLEUM DISTILLATES

James F. Black, Roselle, Donald A. Guthrie, Cranford, George A. Weisgerber, Iselin, and John J. Heigl, Short Hills, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application August 29, 1955, Serial No. 531,069
4 Claims. (Cl. 204—162)



1. A method of stabilizing a petroleum middle distillate boiling within the range of about 300° to 750° F., which comprises exposing said distillate to gamma ray radiation obtained from a radio-isotope while blowing said distillate with a free oxygen-containing gas, said distillate not being in direct contact with said radio-isotope, the irradiation being carried out at a dose rate in the range of 50,000 to 20,000,000 roentgens per hour until in the range of 100,000 to 100,000,000 roentgens of radiant energy have been absorbed and until further irradiation of said distillate produces essentially no additional oil-insoluble sediment, separating the resultant oil-insoluble sediment and high boiling soluble gum from the irradiated material by distillation, and recovering a stabilized distillate.

2,845,389

THINNING AGENT FOR DRILLING FLUID

Horace J. Beach, Houston, William C. Geins, Jr., Bellaire, and Walter F. Rogers, Houston, Tex., assignors to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application July 27, 1954
Serial No. 446,154
6 Claims. (Cl. 252—8.5)

2. A drilling mud consisting essentially of a finely divided clay, a weighting agent, sufficient water to slurry the finely divided clay and weighting agent and render the slurry circulatable, and between 0.2 and 6 pounds of dried finely divided tara pods per barrel of drilling mud.

2,845,390

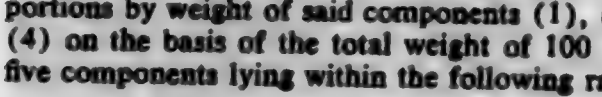
LUBRICATING COMPOSITION

Paul M. Kerschner, Pennsauken, N. J., assignor to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application February 23, 1956
Serial No. 567,884

6 Claims. (Cl. 252—48.6)

1. A normally liquid lubricating composition comprising a major portion of a tetra ester of thiodi-itaconic acid having the formula



wherein R and R′ represent saturated hydrocarbon groups having from about 4 to 6 carbon atoms, and a minor portion, sufficient to improve the viscosity characteristics of the tetra ester, of an oil-soluble copolymer having a molecular weight from 5,000 to 20,000 prepared from 25 weight percent proportions of stearyl, cetyl, lauryl, and n-hexyl monomethacrylates.

2,845,391

SYNTHETIC DETERGENT BAR

Donald F. Searle, Napa, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 17, 1953
Serial No. 398,892

9 Claims. (Cl. 252—138)

1. A solid shaped synthetic detergent composition which comprises as its essential components: (1) a sodium C_{15}–C_{18} monoalkyl benzene sulfonate; (2) a non-frosting sodium salt of an inorganic acid selected from the group consisting of sodium bicarbonate and tetrasodium pyrophosphate; (3) a salt selected from the group consisting of alkaline earth metal and aluminum salts of saturated C_{14}–C_{20} fatty acids; (4) a starch binder; (5) sodium sulfate in an amount ranging from 0 to less than 5% of the total weight of said five components, the proportions by weight of said components (1), (2), (3) and (4) on the basis of the total weight of 100 parts of said five components lying within the following ranges:

Component:	Parts
1. Sulfonate	30 to 50
2. Non-frosting salt of inorganic acid	10 to 40
3. Salt of saturated fatty acid	1 to 2
4. Starch	10 to 40

said composition containing not more than 20 parts of water per 100 parts of the total weight of said five components.

2,845,392

STABLE DISPERSIONS OF FATTY AMINE ACID SALTS

Thomas H. Lentz, St. Louis Park, and Joseph W. Opie and David E. Terry, Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware

No Drawing. Application October 5, 1955
Serial No. 538,762

4 Claims. (Cl. 252—311)

1. Composition readily dispersible in water consisting essentially of 90 to 96% by weight of a fatty amine acid salt and 4 to 10% by weight of a non-polar aliphatic hydrocarbon having a boiling range of 200 to 360° C. said fatty amine containing 8 to 22 carbon atoms.

2,845,393

CORROSION-INHIBITING COMPOSITION CONTAINING CETYL DIMETHYL AMINE PETROLEUM SULFONATES AND METHOD

Charles W. Varvel, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application July 20, 1956
Serial No. 598,980

14 Claims. (Cl. 252—391)

1. A corrosion-inhibiting composition comprising a petroleum liquid containing from 10 to 300 p. p. m. of cetyl dimethylamine petroleum sulfonate derived from an oil soluble petroleum sulfonate.

2,845,394

COMPOSITION FOR DETECTING MOISTURE LEAKAGE

Claude S. Thompson, Elizabeth, N. J.

No Drawing. Application November 15, 1955
Serial No. 547,858

5 Claims. (Cl. 252—408)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A composition for application as a permanent coating to the exterior surface of a container for water at elevated temperatures and through which surface said water may leak, which when applied as a coating and dried will be resistant to high atmospheric humidity and temperatures to which it may be exposed, and which when so applied will clearly indicate the existence and location of any such leak that may subsequently develop, which comprises a coating mixture containing a first powdered material of lead chloride which is substantially insoluble and chemically stable in water at approximately usual room temperatures and below, but substantially soluble and chemically stable in water at temperatures well above the usual room temperatures, a second powdered material selected from the group consisting of manganese dioxide, ferric oxide, and graphite having a color substantially contrasting with that of said first powdered material, insoluble in water at all temperatures, and chemically stable at temperatures within the range to which said surface may be subjected, and a gel-like binder containing a compound of silicon in an aqueous carrier medium which binder is chemically stable and substantially unaffected by high atmospheric humidity and temperatures from below room temperatures to temperatures above those to which the coating may be exposed in use, whereby when a leak of water at elevated temperatures occurs in said surface covered by said coating, said first powdered material at the leak will be dissolved by the escaping water and carried to the surface of the coating where the escaping water carrier will evaporate and leave a deposit of said first powdered material on the surface of the coating where its color contrasting with that of the coating will indicate the existence and location of a leak in said container.

2,845,395

RECLAIMING VULCANIZED RUBBER IN THE PRESENCE OF UNVULCANIZED HIGH STYRENE POLYMERIC MATERIAL AND PRODUCT

Edward F. Sverdrup, Buffalo, N. Y., assignor to U. S. Rubber Reclaiming Co. Inc., Buffalo, N. Y.

No Drawing. Application April 20, 1954
Serial No. 424,491

10 Claims. (Cl. 260—2.3)

1. The process of reclaiming tire or tube scrap which comprises mixing the vulcanized rubber scrap with from 10% to 200%, based on the rubbery hydrocarbon content of the scrap, of an unvulcanized high-styrene polymeric material which is of the class consisting of styrene-butadiene copolymers and polystyrene and wherein styrene constitutes not substantially less than 70% by weight of the polymeric material, and plasticizing the

mixture by the masticating action of heat-generating mechanical working at a temperature of from 200° F. to 500° F. to produce a vulcanizable product.

2,845,396

METHOD OF PRODUCING CELLULAR PHENOLIC RESINS USING ALIPHATIC ETHERS AS BLOWING AGENTS

Karl F. Krebs, West Caldwell, and Paul F. Urich, Upper Montclair, N. J., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application July 22, 1955
Serial No. 523,932
7 Claims. (Cl. 260—2.5)

1. Method of producing from phenol-formaldehyde condensation products cellular structures characterized by uniform texture and absence of blow-holes, which comprises incorporating, in an amount from about 0.5 to about 10 percent by weight of the condensation product, an aliphatic ether having the formula ROR′ wherein R and R′ each represent an alkyl group having up to four carbon atoms and a boiling point not in excess of about 100° C. in a liquid "A"-stage phenol-formaldehyde condensation product that has been dehydrated to a water content not in excess of 10 percent, said dehydrated product being soluble in at least an equal weight of water adding with rapid stirring a catalytic amount of a strong non-oxidizing acid whereby the condensation product reacts to produce a foamed cellular structure.

2,845,397

METHOD OF CO-COAGULATING RESIN TREATED LIGNIN AND A RUBBER LATEX AND PRODUCT OBTAINED THEREBY

George S. Mills, Pompton Plains, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application April 17, 1956
Serial No. 578,576
12 Claims. (Cl. 260—3)

1. The method which comprises mixing with a rubber latex an alkaline solution of lignin that has been treated with material selected from the group consisting of urea and formaldehyde, thiourea and formaldehyde, dithiobiuret and formaldehyde, and dialkylthiourea and formaldehyde, the urea-type additive being in amount from 2 to 20% based on the dry weight of the lignin and the formaldehyde being in amount from 0.5 to 5 moles per mole of urea-type additive, and the ratio of lignin to rubber being in the range of 25 to 100 parts of lignin to 100 parts of rubber, and co-coagulating the rubber and treated lignin in such mixture.

2,845,398

COPOLYMER-WAX COMPOSITION

George L. Brown, Moorestown, N. J., and William R. Conn, Perkasie, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application November 12, 1954
Serial No. 468,525
9 Claims. (Cl. 260—28.5)

1. A coating composition comprising an aqueous dispersion of (*a*) a copolymer of 72 to 92% vinyl acetate, 5 to 25% of an ester of acrylic acid with a member of the group consisting of methanol and ethanol, and 1 to 3% of an acid of the group consisting of acrylic acid, methacrylic acid, itaconic acid, crotonic acid and maleic acid, (*b*) a wax, and (*c*) an emulsifying agent, the ratio of copolymer to wax being from 3:1 to 6:1 and the dispersion having a pH of at least about 7.5.

2,845,399

WEATHERING OF ISOOLEFIN-VINYL AROMATIC COPOLYMERS CONTAINING HYDROXY BENZALDEHYDES

Raymond G. Newberg and Robert E. Clayton, Roselle Park, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 29, 1955
Serial No. 556,048
14 Claims. (Cl. 260—45.95)

1. A composition comprising a copolymer of about 10 to 90% of a C_4 to C_8 isoolefin with about 10 to 90% of a vinyl aromatic hydrocarbon and about 0.25% to 20% of a hydroxy benzaldehyde.

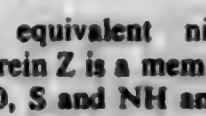
2,845,400

HYDRAZINE RESINS

Bernard Rudner, Baltimore, Md., assignor to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut

No Drawing. Application August 12, 1955
Serial No. 528,127
17 Claims. (Cl. 260—68)

1. A process for preparing hydrazine containing resins capable of chelating both copper and chromium which comprises reacting in the presence of anions of a strong mineral acid: (*a*) 0.4 to 2.6 equivalents of



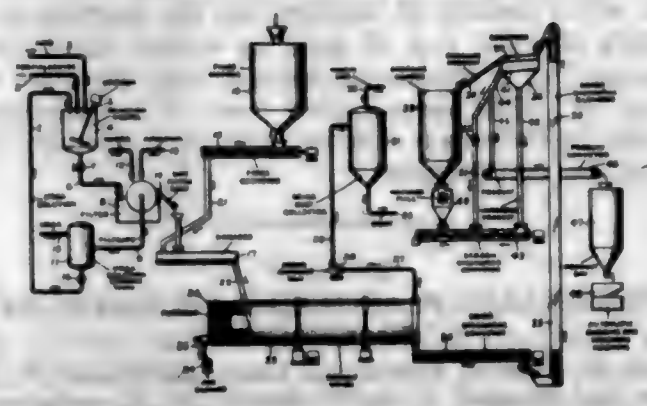
per equivalent nitrogen base hereunder described, wherein Z is a member selected from the group consisting of O, S and NH and R is a monovalent radical selected from the group consisting of alkyl, aryl, hydrogen, groups replaceable by hydrogen upon reduction and groups replaceable by hydrogen upon hydrolysis, (*b*) 0.75 to 3.0 equivalents of R′CHO per equivalent nitrogen base hereunder described, wherein R′ is a member selected from the group consisting of hydrogen and monovalent radicals containing less than five carbon atoms, (*c*) at least two members of a nitrogen base group consisting of ammonia, hydrazine, strong mineral acid salts of ammonia and strong mineral acid salts of hydrazine in amounts sufficient to provide 3-94% by weight equivalent of hydrazine; and recovering the resultant resin from the reaction medium.

2,845,401

UREAFORM FERTILIZER

George R. Gilliam, Prince George, Va., assignor to Allied Chemical Corporation, a corporation of New York

Application February 28, 1955, Serial No. 491,111
4 Claims. (Cl. 260—71)



1. In a process for the production of pelletized urea-formaldehyde fertilizer of high bulk density of 36–46 lbs./ft.^{3} involving reacting urea and formaldehyde as the sole reactants in aqueous solution to precipitate from the solution a reaction product of urea and formaldehyde containing water-insoluble nitrogen having a high activity for use as a fertilizer followed by separating the precipitate from the solution to produce a wet cake containing 55–85% by weight water which on drying tends to break

easily into a powdery mass of low bulk density, the improvement which comprises admixing the wet cake with about 2.5–4.5 its weight of dried urea-formaldehyde product previously produced in the process and having a particle size below 48 mesh size to produce a mixture containing 15–24% by weight water, kneading and pressing said mixture of wet cake and dried urea-formaldehyde fertilizer until a uniform mass is produced, and heating said uniform mass by contact with heated drying gas in a rotary drier to drying temperature not in excess of 110° C. to produce a dry pelletized product having a bulk density of 36–46 lbs./ft.^{3}.

2,845,402

WATER-SOLUBLE POLYESTERS CURABLE TO INSOLUBLE POLYMERS

Howard C. Woodruff, Latham, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application December 28, 1953
Serial No. 400,753
11 Claims. (Cl. 260—75)

1. A process of preparing water-soluble polymerizable polyesters which comprises esterifying in one step at an elevated temperature to a water-soluble acidic polyester (1) one mol of an unsaturated aliphatic compound selected from the group consisting of maleic acid, maleic anhydride, fumaric acid, and mixtures thereof, (2) about 0.4 to 2.0 mols of dicarboxylic acid free of chain unsaturation, and (3) for each mol of combined unsaturated and saturated acid, about 0.8 to 1.8 mols of the product of reaction of one mol of a polyhydric alcohol containing more than two hydroxyl groups and about 3 to 30 mols of ethylene oxide, said reaction product having at least one ether oxygen separated from a hydroxyl group by the $—CH_2—CH_2—$ radical.

2,845,403

MALEIC ANHYDRIDE MODIFIED BUTYL RUBBER

Paul F. Gunberg, Ridgewood, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application June 2, 1954
Serial No. 434,873
8 Claims. (Cl. 260—78.4)

1. In a method which comprises reacting, at a temperature in the range from about 135° C. to about 200° C., an elastomeric copolymer of a major proportion of isobutylene and a minor proportion of a diolefin copolymerizable therewith, with maleic anhydride, the improvement which consists of carrying out the reaction in the presence of about 1 to 10 parts by weight, based on the copolymer, of a compound selected from the class consisting of N-halogenoamides and N-halogenoimides wherein the halogen is selected from the group consisting of chlorine, and bromine.

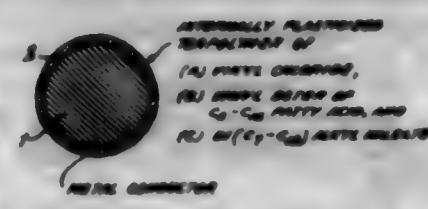
2,845,404

INTERNALLY PLASTICIZED POLYMERS OF VINYL CHLORIDE

Harold K. Garner, Packanack Lake, and Hubert F. Jordan and Wendell V. Smith, Nutley, N. J., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application April 28, 1955, Serial No. 504,598
14 Claims. (Cl. 260—78.5)

1. A thermoplastic resinous terpolymer of vinyl chloride, a vinyl ester of a saturated aliphatic monocarboxylic acid, said acid having from 8 to 18 carbon atoms per molecule, and a dialkyl maleate having from 7 to 18 carbon atoms in each alkyl group, said terpolymer being formed from a monomeric mixture containing from 50 to 95% of vinyl chloride, the balance of said monomeric



mixture being made up of said vinyl ester and said dialkyl maleate in a ratio of from 15:1 to 1:15.

2,845,405

EMULSION POLYMERIZATION IN SYSTEMS CONTAINING OXIDIZED ALKYLBENZENE SULFONATES

Carl A. Uraneck, Phillips, and Walyn L. Gibson, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application December 1, 1955
Serial No. 550,500
10 Claims. (Cl. 260—84.3)

1. In the polymerization of an unsaturated organic compound containing an active $CH_2=C<$ group, and polymerizable in aqueous emulsion to produce a linear polymer of high molecular weight, while dispersed in an aqueous medium at a polymerization temperature, the improvement which comprises effecting said polymerization in the presence of an oxidized alkylbenzene sulfonate as a polymerization initiator, said sulfonate being selected from the group consisting of sodium, potassium, and ammonium alkylbenzene sulfonates.

7. The method of preparing an oxidized alkylbenzene sulfonate comprising subjecting a compound selected from the group consisting of sodium, potassium, and ammonium alkylbenzene sulfonates having a total of 8 to 20 carbon atoms in alkyl groups attached to the benzene nucleus, to oxidation in the presence of a free-oxygen containing gas for a time sufficient to give an active oxygen content of at least 0.05 percent by weight.

2,845,406

PROCESS FOR THE REMOVAL OF NICKEL-KIESELGUHR CATALYSTS FROM HYDROGENATED BUTADIENE POLYMERS

Martin R. Clines and Ben B. Buchanan, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application March 25, 1955
Serial No. 496,932
9 Claims. (Cl. 260—85.1)

1. In the process for production of hydrogenated material by hydrogenating polymeric material selected from the group consisting of rubbery homopolymers of butadiene and copolymers of butadiene containing not over 30 percent by weight of styrene wherein said polymeric material is dispersed in a cycloparaffinic hydrocarbon solvent and contacted with hydrogen in the presence of a finely divided nickel-kieselguhr catalyst in order to reduce the unsaturation of said polymeric material; the method of removing said catalyst comprising diluting the dispersion of said hydrogenated polymeric material, solvent, and catalyst, with an additional quantity of a cycloparaffinic hydrocarbon solvent, said additional cycloparaffinic solvent being added in an amount of 1:1 to 5:1 based on the volume of said dispersion; heating the resulting mixture at a temperature of 100 to 500° F. for 10 minutes to 8 hours, the time of said heating being sufficiently long to cause agglomeration of said catalyst; and removing said catalyst from the heat-treated mixture.

2,845,487

AMINOALKYL VINYL ETHERS AND DERIVATIVES THEREOF

Warren H. Watanabe and Sidney Melamed, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application September 21, 1954
Serial No. 457,546
15 Claims. (Cl. 260—86.1)

1. A composition comprising a vinyl ether selected from the group consisting of those of the Formulas I and II:

(I) $CH_2{:}CHOZC(R)(R')NHR^3$

(II) $CH_2{:}CHOANHC(R)(R')R^4$

in which Z is an alkylene group having 1 to 7 carbon atoms, R is an alkyl group having 1 to 4 carbon atoms, R′ is an alkyl group having 1 to 4 carbon atoms, R^3 is selected from the group consisting of hydrogen, 2-tetrahydrofurfuryl-methyl, 2-thienyl, and hydrocarbon groups having 1 to 18 carbon atoms. A is a hydrocarbon group having 2 to 18 carbon atoms and having at least 2 carbon atoms between the ether oxygen and nitrogen, and R^4 is an alkyl group having 1 to 21 carbon atoms.

7. A composition comprising a copolymer of a vinyl ether selected from the group consisting of those of the Formulas I and II as defined in claim 1 with a monoethylenically unsaturated comonomer.

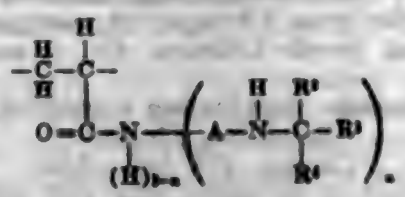
2,845,488

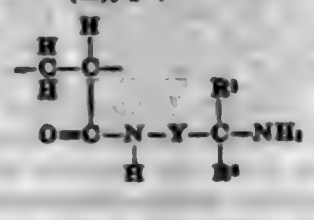
LINEAR POLYMERIC AMIDES AND METHODS OF MAKING THEM

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 4, 1954
Serial No. 447,890
6 Claims. (Cl. 260—89.7)

1. A composition of matter comprising a linear polymer the main chain of which consists entirely of carbon atoms, said polymer being a copolymer of zero to about 52 mol percent of methyl acrylate, 0.1 to 10 mol percent of acrylic acid, and at least 48 mol percent of amide units selected from the group consisting of those of the general Formulas I and II following:

I 

II 

in which:

R^2 is an alkyl group of 1 to 24 carbon atoms,
R^3 is an alkyl group of 1 to 24 carbon atoms,
R^4 is an alkyl group of 1 to 24 carbon atoms,
n is an integer having a value of 1 to 2,
A is an alkylene group of 2 to 10 carbon atoms,
Y is an alkylene group of 1 to 10 carbon atoms,
R^5 is an alkyl group of 1 to 18 carbon atoms, and
R^6 is an alkyl group of 1 to 18 carbon atoms.

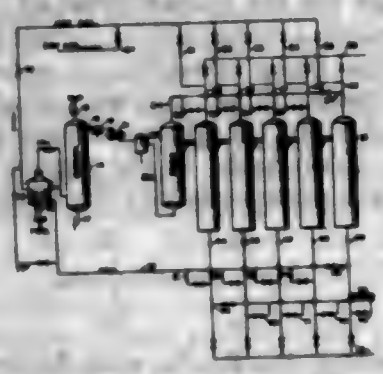
2,845,489

CATALYST REGENERATION

Edward N. Pennington and John E. Cottle, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application September 18, 1953, Serial No. 380,982
13 Claims. (Cl. 260—93.1)

1. A process for regenerating a plurality of catalyst masses in use in a conversion process which is operated at a substantially lower temperature than the temperature of regeneration, under conditions which cause contamination of the catalyst with combustible deposit and in which contact of the regenerated catalyst with moisture is deleterious to the catalyst, which comprises the steps of: (1) contacting one of the contaminated masses in an enclosed zone with a dry mixture of hot combustion gas and air under combustion conditions so as to burn said deposit from said catalyst, whereby the temperature of the catalyst is raised to a temperature substantially above conversion temperature; (2) burning fuel in an enclosed combustion zone to form combustion gas; (3) cooling said combustion gas to a temperature at least as low as said



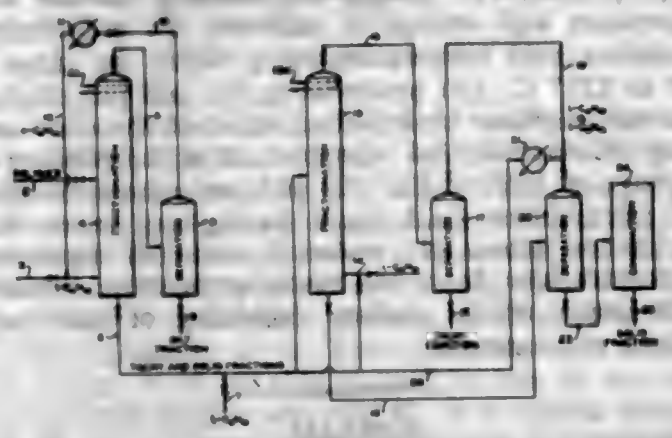
conversion temperature; (4) drying said combustion gas; (5) contacting the hot regenerated catalyst with the resulting cooled dry combustion gas so as to reduce the temperature of the catalyst to substantially reaction temperature; (6) heating the effluent gas from step (5) in indirect heat exchange with the hot combustion gas formed in step (2) to provide a stream of hot, dry combustion gas; (7) contacting another of said catalyst masses, which is ready for regeneration, with the hot gas from step (6) so as to bring the same up to regenerating temperature; and (8) contacting the thus heated mass with air in admixture with the hot combustion gas under combustion conditions so as to burn off combustible deposit from said heated mass.

2,845,410

FRACTIONATION OF POLYMERS

Albert N. De Vault and William N. Axe, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application October 1, 1954, Serial No. 459,732
8 Claims. (Cl. 260—93.7)



1. A process for fractionating a polymer which is at least partially soluble in isobutane at conditions subsequently described herein and which is resolvable into a viscous oily fraction, a tacky fraction and a normally solid fraction which process comprises contacting said polymer with isobutane in a first zone at a temperature in the range 240 to 260° F., forming an isobutane-rich phase and a polymer-rich phase, recovering said oily fraction from said isobutane-rich phase, adding a hydrocarbon having from 7 to 9 carbon atoms per molecule to said polymer rich phase, contacting the resulting mixture with isobutane in a second zone at a temperature in the range 240 to 260° F. to form a liquid phase containing most of said

tacky fraction and a liquid phase containing most of said normally solid fraction, separately collecting the latter-mentioned phases, and recovering a polymer fraction from each phase.

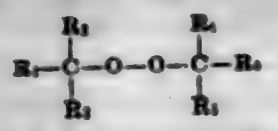
2,845,411

VULCANIZATION OF RUBBERS

William D. Willis, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 15, 1956
Serial No. 584,981
11 Claims. (Cl. 260—94.7)

1. A process for the vulcanization of a rubber which comprises heating a composition containing a rubber selected from the group consisting of natural rubber and sulfur-vulcanizable rubbery polymers of at least one compound selected from the group consisting of conjugated diolefins and chloroprene in the presence of an acidic inorganic filler; a peroxide having the formula:



wherein R_1 is aryl, R_2, R_3, R_4, and R_5 are selected from the group consisting of hydrogen and alkyl groups of less than 4 carbon atoms, and R_6 is aryl; an inorganic alkali, and a basic amino compound.

2,845,412

RECOVERY PROCESS FOR POLYETHYLENE

George Hommel Heyson, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 3, 1955
Serial No. 505,845
7 Claims. (Cl. 260—94.9)

1. The process which comprises the following sequence of steps: (1) introducing an alkali metal alcoholate and an alcohol into an ethylene polymerization mixture containing substantially linear normally solid polyethylene, an inert liquid hydrocarbon, and a compound of a transition element of the class consisting of Ti, V, Mo, and Zr, said compound having salt-forming groups attached to said element, the quantity of said alcohol and alcoholate being sufficient to convert the transition element to alcoholate and to react with the salt-forming groups present; (2) heating the resulting mixture at a temperature high enough to maintain the polyethylene in solution, said temperature being within the range of 175° to 225° C.; (3) precipitating the said polyethylene as a molten phase by injecting liquid of the class consisting of alkanols and alkanones at a temperature in the range of 125° to 225° C. and low enough to effect said precipitation, said liquid having not more than four carbon atoms per molecule, and (4) recovering the polyethylene from the resulting mixture, whereby contaminants which produce darkening of said polyethylene are removed.

2,845,413

MANUFACTURE OF MODIFIED POLYETHYLENE ALCOHOL TELOMER AND OXIDIZED POLYETHYLENE ALCOHOL TELOMER WAXES

Allen C. Goodrich, East Aurora, and Thomas R. Liston, Hamburg, N. Y., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application October 2, 1956
Serial No. 613,369
7 Claims. (Cl. 260—94.9)

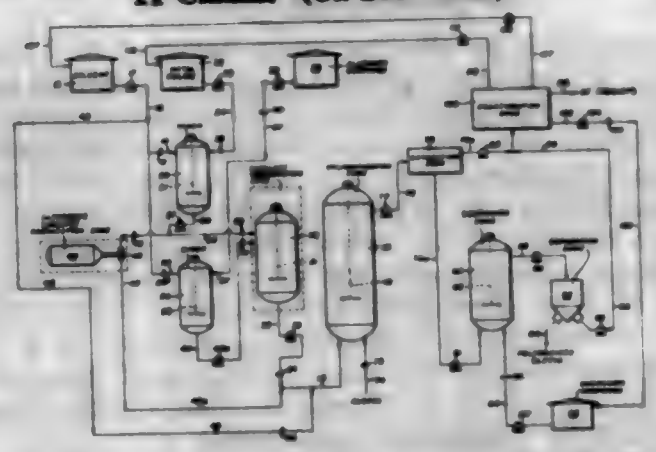
1. A process for modifying polyethylene waxes to produce waxes having improved properties which comprises heating a polyethylene wax selected from the group consisting of a polyethylene alcohol telomer and an oxidized polyethylene alcohol telomer with about 1–15% by weight of an organic polyisocyanate having a hydrocarbon group containing not more than 16 carbon atoms to a temperature between about 100° C. and 300° C. to effect reaction between the polyisocyanate and the wax.

2,845,414

OLEFIN POLYMERIZATION PROCESS

Henry G. Schutze, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application November 5, 1956, Serial No. 620,522
11 Claims. (Cl. 260—94.9)



1. In an olefin polymerization process wherein an olefin is polymerized in a non-polar organic diluent containing a polymerization catalyst prepared by at least partial reduction of a halide of an amphoteric metal selected from the class consisting of amphoteric metals of groups IV–B, V–B, VI–B, and VIII of the periodic table, the improvement which comprises intimately contacting the olefin polymer prior to recovery of the same with a compound selected from the group consisting of methane tetrahalides, ethane hexahalides and C_1 to C_4 alkyl hypochlorites to thereby substantially de-ash said olefin polymer and to thereby regenerate at least a portion of said halide.

2,845,415

ERYTHROMYCIN ISETHIONATE

Anthony F. De Rose, Chicago, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application August 13, 1953
Serial No. 374,136
3 Claims. (Cl. 260—210)

1. The process of preparing new and useful pharmaceutical substances which comprises reacting together approximately equimolar proportions of erythromycin and isethionic acid at ordinary temperatures, and separating the resulting white crystalline, water-soluble solid erythromycin isethionate from the reaction mixture.

2. A physiologically active pharmaceutical preparation comprising an injectable aqueous solution of the product of claim 1.

2,845,416

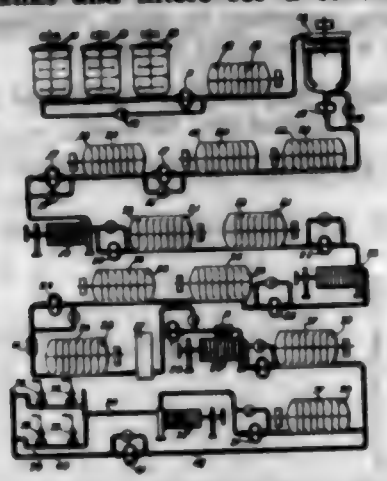
METHOD OF AGING A VISCOSE SOLUTION

Hugo Elling, Oberbruch-Grebben, Germany, assignor to American Enka Corporation, Enka, N. C.

Application September 4, 1953, Serial No. 378,445
Claims priority, application Germany September 6, 1952
3 Claims. (Cl. 260—218)

1. The method of aging a viscose spinning solution while feeding the same to a spinning machine in a deaerated condition through a closed system comprising the steps of maintaining a supply of at least partially dissolved cellulose xanthate in a plurality of dissolving tanks, pumping the solution from the dissolving tanks through a continuously filled conduit system to a deaeration vessel while blending the same, deaerating the solu-

tion, removing the solution from the deaeration vessel and pumping the same through another continuously filled conduit system to a series of completely filled storage tanks and filters, passing the solution alternately through said storage tanks and filters for a sufficient length of



time to insure complete dissolution of the cellulose xanthate and aging of the viscose to the required degree for spinning and pumping the viscose from the storage tanks and filters through still another continuously filled conduit system to a spinning machine.

2,845,417

HYDROXYALKYLATION OF UNGELATINIZED STARCHES AND DEXTRINS IN AQUEOUS, WATER-MISCIBLE ALCOHOLS

Carl C. Kesler and Erling T. Hjermstad, Cedar Rapids, Iowa, assignors to Penick & Ford, Ltd., Incorporated, Cedar Rapids, Iowa, a corporation of Delaware

No Drawing. Application October 6, 1955
Serial No. 539,814
3 Claims. (Cl. 260—233.3)

1. The process of preparing ungelatinized hydroxyalkyl derivatives of a granule starch material selected from the group consisting of granule starches and granule starch dextrins, comprising forming a slurry by mixing said granule starch material with water, a completely water-miscible alcohol, and an alcohol-soluble alkali, not over one part by weight of water being present per part of acohol, said alcohol being selected from the group consisting of methanol, ethanol, and isopropanol, said alkali being selected from the group consisting of sodium and potassium hydroxide, said slurry consisting of said starch material suspended in a single liquid phase, and reacting said starch material with a starch hydroxyalkylating agent while maintaining said starch material suspended in said single liquid phase to produce a partially etherified product in a substantially ungelatinized, filterable state, said hydroxyalkylating agent being selected from the group consisting of the epoxide and the halohydrin hydroxyalkylating agents.

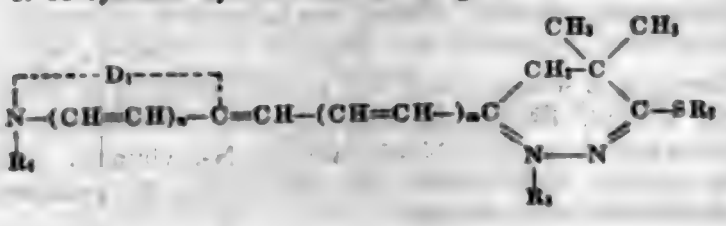
2,845,418

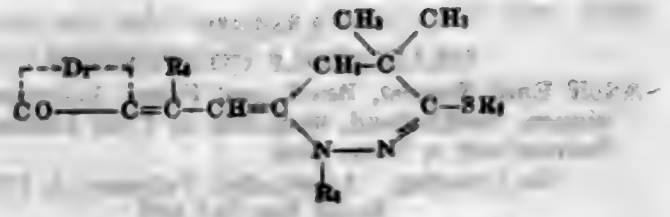
CYANINE DYESTUFFS

John David Kendall and George Frank Duffin, Ilford, England, assignors to Ilford Limited, Ilford, England, a British company

No Drawing. Application November 25, 1955
Serial No. 549,188
Claims priority, application Great Britain
December 2, 1954
8 Claims. (Cl. 260—240)

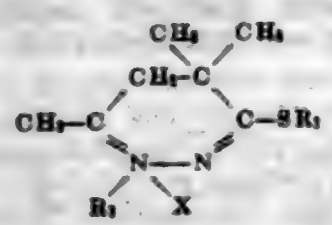
1. A cyanine dye of one of the general formulae:



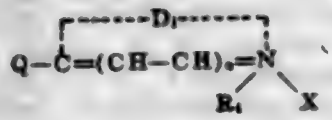


where R_2 is a lower alkyl group, R_3 is a group selected from the class consisting of alkyl and hydroxyalkyl groups containing up to 4 carbon atoms and benzyl groups, R_4 is a group selected from the class consisting of alkyl groups containing up to 4 carbon atoms and benzyl groups and R_5 is selected from the class consisting of the hydrogen atom and alkyl groups containing up to 4 carbon atoms, *n* and *m* are each selected from nought and one, D_1 is a residue selected from the class consisting of the following five-membered and six-membered heterocyclic nitrogen ring systems: thiazole, oxazole and selenazole; benzo- and naphthothiazole, -oxazole and -selenazole; pyridine; quinoline; α-naphthoquinoline; β-naphthoquinoline; indolenine; diazole; thiazoline; pyridazinine; and halogen-, alkyl-, aryl-, alkoxy- and methylene dioxy-carbocyclic-ring-substituted derivatives of such of the foregoing radicals as contain a carbocyclic ring structure, and D_2 is the residue of a keto-methylene nucleus selected from the class consisting of rhodanic acid; oxarhodanic acid; the N-alkyl substituted derivatives of rhodanic acid and oxarhodanic acid; oxazolone, pyrazole-5-one and thiohydantoin.

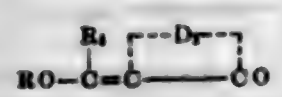
2. A process for the production of a cyanine dye which comprises heating together a compound of the general formula:



with a compound of either of the general formulae:



and



where Q is selected from the class consisting of thioether (SR), thioether vinyl (—CH=CH—SR) and acetanilidovinyl groups, R is a lower alkyl group, R_2 is a lower alkyl group, R_3 is a group selected from the class consisting of lower alkyl, lower hydroxyalkyl and benzyl groups, R_4 is a group selected from the class consisting of lower alkyl and benzyl groups, R_5 is selected from the class consisting of the hydrogen atom and a lower alkyl group, X is an acid radical, *n* and *m* are each selected from nought and one, D_1 is a residue selected from the class consisting of the following five-membered and six-membered heterocyclic nitrogen ring systems: thiazole, oxazole and selenazole; benzo- and naphthothiazole, -oxazole and -selenazole; pyridine; quinoline; α-naphthoquinoline; β-naphthoquinoline; indolenine; diazole; thiazoline; pyridazinine; and halogen-, alkyl-, aryl-, alkoxy- and methylene dioxy-carbocyclic-ring-substituted derivatives of such of the foregoing radicals as contain a carbocyclic ring structure, and D_2 is the residue of a keto-methylene nucleus selected from the class consisting of rhodanic acid; oxarhodanic acid; the N-alkyl substituted derivatives of rhodanic acid and oxarhodanic acid; oxazolone, pyrazole-5-one and thiohydantoin.

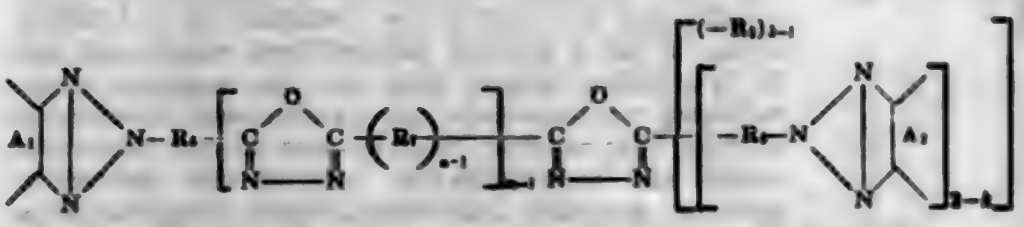
2,845,419

OXADIAZOLE COMPOUNDS

Adolf Emil Siegrist, Basel, and Franz Achermann, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

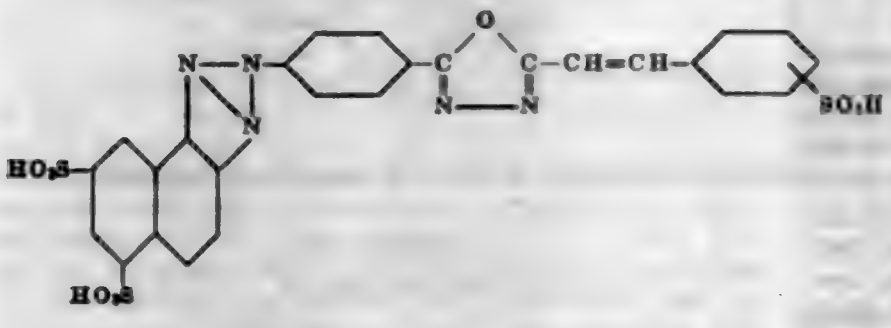
No Drawing. Application February 6, 1956
Serial No. 563,445
Claims priority, application Switzerland February 15, 1955
10 Claims. (Cl. 260—240)

1. A fluorescent, practically uncolored compound which is free from hydroxyl groups and corresponds to the formula



in which R_6 and R_7 each represents an aromatic radical containing a single ring which is a carbocyclic six-membered ring and which is attached in para-position to the heterocyclic rings, R_8 represents an aromatic radical containing a single ring which is a carbocyclic six-membered ring, and A_1 and A_2 each represents an aromatic radical containing, as the sole ring members, $4n+2$ aromatic nuclear carbon atoms and condensed in the manner indicated by the valence bonds with the triazole ring, k, m and n each representing a whole number of at the most two.

10. A fluorescent, practically uncolored compound which in its free acid state corresponds to the formula



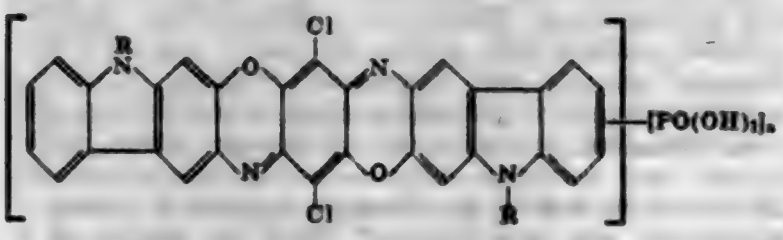
2,845,420

DIOXAZINE DYESTUFFS

Harlan B. Freyermuth, Easton, Pa., Robert D. Jackson, Binghamton, N. Y., and David L. Randall, New Vernon, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 26, 1956
Serial No. 618,655
11 Claims. (Cl. 260—246)

1. A phosphonated dioxazine dyestuff having the formula



wherein R is selected from the group consisting of hydrogen, lower alkyl, lower haloalkyl, lower cyanoalkyl, lower hydroxyalkyl, cyclohexyl, benzyl, phenyl, diphenyl and naphthyl; and n has a value of 1 to 2.

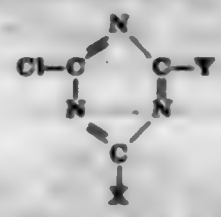
2,845,421

FLUORINATION OF CHLORO TRIAZINES WITH ANTIMONY TRIFLUORIDE

Christoph J. Grundmann and Ehrenfried H. Kober, Columbus, Ohio, assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application September 12, 1956
Serial No. 609,348
8 Claims. (Cl. 260—248)

1. A method for producing fluorinated 1,3,5-triazine compounds by replacement with fluorine of nuclear chlorine atoms of a compound of the class:



which comprises reacting a compound of said class with a stoichiometric excess of antimony trifluoride at a temperature within the range from 60° C. to 200° C., X and Y being selected from the group consisting of chlorine, hydrogen, alkyl radicals containing from one to four carbon atoms, haloalkyl radicals containing from one to four carbon atoms, aryl radicals containing not more than ten carbon atoms and haloaryl radicals containing not more than ten carbon atoms.

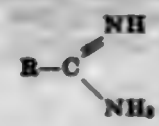
2,845,422

SUBSTITUTED S-TRIAZINES AND METHOD OF PREPARATION

Frederic Charles Schaefer, Darien, and Grace Ann Peters, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 22, 1957
Serial No. 654,068
13 Claims. (Cl. 260—248)

1. An improved method for producing mono-substituted s-triazines which comprises the steps of: reacting s-triazine and an amidine of pK_b value of less than 7 and having the general formula:



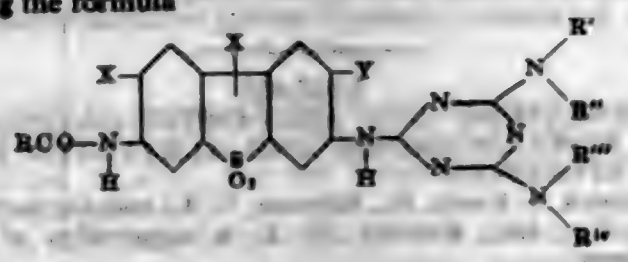
wherein R is selected from the group consisting of alkyl, aryl, aralkyl, alkoxy, alkylthio, aryloxy, chloroalkyl, β-hydroxyalkyl, amino, N-alkylamino, N-arylamino, and acid addition salts thereof, and recovering the resultant mono-substituted s-triazine.

2,845,423
N,N'-DISUBSTITUTED-3,7-DIAMINO-POLYSULFO-DIBENZOTHIOPHENE-DIOXIDES

Norman L. Anderson, Hamburg, N. Y., assignor to Allied Chemical Corporation, a corporation of New York

No Drawing. Application December 7, 1955
Serial No. 551,503
13 Claims. (Cl. 260—249.6)

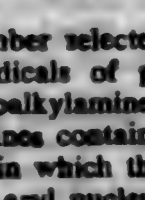
1. A chromophore-free unsymmetrically N,N'-disubstituted-3,7-diaminopolysulfo - dibenzothiophene - dioxide having the formula



wherein X represents a member selected from the group consisting of hydrogen and the sulfo radical, Y represents the sulfo radical, RCO— represents the acyl radical of an aromatic carboxylic acid selected from the group consisting of benzoic acid, naphthoic acid, and their methyl, methoxy, amino and chloro derivatives, and



and



each represents a member selected from the group consisting of —NH_2, radicals of primary and secondary alkylamines and cycloalkylamines, radicals of primary and secondary arylamines containing a maximum of two carbocyclic rings and in which the amino nitrogen is attached directly to the aryl nucleus, radicals of mononuclear aralkylamines, radicals of heterocyclic amines having a maximum of two heterocyclic rings, and radicals of mononuclear heterocyclic organic nitrogen bases.

2,845,424
PREPARATION OF MELAMINE

Franz Kaess and Erwin Rothlauf, Trostberg, Germany, assignors to Süddeutsche Kalkstickstoff-Werke A. G., Trostberg, Germany

No Drawing. Application October 17, 1955
Serial No. 541,687
2 Claims. (Cl. 260—249.7)

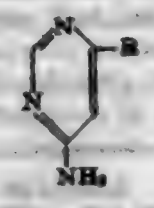
1. A method of preparing melamine from urea comprising mixing urea with 2.5 to 20 percent by weight, calculated on said urea, of a member of the group consisting of guanidine and guanidine carbonate, and heating said mixture in a closed system at a temperature of about 400 to 450° C. until the gas development has substantially terminated.

2,845,425
SUBSTITUTED AMINOPYRIMIDINES

Calvert W. Whitehead and John J. Traverso, Indianapolis, Ind., assignors to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application October 4, 1956
Serial No. 613,845
6 Claims. (Cl. 260—256.4)

1. A compound selected from the group consisting of a base and acid addition salts thereof, said base being represented by the formula



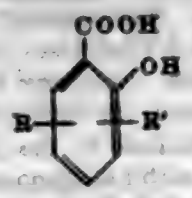
wherein R represents a member of the group consisting of alkylamino radicals having from 4 to 7 carbon atoms, and anilino, p-toluidino, m-toluidino, β-phenoxyethylamino, benzylamino, p-chlorophenylamino, γ-phenyl-n-propylamino, m-methylbenzylamino, phenethylamino, cyclohexylamino, phenylsulfonylamino, α-furfurylamino, N-piperidino and β-pyridylmethylamino radicals.

2,845,426
VITAMIN B_1 DERIVATIVES

Fritz Ziegler, Wuppertal-Elberfeld, Germany, assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application March 12, 1956
Serial No. 570,714
Claims priority, application Germany March 25, 1955
13 Claims. (Cl. 260—256.6)

1. A chemical compound comprising a member of the group consisting of thiamin salts of substituted hydroxybenzoic acids of the formulation:



wherein R is a member selected from the group consisting of the aliphatic and aromatic radicals isopropyl, isobutyl, isohexyl, isoheptyl, isooctyl, cyclohexyl, phenyl and phenylene; and R' is a member selected from the group consisting of hydrogen and methyl.

2,845,427
TERTIARY-AMINO-SUBSTITUTED 1,5-IMINOCYCLOALKANES AND PREPARATION THEREOF

Sydney Archer, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application January 24, 1955
Serial No. 483,808
19 Claims. (Cl. 260—292)

1. A compound selected from the group consisting of (*a*) N-[3-(N-substituted 1,5-imino-bridged cycloalkyl)]-N'-tertiary-amino-lower-alkylenediamines, wherein the cycloalkyl radical is a member of the group consisting of cycloheptane and cyclooctane, and the tertiary-amino group is a member of the group consisting of di-lower-alkylamino, 1-piperidyl, 1-pyrrolidyl, 4-morpholinyl, and monocarbocyclic aryl-lower-alkyl-amino radicals wherein monocarbocyclic aryl is selected from the group consisting of phenyl and phenyl substituted by from one to three substituents selected from the group consisting of lower-alkyl, lower-alkoxy and halogen radicals, (*b*) acid-addition salts thereof, and (*c*) quaternary ammonium salts thereof, said salts having anions which do not substantially increase the toxicity of the compound as a whole to animal organisms.

2,845,428
PROCESS FOR THE MANUFACTURE OF PYRIDINE CARBOXYLIC ACIDS

Walter Wettstein, Muenchenstein, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application June 14, 1956
Serial No. 591,270
Claims priority, application Switzerland June 16, 1955
9 Claims. (Cl. 260—295)

1. Process for the manufacture of a pyridine carboxylic

acid, which comprises passing a mixture of air and a homolog of pyridine over a vanadium pentoxide catalyst supported on silica gel and containing as non-volatile acidic activator a member selected from the group consisting of sulfuric acid, phosphoric acid and bisulfates of alkali-forming metals, at a temperature below 350° C.

2,845,429

PRODUCTION OF ACID CHLORIDES

Louis A. Carpino, Amherst, Mass., assignor to Research Corporation, New York, N. Y., a corporation of New York

No Drawing. Application August 1, 1956
Serial No. 601,361
6 Claims. (Cl. 260—295)

1. The method of making the acid chlorides of organic carboxylic acids which comprises subjecting a primary hydrazide of an organic carboxylic acid in an inert liquid medium to the action of elemental chlorine in the presence of hydrogen chloride.

2,845,430

CERTAIN 1-AMINO, 2-PYRIDONES AND PROCESS

Hans Erlenmeyer, Basel, Switzerland, assignor to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application June 28, 1957
Serial No. 667,830
Claims priority, application Switzerland July 10, 1956
14 Claims. (Cl. 260—296)

1. Process for the manufacture of 1-amino-pyridone-(2) compounds which comprises treating a member selected from the group consisting of an N-unsubstituted pyridone-(2) compound, the only reactive hydrogen atom of which is that attached to the nitrogen atom, and a metallic salt thereof, with halogenamine.

7. A member selected from the group consisting of 1-amino-pyridone-(2), the C-lower alkyl-1-amino-pyridones-(2) and salts thereof.

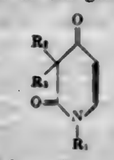
2,845,431

ALKYL-PIPERIDIONES AND PROCESS FOR THE MANUFACTURE THEREOF

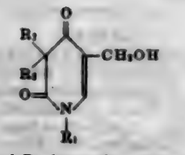
August Hans Lutz and Otto Schnider, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Continuation of application Serial No. 349,564, April 17, 1953. This application October 23, 1956, Serial No. 617,705
Claims priority, application Switzerland April 22, 1952
8 Claims. (Cl. 260—297)

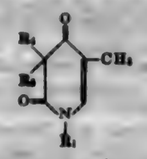
1. A process which comprises reacting below 70° C. a tetrahydropyridone of the general formula



wherein R_1 is selected from the group consisting of hydrogen and methyl and R_2 and R_3 are selected from the group consisting of lower alkyl and lower alkenyl radicals, with formaldehyde in an aqueous solution containing a neutral salt of sulfurous acid, and subjecting the reaction product of the general formula



wherein R_1, R_2 and R_3 have the same meaning as above, to reaction with elemental hydrogen in the presence of a hydrogenation catalyst until sufficient hydrogen has been taken up to produce a compound of the general formula



wherein R_1 has the same meaning as above, and R_4 and R_5 each represents a lower alkyl radical.

8. 2,4-dioxo-3,3-diethyl-5-methyl-tetrahydropyridine.

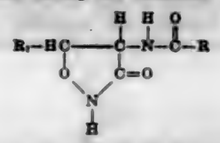
2,845,432

BENZAMIDO AND ACETAMIDO 4-AMINO-3-ISOXAZOLIDONES AND ALKYLATED DERIVATIVES

Frederick A. Kuehl, Jr., Rumson, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 23, 1954
Serial No. 477,399
4 Claims. (Cl. 260—307)

1. A compound having the formula:



wherein R is a member from the group consisting of phenyl and methyl and R_1 is a member from the group consisting of hydrogen and lower alkyl.

2,845,433

EXTRACTION OF 4-AMINO-3-ISOXAZOLIDONE

Eugene E. Howe, Bound Brook, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application February 4, 1955
Serial No. 486,276
4 Claims. (Cl. 260—307)

1. A process which comprises intimately contacting an aqueous solution of an alkali metal salt of D-4-amino-3-isoxazolidone, said solution having a pH of about 8 to 12 and containing D-4-amino-3-isoxazolidone in a concentration in excess of about 15,000 units/ml., with at least five volumes of an alcohol from the group consisting of ethanol and isopropanol, separating the alcoholic extract, acidifying said alcoholic extract to a pH of about 5.5 to 6.0 with acetic acid, and recovering crystalline D-4-amino-3-isoxazolidone from the resulting acidified alcoholic extract.

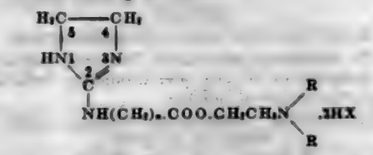
2,845,434

DIALKYLAMINOETHYL ESTER SALTS OF CYCLIC GUANIDINO ACIDS AND THEIR PREPARATION

Gordon A. Grant, Mount Royal, Quebec, and Stanley O. Winthrop, Montreal, Quebec, Canada, assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 27, 1956
Serial No. 624,497
16 Claims. (Cl. 260—309.6)

1. A di-lower alkylaminoethyl ester salt of a cyclic guanidino acid having the formula:



where n is an integer from 1 to 5 inclusive, R is lower alkyl, and HX represents a hydrogen halide.

2,845,435

PYRRYL SILICON COMPOUNDS AND THEIR PREPARATION

Kurt C. Frisch, Abington, Pa., and Roland M. Kary, Metuchen, N. J., assignors to E. F. Houghton and Company, Philadelphia, Pa., a corporation of Pennsylvania, and American Smelting and Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 11, 1955
Serial No. 539,940
9 Claims. (Cl. 260—313)

1. A 2-pyrryl silicon compound having the structure

$$A_nSiB_{(4-n)}$$

in which Si represents silicon, A represents a pyrryl group, and each B is a substituent selected from the group consisting of alkyl, aryl and halogen radicals, and n is an integer from 1 to 3.

6. A method of preparing a 2-pyrryl silicon compound which comprises reacting an anhydrous material selected from the group consisting of an N-pyrrylmagnesium bromide and an N-lithium pyrrole with an anhydrous methylpolychlorosilane in an anhydrous inert medium under reflux conditions and temperatures, separating a 2-pyrrylmethylchlorosilane from said inert medium, hydrolyzing and polymerizing said pyrrylchlorosilane in the presence of water, and separating the polymerized product from said water to form therefrom a siloxane.

2,845,436

AMINO-2,3-DIPHENYLINDOLES

Louis E. Craig, Pryor, Okla., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 21, 1956
Serial No. 592,710
2 Claims. (Cl. 260—319)

1. 6-amino-2,3-diphenylindole.
2. 5-amino-2,3-diphenylindole.

2,845,437

ACYLAMIDO-DIPHENYLINDOLES

Louis E. Craig, Pryor, Okla., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 21, 1956
Serial No. 592,747
1 Claim. (Cl. 260—319)

6-acetamido-2,3-diphenylindole.

2,845,438

ESTERS OF GLYCOLS AND SULFURIZED FATTY ACIDS

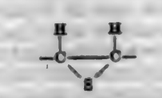
Frederick E. Dearborn, Washington, D. C.

No Drawing. Continuation of application Serial No. 233,677, June 26, 1951. This application October 13, 1955, Serial No. 540,358
7 Claims. (Cl. 260—327)
(Granted under Title 35, U. S. Code (1952), sec. 266)

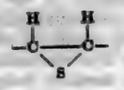
1. A process for preparing a glycol ester of the formula

XO—R—OY

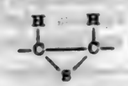
wherein R is a radical selected from the group consisting of C_2H_4, $CH_2OC_2H_4$, $CH(CH_3)CH_3$, respectively, wherein X is the acyl radical of a sulfurized long chain fatty acid containing from one to three sulfurized double bonds of the formula



and wherein Y is selected from the group consisting of hydrogen, the acyl radical of a saturated long chain fatty acid, and the acyl radical of a sulfurized long chain fatty acid containing from one to three sulfurized double bonds of the formula



comprising heating a glycol selected from the group consisting of ethylene glycol, diethylene glycol, and propylene glycol with an amount of a sulfurized long chain fatty acid, containing from one to three sulfurized double bonds of the formula



in the molecule, sufficient to esterify only one hydroxyl group of the glycol, at a temperature of about from 110° C. to 150° C. thereby to produce a glycol mono-ester of the formula

XO—R—OY

wherein R and X have the same value as above and Y is hydrogen, and heating the said mono-ester with an amount of an acid, selected from the group consisting of a saturated long chain fatty acid and a sulfurized long chain fatty acid having from one to three sulfurized double bonds of the formula

in its molecule, sufficient to esterify the remaining hydroxyl group of the said mono-ester, at a temperature of about from 110° C. to 150° C. thereby to produce a diester of the glycol having the formula

XO—R—OY

wherein R and X have the same value as above and Y is selected from the group consisting of the acyl radical of the saturated long chain acid and the acyl radical of the sulfurized long chain fatty acid reacted with the mono-ester.

2,845,439

PREPARATION OF URONIC ACIDS AND DERIVATIVES THEREOF

Robert A. Reiners, Chicago, Ill., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application August 19, 1949
Serial No. 111,340
22 Claims. (Cl. 260—340.9)

2. The method of preparing uronic acids, which comprises oxidizing in aqueous solution, an aldoside in which the primary alcohol group is free and in which the aldehyde function is protected by an acetal linkage, with an oxygen containing gas, in the presence of an oxidation catalyst from the group consisting of platinum, palladium, and mixtures thereof, at a temperature of from about room temperature to a temperature not exceeding the decomposition temperature of the aldoside derivative or the resulting uronic acid derivative, hydrolyzing the resultant uronic acid derivative and removing uronic acid from the reaction mixture, the pH of said solution

being maintained within the range of about 4 to 11 during the oxidation.

8. The method of preparing uronosides, which comprises oxidizing glycosides in an aqueous medium by means of an oxygen containing gas in the presence of a catalyst from the group consisting of platinum, palladium, and mixtures thereof, and recovering the uronoside; the pH of said aqueous medium being maintained within the range of about 4 to 11 during the oxidation.

20. A method for the preparation of 1,2-isopropylidene glucuronic acid comprising oxidizing an aqueous solution of 1,2-isopropylidene glucose by means of an oxygen containing gas in the presence of a catalyst selected from the group consisting of platinum and palladium, the pH of said aqueous solution being maintained within the range of 4 and above throughout the reaction.

2,845,440

PROCESS AND INTERMEDIATES FOR THE PREPARATION OF CAROTENOIDS

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, Gabriel Saucy, Neuewelt-Muenchenstein, and Paul Zeller, Neuallschwil, near Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 22, 1956
Serial No. 593,838
Claims priority, application Switzerland July 6, 1955
5 Claims. (Cl. 260—340.9)

3. 2,6,6-trimethyl-4-ethylenedioxy-2-cyclohexen-1-one.

5. 2,6,6-trimethyl-4-ethylenedioxy-1-cyclohexanone.

2,845,441

PROCESSES FOR PRODUCTION OF FURFURAL

Erwin Emerson Morse, Gorham, and Walter L. Hearn, Berlin, N. H., assignors to Brown Company, Berlin, N. H.

Application November 16, 1955, Serial No. 547,263
5 Claims. (Cl. 260—347.9)

1. The process of producing furfural from acidic hardwood waste liquor which comprises establishing and maintaining a hydrolysis-reaction zone, conducting said liquor to said zone, maintaining the liquor in said zone at a temperature between about 347° F. and 420° F. for a period between about 10 and 40 minutes at an operating pressure lying between substantially 114 and 295 p. s. i. g., removing effluent gas and spent liquor from said zone at predetermined areas thereof which are remote from each other, and thereafter separating the product furfural from the effluent gas.

2,845,442

PRODUCTION OF 1,2-EPOXYCYCLO-OCTANE USING IN SITU PERFORMIC ACID

Heinz Pachaly and Otto Schlichting, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application December 21, 1955
Serial No. 554,398
Claims priority, application Germany January 8, 1955
1 Claim. (Cl. 260—348.5)

An improved process for the production of 1,2-epoxy-cyclo-octane which comprises adding from about 0.3 to 2 mols of formic acid at about 15° to 60° C. to a mixture of one mol of cyclo-octene and about 1.05 to 2 mols of aqueous hydrogen peroxide, separating the layers, washing the upper layer with water and caustic alkali solution and fractionally distillating the remaining layer.

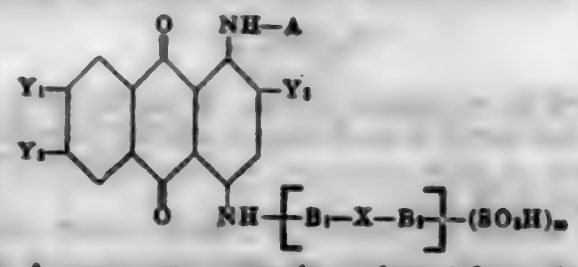
2,845,443

ACID ANTHRAQUINONE DYESTUFFS

Peter Hindermann, Bottmingen, Basel, and Hans-Peter Kölliker and Peter Trautel, Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland

No Drawing. Application December 23, 1955
Serial No. 554,934
Claims priority, application Switzerland December 31, 1954
7 Claims. (Cl. 260—373)

1. An acid dyestuff of the anthraquinone series having the general formula:



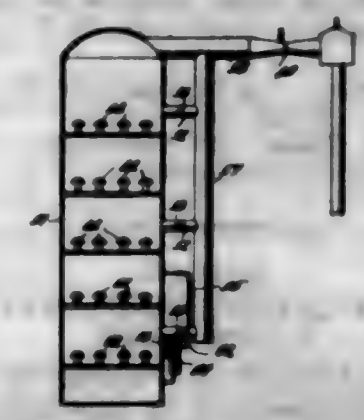
wherein A represents a member selected from the group consisting of cyclohexyl, lower alkyl-substituted cyclohexyl, cyclohexyl-substituted cyclohexyl and decahydronaphthyl radicals, B_1 represents a member selected from the group consisting of mononuclear and unfused binuclear carbocyclic radicals, the carbocyclic rings being six-membered, B_2 represents a member selected from the group consisting of mononuclear carbocyclic radicals containing six members in the ring, and naphthyl, X represents a member selected from the group consisting of O and S, Y_1, Y_2 and Y_3 each represents a member selected from the group consisting of hydrogen, chlorine, bromine and fluorine and, *m* is a numeral not greater than 2.

2,845,444

APPARATUS AND METHOD FOR STEAM DEODORIZING OF FATS AND OILS

Procter Thomson, Cincinnati, Ohio, assignor to The Procter & Gamble Company, Ivorydale, Cincinnati, Ohio, a corporation of Ohio

Application August 18, 1953, Serial No. 375,029
3 Claims. (Cl. 260—428)



1. In a continuous process of deodorizing glyceride oils and fats, the steps which comprise continuously introducing oil to be deodorized into the upper part of a generally upright stripping column having liquid and vapor contact means therein, passing stripping steam into the lower part of said column, maintaining said column under vacuum by withdrawing vapors from the upper part thereof, whereby the absolute pressure within the column decreases substantially from the lower part to the upper part of said column, withdrawing deodorized oil from the lower part of said column, and withdrawing from said column at each of a plurality of vertically spaced points a quantity of steam not less than that required to ensure substantially equal kinetic energy per cubic foot of stripping steam and not more than that required to ensure substantially equal velocity of stripping steam throughout the column.

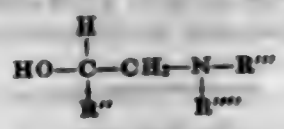
2,845,445

AMINOALKYL ACYL TITANATE

Charles A. Russell, Fair Haven, N. J., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 16, 1955
Serial No. 508,776
9 Claims. (Cl. 260—429.5)

8. Method for preparation of an aminoalkyl acyl covalently bonded titanate composition which comprises admixing 1 mole of alkoxy titanium acylate and 1 to 3 moles of a β-aminoalcohol, said alkoxy titanium acylate having the general formula $(RO)_{4-n}Ti(OCOR')_n$ where n is from 0.2 to 2, where R is a lower alkyl and R' is an aliphatic hydrocarbon containing from 2 to 18 carbon atoms, said hydrocarbon selected from the group consisting of saturated and unsaturated groupings, said β-aminoalcohol having the general formula



where R'' is a grouping selected from the group consisting of hydrogen and an aliphatic hydrocarbon grouping containing from 1 to 5 carbon atoms, R''' and R'''' is a grouping selected from the group consisting of hydrogen, lower alkyl, an aminoalkyl grouping containing from 2 to 9 carbon atoms and a hydroxyalkyl grouping containing from 2 to 5 carbon atoms, said composition having quadrivalent titanium covalently bonded with 4 moles of organic groupings selected from the group consisiting of β-aminoalkoxy, acyloxy and alkoxy, said β-aminoalkoxy grouping being present in an amount from 1 to 3 moles for each mole of titanium, said acyloxy grouping being present in amount from 0.2 to 2.0 moles for each mole of titanium, said alkoxy grouping being a saturated lower aliphatic hydrocarbon, said composition being stable and soluble in non-polar organic solvents but insoluble in aqueous media.

2,845,446

COMPOSITION OF MATTER

Edward C. Seale, deceased, late of Niagara Falls, N. Y., by Eleanore Benner Seale, executrix, Niagara Falls, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application October 20, 1953
Serial No. 387,327
1 Claim. (Cl. 260—438)

A method of preparing a copper sulfate-dihydrazine oxalate complex which consists in reacting an aqueous solution of copper sulfate cooled below 20° C. by mixing with an aqueous solution of dihydrazine oxalate cooled below 20° C., and then separating the resulting precipitate from the aqueous reaction mixture.

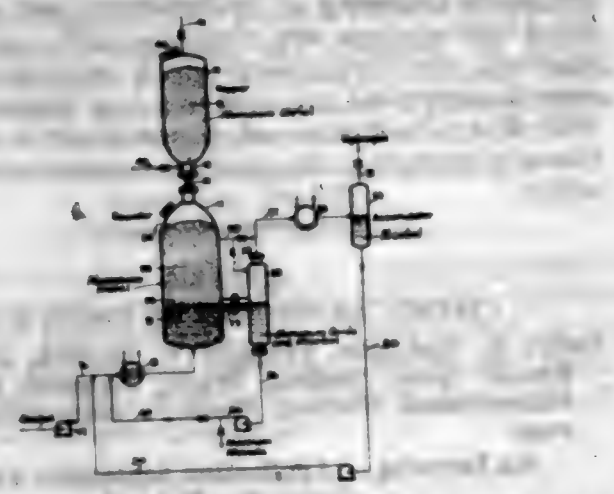
2,845,447

PRODUCTION OF ALUMINUM ALCOHOLATES

George J. Carlson, Berkeley, and George W. Geertner, Oakland, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application April 8, 1954, Serial No. 421,918
8 Claims. (Cl. 260—448)

1. The continuous process for the production of aluminum alcoholates which comprises, introducing a continuous stream of secondary aliphatic alcohol having 3 to 9 carbon atoms per molecule into the lower part of a fixed bed of pieces of aluminum metal maintained at about 80° to about 250° C. and under a pressure sufficient to maintain a pool of alcohol in the liquid phase in the lower part only of said bed of aluminum, thereby reacting said secondary alcohol with aluminum with formation of reaction products comprising aluminum alcoholate and hydrogen in said pool of alcohol in the absence of any added catalyst, continuously withdrawing liquid comprising said aluminum alcoholate and unconverted alcohol from said pool of liquid, adding aluminum metal at the top of the bed at a controlled rate to replace the aluminum reacted substantially as rapidly as it is consumed, and controlling the rate of introduction of alcohol and of said aluminum into said bed and the rate of withdrawal of said aluminum alcoholate-containing liquid to maintain the liquid level of said pool of liquid at all times in the lower part of the bed so the portion of the bed of aluminum thereabove functions as an activating zone and the process can proceed without added catalyst due to the aluminum in the upper part of the bed being conditioned by the presence of the liquid in the reaction zone in the lower part of the bed.



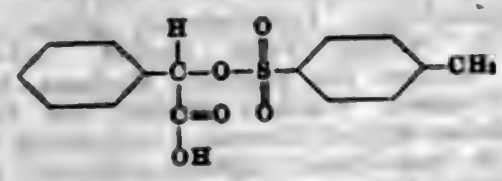
2,845,448

AROMATIC SULFONIC ACID ESTERS OF MANDELIC ACID FOR INHIBITION OF ENZYMES

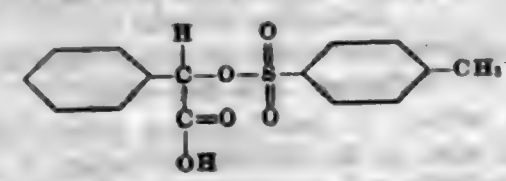
Richard G. Taylor, Olathe, Kans., assignor to The R. G. Taylor Company, Inc., Kansas City, Mo., a corporation of Kansas

No Drawing. Application October 26, 1954
Serial No. 464,897
13 Claims. (Cl. 260—456)

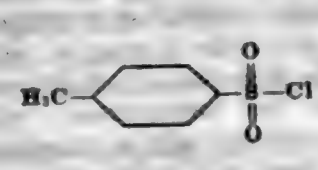
1. An enzyme inhibitor having the formula:



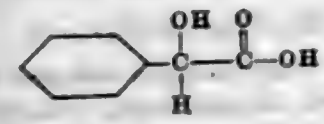
6. The method of preparing



which comprises dissolving a quantity of



in an alkaline medium to produce a solution; subsequently admixing said solution and at least a stoichiometric proportion of



and maintaining the admixture at an alkaline pH until the reaction has gone to completion.

2,845,449

THIOAMIDE PRODUCTION

William G. Toland, San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application July 11, 1956, Serial No. 597,274
8 Claims. (Cl. 260—465)

1. In a process for reacting a compound selected from the group consisting of hydrocarbons and partially oxidized hydrocarbons with elemental sulfur and anhydrous ammonia, the improvement which comprises heating the organic compound and ammonia to a temperature above 400° F. in the absence of elemental sulfur and then intimately contacting the heated materials with elemental sulfur.

2,845,450

CHEMICAL PRODUCTS FROM BARK

James K. Anderson, Franklin W. Herrick, and Kenneth Russell Gray, Shelton, Wash., assignors to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

No Drawing. Application September 13, 1955
Serial No. 534,146
4 Claims. (Cl. 260—473.5)

1. A water-insoluble phenolic ester product derived from tree bark by reacting substantially dry bark with a heated monohydric alcohol having from 1 to 4 carbon atoms in the presence of an acid catalyst resulting in an alcoholysis of a portion of the bark, and separating the product from the bark residue in solution in the alcohol.

2. The process of forming a water-insoluble phenolic ester product from tree bark which comprises reacting the bark in a substantially dry state with a monohydric alcohol having from 1 to 4 carbon atoms at an elevated temperature and in the presence of an acid catalyst to form said product by acid alcoholysis, and dissolving said product in the alcohol.

2,845,451

PRODUCTION OF ACRYLIC ACID AND ITS FUNCTIONAL DERIVATIVES

Hans Lautenschlager, Ludwigshafen (Rhine), Herbert Friederich, Worms, Erich Henkel, Ludwigshafen (Rhine), Nikolaus von Kutepow, Karlsruhe-Rueppurr, Walter Himmele, Walldorf (Baden), and Paul Raff, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application June 22, 1956
Serial No. 593,053
Claims priority, application Germany June 23, 1955
7 Claims. (Cl. 260—486)

1. In a method of manufacturing acrylic acid or its lower alkyl esters by the catalytic interaction of acetylene, carbon monoxide and a compound having a removable hydrogen atom, selected of the group consisting of water and a lower aliphatic alcohol at a temperature between 100 and 250° C. and under a pressure of from 5 to 100 atmospheres, in the presence of a halide-containing complex-nickel-catalyst the improvement which comprises carrying out said reaction with a complex-nickel-catalyst which is formed from nickel bromide and at least one hydrocarbon complex-forming compound containg 2 elements selected from the group consisting of oxygen, nitrogen and sulfur having the formula

$$X—CH_2—(CH_2)_n—Y$$

in which X and Y are radicals selected from the group consisting of lower alkoxy, lower alkanoyl, lower alkyl mercapto, di-lower alkyl amino and benzoyl and n represents a number selected from the group consisting of zero, one and two.

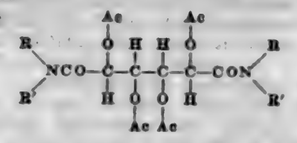
2,845,452

TETRA-ACETYL MUCIC ACID AMIDES

Charles J. Morel, Arlesheim, Basel Land, Switzerland, assignor to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application April 9, 1956
Serial No. 576,827
Claims priority, application Switzerland April 27, 1955
3 Claims. (Cl. 260—490)

1. A tetra-acetyl mucic acid diamide corresponding to the formula:



wherein R represents a lower alkyl radical, R' represents a lower alkyl radical, and Ac represents the acetyl radical $CH_3—CO—$.

2,845,453

OXIDATION OF ETHYLENE BISDITHIOCARBAMATES

Lester A. Brooks, Norwalk, Conn., assignor to R. T. Vanderbilt Company, Inc., New York, N. Y., a corporation of New York

No Drawing. Application October 27, 1953
Serial No. 388,661
2 Claims. (Cl. 260—500)

1. A composition of matter suitable for use as a fungicide, said composition being prepared by oxidizing in aqueous solution a water-soluble salt of ethylene bisdithiocarbamic acid with a water-soluble persulphate selected from the group consisting of ammonium and alkali metal persulphates at a temperature below about 75° C. until precipitation of said composition occurs.

2,845,454

PREPARATION OF PHOSPHINIC ACID DERIVATIVES

Sheldon A. Buckler, Stamford, and Vernon P. Wystrach, Darien, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 27, 1957
Serial No. 668,289
11 Claims. (Cl. 260—500)

1. A process which comprises: reacting under anhydrous conditions an α-ketoalkanoic acid of from 3 to 7 carbon atoms with sufficient phosphine in the presence of an acid catalyst to form the corresponding phosphine adduct of the acid; oxidizing the thus-formed adduct, and recovering the resultant bis(1-alkyl-1-carboxy-1-hydroxymethyl)phosphinic acid from the mixture.

2,845,455

PROCESS OF SULFONATION

Lee V. Brown, Chicago, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application October 5, 1956, Serial No. 614,232
2 Claims. (Cl. 260—504)

1. A method for the production of mahogany sulfonic acid products which comprises treating petroleum hydrocarbon stock boiling in the range of about 600° to 1000° F. with about 2 to 8 weight percent of about 15 to 25 percent oleum at a temperature of about 90° to 120° F. to form a viscous acid sludge, separating and removing the viscous acid sludge from the oil phase, diluting the separated oil phase with kerosene, contacting the diluted oil phase with a sufficient amount of a gaseous mixture of SO_3 and SO_2 having an SO_3 concentration of about 3 to 20 mole percent to maintain a reaction temperature of about 140° to 190° F. to effect further sulfonation of the oil phase, separating unreacted SO_3, SO_2 and kerosene vapors and separating and removing the acid sludge from the acid oil.

2,845,456

PREPARATION OF PANTOTHENIC ACID SALTS

Fred Kagan, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application December 17, 1954
Serial No. 476,079
10 Claims. (Cl. 260—534)

1. A process which comprises the steps of reacting a reagent selected from the group consisting of alkali metals, alkaline earth metals, alkali-metal hydrides, alkali-metal alkoxides, and alkaline-earth alkoxides with an excess of a liquid aliphatic hydroxy compound selected from the group consisting of aliphatic polyhydroxy compounds containing less than seven carbon atoms and from two to three hydroxy radicals, and monoethers thereof containing less than twelve carbon atoms and from one to two hydroxy radicals, characterized in that when an alkali metal, alkaline earth metal, and alkali-metal hydride is utilized that at least one of the hydroxy radicals of the aliphatic polyhydroxy compound and monoethers thereof is part of a primary alcohol group, and is further characterized in that when an alkoxide is utilized that the alkanol produced by the reaction is concomitantly removed by distillation, reacting the thus-produced compound in the presence of the remaining unreacted aliphatic hydroxy compound with β-alanine at a temperature between about 20 and about 100 degrees centigrade to produce a salt of β-alanine, and reacting thereafter the resulting salt of β-alanine with α-hydroxy-β,β-dimethyl-γ-butyrolactone in the presence of the remaining unreacted aliphatic hydroxy compound at a temperature between about 20 and about 80 degrees centigrade to produce a salt of pantothenic acid.

2,845,457

PROCESS FOR THE MANUFACTURE OF TETRASODIUM ETHYLENEDIAMINE TETRAACETATE

Harry Kroll, Warwick, and Martin Dexter, Cranston, R. I., assignors to Geigy Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application November 3, 1955
Serial No. 544,811
9 Claims. (Cl. 260—534)

1. A method for carboxymethylation of amines which comprises gradually adding an aqueous mineral acid-inhibited substantially equimolar mixture of hydrogen cyanide and formaldehyde to an aqueous solution of an alkaline hydroxide and an amine having at least one replaceable hydrogen atom attached directly to each amino nitrogen, said solution being maintained during said addition at a reaction temperature in the range of about 95–110° C. whereby carboxymethylation of the amine to the corresponding acetate salt takes place with the simultaneous liberation of ammonia.

2,845,458

C-CHLORO-N,N,N'-TRIMETHYLFORMAMIDINE HYDROCHLORIDE

Hans Z. Lecher, Plainfield, and Elizabeth M. Hardy, Bound Brook, N. J., and Clement L. Kozloski, North Easton, Mass., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 21, 1956
Serial No. 585,939
3 Claims. (Cl. 260—564)

1. A process for the preparation of C-chloro-N,N,N'-trimethylformamidine hydrochloride which consists in: adding an S-alkyl-N,N,N'-trimethylisothiourea to an agitated solution of chlorine in carbon tetrachloride at a temperature below 50° C., and then recovering C-chloro-N,N,N'-trimethylformamidine hydrochloride.

2,845,459

PREPARATION OF PENTAALKYLGUANIDINES

Hans Z. Lecher, Plainfield, and Elizabeth M. Hardy, Bound Brook, N. J., and Clement L. Kozloski, North Easton, Mass., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 21, 1956
Serial No. 585,972
17 Claims. (Cl. 260—564)

1. A process for preparing a pentaalkylguanidine which comprises: reacting C-chloro-N,N,N'-trimethylformamidine hydrochloride with a dialkylamine in an inert anhydrous diluent, converting thus-formed pentaalkylguanidine hydrochloride to the free base, and recovering said pentaalkylguanidine.

2,845,460

2,6,6-TRIMETHYL-CYCLOHEXAN-1-ONE-4-OL AND PREPARATION THEREOF

Otto Isler, Marc Montavon, and Rudolf Ruegg, Basel, Gabriel Saucy, Munchenstein, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application October 3, 1956
Serial No. 613,599
Claims priority, application Switzerland October 11, 1955
2 Claims. (Cl. 260—586)

1. 2,6,6-trimethyl-cyclohexan-1-one-4-ol.

2,845,461

NON-CATALYTIC LIQUID PHASE ISOBUTANE OXIDATION

De Loss E. Winkler, Orinda, and George W. Hearne, Lafayette, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application April 12, 1956
Serial No. 577,668
12 Claims. (Cl. 260—610)

1. The non-catalytic, liquid phase process for the production of reaction products consisting predominantly of tertiary-butyl hydroperoxide and tertiary-butyl alcohol which comprises reacting isobutane with molecular oxygen in the liquid phase at a temperature above about 100° C. but not substantially above about 150° C. and a pressure above about 400 p. s. i. g. in a metal ion-free reaction medium.

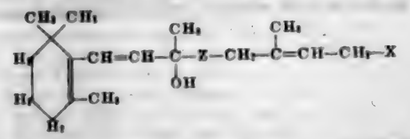
2,845,462

SYNTHESIS OF COMPOUNDS HAVING VITAMIN A ACTIVITY

William Oroshnik, Plainfield, N. J., assignor to Ortho Pharmaceutical Corporation, a corporation of New Jersey

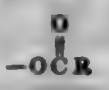
No Drawing. Application March 20, 1953
Serial No. 343,783
5 Claims. (Cl. 260—611)

1. A compound of the formula



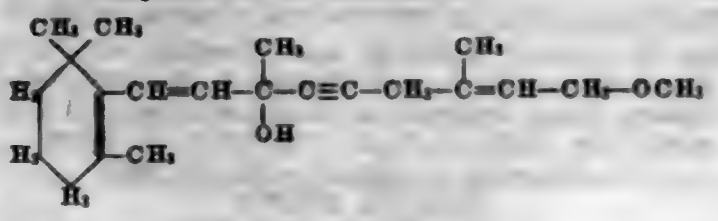
in which Z is selected from the group consisting of

CH=CH and C≡C and in which X is selected from the group consisting of —OR and

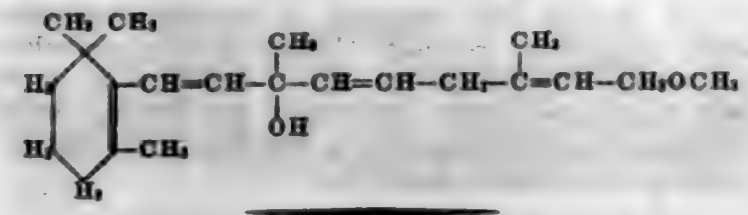


and R is a lower alkyl radical.

3. A compound of the formula



5. A compound of the formula



2,845,463

PRODUCTION OF ALCOHOLS AND ETHERS

Bernard S. Friedman, Chicago, and Fred L. Morritz, Park Forest, Ill., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 10, 1955
Serial No. 514,708
4 Claims. (Cl. 260—614)

1. In the hydration with water of a monoolefin containing from 2 to 4 carbon atoms to alcohols, ethers, and polymer by contacting the monoolefin with a fixed bed of an acidic organic ion exchange resin, the step of passing the monoolefin through a bed of an inorganic hydration catalyst at a temperature above about 200° F. but below that at which substantial polymerization of the monoolefin takes place, and then passing the monoolefin into the bed of acidic organic ion exchange resin.

2,845,464

PURIFICATION OF BIS(HYDROXYARYL)-SUBSTITUTED COMPOUNDS

Daniel B. Luten, Jr., Berkeley, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 15, 1954
Serial No. 468,987
7 Claims. (Cl. 260—619)

1. The process for purifying crude 2,2-di(4-hydroxyphenyl)propane containing impurities of resinous character which comprises leaching said 2,2-di(4-hydroxyphenyl)propane while in the solid state with liquid paraffinic hydrocarbon solvent consisting essentially of paraffin hydrocarbons having from 5 to 10 carbon atoms to the molecule at a temperature in the range of from about 50° C. to about 140° C.

2,845,465

PREPARATION OF OXO ALCOHOLS USING ZINC ACETYLACETONATE AS PROMOTER

Neville L. Cull, Baker, and Clyde L. Aldridge and Joseph K. Mertzweiller, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 10, 1954
Serial No. 415,428
5 Claims. (Cl. 260—635)

1. In the process wherein olefinic compounds having *n* carbon atoms in the molecule are contacted at elevated temperatures and pressures in a reaction zone with CO, H_2 and a cobalt carbonylation catalyst to form an aldehyde product, and said aldehyde product hydrogenated to an alcohol product and a metal comprising promoter adapted to promote the formation of a final alcohol product having $2n+2$ carbon atoms is added to said reaction zone, the improvement which comprises adding said promoter to said reaction zone as zinc acetyl acetonate.

2,845,466

PREPARATION OF 2,2'-BITOLYL

Benjamin Percherer, Montclair, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application May 13, 1955
Serial No. 508,383
4 Claims. (Cl. 260—668)

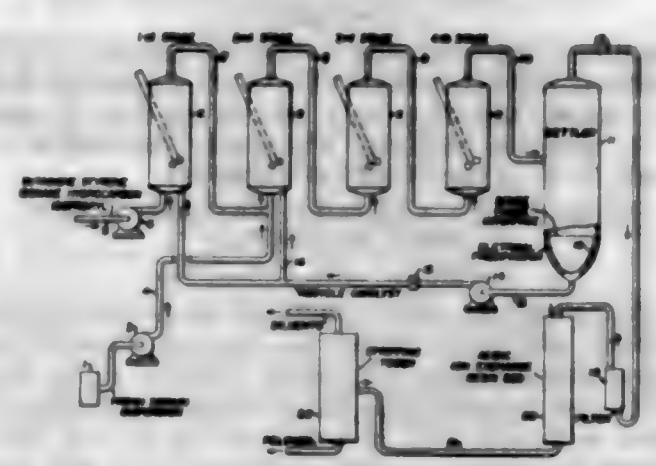
1. A process of making 2,2'-bitolyl which comprises reducing m-tolidine tetrazonium hydroxide in aqueous alkaline solution with a lower alkanol having not more than two carbon atoms.

2,845,467

PROCESS FOR TREATING POLYMERS PRODUCED BY ALKALI-METAL CATALYZED POLYMERIZATIONS WITH ACIDIC CATIONIC EXCHANGE RESINS

Joseph Kern Mertzweiller, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application December 21, 1954, Serial No. 476,802
9 Claims. (Cl. 260—669)



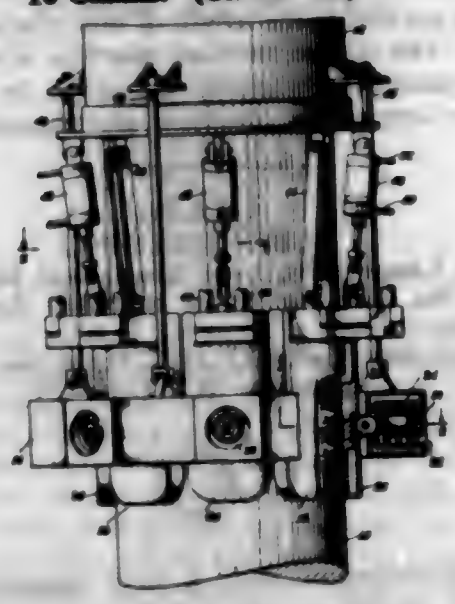
6. In a process for the treatment of a liquid copolymer produced by solution polymerization of 1,3-butadiene and styrene in the presence of an alkali metal catalyst and in which a resulting copolymer solution is obtained which contains alkali metal and organo-alkali metal compounds as impurities, the improvement which comprises treating the resulting liquid polymer solution to separate the alkali metal and then contacting the resulting alkali metal-free solution with an acidic cationic exchange resin to effect exchange of the alkali metal in the organo-alkali metal compound with the hydrogen in the resin.

ELECTRICAL

2,845,468
ELECTRODE HOLDERS FOR ELECTRIC SMELTING FURNACES AND METHOD OF OPERATING THE SAME

Nils Johan Haavik, Oslo, Norway, assignor to Elektrokemisk A/S., Oslo, Norway, a corporation of Norway

Application April 3, 1957, Serial No. 650,461
Claims priority, application Norway April 11, 1956
10 Claims. (Cl. 13—16)

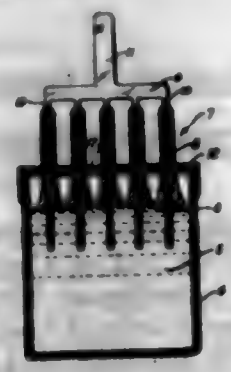


1. The method of lowering an electrode for an electric furnace which electrode is suspended by a plurality of pressure elements, which comprises raising a part of such elements relative to the electrode, which part is a small enough proportion of all the elements so that the electrode is not thereby raised, then raising another part of such elements which is also a small enough proportion of all the elements so that the electrode is not thereby raised, continuing such separate raising of elements until the proportion of elements that remains unraised is insufficient to support the electrode, and then simultaneously releasing the raised elements to permit them to sink to their original position whereby the electrode is permitted to slide down through the unraised pressure elements without the necessity of releasing the pressure on the pressure elements.

2,845,469
STORAGE BATTERY PLATES AND A METHOD OF MAKING THE SAME

Ernest George Tiegel, Belmont, Calif.

Application August 25, 1953, Serial No. 376,317
4 Claims. (Cl. 136—19)

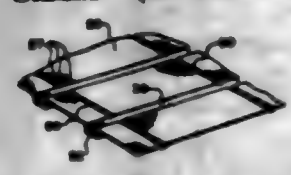


3. A portable battery plate group comprising a series of substantially uniformly spaced plates having registering lugs projecting from the upper edges thereof, with a strap connecting the upper ends of the lugs and maintaining said plates in said spaced relation, the plates having layers of inherently porous, insulating separator compounds of uniform thickness adhesively applied to both faces and the edges thereof, the thickness of the compound being in the order of one-sixteenth of an inch and the spacing between adjacent plates being considerably in excess of the combined thicknesses of the two layers of separator compound on such adjacent plates so that the spacing between adjacent layers of compound will admit the entry of a plate of a second group therebetween, and the compound being non-soluble in electrolyte.

2,845,470
STORAGE BATTERY

Lloyd E. Haskell, El Centro, and Clifford W. Mell, Los Angeles, Calif.

Application November 26, 1954, Serial No. 471,315
7 Claims. (Cl. 136—45)

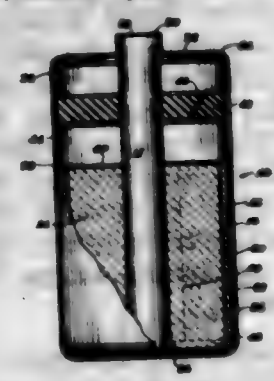


1. An electrode for alkaline type electric batteries comprising a pair of generally rectangular and flat unitary walls of relatively thin metal minutely perforated throughout their entire area, each wall being formed with a series of linear offsets providing ribs on the convex side and channels on the concave side, said offsets being parallel to each other and extending transversely of the wall, said walls being positioned with their edges coincident, the ribs on one wall coinciding in size and position wth ribs on the other wall and being in mutual contact and secured together to hold the walls with portions thereof between the offsets in spaced apart substantially parallel relationship and the offsets providing barriers dividing the space between said walls into a plurality of pockets separated by said barriers for receiving an active electrolytic material, the channels being external of the assembled walls and adapted for occupancy and movement of electrolyte liquid.

2,845,471
PRIMARY CELL

Charles W. Gleaner, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application August 8, 1955, Serial No. 526,848
4 Claims. (Cl. 136—101)



1. A primary cell comprising a steel cup of tubular cross sectional configuration and which is a terminal electrode of said cell, the side wall of said cup being substantially perpendicular to the bottom of said cup, a hollow, cylindrically shaped open ended magnesium anode disposed within and in close fitting relationship with the side wall of said cup, the lower edge of said anode being disposed at least near to the bottom of said cup, a layer of oleaginous material disposed between and adhering to the wall of said cup and said anode, a welded connection between said anode and the wall of said cup, a carbon cathode electrode disposed in said cup with one end

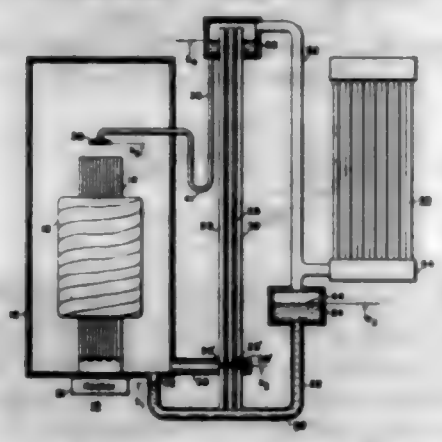
projecting beyond the cup, the cathode electrode being insulated from the bottom of the cup, and a cathode depolarizing mixture comprising manganese dioxide and carbon black moistened with an aqueous electrolyte, the mixture being interposed between the cathode electrode and the anode.

2,845,472

TRANSFORMER COOLING APPARATUS

Paul Narbutovskih, now by change of name Paul Narbut, Sharpsville, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 28, 1953, Serial No. 377,049
8 Claims. (Cl. 174—15)



1. In a transformer provided with a liquid coolant, the combination comprising, a sealed case having a member to be cooled disposed therein, means for applying the liquid coolant over the member to be cooled whereby cooling of said member is effected mainly by the vaporization of the applied liquid coolant, the liquid coolant comprising a fluorinated organic liquid coolant boiling at a temperature of between 50° C. and 225° C., means for confining a volume of the liquid coolant, one end of the volume of the liquid coolant being subjected to the vapor pressure of the vaporized liquid coolant within the sealed case, a separator, the separator being connected in communication with the means for applying the liquid coolant over the member to be cooled, a cooling device, the cooling device being connected in communication with the separator and with the means for confining a volume of the liquid coolant, whereby the other end of the volume of the liquid coolant is subjected to a lesser pressure within the cooling device, a tubular member having an orifice therein, one end of the tubular member being disposed in communication with the volume of the liquid coolant so as to obtain liquid coolant, the other end of the tubular member being disposed in communication with the separator, and the orifice in the tubular member being in communication with the vaporized liquid coolant within the sealed case, whereby the vaporized liquid coolant passes through the orifice to thereby effect an upward flow of the liquid coolant through the tubular member, and means for initially effecting the application of the liquid coolant to the member to be cooled.

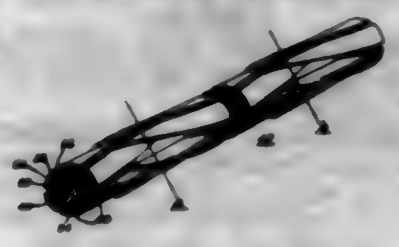
2,845,473

ELECTRICAL CONDUCTOR HAVING TRANSPOSED CONDUCTING MEMBERS

William H. Doherty, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 29, 1955, Serial No. 556,302
4 Claims. (Cl. 174—34)

1. An electrical conductor for the transmission of electromagnetic energy comprising an elongated core member of conducting material and a plurality of insulated composite conducting members each including a plurality of strips of conducting material separated by insulating material, disposed around the periphery of said core and extending longitudinally thereof, said composite members being equally spaced from said core over



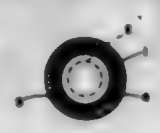
at least a portion of the length of said conductor and each having a 180 degree twist at intervals along the length of said conductor whereby the strips in each of said composite conducting members are transposed.

2,845,474

TUBE SHIELDING

James H. Langworthy, Long Beach, and Ross A. Quinn, Palo Alto, Calif., assignors to North American Aviation, Inc.

Application March 17, 1952, Serial No. 277,046
2 Claims. (Cl. 174—35)



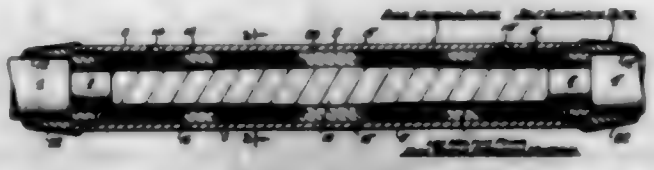
1. In combination with a heat conductive chassis, means for shielding a glass-shelled electronic tube and for maintaining said tube at a low operating temperature comprising a first coating covering substantially entirely the outer surface of the shell of said tube and in intimate contact therewith, said first coating being composed of material having a high radiant heat and infrared absorbent characteristic and good heat conduction properties and an electrostatic shield of metallic material covering substantially entirely said first coating and in intimate contact therewith, means to transfer heat from said shield to said chassis comprising metallic means uniting said shield and said chassis along substantially the entire length of said shield, whereby heat radiated from said tube is absorbed by said first coating, conducted to said shield and dissipated by conduction through said last-mentioned means.

2,845,475

JOINT FOR ARMORED CABLES

Samuel H. Behr, Uniondale, and William H. Kohlmann, Woodhaven, N. Y.

Application June 7, 1955, Serial No. 513,921
17 Claims. (Cl. 174—84)
(Granted under Title 35, U. S. Code (1952), sec. 266)



9. A high strength splice between the end of a first electrical cable and the end of a second electrical cable, each cable having a conductor core, a series of armor wires surrounding and insulated from said conductor core and coextensive with the core, and a rubber-like jacket around said armor wires, said high strength splice comprising; electrical and mechanical connection of the contiguous ends of said cores; means insulating said connected ends of said cores; an S-type bend in the end of each armor wire and parallel to the length thereof, and a material of relatively high tensile strength completely surrounding said ends of said cables and completely occupying all the space around and between said ends of

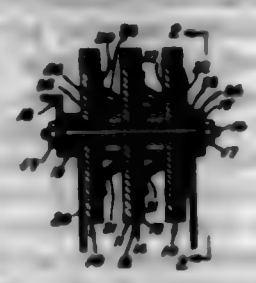
said armor wires and said cores and overlapping to some extent said rubber-like jackets and defining a substantially cylindrical contour.

2,845,476

CASTELLATED CONTACT WASHER

Kurt Kadelburg, West Los Angeles, Calif., assignor to International Rectifier Corporation, El Segundo, Calif., a corporation of California

Application July 18, 1955, Serial No. 522,555
4 Claims. (Cl. 174—126)



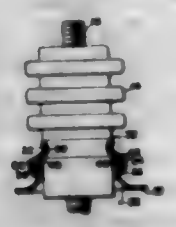
1. A contact washer for making a conductive contact between two plates of a dry-plate rectifier, said contact washer having a central axis and consisting of a single piece of material, said contact washer including a central flat contact area which is substantially perpendicular to said central axis, a plurality of spacer segments separated from each other and extending from the periphery of said contact area, all of said segments rising substantially perpendicular to and in the same direction from said contact area, said spacer segments thereby being substantially parallel to said central axis, a substantially flat contact segment extending from the end of each of said spacer segments which end is removed from said contact area, said contact segments extending radially outward from said spacer segments and being substantially perpendicular to said central axis, a leg depending from the end of each contact segment which end is removed from the spacer segment, each of which legs slopes away from said central axis and away from said contact segment so as to make an acute angle with said central axis, and a contact foot on the end of each leg, which foot extends radially outward from the end of the leg remote from the contact segment.

2,845,477

MOUNTING MEANS FOR A BUSHING

Ralph R. Kelley, Sharpsville, Pa., and Fred B. Colby, Hubbard, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 20, 1952, Serial No. 327,098
2 Claims. (Cl. 174—163)



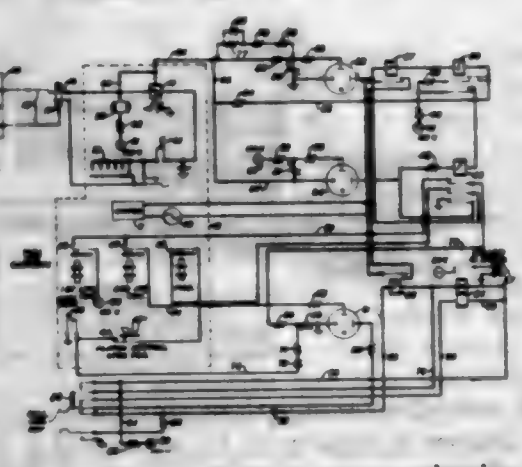
1. In combination with a substantially cylindrical electrical insulating bushing having an annular groove therein, a mounting member extending outwardly from a case and having an opening therein of substantially circular configuration, the electrical insulating bushing being disposed within said opening, the mounting member having a plurality of spaced outwardly extending flange projections, a one-piece coupling member simulating a sleeve disposed around the electrical insulating bushing, one end of the one-piece coupling member extending into the annular groove cooperative to form a substantially rigid connection with the electrical insulating bushing and thus provide a substantially fluid-tight joint between the one-piece coupling member and the electrical insulating bushing, and the other end of the one-piece coupling member being spaced from the electrical insulating bushing and having a plurality of inwardly extending lugs adapted to pass through the spaces between the plurality of spaced outwardly extending flange projections and be rotated into interlocking engagement with said flange projections, a compressible gasket disposed around the electrical insulating bushing and in the space between the electrical insulating bushing and the one-piece coupling member, the compressible gasket being of such size that with the inwardly extending lugs of the one-piece coupling member in interlocking engagement with the said flange projections of the mounting member, said gasket is compressed, whereby pressure is exerted in all directions through the said gasket to thus hold the one-piece coupling member in assembled relationship with respect to the mounting member and provide an effective seal between the mounting member and the electrical insulating bushing.

2,845,478

SELECTIVE STATION CALLING SYSTEM

Daniel Elmore Foley, Belleville, N. J., assignor to American Telephone and Telegraph Company, a corporation of New York

Application February 12, 1954, Serial No. 409,866
7 Claims. (Cl. 178—4.1)



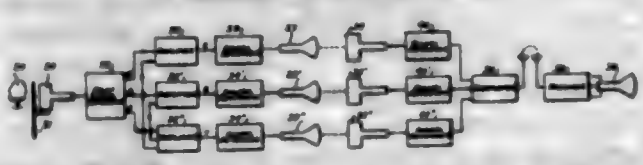
1. In a teletypewriter system, a communication channel, a plurality of normally deactivated teletypewriter stations associated with said channel, means responsive to a signal impressed upon said channel for activating all of said stations, electrical storage means at said stations selectively responsive to address signals impressed upon said channel for storing an electrical condition at certain, but not all, of said stations, means at said stations selectively responsive to the next transmitted address signal for causing said stored condition to effect the selection of the station to receive a message, means for deleting the stored electrical condition at stations not selected by the last-mentioned address signal, and signal responsive means for deactivating unselected stations to leave only the selected ones activated.

2,845,479

TELEVISION GAMMA CONTROL APPARATUS

Abraham Goldberg, Teaneck, and Chester Schelp, Westbury, N. J., assignors to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York

Application September 23, 1954, Serial No. 457,981
4 Claims. (Cl. 178—5.2)



1. In a television system having an overall transfer characteristic of given gamma other than unity, the com-

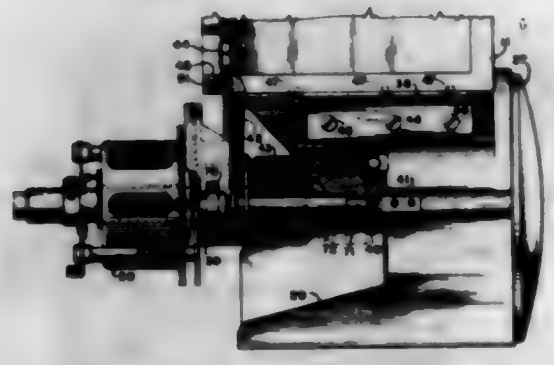
bination of a first scanning tube for scanning an object to produce a first picture signal, picture tube means having a transfer characteristic of given gamma other than unity in the same sense as that of the overall transfer characteristic of the system for producing an image determined by said picture signal, means interposed between said scanning tube and said picture tube for reversing the polarity of opposite extreme amplitudes of said first picture signal so as to cause the opposite extremes of light and dark in the image to be inversely representative of the opposite extremes of light and dark in the picture represented thereby, a second scanning tube for scanning said image to produce a second picture signal, and means for reversing the polarity of the opposite extreme amplitudes of said second picture signal to give it the same form as said first picture signal before reversal of the polarity thereof.

2,845,480

OPTICAL STRUCTURE FOR COLOR-IMAGE-REPRODUCING APPARATUS OF THE PROJECTION TYPE

William F. Bailey, Valley Stream, and Robert P. Burr, Huntington, N. Y., assignors to Haveltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application April 16, 1954, Serial No. 423,745
10 Claims. (Cl. 178—5.4)



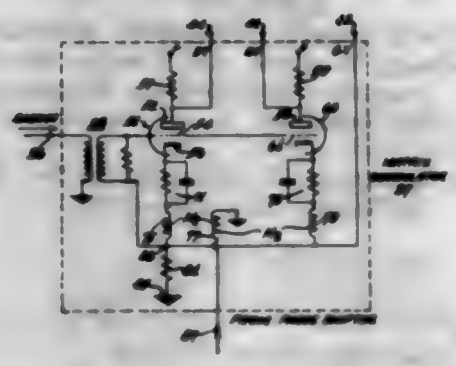
1. A projector for superimposing three multicolor television images in register to be viewed as a single image by an observer comprising: a pair of dichroic elements intersecting at right angles; three cathode-ray tubes positioned with their axes parallel to the intersection axis of the dichroic elements and their bases extending in the same direction and their screens each adjacent different ones of the dihedral angles of the dichroic elements; a rigid support for said dichroic elements and said cathode-ray tubes; and optical means for directing images on the cathode-ray tubes into the adjacent dihedral angles so that all emerge in register from the fourth dihedral angle.

2,845,481

COLOR TELEVISION

Robert K. Lockhart, Moorestown, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application July 28, 1954, Serial No. 446,232
23 Claims. (Cl. 178—5.4)



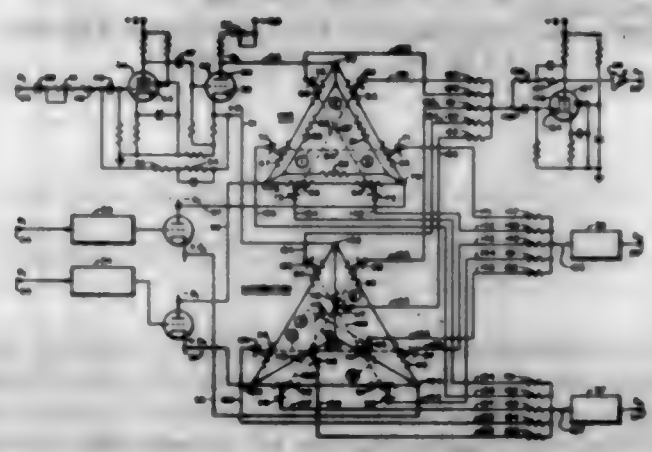
1. A matrix demodulator circuit, said matrix demodulator circuit including a source of a modulated subcarrier wave containing a plurality of modulating signals, each of said plurality of modulating signals susceptible to the processes of synchronous demodulation and identified by a predetermined phase of synchronous demodulation, a third signal of said plurality of modulating signals characterized in that it can be formed by a predetermined combination of at least another first and a second of said plurality of modulating signals, said matrix demodulator circuit comprising in combination, a first demodulator circuit, said first demodulator circuit having an output circuit, an input terminal, a high potential terminal and a low potential terminal, means for developing said modulated subcarrier wave from said source between said input terminal of said first demodulator circuit and said low potential terminal and including means to cause synchronous detection of said subcarrier at a first predetermined phase, a second demodulator circuit, said second demodulator circuit having an output circuit, an input terminal, a high potential terminal and a low potential terminal, means for developing said modulated subcarrier wave from said source between said input terminal of said second demodulator circuit and said low potential terminal and including means to cause synchronous detection of said subcarrier at a second predetermined phase, means for establishing a fixed potential reference terminal, means for coupling said lower potential terminals of said first demodulator circuit and said second demodulator circuit together to form a common lower potential terminal, a "boot-strap" impedance, means for coupling said "boot-strap" impedance between said common lower potential terminal and said fixed potential reference terminal and means for providing suitable potentials between said fixed potential reference terminal and each of said higher potential terminals of said first demodulator circuit and said second demodulator circuit for developing the first of said modulating waves in the output circuit of said first demodulated circuit, said second of said modulating waves in said output circuit of said second demodulator circuit and signal addition of said first modulating signal and said second modulating signal in said "boot-strap" impedance each in prescribed magnitude and polarity to form said third modulating signal across said "boot-strap" impedance.

2,845,482

TELEVISION COLOR MASKER

George W. King, Pleasantville, and Clayton A. Washburn, Thornwood, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York

Application August 22, 1957, Serial No. 679,581
7 Claims. (Cl. 178—5.4)



1. A television color masker adapted to have impressed thereon three video signals each of which is representative of a respective one of the composite colors of a televised object comprising, a phase splitter circuit for each of said video signals each of which has a respective one of said video signals impressed thereon and produces therefrom a pair of output signals of equal magnitude with one of the output signals of each pair being opposed in phase to that of the other of the pair, a first

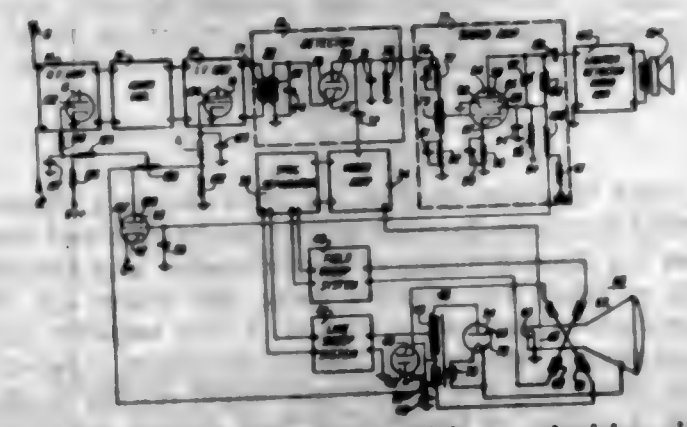
closed delta circuit each arm of which includes a pair of potentiometers each provided with an adjustable slider, each apex junction of said first delta circuit having like phased ones of each of the pairs of phase splitter output signals impressed thereon, a second delta circuit each arm of which includes a pair of potentiometers each provided with an adjustable slider, each apex junction of said second delta circuit having a respective one of the others of each of said pairs of phase splitter output signals impressed thereon, a Y circuit each arm of which includes a potentiometer each provided with an adjustable slider, each of the noncommon ends of said Y circuit potentiometers having a respective one of the others of each of said pairs of phase splitter output signals impressed thereon, an output channel for each of the composite colors, an adding circuit inserted in and connected to each output channel, each respective adding circuit having impressed on its input the potentials of the sliders of the first and second delta circuits which are adjacent the respective apex junctions to which one or the other of the pair of output signals of a particular phase splitter is applied and the potential of the slider of the respective potentiometer of said Y circuit to whose noncommon end the one of said pairs of output signals of a particular phase splitter is applied, the sliders of said Y circuit potentiometer being mechanically interconnected for common control and electrically diametrically opposed sliders of the potentiometers of said delta circuits being connected for conjoint operation in pairs.

2,845,483

TELEVISION RECEIVER AUTOMATIC GAIN CONTROL CIRCUIT

Albert W. Mascuch, Wheaton, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application March 23, 1954, Serial No. 418,127
4 Claims. (Cl. 178—5.8)



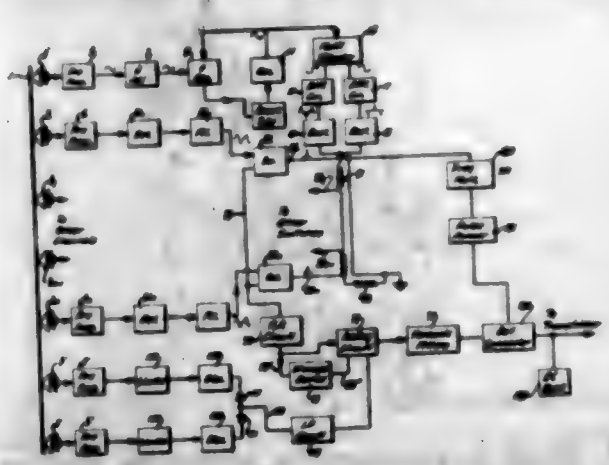
1. A television receiver for utilizing a television signal having a video carrier amplitude modulated by video signals and a sound carrier frequency modulated by sound signals, including in combination, translating circuit means for selecting and amplifying the television signal, a detector having input and output portions, means coupling said detector input portion to said translating circuit means for demodulating said television signal to produce a composite video signal having a unidirectional potential component with an amplitude related to the intensity of the received television signal and also to produce a sound intercarrier signal, means coupled to said output portion of said detector for utilizing said composite video signal, and further means coupled to said output portion of said detector for utilizing said sound intercarrier signal, said further means including an amplifier having an electron discharge valve with an input electrode coupled through circuit means providing direct-current coupling to said detector, said electron discharge valve also having an output element, an output circuit coupled to said output element for deriving an amplified unidirectional potential varying in accordance with variations in said unidirectional potential component of said video signal, and circuit means connected to said output circuit for utilizing said amplified unidirectional potential to control the amplification of said translating circuit in inverse relation to the intensity of the received television signal.

2,845,484

PLAY-BACK SYSTEM FOR RECORDED TELEVISION IMAGES

Wayne R. Johnson, Los Angeles, Calif., assignor, by mesne assignments, to Minnesota Mining & Manufacturing Co., St. Paul, Minn., a corporation of Delaware

Application June 11, 1954, Serial No. 436,190
11 Claims. (Cl. 178—6.6)



1. The method of recording and reproducing a television signal produced by scanning a field of view in one dimension at a frame frequency, and in an orthogonal dimension at a line frequency which is an integral multiple of said frame frequency, which comprises the steps of sampling said signal at a rate which is an odd multiple of one-half said frame frequency and equal to the highest frequency component in the signal to be reproduced, reproducibly recording the samples on a suitable medium, translating the recorded samples to produce electric waves representative of the successive samples, dividing said waves into two paths, delaying the waves in one of said paths for an interval equal to the period of said frame frequency and combining the undelayed waves in the other of said paths with the delayed waves from said first path to produce a composite signal representative of samples of the original signal currently translated from said medium interleaved with samples so translated one period of said frame frequency previously.

2,845,485

TELEVISION CAMERA FOR EXAMINATION OF INTERNAL STRUCTURES

Edward Emanuel Sheldon, New York, N. Y.

Application November 13, 1952, Serial No. 320,243
9 Claims. (Cl. 178—6.8)



1. A device for exploring a small curved passage comprising in combination a housing having a flexible portion conforming to the curvature of said passage, image sensitive means for receiving the image of the explored part and converting said image into an electrical pattern, separate means for producing a scanning illumination, said device furthermore comprising a member for maintaining said image sensitive means and said scanning illumination means in a fixed spatial relationship to each other when transmitting the image, one of the aforesaid means being removable from said housing independently of the other,
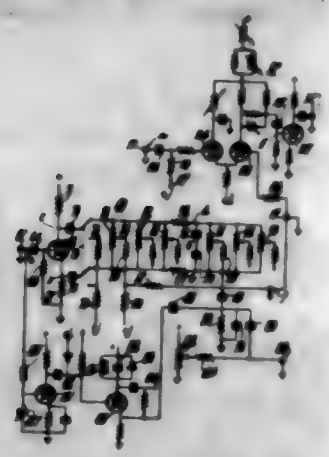
and a member operable through said housing and connected to one of the aforesaid means to withdraw one of said means from said housing independently of the other means while said housing is still in said explored passage.

2,845,486

SHADING VOLTAGE GENERATORS

Arch Clinton Luther, Jr., Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application February 18, 1955, Serial No. 489,165
9 Claims. (Cl. 178—7.2)



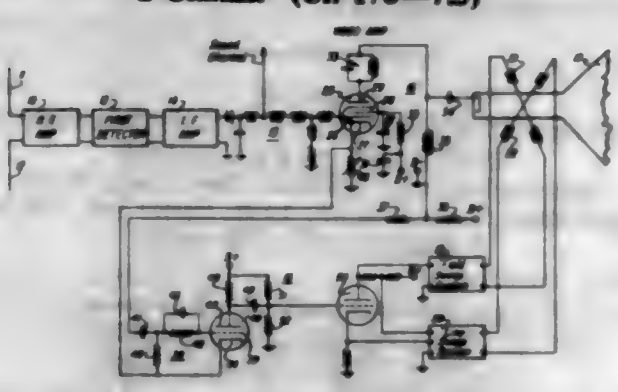
7. A circuit arrangement for generating shading voltages in television transmitting apparatus, including means to generate a blanking wave, means to produce a pulse wave, means coupled to said pulse wave producing means to derive a pair of pulse waves in paraphase relationship, integrating means coupled to said deriving means to produce sawtooth waves, further integrating means coupled to said deriving means to produce parabolic waves, and means intercoupling said integrating means combining said sawtooth and parabolic waves, and means interposed in said coupling means and coupled to said generating means to add a blanking wave to said combined waves.

2,845,487

AMPLITUDE-STABILIZED SYNC SIGNAL SEPARATOR

Albert W. Mannan, Wheaton, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application October 8, 1954, Serial No. 461,157
2 Claims. (Cl. 178—7.3)



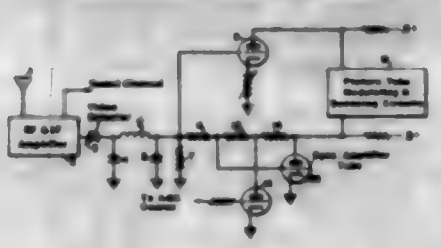
1. A receiver for utilizing a television signal which includes video frequency components and synchronizing components, said receiver including in combination, apparatus for receiving and demodulating the television signal to produce a composite video signal including the video frequency and synchronizing components, with said composite video signal being disposed on a negative axis with respect to a reference potential and with the synchronizing components extending in a negative-going direction; a video amplifier for amplifying the composite video signal from said apparatus and including an electron discharge device having a cathode, a control electrode and an anode; circuit means coupling said apparatus to said control electrode to apply said composite video signal to said amplifier between said control electrode and a point of said reference potential with the synchronizing components thereof extending in the negative-going direction; an output circuit coupled to said anode in which said composite video signal appears with the synchronizing components having positive-going polarity; a synchronizing signal separator including an electron discharge device having an anode, a cathode and a control electrode; a time-constant circuit including grid-leak resistor means connected between said control electrode and said cathode of said separator discharge device, said time-constant circuit coupling said output circuit of said video amplifier to said separator control electrode to supply said composite video signal to said separator discharge device between said control electrode and cathode thereof with each of the synchronizing components of said composite video signal extending in the positive-going direction and driving such discharge device to a conductive state; a variable degenerative resistor across which said composite video signal appears connecting said cathode of said video amplifier discharge device to said point of reference potential; a direct-current connection from said cathode of said video amplifier to said cathode of said separator discharge device; and a utilization circuit coupled to the anode of said separator discharge device.

2,845,488

AUTOMATIC SYNC LEVEL CONTROL FOR TELEVISION RECEIVERS

Norman S. Kornetz, Lewisburg, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 17, 1953, Serial No. 374,718
7 Claims. (Cl. 178—7.5)



2. In a television receiver, an input circuit, a channel supplied therefrom carrying picture modulation and sync pulses to a detector having an output resistor, said detector being so poled that negative going sync pulses are developed across said output resistor, a sync amplifier tube having anode, cathode and control electrodes, resistance means connecting one end of said output resistor to said anode, a source of potential, a load resistor connected between said potential source and said anode, a connection from one intermediate point on said resistance means to said control electrode, a connection from the other end of said output resistor to said cathode, and means for connecting a second intermediate point on said resistance to said cathode through a low impedance path only when signals at said input circuit are below a predetermined intensity whereby the level of the sync pulses developed across said load resistor is maintained substantially constant.

2,845,489

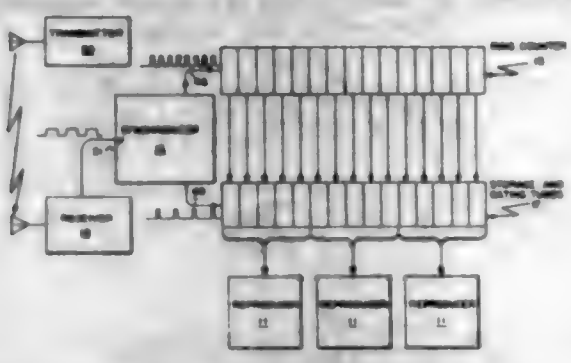
SYNCHRONIZING SYSTEM

Lowell E. Johnson, Wayzata, and Carl L. Hiatt, St. Paul, Minn., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application February 11, 1954, Serial No. 409,785
5 Claims. (Cl. 178—53)

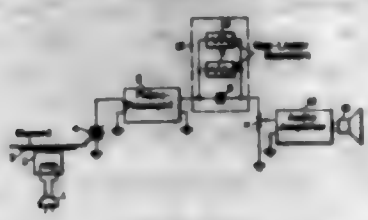
5. In a receiving system for use with baud signals, a source of baud signals having a predetermined cyclic rate, a sinusoidal oscillator having a nominal frequency in harmonic relation to the cyclic rate of the baud signals

and being controllable in frequency by means of a frequency control voltage, a multiple counting circuit connected to said oscillator means and having a plurality of segments, said segments being sequentially responsive to pulse voltages from the oscillator to produce gating pulses, a multiple gating circuit having a plurality of pairs of segments, each segment of said multiple gating circuit being responsive to a corresponding segment of said multiple counting circuit, each of said pairs of segments producing different equal voltages when simul-



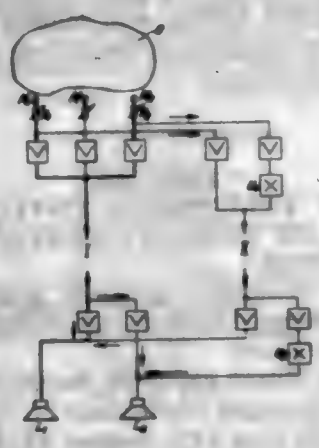
taneously actuated by a gating voltage and a pulse signal, a wave-shaping means connected to said source of baud signals to produce a pair of pulse signals corresponding to the beginning and end of each baud, means for impressing said pulse signals on said multiple gating circuit to energize a segment of said multiple gating circuit during each cycle, and means connected to said multiple gating circuit and to said oscillator for producing a frequency control voltage varying in magnitude and polarity with segments of said multiple gating circuit which are actuated by said wave-shaping means.

2,845,490
RUMBLE ELIMINATOR
Cosler Donald Knight, Lake Zurich, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware
Application November 9, 1954, Serial No. 467,799
2 Claims. (Cl. 179—1)



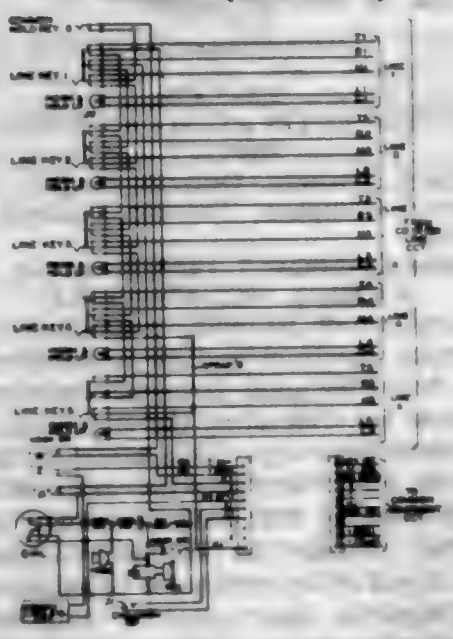
1. An audio-frequency signal-translating channel comprising: a source of audio-frequency signals including desired components in both high-frequency and low-frequency ranges and subject to undesired components in said low-frequency range; aperiodic coupling means consisting of a capacitor presenting a substantially higher impedance to signal components in said low-frequency range than to signal components in said high-frequency range and having one terminal coupled to said source for normally discriminating against signal components in said low-frequency range; means, consisting of a load impedance exhibiting substantially constant impedance throughout the audio-frequency range, connected to the other terminal of said capacitor for translating said audio-frequency signals; means including a nonlinear resistor shunting said coupling capacitor for substantially reducing the coupling impedance between said source and said load impedance only in response to desired signal components in said low-frequency range of greater strength than said undesired components, whereby an output signal, substantially free of said undesired components in the absence of said desired components in said low-frequency range and in which said undesired components are substantially masked by said desired low-frequency components when present, is developed across said load impedance; and means coupled to said load impedance and including a loudspeaker for utilizing said output signal.

2,845,491
STEREOPHONIC APPARATUS
Klaus Bertram, Hannover, Germany, assignor to Telefunken G. m. b. H., Berlin, Germany
Application December 17, 1956, Serial No. 628,685
Claims priority, application Germany December 16, 1955
5 Claims. (Cl. 179—1)



1. Stereophonic apparatus for compatible reproduction in loudspeakers by both single-channel non-stereophonic systems and also by two-channel stereophonic systems of audio signals converted into voltages by a first, a second and a third microphone system comprising a first channel; means for transmitting voltages from all the microphones to the first channel; a first and a second loudspeaker, each connected to said first channel and reproducing audio signals in accordance with the sum of the outputs of all the microphones; a second channel; means for transmitting voltages from the first microphone system to the second channel; a first polarity reversing means connected to supply a phase-inverted voltage to said second channel from said second microphone system; means for supplying a component from said second channel directly to the first loudspeaker; and a second polarity reversing means connected to supply a phase-inverted voltage to said second loudspeaker from said second channel.

2,845,492
KEY TELEPHONE SYSTEM
Robert K. Kaye and Joseph P. Weston, Rochester, N. Y., assignors to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware
Application March 14, 1957, Serial No. 645,991
17 Claims. (Cl. 179—1)



1. In a telephone system, a common communication channel, a plurality of stations associated with said chan-

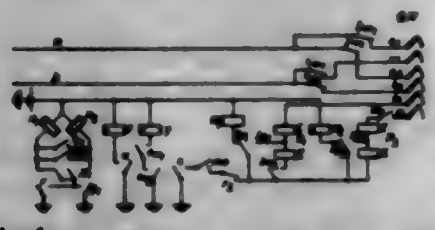
nal, an exclusion circuit for each of said stations and a common control circuit for all of said stations, each said individual exclusion circuit having a connector relay for connecting its said associated station to said channel and a cut off relay responsive to the operation of its said associated connector relay, all said cut off relays of all said exclusion circuits being connected in parallel whereby an operating circuit closed for one of said cut off relays will operate all thereof, said cut off relays associated with nonoperated connector relays controlling means to prevent subscriber controlled operation of said associated connector relays, and means in said common control circuit for selectively operating one of said nonoperated connector relays.

2,845,493

CONTROL OF TELEPHONE SWITCHES HAVING PLURALITY OF SIMULTANEOUSLY OPERATED SETS OF WIPERS

Konrad Müller, Munich, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich, Germany, a corporation of Germany

Application March 28, 1955, Serial No. 497,290
In Germany November 26, 1949
Public Law 619, August 23, 1954
Patent expires November 26, 1969
14 Claims. (Cl. 179—18)



1. In a telephone system, a selector switch comprising incoming line and private conductors, two sets of wipers, each set comprising line wipers and a private wiper, motor means for simultaneously moving said sets of wipers, each with respect to a separate level of bank contacts respectively including sets of bank contacts connected respectively with line and private conductors of outgoing trunk lines belonging to one and the same trunk group; a circuit arrangement for controlling the testing operations of the respective private wipers, said circuit arrangement comprising a test relay for each private wiper, an auxiliary relay for each test relay, contact means governed by each auxiliary relay for controlling a point in the circuit of the other test relay, and circuit means for connecting said test relays and said auxiliary relays to effect, responsive to simultaneous energization of said test relays, interruption of the testing circuit of one of said test relays.

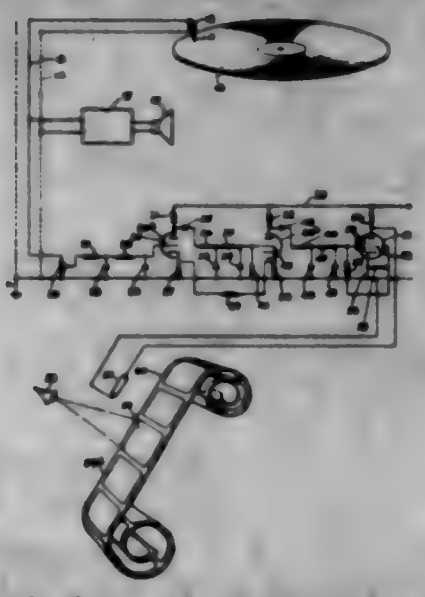
2,845,494

MEANS FOR ACTIVATING AN INDICATING DEVICE

Leon Ginsberg, Toronto, Ontario, Canada, assignor to The Markad Company, Toronto, Ontario, Canada, a corporation

Application December 7, 1955, Serial No. 551,628
4 Claims. (Cl. 179—100.1)

1. The combination including a sound record with an audio-frequency spectrum and an intermittent signal of a frequency below the audio-frequency spectrum recorded thereon, means for translating the audio-frequency spectrum and intermittent signal into electrical impulses, an amplifier and an electro-acoustic transducer for the impulses representing the audio-frequency spectrum, a low-pass filter passing the impulses representing the intermittent signal and rejecting the impulses representing the audio-frequency spectrum, an amplifier for the impulses appearing at an output of the low-pass filter, and means for converting the impulses appearing at an output of the amplifier of the low-pass filter into a visual indication of the presence of the intermittent signal, characterized in that the means for converting the impulses into a visual indication includes a rectifier connected to an output of the amplifier of the low-pass filter, an



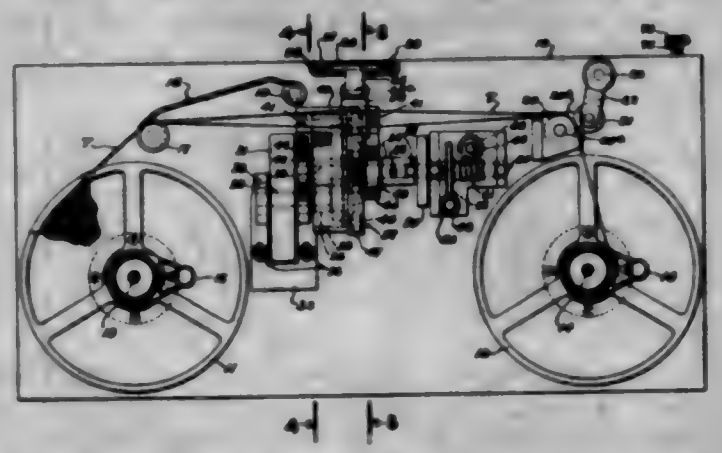
electronic tube having a cathode, an anode, and a control grid, a connection between an output of the rectifier and the control grid, a resistance connected in series with the electronic tube, and a gaseous discharge tube connected in parallel with the electronic tube.

2,845,495

LONG PLAYING TAPE RECORDING APPARATUS

William H. Lyon, Orange, Conn., assignor to The Soundscriber Corporation, New Haven, Conn., a corporation of Connecticut

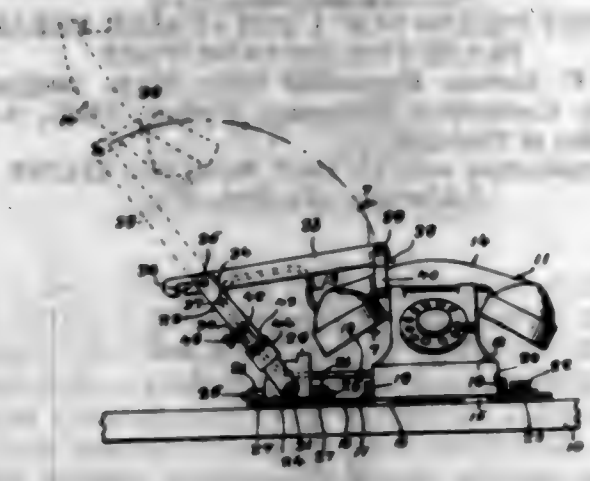
Application January 27, 1954, Serial No. 406,517
9 Claims. (Cl. 179—100.2)



1. In an apparatus for recording upon and reproducing intelligence from a flexible magnetic tape, the combination comprising a mounting chassis, a tape feed reel supporting a roll of magnetic tape mounted on one end of said chassis, a tape take-up reel mounted on the other end of said chassis, drive mechanism for passing said tape from said tape feed reel to said tape take-up reel, a cylindrical drum rotatably mounted with respect to said chassis and having its axis of rotation fixed with respect to said chassis and parallel to the directional path of said tape passage, a plurality of transducer heads equidistantly spaced about and protruding from the peripheral wall of said cylindrical drum, said drive mechanism comprising means to rotate said cylindrical drum in timed relation with respect to the lateral passage of said tape, said cylindrical drum being so located with respect to said tape that said transducer heads successively contact said tape to produce substantially parallel transverse tracks thereon, a rotatably mounted flywheel, speed reduction mechanism interconnecting said flywheel and said drive mechanism for cooperative action wherein said flywheel will be rotated at a greater angular velocity

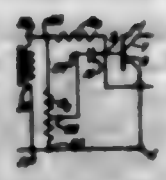
than the velocity of said drum for filtering out mechanical flutter in said drum, and an arcuate gravity-operated holding shoe operative to press said tape against the periphery of said cylindrical drum for maintaining said tape in intimate contact with said protruding transducer heads.

2,845,496
TELEPHONE HOLDER
Joseph Lizzola, Phillipsburg, N. J.
Application March 15, 1955, Serial No. 494,428
5 Claims. (Cl. 179—149)



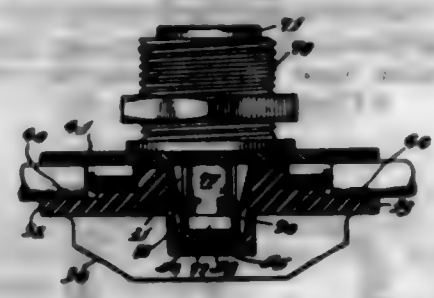
1. In a holder for a telephone of the type including a base and a movable handset, a bracket extending below the base of the telephone, a fixed jaw extending upwardly from said bracket intermediate the ends thereof and secured thereto, an L-shaped jaw adjustably mounted on said bracket and provided with a slot therein, said L-shaped jaw permitting the bracket to be connected to bases of different sizes by virtue of its adjustability, a securing element extending through said slot and through said bracket, a clamping plate arranged in engagement with the lower end of said securing element, a bearing block having pins extending therefrom pivotally connected to said bracket, an arm having a bifurcated lower end pivotally connected to said bearing block, the upper end of said arm being bifurcated, a lever pivotally connected to the upper bifurcated portion of said arm, and a clamp pivotally and adjustably mounted on an end of said lever and arranged in engagement with the telephone handset.

2,845,497
TRANSISTORIZED AMPLIFIER CIRCUITS
Fred E. Barron, Pittsburgh, and Samuel F. Lyberger, Canonsburg, Pa., assignors to E. A. Myers & Sons, Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application March 22, 1954, Serial No. 417,726
3 Claims. (Cl. 179—171)



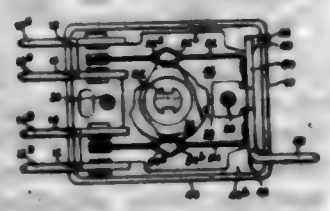
1. In an amplifier circuit, two transistors forming successive stages of amplification, the first of said stages having a pair of output terminals and the second of said stages having a pair of input terminals, a volume control having a resistance element with two terminals and having an adjustable contact member engaging said element, said contact member having one terminal, means electrically connecting one of the resistance element terminals to one of said output terminals, means electrically connecting another of the volume control terminals to the second of said output terminals, a condenser connected in series between the third terminal of the volume control and one of said input terminals, and resistance means connected with one of said output terminals and said one input terminal and shunting the condenser, said resistance means being adapted to provide an additional discharge direct current path in one direction for said condenser of sufficiently low resistance to avoid blocking in said second stage and to simultaneously reduce variation in reflected input impedance as said adjustable contact member is moved along the volume control resistance element.

2,845,498
FLUORESCENT LAMP SWITCH
Edwin G. Gaynor, Bridgeport, Conn.
Application November 4, 1954, Serial No. 466,811
1 Claim. (Cl. 200—5)



A fluorescent lamp switch comprising a hollow body of insulating material, a first pair of cooperating contact elements mounted within said body, a second pair of contact elements mounted within said body, said pairs of contact elements being in side-by-side relation, and simultaneously acting means for opening and closing said first pair of contact elements and momentarily establishing a connection between said second pair of contact elements, said simultaneously acting means including a rocker cam element pivoted within said body and engaging a contact element of said first pair of contact elements, a spring-biased push-button mounted on said body, said push-button having make means which, when the button is depressed, establishes a connection between said second pair of contact elements, said make means being mounted on said push-button to have relative motion therewith whereby delay occurs between release of the push-button and withdrawal of said make means from its position of establishing a connection between said second pair of contact elements, and a pendulum element frictionally related to said push-button, said pendulum element engaging said rocker cam element when said push-button is depressed to rock said cam element in successively opposite directions to open and close said first pair of contact elements, and means to center said pendulum element when said push-button is extended.

2,845,499
ELECTRIC SWITCHES AND PARTS THEREFOR
Harry W. Brown, West Allis, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application October 22, 1954, Serial No. 463,859
13 Claims. (Cl. 200—6)



1. In an electrical switch, in combination, a unitary insulating base comprising a peripheral wall and a generally flat portion forming an open-ended cavity, a cover plate for closing said cavity, a group of openings at one region of said wall for accommodating fixed contact strip members, fixed contact strip members extending through said openings each having a contact portion within said cavity, at least one other opening at another

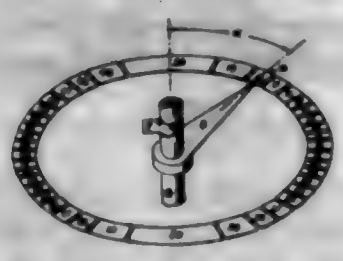
region of said wall for accommodating a movable contact terminal member, a movable contact terminal member extending through said opening, at least one movable contact element extending from said terminal member along said cavity and having a free end contacting portion in cooperative relation with the contact portions of said fixed contact strip members, grooves in said flat portion adjacent said openings interiorly of said cavity for retaining said members in predetermined positions in cooperation with said cover plate, and operator means for selectively effecting engagement between said free end contacting portion and said fixed contact portions.

2,845,500

TRIGONOMETRIC SWITCH

John Burton Hatcher, Altadena, Calif.

Application April 7, 1955, Serial No. 499,909
4 Claims. (Cl. 200—11)



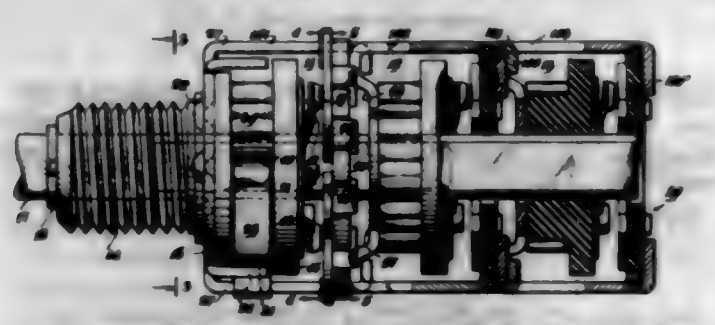
1. A multiposition switch device comprising, a series of separate output contacts arrayed in a circular arc with substantially equal spaces between adjacent contacts in said series, a wiper pivotally mounted at the center of said circular arc to successively engage said contacts in moving from a first position through a predetermined angle to a second position, said spaces between adjacent contacts in said series being disposed at the intersections of uniformly spaced parallel lines with said circular arc, said parallel lines being perpendicular to said wiper when said wiper is in one of said positions, and each contact being disposed between adjacent ones of said parallel lines and having a width for engagement by said wiper substantially equal to the portion of said circular arc between such adjacent parallel lines.

2,845,501

ELECTRIC SWITCH

Lee R. George, Frankfort, Ind., assignor to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware

Application March 6, 1956, Serial No. 569,867
9 Claims. (Cl. 200—14)



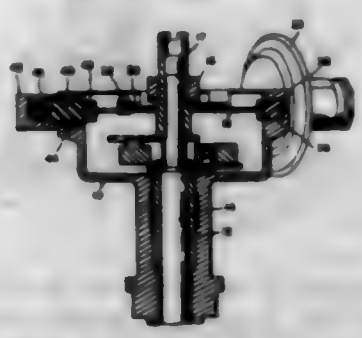
1. A subminiature rotary tap switch adapted for use in the switching of a multiplicity of electric circuits comprising a hollow threaded bushing, a front plate having an aperture of a diameter sufficient to fit over said bushing, a rotor having separate levels attached to each other, one smaller diameter level thereof having a periphery formed as a multiplicity of detents, a shaft passing through said bushing being connected to said rotor, a bearing surface upon which said rotor is adapted to rotate, a frame for said rotary switch including interlockable side links, an indexing spring having a pair of opposing fingers held by said links of said frame for cooperating with said detents of said rotor to positively index the same as desired on rotation of said switch shaft, a contact spring having wipers thereon adapted to be moved with said rotor, a stator placed adjacent said rotor having discretely spaced contacts and contact ring thereon, terminals connected thereto, said contact spring on said rotor adapted to move against said contacts and ring so as to determine the proper circuits to be switched thereby, and means placed against said stator for locking the same to said rotor and contact spring components of the switch tightly together under compression.

2,845,502

SUPPORT MEANS FOR A ROTATABLE BREAKER PLATE FOR DISTRIBUTORS

Melvin F. Sterner, Bloomfield Hills, Mich., assignor to Holley Carburetor Company, Detroit, Mich., a corporation of Michigan

Application July 18, 1955, Serial No. 522,789
7 Claims. (Cl. 200—31)



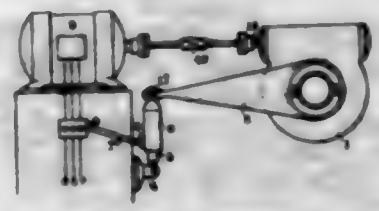
1. Structure for mounting a breaker plate having flat arcuate edge portions for angular adjustment comprising three support and guide elements, means mounting two of said elements in fixed position to engage the periphery of said plate at spaced positions, means mounting the third element for movement radially of said plate, spring means urging said third element radially inwardly, the inner portions of all of said elements being provided with parallel sided slots whose width is just sufficient, to receive in guiding and supporting relation the edge portions of said plate.

2,845,503

POWER MEANS FOR DRIVING A ROTARY SHAFT

François Durand, Le Vesinet, France

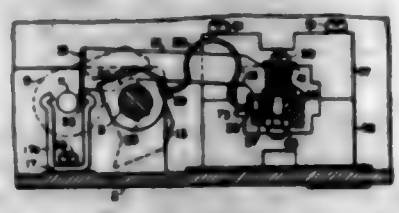
Application July 19, 1955, Serial No. 522,996
8 Claims. (Cl. 200—52)



2. A power arrangement comprising, in combination, transmission means adapted to transmit power from a suitable source to a shaft to be driven with a predetermined transmission ratio, said transmission means including an output member adapted to be connected directly to the shaft to be driven; a casing housing said transmission means and being freely turnable with respect to said output member so that said casing is also turnable with respect to a shaft connected to said output member to be driven thereby; a rigid arm fixed to and extending from said casing so as to be turnable together with the latter and having a free end distant from said casing; a stationary support; a first elongated member connected to said support; a second elongated member connected to said free end of said arm and being longitudinally shiftable with respect to said first elongated member; resilient means operatively connected to said first and second elongated members for yieldably resisting movement of said second elongated member with respect to said first elon-

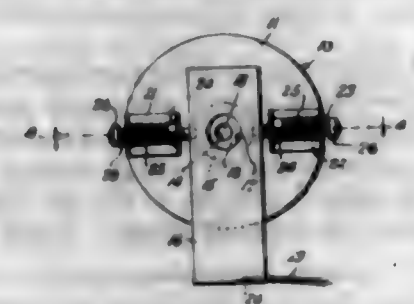
gated member to the same degree in either direction of movement of said second member with respect to said first member; and control means operatively connected to said second member for sensing the movement thereof with respect to said first member.

2,845,504
SNAP ACTING ELECTRICAL SWITCH
Ferdinand C. Iglehart, Buffalo, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 14, 1954, Serial No. 462,279
2 Claims. (Cl. 200—67)



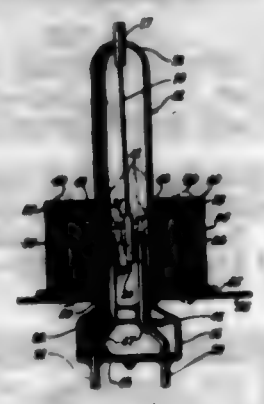
1. A snap acting switch comprising a base; an operating shaft having bearing surfaces, bearing support members for said shaft affixed to said base, an operating lever affixed to said shaft; a generally C-shaped member affixed to said shaft at a central point on said generally C-shaped member; and annular removable stop member for said C-shaped member positioned to engage opposed points on the inner surface of said C-shaped member so as to limit rotation of said shaft between first and second angular positions, said annular stop member being loosely mounted on a shaft affixed to said base so as to be free to rotate and wobble on said shaft upon being stricken by said C-shaped member; an actuator block on said shaft notched on the outer surface thereof to form a first knife edge bearing seat to receive a knife-edge bearing, a knife edge bearing seat member affixed to said base having a second knife edge bearing seat thereon, a switch arm having at one end thereof, an insulating member for supporting contact members, fixed contact members positioned to be interconnected by said switch arm contact members, a first knife edge bearing at the opposite end thereof at which said arm is adapted to pivot, and a third knife-edge bearing seat at said one end; a bowed leaf spring having second and third knife edge bearings adapted for insertion into said first and third bearing seats to bias said first knife edge bearing into said second knife edge bearing seat; said contact members being adapted to move between first and second positions, said spring being adapted to bias said contact member to said first position upon clockwise rotation of said shaft to said first angular position and to bias said contact member to said second position upon counterclockwise rotation of said shaft to said second angular positions, the transition between said first and second positions being with a snap action.

2,845,505
BRAKE SWITCH
Frederick L. Jury, Colorado Springs, Colo.
Application June 20, 1956, Serial No. 592,649
1 Claim. (Cl. 200—80)



A switch control comprising a disc having a central opening therein, a bushing mounted on said disc circumjacent with the central opening therein to receive the drive shaft of an electric motor so that said disc is rotated in a horizontal plane, means including a wire for connecting said disc to the negative pole of a battery, a fixed plate having an opening in one end thereof, a tubular member secured to said plate in circumjacent relation to the opening therein, said plate being mounted so that said tubular member is positioned in circumjacent spaced relation to said bushing and said disc, means including a wire for connecting said plate to the positive pole of a battery, circuit breaking means including a pair of U-shaped mounting members secured to said disc in diametrically opposed relation to each other, a rod slidably mounted in each of said mounting members, stop means mounted on each rod within said mounting members, and a coil spring mounted on each rod in contact with said stop means to urge said rods toward said tubular member to complete a circuit.

2,845,506
HIGH VOLTAGE HIGH VACUUM RELAY
Victor E. De Lucia, Santa Monica, Calif., assignor to Pioneer Electronics Corporation, Los Angeles, Calif., a corporation of California
Application June 28, 1954, Serial No. 439,555
4 Claims. (Cl. 200—87)

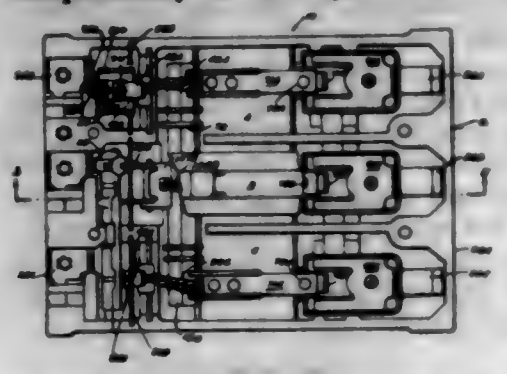


1. In a relay, a generally elongated envelope, a pair of spaced opposed fixed contacts in said envelope adjacent one end thereof, a lead extending from each of said contacts through said envelope to the exterior thereof, one of said leads being nonmagnetic and the other having a paramagnetic portion adjacent its contact, a terminal at the other end of said envelope, a resilient arm having one end thereof fixed to said terminal and extending generally longitudinally within said envelope, a movable paramagnetic armature between said contacts, said armature having contact elements thereon alternatively engageable with said fixed contacts, said contact elements being closely adjacent the center of gravity of said armature, the other end of said resilient arm being secured to said armature closely adjacent the center of gravity thereof, said resilient arm being biased to normally hold said armature against said nonmagnetic contact, and coil means associated with said relay for actuating the same.

2,845,507
OVERCURRENT DEVICE FOR CIRCUIT BREAKERS
John C. Bransfield, Philadelphia, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application May 28, 1953, Serial No. 357,963
3 Claims. (Cl. 200—88)

1. In a circuit breaker having a base and a pair of cooperable contacts; one of said contacts being biased to open position; a thermally responsive element comprising a bimetal; one portion of said bimetal being rigidly supported on said circuit breaker base and the other portion being free to flex when heated; said thermally responsive element being connectible into an electric circuit to be protected by said circuit breaker; a magnet mounted adjacent to and secured to the rigid portion of

said bimetal and rigidly held in place; a trip latch spaced from said bimetal to maintain said biased contact in its contact engagement with the other of said cooperable contacts; the flexible portion of said bimetal when operated engaging and operating said trip latch to release said contacts for operation by its bias; an armature being mounted independently of and spaced from both said



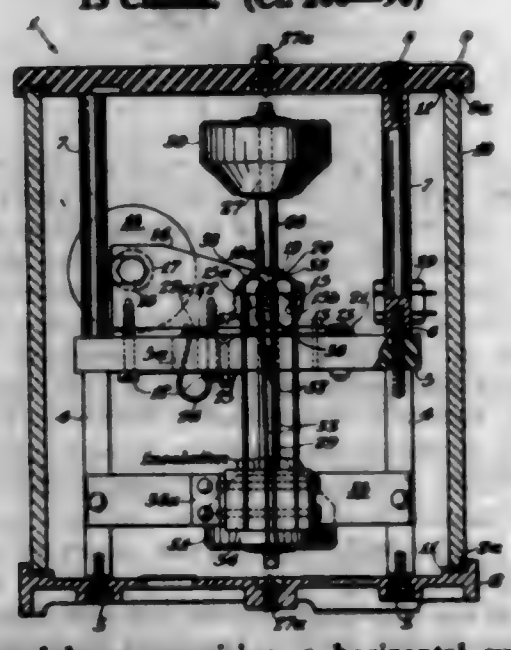
bimetal and said trip latch; said armature being operated by said magnet when fault current flows through said bimetal and energizes said magnet; said armature being operatively positioned to engage and operate said trip latch; said armature and bimetal being free to operate said trip latch mechanically and electrically unrestrained by the other.

2,845,508

CODE TRANSMITTER RELAYS

Leslie Joseph Lockett, London, England, assignor to Westinghouse Brake and Signal Company Limited, London, England

Application November 7, 1955, Serial No. 545,500
Claims priority, application Great Britain November 17, 1954
13 Claims. (Cl. 200—90)



2. A pendulum comprising, a horizontal support, an eccentrically weighted mass rollable on said support; means including a ligament wrapped around a portion of said mass and anchored at both ends to said support to constrain the rolling of said mass to a predetermined path, and electromagnetic means on said support and mass for rolling said mass in limited arcs on said support including an electromagnet, a magnetizable element, and means controlled by said mass for periodically energizing said electromagnet.

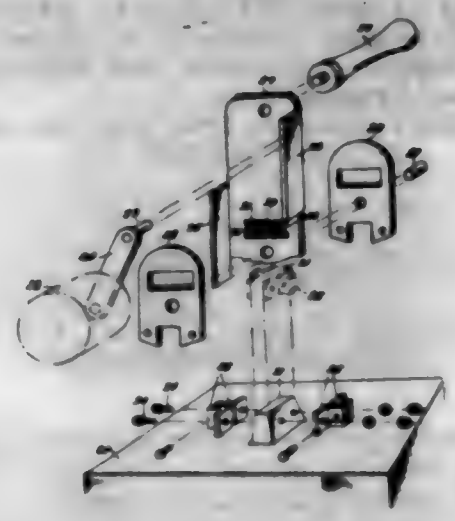
2,845,509

MOTOR OPERATED CIRCUIT BREAKER

John C. Brumfield, Philadelphia, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application June 29, 1956, Serial No. 594,880
15 Claims. (Cl. 200—92)

1. A mechanism for operating a circuit breaker having an operating handle which is movable in a first plane between a first and a second position, said mechanism comprising a unidirectional motor and a connecting means; said connecting means being constructed to operatively connect said unidirectional motor to said operating handle for motion thereof to said first position responsive to a first rotation of said unidirectional motor



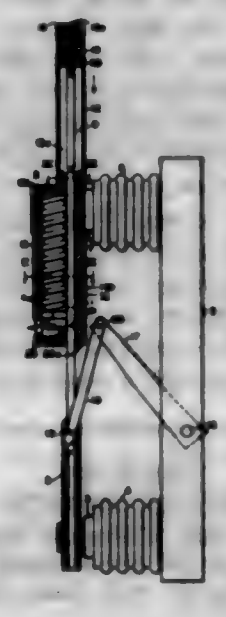
and to said second position responsive to a second rotation of said unidirectional motor; said connecting means being constructed to be automatically released from said operating handle after said operating handle is moved into said first or second position; said connecting means being movable in a plane substantially parallel to said first plane.

2,845,510

CIRCUIT INTERRUPTERS

Josef Biermann, Berlin-Siemensstadt, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Erlangen, Germany, a corporation of Germany

Application August 31, 1955, Serial No. 531,803
Claims priority, application Germany September 25, 1954
17 Claims. (Cl. 200—144)

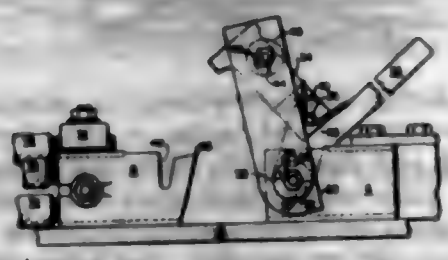


1. A circuit interrupter including passage means, means for initially establishing an arc along said passage means, relatively stationary insulating means for defining a laterally disposed helically-shaped arcing passage, and means for effecting the lateral transfer of the arc from said passage means into the helically-shaped arcing passage.

2,845,511

WITHDRAWN

2,845,513
PRESSURE SWITCH
Charles E. Burt, Newton, Edwin E. Kenneaul, Westwood, and Horace K. MacKechnie, Lexington, Mass., assignors to Kidde Company, Norwood, Mass., a corporation of Massachusetts
Application March 30, 1955, Serial No. 497,996
6 Claims. (Cl. 200—162)



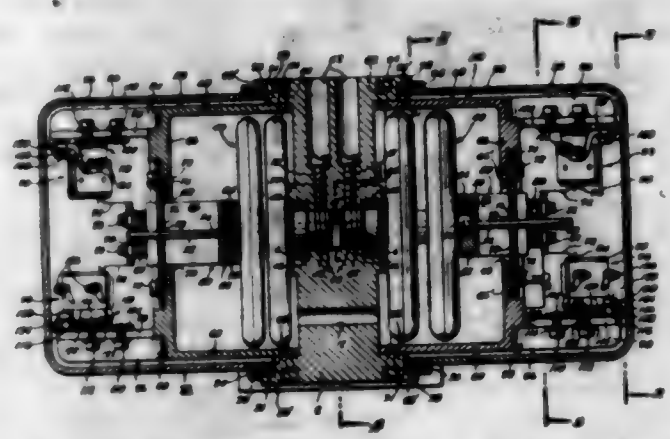
1. A pressure switch comprising fixed and movable blades, a pivot for the movable blades, a handle for operating the movable blades, cooperating cams carried on the pivot by the handle and movable blades, a wedge member pivoted on the handle and mounted for sliding movement relative to the movable blades, wedge blocks cooperating with the wedge member and carried by the movable blades, and means operated by continued angular movement of the handle after conclusion of the closing movement of the movable blades to cause relative motion of the wedge member and blocks to apply contact pressure to the blades.

2,845,513
ECHO-RANGING DEVICES
Robert A. Fryklund, Dedham, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application April 12, 1951, Serial No. 220,684
4 Claims. (Cl. 200—164)



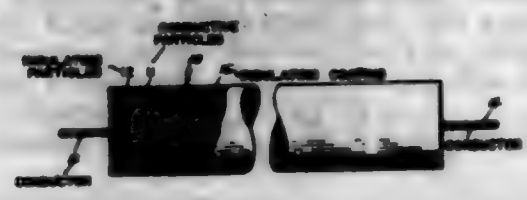
4. In combination, an electric motor comprising a hollow rotatable shaft carrying the rotor of said motor, an electrical conductor extending through said shaft, one end of said conductor being connected to a movable contact which is adapted to continuously engage a substantially stationary contact, an arm connected to the opposite end of said shaft, a first contact mounted on said arm, a second contact embedded in an insulating member, said insulating member having a curved surface, said second contact being located between the ends of said curved surface, the contacting surface of said second contact being substantially flush with said curved surface, said curved surface further having a radius of curvature which is greater than the average radius of curvature of the path of said first contact such that said first contact is adapted to engage said curved surface and said second contact only over a limited portion of the rotational cycle of said arm, and a stationary electrical contact adapted to resiliently engage said shaft, said contact comprising a pair of conductive members positioned in contact with opposite sides of said shaft, and resiliently urged together.

2,845,514
PRESSURE-OPERATED RHEOSTAT
George T. Sennesey, New York, and Frederick H. Sylvester, Baldwin, N. Y., assignors to Rabon Instruments Inc., New York, N. Y., a corporation of New York
Application November 29, 1955, Serial No. 549,596
16 Claims. (Cl. 201—48)



1. In a measuring instrument, a base, an expansible member mounted on said base and capable of expanding and contracting in a given direction, an element extending from said member in said given direction and movable therewith as said member expands and contracts, a guide operatively connected to said base and having an aperture through which said element is slidable, spaces being provided on either side of said guide, said element engaging said guide so as to be supported thereby, a yoke carried by and movable with said member and extending around said guide through said spaces, and means carried by said yoke for indicating the position of said yoke relative to said base.

2,845,515
SEMIMETALLIC RESISTIVE FILAMENTS
Mauritz L. Anderson, Arlington, and Frederick T. Hill, Bedford, Mass., assignors to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application March 12, 1953, Serial No. 341,968
4 Claims. (Cl. 201—63)

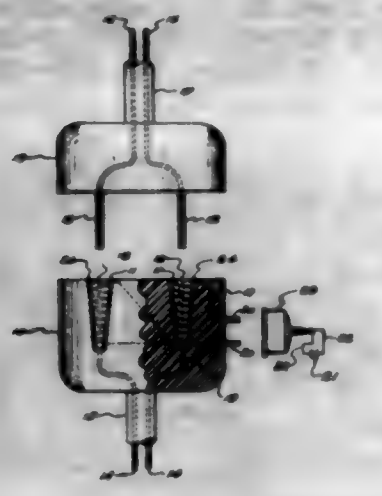


1. A resistive filament for a cathode of a thermionic discharge device consisting of a mixture of about forty to fifty-five percent of finely-divided molybdenum and the balance of dielectric refractory particles formed into a self-supporting body and covered by an insulating coating, and conductors inserted into the body of the filament at each end of said filament.

2,845,516
ELECTRIC CABLE CONNECTOR WITH SOLDERED JOINTS
Louis Franklin Jones, Panama City, Fla.
Application November 28, 1955, Serial No. 549,576
3 Claims. (Cl. 219—19)
(Granted under Title 35, U. S. Code (1952), sec. 266)

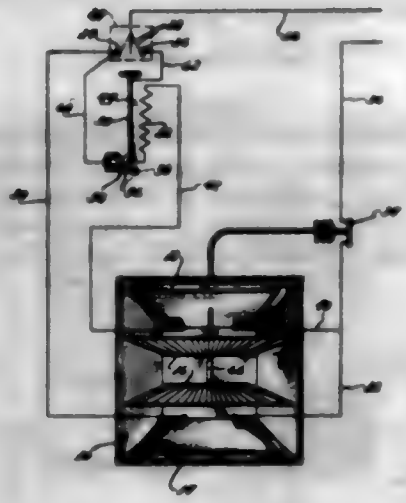
1. An electrical connector for receiving a prong type terminal comprising a female plug member of electrical insulating material and having at least one socket terminal adapted to be partially filled with solder, a cable wire electrically connected to the socket terminal, a heating coil within the plug member in heat exchange relationship with and electrically insulated from the socket terminal, and lead wires from the heating coil accessible to the exterior of the female plug member, whereby the

temporary application of an electric voltage across the lead wires will energize the heating coil to apply solder



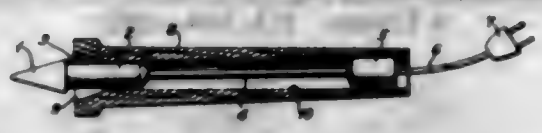
melting heat to the socket terminal so that a prong type terminal may be inserted therein or removed therefrom.

2,845,517
RANGE
Thomas E. Dadson, Franklin, Mich., assignor to American Motors Corporation, Detroit, Mich., a corporation of Maryland
Application July 12, 1956, Serial No. 597,546
3 Claims. (Cl. 219—20)



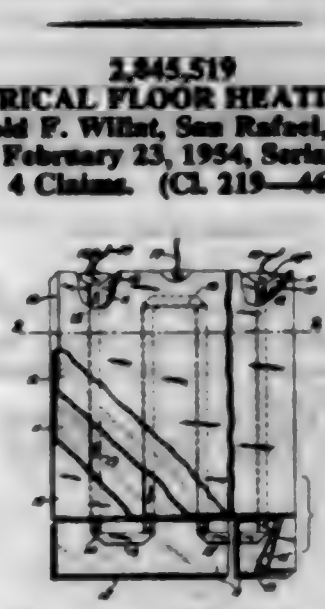
1. An electric oven heating system comprising a lower heating element, an upper heating element, power mains, circuit connections connecting one terminal of said lower heating element to said power mains, a selector switch connected to said power mains, said selector switch having a first contact and a second contact, circuit connections connecting said first contact with the other terminal of said lower heating element, a stationary contact, circuit connections connecting said stationary contact with said first contact, a bi-metallic strip having a fixed end and a movable end movable upon the application of heat to said strip, circuit connections connecting said fixed end with said second contact, a movable contact in engagement with said stationary contact and carried by the movable end of said strip, a heater coil positioned in heat exchange relation with said bi-metallic strip, circuit connections connecting one end of said heater coil to the movable end of said strip and to said movable contact providing a series circuit connection between said strip and said heater coil, circuit connections connecting the other end of said heater coil in series circuit relationship with one terminal of said upper heating element and circuit connections connecting the other terminal of said upper heating element to said power mains.

2,845,518
ELECTRIC SOLDERING IRONS
René Jean Antoine Teicheira, Rio de Janeiro, Brazil
Application March 12, 1956, Serial No. 570,790
Claims priority, application Brazil March 17, 1955
2 Claims. (Cl. 219—26)



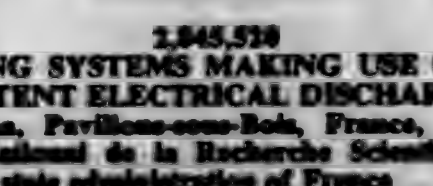
1. A soldering iron comprising an elongated handle having opposing ends and having an axial bore extending therethrough and through the ends, said bore having uninterrupted, plain walls which taper from one end to the other end, and a soldering member including a stem portion having a bit on one end, said stem portion being slidably disposed in the bore and having an enlarged section disposed within the bore and being of a cross-sectional size greater than the internal size of the bore at the other end so that said enlarged section frictionally fits within the bore at the other end of the handle to lock the bit in a position extending from said end of the handle.

2,845,519
ELECTRICAL FLOOR HEATING PAD
Arnold F. Wiffat, San Rafael, Calif.
Application February 23, 1954, Serial No. 411,988
4 Claims. (Cl. 219—46)



1. An electrical heating pad including a pair of flexible moisture impervious electrical insulation sheet members overlying with faces opposed, a flexible electrical resistance element between the relatively opposed faces of the insulation sheet members and fusible at a temperature insufficient to superficially burn readily inflammable material, a sheet of electrically conductive material at each of the outer faces of the insulation sheet members, and an electrical ground means connected to both of said electrically conductive sheets, and means for connecting the resistance element in an electric circuit.

2,845,520
MACHINING SYSTEMS MAKING USE OF INTERMITTENT ELECTRICAL DISCHARGES
Marc Bruma, Pavillons-sous-Bois, France, assignor to Centre National de la Recherche Scientifique, Paris, France, a state administration of France
Application October 14, 1957, Serial No. 689,955
Claims priority, application France, October 19, 1956
7 Claims. (Cl. 219—69)



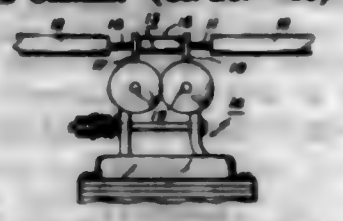
1. An electrical discharge machining system which comprises, in combination, a tool forming an electrode mounted opposite a piece to be machined forming another electrode, means for generating successive discharges be-

tween said electrodes, said means including an electrical energy accumulator having its terminals connected with said electrodes respectively, and an electric source for supplying charging current to said accumulator during recurrent charging periods, and means operative by variations of said charging current to supply between said electrodes at a given instant of every charging period a voltage impulse superimposed on the voltage applied between said electrodes by said accumulator whereby the corresponding machining discharge is then produced.

2,845,521
METHOD AND MEANS FOR SOLDERING CONDUCTORS

Russell W. Trickle, Jr., Janesville, Wis., assignor to Dittmore-Freimuth Corp., Milwaukee, Wis., a corporation of Wisconsin

Application April 22, 1955, Serial No. 503,175
2 Claims. (Cl. 219—85)



1. As an article of manufacture, a disposable molding device for use in making a soldered joint between small size electric and electronic conductors which are highly flexible and provide a molded splice having the same diameter as the joined conductors, said device comprising a one piece tubular element into the ends of which two bared conductors may be pushed, said element being made of brittle frangible material and having a continuous bore of a diameter corresponding to that of the conductors to hold the latter axially alined and against flexing, said bore being intersected by a radial opening in the element opposite which the conductor ends may be abutted, said opening being of sufficient size to permit solder to be introduced through it into said bore to unite the abutted conductor ends when they are electrically heated, the brittleness of said element permitting it to be readily crushed and broken away after the solder hardens to leave a splice having the same diameter as that of the joined conductors.

2,845,522
METHOD OF PROJECTION WELDING OF HANDLE OR BAIL EARS OR LUGS UPON RECEPTACLES

Preston M. Hall, Silver Spring, Md., assignor of fifty per cent to Edward C. Hall, Bridgeport, Conn.

Application May 25, 1956, Serial No. 587,339
8 Claims. (Cl. 219—93)

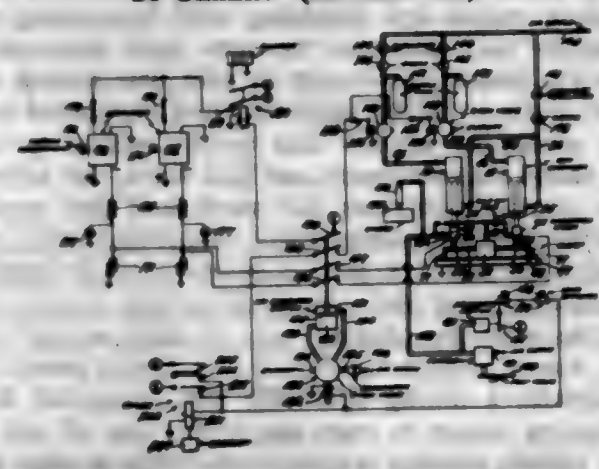


1. The method of welding a metallic handle attaching lug to the base metal of a receptacle body which consists in providing a lug having a projection thereon in engagement with the receptacle, pressing the lug and receptacle between welding electrodes and laterally deflecting the lug with respect to the receptacle for causing a penetrating and scraping action of the projection upon the base metal for establishing direct welding contact therebetween, and after such penetrating and scraping action of the projection upon the base metal causing an electric current to pass through said electrodes for establishing an electric weld of the projection against said receptacle at the point of scrape contact of the projection upon said base metal.

2,845,523
CONDENSER DISCHARGE STUD WELDING MACHINE

John R. Ramsey, Skokie, Ill., assignor to Croname, Incorporated, Chicago, Ill., a corporation of Illinois

Application April 4, 1956, Serial No. 576,835
16 Claims. (Cl. 219—98)

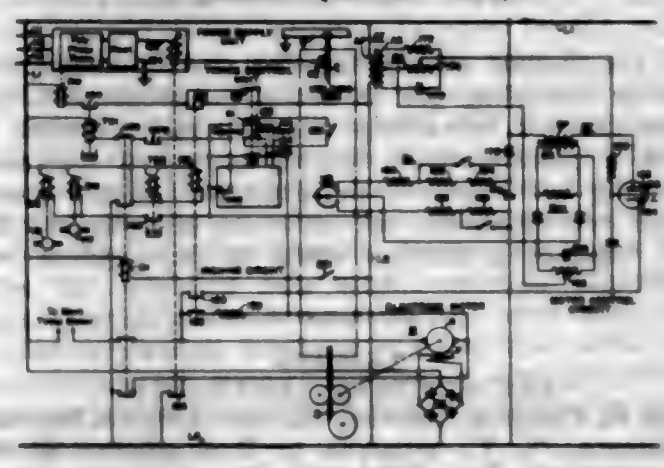


1. Stud welding apparatus of the class described, comprising in combination a plurality of welding guns each including individual chuck means for holding a stud to be welded and pneumatic means for causing movement of said chuck means to bring said stud into welding engagement with a workpiece, an individual capacitor connected to each gun for supplying welding current to said stud by discharge of said capacitor through said stud in the course of said welding engagement, current supply means for charging each capacitor, electropneumatic valve means for controlling operation of said pneumatic means and electrically controlled timing means connected to control operation of all of said valve means for determining the duration of said welding engagement and circuit means controlled along with said timing means and connected to said current supply means for suspending charging of each capacitor during said welding engagement.

2,845,524
ARC WELDING APPARATUS

Fred J. Morley, Jr., Hempfield Township, Westmoreland County, Louis Manno, Wilkinsburg, and Austin Dixon, Westmoreland City, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

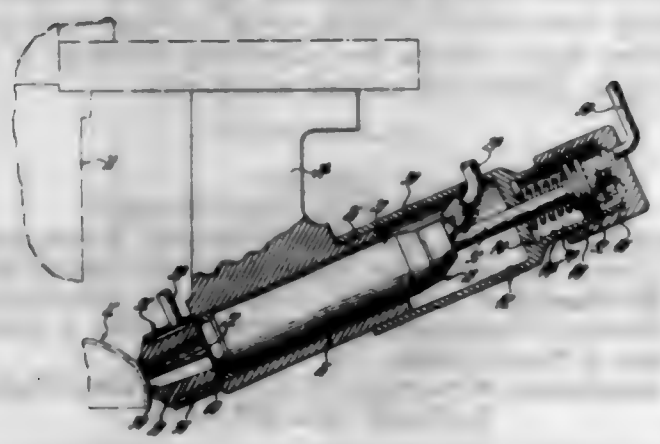
Application November 30, 1955, Serial No. 550,105
6 Claims. (Cl. 219—130)



1. Arc welding apparatus for producing spot welds on work with a consumable electrode, comprising in combination means for advancing said electrode to said work, means adapted to cooperate with said electrode for impressing a potential between said electrode and said work to produce a welding arc therebetween, said arc being initiated when said electrode contacts said work with a potential impressed between said electrode and work, means adapted to cooperate with said electrode for supplying gas to shield said arc, first timing means for timing a first interval, second timing means for timing

a second interval, third timing means for timing a third interval, means responsive to said first timing means and connected to said advancing means for actuating said advancing means to advance said electrode during said first interval, means responsive to said first timing means when it starts a timing operation and connected to said impressing means for actuating said impressing means to impress said potential between said electrode and said work, means responsive to said first timing means when it starts a timing operation and connected to said supply means to actuate said supply means to supply gas to shield said electrode and said work, the advancing of the electrode towards the work and the supply of gas being started substantially simultaneously, means responsive to said first timing means when it terminates a timing operation and connected to said second timing means to start the timing out of said second timing means, means responsive to said first timing means when it terminates a timing operation and connected to said third timing means to start the timing out of said third timing means, means responsive to said second timing means when it times out and connected to said impressing means for interrupting the impressing of said potential, and means responsive to said third timing means when it times out and connected to said gas supply means for interrupting the supply of said gas.

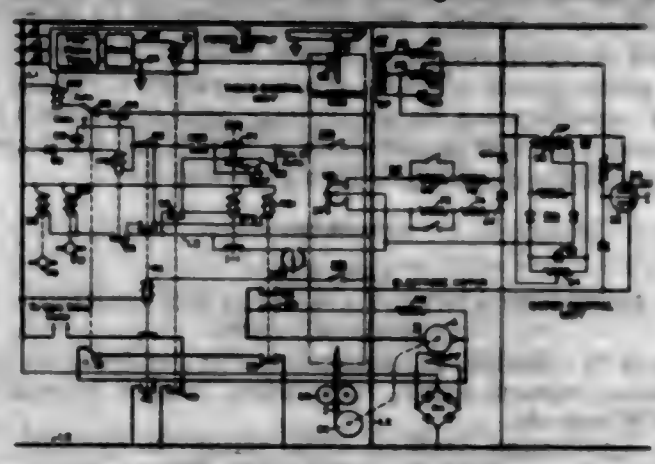
2,845,525
WELDING EQUIPMENT
George E. Greener, Pontiac, and George R. Squibb, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 31, 1956, Serial No. 619,439
7 Claims. (Cl. 219—130)



1. The method of adjusting the nonconsumable electrode of a welding gun to obtain the proper weld gap which includes, advancing said gun and electrode together a predetermined distance toward a workpiece, advancing said electrode independently of said gun to engage said workpiece, and retracting said gun and electrode together a distance equal to the required weld gap.

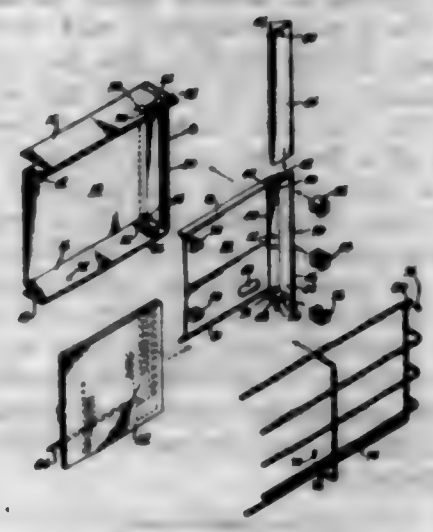
2,845,526
ARC WELDING APPARATUS
James M. Cameron, Berwick, Pa., and Alfred J. Baeslack, Clarence, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 3, 1956, Serial No. 556,940
11 Claims. (Cl. 219—131)

9. An arc-spot welding apparatus for welding work with a consumable electrode by an arc between said electrode and work and including means for advancing said electrode, a timing means for timing the duration of each weld, means to be connected to said electrode and work and responsive only to current conducted between said electrode and work as distinguished from the potential between said electrode and work, and start switch means for starting a welding operation, the advancing means of said apparatus being actuated immediately on actuation of said switch means advancing said electrode towards said work but the timing out of the timing



means being initiated by said current responsive means on the flow of current between said electrode and work after said electrode contacts said work and the timing out continuing so long as said current flows and the current continuing for the duration of the timing interval.

2,845,527
ELECTRICAL RESISTANCE SPACE HEATERS
John C. McEachron, Tacoma, Wash.
Application August 27, 1956, Serial No. 606,470
6 Claims. (219—34)

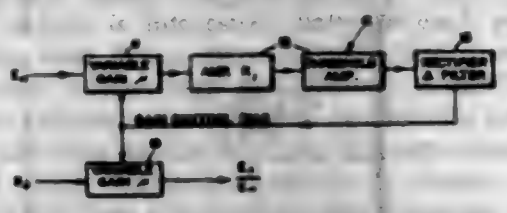


1. In a heater of the character described, a substantially vertical heat radiating panel; a trough-like end channel at each end of said heat radiating panel, each end channel comprising a substantially U-shaped end member having an opening in one side leg thereof receiving an end portion of the heat radiating panel and having rail means on the edge portions of the side legs; resilient U-shaped heat insulators disposed in said end channels and confined against vertical and endwise movement away from said heat radiating panel by said end channel, said U-shaped heat insulators engaging, between the legs thereof, the top, bottom and end edge portions of said heat radiating panels; a slide cover plate for each end channel and engaging said rail means and confining outward movement of said U-shaped heat insulators from said end channels; and means limiting endwise movement of said end channels away from each other.

2,845,528
DIVIDING AND LIMITER CIRCUIT
James E. Brook, Hackensack, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application March 17, 1953, Serial No. 342,953
4 Claims. (Cl. 250—27)

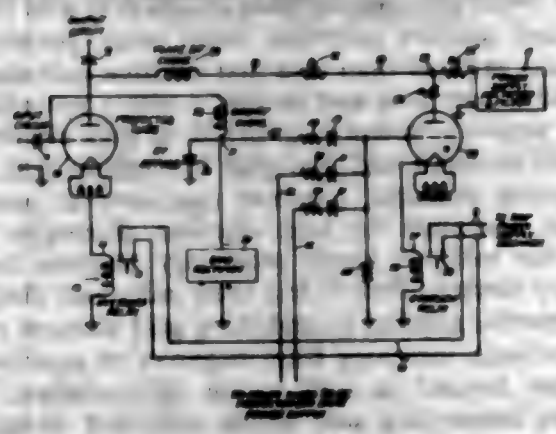
3. A circuit for producing an electric signal corresponding to the quotient of a divisor and a dividend

electric signal, comprising first and second substantially identical variable μ tubes, means for applying said dividend signal to said first tube to provide an electrical output, means for applying said divisor signal to said second tube to provide an electrical output, threshold means responsive to the electrical output of said second tube for



varying the μ of said second tube electrically to maintain said output constant and vary said μ as a function of the reciprocal of the divisor signal, said last-named means also being arranged to vary the μ of said first tube electrically, whereby the output of said first tube corresponds to the quotient of said signals.

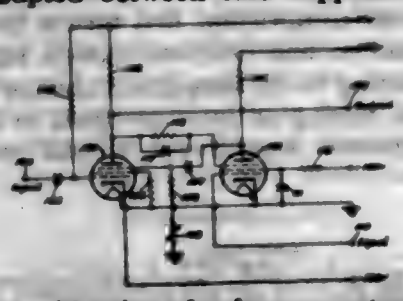
2,845,529
PROTECTIVE CIRCUITS
James O. Weldon, Dallas, Tex.
Application April 6, 1953, Serial No. 346,982
5 Claims. (Cl. 250—27)



1. A protective circuit for an electron tube device comprising a power supply connected across the device and means for substantially short-circuiting the power supply in response to arcing between an anode and a grid of the protected device, said short-circuiting means comprising a grid controlled gas filled tube having an anode, a control grid, and a cathode; connection means from the anode of the protected device to the anode of the gas filled tube; return connection means from the cathode of the gas filled tube to the power supply, the gas filled tube being substantially directly connected across the power supply; a circuit between the control grid and cathode of said protected device including a source of biasing voltage and a control connection from the grid of the gas filled tube to a point in said circuit such that there is inappreciable resistance in a path from said point to the grid of said protected tube.

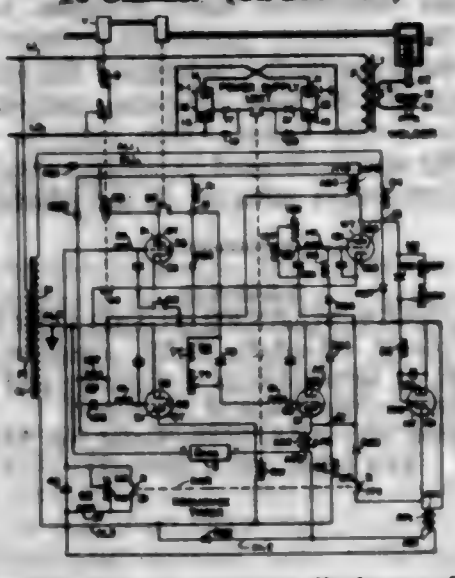
2,845,530
PULSE SORTER
Elmer J. Wade, Scotia, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application September 28, 1953, Serial No. 382,879
6 Claims. (Cl. 250—27)

2. A timing circuit comprising first and second pentode tubes; means for deriving an output pulse at the anode of said first tube; a source of gating pulses coupled to the control grid of said first tube; a source of synchronizing negative pulses coupled to the control grid of said second tube; a parallel resistor and capacitor coupling the anode of said first tube with the suppressor grid of said second tube for allowing said second tube to conduct only when said first tube is not conducting; a point of reference potential; a timing network comprising a capacitor coupled between the suppressor grid of said first tube and the anode of said second tube and a variable resistance coupled between said suppressor grid of said



first tube and said point of reference potential; and means for biasing the control grid of said first tube such that it will conduct only in the absence of a gating pulse thereon and when said capacitor is substantially discharged.

2,845,531
ELECTRIC DISCHARGE APPARATUS
Hubert W. Van Ness, East Aurora, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 19, 1954, Serial No. 424,094
16 Claims. (Cl. 250—27)

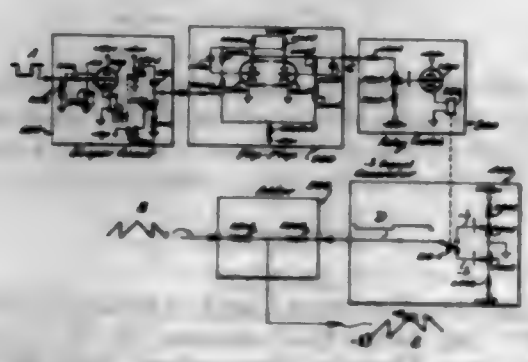


1. In combination, an electric discharge device having an anode, a cathode, and a control electrode; means for impressing an anode potential between said anode and cathode such as to maintain a discharge in said device at the proper potential on said control electrode; a control circuit for said device including in series biasing means for maintaining said device non-conducting in the quiescent state of said combination, means for impressing a first control potential to counteract said biasing means, and means for impressing a second control potential to counteract said first potential when said first potential is impressed substantially at its maximum magnitude; means for actuating said first-potential impressing means; and means for actuating said second-potential impressing means a predetermined time interval after said first-potential impressing means is actuated and while said first-potential impressing means remain actuated and said first potential remains impressed substantially at its maximum magnitude.

2,845,532
CIRCUIT FOR ELIMINATING THE HYSTERESIS EFFECT RESULTING FROM TIME DELAYS INHERENT IN TRACK-WHILE-SCAN SYSTEMS
Orin Henry Knowlton, Jr., and Lloyd David Ball, Los Angeles, Calif., assignors to Gilfillan Bros. Inc., Los Angeles, Calif., a corporation of California
Application February 28, 1955, Serial No. 491,062
8 Claims. (Cl. 250—27)

1. In a system wherein a scan-indicating signal having increasing and decreasing portions varying linearly at

substantially the same rate is compared with a fixed scan-position signal to generate a gating signal, the system having inherent time delays; a circuit for eliminating the effect of the time delays in generating the gating signal, said circuit comprising: first means for generating constant first and second delay-correction signals having levels corresponding to the amplitude change in the scan-indicating signal during an interval equal to the time delay to be eliminated, respectively; second means including an output circuit for switching said first and second delay-correction signals to said output circuit during said increasing and decreasing signal portions, respectively, said second means thereby producing a correcting output signal; and third means for combining the varying scan-indicating signal with said correcting output signal to produce a composite signal which may be utilized to generate gating signals delayed by an amount corresponding to the time delays inherent in the system.

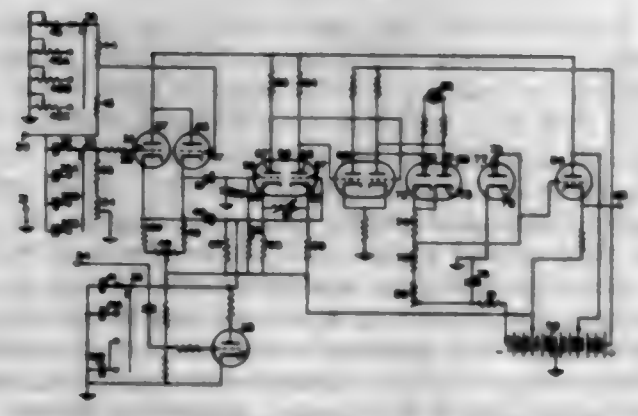


2,845,533

FREQUENCY MARKER PULSE CIRCUITS

Henry O. Wolcott, Glendale, Calif., assignor, by mesne assignments, to International Telephone and Telegraph Corporation, a corporation of Maryland

Application March 15, 1956, Serial No. 571,654
12 Claims. (Cl. 250—27)



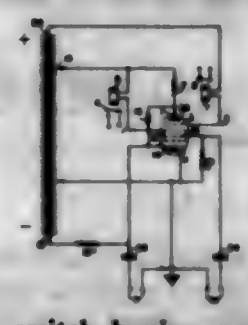
1. A circuit for forming a pulse of electrical energy at a selected frequency in a band of sequentially produced frequencies of alternating electrical energy comprising calculus-function-producing elements to form an amplitude of electrical energy proportional to a continuous first order calculus function of said band of frequencies, first means connected to said elements to form the envelope of said first order calculus function, a periodic second means to form the envelope of said sequentially produced frequencies, differential means connected to said first means and to said second means to form variations of electrical energy having inverse amplitudes as a continuous function of said sequentially produced frequencies, and means connected to the output of said differential means to form a pulse of electrical energy at the frequency at which the difference between said inverse amplitudes is a minimum.

2,845,534

SECONDARY EMISSION TRIGGER CIRCUIT

Conrad H. Hoeppner, Washington, D. C.

Application May 15, 1945, Serial No. 593,987
2 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



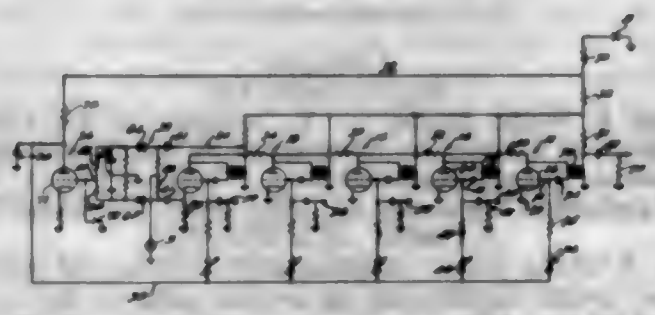
1. An electron switch having a stable state including an anode, a cathode, a first grid element located between said cathode and said anode, a second grid element located between said cathode and said first grid element, a third grid element located between said second grid element and said cathode, means maintaining said third grid element at the same potential as said cathode when said electron discharge device is in said stable state, means for applying a first positive potential relative to said cathode to said anode, means for applying a second positive potential relative to said cathode to said first grid element, said second positive potential being more positive relative to said cathode than said first positive potential, said first positive potential and second positive potential providing a negative potential gradient in said electron discharge device from said first grid element to said anode, said negative potential gradient operative to provide a region of operation of said electron discharge device wherein the ratio of anode secondary electron emission to primary electron flow is less than unity and diminishes as the potential applied to said third grid element relative to said cathode increases from negative to positive, said stable state located in said region of operation, a first impedance connecting said anode and said second grid element to maintain said stable state under control of the potential on said anode relative to said cathode, a second impedance connecting said second grid element to a negative potential relative to said cathode, the ratio of said first impedance to said second impedance determining the location of said stable state in said region of operation, and means for applying a signal to said third grid element to effect operation of said electron discharge device in said stable state.

2,845,535

INTERLACED TIMER

John R. Kruse, Jr., Lancaster, Ohio, assignor to Diamond Power Specialty Corporation, Lancaster, Ohio, a corporation of Ohio

Application August 6, 1954, Serial No. 448,349
9 Claims. (Cl. 250—36)



1. An electrical interlaced timer for generating synchronizing signals comprising, a primary generating means for producing a signal having a first frequency, said generating means including an electronic tube having a plate element, a frequency divider chain including a plurality of electronic tubes each of which has a plate

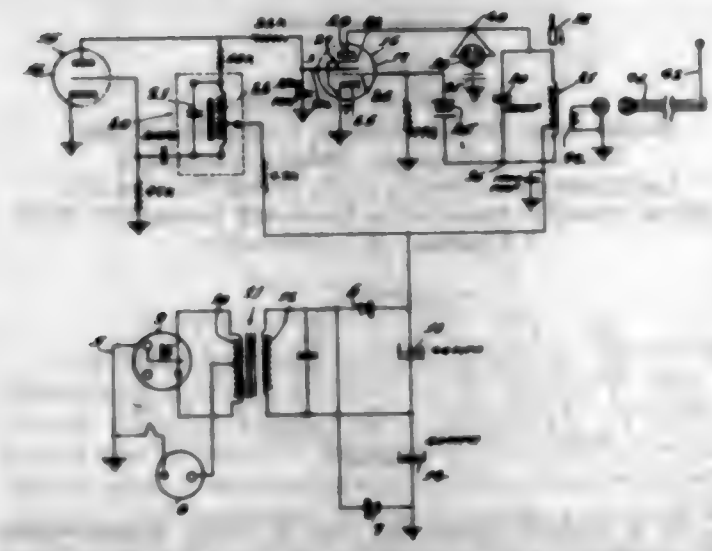
element, said frequency divider chain being controlled by said primary generating means for producing signals having submultiple frequencies of said first frequency, direct-current conductive means for coupling said primary generator means with said frequency divider chain and for coupling each tube in said chain with the next succeeding tube comprising a plurality of resistance elements one of which is interposed between each pair of plate elements, said direct-current conductive means conducting control pulses from said primary generator means to the first tube in said chain and conducting control pulses from each tube in said chain to the next succeeding tube in said chain, means comparing an output signal from said divider chain and a power-line frequency for developing a potential signal having a value depending upon the relative phase of the power line and divider chain frequencies, and means for applying said potential signal to the generating means and divider chain in parallel arrangement for electrically locking said generator means and divider chain to the power line.

2,845,536

RADIO FREQUENCY TRANSMITTER

Richard Goldstein, Des Plaines, Ill., assignor to Perma-Power Company, Chicago, Ill., a corporation of Illinois

Application November 8, 1954, Serial No. 467,314
3 Claims. (Cl. 250—36)



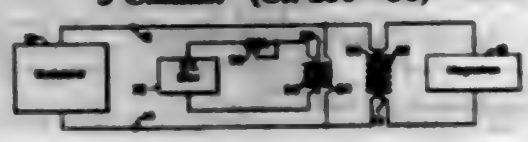
3. A crystal-controlled radio-frequency oscillator comprising a vacuum tube having a cathode, control grid and anode, a tuneable tank circuit having a radio-frequency high potential terminal and a radio-frequency low potention terminal, a neon glow lamp having both terminals connected to said high potential terminal, a frequency-control crystal connected between said control grid and said low potential terminal, said neon glow lamp being proximate to a circuit point of ground potential and having the dual functions of indicating by its brightest glow when said tank circuit has been tuned to provide maximum radio-frequency voltage and of providing reduced capacitance when not glowing to de-tune said tank circuit slightly to insure that oscillation will start.

2,845,537

POST-PULSE ELIMINATOR

William M. Hobbs, Brooklyn Park, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application January 23, 1956, Serial No. 560,482
3 Claims. (Cl. 250—36)



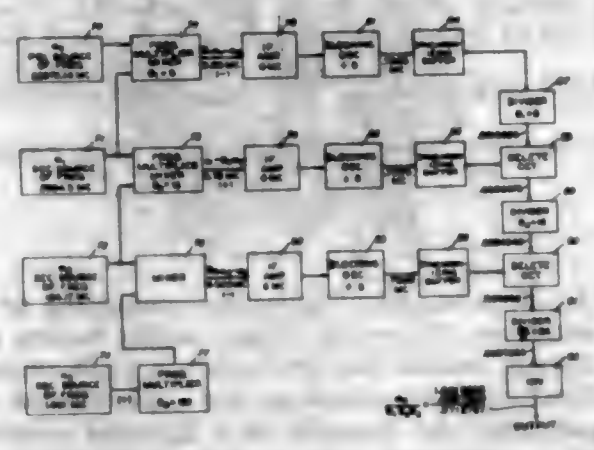
1. In combination with a pulse generator adapted to supply energy pulses of predetermined pulse duration to a magnetron or other similar device, a pulse transformer coupling the output of said generator to said magnetron, primary and secondary windings for said transformer, a saturable inductor connected in parallel with said primary winding, and means for applying a bias voltage to said inductor, said bias voltage being of a magnitude such that the inductor will saturate and short circuit said primary winding after an amount of time equal to said predetermined pulse duration has elapsed subsequent to the initiation of a pulse supplied by said generator.

2,845,538

SUPER HIGH FREQUENCY DIVIDERS

Byron L. Havens, Closter, and Merlin G. Smith, West Englewood, N. J., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application January 25, 1956, Serial No. 561,182
19 Claims. (Cl. 250—36)



18. Electronic apparatus for producing a train of pulses, including a primary source of alternating current of a given frequency and a secondary source of alternating current having a frequency less than said given frequency, means for multiplying the frequency of said secondary source by a given factor, means for combining said multiplied frequency and said given frequency to produce a beat frequency, means for dividing said beat frequency by said given factor and means for algebraically combining said divided beat frequency with said secondary source frequency to produce a frequency equal to said primary source frequency divided by said given factor.

2,845,539

MASS SPECTROMETRY

Charles F. Robinson, Pasadena, Calif., assignor to Consolidated Engineering Corporation, Pasadena, Calif., a corporation of California

Application March 28, 1955, Serial No. 497,097
5 Claims. (Cl. 250—41.9)



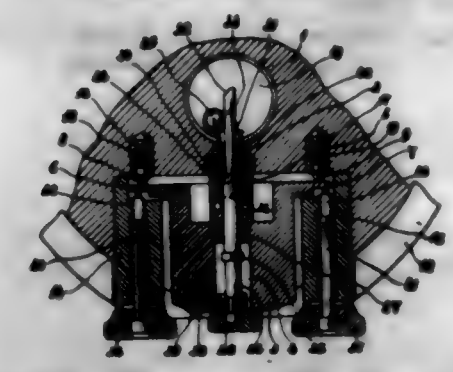
1. In combination with a cycloidal analyzer, an ion source comprising means defining an ionizing region, means for developing an ionizing electron beam across the ionizing region, a repeller electrode supported on one side of the electron beam, first and second apertured electrodes spaced from each other on the opposite side of the electron beam, means for admitting molecules to be ionized, and means for developing a potential between the electrodes to cause ions formed by the electron beam to flow successively through the apertures in the first and second accelerating electrodes, the spacing of the means

forming the ion beam and the second electrode being such that the distance the ions travel from the point of formation to the aperture in the second accelerating electrode does not exceed .070 inch.

2,845,540
APPARATUS FOR USE WITH CORPUSCULAR RAYS

Adrianus Jacobus Josef Franken and Adrianus Verhoeff, Emmasingel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 4, 1955, Serial No. 492,188
Claims priority, application Netherlands March 9, 1954
4 Claims. (Cl. 250—49.5)

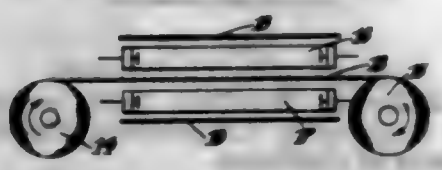


1. An electron-optical apparatus comprising an evacuated enclosure, a movable object carrier having at least part thereof outside said enclosure, a rigid support for said object carrier mounted on said apparatus but outside said enclosure and movable in a direction substantially parallel to said object carrier, said support being provided with a bore, an air-tight connection and an air-lock extending co-axially therewith communicating said evacuated enclosure with said bore.

2,845,541
POLYETHYLENE FILMS

William Berry, Durleigh, Bridgwater, Somerset, and Richard Arthur Rose and Charles Richard Bruce, Bridgwater, Somerset, England, assignors to British Cellophane Limited, Bridgwater, England, a British company

Application November 29, 1954, Serial No. 471,842
4 Claims. (Cl. 250—52)



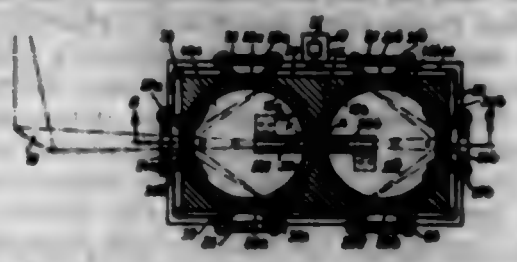
1. A method of rendering the surface of a solid polyethylene film receptive to printing inks, which method comprises passing the film into an ultra violet light irradiation treatment zone in which at least one surface of the film is irradiated with ultra violet light of an intensity of at least 0.5 microwatt per square centimeter of said film surface, maintaining the film within the zone for such a period that the total irradiation is at least 180 microwatt seconds per square centimeter of said film surface and then removing the treated film from the irradiation zone.

2,845,542
X-RAY DIFFRACTION APPARATUS

Heinz Jagodzinski, Wurzburg, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany

Application September 15, 1953, Serial No. 380,189
17 Claims. (Cl. 250—53.5)

14. In an X-ray diffraction apparatus including a narrow-beam X-ray tube, in combination, a curved focusing monochromator in the path of an X-ray beam emitted from said tube for transmitting a focused monochromatic beam; a body formed with two cylindrical cavities of equal diameter constituting two diffraction chambers, the inner surfaces of said cylindrical cavities contacting each other along a contact line parallel with their respective axes, said contact line being located in the focal line of said X-ray beam focused by said monochromator; positioning means for positioning a first substance at a portion of the inner surface of one of said chambers

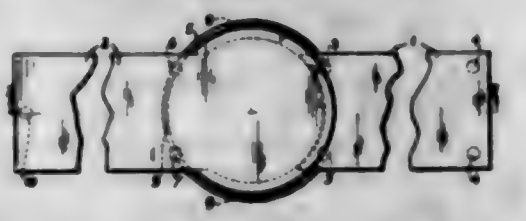


opposite said contact line and in the path of said focused X-ray beam so that the diffraction of said focused X-ray beam after passing through said first substance can be recorded in said one chamber; and means for simultaneously positioning a second substance at a portion of the inner surface of the other of said chambers opposite said contact line and in the path of said focused X-ray beam, so that the back reflection of said focused X-ray beam impinging on said second substance can be recorded in said other chamber.

2,845,543
PATIENT COUCH

Svend Aage Bruun Hansen, Copenhagen, and Verner Christensen, Thisted, Denmark

Application January 7, 1955, Serial No. 480,516
Claims priority, application Denmark January 9, 1954
7 Claims. (Cl. 250—54)

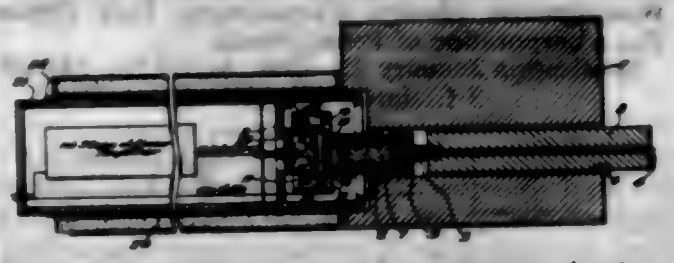


1. In a patient couch for use in X-ray examinations and treatment and comprising at least two co-planar parts, a seat part and a back part rotatable in relation to each other in a single plane, that improvement comprising a joint between the two parts having a shape such that X-rays striking the joint at substantially right angles to the plane of the surface of the parts of said couch penetrate the same thickness of material as X-rays striking any other point of the parts of said couch within the field of exposure at substantially right angles.

2,845,544
NEUTRON MEASURING METHOD AND APPARATUS

Glenn T. Seaborg, Chicago, Ill., and Gerhart Friedlander and John W. Gofman, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application August 11, 1945, Serial No. 610,348
8 Claims. (Cl. 250—83.6)



1. Fast neutron fission detecting apparatus having, in combination, an ion chamber containing air and pro-

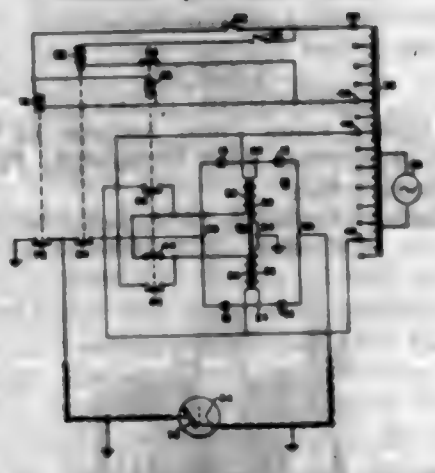
vided with an aperture on one wall thereof, a pair of electrodes in said chamber in confronting relationship, one of said electrodes being mounted in the orifice and being coated with a sample of fissionable material on its surface confronting the other electrode, the walls of said ion chamber including the surface exterior of said coated electrode being coated with a thin layer of material having a high absorption characteristic for thermal neutrons, a source of fast neutrons exteriorly of said ion chamber immediately adjacent to the orifice and said coated electrode, amplifying means adjacent the ion chamber in circuit relationship with the other of said electrodes and a shield surrounding said amplifying means and ion chamber of material having a high absorption characteristic for neutrons in a range from thermal energy to about 1 electron volt.

2,845,545

X-RAY APPARATUS

Frederick J. Euler, Jr., Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 1, 1954, Serial No. 472,498
4 Claims. (Cl. 250—102)



1. In X-ray apparatus including an X-ray tube the combination of a bridge rectifier circuit having at least two branch circuits, a high tension transformer including at least a pair of primary windings and a secondary winding, said secondary winding having a first portion and a second portion, said secondary winding having a grounded tap between said first portion and said second portion, circuit means connecting the ends of said secondary winding to said rectifier circuit, first switch means connected to said windings such that said primary windings can be selectively connected in parallel or in series and second switch means having first and second conditions connected between said X-ray tube and said rectifier circuit, said second switch means being arranged when in said first condition to connect said X-ray tube across said rectifier circuit so as to apply the full potential of said secondary winding to said X-ray tube, and when in said second condition to connect said X-ray tube between said rectifier circuit and said grounded tap.

2,845,546

AMPLITUDE DISCRIMINATOR

Joseph A. Purcell, Endwell, and Harold J. Beal, Apalachin, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 29, 1954, Serial No. 478,472
2 Claims. (Cl. 250—211)



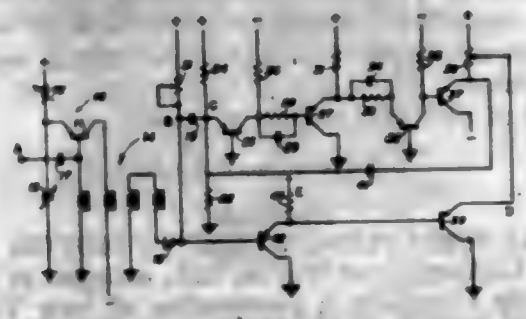
1. Apparatus for measuring the vibrations of a vibratory object that comprises a source of light providing a small cross sectional area beam of constant intensity, a junction phototransistor positioned to receive said beam on a limited area thereof adjacent to but removed from said junction, means to apply a voltage across said phototransistor to produce a normal output current therein, means to displace said beam in said limited area as a function of the vibration of said object to modulate said output current, the amplitude of said voltage across said phototransistor being sufficient to provide a substantially linear modulated current output response characteristic for a significant portion of said limited area, the amplitude of said modulation being a linear function of the magnitude of displacement of said beam from said junction and means to measure said modulated output current as a measure of the vibrations of said object.

2,845,547

VARIABLE TIME BASE GENERATOR

Charles F. Althouse, San Diego, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application November 17, 1954, Serial No. 469,569
9 Claims. (Cl. 307—88.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



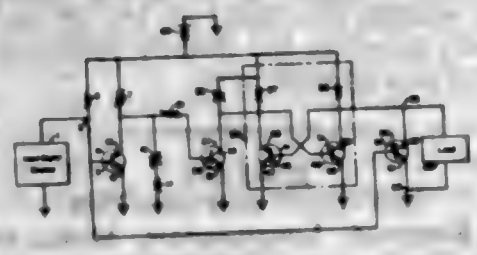
1. In a variable time base generator, circuit means for producing a voltage going sharply negative with respect to ground upon application of a triggering voltage pulse thereto, and a linear rise back to ground potential, at which the voltage remains until the next triggering pulse is applied, said circuit means comprising a transitorized blocking oscillator including a transformer, a charge-discharge condenser, normally conducting gating means connected to pass negative charges from the secondary winding of said transformer to one plate of said charge-discharge condenser, a variable resistor connecting a positive potential source to said one plate, and an output connection between said gating means and said one plate.

2,845,548

STATIC TIME DELAY CIRCUIT

Sheldon D. Silliman and John F. Reuther, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 25, 1956, Serial No. 580,615
8 Claims. (Cl. 307—88.5)



1. A step-function time delay circuit comprising: a source of bias potential; a bistable multivibrator including first and second junction transistor means each having at least emitter, base and collector electrodes, the collector of each transistor being directly connected to the base of the other, and first and second impedance means respectively coupling said collector electrodes of said first and second transistor means to said bias source; first capacitor means coupled across said first impedance means

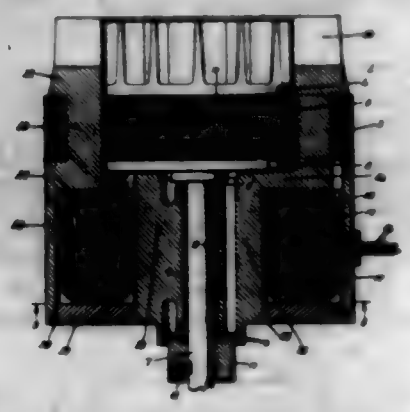
to render said second transistor means conducting and said first transistor means nonconducting upon initial energization of said source of bias potential; third impedance means and second capacitor means serially coupled across said source of bias potential; third junction transistor means having emitter and collector electrodes respectively connected to said emitter and base electrodes of said first transistor means; said second capacitor means coupled between the base electrode and said emitter electrode of said third transistor means by fourth impedance means; fourth transistor means having at least emitter, base and collector electrodes, said emitter and collector electrodes of said fourth transistor means being coupled to said second capacitor means to discharge said second capacitor means through the emitter to collector current conduction path of said fourth transistor means; resistor means coupling said bias source between said base and emitter electrodes of said fourth transistor means to render said fourth transistor means normally conducting to collector current saturation; fifth junction transistor means having emitter and collector electrodes respectively connected to said emitter and base electrodes of said second transistor means and base electrode means connected to said base electrode of said fourth transistor means, all of said transistor means being of the same conductivity type; input terminals connected to said base and emitter electrodes of said fourth transistor means, and output terminals connected to said emitter and collector electrodes of said fifth transistor means.

2,845,549

ALTERNATING CURRENT MOTOR

Clovis E. Linkous, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application April 19, 1956, Serial No. 579,315
16 Claims. (Cl. 310—68)



1. An electric motor having coaxial relatively rotatable core members, a toroidal transformer core member axially spaced from and substantially coaxial with said relatively rotatable members, primary and secondary coils wound on said toroidal core member, said primary coil being adapted to be connected to a source of alternating current, and a field winding positioned on one of said relatively rotatable core members and directly connected across at least a part of said secondary coil.

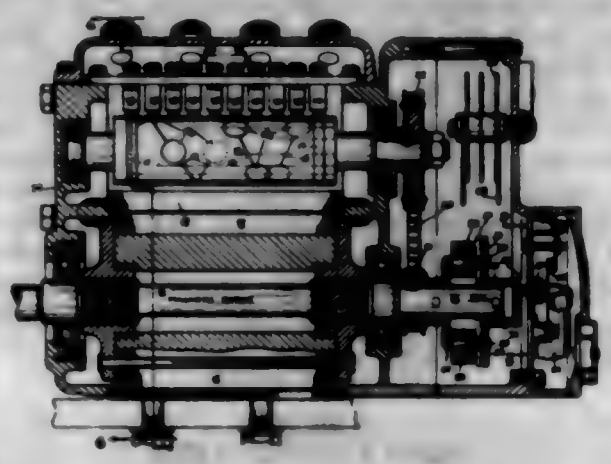
2,845,550

IGNITION APPARATUS

Ludvig P. Kongsted, Longmeadow, Mass., assignor to American Bosch Arma Corporation, a corporation of New York

Application January 25, 1955, Serial No. 483,873
4 Claims. (Cl. 310—70)

1. In a device of the character described, a stator, a magnetic rotor mounted for rotation relative to said stator, a distributor rotor, collector means on said distributor rotor and electrically connected to said stator, a plurality of contacts on said distributor rotor, contact members adjacent said distributor rotor and each being adapted to make electrical contact with its respective distributor rotor contact upon rotation of said distributor rotor and means for driving said magnetic rotor and distributor rotor in operative relation, contact means



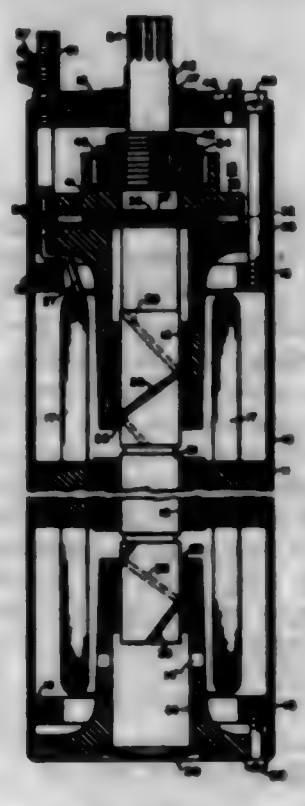
adjacent one of said rotors and means on said rotor for actuating said contact means and centrifugally operative means on said rotor for rendering said breaker contact inoperative except at cranking speeds.

2,845,551

SUBMERSIBLE MOTOR

Marion G. Potter, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 4, 1955, Serial No. 538,431
5 Claims. (Cl. 310—87)

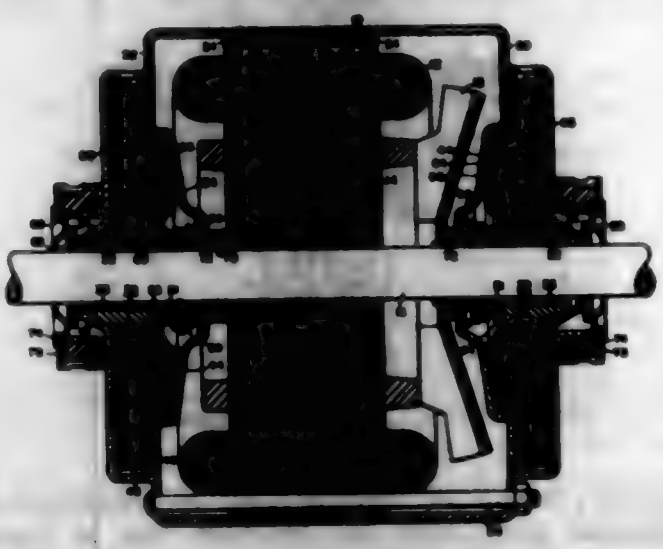


1. In a submersible electric motor, in combination, a generally cylindrical frame, an upper end bracket and a lower end bracket disposed in the frame, a rotor shaft rotatably mounted in said end brackets, bearing members in said brackets for supporting said shaft, grooves in said shaft within said bearing members for causing liquid to flow upwardly along said shaft, a thrust washer disposed around the shaft upon the upper end bracket, radial grooves in the thrust washer for causing liquid to flow outwardly from the shaft to lubricate the washer, a thrust runner disposed upon the thrust washer, said washer being rotatable by excessive friction between the runner and the washer, and a thrust collar disposed upon the thrust runner, said thrust collar being attached to the rotor shaft and the thrust runner being rotatable with the thrust collar.

2,845,552
ELECTRIC MOTOR

Donald L. Robinson, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 26, 1955, Serial No. 536,482
4 Claims. (Cl. 310—90)

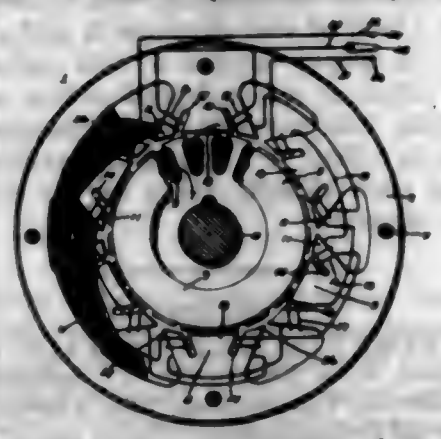


1. An electric motor comprising a stator member and a rotor member, said stator member having end brackets at each end thereof and the rotor member including a shaft passing through at least one of the end brackets, each of said end brackets having a central spherical seat formed therein, a sleeve bearing for the shaft in each of the end brackets, said bearing being of non-porous material and having a window therethrough, each of said bearings having a spherical surface at one end thereof engaging the spherical seat of the end bracket, a retaining member secured within each end bracket and forming a closed annular lubricant reservoir between the end bracket and the retaining member, means within said lubricant reservoir for resiliently holding the bearing in engagement with the end bracket, and means in each lubricant reservoir for supplying lubricant through said window directly to the shaft.

2,845,553
DYNAMOELECTRIC MACHINE

John L. Oldenkamp and Fred W. Suhr, Fort Wayne, Ind., assignors to General Electric Company, a corporation of New York

Application October 11, 1955, Serial No. 539,766
1 Claim. (Cl. 310—172)

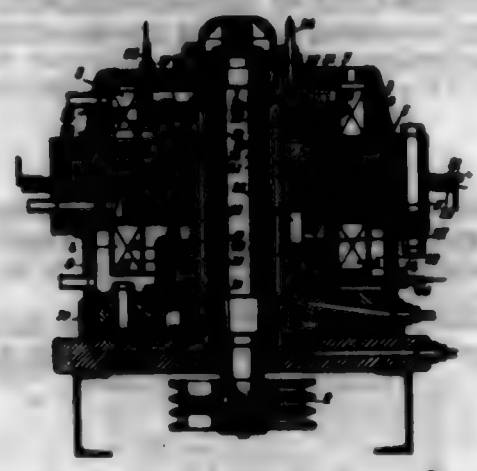


In a reversible induction motor of the shaded-pole type, a squirrel cage rotor, a stator surrounding said rotor and concentric therewith, said stator being divided into a plurality of equispaced salient poles which form radial air gaps with said rotor, each of said poles having a section at each end, each of said sections having a face extending over a span of approximately 35 electrical degrees, a pair of shading coils respectively arranged on said section of each pole and connected so as to be selectively short circuited, each of said poles having its face chamfered from the center of the pole to each tip thereof thereby to provide a radial air gap which increases continuously over said chamfered span as the tips of each said pole are approached, each chamfered span forming a radial air gap increasing to a maximum of approximately twice the minimum radial air gap under the center of said pole, the tips of adjacent poles being arranged to define a circumferential air gap of approximately 15 electrical degrees.

2,845,554
DEVICES FOR ENSURING AN ELECTRIC CONTACT BETWEEN ROTARY PARTS OF AN ELECTRIC MACHINE

Bernard Schwab, Asnieres, and Louis Vautrey, Fontenay-aux-Roses, France, assignors to the Commissariat à l'Energie Atomique, Paris (Seine), France, a state administration

Application March 16, 1956, Serial No. 571,989
Claims priority, application France March 30, 1955
3 Claims. (Cl. 310—178)



1. In an electric machine including a fixed frame and a shaft rotatable in said frame about a given axis, a device for ensuring an electric contact between said parts which comprises, in combination, an annular member rigid with said shaft, the section of said member by any radial plane passing through said axis being a triangle, the base of said triangle being along the wall of said shaft and its apex being at a greater distance from said axis than said base, an annular member rigid with said frame, the section of said last mentioned member by any radial plane passing through said axis including two lines at least substantially parallel to, and at a small distance from, the sides of said triangle meeting at said apex, respectively, whereby an annular interval is left between said two members, the general form of said interval being that of two frusto-conical elements opposed by their larger bases which coincide with each other along a common circle, means forming a conductor liquid circulation circuit including a portion external to said machine and a portion constituted by said annular interval, one end of said external circuit portion being in communication with the smaller bases of said frusto-conical interval elements and the other end of said external circuit portion being in communication with the part of said annular interval extending along said common circle, whereby liquid in said circuit is caused by centrifugal force to flow from said smaller bases toward said common circle, thus producing circulation through said circuit, and liquid cooling means in said liquid circulation circuit external portion.

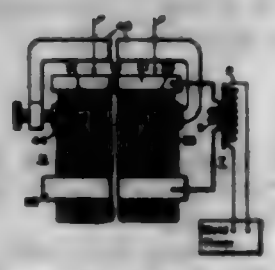
2,845,555
MOTORS

David E. Carpenter and Arland F. Palmer, Springfield, Mass., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 12, 1955, Serial No. 533,613
9 Claims. (Cl. 310—216)

1. A stacked part for a motor such as a stator consisting of laminations each of which is a turn of an edge-

wound helix, the said stator being held together in a rigid unit by a plurality of welds extending transversely of the peripheries of the laminations, the said stator being characterized by the fact that each lamination is tapered



so that its thickness between the roots of its teeth and its periphery decreases and by the further fact that each of said welds is produced by mash welding a material softened during the welding operation into the resulting spaces between the laminations.

2,845,554
COMMUTATOR
Paul Geukler and Friedrich Vollmer, Stuttgart-Zuffenhausen, and Wilhelm Kagel, Stuttgart-Feuerbach, Germany, assignors to Robert Bosch G. m. b. H., Stuttgart, Germany
Application July 21, 1955, Serial No. 523,510
Claims priority, application Germany July 22, 1954
6 Claims. (Cl. 310—234)



1. A commutator comprising, in combination, a substantially cylindrical body member having an end face formed with an annular recess and with a plurality of radially extending partitions subdividing said recess into a plurality of spaced sectoral recesses; and a plurality of commutator means, each including an elongated commutator segment on the outer periphery of said body member, extending in axial direction in radial alignment with one of said sectoral recesses and having an end portion projecting thereinto and but partly filling the same in its portion more remote from the commutator axis, said end portion being formed with opening means in communication with that part of said recess which is unoccupied by said end portion of said segment, a connecting member having a connecting portion arranged within said recess, a part of said connecting portion being received by said opening means of said end portion of said segment and another part of said connecting portion projecting radially into said part of said recess towards said axis, and joining means for joining said connecting portion of said connecting member to said segment.

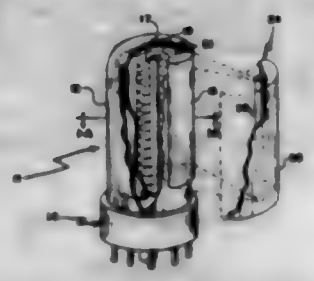
2,845,557
ARC TUBE MOUNTING
Klaus Gottschalk, South Euclid, Ohio, assignor to General Electric Company, a corporation of New York
Application August 30, 1956, Serial No. 607,096
4 Claims. (Cl. 313—25)

1. A vitreous tube having an end sealed by an axially projecting flat pinch seal of width at least substantially as great as the diameter of the tube and having a lead-in conductor hermetically sealed therethrough, and support wires embedded in the seal near its lateral edges



and projecting through funnel-like openings in its outer edge and forming integral mount supports for the tube.

2,845,558
COLD CATHODE VACUUM TUBE MEANS
Charles L. Stec, Arlington, Va.
Application June 9, 1953, Serial No. 360,618
7 Claims. (Cl. 313—54)
(Granted under Title 35, U. S. Code (1952), sec. 266)

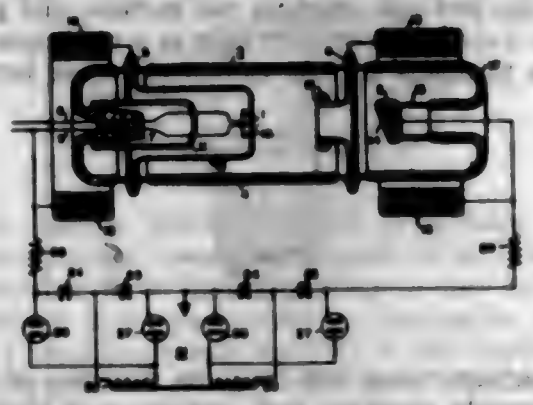


7. An electronic tube means comprising, in combination, an impervious-to-gas evacuated envelope, a cold cathode element composed of a material that emits electrons when subjected to radiation, said element being on the inside of a wall of said envelope, a grid and plate in said envelope in spaced relation to said cathode element and to each other, a self-contained source of radiation disposed outside said envelope but in proximity to said cathode so as to radiate to a side of said cathode element, said grid and plate element being on the other side of said cathode element.

2,845,559
STRUCTURE FOR HIGH VOLTAGE TUBE
Joseph Lempert, West Elmira, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 9, 1953, Serial No. 385,669
5 Claims. (Cl. 313—68)

1. In combination, a vacuum-tight envelope, a first electrode projecting inward from the wall of said envelope and supported therefrom, a cooperating electrode projecting inward from the wall of said envelope and supported therefrom toward said first electrode, a first shielding conductive wall about said first electrode and having a window facing said cooperating electrode, said first conductive wall supported from the wall of said envelope and the intervening wall of said envelope providing a

high insulation between said first conductive wall and said first electrode, a second shielding conductive wall supported from said envelope wall and embracing the path through said window between said electrodes, the distance separating said shielding conductive walls being less than that separating said electrodes, and a pair of



high impedances of about 500,000 ohms each positioned external of said envelope for respectively connecting said first shielding conductive wall with said first electrode and said second shielding conductive wall with said cooperative electrode to provide a high impedance shunt breakdown path for abnormal currents.

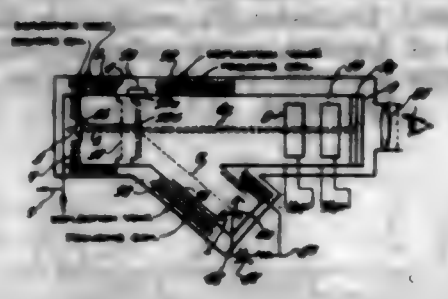
2,845,560
NEUTRON COUNTER
Cyril D. Curtis, Nashville, Tenn., Robert L. Carlson, Long Beach, Calif., and Matthew P. Tubbiolo, Aiken, S. C., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application August 31, 1954, Serial No. 453,490
11 Claims. (Cl. 313—61)



1. A neutron counter comprising two coaxial cylindrical electrodes with ionizing gas therebetween, only the inner of said electrodes being coated with a material producing ionizing radiations in response to neutron bombardment whereby substantially all the ionizing radiations are directed toward the outer electrode.

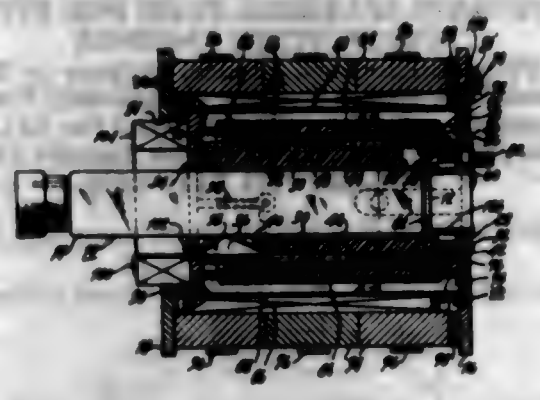
2,845,561
TUBE FOR STORAGE OF IMAGES
Edward Emanuel Sheldon, New York, N. Y.
Application April 5, 1952, Serial No. 280,762
9 Claims. (Cl. 313—65)

1. A storage tube comprising in combination a source of electrons, a perforated light-stable storage target for receiving and storing electrons emitted from said source, said target consisting only of a self-supporting perforated dielectric screen, means for irradiating said dielectric screen with a beam of electrons and a luminescent screen



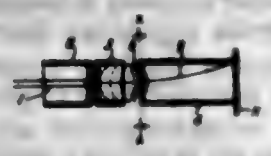
for receiving electrons of said beam transmitted through said perforated screen.

2,845,562
ELECTROMAGNETIC DEFLECTION YOKE
Sidney L. Bendell, Haddon Heights, and Herbert C. Shepard, Woodbury, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application July 7, 1954, Serial No. 441,892
14 Claims. (Cl. 313—76)



1. Electromagnetic deflection apparatus for a cathode ray tube, said apparatus comprising: a first deflection winding adapted to be disposed about such tube; a second deflection winding arranged concentrically with respect to said first winding; and means for rotating said second winding as a unit with respect to said first winding.

2,845,563
BEAM GENERATING SYSTEM
Wolfgang Berthold, Stuttgart-Weil im Dorf, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application November 5, 1953, Serial No. 390,328
Claims priority, application Germany November 7, 1952
3 Claims. (Cl. 313—69)

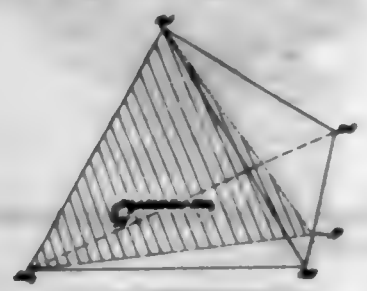


1. A beam generating system for a cathode ray tube consisting essentially of a cathode electrode, a control electrode adjacent said cathode electrode, a first accelerating electrode adjacent said control electrode and an anode electrode, said control, accelerating and anode electrodes being mounted serially along a given longitudinal axis and symmetrically disposed thereabout and with respect thereto, said control electrode and accelerating electrode each having an aperture concentric with said longitudinal axis, through which the beam passes, said anode electrode having an aperture eccentric with respect to said axis positioned at the end of said anode electrode facing said cathode to produce with the accelerating electrode an electrostatic field deflecting the beam transversely.

2,845,564
CATHODOLUMINESCENT PHOSPHORS AND DEVICES

Paul G. Herold, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application February 26, 1957, Serial No. 642,562
10 Claims. (Cl. 313—92)

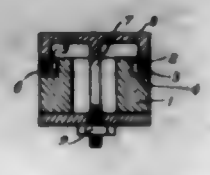


1. A luminescent screen including a support and a coating thereon, said coating comprising a luminescent material having the approximate molar composition $5MgO.2CdO.ZnO.7SiO_2:xMn$, where x=0.001 to 0.1.

2,845,565
LOW-TENSION SPARKING PLUG FOR INTERNAL COMBUSTION ENGINES

Lucien Pérus, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France

Application January 2, 1957, Serial No. 632,050
Claims priority, application France January 12, 1956
5 Claims. (Cl. 313—131)



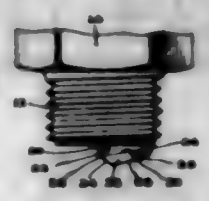
1. In a low tension surface discharge spark plug, in combination, a first substantially cylindrical electrode provided with an end portion having a reduced diameter, an annular second electrode having an outer diameter substantially equal to the outer diameter of the first electrode and an inner diameter greater than the reduced diameter of said end portion of the first electrode, the second electrode being disposed circumferentially of said end portion spaced radially therefrom and spaced axially of the first electrode with its outer surface substantially flush with the outer surface of the first electrode and an exposed face surface thereof substantially flush with the end surface of said end portion of the first electrode, an insulator disposed between the two electrodes and having exposed surfaces substantially flush with the outer and end surfaces of said first electrode, conductive means comprising an annular member disposed against said face of the second electrode registering therewith and support means for said annular member spaced axially of said end portion of the first electrode to provide an electrical energy path to the second electrode and thereby forming two sparking zones on said spark plug one of which is on said end portion of the first electrode and the other on the outer surfaces of the two electrodes.

2,845,566
SPARK PLUG HAVING A VARIABLE SPARK GAP AND A NON-BAFFLING ELECTRODE

Harold D. Regar, Temple, Pa.

Application January 22, 1957, Serial No. 635,392
1 Claim. (Cl. 313—141)

A spark plug comprising a shell, an insulator coaxial of and within said shell, a cylindrical electrode coaxial of and extending through said insulator and terminating in a circular sparking end surface, and a flat, ribbon-shaped electrode extending from said shell with the plane of its ribbon surfaces parallel to a tangent to said shell downwardly and inwardly twisted at an angle of slightly less than ninety degrees therefrom with the plane of its ribbon surfaces coinciding with the axis of said coaxial electrode, one ribbon edge of said ribbon electrode extending at a slight angle to and adjacent to and partly across said sparking end surface of said coaxial electrode, said ribbon edge providing a spark gap between said ribbon edge and said sparking end surface, said gap varying from a minimum of .025 inch to a maximum of .035 inch, the thickness of said ribbon electrode between its

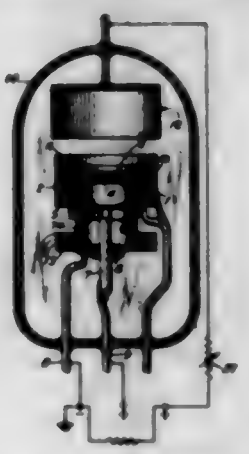


ribbon surfaces being less than the diameter of said coaxial electrode sparking end surface, said ribbon edge terminating in a sharp nose end lying within the axial projection of said coaxial electrode, said sharp nose end being provided by the end edge of said ribbon electrode extending at an acute angle between said sparking ribbon edge and at an obtuse angle to said other ribbon edge, said ribbon edges and angle end edge minimizing baffling of gas flow to and from the spark gap and also minimizing heat reflection to said coaxial electrode, insulator and shell.

2,845,567
INDIRECTLY HEATED THERMIONIC CATHODE

Richard H. Geiger, Riverdge, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application February 4, 1954, Serial No. 408,243
16 Claims. (Cl. 313—190)

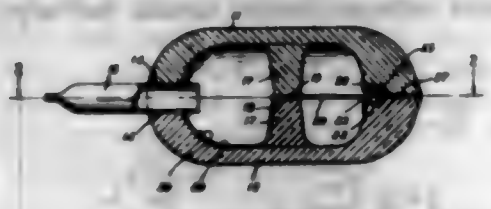


1. An evacuated electron discharge vessel, an anode within the vessel, a cathode within the vessel containing emissive material cooperatively positioned adjacent said anode and means for maintaining said emissive material at a temperature of thermionic emission, said means including a cathode component which forms a wall part of a sealed-off discharge enclosure containing a non-electronegative gas, said wall part and said emissive material being in direct heat conducting relation, said enclosure formed by said cathode component further including within the said enclosure an anode for initiating and maintaining a cold-cathode positive-ion bombardment of said wall portion to maintain the emissive portion of said cathode at said temperature for thermionic emission and a lead to the anode disposed within the cathode housing and extending through an opening in a second wall portion of said cathode housing, a seal of insulating material is disposed between said anode and said second wall portion and heat-dissipating means are located adjacent to said seal to maintain it at a relatively low temperature.

2,845,568
GASEOUS DISCHARGE DEVICE

John W. West, Millington, and Alan D. White, Plainfield, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application September 13, 1956, Serial No. 609,672
14 Claims. (Cl. 313—216)



1. A gaseous discharge device comprising a ceramic envelope formed in two parts, each of said parts having a depression in its mating surface at one end and said depressions being contiguous to each other, means defining a metallic cathode member in said depressions and conforming to the configuration thereof, an integral pillar extending inwardly into said envelope from the base of one of said envelope parts, said pillar having a groove at the upper surface thereof, an anode wire positioned in said groove and extending toward and immediately adjacent said cathode member, and a gaseous atmosphere in said envelope.

2,845,569
ELECTRIC INCANDESCENT LAMP

Arthur S. Vause, Leicester, England, assignor to General Electric Company, a corporation of New York

Application March 2, 1954, Serial No. 413,674
Claims priority, application Great Britain March 3, 1953
4 Claims. (Cl. 313—274)



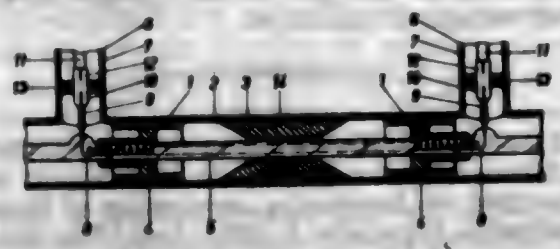
1. An electric incandescent lamp comprising a bulb having a small outward tubular chamber at the top end thereof, a pair of leading-in wires of substantially identical character and shape sealed in the other end of said bulb and extending thereinto in a common plane toward the top end thereof, and a coiled filament extending across and disposed substantially in the said plane of said leading-in wires and electrically connected thereto at corresponding points along their length, both of said leading-in wires having extended portions extending into and yieldingly pressing outwardly against the side wall of said chamber, the opening of said chamber being less than the greatest spacing of the leading-in wires in the bulb but sufficiently large to accommodate both of said extended leading-in wire portions therein without touching under normal use of the lamp, and the said extended portions of said leading-in wires being of predetermined lengths and thereby locating said concentrated filament in a definite predetermined position in said bulb.

2,845,570
BROAD BAND COAXIAL COUPLING FOR TRAVELLING WAVE TUBES

Werner Klein, Korntal, Stuttgart, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application April 7, 1953, Serial No. 347,229
Claims priority, application Germany April 8, 1952
3 Claims. (Cl. 315—3.5)

1. In an electromagnetic wave structure, a travelling wave tube having an envelope and a conductive helix within said envelope, an outer conductor outside and spaced from said envelope surrounding said helix and forming therewith a first coaxial line, a connecting coaxial line having an outer conductor, connected to the outer conductor of said first coaxial line adjacent one end of the helix, a first impedance transforming member including a capacitive plunger slidably mounted between the outside of the tube envelope and the inside of the outer conductor of said first coaxial line and surrounding a number of turns of the helix towards said one end

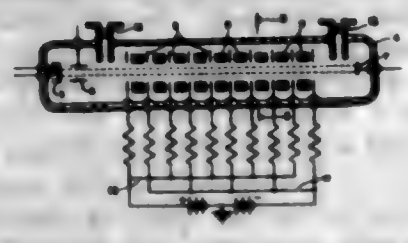


thereof and a second impedance transforming member towards said one end of the helix including an end portion of the inner conductor of the connecting coaxial line of a diameter substantially less than the diameter of the remainder of said inner conductor of which it is a part, an extension from said helix connected to said end portion and means adjacent said end portion for varying the effective length of said end portion.

2,845,571
ELECTROSTATICALLY FOCUSED TRAVELING WAVE TUBE

Benjamin Kazan, Princeton, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application April 17, 1953, Serial No. 349,578
11 Claims. (Cl. 315—3.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

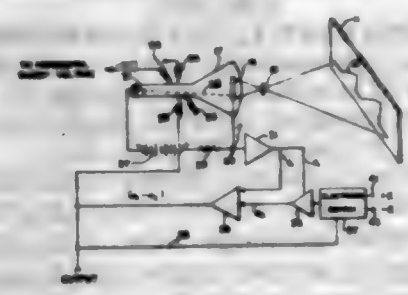


8. A traveling wave amplifier comprising means to generate an electron beam, means to propagate radio frequency wave energy along said beam, and a combined wave retarding and beam focusing structure comprising a plurality of substantially noninductive electrostatic focusing elements aligned along the path of said beam and along the path of propagation of said wave energy and operatively associated with said beam to concentrate said beam, said structure including dielectric elements alternately arranged with said focusing elements and having a dielectric constant and dimensions to retard said wave energy sufficiently to produce amplification as a result of interaction between said wave energy and said electron beam.

2,845,572
ELECTRONIC CURVE TRACING DEVICE

Wallace E. Dietrich, Jr., Baltimore, Md.

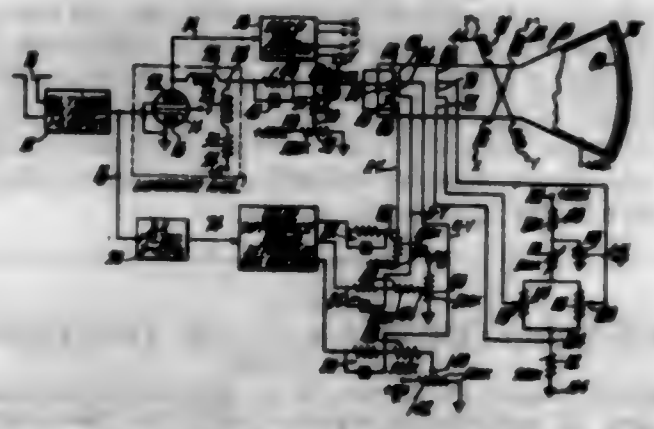
Application September 17, 1954, Serial No. 456,889
11 Claims. (Cl. 315—10)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. A voltage magnitude responsive device comprising a first D. C. amplifier adapted to be connected to a source

of voltage to be monitored, a D. C. variable gain amplifier jointly responsive to the output of said first D. C. amplifier and the voltage of an external source, and a D. C. subtracting amplifier jointly responsive to the output of said first D. C. amplifier and the output of said D. C. variable gain amplifier whereby the output of said D. C. subtracting amplifier undergoes a reversal in polarity upon large changes in the voltage level of the source of voltage to monitored.

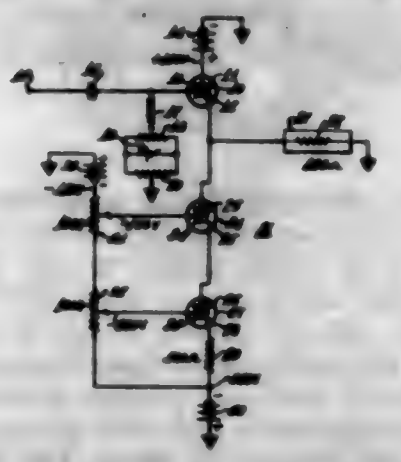
2,845,573
COLOR KINESCOPE BIASING SYSTEM
Albert Macovski, Massapequa, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application September 8, 1954, Serial No. 454,764
2 Claims. (Cl. 315—13)



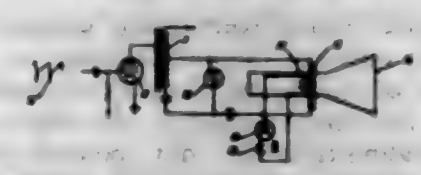
1. In a color television receiver of the type having multi-color cathode ray image-reproducing means including a first and second grid electrode for each component color to be reproduced and common cathode means, apparatus comprising: means connecting said common cathode means to a variable bias source for establishing the potential of such common cathode means with respect to a reference; means for connecting the first grid associated with a selected one of such component colors to a point of fixed potential with respect to said reference; variable means for applying operating potentials to the first grid associated with each of such other component colors in such manner that the respective bias potentials of said latter first grids with respect to such common cathode means may be adjustably established; and means for applying operating potentials to said second electrodes, said means including a series combination, between a point of said reference potential and a source of potential positive with respect thereto, said series combination including a fixed resistor having one end connected to said point of reference potential, a variable resistance, and a plurality of potentiometers in parallel with each other, each having an independently variable contact terminal, said means further including a connection between the second grid associated with said first recited first grid and the end of said fixed resistor remote from said connection to said point of reference potential, and means connecting said other second grids to respective ones of said independently variable potentiometer contact terminals.

2,845,574
ADJUSTABLE LINEAR AMPLIFIER
Louis Shapiro, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 31, 1954, Serial No. 479,167
5 Claims. (Cl. 315—27)

1. An amplifier circuit for driving a deflection coil of a cathode ray tube, said circuit comprising a first grid-controlled electron discharge tube, a constant current source including a second and a third grid-controlled tube, and a resistor connected at one terminal to the cathode of said third tube, the cathode of said second tube being connected to the anode of said third tube, means for connecting the cathode of said first tube, the anode of said second tube, and a terminal of said deflection coil to be at the same potential, means for applying a reference potential to another terminal of said deflection coil, means for applying to another terminal of said resistor a potential negative with respect to said reference potential, adjustable voltage divider means for applying different bias potentials to the grids of said second and third tubes to vary the amplitude of current supplied by said constant current source, means for applying an operating potential to the anode of said first tube, adjustable means for applying a bias potential to the grid of said first tube to vary the current supplied by said first tube in the absence of input signals, and means for applying input voltages to said first tube grid.

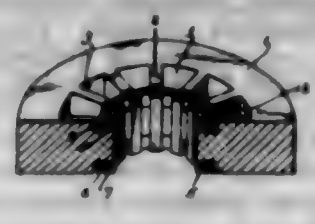


2,845,575
MAGNETIC DEFLECTION SYSTEM FOR CATHODE RAY TUBES
Morris L. Bargett, Jr., Philadelphia, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application November 14, 1955, Serial No. 546,423
8 Claims. (Cl. 315—27)



1. In a deflection system for cathode ray tubes, a deflection coil to which deflection current is supplied to produce a deflection flux wave in which non-linearities may appear, means for establishing a reference level representative of a desired rate of change of the deflection flux, and means for producing flux opposing the deflection flux whenever the rate of change of the deflection flux exceeds said desired rate, thereby to maintain the effective rate of change of the deflection flux substantially constant at the rate represented by said reference level.

2,845,576
METHOD FOR MAGNETRON STRAP MOUNTING
Ernest C. Okress, Montclair, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application March 15, 1955, Serial No. 494,583
12 Claims. (Cl. 315—39.69)



6. In a multi-cavity magnetron anode of the type having a plurality of spaced anode segments with transverse

strap slots and similarly extending but narrower grooves in the bottom of the slots, and a metallic strap extending across said segments in said slots and received and held edgewise in the grooves in alternate segments, that improvement therein which comprises said strap having, in the edge portion thereof within each groove, an open channel extending along that edge, and a brazing material within each such channel solely in the portions thereof within a groove and mechanically and electrically uniting the strap to said alternate segments, said segments and strap being substantially free of said brazing material exteriorly of said grooves.

2,845,577

MICROWAVE TUBE WITH RESONANT DISCHARGE GAP

Louis D. Smullin, Watertown, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application January 6, 1953, Serial No. 329,853
6 Claims. (Cl. 315—41)



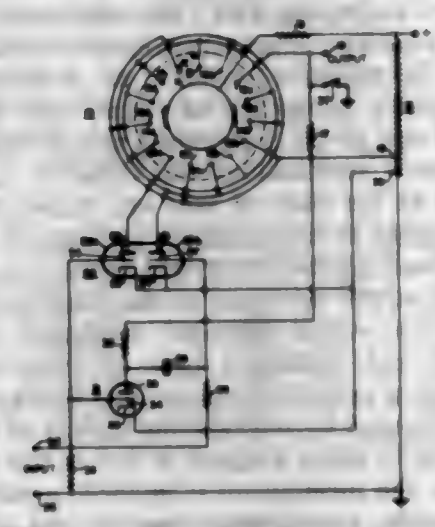
1. A broad-band transmit-receive tube, including a length of rectangular waveguide having signal-transmitting resonant windows at the ends thereof, said waveguide being hermetically sealed and containing a mixture of ionizing and quenching gases at low pressure, multiple pairs of discharge gap electrodes, the electrodes of each pair extending toward each other from the opposed broad walls of the rectangular waveguide and having flanges sealed to the waveguide, said pairs of discharge gap electrodes being spaced from each other and from the windows by quarter-wave intervals, and a post at each side of each pair of discharge gap electrodes extending from one of the opposed broad walls of the rectangular waveguide to the other at the flanges of the discharge gap electrodes and resonant with the adjacent discharge gap electrodes at a frequency within the operating band of the tube.

2,845,578

DRIVE CIRCUIT FOR COUNTING TUBES

John E. Adams, Newtonville, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts

Application August 24, 1956, Serial No. 606,142
11 Claims. (Cl. 315—84.6)



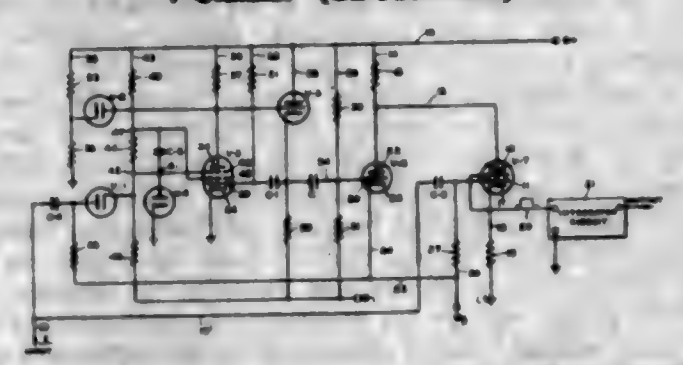
1. A drive circuit for a glow transfer tube for counting input pulses, said tube having an anode, a plurality of cathodes, a first plurality of guide electrodes, and a second plurality of guide electrodes, said cathodes and said guide electrodes being so disposed that adjacent each cathode in a clockwise direction there lies one of said first plurality of guide electrodes and adjacent each cathode in a counter-clockwise direction there lies one of said second plurality of guide electrodes, comprising means for establishing a glow discharge between said anode and one of said plurality of cathodes, means for lowering the potential of said first set of guide electrodes below that of said cathodes immediately in response to each of said input pulses to transfer said glow discharge from said one of said plurality of cathodes to the one of said first set of guide electrodes adjacent thereto, means for inverting and differentiating each of said input pulses, means for combining each of said input pulses with an inverted and differentiated pulse to provide a delayed pulse, means for lowering the potential of said second set of guide electrodes below that of said first set of guide electrodes in response to said delayed pulse to transfer said glow discharge from said one of said first plurality of guide electrodes to the one of said second plurality of guide electrodes adjacent thereto, said glow discharge being transferred to another of said plurality of cathodes adjacent said one of said second plurality of guide electrodes upon increase of potential on said second plurality of guide electrodes above that of said plurality of cathodes on cessation of said delayed pulse.

2,845,579

FREQUENCY METER

Hugh L. Logan, Timonium, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware

Application January 19, 1955, Serial No. 482,739
7 Claims. (Cl. 315—183)



1. In a frequency meter, an output pulse-generating circuit including a gas tube having a deionizing control electrode, a cathode and an ionizing control electrode; a time-delay circuit; a deionizing control circuit including an electric discharge device having an output electrode connected to the deionizing control electrode of said gas tube and a control electrode connected to the output of said time-delay circuit, and a meter input circuit arranged to communicate an input signal pulse to the ionizing control electrode of said gas tube and simultaneously couple said input signal into said time-delay circuit to trigger the latter and initiate a time-delay cycle.

2,845,580

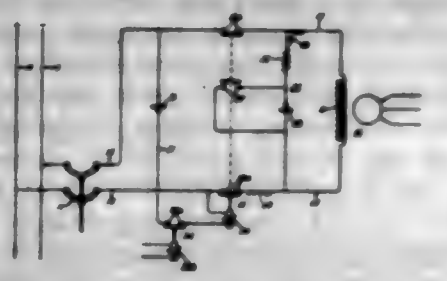
ELECTRIC PROTECTIVE EQUIPMENT

Eugene M. Smith, Drexel Hill, Pa., assignor to General Electric Company, a corporation of New York

Application April 30, 1954, Serial No. 426,684
6 Claims. (Cl. 317—11)

1. In combination, an inductive winding arranged to be energized from a unidirectional current source, a first switch operable to an open-circuit position to disconnect said winding from said source, a discharge resistor for said winding, a second switch having discharge contacts closable in response to opening operation of said first switch to connect said resistor in circuit with said winding where-

by to permit said winding to discharge in a predetermined direction through said resistor, a unidirectional conducting device connected in shunt with said contacts and in



series with said resistor, said device having its direction of conductivity the same as said predetermined direction of discharge current flow through said resistor.

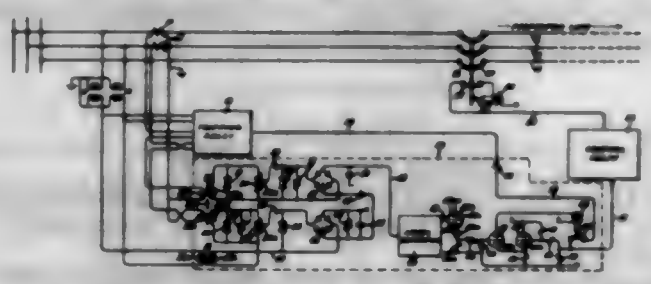
2,845,581

IMPEDANCE TYPE ELECTRONIC RELAY

Marwyn E. Hodges, Philadelphia, and Harold T. Seeley, Havertown, Pa., assignors to General Electric Company, a corporation of New York

Original application April 11, 1955, Serial No. 500,475. Divided and this application August 8, 1956, Serial No. 602,886

5 Claims. (Cl. 317—36)



2. An impedance type relay in an alternating current electric power system comprising, means responsive to alternating current derived from the system for producing a unidirectional operating voltage, means responsive to alternating current derived from the system for developing an alternating voltage related to said alternating current by a predetermined impedance, means responsive to the vectorial difference between said developed voltage and an alternating voltage derived from the system or to said derived alternating voltage alone in the absence of said developed voltage for producing a unidirectional restraining voltage, means responsive to the difference between said operating and restraining voltages for producing an energizing signal whenever the difference voltage is more positive than a predetermined value, an electroresponsive device, first control means responsive to said energizing signal to operably energize said electroresponsive device, control voltage supply terminals, second control means connected to said first control means and operable when energized by control voltage to disable said first control means, and coupling means connecting said supply terminals to said second control means and including permissive means for controlling energization of said second control means in preselected response to operation of said electroresponsive device.

2,845,582

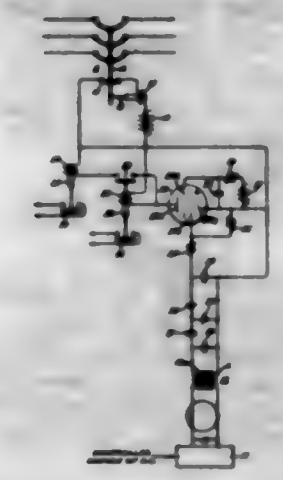
ELECTRONIC CONTROL RELAY

Norman A. Keen, Philadelphia, Pa., assignor to General Electric Company, a corporation of New York

Application December 30, 1954, Serial No. 478,761

3 Claims. (Cl. 317—51)

1. A control circuit for an electroresponsively tripped circuit breaker comprising, a gaseous discharge type electric valve including biasing means rendering said valve normally non-conductive, a pair of alternating voltage supply terminals, means responsive to energization of said terminals for deriving a unidirectional signal voltage and supplying said signal voltage to said valve, said valve being responsive to greater than a predetermined magnitude of said signal voltage to start conduction, electroresponsive means energized in response to conduction by said valve to initiate tripping operation of said circuit breaker, a first electromagnetic switching device operable in re-



sponse to conduction by said valve to render said valve non-conductive while maintaining said electroresponsive means energized and to initiate a first control operation, and a second electromagnetic switching device responsive to operation of said first device to initiate a second control operation.

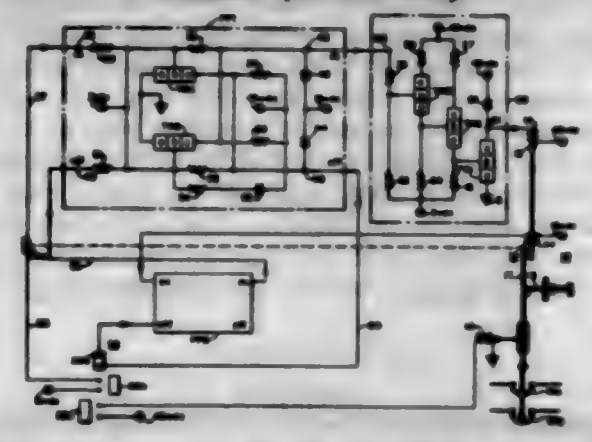
2,845,583

CIRCUIT BREAKER CONTROL SYSTEM

John F. Reuther, Swissvale, and Sheldon D. Silliman, Forest Hills, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 29, 1956, Serial No. 606,857

9 Claims. (Cl. 317—54)



9. In combination, a circuit breaker having separable contacts, a latching-type trip-free mechanism therefor and a closing coil for operating the mechanism; an amplifier connected to effect energization of the closing coil; a static logic circuit having a pair of transistors with cross-connected collectors and base electrodes and having grounded emitters, impedance means connecting the collectors to the negative terminal of a direct current source, a capacitor connected in shunt with the impedance means of one of the transistors, said transistors having an off output terminal at the collector and an on input terminal at the base of said one transistor and an on output terminal at the collector and an off input terminal at the base of the other transistor; circuit means connecting the output terminal to the amplifier; an And circuit having an output terminal connected to the on input terminal and having a pair of input terminals; means including a saturable reactor and a magnetic control member actuated by the latching means of the mechanism connected to apply a signal to one of the And input terminals when the mechanism is latched; a manual control device having a saturable reactor and a movable magnetic control member operable to apply a signal to the other input terminal of the And circuit; an addi-

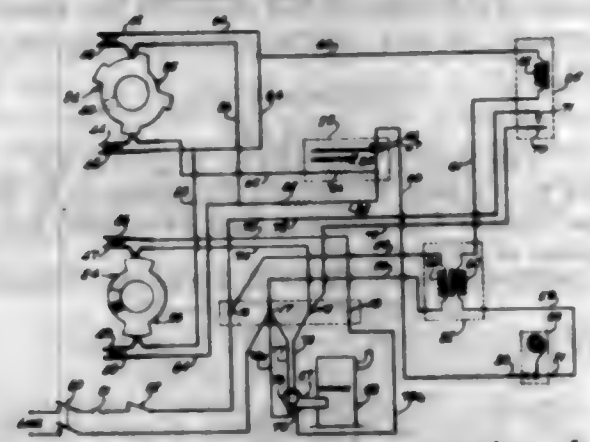
tional static logic circuit element having an on output terminal connected to the off input terminal of the first-mentioned logic circuit and having on and off input circuits; a contactless control device including a saturable magnetic amplifier and a magnetic control member operated by the breaker mechanism to apply a signal to the on input circuit of the additional logic circuit when the breaker closes; a Not circuit having an output circuit connected to the off input terminal of the additional logic circuit; and an Or circuit controlled by the manual control device and the first-mentioned logic circuit for applying a signal to the Not circuit.

2,845,584

ELECTRIC CONTROL SYSTEM FOR CONDITION CHANGING DEVICES

Ralph W. De Lancey, Rockford, Ill., assignor to Controls Company of America, Schiller Park, Ill., a corporation of Delaware

Application June 22, 1956, Serial No. 593,188
2 Claims. (Cl. 317—132)



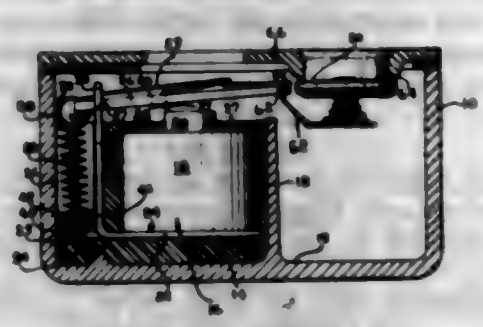
1. In an electrical control for operating electrical equipment in response to changes in a condition comprising a relay for controlling the operation of said equipment, a relay control circuit including series connected power source terminals, switch means responsive to said condition and a first resistor, a reset switch having a pair of contacts connected to make and break said control circuit, a bimetallic element holding the last said contacts in the closed position and a negative temperature coefficient resistor effectively connected in parallel with said first resistor for heating said element to open the last said contacts, the combined resistance of both said resistors at ambient temperature being sufficient to limit the initial relay current slightly below the critical value for pull-in of said relay, and switch means adapted to be responsive to normal operation of said equipment and connected with said negative temperature coefficient resistor for interrupting the current therethrough.

2,845,585

ENCAPSULATED RELAY

Reno L. Vicenzi and Ferdinand F. Heiser, Milwaukee, Wis., assignors to Controls Company of America, Schiller Park, Ill., a corporation of Delaware

Application April 12, 1957, Serial No. 652,428
10 Claims. (Cl. 317—165)



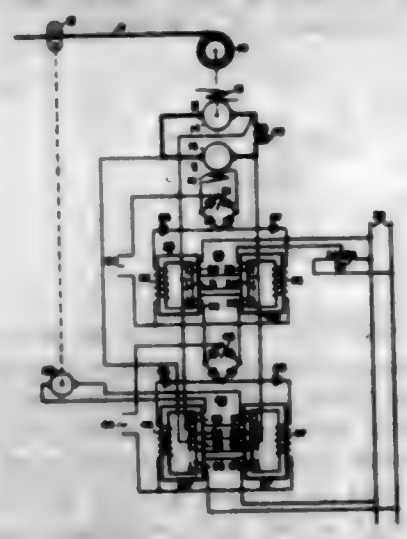
1. A encapsulated relay comprising, a housing with a well formed therein, a mass of insulating encapsulating material in said well, an electromagnet including a coil and a core in said encapsulating material, a movable armature pivotally mounted opposite the core of said electromagnet for attraction thereby when said coil is energized, a spring mounted in said encapsulating material with one end connected to said armature and the other end anchored in said well, and enclosure means for said spring to prevent said encapsulating material from contacting the spring.

2,845,586

MOTOR CONTROL SYSTEMS

Loren F. Stringer, Pitcairn, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 20, 1954, Serial No. 457,118
8 Claims. (Cl. 318—6)



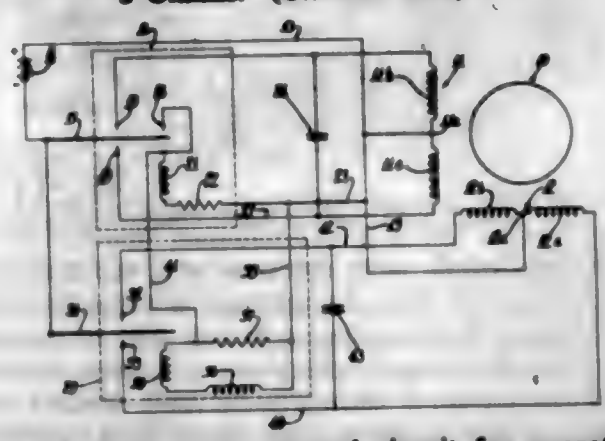
1. In a control system for a motor having an armature and a field winding, a generator having an armature connected in series with the motor armature and having a field winding, current regulating means having an output circuit connected in circuit with the generator field winding and having control excitation means, circuit means for applying to the control excitation means current responsive and reference voltages, and means including a magnetic amplifier having excitation means responsive to the speed of the motor and an associated work device, and an output circuit controlled by said excitation means for applying a control voltage to the control excitation means only when the speed of the motor exceeds a predetermined relation with that of the work device.

2,845,587

POLYPHASE MOTOR CONTROL CIRCUIT

Achilles C. Sampietro, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application May 15, 1956, Serial No. 585,117
5 Claims. (Cl. 318—171)



1. A polyphase motor control circuit for operating a polyphase motor from a direct current source comprising a polyphase motor having a plurality of energizing windings, a first vibrator circuit energizable by said direct

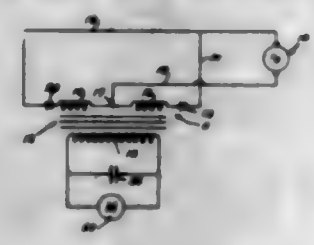
current source and arranged to apply a periodically varying voltage across one of said energizing windings, a second vibrator whose actuation is controlled by said first vibrator arranged to energize another of said energizing windings, and phase shifting means arranged to shift the phase of the current flowing in the circuit of said second vibrator to apply a voltage across said other winding which is out of phase with the voltage applied to the first named winding by said first vibrator circuit.

2,845,553

MOTOR ASSEMBLY HAVING FREQUENCY MULTIPLYING MEANS

Achilles C. Sampietro, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application February 1, 1956, Serial No. 562,788
4 Claims. (Cl. 318—231)



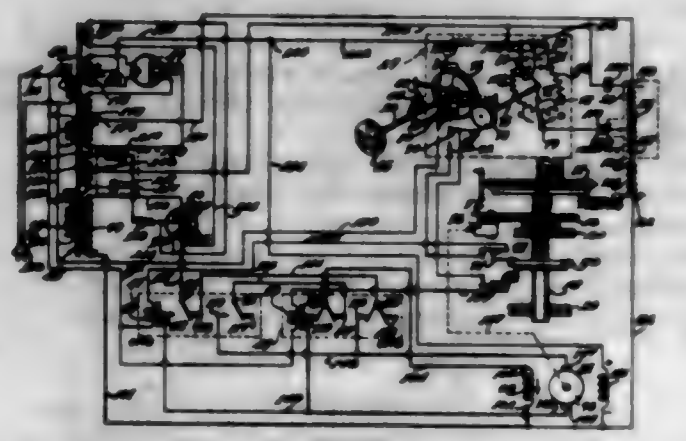
1. A motor assembly comprising an alternating current motor having a plurality of poles, a plurality of stator windings in said motor arranged to be energized by an alternating current source, a rotor inductively coupled to said stator windings rectifier means connected to each of said stator windings to provide a fully rectified alternating current voltage across said windings, a plurality of shading windings associated with said poles, and a rectifier connected to each of said shading windings, said shading windings supplementing the main flux induced between said rotor and stator windings to provide a rotating magnetic field at a fundamental frequency which is a multiple of the frequency of the voltage energizing said stator windings.

2,845,589

ELECTRONIC TABLE MOTOR DRIVE UNIT FOR OPTICAL COMPARATORS AND THE LIKE

John H. Osgood, Charlestown, N. H., assignor to Jones and Lamson Machine Company, a corporation of Vermont

Application July 7, 1955, Serial No. 520,583
5 Claims. (Cl. 318—257)



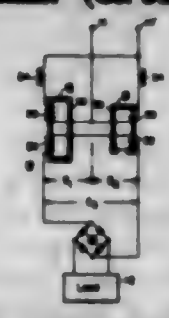
5. An electronic table elevating unit for optical comparators and the like, comprising a reversible electric motor, means for coupling said unit with a comparator for moving the table up and down in response to operation of the motor, a manually movable control element having a neutral position from which it is movable and to which it is normally biased, an electrical control circuit for operating said motor in direction and speed corresponding in direction and degree of movement of said control element from said neutral position, said electrical control circuit including a grid-controlled rectifier connected with said motor to supply operating current thereto, means for applying a threshold negative grid bias to said rectifier to cut off operating current to the motor, a speed control potentiometer comprising a center tapped resistor having terminal ends connected to provide two resistance branches between the center tap and said terminal ends, said potentiometer being connected in the motor control circuit such that said two resistance branches form a parallel resistance combination across which a voltage drop is developed and having a contact movable along either branch from said center tap in response to movement from the neutral position of said movable control element with which said contact is operatively connected for varying the grid bias in a positive direction to apply operating current to the motor, means for applying alternating current anode and grid voltage to said rectifier in out-of-phase relation, and means comprising a compensating impedance element in circuit with one branch of said potentiometer for adjusting the operating current to different values and equalizing the speed of movement of the table up and down for the same degree of movement of said control element from the neutral position.

2,845,590

VOLTAGE REFERENCE DEVICES

Howard W. Collins, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 18, 1955, Serial No. 502,101
8 Claims. (Cl. 321—16)



1. In a temperature compensated voltage reference device responsive to an input voltage for supplying energy to a load, the combination comprising, a saturating transformer having a magnetic core member and a primary winding and a secondary winding disposed in inductive relationship with the magnetic core member, circuit means for rendering the primary winding responsive to the input voltage, a compensating saturable magnetic device including another magnetic core member and a winding disposed in inductive relationship with said another magnetic core member, the input voltage always being of sufficient magnitude to effect a substantially complete magnetic saturation of the magnetic core member of the saturating transformer and of the said another magnetic core member, and the said another magnetic core member having a substantially greater temperature coefficient of saturation flux density than the magnetic core member of the saturating transformer, and other circuit means for so interconnecting said secondary winding and the winding of the compensating saturable magnetic device with one another and with said load that the voltage produced across the said load is proportional to the difference in the voltage existing across the said secondary winding and the winding of the compensating saturable magnetic device.

2,845,591

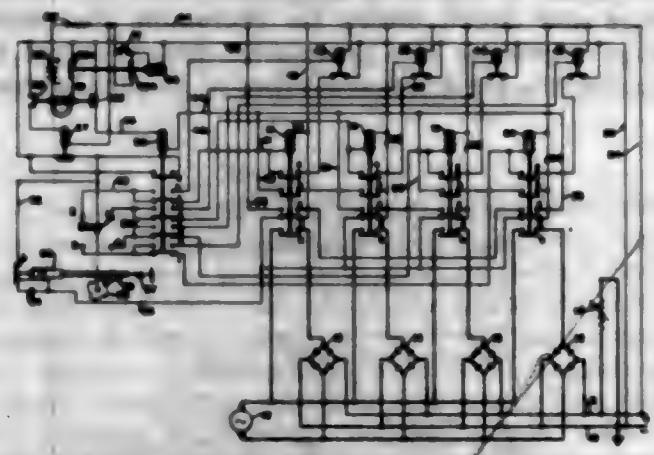
RECTIFIER POWER SUPPLY SYSTEM

Fritz Albrecht and Edgar Warren Colehower, Baltimore, Md., assignors to The Martin Company, a corporation of Maryland

Application July 16, 1956, Serial No. 598,009
10 Claims. (Cl. 321—27)

1. A rectifier power supply system comprising an alternating current source of substantially constant volt-

age, a plurality of rectifiers, each of which is adapted to supply a direct current voltage when connected to said alternating current source, an input circuit including said source and each of said rectifiers connected in parallel relation with said source, a load circuit adapted to be operated at a predetermined voltage value, a plurality of switching devices, one for each of said rectifiers, each



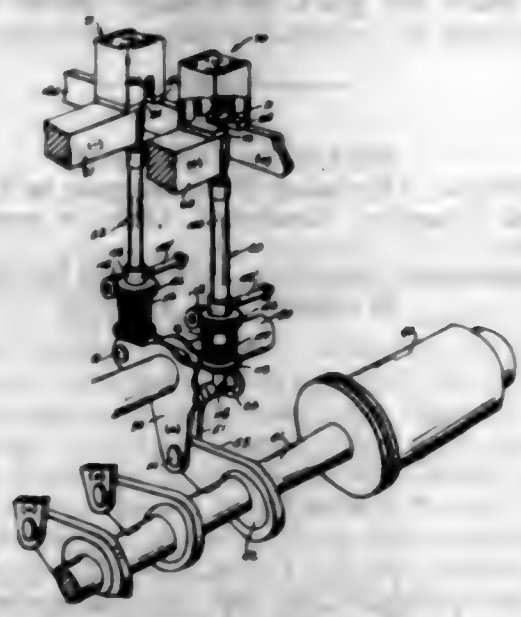
of said switching devices adapted to connect a rectifier to said load circuit, means responsive to variations in the said voltage of said load circuit for actuating said switching devices in a random manner whereby each of said rectifiers is connected in the load circuit a substantially equal number of times during any substantial period of operation.

2,845,992

CONTACT TIME ADJUSTMENT FOR MECHANICAL RECTIFIERS

Edward John Diebold, Ardmore, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application August 29, 1952, Serial No. 307,824
7 Claims. (Cl. 321—48)



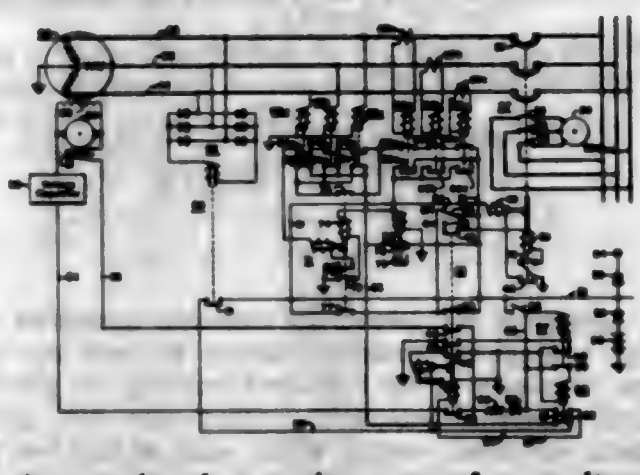
3. In a converter having cooperating contacts comprising stationary contacts and a movable contact, means to bias said movable contact into engagement with said stationary contact, a rotatable shaft and eccentric thereon connected to control the movement of a push rod assembly in a first direction, said push rod engaging and disengaging said movable contact during running operation of said converter, said push rod effective to move said movable contact against the force of said means to effect contact disengagement, said push rod assembly comprising a push rod and adjusting screw, time of contact engagement and disengagement determined by the effective total length of said push rod and adjusting screw, adjustment means to modify the effective length of said push rod assembly, said adjustment means comprising a worm and worm gear, said worm and worm gear having no motion in said first direction said eccentric being operatively connected to said adjusting screw to impart vertical motion to said push rod assembly and prevent rotation of said adjusting screw.

2,845,993

GENERATOR CONTROL AND PROTECTIVE SYSTEM

Lewis R. Lowry, Jr., Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application July 12, 1957, Serial No. 671,610
12 Claims. (Cl. 322—25)



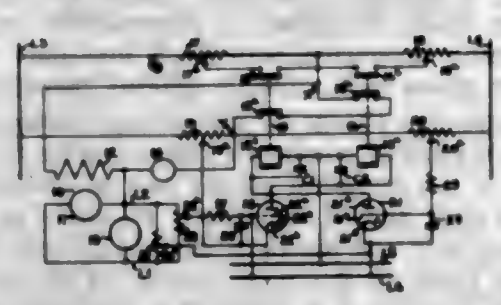
1. A control and protective system for an alternating current generator having a field winding and excitation means for supplying excitation to the field winding, said system comprising a control relay for controlling the excitation of the generator field winding, switch means for connecting the generator to a load bus, voltage responsive means for actuating said control relay to effect deenergization of the generator field winding when the generator voltage falls below a predetermined value, current responsive means for preventing actuation of the control relay by the voltage responsive means when the generator current exceeds a predetermined value, and means controlled by said current responsive means for effecting actuation of the control relay if the current remains above said value for a predetermined time.

2,845,994

APPARATUS FOR REGULATING THE VOLTAGE OF ELECTRIC GENERATORS

Eric Pell, Milwaukee, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application July 2, 1953, Serial No. 365,622
12 Claims. (Cl. 322—28)



1. In a voltage regulating system affording correction of residual magnetic errors in the output voltage v. field excitation characteristic of a direct current generator having a field winding for excitation thereof, the combination with means responsive at a preselected magnitude of error in the output voltage of the generator to apply to the field winding and maintain a corrective voltage of predetermined magnitude, the magnitude of such corrective voltage being greater than that required for correction of such error, of means terminating application of such corrective voltage upon the expiration of a selected period sufficient to insure restoration of a normal relationship between generator output voltage

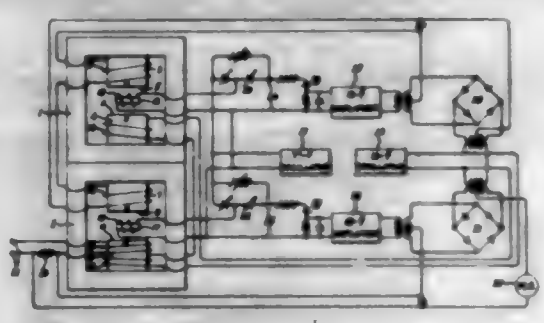
and field excitation as a result of hysteresis relaxation following termination of the application of such corrective voltage.

2,845,595

APPARATUS FOR MEASURING ELECTRICAL QUANTITIES

Bernard D. Leete, Peabody, Mass., assignor to General Electric Company, a corporation of New York

Application December 6, 1952, Serial No. 324,543
20 Claims. (Cl. 324—.5)



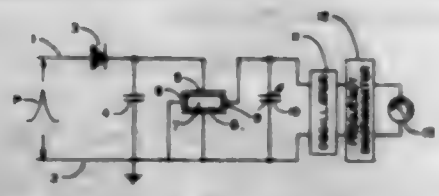
1. Apparatus for measuring electrical quantities comprising a magnetic structure having at least two gaps, means responsive to the measured quantity for providing unequal magnetic intensities within said two gaps, a magnetic resonance sample within each of said two gaps, apparatus for maintaining substantial magnetic resonance in each of said samples, and means responsive to differences between the magnetic resonance frequencies of said two samples.

2,845,596

PEAK READING VOLTMETER

Allen L. Dyer, Cincinnati, Ohio, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application August 10, 1953, Serial No. 393,973
2 Claims. (Cl. 324—103)



1. A circuit for measuring the amplitude of a voltage pulse comprising in combination means for rectifying the pulse, a storage condenser, means for charging the condenser from the pulse, a piezoelectric crystal, said crystal being supported between a first pair of parallel condenser plates with variable spacing therefrom, means for applying the charge of the storage condenser to the first pair of parallel condenser plates to alter the dielectric constant of the crystal, a second pair of condenser plates affixed at each end of the crystal normally to the plates of the first pair, the plates of the second pair being connected in shunt to the input circuit of an oscillator of which the frequency is varied by alteration of the dielectric constant of the crystal and means for indicating the extent of the frequency variation.

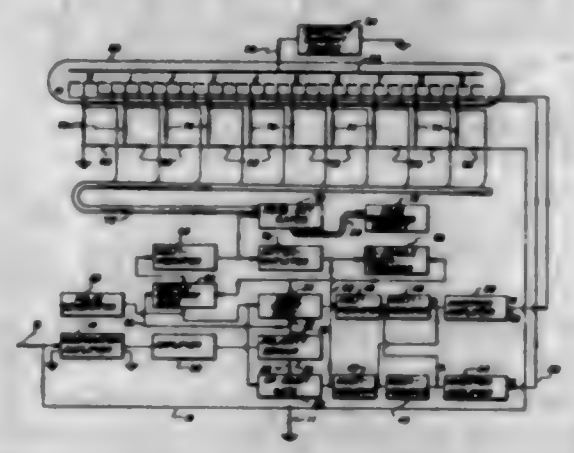
2,845,597

SYSTEM FOR DIGITIZING ANALOG SIGNALS

George D. Perkins, Duarte, Calif., assignor to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application September 4, 1956, Serial No. 607,627
4 Claims. (Cl. 324—103)

1. In combination with a comparison means adapted to compare the magnitude of an input signal with a reference voltage and produce an output signal having a polarity dependent upon whether the input signal is of a higher or lower magnitude than the reference voltage, and a reference voltage stepping circuit coupled to the comparison means to receive the output signal and having circuit means for increasing the reference voltage responsive to a comparison means output signal indicating the input signal is higher in magnitude than the reference voltage and circuit means for decreasing the reference voltage responsive to a comparison means output signal indicating the input signal is lower in magnitude than the



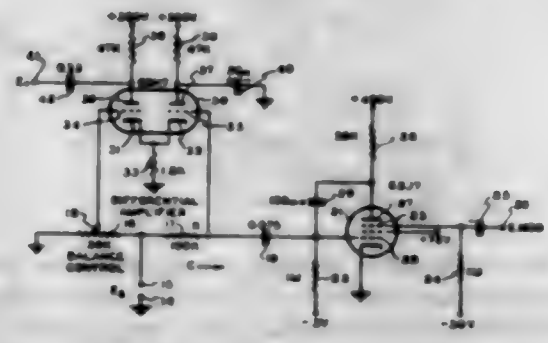
reference voltage, the improvement which comprises bi-stable means coupled to the circuit means for increasing the reference voltage and to the circuit means for decreasing the reference voltage and responsive to first reference voltage increase signals to prevent a reference voltage decrease, and electrical circuit recording means coupled to the stepping circuit and the bi-stable means and responsive to a first comparison means output signal indicating the input signal is lower in magnitude than the reference voltage adapted to record an indication of the input signal peaks and place the bi-stable means in a condition to allow the reference voltage to decrease.

2,845,598

PHASE MODULATOR

Albert Meyer, Cincinnati, Ohio, assignor to The Baldwin Piano Company, Cincinnati, Ohio, a corporation of Ohio

Application August 22, 1955, Serial No. 529,618
10 Claims. (Cl. 332—23)

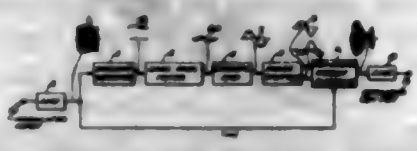


1. A phase modulator, comprising a resistance, a device having capacitance, said device including an electronic amplifier having an input circuit, said input circuit having capacitance of magnitude determined by the gain of said electronic amplifier, means for varying said gain of said electronic amplifier in response to a control signal, a source of input signal to be phase modulated, means for applying said input signal in parallel to said resistance and said device having capacitance, means for developing control voltages representative of current flow in said resistance and capacitance, respectively, and a symmetrical differential amplifier circuit for differentially combining said control voltages.

2,845,599
VOLUME EXPANDER

Michael J. Di Toro, Massapequa, and Walton Graham, East Meadow, N. Y., and Stanley M. Schreiner, Clifton, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application February 11, 1954, Serial No. 409,602
7 Claims. (Cl. 332—38)

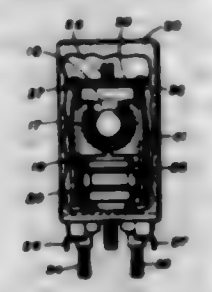


1. A volume expander comprising a non-linear circuit element, a source of amplitude modulated input signals, means to couple said source to said circuit element, means coupled to said source to detect the alternating voltage component of the envelope wave of said input signals, means coupled to said means to detect to amplify said component, means to apply a direct voltage bias to said circuit element and means coupled to said means to amplify to vary said direct voltage bias responsive to said amplified alternating voltage component whereby said input signals coupled to said circuit element are expanded due to the non-linear characteristics of said circuit element.

2,845,600
GAIN STABILIZED INTERMEDIATE FREQUENCY TRANSFORMER

John Forrest Clemens, Cincinnati, Ohio, assignor to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware

Application May 6, 1955, Serial No. 506,421
1 Claim. (Cl. 333—78)

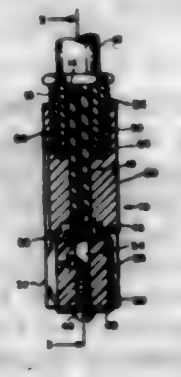


A fixed-tuned intermediate frequency transformer system comprising a base, a conductive shield secured to the base in complementary fashion to provide an enclosure, two pairs of terminals projecting through the base, one pair being disposed on one side as primary input circuit terminals and other pair being disposed on the other side as secondary output circuit terminals, four conductive mounting posts individually secured to said terminals and positioned perpendicular to said base to provide mountings for the primary and secondary circuits, a parallel combination of a toroidal coil and a loading resistor and at least one capacitor electrically connected to and mechanically spanning the input circuit posts to provide a primary resonant circuit, the primary coil being located adjacent the base, a parallel combination of a toroidal coil and a loading resistor and at least one capacitor electrically coupled to and mechanically spanning the output circuit posts to provide a secondary resonant circuit, the secondary coil being located remote from the base, said resistors being of the boron-carbon film type and each having an ohmic value on the order of one-third of the resonant impedance of its associated coil and capacitance, two coil-supporting boards formed with apertures therein and individually secured between the input and output pairs of posts, each coil having a powdered-iron core and being mounted in one of said apertures so that the coils are disposed geometrically in parallel to each other, primary and secondary circuit trimmer capacitors extending parallel to said posts and mounted with their axes in a central plane between said coils, said trimmer capacitors having high potential terminals and also having adjusting screws projecting through said base, and a capacitor for coupling said primary and secondary tuned circuits, the last-named capacitor comprising a section of twin lead having connectors connected to the high potential terminals of said trimmer capacitors, whereby there is provided a stable double-tuned filter unit having uniform gain and pass-band characteristics over a temperature range from —55° to 71° centigrade.

2,845,601
METHOD OF COUPLING INTO MICROWAVE CAVITY

David L. Jaffe, Great Neck, N. Y., assignor to the United States of America as represented by the Secretary of the Army

Application July 12, 1954, Serial No. 442,935
4 Claims. (Cl. 333—83)

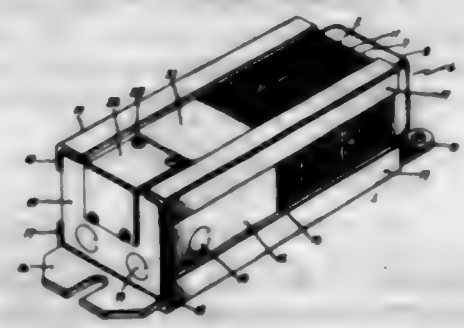


1. In combination with a coaxial transmission line, a coupling probe assembly comprising two discrete spaced coupling loops having respective coupling surfaces orthogonally positioned relative to each other, one of said coupling loops being connected to the inner conductor of said coaxial transmission line, the other of said coupling loops being capacitively coupled to said inner conductor.

2,845,602
TRANSFORMER CORE CONSTRUCTION

Herman R. Korte, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

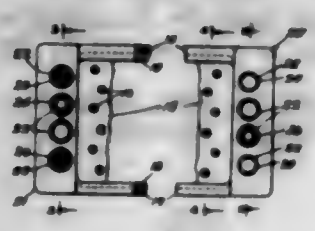
Application December 30, 1954, Serial No. 478,607
1 Claim. (Cl. 336—210)



A transformer comprising a core formed of a plurality of stacked laminations having a substantially rectangular configuration and having at least one coil thereon, said laminations having portions extending transversely outwardly of said coil, an end cap member abutting one end lamination of said core and peripherally coextensive therewith, said end cap member having a recessed portion for accommodating an exposed end of said coil, a sleeve member having a substantially rectangular cross section abutting the other end lamination of said core and peripherally coextensive therewith thereby accommodating the other exposed end of said core and defining a junction box compartment with said core, another end cap member abutting the end of said sleeve member remote from said core and peripherally coextensive there-

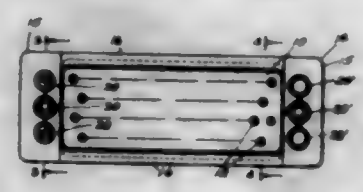
with, and a plurality of angle strap members extending between said cap members in engagement with and respectively embracing the corners of said cap members, said sleeve member, and said core, and integrally joined to said cap members thereby tightly clamping said core laminations and holding said cap members and said sleeve member in assembled relation.

2,845,603
FRAMED LOCKING CONNECTORS
Anton Jackson, South Salem, and Boris A. Jackson, Mamaroneck, N. Y.
Application July 12, 1956, Serial No. 597,522
6 Claims. (Cl. 339—92)



1. In framed connectors of the class described, one connector comprising an elongated body of insulating material having a plurality of spaced contacts exposed through opposed surfaces of said body, a rectangular frame encircling the periphery of said body, said frame having wide coupling ends joined by side rails, the body having side projections seating in said rails, means, fixed to the frame at end portions of said rails, engaging side projections of said body in retaining the body in the frame, the coupling ends of said frame having, within peripheral boundaries of said ends, male and female coupling means for coupling with female and male coupling means respectively of a companion connector, the companion connector including a casing mounted on one surface of its connector frame, and means mounted in coupling ends of the frame of the companion connector and engaging said casing to secure the casing on said frame.

2,845,604
FRAMED LOCKING CONNECTORS
Anton Jackson, South Salem, and Boris A. Jackson, Mamaroneck, N. Y.
Application July 3, 1956, Serial No. 595,787
4 Claims. (Cl. 339—92)



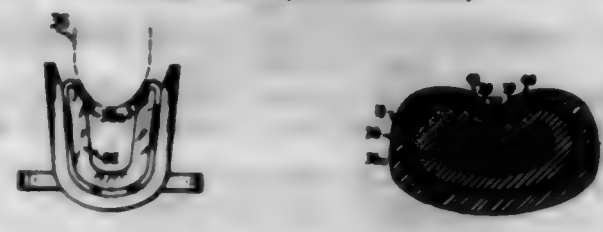
1. In connectors of the class described, comprising a pair of connectors, each connector having an elongated body of insulating material, a plurality of electric contacts spaced within peripheral edges of said body, an O-frame for said body, said frame having long sides and short ends, the long sides of the frame and said body having means for seating said body in the frame, end portions of said body being spaced from inner surfaces of said frame ends and arranged in close proximity thereto, means mounted on the frame sides and engaging said body to retain said body seated in and against displacement from the frame, said frame ends having male and female coupling members arranged within peripheral boundaries of said ends and freely supported therein for movement radially with respect to the axis of said members, and the male coupling member of one frame engaging the female coupling member of the other frame in coupling the frames of both connectors.

2,845,605
CABLE TAKE-OUT
D. Y. Germain and Kenneth W. McLeod, Houston, Tex., assignors to Vector Manufacturing Company, Houston, Tex., a partnership
Application May 6, 1954, Serial No. 428,646
9 Claims. (Cl. 339—151)



1. An electrical take-out for a cable comprising, a tubular body of flexible insulating material slit lengthwise to permit a cable to be inserted into the bore of the body through the slit, and a terminal embedded in the body with a portion accessible for connection with a wire of a cable within the bore of the body and another portion extending circumferentially of the body exposed for engagement with an electrical contact.

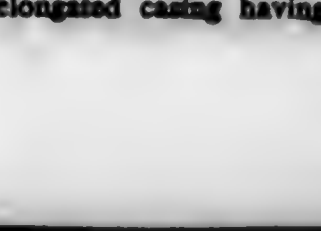
2,845,606
INSULATED WIRE END TERMINAL
Glenwood A. Fuller, Elizabethtown, Pa., assignor to AMP Incorporated, a corporation of New Jersey
Application April 1, 1954, Serial No. 420,331
8 Claims. (Cl. 339—276)



1. An insulated connector comprising a U-shaped wire receiving barrel, a layer of U-shaped insulating plastic material, and a U-shaped sheet metal attaching piece secured to inner surface portions of said plastic layer and engaging outer surface portions of said barrel and having free lateral edge portions bent to extend inwardly and across lateral edge portions of said U-shaped barrel to retain said insulation in position on said barrel.

8. In an electrical connection of the type wherein a connector barrel is pressure-welded to a central conductor and the barrel is surrounded by a tough, bendable insulating cover, that improvement which includes: a bendable carrier around the conductor interposed between the outer face of the barrel having edges extending substantially parallel to the axis of the conductor defining a butt seam construction along the connection, and said cover including opposed contiguous marginal portions compressed between said barrel edges and sealing the butt seam against admission of moisture.

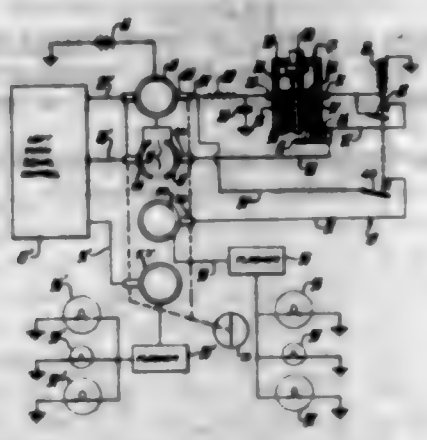
2,845,607
HOWLING COMBUSTION WARNING DEVICE FOR JET ENGINES
Ernest Hayda Bowler, Ottawa, Ontario, and Gordon Maguire Wright, Westboro, Ontario, Canada, assignors to National Research Council, Ottawa, Canada, a corporation of Canada
Application October 31, 1955, Serial No. 543,880
1 Claim. (Cl. 340—27)



The combination with a jet engine of a device secured to the exterior of the jet pipe of said engine, said device comprising an elongated casing having a central plat-

form, end walls, side walls and cover members defining within said casing a pair of elongated cavities one on each side of said platform, an insulating block mounted centrally of each cavity, a spring steel strip mounted in each of said blocks to project to both sides thereof to form two independent reeds, the strip being adjustable longitudinally whereby to vary the natural frequency of oscillation of the reeds, four electric contacts secured one to each free end of each of said strips, four stationary contacts mounted on said platform each respectively in register with one of said contacts mounted on a strip, each such pair of contacts so formed being arranged electrically in parallel, and a warning circuit sensitive to intermittent contact between any such pair of contacts, the four reeds formed by the strips each having a natural frequency of oscillation different from the other reeds, the frequencies of all four reeds being substantially uniformly distributed within the required band and the clearances of such contacts being sufficient to effect intermittent contact between a pair of said contacts only as a result of vibrations in said engine resulting from howling combustion.

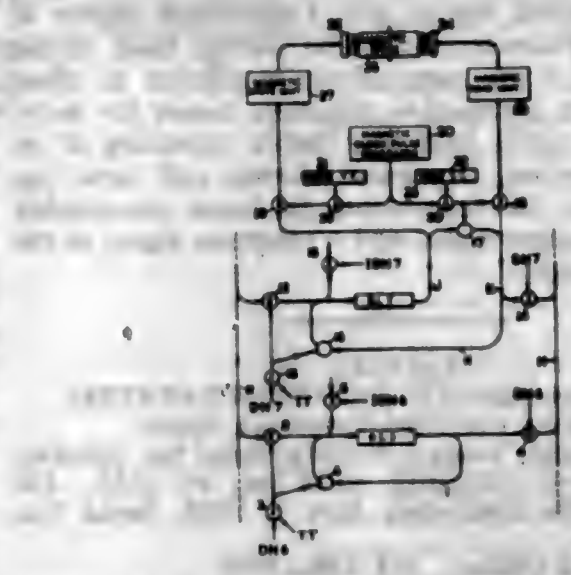
2,845,608
TURN SIGNAL SYSTEM
Brooks H. Short, Anderson, Ind., assignor to General Motors Corporation, a corporation of Delaware
Application October 13, 1954, Serial No. 462,044
8 Claims. (Cl. 340—81)



2. A signal system comprising a manually movable member having a rest position, a normally open switch connected to the member so as to be closed by movement of the member from the rest position, a normally closed switch connected to the member so as to be opened by further movement of the member from the rest position, a circuit including in series a charged condenser, the normally open switch, and a relay coil, a holding circuit for the relay coil including a contact closed by energization of the coil and the normally closed switch, a circuit energized by the relay coil, a current source, and means responsive to opening of the normally open switch for charging the condenser from the source.

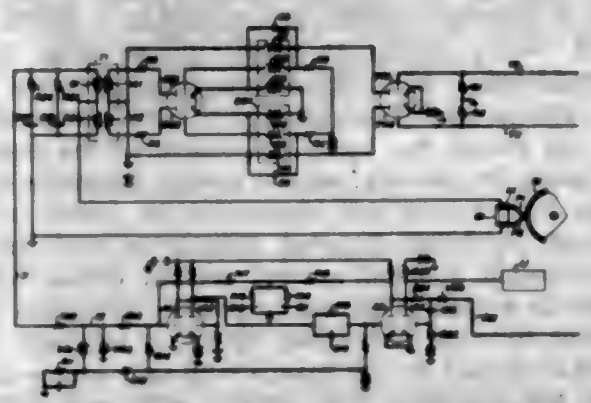
2,845,609
METHODS OF RECORDING DIGITAL INFORMATION
Edward Arthur Newman, Teddington, Donald Watts Davies, Southsea, and David Oswald Clayden, Hanwell, London, England, assignors to National Research Development Corporation, London, England
Application November 13, 1951, Serial No. 255,888
Claims priority, application Great Britain
November 22, 1950
11 Claims. (Cl. 340—174)

1. In a digital data recording apparatus for recording information that consists of a group of sequential digits, means for repetitively presenting the group n times, means for recording each nth digit throughout all the presentations considered as a succession, where n is an integer relatively prime to and less than the number of digits in the group, all the digits in the group being thus



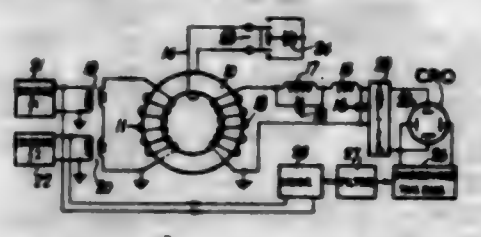
recorded in a sequence that is different from the sequence in which they occur in the original group.

2,845,610
MAGNETIC DATA STORAGE SYSTEM
Warren A. Cornell, Murray Hill, and John H. McGuigan, New Providence, N. J., and Orlando J. Murphy, New York, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 29, 1952, Serial No. 307,108
13 Claims. (Cl. 340—174)



1. In a signal storage device, a magnetic head, an amplifier, a transformer for coupling said head to said amplifier, means for reducing the transient energy decay time of said head, said means comprising said transformer and a resistance-capacitance network connected to said transformer.

2,845,611
DIGITAL STORAGE SYSTEMS
Frederic Calland Williams, Oakhurst, Romiley, England, assignor to National Research Development Corporation, London, England, a corporation of Great Britain
Application November 8, 1954, Serial No. 467,533
Claims priority, application Great Britain
November 10, 1953
16 Claims. (Cl. 340—174)



1. Apparatus for storage of digital information which comprises a hysteresis type storage device of the kind wherein information is stored by the retentivity of the device when the energisation necessary to effect input of such information is removed, means for applying to

said device input oscillatory signals of at least two different frequencies to produce fluctuations of the induction state therein which extend over a non-linear region of the hysteresis characteristic of the storage body of the device but which are cumulatively insufficient to effect alteration of the polarisation direction, means for deriving an output signal from said device consisting of an intermodulation beat frequency between said input signals and means for determining the phase relationship between such output signal and a reference signal of the same beat frequency.

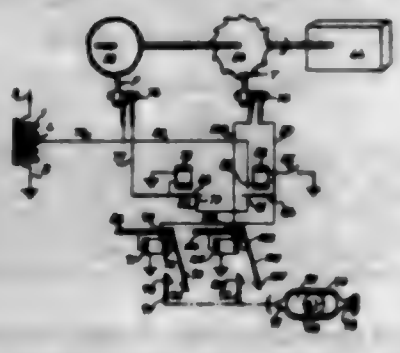
2,845,612

ELECTROMAGNETIC SWITCHING SYSTEM

Jose Tous Ferrallad, Barcelona, Spain

Original application January 9, 1951, Serial No. 205,090, now Patent No. 2,713,533, dated July 19, 1955. Divided and this application June 7, 1955, Serial No. 513,865

3 Claims. (Cl. 340—177)



3. A timing control switching system comprising a source of electrical power, timing means, a switch closed by said timing means at predetermined time intervals and connected to said source, first means coupled to said switch and normally conditioned to pass power recieved from said switch but being responsive to the power for interrupting its passage, second means normally coupled to said first means but responsive to power received therefrom for being coupled directly to said source, a control switch coupled to said second means for controlling the response thereof to power, utilization means, a control for said utilization means, a magnetic device responsive to said second means with said source coupled thereto for engaging said control with said utilization means, and means for actuating said control and for opening said control switch and thereby decoupling said second means from said source.

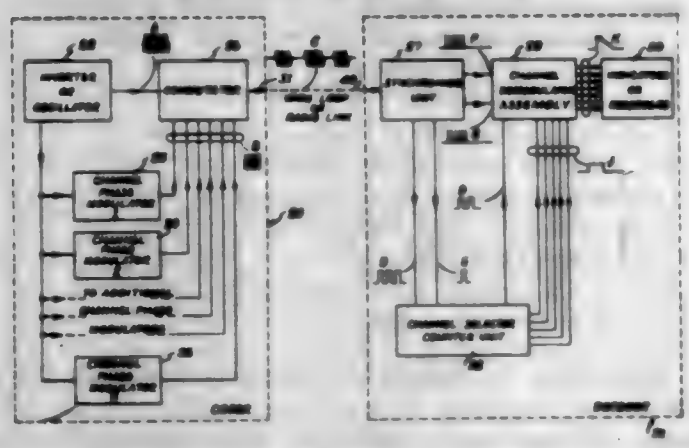
2,845,613

PHASE-SAMPLING TELEMETER

Myron G. Pawley, Riverside, Calif., assignor to the United States of America as represented by the Secretary of Commerce

Application November 16, 1953, Serial No. 392,528

8 Claims. (Cl. 340—183)



3. A phase-sampling telemeter comprising a source of a single frequency reference voltage, a plurality of phase-modulating means, there being one for each channel of information to be transmitted, each of said phase-modulating means being connected to receive the output of said source, commutator means for producing a series of frames made up of a number of groups of signals, the first and each alternate group of signals consisting of a number of cycles of the reference voltage, each reference voltage group being followed by a number of cycles of a phase-modulated signal, each phase-modulated signal in a frame representing the information from a phase-modulating means in a different channel, means for transmitting the signals to a remote location, an oscillator, at the remote location, having the same frequency as said source, means responsive to the output of said oscillator and to the reference voltage signal to synchronize said oscillator with said source, a ring counter having a number of stages equal to the number of channels of information transmitted, means for stepping said ring counter at the beginning of the information signal from each channel and a plurality of channel demodulator units, one for each channel, each unit comprising a gating means connected to receive the output of the counter stage corresponding to the channel with which the particular gating means is associated, means, including said gating means, for producing a pulse corresponding to each cycle of the information signal of that channel and means for comparing the phase of the output of said last-mentioned means with the output of said oscillator.

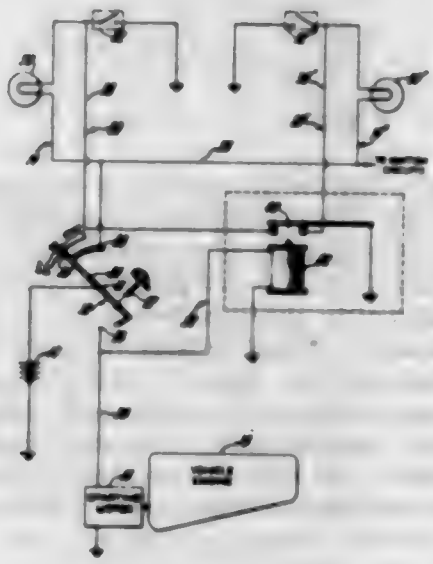
2,845,614

SIGNAL DEVICE TEST CIRCUIT

William E. Bell, Berkley, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 19, 1956, Serial No. 610,860

3 Claims. (Cl. 340—213)



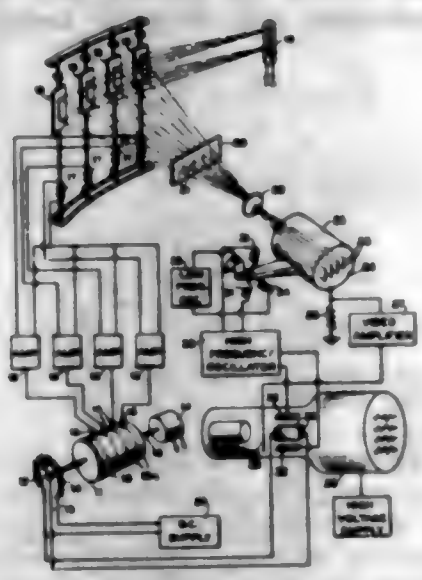
1. A circuit for indicating malfunction of a signal device, said circuit comprising a voltage source, a signal circuit connected across the voltage source and including a current responsive signal device and a condition responsive element for modifying the current flow in the signal circuit, a test circuit connected in parallel with said element, and a plural position switch having contacts connected in the signal circuit for energizing the signal circuit in first and second positions, and switching means in said test circuit operatively connected with said plural position switch and completing the test circuit when the switch is in said second position thereby energizing the signal device independently of the condition responsive element.

2,845,615

APPARATUS FOR SIMULTANEOUS VISUAL REPRODUCTION OF A PLURALITY OF RECORDED TRANSIENTS

Donald C. Bowman, Tulsa, Okla., assignor to Sinclair Oil & Gas Company, Tulsa, Okla., a corporation of Maine

Application October 15, 1954, Serial No. 462,468
2 Claims. (Cl. 340—324)



1. An apparatus for visually reproducing simultaneously a plurality of independent electrically reproducible transients which comprises transducer means for cyclically reproducing said independent transients as a plurality of independent electrical outputs, galvanometer means connected to each said electrical output for producing a visible line image displaceable through parallel positions in response to variations of said electrical output, a television camera tube having a high frequency scanning beam sweep at right angles to a low frequency scanning beam sweep and a video output instantaneously responsive to the intensity of light on each scanned picture mosaic particle, means focusing the line images produced by said galvanometer means as a series of parallel line images on the picture mosaic of said camera tube disposed at right angles to said high frequency scanning beam sweep, a high persistence cathode ray tube having a high frequency scanning beam sweep at right angles to a low frequency scanning beam sweep and having a control element responsive to a video input to control the intensity of light produced by impingement of the scanning beam on the face of the cathode ray tube, the video output of said television camera tube being connected to the control element of said cathode ray tube, means synchronizing the high frequency scanning beam sweeps of said television camera tube and said cathode ray tube, and means synchronizing the low frequency scanning beam sweep of said cathode ray tube with the rate of cyclic reproduction of said transients by said transducer.

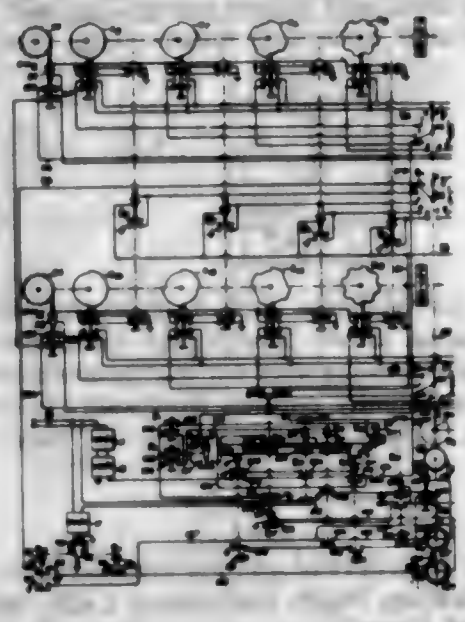
2,845,616

COMMUNICATION CODING AND DECODING APPARATUS

Burton R. Lester, Baldwinsville, N. Y., assignor to General Electric Company, a corporation of New York

Application October 1, 1952, Serial No. 312,516
5 Claims. (Cl. 340—345)

1. A data translation apparatus, comprising a plurality of sets of cam surfaces, a plurality of cam actuated sets of complementary contact members operatively associated with said cam surfaces, motive means drivingly connected to produce relative motion between said cam surfaces and said cam actuated contact members, said cam surfaces being movable independently of said motive means, data storage apparatus, means including a first group of said contact members and said motive means for driving said cam surfaces to a position governed by entries in said data storage apparatus, a scanning switch means including said scanning switch and a second group of said contact members operable in complementary fashion with respect to said first group of contact members for transmitting a train of electric impulses characterizing the relative position of said cam surfaces and said cam actuated contact members, and means for preventing movement of said cam surfaces by said motive means during the operation of said scanning switch.

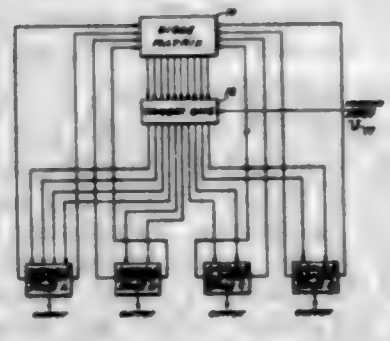


2,845,617

PULSE-COUNT CODER

Frank P. Turvey, Jr., Nutley, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application May 17, 1956, Serial No. 585,494
9 Claims. (Cl. 340—347)



4. A pulse-count coder for producing a code output representative of the number of input pulses from a pulse source comprising a plurality of code-producing stages each having a plurality of stable operational levels, a diode matrix coupled to said stages and producing voltages determined by the particular operational level at which the associated stage is operating, and means including a plurality of gate circuits controlled by the voltages from said matrix for applying said input pulses to different points of said stages in accordance with a predetermined code.

2,845,618

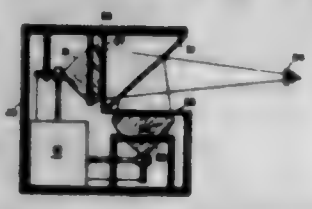
TELEVISION VIEWING DEVICE

Charles E. Huffman, Upper Montclair, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application January 11, 1954, Serial No. 403,284
1 Claim. (Cl. 340—369)

The combination comprising means to produce two separate television type presentations; means to polarize the light from each said presentation; means for presenting said separate presentations on a common viewing area, said area being a semi-transparent mirror having the characteristic of rotating the plane of polarization

of the light from said presentations; a viewing device consisting of symmetrically positioned analyzers having their planes of polarization at an angle of 90°; and means to compensate for the rotation introduced by said viewing area, said means comprising said polarizing means, each said polarizing means being positioned be-



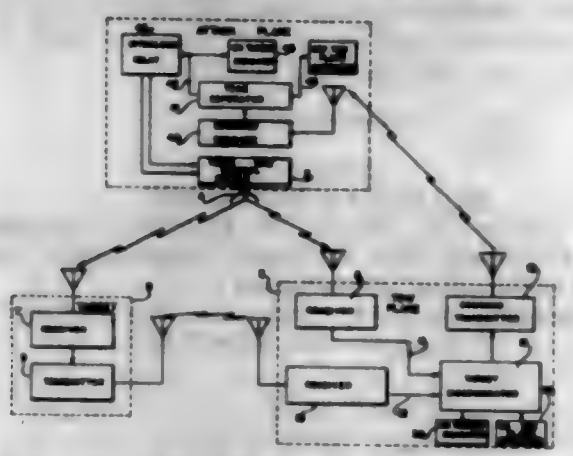
tween said viewing area and a respective presentation at an angle equal to but opposite the rotational angle introduced by the viewing area for that presentation, whereby the light eventually emitted from said viewing area is polarized in planes corresponding to those of said analyzers.

2,845,619

TARGET IDENTIFICATION DISCRIMINATOR

Robert E. Rawlins, North Hollywood, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.

Application August 22, 1955, Serial No. 529,751
10 Claims. (Cl. 343—6)



10. An object discriminator for a system employing a projectile launching device, an echo type remote object locating device for aiming the projectile launching device and a plurality of remote objects only one of which is to be fired upon comprising, transponder means carried by at least one of the remote objects and detecting the echo energy at the associated object, receiver means carried by one of the remote objects and detecting echo energy, ratio detector means electrically coupled to said transponder means and said receiver means and providing outputs in response to detected echo energy having a predetermined percentage of modulation, tone generator means responsive to said outputs and producing characteristic tone signals distinguishing the associated objects, and launch control means responsive only to the simultaneous application of said characteristic signals to produce a safe-to-launch output.

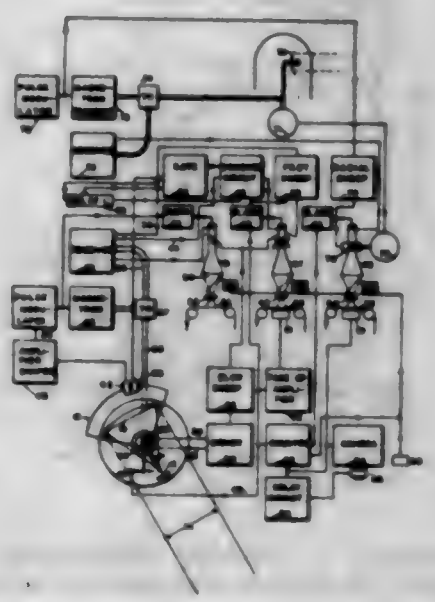
2,845,620

AERIAL MAPPING AND PROFILING SYSTEM

John Hays Hammond, Jr., Gloucester, and Emory Leon Chaffee, Belmont, Mass.; said Chaffee assignor to said Hammond

Application February 6, 1956, Serial No. 563,505
1 Claim. (Cl. 343—11)

An aerial survey system comprising a transmitter to be carried by an airplane, said transmitter including means for generating and projecting downwardly a radar-type beam, means for oscillating said beam in a path transverse to the line of flight of the airplane to scan thereby the terrain within a wide strip along said line of flight, a receiver responsive to the energy of the beam reflected from the scanned area including a cathode-ray tube, means for causing the beam in said tube to sweep in synchronism with said radar beam and to vary in strength according to said received reflected energy so as to produce a trace representing the reflection characteristics of the scanned area, said transmitter having means producing radar pulses at known intervals along the sweep path, a second cathode-ray tube having an electron beam, means for causing said last beam to sweep in synchronism with the radar sweep, and means



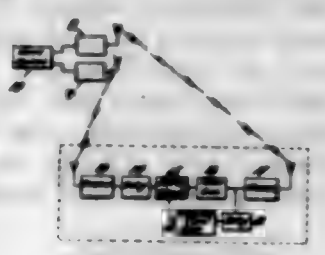
producing a transverse sweep of said last beam corresponding to each of said pulses and means producing an indication on the trace of said transverse sweep having a displacement which is proportional to the range of the reflecting area, a radar-type position indicating device to be carried by said airplane, means producing periodic position indications, means making recordings of said cathode-ray traces and means indicating on said recordings the times of successive position indications.

2,845,621

METHOD AND APPARATUS FOR DETERMINING TIME DELAY IN PULSE REPEATERS

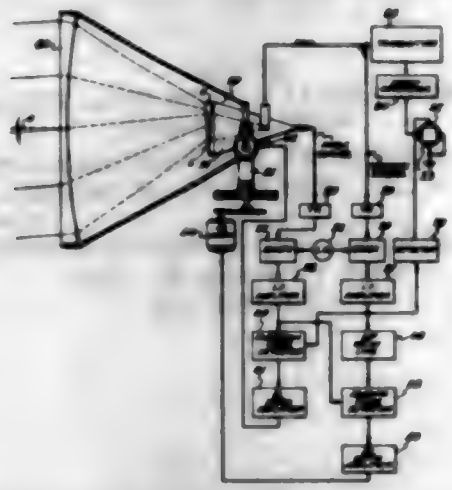
Arthur F. Hasbrook, Bexar County, Tex., assignor to Olive S. Petty, San Antonio, Tex.

Application August 3, 1953, Serial No. 372,127
6 Claims. (Cl. 343—13)



1. Apparatus for use in an electronic distance measuring system to determine the delay time at a repeater station comprising, in combination, a receiver for intercepting pulsed signals from a base station, transmission means energized from said receiver for retransmitting pulses to said base station and returning such retransmitted pulses to said receiver, and devices responsive to the pulsed signals for preventing energization of said transmission means by pulses returned therefrom to said receiver following the first such returned pulse of a series, whereby for each pulse arriving at said receiver, only two pulses are radiated to said base station, the total transmission time being given by the first of such pulses, and the delay at the repeater station being given by the interval between the two pulses.

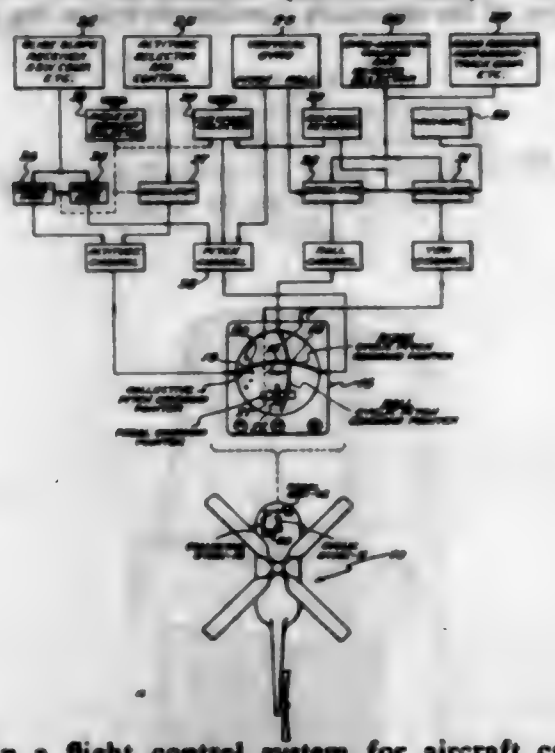
2,845,622
DIRECTION SENSITIVE RADIO SYSTEM
Joseph H. Gamble, Plainville, Conn., assignor to Sperry Rand Corporation, a corporation of Delaware
Application November 13, 1953, Serial No. 391,931
15 Claims. (Cl. 343—16)



1. A microwave antenna system comprising first and second coaxial conical electromagnetic horns having substantially coplanar mouths, and an annular dielectric phase delay device coaxially mounted in front of the mouth of the outer horn and outside the mouth of the inner horn, said phase delay device having different thicknesses in different radial directions from the axis of said device for delaying the phase of incident electromagnetic energy distributed over the surface of and passing through said device, the electromagnetic energy passing through a first radial element of said device being delayed by a first phase value, the electromagnetic energy passing through a second radial element of said device being delayed by a second phase value, the difference between said first and second phase values varying according to the angle between said first and second radial elements.

11. A radar tracking system comprising an antenna means including a first waveguide horn, a second waveguide horn mounted with respect to said first waveguide horn, the longitudinal axis of said second waveguide horn coinciding with the longitudinal axis of said first waveguide horn, a microwave energy delay means situated in front of the mouth of said first waveguide horn and outside the mouth of said second waveguide horn, said delay means having different thicknesses in different radial directions from the longitudinal axis of said waveguide horns for delaying the phase of incident electromagnetic energy distributed over the surface thereof and passing therethrough, the electromagnetic energy incident upon the surface of said delay means along a first radial line perpendicular to said longitudinal axis being delayed by a first phase value in passing therethrough, the electromagnetic energy incident upon the surface of said delay means along a second radial line perpendicular to said longitudinal axis being delayed by a second phase value in passing therethrough, the difference between said first and second phase values varying according to the angle between said first and second radial lines, transmitter means coupled to said second waveguide horn, first receiver means coupled to said first waveguide horn, second receiver means coupled to said second waveguide horn, first phase comparator means coupled to the outputs of said first and second receiver means, and second phase comparator means coupled to the outputs of said first and second receiver means, said first phase comparator means producing an output signal varying according to the elevation of a target relative to the pointing direction of said antenna means, and said second phase comparator means producing an output signal varying according to the azimuth of a target relative to the pointing direction of said antenna means.

2,845,623
AIRCRAFT NAVIGATION SYSTEM
George E. Iddings, Wantagh, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application January 3, 1956, Serial No. 557,720
42 Claims. (Cl. 343—107)



1. In a flight control system for aircraft capable of sustained flight at substantially zero air speed including at least two signal responsive means for providing outputs respectively indicative of required changes in craft attitude about at least two of its primary axes to cause said craft to approach and maintain a desired craft attitude about one of said axes, said craft attitudes about said two axes being independent of each other at zero air speeds but dependent on each other at air speeds greater than zero, comprising means for supplying an error signal corresponding to the difference between the existing craft attitude about said one axis and the desired craft attitude thereabout, means connected to receive said error signal for supplying control signals to said two signal responsive means whereby to respectively control the outputs thereof in accordance with said error signal, and air speed responsive means coupled with said last-mentioned means for continuously varying the relative magnitudes of said control signals supplied to said signal responsive means in accordance with craft air speed.

40. An aircraft navigation system by means of which an aircraft may be controlled to approach and thereafter maintain a glide slope landing beam, means for providing a signal corresponding to the displacement of said craft from said beam, altimeter means for supplying a signal dependent upon the altitude of said craft, and means responsive to said signals for supplying a control signal proportional to the algebraic sum thereof.

2,845,624
LOW DRAG AIRPLANE ANTENNA
Richard Allan Burberry, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application May 5, 1954, Serial No. 427,798
Claims priority, application Great Britain May 8, 1953
5 Claims. (Cl. 343—708)



1. An aerial installation for a vehicle having a streamlined electrically conducting envelope, comprising a pair of conducting aerial elements symmetrically located with-

in and adjacent to said envelope on horizontally opposed sides of the main longitudinal axis of the vehicle and extending substantially horizontally with the angle included between the directions of rearward extension not exceeding 90°, means mounting said elements at least one quarter of the operating wavelength below the highest part of said vehicle, a pair of flush-mounted radiation windows in said envelope located to face respective ones of said aerial elements, and a feeder system adapted to couple said aerial elements to a radio equipment in such manner that said elements serve as respective monopole members of a dipole aerial.

DESIGNS

JULY 29, 1958

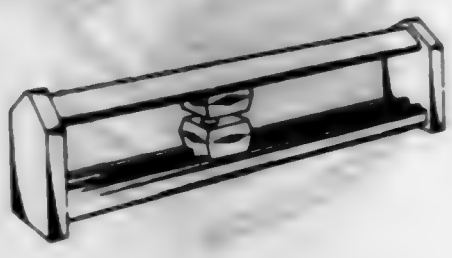
183,272
FAUCET AND DIAL VALVE CONTROL COMBINATION
Fred C. Alexander, New Castle, Pa., assignor to Universal Rundle Corporation, New Castle, Pa., a corporation of Delaware
Application December 10, 1956, Serial No. 44,135
Term of patent 14 years
(Cl. D91—3)



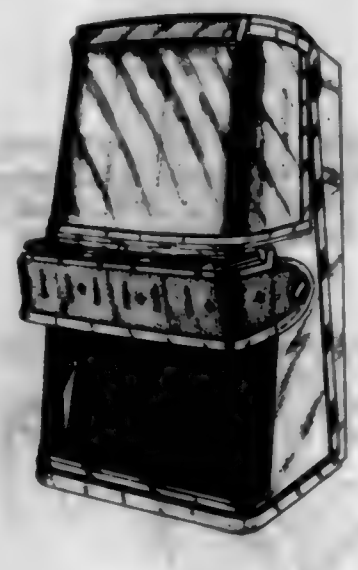
183,273
ELECTRICAL TAP CONNECTOR
Harry Russell Bethune, Scotch Plains, N. J., assignor to The Thomas & Betts Co., Elizabeth, N. J., a corporation of New Jersey
Application October 2, 1957, Serial No. 47,944
Term of patent 14 years
(Cl. D26—1)



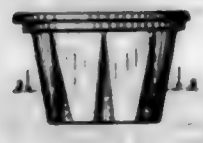
183,274
INDUSTRIAL GAUGING HEAD WITH TRAVERSING MOUNT FOR DETECTING MATERIAL PROPERTIES
Edward S. Bluestone, Columbus, Ohio, assignor to Industrial Nucleonics Corporation, a corporation of Ohio
Application May 15, 1957, Serial No. 46,180
Term of patent 14 years
(Cl. D52—1)



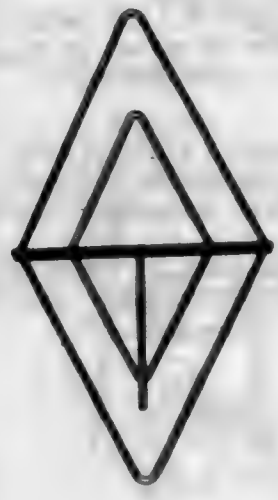
183,275
PHONOGRAPH CABINET
Melvin H. Boldt, Glenview, Ill.
Application January 23, 1958, Serial No. 49,372
Term of patent 14 years
(Cl. D56—4)



183,276
FOOD CONTAINER
Augustine L. Colarusso, Boston, Mass., assignor to Van Brode Milling Co., Inc., Clinton, Mass., a corporation of Massachusetts
Application October 31, 1957, Serial No. 48,290
Term of patent 7 years
(Cl. D58—11)



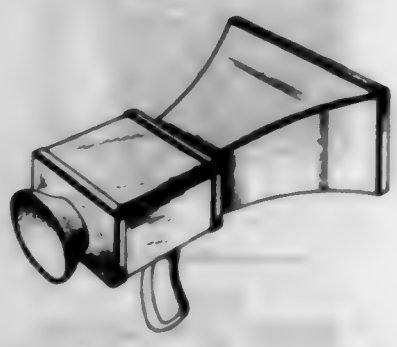
183,277
WALL SHELF
Richard E. Duchin, New York, N. Y., assignor to Maurice Duchin Creations, Inc., New York, N. Y., a corporation of New York
Application November 18, 1957, Serial No. 48,520
Term of patent 14 years
(Cl. D33—3)



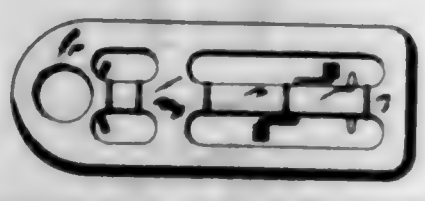
183,278
LUGGAGE LOCK
Charles S. Gehrie, Montclair, N. J., assignor to Presto Lock Co., Garfield, N. J., a limited partnership
Application January 18, 1958, Serial No. 49,184
Term of patent 14 years
(Cl. D50—7)



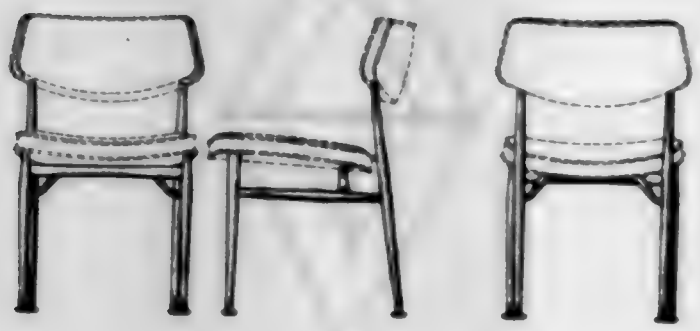
183,279
ELECTRIC MEGAPHONE
Frederick Lee Hardesty, Washington, D. C.
Application September 2, 1955, Serial No. 37,761
Term of patent 14 years
(Cl. D26—14)



183,280
COLLAPSIBLE RAFT
Joseph Jacus, Miami, Fla.
Application November 26, 1956, Serial No. 43,943
Term of patent 14 years
(Cl. D71—1)



183,281
CHAIR
Robert E. Kjer Jakobsen, Manhattan Beach, Calif., assignor to Virtue Bros. Mfg. Co., Los Angeles, Calif., a corporation of California
Application May 6, 1957, Serial No. 46,035
Term of patent 14 years
(Cl. D15—1)



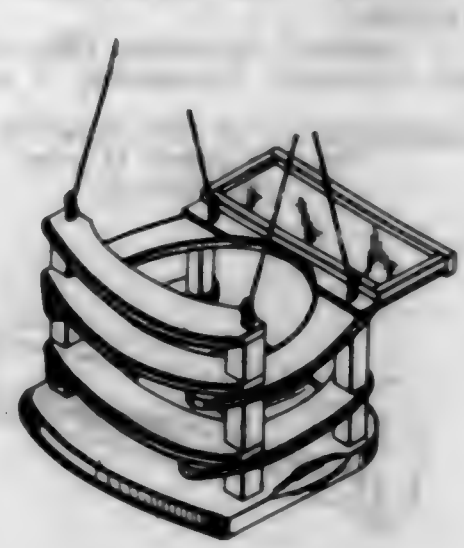
183,282
BUBBLE TOY
Alexander G. Jimas, Kansas City, Mo., assignor to Lucy Company, Kansas City, Mo., a partnership
Application September 23, 1957, Serial No. 47,812
Term of patent 14 years
(Cl. D34—15)



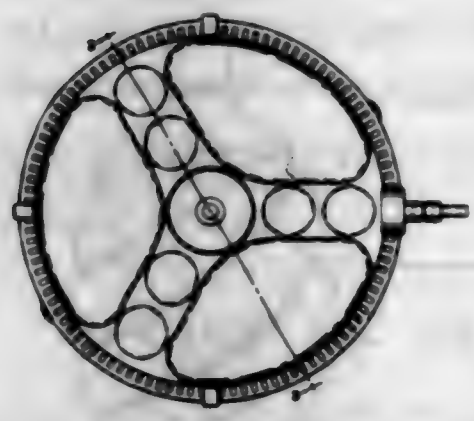
183,283
CLOTHES HAMPER
Wesley F. Junker, Copiague, and Alan A. Hicks, New York, N. Y.
Application March 26, 1957, Serial No. 45,448
Term of patent 14 years
(Cl. D58—4)



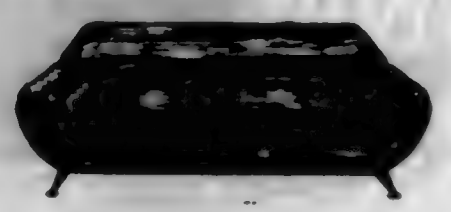
183,284
CHILD'S SWING SEAT
Albert Link, Brooklyn, N. Y.
Application July 29, 1957, Serial No. 47,145
Term of patent 14 years
(Cl. D15—11)



183,285
FOOD SERVER
Stephen Lipka, Melbourne, Fla.
Application February 21, 1958, Serial No. 49,753
Term of patent 14 years
(Cl. D44—10)



183,286
SOFA
Fred C. Maurer, East Palestine, Ohio, assignor to The Kenmar Manufacturing Company, East Palestine, Ohio, a corporation of Ohio
Application February 12, 1958, Serial No. 49,624
Term of patent 3½ years
(Cl. D15—11)



183,287
CHAIR
Fred C. Maurer, East Palestine, Ohio, assignor to The Kenmar Manufacturing Company, East Palestine, Ohio, a corporation of Ohio
Application February 12, 1958, Serial No. 49,625
Term of patent 3½ years
(Cl. D15—1)



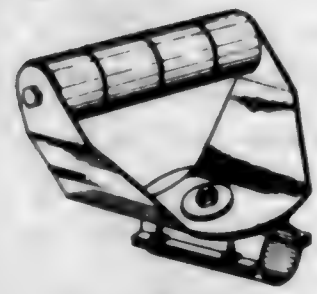
183,288
THERMALLY INSULATED PICNIC BAG
Moritz Nappo, Farmingdale, N. J.
Application April 18, 1957, Serial No. 45,794
Term of patent 14 years
(Cl. D58—2)



183,289
OUTBOARD MOTOR CARRIER
Vivian L. Ott, Norfolk, Va.
Application March 21, 1958, Serial No. 58,137
Term of patent 14 years
(Cl. D14—3)



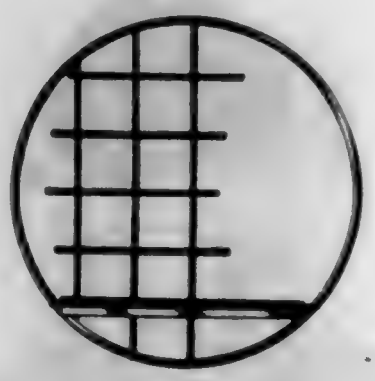
183,290
AUXILIARY HANDLE FOR GARDEN AND YARD TOOLS OR THE LIKE
Frank E. Shock, Wichita, Kans.
Application June 24, 1957, Serial No. 46,700
Term of patent 14 years
(Cl. D10—8)



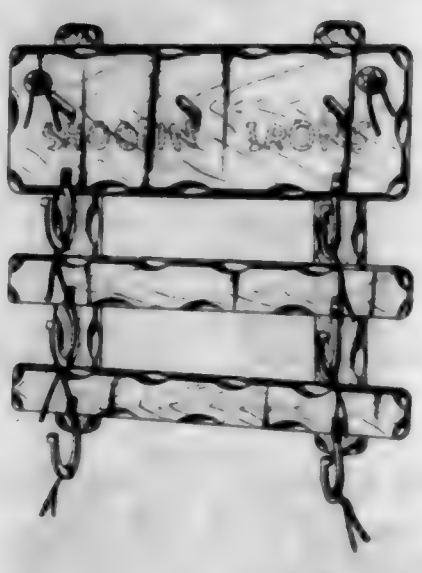
183,291
BOAT DECK CLEAT
Clifford Brooks Stevens, Milwaukee, Wis., assignor to The Vollrath Co., Sheboygan, Wis., a corporation of Wisconsin
Application December 12, 1957, Serial No. 48,876
Term of patent 7 years
(Cl. D71—1)



183,292
COMBINATION TRELLIS AND KNICK-KNACK SHELF
Jack V. Swartz, Chicago, Ill.
Application March 21, 1958, Serial No. 50,128
Term of patent 14 years
(Cl. D33—3)



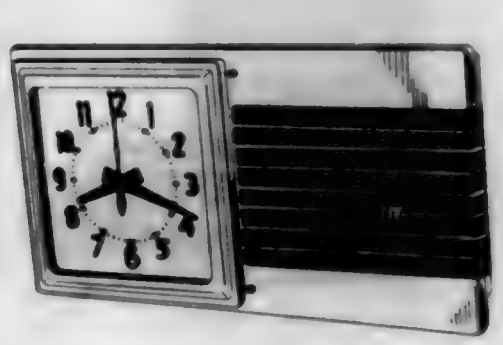
183,293
GUN RACK
Franklin J. Van Buren, San Antonio, Tex., assignor to Western Novelties Manufacturing Company, Inc., San Antonio, Tex., a corporation of Texas
Application May 17, 1957, Serial No. 46,213
Term of patent 7 years
(Cl. D33—3)



183,294
BOTTLE OR SIMILAR ARTICLE
Fernando Van-Zeller Guedes, Porto, Portugal, assignor to Sociedade Commercial dos Vinhos do Moss do Portugal, Lda., Porto, Portugal, a corporation of Portugal
Application April 9, 1957, Serial No. 45,651
Claims priority, application Portugal October 12, 1956
Term of patent 14 years
(Cl. D58—8)



183,295
COMBINED CLOCK AND LOUD SPEAKER UNIT
Dana L. Vickery, Gardner, Mass., assignor to Simplex Time Recorder Co., Gardner, Mass., a corporation of Massachusetts
Application April 19, 1957, Serial No. 45,799
Term of patent 14 years
(Cl. D42—7)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 29TH DAY OF JULY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Buckman, Kenneth E., to General Motors Corp. Liquid filtration. Re. 24,509, 7–29–58, Cl. 210—487.

General Motors Corp.: *See*—
Buckman, Kenneth E. Re. 24,509.

Grossman, Harold. Shower door enclosure structure. Re. 24,506, 7–29–58, Cl. 189—46.

LIST OF PLANT PATENTEES

Anderson, Frederic W., to Kim Bros., doing business under the fictitious name and style of Reedley Nursery. Peach tree. 1,733, 7–29–58, Cl. 47—62.

Godin, Eugene, to Gulf Stream Products, Inc. Hibiscus plant. 1,729, 7–29–58, Cl. 47—60.

Goldsmith, Earl V., deceased (by M. S. Goldsmith, executrix), and H. R. Thomas; said M. S. Goldsmith to The Strawberry Institute of California. Variety of strawberry. 1,735, 7–29–58, Cl. 47—62.

Goldsmith, Earl V., deceased (by M. S. Goldsmith, executrix), and H. R. Thomas; said M. S. Goldsmith to The Strawberry Institute of California. Variety of strawberry. 1,736, 7–29–58, Cl. 47—62.

Goldsmith, Earl V., deceased (by M. S. Goldsmith, executrix), and H. R. Thomas; said M. S. Goldsmith to The Strawberry Institute of California. Variety of strawberry. 1,737, 7–29–58, Cl. 47—62.

Goldsmith, Margaret S.: *See*—
Goldsmith, Earl V., and Thomas. 1,735.
Goldsmith, Earl V., and Thomas. 1,736.
Goldsmith, Earl V., and Thomas. 1,737.

Gulf Stream Products, Inc.: *See*—
Godin, Eugene. 1,729.

Kim Bros.: *See*—
Anderson, Frederic W. 1,733.

McLellan, E. W., Co.: *See*—
McLellan, Wakeman G., Jr. 1,734.

McLellan, Wakeman G., Jr., to E. W. McLellan Co. Carnation. 1,734, 7–29–58, Cl. 47—60.

Reedley Nursery: *See*—
Anderson, Frederic W. 1,733.

Strawberry Institute of California, The: *See*—
Goldsmith, Earl V., and Thomas. 1,735.
Goldsmith, Earl V., and Thomas. 1,736.
Goldsmith, Earl V., and Thomas. 1,737.

Thomas, Harold R.: *See*—
Goldsmith, Earl V., and Thomas. 1,735.
Goldsmith, Earl V., and Thomas. 1,736.
Goldsmith, Earl V., and Thomas. 1,737.

LIST OF DESIGN PATENTEES

Alexander, Fred C., to Universal Bundle Corp. Faucet and dial valve control combination. 183,272, 7–29–58, Cl. D91—3.

Bethune, Harry R., to The Thomas & Betts Co. Electrical tap connector. 183,273, 7–29–58, Cl. D26—1.

Bluestone, Edward S., to Industrial Nucleonics Corp. Industrial gauging head with traversing mount for detecting material properties. 183,274, 7–29–58, Cl. D52—1.

Boldt, Melvin H. Phonograph cabinet. 183,275, 7–29–58, Cl. D56—4.

Colarusso, Augustine L., to Van Brode Milling Co., Inc. Food container. 183,276, 7–29–58, Cl. D58—11.

Duchin, Maurice, Creations, Inc.: *See*—
Duchin, Richard E. 183,277.

Duchin, Richard E., to Maurice Duchin Creations, Inc. Wall shelf. 183,277, 7–29–58, Cl. D32—3.

Gehrie, Charles S., to Presto Lock Co. Luggage lock. 183,278, 7–29–58, Cl. D60—7.

Hardesty, Frederick L. Electric megaphone. 183,279, 7–29–58, Cl. D26—14.

Hicks, Alan A.: *See*—
Junker, Wesley F., and Hicks. 183,283.

Industrial Nucleonics Corp.: *See*—
Bluestone, Edward S. 183,274.

Jacus, Joseph. Collapsible raft. 183,280, 7–29–58, Cl. D71—1.

Jakobsen, Robert E. K., to Virtue Bros. Mfg. Co. Chair. 183,281, 7–29–58, Cl. D15—1.

Jianas, Alexander G., to Lucy Co. Bubble toy. 183,282, 7–29–58, Cl. D84—15.

Junker, Wesley F., and A. A. Hicks. Clothes hamper. 183,283, 7–29–58, Cl. D68—4.

Kenmar Mfg. Co., The: *See*—
Maurer, Fred C. 183,286.
Maurer, Fred C. 183,287.

Link, Albert. Child's swing seat. 183,284, 7–29–58, Cl. D15—11.

Lipka, Stephen. Food server. 183,285, 7–29–58, Cl. D44—10.

Lucy Co.: *See*—
Jianas, Alexander G. 183,282.

Maurer, Fred C., to The Kenmar Mfg. Co. Sofa. 183,286, 7–29–58, Cl. D15—11.

Maurer, Fred C., to The Kenmar Mfg. Co. Chair. 183,287, 7–29–58, Cl. D15—1.

Nappe, Moritz. Thermally insulated picnic bag. 183,288, 7–29–58, Cl. D68—2.

Ott, Vivian L. Outboard motor carrier. 183,289, 7–29–58, Cl. D14—3.

Presto Lock Co.: *See*—
Gehrie, Charles S. 183,278.

Shock, Frank E. Auxiliary handle for garden and yard tools, or the like. 183,290, 7–29–58, Cl. D10—8.

Simplex Time Recorder Co.: *See*—
Vickery, Dana L. 183,295.

Sociedade Comercial dos Vinhos de Mesa de Portugal, Lda.: *See*—
Van-Zeller Guedes, Fernando. 183,294.

Stevens, Clifford B., to The Vollrath Co. Boat dock cleat. 183,291, 7–29–58, Cl. D71—1.

Swartz, Jack V. Combination trellis and knick-knack shelf. 183,292, 7–29–58, Cl. D32—3.

Thomas & Betts Co., The: *See*—
Bethune, Harry R. 183,273.

Universal Bundle Corp.: *See*—
Alexander, Fred C. 183,272.

Van Brode Milling Co., Inc.: *See*—
Colarusso, Augustine L. 183,276.

Van Buren, Franklin J., to Western Novelties Mfg. Co., Inc. Gun rack. 183,293, 7–29–58, Cl. D33—3.

Van-Zeller Guedes, Fernando, to Sociedade Comercial dos Vinhos de Mesa de Portugal, Lda. Bottle or similar article. 183,294, 7–29–58, Cl. D58—8.

Vickery, Dana L., to Simplex Time Recorder Co. Combined clock and loud speaker unit. 183,295, 7–29–58, Cl. D42—7.

Virtue Bros. Mfg. Co.: *See*—
Jakobsen, Robert E. K. 183,281.

Vollrath Co., The: *See*—
Stevens, Clifford B. 183,291.

Western Novelties Mfg. Co., Inc.: *See*—
Van Buren, Franklin J. 183,293.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 29TH DAY OF JULY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

AMP Inc.: *See*—
Fuller, Glenwood A. 2,845,606.
Hammell, Kemper M., and Duke. 2,845,108.

Abbott Laboratories: *See*—
Davis, Raymond V., and Cushing. 2,845,369.
De Rose, Anthony F. 2,845,415.

Ackerman, Joseph L., Jr., P. B. Edwards, R. M. Smith, C. F. Brundage, and M. Dwyer, to United States of America, Navy. Ejection device. 2,845,002, 7-29-58, Cl. 89—1.

Ackermann, Franz: *See*—
Siegrist, Adolf E., and Ackermann. 2,845,419.

Acosta, Narcisse M. Awning assembly. 2,844,851, 7-29-58, Cl. 20—57.5.

Adams, John E., to Sylvania Electric Products Inc. Drive circuit for counting tubes. 2,845,578, 7-29-58, Cl. 315—84.6.

Adcock, Willis A.: *See*—
Jones, Morton E., and Adcock. 2,845,372.

Aigrain, Pierre R. E., to International Standard Electric Corp. Semi-conductor crystal rectifiers. 2,845,370, 7-29-58, Cl. 148—1.5.

Aiken, Richard. Remote control funnsetter. 2,845,027, 7-29-58, Cl. 102—82.

Albrecht, Fritz, and E. W. Colehower, to The Martin Co. Rectifier power supply system. 2,845,591, 7-29-58, Cl. 321—27.

Aldridge, Clyde L.: *See*—
Cull, Neville L., Aldridge, and Mertzweiller. 2,845,465.

All American Engineering Co.: *See*—
Doolittle, Donald E., and Janney. 2,845,237.

Allen, Charles S. Exercising device. 2,845,068, 7-29-58, Cl. 128—32.

Allied Chemical Corp.: *See*—
Anderson, Norman L. 2,845,423.
Gilliam, George R. 2,845,401.
Williston, Robert L. 2,845,384.

Allied Chemical & Dye Corp.: *See*—
Goodrich, Allen C., and Liston. 2,845,413.

Allied Steel and Conveyors, Inc.: *See*—
Harrison, Homer S. 2,845,084.

Allison, Carl F., G. M. Dreher, and C. A. Trathowen, to Jones & Laughlin Steel Corp. Production of ammonium sulfate and ferrous carbonate from ferrous sulfate-containing solutions. 2,845,332, 7-29-58, Cl. 23—119.

Alt, Edward E., Jr., and R. J. Davis, to Corn Products Refining Co. Preparation of dustless starch. 2,845,367, 7-29-58, Cl. 127—32.

Alter, Louis: *See*—
Scanlan, Joseph P., and Alter. 2,845,346.

Althouse, Charles F., to United States of America, Navy. Variable time base generator. 2,845,547, 7-29-58, Cl. 307—88.5.

American Bosch Arma Corp.: *See*—
Kongsted, Ludvig F. 2,845,550.

American Can Co.: *See*—
Lerch, Frederic F. 2,845,181.
Thea, Edward O. 2,845,175.
Ziehmer, George P., Jr. 2,845,174.

American Cyanamid Co.: *See*—
Buckler, Sheldon A., and Wystrach. 2,845,454.
Locher, Hans E., Hardy, and Kosloski. 2,845,458.
Locher, Hans E., Hardy, and Kosloski. 2,845,459.
Schaefer, Frederic C., and Peters. 2,845,422.

American Enka Corp.: *See*—
Elling, Hugo. 2,845,416.
Griset, Ernest J., Jr. 2,844,859.

American Home Products Corp.: *See*—
Grant, Gordon A., and Winthrop. 2,845,434.

American Motors Corp.: *See*—
Dadson, Thomas E. 2,845,517.

American Seating Co.: *See*—
Barecki, Chester J., and Hearikson. 2,845,111.
Hayden, Ray A., and Tonning. 2,845,184.

American Smelting and Refining Co.: *See*—
Frisch, Kurt C., and Kary. 2,845,435.

American Telephone and Telegraph Co.: *See*—
Foley, Daniel E. 2,845,478.

American Viscose Corp.: *See*—
Ayars, Edward M., Crawley, and Cornwell. 2,844,860.
Hargenrater, Quentin R. 2,844,923.
Lytton, Marion R., and Mueller. 2,845,227.
Milline, David T. 2,845,357.

Ames, Warren C.: *See*—
Case, Harold, and Ames. 2,845,286.

Anderson Co., The: *See*—
Krohm, Fred A. 2,844,835.
Krohm, Fred A. 2,844,839.
Krohm, Fred A. 2,844,936.
Krohm, Fred A. 2,845,032.

Anderson, James K., F. W. Herrick, and K. E. Gray, to Rayonier Inc. Chemical products from bark. 2,845,450, 7-29-58, Cl. 260—473.5.

Anderson, Maurits L., and F. T. Hill, to Raytheon Mfg. Co. Semimetallic resistive filaments. 2,845,515, 7-29-58, Cl. 201—63.

Anderson, Norman L., to Allied Chemical Corp. N,n'disubstituted - 3,7 - diamino-polysulfodibenzothiophene-dioxides. 2,845,423, 7-29-58, Cl. 260—243.6.

Anke, Rudolph, to Textile Machine Works. Means for forming dropped loops in fabric blanks. 2,844,951, 7-29-58, Cl. 66—89.

Antonietti, Fiorentin J. B. Traveling step ladder. 2,845,208, 7-29-58, Cl. 228—15.

Aquamatic Inc.: *See*—
Gugeler, Frederick D. 2,845,119.

Archer, Sydney, to Sterling Drug Inc. Tertiary-amino-substituted 1,5-iminocycloalkanes and preparation thereof. 2,845,427, 7-29-58, Cl. 260—292.

Armstrong Cork Co.: *See*—
Madden, John R. 2,845,361.

Assmann, Otto, to Dorst-Keramikmaschinen-Bau. Ceramic press. 2,844,858, 7-29-58, Cl. 25—93.

Atkinson, Truman L. Shoe rack. 2,845,182, 7-29-58, Cl. 211—87.

Atkron, Inc.: *See*—
Copping, Bruce G. 2,845,165.

Atlantic Refining Co., The: *See*—
Leum, Leonard N., and Pitts. 2,845,382.

Atwood, Irving H., Jr., to United States of America, Army. Valve adjustment means for a gas-operated firearm. 2,845,006, 7-29-58, Cl. 89—193.

Austin, Benjamin L., to Baker Oil Tools, Inc. Apparatus for bridging and cementing well casing. 2,845,130, 7-29-58, Cl. 166—187.

Austin, Harry W., R. R. Hornichel, and D. E. Stetam, to Mine Safety Appliances Co. Noise protective device. 2,844,820, 7-29-58, Cl. 2—6.

Avco Mfg. Corp.: *See*—
Clemens, John F. 2,845,600.

Avery-Hardoll Ltd.: *See*—
Fraser, John. 2,845,048.

Axe, William N.: *See*—
De Vault, Albert N., and Axe. 2,845,410.

Ayars, Edward M., W. P. Crawley, and R. E. Cornwell, to American Viscose Corp. Warping machine stop motion. 2,844,860, 7-29-58, Cl. 28—51.

Ayers, David T., Jr., to Kelsey-Hayes Co. Booster brake mechanism. 2,844,941, 7-29-58, Cl. 60—54.6.

Babcock & Wilcox Co., The: *See*—
Nunninghoff, Heinrich. 2,845,948.

Bach, Friedrich: *See*—
Schiffler, Alfred, Bach, and Meier. 2,845,231.

Bachmann Uxbridge Worsted Corp.: *See*—
Corbett, Lawrence W. 2,844,869.

Badgley, Gerald J. Light trap. 2,844,991, 7-29-58, Cl. 88—17.

Badische Aniline & Soda-Fabrik Akt.: *See*—
Leutenschlager, Hans, Friederich, Henkel, Von Kutepow, Himmelle, and Raff. 2,845,451.
Pachaly, Heins, and Schilchting. 2,845,442.

Bacsiack, Alfred J.: *See*—
Cameron, James M., and Bacsiack. 2,845,526.

Bahan Textile Machinery Co., Inc.: *See*—
Bahan, Edward F. 2,845,160.

Bahan, Edward F., to Bahan Textile Machinery Co., Inc. Clutch control for loom shaft drive. 2,845,160, 7-29-58, Cl. 192—66.

Bahnson Co., The: *See*—
King, James F., Jr. 2,845,303.

Bailey, James S., to The Rauland Corp. Screening dispenser for cathode-ray tube manufacturing apparatus. 2,845,099, 7-29-58, Cl. 141—91.

Bailey, Walter C. Furniture leg attachment construction. 2,845,316, 7-29-58, Cl. 311—77.

Bailey, William F., and R. P. Burr, to Hazeltine Research, Inc. Optical structure for color-image reproducing apparatus of the projection type. 2,845,480, 7-29-58, Cl. 178—5.4.

Baker, John R., to Baker Oil Tools, Inc. Casing scraper. 2,845,129, 7-29-58, Cl. 166—173.

Baker Oil Tools, Inc.: *See*—
Austin, Benjamin L. 2,845,130.
Baker, John R. 2,845,129.
Baker, Reuben C. 2,845,106.
Clark, Earnest H., Jr., and Carter. 2,845,128.

Baker, Reuben C., to Baker Oil Tools, Inc. Resilient eccentric lock ring. 2,845,106, 7-29-58, Cl. 151—19.

Baldwin Piano Co., The: *See*—
Meyer, Albert. 2,845,598.

Ball, Charles F., to Joy Mfg. Co. Chuck mechanism for oil well drilling apparatus. 2,845,250, 7-29-58, Cl. 255—23.

Ball, Lloyd D.: *See*—
Knowlton, Orin H., Jr., and Ball. 2,845,332.

Bancroft Cap Co.: *See*—
Weinstein, Bernard. 2,844,824.

Bank, Albert M., and A. J. Katz, to Super Sagless Spring Co. Pull-out beds. 2,844,827, 7–29–58, Cl. 5—13.

Barecki, Chester J., and E. W. Henrikson, to American Seating Co. Vehicle chair. 2,845,111, 7–29–58, Cl. 155—53.

Barnett, Charles H., to The Foundry Equipment Co. Cooling system for industrial ovens. 2,844,885, 7–29–58, Cl. 34—206.

Barron, Fred E., and S. F. Lybarger, to E. A. Myers & Sons, Inc. Transistorized amplifier circuits. 2,845,497, 7–29–58, Cl. 179—171.

Barry, David A. Rollaway screen. 2,845,117, 7–29–58, Cl. 160—389.

Barton, Douglas E., and J. C. Curtis, to Joy Mfg. Co. Mobile rock drill rig. 2,845,251, 7–29–58, Cl. 255—61.

Baruch, Sydney N. Method of aromatizing coffee. 2,845,351, 7–29–58, Cl. 99—71.

Baso Inc.: *See*—
Kile, Stephen L., and R. H. Matthews. 2,845,228.

Bates Mfg. Co.: *See*—
Mills, George L. 2,845,094.

Battiste, Donald A. Process of preparing an in-can baked canned cake product. 2,845,356, 7–29–58, Cl. 99—172.

Bauer, Donald A. Air conditioning device with reheat means. 2,844,948, 7–29–58, Cl. 62—172.

Bauer, Howard G.: *See*—
Osborne, Fred H., and Bauer. 2,844,963.

Bauserber, John A., Jr., R. J. Kelly, and J. W. Stewart, to United States Steel Corp. Low-alloy high-strength steel. 2,845,345, 7–29–58, Cl. 75—126.

Bautz, John: *See*—
Riele, Saul, and Bautz. 2,845,179.

Beach, Horace J., W. C. Goins, Jr., and W. F. Rogers, to Gulf Oil Corp. Thinning agent for drilling fluid. 2,845,389, 7–29–58, Cl. 252—8.5.

Beal, Harold J.: *See*—
Purcell, Joseph A., and Beal. 2,845,846.

Beck, Charles R., to General Electric Co. Lamp basing apparatus. 2,845,107, 7–29–58, Cl. 153—1.

Becker, Rudolf, to Gesellschaft für Linde's Eismaschinen Akt. Process for obtaining a gas fraction which is highly rich in carbon monoxide from a carbon monoxide containing gas mixture. 2,844,944, 7–29–58, Cl. 62—26.

Behr, Samuel H., and W. H. Kohlmann. Joint for armored cables. 2,845,476, 7–29–58, Cl. 174—84.

Belgard, Austin R. Pre-positioning lens rims and connecting support fittings therefor. 2,844,995, 7–29–58, Cl. 88—42.

Bell, Charles R., to Bendix Aviation Corp. Remote control device. 2,845,238, 7–29–58, Cl. 244—77.

Bell, David C.: *See*—
Peterson, Ray E., and Bell. 2,845,294.

Bell Telephone Laboratories, Inc.: *See*—
Cornell, Warren A., McGuigan, and Murphy. 2,845,610.
Doherty, William H. 2,845,473.
West, John W., and White. 2,845,566.

Bell, William E., to General Motors Corp. Signal device test circuit. 2,845,614, 7–29–58, Cl. 340—213.

Beloit Iron Work: *See*—
Hornbostel, Lloyd. 2,844,887.

Bemis Bro. Bag Co.: *See*—
Pinckert, Carl W., and White. 2,845,021.

Bendell, Sidney L., and H. C. Shepard, to Radio Corp. of America. Electromagnetic deflection yoke. 2,845,562, 7–29–58, Cl. 313—76.

Benditt, Albert: *See*—
Musser, Walton, Benditt, and Inserra. 2,844,905.

Bendix Aviation Corp.: *See*—
Bell, Charles R. 2,845,238.
Brook, James R. 2,845,525.
Le Febvre, Arthur H., and Troeger. 2,845,030.
Logan, Hugh L. 2,845,579.
Palfreyman, Raymond D., and Troeger. 2,845,054.

Bennett, John A., and H. C. Burnett, to United States of America, Army. Torsion fatigue testing machine for wire. 2,844,958, 7–29–58, Cl. 73—91.

Benoky, Lowell S., and L. C. Hobbs, to Radio Corp. of America. Electronic comparator device. 2,845,220, 7–29–58, Cl. 235—61.

Benson, Walter J., and R. S. Longwell. Apparatus for compressing pump liner packing. 2,845,213, 7–29–58, Cl. 309—3.

Benyak, John B., to Osborn Mfg. Co. Tufted brush construction. 2,844,835, 7–29–58, Cl. 15—179.

Berberich, Helmut, and F. Krähenbühl, to Thoma Co. Air exhausting and filtering arrangement. 2,845,139, 7–29–58, Cl. 183—57.

Bergquist, Carl G., to Electrolux Corp. Dual purpose nozzle. 2,844,841, 7–29–58, Cl. 15—417.

Bernhardt, Eugen, to C. Zeiss. Microscope objectives for epi-microscopes. 2,844,992, 7–29–58, Cl. 88—39.

Berry, William, R. A. Rose, and C. R. Bruce, to British Cellophane Ltd. Polyethylene films. 2,845,541, 7–29–58, Cl. 260—82.

Berthold, Wolfgang, to International Standard Electric Corp. Beam generating system. 2,845,562, 7–29–58, Cl. 313—80.

Bertram, Klaus, to Telefunken G. m. b. H. Stereophonic apparatus. 2,845,491, 7–29–58, Cl. 179—1.

Betz, Milton G.: *See*—
Saunders, Orson V., and Betz. 2,845,321.

Bey, Stanley I., to Chrysler Corp. Method of making a template. 2,845,379, 7–29–58, Cl. 154—110.

Bianchi, Louis R., to Proctor & Schwartz, Inc. Shelf assembly. 2,845,187, 7–29–58, Cl. 211—134.

Bieseack, Josef, to Siemens-Schuckertwerke Akt. Circuit interrupters. 2,845,510, 7–29–58, Cl. 200—144.

Black, James F., D. A. Guthrie, G. A. Weisgerber, and J. J. Heigl, to Esso Research and Engineering Co. Stabilization of petroleum distillates. 2,845,385, 7–29–58, Cl. 204—162.

Blair, Arthur J.: *See*—
Wessler, Frank. 2,845,262.

Bliss, George L., to United States Steel Corp. Method and apparatus for spooling wire. 2,845,239, 7–29–58, Cl. 242—25.

Bluestone, Henry, to Diamond Alkali Co. Method of defoliating plants. 2,845,339, 7–29–58, Cl. 71—2.5.

Blumenfeld, Arthur: *See*—
Cohen, Abraham B., and Levy. 2,845,135.

Bober, Edward D. Combination saliva ejector and cotton roll holder. 2,844,878, 7–29–58, Cl. 32—28.

Boda, Ernest J. Means for playing a percussion instrument of the vibraphone, etc. type. 2,844,986, 7–29–58, Cl. 84—405.

Boeing Airplane Co.: *See*—
Morse, William L. 2,844,977.
Reinhold, Richard S. 2,845,151.
Wyland, Richard R., and Hunter. 2,844,978.

Bohn, Frank W. Shear pin brake for auto bumpers. 2,845,144, 7–29–58, Cl. 188—1.

Bonnefoy, Emile: *See*—
Van de Walle, Edmond and C., and Bonnefoy. 2,844,918.

Boos, Wilhelm F.: *See*—
Karbe, Kurt H., and Boos. 2,845,240.

Borenstein, Martin. Convertible furniture. 2,845,112, 7–29–58, Cl. 155—112.

Borg-Warner Corp.: *See*—
Christy, Robert A., and Levitt. 2,845,097.
Kelbel, Donald W., and Orr. 2,844,978.

Bosch, Robert, G. m. b. H.: *See*—
Gunkler, Paul, Vollmer, and Kunzel. 2,845,554.

Bowler, Ernest H., and G. M. Wright, to National Research Council. Howling combustion warning device for jet engines. 2,845,607, 7–29–58, Cl. 340—37.

Bowles, Robert R., Jr., and I. C. Brown, Jr., to California Research Corp. Method for controlling atmospheric pollution. 2,845,289, 7–29–58, Cl. 196—52.

Bowman, Donald C., to Sinclair Oil & Gas Co. Apparatus for simultaneous visual reproduction of a plurality of recorded transients. 2,845,615, 7–29–58, Cl. 340—324.

Brace, Robert L., and R. M. Schirmer, to Phillips Petroleum Co. Method for testing fuels. 2,845,324, 7–29–58, Cl. 23—230.

Bramblett, John J., to Bee Pearson, Inc. Cotton picking spindle means. 2,844,932, 7–29–58, Cl. 56—60.

Branson Instruments, Inc.: *See*—
Branson, Norman G. 2,845,077.

Branson, Norman G., to Branson Instruments, Inc. Ultrasonic cleaning apparatus. 2,845,077, 7–29–58, Cl. 134—111.

Braun, Carl J.: *See*—
Housekeeper, Earl J., Hunter, and Braun. 2,845,247.

Breaux, Neil T. Well packer. 2,845,127, 7–29–58, Cl. 166—134.

Breeler, Lenore K. Luggage cart and dispenser. 2,845,278, 7–29–58, Cl. 280—46.

Brett, Cecil R.: *See*—
Brett, Percy C. and C. R. 2,845,196.

Brett, Percy C. and C. R. Bottle crates. 2,845,196, 7–29–58, Cl. 217—18.

Brewster, Joseph L., J. R. Proctor, and R. F. Edgren, Jr. Reinforced molded desk tops. 2,845,218, 7–29–58, Cl. 311—106.

Brill, Alfred P., Jr. Wrapper and clamp for budding and grafting. 2,844,912, 7–29–58, Cl. 47—6.

Bristol Aero-Engines Ltd.: *See*—
Gadd, Ernest E., and Tedds. 2,844,855.

British Cellophane Ltd.: *See*—
Berry, William, Rose, and Bruce. 2,845,541.

Brook, James R., to Bendix Aviation Corp. Dividing and limiter circuit. 2,845,525, 7–29–58, Cl. 250—27.

Brooks, Lester A., to R. T. Vanderbilt Co., Inc. Oxidation of ethylene bisdithiocarbamates. 2,845,453, 7–29–58, Cl. 260—500.

Brown, Cicero C. Well packers. 2,845,125, 7–29–58, Cl. 166—119.

Brown Co.: *See*—
Morse, Erwin R., and Hearn. 2,845,441.

Brown, George L., and W. E. Cenz, to Rohm & Haas Co. Copolymer-wax composition. 2,845,398, 7–29–58, Cl. 260—28.5.

Brown, Harry W., to Cutler-Hammer, Inc. Electric switches and parts therefor. 2,845,499, 7–29–58, Cl. 200—6.

Brown, Irving C., Jr.: *See*—
Bowles, Robert R., Jr., and Brown. 2,845,883.

Brown, Lee V., to Sinclair Refining Co. Process of sulfonation. 2,845,455, 7–29–58, Cl. 260—504.

Bruce, Charles R.: *See*—
Berry, William, Rose, and Bruce. 2,845,541.

Bruma, Marc, to Centre National de la Recherche Scientifique. Machining systems making use of intermittent electrical discharges. 2,845,520, 7–29–58, Cl. 219—69.

Brumberger, Sydney. Projection slide changing device. 2,844,895, 7–29–58, Cl. 40—79.

Brumfield, John C., to I-T-E Circuit Breaker Co. Overcurrent device for circuit breakers. 2,845,507, 7–29–58, Cl. 200—88.

Brumfield, John C., to I-T-E Circuit Breaker Co. Meter operated circuit breaker. 2,845,509, 7–29–58, Cl. 200—92.

Brundage, Clinton F.: *See*—
Ackerman, Joseph I., Jr., Edwards, Smith, Brundage, and Dwyer. 2,845,002.

Brunn, Otto J. Cup-shaped capsules. 2,845,209, 7–29–58, Cl. 229—4.5.

Brunner, Rudolph. Diameter differential gauge. 2,844,880, 7–29–58, Cl. 33—178.

Buchanan, Ben R.: *See*—
Cline, Martin E., and Buchanan. 2,845,406.

Buckler, Sheldon A., and V. P. Wystrach, to American Cyanamid Co. Preparation of phosphinic acid derivatives. 2,845,454, 7–29–58, Cl. 260—500.

Buddeberg, Walter, to Krauss-Maffei A. G. Centrifugals. 2,845,178, 7-29-58, Cl. 210—213.
Buhr, Bert. Heat retaining means for furnaces. 2,845,047, 7-29-58, Cl. 110—97.
Bullard, Calvin P.: *See*—
Stange, Ferdinand F., and Bullard. 2,844,961.
Burberry, Richard A., to International Standard Electric Corp. Low drag airplane antenna. 2,845,624, 7-29-58, Cl. 343—705.
Burgett, Monte L., Jr., to Philco Corp. Magnetic deflection system for cathode ray tubes. 2,845,575, 7-29-58, Cl. 315—27.
Burnett, Harry C.: *See*—
Bennett, John A., and Burnett. 2,844,958.
Burr, Robert P.: *See*—
Bailey, William F., and Burr. 2,845,480.
Burt, Charles E., E. Kussmaul, and H. K. MacKechnie, to Kelek Co. Pressure switch. 2,845,512, 7-29-58, Cl. 200—142.
Buthus, Walter A., to General Motors Corp. Journal box. 2,845,310, 7-29-58, Cl. 308—41.
Butler, Wallace B., to Olin Mathieson Chemical Corp. Firearm having a floating receiver. 2,844,904, 7-29-58, Cl. 42—75.
Byrne, Hugh J. Apparatus and method for digesting. 2,845,347, 7-29-58, Cl. 92—7.
Cable, L. C.: *See*—
Carawan, Clarence P. 2,845,015.
Caldwell, Richard G., to General Electric Co. Lamp sealing apparatus. 2,844,917, 7-29-58, Cl. 49—2.
California Research Corp.: *See*—
Bowles, Robert E., Jr., and Brown. 2,845,393.
Searle, Donald F. 2,845,301.
Toland, William G. 2,845,449.
Calvert, Glen M. Honing apparatus. 2,844,920, 7-29-58, Cl. 51—34.
Cameron, James M., and A. J. Bassiack, to Westinghouse Electric Corp. Arc welding apparatus. 2,845,526, 7-29-58, Cl. 219—131.
Capotosto, Albert C.: *See*—
Roces Rafael P., and Capotosto. 2,844,870.
Carawan, Clarence P., ¼ to A. Sheheen, ¼ to G. Sheheen, and ½ to L. C. Cable. Agricultural machine. 2,845,015, 7-29-58, Cl. 97—40.
Carlson, George J., and G. W. Gaertner, to Shell Development Co. Production of aluminum alcoholates. 2,845,447, 7-29-58, Cl. 260—448.
Carlson, Robert L.: *See*—
Curtis Cyril D., Carlson, and Tubinis. 2,845,560.
Carlton, Raymond E., to Oregon Saw Chain Corp. Adjustable lawn trimmer. 2,844,934, 7-29-58, Cl. 56—256.
Carlucci, Michael P.: *See*—
Persico, Ralph W., and Carlucci. 2,844,822.
Carpenter, David E., and A. F. Palmer, to Westinghouse Electric Corp. Motors. 2,845,555, 7-29-58, Cl. 310—216.
Carpino, Louis A., to Research Corp. Production of acid chlorides. 2,845,429, 7-29-58, Cl. 260—296.
Carston, Walter. Excavating, loading and carry-off earth working machine. 2,844,892, 7-29-58, Cl. 37—4.
Carter, Thomas J.: *See*—
Clark, Earnest H., Jr., and Carter. 2,845,128.
Carver, George P., to Sundstrand Machine Tool Co. Hot gas valve for turbine speed control. 2,845,206, 7-29-58, Cl. 299—150.
Case, Harold, and W. C. Ames, to The Mario Co. Inc. Packing for polish rods. 2,845,296, 7-29-58, Cl. 286—16.
Case, J. I., Co.: *See*—
Irvine, Houston N. 2,844,931.
Centre National de la Recherche Scientifique: *See*—
Bruma, Marc. 2,845,520.
Chaffee, Emory L.: *See*—
Hammond, John H., Jr., and Chaffee. 2,845,620.
Chambers Corp.: *See*—
Chambers, John E. 2,845,056.
Chambers, John E., to Chambers Corp. Cooking stove. 2,845,066, 7-29-58, Cl. 126—39.
Cheitan, Samuel S. Pressure device. 2,844,826, 7-29-58, Cl. 4—257.
Chemical Construction Corp.: *See*—
Schaufelberger, Felix A. 2,845,333.
Chester Packaging Products Corp.: *See*—
Kronholm, Carl A. 2,844,648.
Chicago Metallizing Co., Inc.: *See*—
Schroeder, Albert W. 2,845,368.
Chicopee Mfg. Corp.: *See*—
Jamison, Samuel J., O'Connor, and Osgood. 3,845,069.
Christensen, Verner: *See*—
Hansen, Svend A. B., and Christensen. 2,845,543.
Christoffersen, James, to Columbia Broadcasting System, Inc. Stem processing machine. 2,845,096, 7-29-58, Cl. 140—71.5.
Christy, Robert A., and L. L. Levitt, to Borg-Warner Corp. Quill drive mechanism and electrical controls. 2,845,087, 7-29-58, Cl. 140—3.
Chrysler Corp.: *See*—
Bey, Stanley I. 2,845,279.
Ciba Ltd.: *See*—
Siegrist, Adolf E., and Ackermann. 2,845,419.
Wettstein, Walter. 2,845,428.
Ciba Pharmaceutical Products Inc.: *See*—
Erlenmeyer, Hans. 2,845,430.
Cicogna, Ernest G. Shape retainer. 2,845,288, 7-29-58, Cl. 287—77.
Cierpik, Albert, Jr., to Phillips Screw Co. Locking turnbuckle. 2,845,288, 7-29-58, Cl. 287—60.
Cimiotti, Josef: *See*—
Scheller, Paul, Oldenburg, and Cimiotti. 2,845,271.
Cines, Martin R., and R. E. Buchanan, to Phillips Petroleum Co. Process for the removal of nickel-kieselguhr catalysts from hydrogenated butadiene polymers. 2,845,406, 7-29-58, Cl. 260—85.1.
Cities Service Research and Development Co.: *See*—
Kerschner, Paul M. 2,845,390.
Clark, Earnest H., Jr., and T. J. Carter, to Baker Oil Tools, Inc. Casing centralizer and wall scratcher. 2,845,128, 7-29-58, Cl. 166—173.
Clarke, William. Door hasp. 2,845,296, 7-29-58, Cl. 292—261.
Clayden, David O.: *See*—
Newman, Edward A., Davies, and Clayden. 2,845,609.
Clayton, Robert E.: *See*—
Newberg, Raymond G., and Clayton. 2,845,399.
Clem, Everett W., to Rice Barton Corp. Wrapping machine. 2,844,928, 7-29-58, Cl. 53—198.
Clemens, John F., to Avco Mfg. Corp. Gain stabilized intermediate frequency transformer. 2,845,600, 7-29-58, Cl. 333—73.
Cleveland Instrument Co.: *See*—
Rogger, Richard E. 2,844,679.
Cline, James E., and J. P. Jasionis, to Sylvania Electric Products, Inc. Method of joining refractory metals. 2,844,868, 7-29-58, Cl. 29—498.
Cobb, Leland D., to General Motors Corp. Demountable closure. 2,845,295, 7-29-58, Cl. 296—11.
Cobb, Leland D., to General Motors Corp. Antifriction bearing. 2,845,311, 7-29-58, Cl. 308—216.
Cohen, Abraham B., and S. R. Levy; said Cohen to A. Blumenfeld. Auxiliary wave propagating and directing attachment for loudspeaker diaphragms. 2,845,135, 7-29-58, Cl. 181—31.
Cohen, Harry, to Technicon International Ltd. Automatic immersion apparatus. 2,845,044, 7-29-58, Cl. 118—425.
Colby, Fred E.: *See*—
Kelley, Ralph R., and Colby. 2,845,477.
Colby, Richard H., to United States of America, Army. Variable length bolt lever. 2,844,903, 7-29-58, Cl. 42—16.
Colehower, Edgar W.: *See*—
Albrecht, Fritz, and Colehower. 2,845,581.
Collins, Edward J. and J. L., to L. A. Durant. Air rifle. 2,845,055, 7-29-58, Cl. 124—11.
Collins, Howard W., to Westinghouse Electric Corp. Voltage reference devices. 2,845,590, 7-29-58, Cl. 321—16.
Collins, James L.: *See*—
Collins, Edward J. and J. L. 2,845,055.
Columbia Broadcasting System, Inc.: *See*—
Christoffersen, James. 2,845,096.
Goldberg, Abraham, and Scholp. 2,845,479.
Columbia-Southern Chemical Corp.: *See*—
Neubauer, Joseph A., and Theis. 2,845,122.
Commissariat à l'Energie Atomique: *See*—
Schwab, Bernard, and Vautrey. 2,845,554.
Comitech, Ltd.: *See*—
Kling, Nelson G., and Huxley. 2,845,062.
Conn, William R.: *See*—
Brown, George L., and Conn. 2,845,286.
Connert, Winfried: *See*—
Seulen, Gerhard, and Connert. 2,845,377.
Consolidated Electrodynamics Corp.: *See*—
Perkins, George D. 2,845,597.
Robinson, Charles F. 2,845,136.
Consolidated Engineering Corp.: *See*—
Robinson, Charles F. 2,845,539.
Controls Co. of America: *See*—
De Lancey, Ralph W. 2,845,584.
Visconsi, Remo L., and Heiser. 2,845,585.
Cook, Bates C., and J. Jokubonis, to Cook & Chick Co. Machine for assembling needle bearings. 2,844,868, 7-29-58, Cl. 29—201.
Cook & Chick Co.: *See*—
Cook, Bates C., and Jokubonis. 2,844,865.
Cooley, Morris R., ½ to E. A. Huebner and ½ to R. M. Morrel. Rotary side delivery wheel rake. 2,844,935, 7-29-58, Cl. 56—377.
Copping, Bruce G., to Athrex, Inc. Can aligning means. 2,845,165, 7-29-58, Cl. 198—33.
Corbett, Lawrence W., to Bachmann Uxbridge Worsted Corp. Sealing means for a roll assembly in the entrance or exit passage of a pressure or vacuum chamber. 2,844,889, 7-29-58, Cl. 34—242.
Corn Products Refining Co.: *See*—
Alt, Edward E., Jr., and Davis. 2,845,347.
Reinera, Robert A. 2,845,439.
Cornell, Warren A., J. H. McGuigan, and O. J. Murphy, to Bell Telephone Laboratories, Inc. Magnetic data storage system. 2,845,610, 7-29-58, Cl. 340—174.
Cornett, Walter V. Impact type concrete breaking machine. 2,845,258, 7-29-58, Cl. 262—15.
Cornwell, Richard E.: *See*—
Ayars, Edward M., Crawley, and Cornwell. 2,844,980.
Cottle, John E.: *See*—
Pennington, Edward N., and Cottle. 2,845,409.
Couse, Kibbey W., and R. D. Keehn, to Couse Mfg., Inc. Building construction. 2,844,848, 7-29-58, Cl. 20—2.
Couse Mfg., Inc.: *See*—
Couse, Kibbey W., and Keehn. 2,844,848.
Craig, Louis E., to General Aniline & Film Corp. Amino-2,3-diphenylindoles. 2,845,426, 7-29-58, Cl. 260—319.
Craig, Louis E., to General Aniline & Film Corp. Acylamido-diphenylindoles. 2,845,427, 7-29-58, Cl. 260—319.
Crane Co.: *See*—
Detlefsen, Gustav C. 2,845,084.
Crausman, Morris A., and D. M. Pattarini, to Target Rock Corp. Relief valve. 2,845,082, 7-29-58, Cl. 137—508.
Crawford, Thomas J. Beam guide assembly. 2,845,032, 7-29-58, Cl. 113—59.
Crawley, William P.: *See*—
Ayars, Edward M., Crawley, and Cornwell. 2,844,980.
Creusburg, Richard, to Kurt Korber & Co., K. G. Hopper control mechanisms. 2,845,190, 7-29-58, Cl. 214—17.
Crivelli, Albert A.: *See*—
Nash, Floyd M., and Crivelli. 2,845,028.

Croname, Inc.: *See*—
Ramson, John R. 2,845,675.
Cross Co., The: *See*—
Cross, Ralph E. 2,844,962.
Cross, Ralph E., to The Cross Co. Machine tool and method of programing the operation thereof. 2,844,962, 7-29-58, Cl. 29—1.
Cull, Neville L., C. L. Aldridge, and J. K. Mertsweiller, to Esso Research and Engineering Co. Preparation of oxo alcohols using zinc acetylacetonate as promoter. 2,845,465, 7-29-58, Cl. 260—635.
Cummings, Harry D., and H. D. Doucett. Wrist type totaliner. 2,845,226, 7-29-58, Cl. 235—117.
Currie, Eugene J. Shake holder. 2,845,206, 7-29-58, Cl. 224—46.
Curry, Robert S., Jr.: *See*—
Halnert, Percy, and Curry. 2,845,239.
Curtis, Cyril D., R. L. Carlson, and M. P. Tubinis, to United States of America, Atomic Energy Commission. Neutron counter. 2,845,560, 7-29-58, Cl. 313—61.
Curtis, John C.: *See*—
Barton, Douglas R., and Curtis. 2,845,251.
Curtis & Marble Machine Co.: *See*—
Gamble, Ralph S., and Remington. 2,845,265.
Cushing, Ira B.: *See*—
Davis, Raymond V., and Cushing. 2,845,369.
Cushman, Clifford E., and R. J. Wrighton, to Pacific Scientific Aeroproducts. Safety apparatus. 2,845,234, 7-29-58, Cl. 242—107.4.
Cutler-Hammer, Inc.: *See*—
Brown, Harry W. 2,845,499.
Pell, Eric. 2,845,504.
Cyr, Gilman N.: *See*—
Rifkin, Charles, and Cyr. 2,845,353.
Dadson, Thomas E., to American Motors Corp. Range. 2,845,517, 7-29-58, Cl. 219—20.
Da-Lite Screen, Inc.: *See*—
Prokop, Frank J. 2,845,244.
Dasenbrook, Charles H. and N. K., to Wood & Brooks Co. Upright piano action. 2,844,984, 7-29-58, Cl. 84—240.
Dasenbrook, Norman K.: *See*—
Dasenbrook, Charles H. and N. K. 2,844,984.
Davies, Donald W.: *See*—
Newman, Edward A., Davies, and Clayden. 2,845,609.
Davis, George W.: *See*—
Davis, Norman M. and G. W. 2,845,074.
Davis, Norma M. and G. W. Brasseire. 2,845,074, 7-29-58, Cl. 128—472.
Davis, Raymond V., and I. B. Cushing, to Abbott Laboratories. Ion exchange purification of fructose solution. 2,845,369, 7-29-58, Cl. 127—46.
Davis, Robert J.: *See*—
Alt, Edward E., Jr., and Davis. 2,845,367.
Dayton, Carl S., to General Electric Co. Torque transmission and automatic braking means for clothes washers and the like. 2,845,156, 7-29-58, Cl. 192—8.
Dearborn, Frederick E. Esters of glycols and sulfurised fatty acids. 2,845,438, 7-29-58, Cl. 260—327.
Debuit, Louis, to Etablissements Merlin & Gerin. Locking mechanism with passage of the mobile member through a dead point position. 2,844,971, 7-29-58, Cl. 74—527.
De Lancey, Ralph W., to Controls Co. of America. Electric control system for condition changing devices. 2,845,584, 7-29-58, Cl. 317—132.
De Leonardis, Michael J. Construction of a stream exhaust valve for venting radiators. 2,845,227, 7-29-58, Cl. 236—66.
Della Libera, Juan B. Non-refillable stopper. 2,845,195, 7-29-58 Cl. 215—22.
De Lucia, Victor E., to Pioneer Electronics Corp. High voltage high vacuum relay. 2,845,506, 7-29-58, Cl. 200—87.
Deluxe Metal Furniture Co.: *See*—
Rosenquist, Paul A. and Sandberg. 2,845,188.
Demer, Frederick M., to International Business Machines Corp. Card comparing means. 2,845,224, 7-29-58, Cl. 235—61.7.
Derby, Claude R.: *See*—
Peck, Henry E., Sidenius, and Derby. 2,845,352.
Dereich, John E., to Diamond Alkali Co. Method of forming a frictional element and product. 2,845,378, 7-29-58, Cl. 154—52.
De Rose, Anthony F., to Abbott Laboratories. Erythromycin isethionate. 2,845,415, 7-29-58, Cl. 260—210.
Detlefson, Gustav C., to Crane Co. Fluid cooled diaphragm valve. 2,845,084, 7-29-58 Cl. 137—340.
Deutsche Edelstahlwerke Akt.: *See*—
Soulen, Gerhard, and Conaert. 2,845,377.
De Vault, Albert N., and W. N. Axe, to Phillips Petroleum Co. Fractionation of polymers. 2,845,410, 7-29-58, Cl. 260—93.7.
Dexter Industries, Inc.: *See*—
Stelma, Gerard N., Krook, and King. 2,845,304.
Dexter, Martin: *See*—
Kroll, Harry, and Dexter. 2,845,457.
Diamond Alkali Co.: *See*—
Bluestone, Henry. 2,845,239.
Dereich, John E. 2,845,378.
Myers, Clyde B. 2,845,237.
Diamond Match Co., The: *See*—
Ringler, William A. 2,844,929.
Diamond Power Specialty Corp.: *See*—
Kruse, John E., Jr. 2,845,525.
Diebold, Edward J., to I-T-E Circuit Breaker Co. Contact time adjustment for mechanical rectifiers. 2,845,592, 7-29-58, Cl. 321—48.
Dietrich, Wallace E., Jr. Electronic curve tracing device. 2,845,572 7-29-58, Cl. 315—10.
Dietzsch, Hans-Joachim and O., to Trikotfabriken J. Schiesser A. G. Method of and means for weaving. 2,845,093, 7-29-58 Cl. 139—12.
Dietzsch, Otto: *See*—
Dietzsch, Hans-Joachim and O. 2,845,093.
Dilts, Lee E., and J. H. Hollopetre, to General Electric Co. Wire feeding apparatus. 2,845,200, 7-29-58, Cl. 221—210.
Dion, Warren E.: *See*—
Parkins, Wallace W., and Dion. 2,845,177.
Di Toro, Michael J., W. Graham, and S. M. Schreiner, to International Telephone and Telegraph Corp. Volume expander. 2,845,599, 7-29-58, Cl. 232—38.
Dittmore-Freimuth Corp.: *See*—
Trickle Russell W., Jr. 2,845,521.
Dixon, Austin: *See*—
Morley, Fred J., Jr., Manno, and Dixon. 2,845,524.
Dixon, Fredric J., to Telecomputing Corp. Actuating torque equalising device. 2,845,246, 7-29-58, Cl. 251—24.
Doherty, William H., to Bell Telephone Laboratories, Inc. Electrical conductor having transposed conducting members. 2,845,472, 7-29-58, Cl. 174—34.
Dole Valve Co., The: *See*—
Kraft, El Roy J. 2,845,080.
Donnelly, Raymond F. Stirrer assembly. 2,845,194, 7-29-58, Cl. 215—12.
Doolittle, Donald B., and S. B. Janney, II, to All American Engineering Co. Pusher-type catapult system. 2,845,237, 7-29-58, Cl. 244—63.
Doon, Raymond C. Zipper actuating device. 2,845,297, 7-29-58, Cl. 294—61.
Dorst-Keramikmaschinen-Bau: *See*—
Assmann, Otto. 2,844,858.
Doucett, Harry D.: *See*—
Cummings, Harry D., and Doucett. 2,845,226.
Dow Chemical Co., The: *See*—
Glesner, Charles W. 2,845,471.
Downey, William H. J. Toothpaste dispenser. 2,845,202, 7-29-58, Cl. 222—67.
Dr. Ing. h. c. F. Porsche K.-G.: *See*—
Reimspiess, Franz X. 2,845,134.
Dreher George M.: *See*—
Allison, Carl F., Dreher, and Trathowen. 2,845,332.
Dreiling, Omer A.: *See*—
McAfee, Millard F. 2,845,180.
Dromot L'Hermine, Jean, to Etablissements Pylot. Parking time register. 2,845,120, 7-29-58, Cl. 161—15.
Duffield, Brainard. Sash construction. 2,845,154, 7-9-58, Cl. 189—78.
Duffin, George F.: *See*—
Kendall, John D., and Duffin. 2,845,418.
Duka, Karlis: *See*—
Hammell, Kemper M., and Duka. 2,845,108.
Du Mont, Allen B., Laboratories, Inc.: *See*—
Huffman, Charles E. 2,845,618.
Dunning, Robert M., and H. R. Nielsen; said Dunning assor. to said Nielsen. Brace locking device. 2,845,292, 7-29-58, Cl. 287—99.
Du Pont de Nemours E. I., and Co.: *See*—
Hevsoll, George H. 2,845,412.
Marshall, Edwin R., and Monson. 2,845,341.
Olson, Carl M. 2,845,386.
Durand, François. Slide rule. 2,845,225, 7-29-58, Cl. 235—70.
Durand, François. Power means for driving a rotary shaft. 2,845,503, 7-29-58, Cl. 200—52.
Durant, Lyndon A.: *See*—
Collins, Edward J. and J. L. 2,845,055.
Durant, Lyndon A. Electrically controlled marksmanship practice apparatus. 2,845,270, 7-29-58, Cl. 273—101.2.
Durst, Kenneth R.: *See*—
Jones, Benjamin F., and Durst. 2,845,146.
Dwyer Martin: *See*—
Ackerman, Joseph I., Jr., Edwards, Smith, Brundage, and Dwyer. 2,845,002.
Dyer, Allen L. to United States of America, Atomic Energy Commission. Peak reading voltmeter. 2,845,596, 7-29-58, Cl. 324—103.
Earley, Wilbur, and R. L. Puckett, to Guntert & Zimmerman Const. Div., Inc. Automatic leveling mechanism for concrete slab laying machines. 2,844,882, 7-29-58, Cl. 33—185.
Economatic Products Co.: *See*—
Skerritt, Roy P. 2,845,067.
Edgren, Edward F., Jr.: *See*—
Brewster, Joseph L. Proctor, and Edgren. 2,845,318.
Edson, Murray H., to Esso Research and Engineering Co. Asphalt composition. 2,845,359, 7-29-58, Cl. 106—14.
Edwards, Lawrence K. Combination seat and table. 2,845,114, 7-29-58, Cl. 155—124.
Edwards, Phillip B.: *See*—
Ackerman, Joseph I., Jr., Edwards, Smith, Brundage, and Dwyer. 2,845,002.
Ehrenreich, A., & Cie: *See*—
Latzen, Josef H. 2,845,290.
Eisen, Harry. Display assembly. 2,844,901, 7-29-58, Cl. 40—158.
Eisenberg, Morris M. Awning window structure and lock therefor. 2,844,850, 7-29-58, Cl. 20—42.
Elco Products Co.: *See*—
Seibert, Leslie W., Jr. 2,845,323.
Electroacustic G. m. b. H.: *See*—
Scheller, Paul, Oldenburg, and Cimiotti. 2,845,271.
Electrolux Corp.: *See*—
Bergquist, Carl G. 2,844,841.
Elektrokemisk A/S: *See*—
Haavik, Nils J. 2,845,468.
Elgin Softener Corp.: *See*—
Nichols, Chester R. 2,845,069.

Elling, Hugo, to American Enka Corp. Method of aging a viscose solution. 2,845,416, 7-29-58, Cl. 260—218.

England, The Lord Mayor, Aldermen and Citizens of Liverpool: *See*—
Haughton, Ernest. 2,845,360.

Erlenmeyer, Hans, to Ciba Pharmaceutical Products Inc. Certain 1-amino, 2-pyridones and process. 2,845,430, 7-29-58, Cl. 260—296.

Esso Research and Engineering Co.: *See*—
Black, James F., Guthrie, Weisgerber, and Heigl. 2,845,389.
Cull, Neville L., Aldridge, and Mertzweiller. 2,845,465.
Edson, Murray H. 2,845,359.
Mertzweiller, Joseph K. 2,845,467.
Newberg, Raymond G., and Clayton. 2,845,399.
Schutze, Henry G. 2,845,414.

Etablissements Merlin & Gerin: *See*—
Debuit, Louis. 2,844,971.

Etablissements Pylot: *See*—
Drouot L'Hermine, Jean. 2,845,120.

Euler, Frederick J., Jr., to Westinghouse Electric Corp. X-ray apparatus. 2,845,545, 7-29-58, Cl. 250—102.

Evans, Edwin R., to Lock Thread Corp. Method of radially extruding portions of a hollow blank to form external threads of wave form. 2,844,830, 7-29-58, Cl. 10—10.

Fasber, Harry W., to Time, Inc. Signature feeding and opening mechanism. 2,845,264, 7-29-58, Cl. 270—54.

Feiertag, Karl M., to General Electric Co. Electrical terminal box and cover therefor. 2,845,198, 7-29-58, Cl. 220—3.8.

Fellon, Sidney W.: *See*—
Tancred, William L. 2,845,218.

Fenway Machine Co., Inc.: *See*—
Yormish, Israel J. 2,844,872.

Ferguson, Harry, Research Ltd.: *See*—
Hill, Claude. 2,844,978.

Fernández, José V. Automatic silk screen ceramic printing machine. 2,845,020, 7-29-58, Cl. 101—126.

Ferriera, Cress R. Quick-change string tuner. 2,844,985, 7-29-58, Cl. 84—312.

Fessler, Frank. 10% to J. J. Gustat. 10% to R. W. Phillips, 10% to P. F. McDevitt, 10% to C. W. Hutchinson, 5% to A. J. Blake, and 15% to R. J. Lamb. Apparatus for conditioning materials. 2,845,262, 7-29-58, Cl. 266—34.

Filler, Irving H. Convertible sunbathing-eyeshield and sun glasses. 2,844,994, 7-29-58, Cl. 88—41.

Finke, Arno, to Firma Windmöller & Hölscher. Bag. 2,845,214, 7-29-58, Cl. 229—62.5.

Finn, Charles O., to The Finn Equipment Co. Nozzle assembly for mulch spreaders and the like. 2,844,914, 7-29-58, Cl. 47—9.

Finn Equipment Co., The: *See*—
Finn, Charles O. 2,844,914.

Firma Windmöller & Hölscher: *See*—
Finke, Arno. 2,845,214.

Fischer, John P., to River Raisin Paper Co. Container for bulk package parts. 2,845,210, 7-29-58, Cl. 229—14.

Fisher, Chester D., to Sprout, Waldron & Co., Inc. Pellet mill. 2,845,036, 7-29-58, Cl. 107—14.

Flannery, John P.: *See*—
Stelljes, Charles R., and Flannery. 2,844,965.

Fleishhacker, Alan H. Method of inhibiting corrosion in tankers. 2,845,328, 7-29-58, Cl. 21—2.5.

Foley, Daniel E., to American Telephone and Telegraph Co. Selective station calling system. 2,845,478, 7-29-58, Cl. 178—4.1.

Foley Mfg. Co.: *See*—
Wicks, Donald L. 2,845,176.

Ford, Barton H., to Ford Grain Door Co. Car closures. 2,845,118, 7-29-58, Cl. 160—368.

Ford Grain Door Co.: *See*—
Ford, Barton H. 2,845,118.

Ford Motor Co.: *See*—
Richey, Clarence B., and O'Donnell. 2,844,983.

Foremost Dairies, Inc.: *See*—
Wilcox, Donald F. 2,845,350.

Forrelland, Jose T. Electromagnetic switching system. 2,845,612, 7-29-58, Cl. 340—177.

Foster Machine Co.: *See*—
Stange, Ferdinand F., and Bullard. 2,844,861.

Foundry Equipment Co., The: *See*—
Barnett, Charles H. 2,844,888.

Fowler, Howard S., and D. A. J. Millar, to National Research Council. Control of reheat in turbojet engines. 2,844,936, 7-29-58, Cl. 60—35.6.

Foxboro Co., The: *See*—
Spink, Leland K., and Young. 2,845,121.

Frankel, Morris. Plastic containers with hinged relatively movable parts. 2,845,104, 7-29-58, Cl. 150—.5.

Franken, Adrianus J. J., and A. Verhoeff, to North American Philips Co., Inc. Apparatus for use with corpuscular rays. 2,845,540, 7-29-58, Cl. 250—49.5.

Fraser, John, to Avery-Hardoll Ltd. Rotary liquid motors. 2,845,048, 7-29-58, Cl. 121—84.

Fraser, Kenneth G.: *See*—
Stillwagon, George B., Jr. 2,844,949.

Friedrickson, Ralph E. C., to A. E. Staley Mfg. Co. Destrinization process. 2,845,368, 7-29-58, Cl. 127—38.

Freeman Mfg. Co.: *See*—
Walsh, Pearl L. 2,845,064.

Freyermuth, Harlan B., R. D. Jackson, and D. I. Randall, to General Aniline & Film Corp. Dioxazine dyestuffs. 2,845,420, 7-29-58, Cl. 260—246.

Fridolph, Doris I. Matchholder. 2,845,172, 7-29-58, Cl. 206—33.

Friederich, Herbert: *See*—
Lautenschlager, Hans, Friederich, Höchel, Von Kutepow, Himmele, and Raff. 2,845,451.

Friedlander, Gerhart: *See*—
Seaborg, Glenn T., Friedlander, and Gofman. 2,845,544.

Friedman, Bernard S., and F. L. Merritt, to Sinclair Refining Co. Production of alcohols and others. 2,845,468, 7-29-58, Cl. 260—614.

Frisch, Kurt C., and R. M. Kary, to R. F. Houghton and Co., and American Smelting and Refining Co. Pyrryl silicon compounds and their preparation. 2,845,435, 7-29-58, Cl. 260—313.

Frykland, Robert A., to Raytheon Mfg. Co. Echo-ranging devices. 2,845,513, 7-29-58, Cl. 200—164.

Fuglie, Elmer A., to Winona Tool Mfg. Co. Non-sticking leak-proof valve. 2,845,248, 7-29-58, Cl. 251—175.

Fuller, Glenwood A., by A. M. P. Inc. Insulated wire end terminal. 2,845,608, 7-29-58, Cl. 339—276.

Furcsyk, Alfons A., to Solas Corp. of America. Metal melting furnace. 2,845,261, 7-29-58, Cl. 266—33.

Fyr-Fyter Co., The: *See*—
Heuschsoper, Earl J., Hunter, and Brann. 2,845,347.

Gabriel, Daniel. Deception element for hypodermic syringes. 2,845,065, 7-29-58, Cl. 128—215.

Gabriel, Daniel. Vials containing medication under pressure. 2,845,067, 7-29-58, Cl. 128—218.

Gabriel, Daniel. Detachable stub needle for hypodermic syringes. 2,845,068, 7-29-58, Cl. 128—221.

Gadd, Ernest R., and D. F. B. Todds, to Bristol Aero-Engines Ltd. Method of producing castings with one or more internal passages. 2,844,868, 7-29-58, Cl. 22—204.

Gaertner, George W.: *See*—
Carlson, George J., and Gaertner. 2,845,447.

Gageby, Robert A., to Wells Industries Corp. Desiccator unit. 2,845,138, 7-29-58, Cl. 183—4.8.

Gallay, Robert: *See*—
Stern, Charles, and Gallay. 2,845,149.

Gambell, Carlos H. Magnetic field clutch with permanent magnets. 2,845,157, 7-29-58, Cl. 192—21.5.

Gamble, Joseph H., to Sperry Rand Corp. Direction sensitive radio system. 2,845,622, 7-29-58, Cl. 343—16.

Gamble, Ralph S., and L. F. Remington, to Curtis & Marble Machine Co. Cloth folding machine. 2,845,265, 7-29-58, Cl. 270—79.

Garner, Harold K., H. F. Jordan, and W. V. Smith, to United States Rubber Co. Internally plasticized polymers of vinyl chloride. 2,845,404, 7-29-58, Cl. 260—78.5.

Gas-Go Corp.: *See*—
Van Matre, Fred G. 2,845,254.

Gaperto, Elbert R. Bathtub boating assemblies. 2,844,825, 7-29-58, Cl. 4—179.

Gaylord Products, Inc.: *See*—
Gaylord, Sol H., Jr., and Tollinger. 2,844,902.

Gaylord, Sol H., Jr., and J. Tollinger, to Gaylord Products, Inc. Fountain pen pistol. 2,844,902, 7-29-58, Cl. 42—1.

Gaynor, Edwin G. Fluorescent lamp switch. 2,845,498, 7-29-58, Cl. 200—5.

Geiger, Richard H., to International Telephone and Telegraph Corp. Indirectly heated thermionic cathode. 2,845,567, 7-29-58, Cl. 313—190.

Geigy Chemical Corp.: *See*—
Kroll, Harry, and Dexter. 2,845,457.

Geigy, J. R., A. G.: *See*—
Hindermann, Peter, Kölliker, and Trautal. 2,845,443.
Morel, Charles J. 2,845,452.

General American Transportation Corp.: *See*—
Gutzeit, Gregoire. 2,845,363.

General Aniline & Film Corp.: *See*—
Craig, Louis E. 2,845,426.
Craig, Louis E. 2,845,427.
Freyermuth, Harlan B., Jackson, and Randall. 2,845,420.
Mayhew, Raymond L., and Nunn. 2,845,280.
Streck, Clemens. 2,845,236.

General Dynamics Corp.: *See*—
Kaye, Robert K., and Weston. 2,845,492.

General Electric Co.: *See*—
Beck, Charles E. 2,845,107.
Caldwell, Richard C. 2,844,917.
Dayton, Carl S. 2,845,156.
Dilts, Lee E., and Hollopetre. 2,845,200.
Feiertag, Karl M. 2,845,198.
Gottschalk, Klaus. 2,845,557.
Hodges, Merwyn R., and Seeley. 2,845,581.
Korte, Herman R. 2,845,602.
Koss, Norman A. 2,845,552.
Leete, Bernard D. 2,845,595.
Lester, Burton E. 2,845,618.
Linkous, Clovis E. 2,845,549.
Oldenkamp, John L., and Suhr. 2,845,583.
Power, Ernest B. 2,844,919.
Schiller, Ernest M., Saunders, and Landgraf. 2,844,979.
Schultz, Frederick E. 2,844,938.
Seitz, August W. 2,845,325.
Shipley, Eugene E. 2,844,947.
Smith, Eugene M. 2,845,590.
Stahl, Alfred E. 2,845,164.
Taylor, William G., and Howe. 2,845,249.
Vance, Arthur E. 2,845,569.
Wilcox, Albert F. 2,845,235.

General Mills, Inc.: *See*—
Lentz, Thomas H., Opie, and Terry. 2,845,392.

General Motors Corp.: *See*—
Bell, William E. 2,845,614.
Butkus, Walter A. 2,845,310.
Cobb, Leland D. 2,845,308.
Cobb, Leland D. 2,845,311.
Groomer, George E., and Smith. 2,845,535.
Leach, Clayton B. 2,845,051.
Lincoln, Clovis W., Spielberman, and Seigler. 2,844,970.
Lohr, Thomas E. 2,844,968.
Mauch, Arthur E., and Herod. 2,845,141.
Perkins, Wallace W., and Diem. 2,845,177.

General Motors Corp.: *See*—Continued
Pickering, Kenneth A. 2,845,299.
Polhemus, Von D., and Buege. 2,845,279.
Priestman, Bewley D. 2,845,291.
Saunders, Orson V., and Betz. 2,845,221.
Saunders, Orson V. and Wallace. 2,845,220.
Short, Brooks H. 2,845,606.
Stephenson, Howard F. 2,845,189.
Vuylsteke, Arthur A. 2,845,257.
Wendels, Hugo H. 2,844,994.
General Precision Laboratory Inc.: *See*—
King, George W., and Washburn. 2,845,482.
Genna, Joseph F., and R. E. Stalcup, to United States of America, Navy. High speed parallel type binary electronic adder. 2,845,222, 7-29-58, Cl. 235—61.
Gentili, Bruno: *See*—
McColloch, Robert J., and Gentili. 2,845,855.
George, Lee R., to P. R. Mallory & Co., Inc. Electric switch. 2,845,501, 7-29-58, Cl. 200—14.
George, Robert H. Drain valves. 2,845,061, 7-29-58, Cl. 137—204.
Gerowin, Kibby. Protecting artificial flowers on women's outergarments. 2,845,212, 7-29-58, Cl. 229—39.
Gesellschaft fur Linde's Eismaschinen Akt.: *See*—
Becker, Rudolf. 2,844,944.
Gewerkschaft Victor: *See*—
Karbe, Kurt H., and Boce. 2,845,340.
Gibson, Walyn L.: *See*—
Uraneck, Carl A., and Gibson. 2,845,405.
Giddings & Lewis Machine Tool Co.: *See*—
Hollis, John C. 2,845,812.
Gilbert, A. C., Co., The: *See*—
Smith, William R., and Monaco. 2,844,911.
Gilfillan Bros. Inc.: *See*—
Knowlton, Orin H., Jr., and Ball. 2,845,532.
Gilliam, George R., to Allied Chemical Corp. Ureaform fertilizer. 2,845,401, 7-29-58, Cl. 260—71.
Ginsberg, Leon, to The Markad Co. Means for activating an indicating device. 2,845,494, 7-29-58, Cl. 179—100.1.
Gleason, Harry L.: *See*—
Hall, Lloyd A., and Gleason. 2,845,358.
Gleeser, Charles W., to The Dow Chemical Co. Primary cell. 2,845,471, 7-29-58, Cl. 136—101.
Gobat, Andre R., and H. G. Nordlin, to International Telephone and Telegraph Corp. Semiconductor device. 2,845,375, 7-29-58, Cl. 148—1.5.
Godfrey, Milton L., to Talon, Inc. Method of making sliders. 2,844,866, 7-29-58, Cl. 29—409.
Gofman, John W.: *See*—
Seaborg, Glenn T., Friedlander, and Gofman. 2,845,544.
Goins, William C., Jr.: *See*—
Beach, Horace J., Goins, and Rogers. 2,845,389.
Goldberg, Abraham, and C. Schelp, to Columbia Broadcasting System, Inc. Television gamma control apparatus. 2,845,479, 7-29-58, Cl. 178—5.2.
Goldstein, Richard, to Perma-Power Co. Radio frequency transmitter. 2,845,536, 7-29-58, Cl. 250—36.
Goodbar, Mayo A., and R. G. Pratt, to The National Cash Register Co. Machine-release control mechanism for cash registers. 2,845,022, 7-29-58, Cl. 101—288.
Goodner, Monroe H., to Stephenson Corp. Devices for facilitating breathing and producing artificial respiration. 2,845,061, 7-29-58, Cl. 128—29.
Goodrich, Allen C., and T. R. Liston, to Allied Chemical & Dye Corp. Manufacture of modified polyethylene alcohol telomer and oxidized polyethylene alcohol telomer waxes. 2,845,418, 7-29-58, Cl. 260—94.9.
Goodrich, B. F., Co., The: *See*—
Jones, Benjamin F. and Durst. 2,845,146.
Krotz, Alvin S. 2,845,280.
Krotz, Alvin S. 2,845,309.
Woltemar, George W. 2,845,308.
Gorman, D. Y., and K. W. McLeod, to Vector Mfg. Co. Cable take-out. 2,845,606, 7-29-58, Cl. 339—151.
Gottschalk, Klaus, to General Electric Co. Arc tube mounting. 2,845,557, 7-29-58, Cl. 313—25.
Grace, W. R., & Co.: *See*—
Redner, Bernard. 2,845,400.
Grady, Robert W. Instrument for measuring the radial hook or rake of tape. 2,844,884, 7-29-58, Cl. 33—201.
Grady, Robert W. Instrument for measuring rake or hook angle. 2,844,885, 7-29-58, Cl. 33—201.
Graham, Walton: *See*—
Di Tore, Michael J., Graham, and Schreiner. 2,845,590.
Grant, Gordon A., and S. O. Winthrop, to American Home Products Corp. Dialkylaminoethyl ester salts of cyclic guanidino acids and their preparation. 2,845,434, 7-29-58, Cl. 260—309.6.
Grass, Albert M. Force measuring instrument. 2,844,959, 7-29-58, Cl. 73—141.
Gratzmuller, Jean L. Hydraulic pumps. 2,845,029, 7-29-58, Cl. 103—40.
Grawi, Milton B. Convertible table-bench assembly. 2,845,110, 7-29-58, Cl. 155—48.
Gray, Edward: *See*—
Kalmer, Benedict R. 2,845,272
Gray, Kenneth R.: *See*—
Anderson, James K., Herrick, and Gray. 2,845,450.
Gray, Norman A., and C. D. Mabry, to Schick Inc. Wall holder for electric shaver. 2,845,245, 7-29-58, Cl. 248—314.
Gray, Ruben L. Combination wet mop, dry mop and vacuum cleaner. 2,844,840, 7-29-58, Cl. 15—321.
Graybill, Clinton L. Fluid control valve with supplemental check valve. 2,845,083, 7-29-58, Cl. 137—329.2.
Green, Otis R.: *See*—
Holder, Lum J., and Green. 2,845,281.
Greene, Robert E., Jr., to United States of America, Navy. Safety arming device. 2,845,024, 7-29-58, Cl. 102—4.
Grettve, Karl E. L., to Lilla Edets Pappersbruks A.-B. Machine for winding web rolls. 2,845,231, 7-29-58, Cl. 242—56.
Griffith Laboratories, Inc., The: *See*—
Hall, Lloyd A., and Gleason. 2,845,358.
Griset, Ernest J., Jr., to American Enka Corp. Threading-in parallel ends. 2,844,860, 7-29-58, Cl. 28—22.
Groener, George E., and G. R. Squibb, to General Motors Corp. Welding equipment. 2,845,525, 7-29-58, Cl. 219—130.
Grubelic, Nicholas. Fluid measuring device. 2,844,975, 7-29-58, Cl. 33—126.7.
Grundmann, Christoph Jr. and R. H. Kobet, to Olin Mathieson Chemical Corp. Fluorination chloro triazines with antimony trifluoride. 2,845,421, 7-29-58, Cl. 260—248.
Gugeler, Frederick D., to Aquamatic Inc. Hydraulic timer. 2,845,119, 7-29-58, Cl. 161—1.
Guibert, Francis W. Liquid sampler. 2,844,964, 7-29-58, Cl. 73—422.
Guibert, Francis W. Gear tooth construction for rotary fluid meters. 2,845,031, 7-29-58, Cl. 103—126.
Guida, Nicholas, to Visa-Matic Corp. Display device. 2,844,899, 7-29-58, Cl. 40—130.
Gulf Oil Corp.: *See*—
Beach, Horace J., Goins, and Rogers. 2,845,389.
Gunberg, Paul F., to United States Rubber Co. Maleic anhydride modified butyl rubber. 2,845,403, 7-29-58, Cl. 260—78.4.
Gund, Konrad. Load-balancing device. 2,845,263, 7-29-58, 267—1.
Gunkler, Paul, F. Vollmer, and W. Kagel, to Robert Bosch, G. m. b. H. Commutator. 2,845,556, 7-29-58, Cl. 310—234.
Guntert & Zimmerman Const. Div., Inc.: *See*—
Barley, Wilbur, and Puckett. 2,844,882.
Gustat, James J.: *See*—
Fessler, Frank. 2,845,262.
Guthrie, Donald A.: *See*—
Black, James F., Guthrie, Weingerber, and Heigl. 2,845,388.
Gutzeit, Gregoire, to General American Transportation Corp. Method of making stable cactus mucilage. 2,845,368, 7-29-58, Cl. 106—206.
Guyonnaud, Joel. Static hydrolyser. 2,845,836, 7-29-58, Cl. 23—290.
Haack, Erich, deceased, by G. Haack, sole heir, to Zokal G. m. b. H. Pivotable supporting fixtures for tiltable mirrors. 2,845,242, 7-29-58, Cl. 248—28.
Haack, Gertrud: *See*—
Haack, Erich. 2,845,242.
Haavik, Nils J., to Elektrokemisk A/S. Electrode holders for electric smelting furnaces and method of operating the same. 2,845,468, 7-29-58, Cl. 13—16.
Hakomaki, Raymond L., to United States of America, Air Force. Combined appendix and inflation tube. 2,845,230, 7-29-58, Cl. 244—31.
Hall, Edward C.: *See*—
Hall, Preston M. 2,845,522.
Hall, Jesse E., Sr. Center tapered stop collar assembly. 2,845,287, 7-29-58, Cl. 287—52.09.
Hall, Lloyd A., and H. L. Gleason, to The Griffith Laboratories, Inc. Method of preserving fresh frozen pork trimmings. 2,845,358, 7-29-58, Cl. 99—194.
Hall, Preston M., 50% to E. C. Hall. Method of projection welding of handle or ball ears or lugs upon receptacles. 2,845,522, 7-29-58, Cl. 219—93.
Halpert, Percy, and R. S. Curry, Jr., to Sperry Rand Corp. Object controlling servo system. 2,845,229, 7-29-58, Cl. 244—77.
Hamlin, Jerry F., and L. Newman. Method and apparatus for assembling rivets. 2,844,924, 729-58, Cl. 53—26.
Hammell, Kemper M., and K. Duke, deceased; said Hammell assor. to AMP Inc. Electric terminal applicator. 2,845,108, 7-29-58, Cl. 153—1.
Hammond, John H., Jr., and E. L. Chaffee; said Chaffee assor. to said Hammond. Aerial mapping and profiling system. 2,845,620, 7-29-58, Cl. 343—11.
Hanf, Hobart W. Drain for sprinkler. 2,845,302, 7-29-58, Cl. 299—61.
Hansen, Svend A. B., and V. Christensen. Patient couch. 2,845,543, 7-29-58, Cl. 250—54.
Hansen's, Chr., Laboratory, Inc.: *See*—
Peck, Henry B., Sidenius, and Derby. 2,845,352.
Harbison-Walker Refractories Co.: *See*—
King, Donald F., and Renkey. 2,845,360.
Hardinge Brothers, Inc.: *See*—
Peterson, Anders A. 2,845,274.
Hardy, Elizabeth M.: *See*—
Lecher, Hans Z., Hardy, and Kosloski. 2,845,458.
Lecher, Hans Z., Hardy, and Kosloski. 2,845,459.
Hargenrater, Quentin E., to American Viscose Corp. Warp beam packaging. 2,844,928, 7-29-58, Cl. 53—3.
Harris Transducer Corp., The: *See*—
Harris, Wilbur T. 2,845,365.
Harris, Wilbur T., to The Harris Transducer Corp. Aluminum iron alloy. 2,845,365, 7-29-58, Cl. 117—65.
Harrison, Homer S., to Allied Steel and Conveyors, Inc. Conveyor system incorporating power trolley line, branch free trolley line, and automatic load transfer therebetween. 2,845,034, 7-29-58, Cl. 104—96.
Hart, Harold W. Water supplying device for poultry. 2,845,046, 7-29-58, Cl. 119—76.
Hartenberg, I. L.: *See*—
Morgan, Porter S. 2,845,158.
Hasbrook, Arthur F., to O. S. Perry. Method and apparatus for determining time delay in pulse repeaters. 2,845,621, 7-29-58, Cl. 343—13.
Hasche, Rudolph L., to Koppers Co., Inc. Regenerative processes and apparatus. 2,845,335, 7-29-58, Cl. 23—288.

Haskell Lloyd E., and C. W. Mell. Storage battery. 2,845,470, 7–29–58, Cl. 136—46.

Hat Corp. of America: *See*—
Havens, Charles R., and Magrath. 2,844,823.

Hatcher, John B. Trigonometric switch. 2,845,500, 7–29–58, Cl. 200—11.

Hauck, William E., and H. W. Layne, to Inland Container Corp. Fibreboard container. 2,845,211, 7–29–58, Cl. 229—54.

Haughton, Ernest, to The Lord Mayor, Aldermen and Citizens of Liverpool, England. Load carrying tipping vehicles. 2,845,300, 7–29–58, Cl. 298—17.

Havens, Byron L., and M. G. Smith, to International Business Machines Corp. Super high frequency dividers. 2,845,538, 7–29–58, Cl. 250—36.

Havens, Charles R., and G. A. Magrath, to Hat Corp. of America. Two-tone hat and method of making same. 2,844,823, 7–29–58, Cl. 2—194.

Hayden, Ray A., and B. J. Tonning, to American Seating Co. Combination holder for pencils, envelopes, and cups or the like. 2,845,184, 7–29–58, Cl. 211—87.

Haseltine Research, Inc.: *See*—
Bailey, William F., and Burr. 2,845,490.

Hearn, Walter L.: *See*—
Morse, Erwin E., and Hearn. 2,845,441.

Hearne, George W.: *See*—
Winkler, De Loss E., and Hearne. 2,845,461.

Heckman, Harry W. Controlling apparatus for helicopter vanes and blades. 2,845,132, 7–29–58, Cl. 170—160.25.

Hedrich, Albert L., and D. R. Pardue, to United States of America, Army. Ultrasonic flowmeter transducer mounting. 2,844,961, 7–29–58, Cl. 73—194.

Heigl, John J.: *See*—
Black, James F., Guthrie, Weisgerber, and Heigl. 2,845,282.

Heiken, Byard J. Auger conveyor having telescoping characteristics. 2,845,167, 7–29–58, Cl. 198—213.

Heiser Ferdinand F.: *See*—
Vicenzi, Reno L., and Heiser. 2,845 585.

Hempel, Herbert W., to Marsh Stencil Machine Co. Tape dispenser. 2,845,266, 7–29–58, Cl. 271—2.4.

Hemphill Co.: *See*—
Wawronek, Joseph. 2,844,952.

Heney, John F., A. D. White, and D. M. Sharp, to International Telephone and Telegraph Corp. Gas discharge tube. 2,845,324 7–29–58, Cl. 316—26.

Henkel, Erich: *See*—
Lautenschlager, Hans, Friedrich, Henkel, Von Kutepow, Himmele, and Raff. 2,845 451.

Henrichsen, Knud, F. L. Smidth & Co. Combined kiln and cooler. 2,845,259, 7–29–58, Cl. 263—32.

Henrikson, Bror W.: *See*—
Barecki, Chester J., and Henrikson. 2,845,111.

Henry, Louis. Positive locking spout for sealed cans. 2,845,201, 7–29–58, Cl. 222—89.

Hercules Powder Co.: *See*—
Willis, William D. 2,845,411.

Herold, Paul G., to Radio Corp. of America. Cathodoluminescent phosphors and devices. 2,845,564, 7–29–58, Cl. 313—92.

Herr, Joseph S. Mixing apparatus for feeds and the like. 2,845,255, 7–29–58, Cl. 259—6.

Herrick, Franklin W.: *See*—
Anderson, James K., Herrick, and Gray. 2,845,450.

Heym, Lothar S. Draw bench. 2,845,171, 7–29–58, Cl. 205—3.

Heyson, George H., to E. I. du Pont de Nemours and Co. Recovery process for polyethylene. 2,845,412, 7–29–58, Cl. 260—94.9.

Hiatt, Carl L.: *See*—
Johnson, Lowell E., and Hiatt. 2,845,480.

Hill, Claude, to Harry Ferguson Research Ltd. Remote clutch assembly for motor vehicles. 2,844,973, 7–29–58, Cl. 74—700.

Hill, Edward G., to Kelsey-Hayes Co. Booster brake mechanism. 2,845,147, 7–29–58, Cl. 188—152.

Hill, Frederick T.: *See*—
Anderson, Maurits L., and Hill. 2,845,515.

Hill, Otva E., to Norton Co. Grinding machine steadyrest. 2,844,921, 7–29–58, Cl. 51—103.

Hillberg, Robert L., to United States of America, Army. Manual charger for a firearm. 2,845,001, 7–29–58, Cl. 89—1.

Hillgren, Carl C. Front door lock. 2,844,953, 7–29–58, Cl. 70—146.

Hilpman, Paul, to Mergenthaler Linotype Co. Typographical composing machines. 2,845,170, 7–29–58, Cl. 199—27.

Himmele, Walter: *See*—
Lautenschlager, Hans, Friederich, Henkel, Von Kutepow, Himmele, and Raff. 2,845,451.

Hindermann, Peter, H.-P. Kölliker, and P. Trautal, to J. R. Geigy, A. G. Acid anthraquinone dyestuffs. 2,845,443, 7–29–58, Cl. 260—373.

Hjermstad, Erling T.: *See*—
Kesler, Carl C., and Hjermstad. 2,845,417.

Hoadley, Cyrus E., to Manco Mfg. Co. Timber shearing head. 2,845,101. 7–29–58, Cl. 144—34.

Hobbs, Linder C.: *See*—
Bensky, Lowell S., and Hobbs. 2,845,220.

Hobbs, William M., to Westinghouse Electric Corp. Post-pulse eliminator. 2,845,537, 7–29–58, Cl. 250—36.

Hodges, Merwyn E., and H. T. Seeley, to General Electric Co. Impedance type electronic relay. 2,845,581, 7–29–58, Cl. 317—36.

Hoeppner, Conrad H. Secondary emission trigger circuit. 2,845,534, 7–29–58, Cl. 250—27.

Hoffmann-La Roche Inc.: *See*—
Isler, Otto, Montavon, Ruegg, Saucy, and Zeller. 2,845,440.
Isler, Otto, Montavon, Ruegg, Saucy, and Zeller. 2,845,460.
Lutz, August H., and Schnider. 2,845,451.
Pocherer, Benjamin. 2,845,466.

Holden, Artemas F.: *See*—
Zabban, Walter. 2,845,230.

Holder, Lum J., and O. R. Green. Hitches. 2,845,281, 7–29–58, Cl. 280—478.

Holley Carburetor Co.: *See*—
Sterner, Melvin F. 2,845,502.

Hollis, John C., to Giddings & Lewis Machine Tool Co. Mount for machine tool work support. 2,845,212, 7–29–58, Cl. 308—227.

Hollopetre, John H.: *See*—
Dilts, Lee E., and Hollopetre. 2,845,200.

Holmes, John F.: *See*—
Vine, Allyn C., Holmes, and Rutledge. 2,845,221.

Holmes, Tracy S., to Superior Scaffold Co. Detachable coupling for scaffold elements. 2,845,307, 7–29–58, Cl. 304—40.

Hoppe, Charles T., 50% to J. T. Ryan. Syringe with attached serum bottle. 2,845,068, 7–29–58, Cl. 128—218.

Hornbostel, Lloyd, to Beloit Iron Works. Dryer. 2,844,887, 7–29–58, Cl. 34—119.

Hornickel, Robert E.: *See*—
Austin, Harry W., Hornickel, and Stetam. 2,844,820.

Horton Mfg. Co., Inc.: *See*—
Schilling, Hugh K. 2,845,011.

Houghton, E. F., and Co.: *See*—
Frisch, Kurt C., and Kary. 2,845,435.

Housekeeper, Earl J., R. H. Hunter, and C. J. Braun, to The Fyr-Fyter Co. Control valve for fire hose lines. 2,845,247, 7–29–58, Cl. 251—171.

Howden, Peter, to Ernest Newell & Co. Rotary drum mixers and like apparatus. 2,845,254, 7–29–58, Cl. 259—3.

Howe, Eugene E., to Merck & Co., Inc. Extraction of 4-amino-3-isoxazolidone. 2,845,433, 7–29–58, Cl. 260—307.

Howe, Goodwin H., Jr.: *See*—
Taylor, William G., and Howe. 2,845,249.

Huber, Clarence W. Master cylinder. 2,844,940, 7–29–58, Cl. 60—54.6.

Husbner, Herbert A.: *See*—
Cooley, Morris R. 2,844,935.

Huffman, Charles E., to Allen B. Du Mont Laboratories, Inc. Television viewing device. 2,845,618, 7–29–58, Cl. 340—369.

Huise, Graham, and H. A. Vodden, to Monsanto Chemicals Ltd. Apparatus for spraying textiles. 2,845,042, 7–29–58, Cl. 118—300.

Humphreys, John W., to Johnson Products, Inc. Mechanical lash removal structure. 2,845,053, 7–29–58, Cl. 123—90.

Hunter, Rutherford H.: *See*—
Housekeeper, Earl J., Hunter, and Braun. 2,845,247.

Hunter, Wendell H., and R. R. Wyland, to Boeing Airplane Co. Rivet squeezer. 2,844,978, 7–29–58, Cl. 78—42.

Hutchinson, Charles W.: *See*—
Fessler, Frank. 2,845,262.

Hutton, Forest F., to The Pierce Governor Co., Inc. Fuel flow divider. 2,845,079. 7–29–58, Cl. 137—118.

Huxley, Thomas C., III: *See*—
Kling, Nelson G., and Huxley. 2,845,062.

Hyams, Montagu, to Nelson Chemical Co. Method of coating metal surfaces with phosphate. 2,845,376, 7–29–58, Cl. 148—6.15.

I-T-E Circuit Breaker Co.: *See*—
Brumfield, John C. 2,845,507.
Brumfield, John C. 2,845,509.
Diebold, Edward J. 2,845,592.

Iddings, George E., to Sperry Rand Corp. Aircraft navigation system. 2,845,623, 7–29–58, Cl. 343—107.

Iglehart, Ferdinand C., to Westinghouse Electric Corp. Snap acting electrical switch. 2,845,504, 7–29–58, Cl. 200—67.

Ilford Ltd.: *See*—
Kendall, John D., and Duffin. 2,845,418.

Ingersoll-Rand Co.: *See*—
Wickens, Edward F., and Kurt. 2,845,143.

Inland Container Corp.: *See*—
Hauck, William E., and Layne. 2,845,211.

Insetta, Lloyd W.: *See*—
Musser, Walton, Benditt, and Insetta. 2,844,905.

Instrument & Development Products Co.: *See*—
Soderquist, Charles E., Jr. 2,844,993.

International Business Machines Corp.: *See*—
Demer, Frederick M. 2,845,224.
Havens, Byron L., and Smith. 2,845,538.
Lake, Clair D., and Pfaff. 2,845,122.
Purcell, Joseph A., and Beal. 2,845,546.

International Postal Supply Co.: *See*—
Persson, Ernest. 2,845,267.

International Rectifier Corp.: *See*—
Kadelburg, Kurt. 2,845,476.

International Standard Electric Corp.: *See*—
Aigrain, Pierre R. R. 2,845,370.
Berthold, Wolfgang. 2,845,563.
Burberry, Richard A. 2,845,624.
Klein, Werner. 2,845,570.

International Telephone and Telegraph Corp.: *See*—
Di Toro, Michael J., Graham, and Schreiner. 2,845,599.
Geiger, Richard H. 2,845,567.
Gobet, Andre R., and Nordlin. 2,845,375.
Heney, John F., White, and Sharp. 2,845,324.
Turvey, Frank P., Jr. 2,845,617.
Wolcott, Henry O. 2,845,532.

Irvine, Houston N., to J. I. Case Co. Drawbar for draft connecting between a tractor and a trailing implement. 2,844,931, 7–29–58, Cl. 56—20.

Isler, Otto, M. Montavon, R. Rüegg, G. Saucy, and P. Zeller, to Hoffmann-La Roche Inc. Process and intermediates for the preparation of carotenoids. 2,845,440, 7–29–58, Cl. 260—240.9.
Isler, Otto, M. Montavon, R. Rüegg, G. Saucy, and P. Zeller, to Hoffmann-La Roche Inc. 2,6,6-trimethyl-cyclohexan-1-one-4-ol and preparation thereof. 2,845,460, 7–29–58, Cl. 260—586.
Jack, William A.: *See*—
Parkinson, John S., and Jack. 2,845,252.
Jackson, Anton and B. A. Framed locking connectors. 2,845,603, 7–29–58, Cl. 339—92.
Jackson, Anton and B. A. Framed locking connectors. 2,845,604, 7–29–58, Cl. 339—92.
Jackson, Boris A.: *See*—
Jackson, Anton and Boris A. 2,845,603.
Jackson, Anton and Boris A. 2,845,604.
Jackson, Robert D.: *See*—
Freyermuth, Harlan B., Jackson, and Randall. 2,845,420.
Jacques, Francis G. Newspaper delivery receptacle. 2,845,217, 7–29–58, Cl. 232—39.
Jacuzzi Bros., Inc.: *See*—
Nash, Floyd M., and Crivelli. 2,845,028.
Jaffe, David L., to United States of America, Army. Method of coupling into microwave cavity. 2,845,601, 7–29–58, Cl. 333—83.
Jarodzinski, Heins, to Licentia Patent-Verwaltungs—G. m. b. H. X-ray diffraction apparatus. 2,845,542, 7–29–58, Cl. 250—53.5.
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Kelly, Bernard J.: *See*—
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Kelly, Thomas J. Sliding door. 2,844,849, 7–29–58, Cl. 20—19.
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Behr, Samuel H., and Kohlmann. 2,845,475.
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Rosenthal, Samuel L. A., and Kramer. 2,845,205.

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Krohm, Fred A., to The Anderson Co. Windshield wiper arm assembly. 2,844,838, 7–29–58, Cl. 15—255.

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Kugel, Wilhelm: *See*—
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Kuhn, Henry S., to Rotherm Engineering Co., Inc. Variable length joint with balls and sockets for universal movement. 2,845,283, 7–29–58 Cl. 285—166.

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Lincoln, Clovis W., H. D. Spickerman, and P. B. Zeigler, to General Motors Corp. Transmission control external tube. 2,844,970, 7–29–58, Cl. 74—484.

Linkous, Clovis E., to General Electric Co. Alternating current motor. 2,845,549, 7–29–58, Cl. 310—68.

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Rawlins, Robert E. 2,845,619.

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Longwell, Robert S.: *See*—
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Smith, Floyd E., and Lovercheck. 2,845,168.

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Gray, Norman A., and Mabry. 2,845,245.

MacKechnie, Horace K.: *See*—
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Magnavox Co., The: *See*—
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Havens, Charles R., and Magrath. 2,844,823.

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Mario Co. Inc., The: *See*—
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Marshall, Clifton W. Pendulum ejection system. 2,845,240, 7-29-58, Cl. 244—137.

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Kile, Stephen L., and Matthews. 2,845,228.

Mattos, David W. Machine for spreading halved fruit on drying trays. 2,844,926, 7-29-58, Cl. 53—160.

Mauck, Arthur R., and J. M. Zorad, to General Motors Corp. Accessory oiling system. 2,845,141, 7-29-58, Cl. 184—6.

Mayer, Alfred: *See*—
Price, William J., and Mayer. 2,844,989.

Mayhew, Raymond L., and L. G. Nunn, to General Aniline & Film Corp. Emulsifier mixture, method of preparing same, and biocidal compositions therewith. 2,845,380, 7-29-58, Cl. 167—42.

McAfee, Millard F., ¼ to O. A. Dreiling. Self-unloading drain pan. 2,845,180, 7-29-58, Cl. 210—413.

McBerty, Robert K. Light gauge metal building construction. 2,845,150, 7-29-58, Cl. 189—34.

McCulloch, Robert J., and B. Gentili, to United States of America, Agriculture. Stabilization of citrus concentrates with fumaric acid or its salts. 2,845,355, 7-29-58, Cl. 99—155.

McCoy, Charles M. Utility shelf for an instrument panel. 2,845,315, 7-29-58, Cl. 311—21.

McDermott, Franklin, to Lever Brothers Co. Air lock device. 2,845,191, 7-29-58, Cl. 214—17.

McDevitt, Patrick F.: *See*—
Fessler, Frank. 2,845,262.

McEachron, John C. Electrical resistance space heaters. 2,845,527, 7-29-58, Cl. 219—340.

McGraw-Edison Co.: *See*—
Rost, Ernest. 2,845,090.

McGuigan, John H.: *See*—
Cornell, Warren A., McGuigan, and Murphy. 2,845,610.

McKendree, Scott W. Writing instrument. 2,845,047, 7-29-58, Cl. 120—102.

McLoad, Kenneth W.: *See*—
Gorman, D Y., and McLoad. 2,845,605.

McNeil Machine & Engineering Co., The: *See*—
Schneller, Rudy F. 2,845,142.

Mechanical Handling Systems, Inc.: *See*—
Klamp, Paul. 2,844,854.

Meetze, Walter H.: *See*—
Vance, Byron, Jr. 2,844,897.

Meier, Gerhard: *See*—
Schaffer, Alfred, Bach, and Meier. 2,845,331.

Melamed, Sidney: *See*—
Watanabe, Warren H., and Melamed. 2,845,407.

Melamed, Sidney, to Rohm & Haas Co. Linear polymeric amides and methods of making them. 2,845,408, 7-29-58, Cl. 260—39.7.

Mell, Clifford W.: *See*—
Haskell, Lloyd E., and Mell. 2,845,470.

Meltzer, Jack. Shoe provided with resiliently yieldable element. 2,844,891, 7-29-58, Cl. 36—58.5.

Menkemeir, William M. Cabinet. 2,845,319, 7-29-58, Cl. 312—183.

Merck & Co., Inc.: *See*—
Howe, Eugene E. 2,845,433.
Kuehl, Frederick A., Jr. 2,845,432.

Mergenthaler Linotype Co.: *See*—
Hilpman, Paul. 2,845,170.
Plastaras, James C. 2,845,012.

Merton, Percy. Fish chum disperser. 2,844,907, 7-29-58, Cl. 43—44.99.

Mertzweiller, Joseph K.: *See*—
Cull, Neville L., Aldridge, and Mertzweiller. 2,845,465.

Mertzweiller, Joseph K., to Esso Research and Engineering Co. Process for treating polymers produced by alkali-metal catalysed polymerizations with acidic cationic exchange resins. 2,845,467, 7-29-58, Cl. 260—669.

Metallurgical Processes Co.: *See*—
Rusciano, Frank A. 2,845,260.

Meyer, Albert, to The Baldwin Piano Co. Phase modulator. 2,845,598, 7-29-58, Cl. 332—23.

Midwest Supply and Mfg. Co.: *See*—
Thiel, Otto. 2,844,922.

Mikina, Stanley J., to United States of America, Navy. Jet engine control. 2,844,937, 7-29-58, Cl. 60—39.09.

Milne, David T., to American Viscose Corp. Manufacturing of flexible sheets into casings. 2,845,357, 7-29-58, Cl. 99—176.

Millar, Douglas A. J.: *See*—
Fowler, Howard S., and Millar. 2,844,936.

Miller, Robert. Photograph album leaf. 2,844,900, 7-29-58, Cl. 40—158.

Mills, George L., to Bates Mfg. Co. Method and apparatus for forming decorative fabrics. 2,845,094, 7-29-58, Cl. 139—47.

Mills, George S., to United States Rubber Co. Method of co-coagulating resin treated lignin and a rubber latex and product obtained thereby. 2,845,397, 7-29-58, Cl. 260—3.

Mine Safety Appliances Co.: *See*—
Austin, Harry W., Hornickel, and Sletam. 2,844,820.
Putman, Laurel E., and Turner. 2,845,199.

Minnesota Mining & Mfg. Co.: *See*—
Johnson, Wayne R. 2,845,484.

Modine Mfg. Co.: *See*—
Kallstrom, Einar V. 2,845,294.

Mogolis, Bruce W. Gauge tool. 2,844,877, 7-29-58, Cl. 33—147.

Monaco, Gabriel R.: *See*—
Smith, William R., and Monaco. 2,844,911.

Monsanto Chemicals Ltd.: *See*—
Hulse, Graham, and Vodden. 2,845,042.

Monson, Leon A.: *See*—
Marshall, Edwin R., and Monson. 2,845,341.

Montavon, Marc: *See*—
Isler, Otto, Montavon, Rflegg, Saucy, and Zeller. 2,845,440.
Isler, Otto, Montavon, Rflegg, Saucy, and Zeller. 2,845,460.

Moore, John M. Adjustable drawing easel. 2,844,908, 7-29-58, Cl. 45—129.

Morel, Charles J., to J. R. Geigy, A.-G. Tetra-acetyl muric acid amides. 2,845,452, 7-29-58, Cl. 260—490.

Morgan, Herbert S., Jr.: *See*—
Jenkins, Herschel S., Magee, Morgan, and Saffan. 2,845,362.

Morgan, Porter S., to I. L. Hartenberg, trustee. Clutch for hand tool. 2,845,158, 7-29-58, Cl. 192—44.

Morley, Charles E. Rear view mirror. 2,845,000, 7-29-58, Cl. 88—98.

Morley, Fred J., Jr., L. Manno, and A. Dixon, to Westinghouse Electric Corp. Arc welding apparatus. 2,845,524, 7-29-58, Cl. 219—130.

Morrel, Richard M.: *See*—
Cooley, Morris R. 2,844,935.

Morrill, Melvin A.: *See*—
Cooley, Morris R. 2,844,935.

Morritz, Fred L.: *See*—
Friedman, Bernard S., and Morritz. 2,845,463.

Morse, Erwin E., and W. L. Hearn, to Brown Co. Processes for production of furfural. 2,845,441, 7-29-58, Cl. 260—347.6.

Morse, William L., to Boeing Airplane Co. Magnetic alignment tools. 2,844,977, 7-29-58, Cl. 77—62.

Motorola, Inc.: *See*—
Massman, Albert W. 2,845,483.
Massman, Albert W. 2,845,487.

Mowers, Lloyd W., and H. V. Kuhlmann. Antenna mount. 2,845,243, 7-29-58, Cl. 248—48.

Mueller, Anna: *See*—
Mueller, Francis J. and A. 2,844,856.

Mueller, Francis J. and A. Flexible buckle cover for buckle shoes. 2,844,856, 7-29-58, Cl. 24—175.

Mueller, George F.: *See*—
Lytton, Marion R., and Mueller. 2,845,327.

Mueller, Louis E., to The Rapid Electrotype Co. Apparatus for shaving printing plates. 2,845,009, 7-29-58, Cl. 90—25.

Mueller, Otto. Pipe connector having adjustable elbow. 2,845,282, 7-29-58, Cl. 285—159.

Muffly, Glenn. Reversible refrigerating systems. 2,844,945, 7–29–58, Cl. 62—160.

Müller, Konrad, to Siemens & Halske Akt. Control of telephone switches having plurality of simultaneously operated sets of wipers. 2,845,493, 7–29–58, Cl. 179—18.

Murchison, Bessie F.: *See*—
Murchison, Blackwell K. 2,845,123.

Murchison, Blackwell K., deceased, by B. F. Murchison, executrix. Perforator device. 2,845,123, 7–29–58, Cl. 164—113.

Murphy, Orlando J.: *See*—
Cornell, Warren A., McGuigan, and Murphy. 2,845,610.

Murphy, William M. Direct storm window vent control. 2,845,017, 7–29–58, Cl. 98—97.

Murray Corp. of America, The: *See*—
Stelljes, Charles R., and Flannery. 2,844,963.

Musser, Walton, A. Benditt, and L. W. Inserra, to United States of America, Army. Telescopic unipod. 2,844,905, 7–29–58, Cl. 42—94.

Myers, Clyde B., to Diamond Alkali Co. Method of altering crystallizing characteristics of calcium sulfate. 2,845,337, 7–29–58, Cl. 23—300.

Myers, E. A., & Sons, Inc.: *See*—
Barron, Fred E., and Lybarger. 2,845,497.

Nagler, Josef, and Josef Nagler, Jr. Method and apparatus for producing color effects in projected pictures. 2,844,990, 7–29–58, Cl. 88—16.4.

Nagler, Josef, Jr.: *See*—
Nagler, Josef, and Josef Nagler, Jr. 2,844,990.

Narbutovskih, Paul, now by judicial change of name, Paul Norbut, to Westinghouse Electric Corp. Transformer cooling apparatus. 2,845,472, 7–29–58, Cl. 174—15.

Nash, Floyd M., and A. A. Crivelli, to Jacuzzi Bros., Inc. Shallow well expanded output pump. 2,845,028, 7–29–58, Cl. 103—5.

Nathan, Marvin F., to The M. W. Kellogg Co. Treatment of carbonaceous solids. 2,844,886, 7–29–58, Cl. 34—10.

National Aluminate Corp.: *See*—
Ryznar, John W., and Thompson. 2,845,338.

National Cash Register Co., The: *See*—
Goodbar, Mayo A., and Pratt. 2,845,022.

National Lead Co.: *See*—
Russell, Charles A. 2,845,445.

National Research Council: *See*—
Bowler, Ernest H., and Wright. 2,845,607.
Fowler, Howard S., and Millar. 2,844,936.

National Research Development Corp.: *See*—
Newman, Edward A., Davies, and Clayden. 2,845,609.
Williams, Frederic C. 2,845,611.

Neas, Eleanor. Notebook. 2,845,105, 7–29–58, Cl. 150—28.

Neer, Clifford H., to Maryland Engineering Co. Tank cleaning apparatus. 2,845,091, 7–29–58, Cl. 137—577.5.

Neilson, Alan C. Concealed hinge. 2,844,842, 7–29–58, Cl. 16—164.

Neilson Chemical Co.: *See*—
Hyams, Montagu. 2,845,376.

Nelson, Herbert, to Radio Corp. of America. Semi-conductor devices and method of making same. 2,845,373, 7–29–58, Cl. 148—1.5.

Nelson, Iver L., to Waldorf Paper Products Co. Carton closing apparatus. 2,844,930, 7–29–58, Cl. 53—376.

Neubauer, Joseph A., and F. W. Theis, to Columbia-Southern Chemical Corp. Process for making sodium carbonate and acetylene. 2,845,329, 7–29–58, Cl. 23—63.

Newberg, Raymond G., and R. E. Clayton, to Esso Research and Engineering Co. Weathering of isoolefin-vinyl aromatic copolymers containing hydroxy benzoldehydes. 2,845,399, 7–29–58, Cl. 260—45.95.

New Britain Machine Co., The: *See*—
Jobert, Arthur H. 2,844,863.

Newell, Ernest, & Co.: *See*—
Howden, Peter. 2,845,254.

Newman, Edward A., D. W. Davies, and D. O. Clayden, to National Research Development Corp. Methods of recording digital information. 2,845,609, 7–29–58, Cl. 340—174.

Newman, Louis: *See*—
Hamlin, Jerry F., and Newman. 2,844,924.

Newstead, Charles, to United Shoe Machinery Corp. Power rivet setting tools having angularly adjustable nosepieces. 2,845,197, 7–29–58, Cl. 218—47.

Nickols, Chester R., to Elgin Softener Corp. Valves. 2,845,089, 7–29–58, Cl. 137—513.5.

Nielsen, Harold R.: *See*—
Dunning, Robert M., and Nielsen. 2,845,292.

Niahioka, Jim Z. Polishing device. 2,844,834, 7–29–58, Cl. 15—99.

Norbut, Paul: *See*—
Narbutovskih, Paul. 2,845,472.

Nordlin, Henry G.: *See*—
Gobat, Andre R., and Nordlin. 2,845,375.

Norrie, Robert C., and G. Kramer, to Pacific Car and Foundry Co. Cab-beside-engine vehicle. 2,845,133, 7–29–58, Cl. 180—69.

North American Aviation, Inc.: *See*—
Langworthy, James H., and Quinn. 2,845,474.

North American Philips Co., Inc.: *See*—
Franken, Adrianus J. J., and Verhoeff. 2,845,540

Norton Co.: *See*—
Hill, Olva E. 2,844,921.

Nunn, Leslie G.: *See*—
Mayhew, Raymond L., and Nunn. 2,845,380.

Nunninghoff, Heinrich, to The Babcock & Wilcox Co. Vapor generating and superheating unit with an integral superheater having radiant and convection sections. 2,845,049, 7–29–58, Cl. 122—478.

O'Brien, John F., to United States of America, Army. Roller drum support for a revolver-type gun. 2,845,006, 7–29–58, Cl. 89—155.

O'Brien, John F., to United States of America, Army. Pivoted chamber weapon. 2,845,007, 7–29–58, Cl. 89—155.

O'Callaghan, Jerome J., to The Rauland Corp. Cathode-ray tube manufacturing apparatus. 2,845,043, 7–29–58, Cl. 118—408.

O'Connor, James A., Jr.: *See*—
Jamison, Samuel J., O'Connor, and Osgood. 2,845,069.

Odermatt, Alois. Shoe with a leather sole and/or heel provided with rubber inserts. 2,844,833, 7–29–58, Cl. 12—146.

O'Donnell, John F.: *See*—
Richey, Clarence B., and O'Donnell. 2,844,933.

Ogawa, Tetsuo, S. Maeda, and J. Osawa. Method for preventing coagulation of table salt and resulting product. 2,845,354, 7–29–58, Cl. 99—143.

Okonski, Alex D. Internal combustion engine. 2,845,052, 7–29–58, Cl. 123—73.

Okress, Ernest C., to United States of America, Navy. Method for magnetron strap mounting. 2,845,576, 7–29–58, Cl. 315—39.69.

Oldenburg, Walter: *See*—
Scheller, Paul, Oldenburg, and Cimiotti. 2,845,271.

Oldenkamp, John L., and F. W. Suhr, to General Electric Co. Dynamoelectric machine. 2,845,553, 7–29–58, Cl. 310—172.

Olin Mathieson Chemical Corp.: *See*—
Butler, Wallace B. 2,844,904.
Grundmann, Christoph J., and Kober. 2,845,421.
Riffkin, Charles, and Cyr. 2,845,353.
Sakowski, Walter J. 2,845,344.
Soule, Edward C. 2,845,446.

Oliver, Gerald A., and W. G. Weathers. Mathematics teaching aid. 2,844,890, 7–29–58, Cl. 35—31.

Olson, Carl M., to E. I. du Pont de Nemours and Co. Production of metals. 2,845,386, 7–29–58, Cl. 204—64.

Opie, Joseph W.: *See*—
Lents, Thomas H., Opie, and Terry. 2,845,392.

Oregon Saw Chain Corp.: *See*—
Carlton, Raymond R. 2,844,934.

Organon Inc.: *See*—
Tindall, Walter J. 2,845,381.

Orman, Leonard. Bracket for collapsible stand. 2,845,317, 7–29–58, Cl. 311—79.

Oroshnik, William, to Ortho Pharmaceutical Corp. Synthesis of compounds having vitamin A activity. 2,845,462, 7–29–58, Cl. 260—611.

Orr, Palmer: *See*—
Kelbel, Donald W., and Orr. 2,844,975.

Ortho Pharmaceutical Corp.: *See*—
Oroshnik, William. 2,845,462.

Osawa, Junko: *See*—
Ogawa, Tetsuo, Maeda, and Osawa. 2,845,354.

Osborn Mfg. Co.: *See*—
Benyak, John B. 2,844,835.

Osborne, Fred H., and H. G. Bauer, to The Rudolph Wurlitzer Co. Reed box for electronic organ. 2,844,983, 7–29–58, Cl. 84—1.04.

Osgood, John H., to Jones and Lamson Machine Co. Electronic table motor drive unit for optical comparators and the like. 2,845,580, 7–29–58, Cl. 318—257.

Osgood, Kenneth J.: *See*—
Jamison, Samuel J., O'Connor, and Osgood. 2,845,069.

Ostergard, Arthur A. Pipe cleaner and ash tray. 2,845,076, 7–29–58, Cl. 131—246.

Owens-Corning Fiberglas Corp.: *See*—
Waggoner, Jack H. 2,845,364.

Owens-Illinois Glass Co.: *See*—
Vincent, Harvard B. 2,844,908.

Pachaly, Heins, and O. Schlichting, to Badische Anilin- & Soda-Fabrik Akt. Production of 1,2-epoxycyclo-octane using in situ performic acid. 2,845,442, 7–29–58, Cl. 260—348.5.

Pacific Car and Foundry Co.: *See*—
Norrie, Robert C., and Kramer. 2,845,133.

Pacific Scientific Aeroproducts: *See*—
Cushman, Clifford E., and Wrighton. 2,845,234.
Pfankuch, Leo A., and Wrighton. 2,845,233.

Palfreyman, Raymond D., and H. Troeger, to Bendix Aviation Corp. Pneumatic engine starter. 2,845,054, 7–29–58, Cl. 123—179.

Palmer, Arland F.: *See*—
Carpenter, David E., and Palmer. 2,845,555.

Pardue, Don R.: *See*—
Hedrich, Albert L., and Pardue. 2,844,961.

Parent, Arthur E., 90% to J. Parent. Structural building member. 2,845,152, 7–29–58, Cl. 189—40.

Parent, June: *See*—
Parent, Arthur E. 2,845,152.

Parker, Robert S. Multi-color television viewer for children. 2,844,987, 7–29–58, Cl. 88—1.

Parkinson, John S., and W. A. Jack, to Johns-Manville Corp. Heating system. 2,845,252, 7–29–58, Cl. 257—124.

Paschkis, Albert E.: *See*—
Johnson, Curtis R. A., and Paschkis. 2,845,232.

Pasquet, Philippe. Device for production of control patterns for looms. 2,845,096, 7–29–58, Cl. 139—319.

Pattarini, Daniel M.: *See*—
Crausman, Morris A., and Pattarini. 2,845,088.

Pattinson, George H. Endless belt conveyor system. 2,845,163, 7–29–58, Cl. 198—1.

Paulin, Madeleine. Masout burners. 2,845,115, 7–29–58, Cl. 158—73.

Pauleen, Sidney M. Pie rack. 2,845,183, 7–29–58, Cl. 211—41.

Pawley, Myron G., to United States of America, Commerce. Phase-sampling telemeter. 2,845,613, 7–29–58, Cl. 340—183.

Pearson, Ben, Inc.: *See*—
Bramblett, John J. 2,844,932.

Pecherer, Benjamin, to Hoffmann-La Roche Inc. Preparation of 2,2'-bi'oiyl. 2,845,466, 7–29–58, Cl. 260—668.

Peck, Henry E., J. V. Sidenius, and C. R. Derby, to Chr. Hansen's Laboratory, Inc. Fudge-making process. 2,845,352, 7–29–58, Cl. 99—134.

Peckham, Victor A., Jr., to Universal-Cyclops Steel Corp. Consumable electrode. 2,845,293, 7–29–58, Cl. 287—104.

Pellet, Lester R.: *See*—
Mark, Irving. 2,844,836.

Pell, Eric, to Cutler-Hammer, Inc. Apparatus for regulating the voltage of electric generators. 2,845,594, 7–29–58, Cl. 322—28.

Peltier, Joseph D. E. Swing switch. 2,845,035, 7–29–58, Cl. 104—103.

Penick & Ford, Ltd., Inc.: *See*—
Kesler, Carl C., and Hjermstad. 2,845,417.

Pennington, Edward N., and J. E. Cottle, to Phillips Petroleum Co. Catalyst regeneration. 2,845,409, 7–29–58, Cl. 260—93.1.

Peras, Lucien, to Regie Nationale des Usines Renault. Low-tension sparking plug for internal combustion engines. 2,845,565, 7–29–58, Cl. 313—131.

Perchinsky, Andrew, to G. E. Treys. Caster holders. 2,844,909, 7–29–58, Cl. 45—137.4.

Perkins, George D., to Consolidated Electrodynamics Corp. System for digitising analog signals. 2,845,597, 7–29–58, Cl. 324—103.

Perkins, Wallace W., and W. E. Dion, to General Motors Corp. Inspection mechanism. 2,845,177, 7–29–58, Cl. 209—111.

Perma-Power Co.: *See*—
Goldstein, Richard. 2,845,536.

Persico, Ralph W., and M. P. Carlucci, to United States of America, Army. Cap with havelock. 2,844,822, 7–29–58, Cl. 2—172.

Persson, Eric S. Window structure. 2,845,116, 7–29–58, Cl. 160—34.

Persson, Ernest, to International Postal Supply Co. Mail handling equipment. 2,845,267, 7–29–58, Cl. 271—84.

Peters, Grace A.: *See*—
Schaefer, Frederic C., and Peters. 2,845,422.

Peterson, Anders A., to Hardinge Brothers, Inc. Feed chucks. 2,845,274, 7–29–58, Cl. 279—23.

Peterson, Ray E., and D. C. Bell. Casket latch. 2,845,294, 7–29–58, Cl. 292—128.

Petty, Olive S.: *See*—
Hasbrook, Arthur F. 2,845,621.

Pfaff, Wesley: *See*—
Lake, Clair D., and Pfaff. 2,845,122.

Pfankuch, Leo A., and R. J. Wrighton, to Pacific Scientific Aeroproducts. Safety apparatus. 2,845,233, 7–29–58, Cl. 242—107.4.

Pfarrwaller, Erwin, to Sulzer Frères, Societe Anonyme. Thread clamp having two movable jaws. 2,845,095, 7–29–58, Cl. 189—127.

Philco Corp.: *See*—
Burgett, Monte L., Jr. 2,845,575.
Schnable, George L. 2,845,387.

Phillips, Bruce B. Sinker release. 2,844,906, 7–29–58, Cl. 43—43.12.

Phillips, Edwin W.: *See*—
Fessler, Frank. 2,845,362.

Phillips Petroleum Co.: *See*—
Brace, Robert L., and Schirmer. 2,845,334.
Cines, Martin R., and Buchanan. 2,845,406.
De Vault, Albert N., and Axe. 2,845,410.
Pennington, Edward N., and Cottle. 2,845,409.
Uraneck, Carl A., and Gibson. 2,845,405.
Varvel, Charles W. 2,845,398.

Phillips Screw Co.: *See*—
Cierpik, Albert, Jr. 2,845,288.

Picard, Alfredo E. End of sheet indicating device. 2,845,162, 7–29–58, Cl. 197—189.

Pickering, Kenneth A., to General Motors Corp. Vehicle top compartment cover mechanism. 2,845,299, 7–29–58, Cl. 296—136.

Piel, Gerard J. E., to Societe d'Electronique et d'Automatisme. Representation translation of electric magnitude. 2,845,219, 7–29–58, Cl. 235—61.

Pierce Governor Co., Inc., The: *See*—
Hutton, Forest F. 2,845,079.

Pinckert, Carl W., and R. E. White, to Bemis Bro. Bag Co. Web feed means for rotary printing press. 2,845,021, 7–29–58, Cl. 101—228.

Pioneer Electronics Corp.: *See*—
De Lucia, Victor E. 2,845,506.

Pitts Paul M.: *See*—
Leum, Leonard N., and Pitts. 2,845,382.

Plastaras, James C., to Mergenthaler Linotype Co. Film magazine for phototypographical machines. 2,845,012, 7–29–58, Cl. 95—4.5.

Polhemus, Von D., and M. Ruegg, to General Motors Corp. Vehicle torsion spring suspension. 2,845,279, 7–29–58, Cl. 280—96.2.

Polygram Casting Co., Ltd.: *See*—
Taylor, George W., Worthington, and Sargeaunt. 2,844,855.

Potash, Norman. Filling and sealing device. 2,845,203, 7–29–58, Cl. 222—394.

Potter, Marion G., to Westinghouse Electric Corp. Submersible motor. 2,845,551, 7–29–58, Cl. 310—87.

Power, Ernest B., to General Electric Co. Quartz-to-metal foil press seal. 2,844,919, 7–29–58, Cl. 49—62.5.

Powers Chemco, Inc.: *See*—
Schwarz, George. 2,845,249.

Pratt, Russell G.: *See*—
Goodbar, Mayo A., and Pratt. 2,845,022.

Price, William J., and A. Mayer, to Magnesium Elektron Ltd. Means for measuring small degrees of optical density. 2,844,989, 7–29–58, Cl. 88—14.

Priestman, Bewley D., to General Motors Corp. Retaining clip and assembly. 2,845,291, 7–29–58, Cl. 287—91.

Procter & Gamble Co., The: *See*—
Thomson, Procter. 2,845,444.

Proctor, John S.: *See*—
Brewster, Joseph L., Proctor, and Edgren. 2,845,818.

Proctor & Schwartz, Inc.: *See*—
Bianchi, Louis R. 2,845,187.

Prokop, Frank J., to Da-Lite Screen, Inc. Tripod. 2,845,244, 7–29–58, Cl. 248—171.

Protex Weatherstrip Mfg. Co.: *See*—
West, John C. 2,845,153.

Puckett, Robert L.: *See*—
Earley, Wilbur, and Puckett. 2,844,882.

Purcell, Joseph A., and H. J. Beal, to International Business Machines Corp. Amplitude discriminator. 2,845,846, 7–29–58, Cl. 250—211.

Pursche, Harry A. Two-way plow with universal tool head. 2,845,014, 7–29–58, Cl. 97—26.

Putman, Laurel E., and R. E. Turner; said Turner assor. to Mine Safety Appliances Co., and said Putman assor. to Superior Air Products Co. Container. 2,845,199, 7–29–58, Cl. 220—15.

Quinn, Edward: *See*—
MacKenzie, Fred T., and Quinn. 2,844,832.

Quinn, Ross A.: *See*—
Langworthy, James H., and Quinn. 2,845,474.

Radio Corp. of America: *See*—
Bendell, Sidney L., and Shepard. 2,845,562.
Bensky, Lowell S., and Hobbs. 2,845,220.
Herold, Paul G. 2,845,564.
Lockhart, Robert K. 2,845,481.
Luther, Arch C., Jr. 2,845,486.
Macovski, Albert. 2,845,573.
Nelson, Herbert. 2,845,373.
Shapiro, Louis. 2,845,574.

Raff, Paul: *See*—
Lautenschlager, Hans, Friederich, Henkel, Von Kutepow, Himmele, and Raff. 2,845,451.

Rahm Instruments Inc.: *See*—
Senseney, George T., and Sylvester. 2,845,514.

Ramson, John R., to Croname, Inc. Condenser discharge stud welding machine. 2,845,523, 7–29–58, Cl. 219—98.

Randall, David L.: *See*—
Freyermuth, Harlan B., Jackson, and Randall. 2,845,420.

Randall, Ralph S., to Vac-U-Pak Corp. Vacuum bag sealing machine. 2,844,925, 7–29–58, Cl. 53—86.

Rapid Electrotype Co., The: *See*—
Mueller, Louis E. 2,845,009.

Rapp, Lawrence N. Plant supporting vase. 2,844,916, 7–29–58, Cl. 47—41.

Rathe, Sidney A., and W. F. Van Loenen, to Kaiser Aluminum & Chemical Corp. Filter element. 2,845,181, 7–29–58, Cl. 210—486.

Rauland Corp., The: *See*—
Bailey, James S. 2,845,099.
O'Callaghan, Jerome J. 2,845,043.

Rawlins, Robert E., to Lockheed Aircraft Corp. Target identification discriminator. 2,845,619, 7–29–58, Cl. 343—6.

Ray, Clyde E. Breeding machine. 2,845,040, 7–29–58, Cl. 118—13.

Raymond, Malcolm L. Explosion-proof container for inflammable liquids. 2,845,204, 7–29–58, Cl. 222—468.

Rayonier Inc.: *See*—
Anderson, James K., Herrick, and Gray. 2,845,450.

Raytheon Mfg. Co.: *See*—
Anderson, Maurits L., and Hill. 2,845,515.
Frykland, Robert A. 2,845,513.
Smith, Charles G. 2,845,371.

Regar, Harold D. Spark plug having a variable spark gap and a non-baffling electrode. 2,845,566, 7–29–58, Cl. 313—141.

Regie Nationale des Usines Renault: *See*—
Peras, Lucien. 2,845,565.
Salves, Leon. 2,844,974.

Reid, John H.: *See*—
Tancred, William L. 2,845,218.

Reimspiess, Franz X., to Dr. Ing. h. c. F. Porsche K.-G. Individual wheel suspension for the driving wheels of automotive vehicles. 2,845,134, 7–29–58, Cl. 180—73.

Reiners, Robert A., to Corn Products Refining Co. Preparation of uronic acids and derivatives thereof. 2,845,439, 7–29–58, Cl. 260—340.9.

Reinhold, Richard S., to Boeing Airplane Co. Tube skin joint structure. 2,845,151, 7–29–58, Cl. 189—34.

Remington, Leland F.: *See*—
Gamble, Ralph S., and Remington. 2,845,265.

Renkey, Albert L.: *See*—
King, Donald F., and Renkey. 2,845,360.

Research Corp.: *See*—
Carpino, Louis A. 2,845,429.

Resko, Paul V., and F. Whitworth, to The Sprague Meter Co. Combination regulator and meter index ring mounting. 2,844,962, 7–29–58, Cl. 73—199.

Reuther, John F.: *See*—
Silliman, Sheldon D., and Reuther. 2,845,548.

Reuther, John F., and S. D. Silliman, to Westinghouse Electric Corp. Circuit breaker control system. 2,845,583, 7–29–58, Cl. 317—54.

Reynolds Eugene R. Valve. 2,844,942, 7–29–58, Cl. 60—97.

Rhoades, Robert B., to V-M Corp. Mechanism for wire and tape recording and playing apparatus. 2,845,230, 7–29–58, Cl. 242—55.12.

Rice Barton Corp.: *See*—
Clem, Everett W. 2,844,928.

Richey, Clarence B., and J. F. O'Donnell, to Ford Motor Co. Corn picker. 2,844,933, 7–29–58, Cl. 56—104.

Riffkin, Charles, and G. N. Cyr, to Olin Mathieson Chemical Corp. Liquid sweetening composition and method of preparing the same. 2,845,353, 7–29–58, Cl. 99—141.

Ringler, William A., to The Diamond Match Co. Mechanism for forming and filling cigarette cartons. 2,844,920, 7–29–58, Cl. 53—230.

Riole, Saul, and J. Bautz. Primer unit for water filtering system. 2,845,179, 7–29–58, Cl. 210—315.

River Raisin Paper Co.: *See*—
Fischer, John P. 2,845,210.

Risso, Salvatore R.: *See*—
Sieczkiewicz, Peter A. 2,844,844.

Robbins, Elmer A., to Tokheim Corp. Separable, yieldable mounting for valves. 2,845,085, 7–29–58, Cl. 137—454.6.

Robbins, Vernon R. Anchor hoist. 2,845,039, 7–29–58, Cl. 114—210.

Robinson, Charles F., to Consolidated Electrodynamics Corp. Chromatography. 2,845,136, 7–29–58, Cl. 183—2.

Robinson, Charles F., to Consolidated Engineering Corp. Mass spectrometry. 2,845,539, 7–29–58, Cl. 250—41.9.

Robinson, Donald L., to Westinghouse Electric Corp. Electric motor. 2,845,552, 7–29–58, Cl. 310—90.

Roces, Rafael P., and A. C. Capotosto. Safety razor with improved handle. 2,844,870, 7–29–58, Cl. 30—35.

Roeger, Richard E., to Cleveland Instrument Co. Gaging mechanism. 2,844,879, 7–29–58, Cl. 33—174.

Rogers, Walter F.: *See*—
Beach, Horace J., Goins, and Rogers. 2,845,389.

Rohm & Haas Co.: *See*—
Brown, George L., and Conn. 2,845,398.
Melamed, Sidney. 2,845,408.
Watanabe, Warren H., and Melamed. 2,845,407.

Rokal G. m. b. H.: *See*—
Haack, Erich. 2,845,242.

Roman, James A. Constant volume pressure pick-up. 2,845,060, 7–29–58, Cl. 128—2.05.

Rose, Richard A.: *See*—
Berry, William, Rose, and Bruce. 2,845,541.

Rosenquist, Paul A., and R. E. Sandberg, to Deluxe Metal Furniture Co. Shelf and divider unit. 2,845,188, 7–29–58, Cl. 211—184.

Rosenthal, Leighton A.: *See*—
Rosenthal, Samuel. 2,845,205.

Rosenthal, Samuel, deceased, by L. A. Rosenthal and C. R. Kramer, executors. Pressing machine. 2,845,205, 7–29–58, Cl. 223—73.

Rost, Ernest, to McGraw-Edison Co. Pressure release valve for battery cells. 2,845,090, 7–29–58, Cl. 137—525.3.

Rotex Mfg. Co.: *See*—
Woodell, Albert F. 2,845,102.

Rotherm Engineering Co., Inc.: *See*—
Kuhn, Henry S. 2,845,283.

Rothlauf, Erwin: *See*—
Kaess, Franz, and Rothlauf. 2,845,424.

Rudner, Bernard, to W. R. Grace & Co. Hydrazine resins. 2,845,400, 7–29–58, Cl. 260—68.

Ruegg, Max: *See*—
Polhemus, Von D., and Ruegg. 2,845,279.

Rüegg, Rudolf: *See*—
Isler, Otto, Montavon, Rüegg, Saucy, and Zeller. 2,845,440.

Ruegg, Rudolf: *See*—
Isler, Otto, Montavon, Ruegg, Saucy, and Zeller. 2,845,460.

Runte, Evon. Heating or cooling buildings. 2,845,253, 7–29–58, Cl. 257—136.

Rusciano, Frank A., to Metallurgical Processes Co. Neutral heating with controlled preheat. 2,845,260, 7–29–58, Cl. 266—5.

Russell, Charles A., to National Lead Co. Aminoalkyl acyl titanate. 2,845,445, 7–29–58, Cl. 260—429.5.

Rutledge, Wyman C.: *See*—
Vine, Allyn C., Holmes, and Rutledge. 2,845,221.

Ryan, Joseph T.: *See*—
Hoppe, Charles T. 2,845,066.

Rysnar, John W., and H. Thompson, to National Aluminate Corp. Fuel additive for removing and inhibiting fireside deposits. 2,845,338, 7–29–58, Cl. 44—5.

Saffan, Bernard M.: *See*—
Jenkins, Herschel S., Magee, Morgan, and Saffan. 2,845,362.

Salves, Leon, to Regie Nationale des Usines Renault. Power-transmissions in particular for motor vehicles. 2,844,974, 7–29–58, Cl. 74—720.

Sakowski, Walter J., to Olin Mathieson Chemical Corp. Process for purifying mercury. 2,845,344, 7–29–58, Cl. 75—81.

Sallon, Jean, to Societe Anonyme des Etablissements Neu. Centrifugal apparatus for the circulation of fluids 2,845,216, 7–29–58, Cl. 230—127.

Samms, Adolphus. Parachute release mechanism. 2,845,241, 7–29–58, Cl. 244—148.

Sampietro, Achilles C., to Thompson Products, Inc. Polyphase motor control circuit. 2,845,587, 7–29–58, Cl. 318–171.

Sampietro, Achilles C., to Thompson Products, Inc. Motor assembly having frequency multiplying means. 2,845,588, 7–29–58, Cl. 318—231.

Sandberg, Robert E.: *See*—
Rosenquist, Paul A., and Sandberg. 2,845,188.

Sanders, Leon D., to Systematic Parking Co. Automobile parking apparatus. 2,845,189, 7–29–58, Cl. 214—16.1.

Sanner, Thomas S. Fork for the sanitary preparation of foodstuffs. 2,844,871, 7–29–58, Cl. 30—129.

Sargeaunt, Michael J.: *See*—
Taylor, George W., Worthington, and Sargeaunt. 2,844,853.

Saucy, Gabriel: *See*—
Isler, Otto, Montavon, Rüegg, Saucy, and Zeller. 2,845,440.
Isler, Otto, Montavon, Ruegg, Saucy, and Zeller. 2,845,460.

Saunders, Orson V., and J. A. Wallace, to General Motors Corp. Refrigerator cabinet construction. 2,845,320, 7–29–58, Cl. 312—204.

Saunders, Orson V., and M. G. Betz, to General Motors Corp. Refrigerating apparatus. 2,845,321, 7–29–58, Cl. 312—214.

Saunders, Philip A.: *See*—
Schiller, Ernest M., Saunders, and Landgraf. 2,844,979.

Savinelli, Achille. Cigarette-holder with denicotinizing filter with double ejector. 2,845,075, 7–29–58, Cl. 131—182.

Scanlan, Joseph P., and L. Alter, to Schwarzkopf Development Corp. Method of forming porous cemented metal powder bodies. 2,845,346, 7–29–58, Cl. 75—208.

Schaefer, Frederic C., and G. A. Peters, to American Cyanamid Co. Substituted s-triazines and method of preparation 2,845,422, 7–29–58, Cl. 260—248.

Schaeffer, Werner. Belt conveyor. 2,845,166, 7–29–58, Cl. 198—129.

Schäffer, Alfred, F. Bach, and G. Meier, to Veb Leuna Werke-"Walter Ulbricht." Process for the production of hydroxyl amine sulfate solutions. 2,845,331, 7–29–58, Cl. 23—117.

Schaufelberger, Felix A., to Chemical Construction Corp. Process of separating cobalt and nickel valves. 2,845,333, 7–29–58, Cl. 23—183.

Scheller, Paul, W. Oldenburg, and J. Cimiotti, to Electroacustic G. m. b. H. Record changing device. 2,845,271, 7–29–58, Cl. 274—10.

Schelp, Chester: *See*—
Goldberg, Abraham, and Schelp. 2,845,479.

Schenley Industries, Inc.: *See*—
Ziegler, Fritz. 2,845,426.

Schick Inc.: *See*—
Gray, Norman A., and Mabry. 2,845,245.
Kahn, Samuel. 2,844,809.

Schilberg, Arnold G., to A. O. Smith Corp. Method of making I-beams for vehicle frames. 2,844,864, 7–29–58, Cl. 29—155.

Schiller, Ernest M., P. A. Saunders, and W. B. Landgraf, to General Electric Co. Pinning machine. 2,844,979, 7–29–58, Cl. 78—49.

Schilling, Hugh K., to Horton Mfg. Co., Inc. Stripping machine. 2,845,011, 7–29–58, Cl. 93—36.

Schirmer, Robert M.: *See*—
Brace, Robert L., and Schirmer. 2,845,334.

Schlichting, Otto: *See*—
Pachaly, Heinz, and Schlichting. 2,845,442.

Schnable, George L., to Philco Corp. Method of electrodepositing metals. 2,845,387, 7–29–58, Cl. 204—64.

Schneider, Ervin J. Machine for forming helically-wound laminated tubes. 2,845,109, 7–29–58, Cl. 154—1.3.

Schneider, Jos., & Co.: *See*—
Klemt, Günter. 2,844,996.

Schneider, Jos., & Co., Optische Werke: *See*—
Schütz, Karl H. 2,845,013.

Schneller, Rudy F., to The McNeil Machine & Engineering Co. Lubricating system. 2,845,142, 7–29–58, Cl. 184—7.

Schnider, Otto: *See*—
Lutz, August H., and Schnider. 2,845,431.

Schreiner, Stanley M.: *See*—
Di Torro, Michael J., Graham and Schreiner. 2,845,599.

Schroeder, Albert W., to Chicago Metallizing Co., Inc. Coating articles with metal. 2,845,366, 7–29–58, Cl. 117—65.

Schubert, Milton V., Jr., and J. B. Manago, Jr., to LML Engineering & Mfg. Corp. Traveling feed cart. 2,845,193, 7–29–58, Cl. 214—83.18.

Schultz, Frederick E., to General Electric Co. Tube-bundle combustion chamber. 2,844,939, 7–29–58, Cl. 60—39.69.

Schumacher, Hans: *See*—
Kracht, Otto, and Schumacher. 2,845,082.

Schütz, Karl H., to Jos. Schneider & Co., Optische Werke. Diaphragm-adjusting mechanism for photographic objectives. 2,845,013, 7–29–58, Cl. 95—64.

Schutze, Henry G., to Esso Research and Engineering Co. Olefin polymerization process. 2,845,414, 7–29–58, Cl. 260—94.9.

Schwab, Bernard, and L. Vautrey, to Commissariat à l'Energie Atomique. Devices for ensuring an electric contact between rotary parts of an electric machine. 2,845,554, 7–29–58, Cl. 310—178.

Schwab, Friedrich. Machine tool driving arrangement. 2,844,968, 7–29–58, Cl. 74—421.

Schwan, Gerhard. Clothes line and clothes pin assembly. 2,845,186, 7–29–58, Cl. 211—119.11.

Schwartz, Melvin M.: *See*—
Werns, Donald E., and Schwartz. 2,844,867.

Schwarz, George, to Powers Chemco, Inc. Photographic developers. 2,845,349, 7–29–58, Cl. 96—66.

Schwarz, Muriel A. Device for locating, measuring and placing bound buttonholes and pockets. 2,844,883, 7–29–58, Cl. 33—190.

Schwarzkopf Development Corp.: *See*—
Krall, Friedrich. 2,844,845.
Scanlan, Joseph P., and Alter. 2,845,346.

Seaborg, Glenn T., G. Friedlander, and J. W. Gofman, to United States of America, Atomic Energy Commission. Neutron measuring method and apparatus. 2,845,544, 7–29–58, Cl. 250—83.6.

Searle, Donald F., to California Research Corp. Synthetic detergent bar. 2,845,391, 7–29–58, Cl. 252—138.

Sebald, Joseph F., to Worthington Corp. Multi-stage deaerator with controlled countercurrent steam flow path. 2,845,137, 7–29–58, Cl. 183—2.5.

Sebesta, John A. Rubber octopus. 2,844,912, 7–29–58, Cl. 46—92.

Seeley, Harold T.: *See*—
Hodges, Merwyn E., and Seeley. 2,845,581.

Seibert, Leslie W., Jr., to Ekco Products Co. Cutlery cabinet. 2,845,323, 7–29–58, Cl. 312—244.

Seitz, August W., to General Electric Co. Electric lamp making apparatus. 2,845,325, 7-29-58, Cl. 316—31.

Selas Corp. of America: *See*—
Furcsyk, Alfons A. 2,845,261.

Senseney, George T., and F. H. Sylvester, to Rahm Instruments Inc. Pressure-operated rheostat. 2,845,514, 7-29-58, Cl. 201—48.

Service Diamond Tool: *See*—
Small, Louis. 2,844,957.

Seulen, Gerhard, and W. Connert, to Deutsche Edelstahlewerke Akt. Method for the inductive hardening of elongated workpieces. 2,845,377, 7-29-58. Cl. 148—10.5.

Shafer, John H., 50% to C. Whitmoyer. Magnetic work holder. 2,845,273, 7-29-58, Cl. 279—1.

Shafer, William A. Surgical knife. 2,845,072, 7-29-58, Cl. 128—303.14.

Shapiro, Louis, to Radio Corp. of America. Adjustable linear amplifier. 2,845,574, 7-29-58, Cl. 315—27.

Sharp, Douglas M.: *See*—
Heney, John F., White, and Sharp. 2,845,324.

Sheheen, Austin: *See*—
Carawan, Clarence P. 2,845,015.

Sheheen, George: *See*—
Carawan, Clarence P. 2,845,015.

Sheldon, Edward E. Television camera for examination of internal structures. 2,845,485, 7-29-58, Cl. 178—6.8.

Sheldon, Edward E. Tube for storage of images. 2,845,561, 7-29-58, Cl. 313—65.

Shell Development Co.: *See*—
Carlson, George J., and Gaertner. 2,845,447.
Luten, Daniel B., Jr. 2,845,464.
Winkler, De Loss E., and Hearne. 2,845,461.

Shepard, Herbert C.: *See*—
Bendell, Sidney L., and Shepard. 2,845,562.

Shinkle, Hugh J., to United States of America, Air Force. Selector attachment for addressing machines. 2,845,266, 7-29-58, Cl. 271—64.

Shipley, Eugene E., to General Electric Co. Lubrication system for "polygon" type shaft coupling. 2,844,947, 7-29-58, Cl. 64—6.

Short, Brooks H., to General Motors Corp. Turn signal system. 2,845,608, 7-29-58, Cl. 340—81.

Shurtz, William O. Tie ornaments. 2,844,821, 7-29-58, Cl. 2—154.

Sidenius, Jes V.: *See*—
Peck, Henry E., Sidenius, and Derby. 2,845,352.

Sieczkiewicz, Peter A., ½ to S. E. Rizzo. Method of preparing edible fowl. 2,844,844, 7-29-58, Cl. 17—45.

Siegrist, Adolf E., and F. Ackermann, to Ciba Ltd. Oxadiazole compounds. 2,845,419, 7-29-58, Cl. 260—240.

Siemens & Halske Akt.: *See*—
Müller, Konrad. 2,845,493.

Siemens-Schuckertwerke Akt.: *See*—
Biersack, Josef. 2,845,510.

Sietam, Don E.: *See*—
Austin, Harry W., Hornickel, and Sietam. 2,844,820.

Silliman, Sheldon D.: *See*—
Reuther, John F., and Silliman. 2,845,583.

Silliman, Sheldon D., and J. F. Reuther, to Westinghouse Electric Corp. Static time delay circuit. 2,845,549, 7-29-58, Cl. 307—88.5.

Simmons, Charles. Football goal post. 2,845,269, 7-29-58, Cl. 273—55.

Sinclair Oil & Gas Co.: *See*—
Bowman, Donald C. 2,845,615.
Truman, Paul W. 2,845,125.

Sinclair Refining Co.: *See*—
Brown, Lee V. 2,845,455.
Friedman, Bernard S., and Morrits. 2,845,463.

Singleton, John H. Portable structure. 2,845,078, 7-29-58, Cl. 135—5.

Skerritt, Roy P., to Economatic Products Co. Furnace-installed humidifier. 2,845,057, 7-29-58, Cl. 126—113.

Skillin, Walter F., to Union Mfg. Co. Lever actuated chuck. 2,845,275, 7-29-58, Cl. 279—119.

Skillin, Walter F., to Union Mfg. Co. Chuck. 2,845,276, 7-29-58, Cl. 279—121.

Skillin, Walter F., to Union Mfg. Co. Chuck. 2,845,277, 7-29-58, Cl. 279—121.

Small, Louis, to Service Diamond Tool. Motorized hardness tester. 2,844,957, 7-29-58, Cl. 73—83.

Smidth, F. L., & Co.: *See*—
Henrichsen, Knud. 2,845,250.

Smith, A. O., Corp.: *See*—
Schilberg, Arnold G. 2,844,864.

Smith, Bernard, to United States of America, Navy, Multiple box fin. 2,845,026, 7-29-58, Cl. 102—50.

Smith, Charles G., to Raytheon Mfg. Co. Process of producing junctions in semiconductor. 2,845,371, 7-29-58, Cl. 148—1.5.

Smith, Eugene M., to General Electric Co. Electric protective equipment. 2,845,580, 7-29-58, Cl. 317—11.

Smith, Floyd E., and C. L. Lovercheck. Vibratory conveyor. 2,845,168, 7-29-58, Cl. 198—220.

Smith, Floyd E. Vibratory conveyor. 2,845,169, 7-29-58, Cl. 198—220.

Smith, Hugh C., to Kalamazoo Vegetable Parchment Co. Apparatus for testing hot bleed and rub properties of printed heat sealable paper. 2,844,956, 7-29-58, Cl. 73—15.4.

Smith, Lofton H. Cotton cleaning system and apparatus. 2,844,847, 7-29-58, Cl. 19—67.

Smith, Merlin G.: *See*—
Havens, Byron L., and Smith. 2,845,538.

Smith, Richard M.: *See*—
Ackerman, Joseph I., Jr., Edwards, Smith, Brundage, and Dwyer. 2,845,002.

Smith, Wendell V.: *See*—
Garner, Harold K., Jordan, and Smith. 2,845,404.

Smith, William R., and G. R. Monaco, to The A. C. Gilbert Co. Lumber unloading toy freight car. 2,844,911, 7-29-58, Cl. 46—40.

Smullin, Louis D., to Sylvania Electric Products Inc. Microwave tube with resonant discharge gap. 2,845,577, 7-29-58, Cl. 315—41.

Sneyd-Kynnersley. Thomas R. Devices for facilitating the manual transportation or porterage of luggage. 2,845,155, 7-29-58, Cl. 190—57.

Societe Anonyme des Etablissements Neu: *See*—
Sallou, Jean. 2,845,216.

Societé Anonyme dite: Jerome & Bonnefoy & Cie: *See*—
Van de Walle, Edmond and C., and Bonnefoy. 2,844,918.

Societe d'Electronique et d'Automatisme: *See*—
Piel, Gerard J. R. 2,845,219.

Societe Nationale de Constructions Aeronautiques du Sud-Ouest: *See*—
Laufer, Theodor. 2,845,131.

Soderquist, Charles E., Jr., to Instrument & Development Products Co. Microtome. 2,844,998, 7-29-58, Cl. 83—40.

Soule, Edward C., deceased, by E. B. Soule, executrix, to Olin Mathieson Chemical Corp. Composition of matter. 2,845,446 7-29-58. Cl. 260—438.

Soule, Eleanore B.: *See*—
Soule Edward C. and E. B. 2,845,446.

Soundscriber Corp., The: *See*—
Lyon, William H. 2,845,495.

Southern Ice Cream Co.: *See*—
Korchak, Thomas R. 2,844,910.

Spase, Charles B., to Lipe-Rollway Corp. Vibration damper. 2,844,972 7-29-58. Cl. 74—574.

Sperry Rand Corp.: *See*—
Gamble, Joseph H. 2,845,622.
Halpert, Percy, and Curry. 2,845,239.
Iddings, George E. 2,845,623.
Staros, Basil. 2,844,960.
Stiefel, Rudy C. 2,845,019.

Spiekerman, Henry D.: *See*—
Lincoln, Clovis W., Spiekerman, and Zeigler. 2,844,970.

Spilke, Kisiel. Non-sagging brassiere. 2,845,073, 7-29-58, Cl. 128—465.

Spink, Leland K., and C. D. Young, to The Foxboro Co. Balance starter mechanism. 2,845,121, 7-29-58, Cl. 161—15.

Sprague Meter Co., The: *See*—
Reako, Paul V., and Whitworth. 2,844,962.
Stewart, Charles W. 2,844,963.

Sprout, Waldron & Co., Inc.: *See*—
Fisher, Chester D. 2,845,036.

Squibb, George R.: *See*—
Groener, George E., and Squibb. 2,845,525.

Squindo, Wilhelm to M. Jeannet. Casing. 2,845,322, 7-29-58. Cl. 312—233.

Stahl, Alfred R., to General Electric Co. Element feeding arrangement. 2,845 164, 7-29-58, Cl. 198—33.

Stalcup, Robert E.: *See*—
Genna, Joseph F., and Stalcup. 2,845,222.

Staley, A. E., Mfg. Co.: *See*—
Fredrickson, Ralph E. C. 2,845,368.

Stange, Ferdinand F., and C. P. Bullard, to Foster Machine Co. Slub-catching device. 2,844,861, 7-29-58, Cl. 28—64.

Stark, Donald A.: *See*—
Waterman, William, and Stark. 2,845,086.

Stark, George. Convertible bed. 2,844,828, 7-29-58, Cl. 5—45.

Stark, Howard J. Low density cellular explosive foam and products made therefrom. 2,845,025, 7-29-58, Cl. 102—10.

Staros, Basil, to Sperry Rand Corp. Air speed measuring device. 2,844,960, 7-29-58, Cl. 73—181.

Stec, Charles L. Cold cathode vacuum tube means. 2,845,558, 7-29-58, Cl. 313—54.

Stegmaier, Raymond L. Seal locks. 2,845,296, 7-29-58, Cl. 292—323.

Steine, George J. Support means for toggle-actuated wrenches and the like. 2,844,981, 7-29-58, Cl. 81—41.

Stelljes, Charles R., and J. P. Flannery, to The Murray Corp. of America. Washing machines. 2,844,965, 7-29-58, Cl. 74—70.

Stelma, Gerard N., E. J. Krook, and L. R. King, to Dexter Industries, Inc. Sprinkler head. 2,845,304, 7-9-58, Cl. 299—120.

Stephenson Corp.: *See*—
Goodner, Monroe H. 2,845,061.

Stephenson, Howard F., to General Motors Corp. Sprag clutch. 2,845,159, 7-29-58, Cl. 192—45.2.

Sterling Drug Inc.: *See*—
Archer, Sydney. 2,845,427.

Stern, Charles, and R. Gallay. Load responsive fluid brake. 2,845,149. 7-29-58. Cl. 188—195.

Sterner, Melvin F., to Holley Carburetor Co. Support means for a rotatable breaker plate for distributors. 2,845,502, 7-29-58, Cl. 200—81.

Stevens, Charles H., to United States of America, Army. Relinking feeder. 2,845,005, 7-29-58, Cl. 89—33.

Stewart, Charles W., to The Sprague Meter Co. Temperature and pressure compensating device for gas meters. 2,844,963. 7-29-58. Cl. 73—233.

Stewart, John W.: *See*—
Bauscher John A., Jr., Kelly, and Stewart. 2,845,345.

Stiefel, Rudy C., to Sperry Rand Corp. Medium speed printer. 2,845,019, 7-29-58, Cl. 101—96.

Stillwagon, George B., Jr. ¼ to K. G. Fraser. Pinning construction for universal joint. 2,844,949, 7-29-58, Cl. 64—17.

Stoces, Otto R. Tiltable house trailer construction. 2,845,298. 7-29-58. Cl. 296—35.

Strategic-Udy Metallurgical & Chemical Process Ltd.: *See*—
Udy, Marvin J. 2,845,342.

Stratton, Frank E to United Shoe Machinery Corp. Shoe upper shaping machines. 2,844,831, 7–29–58, Cl. 12—12.1.

Streck, Clemens, to General Aniline & Film Corp. Diazotizable amine compositions. 2,845,326, 7–29–58, Cl. 8—46.

Stringer, Loren F., to Westinghouse Electric Corp. Motor control systems. 2,845,586, 7–29–58, Cl. 318—6.

Stunkel, Werner W. Micrometer bore gauge. 2,844,881, 7–29–58, Cl. 033—178.

Sturgill, William C. Emergency brake for trailers. 2,845,148, 7–29–58, Cl. 188—152.

Süddeutsche Kalkstickstoff-werke A. G.: *See*—
Kaess, Franz, and Rothhauf. 2,845,424.

Suhr, Fred W.: *See*—
Oldenkamp, John L., and Suhr. 2,845,553.

Sulzer Frères, Societe Anonyme: *See*—
Pfarrwaller, Erwin. 2,845,095.

Sundstrand Machine Tool Co.: *See*—
Carver, George P. 2,845,306.

Super Sagless Spring Co.: *See*—
Bank, Albert M., and Katz. 2,844,827.

Superior Air Products Co.: *See*—
Putman, Laurel E., and Turner. 2,845,190.

Superior Scaffold Co.: *See*—
Holmes, Tracy S. 2,845,307.

Sury, Francis P. Pipe marking device. 2,844,874, 7–29–58, Cl. 33—21.

Sverdrup, Edward F., to U. S Rubber Reclaiming Co, Inc. Reclaiming vulcanized rubber in the presence of unvulcanized high styrene polymeric material and product. 2,845,395, 7–29–58, Cl. 260—2.3.

Swenson, Oscar J. Ratchet-type manually actuated, rotary impact tool. 2,844,982, 7–29–58, Cl. 81—52.3.

Switzer Brothers, Inc.: *See*—
Switzer, Joseph L. and R. C. 2,845,023.

Switzer Joseph L. and R. C., to Switzer Brothers, Inc. Mechanical printing of daylight fluorescent compositions. 2,845,023, 7–29–58, Cl. 101—426.

Switzer, Robert C.: *See*—
Switzer, Joseph L and R. C. 2,845,023.

Sylvania Electric Products Inc.: *See*—
Adams, John E. 2,845,578.
Cline, James E. and Jasionis. 2,844,868.
Smullin, Louis D. 2,845,577.

Sylvester, Frederick H.: *See*—
Senseney, George T., and Sylvester. 2,845,514.

Sypher, Earle K. Tack strip nailer. 2,845,103, 7–29–58, Cl. 145—46.

Systematic Parking Co.: *See*—
Sanders, Leon D. 2,845,189.

Talbott, Eldred A. Multiple tile unit. 2,844,955, 7–29–58, Cl. 72—22.

Talon, Inc.: *See*—
Godfrey, Milton L. 2,844,866.

Tamarin, Bernard J. Package with tear tab opening means. 2,845,213, 7–29–58 Cl. 229—51.

Tampax, Inc.: *See*—
Lewing, Albert W. 2,845,070.

Tancred, William L., to J. H. Reid, and S. W. Fellon, trustees. Computing machines. 2,845,218, 7–29–58, Cl. 235—60.

Target Rock Corp.: *See*—
Crausman, Morris A., and Pattarini. 2,845,088.

Taylor, George W., J. E. Worthington, and M. J. Sargeaunt, to Polygram Casting Co., Ltd. Apparatus for producing shell molds. 2,844,853, 7–29–58, Cl. 22—31.

Taylor, R. G., Co., Inc., The: *See*—
Taylor, Richard G. 2,845,448.

Taylor, Richard G., to The R. G. Taylor Co., Inc. Aromatic sulfonic acid esters of mandelic acid for inhibition of enzymes. 2,845,448, 7–29–58, Cl. 260—456.

Taylor, William G., and G. H. Howe, Jr., to General Electric Co. Exhaust casting assembly for gas turbine powerplant. 2,845,240, 7–29–58, Cl. 253—39.

Technicon International Ltd.: *See*—
Cohen, Harry. 2,845 044.
Weiskopf, Edwin C. 2,845,045.

Tedds, Dennis F. B.: *See*—
Gadd, Ernest R., and Tedds. 2,844,855.

Teicheira, René J. A. Electric soldering irons. 2,845,518, 7–29–58, Cl. 219—26.

Telecomputing Corp.: *See*—
Dixon, Fredric J. 2 845,246.

Telefunken G. m. b. H.: *See*—
Bertram, Klaus. 2,845,491.

Terry, David E.: *See*—
Lent, Thomas H., Opie, and Terry. 2,845,392.

Ter Steege, Hendrik. Ventilating device especially for a motor driven vehicle. 2,845,016, 7–29–58, Cl. 98—2.

Texas Instruments Inc.: *See*—
Jones, Morton E. 2.845,374.
Jones, Morton E., and Adcock. 2,845,372.

Textile Machine Works: *See*—
Anke, Rudolph. 2,844,951.
Trumpio, Frank P. 2,844,950.

Theis, Francis W.: *See*—
Neubauer, Joseph A., and Theis. 2,845,329.

Then, Edward O., to American Can Co. Coupling device for containers. 2,845,175, 7–29–58, Cl. 206—65.

Thiel, Otto, to Midwest Supply and Mfg. Co. Apparatus for finishing a surface of a work piece. 2,844,922, 7–29–58, Cl. 51—234.

Thoma Co.: *See*—
Berberich, Helmut, and Krähschütz. 2,845,139.

Thomas, Stephen E., to The Magnavox Co. Bomb arming system. 2,845,008, 7–29–58, Cl. 89—1.5.

Thomas, William W., to W. Waterman. Modulating regulators. 2,845,087, 7–29–58, Cl. 137—504.

Thompson, Claude S. Composition for detecting moisture leakage. 2,845,394, 7–29–58, Cl. 252—408.

Thompson, Harris: *See*—
Rysnar, John W., and Thompson. 2,845,338.

Thompson Products, Inc.: *See*—
Sampietro, Achilles C. 2,845,587.
Sampietro, Achilles C. 2,845,588.

Thomson, Procter, to The Procter & Gamble Co. Apparatus and method for steam deodorizing of fats and oils. 2,845,444, 7–29–58, Cl. 260—428.

Tiegel, Ernest G. Storage battery plates and a method of making the same. 2,845,469, 7–29–58, Cl. 136—19.

Time, Inc.: *See*—
Faeber, Harry W. 2,845,264.

Tindall, Walter J., to Organon Inc. Preparations for the treatment of the human skin containing androstane derivatives. 2,845,381, 7–29–58, Cl. 167—90.

Tokheim Corp.: *See*—
Robbins, Elmer A. 2,845,085.
Wright, George W. 2,845,033.

Toland, William G., to California Research Corp. Thioamide production. 2,845,449, 7–29–58, Cl. 260—465.

Tollinger, James: *See*—
Gaylord, Sol H., Jr., and Tollinger. 2,844,902.

Tonning, Bernard J.: *See*—
Hayden, Ray A., and Tonning. 2,845,184.

Trathowen, Charles A.: *See*—
Allison, Carl F., Dreher, and Trathowen. 2,845,322.

Trautzl, Peter: *See*—
Hindermann, Peter, Kölliker, and Trautzl. 2,845,443.

Traverso, John J.: *See*—
Whitehead, Calvert W., and Traverso. 2,845,425.

Treyz, George E.: *See*—
Perchinsky, Andrew. 2,844,909.

Trickle, Russell W., Jr., to Dittmore-Freimuth Corp. Method and means for soldering conductors. 2,845,521, 7–29–58, Cl. 219—85.

Trikotfabriken J. Schiesser A. G.: *See*—
Dietzsch, Hans-Joachim and O. 2,845,093.

Troeger, Henry: *See*—
Le Febvre, Arthur H., and Troeger. 2,845,030.
Palfreyman, Raymond D., and Troeger. 2,845,054.

Truman, Paul W., to Sinclair Oil & Gas Co. Control of oil well production. 2,845,125, 7–29–58, Cl. 166—52.

Trumpio, Frank P., to Textile Machine Works. Yarn tensioning means for knitting machines. 2,844,950, 7–29–58, Cl. 66—86.

Tubinis, Matthew P.: *See*—
Curtis, Cyril D., Carlson, and Tubinis. 2,845,560.

Turke, George, Sr., ½ to R. Turke. Coffee maker. 2,845,018, 7–29–58, Cl. 99—292.

Turke, Rose: *See*—
Turke, George, Sr. 2,845,018.

Turner, Robert E.: *See*—
Putman, Laurel E., and Turner. 2,845,190.

Turvey, Frank P., Jr., to International Telephone and Telegraph Corp. Pulse-count coder. 2,845,617, 7–29–58, Cl. 340—347.

Udy, Marvin J., to Strategic-Udy Metallurgical & Chemical Process Ltd. Method of recovering ferrochromium. 2,845,342, 7–29–58, Cl. 75—11.

Union Carbide Corp.: *See*—
Krebs, Karl F., and Urich. 2,845,396.

Union Mfg. Co.: *See*—
Skillin, Walter F. 2,845,275.
Skillin, Walter F. 2,845,276.
Skillin, Walter F 2,845,277.

United Shoe Machinery Corp.: *See*—
MacKenzie, Fred T., and Quinn. 2,844,832.
Newstead, Charles. 2,845,197.
Stratton, Frank E. 2,844,831.

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Agriculture: *See*—
McColloch, Robert J., and Gentili. 2,845,355.
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Johnson, Quinton C. 2,845,004.
Lee, Charles M. 2,845,145.
Shinkle, Hugh J. 2,845,268.
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Atwood, Irving H., Jr. 2,845,008.
Bennett, John A., and Burnett. 2,844,958.
Colby, Richard H. 2,844,903.
Hedrich, Albert L., and Pardue. 2,844,961.
Hillberg, Robert L. 2,845,001.
Jaffe, David L. 2,845,601.
Kazan, Benjamin. 2,845,571.
Kallman, Hartmut. 2,845,348.
Musser, Walton, Benditt, and Insetta. 2,844,905.
O'Brien, John F. 2,845,006.
O'Brien, John F. 2 845,007.
Persico, Ralph W., and Carlucci. 2,844,822.
Stevens, Charles H. 2,845,005.
Atomic Energy Commission: *See*—
Curtis, Cyril D., Carlson, and Tubinis. 2,845,560.
Dyer, Allan L. 2,845,596.
Seaborg, Glenn T., Friedlander, and Gofman. 2,845,544.
Wade, Elmer J. 2,845,530.
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Navy: *See*—
Ackerman, Joseph I., Jr., Edwards, Smith, Brundage, and Dwyer. 2,845,002.
Althouse, Charles F. 2,845,847.
Genna, Joseph F., and Stalcup. 2,845,222.
Greene, Robert E., Jr. 2,845,024.
Johnson, Lowell E., and Hiatt. 2,845,489.
Longwell, John P. 2,844,938.
Mikina, Stanley J. 2,844,937.
Okress, Ernest C. 2,845,576.
Smith, Bernard. 2,845,026.
Vine, Allyn C., Holmes, and Rutledge. 2,845,221.
United States Rubber Co.: *See*—
Garner, Harold K., Jordan, and Smith. 2,845,404.
Gunberg, Paul F. 2,845,403.
Mills, George S. 2,845,397.
U. S. Rubber Reclaiming Co. Inc.: *See*—
Sverdrup, Edward F. 2,845,395.
United States Steel Corp.: *See*—
Bauscher, John A., Jr., Kelly, and Stewart. 2,845,345.
Bliss, George L. 2,845,229.
United Tool and Die Co., The: *See*—
Kasevich, Alexander J. 2,844,976.
Universal-Cyclops Steel Corp.: *See*—
Peckham, Victor A., Jr. 2,845,293.
Upjohn Co., The: *See*—
Kagan, Fred. 2,845,456.
Uraneck, Carl A., and W. L. Gibson, to Phillips Petroleum Co. Emulsion polymerization in systems containing oxidised alkylbenzene sulfonates. 2,845,405, 7–29–58, Cl. 260—84.3.
Urich, Paul F.: *See*—
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V-M Corp.: *See*—
Rhoades, Robert B. 2,845,230.
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Randall, Ralph S. 2,844,925.
Van Ackeren, Joseph, to Koppers Co., Inc. Coke oven battery. 2,845,385, 7–29–58, Cl. 202—141.
Vance, Byron, Jr., ⅛ to W. H. Meetze. Sign display rack. 2,844,897, 7–29–58, Cl. 40—125.
Vanderbilt, R. T., Co., Inc.: *See*—
Brooks, Lester A. 2,845,453.
Van de Walle, Charles: *See*—
Van de Walle, Edmond and C., and Bonnefoy. 2,844,918.
Van de Walle, Edmond and C., and E. Bonnefoy, to Société Anonyme dite: Jerome & Bonnefoy & Cie. Chute for conveying molten glass parisons. 2,844,918, 7–29–58, Cl. 49—14.
Van Hook, Charles F. Measuring machine. 2,844,876, 7–29–58, Cl. 33—134.
Van Loenen, William F.: *See*—
Rathe, Sidney A., and Van Loenen. 2,845,181.
Van Matre, Fred G., to Gas-Go Corp. Auxiliary carburetor for internal combustion engines. 2,845,256, 7–29–58, Cl. 261—72.
Van Ness, Hubert W., to Westinghouse Electric Corp. Electric discharge apparatus. 2,845,531, 7–29–58, Cl. 250—27.
Varvel, Charles W., to Phillips Petroleum Co. Corrosion-inhibiting composition containing cetyl dimethyl amine petroleum sulfonates, and method. 2,845,393, 7–29–58, Cl. 252—391.
Vause, Arthur S., to General Electric Co. Electric incandescent lamp. 2,845,509, 7–29–58, Cl. 313—274.
Vautrey, Louis: *See*—
Schwab, Bernard, and Vautrey. 2,845,554.
Veb Leuna Werke-"Walter Ulbricht": *See*—
Schäffler, Alfred, Bach, and Meier. 2,845,331.
Vector Mfg. Co.: *See*—
Gorman, D Y., and McLeod. 2,845,605.
Verhoeff, Andrianus: *See*—
Franken, Adrianus J. J., and Verhoeff. 2,845,540.
Vicensi, Reno L., and F. F. Heiser, to Controls Co. of America. Encapsulated relay. 2,845,585, 7–29–58, Cl. 317—165.
Vincent, Harvard B., to Owens-Illinois Glass Co. Glass building block having light-directing properties. 2,844,998, 7–29–58, Cl. 88—60.
Vine, Allyn C., J. F. Holmes, and W. C. Rutledge, to United States of America, Navy. Buoyancy recorder. 2,845,221, 7–29–58, Cl. 235—61.
Virginia-Carolina Chemical Corp.: *See*—
Jenkins, Herschel S., Mages, Morgan, and Saffian. 2,845,362.
Visa-Matic Corp.: *See*—
Guida, Nicholas. 2,844,899.
Vodden, Herbert A.: *See*—
Hulse, Graham, and Vodden. 2,845,042.
Vogt, Clarence W. Wrappers. 2,845,215, 7–29–58, Cl. 229—87.
Vollmer, Friederich: *See*—
Gunkler, Paul, Vollmer, and Kugel. 2,845,556.
Vomacka, Donald R. Valve system for water softeners. 2,845,092, 7–29–58, Cl. 137—633.
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Vuylsteke, Arthur A., to General Motors Corp. Carburetor. 2,845,257, 7–29–58, Cl. 261—76.
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Wade, Elmer C. Vaginal tampon. 2,845,071, 7–29–58, Cl. 128—285.
Wade, Elmer J., to United States of America, Atomic Energy Commission. Pulse sorter. 2,845,530, 7–29–58, Cl. 250—27.
Wadsworth, Sanford I. Snow melting machine. 2,845,058, 7–29–58, Cl. 126—343.5.
Waggoner, Jack H., to Owens-Corning Fiberglas Corp. Process for burning size from glass fabric and coating the resulting fabric. 2,845,364, 7–29–58, Cl. 117—46.
Waldorf Paper Products Co.: *See*—
Nelson, Iver L. 2,844,930.
Wallace, James A.: *See*—
Saunders, Orson V., and Wallace. 2,845,320.
Walsh, Pearl L., to Freeman Mfg. Co. Orthopedic animal brace. 2,845,064, 7–29–58, Cl. 128—78.
Warner, Jesse J. Box folding and loading machine. 2,844,927, 7–29–58, Cl. 53—186.
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Watanabe, Warren H., and S. Melamed, to Rohm & Haas Co. Aminoalkyl vinyl ethers and derivatives thereof. 2,845,407, 7–29–58, Cl. 260—86.1.
Waterman, William: *See*—
Thomas, William W. 2,845,087.
Waterman, William, and D. A. Stark; said Stark assor. to said Waterman. Flow regulators. 2,845,086, 7–29–58, Cl. 137—504.
Wawzonek, Joseph, to Hemphill Co. Fabric tensioning method and mechanism. 2,844,052, 7–29–58, Cl. 66—147.
Weathers, William G.: *See*—
Oliver, Gerald A., and Weathers. 2,844,890.
Weinstein, Bernard, to Bancroft Cap Co. Uniform cap with separable crown. 2,844,824, 7–29–58, Cl. 2—195.
Weisgerber, George A.: *See*—
Black, James F., Guthrie, Weisgerber, and Heigl. 2,845,356.
Weiskopf, Edwin C., to Technicon International, Ltd. Apparatus for processing histologic tissue and other materials. 2,845,045, 7–29–58, Cl. 118—612.
Weldon, James O. Protective circuits. 2,845,529, 7–29–58, Cl. 250—27.
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Gageby, Robert A. 2,845,138.
Wendels, Hugo H., to General Motors Corp. Rear view mirror. 2,844,999, 7–29–58, Cl. 88—93.
Werns, Donald E., and M. M. Schwartz, to The Martin Co. Dip brazing. 2,844,867, 7–29–58, Cl. 29—487.
West, John C., to Protex Weatherstrip Mfg. Co. Window structures. 2,845,153, 7–29–58, Cl. 189—62.
West, John W., and A. D. White, to Bell Telephone Laboratories, Inc. Gaseous discharge device. 2,845,568, 7–29–58, Cl. 313—216.
West, Paul D. Truss. 2,844,852. 7–29–58, Cl. 20—92.
Westinghouse Brake and Signal Co., Ltd.: *See*—
Lockett, Leslie J. 2,845,508.
Westinghouse Electric Corp.: *See*—
Cameron, James M., and Baeslack. 2,845,526.
Carpenter, David E., and Palmer. 2,845,555.
Collins, Howard W. 2,845,590.
Euler, Frederick J., Jr. 2,845,545.
Hobbs, William M. 2,845,537.
Inglehart, Ferdinand C. 2,845,504.
Kelley, Ralph R., and Colby. 2,845,477.
Kornetz, Norman S. 2,845,488.
Lempert, Joseph. 2,845,559.
Lowry, Lewis R., Jr. 2,845,593.
Morley, Fred J., Jr., Manno, and Dixon. 2,845,524.
Narbutovskih, Paul. 2,845,472.
Potter, Marion G. 2,845,551.
Reuther, John F., and Silliman. 2,845,583.
Robinson, Donald L. 2,845,552.
Silliman, Sheldon D., and Reuther. 2,845,548.
Stringer, Loren F. 2,845,586.
Van Ness, Hubert W. 2,845,531.
Weston, Joseph P.: *See*—
Kaye, Robert K., and Weston. 2,845,492.
Wettstein, Walter, to Ciba Ltd. Process for the manufacture of pyridine carboxylic acids. 2,845,428, 7–29–58, Cl. 260—295.
White, Alan D.: *See*—
Heney, John F., White, and Sharp. 2,845,324.
West, John W., and White. 2,845,568.
White, Raymond E.: *See*—
Pinckert, Carl W., and White. 2,845,021.
Whitehead, Calvert W., and J. J. Traverso, to Ely Lilly and Co. Substituted aminopyrimidines. 2,845,425, 7–29–58, Cl. 260—256.4.
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Shafer, John H. 2,845,273.
Whitworth, Fairchild: *See*—
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Wickens, Edward F., and E. H. Kurt, to Ingersoll-Rand Co. Air line lubricator. 2,845,143, 7–29–58, Cl. 184—55.
Wicks, Donald L., to Foley Mfg. Co. Display device. 2,845,176, 7–29–58, Cl. 206—80.
Wilcox, Albert F., to General Electric Co. Electromagnetic wire tension device. 2,845,235, 7–29–58, Cl. 242—155.
Wilcox, Donald F., to Foremost Dairies, Inc. Process for preparing sterilized concentrated milk and product produced thereby. 2,845,350, 7–29–58, Cl. 99—55.
Willat, Arnold F. Electrical floor heating pad. 2,845,519, 7–29–58 Cl. 219—46.
Williams, Frederic C., to National Research Development Corp. Digital storage systems. 2,845,611, 7–29–58, Cl. 340—174.
Willis, William D., to Hercules Powder Co. Vulcanization of rubbers. 2,845,411, 7–29–58, Cl. 260—94.7.
Williston, Robert L., to Allied Chemical Corp. Distillation of cyclohexanone from mixtures containing cyclohexanone, cyclohexanol, and water. 2,845,384, 7–29–58, Cl. 202—42.
Winderweedle, Howell W., Jr. Shoe hanger. 2,845,185, 7–29–58, Cl. 211—114.

Winkler, De Loss E., and G. W. Hearne, to Shell Development Co. Non-catalytic liquid phase isobutane oxidation. 2,845,461, 7–29–58, Cl. 260—610.
Winona Tool Mfg. Co. : *See*—
Fuglie, Elmer A. 2,845,248.
Winthrop, Stanley O. : *See*—
Grant, Gordon A., and Winthrop. 2,845,434.
Woelk, William L., 50% to E. E. Laird. Plant protector. 2,844,915, 7–29–58, Cl. 47—2R.
Wolcott, Henry O., to International Telephone and Telegraph Corp. Frequency marker pulse circuits. 2,845,553, 7–29–58, Cl. 250—27.
Woltemar, George W., to The B. F. Goodrich Co. Segmented track. 2,845,308, 7–29–58, Cl. 305—10.
Wood & Brooks Co. : *See*—
Dasenbrook, Charles H. and N. K. 2,844,984.
Woodell, Albert F., to Rotex Mfg. Co. Dado cutters. 2,845,102, 7–29–58, Cl. 144—235.
Woodruff, Howard C., to General Electric Co. Water-soluble polyesters curable to insoluble polymers. 2,845,402, 7–29–58, Cl. 260—75.
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Classification of Designs

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

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TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 78,333 (MACY'S), R. H. Macy & Co., Inc., Men's, youths' and boys' coats, vests, trousers and overcoats, etc.; **Reg. No. 212,226,** same, Whiskey and other potable distilled spirits; **Reg. No. 355,360,** same, Cigars; **Reg. No. 355,446,** same, Waxed paper, envelopes, bond paper, paper napkins, stamp hinges, crepe paper, etc.; **Reg. No. 355,755,** same, Jigsaw puzzles, tennis balls, fishing rods, anagrams, table tennis balls and golf balls; **Reg. No. 355,747,** same, Beds, secretaries, chests, tables, shelves, chairs, etc.; **Reg. No. 356,094,** same, Aerial kits, radio tubes, electric percolators, electric waffle irons and electric toasters; **Reg. No. 356,111,** same, Elastic tape, binding, bias binding, etc.; **Reg. No. 356,236,** same, Enamel and porcelain cleaner, soaps, shoe polish and cleaner, etc.; **Reg. No. 356,282,** same, Silk piece goods, gauze pads not for surgical use, diaper cloth in the piece, blanket covers, dish towels, etc.; **Reg. No. 356,770,** same, Acetone, agar, rubbing alcohol, alkaline tablets, almond meal, etc.; **Reg. No. 359,389,** same, Typewriters, knives, spatulae, can openers, carpet sweepers, etc.; **Reg. No. 360,881,** same, Almond extract for food flavoring purposes, baking powder, barley, bacon, berry sauces, etc.; **filed** July 11, 1957, D. C., Dist. of Col., Doc. 1705/57, *R. H. Macy & Co., Inc.* v. *Macy's Television, Inc.* Motion for summary judgment granted; defendants enjoined from using in any way the trademark or service mark "Macy" and/or "Macy's" June 12, 1958.

Reg. No. 110,105 (AMITY), Amity Leather Products Co., Leather goods—namely, pocketbooks etc.; **Reg. No. 199,862,** same, **filed** June 17, 1958, D. C., S. D. N. Y., Doc. 134/342, *Amity Leather Products Co.* v. *Amity Handbags, Inc.*

Reg. No. 199,862. (See Reg. No. 110,105.)

Reg. No. 372,656 (ADMIRAL), Columbia Radio Corp., Radio receiving sets, vacuum or electron tubes and radio speakers; **Reg. No. 405,182,** same, Continental Radio & Television Corp., Refrigerators; **Reg. No. 406,695,** same, Admiral Corp., Laundry washing machines; **Reg. No. 407,816,** same, Radio receiving cabinets, combination radio and phonograph cabinets, etc.; **Reg. No. 409,912,** same, Radio receiving sets, loud speakers, amplifiers, etc.; **Reg. No. 412,089,** same, Electric stoves; **Reg. No. 419,290,** same, Publications appearing monthly; **Reg. No. 431,296 (DUTCH ADMIRAL AND DESIGN),** Henry A. S. Van Daalen, Life saving equipment, more particularly signal lights, etc.; **Reg. No. 439,939 (ADMIRAL),** R. W. Beckett Corp., Domestic and industrial oil burners for heating and parts thereof; **Reg. No. 440,428,** same, Admiral Corp., Phonograph needles; **Reg. No. 549,966,** same, Radio receiving sets and parts thereof, etc.; **Reg. No. 599,778,** same, Dehumidifiers and humidifiers, and room air conditioners, **filed** Dec. 21, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2185, *Admiral Corp.* v. *Admiral Employment Bureau, Inc. et al.* Order of dismissal by stipulation; defendant Admiral Employment Bureau, Inc. to use its full name in course of business Sept. 11, 1957 (notice received June 13, 1958).

Reg. No. 818,338. (See Reg. No. 78,333.)

CONDITION OF TRADEMARK APPLICATIONS AS OF MAY 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	11,801
Date of oldest new application	Oct. 29, 1957
Date of oldest amended application	Oct. 7, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	11-7-57	10-7-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	10-29-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52, and Certification Marks	11-6-57	12-16-57
Renewals (All Classes)	5-2-58	5-20-58
Sec. 12 (c) Publications (All Classes)	5-10-58	5-26-58

Applications Filed During the Month of May 1958—1,942

Registrations Issued	329—No. 664,881 to No. 665,209
Renewals Issued	75

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

Reg. No. 266,220. (See Reg. No. 78,333.)

Reg. No. 266,466. (See Reg. No. 78,333.)

Reg. No. 266,755. (See Reg. No. 78,333.)

Reg. No. 266,900 (PHENAPHEN), A. H. Robins Co., Inc., Medicinal preparation used as an analgesic and antispasmodic, filed Feb. 3, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15206, *A. H. Robins Co., Inc.* v. *Robin Pharmacal Corp., et al.* Consent judgment June 18, 1958.

Reg. No. 266,947. (See Reg. No. 78,333.)

Reg. No. 266,994. (See Reg. No. 78,333.)

Reg. No. 266,111. (See Reg. No. 78,333.)

Reg. No. 266,528. (See Reg. No. 78,333.)

Reg. No. 266,552. (See Reg. No. 78,333.)

Reg. No. 266,776. (See Reg. No. 78,333.)

Reg. No. 269,290. (See Reg. No. 78,333.)

Reg. No. 269,691. (See Reg. No. 78,333.)

Reg. No. 271,296 (HELEN HARPER), Blume Knitwear, Inc., Knitwear, consisting of women's and children's knitted sweaters, blouses, etc., filed June 17, 1958, D. C., S. D. N. Y., Doc. 134/343, *Blume Knitwear, Inc.* v. *N. J. Korvette, Inc.*

Reg. No. 406,182. (See Reg. No. 273,655.)

Reg. No. 406,286. (See Reg. No. 273,655.)

Reg. No. 407,316. (See Reg. No. 273,655.)

Reg. No. 409,512. (See Reg. No. 273,655.)

Reg. No. 412,029. (See Reg. No. 273,655.)

Reg. No. 415,396. (See Reg. No. 273,655.)

Reg. No. 421,296. (See Reg. No. 273,655.)

Reg. No. 426,996. (See Reg. No. 273,655.)

Reg. No. 444,436. (See Reg. No. 273,655.)

Reg. No. 449,906. (See Reg. No. 273,655.)

Reg. No. 469,776. (See Reg. No. 273,655.)

Reg. No. 467,576 (WOOL TONE), Boss Co., Textile rugs made in substantial part of wool, filed Apr. 11, 1958, D. C., S. D. N. Y., Doc. 132/120, *Homemaker Rugs, Inc. et al.* v. *The Boss Co.* Stipulation and order of discontinuance without prejudice May 16, 1958.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 31,099. Fiberfil Corp., Evansville, Ind. Filed May 31, 1957.

FIBERFIL

For Reinforced Synthetic Injection-Molding Compounds in Pellet or Granular Form.
First use on or about June 1, 1951.

SN 36,473. Plax Corporation, Bloomfield, Conn. Filed Aug. 29, 1957.

PLAXACRIN

For Plastic Sheet.
First use Aug. 13, 1957.

SN 36,691. Central States Seed Service, Inc., Lima, Ohio. Filed Sept. 5, 1957. Sec. 2(f).

SUPERIOR

For Lawn Seeds and Agricultural Seeds.
First use in August 1947.

SN 38,917. Great Lakes Carbon Corporation, New York, N. Y. Filed Oct. 15, 1957.

NERESIN

For Powdered Carbon as a Filler for Plastic Compositions.
First use Sept. 18, 1957.

SN 39,829. Omni Products Corporation, New York, N. Y. Filed Oct. 30, 1957.

OMNYLON

For Nylon Molding Material in Powder Form for Injection Molding and Extrusion Purposes.
First use Sept. 20, 1957.

SN 40,218. The Farm Bureau Cooperative Association, Inc., Columbus, Ohio. Filed Nov. 7, 1957.

MULTI-HARDY

For Alfalfa Seed.
First use Nov. 1, 1957.

Class 2—Receptacles

SN 10,130. Central Rubber Products Co., Inc., New York, N. Y. Filed June 13, 1956. Sec. 2(f).

PLANTRAY

For Unbreakable Flower Pot Saucer.
First use Dec. 10, 1938.

SN 23,488. Lily-Tulip Cup Corporation, New York, N. Y. Filed Jan. 30, 1957.



The mark consists of a design of leaves which is of indefinite length, used as a straight line, as a band around cups and other receptacles, as an arc, and in the form of a wreath in one plane.—Owner of Reg. No. 605,648.

For Cups, Containers in the Nature of Cans, Tubs, Closure Lids and Covers for Use With Said Receptacles, Plates, and Dishes, All Made of Paper, Paperboard, Fibre, and the Like Materials, Holders Made of Metals, Plastics, and Combinations Thereof in the Nature of Bases for Holding Individual Cups and Dishes, Dispensers Made of Metals, Plastics, and Combinations Thereof for Holding a Plurality of Cups, Dishes or Like Articles, and Water Carriers in the Nature of Portable Dispensing Canteens of Metal.
First use Mar. 29, 1946.

SN 32,757. The Hoover Company, North Canton, Ohio. Filed June 27, 1957. Sec. 2(f).



Owner of Reg. Nos. 130,756, 165,890, 644,894, and others.
For Dirt Collecting and Filtering Bags.
First use Apr. 30, 1952.

SN 35,784. Floyd D. Juday, Whittier, Calif. Filed Aug. 19, 1957.



For Trash Disposal Bag and Holder for Use in Automobiles.
First use June 17, 1957.

SN 38,089. St. Clair Plastics, Inc., Watervliet, N. Y. Filed Sept. 30, 1957.

QUADRA-POT

For Flower Pots.
First use Mar. 1, 1957.

SN 38,901. Continental Can Company, Inc., New York, N. Y. Filed Oct. 15, 1957.

FLEX-ON

For Plastic Bags.
First use Sept. 9, 1957.

SN 42,123. Flambeau Plastics Corp., Baraboo, Wis. Filed Dec. 10, 1957.

TUFF-FLEX

For Mixing Bowls, Butter Dishes, Household Food Containers for Use With Electric Refrigerators, Spatulas, Batters and Like Mixing Spoons and Beaters, All Made From Thermoplastic or Like Material.
First use Dec. 13, 1956.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 43,803. Anson Incorporated, Providence, R. I. Filed Jan. 13, 1958. Sec. 2(f).

ANSON

Owner of Reg. No. 565,778.
For Men's Wallets.
First use Feb. 17, 1950.

Class 4 — Abrasives and Polishing Materials

SN 602,120. The Bullseye Corporation, Woodbridge, Conn. Filed Aug. 12, 1950. Sec. 2(f). CONCURRENT USE to be restricted to all the States and Territories of the United States of America except the States of California, Washington, and Arizona.

Plasticote

For Cleaning and Polishing Composition for Automobiles and Furniture.
First use on or about Aug. 1, 1945.

SN 8,934. H. T. Diffendafer, d. b. a. South Pittsburgh Building Maintenance Company, Pittsburgh, Pa. Filed May 24, 1956.

WHITEHALL

For Preparations Having Combined Cleaning and Polishing Properties.
First use Feb. 27, 1956.

Class 6 — Chemicals and Chemical Compositions

SN 22,597. American Sand-Banum Company, Inc., Freeport, N. Y. Filed Jan. 15, 1957.

RUSTEND

For Rust Inhibitor.
First use on or about Aug. 6, 1956.

SN 32,720. Aids, Inc., Palm Beach, Fla. Filed June 27, 1957.

BLOX

For Insect Repellent Lotion.
First use Oct. 10, 1956.

SN 33,063. Enoz Corporation, Chicago, Ill. Filed July 2, 1957.

ENOZ MOTH-ICE

The drawing is lined for red with an orange cast, and silver. Owner of Reg. Nos. 123,483, 505,438, and others.
For Chemical Preparations for Protection Against Moths.
First use Oct. 2, 1956.

SN 39,121. Ames Company, Inc., Elkhart, Ind. Filed Oct. 18, 1957.

URISTIX

Owner of Reg. Nos. 627,201 and 627,202.
For Reagent Strips, not for Internal Use, for Analysis of Body Fluids.
First use Oct. 11, 1957.

SN 39,122. Ames Company, Inc., Elkhart, Ind. Filed Oct. 18, 1957.

DIPTEST

Owner of Reg. Nos. 412,012, 580,269, and others.
For Reagent Strips, not for Internal Use, for Analysis of Body Fluids.
First use Oct. 11, 1957.

SN 39,123. Ames Company, Inc., Elkhart, Ind. Filed Oct. 18, 1957.

COMBISTIX

Owner of Reg. Nos. 627,201 and 627,202.
For Reagent Strips, not for Internal Use, for Analysis of Body Fluids.
First use Oct. 11, 1957.

SN 39,124. Ames Company, Inc., Elkhart, Ind. Filed Oct. 18, 1957.

DIPSTIX

Owner of Reg. Nos. 627,201 and 627,202.
For Reagent Strips, not for Internal Use, for Analysis of Body Fluids.
First use Oct. 11, 1957.

SN 39,125. Ames Company, Inc., Elkhart, Ind. Filed Oct. 18, 1957.

BUCOSTIX

Owner of Reg. Nos. 627,201 and 627,202.
For Reagent Strips, not for Internal Use, for Analysis of Body Fluids.
First use Oct. 11, 1957.

SN 28,126. Amsco Company, Inc., Elkhart, Ind. Filed Oct. 18, 1957.

MELISTIX

Owner of Reg. Nos. 627,201 and 627,202.
For Reagent Strips, not for Internal Use, for Analysis of Body Fluids.
First use Oct. 11, 1957.

SN 29,348. Union Carbide Corporation, New York, N. Y. Filed Oct. 22, 1957.

REFREX

For Chemical Compositions for Use as Fuel in Heating Refrigerator Cars.
First use Oct. 8, 1957.

SN 40,486. Claudius Nielsen, d. b. a. Nielco Laboratories, Detroit, Mich. Filed Nov. 12, 1957.

NIEL-TEX

Owner of Reg. Nos. 614,224.
For Metal Salts of Phosphoric Acid, Used for Additives in Organic Compounds.
First use Feb. 8, 1955.

SN 41,173. Lehman Bros., Cleveland, Ohio. Filed Nov. 22, 1957.

MI-D-STROY

For Insect Spray.
First use Dec. 3, 1953.

SN 41,675. A. E. Staley Manufacturing Company, Decatur, Ill. Filed Dec. 2, 1957.

SANGAMO

For Inedible Starch, Used Principally by the Textile Industry.
First use Nov. 15, 1957.

SN 41,694. Chemo Puro Manufacturing Corporation, Newark, N. J. Filed Dec. 3, 1957.



For Organic Chemicals for Further Use in the Manufacturing or Processing of Medicines, Animal Feedstuffs, or Dyestuff Intermediates.
First use September 1955.

SN 42,737. Stein, Hall & Company, Inc., New York, N. Y. Filed Dec. 19, 1957.

SUPERLOSE

For Amylose Fraction of Starch, Having a General Use in Industrial Arts.
First use Sept. 6, 1957.

SN 43,791. Union Carbide Corporation, New York, N. Y. Filed Jan. 10, 1958.

UNOX

Owner of Reg. No. 516,402.
For Fluorinated Hydrocarbons for Use as Refrigerants and Propellants and for Other Uses in the Industrial Arts.
First use Dec. 4, 1957.

Class 7 — Cordage

SN 34,811. The Colorado Fuel and Iron Corporation, Denver, Colo. Filed July 29, 1957.

ECON-O-GRIP

For Eye Attachments for Wire Rope Slings.
First use June 28, 1957.

SN 38,011. American Cutting and Binding Company, Chicago, Ill. Filed Sept. 30, 1957.

AMERIBBON

For Plastic Ribbon for Wrapping and Tying.
First use Sept. 18, 1957.

SN 38,045. The Hi-Flier Manufacturing Co., Decatur, Ill. Filed Sept. 30, 1957.

HI-FLIER

Owner of Reg. Nos. 541,834 and 636,607.
For Cord for Kites and Other Purposes.
First use at least as early as Aug. 4, 1949.

Class 8 — Smokers' Articles, Not Including Tobacco Products

SN 19,251. Leon C. Leventhal, d. b. a. The Pak-A-Lite Company, New York, N. Y. Filed Nov. 14, 1956.

PAK-A-LITE

For Cigarette Lighters.
First use Sept. 17, 1956.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 12,889. Ithaca Gun Company, Incorporated, Ithaca, N. Y. Filed July 26, 1956.

ITHACA RAYBAR

Owner of Reg. No. 559,787.
For Sight Mechanism Used on Shot Guns and Rifles.
First use on or about Jan. 1, 1955.

SN 32,060. Daisy Manufacturing Company, Plymouth, Mich. Filed June 17, 1957.

BULLS EYE

For Air Guns, Shot for Air Guns and Scopes for Air Guns.
First use Jan. 1, 1916.

Class 11 — Inks and Inking Materials

SN 40,980. Addressograph-Multigraph Corporation, Cleveland, Ohio. Filed Nov. 20, 1957.

DUROCLEAR

For Inked Ribbons and Carbon Paper.
First use Dec. 29, 1931.

Class 12—Construction Materials

SN 33,431. North American Plywood Corporation, New York, N. Y. Filed July 9, 1957.

MAHARAJ

For Plywood.
First use Apr. 30, 1957.

SN 33,697. Dicks-Armstrong-Pontius, Inc., Dayton, Ohio. Filed July 15, 1957.

DAP

Owner of Reg. Nos. 405,683, 406,929, and 641,967.
For Putty and Glazing Compounds, Caulking Compounds, Rope Caulk, Mastics for Use in Caulking, and Pre-Formed Glazing Strips of Elastomeric Material.
First use July 1, 1957.

SN 34,394. Architectural Porcelain Constructors, Oakland, Calif. Filed July 26, 1957.

MINACOR

For Building Panels Having an Insulating Core of Non-Combustible Extruded Mineral Product (Fiber Glass and Perlite), the Faces of the Core Being Covered by Sheets of Asbestos.
First use April 1957.

SN 36,808. Rheinbau G. m. b. H., Mainz, Germany. Filed Sept. 6, 1957.

BAUSTA

Owner of German Reg. No. 703,052, dated May 29, 1957.
For Construction Elements for Building Construction, To Wit: Steel Girders and Steel Lattice Mats.

SN 44,148. Aetna Steel Products Corporation, New York, N. Y. Filed Jan. 17, 1958.

AETNAPAK

For Doors, Door Frames, and Door and Door Frames Complete With Hardware Accessories Therefor.
First use Dec. 4, 1957.

SN 44,393. Harbison-Walker Refractories Company, Pittsburgh, Pa. Filed Jan. 21, 1958.

PENSEAL

For High Temperature, Air-Setting Bonding Mortar of Alumina-Silica Composition.
First use Oct. 3, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 19,160. Melard Manufacturing Corporation, New York, N. Y. Filed Nov. 13, 1956. Sec. 2(f).

JET-AERATOR

For Water Aerators.
First use Apr. 2, 1952.

SN 40,680. The H. B. Ives Company, New Haven, Conn. Filed Nov. 14, 1957.

BIN-PAK

For Builder's Hardware—Namely, Coat Hooks, Door Stops, Sash Lifts, Sash Fasteners, and Hand Rail Brackets.
First use Oct. 25, 1957.

SN 41,532. Fisher Governor Company, Marshalltown, Iowa. Filed Nov. 29, 1957.

DIA-GRID

For Gas Flow Control Valves.
First use Apr. 1, 1957.

SN 42,735. Southern Pipe Coating Company, Atlanta, Ga. Filed Dec. 19, 1957.

SOUTHERN PIPE COATING COMPANY

For Coated and Wrapped Pipe.
First use Oct. 28, 1957.

SN 43,454. The Imperial Brass Manufacturing Company, Chicago, Ill. Filed Jan. 6, 1958.

IMPERIAL

For Plastic Tubing.
First use June 1955.

SN 43,460. Kobar Manufacturing Co., Chicago, Ill. Filed Jan. 6, 1958.

GREEN HORNET

For Combination Drills and Anchors and Expansion Shells.
First use on or about Nov. 15, 1957.

SN 43,485. Société Nouvelle Plea, Paris, France. Filed Jan. 6, 1958.

STERIFILTRE

Priority claimed under Sec. 44(d) on French Reg. No. 466,150, dated July 8, 1957 (Seine); Natl. Inst. No. 93,193.
For Fittings for Producing and Distributing Aseptic Water.

SN 43,488. Sunbeam Corporation, Chicago, Ill. Filed Jan. 6, 1958.

SPRAYMASTER

Owner of Reg. No. 349,927.
For Lawn Sprinklers.
First use in June 1936.

SN 43,607. The Evans Pipe Company, Uhrichsville, Ohio. Filed Jan. 8, 1958.

Evanite

For Plastic Sewer and Water Pipe.
First use June 5, 1957.

SN 43,691. Samuel Moore & Company, Mantua, Ohio. Filed Jan. 9, 1958.

PROTECTO-PAC

For Plastic Tubing Composed of a Single Tube or a Plurality of Tubes Encased or Housed in a Plastic Sheath for Transmission of Fluid.
First use December 1956.

SN 42,750. The Findeen Manufacturing Company, Chicago, Ill. Filed Jan. 10, 1958.

GEM

For Heel, Toe, and Sole Plates for Shoes.
First use Jan. 2, 1933.

Class 14 — Metals and Metal Castings and Forgings

SN 33,451. American Smelting and Refining Company, New York, N. Y. Filed July 10, 1957. Sec. 2(f).

MONTERREY-MEXICO

Owner of Reg. No. 352,734.
For Lead.
First use on or about June 1, 1935.

SN 34,377. Sintercast Corporation of America, Yonkers, N. Y. Filed July 25, 1957.

BINAL

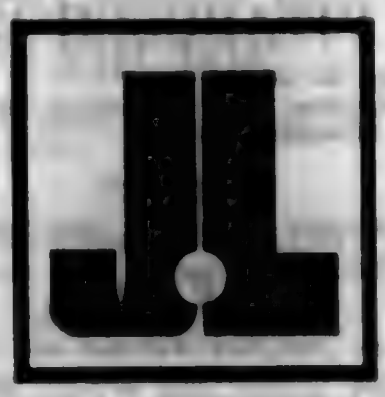
For Boron-Containing Wrought Aluminum Strips, Rods, and Tubes.
First use July 10, 1957.

SN 39,316. Calumet Steel Castings Corporation, Hammond, Ind. Filed Oct. 22, 1957.

PORTA-STOP

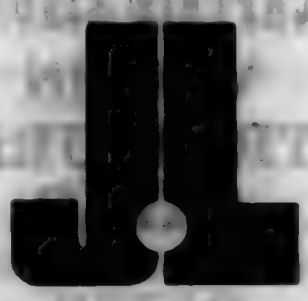
For Portable Railway Wheel Stops.
First use on or about Mar. 27, 1957.

SN 41,649. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Dec. 2, 1957.



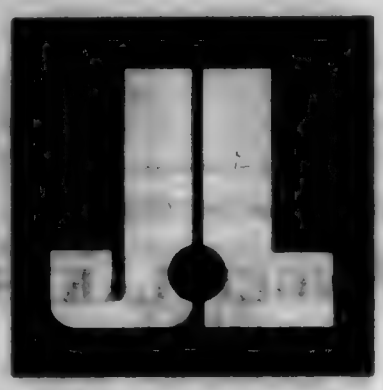
Owner of Reg. Nos. 514,363, 514,364, and 73,163.
For Sheet Metal.
First use on or about May 1, 1956.

SN 41,650. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Dec. 2, 1957.



Owner of Reg. Nos. 514,363, 514,364, and 73,163.
For Sheet Metal, Metal in Bar Form, and Metal Wires.
First use on or about Apr. 17, 1956, on sheet metal.

SN 41,651. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Dec. 2, 1957.



Owner of Reg. Nos. 514,363, 514,364, and 73,163.
For Metal in Bar Form and Metal Wire.
First use on or about May 16, 1956, on metal wire.

Class 15 — Oils and Greases

SN 33,135. Continental Oil Company, Ponca City, Okla. Filed July 3, 1957.

SPRAYSENE

For Deodorized or Partially Deodorized Kerosene-Type Petroleum Oils.
First use Mar. 30, 1932.

SN 39,788. Continental Oil Company, Ponca City, Okla. Filed Oct. 30, 1957.

HI-SEAL

For Dairy Wax Derived From Petroleum.
First use on or about Oct. 8, 1957.

SN 40,037. Esso Standard Oil Company, New York, N. Y. Filed Nov. 4, 1957.

PARADEX

For Chemical Additives for Fuel Oils Such as Heating Oils.
First use Sept. 10, 1957.

SN 40,900. Western Oil and Fuel Company, Minneapolis, Minn. Filed Nov. 18, 1957.

WESTERN

For Gasolines, Distillate Fuel Oils, Jet Fuel Oil, Residual Fuel Oils, Lubricating Oils, Greases, Hydraulic Oils, Asphalt and Road Oils, All Petroleum Products.
First use Feb. 20, 1957.

SN 42,224. Marvin Wire, Los Angeles, Calif. Filed Dec. 11, 1957.

POLYTRON

For Oil Additive for Motor Oil for Internal Combustion Engines.
First use July 1, 1957.

SN 42,581. Farmers Union Central Exchange, Incorporated, South St. Paul, Minn. Filed Dec. 17, 1957.

CHIL-PRUF

For Lubricating Oil for Internal Combustion Engines.
First use on or about Oct. 16, 1937.

SN 42,667. The Standard Oil Company, Cleveland, Ohio. Filed Dec. 18, 1957.

SOHIROL

For Grease.
First use Feb. 1, 1957.

SN 42,676. Wax Workers, Inc., Groton, N. Y. Filed Dec. 18, 1957.

FINGER LAKES

For Candles.
First use Aug. 19, 1957.

SN 42,677. Wax Workers, Inc., Groton, N. Y. Filed Dec. 18, 1957.

AURORA

For Candles.
First use Aug. 19, 1957.

Class 16—Protective and Decorative Coatings

SN 23,900. Viking Resin Products Incorporated, Waverly, N. Y. Filed Feb. 6, 1957.

VIKING

For Paints; Varnishes; Lacquers; Enamels; and Resinous Compounds, Adhesives, and Dispersions.
First use Aug. 27, 1956.

SN 43,574. Acme Chemical Company, Milwaukee, Wis. Filed Jan. 8, 1958.

SABER

For Self-Polishing, Slip-Resistant Floor Finishing Coating.
First use Dec. 30, 1957.

SN 44,623. Insul-Mastic, Inc., Summit, Ill. Filed Jan. 24, 1958.

DEDNOX

For Paint To Be Applied to the Surface of Metal for Sound Deadening Purposes.
First use Mar. 13, 1933.

SN 47,119. W. W. Lawrence & Company, Pittsburgh, Pa. Filed Mar. 5, 1958.

PRESS-N-SPRAY

For Enamels.
First use Feb. 25, 1958.

SN 47,600. The Parks Company, Somerset, Mass. Filed Mar. 12, 1958.

PARKS

For Shellac and Sealer-Primer.
First use May 1937, on shellac.

Class 18—Medicines and Pharmaceutical Preparations

SN 20,992. The Claflin Company, Providence, R. I. Filed Dec. 13, 1956. Sec. 2(f).

SURGICOL

For Pharmaceutical Preparation in the Form of a Surgical Dressing.
First use 1910.

SN 21,308. Farbwerke Hoechst Aktiengesellschaft, vormals Meister Lucius & Bruning, Frankfurt am Main Hochst, Germany. Filed Dec. 19, 1956.

RASTINON »HOECHST«

Owner of German Reg. No. 694,322, dated Aug. 28, 1956; and U. S. Reg. No. 568,786.
For Remedy—Namely, a Blood Sugar-Lowering Substance (Antidiabetic).

SN 26,644. Schloffelin & Co., New York, N. Y. Filed Mar. 21, 1957.

ALMA-TAR

For Liquid Baths, Ointments, Shampoos, Soaps, and Sulfonated Oils (All for Treating Diseases of the Scalp and Skin).
First use Sept. 28, 1954, on liquid baths.

SN 27,296. General Pharmaceutical Products, Inc., New York, N. Y. Filed Apr. 1, 1957.

EVAX

For Medicine for the Relief and Prevention of Constipation.
First use Mar. 1, 1957.

SN 28,985. Anheuser-Busch, Incorporated, St. Louis, Mo. Filed Apr. 29, 1957.

VITABUSCH 12

Owner of Reg. No. 441,907.
For Pharmaceutical Yeast Preparation Used as a Vitamin.
First use in November 1956.

SN 32,416. Schueler & Company, New York, N. Y. Filed June 21, 1957.

POWDAIR

For Medicated Sprayable Materials and Compositions To Prevent Chafing Under Trusses and Orthopedic Appliances and To Detackify Surgical Rubber Latex Items.
First use June 3, 1957.

SN 32,634. William S. Schneider, d. b. a. The William Steven Co., Los Angeles, Calif. Filed June 25, 1957.

CAPTAIN KIDD'S VITAMIN TREASURE CHEST

The word "Vitamin" is disclaimed apart from the mark as shown.
For Vitamin Tablets and Food Supplements in the Shape of Coins.
First use Mar. 6, 1957.

SN 34,072. Nysco Laboratories, Inc., Long Island City, N. Y. Filed July 19, 1957.

NYSCO

Owner of Reg. No. 598,395.
For Preparations for Use in the Treatment of Anemia, Constipation, Diarrhea, Obesity, Ulcers, Colds, Allergies, Fevers, Coughs, Hypertension, Heart Diseases; Antihistamines, Vitamins, Minerals, Dietary Supplements, Saccharin, Hypnotics, Hormones, Antacids, Sedatives, Mineral Oils, Analgesics, Douches, Antibiotics, Sympathomimetics, Antipyretics, Narcotics, Antiseptics, Diuretics, Post-Natal Preparations, and Preparations for the Treatment of Vaginal Disorders.
First use Feb. 13, 1952.

SN 37,180. Broemmel Pharmaceuticals, San Francisco, Calif. Filed Sept. 13, 1957.

DI-HYDRIN

Owner of Reg. No. 628,132.
For Medicated Ophthalmic Solution.
First use Feb. 28, 1957.

SN 37,529. Stanley Drug Products, Inc., d. b. a. Pilgrim Home Products Co., Portland, Oreg. Filed Sept. 19, 1957.

PILGRIM

For Pharmaceutical and Medicinal Preparations—Namely, Vitamins, Oils, Epsom Salts, Boric Acid Powder, Alum Powder, Antiseptic and Rubbing Alcohol, Calamine Lotion, Citrate of Magnesia, Codeine and Terpin Hydrate, Glycerin, Milk of Magnesia, Tablets of Aspirin, Ammonium Chloride, Phenobarbital, Salt, Saccharin and Sodium Salicylate, Senna Leaves and Powder, Hydrogen Peroxide, Spirits of Camphor, Tincture of Merthiolate and Iodine, Silicate of Soda, Cough Syrup, Capsules of Ephedrine, Quinine and Pentobarbital Sodium, Zinc Oxide Ointment, Analgesic Balm, and Aspirin, Phenacetin and Caffeine Compound Tablets.
First use Feb. 4, 1953.

SN 39,904. Schueler & Company, New York, N. Y. Filed Oct. 31, 1957.

TIP TOE

For Liniment in Spray Form for Tired and Aching Feet.
First use Oct. 15, 1957.

SN 39,988. Kittie Petersen, d. b. a. Charles L. Adams Medicine Co., Syracuse, N. Y. Filed Nov. 1, 1957.

TARLEINE

For Remedy for Relief of Piles, Eczema, Psoriasis, Fever Sores, Burns, Frost Bites, Chap, Chafes, and Corns.
First use prior to Jan. 1, 1900.

SN 40,084. Gerard Schaffer, d. b. a. Schaffer Laboratories, Montrose, Calif. Filed Nov. 4, 1957.

TRIOPHYLL

For Germicidal Solution for Use in the Treatment of Infections of the Urinary Tract.
First use Sept. 1, 1950.

SN 40,102. The William A. Webster Company, Memphis, Tenn. Filed Nov. 4, 1957.

REVAC

For Suppositories for Relief of Constipation.
First use Oct. 11, 1957.

SN 40,917. Chase Chemical Company, Newark, N. J. Filed Nov. 19, 1957.

PANTHERA

Owner of Reg. No. 588,833.
For Multiple Vitamin Preparation.
First use in June 1957.

SN 43,263. Modern-Lab, Incorporated, Baltimore, Md. Filed Dec. 31, 1957.

TKO

For Topical Analgesic Preparation.
First use May 10, 1956.

SN 43,871. The Pfeiffer Co., St. Louis, Mo. Filed Jan. 13, 1958.

TICOLENE

For Preparation for the Relief of Colds and Hay Fever.
First use Jan. 2, 1958.

SN 44,013. E. Fougera & Co., Inc., Hicksville, N. Y. Filed Jan. 15, 1958.

VAREMOID

For Preparation for Oral Treatment of Hemorrhoids.
First use Dec. 12, 1957.

SN 44,070. The Drug Products Co., Inc., Brooklyn, N. Y. Filed Jan. 16, 1958.

MYOPONE



Owner of Reg. No. 419,225.
For Ointment Preparation for Use in Cases of Fibrositis, Myositis, Myofascitis, Etc.
First use May 15, 1945.

SN 44,250. C. L. Bencard Limited, London, England. Filed Jan. 20, 1958.

NACTON

Owner of British Reg. No. 721,673, dated Sept. 10, 1953.
For Pharmaceutical Preparation for Use in Gastro-Intestinal Disorders.

SN 44,254. Broemmel Pharmaceuticals, San Francisco, Calif. Filed Jan. 20, 1958.

DI-PREDRIN

For Medicated, Sterile Eye Drops.
First use Sept. 16, 1957.

SN 44,255. Broemmel Pharmaceuticals, San Francisco, Calif. Filed Jan. 20, 1958.

TRILAMIDE

For Medicated, Sterile Eye Drops.
First use Sept. 16, 1957.

SN 44,236. Broemmel Pharmaceuticals, San Francisco, Calif. Filed Jan. 20, 1958.

OP-PREDRIN

Owner of Reg. No. 628,132.
For Medicated, Sterile Eye Drops.
First use Sept. 16, 1957.

SN 44,257. Broemmel Pharmaceuticals, San Francisco, Calif. Filed Jan. 20, 1958.

BRO-LAC

For Medicated, Sterile Ophthalmic Solution.
First use June 17, 1957.

SN 44,258. Broemmel Pharmaceuticals, San Francisco, Calif. Filed Jan. 20, 1958.

OP-ISOPHRIN

Owner of Reg. No. 355,953.
For Medicated, Sterile Ophthalmic Solution.
First use Sept. 16, 1957.

SN 44,392. Hefa-G. m. b. H., Chem.-pharm. Fabrik, Werne (Lippe), Germany. Filed Jan. 21, 1958.

BRALIUM

Owner of German Reg. No. 628,359, dated Oct. 16, 1952.
For Chemical and Pharmaceutical Preparations for Use in the Treatment of Psoriasis and Psoriasiform Dermic Diseases.

SN 44,617. Great Southern Drug Company, Atlanta, Ga. Filed Jan. 24, 1958.

GSD

For Vitamin Drug Formula Preparation.
First use Feb. 11, 1957.

SN 44,720. Eli Lilly and Company, Indianapolis, Ind. Filed Jan. 27, 1958.

MICEBRINA

Owner of Reg. No. 584,576.
For Medicinal Preparation of Vitamin-Mineral Supplements Used for Prophylactic or Therapeutic Treatment of Vitamin and Mineral Deficiencies in the Diet.
First use Feb. 4, 1952.

Class 19—Vehicles

SN 19,757. Evans Products Company, Plymouth, Mich. Filed Nov. 23, 1956.

DF

For Permanent and Adjustable Equipment for Supporting and Bracing Merchandise—Namely, Equipment for Supporting and Bracing General Merchandise in Freight Cars.
First use May 1948.

SN 23,678. British Belting & Asbestos Limited, Cleckheaton, Yorkshire, England. Filed Mar. 7, 1957.

MINTEX

Owner of British Reg. No. 756,708, dated Aug. 17, 1956; and U. S. Reg. No. 210,152.
For Parts, Fittings and Accessories, Made Wholly or Principally of Materials Having Either Frictional or Anti-Frictional Properties, of Land, Air and Water Vehicles—Namely, Vehicle Brakes, Vehicle Brake Shoe Assemblies; Rail Vehicle Parts—Namely, Bogie Side Bearer Liners, Bogie Radial Axle Box Top Slide Liners and Side Liners, Bogie Axle Box Face Liners and Side Liners, Bogie Center Pivot Liners, Boiler Expansion Slide Liners, Brake Gear Wearing Pads Commonly Known as End Thrust Discs, Buffer Rod Guide Bushes and Crosshead Liners, Truck Spring Pads, Drawbar Rubbing Plates, Brake Gear Wearing Pads and Bushes and Liners and Vestibule Face Plates; Elevator and Escalator Wheels and Cleats, and Blast Tube and Motor Body Liners of Solid Fuel Motors of Space Vehicles.

SN 32,273. S. Blickman, Inc., Weehawken, N. J. Filed June 19, 1957.

FOODVEYOR

For Wheeled Conveyor for Transporting Hot and Cold Food and Drinks in Hospitals and Like Institutions.
First use Feb. 20, 1957.

SN 44,287. International Harvester Company, Chicago, Ill. Filed Jan. 20, 1958.

SIGHTLINER

For Motor Trucks.
First use Jan. 11, 1958.

SN 44,359. American Machine & Foundry Company, New York, N. Y. Filed Jan. 21, 1958.

SPEED SWEEP

For Bicycles.
First use Dec. 31, 1957.

SN 44,712. International Harvester Company, Chicago, Ill. Filed Jan. 27, 1958.

TRAVELETTE

For Motor Trucks.
First use Jan. 20, 1958.

SN 45,153. Elcar Mobile Homes, Inc., Bourbon, Ind. Filed Feb. 3, 1958.

TEMPO

For House Trailers.
First use Dec. 2, 1957.

SN 45,178. Marine Plastics, Inc., Fort Lauderdale, Fla. Filed Feb. 3, 1958.

carlagua

For Boats.
First use Sept. 7, 1957.

SN 45,243. The Austin Motor Company, Limited, Birmingham, Warwickshire, England. Filed Feb. 4, 1958. Sec. 2(f).

AUSTIN

For Motor Vehicles—Namely, Automobiles, Lorries, Commercial Motor Vehicles, and Tractor Trucks.
First use in or about 1906; in commerce in or about 1920.

SN 45,258. D. P. Harris Hardware & Manufacturing Co., Inc., New York, N. Y. Filed Feb. 4, 1958.

RAM-JET

For Bicycles.
First use Sept. 1, 1957.

SN 45,582. Liberty Coach Company, Inc., Bremen, Ind. Filed Feb. 10, 1958.

Lancer

For Mobile Homes.
First use Jan. 2, 1958.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 6,834. Redmond Company, Inc., Owosso, Mich. Filed Apr. 20, 1956. Sec. 2(f).

THE BIG NAME IN SMALL MOTORS

For Electric Motors.
First use April 1950.

SN 19,426. Columbia Technical Corporation, Woodside, N. Y. Filed Nov. 19, 1956. Sec. 2(f).

DELAY-LINE FLAT

"Delay-line" is disclaimed apart from the mark as shown.
For Electronic Equipment—Namely, Delay Lines.
First use Oct. 22, 1956.

SN 25,681. British Belting & Asbestos Limited, Cleckheaton, Yorkshire, England. Filed Mar. 7, 1957.

MINTEX

Owner of British Reg. No. 756,707, dated Aug. 17, 1956; and U. S. Reg. No. 210,152.
For Parts, Fittings and Accessories, Made Wholly or Principally of Materials Having Frictional, Anti-Frictional or Dielectric Properties, for Electrical Apparatus—Namely, Switchgear Bearings, Overhead Section Insulators, Cams and Gears.

SN 29,425. Betts Machine Company, Warren, Pa. Filed May 6, 1957. Sec. 2(f).

SNAP SEAL

Owner of Reg. No. 586,137.
For Electrically Operated Vehicle Clearance Lights.
First use Dec. 7, 1951.

SN 40,730. General Controls Co., Glendale, Calif. Filed Nov. 13, 1957.

HYDRANOID

For Oil Sealed Solenoid Type Valves.
First use Sept. 23, 1957.

SN 41,630. Merit Coil & Transformer Corp., Chicago, Ill. Filed Dec. 2, 1957.

MERIT

Owner of Reg. No. 573,407.
For Power Transformers, Flybacks, Yokes, Coils, Oscillators, and Chokes.
First use Feb. 1, 1957.

SN 41,680. Merit Coil & Transformer Corp., Chicago, Ill. Filed Dec. 2, 1957.

Merit

Owner of Reg. No. 573,407.
For Power Transformers, Flybacks, Yokes, Coils, Oscillators, and Chokes.
First use Nov. 20, 1957.

SN 42,015. General Services Company, Corvallis, Oreg. Filed Dec. 9, 1957.

FLOMATCHER

For Apparatus for Effecting Speed Control of Electric Motors.
First use May 17, 1954.

SN 43,389. Magic Hostess Corporation, Kansas City, Mo. Filed Jan. 3, 1958.

handi-broil

Owner of Reg. No. 611,441.
For Portable Electric Cooking Ovens.
First use May 20, 1952.

SN 43,409. Vapor Heating Corporation, Chicago, Ill. Filed Jan. 3, 1958. Sec. 2(f).

VAPOR

Owner of Reg. Nos. 576,567 and 647,802.
For Float Switch for Boilers, and Steam Generators, Pressure Switch for Boilers and Steam Generators; Electrical Relays and Contactors; and Master Control for Multiple Boiler and Steam Generator Installations.
First use June 26, 1936.

SN 43,869. Petrolite Corporation, St. Louis, Mo. Filed Jan. 13, 1958.

ELECTROFINING

For Devices Used in Connection With Electric Treatment of Fluids, Which Devices Include Electric-Field Establishing Electrodes, Supports for Such Electric-Field Establishing Electrodes, Insulators, Entrance Bushings, Transformers, Choke Coils, Switchboards, Switches, Float Switches, Level Controllers With Switch Attached, Conductors, Conduits, Ground Clamps, Electric Motors, and Electric Motors With Speed-Reducing Units.
First use Mar. 21, 1957.

SN 45,040. Electro Music, Pasadena, Calif. Filed Jan. 31, 1958.

LESLIE

For Preamplifiers, Amplifiers, and Organ Speaker Systems.
First use Jan. 28, 1946.

Class 22—Games, Toys, and Sporting Goods

SN 19,223. Boston Athletic Shoe Co., Cambridge, Mass. Filed Nov. 14, 1956.

BASCO

For Ice and Rink Roller Skating Shoes and Shoe and Skate Combinations; Baseball Shoes; Bowling Shoes; and Football Shoes.
First use February 1940.

SN 28,469. Tudor Metal Products Corporation, Brooklyn, N. Y. Filed Apr. 18, 1957.

tudor

Owner of Reg. No. 640,978.
For Football Games, Baseball Games, Basketball Games, Horse Racing Games, Musical Toys, and Small Banks.
First use Apr. 20, 1940, on musical toys.

SN 35,014. Universal Manufacturing Co., Inc., Bossier City, La. Filed Aug. 5, 1957.

SPORTSTER

For Slides and Gym Sets Consisting of Children's Playground Equipment.
First use Jan. 4, 1954.

SN 39,014. Tudor Metal Products Corporation, Brooklyn, N. Y. Filed Oct. 16, 1957.

tudor

Owner of Reg. No. 640,978.
For Banks.
First use June 10, 1947.

SN 40,312. Hiram Bingham, Jr., New London, Conn. Filed Nov. 8, 1957.

SPORTATRON

For Caged Enclosures for Games and Sporting Activities.
First use July 26, 1957.

SN 40,766. George Lester, d. b. a. Lester Industries, Webster City, Iowa. Filed Nov. 15, 1957.

GL-33

For Artificial Fish Lure.
First use Aug. 28, 1957.

SN 42,854. Duke Products Co., New York, N. Y. Filed Dec. 23, 1957.

DUKE ALUMABAT

For Baseball Bats.
First use Apr. 18, 1957.

SN 42,856. Dynaball Company, Skokie, Ill. Filed Dec. 23, 1957.

DYNABALL

For Bowling Balls.
First use Sept. 4, 1956.

SN 43,442. Empire Plastic Corp., Pelham Manor, N. Y. Filed Jan. 6, 1958.

SLO FLY

For Plastic Baseballs, Softballs, Paddle Tennis Balls and Rackets and Other Plastic Pseudo Sports Equipment.
First use Oct. 18, 1957.

SN 43,518. C. H. Shoff, d. b. a. Shoff Fishing Tackle Co., Kent, Wash. Filed Dec. 30, 1957.

F. S. T.

For Fishing Spoons.
First use May 13, 1923.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 20,799. Gebrueder Steidinger, Kommanditgesellschaft, St. Georgen, Schwarzwald, Germany. Filed Dec. 10, 1956.

Dual

Owner of German Reg. No. 447,408, dated July 25, 1932.
For Electrical Shaving Apparatuses.

SN 31,350. Hubert C. Steigner, d. b. a. Engineering Institute, Inc., Philadelphia, Pa. Filed June 4, 1957.

POOCHIE PADDLE

For Spoon Particularly Designed for Removing Food for Pets From a Can.
First use Feb. 3, 1956.

SN 33,605. Detroit Extrusion Tools, Inc., Detroit, Mich. Filed July 12, 1957.

EX-TRU-LOY

For Extrusion Die Inserts.
First use Apr. 1, 1957.

SN 33,681. Borg-Warner Corporation, Chicago, Ill. Filed July 15, 1957.

SUMPMASTER

For Pumps and Parts Thereof.
First use June 6, 1957.

SN 33,057. Food Machinery and Chemical Corporation, San Jose, Calif. Filed July 18, 1957.

Spraymiser

For Agricultural Chemical Spray Gun.
First use Mar. 26, 1957.

SN 34,106. Acme Equipment, Inc., Altoona, Pa. Filed July 22, 1957.

MASTER

For Mechanically Operated Washing Installations for Washing Buses and Trucks as They Pass Therethrough.
First use June 29, 1956.

SN 34,222. Maria Luisa De Burgh, executrix, estate of Albert R. De Burgh, deceased, d. b. a. De Burgh Conveyors, Evansville, Ind. Filed July 23, 1957. Sec. 2(f).

DeBURGH

For Conveyors and Conveyor Systems, for Industrial Use, and Parts and Accessories Therefor.
First use October 1939.

SN 34,404. Domkraftaktiebolaget Nike, Eskilstuna, Sweden. Filed July 26, 1957.

NIKE

Owner of Swedish Reg. No. 54,770, dated Aug. 9, 1941.
For Mechanical and Hydraulic Lifting Jacks, Hydraulic Pistons, Hydraulic Presses, Hand-Driven and Motor-Driven High Pressure Pumps.
First use in June 1941; in commerce Jan. 16, 1958.

SN 38,214. Ideco, Inc., Dallas, Tex. Filed Oct. 2, 1957. Sec. 2(f).

KWIK-LIFT

For Masts for Drilling and Servicing Wells and for Other Uses.
First use at least as early as December 1948.

SN 38,564. Robot Marine Products, Inc., St. Albans, Vt. Filed Oct. 8, 1957.

AJUSTO-LIFT

For Device for Shifting Outboard Motors Into and Out of the Water or Adjusting the Angle of the Motor With Respect to the Boat Mounting.
First use June 28, 1957.

SN 40,561. The Cross Company, Detroit, Mich. Filed Nov. 18, 1957.

CROSS

Owner of Reg. No. 576,880.
For Assembly Machinery and Metal Working Machines and Attachments and Parts Therefor.
First use Sept. 30, 1957.

SN 40,800. The Vernon Company, Newton, Iowa. Filed Nov. 18, 1957.

VERNCO

For Cutlery—Namely, Spatulas, Cleavers, and Knives.
First use in November 1951 on spatulas.

SN 41,577. Seneca Falls Machine Company, Seneca Falls, N. Y. Filed Nov. 29, 1957.

SENECA FALLS MACHINE

Owner of Reg. No. 642,317.
For Lathes, Including Automatic, Semiautomatic and Tracer Lathes, Centering Machines and Boring Machines.
First use Aug. 22, 1957.

SN 41,972. Automatic Poultry Feeder Company, Zeeland, Mich. Filed Dec. 9, 1957.

ROTO-SCREEN

For Automatic Poultry Feed Cleaners.
First use Sept. 23, 1957.

SN 43,685. The Great Lakes Tractor Company, Rock Creek, Ohio. Filed Jan. 9, 1958.

JIM DANDY

For Gasoline Powered Lawn Mowers.
First use Nov. 27, 1957.

SN 43,933. De Luxe Saw and Tool Company, Louisville, Ky. Filed Jan. 14, 1958.

STEEL KING

Owner of Reg. Nos. 629,459, 629,461, and 629,462.
For Saws, Saw Blades, and Dado Heads.
First use Apr. 30, 1957, on saws.

SN 43,957. Harry Neivert, New York, N. Y. Filed Jan. 14, 1958.

NEIVERT WHITTLER

For Sharpener for Cutting Tools.
First use April 1955.

SN 44,294. Moore's Time-Saving Equipment, Inc., Elkhart, Ind. Filed Jan. 20, 1958.

STRATO TOWER

For Hydraulic Personnel Lift Equipment Adapted To Be Mounted on a Vehicle, and Parts of Such Equipment.
First use May 25, 1956.

SN 44,354. Aermotor Company, Chicago, Ill. Filed Jan. 21, 1958.

AERMOTOR

Owner of Reg. No. 56,596.
For Pumps, Including Jet Pumps and Sump Pumps.
First use June 11, 1955.

SN 44,695. Dodson Manufacturing Company, Wichita, Kans. Filed Jan. 27, 1958.

BIG BOY

For Silo Unloaders and Parts Thereof.
First use Aug. 1, 1957.

SN 47,076. Soficom International Company, New York, N. Y. Filed Mar. 4, 1958.

MONTANA

For Typewriters.
First use December 1957.

SN 47,092. The Banner Die, Tool & Stamping Company, Columbus, Ohio. Filed Mar. 5, 1958.

THE BANNER D&S CO.

For Dies, Tools, Metal Stampings, and Special Machines.
First use Apr. 7, 1924.

SN 47,190. George H. Fry, d. b. a. George H. Fry Company, Mineola, N. Y. Filed Mar. 6, 1958.

The TOMMY TUCKER

For Bag Tucking Machines.
First use Dec. 16, 1957.

SN 47,258. Imperial Knife Co., Inc., Providence, R. I. Filed Mar. 7, 1958.

SWISS TROOPER

For Pocket Knives.
First use Feb. 14, 1958.

SN 47,306. Spartan Saw Works, Inc., Springfield, Mass. Filed Feb. 4, 1958.

SPARTAN

Owner of Reg. No. 121,962.
For Hole Saws and Tool Bits.
First use June 26, 1947.

SN 47,391. Joy Manufacturing Company, Pittsburgh, Pa. Filed Mar. 10, 1958.



For Belt Supporting Idler Structure.
First use July 15, 1954.

SN 47,421. Powermotive Parts Corp., Brooklyn, N. Y. Filed Mar. 10, 1958.

POWERMOTIVE

For Exhaust Mufflers.
First use Dec. 6, 1957.

SN 47,526. Societe Francaise de Construction de Bennes Automatiques Benoto, Paris, France. Filed Mar. 11, 1958.

BENOTO

For Earthworking and Construction Machinery—Namely, Buckets, Grab Buckets, Hoisting, Handling and Transport Apparatus, Machines and Equipment for Boring and Excavating the Ground, Machines and Equipment for Preparing and Forming Foundations and Erecting Constructions.
First use 1921; in commerce October 1956.

SN 47,833. Borg-Warner Corporation, Chicago, Ill. Filed Mar. 17, 1958.

B-W

Owner of Reg. Nos. 513,548, 575,223, and 607,848.
For Gear Reduction Assemblies and Power Shift Transmissions, and Parts Thereof for Replacement and Repair.
First use Jan. 23, 1958.

Class 24—Laundry Appliances and Machines

SN 41,856. Tokyo Shibaura Electric Company Limited, Kawasaki-shi, Japan. Filed Dec. 5, 1957.

Toshiba

Owner of Japanese Reg. No. 404,029, dated Oct. 13, 1951.
For Electric Household Washers.

Class 26—Measuring and Scientific Appliances

SN 678,030. Halsey X-Ray Products, Inc., Brooklyn, N. Y. Filed Dec. 8, 1954.

HALSEY WAFER RIGIDFORM

For Cassettes.
First use Nov. 25, 1954.

SN 15,386. Mohawk Heat Relief Co., Dayton, Ohio. Filed Sept. 10, 1956.

FIRE WATCH

For Automatic Devices Responsive to Heat for Opening Windows in Case of Fire.
First use Aug. 7, 1956.

SN 16,967. Milton Roy Company, Philadelphia, Pa. Filed Oct. 4, 1956.

milton Roy

For Controlled Volume Pumping Apparatus.
First use May 14, 1956.

SN 17,483. C. J. Major-J. F. Thornburg Enterprises, Mishawaka, Ind. Filed Oct. 15, 1956.

RYTHMATIC

For Computing Device for Use in Calculating Periods of Fertility.
First use Oct. 8, 1956.

SN 20,139. Glendon L. White, d. b. a. Measure-Rite Meter Co., Alhambra, Calif. Filed Nov. 29, 1956.

MEASURE-RITE

For Water Meters.
First use Apr. 2, 1956.

SN 20,645. Mile-O-Graph, Inc., New York, N. Y. Filed Dec. 7, 1956.

MILE-O-GRAPH

For Device for Measuring Mileage on Maps.
First use Nov. 5, 1955.

SN 23,172. Robertson Photo-Mechanix, Inc., Chicago, Ill. Filed Jan. 24, 1957.

RELIABLE

For Cameras.
First use Dec. 5, 1956.

SN 25,386. American Electronic Laboratories, Inc., Philadelphia, Pa. Filed Mar. 4, 1957.

AEL

For Laboratory Electronic Devices and Associated Apparatus—Namely, Stimulators, Amplifiers, Curve Tracers, and Stimulus Isolators.
First use Feb. 19, 1957.

SN 26,781. Dennert & Pape, Hamburg-Altona, Germany. Filed Mar. 25, 1957.

HYPERBOLOG

Owner of German Reg. No. 650,916, dated Jan. 5, 1954.
For Slide Rules.

SN 27,106. Kay Electric Company, Pine Brook, N. J. Filed Mar. 28, 1957.

MINILATOR

For Multi-Crystal-Controlled Transistor Oscillators.
First use Mar. 19, 1957.

SN 27,189. Corn Products Refining Company, New York, N. Y. Filed Mar. 29, 1957.

FRYING SAUCER

For Metallic Device for Measuring Temperature.
First use Nov. 26, 1956.

SN 27,504. Lear, Incorporated, Santa Monica, Calif. Filed Apr. 4, 1957.

VORTRAN

For Omnirange Converter and Indicating Meter Instrument for Converting Electrical Navigation Information Received by a Radio Receiver Into Visual Bearing Information.
First use Nov. 27, 1956.

SN 27,554. W. John Upjohn, d. b. a. Span Instruments, Kalamazoo, Mich. Filed Apr. 5, 1957.

SKI-POD

For Supporting Device Attached to Ski Poles for Holding Cameras.
First use Mar. 25, 1957.

SN 29,034. Consolidated Electrodynamics Corporation, Pasadena, Calif. Filed Apr. 29, 1957.

DATAGRAPH

For Recording Oscillographs.
First use Apr. 3, 1957.

SN 36,060. Kay Electric Company, Pine Brook, N. J. Filed Aug. 23, 1957.

TRANSIPROBE

For Instrument Used for Measuring Electrical Signals—viz., a Device for Measuring Voltages Without Disturbing the Circuits Under Test.
First use Aug. 6, 1957.

SN 36,081. Kay Electric Company, Pine Brook, N. J. Filed Aug. 23, 1957.

TRANSIPLY

For Transistorized Regulated Power Supply—viz., a Direct Current Power Supply so Regulated That the Output of This Power Supply Stays Constant Under Varying Input Voltage and Output Load Conditions.
First use Aug. 8, 1957.

SN 38,308. Taylor Instrument Companies, Rochester, N. Y. Filed Oct. 8, 1957.

TRANS SCAN LOG

For System Employing Relays, Stepping Switches, Electronic Circuitry, Etc., for Automatically Sensing and Scanning a Plurality of Process Variables Such as Temperature, Pressure, Flow or Any Variable Which Can Be Connected to an Electric or Pneumatic Signal, Collecting This Information, Digitizing the Information Collected for Display in Digital Form Both on the Record of an Automatic Typewriter and on a Panel Upon Which Some or All of Related Control and Individual Exhibiting Instruments (Recorders and Indicators) May Be Mounted.
First use in December 1955.

SN 39,062. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company. Filed Oct. 17, 1957.

LECTROX

For Xerographic Plates.
First use Sept. 26, 1957.

SN 43,405. Sylvania Electric Products, Inc., New York, N. Y. Filed Jan. 3, 1958.

MATCH-MATIC

For Camera, Carrying Case, Photoflash Accessory, and Exposure Meter.
First use Nov. 27, 1957.

SN 44,529. Engelhard Industries, Inc., Newark, N. J. Filed Jan. 23, 1958.

MINOXO

For Indicator of Oxygen Content of Gases.
First use Dec. 27, 1957.

SN 44,706. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company. Filed Jan. 27, 1958.

LITHOFLO

For Photographic Processing Apparatus and Particularly Automatic Equipment To Process Negative Material for the Graphic Arts.
First use Dec. 31, 1957.

SN 45,139. Daimler-Benz Aktiengesellschaft, Stuttgart-Untertuerkheim, Germany. Filed Feb. 3, 1958.

MERCEDES-BENZ

Owner of German Reg. No. 375,067, dated Oct. 7, 1927.
For (based on use in commerce) Speedometers; Fuel Gauges for Vehicles; Battery Charge Indicators; Temperature Gauges; Ammeters; Compression Testers; Air Pressure Gauges; Acid Testers; Thermostats; Battery Cell Testers; and Nozzle Testing Devices.
For (based on foreign registration) Measuring Instruments; Optical, Geodetical, Nautical, Electro-Technical Weighing, Signalling, and Control Apparatus, Instruments and Equipment; Photographic Apparatus, Instruments and Equipment; Field Glasses, Binoculars and Opera Glasses; Safety Goggles; Calculating Machines; Cash Registers; Lens Blanks; Ophthalmic Lenses; Eye Glasses; Prisms; Photographic Lenses; Magnifying Lenses; and Levels.
First use in 1926; in commerce in 1927; in 1896 as to "Benz"; in 1900 as to "Mercedes."

Class 27—Horological Instruments

SN 39,594. Concord Watch Co., Inc., New York, N. Y. Filed Oct. 28, 1957.

concord

Owner of Reg. No. 359,123.
For Watches and Clocks.
First use during the year 1937.

Class 29—Brooms, Brushes, and Dusters

SN 27,314. Industrial Wiping Cloth Co. Inc., Long Island City, N. Y. Filed Apr. 1, 1957.

KLERE-VUE

For Wiping Cloths for Wiping Automobile Windshields and Windows.
First use in April 1954.

SN 35,033. Burgess Cellulose Company, Freeport, Ill. Filed Aug. 6, 1957.

BIG "B"

For Cellulose Sponges for Cleaning and Polishing Purposes.
First use Mar. 29, 1956.

Class 31—Filters and Refrigerators

SN 43,195. National Cooperatives, Inc., Albert Lea, Minn. Filed Dec. 30, 1957.

SLUDGE TRAPPER

Applicant disclaims the term "Sludge" apart from the mark as shown.
For Oil Filter Cartridges.
First use Oct. 31, 1957.

SN 47,118. Kleen Pak Corporation, West Salem, Ill. Filed Mar. 5, 1958.

SALEM

For Oil Filter Cartridges.
First use Feb. 4, 1957.

SN 47,411. Norco, Inc., Los Angeles, Calif. Filed Mar. 10, 1958.

KREFFT

For Gas Refrigerators.
First use in or about October 1954.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 24,145. Mrs. Clara V. Fager, North Wales, Pa. Filed Feb. 11, 1957.

AIR-IN

Owner of Reg. No. 527,673.
For Portable Static Panel Ventilators.
First use Oct. 20, 1930.

SN 29,486. Recold Corporation, Los Angeles, Calif. Filed May 6, 1957.

DRICON

For Air-Cooled Condensers for Use on Refrigeration and Air Conditioning Systems.
First use Apr. 16, 1957.

SN 29,858. Bell & Gossett Company, Morton Grove, Ill. Filed May 13, 1957.

RADIANT RIBBON

For Heat Exchangers of the Baseboard Type for Use in Hot Water Heating Systems.
First use Apr. 29, 1957.

SN 34,826. Tricity Cookers Limited, London, England. Filed Aug. 1, 1957.

TRICITY

Owner of British Reg. No. 702,565, dated Nov. 9, 1951.
For Heating Installations—Namely, Space Heaters, Infra-Red Heating Lamps, Fan Heaters and Radiators, Heating Apparatus; Cooking Apparatus—Namely, Ovens and Rotary Grillers, Cooking Stoves and Ranges, Hot Plates, Warming Plates, Hotwater Apparatus, Toasting Appliances.

SN 43,224. York-Shipley, Inc., York, Pa. Filed Dec. 30, 1957.

MAGI-TEMP

For Heat Pumps Which Serve as a Domestic Heating Appliance and Air Conditioning Appliance.
First use Nov. 27, 1957.

SN 43,932. The De Laval Separator Company, Poughkeepsie, N. Y. Filed Jan. 14, 1958.

DE LAVAL

For Heat Exchangers.
First use Jan. 26, 1954.

SN 44,376. The Coleman Company, Inc., Wichita, Kans. Filed Jan. 21, 1958.

POLAR SOLAR PAK

For Electric Air Conditioners.
First use Dec. 10, 1957.

SN 44,377. The Coleman Company, Inc., Wichita, Kans. Filed Jan. 21, 1958.

POLAR PRINCE

For Electric Air Conditioners.
First use Dec. 10, 1957.

SN 44,548. Modine Manufacturing Company, Racine, Wis. Filed Jan. 23, 1958.



Although the drawing is lined for red, no claim is made to color.
For Heat Exchangers.
First use July 18, 1956.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 34,358. Orin Johnson, d. b. a. Post Street Tire Company, Spokane, Wash. Filed July 25, 1957.



The portrait shown is that of applicant. The representation of the goods is disclaimed.
For Recapped Tires.
First use Apr. 1, 1957.

SN 41,046. Pirelli Societa per Azioni, Milan, Italy. Filed Nov. 20, 1957.

CINTURATO

Owner of Italian Reg. No. 110,462, dated Jan. 30, 1953.
For Rubber Pneumatic Tyres for Vehicles of Any Kind.

Class 36—Musical Instruments and Supplies

SN 14,100. Societe Anonyme des Anciens Etablissements Martin Freres, Paris, France. Filed Aug. 16, 1956.

Jean Martin

Owner of French Reg. No. 458,048, dated May 24, 1950 (Seine); Natl. Inst. No. 74,360; and U. S. Reg. No. 443,580.
For Woodwind Instruments—Namely, Clarinets, Oboes and Bassoons, and Reeds Therefor.

SN 27,868. Lucien de La Cour—Editions Costallat, Paris, France. Filed Apr. 10, 1957.

ERATO

Owner of French Reg. No. 419,778, dated May 2, 1952 (Paris); Natl. Inst. No. 513,917.
For Record Discs and Recorded Records.

Class 37—Paper and Stationery

SN 28,501. The Esterbrook Pen Company, Camden, N. J. Filed Apr. 19, 1957.

Recorder

Owner of Reg. No. 287,472.
For Ballpoint Pens and Desk Sets, Fountain Pens, and Pen and Pencil Sets.
First use Jan. 30, 1957.

SN 31,114. L. & C. Hardtmuth, Inc., Bloomsbury, N. J. Filed May 31, 1957.

"EJECTOMATIC"

Owner of Reg. Nos. 405,162, 520,361, and 405,204.
For Drawing Leads.
First use Sept. 13, 1956.

SN 37,151. Eberhard Faber Pencil Company, Wilkes-Barre, Pa. Filed Sept. 13, 1957.

MARIGOLD

For Lead Pencils.
First use Sept. 15, 1927.

SN 38,134. The Dunleavy Company, Waltham, Mass. Filed Oct. 1, 1957.

Kraftex

Owner of Reg. Nos. 272,612 and 294,119.
For Correspondence and Mailing Envelopes.
First use in January 1923.

Class 38—Prints and Publications

SN 19,373. The Massillon-Cleveland-Akron Sign Company, Massillon, Ohio. Filed Nov. 16, 1956.



Owner of Reg. No. 201,165.
For Outdoor Advertising Displays and Signs Printed on Weatherproof Cardboard.
First use Oct. 16, 1956.

SN 19,374. The Massillon-Cleveland-Akron Sign Company, Massillon, Ohio. Filed Nov. 16, 1956.



Owner of Reg. No. 201,165.
For Outdoor Advertising Displays and Signs Printed on Weather Resistant Paper.
First use Oct. 30, 1956.

SN 19,713. John Willy, Inc., Evanston, Ill. Filed Nov. 21, 1956. Sec. 2(f).

FOOD

For Magazine.
First use July 1947.

SN 29,909. Instar Supply Co., Inc., New York, N. Y. Filed May 13, 1957.

Instar

For Transfer Paper in the Nature of Decalcomania Sold in Sheets, for Making Ceramic Designs.
First use Feb. 12, 1957.

SN 31,738. The Penton Publishing Company, Cleveland, Ohio. Filed June 10, 1957.

usership

For News Bulletin Published From Time to Time.
First use Apr. 8, 1957.

SN 38,393. Surgical Business, Inc., New York, N. Y. Filed Oct. 4, 1957. Sec. 2(f).

SURGICAL BUSINESS

For Periodical.
First use July 1, 1939.

SN 38,394. Surgical Business, Inc., New York, N. Y. Filed Oct. 4, 1957. Sec. 2(f).

SURGICAL TRADE BUYER'S GUIDE

For Periodicals.
First use Sept. 1, 1940.

SN 39,842. Savannah News-Press, Inc., Savannah, Ga. Filed Oct. 30, 1957. Sec. 2(f).

SAVANNAH EVENING PRESS

For Daily Newspaper.
First use Jan. 5, 1931.

SN 39,843. Savannah News-Press, Inc., Savannah, Ga. Filed Oct. 30, 1957. Sec. 2(f).

Savannah Morning News.

For Daily Newspaper.
First use June 4, 1888.

SN 43,304. Eagle-Tribune Publishing Company, Lawrence, Mass. Filed Jan. 2, 1958.

LAWRENCE DAILY EAGLE

For Daily Newspaper.
First use July 20, 1868.

SN 43,548. Official Magazine Corp., New York, N. Y. Filed Jan. 7, 1958.

Bachelor

For Magazine Published Periodically.
First use June 20, 1956.

SN 43,704. Research Associates, Inc., Miami, Fla. Filed Jan. 9, 1958. Sec. 2(f).

Florida BUSINESS LETTER

Owner of Reg. No. 601,974.
For Semi-Monthly Business Information Bulletin.
First use on or about Sept. 15, 1952.

SN 43,956. National Industrial Publishing Co., Pittsburgh, Pa. Filed Jan. 14, 1958. Sec. 2(f).

Industrial Heating

For Periodical Publication.
First use Sept. 26, 1934.

Class 39—Clothing

SN 16,179. Christiana Industries, Inc., Georgetown, Del. Filed Sept. 24, 1956.

Christiana Industries

For Men's Sweaters, Suits, Jackets, Raincoats, Topcoats.
First use on or about Nov. 9, 1955.

SN 20,665. Swirl, Inc., Easley, S. C. Filed Dec. 7, 1956.
For Women's and Misses' Wrap Around Aprons and Dresses.

THE SPECTATOR

First use Nov. 9, 1956.
Subj. to Intf. with SN 87,526.

SN 20,670. U. S. Knitwear Co., New York, N. Y. Filed Dec. 7, 1956. Sec. 2(f).

SURF TOGS

Owner of Reg. No. 326,707.
For Men's, Women's, and Children's Swim Suits.
First use Jan. 5, 1933.

SN 22,067. Stacy Adams Company, Brockton, Mass. Filed Jan. 3, 1957. Sec. 2(f).

YOU OUGHT TO BE IN OUR SHOES

For Men's Shoes Made Primarily of Leather.
First use July 12, 1955.

SN 22,627. Premier Knitting Co. Inc., New York, N. Y. Filed Jan. 15, 1957.



Owner of Reg. No. 367,036.
For Ladies', Misses', and Girls' Knitted Dresses, Jackets, Skirts, and Sweaters.
First use Dec. 17, 1937.

SN 25,101. Herbert Levine, Inc., New York, N. Y. Filed Feb. 26, 1957.

CYRANO LAST

No claim is made to the term "Last" apart from the mark.
For Women's and Misses' Shoes.
First use June 25, 1956.

SN 25,318. Clyde Fashions, Ltd., New York, N. Y. Filed Mar. 1, 1957.

CLYDE KASH-MORE

For Women's and Young Women's Coats and Jackets, Made in Substantial Part of Cashmere Fabric and in Whole of Wool and Cashmere.
First use Feb. 15, 1957; 1942 as to "Clyde"; Mar. 13, 1936, as to "Kashmore."

SN 32,085. Rainfashions Fifth Avenue Inc., New York, N. Y. Filed July 1, 1957.

RAINBEAUTEES

For Women's, Misses', and Girls' Plastic Boots.
First use May 20, 1957.

SN 33,069. Good Luck Glove Company, Carbondale, Ill. Filed July 2, 1957.

"FOAM-TEX"

For Fabric Work Gloves.
First use May 13, 1957.

SN 34,243. Kamella Limited, Bradford, Yorkshire, England. Filed July 23, 1957.

KAMELLA

For Sleeping Bags, Dressing Gowns, Pram Sacks, Coats and Jackets, Nursing Aprons, Baby Shawls; Cosy Suits—Namely, Infants' One Piece Garment With Attached Hood; Pixie Suits—Namely, Garment With Attached Hood for Children Two to Five Years Old; Duffle Coats and Breechette Sets—Namely, Head Gear, Coats and Leggings; Young Children's Trousers, Knitted Underwear, Knitted Outerwear—Namely, Cardigans and Coats; Shirts, Jeans, and Beach Wear—Namely, Beach Robes and Sun Suits.
First use in the year 1931; in commerce at least May 24, 1938.

SN 37,528. Spectator, Inc., Easley, S. C. Filed Sept. 19, 1957.



For Women's and Misses' Dresses.
First use Nov. 9, 1956.
Subj. to Intf. with SN 20,665.

SN 38,767. Rogers Peet Company, New York, N. Y. Filed Oct. 11,1957.

Rogers Peet
CAMPUS
TESTED
AND
APPROVED

The wording "Campus Tested Approved" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 418,430 and 550,125.

For Suits, Coats, Topcoats, Raincoats, Sweaters, Shirts, Hose, and Shoes.

First use Sept. 7, 1957, on suits.

SN 38,772. Selix & Sons, San Francisco, Calif. Filed Oct. 11, 1957. Sec. 2(f).

SELIX

For Wearing Apparel for Men—Namely, Tuxedos, Full Dress Suits, Morning Suits, Shirts, Ties, Cummerbunds, and Shoes.

First use Mar. 15, 1955; 1909 as to "Selix."

SN 39,006. The Nite Kraft Corporation, New York, N. Y. Filed Oct. 16, 1957.

PATIO

For Ladies' Robes and Dusters.
First use in July 1957.

SN 39,524. Good Luck Glove Company, Carbondale, Ill. Filed Oct. 25, 1957.

RHINO

For Work Gloves.
First use in August 1931.

SN 39,587. Isaac Cohen & Son Clothes Co., Inc., New York, N. Y. Filed Oct. 28, 1957.

Terra-Twill

For Topcoats.
First use August 1953.

SN 40,306. Bancroft Cap Company, Framingham, Mass. Filed Nov. 8, 1957.

DAME

For Military Fatigue Caps.
First use Sept. 20, 1957.

SN 40,630. Carmi-Ainsbrooke Corporation, New York, N. Y. Filed Nov. 14, 1957.

AROUND THE WORLD

For Men's Shorts and Pajamas.
First use Nov. 8, 1957.

SN 41,034. The Manhattan Shirt Company, New York, N. Y. Filed Nov. 20, 1957.

SLEEP-A-LA-MOOD

For Pajamas, Pajama Tops, Pajama Trousers, Sleeping Shorts, and Sleeping Coats.
First use Oct. 21, 1957.

SN 41,197. John H. Simpler, d. b. a. Corral Sportswear Co., Ardmore, Okla. Filed Nov. 22, 1957.

JO-KAY

For Wearing Apparel for Men, Women, and Children—Namely, Leather Casual Coats and Jackets, and Leather Western Coats, Jackets, and Skirts.
First use Feb. 3, 1953.

SN 41,285. L. Lozzi, Inc., Lawrence, Mass. Filed Nov. 25, 1957.

SOFLEX

For Men's Suits.
First use Sept. 26, 1956.

SN 41,566. Trimount Clothing Co., Inc., Boston, Mass. Filed Nov. 29, 1957.

MR. COOL

For Men's Suits, Sport Coats, and Slacks.
First use Oct. 10, 1957.

SN 41,788. The Bernhard Altmann Corporation, New York, N. Y. Filed Dec. 5, 1957.

BAYLE

For Sweaters, Hosiery, Skirts, Sport Jackets, Blouses, Shawls, Gloves, and Ladies' and Men's Coats.
First use Nov. 5, 1957.

SN 41,789. The Bernhard Altmann Corporation, New York, N. Y. Filed Dec. 5, 1957.

BEYLE

For Sweaters, Hosiery, Skirts, Sport Jackets, Blouses, Shawls, Gloves, and Ladies' and Men's Coats.
First use Nov. 5, 1957.

SN 42,232. Cute-Togs of New Orleans, Inc., New Orleans, La. Filed Nov. 4, 1957. Sec. 2(f).

Cute-Togs OF NEW ORLEANS

For Infants' Diapers, Shirts, Pinafores, Sunsuits, Gowns, Pajamas, Robes, Panties, and Bedjackets.
First use Jan. 1, 1950.

SN 42,645. Graff Manufacturing Company, Los Angeles, Calif. Filed Dec. 18, 1957.

GRAFF californiawear

Applicant disclaims the title "Californiawear."
For Women's Suits, Blouses, and Skirts.
First use June 19, 1945.

SN 43,005. G. H. Bass & Co., Wilton, Maine. Filed Dec. 26, 1957.

FIELD TRIAL

For Moccasin Type Hunting Boots.
First use Mar. 15, 1957.

SN 43,137. Bifax Foundations, Inc., New York, N. Y. Filed Dec. 30, 1957.

GENIE

For Brassieres and Girdles.
First use Dec. 28, 1957.

SN 43,182. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

SCANTIES

Owner of Reg. No. 207,932.
For Girdles, Corsets, Brassieres, and Garter Belts.
First use Aug. 18, 1925.

SN 43,183. Model Brassiere Corp., Cortland, N. Y. Filed Dec. 30, 1957.

SKIMPIES

Owner of Reg. No. 207,933.
For Girdles, Corsets, Brassieres, and Garter Belts.
First use Aug. 31, 1933.

SN 43,212. Ruth Shoe Co., Newburyport, Mass. Filed Dec. 30, 1957.

GIAVANNI'S

For Women's Shoes.
First use Jan. 21, 1955.
Subj. to Intf. with Reg. No. 657,164.

SN 43,396. Gerber Products Company, Fremont, Mich. Filed Jan. 3, 1958. Sec. 2(f).

Gerber

Owner of Reg. Nos. 623,738, 641,678, and others.
For Baby Pants.
First use Oct. 29, 1957.

SN 43,578. Anson Incorporated, Providence, R. I. Filed Jan. 8, 1958. Sec. 2(f).

ANSON

Owner of Reg. No. 548,885.
For Belts.
First use Feb. 17, 1950.

SN 44,270. David Flick, d. b. a. Bookman Associates, Stratford, Conn. Filed Jan. 20, 1958.

TEND-A-TOT

For Garment-Type Harness Adapted To Be Worn by a Child.
First use Oct. 2, 1957.

SN 45,005. Alson Sportswear Inc., New York, N. Y. Filed Jan. 31, 1958.

CULAWRAP

For Women's Divided Skirts.
First use Jan. 16, 1958.

Class 40—Fancy Goods, Furnishings, and Notions

SN 33,191. Elizabeth Arden Sales Corporation, New York, N. Y. Filed July 5, 1957.

ELIZABETH ARDEN

"Elizabeth Arden" is the name of a living individual. Consent is of record. Owner of Reg. No. 419,439.
For Hair Pins, Bobby Pins, Combs, Barrettes, Garment Buckles, Clips and Clasps of Non-Precious Metals and Plastics for the Hair and for Garments, Hat Pins, Millinery Braids and Artificial Flowers for the Hair and Garments.
First use Mar. 7, 1939.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 30,910. Jomac Inc., Philadelphia, Pa. Filed May 28, 1957.

UNI-DAMP

For Knitted Cotton Tubing Used for Covering Water Rollers on Lithographic Printing Presses, Made in Various Sizes To Fit Various Diameters of Rubber Rollers.
First use Apr. 27, 1957.

SN 37,292. Rhea Manufacturing Company, Milwaukee, Wis. Filed Sept. 16, 1957.

MARY LESTER

For Fabric Cover Sets for Toilet Tanks and Toilet Seat Lids.
First use on or about Jan. 2, 1952.

SN 40,815. City of Paris, San Francisco, Calif. Filed Nov. 18, 1957.

FOLD-A-PLEAT

For Draperies.
First use Oct. 21, 1957.

SN 42,404. J. P. Stevens & Co., Inc., New York, N. Y. Filed Dec. 13, 1957.

PLAY-PILE SR.

For Finished Corduroy in the Piece.
First use Nov. 1, 1957.

SN 42,405. J. P. Stevens & Co., Inc., New York, N. Y. Filed Dec. 13, 1957.

DELTASPUN

Owner of Reg. Nos. 341,045, 650,154, and others.
For Piece Goods of Cotton, Synthetic Fibers, and Combinations Thereof.
First use Nov. 15, 1957.

SN 43,523. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Jan. 7, 1958.

POLARIS

For Fine Textured Carpets.
First use Sept. 3, 1957.

SN 43,534. Fieldcrest Mills, Inc., Spray, N. C. Filed Jan. 7, 1958.

PEEREAU

For Textile Rugs and Carpeting.
First use Aug. 6, 1957.

SN 43,547. Multi-Tex Products Corp., Newark, N. J. Filed Jan. 7, 1958.

MIRACURL

For "Persian Lamb-Type" Fabric.
First use Aug. 1, 1957.
Subj. to Intf. with SN 38,324.

SN 43,681. D. B. Fuller & Co. Inc., New York, N. Y. Filed Jan. 9, 1958.

STREGA

For Textile Fabrics in the Piece of Cotton and Rayon.
First use June 10, 1957.

SN 43,953. G. C. Murphy Company, McKeesport, Pa. Filed Jan. 14, 1958.

SHAMROCK

For Carpeting, Rugs, Bath Mats, and Bath Mat Sets.
First use Jan. 24, 1956.

Class 44—Dental, Medical, and Surgical Appliances

SN 22,767. Nu-Dent Porcelain Studio Inc., New York, N. Y. Filed Jan. 17, 1957.

UNIT-BILT

For Dentures, Dental Supplies—Namely, Porcelain Jacket Crowns, Porcelain Bridges, Porcelain Inlays, All Types of Dental Gold-Work, Dental Rubber-Work, Dental Porcelain Work, and Dental Stain.
First use February 1934.

SN 33,487. J. W. Lochmiller Co., Whittier, Calif. Filed July 10, 1957.

CHICK-O-MATIC

For Electrically Operated Machines for De-Beaking Poultry.
First use June 11, 1957.

SN 37,576. The Jectron Company, Toledo, Ohio. Filed Sept. 20, 1957.

POLYCAST

For Resinous Material for Dentures.
First use Sept. 6, 1957.

SN 39,576. Audivox, Inc., Boston, Mass. Filed Oct. 28, 1957.

Slimline

For Eyeglass Hearing Aids and the Like.
First use Sept. 11, 1957.

SN 40,200. Air Electric Machine Company, Inc., Lohrville, Iowa. Filed Nov. 7, 1957.

HEALTH LIFEGUARD EQUIPMENT

The words "Health Equipment" are disclaimed apart from the mark as shown.
For Vibrating Belt Massage Machines.
First use Oct. 17, 1957.

SN 41,194. Harry Wright Seiger, Santa Monica, Calif. Filed Nov. 22, 1957.

CERVITOME

For Surgical Instrument Used in Various Examinations of the Cervix.
First use June 10, 1957.

Class 45—Soft Drinks and Carbonated Waters

SN 20,965. Assis Ltd., Ramat Gan, Israel. Filed Dec. 13, 1956.

ASSIS

Owner of Israelian Reg. No. 3007, dated Oct. 31, 1934.
For Non-Alcoholic Beverages Sold as Soft Drinks; and Syrups, Fruit Squashes for Making Such Soft Drinks; Non-Alcoholic Cordials.

SN 39,196. Dehydrated Juices, Inc., Chicago, Ill. Filed Oct. 21, 1957.

SLIM-AID

For Artificially-Sweetened Flavored Concentrates in Liquid Form for Making Soft Drinks.
First use in March 1956.

SN 40,321. Clicquot Club Company, Millis, Mass. Filed Nov. 8, 1957.

Clicquot Club

Owner of Reg. Nos. 19,634, 574,267, and others.
For Carbonated Waters and Soft Drinks, and Syrups, Extracts, and Flavors for Making Soft Drinks.
First use July 25, 1956; 1914 as to the figure; 1886 as to "Clicquot Club."

SN 40,783. Gristede Bros., Inc., New York, N. Y. Filed Nov. 18, 1957.

GRISDALE

Owner of Reg. No. 567,431.
For Soft Drinks.
First use Mar. 6, 1934.

Class 46—Foods and Ingredients of Foods

SN 5,883. Unanue & Sons, Inc., New York, N. Y. Filed Apr. 5, 1956. Sec. 2(f).

PAELLA

For Rice.
First use in the year 1949.

SN 12,114. William Pitt Tavern, Inc., d. b. a. The William Pitt, Chatham, N. J. Filed S. R. July 13, 1956. Am. P. R. July 9, 1957.

THE WILLIAM PITT

For Chocolate Sauce.
First use on or about July 1, 1954.

SN 13,812. Bonne Food Ltd., Vancouver, British Columbia, Canada. Filed Aug. 13, 1956.

Owner of Canadian Reg. No. 104,665, dated Oct. 12, 1956; and U. S. Reg. No. 640,107.
For the Following Canned Products: Chicken Stew, Ham and Chicken Sandwich Spread, Turkey, Turkey Salad Sandwich Filling, Devilled Ham Sandwich Spread, Beef and Chicken Sandwich Spread, Ham and Pickle Sandwich Spread, Ravioli Dinner Consisting of Noodle Pastry Patties Containing Chopped Vegetables and Packed in a Tomato Sauce, Chicken a la King, Chicken Loaf and Ham Loaf.

SN 14,960. General Foods Corporation, White Plains, N. Y. Filed Aug. 31, 1956. Sec. 2(f).

JIFFY-JELL

Owner of Reg. No. 112,835.
For Edible Gelatin.
First use Apr. 4, 1914.

SN 17,855. Anderson, Clayton & Co., Dallas, Tex. Filed Oct. 22, 1956.

CHIFFON

For Shortening of Vegetable Origin, Salad Oil, and Oleomargarine.
First use Oct. 2, 1956.

SN 19,616. The Page Milk Company, Merrill, Wis. Filed Nov. 20, 1956.

PAGE Evap

Owner of Reg. Nos. 508,436 and 532,174.
For Evaporated Milk.
First use in July 1956; May 1954 as to the word "Evap."

SN 25,976. Dixie Club Coffee Inc., Birmingham, Ala. Filed Mar. 12, 1957.

VULCAN

For Coffee.
First use Feb. 1, 1957.

SN 27,939. Diets of Rochester, Inc., Rochester, Minn. Filed Apr. 11, 1957.

DREAM DIET

For Low Calorie Prepared Frozen Dinners Consisting of Entree of Fowl, Fish, or Macaroni, Vegetable, Salad, and Dessert.
First use Apr. 1, 1957.

SN 27,940. Diets of Rochester, Inc., Rochester, Minn. Filed Apr. 11, 1957.



For Low Caloric Prepared Frozen Dinners Consisting of Entree of Fowl, Fish, or Macaroni, Vegetable, Salad, and Dessert.
First use Apr. 1, 1957.

SN 28,450. Seapak Corporation, St. Simons Island, Ga. Filed Apr. 18, 1957. Sec. 2(f).

SEA PAK

Owner of Reg. Nos. 566,169 and 566,170.
For Frozen, Fresh Seafoods—Namely, Shrimp, Fish Fillets, Scallops, Oysters, and Lobster Tails; Frozen Shore Dinners Consisting of Cooked Seafoods and Vegetables; and Crab Cakes, Crab Patties, Corn Bread Sticks, Deviled Crabs, and Breaded Oysters.
First use Aug. 10, 1949.

SN 28,751. Blueberry Cooperative Association, New Lisbon, N. J. Filed Apr. 24, 1957.

TRU-BLU-BERRIES

Owner of Reg. No. 353,429.
For Blueberries.
First use in July 1927.

SN 29,915. Johnson and Schmidt, Toledo, Ohio. Filed May 13, 1957.

SMOKY CANYON

For Prepared, Ready to Eat Meat Products.
First use Sept. 28, 1956.

SN 30,581. General Foods Corporation, White Plains, N. Y. Filed May 23, 1957.

BOUQUET

For Coffee.
First use on or about May 6, 1957.

SN 31,897. Thomas Carvel, Yonkers, N. Y. Filed June 13, 1957.

PAPAPALOOZA

Owner of Reg. Nos. 651,524 and 651,525.
For Frozen Confections Mounted on Either Sticks or in Edible Cones, Liquid Concentrates for Making the Same, Chocolate Coatings for Coating Frozen Confections, Frozen Custards, Ice Creams, Fruit Ices and Fruit Juice Ices.
First use Aug. 1, 1956.

SN 34,016. Shulton, Inc., Clifton, N. J. Filed July 18, 1957.

NUVAN

For Imitation Food Flavoring Blend.
First use Mar. 25, 1957.

SN 34,448. National Tea Co., Chicago, Ill. Filed July 26, 1957.

Uncle Tom

For Smoked Ham and Smoked Bacon.
First use June 1, 1955.

SN 35,512. Hot Shoppes, Inc., d. b. a. Mighty Mo, Washington, D. C. Filed Aug. 14, 1957.

MIGHTY MO

Owner of Reg. No. 635,290.
For Sandwiches.
First use May 19, 1955.

SN 36,265. The Woolson Spice Company, Toledo, Ohio. Filed Aug. 26, 1957.

SEVEN BELLS

For Coffee.
First use Oct. 24, 1940.

SN 37,149. H. H. Dobbins & Son, Gasport, N. Y. Filed Sept. 13, 1957.



The drawing is lined for red and blue, but no claim is made to these colors.
For Fresh Fruits and Vegetables.
First use about November 1956.

SN 37,218. Vegetable Oil Products Company, Inc., Wilmington, Calif. Filed Sept. 16, 1957.

NU-SOYA

For Margarine.
First use Sept. 2, 1957.

SN 37,527. Southern States Cooperative, Incorporated, Richmond, Va. Filed Sept. 19, 1957. Sec. 2(f).

BROILER MAKER

Owner of Reg. Nos. 562,076, 578,689, and 609,747.
For Poultry Feeds Containing Grain and Grain By-Products, Proteinaceous Compounds, Vitamin Supplements and Mineral Ingredients.
First use Mar. 3, 1949.

SN 39,808. Lloyd J. Harriss Pie Co., Chicago, Ill. Filed Oct. 30, 1957.

LLOYD J. HARRISS

The name "Lloyd J. Harriss" identifies a particular living individual whose consent to the use and registration of his name is on file.

For Pies.
First use in June 1947.

SN 40,460. Hershey Creamery Company, Harrisburg, Pa. Filed Nov. 12, 1957.

FUDJO

For Frozen Confection on a Stick.
First use May 1947.

SN 40,461. Hershey Creamery Company, Harrisburg, Pa. Filed Nov. 12, 1957.

HERSHEY'S

For Butter.
First use in March 1935.

SN 41,151. Corn Products Refining Company, New York, N. Y. Filed Nov. 22, 1957.

MAZOFERM

For Corn Fermentation Solubles Used as Additives or Ingredients in Animal and Poultry Feeds.
First use at least as early as Oct. 18, 1957.

SN 41,301. Ocean Garden Products, Inc., San Diego, Calif. Filed Nov. 25, 1957.

GULF GOLD

For Frozen Fresh Shrimp.
First use Sept. 17, 1957.

SN 41,934. The Procter & Gamble Company, Cincinnati, Ohio. Filed Dec. 6, 1957.

BIG TOP

Owner of Reg. No. 580,274.
For Peanut Butter.
First use Aug. 28, 1946.

SN 42,406. Suwannee Food & Baking Company, Jacksonville, Fla. Filed Dec. 13, 1957.

Suwannee

For Canned Vegetables.
First use Oct. 15, 1957.

SN 42,688. The Borden Company, New York, N. Y. Filed Dec. 19, 1957.

ECON-O-WAY

Owner of Reg. No. 370,260.
For Ice Cream.
First use Sept. 25, 1957.

SN 42,934. A. E. Staley Manufacturing Company, Decatur, Ill. Filed Dec. 23, 1957.

SPEEDY BEEF

For Cattle Feed.
First use Aug. 20, 1957.

SN 43,576. Amato Grain & Seed Company, Lodi, N. J. Filed Jan. 8, 1958.

Red Robin

For Wild Bird Seed.
First use Aug. 29, 1956.

SN 43,843. Foremost Dairies, Inc., San Francisco, Calif. Filed Jan. 13, 1958.

OUTRIGGER

For Ice Cream.
First use Sept. 13, 1957.

SN 44,329. A. A. Wernsing, d. b. a. A and W Products, Hollywood, Calif. Filed Jan. 20, 1958.

SINGING VALLEY

For Stone Ground Corn Meal.
First use Dec. 31, 1957.

SN 44,501. Washington Frosted Foods, Inc., Washington, D. C. Filed Jan. 22, 1958.

QUAL-A-FOODS

For Frozen Vegetables.
First use Nov. 4, 1957.

SN 44,788. Albers Milling Company, Los Angeles, Calif. Filed Jan. 16, 1958.

Friskies

Owner of Reg. No. 322,538.
For Cat Food.
First use June 1, 1942.

SN 46,129. Foremost Dairies, Inc., San Francisco, Calif. Filed Feb. 19, 1958.

Profile

For Fluid Nonfat Milk and Cottage Cheese.
First use Oct. 19, 1957.

SN 46,349. Penndale, Inc., Lansdale, Pa. Filed Feb. 21, 1958.

TICK-TOCK

For Instant Coffee.
First use Jan. 1, 1954.

Class 47 — Wines

SN 20,680. Alta Vineyards Company, d. b. a. B. Cribari & Sons, Fresno, Calif. Filed Dec. 10, 1956. Sec. 2(f).

SARATOGA

Owner of Reg. No. 428,231.
For Wines.
First use June 1945.

SN 27,821. Sociedade Comercial dos Vinhos de Mesa de Portugal, Lda., Oporto, Portugal. Filed Apr. 9, 1957.

SPIRAL

Priority claimed under Sec. 44(d) on Portuguese application filed Oct. 19, 1956; Reg. No. 88,120, dated May 8, 1957.
For Wines.

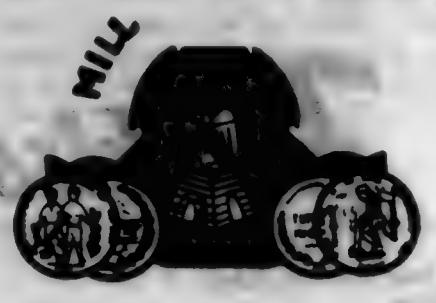
SN 39,464. E. & J. Gallo Winery, Modesto, Calif. Filed Oct. 24, 1957.

GALLO
Thunderbird

Owner of Reg. Nos. 394,057, 656,907, and others.
For Wines.
First use Apr. 22, 1957.

Class 48 — Malt Beverages and Liquors

SN 19,489. N. V. Phoenix Brouwerij, d. b. a. Klaver Brouwerij, Mill Brewery, and Klaver Holland Beer Brewery, Amersfoort, Netherlands. Filed Nov. 19, 1956.



For Beer.
First use in June 1946; in commerce Jan. 17, 1947.

Class 49 — Distilled Alcoholic Liquors

SN 19,738. Felton & Son, Incorporated, South Boston, Mass., from A. & G. J. Caldwell, Inc., Newburyport, Mass. Filed Nov. 23, 1956. Sec. 2(f).

CALDWELL'S.

Owner of Reg. Nos. 324,879, 324,845, and 346,050.
For Rum, Gin, Vodka, and Brandy.
First use in 1790 on rum.

SN 37,314. Trojan Distributing Co., Inc., d. b. a. Vodka Company of America, Los Angeles, Calif. Filed Sept. 16, 1957.

SORGÉ

For Vodka.
First use May 10, 1955.

SN 37,550. Booth's Distilleries Limited, London, England. Filed Sept. 20, 1957.



The drawing is lined for blue, red, and gold. Owner of Reg. Nos. 98,245, 625,592, and others.
For Gin.
First use June 1, 1957; in commerce June 1, 1957.

Class 50 — Merchandise Not Otherwise Classified

SN 23,164. Thomas W. Mullen, d. b. a. De Ratter Mouser Company, Evansville, Ind. Filed Jan. 24, 1957.

De RATTER MOUSER

For Bait Dispensing Unit for a Rodenticide.
First use on or about Jan. 1, 1952.

SN 34,272. Wood Conversion Company, St. Paul, Minn. Filed July 23, 1957.

SUPER-SOPPER

For Absorptive Flexible Fiber Mat for Absorbing Liquid Drips in Machinery and Like Equipment.
First use Nov. 20, 1956.

SN 39,558. Upressit Metal Cap Corporation, Danbury, Conn. Filed Oct. 25, 1957.

UNI-GRIP

For Closures for Metal Containers.
First use Oct. 15, 1957.

SN 39,668. Plastic Products Corporation, Seattle, Wash. Filed Oct. 28, 1957.

PHANTOM-TRAK

For Interchangeable Indicia Illuminated Background Advertising Signs and Components.
First use Feb. 27, 1957.

SN 40,187. Polk Bros., Inc., Chicago, Ill. Filed Nov. 6, 1957.

POLK'S PORTA-MART

For Portable Blown up Building (a Balloon Building) Which Is Inflated by a Compressor That Bulges the Walls Upward and Outward, and the Constant Interior Air Pressure Keeps It Inflated.
First use on or about Oct. 25, 1956.

SN 41,667. Peerless Accessories Co., Mount Holly, N. J. Filed Dec. 2, 1957.



For Roadside Reflectors.
First use Sept. 10, 1954.

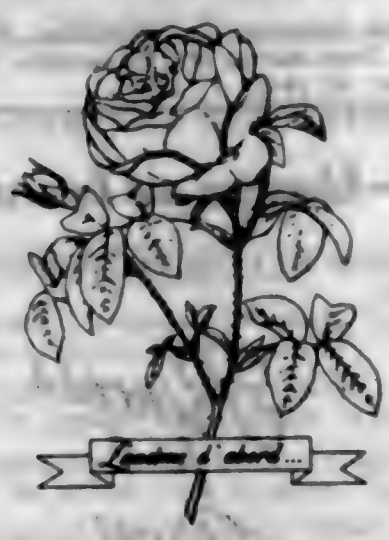
SN 41,752. Gey Band and Tag Company, Norristown, Pa. Filed Dec. 4, 1957.

GEYCO

For Identification Devices—Namely, Identification Leg and Wing Bands for Pigeons, Game Birds and Poultry, and Plastic Labels and Markers for Plants, Shrubs, and Trees.
First use Sept. 8, 1950.

Class 51—Cosmetics and Toilet Preparations

SN 34,618. Lancome, S. A., Paris, France. Filed July 30, 1957.



The phrase "Lancome d'Abord" is translated as "Lancome First." Owner of French Reg. No. 462,781, dated Feb. 12, 1957 (Seine); Natl. Inst. No. 85,531; and U. S. Reg. Nos. 540,349 and 556,852.
For Perfumes, Toilet Water, and Eau de Cologne.

Class 52—Detergents and Soaps

SN 31,382. Cheesebrough-Pond's, Inc., New York, N. Y. Filed June 5, 1957.

HIDDEN ACTION

For Shampoo for the Hair.
First use Apr. 26, 1957.

SN 33,498. Pennsalt Chemicals Corporation, Philadelphia, Pa. Filed July 10, 1957.

SHARPLES

For Detergents for Industrial Use.
First use in 1947.

SN 38,087. Rochester Germicide Company, Rochester, N. Y. Filed Sept. 30, 1957.

GLO-SAN

For Toilet Bowl Cleaner and Disinfectant in Liquid Form.
First use June 26, 1956.

SN 38,335. Bissell Carpet Sweeper Company, Grand Rapids, Mich. Filed Oct. 4, 1957.



Owner of Reg. No. 87,595.
For Liquid Cleaner for Rugs, Carpets, and the Like.
First use Sept. 11, 1957.

SN 42,960. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Dec. 23, 1957.

FERLON

For Alkaline Cleaning Composition.
First use May 7, 1957.

SN 43,723. A & J Chemical Corp., Yonkers, N. Y. Filed Jan. 10, 1958.

STEAM-MOR

For Cleaning Compound for Removing Scale and Mineral Deposits From Inside of Steam Irons.
First use Dec. 18, 1957.

SN 47,232. Car-Skin Products Corporation, Flemington, N. J. Filed Mar. 7, 1958.

CAR-SKIN

For Automobile Cleaners.
First use May 15, 1936.

SERVICE MARKS

Class 100—Miscellaneous

SN 32,107. Micro-Master, Inc., Kansas City, Mo. Filed June 17, 1957.

MICRO-MASTER

Owner of Reg. No. 609,909.
For Photographic Reproduction and Consulting Services.
First use in November 1953.

Class 101—Advertising and Business

SN 13,278. John Cockerell, Inc., Chicago, Ill. Filed Aug. 2, 1956.



For Soliciting Advertising for Magazine Publishers and Engaging in Research on Markets Reached by Its Magazines.
First use on or about Mar. 30, 1956.

Class 102—Insurance and Financial

SN 690,938. Coale Auto Shops, Philadelphia, Pa. Filed July 8, 1955.



For Assessing Damage to Automotive Vehicles.
First use May 17, 1955.

SN 21,220. Union National Life Insurance Company, Atlanta, Ga. Filed Dec. 17, 1956.



For Underwriting Individual and Group Life Insurance.
First use on or about May 1, 1956.

Class 103—Construction and Repair

SN 33,845. Thompson Aircraft Tire Corporation, San Francisco, Calif. Filed July 16, 1957.

JET-TRED

For Retreading of Aircraft Tires of Others.
First use Mar. 5, 1957.

TM 170

Class 105—Transportation and Storage

SN 18,437. Lakewood Storage, Inc., Lakewood, Ohio. Filed Oct. 30, 1956. Sec. 2(f).



Owner of Reg. Nos. 223,693 and 639,840.
For Storing, Packing, Moving, and Shipping of Household and Industrial Goods by Motor Vehicle, and for Warehousing of Household and Industrial Goods.
First use in September 1953.

SN 30,629. American Airlines, Inc., New York, N. Y. Filed May 24, 1957.



Owner of Reg. Nos. 514,293 and 514,294.
For Air Transportation of Passengers.
First use Apr. 9, 1957; Sept. 16, 1936, as to "Mercury."

Class 106—Material Treatment

SN 37,255. Handi-Fotos, New York, N. Y. Filed Sept. 17, 1957.

HANDI-FOTOS

For Services Rendered in Connection With Developing, Printing, and Reproducing of Photographic Films.
First use Oct. 30, 1949.

Class 107—Education and Entertainment

SN 36,621. Queen for a Day, Inc., Hollywood, Calif. Filed Sept. 3, 1957.

Princess for a Day

For Title of a Radio and Television Program.
First use Dec. 25, 1946, on services in radio.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

664,881. WESTERN. Olin Mathieson Chemical Corporation, by merger and change of name from Olin Industries, Inc. SN 669,017. Pub. 5–13–58. Filed 6–28–54.

664,882. CURVED OUTLINE DESIGN. The National Plastic Products Company. SN 25,877. Pub. 5–13–58. Filed 8–12–57.

Class 2 — Receptacles

664,883. RIVESTIMENTO DALMINE. Dalmine S. p. A. SN 23,874. Pub. 5–13–58. Filed 1–14–57.

664,884. SPRA-PAK ETC. George B. Gordon. SN 26,815. Pub. 5–13–58. Filed 3–25–57.

664,885. TEMPO. Tempo Products Company. SN 37,199. Pub. 5–13–58. Filed 9–13–57.

664,886. MONARCH GRANITEX. Wilbert W. Haase Co. SN 37,494. Pub. 5–13–58. Filed 9–19–57.

664,887. MONARCH SILVERTEX. Wilbert W. Haase Co. SN 37,495. Pub. 5–13–58. Filed 9–19–57.

664,888. MONARCH GOLDTEX. Wilbert W. Haase Co. SN 37,496. Pub. 5–13–58. Filed 9–19–57.

664,889. MONARCH COPPERTEX. Wilbert W. Haase Co. SN 37,497. Pub. 5–13–58. Filed 9–19–57.

664,890. CAL-DAK. The Cal-Dak Company. SN 38,738. Pub. 5–13–58. Filed 10–11–57.

Class 4 — Abrasives and Polishing Materials

664,891. SHINE MAGIC. Schultz Shoe Company, Inc. SN 36,025. Pub. 5–13–58. Filed 8–22–57.

Class 5 — Adhesives

664,892. BORNE ETC. AND DESIGN. Borne Chemical Company, Inc. SN 38,892. Pub. 5–13–58. Filed 10–15–57.

664,893. MEYER'S. Harold Joseph Meyer. SN 38,935. Pub. 5–13–58. Filed 10–15–57.

Class 6 — Chemicals and Chemical Compositions

664,894. FLORES Y ENCAJE. John H. Breck, Inc. SN 21,983. Pub. 5–13–58. Filed 1–2–57.

664,895. AQUET. Pennsalt Chemicals Corporation. SN 30,189. Pub. 5–13–58. Filed 5–16–57.

664,896. FOREST SCENT. John Sherry, d. b. a. Forest Scent Co. SN 31,699. Pub. 5–13–58. Filed 6–10–57.

664,897. HUNTINGTON HI-SINE. Huntington Laboratories, Inc. SN 32,956. Pub. 5–13–58. Filed 7–1–57.

664,898. CHARG-A-CAN. American Potash & Chemical Corporation. SN 33,788. Pub. 5–13–58. Filed 7–16–57.

664,899. ORTHO-KLOR. California Spray-Chemical Corporation. SN 39,187. Pub. 5–13–58. Filed 10–21–57.

664,900. DIASTAFOR. Standard Brands Incorporated. SN 39,290. Pub. 5–13–58. Filed 10–21–57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

664,901. AEROJET-GENERAL. Aerojet-General Corporation. SN 10,637. Pub. 5–13–58. Filed 6–21–56.

Class 10 — Fertilizers

664,902. GREEN GENIE. John Wilson Gouge. SN 30,084. Pub. 5–13–58. Filed 5–15–57.

664,903. PRO GRO. O. M. Scott & Sons Company. SN 38,230. Pub. 5–13–58. Filed 10–2–57.

664,904. HERBA-LIZER. West Kentucky Liquid Fertilizer Co., Inc. SN 41,680. Pub. 5–13–58. Filed 12–2–57.

664,905. BLUE BIRD. Bonnie Brands, Inc. SN 41,690. Pub. 5–13–58. Filed 12–3–57.

664,906. HUMULL. The Eclipse Peat Company Limited. SN 42,118. Pub. 5–13–58. Filed 12–10–57.

664,907. MALLARD BRAND AND DESIGN. The Consolidated Mining and Smelting Company of Canada Limited. SN 43,300. Pub. 5–13–58. Filed 1–2–58.

664,908. PRO-D-CO. Product Development Co., Inc. SN 44,647. Pub. 5–13–58. Filed 1–24–58.

Class 12 — Construction Materials

664,909. CONTOURAIL AND DESIGN. I. & J. Suckno Co. SN 689,529. Pub. 5–13–58. Filed 6–14–55.

664,910. PLY-BORD. Ply-Bord Inc. SN 6,464. Pub. 5–13–58. Filed 4–16–56.

664,911. F AND DESIGN OF MAN. Flexangle Corporation. SN 12,949. Pub. 5–13–58. Filed 7–27–56.

664,912. CANTI-BAC. Canti-Bac Manufacturing Co. SN 13,965. Pub. 5–13–58. Filed 8–15–56.

664,913. VYN-ALUME. All Aluminum Corp. SN 16,164. Pub. 5–13–58. Filed 9–24–56.

664,914. SPEE-D-RECT AND DESIGN. Spee-D-Rect. SN 21,586. Pub. 5–13–58. Filed 12–24–56.

664,915. PEARLTONE. The Dodge Cork Company, Incorporated. SN 24,132. Pub. 2–18–58. Filed 2–11–57.

664,916. NU-PUTTIE. National Chemical & Manufacturing Company. SN 25,020. Pub. 5–13–58. Filed 2–25–57.

664,917. SURAMIC. Supradur Manufacturing Corporation. SN 25,479. Pub. 3–25–58. Filed 3–4–57.

664,918. AGATINE. The B. F. Goodrich Company. SN 25,856. Pub. 5–13–58. Filed 3–11–57.

664,919. TARMIX. Basic, Incorporated. SN 29,770. Pub. 5–13–58. Filed 5–10–57.

664,920. VINL-STOP. The Duraflex Co. SN 32,931. Pub. 5–13–58. Filed 7–1–57.

664,921. THERMOGARD. Exomet, Incorporated. SN 32,936. Pub. 5–13–58. Filed 7–1–57.

664,922. B–W REFLECTAL ETC. AND DESIGN. Borg-Warner Corporation. SN 33,122. Pub. 5–13–58. Filed 7–3–57.

664,923. CERAMIWALL. United States Ceramic Tile Company. SN 33,840. Pub. 5–13–58. Filed 7–16–57.

664,924. DELTA AND DESIGN. Delta Roofing Mills Incorporated. SN 35,748. Pub. 5–13–58. Filed 8–19–57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

664,925. WESTERN. Western Plastics Corporation. SN 696,609. Pub. 5–13–58. Filed 10–17–55.

664,926. RIVESTIMENTO DALMINE. Dalmine S. p. A. SN 23,875. Pub. 5–13–58. Filed 1–14–57.

664,927. TAU BOLT. Huck Manufacturing Company. SN 24,986. Pub. 5–13–58. Filed 2–25–57.

664,928. MARK. Clayton Mark & Company. SN 30,732. Pub. 5–13–58. Filed 5–27–57.

664,929. SHISH-KA-BAB-EEZ. Beacon Metal Products Co. SN 31,541. Pub. 5–13–58. Filed 6–7–57.

664,930. FILTER-FRY. Research Products Corporation. SN 32,535. Pub. 5–13–58. Filed 6–24–57.

664,931. STA-PUT. Carlson Products, Inc. SN 34,844. Pub. 5–13–58. Filed 8–2–57.

664,932. STA-ON. Cornelis Manufacturing Corporation. SN 34,924. Pub. 5–13–58. Filed 8–5–57.

664,933. RELCOMATIC. Reliable Luggage, Inc. SN 34,995. Pub. 5–13–58. Filed 8–5–57.

664,934. AIR-O-MATIC. Reliable Luggage, Inc. SN 34,996. Pub. 5–13–58. Filed 8–5–57.

664,935. ULTRAMATIC. Reliable Luggage, Inc. SN 34,997. Pub. 5–13–58. Filed 8–5–57.

664,936. FAIRWAY. Montgomery Ward & Co., Incorporated. SN 35,671. Pub. 5–13–58. Filed 8–16–57.

664,937. HC. American Chain & Cable Company, Inc. SN 35,967. Pub. 5–13–58. Filed 8–22–57.

664,938. HB. American Chain & Cable Company, Inc. SN 35,968. Pub. 5–13–58. Filed 8–22–57.

664,939. BLUE TEMPER. Campbell Chain Company. SN 36,162. Pub. 5–13–58. Filed 8–26–57.

664,940. MORHAND. Carlon Products Corporation. SN 36,849. Pub. 5–13–58. Filed 9–9–57.

664,941. USC AND DESIGN. United Specialties Company. SN 37,115. Pub. 5–13–58. Filed 9–12–57.

664,942. ORISEAL. Mueller Co. SN 37,362. Pub. 5–13–58. Filed 9–17–57.

664,943. DESIGN OF BALLOON. Avica Corporation. SN 37,406. Pub. 5–13–58. Filed 9–18–57.

664,944. TITEWALL. Carl J. Erickson, d. b. a. Titewall Hanger Company. SN 37,648. Pub. 5–13–58. Filed 9–23–57.

664,945. SELFCON. Grinnell Corporation. SN 37,651. Pub. 5–13–58. Filed 9–23–57.

664,946. ROVALVE. W. G. Rovang & Associates, Inc. SN 37,747. Pub. 5–13–58. Filed 9–24–57.

664,947. ROBERTS. Roberts Manufacturing Co. SN 37,900. Pub. 5–13–58. Filed 9–26–57.

664,948. IMEX. George Tucker Eyelet Company, Limited. SN 37,918. Pub. 5–13–58. Filed 9–26–57.

664,949. BARTITE. Bartite Products Corp. SN 38,193. Pub. 5–13–58. Filed 10–2–57.

664,950. P AND DESIGN. Pheoll Manufacturing Company. SN 38,228. Pub. 5–13–58. Filed 10–2–57.

664,951. PROTECTOFOAM. Grinnell Corporation. SN 38,280. Pub. 5–13–58. Filed 10–3–57.

664,952. COLE ETC. AND DESIGN. R. D. Cole Manufacturing Company. SN 38,346. Pub. 5–13–58. Filed 10–4–57.

664,953. SAF-LOK. Safety Socket Screw Company. SN 38,389. Pub. 5–13–58. Filed 10–4–57.

664,954. LED-LOK. Safety Socket Screw Company. SN 38,390. Pub. 5–13–58. Filed 10–4–57.

664,955. FLECK-SEAL. L. W. Fleckenstein, Inc. SN 38,445. Pub. 5–13–58. Filed 10–7–57.

Class 14—Metals and Metal Castings and Forgings

664,956. MADECO. Madeco Manufacturas de Cobre S. A. SN 29,733. Pub. 5–13–58. Filed 5–9–57.

664,957. COBRA. Columbus Brass and Aluminum Co., Inc. SN 32,291. Pub. 5–13–58. Filed 6–20–57.

Class 15—Oils and Greases

664,958. Q QUAKER STATE AND DESIGN. Quaker State Oil Refining Corporation. SN 5,546. Pub. 5–13–58. Filed 3–30–56.

664,959. DESIGN OF MAP OF U. S. ETC. United States Petrochemical Co., Inc. SN 15,416. Pub. 5–13–58. Filed 9–16–56.

664,960. FUTURFUEL. Buchanan & Company, Inc. SN 36,277. Pub. 5–13–58. Filed 8–27–57.

664,961. STERLING SUPER BLEND Q AND DESIGN. Quaker State Oil Refining Corporation. SN 37,590. Pub. 5–13–58. Filed 9–20–57.

664,962. GLOBE. The Globe Oil & Refining Company. SN 39,219. Pub. 5–13–58. Filed 10–21–57.

Class 16—Protective and Decorative Coatings

664,963. GUARDSMAN ROYALINE AND DESIGN. Grand Rapids Varnish Corporation. SN 31,107. Pub. 5–13–58. Filed 5–31–57.

664,964. PALCO. Pratt & Lambert-Inc. SN 36,226. Pub. 5–13–58. Filed 8–26–57.

664,965. ADVACAR. Carlisle Chemical Works, Inc. SN 39,779. Pub. 5–13–58. Filed 10–30–57.

664,966. POLYTINT AND DESIGN. Marine Paint & Varnish Company, Inc. SN 41,556. Pub. 5–13–58. Filed 11–29–57.

Class 18—Medicines and Pharmaceutical Preparations

664,967. BLENDER-AID. Lawrence Industries, Inc. SN 17,019. Pub. 5–13–58. Filed 10–5–56.

664,968. AMBUR. The Amburgo Company Inc. SN 22,288. Pub. 5–13–58. Filed 1–9–57.

664,969. BAYCAIN. Farbenfabriken Bayer Aktiengesellschaft. SN 32,301. Pub. 5–11–58. Filed 6–20–57.

664,970. DISPOLAC. Imperial Chemical Industries Limited. SN 33,418. Pub. 5–13–58. Filed 2–11–58.

664,971. FIDY. Standard Brands Incorporated. SN 39,291. Pub. 5–13–58. Filed 10–21–57.

664,972. GERI-AIDE. Barth Levitt Products. SN 39,374. Pub. 5–13–58. Filed 10–23–57.

664,973. PRN. Bristol Laboratories Inc. SN 39,445. Pub. 5–13–58. Filed 10–24–57.

664,974. V-CILLIN K. Eli Lilly and Company. SN 39,475. Pub. 5–13–58. Filed 10–24–57.

664,975. DARVON. Eli Lilly and Company. SN 39,476. Pub. 5–13–58. Filed 10–24–57.

664,976. DEPROL. Carter Products, Inc. SN 39,781. Pub. 5–13–58. Filed 10–30–57.

664,977. PREDMYCIN. Allergan Corp. SN 39,853. Pub. 5–13–58. Filed 10–31–57.

Class 19—Vehicles

664,978. SCHRAMM WONDERLIFT AND DESIGN. Arthur G. Schramm. SN 27,142. Pub. 5–13–58. Filed 3–28–57.

664,979. VELAMOS. Velamos, Narodni Podnik. SN 36,328. Pub. 5–13–58. Filed 8–27–57.

664,980. FEATHER FENDER AND DESIGN. Reinforced Plastics Corporation. SN 37,042. Pub. 5–13–58. Filed 9–11–57.

664,981. FREIGHTER. Hyster Company (Nevada corporation), from Hyster Company (Oregon corporation). SN 38,753. Pub. 5–13–58. Filed 10–11–57.

Class 21 — Electrical Apparatus, Machines, and Supplies

664,982. INFRAMATIC. George Gale, d. b. a. St. George and Gale. SN 694,566. Pub. 5–13–58. Filed 9–13–55.

664,983. WEATHER GUARD AND DESIGN. Northwest TV Antennas Inc. SN 694,458. Pub. 3–6–56. Filed 10–14–55.

664,984. KLIKSWITCH. General Controls Co. SN 2,115. Pub. 3–5–57. Filed 2–6–56.

664,985. ALUMALET. Killark Electric Manufacturing Co. SN 26,634. Pub. 5–13–58. Filed 3–25–57.

664,986. ELECTRO-CHEK. Electro-Chek Corporation of America. SN 27,022. Pub. 5–13–58. Filed 3–27–57.

664,987. FERROGUIDE. Airtron, Inc. SN 27,482. Pub. 5–13–58. Filed 4–4–57.

664,988. CORECO. Complete-Reading Electric Co., Inc. SN 29,873. Pub. 5–13–58. Filed 5–13–57.

664,989. SELECTOHEAT. Allis-Chalmers Manufacturing Company. SN 30,879. Pub. 5–13–58. Filed 5–28–57.

664,990. SPEARPOINT. New York Merchandise Co., Inc. SN 30,980. Pub. 5–13–58. Filed 5–28–57.

664,991. FUL-FI. Birmingham Sound Reproducers Limited. SN 33,205. Pub. 5–13–58. Filed 7–5–57.

664,992. GPL AND DESIGN. General Precision Laboratory Incorporated. SN 33,472. Pub. 5–13–58. Filed 7–10–57.

664,993. TELEVETTE. Philco Corporation. SN 35,384. Pub. 5–13–58. Filed 8–12–57.

664,994. CHESTERFLUR. Chester Cable Corp. SN 35,419. Pub. 5–13–58. Filed 8–13–57.

664,995. FENWAL. Fenwal, Incorporated. SN 35,504. Pub. 5–13–58. Filed 8–14–57.

664,996. H TO O. Special Electric Company, Inc. SN 35,539. Pub. 5–13–58. Filed 8–14–57.

664,997. PIDG. AMP Incorporated. SN 35,971. Pub. 5–13–58. Filed 8–22–57.

664,998. NUTONE. Nutone, Inc. SN 36,464. Pub. 5–13–58. Filed 8–29–57.

664,999. FDS AND DESIGN. Capitol Records, Inc. SN 36,688. Pub. 5–13–58. Filed 9–5–57.

665,000. CAPITOL AND DESIGN. Capitol Records, Inc. SN 36,689. Pub. 5–13–58. Filed 9–5–57.

665,001. VICTROLA. Radio Corporation of America. SN 36,918. Pub. 5–13–58. Filed 9–9–57.

665,002. ORTHONOL. Magnetics, Inc. SN 36,972. Pub. 5–13–58. Filed 9–10–57.

Class 22 — Games, Toys, and Sporting Goods

665,003. SIGNARSK. Carl M. Dunham. SN 27,852. Pub. 5–13–58. Filed 4–10–57.

665,004. HART. The Hart Manufacturing Company. SN 32,951. Pub. 5–13–58. Filed 7–1–57.

665,005. PEQUEA. Pequea Fishing Tackle, Inc. SN 36,221. Pub. 5–13–58. Filed 8–26–57.

665,006. HI-JINX. Hi-Jinx Records, Inc. SN 36,492. Pub. 5–13–58. Filed 8–19–57.

665,007. HUSKY. The Husky Toy Company. SN 37,203. Pub. 5–13–58. Filed 9–16–57.

665,008. GRACELINE. F. W. Woolworth Co. SN 38,517. Pub. 5–13–58. Filed 10–7–57.

665,009. TOP MR. Standard Toykraft Products, Inc. SN 38,643. Pub. 5–13–58. Filed 10–9–57.

665,010. DOLLIEBABE. National Production Company. SN 38,762. Pub. 5–13–58. Filed 10–11–57.

665,011. SEMAPHORE. Cortland Line Company, Inc. SN 38,806. Pub. 5–13–58. Filed 10–14–57.

665,012. MASTERGLASS. South Bend Tackle Company, Inc. SN 38,885. Pub. 5–13–58. Filed 10–14–57.

665,013. TOMSURF. Thommen, Inc. SN 39,102. Pub. 5–13–58. Filed 10–17–57.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

665,014. HELIOS-MACHINERY AND DESIGN. Winkler & Dünnebier, Maschinenfabrik und Eisengiesserei K. G. SN 21,284. Pub. 5–13–58. Filed 12–18–56.

665,015. DENSITE. Stowe-Woodward, Inc. SN 24,007. Pub. 5–13–58. Filed 2–7–57.

665,016. DESIGN OF EXPANSION SHELL AND RED PLUG. Phillips Drill Company. SN 24,075. Pub. 3–4–58. Filed 2–8–57.

665,017. LANDMASTER. Landmaster Limited. SN 26,469. Pub. 5–13–58. Filed 3–19–57.

665,018. SECO AND DESIGN. Seco Engineering & Mfg., Inc. SN 27,902. Pub. 5–13–58. Filed 4–10–57.

665,019. DIXIE AND DESIGN. American Can Company, from Dixie Cup Company. SN 28,838. Pub. 5–13–58. Filed 4–17–57.

665,020. TRIMSEAL. Cook Engineering & Electronics, Inc. SN 30,067. Pub. 5–13–58. Filed 5–15–57.

665,021. BONIPAK. The Sheffield Corporation. SN 30,115. Pub. 5–13–58. Filed 5–15–57.

665,022. MACK-HEMP. E. W. Bliss Company. SN 30,395. Pub. 5–13–58. Filed 5–21–57.

665,023. LIGNALLOY. K. W. Atwater Engineering Inc. SN 30,982. Pub. 5–13–58. Filed 5–29–57.

665,024. FERROSTAAL. Ferrostaal A. G. SN 33,853. Pub. 5–13–58. Filed 6–11–57.

665,025. ELASTOMUFFLE. Apex Marine & Equipment, Inc., from Henry S. Hoffar. SN 35,349. Pub. 5–13–58. Filed 8–12–57.

665,026. NAMCO AND DESIGN. The National Acme Company. SN 36,614. Pub. 5–13–58. Filed 9–3–57.

665,027. ALL-MOTOR. The Falk Corporation. SN 38,581. Pub. 5–13–58. Filed 9–23–57.

665,028. AIR-CON. Andrew Kux, d. b. a. Occidental Electric Company. SN 38,826. Pub. 5–13–58. Filed 10–14–57.

665,029. ROLIN. The Rolin Corporation. SN 38,857. Pub. 5–13–58. Filed 10–14–57.

665,030. DYNA-DRILL. H. C. Smith Oil Tool Co. SN 38,863. Pub. 5–13–58. Filed 10–14–57.

665,031. WAUGHPAK. Waugh Equipment Company. SN 38,880. Pub. 5–13–58. Filed 10–14–57.

665,032. S CO. AND DESIGN. Scharmann Machine Corporation. SN 38,949. Pub. 5–13–58. Filed 10–15–57.

665,033. TRACTO SIDE BOOM. Tractomotive Corporation. SN 39,686. Pub. 3–11–58. Filed 10–28–57.

665,034. TRACTO PARTS. Tractomotive Corporation. SN 39,687. Pub. 3–18–58. Filed 10–28–57.

665,035. TRACTOHOE. Tractomotive Corporation. SN 39,688. Pub. 3–11–58. Filed 10–28–57.

665,036. TRACTO A SURE SIGN ETC. Tractomotive Corporation. SN 39,689. Pub. 3–11–58. Filed 10–28–57.

665,037. ANKRETE. Roberts Manufacturing Co. SN 40,501. Pub. 5–13–58. Filed 11–12–57.

665,038. SWINGLINE. Swingline, Inc. SN 42,742. Pub. 5–13–58. Filed 12–19–57.

665,039. CROMCLAD. New England Tap Company, Inc. SN 42,898. Pub. 5–13–58. Filed 12–23–57.

665,040. CLAW. Shawnee Manufacturing Company, Inc. SN 42,928. Pub. 5–13–58. Filed 12–23–57.

665,041. STEWART-WARNER. Stewart-Warner Corporation. SN 42,940. Pub. 5–13–58. Filed 12–23–57.

665,042. SPEEDMATIC. Swingline, Inc. SN 42,943. Pub. 5–13–58. Filed 12–23–57.

665,043. WARN. Warn Manufacturing Company. SN 42,953. Pub. 5–13–58. Filed 12–23–57.

665,044. CHALLENGE. Challenge Manufacturing Co. SN 43,010. Pub. 5–13–58. Filed 12–26–57.

665,045. DIAMALLOY. Diamond Calk Horseshoe Company. SN 43,014. Pub. 5–13–58. Filed 12–26–57.

Class 26—Measuring and Scientific Appliances

665,046. HILCO. The Hilsinger Corporation. SN 30,491. Pub. 5–13–58. Filed 5–22–57.

665,047. THRIFT BLOCKS. Brown & Sharpe Manufacturing Company. SN 30,562. Pub. 5–13–58. Filed 5–23–57.

665,048. MITERITE AND DESIGN. Miterite, Inc., from Eugene S. Weiss. SN 32,642. Pub. 5–13–58. Filed 6–25–57.

665,049. SALES-MAKER. Gilbert & Barker Manufacturing Company. SN 33,474. Pub. 5–13–58. Filed 7–10–57.

665,050. HASSELBLAD AND DESIGN. Victor Hasselblad Aktiebolag. SN 33,929. Pub. 5–13–58. Filed 7–17–57.

665,051. TEST-O-MATIC. Shell Electronic Mfg. Corp. SN 34,181. Pub. 5–13–58. Filed 7–22–57.

665,052. REDI-TAX. Charlotte P. Hoffman. SN 34,290. Pub. 5–13–58. Filed 7–24–57.

665,053. FENWAL. Fenwal Incorporated. SN 35,505. Pub. 5–13–58. Filed 8–14–57.

665,054. AGFACOLOR. Agfa Aktiengesellschaft by change of name from Agfa Aktiengesellschaft für Photofabrikation. SN 36,141. Pub. 5–13–58. Filed 8–26–57.

665,055. EKTANAR. Eastman Kodak Company. SN 38,204. Pub. 5–13–58. Filed 10–2–57.

665,056. NUMERICORD. Giddings & Lewis Machine Tool Company. SN 38,352. Pub. 5–13–58. Filed 10–4–57.

Class 27—Horological Instruments

665,057. MIDOLUXE. S. A. Mido, from Mido Watch Company of America, Inc. SN 20,203. Pub. 5–13–58. Filed 11–30–56.

665,058. SNOOZ-ALARM. General Electric Company. SN 28,139. Pub. 5–13–58. Filed 4–15–57.

665,059. BOURDEAUX-GENEVE. Henri J. Bourdeaux, d. b. a. Henri J. Bordeaux and Company. SN 28,235. Pub. 5–13–58. Filed 4–16–57.

665,060. EZB. Max Buslik, d. b. a. Embe Watch Company. SN 28,573. Pub. 5–13–58. Filed 4–22–57.

Class 28—Jewelry and Precious-Metal Ware

665,061. CAPTIVATE. The International Silver Company. SN 35,999. Pub. 5–13–58. Filed 8–22–57.

665,062. LEADING LADY. The International Silver Company. SN 36,000. Pub. 5–13–58. Filed 8–22–57.

665,063. TIE-UPS. Trifari, Krussman & Fishel, Inc. SN 37,054. Pub. 5–13–58. Filed 9–11–57.

Class 30—Crockery, Earthenware, and Porcelain

665,064. WENTWORTH. Allied Stores Corporation. SN 35,717. Pub. 5–13–58. Filed 8–19–57.

Class 31—Filters and Refrigerators

665,065. LENNOX. Lennox Industries Inc. CONSOLIDATED CERTIFICATE. SN 25,007, pub. 4–15–58, filed 2–25–57, Cl. 31; SN 19,471, pub. 5–6–58, filed 11–19–56, Cl. 34.

Class 32—Furniture and Upholstery

665,066. ROLLER FRAME AND DESIGN. Duo-Bed Corporation. SN 5,613. Pub. 5–13–58. Filed 4–2–56.

665,067. SCHWARTZ. Grand Rapids Sectional Equipment Company. SN 17,456. Pub. 5–13–58. Filed 10–15–56.

665,068. FM AND DESIGN. Faries-McMeekan, Inc. SN 31,981. Pub. 5–13–58. Filed 6–14–57.

665,069. ACC-SELL-ERATOR. James Lees and Sons Company. SN 40,125. Pub. 5–13–58. Filed 11–5–57.

665,070. MARBLEHEAD CHERRY. Consider H. Willett, Inc. SN 42,101. Pub. 5–13–58. Filed 12–9–57.

665,071. FLOATALONG. Roscoe H. McGlone. SN 43,259. Pub. 5–13–58. Filed 12–31–57.

665,072. ADAPTA-LEGS. Unimach Corporation. SN 43,790. Pub. 5–13–58. Filed 1–10–58.

665,073. FLIP-FLOP-TOP. Blazon, Inc. SN 44,153. Pub. 5–13–58. Filed 1–17–58.

665,074. WILLIAMSBURG RESTORATION ETC. AND DESIGN. Williamsburg Restoration, Incorporated. SN 44,331. Pub. 5–13–58. Filed 1–20–58.

665,075. RITE-HITE. National Blank Book Company. SN 44,639. Pub. 5–13–58. Filed 1–24–58.

665,076. ADJUST-O-STRUT AND DESIGN. Jentzen-Miller Company. SN 44,826. Pub. 5–13–58. Filed 1–28–58.

665,077. BERMUDA LOUNGER. Simmons Company. SN 44,929. Pub. 5–13–58. Filed 1–29–58.

665,078. BEAUTY BACK. Simmons Company. SN 44,930. Pub. 5–13–58. Filed 1–29–58.

665,079. ROL-TRONIC. Watson Manufacturing Company, Inc. SN 44,942. Pub. 5–13–58. Filed 1–29–58.

Class 33—Glassware

665,080. TRAY KARDS. House Glass Corporation. SN 32,184. Pub. 5–13–58. Filed 6–18–57.

Class 34—Heating, Lighting, and Ventilating Apparatus

665,065. CONSOLIDATED CERTIFICATE. See Class 31.

665,081. BEAUTYBASE. Continental Manufacturing Company. SN 7,240. Pub. 9–11–56. Filed 4–27–56.

665,082. RIVESTIMENTO DALMINE. Dalmine S. p. A. SN 23,879. Pub. 5–13–58. Filed 1–14–57.

665,083. DUNHAM-BUSH AND DESIGN. Dunham-Bush, Inc. SN 25,765. Pub. 5–13–58. Filed 3–8–57.

665,084. JP AND DESIGN. James Perry Mfg. Co. SN 27,049. Pub. 5–13–58. Filed 3–27–57.

665,085. PIN-UP. The Siegler Corporation. SN 28,552. Pub. 5–13–58. Filed 4–19–57.

665,086. KELLEY BEACH BUCKET. Kelley Manufacturing Company. SN 36,879. Pub. 5–13–58. Filed 8–28–57.

665,087. THERMOJET. The International Boiler Works Co. SN 36,715. Pub. 5–13–58. Filed 9–5–57.

665,088. MEYERSCREEN. Fred Meyer of California, Inc. SN 36,908. Pub. 5–13–58. Filed 9–9–57.

665,089. KERA AND DESIGN. Keramische Industrie Bedarfs Kom. Ges. Paul Gatzke. SN 37,022. Pub. 5–13–58. Filed 9–11–57.

665,090. AUDIVENT. American Air Filter Company, Inc. SN 37,207. Pub. 5–13–58. Filed 9–16–57.

665,091. TEMPORA. International Oil Burner Co. SN 37,264. Pub. 5–13–58. Filed 9–16–57.

665,092. FLEXI TEMP. Resnor Manufacturing Company. SN 37,291. Pub. 5–13–58. Filed 9–16–57.

665,093. DESIGN OF THERMOMETER ETC. Temptron, Inc. SN 37,303. Pub. 5–13–58. Filed 9–16–57.

665,094. S AND DESIGN. Wm. Steinen Mfg. Co. SN 37,753. Pub. 5–13–58. Filed 9–24–57.

665,095. CORONET. Palmer Manufacturing Corporation. SN 37,806. Pub. 5–13–58. Filed 9–25–57.

665,096. ROYAL DELUXE. Palmer Manufacturing Corporation. SN 37,807. Pub. 5–13–58. Filed 9–25–57.

665,097. KEENEY CLIMATIZER. The Keeney Manufacturing Company. SN 38,361. Pub. 5–13–58. Filed 10–4–57.

Class 37—Paper and Stationery

665,098. BALLET AND DESIGN. Cory Corporation. SN 10,215. Pub. 5–13–58. Filed 6–14–56.

665,099. PORTCO. Portco Corporation. SN 26,188. Pub. 5–13–58. Filed 4–16–57.

665,100. DESKMASTER. The Esterbrook Pen Company. SN 30,417. Pub. 5–13–58. Filed 5–21–57.

Class 38—Prints and Publications

665,101. UPJOHN NEWS. The Upjohn Company. SN 33,770. Pub. 4–29–58. Filed 7–15–57.

665,102. EDUCATIONAL BUSINESS. American School Publishing Corp. SN 40,011. Pub. 5–13–58. Filed 11–4–57.

665,103. CONTRACTORS' ELECTRICAL EQUIPMENT. Sutton Publishing Company, Inc. SN 40,193. Pub. 5–13–58. Filed 11–6–57.

665,104. FOM. Film Strip-of-the-Month Clubs, Inc. SN 40,220. Pub. 5–13–58. Filed 11–7–57.

665,105. AUDITION. The Billboard Publishing Company. SN 40,645. Pub. 5–13–58. Filed 11–14–57.

665,106. THE COMPLETE SHOPPER. The Complete Shopper Inc. SN 40,661. Pub. 5–13–58. Filed 11–14–57.

Class 39—Clothing

665,107. GUILDHALL. Desmond's, Inc. SN 4,305. Pub. 2–4–58. Filed 3–12–56.

665,108. UNDERNEATH IT ALL . . A VASSARETTE. Munsingwear, Inc., d. b. a. Vassar Company. SN 24,547. Pub. 5–13–58. Filed 2–15–57.

665,109. CARAVAN. J. Schoeneman Incorporated. SN 29,529. Pub. 5–13–58. Filed 5–10–57.

665,110. DONNA TREAT. Gladstone-Arcuni, Inc. SN 33,475. Pub. 5–13–58. Filed 7–10–57.

665,111. PADDY-PUFF. Ply Clothing Co. SN 33,834. Pub. 5–13–58. Filed 7–16–57.

665,112. DEBU-TALLS. Lane Bryant, Inc. SN 35,516. Pub. 5–13–58. Filed 8–14–57.

665,113. NET RESULT. Delightform Foundations, Inc. SN 35,919. Pub. 5–13–58. Filed 8–21–57.

665,114. MAGIC-CLING. International Latex Corporation. SN 36,189. Pub. 5–13–58. Filed 8–26–57.

665,115. VANTA AND DESIGN. The Vanta Company, Inc. SN 36,820. Pub. 5–13–58. Filed 9–6–57.

665,116. VAPO-COOL. Joseph W. Henschel, d. b. a. Henschel Manufacturing Company. SN 38,610. Pub. 5–13–58. Filed 10–9–57.

665,117. OIL PATCH. Good Luck Glove Company. SN 38,818. Pub. 5–13–58. Filed 10–14–57.

665,118. FASHION STAR. Hudson Hosiery Company. SN 38,824. Pub. 5–13–58. Filed 10–14–57.

665,119. MITEY-MITS. Edmont Manufacturing Company. SN 38,906. Pub. 5–13–58. Filed 10–15–57.

665,120. DREAM BOAT. Marion Donovan. SN 38,933. Pub. 5–13–58. Filed 10–15–57.

Class 40—Fancy Goods, Furnishings, and Notions

665,121. PERMA-TITE. Sidney Meyer, d. b. a. F. Wolkow & Sons. SN 37,446. Pub. 5–13–58. Filed 9–18–57.

665,122. LANCASTER AND DESIGN. Hester Lancaster. SN 38,472. Pub. 5–13–58. Filed 10–7–57.

665,123. SUNBEAM. Sunbeam Corporation. SN 38,646. Pub. 5–13–58. Filed 10–9–57.

Class 41—Canes, Parasols, and Umbrellas

665,124. SHED RAIN AND DESIGN. Shedrain Umbrella Company. SN 27,251. Pub. 5–13–58. Filed 4–1–57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

665,125. VERCELIN. Etablissements Felix Vercel & Cie. SN 15,111. Pub. 4–2–57. Filed 9–5–56.

665,126. RHAPSODY. Pepperell Manufacturing Company. SN 23,245. Pub. 5–13–58. Filed 1–25–57.

665,127. BEAU KAY BY BEAUNIT AND DESIGN. Beaunit Mills, Inc. SN 24,558. Pub. 5–13–58. Filed 2–18–57.

665,128. MEDALIST. Mohasco Industries, Inc. SN 24,861. Pub. 5–13–58. Filed 2–21–57.

665,129. BANTAM BROADCLOTH. The Jaunty Fabric Corporation. SN 32,959. Pub. 5–13–58. Filed 7–1–57.

665,130. DOUBLE DUTCH AND DESIGN. Sadwin Curtain Mfg. Co., Inc. SN 38,490. Pub. 5–13–58. Filed 10–7–57.

665,131. BUENO. Mission Valley Mills, Inc. SN 38,553. Pub. 5–13–58. Filed 10–8–57.

665,132. PUEBLO. Mission Valley Mills, Inc. SN 38,554. Pub. 5–13–58. Filed 10–8–57.

665,133. GAYLANA. Deering, Milliken & Co. Inc. SN 38,597. Pub. 5–13–58. Filed 10–9–57.

665,134. HEYDAY. Deering, Milliken & Co. Inc. SN 38,598. Pub. 5–13–58. Filed 10–9–57.

Class 44—Dental, Medical, and Surgical Appliances

665,135. TRACTO-HALTER. Louis Yellin, Inc. SN 37,924. Pub. 5–13–58. Filed 9–26–57.

665,136. CORA-LINE. Coralite Dental Products. SN 38,130. Pub. 5–13–58. Filed 10–1–57.

665,137. STRIKES. National Sanitary Sales, Inc. SN 38,155. Pub. 5–13–58. Filed 10–1–57.

665,138. CUTI-CURL. Nunziato Schepis. SN 38,235. Pub. 5–13–58. Filed 10–2–57.

665,139. TACH-E-Z. Whaledent, Inc. SN 38,248. Pub. 5–13–58. Filed 10–2–57.

Class 46 — Foods and Ingredients of Foods

665,140. GENOA BRAND AND DESIGN. Genoa Packing Co. SN 687,557. Pub. 7–9–57. Filed 5–16–55.

665,141. SIVAD. Davis Canning Company. SN 13,738. Pub. 5–13–58. Filed 8–10–56.

665,142. SNO-CLUB. Operators' Warehouse, Inc. SN 14,686. Pub. 5–13–58. Filed 8–27–56.

665,143. CHESSY. Woodard Foods, Inc. SN 14,928. Pub. 5–13–58. Filed 9–30–56.

665,144. TEMPO. Henry Thayer Co. SN 16,914. Pub. 5–13–58. Filed 10–3–56.

665,145. ROCKWOOD. Rockwood Chocolate Co., Inc., from Rockwood & Co. SN 17,757. Pub. 5–13–58. Filed 10–18–56.

665,146. TOP TASTE. National Tea Co. SN 23,337. Pub. 5–13–58. Filed 1–28–57.

665,147. DIXIE WHITE RED CHAIN AND DESIGN. Universal Mills. SN 24,464. Pub. 5–13–58. Filed 2–14–57.

665,148. JELD'S. Jeld's Carmel Corn. SN 26,552. Pub. 5–13–58. Filed 3–20–57.

665,149. SUZANNE VEE. Suzanne Vee, Inc. SN 27,354. Pub. 5–13–58. Filed 4–1–57.

665,150. TWEED'S. H. F. Botsford & Company. SN 30,559. Pub. 5–13–58. Filed 5–23–57.

665,151. TREAT OF THE WEST. George E. Balash, d. b. a. Montello Products Co. SN 32,044. Pub. 5–13–58. Filed 6–17–57.

665,152. CORONET. Mary Elizabeth Hughes, from Airmen's Enterprises Inc., d. b. a. Coronet Tea Room. SN 32,722. Pub. 5–13–58. Filed 6–27–57.

665,153. STAR MAID. Northam Trading Co., Inc. SN 33,633. Pub. 5–13–58. Filed 7–12–57.

665,154. CRISPAK. Cirull Brothers. SN 35,328. Pub. 5–13–58. Filed 8–12–57.

665,155. GOLDEN FRY. Gaut Laboratories, Inc. SN 35,427. Pub. 3–4–58. Filed 8–13–57.

665,156. MR. TANGERINE. Albert Valdora, d. b. a. Valdora Produce Co. SN 36,547. Pub. 5–13–58. Filed 8–30–57.

665,157. SEA SIREN. Jacobs, Malcolm & Burtt. SN 36,891. Pub. 5–13–58. Filed 9–9–57.

665,158. DRIPPIN' HONEY. Meyer M. Levin, d. b. a. Carolina Peach Distributors. SN 37,173. Pub. 5–13–58. Filed 9–13–57.

665,159. MEDICATED-LACTO-LIFE. Eastern States Farmers' Exchange, Incorporated. SN 37,486. Pub. 5–13–58. Filed 9–19–57.

665,160. PRIVATE RECIPE. Hawthorn-Mellody Farms Dairy, Inc., also d. b. a. Hawthorn-Mellody. SN 38,147. Pub. 5–13–58. Filed 10–1–57.

665,161. MR. POMEGRANATE. Slayman Fruit Company. SN 39,753. Pub. 5–13–58. Filed 10–29–57.

665,162. FLEXO-BARS. National Licorice Company. SN 40,184. Pub. 5–13–58. Filed 11–6–57.

665,163. Y & S AND DESIGN. National Licorice Company. SN 40,185. Pub. 5–13–58. Filed 11–6–57.

665,164. HYDIT. National Licorice Company. SN 40,502. Pub. 5–13–58. Filed 11–13–57.

665,165. WAXAHACHIE CHIEF. T. W. Burleson & Son, d. b. a. Waxahachie Honey Company. SN 40,740. Pub. 5–13–58. Filed 11–15–57.

665,166. STAND PAT. Patterson & Hale. SN 40,874. Pub. 5–13–58. Filed 11–18–57.

665,167. ADAM-N-EVE. Gem Canning Co. SN 40,937. Pub. 5–13–58. Filed 11–19–57.

665,168. PACE. H. C. Christians Co. SN 41,077. Pub. 5–13–58. Filed 11–21–57.

665,169. GARWOOD. Garwood L. Johns, d. b. a. Garwood L. Johns Co. SN 41,172. Pub. 5–13–58. Filed 11–22–57.

665,170. KITCHEN GARDEN. The Grand Union Company. SN 41,633. Pub. 5–13–58. Filed 12–2–57.

Class 47 — Wines

665,171. BON SANTE. Browne-Vintners Co., Inc. SN 37,479. Pub. 5–13–58. Filed 9–19–57.

665,172. SANTE. Browne-Vintners Co., Inc. SN 37,480. Pub. 5–13–58. Filed 9–19–57.

665,173. KNEIPP AND DESIGN. Kneipp-Mittel-Zentrale Hermann Oberhaeusser, d. b. a. Kneipp-Heilmittel-Werk. SN 39,332. Pub. 5–13–58. Filed 10–22–57.

Class 48 — Malt Beverages and Liquors

665,174. TUXEDO 51. General Wholesale Company, from Atlantic Brewing Company, d. b. a. Tuxedo Brewing Company. SN 36,836. Pub. 4–1–58. Filed 9–9–57.

Class 49 — Distilled Alcoholic Liquors

665,175. FALL SPRINGS. Conrad, Incorporated. SN 36,786. Pub. 5–13–58. Filed 9–6–57.

665,176. GLENMORE AND DESIGN. Glenmore Distilleries Company. SN 38,207. Pub. 5–13–58. Filed 10–2–57.

665,177. KNEIPP AND DESIGN. Kneipp-Mittel-Zentrale Hermann Oberhaeusser, d. b. a. Kneipp-Heilmittel-Werk. SN 39,333. Pub. 5–13–58. Filed 10–22–57.

Class 50 — Merchandise Not Otherwise Classified

665,178. ROAD-BUOY. Marshall Budd. SN 38,127. Pub. 5–13–58. Filed 10–1–57.

Class 51 — Cosmetics and Toilet Preparations

665,179. COY. Seena Feldman, d. b. a. Lorna-Jean Perfumes Company and also as Lorna-Jean. SN 35,485. Pub. 5–13–58. Filed 8–12–57.

Class 52 — Detergents and Soaps

665,180. HARPERTINT. Harper Method, Incorporated. SN 18,161. Pub. 5–13–58. Filed 10–25–56.

665,181. POSNER'S ONE-ELEVEN AND DESIGN. I. Posner, Inc. SN 28,542. Pub. 5–13–58. Filed 4–19–57.

665,182. UTIKLEEN. Utility Chemical Company. SN 36,680. Pub. 5–13–58. Filed 9–4–57.

665,183. STA-COL AND DESIGN. Columbia Beauty and Barber Supply Company, d. b. a. State and Columbia Beauty and Barbers Supply Company. SN 36,955. Pub. 5–13–58. Filed 9–10–57.

065,184. ROTAX. Wyandotte Chemicals Corporation. SN 39,116. Pub. 5-13-58. Filed 10-17-57.

065,187. STRIKES 'N SPARES. Claster Enterprises, Inc. SN 43,375. Pub. 5-13-58. Filed 1-3-58.

Service Marks

Class 103 — Construction and Repair

065,185. STRUCTO SCHOOLS AND DESIGN. Structo Schools Corporation. SN 689,247. Pub. 5-13-58. Filed 6-9-55.

Class 107 — Education and Entertainment

065,186. PET PARADE. Jack Farley. SN 42,461. Pub. 5-13-58. Filed 12-16-57.

Collective Membership Marks

Class 200

065,188. GREEK LETTERS ETC. AND DESIGN. Sigma Sigma Sigma, Inc. SN 27,540. Pub. 5-13-58. Filed 4-4-57.

065,189. SRF AND DESIGN. Self-Realisation Fellowship Church, Inc. SN 36,236. Pub. 5-13-58. Filed 8-26-57.

065,190. DESIGN OF LOTUS LEAF. Self-Realisation Fellowship Church, Inc. SN 36,237. Pub. 5-13-58. Filed 8-26-57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 2 — Receptacles

065,191. Nappe-Smith Manufacturing Co., Farmingdale, N. J. SN 21,714. Filed P. R. 12-27-56. Am. S. R. 5-26-58.



Applicant disclaims the word "Bag" apart from the mark as shown.

For Insulated Carrier Bags.

First use Oct. 1, 1956.

065,192. American Can Company, New York, N. Y. SN 41,870. Filed 12-6-57.

No-Stick

For Sheet Metal Containers.

First use Aug. 6, 1956.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

065,193. Carter Leather Goods Co., Inc., New York, N. Y. SN 36,427. Filed P. R. 8-29-57. Am. S. R. 6-3-58.

HILTON

For Billfolds, Wallets, and Card Cases.

First use May 1, 1954.

065,194. Morris White Fashions, Inc., New York, N. Y. SN 37,058. Filed P. R. 9-11-57. Am. S. R. 5-5-58.

FIFTH AVENUE VANITY

For Ladies' Handbags and Purses.

First use Feb. 26, 1930.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

065,195. Irvin Parker, Oklahoma City, Okla., from William J. H. Engelke, d. b. a. Pan American Fireworks Company, Fort Worth, Tex. SN 3,521. Filed P. R. 2-28-56. Am. S. R. 6-2-58.



The word "Rocket" is disclaimed apart from the mark and design as shown.

For Fireworks Piece Comprising a Charged Tubular Structure Capable of Emitting Whistling and Musical Sounds When Ignited.

First use Aug. 1, 1946.

Class 12 — Construction Materials

065,196. Dealer Associates, Inc., Norwood, Mass. SN 17,207. Filed P. R. 10-10-56. Am. S. R. 2-13-58.

Tru-Match

For Wood Mouldings.

First use Feb. 15, 1954.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

665,197. Pretty Products, Inc., Coshocton, Ohio. SN 18,351. Filed P. R. 10–29–56. Am. S. R. 5–29–58.

HI-WALL

For Rubber Dish Drainers, Racks, Mats, and Accessories Therefor, and Like Articles for General Household Use.
First use Apr. 1, 1953.

Class 14—Metals and Metal Castings and Forgings

665,198. Arthur Eugene Johnson, d. b. a. Carbide Products Company, Los Angeles, Calif. SN 22,195. Filed P. R. 1–7–57. Am. S. R. 6–2–58.

"IF IT'S CARBIDE—
CALL US"

For Tungsten Carbide, Titanium Carbide, Tantalum-Carbide, Columbium Carbide, Chrome Carbide, Boron Carbide, Silicon Carbide and Mixtures of Two or More of These Carbides With a Binder as Commonly Called Cemented Carbides.
First use Sept. 10, 1954.

Class 22—Games, Toys, and Sporting Goods

665,199. Tudor Metal Products Corporation, Brooklyn, N. Y. SN 39,016. Filed P. R. 10–16–57. Am. S. R. 5–28–58.

Ready Money

For Banks.
First use Apr. 15, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

665,200. General Slicing Machine Company, Inc., Walden, N. Y. SN 30,706. Filed P. R. 5–27–57. Am. S. R. 6–5–58.

SAFE -T- GUARD

For Hand-Operated Food Carriages for Food Slicing Machines.
First use May 10, 1957.

Class 38—Prints and Publications

665,201. Drysdale Roche Gibson Associates, Inc., New York, N. Y. SN 30,237. Filed P. R. 5–17–57. Am. S. R. 5–16–58.

ILLUSTRATED FOOD
SCIENCE

For Monthly Bulletin.
First use Apr. 30, 1957.

665,202. Drysdale Roche Gibson Associates, Inc., New York, N. Y. SN 30,238. Filed P. R. 5–17–57. Am. S. R. 5–16–58.

ILLUSTRATED FARM
SCIENCE

For Monthly Bulletin.
First use Apr. 30, 1957.

Class 39—Clothing

665,203. Max Rosenfeld, Brooklyn, N. Y. SN 14,763. Filed P. R. 8–28–56. Am. S. R. 5–22–58.



For Men's and Boys' Suits, Topcoats and Overcoats.
First use Aug. 1, 1955.

665,204. Schiller Bros., Inc., New York, N. Y. SN 31,334. Filed P. R. 6–4–57. Am. S. R. 6–6–58.

SUMMERLINE

For Undergarments Specifically Petticoats and Slips.
First use May 29, 1957.

665,205. Safe-In-Suds, Incorporated, New York, N. Y. SN 40,061. Filed P. R. 11–4–57. Am. S. R. 5–27–58.

SPORT CLASSIC

For Men's Sport Shirts.
First use June 20, 1956.

Class 46—Foods and Ingredients of Foods

665,206. National Licorice Company, Brooklyn, N. Y. SN 38,227. Filed 2–28–58.



The representation of the strawberry is lined for the color red.
For Candy.
First use in December 1956; 1935 as to "Twisters."

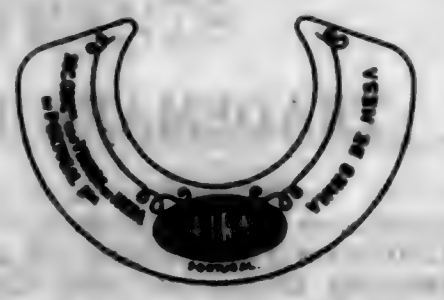
Class 47—Wines

665,207. Dopff & Irion S. A. R. L., Riquewihr, Haut Rhin, France. SN 21,887. Filed P. R. 12–31–56. Am. S. R. 6–3–58.



For Alsatian Wines.
First use Sept. 7, 1956; in commerce Sept. 7, 1956.

665,208. Sociedade Comercial dos Vinhos de Mesa de Portugal, Lda., Porto, Portugal. SN 27,820. Filed P. R. 4–9–57. Am. S. R. 11–20–57.



Priority claimed under Sec. 44(d) on Portuguese application filed Mar. 14, 1957; Reg. No. 89,920, dated Sept. 19, 1957.
For Table Wines.

Class 52—Detergents and Soaps

665,209. The Procter & Gamble Company, Cincinnati, Ohio. SN 26,972. Filed P. R. 3–26–57. Am. S. R. 2–13–58.

HEART of BLUING

For Brightening Agent for Use in Detergents.
First use Feb. 1, 1957.

TRADEMARK REGISTRATIONS RENEWED

120,920. U. T. D. Cl. 23. 3–12–18.
121,681. WILLARD AND DESIGN. Cl. 21. 3–14–18.
121,996. GLINT. Cl. 51. 6–11–18.
122,619. LUXEL. Cl. 32. 8–27–18.
122,630. SUNSPUN. Cl. 32. 8–27–18.
123,015. CO-ED. Cl. 37. 10–8–18.
123,270. ENTERPRISE. Cl. 34. 10–22–18.
123,355. INSULITE. Cl. 12. 10–29–18.
349,627. SOFTEES AND DESIGN. Cl. 39. 8–31–37.
353,939. FLORASYNTH AND DESIGN. Cl. 46. 1–25–38.
354,433. REEFER-GALLER AND DESIGN. Cl. 6. 2–15–38.
354,628. GEM. Cl. 23. 2–15–38.
354,629. GEM-LECTRIC. Cl. 23. 2–15–38.
354,767. BACTERGENT. Cl. 6. 2–22–38.
355,507. REEFER-GALLER AND DESIGN. Cl. 2. 3–22–38.
355,557. FIRST LADY. Cl. 32. 3–22–38.
356,323. FUELOIL OILHEATING & AIRCONDITIONING ETC. AND DESIGN. Cl. 38. 4–26–38.
356,515. FANCIFUL REPRESENTATION OF HUMAN FACE. Cl. 23. 5–3–38.
356,685. LEATHER LIFE. Cl. 6. 5–10–38.
356,696. CANDID CAMERA FASHIONS. Cl 39. 5–10–38.
356,917. BLUE STREAK DOG RATION. Cl. 46. 5–17–38
357,038. AR-MOR-CASE. Cl. 3. 5–24–38.
357,085. STATIMETER. Cl. 26. 5–24–38.
357,104. VM NO. 10 ETC. AND DESIGN. Cl. 46. 5–24–38.
357,198. SA-VON. Cl. 42. 5–24–38.
357,216. QK-ZP. Cl. 45. 5–24–38.
357,305. GRANOSEAL. Cl. 35. 5–31–38.
357,435. "DRESENTIALS." Cl. 39. 6–7–38.
357,495. B'GOSH ITS GOOD. Cl. 46. 6–7–38.
357,573. QK-ZP AND DESIGN. Cl. 45. 6–7–38.
357,626. CELACREPE. Cl. 42. 6–7–38.
357,765. VALCASE. Cl. 6. 6–14–38.
357,770. JANE GAY AND DESIGN. Cl. 39. 6–14–38.
357,842. MAGDRAULIC. Cl. 19. 6–14–38.
357,928. DESIGN OF LABEL. Cl. 47. 6–21–38.
358,161. LEKDRAULIC. Cl. 23. 6–28–38.
358,175. CELANTIA. Cl. 42. 6–28–38.
358,202. FLEXO. Cl. 14. 6–28–38.
358,295. LEKDRAULIC. Cl. 19. 7–5–38.
358,594. OZALID. Cl. 26. 7–19–38.
358,637. AEROWAX. Cl. 4. 7–19–38.
359,050. SUPER ARMORPLATE. Cl. 26. 8–2–38.
359,054. FILT-RAY. Cl. 26. 8–2–38.
359,235. PROJECT-O-CHART. Cl. 26. 8–9–38.
359,332. GREEN SPRING VALLEY CLUB AND DESIGN. Cl. 49. 8–16–38.
359,583 BY PRINCE GARDNER ETC. AND DESIGN. Cl. 3. 8–23–38.
359,663. PINXAV ETC. Cl. 18. 8–30–38.
359,693. PRIDE. Cl. 46. 8–30–38.
359,694. GOLDEN LIMITED BRAND. Cl. 46. 8–30–38.
359,744. "B" SWEET. Cl. 51. 8–30–38.
359,773. WOODHUE. Cl. 51. 8–30–38.
359,989. HUMMING BIRD AND DESIGN. Cl. 39. 9–6–38.
360,024. DANIEL BOONE AND DESIGN. Cl. 39. 9–6–38.
360,217. MARVEL MOLD. Cl. 39. 9–13–38.
360,258. DOUBLE CIRCLE. Cl. 23. 9–13–38.
360,832. WEBSTER'S STUDENT DICTIONARY AND DESIGN. Cl. 38. 9–27–38.
360,833. WEBSTER'S ELEMENTARY DICTIONARY AND DESIGN. Cl. 38. 9–27–38.
361,157. HAPPY TIME. Cl. 46. 10–11–38.
361,222. CROWN FASTENER AND DESIGN. Cl. 13. 10–11–38.
361,261. LEDATE. Cl. 6. 10–11–38.
361,404. IRIS. Cl. 13. 10–18–38.
361,469. HOUSE & HOME. Cl. 38. 10–18–38.
361,472. TOWNSMAN AND DESIGN. Cl. 39. 10–18–38.
361,492. HANRO. Cl. 39. 10–18–38.
361,574. TRAILMOBILE. Cl. 19. 10–25–38.
361,586. LABEL DESIGN. Cl. 46. 10–25–38.
361,646. RESPOVAC. Cl. 44. 10–25–38.
361,678. MASTER. Cl. 22. 10–25–38.
361,733. DUAL TONE AND DESIGN. Cl. 21. 11–1–38.
361,803. WEBSTER'S STUDENT DICTIONARY ETC. AND DESIGN. Cl. 38. 11–1–38.
361,804. A DICTIONARY FOR BOYS & GIRLS ETC. AND DESIGN. Cl. 38. 11–1–38.
361,869. THE GREATEST NAME IN GOLF. Cl. 22. 11–1–38.
361,935. ATLAS. Cl. 6. 11–8–38.
361,961. DUCRO'S ELIXIR. Cl. 18. 11–8–38.
361,968. L AND DESIGN. Cl. 34. 11–8–38.

TRADEMARK REGISTRATIONS CANCELED

Section 8

236,902. BUTTER-NUT. Cl. 46. 12-27-27.
289,144. CHAMPION WITHIN DESIGN. Cl. 6. 11-17-31.
375,008. HERCULES LUBRICANT ETC. AND DESIGN. Cl. 15. 2-6-40.
535,621. HAMMERHIDE. Cl. 16. 1-2-51.
537,502. SNAP-ON. Cl. 21. 2-6-51.
541,326. MODELINE. Cl. 51. 4-24-51.
544,901. BERUBIZYME. Cl. 18. 7-10-51.
548,174. MELBA SWEETS. Cl. 46. 9-18-51.
548,659. PILCA BUTTA. Cl. 1. 9-25-51.
552,148. SNIFF'S. Cl. 46. 12-18-51.
556,215. FORTIFIED FOOD FACTORS AND DESIGN. Cl. 18. 3-18-52.
557,030. JOEY-BUCK ETC. AND DESIGN. Cl. 107. 4-1-52.

The following registrations issued June 10, 1952

559,736. CHAN'L-RUN. Cl. 21.
559,739. ANDREW BROTHERS. Cl. 1.
559,742. LB AND DESIGN. Cl. 23.
559,744. WILSON'S SUPERLATIVE AND DESIGN. Cl. 46.
559,745. K AND DESIGN. Cl. 37.
559,746. TAMBO. Cl. 51.
559,748. MAGIC MIRROR. Cl. 32.
559,749. WEDDING RING. Cl. 51.
559,750. BABY FORM. Cl. 32.
559,756. ADJUSTOLEG. Cl. 32.
559,758. PHOTAR. Cl. 26.
559,764. ROLL-CAL. Cl. 46.
559,765. K M AND DESIGN. Cl. 32.
559,769. MAGIC SEAL. Cl. 8.
559,770. GENIAL HOST AND DESIGN. Cl. 32.
559,771. HAWLITE. Cl. 21.
559,772. GENIE AND DESIGN. Cl. 24.
559,775. KORN POPPER AND DESIGN. Cl. 46.
559,784. TICO. Cl. 39.
559,786. MEATMASTER. Cl. 1.
559,792. HOLLY DOLLY. Cl. 22.
559,793. CITYLINER. Cl. 19.
559,794. WESTERN GIANT. Cl. 46.
559,795. AMO-GENE. Cl. 51.
559,796. TRANSPORTOWEIGHER. Cl. 26.
559,801. MIRACALOY. Cl. 6.
559,804. M AND REPRESENTATION OF GEAR. Cl. 23.
559,807. SHELL-PAKIT. Cl. 23.
559,810. WIND-O-WONDER. Cl. 29.
559,815. BEGWACO. Cl. 26.
559,816. GREATREX LTD. EST. 1755 IN ENGLAND. Cl. 3.
559,821. ADELPHIA ENAMEL. Cl. 37.
559,824. HOPALONG CASSIDY. Cl. 21.
559,826. ADJUSTO. Cl. 32.
559,829. TREE HOUSE AND DESIGN. Cl. 2.
559,837. M P AND DESIGN. Cl. 51.
559,838. THE LION AND DESIGN. Cl. 38.
559,841. T.M. BLUE AND YELLOW STRIP. Cl. 1.
559,851. KON-NEC-TOR. Cl. 21.
559,857. BEHRLITE. Cl. 4.
559,858. EAGLE-FLAGG AND DESIGN. Cl. 1.
559,864. QUALO CORD. Cl. 42.
559,868. CHASTITY BY SUZANNE AND DESIGN. Cl. 51.
559,870. SHIELD. Cl. 6.
559,871. ELBRIC. Cl. 21.
559,875. STANT EIGHT HOUSE. Cl. 31.
559,876. PARTAMOL. Cl. 1.
559,877. HERCULES. Cl. 26.
559,881. ALPHA AND DESIGN. Cl. 21.
559,883. KITCHEN MAGICIAN. Cl. 21.
559,888. LAKE PLACID MOUNTAIN MIX. Cl. 46.
559,889. LOVELY ALICE. Cl. 22.
559,890. BRAVE. Cl. 19.
559,892. INTRANESTYL. Cl. 18.
559,894. MAID MARIAN. Cl. 22.
559,896. A/S. Cl. 51.
559,900. KOGLUKATE. Cl. 18.
559,905. "IMP-CARRIER." Cl. 19.
559,908. PANABAG. Cl. 3.
559,911. INTRAPLAST. Cl. 18.
559,921. ISOLYN. Cl. 18.
559,923. WESTLITE. Cl. 12.
559,936. NATURE AND EMBLEM. Cl. 18.
559,938. CANASTA. Cl. 20.
559,940. ANOPAK. Cl. 44.
559,950. CRYSTALTEX. Cl. 20.
559,954. JANDY. Cl. 46.
559,960. SWEET SUE AND DESIGN. Cl. 46.
559,970. POPSIES. Cl. 46.
559,974. TEL-O-METER. Cl. 26.
559,979. REPRESENTATION OF AN ARROW. Cl. 105.
559,981. UNCLE ROLLY'S BIRTHDAY CLUBS OF AMERICA. Cl. 100.
559,986. PORK CHOP PULLMAN. Cl. 105.
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559,991. BRIARHURST. Cl. 105.
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Hess-Taylor Co., Inc., New York, N. Y. 560,009, canc. Cl. 39.
Hester Lancaster, New York, N. Y. 665,122, pub. 5–13–58. Cl. 40.
Hi-Jinx Records, Inc., Phoenix, Ariz. 665,006, pub. 5–13–58. Cl. 22.
Hilsinger Corp., The, Attleboro, Mass. 665,046, pub. 5–13–58. Cl. 26.
Hittel, Charles L., Newark, N. J. 559,772, canc. Cl. 24.
Hoben Candy Corp., Ashley, Ill. 559,954, canc. Cl. 46.
Hoffar, Henry S.: *See*—
Apex Marine & Equipment, Inc.
Hoffman, Charlotte P., Harworth, N. J. 665,052, pub. 5–13–58. Cl. 26.
Holdenline Co., Cleveland, Ohio. 559,736, canc. Cl. 21.
House Glass Corp., Point Marion, Pa. 665,080, pub. 5–13–58. Cl. 33.
Hubbard Shoe Co., Inc.: *See*—
Lock, John E.
Huck Mfg. Co., Detroit, Mich. 664,927, pub. 5–13–58. Cl. 13.
Hudson Hosiery Co., Charlotte, N. C. 665,118, pub. 5–13–58. Cl. 39.
Hughes, Mary E., from Airmen's Enterprises Inc., d. b. a. Coronet Tea Room, New Rochelle, N. Y. 665,152. Cl. 46.
Huntington Laboratories, Inc., Huntington, Ind. 664,897, pub. 5–13–58. Cl. 6.
Husky Toy Co., The, Grand Rapids, Mich. 665,007, pub. 5–13–58. Cl. 22.
Hyster Co., from Hyster Co., Portland, Oreg. 664,981, pub. 5–13–58. Cl. 19.
Ida-Ho-Chip Co.: *See*—
Devine, Matthew L.
International Association of Lions Clubs, The, Chicago, Ill. 559,838, canc. Cl. 38.
International Boiler Works Co., The, East Stroudsburg, Pa. 665,087, pub. 5–13–58. Cl. 34.
Imperial Chemical Industries Ltd., London, England. 664,970, pub. 5–13–58. Cl. 18.
International Insulation Co., International Falls, to Minnesota and Ontario Paper Co., Minneapolis, Minn. 123,355, ren. 10–29–58. Cl. 12.
International Latex Corp., Dover, Del. 665,114, pub. 5–13–58. Cl. 39.
International Milling Co., Minneapolis, Minn. 559,960, canc. Cl. 46.
International Oil Burner Co., St. Louis, Mo. 665,091, pub. 5–13–58. Cl. 34.
International Silver Co., The, Meriden, Conn. 665,061–2, pub. 5–13–58. Cl. 28.
Jacobs, Malcolm & Burtt, San Francisco, Calif. 665,157, pub. 5–13–58. Cl. 46.
Janik, Mary L., Old Greenwich, Conn. 560,025, canc. Cl. 23.
Jaunty Fabric Corp., The, New York, N. Y. 665,129, pub. 5–13–58. Cl. 42.
Jeld's Caramel Corn, Longmont, Colo. 665,148, pub. 5–13–58. Cl. 46.
Jentzen-Miller Co., Royal Oak, Mich. 665,076, pub. 5–13–58. Cl. 32.
Johns, Garwood L., Co.: *See*—
Johns, Garwood L.
Johns, Garwood L., d. b. a. Garwood L. Johns Co., Glendale, Ariz. 665,169, pub. 5–13–58. Cl. 46.
Johnson, Arthur R., d. b. a. Carbide Products Co., Los Angeles, Calif. 665,198. Cl. 14.
Jones, Luella R., d. b. a. Briarhurst Travel Service, Dallas, Tex. 559,991, canc. Cl. 105.
Keeney Mfg. Co., The, Newington, Conn. 665,097, pub. 5–13–58. Cl. 34.
Kelley Mfg. Co., Houston, Tex. 665,086, pub. 5–13–58. Cl. 34.
Kent-Moore Organization, Inc., Detroit, Mich. 559,765, canc. Cl. 32.
Kemart Corp., San Francisco, Calif. 559,745, canc. Cl. 37.
Keramische Industrie Bedarfs Kom. Ges. Paul Gatzke, Berlin-Charlottenburg, Germany. 665,089, pub. 5–13–58. Cl. 34.
Killark Electric Mfg. Co., St. Louis, Mo. 664,985, pub. 5–13–58. Cl. 21.
Kneipp-Heilmittel-Werk: *See*—
Kneipp-Mittel-Zentrale Hermann Oberhaeusser.
Kneipp-Mittel-Zentrale Hermann Oberhaeusser, d. b. a. Kneipp-Heilmittel-Werk, Wursburg, Germany. 665,173, pub. 5–13–58. Cl. 47.
Kneipp-Mittel-Zentrale Hermann Oberhaeusser, d. b. a. Kneipp-Heilmittel-Werk, Wursburg, Germany. 665,177, pub. 5–13–58. Cl. 49.
Knott, Wm. T., Co., Inc., New York, N. Y., to Mercantile Stores Co., Inc., Wilmington, Del. 355,557, ren. 3–22–58. Cl. 32.
Kohnstamm, H., & Co., Inc., New York, N. Y. 361,935, ren. 11–8–58. Cl. 6.
Korn Popper, The: *See*—
Miller, Charles J.
Kux, Andrew, d. b. a. Occidental Electric Co., Nogales, Ariz. 665,028, pub. 5–13–58. Cl. 23.
Landmaster Ltd., Hucknall, England. 665,017, pub. 5–13–58. Cl. 23.
Law Somner Pty. Ltd., Melbourne, Victoria, Australia. 548,659, canc. Cl. 1.
Lawrence Industries, Inc., Havertown, Pa. 664,967, pub. 5–13–58. Cl. 18.
Lees, James, and Sons Co., Bridgeport, Pa. 665,069, pub. 5–13–58. Cl. 32.
Les Parfums de Darra, Inc.: *See*—
Consolidated Cosmetics.
Lennox Industries Inc., Marshalltown, Iowa. 665,065, pub. 4–15–58, Cl. 31; pub. 5–6–58, Cl. 34. (Consolidated certificate, Classes 31 and 34.)
Lenox, Inc., Trenton, N. J. 361,968, ren. 11–8–58. Cl. 34.
Lensner, Sol, Corp., Buffalo, N. Y. 357,216, ren. 5–24–58. Cl. 45.
Lensner, Sol, Corp., Buffalo, N. Y. 357,573, ren. 6–7–58. Cl. 45.
Lever Brothers Co.: *See*—
Ayer, Harriet Hubbard, Inc.
Levin, Meyer M., d. b. a. Carolina Peach Distributors, Campobello, S. C. 665,158, pub. 5–13–58. Cl. 46.
Lilly, Eli, and Co., Indianapolis, Ind. 664,974–5, pub. 5–13–58. Cl. 18.
Lock, John E., Milwaukee, Wis., to Hubbard Shoe Co., Inc., Rochester, N. H. 349,627, ren. 8–31–57. Cl. 39.
Lorna-Jean: *See*—
Feldman, Seena.
Lorna-Jean Perfumes Co.: *See*—
Feldman, Seena.
Loveland Engrg. & Mfg. Co.: *See*—
Loveland, Pratt R.
Loveland, Pratt R., d. b. a. Loveland Engrg. & Mfg. Co., Chicago, Ill. 559,810, canc. Cl. 29.
Lowe, Joe, Corp., New York, N. Y. 559,970, canc. Cl. 46.
MacGregor Co., The, Dayton, to MacGregor Sport Products Inc., Cincinnati, Ohio. 361,678, ren. 10–25–58. Cl. 22.
MacGregor Co., The, Dayton, to MacGregor Sport Products, Inc., Cincinnati, Ohio. 361,869, ren. 11–1–58. Cl. 22.
MacGregor Sport Products Inc.: *See*—
MacGregor Co., The.
Madeco Manufacturas de Cobre S. A., Santiago, Chile. 664,956, pub. 5–13–58. Cl. 14.
Madeira Embroidery Co., West New York, N. Y. 559,804, canc. Cl. 23.
Melba Sweets Co., Cliffside Park, N. J. 548,174, canc. Cl. 46.
Magic Mirror Associates, Inc., New York, N. Y. 559,748, canc. Cl. 32.
Magnetics, Inc., Butler, Pa. 665,002, pub. 5–13–58. Cl. 21.
Maish, Chas. A., Co., The, Cincinnati, Ohio. 559,750, canc. Cl. 32.
Maltine Co., The, now by change of name, Chilcott Laboratories, Inc., Morris Plains, N. J. 559,911, canc. Cl. 18.
Marine Optical Mfg. Co., to Marine Optical Mfg. Co., Boston, Mass. 359,054, ren. 8–2–58. Cl. 26.
Marine Paint & Varnish Co., Inc., New Orleans, La. 664,966, pub. 5–13–58. Cl. 16.
Mark, Clayton, & Co., Evanston, Ill. 664,928, pub. 5–13–58. Cl. 13.
Maternity Cosmetics, Inc., Rochester, N. Y. 559,887, canc. Cl. 51.
Marvel Mold Brassiere Co.: *See*—
Comet Corset Co., Inc.
Masclet, Marie F., Paris, France. 541,326, canc. Cl. 51.
May Department Stores Co., The, St. Louis, Mo. 357,198, ren. 5–24–58. Cl. 42.
McGlone, Roscoe H., Flint, Mich. 665,071, pub. 5–13–58. Cl. 32.
Mercantile Stores Co., Inc.: *See*—
Knott, Wm. T., Co., Inc.
Merriam, G. & C., Co., Springfield, Mass. 361,803, ren. 11–1–58. Cl. 38.
Merriam, G. & C., Co., Springfield, Mass. 361,804, ren. 11–1–58. Cl. 38.
Merriam, G. & C., Co., Springfield, Mass. 360,832, ren. 9–27–58. Cl. 38.

Merriam, G. & C., Co., Springfield, Mass. 360,633, ren. 9–27–58. Cl. 38.
Meyer, Fred, of California, Inc., San Francisco, Calif. 665,089, pub. 5–13–58. Cl. 34.
Meyer, Harold J., Galesburg, Ill. 664,893, pub. 5–13–58. Cl. 5.
Meyer, N. S., Inc.: *See*—
Ruben, Abner A.
Meyer, Sidney, d. b. a. F. Wolkow & Sons, Louisville, Ky. 665,121, pub. 5–13–58. Cl. 40.
Mido Watch Co. of America, Inc.: *See*—
S. A. Mido.
Midway Chemical Co., Jersey City, N. J., to American Home Products Corp., New York, N. Y. 358,637, ren. 7–19–58. Cl. 4.
Miller, Charles J., d. b. a. The Korn Popper, Lincoln, Nebr. 559,775, canc. Cl. 46.
Minnesota and Ontario Paper Co.: *See*—
International Insulation Co.
Miracaloy Corp., The: *See*—
Doughty Research and Development Corp.
Mission Valley Mills, Inc., New Braunfels, Tex. 665,131–2, pub. 5–13–58. Cl. 42.
Miterite, Inc., from R. S. Weiss, Campbell, Calif. 665,048, pub. 5–13–58. Cl. 26.
Mohasco Industries, Inc., Amsterdam, N. Y. 665,129, pub. 5–13–58. Cl. 42.
Mohawk Motor Lines, Inc., Nashville, Tenn. 559,986, canc. Cl. 105.
Montello Products: *See*—
Balash, George E.
Montgomery Ward & Co., Inc., Chicago, Ill. 664,936, pub. 5–13–58. Cl. 13.
Morrell, John, & Co., Ottumwa, Iowa. 359,698, ren. 8–30–58. Cl. 46.
Mueller Co., Decatur, Ill. 664,942, pub. 5–13–58. Cl. 13.
Munsingwear, Inc., d. b. a. Vassar Co., Minneapolis, Minn. 665,108, pub. 5–13–58. Cl. 39.
Myron Root and Co., Inc., Medford, Oreg. 359,694, ren. 8–30–58. Cl. 46.
Nappe-Smith Mfg. Co., Farmingdale, N. J. 665,191. Cl. 2.
National Acme Co., The, Cleveland, Ohio. 665,026, pub. 5–13–58. Cl. 23.
National Biscuit Co.: *See*—
Schooley, Eugene R.
National Blank Book Co., Holyoke, Mass. 665,075, pub. 5–13–58. Cl. 32.
National Chemical & Mfg. Co., Chicago, Ill. 664,916, pub. 5–13–58. Cl. 12.
National Licorice Co., Brooklyn, N. Y. 665,162–4, pub. 5–13–58. Cl. 46.
National Licorice Co., Brooklyn, N. Y. 665,206. Cl. 46.
National Malleable and Steel Castings Co., Cleveland, Ohio. 358,202, ren. 6–28–58. Cl. 14.
National Plastic Products Co., The, Odenton, Md. 664,882, pub. 5–13–58. Cl. 1.
National Production Co., Detroit, Mich. 665,010, pub. 5–13–58. Cl. 22.
National Sanitary Sales, Inc., Chicago, Ill. 665,137, pub. 5–13–58. Cl. 44.
National Tea Co., Chicago, Ill. 665,146, pub. 5–13–58. Cl. 46.
New England Tap Co., Inc., Norwood, Mass. 665,039, pub. 5–13–58. Cl. 23.
New York Merchandise Co., Inc., New York, N. Y. 664,990, pub. 5–13–58. Cl. 21.
Northam Trading Co., Inc., New York, N. Y. 665,153, pub. 5–13–58. Cl. 46.
Northwest TV Antennas Inc., Seattle, Wash. 664,983, pub. 3–6–58. Cl. 21.
Nutone, Inc., Cincinnati, Ohio. 664,998, pub. 5–13–58. Cl. 21.
Occidental Electric Co.: *See*—
Kux, Andrew.
Oil Trade Journal, Inc., d. b. a. Fueloil Journal, now by change of name Fowler Becker Publishing Co. Inc., to Heating Publishers, Inc., New York, N. Y. 356,323, ren. 4–26–58. Cl. 38.
Olin Industries, Inc.: *See*—
Olin Mathieson Chemical Corp.
Olin Mathieson Chemical Corp., by merger and change of name from Olin Industries, Inc., East Alton, Ill. 664,881, pub. 5–13–58. Cl. 1.
Operators' Warehouse, Inc., Shreveport, La. 665,142, pub. 5–13–58. Cl. 46.
Oregon Worsted Co., Portland, Oreg. 559,864, canc. Cl. 42.
Oshkosh Brewing Co., Oshkosh, Wis. 357,495, ren. 6–7–58. Cl. 48.
Oxalid Corp., to General Aniline & Film Corp., New York, N. Y. 358,594, ren. 7–19–58. Cl. 26.
Palmer Mfg. Corp., Phoenix, Ariz. 665,095–6, pub. 5–13–58. Cl. 34.
Pan American Fireworks Co.: *See*—
Parker, Irvin.
Panray Corp., The, New York, N. Y. 559,900, canc. Cl. 18.
Parker, Irvin, Oklahoma City, Okla., from W. J. H. Engelke, d. b. a. Pan American Fireworks Co., Fort Worth, Tex. 665,195. Cl. 9.
Patek and Co., San Francisco, Calif. 560,035, canc. Cl. 52.
Patterson & Hale, Bakersfield, Calif. 665,166, pub. 5–13–58. Cl. 46.
Paxton & Gallagher Co., Omaha, Nebr. 236,902, canc. Cl. 46.
Peerless Finishing Corp., Paterson, N. J. 559,998, canc. Cl. 106.
Pennsalt Chemicals Corp., Philadelphia, Pa. 664,895, pub. 5–13–58. Cl. 6.
Pepperell Mfg. Co., Boston, Mass. 665,126, pub. 5–13–58. Cl. 42.
Pequea Fishing Tackle, Inc., Strasburg, Pa. 665,005, pub. 5–13–58. Cl. 22.
Perry, James, Mfg. Co., Providence, R. I. 665,084, pub. 5–13–58. Cl. 34.
Pheoll Mfg. Co., Chicago, Ill. 664,950, pub. 5–13–58. Cl. 12.
Philco Corp., Philadelphia, Pa. 664,993, pub. 5–13–58. Cl. 21.
Phillips & Buttorff Corp.: *See*—
Phillips & Buttorff Mfg. Co.
Phillips & Buttorff Mfg. Co., to Phillips & Buttorff Corp., Nashville, Tenn. 123,270, ren. 10–22–58. Cl. 34.
Phillips Drill Co., Michigan City, Ind. 665,016, pub. 5–6–58. Cl. 23.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 555,621, canc. Cl. 16.
Ply-Bord Inc., Healdsburg, Calif. 664,910, pub. 5–13–58. Cl. 12.
Ply Clothing Co., Seattle, Wash. 665,111, pub. 5–13–58. Cl. 39.
Portco Corp., Portland, Oreg. 665,099, pub. 5–13–58. Cl. 37.
Posner, I., Inc., New York, N. Y. 665,181, pub. 5–13–58. Cl. 52.
Pratt & Lambert-Inc., Buffalo, N. Y. 664,964, pub. 5–13–58. Cl. 16.
Pretty Products, Inc., Coshocton, Ohio. 665,197. Cl. 13.
Procter & Gamble Co., The, Cincinnati, Ohio. 665,209. Cl. 52.
Product Development Co., Inc., Omaha, Nebr. 664,908, pub. 5–13–58. Cl. 10.
Quaker State Oil Refining Corp., Oil City, Pa. 664,958, pub. 5–13–58. Cl. 15.
Quaker State Oil Refining Corp., Oil City, Pa. 664,961, pub. 5–13–58. Cl. 15.
R. S. Aries and Associates: *See*—
Aries, Robert S.
Radio Corp. of America, New York, N. Y. 665,001, pub. 5–13–58. Cl. 21.
Red Devil Tools: *See*—
Smith, Landon P., Inc.
Reed & Barton, Taunton, Mass. 360,024, canc. Cl. 38.
Reefer-Galler Inc., New York, N. Y. 354,433, ren. 2–15–58. Cl. 6.
Reefer-Galler Inc., New York, N. Y. 355,507, ren. 3–22–58. Cl. 2.
Reinforced Plastics Corp., Mobile, Ala. 664,980, pub. 5–13–58. Cl. 19.
Reliable Luggage, Inc., West Pittsburg, Pa. 664,933–5, pub. 5–13–58. Cl. 13.
Research Products Corp., Madison, Wis. 664,930, pub. 5–13–58. Cl. 12.
Rex Redwood Shop, Eureka, Calif. 559,829, canc. Cl. 2.
Reznor Mfg. Co., Mercer, Pa. 665,092, pub. 5–13–58. Cl. 34.
Roberts Mfg. Co., Los Angeles, Calif. 664,947, pub. 5–13–58. Cl. 13.
Roberts Mfg. Co., Los Angeles, Calif. 665,037, pub. 5–13–58. Cl. 23.
Rockwood & Co.: *See*—
Rockwood Chocolate Co., Inc.
Rockwood Chocolate Co., Inc., from Rockwood & Co., Brooklyn, N. Y. 665,145, pub. 5–13–58. Cl. 46.
Rolin Corp., The, Chicago, Ill. 665,029, pub. 5–13–58. Cl. 23.
Rolland Laboratories, Inc., Kansas City, Mo. 559,981, canc. Cl. 100.
Rosenfeld, Max, Brooklyn, N. Y. 665,203. Cl. 39.
Rovang, W. G., & Associates, Inc., Portland, Oreg. 664,946, pub. 5–13–58. Cl. 13.
Ruben, Abner A., to N. S. Meyer, Inc., New York, N. Y. 357,038, ren. 5–24–58. Cl. 3.
Ruben, Abner A., to N. S. Meyer, Inc., New York, N. Y. 357,485, ren. 6–7–58. Cl. 39.
S. A. Mido, Bienne, Switzerland, from Mido Watch Co. of America, Inc., New York, N. Y. 665,057, pub. 5–13–58. Cl. 27.
S. K. S. Machine Co., New York, N. Y. 560,026, canc. Cl. 23.
Sadwin Curtain Mfg. Co., Inc., Woonsocket, R. I. 665,130, pub. 5–13–58. Cl. 42.
Safe-in-Suds, Inc., New York, N. Y. 665,205. Cl. 39.
Safety Socket Screw Co., Chicago, Ill. 664,953–4, pub. 5–13–58. Cl. 13.
Safeway Stores, Inc., Oakland, Calif. 560,022, canc. Cl. 6.
St. George and Gale: *See*—
Gale, George.
Sargent & Co., New Haven, Conn. 559,877, canc. Cl. 26.
Sea Fare Restaurant, Inc., New York, N. Y. 560,012, canc. Cl. 46.
Sealed Power Corp., Muskegon, Mich. 357,305, ren. 5–31–58. Cl. 35.
Sealy, Inc.: *See*—
Sealy Mattress Co.
Sealy Mattress Co., Sugar Land, Tex., to Sealy, Inc., d. b. a. Sealy Mattress Co., Chicago, Ill. 122,619, ren. 5–27–58. Cl. 32.
Sealy Mattress Co., Sugar Land, Tex., to Sealy, Inc., d. b. a. Sealy Mattress Co., Chicago, Ill. 122,620, ren. 5–27–58. Cl. 32.
Sears, Roebuck and Co., Chicago, Ill. 559,769, canc. Cl. 5.
Scharmann Machine Corp., Pittsburgh, Pa. 665,082, pub. 5–13–58. Cl. 23.
Scharner, Julius F., Hoboken, N. J. 560,007, canc. Cl. 21.
Schepis, Nunziato, Cambridge, Mass. 665,138, pub. 5–13–58. Cl. 44.
Schiller Bros., Inc., New York, N. Y. 665,204. Cl. 39.
Schoeneman, J., Inc., Baltimore, Md. 665,109, pub. 5–13–58. Cl. 39.
Schooley, Eugene R., d. b. a. Schooley and Son, Luzerne, Pa., to National Biscuit Co., New York, N. Y. 356,917, ren. 5–17–58. Cl. 46.
Schooley and Son: *See*—
Schooley, Eugene R.
Schramm, Arthur G., Phoenix, Ariz. 664,978, pub. 5–13–58. Cl. 19.
Schultz Shoe Co., Inc., St. Louis, Mo. 664,891, pub. 5–13–58. Cl. 4.

Scott, O. M., & Sons Co., Marysville, Ohio. 664,903, pub. 5–13–58. Cl. 10.
Scott, William H., Sheridan, Wyo. 560,017, canc. Cl. 22.
Seco Engineering & Mfg., Inc., Detroit, Mich. 665,018, pub. 5–13–58. Cl. 23.
Self-Realization Fellowship Church, Inc., Los Angeles, Calif. 665,189–90, pub. 5–13–58. Cl. 200.
Shawnee Mfg. Co., Inc., Topeka, Kans. 665,040, pub. 5–13–58. Cl. 23.
Shea, James, d. b. a. Adirondack Mountain Products Co., Lake Placid, N. Y. 559,888, canc. Cl. 46.
Shedrain Umbrella Co., Portland, Oreg. 665,124, pub. 5–13–58. Cl. 41.
Sheffield Corp., The, Dayton, Ohio. 665,021, pub. 5–13–58. Cl. 23.
Shell Electronic Mfg. Corp., Brooklyn, N. Y. 665,051, pub. 5–13–58. Cl. 26.
Shellmar Products Corp., Chicago, Ill. 559,807, canc. Cl. 23.
Sherry, John, d. b. a. Forest Scent Co., San Bernardino, Calif. 664,896, pub. 5–13–58. Cl. 6.
Shu-Stiles, Inc., St. Louis, Mo. 357,770, ren. 6–14–58. Cl. 39.
Siegler Corp., The, Pasadena, Calif. 665,085, pub. 5–13–58. Cl. 34.
Sigma Sigma Sigma, Inc., Denison, Tex. 665,188, pub. 5–13–58. Cl. 200.
Simmons Co., New York, N. Y. 665,077, pub. 5–13–58. Cl. 32.
Simmons Co., New York, N. Y. 665,078, pub. 5–13–58. Cl. 32.
Sintering Machinery Corp., Netcong, N. J. 559,796, canc. Cl. 26.
Slayman Fruit Co., Lindsay, Calif. 665,161, pub. 5–13–58. Cl. 46.
Sloane-Blabon Corp., Trenton, N. J., and Philadelphia, Pa. 559,938, canc. Cl. 20.
Sloane-Blabon Corp., Trenton, N. J., and Philadelphia, Pa. 559,950, canc. Cl. 20.
Smith, H. C., Oil Tool Co., Compton, Calif. 665,030, pub. 5–13–58. Cl. 23.
Smith, Landon P., Inc., Irvington, to Red Devil Tools, Union, N. J. 356,515, ren. 5–3–58. Cl. 23.
Sniff's: *See*—
Sniff, D. G.
Sniff, D. G., d. b. a. Sniff's, Indio, Calif. 552,148, canc. Cl. 46.
Sociedade Comercial Dos Vinhos De Mesa De Portugal, Lda., Porto, Portugal. 665,208. Cl. 47.
Societe des Accumulateurs Elbric S. A., Lausanne, Switzerland. 559,871, canc. Cl. 21.
South Bend Tackle Co., Inc., South Bend, Ind. 665,012, pub. 5–13–58. Cl. 22.
Special Electric Co., Inc., Milwaukee, Wis. 664,996, pub. 5–13–58. Cl. 21.
Spiegel, Inc., Chicago, Ill. 559,875, canc. Cl. 32.
Spun-Glo Products Co., Chicago, Ill. 537,502, canc. Cl. 21.
Spec-D-Rect, Asbury Park, N. J. 664,914, pub. 5–13–58. Cl. 12.
Squibb, E. R., & Sons, New York, N. Y. 559,892, canc. Cl. 18.
Standard Brands Inc., New York, N. Y. 664,900, pub. 5–13–58. Cl. 6.
Standard Brands Inc., New York, N. Y. 664,971, pub. 5–13–58. Cl. 18.
Standard Toykraft Products, Inc., Brooklyn, N. Y. 665,009, pub. 5–13–58. Cl. 22.
State and Columbia Beauty and Barbers Supply Co.: *See*—
Columbia Beauty and Barber Supply Co.
Statimeter Co. Ltd., The, Rhydymwyn, near Mold, North Wales. 357,085, ren. 5–24–58. Cl. 26.
Steinen, Wm., Mfg. Co., Newark, N. J. 665,094, pub. 5–13–58. Cl. 34.
Sterling Industries, Inc., Dallas, Tex. 559,870, canc. Cl. 6.
Stewart, Samuel F., Miami, Fla. 559,908, canc. Cl. 3.
Stewart-Warner Corp., Chicago, Ill. 665,041, pub. 5–13–58. Cl. 23.
Stowe-Woodward, Inc., Newton Upper Falls, Mass. 665,015, pub. 5–13–58. Cl. 23.
Strouse, Inc.: *See*—
Van Patten, Louis Co.
Structo Schools Corp., Boston, Mass. 665,185, pub. 5–13–58. Cl. 103.
Suckno, I. & J., Co., Union, N. J. 664,909, pub. 5–13–58. Cl. 12.
Sunbeam Corp., Chicago, Ill. 665,123, pub. 5–13–58. Cl. 40.
Supradur Mfg. Corp., Windgap, Pa. 664,917, pub. 3–25–58. Cl. 12.
Sutton Publishing Co., Inc., White Plains, N. Y. 665,103, pub. 5–13–58. Cl. 38.
Suzanne Laboratories: *See*—
D'Amico, Nicholas.
Swartz, Max: *See*—
Comet Corset Co., Inc.
Swingline, Inc., Long Island City, N. Y. 665,038, pub. 5–13–58. Cl. 23.
Swingline, Inc., Long Island City, N. Y. 665,042, pub. 5–13–58. Cl. 23.
Tempo Products Co., Cleveland, Ohio. 664,885, pub. 5–13–58. Cl. 2.
Temptron, Inc., Columbus, Ohio. 665,093, pub. 5–13–58. Cl. 34.
Thayer, Henry, Co., Cambridge, Mass. 665,144, pub. 5–13–58. Cl. 46.
Thommen, Inc., Bronx, N. Y. 665,013, pub. 5–13–58. Cl. 22.
Tico Shoe Corp., New York, N. Y. 559,784, canc. Cl. 39.
Tiffen Mfg. Corp., New York, N. Y. 559,758, canc. Cl. 26.
Time, Inc.: *See*—
Beard, Eugene N.
Titewall Hanger Co.: *See*—
Erickson, Carl J.
Tractomotive Corp., Deerfield, Ill. 665,033–5, pub. 3–11–58. Cl. 23.
Trailer Co. of America, The, to Trailmobile Inc., Cincinnati, Ohio. 361,574, ren. 10–25–58. Cl. 19.
Trailmobile Inc.: *See*—
Trailer Co. of America, The.
Tri-Boro Mfg. Co., Corona, N. Y. 559,770, canc. Cl. 32.
Trifari, Krussman & Fishel, Inc., New York, N. Y. 665,068, pub. 5–13–58. Cl. 28.
Tucker, George, Eyelet Co., Ltd., Birmingham, England. 664,948, pub. 5–13–58. Cl. 13.
Tudor Metal Products Corp., Brooklyn, N. Y. 665,189. Cl. 22.
Turkey Products Co.: *See*—
Candeaux, Harvey C.
Tuxedo Brewing Co.: *See*—
General Wholesale Co.
Unimach Corp., Chicago, Ill. 665,072, pub. 5–13–58. Cl. 32.
Union Twist Drill Co., Athol, Mass. 120,920, ren. 3–12–58. Cl. 23.
United Drill and Tool Corp., to United-Greenfield Corp., Chicago, Ill. 360,258, ren. 9–13–58. Cl. 23.
United-Greenfield Corp.: *See*—
United Drill and Tool Corp.
United Sheeplined Clothing Co., Inc.: *See*—
United Sheeplined Clothing Co.
United Sheeplined Clothing Co., Long Branch, N. J., to United Sheeplined Clothing Co., Inc., Long Branch, N. J., and New York, N. Y. 360,024, ren. 9–6–58. Cl. 39.
United Specialties Co., Chicago, Ill. 664,941, pub. 5–13–58. Cl. 13.
United States Ceramic Tile Co., Canton, Ohio. 664,928, pub. 5–13–58. Cl. 12.
United States Petrochemical Co., Inc., Mount Vernon, N. Y. 664,959, pub. 5–13–58. Cl. 15.
Universal Mills, Fort Worth, Tex. 665,147, pub. 5–13–58. Cl. 46.
Universal Chemists, Inc., d. b. a. Gale Hall Engineering, Boston, Mass. 559,974, canc. Cl. 26.
Upjohn Co., The, Kalamazoo, Mich. 544,901, canc. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 665,101, pub. 4–29–58. Cl. 38.
Utility Chemical Co., Paterson, N. J. 665,182, pub. 5–13–58. Cl. 52.
Valdora, Albert, d. b. a. Valdora Produce Co., Riverside, Calif. 665,156, pub. 5–13–58. Cl. 46.
Valdora Produce Co.: *See*—
Valdora, Albert.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 361,261, ren. 10–11–58. Cl. 6.
Van Patten, Louis C., Cheney, Wash., to Strouse, Inc., Norristown, Pa. 356,685, ren. 5–10–58. Cl. 6.
Vanta Co., Inc., The, Brockton, Mass. 665,115, pub. 5–13–58. Cl. 39.
Vee, Suzanne, Inc., Denver, Colo. 665,140, pub. 5–13–58. Cl. 46.
Velamos, Narodni Podnik, Petrov nad Desnou, Sobotin, Czechoslovakia. 664,979, pub. 5–13–58. Cl. 19.
Vitaminerals, Inc., Los Angeles, to Vitaminerals, Inc., Glendale, Calif. 357,104, ren. 5–24–58. Cl. 46.
Wade Mfg. Co., Elgin, Ill. 559,883, canc. Cl. 21.
Walton, Elwood W., d. b. a. Walton Knitting Mills, to Walton Knitting Mills, Inc., Hickory, N. C. 361,472, ren. 10–18–58. Cl. 39.
Walton Knitting Mills: *See*—
Walton, Elwood W.
Walton Knitting Mills, Inc.: *See*—
Walton, Elwood W.
Warn Mfg. Co., Seattle, Wash. 665,043, pub. 5–13–58. Cl. 23.
Watson Mfg. Co., Inc., Jamestown, N. Y. 665,079, pub. 5–13–58. Cl. 32.
Waugh Equipment Co., New York, N. Y. 665,031, pub. 5–13–58. Cl. 23.
Waxahachie Honey Co.: *See*—
Burleson, T. W., & Son.
Weiss, Eugene S.: *See*—
Miterite, Inc.
West Kentucky Liquid Fertilizer Co., Inc., Hopkinsville, Ky. 664,904, pub. 5–13–58. Cl. 10.
West Point Foundry & Machine Co., West Point, Ga. 560,029, canc. Cl. 23.
Western Air Lines, Inc., Los Angeles, Calif. 559,979, canc. Cl. 105.
Western Brick Co., Danville, Ill. 559,923, canc. Cl. 12.
Western Condensing Co., San Francisco, Calif. 560,013, canc. Cl. 46.
Western Condensing Co., San Francisco, Calif. 560,014, canc. Cl. 46.
Western Plastics Corp., Hastings, Nebr. 664,925, pub. 5–13–58. Cl. 13.
Western Popcorn Co., Atlantic, Iowa. 559,794, canc. Cl. 46.
Western Tablet Stationery Corp.: *See*—
Blair, J. C. Co.
Whaledent, Inc., Brooklyn, N. Y. 665,139, pub. 5–13–58. Cl. 44.
White, Morris, Fashions, Inc., New York, N. Y. 665,194. Cl. 3.
Whitehead Brothers Co., New York, N. Y. 559,876, canc. Cl. 1.
Wile, Julius, Sons & Co., Inc., New York, N. Y. 357,928, ren. 6–21–58. Cl. 47.
Willard Storage Battery Co., Cleveland, Ohio, to The Electric Storage Battery Co., Philadelphia, Pa. 121,681, ren. 3–14–58. Cl. 21.
Willett, Consider H., Louisville, Ky. 665,070, pub. 5–13–58. Cl. 32.
Williamsburg Restoration, Inc., Williamsburg, Va. 665,074, pub. 5–13–58. Cl. 32.
Wilson Flour Mills, The: *See*—
Colorado Milling & Elevator Co., The.

Wilson Herb Co.: *See*—
Wilson, J. S.
Wilson, J. S., d. b. a. Wilson Herb Co., Detroit, Mich. 550,855, canc. Cl. 18.
Windolph Tractor Co., Portland, Oreg. 560,032, canc. Cl. 21.
Winkler & Dünnebier, Maschinenfabrik und Eisengiesserei K. G., Neuwied, Rhineland, Germany. 665,014, pub. 5–13–58. Cl. 23.
Wittwer, John J., Sr., to Golden Flint Co., Seattle, Wash. 121,966, ren. 6–11–58. Cl. 51.
Wolkow, F., & Sons: *See*—
Meyer, Sidney.
Woodard Foods, Inc., St. Louis Park, Minn. 665,142, pub. 5–13–58. Cl. 46.
Woolworth, F. W., Co., New York, N. Y. 665,006, pub. 5–13–58. Cl. 22.
Wyandotte Chemicals Corp., Wyandotte, Mich. 665,134, pub. 5–13–58. Cl. 52.
Yellin, Louis, Inc., Philadelphia, Pa. 665,125, pub. 5–13–58. Cl. 44.

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August 5, 1958 Volume 733 Number 1

PATENTS

NOTICES

Annual Publication of Commissioner's Decisions

The 1957 bound volume of the Decisions of the Commissioner of Patents is released from the printer and available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., price $2.50.

Adjudicated Patents

(C. A. Tex.) King Patent No. 2,339,487 (103—231), for time and volume control for gas intermitters. Claims 5, 6, 7 and 11 *Held* valid but not infringed. *U. S. Industries, Inc. v. Otis Engineering Corp.*, 254 F.2d 198; 117 USPQ 163.

(C. A. Fla.) Wallace Patent No. 2,633,328 (254—164), for winch. Claims 1 to 3 *Held* invalid. *Little Mule Corp. v. Lug All Co.*, 254 F.2d 268; 117 USPQ 111.

(C. A. Tex.) Howard, McGowen and Moore Patent No. 2,664,182 (103—233), for means for installing and removing flow valves. Claims 1, 4, and 6 *Held* valid and infringed. *Bryan v. Hal W. Richardson, Inc.*, 254 F.2d 191; 117 USPQ 157.

(C. A. Tex.) McGowen and Moore Patent No. 2,679,903 (103—233), for means for installing and removing flow valves or the like. Claims 1 to 4 *Held* valid and infringed. *Id.*

(D. C. Ill.) Banker Patent No. 2,409,236 (29—148.4) for method of making roller cages. Claims 1, 3, and 5 *Held* valid and infringed. *New Products Corp. v. Outboard, Marine & Mfg. Co.*, 160 F. Supp. 795; 116 USPQ 506.

(D. C. Calif.) Coleman Patent No. 2,710,660 (180—685), for a battery hold down frame of synthetic rubber resin material, *Held* invalid and not infringed. *Van Brode Milling Co., Inc. v. Cox Air Gauge System, Inc.*, 161 F. Supp. 437; — USPQ —.

(D. C. N. Y.) McDonough 2,736,323 (132.7), for permanent waving solutions and method, *Held* invalid. *Helene Curtis Industries, Inc. v. Sales Affiliates, Inc.*, 161 F. Supp. 845; 117 USPQ 136.

(D. C. N. J.) Mallis Patent D-179,692 (91—2), for aquarium filter, *Held* valid and infringed. *Super Products Corp. v. Metal Frame Aquarium Co.*, 161 F. Supp. 521; 117 USPQ 17.

International Convention for the Protection of Industrial Property

Adherence of Ireland to the London 1934 Revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective May 14, 1958, of Ireland to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

June 11, 1958.

Disclaimer

2,696,538.—*Vincent E. O'Neill*, Taunton, Mass. THERMOSTATIC SWITCH. Patent dated Dec. 7, 1954. Disclaimer filed June 23, 1958, by the assignee, *Metals & Controls Corporation.*

Hereby enters this disclaimer to claims 1, 2, and 8 of said patent.

Patents Available for Licensing or Sale

2,437,871. Magnetic Coupling. Alfred B. Wood, Box 409, V. A. Hospital, Northport, N. Y.

2,659,893. Combination Under Garment (Slip and Panties). Jeanne H. Hindman, 8143 Bellewood Ave., Cincinnati 13, Ohio.

2,841,290. Supporting Arm Device for Clothes Line Pulleys. Adam van den Thoorn, 1629 Stadium Ave., Bronx 65, N. Y.

Design Pat. No. 181,442. Motor Mount. Albert C. Reckman, 5217 Beech Ave., St. Bernard 17, Ohio.

The following two patents are offered by Walter C. Hollander, Box 151, Scottsville, Va.:

2,830,619. Protected Valve Seal (Balanced Valves).

2,834,571. Valves With Wedging Valve Elements.

General Electric Company is prepared to grant non-exclusive licenses under the following 9 patents on reasonable terms to domestic manufacturers.

Applications for license may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,299,547. Varnished Sheet Material.

2,567,719. Suspension of Vinyl Chloride Polymer in Polymerizable Liquid.

2,610,958. Thixotropic Compositions.

2,610,959. Thixotropic Compositions.

2,610,960. Thixotropic Compositions.

2,631,137. Thixotropic Compositions.

2,641,587. Thixotropic Compositions.

2,645,626. Thixotropic Coating Composition.

2,834,753. Removal of Polymerizing Agents From Convertible Organopolysiloxanes.

General Electric Company is prepared to grant non-exclusive licenses *in the field of radio purposes* under the following 5 patents on reasonable terms to domestic manufacturers.

Applications for license may be addressed to: General Electric Company, Appliance & Television Receiver Division, Appliance Park, Louisville 1, Ky.

2,831,916. Single-Carrier Color Television Systems.

2,831,918. Color Image Reproducing Apparatus.

2,833,023. Hunting A. F. C. System.

2,836,082. Low-Torque Detent Mechanism.

2,836,716. Angle Modulation Detector.

New Applications Received During June 1958

Patents	6,860
Designs	465
Plant Pats	10
Reissues	17
Total	7,372

Issue

Patents	1,057—	No. 2,845,625 to No. 2,846,681, incl.
Designs	42—	No. 183,296 to No. 183,337, incl.
Reissues	3—	No. 24,510 to No. 24,512, incl.
Total	1,102	

Registration to Practice

The following list contains the names of all applicants for registration to practice before the United States Patent Office who attained passing grades in the examination of April 28, 1958. Information tending to affect the eligibility of any of said applicants on moral or ethical grounds should be furnished the Commissioner of Patents on or before September 5, 1958.

ARTHUR W. CROCKER,
Chairman, Committee on Enrollment.

July 15, 1958.

List of Applicants Who Passed the Examination for Registration to Practice Before the Patent Office Held April 28, 1958

Alabama

Hammond, Thomas M., 1022 Grant St., S. E., Decatur, Ala.

Arkansas

Pittman, Ralph R., 5324 Southwood Road, Little Rock, Ark.

California

Belansky, Andrew J., 259 E. Calaveras St., Altadena, Calif.
Brevik, E. Lawrence, 4420 W. 58th Place, Los Angeles 43, Calif.
Carlson, Donald L., 5805 Garford St., Long Beach 15, Calif.
Clouse, Clifton E., Jr., 1556 Mariposa St., Richmond 6, Calif.
Fowler, Allan R., 531 Bridger St., Covina, Calif.
Halstead, Mervin, Hdqtrs., 14 Naval District, Navy #128, % Fleet Post Office, San Francisco, Calif.
Jones, J. L., Sr., 1070 Glen Oaks Blvd., Pasadena 2, Calif.
Kern, Warren L., 1720 Fairmount Ave., La Canada, Calif.
March, George G., 7358 Neo St., Apt. E, Downey, Calif.
Mitchell, James Theodore, 246 Los Cerros Ave., Walnut Creek, Calif.
Moore, Alan J., Rt. 6, Box 184–C, San Jose 99, Calif.
Price, Kenneth A., 727 Chautauqua Blvd., Pacific Palisades, Calif.
Riddell, Baylor G., 368 Waverly St., Menlo Park, Calif.
Thiel, Walter R., 2305 Penmar Ave., Venice, Calif.
Thornton, Robert R., 1475 Powell St., Oakland 8, Calif.
Zentner, Rene David, 2987 Dwight Way, Berkeley 4, Calif.

Connecticut

Franklin, Richard K., 11 Bedford Ave., Apt. K2, Norwalk, Conn.
Kraft, Julius B., Patent Dept., Remington Rand, Wilson Ave., South Norwalk, Conn.
Paulding, Theodore R., 74 Westlook Road, Wethersfield, Conn.

Delaware

Collat, Robert, 104 Stimson Place, Wilmington 3, Del.
Sandt, Bernd W., 1427 Prospect Drive, Kynlyn Apts., Wilmington 3, Del.

District of Columbia

Albright, Penrose Lucas, 708 Perpetual Bldg., Washington 4, D. C.
Cockfield, James E., 3130 Wisconsin Ave., Apr. 6, N. W., Washington 16, D. C.
Comfort, James T., % IBM, 425 13th St., N. W., Washington 4, D. C.
Conroy, Edward A., Jr., 3415 38th St., N. W., Washington 16, D. C.
Cutonilli, Anthony, 3825 Davis Place, Apt. 302, Washington, D. C.
Follmer, Frank A., 419 6th St., N. W., Washington, D. C.
Hall, Charles S., Burroughs Patent Div., 1737 H St., N. W., Washington 6, D. C.
Hughes, Robert B., 3047 Porter St., N. W., Washington, D. C.
Klaas, Bruce G., 711 14th St., N. W., Rm. 1203, Washington 5, D. C.
Kruger, Walter, 1159 National Press Bldg., Washington, D. C.
Kurtz, Richard E., 1506 44th St., N. W., Washington, D. C.
Kubani, Thomas L., 1506 44th St., N. W., Washington 7, D. C.
Lubic, Robert B., 2501 Q St., N. W., Apt. 412, Washington 7, D. C.
Macpeak, Thomas J., 1415 K St., N. W., Suite 306, Washington, D. C.
McKeever, James J., 800 Wyatt Bldg., Washington 5, D. C.
Ruff, Robert T., 3516 Texas Ave., S. E., Washington 20, D. C.
Sullivan, Mary E. D., 2727 29th St., N. W., Washington 8, D. C.

Illinois

Alexander, Richard E., 917 Forest Ave., Evanston, Ill.
Beggs, Gregory B., 304 S. Euclid Ave., Oak Park, Ill.
Beland Walter H., 26 E. 122nd St., Chicago 28, Ill.
Camasto, Nicholas A., 1176 S. Oak Park Ave., Oak Park, Ill.
Chaban, Marvin M., 330 N. Austin Blvd., Oak Park, Ill.
Clemency, Robert E., 1767 Granville Ave., Chicago 26, Ill.
Dierstein, Melinda Lois, 7645 Sheridan Road, Chicago 26, Ill.
Fosse, John S., 557 Fairview Ave., Glen Ellyn, Ill.
Greenberg, Carl J., 60 E. 32nd St., Chicago 16, Ill.
Hemminger, Paul W., 9817 Richard St., Franklin Park, Ill.
Jennings, James J., Jr., 434 S. Clay St., Hinsdale, Ill.
Kaufman, David D., 5465 S. Everett Ave., Chicago 15, Ill.
Krusemark, Frederick A., 303 S. Second Ave., Maywood, Ill.
Ladd, David L., 3527 So. Woodlawn Ave., Chicago 37, Ill.
Lahr, Jack L., 1715 11th St., Waukegan, Ill.
Meister, Jacque L., 1980 Hawthorne, Melrose Park, Ill.
Prusaczyk, Henry, 423 Bluff St., Alton, Ill.
Sowell, John B., 576 Sheridan Square, Evanston, Ill.
Winokur, Louis L., 741 Brummel St., Evanston, Ill.
Wolfe, Richard R., 1430 Lake Shore Drive, Chicago 10, Ill.

Indiana

Chenea, Gordon H., 1023 S. Parkway, South Bend 18, Ind.
Hay, Louis E., 328 Southmore, Plainfield, Ind.
Neumeyer, James C., 1801 N. O'Brien St., South Bend 28, Ind.
Ryan, John Phillip, 229 W. Jackson Blvd., Elkhart, Ind.
Thompson, William S., 1002 E. Victoria, South Bend 14, Ind.

Maryland

Barry, Ronald E., 1542 East-West Highway, Silver Spring, Md.
Becker, John E., 725 Richmond Ave., Silver Spring, Md.
Berger, Robert L., 247–A Rodgers Forge Road, Baltimore 12, Md.
Bonsteel, Lloyd O., 23 Fairmont Place, Indian Head, Md.
Byrne, John J., 7523 Glennon Drive, Bethesda, Md.
Davidson, Samuel L., 4701 Bradley Blvd., Chevy Chase 15, Md.
Fryer, William T., III, 7507 Clarendon Road, Bethesda 14, Md.
Kling, Carl C., 1700 Lebanon St., Adelphi, Md.
Marben, Robert L., 8019 Glenbrook Road, Bethesda 14, Md.
McMorrow, Robert G., 4309 Warner St., Kensington, Md.
Sandler, Donald M., 4101 Barrington Road, Baltimore 7, Md.
Sloan, Arthur M., 1909 East-West Highway, Apt. 104, Silver Spring, Md.
Smyth, Frederick J., 7620 Maple Ave., Apt. 222, Takoma Park 12, Md.
Thomas, Richard H., 8210 Custer Road, Bethesda, Md.
Webb, Thomas H., 2226 Beechwood Road, Hyattsville, Md.

Massachusetts

Dacey, G. Eugene, 74 Hammond St., Cambridge 38, Mass.
Dempsey, John J., 261 Maplehade Ave., East Longmeadow, Mass.
Keay, David M., 53 Barrett St., Needham 92, Mass.
McDevitt, John F., Shawinigan Resins Corp., Springfield 2, Mass.
Schiller, Robert J., Polaroid Corporation, 730 Main St., Cambridge 39, Mass.
Tiffany, James B., Jr., 10 Lisa Road, West Peabody, Mass.
Toelken, Richard W., 32 Elm St., Agawam, Mass.

Michigan

Huisenga, Everett Leroy, 360 Fuller Ave., S. E., Grand Rapids, Mich.
Randles, Carl A., Jr., 5845 Portage St., Kalamazoo, Mich.
Spurrell, Donald W., 673 N. Eton Road, Birmingham, Mich.

Minnesota

Johnson, Clayton R., 832 Midland Bank Bldg., Minneapolis, Minn.
Loos, Calvin J., 5247 Xerxes Ave., S., Minneapolis 10, Minn.
Nikolai, Thomas J., 2085 Lincoln Ave., St. Paul 5, Minn.
Ohm, Kenneth D., 3512 Minikahda Court, St. Louis Park 16, Minn.
Siegfried, Kenneth D., 2601 Yukon Ave., Minneapolis 26, Minn.
Smith, James A., 589 S. Cleveland Ave., Apt. 10, St. Paul 16, Minn.
Somermeyer, Herbert F., 2726 Merrill St., St. Paul 13, Minn.

Missouri

Aldrich, C. Frank, 2640 Belair Terrace, Florissant 21, Mo.
Hovey, Robert D., 2528 W. 91, Kansas City 15, Mo.
Williams, Warren N., 3703 E. 47th Terrace, Kansas City, Mo.

New Jersey

Allen, Frank H., Jr., 58 Mercer Ave., North Plainfield, N. J.
Benjamin, Lawrence P., 38—43 Brookside Ave., Fairlawn, N. J.
Berlow, Cynthia, 26 John St., Passaic, N. J.
Bissell, Henry M., 33 Crescent Drive, Whippany, N. J.
Dunn, Robert T., Apt. 11–M, 65 Manor Drive, Newark 6, N. J.
Giancola, Dominic J., 239 Overlook Ave., Leonia, N. J.
Johnson, Olin B., 727 E. Front St., Plainfield, N. J.
Kane, Samuel, 3 S. Haviland Ave., Audubon 6, N. J.
Kenney, J. Ernest, 298 Larch Ave., Dumont, N. J.
Kovalich, John G., 30 Crescent Ave., Jersey City, N. J.
Stanger, Leo, 47 Ethan Drive, Murray Hill, N. J.

New York

Bramlett, Garold E., 1063 McKinley St., Baldwin, N. Y.
Cannaday, Richard L., 1158 5th Ave., New York 29, N. Y.
Ceccon, Clario, 1913 Broadway, Grand Island, N. Y.
Cody, Robert F., 2505 Bellaire St., Wantagh, N. Y.
Comery, Edward G., 69 Vincent Ave., Staten Island 6, N. Y.
Coplein, Gordon D., % Darby and Darby, 405 Lexington Ave., New York 17, N. Y.
Dana, William H., 163 Watauga Ave., Corning, N. Y.
De Simone, Daniel V., 33 Washington Square, W., New York 11, N. Y.
Dowling, Thomas P., 2500 Snyder Ave., Brooklyn 3, N. Y.
Fier, Robert D., Scarsdale Manor Apts., Scarsdale, N. Y.
Fitzgerald, Frank R., Hanover Road, R. F. D. 1, Box RR, Yorktown Heights, N. Y.
Fogiel, Max, 57 Second Ave., New York 3, N. Y.
Frank, Robert J., 697 Colonade Road, West Hempstead, N. Y.
Gilman, Michael G., 48—10 43rd St., Woodside 77, N. Y.
Harsh, Gene, 8 Farragut Ave., Tonawanda, N. Y.
Kilgannon, Thomas J., Jr., 405 Bement Ave., Staten Island 10, N. Y.
King, Stephen L., 100 Bank St., Apt. 5C, New York 14, N. Y.
Klein, Arthur O., 241 E. 38th St., New York, N. Y.
Klitzke, Ramon A., 80—08 135th St., Apt. 219, Jamaica 35, N. Y.
Krein, Arthur N., 117 Bobrich Drive, Rochester 10, N. Y.
Leibowitz, Michael R., 1620 Ocean Ave., Brooklyn 30, N. Y.
Levin, Harry, P. O. Box 388, Fishkill, N. Y.
Levine, Alan H., 67—12 Yellowstone Blvd., Forest Hills 75, N. Y.

Lieber, Robert, 1212 Newkirk Ave., Brooklyn 30, N. Y.
Mara, Louis E., 385 Madison Ave., The Lummus Co., New York 17, N. Y.
Mateer, Kenneth W., 125 Christopher St., New York 14, N. Y.
McGeady, Bernard X., 333 E. 43rd St., New York 17, N. Y.
O'Connell, Thomas B., 60—16 Harrow St., Forest Hills 75, N. Y.
Ostrow, Harvey, 25 Hillside Ave., New York 40, N. Y.
Plunkett, Richard P., 110 Christopher St., New York 14, N. Y.
Popper, Howard R., 463 West St., New York, N. Y.
Salabate, James J., 106 Shoreham Blvd., Buffalo 16, N. Y.
Russo, Matthew M., 460 Lafayette Blvd., Long Beach, N. Y.
Sherman, Sylvan, 113 Greenbelt Lane, Levittown, N. Y.
Spiecens, Camil P., 71—50 Austin St., Forest Hills 75, N. Y.
Stark, Leon T., 85—07 Britton Ave., Elmhurst 73, N. Y.
Togut, Isidore, 279 E. 203rd St., Bronx 58, N. Y.
Whinston, Arthur L., 36 Russell Road, Garden City, N. Y.
Zentner, Richard, 290 Clinton St., Brooklyn 1, N. Y.

North Carolina

Park, Charles B., III, 904 Johnston Bldg., Charlotte 2, N. C.

Ohio

Dence, Richard B., 3544 Homewood, Toledo 12, Ohio.
Doerr, Edward L., Monsanto Chemical Co., Station B, Box 8, Dayton 18, Ohio.
Fralick, James E., 2018 Neil Ave., Columbus 2, Ohio.
Henry, Frank C., 2686 Rocklyn Road, Shaker Heights 22, Ohio.
Limbach, George C., 2110 Cornell Road, Cleveland 6, Ohio.
Netter, George J., 4301 Lyman Road, Toledo 12, Ohio.
Nielsen, Olaf, 1016 Emma Ave., Akron 2, Ohio.
Patmore, Alfred L., Jr., 2619 Strauss Ave., Toledo 6, Ohio.
Witte, Richard C., 927 Lakeshore Drive, Cincinnati 31, Ohio.

Oklahoma

Johnson, Paul H., 722 E. 49th St., N., Tulsa 6, Okla.
Peterson, Jerome B., E. Hillcrest Road, Ponca City, Okla.
Worth, Daniel P., 806A S. Osage, Bartlesville, Okla.

Pennsylvania

Christoffersen, Harold, 2445 Jenkintown Road, Glenside, Pa.
Conley, Ned L., 7876 Spring Ave., Philadelphia 17, Pa.
Corcoran, John P., 632 Cresson Lane, Norton, Pa.
Cornish, C. Daniel, 4614 5th Ave., Pittsburgh 13, Pa.
Curley, John E., 120 Sunset Drive, Pittsburgh 9, Pa.
Dreyer, Frederic C., RD 1, Box 358, Slatington, Pa.
Dubroff, Stanley, 6913 Heyward St., Philadelphia 19, Pa.
Guay, Francis W., 138 Mt. Lebanon Blvd., Pittsburgh 28, Pa.
Hargis, Harry W., III, 3126 Gilham St., Philadelphia 49, Pa.
Harvey, Richard F., 111 Berg Drive, Pittsburgh 38, Pa.
Kaufmann, Henry W., Post Office Box 123, Mont Clare, Pa.
Klipfel, Ernest F., 218 Garlow Drive, Pittsburgh 35, Pa.
Lennon, Thomas A., 2020 Ridgelawn Ave., Bethlehem, Pa.
McHale, Clement L., 140 La Crosse St., Avon Hall, Pittsburgh 18, Pa.
Safady, Richard J., 1000½ Edgewood Road, New Kensington, Pa.
Sager, Edward A., 201-A W. Parkway Ave., Chester, Pa.
Turner, Burton R., 927 Roland Road, Pittsburgh 21, Pa.

South Carolina

Lawson, Louis R., Jr., 39A Meeting St., Charleston, S. C.

Texas

Garland, H. Mathews, P. O. Box 900, Dallas 21, Tex.
Harris, William D., Jr., 1600 Niels Esperson Bldg., Houston 2, Tex.
Jackson, John L., 248 Esperson Bldg., Houston 2, Tex.
Keys, Clarence E., P. O. Box 35206, Dallas 35, Tex.
Sansom, Ernest R., Box 117, Lake Jackson, Tex.

Virginia

Adams, Harold W., 1113 Powhatan St., Alexandria, Va.
Benoit, John E., 661 Rose Lane, Falls Church, Va.
Briody, Thomas A., 3614 S. Wakefield St., Arlington, Va.
Burgess, Harry C., Jr., 2210 Commonwealth Ave., Alexandria, Va.
Connor, P. Phillips, 1577 Colonial Terrace, Arlington 7, Va.
Cooper, D. Kendall, 954 N. Longfellow, Arlington, Va.
Cooper, Richard C., 602 N. Imboden St., Alexandria, Va.
Crutcher, William C., 1107 N. Barton, Arlington 1, Va.
Dumont, Harry R., 4828 N. 26th St., Arlington 7, Va.
Freilich, Arthur, 1500 Arlington Blvd., Arlington, Va.
Gordon, Hugh L., 1815 Norfolk Lane, Falls Church, Va.
Hoschelt, Dale H., 2701 N. Military Road, Arlington, Va.
Lane, Munson H., Jr., 402 N. Montague St., Arlington 3, Va.
McCandlish, Harrison E., 1909 N. Ode St., Arlington, Va.
McCoy, Garland T., 700 S. George Mason Drive, Arlington, Va.
Montgomery, Robert H., 130 N. Wayne St., #6, Arlington 1, Va.
Musumeci, Alfred V., 2310 N. 10th St., Arlington 1, Va.
Parker, Gayle, 5100 Third St., N., Arlington 3, Va.
Petko, Edward A., 1404 28th St., S., Arlington 6, Va.
Posin, Jack, 1617 28th St., S. Arlington 6, Va.
Reidy, Edward J., 2900 13th Road, S., Arlington 4, Va.
Rogers, John T., 1402 Howard St., Falls Church, Va.
Sullivan, Thomas V., 1010 S. Quebec St., Arlington 4, Va.
Weeks, Alfred, Jr., 2741 S. Ives St., Arlington, Va.
Williams, Melvin P., 3079 S. Woodrow St., Arlington 6, Va.
Ziems, Robert F., 3437A S. Stafford St., Arlington 6, Va.
Zimmerman, Jack P., 716 S. Wayne St., Arlington, Va.

Wisconsin

Marden, Earle R., Jr., 720 S. Losey Blvd., La Crosse, Wis.
Morsell, Curtis B., Jr., 5249 N. Diversey Blvd., Milwaukee 17, Wis.
Robertson, William S., Jr., 2320 S. 92nd St., West Allis 19, Wis.
Sager, Karl E., 620 E. North St., Appleton, Wis.
Swartwout, Willis B., III, 10613 W. Jeffrey Lane, Milwaukee 13, Wis.
Tibbitts, Lewis W., 3741 N. 76th St., Milwaukee 16, Wis.
Wiviott, Fred, 4880 N. Shoreland Ave., Milwaukee 17, Wis.

CONDITION OF PATENT APPLICATIONS AS OF JUNE 30, 1958

Total number of pending applications (excluding Designs)		207, 166
Total number of pending Design applications		6, 832
Total number of applications awaiting action (excluding Designs)		88, 714
Total number of Design applications awaiting action		3, 312
Date of oldest new application	July	18, 1957
Date of oldest amended application	July	1, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 48, 49, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	18, 26, 37, 41, 42, 44, 48, 51, 54, 69,
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B. MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 25, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 28, 30, 32, 46, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	11-12-57	10-23-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	10-11-57	10-4-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	1-3-58	1-3-58
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	10-14-57	10-8-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	10-4-57	9-16-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	11-12-57	11-6-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	10-31-57	11-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-28-57	11-1-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	11-6-57	10-14-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	11-12-57	10-21-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	1-23-58	1-6-58
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	10-2-57	10-3-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-14-57	10-1-57
14. (III) MANIAN, J. C. (WITTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	10-1-57	10-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	10-4-57	10-2-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	10-1-57	10-1-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12-2-57	12-3-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	10-3-57	10-1-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	11-6-57	10-6-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	10-7-57	10-11-57
21. (III) MADER, R. C., Textiles	9-5-57	9-3-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	10-1-57	10-1-57
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	8-7-57	8-2-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	1-3-58	12-30-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	10-8-57	10-17-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-15-57	12-2-57
27. (IV) James, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	12-10-57	12-9-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	10-2-57	10-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	10-1-57	7-26-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	12-16-57	11-26-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BORTTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	11-18-57	11-21-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-29-57	10-29-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-25-57	12-20-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	12-2-57	12-2-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	2-7-56	2-5-56
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	9-3-57	9-3-57
37. (II) LEVY, M. L., Electricity—Switches; Welding, Heating, Photo-cell Circuits	10-18-57	10-1-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	1-6-58	1-10-58
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	1-2-58	1-2-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	12-2-57	12-2-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	10-3-57	10-9-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	9-3-57	9-3-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	10-4-57	10-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	10-1-57	10-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	10-17-57	10-8-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	12-4-57	12-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	11-22-57	10-21-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Translators, Barrier Layer Rectifiers	10-4-57	10-1-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	11-29-57	1-2-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	11-1-57	11-15-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	11-6-57	10-7-57
52. (V) NEFF, P. R., Supports and Racks	10-3-57	10-14-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	1-9-58	1-2-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	12-17-57	12-16-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	10-1-57	10-1-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	10-7-57	10-4-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	1-6-58	1-7-58
58. (III) BRONAUGH, P. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	12-10-57	12-3-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	11-4-57	10-4-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	1-16-58	12-13-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	10-1-57	10-1-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	12-11-57	12-9-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	10-4-57	10-7-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	10-1-57	10-3-57
65. (V) LISANN, L., Geometric Instruments; Acoustics; Building Structures	9-26-57	9-11-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	10-8-57	10-2-57
68. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	12-9-57	12-9-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	11-15-57	11-15-57
CLASS. DIVS. II—LADY, J. E., Oscillators	1-7-58	1-6-58
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	10-1-57	10-1-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	10-14-57	10-10-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds; Masonry and Concrete Structures	10-4-57	10-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	7-18-57	7-1-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	11-20-57	1-6-58
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	10-14-57	12-11-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during August 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,251,258 to 2,254,196, inclusive
Plant Patents ..... Numbers 480 to 488, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals
District of Columbia Circuit

PREFORMED LINE PRODUCTS COMPANY

v.

ROBERT C. WATSON, COMMISSIONER OF PATENTS

No. 13938. Decided June 26, 1958

[— U. S. App. D. C. —; — F.2d —; 118 USPQ 5]

1. APPEAL TO U. S. COURT OF APPEALS, DISTRICT OF COLUMBIA CIRCUIT—DISTRICT COURT'S ORDER CONDITIONALLY VACATED.

Where in the District Court the Patent Office relied solely on the doctrine of res judicata as to some of the claims involved in an action under 35 U. S. C. 145 and the District Court held, as to all the claims, that they were taught by the prior art, and that holding was made "notwithstanding the fact that counsel for the Patent Office advised the District Court at the outset that the issue of patentability vel non was not before the court," and no "issue of patentability vel non was argued to the District Court by the parties, nor was any evidence introduced on that issue," *Held*, in the interest of justice, that the District Court's judgment dismissing the complaint should be vacated conditionally, and within sixty days appellant might apply to the District Court for a new trial based on a proffer of evidence on the issue of patentability and *Held* that denial by "the District Court of such an application, or that Court's action upon the record made at a new trial, if held, may be appealed * * * by the losing party, and upon such new appeal all issues raised may be considered anew" unprejudiced by the former appeal or its disposition, and *Held* that should appellant not apply for a new trial as authorized the judgment of the District Court for appellee should be reinstated.

2. REVIEW BY THE U. S. DISTRICT COURT FOR THE DISTRICT OF COLUMBIA—ISSUE OF PATENTABILITY RAISED SUA SPONTE.

On an appeal in an action under 35 U. S. C. 145, *Held* "We do not question the propriety of the District Court's action in raising, sua sponte, the issue of patentability vel non."

APPEAL from the United States District Court.

VACATED CONDITIONALLY.

Patrick H. Hume (*C. Willard Hayes* of counsel) for appellant. *George M. Sirilla* also entered an appearance.

Clarence W. Moore (*George Roeming* of counsel) for the Commissioner of Patents.

Before FAHY, WASHINGTON and BASTIAN, *Circuit Judges*

PER CURIAM:

This is an appeal from a judgment of the District Court dismissing appellant's complaint in an action brought under 35 U. S. C. § 145 (1952), asking the issuance of a patent.

Appellant is the assignee of one Peterson, who had applied for a patent entitled "Helically-Preformed Wire Envelope and Methods of Use." The original application was given Serial No. 698,312, and subsequently a second, or "continuation-in-part," application (Serial No. 2200) was filed. Certain claims were allowed in the Patent Office and others were denied there on Moxham Patent No. 337,513 and on prior art. With reference to certain other claims (26, 27, and 31 of application No. 698,312 and 27 and 28 of application No. 2200), interference was declared between appellant's application and that of one Bodendieck. This interference proceeding was decided in Bodendieck's favor.

Appellant then gave notice of an appeal to the Court of Customs and Patent Appeals from the decision in the interference proceeding. Prior to the time of the filing of the formal petition and the forwarding of the transcript of record to that court, Bodendieck filed a disclaimer in favor of appellant. Thereupon appellant moved the Commissioner of Patents to vacate the decision awarding priority to Bodendieck but the Commissioner denied this motion.[1]

Upon the final denial of appellant's claims (including those involved in the interference proceedings), the present proceeding was instituted in the District Court.

The District Court, after an extensive hearing, in an oral opinion found in favor of appellee, and, upon the filing of findings of fact and conclusions of law, the complaint was dismissed on its merits. This appeal followed.

The District Court held that, in the absence of a perfected appeal to the Court of Customs and Patent Appeals, the nonvacated decision of the Board of Interference Examiners became a final judgment and, as to the claims involved in the interference proceedings, this was res judicata. In the District Court the Patent Office had relied solely on the doctrine of res judicata as to those claims. The District Court went further, however, and stating that it would not "pitch this case upon that point alone" held that as to all the claims there was no novelty shown—that they were taught by prior art, and that one skilled in the prior art "could certainly apply them."

The latter holding of the District Court was made notwithstanding the fact that counsel for the Patent Office advised the District Court at the outset that the issue of patentability vel non was not before the court. This may have lulled plaintiff-appellant into a sense of security on that issue. No issue of patentability vel non was argued to the District Court by the parties, nor was any evidence introduced on that issue. [1] In the interest of justice, therefore, see 28 U. S. C. § 2106 (1952), we shall vacate conditionally the District Court's order. [2][2] Within sixty days appellant may apply to the District Court for a new trial based on a proffer of evidence on the issue of patentability. Denial by the District Court of such an application, or that court's action upon the record made at a new trial, if held, may be appealed to this court by the losing party, and upon such new appeal all issues raised may be considered anew, unprejudiced by the present appeal or its disposition. Should appellant not apply for a new trial as herein authorized the judgment of the District Court for appellee shall be reinstated.

So ordered.

VACATED CONDITIONALLY.

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[1] The Commissioner ruled that after a notice of appeal to the Court of Customs and Patent Appeals has been given the Patent Office is without authority to dismiss the appeal, and that it is not the practice of the Patent Office to vacate the decision of the Board of Interference Examiners upon the filing of a concession of priority by the party who has been successful before the Board. The time for the perfection of the appeal in the Court of Customs and Patent Appeals has long since expired.

[2] We do not question the propriety of the District Court's action in raising, sua sponte, the issue of patentability vel non. Compare *Hill* v. *Wooster*, 132 U. S. 693, 698 (1890); *Knutson* v. *Gallsworthy*, 82 U. S. App. D. C. 304, 306–08, 164 F.2d 497, 499–501 (1947); *Radtke Patents Corp.* v. *Coe*, 74 App. D. C. 251, 122 F.2d 937 (1941). But we think that under all the circumstances here fairness called for a trial of the issue before the rendition of judgment.

U. S. Court of Customs and Patent Appeals

IN RE JENNINGS

No. 6366. Decided May 22, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—COATING ROLLER ROTATING OPPOSITELY TO MOVEMENT OF WEB.

"It was the opinion of the Patent Office tribunals that the use of a roll of the type shown by Barrett for applying a latex coating in the method defined by claim 3 of the Jennings patent would not be a matter of invention. Even if that were done, however, appealed claims 1 and 2 would not be met, since they call for a roll rotating oppositely to the direction of movement of the strip to be coated, whereas Barrett's roll rotates in the same direction as that strip. This is not merely a choice since, as explained in appellant's specification, a rotation of the roll in the opposite direction results in an accumulation of latex in the pocket between the roll and the strip at the point where the strip leaves the roll, thus insuring a thick, uniform coating. In the Barrett device, any accumulation of coating material would be in the pocket where the strip first engages the roll and any material applied there would be pressed between the roll and the strip. The arrangement to which claims 1 and 2 are limited thus results in a distinct and different method of application which is peculiarly suited to the thick coatings applied by appellant and, in our opinion, such an arrangement is not suggested by the references relied on."

2. SAME—DOUBLE PATENTING—WHERE DIVISION HAD BEEN REQUIRED.

Held that a clear showing of lack of invention was necessary to support a rejection on the ground of double patenting where the application for appellants' patent originally contained claims calling for a feature recited in the claims of appellants' application on appeal, as well as claims of a scope similar to that of a claim of the patent relied on in the rejection of the claims of the application on appeal, and division had been required between the two groups of claims.

3. SAME—PARTICULAR SUBJECT MATTER—METHOD OF AND APPARATUS FOR COATING PAPER WITH LATEX.

Claims to a method of coating paper with latex *Held* patentable over a claim of appellants' patent; a certain claim to an apparatus for coating paper with latex *Held* unpatentable over the prior art; and a certain other claim to an apparatus for coating paper with latex *Held* patentable over the prior art.

APPEAL from the Patent Office. Serial No. 417,773.

MODIFIED.

Barnes, Kisselle, Laughlin & Raisch (*L. Aubrey Goodson, Jr.* and *John M. Kisselle* of counsel) for appellant.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the rejection by the Primary Examiner of claims 1 to 4 inclusive in appellant's application, No. 417,773, for a patent on a paper coating method and apparatus. Claims 1 and 3, which are representative of the appealed claims, read as follows:

1. The method of depositing a variable but predetermined coating of rubber on paper and storing the same in rolls whereby the paper and attached coating may be unrolled to present the rubber coating in condition to cohere to itself which comprises bringing the paper into contact with a coating roll which dips into an aqueous dispersion of latex and rotates in a direction opposite to that in which the paper is moving, depositing such aqueous dispersion of rubber on one side only of said paper in a uniform membrane of predetermined thickness by passing the material in circumferential area contact with the roll to such an extent that the membrane will have a uniform consistency and thickness, setting-up the membrane by the application of heat to a degree proportional to the thickness of the rubber applied to the extent that the coating will temporarily cohere to itself but not adhere to other surfaces such as glass, enamel, metal and the back of the sheet, and rolling the resulting laminated sheet to exclude air and maintain the condition of the rubber as temporarily cohesive until it is dispensed by unrolling.

3. An apparatus for coating a strip of paper with a layer of latex of predetermined thickness which comprises the combination of an applicator, a heating device and a wind-up roll, said applicator comprising a series of two small rolls and one larger roll arranged in parallel relation, the centers of the rolls forming an inverted triangle in a cross-sectional plane with the small rolls at the base corners and the large roll at the apex, means to position and adjust simultaneously said small rolls relative to said large roll, whereby the axes of the small rolls overlie the large roll and whereby paper passing through said rolls will vary in surface contact with said large roll depending on the relative position of the small rolls, means to feed a supply of liquid latex to said large roll, said heating device comprising a bank of lights positioned to play on said paper as it leaves said applicator, and a heated roll interposed between said lights and said wind-up roll, said lights and heated roll being adjustable in effective heat whereby the condition of the applied latex as it approaches the wind-up roll may be controlled.

The references relied on are:

Mather, 219,963, Sept. 23, 1879.
Barrett, 1,909,482, May 16, 1933.
Drummond, 2,320,513, June 1, 1943.
Jennings, 2,432,074, Dec. 2, 1947.

Appellant's application discloses an apparatus for depositing a layer of latex of predetermined thickness on a moving web of paper which passes from one roll through an applicator in which it receives the latex coating and is then wound on another roll. The applicator comprises a large roll which rotates in a direction opposite to that in which the web is moving and which, at its lower portion, dips into a dispersion of latex.

The web is held against the upper portion of this roll by two small spaced rollers which bear against it and press it down onto the large roll. These rollers are parallel to the large roll and are supported at each of their ends in common angle irons. The angle irons are provided at their opposite ends with holes receiving vertical bolts which pass freely through the holes and are provided at their upper ends with wing nuts.

The lower portions of the bolts are surrounded by springs on which the angle irons rest. By adjusting the wing nuts, the rollers may be caused to move toward or away from the large roll, thus varying the area of the web which will contact that roll and regulating the thickness of the latex coating. After leaving the applicator the coated web passes in front of a bank of electric lamps and over a heated drum in order to dry the coating.

The patent to Jennings, No. 2,432,074, discloses a method of coating paper with latex in which the paper is unwound from one roll, passes through a latex applicator and an electric heater and over a heated drum, and is then wound upon another roll. The latex applicator comprises a large roll, dipping into a latex bath and turning in a direction opposite to that in which the paper moves, and a small roll, which holds the paper in contact with the large one so that latex will be applied to the paper.

The Jennings patent was issued to appellant in 1947, but it was used as a reference only as to the invention claimed in it, apparently because the appealed application is a continuation-in-part of an earlier application which, in turn, was a continuation-in-part of a still earlier application which was copending with the application on which the patent, No. 2,432,074, was granted.

The Mather patent, No. 219,963, shows an apparatus for moistening fabrics in which a web of fabric passes

over an applicator roll which dips into a body of water and rotates in a direction opposite to that in which the fabric moves. The surface of the roll is roughened to provide a number of recesses and the roll, as it leaves the water, passes under a doctor blade which removes all water except that in the recesses. The fabric is pressed against the upper portion of the roll by two small rollers mounted in a pivoted frame on axes parallel to that of the applicator roll. The frame is adjustable about its pivot so that the rollers may be moved as a unit toward or away from the roll, thus varying the contact between the fabric and roll.

The patent to Barrett, No. 1,909,482, shows an apparatus for applying latex to the back of carpet in which the carpet passes over an applicator roll which dips into a latex bath and rotates in the direction in which the carpet moves, but at a higher speed. Just before it reaches the roll, the carpet passes over a guide bar which may be adjusted vertically to vary the contact between the carpet and roll. It is stated in the patent specification that such adjustment serves to vary the amount of latex picked up by the carpet.

The Drummond patent, No. 2,320,518, was cited to show that it was old to pass a coated web over a heated drum and under a bank of electric lamps in order to dry the coating.

Appealed claims 1 and 2 were rejected as being unpatentable over claim 3 of the Jennings patent, in view of the disclosure of the Barrett patent. Appealed claims 1 and 2 differ from the said patent claim in that they are limited to methods in which the latex is applied to the material being coated by a roll rotating in a direction opposite to that in which the material is moving, whereas the patent claim merely recites broadly that the material is coated on one surface.

[1] It was the opinion of the Patent Office tribunals that the use of a roll of the type shown by Barrett for applying a latex coating in the method defined by claim 3 of the Jennings patent would not be a matter of invention. Even if that were done, however, appealed claims 1 and 2 would not be met, since they call for a roll rotating oppositely to the direction of movement of the strip to be coated, whereas Barrett's roll rotates in the same direction as that strip. This is not merely a choice since, as explained in appellant's specification, a rotation of the roll in the opposite direction results in an accumulation of latex in the pocket between the roll and the strip at the point where the strip leaves the roll, thus insuring a thick, uniform coating. In the Barrett device, any accumulation of coating material would be in the pocket where the strip first engages the roll and any material applied there would be pressed between the roll and the strip. The arrangement to which claims 1 and 2 are limited thus results in a distinct and different method of application which is peculiarly suited to the thick coatings applied by appellant and, in our opinion, such an arrangement is not suggested by the references relied on.

It is also to be noted that the application on which the Jennings patent was granted originally contained claims calling for an applicator roll rotating oppositely to the movement of the material, as well as claims of a scope similar to that of claim 3 of the patent, and that division between those two groups of claims was required by the Examiner on June 26, 1948. [2] Under such circumstances, a clear showing of lack of invention is necessary to support a rejection on the ground of double patenting. *In re Cady*, 22 CCPA (Patents) 1190, 77 F.2d 106, 25 USPQ 345; *In re Coleman et al.*, 38 CCPA (Patents) 1156, 189 F.2d 976, 90 USPQ 100. We do not find that such a showing has been made in this case, and claims 1 and 2 should accordingly be allowed.

Appealed claims 3 and 4, which are drawn to appellant's apparatus, with particular reference to the adjustment of the small rollers, were rejected on Mather in view of Drummond, the latter patent being relied on to show the heating and drying elements claimed. We agree with the Board that those features are shown by Drummond and that there would be no invention in combining them with the applicator roll and adjustable rollers shown by Mather.

The proposed combination of references would substantially anticipate appealed claim 3, since Mather's rollers may be adjusted in position with respect to the applicator roll by movement of the pivoted frame on which they are supported. The lowering of the frame necessarily increases the surface contact between the applicator roll and the strip of material being coated. Claim 3, therefore, was properly rejected.

Claim 4 is limited to appellant's specific adjusting means which permit either end of each of the common angle irons which hold the rollers to be adjusted vertically independently of the other. This arrangement permits a wide adjustment not only to the extent to which the material to be coated contacts the applicator roll, but also of the angles at which it approaches and leaves the roll. The apparatus of claim 4 provides for a more accurate and flexible control of a viscous coating material than could be obtained by Mather's device. In fact, Mather is not concerned with applying a coating, but merely with dampening a sheet of material. We are accordingly of the opinion that the specific apparatus of claim 4 would not be obvious in view of the references cited, and that claim 4 should, therefore, be allowed.

[3] The decision of the Board is modified, being affirmed as to claim 3 and reversed as to claims 1, 2, and 4.

MODIFIED.

U. S. Court of Customs and Patent Appeals

WHITEHALL PHARMACAL COMPANY v. FRANCES DENNEY

No. 6318. Decided May 23, 1958

[— CCPA —; — F.2d —; 118 USPQ 88]

1. TRADEMARKS—OPPOSITION—GOODS SPECIFIED IN NOTICE OF OPPOSITION—EXHIBITS ATTACHED TO NOTICE.

Where, in an opposition to the registration of "Hope" for perfumes and toilet waters, the "Examiner of Interferences ruled out consideration of 'denture cleanser * * * in this proceeding for any purpose' because it was 'not among the goods specified by the opposer in its notice of opposition,'" *Held* that "He was in error in this as the notice refers to attached exhibits 'showing the mark as used by opposer,' one of which is the label of opposer's 'HOPE Denture Cleanser.'"

2. SAME—CONFUSING SIMILARITY—CURRENT RETAIL STORE MERCHANDISING METHODS NOT CONTROLLING.

"Appellee emphasizes that its products are *high priced* cosmetics including such items as creams, rouge, lipstick, cologne, toilet water, and other perfumed items. The manner of selling these Frances Denney products was given great weight in appellee's brief and by the Commissioner. It appears that 90 to 95% of the retail sales are made by 'Frances Denney girls' at 'Frances Denney counters,' placed strategically in large department stores. This arrangement of Frances Denney girls and separate counters is contrasted with the ordinary drug counters where 'Hope' denture products are merchandised. We are not impressed by the argument that current retail store merchandising methods should be controlling on the issue of the possibility that purchasers may be confused as to the origin of goods."

3. SAME—SAME—PROBABLE PSYCHOLOGICAL IMPACT OF MARK IN SALES SURROUNDINGS.

"The Commissioner said that consideration should be given to the 'probable psychological impact' of the mark in the surroundings in which the goods are sold, and attaches great weight thereto. While it may be a factor, we feel it should not be given controlling significance since these practices might change at any time."

4. SAME—SAME—"LUXURY OR GIFT" ITEM AS CONTRASTED WITH "NECESSITY" ITEM—PRICES MAY BE CHANGED.

"Appellee * * * makes the point that a Frances Denney product is a 'luxury or gift' item as contrasted to opposer's 'necessity item.' We are unable to see how this is a factor of much importance in eliminating the possibility of confusion as to *origin*. Not only may prices be changed at the whim of the manufacturer, but it is common for a single maker to sell both luxury goods and necessary commodities."

5. SAME—SAME—TRADE PRACTICES—MANUFACTURING VARIETY OF PRODUCTS WITH DIFFERENT TRADEMARK FOR EACH.

In regard to the contention that a trade practice, of certain large drug houses, of manufacturing a variety of products and applying a different trademark to each, would make confusion unlikely between "Hope" for perfume and toilet waters and "Hope" for denture cleaners and suction powders, *Held* doubtful that the purchasing public is even aware of the practices of certain large drug houses and highly improbable that its collective mind has been conditioned in the respect assumed.

6. SAME—SAME—IDENTICAL MARKS IN OVER-THE-COUNTER DENTAL PRODUCTS, AND PERFUMES AND TOILET WATER.

"It is our view that prospective purchasers might well assume, upon seeing the mark 'Hope' on perfumes or toilet waters, that the maker of 'Hope' denture products was in some way connected with these items. Identical marks in fields as closely related in trade as over-the-counter dental products, perfumes and toilet water would, we think, be likely to give the impression of common origin."

7. SAME—OPPOSITION—DOUBT AS TO LIKELIHOOD OF CONFUSION RESOLVED AGAINST NEWCOMER.

Held that any doubt as to whether purchasers would be likely to be confused or mistaken as to origin should be resolved against the newcomer.

APPEAL from the Patent Office.

REVERSED.

Mortimer Altin for Whitehall Pharmacal Company.

Mock & Blum (*Asher Blum* and *Charles R. Allen, Jr.* of counsel) for Frances Denney.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the decision of the Commissioner of Patents dismissing Opposition No. 82,695.

Application Serial No. 639,212 was filed December 9, 1952, by Frances Denney, a Pennsylvania corporation, seeking to register the mark "HOPE" for perfumes and toilet waters, alleging use since October 7, 1952.

Registration is opposed by the Whitehall Pharmacal Company by virtue of prior use of "HOPE" by it and its predecessor and Registration No. 311,584, granted March 27, 1934, of "HOPE" as applied to laxatives and denture suction powders. The original registration by Hope, Inc. was renewed in 1954 by opposer.

The Whitehall company bought the entire assets of Hope, Inc., and by virtue of that acquisition became the owner of the involved registration. Both Hope, Inc. and the opposer, Whitehall, have used the mark "HOPE" on denture cleaners [1][1] and denture suction powders. From 1929 to 1953 total sales of the denture products amounted to $1,022,010 and advertising expenditures since 1939 have amounted to more than $45,000.

[2] Appellee emphasizes that its products are *high priced*[2] cosmetics including such items as creams, rouge, lipstick, cologne, toilet water, and other perfumed items. The manner of selling these Frances Denney products was given great weight in appellee's brief and by the Commissioner. It appears that 90 to 95% of the retail sales are made by "Frances Denney girls" at "Frances Denney counters," placed strategically in large department stores. This arrangement of Frances Denney girls and separate counters is contrasted with the ordinary drug counters where "Hope" denture products are merchandised. We are not impressed by the argument that current retail store merchandising methods should be controlling on the issue of the possibility that purchasers may be confused as to the origin of goods.

[3] The Commissioner said that consideration should be given to the "probable psychological impact" of the mark in the surroundings in which the goods are sold, and attaches great weight thereto. While it may be a factor, we feel it should not be given controlling significance since these practices might change at any time.

[4] Appellee also makes the point that a Frances Denney product is a "luxury or gift" item as contrasted to opposer's "necessity item." We are unable to see how this is a factor of much importance in eliminating the possibility of confusion as to *origin*. Not only may prices be changed at the whim of the manufacturer, but it is common for a single maker to sell both luxury goods and necessary commodities.

It appears from the record that certain large drug houses, Whitehall among them, follow the general practice of manufacturing a variety of products and applying a different trademark to each product. Whitehall manufactures and sells drugs, cosmetics and toiletries, such as rouge, lipstick, perfumed deodorizers, stick cologne, solid perfume, hand lotions, creams, and toothpaste and a different mark appears to be applied to each. The record refers to other large drug houses, the products they offer and shows that they apply different marks to different items.

The argument to which the Patent Office apparently attached most weight is based on the above practice of certain large drug houses which it was thought had

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[1] The Examiner of Interferences ruled out consideration of "denture cleanser * * * in this proceeding for any purpose" because it was "not among the goods specified by opposer in its notice of opposition." He was in error in this as the notice refers to attached exhibits "showing the mark as used by opposer," one of which is the label of opposer's "HOPE Denture Cleanser."

[2] Perfume at $5.00 the quarter ounce, toilet "essence" $2.75 for two ounces. In the testimony the following appears:

"Q. Will you explain * * * the difference between toilet essence and toilet water?

"A. There is none, essentially."

probably conditioned the minds of purchasers. [5] Appellee urges that this trade practice makes confusion unlikely. We very much doubt, however, that the purchasing public is even aware of the practices of certain large drug houses and we feel it is highly improbable that its collective mind has been conditioned in the respect assumed.

[6] It is our view that prospective purchasers might well assume, upon seeing the mark "Hope" on perfumes or toilet waters, that the maker of "Hope" denture products was in some way connected with these items. Identical marks in fields as closely related in trade as over-the-counter dental products, perfumes and toilet water would, we think, be likely to give the impression of common origin. This is not a case of likelihood of confusion between similar marks used on identical goods where a purchaser of perfume, for example, might be made so discriminating by foreknowledge of the precise brand desired or by the high cost of the merchandise as to preclude likelihood of confusing one brand with another. The simple question is whether purchasers of "Hope" perfume or toilet water (cologne) were being marketed by the purveyors of denture products bearing the identical mark.

[7] On the whole record, we do not see how the question whether purchasers will be likely to be confused or mistaken as to origin can be free from doubt. Any such doubt should be resolved against the newcomer. *F. Jacobson & Sons, Inc.* v. *Jaybern Fabrics, Inc.*, 39 CCPA (Patents) 937, 195 F.2d 826, 93 USPQ 304 and cases there cited.

We believe the opposition should have been sustained and the decision of the Commissioner of Patents is reversed.

REVERSED.

WORLEY, *J.* (concurring):

I concur with the majority solely on the ground that any reasonable doubt should be resolved against the newcomer.

JOHNSON, *Chief Judge* (dissenting):

I respectfully dissent from the decision of the majority.

At the outset, it is important to note that this case involves the opposition of the registration of "Hope" for *perfumes and toilet water* by the owner of the mark "Hope" for *laxatives, denture suction powders and denture cleanser*. It is immaterial what other products are manufactured under different marks and the statements in the majority opinion about other goods have no place in this case.

The essence of the majority opinion resides in the conclusion that

> * * * prospective purchasers might well assume, upon seeing the mark "Hope" on perfumes or toilet waters, that the maker of "Hope" denture products was in some way connected with these items. Identical marks in fields as closely related in trade as over-the-counter dental products, perfumes and toilet water would, we think, be likely to give the impression of common origin. * * *

Unless the majority is of the opinion that denture products on the one hand and perfumes and toilet water on the other are so closely related *in the public mind* that the public would think that the manufacturer of the former item had expanded his business to cover the latter, it is difficult to see how its decision can be justified. The majority, however, in answer to the argument that the practice of large drug houses is to apply different trademarks to its different products, replied:

> * * * We very much doubt, however, that the purchasing public is even aware of the practices of certain large drug houses and we feel it is highly improbable that its collective mind has been conditioned in the respect assumed.

It would seem that this answer would, with equal logic, apply to the essence of the majority opinion heretofore set forth. It is highly doubtful that the public is aware that large drug houses manufacture both denture products and perfumes and toilet waters. The products are so unrelated that I am of the opinion that it is highly improbable that the public would ever associate these products with a common source.

There are other considerations which also militate against the conclusion reached by the majority. The majority noted the different merchandising methods employed by applicant and opposer (viz—the use of "Frances Denney girls" at "Frances Denney counters," placed strategically at large department stores as contrasted with the ordinary drug counter sales of opposer) but felt that they "should not be given controlling significance since these practices might change at any time." It would seem, however, from the majority's characterization of the products of the parties as "*over-the-counter* dental products, perfumes and toilet water" (emphasis added), that the majority has given no weight to the Frances Denney trade practices, for its use of the words "over-the-counter" with respect to the products of both parties would imply, at least, that all are sold in the same manner. I question whether perfumes and toilet water, which retail at $5.00 per quarter ounce and $2.75 for two ounces, respectively, sold in the manner specified above, can properly be characterized as "over-the-counter" products in the same sense as that phrase would apply to relatively inexpensive products such as laxatives, denture suction powders and denture cleanser. I am of the opinion that the differences in merchandising are a definite factor to be considered in the determination of likelihood of confusion. Trade practices have often been considered by this court as bearing on the identical issue. *Lauritzen & Co., Inc.* v. *The Borden Co.*, 44 CCPA (Patents) 720, 239 F.2d 405, 112 USPQ 60; *Armour and Co.* v. *Organon Inc.*, 44 CCPA (Patents) 1010, 245 F.2d 495, 114 USPQ 334.

Furthermore, it must be borne in mind that expensive perfumes and toilet waters such as are here involved are not items which are casually purchased. On the contrary, most women exercise the utmost care and discrimination in choosing a suitable fragrance. In view of this fact, the possibility of confusion is still further minimized. *Sleepmaster Products Co., Inc.* v. *American Auto-Felt Corp.*, 44 CCPA (Patents), 784, 788, 241 F.2d 788, 113 USPQ 63.

The foregoing considerations leave no doubt in my mind that concurrent use of applicant's and opposer's marks with respect to the goods here involved would not create a likelihood of confusion. I would affirm.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

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2,806,618, Max Bialostok, Knitted fabric and method of making same, filed June 17, 1957, D. C. N. J. (Newark), Doc. 583/57, *Max Bialostok* v. *Millard Block et al.* Order of dismissal without prejudice; right to reopen action if settlement not consummated June 18, 1958.

2,808,614, A. B. Bicknell, Wallboard package and holder, filed Nov. 27, 1956, D. C. Kans. (Wichita), Doc. W-1285, *United States Gypsum Co.* v. *National Gypsum Co.* Decision holding patent valid (notice June 20, 1958).

2,441,960, P. Eisler, Manufacture of electric circuit components; 2,708,607, same; Re. 24,165, same, filed June 23, 1958, D. C. Mass. (Boston), Doc. 58/641-F, *Technograph Printed Circuits, Ltd. et al.* v. *Electrolab, Inc. et al.*

2,493,244, L. B. Hamel, Plastic fishhook and snell holder; Des. 182,988, same, Fishhook and snell holder, filed June 24, 1958, D. C., E. D. Ill. (Danville), Doc. 1639-D, *Lewis B. Hamel Co., Inc.* v. *P & K, Inc.*

2,549,155, J. W. Ackermans, Folding top for automobiles; 2,580,734, Mackie and Duluk, Convertible folding top with automatic seal at rear quarter, filed June 25, 1958, D. C. Md. (Baltimore), Doc. 10670, *Automobile Body Research Corp.* v. *Rayco of Maryland, Inc.*

2,808,724. (See 2,549,155.)

2,809,148, C. T. Samuelson, Submersible deep water drilling apparatus, filed June 24, 1958, D. C., E. D. Tex. (Beaumont), Doc. 4014, *Charles T. Samuelson* v. *Bethlehem Steel Co.*

2,809,794, V. L. Frantz, Operating valve; 2,730,576, same, Automatic bell ringer, filed June 24, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c181, *Graham-White Sales Corp.* v. *Prime Mfg. Co.*

2,801,868, J. Randolph, Resiliently mounted vehicle seat, filed Nov. 20, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c2014, *John Randolph* v. *Allis-Chalmers Mfg. Co. et al.* Judgment entered; claims 1, 2, 4, and 5 held invalid and not infringed; complaint dismissed June 18, 1958.

2,648,783, Easley and Swayne, Etching; 2,838,194, Hopkins and Easley, same, filed June 23, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37435, *Dow Chemical Co.* v. *Field Photo Engraving Co.* Same, D. C. Mass. (Boston), Doc. 58/644-S, *Dow Chemical Co.* v. *Eastern Engravers, Inc.* Same, D. C., E. D. Mo. (St. Louis), Doc. 58c264(1), *Dow Chemical Co.* v. *Ad Service Engraving Co.*

2,678,158, W. O. Hersey, Toy pistol; 2,784,526, same, Toy game, filed Oct. 3, 1956, D. C. N. J. (Newark), Doc. 792/56, *Knickerbocker Plastic Co., Inc.* v. *Park Plastics Co. et al.* Order of dismissal without prejudice June 19, 1958.

2,704,211, C. Decepoli, Shuffleboard weight, filed July 10, 1956, D. C. N. J. (Newark), Doc. 548/56, *Carmine Decepoli* v. *National Shuffleboard Co.* Order of dismissal June 24, 1958.

2,706,897. (See 2,441,960.)

2,704,538. (See 2,678,758.)

2,709,870. (See 2,699,794.)

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2,816,082, Larchar and Pease, Product and process of polymerizing ethylene, filed June 20, 1958, D. C. Del. (Wilmington), Doc. 2006, *E. I. du Pont de Nemours & Co.* v. *Phillips Petroleum Co. and Phillips Chemical Co.*

2,822,560, E. B. McMillan, Microwave radiation absorbers, filed June 16, 1958, D. C. Mass. (Boston), Doc. 58/617-W, *McMillan Laboratory, Inc.* v. *Emerson and Cuming, Inc.*

2,838,194. (See 2,640,763.)

2,834,970, M. Nappe, Sealed pad, filed June 23, 1958, D. C. N. J. (Trenton), Doc. 706/56, *Crawford Steel Co., Inc.* v. *Merlin Nappe and Nappe-Smith Mfg. Corp.*

2,835,162, Harrington and Flocks, Apparatus for and method of examining eyes, filed June 24, 1958, D. C., E. D. Mo. (St. Louis), Doc. N58c12, *Jenkel-Davidson Optical Co.* v. *Roberts Instrument Co.*

Re. 24,165. (See 2,441,960.)

Des. 182,988. (See 2,493,244.)

Des. 167,378, C. S. Shank, Dairy bar; Des. 181,070, same; Reg. No. 631,708 (DAIRY ISLE), Commissary Corp., Food processing machinery etc.; Reg. No. 631,151, same, Buildings, for preparing and dispensing of such as products of ice cream, etc.; Reg. No. 630,234, same, Containers for food products, including ice cream, etc.; Reg. No. 567,732 (DAIRY ISLE AND DESIGN), R. S. C., Co., Packaged ice cream, milk shakes, etc., filed June 20, 1958, D. C., W. D. N. Y. (Buffalo), Doc. 7893, *Commissary Corp.* v. *Dairy Isle Cooperative of Western N. Y., Inc. et al.*

Des. 181,070. (See Des. 167,378.)

Des. 181,207, M. S. Lax, Food warming stand, filed Feb. 14, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18474, *The Kromex Corp.* v. *La Belle Silver Co., Inc.* Stipulation of dismissal June 25, 1958.

REISSUES

AUGUST 5, 1958

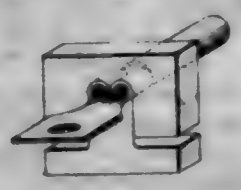
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,510
ELECTRICAL CONNECTOR

James C. Macy, Westfield, N. J., assignor to AMP Incorporated, a corporation of New Jersey

Original No. 2,600,012, dated June 10, 1952, Serial No. 717,842, December 23, 1946. Application for reissue January 7, 1958, Serial No. 707,658

9 Claims. (Cl. 339—276)



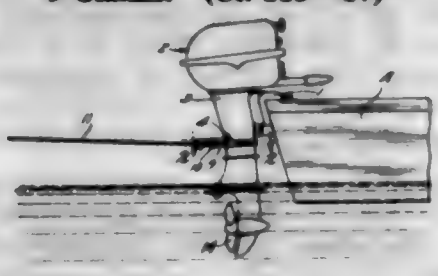
1. An electrical connection comprising a connector including a ferrule and a stranded conductor extending into said ferrule, one portion of the ferrule surrounding the conductor with integral ears extending from opposite sides thereof curled together face-to-face to close the ferrule and therebeyond within the ferrule forming oppositely directed curls, at least a portion of the strands of said conductor being engaged between the bight between said opposite curls and the bottom of the ferrule.

24,511
OUTBOARD MOTOR HAVING TOW LINE DEVICE AND METHOD FOR TOWING

Darwin R. Madison, Brainerd, Minn.

Original No. 2,764,118, dated September 25, 1956, Serial No. 456,683, September 17, 1954. Application for reissue February 25, 1958, Serial No. 718,109

9 Claims. (Cl. 115—17)



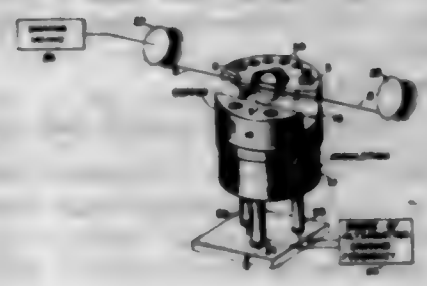
1. In an outboard motor having a depending drive shaft housing, propelling means adjacent one end of the housing, pivotal securing means adjacent the other end of the housing for detachably anchoring the motor to a boat transom for rearward upwardly swinging movements of the propelling means equipped end of the housing, the improvement comprising, a tow line attaching means on said housing intermediate the propelling means and pivotal securing means.

24,512
ERASING HEAD FOR MAGNETIC RECORDING

Donald L. Clark, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Original No. 2,655,562, dated October 13, 1953, Serial No. 579,393, February 23, 1945. Application for reissue December 16, 1957, Serial No. 704,856

7 Claims. (Cl. 179—100.2)



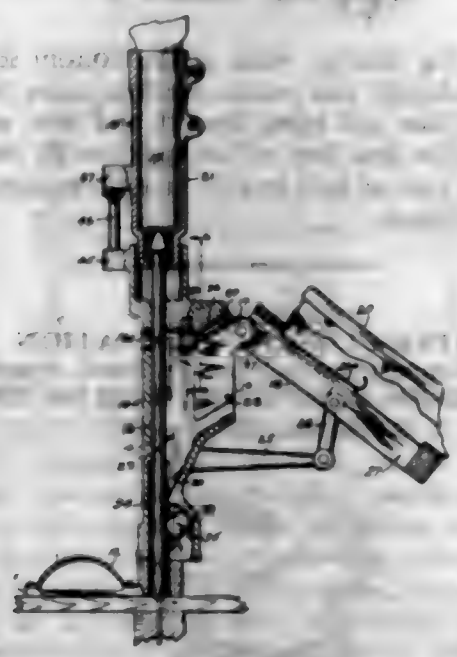
3. Magnetic apparatus comprising a core of magnetic material [having a slot extending therealong], said core having a pair of gaps adjacent each other and extending [transversely] *across a surface* thereof [through said slot], means including a coil individual to each gap for developing across each of said gaps, an alternating magnetic erasing field, a ferromagnetic medium, and means for moving said medium through said slot and successively across said gaps whereby any signal magnetically recorded thereon previously is erased.

PATENTS

GRANTED AUGUST 5, 1958

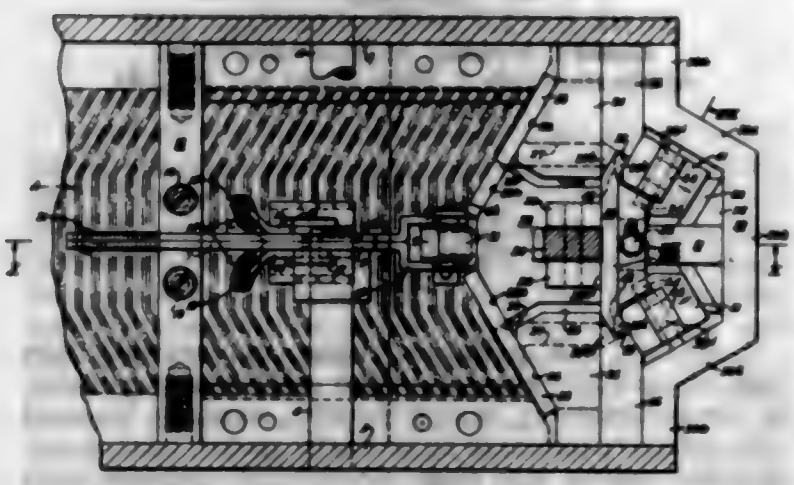
GENERAL AND MECHANICAL

2,845,625
NAILING MACHINE
Albert A. Appell, North Hollywood, Calif.
Application December 7, 1953, Serial No. 396,367
3 Claims. (Cl. 1—6)



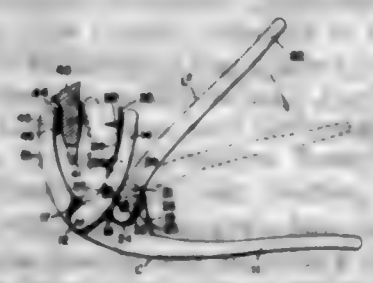
1. In a nailing machine as described including a body having a vertical bore and a passage alongside of said bore, a hammer casing having a hammer piston and reciprocably mounted with said piston coaxial with said body and said body having an inclined guideway for nails and a tiltable hopper adjacent said guideway and coactable therewith to supply nails thereto, the invention which comprises a split bearing sleeve in said guideway, a rotatable nail selector ring on said bearing sleeve, and means to rotate said selector ring to shift nails from said guideway to said passage when said hopper is returned from tilted position, said sleeve providing a channel for the heads of said nails.

2,845,626
STAPLING APPARATUS
Joseph C. Lang, Pittsburgh, Pa., assignor to Bocil Corporation, Pittsburgh, Pa., a corporation of Delaware
Application November 9, 1955, Serial No. 545,929
18 Claims. (Cl. 1—48.1)



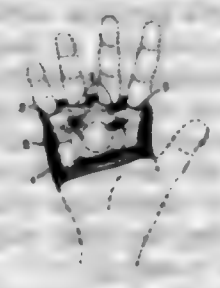
1. Apparatus for driving staples having two legs to effect clinching during driving comprising a staple guide providing opposed channels to receive and guide the outer faces of the staple legs, a driver movable along the guide, and means movable out of the path of the driver and also movable in a direction normal to the said guides for exerting pressure against the inner faces of the staple legs.

2,845,627
MORTICIAN'S TOOLS
Harlan S. De Voe, Maplewood, N. J.
Application January 23, 1956, Serial No. 560,709
7 Claims. (Cl. 1—47)



1. A mortician's tool for closing the jaws of a corpse in preparing the latter for burial, which comprises a lever with a handle on one side of its fulcrum pivot terminating on the other side of the pivot in a fixed curved arm for entering the oral cavity and vestibule of the mouth to extend behind the jaw of the corpse for engaging the inner face of the gums, a finger curved toward the arm and pivoted at the fulcrum of the lever substantially as long from the fulcrum as is the end of the lever from that fulcrum, a second pivot supported from the handle, a second lever rockable on the second pivot whose rocking moves the finger toward and away from the arm, and means on the finger for removably holding near the end of that jaw a bone-piercing needle, while the finger is so curved that when the tool is used to pierce the needle into the upper jaw of the corpse the body of the needle is incisally inclined while when the tool is reversed and used to pierce the needle into the lower jaw of the corpse the body of the needle is also incisally inclined.

2,845,628
HAND CONTROLLING DEVICE
Robert G. Dell, Weirsdale, Fla.
Application October 28, 1954, Serial No. 465,242
3 Claims. (Cl. 2—20)



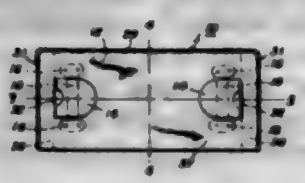
1. A glove for fitting over the hand of a player engaged in a game in which a ball is employed comprising a palm portion adapted to engage and cover the palm of the hand of the player, and a circular rigid member having a diameter no greater than half the width of said palm portion and carried by the central part only of the palm portion so as to isolate the central part of the palm of the hand of the player from contact with the ball.

2,845,629
COAT CONSTRUCTION
Kathryn E. Allen, Philadelphia, Pa.
Application July 20, 1955, Serial No. 523,306
1 Claim. (Cl. 2—46)



A garment comprising, in combination, a main body portion having a front side and a back side and a pair of laterally spaced shoulder portions, a waist portion spaced below said shoulder portion, a sling having a pouch and a pair of elongated straps extending upwardly from opposite sides of said pouch, releasable support means comprising a first set of elements integral with the front side of said main body portion and a second set of elements integral with the back side of said main body portion for detachably engaging the free ends of said straps, said pouch being disposed adjacent to one of said sides of said main body portion, said straps extending upwardly from said pouch and over said shoulder portion into engagement with a selective one of said sets of elements of said support means to selectively position said pouch at a predetermined side of said main body portion, and an adjustable belt integral with said waist portion for snug fit engagement with the body of the wearer for securing said one side of said main body portion against displacement in an upward direction by the weight of said pouch acting through said support means.

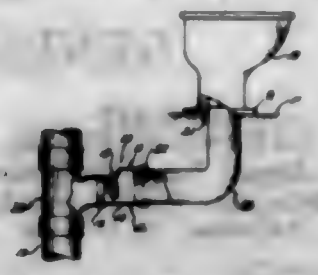
2,845,630
SHOULDER STRAP FASTENING MEANS
Harry I. Elkies, Brooklyn, N. Y., assignor to Gemsco, Inc., a corporation of New York
Application August 21, 1956, Serial No. 605,328
3 Claims. (Cl. 2—246)



1. A shoulder strap to be worn on uniforms of the armed forces comprising a generally rectangular backing plate of pliable metal, a pair of centrally positioned and longitudinally spaced, metallic attaching tongues carried by said backing plate at the rear thereof, said tongues projecting toward each other and having transversely extending shank portions which off-set them from the rear face of the plate, and an insignia-carrying textile fabric covering extending over both the front and rear faces of the plate, the covering at the rear face having transverse slits through which said shanks extend to dispose the tongues on the outside of the covering, and stitching substantially along edge portions of the shoulder strap, said stitching fastening together the front and rear portions of the covering.

2,845,631
PLUMBING FERRULE
Rudolph Kozlowski and John J. Conti, Plainville, Conn.
Application July 8, 1957, Serial No. 670,550
2 Claims. (Cl. 4—1)

1. A conduit system for joining a toilet bowl to a vertical waste stack, comprising a flexible lead elbow connected at its upper vertical end to the lower outlet of said toilet bowl, a rigid integral ferrule having a horizontal cylindrical inlet portion connected with the horizontal end of said flexible elbow and a horizontal cylindrical outlet portion of smaller diameter than said inlet portion and having its horizontal axis eccentric to the axis of said



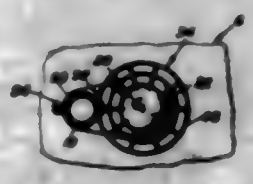
inlet portion, the interior walls at the bottom sections of said cylindrical inlet and outlet portions lying in a horizontal straight line and being smooth and level to prevent obstruction to the free flow of sewage through the ferrule, and the outlet end of said ferrule being connected to said vertical waste stack.

2,845,632
WATER-CLOSET COMBINATION
Leonard W. Youngstrom and Lee W. Pearl, Seattle, Wash.
Application November 8, 1952, Serial No. 319,494
3 Claims. (Cl. 4—14)



2. A flush tank and toilet bowl combination comprising a toilet bowl having a rearwardly directed horizontal shelf, a flush tank having its bottom wall resting upon said shelf, fastening means depending from said bottom wall, said shelf having an elongate slot therein through which said fastening means projects whereby the flush tank is adjustable forwardly and rearwardly on said shelf, said shelf also having an elongate notch therein extending forwardly from its rear edge and there being an opening in said bowl beneath said shelf, an L-shaped conduit communicating with said tank having its upstanding leg secured in depending relation from said bottom wall and projecting downwardly through the notch in said shelf, and said member having its horizontal leg projecting forwardly through the opening in said bowl, and means securing said horizontal leg to the bowl to permit longitudinal shifting of such leg relative thereto.

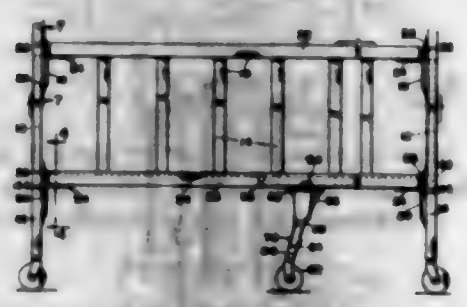
2,845,633
TANK BALL CONTROLLING GUIDE
James L. Gribble, McMinnville, Tenn.
Application July 2, 1956, Serial No. 595,209
2 Claims. (Cl. 4—57)



1. A tank ball guide comprising an openwork wire cage of vertically elongated form embodying a plurality of circumferentially spaced parallel vertically disposed wire members embraced by vertically spaced, horizontally disposed endless wire rings, diametrically opposite pairs of certain of said vertical wire members extending below the lower ends of the intervening vertical wire members, the lower ends of the last-named wire members being co-

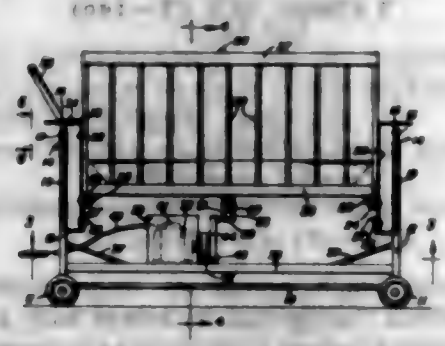
planar and the extended lower end portions of the pairs of diametrically opposite wire members being provided with segmental connecting wire members constituting rests which are adapted to rest firmly on the flush tank bottom the uppermost wire ring being of a diameter smaller than the other wire rings, the upper end portions of the vertical wire members being bent toward said smaller ring and having their ends joined to said smaller ring.

2,845,634
FOLDING PLAY-YARD
Henry J. Landry, Ashburnham, Mass.
Application March 3, 1955, Serial No. 491,862
12 Claims. (Cl. 5—99)



5. A folding enclosure having a folding floor comprising a series of wall parts and a plurality of articulated floor parts, means to fold the floor, means to extend the floor, said last-named means being connected to a floor part and a wall part, and means providing relative motion between the floor and wall parts connected by the floor extending means, said floor-extending means comprising a folding leg on one floor part, an element pivotally associated therewith and with the wall part, said element extending the leg upon relative motion of the wall part in one direction and folding the leg upon relative motion of the wall part in the other direction, the leg having a free end engaging another floor part to engage and extend the latter upon extension of the leg by said element.

2,845,635
ELECTRIC GLIDER AND STABILIZER
Ross H. Eyer, Litchfield, Ill.
Application April 20, 1955, Serial No. 502,610
2 Claims. (Cl. 5—109)



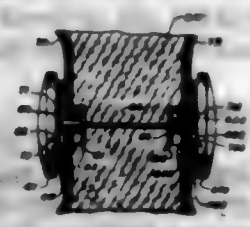
1. An electric glider comprising frame means including an elongated base frame, a crib, means for mounting said crib within said frame means for gliding action back and forth, mechanical actuating means for imparting gliding motion to said crib, and resilient stabilizer means for controlling the movement of said crib, said actuating means comprising an electric motor mounted on said base frame intermediate the ends thereof and having a motor shaft extending longitudinally of said base frame, a rotary member carried by said motor shaft and a connecting rod eccentrically connected at one end to said rotary member and at the other end to said stabilizer means, said stabilizer means comprising a transverse member secured to the under surface of said crib, a strap hinge having one plate thereof connected to said transverse member, the other plate of said hinge depending freely therefrom, a pin connecting said depending hinge plate to said connecting rod, and a pair of coil springs oppositely disposed and connected at one end to said pin, their other ends being connected to said transverse member, said springs supplying equal tension on opposite sides of said depending plate.

2,845,636
BED SPRING FRAME HAVING ADJUSTABLE HOOKS
Nicola Inquista, Montebello, and Joseph F. Inco, La Canada, Calif., assignors to The Inco Company, Los Angeles, Calif., a copartnership
Application December 16, 1955, Serial No. 553,582
3 Claims. (Cl. 5—132)



2. In combination: a bed frame having angle iron side rails and angle iron end rails, said rails being rigidly connected, the angle irons forming depending flanges; at least one of the side rails having a slot in its depending flange and adjacent the depending flange of the corresponding end rail; a bracket structure having a leg extending through the slot, as well as a leg for supporting the side rail, said second leg being parallel to the side rail; and means adjustably attaching the first leg to the inner side of the depending flange of the said end rail.

2,845,637
UPHOLSTERED PILLOW WITH REMOVABLE CASE
Helen di Stefano, Long Island City, N. Y., assignor of one-half to Muriel Burge, Long Island City, N. Y.
Application January 23, 1956, Serial No. 560,504
7 Claims. (Cl. 5—339)



1. In combination with a pillow having an inner cover with stuffing filling the inner cover, said pillow having a pair of axially aligned substantially circular cavities on opposite sides thereof, a plurality of pairs of buttons mounted adjacent the upper and lower faces of the inner cover, a substantially cylindrical internally threaded sleeve, having a circular flange integral therewith inserted in each of said cavities, the pillow operative to threadably retain each of said buttons, each of said sleeves projecting beyond the outer surface of the pillow, flexible means passing through the pillow connecting said sleeves, means attached to each of said buttons operative to removably fit the internally threaded sleeve, each of said buttons having an extension of substantially circular contour integral with the inner edge thereof, each of said extensions having a substantially cylindrical cavity at the center thereof, the cavity being operative to clear the projecting portion of the sleeve, an outer case removably fitted to the inner cover, the outer case having

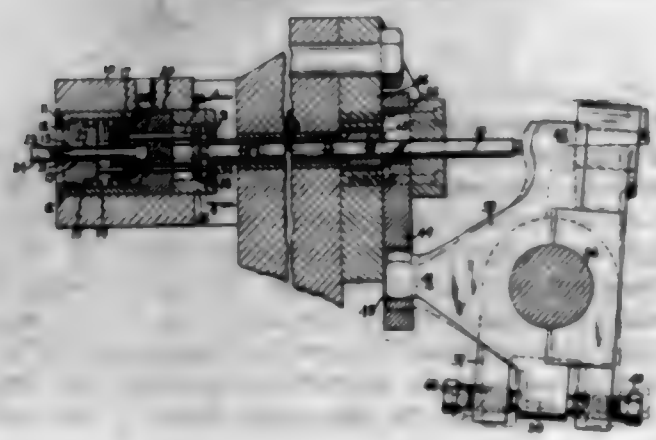
an upper and a lower panel fitted to the upper and lower faces of the inner cover, a front and a rear outer case panel connecting the upper and lower panels, and a pair of outer case side panels attached to the upper and lower panels between the front and rear panels, the upper and lower outer case panels each having a plurality of openings therethrough in alignment with the adjacent button retaining means to permit insertion of the individual button retaining means therethrough when the outer case is fitted to the inner cover, one of said side panels having a longitudinal slot therethrough, and means removably connecting the sections of the side panel adjacent the longitudinal slot to one another.

2,845,638

BLANK EJECTOR MEANS OPERATIVE TO FIRST STRIP BLANK FROM PUNCH AND THEN EJECT BLANK OUT OF DIE

Charles Vincent Sciullo, Waterbury, Conn., assignor to The Waterbury Farrel Foundry & Machine Company, Waterbury, Conn., a corporation of Connecticut

Application January 14, 1955, Serial No. 481,773
11 Claims. (Cl. 10—76)



1. Means for ejecting a blank from a forming machine having a die bed and a sliding die therein provided with an opening within which the blank is formed and a forming pin fixed with respect to the bed and extending into the die opening, a rocker member rockably mounted on the machine, means for rocking said member and separate means actuated by said rocker member to first advance said die and blank relatively to the pin to break the bond between the pin and blank and to thereafter eject the blank from the die.

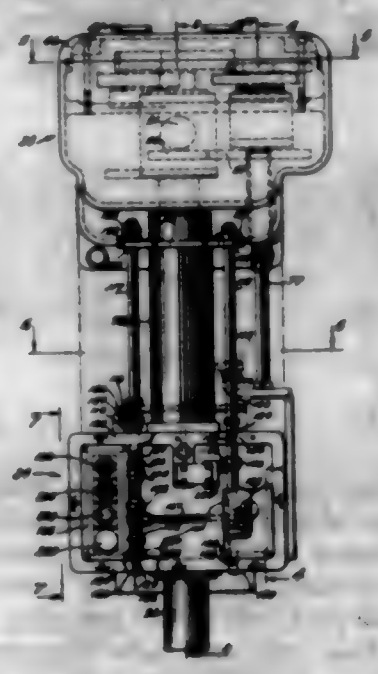
2,845,639

CONTROL APPARATUS FOR DRILLING AND TAPPING MACHINE

William H. Jorgensen and William Gerald Tyson, Green Bay, Wis., assignors to Cleereman Machine Tool Co., Green Bay, Wis., a corporation of Wisconsin

Application October 10, 1955, Serial No. 539,472
27 Claims. (Cl. 10—138)

25. In an automatic drilling machine having a spindle, apparatus including a main motor for rotating the spindle, means for transmitting motion to the spindle from the main motor to feed the spindle axially, a rapid traverse motor, means for transmitting motion from the rapid traverse motor to the spindle to traverse the spindle axially, control means for said apparatus and comprising first and second control rods, means mounting said rods for limited axial movement, a rod shifter mounted for concurrent movement axially with said spindle, said rods having collars actuated by said rod shifter in the course of spindle movement whereby to shift said rods axially, means responsive to the axial shifting of said rods for selectively feeding the spindle by the main motor and traversing the spindle by the rapid traverse motor in a cycle of machine operation, the collars on the said first rod being disposed for actuation by said rod shifter near the extremes of movement of the spindle whereby to control transmission of power from said motors to the spindle at extreme spindle positions, the said second rod having a collar intermediate said extremes of movement of the spindle and substantially at the point in spindle movement where the tool carried thereby is proximate the work whereby said second control rod controls transmission of power from said motors to the spindle at said point, in further combination with cycle selector means adjustable



between an automatic drilling cycle and an automatic tapping cycle, actuation by said shifter of the lowermost collar on said first rod selectively reversing the direction of rotation of said main motor to lead a tap out of the tapped hole if the cycle selector is set for an automatic tapping cycle or discontinuing transmission of power from the main motor to the spindle and connecting the rapid traverse motor to the spindle to rapid traverse the spindle upwardly if the cycle selector is set for an automatic drilling cycle.

2,845,640

PROCESS OF PRODUCING A SOLE FOR SHOES

Alan E. Murray, New York, N. Y.

Application November 7, 1952, Serial No. 319,345
1 Claim. (Cl. 12—146)



The process which comprises impregnating a shoe sole of felt fibres throughout its extent with a water suspension of prevulcanized rubber so as to coat said fibres therewith, pressing out an excess of latex therefrom on an inclined open draining surface, thereafter relaxing pressure from the drained fibrous material, and permitting evaporation of water therefrom so as to leave interconnecting air pockets between the fibres while leaving the edge of the sole porous.

2,845,641

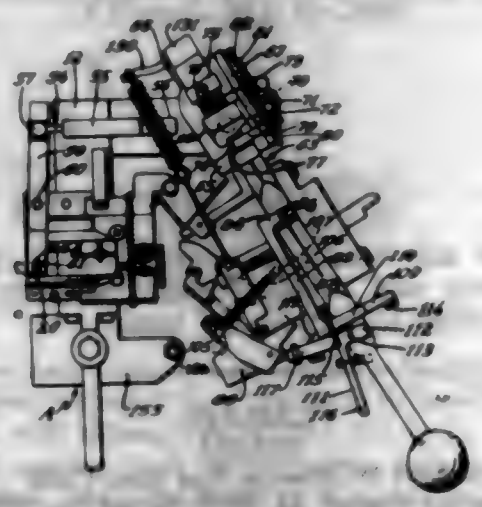
VALVE CLEANING APPARATUS

William A. Cousinx, St. Paul, Minn.

Application January 21, 1955, Serial No. 483,248
15 Claims. (Cl. 15—93)

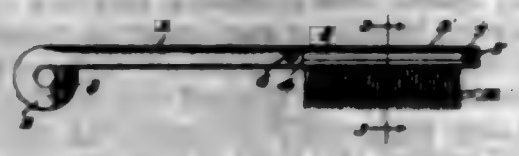
12. A valve cleaning apparatus including in combination a valve support for rotatably mounting an internal

combustion engine valve thereon, a plurality of angularly spaced blades arranged to radially engage the under surface of a valve supported by said support, resilient means



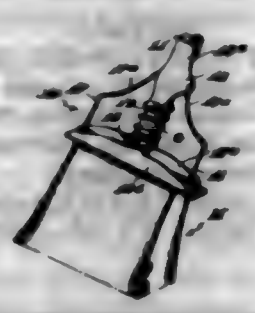
urging said blades in the direction of said valve, cam means for overcoming the action of said resilient means, and means for actuating said cam means.

2,845,641
COMB CLEANER
Daniel O. Inman, Blackhawk, Ill.
Application November 8, 1954, Serial No. 467,416
1 Claim. (Cl. 15—104.5)



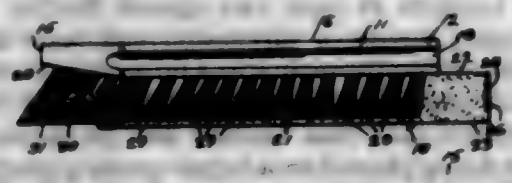
In a comb cleaner, a straight shank having a slot extending longitudinally and inwardly from one end thereof and also having a lateral longitudinal slot in a side thereof in communication with said longitudinal slot and coextensive with the latter, a filler member of a size and shape to correspond with the longitudinal slot and slidable therein, said filler member having an opening therein overlying and coextensive with said lateral slot, bristles firmly secured at their inner ends in said filler member and extending through said opening and said lateral slot, and means for securing said filler member to said shank.

2,845,643
SCRAPER APPLICABLE TO A CONVENTIONAL SPRING-CLAMP FLOOR MOP WITHOUT MODIFICATION OF THE LATTER
Athena M. Provencal and Ralph J. Provencal, Waltham, Mass.
Application August 17, 1954, Serial No. 450,288
4 Claims. (Cl. 15—105)



3. In combination with a mop of the kind wherein an upper jaw is fixed to the lower end of a handle, said jaw having guide openings at its opposite ends, respectively, and a movable lower jaw, parallel to the upper jaw, having parallel guide elements which extend upwardly through the openings in the upper jaw, and resiliently yieldable means for drawing the lower jaw upwardly toward the upper jaw, a scraper comprising a narrow length of substantially rigid material interposed between said jaws and having therein a closed elongate slot extending through a major portion of its length and of such dimensions that the lower jaw with its guide elements may be removably passed through the slot, said scraper being freely movable toward and from the upper jaw and in use being retained in operative position by the material which forms the mop head interposed between it and the lower jaw, said scraper having a rigid scraping edge at one end, said edge being exposed beyond the adjacent end of the upper jaw, the scraper having a stiff bristle brush at its opposite end.

2,845,644
COMBINATION BRUSH AND SPONGE
John A. Wisner, Baltimore, Md.
Application May 8, 1957, Serial No. 657,960
2 Claims. (Cl. 15—114)



1. A cleaning implement comprising a handle having a flat lower surface terminating in an upwardly sloping forward end portion, a generally rectangular sponge block adhesively secured to the flat lower surface of said handle rearwardly of said upwardly sloping forward end portion, said sponge having one side thereof spaced inwardly from one side edge of said handle and the other side thereof aligned with the other side of said handle, said sponge extending rearwardly beyond said handle, a plurality of downwardly and forwardly sloping bristles secured to said handle adjacent the inwardly spaced side of said sponge, a plurality of downwardly and forwardly sloped bristles secured to the upwardly sloped end portion of the bottom wall of said handle forwardly of said sponge, and a downwardly and forwardly sloping front wall on said sponge arranged in supporting relation to said last named bristles.

2,845,645
REFILLABLE-TUBE POCKET TOOTHBRUSH
Nathan Wishnefsky and Milton Olive, Brooklyn, N. Y., assignors to Pharmaceutical Research & Development Company, Brooklyn, N. Y.
Application December 15, 1953, Serial No. 398,369
2 Claims. (Cl. 15—136)

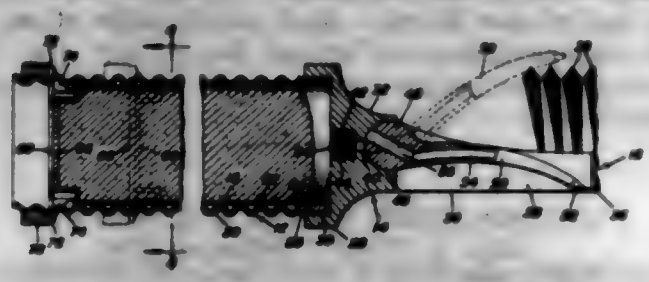


1. A dental cleansing unit comprising a toothbrush having a handle, said handle being provided with a pair of recesses and a communicating channel extending therebetween, a removable closure member for one of said recesses, a collapsible resilient dentifrice holder having a neck conforming to the other of said recesses, and means for rigidly and removably affixing said holder to said handle through said other recess, whereby said dentifrice holder can be refilled from a supply vessel by removal of said closure member and insertion of said supply vessel into said one recess, the dentifrice passing from said supply vessel through said channel into said holder.

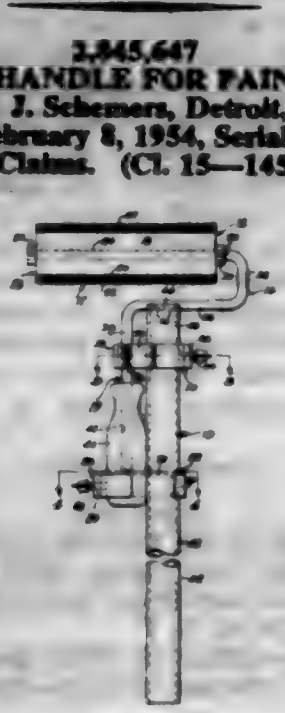
2,845,646
TOOTHBRUSH AND PASTE HOLDER
Herbert H. Robinson, New Orleans, La.
Application July 7, 1955, Serial No. 520,481
1 Claim. (Cl. 15—138)

A combined toothbrush and paste holder comprising a tubular handle for receiving tooth paste, said handle

having a neck portion, a brush head carried by said neck portion, a paste passage in said neck portion communicated with the interior of said handle, a dispensing spout pivotally connected to said neck portion, a valve positionable between said neck portion and said spout, said spout being connected to said valve for actuating the same, a recessed seat formed in said neck portion and extending into said brush head, said brush head including upwardly projecting bristles, said recessed seat terminating between at least two spaced bristles, said dispensing spout having a dispensing end, said dispensing spout being normally seated in said seat with said valve in a closed position and said dispensing end being disposed between said two bristles and protected thereby, said spout being pivotal to a valve opening position overlying said brush head for dispensing paste onto others of said bristles.



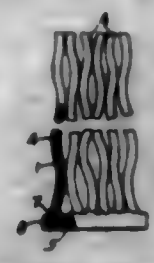
2,845,647
EXTENSION HANDLE FOR PAINT ROLLERS
William J. Schemers, Detroit, Mich.
Application February 8, 1954, Serial No. 408,794
2 Claims. (Cl. 15—145)



1. An extension handle for a paint roller having a handle rod structure including a handle mounted on a handle rod with portions of said rod respectively parallel and perpendicular to the paint roller axis, said extension handle comprising an elongated shaft having means at one end thereof for receiving and holding said parallel portion of said handle rod structure against twisting relatively to said shaft, and a clamping device on said shaft disposed near but spaced away from said one end, said clamping device having a clamping portion thereon disposed on one side of said shaft in clamping engagement with said perpendicular portion of said handle rod structure and holding the same alongside said shaft in parallel relationship to said shaft.

2,845,648
BRUSH AND BRUSH MATERIAL
Ruben O. Peterson, University Heights, Ohio, assignor to The Osborn Manufacturing Corporation, Cleveland, Ohio, a corporation of Ohio
Application March 18, 1954, Serial No. 416,989
12 Claims. (Cl. 15—159)

3. A filamentous element comprising a plastic base portion, and a plurality of crimped plastic strands secured thereto and extending in generally side-by-side relationship therefrom, said plastic strands integrally merging at their ends with the material of said base, and such



material of said base also extending a short distance further along said strands without integrally merging therewith better to support the same.

2,845,649
BRUSH
Robert W. Hutson, San Jose, Calif.
Application August 23, 1955, Serial No. 529,969
3 Claims. (Cl. 15—167)

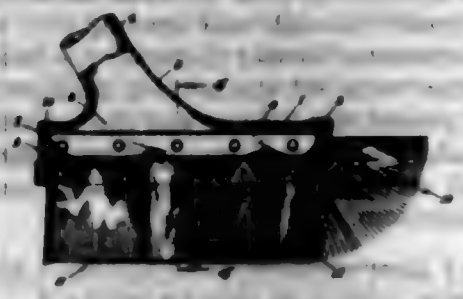


1. In a mouthbrush adapted for massaging gums as well as cleaning teeth, the combination of a head portion and an elongated handle extending therefrom, at least three transversely spaced rows of bristles, each row of bristles being in a plane parallel to each other, said bristles being soft and resilient and of substantially uniform relatively small diameter having flat trimmed free ends and secured in tufts at their other ends in corresponding rows of holes in said head portion, said holes of each row being closely spaced and parallel to the longitudinal axis of said handle so that the flat trimmed free ends of the contiguous bristles secured in adjacent tufts in each row will touch to form a substantially flat continuous lengthwise working surface along the free ends of said bristles in each row, said rows of holes being transversely spaced for a distance sufficient to provide lengthwise spaces between the flat working surfaces of the bristles in adjacent rows, whereby in use the flat free end working surfaces of the bristles in each row will make substantially continuous equal contact with gums in the direction parallel to the longitudinal axis of the handle and will be out of contact with the gums in the intermediate spaces between the rows of bristles to provide a plurality of lengthwise, spaced apart substantially continuous lines of gentle pressure contact thereon as the brush is drawn thereacross causing alternate depressing and releasing of adjacent lengthwise areas of gum tissue and consequent stimulation and sweeping of blood in gentle amounts in said areas being contacted.

2,845,650
MASTIC-BACKED METAL WOOL SCOURING PAD
Warren C. Ashley, Hinsdale, Ill., Stuart O. Fiedler, Cleveland, Ohio, and Johan Bjorksten, Madison, Wis., assignors to Bjorksten Research Laboratories, Inc., Madison, Wis., a corporation of Illinois
Application December 26, 1952, Serial No. 327,978
1 Claim. (Cl. 15—209)

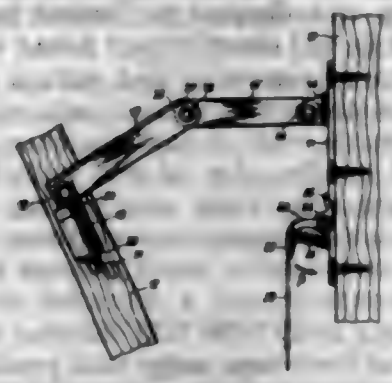
As a new cleansing article, a layer of metal wool bonded to a backing sheet comprising a substantially flat sheet of ductile, plastic, pliable, pliant, impressionable, non-elastic organic material whereby said sheet conforms to the hand of a user and to a surface being cleaned.

2,845,651
VACUUM CLEANER BRUSH UNIT
Oscar G. Woodruff, Stockton, Calif.
Application March 12, 1957, Serial No. 645,479
5 Claims. (Cl. 15—400)



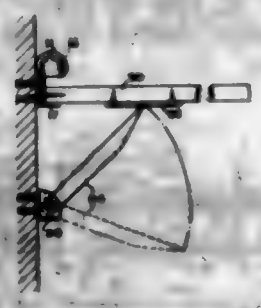
1. A vacuum cleaner brush unit comprising a longitudinal open bottomed body defining an inverted suction trough, a wall closing one end of the body, an attachment and suction neck opening into and projecting in rigid relation from the body at the top, a longitudinal bar within the confines of the body above the bottom edge and spaced from the top and sides thereof, means rigidly securing the bar at one end to said wall, and a row of bristles secured to the bar and projecting out of the open bottom of the body intermediate and spaced from the side edges of the body at the bottom.

2,845,652
DEVICE FOR CONNECTING A WINDOW SASH WITH A WINDOW FRAME
Walter Vöster, Stuttgart-Feuerbach, and Carl Dietz, Stuttgart-Bad Cannstatt, Germany, assignors to Vereinigte Baubeschlag-Fabriken Gretsch & Co., G. m. b. H., Stuttgart-Feuerbach, Germany
Application September 15, 1953, Serial No. 380,254
Claims priority, application Germany September 20, 1952
5 Claims. (Cl. 16—147)



1. A device for connecting a window sash to a window frame for tilting movement about a horizontal axis as well as for swinging movement about an axis perpendicular to said horizontal axis, comprising, in combination, a first link having a pair of opposite end portions; means cooperating with one of said end portions of said first link for connecting said first link to the window frame for turning movement about a horizontal axis; a second link having a pair of opposite end portions; means cooperating with the other of the end portions of said first link and with one of the end portions of said second link for interconnecting said first and second links at the latter end portions thereof, respectively, for turning movement one with respect to the other about a horizontal axis; an elongated pivot pin; means cooperating with one end portion of said pivot pin and with the other end portion of said second link for interconnecting said pivot pin and second link for turning movement one with respect to the other about a horizontal axis, said pivot pin having an axis normal to the latter horizontal axis; a tubular socket member coaxially receiving said pivot pin in the interior thereof and turnable with respect to said pivot pin about the axis thereof; and means cooperating with said socket member for fixedly connecting the latter with the sash.

2,845,653
RELEASABLE COUPLINGS
Austin Nelson, Sutton, England, assignor to Archer Works Engineering Company Limited, London, England, a British company
Application September 29, 1954, Serial No. 459,189
Claims priority, application Great Britain October 30, 1953
3 Claims. (Cl. 16—172)

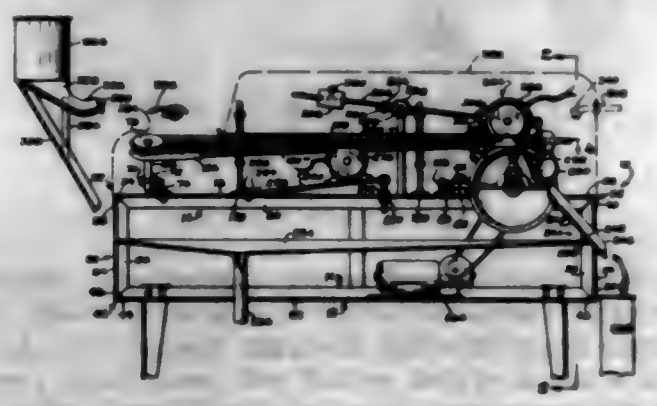


1. A releasable coupling for supporting a shelf-like member at a horizontal angle from a vertical wall, comprising a first plate which has a flat base portion adapted to be attached to said vertical wall and a hook portion projecting away from the plane of said base portion and having a curved inner surface, the free edge of said projecting hook portion being spaced from said base portion by a gap narrower than the maximum inner dimension of said hook portion taken in a direction normal to the plane of said base portion, and a second plate comprising a flat base portion adapted to be attached to a shelf projecting perpendicularly therefrom and a hook portion projecting away from the plane of its base portion, said last mentioned hook portion having a curved outer surface dimensioned to pivot on the curved inner surface of said first-mentioned hook portion, the maximum dimension of the hook portion of said second plate in a direction normal to the plane of its base portion being greater than the width of said gap, while its maximum dimension in a direction parallel to the plane of its base portion is less than the width of said gap, so that when the base portions of the two plates are normal to each other, the hook portion of said second plate may be inserted into the hook portion of said first plate through said gap and turned therethrough to a position within the hook portion of said first plate in which said plates are parallel to each other and in which the hook portion of said second plate may not be withdrawn through said gap, the inner surface of said first plate and the outer surface of said second plate being geometrically similar, so that when said hook portions are engaged with their base portions parallel, the base portion of said first plate serves as a stop preventing said second plate from turning more than 90 degrees from the position in which said base portions are normal to each other.

2,845,654
SHRIMP EVISCERATING AND SHELLING MACHINE
Frank L. Deal, Brunswick, Ga.
Application July 18, 1955, Serial No. 522,651
6 Claims. (Cl. 17—2)

1. A shrimp shelling and eviscerating machine comprising an elevated elongated substantially rectangular frame, a pair of laterally spaced shafts secured to one end of said frame in upwardly extending diverging relation, a pulley journalled on each of said shafts, a pair of laterally spaced parallel drive shafts positioned adjacent the end of said frame opposite said diverging shafts, means on said frame supporting said drive shafts for rotary movement, a drive pulley affixed to each of said drive shafts, an endless belt trained about one of said first named pulleys and one of said drive pulleys on one side of said machine, a second endless belt trained about the other of said first named pulleys and the other of

said drive pulleys on the other side of said machine, said endless belts being outwardly canted at one end thereof, said belts each having confronting concave sides, said confronting sides of said belts coacting and engaging against the sides of a shrimp to convey said shrimp from one of said ends of said frame to the other end thereof, cutting means mounted on said frame below said belts and extending upwardly intermediate thereof for cutting the shell of said shrimp at the belly portion thereof, cutting means mounted on said frame above said



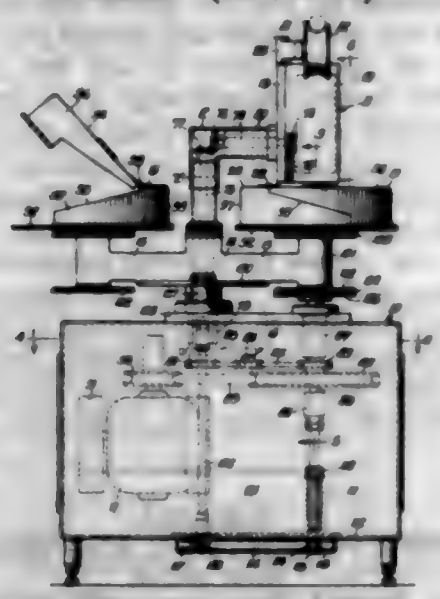
belts and extending downwardly therebetween for cutting the shell of said shrimp at the back portion thereof and substantially simultaneously therewith removing its intestine, both of said cutting operations terminating at a point adjacent the tail of said shrimp, and a pair of tines disposed adjacent said other end of said frame, said tines extending inwardly of said belts at the discharge end thereof and engaging between the body of said shrimp and the opposite sides of said shell to separate said shell from said body to said point adjacent said tail.

2,845,655

SAUSAGE LINKING MACHINE

Lawrence P. Cross, Valparaiso, Ind.

Application December 31, 1953, Serial No. 401,600
19 Claims. (Cl. 17—34)



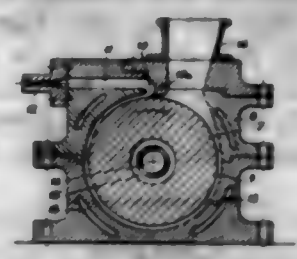
1. In a sausage linking machine having a frame structure and means on said frame structure for feeding a filled sausage casing in a predetermined path, and for constricting the casing at intervals to divide the same into successive individual links of predetermined length and to advance the same beyond the forward end thereof, a container rotatably mounted on said frame structure adjacent said casing constricting and advancing means and extending across the forward end thereof, means forming an unobstructed opening into said container adjacent the axis of rotation which opening is slightly larger than the cross section of the casing to permit said casing to pass freely therethrough and which is spaced from the forward end of said casing constricting and advancing means a distance less than the length of a sausage link for receiving successively the connected links from the constricting means, drive means having a separable connection with said container for rapidly rotating said container to urge the links outwardly of the axis of rotation and to impart a twist in the constricted area between successive links as they move freely through said opening into said container, means connected to said container for bodily moving said container to a link discharging position laterally of said casing constricting means and the separable connection with said drive means and said container having a movable wall section to permit the twisted sausages to be removed therefrom.

2,845,656

MACHINE FOR MIXING AND EXTRUDING PLASTICS AND THE LIKE

Ernesto Gabbrielli, Milan, Italy

Application December 24, 1952, Serial No. 327,731
Claims priority, application Italy December 28, 1951
5 Claims. (Cl. 18—12)



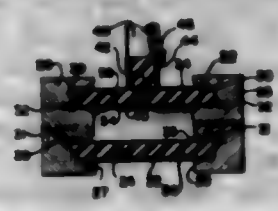
1. A machine for mixing and extruding a viscous plastic material that adheres to surfaces of the machine, comprising at least two wall-forming members defining an elongated channel adapted to be traversed by said material, one of said members being movable relative to another in the direction of the length of said channel, said relatively movable members respectively forming oppositely facing bounding walls of said channel spaced apart therealong at a distance so limited that said material is dragged in said direction and mixed in said channel by the relative movement of said walls, a compression chamber fixed relative to one of said walls, scraper means forming an entrance wall of said chamber arranged to engage material on the other of said walls for scraping such material from the latter and leading it into said chamber, said material being conveyed over said scraper means and into said chamber under pressure generated by said relative movement, and a restricted extrusion passageway extending away from said chamber for conducting such material therefrom under said pressure.

2,845,657

MOLDING APPARATUS AND METHOD

Charles H. Beare, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

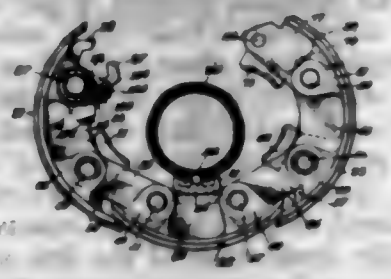
Application May 13, 1953, Serial No. 354,858
4 Claims. (Cl. 18—36)



4. A mold suitable for molding curable plastic material, comprising in combination, a tube of predetermined length, a second tube in nested concentric relation with said first tube having a predetermined length and an internal diameter greater than the external diameter of said first tube and having an aperture and an outwardly bent and attached tang portion on an external surface of said second tube formed of the material removed from said tube surface when forming said aperture, a pair of end plates for providing a cover for the end

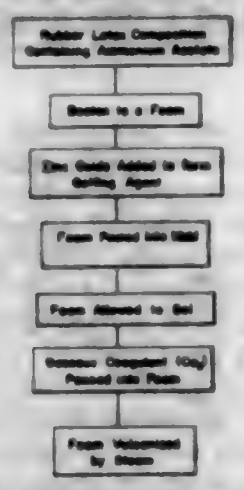
portions of said tubes, concentric grooves on one surface of the plates whereby said tubes are maintained in spaced relation, one of said grooves being adapted for deforming an end of one of the tubes whereby the plates and tubes are maintained in a secured relation when the tube ends are deformed within said grooves, said tang and aperture being adapted for passing uncured plastic material in one direction into a space between said tubes and for restricting said passage when the tang is bent for closing said aperture.

2,845,658
COLLAPSIBLE MANDREL FOR USE IN FABRICATING PLASTIC PIPE
Leroy H. Knibb, Chicago, Ill.
Application January 28, 1954, Serial No. 406,664
8 Claims. (Cl. 18—45)



1. A collapsible mandrel adapted to be mounted temporarily on an elongated cylindrical arbor, designed to serve as a form on which to fabricate a pipe of "plastic" material and comprising a series of side by side complemental segments having hinges between them, adapted to be placed serially around the mandrel and each embodying an elongated wall and rigid lugs connected to, and extending inwards from, the wall, having concave inner end surfaces for snugly engaging the arbor, and adapted to hold the wall in spaced relation with the arbor, and coacting locking elements mounted respectively on the end segments of the series, and inwards of the walls thereof, adapted after the segments are placed serially around the arbor to be manipulated into a locked position in order to lock the segments in place, and further adapted upon removal of the arbor after a pipe fabricating operation to be manipulated into an unlocked position in order to permit the segments to be collapsed as a preliminary to removal from the pipe.

2,845,659
PRODUCTION OF FOAM RUBBER
Kenneth Osborne Calvert, Sutton Coldfield, England, assignor to Dunlop Rubber Company Limited, London County, England, a British company
Application October 24, 1955, Serial No. 542,481
6 Claims. (Cl. 18—53)



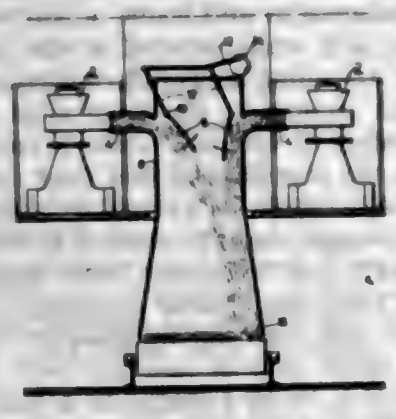
1. A method of making foam rubber which comprises foaming a vulcanizable compounded rubber latex, shaping said foamed latex, gelling said shaped foamed latex by means of a non-gaseous gelling agent, treating said gelled, foamed latex with a coagulating gas and vulcanizing said treated foamed latex.

2,845,660
METHOD FOR MAKING LEAD-IMPREGNATED PLASTIC ARTICLES
Alva K. Peller, Glendora, Calif., assignor to Alice B. Maxam
Application February 9, 1956, Serial No. 564,513
6 Claims. (Cl. 18—58.6)



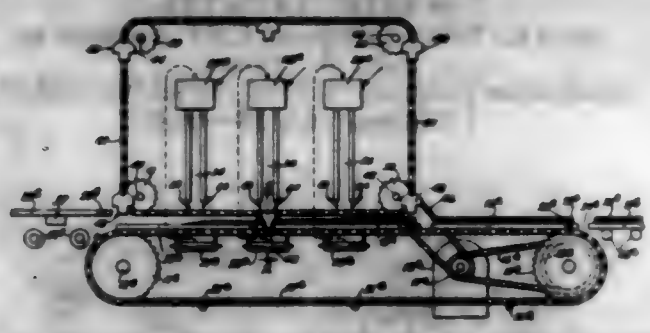
1. A method for making lead-impregnated plastic which includes: aerating clean finely divided dry lead powder to impart to it a fluffed, relatively light consistency; mixing said lead powder in an aerated condition with a liquid plastic mixture; subsequently removing occluded gas from said mixture by agitating it under a vacuum; and molding the deaerated liquid mixture to desired shape.

2,845,661
APPARATUS FOR A UNIFORM DISTRIBUTION OF A FIBROUS MATERIAL ON A CONVEYOR BELT
Åke Karl Erik Svende and Karl Olof Westerlund, Billesholm, Sweden, assignors to Hoganas-Billesholms Aktiebolag, Hoganas, Sweden, a Swedish company
Application March 26, 1954, Serial No. 418,849
Claims priority, application Sweden March 31, 1953
2 Claims. (Cl. 19—155)



1. An apparatus for the uniform distribution of a fibrous material on a conveyor belt comprising means for forming an air suspended fiber stream, a vertically disposed conduit which is open at its lower end, a discharge pipe connected between said means and the upper end of said conduit and positioned to deliver said stream from said means into said conduit in the horizontal direction, a conveyor belt extending across the lower end of said conduit, a vane mounted to oscillate in the upper end of said conduit, said vane extending transversely across the path of said stream and being positioned to direct said stream downwardly in said conduit toward said belt and means for oscillating said vane to distribute said stream across the width of said conveyor belt.

2,845,662
METHOD AND APPARATUS FOR DEPOSITING LOOSE MATERIALS ON SUPPORT SURFACES
James d'A. Clark, Longview, Wash., assignor to Changewood Corporation, Chicago, Ill., a corporation of Illinois
Application June 13, 1956, Serial No. 591,036
15 Claims. (Cl. 19—155)



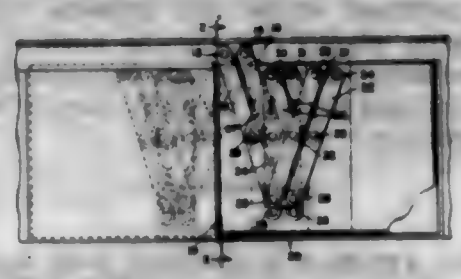
15. In the manufacture of separated laminar matrices upon individual caul plates from fibrous elements deposited thereon from a depositing head, the steps of advancing series of said caul plates in succession beneath the depositing head, maintaining a gap of predetermined width between adjacent successive plates, issuing fibrous elements from said depositing head for collection on said caul plates and recovering those elements that pass through each of said gaps as those gaps move beneath the head, and returning the elements so recovered to the depositing head.

2,845,663
FOLDING TRAILER BODY
Wilbur G. Harr, Sciotoville, Ohio, assignor to Sportsman Sleeper, Inc., Portsmouth, Ohio, a corporation of Ohio
Application December 11, 1956, Serial No. 627,657
8 Claims. (Cl. 20—2)



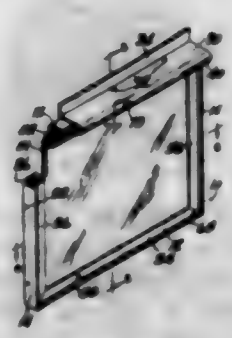
1. A folding camping trailer comprising a horizontal frame, a floor secured to said frame, a pair of rectangular spaced parallel side walls secured to the side edges of said floor and extending upwardly therefrom, a rectangular front wall secured to the front edge of said floor and the front edges of said side walls, a rectangular rear wall secured to the rear edge of said floor and to the rear edges of said side walls, a triangular upper front wall having its lower edge hingedly secured to the upper edge of said front wall, said triangular upper front wall being foldable to a horizontal plane overlying said floor, a triangular upper rear wall having its lower edge hingedly secured to the upper edge of said rear wall, said triangular upper rear wall being foldable to a horizontal plane overlying said floor, a first rectangular roof panel having one edge thereof hingedly secured to the upper edge of one of said side walls, and a second rectangular roof panel having one edge thereof hingedly secured to the upper edge of the other of said side walls, said roof panels when in erected position engaging at their opposite ends the opposite edges respectively of said triangular upper front and rear end walls with said first roof panel having the free edge opposite the hinged edge thereof engaged over the free edge opposite the hinged edge of said second roof panel, said roof panels being foldable to a horizontal position overlying said upper front and rear end walls when folded with said first roof panel completely overlying said second roof panel and engaging over the upper edges of said front and rear end walls and said other side wall.

2,845,664
FLOATING DOOR
Merwyn B. Linton, Austin, Tex.
Application July 11, 1955, Serial No. 520,973
7 Claims. (Cl. 20—19)



1. In a floating door assembly, a reciprocable door movable into and out of closing relation to an associated opening, an overhead support, a pair of suspension links pivotally connected at their upper ends to said support and swingable in a plane parallel to the path of movement of said door, a pair of secondary suspension links pivotally connected at their upper ends to said door about an axis perpendicular to the path of movement of the door and disposed in laterally spaced relation to the first mentioned suspension links, means pivotally interconnecting the lower ends of the first and secondary suspension links, a first pair of intermediate links, one of said intermediate links having its lower end pivotally connected to one of the secondary suspension links, the lower end of the other intermediate link being pivotally connected to one of said main suspension links, a second pair of intermediate links, one of said second pair of intermediate links having its lower end pivotally connected to the other of said secondary suspension links, the lower end of the other intermediate link of said second pair of links being connected to the other of said main suspension links and the upper ends of each pair of said intermediate links being pivotally interconnected with all such pivotal connections of the intermediate links being about axes perpendicular to the path of movement of said door, and said intermediate links being disposed in side-by-side relation and sandwiched between corresponding first and secondary suspension links with each intermediate link being most closely adjacent its corresponding first suspension link and the other intermediate link being most closely adjacent its corresponding secondary suspension link, whereby none of the links are disposed in the path of movement of each other so that the links may move past each other as the door is moved between its extreme positions.

2,845,665
WINDOW STRUCTURE
Andrew S. Place, South Bend, Ind.
Application April 2, 1956, Serial No. 575,588
2 Claims. (Cl. 20—53)



1. A window frame unit adapted to dependingly and hingedly support a window frame, comprising a frame having top and bottom rails and upright stiles, said rails and stiles being angle members and having coplanar

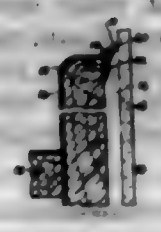
connected webs and connected flanges projecting perpendicularly from the outer marginal portions of said webs, the top rail being cut away at the corner between said web and flange, a cap member extending substantially full length of said top rail, a flashing flange extending upwardly from said cap in substantially coplanar relation to said frame webs, a projection on said cap member seating in said frame cut out, said cap projecting beyond the flange of the top rail and terminating in a sash mounting hinge socket, and means securing said cap to said top frame rail flange.

2,845,666

PLASTICS FILLET

Walter I. Knapp, Detroit, Mich., assignor of fifty percent to Edward M. Apple, Detroit, Mich.

Application April 13, 1953, Serial No. 348,499
8 Claims. (Cl. 20—74)



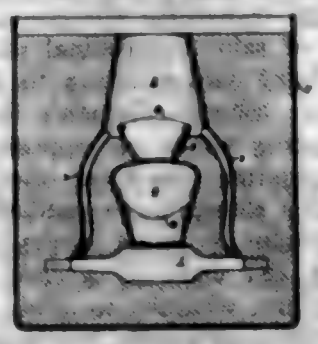
1. A transition element comprising a length of pliable plastic material having a modified T-shaped cross section, the longer leg of the T having a knee therein defining two sections with an angle there between, the shorter legs of the T each terminating in a face, one of which faces is substantially parallel to one of the sections of said long leg of the T, and the other said face is at right angles to the other section of said long leg of the T.

2,845,667

MOLDS FOR CASTING DISC-SHAPED BODIES

Hans Friedknecht, Winterthur, Switzerland, assignor to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland

Application July 22, 1954, Serial No. 445,148
3 Claims. (Cl. 22—113.5)



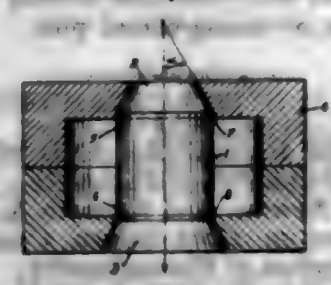
1. An apparatus for casting disc-shaped bodies comprising a mold defining a substantially horizontally positioned disc-shaped casting cavity corresponding internally to the external shape of the object to be cast, a molten metal reservoir positioned above said casting cavity, a riser positioned above the central portion of said casting cavity having a flaring portion at its uppermost end connecting said reservoir to the central portion of said casting cavity, at least one runner connecting said reservoir with the casting cavity at points on its periphery, and a non-fusible plug positioned in the flaring portion of the riser adapted to seat itself by gravity within said flaring portion and to become unseated by pressure from below when the level of molten metal in the riser rises above a predetermined level thereby permitting the free flow of molten metal from the reservoir into the riser.

2,845,668

PERMANENT MOLD HAVING A REMOVABLE CORE

Lucien Péras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, and Societe des Hauts-Fourneaux et Forges d'Allevard, Paris, France, French works under the control and the authority of the French Government

Application March 5, 1956, Serial No. 569,578
Claims priority, application France March 4, 1955
5 Claims. (Cl. 22—168)



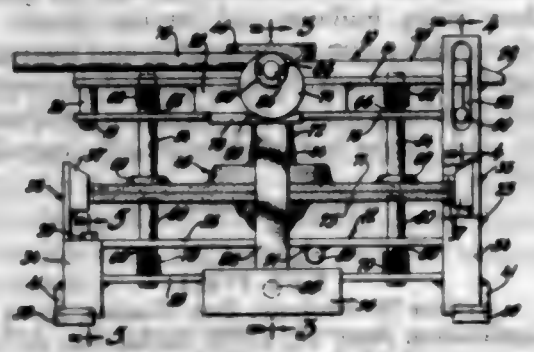
2. In combination, a permanent mold for use in the casting of molten materials, the mold having a cavity and at least one core-positioning passage in communication with the outside of the mold and provided with surfaces defining a bore of the thickness of the mold providing communication between the passage and the cavity, a removable core of the type used repetitively in casting operations having at least one frusto-conical tapered guide portion seated within the passage and diverging in a direction corresponding to a direction of withdrawal of the core and having a body portion extending into the cavity and joining said guide portion at a point within said bore, said bore having a diameter larger than any transverse dimension of the core body portion and only slightly greater than the diameter of the part of the core in the bore thereby forming a relatively narrow clearance space between the part of the body portion of the core in the bore and the mold surfaces defining the bore, and said core-positioning passage having sloped surfaces registering with the frusto-conical guide portion of the core, whereby when a molten material is introduced into the mold the material in said narrow space cools more rapidly than the material in said cavity and provides a substantially rigidified slug of material tending to hold the core properly positioned in said passage during the introduction of molten material and allows removal of the core without contact of the mold surfaces by the body portion of said core.

2,845,669

METHOD OF CASTING IN SHELL MOLDS

William S. Hackett, Saginaw, and Donald J. Henry, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 12, 1953, Serial No. 385,510
2 Claims. (Cl. 22—200)



1. A process for forming a precision casting by use of a shell mold, said process comprising assembling a pair of shell mold halves to receive molten casting metal, positioning a side of the resultant assembled shell mold against the ends of a series of spring-biased mold-engaging pins which are slidably mounted within aper-

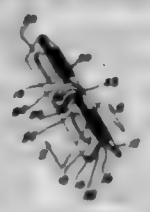
tures in a supporting plate, moving a second series of spring-biased mold-engaging pins into contact with the side of the mold opposite said first series of pins, clamping said first and second series of spring-biased pins into firm engagement with the shell mold so as to partially retract said pins, pouring molten casting metal into said shell mold, permitting the casting metal to solidify, thereafter moving said second series of spring-biased pins out of engagement with said mold, and subsequently removing the shell mold and solidified casting from the ends of said first series of spring-biased pins.

2,845,670
ELASTIC LOOP FASTENER AND METHOD OF MAKING THE SAME
Leslie S. Brown, Newton, and Kenneth A. Ives, Reading, Mass., assignors to Hook-Brown Company, Boston, Mass., a corporation of Massachusetts
Application July 25, 1956, Serial No. 600,133
12 Claims. (Cl. 24—16)



1. A garment fastener comprising a piece of elastic cord formed in a loop and having end portions disposed alongside each other, and a clamping member enclosing and tightly gripping said end portions, portions of the cord inside said member being in longitudinally stretched condition.

2,845,671
WEBBING CLIP
Louis Fischer, Elmhurst, and Anton Schlussel, Bronx, N. Y.; said Fischer assignor to said Schlussel
Application February 1, 1956, Serial No. 562,780
4 Claims. (Cl. 24—84)



1. A clip for securing webbing comprising a pair of angularly related flanges joined at a bend line and bendable at that line to permanently and non-detachably engage webbing placed between said flanges, one of said flanges being provided with a pair of elongated slots, the other of said flanges being provided with a pair of ridges stamped therefrom and co-acting with respective slots to define elongated clinching areas for permanently and deformingly clinching elongated areas of said webbing therein, said clip being provided with a hook for insertion in a slit through the side of a tube, said hook being struck from the material of one of said flanges, said ridges being bulbous and having closed sides and being substantially non-compressible and having elongate linear crests, said hook being disposed intermediate the elongated clinching areas, the direction of elongation of the slots and ridges being substantially parallel to the bend line.

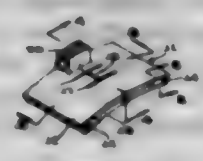
2,845,672
KEY POST
Arthur W. Moiens, Des Moines, Iowa
Application June 18, 1954, Serial No. 437,783
3 Claims. (Cl. 24—116)

1. In a device of the class described; a tubular body having formed in one end a tapered bore, the other end being open, the diameter of the inner end of the tapered bore of said tubular body being less than the bore of the balance of said tubular body to form a locking shoulder; a stud of tubular formation and of less diameter than the bore of said body locking shoulder; a truncated cone formed on one end of said stud with its base larger in diameter than the diameter of said stud to form a co-acting locking shoulder; said truncated cone and the corresponding end of said stud being slotted longitudinally to form yielding locking fingers adapted to enter the tapered bore of said tubular body with their locking shoulders in operative contact with the locking shoulder of said tubular body and with the free ends of said fingers



extending innermost; a sleeve slidably mounted in the open end of said tubular body and having its inner end open to receive the cone end of said stud fingers and move them toward each other upon axial movement of said sleeve; the outer end of said sleeve being closed and having a radial slot therein that joins a longitudinal slot through one side of said sleeve and extending the entire length thereof; and means for securing said sleeve within said tubular body.

2,845,673
SHOE LACE CLIP
Thomas Weis, Toronto, Ontario, Canada
Application June 10, 1955, Serial No. 514,674
1 Claim. (Cl. 24—121)



A shoe lace clip comprising a pair of arcuately curved, relatively flat plate elements secured together one over the other and being downwardly concave to fit on the top front portion of a shoe overlying the laces thereof, the lower plate element being formed with an aperture through the intermediate portion thereof large enough to receive the ends of a shoe lace therethrough, and the upper plate element being formed with a pair of longitudinal spaced slits and a straight transverse slit connecting the intermediate portions of said longitudinal slits and normally transversely overlying said aperture to define a pair of opposing resilient tongue elements having adjacent straight thin gripping edges on opposite sides of said aperture, said longitudinal slits being of substantial length, whereby said tongue elements are yieldable upwardly and whereby said straight gripping edges are adapted to grippingly engage the ends of a shoe lace extending through said aperture, whereby to allow the ends of the shoe lace to be pulled upwardly but to prevent the ends of the lace from slipping downwardly through the aperture, and a channel shaped clip on said upper plate element adjacent said slits to receive the ends of a shoe lace.

2,845,674
LINE TIGHTENER AND HOLDER
Philip C. Pearson, Duluth, Minn., assignor to The Titeliner Company, Minneapolis, Minn., a corporation of Minnesota
Application January 29, 1953, Serial No. 333,896
3 Claims. (Cl. 24—134)

1. A compact device for facilitating the tightening of and for holding and retaining a line taut comprising an elongated, substantially straight body having front and rear ends, said body being formed with a longitudinal bore constituting a line guide leading from its front end to the intermediate portion thereof, said body having a

relatively large transverse opening or slot formed through the intermediate portion thereof, open at both ends and communicating with the rear of said longitudinal bore, said transverse opening defining an unobstructed, substantially straight, rear, clamping wall disposed substantially perpendicularly to the axis of said bore, said bore having its rear portion gradually enlarging and formed with a longitudinally rounded wall portion terminating at the forward end of said transverse opening, a clamping cam of generally volute shape compactly and pivotally mounted in said opening upon a pin affixed to said body and disposed at least close to a position of intersection with the longitudinal center line of said bore,



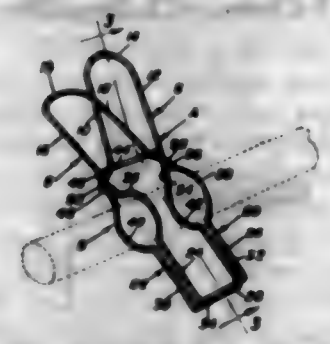
said cam having a continuous peripheral edge extending along front and rear sides of the cam and including a smooth groove portion intermediate of said front and rear sides, said intermediate portion of said edge protruding and offset substantially beyond and outwardly of said longitudinal bore, the rear portion of said edge being substantially roughened and being disposed in confronting and close-to-tangential relation to the rear, unobstructed wall of said opening, the side of said cam opposite from said intermediate portion having a substantially radial abutment projecting therefrom for engagement with the front wall of said opening to limit tilting movement of the cam in a releasing direction.

2,845,675

WIRE CLOTHESPIN

George S. Tsuda, Hilo, Territory of Hawaii

Application October 4, 1955, Serial No. 536,379
2 Claims. (Cl. 24—139)



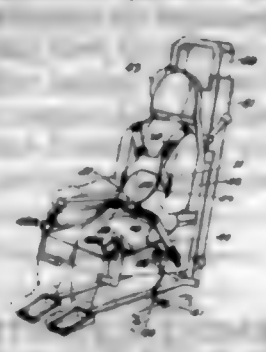
1. A clothespin formed from a single length of wire bent upon itself in predetermined ways and characterized chiefly by two opposed approximately duplicated top and bottom members, each member embodying a U-shaped handle at one end having straight coplanar spaced parallel limbs joined by a bight portion, and a generally U-shaped jaw portion at the other end, each jaw portion being alike and having spaced parallel limbs joined at their outer ends by a bight portion, limbs of said jaw portions havings outwardly bowed lengthwise bends, the bends of the respectively opposed pairs being in opposite directions and providing semicircular clothesline embracing grips, an intermediate portion of the over-all wire at the inward end of the limb to the left of the top jaw portion being straight and directed at right angles and being sandwiched between adjacent limb portions and joining with the inner end portion of the limb of the bottom jaw portion and providing a connecting and hinging member for said top and bottom members, the limb to the left of the top handle being defined by one end of the over-all length of the wire and being fulcrumed on an end portion of said connecting and hinging member and being bent upon itself into an upwardly directed hook which is clenched around an inner end portion of the left limb of the top jaw portion, the other terminal end portion of said length of wire which defines the right limb of the bottom handle being crossed beneath and fulcrumed against a corresponding right hand end portion of said connecting and hinging member and then extending beyond said member and being fashioned into a terminal hook which is directed downwardly and is clenched over and partially around the inner end portion of the right limb of said bottom jaw portion.

2,845,676

RELEASE MECHANISM WITH MANUAL AND POWER ACTUATION

John Richard Huber, Warrington, Pa., assignor to Eastern Rotorcraft Corporation, Doylestown, Pa., a corporation of Pennsylvania

Application April 15, 1954, Serial No. 423,499
13 Claims. (Cl. 24—201)



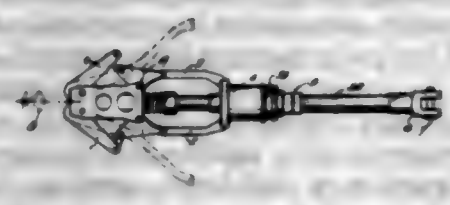
1. A load transfer device having latch mechanism comprising a retaining assembly and a releasable element, said assembly including a movable latch member engageable with said releasable element, a pivoted handle connected to said latch member, power actuated mechanism having a part engaging said latch member, said power mechanism including a cylinder and piston assembly having the axis thereof parallel to the pivot of said handle, and a fluid channel leading to said cylinder for connecting to a source of power, said engaging part being connected to said piston to provide movement of said part upon movement of said piston.

2,845,677

HOLDBACK AND RELEASE UNIT

Paul R. Powell, Baltimore, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application December 7, 1956, Serial No. 627,084
5 Claims. (Cl. 24—201)



1. A holdback and release unit comprising a pair of telescoping tubes, a body at one end of one of the tubes, a pair of jaws pivotally mounted on the body, a clevis at one end of the other tube, a tension rod mounted in the tubes and joining the body and the clevis, means for retaining the jaws in engagement with a fitting on an aircraft and means responsive to the tension rod for releasing the retaining means.

2,845,678

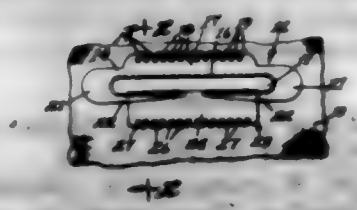
ATTACHMENT FOR BUTTONHOLES

Charles William Jepson, Ridlonville, Maine

Application April 15, 1955, Serial No. 501,509
5 Claims. (Cl. 24—202)

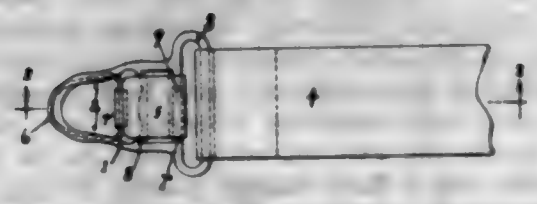
1. In an attachment for a buttonhole formed in a fabric or the like, a body member including a pair of spaced

parallel side sections arranged on opposite sides of the fabric, an arcuate section interconnecting said side sections together, said body member including a first portion, a pair of spaced apart tabs extending outwardly from said first portion and said tabs being provided with a plurality of registering apertures, securing means extending through said registering apertures, curved portions extending outwardly from the ends of said first portion, said curved end portions terminating in inwardly extending tapered



fingers, the free ends of said fingers being pointed and arranged on the opposite side of the buttonhole from said tabs, and a support member including a pair of spaced parallel side walls arranged on opposite sides of the fabric and surrounding a portion of said fingers and extending outwardly of said fingers, a curved wall section interconnecting the side walls of said support member together, there being a plurality of opposed apertures in said side walls, and securing means extending through said last named apertures.

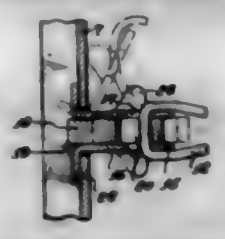
2,845,679
GARMENT SUPPORTERS
Sydney N. Baruch, New York, N. Y.
Application May 10, 1956, Serial No. 584,808
2 Claims. (Cl. 24—246)



1. A garment supporter comprising, in combination, a unitary, flat, stamped metallic loop having an upper and an intermediate crossbar, and a second part, said loop being attached at its upper end to a flexible support and having a narrowed lower opening adapted to underlie the garment to be supported and to cooperate with said second part to form a quickly attachable and detachable support for the garment; said lower opening having an enlarged portion adjacent to the intermediate crossbar; said second part comprising a toggle consisting of a pair of substantially flat upper and lower members, the upper member being substantially curved longitudinally and pivotally mounted at its upper end on the upper crossbar, and the lower member being pivoted at its upper extremity to the lower extremity of said upper member; said lower member having a conformation wherein its outside dimension is of a width which is narrower than the enlarged portion of said lower opening, thereby permitting it to be inserted over the garment through said lower opening into a position behind said loop to grip the garment and support it, said lower member being capable of passing through said lower opening, below the loop to a degree limited by the intermediate crossbar with the upper member above the intermediate crossbar.

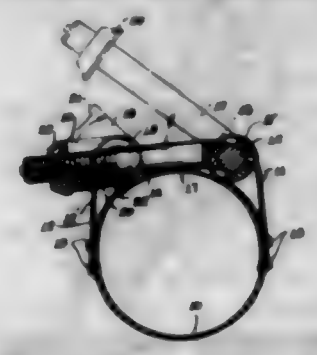
2,845,680
SEPARABLE CONNECTOR
Edwin C. Elmer, Los Angeles, Calif., assignor to Aeroquip Corporation, Jackson, Mich., a corporation of Michigan
Application September 3, 1957, Serial No. 681,722
6 Claims. (Cl. 24—265)

6. A connector adapted to fit into an opening of an anchor member and carried by the deformable end loop of a strap, the connector comprising three elements strung on the loop and having a total thickness less than the width of the opening, the middle element constituting a spacer for the other two elements, each of the other two elements being provided with a flange on one end thereof, said flanges being oppositely outwardly directed to define a dimension between them that is greater than the width of the opening, the loop of the strap engaging the two flanged elements and being directed toward the spacer element when tension is imposed on the strap, all three elements of the connector being provided with slots through which the loop of the strap passes, the slot in



the spacer element being wider than the slot in the other two elements in order to enable relative movement of the spacer element with respect to the other two elements, whereby, with all three elements of the connector inserted in the opening of the anchor member, the flanges of the two elements are directed to engage against the under-side of the lips of the opening of the anchor member, and each of the two flanged elements having rocker-arm flanges formed on the sides thereof directed to engage on the anchor member and provide a winging motion enabling rapid withdrawal of the flanged elements from the opening.

2,845,681
HOSE CLAMP
Charles G. Graef, Downey, and Thomas Fisher, Torrance, Calif., assignors to O & M Machine Company, Inc., Los Angeles, Calif., a corporation of California
Application January 12, 1953, Serial No. 330,802
1 Claim. (Cl. 24—279)



In a hose clamp, a flexible strap adapted to encircle a work member; a T-bolt having a head pivotally mounted on said strap adjacent one end thereof, and a threaded shank; an elongated bolt guide and trunnion member comprising a pair of trunnions projecting oppositely from opposite sides of one end of an elongated substantially U-shaped bolt guide, said trunnions pivotally mounted on said strap adjacent the other end thereof, said elongated U-shaped bolt guide defining a deep open channel between said trunnions and extending from end-to-end of the guide, said channel being adapted to receive the T-bolt shank when the strap is bent into a hose-encircling circle, clamp tightening means including a threaded element adjustably positioned on the threaded end portion of said T-bolt shank for engaging the free end of the trunnioned U-shaped bolt guide, said free end of said U-shaped guide comprising a seat for said tightening means formed at right angles to the bolt guide channel and a projecting lug at the top of each side of the U-shaped guide forming a downwardly facing shoulder which engages over said tightening means, said shoulders being so located as to position said fastening means and said shank relative to

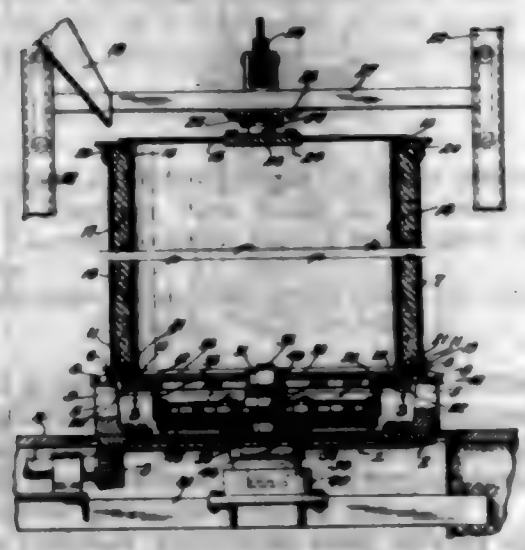
the U-shaped guide such that the longitudinal axis of said shank passes said trunnions at least as near to the strap as the location of the trunnion axis, whereby tendency of the elongated bolt guide to swing outwardly when the tightening means is set up is avoided.

2,845,682

CONCRETE PIPE-FORMING APPARATUS HAVING OUTER FORM AND CORE MEMBERS ARRANGED TO ROTATE AT DIFFERENT SPEEDS

Hector X. Eschenbrenner, Columbus, Ohio; Hector E. Eschenbrenner, executor of the estate of said Hector X. Eschenbrenner, deceased

Application May 28, 1954, Serial No. 433,053
1 Claim. (Cl. 25—30)



A turntable for concrete pipe-forming machines of the type embodying relatively concentrically spaced and relatively rotatable outer form and inner core members, said turntable comprising a generally circular, horizontally arranged body; an annular ring gear carried by said body and arranged to be driven to impart rotation to said body; outer form-supporting means carried by and extending upwardly from said body to removably receive and support for rotation with said body the outer form member of a concrete pipe-forming machine; pin means projecting upwardly and axially from said body and connected to be driven in rotation therewith; a substantially flat circular gear box rotatably supported on the central upper surface of said body for rotation about said pin means and disposed radially inwardly from said outer form-supporting means; speed-reducing gearing arranged in said gear box and drivingly connected with said pin means for rotating said gear box in unison with but at a slower speed than said turntable body; and means carried by said gear box detachably supporting the inner core member of an associated concrete pipe-forming machine for rotation in unison with said gear box.

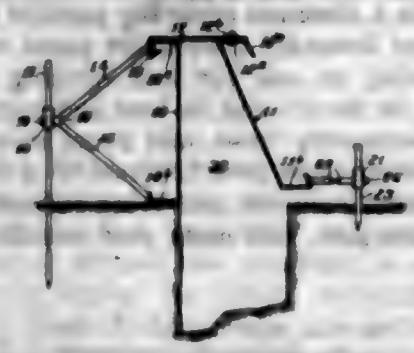
2,845,683

STRUCTURAL FORM

Burnell E. Wheeler, Evansville, Ind.

Application August 3, 1954, Serial No. 447,627
1 Claim. (Cl. 25—118)

A structural form comprising an outer wall section having upper and lower horizontal flanged portions, said upper horizontal flanged portion having a downward portion and said lower horizontal flanged portion having an upward portion, an inwardly slanted inner wall section having upper and lower horizontal flanged portions, said lower horizontal flanged portion having an upward portion, a plurality of connecting members extending between said upper horizontal flanged portions of said outer wall section and said inner wall section, said connecting members adapted to be removably attached to said upper horizontal flanged portion of said inner wall section and to hook around said downward portion of said upper horizontal flanged portion of said outer wall section, said inner wall section being hung on said outer wall section by means of said hooked ends of said connecting members, said connecting members maintaining said outer and said inner wall sections in substantially parallel spaced apart relationship, laterally extending support rods rigidly connected to said downward and said upward portions of said upper and said lower horizontal



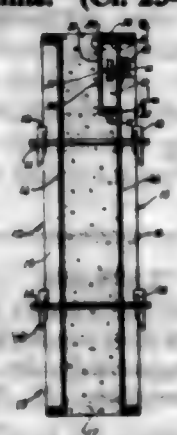
flanged portions of said outer wall section and extending and rigidly connecting to a horizontal rod, said horizontal rod disposed substantially parallel to said outer wall section and spaced apart therefrom, adjustable outer wall section leveling means attached to said horizontal rod, and adjustable inner wall section leveling means attached to said upward portion of said lower horizontal flanged portion of said inner wall section.

2,845,684

PREFABRICATED FORM WITH SILL MEMBER

Robert Bell, Detroit, Mich., assignor to Rockwall Company, Detroit, Mich., a corporation of Michigan

Application August 16, 1954, Serial No. 450,084
5 Claims. (Cl. 25—131)



3. A form for composition walls having a sill portion, comprising a panel section adapted to form one side of a composition wall, sill forming means comprising an elongated box having one side open and having the open side clamped against the panel section, an anchor element housed within the box and fastened to said box, said anchor element comprising a plate extending parallel to and spaced inwardly from the plane of the open side of the box, a bolt having the inner end extending through a vertically elongated slot in the plate and having the outer end projecting through an opening in the panel section, bearing means on the inner end of the bolt and having a rolling contact with the inner face of the plate at opposite sides of the slot in said plate, and a wedge element extending through a slot in the outer end portion of the bolt and abutting the outer surface of the panel section.

2,845,685

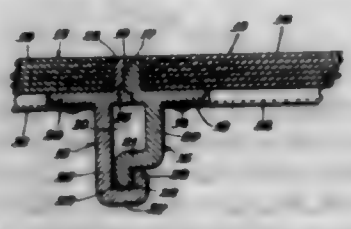
CONCRETE WALL FORM JOINT

Einar C. Lovgren, Mount Prospect, and Edward C. Prest, Wilmette, Ill.

Application August 30, 1956, Serial No. 607,031
3 Claims. (Cl. 25—131)

1. A joint for adjacent panel members of the type which are generally vertically disposed and have a smooth

inner surface to receive concrete thereagainst, the joint comprising a vertically disposed female part fastened to a side edge of one panel member, said female part including an angle portion having a first part fitting over the side edge of said panel member and a second part abutting the back wall of said panel member, an outwardly projecting rib from the second part of the angle portion, said outwardly projecting rib having a portion bent laterally in a direction generally parallel to the panel and thence bent inwardly toward the panel member and generally parallel to said rib and forming a receiving socket defined by the rib and its bent end portions spaced substantially outwardly from said panel member, and a vertically disposed male part fastened to a side edge of an adjacent panel member and lying immediately adjacent said female part, said male part including an angle



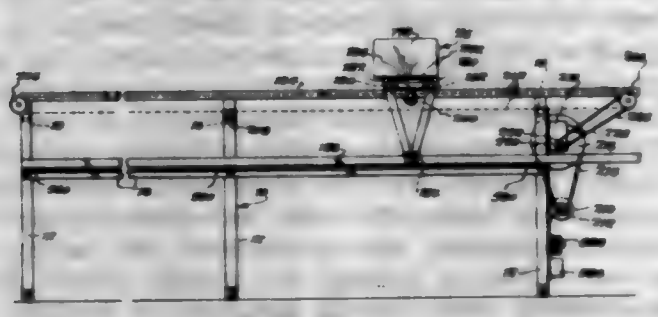
portion having a first part fitting over the side edge of said adjacent panel member and a second part abutting the back wall of said adjacent panel member, an outwardly projecting rib from the second part of the angle portion and spaced longitudinally apart from the said rib on the female part, said outwardly projecting rib having a portion bent laterally in a direction generally parallel to said adjacent panel member and spaced inwardly of the corresponding portion on the female part, and said rib further bent outwardly generally parallel to said rib, and said panel members being assembled by angling with respect to each other and causing the outwardly bent portion of the male part to engage within the receiving socket in the female part, and the joint forming a substantial box structure with its ribs and bent end portions.

2,845,686

APPARATUS AND METHOD FOR FORMING ENDLESS FABRICS

William C. Mason, Stingerlands, N. Y., assignor to F. C. Huyck & Sons, Rensselaer, N. Y., a corporation of New York

Application December 2, 1955, Serial No. 550,615
11 Claims. (Cl. 28—1)



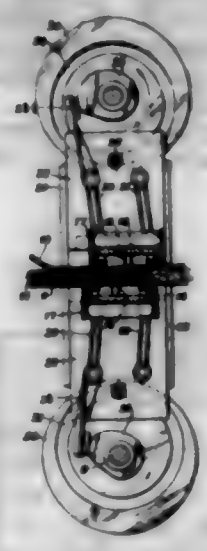
1. Apparatus for uniting yarns and the like comprising means for supporting a plurality of pairs of yarns in spaced relationship, means engageable with a selected spaced pair of yarns for placing them in juxtaposed relation, a needle having a point and having a hook adapted to engage and carry a yarn in a direction corresponding with advancement of the point of said needle, and means for advancing and retracting said needle whereby to project the point of said needle through one of said yarns in a direction substantially normal to the longitudinal axis of said one yarn while engaging the other of said yarns in said hook to carry the same through said one yarn and upon retraction of said needle to leave said yarns united.

2,845,687

PREPARATION OF HAIR OR OTHER FIBRES FOR UPHOLSTERY OR OTHER PURPOSES

Harold A. Howard, London, England, assignor to The Hairlok Company Limited, London, England

Application October 25, 1955, Serial No. 542,740
Claims priority, application Great Britain October 28, 1954
8 Claims. (Cl. 28—4)



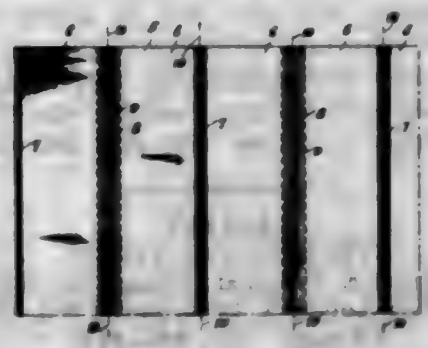
4. Apparatus for reducing the density of a layer of loosely associated fibres, by spreading adjacent fibres apart in the direction of the plane of the layer, comprising an aperture support for, and parallel to the plane of, said layer, at least two adjacent relatively movable sets of mutually parallel layer-penetrating members directed perpendicularly through the apertures in said support, and means for cyclically moving said sets simultaneously perpendicularly towards said support, to pass said members through said apertures, relatively apart in a direction parallel to said support, to increase the separation of the members of one set and another whilst maintaining mutually parallel relationship of said members, and then perpendicularly away from said support.

2,845,688

METHOD OF MAKING COLLARS

Thomas Dow Ainslie, Metuchen, N. J., assignor to Phillips-Jones Corporation, New York, N. Y., a corporation of New York

Application March 2, 1955, Serial No. 491,558
1 Claim. (Cl. 28—72)



The method of making collars consisting in weaving a relatively wide piece of textile fabric in a manner to produce in said piece a plurality of equally-spaced, parallel division bands of reduced-thread content, severing the fabric down the longitudinal center line of each of the bands to thereby separate the piece into a plurality of strips, each of said strips having at one of its longitudinal edges a portion of the reduced-thread band to thereby provide an easily-foldable, top-edge area along the upper edge of each of the collars to be formed from each strip, and in cutting collars from each strip in a manner to incorporate along the top edge of each of the collars the reduced-thread portion of the band.

2,845,689

WARP SIZE CONTAINING DICYANDIAMIDE AND A POLYACRYLATE SALT

Adolph Rensld, Springdale, Conn., and William J. Van Loo, Jr., Rye, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 6, 1954
Serial No. 441,678
13 Claims. (Cl. 28—80)

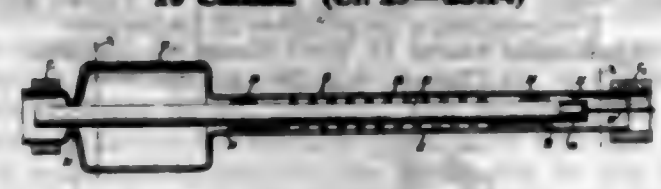
1. A composition of matter which comprises a substantially nonacidic textile warp sizing material capable of exhibiting a pH of at least 4.0 when in the form of a 10 percent aqueous solution, dicyandiamide and a product self-dispersible in water and having a molecular weight of at least about 10,000 of the reaction of a monovalent base having a dissociation constant of at least 1.8×10^{-5} with a polymer of a compound of the group consisting of acrylic acid, acrylonitrile, acrylamide and lower alkyl acrylates.

2,845,690

ELECTRICAL COMPONENTS AND METHODS

Richard I. Harrison, New York, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application August 24, 1954, Serial No. 451,792
10 Claims. (Cl. 29—25.14)



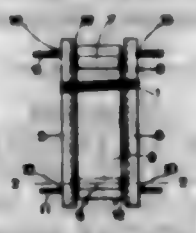
1. In the manufacture of traveling wave tubes, the steps including subassembling a helix and probes concentrically of a mandrel, placing said mandrel in a vitreous tube, fixing said probes to said vitreous tube to prevent elongation and foreshortening of said helix, drawing a vacuum in said vitreous tube, axially rotating the assembly of said mandrel and vitreous tube, and heating said assembly while rotating to shrink said vitreous tube onto said helix to permanently fix the helix turns in place.

2,845,691

MANUFACTURE OF GRIDS FOR ELECTRON DISCHARGE DEVICES

Albert Horace Atherton, Southall, and Herbert Edward Holman, West Drayton, England, assignors to Electric & Musical Industries Limited, Hayes, Middlesex, England, a British company

Application September 9, 1953, Serial No. 379,166
Claims priority, application Great Britain September 13, 1952
3 Claims. (Cl. 29—25.17)



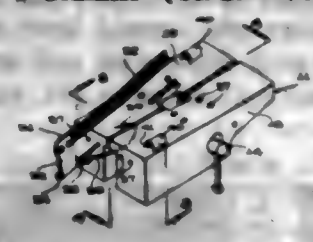
1. A method of making a frame type grid electrode for an electron discharge device which comprises forming a frame having sides and cross-bars consisting of a pair of frame members each having side portions spaced apart by cross-bars at opposite ends thereof, bending over on themselves each of the side portions, arranging said frame members with said bent over portions contacting one another and with the cross-bars at opposite ends spaced apart, connecting said side portions together, subjecting the sides of said frame to a pressing operation to compress said bent-over portions and to impart a predetermined thickness to said sides and then winding a grid around the sides of said frame.

2,845,692

FISH HOOK SHARPENER

Henry Lionel Mousette, Laconia, N. H.

Application August 2, 1957, Serial No. 675,869
5 Claims. (Cl. 29—76)



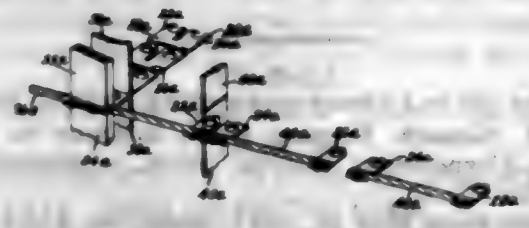
1. In a fish hook sharpener, a pair of side by side vise blocks, a clamping screw extending rotatably through one of the blocks and threadedly engaged in the other block and being formed and arranged to at times exert clamping force urging the blocks together, whereby to clamp a fish hook therebetween, an abrading member, and means slidably supporting said abrading member for rectilinear movement relative to said blocks in a direction parallel to the abrading member, for rotation around an axis parallel to said abrading member, and in a position to abrade the point of a fish hook clamped between the blocks.

2,845,693

METHOD OF MANUFACTURE OF WELDED ELECTRICAL TERMINALS

Karl P. Shetterly and Charles D. Blagg, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 11, 1953, Serial No. 397,618
3 Claims. (Cl. 29—155.5)



1. In a method for attaching terminal clips to a conductor, the steps comprising; progressively moving a predetermined length of preformed strip material having a pair of clip portions in side by side relation and joined by an intermediate section of strip material between the terminals of a resistance welder, progressively moving a predetermined length of an electrical conductor across said intermediate section of strip material in an axial direction transverse to the movement of said strip, moving said welder terminals into engagement with said conductor and intermediate section for forming an intimate area of attachment therebetween having a predetermined length, severing said clip portions and said intermediate section as a whole from said strip, and then simultaneously severing said intermediate section and its attached conductor at a point intermediate the length of the area of attachment of said conductor portion and said intermediate section, whereby said clip portions are divided from one another and are joined to the severed ends of said conductor.

2,845,694

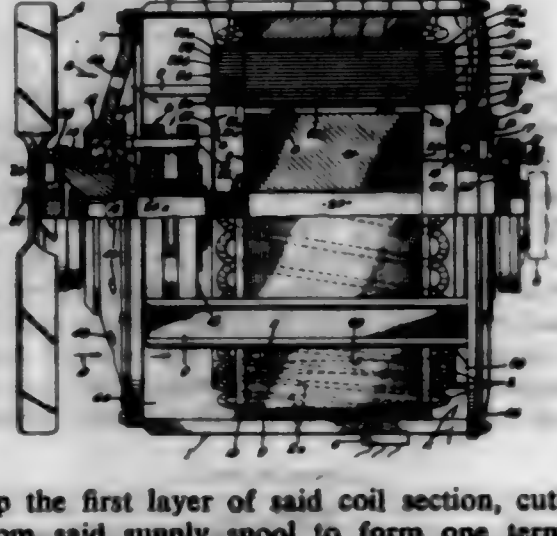
MEANS AND METHOD FOR FORMING COILS

Robert G. LeTourneau, Longview, Tex., assignor to R. G. LeTourneau, Inc., Peoria, Ill., a corporation of California

Original application June 26, 1950, Serial No. 170,272. Divided and this application March 8, 1954, Serial No. 414,576
7 Claims. (Cl. 29—155.57)

1. In a method of forming two layer coil sections for a winding for a dynamo-electric machine involving: a coil winding machine having a reversible shaft extend-

ing therefrom, a back-up plate, a coil form, a storage spool secured to said shaft outwardly of said back-up plate and form, a supply spool free-turning on an axle external to said machine, the steps comprising winding wire from said supply spool to said storage spool in sufficient length to form the second layer of said coil section, placing the wire from said coil section over said form, rotating said coil form in the same direction to



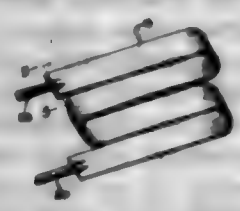
build up the first layer of said coil section, cutting the wire from said supply spool to form one terminal of the coil section, removing the storage spool from said shaft and placing the same on another independent axle, reversing the direction of rotation of said form so as to build up a second vertical layer adjacent to and parallel to said first layer, the end of said second layer ending at a point adjacent to said one terminal to form a second terminal.

2,845,695

METHOD OF MAKING REFRIGERATING TUBING

Leland H. Grenell, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 21, 1953, Serial No. 356,376
2 Claims. (Cl. 29—157.3)



1. The method of manufacturing multiple passage tubing which comprises superimposing sheets with stop-weld material between adjacent sheets with the stop-weld material arranged in lengthwise stripes, roll-forging the sheets together, forming bends in the composite roll-forged sheet and then introducing a fluid under pressure within said sheets so as to separate the sheets along said stripes of stop-weld material while confining said sheet between rigid surfaces spaced from said sheet a distance equal to the expansion desired in the passageway.

2,845,696

MODE OF CONNECTION BETWEEN PINIONS AND SHAFTS

Jacques de Bourgues, Paris, France, assignor to Paul Defontenay, Bourg-la-Reine (Seine), France

Application April 17, 1953, Serial No. 349,524
Claims priority, application France September 11, 1952
3 Claims. (Cl. 29—159.2)

1. A method for fixing on a first shaft in accurate relative angular positions at least one of a first pair of pinions for use as planet wheels in a multiple wheel train comprising also at least two sun wheels and a second pair of pinions fixed on a second shaft and meshing with said sun wheels, said method comprising: forming on the bore of one pinion of said first pair at least one inner groove; forming on the periphery of said first shaft at least one circular groove; said inner groove and said circular groove being in communication and forming a cavity when said pinion is placed correctly on said first shaft; providing said first shaft with an axial duct and with at least one radial duct communicating with said



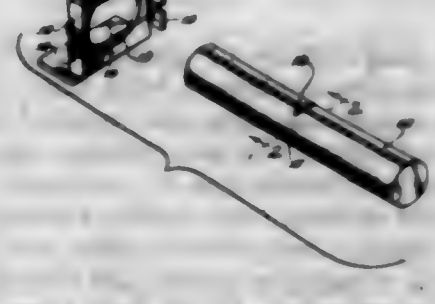
axial duct and with said circular groove; assembling said first pair of pinions on said first shaft, said first pair of pinions meshing with said sun wheels; injecting a bonding thermoplastic resin into said cavity through said ducts, and maintaining said first pair of pinions on said first shaft at said meshing position during said injection and until said bonding thermoplastic resin has solidified and set.

2,845,697

METHOD OF MANUFACTURING A LONGITUDINAL MODE MECHANICAL VIBRATOR

Robert Adler, Northfield, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware

Application March 11, 1957, Serial No. 645,064
4 Claims. (Cl. 29—169.5)



1. The method of manufacturing a longitudinal-mode mechanical vibrator having an accurately predetermined resonant fundamental frequency which comprises: fabricating an elongated vibrator element having an actual longitudinal-mode resonant fundamental frequency slightly higher than said predetermined fundamental frequency; and removing material from an intermediate portion of said element coincident with and substantially within a nodal plane for vibrations at said fundamental frequency in an amount substantially proportional to the difference between said actual and predetermined fundamental frequencies to reduce its resonant fundamental frequency from said actual fundamental frequency to said predetermined fundamental frequency.

2,845,698

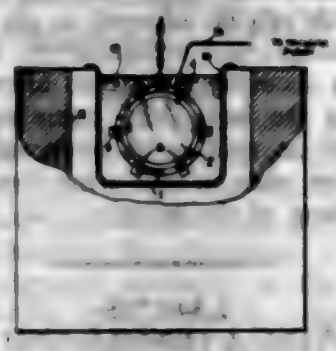
METHOD OF MAKING COMPOSITE METAL AND PRODUCT THEREOF

Julius L. Giovannucci, Stratford, Alan R. Pels, Stamford, and Paul A. King, Stratford, Conn., assignors to Bridgeport Brass Company, Bridgeport, Conn., a corporation of Connecticut

Application June 10, 1954, Serial No. 435,682
12 Claims. (Cl. 29—194)

1. A process for metal cladding a metal base, said process including positioning a thin flexible layer of cladding metal on said base with brazing metal between the mutually facing surfaces of said base and layer to form an assembly, enclosing said assembly in a substantially air-tight fixture having a thin flexible metal diaphragm which is substantially co-extensive with said layer and positioned to press on the outer side of said layer when said fixture is evacuated, evacuating said fixture, and ap-

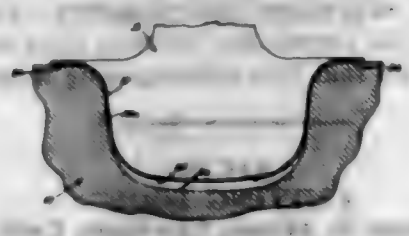
plying brazing heat to said brazing metal and subsequently removing said heat therefrom through said diaphragm and said layer while said fixture is evacuated, said layer and said diaphragm being thin and flexible enough under atmospheric pressure to flex throughout the entire extent of said layer and force said surfaces to conform to each other throughout their extents and to press together under pressure uniformly distributed throughout on said brazing metal therebetween.



6. A process for metal cladding a metal base, said process including positioning a thin flexible layer of cladding metal on said base with brazing metal between the mutually facing surfaces of said base and layer to form an assembly, enclosing said assembly in a substantially air-tight fixture having a thin flexible metal diaphragm which is substantially co-extensive with said layer and positioned to press on the outer side of said layer when said fixture is evacuated, evacuating said fixture, and applying brazing heat to said brazing metal and subsequently removing said heat therefrom through said diaphragm and said layer while said fixture is evacuated, said layer and said diaphragm being thin and flexible enough under atmospheric pressure to flex throughout the entire extent of said layer and force said surfaces to conform to each other throughout their extents and to press together under pressure uniformly distributed throughout on said brazing metal therebetween, said brazing metal being positioned between said surfaces in the form of a uniform dispersion of powdered particles of said brazing metal, said particles being adhesively fastened to one of said surfaces by a thin layer of dry brazing flux.

11. Cladmetal produced by the process of claim 6 and comprising a metal base having a cladding layer secured thereto by a bond in the form of a flux slag which forms a highly dispersed phase mingled with a matrix of brazing metal.

2,845,699
METHOD OF MAKING CONTOURED DISHED ARTICLES
Joseph H. Woodard, Owosso, Mich., assignor to Lee L. Woodard Sons, Owosso, Mich., a copartnership
Application December 13, 1955, Serial No. 552,794
3 Claims. (Cl. 29—419)



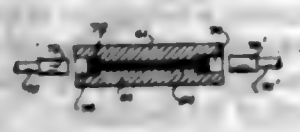
1. In a method of forming a contoured dished article of predetermined shape, the steps of forming a relatively rigid open frame substantially determinative of the outline of the article to be formed, supporting said frame generally around the periphery of a dished female die member, laying across said frame and female die member a piece of bendable open mesh screening made up of relatively laterally movable strands, pressing said screening into said female die member by means of a male die member to dish and shape the screening within said female die member and pressing the screening against said frame, while pressing the screening into the female die member relatively displacing the strands of the screening for general conformance to the die contours, and securing portions of said screening to portions of said frame while said male die member holds the screening against said frame to thereby retain the screening in permanently dished contour as imparted thereto by the die members.

2,845,700
METHOD OF SOLDERING WITH TRICRESYL PHOSPHATE AS THE FLUX
Samuel Bagno, Long Island City, N. Y., assignor, by mesne assignments, to Walter Kidde & Company, Inc., Belleville, N. J., a corporation of New York
Application May 19, 1953, Serial No. 355,997
1 Claim. (Cl. 29—495)



The method of soldering aluminum, magnesium and like metals comprising the steps of coating the surface to be soldered with a flux consisting essentially of tricresyl phosphate and heating soft solder to melt the same and applying it to the coated surface while heating the flux coated surface to activate the flux and cause the surfaces to be soldered together upon cooling of the solder.

2,845,701
CONVEYOR CABLE ELEMENTS AND METHOD OF MANUFACTURE
Leo T. Daigle, Detroit, Mich., assignor to Dearborn Fabricating & Engineering Company, Detroit, Mich., a corporation of Michigan
Application August 6, 1953, Serial No. 372,671
1 Claim. (Cl. 29—516)

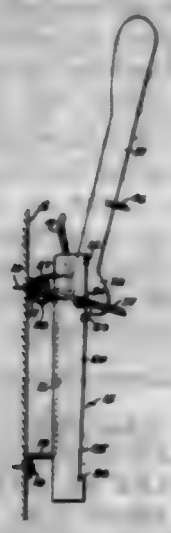


The method of forming a cable element comprising supportably retaining a length of helically wound cable intermediate its ends and throughout said intermediate portions, longitudinally and compressively upsetting simultaneously the opposite ends of said cable to form cylindrical heads of increased diameter, simultaneously forming central outwardly opening recesses at their outer ends, laterally restraining simultaneously said upset ends to a predetermined diameter, inserting a fusable head reinforcing metallic filler within said recesses, further compressively forming simultaneously said heads with inserted fillers to a predetermined diameter and length, and fusing said heads with said fillers to provide rigid head units.

2,845,702
CAN OPENER
Douglas E. Royal, Peoria, Ill.
Application October 5, 1956, Serial No. 614,295
5 Claims. (Cl. 30—6.1)

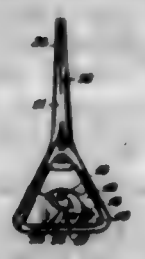
1. A can opener including means for pivotally mounting the same on a suitable support and comprising a handle portion, a cutter pivotally mounted at one end

of said handle portion and means on said handle portion adjacent said cutter for extending into engagement with



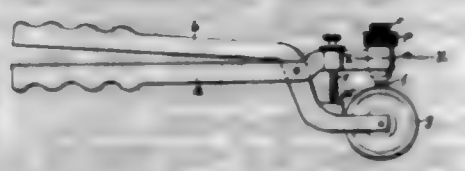
a can after an opening has been cut therein by the cutter to provide a pouring spout.

2,845,703
COMBINED TOOL FOR OPENING TINS AND OTHER CONTAINERS
Alphonse Adolphe Marie Fillatre and Catherine Coenen Fillatre, Dilbeek-Brussels, Belgium
Application September 20, 1956, Serial No. 611,004
Claims priority, application Belgium September 23, 1955
2 Claims. (Cl. 30—22)



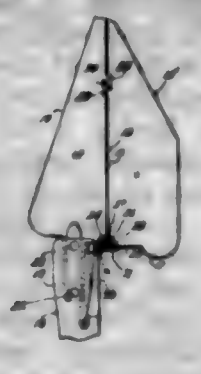
1. A tool of the nature described comprising; a tapering metallic handle portion, said handle portion terminating in a substantially flat triangular enlargement at its larger end, a knife means fixed to said flattened triangular portion, said knife means being adapted for cutting out lids of cans, and said flattened triangular portion having a stiffening recess formed thereabout and joining with the tubular handle whereby an extremely rigid structure results and wherein the enlarged flattened triangular portion shields the edge of the can being opened by the knife from the hand of the operator.

2,845,704
PLIERS FOR STRIPPING ALL KINDS OF ELECTRIC CABLES
André Huvé, Paris, France
Application December 29, 1955, Serial No. 556,255
Claims priority, application France December 30, 1954
2 Claims. (Cl. 30—91)



1. A cable stripping tool comprising a pair of arms pivotally connected together and terminating in free ends, a cutting member carried by the free end of one of the arms, and a grooved roller for receiving and guiding the cable to be stripped carried by the free end of the other arm, said cutting member and grooved roller being located in the median plane of the tool, said cutting member including a housing rotatably mounted in a bore in the free end of the arm extending perpendicularly to such free end, means to secure the housing against rotation in such bore, a knife mounted within the housing and projecting therefrom in the direction of the grooved roller, two pairs of diametrically opposed recesses in the outer periphery of the housing, said pairs of recesses being offset 90 degrees at least one bore in the free end of the arm merging with the bore in such free end in the same plane as said recesses, at least one spring pressed ball in said one bore engageable in the recess brought into registry therewith upon turning of the housing whereby the knife can be adjusted to slit the cable longitudinally and transversely, respectively, after manipulating the housing securing means to allow a rotation of such housing in the bore, and complemental adjusting and stop means on said arms cooperable to limit the travel of the free ends of the arms towards each other to prevent crushing of the cable.

2,845,705
CAKE SERVING UTENSILS AND THE LIKE
Harry C. Jenkinson, Chicago, Ill., assignor to Principal Mfg. Corp., Chicago, Ill., a corporation of Illinois
Application April 9, 1957, Serial No. 651,631
9 Claims. (Cl. 30—122)



1. As a new article of manufacture, a cutting and serving utensil comprising first and second thin substantially flat blades each having at least one straight edge, said blades being located with their said straight edges in juxtaposition and with their ends in a common plane normal to said straight edges, a handle element secured to such end of the first blade and extending from said end of said blade, first interengaging hinge elements connected to said ends of the two blades and overlapping each other with the straight edges of the blades parallel to and in close proximity to each other, a first pivotal connection between said first interengaging hinge elements and having its pivotal axis parallel to and substantially coincident with the proximate edges of the two blades, said pivotal connection being constituted for rocking movement of the second blade with respect to the first blade between a position of substantial planar alignment of the two blades with respect to each other and a position of the second blade at substantially right-angles to the first blade, together with second interengaging hinge elements on the said edges of the two blades and located at positions along said edges substantially at least one-half of the length of the said edges from the first interengaging hinge elements, said second interengaging hinge elements including a pivotal connection between them substantially in alignment with said first interengaging hinge elements.

2,845,706
CUTTING TOOL
Alfonso B. Aciego, Lawndale, Calif.
Application April 12, 1956, Serial No. 577,871
1 Claim. (Cl. 30—346)

A cutting tool comprising: an elongated element having a central longitudinal axis and longitudinal edges indented inwardly towards said longitudinal axis to define hook shaped cutting portions uniformly spaced along each of said longitudinal edges, the cutting portions along one

longitudinal edge being displaced in a direction parallel to said central longitudinal axis relative to the cutting portions along the other longitudinal edge so that a transverse line perpendicular to said central longitudinal axis and passing through the indentation of any one of said cutting portions on one edge, falls between the two adjacent indentations defining two adjacent cutting portions on the opposite edge, said element including scribe lines



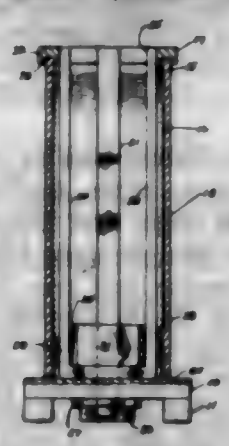
extending respectively from substantially the midpoint of each cutting portion on one longitudinal edge, across said longitudinal axis at right angles thereto, to a midposition between two adjacent cutting portions on the other longitudinal edge to decrease the resistance of said element to flexing forces directed normally to the plane of said element at said scribe lines, whereby cutting portions of said element may be progressively snapped off.

2,845,707

TABLE DISPENSER FOR BUTTER AND SIMILAR PRODUCTS

Benjamin Redmond, New York, N. Y.

Application April 4, 1957, Serial No. 650,673
3 Claims. (Cl. 31—21)



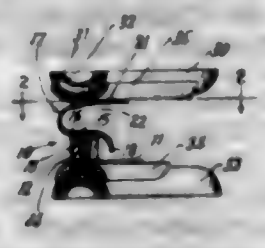
1. A dispenser for butter, margarine or the like, comprising a base, a cylindrical member having internal threads mounted for rotation on said base, a top plate freely engaging said cylindrical member, a plurality of guide members mounted in said top plate and extending to said base, a nut having external threads engaging the internal threads of said cylindrical member and having slotted portions engaging said guide members to prevent the turning of said nut, two of said guide members extending through said base and means to lock said guide members to said base.

2,845,708

DENTAL IMPRESSIONS

Max Gordon, Kew Gardens, N. Y.

Application January 23, 1957, Serial No. 635,827
9 Claims. (Cl. 32—19)



1. Apparatus for taking dental impressions, comprising a base adapted to press down on a lower dental tray, placed over the lower jaw, means on said base for pressing up against an upper dental tray placed on the upper jaw, and provided with a tongue receiving means.

2,845,709

DENTAL DRILLS

Gustaf Erik Björklund, Stockholm, and Svante Roland Edvardsson, Solna, Sweden, assignors to Aktiebolaget Dentatus, Hagersten, Sweden, a corporation of Sweden

Application October 12, 1954, Serial No. 461,886
Claims priority, application Sweden October 24, 1953
5 Claims. (Cl. 32—59)



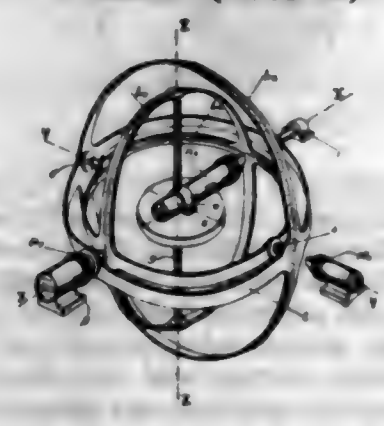
1. A dental drill comprising a head having an end surface extending laterally from the axis of rotation of the drill and a side surface extending generally longitudinally of said axis at the radially outer part of said end surface, each of said surfaces having a leading cutting edge, said edges being angularly related and so located that the projections thereof substantially intersect, and a grinding surface formed on said head between and angularly related to said end and said side surfaces at the leading portions thereof and intersecting said cutting edges, said grinding surface constituting a portion of a cone the apex of which is located substantially at the axis of rotation of the drill.

2,845,710

DEVICES FOR DIRECTLY MEASURING AND INSTANTANEOUSLY RECORDING THE ANGULAR DISPLACEMENTS OF A BODY

René Claret and Jean Bouzitat, Paris, France, assignors to Office National d'Etudes et de Recherches Aeronautiques, Paris, France, a company of France

Application February 17, 1950, Serial No. 144,712
Claims priority, application France February 14, 1949
5 Claims. (Cl. 33—1)



4. A device for instantaneously reading and recording the successive values of three parameters defining the successive instantaneous positions of a body movable about a fixed point, without exerting any perturbative action upon the motion of said body, comprising in combination, three circular graduated limbs, having said point for their common center and adapted to rotate about three mutually perpendicular axes X, Y, Z, respectively at right angles to their planes, said axes all passing through said point, means for generating electric pulses adapted to define said values and means responsive to electric pulses to record said successive values, said pulse generating means comprising, cooperating with each limb, optical reading means for reading the graduations of said limb, a source of light illuminating the graduations of said limb so as to produce two different levels of light output intensity according to whether a graduation is or is not in front of said optical reading means, a pair of photoelectric cells for controlling the generation of said electric pulses, means for directing the light output from said

optical means on said two photo-electric cells comprising two adjacent light transmitting passages dividing said light output into two portions directed onto said two cells respectively, said light transmitting passages being of a rectangular cross section, smaller in width than the half width of a single limb graduation and spaced apart so that the distance between their outside edges, equals at maximum the width of such single graduation, so that depending upon the direction of relative movement between the limb and said optical reading means, the electric pulses produced by one of the photo-electric cells upon the passage of a graduation lead or lag with respect to the pulses produced by the other cell, upon the passage at the same graduation, this phase difference between the other of said photo-cells being used to produce pulses of one polarity for one direction of relative movement and pulses of the opposite polarity for the opposite direction of said relative movement.

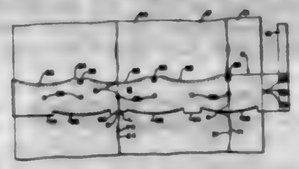
2,845,711
MICROWAVE TRANSMISSION LINE CALCULATOR
Georges A. Deschamps, New York, N. Y., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application January 26, 1953, Serial No. 333,164
5 Claims. (Cl. 33—1)



5. In combination, a chart having a circle and means for representing points within said circle, and a measuring device cooperating with said chart having a member including at least a first and second edge disposed at an angle to each other and defining a corner at the junction thereof, said member adapted to be positioned so that said edges intersect said unit circle at predetermined points, the diameter of said chart being less than the distance between the ends of said edges and a series of marks disposed at predetermined angles to one another and when projected converging at said corner, one of said marks lying on the angle bisector of said corner and said series of marks between said mark lying on the angle bisector and said edges being calibrated whereby relationships between points graphically represented on said chart are determined from said calibration.

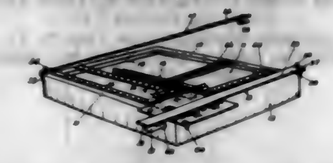
2,845,712
TEMPLATE FOR ANALYZING MULTICHANNEL OSCILLOGRAPH DATA
Morton Silmler, Silver Spring, Md.
Application August 13, 1954, Serial No. 449,813
7 Claims. (Cl. 33—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A device for analyzing multichannel oscillograph data, comprising an elongated blade composed of transparent material, a plurality of concave arcuate elements formed in one edge of said blade, said blade being provided with a plurality of slots bordering on said elements, there being a slot adjacent an end of each element, each slot having a straight edge disposed on a line tangent to said elements, a plurality of convex arcuate elements formed in the other edge of said blade, a plurality



of transfer risers bordering on said convex arcuate elements, each riser having a straight edge disposed along a line tangent to said convex arcuate elements, and calibrating means associated with each of said arcuate elements.

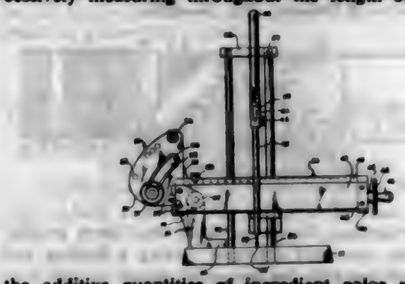
2,845,713
GLASS CUTTING TABLES
Thomas W. Macauley, Reno, Nev.
Application July 29, 1955, Serial No. 534,019
8 Claims. (Cl. 33—32)



1. In a table for cutting one or more pieces of glass the combination of a table top for supporting said glass, a first straight edge, first hinge means for mounting one end of said first straight edge on said table top and having the opposite end free to move toward and away from the table top, a first abutment coacting with said first straight edge to hold said glass in fixed relation to said first straight edge, means for holding said first abutment at pre-selected distances from said first straight edge, means acting between said holding means and said abutment for limitedly adjusting the position of the abutment relative to said holding means, a second straight edge at an angle to said first straight edge, second hinge means for mounting one end of said second straight edge on said table top and having the opposite end free to move toward and away from the table top, a second abutment operatively associated with said second straight edge to hold said glass in fixed relation to said second straight edge, means for holding said second abutment at pre-selected distances from said second straight edge and means acting between said last mentioned holding means and said second abutment means for limitedly adjusting the position of the second abutment means relative to said last-mentioned holding means.

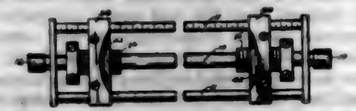
2,845,714
VOLUMETRIC PAINT MIXER
Lyle L. Marsh, St. Clair Shores, Mich., assignor to Marlen-Metal Products Company, Hazel Park, Mich., a corporation of Michigan
Application February 15, 1956, Serial No. 565,573
9 Claims. (Cl. 33—126.7)

1. In a device for proportioning standard color ingredients for producing a predetermined quantity and color of mixed paint, a platform adapted to support a mixed paint container, an upright ingredient level indicator vertically movable in said container, upright guide means on said platform, a horizontally disposed vertically adjustable elevator slidable on said guide means and joined to said indicator in supporting relation for vertical movements in unison, an elongated arm pivotally mounted adjacent one end upon said platform and angularly adjustable and fixed to variable acute angles depending upon the total quantity of paint to be mixed in said container, a standard proportional parts scale on said arm, a pointer movably mounted on said arm over said scale for successively measuring throughout the length of the scale



the additive quantities of ingredient color components for a particular color formula to produce the desired total quantity of mixed paint, said pointer slidably supporting said elevator for effecting corresponding proportional vertical movements of said indicator, and a non-reversible drive mounted on and lengthwise of said arm operatively and movably engaging said pointer.

2,845,715
COMBINED MEASURING AND SCRIBING TOOL
John J. Twardowski, New York, N. Y.
Application March 24, 1955, Serial No. 496,454
2 Claims. (Cl. 33—159)

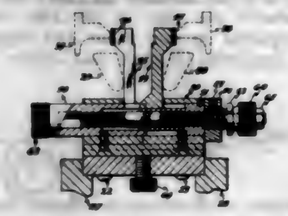


1. In a combined measuring and scribing tool, a fixed central member, a pair of guide bars carried by said central member in spaced parallel relation and normal to said central member, one of said guide bars being provided with calibrations, a pair of end blocks arranged on opposite sides of said central member and having passages slidably receiving said guide bars, each of said end blocks having a vertical surface normal to said guide bars and a bottom surface parallel to said guide bars, said surfaces being normal to each other and meeting at a corner edge, a central actuating bar rotatably mounted in said fixed member, means for establishing an operating threaded engagement between said operating bar and said end blocks, cooperating elements on said fixed member and said operating bar for providing a venier reading, and a pair of L-shaped attachments detachably secured to said end blocks at said corner edges, each of said attachments having a surface in engagement with the vertical surface of the end block to which it is attached and a second surface normal thereto in engagement with the bottom surface of the end block, each of said L-shaped attachments being adapted to carry either a scriber or a measuring block with the point of the scriber or the effective part of said measuring block lying in the plane of the vertical surface of the end block.

2,845,716
ALIGNING JIG
Joseph S. Culver and William C. Tunnell, Oak Ridge, Tenn., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application March 3, 1945, Serial No. 588,787
5 Claims. (Cl. 33—180)

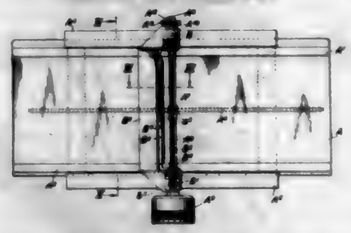
1. A device for measuring the offset of a member having an opening relative to another structure comprising

means forming two relatively adjustable sliding blocks, one of said blocks being adapted to engage with said structure, the other of said blocks carrying expansible means, means for expanding the expansible means so as to internally engage the opposite sides of the opening in said member, the arrangement being such that upon said ex-



pansible means engaging only one side of said opening continued expansion thereof causes the other of said blocks to move relative to said one block until said opening is engaged internally on opposite sides, the amount that said one block has been moved relative to the other block then being a measure of the offset of said opening relative to said structure.

2,845,717
COLLOCATING APPARATUS FOR MAKING CORRECTIONS, ALTERATIONS, AND ADDITIONS ON A PHOTO-TYPE COMPOSED FILM OR SHEET
Stephen Leslie Somerville, South Merstham, and Robert Philip Urry, Reigate, England, and Bernard R. Halpern, Swarthmore, Pa., assignors to The Monotype Corporation Limited, London, England, a British corporation
Application May 14, 1954, Serial No. 429,878
4 Claims. (Cl. 33—184.5)



1. Apparatus for making corrections, alterations and additions on a film bearing lines of photo-composed type, including in combination a table having a straight edge arranged to locate a side edge of a film, a supporting frame on which the table is linearly movable, means for linearly moving the table on the frame and for securing the table against movement on the frame, and sighting means for accurately indicating the position of the film carried by the relatively movable table comprising a pair of members having straight edges, means for locating the pair of members on the supporting frame, above and immediately adjacent the film on the table with the straight edges substantially normal to the straight edge of the table, and replaceable spacing members at the ends of said pair of members whereby the straight edges of said pair of members may be variably spaced in parallelism with each other.

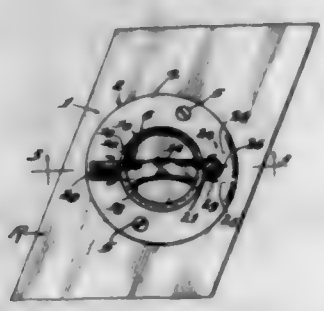
2,845,718
AXLE ALIGNING DEVICE
John L. Keymer, Olmsted Falls, Ohio, assignor to The Trail-Rite Gauge Company, Olmsted Falls, Ohio, a corporation of Ohio
Application January 18, 1955, Serial No. 482,477
5 Claims. (Cl. 33—193)

1. Apparatus for measuring alignment of a trailer having laterally spaced wheels and an interconnecting axle

at the rear and a king pin in the forward end thereof, comprising a frame having a cross rail and laterally spaced parallel side rails connected to and projecting at right angles from said cross rail, means for supporting said frame, means connecting said side rails to opposite ends of the axle, an indicator on said cross rail located midway between the ends of the axle, caster means swivelly supported on said frame and engageable with the trailer supporting surface, said caster means automatically being alignable with the line of draft of the trailer when said trailer is moved, means operably connecting said caster means to said indicator whereby the indicator registers deviations of said caster means from perpendicularity with the cross rail, and means engageable with the king pin and operably connected to the indicator for comparing alignment of the king pin relative to a point midway between the ends of said axle and relative to the line of draft of the vehicle.

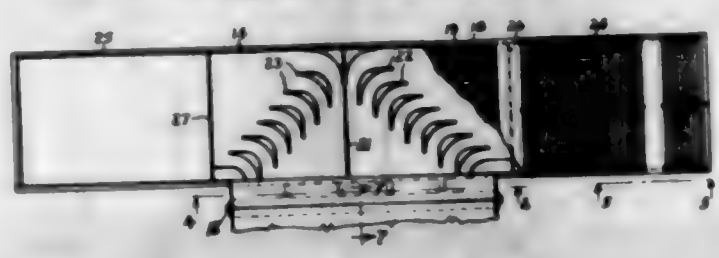


2,845,719
INDICATING DEVICE FOR LADDERS AND THE LIKE
Hubert J. Thomizer, Skokie, Ill.
Application April 21, 1955, Serial No. 502,929
1 Claim. (Cl. 33—207)



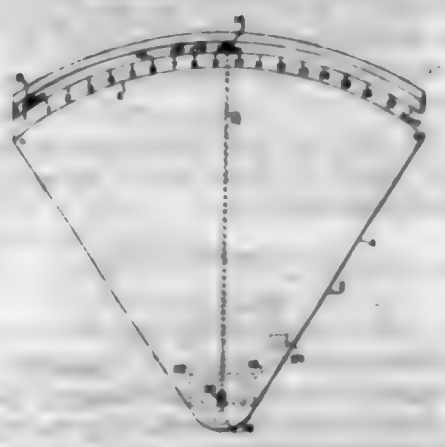
A ladder having a pair of side rails and spaced rungs extending therebetween and a stability indicator attached thereto, comprising, an attaching member fastened to the side of one of said side rails at a distance from the lower end of the side rail to be generally at eye level when the ladder is extending upwardly, an air bubble tube, a carrying member for said tube supported on the attaching member, and a scale associated with said bubble tube having spaced indicia with a first legend identifying a surface having a particular coefficient of friction on which the ladder may rest positioned to indicate the inclination said tube should have to indicate by reference to said air bubble tube only when the ladder resting on said surface is at an angle safe from the standpoint of slipping while yet providing maximum moment tending to rotate the same in the direction of inclination due to the weight of a person on the ladder, and a second legend identifying a second surface on which the ladder may rest having a coefficient of friction different from said first surface positioned to indicate the inclination said air bubble tube should have to indicate by reference to said tube alone when the ladder resting on said second surface is at an angle safe from the standpoint of slipping while yet providing maximum moment tending to rotate the same in the direction of inclination due to the weight of a person on the ladder.

2,845,720
OVEN DUCT AND DUCT INLET MEANS
Donald James Lowe, Northfield Center, Ohio, assignor to Young Brothers Company, Cleveland, Ohio, a corporation of Michigan
Application July 13, 1955, Serial No. 521,662
8 Claims. (Cl. 34—150)



1. In a heat processing oven having a wicket type conveyor extending therein in upper and lower parallel courses, said oven and conveyor having a loading end and an unloading end; hot gas supply means to said oven comprising a heater located above said oven, a duct extending downwardly from said heater laterally of said oven, a continuation of said duct extending horizontally into said oven on one side only; and a duct opening upwardly directly beneath said upper course adjacent said inlet end comprising a central rectangular box-like portion having top louvers which extend longitudinally of said oven and conveyor course, a horizontal shelf within said box-like portion dividing it into upper and lower compartments, the entrance to said lower compartment from said horizontal duct being approximately one and one-half times the size of that to said upper compartment, a pan above said shelf forming an upwardly inclined floor for said upper compartment from the entrance thereto transversely of said compartment, a vertical partition centrally dividing said lower compartment, a series of curved baffles arranged in each of the resultant two chambers of said lower compartment respectively to direct gases entering from said horizontal duct in opposite directions longitudinally of said oven and conveyor; and extensions adapted to receive and distribute such gases at each end of the aforesaid central portion comprising lateral duct extensions from said respective chambers having upwardly inclined floors longitudinally of said oven and upper louvers extending transversely of said oven, each of the transversely louvered regions being contiguous to and of slightly less area than the intervening longitudinally louvered region.

2,845,721
SPACEOMETER WHICH INDICATES CAR LENGTHS REQUIRED FOR STOPPING AT ANY GIVEN SPEED
Charles Adler, Jr., Baltimore, Md.
Application December 29, 1955, Serial No. 556,263
2 Claims. (Cl. 35—11)



1. A spacing indicating unit adapted to be coupled with the drive shaft of an automobile whereby stopping space is recorded as a function of the speed of the automobile, said spacing indicating unit comprising an indicator dial, a fixed first body at one end of said dial, equally spaced

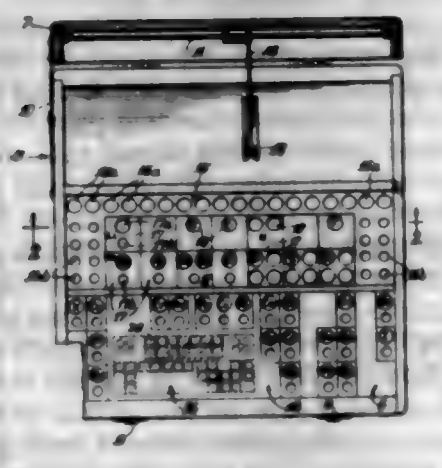
markings along said dial, the distance between each of said markings being substantially equal to the length of said fixed first body, a rotatable indicator means movable over said dial, and a second body of substantially equivalent dimensions to said first body and carried by said indicator means whereby said second body registers in car lengths the space necessary to stop the automobile at the speed the automobile is going.

2,845,722

TESTING UNIT PROVIDING A TEACHING AID FOR THE DEMONSTRATION OF CHEMISTRY EXPERIMENTS TO STUDENTS

Calvin P. Midgley, Lake Villa, Ill.

Application January 20, 1956, Serial No. 560,309
12 Claims. (Cl. 35—18)



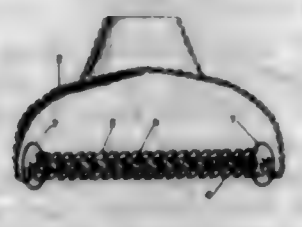
1. As a chemistry teaching aid, a portable testing unit for testing compounds of a plurality of selected elements for the presence in each compound of one of said selected elements, said testing unit comprising: a base member having a plurality of marked element testing and storage spaces, each of which is in a position on said base member which coincides with the position in the periodic table of one of said selected elements; a storage vessel in each of said spaces containing a supply of a compound of said one of said selected elements; and means adjacent the container in each of said element spaces for receiving and holding a test tube containing a test sample taken from said vessel.

2,845,723

STRETCHABLE FOOTWEAR CONSTRUCTION

Israel I. Arnold, West Newton, Mass.

Application January 9, 1956, Serial No. 558,071
2 Claims. (Cl. 36—9)



1. A footwear construction adapted to fit a foot over a range of different sizes having an upper, an inner sole and an outer sole of highly-stretchable resilient fabric capable of being stretched to substantially twice their normal lengths, a filler-sole of a sheet of cellular highly-resilient compressible highly-stretchable material disposed between said inner sole and outer sole, and means securing said soles together only at their periphery comprising overedge stitching permitting said soles to be stretched over a range of several sizes.

2,845,724

TURNED SLIPPER HAVING VAMP PORTIONS FREE OF OUTSOLE

Earl H. Spaulding, Wakefield, Mass., assignor to L. B. Evans' Son Company, Wakefield, Mass., a corporation of Massachusetts

Application January 17, 1956, Serial No. 559,677
2 Claims. (Cl. 36—18)



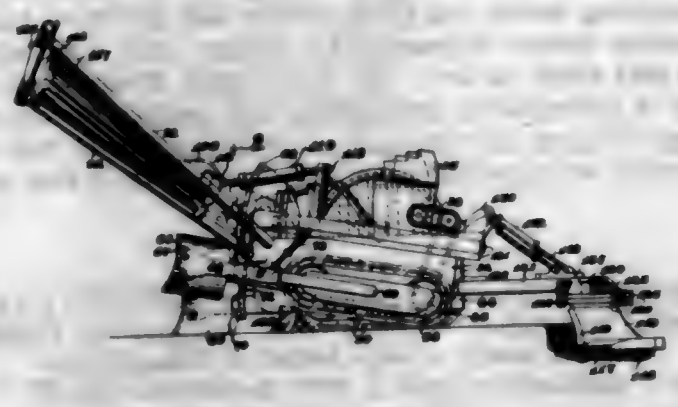
1. A slipper comprising an outsole, a vamp secured to the outsole by stitching and a quarter secured to the outsole, the rear portion of the vamp terminating in two wing portions of relatively large area extending inwardly from the edges of the outsole and with the rear portions of the wings free from the outsole at the shank of the slipper, the forward end of the quarter underlying the wings and being free from the wings, a relatively wide shank member overlying the wings and mechanically secured to the wings, the rear of the shank portion disposed within the quarter and mechanically secured to the quarter and to the outsole, the forward portion of the quarter and said wings being free from the outsole at the shank of the slipper whereby to enable the weight of the wearer exerted through the shank member to compress and maintain a tight joint between the wings, quarter and outsole at the shank of the slipper.

2,845,725

TRACTION VEHICLE

Earl J. Robishaw and Robert E. Todd, Houston, Tex.

Application May 14, 1953, Serial No. 355,014
29 Claims. (Cl. 37—2)



1. A traction vehicle comprising two frames disposed side by side, an underlying traction device supporting each frame, a transverse pivot member disposed across said frames at a level substantially coincident with the upper surfaces of said frames and considerably above said traction devices, and means for engaging said frames for relative pivotal movement about the axis of said pivot members.

2,845,726

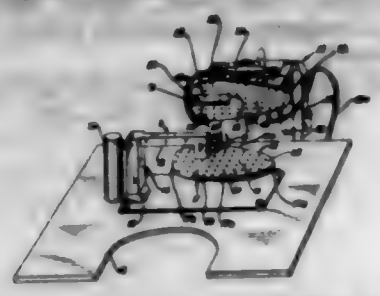
PRESSING MACHINE

Philip Patania, Brooklyn, N. Y.

Application September 16, 1957, Serial No. 684,134
5 Claims. (Cl. 38—36)

1. In a pressing machine, a buck member for supporting on the upper surface thereof the garment to be pressed, a post, an arm member supported thereby and disposed above said buck member, said arm having a buck supporting portion attached to the top of said buck member, a movable pressing head member coactive with

the top of said buck member and being movable between an inoperative retracted position and an operative position in overlying relation to said buck member, said



pressing head member having a recessed portion proportioned to clear said arm member when said head member is in its path of swing between said retracted and operative positions.

2,845,727

GARMENT-PRESSING UNDERLAYS

Werner Schmitz, Mettmann, Germany, assignor to Peter Wolters, Mettmann, Germany, a corporation of Germany

Application October 1, 1954, Serial No. 459,811
1 Claim. (Cl. 38—140)



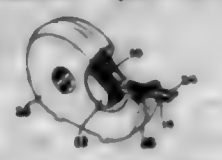
A garment underlay for pressing clothes and the like textile articles on a table or the like surface, comprising a resin-impregnated, flexible fabric body having a back surface adapted for being placed on a table or the like, and a front surface, on which the article to be pressed can be laid, and a plurality of needles extending over substantially the entire front surface of said fabric body and having foot portions and top portions, said needles being disposed with their foot portions embedded in said fabric body at an oblique angle relative to said front surface of said fabric body, the top portions of the needles extending above said front surface and having at least a portion thereof disposed at an oblique angle with respect to said front surface, said fabric body having a plurality of perforations intermediate said needles for the passage of steam therethrough and characterized in that said needles are provided with little balls at their free ends.

2,845,728

SELF-DESTROYING PRESSURE SENSITIVE LABEL

Erwin W. Huber, Towson, Md., assignor to Topflight Corporation, a corporation of Pennsylvania

Application April 3, 1957, Serial No. 650,507
3 Claims. (Cl. 40—2)



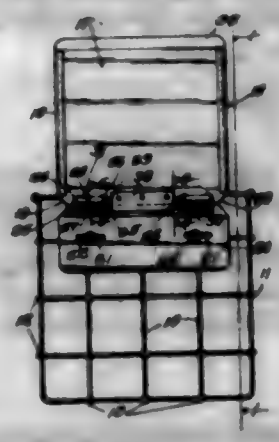
1. A strip of self-destroying labels of the pressure sensitive type comprising a series of sheet type labels having pressure sensitive adhesive on one surface thereof operable to secure said labels to an article, said adhesive having greater adherence to said surface to which it is applied than to the opposite surface of said labels, whereby said strip of labels may be coiled for peelable separation of the outermost layer of labels from said coil thereof to maintain said labels and adhesive in protected condition, said labels being formed with longitudinal weakening means between the outer edges thereof, whereby when removal of one of said labels from an article to which it is applied is attempted said weakening means causes certain portions of said label to be separated from other portions so as to afford destruction of said label.

2,845,729

DISPLAY SIGN MOUNTING FOR TELESCOPING CART

Herbert P. Baumgart, Maywood, Ill.

Application July 11, 1956, Serial No. 597,120
2 Claims. (Cl. 40—10)



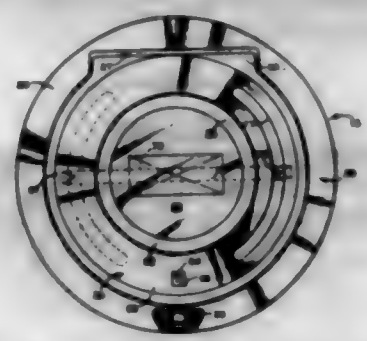
1. In a telescoping grocery cart of the type having a forwardly projecting basket adapted to nest through the rear end of a second basket mounted on a similar grocery cart, said second basket having an end gate normally closing said rear end and being swingable from closed position upwardly to open position by the basket being nested, a display sign mounting hingedly secured to the forward end portion of the basket for swinging movement between an upright exposed position and a retracted position, said sign mounting being normally urged toward said upright exposed position and being swung toward retracted position beneath said end gate on the second basket by relative movement of said baskets toward nesting relation so that the sign mounting is in retracted position and the end gate is in open position when the baskets are fully nested, said sign mounting being of such length relative to the end gate that the end gate overlaps the sign mounting to retain said sign mounting in retracted position when the baskets are nested.

2,845,730

STREAMLINE ROTARY INDEX

Abraham Singer Karper, Riverdale, N. Y.

Application September 14, 1956, Serial No. 609,971
3 Claims. (Cl. 40—104)



1. An indexed memorandum device for a stack of memorandum cards each having opposed concentric arcuate peripheral portions each having a notch therein with the two notches of each card being located in relatively corresponding positions, the notches of adjacent cards, from the uppermost card toward the lowermost card, being progressively extended stepwise along the peripheral portions in the same direction; said device comprising, in combination; a housing of molded composition material arranged to contain the cards and including a base portion, and a rim portion surrounding said base portion and defining an opening, and extending first outwardly and upwardly, then upwardly, and then inwardly and upwardly from said base portion; said rim portion providing a streamline contour to said housing; a cover of molded composition material arranged to close said opening; spring means enclosed by said

housing and cover, biasing said cover to the open position; releasable latch means on said housing engageable with said cover; pick up means pivotally secured to the inner surface of said cover for movement about an axis common to that of said peripheral portions and including a pair of radial arms extending outwardly toward each of said peripheral portions and having ends bent toward said base and then radially inwardly to form hooks engageable with said cards, the hooks fitting freely through notches in the cards radially aligned with said arms; indicia carried on the outer surface of said cover; an operator movably mounted on the outer surface of said cover and cooperable with said index; a slot in said cover; and connecting means movable in said slot and connecting said pickup means to said operater for movement thereby to position said pick up means to engage a selected number of said cards to lift the same with said cover, when said latch means is released, to expose the uppermost of the cards remaining in said base; said opening and cover being circular, said operating member being a ring oscillatable on said cover, and said cover having a pair of arcuate slots aligned with said ring.

2,845,731
DISPLAY DEVICE

Joseph Gabersky, Jr., Wadsworth, Ohio, assignor to The Ohio Boxboard Company, Rittman, Ohio, a corporation of Ohio

Application August 31, 1956, Serial No. 607,390
9 Claims. (Cl. 40—125)

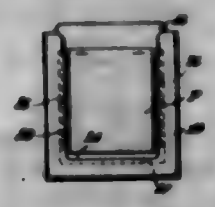


2. A display device primarily adpated for use with a self-service basket type market cart, having a body formed from a sheet of paperboard material and including a front panel member and two side panel members for exterior wrap-around application to the front and sides of the cart, respectively, and flap extensions at the upper portions of the front and side panel members for suspending said panel members upon the upper edges of the front and side walls of the cart basket.

2,845,732
CALENDAR MOUNT FOR CALENDAR MEMO PADS

Gordon E. Nichols, Middleboro, Mass., assignor to Winthrop-Atkins Co., Inc., Middleboro, Mass., a corporation of Massachusetts

Application March 9, 1955, Serial No. 493,269
1 Claim. (Cl. 40—152.1)



In combination, a memorandum pad consisting of a plurality of sheets of writing paper fastened together at one end and free to be lifted one away from the next at the other end, and means for supporting the pad in an upright rearwardly inclined position at an angle convenient for jotting down memoranda thereon, said support comprising a rigid panel to which the pad is fastened and a rigid frame containing a pocket defined by a back wall against which the panel rests, a front wall having an open unobstructed window therein of narrower width than the panel but of greater width than the pad, the margins of the front wall bounding the window overlying the margins of the panel and holding the same in the pocket with the pad projecting forwardly through the window so that the front sheet is exposed for writing on it, a bottom wall upon which the lower edge of the panel rests when inserted in the pocket, and a top side having an opening in it which corresponds substantially in width to the width of the panel through which the panel may be slid upwardly, partially to withdraw it from the pocket to expose the underlying forward face of the back wall of the pocket, said back wall of the pocket being adapted to bear indicia, means connected to the rear side of the back wall for holding the frame in an upright rearwardly inclined position, and means on the upper end of the panel projecting upwardly through the opening at the top of the pocket when the lower edge of the panel is engaged with the bottom wall of the pocket, said means constituting a pull tab for pulling the panel upwardly within the pocket.

2,845,733
COMBINATION ENVELOPE AND EASEL FOR CONTAINING AND/OR FRAMING PICTURES AND THE LIKE

Harold T. Fox, Mission, Kans., assignor to Tension Envelope Corporation of Kansas City, Kansas City, Mo., a corporation of Delaware

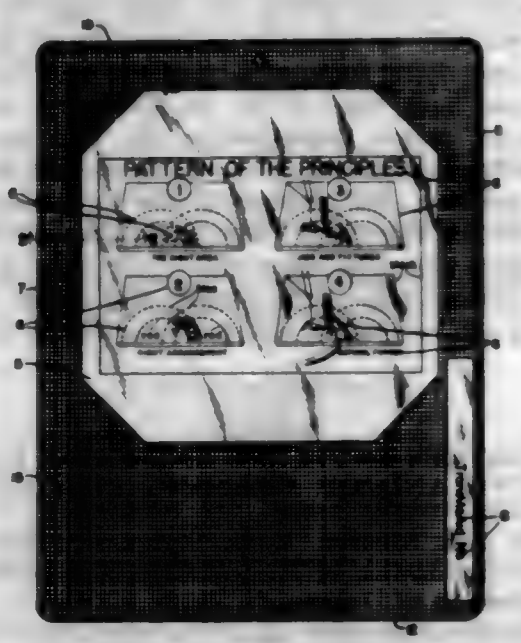
Application December 12, 1956, Serial No. 627,846
5 Claims. (Cl. 40—152.1)



1. A combination envelope and easel including a rectangular front panel having a window opening therein with edges of said opening being spaced inwardly of edges of the panel to provide a frame about said opening, side flaps connected with side edges of the front panel by folds for positioning the side flaps in underlying relation with the front panel and with marginal edges of said side flaps overlapping in the rear of the front panel, an adhesive securing the overlapping marginal edges of the side flaps together to provide a vertical seam, end flaps connected with end edges of the front panel by folds extending across ends of the side flaps, one of said end flaps having the fold thereof positioning said one flap in overlapping contact with ends of the side flaps, an adhesive securing the said one end flap to the side flaps to provide a transverse seam, said seams connecting the flaps in providing a back panel which is connected to the front panel by said folds, the other end flap being free of the side flaps to provide an insert opening between the front and back panels when the said other end flap is turned back in one position and to close the insert opening in another position when the said other end flap provides a base of an easel, an extension connected with one of said flaps by a fold to project rearwardly along the seam which is effected by

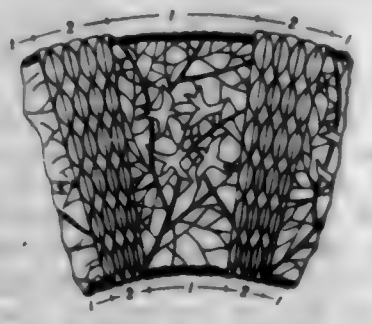
the adhesive that secures the said flap to provide a prop that is stiffened by said seam, and means for connecting the prop with the base to complete the easel for said envelope.

2,845,734
PROJECTION SLIDES AND MATERIAL FOR THE PREPARATION THEREOF
Robert J. Brady, College Park, Md., assignor to Visual Slide Company, Washington, D. C., a corporation of the District of Columbia
Application June 3, 1955, Serial No. 512,985
8 Claims. (Cl. 40—158)



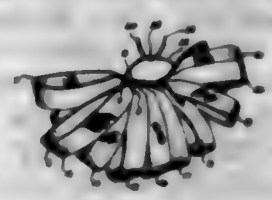
1. A projection slide including a substantially transparent self-sustaining flexible and non-fragile sheet, and indicia-forming material integrated therewith, said material including, as essential ingredients, a component selected from the group consisting of ethylene glycol monobutyl ether and butyl lactate, and castor oil.

2,845,735
FLOWER-POT COVER
Hermann Emil Wilhelm Werner, Oslo, Norway, assignor to Norsk Thermoform Industri, Kongsberg, Norway, a Norwegian firm
Application December 22, 1954, Serial No. 476,945
Claims priority, application Norway February 11, 1954
1 Claim. (Cl. 41—10)



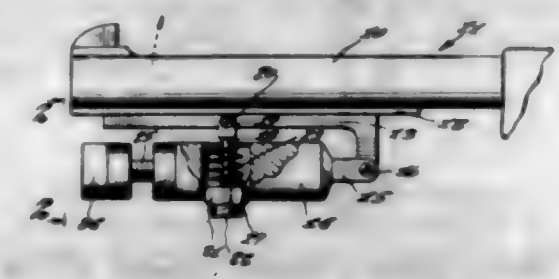
A substantially planar blank for a protective decorative cover for a flower-pot comprising flexible sections of constant width and intermediate extensible sections coupling said flexible sections so that said blank is expandible in its own plane, said flexible sections being provided with decorative designs, the constant width of the flexible sections preventing the distortion of said designs, said flexible and intermediate sections being of a single piece substantially having the shape of an arc whereby said blank is adapted to assume the shape of a truncated cone.

2,845,736
ORNAMENTAL POMPON BOW AND METHOD OF MAKING SAME
Fred C. Crawford, Prairie Village, Kans., assignor to Hallmark Cards, Incorporated, Kansas City, Mo., a corporation of Missouri
Application December 10, 1956, Serial No. 627,231
3 Claims. (Cl. 41—10)



3. The method of making an ornamental pompon from a plurality of strips of ribbon of substantially equal length and having an adhesive body when moistened will stick to itself comprising, turning the ends of said strips inwardly in a loop and wetting said ends, overlapping and pressing said ends together and to the center of the loop forming a bow of single thickness of the ribbon having loops on each end, folding each bow at substantially the center thereof on the overlap portion, excising a pair of opposed notches through the thickness of the folded center portion of the bow having a reduced center portion, laying the reduced portion of the bows in their partly folded position on a tying member, and drawing the center of the bows together by the tying member to form the loops of the bows into an unsymmetrical arrangement.

2,845,737
MECHANICAL RECOIL COMPENSATOR
Michael G. Hoyer, White Plains, N. Y.
Application October 10, 1955, Serial No. 539,372
4 Claims. (Cl. 42—1)

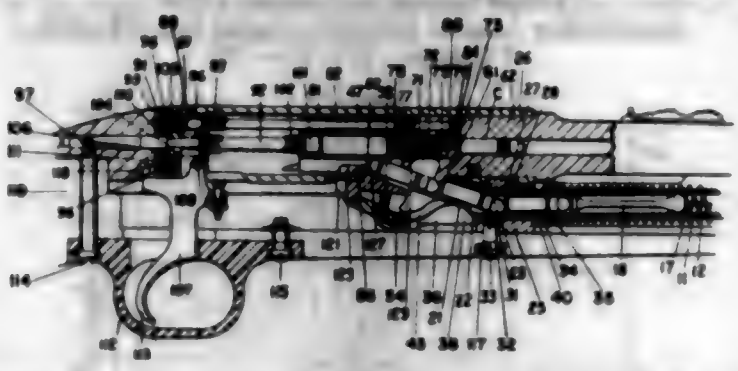


1. A recoil compensator comprising an L-shaped plate, means for securing said L-shaped plate to the undersurface of the barrel of a firearm, counterweight means pivotally connected to the depending portion of said L-shaped plate, and spring means acting between said counterweight and said L-shaped plate whereby to reduce recoil and improve accuracy, said counterweight means comprising a substantially cylindrical member of relatively great mass pivotally connected at its rear end to the depending portion of said L-shaped plate, a depending shaft having its upper end secured to said L-shaped plate forwardly of the depending portion thereof, said counterweight having a cylindrical bore extending upwardly through the bottom thereof and terminating short of the upper surface thereof, said depending shaft passing downwardly through said bore, said spring means comprising a compression spring sleeving said shaft within said bore and adjustable means for varying the tension of said compression spring.

2,845,738
CARTRIDGE FEEDING MECHANISM
Wallace B. Butler, Branford, Conn., assignor to Olin Mathieson Chemical Corporation, New Haven, Conn., a corporation of Virginia
Application May 23, 1955, Serial No. 510,352
2 Claims. (Cl. 42—17)

1. In a firearm including a receiver and a magazine, a cartridge feed mechanism comprising a closure mem-

ber pivotally mounted to the receiver, said member having a central cavity defined by two spaced side walls, a carrier pivotally supported within said cavity and movable relative thereto, resilient means for urging the carrier to a predetermined position relative to the closure member, said member being movable to a position wherein the carrier is conditioned to receive a cartridge from the magazine and movable to a second position wherein the carrier is conditioned to discharge the cartridge, an



action slide movable from a position corresponding to said cartridge receiving position to a second position corresponding to said cartridge discharge position, pin means connecting the closure member and the action slide operative when the slide is in said second position to move the member relative to the magazine whereby said spaced side walls are disposed in a position to block further discharge of cartridges from the magazine, said side walls presenting a symmetrical abutment to said blocked magazine.

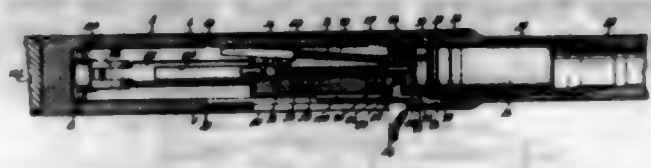
2,845,739
CAP GUN MECHANISM
Kenneth W. Frye and Elliot Handler, Los Angeles, Calif.
Application March 29, 1956, Serial No. 574,648
2 Claims. (Cl. 42—57)



1. In a cap gun, a generally cylindrical anvil mounted for rotation on its axis, a pivotally mounted hammer adapted to strike said anvil, means normally urging said hammer toward said anvil with striking force, ratchet and pawl means on said anvil and hammer, respectively, for rotating said anvil upon retracting movement of said hammer for feeding a strip of caps into firing position, a pivotally mounted hammer retracting element, a single-action trigger engageable with said element, a wheel having a plurality of radial projections also engageable with said element, and a manually operable means for rotating said wheel whereby the user may selectively rotate said wheel continuously to fire caps in rapid succession or said user may actuate said trigger independently of said wheel to fire a single cap.

2,845,740
INTEGRAL BARREL LOCK AND EXTRACTOR
Ernest P. Simmons, Kansas City, Kans., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application December 2, 1954, Serial No. 472,633
2 Claims. (Cl. 42—75)

1. In an automatic shotgun, a receiver, a barrel secured at is rearward end in said receiver by a rotatably detachable connection, a tubular chamber disposed slidably in the rearward portion of the barrel and extending into the receiver, said chamber being operable to receive a shotshell and having an internal shoulder for engaging the rim of the shell, said chamber shoulder being formed with a first notch, a bolt slidably disposed within the



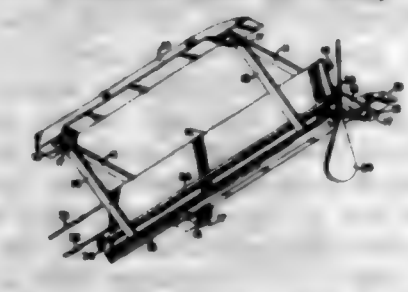
receiver, means operative to lock the bolt in a battery position in the extension of said chamber whereby the forward end of the bolt abuts the head of said shell, and a locking member pivotally mounted to the bolt and received by said first notch and extending forwardly to engage a second notch formed in the rear end of the barrel effective to lock the barrel to the chamber.

2,845,741
COMPOSITE FIREARM BARREL
Harry I. Day, Wellesley, Mass., assignor to Olin Mathieson Chemical Corporation, New Haven, Conn., a corporation of Virginia
Application April 27, 1955, Serial No. 504,293
6 Claims. (Cl. 42—76)



1. A composite firearm barrel, comprising a liner provided with a projectile discharge bore and having inadequate strength to withstand ordinary internal firing pressures, an outer jacket thereon formed of a multitude of glass fibers bonded to each other and to said linear in mutual stress-transmitting relation and adding sufficient strength to that of said liner to preserve the configuration of the latter and to render the composite barrel sufficiently strong to withstand the pressure generated during the propellant burning cycle, and a layer of metallic foil covering the jacket to increase the stiffness and rigidity of the barrel.

2,845,742
DEVICE FOR USE BELOW ICE
Elmer N. Skillman, Rapid City, S. Dak.
Application March 21, 1955, Serial No. 495,383
3 Claims. (Cl. 43—26.1)



2. In a device for movement through a body of water below an ice surface, buoyant runners positioned below the ice surface, arms depending from said runners, a fin connected to said arms, power means for moving the device through the water below the ice surface, and lines extending rearwardly from said fin and connected thereto.

2,845,743
JOINTED FISHING LURE
William E. Boyd, Detroit, Mich.
Application May 17, 1955, Serial No. 508,927
2 Claims. (Cl. 43—42.15)

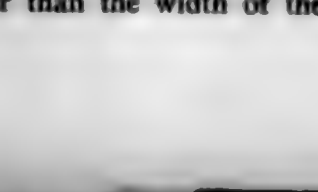
1. A jointed fishing lure comprising a trailing body having an eyelet at its forward end, a leading body having

a bore therethrough, and a removable one piece spring wire clip means comprising shank portion adapted to extend within said bore and being reversely bent at opposite ends to form front and rear loops terminating in oppositely extending expandible and contractible yieldable members extending integrally from said loops, said members terminating in free ends within the bore and being contracted toward said shank portion to yieldingly



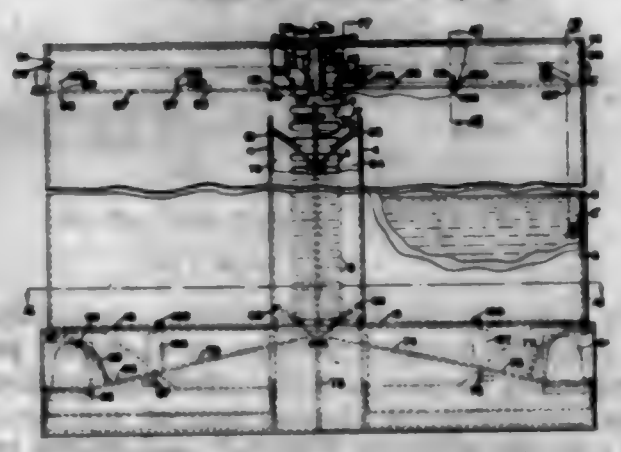
engage the bore wall when the clip means is inserted into the bore, said front loop being adapted for attachment with a fish line, the rear loop having a portion extending rearwardly from said bore for connection with said eyelet, said portion bulging transversely of said bore beyond the latter's rear opening to prevent said rear loop from entering said bore and to space said bodies for free articulate connection of a fish hook to said rear loop.

2,845,744
FISH LURE
George W. Schnitzer, Kansas City, Mo.
Application April 13, 1956, Serial No. 578,880
2 Claims. (Cl. 43—42.15)



1. A lure comprising leading and trailing sections so shaped as to simulate, together, a bait fish; means connecting the sections in end-to-end relation for relative pivotal movement about an axis extending transversely of the sections, and for relative rotatable movement about an axis extending longitudinally of the sections, said means limiting each section to rotation relative to the other section through slightly less than 180 degrees of a circle, the leading section having a surface at its forward end extending in length substantially more than half the length of the leading section and lying in a plane oblique to the longitudinal center line of the leading section to provide a water deflecting surface said surface forming on the leading section diametrically opposed, hook-supporting, longitudinal surfaces one of which is substantially longer than the other; eye screws disposed in a common plane perpendicularly intersecting the first plane at diametrically opposite locations on the leading section said eye screws being engaged in the respective hook-support surfaces, the eye screw in said one hook-support surface being spaced slightly in advance of the eye screw in the other hook-support surface in a direction longitudinally of the leading section; a hook selectively engageable with a selected one of said eye screws to depend from the leading section with the leading section in a position in which said surface is faced in a selected direction, said hook forming a drag tending to hold the leading section against rotation from said position about an axis extending longitudinally of the leading section; a hook depending from the trailing section to provide a drag cooperating with the first hook in holding the leading section against rotation from said position; and flexible wings projecting in a direction laterally outwardly, from opposite sides of the leading section and angularly spaced from the drag of the leading section 90 degrees at opposite sides thereof, the wings being elongated in said direction to an extent such that each of the wings is of a length substantially greater than the width of the leading section, whereby to define weight-like elements well outwardly from the sides of the leading section cooperating with the hook of the leading section in holding the leading section against rotation from said position said wings being disposed approximately abreast of said eye screws.

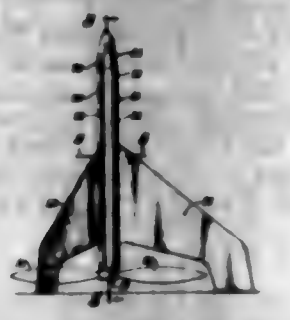
2,845,745
ANIMAL TRAP
Carlo Grossi, Cleveland, Ohio
Application August 10, 1953, Serial No. 373,238
8 Claims. (Cl. 43—76)



1. In an animal trap having a reservoir and adapted for mass catching of animals in successive stages of entrapment during the animal's travel within the trap from first being entrapped within the confines of the trap until and during its entrapment within said reservoir which forms no part of the operative mechanism, said trap including a housing provided with an animal entrance doorway, a bait tray arranged in said housing remote from said entrance doorway, a bait tray doorway leading to said bait tray from said entrance, said trap having a closure door for its animal entrance doorway and a closure door for said bait tray doorway, means rigidly connecting said closure doors together, an initial entrapment compartment in the base of said housing between the animal entrance doorway and the bait tray doorway, pivotal locking means in said compartment and in normal upper position engaging said rigid door connecting means for said entrance doorway and said bait tray doorway to normally lock the same in upper open positions against the force of gravity, a second animal entrapping compartment and an entrance for the animal from said first trapping compartment into said second animal entrapment compartment, said second compartment having automatic animal operated means for preventing retreat of said animal back into said first compartment, trap resetting means in said second entrapment compartment including pivoted means for unlocking and lifting of said closure doors upwardly against the force of gravity, after said animal has operated said retreat preventing means, and to lock said closure doors in an upper open position by said locking means in said initial trapping compartment, a dumping compartment, an upright ladder and a vertical ascension compartment therefor for said animal provided with gravity closing animal retreat preventing means and providing a passage for said animal between said second compartment and said dumping compartment, said dumping compartment being provided with a longitudinally pivoted dumping platform, below which is arranged in said housing said reservoir, said dumping platform being provided with longitudinally spaced pivotal connections to said housing and a locking member carried by the inboard end of said dumping platform adjacent the entrance thereto from said ladder, the dumping compartment having a slot normally receiving said locking member, the pivotal connections and locking member of said dumping platform and the slot of said dumping compartment at the inboard end of said dumping platform being so arranged as to normally maintain said dumping plat-

form locked and transversely and longitudinally stable in a horizontal plane, and adapted to be unlocked only upon the weight of the animal being imposed upon the outboard end of said dumping platform, whereupon said dumping platform becomes pivoted about its transverse axis to unlock said locking member to permit said dumping platform to swing about its longitudinal axis, to dump said animal into said reservoir, said dumping platform being counterbalanced to be swung by gravity to return to its normal locked horizontal position upon removal of the animal's weight thereupon.

2,845,746
TOY FLYING MACHINE
Gerald W. McKinney, Long Beach, Calif.
Application April 14, 1955, Serial No. 501,283
1 Claim. (Cl. 46—78)



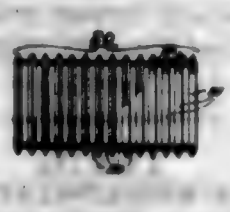
A toy airplane comprising a generally tubular fuselage, a propeller rotatably mounted at the rear end of the fuselage, means mounted inside the fuselage for driving the propeller, and at least three spaced wings extending radially from the fuselage and having outer portions extending rearwardly outwardly of the ends of said propeller and rearwardly of the plane of rotation thereof for supporting the fuselage vertically on a horizontal surface with the propeller above said surface, the fuselage being weighted to balance the weight of the propeller so that the airplane after gaining altitude glides to earth at a relatively slight angle to the horizontal.

2,845,747
WHISTLE CONSTRUCTION FOR SOUNDING TOY
George Wintriss, Carversville, Pa., assignor to Wintriss, Inc., New York, N. Y., a corporation of New York
Application June 10, 1955, Serial No. 514,626
3 Claims. (Cl. 46—117)



1. A hollow toy made of resilient and self-sustaining material and having a bottom opening through which air flows from and to the hollow interior of the toy with changes in the volume of the toy resulting from distortion and regaining of its shape, the material immediately adjacent to the edges of the opening extending upwardly from said edges as an inner ring of material and to a fold from which the material extends downwardly forming an intermediate ring outside the inner ring and which extends some distance below the inner ring, the material extending outwardly beyond the lower end of the intermediate ring to form a portion of a bottom of the toy, the material outward from the bottom extending upwardly again and comprising a lower part of the side wall of the toy; and a whistle secured to the toy in position to span the bottom opening, said whistle having an inner cup with its open side facing downwardly and a peripheral wall of the cup in contact with the inside of the inner ring, the whistle also having an outer cup with its open side facing upwardly and a peripheral wall of the outer cup between the inner and intermediate rings, the inner ring being securely clamped between the peripheral walls of the cups.

2,845,748
PLASTIC TOY AND FLEXIBLE PLASTIC UNIT FOR TOYS AND OTHER ARTICLES
Philip A. Derham, Audubon, Pa., assignor to Wilkening Manufacturing Company, a corporation of Delaware
Application February 4, 1957, Serial No. 638,076
9 Claims. (Cl. 46—152)



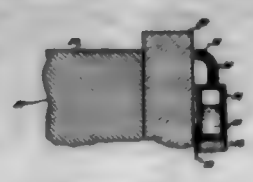
7. A toy including a flexible segmental unit and a contrasting member secured to each end thereof and capable of being deflected in relation to each other through the flexing of said flexible segmental unit therebetween, said flexible segmental unit being formed of a generally form-retaining and self-restoring flexible nonmetallic material, comprising a plurality of closely spaced-apart relatively narrow integral one-piece rim-like segments whose dimension in the fore-and-aft direction of the flexible unit is less than half the overall dimension of the segment normal to such direction, and two separate flexible self-restoring connectors of substantial free length between adjacent segments and integral therewith and spacing the segments in relation to each other and forming a connecting hinge therebetween for permitting the angling of adjacent segments in relation to each other, said two connectors being spaced apart from each other and being disposed at opposed portions of the segment.

2,845,749
DOLL EYE AND METHOD OF MAKING
Elizabeth H. Mickam, Cincinnati, Ohio
Application February 9, 1956, Serial No. 564,411
5 Claims. (Cl. 46—165)



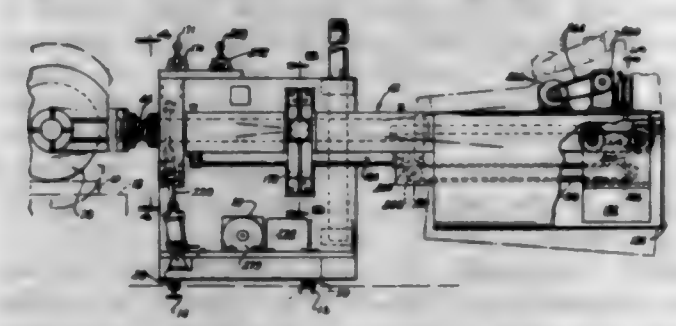
1. In an eye construction, a backing sheet, an eye-and-eyelid defining element fabricated from a single sheet of material having an arcuately shaped serrated slit therein for defining an upper central portion, a lower central portion and side portions, and means securing the lower central portion to the backing sheet with the said lower central portion pulled downwardly and separated from the upper central portion for defining a smooth continuous inner edge to the side and lower central portions below the upper central portion and for simultaneously subjecting the eyelid defining upper central portion to compressive forces which deflect it outwardly from the eye defining portions.

2,845,750
GLASS FURNACE
Harvey L. Penberthy, Seattle, Wash.
Application March 9, 1955, Serial No. 493,209
6 Claims. (Cl. 49—54)



1. An apparatus for cooling the refractory wall of a glass furnace having a molten mass of glass therein comprising in combination, a boiler adjacent said wall below the surface of said glass and containing a liquid, said boiler being sufficiently close to said wall that heat from said wall causes said liquid to boil to generate a vapor, and port means in said boiler directing the vapor generated therein against said furnace wall substantially at the level of the surface of the glass mass therein to cool said wall at that point.

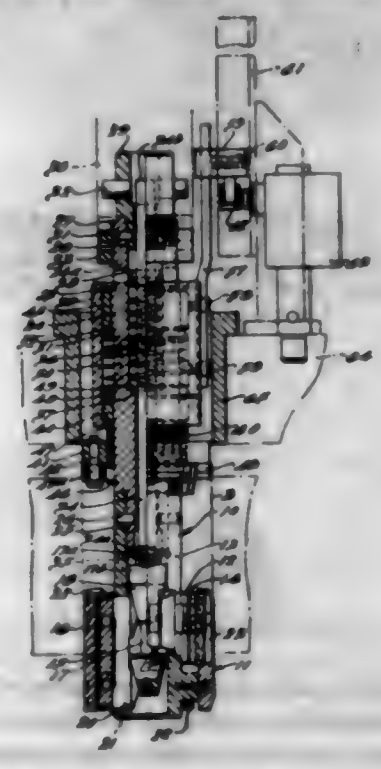
2,845,751
METAL WORKING MACHINE
William M. Woodward, Birmingham, Mich., assignor to Mid-West Abrasive Company, Owosso, Mich., a corporation of Delaware
Application January 10, 1955, Serial No. 480,661
22 Claims. (Cl. 51—32)



15. A machine for operating upon a work piece comprising supporting structure, a boom, means pivotally mounting said boom on said supporting structure for vertical swinging movement, a tool mounted on said boom at one side of the pivotal mounting means for engagement with a work piece supported therebeneath, means for moving said tool in opposite directions along the longitudinal axis of said boom at said one side of said pivotal mounting means to feed said tool back and forth across the work piece, means for maintaining said tool against the work piece with a uniform pressure as it moves back and forth across the work piece comprising mechanism acting upon said boom for urging the portion thereof at the said one side of said pivotal mounting means downwardly under a variable pressure, and control means for said mechanism operated in response to the movement of said tool along the longitudinal axis of said boom for progressively decreasing the downward pressure applied to said boom by said mechanism as said tool moves along the longitudinal axis of said boom away from said pivotal mounting means and for progressively increasing the downward pressure applied to said boom by said mechanism as said tool moves along the longitudinal axis of said boom toward said pivotal mounting means.

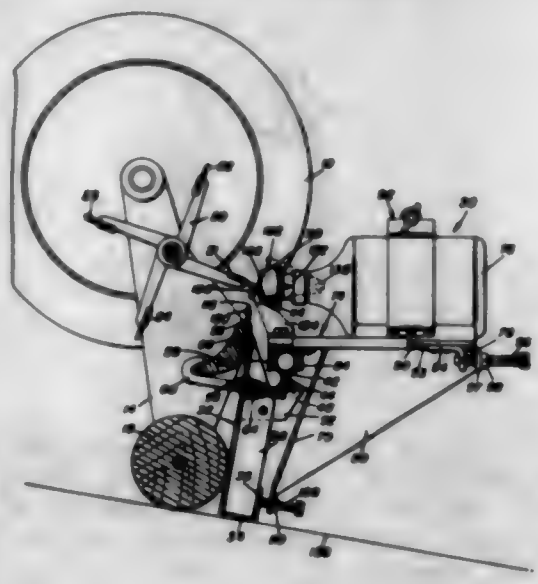
2,845,752
SIZING DEVICE FOR HONING APPARATUS
Glen M. Calvert, Detroit, Mich.
Application November 6, 1953, Serial No. 390,555
15 Claims. (Cl. 51—34)

10. In a honing apparatus for honing the bore of a tubular workpiece having reciprocable and rotatable spindle means and honing means carried thereby and adapted to enter one end of the workpiece bore, shiftable means extending into a bore portion of the spindle means for adjusting the honing means relative to said bore, an annular gauge device encircling said spindle means and through which the spindle means extends, said gauge device having a series of circumferentially spaced gauge portions having annular spacing clearance therebetween



and operative at the end of the bore through which the honing means enters to hone the bore and having operative entry into the bore in engagement therewith when the bore has been honed to a predetermined size, means for signalling operative entry of the gauge device means into the workpiece bore preparatory to initiating cessation of the honing operation, and actuating means controlled by said gauge device for actuating said signalling means.

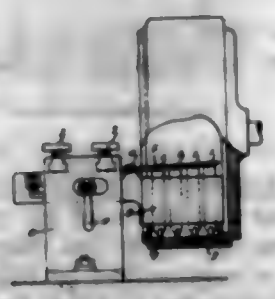
2,845,753
TOOL SHARPENING DEVICES
Edward A. Lavond, Carmichael, Calif.
Application August 30, 1955, Serial No. 531,343
7 Claims. (Cl. 51—56)



1. In a lawn mower which has a stationary cutter, a support holding said cutter and a reel having blades operable with said stationary cutter, the improvement comprising a sharpener for said stationary cutter and said blades, said sharpener having a frame, means on said frame and engageable with said stationary cutter sup-

port for attaching said frame to the lawn mower, means on said frame for contacting a face of said stationary cutter and coacting with the first-mentioned means to hold said frame fastened to the lawn mower, a carriage movable from one end of the lawn mower to the other, means carried by said frame for supporting said carriage, a grinding device, means carried by said carriage for actuating said grinding device, said grinding device having surfaces for respectively facing said reel blades and said stationary cutter, means carried by said carriage for moving said grinding device in a direction normal to the path of travel of said carriage, and means for tilting said carriage about an axis of rotation coincident with said path of travel in order to adjust the angle at which said grinding device is brought in contact with said blades.

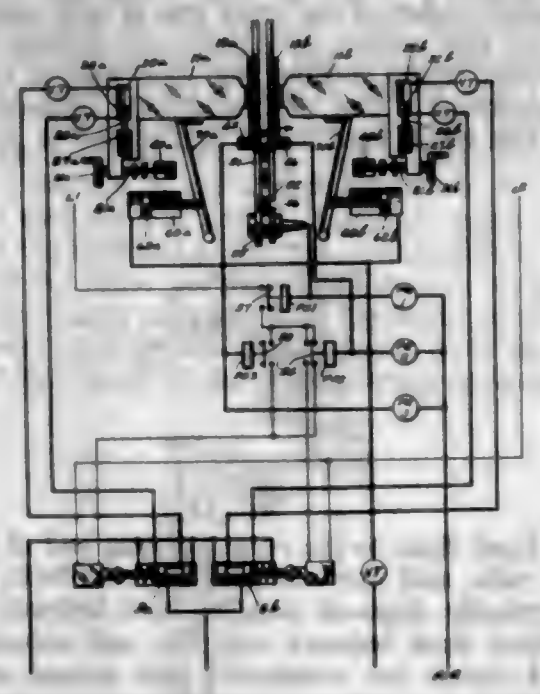
2,845,754
APPARATUS FOR SHAPING THE TIPS OF MACHINE TOOLS
Andrea Rimoldini, Bergamo, Italy, assignor to Dalmine S. p. A., Milan, Italy
Application April 28, 1953, Serial No. 351,625
Claims priority, application Italy January 29, 1953
14 Claims. (Cl. 51—73)



1. Apparatus for shaping the tip of a tool member comprising, in combination, a die member having elongated shaping faces with a cross-section equal to the desired cross-section of said tip and being harder than said tip; an abrasive compound having a hardness at least equal to the hardness of said tool tip and being applied to said shaping faces; a mounting member being formed with at least one passageway adapted to receive the tool tip therein; a leaf spring for slidably mounting the tool tip in said passageway; means for urging said tool tip against said shaping faces of said die member and holding it pressed against said shaping faces in desired position relative thereto; and means for moving said die member in the direction of said elongated shaping faces while said tool tip is held pressed against said shaping faces, whereby said abrasive compound shapes said tool tip to mate with the shape of said shaping faces.

2,845,755
SELECTIVE CONTROL DEVICES FOR DISC GRINDERS
Ralph E. Price, Beloit, Wis., assignor to Gardner Machine Company, Beloit, Wis.
Application November 9, 1956, Serial No. 621,419
5 Claims. (Cl. 51—112)

1. In a disc grinder having annularly opposed grinding discs, guide plates for guiding a workpiece as it emerges from between said discs, means for feeding each of said discs toward and from the other, control means on both sides of a workpiece as it emerges from between the grinding discs, said means serving to determine whether either or both sides of a workpiece is in proper alignment with said guides and hence, whether either or both of said discs requires adjustment, means actuated by said control means for effecting actuation of said feeding means to adjust one or both of said discs axially, a second control element co-acting with one side of a workpiece to detect oversize workpieces, means actuated by the second control element for completing a circuit to one or both of said



feed actuating control means depending upon whether one or both discs require adjustment.

2,845,756
PROFILE PROJECTOR OR COMPARATOR FOR CUTTING MACHINE TOOLS
Friedrich Papke, Braunschweig, Germany, assignor to Voigtländer Aktiengesellschaft, Braunschweig, Germany, a corporation of Germany
Application February 25, 1957, Serial No. 641,947
Claims priority, application Germany February 24, 1956
10 Claims. (Cl. 51—165)

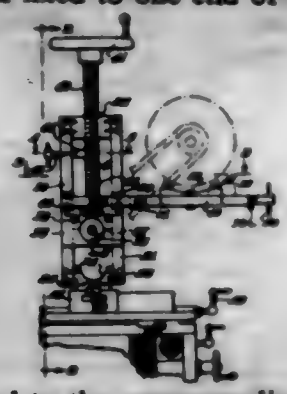


1. An optical profile projector or comparator device for cutting machine tools, comprising a tool, a viewing screen, a system for projecting a work piece to the viewing screen; a phantom member having a contour corresponding to that of the cutting tool of the cutting machine, and means for reflecting an image of the phantom member into the viewing path of rays of the projecting system, and thus projecting it to the viewing screen; a holder for said phantom member; said phantom member being changeable and being movably arranged in such a manner that its image can be adjusted to a required shape, in conformity with the wear of the tool, whereby the phantom member is displaceably arranged in its holder and can be moved in its holder to the tool, in order to have the phantom member corrected in conformity with changes of the tool.

2,845,757
LATHE ATTACHMENT
John Grewe and Joseph Grewe, Cincinnati, Ohio
Application September 14, 1955, Serial No. 534,252
3 Claims. (Cl. 51—259)

1. A lathe attachment comprising a first frame section; said first frame section comprising a pair of vertically disposed parallel bars; a second frame section ver-

tically slideable on said first frame section; a vertical screw mounted in said first section; means connecting said second section to the lower end of said screw; means to fix said first section on a base; tool holding means in said second frame section; and said second frame section comprising a pair of horizontally disposed parallel rails, a first block fixed to one end of one of said rails, a



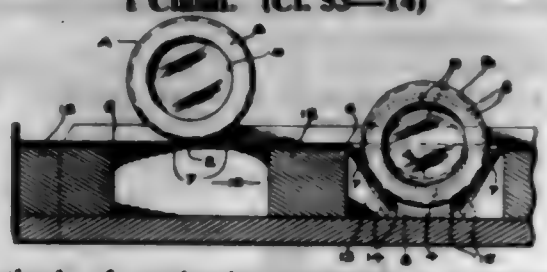
second block fixed to the corresponding end of the other of said rails, said first and said second blocks engaging said vertically disposed parallel bars between them, a third block fixed between said first and second blocks, the said means for connecting said second section to said screw being located in said third block, and a cross member fixed to the other ends of said rails.

2,845,758

METHOD OF PACKAGING CYLINDRICAL CONTAINERS

Walter E. Lowthian, Baltimore, Md.

Application January 10, 1956, Serial No. 558,222
1 Claim. (Cl. 53—14)



A method of packaging cylindrical containers with recessed ends comprising forming in a sheet of semi-pliable material a plurality of individual container pockets by slotting the same and forming openings therein crosswise of each end of the slots to receive a container therein longitudinally of the slots, forming projections on the sheet in the openings directed toward the slots, recessing a rigid form substantially corresponding to the pockets in the sheet and each recess being of substantially the cross-section of the containers to be packaged, and placing the sheet thereover, moving containers over the upper surface of the sheet until each is opposite one said pocket, depressing the container into the opening of the rigid form to a point where the end projections will engage the recessed ends of the container.

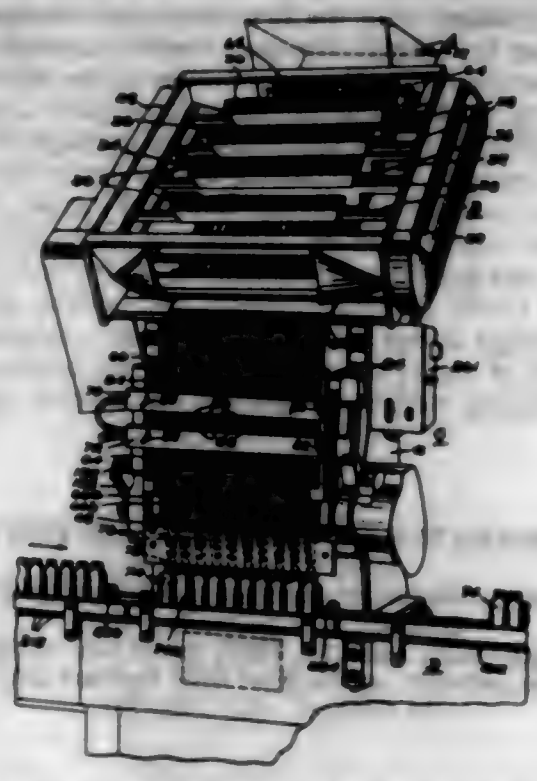
2,845,759

METHOD OF AND MACHINE FOR FILLING BOTTLES WITH CAPSULES

Omer E. Cote, Providence, R. I., and John Fredenburgh, Dunedin, Fla., assignors to United States Automatic Box Machinery Co., Inc., Roslindale, Mass., a corporation of Massachusetts

Application September 26, 1955, Serial No. 536,668
9 Claims. (Cl. 53—61)

5. In a bottle filling machine the combination comprising a plurality of parallel vertical channels sized to guide articles in single file, means for continually depositing articles in the upper end of each channel, gate means at the bottom end of each channel for preventing release of article therefrom, holding means for limiting downward flow of articles in each channel, said latter means being periodically inserted into said channels at selected points above said gate to engage articles therein, mechanical means for withdrawing said gate to release articles positioned below said holding means, and means preventing operation of said mechanical means for with-



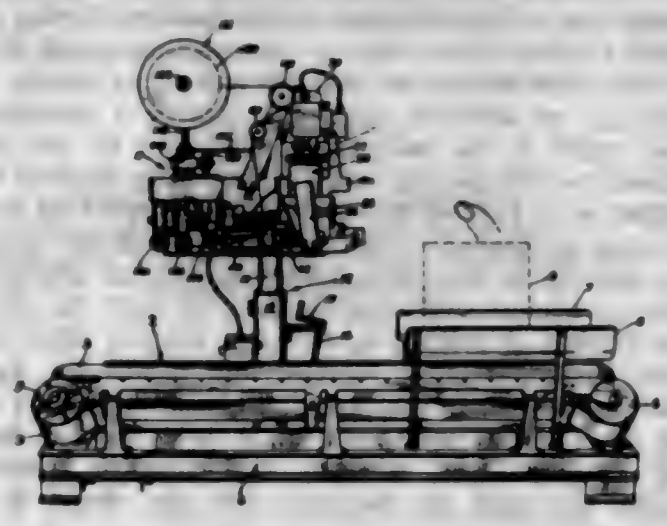
drawing said gate until articles in all of said channels at said selected points are engaged by said holding means.

2,845,760

BAG TOP CLOSING AND SEALING MACHINE

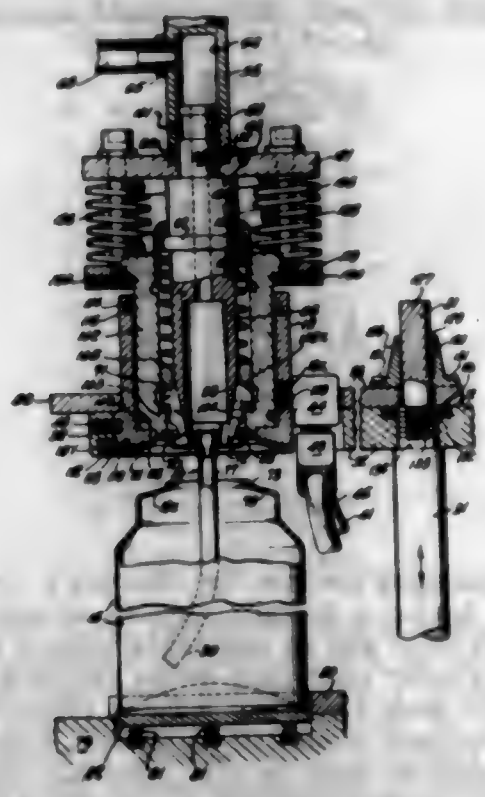
Frank L. Hopkins and Richard H. Ayres, Minneapolis, Minn., assignors to Bemis Bro. Bag Company, Minneapolis, Minn., a corporation of Missouri

Application November 5, 1956, Serial No. 620,428
26 Claims. (Cl. 53—67)



1. In a machine for closing and sealing the open tops of large flexible walled bags, a conveyor for advancing the bags through the machine without interruption, a sewing head for applying a row of stitches to each bag top the length thereof, drive means for intermittently operating the sewing head, said drive means being controlled by movement of the bag tops through the machine, a pair of drive rolls, a source of adhesive-coated tape, tape applying means including an inner inverted U-shaped guide member positioned to receive the sewn bag top from the sewing head, a tape folding blade overlying said guide member with its walls spaced from the walls thereof and cooperating therewith to provide a travel path for the tape, said U-shaped member preventing the adhesive-coated surface of the tape from directly contacting the bag top walls until just prior to the bag top engaging the drive rolls, said drive rolls pressing the tape walls into bonding engagement with the bag top walls and causing the tape to feed only when a bag top is in engagement with the drive rolls.

2,845,761
APPARATUS AND METHOD FOR FILLING CONTAINERS WITH HIGH PRESSURE GAS
Tully J. Bagarozy, Elizabeth, N. J.
Application August 8, 1956, Serial No. 602,822
1 Claim. (Cl. 53—38)



An apparatus for filling with high pressure gas single aperture mouth containers containing a beaded mouth rim and thereafter sealing said filled container with a sealer cap while under said high gas pressure comprising a tubular cylindrical housing moveably disposed for contacting said container about said aperture, crimper means moveably disposed within the borehole of said tubular housing, vacuum means disposed within said crimper means for securing a sealer cap, at least one sealer ring disposed around said crimper means and between it and the housing to form a gas tight sliding contact therebetween, said housing having a single opening for introducing high pressure gas into the space formed between said housing and said container, compressed air means for lowering said crimper means with its retained sealer cap into said container aperture, crimper fingers disposed in said crimper means for crimping said cap to the beaded aperture mouth of said container in said formed space while under high pressure gas, and auxiliary spring means disposed on top of said housing for resisting premature crimping of a sealer cap due to high pressure gas acting upon said cap in said space located between said housing and said container.

2,845,762
CAN HANDLING FIXTURES
Le Roy R. Keiman, Naperville, and Frank L. Yagger, Downers Grove, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application February 25, 1955, Serial No. 490,706
3 Claims. (Cl. 53—111)

1. An apparatus for supporting in a bath of molten metal a can open at the top and closed at the bottom to permit the can to be provided with an internal coating and to receive a core to be bonded thereto through the internal coating and a closure plug on top of the core, said apparatus comprising a long leg having a handle at its upper end, a bracket secured to and projecting laterally from the lower end of the leg, a base secured to the bracket in laterally offset relationship to the lower end of the leg and having a slot and a plurality of upwardly extending fingers, a sleeve secured to the leg parallel thereto near its upper end, a shaft mounted in the sleeve for rotation and axial movement with respect thereto and having upper and lower ends protruding from the sleeve, a handle secured to the upper end, an arm secured to the lower end of the shaft and extending obliquely dowwardly therefrom, and an annular head having a conical interior upper surface to facilitate the passage of the core and the closure plug through the head into the can, said annular head being secured to the end of the arm remote from the shaft in alignment with the base and having a slot registering with the slot in the base and a plurality of downwardly extending fingers the lower portions of the fingers on the head being of less radial thickness than the upper portions and having inner surfaces at a greater radius from the axis of the head than those of the upper portion to form down-

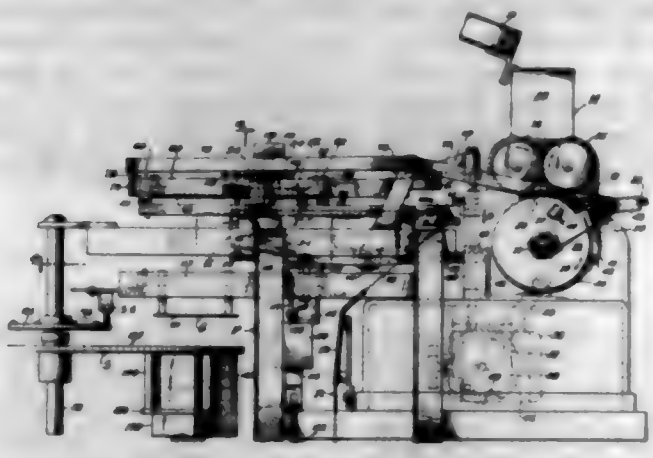


wardly directed shoulders at the junctures of said upper and lower portions; whereby the can may be placed on the base with the sides of the can adjacent the bottom engaging the inner surfaces of the fingers on the base, the head may be swung and lowered by rotation and axial movement of the shaft in the sleeve to bring the fingers on the head into engagement with the exterior of the can adjacent the upper end, the apparatus may be lowered to submerge the can in the bath so as to cause the same to fill the can and come into direct contact with the exterior thereof, the core may be lowered through the head into the can and displace most of the molten metal therein, and the closure plug may be lowered through the slot in the head into the upper end of the can against the upper end of the core and displace most of the molten metal in the upper end of the can.

2,845,763
PACKAGING MACHINE
Llewellyn Wonaidler, Doylestown, Pa.
Application June 26, 1956, Serial No. 593,936
16 Claims. (Cl. 53—157)

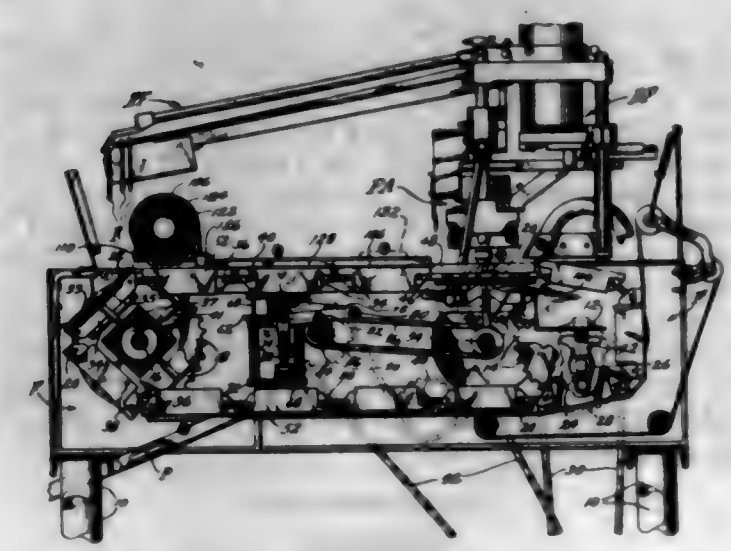
1. In a packaging machine the combination of: drive means; supply means for supplying two strips of thin sheet material; guide means adapted to guide the strips from said supply means into surface contact with each other and to define a double-layer run of sheet material; a loading station, a holding station and a discharge station through which said run is passed; said run in the loading station being adapted to receive an object to be packaged which is placed thereon; holding means adapted to engage and hold said run in the holding station in the region of the object carried thereon and advance same stepwise into the discharge station; severing and disengaging means in the discharge station adapted to sever

the end portions of the strips of said run behind the object carried thereon, to disengage the run from the holding means, and to discharge as a unit the severed portions and the object carried thereon; stacking and ejecting means adapted to receive the objects and associated severed portions successively discharged, to stack the same to form a stack of objects separated from each other by a pair of severed portions, and to periodically eject a stack



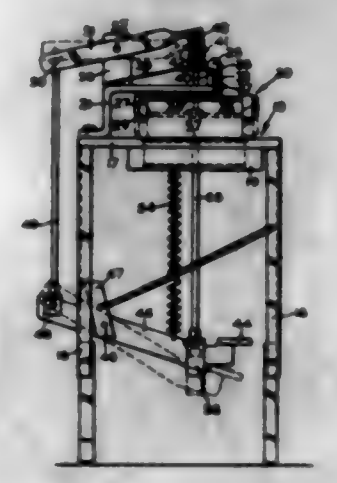
composed of a predetermined number of objects and severed portions; package conveyor mechanism adapted to bring packages successively into position to receive ejected stacks; and means interconnecting the drive means with the holding means, the severing and disengaging means, the stacking and ejecting means and the package conveyor mechanism and providing for operation thereof in phase.

2,845,764
WRAPPER FEED FOR A MEAT PACKAGING MACHINE
Donald R. Forry, Hilliards, Ohio, assignor, by mesne assignments, to Dale E. McCarty, Fostoria, Ohio
Application April 30, 1956, Serial No. 581,680
11 Claims. (Cl. 53—220)



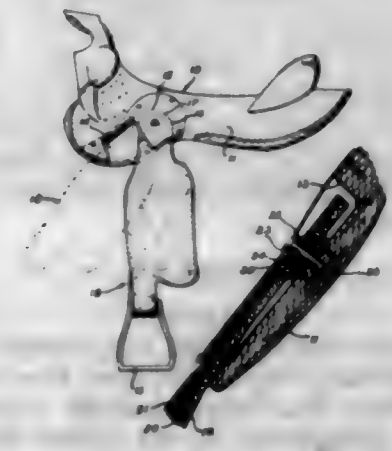
5. In a wrapper feed for a packaging machine, a conveyor having ring plates to support rings for the packages, a roll of wrapping material adapted to be fed onto said plates to span the rings supported thereby, means to effect such feeding comprising a clamp plate slidably carried by each side of each ring plate and having a holding flange overlying the upper marginal edge of the ring plate, said wrapping material being adapted to overlie said holding flanges, means normally biasing said holding flanges against said wrapping material to hold it clamped to the ring plate, and means at a wrapper feed station of the packaging machine for moving said clamp plates against their bias to permit the edges of the wrapper to spring under said holding flanges, said last means then permitting said holding flanges to return to clamping position in relation to said ring plate.

2,845,765
METALLIC FOIL PACKAGING MACHINE
Floyd R. Doherty, Birmingham, Mich.
Application November 4, 1954, Serial No. 466,834
3 Claims. (Cl. 53—366)



1. A packaging machine for clinching a cover upon a container having a laterally directed annular ledge receiving the cover and an upstanding integral rim encompassing the cover comprising means providing a supporting surface upon which said ledge is supportable, a rotatable crosshead positioned above said supporting surface for rotation about an axis concentric with said annular ledge, a roller carried by said crosshead and adapted for rollable contact with said rim, and a plow also carried by said crosshead and positioned adjacent said roller, said plow having an inclined surface contactable with said rim in advance of said roller to deform the same laterally from its upstanding position so that the roller will subsequently flatten the rim snugly against the cover to secure the same between the ledge and the flattened rim.

2,845,766
SADDLE
Frank H. Leddy, Fort Worth, Tex.
Application October 4, 1957, Serial No. 688,370
6 Claims. (Cl. 54—46)



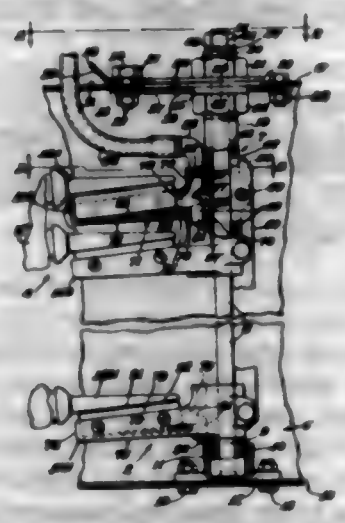
1. In a saddle having a tree including bars on each side thereof, a ball bearing having a disk flange around the outer race, inner and outer stirrup leathers secured at their upper ends to opposite sides of said disk flange, and a pivot screw secured to each said bar, said ball bearings and stirrup leathers being pivotally mounted on each said screw.

6. In a saddle having a tree including bars on each side thereof, said bars having recesses in the outer surfaces thereof, the forward edges of said recesses being forwardly and downwardly sloped, and the rear edges of said recesses being verticaly disposed, and stirrup leathers pivotally mounted therein.

2,845,767
COTTON PICKING SPINDLE MOISTENING ASSEMBLY

Arthur R. Crawford, Memphis, Tenn., assignor to International Harvester Company, a corporation of New Jersey

Application March 7, 1956, Serial No. 570,014
12 Claims. (Cl. 56—41)

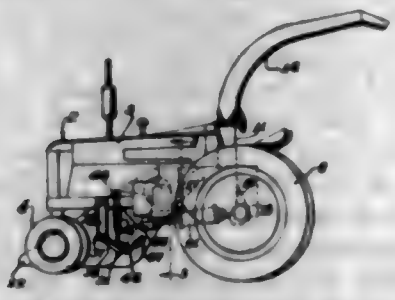


1. A cotton picker spindle moistening device comprising in combination, a support structure, an upright stand rotatably mounted from said structure, a vertical row of outwardly extending distributor elements for moistening liquid connected to the stand and disposed one above the other in vertically spaced relationship, a moistening pad mounted upon each element in liquid transferring relationship therefrom, and yieldable means interposed between said stand and said support for yieldably resisting rotation of said stand with said elements and returning the same to its initial position.

2,845,768
LIFT SYSTEM FOR TRACTOR SIDE MOUNTED HARVESTERS

Walter T. Ziolko, Willow Springs, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application March 13, 1956, Serial No. 571,255
1 Claim. (Cl. 56—208)

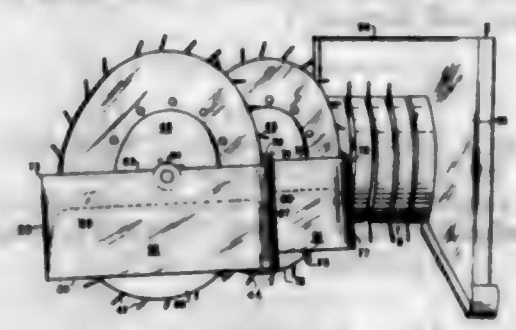


The combination of a tractor having a longitudinal narrow body wheel-supported at opposite ends, a harvester situated at a first side of said body and having a forward harvesting component including a laterally elongated platform, a rear component connected to said tractor and pivotally connected to said harvesting component on a generally horizontal axis extending transversely of the tractor intermediate the ends of said body, a lever extending lengthwise transversely of said body therebeneath, fulcrum means on the second side of said body remote with respect to said harvester and depending from the body and having a lower end, said lever having a proximal end adjacent to the lower end of the fulcrum means, means pivotally mounting the proximal end of said lever on an axis extending lengthwise of the tractor on said lower end of said fulcrum means, said lever having a first portion extending diagonally downwardly laterally of the tractor from the second toward said first side of the body beneath the same and terminating outwardly of said first side at a lowest elevation and having a second portion extending diagonally upwardly from said first portion and terminating in a distal end located beneath said platform, and means interconnecting said distal end with the platform at a point in substantially laterally counterbalancing relationship thereto and comprising dependent plates on said platform loosely embracing said distal end therebetween, and a fore and aft extending pin connected to said distal end and projecting through slots elongated lengthwise of the lever, and lifting means on said body comprising a bell crank lever pivoted on a generally horizontal axis to the first side of the tractor and having a forwardly extending leg and a downwardly extending leg, a hydraulic ram disposed along said first side and pivoted to said tractor and to said downwardly extending leg, and a resilient linkage connecting said forwardly extending leg to said first portion at a point adjacent to its lowest elevation.

2,845,769
FORAGE HARVESTER CROP GATHERING DEVICE

Otto E. Hintz, Riverside, and Peter Summarco, Chicago, Ill., assignors to International Harvester Company, a corporation of New Jersey

Application June 12, 1953, Serial No. 361,262
12 Claims. (Cl. 56—344)



1. A device for gathering cut hay and the like in a field comprising a field traversing support, crop receiving means carried thereby and having a forward end inlet, a ground sweeping pick-up carried by said means adjacent to said inlet in delivering relationship thereto, a flexible frame structure adjacent to a side of said pick-up comprising a pair of laterally extending inboard and outboard portions articulatingly interconnected, said inboard portion disposed between said outward portion and said pick-up and pivotally connected to said support on a transverse axis extending substantially perpendicular to the line of draft of the device, and rotary raking wheels rotatably mounted upon their respective portions in peripheral overlapping relationship and disposed in upright planes angled to the line of draft of said device, and said wheel upon said inboard portion disposed in delivering relationship to said pick-up, said entire frame structure and wheels thereon swingable together about said axis perpendicular to said line of draft and said inboard portion swingable solely upwardly and downwardly about said transverse axis thereby maintaining the delivering relationship of said raking wheel thereon with respect to said pick-up, and said outboard portion swingable on said fore-and-aft axis toward and away with respect to said pick-up laterally of the direction of movement of the device.

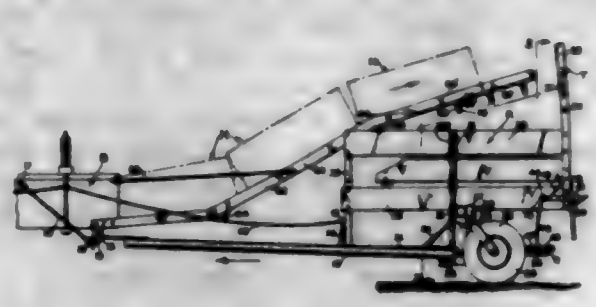
2,845,770
BALED HAY RACK AND CARRIER

William F. Fessler, Mount Angel, Oreg.

Application September 26, 1956, Serial No. 612,258
3 Claims. (Cl. 56—473.5)

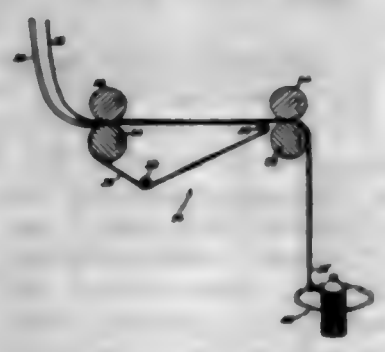
1. A baled hay carrier for use with a hay baler of the type having rearwardly discharging hay bales and means for guiding said bales into said carrier comprising, a frame adapted for attachment at its forward end to the rear end of said hay baler, wheels supporting the rear end

of said frame, spaced parallel sides secured to said frame and extending upwardly therefrom, a tail gate having its upper end pivotally supported on the upper rear edges of said sides, a hook pivotally carried on each of said sides at the rear thereof for releasably securing the lower end of said tail gate to said sides, a bottom, transverse horizontal pivot means securing said bottom to said frame, said pivot means being secured to said bottom rearwardly of the center of gravity of said bottom, a latch



bolt mounted on said frame forwardly of said bottom for releasably securing the forward end of said bottom to said frame, flexible means for moving said latch bolt to bottom releasing position, and flexible means extending from the rear portion of said bottom to said hooks whereby pivotal movement of said bottom away from said tail gate pivots said hooks and releases said tail gate for rearwardly swinging movement discharging hay bales supported on said bottom.

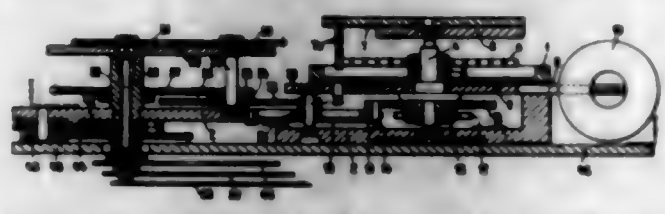
2,845,771
DIRECT SPUN SHANTUNG YARN AND METHOD OF MAKING SAME
Charles Eugene Neisler, Jr., Kings Mountain, N. C.
Application October 22, 1954, Serial No. 464,107
4 Claims. (Cl. 57—140)



2. A method of making a direct spun shantung yarn comprising the steps of simultaneously feeding into a drafting apparatus two bundles of filaments alongside each other, viz., a bundle of filaments that is capable of being ruptured and drafted and another bundle that may be ruptured but is incapable of being drafted; rupturing and drafting the first mentioned bundle of filaments by means of said apparatus; simultaneously rupturing at irregular intervals not determined by any pattern the second mentioned bundle of filaments; and spinning together said two bundles to form a direct spun shantung yarn having thicknesses or slubs of variable length along the length thereof.

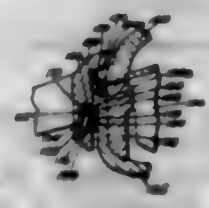
2,845,772
ELECTRIC WATCH
André Beyner, Neuchatel, Switzerland, assignor to Ebauches S. A., Neuchatel, Switzerland
Application February 24, 1954, Serial No. 412,357
Claims priority, application Switzerland March 10, 1953
4 Claims. (Cl. 58—28)

1. In an electric watch movement of the type including coaxially mounted second, minute, and hour hands with toothed center wheels for the seconds and minutes hands, a train wheel bridge, gearing for transmitting movement of the minutes center wheel to the hour hand, an escape wheel, a driving oscillating balance for the escape wheel, and a gear train operatively connecting the escape wheel with the hands, the improvement wherein the gear train includes an intermediate wheel, a spindle for the intermediate wheel, the intermediate wheel driven by the escape wheel, a toothed wheel carried by the spindle for the intermediate wheel and driving the seconds center wheel, at least one intermittent driving element carried by the spindle for the intermediate wheel and driving the minute



hand center wheel forward a distance of the width of one tooth of said minute hand center wheel for each revolution of the driving element, the toothed wheel being rigidly attached to the spindle and positioned outwardly of the train wheel bridge, the toothed wheel having the same number of teeth as the seconds center wheel whereby the minute hand center wheel is actuated intermittently with a frequency which is lower than the frequency of oscillation of the balance and the seconds hand is driven at each oscillation of the balance.

2,845,773
WATCH CASE
Vytautas Sakalys, Sag Harbor, N. Y., assignor to Bulova Watch Company, Inc., New York, N. Y., a corporation of New York
Application August 27, 1956, Serial No. 606,455
2 Claims. (Cl. 58—90)



1. A watch case comprising a hollow back member and a hollow body member, one of said members having a side wall and the other having a cavity adapted to receive said side wall, one of said side walls and a wall of said cavity having a detent engaging portion and the other having associated therewith resilient detent means resiliently urged into engagement with said detent engaging portion when said side wall is in a predetermined position in said cavity to positively lock said one member in said cavity in said predetermined position, the portion of said side wall adjacent the cavity opening which receives said side wall being spaced from the wall of the cavity to receive a release member, said detent means being movable out of said engagement by inserting said release member into said space to engage and force said detent means out of engagement with said detent engaging portion against the resilient force urging it into said engagement, whereupon said detent engaging portion is movable from said predetermined position past said detent means to a position in which said detent engaging portion is no longer engageable by said detent means and said one member is removable from said cavity, said side wall being free to be moved into said cavity until it reaches a position in which said detent engaging portion is engageable by said detent means, whereupon said detent means is automatically urged into engagement with said detent engaging portion to lock said one member in said cavity in said predetermined position, said other member being provided with a flange portion, a crystal forming a closure over an open end of the cavity and having a peripheral portion located between said side wall and said flange portion when said members are

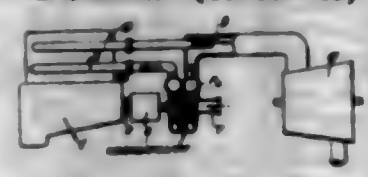
locked together, a sealing member located between said peripheral portion of said crystal and said side wall, said predetermined position being one in which said side wall is forced into sealing relationship with said sealing member and said peripheral portion of said crystal and in which said peripheral portion of said crystal and said sealing member are pressed between the flange portion of said body member and said side wall, whereby said sealing member is compressed between the peripheral portion of the crystal and the back member to effectively seal the interior of the casing from the atmosphere, said cavity being in said body member, said flange of said body member extending inwardly at one end of said cavity, the hollow interior of said back member, the crystal and sealing member forming an enclosure in which a watch movement is adapted to be located and which is sealed off from the atmosphere when said back member is in said position, said detent means being carried by the wall of said cavity, said detent means extending and being resiliently urged into said cavity, said detent means comprising a resilient ring member which extends a substantial distance around and is supported by said cavity wall, said detent means being spaced from said crystal and including means for retaining said crystal in the cavity when said back member is removed therefrom.

2,845,774

GAS TURBINE OPERATIVELY ASSOCIATED WITH A PISTON ENGINE-COMPRESSOR UNIT

Jean H. Bertin, Neuilly-sur-Seine, France, assignor to Société Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a French company

Application February 15, 1955, Serial No. 488,365
Claims priority, application France February 26, 1954
2 Claims. (Cl. 60—13)



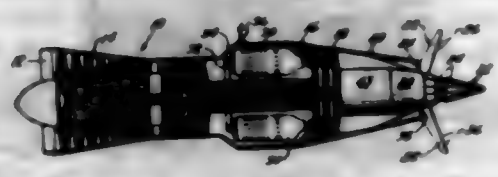
1. A power plant comprising an internal combustion piston engine having air intake ports and gas exhaust ports, a multi-stage air compressor driven by the said piston engine and having a high pressure delivery end and a low pressure delivery end, piping means between the said high pressure delivery end and the said intake ports whereby high pressure air is supplied to the said engine to effect scavenging and charging thereof, a gas turbine having an inlet, piping means between the said exhaust ports and the said inlet, and a by-pass duct between the said low pressure delivery end and a point of the last-mentioned piping means upstream of the said inlet, whereby the gas turbine is fed with motive gas consisting of a mixture of the combustion gases issuing from the piston engine and low pressure air delivered by the multi-stage compressor.

2,845,775

NOISE SUPPRESSORS FOR JET ENGINES

John M. Tyler and Robert E. Meyer, Glastonbury, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application June 1, 1956, Serial No. 588,742
17 Claims. (Cl. 60—35.6)



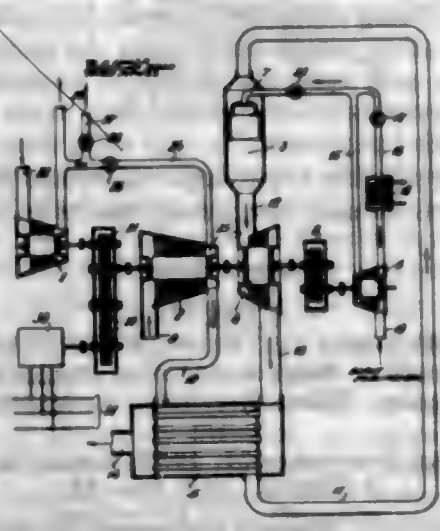
1. A device for suppressing the noise of a jet engine exhaust comprising a tailpipe, an inner body substantially concentric with and contained within said tailpipe so as to form a gas passage therebetween, a plurality of hollow vanes each having a relatively large aperture in one side and a plurality of relatively small apertures in another side, said vanes being rotatably mounted on said device for movement from a clustered position downstream of said inner body, where they form a conical continuation of the inner body, outwardly to present said large apertures to said gas passage with the plurality of relatively small holes in the other side directed downstream, and means defining the limits of movement of said vanes.

2,845,776

GAS TURBINE DRIVEN PLANT FOR SUPPLYING COMPRESSED AIR

Walter Traupel, Winterthur, Switzerland, assignor to Sulzer Frères, Société Anonyme, Winterthur, Switzerland

Continuation of abandoned applications Serial No. 276,179, March 12, 1952, and Serial No. 282,103, April 14, 1952. This application July 30, 1954, Serial No. 446,916
9 Claims. (Cl. 60—39.07)



1. In an installation for producing compressed air for external use of the type in which a blower for the product air is driven by a gas turbine power plant which includes a separate main compressor to compress air from the atmosphere for intra-power plant use, a regulating pipe, and a pipe running from the discharge side of said blower to the point of external use, the improvement characterized in that the outlet of the blower is connected by said regulating pipe to a point in the path of the at least partially compressed working medium of said gas turbine power plant which has a lower pressure than the delivery pressure of said blower, means in said regulating pipe for adjusting flow of compressed air from said blower to said point in the path of said working medium and an electric machine connected to an electrical power supply network in driving and driven coupling to the gas turbine power plant.

2,845,777

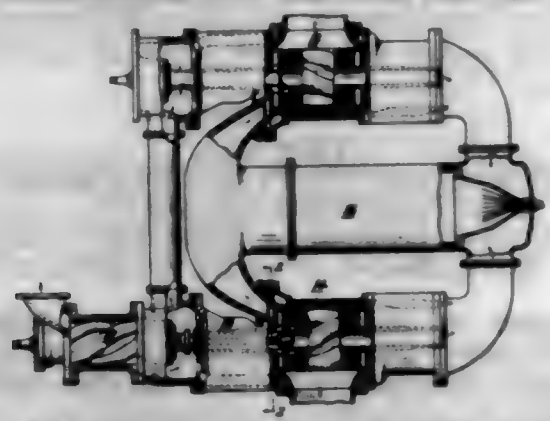
IMPROVEMENTS IN INLET PORT MEANS FOR ROTARY ELASTIC FLUID ACTUATED POSITIVE DISPLACEMENT POWER PLANTS

Hans Robert Nilsson and Teodor Immanuel Lindhagen, Stockholm, Sweden, assignors, by mesne assignments, to Svenska Rotor Maskiner Aktiebolag, Nacka, Sweden, a corporation of Sweden

Application May 18, 1948, Serial No. 27,767
14 Claims. (Cl. 60—39.61)

13. Power plant apparatus including an elastic fluid operated rotary engine, said engine comprising a casing having parallel intersecting cylindrical barrels and providing a main inlet for motive fluid and an outlet for said fluid, a rotor mounted in each of said barrels, each of said rotors having a plurality of helical lands and grooves, said lands and grooves intermeshing to form between them

and the casing a series of working chambers successively communicating with said main inlet as the rotors revolve to receive motive fluid for expansion in said chambers, said chambers being successively cut off from communication with said main inlet by the passage of successive lands past said main inlet and separate auxiliary inlet ports in said casing for supplying additional motive fluid to said chambers during the expansion phase of the cycle but after communication with said main inlet has been cut

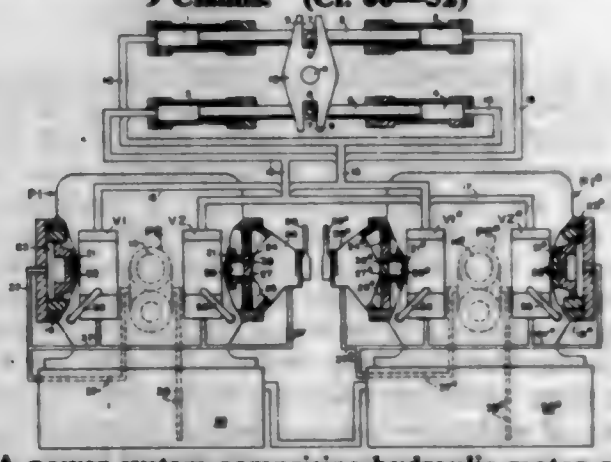


off by said lands and a source of motive fluid for said engine comprising compressor means for compressing the fluid and heating means for heating the compressed fluid delivered by said compressor means, conduit means for supplying compressed and heated fluid from said heating means at high temperature to said main inlet and conduit means for separately supplying compressed fluid at lower temperature from said compressor means to said auxiliary inlet ports.

2,845,778
HYDRAULIC POWER SYSTEM

James K. Douglas, Shorewood, Wis., assignor to The Oilgear Company, Milwaukee, Wis., a corporation of Wisconsin

Application November 21, 1955, Serial No. 547,980
9 Claims. (Cl. 60—52)



1. A power system comprising hydraulic motor means, two power pumps connected to said motor means to energize the same, an auxiliary pump driven in unison with each power pump and forming therewith a pumping unit, a control connected to each power pump to control the flow of liquid therefrom to said motor means, a single valve connected between the outlet of the power pump of each unit and said motor means and being normally closed to prevent flow of liquid through said outlet, a hydraulic servo-motor connected to said valve, and means connecting said servo-motor directly to the auxiliary pump of that unit to enable said servo-motor to open said valve in response to said auxiliary pump starting to discharge liquid.

2,845,779
FINGERLING TRANSFER DEVICES

Trevor P. Clark, North Vancouver, British Columbia, Canada

Application June 12, 1956, Serial No. 590,849
1 Claim. (Cl. 61—21)

A device for passing fingerlings downstream past a dam, said device comprising a fish trap having a panel positioned in the water and having a plurality of horizontal openings in vertically spaced relation, a float connected to the upper part of said panel rendering it buoyant, a chamber supported upon a face of the panel, said chamber being divided into shallow channel members connected vertically by a box-like member, said openings communicating with said chamber, the lowermost of said openings being at least fifteen feet from the

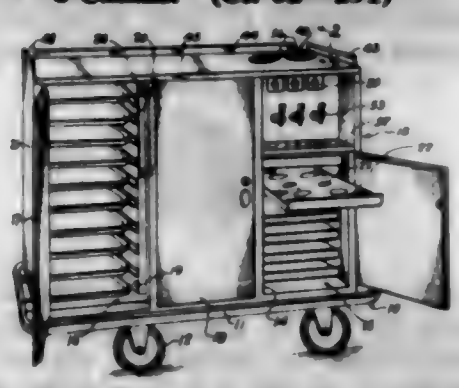


surface of the water and a pipe leading from the interior of the chamber to discharge below the dam, said pipe being wholly unobstructed and of sufficient size to pass a continuous stream of water therethrough and also the fingerlings entering the openings, the upper end of the pipe being flexibly connected to said chamber and adapted to rise and fall with the chamber when afloat, said water pipe being connected to the upper part of the box-like channel member.

2,845,780
FOOD SERVICE CART

William R. Conklin, Douglas G. Thom, and Blair E. Stentz, Murfreesboro, Tenn., assignors to The Swartzbaugh Manufacturing Company, Murfreesboro, Tenn., a corporation of Ohio

Application January 17, 1956, Serial No. 559,583
6 Claims. (Cl. 62—291)

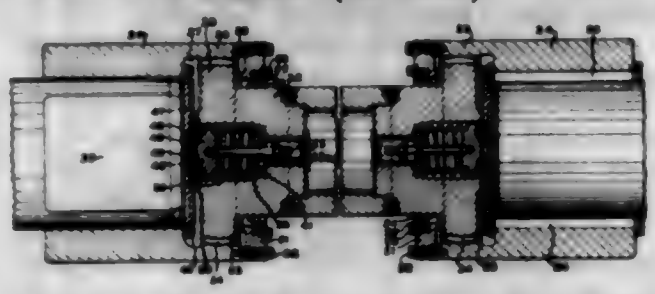


1. In a food service cart having a cold compartment with two sets of vertically spaced pairs of horizontal tray guides, the improvement comprising a vertical frame centrally located in said compartment and mounting the inner ones of the tray guides in said two sets of tray guides, a generally rectangular chill plate, means mounted between said sets of tray guides and near the top of said compartment and cooperating means on said chill plate for removably mounting said chill plate in vertical position between said sets of tray guides.

2,845,781
UNIVERSAL COUPLING

Jeremiah W. O'Brien, Pleasant Hills, Pa., assignor to United Engineering and Foundry Company, Pittsburgh, Pa., a corporation of Pennsylvania

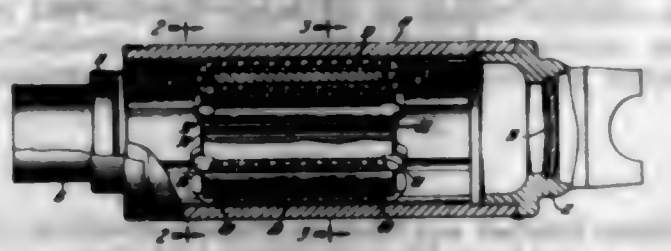
Application April 21, 1955, Serial No. 502,857
12 Claims. (Cl. 64—9)



1. A coupling for joining together a pair of shafts in driving relationship comprising a first coupling member

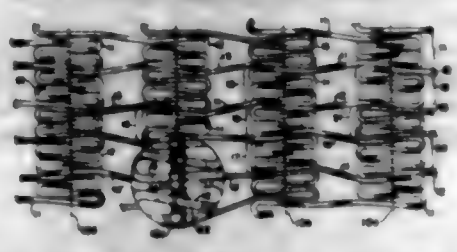
adapted to be operatively connected to one of said shafts, a second coupling member adapted to be connected to the other of said shafts and engaged in driving relationship with said first member, said members being movable in an axial direction relative to one another, yieldable pressure exerting means interposed between and normally biasing said members away from one another and an abutment on one of said members adapted to be engaged with the other of said members thereby to limit the relative movement between said members, said yieldable means adapted to exert a force of an order sufficent to maintain said members in an axially aligned relationship when said coupling is disconnected from one of said shafts.

2,845,782
BALL BEARING SPLINE
Earl W. Glover, Saginaw, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 6, 1957, Serial No. 664,111
4 Claims. (Cl. 64—23)



1. A motion-transmitting device comprising an outer tubular member having at least one internal groove paralleling the axis thereof, an inner hollow member having an external groove paralleling the axis thereof and radially aligned with said first groove to form a passage therewith, said inner hollow member further having an internal groove paralleling said first two grooves and radially aligned therewith, retainer means covering the said internal groove in said inner member and having curved end portions in communication with the opposed ends of said passage, and a train of anti-friction elements carried in the endless circuit provided by said grooves and said retainer means.

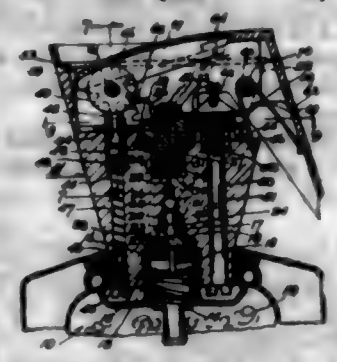
2,845,783
CHENILLE FUR STRIPS AND METHOD OF MANUFACTURE
James Garfield Underwood, Broadalbin, and David H. Shuttleworth, Amsterdam, N. Y., assignors to Mohasco Industries, Inc., Amsterdam, N. Y., a corporation of New York
Application June 11, 1957, Serial No. 665,805
7 Claims. (Cl. 66—193)



4. A fabric severable to form a plurality of strands suitable for use as chenille fur strips, which comprises a plurality of spaced parallel chains of stitches of relatively light yarn, and a plurality of relatively heavy pile yarns of different colors having sinuous portions bound in groups of consecutive stitches of each of a plurality of chains and forming series of loops extending to opposite sides of said chains, the number of loops varying in different series of each pile yarn, adjacent sinuous portions of each pile yarn being connected by lengths of the yarn extending across the space between the chains, in the stitches of which the portions are bound.

5. A method of making chenille fur, which comprises knitting a plurality of parallel chains of stitches of relatively light yarns, laying a plurality of relatively heavy pile yarns of different colors in the stitches of the chains with each pile yarn having portions laid sinuously in groups of consecutive stitches of each of a plurality of chains to form loops extending to opposite sides of said chains and lengths connecting adjacent sinuously laid portions and extending across the space between the chains, in the stitches of which said portions are laid, and severing said connecting lengths of pile yarn along lines parallel to the chain stitches.

2,845,784
CIGARETTE LIGHTER
William B. Hinz, Edgerton, Wis.
Application October 29, 1956, Serial No. 619,001
2 Claims. (Cl. 67—4.1)



1. A cigarette lighter comprising a body member having means at its bottom for central and removable insertion into and screwthreaded attachment to the top of a standard and disposable container containing a supply of liquefied petroleum flammable gas under pressure and providing communication with the gas in said container, said body member having a central hollowed out portion, a metering mechanism housed in said hollowed out portion of said body member, an opening and closing mechanism housed in said body member directly above said metering mechanism, said opening and closing mechanism having a spring adapted normally to hold said opening and closing mechanism in position to close the central hollowed out portion, a flint housed in said body member adjacent one side of said body member, a carrier attached to and position within the upper portion of said body member, a flint wheel holder pivotally attached to said carrier and having gear teeth, a flint wheel positioned within said flint wheel holder and pivotally attached to said carrier adjacent said flint, a handle pivotally attached to said carrier on the side opposite said flint and said flint wheel, said handle having gear teeth at one end, a lever pivotally attached to said carrier, said handle having a cam, said handle adapted upon being moved to its cam against said lever to move said opening and closing mechanism away from closed position to permit the flow of gas through the top of the central hollowed out portion of said body member, said handle upon being moved also engaging the gear teeth of said flint wheel holder with its gear teeth to move said flint wheel against said flint to direct sparks centrally to the flowing gas and igniting the same into flame, said handle upon being moved in the opposite direction to move its cam away from said lever to permit the lever to allow the spring attached to the opening and closing mechanism to move the opening and closing mechanism to closed position to block the flow of gas and extinguish the flame.

2,845,785
CANDLE AND METHOD OF MAKING
Walter Weglin, Centereach, N. Y.
Application August 10, 1956, Serial No. 603,297
9 Claims. (Cl. 67—22.5)

1. A combustible candle, said candle being composed of materials adapted to form drippings when burned, a

plurality of color materials within said candle adapted to mix with the drippings to form colored drippings, said color materials being located within the candle adja-



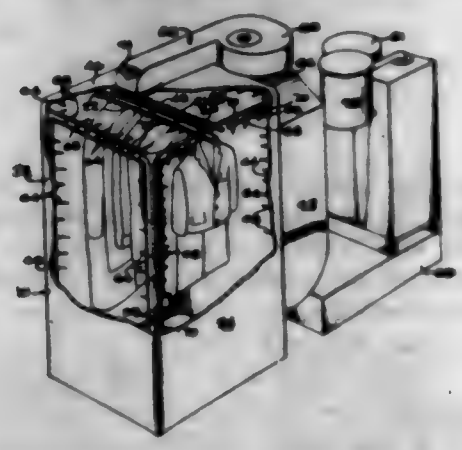
cent the candle exterior in spaced relation to each other, and means on said candle to guide said drippings for at least a portion of the candle length.

2,845,786

CLEANING APPARATUS

Ernest L. Chrisman, South Gate, Calif., assignor to Intercontinental Manufacturing Company, Inc., Garland, Tex., a corporation of Texas

Application October 15, 1952, Serial No. 314,879
5 Claims. (Cl. 68—18)



1. In cleaning apparatus: an enclosure; means for suspending garments on hangers in said enclosure so that said garments are arranged in spaced substantially parallel relation to each other; means for turning said garments in said enclosure for presentation to cleaning fluids, said moving means maintaining said garments in generally parallel relationship relative to each other; means for subjecting the suspended garments to a steam spray; means for controlling the discharge of steam from said steam spray means; means for subjecting said garments to a spray of cleaning solvent; means for controlling the spray means for cleaning solvent; means for circulating drying air through said enclosure; means for controlling the circulation of drying air; and automatic means for controlling the respective control means.

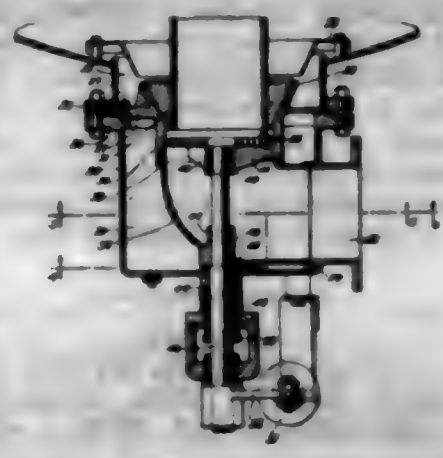
2,845,787

APPARATUS FOR THE FLUID TREATMENT OF TEXTILE MATERIALS

Charles K. Fick, Philadelphia, Pa., assignor, by mesne assignments, to Dexdale Hosiery Mills, Lansdale, Pa., a corporation of Pennsylvania

Application May 26, 1955, Serial No. 511,182
10 Claims. (Cl. 68—189)

1. A valve for use in circulating systems having pumping means, a supply line, a return line, and a flow channel having two terminal ends external of the pumping means through which fluid can be made to flow alternatively in either of two directions, said valve comprising a valve body having a chamber therein; said chamber having an opening adapted to lead to the supply line, a second opening adapted to lead to the return line, and a third opening adapted to couple said chamber in fluid flow relationship to the first terminal end of the flow channel; valving conduit means positioned in the chamber, said means having two end openings, one of said conduit openings being adapted to couple the conduit in fluid flow relationship to the second terminal end of the flow channel, and the second of said conduit openings being movable between two positions to alternatively register with the chamber openings leading to the supply line and the return line; and when said movable conduit opening



is in a position intermediate that which effects complete registry of the conduit opening with either of the chamber openings leading to the supply line and the return line, portions of said conduit opening simultaneously overlap portions of both of said chamber openings.

2,845,788

MANUFACTURE OF FURS

William Mitchell and Murray Mitchell, Brooklyn, N. Y., and Louis Nierenberg, Stamford, Conn.

Application October 18, 1955, Serial No. 541,127
2 Claims. (Cl. 69—22)



1. A fur piece having the appearance of having been manufactured from several small skins while in fact being manufactured from a minimum of large animal skins comprising a plurality of large animal sections cut appropriately and provided with slits, a folded tape section sewn into each slit with the folded line segment thereof sewn to a slit edge and with one tape edge sewn to the flesh area of the skin in a manner to convolute the fur at the fold line segment and with the other edge of said tape sewn in a non-convolute manner to the remaining edge of the slit, said large animal sections being sewn together to form said fur piece having the appearance of a plurality of separate pelts.

2,845,789

SLIDING WINDOW AND DOOR LOCK

Herman H. Kistner, Glen Ridge, N. J.

Application September 10, 1956, Serial No. 608,865
5 Claims. (Cl. 70—90)



1. A key operated sliding bolt lock for closures comprising a bolt rotatably and slidably mounted in a tubular casing to project therefrom at one end in locking position, said bolt having a transverse pin projecting from near its end remote from its bolting end and an intermediate shoulder between said pin and bolting end, and said casing having an inner shoulder at the bolting end and its opposite end being open to receive a key, a channel extending longitudinally in the side wall of said

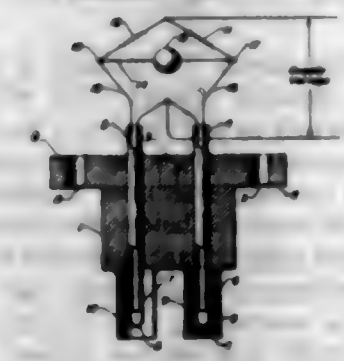
casing toward its key receiving end to receive said pin, said channel terminating at a lateral abutment remote from said key receiving end extending circumferentially and functioning as a bayonet slot, the wall of said slot on its side remote from said key receiving end having a notch at an intermediate point serving as a trap for said pin and the end of the wall of said slot remote from said channel having a notch extending axially towards said key receiving end and serving as a retaining means for preventing unlocking movement of said pin, a spring in said casing surrounding said bolt between the shoulder in the casing and the shoulder on said bolt, said spring pressing said bolt towards the key receiving end of said casing to retract it when said pin is in alinement with said channel.

2,845,790

ENTRAINED LIQUID DETECTOR

Lee R. Eddy, Evanston, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application June 2, 1954, Serial No. 433,916
1 Claim. (Cl. 73—29)



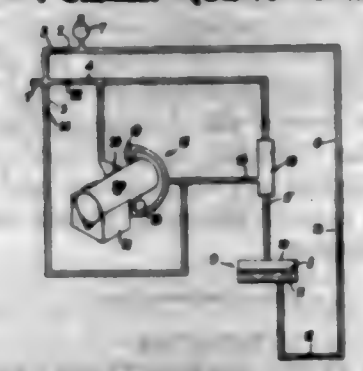
An apparatus for indicating entrained liquid in a gas stream which comprises a plug member adapted to be inserted in the gas stream, a pair of thin walled tubes extending through said member, a dry liquid-absorbing material chemically inert with respect to said liquid covering the exposed portion of one of said tubes and the exposed portion of the other tube being uncovered but shielded by a baffle from contact with liquid in said gas stream, identical temperature sensitive elements in said tubes, and temperature difference indicating means connected to and actuated by said temperature sensitive elements.

2,845,791

PNEUMATIC GAUGES

John Loxham and Frederick Robert Boosey, Letchworth, England, assignors to The Sigma Instrument Company Limited, Letchworth, England, a British company

Application October 27, 1955, Serial No. 543,188
Claims priority, application Great Britain December 30, 1954
4 Claims. (Cl. 73—37.5)



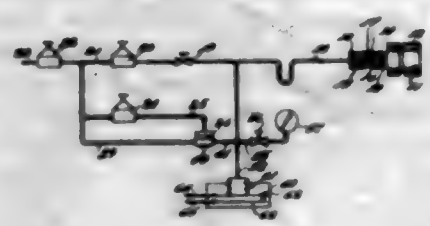
1. A pneumatic gauge for checking a dimension of a workpiece, the gauge having a gauging station and comprising a pressure indicating device including a visible indicator for indicating the pressure applied to the device, a gauging jet at the gauging station and providing an outflow which is varied by the workpiece being checked, an air supply pipe leading to said jet, a constriction in said pipe, a normally closed valve having an inlet and an outlet and including control means at least in part between and controlling the coupling of said inlet and said outlet, a first conduit connecting said inlet with a part of said pipe between the constriction and the jet, a second conduit connecting said outlet to said device, sensing means at the gauging station for determining the presence of a workpiece at the gauging station, means connecting said sensing means to said control means to open said valve with a workpiece placed at the gauging station whereby a gauging pressure is applied to said device and to close the valve with the workpiece removed from the gauging station whereby the position assumed by said visible indicator during gauging is retained until another workpiece is placed at the gauging station.

2,845,792

PNEUMATIC MEASURING APPARATUS

Robert G. Eisenhardt, Upper Darby, Pa., assignor to Moore Products Co., Philadelphia, Pa., a corporation of Pennsylvania

Application February 15, 1955, Serial No. 488,388
6 Claims. (Cl. 73—37.9)



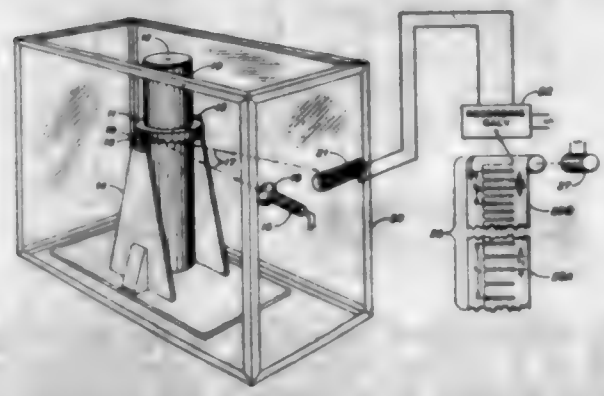
1. In measuring apparatus having a source of fluid under pressure, a fluid pressure regulator connected to said source, a gage member, a fluid connection between said fluid pressure regulator and said gage member, said gage member having a discharge opening controlled by a dimension of the work to be measured, flow limiting means interposed between said regulator and said gage member, a fluid pressure loaded valve connected to a source of fluid under pressure and having a delivery connection connected to the said fluid connection between said flow limiting means and said gage member for supplying pressure fluid to said fluid connection, and a pressure output connection connected to said first mentioned fluid connection.

2,845,793

APPARATUS FOR DETERMINING THE RATE OF SETTLING OF SUSPENSIONS

William T. Cardwell, Jr., Whittier, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

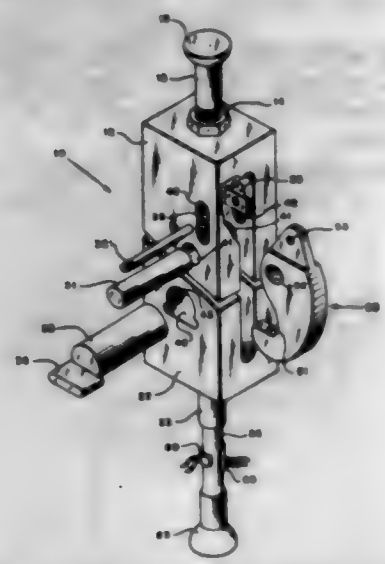
Application June 18, 1954, Serial No. 437,837
4 Claims. (Cl. 73—53)



1. Apparatus for measuring the rate of settling of an opaque suspension comprising an elongated tubular cup

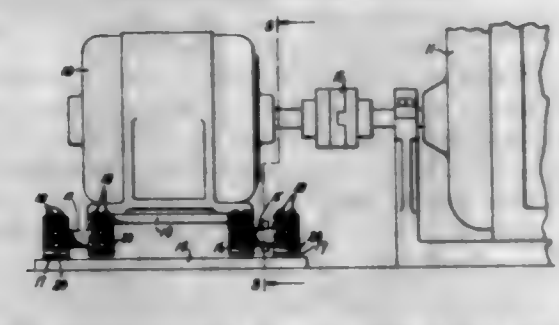
member, means for pivotally supporting said cup member for oscillation about a selected axis above its center of mass with a pair of pivot points transversely disposed with respect to the major axis of said cup member and a cap member for confining a body of said suspension of predeterminable volume within said cup member and means for measuring the period of oscillation of said body of said suspension in said cup member under different conditions for the distribution of the liquid and solid components of said opaque suspension.

2,845,794
MULTI-PURPOSE TEST FIXTURE ASSEMBLY
George M. Mazeffa, Chalfont, and Carl A. Damm, Upper Black Eddy, Pa.
Application September 29, 1955, Serial No. 537,595
5 Claims. (Cl. 73—88)
(Granted under Title 35, U. S. Code (1952), sec. 266)



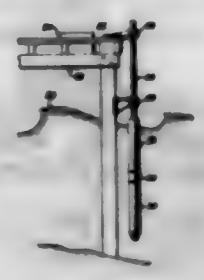
1. A self-aligning multi-purpose fixture assembly for loading of asymmetrical specimens, comprising first and second cooperating fixture members each attached to an elongated supporting means having an enlarged end portion with a spherical bearing face thereon for transmitting loads to said fixture members, readily removable attachment means engaging said first fixture member to fixedly secure a specimen thereto, readily removable specimen engaging means rotatably mounted within said second fixture member, and removable locking means mounted upon said second fixture member for engagement with said specimen engaging means for selectively restraining said specimen engaging means from rotation within said second fixture member.

2,845,795
DYNAMOMETER
Anson A. Emmerling, Albany, N. Y., assignor to General Electric Company, a corporation of New York
Application November 30, 1954, Serial No. 472,063
5 Claims. (Cl. 73—136)



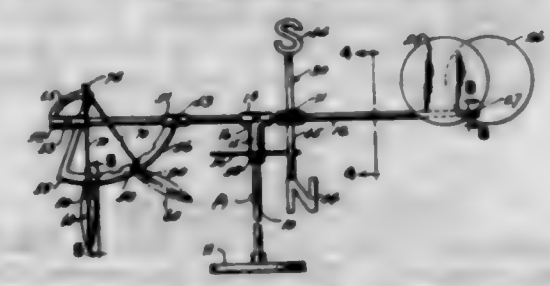
1. In a dynamometer for measuring the torque input or output of a rotating machine, the combination of a base and a plurality of substantially flat cantilever elements interposed between said base and the frame of said machine for allowing rotational movement of said frame, each of said cantilever elements having its major flexing surface extending in the direction of the axis of rotation whereby they are flexed in response to reactive torque, the points of attachment to the base and frame of each of said cantilever elements lying on a line parallel to the axis of rotation.

2,845,796
WAVE FORCE METER
Jack R. Morison, El Cerrito, Calif., assignor to The Regents of the University of California, Berkeley, Calif., a corporation
Application July 12, 1954, Serial No. 442,777
5 Claims. (Cl. 73—170)



1. A wave force meter comprising a moveable pile section mounted adjacent similar fixed pile sections, restraining bars attached to the fixed pile sections and connected to the moveable pile section for rigidly and elastically holding the moveable section, mounting means for positioning the pile sections below the surface of a body of water, and strain gage means mounted on the restraining bars for continuously measuring and recording the deformation of the restraining bars resulting from movement of the moveable pile section caused by the action of waves thereon.

2,845,797
WIND VELOCITY AND WIND DIRECTION INDICATOR
Earle F. Hiscock, Chatham, Mass.
Application September 26, 1955, Serial No. 536,705
9 Claims. (Cl. 73—189)

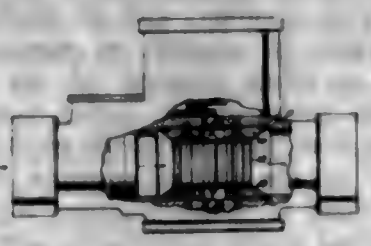


1. In a wind velocity indicator the combination of a supporting construction, a horizontally rotatable frame mounted upon the supporting construction, a pendulum, means supporting the pendulum for pivoted swinging upon said frame in a position to be actuated by wind pressure, vane means on the frame for positioning the frame so that the pendulum will be in the line of travel of the wind, and means for decreasing the contact area of said pendulum exposed to the wind in proportion to increased velocity of wind travel and to a degree greater than the normal decrease of said area due solely to pendulum swinging.

2,845,798
VORTEX FLOW THROTTLING DEVICE
Berthold A. Knauth, High Falls, N. Y.
Application September 13, 1956, Serial No. 609,708
5 Claims. (Cl. 73—230)

1. In a fluid flowmeter of the vortex-velocity type, a vortex cage mounted in a rigid casing and having substantial peripheral clearance, said vortex cage having at

least one open end, whereby shunt flow of fluid into said cage is established, and a filler plate mounted in said



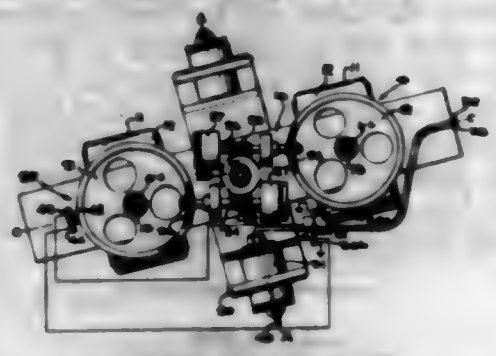
casing adjacent said open end and spaced therefrom to control the shunt flow of fluid into the interior of said cage.

2,845,799
RUGGED SENSITIVE HYDROMETER
Walter A. Emanuel, Charles M. Holstrom, and Kenneth O. Sweeney, Anaconda, Mont.
Application February 21, 1955, Serial No. 489,345
2 Claims. (Cl. 73—448)



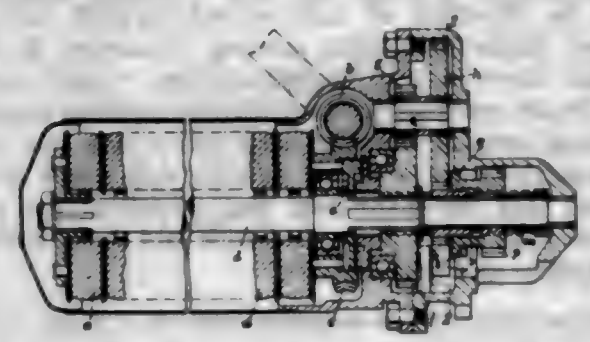
1. A rugged but sensitive hydrometer adapted to be left floating freely in a solution comprising a bulb portion of rugged construction, a stem gauge consisting of a thin solid rod of resilient plastic material extending upwardly from said bulb portion, and bands snugly embracing the outer surface of said stem for indicating the specific gravity of said solution, said bands being movable along said stem for the purpose of calibrating the hydrometer.

2,845,800
GYROSCOPE UNIT AND INTERLOCKING MEANS
Lawrence Holmes, Jr., San Bernardino, Calif.
Application March 23, 1953, Serial No. 344,031
9 Claims. (Cl. 74—5.34)



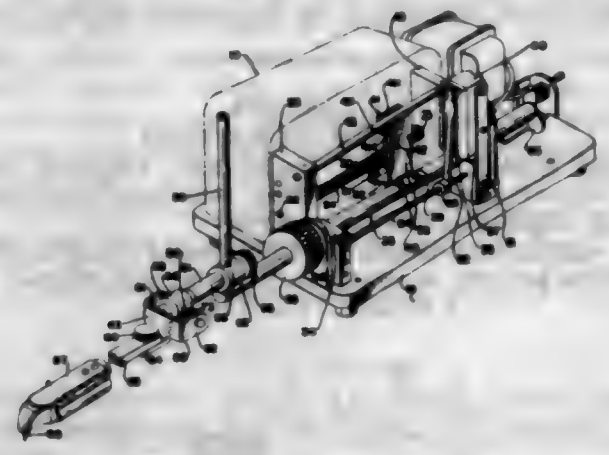
1. In a celestial gyroscopic platform: a gimbal member; a plurality of gimbal rings supporting said member; and at least three gyroscope units supported on said member so that their axes lie in different planes, each of said gyroscope units comprising a pair of gyrostats and interlocking means connecting said gyrostats, operating to allow precessional movement and inhibit drift movement of said gyrostats, said interlocking means comprising idler gear means, worm screws engaging said idler gear means, and means connecting said worm screws respectively with said gyrostats so that torque applied to said gyrostats will be transmitted to said worm screws.

2,845,801
ENGINE STARTING APPARATUS
Kenneth Albert Bridges, Iver Heath, England, assignor to C. A. V. Limited, London, England
Application May 14, 1956, Serial No. 584,785
Claims priority, application Great Britain May 25, 1955
2 Claims. (Cl. 74—6)



1. An engine starting apparatus comprising in combination a cylindrical elastic member, manually operable means connected to one end of said elastic member for torsionally straining the latter to cause energy to be stored therein, transmission means connected to the other end of said elastic member for imparting the energy stored therein to the engine, a catch engageable with said transmission means for controlling the action thereof, a hand lever, and a spring-loaded toggle member through the medium of which said catch is operable by said hand lever, said transmission means including an internally screw threaded axially and rotationally movable pinion for engagement with the engine, and a complementary screw threaded member on which said pinion is mounted, and which is rotatable by said manually operable means through the medium of said elastic member, when said catch is in an inoperative position, to cause axial movement of said pinion into its engine-engaging position, said catch being subsequently movable into an operative position for holding said complementary screw threaded member stationary whilst energy is being stored in said elastic member, and being returnable to an inoperative position for enabling the stored energy to be imparted to the engine.

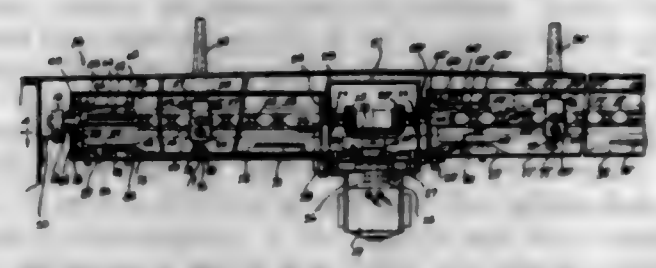
2,845,802
DRIVE MECHANISM
Arling Dix Brown, Jr., East Cleveland, and Leo F. Valenti, Garfield Heights, Ohio, assignors to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application February 1, 1954, Serial No. 407,518
13 Claims. (Cl. 74—57)



1. In a drive mechanism for converting reversible rotary motion into reciprocatory movement, the combination of a pair of spaced supports, a rotary screw extending between said supports and supported for rotation therein, a follower comprising a substantially wedge-

shaped single-thread nut threadedly engaging said screw to be displaced lengthwise along the screw in response to rotation of the screw, said screw carrying at one end a thrust collar abutting against a first one of said supports, a driven member mounted substantially parallel to said rotary screw and connected to said follower to be displaced longitudinally upon rotation of the screw, said driven member in one direction of rotation of the screw exerting an end thrust on said screw to force said thrust collar against said first support, said driven member in the opposite direction of rotation of the screw exerting an end thrust on the screw tending to displace it in the direction of said second support, said wedge-shaped single-thread nut moving transverse to the axis of said screw due to non-parallelism of said screw and said driven member without thereby causing relative longitudinal motion between said screw and said follower and resilient means acting against said screw and overcoming said last-mentioned end thrust on the screw to maintain the screw positioned with said thrust collar abutting against said first support.

2,845,863
WINDSHIELD WIPER
Bernard M. Price, Marmet, W. Va.
Application July 5, 1957, Serial No. 670,119
5 Claims. (Cl. 74—57)



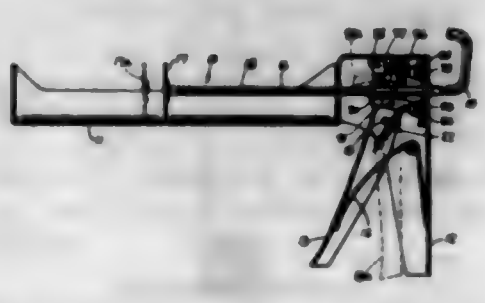
1. In a windshield wiper, a support, a drive screw journaled horizontally in said support, said screw having a continuous thread comprising crossed forward and reverse helical groove portions connected at their ends by reversing grooves, a carriage member engaging said drive screw, a windshield wiper shaft journaled in said carriage member, a horizontal rack bar movably mounted adjacent the end of the drive screw, a pinion gear on said wiper shaft at times meshingly engageable with said rack bar, whereby to oscillate said shaft when the carriage member moves toward and returns from said end of the drive screw, a drive motor coupled to said screw, a source of current, circuit means connecting said drive motor to said source of current and including first, second and third parallel-connected switches, manually operated means controlling said first switch, means on the rack bar controlling said second switch, means on the carriage member controlling said third switch, and manually operated means controlling the movement of said rack bar.

2,845,894
SERVOMECHANISM
Donald Rudolf Lambert, Carshalton, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company
Application March 16, 1956, Serial No. 572,147
Claims priority, application Great Britain May 4, 1955
1 Claim. (Cl. 74—110)



A servomechanism comprising a reciprocable driving member, a motion-transmitter pivoted on the driving member for movement therewith, a spring urging the motion transmitter about its pivot to an inactive position thereof in which it is arrested by an abutment carried by the driving member, and an electro-magnet the armature of which is adapted on energization of the electro-magnet to effect rotation of the motion-transmitter about its pivot to the active position thereof, characterized in that the armature is pivoted to the electro-magnet and in the starting portion of the driving member is retained in active relation with the electro-magnet by a second spring co-operating with the armature and engaged by the driving member to locate an end portion of the armature in a notch formed in the motion-transmitter, the arrangement being such that the armature is retained in its active position and effects rotation of the motion-transmitter if the electro-magnet is energized when the driving member is moved from its starting position but is rocked about its pivot by the motion-transmitter if the electro-magnet is not energized when the driving member is moved from its starting position.

2,845,895
DUPLEX RATCHET MECHANISM FOR CALK GUNS
Samuel Crews, East Cleveland, Ohio
Application September 18, 1957, Serial No. 684,661
4 Claims. (Cl. 74—169)

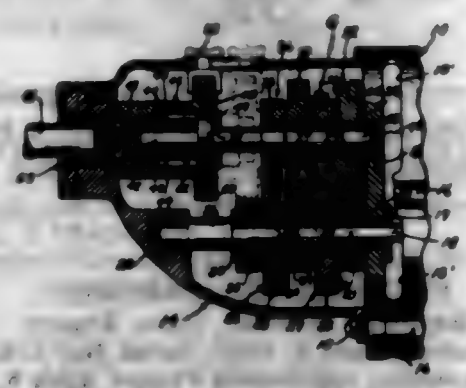


4. A duplex ratchet mechanism for calk guns of the character described, comprising in combination, a supporting frame, including a handle; a piston rod mounted in the frame to reciprocate therein, said rod having a row of ratchet teeth extending the length thereof, the said rod being rotatable between a first position wherein the teeth are faced downward and a second position wherein the teeth are faced upward; an operating lever pivoted to the handle; a first pawl member mounted on the operating lever below the piston rod and adapted to engage the ratchet teeth thereof when the rod is in its first position; a second pawl member mounted on the operating lever above the piston rod and adapted to engage the ratchet teeth thereof when the rod is in its second position, the several pawls, so alternately engaged acting to move the piston rod for creating pressure within the gun when the operating lever is pivoted against the handle; the pressure so created, per stroke of the operating lever, being greater when the piston rod is in its first position than when it is in its second position; and means engageable with the ratchet teeth when the piston rod is in either its first or second position to hold same against retrogressive movement.

2,845,896
TWO SPEED DRILL
Vance V. Miller, Milwaukee, Wis.
Application August 19, 1955, Serial No. 529,485
1 Claim. (Cl. 74—343)

A portable electric hand drill comprising a main casing housing an electric motor therein, a handle adjacent one end of said casing, a driven armature shaft on said motor extending through said main casing and projecting outwardly on the opposite end from said handle, a relatively small auxiliary casing about said armature shaft

and carrying a bearing for the extreme outer end of said armature shaft, said small casing being detachably secured to said main casing, a chuck shaft rotatably mounted in said auxiliary casing and extending longitudinally with said driven armature shaft, said chuck shaft being formed in two sections to provide an inner shaft section entirely within said small casing and an outer shaft section projecting outwardly from said small casing, each section being individually rotatable with respect to one another, a series of compound gears arrangement on said

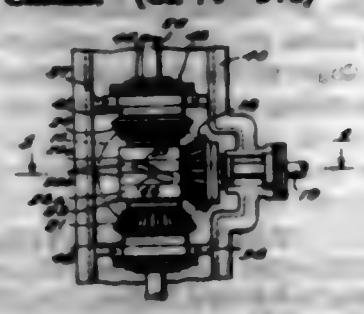


driven shaft and said inner chuck shaft section in constant mesh and providing one speed of rotation to the inner shaft section, a sliding clutch gear keyed to the otuer shaft section and adapted in one position to lock the two sections of said chuck shaft in direct drive, and means for sliding said clutch gear to another position to disconnect the two sections and to drive the clutch gear in another reduced speed, whereby the outer chuck shaft section may be selectively driven at two different speeds of rotation.

2,845,897
REVERSING DRIVE

Charles A. Harless, Riverside, Conn., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York

Application August 10, 1953, Serial No. 373,125
9 Claims. (Cl. 74—378)



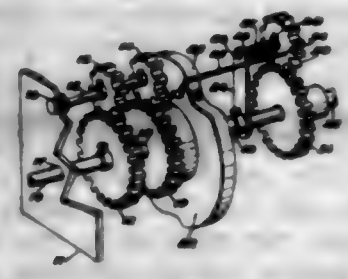
1. A reversible printing press unit drive comprising, in combination, a bevel driven gear and horizontal shaft driven thereby, a vertical drive shaft, a pair of bearings supporting said vertical shaft and located respectively above and below the said gear, upper and lower bevel gears surrounding the vertical shaft and meshing with the first said bevel gear, bearings supporting the said upper and lower bevel gears independently of the vertical shaft, and a clutch assembly carried by said vertical shaft intermediate the upper and lower bevel gears and comprising means movable lengthwise of the said vertical shaft for coupling the said vertical shaft selectively to either of the said pair of gears.

2,845,898
ERROR CORRECTION DEVICE

Harris A. Stover, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application September 20, 1957, Serial No. 685,114
7 Claims. (Cl. 74—394)

7. A motion-converting device comprising, an input shaft and an output shaft, a first gear mounted concentrically with an rigidly on said input shaft, a 360-degree radial cam mounted coaxially with and concentrically about said input shaft and rotatably supported thereby, a cam drive gear rigidly affixed to said cam and mounted coaxially with and concentrically about said input shaft and rotatably supported thereby, gearing means operably connected between said first gear and said cam drive gear such that a gear ratio of $n:n\pm m$ is formed between said input shaft and said cam, where n is a predetermined number of revolutions of said input shaft and m is an integer not equal to n, an arm member rigidly affixed to and extending radially from said input shaft, an output drive gear mounted coaxially with and rotatably supported by

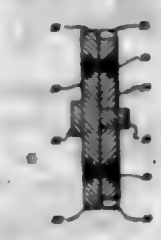


said input shaft, a positioning gear peripherally engaged with said output drive gear, said positioning gear rotatably mounted on said arm member, means for spring loading said positioning gear with respect to the surface of said cam, a pin member having one end rigidly affixed to said positioning gear at a point radially displaced from the rotational axis thereof, said pin member extending transversely from said positioning gear and having the other end in peripheral engagement with said cam, and mechanical connecting means between said output shaft and said output drive gear, whereby during n revolutions of said input shaft said cam makes m revolutions with respect to said pin member.

2,845,899
PRE-LOADED GEAR

George F. Hetzel, San Diego, Calif., assignor to The Regents of The University of California, Berkeley, Calif., a corporation of California

Application February 17, 1955, Serial No. 488,787
2 Claims. (Cl. 74—440)



1. A pre-loaded gear assembly comprising a first flat gear having a central hub on one face thereof, a second flat gear journalled on said hub in face-abutting relation to said first gear, aligned openings extending completely through said gears and generally parallel to the axis of said gears outwardly of said hub, a body of elastically deformable material filling said aligned openings, said body of material serving to yieldably hold said gears in predetermined angular relationship with their teeth out of axial alignment and having enlargements on opposite sides of said assembly serving as the sole means holding said gears in face-to-face relation.

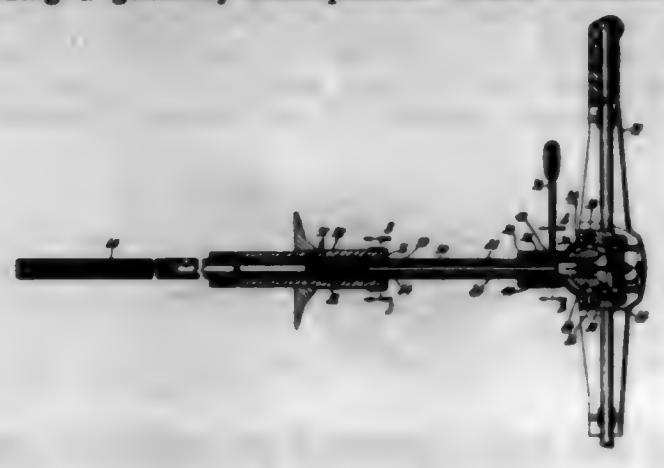
2,845,910
STEERING WHEEL

Frederick W. Sampson, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 15, 1954, Serial No. 475,392
3 Claims. (Cl. 74—493)

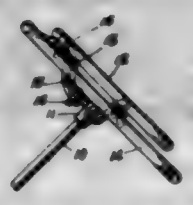
1. An adjustable steering wheel assembly comprising in combination; a steering column having a generally spherically shaped end portion fixedly attached thereon a

peripheral track in the outer surface of said end portion, said track being parallel to the axis of the column, a steering wheel having a hub portion adapted to fit over said spherical portion and including a lug thereon which is adapted to ride in said track whereby the wheel is non-rotatable and tiltable with respect to the steering column, a locking device mounted on said steering column and including a generally hemispherical socket member at



one end thereof adjacent said wheel, said locking means being movable from a position remote from said wheel to a position wherein said socket engages at least a portion of said wheel and embraces coextensively a portion of said spherically shaped end portion of the steering column, said locking means in the remote position being ineffective to prevent tilting of the wheel and in the other position being effective to prevent tilting of the wheel with respect to said steering column.

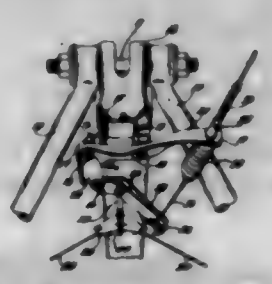
2,845,811
LARGER STEERING WHEEL ATTACHMENT
Paul W. Cook, Adrian, Minn.
Application November 9, 1955, Serial No. 545,896
3 Claims. (Cl. 74—494)



1. A larger steering wheel attachment for steering wheels of tractors or the like comprising a ring shaped rod of greater diameter than the steering wheel, and means for mounting said ring shaped rod below the conventional steering wheel, comprising a plurality of equiangularly spaced spokes fixedly carried by said ring shaped rod and extending inwardly thereof to terminate at their ends in freely spaced relationship to each other and to the steering wheel hub, said spokes being adapted to underlie and be connected to the conventional steering wheel spokes, and means connecting the spokes of said ring shaped rod to the conventional steering wheel spokes.

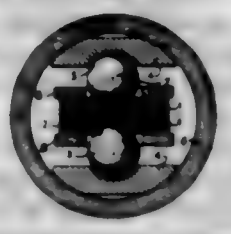
2,845,812
HAND BRAKE CABLE ASSEMBLY
Edmund J. Pobar, Kenosha, Wis., assignor to American Motors Corporation, a corporation of Maryland
Application January 26, 1953, Serial No. 333,274
3 Claims. (Cl. 74—501)

1. For use with an automotive vehicle having a generally rigid support member, a braking apparatus comprising: a bracket secured to the support member and having an apertured end projecting laterally therefrom; a cable actuating lever having pivotal connection with one end of the bracket; an equalizer having pivotal connection with the lever; a cable for actuating the lever and being connected thereto at the end remote from the end which is connected to the bracket; an insulated support for the cable including a rigid sleeve mounted in the aperture of the laterally projecting bracket end, said cable passing through the sleeve and being guided thereby for rectilinear



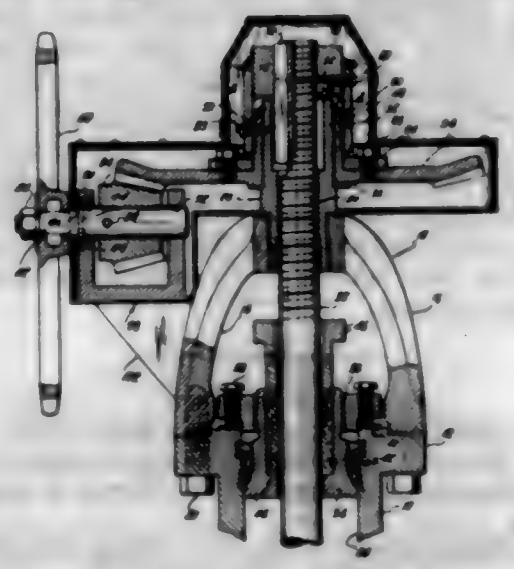
movement relative thereto; a resilient grommet telescopically mounted exteriorly of the sleeve and in the bracket aperture for insulating the bracket from the sleeve.

2,845,813
FLEXIBLE TRANSMISSION
Raymond Richoux, Paris, France
Application April 5, 1956, Serial No. 576,417
Claims priority, application France April 8, 1955
3 Claims. (Cl. 74—501)



1. A flexible tubular remote control device comprising in combination, a sheath, two flat guides parallely extending throughout said sheath in fixed relationship therewith, a longitudinal groove along the middle of the inner face of each one of said guides, a flat core made of two flat strips juxtaposed in said sheath in parallel relationship with said guides, a longitudinal groove along the middle of the outer face of each one of said strips, rolling bodies of uniform diameter arranged in said grooves in rolling engagement with said strips and said guides and cage means to limit relative displacements between the rolling bodies located on each side of said core.

2,845,814
VALVE OPERATOR
Bertram J. Milleville, Homewood, Ill., assignor, by mesne assignments, to Edward Valves, Inc., East Chicago, Ind., a corporation of Delaware
Application October 19, 1955, Serial No. 541,394
3 Claims. (Cl. 74—589)



1. In a valve having a yoke and a stem threaded into a relatively stationary bushing mounted in said yoke and projecting above said bushing, said bushing hav-

ing a substantially cylindrical section extending above said yoke; a drive gear having an elongated hub journalled on said cylindrical section of said bushing; means fixing said hub against movement axially of said bushing; a sleeve rigid with said drive gear and extending upwardly to a point adjacent the projecting end of said valve stem; means fixing said sleeve and said stem against relative rotation while permitting axial movement of said stem through said sleeve; and a handwheel operated pinion mounted on said yoke in meshing engagement with said drive gear.

2,845,815

ACCELERATOR THROTTLE CONTROL

Raymond V. Koehler and Michael Batenburg, Kenosha, Wis., assignors to American Motors Corporation, a corporation of Maryland

Application November 30, 1953, Serial No. 395,012
4 Claims. (Cl. 74—513)



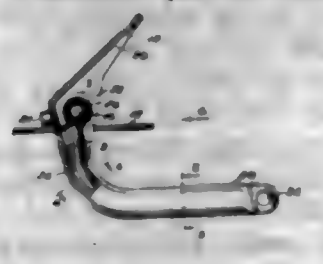
1. For use with an automotive vehicle having an engine compartment, a passenger compartment, a panel separating said compartments and a carburetor with a throttle valve incorporated therein, apparatus for controlling operation of the throttle valve comprising: an accelerator shaft having one end connected to the throttle valve; a bearing for rotatively supporting the other end of the accelerator shaft; a bracket anchored to the panel and carrying the bearing; a second bracket anchored to the panel beneath the first mentioned bracket; a pedal located in the passenger compartment; an actuating rod extending through the panel and having one end engaged by the pedal and the other end doubled back to form an acute angle, said second bracket rotatably carrying the end of the actuating rod remote from the end which is engaged by the pedal; an arm fixed to the accelerator shaft and extending outwardly therefrom; a link having connection to said arm and to the actuating rod whereby movement of the accelerator pedal effects rotation of the accelerator shaft.

2,845,816

LEVER STRUCTURE

Axel V. Brogren, Detroit, Mich., assignor to Parsons Corporation, Detroit, Mich., a corporation of Michigan

Application November 15, 1954, Serial No. 468,801
4 Claims. (Cl. 74—519)



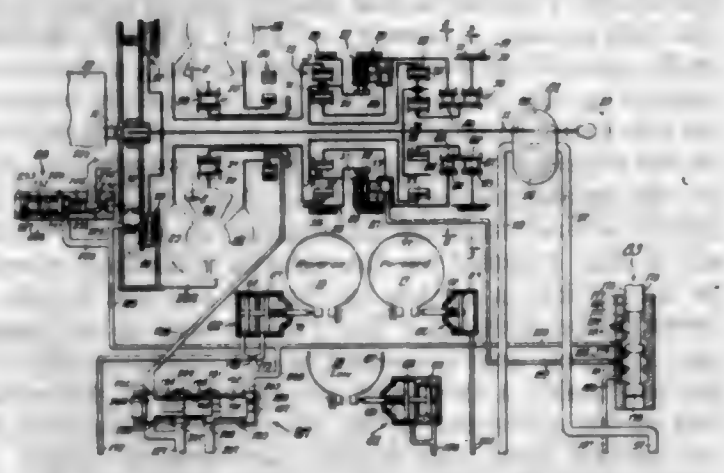
2. A bell crank lever formed of two sheet metal pieces, one sheet metal piece being bent into a generally U shape and constituting the outer part of the bell crank lever and having one arm of the U shape wherein the sheet metal is bent into a generally channel shape in cross section and having the other arm of the U shape wherein the sheet metal is folded upon itself into a generally tubular shape in cross section, said channel-shaped arm and said tubular-shaped arm each extending into the base of the U and merging into each other within the base of the U, the two side walls of the channel shape provided with aligned pivot pin bushing apertures, said other sheet metal piece being in the form of a strip bent transversely upon itself intermediate its ends forming a transversely extending cylindrical pivot pin bushing receiving bearing portion and having its ends brought into juxtaposition and rolled longitudinally upon themselves into a generally tubular shape forming a tubular arm projecting radially away from the pivot pin bushing receiving portion, said other piece so shaped constituting an inner part of the bell crank lever and received within the base of the outer part of the bell crank lever with the cylindrical pivot pin bushing receiving portion of the inner part disposed within and between the side walls of the channel-shaped arm of the outer part and with the cylindrical bushing receiving portion aligned with the apertures through the side walls of the outer part and with the tubular arm of the inner part extending through and nested within the base of the outer part and projecting into the tubular arm of the outer part, and a pivot pin bushing bearing disposed within the pivot pin bushing bearing receiving portion of the inner part and projecting beyond the ends thereof into the apertures through the side walls of the outer part, the seam of the tubular arm portion of the inner part being disposed substantially 180° opposite from the seam of the tubular arm of the outer part.

2,845,817

TRANSMISSION CONTROLS

John B. Polomski, Detroit, Mich., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application January 12, 1955, Serial No. 481,363
18 Claims. (Cl. 74—645)



1. In a transmission for an engine driven vehicle, the combination of a drive shaft, a driven shaft, a hydrodynamic coupling device driven by said drive shaft, means for providing a power train between said hydrodynamic device and said driven shaft and including a fluid pressure operated friction engaging device for completing the power train when engaged, a source of fluid pressure, a manually operated selector valve having a neutral position wherein no pressure is connected to said friction engaging device and having a drive position for connecting said pressure source with said friction engaging device, means under the control of said selector valve for causing the pressure of said source to be at an ultimate relatively high predetermined pressure to engage said friction device for completing a vehicle driving power train between said shafts when said selector valve is in its drive position, and means under the control of said selector valve for causing said source to be at a relatively

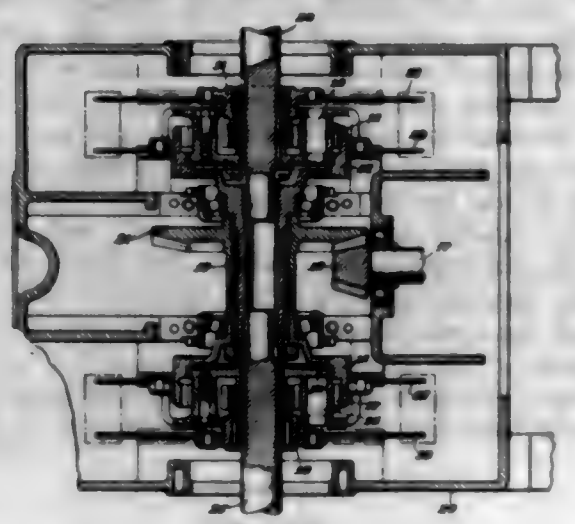
low predetermined pressure at the neutral position of said selector valve so that the initial application of pressure to said friction device when said valve is shifted from its neutral position to its drive position is at said relatively low predetermined pressure at which a soft engagement of said friction device is obtained sufficient for holding the engaging parts of said friction device from relative motion at idling condition of the vehicle engine during which said hydrodynamic coupling device slips.

2,845,818

STEERING APPARATUS FOR MOTOR VEHICLES

William A. Siljander, Oak Park, Ill., assignor to International Harvester Company, Chicago, Ill., a corporation of New Jersey

Application June 7, 1957, Serial No. 664,361
8 Claims. (Cl. 74—716.5)



1. In a vehicle having an engine and a pair of axle sections arranged in end to end spaced relation and a carrier disposed between the axle sections and propelling means on the other ends of the axle sections and steering apparatus between the carrier and each axle section, each steering apparatus comprising a gear fixedly secured to the carrier, a second carrier fixedly secured to the respective axle section, a plurality of gears rotatably mounted on the second carrier, a first brake including a disc fixedly secured to the second carrier and means for engaging the disc mounted on the vehicle, a gear rotatably mounted on the respective axle section and meshing with the gears on the second carrier, a second brake including a disc fixedly secured to the gear mounted on the axle section and a disc mounted on the vehicle, a housing mounted on the vehicle, a torsion bar having one end fixedly secured to the housing, a first arm secured to the torsion bar, a second arm connected to the engaging means on the first brake, a lever pivotally mounted on the vehicle, and means connected to the lever and engaging the first and second arms, the torsion bar normally urging the shoe against the disc of the second brake and the first brake being released and movement of the lever causing the second brake to be released and the first brake to be engaged.

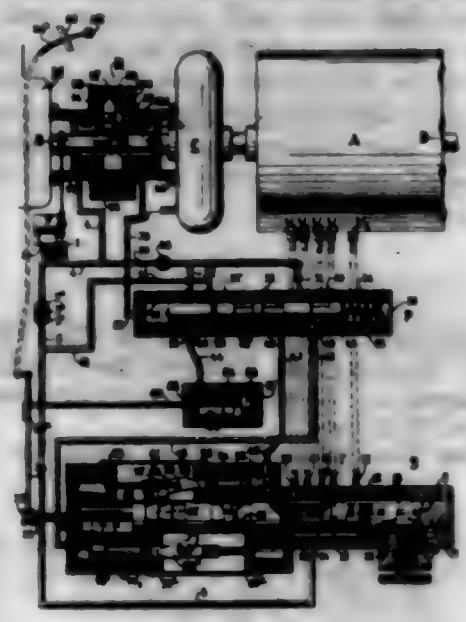
2,845,819

AUTOMATIC CONTROL DEVICE FOR A GEAR BOX

Roland Laburte, Nancy, France, assignor to Compagnie de Pont-A-Mousson, Nancy, France, a corporation of France

Application May 15, 1956, Serial No. 584,961
Claims priority, application France May 16, 1955
12 Claims. (Cl. 74—754)

1. In a control device using fluid under pressure for controlling a gear box, in combination: a selector acting as a distribtuor for distributing said fluid to the gear box, this selector being provided with a movable distributor member; three single-acting servomotors for moving said movable member of the selector; and a pilot device for controlling the operation of said servomotors, two of these servomotors having such travel that they move said movable member in opposite directions by stages,



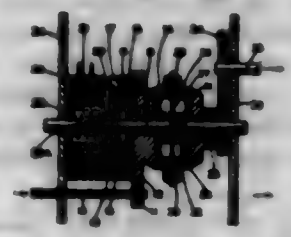
each stage of movement corresponding to changing from one speed to the next of the gear box, and the third servomotor having such travel that it moves the movable member through at least two stages in one go in a direction for changing down the speeds.

2,845,830

REVERSIBLE DRIVE

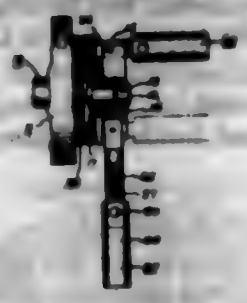
Arling Dix Brown, Jr., East Cleveland, and Leo F. Valenti, Garfield Heights, Ohio, assignors to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio

Application October 7, 1953, Serial No. 384,632
7 Claims. (Cl. 74—780)



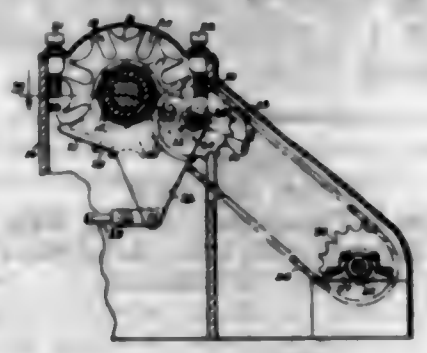
1. A reversible drive, comprising a rotatable shaft, a rotary driving bevel gear mounted rotatably on said shaft coaxial therewith and extending around the shaft, a cross pin carried by said shaft perpendicular thereto and projecting on opposite sides thereof, a pair of coupling bevel gears carried by said cross pin on opposite sides of the shaft to revolve bodily with said cross pin about the axis of the shaft when the shaft rotates, each of said coupling bevel gears being rotatable about said cross pin, a rotary driven bevel gear mounted rotatably on said shaft coaxial therewith and extending around the shaft, both of said coupling bevel gears meshing with both said driving and driven bevel gears, and selective means, including a clutch acting between said driving gear and said shaft, operable to couple said driving gear to said shaft to rotate said shaft in the same direction as said driving gear and cause said coupling gears to revolve about the axis of said shaft in unison with the rotating driving gear to form direct couplings from said driving gear to said driven gear to rotate the driven gear in the same direction as the driving gear or alternatively to decouple said shaft from said driving gear and hold said shaft against rotation to render said cross pin stationary while said coupling gears are rotated about the cross pin by the driving gear to impart a drive from the driving gear to the driven gear which rotates the driven gear in the reverse direction from the direction of rotation of the driving gear.

2,845,821
SWITCH OPERATING MECHANISM
Emil J. De Neyers, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application May 29, 1957, Serial No. 662,462
6 Claims. (Cl. 74—804)



2. A switch operating mechanism comprising an operating shaft, disc-shaped cam means, means on said shaft imparting an eccentric movement to said cam means upon rotation of said shaft, pin means on said cam means, fixed annular plate means having internal crenelations cooperating with said pin means to effect angular displacement of said cam means upon angular displacement of said shaft, hub means on said shaft, handle means pivotally mounted in said hub means, and projections on said handle means arranged to engage notches in said cam means to inhibit rotation of said shaft when said handles are pivoted to positions parallel to said shaft.

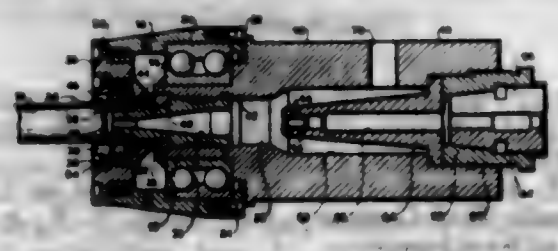
2,845,822
INDEXING MECHANISM
Stephen Bodlam, Rosslyn Farms, Pa., assignor to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application November 5, 1953, Serial No. 390,371
9 Claims. (Cl. 74—820)



1. Mechanism for indexing a work blank comprising a rotatable work blank holder, a shaft for driving said holder, a sleeve on said shaft for rotating the same, a Geneva driven wheel mounted on said sleeve for rotating the latter, a driving wheel operatively connected to said driven wheel, means for driving said driving wheel, and a carrier for said driving wheel rotatably mounted on said sleeve and movable through a predetermined angle to move said driven and driving wheels as a unit through a predetermined angle.

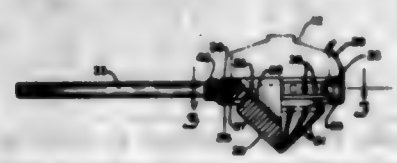
2,845,823
SUPPLY DEVICE FOR COOLING AGENT IN BORING MACHINES
Ragnar Leonard Carlstedt, Hagersten, Sweden, assignor to DHB Corp., New York, N. Y., a corporation of New York
Application October 12, 1954, Serial No. 461,887
Claims priority, application Sweden October 15, 1953
4 Claims. (Cl. 77—55)

1. In a boring machine; a casing having a passage therethrough adapted for reciprocably receiving an elongated boring tool, means rotatably mounted on one end of the casing for clamping engagement with the end of a workpiece to be bored by the boring tool, an inlet in the casing for introducing cooling fluid substantially radially into the passage through the casing at high velocity and under high pressure, and means for preventing the said fluid from impinging directly against the boring tool, said means comprising a tapering baffle member mounted



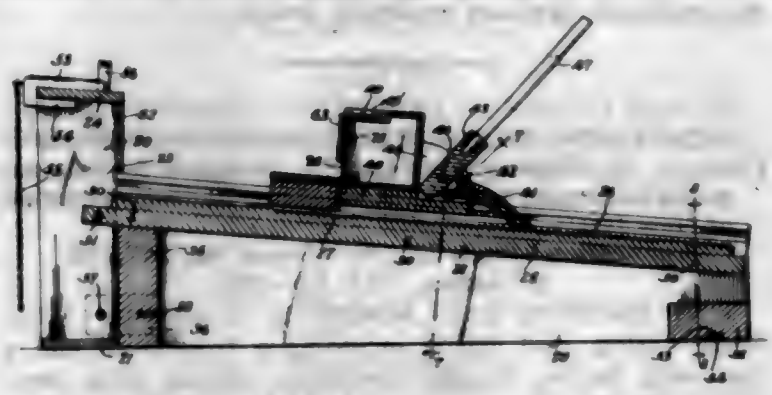
in said casing and having its larger end in sealing engagement with the casing at the side of the inlet therein opposite the workpiece and having sealing means at the smaller end adapted for sealingly engaging the boring tool between the said inlet and workpiece.

2,845,824
TUBE REAMING TOOL
Frank R. Wilson, Memphis, Tenn.
Application January 5, 1954, Serial No. 402,301
3 Claims. (Cl. 77—73)



1. An adapter for a flaring cone of a tube flaring tool for removing burrs from the ends of tubing comprising a body portion having a conical reamer at one end thereof, a wall defining a conical recess at the other end of the body portion adapted to receive and to engage the flaring cone, means including an annular flange portion rotatably supporting said body portion for at least partial rotation relative thereto and adapted for removably attaching said body portion to the flaring cone, and means for rotating the body portion as it is forced into the end of a tube by the flaring cone.

2,845,825
BIT DRESSING DEVICE
Bernice L. Bessinger, Scottsville, Ky.
Application August 18, 1955, Serial No. 529,138
1 Claim. (Cl. 78—5)



In an anvil for a bit dressing machine which includes a base and an upright standard secured on said base, said anvil comprising a horizontal anvil plate mounted on the upper end of said standard, a bit receiving bar having a recess in the upper surface thereof in which one end of a drill bit being dressed, rests, an arm formed integral with said bit receiving bar disposed in parallel relation with the base of said bit receiving bar adapted to clamp over the edge of said anvil plate, a rack bar having one of its ends secured to said standard, a bit supporting member slidable along said rack bar, means for effecting movement of said bit supporting member along said rack bar, and said bit supporting member having a recess in

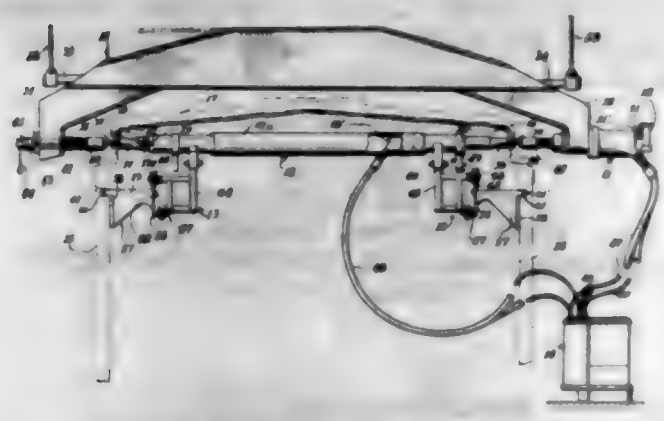
its upper surface and closed at one end providing a shoulder, in which a drill bit rests, said drill bit engaging said shoulder locking the drill bit against movement longitudinally of the base during the dressing operation.

2,845,826

RIVETING MACHINE FOR SIMULTANEOUSLY DRIVING RIVETS IN OPPOSITE SIDES OF CAR OR OTHER LIKE CONSTRUCTIONS

George T. Harcourt, Utica, N. Y., assignor to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey

Application August 22, 1951, Serial No. 243,126
2 Claims. (Cl. 78—49)



1. A hydraulic riveter adapted to rivet a box car roof to the side wall portions, comprising a supporting yoke adapted to be suspended over the car roof and to span the width thereof, said yoke having a depending supporting arm at each end thereof, a rivet engaging member mounted upon each supporting arm, a quick release mechanism carried by one supporting arm and associated with the one rivet engaging member thereon and operable to bring the rivet engaging members into engagement with heads of rivets at the opposite sides of the car, a bucking bar having a hydraulic pressure upsetting device to extend the bucking bar, a rivet working member on each end of the bar and actionable upon the rivets when the bar is extended to upset them, a tramway system adapted to be supported upon the interior of the box car, said bucking bar carried by said tramway system, hydraulic pressure generating means for supplying fluid to the hydraulic pressure upsetting device of the bucking bar and control means responsive to the operation of the quick release mechanism to condition the generating means for use with the hydraulic pressure upsetting device.

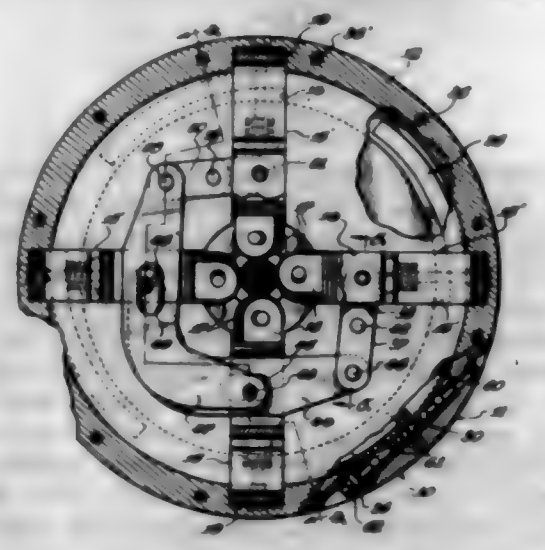
2,845,827

CENTERING GUIDE FOR MACHINING HEAD

Clarence H. Brauer, Chicago, Ill., assignor to International Harvester Company, Chicago, Ill., a corporation of New Jersey

Application March 22, 1957, Serial No. 647,775
2 Claims. (Cl. 82—20)

1. A machining head comprising a rotatable cylindrical casing, said casing including a front wall and a rear wall having aligned openings, cutting tools positioned adjacent the openings of said front wall to engage a work piece fed through said openings, said casing including radially extending guide grooves disposed in approximately 90° relation, a roller holder reciprocally positioned in each guide groove, a roller connected to an inner end of each holder, each holder having a recess adjacent its other end, a spring retainer disposed in said recess, said holder and said retainer having limited relative longitudinal movement, each retainer having a cam recess, a cylindrical cam member rotatably positioned on said housing, a plurality of cams rotatable with said cam member, each cam engaging one of said cam recesses, a spring element on said retainer normally urging said holders toward said openings, means for rotating said cam member relative to said holders whereupon said holders may be moved inwardly and outwardly relative to said openings, means for synchronizing the movement of said holders comprising a first link pivotally connected to said casing and having one end pivotally connected to a first holder, a first L-shaped arm having one end pivotally connected to the other end of said link and the other end of the L-shaped arm pivotally connected to a second holder positioned in opposed re-



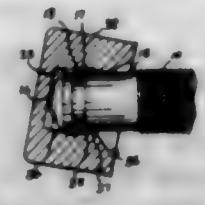
lation to said first holder, a second link pivotally connected to said casing, said second link having one end pivotally connected to a third holder, a second L-shaped arm having one end pivotally connected to the other end of said second link, and means pivotally connecting the other end of said second L-shaped arm to a fourth holder disposed opposite said third holder, whereupon movement of one holder in one groove in response to engagement with a workpiece results in similar movement of an opposed holder.

2,845,828

WORK HOLDER

Eugene J. Thomeczek, Dayton, Ohio

Application December 30, 1954, Serial No. 478,827
1 Claim. (Cl. 82—31)



A work holder including, a mounting means, a shaft threadedly engaged through said mounting means, said shaft having an axially extended portion uniformly reduced in external dimension below the periphery of the shaft and of the shaft adjacent and spaced inwardly of one end and forming an annular slot with a bottom wall parallel to the shaft axis and straight side walls radially extending, said one end of said shaft having a hemispherical extremity, a cap having a bore receiving said one end of said shaft, said bore having a bottom engaging said hemispherical extremity and a skirt encircling said end of the shaft including the uniformly reduced portion, the outermost surface of the closed end of said cap providing a work engaging surface and the opposite end of said cap having the bore beveled and flaring outwardly, the interior peripheral wall of the bore of said cap being concentric with and spaced outwardly from said shaft, the bore of said cap having an axially expanded obtuse V-shaped recess in its inner wall the ends of which are formed by two angularly disposed planar surfaces, said V-shaped recess overlying said reduced

portion of said shaft and a normally expanded resilient ring member about said uniformly reduced portion of said shaft seated in said reduced portion and such V-shaped recessed portion and longitudinally contained within the axial limits thereof, said ring member being biased within said recess in the inner wall of said cap to retain said cap to said shaft yet afford a high degree of adjustment of said cap relative said shaft, enabling a wide range of selective positioning thereof for application to and positioning of a work piece.

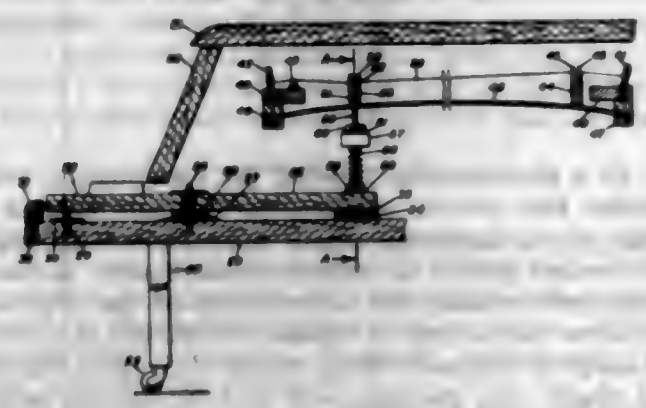
2,845,829

KEY ACTION FOR MUSICAL INSTRUMENT

Benjamin F. Miessner, Harding Township, Morris County, N. J., assignor to Miessner Inventions, Inc., Harding Township, Morris County, N. J., a corporation of New Jersey

Continuation of application Serial No. 188,106, October 3, 1950. This application October 28, 1954, Serial No. 465,556

6 Claims. (Cl. 84—258)



1. In a musical instrument, the combination of a vibrator, means normally deflecting the vibrator from its vibrational-mean position, a playing key, and means effective upon actuation of the playing key for moving said deflecting means away from its vibrator-deflecting position, said deflecting means comprising a member formed into a loop circumscribing the vibrator, a resilient pad within the loop and an opening in said pad, said opening being sufficiently large to accommodate the vibrator but the entrance thereto being smaller than the dimension of the vibrator transverse to the direction of movement of the deflecting means.

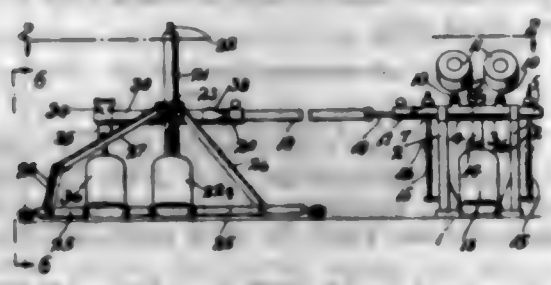
2,845,830

DOUBLE DRUM BEATING APPARATUS

Horace N. Howland, Holland, Mich.

Application February 7, 1955, Serial No. 486,351

4 Claims. (Cl. 84—422)



1. A support, two aligned sleeves independently rotatably mounted on said support, a drum beater on each sleeve movable with rotation of said sleeves from inoperative to drum beating operative position, a foot pedal and connections between it and one sleeve for moving one of the beaters to drum beating position, a vertical support, a sleeve adapted to be horizontally supported thereon, a shaft passing through said last mentioned sleeve, a universal joint detachably connected with one end of said shaft, a second universal joint connected with the other of said first mentioned sleeves, an elongated member between and connecting said universal joints, and a second foot pedal and connections between it and the opposite end of said shaft for turning the shaft in its sleeve mounting to move the second of said beaters from inoperative to drum beating position.

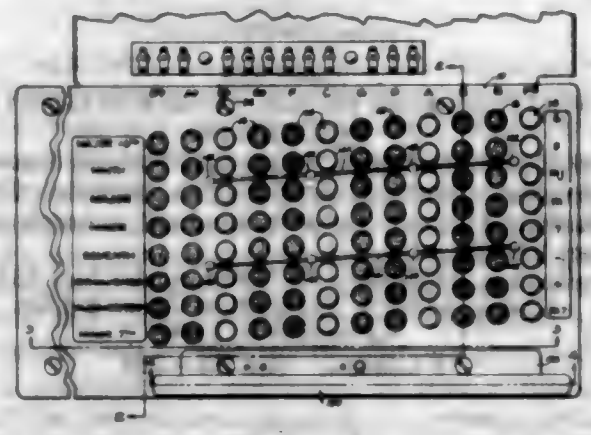
2,845,831

KEYBOARD AND SWITCHING MECHANISM FOR ELECTRICAL MUSICAL INSTRUMENTS

Laurens Hammond, Chicago, Ill., assignor to Hammond Organ Company, a corporation of Delaware

Original application June 23, 1950, Serial No. 169,902. Divided and this application February 5, 1953, Serial No. 335,357

4 Claims. (Cl. 84—423)



1. In a button chord keyboard and switch mechanism for an electrical musical instrument, the combination of a plurality of switches respectively having individual flexible contact members, a plurality of parallel switch actuators positioned adjacent the flexible contact members respectively, a plurality of parallel button levers extending across the switch actuators and respectively having combinations of projections of substantially equal length extending toward predetermined switch actuators, a plurality of relatively short electrically insulating lugs secured to predetermined individual switch actuators constituting a first group and extending toward the flexible contact members, and a plurality of relatively long insulating lugs secured to other individual switch actuators constituting a second group, whereby a switch positioned adjacent an actuator of the first group is operated an interval after a switch positioned adjacent a lever of the second group when a key button lever having projections for operating both of said switches is depressed.

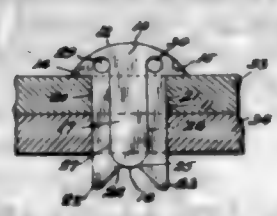
2,845,832

RIVET FORMED FROM A FLAT METAL BLANK

Elof B. Olson, Chicago, Ill., assignor to Oak Mfg. Co., Chicago, Ill., a corporation of Illinois

Application April 5, 1955, Serial No. 499,367

4 Claims. (Cl. 85—38)



1. A blind rivet comprising a flat malleable metal blank having a thickness which is small in comparison to the width of the rivet so that the blank may be made of flat stock, said blank having a head and elongated body, said head consisting substantially of the flat metal stock of which the blank is made with the shape of the head being determined solely by removal of surplus metal, said head being compact and having shoulders extending laterally beyond the sides of the body, said shoulders being adapted to overlie the outer surface of the material

being riveted said body comprising a central stem and adjacent fingers laterally disposed along said stem, there being a line of cleavage between the stem and fingers to the end of the finger, said stem having a free convex shaped end, said fingers having tips extending beyond the stem end and said fingers having inwardly disposed projections following the contours of the adjacent stem end, said stem and adjacent fingers being of one piece of metal with said fingers and stem in contact with each other along the line of cleavage and the line of cleavage extending up into the head, said rivet being adapted to be hit upon its head to cause the head to collapse and push the stem longitudinally with the stem end cooperating with the finger projections to spread the ends of the fingers and cause the finger tips to move away from the stem and spread outwardly and provide locking portions.

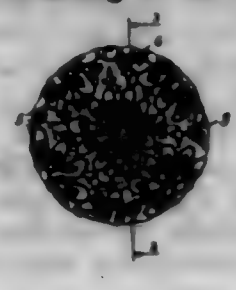
2,845,833
METHOD FOR PRODUCING EXPLOSIVE ELEMENTS
Samuel Henry Davidson, Largs, and Thomas James Reid, Ardrossan, Scotland, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
Application September 12, 1955, Serial No. 533,907
Claims priority, application Great Britain November 8, 1954
5 Claims. (Cl. 86—20)



1. A method of producing explosive elements particularly suitable for use at high hydrostatic pressure which comprises packing a charge of an ammonium nitrate powder explosive containing at least 75% by weight of ammonium nitrate IV and a small amount of water into a thin sheet metal canister, subjecting the canister after sealing to such a temperature and for such a period of time that at least a layer of the explosive close to the sides of the canister attains a temperature which is at least the transition temperature for ammonium nitrate IV to ammonium nitrate III, is below the fusion point of any solid fusible organic sensitising agent which may be included in the explosive, and does not exceed 80° C., and thereafter allowing the canister to cool so that the explosive which is at least at said transition temperature is converted into hardened explosive.

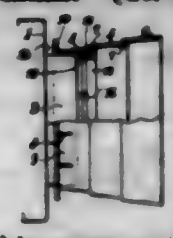
2,845,834
ELASTIC LACE FABRIC
Richard Bloch, Pelham Manor, N. Y., assignor to Liberty Fabrics of New York, Inc., New York, N. Y., a corporation of New York
Application November 25, 1953, Serial No. 394,291
3 Claims. (Cl. 87—2)

2. An elastic lace fabric having a major stretch in one direction and some stretch in directions angularly thereto, said fabric being provided with a design, said fabric comprising at least one sinuous, multi-directional elastic thread locked into the front face of the fabric and following the outlines or contours of the design, and a plurality of substantially parallel elastic threads on the reverse surface, extending in the direction of the major



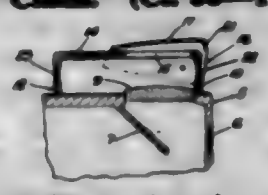
stretch, said elastic threads being locked into the other surface of the fabric.

2,845,835
PHOTOGRAPHIC LENS SHADE
Bernard Weiss, New York, N. Y.
Application May 6, 1954, Serial No. 427,906
5 Claims. (Cl. 88—1)



1. In a photographic camera, the combination with an objective lens mount, a lens shade for said camera consisting of an innermost shade ring having an inclined unobstructed unbroken smooth annular outer surface extending substantially the entire depth of the ring; an intermediate shade ring of conical formation in cross section adapted to closely fit upon and slide upon the innermost shade ring parallel with and in contact with the entire smooth outer surface of said innermost shade ring; an outermost shade ring being also of conical formation in cross section and adapted to closely fit upon and slide upon the said intermediate shade ring parallel with and in contact with the exterior surface of said intermediate shade ring, said intermediate and outermost shade rings being in telescopic relation to one another and to said innermost shade ring so as to form when in extended position a conical lens shade for the objective camera lens, means on the innermost shade ring for securing the same to the objective lens mount of the camera, means on the innermost shade ring for securing a photographic accessory thereto in front of the objective lens and means on the said intermediate shade ring engaging the other two rings to prevent relative movements of the shade rings when the said lens shade is collapsed upon the said lens mount, said last named means comprising outwardly extending projections adjacent the rear edge of the intermediate shade ring and inwardly extending projections adjacent the forward edge of the intermediate shade ring.

2,845,836
VIEW FINDER FOR PHOTOGRAPHIC CAMERA
Lew W. Lessler, Binghamton, and John K. Polhemus, Endwell, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application July 12, 1955, Serial No. 521,500
1 Claim. (Cl. 88—1.5)



A combination waist level and eye level view finder for reflex cameras having a substantially hollow body portion with front, back, top, bottom and side walls, a field lens in the top wall of said body, a viewing lens in

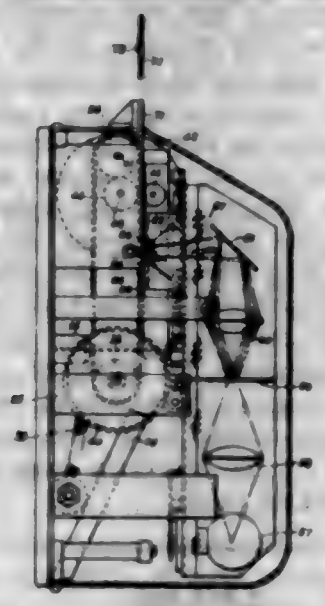
the front wall of said body and a mirror member positioned within said body to project the image of the object from the viewing lens onto the field lens, comprising an enclosure having front, back and side walls, said enclosure positioned on the top wall of said body and being adapted to surround and enclose said field lens forming an extraneous light shield, said enclosure having a finder lens in the front wall and an ocular lens in the rear wall thereof, a cover for said enclosure having an aperture therein aligned with said field lens for viewing the image on said field lens at waist level, a lid adapted to cover said aperture, means to hinge said lid on the side walls of said enclosure at a point near said front wall, said lid having a rounded portion adapted when in the open waist level position to extend forwardly of said front wall to cover said finder lens and to thereby prevent extraneous light from entering said enclosure through said lens, said lid in said aperture closing position being removed from the front wall of said enclosure, said ocular lens in said back wall of said enclosure and said finder lens in the front wall of said enclosure being in alignment with each other whereby upon closure of said lid, said ocular lens and said finder lens are light shielded by the cover and sides of said enclosure and by said lid to provide an eye level finder for said camera.

2,845,837

METHOD OF AND MEANS FOR MEASURING THE STAPLE LENGTH OF FIBRES

Edmund Lord, East Didsbury, Manchester, England, assignor to The British Cotton Industry Research Association, Shirley Institute, Didsbury, Manchester, England, a British association

Application September 14, 1954, Serial No. 455,880
10 Claims. (Cl. 88—14)



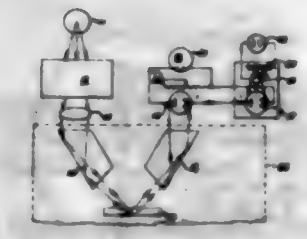
1. Apparatus for measuring the staple length of fibres in a specimen of loose fibres in the form of a double fringed layer of substantially parallel fibres on a flat non-reflecting holder therefor, such as a flat surfaced plate covered with black velvet, comprising an optical projection system including means for projecting a pair of parallel and close lines of light onto said holder, and transversely across the fibres; means for effecting relative movement of the holder and light system in the direction of the fibres; a light-sensitive optical system observing the reflection of each line of light from the fringed boundaries of the fibre layer; electrical means, such as a galvanometer, for indicating the position of maximum difference of reflectivity indicated along said parallel lines in the fringed region at opposite sides of the fiber layer; and means for measuring the distance of relative movement between the holder and optical projection system from one fringed side to the other fringed side of the fibre layer to give the modal length of the fibres in the specimen.

2,845,838

APPARATUS FOR CONTROLLING THICKNESS OF DEPOSITED LAYERS IN PRODUCING INTERFERENCE FILTERS

Victor L. Lindberg, Northville, and Max J. Irland, Dearborn, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application November 19, 1954, Serial No. 469,937
4 Claims. (Cl. 88—14)



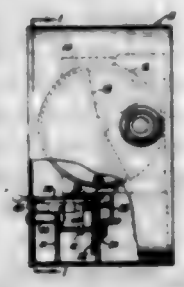
3. An apparatus for controlling the thickness of deposited layers during the production of interference filters comprising a source of substantially monochromatic light, means for impinging this monochromatic light upon a glass base during deposition of the dielectric layers, a light sensitive cell, means for causing the light originating in the monochromatic source and reflected from the filter surface to impinge upon said light sensitive cell, an adjustable and stable voltage source connected to said light sensitive cell so that the outputs are electrically opposed, a galvanometer connected to read a function of the algebraic sum of the outputs of the voltage source and the light sensitive cell, and a variable resistance shunting said galvanometer, whereby the galvanometer indicates when the deposition of each dielectric layer should be terminated.

2,845,839

DISSOLVING SHUTTER MECHANISM

Tullio Pellegrini, San Francisco, Calif.

Application August 20, 1952, Serial No. 305,489
3 Claims. (Cl. 88—16)



1. In combination with a motion picture camera having a variable shutter and a lever to regulate the aperture of the variable shutter, a rotating member within said camera, operated in synchronization with the shutter mechanism and having a pin located thereon, stop means comprising an arm adapted to engage said pin and being normally spring biased in a position to not engage said pin, a cam on said arm engaged by said lever whereby said arm is brought into an operative position to stop the camera as the lever is moved to close the variable shutter and whereby said arm is brought into position to permit the operation of the camera when said lever is moved to a position to open the variable shutter.

2,845,840

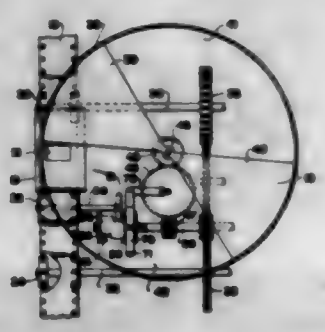
INTERMITTENT MOVING APPARATUS FOR PICTURE PROJECTORS

James Gordon Jackson, Port Alberni, British Columbia, Canada

Application April 6, 1954, Serial No. 421,286
4 Claims. (Cl. 88—18.3)

1. In a moving picture projector, a driving shaft mounted for continuous rotation, a driven shaft near and parallel with the driving shaft for intermittent rotation, a film driving sprocket fixed on the driven shaft, a star

wheel fixedly mounted on the driven shaft, said wheel having a plurality of radial slots opening outwardly therefrom, a cam slidably mounted on the driving shaft near the wheel for rotation with said shaft, a pair of opposed pins on the cam on opposite sides of the wheel and positioned to enter the wheel slots and rotate the wheel during rotation of the cam, each movement of the wheel turning the sprocket to move a film the distance of one



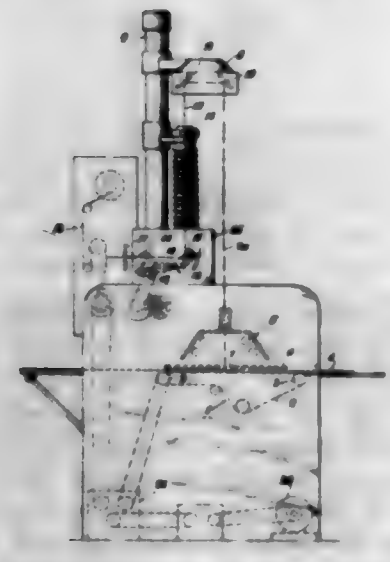
frame the adjacent ends of the opposed pins being spaced apart sufficiently to permit the cam to rotate without the pins thereof engaging the star wheel slots, means for selectively reciprocating the cam to move the pins alternately into wheel slots while allowing at least one pin to miss a slot during each complete reciprocation, a film shutter, means from the driving shaft for rotating the shutter to expose each film frame a plurality of times when the wheel is at rest.

2,845,841

IMAGE REVERSING DEVICE

Carroll B. Collins, Pittsburgh, Pa., assignor to Peerless Photo Products, Inc., Shoreham, N. Y., a corporation of New York

Application March 3, 1955, Serial No. 491,914
10 Claims. (Cl. 88—24)



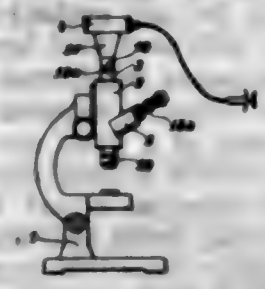
1. In a copying camera in which an original is projected onto a copy medium, an image reversing means comprising a first mirror, a second mirror, said first mirror pivotally mounted on the camera to swing about one edge and pivotally attached to said second mirror along an opposite edge, a positioning means for said mirrors comprising a link, a crank pivotally connected to one end of said link, said link having its other end fixedly attached to said second mirror, said crank adapted for rotation from a first position to a second position to move said mirrors by means of said link between a first position in which said light rays from the original are reflected only from said first mirror to a second position in which the light rays from the original are reflected from both mirrors successively.

2,845,842

MICROPHOTOGRAPHIC APPARATUS

Ludwig Leitz and Karl Frischmann, Wetzlar, Germany, assignors to Ernst Leitz G. m. b. H., a corporation of Germany

Continuation of abandoned application Serial No. 390,827, November 3, 1953. This application November 30, 1956, Serial No. 625,551
5 Claims. (Cl. 88—24)



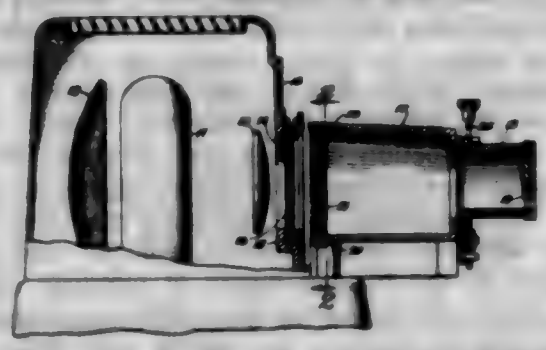
1. A microphotographic apparatus for photographing an object under observation in such a position that the longest dimension of the object appears substantially parallel with the longest side of the exposed film or plate used in the camera comprising in combination, a microscope, a camera, means for supporting said camera on said microscope to rotate thereupon about the optical axis of the microscope, an ocular unit in said microscope including a fixed ocular tube and an ocular tube rotatably supported in said fixed tube, a diaphragm in said rotatable ocular tube having a diaphragm opening for observing the object, said diaphragm opening being of substantially the same shape as that portion of the camera film or plate upon which the object is to be photographed, means for rotating said diaphragm containing rotatable ocular tube within said fixed tube to place the longest side of said diaphragm opening substantially parallel with the longest dimension of the object, visible scale means on said fixed and on said rotatable ocular tubes to indicate the extent of rotation of said rotatable tube within said fixed tube, said camera supporting means comprising a light proof extension on the camera rotatably engaging a fixed camera tube on the microscope for positioning, by rotation of the camera and said light proof extension, the longest side of the camera film or plate in the same position with relation to the object as that of said diaphragm opening and visible scale means on said camera light proof extension and on said microscope camera tube for indicating the extent of rotation of the camera to be the same as the extent of rotation of said rotatable diaphragm ocular tube with relation to the object as indicated by the aforesaid scale means on the said fixed and rotatable tubes.

2,845,843

STEREOSCOPIC PROJECTOR AND POLARIZING FILTER COMBINATION

Harold R. Lutes, San Gabriel, Calif., assignor to Compco Corporation, Chicago, Ill., a corporation of Illinois

Application May 11, 1955, Serial No. 507,602
2 Claims. (Cl. 88—26)



1. In a stereoscopic projector having a housing provided with a pair of horizontally-spaced projection openings and equipped with a light source therein, means

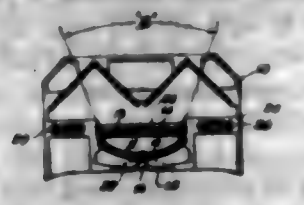
provided exteriorly of said housing and in front of said paired openings for removably supporting pairs of film transparencies in alignment with said openings, a projection casing disposed in front of said supporting means and provided at its forward end with a pair of horizontally-spaced lens-equipped projection tubes aligned with the projection openings in said housing, said casing being provided adjacent the rear end thereof and directly in front of said supporting means with a pair of inwardly and downwardly sloping side walls defining a downwardly tapered vertical slot having an opening at the top thereof, and a filter holder plate equipped with a pair of horizontally-spaced apertures having a pair of polarizing filters securely fixed therein, said plate having inwardly and downwardly inclined edges frictionally engaging the inclined side walls of said casing for removably supporting the plate within said slot, whereby, light projected through said film transparencies is polarized by said filters before passing through said lens-providing projection tubes.

2,845,844

VIEWING DEVICE FOR STEREO PICTURES

Otto Vierling, Stuttgart, Germany, assignor to Zeiss Ikon A. G., Stuttgart, Germany

Application May 15, 1956, Serial No. 585,603
Claims priority, application Germany May 18, 1955
3 Claims. (Cl. 88—29)



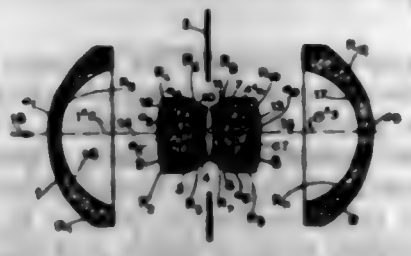
1. A stereoscopic viewing device for invertedly viewing stero picture pairs with side reversed half pictures which effects an inversion of each picture by a double deflection of the path of rays of each 90°, comprising a casing having bottom, side and end walls, a pair of reflectors mounted between the corners of said casing and extending at an angle of 45° to said side and end walls, another pair of reflectors arranged in planes at right angles to the first mentioned reflectors providing two separate light pathways for reflecting light 180°, a pair of viewing apertures in said casing arranged with their optical axis extending toward the end wall of said casing and intersecting said first reflectors, a pair of transparent inverted pictures adapted to be slidably mounted in said casing between said viewing apertures, said reflectors being arranged to provide roof edges arranged in a plane offset from an parallel to the plane of said picture pairs, a cavity formed in said casing between said viewing apertures and a light reflecting mirror having a spherical reflector surface slidably arranged in said cavity to permit the reflecting mirror to be displaced vertically above said casing.

2,845,845

ORTHOSCOPIC WIDE ANGLE OBJECTIVE

Jean-Michel Baluteau, Paris, France, assignor to Societe d'Optique et de Mecanique de Haute, Paris, France

Application April 4, 1956, Serial No. 576,124
Claims priority, application France April 13, 1955
3 Claims. (Cl. 88—57)



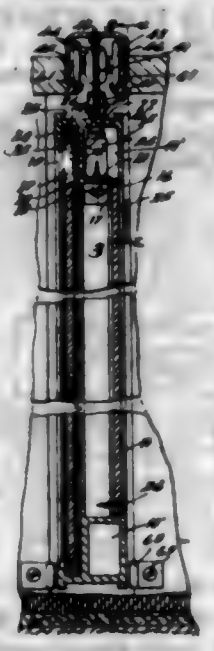
1. In an orthoscopic wide angle objective comprising two outer divergent meniscus shaped single lens components concave towards each other and enclosing two convergent meniscus shaped triplet components concave towards each other and enclosing an air space therebetween, a diaphragm in the air space between the said triplet components, the said air space between the triplet components being between 25% and 40% of the total focal length of the objective, and the radii of the concave surfaces of the said triplet components on the side of the diaphragm exceeding the total focal length of the objective.

2,845,846

MIRROR AND SUPPORT MEANS

Herbert W. Kelleher, Grosse Pointe Park, Mich., assignor to Bailey-Kelleher Co., Detroit, Mich., a corporation of Michigan

Application September 16, 1957, Serial No. 684,303
7 Claims. (Cl. 88—100)



1. A mirror frame combination including a mirror panel and a supporting frame means, said frame means embodying a plurality of frame lengths, said frame lengths extending entirely around the mirror panel, each frame length comprising a hollow rectangular main section having top, side, and bottom faces; said main section having a web extending outwardly from the front face substantially in alignment with the top face thereof, the outer edge of said web having a flange extending downwardly from and substantially parallel to, spaced from, and shorter than said front face and forming a channel therewith, and a mirror panel supported in said channel and engaging substantially all of said front face which is hidden from view thereby, said main rectangular hollow section at the rear of the mirror panel supplying the strength for supporting the mirror panel augmented by that of the web and flange extension thereof which forms a narrow margin for the mirror panel edge.

2,845,847

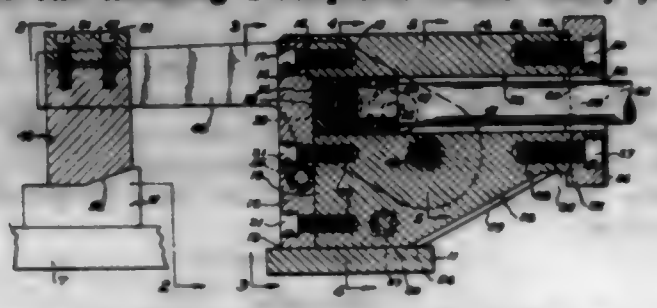
HOLDDOWN CLAMP

Leland F. Blatt, Grosse Pointe Woods, and Joseph M. Jatcko, Detroit, Mich.

Application November 25, 1957, Serial No. 698,573
9 Claims. (Cl. 90—59)

1. In a work securing clamp, a housing having an elongated slot therein and a transverse apertured mounting plate at one end thereof, a longitudinally reciprocal rod slidably extending through said plate and into said slot, a piston in said slot secured to said rod, a cantilever pivotally mounted on said housing at a point displaced from the longitudinal axis of said rod, an angular work engaging arm at one end of said cantilever, said cantilever having an elongated slot therein extending at an acute angle to the longitudinal axis of said arm, a pin projecting later-

ally from said piston with its end operatively positioned within said slot, and a motor secured to said mounting plate and including a reciprocal means axially joined



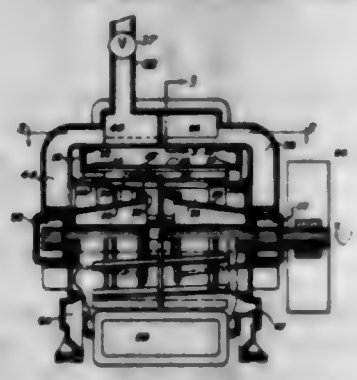
to said rod, longitudinal movement of said pin being adapted to cam said cantilever and arm from inoperative to work securing position.

2,845,848

APPARATUS FOR SCREENING PULP

Robert E. Bowen, Plymouth, N. C., assignor to North Carolina Pulp Company, Merchantville, N. J., a corporation of Delaware

Application January 23, 1956, Serial No. 560,564
8 Claims. (Cl. 92—34)



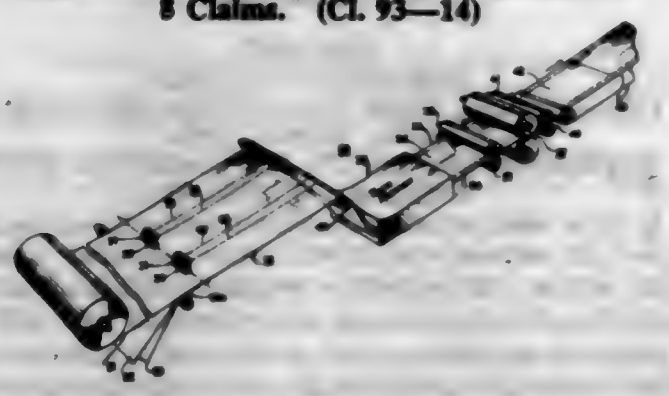
8. A pulp screen comprising: a cylindrical perforated screen; a rotatable shaft mounted axially of said screen; blades adjacent the full axial length of said screen; a baffle plate secured to said blades and said shaft; an inlet channel on one side of said baffle plate; a second channel on the opposite side of said baffle plate, both of said channels having outlets in communication with the interior of said screen, said outlets being in part at least adjacent said blades; means for delivering unscreened stock to the first named channel; means for delivering dilution water to said second channel, said blades being so pitched as, upon rotation, to feed unscreened stock over said baffle plate and into admixture with said dilution water.

2,845,849

METHOD AND APPARATUS FOR PRODUCING BAGS

Willard E. Hahn, Pensacola, Fla., assignor to St. Regis Paper Company, New York, N. Y., a corporation of New York

Application April 22, 1955, Serial No. 503,191
8 Claims. (Cl. 93—14)



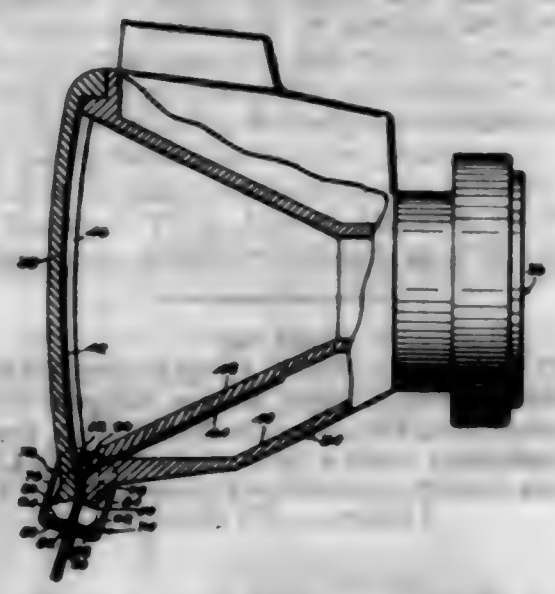
1. In the manufacture of bags having satchel bottoms of a selected width, the steps of: forming two pairs of parallel longitudinally extending score lines in a web, the score lines of each pair being spaced apart a distance equal to such width of the satchel bottom of the bag and parallel to one another and positioned for forming side corner score lines of the finished bag; forming the web so scored into a flat tube with the score lines of each such pair thereof in face-to-face aligned relation thus forming such side corner score lines along opposite side margins of such flat tube, the convexities of said score lines protruding outwardly of the flat tube; just prior to separating such tube into bag tube lengths forming transversely of the end region of such flat bag tube two relatively short score lines intermediate the location of a tube end edge and that of a bottom main line, the latter being near to but spaced from an end edge of the tube, one such short score line being in each of the opposite side marginal regions of the flat tube, such short score lines being in alignment with one another when the tube is flat and each extending perpendicularly from its respective side edge to its adjacent and respective side corner score line, the perpendicular distance between each said short score line and said bottom main line when the tube is flat being equal to the perpendicular distance between a side corner score line and its adjacent side edge of the bag tube, said short score lines comprising end flap corner score lines; opening and spreading to a substantially flat condition such end region of such tube thereby forming and spreading two bag bottom side flaps and two bag bottom end flaps; forming a pair of parallel base fold score lines in said spread end, each base fold score line extending between and the length thereof being determined by corresponding termini of said end flap corner score lines; applying adhesive to selected areas of said spread tube end; and folding said side flaps over one another each along its respective base fold score lines thereby to form the bag bottom, the convexities of said base fold score lines being formed for protruding outwardly of the finished bag bottom in response to opening and squaring the latter.

2,845,850

PHOTOGRAPHIC APPARATUS FOR SPREADING A FLUID BETWEEN SUPERPOSED SHEETS

Herbert A. Bing, Wellesley, and Donald R. Bishop, Westwood, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application November 4, 1955, Serial No. 544,939
7 Claims. (Cl. 95—13)



1. Photographic apparatus for exposing and thereafter treating a photographic film unit including a photosensitive sheet, a second sheet superposable with said photosensitive sheet and means containing a processing liquid, said apparatus comprising, in combination, a camera for exposing the photosensitive sheet of a film unit and including a passage through which said film unit may be withdrawn from said camera following exposure there-

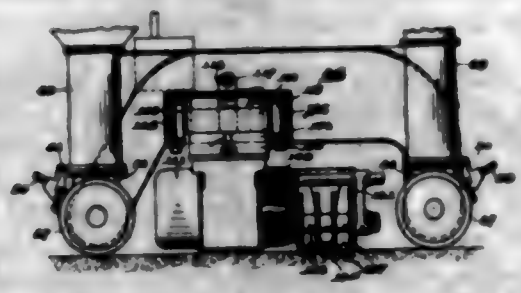
within and means associated with said camera for spreading said liquid in a uniform layer of predetermined thickness between said photosensitive and second sheets during withdrawal of said film unit from said camera, the last-mentioned means including a pair of substantially straight rigid members, means for securing said members parallel to one another and spaced a predetermined distance apart to provide a gap through which said film unit is moved, said gap between said members comprising a throat for generating pressure in said liquid between the sheets of said film unit to distribute said liquid in a layer between said sheets during movement thereof through said throat between said members, means for so mounting said members on said camera adjacent said passage that said film unit can be manually withdrawn in a plane from said camera through said passage and said gap, the last-mentioned means mounting said members for pivotal movement with respect to one another and said camera about a single axis located substantially in the plane of withdrawal of said film unit from said camera through said passage, said members being pivotable apart to permit the movement of a film unit therebetween without causing pressure to be created in the liquid carried by said film unit, and said members, when secured together to form said pressure-generating throat, being so pivotable with respect to said camera in response to movement of said film unit as to automatically assume and maintain a proper and substantially constant position relative to the plane of movement of said film unit.

2,845,851

MACHINE FOR MAKING ANTI-SKID CONCRETE ROAD SURFACES

Harry S. Nagin, Philadelphia, Pa., assignor to Reliance Steel Products Company, McKeesport, Pa., a corporation of Pennsylvania

Application June 3, 1952, Serial No. 291,430
4 Claims. (Cl. 94—45)



1. Apparatus for grooving previously formed and cured hard surface roads whereby abrasive material may be filled into the grooves, comprising a mobile frame designed to span the width of the road area to be processed, a trackway in said frame, a carriage movable along the trackway, motor-driven means on the frame for moving the carriage along the trackway at a uniform predetermined speed, a mounting member suspended from the carriage having a cutter shaft with rotatable cutters thereon carried by the mounting member, the cutter shaft being transverse to the direction of travel of the carriage, means for driving the cutter shaft, the suspension for the mounting member from the carriage including a lifting means on the carriage, and a link providing limited relative movement between the mounting member and the lifting means for raising and lowering the mounting member.

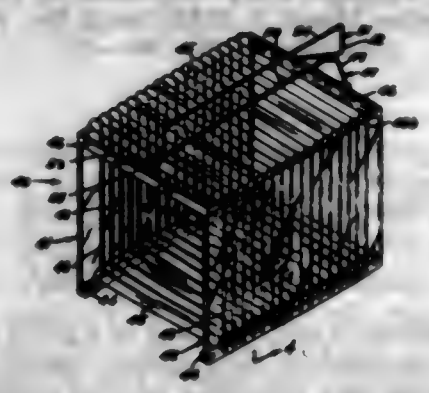
2,845,852

FILM RACK

Maynard L. Parker, Los Angeles, Calif.

Application October 28, 1954, Serial No. 465,189
2 Claims. (Cl. 95—100)

1. A film rack for holding film during developing thereof comprising: a pair of opposed substantially parallel planar side walls, each side wall having a plurality of parallel straight grooves therein whereby the grooves in one plate are spaced from, parallel to, and opposite from corresponding grooves in the opposite plate, a plurality of film separators disposed at the top and bottom of the side walls, there being one of said separators on each side of every one of said grooves at both ends of said grooves, a stop member comprising an elongated body affixed to each of said side walls at the bottom end of said grooves beneath said film separators, whereby the film separators at the top of said slot serve as guides to guide a sheet of film into a pair of opposed slots, and all separators serve to keep each said film separated from its neighboring film, said stop members restraining the film from passing beyond said slots, and said slots providing side supports for the side edges of said film, said rack also being provided with a locking bar pivoted thereto, said locking bar comprising a U-shaped member with two legs and a central locking bight portion, a transverse



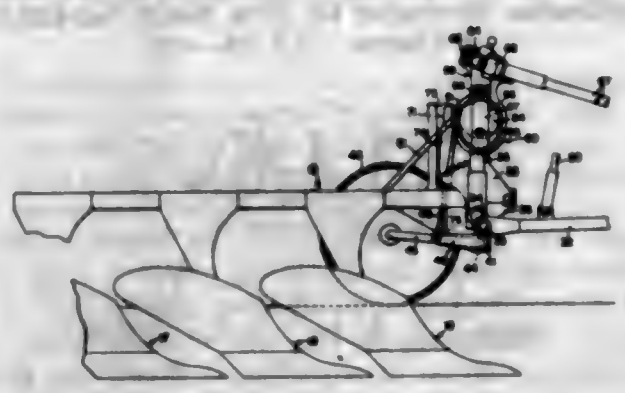
member joining the edges of the side walls at each end thereof, the legs of said U-shaped members being pivotally attached to said transverse members, whereby the U-shaped members can be pivoted so that the locking bight can be moved to a side of the top of the rack, and also to a locked position with the locking bight across the top of the rack and transverse to the film separators, and a handle member comprising two-handle member legs and a handle bight joining said legs, said handle member legs being pivotally mounted to the transverse members at points which are separated from the U-shaped member, so that the handle bight can be moved over and to one side of the top of the rack, and a catch member on each of said handle legs so disposed and arranged as to fit under the locking bight when the locking bight is in the locked position, whereby lifting the rack by said handle bight with the locking bight in said catch means holds the locking bight across the rack so as to restrain the upper edge of the film within said rack.

2,845,853

COMBINED LEVELING AND GAUGE WHEEL CONTROL FOR PLOWS

Orey W. Oerman, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois

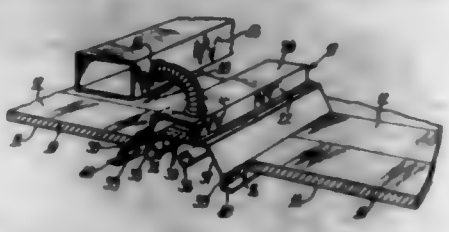
Application April 28, 1954, Serial No. 426,170
2 Claims. (Cl. 97—46.27)



1. In an implement adapted to be connected with a tractor having upper and lower, generally fore-and-aft extending hitch links, frame means including a rigid up-

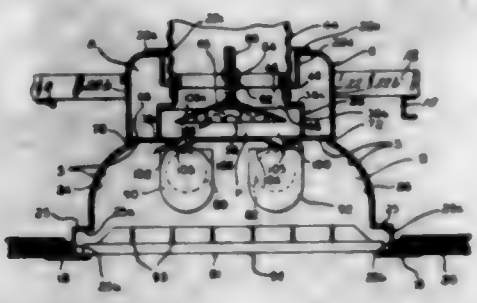
wardly disposed frame extension rigid with the remainder of the frame means, a part disposed in a generally vertical position and pivoted at a mid-point to the upper portion of said frame extension and having means at its upper end to pivotally receive the upper of said links, the lower portion of said part constructed to constitute a yoke, a second part in the form of a rotatable cam disposed within said yoke and pivoted to said extension below the pivot of said first part, and means connected with said second part to rock said first part on said frame extension so as to vary the position of said upper link relative to the implement frame.

2,845,854
COMBINATION LIGHT FIXTURE AND VENTILATING APPARATUS
Edwin J. Kurek, Itasca, Ill., assignor to The Pyle-National Company, Chicago, Ill., a corporation of New Jersey
Application March 2, 1955, Serial No. 491,729
4 Claims. (Cl. 98—40)



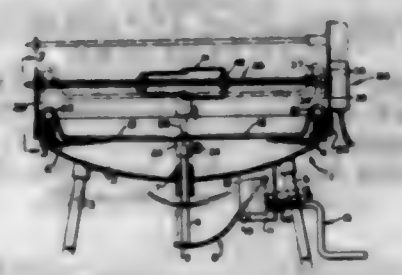
1. In combination with a ceiling of a space to be illuminated and ventilated, a false ceiling spaced below said ceiling, a supply duct extending into the space above said false ceiling, a combination lighting-ventilating unit in said false ceiling and comprising a troffer light housing having side wall portions flanged to receive and engage the edges of an opening in said false ceiling, and having other wall portions extending upwardly and inwardly to form a lighting trough above the level of the false ceiling, elongated fluorescent tubes in said lighting trough, said other wall portions having a light-reflective surface formed on one side thereof behind said tubes, a plurality of air diffusion passages extending through said inwardly extending portions of said other wall portions and intersecting said reflective surfaces, said troffer light housing including additional means above said lighting trough forming with said inwardly extending portions a plenum chamber behind said air diffusion passages, and a flexible conduit interconnecting said troffer light housing at said plenum chamber and said supply duct to supply ventilating air, thereby to simultaneously diffuse ventilating air and emit and reflect light rays through said false ceiling via the lighting trough of the troffer light housing and into the space being illuminated and ventilated.

2,845,855
COMBINATION LIGHT FIXTURE AND VENTILATING UNIT
Lester W. Burns, Itasca, Ill., assignor to The Pyle-National Company, Chicago, Ill., a corporation of New Jersey
Application November 14, 1956, Serial No. 622,157
4 Claims. (Cl. 98—40)



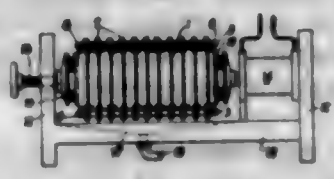
1. In combination with a ceiling of a space to be illuminated and ventilated, a false ceiling spaced below said ceiling, a supply duct extending into the space above said false ceiling, a combination lighting-ventilating unit in said false ceiling and comprising a troffer light housing having side wall portions connected to the edges of an opening in said false ceiling and having other wall portions extending upwardly and inwardly form a lighting trough above the level of the false ceiling, elongated fluorescent tubes in said lighting trough, said other wall portions having a light-reflective surface formed on one side thereof behind said tubes, a plurality of air-diffusion passages extending through said inwardly extending portion of said other wall portions and intersecting said reflective surfaces, said troffer housing including additional means above said lighting trough forming with said inwardly extending portion a plenum chamber behind said air diffusion passages, and a flexible conduit interconnecting said troffer light housing at said plenum chamber and said supply duct to supply ventilating air, said air diffusion passages having baffled edge portions directing air flowing through said passages towards the sides of the light trough and away from said fluorescent tubes, thereby to maintain the ambient of said tubes within optimum operating range, whereby ventilating air is diffused and light rays are emitted and reflected simultaneously through said false ceiling via the lighting trough of the troffer light housing and into the space being illuminated and ventilated.

2,845,856
BARBECUE SPIT SUPPORTING MEANS
Leo P. Seck, San Francisco, Calif.
Application June 6, 1957, Serial No. 664,084
4 Claims. (Cl. 99—421)



2. In combination with a bowl type barbecue brazier having a motor driven rotatable spit and a central vertically adjustable activating rod, a bracket comprising a collar embracing the upper end of said rod, a fastener associated with said collar and securing said collar to the upper end of said rod, a horizontally pivotal bifurcated hanger secured to said collar, a pair of inverted U-shaped bends at either end of said hanger, and a pair of horizontally pivotal sockets attached to the outer ends of said inverted U-shaped bends.

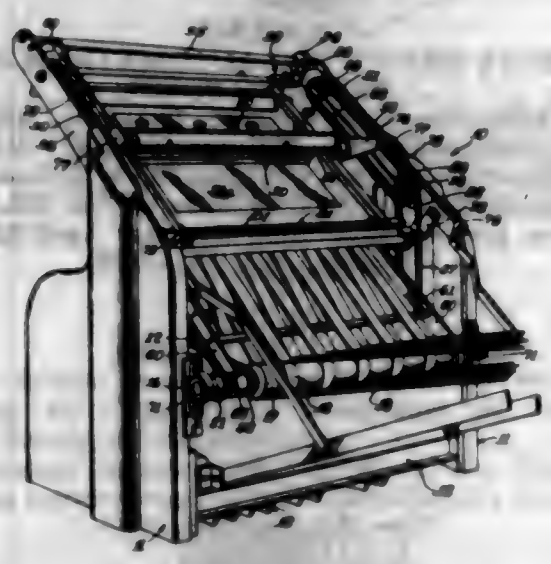
2,845,857
CHEESE MAKING AND APPARATUS THEREFOR
George M. Robertson and George K. Charles, Gilleford, England
Application February 13, 1956, Serial No. 565,227
Claims priority, application Great Britain February 17, 1955
2 Claims. (Cl. 100—127)



1. A mold of rectangular cross section for use in compressing cheese curd to expel residual whey comprising an assembly of metal laths having adjacent plane edges in direct contact and flush smooth inner surface, said laths together forming a complete peripheral surface for the mold, rectangular frames embracing said assembly of laths, each frame including four bars overlapping at their

adjacent ends, said bars having bolt holes in their overlapping ends, connecting bolts passing through said adjacent ends, spacing sleeves on said bolts, the bolt holes in the alternate ends of the bars being larger than the bolts, and the spacing sleeves adjacent said larger holes having eccentrics engaging therein for contracting said frames and thereby forcing said assembly of laths together with their adjacent plane edges in pressure contact for permitting exudation of whey but preventing extrusion of curd between them.

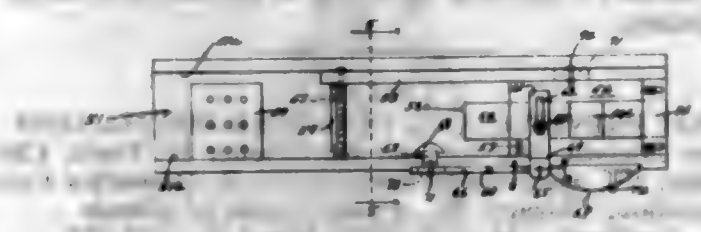
2,845,858
SILK SCREEN PRINTING MACHINE
Sidney W. Donley, Morton Grove, Ill.
Application June 14, 1956, Serial No. 591,468
1 Claim. (Cl. 101—123)



A silk screen printing press, comprising, a main frame, a bed means mounted on said frame for receiving a sheet of material to be printed, screen means supported over said bed frame at an incline to the horizontal, means for moving said bed frame arcuately toward and away from said screen means and for arresting the same at periodic intervals in underlying parallelism therewith, squeegee means for applying ink to the upper face of said screen means, endless chain means supporting said squeegee means and driving the same in an orbital path over said screen means, the said squeegee means engaging said screen means adjacent one end thereof, moving thereacross, and disengaging therefrom adjacent the opposite end thereof for application of the ink thereto, adjustable means interconnecting said squeegee and chain means for regulating said squeegee means at preselected angles with respect to the plane of said screen means, the angle of said squeegee being maintained throughout its travel along said orbital path, bar means traversing said screen means and located adjacent the one end thereof for distributing preselected quantities of ink to said squeegee means, and linkage means for operating said bar means to reciprocate the same between a position adjacent the said one end of said screen and a point intermediate the ends thereof, the said intermediate point of movement for said bar means being located slightly in advance of the initial point of contact between said squeegee and screen means, and means for regulating the limits of travel for said bar means thereby to adjust the quantity of ink deposited thereby in advance of the said initial point of contact.

2,845,859
FEEDING AND REGISTERING MECHANISM
Henry A. Gattuso, Adams, Mass.
Application April 19, 1956, Serial No. 579,342
9 Claims. (Cl. 101—126)

1. A work registering mechanism comprising: a bed having a guide means thereon; a work positioning and feeding assembly reciprocably carried as a unit by said bed and guided by said guide means; said assembly comprising a work engaging and pushing means providing a first work orienting reference point, a second work engaging means cooperating with said pushing means providing a second work orienting reference point located relative to said first reference point to define a two point reference system for reproducibly orienting a work piece relative to said assembly, and a work locating and clamping means carried by said assembly for reciprocating travel therewith and cooperating with said pushing means and second work engaging means for locating a work piece randomly positioned in a work receiving area adjacent said pushing and second engaging means into reg-



istration engagement with said two reference points and there clamping the work piece relative to said assembly, said locating and clamping means being movable on said assembly between a retracted work receiving position and an advanced work clamping position; means for reciprocating said assembly between a work receiving and a work delivering point; and means at said work receiving point for camming and holding said locating and clamping means in retracted work receiving position upon movement of said assembly to said work receiving point and releasing the same upon movement of said assembly from said work receiving point toward said work delivering point; whereby a work piece randomly oriented at the work receiving point is reproducibly oriented and registered at said work delivering point.

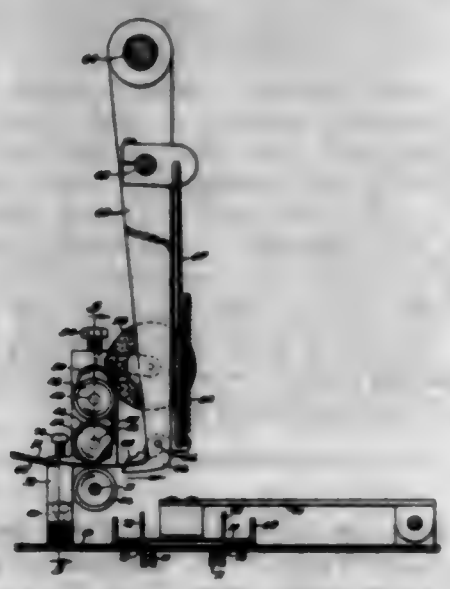
2,845,860
TWO-COLOR OFFSET PRINTING PRESS
Luis Mestre, New York, N. Y., assignor to Lewfor Development Corporation, New York, N. Y., a corporation of New York
Application May 12, 1954, Serial No. 429,211
11 Claims. (Cl. 101—177)



1. In a multicolor offset printing press the combination of a blanket cylinder to apply color designs to sheets and having an axis, a first plate cylinder cooperatively positioned with respect to the blanket cylinder approximately at the top thereof, damping and inking means above the first plate cylinder for damping and inking the latter, a second plate cylinder cooperatively positioned with respect to the blanket cylinder approximately on a horizontal plane through the axis of the blanket cylinder, damping and inking means disposed on the opposite side of the second plate cylinder from the blanket cylinder for damping and inking the second plate cylinder, the plate cylinders to apply color designs on said blanket cylinder, an impression cylinder cooperatively positioned with re-

spect to the blanket cylinder approximately diametrically opposite from the two plate cylinders, a sheet entrance path extending to the top of the impression cylinder, means for driving all of said cylinders together and at the same angular speed, means mounting the blanket cylinder for movement towards and away from the impression cylinder and the first plate cylinder, means mounting solely one of the plate cylinders for movement towards and away from the blanket cylinder, shifting means connected with the movable mounting means to separate the blanket cylinder from the impression cylinder and the first plate cylinder and to separate the movable plate cylinder from the blanket cylinder and restore them to cooperative position, and sheet-controlled means connected with the shifting means for effecting operation of the movable mounting means.

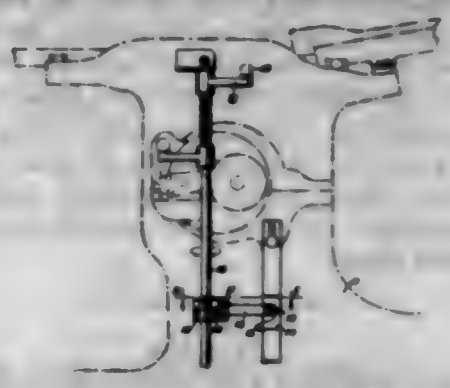
2,845,861
SPOT PRINTING AND TRANSFER MECHANISM
Harry Nielsen, Harvey, and Christopher H. Porth, Chicago, Ill., assignors to The Reuben H. Donnelley Corporation, Chicago, Ill., a corporation of Illinois
Application May 25, 1954, Serial No. 432,158
6 Claims. (Cl. 101—232)



1. In a spot printing mechanism having a plurality of parallel rollers, at least one platen roller, a printing roller being mounted adjacent to said platen roller, an ink transfer roller being mounted adjacent to said printing roller, said platen, printing and transfer rollers have axes lying along a first plane, and an ink containing roller being mounted adjacent to said transfer roller and being in surface contact therewith, said ink containing roller having an axis lying in a second plane, said transfer roller being adjustably mounted for movement along said first plane, and said ink containing roller being pivotally mounted for swinging movement towards and away from said first plane in response to the adjustment of said transfer roller.

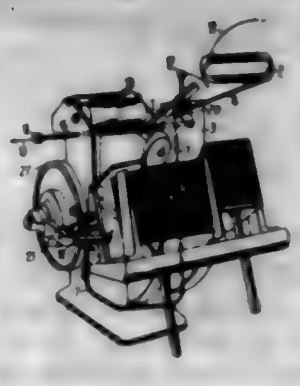
2,845,862
SAFETY ATTACHMENT FOR AUTOMATIC PRINTING PRESSES
Robert J. Brazil, Arlington, Va.
Application February 20, 1956, Serial No. 566,423
6 Claims. (Cl. 101—284)

1. In a printing press of the type including a trip mechanism, a manually operable trip setting pin for conditioning said mechanism to automatically trip the press upon the misfeeding of a sheet, and a part which normally moves back and forth in opposite directions, a safety device for automatically setting said trip pin, said safety device comprising a pusher arm operatively connected to said normally moving part, said arm being rigidly secured at one end to said moving part with its free end lying in line for engagement with a portion of said trip setting pin, whereby, upon the movement of said moving part



in one direction, the free end of said pusher arm actuates said pin.

2,845,863
SAFETY DEVICE FOR AUTOMATIC PLATEN PRINTING PRESS
Erich Schwarzbeck, Heidelberg, Germany, assignor to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany, a corporation of Germany
Application April 11, 1955, Serial No. 500,598
Claims priority, application Germany April 12, 1954
2 Claims. (Cl. 101—306)

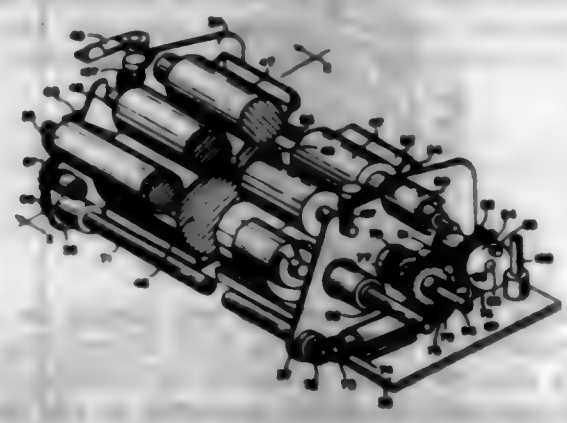


1. In an automatic platen printing press having grippers for feeding and depositing the sheets of paper to be printed, power means for driving the press, a disengaging device for interrupting the drive of the press and a mechanical locking device for preventing re-engagement of the drive of the press, a displaceable guard disposed at the front of the press in front of said grippers, a manually displaceable handle mounted on a rear portion of the press, said guard and handle being movable from an operating position to a non-operating position, means operably connecting said guard and hnadle to said disengaging device to stop the press upon movement of either said guard or handle to non-operating position and for releasing said locking device only when both said guard and said handle are in operating position.

2,845,864
INKING MECHANISM
John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application January 21, 1953, Serial No. 332,213
1 Claim. (Cl. 101—350)

In a roll imprinter, a relatively stationary frame having an opening to receive an inking assembly, a mounting plate for said assembly received in said opening for sliding movement relatively to said frame, a toothed rack on said plate, a shaft rotatably supported by said frame and extending in transverse adjacent relation to said rack,

a pinion on said shaft engaging said rack, a handle on one end of said shaft for manual oscillation of said shaft to effect to and fro movements of said mounting plate, means on said frame adjustable positively to define a variable limit of motion of said mounting plate in



one direction, said limit means includes a stop arm on said shaft, a stop member on said frame engageable by said arm, and means for releasably securing said stop member in multiple positions of adjustment relatively to said frame.

2,845,863
ARTILLERY CASING

Georges Renou, Paris, France, assignor to Forges & Ateliers de Constructions Electriques de Jeumont, Paris, France, a French company

Application December 29, 1954, Serial No. 478,356
Claims priority, application France January 5, 1954
4 Claims. (Cl. 102—43)



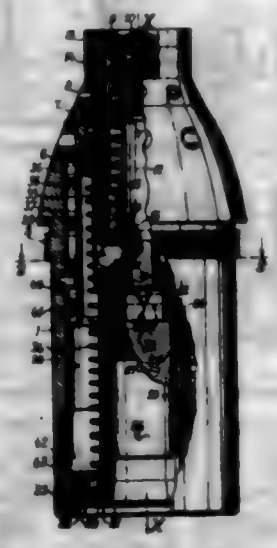
1. A shell casing having a body formed by a rolled sheet metal member having overlapping edges defining an outer joint defining a channel in the exterior surface of said body, a base secured to said body, and sealing means for said joint comprising a chamfer occupying a portion only of said joint, said chamfer having a length equal to 5% to 30% of the casing length and being disposed in said joint between the base and the vertical mid-point of said joint, the portion of said channel lying between said chamfer and the end of said casing opposite said base providing for gas entrance from said end to said chamfer.

2,845,866
FUSE FOR A PROJECTILE AND APPLICATIONS THEREOF

Joseph Raymond Jasse, Paris, France, assignor to Societe Nouvelle des Etablissements Brandt, Paris, France, a French body corporate

Application December 28, 1954, Serial No. 476,488
Claims priority, application France December 24, 1953
4 Claims. (Cl. 102—78)

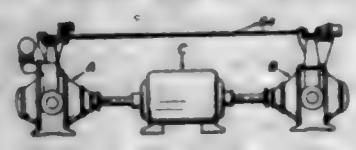
1. A fuse for a self-propelled projectile, subjected when it is launched to a departure acceleration, comprising in combination: a hollow fuse body, and disposed in said body: an inner rear abutment secured to said body, a detonator support bearing against said abutment, a detonator held on the forward end of said detonator support; a spacer device bearing rearwardly against said detonator support and automatically retractable when said acceleration drops to a minimum safety value, which in the extreme case may be zero, whereby said fuse becomes automatically armed upon the retraction of said spacer device; a firing pin bearing rearwardly directly against said spacer device; said spacer device, in its non-retracted position, maintaining said firing pin separated from said detonator, and upon retraction, releasing said firing pin and allowing the latter to move and to travel rearwardly towards said detonator held by said detonator support in a forward position for fuse-firing; said firing pin protruding from the forward end of said body; one of the elements constituted by said rear abutment and said detonator support being breakable; said detonator support moving rearwardly from its forward fuse-firing position upon breakage of said element; in the event of an accidental blow on said firing pin in the unarmed condition of said fuse, and sufficient to induce a rearward travel of said pin towards said detonator support and said detonator, said breakable element being ruptured by said blow, whereupon said detonator support and said detonator travel rearwardly from said forward position before said spacer device, as a result of said blow, becomes embedded in said firing pin or in said detonator support to an extent sufficient to allow the firing pin to encounter said detonator; said rupture of said breakable element and the resultant rearward travel of said detonator support and of said detonator preventing an undesirable and untimely firing of said fuse.



2,845,867
PUMP INSTALLATION

Guy Taite Shoosmith, St. Mary Bourne, England, assignor to Plenty and Son Limited, Newbury, England

Application November 28, 1955, Serial No. 549,458
3 Claims. (Cl. 103—6)



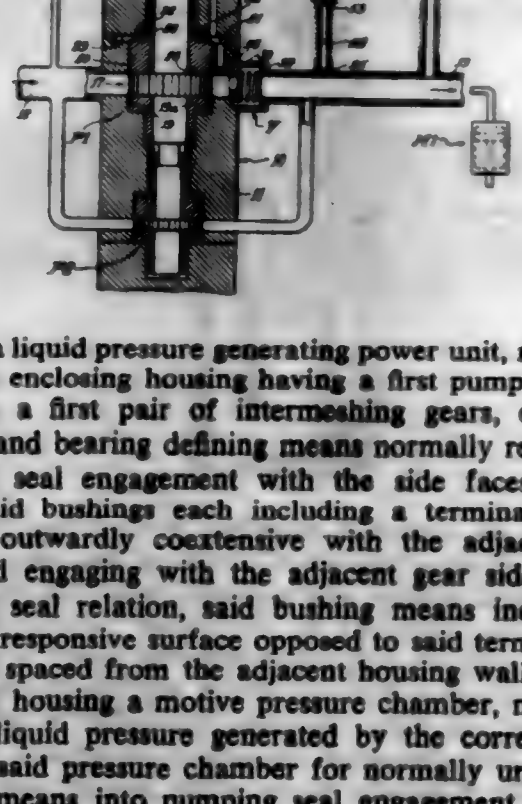
1. A pump installation for delivering a blend of two liquids, comprising two variable capacity rotary pumps each having means for adjusting the capacity of the pump, means whereby said pumps may be connected to two separate sources of liquid, common means connecting each pump for rotationally driving said pumps at substantially constant predetermined co-related speeds, a common control member mechanically linked to said capacity-adjusting means for varying the rate of delivery of the blend, said control member comprising two lever transmission means, three pivotal connections on each of said lever transmission means, namely, a first pivotal connection at the centre thereof to said capacity-adjusting means on one of said pumps, a second pivotal connection at one of the ends thereof to a nut carried on a shaft turned by said common control member, and a third pivotal connection to the fulcrum of said lever, said fulcrum being shiftable longitudinally of said lever from its free end to said first pivotal connection.

2,845,868

GEAR PUMP

Francis E. Norlin, Chesterland, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application January 12, 1955, Serial No. 481,305
10 Claims. (Cl. 103—11)



1. In a liquid pressure generating power unit, means defining an enclosing housing having a first pump chamber receiving a first pair of intermeshing gears, end plate bushing and bearing defining means normally received in pumping seal engagement with the side faces of said gears, said bushings each including a terminal surface radially outwardly coextensive with the adjacent gear teeth and engaging with the adjacent gear side face in pumping seal relation, said bushing means including a pressure responsive surface opposed to said terminal surface and spaced from the adjacent housing wall forming with said housing a motive pressure chamber, means delivering liquid pressure generated by the corresponding gears to said pressure chamber for normally urging said bushing means into pumping seal engagement with the corresponding gear side face; a second pump chamber in said housing receiving a second pair of intermeshing gears, said housing having a common inlet to said pairs of gears and a common outlet therefrom, a one-way check valve in said housing interposed between said pairs of gears effective to prevent reverse flow from said second pair of gears to said first pair of gears; means defining passage means interconnecting said pressure chamber with said inlet whereby the fluid in said pressure chamber is adapted to pass to said inlet; means defining a control valve assembly disposed in said passage means effective upon the occurrence of a combined discharge pressure of a selected value to relieve said pressure fluid from said pressure chamber and permit said bushing means to move axially out of sealing contact with the associated gears to a position which either fully or partially unloads said first pair of gears by controlling the amount of fluid passing through said passage means, while said second pair of gears continues to deliver liquid pressure to said common outlet; and means in fluid communication with said passage means intermediate said pressure chamber and said control valve assembly effective to reduce the overall movement of said bushing means from a fully loaded or fully unloaded position to any partially loaded position.

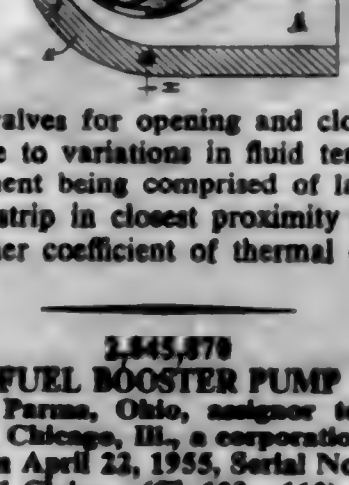
2,845,869

THERMO-SENSITIVE PUMP

Edward J. Herbenar, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application April 25, 1955, Serial No. 503,630
10 Claims. (Cl. 103—97)

1. In a fluid pump including a housing connected to a fluid inlet and outlet, the improvement of an impeller movable within the housing, said impeller having an annular axial portion having circumferentially spaced openings therethrough defining fluid channels in communication with the inlet and the outlet, and bi-metallic elements on said impeller and extending over said chan-



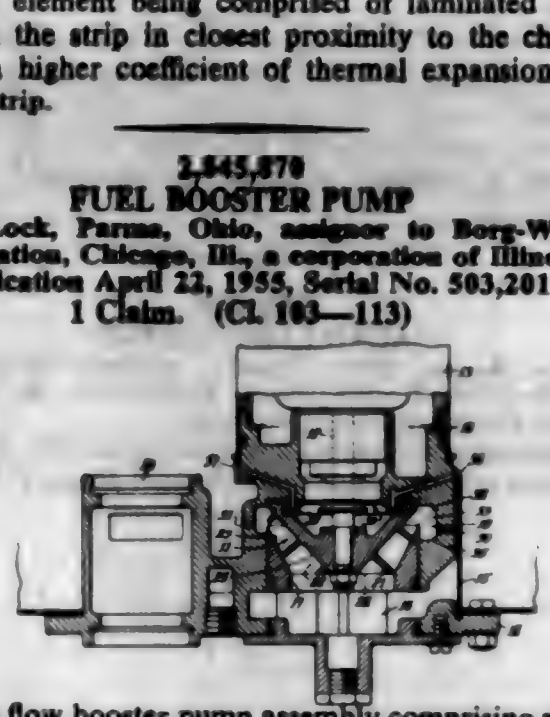
nels to define valves for opening and closing the channels in response to variations in fluid temperature, said bi-metallic element being comprised of laminated metal strips with the strip in closest proximity to the channel being of a higher coefficient of thermal expansion than the other strip.

2,845,870

FUEL BOOSTER PUMP

Thomas Lock, Parma, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application April 22, 1955, Serial No. 503,201
1 Claim. (Cl. 103—113)



A mixed flow booster pump assembly comprising means including a conically formed wall defining a housing having an impeller chamber, an inlet leading to and a discharge scroll leading from said impeller chamber, said conically formed wall having a sharp annular ridge projecting into said scroll, an impeller received in said chamber having a sealing and bearing means adjacent said scroll and chamber, said impeller defining with said impeller chamber a plurality of passages of diminishing cross-sectional areas from inlet to discharge scroll whereby fluid in the form of a mixture of vapor and liquid having an initially high vapor content at the inlet is moved through said passages upon rotation of said impeller and is discharged past said sharp ridge into said discharge scroll in the form of a liquid or in the form of a mixture having a low vapor content, means defining at least one aperture located in said discharge scroll opposite said sharp ridge where said mixture has its highest vapor content for venting said discharge scroll to a zone of pressure lower than that in said discharge scroll for further reducing the vapor content of the mixture in said discharge scroll, and means between said impeller and said sealing and bearing means venting any undesirable trapped vapor in said assembly to a zone of pressure lower than that in said discharge scroll.

2,845,871

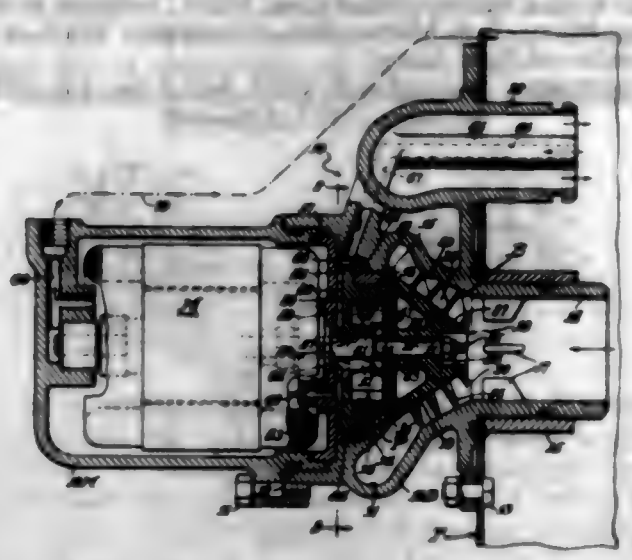
MIXED FLOW BOOSTER PUMP

James Albert Compton, South Euclid, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application May 20, 1955, Serial No. 509,764
3 Claims. (Cl. 103—113)

1. A pump assembly comprising, a pump including a conically-shaped pumping chamber, provided with an in-

let thereto and a scroll-shaped discharge therefrom, a complementary shaped impeller means provided with a plurality of spirally arranged vanes thereon, received in said chamber for pumping fluid from said inlet through said chamber to said discharge, means reducing pressure in said discharge to allow a flow of fluid from a source into said inlet, said last-named means comprising a second pump including a double lobe pumping chamber

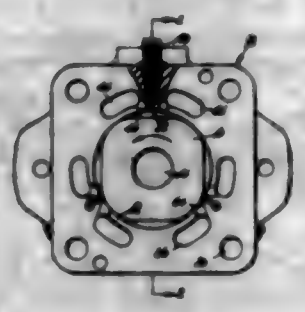


provided with an inlet thereto and an outlet therefrom, a rotor means provided with a plurality of axially extending circularly arranged curved vanes thereon, received in said second-named pumping chamber for pumping fluid from said second-named inlet through said second-named chamber to said outlet, means providing communication between said discharge and said second-named inlet and means for conjointly rotating said impeller means and said rotor means.

2,845,872
CAM PUMP

John R. Farron, Oak Park, and Chien-Bor Sung, Detroit, Mich., assignors to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware

Application September 16, 1953, Serial No. 380,486
8 Claims. (Cl. 103—123)



1. In a hydraulic power converter: a rotor member, a stator member, one of said members having a surface of revolution and the other of said members having a cooperating camming surface having valleys separated by lobes which slidingly sealingly abut said surface of revolution to form individual fluid confining chambers, a plurality of generally radially extending slots in the member having the surface of revolution, a vane in each slot extending into sliding sealing engagement with the other of said surfaces and being constructed and arranged to sweep fluid from said chambers, suitable passage means in said members for removing fluid from and adding fluid to the chambers, said surface having its lobes and valleys formed substantially in accordance with the following equation:

$$r=r_b+e\cos n\theta$$

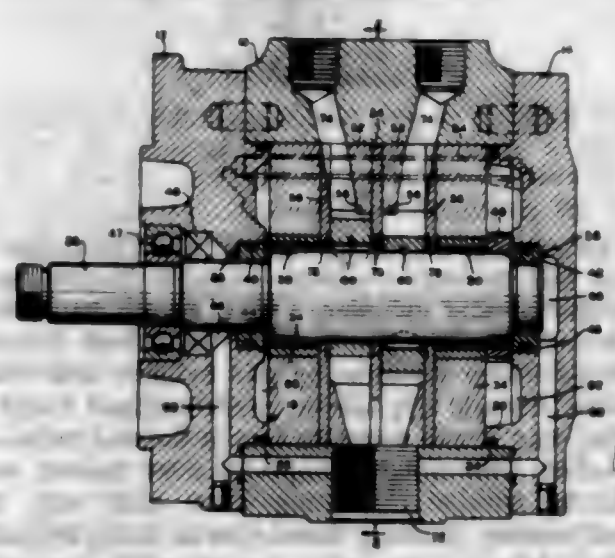
wherein:

r=the distance from the axis of rotor rotation to any point on the cam surface,
r_b=the radius of the base circle about which the cam surface is formed,
e=the maximum height of both lobes and valleys from the base circle,
n=the number of lobes spaced around the cam surface, and
θ=any angle measured from a reference plane passing through a radially outermost point on the camming surface.

2,845,873
ROTATING FLUID PUMP

Robert Lapsley, Buchanan, Mich., assignor to Clark Equipment Company, Berrien Springs, Mich., a corporation of Michigan

Application September 8, 1954, Serial No. 454,673
16 Claims. (Cl. 103—125)

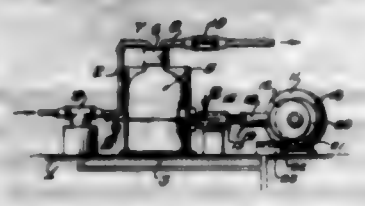


1. A fluid pump comprising a casing having a substantially cylindrical bore, a plurality of cylindrical fluid cylinder defining elements arranged in the bore of said casing, transversely thereof, cover members secured to the ends of said casing for enclosing the latter and maintaining said cylinder elements in assembled relation, an input shaft extending through said cylinder defining elements and one of said cover members, fluid pressure developing elements driven by said input shaft within the cylinder defined by said cylinder defining elements, and substantially aligned inlet and outlet fluid passageway means in said cylinder defining elements in said casing to thereby provide a substantially direct line of flow of fluid through the pump.

2,845,874
METERING PUMP

James H. Nangle, Manhattan Beach, Calif.

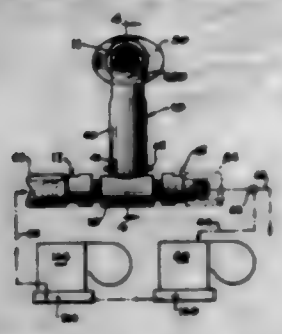
Application November 2, 1956, Serial No. 620,055
1 Claim. (Cl. 103—148)



A pump for metering small quantities of liquid, comprising: a cylindrical container having an open upper end and a side wall aperture; a deformable bottle formed of plastic material tending after deformation to recover

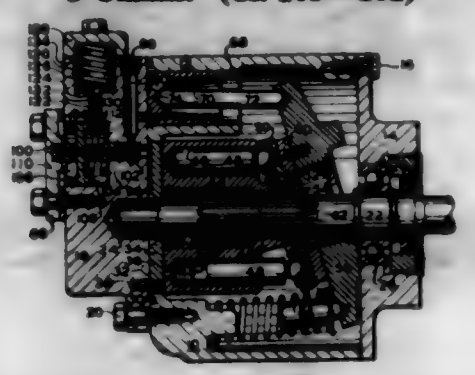
to its initial shape, said bottle being fitted within said container; a supply line and a discharge line connected with said bottle; valves for said lines, said bottle being adapted to be liquid filled whereby on periodic distorting of said bottle liquid is pumped from said supply line to said discharge line; a guide bearing mounted externally of said container in registry with said aperture; a rod slidably mounted in said guide bearing; a head on one end of said rod movable through said aperture for engagement with said bottle; a cam follower at the other end of said rod; a cam periodically engageable with said rod to cause said head to engage and distort and compress said bottle periodically, thereby to cause said bottle to pump liquid from said supply line to said discharge line.

2,845,575
PUMPS
Thomas H. Corbett, Chicago, Ill.
Application March 29, 1956, Serial No. 574,853
11 Claims. (Cl. 103—153)



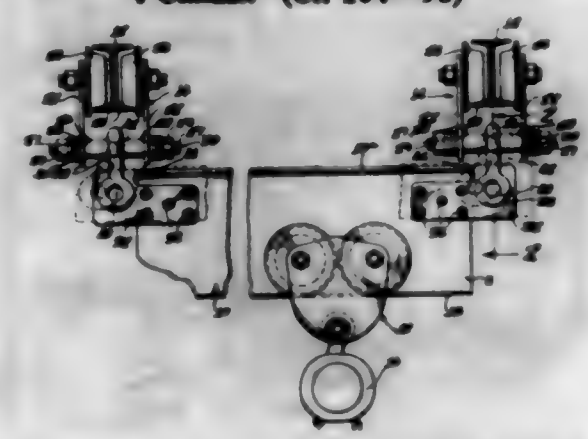
1. In a pump, a cylinder having inlet and outlet valves as one end thereof, a piston extended slidably into the other end of said cylinder, spring means acting on said piston to urge said piston to a withdrawn position, a mounting sleeve surrounding said cylinder and rotatably connected to said cylinder in predetermined longitudinal relation, said sleeve being formed at the end remote from said valves with slots on opposite sides thereof to form projecting parallel mounting ears, said ears having aligned bearing openings therein on an axis perpendicular to said cylinder, bearings non-rotatably mounted in aligned relation in the respective ears, a cam disposed between said bearings and having a centrally located resilient ring therein to drivingly embrace a drive shaft extended through said bearings.

2,845,576
POWER TRANSMISSION
Adolf Keel, Highland Park, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application March 1, 1954, Serial No. 413,121
5 Claims. (Cl. 103—162)



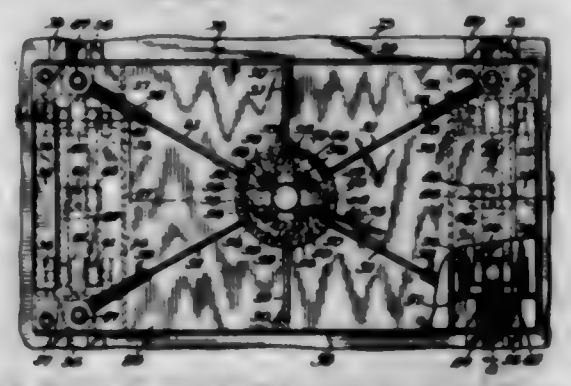
1. A combined flow and pressure compensating system for pumping structure having a member shiftable under fluid pressure to vary the displacement thereof, comprising in combination: pilot valve means for controlling said shiftable member; a fluid motor coupled to said pilot valve, said motor having a pair of opposed areas; means for producing a pressure differential dependent on the pump output rate; means for directly applying said differential pressure to said opposed areas to control the operation of said pilot valve; and means, responsive to a predetermined pump discharge pressure, for varying said directly applied differential irrespective of output rate to control said pilot valve so as to shift said member to reduce pump displacement.

2,845,577
CRANE
Walter Eugen Richter, Muskegon, Mich., assignor to Manning, Maxwell & Moore, Inc., Muskegon, Mich., a corporation of New Jersey
Application November 2, 1955, Serial No. 544,480
4 Claims. (Cl. 104—98)



1. A bridge crane for use on a pair of parallel overhead tracks comprising in combination, trolleys adapted to roll along said tracks, an I-beam bridge member including an upper and a lower longitudinal flange, a hoist mounted to travel along said lower flange, and means for suspending said bridge from said trolleys, said means including a pair of substantially L-shaped brackets secured to said bridge at each end and extending longitudinally therefrom, each of said brackets having a projection thereon engaging the end surface of the upper flange, and means swingably suspended from said trolleys and engaging the extending ends of said brackets for swingably and movably suspending said bridge from said trolleys.

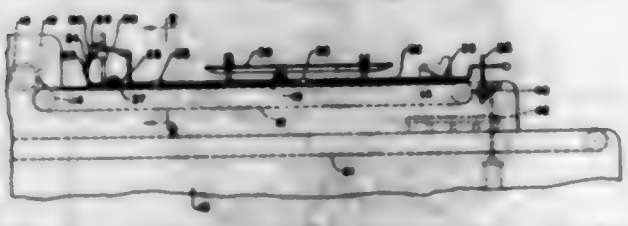
2,845,878
FREIGHT VEHICLE STAND
Jack E. Gutridge, Munster, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application August 17, 1953, Serial No. 374,759
6 Claims. (Cl. 105—368)



2. In a freight vehicle adapted to carry a vehicle, a floor, a first pair of spaced rails positioned longitudinally of the freight vehicle and secured to the floor, a second pair of spaced rails positioned longitudinally of the freight vehicle and spaced from the first pair of rails and secured to the floor, a vertically disposed stand adapted to partially support the vehicle, a pair of wheels rotatably mounted on each side of the stand and each wheel comprising a roller and a rib extending around the roller intermediate its ends and the rib on each wheel being disposed between the adjacent pair of rails and the roller on each wheel being disposed upon the adjacent pair of

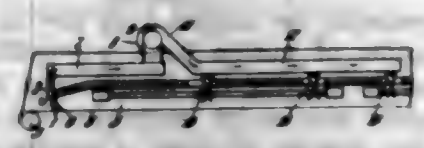
rails, the stand being movable longitudinally of the freight vehicle with its wheels rolling on the rails so that it may be positioned under the vehicle, and means mounted on each side of the stand and adapted to engage the adjacent pair of rails to hold the stand in a fixed position after it has been placed under the vehicle.

2,845,879
DOUGH SEAM CONTROL
John A. Boston, York, Pa., assignor, by mesne assignments, to Capitol Products Corporation, Mechanicsburg, Pa., a corporation of Pennsylvania
Application May 29, 1956, Serial No. 587,986
2 Claims. (Cl. 107—9)



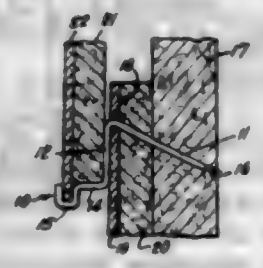
1. In a moulder comprising an endless horizontally traveling belt for transporting dough sheets lengthwise therealong, a pivoted curler frame mounted on said moulder and extending transversely of said belt in superposed spaced relation with respect thereto, a curling mat having an end thereof suspended from said frame above said belt and having a pendent forward portion and a terminal portion resting on said belt extending in the direction of travel of said belt, said terminal portion having a length to roll said dough sheets into cylindrical coils with the trailing edge portion of the dough sheets forming external seams and to turn said cylindrical coils on their axes as they are transported under said terminal portion by said belt, said frame having a frame member offset from the pivotally mounted end of said frame engaging the pendent portion of said mat, and means for pivoting and retaining said frame in any one of a number of pivotally adjusted positions to vary the vertical extent of the pendent portion of said mat and the extent of engagement of the terminal portion of said mat with said belt, thereby to vary the extent of rotation of the cylindrical coils of dough on their own axes for maintaining a constant peripheral location of said external seams at the discharge end of said belt under varying conditions of operation.

2,845,880
TRAVELLING CONVEYOR OVENS
James I. D. Warrington, Peterborough, Northampton, England, assignor to Baker Perkins Limited, Peterborough, Northampton, England
Application March 1, 1954, Serial No. 413,323
Claims priority, application Great Britain March 6, 1953
2 Claims. (Cl. 107—55)



1. In a traveling conveyor oven of the type in which the conveyor means enter the baking chamber through an entrance which it is not possible to seal against the unwanted egress of steam from the baking chamber to the outside air, the provision of a hood in advance of but immediately adjacent the said entrance to the baking chamber, located so as to collect only that steam escaping from the baking chamber through said entrance, suction conduit means connected to said hood, suction creating means connected to said suction conduit means downstream of the hood and including a discharge portion, whereby escaping steam is drawn off through said hood and passes through said suction conduit means and said discharge portion, and steam recirculation conduit means in communication with said discharge portion at one end and connected to the baking chamber at a plurality of points along the length of the baking chamber, said steam recirculation conduit means including a plurality of nozzles directed to discharge steam back into the baking chamber, and damper means operably associated with each nozzle whereby the return flow of steam through each nozzle may be controlled.

2,845,881
SHINGLE FASTENING NAIL AND BUILDING CONSTRUCTION
Richard E. Ogden, West Nyack, N. Y., assignor to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts
Application July 20, 1954, Serial No. 444,528
1 Claim. (Cl. 108—33)

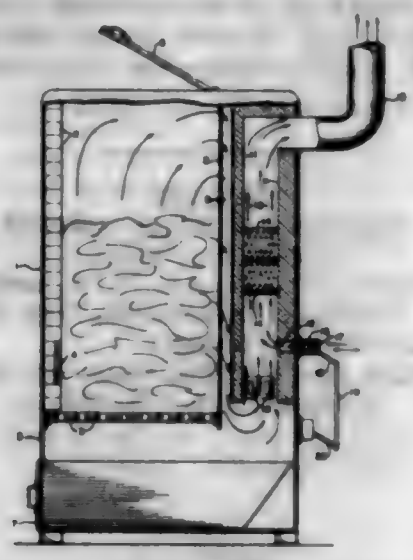


A building construction comprising an exterior wall of a plurality of asbestos-cement shingles over a plurality of backer boards arranged in precisely horizontal successive rows fastened to insulation sheathing by means of shingle fastening devices each comprising a single piece of wire bent upon itself to form a pair of legs extending, in driven position, at an angle of approximately 30° to 60° with respect to each other, the first of said legs having a shaft extending outwardly therefrom and a U-shaped hook at the end of said shaft, the second of said legs having a prong at the free end thereof wherein said second leg is driven inwardly and downwardly through a prepunched hole in the top of the shingle, through a backer board into the sheathing while the shingle of the next row above rests in said U-shaped hook and the backer board of said next row above rests on said shaft, the shingle fastening devices being arranged in precise horizontal rows so as to provide self-aligning resting places for the next successive horizontal row of shingles and backer boards.

2,845,882
INCINERATION APPARATUS AND METHOD
Alfred I. Bratton, Broomall, Pa., assignor to Oxy-Catalyst, Inc., a corporation of Pennsylvania
Application February 23, 1955, Serial No. 489,890
5 Claims. (Cl. 110—8)

1. In an incinerator for burning combustible material with concomitant destruction of smoke and fumes in the stream of combustion products, said incinerator comprising a firebox to receive the material to be burned, a catalyst chamber housing an oxidation catalyst and communicating with said firebox to receive the stream of combustion products therefrom before passage to the incinerator stack, a heating element disposed within said catalyst chamber at a point upstream from said catalyst to heat said stream of combustion products and to heat said oxidation catalyst, and an air inlet communicating with the interior of said catalyst chamber at a point upstream from said catalyst to supply oxygen for catalytic oxidation of said smoke and fumes, the improvement comprising air flow regulating means associated with said air inlet, temperature responsive control means for controlling said regulating means, said control means being responsive to the temperature of said firebox in such manner that during the burning cycle of a single charge

with varying firebox temperatures and similarly varying flow rates and smoke and fume concentrations in the stream of combustion products, the amount of air admitted through said air inlet is at all times adequate to supply the oxygen necessary for said catalytic oxidation



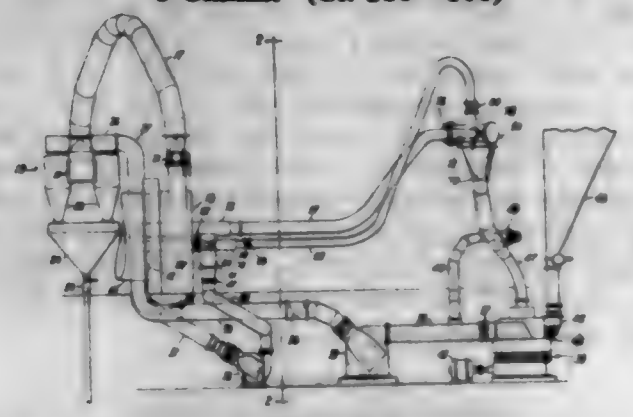
while the admission, during periods of low firebox temperature and low flow rates and smoke and fume concentrations in the stream of combustion products, of excessive quantities of air, such as would cool said catalyst to a level below its operating temperature, is prevented.

2,845,883

CLASSIFICATION OF GAS ENTRAINED FUEL PARTICLES

Daniel V. Sherban, Keyport, N. J., assignor to The Babcock & Wilcox Company, Rockleigh, N. J., a corporation of New Jersey

Application June 16, 1950, Serial No. 167,349
6 Claims. (Cl. 110—106)



3. In a pulverized fuel firing system comprising an air swept pulverizer from which a pulverized fuel and air mixture is directed through separate burners, a combined classifying and distributing means comprising a horizontally disposed cylindrical header having an inlet nozzle arranged to receive said mixture from said pulverizer and direct said mixture tangentially into said header, and outlet conduits connected to said header and arranged to direct separate portions of said mixture to the respective burners, said outlet conduits having inlet openings circumferentially spaced from one another and from said inlet nozzle and respectively radially arranged relative to said header to receive said separate mixture portions from radially separate regions internally of said header.

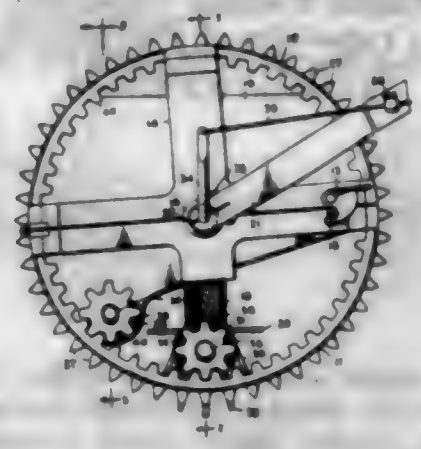
2,845,884

SUBSURFACE SEED AND FERTILIZER PLANTER

Paul L. Clausing, Ottumwa, Iowa, and Don P. Clausing, Aberdeen, Md.

Application July 14, 1955, Serial No. 521,990
8 Claims. (Cl. 111—91)

1. Apparatus for planting seeds and loose materials below ground in a close pattern comprising a drum adapted to be rolled over the ground, said drum being provided with a plurality of regularly spaced circumferential rows of perforations in its outer wall and lined with a flexible rubber-like mat having outwardly projecting nipples with orifices in their outer ends alining with said perforations, axial bearings at the end of said drum, a frame within said drum supported by said bearings, a hopper supported by said frame, spaced outlet means in the bottom of said hopper through which said material is dropped into said perforations, a pusher assembly including an eccentrically positioned shaft rotatably mounted



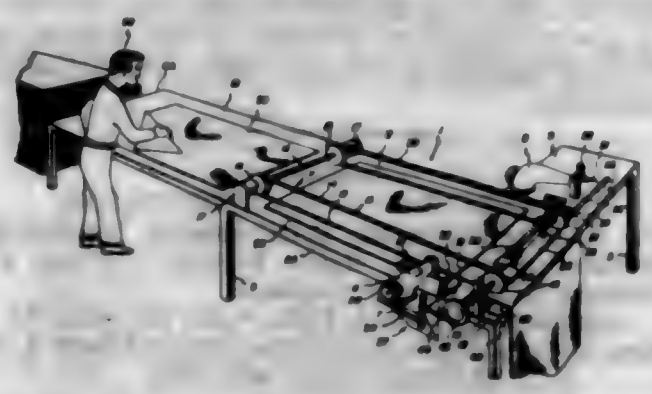
on said frame, means for driving said shaft in timed relation to the movement of the drum over the ground, a plurality of radially positioned groups of pushers connected to and regularly spaced along said shaft, each group of pushers being in alignment with a circumferential row of drum perforations, and pusher advancing means responsive to rotation of said drum for aligning a pusher with and projecting it through each of said perforations when said perforation is at the lowermost point in its rotation, thereby forcing the material which has been dropped into said perforation out through the nipple aligned therewith into the ground.

2,845,885

SEWING MACHINE FOR BURLAP BAGS

Alfredo Ruben Scarrone, Montevideo, Uruguay

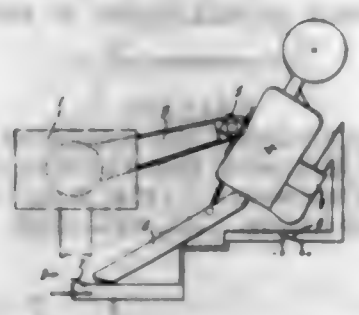
Application January 25, 1957, Serial No. 636,404
5 Claims. (Cl. 112—10)



1. In an apparatus for successively sewing the lateral and bottom seams of burlap bags, a worktable, a first sewing machine for sewing the lateral edge of said burlap bag, conveyor means for conveying the burlap bag through said first sewing machine, a second sewing machine for sewing the bottom edge of the said burlap bag, second conveyor means at one end of the table and below the surface thereof for conveying the burlap bags to said second sewing machine, said second conveyor means comprising a series of pins which prick said burlap bag to secure the same on said second conveyor means for movement of a bag, a panel normally covering the pins on said second conveyor means, means for disengaging said burlap bag from said first conveyor means, and means for moving said panel while moving the disengaging means to enable said disengaged burlap bag to be pierced by said second conveyor means pins whereby the

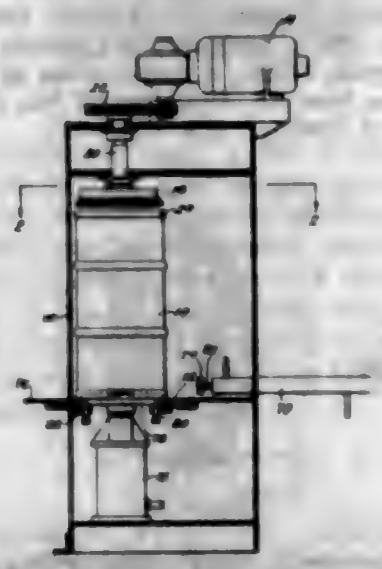
burlap bag is then moved laterally through said second sewing machine for sewing the bottom seam of the burlap bag.

2,845,886
TICKET ISSUING MACHINE
Frank Reuben Albert Newnham, New Hythe, Maidstone, England, assignor to Medway Paper Sacks Limited, London, England, a British company
Application October 18, 1955, Serial No. 541,286
Claims priority, application Great Britain October 19, 1954
6 Claims. (Cl. 112—11)



1. An attachment for a sewing machine for closing and sewing the open ends of filled bags or the like and wherein the filled bags progress along a predetermined path to said sewing machine, the attachment comprising; means for supporting, feeding, and cutting strip material into tickets of predetermined length, elongated delivery means for delivering a cut ticket from said cutting means, drive means for actuating said feed means, cutting means, and delivery means through one cycle of operation, and control means adapted to be positioned in said path for actuation by a bag approaching said sewing machine to initiate a cycle of operation of said drive means, said elongated delivery means including a plurality of endless belts having adjacent parallel runs, said delivery means being mounted to position one end thereof to receive the leading end of a ticket at said cutting means between said runs, the other end of said delivery means being positioned to deliver a ticket from between said runs to a position to move through said sewing machine with a bag.

2,845,887
LOCK SEAM UNROLLING MACHINE
Edward C. Kradocka, Melrose Park, Pa.
Application April 15, 1955, Serial No. 501,670
3 Claims. (Cl. 113—1)



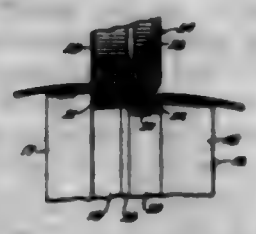
1. A machine for wholly unrolling a generally U-shaped lock seam of the type which engages the exterior of the end of a drum and clamps a closure to said end of said drum, said machine including a rotary die engageable with said closure and with the bight portion of said seam, a first roll engageable with the end of said seam remote from said end of said drum and cooperating with said die to move said seam to a position in which the inner wall of said seam is separated from the exterior of said drum, a second roll engageable with said inner wall of said seam and cooperating with said die for moving said seam into a position in which the outer and inner walls of said seam form an inverted U, a third roll located near one end of said seam and engageable with the bight portion of said U, and a fourth roll located near the other end of said seam and engageable with the adjacent end of the outer wall of said seam, means for moving said third roll towards said fourth roll to compress said seam therebetween, and means for moving said fourth roll in a direction at an angle to the direction of movement of said third roll to unroll said seam to a position in which the walls of said seam are wholly flattened out and are parallel to each other.

2,845,888
DETECTOR MEANS FOR CAN HEAD CRIMPING MACHINE
John D. Winters, Winnetka, Ill., and Rudolph J. Perino, Kenosha, Wis., assignors to Fansteel Metallurgical Corporation, a corporation of New York
Application November 23, 1951, Serial No. 257,779
3 Claims. (Cl. 113—7)



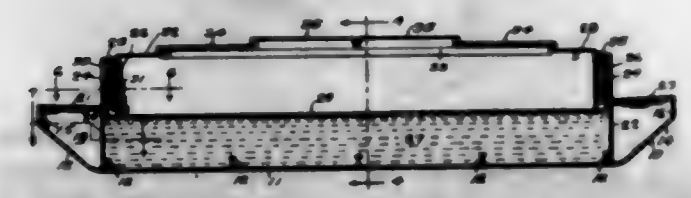
1. In a machine for sealing metal cans having a base, an index table carried by said base and rotatable around a vertical axis, means for advancing said index table by one index position at a time, seating dies carried by said index table, there being one such seating die for each index position, each seating die having a through channel vertically thereof and being adapted to receive a can and contents in said can, and crimping means for crimping the end of a can, the improvement comprising means for detecting the presence of the contents in said can in advance of said crimping means, said detecting means including a detector head and feeler rod, means for moving the detector head and the feeler rod downwardly towards the index table when said table has reached an index position, said detector head being adapted to be stopped at its normal bottom position by the presence of the contents in a can disposed in said seating die with said feeler rod dropping to a corresponding predetermined normal bottom position, said detector head and said feeler rod moving below their respective normal bottom positions in the absence of the contents in said can, and means controlled by said feeler rod for discharging a can from its seating die before reaching the crimping means when the feeler rod is below its normal bottom position.

2,845,889
METHOD OF FORMING A FLOW CONDUIT
Tillman F. Jones, Wichita, Kans., assignor to The Coleman Company, Inc., Wichita, Kans., a corporation of Kansas
Application August 25, 1953, Serial No. 376,421
2 Claims. (Cl. 113—34)



1. In a method of forming a flow conduit adapted for use in comparatively high pressure fluid flow systems, the steps of folding an elongated sheet of sheet metal upon itself along each of the longitudinal edges thereof to form complementary hook portions, bringing said hook portions into interlocking engagement to form a conduit having a longitudinally extending seam wherein one said longitudinal edge overlies the other, pressing the overlying longitudinal edge portion of said seam downwardly along a line extending longitudinally along substantially the center thereof to provide a stepped seam and forming a shoulder in the other said longitudinal edge of said sheet extending along and substantially abutting the depressed portion of the seam, and thereafter pressing downwardly upon the entire seam while limiting transverse expansion thereof to provide a conduit having a substantially smooth periphery in the area thereof adjacent said seam and wherein the said shoulder provides a substantially rigid lock for said complementary hook portions.

2,845,890
BARGE FOR LIQUID AND/OR DRY CARGO
John P. Dameron and Walker B. Coleman, Jr., New Orleans, La.
Application November 27, 1956, Serial No. 624,647
4 Claims. (Cl. 114—73)



1. A liquid and dry cargo barge structure comprising in combination a hull, bulk heads positioned in said hull delineating flotation compartments and a liquid cargo hold in said hull, a floating dry cargo hold positioned within said liquid cargo hold and arranged to float on the liquid cargo therein, and means on said hull cooperating with means on said dry cargo hold for sealing said dry cargo hold to said hull thus sealing said liquid cargo hold, said liquid cargo hold and said dry cargo hold being capable of both separate and simultaneous cargo carrying use.

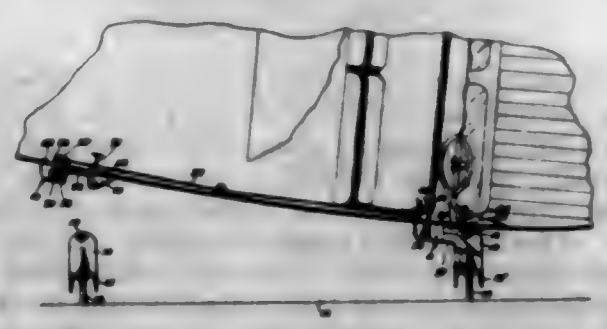
2,845,891
BOAT STEERING APPARATUS
Harry Frey, Belton, Tex.
Application March 11, 1957, Serial No. 645,186
1 Claim. (Cl. 114—144)

In a boat having a seat and an outboard motor thereon swingable for steering, a horizontal pulley swivelled on said seat for rotation in opposite directions respectively, a rotary seat fixed on said pulley for rotation by a person on the rotary seat to rotate the pulley, and means for swinging said motor in opposite directions in response to rotation of said pulley in opposite directions



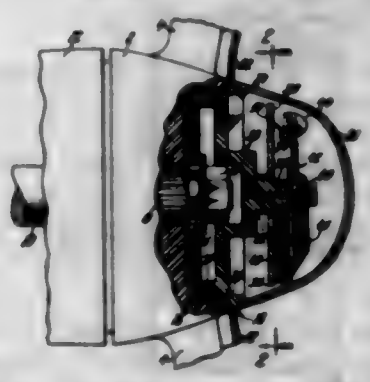
comprising a cable wound around said pulley and operatively connected to said motor to swing the same.

2,845,892
BOAT MOORING ASSEMBLY
John P. Jorgenson, Fort Lauderdale, Fla.
Application December 17, 1954, Serial No. 475,990
10 Claims. (Cl. 114—230)



9. Apparatus for mooring a boat in a body of water comprising a dock, a stationary elongated mooring member, means extending outwardly from said dock for supporting said member tautly in outwardly spaced relationship to said dock and in a position extending transversely of the surface of said body of water, a coupling unit mounted on a side of said boat, said coupling unit including a fixed body portion having a recess provided with an open side for receiving said mooring member, and a shiftable latch element for selectively closing said open side of said recess, the open side of said recess of said body portion being directed laterally of said boat for receiving said mooring member during movement of said boat in a direction having a lateral component of movement.

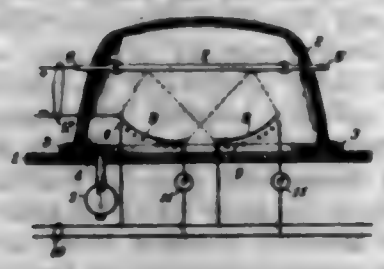
2,845,893
STEERING DIRECTION INDICATOR
Jesse E. Eshbaugh, Thomas W. Lamar, and Werner F. Schultz, Flint, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 18, 1956, Serial No. 592,170
4 Claims. (Cl. 116—31)



1. In association with the steering wheel of an automotive vehicle having dirigible means angularly displaced incident to the steering action, a support rotating with said wheel, dial means carried on said support in non-fixed relation and having mass characteristics such that it does not rotate with said support, said dial means having gearing associated therewith, a drive gear fixed on

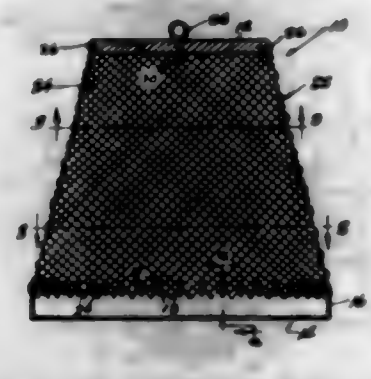
said support, and an indicating device pivoted on said support in juxtaposition to said dial means, said device being connected to said drive gear via gearing means engaging also with the gearing associated with said dial means, said gearing means being carried by said device.

2,845,894
METALLURGY
Oran T. McIlvaine, St. Charles, Ill.
Application March 4, 1953, Serial No. 340,320
1 Claim. (Cl. 118—49.1)



Apparatus for making a new material comprising a base support, a plurality of receptacles arranged for directing vapors therefrom onto the base support, means for vaporizing materials from said receptacles, a screen arranged between the receptacles and the base support in the path of the vapors to the base support, an electric circuit including a source of electrical supply connected at one side with the screen and at the opposite side with the base support, and a separate circuit including a source of electrical supply connected at one side with the screen and at the opposite side with the receptacles.

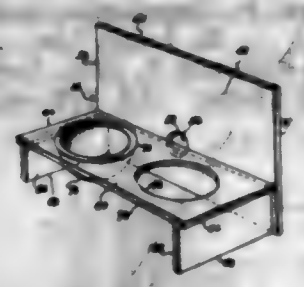
2,845,895
COLLAPSIBLE CAGE
Casimer G. Balkwaskas, South Boston, Mass.
Application May 24, 1957, Serial No. 661,464
3 Claims. (Cl. 119—17)



1. In a collapsible cage, a top having a peripheral edge, a bottom having a peripheral flange, elements on and spaced around said flange, a frusto-conical side wall, said side wall being of collapsible reticulated material, said side wall having an upper end secured to the peripheral edge of the top and a lower end, and means secured to said elements and separably traversing the lower end of the side wall and securing the bottom to the lower end of the side wall.

2,845,896
ANIMAL FEEDING CABINET
Ernest Copeland, Mount Clemens, Mich.
Application May 11, 1956, Serial No. 584,259
2 Claims. (Cl. 119—51)

1. A food holding unit for animals comprising a shelf-like member having at least one opening therethrough embracing a food receptacle, supports for said member comprising a vertical member adjacent each end thereof and extending downwardly therefrom, said supports being spaced inwardly from the ends of said member, and a



back board in contact with one side edge of said member and with the ends of said supports.

2,845,897
CATTLE RUBBING AND OILING DEVICE
Leonard H. Pelc, Johnstown, Nebr.
Application August 23, 1954, Serial No. 451,380
3 Claims. (Cl. 119—157)



1. A livestock oiling apparatus comprising a pair of spaced apart supports, a liquid reservoir, an elongated hook fixed to said reservoir and semi-rigidly engaged with one of said supports, an elongated fibrous rope, means securing one end of said rope to the other of said supports, clamping means on the lower portion of said reservoir securing the other end of said rope to said reservoir, said reservoir having a liquid dispensing opening therein above the normal level of liquid in the reservoir, and a liquid confining guide element fixed to said reservoir adjacent said liquid dispensing opening and overlying said rope to guide liquid dispensed from said opening onto said rope, vibratory movement of said reservoir caused by livestock rubbing against said rope intermediate the ends thereof effecting splashing of the liquid through said dispensing opening and thus onto said rope.

2,845,898
WRITING INSTRUMENT CHUCK
Walter Stanek, Schwabach, Germany, assignor to A. W. Faber-Castell, Nurnberg, Germany
Application June 27, 1955, Serial No. 518,250
11 Claims. (Cl. 120—21)



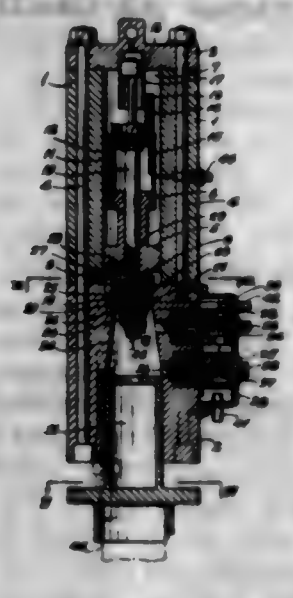
1. In a chuck for holding a filler of a pencil, a tubular clamping member, the front portion of said member being formed with slots dividing said portion into a plurality of jaws, said slots running substantially in longitudinal direction with respect to said member, a plurality of grooves with ribs therebetween formed on the inner wall of said front portion and being disposed substantially at a right angle with respect to the axis of said member, said ribs being pressed down toward said grooves along at least one row substantially parallel to said axis in such a way that material displaced from said ribs is partially filling said grooves at said rows.

2,845,899
WRITING INSTRUMENT
Joseph Lipic, Jr., Seppington, and Emil J. Lipic, St. Louis, Mo.
Application February 9, 1956, Serial No. 564,410
2 Claims. (Cl. 120—42.03)



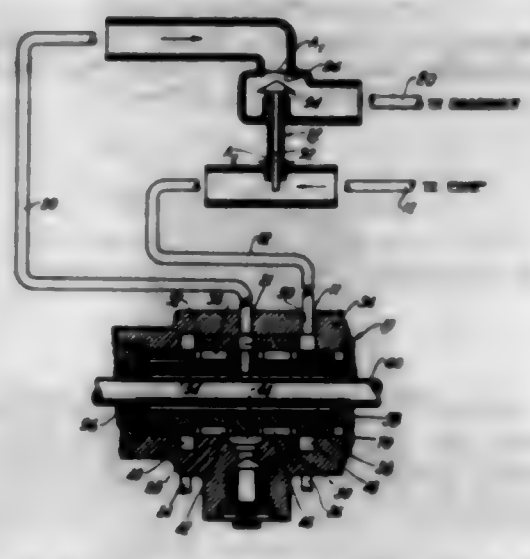
1. In a writing instrument of the character described, in which a nib is mounted to be selectively extended from and retracted into a hollow barrel, said nib being biased toward retracted position by a spring and arranged to be moved toward extended position by a plunger projecting from said barrel, said barrel having a pocket clip mounted thereon and extending axially of the barrel with a nub at a free end of said clip, and a catch mechanism mounted within said barrel, the improvement in catch mechanism which comprises a hairpin spring carried by said plunger, the legs of which spring bear opposingly against the inside wall of said barrel, a latch and a guide both extending from one of said legs in a direction toward the outside of said barrel, said barrel being provided with two, spaced, axially directed slots, the first one of said slots being positioned beneath the clip but terminating short of the nub of said clip, leaving a solid surface upon which said nub bears, the second of said slots extending from a point immediately adjacent the said nub toward the nib of said instrument, said guide extending within the first of said slots throughout the travel of said plunger between the retracted and extended position of the nib, said latch projecting through the said second slot when the nib is in extended position, and being confined within the barrel when the nib is in retracted position.

2,845,900
MECHANICAL HAMMER
Makoto Uzuki, Fukuoka City, Japan
Application February 1, 1955, Serial No. 485,485
5 Claims. (Cl. 121—38)



1. In a mechanical hammer the combination of: a casing having a first chamber, a second chamber and a third chamber capable of communication with said second chamber, a first piston member slidably arranged between said first and second chambers and separating same, said first chamber being capable of holding a compressed gaseous medium, inlet means for supplying hydraulic fluid to said second chamber, a second piston member slidably arranged in said third chamber and carrying an engaging member capable of engagement with a work, valve means arranged between said second and third chambers and being responsive to the pressure in said first and second chambers, and controlling means for controlling the opening and closing of said valve means in dependence on the respective pressures in said first and second chambers, said controlling means comprising a cylinder member arranged within said first chamber and being operatively connected to said valve means, said cylinder member in conjunction with said first piston member, defining a fourth chamber capable of holding a compressed gaseous medium, a portion of said first piston member being slidably engaged with said cylinder member, a check valve arranged between said first and fourth chambers, and a further valve between said first and fourth chambers, said portion of said first piston member being capable of opening said further valve.

2,845,901
BACK PRESSURE PRODUCING DEVICE FOR HYDRAULIC SYSTEM
Stanley I. MacDuff, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application September 25, 1953, Serial No. 382,287
6 Claims. (Cl. 121—38)



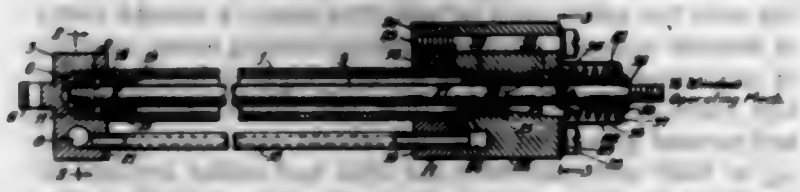
1. In a hydraulic system, the combination of a supply conduit, a discharge conduit, a valve for controlling flow in the system and provided with a pressure port and a return port, said pressure and return ports being connected to said supply and discharge conduits respectively, and means interconnecting said conduits for maintaining the relative pressures therein at predetermined values, said means comprising a pressure sensitive member having one end extending into the supply conduit and the other end projecting into the return conduit, a valve element carried on said other end of the member and on which the fluid in the return conduit acts, a valve seat formed in the return conduit upstream of said valve element on which said valve element is seatable, the valve element being seated or unseated on said valve seat as a result of the relative pressures exerted against the valve element and the opposite end of the pressure sensitive member.

2,845,902

SELF-LOCKING FLUID MOTOR

J. Edward C. Anderson, East Cleveland, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application January 7, 1955, Serial No. 480,533
4 Claims. (Cl. 121—40)



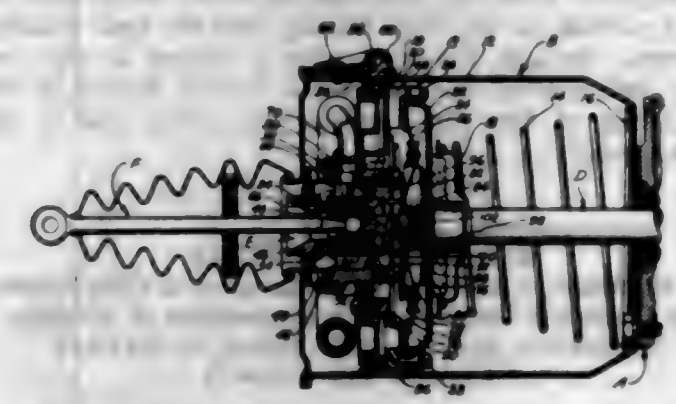
1. In a hydraulically operated control mechanism, housing means, means defining an elongated opening in said housing means, a control rod in said opening adapted for longitudinal movement therein to effect a control function, lock means comprising a longitudinally tapered expandable collar adapted to wedgingly engage between said rod and said opening defining means to prevent movement of said control rod in at least one longitudinal direction, said lock means being constructed and arranged to permit movement of said rod in the one longitudinal direction upon movement of the lock means to a predetermined position relative to said rod, a first piston disposed in said opening upon said rod for movement relative to said rod adapted to effect movement of said lock means to said predetermined position whereby said rod is released therefrom, and a second piston disposed in said opening upon said rod for movement relative to said rod in response to hydraulic pressure adapted to engage said first piston and effect its movement to lock releasing position.

2,845,903

FLUID PRESSURE SERVO-MOTOR

Earl R. Price, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application April 30, 1956, Serial No. 581,436
6 Claims. (Cl. 121—46.5)



1. In valve means for controlling fluid pressure servo-motors and the like, a valve seat member, a movable valve closure member constructed and arranged to abut said valve seat member and thereby control differential pressure thereacross, reaction means arranged to provide a reactive force varying generally as a predetermined function of the output pressure of said valve means, and means for transferring at least a part of the reactive force of said reaction means to bias said members against each other to help effect a seal with respect to each other.

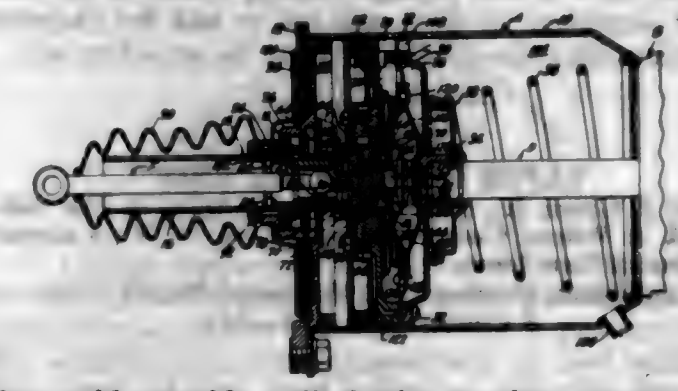
2,845,904

FLUID PRESSURE SERVO-MOTOR

Edward E. Hupp, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application May 3, 1956, Serial No. 582,444
8 Claims. (Cl. 121—46.5)

1. A control valve for servo-motors and the like comprising: a body member having a valve chamber therein; a pair of generally parallel movable walls having generally aligned openings therein and dividing said chamber into first and second spaced pressure chambers and a control chamber intermediate said movable walls; a movable valve closure member positioned between said movable walls in said control chamber for alternate abutment with the sides of said movable walls which face each



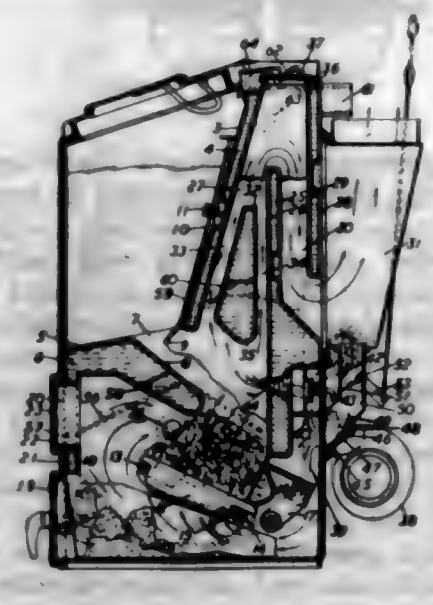
other; said movable walls having portions surrounding said openings which are adapted to be biased toward and seat against said movable valve closure member, said movable wall portions having limited movement into said control chamber; and means operatively connected to said movable valve closure member for movement toward and away from said openings.

2,845,945

BOILERS

William Herbert Smith, East Molesey, England

Application January 25, 1955, Serial No. 483,920
Claims priority, application Great Britain
January 25, 1954
3 Claims. (Cl. 122—30)



1. A boiler comprising a casing, means in said casing forming a fire chamber, a fuel hopper enclosed by said casing and having an outlet above said fire chamber through which fuel is fed from the hopper to said fire chamber, said hopper having a rear wall sloping upwardly and backwardly from said outlet, said rear wall forming the front wall of an upwardly directed tapering flue passage, a partition within said casing forming the rear wall of said flue passage and the front wall of a downwardly directed flue passage, the top of said partition lying below the top of said casing, said casing having a rear wall forming the rear wall of said downwardly directed flue passage, means forming an outlet flue to which the flue gases pass after passing upwardly through said tapering passage and said downwardly directed passage, wall means forming a water chamber within the tapering flue passage and defining with the front and rear walls thereof through passages each of which is in communication with the upper end of said downwardly directed flue passage, said through passages having sub-

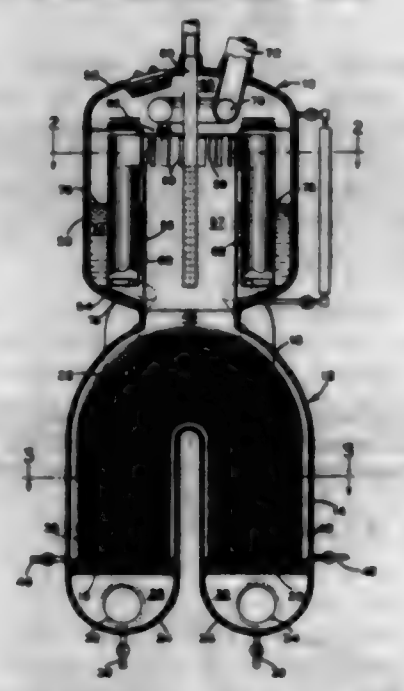
stantially equal areas for directing the flue gases in substantially equal amounts to said downwardly directed flue passage, means forming passages for directing primary air for combustion through the fire chamber and secondary air for combustion above the fire chamber, a fan for supplying both primary and secondary air, and an adjustable valve in said passage forming means in the path of the secondary air from said fan to said fire chamber and controlling the ratio of primary to secondary air.

2,845,906

VAPOR GENERATING UNIT

Arthur J. Gram, Jr., Alliance, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application October 23, 1956, Serial No. 617,711
5 Claims. (Cl. 122—32)



1. A vapor generator comprising a vapor-liquid separating drum having baffle means dividing its interior into a vapor space above a liquid space and a vapor-liquid collection chamber communicating with said spaces, vapor-liquid separating means arranged in said drum to receive a vapor-liquid mixture from said collection chamber and to deliver separated vapor to the vapor space and separated liquid to the liquid space, said separating means including a ring of hollow upright whirl chamber separators circumferentially spaced to receive individual streams of vapor-liquid mixture from said chamber, and a U-shaped shell and tube type heat exchanger vertically arranged for steam generation on the shell side and with its bend uppermost, said heat exchanger directly and dependently joined to said separating drum for the delivery of the vapor-liquid mixture from both legs of said heat exchanger to the vapor-liquid collection chamber in said separating drum.

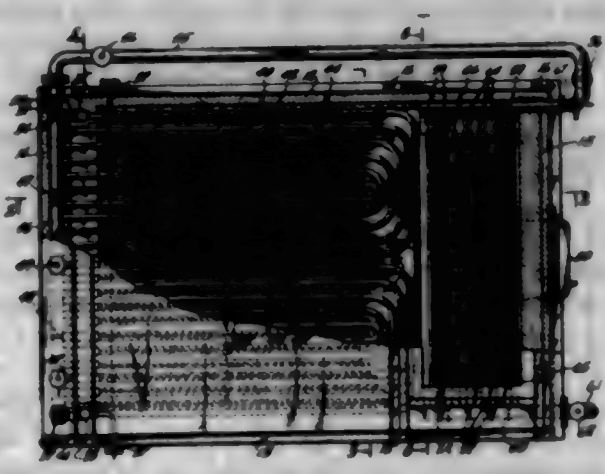
2,845,907

APPARATUS FOR HEATING FLUIDS

Hugh Frederick Payne, London, and Frederick Walter Bauer, South Croydon, England, assignors to John B. Pierce Foundation, New Haven, Conn., a corporation of New York

Application March 16, 1955, Serial No. 494,645
Claims priority, application Great Britain March 22, 1954
4 Claims. (Cl. 122—275)

1. Heat transfer apparatus for heating fluids comprising an enclosure including a plurality of interior surfaces, radiant heating means in said enclosure, a first panel of first adjacent parallel pipes extending along a plurality of said interior surfaces, a first elongated header laterally partitioned to provide an inlet section to receive fluid and an outlet section to discharge heated fluid, an inlet pipe communicating with the inlet section of the first header, a first group of adjacent first pipes communicating at their one ends with the inlet section of the first header, a second group of adjacent first pipes communicating at their one ends with the outlet section of the first header, a second elongated header communicating with the other ends of said first pipes, a second panel of second adjacent parallel pipes extending along another of said interior surfaces, a third elongated header laterally partitioned to provide inlet and outlet sections, first and second groups of adjacent second pipes communicating at their one ends with the inlet and outlet sections of the third header, respectively, means joined to the other ends of said second pipes interconnecting said first and



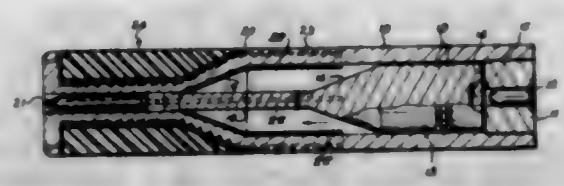
second groups of said second pipes to provide fluid flow in opposite directions in said first and second groups of said second pipes, a pipe joining the second header to the inlet section of the third header to provide fluid flow between said first and second panels, an outlet pipe, and pipe means providing a direct path for fluid heated in the first panel from the outlet section of the first header to the outlet pipe and a direct path for fluid heated in the second panel from the third header to the outlet pipe, so that a portion of the fluid flowing into the heat transfer apparatus through the inlet pipe is heated in the first panel and another portion of the fluid is heated in the first group of first pipes in the first panel and in the second panel.

2,845,908

BUFFER MECHANISM

Karl W. Maier, Cheshire, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application April 12, 1957, Serial No. 652,506
5 Claims. (Cl. 123—7)



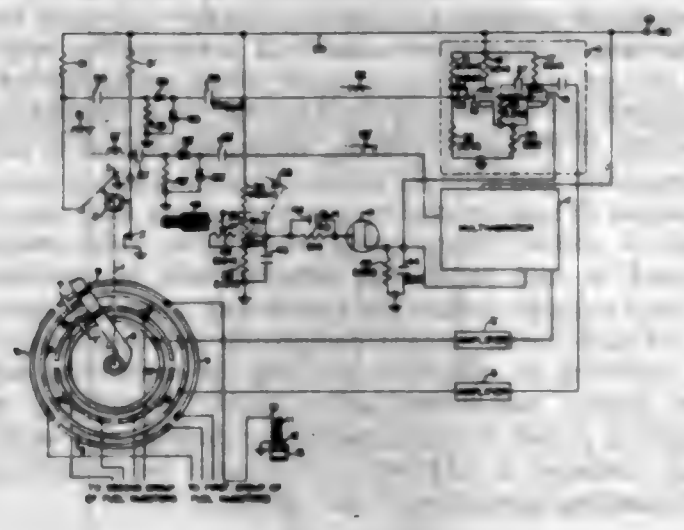
1. A buffer mechanism for cushioning the impact of a piston colliding at an ultra high velocity comprising a tubular member for slidably receiving the piston, means for applying fluid pressure to the piston to drive the piston, one end of said tubular member being formed with a plurality of tines, the internal surface of said tubular member being formed in the vicinity of said tines with a tapered contour adapted to mate with a corresponding tapered contour formed on the piston, said piston being effective to spread the tines when the piston is driven in a direction which tends to bring the tapered portions into engagement, and a winding of glass reinforced plastic disposed about the exterior of the tines effective to resist the tendency for the tines to spread.

2,845,909
ROTARY PISTON ENGINE
Gilbert Pilkinton, Astoria, Oreg.
Application February 18, 1955, Serial No. 489,086
9 Claims. (Cl. 123—12)



1. A two cycle rotary piston engine of the diesel type comprising a stator having a pair of semi-cylindrical casings, a rotary piston journaled for rotation in each casing, the adjacent portions of said casings merging into and directly communicating with each other and the opposite portion of the casings having inlet ports communicating with the atmosphere, said pistons contacting and cooperating with each other and with said casings to provide upper and lower working chambers and having lobes controlling said ports, said pistons being relatively timed to provide during their rotation a continuous uninterrupted passage between said ports, means for alternately producing explosions and power strokes in said working chambers, one of said working chambers being open to free flow of air therethrough when ignition occurs in the other working chamber.

2,845,910
DUAL MODULATOR FOR FUEL INJECTION SYSTEM
Noble F. Pribble, Timonium, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application July 22, 1957, Serial No. 673,236
3 Claims. (Cl. 123—32)



1. In a system for injecting measured amounts of fuel into the cylinders of an internal combustion engine in synchronism with the rotation thereof, a first group of electromagnetically actuated fuel injection valves for sequentially releasing fuel under pressure into a group of cylinders the members of which are non-adjacent in the firing order, a second group of said valves for releasing fuel into a group of cylinders the members of which are individually successive in firing order to members of said first group of cylinders, a first source of electrical pulses having a range of controllable duration and being synchronized to engine rotation for sequentially actuating said first group of valves, and a second source of pulses for actuating said second group of valves, said pulses from said sources overlapping in time through at least a portion of their ranges of duration.

2,845,911
INDUCTION SYSTEM
Lloyd T. Gill, Lansing, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 28, 1957, Serial No. 680,798
4 Claims. (Cl. 123—52)



1. Charge forming means for a multicylinder engine having a pair of angularly disposed banks of cylinders comprising an intake manifold having a plenum chamber adapted to extend longitudinally of said engine, a first group of ram pipes extending upwardly from the top of said chamber to interconnect said chamber with the cylinders in one of said banks, a second group of ram pipes interconnecting said chamber with the cylinders in the other of said banks, an inlet projecting from the center of said chamber at substantially right angles thereto and adapted to have a throttle body mounted thereon so as to project between said ram pipes.

2,845,912
INDUCTION SYSTEM
Ralph C. Bird, Jr., Lansing, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 6, 1957, Serial No. 682,340
4 Claims. (Cl. 123—52)

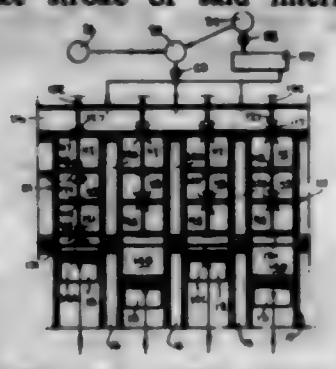


4. Charge forming means for a multicylinder engine having a pair of angularly disposed banks of cylinders comprising an intake manifold having a plenum chamber adapted to be disposed over one of said banks of cylinders to extend longitudinally of said engine, an inlet projecting substantially horizontally from the center of said chamber towards the opposite cylinder bank so as to have a throttle body mounted thereon, a first set of ram pipes on one end of said chamber and a second set of ram pipes on the other end of said chamber, each of said sets including a pair of ram pipes projecting upwardly from the top of said chamber to communicate with the cylinders in the bank immediately below said chamber and a pair of ram pipes interconnecting said chamber with the cylinders in the opposite bank.

2,845,913
INTERNAL COMBUSTION ENGINES
Frank Schaeffle, Massapequa, N. Y.
Application September 13, 1955, Serial No. 533,988
12 Claims. (Cl. 123—75)

1. An internal combustion engine comprising a manifold, a measuring chamber and a firing chamber operatively connected to each other, means for supplying an air-fuel mixture to said manifold, means for maintaining said air-fuel mixture in said manifold under a predetermined pressure, valve means for permitting the air-fuel

mixture to pass into said measuring chamber from said manifold and to isolate the same therein, valve means for connecting said measuring chamber to said firing chamber during the intake stroke of said internal combustion



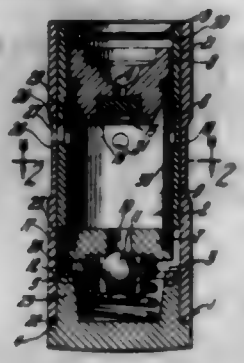
engine, a single stem for mounting said valve means and a lost motion connection between said stem and said first-mentioned valve means, and means for positively operating said stem.

2,845,914

VALVE LIFTER CYLINDER AND METHOD OF MAKING SAME

Alfred H. Cobo, Grand Rapids, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 20, 1955, Serial No. 523,288
4 Claims. (Cl. 123—90)



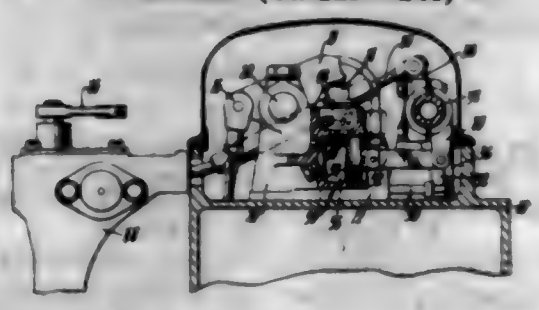
1. In a hydraulic valve lifter cylinder member having a tubular portion and a cam engageable foot fixedly and sealingly connected to one end thereof, said tubular portion comprising concentric inner and outer tubes of different lengths secured together with the foot adjacent end of said inner tube being spaced endwise of said foot to form a radial enlargement of the bore of said tubular portion, said outer tube having an external groove intermediate the ends of said inner tube, said inner tube having a port communicating with said groove and open to the bore at a distance from said enlargement.

2,845,915

FUEL CONTROL MECHANISM

Charles H. Frick, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 31, 1955, Serial No. 511,924
14 Claims. (Cl. 123—140)



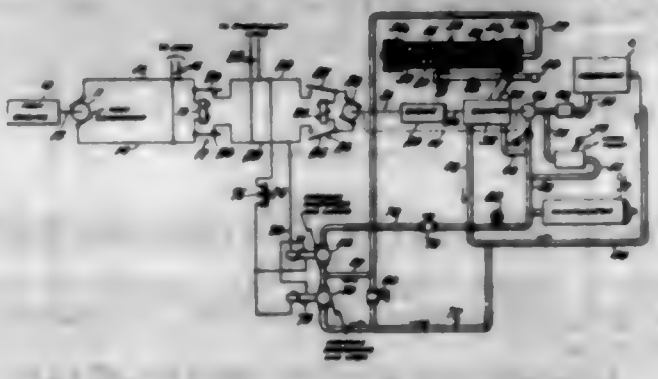
1. In a fuel injection type internal combustion engine, fuel control mechanism including fuel injection means for each engine cylinder, a member movable between an idle speed position and a wide-open throttle position and operable to control the fuel supply action of each injection means, governor means operable on said fuel control member to regulate the fuel supplying movement of said member to limit the maximum and minimum speeds of the engine, manually operable throttle control means associated with said governor means and operably connected to said member for actuating said member between idle and wide-open throttle positions to control the speed of the engine between said governor-established speed limits, and dashpot means independent of said governor means and operably connected to said fuel control member to retard the movement of said fuel control member from its idle fuel supply position to wide-open throttle position when said engine is operating at a relatively low speed and said throttle control means is actuated from its idle position to its wide-open throttle position.

2,845,916

HYDRAULIC STARTING SYSTEM FOR INTERNAL COMBUSTION ENGINES

Lucien J. Pihiel, Valley Stream, N. Y., assignor, by mesne assignments, to American Bosch Arma Corporation, Hempstead, N. Y., a corporation of New York

Application March 29, 1956, Serial No. 574,778
6 Claims. (Cl. 123—179)



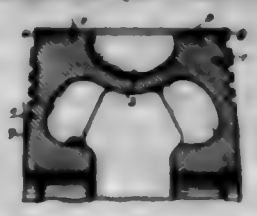
1. In combination with an internal combustion engine having a hydraulic starter for cranking said engine, an accumulator connected to said starter for supplying said starter with hydraulic pressure fluid for cranking operation thereof, and movable control means associated with said starter for controlling cranking operation thereof, the provision of hydraulic cylinder means connected to said accumulator, said cylinder means comprising piston means connected to said control means for moving said control means to control operation of said starter, valve means included in said connection between said accumulator and said cylinder means for controlling cranking operation of said starter, means comprising an electromagnet and including an operating winding for controlling said valve means, said combination further comprising an energizing circuit for said operating winding, and switch means included in said energizng circuit for controlling said cranking operation of said starter.

2,845,917

CYLINDER AND PISTON ARRANGEMENT

Ludwig Laubender, Kassel, Germany, assignor to Firma Krauss-Maffei A. G., Munchen-Allach, Germany

Application August 30, 1955, Serial No. 531,339
19 Claims. (Cl. 123—191)



1. In an internal combustion engine, in combination, a cylinder formed with an end face having a configuration substantially constant at room temperature and at operating temperature of said internal combustion engine; and

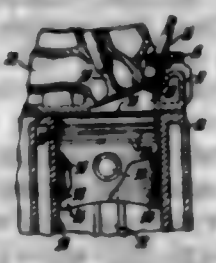
a piston slidably arranged in said cylinder and formed with an end face having such a configuration at room temperature as to assume another configuration at operating temperature as to assume another configuration at operating temperature of said internal combustion engine, said other configuration being substantially complementary to said substantially constant configuration of said cylinder end face.

2,845,918

BEARING SURFACES

Carl L. Goodzeit, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 7, 1955, Serial No. 492,481
10 Claims. (Cl. 123—193)



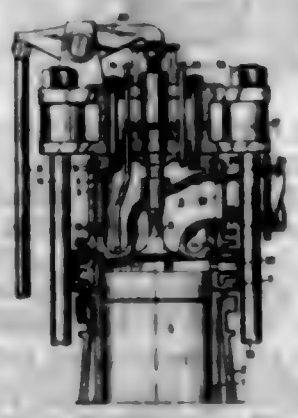
10. In an internal combustion engine, a cylinder block formed of cast iron and provided with a generally cylindrical bore, a ferrous metal cylinder liner secured within said bore, said liner having inner cylinder-defining surfaces provided with a thin coating of a metal selected from the group consisting of cadmium and cadmium base alloys, and a piston reciprocably mounted within said bore and having outer side surfaces in contact with said coating, said piston being formed of an alloy comprising approximately 8.5% to 10.5% silicon, 2% to 4% copper, 0.5% to 1.5% magnesium, nickel not in excess of 1.5% and the balance substantially all aluminum.

2,845,919

RECIPROCATING ENGINE, PARTICULARLY AN INTERNAL COMBUSTION ENGINE

Ove Petersen, Gentofte, Denmark, assignor to Aktieselskabet Burmeister & Wain's Maskin-Og Skibsbyggeri, Copenhagen, Denmark

Application December 16, 1957, Serial No. 702,961
Claims priority, application Denmark December 18, 1956
1 Claim. (Cl. 123—195)



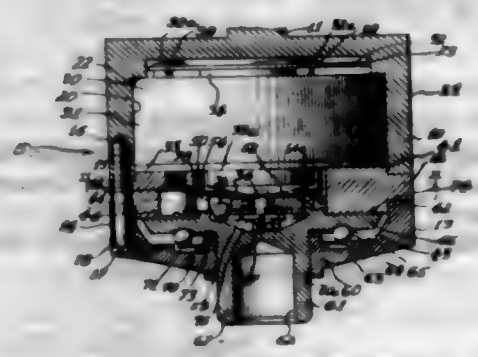
An internal combustion engine having at least one port for the discharge of exhaust gas in the surface of the combustion space opposed to the working piston and controlled by one or more valves accommodated in a valve casing at the relevant cylinder end, characterized by the combination of the following features: the said valve casing (6) forms a plug inserted into a barrel-shaped extension of the cylinder (1) and clamped axially against an annular shoulder (14) at the transition between said cylinder and said barrel by means of a cover (17) and stay bolts (15) anchored in the engine frame; bores (22) leading into the combustion space (23) for accommodating fuel valves, safety valves, indicator-valves and similar cylinder accessories are carried transversely to the axial direction of the cylinder through the peripheral wall of the combustion space; a discharge pipe (26) for exhaust gas is connected to said barrel (5) and communicates with the said valve-controlled port(s) (7) to the combustion space (23) through channels in the valve casing opening onto the peripheral wall thereof in register with corresponding apertures (10) in the barrel (5), and the upper end of the cylinder consists of a separate ring (3) which forms the peripheral wall of the combustion space, contains the said bores (22) for the cylinder accessories, serves as a clamping ring for clamping the cylinder liner proper to the stationary frame parts (2), and carries the said barrel (5) together with the said annular shoulder (14) for the plug-like valve casing (6).

2,845,920

ROTARY SOLENOID TYPE INDEXING MECHANISM

Stanford P. Bruce, Detroit, Mich., assignor to Wheel Trueing Tool Company, Detroit, Mich., a corporation of Michigan

Application June 2, 1953, Serial No. 359,121
6 Claims. (Cl. 125—11)



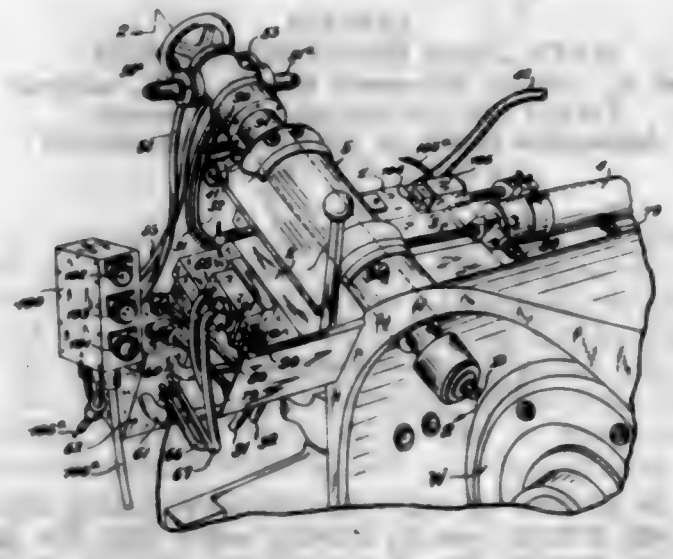
6. In a dressing mechanism for dressing the periphery of a grinding wheel, in combination, a traversing mechanism, an indexing mechanism carried by said traversing mechanism, a dressing tool carried by said indexing mechanism, and energizing means for said indexing mechanism, said indexing mechanism comprising a housing, a rotary type solenoid secured within a cavity in said housing, a tool well rotatably mounted in said housing and extending therethrough, friction means to restrain rotation of said tool well, and an overrunning clutch mechanism coupling said tool well to said solenoid whereby said tool well is rotated only during a power stroke of said solenoid.

2,845,921

AUTOMATIC DEVICE FOR DRESSING GRINDING WHEELS OR THE LIKE

Joe Losey, Jr., Chardon, Ohio

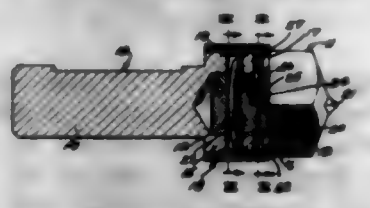
Application January 12, 1956, Serial No. 558,697
10 Claims. (Cl. 125—11)



1. In a device of the class described, a slide-way, a plunger-operated carriage means adapted for straight-

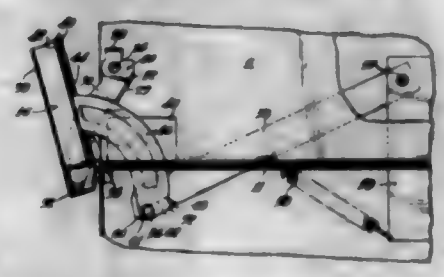
line movement back and forth upon said slide-way, a barrel mounted upon said carriage means and extending in a direction normal to the path of movement of said carriage, a plunger means within said barrel, a tool holder upon the outer end of said plunger means and adapted for movement with said plunger means towards and from the work, means in the rear end of said barrel adjustable transversely of the axis of said barrel for determining the position of said plunger means in said barrel, hydraulic means for effecting actuation of said means, a two-way valve for controlling said hydraulic means so as to thereby effect initiation of movement of said carriage and for adjusting said position-determining means, a second valve for said hydraulic means located at one end of the path of travel of said carriage and adapted for operation by the initiation of movement of said carriage for effecting the positioning of said plunger means in said barrel, means adapted to be actuated by the arrival of said carriage at its other terminus for changing the position of said two-way valve so as to re-adjust said position-determining means and to control said hydraulic means for reversing the direction of travel of said carriage upon said slide-way.

2,845,922
TOOL ASSEMBLY
Arthur T. Kohlstrunk, Detroit, Mich., assignor to Wheel Truing Tool Company, Detroit, Mich., a corporation of Delaware
Application April 9, 1956, Serial No. 577,140
7 Claims. (Cl. 125—39)



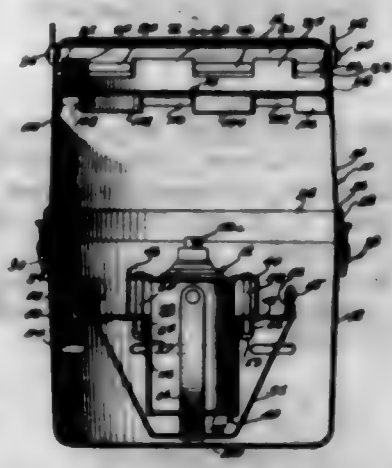
1. In a tool assembly for use in the dressing of rotary work such as grinding wheels or the like, a holder having an axial pilot bore, a tool having at one end a pilot rotatably journaled in said bore and having at the other end a polygonally-shaped head for receiving a wrench, said holder including radially disposed holes, rotary index control mechanism between the periphery of said pilot and said holder comprising a radially urged resilient element carried by said pilot for cooperation with the adjacent ends of said radial holes of said holder, resilient thrust resisting and locking means in cooperation with a slot in said holder aligned with a groove in said pilot, and a sleeve fitted over said slot in the holder retaining said parts in assembled relation.

2,845,923
OVEN DOOR HINGE MECHANISM
Averd G. Nelson, Wisconsin Rapids, Wis., assignor to Preway Inc., a corporation of Wisconsin
Application March 16, 1955, Serial No. 494,655
2 Claims. (Cl. 126—191)



1. In an oven having walls defining a cooking chamber with a front opening therein, and a door for said opening, pivotally mounted at its bottom edge for movement from a substantially vertical closed position to a substantially horizontal fully open position, a door control mechanism comprising, in combination, an arm extending rearwardly and downwardly from the door near its bottom, a roller projecting from the arm adjacent its free end, a lever pivotally mounted at one end on a side wall of the oven rearwardly of the front and extending forwardly for cooperation with said roller at all times, a spring anchored at one end on said side wall and connected at the other end to a midportion of said lever to bias the lever downwardly, and surfaces provided on the underside of said lever near the free end for engagement with said roller to urge said door from the fully open position toward an ajar position, to maintain the door in the ajar position, and to maintain the door in closed position, said surfaces comprising a rearwardly and downwardly inclined cam surface at the free end of the lever arranged to cooperate with the roller when the door is closed to maintain the door closed, and intersecting surfaces, rearwardly of the first recited surface, arranged to cooperate with the roller to maintain the door in an ajar position, said intersecting surfaces including a rearwardly and upwardly inclined cam surface and an intersecting surface extending rearwardly, longitudinally of the lever, said last recited surface engaging said roller to urge said door from the fully open position toward the ajar position.

2,845,924
PORTABLE STOVE
Theodore R. Benda, Mount Prospect, Ill., assignor to Excel, Inc., Franklin Park, Ill., a corporation of Illinois
Application February 9, 1956, Serial No. 564,414
5 Claims. (Cl. 126—288)

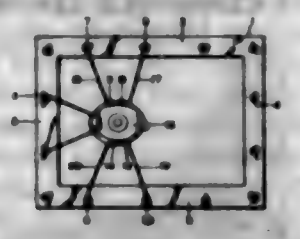


5. In a portable heater, a shaped hollow metal cabinet for a burner, a support in the base of the cabinet for supporting the burner, a baffle extending horizontally across the upper portion of the cabinet to define an air space between the baffle and the top of the cabinet, means forming air holes positioned above the baffle in the cabinet to permit the escape of heat from said air space, means forming air holes beneath the baffle to control the draft to the self-contained burner, and shutters positioned over the air holes and adjustably movable relative thereto thereby controlling the opening of said air holes, said shutters being simultaneously adjustable to simultaneously vary the openings above the baffle and the openings below the baffle.

2,845,925
AUTOMATIC EYELIDS EYEBALL FIXING DEVICE FOR A SURGICAL INTERVENTION
Gaetan Jean Jayle, Marseille, France
Application September 9, 1954, Serial No. 455,855
Claims priority, application France November 24, 1953
3 Claims. (Cl. 128—20)

1. A device for securing the eyelids and the eyeball of a patient in position during surgery, comprising an encircling frame of flexible sheet material to lie on and

adapt itself to the contours of the patient's face surrounding the eye, a plurality of thread-securing means spaced at intervals on the frame, and a plurality of threads for coupling between the upper and lower eye-



lids and the thread-securing means on adjacent portions of the frame, whereby the frame may be retained in position with respect to the eye by the opposed tensions in the threads attached to the upper and lower eyelids.

2,845,976

RESPIRATOR MASK

John D. Hill, Cleveland, Ohio, assignor to Flexo Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application May 3, 1954, Serial No. 427,106
12 Claims. (Cl. 128—146)



1. A mask type respirator comprising separable shape retaining inner and outer frame members, a filter element receivable between the frame members, the frame members having complementally formed portions extending around a breathing opening for clamping the edges of the filter element therebetween and supporting the element across the breathing opening, the confronting surfaces of said clamping portions of the frame members being formed with projecting teeth, the teeth on one of the members being closer to the breathing opening than are the teeth on the other of the members, and means holding the frame members together in said clamping relation.

2,845,927

RESPIRATOR WITH INTEGRAL RIB FOR CLAMPING FILTER ELEMENT AND SEALING BREATHING OPENING

John D. Hill, Rocky River, Ohio, assignor to Flexo Products, Incorporated, Cleveland, Ohio, a corporation of Ohio

Application April 30, 1957, Serial No. 656,031
5 Claims. (Cl. 128—146)



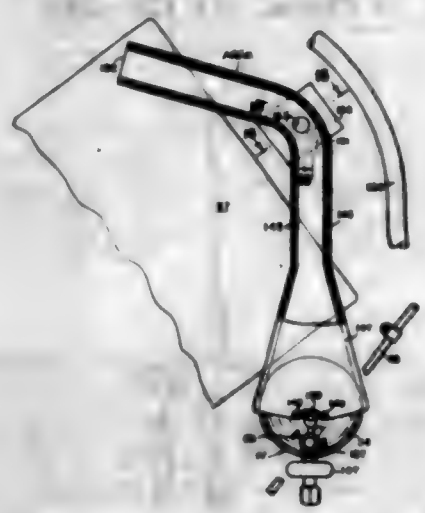
1. A mask type respirator device receivable over the nose and mouth of a wearer, said respirator comprising separable inner and outer frame members of resilient plastic material nested together, the frame members each being formed with a front breathing opening registered with the breathing opening of the other, each frame member having a bottom element for disposition across the chin of the wearer and side elements integrally connected at their lower ends to the spaced ends of the bottom chin element, the side elements of each frame member being inclined toward one another and integrally connected together at the top of the device, a filter of deformable material disposed and peripherally clamped between the frame members and extending across the registered breathing openings, a band connected to one of the members for encircling the head of the wearer and holding the device in place over the wearer's nose and mouth, the elements of the inner and outer members having respectively outwardly and inwardly directed surfaces bordering the breathing opening, such outwardly directed surfaces of the inner member being disposed in confronting relation to the corresponding inwardly directed surfaces of the outer member so as to be disposed on opposite sides of a clamped filter, the members each being formed with integral spaced protuberances on the confronting surfaces to bite into the filter, the protuberances on one member being laterally offset relative to those on the other member whereby to effect a bending of the filter periphery, and at least one of the elements of the inner member having an integral upstanding narrow rib paralleling that edge of such inner element which defines the breathing opening therein, said rib extending between and integrally connecting a plurality of the protuberances of such inner element whereby the rib constitutes a seal preventing leakage of air between the inner member and the filter adjacent the points of engagement between the filter and those protuberances connected by the rib.

2,845,928

BRONCHOPULMONARY THERAPEUTIC APPARATUS

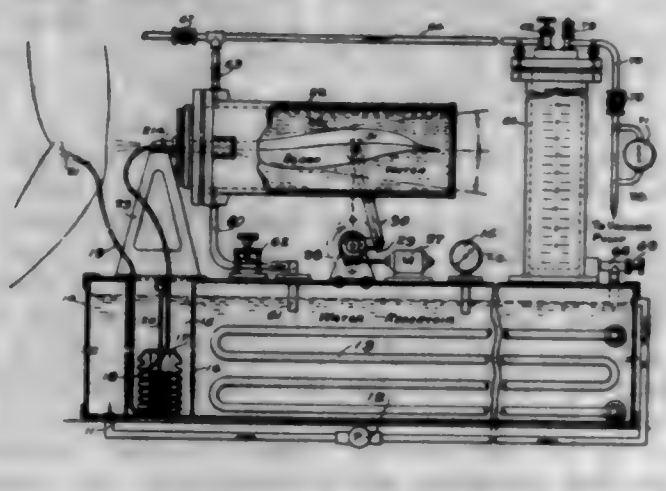
Robert Denton, Oakland, Calif., assignor to Misto, Gen Equipment Co., Oakland, Calif., a corporation of California

Application January 28, 1953, Serial No. 333,731
3 Claims. (Cl. 128—191)



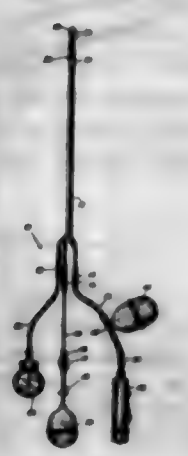
2. Apparatus for treating a tracheotomized patient, said apparatus comprising: an aerosol generator for generating and issuing an effluent of a mixture of a nebulized liquid in a gas, enclosed conduit means communicating at one end with said generator, having its other end open to the atmosphere, and provided with an outlet intermediate said ends which outlet may be positioned in communicating relationship with a tracheal opening in a patient for continuously conveying said effluent to and past said outlet and outwardly of said one end for permitting periodic introduction of said effluent into the patient, and gasket means surrounding said outlet.

2,845,929
APPARATUS FOR THE COLLECTION AND COOLING OF BLOOD
Max M. Strumia, Bryn Mawr, Pa., assignor to the United States of America as represented by the Administrator of the Federal Security Agency
Application April 30, 1953, Serial No. 352,313
5 Claims. (Cl. 128—276)
(Granted under Title 35, U. S. Code (1952), sec. 266)



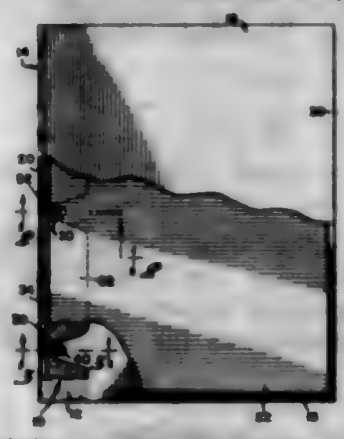
1. Apparatus for the collection of blood comprising a tank for cooling liquid, a container adjacent said tank, valved connecting means between said tank and container, a collapsible bag in said container, means for sealing said container around the neck of said bag, a length of tubing partially disposed in said tank and having connecting means at one end for connecting said tubing with said collapsible bag and connecting means at the other end for insertion in the vein of a blood donor, a closed measuring vessel connected to said container, and means for exerting a vacuum on said measuring vessel whereby liquid from said container is drawn through said tubing into said measuring vessel.

2,845,930
MEANS FOR DETERMINING PATENCY IN THE UTERUS OF COWS AND SIMILAR ANIMALS
John William Brown, De Soto, Mo.
Application September 7, 1954, Serial No. 454,414
2 Claims. (Cl. 128—348)



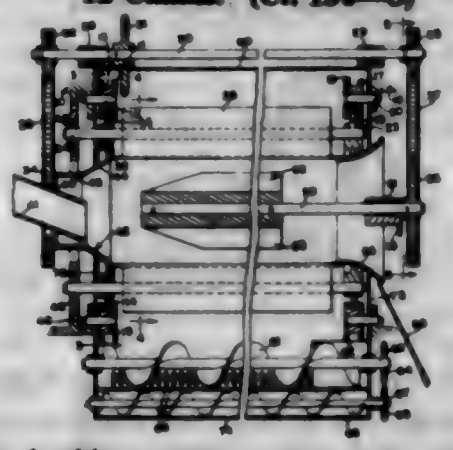
1. Apparatus for determining the patency in cows, and the like, comprising an elongated member having multiple passages, a sleeve about said member near one end sealed at the edges thereof, one of said passages opening into said sleeve, two additional passages opening at the end of the member beyond said sleeve, said three passages opening independently at the other end of said member, means for supplying a gas into said sleeve, means for detecting a leak in said sleeve, means for supplying gas to one of said two additional passages, and gauge means connected to said other of said two additional passages.

2,845,931
SHEET RETAINING DEVICE
John W. Kinney, Jr., Cincinnati, Ohio, assignor to Jerome J. Pinckebourn, Troy, Ohio
Application September 22, 1955, Serial No. 535,980
1 Claim. (Cl. 129—1)



A sheet retaining device for binding perforated loose sheets within a binder cover, comprising a member formed of sheet-like material and including a flat base portion having one longitudinal edge thereof curved upwardly upon itself providing a keeper edge positioned above one side surface of the base portion, the opposite edge of the base portion having a series of inwardly directed notches extending substantially to the side surface thereof which said keeper edge overlies to define a series of flexible spatula-like fingers, said fingers being curved upwardly from the apices of said notches and back upon themselves in portions generally parallel to said flat base to extend toward said keeper edge and each finger being of a length to extend beyond and overlap said keeper edge, said keeper edge having a series of notches therein, each positioned immediately adjacent but in laterally offset relation to the keeper edge portion normally overlapped by a corresponding finger, said fingers being arcuately joined with said base portion so as to be laterally flexible to allow passage thereof through said notches in the keeper edge between a locked position in which the terminal end of a finger underlies said keeper edge and an open position in which the terminal end of a finger overlies said keeper edge, said fingers being so formed as to tend to assume a normal position intermediate the open and locked positions such that the ends of the fingers forcibly engage the keeper edge in both the open and locked positions, the terminal ends of said fingers being upwardly curved whereby when the same are in the open position in engagement with the keeper edge they define a convergent passageway with the same for guidably receiving paper therethrough.

2,845,932
HUSKER HAVING EAR HOLDING POCKETS
Frank D. Jones, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application February 2, 1956, Serial No. 563,017
12 Claims. (Cl. 130—9)



3. A corn husking mechanism comprising: an elongated frame; a cylindrical structure rotatably mounted on the

frame and composed of angularly spaced pairs of husking rolls extending between opposite ends of the frame; a delivery unit having a discharge end positioned to deliver unhusked ears of corn to the husking rolls centrally of the cylindrical structure; means mounted on the frame operative to rotate the cylindrical structure whereby the individual pairs of husking rolls will successively receive the ears from the delivery unit; means on the frame forming ear holding pockets associated with and internally of the husking rolls for maintaining engagement of the ears with the rolls, said latter means including additional means causing said pockets to rotate in unison with the cylindrical structure; husk roll drive means supported on the frame operative to rotate the rolls to drive the husks outwardly of the structure; and means beneath the cylindrical structure for receiving the husks.

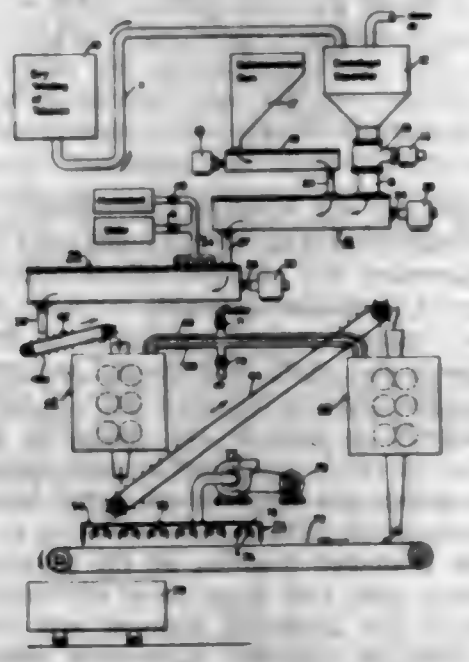
2,845,933

PROCESS OF CONVERTING FRAGMENTED TOBACCO INTO COHERENT SHEETS

Max M. Sanfield, Brantley A. Brock, and Earl E. Locklair, Durham, N. C., assignors to Liggett & Myers Tobacco Co., New York, N. Y., a corporation of New Jersey

Original application May 28, 1954, Serial No. 433,062, now Patent No. 2,708,175, dated May 10, 1955. Divided and this application November 4, 1954, Serial No. 477,522

21 Claims. (Cl. 131—140)



1. In the process of converting fragmented tobacco into coherent material, in combination, the steps of mixing together dry finely-divided tobacco and powdered plant gum consisting essentially of galactomannan, spraying moisture into said mixture while the same is being agitated to obtain a uniform moistening thereof, and working the mixture under mechanical shearing action while in moist condition.

2,845,934

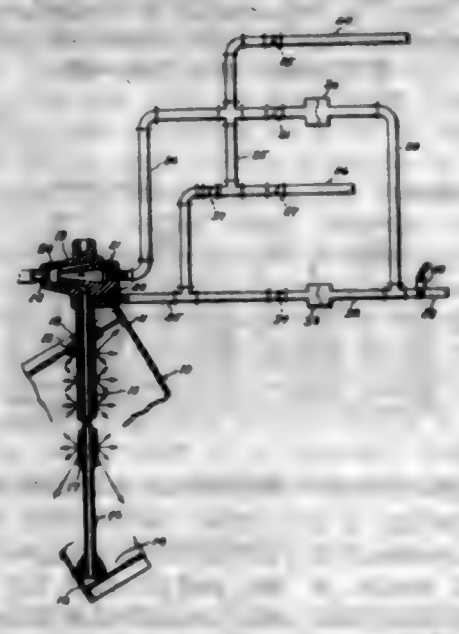
APPARATUS FOR USE IN CLEANING THE INTERIORS OF BARRELS

Richard Conant Payson, Falmouth, Maine, assignor to The Portland Company, Portland, Maine, a corporation of Maine

Application April 29, 1953, Serial No. 351,771

18 Claims. (Cl. 134—56)

1. A system for delivering fluids into and exhausting fluids from a barrel, said system comprising a suction tube, a spray tube, both tubes being insertable into a barrel through its bung hole, means to deliver liquid to said spray tube, evacuating means connected to said suction tube to establish an exhaust stream therethrough, means to deliver air to said spray tube, and control means interposed between said spray tube and said liquid and air delivery means adjusted to provide that the volume



of said exhaust stream is at least equal to the delivered liquid stream and that the volume of said air stream is greater than the volume of said exhaust stream.

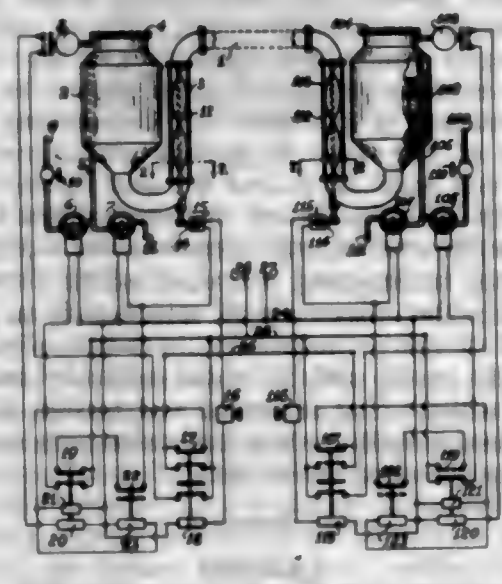
2,845,935

APPARATUS FOR CLEANING PIPE LINES

Zoltan O. St. Palley, Branford, Conn.

Application March 18, 1957, Serial No. 646,926

5 Claims. (Cl. 134—57)



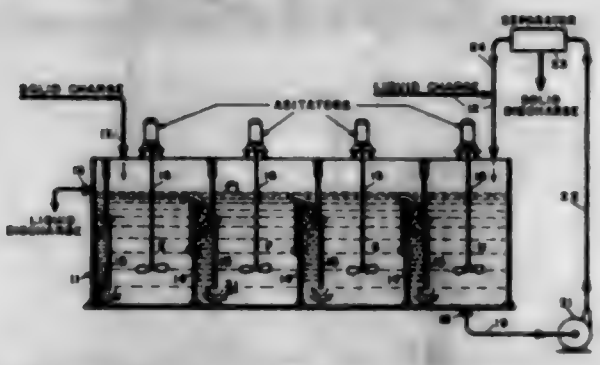
4. An apparatus for cleaning a pipe line, comprising, a compressed air supply; a pair of closed tanks for holding the cleaning fluid, and having outlet pipes connected to opposite ends of the pipe line, each tank having an air inlet valve communicating with said air supply controlling the flow of compressed air so as to force the cleaning fluid, alternately, from one tank, through the pipe line, into the other tank; a pair of flow detectors, each mounted in the outlet pipe of one of the tanks, and having two positions, the incoming flow position, which is assumed by said detector under the impact of the flow of fluid coming into the respective tank, and the outgoing flow position, which is assumed by said detector under the impact of the flow of fluid going out from the respective tank; pilot circuit means operatively connected to said valves and flow detectors so that when the flow detector of one of the tanks is moved into the incoming flow position said pilot circuit means will close the air inlet valve of the other tank.

2,845,936

COUNTERCURRENT CONTACTING APPARATUS

Donald E. Boynton and Steffen F. Dieckmann, Wilmington, Del., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

Application May 9, 1955, Serial No. 506,874
5 Claims. (Cl. 134—60)



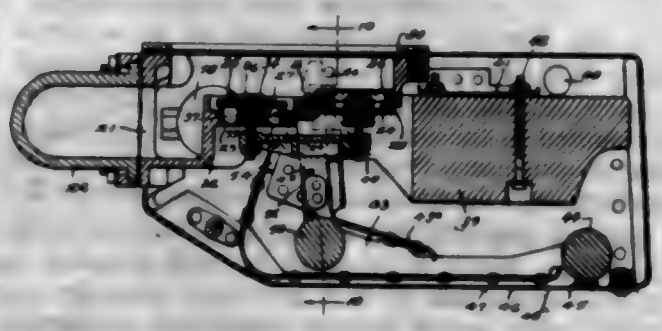
1. An apparatus for continuous countercurrent contacting and treating of particulate solids with liquids comprising in combination a horizontally elongated vessel having charge means at one end thereof for introducing fresh liquid into said vessel and discharge means at the opposite end thereof for withdrawing spent liquid, said vessel being adapted to maintain a substantially constant level of liquid from end to end thereof by liquid transfer within said vessel from liquid charge to liquid discharge by gravity flow, a first series of stationary baffles and a second series of stationary baffles in alternate parallel-spaced relationship separating the whole interior of the vessel below the level of liquid maintained in said vessel into alternate quiet zones and turbulent zones from end to end thereof, each of said first baffles being in contact with the bottom and both sides of the vessel and extending vertically upward and terminating below the level of liquid maintained in the vessel, each of said second baffles being in contact with both sides of the vessel and extending vertically downward from above the level of liquid maintained in the vessel and terminating short of the bottom of the vessel to provide communication between the said quiet zones and the said turbulent zones, continuously driven agitators disposed within each turbulent zone for creating turbulence in the liquid in said zone and for maintaining entrained solids therein in a state of turbulent suspension in said liquid, an inlet adjacent said discharge means for introducing particulate solids to the vessel, and an outlet adjacent said charge means for withdrawing contacted and treated particulate solids the initial baffle with reference to each end of the vessel being a second series baffle.

2,845,937

AIRCRAFT TANK VENT VALVE

Kazimierz Theophil Krieski, Corry, Pa., assignor to Aero Supply Mfg. Co., Inc., Corry, Pa., a corporation of New York

Application December 1, 1953, Serial No. 395,406
4 Claims. (Cl. 137—38)



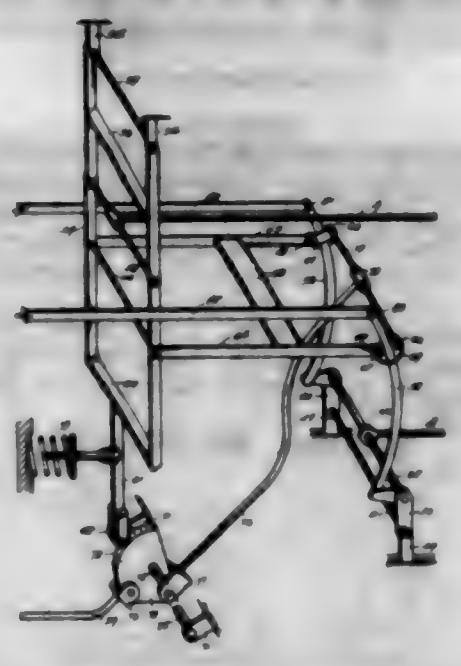
2. A vent valve for the fuel tank of an aircraft comprising a valve housing having an air intake and a pair of ports, a valve plug for each port, float means connected with said plugs for moving said plugs to open and closed positions, gravity actuated vertically movable means carried by said housing operable upon inverting of said housing to close said valves and hold said valves in closed position, and horizontally movable means carried by said housing active under centrifugal force for closing said valves and holding said valves in closed position.

2,845,938

BLEED GOVERNOR

Claude O. Broders, Simsbury, Conn., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application May 28, 1956, Serial No. 587,988
4 Claims. (Cl. 137—81)



1. In apparatus for bleeding intermediate stages of a jet engine compressor a device for combining independent speed, temperature and pressure signals said device comprising support means; an assembly pivotally mounted on said support means; means responsive to the speed of the compressor for controlling pivotal movement of the assembly on the support means; a pair of cam track elements integrally secured to the assembly; a U-shaped member also pivotally mounted on said support means; means responsive to a temperature signal from the compressor discharge air stream for controlling pivotal movement of the U-shaped member on the support means; a pair of levers, each said lever being pivotally connected at one end to the U-shaped element and connected at the other end for slideable movement along the cam track elements; a cam pivotally mounted on the support means; means responsive to a pressure signal from the compressor for controlling pivotal movement of the cam on the support means; means interconnecting the cam and the said pair of levers; and means connected to the cam track elements, the movement of said last named means being dependent upon speed, temperature, and pressure characteristics of the compressor.

2,845,939

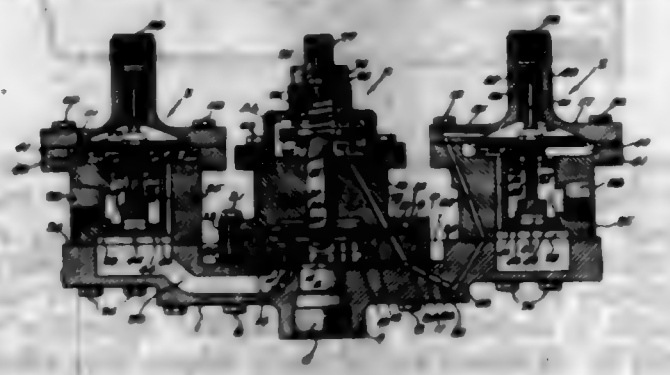
COMBINED METERING VALVE AND FLOW DISTRIBUTOR

Frank C. Bayer, Euclid, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application October 29, 1953, Serial No. 388,984
6 Claims. (Cl. 137—118)

1. A combined metering valve and flow distribution assembly, comprising, a base block, a fluid inlet aperture through said base block, a central recess in a transverse face of said base block, a plurality substantially radial passages through said base block communicating with said recess and said transverse face in the region of the periphery of said block, a distributor valve plate

in said recess, a plurality of distributor valve orifices in said distributor valve plate, and leading to said passages individually, a distributor valve block secured in said recess over said valve plate, a cylinder block secured to said distributor valve block and securing a valve isolation diaphragm therebetween one side of said diaphragm being in communication with said fluid inlet, a piston extending through said cylinder block and secured to said diaphragm, a control fluid passage through said cylinder block said control fluid passage being in communication with the other side of said diaphragm, a fluid inlet to said passage through said cylinder block, a metering valve plate closing an end of said control fluid



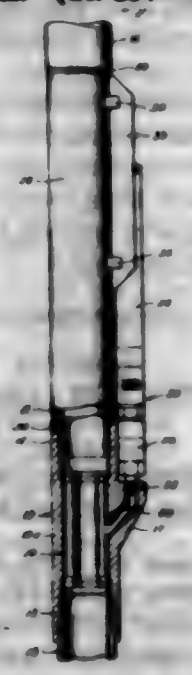
passage opposite to the end thereof adjacent to the diaphragm, a metering valve orifice in said metering valve plate, a plurality of valve pins secured to said piston for axial movement together therewith to open and close the distributor valve orifices and the metering valve orifice respectively in response to a predetermined pressure differential value on opposite sides of said diaphragm, a plurality of diaphragm type valves secured to said base block in flow communication with said plurality of substantially radial passages, and other fluid passages from an outlet side of said metering valve orifice plate to said diaphragm type valves for differential pressure actuation and control thereof.

2,845,948

GAS LIFT MANDREL AND VALVE

Henry U. Garrett and Clifford M. Peters, Houston, Tex., assignors, by mesne assignments, to U. S. Industries, Inc., a corporation of Delaware

Application February 18, 1953, Serial No. 337,562
7 Claims. (Cl. 137—155)



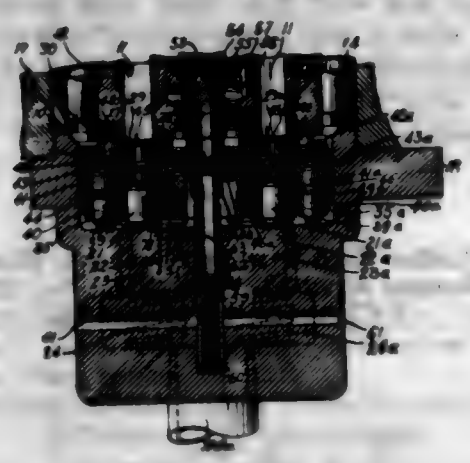
1. An apparatus for use in well operation which comprises, in combination, a tubular collar and pup joint directly connected together to form a mandrel adapted to be made up as part of a tubing string, the collar having a length which is only a minor part of the total length of the mandrel so as to be able to withstand stress relieving heat treatment and also providing an endwise shoulder at its connection with the pump joint, said collar also having a lateral lug thereon with a passage therethrough extending to the interior of the collar, an elongate valve of the gas lift type connected to said lug so as to control flow through said passage, the valve having a length less than that of the mandrel, a sleeve surrounding the pup joint and resting one end on said collar shoulder and having its other end extending so as to be closely adjacent to a shoulder on a tubing string to be connected to the pup joint thereabove when the mandrel is made up as a part of a tubing string whereby longitudinal movement of the sleeve is limited, a connection between the collar and sleeve limiting relative rotation but permitting limited longitudinal movement therebetween so that the weight of a tubing string connected to the mandrel stresses only said collar and pup joint and not said sleeve, and an alignment means welded to the sleeve and engaging said valve at a location longitudinally spaced from said lug to restrain sidewise movement of the valve.

2,845,941

PLATE VALVE FOR ROTARY UNITS

Ernest E. Wagner, Santa Ana, Calif.

Application February 25, 1955, Serial No. 490,605
12 Claims. (Cl. 137—246.12)



1. In combination with the end plate of a rotary unit having inlet-outlet passageways, and the housing therefor, a cover attachable to said housing and provided with a recess, a plate valve fitted in said recess and having a spherically formed periphery, the face of said plate valve provided with concentric lands having equal bearing areas and defining an uninterrupted annular port and adapted to cooperate with said end plate and the inlet-outlet passageways thereof; diametrically opposed bridges inset in said annular port to divide same and form two independent ports, compensating pistons in said cover to balance the forces in the ports tending to separate the plate valve from the face of the rotor, independent means in each inset bridge and independent means in said plate valve co-operating with said bridge means for balancing the force acting to separate the plate valve from the face of the rotor over the region of the bridges.

2,845,942

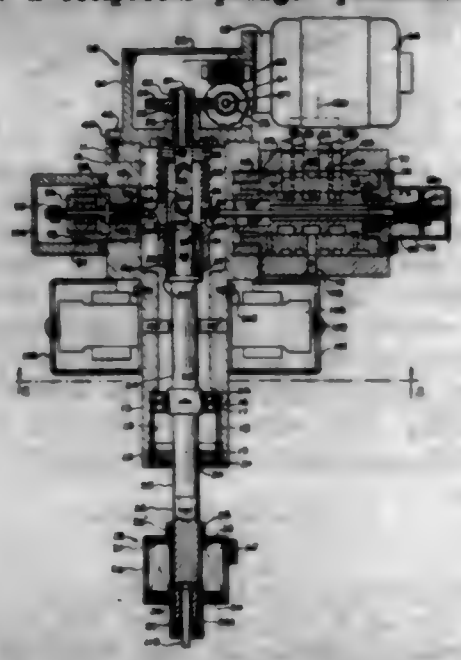
AUTOMATIC TWO DIMENSIONAL TRACER

Frank Moore, Detroit, Mich., assignor to Manuel Turchan, doing business as Turchan Follower Machine Company, Detroit, Mich.

Application June 25, 1954, Serial No. 439,291
4 Claims. (Cl. 137—330)

1. A tracer comprising an upright hollow housing, a template engaging spindle universally mounted intermediate its ends within said housing and projecting therefrom, power means joined to said spindle for rotating it, a reciprocal fluid control valve within said housing engageable with said spindle and responsive to tilting movements thereof, magnetic means on the end of

said spindle for maintaining continuous contact of the spindle with a template whereby rotation thereof urges the spindle along the profile of said template, a pair of right angularly related solenoids mounted upon said housing, and a reciprocal plunger positioned in each



solenoid with their axes in a plane at right angles to the spindle axis and with their inner ends normally spaced from said spindle, and adapted upon energization of at least one solenoid to operatively engage said spindle for tilting the same when said spindle is out of contact with said template.

2,845,943
FUEL LINE LOCK
Luther Fred Perkins, Sandusky, Ohio
Application April 28, 1954, Serial No. 426,104
1 Claim. (Cl. 137—384.6)



A fuel line lock embodying a valve including a T-shaped body having an inlet and an outlet in aligned portions thereof, and providing a valve seat therebetween in alignment with the lateral portion of said body, said lateral portion mounting a fitting providing a boss extension of said portion and a bearing in axial alignment with said valve seat, an outwardly extending sleeve having one end thereof embracing said boss and providing a chamber adjacent thereto, a valve stem reciprocably mounted in said bearing and extending into said chamber, said valve stem having a head on one end to cooperate with said seat to seal the same, a cup-shaped head on the opposite end of said stem within said chamber, a first spring coacting between said fitting and cup-shaped head normally urging said valve stem away from said seat, said sleeve providing a slideway remote from said fitting, and having a lateral aperture therethrough, a locking mechanism reciprocably mounted in said slideway including a key-operated bolt to engage said aperture for holding said mechanism within the sleeve, and a second spring between said locking mechanism and the cup-shaped head, said second spring in longitudinal alignment with the first spring and having a materially greater thrust than the first spring.

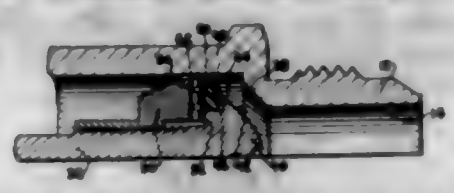
2,845,944
HUMIDIFIER
William M. Bock, Jr., Milwaukee, Wis.
Application April 5, 1955, Serial No. 499,315
3 Claims. (Cl. 137—408)

1. A humidifier construction comprising a pivotally mounted evaporating pan, a removable liner therefor, conduit means in fluid communication with said pan and with a source of fluid supply, said evaporating pan assuming uniform pivotal angular dispositions when filled with predetermined volumes of fluid from said fluid supply source, valve means interposed in said conduit means, a relatively stationary frame having brackets extending therefrom, two elongated supporting arms carried by said pan and in pivotal engagement with said brackets, a lever member of substantially L-shaped configuration



having one end thereof operatively connected to one of said brackets, means affixed to said L-shaped lever and in slidable engagement with one of said supporting arms for effecting simultaneous movement of said lever and said supporting arm, and control means for said valve means actuable in accordance with its angular disposition supported by the second end of said L-shaped lever whereby said control means angular disposition is dependent upon the angular disposition of said pan supporting arms.

2,845,945
SEALING ELEMENTS
Joseph J. Mascuch, Jr., Tuckahoe, N. Y., assignor to Alnair Inc., Mount Vernon, N. Y., a corporation of New York
Application December 6, 1956, Serial No. 626,668
2 Claims. (Cl. 137—469)

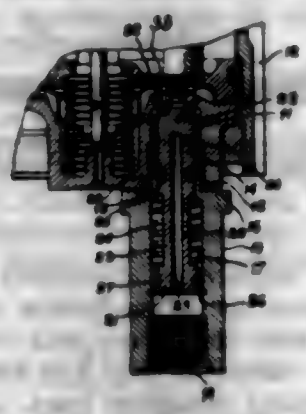


1. In a valve, a body having a passageway, a valve seat about said passageway, a valve head in said passageway and movable between an open position and a closed position adjacent said seat, a sealing element carried by one of said head and seat and engaging the other when the head is in the position adjacent said seat, the cross-sectional area of the space in said passageway about said head being less than that between the sealing element and the other of said head and seat in the open position of the head, and means for applying the lower pressure obtaining in the passageway about said head during fluid flow to the unexposed side of the sealing element to prevent its being carried downstream.

2,845,946
OVERLOAD PROTECTOR FOR FLUID OPERATED APPARATUS
John V. Olivesa, Greenwich, Conn., and Harris J. Shapiro, North White Plains, N. Y., assignors to The Aerotec Corporation, Greenwich, Conn., a corporation of Connecticut
Application August 10, 1954, Serial No. 448,969
2 Claims. (Cl. 137—505.13)

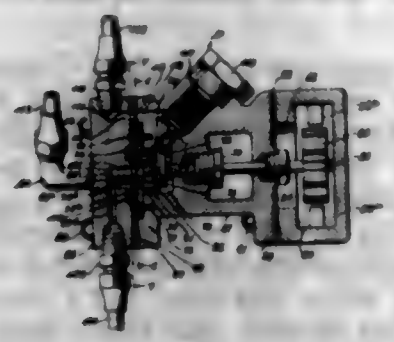
1. A pressure overload protected instrument comprising a housing, an instrument within said housing, said housing having an internally threaded recess of substantial depth and an inlet opening to said housing in the inner end of said recess, a valve housing having a delivery end threaded into said recess and threaded at the opposite, receiving, end for connection to a delivery conduit, said valve housing having a cylindrical bore between its ends, said bore being stepped from a lesser di-

ameter adjacent the delivery end in said recess to a larger diameter adjacent the opposite, receiving, end, a piston in said bore stepped from a larger diameter in the larger diameter portion of said bore to a lesser diameter in the lesser diameter of said bore and slidable fluid tightly in said bore, a portion of the bore of lesser diameter adjacent its inner end being enlarged to form with the lesser



diameter end of the piston a space in communication with said inlet opening, said piston having a passage from its larger diameter end to said space about its lesser diameter end, a spring biasing said piston toward its larger diameter end and a resilient ring on the end face of the lesser diameter end of said piston to close said inlet opening of said instrument housing when said piston moves to the inner end of said recess.

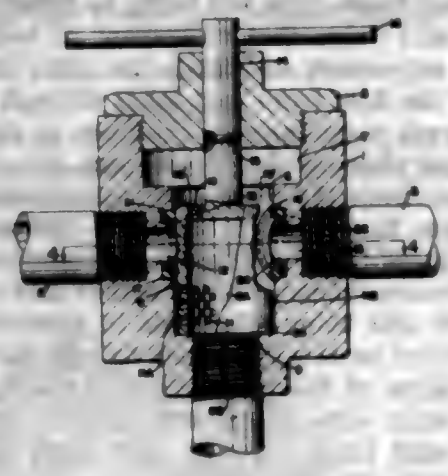
2,845,947
PILOT VALVE
Donald G. Griswold, San Marino, Calif.
Original application December 9, 1944, Serial No. 567,442, now Patent No. 2,609,099, dated September 2, 1952. Divided and this application November 8, 1951, Serial No. 255,397
12 Claims. (Cl. 137—624)



1. A pilot valve, comprising: a rotatable ported pilot disc having three pressure ports extending therethrough from side to side, and three substantially U-shaped, radial, exhaust ports terminating at one end in a common axial leg with all legs of said exhaust ports opening on the same side of said pilot disc and with one of said exhaust ports disposed between each two adjacent pressure ports so that the pressure and exhaust ports are disposed upon radii 60° apart.

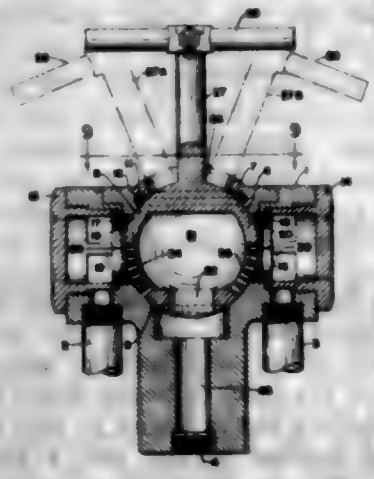
2,845,948
MIXING VALVE
Frank H. Parker, Cleveland Heights, Ohio, assignor, by direct and mesne assignments, to Stephen C. Peplin, Westlake, Ohio, trustee
Application December 1, 1953, Serial No. 395,463
6 Claims. (Cl. 137—625.17)

1. In a mixing valve assembly including a cylindrical valve housing with a main elongated cylindrical axial bore, a discharge outlet and a plurality of transversely diametrically opposed inlets for receiving fluid inlet lines communicating with said main axial housing bore, a single valve comprising a hollow cylindrical shell removably mounted in said main axial housing bore to be rotatably adjusted about its own axis and axially adjusted independently of rotation about its own axis, said valve having a pair of ported areas each including a plurality of ports in the side wall of said valve shell and disposed axially intermediate the upper and lower edges of said valve and spaced from each other circumferentially to be disposed transversely diametrically opposed to each other, separate sealing means for said valve consisting in an individual sealing ring for each



inlet and an internal groove for each ring in said housing for receiving the ring and surrounding the bore of each separate individual inlet and conforming with the radius of curvature of said valve and having a corresponding initial fluid pressure compression against the sealing rings and in turn the outer surface of said valve to entrain fluid pressure flow in back of the sealing rings to augment its effective sealing against the surface of the hollow valve shell.

2,845,949
MIXING VALVE
Frank H. Parker, Cleveland Heights, Ohio, assignor, by direct and mesne assignments, to Stephen C. Peplin, Westlake, Ohio, trustee
Application July 6, 1954, Serial No. 441,332
8 Claims. (Cl. 137—625.41)



1. In a fluid mixing valve assembly, a housing having a substantially spherical inner surface and a hollow spherical valve mounted for universal movement therein, a valve stem projecting from said hollow valve and extending through said housing, said housing having a discharge outlet and fluid inlets, said valve having a plurality of spaced ported areas each including a plurality of ports extending through the valve shell to its hollow interior to enable the latter to function as a fluid mixing chamber, said hollow valve having a discharge port communicating with said housing discharge outlet, a separate flexible sealing ring of deformable compressible material surrounding each inlet and adapted to be positioned on the outer surface of said spherical valve and, without pressure, conform with the radius of curvature of said spherical valve and disposed in the path of fluid flow of each inlet and physically unsecured to said valve assembly with respect to the longitudinal axis of

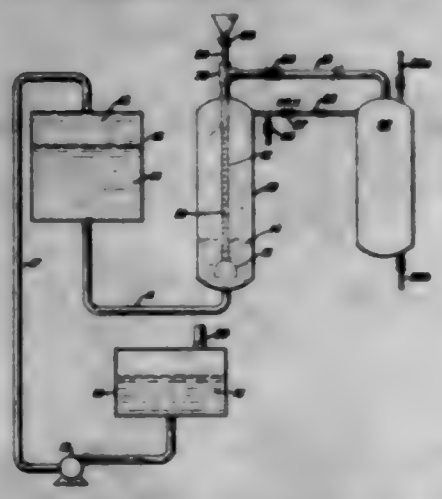
each inlet so as to be so suspended as to be bodily free floating with respect to the longitudinal axes of said inlets and adapted to be further fluid pressure forced into surface engagement with the external surface of said spherical valve under fluid pressure so as to continue to conform with the radius of curvature of said valve, the spaced ported areas each having a plurality of ports lying in a plurality of planes with respect to the axis of said valve stem and being so arranged in opposite sides of said valve that movement of said valve in one plane of movement so adjusts the ports in said valve as to adjust the flow from said inlets through the ports into said internal valve mixing chamber in degrees ranging from equal flow to full flow from one inlet and shut off of flow from the other and to uniformly and equally increase the flow through one fluid inlet and correspondingly decrease the flow through the other inlet according to the direction of such adjustment of said spherical valve, said valve also being adjustable in another plane to adjust the valve ports with respect to said inlets and thereby adjust volume of flow from either, or both, of said inlets through said valve ports and also to close flow from both of said inlets through said valve ports into said internal valve mixing chamber.

2,845,950

APPARATUS FOR METERING SMALL FLOWS OF LIQUIDS

Francis T. Wadsworth, Dickinson, Tex., assignor to The American Oil Company, Texas City, Tex., a corporation of Texas

Application February 28, 1956, Serial No. 568,212
7 Claims. (Cl. 137—154)



1. A device for metering fluids comprising a chamber containing a heavy liquid, a calibrated tube of small diameter disposed within said chamber and having an open lower end below the level of heavy liquid therein, conduit means for supplying heavy liquid to said chamber, pump means on said conduit means, and a vent means from said chamber whereby the level of heavy liquid within said chamber can be increased to discharge liquid from said calibrated tube at a rate which is proportional to the ratio of cross-sectional flow area of said chamber and of said calibrated tube

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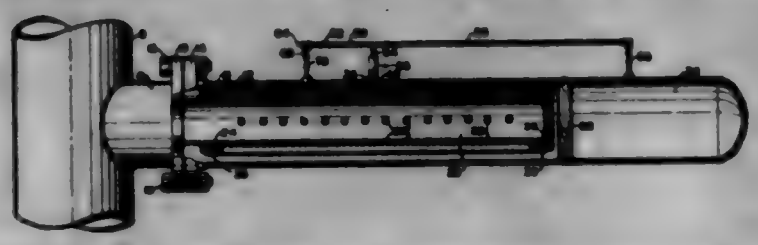
2,845,951

PRESSURE REGULATING MEANS

Dale G. Hagley, Wichita, Kans., and Harry M. Wyatt, Tulsa, Okla.

Application August 30, 1954, Serial No. 452,980
5 Claims. (Cl. 138—30)

2. Apparatus for regulating pressure variation of a fluid in a conduit for same comprising, in combination, a chamber, an elastic diaphragm mounted within said chamber and separating same into a first zone and a second zone, said first zone being in free fluid communication with said conduit, a container of compressible fluid under pressure, a conduit communicating with said second zone at a point remote from said container and said container of compressible fluid under pressure, a valve in said last-named conduit, said valve having operating means contactable with said diaphragm in value operating relation to upon extension of said diaphragm open said valve to pass said compressible fluid into said second



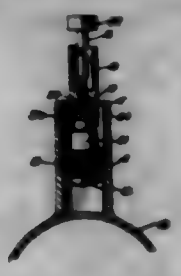
zone, and said diaphragm operatively mounted in said chamber to extend upon introduction of said first-named fluid into said first zone from said first-named conduit to increase the volume of said first zone and to contact said valve operating means to open said valve for said passage of said compressible fluid into said second zone to cease said extension of said diaphragm.

2,845,952

NIPPLE PLUGGING DEVICE

Arthur M. Hill, Tulsa, Okla., assignor to Service Pipe Line Company, Tulsa, Okla., a corporation of Maine

Application April 28, 1954, Serial No. 424,336
4 Claims. (Cl. 138—89)



1. In an apparatus for plugging a pipe, the improvement which comprises in combination a boring bar, a squared socket in the lower end of said boring bar, a longitudinal bore extending through the base of said socket, an externally threaded body, a squared stem extending axially of said body and adapted to enter said socket, a longitudinally extending drilled and tapped axial bore wholly within said stem, and a retaining shaft slidably extending through said longitudinal bore and into said socket for threaded engagement with the said axial bore in said stem.

2,845,953

SHAFT ARRANGEMENT FOR WEAVING LOOMS

Curt Wagner, Reutlingen-Betzingen, Germany, assignor to Gertrud Wagner, Reutlingen-Betzingen, Germany

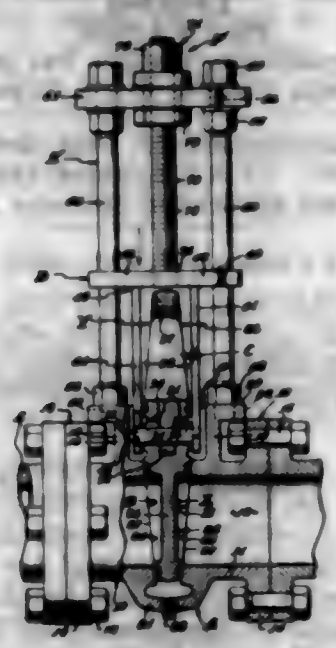
Application January 6, 1954, Serial No. 403,974
1 Claim. (Cl. 139—91)



In a shaft arrangement for weaving looms, a shaft stave member; a profiled metal carrier rail secured to said shaft stave member, said carrier rail having a web formed with a central vertical portion and a pair of metal sliding surface portions, each extending laterally from either side of said vertical portion, said metal sliding surfaces being spaced from said shaft stave member; a plurality of shaft hooks adapted for slidable movement along said

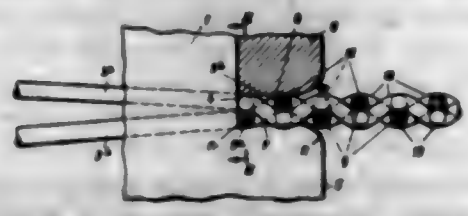
carrier rail, each of said hooks comprising a U-shaped member having end portions formed with inwardly extending arms, a pair of rollers of plastic material, each of said rollers being rotatably mounted on each of said arms respectively, and engaging with its peripheral surface in sliding contact with one of said pair of metal sliding surface portions of said carrier rail respectively, whereby a sliding movement may be imparted to said shaft hooks along said rail.

2,845,954
VISIBLE WEDGE VALVE
Leland S. Hamer, Long Beach, Calif.
Application February 28, 1955, Serial No. 490,937
7 Claims. (Cl. 138—94.5)



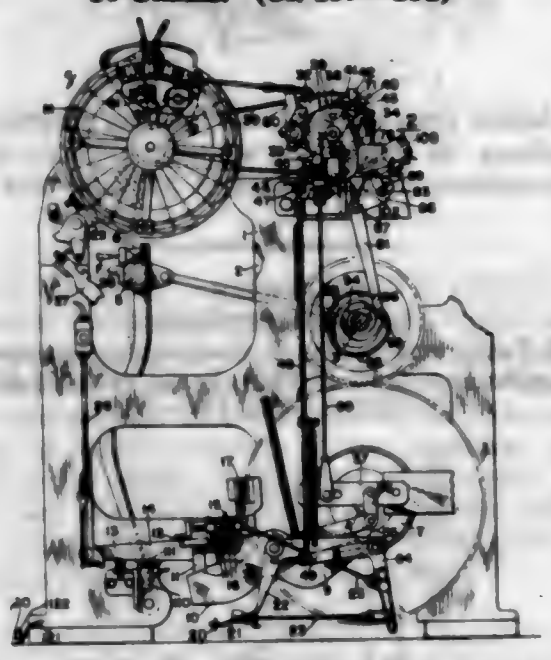
1. A visible valve of the character described including, an elongate horizontally disposed unitary tubular body having a central longitudinal flow passage extending therethrough, an upwardly opening extension projecting upwardly from the body mid-way between the ends thereof and defining a chamber intersecting the flow passage, a pair of annular seats in the body concentric with the flow passage and occurring within the said chamber and spaced apart longitudinally of the body, a shiftable valve element movable into and out of seating engagement with the spaced seats, a plurality of vertically disposed supports fixed to and projecting upwardly from the extension, and a vertically shiftable carriage overlying the extension and supporting the valve element to raise and lower the valve element into and out of engagement with the seats and including a shiftable head engageable with the supports and spaced arms depending from the head and carrying the valve element.

2,845,955
REED FOR LOOMS FOR WEAVING METAL GAUZE BY MEANS OF SHUTTLES
Karl Ulrich Schuster, Giengen, Baden-Wurttemberg, Germany
Application September 10, 1956, Serial No. 608,999
Claims priority, application Germany September 13, 1955
13 Claims. (Cl. 139—192)



1. A reed for shuttle-operated looms for weaving metal gauze or fabric comprising a plurality of dents, each having a transverse notch therein, said notches together forming a groove extending through the entire reed and transverse to the weaving direction, the inner end of each of said notches serving as a beating edge, the depth of said notch being substantially equal at least to the combined diameters of two weft wires and one warp wire of said fabric, one of the edges defining said notch in each of said dents being substantially horizontal and extending in the weaving direction when said dent is in the beating position and forming a contact surface for said fabric.

2,845,956
MULTI-SHUTTLE WEFT REPLENISHING LOOM
Clifford Darwin, Paxton, Mass., assignor to Crompton & Knowles Corporation, Worcester, Mass., a corporation of Massachusetts
Application September 21, 1956, Serial No. 611,232
16 Claims. (Cl. 139—232)

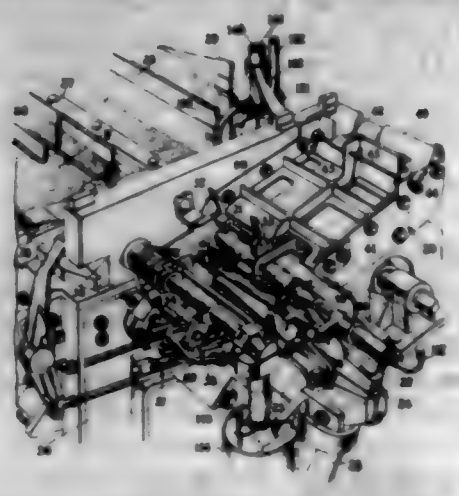


1. In a multi-shuttle weft replenishing loom provided with a rotary reserve bobbin magazine having initial groups of diverse bobbins, each group having a bobbin corresponding to each shuttle and the magazine being rockable in one direction to place any bobbin therein in transfer position, two mechanisms to rock the magazine in said direction, one of said mechanisms effective to rock the magazine through a one-bobbin angular distance equivalent to the angular distance between adjacent bobbins immediately after a replenishing operation of the loom to place the next bobbin in the group in transfer position, and thereby constitute a new group including said next bobbin and the remaining bobbins of the initial group movable to transfer position and enough bobbins of the next group so that the new group will have as many bobbins as the initial group, and the second mechanism effective immediately before the next replenishing operation to rock the magazine, if necessary, to place any of the bobbins in the new group other than said next bobbin in transfer position, the maximum angular motion of the magazine by the second mechanism always being less than the angular motion necessary to move any of the bobbins of a group through a space equal to the angular width of said group to transfer position due to the prior operation of the first mechanism.

2,845,957
AUTOMATIC BOBBIN REPLENISHING LOOM
Waldo H. Banks and Harrison N. Thibault, Hopedale, Mass., assignors to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application October 15, 1956, Serial No. 615,905
24 Claims. (Cl. 139—247)

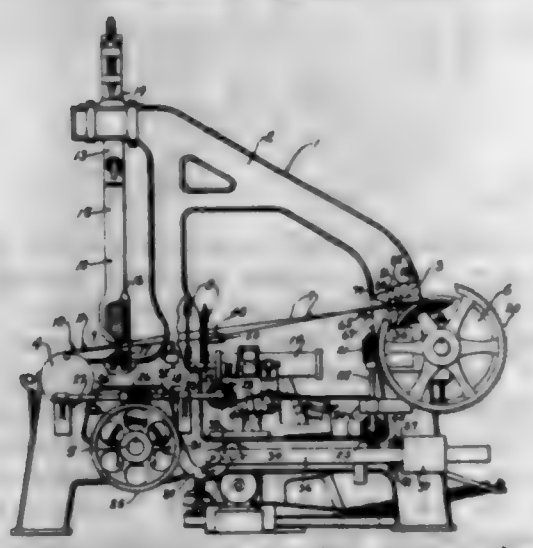
1. In combination in a loom for weaving, a bobbin feeding means for retaining and presenting for transfer to a loom shuttle a supply of bobbins having filling wound

thereon an end of which is wound in the form of a tip bunch adjacent the bobbin end, transfer means for moving the leading one of said supply of bobbins into the shuttle upon call for replenishment, a combined means for remov-



ing the bunch from bobbin ends and for disposing of it and retaining the filling end while the shuttle is picked which comprises an air operated gripping and suction means.

2,845,958
LOOM CONTROL
Bruce B. Purdy and Adrian T. Godechalx, Appleton, Wis.
Application April 8, 1954, Serial No. 421,817
12 Claims. (Cl. 139—353)



1. In a low current responsive control circuit for a loom the combination comprising an electrical valve having a control grid, a plate, and a cathode; a plate circuit for said valve including a source of plate voltage and current responsive controlling means actuated upon the flow of plate current; an alternating current source to provide a grid voltage; a rectifier; a capacitor connected in series relation with said rectifier to said current source and joined through connections with the valve across said cathode and said control grid; an electrically conductive thread on the loom at an electrical potential substantially the same as one connection between the valve and the capacitor; and a detecting lead joined at one end to another connection between the valve and capacitor, said lead being in closely spaced relation to the thread on the loom whereby a contact between said detecting lead and thread closes a circuit shunting said capacitor to alter the grid bias and affect the plate conducting characteristic of the valve.

2,845,959
BIFURCATED TEXTILE TUBES AND METHOD OF WEAVING THE SAME
John B. Sidebotham, Philadelphia, Pa.
Application March 26, 1956, Serial No. 573,744
13 Claims. (Cl. 139—387)

1. A seamless woven bifurcated tubular device in which the total cross-sectional area of the branch tubes, when



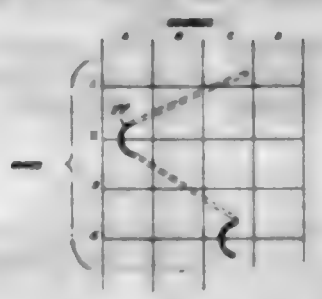
distended, is substantially the same as the cross-sectional area of the main tube when distended.

2,845,960
PILE FABRIC
Frank W. E. Hoeselbarth, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Original application October 23, 1952, Serial No. 316,454, now Patent No. 2,720,222, dated October 11, 1955. Divided and this application February 28, 1955, Serial No. 490,816
1 Claim. (Cl. 139—402)



A pile carpet having a face consisting of contrasting pattern areas of uncut pile loops extending warpwise of the carpet over a multiplicity of rows, the areas of each character comprising high loops and low loops, the low loops being masked out and not visible at the top of the fabric by virtue of the covering of high loops over the low loops, said carpet comprising at least two pile warp sets, at least one binder warp set and at least one stuffer warp set and wefts interwoven together, the pile warp ends of each pile warp set being raised in the pile successively in transverse rows which include in the same row high pile loops and low pile loops, the high pile loops of all rows being of the same maximum height and the low pile loops of all rows being of the same minimum height, the transverse rows formed by the different pile warp sets alternating in the fabric, the high and low loops in successive rows being differently placed weftwise, the high loops being in groups which mask the low loops, whereby the surface of the fabric is formed entirely by high loops.

2,845,961
PILE JUMP FABRIC
Frank W. E. Hoeselbarth, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Original application March 31, 1954, Serial No. 420,688. Divided and this application March 9, 1955, Serial No. 493,256
11 Claims. (Cl. 139—406)



1. A pile fabric having at least one pile warp set, at least one binder warp set, and wefts including binding wefts interwoven together, the pile warp set being raised in a pile covering the face of the fabric, at least some of the pile warp ends changing their relative position

transversely of the fabric at intervals along the length of the fabric and jumping over at least one intermediate course without being bound in, being bound in in spaced courses at opposite ends of weftwise float pile projections, said float pile projections being superimposed on other pile projections.

2,845,962
ANTISTATIC FABRICS

Douglas Bulgin, Erdington, Birmingham, England, assignor to Dunlop Rubber Company Limited, London, England, a British company

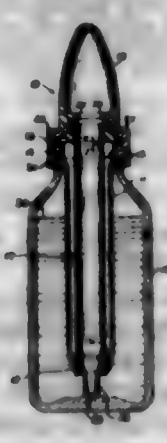
No Drawing. Application June 28, 1954
Serial No. 439,917
Claims priority, application Great Britain July 14, 1953
18 Claims. (Cl. 139—420)

1. An antistatic fabric made up of fibrous material having electrically conductive carbon black dispersed throughout the fibre and fibrous material free from such black in such proportions that the electrical resistance of the fabric as a whole is less than 100,000 megohms per unit square at all humidities.

2,845,963
DISPENSING BOTTLES

Eli A. Zackheim, South Plainfield, N. J., assignor to Johnson & Johnson, a corporation of New Jersey

Application April 16, 1956, Serial No. 578,297
14 Claims. (Cl. 141—24)



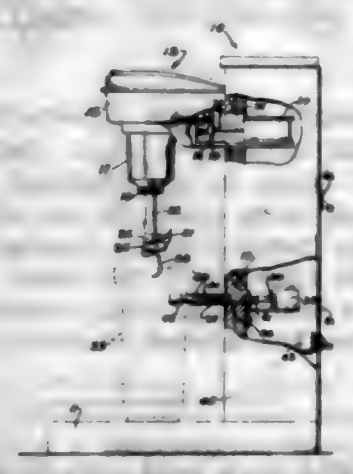
1. A dispensing liquid container comprising, in combination, a bottle having a neck opening, a well tube fitting in the neck opening in sealed relation thereto and extending downwardly to a point adjacent the bottom of the bottle so as to separate the interior of the bottle generally into a space within the well tube and a space outside it, a cap fitting the bottle in sealing relation thereto and comprising a dropper having a barrel accommodated within the well tube, the tip of the dropper barrel being also adjacent the bottom of the bottle when the cap is in position on the bottle.

2,845,964
LIQUID DISPENSING DEVICE

Philip W. Harland, Sellersville, Pa., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware

Application May 13, 1955, Serial No. 508,891
4 Claims. (Cl. 141—104)

3. Apparatus for delivering measured quantities of liquids comprising an upright support, a plurality of dispensing devices mounted on one side of said support and each including an outlet and an actuating arm, each of said dispensing devices being operative to discharge a measured quantity of a related liquid through said outlet in response to each actuation of said arm, delivery members depending from said outlets and having discharge ends located adjacent each other to deliver the measured quantities of liquids from the related dispensing devices into a container at a position below said discharge ends, electrical operating means associated with each of said dispensing devices and operative to effect a single actuation of the related arm whenever said operating means is energized, an electric circuit for energizing said operating means and including a source of current, parallel branches containing said operating means and a normally open control switch interposed between said source and said parallel branches, said circuit further including a selector switch in each of said branches in series with the related operating means so that the latter can be

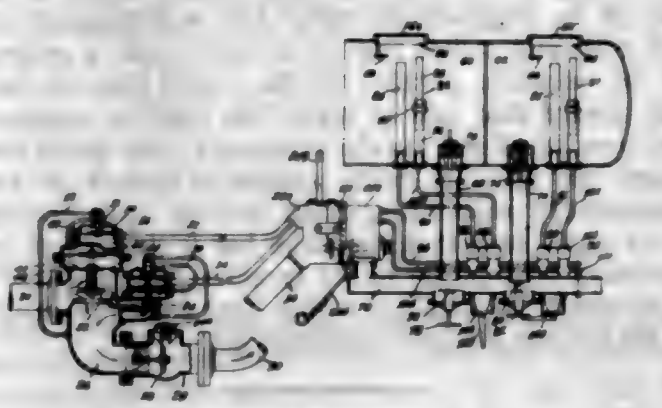


energized only when the related selector switch is closed, and switch actuating means disposed below said discharge ends so as to be engageable by a container moved to said position under said discharge ends in the direction toward said support to then close said control switch in response to said movement of the container, whereby the operating means associated with closed selector switches are energized and the corresponding dispensing devices deliver measured quantities of liquids through said delivery members into the container.

2,845,965
TANK FILLING APPARATUS

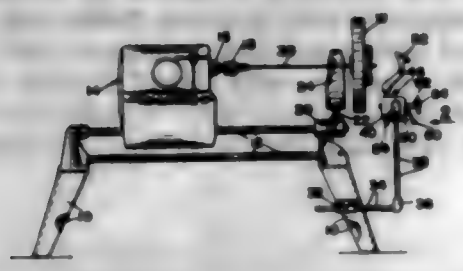
Howard E. Rittenhouse, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana

Application December 30, 1953, Serial No. 401,211
56 Claims. (Cl. 141—207)



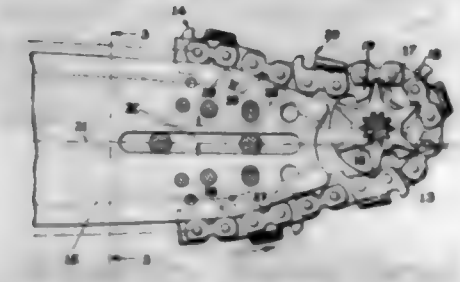
1. Tank-filling apparatus, comprising supply-valve means and operating mechanism therefor responsive to a fill-level control signal, a hose assembly including a fill hose connected to receive liquid from and under the control of said valve means, a control line connected to said operating mechanism to transmit control signals thereto, and a single connector attached to said hose and control line and adapted to be releasably engaged with a fill receptacle to establish concurrently both a fill passage to the receptacle and a control line from the receptacle, a connector valve in said connector and normally closing the fill-passage, and means to open said connector valve when the connector is engaged with the receptacle, whereby proper control-line connection is ensured when the connector fill line is open.

2,845,966
LATHE ACCESSORY
Robert N. Phelps, Ashburnham, Mass.
Application April 12, 1957, Serial No. 652,543
3 Claims. (Cl. 142—48)



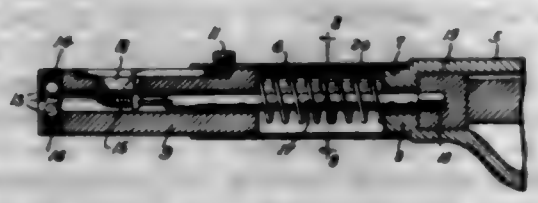
1. An accessory extension construction for a lathe having a frame including a ways, comprising a chuck adapted to be driven by the headstock of the lathe, a shaft, said shaft being driven by the chuck, a tailstock member on the frame, a rotary bearing in the tailstock member axially aligned with the chuck, said shaft passing through the bearing and being journalled therein and extending beyond the tailstock member oppositely to the headstock.

2,845,967
GUIDE BAR FOR CHAIN SAWS
Henry G. Hutchinson, Thomaston, Conn., assignor, by mesne assignments, to Draper Corporation, a corporation of Maine
Application August 30, 1956, Serial No. 607,184
3 Claims. (Cl. 143—32)



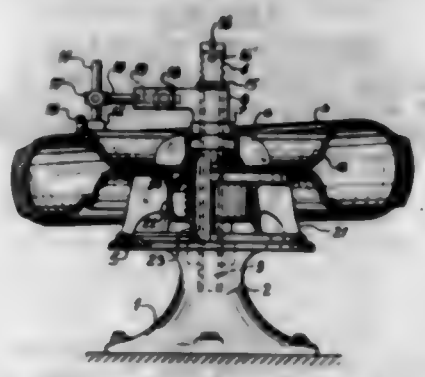
1. In a chain saw, the combination of a saw chain, a sprocket over which said chain is passed and by which it is driven and a chain guide bar by which said chain is guided as it passes to and from said sprocket, said guide bar being of substantially symmetrical form at either side of its longitudinal center line and mounted in the saw with said center line offset away from a center line of the sprocket parallel to the center line of the bar and toward that side at which the chain is approaching the sprocket, those curved portions of the guide bar adjacent the sprocket being angularly broken to present substantially rectilinear, chain guiding ends converging at an angle such that when the bar is thus offset and in operative relationship to the sprocket, both the said ends, if extended, are confined within lines from the outer edge of the bar and tangent to the sprocket.

2,845,968
POWER DRIVEN SCREW DRIVER HAVING SCREW HOLDING MEANS
Anthony J. Luber, Modesto, Calif.
Application January 23, 1957, Serial No. 635,838
1 Claim. (Cl. 144—32)



A torque screw driver, comprising a handle in which a motor having a drive shaft is mounted, a tubular housing secured at one of its ends to said handle, and extending laterally therefrom, a screw retaining barrel mounted within said housing for movement longitudinally of said housing, said barrel having a slot in the side thereof adapted for the reception of a screw into said barrel, a set screw extending through said housing into said slot, a screw driving blade secured to said drive shaft, extending into said barrel and adapted to engage and set a screw deposited in said barrel, said barrel having a plurality of bores formed therein adjacent to the discharge end thereof and arranged opposite to each other, balls mounted in said bores, rubber cushioning bands overlying said bores against which said balls engage, said bands normally biasing said balls into the path of travel of a screw positioned by the screw driver and moving through said barrel, and supporting said screw in a position to be engaged by said screw driver blade.

2,845,969
WHEEL HOLDING AND CENTERING APPARATUS
Victor Desgeens, Antwerp, Belgium
Application December 22, 1954, Serial No. 476,965
Claims priority, application Belgium January 15, 1954
2 Claims. (Cl. 144—288)

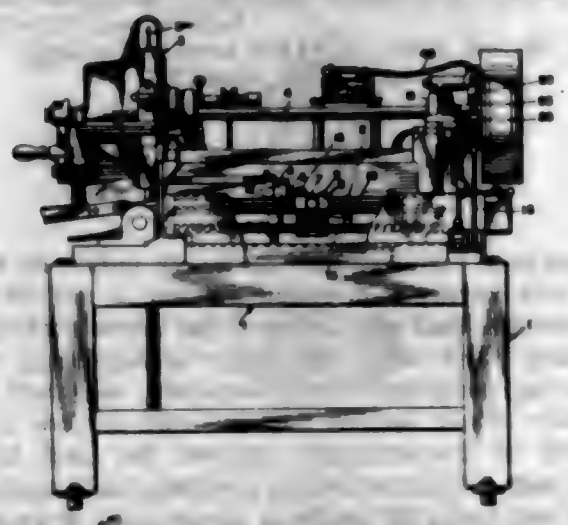


1. In an apparatus for mounting and removing tires on and from a wheel body having a central opening; comprising a base provided with a mounting plate, a central, axially movable bar threaded in said mounting plate for holding said wheel body, wheel centering and locking means located upon said plate and surrounding said axially movable bar, a frusto-conical member guided within said centering and locking means in encircling relation to said axially movable bar and engaging said central opening of said wheel body, means for fixing said wheel body with said centering and locking means upon said base plate, said centering and locking means being shaped at one end to engage said mounting plate in centered position and including an axial hub, a machined sleeve surrounding said hub, said frustro-conical member being slidable along said hub and guided within the confines of said machined sleeve and being provided with a circular groove, and a helical spring located within said sleeve and engaging said circular groove of said member for the purpose of lifting said member to a level with the opposite end of said centering and locking means.

2,845,970
SLICING MACHINE HAVING A SLICE THICKNESS ADJUSTING MEANS
Joseph Folk, La Porte, Ind., assignor to U. S. Slicing Machine Company, Inc., La Porte, Ind., a corporation of Indiana
Application January 21, 1954, Serial No. 405,419
3 Claims. (Cl. 146—95)

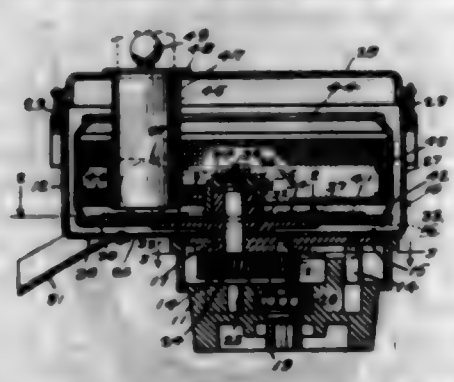
1. In a slicing machine having a knife shaft, a slicing knife mounted on said shaft, a pusher for feeding a substance to be sliced to said slicing knife, apparatus for incrementally advancing said pusher toward said slicing knife synchronously with the operation of said slicing knife, said apparatus including an adjusting device for varying the incremental advance of said pusher to thereby control the slice thickness of the substance to be sliced,

said adjusting device being operable during operation of the slicing machine to vary the thickness of the slices, said adjusting device comprising a hollow rod operatively connected to said knife shaft and reciprocated through an arc thereby, a sleeve slidably mounted on said rod, an arm connected to said sleeve and oscillated thereby during reciprocation of said rod, a nut arranged within said rod for translation therein along the rod and operatively connected to said sleeve, and a threaded member extending within said rod and in threaded engagement with said



nut, said threaded member being mounted on said rod for relative rotative movement but non-axial movement therewith, and a flexible shaft operatively connected to said threaded member for rotating said threaded member to effect translation of said nut, said sleeve and said arm to increase or decrease the vertical reciprocation of said arm thereby determining the amount of the incremental advance of said pusher and the slice thickness of the substance to be sliced, and drive means for rotating said flexible shaft.

2,845,971
JUICE EXTRACTOR
Rodolfo Seen Cordero, Mexico City, Mexico
Application April 17, 1956, Serial No. 578,801
1 Claim. (Cl. 146—76)



A juice extractor attachment for a drive motor comprising a transmission housing, a speed reducing transmission in said housing, coupling means depending from said housing for coupling said transmission to a drive motor, an extractor container detachably secured to the side of said housing opposite said coupling, a threaded shaft projecting upwardly from said transmission into said container centrally thereof, a substantially flat drive disc, a hub integrally formed on said drive disc and projecting upwardly therefrom, means keying said hub to said shaft, drive pins extending upwardly on said drive disc, a substantially flat shredder disc having a central aperture therein to receive said hub and also having apertures therein to receive said drive pins, a plurality of shredder teeth integrally formed on the upper surface of said shredder disc, a cup-shaped nut secured to the upper end of said shaft and encompassing the upper end of said hub to engage said shredder disc thereby locking said shredder disc to said drive disc, and a basket including a cylindrical perforate wall having its lower edge portion crimped over the peripheral edge of said shredder disc securing said basket to said shredder disc.

2,845,972
FORAGE CUTTER BLADE
Robert G. Hedtke, Excelsior, Minn., assignor to Minneapolis-Moline Company, Hopkins, Minn., a corporation of Minnesota
Application October 18, 1954, Serial No. 462,740
2 Claims. (Cl. 146—103)



1. In a forage cutter having a housing and a stationary shear plate therein, and a rotor journaled in the housing and having a blade carrier movable past said shear plate; the improvement comprising a blade of thin material positioned on said carrier and having longitudinal beveled edges selectively cooperable in shearing relation with said shear plate on reversing the blade on the carrier, a stiff clamp member for holding the blade to the carrier, adjustment means operatively arranged between the carrier and said clamp member for adjusting the blade with respect to said carrier, and the blade having openings and the clamp member short studs to fit into said openings to cause the blade and clamp member to move in unison as the adjustment means is adjusted.

2,845,973
MULTIPLE COMPARTMENT HANDBAG
Flora Strong, New York, N. Y.
Application October 28, 1955, Serial No. 543,399
1 Claim. (Cl. 150—28)



Ladies' handbag construction comprising: a main body having a main compartment therein and a first closure element associated with said main body; a bottom wall; an intermediate wall disposed between said bottom wall and said main body; and a closure element associated with said bottom wall forming an auxiliary compartment; said closure element being disposed entirely within the plane of said bottom wall so as to be substantially concealed from view.

2,845,974
HANDBAG COVER
George Arden, New York, N. Y.
Application December 31, 1956, Serial No. 631,701
3 Claims. (Cl. 150—28)

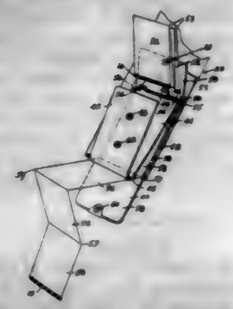
1. A handbag comprising a body member of relatively rigid material, the upper end of the body member terminating in two flaps adapted to be bent over to close said handbag, a cover made of flexible material comprising a body member, the upper end of the cover body member

terminating in two extensions of substantially the same size and shape of said handbag body member flaps, each of said extensions forming the outer side of a cover pocket, a cover flap secured along the edge thereof to



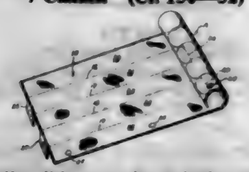
each of said cover extensions whereby a pair of pockets are formed, said cover adapted to fit snugly over said handbag whereby each handbag flap is received within one of said cover pockets.

2,845,975
PASS CASE
Louis Seamon, Great Neck Estates, N. Y.
Application June 20, 1956, Serial No. 592,618
5 Claims. (Cl. 150—39)



1. A pass case comprising, in combination, a front flap, a rear flap and an intermediate flap secured to one another at one end thereof in interconnected pivotal relationship, a first series of vertically aligned laterally interconnected transparent pass envelopes folded one upon another disposed between said rear flap and said intermediate flap, covered by said flaps, and secured therebetween only at a lateral portion of one of the envelopes of said series, a second similar series of pass envelopes between said intermediate flap and said front flap, and interconnectable fastening members upon each pair of adjacent flaps removably securing said flaps to one another at an opposite end and permitting selective pivotal separation of said flaps so as to uncover either of said series of pass envelopes and to permit said pass envelopes to be placed in unfolded relationship.

2,845,976
COLLAPSIBLE ROLL-UP CONTAINER
Arthur S. Miller, Paynesville, Minn.
Application May 14, 1956, Serial No. 585,135
7 Claims. (Cl. 150—52)



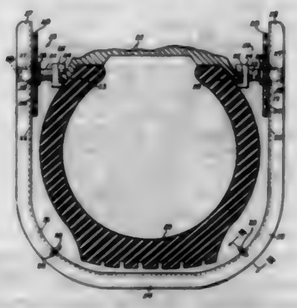
1. In a collapsible container device, a series of flat members each formed with a tendency to coil and hinged-ly connected along the adjacent longitudinal edges thereof for placement in an encompassing formation, and means for securing said flat members in the encompassing formation.

2,845,977
CRESCENT-SHAPED NUT RETAINER FOR NUTS USED IN HEAVY INDUSTRIAL EQUIPMENT
Eugene R. Kliebel, Miami, Fla.
Application July 27, 1956, Serial No. 600,625
1 Claim. (Cl. 151—29)



In a nut lock for large nuts on heavy industrial equipment; a bolt having a threaded portion, a nut threaded on said portion, said nut having a flat upper surface and radial flange flush with said upper surface, said radial flange having peripheral notches therein, said bolt being of generally square section adjacent said surface of said nut, a pair of diametrically opposed flat steel locking elements, each of said elements overlying said surface of said nut and being of crescent shape with a generally V-shaped notch at its inner edge embracing a corner portion of said generally square section of said bolt whereby it may be applied to said nut and bolt entirely from one side thereof, said elements lying within the outline of said nut and each having a downwardly extending lug welded to the outer edge portion thereof and nested within a notch in said flange, each of said elements being fixedly secured to said nut by threaded fastening means extending through said element and into said nut.

2,845,978
TIRE APPLIANCE
Clarence M. McKenzie, Canfield, Ohio
Application November 27, 1956, Serial No. 624,526
5 Claims. (Cl. 152—228)



1. A tire appliance of the type adapted to be applied in transverse relation to the road-bearing tread of a tire which is mounted on a circular rim comprising a generally U-shaped body member defining spaced leg portions and a generally flat bottom portion, a plurality of aligned apertures near the end of each of said leg portions of said body member, clamping means detachably mounted near the ends of each of said leg portions, each of said clamping means comprising a threaded shaft, a clamping block mounted on one end of said threaded shaft, a nut threadably received on said shaft, said nut having a portion of reduced diameter thereby defining a flange, said flange adapted to abut against said body member with said portion of reduced diameter and said threaded shaft adapted to protrude through one of said apertures, and said clamping means being removable from said last mentioned aperture and adapted to be received in others of said plurality of apertures whereby said tire appliance may be used with tire rims and tires of different diameters.

2,845,979
VALVE FOR TUBELESS TIRES
Selden T. Williams, Bellerose, N. Y., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application June 16, 1954, Serial No. 437,200
2 Claims. (Cl. 152—427)



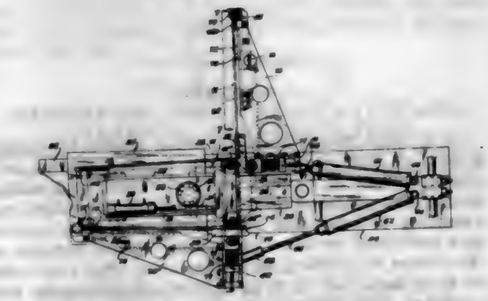
1. A unitary snap-in valve stem for mounting in a valve stem opening in a wheel rim for a tubeless tire, said valve stem comprising a non-deformable tubular insert adapted to accommodate a valve insides or core, an elastic deformable housing coaxially encompassing, and bonded to the insert, and having an enlarged, mushroom-shaped base with an axial opening therethrough communicating with the bore of the insert, the housing being tapered axially outwardly from a point intermediate the length of the valve stem toward the base and of smaller diameter for a major portion of its length than an opening in the rim to facilitate introducing the valve stem through such opening from the tire or outer side of the rim, said enlarged base being formed adjacent its top with a peripheral groove of C-shape in radial section with the upper and lower opposed walls of the groove approaching each other at their free edges, the upper wall of the groove being of less radial dimension than the lower wall of the groove, the peripheral wall of the base at the free edge of the lower wall of the groove terminating in an upwardly axially extending peripheral bead which is spaced radially outwardly from the free edge of the upper wall of the groove, the top of the bead and the free edge of the upper wall of the groove lying in parallel planes spaced apart a distance substantially less than the thickness of a rim upon which the valve stem is to be mounted, the base of the groove throughout its axial dimension being of somewhat larger diameter than the opening in such rim, the axial opening through the base being of inverted cup-shape and of larger diameter than the insert at its inner end, whereby the wall thickness of the base contiguous to the enlarged recess measured along an angle of approximately 45° to the axis of the valve stem between the locus of the center of the C-shaped groove and the wall of the enlarged recess, is substantially less than the wall thickness of the base measured along a corresponding angle between the upwardly extending peripheral bead and the wall of the enlarged recess, the structure being such that when the valve stem above the base is forced through the opening in the rim and the upper portion of the base is then forced through said opening, the free edge of the upper portion of the base will snap over the face of the rim opposite to that through which the valve stem is inserted whereupon the walls of the groove will engage the opposite faces of the rim and the surface of the opening in the rim to securely hold the valve stem on the rim with an air-tight fit primarily by the elastic tension of the rubber under deformation.

2,845,980
TUBELESS TIRE VALVE
Selden T. Williams, Bellerose, N. Y., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application December 2, 1954, Serial No. 472,737
7 Claims. (Cl. 152—427)



1. A unitary tubular valve stem for mounting on a wheel rim for a tubeless tire, said valve stem comprising a rigid tubular insert and an elastomeric housing coaxially encompassing and bonded to the tubular insert adjacent its inner end and having an axial part of the encompassing portion unbonded to the insert, the housing having adjacent axial portions of different external diameters, a first of said portions being bonded to the insert and of a diameter slightly smaller than the diameter of the hole in a wheel rim on which the valve stem is to be mounted, and a second portion of slightly larger diameter adjacent the first portion and of slightly larger diameter than the hole in the rim, the housing in the region of said second portion encompassing the insert and being unbonded thereto and capable of being tensioned or stretched in relation to the bonded portion to reduce the external diameter of said second portion, whereby said second portion will be tensioned as it engages the wall defining the hole in the rim as the bonded end is pushed through said rim hole, and when said second portion is within the rim hole and the tensioning force is withdrawn, said second portion will, due to the contractile force of the tensioned housing lock the valve stem onto the rim.

2,845,981
TANGENT BENDER WITH AUXILIARY BENDING MEANS
Lee B. Green, Lakewood, Ohio
Application June 22, 1955, Serial No. 517,291
12 Claims. (Cl. 153—4)



1. In a bending machine of the character described, a frame supporting a die mount, a first die member on said mount, a second die member adapted for work-clamping cooperation with said first die member, a third die member adapted for work-bending cooperation with said first die member, a carrier supported by said frame and having said second die member thereon, said carrier being movable for causing closing and opening of said second die member relative to said first die member for clamping or releasing the work, means for actuating said carrier, a die support having said third die member thereon and

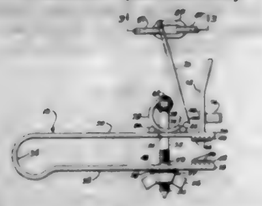
being movable on said carrier for causing said work-bending cooperation of said third die member with said first die member, means for actuating said die support, and cooperable positioning elements assocated with said mount and carrier and having an engaged condition for causing a relative positioning movement between said first die member and said third die member during the die-closing actuation of said carrier.

2,845,962
RECIPROCATING FLANGE FORMING APPARATUS
Leo G. Locatis, Reseda, Calif., assignor to The Houston-Fearless Corporation, Los Angeles, Calif., a corporation of California
Application May 2, 1955, Serial No. 505,370
10 Claims. (Cl. 153—25)



1. Apparatus for forming flanges which includes: a support table; anvil means mounted on said table and having a corner-forming surface; holding means for positioning a plate upon said table with an edge thereof overhanging said anvil; hammer means having a corner-forming surface including an outwardly and downwardly inclined portion extending above said anvil means, said hammer means being mounted for reciprocating movement towards and away from said anvil means along an operating axis extending perpendicular to the overlapping edge of said plate; and means for progressively moving said plate to increase the amount of edge overhang relative to said anvil means.

2,845,983
BENT METAL DOOR STRETCHER
Julius R. Hanson, Tucson, Ariz.
Application February 12, 1954, Serial No. 409,831
5 Claims. (Cl. 153—35)



1. A sheet metal panel stretching device comprising a pair of cam operated clamps for engagement with opposed edges of a panel to be stretched, said clamps having cam operating lever arms, a chain secured to and extending between said lever arms, and an extensible jack positioned between and bearing against portions of the clamps for pushing the clamps away from each other so as to cause said chain to tighten and operate the cam operating lever arms in clamping directions.

2,845,984
APPARATUS FOR STRAIGHTENING A COTTON PICKER SPINDLE
R. Russell West, Pine Bluff, Ark., assignor of one-half to J. M. Pittman
Application November 23, 1953, Serial No. 393,631
3 Claims. (Cl. 153—39)

1. An apparatus for reshaping a distorted tubular cotton picker spindle driving shaft having a pivot arm extending radially from one end thereof and a pivot extending laterally from the end of said arm; a jig for holding the shaft to prevent rotation thereof comprising a mounting base, a clamp rigidly attached to one end of the base and a support rigidly attached to the other end of the base, a guide hole extending through said support, an alignment pin extending through the guide hole and adapted to extend into the hollow of the shaft when the



shaft is secured by said clamp; a mandrel adapted to extend coaxially into the opposite end of the shaft from the guide pin with a portion of the mandrel projecting from the hollow of the shaft to form a journal and a bending member formed with a pivot hole for reception of said pivot and with a spaced non-concentric cam slot designed and arranged to receive said journal when the pivot hole is placed over said pivot.

2,845,985
BENDING MACHINE WITH SWINGING-WING DIE CARRIER
Lee B. Green, Lakewood, Ohio
Application April 2, 1954, Serial No. 420,576
18 Claims. (Cl. 153—46)

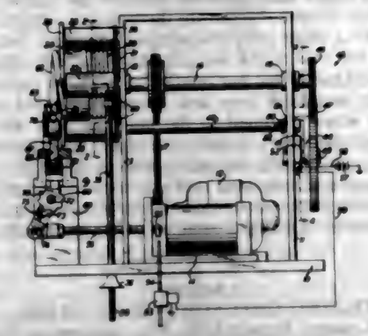


1. In a bending machine, a frame, a pair of cooperating dies comprising an anvil die adapted to receive a workpiece thereon and a bending die rockably movable relative to said anvil die when the latter is in a die-closed position for bending the workpiece around said anvil die a first carrier means supporting said anvil die with the anvil die projecting from one end of said first carrier means, a second carrier means supporting said bending die and providing for the rocking of said bending die relative to said anvil die, hinge means substantially at the other end of said first carrier means and supporting the latter for swinging relative to said frame for moving said anvil die to a relatively offset work-receiving position and from such work-receiving position to a second position substantially in alignment with said bending die, means for actuating said first carrier means for moving said anvil die to and from said die-closed position, and cam means for directly and swingably actuating said first carrier means for causing the movement of said anvil die to said work-receiving and second positions, said cam means comprising reactively cooperating cam track and cam follower elements one of which is attached to said frame

and the other of which is attached to said first carrier means at a point spaced from said hinge means.

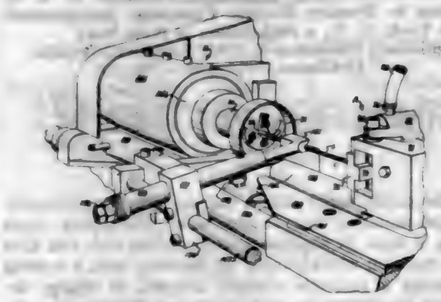
10. In a bending machine of the kind having a pair of rockably movable bending dies, a fixed clamping die therebetween and an anvil die having a work-engaging portion including curved side portions relative to which said bending dies are rockable for bending work thereabout; a carrier having said anvil die mounted thereon and being movable toward and away from said clamping die for causing opening and closing movements of the anvil die relative to the latter; work retaining means cooperating with said work-engaging portion of said anvil die for retaining work on the latter during closing movement thereof relative to said clamping die; means mounting said retaining means on said carrier for movement with the latter; said mounting means also providing for extending and retracting movements of said retaining means relative to said carrier for movement of said retaining means into and out of a position of holding cooperation with said work-engaging portion; and spring means effective on said retaining means and normally tending to produce said extending relative movement of said retaining means to said position of work-holding cooperation with said work-engaging portion; said retaining means being engageable with, and movable through said retracting movement by, said clamping die in opposition to said spring means during the final portion of the closing movement of said anvil die relative to said clamping die.

2,845,986
MACHINE FOR AUTOMATICALLY COILING STIFF WIRE INTO A HELIX
Leonard O. Larsen and Warren O. Simpson, Indianapolis, Ind., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application May 17, 1954, Serial No. 430,092
4 Claims. (Cl. 153—64)



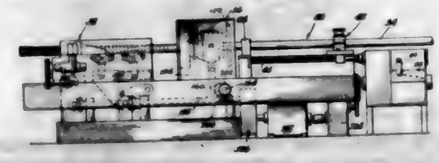
1. An apparatus for forming wire comprising a continuously rotatable drum having an entrance end and an exit end, a stationary guide mounted adjacent the entrance end of the drum to feed a wire continuously thereto, means cooperating with the drum to cause the wire to form successive spiral turns about the drum and thereby move axially of the drum to and beyond the exit end thereof, a tubular guide partially conforming to the successive turns and having an entrance and an exit, means to support the tubular guide to position its entrance adjacent the exit end of the drum to receive the successive turns therefrom, a fixed position roller mounted for rotation about its axis adjacent the drum to engage the outer periphery of each spiral turn beyond the exit of the tubular guide, an arm having one end mounted for rocking movement about the axis of the roller between a normal and an operated position, a movable roller mounted adjacent the other end of the arm and positioned normally to engage the inner periphery of the spiral turns, means urging the arm into its normal position, and means operable to rock the arm to cause the rollers to straighten successive portions of predetermined spiral turns.

2,845,987
SPRING COILING MACHINE WITH AUTOMATICALLY RECIPROCATING MANDREL AND AUTOMATIC WIRE FEEDING OF BROKEN OFF END TO AN AUTOMATIC PICK UP ON SAID MANDREL
Harry J. McCullough, Redwood City, Calif., assignor to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application November 23, 1956, Serial No. 624,167
37 Claims. (Cl. 153—67)



1. A spring-winding machine for automatically winding a helical spring from spring wire, including in combination: rotating wire pickup means; a mandrel mounted for reciprocation coaxially with respect to said pickup means; a carriage mounted for movement toward and away from said pickup means; carriage-return means for engaging said carriage and moving it toward said pickup means, and then disengaging it and moving away from it; wire-feeding means supported by said carriage for presenting an end of said wire to said pickup means whereby, when said carriage is closely adjacent said pickup means, said wire is seized by said rotating pickup means and wrapped around said mandrel to form said spring, said carriage being forced away from said pickup means by the pressure of the wire on said feeding means, as said spring is wound; and means for retracting said mandrel within said pickup means when the end of the wire is broken by being wound beyond the end of said mandrel and for projecting said mandrel out from said pickup means after the completed spring has dropped out of the way.

2,845,988
MACHINE FOR CORRUGATING A TUBE AND COLLAPSING THE CORRUGATIONS
Raymond C. Andersen, Lombard, Ill., assignor to Flexonics Corporation, Maywood, Ill., a corporation of Illinois
Application February 15, 1954, Serial No. 410,278
17 Claims. (Cl. 153—73)



1. An apparatus for making corrugated tubing comprising means for forming annular grooves in a length of tubing, means for initially feeding the tubing intermittently to said groove forming means, said feeding means including means for starting, feeding and stopping the tubing to insure accurate spacing of grooves in the

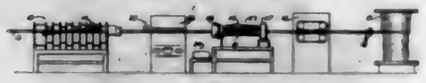
tubing, means adjacent said groove forming means for axially collapsing portions of the tubing between grooves and for feeding tubing, means for rendering said first mentioned feeding means inoperable after the tubing has been advanced to said collapsing and feeding means, and means for operating said feeding means, said grooving means and said collapsing and feeding means in predetermined timed relationship.

2,845,989

DEVICE FOR SENSING MISALIGNED PIPE SEAM AND TWISTING SAME

Waldemar C. Ewaldson, Millington, Cecil A. Hallam, Westfield, and Henry C. Slechta, Plainfield, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application December 8, 1953, Serial No. 396,884
16 Claims. (Cl. 153—78)



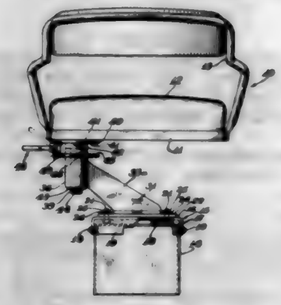
1. The combination with a unit to form longitudinally advanced material into a tube with overlapping edges forming a seam at a given position in the unit and held against rotation when leaving the forming unit, a sensing unit having a rockable element adapted to engage the tube and be caused to rock in either direction by deflection of the seam in either direction from alignment with said position resulting from a twist in the tube, and a straightening unit with a reversible drive and fluid actuable means to move portions of the straightening unit into gripping engagement with the tube and under variable pressures to twist the tube relative to said position in either direction to straighten the seam, of a conrtol apparatus comprising means responsive to the sensing unit to direct a fluid to the straightening unit under increasing pressure to cause the straightening unit to straighten the seam, and means actuable to terminate the supply of fluid to the straightening unit when a predetermined pressure has been reached.

2,845,990

ROTATABLE TRACTOR SEAT

Clarence A. Hubert, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application September 10, 1956, Serial No. 608,832
5 Claims. (Cl. 155—14)



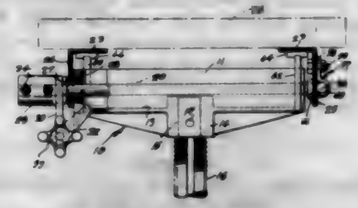
1. A vehicle seat construction, comprising: a longitudinally extending platform member adapted for affixment to a vehicle; a base-plate member positioned over said platform member; means adjustably attaching said base-plate to said platform and operative to permit relative fore-and-aft movement between said base-plate and said platform; releasable pin means interlocking said base-plate to said platform in any one of a plurality of fore-and-aft displaced positions of said base-plate relative to said platform; a seat; mounting means pivotally mounting said seat above said base-plate to permit rotation of said seat about a vertical axis; said pivotal mounting means being disposed so that the vertical axis about which said seat rotates falls within the perimeter of said seat and additionally is transversely displaced a substantial distance from a vertically and longitudinally extending plane that passes through the fore-and-aft axis of symmetry of said seat; and releasable means operative to interlock said seat with said mounting means in any one of a plurality of relative rotated positions therebetween.

2,845,991

CHAIR CONTROL OR IRON

Gustaf A. Soderberg, Bridgeport, Conn., assignor, by direct and mesne assignments, of thirty-three and one-third percent to H. Manton Ahlberg and thirty-three and one-third percent to Siegfried J. Ullmann, both of Stratford, Conn.

Application April 28, 1955, Serial No. 504,475
3 Claims. (Cl. 155—77)



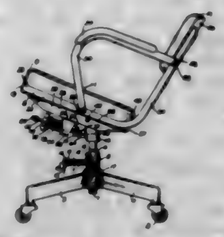
3. In a chair control of the character described, an elongated body member, a support for said member, a longitudinally extending torque bar mounted adjacent its opposite ends and free to turn in the body, transversely extending spider arms mounted adjacent the opposite ends of the body tiltable rearwardly thereon and adapted to be secured to a chair seat, cooperating adjusting means secured to one end of the bar and the body and adjustable to turn said end of the bar relative to the body comprising a laterally extending lever arm secured to the bar and an adjusting screw mounted in the body member and connected with said lever to shift it to preset an initial torque on the bar, a laterally extending arm at the other end of the bar, and means locking said arm to the adjacent spider arm to move therewith and place a torsional strain on the bar by backward tilting movement of the spider arm.

2,845,992

TILTING UNIT FOR SWIVEL CHAIR

Roy A. Cramer, Kansas City, Mo., assignor to Cramer Posture Chair Company, Inc., Kansas City, Mo., a corporation of Missouri

Application March 19, 1956, Serial No. 572,553
1 Claim. (Cl. 155—77)



A chair including, a base, seat and back members, a frame for said seat, means securing the seat to the frame, said frame having longitudinally extending spaced bars underneath thereof having aligned transverse openings therein, a vertical standard in said base, a housing rotatably mounted on said standard having laterally extending arms provided with openings in the ends thereof forming bearing members, a pin extending through the openings in the arms on the housing and in said bars tiltably mounting the frame on the standard, one end of the pin having a hook engaging over one of the bars to hold the same in place, a bracket spaced forwardly of the housing and having forwardly extending sides rigidly secured to said bars, said bracket having a rear face having an opening therein, forwardly extending spaced ears on the housing having aligned openings therein, a threaded rod extending through the opening in the bracket having a head thereon, means pivotally connecting said head to said ears, cushioning means between the bracket and said ears, a handwheel adjustably mounted on said rod, a coil spring having one end engaging against the forward face of the bracket and the other against said wheel for providing tension on tilting movement of said seat and back members, a second coil spring on said rod inside said first coil spring, and stop means on said rod for engaging one end of the second spring for adding additional tension to said tilting mechanism.

2,845,993

CHAIR

Harold O. Eads, Vienna, W. Va., and Ashton B. Exline, Belpre, Ohio, assignors to McDonough Co., doing business under the name and style O. Ames Co., Parkersburg, W. Va., a corporation of Delaware

Application April 11, 1957, Serial No. 652,212
8 Claims. (Cl. 155—148)



1. A folding chair comprising a normally horizontal seat, a pair of front legs secured adjacent the forward edge thereof in fixed angular relation thereto, a pair of rear legs having inturned arms underriding the seat and pivoted thereto adjacent their extremities along a transverse axis remote from the back edge of the seat, releasable means for latching the seat and rear legs together, the rear legs on release being movable into crossing relation to the front legs to provide a stable support of relatively restricted fore-and-aft dimension with said axis elevated to dispose the seat tilted up within a relatively restricted fore-and-aft dimension.

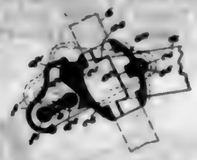
2,845,994

ADJUSTABLE CLAMPING MEANS FOR THE BACK REST OF A CHAIR OR SEAT

Stanley Howard Adcock Thompson, Stoke Bishop, Bristol, England, assignor to The Tan-Sad Chair Company (1931) Limited, Birmingham, England, a British company

Application January 25, 1957, Serial No. 636,373
7 Claims. (Cl. 155—160)

1. Clamping means for the backrest of a seat comprising two cooperating clamping parts formed for sliding reception of a backrest supporting stem, means for rockably mounting said clamping parts on the rear of the seat, and means for operatively fixing and releasing said clamping parts relative to said seat and in clamping engagement with said backrest stem, said fixing and releasing means including a clamping part engaging member and a rockable member having an over-centre toggle link connection with said clamping part engaging member providing for an over-centre fixing and releasing of the engagement of said clamping parts with said engaging member.

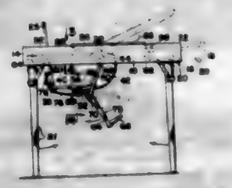


2,845,995

COMBINED TABLE AND FOLDING CHAIR

Henry J. Landry, Ashburnham, Mass.

Original application February 1, 1954, Serial No. 407,529, now Patent No. 2,805,706, dated September 10, 1957. Divided and this application July 24, 1957, Serial No. 673,927
1 Claim. (Cl. 155—165)



An adjustable leg rest construction for a chair having a seat, a bracket on the seat, a back-rest and a support therefor, said leg rest construction comprising a link depending from the support and pivoted to the bracket at a point spaced downwardly from the seat, a pivot between the leg rest and seat on an axis spaced from the pivot axis of the link and the bracket, a slotted link pivoted to the leg rest, the slot having a series of notches intersecting the same, a pin on the first link extending through the slot and into the bracket and comprising the pivot axis of the first link with respect to the seat bracket, said pin being receivable in any notch selected and holding the leg rest at a selected angle to the seat in cooperation with the said offset pivot of the leg rest to the seat, a link on the first link, a connection from the third link to the seat, said last-named connection being adjustable.

2,845,996

UNIT SINUOUS SPRING AND BRACE ROD

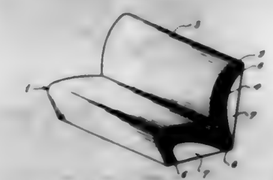
Hyland C. Flint, Birmingham, Mich., assignor to American Metal Products Company, Detroit, Mich., a corporation of Michigan

Application October 16, 1953, Serial No. 386,525
14 Claims. (Cl. 155—179)



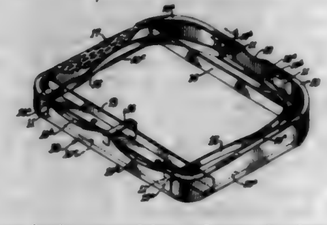
1. A spring unit having a load supporting portion with an end portion abruptly bent and extended inwardly therebelow from which a straight portion extends forwardly and upwardly to engage the under side of the load supporting portion of the unit in spaced substantially parallel relation thereto, the end of the load supporting portion where the abrupt bending occurs being the point at which the end of the unit is attached to a support.

2,845,997
FOAMED PLASTIC SEAT AND THE LIKE
George F. Waite, Pelham, N. Y., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application March 9, 1954, Serial No. 415,140
2 Claims. (Cl. 155—179)



1. A rest support for the human body comprising a strong, light-weight base member composed of a rigid, structurally strong and durable low-density foamed plastic, a metal supporting frame embedded in said base member, a cushion-like member forming a top layer on said base member and integrally bonded thereto composed of an elastic, low-density foamed plastic, said cushion-like member being adapted to support the human body with a minimum tendency to "bottom" on said base member, and a surface layer of pliant material integrally bonded to the elastic foamed plastic material.

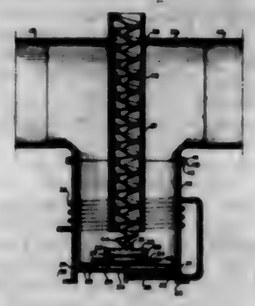
2,845,998
VENTILATED CHAIR SEATS
Robert J. Estabrook, Omaha, and Norman J. Harvey, Bellevue, Nebr.
Application April 27, 1956, Serial No. 581,023
8 Claims. (Cl. 155—184)



1. A seat body comprising a frame the front, rear and two side members of which are composed of a metal channel standing on edge with the flanges directed inwardly, a resilient sheet of openwork expanded metal overlying the channel and welded thereto at its margins, cross bars extending between, and secured at their ends to, the two side portions of the channel near the front and rear, two curved strips resting on and secured to said cross bars, said strips being spaced apart a short distance laterally at and secured to the rear of such body and extending laterally and then forwardly near the sides of the body with their front ends secured to the front of the body, there being between the tops of said strips and said sheet a free space of such magnitude that downward movement of the sheet is arrested before it is stressed beyond the elastic limit during use as a seat.

2,845,999
FUEL BURNER FOR TOBACCO CURING
Alvis Yates Dowell, Washington, D. C., and Donald G. Eaton, Arlington, Va.
Application December 4, 1952, Serial No. 324,842
11 Claims. (Cl. 158—53)

8. In a tobacco curer, an upstanding casing, a fluid burner in the bottom of said casing, means to supply combustible fluid to said burner, an air-intake tube mounted in said casing and projecting upwardly from said burner with its upper end extending outwardly of said casing, a helical shaped spiral baffle positioned in said air-intake tube and contacting the inner periphery thereof to cause the air passing downwardly in said tube to move in a helical path into close intimate contact with the burner and the burning fluid therefrom, said baffle



extending to the burner and supporting said air intake tube in a fixed position relative to said burner to assure a proper and continuous supply of air for combustion to said burner and the fluid being burned therein.

2,846,000
COMBINATION STORM WINDOW AND SCREEN
William Thomas Kammerer, Pleasantville, N. Y., assignor to H. A. Kammerer, Inc., Mount Vernon, N. Y., a corporation of New York
Application October 10, 1955, Serial No. 539,434
2 Claims. (Cl. 160—90)



1. A combination storm window and screen having upper and lower window sashes and a screen including an outer frame having side and top members and a sill adjustable to engage a window frame, an inner frame supported by said outer frame having screw means to compensate for the adjustment of the outer frame, a plurality of tracks on the inner side of the inner frame, window and screen elements mounted on said tracks, said elements having bearing elements engaging the tracks, and means for removing said window and screen elements when they are in a predetermined position, said means consisting of recesses in the tracks to accommodate the bearing elements a sufficient distance to allow the opposite end of the element to be disengaged.

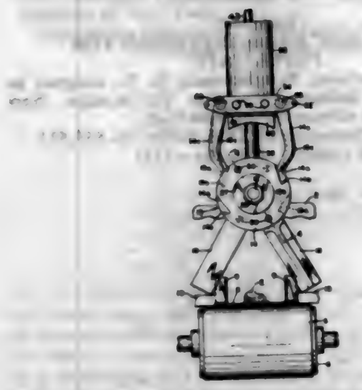
2,846,001
SHOE CUTTING DIE
John O. Lowell, Kirkwood, Mo., assignor, by mesne assignments, to Jonb, Inc., St. Louis, Mo., a corporation of Missouri
Application May 6, 1957, Serial No. 657,395
11 Claims. (Cl. 164—29)



1. A resilient die for cutting materials such as shoe components and the like, comprising a strip of true initially

annealed, high-carbon spring steel that is hardened and tempered and that readily yields to impact pressures of a die press and returns to its original shape upon relief of the pressures.

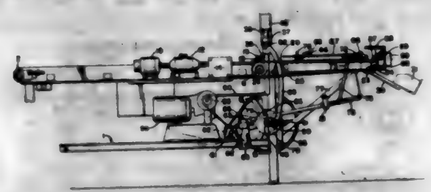
2,846,002
CUTTING MECHANISM
John A. Farnwald and Nelson R. Miller, Middlefield, Ohio, assignors to The Johnson Rubber Company, Middlefield, Ohio, a corporation of Ohio
Application April 5, 1956, Serial No. 576,491
9 Claims. (Cl. 164—41)



2. In cutting mechanism, two blade carriers mounted for oscillation about a common axis, a double edge shear blade supported by each carrier in operative relation to the blade supported by the other carrier, a head reciprocable in substantially the plane of the carriers toward and from said axis, power means of rapid action for imparting a quick reciprocation to the head each time said power means is activated, a pair of opposed arms operatively associated with each carrier, the arms of each pair being pivoted at their proximal ends to the head and having their distal ends arranged for engagement with opposed peripheral surfaces of the corresponding carrier, each carrier having opposed abutments inset from said peripheral surfaces that are alternately engaged by the distal ends of the corresponding pair of arms in successive reciprocations of the head, the distal end of the arm opposite the one engaged with an abutment being deflected by the peripheral surface of the carrier away from the adjacent abutment of the carrier as the aforesaid part moves toward said axis, the carriers being so disposed to the respective pairs of arms that they are oscillated in reverse directions upon each reciprocation of the head, the blades being so related to the carriers that each blade is caused to pass the other in a cutting operation when the carriers are thus oscillated, and means for reciprocating the head.

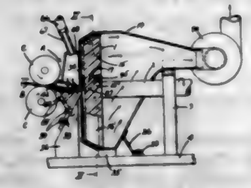
2,846,003
MACHINE FOR CUTTING STRIPS OF RUBBER OR THE LIKE
Smith M. Johnson, Pawling, N. Y., and John A. Farnwald, Middlefield, Ohio, assignors to The Johnson Rubber Company, Middlefield, Ohio, a corporation of Ohio
Application April 5, 1956, Serial No. 576,499
8 Claims. (Cl. 164—48)

1. In a machine for automatically handling and cutting strips of material into pieces of predetermined length, the combination of a feeding conveyor and a delivery conveyor arranged end to end in spaced relation to each other and by which a plurality of strips, arranged side by side and longitudinally of the conveyors, are adapted to be carried through the machine, a knife supported for vertical movement in the space between said conveyors, elongated stop means supported above and transversely of the delivery conveyor for movement between a first position in the path of the strips and a second position outside said path, mechanism operatively connected to the knife and stop means for raising and lowering the knife and for shifting the stop means between said positions



in synchronism, power operated driving means for the conveyors and for the aforesaid mechanism, and an instrumentality for changing the speed at which the conveyors are driven with respect to the frequency of operation of the knife and stop means thereby to vary the length of the pieces being cut, said stop means being adjustable toward and from the knife according to the approximate length of the pieces being cut.

2,846,004
FIBER CUTTER
Arne Fofland, Middletown, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application March 15, 1955, Serial No. 494,484
3 Claims. (Cl. 164—61)

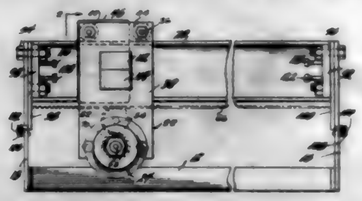


1. A fiber cutter comprising a rotatable cutter head mounted on a drive shaft, a stationary blade mounted adjacent the cutter head over which blade travels a supply bundle of filaments or fibers to be cut, at least one cutting blade secured to the cutter head which cooperates with the cutting edge of said stationary blade, an aspirator unit mounted adjacent the stationary blade which unit comprises a lower walled guide chamber for the supply bundle of filaments or fibers, the exit end of said guide chamber lying immediately adjacent the cutting edge of the stationary blade, a channel extending through the top surface of the lower guide chamber which channel is in alignment with the end of the bottom wall of the guide chamber at the exit end of the chamber at approximately a 30° angle thereto, and an upper walled chamber affixed to the top wall of the guide chamber which communicates with the lower guide chamber through said channel and into which air under pressure is supplied.

2,846,005
TRIMMER OR PAPER CUTTER
Joe Biggs Wilson, Texarkana, Ark.
Application December 18, 1953, Serial No. 398,921
1 Claim. (Cl. 164—76)

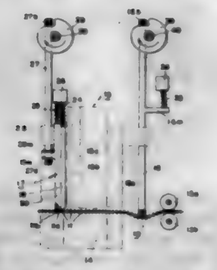
A trimmer comprising a baseboard having a cutting edge, uprights fixed to said baseboard on either side thereof, a single transom supported on said uprights in parallelism with said cutting edge, a carriage movably supported by said transom and having sides extending below

said transom, a rack fixed to the bottom of said transom between said sides, a first shaft positioned below said rack and journalled in said sides of the carriage, a first gear mounted on said first shaft in mesh with said rack, a second shaft positioned below said rack and journalled in said sides of the carriage, a second gear mounted on said second shaft in mesh with said first gear, a cutting



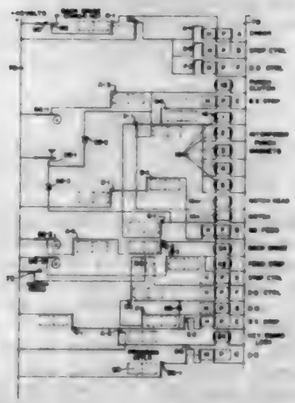
blade mounted on said second shaft in cutting association with said cutting edge, a reversible motor mounted on said carriage, means drivingly connecting said motor and one of said shafts, and cooperating means carried by said carriage and said transom, respectively, in positions for coacting engagement responsive to movement of the carriage along the transom for reversing said motor and the movement of the carriage.

2,846,006
CUTTING SLIDE FASTENERS TO LENGTH
Rudolf Feld, Brooklyn, N. Y., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York
Application April 21, 1955, Serial No. 502,987
4 Claims. (Cl. 164—89)



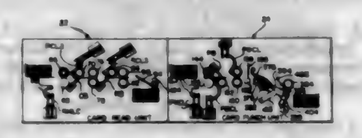
1. Control means for insuring substantial uniformity in the length of each of a succession of measured zipper lengths of fastener chain being produced from continuous fastener chain feeding with a step-by-step motion along a predetermined path of movement comprising, in combination, fastener-chain severing means disposed along said path, locating-pin means disposed a small fixed distance rearwardly and a stretching pin located generally forwardly of said severing means, said locating-pin means and said stretching pin being mounted for lowering and retracting movement on to and away from the chain, means operatively related to each for lowering said locating-pin means and said stretching pin on to the chain during the intervals that said chain is at rest whereby said locating pin means is adapted to establish a point of chain anchorage disposed rearwardly of said severing means and said stretching pin is adapted to impart a controlled pull on the portion of the chain extending to the locating-pin means as tends to shift said chain portion forwardly, said locating-pin means comprising a pair of parallel pin members and means mounting said pin members for movement toward the chain in unison and for movement relative to one another upon engaging the chain, said pin members each having chain-engaging working edges which are spaced from one another in the direction of chain length a distance substantially equal to the spacing between any two adjacent fastener elements of the same one of the two rows thereof making up the fastener chain whereby, as said pin members move on to the chain, at least one of said working edges is adapted to lower into the space between the two adjacent fastener elements of the same row thereof then in approximate registry with said pin members and thereupon to engage the side edge of the rearward one of said two adjacent fastener elements, thus to limit the amount that the said chain portion extending to the stretching pin can shift forwardly under the pull exercised on said chain portion by said stretching pin.

2,846,007
AUTOMATIC ERROR DELETION FOR PAPER TAPE
Raymond A. Barbeau, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 27, 1955, Serial No. 555,531
13 Claims. (Cl. 164—113)



1. A device for automatically obliterating a message containing an error from a tape comprising a tape punch, means identifying a message from the point of beginning to the point of error, tape feed means operable under individual control to feed tape column by column in one direction or reverse direction, means operable to condition said tape punch and said tape feed means after an error has been made in a message to reverse tape feed to the point of beginning of message and then forward tape feed to the point of error while obliterating all tape codes during said latter forward movement.

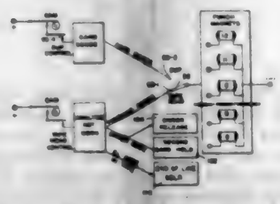
2,846,008
CARD PUNCHING MACHINE
Arthur H. Dickinson, Greenwich, Conn., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1954, Serial No. 479,198
49 Claims. (Cl. 164—115)



1. In a mechanism for recording data on portions of record media as manifestations in columns of index point positions, a plurality of selectively conditionable means for successively creating manifestations at different index point positions in corresponding columns of portions of

record media moved relative to them, means for effecting repeated relative movement in the record media columnar direction between said means and successive record media portions to enable successive recordings on each portion, and means for conditioning different ones of said plurality of means for successive relative movements between said plurality of means and said record media portions.

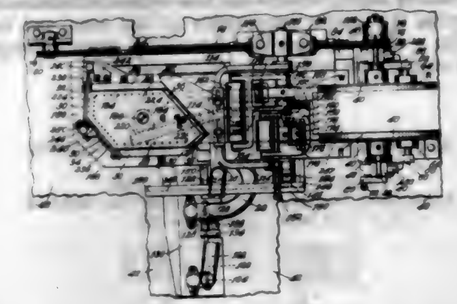
2,846,009
MEMORY LINE DEVICE
Raymond A. Barbeau, Poughkeepsie, and Paul M. Young, Pleasant Valley, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application February 7, 1955, Serial No. 486,472
10 Claims. (Cl. 164—115)



1. In a statistical card punching machine having a card read station and a card punching station with mechanism for advancing a card column by column through both of said stations simultaneously and for sequentially advancing a card from said punch station to said read station and having further mechanism for conditioning said punch station to punch information read either from a record or from said card read station, a device for conditioning said machine after an error notation has been sensed in said record, to duplicate correct portions of the card in which the error was punched after said card has been advanced to said card read station and a new card positioned at said card punch station, comprising in combination, an emitter conditioned to emit an electrical impulse as the first column of a card reaches said read station, and circuit means having therein a record read relay, which when impulsed conditions said machine to punch information read from said record and a duplicate relay which when impulsed conditions said machine to punch information read from a card at said read station, a transfer switch having a normally closed side electrically connected to said record read relay and the normally open side connected to said duplicate relay, said transfer switch having a common point electrically connected to said emitter, said circuit means further having connections to condition said transfer switch to be transferred after a predetermined code has been read in said record which code is assigned to indicate a correctly punched card portion, said circuit means further having connections to condition said machine after an error code has been noted in said record and punched in a card at said punch station to advance the error card to said read station and a new card to said punch station whereupon a pulse from said emitter causes duplication of correct information from said error card to said new card.

2,846,010
TOBACCO WEB FEEDING AND CUTTING MACHINE
Henry H. Wheeler, Bellerose, N. Y., assignor to International Cigar Machinery Company, a corporation of New Jersey
Application May 5, 1955, Serial No. 506,129
16 Claims. (Cl. 164—212)

1. In a device for feeding a shaped sheet portion of tobacco web material to the transfer mechanism of a cigar machine, a source of said sheet material, frictional rollers to feed said sheet material from said source, a suction head to hold the leading end of said sheet material, a suction table to receive the leading portion of said web, a feed suction head mounted to reciprocate to and fro between said suction head and said suction table to draw said leading end of said sheet material from said suction head to said suction table, valve devices to successively apply suction to said suction head, said feed head and then to said suction table, means to connect said recipro-



cating suction feed head to said friction feed rollers to drive said rollers to feed a linear amount of said sheet material corresponding to the length of transit of said reciprocating feed head, said suction table being mounted for vertical movement, a knife positioned at the first end of said suction table, cutting rollers mounted on said reciprocating feed means, and instrumentalities operative to raise said table to said rollers to move said rollers across the suction table and across said knife during the return stroke of said reciprocating feed head.

2,846,011
METHOD FOR PERFORATING WELL FORMATIONS
William D. Miller, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware
No Drawing. Application October 19, 1956
Serial No. 616,949
1 Claim. (Cl. 166—22)

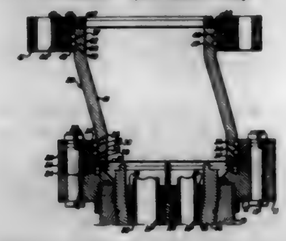
A method for perforating casing in a well penetrating a petroleum-bearing formation comprising the steps of placing a slurry of granular solids throughout the interval of said casing to be perforated, said granular solids being soluble in the fluids within said formation, imposing a pressure on said slurry greater than the natural formation pressure, perforating said casing within said interval, and subsequently reducing the pressure on said slurry to permit fluid flow from said formation through said perforations.

2,846,012
RECOVERY OF OIL FROM PARTIALLY DEPLETED RESERVOIRS BY SECONDARY RECOVERY
Roy H. Lorenz, Arlington Heights, and Orrin C. Holbrook and George G. Bernard, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application December 6, 1954
Serial No. 473,478
9 Claims. (Cl. 166—38)

1. In a secondary recovery process employing a water drive to facilitate the drainage of residual petroleum oil from a partially depleted, subterranean oil-bearing normally water-wettable reservoir, traversed by a water injection well and a recovery well, a method for minimizing the resistance of said reservoir to the flow of said water drive through a circumambient zone immediately adjacent said injection well which comprise forcing into said reser-

voir through said injection well an aqueous solution containing about 0.1–10% by weight of a water-soluble metal salt of an organic siliconic acid into a circumambient zone immediately adjacent the injection bore hole and having a radius not greater than about 20 feet, in a volume equal to about 25–75% of said zone, contacting the aqueous salt-containing solution while in said circumambient zone with an acidic solution whereby a silicone polymer is precipitated to form an oil-wettable coating on the mineral surfaces of said circumambient zone without deleteriously affecting the specific permeability of said zone, and injecting a water injection fluid into said reservoir through said zone to force said residual oil therefrom.

2,846,013
ALIGNMENT FITTING FOR WELL TUBING HEADS
Melvin C. Davis, Denver, Colo.
Application January 31, 1957, Serial No. 637,544
1 Claim. (Cl. 166—75)



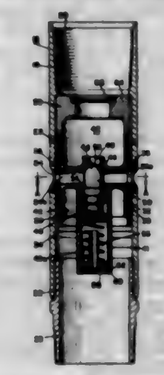
An alignment fitting for well tubing heads, said fitting comprising a lower flange for attachment to the upper end of a well tubing, an axial bore in said flange providing an inner wall, vertically spaced annular grooves in said wall providing outer bearing races, a sleeve having vertically spaced annular grooves in the outer surface adjacent the lower end providing inner bearing races, said lower end of said sleeve being disposed in the bore in said flange, ball bearings disposed in said bearing races to rotatably mount said sleeve in said flange, the wall of said sleeve being inclined and terminating in an upper end offset radially from said lower end, vertically spaced annular grooves in the outer surface of said sleeve adjacent said upper end providing inner bearing races, an upper flange having an axial bore providing an inner wall and received over the upper end of said sleeve, vertically spaced annular grooves in the inner wall of said upper flange providing outer bearing races, ball bearings disposed in said last mentioned bearing races to rotatably mount said upper flange on the upper end of said sleeve, said upper and lower flanges each having a radial bore extending through the inner and outer wall in alignment with said bearing races to permit insertion of ball bearings in said inner and outer races and a removable plug closing each radial bore to retain said ball bearings in said races, and packing means between the upper and lower ends of said sleeve and said upper and lower flanges whereby the longitudinal axis of said upper flange may be displaced radially with respect to the longitudinal axis of said lower flange while maintaining said flanges in spaced parallel relationship.

2,846,014
LANDING NIPPLE FOR WELL TUBING
Douglas E. Dallin, Pasadena, and Harold E. McGowen, Jr., Houston, Tex., assignors, by mesne assignments, to Sid W. Richardson, Inc., Fort Worth, Tex., a corporation of Texas
Application April 23, 1956, Serial No. 579,931
12 Claims. (Cl. 166—102)

1. A landing nipple for use in connection with a string of tubing in a well, said nipple comprising an elongated body including an unobstructed hollow upper body portion and a lower portion having an insert receiving bore and a second insert receiving bore parallel with the first bore, said bores communicating at their upper ends with the interior of the hollow body, the upper hollow portion of said body being of sufficient size above said bores to accommodate the operation of a kick-over tool therein, means providing communication between said bores, and means providing communication between said second bore and the exterior of the landing nipple body, each of said insert receiving bores having locking portions adapted to coact with portions carried by their respective inserts for selectively locking the inserts in place within the receiving bores.



2,846,015
SELF FILL DIFFERENTIAL COLLAR
Forrest C. Pittman, Duncan, Okla., assignor to Halliburton Oil Well Cementing Company, Duncan, Okla., a corporation of Delaware
Application May 10, 1957, Serial No. 658,334
4 Claims. (Cl. 166—224)



4. An improved device for automatically filling with fluid a conduit lowered into a well bore, comprising, in combination, a housing connected to said conduit, said housing having transverse ports, a hollow valve body fitted inside said housing, said valve body having connecting horizontal and vertical fluid passageways, a sleeve having transverse ports fitted in a recess in said valve body, shearable means adapted to hold said sleeve and said valve body in temporary fixed relationship to said housing, said shearable means being adapted to hold said transverse ports and said horizontal fluid passageways in temporary communication, and valve means in said valve body adapted to automatically open said horizontal and vertical passageways to the flow of fluids from the well bore into the said conduit by the action of differential pressure, as said conduit is being lowered into a well bore.

2,846,016
STOP COLLAR FOR WELL CASING
James W. E. Hance, Ventura, Calif., assignor, by mesne assignments, to Huntsinger Associates, a joint venture
Application March 19, 1954, Serial No. 417,290
2 Claims. (Cl. 287—52.04)



1. In a stop collar adapted to be mounted on a well casing: a split band adapted to be disposed about the exterior of the well casing; a pliant elastic gripping member extending at least within the band and adapted to be compressed in gripping engagement with the casing upon constriction of the band; the end portions of the band on opposite sides of its split providing projections extending in opposite lateral directions and adapted to be placed in overlapping engagement with each other to prevent circumferential separation between the band ends and to maintain the gripping member in gripping engagement with the casing; said band having apertures in its end portions adapted to receive a means for shifting said end portions toward each other to grip the gripping member with the casing and to place said projections in overlapping engagement with each other.

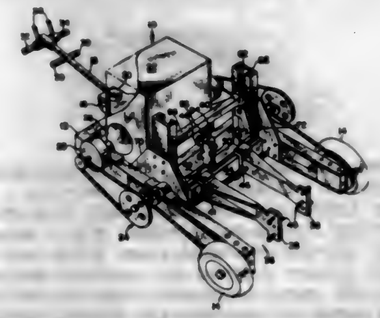
2,846,017
SNOW VEHICLE WITH ENDLESS TREAD PROPELLING DEVICE
Elmer Luchterhand, Westmount, Quebec, Canada
Application March 9, 1954, Serial No. 415,131
14 Claims. (Cl. 180—5)



1. A snow vehicle comprising a compound runner having a central section, a forward section and a rearward section, said forward and rearward sections being pivoted about transverse horizontal axes to adjacent ends of said central section for pivotal movement upward and downward on said central section, means connected between said central section and said forward and rearward sections to bias said forward and rearward sections downwardly, a longitudinal slot in the bottom of said central section, endless tread drive means mounted within said longitudinal slot for propelling said vehicle, a cabin mounted on said central section, engine drive means in said cabin drivingly connected to said endless tread drive and an endless tread operably mounted about said endless tread drive.

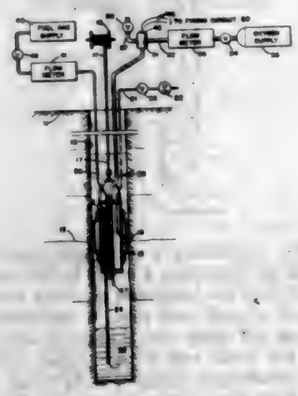
2,846,018
VEHICLE TOW TRUCK
Ronald G. Puckett, Dallas, Tex.
Application September 2, 1955, Serial No. 532,380
2 Claims. (Cl. 180—6.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

2. A vehicle tow truck comprising in combination a frame having a plurality of wheels including a pair of transversely disposed wheels, a power source for driving said pair of wheels, means for selectively connecting said power source to said pair of wheels for independent operation, said pair of wheels having fixed axis of rotation lying in a vertical plane normal to the frame, means for steering said truck, a pair of transversely spaced hitching arms supported on said frame and adapted to receive therebetween a vehicle wheel to be towed, said arms having means for rotatably engaging and supporting a vehicle wheel about an axis lying in said vertical plane, means for



transversely moving one arm with respect to the other arm for hitching said engaging means to the vehicle wheel, and means for elevating said arms with the vehicle wheel supported therebetween for transferring a portion of the load to the truck for traction purposes, said vehicle wheel engaging means being movable in said vertical plane, whereby said vehicle wheel and pair of truck wheels are provided with concentric turning circles enabling the vehicle wheel to be towed while in rolling contact with the ground.

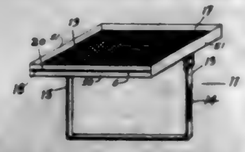
2,846,019
GENERATING SEISMIC WAVES
Harold M. Lang, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware
Application November 7, 1955, Serial No. 545,453
6 Claims. (Cl. 181—5)



1. The method of generating seismic waves in a bore hole in the earth which comprises the steps of filling a substantial length of said borehole below the weathering-velocity interface with a mixture of fuel gas and oxygen capable of combustion by detonation, during said filling step adjusting the relative flow rates of said fuel gas and said oxygen so that the volume percent F of fuel gas in the mixture with oxygen is equal to K_1V-K_2, where K_1 and K_2 are constants for any given fuel gas, and V is the seismic-wave-transmission velocity of the sub-

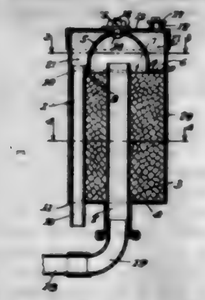
weathing formations penetrated by said borehole, and initiating detonation of the column of gases at the upper end thereof.

2,846,020
LIQUID SOUND DEADENING DEVICE
Matthew D. Crowley, New York, N. Y., assignor to Matt Crowley Enterprises, Inc., New York, N. Y., a corporation of New York
Application August 3, 1955, Serial No. 526,220
1 Claim. (Cl. 181—33)



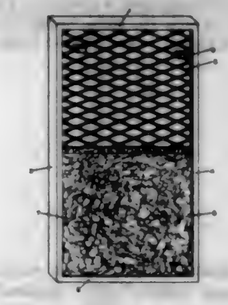
A device for deadening the sound of impingement of rain upon an air conditioning unit comprising a frame member formed with upstanding edges lying upon the top portion thereof and provided with a lengthwise centrally disposed perimetral recess within said edges; a screen member provided with openings therein and formed with spaced downwardly depending portions extending across said openings and disposed across said frame member and spaced from the top portion of said air conditioning unit with the edge of portions of said screen member secured within said recesses within said frame member, a holding member formed with two spaced portions secured to said frame member and disposed about said air conditioning unit, and a spring member joining both portions of said holding member to one another.

2,846,021
EXHAUST FILTER FOR INTERNAL COMBUSTION GAS ENGINES
Frank A. Encinas, Los Angeles, Calif.
Application February 20, 1956, Serial No. 566,637
1 Claim. (Cl. 183—44)



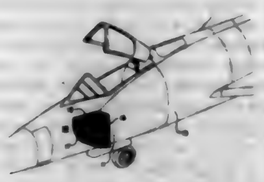
An air filter comprising a receptacle constructed and arranged with an inlet tube, a dome in the upper end of said receptacle into the lower end of which dome extends the upper end of said inlet tube, a perforated disc extending around the upper end portion of said inlet tube and against the lower end of said dome, whereby said products of combustion discharged by from the upper end of said inlet tube into said dome are discharged by said dome downwardly through said perforated disc into plaster of Paris below said disc around said inlet tube, and an outlet tube extending downwardly through said disc and bottom wall of said receptacle for discharging said filtered products of combustion from the upper end of said receptacle, when said filtered products pass upwardly from said plaster of Paris through said perforated disc into said upper end of said receptacle, a detachable cap closing the top of said receptacle, and means for securing said dome to the upper wall of said cap.

2,846,022
FILTER MAT HOLDER
Arthur F. Hubbard, Moline, Ill., assignor to American Air Filter Company, Inc., Louisville, Ky., a corporation of Delaware
Application December 21, 1955, Serial No. 554,551
2 Claims. (Cl. 183—49)



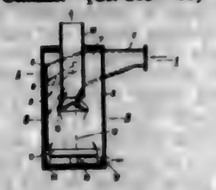
1. A holder for a filamentous air filter mat comprising an open ended perimetric frame member of substantially U-shaped cross section and of a depth sufficient to peripherally enclose a filamentous filter mat of predetermined thickness insertable therewithin, an air pervious backing screen mounted in one open end of said frame member, and a plurality of selectively disposed barbed end prong members removably mounted on said backing screen and having the barbed ends thereof extending into the space defined by said frame member whereby a filter mat inserted into said frame member and into abutting relation with said backing screen is peripherally supported and retained by said frame member and selectively supported and retained at locations remote from said frame member by the embedded engagement of the barbed ends of said prong members therewith.

2,846,023
PROTECTIVE DEVICE FOR JET ENGINES
Victor Millman, San Diego, Calif., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application April 19, 1956, Serial No. 579,243
7 Claims. (Cl. 183—51)



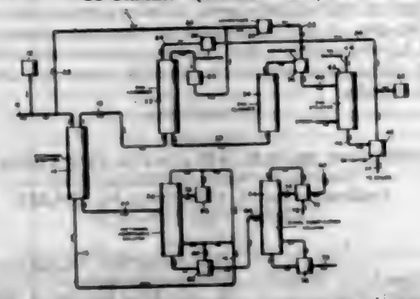
1. A protective device for use with the air inlet of a jet engine for filtering foreign material from air entering said air inlet comprising a body structure defining a chamber and having its wall members formed of screen for the passage of air, including among its wall members a top wall member and a rear wall member, the screen of said top wall member being of coarser mesh than the screen afforded the other wall members for the more ready passage of air therethrough into the body structure, said rear wall member having an opening therein adapted for alignment with the opening of said air inlet, and one of said other wall members extending downwardly and rearwardly from said top wall member to said rear wall member and being of generally arcuate configuration.

2,846,024
CYCLONE
Theodor Brunl, Winterthur, Switzerland, assignor to Schweizerische Lokomotiv- und Maschinenfabrik, Winterthur, Switzerland
Application May 21, 1956, Serial No. 586,075
Claims priority, application Germany May 26, 1955
4 Claims. (Cl. 183—68)



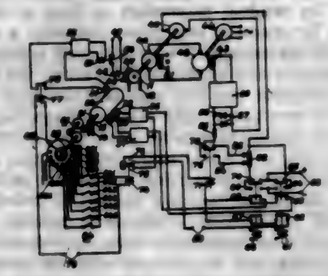
1. A cyclone for the separation of impurities from gases and vapours comprising a cylindrical receiver with a top and a bottom forming a whirl chamber, a gas inlet duct adjacent the top of said receiver opening tangentially thereinto, a wall closely spaced from the interior wall of said receiver containing said duct within said receiver to direct the gas ar vapour stream circumferentially and downwardly of said receiver as a narrow fluid ribbon, said duct within said receiver being closed at its upper edge and open at its lower edge, said duct within said receiver extending downwardly until adjacent the bottom of said receiver, a central gas vent located in the top of said receiver, said receiver having an outlet adjacent the bottom thereof for the discharge of impurities, said duct within said receiver extending through a minor portion of the total circumference of said receiver with a narrow radial width compared to the radius of said receiver, said whirl chamber being formed for the major portion of its height partly by the inner wall of said receiver and partly by the inner wall of said duct whereby the whirling gas and vapour stream circulates along paths deviating only slightly from a true circular path before being discharged through said gas vent.

2,846,025
PROCESS FOR REMOVAL OF DIVINYLACETYLENE FROM ACRYLONITRILE
Robert F. Butler, Hopewell, and Richard C. Datin, Petersburg, Va., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application January 11, 1957, Serial No. 633,712
11 Claims. (Cl. 183—115)



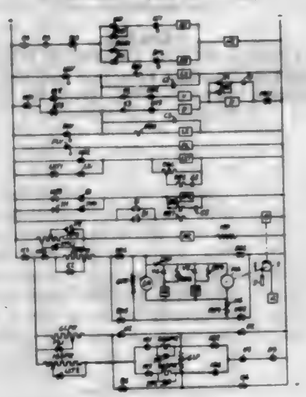
1. In the method of purifying acrylonitrile containing divinylacetylene, the steps comprising mixing acrylonitrile with methanol, stripping the resulting liquid mixture free of divinylacetylene by bringing it into intimate contact with a vapor mixture of acrylonitrile and methanol in a column operating under substantially isothermal conditions and wherein the acrylonitrile and methanol are in phase equilibrium throughout said column and subsequently separating the purified acrylonitrile from the treated acrylonitrile methanol mixture by distillation.

2,846,026
ELEVATOR CONTROL SYSTEM
Eric Gott and Bertil Ulfvard, Johanneshov, Sweden, assignors to Allmänna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application October 1, 1956, Serial No. 613,135
Claims priority, application Sweden October 5, 1955
8 Claims. (Cl. 187—29)



1. Means for controlling the movement of an elevator car, comprising a magnetic memory in which a magnetizable body is constrained to move past at least one magnetic pick-up serving as a reading head, in such a manner that the relative motion between the magnetic reading head and that part of the body passing said reading head is in fixed proportion to the movement of the elevator car, said body being magnetized to contain information about the movement of the car in such a manner that its residual magnetic flux, in different parts of the body, corresponds to a predetermined correlation between the movement of the elevator car and its position, said movement being controlled by means of the reading head delivering a control voltage which is proportional to the time derivative of the residual magnetic flux to which the reading head is exposed.

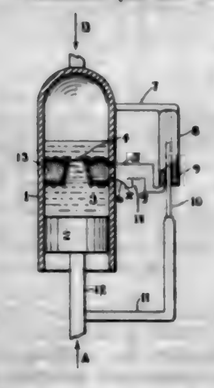
2,846,027
ELEVATOR CONTROL SYSTEM
William Henry Bruns, Lincolndale, N. Y., assignor to Otis Elevator Company, New York, N. Y., a corporation of New Jersey
Application March 15, 1957, Serial No. 646,345
16 Claims. (Cl. 187—29)



16. In combination; an elevator car serving a plurality of floors; a direct current hoisting motor for said car; a direct current generator for supplying current to said motor at variable voltage, said generator having a field winding; a source of direct current for said field winding; a circuit for said field winding; resistance in said circuit; an additional circuit for said field winding; resistance in said additional circuit; means for starting the car; means responsive to said starting means for connecting

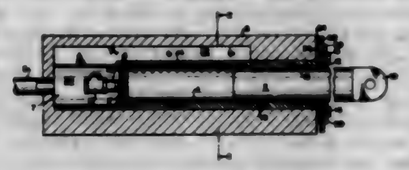
said field winding to said source by way of said first-named circuit for a polarity of excitation in accordance with the desired direction of car travel; a switch having an operating coil connected across the generator armature and operable in response to an initial start of the car in a given direction and the generator attaining a certain voltage, said switch thereafter being retained in operated condition by residual magnetism so long as the car remains set for travel in said given direction; a circuit for said switch connecting its operating coil across the generator armature and responsive to starting the car in the opposite direction and the generator attaining a certain voltage for overcoming said residual magnetism to reset said switch; means responsive when said switch is operated to starting said car in said given direction and when said switch is reset to starting said car in said opposite direction for connecting said additional circuit to said source with said resistance therein in parallel with said field winding and responsive when said switch is operated to starting said car in said opposite direction and when said switch is reset to starting said car in said given direction for connecting said additional circuit in circuit with said field winding with said resistance therein in parallel with said resistance in said first-named circuit to increase the excitation of said field winding to compensate for the residual flux of the generator; a second switch having an operating coil connected across the generator armature and operable in response to an initial start of the car in said given direction and the generator attaining a higher than said certain voltage, said switch thereafter being retained in operated condition by residual magnetism so long as the car remains set for travel in said given direction; a circuit for said switch connecting its operating coil across the generator armature and responsive to starting the car in said opposite direction and the generator attaining a higher than said certain voltage for overcoming said residual magnetism to reset said switch; and means operable by said second switch when operated, upon starting of the car in said opposite direction, and operable by said second switch when reset, upon starting of the car in said given direction, for decreasing the amount of said resistance in said additional circuit connected in parallel with said resistance in said first-named circuit in circuit with said field winding.

2,846,928
MAGNETIC FLUID DAMPING DEVICE
Roland Eric Gunther, Princeton Junction, N. J.
Application March 30, 1955, Serial No. 497,952
2 Claims. (Cl. 188—88)



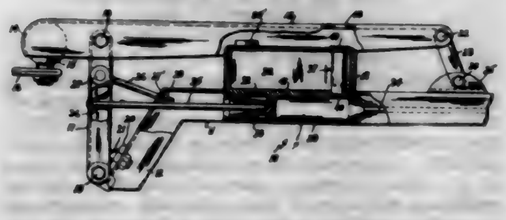
1. In a motion damping device the combination of a cylindrical containing means, a fixed tubular constriction, said constriction being located in said containing means, the inner dimensions of diameter and length of said constriction being less than one third of the respective dimensions of said cylindrical containing means, an electrically conductive winding, said winding comprising an electromagnet in structure capable of producing a magnetic field when energized, said electrically conductive winding surrounding said tubular constriction, a piston, said piston movable with a sliding fit within said cylindrical containing means, a mass of movable discrete paramagnetic particles, said mass of paramagnetic particles contained within said containing means, said mass of paramagnetic particles capable of being forced through said tubular constriction by movement of said piston in said cylindrical containing means, a plunger type electrical generator, said generator having a plunger and a generator body, a mechanical linking means, said mechanical linking means capable of simultaneously impressing motion to be damped in linear fashion on said piston with respect to said containing means and on said plunger with respect to said generator body, and an electrical wiring circuit, said wiring circuit electrically connecting the output of said generator in series with said electrically conductive winding.

2,846,929
HYDRAULIC RETARDING DEVICE
George Cawley, Upper Montclair, N. J.
Application June 17, 1955, Serial No. 516,183
2 Claims. (Cl. 188—94)



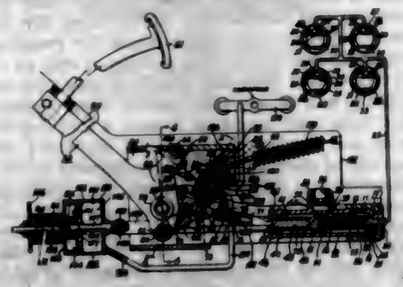
1. An energy absorbing device comprising a cylinder, means to substantially close one end of the cylinder, said cylinder having a plurality of apertures in the side wall thereof disposed over a generally rectangular surface of said side wall, said cylinder further having at least one aperture in said closing means, a check valve arranged to permit the flow of fluid into said cylinder through said closing means, a piston fitting within said cylinder, and a casing surrounding said cylinder, said casing having a cavity therein accommodating said cylinder, the walls of said cavity engaging the exterior surface of said cylinder over substantially the entire length thereof and over a major fraction of its circumference, said cavity further including a portion relieved from contact with the exterior surface of said cylinder over an area substantially equal to the area of said rectangular surface and extending to and beyond said one end of said cylinder, said cylinder and casing being relatively rotatable about the axis of said cylinder.

2,846,930
AUTOMATIC BRAKE APPLICATOR FOR TRAILERS
Charles W. Wade, Jr., Austin, Tex.
Application July 5, 1956, Serial No. 596,083
3 Claims. (Cl. 188—112)



1. An automatic brake actuator for towed vehicles, comprising an elongated member adapted at its rear end for connection to a towed vehicle and provided at its front end with a downturned extension, a bar spaced upwardly from said member and adapted at its front end for connection to a towing vehicle, a substantially vertical yoke pivoted at its upper end to said bar and pivoted at its lower end to the front end of said extension, a socket provided intermediate the ends of said yoke, a link pivoted to said member and to the rear end of said bar whereby to afford longitudinal movement of the member relative to the bar, stop means for limiting movement of the member relative to the bar in a rearward direction, a hydraulic master cylinder carried by said member and adapted to actuate the brake system of the vehicle being towed, said master cylinder including a fluid reservoir and a pressure chamber having a piston slidable therein, and a push rod substantially parallel to said member and having its rear end in operative engagement with said piston, the front end of said push rod being seated in said socket, whereby said master cylinder may be energized when said member moves forwardly relative to said bar.

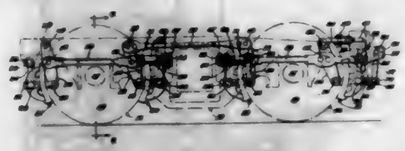
2,846,931
CONTROL LINKAGE FOR BRAKE MECHANISM
Oliver K. Kelley, Bloomfield Hills, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 26, 1955, Serial No. 530,852
16 Claims. (Cl. 188—152)



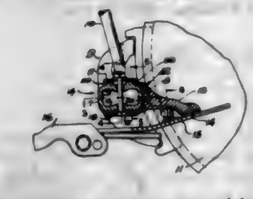
1. Actuating mechanism for a vehicle brake, comprising, a cylinder with a reciprocable piston therein to effect transfer of hydraulic fluid to hydraulically actuated brakes of a vehicle, a manually operated lever, a mechanical ratio increasing linkage system connecting said lever with said piston actuable to effect variable rate movement of the piston through said mechanical linkage in a direction to produce said transfer of fluid, a differential fluid pressure motor having a pressure movable unit therein mechanically connected with said piston to actuate the same in said direction upon the establishment of said differential fluid pressure, and a control valve mechanism in said linkage system actuated substantially concurrently therewith and establishing thereby said pressure differential operation of said motor to supplement said mechanically effected movement of said piston.

2,846,932
BRAKE RIGGING ALIGNING MEANS
John A. Buveiot, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application October 26, 1956, Serial No. 618,544
1 Claim. (Cl. 188—205)

In a clasp brake arrangement for a railway car truck including at least one wheel and axle assembly and a frame supported thereby, the combination of: friction means; power means; linkage means connecting the friction means to the power means for the actuation of the former by the latter, said linkage means including a pair of generally vertically extending brake levers at least one of which is a live lever with a floating fulcrum point, said levers being interconnected by a floating generally horizontally extending connecting rod; and aligning means operable to prevent rotation of the rod about its longitudinal axis and prevent lateral movement of the rod transversely of the truck, and thereby maintain said live brake lever in alignment with the other brake lever in a common vertical plane the location of which is fixed with respect to the longitudinal center plane of the truck, said aligning means comprising at least one elongated element rectangular in section extending from an end of said connecting rod and received in snug slidable engagement within a complementary U-shaped rectangular slot presented by the frame.



2,846,933
BRAKE BEAM SUPPORT AND SAFETY DEVICE
Irvin J. Spoth, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a corporation of Illinois
Application July 3, 1952, Serial No. 296,997
6 Claims. (Cl. 188—213)

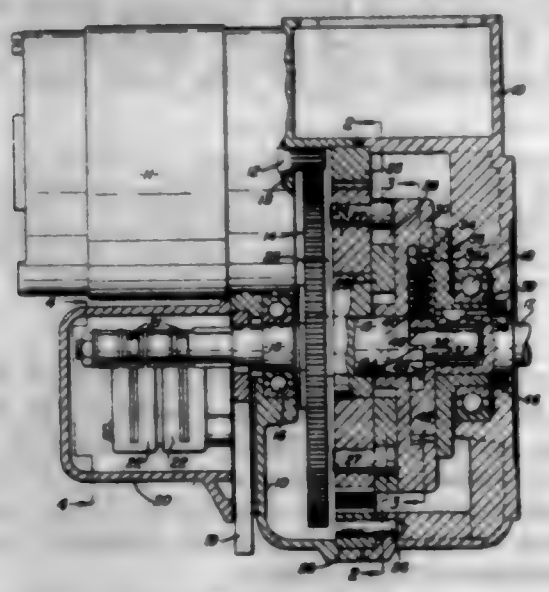


1. A brake beam structure comprising a one-piece cast steel brake beam having tension and compression members converging outboardly and merging with tubular end portions having top, bottom, front and rear walls, said top and bottom walls having vertically aligned apertures and bosses on diametrically opposed sides of each aperture, said bosses and apertures being aligned in a vertical plane transversely of the beam, a fourth point support chair comprising a body, a pair of arms integral with the body snugly straddling a tubular end portion, said arms extending transversely of and parallel to the plane of the beam with one arm engaging the top wall and the other arm engaging the bottom wall, said arms being of greater width than thickness, said arms having elongated recesses to receive said bosses responsive to movement of said chair transversely of the beam and openings in alignment with said apertures, and a fastener extending through said openings and apertures operative to flex the arms into tight abutting engagement against said top and bottom walls to secure the chair to said beam, said bosses coacting with said fastener to resist movement of said chair relative to said beam.

2,846,834
COMBINED GEAR REDUCTION AND CLUTCH MECHANISM
Albert A. Mroz, Ravenna, Ohio
Application January 23, 1956, Serial No. 560,521
5 Claims. (Cl. 192—.02)

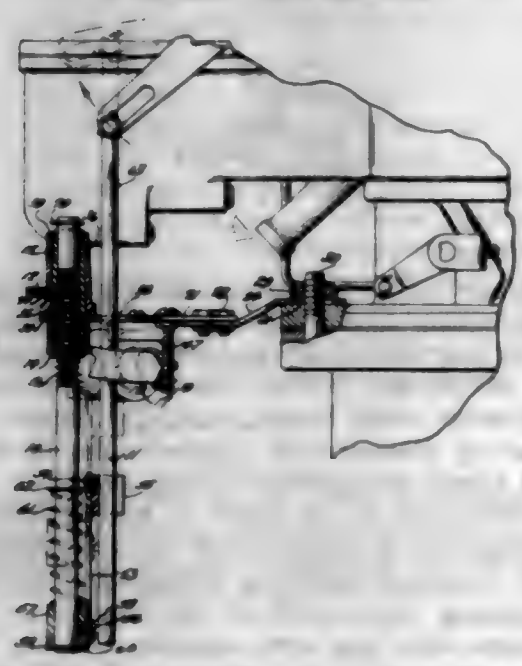
1. A clutch mechanism including a control shaft, a clutch gear rotatably disposed on said control shaft, said control shaft having an extension of relatively smaller diameter disposed lengthwise thereof and an output shaft

telescopically mounted thereon and extending therebeyond, a clutch latch guide keyed to said output shaft and a latch movably disposed in said clutch latch guide for



selective engagement with said clutch gear, a cam formed on said control shaft engaging said latch for moving the same relative to said clutch gear and clutch latch guide.

2,846,035
AUTOMATIC SPEED CONTROL
Earl V. Heath, Lake Placid, Fla.
Application June 15, 1956, Serial No. 591,574
3 Claims. (Cl. 192—3)



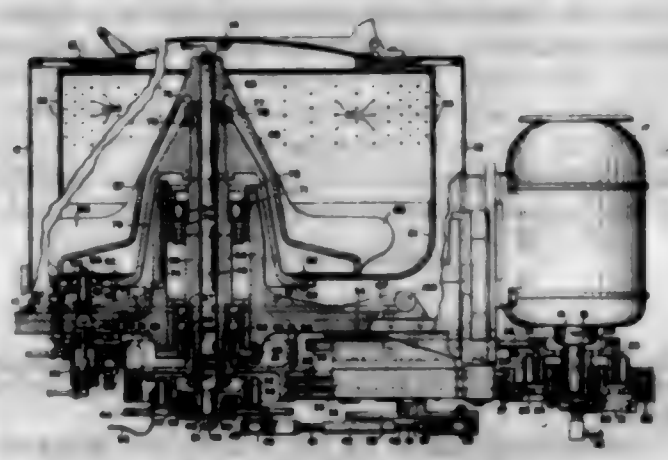
1. In a speed control device, the combination which comprises a carburetor control rod, an auxiliary rod having spaced annular grooves in the outer surface, a sleeve having a slot therein positioned with the slot in registering relation with at least one of the grooves of the auxiliary rod, a collar slidably mounted on the auxiliary rod, resilient means on the auxiliary rod for retaining the collar in position upon the rod, a collar fixedly mounted on the carburetor control rod, a link pivotally connecting the collar of the auxiliary rod to the collar of the carburetor control rod, a solenoid having a core, a blade pivotally mounted adjacent the auxiliary rod and positioned to extend into the grooves of the auxiliary rod, resilient means for urging the blade into the grooves of the auxiliary rod, a lever connected to the core of the solenoid at one end and positioned with the opposite end secured to means for withdrawing the blade from the grooves of the auxiliary rod, and resilient means for actuating the sleeve to permit the blade to be drawn into one of the annular grooves of the auxiliary rod.

2,846,036
GEAR-CHANGING LEVERS
Jean Maurice, Ablon, and Michel Rist, Paris, France, assignors to Societe Anonyme Francaise du Ferodo, Paris, France, a French corporation
Application February 18, 1954, Serial No. 411,229
Claims priority, application France February 23, 1953
24 Claims. (Cl. 192—3.5)



1. A gear-changing lever of the kind having two main constituent members, and especially adapted for use on automobile vehicles, said lever being associated with a gear-box and an electrically-operated clutch and comprising an actuating-member intended to be operated by the user and a control-member coupled to said gear-box, means for mounting said actuating-member so as to be movable in every direction with respect to said control-member over a limited travel starting from a central position of rest, abutment means on each said member for ensuring that, beyond said limited travel, the two said members move as one, elastic means for restoring said actuating-member to a central position of rest, an electric switch associateed with said clutch, at least two contacts constituting said switch, said contacts being separate and distinct from said abutment means, a carrying-element for each said contact, and means for elastically coupling at least one of said contact carrying-elements to the member on which it is supported, whereby the relative latitude of movement in all directions of said contact-carrying elements is greater than the relative latitude of movement of said actuating-member and said control-member, and is limited only by the mechanical abutment of said members.

2,846,037
DRIVE AND CONTROL MECHANISM FOR WASHER-EXTRACTORS
Walter Warren Egee, Yeadon, Pa., assignor to Fletcher Works Incorporated, Philadelphia, Pa., a corporation of Pennsylvania
Application November 2, 1954, Serial No. 466,297
4 Claims. (Cl. 192—3.5)



3. In combination, a base, a motor mounted on said base and having a vertically disposed drive shaft, a first pulley having a hub secured to said motor shaft, a second pulley journaled on said hub, a clutch for connecting said pulleys for rotation together, a first member rotatable with respect to said base, a second member movable with respect to said first member, a vertical shaft spaced from said drive shaft having said second mem-

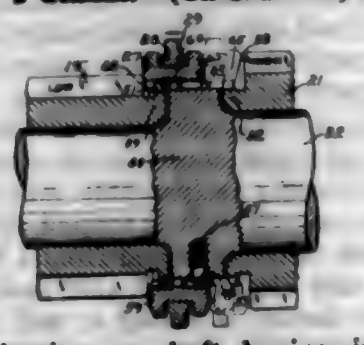
ber mounted on the upper end thereof, a hollow shaft within which said vertical shaft is journaled and to which said first member is connected for rotation therewith, said base having an upwardly extending portion within which said hollow shaft is journaled on spaced bearings, a pulley secured to said hollow shaft, said hollow shaft pulley having a brake drum thereon, a brake band for engagement with said brake drum, belts connecting said hollow shaft pulley and said second pulley, a driving member secured to said vertical shaft, a first crank member journaled on said driving member, a clutch for connecting said first crank member and said driving member in driving relation, a second crank member connected to said first crank member and driven thereby, an intermediate shaft vertically disposed, a fourth pulley on said intermediate shaft connected to said first pulley by a driving belt, a speed reducing mechanism operated by said intermediate shaft and having an output shaft, a third crank member connected to said output shaft, and a connecting rod connecting said second and third crank members.

2,846,038

MULTIPLE CLUTCH MECHANISM WITH BLOCKER TEETH

Nelson R. Brownyer, Detroit, Mich., assignor to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania

Application September 23, 1954, Serial No. 457,991
5 Claims. (Cl. 192—48)



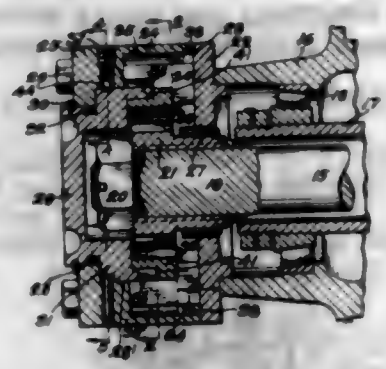
1. In combination, a shaft having intermediate its ends a shoulder, a row of clutch teeth on said shoulder and each of said teeth being circumferentially spaced apart a predetermined distance, gears of different size journalled on said shaft on opposite sides of said shoulder and each of said teeth being circumferentially spaced apart the same distance providing high and low speed drives, a row of clutch teeth on each gear adjacent said shoulder, a clutch shift collar slidably and non-rotatably mounted on said row of teeth on the shaft shoulder and having three parallel rows of axially aligned internal teeth, the teeth of the outer of said rows being of the same chordal thickness, which chordal thickness of said outer rows of teeth being sufficiently less than said circumferential distance between said clutch teeth on the gears as to freely enter the spaces between and operably engage the clutch teeth on one or the other of the gears in opposite limit positions of said collar, and the intermediate row having teeth of greater chordal thickness than the teeth of the outer rows so that when torque is being transmitted through the clutch collar with the clutch collar in either high or low speed positions said collar will be so relatively circumferentially displaced with respect to said clutch teeth on said shoulder that accidental axial displacement of the clutch collar will be prevented by abutment of the teeth of said intermediate row with the ends of the teeth on said shoulder, said intermediate row of teeth on the clutch collar being out of splined engagement meshed with said teeth on the shoulder during torque transmission in either high or low speed positions of the collar but sliding through the spaces between said shaft shoulder teeth to guide the axial movement of said collar during shift between said speeds.

2,846,039

CAM OPERATED TRANVERSELY MOVING POSITIVE PAWL CLUTCH

Roy Requa and Martin E. Anderson, Denver, Colo.; said Requa assignor to Free Lock Corporation, Denver, Colo.

Application June 16, 1955, Serial No. 515,994
12 Claims. (Cl. 192—71)



5. A clutch for effecting a driving connection between an end of a power shaft and a wheel hub wherein the hub encircles and is rotatably mounted on the shaft and the shaft has an end portion extending beyond an end of the hub; a tubular housing having an inner end adapted to be secured to and coaxial with the said end of the hub and having an inner end opening through which the shaft end portion extends into the housing, a bearing secured in said end opening of the housing and adapted to encircle and be supported on the shaft, tooth forming means carried by and extending longitudinally of the shaft end within the housing, means providing radial guides within the housing and around the toothed end of the shaft, pawls slidable in said guides and carrying teeth adapted on inward movement of the pawls for interengagement with said shaft teeth, a first camming surface on each pawl for receiving radial inward camming thrust, a second camming surface on each pawl for receiving radial outward camming thrust, an annular cam carrying member supported on and concentric with the tubular housing for limited rotation relative to the housing, a first cam means on said member for engaging each pawl and adapted to apply thrust to the said first camming surface thereof upon rotation in one direction, a second cam means on said member for each pawl and adapted to apply thrust to the said second camming surface thereof on reverse rotation of the member, and means for facilitating manual rotation of the annular cam carrying member.

2,846,040

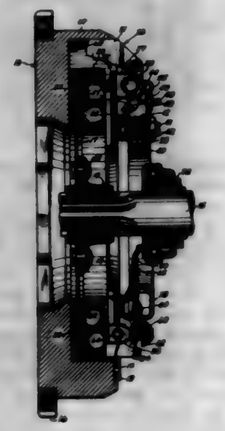
CENTRIFUGAL FRICTION CLUTCH

Richard Binder and Adolf Ludwig, Schweinfurt am Main, Germany

Application November 21, 1955, Serial No. 548,202
Claims priority, application Germany November 24, 1954
8 Claims. (Cl. 192—105)

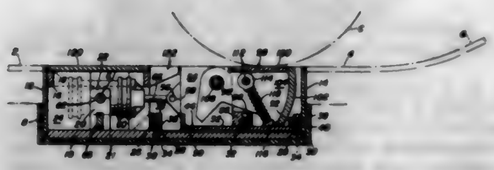
1. A centrifugal clutch comprising a rotatable clutch housing; a shaft to be selectively connected to and disconnected from said clutch housing by engagement and disengagement of said clutch, said shaft being in axial alignment with the rotational axis of said clutch housing; an axially displaceable annular clutch control member concentric with said shaft and connected to said housing for rotation therewith; confronting flat annular friction facings carried by said housing and said control member, respectively; a friction disc sandwiched between said friction facings and connected to said shaft, said disc being selectively frictionally connected jointly to said clutch housing and control member or disconnected therefrom by opposite axial displacements of said annular control member; an elongated endless symmetrical spring housing concentrically surrounding said shaft, said spring housing being axially spaced from said control

member; a plurality of symmetrically arranged clutch engaging springs disposed within said spring housing and resiliently connecting said spring housing to said control member; a plurality of clutch releasing springs symmetrically disposed in said spring housing and extending between said spring housing and said clutch housing, said releasing springs resiliently urging movement of said spring housing for causing axial displacement of said control member to disconnect said disc; a plurality of symmetrically arranged centrifugal weights pivoted to said



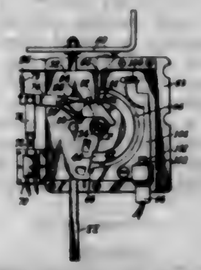
clutch housing, said weights having lever arm extensions which are displaced substantially axially in response to pivotal movements of said weights; and a plurality of knife-edged link members each connecting one of said lever arm extensions to said spring housing for causing axial displacement in a clutch engaging direction of said control member in response to increases in the rotational speed of said clutch housing to effect engagement above, and permit disengagement below a predetermined speed.

2,846,841
RETRACTABLE COIL STOP
James N. Shepard, Concord, Calif., assignor to United States Steel Corporation, a corporation of New Jersey
Application May 8, 1957, Serial No. 657,843
3 Claims. (Cl. 193—32)



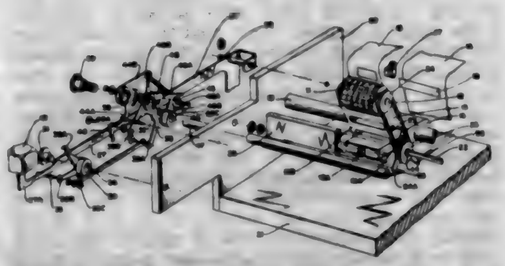
1. Apparatus for stopping a coil rolling along a ramp having a raised portion at one end thereof which comprises a slide mounted below the level of said ramp intermediate the ends thereof, means for urging said slide toward said raised portion of said ramp, a member pivotally mounted on said slide for movement about a generally horizontal axis, said member being movable from a lower position in the general plane of said ramp to a raised position above said ramp, and resilient means urging said member to said raised position.

2,846,842
MULTIPLE COIN-CONTROLLED MEANS FOR VENDING MACHINES
George H. Hansen, Jr., Mission, Kans., assignor to The Vendo Company, Kansas City, Mo., a corporation of Missouri
Original application November 10, 1951, Serial No. 255,827, now Patent No. 2,711,236, dated June 21, 1955. Divided and this application April 19, 1955, Serial No. 502,343
16 Claims. (Cl. 194—10)



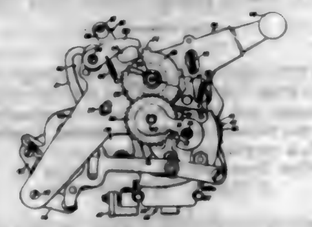
1. In a vending machine, a cabinet provided with article vending apparatus rotatable therewith and a door slidably supporting a manually operated, upright closure vertically reciprocable rectilinearly to and from an open position rendering said apparatus accessible, in combination with means for rotating said apparatus upon shifting of the closure to said open position comprising a rotatable driven device; mechanism operably connecting the device with said apparatus for rotating the latter as said device is rotated; a drive element normally rotatable with respect to said device; structure coupling the closure with said element for converting reciprocable motion to rotative motion whereby said element is rotated as the closure is shifted; a member shiftable to and from a locked position interconnecting said element and said device for driving the latter as the closure is shifted to said open position; power means engageable with said member for shifting the latter to said locked position, whereby shifting of the closure operates to rotate said apparatus only after energization of said power means; and an assembly responsive to movement of the closure means to said open position when the member is in its locked position for deenergizing the power means.

2,846,843
PRINT ELEMENT ACTUATING MECHANISM
John E. Hickerson, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 27, 1955, Serial No. 535,452
10 Claims. (Cl. 197—55)



4. In a printing mechanism having a plurality of print character elements and a plurality of key mechanisms, one for each of said characters and wherein a key depression selects the related print character for printing, a common actuating mechanism for applying an equal and fixed printing force to each character as selected comprising, in combination, a rockable print bail, a bail lever secured to said print bail, a pivoted cocking lever, spring tensioning means extending between said cocking lever and said bail lever, latching means normally operationally engaged with said bail lever to prevent a rocking thereof under the urging of said associated spring tensioning means, a bail mechanism common to all of said key mechanisms and operationally linked to said cocking lever, said bail mechanism being responsive to a depression of any one of said key mechanisms to pivot said cocking lever from a normal first position to a second fully cocked position to further tension said spring tensioning means, said cocking lever including means for releasing said latching means after said cocking lever is fully cocked, the tension of said spring tensioning means being accordingly effective to rapidly rock said bail lever and associated print bail, and means for applying the rapid rocking action of said print bail to the selected type character to effect a printing action thereof.

2,846,844
STRIP FEEDING DEVICE
Percy G. Stinson and John T. Davidson, Dayton, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application December 14, 1955, Serial No. 553,048
13 Claims. (Cl. 197—126)



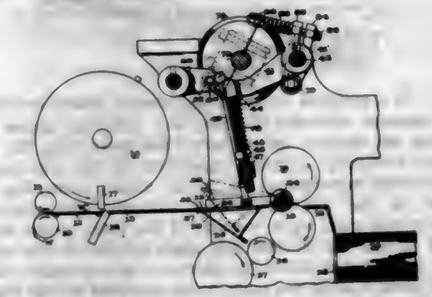
12. In a typewriting or like machine, a carriage, platen supported in said carriage for relative lifting motion for adjustment of carbon material relatively to the platen, an anchor for carbon material spaced rearwardly of said carriage and movable toward and from said platen in advancing and retracting motions, a hand operated eject lever on said carriage connected to said platen for sweep rotation thereof, means responsive to operation of said lever for retracting said anchor, and other means operable by said lever in a timed relation with the operation of said retracting means for lifting said platen.

2,846,845
SAFETY STOP FOR MOVING STAIRWAY
Adolphe S. Fowler, Campbell, Calif.
Application October 18, 1954, Serial No. 463,018
3 Claims. (Cl. 198—16)



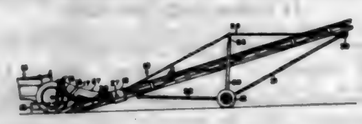
1. In a moving stairway having a moving handrail passing through an exit opening formed in a vertical wall and a motor in an electrical circuit for driving said stairway and handrail, a safety stop for said motor comprising a switch including a pair of normally closed contacts arranged in said circuit, a detector paddle movably mounted adjacent said switch and adapted on relatively slight movement to urge one of said contacts away from the other, said detector paddle having a surface disposed closely adjacent said handrail and just inside the exit opening formed in said vertical wall and adapted substantially on engagement by an object entering said opening with said handrail to move said one contact away from the other and thereby open the circuit to said motor.

2,846,846
SINGLE SHEET DELIVERY DEVICE FOR WEB FED PRESS
Lazzio M. Stumpel, Metuchen, N. J., assignor to John Waldron Corporation, New Brunswick, N. J., a corporation of New Jersey
Application June 24, 1954, Serial No. 439,121
6 Claims. (Cl. 198—31)



1. Diverter mechanism for articles travelling over a surface at a uniform rate and spacing under the action of delivery means including in combination, a diverter gate; means mounting said gate for movement to either of two article guiding positions; means biasing said gate toward one of said positions; means resisting said bias and holding the gate in the other of said positions; a cam timed to rotate once for each article passing said gate; a spring; means actuated by said cam to flex said spring; means connecting said spring to apply an overriding force in opposition to said bias once per revolution of said cam; and means to manually release said gate holding means.

2,846,847
ELEVATOR LIFT MECHANISM
Leonard B. Neighbour, Orville P. Lance, and Arnold B. Skromme, Moline, Ill., assignors to Deere & Company, Moline, Ill., a corporation of Illinois
Application November 14, 1955, Serial No. 546,361
6 Claims. (Cl. 198—128.5)



1. In a material conveyor including a frame, an elevator mounted thereon and adjusting means between the elevator and frame responsive to rotation of a member in one direction to raise the elevator and upon rotation in an opposite direction to lower the elevator, the improvement residing in means for rotating the member comprising: a ratchet fixed to rotate in unison with the member; a pair of pawls associated with and angularly spaced about the ratchet; a pair of links; means connecting each of the links to a respective pawl including means restricting said pawls to movement adjacent to the periphery of the ratchet; means biasing the pawls into engagement with the ratchet; a hydraulically operated ram connected to each of the links and operative on its

extension stroke to cause one of the pawls to drive the ratchet in said one direction of rotation, and on its retracting stroke to cause the other pawl to drive the ratchet in said one direction of rotation; releasable one-way brake means associated with the member for preventing rotation thereof in said opposite direction; and means for disengaging the pawls to permit rotation of the member in said opposite direction upon release of the brake means.

2,846,648
ELEVATOR ADJUSTING MECHANISM
Leonard B. Neighbour, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application February 10, 1956, Serial No. 564,795
9 Claims. (Cl. 198—120.5)



1. In a material conveyor including a frame structure, an elevator mounted thereon, and adjusting means between the elevator and structure for positioning the elevator vertically; a frame supported on the elevator; a drive shaft mounted on the frame; means connecting the shaft to the adjusting means whereby said adjusting means will react upon rotation of the shaft in one direction to raise the elevator and upon rotation in the opposite direction to lower the elevator; spaced apart rotatable parts, one of the parts being mounted on the frame and the other part being mounted for relative rotation on the drive shaft; an endless flexible element mounted over the parts and having oppositely disposed first and second runs; a reciprocating element mounted on the elevator; means connecting the reciprocating element to the runs whereby the reciprocating element will successively drive the runs upon respective alternate strokes thereof thereby driving the rotatable parts in a given direction; a member rotatable on the shaft; means on the frame associated with the member for retarding rotation thereof; and clutch means on the shaft for selectively engaging said other rotatable part to cause the latter to rotate the shaft in said one direction, said clutch means being operative upon disengagement from said other part to automatically engage the rotatable member to retard descent of the elevator.

2,846,649
CLOTHES CONVEYOR
Gunnard D. Carlson, Sioux City, Iowa
Application April 19, 1955, Serial No. 502,399
11 Claims. (Cl. 198—130)



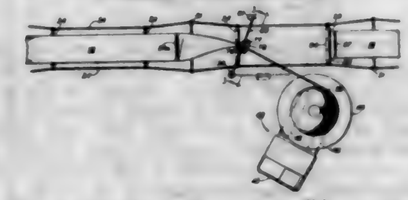
1. In a device of the class described, a first tubular member, a second tubular member disposed at an angle to and on a lower plane relative to one end of said first tubular member, means supporting said tubular members in an overhead position, a tubular elbow connecting said tubular members, an endless cable extending first longitudinally on the outer surface of said first tubular member, then into and through said elbow, then longitudinally on the outer surface of said second tubular member and then back through said second tubular member, said elbow and said first tubular member, and means associated with said cable for moving it in the path described.

2,846,650
EXTENSIBLE CONVEYORS
Joseph Craggs and Keith McCann, Taylorville, Ill., assignors to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application December 20, 1956, Serial No. 629,663
6 Claims. (Cl. 198—139)



1. In an extensible conveyor of the type employing a pair of spaced rope strands for supporting the load carrying reach of an endless belt, a movable end section including means thereon for paying out rope strand in accordance with the increase in length of the conveyor, troughing roller assemblies for transmitting the load on said reach into said strands, the improvement in said conveyor whereby said troughing roller assembly can be located in proper position on said rope strands comprising a bracket at each end of said assembly for mounting same on said strands in position close to said movable end section, a detachable flexible connection between each bracket and said movable section, said flexible connections moving said troughing roller assemblies along said strands to a desired position before being disconnected.

2,846,651
APPARATUS FOR HANDLING CONVEYOR BELTING FOR AN EXTENSIBLE CONVEYOR
Joseph Craggs and Keith McCann, Taylorville, Ill., assignors to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application December 20, 1956, Serial No. 629,699
8 Claims. (Cl. 198—139)

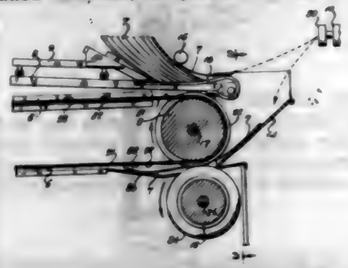


1. The combination with an extensible conveyor of apparatus of the class described including belt storage means having a storage reel thereon and including a guide for effecting transfer of a conveyor belt section between said conveyor and said belt storage means, said guide including a pair of vertical members disposed one each side of said conveyor including means for supporting said guide for swiveling movement from one of said vertical members, means on said guide through which said section may be threaded while extending in a vertical plane comprising a pair of closely spaced vertically extending rollers, and means on said guide for supporting said section along the lower edge thereof while being so guided comprising a horizontally extending roller.

2,846,652
LETTER-SORTING MACHINE
Walter Heinemann, Werder, Havel, Ernst Kielmann, Berlin-Baumschulenweg, and Erich Schlumstpfennig, Berlin, Germany, assignors to V E B Werk fur Signal- und Sicherungstechnik, Berlin, Berlin-Treptow, Germany
Application October 13, 1953, Serial No. 385,861
2 Claims. (Cl. 198—167)

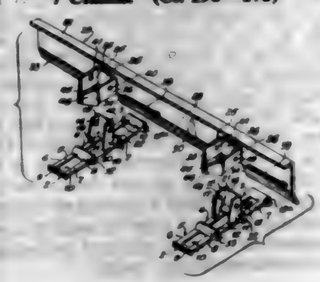
1. In a high-speed letter-sorting machine equipped with an endless conveyer belt and with a rotatable driving

wheel drivingly engaging said belt; means for feeding letters toward said conveyer belt, comprising a pair of first discs rigidly and coaxially connected to said driving wheel at opposite sides of the latter and for rotation therewith, the diameters of said first discs being substantially equal to one another and greater than the diameter of said driving wheel, and a guide roller rotatably juxtaposed to said driving wheel, said guide roller being provided with a pair of second discs rigidly and coaxially connected to said guide roller at opposite sides thereof and for rotation therewith, the peripheral edge of each



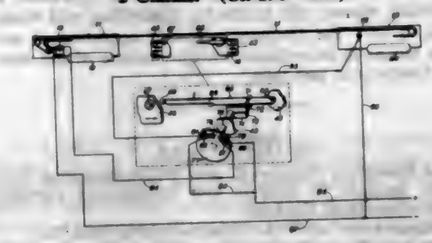
of said second discs being in frictional rolling contact with the peripheral edge of the corresponding one of said first discs, the diameters of said second discs being substantially equal to one another and to said diameters of said first discs, whereby letters frictionally entrained between and tangentially of said peripheral edges of said first and second discs are fed by the same, during rotation thereof upon operation of said driving wheel, toward said conveyer belt at a speed higher than the speed of said conveyer belt to ensure that at the instant of contact said letters and said conveyer belt are traveling at substantially the same speed.

2,846,653
FLIGHT CHAIN MOUNTING FOR PORTABLE ELEVATORS
Benjamin M. Hyman, Moline, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application August 6, 1956, Serial No. 602,256
7 Claims. (Cl. 198—175)



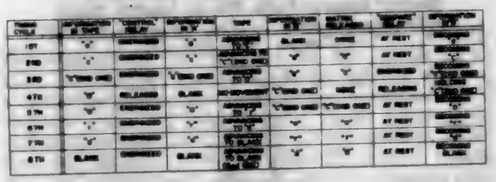
1. The combination of a pair of parallel laterally spaced chains of the type comprising interconnected links and each link including leading and trailing cross-elements spaced lengthwise of the chain and a pair of side elements between and integrally united with said cross-elements and each leading and trailing cross-element formed and arranged to interlock with the trailing and leading elements respectively of the next adjacent leading and trailing links, a U-shaped bracket comprising a pair of side portions and a transverse bight portion, said side portions connected to respective side elements and said bight portion spaced from the leading element in a trailing direction, a flight extending transversely of said chains and connected to the brackets on respective chains, and a load transfer element connected to said flight and extending in a trailing direction over at least one of said side elements and having a trailing end portion angled toward the longitudinal center of the chain and terminating substantially medially of the leading cross-element of the adjacent trailing link for contact therewith at a point intermediate its ends upon the imposition of a load against the flight.

2,846,654
EXTENSIBLE CONVEYORS
Ernst R. Bergmann, Evergreen Park, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application November 13, 1956, Serial No. 621,587
5 Claims. (Cl. 198—232)



1. In an extensible belt conveyor, head and tail sections including traction means whereby said sections are movable relative to each other, an endless belt having load carrying and return reaches trained for movement between said sections, means for driving said endless belt, a belt storage loop on the return reach of said endless belt including at least one pair of idlers around which said return reach is reeved and which are movable relative to each other, and means for signaling to an operator remote from said loop the shortening of said belt storage loop to a predetermined amount and for controlling the belt driving means operable to stop the same when said belt storage loop has reached a predetermined further shortened length, said means including a pair of switches, a switch controlling member supported at one of said relatively movable idlers, said switch controlling member actuating one of said switches to operate said signaling means to indicate the approach of said predetermined shortened length of said storage loop, said switch controlling member actuating the second of said switches when said storage loop has reached said predetermined further shortened length to deenergize said belt driving means.

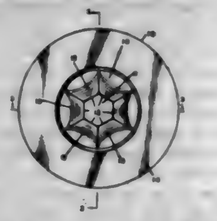
2,846,655
HIGH SPEED CONTROL SYSTEM FOR LINE CASTING MACHINES
Joseph J. Ackell, Amityville, N. Y., assignor to Dow Jones & Company, Inc., New York, N. Y., a corporation of Delaware
Application July 15, 1955, Serial No. 522,209
26 Claims. (Cl. 199—18)



1. In a punched tape control system for a line casting machine a tape feeding and analyzing device, a first group of relays selectively energized in accordance with successive combinations of perforations in a tape advanced

through said device, a second group of relays, means operated periodically to energize relays in said second group selectively to correspond with the energized relays in said first group, a third group of relays, circuits connecting said third group of relays with said second group to energize relays in said third group corresponding with relays energized in said second group, said line casting machine having a plurality of key actuated mechanisms for controlling the operation of the machine, a plurality of solenoids each arranged to operate one of said key actuated mechanisms, electrical connections controlled by said third group of relays for delivering current to said solenoids for selectively operating said mechanisms, switch means in said electrical connections for periodically causing the delivery of current to said solenoids, timing means for determining the frequency of operation of said switch means, and means for controlling said timing means to vary the frequency of said operation of said switch means in accordance with the nature of the series of perforations in said tape.

2,846,956
DRAWING DIES
Ronald Hampton, Wightwick, near Wolverhampton, England, assignor to Patents and Investments Limited, Wolverhampton, England
Application April 16, 1954, Serial No. 423,732
Claims priority, application Great Britain May 26, 1953
1 Claim. (Cl. 205—26)



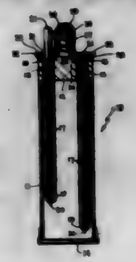
In a die for drawing polygonal bars from metal stock, a one-piece die block, a polygonal die throat in said block having sides corresponding in number and size to the finished bar, a bell-shaped mouth in said die block defined by a plurality of integrally joined leading faces, one for each side of said throat, said mouth being so related in size to said throat that a circle circumscribing said mouth is much greater than a circle circumscribing said throat, each of said faces having a longitudinal convexity throughout its length from said mouth to said throat and also having a transverse arcuate convex curvature extending over the entire width of the face, said arcuate convexity being a maximum at said mouth and diminishing uniformly in convexity from said mouth to said throat with said convexity merging at said throat with the sides thereof.

2,846,957
DEVICES FOR DOSAGE CONTROL
Herbert Spencer Poits, Rio de Janeiro, Brazil
Application February 9, 1954, Serial No. 409,156
9 Claims. (Cl. 206—5)



1. A pellet comprising a water soluble fluoride having a control-metering membranous coating of a specific permissive permeability correlated to the diffusibility coefficient of fluoride so that the rate of diffusion of said fluorids into a dynamic water system is at a predetermined constant value.

2,846,958
THERMOMETER DISPENSER
Carl A. Edlund, Syracuse, John L. Maud, Jr., De Witt, and Lawrence J. Scheer, Syracuse, N. Y.
Application August 19, 1955, Serial No. 529,402
5 Claims. (Cl. 206—16.6)



1. A sterile thermometer dispenser comprising a tubular container adapted to be filled with a germicidal solution, said container having a relatively thick top wall formed integrally therewith and an open bottom through which the container is filled, a removable liquid-tight cap normally secured to said container to close the bottom opening, said top wall having a plurality of uniformly spaced bores therethrough concentrically arranged with respect to the center of the wall, a disc member rotatably mounted on said top wall normally covering said bores, said disc having a single aperture therethrough selectively movable into registry with each of said bores upon rotation of the disc, coacting means in said disc and top wall to permit rotation of the disc in one direction only, sealing means adjacent the upper edge of each bore and engaging said disc to prevent leakage of the solution through the bores when the disc aperture is out of registry therewith, spring means mounted on said container above said disc member to urge the latter into close engagement with said sealing means, and a plurality of elongated basket springs corresponding to said bores, each of said springs being secured at its upper end within one of the bores and extending downwardly into the solution in the container to resiliently support a thermometer within its windings so that the latter is completely immersed in the solution, said springs in contracted condition being shorter in length than the thermometers and being expanded thereby when the thermometers are fully inserted in the container and maintained therein by the disc when the aperture in the latter is out of registry with all of said bores, each of said springs contracting to project a portion of its thermometer above said disc so that it may be easily grasped when the disc is rotated to move its aperture into registry with the bore corresponding to the spring.

2,846,959
DEMONSTRATION DEVICE
Unto U. Savolainen, Attleboro, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application September 6, 1957, Serial No. 682,349
4 Claims. (Cl. 206—39)

4. A folding match book cover encasing a comb of headed matches; a thermally responsive member formed of composite material including at least two layers; the coefficient of thermal expansion of one of said layers being greater than that of the other layer whereby the thermally responsive member is adapted to flex under the application of the heat of a lighted match; said thermally responsive member being pivotally mounted adjacent one end thereof for movement between two positions; said member, in one of said positions, lying adjacent to and substantially parallel with said matches and, in said second position, having its distal end pivoted



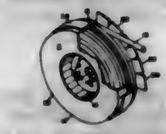
away from close proximity with said matches; and the pivoted end of said thermally responsive member carrying a laterally extending extension engageable with said cover to prevent movement of the thermally responsive member into engagement with any of said matches.

2,846,960
WRAPPING MEANS FOR ARTICLES OF SHEET FORM
Stanley G. Yount, San Marino, Calif.
Application November 15, 1954, Serial No. 468,643
9 Claims. (Cl. 206—58)



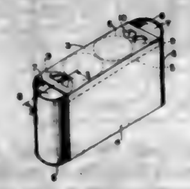
3. A supply roll of wrapping means of preselected lengths for protectively covering rigid, flat, articles of sheet form having a selected thickness comprising: a strip of elongated, compliant wrapping material longitudinally folded along a line and providing panels of unequal width in overlying relation with longitudinal marginal surfaces thereon in adjacent side by side relation; both panels being coextensive in length; longitudinally extending bands of self-sealing adhesive material on longitudinal marginal surfaces of said panels; longitudinally spaced transverse bands of self-sealing adhesive material on each panel joined with the longitudinal bands, said bands of self-sealing adhesive material being on the same corresponding faces of said panels whereby the supply roll is formed without adherence of said bands to said strip and whereby a wrapping means may be cut from said supply roll by cutting transversely along the center of a transverse band of adhesive material.

2,846,961
COMBINED WIRE REEL AND SHIPPING CARTON
William J. Wilke, Baltimore, Md.
Application April 19, 1955, Serial No. 502,323
3 Claims. (Cl. 206—59)



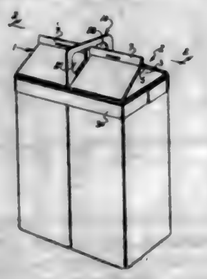
1. A combined reel and carton, comprising, structure defining a hub including a pair of frustro-conical elements, each element having its larger base open and its smaller base closed, with the smaller bases of said elements being mounted adjacent to each other, means for securing said frustro-conical elements together, and structure defining a carton including a pair of spaced annular end walls having a plurality of flaps formed on the inner and outer peripheral edges thereof, said flaps on the inner peripheral edges of each of said end walls being secured to the corresponding slant surfaces of said hub elements, with the flaps on the outer peripheral edges of each of said end walls being arranged to close said carton structure.

2,846,962
HOLDER FOR RECEPTACLES
Richard E. Paige, New York, N. Y.
Application August 30, 1952, Serial No. 307,261
3 Claims. (Cl. 206—65)



1. A holder for a row of cylindrical cans having projecting rims at their ends, said holder comprising a plurality of paperboard panels serially connected to define a tube of substantially rectangular cross-section having top, bottom and side walls and open ends, said top and bottom walls being similar and of substantially elongated rectangular shape, said top and bottom walls each having two pairs of flaps cut therein, each pair of flaps being arranged transversely, inwardly of and adjacent an open end of the tube and diagonally hinged along scorelines on opposite sides of the longitudinal center line of the top and bottom walls with the scorelines of each pair of flaps diverging toward their adjacent open end of the tube, said flaps being foldable inwardly on said hinge lines and each flap having an arcuate edge adapted to engage the rim of a can along a substantial portion of its inner periphery for retaining the can within the holder with a portion of the can projecting from said open end.

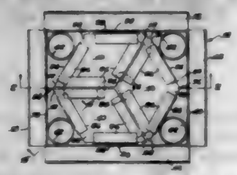
2,846,963
CARTON CARRIER
Wolfgang B. Fahrenbach, Oakland, Calif., assignor to Edlo, Incorporated
Application May 31, 1955, Serial No. 512,000
3 Claims. (Cl. 206—65)



1. In combination, a pair of rectangular vertically elongated cartons for milk and the like provided with gable tops having laterally outwardly opening recesses, a carrier for said cartons comprising a unitary section of semirigid single ply sheet material placed between and projecting outwardly of said tops, a pair of flaps struck from said section and folded outwardly along a vertical fold line at right angles to said section on opposite sides thereof to form tabs received in said recesses, portions of the pair of openings in said section formed by outward folding of said flaps extending laterally outwardly of said top and being adjacent to, but below the upper

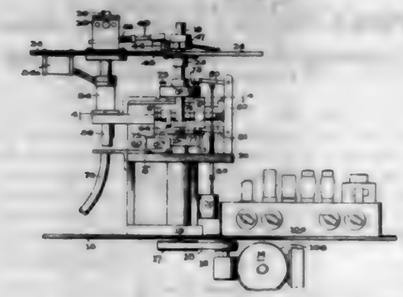
extremities of said tops for receiving the fingers of the user therethrough, and a hand surrounding said pair of cartons for holding them together.

2,846,864
TILE SHIPPING PACKAGE
William Rowe, Lewiston, Maine, assignor to Bonafide Mills, Inc., Lisbon, Maine, a corporation of Maine
Application June 6, 1956, Serial No. 589,691
6 Claims. (Cl. 206—65)



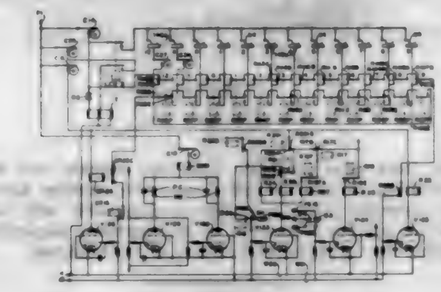
2. A shipping package for diamond shaped floor tiles comprising a carton, a plurality of stacks of the diamond shaped floor tiles snugly fitting within the carton to form a hexagonal grouping and with two parallel walls of the hexagonal grouping parallel to two opposed side walls of the carton and with two opposed pointed portions of the hexagonal grouping spaced from the remaining two walls of the carton, spacing means between adjacent surfaces of the stacks and additional spacing means between the corner portions of the carton and the adjacent walls of the stacks, said additional spacing means bearing against their respective walls of the stacks at points intermediate the corner portions of the stacks whereby to transmit extraneous blows to which the package is subjected in shipment to the body of the stacks intermediate the corner portions thereof and thereby minimize damage to the pointed corners of the tiles.

2,846,865
HARDNESS GAUGE
James M. Alexander, Parsons, Kans.
Application December 15, 1954, Serial No. 475,500
10 Claims. (Cl. 209—81)



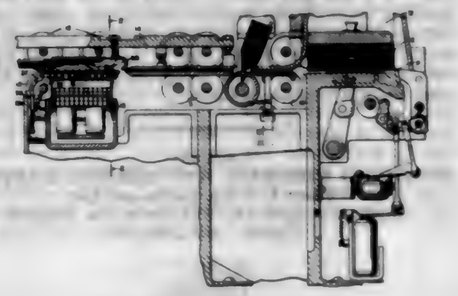
1. An apparatus for electrically testing and sorting metallic parts for hardness, defects, etc. comprising a frame including intermediate and upper portions, a drive shaft rotatably mounted in said frame, vertically arranged electrical testing means having a hollow core and adapted to emit a test signal mounted on said intermediate frame portion, means on said upper frame portion for feeding parts to said core by gravity upon rotation of said shaft, means on said frame for supporting parts in said core, and a plurality of discharge chutes mounted on said frame, said supporting means including a distributor chute having one end in alignment with said core and being movable in response to said signal to align its other end with a predetermined one of said discharge chutes as determined by the hardness of the part and the resultant strength of said signal.

2,846,866
RECORD CONTROLLED MACHINE
Daniel H. Sleat, Owego, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 15, 1951, Serial No. 261,839
9 Claims. (Cl. 209—110)



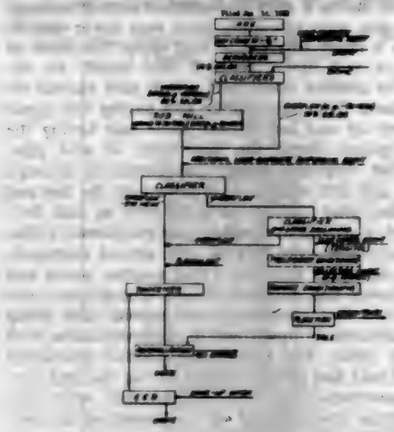
1. In a machine controlled by accounting and statistical records and having record sorting means, and means to select a destination for a record, the combination of a series of destination detecting contacts controlled by a record after its destination has been determined by the sorting means, a series of destination representative contacts, a series of test circuits each including one of the first named contacts and one of the second named contacts, a circuit test device, means to initially apply a relatively low voltage test pulse to the test circuits after the destination is selected which tends to energize said test device if the actual destination and selected destination agree, and means to apply a higher voltage test pulse to said test circuits and test device.

2,846,867
RECORD CONTROLLED MACHINE
Clarence R. Manning, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 21, 1951, Serial No. 262,843
15 Claims. (Cl. 209—110)



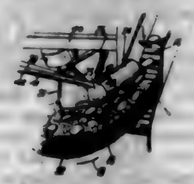
1. In a machine of the class described, a series of sorting blades, means for selectively operating certain of said blades to open a passage for conveying a record to a selected destination, and switch mechanism for electrically storing the status of said blades after they have been operated comprising a series of members movable from an inoperative to an operative position by said blades, switch means for electrically storing representations of the destination determined by the operated blades, and means responsive to the positions of said members for operating said switch means selectively.

2,846,868
CONCENTRATION OF POTASH ORES CONTAINING SYLVITE
William Aubrey Smith, Carlsbad, N. Mex., and Vernon L. Mattson and Gene Meyer, Lakewood, and Robert A. Baxter, Golden, Colo., assignors to American Metal Climax, Inc., a corporation of New York
Application January 14, 1952, Serial No. 266,314
9 Claims. (Cl. 209—166)



1. The improvement in the concentration of sylvite from potash ores containing sylvite in association with minor but objectionable amounts of clay and similar slime-forming constituents, which comprises grinding the ore to within the maximum size range desired for the separation treatment, suspending the ore in a saturated aqueous brine solution of the soluble ore constituents, adding a lignosulfonate in an amount sufficient to disperse the slime-forming constituents in the resulting pulp, agitating the pulp under scrubbing conditions to free the surfaces of the sylvite particles from occluded slime particles, adding additional brine to dilute the pulp sufficiently to render it amenable to a wet classification treatment, thereafter subjecting the pulp to a wet classifying treatment to recover the ore separately from the slimes and the dispersing agent, and thereafter reforming the ore into a pulp of suitable density for the concentrating separation treatment and then subjecting the mixture to a concentrating separation treatment to recover the sylvite.

2,846,869
DEVICES FOR SEPARATING HAULM, WEEDS AND LIKE MATTER FROM ROOT CROPS
John Clement Hawkins, Silsoe, England, assignor to National Research Development Corporation, London, England, a corporation
Application November 24, 1954, Serial No. 471,840
Claims priority, application Great Britain November 27, 1953
6 Claims. (Cl. 209—235)



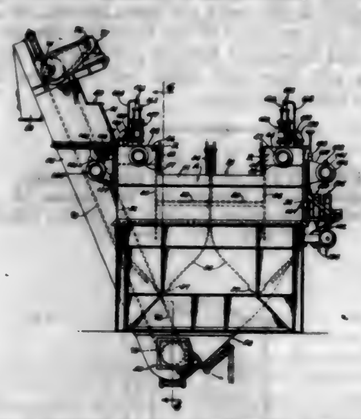
1. A device for separating haulm, weeds and like matter from root crops comprising a movable support for the root crops, and a roller mounted for free rotation on said support providing a convergent nip extending lengthwise of said roller between itself and said support through which haulm, weeds and like matter can pass but roots cannot pass, said roller having its axis of rotation disposed obliquely to the direction of motion of said support at said nip to deflect the roots transversely across and off said support and separate them from said haulm, weeds and like matter trapped in said nip between said roller and said support.

2,846,870
SCREENING APPARATUS
Ludwig Schlebusch, Palenberg, Germany
Application November 19, 1954, Serial No. 470,099
Claims priority, application Germany November 27, 1953
5 Claims. (Cl. 209—238)



1. In screening apparatus for wet comminuted materials, a metal screen, means for feeding comminuted material onto said screen, and electro-magnetic induction means placed beneath said screen for applying heat to said screen and to said comminuted material thereon, said electro-magnetic induction means including at least one electro-magnetic inductor mounted near said screen and adapted to generate an induction field in the vicinity of said screen for heating the screen by induced electric current therein, and a member made of diamagnetic material interposed between said inductor and said screen and extending over said inductor.

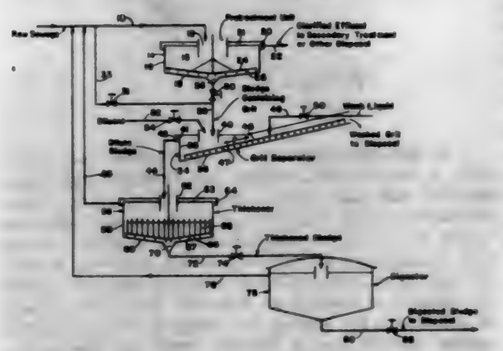
2,846,871
WASHING JIG
Joseph J. Richard, Chicago, Ill., assignor to Link-Belt Company, a corporation of Illinois
Application April 24, 1956, Serial No. 580,904
18 Claims. (Cl. 209—455)



1. In a washing jig for continuously separating mineral particles of different settling rates into two end products by subjecting a bed of the particles to the stratifying action of repeated cycles of pulsion and suction strokes of a body of water, the improvement which comprises means forming an enclosed space above a portion of the body of water, a reservoir for receiving a supply of compressed air, a valve movable to a first position to admit compressed air from said reservoir to said enclosed space

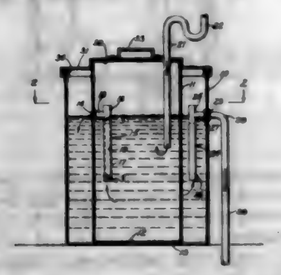
and movable to a second position to release air from said space, means for alternately moving said valve between said first and said second positions, means for adjusting the valve moving means to establish a selected rate of movement of the valve toward either of said positions independently of the rate of movement of the valve toward the other of said positions, and means for regulating the actuation of said valve moving means to provide a selected time interval between alternate movements of said valve.

2,846,072
METHOD AND APPARATUS FOR GRIT REMOVAL FROM POLLUTED LIQUIDS
Harvey J. Goetz, Maywood, Ill., assignor to Dorr-Oliver Incorporated, a corporation of Delaware
Application November 30, 1953, Serial No. 395,023
10 Claims. (Cl. 210—67)



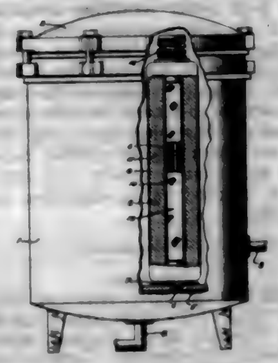
1. In the continuous process for treating polluted liquids by the removal of settleable organic solids and grit, the improvement which comprises treating said liquid in a settling tank to produce a clarified overflow product by simultaneously removing therefrom, as a second product, the bulk of said organic solids and the bulk of said grit in the form of a heterogeneous sludge of organic solids with grit dispersed therein, withdrawing said heterogeneous sludge from said tank, introducing said heterogeneous sludge into a grit separation station wherein a solids concentration of less than four percent is established and maintained whereat grit is free to separate, separating grit from said sludge and removing degritted sludge from said station.

2,846,073
LIQUID SEPARATION DECANTER
Kermit Dwight Hopper, Sr., Wellington, Ill.
Application November 22, 1955, Serial No. 548,362
1 Claim. (Cl. 210—256)



A liquid separation decanter comprising a first upstanding closed receptacle, a second upstanding receptacle positioned within and spaced from said first receptacle and having the bottom thereof fixedly secured to the bottom of said first receptacle, an outlet disposed within and extending through the wall of said second receptacle adjacent to and spaced from the upper end of said second receptacle, a first upstanding pipe positioned within said second receptacle and having the upper end above said outlet and having the lower end adjacent to and spaced above the bottom of said second receptacle, said pipe being connected adjacent its upper end in communication with said outlet, a spirally-shaped strainer positioned within said first pipe extending from said lower end of the latter to a point adjacent to and below the point of connection of said first pipe with said outlet, an upstanding inlet conduit positioned within said second receptacle remote from said outlet and having the upper end exteriorly of said second receptacle and having the lower end spaced above the lower end of said pipe, another outlet disposed within and extending through the wall of said first receptacle intermediate the top and bottom of the latter and at the same level as said first-named outlet, a second upstanding pipe positioned within said first receptacle exteriorly of said second receptacle and having the upper end above said another outlet and having the lower end adjacent to and spaced above the bottom of said first receptacle, said second pipe being connected adjacent its upper end in communication with said another outlet, and a discharge conduit positioned exteriorly of said first receptacle and having one end connected in communication with said another outlet and having its other end adapted to be connected in communication with a place of disposal.

2,846,074
CENTER-TUBE ASSEMBLY FOR FILTERS
Alan D. Brundage, Birmingham, Mich., assignor to Indiana Commercial Filters Corporation, a corporation of Indiana
Application September 13, 1955, Serial No. 533,969
2 Claims. (Cl. 210—457)



1. In combination, an open topped filter casing having an inlet and an outlet, a fixed rest in the bottom of said casing around the outlet, a center tube assembly aligned with said outlet and rigidly secured at its lower end to the casing, said assembly comprising an upstanding tube having expanded end portions and an intermediate portion of less diameter provided with at least one aperture in the side wall thereof, fine screen means around said intermediate portion to increase the diameter thereof to that of the end portions, said screen means secured to said tube in a manner to provide a smooth shoulderless joint at the junctions of the end and intermediate portions, a soft filter cartridge comprising a fabric bag filled with a pulverulent filter medium and having a central opening therethrough telescoped over said center tube assembly to seat on said rest, a cover for said casing, and resilient means associated with said cover to force said cartridge against said rest, said cartridge being freely removable from said casing and said center tube assembly when said cover is removed.

2,846,075
FILTERS
William A. Thomas, Chicago, Ill., assignor to Marvel Engineering Company, Chicago, Ill., a corporation of Illinois
Application August 27, 1956, Serial No. 606,267
1 Claim. (Cl. 210—457)



A housing unit for filters or the like, comprising an inner apertured cylindrical housing, an outer apertured cylindrical housing, a top plate on the top of said housings, a bottom plate on the bottom of said housings, said bottom plate comprising a stamped sheet metal member having a cylindrical portion fitting the end of the inner housing, to which it is secured, and having an upwardly extending, outer cylindrical flange, forming an annular space, a soft resilient rubber washer in said annular space, a threaded tubular extension on said inner housing and passing through a central aperture in said top plate, said top plate having a downwardly extending cylindrical flange forming an annular space about said inner housing, a soft resilient rubber washer in said latter annular space, a filter unit comprising an elongated metal member which is generally cylindrical, but having radially extending, sinuous portions of stiff wire cloth supporting a layer of fine wire gauze thereon, said outer housing and said filter unit engaging in said soft rubber washers at each end of the filter unit, an internally threaded nut having flat sides and a chamfer on its lower face at the corners, said nut being threaded on said tubular extension of said inner housing and urging said top plate and bottom plate toward each other, pressing the ends of said filter unit into said rubber washers, said top plate having a camming projection located outwardly on the top plate, comprising a sharply spherical pressed tip, said tip being located outwardly of the flat sides of the nut, but inwardly of the chamfered corners of the nut, the nut riding up over the tip at each corner of the nut, when rotated, and compressing the rubber washers, and the nut moving inwardly of the tip at each flat side of the nut, the rubber washers again expanding to hold the tip in position to prevent the loosening of the nut under vibration on engagement of the tip with a corner of the nut.

2,846,076
STRAINER
David O. Brust, Beverly Hills, Calif.
Application November 30, 1954, Serial No. 471,970
2 Claims. (Cl. 210—464)

2. A strainer comprising a funnel like body, a cylindrical wall portion disposed axially of said body, a bottom wall portion extending conically inward of the bottom end of said cylindrical wall, said bottom wall having a discharge opening, a strainer element, a strainer holder having a cylindrical side wall clamping the margin of the strainer against said cylindrical body wall and the conical bottom wall, a top wall connected to the top end



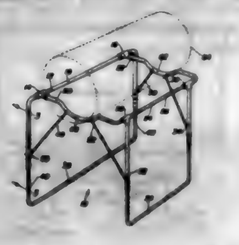
of said cylindrical holder wall and provided with a central inspection opening and a plurality of side openings, and a cover detachably engageable with said holder top wall to removably close the central inspection opening in the holder, said cover being formed so as to close the central opening only and provided with lugs for slidable engagement with the side openings.

2,846,077
GOLF BALL AND TEE HOLDER
Stanley S. Kozub, Geneva, Ohio
Application June 2, 1954, Serial No. 433,928
1 Claim. (Cl. 211—14)



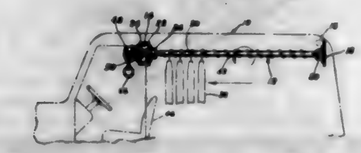
A holder for golf balls comprising an elongated cylindrical hollow golf cart handle forming a support member a plurality of annular rings spaced longitudinally along the support member, each ring having adjacent free ends with one end extending radially outwardly, said outwardly extending end being screw threaded and detachably received in a threaded aperture in the support member, each of said rings having an inner circumference smaller than the outer circumference of a golf ball whereby a golf ball will engage the ring substantially throughout the circumference thereof, a plurality of L-shaped resilient members disposed in longitudinally spaced relation along the support member and in spaced relation to the rings, each of said resilient members including an apertured short leg transversely curved to engage the curved surface of cylindrical support member for preventing rotation of the resilient members, threaded fastening means extending through the aperture in the short leg of each of the resilient members into the support member, the long leg of each of the resilient members extending diametrically of an adjacent ring with the free end thereof terminating in a position generally overlying the center of the ring for engaging the top surface of a golf ball for holding the golf ball on the ring, said ring and long leg of the resilient member being disposed in outwardly divergent planes with the outer end of the long leg being flared away from the ring thereby providing a guide for insertion of a golf ball between the ring and resilient member with the golf ball being capable of movement into partial engagement with the ring before the golf ball engages the terminal end of the long leg of the resilient member.

2,846,878
DRUM RACK
Donald E. Shelby, Flint, Mich., assignor to Kenneth W. Poling, Flint, Mich.
Application October 13, 1954, Serial No. 462,018
3 Claims. (Cl. 211—85)



1. A drum rack comprising a vertically disposed inverted substantially U-shaped tubular member, a first pair of T-fittings rotatably mounted on said U-shaped member, a horizontally disposed substantially U-shaped member secured to said first pair of T-fittings, a second pair of T-fittings rotatably mounted on said horizontally disposed U-shaped member, and tubular legs secured to said second pair of T-fittings, said vertically disposed U-shaped member and said horizontally disposed U-shaped member having opposed arcuate depressed portions.

2,846,879
GARMENT RACK FOR DELIVERY TRUCK
Frederick R. Leeper, Dover, Pa.
Application July 2, 1956, Serial No. 595,433
3 Claims. (Cl. 211—123)



1. A garment rack for a delivery truck and the like having a body including side walls and a top, said rack comprising in combination, bracket means attachable to said body to support said rack in the upper portion of said body adjacent the top, an elongated cylindrical shaft having spiral positioning and feeding means carried thereby and extending therealong between opposite ends thereof, bearings supported by said bracket means and engaging the opposite end portions of said shaft to support the same for axial rotation and substantially horizontally in the upper portion of said body, and parallel to the longitudinal axis thereof, a manually operable one-way clutch mounted adjacent one end of said shaft and interconnected thereto operatively, and manually engageable means connected to said clutch and operable to rotate said shaft unidirectionally to advance garments therealong.

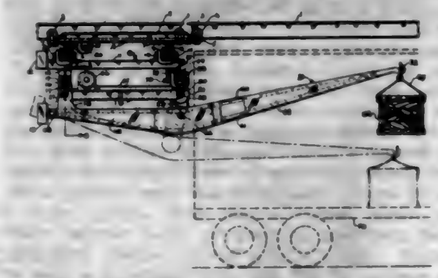
2,846,880
KNOCKDOWN DISPLAY PANEL
Paul E. Freeman, Tallahassee, Fla.
Application April 12, 1955, Serial No. 500,833
3 Claims. (Cl. 211—148)

1. A knockdown display device, comprising oppositely disposed connected vertical side frame sections including top and bottom cross frames and intermediate stiles and removable panels mounted within said side frame sections, a shelf supporting bracket mounted on each intermediate stile, said bracket being of generally U-form and including a web, a pair of spaced parallel legs extending in the same direction from opposite edges of the web, and a pair of lips extending in opposite directions from corresponding edges of said legs, said shelf supporting bracket having lips engaging the adjacent edges of the



removable panels, a horizontal ledge extending inwardly at right angles to said lips, and a removable shelf mounted on said shelf supporting ledge.

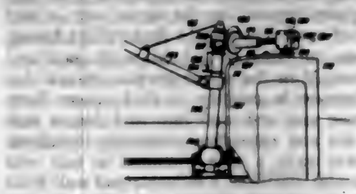
2,846,881
BOOM LOADER FOR OVERHEAD CRANE
Ralph T. Moore, Lakewood, Ohio; Vivian J. Moore, executrix of the estate of said Moore, deceased, assignor to Vivian J. Moore, Lakewood, Ohio
Application February 7, 1955, Serial No. 486,551
4 Claims. (Cl. 212—17)



1. A low overhead traveling crane comprising a carriage adapted to travel along a rail and a cantilever boom disposed below and suspended from the carriage, the boom suspension comprising a full circle track below the carriage, trolley trucks mounted on the track in diametric positions, means connecting the trolley trucks for movement about the track in unison, a horizontal pivot pin connecting one point of the boom to one of the trucks for swinging movement solely about a horizontal axis, and a hoist connecting another point of the boom to another of the trucks.

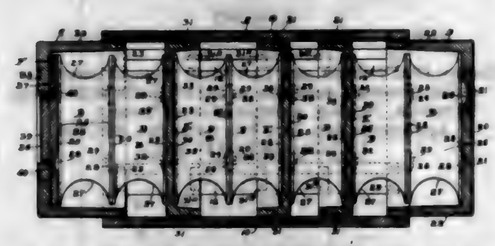
2,846,882
MOBILE SLEWING CRANE WITH JIB
Gustav Heitz, Urdorf, Switzerland
Application November 29, 1952, Serial No. 323,329
Claims priority, application Switzerland December 1, 1951
4 Claims. (Cl. 212—59)

1. A mobile slewing crane adapted to be mounted on a vehicle and comprising in combination a base fixedly mounted on said vehicle, a crane pivot column pivoted on said base for tiltable movement, a jib mounted on said crane pivot column, two rings mounted rotatably on but restrained in the axial direction relative to said crane pivot column, two struts of adjustable length arranged at substantially right angles to one another, each of said struts being articulated to one of said rings at one end and connected to said vehicle in tiltable manner but restrained in its axial direction, and adjustment means



varying the effective length of each of the said struts independently.

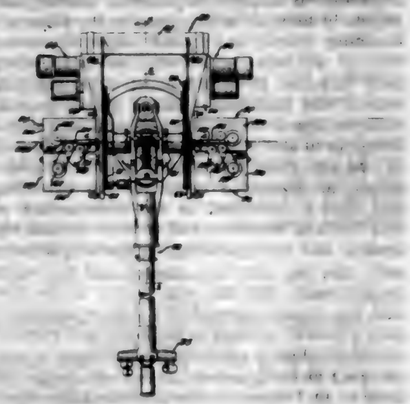
2,846,883
DRAFT GEAR FOR RAILWAY DRAFT RIGGING
Harry W. Mulcahy, Chicago, Ill., assignor to W. H. Miner, Inc., Chicago, Ill., a corporation of Delaware
Application January 23, 1956, Serial No. 560,556
6 Claims. (Cl. 213—48)



1. A draft gear for railway draft rigging, having long travel, low initial resistance with little increase in resistance during the major portion of that travel, followed by rapid increase in resistance during the remainder of that travel, comprising: a metallic casing of generally cylindrical cross section open at both ends; a plurality of longitudinal grooves opening into the interior of said casing and extending into proximity to both ends of the casing; a cup-shaped rear plunger telescoped into the rear end of the casing; lugs on the front end of said plunger projecting radially outwardly therefrom into said grooves and engaging the ends thereof to hold the plunger in the casing; a resilient column within the casing and rear plunger composed of a plurality of resilient units; separators dividing said column into sections; lugs on said separators projecting radially therefrom into said grooves; a cup-shaped front plunger telescoped into the front end of the casing into which plunger said resilient column extends; lugs on the rear end of said front plunger projecting radially therefrom into said grooves and engaging the ends thereof to hold the plunger in the casing, there being a rectangular socket opening through the front wall of said front plunger; a front follower within the front plunger engaging the resilient column and plunger; and a rectangular boss on said front follower projecting into the socket in the front plunger.

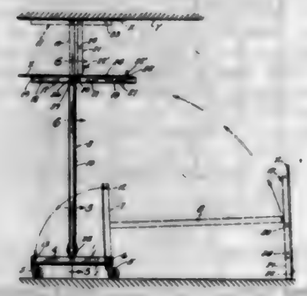
2,846,884
ELECTRONIC MASTER SLAVE MANIPULATOR
Raymond C. Goertz, Downers Grove, and William M. Thompson and Robert A. Olson, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application June 21, 1955, Serial No. 517,105
13 Claims. (Cl. 214—1)

2. A remote-control manipulator comprising a master unit and a slave unit; each unit comprising a first arm having inner and outer ends, a carriage journaling the inner end of the first arm for angular movement thereof about its own axis, a support having side pieces receiving between them the carriage, means journaling the carriage in the support for angular movement of the carriage and the first arm about an axis perpendicular to the axis of the first arm, a second arm having inner and outer ends, means connecting the inner end of the second arm to the outer end of the first arm for pivotal movement with respect thereto about an axis perpendicular to the axis of the first arm, a tool mounted on the outer end of the second arm for angular movement with respect thereto about three different axes including that of the second arm, four force-receiving and -transmitting assemblies mounted on the outer faces of the side pieces, flexible tie means extending from the tool and the second arm, through the first arm and the carriage, and in opposite directions through the side pieces at about the pivot axes



of the carriage thereon to the four assemblies, whereby signals for opening and closing of the tool and for angular movement of the tool about the three axes with respect to the second arm are produced, a fifth force-receiving and -transmitting assembly mounted on the outer face of one side piece and being responsive to angular movement of the first arm about the pivot axis of the carriage on the side pieces, a sixth force- receiving and -transmitting assembly mounted on the outer face of the other side piece and being responsive to angular movement of the second arm with respect to the first arm, and a seventh force-receiving and -transmitting assembly mounted on the carriage and being responsive to angular movement of the first arm about its own axis.

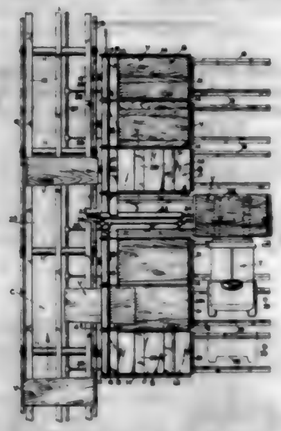
2,846,885
ADJUSTABLE SCAFFOLD FOR CEILING BOARD
Gustav J. Johnson, Mountain Lake, Minn.
Application March 29, 1957, Serial No. 649,425
2 Claims. (Cl. 214—1)



1. In a device of the class described, a mobile base, a lifting frame pivotally secured to said base for swinging movements of its upstanding free end from a position overlying said base to a position in engagement

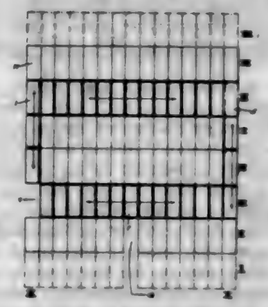
with the floor at one side of said base, said lifting frame comprising a pair of spaced extensible and retractable legs, first means for positively locking said legs in their extended positions, and a generally rectangular panel mounting frame rigidly secured to and extending between the upper ends of said legs and lying in a plane at substantially right angles to said legs, said panel mounting frame including generally parallel end frame members centrally secured one each to the extended upper end of one of said legs, a pair of arms pivotally secured one each to one end frame member for swinging movements of their free ends from operative positions wherein said arms are in alignment with the plane of said panel mounting frame to inoperative positions wherein said arms are angularly disposed with respect to the plane of said panel mounting frame, and second means connecting the free ends of said arms, said second means including an angularly disposed elongated panel edge engaging lip, said mobile base including a pair of spaced generally parallel roller-equipped cradle elements and in which said lifting frame incluudes a pair of feet one each pivotally secured at one end to an end portion of one of said cradle elements, an elongated connector bar extending between and rigidly connected to the intermediate portions of said feet and the lower end portions of said legs, said extensible and retractable legs comprising telescoping inner and outer leg members, one of said leg members being longitudinally slideable with respect to the other thereof, said first means comprising a pair of opposed levers one each pivotally secured to the lower end portion of one of the longitudinally slideable leg members, a pair of braces one each pivotally secured at one end to opposite end portions of said connector bar and pivotally secured at their other ends one each to the intermediate portion of one of said levers, and an upstanding latch element mounted on the intermediate portion of said connector bar and having vertically spaced latch detents on opposite sides for selective engagement one each with the extended free ends of one of said levers upon leg extending movements being imparted to said levers.

2,846,086
DEVICE FOR SORTING VENEER
John W. Norwood, Cottage Grove, Oreg.
Application October 25, 1956, Serial No. 618,347
2 Claims. (Cl. 214—6)



1. In a veneer sorting system including a longitudinally extending endless veneer conveyor, a plurality of parallel bins arranged along one side of said conveyor and extending perpendicularly thereto, said bins each having spaced parallel upstanding veneer edge guiding side walls extending perpendicularly to said conveyor, an end wall arranged perpendicularly to and connecting said side walls at the end thereof adjacent the conveyor, a sloping guide plate integrally formed on the upper end of said end wall, a pair of vertically aligned feed rollers having their opposite ends journalled in said side walls, said feed rollers being arranged in the upper portion of said bin adjacent said conveyor in position to feed veneer from said conveyor over said end wall into said bin, a pair of rails in said bin and extending outwardly therefrom parallel to said side walls, a truck mounted on said rails including a horizontal platform, a movable end wall fixed to said platform at the end thereof opposite said first named end wall and extending perpendicularly upwardly from said platform, said movable end wall closing said bin at the end opposite said conveyor when said truck is positioned within said bin, and hydraulic means in each of said bins for moving said truck longitudinally with respect to said bin to move material collected in said bin out of said bin.

2,846,087
ARRANGEMENT FOR THE PARKING OF MOTOR-CARS
Gustav Olof Nilsson and Lars-Einar Ljungström, Torshalla, Sweden, assignors to Nyby Bruks Aktiebolag, Nybybruk, Sweden, a corporation of Sweden
Application July 16, 1954, Serial No. 443,868
1 Claim. (Cl. 214—16.1)



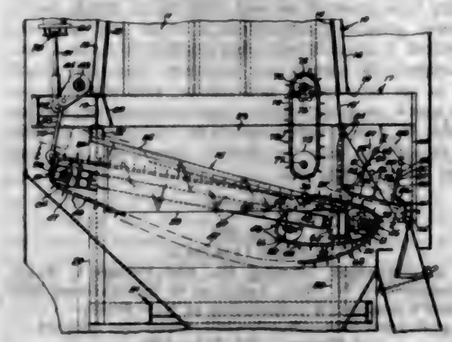
In combination, a plane parking surface for parking vehicles, especially motor-cars, having a plurality of full length parking rows two of which are spaced from each other a distance equal to the width of four of said full length parking rows and each having a plurality of side by side parking spaces, said plane surface having at least one rectangular channel therein between said spaced full length parking rows and constituted by two parallel portions extending lengthwise of the rectangle and two parallel portions extending transversely of the rectangle, the lengthwise portions of said rectangular channel being of a length equal to that of said full length rows and being spaced from each other a distance equal to the width of two of said rows, the transversely extending portions of said rectangular channel each being of a length equal to the width of two rows, the parking surface between said lengthwise portions having two shortened parking rows thereon each being of a length two parking spaces less than said full length rows, one transversely extending portion of said channel being on each end of said shortened parking rows, a plurality of plane platforms each of substantially the same size as a parking space movable in said channel with the surfaces of the platforms level with said parking surface, the number of platforms in at least one of said lengthwise extending portions of said rectangular channel being one less than the number of spaces in said full length rows, and two platforms in each transversely extending portion of said rectangular channel, means for moving said platforms along one pair of parallel portions of said rectangular channel comprising chain conveyors in said one pair of parallel portions and wheels on said platform fixed against swivel movement and rotatable transverse to the direction of movement of said chain conveyors, and means for moving the platforms along the other pair of parallel portions of said rectangular channel comprising racks secured to the platforms and driven gear wheels engaging said racks in said channel and rails in said other pair of parallel portions on which said wheels roll.

2,846,088
LOADING PLATFORMS FOR MECHANICAL PARKING SYSTEMS
William J. Porter, Spokane, Wash., assignor to Parkmaster Systems Inc., Spokane, Wash., a corporation of Washington
Application September 13, 1955, Serial No. 533,955
10 Claims. (Cl. 214—16.1)



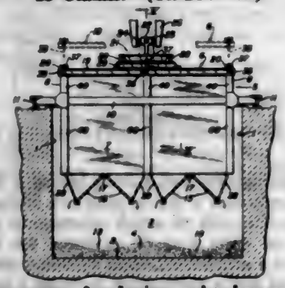
1. In a floor space having lanes for vehicle wheels, a wheel chock device to stop the vehicles comprising a supporting frame seated in a depression in one of the lanes, a transversely extending shaft rotatably mounted on said frame, a pair of spaced apart radial arms fixed on said shaft, a chock member mounted between the free ends of the arms, said chock member being raised and lowered upon rotation of the shaft, spring means connected to the shaft operable to urge the chock member to the raised position, a crank arm secured to one end of the shaft, and an activating roller rotatably mounted on said crank arm, said crank arm operable to lower the chock member upon depressing the activating roller.

2,846,089
BULK FEEDING APPARATUS
James M. Stewart, St. Catharines, Ontario, Canada
Application August 3, 1954, Serial No. 447,536
14 Claims. (Cl. 214—17)



4. In combination, a storage receptacle having side and end walls and a floor therein, means forming a discharge outlet below one of said end walls, said floor comprising a plurality of stationary and pivotally adjustable members extending from a point beyond said one end wall to a point adjacent the other end wall, said stationary members being spaced apart from one another and having slots in the portion thereof adjacent said one end wall, said pivotally adjustable members being positioned in the spaces between said stationary members, driver sprocket wheels in alignment with the ends of said stationary and adjustable members adjacent said one end wall, idler wheels in alignment with the ends of said adjustable member opposite said one end wall, other idler wheels disposed below said stationary members in alignment with said slot therein, a plurality of endless drive chains having spaced teeth thereon, portions of said drive chains supported on said adjustable members extending through said discharge outlet and engaging said driver sprocket wheels and said idler wheels in alignment with said adjustable members, another plurality of endless drive chains having spaced teeth thereon, portions of said other drive chains supported on said stationary members and extending through said slots therein and said discharge outlet, said last-mentioned portions engaging the sprocket wheels in alignment with said stationary member and said other idler wheels, and pivotal means operatively connected to move the adjustable members, drive chains, and other drive chains in a vertical direction about an axis adjacent to and extending parallel to the one end wall of said receptacle.

2,846,090
APPARATUS FOR MAKING BOTTOM IN SOAKING PITS
Thor Engstrom, Gary, Ind., and Frank L. Rice, Auburndale, Fla., assignors to United States Steel Corporation, a corporation of New Jersey
Application February 2, 1956, Serial No. 563,043
13 Claims. (Cl. 214—18)

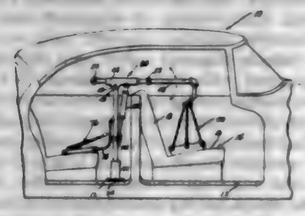


1. An apparatus for laying coke breeze bottoms in ingot soaking pits comprising a rectangular frame having spaced side members and transverse end members for supporting engagement on the sidewalls of a soaking pit, a rectangular container arranged between and suspended from said frame side members, said container having a horizontal cross sectional area of about one-half the area of the soaking pit floor, closure means at the bottom of said container comprising a plurality of parallel doors respectively having a pivotal support for movement between open and closed positions about axes extending transversely of said side members, and means operable for simultaneously moving said doors to their open positions when said container is supported by said frame end members over the floor of a soaking pit.

2,846,091
INVALID HANDLING APPARATUS FOR VEHICLES
Claude Heffner, Brockway, Pa.; Ruth R. Heffner, executrix of said Claude Heffner, deceased
Application September 28, 1956, Serial No. 612,812
2 Claims. (Cl. 214—75)

1. Apparatus for handling an invalid comprising a socket adapted to be secured to a support, a vertical

standard having upper and lower ends, the lower end of the standard being rotatably and removably seated in said socket, a horizontal sleeve horizontally pivoted on the upper end of the standard, a boom reciprocable in said sleeve, spaced stop means on the boom engageable with



said sleeve for limiting length of movement of the boom relative to the sleeve, said boom having an outer end, an invalid seat assembly suspended from said outer end, and extensible jack means secured to and acting between said standard and said sleeve.

2,846,092

DOLLY INCLUDING A WINCH MECHANISM

Bernarr J. Garnett, Pasadena, Calif., assignor, by mesne assignments, to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application December 10, 1956, Serial No. 627,370
2 Claims. (Cl. 214—85)



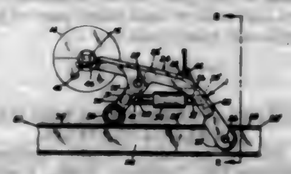
1. The combination with a dolly having a frame structure which embodies a cradle structure including a pair of spaced parallel rails on which components to be transported by said dolly may be mounted for longitudinal movements of a winch mechanism mounted on said cradle structure, said winch mechanism includes a pair of elongated channel shaped members secured together with their flanges in spaced abutting relation to define a longitudinal passageway therebetween, said channel members extend in parallel relation with respect to said rails and throughout the major length thereof, a pair of sprockets rotatably mounted in said passageway and located respectively adjacent each end of said channel members, an endless roller chain mounted on said sprockets, operating means for driving said chain, attach means which includes a box-like structure mounted in said passageway for longitudinal movement therein in response to movements of said chain, a push-pull rod one end of which is attached to said box-like structure and the other end thereof defines means adapted to be releasably attached to said components at such times as the latter are supported on said rails, and a comb member pivotally mounted in said box-like structure and which includes a plurality of spaced teeth facing said chain, said comb member being movable between an engaged position in which said teeth are positioned in sequential openings located between the rollers of said chain whereby movements of said chain are imparted to said box-like structure and a disengaged position in which said teeth are spaced from said chain and allow the latter to move without imparting corresponding movement to said box-like structure.

2,846,093

TRANSFER MECHANISM FOR AUGER DRILLS

Neal W. Densmore, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application September 7, 1955, Serial No. 532,841
11 Claims. (Cl. 214—130)



1. In a transfer mechanism for auger drill sections, a horizontal trackway comprising parallel track rails laid on the floor, a roller mounted frame adapted to travel back and forth along said trackway and having side rollers engaging said track rails, spaced adjustable load supports carried by said frame, one above each track rail, for receiving an auger section, and means operatively associated with said frame at the sides thereof and including additional side rollers engaging said track rails and adjustable relative to said first mentioned side rollers for adjusting concurrently the elevation of said load supports.

2,846,094

TRACTOR OPERATED TRENCHER

John S. Pilch, Ware, Mass.

Application June 22, 1954, Serial No. 438,413
2 Claims. (Cl. 214—131)



2. In combination a tractor, a quick connection coupling means mounted for pivotal movement on said tractor by a horizontal pivot normal to the direction of travel of the tractor, hydraulic cylinder and piston means to swing said coupling means on said pivot, an attachment comprising a platform, a boom, an implement for attachment to said boom, said boom being mounted on and supported by said platform, means for raising and lowering said boom with respect to said platform operatively engaging said platform and said boom, a vertically adjustable outrigger device having extensible depending legs mounted on said platform to steady the attachment when said implement is in use and, with said implement in ground contacting position to form a bracing support, to support the platform when the attachment is not attached to said tractor, said platform carrying quick coupling means complementary to, and engageable by, said coupling means on said tractor whereby said attachment may be readily assembled with said tractor as an integral unit.

2,846,095

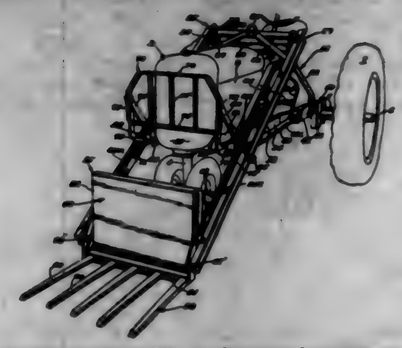
POWER LOADER

Paul R. Sonneman, Sterling, Ill., and Willard I. Neese, Albuquerque, N. Mex., assignors to International Harvester Company, a corporation of New Jersey

Application September 9, 1954, Serial No. 455,015
4 Claims. (Cl. 214—140)

1. In an attachment for a tractor, the combination of: means including a frame structure for attachment to a tractor and providing a horizontal transverse axis intermediate the ends of the tractor; a pair of forwardly and downwardly extending, lifting arms adapted to be

disposed at opposite sides of the tractor, each lifting arm being pivoted at one end at said horizontal axis and pivotally connected at the front end to a work-engaging means; a pair of normally horizontally disposed hydraulically actuated means, each pivotally connected at one end to said frame structure below said horizontal axis and pivotally connected at the other end to an associated arm intermediate its ends; and abutment means connected to said frame structure and projecting outwardly from the tractor and spaced below respective arms



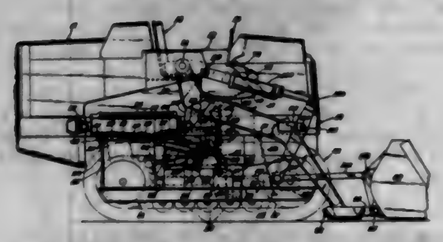
in limiting relationship to downward movement of said arms, said arms movable in normal operation downwardly to said abutment means attendant to bucking of said work-engaging means into a load and upward rearing of the tractor, said abutment means disposed rearwardly of the front end of the tractor at opposite sides thereof and each comprising a downwardly and rearwardly extending portion mounted upon the frame alongside the related arm intermediate the ends thereof, and an outwardly projecting portion below the respective arm.

2,846,096

TRACTOR LOADERS

Ralph L. Beyerstedt and Julius C. Leagler, Jr., Libertyville, Ill., assignors to The Frank G. Hough Co., a corporation of Illinois

Application June 6, 1955, Serial No. 513,246
16 Claims. (Cl. 214—140)



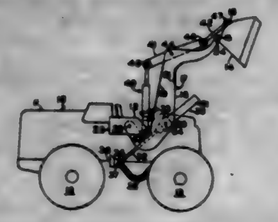
1. In combination, tractor traction means including elements normally requiring periodic servicing, a tractor body carrying a tractor engine, pivot means mounting said tractor body on said tractor traction means for pivoting about a transverse axis positioned substantially vertically below and forwardly of the center of gravity of said body sufficiently to compensate for the weight of any forwardly extending tool means carried by said body to provide a balanced unit, said pivot means being further formed to provide for pivoting of said body to one position to align said body relative to said traction means and with said body covering said elements and to another position to uncover said elements to an extent permitting servicing of said elements, and means providing a power connection from said engine to said traction means in any pivoted position of said body.

2,846,097

TRACTOR SHOVEL BOOM RAISING AND LOWERING MEANS

Ralph L. Beyerstedt, Libertyville, Ill., assignor to The Frank G. Hough Co., a corporation of Illinois

Application June 8, 1956, Serial No. 590,276
8 Claims. (Cl. 214—140)



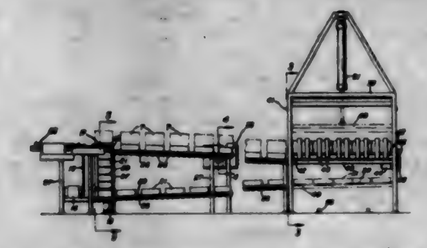
1. In a tractor loader, a boom for carrying a digging bucket, said boom comprising two identical portions, each of said portions comprising a pair of boom arms said boom arms positioned in a spaced apart relationship to each other, a plurality of plates, said plates secured in a spaced apart relationship to each other between the longitudinal marginal edges of said boom arms, pin means for pivotally mounting one end of said boom arms on said tractor, a hydraulic ram for each pair of said boom arms for raising and lowering said boom, means pivotally mounting the cylinder portion of each of said hydraulic rams between said boom arms and said plates, second pin means for pivotally mounting the piston rods of said hydraulic rams to said tractor, said boom arms shaped and said second pin means positioned so that said hydraulic rams are positioned substantially within the space defined by said boom arms and said plates when said boom is in the lowermost position, and means for mounting a digging bucket on the other ends of said boom arms.

2,846,098

TILE HANDLING CONVEYOR

Phillip E. Kopp, Minerva, Ohio

Application June 21, 1956, Serial No. 592,899
10 Claims. (Cl. 214—314)



1. A tile handling device comprising a pair of substantially horizontally disposed vertically spaced conveyors each of which comprises spaced parallel members having a plurality of wheels rotatably mounted along its innermost sides and a plurality of pallets positioned on said wheels and movable along said conveyors, each of said pallets having a plurality of transversely spaced blocks positioned thereon, vertical guide means at one end of said conveyors and vertically movable means in said guide means for elevating said pallets, means for moving a tile into position above said vertical guide means, said means comprising a plurality of horizontally disposed rollers positioned longitudinally of said conveyors and on a plane above the uppermost one of said pallets and beneath the uppermost surfaces of said blocks on said pallets, said rollers spaced with respect to one another

so as to enable said blocks on said pallets to move upwardly therebetween and lift a tile thereon thereabove, means for moving said pallets onto the uppermost one of said conveyors, a device at the opposite end of said conveyors for lifting tiles from said pallets and lowering said pallets into alignment with the lower one of said conveyors for returning them to the other end of said conveyors, said device comprising a vertically movable frame having a secondary horizontally disposed conveyor thereon normally in end-to-end alignment with the uppermost one of said conveyors, a shaft disposed alongside said secondary conveyor, an arm at one end of said shaft and a plurality of secondary arms extending in spaced parallel relation to said shaft and normally disposed between said blocks on said pallets, a plurality of vertical members on said shaft and means for rotating said shaft whereby said secondary arms move in an arc based on said shaft lifting said tile from said pallets and turning said tile a quarter turn so as to support said tile on said plurality of vertical members, and means for lowering and raising said frame.

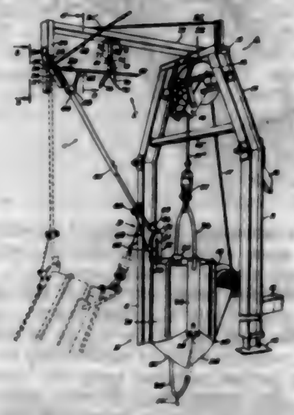
2,846,099
WHEEL JACK
Carl A. Sjoquist, Cranston, R. I.
Application February 13, 1957, Serial No. 639,929
3 Claims. (Cl. 214—331)



1. In a wheel jack, a frame including a U-shaped base including a pair of spaced parallel legs, a web extending between said legs, front and rear vertically disposed posts extending upwardly from each of said legs and secured thereto, horizontally disposed spaced parallel rods extending between said front and rear posts and secured thereto, a shaft journaled between a set of front and rear posts, a handle connected to the outer end of said shaft, a pair of reels mounted on said shaft, a pair of spaced parallel cables having their ends connected to said reels, a pair of tubes arranged in spaced parallel relation in respect to each other and having said cables extending therethrough, a plurality of rollers extending between said tubes and supported thereby, a handle piece connected to said posts, inclined brackets secured to said posts, a spring pressed manually operable plunger adjustably connected to each pair of brackets, and a pair of roller members carried by each of said plungers for engagement with a side of a tire.

2,846,100
DRAG BUCKET DUMPING APPARATUS
Peter L. Ciaccio, West Los Angeles, Calif., assignor to Flexible Manufacturing Corporation, Los Angeles, Calif., a corporation of California
Application April 1, 1957, Serial No. 649,811
7 Claims. (Cl. 214—712)

1. Apparatus for unloading a cable-suspended drag bucket having an openable bottom maintained closed by cable tension, comprising: a derrick having at its upper end means for suspending a length of cable for hoisting said bucket from a filling position; a crane arm secured to said upper end of the derrick and projecting horizontally; a grapple adapted to receive and to grasp an upper edge portion of said bucket; a boom having a free lower end carrying said grapple and a pivot suspending its upper end from said crane arm for lateral swinging movement in response to gravity acting upon said bucket, from a coupling position to an unloading position, said boom in the coupling position being inclined laterally from the vertical with said grapple elevated in position to receive said upper edge portion of the bucket as the latter is hoisted from said filling position, and in said unloading position said boom hanging freely from its said pivot and said grapple being disposed downwardly from said elevated position; a lateral arm attached to and projecting laterally from said boom; latch mechanism for supporting said boom in said coupling position, comprising a jaw attached to the underside of said crane arm and projecting downwardly and terminating in a guide finger that is downwardly and laterally inclined, a latching hook pivoted to said jaw and provided at its free end with a head having a downwardly and outwardly in-

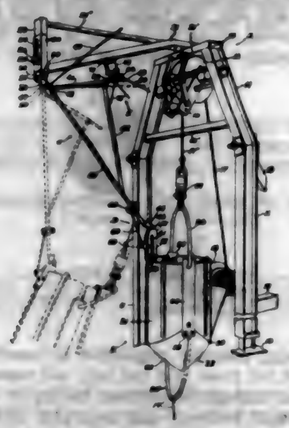


clined inner margin cooperating with said guide finger to define an upwardly narrowing notch to receive said lateral arm of the boom as the latter swings toward its coupling position, said head having a latching shoulder adapted to support said lateral arm in the coupling position of the boom, spring means operating between said hook and said jaw to normally maintain said hook in a closed position in which said lateral arm may be supported on said latching shoulder, said spring means being also operable to yieldingly support said hook in an open position projecting laterally from said jaw and releasing said lateral arm for downward swinging movement of the boom; and an actuator wand attached to the boom and moving in a path above said hook, intersecting the open position thereof as the boom swings downwardly and engaging the hook to return it to its closed position.

2,846,101
DRAG BUCKET DUMPING APPARATUS
Peter L. Ciaccio, West Los Angeles, Calif., assignor to Flexible Manufacturing Corporation, Los Angeles, Calif., a corporation of California
Application February 15, 1956, Serial No. 565,562
18 Claims. (Cl. 214—740)

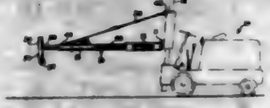
1. Apparatus for unloading a cable-suspended drag bucket having an openable bottom maintained closed by cable tension, comprising: a derrick having at its upper end means for suspending a length of cable for hoisting said bucket from a filling position; a crane arm secured to said upper end of the derrick and projecting horizontally; a grapple adapted to receive and to grasp an upper edge portion of said bucket; a boom having a free end carrying said grapple and a pivot suspending its other end from the outer end of said crane arm for lateral swinging movement respectively away from the derrick to an unloading position free-

hanging from said pivot from a coupling position inclined downwardly and toward the derrick with said grapple elevated above its free hanging position and adjacent the derrick to receive said upper edge portion of the bucket as the latter is hoisted from said filling position; a latch means carried by said crane arm and operable to make



latching connection with said boom as the latter is swung upwardly to said coupling position and to support the boom in said coupling position, said latching means being further operable to release said boom for gravity swinging movement from said coupling position to said unloading position.

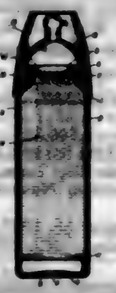
2,846,102
RAM FOR FORK LIFT TRUCKS
James J. Connor, Millville, N. J.
Application June 20, 1956, Serial No. 592,648
1 Claim. (Cl. 214—750)



The combination of a fork lift truck and a ram having a fork receiving frame and a push frame, a pair of telescoping members interconnecting said frames in adjusted relation to each other, and means supporting the outer end portion of said telescoping members, said means comprising a cable affixed at one end to one of said telescoping members, a turnbuckle interpolated in said cable, and a hook attached to the other end of said cable and removably connected to the upper portion of said truck, said hook comprising an elongated transversely extending inverted U-shaped member.

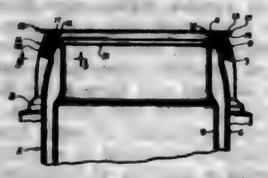
2,846,103
NURSING BOTTLE
Keaton Bruce Maxwell, Kansas City, Mo.
Continuation of application Serial No. 427,955, May 6, 1954. This application December 29, 1954, Serial No. 478,343
1 Claim. (Cl. 215—11)

A nursing bottle assembly comprising, a bottle having a bottom wall and an upstanding side wall thereon terminating in a neck portion at the upper end with an open top, an annular rib on said neck portion, a disposable collapsible bag-like container of thin flexible material and having a closed bottom and an open top, said bag-like container being positioned in the bottle with the portions of said bag-like container adjacent the open top being turned outwardly and downwardly and engaging over the annular rib on the neck portion, said bag-like container being adapted to hold a supply of milk, said bag-like container being substantially the length of the bottle and expansible whereby when filled the bottom and sides of said container are supported on the bottom wall and side walls respectively of the bottle, and a nipple having a body portion for engaging the bag-like container portion overlying the annular rib for securing said



container to the bottle and closing the upper end thereof to seal the milk therein, said bottle bottom wall having an aperture therein for escape of air from said bottle around the bag-like container to allow filling of the container with milk and for admission of air into the bottle around said container for collapsing said container as milk is drawn therefrom through the nipple and preventing air from entering the container and thence drawn into an infant's mouth through the nipple.

2,846,104
GASKET FOR VACUUM BOTTLES
Carl Brenning, Nashville, Tenn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application June 26, 1956, Serial No. 594,029
11 Claims. (Cl. 215—13)



1. In a vacuum bottle, the combination comprising a glass vacuum-insulated filler having a rounded annular upper edge and a generally cylindrical outer surface extending downwardly therefrom, a protective jacket around said filler and having an annular wall spaced outwardly from said outer surface of said filler, an outer flange integral with and projecting outwardly from the upper end of said annular wall and defining a pouring lip, an inner flange integral with and projecting inwardly from said annular wall and sloping downwardly from said outer flange in overhanging relation to said rounded upper edge of said filler, an annular gasket seated between the upper ends of said jacket and said filler for centering said filler and preventing leakage of fluid between said jacket and said filler, an inner flange portion on said gasket and received between said rounded upper edge on said filler and said inner flange on said jacket, said inner flange portion of said gasket having inner and outer sharp annular downwardly projecting edges on its underside in sealing engagement with said rounded upper edge on said filler, said inner flange portion having a portion arching upwardly above the curve of said rounded upper edge between said sharp annular edges, and a depending flexible thin-walled annular skirt portion on said gasket and extending around said outer surface of said filler

between said outer surface and said annular wall on said jacket, said skirt portion having a plurality of local inward projections thereon distributed thereabout in angularly spaced relation and engaging said outer surface of said filler at angularly spaced points, said skirt portion having a plurality of local outward projections interspersed angularly between said inward projections and engaging said annular wall of said jacket at angularly spaced points, said skirt portion being substantially circular when in a free state but being flexed in wave-like fashion when mounted between said jacket and said filler, said skirt portion being flexed outwardly at each inward projection.

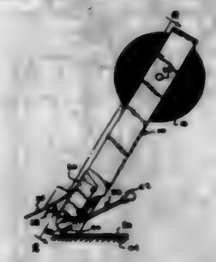
2,846,105
VACUUM-BOTTLE SEAL
Carl Brausing, Nashville, Tenn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application September 26, 1957, Serial No. 686,474
8 Claims. (Cl. 215—13)



1. In a vacuum bottle, the combination comprising a glass vacuum-insulated filler having an annular upper edge and a generally cylindrical outer surface extending downwardly therefrom, a protective jacket surrounding said filler and having an annular wall spaced outwardly from the outer surface of said filler, said jacket having adjacent its upper end an inwardly extending annular flange, and an annular gasket formed of resilient stretchable material seated between said flange and said filler for centering said filler within said jacket and preventing leakage of liquid between said jacket and said filler, said gasket having on its upper side an annular shoulder portion dimensioned for engagement with said flange and having also an annular sealing edge dimensioned and positioned for engagement with said upper edge of said filler, said gasket being formed in its lower portion to define a pair of concentric downwardly depending annular skirts, the inner of said skirts being dimensioned to provide a stretch fit with said filler wall, the outer of said skirts having a plurality of outer local projections thereon distributed therearound in angularly spaced relation and having a plurality of inner local projections disposed in staggered relation with said outer projections, said outer skirt being substantially circular when in a free state but being flexed into a wave-like conformation when said outer projections are in engagement with said jacket wall, said inner projections bearing against said inner skirt when said outer skirt is thus flexed.

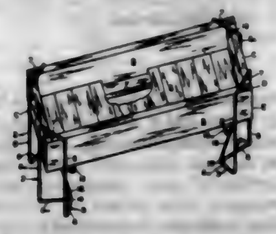
2,846,106
DEVICE FOR DISPENSING AND APPLYING AN ADHESIVE TAPE
Paul Castiglione, Norwalk, Calif.
Application September 13, 1957, Serial No. 683,900
3 Claims. (Cl. 216—21)

1. A device for dispensing and applying an adhesive tape comprising a handle arranged in an upwardly sloping direction and having a front face and a rear face, a wound roll of tape having a free end supported in said handle for free unwinding rotational movement about an axis transverse of said handle adjacent the upper end thereof, said tape having one face carrying an adhesive coating and a separable ribbon covering said one face, there being a slot in the front face of said handle below and spaced from said roll, said handle being formed with a tunnel extending along said rear face inwardly from the lower end of said handle to a point adjacent to and below said roll, a fixed pointed tongue positioned within said tunnel so that the point faces toward said roll and inwardly of the upper wall of said slot and spaced below said roll with the base portion thereof in registry with said slot, and a guide element projecting in an upwardly direction from the front face of said handle adjacent the lower end and having the upper end below and in alignment with said slot, the lower end of said handle being convexly curved so as to provide a tape directing and applying surface, the portion of the tape adjacent the



free end being movable responsive to unwinding movement of said roll from said roll into said tunnel and upon being moved through said tunnel having in turn the end edge penetrated between said separable ribbon and the one face carrying the adhesive coating by the point of said tongue to separate the ribbon from said tape and the separated ribbon moved out of said slot and over said guide element and the separated ribbon moved along and out of said tunnel and over said directing and applying surface and backwardly along in abutting engagement with a surface to which the adhesive face is to be applied.

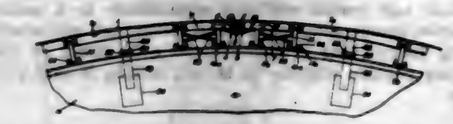
2,846,107
CORNER FORMERS FOR PLANTER BOXES, OR THE LIKE
Ralph H. Orter, Phoenix, Ariz.
Application August 10, 1956, Serial No. 603,365
2 Claims. (Cl. 217—12)



2. In a substantially rectangular planter box, a pair of side planks, a pair of end planks engaged between the opposite end portions of said side planks and extending perpendicularly thereto, a support plank positioned in engagement with the lower inner side of each of said side planks and extending between said end planks, bottom planks carried on said support planks, a corner former detachably securing said end planks to said side planks at each corner of said box supporting said support planks in said box comprising a vertical rectangular frame diagonally disposed on the corner joints of said side and end planks having vertical side members engaging the outer faces of said side and end planks for holding said side and end planks against outward displacement, a top element joining the tops of said vertical members and having a drop member formed thereon engaging the inner faces of adjacent side and end planks for holding the side and end planks against inward displacement, foot members extending inwardly from the lower ends of said vertical members, a transverse bracket disposed above said foot members having inwardly extending horizontal

members supporting the lower edges of said side and end planks, drop pieces at the inner ends of said horizontal members of said transverse bracket, and a horizontal diagonally disposed supporting member mounted between and secured to said drop pieces, said horizontal diagonally disposed supporting member supporting the ends of said support planks and having inwardly extending sharpened tips to engage and hold said support planks from displacement.

2,846,108
FLOATING ROOF ANTI-TURNING DEVICE
T Dwight Aller, San Gabriel, Calif., assignor to Southwest Welding & Mfg. Company, a corporation of California
Application October 7, 1954, Serial No. 460,841
5 Claims. (Cl. 220—26)



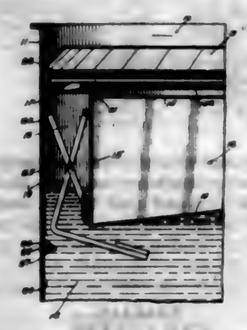
1. In an anti-rotation construction for a floating roof resting on a liquid in a tank, the combination of an anti-rotation bar secured in a vertical position to the inner side of the tank wall, and extending downward, said bar having laterally extending flanges at its inner edge with respect to the vertical axis of the tank and floating roof, two plate-form shoes supported by the roof, and located one at each side of said anti-rotation bar, means carried on the roof for holding the shoes pressed against the inner face of the tank wall, a tie of U-form cross section surrounding the bar, having side walls lying adjacent the sides of said bar for engaging directly with the same when a rotation of the roof occurs, the side walls of said tie having flanges at their outer edges secured rigidly to the adjacent edges of the said plate-form shoes, the inner faces of the side walls of said tie having vertical keeper bars rigidly secured to the same, and extending down the same to engage the flanges at the inner edge of said anti-rotation bar to prevent a movement of the said U-form tie in a radial direction with respect to the tank wall.

2,846,109
EMERGENCY DRAIN
Lyle V. Larsen, Stickney Township, Cook County, Ill., assignor to Chicago Bridge & Iron Company, a corporation of Illinois
Application August 23, 1955, Serial No. 530,172
12 Claims. (Cl. 220—26)



9. The combination of a self-actuating drain mounted upon a membrane floating upon a liquid of relatively low specific gravity to drain liquid of a comparatively high specific gravity contained on the upper side of the membrane into the lower liquid, the drain having a first standpipe having an opening at its lower end for receiving said upper liquid, a second standpipe extending through the membrane and open at its lower end directly to and in contact with said lower liquid, the second standpipe being inside the first standpipe and permitting passage of fluids between the standpipes, the height of the first standpipe being greater than the second standpipe and extending above the maximum height which the low specific gravity liquid reaches when high specific gravity liquid on the membrane flows through the second standpipe and into the low specific gravity liquid, the upper ends of each standpipe being open to the atmosphere, and the upper end of the second standpipe being above the opening in the lower end of the first standpipe.

2,846,110
WEAR PLATE FOR FLOATING ROOF TANK
Clifford E. Stoyer, Greenville, Pa., assignor to Chicago Bridge & Iron Company, a corporation of Illinois
Application September 14, 1956, Serial No. 609,990
7 Claims. (Cl. 220—26)

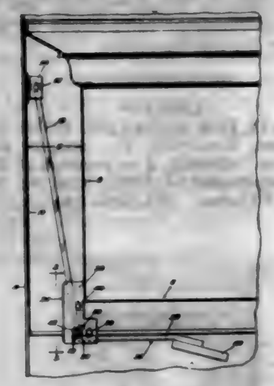


5. In a floating roof storage tank having a floating roof with annular flexible sealing means secured to peripheral edges of the roof and a pusher-hanger means for maintaining the sealing means in sealing relation with the interior cylindrical surface of the side wall of the tank, the improvement comprising a plurality of wear plates connected to said pusher-hanger means and urged into sliding face-to-face contact with the interior surface of said side wall by said pusher-hanger means, each of said wear plates comprising a main body portion having a cylindrical segmental contour conforming to the curvature of the side wall of a storage tank so as to have an outer face capable of sliding in face-to-face contact with the interior surface of said side wall, the bottom portion of said body portion having an inwardly extending flexible rib, the lower free leg of said rib projecting outwardly beyond the outer face of said main portion, said lower free leg having a sharp scraping edge at its free end, said scraping edge being capable of providing intimate metal-to-metal scraping contact with said interior surface of said side wall while the outer face of said main portion is in face-to-face contact with said interior surface of the side wall.

2,846,111
WEIGHTED SHOE HANGER
Bernice Foil Shell, Houston, Tex., assignor to Graver Tank & Mfg. Co., Inc., East Chicago, Ind., a corporation of Delaware
Application May 15, 1957, Serial No. 659,378
4 Claims. (Cl. 220—26)

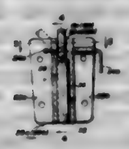
1. In a hanger arrangement for use on a field storage tank having a floating roof therein defining with the tank an annular space, the combination of a seal shoe in the space and abutting the tank wall in horizontally opposed relation to the roof, a mounting bracket on the shoe and adjacent the top edge thereof, a hanger arm pivotally connected to the mounting bracket at the upper end thereof, said hanger arm being rigid in itself and angling downwardly and inwardly through said space, a supporting bracket connected to the floating roof ad-

jacent the bottom thereof, an operative pin and slot connection between said bracket and the lower end of said arm, said pin and slot connection accommodating movement of the lower end of the arm upwardly and inwardly toward said roof and downwardly and outwardly toward said shoe, a fulcrum fixedly mounted in relation



to the roof at a point spaced from the lower end thereof, said fulcrum being operative to limit relative rotative movement of the arm and roof toward each other, and pressure means movably mounted on the roof and engaging the arm to continuously exert an upward force thereon.

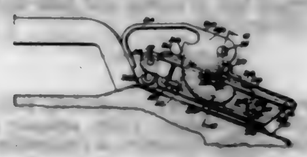
2,846,112
CAN COVERS
Louis Eisenman, Brooklyn, N. Y.
Application February 6, 1957, Serial No. 638,585
4 Claims. (Cl. 220—38)



1. Means for separably connecting a can cover to a can body comprising, in combination, means providing a hinge pin and slot connection cover to can body operative to permit lifting and swinging motion of the cover with respect to the can body, said connection including hinge pins affixed to the cover and extending into the slots of slotted members affixed to the sides of the can body, said slots being vertically disposed and open at their upper ends, and retractible means operatively and permanently connected to said slotted members and positioned thereon as normally to close said slot ends but being mounted for movement to an inactive position in which they open the slot ends to movement of the hinge pins therethrough.

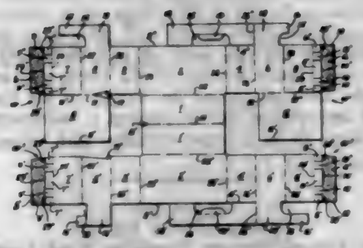
2,846,113
CAM CLOSURE
Robert J. Ellingen, Mendota, Ill., assignor to the United States of America as represented by the Secretary of the Army
Application January 4, 1956, Serial No. 557,425
1 Claim. (Cl. 220—55)

The combination with a container wall having an opening therein and fixed anchors on opposite sides of said opening spaced outwardly of said wall; of a closure for said opening, compressible sealing means operatively associated with said closure and opening for sealing the latter, a pivot pin having a center portion and offset opposite end portions providing coaxial cranks parallel to said center portion, means pivotally mounting said center portion on said closure transversely thereof, an actuator, means pivotally mounting said actuator on said cranks, said actuator having a pair of laterally spaced hooks fixed thereto, said anchors being located to be freely engaged by said hooks upon pivotal movement in one di-



rection of said actuator on said cranks with said cranks in a lowered position, continued pivotal movement of said actuator in the same direction being operative to elevate said cranks and cam said closure to a sealing position compressing said sealing means, and said cranks being formed and arranged to be over center in said sealing position whereby to be self locking in said position.

2,846,114
COLLAPSIBLE BOTTLE CARRIERS
William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application February 27, 1953, Serial No. 339,350
7 Claims. (Cl. 220—113)



1. A twin-compartmented bottle carrier formed from a one-piece blank which includes a bottom panel, a pair of side panels foldably connected to the opposite side edges of the bottom panel, a pair of end panel sections at each end of the carrier foldably connected to the adjacent side edges of the side panels, a center partition structure formed by a pair of inwardly extending center partition sections arranged in back to back relationship and foldably connected to each pair of end panel sections, and a center divider foldably connected to the lower end of one of said center partition sections and having the side edges thereof positioned between adjacent pairs of center partition sections and spanning the space between the spaced pairs of center partition sections, a cross partition section foldably connected to each of said center partition sections and secured to the inside face of the adjacent side panel, and a multi-ply handle part having a hand hole opening therein formed by a pair of handle extensions integral with and projecting upwardly from each pair of center partition sections

and secured together in overlapped relationship, a handle forming core portion having a hand hole therein integral with and projecting laterally from one of said handle extensions and presenting a terminal end in substantially flush alignment with and adjacent to the terminal end edge of the directly opposite handle extension and spanning the space between said handle extensions, and a handle facing flap having a hand hole therein overlying and secured to the core portion and handle extensions and integrally hinged at one end thereof to one of said handle extensions.

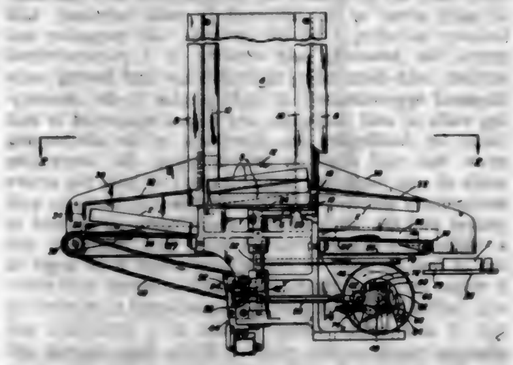
2,846,115
CARRIER OR HOLDER FOR BOTTLES AND THE LIKE
Nicholas La Guardia, Buffalo, N. Y.
Application December 24, 1954, Serial No. 477,448
3 Claims. (Cl. 220—113)



1. A carrier of flexible sheet material for articles, such as bottles or the like, disposed horizontally therein, said carrier being formed of two layers of material arranged back to back to form a middle panel, a portion of each of said layers being provided with cuts spaced from the opposite sides thereof and with score lines connecting said cuts to enable parts of said layers to be moved outwardly from the planes of said layers, parts of said outwardly moved parts forming outer side walls and other parts connected with said panels and said side walls by scored lines forming upper and lower walls of spaces into which the articles may be inserted, integral extensions on one side of each of said layers of said carrier extending in opposite directions from said middle panel into positions across the ends of said spaces to engage articles and retain them in said spaces when said carrier is on its side with said ends of said spaces on the bottom, and means connecting said extensions to retain them in approximately 180 degree relation to each other.

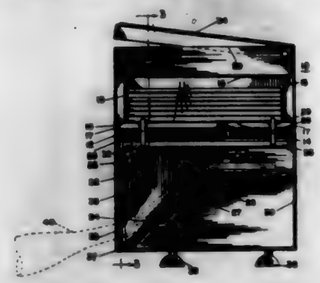
2,846,116
APPARATUS FOR FEEDING BOXES
Dwight R. Gardner, Holyoke, Mass., assignor to The American Thread Company, New York, N. Y., a corporation of New Jersey
Application February 2, 1955, Serial No. 485,779
2 Claims. (Cl. 221—67)

1. An apparatus for automatically and successively ejecting boxes in opposite directions from a stacked series comprising a substantially vertical magazine for receiving boxes having open tops, said boxes being arranged in a stack in said magazine with their ends telescoping alternately, said magazine having oppositely disposed side openings adjacent the bottom thereof through which individual boxes may be ejected from said stacked series, a pusher adapted to be oscillated to engage on alternate sides of the magazine the untelescoped ends of the boxes and to successively eject the boxes in opposite directions from the magazine through the openings therein, and means for oscillating said pusher including a reciprocating rack, a gear operatively engaged by said rack whereby said gear is oscillated during the reciprocation of said rack, a shaft on which said gear is rotatively mounted, a ratchet wheel secured on said shaft adjacent one side of said gear, said wheel having diametrically disposed ratchet teeth, a spring pressed pawl pivotally mounted on the side of said gear adjacent said wheel and adapted to engage the teeth on said ratchet wheel whereby during successive oscillation of the gear the pawl alternately engages the teeth of the ratchet wheel to effect rotation of said shaft in one direction, a crank secured on said shaft,



a lever having said pusher mounted on one end thereof, a rock shaft having secured thereto the other end of said lever, connections between said crank and said rock shaft to effect oscillation of said rock shaft, lever and pusher in opposite directions whereby said pusher successively ejects boxes from said magazine through the oppositely disposed openings in said magazine.

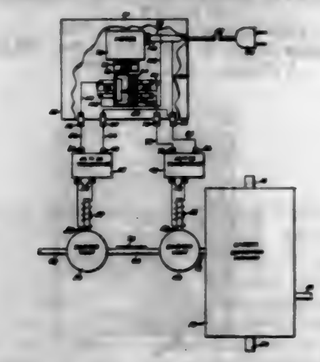
2,846,117
AUTOMATIC DISPENSER FOR DRINKING STRAWS
Emil Kumpf, Baltimore, Md.
Application August 1, 1955, Serial No. 525,560
2 Claims. (Cl. 221—196)



1. A straw dispenser, comprising, a housing including a doorway and a compartment formed with converging walls to form a self-feeding magazine with an opening at its lowest portion for ejecting straws in predetermined numbers at a time, a sliding carriage including a slot to hold a straw disposed under said magazine and alignable with said opening to receive the ejected straws singly within said slot at one end of its stroke and to carry the straw to another point of said stroke to discharge it, said housing including another compartment beneath said magazine, a chute structure with walls supported within said last mentioned compartment hinged to swing through a predetermined arc with its lower portion aligned with said doorway so as to bring said straw sliding down said chute thereto, said doorway being sized to permit the insertion of a container top therethrough for contacting said chute and pushing it through the swing thereof, trigger mechanism supported by said housing operated by the swing of said chute for reciprocating said carriage and aligning its pocket consecutively with

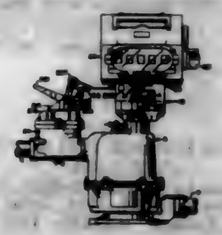
said opening and discharge point and delivering said straw as aforesaid, said trigger mechanism including a resilient means for tensioning its components and said chute for returning said carriage to the beginning of its stroke when said container is withdrawn out of said doorway, means for controlling the position of said carriage and chute when they are positioned for the reception and discharge of each straw to be delivered to said container, said housing including a lid for covering said magazine and means for attaching said housing to a predetermined surface, said chute being located below and having walls disposed approximately at right angles to the converging walls of said magazine, and means supported in said chute for facilitating the movement of the discharging straw into said chute to said doorway, the converging walls of said magazine being arranged to hold the straws horizontally therein while awaiting their delivery to said pocket and the walls of said chute being terminated in a valley downwardly slanted from said discharge and out to said doorway to position the straw at an angle as it slides into said bottle, said chute adjacent said doorway including a spoon like surface adapted to receive the top of said bottle during its use as a propellant and align its mouth so the entrance of the straw therein will not be obstructed, said turning means for the straw including a tripping lug for temporarily restricting the movement of one end of the straw.

2,846,118
GAS FLOW CONTROL SYSTEM
Joseph Matejka, Columbus, Nebr., assignor to Dale Products, Inc., Columbus, Nebr.
Application March 14, 1955, Serial No. 494,196
4 Claims. (Cl. 222—3)



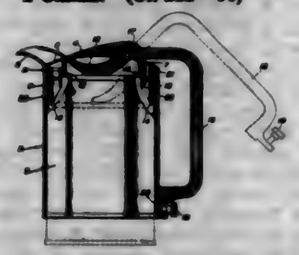
1. In combination with a hydro-carbon gas cracking and carbon depositing furnace of the type used in manufacture of electrical resistors, a system for causing small quantities of gas to flow into said furnace at a regulated rate comprising: a pair of solenoid valves, an electrical timer connected to said valves and causing said valves to operate successively first one then the other at a known time interval between the operation of said valves whereby said valves are never both open at the same time, a first of said valves being attached by suitable gas conveying means to a source of gas, pressure of said source of gas being greater than atmospheric, a second suitable gas conveying means attaching the first solenoid valve to a second solenoid valve, said second suitable conveying means having a specified volume between said valves when both of said valves are closed, and a third suitable gas conveying means attaching the said second solenoid valve to said carbon-cracking-and-depositing furnace, said time interval being sufficient to allow said second gas conveying means to fill with gas to capacity under these conditions.

2,846,119
PRESETTABLE PREDETERMINER AND HYDRAULIC CUT-OFF VALVE MECHANISM
Elmer A. Robbins, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana
Application May 25, 1956, Serial No. 587,371
19 Claims. (Cl. 222—30)



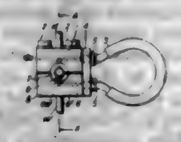
1. In a batching, liquid dispensing apparatus, the combination of a liquid meter, a presettable predeterminer connected for operation by said meter and including a control member mounted for movement between full flow, partial flow and flow stopping positions, engagable means for holding said member in full flow and partial flow positions and means for rendering said engagable means ineffective, after a predetermined delivery, to free said member for movement to the succeeding position, a valve body having an inlet chamber, an outlet chamber and separate large and small flow channels communicating with said meter through said inlet chamber, a normally closed main valve for said large channel, yieldable means for urging said main valve closed, a fluid motor connected to the main valve to open it when the motor is energized, a restricted channel connecting said motor with said inlet chamber, a normally closed secondary valve for the small channel, means including a normally closed pilot valve for and a channel connecting said motor directly with said outlet chamber to energize the fluid motor when the pilot valve is opened, manual actuating means, means connecting said actuating means to open said pilot and secondary valves and to move said control member to full flow position for engagement of said holding means, means for urging said pilot and secondary valves and control member respectively toward closed and flow stopping positions, said control member and connecting means serving to hold only said secondary valve open when said control member occupies its partial flow position and freeing said secondary valve for closure when the control member moves its flow stopping position.

2,846,120
CANNED MILK SERVER
Kenneth W. Strum, Colton, Oreg.
Application July 17, 1956, Serial No. 598,444
2 Claims. (Cl. 222—86)



1. A milk can holder of the character described comprising: a substantially cylindrical container for the reception of a can, said container including a top and being open at its lower end, punches in the container depending from the top thereof at spaced points for penetrating the top of the can, a handle having one end pivotally secured to the upper portion of the container, means on the free end of the handle for releasably securing same to the container and for securing the can therein, and means on the pivoted end of the handle for ejecting the can from the container, said container having a threaded opening in its lower portion, said first-named means including a bolt journaled on the free end portion of the handle and adapted to be threaded through the opening for engagement with the can for securing said can in the container and for connecting the free end of the handle thereto.

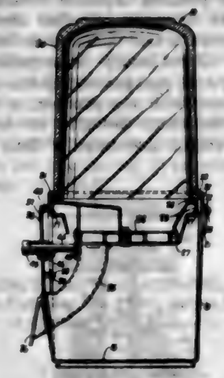
2,846,121
APPARATUS FOR DISPENSING FLUIDS
Heinrich Richard Rosenbeck, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
Application September 6, 1956, Serial No. 608,354
Claims priority, application Great Britain
September 7, 1955
12 Claims. (Cl. 222—133)



1. Apparatus for delivering at desired intervals a predetermined volume from a continuous stream of a desired fluid into a continuous stream of a second fluid with only momentary interruption of the flows of the streams, said apparatus comprising in combination a chamber for the volume of desired fluid and a valve comprising a body and slide, said valve body being provided with ports and passages communicating with the said chamber for the desired fluid and with a conduit for the second fluid and said valve slide being provided with passages which are arranged to co-operate with the ports in the valve body to form a continuous path for a stream of the desired fluid through the valve and the chamber and a continuous path for a stream of the second fluid through the valve and the conduit when the valve slide is at one end of its stroke and to disconnect the stream of the desired fluid from the chamber and to pass it directly through the valve and to deliver the volume of the desired fluid in the chamber into the stream of the second fluid when the valve slide is at the other end of its stroke, said valve being adapted to be moved from one end of its stroke to the other at the desired intervals.

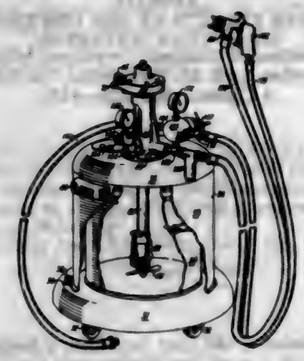
2,846,122
VENDING MACHINE
Wallace Jenkins, Lakewood, and Hugh L. McCreery, North Royalton, Ohio, assignors to The Atlas Manufacturing & Sales Corporation, Cleveland, Ohio, a corporation of Ohio
Application November 20, 1953, Serial No. 393,454
2 Claims. (Cl. 222—153)

1. A vending machine, comprising in combination, a first body member, said first body member having bottom, front, rear and side walls and an open top with a shoulder therearound, said rear wall having an infaced lip positioned at the upper edge thereon, said front wall having a slot therein intersecting said shoulder; a plate, having operating mechanism mounted thereon, seated in said slot and including an infaced lip positioned above said shoulder; a second body member seated on said shoulder, superposed on said first body member, and having a dispensing unit mounted thereon operatively connected with said operating mechanism; a merchandise container of substantially uniform cross-section from top to bottom, superposed on said second body member, forming an enclosed cavity above the dispensing unit, said container having a continuous outwardly extending flange at the bottom edge thereof; and a retaining collar



having laterally extending ears, fitted around said container at said flange and superposed on said first and second body members, said collar ears being engagable by said plate and rear wall lips to secure said members and container together against unauthorized detachment.

2,846,123
LIQUID HANDLING APPARATUS FOR DELIVERING PAINTS AND OTHER LIQUID MATERIALS TO SPRAY GUNS
Russell J. Gray, Meadeville, Minn., assignor to Gray Company, Inc., Minneapolis, Minn., a corporation of Minnesota
Application March 26, 1949, Serial No. 83,708
21 Claims. (Cl. 222—240)

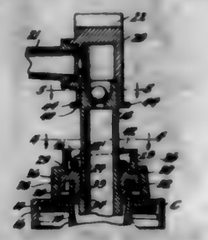


1. Liquid-handling apparatus for delivering liquid from an original open container to a remote liquid dispenser, said apparatus comprising a lid to be placed over the original container of liquid and a rotary gear-pump and rotary agitator disposed beneath said pump, both pump and agitator carried by and supported beneath said lid and operatively extending into the liquid, and a single motor operatively connected to both said pump and said agitator.

2,846,124
DISPENSING PUMP UNIT
James U. Stewart, Whittier, and Rex C. Cooprider, Downey, Calif., assignors to The Drackett Company, Cincinnati, Ohio, a corporation of Ohio
Application October 8, 1956, Serial No. 614,476
2 Claims. (Cl. 222—321)

1. A dispensing pump unit comprising a cylindrical pump barrel adapted to extend downwardly in sealed re-

lation through a container closure, a pump plunger extending into said barrel from the upper end thereof for reciprocation and rotary movement therein, a housing fixed on said barrel at said upper end defining an upwardly opening annular packing chamber around said plunger, and including an upwardly directed abutment shoulder defining the bottom of said chamber, in combination with a packing ring of resiliently deformable material normally encircling said plunger within the chamber and in wiping engagement with the plunger, a downwardly directed annular abutment shoulder on said plunger disposed for movement downwardly into said upwardly



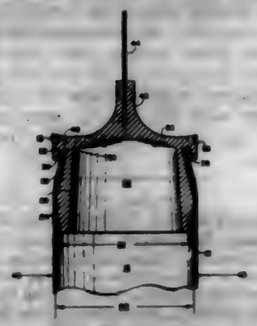
opening chamber into abutting engagement with said packing ring, and cooperating cam elements on said plunger and said housing respectively operative responsive to rotary movement of said plunger for immobilizing the plunger and for axially compressing said packing ring between said shoulders to expand it radially into sealing engagement with said plunger, said cam elements of the housing projecting radially inwardly above the packing ring to prevent upward displacement of the packing ring from the housing, and being spaced radially from the plunger to permit entry of said plunger shoulder within the housing.

2,846,125
ROTOR BAR STRUCTURE FOR DISPENSERS OF GRANULAR MATERIAL
Eberhard S. Gaudred, Owatonna, Minn.
Application April 23, 1956, Serial No. 580,118
4 Claims. (Cl. 222—410)



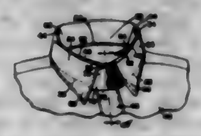
1. In a device of the kind described, a hopper having side walls and a perforate bottom wall, and a feeding rotor mounted in said hopper in parallel relation to said bottom wall, said feeding rotor comprising axially extended rotary shafting and a tubular body encompassing said shafting and secured thereto for common rotation therewith, said body being made from rigid sheet material and including a plurality of longitudinally extended cooperating body sections each having a longitudinally extending central portion conforming to the cross sectional shape of the underlying portion of the shafting engaged thereby, and opposite longitudinal edge portions defining flat circumferentially spaced flanges which project radially outwardly from said shafting, the flanges of one of said body sections being contiguous with flanges of adjacent body sections and rigidly secured thereto in face to face relationship to define therewith flat radial feeding vanes, said shafting defining axial trunnion elements extending outwardly of the opposite ends of said tubular body.

2,846,126
CONTAINER CLOSURE
Andrew Frank Warren, Long Island City, N. Y.
Application October 17, 1956, Serial No. 616,494
3 Claims. (Cl. 222—570)



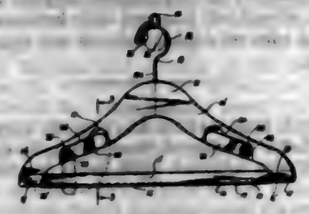
1. A closure, for a cylindrical resilient container provided with one open end for the insertion of material, comprising a cylindrical neck portion having a diameter less than the inside diameter of said container, a circular abutment on said neck portion and having a diameter substantially equal to the inside diameter of said container, and a cap portion connected to and defining with said neck portion a V-shaped circular groove the outer leg of which defines a substantially frusto-conical surface having diameters greater than and less than the outer diameter of said container whereby with the insertion of said neck portion into said container said cap portion deflects the circular edge of said container inwardly about said abutment.

2,846,127
COLLAR SUPPORT
Harry A. Tessaris, Cincinnati, Ohio, assignor to Lorco Industries Incorporated, Reading, Ohio, a corporation of Ohio
Application July 10, 1956, Serial No. 596,924
3 Claims. (Cl. 223—83)



1. A collar support of the double panel type for application to a finished folded shirt having a neckband of fixed width, a central button lap, and an attached soft collar including spaced divergent points flanking the button lap, and having a collar roll, said collar support comprising a single flexible elongate sheet of cardboard having upper and lower edge portions correspondingly curved, said sheet being slitted longitudinally inwardly from its ends along a curved line corresponding generally to said upper and lower edges of said sheet, the ends of the slits being spaced from each other to form a bridge piece, and the sheet being folded along the said bridge piece to provide an inner elongate panel and an outer elongate panel each having a convexly curved base edge, a collar roll support edge on the outer panel disposed in spaced substantial parallelism with the lower base edge of the outer panel, an upper edge on the inner panel disposed in spaced substantial parallelism with the base edge of the inner panel, the outer panel being adapted to be positioned between the collar and neckband of the shirt, and the inner panel positioned at the inner side of the neckband, and an apron integral with and projecting downwardly from the central portion of the lower edge of the outer panel, the apron extending in opposite directions from the middle point of the base edge of the outer panel and being of sufficient length so that when the same is flexed in the application of the outer panel to the shirt, the apron will extend in the plane of the outer panel in rigid supporting relationship therewith, the width of the outer panel except for the apron approximating the width of the neckband, the combined width of the outer panel and apron being greater than the width of the neckband, the apron having a lower contact edge adapted to impinge upon the button lap of the shirt when the collar support is applied thereto, said apron acting to lift the upper rolled edge portion of the collar and support the neckband and collar wings in elevated position, whereby crushing of the collar and upward curling of the collar points is prevented.

2,846,128
GARMENT HANGER
James D. Fuller and Clarence C. Terry, Seattle, Wash.
Application November 19, 1954, Serial No. 469,944
2 Claims. (Cl. 223—91)



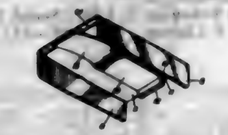
1. A garment hanger of the character described comprising a rigid and generally triangular, open frame, said frame including two downwardly and laterally diverging arms forming the opposite sides of the frame and said arms being rigidly joined together at their upper ends, a horizontal base bar extending between and rigidly joined at its ends to said arms at the lower end thereof, a suspending hook for the hanger fixed centrally to the upper ends of said arms, at least one of the arms having a recess formed longitudinally thereof and intermediate its end, said recess opening downwardly toward the base bar and to a side of the arm, a garment holding finger disposed in and extended along the recess; the finger being pivotally fixed at one end to the arm and adapted to be swung downwardly about its attaching pivot and of a length to cross with the base bar to coact therewith for the clamping of a garment that is laid over or against, and suspended from said base bar and the thickness of the finger being substantially equal to the lateral depth of the recess so that the finger is substantially contained within the arm when in upwardly raised position.

2,846,129
FISHING ROD HOLDER
George R. O'Brien, Superior, Wis.
Application March 28, 1956, Serial No. 574,438
6 Claims. (Cl. 224—5)



1. A fishing rod holder comprising a plate member having opposed upper and lower edge portions, a wire framework mounted on said plate adjacent one of its said edge portions and extending along said plate toward the other of said edge portions in cooperative belt-engaging relation with said plate, said framework being constructed and arranged to receive and engage a belt worn by a fisherman between said plate member and said framework, and resilient wire-framework clamping mechanism mounted on said first mentioned wire framework in cooperative fish pole-handle-engaging relationship with said plate member, said second mentioned framework being constructed and arranged relative to said plate member to cooperatively engage and support a fishing rod therebetween in an aloft position when the handle of the latter is placed therebetween to thereby free both hands of the fisherman for use thereof in securing lures and the like to a fish line.

2,846,130
BOX COVER
Allen M. Foote, Hendersonville, N. C.
Application October 18, 1955, Serial No. 541,116
1 Claim. (Cl. 229—7)



For use with a box including a wall and an elongated top having a pouring opening adjacent the wall, a removable cover comprising an elongated imperforate plate for closing the opening and for sliding movement longitudinally inwardly on the top for exposing the opening, guide flanges depending from the plate for slidably embracing the box therebetween, a resilient clip fixed beneath one end portion of the plate for engagement beneath the top through the opening for frictionally securing said plate in adjusted position, and a stop depending from said one end portion of said plate for operation in the box for engagement with the inner face of the end wall for arresting the plate when said plate is moved to its closed position over the opening.

2,846,131
TUBULAR CARTON HAVING AUTOMATICALLY ERECTIBLE DIAGONAL PARTITION
Glenn E. Struble, Hamilton, Ohio, assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware
Application August 10, 1955, Serial No. 527,595
3 Claims. (Cl. 229—27)



1. A one-piece tubular carton having an integral automatically erectible diagonally disposed internal partition, said carton comprising a tubular body having a first, second, third and fourth body walls in articulation in the order named, and a partition structure articulated to the free side edge of said fourth body wall for dividing said tubular body interiorly into a plurality of triangular compartments, said partition structure consisting of a partition panel having a length greater than the length of said carton body walls and divided by at least one pair of spaced apart score lines into a plurality of triangular partition parts separated from each other by at least one partition wall part defined by the area lying between said pair of spaced apart score lines, said plurality of triangular partition parts having a combined area substantially equal to the area of said first carton body wall, and said partition wall part having a width sub-

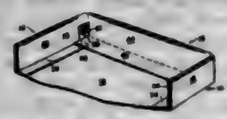
stantially equal to the width of said second carton body wall, a pair of said triangular partition parts each having a free edge thereof defined by an opposite edge of said partition panel, and one of said triangular partition parts having an edge thereof defined by the line of articulation between said fourth body wall and said partition panel, said carton body being tubed with said last named triangular partition part in adhesive engagement with said first carton body wall, said partition structure being movable from a collapsed position in which at least one of the free edges of said pair of triangular partition parts extends beyond the ends of said carton body walls to a second position in which the free edges of both of said pair of triangular partition parts coincide with the end edges of said carton body walls.

2,846,132
LEAK PROOF CARTON
James R. Carpenter, Fort Worth, Tex., assignor to Container Corporation of America, Chicago, Ill., a corporation of Delaware
Application February 8, 1957, Serial No. 638,970
6 Claims. (Cl. 229—31)



1. A carton formed of sheet material possessing substantial rigidity and resilience such as paper board and comprising, a bottom panel, side and end wall panels extending upward from said bottom panel, corner bellows folds joining said side and end wall panels and each having a first element seating on one face of one of said wall panels and a second element seating on said first element, said second element extending upward beyond said first element approximately to the upper edge of said one wall panel, the latter having two slits extending from its upper edge defining between them a notch at the upper edge of said one wall panel and a pressure tongue corresponding to said notch and integrally attached to said one wall panel and free for deflection away from said one face of said one wall, and a locking tongue on said second element provided adjacent its upper edge and at its sides with two locking tabs of a width to snap through said notch incident to deflection of said locking tongue through said notch, said tongue being flexed beyond said one wall panel through said notch with said tabs seating on the other face of said one wall panel and in cooperation therewith restraining said second element against movement away from said one wall, said pressure tongue being flexed away from said one wall panel by said locking tongue and by its inherent resiliency urging the latter toward said one wall panel with said tabs seating thereon.

2,846,133
SELF-LOCKING FOLDING BOX
Edward R. Burden, Dallas, Tex.
Application December 31, 1956, Serial No. 631,922
1 Claim. (Cl. 229—34)



A folding box having a bottom and folded double wall sides and ends, each wall of the double wall sides having returns at both ends engaging the ends between their double walls, flanges provided along the longitudinal edges of the inside walls of the double wall sides arranged to rest on the bottom, flanges provided along the longitudinal edges of the inside walls of the double wall ends arranged to lie on the bottom, the end wall flanges overlapping the ends of the side wall flanges and bearing against the inside walls of the double wall sides, the side wall flanges being shorter than the walls of the double wall sides, rectangular notches in each end of the inside walls of the double wall sides forming recesses therein at each corner meeting of the sides and ends, beyond the ends of the side wall flanges, tabs provided on each end of the end wall flanges arranged to engage the recesses to lock the double wall ends to the double wall sides, the tabs each having an extension arranged to engage the bottom between the inside and outside walls of the adjacent double wall end, the tabs and the extensions thereof being made in one piece each folded transversely near the center substantially at right angles to form two parts, a first part joined to one end of the adjacent end flange and bent upwardly for engagement with the adjacent recess, and a second part arranged to lie between the double walls of the adjacent double wall end and there rest upon the bottom.

2,846,134
HANDLE FOR PAPER BAGS AND THE LIKE
Ester Mosbayed, Washington, D. C.
Application August 4, 1955, Serial No. 526,462
1 Claim. (Cl. 229—62)



A device of the character described comprising a rectangular handle portion, three contiguous legs integrally dependent from one edge of said handle portion, a coating of adhesive upon one face of the intermediate leg, and a coating of adhesive upon the opposite faces of the remaining legs, said remaining legs having their inner edges connected to the side edges of the intermediate leg by tear lines, said handle portion comprising a pair of panels one folded upon the other and each having an adhesive coating upon its opposed face, and said panels having registering finger openings.

2,846,135
ENVELOPE FOR TWO-WAY USE
Walter L. Hierstetner, Kansas City, Mo., assignor to Tension Envelope Corporation, Kansas City, Mo., a corporation of Delaware
Application September 29, 1954, Serial No. 459,011
4 Claims. (Cl. 229—73)



1. A window envelope for two-way use and adapted to contain an addressed enclosure to be sent to a recipient and to be used by the recipient for returning the enclosure to the original sender, said envelope including generally rectangular front and back panels integrally connected along one corresponding edge of each panel by a fold, the front panel having a window therein, end flaps integral with opposite ends of one of said panels and having folds positioning said end flaps between said front and rear panels, stripes of adhesive connecting said end flaps immediately adjacent the folds thereof with corresponding ends of the other panel to cooperate with the first named fold to provide a closed bottom and closed ends for said envelope, the edges of the panels opposite said bottom being unconnected to provide an insert opening along the width of the envelope, one of said end flaps having an extension to cover the window on the inner side of the front panel and providing separate compartments within said envelope on the respective sides of said extension, each of said compartments being open along said insert opening, said extension having an address area on the face thereof nearest the window, an address positioned on said address area and serving as the address of the original sender, said compartment nearest the window being adapted to contain the addressed portion of the enclosure in position to be exposed through said window to serve as the recipient's address when said enclosure is passed through said insert opening with the addressed portion thereof passing through said opening of the compartment nearest the window and to conceal said address of the original sender during the first use of the envelope, said address of the original sender being exposed through said window when the enclosure is removed and reinserted through said insert opening with said address portion passing through said opening of the compartment remote from the window for the second use of the envelope, a closure flap on one of the panels and extending along the insert opening of the envelope to be tucked into the insert opening and through the open side of the compartment nearest the window opening to retain the enclosure for the first use, and gum on the closure flap for sealing the closure flap to the other panel for retaining the enclosure during the second use of the envelope.

2,846,136
MULTI-STAGE AXIAL FLOW COMPRESSORS
Tadeusz Zaba, Wettingen, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie., Baden, Switzerland, a joint-stock company
Application July 14, 1952, Serial No. 298,673
Claims priority, application Switzerland July 19, 1951
3 Claims. (Cl. 230—122)



1. A multi-stage axial flow compressor comprising a casing provided with rows of guide blades, a rotor journalled in said casing and provided with rows of blades interleaved with said rows of guide blades, and means for recovering and usefully employing the kinetic energy of the medium being compressed, characterized by the fact that said energy-recovering means comprises a row of turbine blades on said rotor between groups of compressor stages thereof, said row of turbine blades being serially arranged in the path of all medium flowing through the compressor and profiled to provide a deflection of the medium at constant relative velocity and constant pressure whereby the axial velocity of the medium is lowered without a corresponding decrease in pressure so that the kinetic energy of the medium is transformed to mechanical energy imparted to the rotor.

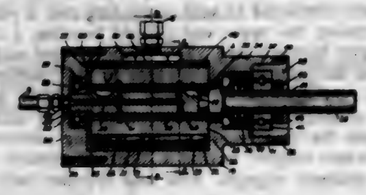
2,846,137
CONSTRUCTION FOR AXIAL-FLOW TURBOMACHINERY
Leroy Harrington Smith, Jr., Cincinnati, Ohio, assignor to General Electric Company, a corporation of New York
Application June 3, 1955, Serial No. 512,935
3 Claims. (Cl. 230—123)

3. In an axial-flow turbomachine including undulant inner and outer casings defining the boundaries of a gas path, and rotor and stator blades having tips and root sections, the rotor and stator blades being mounted in alternate rows on the inner and outer casings respectively; means for increasing the velocity of flow of the working gases across the tips of the rotor and stator blades, including convex curves in the outer casing extending upstream of the trailing edges of the tips of each row of rotor blades and downstream of the leading edges of the roots of each adjacent row of stator blades, and convex curves in the inner casing extending upstream of the trailing edges of the tips of each row of stator blades and downstream of the leading edges of



the roots of each adjacent row of rotor blades; and means for decreasing the velocity of flow of the working gases across the roots of the rotor and stator blades, including concave curves in the outer casing extending upstream of the trailing edges of the roots of each row of stator blades and downstream of the leading edges of the tips of each adjacent row of rotor blades, and concave curves in the inner casing extending upstream of the trailing edges of the roots of each row of rotor blades and downstream of the leading edges of the tips of each adjacent row of stator blades, the convex and concave curves in each casing intersecting approximately mid-way between the leading and trailing edges of the rows of blades.

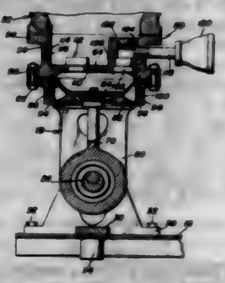
2,846,138
REFRIGERATION COMPRESSOR
Carl E. Recklyeft, Arkansas City, Kans., assignor to Acton Manufacturing Company, Inc., Arkansas City, Kans., a corporation of Kansas
Application December 16, 1954, Serial No. 475,645
1 Claim. (Cl. 230—152)



A compressor for use in a refrigeration system using a suitable refrigerant gas and for maintaining suitable differential pressures therein when operated at a wide variety of speeds comprising, a casing having a cylindrical bore closed at both ends to form a cylindrical cavity therein, inlet and outlet passages in said casing, inlet and outlet ports communicating the inlet and outlet passages respectively with said bore, said ports being circumferentially spaced with the distance therebetween at one side of the bore substantially greater than at the other side, said casing having chambers therein adjacent to and in communication with the respective ports, a shaft having an axial bore rotatably mounted in the casing bore in eccentric relation therewith, a cylindrical rotor fixed to the shaft in the casing bore whereby said other side of the casing bore and said rotor and said one side of the casing bore cooperate to define a compression chamber

of progressively decreasing volume from the inlet port to the outlet port, the periphery of the rotor being closest to the cylindrical bore at said other side thereof and adjacent the outlet port with the spacing from said other side of the cylindrical bore being approximately .015 inch, said rotor being provided with a plurality of longitudinal slots spaced circumferentially around the rotor, said slots being inclined relative to radial axial planes through the rotor with the inner ends of said slots laterally spaced from the shaft, blades slidably mounted in the slots and having rounded outer ends adapted to engage the casing bore, and means communicating through the axial bore of the shaft for inducing lubricating oil into the slots behind the blades whereby said oil lubricates the cylindrical bore and acts as a seal between said blades and said cylindrical bore, the operation of the compressor being such that with the approximate .015-inch spacing between the rotor and said other side of the cylindrical bore the gas discharge pressures are maintained between 90 and 200 pounds per square inch between minimum and maximum operating speeds.

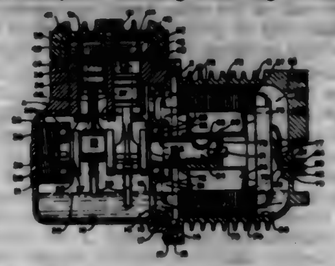
2,846,139
AIR COMPRESSOR
Joseph W. Blount, Prichard, and Grover G. McCullar, Mobile, Ala.
Application March 13, 1956, Serial No. 571,339
2 Claims. (Cl. 230—170)



1. A pump construction comprising a housing having an upper portion providing an elongated cylinder wall, a crank rotatably mounted in said housing, a connecting rod connected to said crank, a piston type diaphragm support connected to said connecting rod, a valve assembly closing the upper end of said housing, a diaphragm clamped between said valve assembly and said housing, means securing said diaphragm to said diaphragm support, said diaphragm support being rigidly secured to said connecting rod and disposed within said cylinder portion for reciprocatory and rocking movement, said diaphragm support having a spherical segment edge portion guidedly engaged with said cylinder wall.

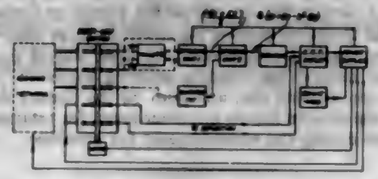
2,846,140
REFRIGERATION COMPRESSOR
James M. Kemper, Hollywood, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Continuation of application Serial No. 753,441, June 9, 1947. This application September 17, 1952, Serial No. 310,037
4 Claims. (Cl. 230—232)

1. In a fluid compressing unit having pumping elements therein: walls forming a head chamber for collecting pumped fluid; valve means in said chamber for controlling discharge of fluid from said pumping elements; an imperforate dished cover in said chamber positioned over said valve means with its edge seated on a wall of said chamber to oppose flow of pumped fluid from said valve means into said head chamber; and spring means acting against said cover normally biasing it in a seating direction, but enabling unseating in response to



increased fluid pressure under said cover, so as to enable flow from said valve means into said collecting chamber.

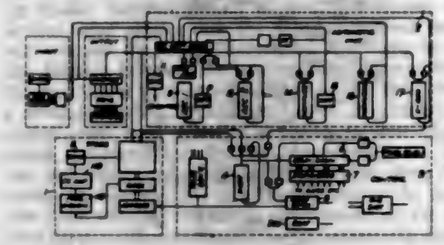
2,846,141
ANALOGUE COMPUTING APPARATUS
Roy Bailey, Woolhampton, and Gerhard Liebmann, Aldermaston, England, assignors to Smyic Controls Limited, London, England, a British company
Application August 24, 1953, Serial No. 376,166
Claims priority, application Great Britain August 28, 1952
5 Claims. (Cl. 235—61)



2. Electrical analogue computing apparatus for solving differential mathematical equations representing physical problems, comprising a resistance network representing at least part of the equation in finite difference form and having a series of nodal junction points, successive points representing successive position points of the finite difference equation, means for applying currents to the said nodal junction points and means for comparing the resulting potentials at the nodal junction points with required potential values satisfying the problem to be solved so as to derive error signals from the respective nodal junction points, cathode ray tube display apparatus including a tube the screen whereof has a long after glow, and multi-pole rotary switching apparatus for connecting the nodal junction points successively with the comparison and display apparatus to display all the error signals simultaneously.

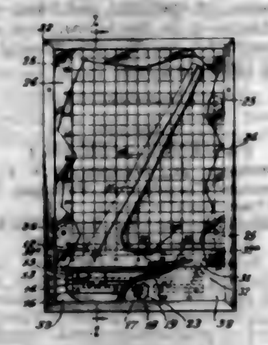
2,846,142
ELECTRONIC DIGITAL COMPUTING ENGINES
Christopher Strachey, London, England, and Donald Bruce Gillies, Toronto, Ontario, Canada, assignors to National Research Development Corporation, London, England, a British corporation
Application August 25, 1954, Serial No. 452,026
Claims priority, application Great Britain August 27, 1953
10 Claims. (Cl. 235—61)

2. In an electronic digital computing machine adapted to operate in the series mode with numbers whose sign is indicated by the digit signal in the position of highest significance in any number word and employing circulating delay line storage registers, apparatus for carrying out the process of multiplication comprising an accumulator storage register provided with its own circulation loop and having a circulation time shorter than the standard word time by one digit period, a multiplicand register also provided with its own circulation loop and having a circulation time equal to the standard word time, a multiplier register provided with its own circulation loop and having a circulation time which is shorter than the standard word time by one digit period, an adding circuit connected in the circulation loop of said accumulator register, a gate circuit connected between said multiplicand register and said adding circuit, means for controlling said gate circuit, said gate circuit control means comprising a control circuit connected between said multiplier register and said gate circuit, a transfer circuit for transferring digit signals from said accumulator register to said multiplier register and means for taking account of the signs of numbers to be multiplied, said sign-



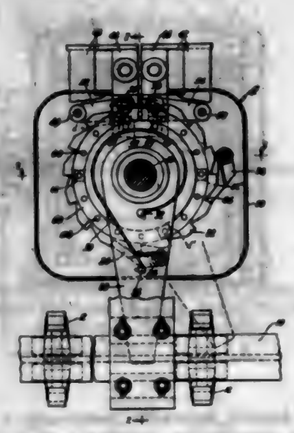
accounting means including means for copying the sign digit signal in the accumulator register into a later digit position on each recirculation of the signal around such register whereby said digit signal is maintained in its proper sign digit position in the accumulator register word despite progress of the other partial product digit signals in such register towards earlier digit positions as the multiplication operation proceeds and means for delaying the sign digit signal of the multiplicand passed through said gate to said adding circuit by one digit time whereby it is maintained in step with the sign digit signal of the partial product signal.

2,846,143
MECHANICAL CALIBRATION CHART
Harold A. Birkman, Homewood, and Joseph C. Rhodes, Park Forest, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application December 30, 1954, Serial No. 478,758
6 Claims. (Cl. 235—61)



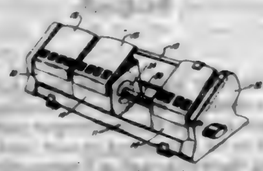
1. An apparatus for simulating a family of curves which comprises in combination a transparent blade, a curve on said blade, a translatable pivot for said blade, a rack and pinion means supporting said pivot, a guide pin means on said blade remote from said pivot, a guide slot accommodating said guide pin means, and a co-ordinate sheet over which said blade and curve are movable, said sheet being calibrated both as to ordinate and abscissa but containing no curve.

2,846,144
SWITCH OPERATING MECHANISM
Leonard E. Austin, John H. Ettinger, and Arthur E. Brown, Jr., South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application March 28, 1957, Serial No. 649,136
6 Claims. (Cl. 235—98)



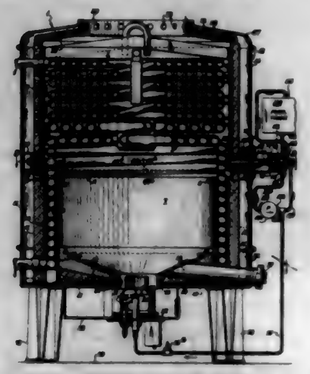
6. A counter mechanism adapted to be employed in a conveyor mechanism said counter mechanism including a housing member, a plurality of brackets secured, in juxtaposition, to the housing member, a plurality of switches mounted on said brackets, and switch operating means housed within said housing member and comprising a support post extending through said member, a pawl and ratchet unit, including a ratchet member comprising a plurality of equidistantly spaced block shaped lever operating members, rotatably mounted on said support post, a plurality of switch operating lever members pivotally mounted on the brackets and actuated by the lever operating members on the ratchet member, an arm member rotatably mounted on the post, and yieldable means secured at one of its ends to the housing member and at its other end to said arm, for rotating the arm to effect a switch operating operation of the ratchet member.

2,846,145
RESETTING MEANS FOR COUNTER ASSEMBLY
Anton Van Veen, Canton Centre, Conn.
Application March 2, 1954, Serial No. 413,556
2 Claims. (Cl. 235—144)



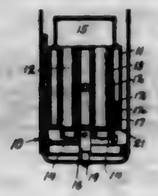
1. A group of hand counters mounted in alignment in a supporting frame, digit wheels in each of said counters, a sleeve in each counter on which the digit wheels of the counter are mounted, a transverse member mounted on each sleeve and having portions entering the space within its sleeve, and a rod passing through the sleeves of the group of counters and engaging surfaces of said transverse members, whereby rotation of said rod in one direction will simultaneously rotate said sleeves and digit wheels.

2,846,146
AUTOMATIC FUEL VALVE CONTROL MEANS
Perry Arant, San Gabriel, Calif., assignor to Clayton Manufacturing Company, El Monte, Calif., a corporation of California
Application June 23, 1955, Serial No. 517,438
20 Claims. (Cl. 236—38)



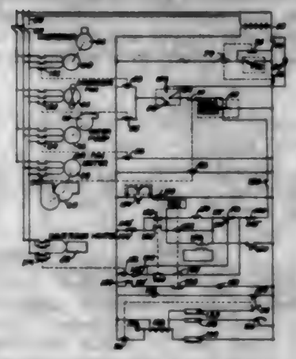
1. Fluid heating apparatus, comprising: a heating coil including a plurality of adjacent helical convolutions; means securing at least two of said convolutions together to form, in effect, a continuous heating tube ring; a fuel control valve; a supporting ring connected with said heating tube ring and supporting said fuel control valve relative to said heating tube ring, said heating tube ring being subject to combustion gas temperatures and said supporting ring being arranged to be subject to substantially ambient temperatures; and means responsive to the differential expansion between said supporting ring and said heating tube ring for actuating said fuel control valve.

2,846,147
NARROW RANGE THERMOSTAT
Richard T. Keating, Oak Park, Ill.
Application February 16, 1956, Serial No. 565,965
2 Claims. (Cl. 236—32)



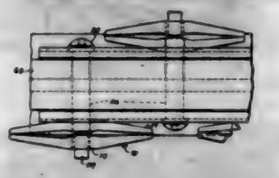
2. In a deep fryer including an open top frying vessel adapted to contain a quantity of cooking oil, with a heat exchanger of high thermal output within said vessel and arranged to be submerged in said cooking oil and in direct contact therewith, and a heating element for said heat exchanger, the combination of a thermostat controlling said heating element with a tubular thermostatic bulb of long, slender configuration bent intermediate its ends, with one end portion of said bulb offset from the other end portion thereof, and with one end of said bulb positioned in direct surface-to-surface contact with the aforementioned heat exchanger along only a portion of the length of said bulb, and with the offset portion of the bulb spaced substantially from the heat exchanger and submerged in and contacted only by the cooking oil within the vessel.

2,846,148
AIR HEATING SYSTEM
Thomas R. Dilworth, Hinsdale, and Max Ephraim, Jr., Chicago, Ill., and John T. Inieggio, Gary, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 15, 1955, Serial No. 529,408
3 Claims. (Cl. 237—8)



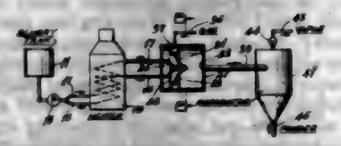
1. In a heating system for use in air conditioning a compartment, an air heating coil; means for circulating air for said compartment in thermal exchange relationship with said air heating coil; a fuel fired water heater; an electric water heater; a pump; conduit means connecting said air heating coil, said fuel fired heater, said electric water heater, and said pump in series flow relationship; first control means responsive to the temperature of the water for initiating operation of said fuel fired heater so as to elevate the temperature of said water to a predetermined value; second control means responsive to the temperature of the water for connecting said electric water heater to a source of electric power at water temperatures in the temperature zone above said predetermined value; means cooperatively associated with said first and second control means to prevent simultaneous energization of said fuel fired water heater and said electric heater whereby said electric water heater is disconnected from said source of electric power at a water temperature below said predetermined value and the operation of said fuel fired water heater is reinitiated; means for operating said pump continuously; and means responsive to the temperature of the air in said compartment for varying the amount of heat delivered to said air heating coil.

2,846,149
FASTENER ASSEMBLY
Jacob R. Newcomer, Jr., Westwood, N. J., assignor to Camloc Fastener Corporation, Paramus, N. J., a corporation of New York
Application July 12, 1956, Serial No. 597,479
8 Claims. (Cl. 238—248)



2. A compression fastening assembly for securing a plurality of members together which are provided with aligned openings, said assembly comprising a stud having a head which engages one of the members and a shank which passes through said openings and which is provided with a non-circular section and with radially extending lugs adjacent said section and having cam surfaces on their inner faces which are inclined relative to a plane normal to the longitudinal axis of the stud, said non-circular section lying between the lugs and the head, and an arched spring plate which is retained under compression against a second one of said members when the assembly is fastened and having a non-circular opening shaped to pass the lugs therethrough and to receive the non-circular section, two opposed walls of said opening having inwardly extending land portions whose outer faces are in juxtaposed relation to the inner faces of the lugs after the stud has been rotated to fastened position, the major diametrical axis of said non-circular shank section being greater than the distance between the land portions and the minor diametrical axis being less than the distance between the land portions to provide stop means limiting rotation of the stud to less than one-half a revolution when the same is turned in a fastening direction, said outer faces of the land portions being inclined complementary to said inner cam faces of the lugs and which are interengaged therewith when the assembly is fastened, the interengagement of the inclined cam faces effecting increasing compression on the spring plate upon rotation of the stud in an unfastening direction and thereby resisting such rotation.

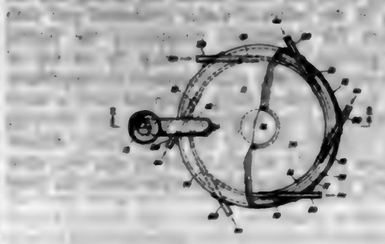
2,846,150
FLUID ENERGY GRINDING
Lincoln T. Work, Maplewood, N. J., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware
Application September 29, 1955, Serial No. 537,386
18 Claims. (Cl. 241—5)



1. A method for reducing the size of coarse particles of a solid material comprising forming a flowable mixture of said coarse particles in a vaporizable liquid; forcing said mixture through a heating zone while heating said mixture sufficiently to vaporize a substantial amount of said liquid and form a flowing dispersion of particles in vapor flowing under pressure at a relatively low velocity; forming said dispersion into a pair of streams flowing at a relatively much higher velocity; and impinging said streams against each other at an angle of 180° while suddenly reducing the pressure thereof, thereby dissipating the velocity of said streams and creating great turbulence.

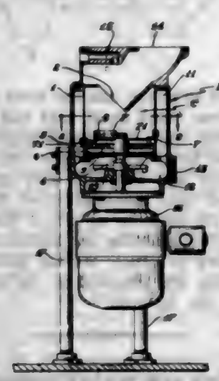
2,846,151
SELECTIVE DISINTEGRATION AND SEPARATION OF PIGMENTS
Julius Weiss, Leverkusen, Werner Busch, Leverkusen-Bayerwerk, Joachim Reckstroh, Leverkusen, and Walter Bonnhausen, Fritz Kaiser, and Hans Rumpf, Augsburg, Germany, assignors of one-third each to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany, a corporation of Germany, National Lead Company, New York, N. Y., and Alpine Aktiengesellschaft, Augsburg, Germany, a corporation of Germany
Application August 13, 1954, Serial No. 449,744
Claims priority, application Germany August 17, 1953
6 Claims. (Cl. 241—14)

1. Method for disintegrating a heterogeneous mixture of solid fractions of varying degrees of hardness to form a finely divided product of uniform particle size and quality comprising the steps of: introducing said heterogeneous mixture into a circulating body of gaseous fluid, selectively separating and removing the relatively hard fractions of said mixture substantially intact from



the circulating gaseous fluid and simultaneously disintegrating the soft fractions of the mixture.

2,846,152
DISPOSER
James N. Brophy, Wakefield, Mass.
Application February 8, 1954, Serial No. 408,829
6 Claims. (Cl. 241—43)

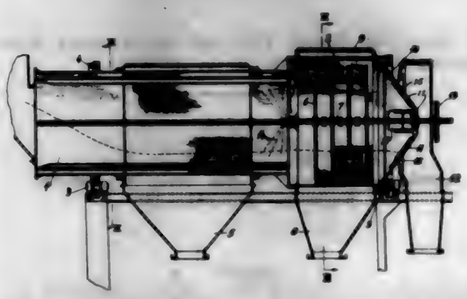


1. In a disposer device, a comminuting chamber, comprising an open top, closed bottom perforated cylindrical screen, the walls of which are of substantial thickness and the perforations of which have uniformly smaller inner than outer diameters, an axially positioned rotatable shaft upon which are secured offset rotor bars of different lengths, means for rotating said shaft and bars, spaced and staggered cutters secured to and projecting horizontally from the inner walls of the screen, said cutters being so staggered and spaced as to be in effective cutting relation with a shorter rotor bar, the multiplicity of cutting edges of the perforations cooperating with a longer bar to further comminute the solid matter and cause said further reduced matter to be pushed by said longer bar through a screen to a receiving area from where it enters a sewer outlet.

2,846,153
DRUM SIEVE WITH COMMINUTING ARMS AND SPRAYING MEANS THEREIN
Kristian Poulsen Krogh, Charlottenlund, near Copenhagen, Denmark
Application May 4, 1955, Serial No. 506,036
2 Claims. (Cl. 241—62)

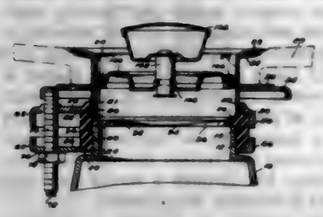
1. A drum sieve structure for the continuous treatment of rubbish and garbage material comprising at least two rigidly inter-connected drum sieves disposed coaxially in series with one another and defining respective compartments having their adjacent ends in open communication with each other, for free passage of the material through said drum sieves, and being as a unit

rotatable about their common axis, the foremost compartment being equipped with means for sifting out the finer portions of the material under treatment and with spraying means for selectively moistening the lighter rubbish and garbage components which lie on top of the bulk of material within said foremost compartment, the rearmost compartment being equipped with a shaft rotatable relatively to its respective sieve and carrying arms for the comminuation of the more easily disintegratable portions of said material, and an end wall closing the rear end of said rearmost compartment, the front



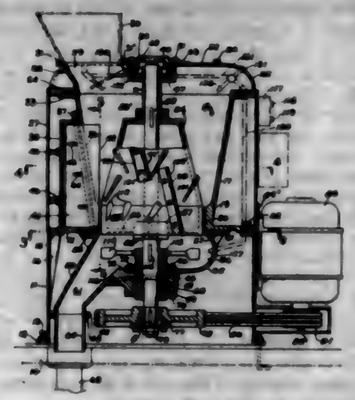
end of the drum structure and the front end of the foremost compartment being open, said end wall being provided with damper adjustable holes larger than the holes of said rearmost sieve, said holes in the end wall being disposed adjacent said common axis and remote from the periphery of said rearmost sieve, thereby allowing larger parts of the material to escape from the rearmost compartment, thus enabling an uninterrupted operation of the drum sieve structure, and an automatic and continuous separating and removal of the non-disintegrated larger parts of the material.

2,846,154
SINK MOUNT FOR WASTE DISPOSAL UNITS
Eugene E. Wieczorek, Racine, Wis., assignor to In-Sink-Erator Manufacturing Company, Racine, Wis., a corporation of Wisconsin
Application February 17, 1955, Serial No. 488,756
5 Claims. (Cl. 241—100.5)



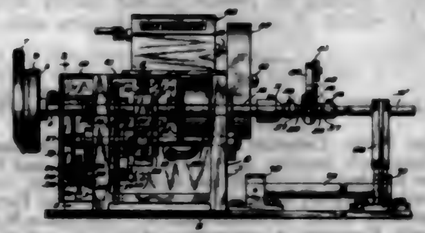
3. A supporting assembly for waste disposal units for suspending the comminuting chamber and drive motor on a drain collar positioned in a sink opening, which comprises, an annular outwardly extending shoulder on said drain collar adjacent the bottom thereof, an annular plate around said collar above and supported by said shoulder, a second annular plate below said first plate and below said collar, a resilient sound and vibration cushion between said plates and supported on said lower plate, means acting on said plates to exert axial pressure on said cushion, said cushion having an annular opening grooved at the top to receive the throat of a comminuting chamber and an outwardly extending annular flange thereon, said comminuting chamber receiving its entire support from said resilient member.

2,846,155
REFUSE DISPOSAL APPARATUS
Harry Hilger, Detroit, Mich.
Application April 1, 1954, Serial No. 420,286
5 Claims. (Cl. 241—257)



4. In a refuse disposal apparatus, a casing including a converging receiving chamber, an inlet passageway connected to the upper end thereof, a delivery chamber depending from the lower end of said receiving chamber, an outlet chamber communicating with the lower end of said delivery chamber and an outlet passage of reduced dimension depending from said outlet chamber, said casing having a series of upright spaced slots formed therethrough communicating with said receiving and delivery chambers, upright radially adjustable blades secured to said casing in said slots and projecting into said receiving and delivery chambers, a rotatable rotor journaled and supported within said casing within said receiving and delivery chambers, angularly inclined spaced blades secured to said rotor and having outer cutting blades adapted to meet in successive and progressive shearing engagement with the edges of said casing blades substantially through the entire length thereof, said rotor having formed therein adjacent its lower end a series of elongated concave slots inclined at an acute angle to said rotor blades.

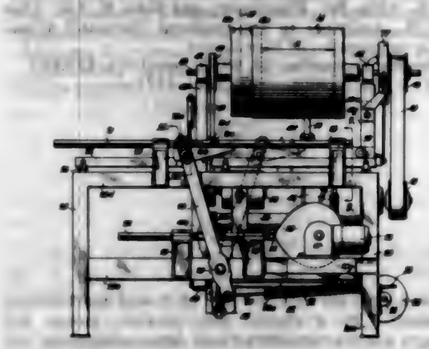
2,846,156
UNIVERSAL COIL WINDING MACHINE
Hubert W. Flanagan, Chicago, Ill.
Application April 1, 1954, Serial No. 420,381
4 Claims. (Cl. 242—9)



1. In a coil winding apparatus, the combination of a rotatable coil form supporting mandrel, a reciprocable conductor guide member positioned adjacent to said mandrel for guiding a conductor as the same is wound around a coil form supported by said mandrel, a reciprocable guide shaft for reciprocably mounting said reciprocable conductor guide member, a rotatable shaft operatively connected to said mandrel and rotatable in predetermined relation with respect to the latter, a cylindrical cam member carried by said rotatable shaft having a continuous circumferentially extending cam groove

therein, a carriage provided with a bore for operatively mounting said reciprocable guide shaft and rigidly related to said guide member and also having a bore therein parallel to said bore for said reciprocable guide shaft and of a size to concentrically receive said cam member, said carriage having a bore therein extending diametrically with respect to the cam-receiving bore therein and intersecting the latter, a ball of greater diameter than the width of said cam groove and of slightly less diameter than that of said intersecting bore, positioned in the latter and extending into said cam groove, a coiled compression spring positioned in said intersecting bore with one end of said spring engaging said ball, adjustable means engaging the opposite end of said spring for varying the force exerted by said spring on said ball, said carriage also having a threaded bore angularly related to said intersecting bore and intersecting said bore for the reciprocable guide shaft, and securing means complementally formed to said threaded bore for detachably affixing said carriage to said reciprocable guide shaft.

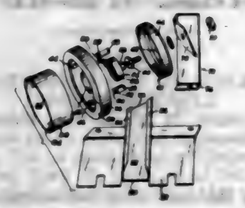
2,846,157
APPARATUS FOR WINDING SUPERFINE GLASS FIBER
Joseph F. Stephens, Kansas City, Mo., and George H. Sowers, Spring Hill, Kans., assignors to Gustin-Bacon Manufacturing Company, a corporation of Missouri
Application May 11, 1953, Serial No. 353,964
12 Claims. (Cl. 242—18)



1. In fiber-manufacturing apparatus of the type employing a rotary drum to draw the fiber from a fiber generating device and wind up the fiber as it is drawn, a stationary base, a carriage mounted on said base for reciprocatory movement, said drum being rotatably supported on said carriage with its axis substantially parallel to the direction of said movement, a prime mover connected to the drum to turn same, a driving member supported on said base for rectilinear movement in a direction paralleling the path of the carriage, power means connected to said driving member for reciprocating same between two fixed end portions, coacting latch elements on said member and carriage respectively for releasably connecting the two together to cause the carriage to travel with said member, and mechanism operative at times when said carriage is disconnected from said member for moving the carriage beyond the zone defined by the limits between which it travels when connected to said member.

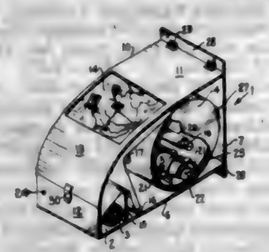
2,846,158
TAPE STORAGE DEVICE AND SPOOLING APPARATUS FOR LOADING THE SAME
William L. Hendershot, Midland, Mich.
Application May 19, 1955, Serial No. 507,411
2 Claims. (Cl. 242—55)

1. Tape spooling apparatus comprising a tape guide having a tape input end, a tape discharge end and a tape channel therebetween, said channel being wider than the tape which is to pass therethrough, a tape receiving cup-like spool having a rim, side wall and bottom, said bottom having included therein a magnetic material, and a freely rotatable spool retainer and positioner adapted to receive and hold said spool, said spool retainer and positioner including a disc of non magnetic material whose diameter exceeds the diameter of the spool, said disc having a shallow bore in the side therof which faces said spool, the diameter of the shallow bore being slightly larger than the diameter of spool near the bottom thereof, the bore being so dimensioned that the bottom part of the cup-like spool fits closely but freely within the bore, a second bore extending into said disc from the side opposite the shallow bore side, said shallow bore and said second bore each being concentric with the disc, a pair of cut-



outs extending through said disc, said cutouts being disposed symmetrically and on opposite side of the second bore, the cutouts opening into the bottom of the shallow bore, a magnetic element in each cutout, each element having a pole piece facing the bottom of the shallow bore, a bearing disposed in and secured to the second bore, a shaft extending from said bearing on the side of said disc opposite to said shallow bore, a mounting bracket, means securing said shaft to said mounting bracket, said mounting bracket and said tape guide being so disposed in predetermined spatial relationship that when a spool is in place in said spool retainer and positioner the discharge end of said tape guide is adjacent to but spaced from said spool and is so aligned with respect to the spool that tape emanating from the tape guide strikes the wall of the spool at a small acute angle with respect to the bottom of the spool.

2,846,159
ROAD GUIDE
Dwight W. Reynolds, Pilot Hill, Calif.
Application January 15, 1954, Serial No. 404,198
2 Claims. (Cl. 242—67.1)



1. In a road guide including a guide strip for a motor vehicle, a housing having a flat side wall and having a shaft projecting perpendicularly from the latter, a hollow cylinder having an end wall and an axial sleeve attached to and projecting inwardly from the end wall through the full length of the cylinder and made to form an

open-ended annular chamber therewith, the sleeve having a sliding fit on the shaft and being operable for moving toward the side wall for bringing the inner ends of the sleeve and the cylinder up against the side wall, with the open end of the chamber facing said wall, the sleeve being revolvable on the shaft, a motor within said chamber, means anchored to the side wall for supporting said motor, a driving connection between the motor and the cylinder, and means in the housing for guiding said guide strip upon the cylinder.

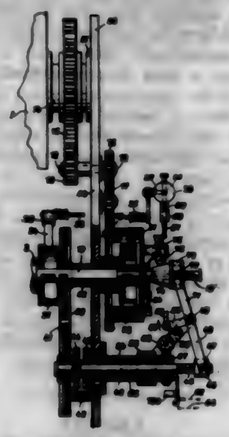
2,846,160
SEPARABLE MOTION PICTURE FILM REEL
Louis S. Thomason, Mamaroneck, N. Y., assignor to Technicolor Enterprises, Inc., New York, N. Y., a corporation of New York
Application November 6, 1952, Serial No. 319,102
2 Claims. (Cl. 242—71.8)



1. A reel of the class described comprising a pair of separable side members, each having a circularly arranged group of openings adjacent the center thereof, a plurality of cylindrical members fixedly secured at one end in the openings of one of said side members and with the other ends of said cylindrical members releasably engaged in the openings of the other of said side members, a hub positioned between said side members and including a flat circular plate having a group of circularly arranged openings for slidably assembling the hub on said cylindrical members to position the plate of the hub in confronting relation at the inner surface of one of the side members adjacent the fixed ends of the cylindrical members, said group of openings in which said cylindrical members are releasably engaged being of tapering formation, circumferential grooves in the adjacent end portions of said cylindrical members lockably engaged in said tapered openings upon a partial rotary movement of one side member relative to the other, and a resilient clip carried by one of said side members and lockably engaging one of said cylindrical members to oppose unlocking rotary movement of said side members.

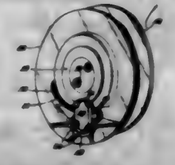
2,846,161
APPARATUS FOR WINDING AND UNWINDING FLEXIBLE MEMBERS OF TEXTILE MACHINES AND THE LIKE
Arno Becker, Stuttgart-Vaihingen, Germany, assignor to Wilhelm Muller, Stuttgart-Vaihingen, Germany
Application May 25, 1953, Serial No. 357,313
16 Claims. (Cl. 242—75.47)

1. In a machine for processing textiles, in combination, support means; a roll turnably mounted on said support means; an elongated flexible member wound on said roll and adapted to be pulled from and rewound on said roll; brake means operatively connected to said roll for resisting rotation thereof so as to tension said flexible member while the latter is pulled from said roll; drive means operatively connected to said roll for turning the latter to rewind said flexible member, said drive means including a friction clutch for transmitting a drive to said roll; and control means operatively connected to said brake means and said friction clutch for gradually decreasing the braking force of said brake means during unwinding of said flexible member from said roll so as to maintain the tension in the flexible member substantially constant, and for gradually decreasing the slippage in said friction clutch during rewinding of said flexible member onto said roll so as to also maintain



the tension in said flexible member substantially constant during rewinding thereof onto said roll.

2,846,162
CABLE DRUM
George S. Allin, Sr., Flossmoor, and John K. Lin, Chicago, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application September 12, 1955, Serial No. 533,687
2 Claims. (Cl. 242—117)

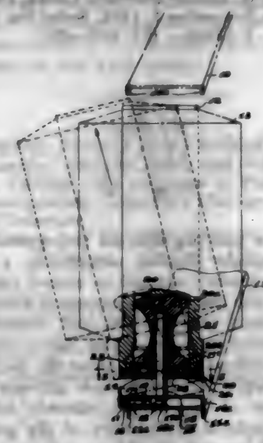


1. In a cable drum having a pair of spaced apart flanges interconnected by a central hub portion, means for anchoring a cable externally of said drum comprising: an opening formed through one of said flanges of said cable drum for extending said cable externally of said drum, a snubbing member having the peripheral edge portions thereof shaped to substantially conform to the shape of said cable when the end portion of said cable is bent as a close loop and having a thickness less than the diameter of said cable, a slotted portion formed on the outer surface of said one of said flanges for receiving said snubbing member with said cable snubbed thereabout, said slotted portion having walls converging toward said opening whereby said snubbing member and said snubbed cable are wedged therewithin by any pull along the length of said cable toward said opening, and a clamping plate secured to said one of said flanges across said slotted portion and against said cable to clamp said snubbed cable within said slotted portion.

2,846,163
SUPPLY BOBBIN MOUNT FOR SPINNING MACHINES, ETC.
Robert C. Stalker, Orlando, Fla.
Application February 25, 1954, Serial No. 411,509
7 Claims. (Cl. 242—130)

1. The combination with a fixed portion of a thread spinning machine or the like; of a rotatable support for a thread supply bobbin, a mount for said support, tiltable means adjacent one edge of said mount securing said

mount to said fixed machine portion, and said mount normally supported by the latter under the action of



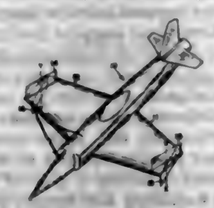
gravity to dispose said support in its untilted position when said machine is in operation.

2,846,164
VERTICAL TAKE-OFF AND LANDING AIRCRAFT
Erich Haberkorn, Dammarie-les-Lys, France, assignor to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a French company
Application November 21, 1956, Serial No. 623,616
Claims priority, application France November 22, 1955
5 Claims. (Cl. 244—12)



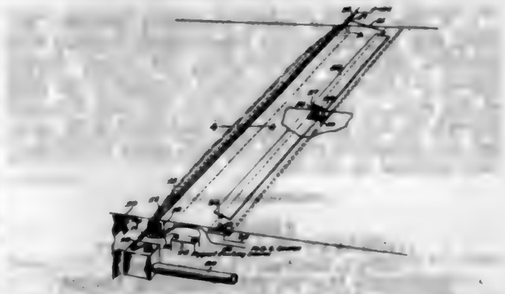
1. In a vertical take-off and landing aircraft having an annular wing, a plurality of flaps distributed along the trailing edge of said annular wing and pivotable to a position wherein said flaps are retracted flush into said swing and to a position wherein said flaps protrude from both the outer and inner surfaces of said wing, and controllable means for displacing at least some of said flaps longitudinally toward the rear of said trailing edge to form supports for said aircraft on the ground.

2,846,165
AIRCRAFT CONTROL SYSTEM
John A. Axelson, Los Altos, Calif.
Application June 25, 1956, Serial No. 593,778
5 Claims. (Cl. 244—90)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An arrangement for providing lateral control of an aircraft of the monoplane type having a fuselage and a yaw axis about which it is adapted to yaw, wings extending laterally from both sides of said fuselage, each of said wings having a leading edge and a trailing edge disposed rearwardly of said leading edge, at least one auxiliary airfoil extending in a direction essentially normal to the surface of said wings and supported by and being positioned adjacent the tip of each of said wings, each of said auxiliary airfoils extending over the majority of the tip chords of said wings so as to develop a maximum pressure field and being mounted so as to maintain a minimum gap between it and the wing associated therewith and thus precludes any appreciable leakage of air through said gap, each of said airfoils having a control axis passing therethrough and being pivoted for rotation about such control axis, each of said control axes being substantially parallel to said yaw axis and being disposed forwardly of the trailing edge of the associated wing, and means for controlling the movement of said airfoils to selectively control the development of differential pressure fields and hence the amount of loading induced on said wings by transfer of such pressure fields thereto in a direction normal to the wing surface.

2,846,166
POP-UP MEANS FOR AN AIRCRAFT ARRESTING CABLE
Charles J. Daniels and Edward H. Haber, Wilmington, Del., assignors to All American Engineering Company, Wilmington, Del., a corporation of Delaware
Application April 25, 1956, Serial No. 580,518
6 Claims. (Cl. 244—110)



6. Means for arresting a mobile object comprising an electrically conductive arrest cable, magnetic means mounted in the surface on which said mobile object is travelling for supporting said arrest cable in a flush surface position, control means for electrically energizing said cable from an electric power source in cooperative relationship with said magnetic means causing said cable to pop up to an elevated position from said flush surface position when the cable is energized, said control means comprising a weight actuated switch mounted in said surface in advance of the said cable and connected between said electric power source and said arrest cable to energize said arrest cable, whereby the said cable while energized will be maintained elevated above said surface.

2,846,167
AIRCRAFT PANEL CONSTRUCTION
Robert L. Walsh, Washington, D. C.
Application May 31, 1956, Serial No. 588,378
9 Claims. (Cl. 244—124)



8. A panel assembly for aircraft wing construction comprising a plurality of similar panels placed edge-to-edge to form a spanwise strip, each of said panels consisting of a pair of surface members, each of said surface members comprising a pair of sheets having spacing members therebetween, the edges of said sheets secured

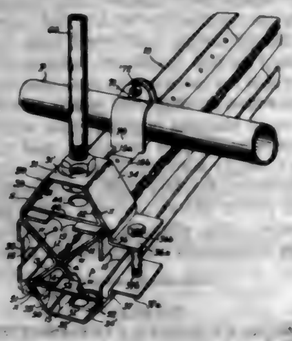
to the inside edges of a quadrilateral frame, a strip member between adjacent edges of said panel formed to interlock with the edges thereof, said strip extending chordwise for the full length of the edge of said panel, other strip members extending longitudinally of said spanwise strip of panels and interlocking therewith to secure a plurality of strips of panels together in interlocking relationship to form a unitary wing panel construction.

2,846,168
PIPE TRESTLE
Edwin A. Schroeter, Schuyler, Nebr.
Application August 8, 1956, Serial No. 602,699
3 Claims. (Cl. 248—49)



1. A pipe carrying trestle comprising upwardly disposed legs, said legs having longitudinally disposed slots extended substantially throughout the length thereof therein and transversely positioned openings at the sides of the slots, a bolt positioned with the ends extended through the slots of the legs, pins positioned in the openings for supporting ends of the bolt, and a cradle pivotally mounted on the bolt.

2,846,169
FOUR-WAY CHANNEL SUPPORT
John J. Sullivan, Cleveland, Ohio
Application May 18, 1953, Serial No. 355,451
5 Claims. (Cl. 248—42)



2. Support means of the type described comprising a plurality of elongated support elements identically formed and substantially triangular in cross section a pair of sides of each of said support elements intersecting to form an apex, each side of said pair of sides being integrally secured to a side of a different support element, the apices of each element being directed to a common center, an outer side of each of said support elements being provided medially with an elongated slot from end-to-end whereby said side is provided with a pair of elongated portions disposed in spaced parallel relation to each other, clamp means engaged with the said outer side of at least one of said elongated support elements and adapted to be associated with supportable units.

2,846,170
GOLF BAG STAND
Glen H. Huber, Downers Grove, Ill.
Application November 1, 1954, Serial No. 466,111
1 Claim. (Cl. 248—96)



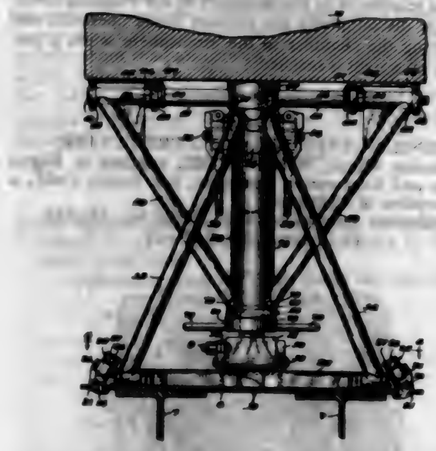
A stand for a golf bag adapted to support a bag in a substantially upright position comprising, a first elongated channel member adapted to extend longitudinally of a golf bag with the flanges extending away from the bag, spaced straps connected to said channel member adapted to detachably secure a golf bag to said member, a projecting member extending from the bottom of the first channel member in a direction opposite to the extending direction of said flanges, whereby said member is adapted to underlie the bottom of the golf bag and define a rest to prevent relative movement between the bag and stand when the stand is supporting the bag in a substantially upright position and space the bottom of the bag above the ground, a second elongated channel member having its flanges extending towards the golf bag and pivotally connected at its upper end to the upper end of said first channel member, said channel members being of substantially the same length, one of said channel members having a greater cross section than the other channel member, whereby when the channel members are in folded position the flanges of one channel member are nested within the flanges of the other channel member, a stabilizing bar transversely mounted at the lower free end of said second member, a yieldable clip on said first member adapted to hold said second member in folded position, and notches formed in the flanges of said first member adapted to engage the upper end of said second member and limit its pivotal movement away from said first member.

2,846,171
TELESCOPING SUPPORT UNIT
Henry Kronhaus, Brooklyn, N. Y.
Application January 15, 1957, Serial No. 634,311
2 Claims. (Cl. 248—161)



1. A telescoping support unit for lamps, comprising in combination, a lower base member having support means at one end and a pair of longitudinally spaced apart brackets at the opposite end, an upper member slidably received within aligned openings in said brackets for longitudinal movement, and lock means carried by one said bracket for locking said upper member in an adjusted longitudinal position relative to said lower member, said one bracket having a pair of spaced parallel and downwardly extending side flanges, each of said side flanges defining an opening, and said lock means comprising a lever having portions at one end pivotally supported within said openings in said side flanges, said lever having a central opening adapted to register with said bracket openings to permit relative sliding movement of said upper member, and spring means normally urging said lever out of said alignment to engage in binding relationship with said upper member, said lower bracket comprising brake means in rolling engagement with said upper member for retarding downward movement of said upper member relative to said lower member in response to the release of said lock means.

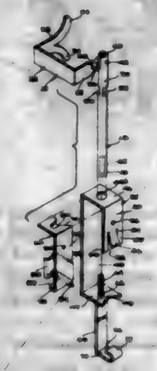
2,846,172
FIFTH-WHEEL STAND FOR FREIGHT VEHICLES
Jack E. Gutridge, Munster, Ind., and William E. Gribnitz, Jr., Chicago, Ill., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application July 29, 1954, Serial No. 446,631
8 Claims. (Cl. 248—185)



1. A fifth-wheel stand comprising a base, a standard having one end pivotally connected to the base, a first pair of arms arranged in converging relation with respect to each other and having their diverging ends pivotally connected to one side of the base, a second pair of arms arranged in converging relation with respect to each other and having their diverging ends pivotally connected to the other side of the base, a first section secured to the other ends of the first pair of arms, a second section secured to the other ends of the second pair of arms and the first and second sections being adapted to engage the standard when the latter is in a vertical position and releasable means on the first and second sections for securing them together, the first pair of arms being adapted to pivot outwardly away from the base to collapsed position and the second pair of arms being adapted to pivot outwardly away from the base to collapsed position and the standard being adapted to pivot over onto either the first pair of arms or the second pair of arms in the collapsed position.

2,846,173
PAINT CONTAINER HOLDING DEVICE
Floyd E. Grevenstein, Middleton, Wis.
Application April 9, 1954, Serial No. 422,133
6 Claims. (Cl. 248—210)

6. A container support and clamp device comprising a first jaw member and a second jaw member adapted to clamp a container therebetween, a bracket for attachment to an inclined support surface, a shaft carried at one end by said bracket for pivotal movement about a horizontal axis, said shaft extending through said first jaw, said second jaw being connected by threaded engagement with the other end of said shaft for movement toward and away from said first jaw upon rotation of said shaft, and a lock means carried by said first jaw for pivotal movement from a position remote from said shaft to a position intersecting and releasably engaging said shaft to prevent rotation thereof, said first jaw including a side wall in spaced relation to said shaft, a pair of spaced upper and lower end walls extending laterally from said side wall, said upper end wall having an aperture therethrough to receive said shaft, said upper end wall having a lip dependingly carried by the end thereof remote from said side wall, said lip having con-



tainer gripping means formed on the end thereof remote from said upper end wall to engage the upper rim of the container; said second jaw having a foot extending laterally therefrom at the end thereof remote from the threaded connection to said shaft, said foot carrying container gripping means at the free end thereof in alignment with said gripping means on the first jaw member for clampingly engaging the lower rim of the container.

2,846,174
DETACHABLE BRACKETS
Donald N. Sewell, West Chester, Pa., assignor to Wind Turbine Company, a corporation of Pennsylvania
Application July 15, 1953, Serial No. 368,109
3 Claims. (Cl. 248—223)

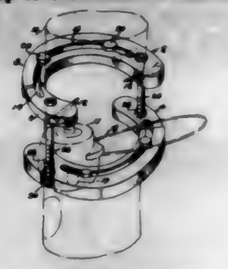


1. A supporting bracket comprising resilient rod-like material formed into an elongated U-shaped loop having substantially straight legs extending from a yoke portion in substantially parallel relation, one leg of said loop having the end portion thereof bent substantially at right angles to the axis of the main portion of the leg and extending across a straight portion of the opposite leg of the loop to form a bridge portion, and a terminal portion of said bridge portion being formed as an open hook for releasable hook-engagement with the said straight portion of the opposite leg of said loop, and a bracket arm extending away from said loop at the end of said other leg substantially at right angles thereto.

2,846,175
SUPPORT FOR TREE-TOPPING APPARATUS
David Sexton, Irvington, N. J.
Application January 18, 1954, Serial No. 404,610
1 Claim. (Cl. 248—230)

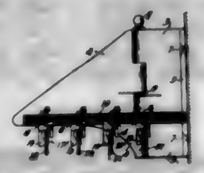
In a support for the saw of a tree-topping apparatus, the combination of a pair of arcuate saw-supporting straps,

each strap comprising two telescoping, relatively adjustable sections for varying the length of the strap to accommodate tree trunks of different diameters, the two sections of each strap being provided with arcuate slots; bolts passing through said slots for clamping the two sections of each strap to each other to hold the sections in



adjusted position; tie bolts for attaching the saw-supporting straps to each other with the concaved faces of the straps facing each other in vertically spaced relation, said bolts being adjustable to vary the vertical distance between straps; and means carried by the straps for anchoring the straps to a tree trunk.

2,846,176
HANGER
Virgile E. Provost, Cohoes, N. Y.
Application February 17, 1953, Serial No. 337,280
2 Claims. (Cl. 248—317)



1. A clip for a hanger of the character described comprising a top portion; a portion depending from said top portion forming a fixed jaw of said clip and having a cylindrical passage extending transversely therethrough adjacent said top portion; a movable jaw having a cylindrical portion pivotally fitted in said passage and forming therewith a hinge for said movable jaw; and a spring formed of a single piece of wire having spaced first portions embracing the sides of said fixed jaw and cooperating with said movable jaw for holding said movable jaw in hinge-forming relation with said fixed jaw, spaced second portions cooperating with said movable jaw and biased normally to hold said movable jaw in contact with said fixed jaw, and helical portions between said first and second portions; said top portion having outwardly projecting portions on oppositely disposed sides thereof adapted slidably to interfit in a groove having sidewalls substantially complementary to said projecting portions adapted to suspend said hanger from a shelf having said groove in the under side thereof.

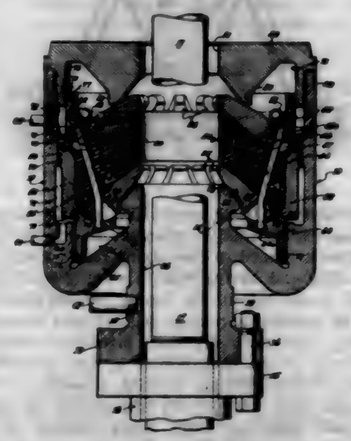
2,846,177
VACUUM FILLING AND WEIGHING MACHINE
Max Knobel, Boston, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts
Application October 4, 1955, Serial No. 538,444
12 Claims. (Cl. 249—63)

1. In a machine of the character described, in combination, weighing mechanism, vacuum filling means operatively connected to a supply of material, means enclosing the weighing mechanism and the vacuum filling means in an airtight chamber, said vacuum filling means including means for evacuating the chamber and withdrawing the material from the supply to be received by said weighing mechanism, and control means associated



with and responsive to the operation of the weighing mechanism for discontinuing the vacuum filling operation and for opening the chamber to the atmosphere when a predetermined weight is reached.

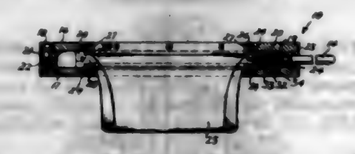
2,846,178
CONICAL-TYPE BLOWOUT PREVENTER
Burt Stanley Minor, Whittier, Calif., assignor to Regan Forge and Engineering Company, San Pedro, Calif., a corporation of California
Application January 24, 1955, Serial No. 483,686
17 Claims. (Cl. 251—2)



16. In combination in a blowout preventer: a deformable frusto-conical solid tough rubber packer body providing a vertical axis and having an axial opening therethrough for passing an elongated structure, and having substantially uniform thickness between its outer and inner frusto-conical walls; tubular housing means for retaining the outer periphery of said packer body; annular fulcrum means carried internally in said housing means; means fulcrumed on said fulcrum means and engaging the outer wall of said frusto-conical packer body and movable toward the axis of said housing means for flattening said deformable packer body into a disc-like deformed condition; and means to pivotally move said fulcrumed means about said fulcrum to deform said body.

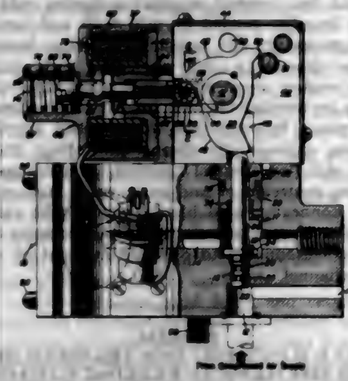
2,846,179
SLEEVE VALVE
Mary Catherine Monckton, New York, N. Y.
Application November 16, 1956, Serial No. 622,568
3 Claims. (Cl. 251—4)

1. A valve assembly adapted for attachment in a duct comprising cylindrical housing with planar transverse end faces and an axial passageway intersecting and encompassed by the said faces, including a transverse internal cavity in the said housing between the end faces and encompassing concentrically the said passageway in combination with a disc rotatably mounted in the cavity for rotation about the said passageway axis, said disc having an aperture aligned with the said passageway, in further combination with a sleeve of flexible material having one end secured to the housing adjacent one of



said faces and the other end of the sleeve secured to the housing adjacent the other of said faces wherein the sleeve material between the sleeve ends is suspended loosely about the passageway in further combination with means encompassing the sleeve and secured to the said disc which cause a uniform contraction of the sleeve opening in response to rotation of the said disc in one direction.

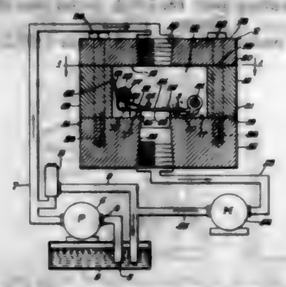
2,846,180
AIR SHUT-OFF VALVE
Sverre Kongelbeck, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application April 25, 1955, Serial No. 503,838
4 Claims. (Cl. 251—68)



1. A valve mechanism, comprising, structure having a passageway therein, means slidably mounted in said structure and having an open and a closed position with respect to said passageway, means rotatably supported for controlling the position of said first-mentioned means and having a projection thereon, solenoid actuator means including a movable armature with a plunger therein, means on said plunger to engage said projection and lock said rotatable means whereby said first-mentioned means is maintained in a closed position, and means to actuate said solenoid and thereby move said armature and plunger and release said rotatably supported means whereby said first-mentioned means is allowed to move to an open position.

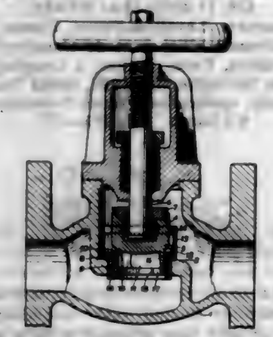
2,846,181
HYDRAULIC DIAPHRAGM VALVE
John R. Orelind, Wilmette, and Vinson R. Simpson, Sr., Forest Park, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application June 3, 1955, Serial No. 512,928
2 Claims. (Cl. 251—359)

1. In a valve having a body with a high pressure chamber and inlet and outlet ports communicating with said chamber, a raised seat about said outlet port substantially in the form of an isosceles triangle, a spring metal valve plate having a generally triangular portion seated upon said seat in the closed position of said valve, said portion having a tapered end overhanging a corresponding corner of said seat and having a base opposite said end, means pivotally mounting said plate at said base for swinging movement toward and away with respect to said seat, means for lifting said plate off said seat comprising a



finger disposed in underposed relation to said tapered end and operative upon actuation thereof to peel said plate off said seat by bending said plate to crack open the adjacent corner to relieve the pressure acting on the side of said plate immediately opposite the adjacent portion of said seat to accommodating swinging said plate off said seat with minimum effort against the resistance of pressure fluid in said chamber.

2,846,182
FLUID-CONTROL VALVES
Henry E. Charlton, Ashton-on-Mersey, England, assignor to Refinery Equipment & Specialty Company Limited, Manchester, England
Application May 3, 1954, Serial No. 427,149
Claims priority, application Great Britain March 3, 1950
3 Claims. (Cl. 251—318)



1. A fluid-control valve comprising within a valve casing, a valve seat bounding a valve aperture, a valve plug cooperating with the valve seat and movable axially relative to the valve aperture for opening and closing the valve and formed with a cylindrical outer surface of an axial length greater than the length of its permitted stroke, a cylindrical surface forming a cylindrical bore in register with the valve aperture and on the side thereof remote from the valve plug and of a length greater than the permitted stroke of the valve plug, a first slit ring held in a fixed position coaxially with respect to the valve aperture and formed of arcuate parts biased inwardly towards the center of said ring and making sliding engagement with said cylindrical outer surface of the valve plug in all positions of the valve plug and a second slit ring attached to the valve plug by spaced connecting members passing through the valve aperture and formed

of arcuate parts biased outwardly from the center of said ring and making sliding engagement with the cylindrical surface forming the cylindrical bore in all positions of the valve plug.

2,846,183
RETAINING DEVICES FOR TURBINE BLADES
William C. Morgan, Westlake, Ohio
Application July 18, 1952, Serial No. 299,780
5 Claims. (Cl. 253—77)
(Granted under Title 35, U. S. Code (1952), sec. 266)



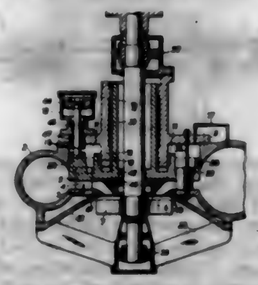
4. A blade mounting comprising a hub having a rim, a transverse channel in the outer surface of said rim provided with transverse grooves in the channel surfaces, a blade mounted in said rim channel and having a base conforming in shape to said rim channel and provided with transverse ridges formed for loose interlocking sliding connection with the rim channel grooves, a lock element interposed between said hub rim and blade base and engaging said rim and blade base for preventing transverse sliding movement of said ridges in the rim grooves, and adjustable means attached to said hub and engageable with said lock element for fixing the spacing between said ridges and grooves, whereby the rocking movement of the blade relative to the drum may be controlled.

2,846,184
LOCKING DEVICE FOR THE MOVING BLADES OF TURBO-MACHINES
Marcel J. Tournès, Levallois-Perret, France, assignor to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a company of France
Application November 15, 1955, Serial No. 546,987
Claims priority, application France November 26, 1954
6 Claims. (Cl. 253—77)



1. A bladed wheel comprising a rotor bearing spaced protruding portions having sides bounding peripheral recesses and an end face provided with a groove lying on a circle whose radius is substantially equal to the distance of the bottom of said recesses from the axis of the rotor, blades having roots slidably accommodated in said recesses, the sides of said protruding portions and said roots having cooperating surfaces that prevent radial outward displacement of the roots, said roots having an end remote from and a part adjacent to said end face, shaped to leave said circle unobstructed whereby an uninterrupted passage is formed along said circle through said grooves and across said roots, a wire extending along said passage, a flange member mounted on said rotor and engaging said parts of the roots and covering said grooves, and blade locking plates extending underneath said roots and attached at one end to said wire and at the other to said end of said roots whereby said blades are secured against axial displacement in said recesses.

2,846,185
FULL ADMISSION IMPULSE TURBINE
Hans Ulrich Widmer, Zurich, Switzerland, assignor to Société financière d'Expansion Commerciale et Industrielle S. A. "Sindex," Sursee, Switzerland
Application June 14, 1955, Serial No. 515,500
Claims priority, application Switzerland February 22, 1955
11 Claims. (Cl. 253—154)



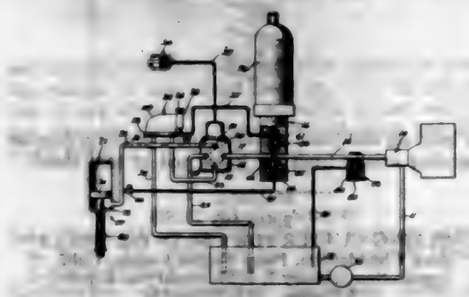
1. A full admission impulse turbine, comprising a spiral casing for the operating medium and having a fixed meridian surface, guide vanes rigidly mounted upon said surface for imparting a vortex flow to said operating medium, a movable flow control member penetrated by said guide vanes substantially without clearance, said meridian surface, said guide vanes and said flow control member constituting a distributor channel of adjustable cross section for the passage of the operating medium, a turbine shaft, said flow control member enclosing said turbine shaft, an impeller carried by said shaft and having inlet edges impacted by the operating medium leaving said distributor channel, a cover connected with said casing, said flow control member and said casing and said cover enclosing an annular chamber of variable volume, inner sealing means between said flow control member and said cover, servo-motor means controlling the movement of said flow control member, a bleed opening in said casing upstream of said guide vanes, and means operatively connecting said bleed opening with said annular chamber to provide pressure in said annular chamber channel corresponding to pressure in front of said distributor channel.

2,846,186
VEHICLE-HANDLING AND TRANSFER DOLLY FOR MECHANICAL PARKING GARAGES
Robert W. Smith, Columbus, Ohio, assignor to Dresser-Ideco Company, Columbus, Ohio, a corporation of Ohio
Application December 3, 1956, Serial No. 626,045
7 Claims. (Cl. 254—2)



1. Vehicle-handling and transfer apparatus for mechanical parking garages comprising a relatively low, elongated, self-propelled carriage arranged to be propelled to a position beneath a vehicle and between the ground wheels thereof; a plurality of relatively spaced vehicle-lifting devices carried by said carriage for movement longitudinally thereof between relatively extended and retracted positions, each of said lifting devices being movable in a vertical plane to engage a frame component of a vehicle under which said carriage is positioned and to lift the vehicle bodily from an associated supporting surface; means carried by said carriage for moving said lifting devices relatively apart; means carried for movement with said lifting devices and engageable with the wheels of a vehicle during movement of said lifting devices toward relatively extended positions; and means responsive to the engagement of said last-named means with the wheels of the vehicle for automatically arresting further movement of said lifting devices relatively apart and for moving each of said lifting devices vertically upwardly to positions of elevating engagement with the vehicle.

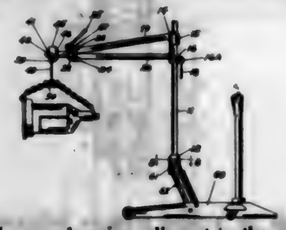
2,846,187
HYDRAULIC SPIKE PULLING APPARATUS
Ira Sublett and Charles D. Johnson, Fairmont, Minn., assignors to Fairmont Railway Motors, Incorporated, Fairmont, Minn., a corporation of Minnesota
Application August 30, 1954, Serial No. 452,832
7 Claims. (Cl. 254—18)



1. A spike-pulling apparatus comprising operable jaws for accommodating and gripping the head of a driven spike, said jaws normally assuming a released position, a piston-cylinder assembly having the piston thereof operatively connected to said jaws for initially actuating the latter into gripping relation with the spike head upon partial retraction of the piston into the cylinder of said assembly and subsequently actuating said jaws in a linear direction upon continued retraction of said piston into said assembly cylinder, a hydraulic pressure accumulator communicating with the end of said cylinder adjacent said jaws, a hydraulic pump communicating with and supplying pressure to the end of said cylinder adjacent said jaws and said accumulator, and operative means in communication with said pump, accumulator, and the end of said cylinder adjacent said jaws, and responsive to a predetermined hydraulic pressure developed within the interior of said cylinder adjacent said jaws for initially supplying hydraulic fluid under only pump pressure to said cylinder whereby partial retraction of said piston within said cylinder occurs at a relaitvely slow rate of speed; said means, upon said predetermined hydraulic pressure being developed within said cylinder, being further operative and supplying hydraulic fluid under accumulator pressure to said cylinder whereby complete retraction of said piston into said cylinder occurs at a relatively rapid rate of speed.

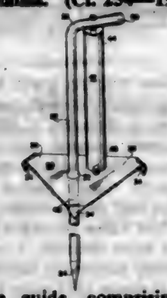
2,846,188
TRANSMISSION AND CYLINDER HEAD HOIST
Joseph Martin Pierce, Aurora, Ill.
Application October 29, 1954, Serial No. 463,348
1 Claim. (Cl. 254—146)

In a hoist of the character described, a platformed wheeled supporting base, a vertical support post rotatably mounted on the platform of the wheeled supporting base, means for raising or lowering the platform, a pair of spaced sleeves slidably mounted on said post, clamp means for adjustably securing one of said sleeves on said post, a crane arm assembly extending horizontally from said sleeves, said crane arm assembly consisting of a first cantilever arm secured to one of said sleeves and extending laterally therefrom and a second cantilever arm angularly secured to the other of said sleeves and extending to meet said first cantilever arm to form the apex of a triangular truss, a gear housing secured to the apex of the crane arm assembly, a pair of shafts in said housing, a worm gear on one of the shafts, a bull gear on the other shaft in mesh with the worm gear, said bull gear shaft extending horizontally through the side of the gear housing on the side opposite of the apex of said crane arm, a cable drum connected to the extension of the bull gear shaft in juxtaposition to the gear housing, a lifting cable on said drum, a manually operated lever rotatably



mounted on the gear housing adjacent to the apex of the crane arm assembly and connected to said worm gear shaft, and ratchet means adjustably connecting said worm gear and lever so that the oscillation of the lever intermittently rotates the drum for winding and unwinding the lifting cable, whereby an operator can position the winding cable and the gear housing over a work piece and have one hand free to guide a work piece and at the same time actuate the gear housing lever with the other hand.

2,846,189
LAWN HOSE GUIDE
Lucius "Ted" MacLaughlin, Seattle, Wash.
Application January 23, 1956, Serial No. 560,518
4 Claims. (Cl. 254—199)

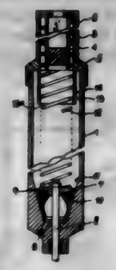


1. A lawn hose guide, comprising: an elongated, ground-penetrating rod adapted to be pressed into the ground a substantial distance, said rod having on its upper end a right angular bent portion; a stop member encircling said rod intermediate its ends to stabilize the rod in the ground and comprising a plate of substantial breadth having a portion underlying said right angular part of said rod; axially aligned trunnion means carried by said stop member and said bent portion of the rod and a roller parallel to and spaced from the longitudinal axis of said rod pivotally mounted on said trunnion means with its axis in alignment with the axis of said trunnion members whereby said roller may freely rotate.

2,846,190
HYDRAULIC DEVICES
Dean F. Snavesman, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application February 29, 1952, Serial No. 274,183
13 Claims. (Cl. 255—1)

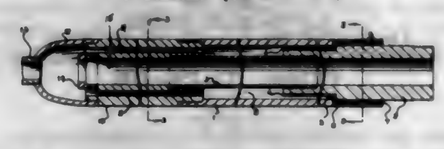
1. In hydraulic apparatus, wall means defining a cylinder, inlet port means for introducing a flow of fluid into

one end of the cylinder and outlet port means for discharging fluid from the other end of the cylinder, a piston movable axially within the cylinder, said piston including an attached imperforate flexible sleeve having a normal unexpanded configuration affording a fluid bypass between the piston and the cylinder, the sleeve being



expandable by a fluid pressure differential across the piston into engagement with the cylinder to block fluid flow around the piston in the cylinder, and actuating means at said other end of the cylinder to engage the sleeve and urge it from its expanded to its normal unexpanded configuration.

2,846,191
HYDRAULICALLY OPERATED BIT DRIVE
Edward W. Smith, Melrose Highlands, Mass.
Application February 20, 1953, Serial No. 338,056
9 Claims. (Cl. 255—4.4)



2. In combination with an earth boring tool, a highly elastic resonant oscillatory system comprising a relatively stationary large mass element, a substantially relatively movable smaller mass element, said mass elements having a ratio of substantially 10:1, means having a high modulus of elasticity rigidly joined at one end to the large mass element and at the other end to said smaller mass element, a fluid valve having a part carried by said relatively movable mass element, a cooperating part carried by said relatively stationary mass element, means for exerting pressure between said mass elements causing periodic oscillatory movement thereof through the operation of said valve.

2,846,192
PORTABLE ICE AUGER
Elof J. Ostling, Luck, Wis.
Application December 6, 1955, Serial No. 551,351
3 Claims. (Cl. 255—69)

1. In an ice auger, a bit comprising an elongated shank having an axially extending helical flight between the upper and lower ends thereof, the upper end being adapted to be connected to a driving means, the lower end of said shank having oppositely disposed blade portions extending from a point adjacent the axis of said shank to the periphery of said helical flight with one of said blade portions forming a continuation of said helical flight, one of said blade portions comprising relatively long generally arcuate spaced pointed ice penetrating teeth extending inwardly from the peripheral edge with at least one of the teeth projecting beyond the axis of said shank, the other blade portion having a scraping means extending inwardly from the peripheral edge adjacent to and spaced from the axis of said shank, a depending heel on the peripheral edges of said blade portions and located above the level of the scraping means



and teeth on said blade portions, and a pivot tip member depending axially from the lower end of said shank.

2,846,193
MILLING CUTTER FOR USE IN OIL WELLS
Jack Chadderdon, Palos Verdes Estates, Calif.
Application January 7, 1957, Serial No. 632,932
8 Claims. (Cl. 255—73)

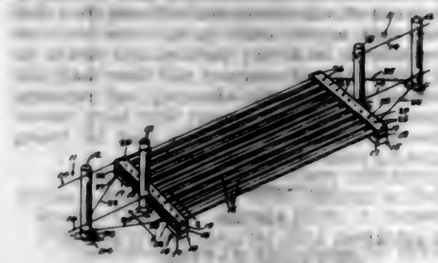


1. A milling cutter for use in oil wells, comprising: a body structure; a longitudinally extending core blade secured thereto and protruding radially therefrom, said core blade being divided transversely into a plurality of segments, said core blade being capable of wearing away when subjected to attrition to expose succeeding segments; a covering of a matrix bonded to at least one side and the radially extended edge of said core blade; and a plurality of cutting elements embedded in and bonded to said matrix.

2,846,194
CATTLE GUARD
Ernest R. Wells, Joseph, Oreg.
Application July 16, 1956, Serial No. 598,093
1 Claim. (Cl. 256—14)

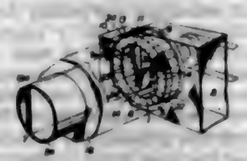
A cattle guard comprising a pair of spaced parallel separable clamps, a plurality of spaced parallel elastic members formed of rubber and having the opposite end portions thereof secured in said clamps, means securing each of said clamps to a fence post with said elastic members in spaced relation to the ground, said clamps each comprise a pair of oppositely disposed ground engaging support members, a lower clamp plate positioned in engagement with the upper side of said support members, a central plate positioned against the upper side of said

lower clamp plate and coextensive therewith, an upper clamp plate positioned against the upper side of said central plate and coextensive therewith, and means securing said support members, said lower clamp plate,



said central plate and said upper plate together in clamping relation to said elastic members, with the end portion of said elastic members extending around said central plate and clamped thereto by said upper and lower clamp plates.

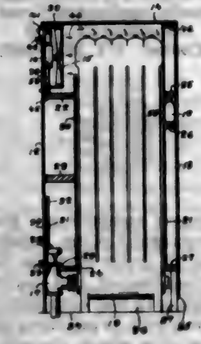
2,846,195
HEAT EXCHANGERS
John Foster Alcock, North Lancing, England, assignor to Power Jets (Research and Development) Limited, London, England, a British company
Continuation of abandoned application Serial No. 724,686, January 27, 1947. This application August 4, 1952, Serial No. 302,532
Claims priority, application Great Britain February 4, 1946
6 Claims. (Cl. 257—6)



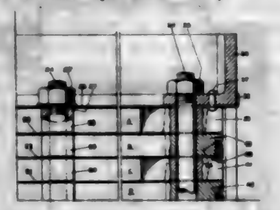
6. In a rotary regenerative heat exchanger, being a device comprising a fluid-permeable matrix affording two separate fluid-flow paths therethrough, fluid-tight means defining separate paths for the flow of high and of low pressure fluid to one side of said matrix and from the other side thereof, means relatively to rotate said matrix and flowpath-defining means and a seal constituting a part of said flowpath-defining means and engaging said matrix in a region of transition from the high-pressure to the low-pressure path and in a region of transition from the low-pressure to the high-pressure path, the improvement that the seal has a fluid-flow passageway therethrough from the one said region to the other.

2,846,196
RADIATOR AUXILIARY HEAT DISTRIBUTOR
George M. Blackford, Chicago, Ill.
Application July 16, 1954, Serial No. 443,738
1 Claim. (Cl. 257—137)

In a circulating housing for use on a radiator, the combination which comprises a front wall, a rear wall, and first and second end walls the lower edge of the front wall being spaced upwardly from a floor upon which the housing is positioned, providing an outlet opening at the front and in the lower part of the housing, the first end wall being positioned at the end of the housing in which a supply valve of the radiator over which the housing is mounted is positioned, a transversely positioned vertically disposed partition supported by horizontally disposed elements extended between said first end wall and the partition, the lower portion of said first end wall having an opening therein to provide access to a supply valve of a radiator over which the housing is positioned, a door slidably mounted on said first end wall and positioned to cover said opening, said first end wall also having air inlet openings in the upper part, a fan mounted to draw air through the air inlet openings of the first end wall discharging the air into the housing, the second end wall being positioned at the end of the radiator on which a vent valve is positioned, and the lower edge of the second end wall terminating at a point spaced upwardly from a floor upon which the housing is positioned also providing an outlet opening, a transversely disposed vertically positioned partition spaced inwardly from said second end wall, a cover positioned on the housing, and lining panels of insulating material positioned on inner surfaces of the front and rear walls forcing all air being circulated through the housing into close proximity with a radiator therein, the fan positioned to draw air through the said air inlet openings being relatively small whereby air is circulated through the housing and over a radiator therein at comparatively low velocity.



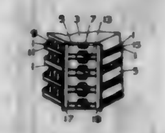
2,846,197
HEAT EXCHANGER
Knut Berg, Saltsjobaden, Olle Ahlin, Stockholm, Sweden, and Harry Lindqvist, deceased, late of Stockholm, Sweden, by Elin Lindqvist, administrator, Stockholm, Sweden
Application April 16, 1952, Serial No. 282,564
3 Claims. (Cl. 257—245)



1. In a heat exchanger comprising a series of spaced parallel plates defining a plurality of superimposed open-ended channels, the adjacent plates of said series having corresponding pairs of their opposite edges interfolded upon each other for their entire length to provide fluid tight seams along the entire length of opposite sides of said channels terminating at the open ends of said channels, and the edge portion of one of said adjacent plates being inwardly offset at said seam to form a recess in which the seam is disposed to provide a rigid structure having substantially plane side surfaces, and a spacer element disposed between adjacent plates at each corner only thereof inwardly of said seams and adjacent the seam terminal end portions in fluid tight engagement with the opposite surfaces of adjacent plates operable to

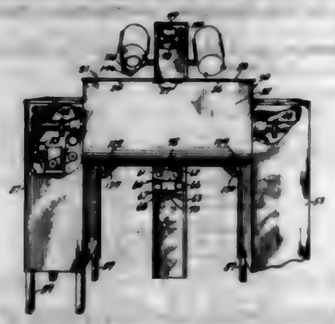
prevent leakage between adjacent channels at the corners of said plates, said elements having a recess for said inwardly offset seam portion of said plates.

2,846,198
HEAT EXCHANGERS
Robert William Sturges, Bilston, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain
Application November 26, 1954, Serial No. 471,468
Claims priority, application Great Britain November 27, 1953
2 Claims. (Cl. 257—245)



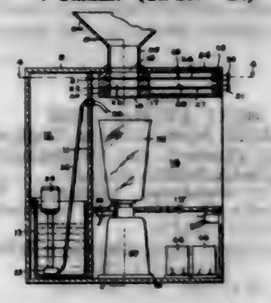
1. A heat exchanger comprising a plurality of juxtaposed, generally rectangular plates, adjoining plates being separated by a pair of spacer elements disposed between opposite edge portions thereof, said spacer elements being coextensive in length with said edge portions, each spacer element pair defining with its adjoining plates a principal fluid passage, consecutive spacer element pairs being disposed at right angles to each other whereby adjoining principal fluid passages are normally disposed, each spacer element defining with each adjoining plate a subsidiary passage adapted to collect and direct escaping fluid, and headers disposed adjacent at least the opposite corners of the heat exchanger, each of said headers communicating with the associated end of the subsidiary passages defined by each of the spacer elements extending to the associated corner.

2,846,199
CONTINUOUS PRODUCTION COMBINED FOOD MIXING AND FILLING MACHINE
Lowell J. Collins, Oakland, Calif.
Application January 21, 1955, Serial No. 483,234
12 Claims. (Cl. 259—10)



1. A food mixer, in combination, a mixing bowl having an end wall and a center partition, a housing for each end of the bowl and supporting said bowl in an elevated position, an agitator in said mixing bowl and having a tubular hub extending throughout its axial length, driving means including a drive shaft for said agitator and housed within one of said housings, a first bearing fixed to the inside of the center partition and having one end sealed by said center partition, a passage formed through said end wall and a second bearing projecting through said passage and fixed to said end wall, said drive shaft being slidably and rotatably operable in said second bearing with one end advanceable into said tubular hub and including engaging means for engagement with said tubular hub for driving the agitator, a support shaft slidable within said tubular hub and having one end cooperative with the said one end of said drive shaft and with the other end advanceable into said first bearing for support of one end of said agitator and with said drive shaft maintaining said support shaft against retraction when said drive shaft is in driving position, and means for manually advancing and retracting said drive shaft, and second means for manually advancing and retracting said support shaft with said support shaft being retractable following retraction of said drive shaft for freeing the agitator for removal from the bowl.

2,846,200
MEASURING AND MIXING DEVICE FOR HOT-CAKE BATTER
Frederick W. Jamieson, Coral Gables, Fla.
Application June 21, 1956, Serial No. 592,863
7 Claims. (Cl. 259—24)



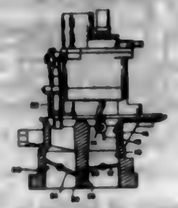
1. A combined measuring and mixing device for hot-cake batter comprising a cabinet, a hopper supported upon the cabinet for the support of flour, a measuring valve device within the cabinet and communicating with the hopper, the measuring device including a pair of spaced, separately operable valve plates the space between which constitutes a measuring chamber, a control means for each of the valve plates, a fluid container disposed in the cabinet, a mixer device within the cabinet which comprises an agitator containing bowl and a motor for actuating said agitator, said bowl being disposed below a discharge opening leading from said measuring chamber, a plurality of means operable under the influence of the actuation of one valve plate to dispense a quantity of fluid from the container to the bowl and simultaneously fill the measuring chamber with flour and means operable under the influence of the actuation of the other valve plate for discharging the measured quantity of flour to the bowl and actuating the agitator of the mixer device, the actuation of the fluid dispensing means and the actuation of the mixer being time-controlled.

2,846,201
PAINT MIXING DEVICE
Morris Mermelstein, Schodack Center, N. Y.
Application October 27, 1955, Serial No. 543,645
3 Claims. (Cl. 259—72)



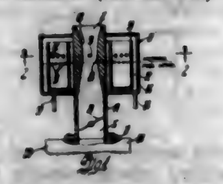
1. A paint mixing device, comprising a frame, a socket adapted to receive a container of paint material to be mixed, means connected to said socket adapted to removably secure said container to said socket, flexible means connecting said socket to said frame at two points, a motor mounted on said frame having a shaft generally aligned normally to the vertical axis of said socket, said two points lying on opposite sides of said shaft on a line that is diagonal to the longitudinal axis of said shaft and to the vertical axis of said socket, a crank on the end of said shaft, and a ball and socket connection between said socket and said crank to impart universal vibratory movement to said socket through said flexible means.

2,846,202
MIXTURE DISTRIBUTION CONTROL
Milton J. Kittler, Detroit, Mich., assignor to Holley Carburetor Company, Detroit, Mich., a corporation of Michigan
Application April 25, 1955, Serial No. 503,469
7 Claims. (Cl. 261—23)



1. A two stage carburetor having primary and secondary barrels, controllable throttle plates movable only sequentially from closed toward open position in said barrels, a mixture distribution passage interconnecting said barrels, said passage having an intake port located in said primary barrel approximately adjacent a movable edge of the throttle plate in said primary barrel and in position to be downstream from said throttle plate when said throttle plate is in fully closed position, and to be effectively transferred to the upstream side of said throttle plate by movement of the adjacent edge of said throttle plate thereacross during initial movement from fully closed toward open position, said passage having an outlet port in said secondary barrel at a point always downstream from the throttle plate in said secondary barrel.

2,846,203
CARBURETOR
La Verne R. Voss, Roseville, and Arthur A. Vuylsteke, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 8, 1956, Serial No. 590,250
7 Claims. (Cl. 261—36)



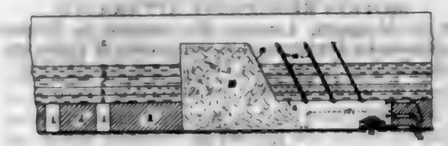
1. Charge forming means for an internal combustion engine comprising a charge forming passage, a fuel bowl adapted to be connected to a fuel pump for receiving fuel therefrom, a fuel jet disposed in said passage and connected to said bowl for aspirating fuel into the charge in said passage, a group of overflow ports in said fuel bowl to allow surplus fuel to overflow therefrom and maintain the desired elevational relation between said jet and the level of the fuel in said bowl, additional overflow means in said bowl positioned to compensate for said ports that are above the fuel level when said carburetor is in an inclined position to maintain substantially the same desired elevational relation between said jet and the level of the fuel in said bowl.

2,846,204
GAS AND LIQUID CONTACT DEVICE
Forrest E. Gilmore, Bartlesville, Okla.
Application March 27, 1956, Serial No. 574,388
12 Claims. (Cl. 261—114)



1. A vapor-liquid contacting tray assembly comprising a plurality of spaced-apart substantially horizontal support members, a plurality of elongated plate valve members pivotally attached at one longitudinal edge to at least a pair of said spaced-apart support members, said plate valve members being disposed with the respective longitudinal edge portions thereof opposite said attached edge portions normally resting on and overlapping the attached edge portion of an adjacent plate valve member to form a deck across which liquid may flow, said plate valve members being adapted for upward pivotal movement about spaced-apart axes substantially parallel to said pivotally attached edges to provide openings in the deck between said plate valve members through which vapors can flow to contact liquid which may be flowing across said deck.

2,846,205
MINING METHOD FOR SUPPORTING GEOLOGICAL STRUCTURES
Philip B. Bucky, Larchmont, N. Y.
Application April 19, 1952, Serial No. 283,183
2 Claims. (Cl. 262—1)

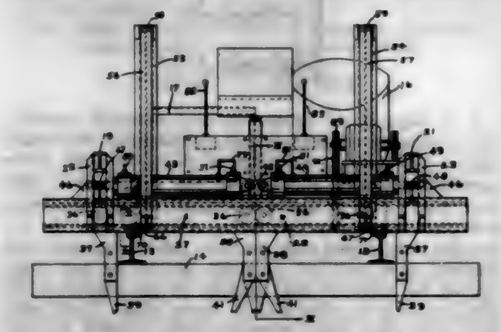


1. The method of providing support to geologic structures overlying or adjacent to an underground mine opening which comprises drilling bolt holes into the rock bordering on the roof of said opening, anchoring rock bolts in said holes, thereby to provide support for the roof while mining operations are carried out in said opening, subsequently removing said rock bolts, then loading said bolt holes with explosive and blasting the rock bordering on the roof of said opening into said opening, the amount of said rock blasted being sufficient to expand when fragmented by the blasting to fill both the volume of said opening and the volume occupied by said rock prior to fragmentation and to place the fragmented rock under sufficient compressive stress to exert the force required to support the overlying and adjacent geologic structures without allowing any substantial subsidence of said structures, whereby the surrounding unbroken geologic formations are supported by the broken rock.

2,846,206
RAILWAY ROADBED SCARIFYING APPARATUS
Royce Kershaw, Montgomery, Ala., assignor to Kershaw Manufacturing Company, Incorporated, a corporation of Alabama
Application December 9, 1955, Serial No. 552,177
4 Claims. (Cl. 262—6)

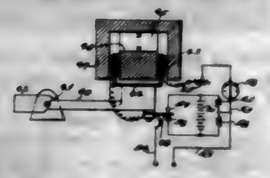
1. In apparatus for scarifying a railway roadbed, a vehicle adapted to run on the rails, a frame pivotally mounted on one end of the vehicle and extending over

the vehicle with a portion thereof overhanging the opposite end of said vehicle, guideways mounted on the overhanging portion and extending transversely of the roadbed, a pair of carrying members mounted in the guideways to reciprocate outwardly and inwardly from the center of the roadbed, first and second scarifying tools mounted on each carrying member in position to extend downwardly in engagement with the roadbed, said first



scarifying tool being mounted at the inner end of each carrying member and adapted when the carrying member is at its inner position to engage the roadbed adjacent the center thereof, and said second scarifying tool being adapted to engage the roadbed adjacent the outer side of the rail when the carrying member is at its inner position, power means to reciprocate the tools, and other power means to raise and lower the frame and the tools thereon relative to the roadbed.

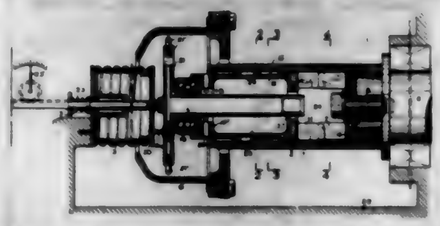
2,846,207
MOTION RESPONSIVE APPARATUS
Kurt A. Marggraf, Lemont, Ill., assignor to Ampatco Laboratories Corporation, a corporation of Delaware
Application January 14, 1953, Serial No. 331,144
10 Claims. (Cl. 264—1)



1. A motion sensing instrument for an automatic pilot system, including: a movably mounted element movable as a function of the motion desired to be sensed; electromagnetic means opposing any such movement of the element, the opposition being constant for any movement of said element, said electromagnetic means also effecting oscillation of the element; and means for deriving an electrical signal as a function of such motion.

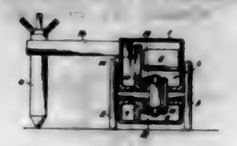
2,846,208
LIQUID CENTRIFUGAL SPEEDOMETER
Pierre Andemar, Mulhouse, France, assignor to Societe Alsacienne de Constructions Mecaniques, Mulhouse, Haut-Rhin, France, a French company
Application March 24, 1954, Serial No. 418,451
Claims priority, application France April 2, 1953
1 Claim. (Cl. 264—19)

A speedometer for measuring the rotational speed of a shaft comprising, in combination, a cylinder having a closed end, coaxial and rotatively fast with said shaft, a hollow piston slidably mounted in said cylinder, means on said cylinder and on said piston to ensure driving of the latter from the former, a central bore in the face of said piston which is adjacent to said closed end of the cylinder, a first annular space between said piston face and said closed cylinder end, calibrated elastic means to continuously urge said piston towards said closed end of the cylinder, indexing means operatively connected with said piston to indicate its relative axial position in said cylinder, a second annular space within said piston, means to admit liquid into said annular spaces comprising an axial, non-rotatable duct mounted on said calibrated elastic means and freely accommodated through said central bore of said piston face adjacent said closed end of said cylinder, said second annular space being fed by the overflow from said first annular space through the clearance between said central bore and said axial non-rotatable duct, a plurality of chambers in the periphery of



said piston, a plurality of nozzles to feed at least certain of said chambers from the liquid mass in said second annular space, means to continuously evacuate fluid from said chambers outside said piston and cylinder, an annular container coaxial with said cylinder and fixedly secured thereon to receive the overflow from said second annular space and from said chambers, at least one Pitot tube mounted on said non-rotatable duct, said Pitot tube having its inlet end extending adjacent the periphery of said container in a direction opposed to the direction of rotation of said container whereby liquid is scooped from said annular container and delivered through said duct, whereby upon rotation of said piston and cylinder the liquid mass of said first annular space forms an annular centrifugal head capable of displacing said piston axially against the action of said calibrated elastic means.

2,846,209
FLAME CUTTING MACHINES
Helge Ingvar Sjöstedt, Malmo, Sweden
Application August 23, 1955, Serial No. 530,142
1 Claim. (Cl. 266—23)



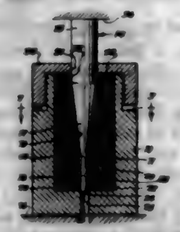
A flame cutting machine comprising: a carriage; a pair of coaxial travelling wheels rotatably mounted on said carriage; a support member on said carriage providing, with said wheels, at least a three point support for engagement with a plane surface of a workpiece; a blowpipe means secured on said carriage, disposed a spaced distance to one side of said pair of wheels and directed to a position substantially on a prolongation of the straight line between the points of support of said wheels on the plane surface; a speed governed power supply means including gear means carried by said carriage and drive connected with said wheels; said gear means including a differential device enabling a speed governed drive through said wheels to provide a constant governed progressive movement of said blowpipe means along the workpiece and at the same time to enable forward, reverse and relative rotations of said pair of wheels, to guide the direction of movement of said flame cutting machine, solely by application of an external guiding force.

2,846,210
RESILIENT CONNECTORS
Robert M. Carrier, Jr., Louisville, Ky., assignor to Carrier Conveyor Corporation, Louisville, Ky., a corporation of Kentucky
Application April 6, 1955, Serial No. 499,630
6 Claims. (Cl. 267—1)



1. A resilient connection device comprising an elastomeric body having metallic elements on opposite load-bearing faces, a strut embedded in said body and having at its opposite ends knife-edged bearing engagement with said metallic elements, said strut being so composed and arranged that said load-bearing faces in moving relatively to each other along a first line are opposed in such movement only by the elastomer of said body whereas relative movement between such faces along a second line is substantially prevented.

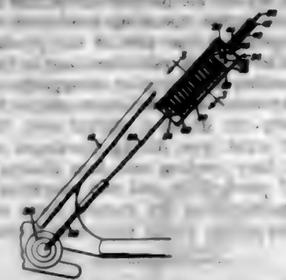
2,846,211
SPRING UTILIZING A COMPRESSIBLE SOLID
Paul H. Taylor, Grand Island, N. Y., assignor to Wales-Strippit Corporation, North Tonawanda, N. Y., a corporation of New York
Application April 26, 1954, Serial No. 425,702
5 Claims. (Cl. 267—63)



1. A self-contained spring comprising a container having a chamber, a plunger extending through said chamber and reciprocable therein, said plunger having cylindrical sections at its opposite ends which are of different diameter, respectively, and an intermediate conical section connecting said cylindrical sections, a compressible solid plastic disposed in said chamber around said plunger to be compressed under a working load and to return said plunger to its starting position upon release of said load, said plunger being closed against passage therethrough of said plastic, and sealing discs disposed in said chamber at opposite ends of said chamber to prevent extrusion of said plastic from said chamber, said sealing discs having axially aligned guide holes through which opposite ends of said plunger pass and by which said plunger is guided in its reciprocatory movement, said sealing discs being made of a compressible solid plastic which has less compressibility than the first-named plastic.

2,846,212
BICYCLE SHIFT CABLE ADAPTER
Arthur J. Mernaugh, Midland, Tex.
Application February 10, 1954, Serial No. 409,492
4 Claims. (Cl. 267—74)

1. In combination with a control cable of a gear shift unit for a bicycle, a combined tensioning and tension limiting device comprising a tension spring attachable to a cable to form an intermediate portion thereof, a spacer disposed within said spring for retaining said spring in



a predetermined tension, said spring having hooks at opposite ends thereof, collars carried by said hooks, said spacer being in abutting engagement with said collars.

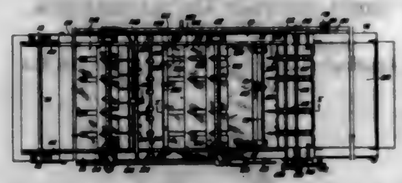
2,846,213
DOOR CONTROL MECHANISM FOR REFRIGERATED TRUCKS
William H. Murphy, Wilson, N. C.
Application May 2, 1957, Serial No. 656,523
3 Claims. (Cl. 268—48)



1. A control mechanism for a pair of sliding doors associated with a door opening in an interior wall separating the refrigerated compartment of a refrigerated truck from the operator's cab comprising an elongated horizontal track supported on said wall above said opening, rollers journaled on each of said doors for suspending the doors from said track for movement in a plane parallel and closely adjacent to said wall, a pair of first and second laterally spaced, elongated operating levers lying in the same vertical plane paralleling said wall and disposed in approximately horizontal alignment with each other, each associated with one of said doors, means pivotally supporting said first operating lever on said wall above the door opening forming a fulcrum point in the upper end of said first operating lever, means pivotally supporting said second operating lever on said wall at a fulcrum point intermediate the ends of said second operating lever, a connecting rod pivotally connecting said first and second operating levers at points spaced below and above the fulcrum points thereof, respectively, and located substantially equally distant from said fulcrum points, adjustable link members each pivotally connected at one end to the lower end of one of said operating levers and at the other end to one of said doors for transmitting motion from said levers to said doors, a bell crank lever having right angularly related arms lying in a vertical plane, means pivotally supporting said bell crank lever at the juncture of said arms on said wall at a position located between said operating levers, above said door opening, and at a vertical level lying between the fulcrum point and the upper end of said second operating lever, a link member connected between one of said bell crank lever arms and the upper end of said second operating lever, an elongated coil spring connected at one end to the end of the

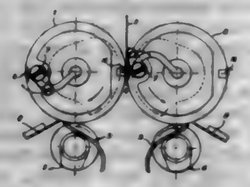
other arm of said bell crank lever, and fixed anchor means anchoring the other end of said spring to said wall at a point projected beyond the pivotal axis of said bell crank lever from said second operating lever and located to position said spring to one side of the pivotal axis of said bell crank lever when said doors are in fully closed position and position the spring on an opposite side of the bell crank lever axis when the doors are in fully open position whereby the spring is shifted over the pivotal axis of the bell crank lever during movement of the bell crank between door opening and door closing positions to bias the bell crank lever and said operating levers in a direction supplementing the manual force of the operator when the spring passes over said pivotal axis.

2,846,214
SHEET DETECTOR FOR PAPER GATHERING APPARATUS
Carl W. Dilde and Donald A. Ghaer, Emporia, Kans.
Application January 24, 1955, Serial No. 483,790
5 Claims. (Cl. 270—56)



1. In paper handling apparatus, means for moving an individual sheet through a predetermined path of travel; electrically responsive means for operating said sheet moving means, said operating means having a power circuit; a control circuit coupled with the power circuit for interrupting the latter; an electrical switch coupled with said control circuit; stationary structure; a movable element having parts engageable with the switch for operating the latter, and parts engageable with said structure for limiting the extent of movement of the element, said path of travel including a testing position for disposing the sheet between the structure and said last-mentioned parts; and means for moving the element toward the structure when said sheet moving means have advanced to a position for disposing a sheet in said testing position, said switch being disposed to be engaged and operated by said element only when a sheet of predetermined thickness is in said testing position.

2,846,215
DEVICE FOR FOLDING ENDLESS BANDS OF PAPER
Charles Léon Hippolyte Sapligeau, Malakoff, France, assignor to Perino-Guyot & Cie-C. Sapligeau, Malakoff, France, a coporate body of France
Application March 24, 1954, Serial No. 418,379
Claims priority, application France April 13, 1953
2 Claims. (Cl. 270—69)



1. Apparatus for continuously feeding and creasing strip stock for business machines into a stack comprising a series of flattened connected folds, including in combination, a pair of juxtaposed feed rolls rotatable in opposite directions to provide a peripheral stock feeding pass leading to the position of the stack directly below said pass, means in each roll forming a chamber connected with a source of vacuum and having a single elongated atmospheric inlet disposed longitudinally across the periphery of each roll, the inlet of each roll being cyclically disposed approximately 180° from the other and having the capacity alternately to cause stock adherence to a related roll, valve means in each roll and turning therewith for closing said inlet when it is not covered by the strip, pinch rollers having their axes mounted in the same perpendicular planes as the axes of the feed rolls and located below said feed rolls to rotate in timed relation thereto and in a direction opposite thereto, pinch cam portions extending radially from and longitudinally of each pinch roller and having their crowns cyclically cooperating with the periphery of the related feed roll to direct and fold the sheet adhering to said feed roll alternately into successive plaits to form the stack.

2,846,216
GATE TAPE GUIDE DEVICE
Henry L. Tholstrup, Rochester, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application August 25, 1955, Serial No. 530,652
8 Claims. (Cl. 271—2.3)



1. In apparatus employing perforated tape and having tape feed means, a gate guide device for directing the tape in contact with and beyond said tape feed means; said device comprising a first element having a guide surface extending from one end thereof to the other end thereof, the width of said first element being in the order of the width of said tape, said element having said one end thereof fixedly secured to said apparatus and said other end thereof, free and extending tangentially toward but terminating in front of and near said tape feed means, a second element hinged at one end and having a guide surface which corresponds to the guide surface of said first element and at its free end having a cylindrically concave surface forming an extension of its said guide surface for extending partly around said feed means, said guide surface of said second element having a width in the order of the width of said tape, said second element being normally positioned with its guide surface thereof extending along and spaced slightly away from the corresponding guide surface of said first element, said hinge means including biased spring means urging said second element toward said first element, and handle means integral with said second element by which said second element may be moved away from said first element.

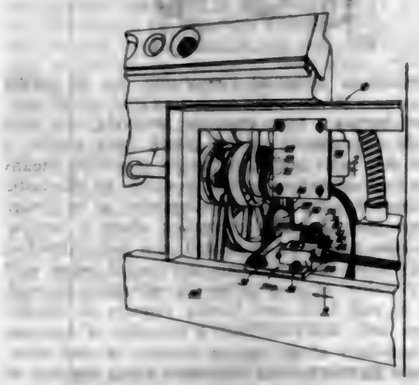
2,846,217
MAGNETIC TAPE DRIVE
Rudolf Bormann, Hamburg-Fuhlsbuttel, and Carl Dethleffsen, Hamburg-Stellingen, Germany, assignors to Telefunken G. m. b. H., Berlin, Germany
Application June 13, 1957, Serial No. 665,540
Claims priority, application Germany June 23, 1956
6 Claims. (Cl. 271—2.3)

1. Drive mechanism for a magnetic recording and reproducing apparatus employing magnetic tape as the signal carrier, said apparatus having a continuously driven capstan to advance the tape, a pressure roller adapted to press the tape against the capstan, and said apparatus including magnetic head means disposed adjacent the tape ahead of the capstan, said mechanism comprising a drag roller adjacent the tape ahead of said head means, a second pressure roller disposed on the other side of the tape opposite the drag roller, a bar disposed transversely of the axes of said two pressure rollers, the latter being journalled thereon for unitary displacement toward and away from the peripheries of the capstan and the drag



roller, respectively, and clutch means capable of connecting the capstan and drag roller together for rotation in the same direction at the same peripheral velocity; and means for connecting said clutch means to said bar, whereby the clutch means is disengaged when the bar is moved to press the pressure rollers against the tape and force the latter against the capstan and drag roller, and the clutch means is engaged when the bar is moved to retract the pressure rollers.

2,846,218
STRIP FEED MEASURING DEVICE
Alvin L. Winkler and James N. Wogsum, Chicago, Ill., assignors to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application May 19, 1953, Serial No. 356,056
11 Claims. (Cl. 271—2.4)

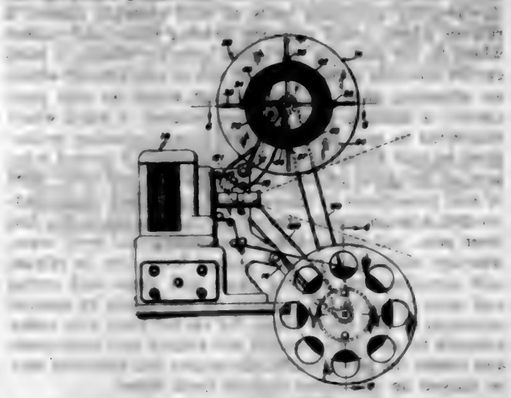


1. The combination in strip feed measuring apparatus, of strip feeding means, means for starting the operation of said feeding means, a cam means for actuating said cam in unison with said feeding means, and means including control devices connected in an electric circuit and controlled by said cam for stopping the operation of said feeding means.

2,846,219
MOTION PICTURE FILM REELS
Duayne L. Matheson, Cedar City, Utah, assignor of one-third to Ianthus Wright, Cedar City, Utah
Application July 19, 1956, Serial No. 598,869
4 Claims. (Cl. 271—2.17)

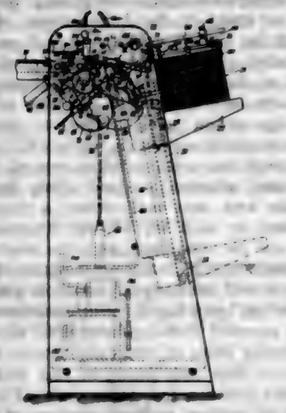
1. A film handling assembly for a projector wherein the necessity for rewinding is obviated, said assembly comprising a first reel that has a first and a second wall, radial slots in one wall and curved slots in the other wall, pins extending across said walls and mounted in pairs of said slots, a curved strip secured to each pin, said strips cooperating with each other to form a substantially

closed circular support for the periphery of the film, said walls being rotatively adjustable with respect to each other in order to alter the relative positions of said strips, and means to lock said walls in a selected position, a guide for the film as it is withdrawn from said first reel, said guide comprising a rotatable flanged roller and means resiliently urging said roller into contact with said film on the inner periphery thereof, a second reel on which



the film from the first reel is adapted to be wound, said second reel comprising inner and outer walls, a collapsible hub between said inner and outer walls, means detachably connecting said inner and outer walls, and means holding said hub in the expanded position while said walls are connected and means for automatically releasing said hub to collapse in response to a separation of said inner and outer walls.

2,846,220
SHEET FEEDER FOR PRINTING PRESS
Luis Mestre, New York, N. Y., assignor to Lewfor Development Corporation, New York, N. Y., a corporation of New York
Application October 12, 1953, Serial No. 385,430
9 Claims. (Cl. 271—31)



2. A sheet feeder for a printing press comprising stack raising means to present top sheets at proper levels for removal, means to hold the sheets in proper position in their planes, means to act on the uppermost sheets to facilitate their removal from the stack, a plurality of feed rolls, means above said feed rolls to hold said sheets on said rolls, a feeler operated to ascertain the position of the uppermost sheet, means controlled by said feeler for rendering said stack raising means ineffective when the top sheet of the stack is too high and effective when

no sheet is above the required level, means including suction pick-up fingers for delivering top sheets to the first feed roll, said stack raising means comprises a platform, means including upwardly extending guides for said platform, sprockets at the upper ends of said guides, sprocket chains connected to the ends of said platform and extending over said sprockets and downwardly, a transverse shaft, other sprockets fixed on said shaft engaging the downwardly extending parts of said sprocket chains, a ratchet wheel, speed reducing gearing from said ratchet wheel to the shaft for the lower sprocket wheels, a pawl carrier movable about the same axis as said ratchet wheel, an actuating pawl for said ratchet wheel on said pawl carrier, a holding pawl for said ratchet, a hand wheel connected to said ratchet wheel, lateral releasing projections on said actuating and holding pawls, a curved lever arm on the pivot of said holding pawl at the inner sides of said projections to release said pawls when swung outwardly, a second lever arm on the same pivot as the first lever arm, and spring means connecting said lever arms, whereby movement of said second lever arm to release said actuating and holding pawls will stress said spring and upon releasing the pressure on said pawls by manual actuation of said hand wheel, the curved lever arm under pressure by said spring means will engage said projections and render the pawls ineffective so that said platform may be moved up and down by said hand wheel.

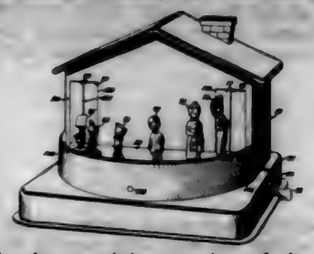
2,846,221
COLLAPSIBLE STAGE STRUCTURE
Charles E. Skinner, Stamford, Conn.
Application August 10, 1954, Serial No. 448,880
10 Claims. (Cl. 272—21)



1. A collapsible stage comprising four leg sections adapted to stand at the four corners of a rectangular area, each leg section comprising first, second, and third long parallel members adapted to stand vertically and arranged at the corners of a right-triangular configuration as seen in cross section, the first of said members in each leg section being adapted to stand at a corner of the rectangular area with the second and third members in each leg section being spaced from said first member and adapted to stand along the sides of said rectangular area near said corner, a plurality of spaced cross pieces in each leg section intermediate said first member and the other two, with the spaces between said cross pieces being unobstructed the ends of the uppermost cross pieces and next uppermost cross pieces in each leg section having open bores facing horizontally away from said first member forming horizontal sockets, four long trusses having pairs of vertically spaced rigid projecting elements on their ends fitting in said sockets to support said trusses between the upper ends of the leg sections with said leg sections defining portions of the rectangular perimeter of the stage and with said trusses spanned therebetween.

2,846,222
MUSICAL TOY WITH MOVABLE SET
Elliot Handler, Los Angeles, Calif.
Application May 21, 1954, Serial No. 431,349
5 Claims. (Cl. 272—31)

1. A toy comprising a stage platform rotatably mounted for movement about a vertical axis, drive means for rotating said stage platform, stop means engaging said stage platform and normally holding the same against rotation, musical sounding means having a movable member energized by said drive means to play a melody, and tripping means mounted on said movable member for intermittently engaging and deactuating said stop



means thereby permitting rotation of the stage, said musical sounding means being coordinated with said tripping means and stop means to play a melody between stops, said stage platform having display means thereon indicative of the subject matter of the melody played by said sounding means.

2,846,223
MELODY PLAYING FIGURE CARRYING TOY CARROUSEL
Kenneth E. Nelson, Hempstead, N. Y.
Application July 14, 1955, Serial No. 521,958
9 Claims. (Cl. 272—31)



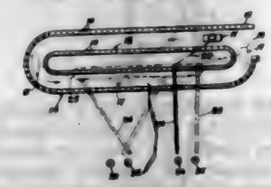
1. A miniature carrousel comprising, an all plastic canopy having a downwardly projecting stud, an all plastic column having a bore entrance receiving said stud in force fit engagement, an all plastic base having a cylindrical side wall and also having mounting means supporting said column in upright position, an all plastic table horizontally disposed and supported at its center by said mounting means for rotation about a vertical axis, said base having an undulated cam face extending horizontally from said side wall and spaced below said table, a plurality of cam followers extending through apertures in said table and having runners in slidable engagement with said cam face, a plurality of figurines disposed annularly about the top surface of said table, each of said figurines being supported along the top of the table by respective ones of said cam followers, and a drive gear engaging said table for rotating same about said axis; whereby rotation of said table results in slidable engagement of said cam followers with said cam face to cause said figurines to oscillate vertically.

2,846,224
FLAG FOOTBALL BELT
Ronald F. Roselle, Wellton, Ariz.
Application May 11, 1956, Serial No. 584,350
1 Claim. (Cl. 273—55)



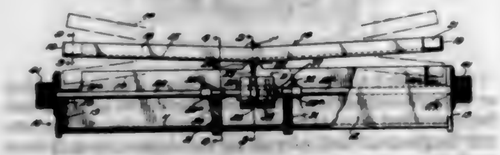
In a flag football belt, an elongate flexible member formed of material folded over and sewn together and adapted to encircle the waist of a player, one end of said flexible member being open, a friction clamp mounted in the open end of said member and a draw string mounted in the open end of said member and adapted to draw the open end of the member into engagement with the clamp to hold the clamp firmly in place, and at least one streamer fixed to said elongate member and depending from said elongate member to facilitate grabbing of the belt from the player wearing the belt.

2,846,225
STOCK CAR RACING GAME
Glenn T. Keyser, De Pere, Wis.
Application January 7, 1957, Serial No. 632,890
5 Claims. (Cl. 273—86)



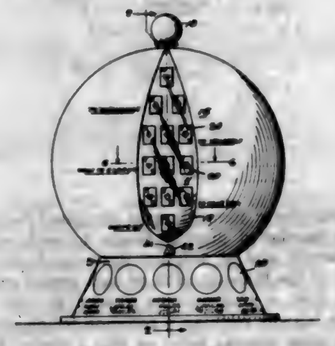
1. A game of the class described comprising, in combination, a track layout having an inner track and an outer track, each one of said inner and outer tracks comprising a plurality of rectangular fence simulating cards, said outer track being open at one end to provide an inlet to the area intermediate said inner and outer tracks, a plurality of miniature vehicles adapted to be pulled around the track layout intermediate said inner and outer tracks, means for pulling the vehicles in the aforesaid path, said pulling means including a control stick, a string connected at one upper end to said control stick and at the opposite lower end to the front window post of one of said vehicles, swivel means disposed between the upper end of each of said strings and said associated control stick to prevent the strings of the various vehicles from becoming entangled with each other, said swivel means comprising a hollow cylindrical collar having an inwardly stamped annular ridge, the end of the control stick having an annular groove receiving said ridge therewithin whereby to secure the collar to the end of the stick, the end of the collar extending outwardly beyond the end of the stick and having an opening in the bottom thereof, a pin positioned within said opening having an enlarged end to prevent its downward displacement therethrough, and said pin at its lower end having an eye for securing the upper end of said string thereto.

2,846,226
TILTABLE CHUTE COMPETITIVE GAME APPARATUS
Schuyler Reynolds, Columbus, Ohio
Application July 25, 1955, Serial No. 524,161
3 Claims. (Cl. 273—110)



1. Game apparatus comprising a base; an elongated chute having a longitudinally extending runway for the guided reception of a ball element; means pivotally uniting said chute with said base for tilting movement in a vertical plane for causing said ball element to travel gravitationally along said runway from a position substantially midway of its length to either of its ends; a pair of independently manually operated controls rotatably supported and held against sliding movement by said base; a longitudinally shiftable differential member slidably mounted on and rotatable in unison with a first of said controls, said member including an internal annular cam groove; radially disposed pin means carried by and projecting from the second of said controls and received in said cam groove; and means responsive to longitudinal movement of said differential member, produced as a result of differences in the manual rotation imparted to said controls, for producing tilting movement of said chute in causing the same to occupy positions of inclination in which said ball element will roll along the runway of said chute toward an end thereof.

2,846,227
FORTUNE TELLING BALL
Ellemerle R. Wickham, Sacramento, Calif., assignor to Scott J. Putnam, Winnemucca, Nev., and Joseph P. Morgan, Sacramento, Calif.
Application January 23, 1957, Serial No. 635,839
1 Claim. (Cl. 273—161)



An amusement device comprising a base, an outer opaque spherical member mounted for rotation on said base, said opaque spherical member having an ovoid sight opening formed in the wall thereof, an inner transparent spinning spherical member mounted for rotation within said outer spherical member, said inner member having groups of indicia in the form of playing cards arranged on the outer surface thereof visible through said sight opening, mechanism for illuminating indicia on said transparent inner member, and spring biased ball means for retarding spinning movement of said inner member within the outer member, said inner member including depressions engageable by said ball means whereby certain groups of card indicia are displayed before said sight opening, and means comprising an operating handle for effecting rotation of said outer spherical member.

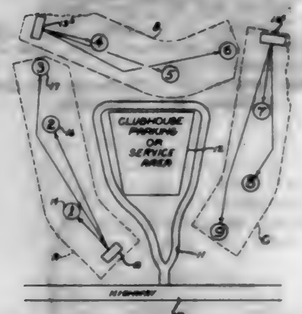
2,846,228
GOLF CLUB OF THE "IRON" TYPE
Milton B. Reach, Springfield, Mass.
Application October 20, 1955, Serial No. 541,615
9 Claims. (Cl. 273—169)



1. A golf club head comprising a metal blade having an inclined front face, a less inclined back face, a relatively wide sole area and a relatively narrow upper edge, said blade having a recess extending throughout a major part of the central area of its back face, said recess having an inner wall spaced from the front face of the club head, said inner wall and front face defining an area

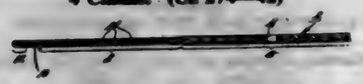
of metal relatively thin compared to its extent and embracing the normal striking area of said front face, whereby striking impact may in part be transmitted through said relatively thin area, and resilient weight means in said recess and bonded to said inner wall and capable of at least partially absorbing impact forces transmitted therethrough, said weight means comprising a shock absorbing matrix having a particulate weighting material of different specific gravity distributed therein.

2,846,229
GOLF COURSE
Luther O. Morris, Decatur, Ga.
Application May 24, 1954, Serial No. 431,688
2 Claims. (Cl. 273—176)



1. A golf course comprising an elongated fairway having three numbered playing greens located within the bounds thereof and at different distances from the forward end of the fairway, each of said greens embodying a playing hole, a single teeing ground at said forward end of the fairway forming a common teeing ground for all of the three playing holes so that a player may play all of said three playing holes from a common teeing ground while progressively advancing a separate golf ball by successive strokes to each of the playing holes, said playing greens being spaced at such distances from each other that the second green is located farther from the teeing ground than the longest average drive to the first green, and the third green is located farther from the second green than the longest average drive for said second green whereby players may play on the same fairway in progressive manner without the liability of the preceding players being struck by a ball driven by an oncoming player.

2,846,230
PHONOGRAPH RECORD
Donald L. Richter, Bellmore, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application April 29, 1954, Serial No. 426,403
4 Claims. (Cl. 274—42)



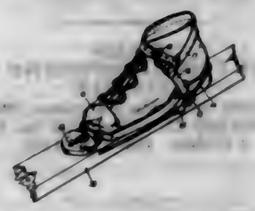
1. A disc phonograph record comprising a tablet having a central spindle hole, a label area immediately surrounding the spindle hole which is flat with opposite faces parallel and being of a predetermined thickness, a record groove area surrounding said lable area, said record groove area being tapered progressively thinner from a maximum thickness immediately adjacent said label area of a thickness slightly less than the thickness of said label area to a minimum thickness at the outer periphery of the record groove area, and a marginal portion surrounding the outer periphery of said record groove area, said marginal portion having a thickness greater than the average thickness of said record groove area but less than the thickness of said label area.

2,846,231
FASTENER MEANS FOR VEHICLE GAS TANK
Eugene J. Fritz, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 5, 1956, Serial No. 614,122
4 Claims. (Cl. 280—5)



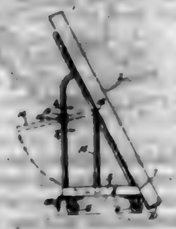
3. Support means for retaining a gasoline tank to a vehicle underbody and which includes, a bracket, a tank engaging strap member having a hooked end engaged with said bracket, and a swaged area formed from said bracket and out of the normal plane thereof, said area including a crimped shoulder portion adjacent said strap for engaging and supporting said bracket to a cooperating shoulder portion formed within a substantially vertical side wall of said vehicle underbody.

2,846,232
SAFETY DEVICE FOR SECURING A SHOE UPON A SKI
Eugen Schnell, Stuttgart-Bad Cannstatt, Germany, assignor to Reinhold Vester, Stuttgart-Degerloch, and Walter Vester, Stuttgart, Germany
Application July 19, 1954, Serial No. 444,302
Claims priority, application Germany July 25, 1953
10 Claims. (Cl. 280—11.35)



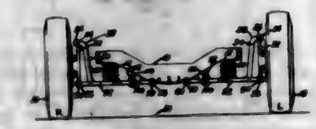
1. A device for securing a boot upon a ski comprising at least two clamping members adapted to abut against the front end of said boot and at both sides of the central longitudinal axis of said ski for supporting said boot in its normal position on said ski, means for mounting each of said members on said ski in front of said boot so as to pivot about a vertical axis, and common resilient means comprising a locking member movable in a vertical direction for simultaneously maintaining both of said clamping members in their respective normal positions, and a spring member pressing said locking member resiliently against both of said clamping members so as to restrain the same from pivoting out of their normal position.

2,846,233
TABLE TRUCK
George W. Burg, Portland, Oreg., assignor to Rel-Away Truck Manufacturing Company, Portland, Oreg., a corporation of Oregon
Application January 17, 1955, Serial No. 482,095
3 Claims. (Cl. 280—30)



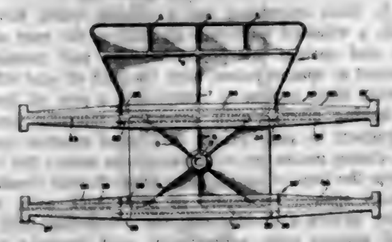
1. In a normally erect wheeled truck for the edgewise lifting and transportation of long flat materials and, when tipped backwards, for use as a horizontal packing or work table, an elongated U-shaped base member normally arranged in a horizontal position with each leg defining a side member and with the connecting piece defining a front member, an elongated U-shaped tubular frame member extending upwardly at an oblique angle to the vertical and supported upon said base member, a tubular brace member extending downwardly and rearwardly from adjacent the top of each of said frame legs and supported upon the rear portion of a corresponding one of said side members, a tubular support prop means mounted upon said frame for movement between a retracted position within the peripheral outline of said base member and an extended position projecting rearwardly without said outline to support the truck in a tipped position, said support prop means being pivotally mounted adjacent the upper end thereof freely to swing to said retracted position when said truck is erect and to said extended position when the truck is tipped backwards, said support prop means intersecting the brace member adjacent the midpoint of said support prop, and an angular bracket depending from the rear portion of each said side member to support the base portion of said truck in said tipped position.

2,846,234
KNEE ACTION SUSPENSION FOR MOTOR VEHICLE WHEELS
Frank F Steinkamp and Walter Howard Ulrich, Omaha, Nebr.
Application August 16, 1954, Serial No. 450,056
3 Claims. (Cl. 280—96.2)



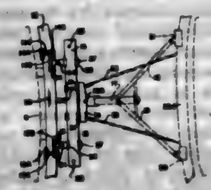
1. For use with a vehicle having a frame with a lower portion, a steerable wheel disposed alongside said frame and a spindle secured in said wheel, a spindle support having upper and lower portions attached to the frame side of said spindle, a suspension control arm combination as follows: a bifurcated lower arm having inner and outer ends, pivotal joint means connecting the inner ends of said lower arm to said lower portion of the frame, pivotal joint means connecting the outer ends of the lower arm to the lower portion of the spindle support, and a cross arm having an inner portion disposed in approximately the same plane as the lower arm and disposed clearingly between the bifurcations of the lower arm, said inner portion of the cross arm adapted for vertical movement between the bifurcations of the lower arm, said cross arm having an inner end connected by pivotal joint means with the lower portion of the frame, and the cross arm having an outer end connected by pivotal joint means with the upper portion of the spindle support at a point spaced a substantial distance above the connection of the outer end of the lower arm with the spindle support.

2,846,235
PRESTRESSED CAST UPPER FIFTH WHEEL STRUCTURE FOR ARTICULATED VEHICLES
Conrad O. Carell, Highland Park, Ill., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
Application February 16, 1956, Serial No. 565,816
10 Claims. (Cl. 280—433)



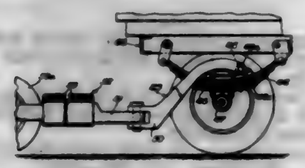
1. An upper fifth wheel casting of light metal for articulated vehicles, a generally horizontally disposed elongated plate member including an integrally formed extension adjacent one edge and parallel integrally formed beam-like members, portions of said beam-like members adapted to be incorporated in the floor structure of one portion of said articulated vehicle, said upper fifth wheel casting including prestressing means comprising tensioning means extending parallel with and engaging the top surface of each of said integrally formed beam-like members, said prestressing means producing a stressed condition in said casting prior to the imposition of useful loads thereon, whereby as such loads are subsequently applied to said casting the resultant stress produced in material comprising said beam-like members will approach but not reach the ultimate strength of the material from which the casting is made.

2,846,236
ADJUSTABLE DRAW BEAM
Chester Williams, Ypsilanti, Mich.
Application August 15, 1956, Serial No. 604,258
6 Claims. (Cl. 280—442)



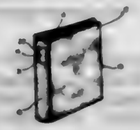
1. A draw beam for a bumper to bumper tow bar assembly, comprising a pair of comparatively light in weight, parallel, spaced, spring steel members, a channel shaped yoke secured to said spring steel members in edgewise relation, and a pair of clamp jaws secured to and mounted for universal action between the edges of said spring steel members and the bumper of the towing vehicle, said yoke having means thereon for attachment to the bumper of the towed vehicle.

2,846,237
TRUCK HITCH FOR TRAILING VEHICLES
William E. Martin, Kewanee, Ill.
Continuation of abandoned application Serial No. 95,422, May 26, 1949. This application February 25, 1954, Serial No. 412,443
10 Claims. (Cl. 280—496)



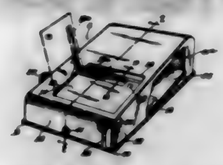
1. A hitch mounting for a towing truck having a chassis, a wheeled unit with an axle at the rear of said truck, and springs interposed between said chassis and connected at spaced points with the axle of said wheeled unit, said hitch mounting comprising a pair of brackets each having pivotal units extending laterally inwardly with respect to said springs in aligned relation to each other, clamp means on said brackets to secure the brackets upon the tops of said springs beneath said chassis and at points spaced forwardly of said truck axle, and a drawbar having a divided end for connection with each of said pivotal units respectively, said drawbar having a curved configuration to bypass the rear axle for connection with said bracket units, the free end of said drawbar having hitch means to connect with a trailing vehicle for towing the latter, and said laterally spaced brackets and their pivotal means providing a limited lateral flexing arrangement to accommodate certain motions of said divided end drawbar under towing conditions.

2,846,238
LABEL HOLDER FOR BINDER
Louis Nickow, Martin A. Nickow, and Hy Nickow, Chicago, Ill., assignors to General Loose Leaf Bindery Co., Inc., Chicago, Ill., a corporation of Illinois
Application May 1, 1957, Serial No. 656,483
3 Claims. (Cl. 281—36)



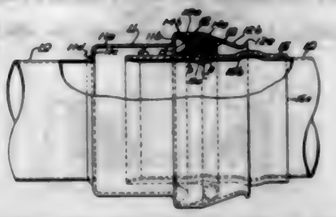
1. A label holder structure for binders and the like comprising a relatively stiff backing member, a relatively flexible spacer abutting and conforming to the surface of said backing member, said spacer having a lower edge which is substantially coplanar with the lower edge of said backing member, a label having a thickness less than the thickness of said spacer disposed along the upper edge of said spacer, a relatively flexible partition member disposed behind said spacer and substantially coextensive with said backing member, said partition member having an aperture therein exposing at least part of said label, and a web of flexible material covering the outer surface of said partition, said web having an aperture therein arranged to register with the aperture in said partition member, the portions of said web about the aperture in said web being foldable inwardly through the aperture in said partition to provide an integral covering for the walls of said apertures when said apertures are in registry.

2,846,239
MACHINE FOR POSTING AND MANIFOLDING BUSINESS RECORDS
William Dale Winders, Columbus, Ohio
Application August 4, 1954, Serial No. 447,867
8 Claims. (Cl. 282—5)



1. In a manifolding register; an elongated box-like casing having a top wall formed with an intermediately disposed transversely extending entry-writing slot; a clamping plate mounted on said top wall for movement between a lowered record sheet-clamping position and a relatively elevated position of sheet release; means within said casing for supporting and guiding a concealed record sheet in the form of an elongated web beneath said top wall and the slot therein; means for drawing said web past said slot embodying a rotatable member mounted in one end of said casing and to which one end of the web is fastened to effect winding thereof upon said member as the latter is rotated; manually operated means for imparting incremental rotation to said member, including a shaft; an exteriorly accessible operating lever mounted for oscillatory movement on said shaft; means biasing said lever to return the same to an initial position following manual actuation and release thereof; single-acting clutch means operative upon manual actuation of said lever to impart turning movement to said rotatable member and to release said member upon return movement of the lever to its initial position; latch means disposed within said casing and normally retaining said plate in its sheet-clamping position; spring means tending to move said plate to an elevated sheet-releasing position; and trip means operative only following predetermined web-advancing movement of said rotatable member for actuating said latch means in the release of said plate.

2,846,240
COIL SPRING DETENT COUPLING WITH DIFFERENTIALLY TAPERED OPERATING SURFACES
Walter O. Beyer, Pittsburgh, Pa.
Application July 23, 1957, Serial No. 674,006
3 Claims. (Cl. 285—5)



1. In a push-in assembly and pull-out release fluid-pressure-sensitive coupling which has line-pressure shock-absorbing and positive position-return characteristics and which has a hollow housing body to position a conduit nose in a spaced relation therein, wherein the housing body carries a resilient grip annulus of convoluted construction and a pressure-sensitive annular gasket in operative association therein, and wherein the housing body has an integral longitudinally-outwardly-converging cone-shaped operating surface throat portion for the outer periphery of the grip annulus, the combination of a cylindrical gasket-positioning surface on the conduit nose, a grip annulus position-retaining radially-inwardly-offset annular portion about and in an intermediate position on

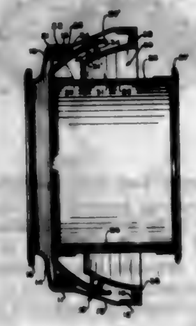
and as a integral part of said cylidrical surface, said annular portion having a radially-outwardly spread-apart section longitudinally of the coupling axis with respect to the grip annulus to position the grip annulus for backward and forward rolling take-up and return action, said annular retaining portion being defined by an inner operating surface for the grip annulus that has a central base face and a pair of opposed front and back radially-outwardly diverging cone-shaped faces, said cylindrical surface having a lesser outer diameter than the initial inner diameter of the grip annulus, the grip annulus being retained by rolling abutment on the operating surface throat portion and in a relation of reduced inner diameter and in a recoil-absorbing position longitudinally of the coupling and of rolling abutment on the back operating face of said annular portion when the members are in a coupled relationship with each other and fluid pressure is being applied to the coupling, said cone-shaped back face defining an inner operating surface for the grip annulus and converging-outwardly longitudinally of the coupling axis in the direction of and with respect to the operating surface throat portion to define a compound tapered converging operating space longitudinally of the coupling axis for the grip annulus, said back face having only a rolling tangential contact with the inner periphery of the grip annulus to provide a shock-absorbing rolling-recoil action between the coupling body and the conduit nose when fluid pressure is applied in surges, the taper of said back face having a different angular relationship with respect to the longitudinal axis of the coupling than the taper of the operating surface throat portion, and the difference between the tapers of the throat portion and said front operating face being within a maximum of 17 degrees to provide an effective and proportional fluid-pressure-actuated gripping action of the grip annulus on the conduit nose, said operating surface throat portion defining a taper with respect to the longitudinal axis of the coupling of greater than 17°, and said back operating face defining a taper with respect to the longitudinal axis of the coupling of less than 17°.

2,846,241
PIPE END TO PIPE SIDE JOINT
Joseph M. McDonnell and Galer N. Wright, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 24, 1953, Serial No. 376,832
1 Claim. (Cl. 285—192)



As an article of manufacture, a first tube, a second tube, said first tube having an opening in the side wall thereof and a curved interior side wall portion opposite said opening, the projected cross-sectional areas of said opening and said second tube being substantially equal, the exterior diameter of said second tube being substantially equal to the interior diameter of said first tube, the end portion of said second tube having a pair of longitudinally extending opposed legs, said legs having sides converging from the root portions of said legs to their extremities, said legs having a length from their roots to their extremities which is less than one-half of the interior perimeter of said first tube, the exterior side wall surface of said second tube being disposed in contiguous relation to the edge of the opening in the first tube, the legs of said second tube being disposed within and contiguous with the peripheral side wall surface of said first tube between said opening and said curved interior side wall portion, the extremities of said legs being disposed in abutting relation in said curved interior side wall portion of said first tube, said legs forming an opening longitudinally of the first tube and substantially equal in area to the internal cross-section of the second tube, and means uniting contiguous surfaces of said tubes to form a joint therebetween.

2,846,242
PACKED ANTI-FRICTION BALL AND SOCKET COUPLING
John E. Drake, Northport, N. Y.
Application November 2, 1955, Serial No. 544,545
3 Claims. (Cl. 285—263)

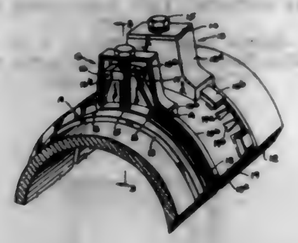


1. An angular coupling for air ducts or the like comprising a duct, means at one end for fixedly securing said duct to an air duct or the like, a folded back, hollow, substantially frusto-spherical enlargement at the other end of said duct, housing assembly means inclosing said frusto-spherical enlargement, means at one end of said housing assembly means for fixedly connecting the same to an air duct or the like, the other end of said housing assembly means extending beyond said frusto-spherical enlargement, seal assembly means intermediate said frusto-spherical enlargement and said housing assembly means and including substantially frusto-conical seal in contact with said frusto-spherical enlargement, annular retainer means, means for connecting said annular retainer means to the extended end of said housing assembly means, and ball bearing means located between said annular retainer means and said frusto-spherical enlargement, said housing assembly means including a hollow cylindrical portion enclosing said seal assembly means and an inwardly extending shoulder, said seal assembly means comprising annular wave washer means abutting said shoulder, an annular retainer surrounding said frusto-spherical enlargement in abutment with said annular wave washer means, seal means intermediate said annular retainer and said cylindrical portion of said housing assembly means, said frusto-conical seal being mounted intermediate said annular retainer and said frusto-spherical enlargement.

2,846,243
PIPE COUPLING INCLUDING ELASTOMERIC COVERED CLAMPING MEANS
Howard W. Jewell, Islington, Ontario, Canada
Application August 28, 1953, Serial No. 377,150
6 Claims. (Cl. 285—369)

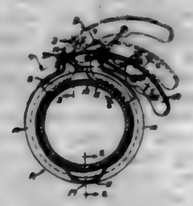
1. A coupling for the joint between adjacent ends of two sections of pipe in end-to-end abutment, comprising a belt of resiliently compressible material encircling the circumferential surfaces of the adjacent pipe ends, a housing for each band on the outer surface of the belt and having walls including end walls extending outwardly from the belt and having a cover, passages within the belt for substantially all of its annular length, one over

each pipe end, the passages opening into the housings, a clamping band extending through each of the passages whereby the bands extend under the end walls of the housings within the passages and project through the openings into the housings, a threaded member connected to each of the housings, the threaded members engaging the ends of the bands inside the housing and being rotatable to draw the ends of the bands away from the belt within the



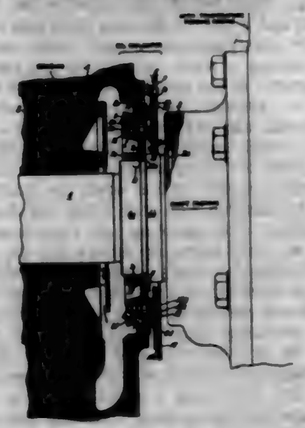
housings and thereby both tighten the bands on the belt and draw the housings inwardly so that the end walls of the housings will be seated on resiliently compressible material and will force the material of the belt against the bands in the passages, the housings providing with the belt a complete enclosure adapted to receive a sealing composition to surround the threaded members and the ends of the bands.

2,846,244
BAND CLAMP WITH SELECTIVE GIRTH ADJUSTMENT MEANS
Wards L. Parker, Encino, Calif., assignor to Aerojet Corporation, Jackson, Mich., a corporation of Michigan
Application April 24, 1956, Serial No. 580,394
3 Claims. (Cl. 285—409)



1. In a band clamp: a band having at its respective ends, radial terminals each provided with an aperture; a lever having at one end a loop to receive one of said terminals, said loop having an end cross bar provided with an integral pilot to enter the aperture of said one terminal, with said cross bar bearing against said one terminal, said lever having a handle at its other end and including an intermediate body of channel section opening inwardly and adapted to receive the other terminal; and a toggle link having at one end a pilot engageable in the aperture of said other terminal and having, at the base of said link pilot, shoulders to bear against said other terminal, said link projecting away from said one terminal, and having at its other end a pivotal connection to said intermediate body on a transverse axis, said loop pilot being of stepped construction, including a relatively narrow tip and a relatively wide base portion, and the aperture of said one terminal being a T slot having a narrow stem portion receiving only the narrow portion of said stepped pilot and having a wider head portion in which said base portion of the stepped pilot is receivable.

2,846,245
OIL DEFLECTOR FOR SHAFT SEAL WITH FORCED VENTILATION
Firm L. Weaver, Lynnfield Center, Mass., assignor to General Electric Company, a corporation of New York
Application July 9, 1954, Serial No. 442,315
4 Claims. (Cl. 286—10)



1. A ventilated shaft seal assembly for a high temperature rotor comprising a rotor portion carrying a first rotating seal ring member having a radially extending web portion of small axial thickness to limit the conduction of heat therethrough and a rim portion of an axial length substantially greater than the thickness of said web portion, a second stationary seal ring member disposed around said first ring member and having portions defining at least one small circumferential clearance space constituting an axial leakage path along the outer surface of said first ring member, a radiation shield assembly disposed adjacent and spaced axially from said first and second seal ring members to define a coolant discharge passage and including at least two annular plate members axially spaced from each other to define therebetween a first coolant fluid inlet passage, the radiation shield plate nearest the seal ring members defining a substantial annular clearance space with the rotor to form a second coolant passage, the second radiation shield plate adjacent said first plate defining a small circumferential clearance space with the rotor to restrict to a minimum the leakage of coolant therethrough, said first seal ring member having a circumferential end portion forming a centrifugal impeller radially adjacent said leakage path for inducing a flow of coolant through said first inlet passage and said second coolant passage, the impeller discharging the coolant through said coolant discharge passage and across the adjacent surface of said first radiation shield plate and creating a pressure zone at the exterior end of said leakage path to resist flow of fluid therethrough toward the radiation shield assembly.

2,846,246
SEALING DEVICE FOR CABLES OR PIPES PASSING THROUGH A WALL OR PARTITION
Lucien Pérez, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France, French works under the control and the authority of the French Government
Application March 22, 1957, Serial No. 647,894
Claims priority, application France April 12, 1956
5 Claims. (Cl. 286—16)

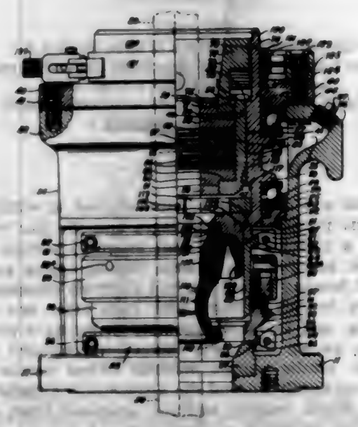
1. A sealing device for permitting the fluid-tight passage of cables and the like through a wall having its faces subjected to different media, which comprises two superposed plates of elastic material and a cover member which are formed with holes, positioned preferably along

the longitudinal center line of said plates of the passage of said cables, the inner plate opposite to said cover member being adapted to engage said wall, said inner plate having its inner face formed with one or more bosses projecting therefrom and surrounding said passage holes, holes in said wall which correspond in shape and dimensions to, and are adapted to receive, said bosses, all the passage holes of one boss being connected through semicircular sectioned branch channels opening in the outer face of said inner plate to a common point, said outer plate having an inner face adapted to fit on the outer face of said inner plate and formed with branched channels also of semi-circular cross-section which register with the channels of said inner plate and constitute



therewith substantially circular-sectioned channels, the outer face of said outer plate being formed with bosses projecting therefrom and surrounding said passage holes, filler holes extending through said outer plate and cover member at a point registering with said common point of said inner plate, registering fixation holes formed through said inner and outer plates, and also through said cover member and said wall and fastening members adapted to be inserted through the aligned fixation holes of said plates, cover member and wall, whereby when said device is assembled and mounted a suitable cement may be injected through said cover member into said filler holes and channels to seal the cables and like elements in said passage holes.

2,846,247
DRILLING HEAD
Earl W. Davis, Dallas, Tex., assignor, by mesne assignments, to The Gulberson Corporation, Dallas, Tex., a corporation of Texas
Application November 23, 1953, Serial No. 393,789
10 Claims. (Cl. 286—16.1)



6. A Kelly packing assembly arranged to be slidably carried on a kelly and to be keyed thereto so as to rotate therewith comprising: a housing; an internal annular flange at the lower end of the housing; a compression gland having a portion telescopically slidably extending into the housing; an external shoulder on the inner end of the gland; means extending inwardly of the upper end of the housing and engageable with the gland shoulder to limit the slidable outward movement of the gland with respect to the housing; and resilient sealing material slidably supported in the housing between the compression gland and the flange, whereby the resilient material may be compressed by telescoping movement between the compression gland and the housing.

2,846,248
TAPERED COUPLING CONNECTION
Arthur G. Kliwer, Sioux City, Iowa
Application July 30, 1954, Serial No. 446,890
1 Claim. (Cl. 287—2)



A device for attaching an outer tubular section to an inner drive section, comprising a bolt member, a pair of lengthened tapered opposed sleeves receiving said bolt member, said sleeves tapering to a reduced outer diameter inwardly, said sleeves extending substantially within said inner drive section, said outer tubular section and said drive section having tapered cavities conforming to and receiving said sleeves, said cavities extending inwardly beyond said sleeves, said sleeves extending beyond the outer confines of said outer tubular section, means for tightening said sleeves including a tightening nut threadably engaged with said bolt member and bearing against one of said sleeves, the head of said bolt member bearing against the other of said sleeves.

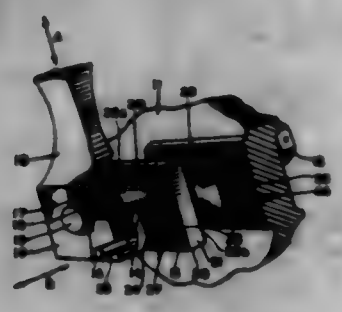
ERRATUM
For Class 287—52.04 see:
Patent No. 2,846,016

2,846,249
JOINT FOR TUBULAR MEMBERS
Axel E. F. Johnson, Cincinnati, Ohio, assignor to American Hospital Supply Corporation, Evanston, Ill., a corporation of Illinois
Application October 30, 1952, Serial No. 317,760
4 Claims. (Cl. 287—56)



1. In a joint structure, a tubular member having a pair of aligned openings in opposite wall portions thereof, a shaft member having a hollow end portion extending through both of said openings and tightly engaging the opening defining edges of said tubular member, and said shaft having raised areas inside and outside of said tubular member adjacent said openings and substantially abutting the wall portions of said tubular member throughout the entire perimetric area thereof about said openings.

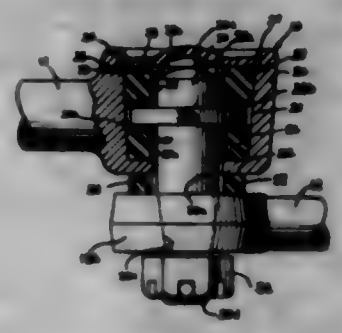
2,846,250
FASTENING AND ADJUSTMENT OF REAR FRAME STRUTS
Arthur Marshall Davis, Van Nuys, Calif., assignor to Orenda Engines Limited, Malton, Ontario, Canada, a corporation
Application August 21, 1956, Serial No. 605,395
6 Claims. (Cl. 287—58)



1. An adjustable coupling assembly comprising a first member which is adapted to be secured to a second member, a slidable adjusting block adapted to lie between the two members, each of said members having a bearing face in contact with the block, adjacent faces of the block and the second member having parallel, closely spaced serrations adapted to engage one another, the serrations being parallel to the longitudinal axis of the block, the opposite face of the block and the adjacent face of the first member also having parallel, closely spaced serrations, the second-mentioned serrations lying at an angle to the longitudinal axis of the block, an aperture in the first member of a diameter to snugly receive a bolt, an aperture in the adjusting block adapted to align with the aperture in the first member and of a diameter greater than that of the aperture in the first member, and a slot in the second member having its width substantially equal to the diameter of the aperture in the first member and its length extending normal to the direction of the serrations in the bearing face of said second member.

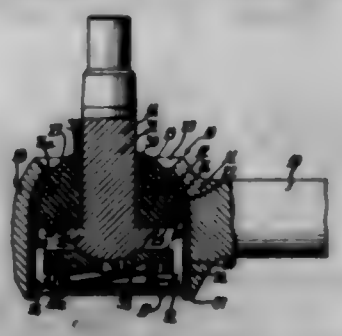
5. A method of positioning, by means of an adjusting block, a first member and a second member which are to be secured together, each of said members having a bearing face in contact with the block, adjacent faces of the block and the second member having parallel, closely spaced serrations adapted to engage one another, the serrations being parallel to the longitudinal axis of the block, the opposite face of the block and the adjacent face of the first member also having parallel, closely spaced serrations, the second-mentioned serrations lying at an angle to the longitudinal axis of the block, the first member having an aperture therein of a diameter to snugly receive a bolt, an aperture in the adjusting block adapted to align with the aperture in the first member and a slot in the second member having its width substantially equal to the diameter of the aperture in the first member and its length extending normal to the direction of the serrations in the bearing face of the second member comprising the steps of placing the block in contact with the second member with the mating serrations in engagement with one another, placing the first member in contact with the face of the block remote from the face in contact with the second member, aligning the apertures in the three members and passing a bolt therethrough and then sliding the block in a direction parallel to its longitudinal axis to cause the first member which is in engagement with the serrations lying at an angle to the longitudinal axis of the block to move in a direction normal to the direction of the serrations in the second member in accordance with the movement of the block in a direction parallel to the serrations in the second member and, when the first member is properly positioned, tightening the bolt.

2,846,251
PERMANENTLY LUBRICATED RESILIENT CONNECTOR FOR STEERING LINKAGES
Edward J. Herbener, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Original application July 6, 1954, Serial No. 441,541, now Patent No. 2,778,664, dated January 22, 1957. Divided and this application June 13, 1956, Serial No. 591,139
5 Claims. (Cl. 287—85)



1. In a steering linkage of the type including a cross-link, an idler arm supporting one end of said link and a pitman arm connected to the other end of said link for shifting the link, the improvement of permanently lubricated resilient connectors between the link and the idler arm and between the link and the pitman arm, said connectors including housings on the link, each said housing having a tapered bore, rubber-bushed bearings in each bore composed of plastic materials having a low coefficient of friction and the ability to operate without lubrication backed by oil-resistant solid elastomeric resilient rings, and studs rotatably carried by said bearings having bearing surfaces in right angular relation riding on said bearings, said bushing accommodating limited angular displacement of the studs and housing and transmitting lateral shifting movements therebetween while absorbing noise and dampening shock.

2,846,252
IMPREGNATED BEARING METAL JOINT
Edward J. Herbener, Detroit, and Theodore R. Hoopes, Royal Oak, Mich., assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application May 25, 1954, Serial No. 432,229
3 Claims. (Cl. 287—90)

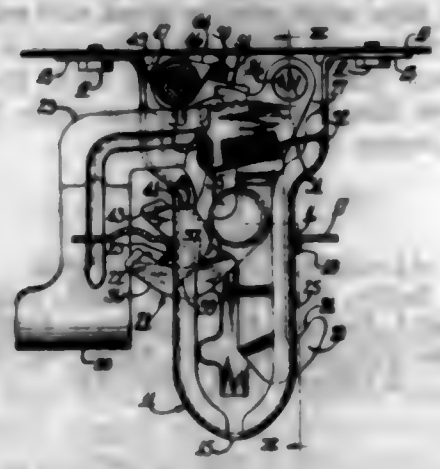


1. A ball and socket type joint adapted to withstand heavy loads in automotive linkages and the like which comprises a ball housing, a ball assembly tiltable and rotatable in said housing, a wear take-up spring assembly in said housing urging the ball assembly components into proper bearing relation with each other and with the housing, and said ball assembly including a porous metal part having the pores thereof impregnated with non-metallic plastic bearing material locked therein and extending outwardly beyond the surface of the metal and providing plastic bearing nubbins separated from each other by the relatively recessed exposed metal surface portions between said pores of said porous part, said nubbins acting as the active bearing surface of the part.

2,846,253
HOOD LATCH

Theodore H. Johnstone, Berkley, Mich., assignor to Houdaille Industries, Inc., Buffalo, N. Y., a corporation of Michigan

Application May 31, 1956, Serial No. 588,286
3 Claims. (Cl. 292—25)

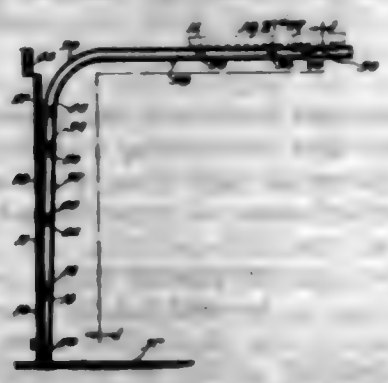


1. In a hood latch for automotive vehicles, a latch casing, a positive latch pivotally mounted within said casing and projectible from one side of said casing, an auxiliary safety catch pivotally mounted within said casing and projectible from the opposite side of said casing, spring means biasing said safety catch in projected relation with respect to said casing, spring means biasing said positive latch in retracted relation with respect to said casing, said positive latch having a locking slot therein engageable with a keeper the upper outer face of which locking slot defines a strike nose projecting from said latch casing when the positive latch is in its extreme retracted position, for striking the keeper and moving said locking slot into latching engagement therewith upon movement of said latch casing toward the keeper, said positive latch having ratchet teeth thereon extending along the end thereof opposite from said locking slot, a pawl engageable with said ratchet teeth for taking up on said positive latch during hood closing movement and holding said positive latch in a latched position, a torsion spring biasing said pawl into engagement with said ratchet teeth, a release lever secured to said safety catch for releasably moving said safety catch, and a camming face on said safety catch for engaging and releasing said pawl upon movement of said safety catch in a release direction and accommodating release movement of said positive latch.

2,846,254
LATCH MECHANISM FOR DOORS

William J. Forest, Elmhurst, Ill., assignor to Forest Door Co., Inc., a corporation of Illinois

Application May 18, 1956, Serial No. 585,868
2 Claims. (Cl. 292—76)

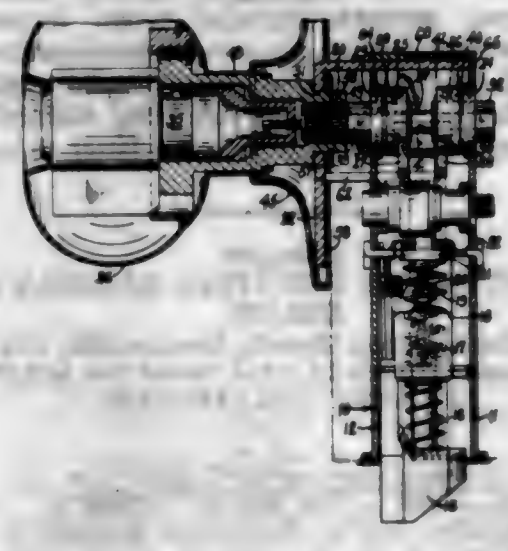


1. A latch mechanism for a sectional garage door and the like having rollers running in a pair of tracks for guiding the door sections between open and closed positions, comprising: a flat metal spring of undulating configuration mounted in one of the tracks so that portions of the undulations project into the path of one of said rollers running in said one track with spring portions between the undulations engaging the track, fastening means securing both end portions of the spring to the track, one of said fastening means comprising a pin and slot connection permitting elongation of the spring upon engagement by the roller to pass the roller into the confines of the spring, said undulations dissipating the momentum of the door and holding the door in desired position by clamping on said roller.

2,846,255
DOOR LOCKS

George W. Wardwell, Jr., Trumbull, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut

Original application June 28, 1954, Serial No. 439,528, now Patent No. 2,800,347, dated July 23, 1957. Divided and this application January 30, 1957, Serial No. 637,258
6 Claims. (Cl. 292—169)



1. A door lock comprising a casing having a latch bolt reciprocably mounted therein, a knob and rose assembly having a spindle adapted to enter the casing, means operatively connecting said spindle to the bolt to retract the same, said assembly comprising a knob and a knob shank secured thereto, said spindle being secured to the knob shank, a bearing plate carried by the rose and having an opening providing a bearing for the knob shank, means securing said plate to the rose, means for preventing removal of the knob shank from the plate, and said bearing plate having aligning prongs projecting therefrom to engage the casing and align it both vertically and horizontally with the spindle.

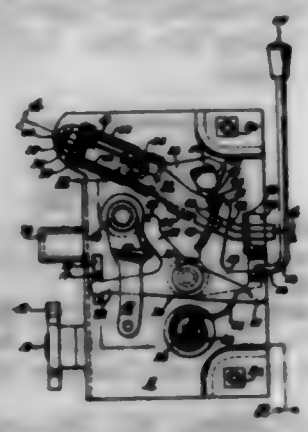
2,846,256
DOOR LOCK

John H. Roethel, Coral Gables, Fla., assignor to Roethel Engineering Corporation, Detroit, Mich., a corporation of Michigan

Application July 27, 1953, Serial No. 370,494
13 Claims. (Cl. 292—280)

6. In a latch mechanism for a swinging door, a support having two angularly related plate portions, a rotatable latch device mounted on one plate portion of the support, detent means pivotally mounted on said one plate portion and engageable with said latch device for holding the same in door latching position, said detent means having an arm extending toward said other plate portion of the support, outer manually operable means including a shiftable actuating member for pivotally actuating said detent means to disengage the same from said latch device, means pivotally mounting said actuating member on said other plate portion for swinging movement from a first position to a second position, a transmitting member pivotally mounted on said other

plate portion and coupled to said detent means arm, said actuating member when in said first position having a part adapted to engage a part on said transmitting member for shifting the latter and when in said second position having said parts free of inter-engagment, inner manually operable means mounted on said other plate portion for swinging said actuating member from said



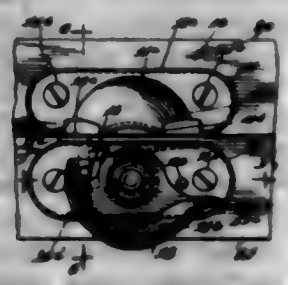
first position to said second position, said transmitting member being movable by said detent means independently of said actuating member upon rotative movement of said latch device, and means on said transmitting member adapted to abut the actuating member when in said second position to restore the latter to said first position.

2,846,257
LOCKING DEVICE FOR STEEL BARRELS AND DRUMS
Charles Linwood Sherrill, Stephenville, Tex.
Application March 23, 1954, Serial No. 418,077
3 Claims. (Cl. 292—288)



1. In a locking device for a steel barrel, and the like, having a sealed head with plugged filler and bung openings therein, a clamp assembly comprising, a lever having a hook on one end adapted to engage the rim of said head and having an integral frame portion for embracing said plugged filler opening, a companion link hingedly connected to said lever and foldable thereagainst and formed with a corresponding hook on its outer end engageable with said rim opposite from the hook on said lever, means formed on said link for embracing the plugged bung opening in said head and means for engaging said head, and means for locking said lever to said link transversely of the axis of said head.

2,846,258
SASH LOCK
Fred Gramberg, Chicago, Ill.
Application June 21, 1956, Serial No. 592,860
3 Claims. (Cl. 292—336)



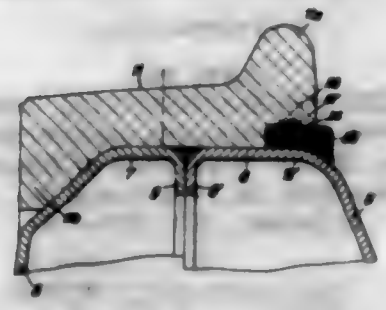
3. In a sash lock having a catch, locking means of the character described, comprising: a spring biased, generally flat rotatable latch plate with a leading edge having an outwardly extending outer portion and an inner portion curved rearwardly to the spring biased direction of rotation of the latch plate, and a trip pin having a cylindrical end adapted to abut said edge, said end being pivotable to move in a plane substantially perpendicular to said plate and generally parallel to said edge, whereby said edge outer portion urges said end generally perpendicularly to said plane when the end is perpendicular to the latch plate, and said edge inner portion urges said end in the direction of said plane when the pin end is pivoted to engage said inner portion.

2,846,259
MANHOLE COVER LIFTER
Ernest N. Sadler, San Francisco, Calif., assignor to Peter J. Feykert, San Francisco, Calif.
Application February 5, 1954, Serial No. 408,447
2 Claims. (Cl. 294—15)



1. A manhole cover lifter comprising a bar having outwardly tapering end portions and a midportion of greater diameter than said end portions; suspension means in the form of a sleeve tightly embracing the midportion of said bar, a loop fixed to and depending from said sleeve and a hook fixed to and projecting from said loop and in the same plane therewith; at least one chain fixed at one end to said loop and having links capable of hanging on said hook for shortening said chains; and a hook fixed to the free end of said chain for engaging and gripping an edge of a manhole cover or the like.

2,846,260
VEHICLE WHEELS
Heinrich Kordes, Osnabruck, Germany, assignor to Klockner-Georgsmarienwerke A. G., Osnabruck, Germany
Application October 28, 1955, Serial No. 543,518
Claims priority, application Germany November 2, 1954
5 Claims. (Cl. 295—15)



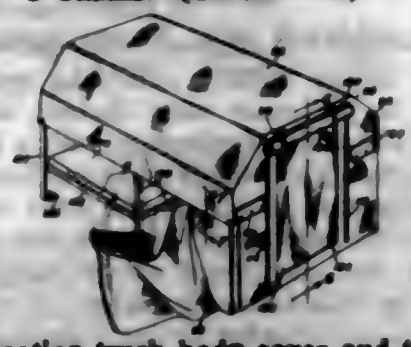
1. A light wheel particularly for railways comprising a pair of wheel discs each having a felloe-like portion and arranged adjacent to each other, a tire mounted around the discs and in contact with the felloe-like portions, the tire having an externally-projecting rim on one side and an internally-projecting annular flange on the other side, said tire having an internal cut-out portion with an inwardly-projecting edge flange, and a ring with an outer collar and mounted on one of the discs with the collar projecting into the cut-out portion with the outer collar contacting against the inwardly-projecting edge flange to maintain the tire on the discs on shrinking of the tire onto the felloe-like portions after heating of the tire and the cooling thereof.

2,846,261
GAS TANK FILLER DOOR
Ned F. Nichles, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 17, 1955, Serial No. 482,107
5 Claims. (Cl. 296—1)



1. In combination with a vehicle body having a recess formed therein, means forming an opening in said recess, a gas tank filler neck disposed adjacent said opening, a frame structure hinged on a transverse axis for angular movement in and out of said recess, means biasing said frame to a substantially vertical position in said recess, resilient stop means carried by said frame for arresting inward angular movement thereof, means on said frame for manually displacing the same to a position exposing said filler neck, and illuminating means disposed in said body and arranged to provide a source of light directed into the interior of said recess.

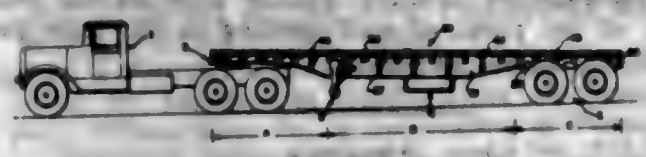
2,846,262
CONVERTIBLE TRUCK COVER AND TENT
Milton E. Ray, Elko, Nev.
Application May 28, 1956, Serial No. 587,643
3 Claims. (Cl. 296—23)



3. A combination truck body cover and tent comprising an upper framework including a plurality of rigid bows having vertically depending portions at opposite ends thereof, a plurality of stringers rigidly interconnecting said bows and maintaining the same in spaced relation so as to encompass an area comparable to that of a truck body upon which the cover is to be placed, the lower ends of said depending portions being adapted for detachable connection to a truck body, a lower framework for supporting the upper framework in elevated relation to the ground for use as a tent, said lower framework including a plurality of uprights detachably connected at their upper ends to the lower ends of said depending portions of said bows, means interconnecting and rigidifying certain of said uprights, said means forming a frame for supporting a mattress and support therefor in elevated position, a cover on said upper framework, and side panels on said lower framework forming, with said cover, an enclosure for said framework when assembled.

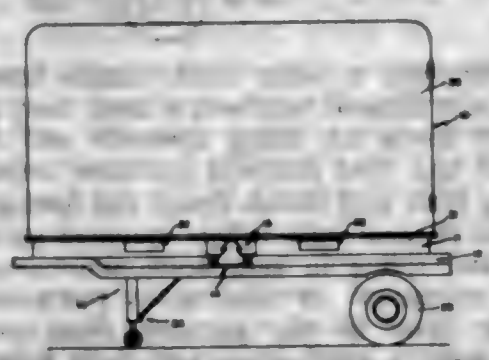
2,846,263
VEHICLE
Donald G. La Rue, Orinda, Calif., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
Application July 8, 1955, Serial No. 520,719
9 Claims. (Cl. 296—28)

1. In a vehicle having a flat, unobstructed cargo carrying surface a unitary frame and floor structure comprising a central, longitudinal inverted channel assembly including a horizontal floor section and downwardly disposed parallel web portions, cantilever floor sections connected to and supported by the central longitudinal channel structure, said cantilever sections including an elongated flat floor disposed in the same horizontal plane



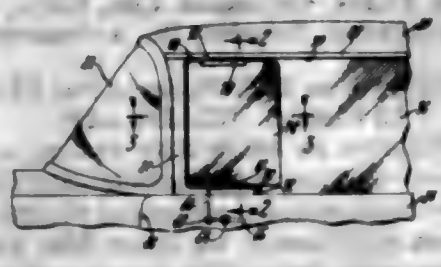
as and to either side of said first mentioned floor section and further including perpendicular downwardly formed integral rail portions, supporting outrigger members connected to said vertically disposed web portions of said central channel structure, said central elongated, inverted channel sections and said elongated flat cantilever floor sections extending the full length of the vehicle.

2,846,264
LATCH MECHANISM
Jack E. Loomis, Battle Creek, Mich., assignor to Clark Equipment Company, a corporation of Michigan
Application December 7, 1955, Serial No. 551,584
7 Claims. (Cl. 296—35)



6. In a latching mechanism, a pad member having a recess, a first fixed abutment means in said recess, first guide means on said pad member, an anchor member insertable into and retractable from said recess along a rectilinear path coaxial with said recess, second guide means on said anchor means normally engaging said first guide means, and second fixed abutment means on said anchor means normally lying in spaced parallel relation with said first abutment means, said two named guide means coacting upon relative movement of said two members in directions traversing said rectilinear path to interfittingly interpose said first and second abutment means and thereby prevent withdrawal of said anchor member from said recess.

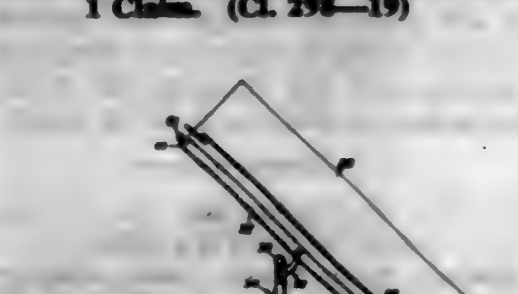
2,846,265
VENTILATION WINDOW BOOSTER
Delbert C. Probst, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 8, 1957, Serial No. 633,085
10 Claims. (Cl. 296—44)



1. A window arrangement for a vehicle body having a window opening therein comprising, a first window supported on said body for movement between a closed position wherein said window closes one portion of said opening and an open position within said body, a second window supported on said body for movement between

a closed position wherein said window closes the other portion of said opening and an open position transversely of said opening, and a third window supported on said body for movement with said second window between said open and closed positions thereof and projecting outwardly of said second window in the open position thereof to increase the effective window area located transversely of the plane of said opening in the open position of said second window.

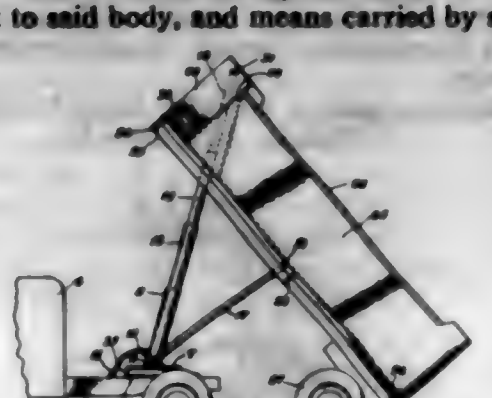
2,846,266
DUMPING TRAILER
Clifford W. Stott, Phoenix, Ariz.
Application November 23, 1954, Serial No. 470,630
1 Claim. (Cl. 298—19)



In combination, a dump truck chassis frame having horizontal side channel members, a dump body pivoted on said chassis frame for tilting upwardly and rearwardly into partial and final dumping positions respectively, a dolly rising from said chassis frame and having a pair of upright side channel rails, rollers mounted on said channel rails and riding in said horizontal channel members for movement of said dolly rearwardly under said dump body in the partially tilted position of the dump body, a carriage on said dolly having rollers thereon riding in said channel rails for upward movement of said carriage from a lowered position, stop means on said dolly limiting upward movement of the carriage, bottom channel members on said dump body, rollers on said carriage riding in said bottom channel members to tilt said dump body into partial and final dumping positions in response to upward movement of said carriage into its limit of movement and subsequent rearward movement of said dolly beneath said dump body respectively, rollers on said bottom channel members riding upwardly on and off said rails to prevent rearward movement of said dolly until said carriage is in its upward limit of movement, and pully and pull cable means connected to said carriage and dolly to move said carriage upwardly and then exert rearward pull on said dolly in the upward limit of movement of the carriage whereby to tilt said dump body from partial into final dumping positions.

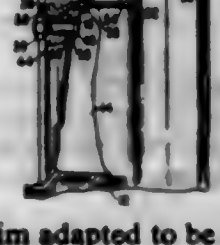
2,846,267
TIPPING BODY
John William Fields, Oklahoma City, Okla., assignor to Anthony Company, Streator, Ill., a corporation of Illinois
Application June 2, 1955, Serial No. 512,744
12 Claims. (Cl. 298—20)

1. In combination an automotive tractor, a fifth wheel thereon, a load-carrying body, ground-contacting means for said load-carrying body connected thereto at a point separated from said tractor, an upper fifth wheel, means for connecting said upper fifth wheel and said tractor draft means of substantially fixed length under all operating conditions connected to said upper fifth wheel and to said load-carrying body for relative movement with respect to said fifth wheel and to said load-carrying body, a hydraulic piston and cylinder assembly pivoted adjacent one end thereof upon said upper fifth wheel and at its other end connected to said body for relative movement with respect to said body, and means carried by said trac-



tor for supplying pressure fluid to said piston and cylinder assembly to cause its elongation and thereby to raise the forward end of the body and to tip it.

2,846,268
VEHICLE WHEELS
J Harold Hunt, Lansing, Mich., assignor to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan
Application April 19, 1954, Serial No. 424,195
5 Claims. (Cl. 301—12)



1. A drop-center rim adapted to be removably mounted on a wheel having radially extending spokes provided with means at the outer ends thereof adapted to be brought into clamping engagement with a flange portion of a rim comprising, an annular member having a radially outwardly extending flange at one edge thereof and a radially inwardly extending flange at the opposite edge thereof, said last mentioned flange being shaped for engagement by said clamping means at the outer ends of said spokes, said member having a generally cylindrical portion adjacent said last mentioned flange, said generally cylindrical portion being integrally connected with said radially outwardly extending flange by a radially outwardly extending wall having an axial extension at its outer end which merges with said first mentioned flange and a second annular member having a generally radially outwardly extending flange at one edge and a generally radially inwardly extending flange at the opposite edge, the inner edge of said last mentioned annular member being welded to the outer face of said generally cylindrical portion of said first member with an air-tight connection along a circumferential line spaced axially inwardly from said radially outwardly extending wall to define the channel portion of a drop-center type rim, said radially inwardly extending flange of said first annular member having a radially outwardly, axially inwardly sloping bearing face on the radially inner face thereof.

2,846,269
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Original application September 23, 1953, Serial No. 381,793, now Patent No. 2,729,512, dated January 3, 1956. Divided and this application December 12, 1955, Serial No. 552,426
7 Claims. (Cl. 301—37)

1. In a wheel structure including a wheel having multi-flanged tire rim and body parts with spaced wheel open-

ings adjacent their junction, a circular wheel cover for disposition on said wheel over the junction of said parts and means for centering and retaining said cover on the wheel comprising a plurality of elements fastened at spaced points to the back side of the cover, each element including a finger for retainingly gripping a flange of the



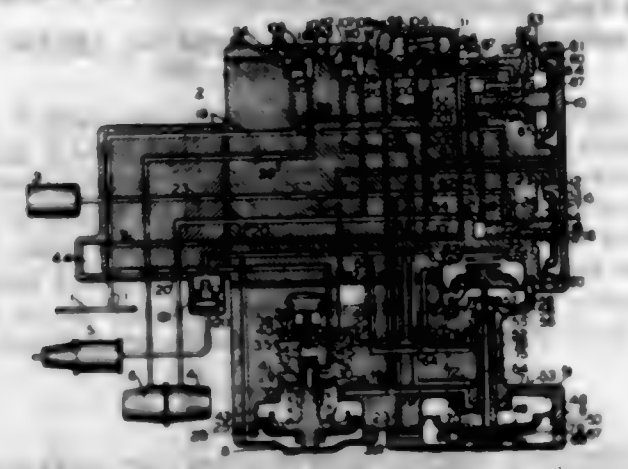
rim part and each element having another finger positioned to extend into a wheel opening to engage a wheel part therein for centering the cover on the wheel, each of said gripping fingers having an angled extremity including an axially extending leg and a generally radially extending short leg terminating in a flange gripping extremity.

2,846,270

FLUID PRESSURE BRAKE APPARATUS

Earle S. Cook, Forest Hills, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application June 28, 1954, Serial No. 439,706
7 Claims. (Cl. 303—46)



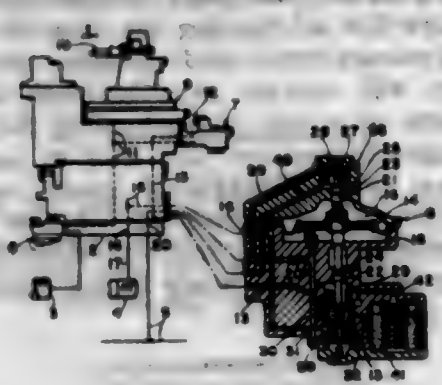
1. In a fluid pressure brake apparatus of the type comprising a brake cylinder device, a brake pipe, and a charging valve device controlled by pressure of fluid in a chamber and operative to open said brake pipe to a control reservoir and an auxiliary reservoir only when fluid pressure in said chamber is below a certain low value, the combination of a timing volume constantly open to said chamber, first valve means for supplying fluid under pressure to said timing volume and chamber in response to a reduction in pressure in said brake pipe and closing off such supply upon an increase in such pressure, second valve means controlled by fluid pressure in said brake cylinder device and operative when said brake cylinder device is substantially devoid of fluid under pressure to release fluid under pressure from said timing volume and chamber to atmosphere via a passageway containing a restriction and operative so long as said brake cylinder device is charged with fluid under pressure to prevent such release, said timing volume and restriction being of such selected sizes as to so regulate the rate at which fluid pressure in said chamber blows down to said certain value as to defer opening of said brake pipe to said control reservoir and auxiliary reservoir for any selected minimum period of time.

2,846,271

FLUID PRESSURE BRAKE APPARATUS WITH EQUALIZING RESERVOIR PRESSURE BUILD-BACK PREVENTING MEANS

Andrew T. Gorman, Monroeville, and Robert J. Worbois, Irwin, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application January 12, 1956, Serial No. 558,744
7 Claims. (Cl. 303—55)



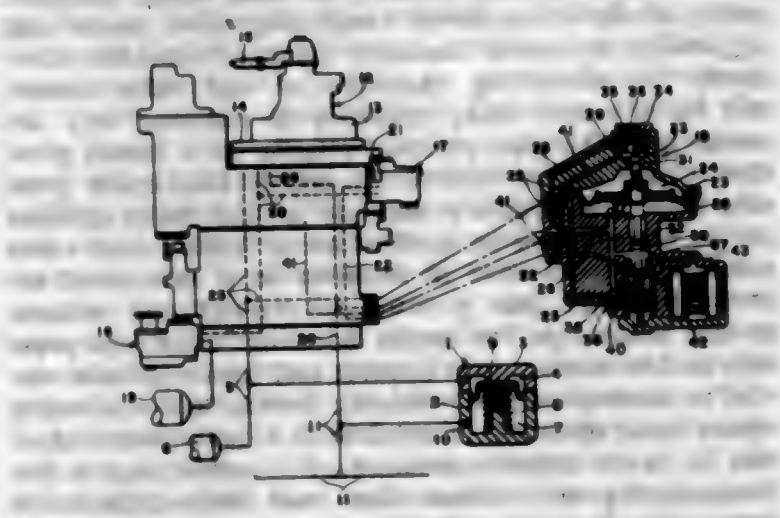
1. In a fluid pressure brake apparatus, the combination of a normally charged brake pipe, a normally charged equalizing reservoir, valve means responsive to a reduction in equalizing reservoir pressure to effect a corresponding reduction in brake pipe pressure, brake valve means operable to a plurality of positions and operable in at least one of said positions to effect a reduction in equalizing reservoir pressure and in another of said positions to bottle up fluid in said equalizing reservoir at reduced pressure, and means rendered effective by operation of said brake valve means to said one position and effective so long as said brake valve means is in said one position to heat the fluid in the equalizing reservoir for thereby heating such fluid to a degree sufficient to substantially offset the drop in temperature of such fluid which would normally occur during and in consequence of such reduction in pressure of fluid in said equalizing reservoir.

2,846,272

FLUID PRESSURE BRAKE APPARATUS WITH EQUALIZING RESERVOIR PRESSURE BUILD-BACK PREVENTING MEANS

Walter B. Kirk, East McKeesport, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

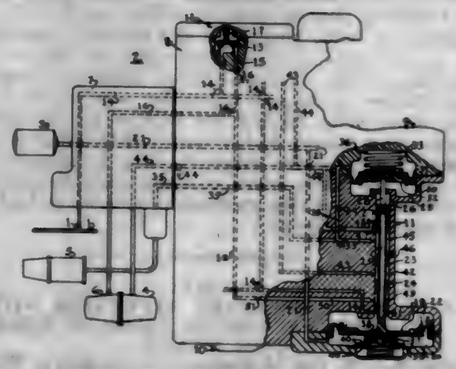
Application February 3, 1956, Serial No. 563,260
9 Claims. (Cl. 303—55)



1. In a fluid pressure brake apparatus, the combination of a brake pipe, an equalizing reservoir, operator-

controlled means operable to one position for effecting a desired reduction in equalizing reservoir pressure and to another position for bottling up fluid in the equalizing reservoir at reduced pressure, valve means responsive to this reduction in equalizing reservoir pressure for effecting a substantially corresponding reduction in brake pipe pressure, means responsive to an increase in equalizing reservoir pressure in excess of a chosen degree above an opposing pressure in a chamber to effect an increase in the effective volume of said equalizing reservoir sufficient to absorb and nullify the effect of an overall increase in equalizing reservoir pressure of a selected degree, greater than said chosen degree, and flow restricting means interposed between said chamber and brake pipe for so limiting the rate of release of fluid under pressure from said chamber that the last named means will operate to effect such increase in effective volume at a rate approximating that at which equalizing reservoir pressure will tend to increase due to the increase in temperature of equalizing reservoir fluid caused by belated absorption of heat from the ambient air surrounding the reservoir following the reduction in the pressure and hence in the temperature of fluid in said reservoir.

2,846,273
FLUID PRESSURE BRAKE APPARATUS
Everett P. Sexton, East McKeesport, and Earle S. Cook, Forest Hills, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application July 29, 1954, Serial No. 446,514
8 Claims. (Cl. 303—66)



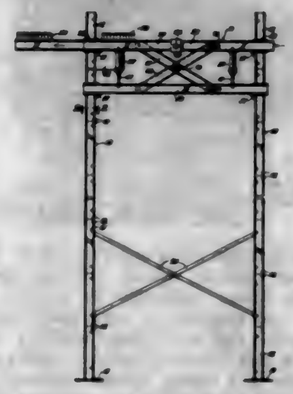
1. In a fluid pressure brake apparatus, the combination with a brake pipe, an auxiliary reservoir, a control reservoir, and a brake cylinder device, of a local volume for storing a limited quantity of fluid under pressure, and a service valve device comprising valve means and a plurality of spaced coaxially arranged movable abutments for controlling operation of said valve means, said valve means being operative in response to a decrease in brake pipe pressure relative to a datum pressure in said control reservoir to supply fluid under pressure from said auxiliary reservoir to said brake cylinder device for effecting an application of brakes, said valve means being operative in response to a subsequent increase in brake pipe pressure to connect said volume to said brake pipe for locally boosting brake pipe pressure and to concurrently connect said brake cylinder device to atmosphere for releasing brakes, and said valve means being operative in response to a consequent reduction in brake cylinder pressure of a certain degree for disconnecting said volume from said brake pipe while continuing to release fluid under pressure from said brake cylinder device a further degree corresponding to the degree of increase in brake pipe pressure.

2,846,274
TRESTLE LEGS
Katsumi Nakano, Honolulu, Territory of Hawaii
Application January 16, 1956, Serial No. 559,371
1 Claim. (Cl. 304—5)



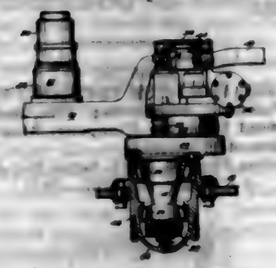
A trestle comprising a plank, a pair of opposite channel bar legs having longitudinal side flanges and webs connecting the flanges and extending above the flanges obliquely of the webs and providing a pair of flexible clamping plates on said legs for receiving the plank therebetween, a pair of wing plates on opposite sides of the clamping plates for elongating the clamping plates, said wing plates having lower corners provided with inwardly projecting lugs thereon to form rests for said plank, means connecting said clamping plates together in clamping relation, and a thrust rod terminally threaded in one of the clamping plates for rotation to thrust its other end against the other clamping plate for flexing said plates to vary the oblique position thereof on said web.

2,846,275
ADJUSTABLE SCAFFOLDING
George H. Esch, Dearborn, Mich., assignor to A. B. Segur, doing business as A. B. Segur and Company, Oak Park, Ill.
Application August 23, 1955, Serial No. 529,996
13 Claims. (Cl. 304—29)



8. An adjustable scaffold structure comprising a plurality of upstanding columns, a platform assembly adapted to move upwardly and downwardly along said columns and having upper and lower horizontal frames, driving means for cyclically moving said frames towards and away from each other, said frames each being equipped with a plurality of movable latching members alternately engageable with and disengageable from said columns in coordination with the cyclic movement of said frames, and means for synchronizing the movement of all of the latching members of each frame for maintaining said frames in horizontal relation.

2,846,276
TRAILING IDLER
Ellis C. Hendrickson, Seattle, Wash., assignor to the United States of America as represented by the Secretary of the Army
Application January 11, 1957, Serial No. 633,812
9 Claims. (Cl. 305—9)



1. In a trailing idler wheel assembly for vehicles comprising, an arm pivotally supported by the framework of said vehicle, an eccentric shaft journaled for rotation in said arm, an idler wheel carried by said shaft and means for automatically rotating said shaft in response to oscillations of said arm.

2,846,277
HEAD AND HANDLE ASSEMBLY FOR STRIKING TOOLS
Luther Marsh, Philadelphia, Pa., assignor to Griffith Tool Works, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application August 6, 1956, Serial No. 602,321
3 Claims. (Cl. 306—29)



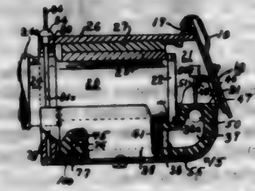
1. A head and handle assembly for striking tools comprising a head having a through bore with an outwardly tapered inlet at one end, a tubular handle having an end to snugly fit said bore and a swaged portion within said inlet, a tube in said handle expanded by pressure applied internally of said handle to expand said swaged part as an interlock between the parts, and means anchoring the inner end of said handle to said head.

2,846,278
POSITIONING MEANS FOR GUIDE ASSEMBLIES OF PUNCH PRESS DIE SETS
William J. Blazek, New Lexington, Ohio, assignor to Lempco Products, Inc., Bedford, Ohio, a corporation of Ohio
Application November 8, 1955, Serial No. 545,649
6 Claims. (Cl. 308—6)



1. In a die set embodying a pair of relatively vertically movable upper and lower die-supporting sections, relatively telescoping upper and lower post and bushing members carried respectively by said die-supporting sections, said post and bushing members being movable vertically relative to one another, and a vertically arranged tubular bearing retainer normally positioned between said post and bushing members and including a plurality of antifriction rolling elements extending inwardly and outwardly from the walls of said retainer for rolling engagement with opposed surfaces of said post and bushing members; that improvement which comprises means slidably carried by the upper of said post and bushing members in depending relation thereto and being engageable with the lower end portion of said bearing retainer to hold the latter in predetermined depending relation to the upper of said post and bushing members when said post and bushing members are removed from one another.

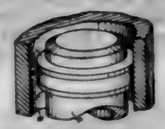
2,846,279
LUBRICATOR AND SEALING DEVICE
Leslie Day and William A. MacNeriand, Chicago, Ill.
Application June 22, 1953, Serial No. 363,348
19 Claims. (Cl. 308—87)



1. The combination with a journal box having a top wall with a slot therein, an openable cover and a journal having an outer end collar and an inner collar, of a lubricator and sealing means, said lubricator comprising a body of oil resistant, resilient material with a generally semi-circular bottom wall and an upper wall, said upper wall having an outer end portion substantially horizontal, an arcuate transverse groove adjacent the inner end of said portion receiving said outer collar, an arcuate groove adjacent the inner end of the body receiving the inner collar, and an intermediate concave portion receiving the lower portion of the journal, said upper wall also including portions extending longitudinally along the sides of said grooves and intermediate concave portion, said body having a pair of longitudinally spaced chambers, the chamber at the outer end of the body being an oil storage reservoir, the other chamber being located under the journal and having an open upper end; a passageway interconnecting the lower portions of said chambers; vent means interconnecting the upper portions of said chambers; a plurality of self supporting wicks having their lower ends moulded in the bottom wall of the body and having their upper ends extending through the opening in said other chamber and pressing against the adjacent portion of the journal; an arcuate flange extending longitudinally rearwardly at the inner end of the body, closely about the inner collar and snugly against the inner wall of the journal box to form an inner dust stop; a filling spout upstanding from said horizontal wall portion and having an outwardly turned neck open at the outer end and terminating at an angle substantially the same as the angle of the cover of said journal box and adjacent said cover; and openable lid for the filling opening, said lid when closed being held closed by the journal box cover when the latter is closed; means yieldingly urging the lid closed, and level indicating means including a float within the storage reservoir, a rod upstanding from said float and extending through an opening provided therefor in said horizontal wall portion, an indicator mounted at the upper end of said rod; and outwardly facing flanged cup in the inner end wall of said

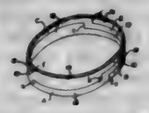
body; and a dust stop at the inner end of the journal box comprising a relatively thin member of oil resistant material having an arcuate inner collar receiving notch, said member being removably received in the slot in the top wall of the journal box, said member having a thickened resilient portion adjacent the top tightly receivable in said slot and securely retained therein; an elongated cap portion at the upper end of said dust stop member having outwardly extending shoulders engageable with the upper surface of the journal box wall; and an upstanding part fixed in said member to provide means for removing said member.

2,846,280
PISTON RING FOR INTERNAL COMBUSTION ENGINES AND THE LIKE
Heinz Berg, Frankfurt am Main, Germany, assignor to Alfred Teves, Maschinen- und Armaturenfabrik KG., Frankfurt am Main, Germany
Application October 19, 1954, Serial No. 463,218
5 Claims. (Cl. 309—23)



1. A piston ring for combustion engines, compressors, and similar devices, having a plurality of superimposed lamellated steel and plastic rings alternatingly arranged with their open abutting ring ends in staggered relationship to one another, said ends being capable of locking engagement upon contraction.

2,846,281
PISTON RING
Elemér Szigeti, Antwerp, Belgium
Application August 16, 1954, Serial No. 450,121
5 Claims. (Cl. 309—46)



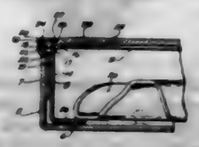
1. In a split piston ring, at least one integral piston ring portion, a projection extending from at least one end of said ring portion in peripheral direction, said projection of one end of said ring portion having a cross-section complementary to that of an adjacent end and both said projections being combined of constant cross-section and equal with that of the main portion of said piston ring, and each of said projections having at least one step in axial and peripheral directions, and both said steps having a common face disposed in a plane extending in the direction of the main axis of said piston ring.

2,846,282
TABLE EXTENDABLE IN HEIGHT AND SIZE
Guy Barker, Jr., Roxbury, Conn.
Application November 18, 1955, Serial No. 547,611
25 Claims. (Cl. 311—39)



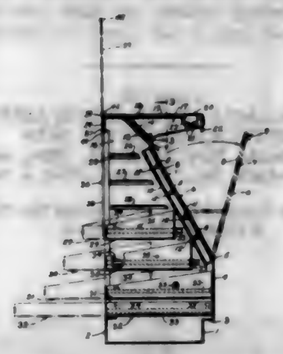
1. A table extendable from low to high position comprising a rectangular top, four legs depending from said top and lying along angularly spaced vertical planes, four short members each pivoted between one of said legs and said top, and means to move said legs in unison underneath said top along a respective one of four independent radially spaced tracks each of which is generally parallel to a diagonal of said top to change the angular inclination of said legs to said top to raise or lower said table.

2,846,283
EDGE TRIM FOR DESK TOPS AND THE LIKE
Leroy W. Pasewalk, Manitowac, Wis., assignor to Invincible Metal Furniture Company, Manitowac, Wis., a corporation of Wisconsin
Application May 14, 1957, Serial No. 659,111
6 Claims. (Cl. 311—107)



1. A top construction for a desk comprising the combination with a metal top having a downwardly extending flange at its side, of a surfacing sheet covering said top and having a flexible margin extending outwardly beyond the outside of said flange, and a finishing strip having a portion overlying said flange and another portion comprising a channel embracing the margin of the surfacing sheet in spaced relation with the edge thereof, the channel including a flange with a beveled edge overlying and in contact with the upper surface of said sheet at a point spaced inwardly from the sheet margin to clamp said sheet against the top above the flange of the top, said sheet margin being deformed downwardly as it extends beyond the flange of the top and beneath the flange of the finishing strip.

2,846,284
DISPLAY CABINET FOR CONFECTIONS
Harold J. Fitzgerald, Milwaukee, Wis., assignor to Superdisplay, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application April 19, 1956, Serial No. 579,227
2 Claims. (Cl. 312—119)



1. In a display cabinet the combination comprising a forwardly facing inclined display area at the front of the cabinet for retaining and displaying merchandise; a counter top overhanging said inclined display area which has a pair of rails at the opposite sides thereof, guide means on each rail presenting upwardly facing supporting surfaces, a cross member between said rails at the front thereof, and a transparent panel received by the supporting surfaces of said guide means which extends rear-

wardly behind said cross member and which may be removed from the counter top by sliding movement to the rear; illuminating means mounted at the front of the counter top beneath said cross member which includes a front opaque light shield blocking direct light transmission to observers at the front of the cabinet and a rear opaque light shield blocking light transmission through the transparent panel toward the rear; vertical tubes mounted at the rear of the cabinet with the upper ends thereof at a level below the transparent panel and in a position behind said transparent panel; and a rod telescoped within each tube movable vertically to the direct rear of the transparent panel, each rod having a removable head of larger diameter than the associated tube to preclude lowering of the rod to a level beneath the transparent panel thereby normally blocking removal of the panel, and each rod being movable to beneath the level of the transparent panel upon removal of the associated head to permit retraction of the panel.

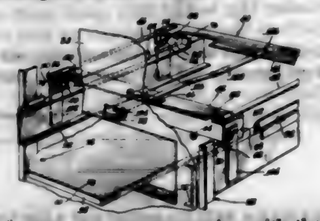
2,846,285
DESK CONSTRUCTION
Russel Wright, New York, N. Y., assignor to Shwayder Brothers, Ecorse, Mich., a corporation of Colorado
Application March 31, 1955, Serial No. 498,244
2 Claims. (Cl. 312—255)



1. A desk comprising a rigid tubular frame consisting of a pair of parallel spaced upright inverted U shaped supports diverging toward their free ends, each support defining a front and rear leg, and including a straight horizontally disposed bight, transverse cross braces interconnecting said front legs and interconnecting said rear legs adjacent their upper ends, and a horizontally disposed U shaped reinforcement arranged towards the lower ends of the legs with the free ends thereof secured to said front legs and intermediate portions secured to said rear legs, respectively, a flat top juxaposed over and supported upon the bights of said supports, and a book box mounted within said frame below said top, said box being open at its top and including upright side walls, said side walls at their upper ends terminating in central outwardly projecting flanges supportably mounted upon the support bights below and engaging said top, and fasteners extending up through said bights and through said flanges.

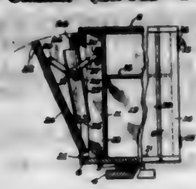
2,846,286
REMOVABLE DRAWER COVER
John R. Gomersall, Elgin, Ill., assignor to McGraw-Edison Company, a corporation of Delaware
Application March 29, 1954, Serial No. 419,159
14 Claims. (Cl. 312—270)

10. In a cabinet structure having a drawer opening, track means disposed within the cabinet structure proximate the drawer opening, and a drawer having a width slightly less than the width of the drawer opening extending through said opening and removably supported on the track means, the combination of a frame mounted within said cabinet structure above the track means, a drawer cover removably mounted on said frame and cooperative with the drawer for covering said drawer, a retaining means cooperating with said frame and the drawer cover for releasably supporting the cover on the frame, said retaining means including a plurality of holes means in said frame and a plurality of pins fixed to said cover, said pins being registerable with said holes and releasably supporting said cover on the frame, said track means being cooperative with said drawer cover for providing guide means for the drawer cover thereby limiting the movement of the cover to insure registration of the pins with the holes during assembly of the drawer cover to the



frame, and latching means cooperating with the retaining means for releasably locking the cover to the frame, said latching means including a spring finger mounted on the frame, a pin fixed to said spring finger, and hole means in said drawer cover for receiving the pin mounted on the spring finger, whereby the cover may be detached from the frame and manually removed from within the cabinet structure through the drawer opening with the track means in place after the drawer is removed from the cabinet structure, the pin mounted on the spring finger is removed from the cooperating opening, and the pins on the cover are removed from the registering hole means in the frame.

2,846,287
MAGAZINE CABINET
Clair C. Gardner, Rockford, Ill.
Application December 6, 1954, Serial No. 473,235
5 Claims. (Cl. 312—272.5)

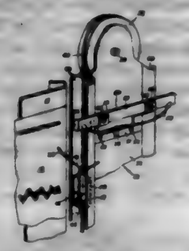


1. In a cabinet of the character described, a housing having an opening, a door hinged at its lower end on said housing to close said opening, a pair of pivotally connected toggle links connecting each side portion of the upper end of the door to the housing and arranged to fold downwardly in the closing of the door and unfold upwardly in the opening of the door while always disposed in upwardly diverging relationship, and an open top receptacle suspended at its opposite sides on said toggle linkages to be raised from a lower position in the housing in the opening of the door as the linkages unfold and in gravitating to its lower position serving to assist in the closing of the door as the linkages fold.

2,846,288
DEPTH SOUNDING DEVICES
Robert A. Frykland, Dedham, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application February 23, 1954, Serial No. 411,770
1 Claim. (Cl. 346—74)

A recorder for an echo ranging system comprising a record medium, a recording member, said recording mem-

ber comprising a stylus assembly comprising a wire bent to form a substantially polygonally shaped portion with a



pair of parallel sides with the ends of said wire extending from said polygonally shaped portion in a plane disposed at an angle to the plane of the polygonal portion, one end of said wire comprising a stylus and the other end a keying contact, apparatus for moving said member along a path across said medium, apparatus for moving said medium substantially transversely to said path, and a stationary guide engaging said member during movement of said member across said medium and substantially preventing movement of said member in a direction parallel to the direction of motion of said medium, said guide comprising a pair of parallel opposing plates formed with guiding grooves in their opposing edges adapted to receive the parallel sides of said recording member, the region of said guide plates near an end formed as a ramp surface for preventing the stylus and keying contact portions of said wire from entering the guiding grooves.

CHEMICAL

2,846,289

HIGH LUSTER POLYAMIDE FILAMENTS AND PROCESS FOR PRODUCING THEM

John Gray, Welwyn Garden City, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application December 17, 1956
Serial No. 628,569

Claims priority, application Great Britain December 23, 1955

8 Claims. (Cl. 18—54)

1. A process for the production of polyamide filaments comprising the steps of extruding a molten synthetic linear polyamide, and quenching the extruded polyamide by contact with a liquid having substantially no solvent action on the polymer and maintained at a temperature below —5° C.

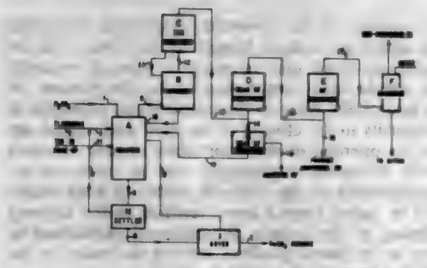
2,846,290

SLURRY PROCESS FOR THE MANUFACTURE OF HYDROGEN FLUORIDE

Jesse Craig Yacoe, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application November 28, 1955, Serial No. 549,401

10 Claims. (Cl. 23—153)



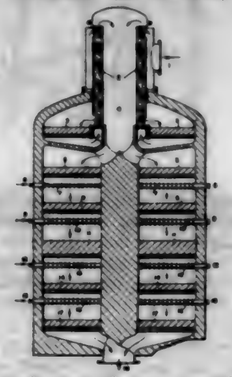
1. A process for preparing hydrogen fluoride wherein sulfuric acid having a concentration of at least 90% is reacted with approximately a stoichiometric quantity of a reactant taken from the group consisting of alkali-metal fluorides and alkaline-earth-metal fluorides in the presence of chlorinated benzene as a diluent, at least 0.67 part diluent being present for each part of metal sulfate formed, the reaction temperature being maintained within the range of 100° to 200° C. and hydrogen fluoride recovered from the gaseous product stream.

2,846,291

PROCESS AND APPARATUS FOR THE PRODUCTION OF GASES CONTAINING SULFUR TRIOXIDE

Adolf Johannsen and Herbert Wolf, Ludwigshafen (Rhine), Friedrich Hatther, Bad Duerkheim, and Walter Kammerer, Hans Stumpf, and Wilhelm Rasche, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

Application May 29, 1953, Serial No. 358,318
Claims priority, application Germany May 31, 1952
6 Claims. (Cl. 23—176)



6. In the manufacture of gases containing sulfur trioxide by the multi-stage catalytic reaction of gases containing sulfur dioxide and oxygen in which the reaction gases are cooled by the supply of cooling gas between successive stages, the improvement which comprises: intimately and uniformly mixing a plurality of individual portions of said reaction gases leaving one stage with a corresponding plurality of portions of said cooling gas at individual points extending uniformly over the path of flow of said reaction gases between a pair of successive stages, said mixing being effected by subdividing said plurality of individual portions of said reaction gases into individual sections and introducing said cooling gas separately and independently into each of said sections; and directing the resulting uniform mixture from said individual points to the succeeding stage.

2,846,292

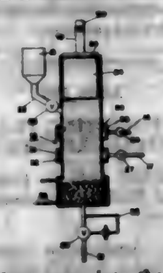
CONTINUOUS CRYSTALLIZATION APPARATUS

James I. Harper, Media, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application August 23, 1955, Serial No. 530,158
11 Claims. (Cl. 23—273)

1. A fractional crystallization apparatus including in

combination a separation tube, a heating zone in one end of said separation tube, means for supplying heat to said heating zone, a first liquid outlet connecting with the separation tube associated with said heating zone, a reciprocable piston within said tube and removed from said heating zone, a motor adapted to impart reciprocating motion to said piston, a second liquid outlet connecting with the separation tube ahead of said reciprocable piston at its point of furthest entry into said tube, means associated with said second liquid outlet adapted to allow passage of liquid therethrough only during the movement of the piston from its point of least entry into the tube to its point of furthest entry into the tube, a third liquid outlet connecting with the separation tube ahead of the reciprocating piston at its point of least entry into said tube and adjacent to and behind said piston at its point of furthest entry into said tube, valve means associated with said third liquid outlet, an inlet for introducing a slurry of solids in liquid connecting with the separation tube at a point between the second liquid outlet and the third liquid outlet and adjacent to and ahead of said reciprocable piston



at its point of furthest entry into the tube, pump means associated with said inlet, normally open valve means in said inlet adapted to close in response to rising pressure in said inlet, means associated with the valve means in the inlet adapted to start said driving means, stop said pump means, and close the valve associated with said third liquid outlet upon closing of said inlet valve in response in rising pressure in said inlet, and to start said pump means and to open said valve means associated with said third liquid outlet upon opening of said inlet valve in response to decreasing pressure in the inlet, a second valve means in said third liquid outlet adapted to close said third liquid outlet only during movement of the piston from its point of furthest entry into said tube to its point of least entry into said tube, secondary means associated with the piston for starting said driving means during the power stroke of the piston, and for stopping said driving means upon the return of the piston to its point of least entry into the tube, and screening means associated with said second liquid outlet and said third liquid outlet adapted to prevent the passage of crystals therethrough.

2,846,293

GRANULAR SOLIDS DISTRIBUTOR

Louis P. Evans, Woodbury, N. J., assignor to Socony Mobil Oil Company, a corporation of New York

Application June 17, 1955, Serial No. 516,258
4 Claims. (Cl. 23—288)



1. Apparatus for contacting a moving bed of contact material with a vapor phase reactant that comprises a reactor, means to deliver a gravitating bed of contact material to said reactor at the top thereof, a tube sheet below the top of said reactor in the flow path of the contact material entering the reactor, a plurality of spaced parallel upright, upwardly extending troughs extending horizontally across said reactor below said tube sheet, said troughs being less than 30 inches in width and being spaced so that there is less than 20 inches between adjacent troughs, contact material distribution tubes extending from said tube sheet into said troughs, the bottoms of said troughs being defined by a plurality of plates extending between side walls in mutually spaced relation with apertures therebetween and there being sufficient of said tubes that there is at least one tube serving each 14 of said apertures, means to admit a vapor phase reactant into said reactor below said tube sheet and above said troughs and means to remove vapor from the lower section of said reactor below the bottom of said troughs, whereby vapor and contact material flow concurrently through the reactor.

2,846,294

ETCHING BATH

Robert G. Patterson, Brooklyn, and Yoshikazu Yamada, Long Island City, N. Y., assignors to Mergenthaler Linotype Company, a corporation of New York

No Drawing. Application October 8, 1956
Serial No. 614,336
19 Claims. (Cl. 41—42)

1. An etching bath comprising an aqueous dispersion containing nitric acid, from 0.2 to 2.5% of a water-soluble salt of a tetradecyl sulfate, and from 1 to 75% of a water-immiscible liquid petroleum fraction boiling in the range from 70 to 390° C.

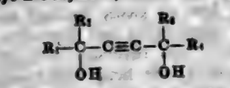
2,846,295

ETCHING BATH

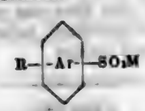
Robert G. Patterson, Westbury, and Yoshikazu Yamada, Garden City Park, N. Y., assignors to Mergenthaler Linotype Company, a corporation of New York

No Drawing. Application January 27, 1958
Serial No. 711,171
19 Claims. (Cl. 41—42)

1. An etching bath comprising an aqueous dispersion containing nitric acid, from 1 to 75% of a water-immiscible liquid petroleum fraction boiling in the range from 70 to 390° C., from 0.2 to 2.5% of a water-soluble salt of a tetradecyl sulfate, from 0.05 to 2.5% of a 1,1,4,4-tetraalkyl-2-butyne-1,4-diol having the formula:



in which R_1 and R_4 are selected from the group consisting of alkyl radicals having from four to fourteen carbon atoms, and R_2 and R_3 are selected from the group consisting of alkyl radicals having from one to five carbon atoms, and from 0.015 to 0.75% of an alkyl aryl sulfonate having the formula:



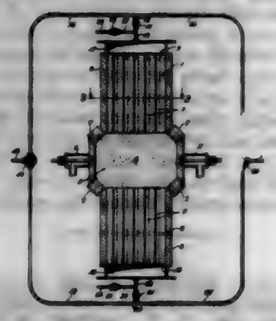
where R is a hydrocarbon radical aggregating from two to about eighteen carbon atoms,



is an aromatic carbocyclic ring nucleus having from six to ten carbon atoms and M is selected from the group

consisting of hydrogen, alkali metal and organic amine cations.

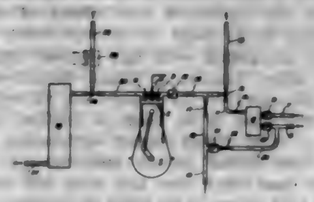
2,846,296
REFRACTORY REGENERATIVE CATALYTIC PROCESS
Rudolph Leonard Hasche, Johnson City, Tenn.
Application November 14, 1950, Serial No. 195,639
7 Claims. (Cl. 48—196)



1. A continuous, catalytic, cyclic, regenerative process for carrying out endothermic gas reactions at high temperature to produce endothermic reaction products which comprises preheating a mixture of gaseous endothermically alterable starting material comprising hydrocarbon and a free oxygen-containing gas to endothermic alteration temperatures of said starting material by linearly flowing said mixture through a plurality of straight flues, uninterrupted throughout their length, of a first regenerative mass which is progressively hotter in the direction of gas flow, burning a portion of and simultaneously catalytically endothermically altering substantially the remainder of said starting material by flowing the same through a combustion and endothermic alteration zone which has a catalyst disposed therein, said burning being controlled to supply all of the heat required for said endothermic alteration by controlling the amount of free oxygen-containing gas present in said mixture, cooling the reaction products emerging from said combustion and endothermic alteration zone by linearly flowing the same through a plurality of straight flues, uninterrupted throughout their length, of a second regenerative mass which is progressively cooler in the direction of gas flow, the direction of flow of gases through said regenerative masses and said combustion and alteration zone being reversed periodically, said reversal being effected substantially instantaneously, the heat withdrawn from the reaction products and stored in one of said regenerative masses to cool said products during gas flow in one direction being sufficient to preheat said mixture to endothermic alteration temperature during gas flow in the reverse direction, thereby avoiding the necessity of a separate reheating step, the maximum straight cross-sectional dimension of said flues not exceeding 0.75 inch, said flues being distributed substantially uniformly throughout each of said masses.

2,846,297
INTERNAL COMBUSTION ENGINE FOR THE PRODUCTION OF SYNTHESIS GAS
Otto Herwig, Nurnberg, Germany, assignor to the firm Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Bavaria, Germany
Application October 8, 1954, Serial No. 461,160
Claims priority, application Germany October 10, 1953
1 Claim. (Cl. 48—196)

A plant for generating synthesis gas and producing mechanical power, comprising an internal combustion engine having separate sources of fuel, oxygen and air, a fuel-oxygen mixture tank connected with said sources of fuel and oxygen, valve means for selectively connecting said fuel and air sources directly to said engine or connecting said mixture tank to said engine for supplying to said engine either a substantially entirely combus-



tible fuel-air mixture or a partially combustible mixture adapted for the generation of synthesis gas, a receiver for synthesis gas, and exhaust valve means connecting said engine and receiver for selectively discharging the exhaust gas from said engine into the open air or in the form of synthesis gas into said receiver.

2,846,298
METHOD OF DEFOLIATING PLANTS WITH SULFENYL AND THIOSULFENYL XANTHATES
Charles W. Osborn and Lyle D. Goodhue, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application August 11, 1953
Serial No. 373,682
19 Claims. (Cl. 71—2.3)

1. A method for defoliating a plant which comprises applying to the leaves of said plant when said plant is responsive to a defoliating agent a small but effective defoliating quantity of a compound which can be represented by the formula

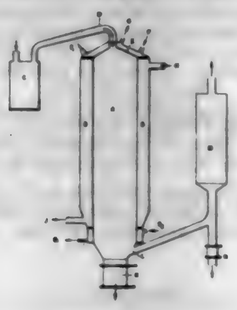


wherein R and R' are organic radicals in the class of alkyl, cycloalkyl, aryl, alkaryl, and aralkyl groups, and *n* is an integer which is one of 2 and 3 and wherein R and R' can be different and wherein whenever at least one of the R's is an alkyl group the number of carbon atoms in the group is not more than 16, whenever at least one of the R's is one of an aryl and alkaryl group the group contains 6–16 carbon atoms, and whenever at least one of the R's is a cycloalkyl group the group contains not more than 16 carbon atoms with 5–6 carbon atoms in the cycloalkyl ring.

2,846,299
PRODUCTION OF METAL POWDERS
Leo Schlecht, Ludwigshafen (Rhine), and Ernst Oestreicher, Ludwigshafen (Rhine)-Oppau, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
Application December 29, 1954, Serial No. 478,292
Claims priority, application Germany January 5, 1954
11 Claims. (Cl. 75—.5)

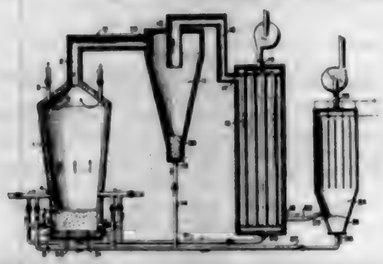
1. In a process for the production of a metal powder by thermal decomposition of a metal carbonyl in the free space of a container having the heat of decomposition applied externally through the walls thereof, the improvement which comprises maintaining the inner wall

surfaces of the container not utilized for supplying heat for decomposition at a temperature in the vicinity of but



above the condensation temperature of the metal carbonyl.

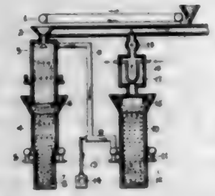
2,846,300
PROCESS FOR SMELTING ORES
Werner Wenzel, Godesberg (Rhine), Germany
Application July 15, 1953, Serial No. 368,056
Claims priority, application Germany July 23, 1952
8 Claims. (Cl. 75—26)



1. Process for reducing iron ore to metal, compriting introducing into a melting zone iron ores in finely divided form, fuel, and oxygen-containing gas, proportioning the oxygen introduced so that at the operating temperature in the melting zone the contents of carbon dioxide and steam in the gas phase, over Fe/FeO as settled matter, be slightly lower than the equilibrium concentration of the CO_2 and H_2O, heating the mixture to a temperature above the melting point of the metallic and slag phases, maintaining the solid starting components in suspension, allowing the nongaseous and nonsolid reaction products to form, to agglomerate, and to settle due to greater weight assumed by the agglomerated particles, maintaining a coke bed at the bottom of the melting zone, heating the coke to a temperature above the melting point of the reaction products, allowing the reaction products to pass through the coke during said settling action.

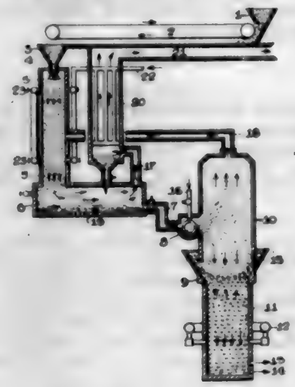
2,846,301
PROCESSES OF SMELTING FINELY DIVIDED METALLIC ORE
William E. Greenawalt, Denver, Colo.
Application August 29, 1956, Serial No. 606,875
9 Claims. (Cl. 75—40)

1. A process of smelting finely divided iron ore comprising, showering the ore through the highly heated atmosphere of a melting furnace in the upper part of a vertical shaft to melt it, delivering the unreduced molten ore in showered form, separated from the melting furnace gas, from the melting furnace into a highly heated permeable column of carbon in a smelting furnace in the lower part of the vertical shaft to smelt it, passing the hot exhaust gas from the smelting furnace into and through the showered ore in the melting furnace, passing the mixture of hot melting furnace gas and dust separated from the molten ore into and through a highly heated per-



meable column of solid material in a coalescing chamber to coalesce the molten dust particles into liquid form, and separating the molten liquified dust from the melting furnace gas.

2,846,302
SMELTING FINELY DIVIDED IRON ORE PROCESSES
William E. Greenawalt, Denver, Colo.
Application February 11, 1957, Serial No. 639,399
8 Claims. (Cl. 75—40)



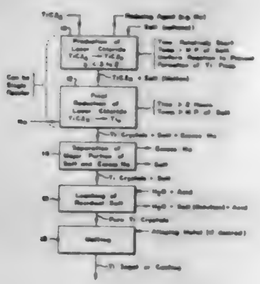
1. A process of smelting iron ore comprising, premelting the ore, separating the molten ore from the melting furnace gas, spraying the molten ore, separated from the melting furnace gas, into a highly heated reducing atmosphere in the upper section of a vertical shaft smelting furnace through its side walls to produce a mixture of reduced and unreduced molten ore while in suspension, separating the resulting reducing gas from the reduced and unreduced molten ore, delivering the mixture of reduced and unreduced molten ore in sprayed form into a highly heated permeable column of carbon in a smelting furnace in the lower section of the vertical shaft to complete the conversion of the iron oxide into metallic iron and slag, and separating the metallic iron from the slag

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2,846,303
METHOD OF PRODUCING TITANIUM
Wayne H. Keller, Wabas, and Irwin S. Zonis, Belmont, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application August 11, 1953, Serial No. 373,512
11 Claims. (Cl. 75—84.5)

10. In a process for producing titanium wherein a lower halide of titanium is dissolved in a fused salt bath which is substantially free of titanium fines and the titanium halide is slowly reduced to titanium crystals over an extended period of at least one hour by means of a

metallic reducing agent, the average titanium valence decreasing from a value of between two and three to a value approaching zero during the reduction period, the metallic reducing agent comprising at least one metal se-



lected from the group consisting of the alkali metals and the alkaline earth metals, the improvement which comprises adding molten reducing agent to the surface of the fused salt bath over an extended period of time while said bath remains quiescent.

2,846,304
METHOD OF PRODUCING TITANIUM
Wayne H. Keller, Waban, and Irwin S. Zonis, Belmont, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
No Drawing. Application June 4, 1954
Serial No. 434,648
9 Claims. (Cl. 75—84.5)

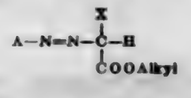
8. A process for manufacturing titanium wherein a titanium halide is dissolved in a bath of a fused salt and is reduced to titanium crystals by supplying a metallic reducing agent to the bath, the reducing agent comprising a metal selected from the class consisting of the alkali metals and the alkaline earth metals and the fused salt comprising a halide selected from the class consisting of the alkali metal halides and the alkaline earth metal halides, the improvement of which comprises maintaining between the supply of reducing agent and a major portion of the salt bath containing the dissolved titanium halide a zone comprising said fused salt which is substantially free of titanium halide, the reducing agent being introduced into and passed through the shielding layer to react with the titanium halide.

2,846,305
SEPARATION AND RECOVERY OF MERCURY
Kenneth D. Ashley and Malden W. Michael, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application April 5, 1954
Serial No. 421,196
3 Claims. (Cl. 75—121)

1. A method of separating mercury from alumina- and mercury-containing sludges arising in the production of alumina catalysts said sludges containing minor amounts of mercury of the order of about 0.5 to about 5% which comprises treating the sludge containing alumina and fine colloidal mercury with sulfuric acid having a concentration of from about 10% to about 80% to dissolve the alumina and form an aluminum sulfate solution, separating the mercury from said solution, and sulfiding the aluminum sulfate solution with hydrogen sulfide and filtering it to reduce still further the concentration of mercury therein.

2,846,306
PHOTOGRAPHIC PROCESS
John Mitchell, Stanley Ernest Orchard, Harry James Twitchett, and George Woods, Manchester, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
No Drawing. Application June 26, 1956
Serial No. 593,813
Claims priority, application Great Britain June 1, 1955
10 Claims. (Cl. 96—11)

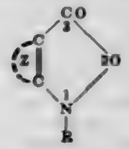
1. A finished photographic element comprising a base having thereon at least one developed and fixed photographic emulsion layer containing a dye image subject to fading by the action of ultraviolet radiation, and at least one ultraviolet absorbing monoazo compound of the formula:



wherein A is a benzene nucleus carrying at least one negative substituent selected from the group consisting of —Cl, —Br, —CN, —CF_3, —COOH, —COOAlkyl, —SO_3H, —$CO.C_6H_5$, —SO_2Alkyl, —SO_3NRR′ and —CONRR′ wherein R and R′ are selected from the group consisting of hydrogen, alkyl, cycloalkyl, aryl and aralkyl and X is selected from the group consisting of —CN, —$COCH_3$, and —COOAlkyl.

2,846,307
ISOXAZOLONE COUPLERS IN COLOR PHOTOGRAPHY
John Mathers Woolley, Manchester, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
No Drawing. Application October 17, 1956
Serial No. 541,097
Claims priority, application Great Britain October 22, 1954
14 Claims. (Cl. 96—55)

1. Process for the production of colour photographic images which comprises developing an exposed gelatino-silver halide emulsion layer with a colour photographic developer containing a primary aromatic amine developing agent in the presence of a colour coupler of the formula:

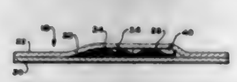


wherein Z represents the atoms required to complete a nucleus selected from the class consisting of benzene and quinoline nuclei and R represents a member of the class consisting of hydrogen and an acyl group.

2,846,308
ALKALI HYDROXIDES FOR USE IN SINGLE-POWDER PHOTOGRAPHIC DEVELOPERS
Ralph W. Baxendale, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application November 26, 1954
Serial No. 471,510
4 Claims. (Cl. 96—66)

1. A stable single powder photographic developer composition which resists deterioration when heated to 120° F. containing an organic silver halide developer, a basic ingredient selected from the group consisting of alkali borates and sulfites and an alkali hydroxide in the form of finely divided particles selected from the group consisting of sodium, potassium, and lithium hydroxide having a first protective coating thereover of sodium phthalate and a second protective coating on said first protective coating selected from the group consisting of sodium chloro phthalate, boron acetate, and 2,2,1-bicyclo-5-heptane-2,3-dicarboxylic anhydride.

2,846,309
PHOTOGRAPHIC PRODUCTS
Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application July 17, 1952, Serial No. 299,358
15 Claims. (Cl. 96—76)



1. A photographic assemblage comprising a sheet and at least a container on a surface thereof, said sheet providing at least a frame, said container including a plurality of wall portions predetermined adjacent sections of which are joined together to define a cavity, and a predetermined quantity of photosensitive silver halide emulsion within said cavity, a first section and a second section of said wall portions defining a mouth communicating with said cavity, said first and second sections being joined, the bonding forces between said predetermined sections being greater than the bonding forces between said first section and said second section, said silver halide emulsion, when opposed compressional forces are applied to said container, separating said first and second sections in order to be ejected from said cavity through said mouth and to be spread in a uniformly thin layer from one edge of said frame toward the opposite edge thereof.

2,846,310
PRODUCTION OF A VITAMIN CONTAINING NUTRITIONAL COMPOSITION CONTAINING ANTIBIOTICS
Harlow H. Hall and Robert G. Benedict, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture
No Drawing. Application December 7, 1954
Serial No. 473,763
2 Claims. (Cl. 99—9)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The method of producing a nutritional composition containing vitamin B_{12} and antibiotic activity which comprises culturing *Streptomyces griseus forma farinosus* f. nov. NRRL B-1354 in an aqueous medium comprising soybean meal, glucose, mineral salts, and the cobalt ion; permitting the fermentation to continue for a period of at least 48 hours; and admixing the resulting fermentation mixture with an animal-feed substance.

2,846,311
MANUFACTURE OF IMPROVED DOUGHNUT SUGAR AND THE RESULTING PRODUCT
George Jesse Romer, Englewood, N. J., assignor to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
No Drawing. Application December 4, 1956
Serial No. 626,095
9 Claims. (Cl. 99—92)

1. A pulverulent dusting sugar comprising in uniform distribution dextrose, fat, and kaolin, the fat being present in amount in the range from 3.5% to 9%, and the kaolin being present in amount in the range from 0.3% to 1.5%, and in addition, respectively from 16% to 0% of starch, the kaolin being in particle form adhered to the fat-coated solids of the composition.

2,846,312
PROCESS FOR PREPARING FLUID SHORTENING
Claude W. Lantz, La Grange, Walter Marvin Cochran, Highland Park, and Reinhard E. Lutz, Deerfield, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application May 15, 1956
Serial No. 584,890
3 Claims. (Cl. 99—118)

1. The method of converting plasticizable shortening in a homogeneous liquid condition to a stable fluid condition which comprises the steps of rapidly chilling the plasticizable shortening to develop therein a myriad of fine crystals, and then stirring the so-chilled shortening for a prolonged period of time of at least 48 hours at ambient atmospheric temperatures until the mass has become a moderately uniform fluid dispersion having fine crystals of the normally-solid glycerides of the mass of shortening stably dispersed in the normally-liquid oils of the mass.

2,846,313
FLAVORED DRINKING STRAW
Benjamin D. Menkin, Stanley F. Rabin, and Martin D. Scisorek, Los Angeles, Calif., assignors to Jere Bayard, Stanley F. Rabin, and Martin D. Scisorek
Application April 23, 1956, Serial No. 580,027
4 Claims. (Cl. 99—138)



3. A drinking straw comprising a tubular body and a flavored insert positioned in the tubular body at one end thereof, the tubular body having an inwardly-extending projection spaced inwardly from the end in which the insert is positioned, said projection limiting inward movement of the insert.

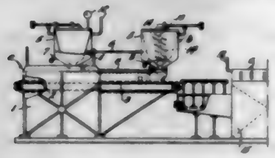
2,846,314
CONFECTIONARY PRODUCT
William J. Aichele, Chatham, and Walter W. Davenport, Hoboken, N. J., assignors to General Foods Corporation, White Plains, N. Y., a corporation of Delaware
No Drawing. Application October 26, 1955
Serial No. 543,016
15 Claims. (Cl. 99—139)

1. A whipping composition comprising a whippable protein and a water soluble non-ionic alkyl ether of cellulose, and a foam stabilizer.

2,846,315
MANUFACTURE OF DOUGHNUT SUGAR
George Jesse Romer, Englewood, N. J., assignor to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
No Drawing. Application December 4, 1956
Serial No. 626,096
14 Claims. (Cl. 99—143)

1. The method of compounding doughnut sugar having a major proportion of dextrose crystals and a minor proportion of normally solid edible fat, which comprises plasticizing at least a thixotropic portion of the fat from a harder solid state by mechanical working, and mixing the resulting fat while in its plasticized state with the remaining ingredients of the doughnut sugar including the dextrose crystals.

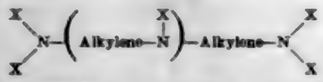
2,846,316
METHOD OF CANNING, BOTTLING, AND PRESERVING FERMENTABLE SOLIDS AND LIQUIDS
Joaquin Crespo y Garcia, Mexico City, Mexico
Application October 24, 1952, Serial No. 316,738
Claims priority, application Mexico October 24, 1951
5 Claims. (Cl. 99—182)



1. A thermo-physical method for canning and preserving edible materials which comprises the steps of continuously agitating the edible materials while heating them from a temperature of about 45° C. to a temperature of about 55° C. over a period of from 20 to 45 minutes substantially, removing oxygen from the said materials during this period, heating the canning receptacles to a temperature of about 45° to 55° C. and introducing the heated materials into said receptacles, further heating the receptacles and materials contained therein to a temperature of 65° to 87° C. for a period of 35 to 50 minutes to cause said edible material to expand and completely fill the receptacle, hermetically sealing the receptacles and thereafter steaming them at 92° to 103° C. at a pressure of 1 to 6½ pounds per square inch for a period of 35 to 50 minutes.

2,846,317
PRESERVATION OF FOODS
Frederick C. Bersworth, Verona, N. J., and Martin Rubin, Silver Spring, Md., assignors, by direct and mesne assignments, to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application January 14, 1954
Serial No. 404,129
11 Claims. (Cl. 99—182)

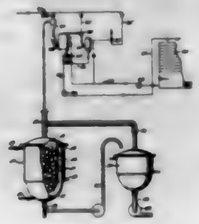
1. A method of preserving foods in containers comprising incorporating in said food immediately prior to sealing in said container a substantially neutral calcium chelate of a compound corresponding to the following generic formula:



wherein Alkylene is a low molecular weight alkyl group which adds 2 to 3 carbon atoms to the chain between nitrogen atoms; X is selected from the group —CH_2COOM, —CH_2CH_2COOM, —CH_2CH_2OH; wherein M is alkali metal, and not more than two X groups may be —CH_2CH_2OH and are on different nitrogen atoms; *n* is an integer having a value in the range from 0 to about 4, in an amount at least sufficient to react with metal ions in the food, and thereafter sealing the container.

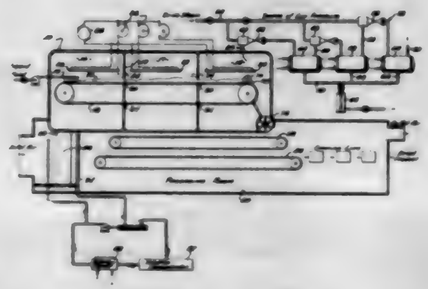
2,846,318
METHOD OF RAPID COOLING WITH MINIMAL DEHYDRATION
Edgar J. Kelly, Placentia, and Alfred H. Schlemmer, Gardena, Calif., assignors to E. J. Kelly & Associates, Inc., Los Angeles, Calif., a corporation of California
Application August 30, 1954, Serial No. 453,834
15 Claims. (Cl. 99—192)

1. In a method of rapidly chilling food products without appreciable dehydration thereof, the steps of: generating a low temperature, saturated water vapor at low absolute pressure in a generating zone; placing food to be chilled in a chilling zone; and passing a current of the low temperature, saturated water vapor generated in the generating zone over the surface of food in the chilling



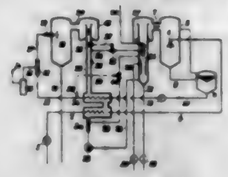
zone while maintaining a low absolute pressure in said chilling zone.

2,846,319
DRYING PROCESS
Edgar J. Kelly, Placentia, Calif., assignor to E. J. Kelly & Associates, Inc., Los Angeles, Calif., a corporation of California
Application July 26, 1955, Serial No. 524,400
11 Claims. (Cl. 99—205)



2. A process of producing a free-flowing granular, substantially dry, readily wettable product from liquefied fruit and vegetable source material having a moisture content in excess of 4% and containing fruit sugars and glucosides without development of off flavors, which comprises: subjecting a layer of liquefied fruit and vegetable source material containing water to infrared and hertzian radiation of from about 3.5 micron to 5.5 micron wave length while said material is upon an unheated support of low emissivity; progressively and controllably decreasing the pressure of atmosphere ambient said material from about 120 mm. of Hg absolute to below about 6 mm. of Hg absolute to cause formation and liberation of water vapor from said material; progressively and controllably decreasing the energy of radiation to which said layer of material is subjected; removing vapor from said ambient atmosphere at a rate adapted to maintain a virtually saturated condition therein at the existing subatmospheric pressures without entrainment of dehydrated material in the vapors removed for a time sufficient to reduce the moisture content of the material to below 4%, but insufficient to heat the material to above 100° F. and cause appreciable glazing of the material; cooling and granulating the substantially dry material; exposing the substantially dry material to an atmosphere having a relative humidity of about 2% to about 5% and at atmospheric pressure for a time sufficient to reduce the moisture content of the substantially dry material to below 2%; and packaging the material thus treated.

2,846,320
METHOD AND APPARATUS FOR HEAT TREATING LIQUID FOODSTUFF AND BEVERAGES
Walter Wittwer, Winterthur, Switzerland, assignor to Alpura A. G., Bern, Switzerland, a corporation of Switzerland
Application April 3, 1953, Serial No. 346,731
Claims priority, application Switzerland April 5, 1952
6 Claims. (Cl. 99—212)



1. In the method of heat treating liquid foodstuff and beverages in which the liquid to be treated is mixed with live steam, the liquid-steam mixture is expanded whereby steam is separated from the mixture and the liquid from which steam has been separated by expansion is removed as the useful product, the steps of diverting a controlled portion of the steam separated from the liquid-steam mixture into a zone in which the pressure is lower than the pressure of the expanded liquid-steam mixture, for controlling the expansion pressure of the liquid-steam mixture, and of indirectly transferring heat from the steam remaining after said diversion to the liquid to be treated for preheating the liquid prior to the mixing of the liquid with live steam.

2,846,321
POLISHING COMPOSITION AND METHOD
Paul E. Wenaas, Clarendon Hills, and Carl S. Miner, Jr., Winnetka, Ill., assignors to Simoniz Company, a corporation of Delaware
No Drawing. Application March 6, 1956
Serial No. 569,691
12 Claims. (Cl. 106—10)

1. In the preparation of a polish composition including a solvent and a wax both dissolved and dispersed therein, the method comprising: preparing a concentrated wax solution by completely dissolving the wax in a portion of solvent at an elevated temperature sufficiently high to bring about said dissolving and adding said concentrated solution to a cooled portion of solvent, the temperature of the cooled portion of solvent plus the added concentrate being maintained substantially constant during the addition, the total amount of solvent being insufficient to dissolve all the wax at ordinary room temperature in order that a part of the wax will be precipitated in discrete particles.

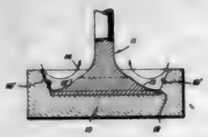
2,846,322
BACTERICIDAL DENTAL CEMENTS
Maxwell Buchalter Colton, New York, N. Y., assignor, by direct and mesne assignments, to Edgar Schaefer, Monmouth County, N. J.
No Drawing. Application April 29, 1952
Serial No. 285,092
1 Claim. (Cl. 106—35)

A bactericidal dental filling cement consisting essentially of an intimate admixture of a zinc cement set with phosphoric acid, and a multiple antibiotic consisting of aureomycin, bacitracin, chloromycetin and streptomycin, the quantity of antibotic being about ten to forty milligrams to each five grams cement.

2,846,323
MOLD LUBRICANTS FOR GLASS
Paul Oppliger, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
No Drawing. Application March 12, 1956
Serial No. 570,709
2 Claims. (Cl. 106—38.22)

2. A mold release for glass consisting essentially of an oil-in-water emulsion of from .1 to 1% by weight methylpolysiloxane fluid, from .1 to 2% by weight of paraffin oil, from .002 to .05% by weight colloidal graphite, emulsifying agent and the remainder being essentially water.

2,846,324
REFRACTORY AND METHOD
Walter R. Satterfield, Baltimore, Md., assignor to Armco Steel Corporation, a corporation of Ohio
Application May 14, 1954, Serial No. 429,841
5 Claims. (Cl. 106—44)



1. Composition for the production of highly refractory ceramic weld metal retaining products consisting essentially of aluminum oxide, magnesium oxide, silicon dioxide, silicon carbide and resin in intimate admixture in the proportions by weight of at least 60% aluminum oxide, about 6% to 30% magnesium oxide, about 1% to 30% silicon dioxide, up to about 15% silicon carbide, and about 2% to 15% resin selected from the group consisting of phenol-formaldehyde, urea-formaldehyde, melamine-formaldehyde, polyoxy ethylene esters, and polyoxy propylene esters.

2,846,325
REFRACTORY VITREOUS CERAMIC COATING MATERIALS
Dwight G. Bennett, Champaign, and William J. Plankenhorn, Lombard, Ill., assignors to the United States of America as represented by the Secretary of the Air Force
No Drawing. Application February 7, 1956
Serial No. 564,093
5 Claims. (Cl. 106—54)

1. An alkali-and alumina-free frit containing about:

	Percent
SiO_2	34–40
B_2O_3	5–10
BaO	22–28
BiO_2	8–12
CeO_2	4–6.5
ZnO	4–6
CaO	4–6
TiO_2	3–10

based on the total weight of frit.

2,846,326
REFRACTORY MANUFACTURE
Edward P. Pearson and Vaughn V. Hughey, Tiffin, Ohio, assignors to Basic, Incorporated, a corporation of Ohio
No Drawing. Application August 23, 1954
Serial No. 451,690
7 Claims. (Cl. 106—60)

1. A method of physically bonding particles of a relatively chemically inactive magnesium compound selected from the group consisting of magnesite and brucite into

briquette form comprising the steps of mixing particles of such a compound with a primary bonding agent consisting essentially of the reaction product of chemically active magnesia and an inorganic water soluble iron salt, said magnesia being present in an amount by weight of about 1.5 percent to 3 percent of the magnesium compound, and said iron salt being present in an amount by weight of about 1 percent to 4 percent of said compound, and causing said reaction product to adhere the particles of said compound one to another to impart mass integrity thereto.

2,846,327

OIL WELL CEMENT COMPOSITION

John A. Wood and Edward P. Chapman, Jr., Albuquerque, N. Mex., assignors to Vernon F. Taylor, Jr.

Application August 10, 1954, Serial No. 448,804

3 Claims. (Cl. 106—97)

1. A cement slurry of slow-setting characteristics and moderate set-strength with low-set shrinkage consisting of anhydrous calcium sulphate 33% to 67% by volume of solid constituents, Portland cement 67% to 33% by volume of solid constituents, Wyoming bentonite about 2% to 4% by weight of cement, and water in amount of about 45% to 75% of solid constituents to impart slurry characteristics.

2,846,328

NON-DUSTING MODIFIED ROSIN DRY SIZE

Edward Strazdins, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 4, 1955

Serial No. 526,575

7 Claims. (Cl. 106—218)

1. A process for the manufacture of dry rosin size of prolonged non-dusting properties which comprises first heating one mol of rosin with at least about 1/12 mol of an α,β-unsaturated organic compound of acidic character containing a —CO—C=C— group to form a Diels-Alder condensate therewith, then forming the reaction product into a dry size in particulate form, and finally coating the particles of said size with a small but effective amount of a non-volatile alkane hydrocarbon oil as anti-dusting agent.

2,846,329

PROCESS FOR BODYING VEGETABLE DRYING OILS WITH POLYMER OIL

Donald F. Koenecke, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Original application July 16, 1949, Serial No. 105,261, now Patent No. 2,709,662, dated May 31, 1955. Divided and this application December 29, 1953, Serial No. 401,085

11 Claims. (Cl. 106—265)

1. A process for producing a drying oil composition which comprises mixing a copolymer consisting essentially of a non-volatile oily copolymer prepared by copolymerizing a C_4 to C_6 conjugated diolefin with 5 to 30 wt. percent of a styrene in the presence of 50 to 500 parts by weight of a hydrocarbon diluent boiling at —15 to 200° C., 10 to 35 parts by weight of an ether having more than 2 carbon atoms, and 0.1 to 10 parts by weight of finely divided sodium metal catalyst, said copolymer having a molecular weight of from 1,000 to 10,000 and being stable up to about 305° C., with a vegetable oil chosen from the group consisting of drying and semi-drying oils, said copolymer being present in an amount of from 2 to 25% by weight of said vegetable oil, and heating the resulting mixture at a temperature of about 230–330° C. until the vegetable oil has reached the desired consistency.

2,846,330

WAX COMPOSITIONS

Erich Berthold, Hans Hoyer, and Guido von Rosenberg, Gersthofen, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application December 31, 1954

Serial No. 479,213

Claims priority, application Germany December 31, 1953

8 Claims. (Cl. 106—268)

1. A wax composition comprising a homogeneous mixture which contains (*a*) a high content of ester reaction products of at least one polyhydric alcohol and a mixture of montanic acid and at least one fatty acid having from 12 to 22 carbon atoms and (*b*) small proportions of calcium salts of said acids and the salts of at least one of said acids in which the cation is selected from the group consisting of zinc, magnesium, aluminum and mixtures thereof, the total metal content, calculated as free metal, not exceeding 5% based on the weight of the ester reaction products, the ester producing mixture of montanic acid and fatty acids being in the ratio of from 75 to 97 parts by weight of montanic acid to 25 to 3 parts by weight of fatty acid.

2,846,331

PROCESS OF DISPERSING SOLIDS IN CAPROLACTAM

Forrest J. Rahl, Morristown, N. J., assignor to Allied Chemical Corporation, New York, N. Y., a corporation of New York

No Drawing. Application July 20, 1955

Serial No. 523,363

5 Claims. (Cl. 106—308)

1. A process of dispersing about 5%–95% by weight of finely divided solid of the group consisting of delusterants and pigments in epsilon-caprolactam which process comprises subjecting a mixture of epsilon-caprolactam and about 5%–95% by weight of finely divided solid to shearing forces at concentrations of the solid and at temperatures such that the mixture flows as a viscous liquid of doughy consistency, sufficiently fluid that it does not ball up while being subjected to said shearing forces and thick enough to be pulled out under said shearing forces by viscous flow rather than being stirred, said mixture being appreciably more viscous than caprolactam per se at the same temperature and thereafter increasing the temperature to a maximum limit of about 125° C. and at least to a point at which the viscosity of the mixture is appreciably reduced; and continuing said application of shearing forces producing said pulling out and viscous flow, interspersed with periods of increasing the temperature to a point of appreciably reduced viscosity as aforesaid, at least until a dispersion results containing substantially no particle agglomerates exceeding in diameter the maximum diameter of the individual particles of the finely divided solid.

2,846,332

DISPERSIONS OF SOLIDS IN CAPROLACTAM AND PROCESS OF MAKING THEM

Glenn A. Neety, Morristown, N. J., assignor to Allied Chemical Corporation, New York, N. Y., a corporation of New York

No Drawing. Application July 20, 1955

Serial No. 523,364

6 Claims. (Cl. 106—308)

1. A composition of matter consisting essentially of epsilon-caprolactam and above 5 parts by weight of finely divided solid of the group consisting of pigments, fillers and delustrants per 100 parts by weight of caprolactam, said solid being dispersed in caprolactam with substantially no particle agglomerates of diameter greater than about 10 microns.

2,846,333
METHOD OF DEVELOPING ELECTROSTATIC IMAGES

Joseph C. Wilson, Rochester, N. Y., assignor to Haloid Xerox Inc., a corporation of New York

Application November 1, 1955, Serial No. 544,174
2 Claims. (Cl. 117—17.5)

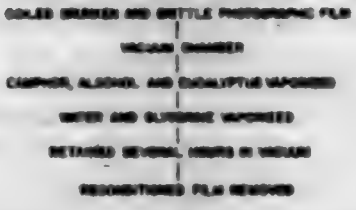


1. In a process wherein an electrostatic image is developed to yield an electrostatically adhering image of electrostatically attractable material, the improvement comprising contacting magnetic field producing means with an electroscopic developer powder consisting of a ferromagnetic ferrite of from about 100 to 325 mesh and having the composition $MeFe_2O_4$ where Me is a bivalent metal whereby said powder is formed into brush-like streamers, the particles of said powder being electrostatically charged through triboelectric contact with each other, moving said field producing means relative to a surface bearing an electrostatic image so that said streamers contact said image, the electrostatic lines of force from said image attracting oppositely electrostatically charged particles from said streamers and depositing said particles on said surface to form on said surface a deposit of said powder faithfully corresponding to said image.

2,846,334
METHOD OF RECONDITIONING EXPOSED AND DEVELOPED PHOTOGRAPHIC FILM

Lucile H. Fleck and Samuel H. Boucher, New York, N. Y.

Application March 23, 1953, Serial No. 344,248
1 Claim. (Cl. 117—63)



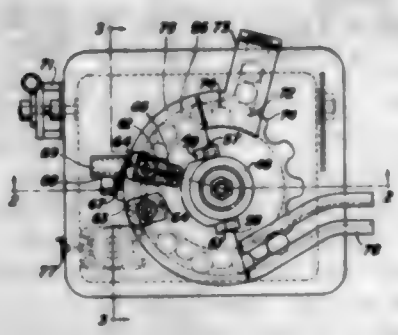
The process of treating coils of cellulose ester base photographic film to restore its flexibility which consists in exhausting the air to about ¼ inch barometric pressure in a chamber containing the still coiled films, vaporizing about equal parts of camphor and alcohol and oil of eucalyptus in a pipe, delivering the vapor into the vacuum chamber at about 78° F., about half an hour later vaporizing a mixture of about six parts of distilled water and about four parts of glycerine in a pipe and delivering it to the chamber, closing the pipes, and leaving the film in the chamber for upwards of 3 hours.

2,846,335
APPARATUS AND METHOD FOR APPLYING CONTAINER SEALING MATERIAL

Wayne I. Alholm, Stoughton, Sidney R. Ballou, Lexington, Arthur J. Lynn, Reading, Dunbar L. Shanklin, Winchester, and Richard P. Stokes, Malden, Mass., assignors to W. R. Grace & Co., Cambridge, Mass., a corporation of Connecticut

Application April 29, 1955, Serial No. 504,742
7 Claims. (Cl. 117—97)

4. The method of producing container closures in which a liquid sealing material is injected into the closure while the closure is positioned beneath a delivery nozzle, which includes the step of securing the desired position and thickness of the sealing material by removing the closure immediately after the sealing material has been deposited therein from its position beneath the delivery nozzle to a separate location and there spinning the closure with its charge of liquid sealing material at such a



speed that the material is moved on the closure from its first deposited position to its final, desired position by the force which is thereby developed.

2,846,336
METHOD OF INHIBITING THE ADHERENCE OF MOIST MATERIAL TO METAL SURFACES UNDER FREEZING CONDITIONS

Joseph P. Pardo, St. Paul, Minn., assignor to Sta-Vis Oil Company, St. Paul, Minn., a corporation of Minnesota

No Drawing. Application February 1, 1954
Serial No. 407,591
6 Claims. (Cl. 117—127)

1. A method of inhibiting the adherence of moist material to a metal surface under freezing conditions which consists of coating the surface with a mixture of "dicyclo-toppings" and "header acids" containing a substantial proportion of each in at least one diluent selected from the class consisting of mineral spirits, naphtha, gasoline and petroleum fuel oil of not heavier than No. 3 grade.

2,846,337
MAGNESIUM CHLORIDE CATALYST FOR MODIFIED UREA RESINS

Theodore F. Cooke, Martinsville, Louis J. Moretti, Somerville, and Robert C. Conn, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 28, 1955
Serial No. 537,289
11 Claims. (Cl. 117—139.4)

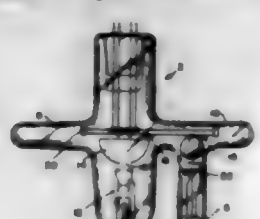
11. A process which comprises impregnating textile material with a stable, aqueous solution having a pH between 7 and 10.5, and consisting essentially of between 2.5 and about 30% by weight of an agent selected from the group consisting of methylated methylol urea, partially polymerized methylated methylol urea, methylated and unmethylated methylol ethylene ureas and methylated and unmethylated methylol 1,2-propylene ureas, and a quantity of magnesium chloride as the sole catalytic component, amounting to between about 2 and about 25% of the weight of said agent, and a small amount of a compatible alkaline material sufficient to provide such alkalinity and corresponding to an amount up to about 1% of magnesium oxide, based on the total weight of anhydrous magnesium chloride, in sufficient amount to deposit thereon between about 20 and 25% of said agent, based on the weight of the dried textile material, drying the impregnated textile material at least partially, pressing the impregnated material more than 24 hours after the impregnating operation and while the moisture content is between about 5 and 20%, based on the weight of the dried textile material, and curing the material by exposure to a temperature of above about 275° F. and below the temperature at which degradation of the textile material commences for a period sufficient to convert the agent to the water-insoluble state, whereby a material of substantially permanent wrinkle resistance and shrinkage resistance is obtained.

2,846,338

SECONDARY ELECTRON EMITTER

William G. Shepherd, St. Paul, Minn., assignor to the United States of America as represented by the Secretary of the Army

Application August 3, 1954, Serial No. 447,691
3 Claims. (Cl. 117—219)



1. A secondary electron emitter comprising a body consisting of a magnesium-silver alloy, a duplex coating comprising a thin film of magnesium oxide on said body and a layer of barium oxide on said magnesium oxide, said barium oxide being of such thickness that the secondary emission ratio of the coating is substantially equal to the secondary emission ratio of said magnesium oxide film.

2,846,339

METHOD OF FORMING AN ELECTRON EMITTING BODY

John N. Dempsey, Edina, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application October 21, 1953, Serial No. 387,515
4 Claims. (Cl. 117—223)

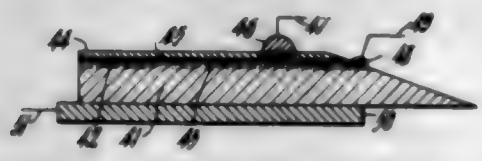
1. The method of forming an electron emitting body which includes the steps of impregnating a porous metal sponge matrix with an aqueous solution of an alkaline earth metal formate and an alkaline earth metal acetate, said formate and said acetate being employed in substantially equi-molar proportions, thermally decomposing said salts to the oxide form in-situ and then activating said oxide impregnated matrix to create electron emitting characteristics.

2,846,340

SEMICONDUCTOR DEVICES AND METHOD OF MAKING SAME

Dietrich A. Jenny, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application June 18, 1956, Serial No. 591,824
10 Claims. (Cl. 148—1.5)



1. A transistor comprising a substrate of n-type gallium arsenide as collector, a base region of gallium arsenide containing cadmium so as to be p-type, and an emitter consisting of a cadmium arsenide layer on said base region.

2,846,341

COMBINATION PICKLING AND COATING BATHS FOR FERROUS METALS AND METHODS OF USING SAME

William C. Johns and Wesley J. Wojtowicz, Detroit, Mich., assignors to The H. A. Montgomery Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application January 23, 1956
Serial No. 560,859
27 Claims. (Cl. 148—6.14)

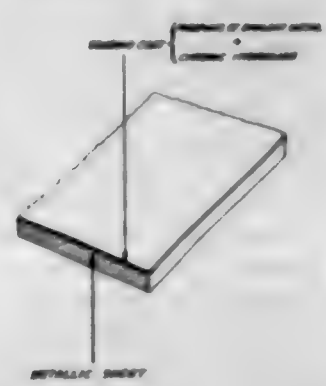
1. In the treatment of ferrous metal to pickle and coat the same, the step of immersing the metal in a heated pickling bath comprising an aqueous solution of from about 5% to about 15% by weight of pickling mineral acid selected from the class consisting of sulfuric and hydrochloric acids and mixtures thereof, from about 2% by weight up to the limit of its solubility of oxalic acid, and at least 0.5% by weight of soluble ferric iron salt, and continuing the immersion until the desired degree of pickling and coating have occurred.

2,846,342

BONDING COATS FOR METAL

Leo P. Curtis, Cranbury, N. J.

Application September 30, 1955, Serial No. 537,900
6 Claims. (Cl. 148—6.16)



1. Process for producing an adherent bonding coat on aluminum, zinc and ferrous metal surfaces which comprises the following sequence of steps: (1) freeing the metal surface from water-breaks, (2) wetting the metal surface with a solution containing chromate selected from the class which consists of chromic acid and ammonium dichromate, the solution also containing a hypophosphite reducing agent for said chromate selected from the class which consists of free hypophosphorous acid and calcium, magnesium and zinc hypophosphites and (3) destroying substantially completely oxidants and reducing substances present in the film of said chromate solution adhering to the metal surface by heating to a temperature above 100° C., the residue remaining on the metal surface constituting an adherent, chromic hydroxide-phosphate bonding coat.

2,846,343

PRODUCT AND METHOD FOR EFFECTING A COLD CHEMICAL OXIDATION OF ALUMINUM AND ITS ALLOYS

Walter A. Mason, Minneapolis, Minn.

No Drawing. Application September 21, 1955
Serial No. 535,740
13 Claims. (Cl. 148—6.24)

1. A solution comprising a water solvent, a cupric salt, a copper blackening agent selected from the group consisting of selenium and tellurium, a catalyst, and an acid compatible with the other elements of the solution as an electrolytic agent and capable of dissolving the surface oxide of the surface to be coated with the solution.

8. A method for effecting a cold chemical oxidation of aluminum and its alloys comprising coating the metallic surface with cupric chloride, ferric chloride, and a copper blackening agent selected from the group consisting of selenium and tellurium in an acidic solution comprising water and an alcohol selected from the group consisting of isopropyl alcohol and methanol to effect a union between the aluminum surface and blackened copper for producing aluminum having a surface with a black color.

2,846,344

METHOD OF CARBURIZING STEEL AND STEEL ALLOYS, AND FUSED SALT BATH THEREOF

Frederick David Waterfall and Robert Leslie Hewson, Oldbury, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application March 23, 1956
Serial No. 573,330
Claims priority, application Great Britain March 25, 1955
7 Claims. (Cl. 148—15.5)

1. A fused salt bath for the heat treatment of steels and alloy steels which comprises alkaline earth metal halide, alkali metal halide, 5% to 30% of alkali metal cyanide, and 0.25% to 5% of a regenerator selected from the group consisting of titanium and titanium dioxide, the percentages indicated being calculated on the total weight of the bath.

2,846,345

METHOD OF CARBURIZING STEEL AND STEEL ALLOYS, AND FUSED SALT BATH THEREOF

Frederick David Waterfall and Robert Leslie Hewson, Oldbury, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application March 23, 1956
Serial No. 573,331
Claims priority, application Great Britain March 25, 1955
10 Claims. (Cl. 148—15.5)

7. A process for heat treating steel and alloy steel which comprises heating the steel in a fused salt bath comprising more than 50% by weight of an alkali metal halide, an alkali metal cyanide and 0.25% to 5% by weight of titanium.

2,846,346

SEMICONDUCTOR DEVICE

William E. Bradley, New Hope, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application March 26, 1954, Serial No. 418,887
6 Claims. (Cl. 148—33)



1. As a structure suitable for use in semiconductor devices, a body of semiconductive material having a depression therein, a large-area rectifying connection to said body at the bottom of said depression producing a first rectifying barrier disposed substantially parallel to the bottom of said depression, and means producing a second rectifying barrier situated between said first barrier and the external surface of said body opposite said first barrier.

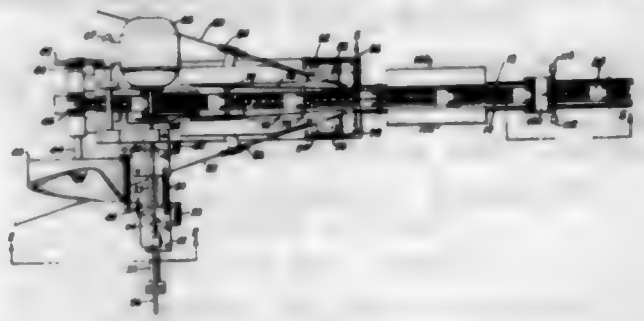
2,846,347

MACHINE FOR MAKING OPEN WIRE TRANSMISSION LINE

Joe D. Giulie and Leslie E. Worcester, Palo Alto, Calif.

Application April 3, 1952, Serial No. 280,416
2 Claims. (Cl. 154—2.24)

1. In a machine for making open wire transmission line wherein are provided a bed, an endless straight line conveyor extending longitudinally of said bed, drive means for continuously advancing said conveyor, a series of work holders fixedly secured at spaced intervals along said conveyor, each of said work holders having a leading arm and a trailing arm forming a slot therebetween for receipt of a short plastic rod, said slot being normal to the path of travel of said work-holders, the leading arms of said work-holders being shorter than the trailing arms, means for cutting a slit in either end of each of said plastic rods, means for inserting a wire in each of said slits, means positioned thereafter for heating the ends of said plastic rods, and means for crimping the ends of said plastic rods whereby to envelope said wires while said ends of said plastic rods are in a heated condition, the improvements comprising: means for frictionally engaging an extended length of said plastic rod and means for severing said rod into individual rods each of a length equivalent to the distance between said end-crimping means; means for reciprocating said rod-engaging means normal to the bed of said machine, said rod-engaging means frictionally engaging said rod only when said engaging means advances toward the bed of said machine, said rod-engaging means serving to advance an end of said extended length of rod into a position transverse to said conveyor and directly over said conveyor at a height sufficient that the leading arm of said work holder will pass therebeneath but the trailing arm of said work holder will engage said rod, said severing means being positioned about said conveyor and to one side thereof between said conveyor and said rod engaging means, said severing means comprising a circular saw



having drive means therefor and means associated therewith synchronized with said engaging means whereby said saw is lowered into contact with a length of rod after said rod is advanced over said conveyor; support means positioned at either side of said conveyor directly beneath the area occupied by said length of rod after said feed means has advanced said rod, said support means being at least as high as the leading arms of said work holders but lower than the trailing arms of said work holders; resilient means positioned directly above said support means for urging said length of said rod downwardly into contact with said support means, said support means having ramps leading downwardly in the direction of movement of said conveyor, said ramps having resilient means positioned thereabove for urging rods supported by said ramps into close engagement therewith whereby a length of rod is first severed by said cutting means and thereafter the trailing arm of a work holder mounted on said continuously moving conveyor engages said length of rod and advances it down said ramps while said resilient means mounted above said ramps urges said length of rod into the slot between the arms of said work holder.

2,846,348

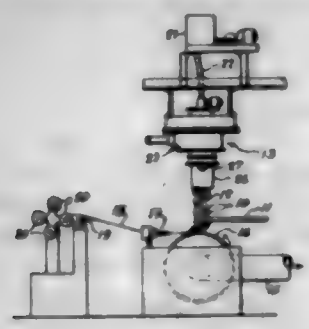
GLASS FIBER SIZING

Alfred Marzocchi, Pawtucket, R. I., Alfred Winsor Brown, Ridgewood, N. J., and Gerald E. Rammel, North Attleboro, Mass., assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio, a corporation of Delaware

Application October 26, 1954, Serial No. 464,902
6 Claims. (Cl. 154—90)

1. In a method for producing a fibrous glass of the class described which includes the steps of forming a plurality of fine glass fibers, depositing and accumulating the fibers, and progressively removing and laterally compacting the accumulated fibers, the improvement which comprises spraying onto the fibers, prior to accumulation, an aqueous

dispersion containing from about 8 percent to about 13 percent of a linear polyglycol polymer wherein the polyglycol is a mixed ethylene-propylene polyglycol produced from 45 percent to 75 percent of ethylene glycol and 55



percent to 25 percent of proplylene glycol, from 2 to 8 percent of tricresyl phosphate, and from about 0.2 percent to about 1.0 percent of a dispersing agent which is chemically similar to the linear polymer.

2,846,349

ARYL MERCURY ACID SALTS AND METHOD OF PREPARATION THEREOF

Archibald M. Erskine, Berkeley, Norman R. Nygard, Oakland, and Richard M. Lydon, Richmond, Calif., assignors to The California Ink Company, Inc., San Francisco, Calif., a corporation of Delaware

No Drawing. Application April 1, 1957
Serial No. 649,625

19 Claims. (Cl. 167—30)

1. A composition having the formula

$$Ar—Hg—A.n(H—A)$$

in which Ar is an aryl group; Hg is mercury; A is the anion of a weak monobasic acid selected from the group consisting of naphthenic acid, fatty acids containing between about 8 and 18 carbon atoms, and mixtures of such acids; n is greater than 0.2; and H is hydrogen.

2,846,350

FUROYL DITHIOCARBAMATES

Robert A. Braun, Glenside, and W E Craig and Chien-Pen Lo, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application February 29, 1956
Serial No. 568,445

7 Claims. (Cl. 167—33)

5. A process for controlling fungi on living plants which comprises supplying to their environment a compound from the class consisting of difuroyl ethylenebisdithiocarbamate and furoyl dialkylthiocarbamates in which the alkyl group contains not over four carbon atoms.

2,846,351

METHODS OF USING FATTY ACIDS TO REMOVE NEMATODES FROM LIVESTOCK

Armen C. Tarjan, Winter Haven, Fla., Vance J. Yates, Madison, Wis., and James L. Holmes, Vinita Park, Mo., assignors, by direct and mesne assignments, to Mallinckrodt Chemical Works, St. Louis, Mo., a corporation of Missouri

No Drawing. Application May 16, 1956
Serial No. 585,173

8 Claims. (Cl. 167—53)

1. The method of removing nematode parasites from nematode infected livestock which comprises administering to said livestock a nematoxic dose of compound selected from the group consisting of aliphatic acids having not less than 7 and not more than 11 carbon atoms.

2,846,352

VITAMIN COMPOSITIONS AND METHOD FOR PRODUCING THE SAME

Charles C. Bryant, Grosse Pointe Woods, Mich., assignor to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application December 10, 1953
Serial No. 397,463

21 Claims. (Cl. 167—81)

1. An aqueous multivitamin dispersion comprising water, vitamin B_{12}, vitamin C, a water-swellable montmorillonite clay and at least one member of the class consisting of (1) vitamins A and D and (2) thiamine and riboflavin.

2,846,353

CAPSULE AND METHOD OF PRODUCTION

Edward W. Piper, Detroit, Mich.

No Drawing. Application September 4, 1956
Serial No. 607,579

7 Claims. (Cl. 167—83)

1. A medicinal capsule consisting essentially of a container formed of a self-sustaining film of undenatured zein having a wall thickness of 0.002 to 0.05 inch, said capsule having contained therein a medicinal substance, said zein being soluble in 70–80% aqueous ethanol and insoluble at room temperature in water, in absolute alcohol and in acetone.

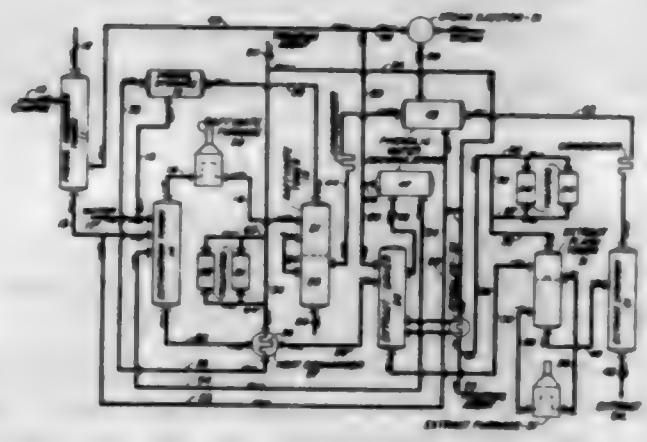
2,846,354

METHOD OF REDUCING CORROSION AND PLUGGING OF SOLVENT EXTRACTION PROCESS EQUIPMENT

Le Roy W. Holm, Crystal Lake, and George M. Longland, Jr., Algonquin, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application September 7, 1955, Serial No. 532,922

14 Claims. (Cl. 196—14.42)



1. In a solvent refining process for improving the qualities of mineral lubricating oil wherein an oil is contacted with a phenol solvent to produce an oil-rich phase and a solvent-rich phase which are subjected to heating conditions whereby the phenol solvent is removed for recycle into the system, the improvement comprising main-

taining a contact material selected from the group consisting of calcium oxide, calcium hydroxide, calcium carbonate, barium oxide and barium hydroxide and mixtures thereof in contact with the phenol prior to subjection to said heating conditions, said material being present in amounts up to the equivalence of about 0.05 percent by weight based on the amount of phenol and sufficient to prevent corrosion and plugging in the process equipment.

2,846,355

RECOVERY OF WAX FROM LUBRICATING OIL STOCKS

Herbert Stanley Burk, Maplewood, La., assignor to Cit-Con Oil Corporation, Lake Charles, La., a corporation of Delaware

Application February 16, 1954, Serial No. 410,472
1 Claim. (Cl. 196—18)



In a solvent extraction process in which a petroleum distillate of lubricating viscosity is countercurrently contacted with furfural in an extraction zone at a temperature in excess of 200° F. and in which a waxy raffinate stream of increased paraffinicity over the charge oil and an extract stream comprising undesirable constituents of the charge oil, wax and furfural are separately recovered the improvement which consists in withdrawing the extract stream from countercurrent contact, cooling the extract stream to a temperature of about 120° F., introducing the cooled extract stream into a settling zone wherein upper and lower layers are formed, the upper layer consisting of wax, oil and furfural and the lower layer consisting primarily of oil and furfural, withdrawing the upper layer from the settling zone and cooling the same to a temperature of from about 30° F. to about 80° F., introducing the cooled upper layer into a wax separation zone wherein the wax is separated from the oil and solvent, heating the separated wax and mixing the same with the waxy raffinate obtained from the extraction zone, withdrawing cooled oil and solvent after wax separation from the wax separation zone and combining said oil and solvent with the solvent layer withdrawn from the settling zone and further processing the combined stream of raffinate and wax from the separation zone to recover an oil of lubricating viscosity and a refined wax product.

2,846,356

HYDROREFINING FOLLOWED BY HEAT STABILIZING

Ivor W. Mills, Glenolden, Pa., and William E. Bonnet, New Castle, Del., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application October 11, 1955
Serial No. 539,924
6 Claims. (Cl. 196—24)

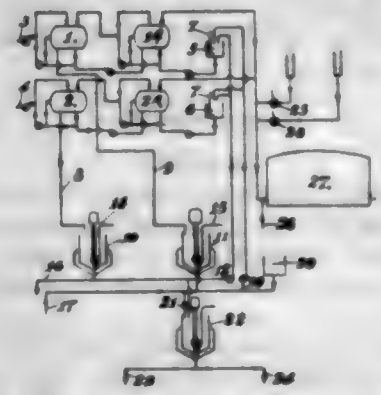
1. Process for refining petroleum which comprises: contacting a petroleum distillate fraction having boiling range at least as high as that of gas oil and having A. P. I. gravity not substantially greater than 40 with hydrogen at a temperature within the approximate range from 650° F. to 750° F. and a pressure of 1000 to 2000 p. s. i. g. in the presence of a hydrogenation catalyst, said contacting being performed under conditions providing a product having improved oxidation stability in the presence of an antioxidant additive and also having corrosive properties with respect to copper; separating the contacted fraction from catalyst; subsequently subjecting said fraction to a temperature within the approximate range from 450° F. to 650° F. for at least five minutes in the absence of a hydrogenation catalyst, thereby to obtain a suitably non-corrosive product; and removing hydrogen sulfide from the product.

2,846,357

REFINING OF LIGHT AND HEAVY PETROLEUM HYDROCARBONS SEPARATELY WITH ALKALI AND CRESYLIC ACID FOLLOWED BY REGENERATION OF THE ALKALI SOLUTION

Eric McNeill and Ronald Alfred Dean, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

Application November 3, 1953, Serial No. 390,024
2 Claims. (Cl. 196—32)



1. A process for the refining of catalytically cracked gasoline produced by the catalytic cracking of petroleum hydrocarbons boiling within the wax distillate range, which comprises separating the cracked gasoline into a heavy gasoline boiling between 160–220° C. and containing the thiophenols and cresylic acids present in the cracked gasoline, and a light gasoline boiling up to 160° C., treating the heavy gasoline with caustic alkali solution free from a solutizing agent and in the absence of air for the production of a sweet heavy gasoline and a caustic alkali extract solution containing thiophenols and cresylic acids, treating the extract solution with free oxygen under oxidising conditions to convert the thiophenols into disulphides and yield a cresylic acid-containing caustic alkali solution, treating the light gasoline with a cresylic acid-containing caustic alkali solution derived solely from the heavy gasoline treatment and in the absence of air to remove mercaptans from said light gasoline and provide a sweet light gasoline and a mercaptan-containing caustic alkali solution, and treating said mercaptan-containing caustic alkali solution with free oxygen under oxidising conditions to convert the mercaptans into disulphides and yield a cresylic acid-containing caustic alkali solution from which cresylic acid may be recovered in known manner.

2,846,358

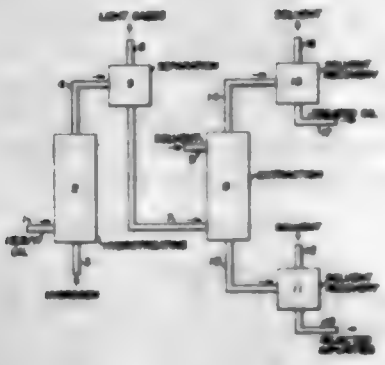
REMOVAL OF METAL CONTAMINANTS FROM HEAVY OILS BY HYDROGENATION FOLLOWED BY SOLVENT EXTRACTION

Herman Bieber, New York, N. Y., and Harry M. Hartzband, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application March 6, 1956, Serial No. 569,705
2 Claims. (Cl. 196—35)

1. A process for improving the quality of heavy oils containing constituents non-vaporizable at atmospheric

pressure which comprise mildly catalytically hydrogenating said oil in the presence of hydrogen and a sulfur resistant catalyst at a pressure in the range of 200 to 2000 p. s. i., a temperature in the range of 600° to 950° F., a space velocity of 0.25 to 4.0 v./v./hr. and a hydrogen partial pressure of 100 to 2000 p. s. i. to convert non-



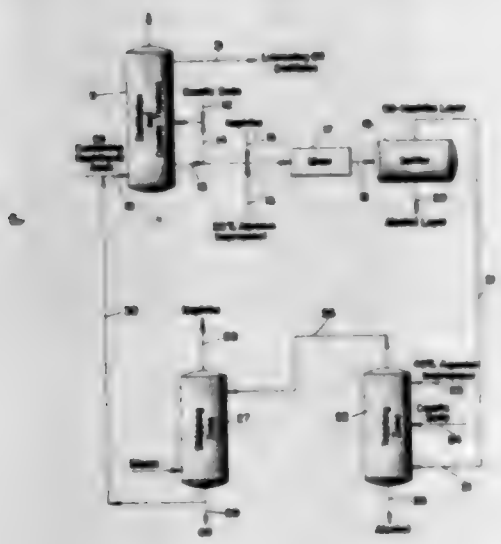
volatile and non-extractable polymeric metal contaminants to volatile and extractable monomeric compounds, and treating the hydrogenated product with a solvent selected from the group consisting of butyrolacetone, phenol, furfural, pyridine, acetic acid saturated with bromine, and dimethylsulfoxide to remove the extractable monomeric compounds.

2,846,359

PREVENTING LOSS OF COLOR ON AGING BY TREATING WITH ALCOHOL AND ALKALI

Hugh L. Myers, Springfield, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application November 2, 1955, Serial No. 544,441
4 Claims. (Cl. 196—41)



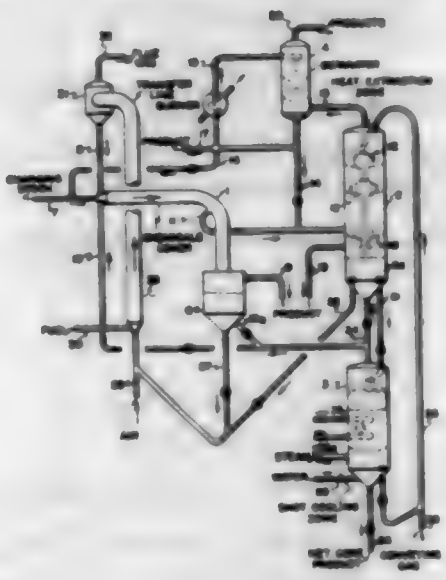
1. Process for refining petroleum which comprises: contacting in liquid phase a petroleum material containing constituents selected from the group consisting of naphthenic acids and soaps thereof with a treating agent comprising an aqueous solution of a lower alkanol; separating liquid petroleum material from liquid treating agent containing soaps of said naphthenic acids; subsequently contacting in liquid phase the petroleum fraction from which the naphthenic acid derivatives have been removed with a second treating agent comprising an aqueous solution of a lower alkanol of greater concentration than the first-named solution, thereby to remove impurities from the petroleum fraction, the latter contacting being performed in the presence of an inorganic base; and separating liquid petroleum from the second treating agent in liquid phase.

2,846,360

PROCESS FOR SECURING CHEMICALS FROM PETROLEUM RESIDUA

Charles E. Jahnig, Ramsey, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application October 20, 1954, Serial No. 463,529
10 Claims. (Cl. 196—49)



1. A hydrocarbon conversion process for the production of chemicals which comprises contacting a heavy hydrocarbon oil charging stock with a stream of high temperature substantially catalytically inert particulate solids in a conversion zone at a temperature in the range of 1200° to 2000° F., rapidly separating and withdrawing gasiform conversion products and introducing the conversion products into an intermediate portion of an extraneous heat extraction zone, downwardly passing relatively cool, substantially non-entrainable, particulate solids countercurrent to said conversion products in said heat extraction zone whereby said conversion products are cooled depositing condensate on said relatively cool particulate solids, withdrawing relatively cool conversion products overhead from said zone, collecting particulate solids in a lower segregated portion of said heat extraction zone, long term conversion products being separately withdrawn from said segregated portion, the solids remaining resident in said segregated portion at a temperature in the range of 1000° to 1700° F., and for a time sufficient to substantially completely convert the condensate thereon and to dry said solids, cooling and stripping solids from the lower portion of said heat extraction zone in an enlarged settling zone and recirculating them to the upper portion of the heat extraction zone as said relatively cool particulate solids, and rebeating and returning solids separated from said conversion products to said conversion zone.

2,846,361

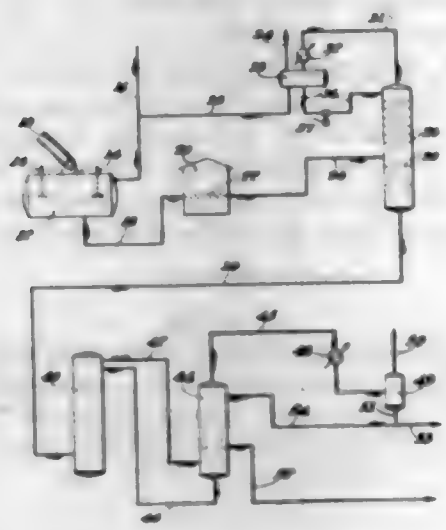
ASPHALTITE TREATING

Valentine Mekler, Jackson Heights, N. Y., assignor to The Lummus Company, New York, N. Y., a corporation of Delaware

Application September 1, 1953, Serial No. 377,936
5 Claims. (Cl. 196—50)

1. The method of treating solid gilsonite, which comprises introducing ground gilsonite into a melting tank containing a hot hydrocarbon liquid carrier boiling in the range of between 350° F. and 600° F. and maintained at a temperature sufficient to melt the gilsonite introduced therein without exothermic reaction thereof, mixing the melted gilsonite and liquid carrier to form a pumpable slurry, introducing the slurry into a heater wherein the slurry is heated to a temperature of approximately 500° F. and sufficient to substantially remove

undesirable gaseous constituents from the gilsonite and stabilize the same, controlling the heating operation to avoid coking of the gilsonite, passing the heater effluent to a distillation column, withdrawing an overhead product from said distillation column comprising the undesirable gaseous constituents and liquid carrier, condensing the liquid carrier component of said overhead, separating condensed liquid carrier and the uncondensed gaseous



constituents, withdrawing said gaseous constituents from the separation operation, passing a portion of the liquid carrier to the melting tank at a temperature sufficient to maintain the required temperature in the melting tank, withdrawing stabilized gilsonite from the bottom of the distillation column, introducing said gilsonite into a coking reactor, and withdrawing a solid coke product and hydrocarbon vapors from said coking reactor.

2,846,362

WITHDRAWN

2,846,363

CATALYSTS FOR NAPHTHA REFORMING

Hillis O. Folkins and William L. Jacobs, Crystal Lake, and Vincent J. Brozowski, Mundelein, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application September 29, 1954 Serial No. 459,217 4 Claims. (Cl. 196—50)

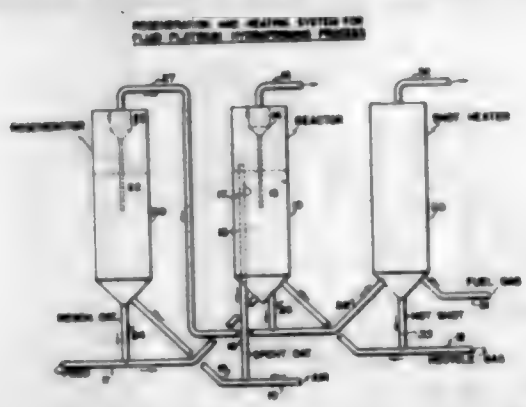
4. The process of reforming a naphtha to produce hydrocarbons boiling in the gasoline boiling range having superior octane numbers which comprises subjecting a naphtha to reforming at an elevated temperature in the presence of a catalyst comprising about 7.0 to 15.0 weight percent of molybdenum and about 0.5 to 1.5 weight percent of copper on an activated alumina carrier containing about 5 to 15 weight percent of silica, said catalyst being prepared by calcining said activated alumina carrier at a temperature of about 500 to 600° C., impregnating the calcined activated alumina with a decomposable molybdenum salt in an amount equivalent to about 7.0 to 15.0 weight percent of molybdenum, drying the impregnated activated alumina at a temperature of about 110° C., impregnating the dried activated alumina with a decomposable copper salt in an amount equivalent to about 0.5 to 1.5 weight percent of copper, drying the impregnated activated alumina, calcining the activated alumina at a temperature of about 500° to 600° C. under conditions whereby the molybdenum and copper salts are converted to metal oxide forms and subjecting the calcined mixture to heating in an atmosphere of hydrogen at 500° C. and recovering a reformed product.

2,846,364

FLUID HYDROFORMING PROCESS USING A PLATINUM CATALYST AND INERT HEAT TRANSFER SOLIDS

Albert B. Welty, Jr., Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application December 1, 1954, Serial No. 472,341 3 Claims. (Cl. 196—50)



2. In a method of reforming hydrocarbon fractions boiling within the motor gasoline range in contact with a fluidized bed comprising mixture of a major proportion of finely divided platinum group metal hydroforming catalyst and a minor proportion of inert heat transfer solid particles or shot in a reaction zone the improvement which comprises withdrawing a stream of catalyst particles from the dense bed in the reaction zone, contacting the withdrawn catalyst particles with air in a regeneration zone in sufficient amount that the regeneration gases leaving the regeneration zone contain from 5 to 15 volume percent oxygen, withdrawing a stream of shot particles from the reaction zone, withdrawing a stream of hot regeneration gases substantitally free of catalyst from the regeneration zone, conveying the withdrawn shot particles in said stream of hot regeneration gases to a heating zone, burning an extraneous fuel with the residual oxygen in the regeneration gases in said heating zone and recycling catalyst from the regeneration zone and heated shot from the heating zone to the main reaction zone.

2,846,365

HYDROFORMING CATALYST CONTAINING A GROUP VI METAL OXIDE SUPPORTED ON A ZINC-ZIRCONIUM ALUMINATE SPINEL

Elroy Merle Gladrow, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 29, 1954 Serial No. 478,511 4 Claims. (Cl. 196—50)

3. A process of hydroforming hydrocarbon fractions which comprises contacting the hydrocarbons in admixture with hydrogen under hydroforming conditions of temperature, pressure and contact times with a hydroforming catalyst consisting essentially of a group VI metal oxide dispersed upon a zinc-zirconium aluminate spinel support, said support containing 1 to 20 mol percent zirconia and 99 to 80 mol percent zinc oxide based upon the alumina.

2,846,366

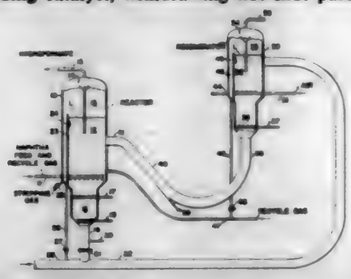
FLUID HYDROFORMING PROCESS

Kenneth Earl Draeger and James Francis Ross, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 19, 1955, Serial No. 553,825 4 Claims. (Cl. 196—50)

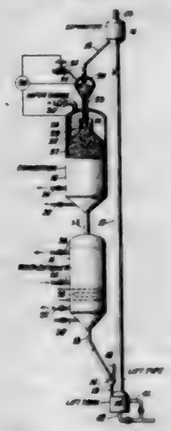
1. In a method of hydroforming hydrocarbon fractions boiling within the motor fuel boiling range in contact with a major proportion of finely divided Group VI metal oxide catalyst particles and a minor proportion of inert heat transfer solids or shot in which catalyst particles and

shot are continuously withdrawn from the reaction zone and circulated to a regeneration zone where carbonaceous deposits are burned off, the improvement which comprises controlling gas velocities through the regenerator dense bed so that shot particles settle to the bottom of the regenerator vessel and into a shot concentrating zone, passing a stream of gas through said concentrating zone to elutriate away any catalyst entrained into said zone by the descending catalyst, withdrawing hot shot particles from



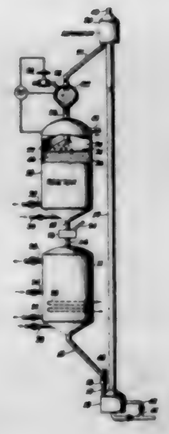
said zone carrying small quantities of catalyst fines strongly adhered to said shot, contacting the withdrawn shot with a hydrogen-containing gas in order to partially reduce the adherent catalyst fines, recycling the hydrogen treated shot particles to the upper part of the reactor dense bed, separately withdrawing a stream of catalyst particles substantially free from shot from the regenerator dense bed and recycling this stream of catalyst to the lower part of the reactor dense bed.

2,846,367
HYDROCARBON CONVERSION PROCESS
Philip P. Lilland, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application February 25, 1953, Serial No. 338,659
7 Claims. (Cl. 196—52)



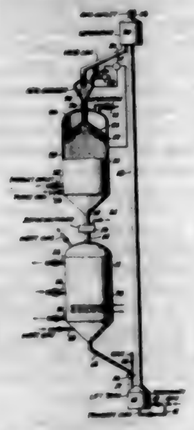
1. A continuous process for the conversion of gaseous reactants in the presence of a moving mass of granular contact material, which comprises: maintaining a downwardly gravitating, substantially compact bed of contact material within a confined conversion zone, supplying the upper section of said bed with contact material by means of at least one downwardly gravitating, substantially compact feed column of contact material having a horizontal cross-sectional area only a minor fraction of the horizontal cross-sectional area of said bed, gradually expanding the lower section of said feed column to a horizontal cross-sectional area approaching the horizontal cross-sectional area of said bed and delivering the contact material therefrom to said bed, laterally confining said expanding column by means of solid surfaces at angles with the horizontal greater than the angle of repose of the contact material, supplying a gaseous reactant to said feed column at a level substantially above the level at which expansion of said column begins and at a temperature different from the temperature of contact material in said feed column, passing the gaseous reactant downwardly with said column to effect heat exchange between said reactant and said column, maintaining said column of sufficient height below the level of reactant supply that the temperature of said contact material and said reactant are substantially the same before they issue from said column into said bed, passing gaseous reactant from said feed column downwardly through said bed to effect the desired conversion, removing the products of conversion from said conversion zone and removing contact material from the lower section of said bed.

2,846,368
CONVERSION METHOD AND APPARATUS
John W. Payne, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application February 25, 1953, Serial No. 338,769
6 Claims. (Cl. 196—52)



1. A continuous process for the conversion of gaseous reactants in the presence of a moving mass of granular contact material, which comprises: maintaining a downwardly gravitating, substantially compact bed of granular contact material within a confined conversion zone, supplying granular contact material as at least one confined substantially compact stream of horizontal cross-sectional area only a minor fraction of the horizontal cross-sectional area of said bed onto the upper surface of said bed, confining the upper surface of said bed at angles with the horizontal at least equal to the angle of repose of the contact material by means of downwardly and outwardly sloping solid surfaces from the point of supply of the contact material, supplying a gaseous reactant to the upper surface of said bed through a plurality of spaced-apart passages in said solid surfaces at a temperature substantially different from the temperature at which contact material is supplied to said bed, the total cross-sectional area of said passages being only a small fraction of the horizontal cross-sectional area of said bed, passing the gaseous reactant downwardly through the bed to effect the desired conversion, removing products of conversion from the lower section of the conversion zone and removing granular contact material from the lower section of said bed.

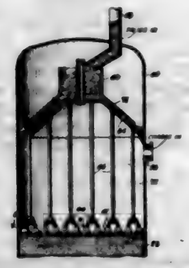
2,846,369
CONVERSION METHOD AND APPARATUS
Raymond R. Halik, Pitman, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application February 25, 1953, Serial No. 338,773
10 Claims. (Cl. 196—52)



1. A method for the continuous conversion of gaseous reactants in the presence of a moving mass of granular contact material, which comprises: maintaining a downwardly gravitating, substantially compact bed of granular contact material within a confined conversion zone, passing at least one substantially compact feed stream of contact material of horizontal cross-sectional area only a minor fraction of the horizontal cross-sectional area of said bed into the upper section of said zone, gradually expanding said feed stream to an area approaching that of said bed and delivering contact material therefrom onto said bed, laterally confining said expanding stream by means of solid surfaces so that the sides of said expanding stream form angles with the horizontal greater than the angle of repose of said contact material whereby free flow of contact material across a contact material surface in said expanding stream is avoided, maintaining a gas plenum space for gaseous reactants above said solid confining surfaces, supplying gaseous reactants to said plenum space at a temperature substantially different from the temperature of the contact material in said contact material feed stream, passing a plurality of laterally confined streams of gaseous reactants from said plenum space through said solid surfaces to a plurality of points below said solid surfaces and the expanding stream, passing reactants from said streams through said bed to effect the desired conversion of the reactants, removing the products of conversion from said bed, at least a part of said product being removed at a level below the level of reactant supply and removing granular contact material from the lower section of said bed.

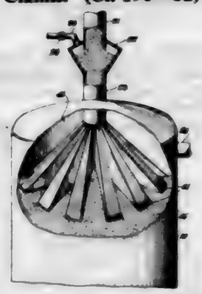
2,846,370
METHOD AND APPARATUS FOR FEEDING HYDROCARBONS AND SOLID PARTICLES IN A MOVING BED CONVERSION PROCESS
Raymond R. Halik, Pitman, and John W. Payne, Woodbury, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York
Application August 17, 1955, Serial No. 529,063
14 Claims. (Cl. 196—52)

1. In a process for the conversion of a fluid hydrocarbon over a moving bed of granular solids, wherein the solids and hydrocarbon are supplied at substantially different temperatures to said bed within a confined conversion zone, the method for supplying hydrocarbon and solids to the bed so as to avoid excessive variation in temperatures across the bed, which comprises: supplying granular solids and fluid hydrocarbon at different temperatures to at least two separate adjacent areas of the upper end of the reaction bed proper; flowing a portion of the granular solids laterally from the granular solids supply area across the hydrocarbon supply area and a



portion of the hydrocarbon laterally into the bed beneath the solids supply area; dimensioning said supply areas so that the sum of the lateral distance moved by the solids across the hydrocarbon supply area plus the lateral distance moved by the hydrocarbon beneath the solids supply area is less than 20 inches; and removing the products of conversion from the bed at a level below said supply areas.

2,846,371
HYDROCARBON CONVERSION METHOD AND APPARATUS
Raymond R. Halik, Pitman, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application March 4, 1957, Serial No. 643,729
11 Claims. (Cl. 196—52)



1. A continuous process for the conversion of fluid reactants in the presence of a downwardly gravitating, substantially compact column of granular contact material, which comprises: maintaining said column within the lower section of a confined conversion zone, maintaining a gas plenum space above said column within the upper section of said zone, passing at least one confined substantially compact free stream of contact material of substantially less horizontal cross-sectional area than the horizontal cross-sectional area of said column into the upper section of said zone, passing contact material from said stream onto the upper surface of said column through a plurality of horizontally spaced-apart confined passages extending downwardly and outwardly from said feed stream, the sides and top of said passages making angles with the horizontal greater than the angle of repose of the contact material and the bottoms of said passages being open from the point of division from said feed stream so as to communicate with the upper surface of said column and said passages being of such a size and so spaced that the maximum distance center-to-center from any one stream to the next adjacent stream

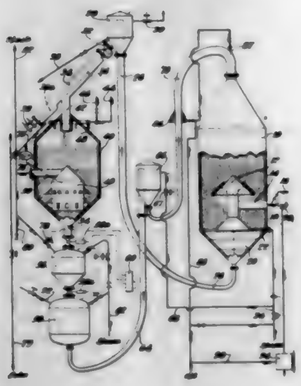
will be not greater than 16 inches, supplying a fluid reactant to said plenum space above said column, passing fluid reactant from said plenum space between said passages into the upper surface of said column and downwardly through said column to effect the desired conversion, removing products of conversion from the lower section of said zone separately of contact material and removing contact material from the lower section of said column.

2,846,372
STABILIZED PETROLEUM OILS
Abraham Schneider, Philadelphia, and Archibald P. Stuart, Media, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application July 15, 1954
Serial No. 443,718
16 Claims. (Cl. 196—52)

1. Method for the preparation of an oxidation inhibitor adapted to impart increased resistance to oxidation to oleaginous materials which comprises: (A) catalytically cracking a hydrocarbon oil by contact with a cracking catalyst under cracking conditions, (B) separating from the cracked oil a residual fraction boiling above 350° F., (C) contacting said residual fraction with an extractant selective for separating aromatic hydrocarbons from non-aromatic hydrocarbons thereby producing a fraction having a high aromatic hydrocarbon content, (D) contacting the fraction having a high aromatic hydrocarbon content with from 0.5 to 5 pounds of concentrated sulfuric acid per barrel of the fraction contacted, (E) separating acid from the residual fraction, (F) neutralizing acidic components of the separated residual fraction, and (G) distilling the separated residual fraction to separate components thereof having molecular weights within the range of 200 to 400.

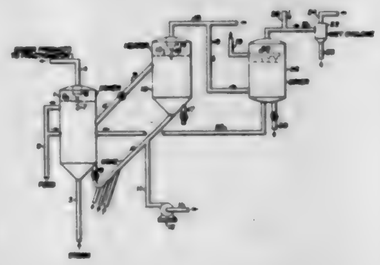
8. The oxidation inhibitor prepared by the method of claim 1.

2,846,373
CONTINUOUS CONTACT CRACKING
August H. Schutte, Hastings-on-Hudson, N. Y., assignor to The Lummus Company, New York, N. Y., a corporation of Delaware
Application December 21, 1951, Serial No. 262,719
2 Claims. (Cl. 196—55)



1. The method for converting higher boiling hydrocarbons solely into lower boiling hydrocarbon vapors including a substantial proportion of high octane number motor fuel and solid residue in a sealed reaction space, in which a feed of higher boiling hydrocarbons in liquid phase and preheated to a temperature of about 650° to 850° F. is applied in the upper part of the reaction space to the surfaces of solid contact particles preheated to an inlet temperature of about 1000° to 1200° F. to wet said particles and produce rapid vaporization and cooling of the wetted particles to an effective surface temperature thereon approximately 150° to 200° F. less than said particle inlet temperature, and the resulting product vapors are passed rapidly downward through the void spaces between the wetted particles while said particles at substantially the same effective surface temperature move slowly downward through the reaction space as a gravity packed column so as to repress vaporization of liquid hydrocarbons wetting the particles, controlling the extent of the conversion of said liquid hydrocarbons on said particles by maintaining an oil partial pressure of about 5 to 50 pounds per square inch absolute in the reaction space, maintaining a superior reaction space pressure of the order of 30 to 115 pounds per square inch absolute, retaining the solid wetted particles in the reaction space for a time sufficient to produce substantially complete conversion of said liquid hydrocarbon feed to lower boiling hydrocarbon vapors and dry carbon deposit on said particles, removing said lower boiling hydrocarbon vapors from contact with the solid particles in the lower part of the reaction space before said particles have become dry, and separately withdrawing said particles bearing dry carbon deposit from the reaction space.

2,846,374
FLUID COKING WITH PREPARATION OF SEED COKE
Charles E. Jahnig, Rumson, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application May 4, 1954, Serial No. 427,499
4 Claims. (Cl. 196—55)

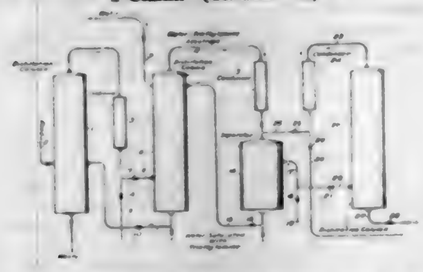


1. In a process for coking a heavy hydrocarbon oil which comprises the steps of contacting a heavy oil coking charge stock at a coking temperature with a body of coke particles maintained in the form of a dense turbulent fluidized bed in a reaction zone; removing product vapors from the reaction zone; circulating the coke through an extraneous heating zone, wherein a portion of the coke particles are burned, and sent back to the reaction zone to supply heat thereto; the improvement which comprises atomizing a heavy hydrocarbon oil having a higher Conradson carbon residue than the charge stock and in an amount of from 7 to 15 volume percent based on the charge stock into a drying zone to produce small oil droplets having a diameter in the range of 150 to 600 microns; countercurrently contacting the atomized oil droplets with hot flue gas from the extraneous heating zone at a temperature in the range of 1000° to 2500° F. and having a velocity of 1 to 4 ft./sec. whereby coke seed particles having a diameter size distribution of predominantly 75 to 150 microns are formed; withdrawing the coke seed particles from the drying zone and sending the coke seed particles to the reaction zone.

2,846,375
HIGH SEALING-STRENGTH WAX COMPOSITIONS
Weldon G. Annable, Mundelein, Charles T. O'Malley, Chicago, and John W. Walsh, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
No Drawing. Application July 26, 1955
Serial No. 524,596
7 Claims. (Cl. 196—149)

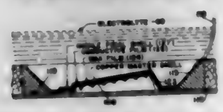
1. A petroleum-derived wax composition of high sealing strength consisting of approximately 25–45% by weight of final composition of refined paraffin wax, about 10–45% by weight of final composition of a microcrystalline wax of about 170–180° F. melting point and about 30—50% by weight of final composition of petrolatum wax.

2,846,376
PURIFICATION OF TRIETHYLAMINE
Jerry Robert Daniel McCormick, New City, and Wallace Hoffer, Orangeburg, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application May 22, 1953, Serial No. 356,854
1 Claim. (Cl. 202—42)



A method of recovering triethylamine from a ternary azeotrope of triethylamine, a lower aliphatic alcohol and water, which comprises (1) extractively distilling said azeotropic mixture with a counter-current flow of water in a quantity equal to from about 1 to 10 times the weight of distillate, (2) collecting as a distillate a fraction boiling, at sea level pressure, within the range of 70° C.–80° C., (3) maintaining the distillate at a temperature above about 20° C. so that two phases are obtained, and (4) separating the organic phase comprising predominantly triethylamine.

2,846,377
MOLD CAVITIES AND FORCE PLUGS
Aylmer O. Ross, York, Pa., assignor, by mesne assignments, to Jackson K. Lytle, Baltimore, Md.
Application October 28, 1952, Serial No. 317,228
3 Claims. (Cl. 204—6)



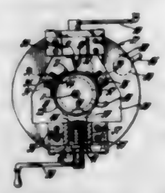
1. A process for electroforming a metal mold for casting from a pattern of the size and shape desired for the castings, comprising, electrodepositing a first shell of copper on the face of said pattern which is to be reproduced, removing said pattern from said copper shell, electrodepositing a second copper shell upon the pattern face of the first copper shell, removing the second copper shell from said first copper shell, placing said copper shell in a substantially rectangular shaped and open-ended metal casting, then electrodepositing a shell of nickel upon the pattern face of said second copper shell and said metal casting to rigidly connect said nickel shell to said metal casting, removing said second copper shell from said nickel shell, and then filling in the rear surface of said nickel shell and casting to strengthen and reinforce said nickel shell within said metal casting, whereby the completed mold is formed.

2,846,378
ELECTRODE AND ITS MANUFACTURE
Roger W. Hoffmann, West Los Angeles, Calif., assignor to American Potash & Chemical Corporation (Nevada), a corporation of Nevada
Application February 7, 1956, Serial No. 563,882
7 Claims. (Cl. 204—12)



7. An anode for use with corrosive electrolytes consisting of a metal having electrolytically deposited thereon a layer of lead dioxide from a bath containing a solution of a lead salt of a water-soluble organic acid, said lead dioxide being electrolytically deposited from an alkaline solution of said salt; said lead dioxide coated base having thereon an exterior deposit of lead dioxide, said exterior deposit of lead dioxide having been electrolytically deposited from an acid bath of a lead salt selected from the group consisting of lead perchlorate, lead sulfamate and lead nitrate.

2,846,379
PLATING EQUIPMENT AND METHOD OF PLATING PISTON RINGS
Clarence G. Chambers, Ypsilanti, and Robert A. Spaulding, Huntington Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 14, 1951, Serial No. 231,476
5 Claims. (Cl. 204—25)



1. A process for use in making split resilient piston rings having gaps between the peripheral ends thereof and comprising, axially disposing a plurality of said rings between a pair of end members with said rings being free to distort inwardly throughout the entire extent of the inner peripheral surfaces thereof and providing a cylindrical ring stack, relatively moving a plurality of clamping jaws with respect to and against the exterior surfaces of said rings and said stack and closing the gaps in said rings, continuing the movement of said clamping jaws upon said stack and radially distorting and transversely elongating said rings on axes extending through the closed gaps between said peripheral ends of said rings, clamping said end members rigidly together upon said stack and applying axially disposed forces of sufficient magnitude to the engaging surfaces of said rings to frictionally retain said rings in the form established by distorting and elongating said rings, loosening said clamping jaws from said rings, and thereafter plating said rings in the form established by said clamping jaws and retained by said end members.

2,846,380
CHROMIUM ELECTROPLATING

Henry Brown, Huntington Woods, Mich., assignor to The Udylite Research Corporation, Detroit, Mich., a corporation of Michigan

No Drawing. Application May 7, 1956
Serial No. 582,957
7 Claims. (Cl. 204—51)

1. In a process of electrodepositing chromium from aqueous acidic hexavalent chromium solutions, the improvement which consists in adding to the solution a compound having the formula R_pMSO_3X, where R_p represents a saturated fluorocarbon chain of 3 to 12 carbon atoms, M is a carbon linkage group containing from 1 to 4 carbon atoms and positioned between the R_p group and the sulfur of the sulfonic group, the carbon atoms in said linkage group carrying at least one element selected from the group consisting of hydrogen, oxygen and nitrogen and X is a cation, said compound containing in the R_p substituent a number of atoms selected from the group consisting of chlorine and bromine which number is minor relative to the number of fluorine atoms present in said R_p substituent said compound being added in sufficient amount to substantially decrease formation of spray and mist.

2,846,381
METHOD OF ELECTROLYTICALLY DEPOSITING SMOOTH LAYERS OF TIN

Wolfgang Frick, Alfred Geldbach, and Joachim Korpiun, Geislingen, Steige, and Friedrich Sedlacek, Goppingen, Germany, assignors to Dr. Ing. Max Schlötter, Geislingen, Steige, Germany

No Drawing. Application January 10, 1957
Serial No. 633,393
Claims priority, application Germany January 16, 1956
18 Claims. (Cl. 204—54)

1. In the electrolytic deposition of tin as a smooth layer, the step comprising depositing said tin from an acid tin electrolyte which contains a flavonol compound in an amount sufficient to cause deposition of a smooth tin layer and improvement of the throwing power of the electrolyte on operation at low voltages with high current densities.

2,846,382
NEW PROCESS FOR THE PREPARATION OF AMINES

Milton Joel Allen, Florham Park, N. J., assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J., a corporation of New Jersey

No Drawing. Application July 25, 1955
Serial No. 524,271
7 Claims. (Cl. 204—75)

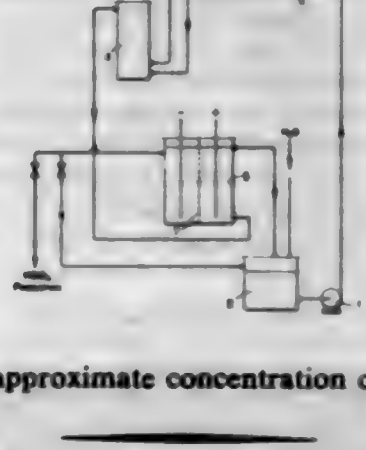
1. A process for the preparation of N-aminoalkyl-3,4,5,6-tetrachloroisoindolines, which comprises electrolytically reducing N-aminoalkyl-3,4,5,6-tetrachlorophthalimides at a cathodic reference potential of at least —1.0 volt vs. a saturated calomel electrode, using an aqueous catholyte consisting essentially of water, a lower aliphatic carboxylic acid selected from the group consisting of acetic acid ,propionic acid and n-butyric acid and a strong inorganic acid selected from the group consisting of phosphoric acid, hydrochloric acid and sulfuric acid and a cathode of high overvoltage.

2,846,383
PROCESS OF MANUFACTURING PERCHLORIC ACID BY ANODIC OXIDATION OF CHLORINE

Wilhelm Müller, Darmstadt, Germany, assignor to E. Merck Aktiengesellschaft Darmstadt, Darmstadt, Germany, a German corporation

Application July 2, 1957, Serial No. 669,547
Claims priority, application Germany July 5, 1956
6 Claims. (Cl. 204—82)

1. Method of manufacturing perchloric acid which comprises anodically oxidizing, at a temperature of about 0° C., elemental chlorine dissolved in an aqueous solution of perchloric acid wherein the perchloric acid is

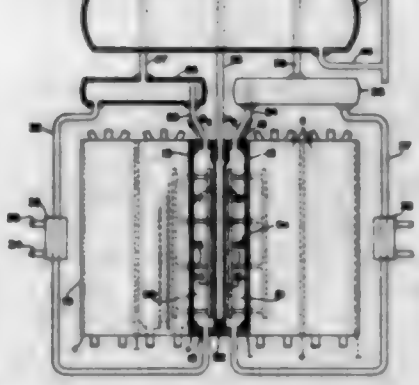


present in an approximate concentration of 10 percent to 60 percent.

2,846,384
BIPOLAR ELECTROLYSER

Oronzio De Nora, Milan, Italy, assignor to Oronzio De Nora Impianti Elettrochimici, Milan, Italy, a corporation of Italy

Application June 30, 1954, Serial No. 440,425
Claims priority, application Italy December 5, 1953
9 Claims. (Cl. 204—129)

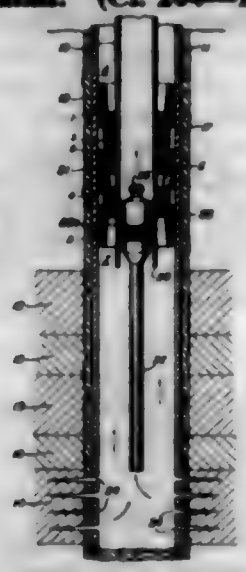


1. Apparatus for producing different gases by electrolysis of a liquid, comprising an anode and cathode, a compartment for containing a body of liquid electrolyte in contact with the anode and for collecting gas produced from the electrolyte by the anode, a compartment for containing a body of liquid electrolyte in contact with the cathode and for collecting gas produced from the electrolyte by the cathode, at least a pair of spaced diaphragms permeable to liquid electrolyte, an intermediate compartment separated from the other said compartments by said diaphragms, means venting the upper end of the interior space in the intermediate compartment to the atmosphere, a tank for holding a body of liquid, partitions dividing the tank into a series of compartment with open passageways adjacent the bottom of the tank for free flow of said body of fluid between said tank compartments, means venting at least one of said tank compartments to the atmosphere, means venting gas in the anode compartment into another of the tank compartments at a level below the upper surface of the said body of liquid, means venting gas in the cathode compartment into still another of the tank compartments at the same said level, and separate means for withdrawing gas bubbled through the liquid in each of the said other tank compartments.

2,846,385
PREVENTION OF CORROSION IN WELLS

Rudolph C. Buchan, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application October 11, 1954, Serial No. 461,566
5 Claims. (Cl. 204—148)



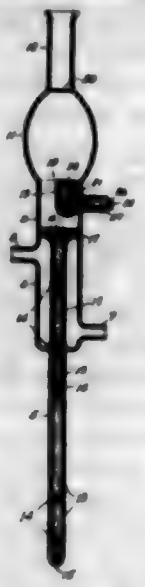
1. A method for protecting a portion of a steel well casing adjacent a hydrocarbon producing formation from corrosion by a stagnant body of corrosive fluids accumulated in said portion of said casing by production from said formation into said casing, said casing having a tubing arranged therein with the lower end of said tubing above said stagnant body of corrosive fluids in said portion of said casing, which method comprises the steps of metallically, annularly interconnecting said tubing with said casing adjacent said lower end of said tubing to thereby establish an electrical interconnection between said casing and said tubing adjacent said lower end of said tubing, lowering a retrievable sacrificial metal tubular member smaller in diameter than said tubing through said tubing until said tubular member projects a substantial distance from the lower end of said tubing and extends to said portion of said casing containing said corrosive well fluids, said sacrificial metal being anodic to steel, whereby a galvanic action is established in said portion of said casing adjacent said producing formation, and maintaining said tubular member in said tubing and casing while said corrosive fluids are produced, whereby said portion of said casing is protected from corrosion by said corrosive fluids and said sacrificial member is corroded.

2,846,386
REFERENCE ELECTRODE FOR MAKING pH MEASUREMENTS

Otto V. Ingruber, Montreal, Quebec, Canada, assignor, by mesne assignments, to Canadian Aviation Electronics Limited, St. Laurent, Quebec, Canada

Application June 22, 1953, Serial No. 363,359
9 Claims. (Cl. 204—195)

1. A reference electrode for use in making pH measurements on bodies of test liquids at temperatures substantially above normal atmospheric temperatures, comprising an elongated hollow electrode stem containing an electrolyte and having in one end portion thereof means for providing a liquid junction between said electrolyte and a test liquid when said end portion of said stem is immersed in said test liquid, said electrode stem having an intermediate portion next adjacent to said end portion and a remote portion on the side of said intermediate portion away from said end portion, said electrode stem being adapted to be immersed in said test liquid with said end portion extending into said test liquid whereby the electrolyte in said end portion will assume substantially the temperature of said body of test liquid, said remote portion containing electrolyte in communication with the electrolyte in said end portion of said stem, means for cooling the electrolyte in the intermediate portion of said stem to limit heat exchange between the electrolyte in the end portion and the electrolyte in the remote portion of said stem whereby the electrolyte in said remote portion of said stem is maintained at a temperature substantially below that of said body of test liquid, said electrolyte

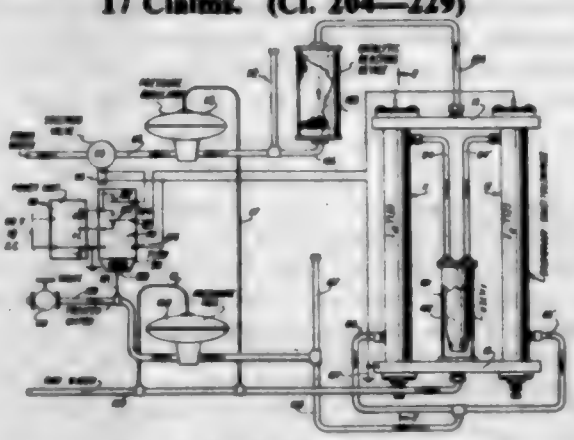


comprising a saturated solution, and said stem having therein batches of crystals of the solute of said electrolyte and masses of porous material which is solid and inert in said electrolyte at any concentration thereof and at temperatures at least up to 160° C., said batches of crystals and said masses of porous material being alternately arranged in said end and intermediate portions of said stem.

2,846,387
APPARATUS FOR EXTRACTING THE IONS OF ELECTROLYTES FROM LIQUID SOLVENTS

Edgar S. Stoddard, Berwyn, Ill., assignor to General Electric Company, a corporation of New York

Application December 29, 1953, Serial No. 400,944
17 Claims. (Cl. 204—229)



13. A system for demineralizing raw water comprising a plurality of upstanding cells, each of said cells being provided with first and second and third upstanding chambers and including a first permeable membrane as a common wall between said first and second chambers and a second permeable membrane as a common wall between said first and third chambers, a plurality of cathodes respectively arranged in said second chambers, a plurality of anodes respectively arranged in said third chambers, a filter, a lower header commonly communicating with the inlet of said filter and with the lower ends of said second and third chambers, the outlet of said filter commonly communicating with the upper ends of said first chambers, an inlet pipe for supplying raw water under pressure into said lower header, an outlet pipe commonly communicating with the lower ends of said first chambers, an upper header commonly communicating with the upper ends of said second and third chambers, a drain pipe communicating with said upper

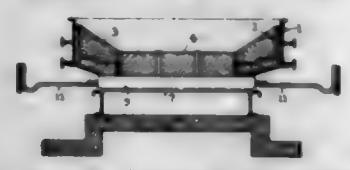
header, means for selectively conducting a plurality of first streams of water from said lower header downwardly respectively through said first chambers and then as a first combined stream of water through said outlet pipe, a valve arranged in said drain pipe, means responsive to initiation of flow of said first combined stream of water through said outlet pipe for operating said valve from its closed position into its open position and responsive to arresting of the flow of said first combined stream of water through said outlet pipe for operating said valve from its open position into its closed position, a plurality of second streams of water and a plurality of third streams of water being conducted from said lower header upwardly respectively through said second and third chambers and then as a combined second stream of water through said drain pipe in response to operation of said valve into its open position, a first regulator governed jointly by the pressure of the water in said inlet pipe and by the pressure of the water in said outlet pipe for selectively controlling the rate of flow of said first combined stream of water through said outlet pipe, a second regulator governed jointly by the pressure of the water in said inlet pipe and by the pressure of the water in said drain pipe for selectively controlling the rate of flow of said second combined stream of water through said drain pipe, and means for passing a plurality of direct electric currents respectively from said anodes to the corresponding ones of said cathodes through the corresponding ones of said first and second and third streams of water respectively passing through the corresponding ones of said first and second and third chambers and through the corresponding ones of said first and second membranes, whereby the ions of the electrolytes contained in each of said first streams of water are subjected to electro-dialysis through the corresponding ones of said first and second membranes so that the ions of opposite polarities respectively migrating toward the corresponding one of said cathodes and toward the corresponding one of said anodes are swept respectively along with the corresponding ones of said second and third streams of water respectively from the corresponding ones of said second and third chambers and thence with said second combined stream of water through said upper header and said drain pipe.

2,846,388

CONSTRUCTION OF THE LOWER PART OF THE CRUCIBLE OF IGNEOUS ELECTROLYSIS CELLS

Paul Morel, Hermillon, France, assignor to Pechiney Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France

Application April 23, 1956, Serial No. 579,828
Claims priority, application France April 30, 1955
4 Claims. (Cl. 204—243)



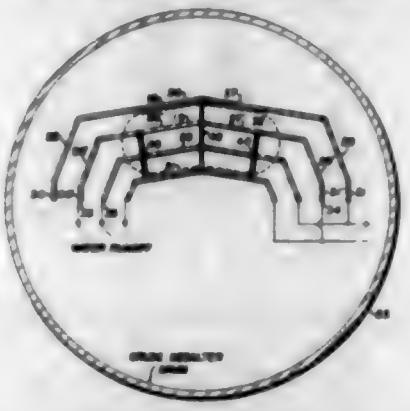
1. A cell for use in igneous electrolysis comprising, in combination: a lower portion provided with carbon blocks; grooves in said blocks; current conducting ferrous bars positioned in said grooves in contact with said blocks, said bars having a length significantly shorter than the width of the cell at its upper portion; sloping banks of solidified matter disposed all around the inner circumference of the cell; whereby the active surface of the cell bottom is decreased and the voltage drop in the bottom of the cell is detrimentally increased; and conductors having an electrical conductivity higher than that of said bars extending from the ends of said bars and forming means of attachment to a source of current, whereby the potential drop in the bottom of the cell is advantageously decreased.

2,846,389

ELECTRODE FOR ELECTRICAL COALESCENCE

Mason L. Downing, Westfield, Frank J. Herrmann, Elizabeth, and Sam Gordon Marx, Newark, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 9, 1954, Serial No. 435,506
9 Claims. (Cl. 204—302)



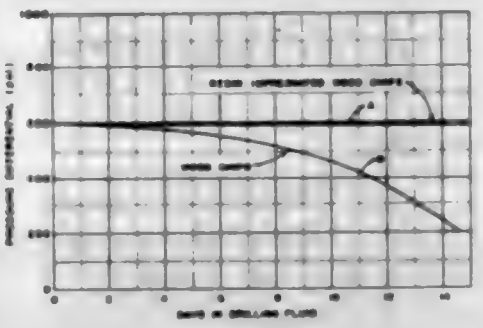
1. Apparatus for the removal of salt from hydrocarbon mixtures comprising an elongated chamber, conduit means near one end of said chamber adapted to pass liquid to said chamber, a plurality of opposed, vertically spaced electrodes having edge portions and defining surfaces which are inclined with respect to the horizontal and which are substantially longitudinally coextensive with one another, said edge portions terminating in the same horizontal plane, said plane being vertically below all points on said surfaces, said electrodes extending axially through said vessel, parallel to the direction of flow of said liquid, said electrodes being positioned and housed completely within said chamber.

2,846,390

PROCESS FOR RECOVERING LOST CIRCULATION

James L. Lummus, Robert P. Murphy, Jr., and Platho P. Scott, Jr., Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware

Application May 3, 1954, Serial No. 427,059
2 Claims. (Cl. 252—8.5)



1. In a process for drilling a well wherein an aqueous drilling fluid is circulated in said well, the method of recovering lost circulation which comprises admixing with said drilling fluid ground wooden particles, said particles having sizes throughout the range −4 to +100 mesh and being waterproofed by resin impregnation prior to grinding.

2,846,391

PROCESS FOR SODIUM SOAP-SALT THICKENED LUBRICATING GREASES CONTAINING SODIUM PHOSPHATE

Arnold J. Morway, Clark Township, Union County, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 14, 1952
Serial No. 293,671
1 Claim. (Cl. 252—18)

In a method of preparing a grease stable at high temperatures wherein a grease-forming mixture of rapeseed

oil, sodium hydroxide and an inert mineral lubricating oil is heated after saponification and dehydration to a temperature in the range of 475° to 575° F. to cause the glycerine released by saponification and decomposition products of the glycerine to react with said sodium hydroxide; the improved method of incorporating trisodium phosphate into said grease which comprises maintaining in the reactants an excess of said sodium hydroxide above the quantity required for saponification and reaction with the glycerine and decomposition products thereof, adding to the reaction mixture at a temperature above 450° F. before appreciably cooling the grease in the range of 0.5 to 3.0 weight percent of orthophosphoric acid, forming thereby from the acid and excess alkali trisodium phosphate in such a form that no detectable crystals of the salt exist.

2,846,392

METAL SOAP-SALT COMPLEXES AND LUBRICANTS CONTAINING SAME

Arnold J. Morway, Clark Township, Union County, and John J. Kolfenbach, North Plainfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application October 21, 1953
Serial No. 387,527
10 Claims. (Cl. 252—33.2)

3. A lubricant comprising a major proportion of a lubricating oil and in the range of 0.5 to 30 wt. percent of a complex prepared at a temperature in the range of 450° to 550° F., said complex consisting of an alkaline earth metal soap of high molecular weight organic acids and calcium acetate, said acids containing at least 20 wt. percent of a carboxylic acid having in the range of 12 to 30 carbon atoms per molecule and the molar ratio of acetate to soap being in the range of 7:1 to 45:1.

2,846,393

HEAVY DUTY SOLUBLE OIL COMPOSITION

George R. Cook, Des Plaines, Warren W. Cortiss, Cary, and Allan A. Manteuffel, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application November 17, 1955
Serial No. 547,546
7 Claims. (Cl. 252—33.3)

1. A heavy duty soluble oil blend consisting essentially of the following ingredients in weight percent:

Sodium mahogany sulfonate	15.0–30.0
Potassium resinate	15.0– 0.0
Mineral lubricating oil	20.0–55.0
Potassium hydroxide	0.01– 0.5
Hexylene glycol	2.5– 3.5
Sulfurized alkyl ester of C_{16}–C_{18} animal fatty acids containing about 15 to 22 weight percent sulfur	20.0–30.0
Water	0.01– 0.5

said composition having the potassium hydroxide content adjusted to give the finished blend an acid number (1948 method) of about 0.50 to 2.0, and said sulfurized alkyl esters of C_{16}–C_{18} animal fatty acids being prepared by reaction of said esters with sulfur at a temperature of about 332° to 338° F. for about 5 hours whereby at least 15 weight percent and no more than about 22 weight percent of sulfur is combined therewith.

2,846,394

RHEOPECTIC GREASE COMPOSITION

Lawrence C. Brunstrum, Flossmoor, Ill., and Hubert J. Liebe, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application November 30, 1954
Serial No. 472,247
14 Claims. (Cl. 252—41)
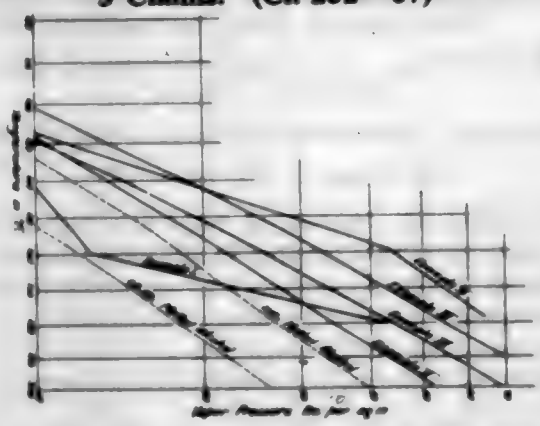
1. A lubricant composition which is fluid as produced in the unworked state and which sets up to grease consistency on mechanical working which essentially comprises a mineral oil base containing about 1 to 3½ percent by weight of a lithium hydroxy stearate and which is characterized by a soap particle size of about 0.1 to 0.7 micron in length and a multi-particle soap agglomerate-in-oil structure in the unworked state, said soap particle size and soap particle-oil structure formed by chilling such a composition from the melted soap state to about 100° to 150° F., homogenizing, reheating the homogenized composition to 150° to 250° F. and diluting to such a soap content.

2,846,395

CHARGING COMPOUND FOR THERMOSTATS

Melvin R. Arnold, Chicago, Ill., and Loren A. Bryan, Alexandria, Va., assignors to Flexonics Corporation, Maywood, Ill., a corporation of Illinois

Application December 9, 1953, Serial No. 397,082
3 Claims. (Cl. 252—67)



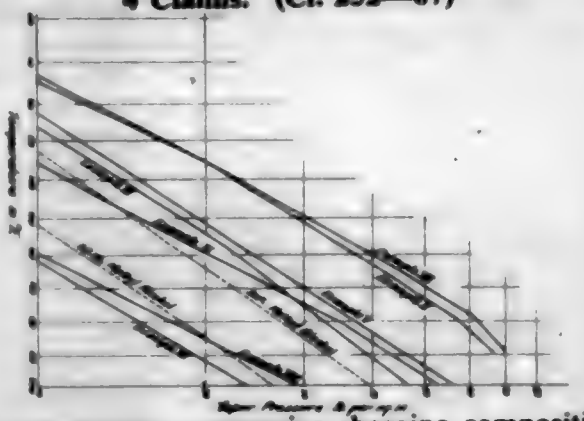
1. A temperature responsive charging composition for a thermostat and consisting essentially of ammonia, an acidic gas reversibly reactable with said ammonia, a reaction product of said ammonia with said acidic gas, and a solvent for dissolving each of said ammonia, said acidic gas and said reaction product, said solvent being selected from the class consisting of water, water soluble aliphatic alcohols containing one to five carbon atoms and mixtures thereof, said compound when confined to form a single closed system including a gaseous phase and a liquid phase in equilibrium at any given temperature, the ratio of total free and reacted ammonia to total free and reacted acidic gas in the system being constant but the ratios of free ammonia and free acidic gas to reacted ammonia and reacted gas in the sysem being functions of the temperature of the system, and the vapor pressure of said composition when confined being a function of the temperature of the system.

2,846,396

CHARGING FLUID FOR THERMOSTATS

Melvin R. Arnold, Arlington Heights, Ill., Loren A. Bryan, Alexandria, Va., and Carl S. Miner, Jr., Winnetka, Ill., assignors to Flexonics Corporation, Maywood, Ill., a corporation of Illinois

Application November 19, 1954, Serial No. 470,014
4 Claims. (Cl. 252—67)



1. A temperature responsive charging composition for a thermostat and consisting essentially of a water soluble,

reversibly heat-decomposable salt of a non-volatile weak acid with a volatile base, and acidic water soluble gas and a solvent for dissolving each of said salt and said acidic gas, said solvent being selected from the class consisting of water, water soluble aliphatic alcohols containing from one to five carbon atoms and mixtures thereof, said composition when confined to form a single closed system including a gaseous phase and a liquid phase in equilibrium at any given temperature, the vapor pressure of said composition when confined being a function of the temperature of the system.

2,846,397

WATER-SOLUBLE SALTS OF DERIVATIVES OF 4:4'-DIAMINOSTILBENE-2:2'-DISULFONIC ACID FOR ENHANCING THE BRIGHTNESS OF ORGANIC FIBROUS MATERIAL

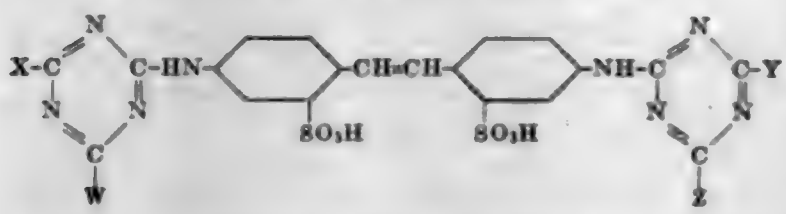
Franz Ackermann, Binningen, Switzerland, assignor to Ciba Limited, Basel, Switzerland

No Drawing. Application October 2, 1950
Serial No. 188,071

Claims priority, application Switzerland October 14, 1949

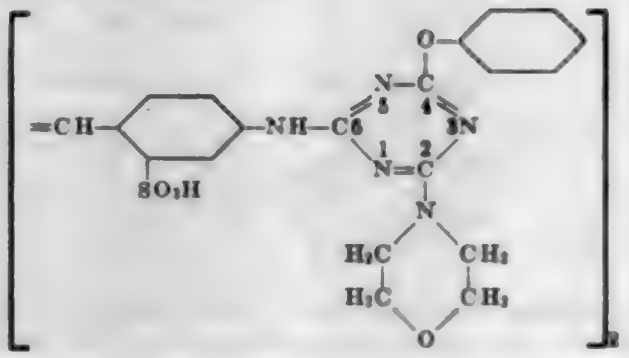
15 Claims. (Cl. 252—89)

2. A process for enhancing the brightness of organic fibrous material which comprises impregnating the material with an aqueous solution of an optical bleaching agent consisting essentially of a water-soluble salt of a colorless to substantially colorless derivative of 4:4'-diamino-stilbene-2:2'-disulfonic acid of the formula



in which W represents a member selected from the group consisting of aromatic radicals containing at most two carbocyclic rings and being bound to the carbon atom of the triazine ring by an —O-bridge, lower alkyl radicals, lower hydroxyalkyl radicals, aromatic radicals containing one carbocyclic ring and heterocyclic radicals containing at most two rings and being bound to the carbon atom of the triazine ring by an —S-bridge, X and Y each represents a radical of a nitrogenous base, which base contains at least one hydrogen atom attached to the nitrogen atom and is selected from the group consisting of ammonia, lower alkylamines, lower (hydroxyalkyl)-amines, lower N':N'-dialkyl-alkylene-diamines, aromatic amines containing at most two carbocyclic rings and heterocyclic amines containing one ring of which the amine nitrogen atom is a ring member, the radicals of said nitrogenous bases being attached by the nitrogen atom to the triazine ring, and Z represents a member of the group consisting of a chlorine atom and of radicals of the kind represented by W, X and Y, all substituents being free from groups imparting dyestuff characteristics to the molecule.

12. Fluorescent agents which in the form of the free acid have the formula



2,846,398

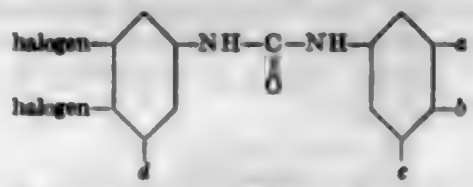
ANTISEPTIC DETERGENT COMPOSITION

David J. Beaver, Richmond Heights, and Paul J. Stoffel, St. Louis, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 27, 1955
Serial No. 555,301

11 Claims. (Cl. 252—106)

1. A cleansing composition comprising a surface-active detergent base selected from the group consisting of anionic and non-ionic organic surface-active detergents and mixtures thereof and an antiseptic amount of a polyhalogen substituted carbanilide of the structure



wherein *a*, *b*, *c* and *d* are selected from the group consisting of hydrogen and halogen and wherein at least one of the atoms *a*, *b* and *c* is halogen, the halogen substituents of the said carbanilide being selected from the group consisting of chlorine and bromine.

2,846,399

BACTERICIDAL N-(2-3 DICHLORALLYL)-3-(HALOPHENYL) UREAS

David J. Beaver, Richmond Heights, and Paul J. Stoffel, St. Louis, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 26, 1955
Serial No. 511,412

7 Claims. (Cl. 252—107)

6. A detergent soap composition essentially comprising a detergent soap and 0.5% to 10% by weight based on the soap of 1-(2,3-dichlorallyl)-3-(3,4-dichlorophenyl) urea.

2,846,400

DETERGENT COMPOSITIONS

Alan Dalton Scott, Bebington, and Brian John Hazzard, Birkenhead, England, assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 17, 1952
Serial No. 282,888

Claims priority, application Great Britain April 23, 1951

6 Claims. (Cl. 252—137)

1. A detergent composition consisting essentially of an alkylaryl sulfonate detergent selected from the group consisting of sodium dodecyl toluene sulfonate and sodium dodecyl benzene sulfonate and from about 1% to about 50% by weight of the detergent of an alkanolamide which will improve the persistence, during washing, of the lather given by aqueous solutions of the composition, said alkanolamide being selected from the group consisting of para-tertiary-octylphenoxyacetethanolamide, para-nonylphenoxyacetethanolamide, and n-decyloxyacetethanolamide.

2,846,401

GRANULAR DETERGENT COMPOSITIONS

Thomas M. McCarthy and Arnvid S. Roald, Cincinnati, Ohio, assignors to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application June 28, 1956
Serial No. 594,365

9 Claims. (Cl. 252—138)

1. The process of improving the resistance to change, during storage under humid atmospheric conditions, in the free-flowing and non-caking character of freshly spray dried granular detergent compositions consisting essentially of a water soluble anionic synthetic detergent of the sulfuric reaction product type and hydratable alkali metal phosphates consisting essentially of a mixture of tripolyphosphate, pyrophosphates, and orthophosphates,

which comprises agitating said spray dried granules and simultaneously spraying on the surface thereof an aqueous solution containing at least one inorganic sulfate of a polyvalent metal selected from the group consisting of magnesium, zinc, and aluminum, in amount equivalent to from about 1% to about 10% of anhydrous inorganic sulfate based on the spray dried granules and sufficient to raise the moisture content of the composition to an amount within the range of about 12% to about 25%.

8. A spray dried heavy-duty synthetic detergent granule possessing improved resistance to change, during storage under humid atmospheric conditions, in the free-flowing and non-caking character of the freshly spray dried granule detergent compositions, consisting essentially from about 20% to about 40% by weight of water soluble anionic synthetic detergent of the sulfuric reaction product type, from about 10% to about 60% by weight of alkali metal phosphates including sodium tripolyphosphate and the pyrophosphate and orthophosphate reversion products thereof, from about 12% to about 25% moisture, and from about 10% to about 30% by weight of sodium sulfate, said granules being characterized by a coating comprising hydrated double salts of said phosphates formed from sodium and from at least one polyvalent metal selected from the group consisting of magnesium, zinc, and aluminum, the amount of polyvalent metal present being equivalent to an amount of anhydrous sulfate of said metal within the range of about 1% to about 10%.

2,846,402

ALKYL SULFATE DETERGENT COMPOSITIONS

Henry Y. Lew, San Francisco, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 28, 1953
Serial No. 400,765
4 Claims. (Cl. 252—152)

1. A detergent composition consisting essentially, by weight, of a normal aliphatic alcohol sulfate detergent derived from hydrogenated tallow fatty acids predominating in C_{18} n-alkyl sulfate, about 1 to 6 parts per part of sulfate detergent of C_{12}–C_{18} monoalkyl benzene sulfonate detergent, and, as a foam-improving agent, about 3 to 75%, based on the sulfate detergent, of a C_2–C_3 monoalkylolamide of a C_{16}–C_{18} saturated fatty acid.

2,846,403

LEAD ACTIVATED BARIUM ZINC SILICATE PHOSPHOR

Age Hylke Hoekstra and Hendrik Anne Klasens, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application May 17, 1955, Serial No. 508,982
Claims priority, application Netherlands June 2, 1954
1 Claim. (Cl. 252—301.6)

An ultraviolet luminescent material consisting essentially of a lead activated barium-zinc-silicate having the following X-ray diffraction diagram:

d	*I*	*d*	*I*	*d*	*I*
11	20	2.28	15	1.71	25
6.4	15	2.20	45	1.67	10
4.66	35	2.15	15	1.66	10
3.32	15	2.12	15	1.60	10
3.24	100	2.02	15	1.57	25
3.16	100	1.97	40	1.51	20
3.01	100	1.94	35	1.49	15
2.89	15	1.92	10	1.29	10
2.66	15	1.85	10	1.22	5
2.50	60	1.82	20	1.28	20
2.41	20	1.77	10	1.27	10

in which *d* is the interatomic spacing in A. and I the intensity of the diffracted X-ray, said material emitting ultraviolet radiation in a wave length range of about 2900 A. to 3500 A. with a peak emission of about 3000 A. in response to radiation having a wave length of about 2537 A.

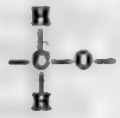
2,846,404

STEAM GENERATION AND COMPOSITIONS FOR INHIBITING FOAM THEREIN

Carl E. Johnson, Westchester, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application May 28, 1956
Serial No. 587,455
12 Claims. (Cl. 252—321)

1. A method of generating steam from a boiler water having a tendency to foam on boiling which comprises dispersing in said water a quantity of a polyoxyalkylene diol having a plurality of interconnected oxyalkylene groups, each containing 2 to 10 carbon atoms, interlinked with a sufficient number of



groups to produce a diol having an average molecule weight within the range of 1000 to 11,500 and having hydroxyl groups attached to terminal carbon atoms, said diol being substantially insoluble in said boiler water at the temperature of steam generation, the quantity of said diol being effective to inhibit the tendency of said water to foam on boiling, and heating the resultant aqueous dispersion to the boiling point.

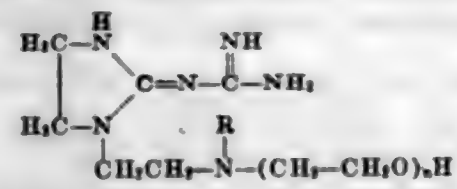
2,846,405

COMPOSITION FOR AND METHOD OF INHIBITING CORROSION OF METALS

William B. Hughes, Webster Groves, Mo., assignor to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey

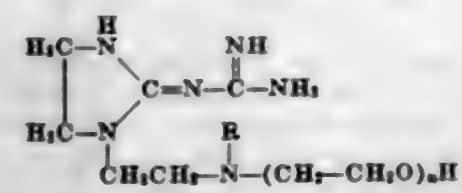
No Drawing. Application March 26, 1956
Serial No. 573,622
8 Claims. (Cl. 252—392)

1. As a new composition of matter, a compound having the formula



wherein R is selected from the group consisting of H, $-CH_2CH_2NH_2$, $-CH_2CH_2NHCH_2CH_2NH_2$, an alkyl group having from 1 to 10 carbon atoms, and *n* is a whole number not exceeding 2.

5. The method of controlling corrosion of metal exposed to corrosive fluid which comprises introducing into the corrosive fluid a quantity small but sufficient to substantially inhibit corrosion of a compound having the formula



wherein R is selected from the group consisting of H, $-CH_2CH_2NH_2$, $-CH_2CH_2NHCH_2CH_2NH_2$, an alkyl group having from 1 to 10 carbon atoms, and *n* is a whole number not exceeding 2, and passing the compound in contact with the metal surface to be protected.

2,846,406

PROCESS FOR THE PRODUCTION OF POLYMERIC AMINES AND AMMONIUM SALTS FROM OLEFIN-CARBON MONOXIDE POLYMERS

Helmut Kleiner, Opladen, Otto Bayer, Leverkusen-Bayerwerk, and Hugo Wilms, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application May 6, 1955
Serial No. 506,669
Claims priority, application Germany May 15, 1954
13 Claims. (Cl. 260—2.1)

1. Process for the production of polyamine polymers which comprises contacting at elevated temperature at least about 50° C., (*a*) monoolefine-carbon monoxide copolymers having a carbonyl content between about 30% and 50%, with at least the stoichiometrical amount, referred to the carbonyl groups of the polymer, of (*b*) formaldehyde and (*c*) salts of a compound selected from the group consisting of ammonia, primary amines and secondary amines.

2,846,407

METHOD OF MAKING A DETERGENT AND SOLVENT RESISTANT SPONGE MATERIAL

Christopher Lumley Wilson, Columbus, Ohio

No Drawing. Application January 13, 1954
Serial No. 403,935
7 Claims. (Cl. 260—2.5)

1. A method of increasing the detergent and organic solvent resistance of a sponge comprising a reaction product of polyvinyl alcohol and formaldehyde in which 35 to 80% of the hydroxyl groups of said polyvinyl alcohol have been reacted, comprising immersing said sponge in an aqueous solution of a dialdehyde containing more than two carbon atoms per molecule, in the presence of a mineral acid catalyst, at a concentration of said dialdehyde, immersion temperature and over a time correlated to react from about 0.2 to about 4.0 grams of dialdehyde per 100 grams of sponge.

2,846,408

CELLULAR POLYURETHANE PLASTICS OF IMPROVED PORE STRUCTURE AND PROCESS FOR PREPARING SAME

Franzkarl Brochhagen, Odenthal, Bezirk Koln, Fritz Schmidt, Leverkusen, and Peter Hoppe, Troisdorf, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application January 18, 1955
Serial No. 482,663
Claims priority, application Germany January 19, 1954
8 Claims. (Cl. 260—2.5)

1. A process for preparing a cellular plastic with an improved cellular structure from a composition comprising water, an organic polyisocyanate and a polyester prepared by reacting a dicarboxylic acid and an alcohol selected from the group consisting of a trihydric alcohol and a glycol which comprises adding to the composition from about 0.01 percent to about 5 percent based on the weight of the polyester of a compound selected from the group consisting of soaps and alcoholates of metals having the formula

$$Me(OR)_mX_{n-m}$$

wherein Me is a metal having an atomic number of from 21 to 83, R is selected from the group consisting of aliphatic, cycloaliphatic and aryl hydrocarbon radicals containing at least six carbon atoms, *n* is the valency of the metal Me employed and is at least 3, X is an organic carboxylic acid radical and *m* is selected from the group consisting of zero and a positive integer equal to at least 1 but not more than the integer defined by the valance of metal Me, and effecting chemical reaction between the polyisocyanate and polyester with accompanying foaming of the said composition.

2,846,409

FURFURYL ALCOHOL POLYMER-PROTEIN-LIGNOCELLULOSE PULPING LIQUOR COMPOSITIONS AND PROCESS OF MAKING THE SAME

Robert J. Herschler and Rainer G. Jaffe, Camas, and Francis O. Whipple, Washougal, Wash., assignors to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada

No Drawing. Application January 23, 1956
Serial No. 560,903
19 Claims. (Cl. 260—8)

1. A polymeric composition comprising the combination product of from 1–95% of a benzene-soluble furfuryl alcohol polymer comprising at least one member of the group consisting of the homopolymers of furfuryl alcohol and the copolymers thereof with formaldehyde; from 1–90% of an aqueous-alkali-soluble protein comprising at least one member of the class consisting of fish glue, animal glue, water-soluble blood, casein, soya bean protein and zein and from 1–95% of spent lignocellulose pulping liquor, percent being expressed as percent by weight on a dry weight basis.

2,846,410

THERMO-SETTING COMPOSITIONS OF STYRENE AND CINNAMIC ACID ESTER OF EPOXIDE RESIN

Frank Armitage and Leslie George Trace, Homerton, London, England, assignors, by mesne assignments, to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application August 26, 1954
Serial No. 452,153
Claims priority, application Great Britain February 9, 1954
3 Claims. (Cl. 260—23)

1. A thermosettable composition comprising an admixture of an ester of an acid selected from the group consisting of cinnamic acid and mixtures of cinnamic acid and at least one long chain fatty acid containing from 12 to 26 carbon atoms in the chain, and a polyglycidyl polyether resin having a 1,2-epoxide equivalent weight of from about 225 to 4,000; and a vinyl monomer selected from the group consisting of styrene, nuclear alkyl substituted styrene, and nuclear halogen-substituted styrene, the amount of said vinyl monomer being from about 5% to about 95% of the combined weight of said monomer and said ester.

2,846,411

STABILIZED UNSATURATED POLYESTER COMPOSITION CONTAINING AN AMIDINE SALT AND PROCESS OF MAKING SAME

Edwin W. Meyer, Chicago, and Jerome G. Klein, Morton Grove, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application March 19, 1956
Serial No. 572,192
15 Claims. (Cl. 260—45.4)

1. The method of retarding the premature gelation of a polymerizable composition which comprises a 100% polymerizable homogeneous liquid solution of: (*a*) polymerizable unsaturated, polyhydric alcohol-polycarboxylic acid polyester whose molecule contains a plurality of polymerizably reactive $\Delta^{2,3}$-enedioyl groups and (*b*) copolymerizable ethylenically-unsaturated liquid monomeric material, which comprises incorporating in said composition a small quantity of at least one amidine salt in an amount effective to delay said gelation when compared with a similar composition from which said small quantity of amidine salt has been omitted; said amidine salt being a coordination compound of an amidine with an acid which is inert in respect to catalyzing the polymerization of said polymerizable composition.

2,846,412

CHLOROETHYLENE POLYMER STABILIZED WITH MONO AND DIFLUOROPHOSPHORIC ACID SALTS

Carl B. Havens, Hope, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 22, 1956
Serial No. 617,262
7 Claims. (Cl. 260—45.75)

1. A thermally stable composition comprising a chloroethylene polymer and stabilizing amounts of an inorganic salt of a phosphoric acid derivative selected from the group consisting of the sodium, lithium, potassium, barium, and lead salts of monofluorophosphoric acid and difluorophosphoric acid.

2,846,413

PHENOLIC METHYLOL-PHOSPHORUS POLYMERS

Wilson A. Reeves and John D. Guthrie, New Orleans, La., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application April 5, 1954
Serial No. 421,212
12 Claims. (Cl. 260—47)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A flame proof condensation polymer produced by heating at a temperature of about from 70° to 170° C. a composition comprising a phenol and at least one polyhydric phosphorus compound selected from the group consisting of tetrakis (hydroxymethyl) phosphonium chloride, tris (hydroxymethyl) phosphine oxide, and phosphorus-linked methylol-group-containing derivatives thereof obtained by heating a member of the group consisting of tetrakis (hydroxymethyl) phosphonium chloride, tris (hydroxymethyl) phosphine oxide, and mixtures thereof with at least one compound selected from the group consisting of ammonia, hydrazine, lysine, hydrocarbon- substituted primary and secondary amines and amides, and methylol- substituted amines, the mole ratio of polyhydric phosphorus compound to phenol in the composition being about from 1:1 to 1:3, respectively.

2,846,414

RESIN COMPOSITION AND PROCESS OF PREPARING THE SAME

Alfred F. Schmutzler, East Orange, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 11, 1956
Serial No. 577,441
20 Claims. (Cl. 260—70)

1. A process for the preparation of a resinous material comprising reacting (1) dicyandiamide, (2) an aliphatic hydroxy nitrile, (3) an aldehyde and (4) a polyhydric aliphatic alcohol.

2,846,415

PROCESS FOR RAISING THE MELTING POINT OF ACETONE-SOLUBLE COPOLYMERS

Marshall W. Duke, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 11, 1956
Serial No. 597,896
6 Claims. (Cl. 260—73)

1. A process for increasing the melting point of acetone soluble copolymers of vinylidene chloride without destroying acetone solubility comprising sequentially preparing an acetone solution of a copolymer composed of from 30 to 55 percent by weight of acrylonitrile and correspondingly from 70 to 45 percent by weight of vinylidene chloride and from 1 to 5 percent of the weight of said copolymer of an acetone-soluble alpha-hydroxydialdehyde, removing acetone from the solution, and finally subjecting the acetone-free composition to an elevated temperature until the melting point of the copolymer has been raised.

2,846,416

PROCESS OF CURING POLYALKYLENEETHER POLYURETHANE POLYMERS CONTAINING ETHYLENICALLY UNSATURATED SIDE CHAINS

Robert G. Arnold, Salem, N. J., and Clifton L. Kehr and John J. Verbanc, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 25, 1956
Serial No. 599,936
3 Claims. (Cl. 260—77.5)

1. The process of curing a sulfur-curable polyalkyleneether polyurethane polymer, said polymer having a side chain at least once for every 8000 units of molecular weight of polymer, said side chain containing a terminal aliphatic —CH=CH$_2$ group, which comprises incorporating therewith for each 100 parts by weight of polymer (*a*) from 0.5 to 2.0 parts by weight of sulfur, (*b*) from 2.0 to 4.0 parts by weight of 2,2'-dithiobisbenzothiazole, and (*c*) from 0.175 to 1.75 parts by weight of a zinc halide complex selected from the group consisting of a 1:1 molar complex of a zinc halide with 2,2'-dithiobisbenzothiazole and a 1:2 molar complex of a zinc halide with 2-mercaptobenzothiazole, wherein the zinc halide is selected from the group consisting of zinc chloride, zinc bromide and zinc iodide, and heating the polymer to a temperature of from about 100 to 170° C. so as to effect a cure.

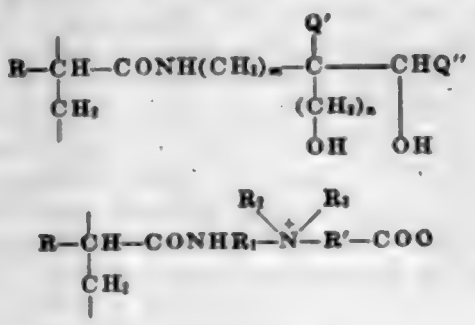
2,846,417

TERPOLYMERS OF N-ACRYLAMIDOALKYL BETAINES

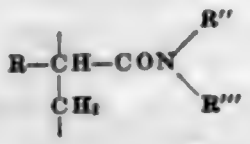
Comer Drake Shacklett, Roselle, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 9, 1954
Serial No. 415,161
10 Claims. (Cl. 260—78)

1. An addition copolymer containing a substantial number of recurring intralinear units of the formulae:



and



wherein R, R'' and R''' are members taken from the group consisting of hydrogen, alkyl of 1 to 3 carbon atoms, phenyl and cyclohexyl, R_1 is a saturated bivalent aliphatic hydrocarbon radical of 2 to 6 carbon atoms, R_2 and R_3 are alkyl radicals of 1 to 3 carbon atoms, R' is a saturated bivalent aliphatic hydrocarbon radical containing 1 to 4 carbon atoms, Q' and Q'' are members taken from the group consisting of hydrogen and alkyl radicals of 1 through 3 carbon atoms, *m* is a number taken from the group consisting of 0, 1, 2, 3, and 4, and *n* is a number taken from the group consisting of 0 and 1 and the sum of *m* and *n* is at least 1, wherein said first

unit comprises 5 to 60 mole percent, the second 5 to 60 mole percent and the third 30 to 90 mole percent of the copolymer.

2,846,418

PROCESS FOR THE PRODUCTION OF POLYMERISATION PRODUCTS

Hellmut Bredereck, Stuttgart, and Erich Böder, Hanau (Main), Germany, assignors to W. C. Heraeus G. m. b. H., Hanau (Main), and Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany, both corporations of Germany

No Drawing. Application November 12, 1953
Serial No. 391,726
Claims priority, application Germany November 13, 1952
19 Claims. (Cl. 260—80)

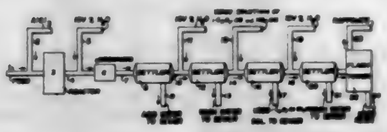
1. In the process of bulk polymerizing a polymerizable vinyl compound having a terminal double bond linked to a methylene group, in the presence of a formed polymer of said vinyl compound, the improvement which comprises effecting the polymerization in the presence of a salt of an organic amine and a member selected from the group consisting of alkali and alkaline earth salts of a sulfinic acid.

2,846,419

REMOVING RESIDUAL CATALYST FROM RESIN POLYMERIZATE

Ottis Webster Monk, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application November 10, 1955, Serial No. 546,181
2 Claims. (Cl. 260—82)



1. A method for preparing a resin-containing, substantially chloride-free hydrocarbon solution which comprises treating steam-cracked liquid C_5—C_{12} olefin- and diolefin-containing petroleum fractions with 0.25–2.5 wt. percent of aluminum chloride, washing the resulting resin-containing reaction mixture to substantially remove said aluminum chloride therefrom, then contacting the washed resin-containing hydrocarbon solution with a wash solvent consisting essentially of isopropyl alcohol and at least the stoichiometrical amount of about 30% ammonium hydroxide required to react with the remaining chlorides, and separating the chloride-containing wash solvent from the substantially chloride-free, resin-containing hydrocarbon solution in a settling zone.

2,846,420

EMULSION POLYMERIZATION OF BUTADIENE COMPOUNDS

Herbert L. Johnson, Media, and Stanford J. Hetzel, Newtown Square, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application March 12, 1956
Serial No. 570,723
10 Claims. (Cl. 260—82.1)

1. Process for polymerization of butadiene compounds which comprises: subjecting such compounds in aqueous emulsion to polymerizing conditions in the presence of an emulsifying agent containing not more than 15 weight percent unsaponifiable material and comprising alkali metal soap of acidic material comprising carboxylic acids having mainly 12 to 26 carbon atoms obtained by partial oxidation of a petroleum fraction having average molecular weight in the range 200 to 450.

2,846,421

HIGH HEAT CAPACITY COOLING MEDIUM

Lyle W. Pollock, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application February 18, 1954, Serial No. 411,115
9 Claims. (Cl. 260—82.3)

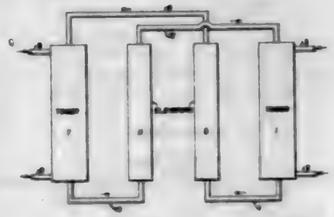
2. An emulsion polymerization process which comprises contacting a plurality of capsules containing a material which undergoes an endothermic phase change with a liquid coolant, reducing the temperature of the contained material below the phase change temperature therein with said coolant, contacting the thus chilled capsules with the polymerization reactants in aqueous emulsion at a temperature greater than the temperature of the phase change of the material, polymerizing monomeric material in the reactants and thereby giving up heat and causing the material to undergo the phase change, separating the resulting latex from the capsules, and recontacting the capsules with the coolant.

2,846,422

SOLID LIQUID HEAT EXCHANGE IN LOW TEMPERATURE POLYMERIZATION

Arthur D. Green, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application July 19, 1954, Serial No. 444,080
3 Claims. (Cl. 260—85.3)



1. In a process for carrying out reactions wherein a feed stream is processed at low temperatures to yield a cold product stream and wherein the feed stream is cooled by heat exchange with the product stream, the improvement which comprises maintaining a downwardly moving body of solid heat transfer medium in a heat exchange zone, having an upper section and a lower section, introducing warm solid heat transfer medium into the top of said upper section, withdrawing warm solid heat transfer medium from the bottom of said lower section, and returning said heat transfer medium to the top of said upper section, introducing said cold product stream into the bottom of said upper section countercurrent to said moving bed of solid transfer medium whereby said product stream is warmed and said solid transfer medium is chilled, simultaneously introducing the incoming feed stream into the bottom of said lower section countercurrent to said moving solid transfer medium whereby said solid transfer medium is warmed and said feed stream is chilled, withdrawing warm product from the top of said upper section, withdrawing chilled feed from the top of said lower section and maintaining a pressure drop between the upper and lower sections whereby 1 to 5 wt.% fresh feed from the upper part of the lower section passes into the lower part of said upper section.

2,846,423

PROCESS FOR IMPROVING POLYMERS OF ACRYLONITRILE

Adolf Hartmann, Gersthofen, near Augsburg, Germany, assignor to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application August 15, 1955
Serial No. 528,546
11 Claims. (Cl. 260—85.5)

1. A process for improving the thermal stability of a solid copolymer of acrylonitrile containing basic nitrogen groups, which comprises contacting the copolymer with an aqueous solution of a member selected from the group consisting of hydrofluoboric acid and water-soluble salts thereof at an elevated temperature.

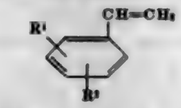
2,846,424

COPOLYMERIZATION OF ACRYLONITRILE EMPLOYING AZO-BIS-ARYLALKANE CATALYSTS

Guido Miao, Plainfield, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 8, 1955
Serial No. 545,803
9 Claims. (Cl. 260—85.5)

1. The method of preparing a synthetic thermoplastic resinous composition which comprises copolymerizing a compound represented by the general formula



wherein "R^1" and "R^2" are substituents selected from the class consisting of hydrogen, halogen, and a lower alkyl substituent having 1 to 4 carbon atoms and acrylonitrile in the presence of from about 0.005% to 5% of an azocatalyst having the general formula

Ar—CHR—N=N—CHR—Ar

wherein "Ar" is an aromatic radical selected from the group consisting of phenyl; nuclearly substituted alkyl, alkoxy, and halogen phenyl; and naphthyl radicals and "R" is a hydrocarbon radical of 1 to 10 carbon atoms, and from about 0.05% to 1% of a hydrocarbon thiol having from 1 to 15 carbon atoms, said percentages being by weight and based on the total weight of the combined monomers.

2,846,425

STABILIZED CATALYST AND IMPROVED POLYMERIZATION PROCESS

John Paul Hogan and Robert L. Banks, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application June 1, 1954
Serial No. 433,804
23 Claims. (Cl. 260—93.7)

1. A chromium oxide polymerization catalyst stabilized by the presence of a minor proportion of strontium oxide, said oxides being admixed with at least one oxide selected from the group consisting of silica and alumina, and at least part of the chromium being in the hexavalent state.

6. A catalyst preparation process comprising treating at least one oxide selected from the group consisting of silica and alumina with an aqueous dispersion containing a chromium compound convertible, on heating, to chromium oxide in which at least part of the chromium is hexavalent and a strontium compound, calcinable to strontium oxide on heating, drying the resulting composite, and contacting the dried composite with dry air at a temperature in the range 750 to 1000° F. for a time in the range 3 to 10 hours to obtain a composite containing from 0.1 to 10% chromium as oxide, at least part of the chromium being in the hexavalent state, and from 0.2 to 4 gram atoms of strontium, as strontium oxide, per gram atom of chromium.

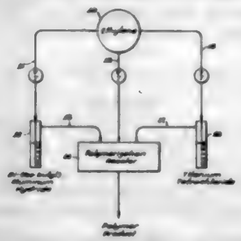
14. A process which comprises polymerizing, to form normally solid polymer, at least one aliphatic 1-olefin having a maximum chain length of 8 carbon atoms and no branching nearer the double bond than the 4-position, said polymerizing being conducted at a temperature in the range 100 to 450° F. in the presence of an active polymerization catalyst comprising chromium oxide supported on at least one support material selected from the group consisting of silica and alumina, at least part of the chromium in said catalyst being in the hexavalent state, said catalyst also containing, as a supported component, a minor proportion of strontium oxide sufficient to stabilize the hexavalent chromium in said catalyst.

2,846,426

POLYMERIZATION IN VAPOR PHASE WITH COMPLEX METAL CATALYSTS

Winston E. Larson, Lake Jackson, and Richard E. Edmonson, Freeport, Tex., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application December 8, 1955, Serial No. 551,908
12 Claims. (Cl. 260—94.9)



1. In a method for making high molecular weight polymeric products by polymerizing a polymerizable organic material in contact with a complex organo-metal catalyst formed by admixing a vaporizable alkylaluminum compound and a vaporizable compound of a heavier metal selected from the class consisting of the metals of groups IV–B, V–B, and VI–B of the periodic system of the elements, the improvement which comprises forming at least two separate vaporous compositions, each of which contains a part only of the components necessary for the polymerization reaction mixture, one of which vaporous compositions contains one only of the vaporizable catalyst-forming starting materials, another of which vaporous compositions contains the other only of the vaporizable catalyst-forming starting materials, at least one of the vaporous compositions containing a polymerizable organic material, and admixing the several vaporous compositions, whereby a complex organo-metal catalyst is generated in situ and polymerization of the polymerizable organic material is effected.

3. The improvement according to claim 1 wherein the polymerizable organic material is ethylene.

2,846,427

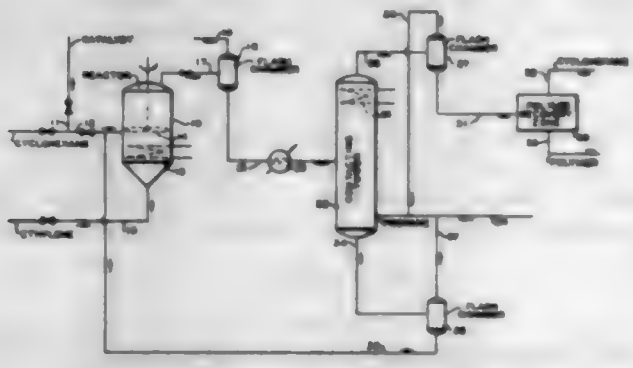
TREATMENT OF POLYMERS

Robert A. Findlay, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application March 14, 1957, Serial No. 646,085
20 Claims. (Cl. 260—94.9)

1. The process of treating a polymer prepared by catalytic polymerization in the presence of a catalyst selected from the group consisting of (1) a compound of a metal selected from the group consisting of aluminum, gallium, indium, and beryllium having the valence linkages thereof

individually bound to members selected from the group consisting of hydrogen, alkyl, cycloalkyl, and aryl radicals, and (2) mixtures having at least two essential components, one of said components being a metal compound selected from the group consisting of group IV, group V and group VI metal compounds, and another of said components being selected from the group consisting of organometal compounds, metal hydrides, and metals of



groups I, II and III, which comprises contacting a solution of said polymer in a hydrocarbon solvent, said solution containing said catalyst as an impurity, with a light paraffinic hydrocarbon containing from 1 to 6, inclusive, carbon atoms per molecule and having a boiling point lower than that of said hydrocarbon solvent; and separately recovering a polymer rich phase and a catalyst rich phase.

2,846,428

SEPARATION OF OPTICAL ANTIPODES WITH UREA

Wilhelm Schlenk, Mannheim-Feudenheim, Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen am Rhine, Germany

No Drawing. Application August 11, 1954 Serial No. 449,255

Claims priority, application Germany May 8, 1952

7 Claims. (Cl. 260—96.5)

1. A process for the separation of optical antipodes in a racemic mixture which comprises: preparing a solution containing both urea and a racemic mixture, said racemic mixture being capable of forming urea inclusion compounds with urea by precipitation from said solution; slowly reducing the temperature of said solution and initially precipitating only about 8 to 31% of said racemic mixture as urea inclusion compounds, said precipitated urea inclusion compounds containing predominantly one of said optical antipodes; and separating said initially precipitated urea inclusion compounds containing predominantly one of said optical antipodes from the portion of said racemic mixture remaining in solution which contains predominantly the other of said optical antipodes.

2,846,429

ROSIN REFINING

Edwin C. Howard, Hattiesburg, Miss., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 8, 1954 Serial No. 467,647

3 Claims. (Cl. 260—107)

1. A process for removing low melting and neutral constituents from rosin which comprises contacting a solution of rosin in an inert solvent with a silica gel having an average pore diameter of less than 60 angstroms.

2,846,430

PROCESSING PINE OLEORESIN

Ray V. Lawrence and Virginia M. Loeblich, Lake City, Fla., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application November 30, 1956 Serial No. 625,558

1 Claim. (Cl. 260—109)

(Granted under Title 35, U. S. Code (1952), sec. 266)

A process comprising neutralizing with aqueous alkali from 5 to 60% of the carboxyl groups of resin acids in a pine oleoresin containing substantially the resin acids normally present in crude pine oleoresin, thereby a stabilize the carbon to carbon linkage of said acids against heat induced isomerization, and removing the water and turpentine from the partially neutralized pine oleoresin by steam distillation to obtain a clear homogeneous rosin.

2,846,431

WATER SOLUBLE THERMO-SETTING RESIN AND METHOD FOR ITS MANUFACTURE

Worth C. Goss, Seattle, Wash., assignor, by mesne assignments, to Permanente Cement Company, Oakland, Calif., a corporation of California

No Drawing. Application October 1, 1951 Serial No. 249,207

4 Claims. (Cl. 260—124)

1. The process of making a thermo-setting plastic of the character described from a sulphite pulp liquor, comprising subjecting the liquor to heat and steam pressure to effect stripping of free sulphur dioxide therefrom, adding ammonia to the liquor after the stripping of the sulphur dioxide therefrom, and while the liquor is maintained substantially at a temperature of about 300° F. and under pressure, subjecting it to oxidation by passing air therethrough, distilling off the ammonia until the pH is reduced to approximately 8, filtering the liquor, and acidifying the clarified liquor to precipitate and recover therefrom a thermo-setting resin.

2,846,432

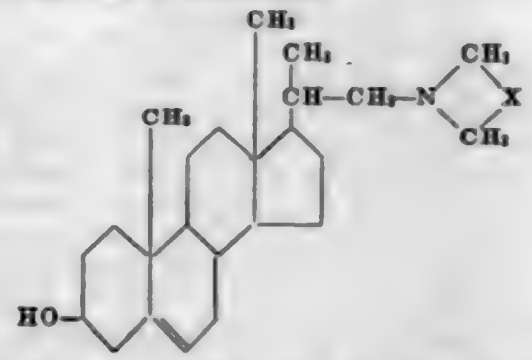
HETEROCYCLIC DERIVATIVES OF 20-AMINOMETHYL-5-PREGNEN-3-OL

Leonard N. Nysted, Highland Park, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application October 31, 1957 Serial No. 693,514

4 Claims. (Cl. 260—239.5)

1. A compound of the formula



wherein X is a member of the class consisting of $-CH_2CH_2-$, $-CH_2-CH_2-CH_2-$ and $-CH_2O-CH_2-$ radicals.

2,846,433

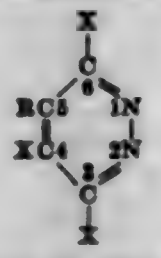
SUBSTITUTED PYRIDAZINES

Charles J. Pennino, Hudson, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application September 20, 1955
Serial No. 535,519

11 Claims. (Cl. 260—250)

1. A composition having the structure



wherein R is selected from the class consisting of hydrogen and a halogen and X represents a halogen having an atomic weight of from 35 to 80.

2,846,434

PROCESS FOR THE PRODUCTION OF GREY VAT DYESTUFFS OF THE BENZANTHRONE SERIES, AND THE PRODUCTION OF OLIVE-GREEN VAT DYESTUFFS THEREFROM

Hans-Samuel Bien, Leverkusen, and Fritz Besmann, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application June 22, 1955
Serial No. 517,393

Claims priority, application Germany June 24, 1954

15 Claims. (Cl. 260—274)

1. The dyestuffs obtained by reacting a member selected from the group consisting of anthraquinonyl imino - bz - 1 - benzanthrone carboxylic acid - (α-anthraquinonyl)-amide and α - (benzoylamino-anthraquinonyl-imino) - bz - 1 - benzanthrone carboxylic acid-(α-anthraquinonyl)-amide with an alkaline condensing agent selected from the group consisting of alcoholic potassium hydroxide and alcoholic sodium hydroxide at a temperature between about 100° C. and about 200° C. and recovering the dyestuff formed.

2,846,435

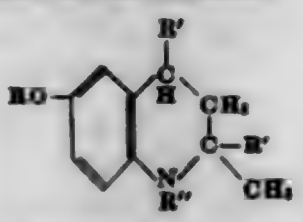
6-ETHER SUBSTITUTED 1,2,3,4-TETRAHYDRO-ALKYLQUINOLINES

James O. Harris, St. Albans, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application July 27, 1953
Serial No. 370,615

5 Claims. (Cl. 260—289)

1. As new compounds 6-ether substituted 1,2,3,4-tetrahydroquinolines of the structure



where R is a hydrocarbon radical containing less than 13 carbon atoms and R′ is an alkyl group containing less than 5 carbon atoms and R″ is selected from a group consisting of alkyl groups containing less than 5 carbon atoms and hydrogen.

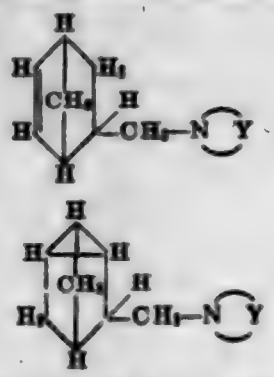
2,846,436

PYRROLIDYLMETHYL AND PIPERIDYLMETHYL BICYCLOHEPTENES AND NORTRICYCLENES

Werner R. Boekme, Somerville, and Joseph Nichols, Princeton, N. J., assignors to Ethicon, Inc., a corporation of New Jersey

No Drawing. Application March 26, 1956
Serial No. 573,587
6 Claims. (Cl. 260—293)

1. A compound selected from the group consisting of compounds having the planar structural formulas:



in which Y is a bivalent alkylene radical having at least four and not more than five carbon atoms, non-toxic acid addition salts and quaternary ammonium salts thereof.

4. Endo - 2 - (1 - piperidylmethyl) - bicyclo - (2,2,1) - 5-heptene.

2,846,437

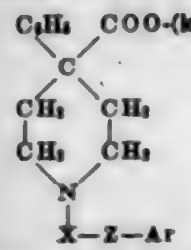
LOWER ALKYL 4-PHENYL-1-(SUBSTITUTED-ALKYL) PIPERIDINE-4-CARBOXYLATES AND PREPARATION THEREOF

Bill Eipern, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application September 12, 1955
Serial No. 533,690

31 Claims. (Cl. 260—293.4)

1. A composition of matter selected from the group consisting of a compound having the formula



where X is a lower alkylene radical having at least two carbon atoms and having its free valence bonds on different carbon atoms, Z is a member of the group consisting of O, S, SO, SO_2, NH and N (lower alkyl), Ar is a monocarbocyclic aryl radical having six ring-carbon atoms; and its acid addition salts.

2,846,438

N-(BETA-DIETHYLAMINOETHYL) ISONICOTINAMIDE

Harry L. Yale and Jack Bernstein, New Brunswick, N. J., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application March 15, 1954
Serial No. 416,408

2 Claims. (Cl. 260—295)

1. The pure, isomer free monohydrochloride of N-(β-diethylaminoethyl)isonicotinamide, melting at about 106–107° C.

2. The pure, isomer free dihydrochloride of N-(β-diethylaminoethyl)isonicotinamide, melting at about 194–196° C.

2,846,439

REACTION OF THREONINES WITH ARYL NITRILES IN A STERIC INVERSION PROCESS

Tokio Joyama, Toyonaka, Japan, assignor to Takeda Pharmaceutical Industries, Ltd., Osaka, Japan

No Drawing. Application June 3, 1957
Serial No. 663,804
Claims priority, application Japan June 5, 1956
4 Claims. (Cl. 260—307)

1. A method for the preparation of a member selected from the group consisting of 2-phenyl-5-methyl-Δ^2-oxazoline-4-carboxylic acid, 2-p-toluyl-5-methyl-Δ^2-oxazoline-4-carboxylic acid and a mixture of either of these with the corresponding α-aroylamino-β-hydroxybutyric acid, which comprises condensing a member selected from the group consisting of allothreonine and a mixture of allothreonine and threonine, with the corresponding member selected from the group consisting of benzonitrile and toluylnitrile in the presence in the reaction medium of an alkali metal lower aliphatic alcoholate.

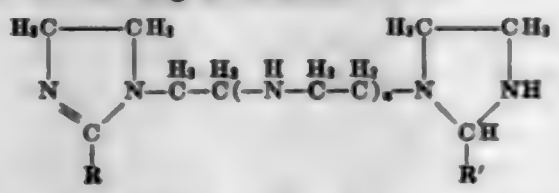
2,846,440

COMPOSITION FOR AND METHOD OF INHIBITING CORROSION OF METALS

William B. Hughes, Webster Groves, Mo., assignor to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application December 12, 1955
Serial No. 552,241
7 Claims. (Cl. 260—309.6)

1. As a new composition of matter, the compound prepared by first condensing one mol of a polyethyleneamine selected from the group consisting of triethylene tetramine and tetraethylene pentamine with one mol of a monocarboxylic acid having from 2 to about 20 carbon atoms by removing two mols of water from the reaction mixture by distillation to provide an intermediate imidazoline reaction product, condensing said intermediate imidazoline reaction product with one mol of an aldehyde having from 1 to about 15 carbon atoms by removing 1 mol of water from the reaction mixture by distillation to provide an intermediate imidazoline-imidazolidine reaction product having the formula



wherein *n* is an integer from 0 to 1, and introducing into the imidazoline-imidazolidine reaction product from 1 to 2 mols of ethylene oxide.

2,846,441

PRODUCTION OF A SOLVENT-STABLE ALPHA-MODIFICATION OF COPPER PHTHALOCYANINE

Fritz Muehlbauer, Robert Zell, Erwin Plankenhorn, and Erich Jutz, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application August 17, 1954
Serial No. 450,537
Claims priority, application Germany August 29, 1953
12 Claims. (Cl. 260—314.5)

1. A process for the production of a solvent-stable copper phthalocyanine alpha-modification which comprises dissolving in cencentrated sulfuric acid unsubstituted copper phthalocyanine and such an amount of copper phthalocyanine which is substituted only in the 4-positions of the benzene nuclei with from 1 to 4 radicals of the group consisting of chlorine, nitro, and amino that there is present in solution one said radical for from 1 to 8 molecules of phthalocyanine, pouring the solution into hot water, and recovering the resulting precipitate.

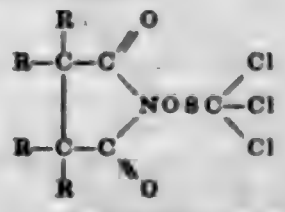
2,846,442

TRICHLOROMETHYL-SULPHENIC ACID ESTERS OF CYCLIC OXIMIDES AND THEIR PRODUCTION

Engelbert Kühle, Koln-Stammheim, Richard Wegler, Leverkusen, and Ferdinand Grewe, Koln-Flittard, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application April 18, 1956
Serial No. 578,867
9 Claims. (Cl. 260—326)

4. Trichloromethylsulphenic acid esters of cyclic oximides of the general formula



in which R is a member of the group consisting of hydrogen and, when taken together, are the atoms necessary to form the phthalyl, naphthyl, endomethylene-phthalyl radicals, the hydrogenated forms of these radicals and the nitro and chloro phthalyl radicals.

2,846,443

PROCESS APT TO IMPROVE THE RECOVERY OF SELECTIVE SOLVENTS, AND PARTICULARLY OF SOLVENTS DESTINED TO THE SEPARATION OF ACETYLENE FROM GASES CONTAINING SAME

Giorgio Malusa and Mario Rossoni, Porto Marghera, Italy, assignors to Societh Edison S. p. A., Milan, Italy

No Drawing. Application May 31, 1956
Serial No. 588,217
Claims priority, application Italy October 14, 1955
3 Claims. (Cl. 260—326.5)

1. A process for improving the recovery of selective solvents, employed in the separation of acetylene from gases containing same, which includes the step of: prior to flocculation adding to said solvents small quantities of organic compounds only slightly soluble in water and selected from the group consisting of aromatic hydrocarbons and chlorinated hydrocarbons to thereby aid in the flocculation of the colloidal suspension of the polymers derived from the acetylene and contained in said solvents.

3. A method of improving the recovery of selective solvents employed in the separation of acetylene from gases containing same, said solvents being selected from the group consisting of gamma-butyrolactone, N-methyl-pyrrolidone and di-methyl-formoamide, which includes the step of: prior to flocculation, adding to the solution containing said solvents small quantities of organic compounds selected from the group consisting of toluene, benzene, homologues of benzene and trichloroethylene.

2,846,444

PYRUVIC ACID-3-(p-METHOXY PHENYL)-1,2-DITHIOL-5-ONE AZINE

Arthur Luettringhaus and Ulrich Schmidt, Freiberg, Breisgau, Germany

No Drawing. Application December 17, 1952
Serial No. 326,592
Claims priority, application Germany December 20, 1951
2 Claims. (Cl. 260—327)

1. As a new compound, a condensation product of pyruvic acid and 3-(p-methoxy phenyl) trithione with hydrazine, said condensation product having choleretic activity, and produced by boiling in glacial acetic acid with the addition of a basic catalyst.

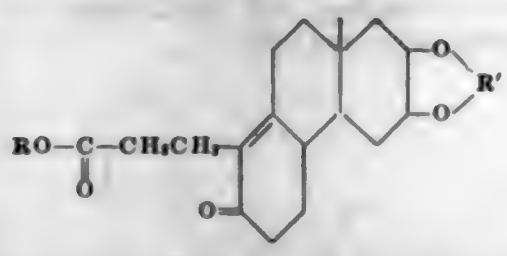
2,846,445

SYNTHESIS OF STEROIDS

Harold Raffelson, St. Louis, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 14, 1954
Serial No. 436,719
11 Claims. (Cl. 260—340.5)

1. The cyclic acetal of the alkyl ester of 1-(β-carboxyethyl) - 2 - keto-6,7 - dihydroxy - 14 - methyl - $\Delta^{11(1)}$-dodecahydrophenanthrene of the structure



where R is a short chain alkyl radical and where R′ is the hydrocarbon residue of a simple symmetrical mono-ketone selected from the group consisting of acetone, diethyl ketone, cyclohexanone and para-methyl-cyclohexanone upon removal of the oxygen atom.

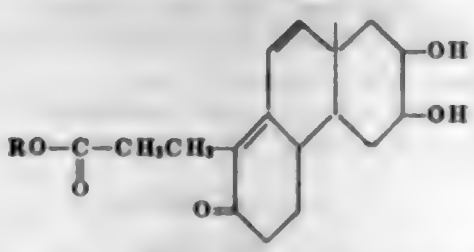
2,846,446

SYNTHESIS OF STEROIDS

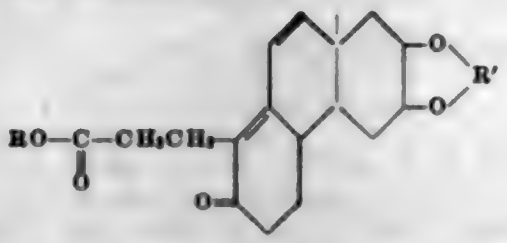
William S. Knowles, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 14, 1954
Serial No. 436,723
12 Claims. (Cl. 260—340.5)

1. A member of the group consisting of the alkyl ester of 1 - (β-carboxyethyl)-2-keto-6,7-dihydroxy-14-methyl-$\Delta^{9,11(1)}$-decahydrophenanthrene of the structure



where R is a short chain alkyl radical, and cyclic acetals thereof of the structure



where R is a short chain alkyl radical and R′ is the hydrocarbon residue of a simple symmetrical mono-ketone of the class consisting of acetone, diethyl ketone, cyclohexanone, and para-methyl-cyclohexanone upon removal of the oxygen atom.

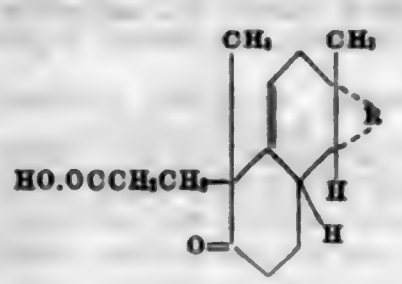
2,846,447

SIDE CHAIN REMOVAL PROCESS

William E. Weesner, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 3, 1954
Serial No. 454,225
10 Claims. (Cl. 260—340.5)

1. In a process for the removal of the β-carboxyethyl side chain of a polyhydrophenanthrene compound, the step which comprises subjecting an alkali metal salt of an 1,8a-dimethyl-1-(β - carboxyethyl) - Δ^{10} - polyhydrophenanthren-2-one of the structure



where R is a 4-carbon atom chain linking the 5a and 8a carbon atoms to form a 6-membered fused ring, in the form of a melt to a temperature in the range of about 200° C. to about 350° C. at a pressure below atmospheric.

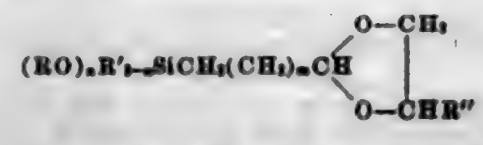
2,846,448

ORGANOSILICON DIOXOLANES

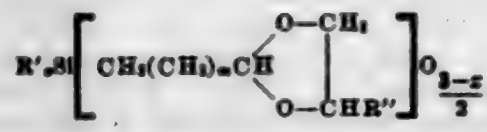
John L. Speier, Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application August 15, 1956
Serial No. 604,058
9 Claims. (Cl. 260—340.9)

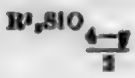
1. An organosilicon compound selected from the group consisting of (1) compounds of the formula



where R and R′ are monovalent hydrocarbon radicals free of aliphatic unsaturation, R″ is an alkyl radical of from 1–3 inclusive carbon atoms, *n* is an integer of from 0–3 inclusive, and *m* is an integer of from 1–16 inclusive, (2) organosiloxanes consisting essentially of units of the formula



where R′, R″, and *m* are as above defined and *x* is an integer of from 0–2 inclusive, and (3) copolymeric organosiloxanes consisting essentially of the units as defined in (2) and units of the formula



where R^3 is selected from the group consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals and *y* is an integer of from 0–3 inclusive.

2,846,449

PRODUCTION OF TETRAHYDROFURAN

William H. Bamford, Lewiston, N. Y., and Myron M. Manes, Plainfield, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 15, 1956
Serial No. 604,086
5 Claims. (Cl. 260—346.1)

1. A process for the production of tetrahydrofuran from furan obtained by the catalytic decarbonylation of furfural comprising treatment of said furan with a dilute aqueous solution of a caustic alkali selected from the group consisting of sodium and potassium hydroxides, followed by hydrogenation with an active metal hydrogenation catalyst.

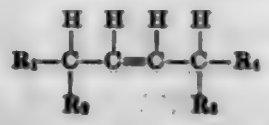
2,846,450

PREPARATION OF MALEIC ANHYDRIDE

Herman S. Bloch, Skokie, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application December 3, 1956
Serial No. 625,614
15 Claims. (Cl. 260—346.8)

1. A process for the preparation of maleic anhydride which comprises reacting one molecular proportion of an aliphatic olefinic hydrocarbon having the general formula:



in which R_1, R_3, R_3 and R_4 are independently selected from the group consisting of hydrogen and short alkyl radicals, with from about 3 to about 10 molecular proportions of oxygen and from about 2 molecular proportions to about 6 molecular proportions of hydrogen halide selected from the group consisting of hydrogen chloride, hydrogen bromide and hydrogen iodide per molecular proportion of aliphatic olefinic hydrocarbon at a temperature of from about 200° C. to about 600° C., reacting the resultant halogenated product with steam at a temperature in the range of from about 300° C. to about 600° C., and recovering the resultant maleic anhydride.

2,846,451

CYCLOPENTANOPHENANTHRENE DERIVATIVES AND PROCESS

Franz Sondheimer, Octavio Mancera, and George Rosenkranz, Mexico City, Mexico, assignors to Syntex S. A., a corporation of Mexico

No Drawing. Application December 13, 1954
Serial No. 474,972
Claims priority, application Mexico December 11, 1953
10 Claims. (Cl. 260—397.3)

1. A process for the production of 17β-methyl-Δ^4-androsten-17α-ol-3-one which comprises heating $\Delta^{5,17(20)}$-pregnadien-3β-ol-21-carboxylic acid in the presence of a high boiling amine to decarboxylate and form 17-methylene-Δ^5-androsten-3β-ol, treating the last mentioned compound with an aluminum alkoxide in the presence of a ketone hydrogen acceptor to form 17-methylene-Δ^4-androsten-3-one, oxidizing the methylenic double bond of this last mentioned compound with an aromatic peracid to form the corresponding epoxide, reducing the epoxide with lithium aluminum hydride to form 17β-methyl-Δ^4-androsten-3β,17α-diol and selectively oxidizing the 3-hydroxyl group of the diol with manganese dioxide.

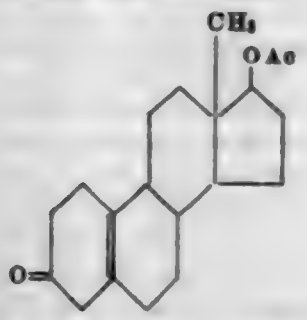
2,846,452

5(10) ESTRENE DERIVATIVES

J Allan Campbell, Kalamazoo Township, Kalamazoo County, and John C. Babcock, Portage Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application September 6, 1955
Serial No. 532,736
6 Claims. (Cl. 260—397.4)

1. 17β-hydroxy-5(10)-estren-3-one hydrocarbon carboxylic acid acylates of the formula:



wherein Ac is an acyl radical of a hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive.

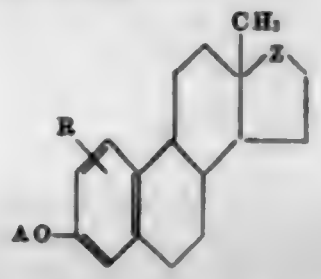
2,846,453

A-RING-ACYLATED ESTRONE DERIVATIVES, AND CORRESPONDING ALCOHOLS, THEIR ESTERS, AND ETHERS

Willard M. Hoehn, Wilmette, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application May 28, 1957
Serial No. 661,991
9 Claims. (Cl. 260—397.4)

1. A compound of the formula



wherein R is selected from the group consisting of acetyl and chloroacetyl radicals ortho to the oxy linkage in ring A; Z is selected from the group consisting of oxo, hydroxymethylene, and (lower alkanoyl) oxymethylene radicals; and A is selected from the group consisting of hydrogen and lower alkyl and benzyl radicals.

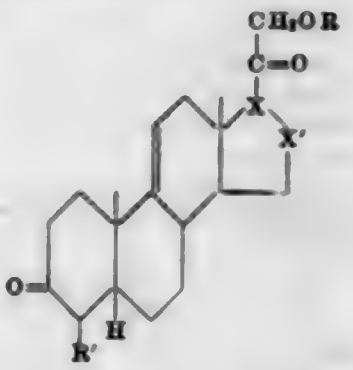
2,846,454

NEW STEROID COMPOUNDS

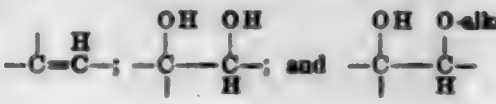
Seymour Bernstein, Pearl River, N. Y., and Ruddy Littell, River Vale, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 27, 1957
Serial No. 686,565
5 Claims. (Cl. 260—397.4)

1. A compound having the general formula:



in which R is a member of the group consisting of hydrogen and lower alkanoyl radicals, R′ is a member of the group consisting of hydrogen and halogen and X—X′ is a member of the group consisting of



radicals.

2,846,455

ESTRADIOL-17-HEXAHYDROBENZOATE AND METHOD OF MAKING SAME

Georges Muller, Nogent-sur-Marne, France, assignor to Les Laboratoires Francais de Chimiotherapie, Paris, France, a corporation of France

No Drawing. Application January 20, 1956
Serial No. 560,428
Claims priority, application France January 25, 1955
3 Claims. (Cl. 260—397.5)

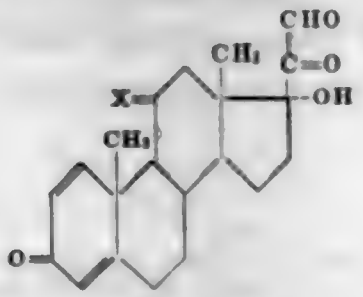
1. Estradiol-17-hexahydrobenzoate.

2,846,456
STEROID 21-ALDEHYDES

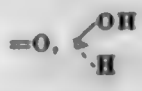
Lewis H. Sarett, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application February 11, 1955
Serial No. 487,714
15 Claims. (Cl. 260—397.45)

9. 1,4-pregnadiene-17α-ol-3,20-dione-21-al of the formula:



wherein X is a member selected from the group consisting of



2,846,457
DECOLORIZED DETERGENTS AND METHOD OF MANUFACTURE

John C. Zemlin and Clarence K. Tabata, St. Paul, Minn., assignors to Rayette, Inc., St. Paul, Minn., a corporation of Minnesota

No Drawing. Application September 28, 1953
Serial No. 382,869
10 Claims. (Cl. 260—400)

1. The method of manufacturing bleached sulfated and sulfonated detergent substances comprising neutralizing the free acid form of the sulfated and sulfonated detergents by slowly adding with agitation said acid detergents to a sufficient quantity of a strongly alkaline neutralizing solution, having a pH well above 8, containing an alkali metal chlorite salt dissolved therein, to continuously maintain the reaction mixture alkaline at a pH above about 8 during said addition, until the addition of the acid material to the alkaline neutralizing solution is substantially completed.

2,846,458
ORGANOSILOXANE ETHERS

Loren A. Haluska, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application November 14, 1956
Serial No. 622,011
4 Claims. (Cl. 260—448.2)

1. A siloxane of the unit formula

$$R'''(OR'')_nOR'SiO_{\frac{3-a}{2}}$$

in which R is a monovalent hydrocarbon radical, R′ is an alkylene radical, R″ is an alkylene radical of at least 2 carbon atoms, *n* is an integer of at least 1, R‴ is selected from the group consisting of hydrogen, saturated hydrocarbon radicals and aryl hydrocarbon radicals and *a* has a value from 0 to 2 inclusive.

3. A copolymeric siloxane composed of from .1 to 99.9 mol percent siloxane units of the formula

$$R'''(OR'')_nOR'SiO_{\frac{3-a}{2}}$$

in which R is a monovalent hydrocarbon radical, R′ is an alkylene radical, R″ is an alkylene radical of at least 2 carbon atoms, *n* is an integer of at least 2, R‴ is selected from the group consisting of hydrogen, saturated hydrocarbon radicals and aryl hydrocarbon radicals and *a* has a value from 0 to 2 inclusive and from .1 to 99.9 mol percent siloxane units of the formula

$$Z_bSiO_{\frac{4-b}{2}}$$

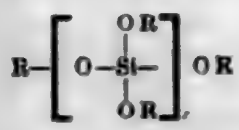
in which Z is selected from the group consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals and *b* has an average value from 1 to 3 inclusive.

2,846,459
BROMINATED ALKYL POLYSILICATES

Clarence R. Morgan, Marblehead, and Walter F. Olds, Arlington, Mass., assignors, by mesne assignments, to Minneapolis-Honeywell Regulator Company, a corporation of Delaware

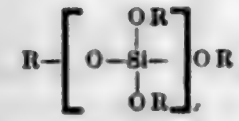
No Drawing. Application September 11, 1953
Serial No. 379,722
18 Claims. (Cl. 260—448.8)

1. A hydraulic damping fluid for use in sensing instruments consisting essentially of a polymeric composition of matter having the structural formula



wherein "*x*" is at least 2 and wherein "R" represents a bromoalkyl radical having from 2 to 8 carbon atoms, said composition being relatively insensitive to extreme variations in temperature having a specific gravity substantially between 1.4 and 2.5 and having Newtonian viscosity behavior.

12. The method of producing a bromoalkyl polysilicate hydraulic damping fluid having a density of at least 1.4 and having a viscosity which is relatively insensitive to temperature variations and which exhibits Newtonian behavior from a polysilicate having the structural formula



wherein "*x*" represents a positive number greater than 1, and where "R" is a hydrocarbon radical selected from the group consisting of alkyl and alkenyl radicals, said method including the steps of reacting said polymeric compound together with a bromine containing reactant until a substantial portion of hydrocarbon radicals are converted to bromoalkyl radicals.

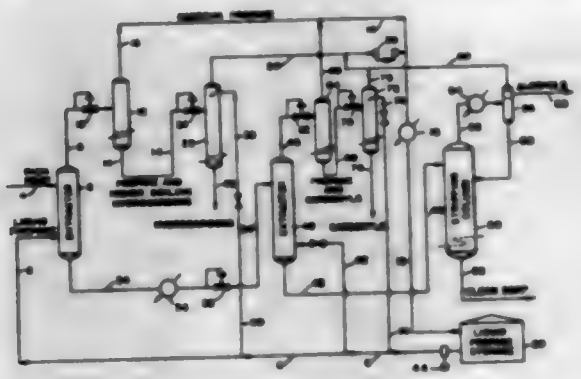
2,846,460
PROCESS FOR RECOVERING CHEMICALS FROM AQUEOUS SOAP SOLUTIONS

Dwight B. Mapes and Truman P. Moote, Jr., Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware

Application March 8, 1956, Serial No. 570,237
6 Claims. (Cl. 260—450)

1. In a process for the recovery of a substantially pure alcohol fraction from a 20 to 50 weight percent aqueous carboxylic acid soap solution comprising carbonyls and alcohols of the type found in the hydrocarbon phase produced by the Fischer Tropsch synthesis and contaminating amounts of dissolved hydrocarbons, said soap being derived from a mixture of fatty acids having an average molecular weight ranging from about 85 to about 135, wherein said soap solution is contacted with a liquid light saturated hydrocarbon having from 3 to 4 carbon atoms, the improvement which comprises first extracting said soap solution with said light hydrocarbon in a volume

ratio of light hydrocarbon to said solution of from about 1:10 to 1:4 at a temperature ranging from about 80° F. to not more than about 5° F. below the critical temperature of said light hydrocarbon and at minimum pressures ranging from about 25 to 50 p. s. i. for the C_4 hydrocarbons to about 140 p. s. i. for the C_3 hydrocarbon, said extraction being carried out in an extraction zone of not more than about one stage, thereafter subjecting the raffinate from said extraction, which raffinate is now substantially free from contaminating hydrocarbons, to a second extraction step in a



multi-stage extraction zone having not more than about ten stages, wherein said raffinate is extracted with a liquid light hydrocarbon having from 3 to 4 carbon atoms, the volume ratio of said light hydrocarbon to said raffinate ranging from about .5:1 to about 2:1, at a temperature of from about 65° to about 85° F. and at a minimum pressure of from about 115 to about 140 p. s. i. for the C_3 hydrocarbon and from about 20 to about 50 p. s. i. for the C_4 hydrocarbon to yield a raffinate containing alcohols substantially free of said contaminating hydrocarbons and carbonyl compounds.

2,846,461

PRODUCTION OF ESTERS OF DITHIOCARBOXYLIC ACIDS

Ralph B. Thompson, Hinsdale, and Joseph A. Chenicek, Bensenville, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application February 21, 1955
Serial No. 489,742

3 Claims. (Cl. 260—455)

1. A γ-ketoalkyl ester of a dithiocarboxylic acid.

2,846,462

PROCESS FOR PRODUCING ISOPHTHALONITRILE AND TEREPHTHALONITRILE

David James Hadley, Epsom Downs, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application November 29, 1956
Serial No. 624,963

Claims priority, application Great Britain December 17, 1955

11 Claims. (Cl. 260—465)

1. The process for the production of isophthalonitrile and terephthalonitrile which comprises contacting at an elevated temperature a mixture in the vapour phase of meta-xylene, paraxylene, ammonia and molecular oxygen with a catalyst selected from the group consisting of vanadium oxide and molybdenum oxide to produce a mixture containing isophthalonitrile and terephthalonitrile, and treating the mixture of nitriles with an organic solvent in which one of the nitriles is more soluble than the other to isolate one of the nitriles, said solvent being selected from the group consisting of methanol, ethanol, isopropanol, ethyl acetate, glacial acetic acid, aqueous solutions of glacial acetic acid, benzene, and xylene.

2,846,463

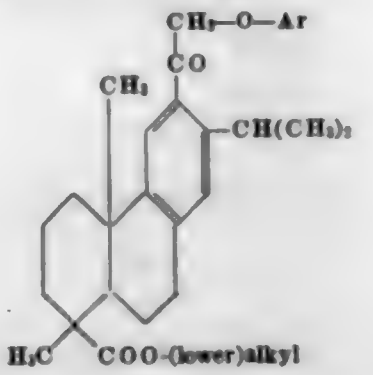
6-ARYLOXYACYL DEHYDROABIETIC ACID ESTERS

Willard M. Hoehn, Wilmette, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application July 6, 1956
Serial No. 596,142

7 Claims. (Cl. 260—468.5)

1. A compound of the structural formula



wherein Ar is a radical containing fewer than 9 carbon atoms, selected from the class consisting of aromatic hydrocarbon radicals, aromatic halohydrocarbon radicals in which the halogen substituent has an atomic number greater than 9, and aromatic alkoxyhydrocarbon radicals.

2,846,464

OXO SYNTHESIS OF ALCOHOLS FROM HEAVY PETROLEUM COKING REACTION

Robert S. Brodkey, Roselle, N. J., Paul V. Smith, Jr., Sunningdale, England, and Fred W. Banes, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 25, 1956, Serial No. 611,816

6 Claims. (Cl. 260—475)

1. In a carbonylation process wherein olefins are reacted with carbon monoxide and hydrogen and a cobalt carbonylation catalyst at elevated temperatures and pressures in a carbonylation zone to form an aldehyde reaction product and wherein said reaction product is hydrogenated to form an alcohol product, the improvement which comprises subjecting a heavy liquid petroleum fraction to a coking temperature within the range of 454° to 740° C. and a pressure of from 1 to 10 atmospheres to produce a distillate, fractionating said distillate into fractions containing C_7, C_8 and C_9 hydrocarbons and passing at least one of said fractions to said carbonylation zone.

4. In a method of preparing esters of improved plasticizer quality wherein an olefin containing feed is reacted with CO and H_2 in the presence of a carbonylation catalyst at elevated temperatures and pressures to produce an aldehyde product containing one more carbon atom than the olefin in said feed and wherein the aldehyde product is hydrogenated to produce the corresponding alcohol product which is subsequently reacted with a compound adapted to form the corresponding ester, the improvement which comprises subjecting a heavy petroleum fraction to a coking temperature within the range of 454° to 740° C. and a pressure of from 1 to 10 atmospheres to produce a distillate, fractionating said distillate into fractions containing C_7, C_8 and C_9 hydrocarbons while maintaining the peroxide number at about <0.1 and employing at least one of said fractions as the said olefin containing feed.

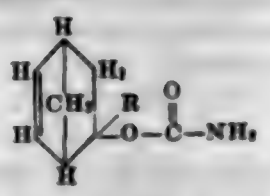
2,846,465

CARBAMATES OF BICYCLIC ALCOHOLS

Werner R. Boehme, Somerville, and Joseph Nichols, Princeton, N. J., assignors to Ethicon, Inc., a corporation of New Jersey

No Drawing. Application March 26, 1956
Serial No. 573,635
2 Claims. (Cl. 260—482)

1. Carbamates of bicyclic alcohols having the general planar structural formula:



in which R is selected from the class consisting of hydrogen saturated straight chain alkyl radicals of 1–6 carbon atoms, and saturated branched chain alkyl radicals of 3–6 carbon atoms.

2,846,466

MANUFACTURE OF BASIC PETROLEUM SULFONATE SALTS USING TWO-STEP NEUTRALIZATION IN NON-AQUEOUS PHASE

Gifford W. Crosby, River Forest, and Le Roi E. Hutchings, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application December 29, 1954
Serial No. 478,504
4 Claims. (Cl. 260—504)

1. In the process for preparing basic alkaline earth metal salts of petroleum sulfonic acids derived from the treatment of solvent refined, dewaxed and clay treated lubricating oil fractions having viscosities of about 200 SUS at 100° F. and a viscosity index of about 85 with a sulfonating agent comprising sulfur trioxide dissolved in sulfur dioxide under conditions to form a sulfonated petroleum lubricating oil mixture from which excess sulfonating agent has been removed, the improvement comprising reacting said sulfonated petroleum lubricating oil mixture with less than a stoichiometric amount of an alkaline earth metal salt of a weak inorganic acid selected from the group consisting of carbonates, acetates, phosphates, and borates whereby to form an acid salt of said petroleum sulfonic acids having an acid number of between about 10 to 20, said reaction being carried to completion at a temperature of about 150° F. and in the presence about 1.0 to 5.0 weight percent of water based on the weight of said sulfonated petroleum lubricating oil, said amount of water being sufficient to substantially saturate the petroleum sulfonic acid phase of said mixture, reacting said partially-neutralized petroleum sulfonic acids with a sufficient amount of a purified carbonate-free alkaline earth metal base to form the basic metal salt of said partially-neutralized petroleum sulfonic acids, raising the reaction mixture to a temperature of about 300° to 500° F. to evaporate the water therefrom and recovering basic alkaline earth metal petroleum sulfonates from said reaction mixture.

2,846,467

DICYCLODIENE ACIDS

Herbert K. Wiese, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 13, 1955
Serial No. 515,255
11 Claims. (Cl. 260—514)

1. In a process for producing a dicyclopentadiene dicarboxylic acid wherein a finely divided alkali metal is reacted with a cyclopentadiene hydrocarbon to form a cyclopentadienyl metal compound, and said cyclopentadienyl metal compound is contacted with an excess of carbon dioxide in an inert liquid hydrocarbon medium to form a dispersion of an alkali metal salt of said dicyclopentadiene dicarboxylic acid, the improvement which comprises mixing said hydrocarbon dispersion of the alkali metal salt with sufficient water to form an aqueous solution of between about 5 and 35 weight percent of said salt in the presence of sufficient added acid to maintain the hydrogen ion concentration of the resulting mixture at a pH value between 5.8 and 7.5, separating the hydrocarbon phase from the aqueous phase, adding enough strong acid to the aqueous phase to convert the dicarboxylic acid salt into water-insoluble acid, and separating the free dicyclopentadiene dicarboxylic acid from the aqueous phase.

2,846,468

RECOVERY OF TEREPHTHALIC ACID

Owen York, Jr., Bloomington, Ill., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 8, 1957
Serial No. 644,728
4 Claims. (Cl. 260—525)

1. The process for the recovery of terephthalic acid from aqueous solutions of dialkali metal terephthalates which comprises adding to an aqueous solution of dialkali metal terephthalate, containing from about 1–15% dialkali metal terephthalate an amount of benzoic acid at least about stoichiometrically equivalent to said alkali metal terephthalate, to form an initial reaction mixture, allowing reaction between benzoic acid and dialkali metal terephthalate to take place at a temperature above 0° C. thereby forming terephthalic acid as a solid in the reaction mixture, separating solids comprising terephthalic acid, benzoic acid, and alkali metal terephthalates from said reaction mixture at a temperature not above 60° C., slurrying said solids in water above 0° C., whereby further reaction takes place between benzoic acid and alkali metal terephthalates forming an additional quantity of terephthalic acid, and separating from said slurry at a temperature not above 60° C. solids which contain a higher proportion of terephthalic acid than the solids separated from said reaction mixture.

2,846,469

METHOD OF PREPARING SYNTHETIC dl-3 MONOAMIDE OF 1-AMINOGLUTARIC ACID (dl-GLUTAMINE)

Maurice Claude Ernest Carron, Alexandra Francine Jullien, and Geneviève Georgette Marie-Madeleine Preud'homme, Paris, France, assignors to Société Anonyme des Laboratories Robert & Carriere, Paris, France

No Drawing. Application February 1, 1956
Serial No. 562,673
Claims priority, application France February 23, 1955
2 Claims. (Cl. 260—534)

1. In the process of producing dl-glutamine by preparing dl-phthalylglutamic acid, converting said dl-phthalylglutamic acid into dl-phthalylglutamic anhydride, transforming said dl-phthalylglutamic anhydride into dl-phthalylglutamine, and hydrolyzing said dl-phthalylglutamine to liberate dl-glutamine, the improvement in the step of preparing the phthalylglutamic anhydride which comprises forming said anhydride by the addition of acetic anhydride to the reaction mixture resulting from the reaction of glutamic acid with phthalic-anhydride, and the improvement in the hydrolysis step which comprises transforming the dl-phthalylglutamine into the potassium salt, subjecting said salt to the action of hydrazine hydrate, precipitating the phthalylhydrazide thus formed with acetic acid to form dl-glutamine acetate, and recovering dl-glutamine from said dl-glutamine acetate.

2,846,470

PROCESS FOR PRODUCING GLUTAMINE

Rose Marie Joyce, Northbrook, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application May 17, 1957
Serial No. 659,774
15 Claims. (Cl. 260—534)

1. A process for producing glutamine which comprises heating a solution of gamma-glutamylhydrazide in an aqueous solvent medium containing at least about 65% water by volume at a pH above about 9 and at a superatmospheric temperature in the range up to the reflux temperature in the presence of a Raney nickel catalyst, and recovering glutamine from the reaction product mixture.

2,846,471

PROCESSES FOR THE OXIDATION OF SULFIDE COMPOUNDS AND PRODUCTS THEREOF

Edgar A. Blair, Upper Darby, and Allison Maggiolo, Merion, Pa., assignors to The Welsbach Corporation, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application April 10, 1956
Serial No. 577,194
2 Claims. (Cl. 260—537)

1. A composition of matter, carboxymethylthionylsuccinic acid.

2,846,472

PROCESS FOR MAKING ORGANIC SULFONYL FLUORIDES

George Van Dyke Tiers, St. Paul, Minn., assignor to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application June 29, 1956
Serial No. 595,013
11 Claims. (Cl. 260—543)

1. A process for making chloro-substituted organic sulfonyl fluorides which comprises reacting with one another in the presence of a free-radical-initiator, sulfuryl chlorofluoride and an olefinic compound copolymerizable with sulfur dioxide and recovering a chloro-substituted organic sulfonyl fluoride product.

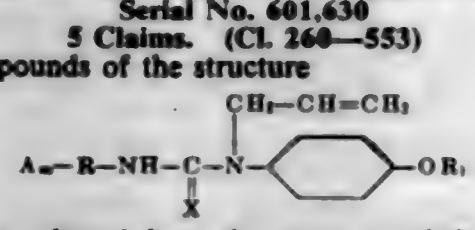
2,846,473

BACTERICIDAL N(HALOPHENYL) N'(ALLYL)-N'-(ALKOXYPHENYL) UREAS

David J. Beaver, Richmond Heights, and Paul J. Stoffel, St. Louis, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 2, 1956
Serial No. 601,630
5 Claims. (Cl. 260—553)

1. Compounds of the structure



where X is selected from the group consisting of sulfur and oxygen, wherein R is phenyl, wherein R_1 is an alkyl radical containing from 1 to 5 carbon atoms, wherein A is halogen, wherein *m* is an integer from 2 to 3, inclusive, wherein the phenyl radical R is free of ortho substituents, and wherein the halogen substituent A is selected from the group consisting of chlorine and bromine.

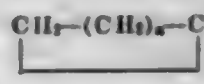
2,846,474

PREPARATION OF CYCLOALKANONES

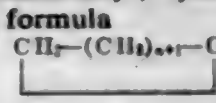
Frederick F. Blicke, Ann Arbor, Mich., assignor to Regents of the University of Michigan, Ann Arbor, Mich., a corporation of Michigan

No Drawing. Application April 21, 1952
Serial No. 283,526
5 Claims. (Cl. 260—586)

1. In a process for the preparation of cycloalkanones, the steps comprising: reacting a cycloalkanone having the formula



wherein *n* is an integer selected from the group consisting of 4, 5 and 6, with a nitroalkane to form a 1-(nitroalkyl)-cycloalkanol; electrolytically reducing the said 1-(nitroalkyl)-cycloalkanol to form a 1-(aminoalkyl)-cycloalkanol; and, converting by contacting with nitrous acid the said 1-(aminoalkyl)-cycloalkanol to a cycloalkanone having the formula



wherein *n* is the integer of the cycloalkanone of the said first step.

2,846,475

PROCESSES AND INTERMEDIATES FOR THE PREPARATION OF CAROTENOIDS

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, near Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application July 13, 1956
Serial No. 597,585
Claims priority, application Switzerland July 20, 1955
5 Claims. (Cl. 260—617)

3. A process which comprises condensing acetylene by metal-organic condensations through one of its reactive hydrogen atoms with an aldehyde selected from the group consisting of 9-[2',6',6'-trimethyl-cyclohexen-(1')-yl]-3,7-dimethyl-nonatetraen-(2,4,6,8)-al-(1) and 9-[2',6',6'-trimethyl-cyclohexadien-(1',3')-yl] - 3,7-dimethyl - nonatetraen-(2,4,6,8)-al-(1) and through the other of its reactive hydrogen atoms with a ketone selected from the group consisting of 8-[2',6',6'-trimethyl-cyclohexen-(1')-yl] - 6 - methyloctatrien - (3,5,7)-one-(2) and 8-[2',6',6'-trimethyl-cyclohexadien-(1',3')-yl] - 6 - methyl-octatrien-(3,5,7)-one-(2), thereby forming a C_{40} acetylenic diol selected from the group consisting of 1,18-di-[2',6',6'-trimethyl-cyclohexen-(1')-yl] - 3,7,12,16 - tetramethyl-octadecaheptaen - (1,3,5,11,13,15,17) - yne - (8)-diol-(7,10), 1-[2',6',6'-trimethyl - cyclohexadien-(1',3')-yl]-18-[2',6',6'-trimethyl-cyclohexen - (1')-yl]-3,7,12,16-tetramethyl - octadecaheptaen - (1,3,5,11,13,15,17) - yne-(8)-diol-(7,10), 1-[2',6',6'-trimethyl-cyclohexen-(1')-yl]-18-[2',6',6' - trimethyl - cyclohexadien - (1',3') - yl]-3,7,12,16 - tetramethyl-octadecaheptaen - (1,3,5,11,13,15,17)-yne-(8)-diol-(7,10), and 1,18-di-[2',6',6'-trimethyl-cyclohexadien - (1',3') - yl] - 3,7,12,16 - tetramethyl-octadecaheptaen - (1,3,5,11,13,15,17)-yne - (8) - diol-(7,10); and treating said C_{40} acetylenic diol with excess lithium aluminum hydride, thereby forming a C_{40} carotenoid.

2,846,476

REMOVAL OF FORMATE IONS FROM PENTAERYTHRITOL SOLUTIONS

Arthur L. Glasebrook, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 7, 1957
Serial No. 638,694
9 Claims. (Cl. 260—637)

1. The process which comprises heating an aqueous solution of pentaerythritol containing formate ions at a temperature ranging from the atmospheric reflux temperature of the solution up to 330° C. in the presence of a substance selected from the group consisting of nickel and palladium whereby the formate ion content is reduced.

2,846,477

PURIFICATION OF METHANOL

Harry S. Leach and Franklin R. Carlson, Texas City, Tex., assignors of one-half to Monsanto Chemical Company, St. Louis, Mo., and one-half to Heyden Newport Chemical Corporation, New York, N. Y., both corporations of Delaware

No Drawing. Application January 2, 1957
Serial No. 632,013
3 Claims. (Cl. 260—643)

1. In a process for the purification of crude synthetic methanol which consists of treating said methanol with a mineral acid and a water-soluble permanganate, neutralizing the acid present with an alkali metal hydroxide, filtering to remove any solids, and distilling the methanol filtrate to produce a purified methanol distillate, the improvement which comprises adding to said methanol distillate an amount of a tertiary aliphatic amine such that not more than 5 moles of amine are present per million moles of methanol distillate whereby the permanganate time of said purified methanol is significantly lengthened.

2,846,478

HALOGEN NUCLEAR SUBSTITUTED DIARYL PARAFFINS

Edwin Marvin Smolin, Stamford, and Kenneth Worden Saunders, Darien, Conn., and Donald R. May, Niagara Falls, Ontario, Canada, assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 17, 1954
Serial No. 456,866
6 Claims. (Cl. 260—649)

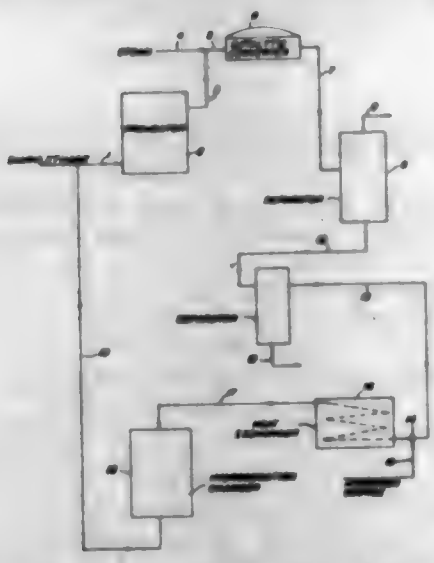
1. A process for preparing a nuclear halogenated substituted 1,1-diarylethane which comprises reacting a nuclear halogenated substituted aryl compound of the benzene series having at least one hydrogen atom attached to the benzene nucleus with acetylene wherein the acetylene is present in an amount between 15% and 45% of the stoichiometric quantity required to react with said aryl compound and in the presence of hydrogen chloride and an aluminum chloride catalyst.

2,846,479

PURIFICATION OF NON-CONVERTED MATERIAL IN THE CATALYTIC CRACKING OF DIARYLALKANES

Kenneth W. Saunders, Darien, and Edwin M. Smolin, and James E. Longfield, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application July 25, 1956, Serial No. 599,951
12 Claims. (Cl. 260—650)



1. In the method of catalytically cracking unsymmetrical diarylalkanes having at least two carbon atoms and having the two aryl substituents attached to one of said carbon atoms to produce ring-substituted polymerizable compounds wherein the substituent is selected from the group consisting of lower alkyl radicals having 1–4 carbon atoms and halogen atoms, the step comprising hydrogenating the non-converted material from the cracking reaction containing unsaturated aryl compound and other impurities and thereafter catalytically cracking said hydrogenated material.

2,846,480

CHLOROMETHYLATION

Gifford G. McClaflin and Edsel L. Miller, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

No Drawing. Application May 17, 1954
Serial No. 430,414
14 Claims. (Cl. 260—651)

1. A process of chloromethylating alkylbenzenes which comprises reacting at a temperature within the range of from —10 to 100° C., 1 mole of an alkylbenzene with 1 to 2½ moles of sulfuric acid and a re-agent prepared by reacting at a temperature within the range of from —20 to 60° C., (*a*) a compound selected from the class consisting of formaldehyde and compounds which engender formaldehyde wherein the amount of said compound is equivalent to 1 to 2 moles of formaldehyde, (*b*) 1 to 2 moles of a primary monatomic saturated aliphatic alcohol containing from 1 to 4 carbon atoms, (*c*) 0.33 to 1 mole of a chlorine-containing compound selected from the class consisting of phosphorus trichloride, phosphorus pentachloride, sulfuric oxychloride, sulfurous oxychloride, and acyl chlorides.

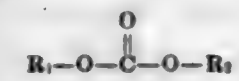
2,846,481

INHIBITION OF POLYMERIZATION OF VINYL CHLORIDE BY DIARYL CARBONATES

Robert G. Roth, Edgewood, Md., and William F. Yates, Texas City, Tex., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 7, 1955
Serial No. 551,504
11 Claims. (Cl. 260—652.5)

1. As a new composition of matter, monomeric vinyl chloride containing a minor amount of a diaryl carbonate having the formula



wherein R_1 and R_2 represent a radical selected from the group consisting of the phenyl radical and substituted phenyl radicals wherein the substituents are selected from the group consisting of alkyl, nitro, hydroxyl, and halogen.

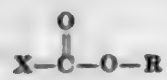
2,846,482

INHIBITION OF POLYMERIZATION OF VINYL CHLORIDE

Robert G. Roth, Edgewood, Md., and William F. Yates, Texas City, Tex., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

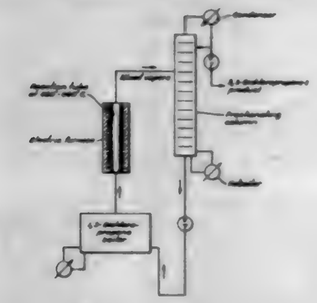
No Drawing. Application December 7, 1955
Serial No. 551,505
11 Claims. (Cl. 260—652.5)

1. As a new composition of matter, vinyl chloride containing a minor amount of phenyl haloformate having the formula



wherein X represents a halogen and R represents a phenyl radical.

2,846,483
3,3-DICHLOROPROPENE-1 FROM 1,3-DICHLOROPROPENE
William H. Taplin III, Concord, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application November 19, 1953, Serial No. 393,171
3 Claims. (Cl. 260—654)

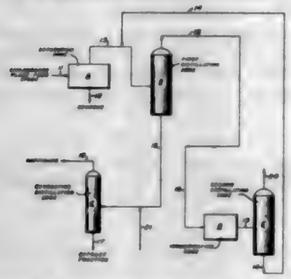


1. The method which consists essentially in exposing 1,3-dichloropropene vapors to a temperature from about 400° to about 600° C. for a period of from 1 to 30 seconds, fractionating the resulting product to recover 3,3-dichloropropene-1, and recycling the unchanged 1,3-dichloropropene through the 400°–600° C. zone to effect further isomerization to 3,3-dichloropropene-1.

2,846,484
PRODUCTION OF CHLORINATED ALIPHATIC COMPOUNDS
John E. Fox, Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application February 2, 1954
Serial No. 407,820
1 Claim. (Cl. 260—658)

A process which comprises reacting two moles of hydrogen chloride and one mole of oxygen with one mole of dichloroethane in the presence of a catalyst which is a mixture of copper chloride, cobalt chloride and ferric chloride deposited on alumina and as a promoter an amount of bromine within the range from about 0.1% to about 1% by weight of the anhydrous hydrogen chloride fed at a temperature from about 300° C. to about 450° C.

2,846,485
PRODUCTION OF HIGH PURITY CYCLOHEXANE CONCENTRATE
George H. Meason and Thomas M. Newsom, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application June 16, 1955, Serial No. 515,952
2 Claims. (Cl. 260—666)



1. A process for the preparation of high purity cyclohexane and high purity benzene and for the maximum recovery of both cyclohexane and benzene from a feed stock comprising n-hexane, benzene, methylcyclopentane, cyclohexane and dimethylpentanes which comprises the steps of passing the feed stock to a first extractive distillation zone and there separating the feed stock into an extract fraction containing substantially the whole of the benzene in the feed stock and into a raffinate fraction substantially free of benzene and containing the remainder of the feed components and removing said extract fraction as a first fraction from the system, admixing said raffinate fraction as a second fraction with a third fraction containing methylcyclopentane, cyclohexane, and heavier material, distilling the admixed second and third fractions in a first fractional distillation zone to separate it into a bottoms fraction and an overhead fraction, removing the bottoms fraction as a fourth fraction containing cyclohexane, removing the overhead as a fifth fraction containing methylcyclopentane, passing the fifth fraction to an isomerization zone and there converting at least a substantial portion of its methylcyclopentane content into cyclohexane, passing the effluent from said isomerization zone into a second fractional distillation zone and there separating it into an overhead fraction and a bottoms fraction, removing said overhead fraction as a sixth fraction containing n-hexane and lighter materials from the system, taking the bottoms fraction as said third fraction containing methylcyclopentane, cyclohexane and heavier material and admixing it with said second fraction as previously described and charging the fourth fraction as feed to a second extractive distillation zone and therein separating a raffinate fraction containing dimethylpentane and other paraffinic materials and an extract fraction containing high purity cyclohexane and separately removing said last raffinate and said last extract fraction from said second extractive distillation zone.

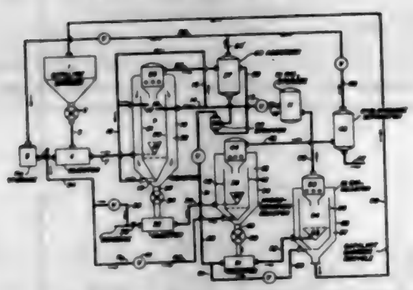
2,846,486
ISOMERIZATION OF CARANE
Alfred L. Rummelsburg, Chadds Ford, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 27, 1956
Serial No. 561,923
3 Claims. (Cl. 260—666)

1. The process for the isomerization of carane to menthenes which comprises contacting carane at a temperature of from about 20 to 110° C. with an aqueous acid selected from the group consisting of aqueous sulfuric acid of a concentration no greater than 75%, aqueous phosphoric acid of a concentration no greater than 75%, aqueous hydrochloric acid of a concentration no greater than 20%, aqueous oxalic acid of a concentration no greater than 50%, and aqueous acetic acid of a concentration no greater than 96%.

2,846,487
PROCESS FOR THE MANUFACTURE OF CAROTENOIDS
Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, near Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application July 13, 1956
Serial No. 597,586
Claims priority, application Switzerland July 20, 1955
14 Claims. (Cl. 260—666)

1. A process which comprises condensing acetylene by means of metal-organic reactions through one of its reactive hydrogen atoms with an aldehyde selected from the group consisting of 8-[2,6,6-trimethyl-cyclohexen-(1)-yl]-2,6-dimethyl-octatrien - (2,4,6)-al-(1), 8-[2,6,6-trimethyl-cyclohexadien - (1,3)-yl] - 2,6-dimethyl-octatrien-(2,4,6)-al-(1), 8,[2,6,6-trimethyl-cyclohexylidene]-2,6-dimethyl-octatrien-(2,4,6)-al-(1), 8-[2,6,6-trimethyl-cyclohexen-(2)-yliden] - 2,6-dimethyl-octatrien - (2,4,6)-al-(1) and 2,6,10,14-tetramethyl-pentadecapentaen-(2,4,6,8,13)-al-(1), and through the other of its reactive hydrogen atoms with an aldehyde also selected from the aforesaid group, thereby forming a C_{40}-9-yne-8,11-diol; and treating the latter with excess lithium aluminum hydride, thereby converting the 9-yne-8,11-diol grouping to a conjugated diene grouping and forming a C_{40} carotenoid.

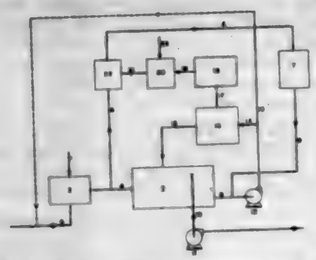
2,846,488
PREPARATION OF HYDROGENATION CATALYSTS
Elmer L. Miller, Cary, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
Application July 27, 1955, Serial No. 524,689
7 Claims. (Cl. 260—667)



1. The method of conducting catalytic reduction reactions in the presence of a free metal catalyst which comprises passing a finely-divided support material into a catalyst preparation zone, maintaining said support material in a fluidized state therein by passage of a reducing atmosphere through said catalyst preparation zone, introducing a heat-decomposable carbonyl compound of said metal into said fluidized zone of support material, maintaining said catalyst preparation zone at a temperature above the temperature at which said metal carbonyl decomposes into the free metal and carbon monoxide, separating said carbon monoxide from the gaseous effluent from said catalyst preparation zone, separating catalytic metal-coated support material from said catalyst preparation zone, utilizing said metal-coated support material as the catalyst in a reduction reaction in a separate reactor, recovering spent metal-coated support material from said separate reactor, passing said spent metal-coated support material in admixture with a sufficient quantity of said carbon monoxide to reform the metal carbonyl therefrom into a second reactor, and separately recovering the support material and said metal carbonyl from said second reactor for recycle to said catalyst preparation zone.

2,846,489
CONTROL OF FRIEDEL-CRAFTS ALKYLATION CATALYST BY MEASUREMENT OF ELECTRO CONDUCTIVITY
David W. McDonald, Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
Application December 16, 1954, Serial No. 475,666
6 Claims. (Cl. 260—671)

1. In a process for the preparation of monoalkylated aromatic compounds wherein an olefin is reacted with an aromatic compound in the presence of a Friedel-Crafts organo-metal halide catalyst complex and a promoter to produce both mono- and polyalkylated aromatic compounds and wherein said polyalkylated aromatic compounds are dealkylated in the presence of said catalyst complex, said catalyst complex being fortified at intervals by the addition of fresh metal halide, the steps which comprise passing a portion of said catalyst complex through an electroconductivity measuring device, measuring the electroconductivity of the catalyst complex, and regulating the addition of the metal halide to said catalyst complex with respect to a predetermined electroconductivity setting by supplying a sufficient amount of metal



halide to said catalyst complex whenever said electroconductivity measurement falls below said predetermined electroconductivity setting to restore the electroconductivity of said complex to said predetermined electroconductivity setting.

2,846,490
PRODUCTION OF AROMATIC HYDROCARBONS
Donald R. Witt, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application December 17, 1953
Serial No. 398,900
8 Claims. (Cl. 260—673)

1. A process for polymerizing alkynes corresponding to the formula HC≡CR, wherein R is selected from the group consisting of hydrogen, alkyl, alkenyl, cycloalkyl, aryl, alkaryl and aralkyl, and when R is a hydrocarbon it contains 1 to 8 carbon atoms, to produce a liquid aromatic hydrocarbon, the said process comprising contacting said alkynes at a temperature in the range of 0° to 350° F. with a catalyst comprising cobalt oxide.

2,846,491
REACTIONS OF SODIUM ACETYLIDE WITH ALKYL HALIDES
Thomas F. Rutledge, Madison, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
No Drawing. Application December 13, 1955
Serial No. 552,712
7 Claims. (Cl. 260—678)

1. A process for producing a 1-alkyne by effecting the reaction of sodium acetylide with an alkyl halide which comprises reacting an alkyl halide and finely divided sodium acetylide dispersed in an organic liquid medium having a high dielectric constant and being substantially inert with respect to the reactants and products of reactants, said medium being selected from the group consisting of N,N-dimethyl formamide, N,N-dimethyl acetamide, tris-N,N-dimethyl phosphorous triamide, and mixtures thereof, conducting the reaction at a temperature of from 15° to 50° C., and separating the 1-alkyne formed from the reacting materials.

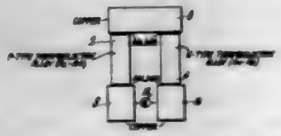
2,846,492
ADHESIVES CONTAINING CHLORINATED NATURAL RUBBER, HYPOCHLORINATED NATURAL RUBBER AND WAX
Russell E. Sawyer, East Norwalk, Conn., assignor to R. T. Vanderbilt Company, Inc., New York, N. Y., a corporation of New York
No Drawing. Application February 15, 1956
Serial No. 565,540
2 Claims. (Cl. 260—727)

1. An adhesive composition which is useful in the uniting of rubber to metal surfaces consisting essentially of an admixture of at least one compound useful as a

rubber antioxidant; chlorinated natural rubber having a chlorine content of about 65% to about 67% by weight; carbon tetrachloride; a water-insoluble hydrocarbon wax; a solvent phase prepared by milling a natural rubber until the rubber is characterized by a reading within the range from about 17 to about 23 when tested on a Mooney viscosimeter using the large rotor and taking the reading at 12 minutes when operating the viscosimeter at 230° F., dissolving the milled rubber in at least one solvent selected from the group consisting of benzene, toluene, and xylenes to form a solution containing from about 3.5% to about 15% by weight of the rubber, reacting such solution with an aqueous solution of hypochlorous acid containing from about 25 to about 32 grams per liter of hypochlorous acid to provide an emulsion in which the solids present therein have a chlorine content within the range from about 15% to about 17% by weight, breaking said emulsion by the addition thereto of at least one salt selected from the group consisting of anhydrous calcium chloride and calcium chloride dihydrate and separating the phases formed upon the breaking of said emulsion; and sufficient amount of said solvent as is required to form a final composition having a viscosity of from about 50 to about 130 centipoises at 25° C. and containing hypochlorinated natural rubber within the range from about 10.4% to about 14.2%, based upon the weight of the hypochlorinated natural rubber and the chlorinated natural rubber; said wax constituting about 5% by weight of the adhesive composition based upon the weight of the solids present therein.

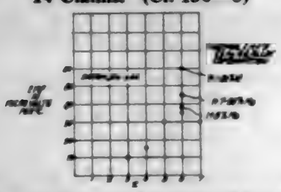
ELECTRICAL

2,846,493
N-TYPE THERMOELECTRIC DEVICES
Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 30, 1955, Serial No. 549,960
2 Claims. (Cl. 136—5)



1. A thermocouple comprising a positive element, and a negative element composed of an alloy of from 78 to 85.5% by weight gold, balance nickel.

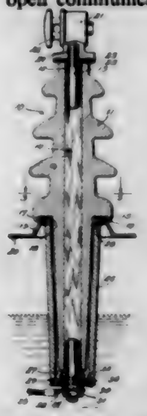
2,846,494
THERMOELECTRIC DEVICES
Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 30, 1955, Serial No. 550,019
14 Claims. (Cl. 136—5)



9. A thermocouple comprising a positive element composed of an alloy of iron and aluminum with a ratio of 8 atoms of iron to 3–7 atoms of aluminum, and a negative element composed of an alloy of from 78 to 85.5% by weight gold, balance nickel.

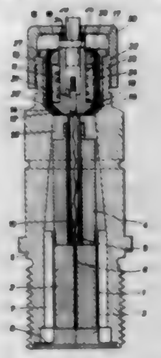
2,846,495
LIQUID-CONTAINING ELECTRICAL BUSHING
Edwin A. Link, Milwaukee, Wis., assignor, by mesne assignments, to R T & E Corporation, Waukesha, Wis., a corporation of Wisconsin
Application June 6, 1951, Serial No. 230,160
9 Claims. (Cl. 174—31)

1. A liquid-containing electrical bushing for partial submersion in a liquid-containing reservoir, said bushing comprising a substantially vertically disposed housing formed of insulating material having its upper end above the level of liquid in the reservoir and including a conductor receiving passage therein extending the full length thereof, an electrical conductor in said passage having its ends projecting above and below said bushing, and a wick comprising a blanket of compressible material surrounding said conductor and substantially filling the space of said passage not occupied by said conductor, said wick having a portion in open communication with liquid in



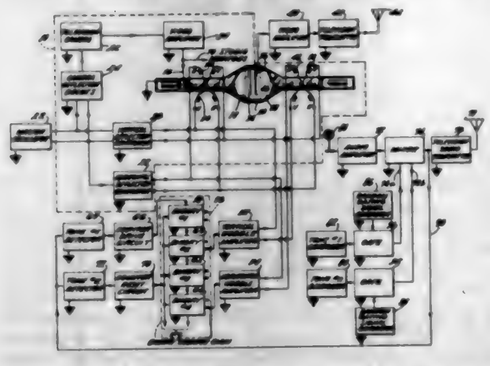
said reservoir and comprising the sole means by which said conductor passage and bushing are maintained substantially filled with liquid elevated from the liquid-containing reservoir through the capillary action of said wick.

2,846,496
PIEZOELECTRIC PRESSURE INDICATOR
Hans Baumgartner and Guido Bohnenblust, Winterthur, Switzerland, assignors to Schweizerische Lokomotiv- und Maschinenfabrik, Winterthur, Switzerland
Application August 16, 1956, Serial No. 604,357
Claims priority, application Switzerland June 14, 1956
3 Claims. (Cl. 174—50.56)



1. A piezoelectric pressure indicator comprising a casing having a chamber formed therein at the current delivery end of the indicator and concentric with the axis of the casing, said casing having shoulders at both ends of said chamber, a contact member within said chamber, a movable collar axially movable within the casing, a spring member between said contact member and said collar urging said collar towards one end of the casing, an elastically yielding insulating and sealing ring within said casing, said ring being maintained between the shoulder at one end of the casing and said contact member and said contact member being pressed against said ring by the action of said spring, and a second elastically yielding insulating and sealing ring within said casing, said second ring being maintained between the shoulder at the other end of the casing and said spring loaded collar.

2,846,497
TELEVISION SYSTEMS
Ralph C. Kennedy, Queens Village, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application March 5, 1953, Serial No. 340,468
6 Claims. (Cl. 178—5.1)



2. An electrical control system comprising in combination: an electrical counting chain including a plurality of binary counter stages each stage having two count indicating output terminals at which alternately appears electrical signals representing the counting state of that stage, each binary counter stage additionally having a counting signal driving terminal and two count reset terminals the application of reset signal to each reset terminal causing said stage to reset to a predetermined and respective counting condition; a source of count driving signal; a source of counter reset signal; selective switching means connected from a binary stage driving terminal to the count indicating terminals of the immediately preceding binary stage; selective switching means connected from said counter reset signal source to a plurality of said count reset terminals at least two of which are associated with the same binary stage; signal coupling means connected between said source of driving signal and the driving terminal of at least one of said binary counter stages; an electrical signal responsive instrumentality having a signal input terminal and selective switching means connected between said instrumentality signal input terminal and a plurality of said binary counter stage count indicating output terminals.

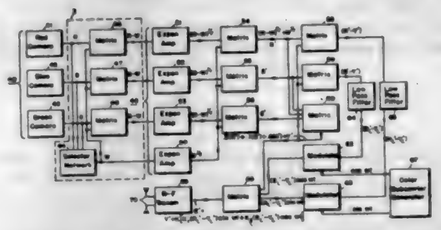
2,846,498
COLOR TELEVISION OPTICAL FILTER SYSTEM
Pierre Marie Gabriel Toulon, New York, N. Y., assignor, by mesne assignments, to Moore and Hall, Washington, D. C., a partnership
Application March 28, 1952, Serial No. 279,143
24 Claims. (Cl. 178—5.4)

3. In a color television apparatus wherein successive fields of different colored images are received in sequence at a predetermined repetition rate, a picture tube, a flat loop of flexible material in front of the face of said tube, a plurality of transparent oblique bands, having the colors of said successive fields, disposed along the length of said loop and separated from one another by additional transparent bands of clear material, said loop being so positioned that bands on a first face thereof are superposed on



bands on a second face thereof in front of said picture tube, and drive means coupled to said loop causing said first and second faces to travel in opposite directions in front of the face of said picture tube the speed of said drive being such that a band of a given color will traverse the picture face of said tube during the reception of a single of said successive fields.

2,846,499
COLOR TELEVISION TRANSMITTER
Charles H. Heuer, Winnetka, and John L. Rennick, Elmwood Park, Ill., assignors to Zenith Radio Corporation, a corporation of Delaware
Application October 13, 1952, Serial No. 314,506
10 Claims. (Cl. 178—5.4)

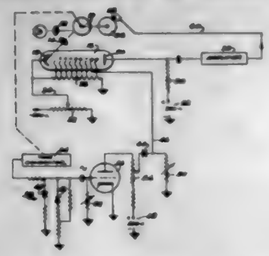


1. In a color television transmitter including an image-analyzing system which supplies a plurality of primary color signals instantaneously representative of the color and luminance of elemental portions of a scanned image, a gamma-correction system comprising: a selector network, coupled to said image-analyzing system, for deriving a desaturation signal instantaneously determined by the smallest in amplitude of said primary color signals; matrix means, coupled to said selector network and said image-analyzing system for additively combining said desaturation signal with each of said primary color signals to derive a corresponding plurality of saturated color signals; an exponential amplifying system coupled to said matrix means for developing a corresponding plurality of gamma-corrected saturated color signals; and means coupled to said exponential amplifying system for utilizing said gamma-corrected saturated color signals to derive at least two gamma-corrected color-difference signals.

2,846,500
PHOTOMULTIPLIER CIRCUIT WITH OUTPUT MODULATION
Melvin M. Neeb, St. Albans, N. Y., assignor to Fairchild Camera and Instrument Corporation, a corporation of Delaware
Application May 27, 1954, Serial No. 432,862
9 Claims. (Cl. 178—6.6)

1. In combination, a photomultiplier tube having at least a photosensitive cathode, a plurality of secondary emission dynodes, and an output electrode, means for exciting said cathode with a light input signal varying in amplitude, a voltage supply connected to said cathode and to certain of said dynodes to maintain said certain dynodes positive with respect to the potential of said cathode, means for maintaining said output electrode continuously at a positive potential with respect to said

cathode and to all of said dynodes, a source of alternating potential connected between said cathode and a certain



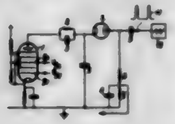
other of said dynodes to modulate the current drawn by said output electrode, and an output circuit energized by the current drawn by said output electrode.

2,846,501

AUTOMATIC GAIN CONTROL CIRCUIT-ARRANGEMENT USED IN TELEVISION RECEIVER

Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application February 5, 1954, Serial No. 408,541
Claims priority, application Belgium February 24, 1953
3 Claims. (Cl. 178—7.3)



1. An automatic gain control circuit comprising a source of detected signals periodically containing a reference level, a source of pulses synchronized with said signals to produce synchronizing pulses occurring during the periodic occurrences of said reference level, a pulse generator, an electron discharge tube containing two control grids, a cathode and an anode, means connected to apply said detected signals to one of said control grids with a polarity and amplitude to enable said tube to be conductive during the occurrence of said reference level, means connected to apply said synchronizing pulses to the remaining one of said control grids with a polarity of amplitude to enable said tube to be made conductive only during the occurrences of said synchronizing pulses, a rectifying circuit containing a rectifier member connected between said pulse generator and said anode and a capacitor connected between said anode and said cathode to apply a rectified operating voltage to said anode, a resistor connected between said cathode and said rectifier member on the pulse generator side thereof, and an electrical connection connected to said resistor to receive an automatic gain control voltage from said resistor.

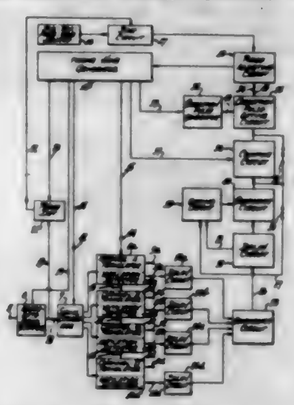
2,846,502

AUTOMATIC PHASING FOR SYNCHRONOUS RADIO TELEGRAPH SYSTEMS

George Edgar Roush, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application September 29, 1955, Serial No. 537,321
11 Claims. (Cl. 178—50)

1. An electronic circuit arrangement for automatically phasing a received bistatic aggregate signal wave of the type including a train of signal elements expressing a plurality of intelligence characters in multiplex fashion with a timing wave locally generated in a receiving apparatus, each of said characters being constituted by a predetermined ratio of said signal elements of one static nature to the number of said signal elements in each of said characters as a whole, said circuit comprising a signal channelizer, means for applying said received wave to said signal channelizer, a timing wave generator included in said receiving apparatus and coupled to said signal channelizer, said timing wave generator producing said timing wave, a phase adjusting circuit, a source of standard reference wave, means for applying said reference wave from said source to said timing wave generator over a path including said phase adjusting circuit, said timing wave generator being operated in response to said reference wave to apply said timing wave to said signal channelizer, said signal channelizer being operated in response to said timing wave to distribute said signal elements according to said characters among a plurality of channels in



a predetermined manner, a plurality of utilization circuits, means for individually and electrically connecting said channels to said utilization circuits, a separate counting circuit included in each of said channels and arranged to count the number of said signal elements of said one static nature in each character appearing on said respective channels, each of said counting circuits producing a control signal whenever a count other than a predetermined count is obtained, means for operating said phase adjusting circuit in response to the occurrence of a control signal in the output circuit of more than one of said counting circuits at a given time to alter the phase of said reference wave applied to said timing wave generator from said source, said timing wave being varied in phase with respect to said reference wave and into a predetermined phase relationship with said received wave.

2,846,503

OUTPUT STAGES FOR LOW-FREQUENCY AMPLIFIERS COMPRISING TWO LOUDSPEAKERS

Johann Kump, Vienna, Austria, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application April 9, 1956, Serial No. 577,113
Claims priority, application Austria May 5, 1955
5 Claims. (Cl. 179—1)



1. A low frequency amplifier output circuit arrangement, comprising an electron discharge device having an anode, a cathode and a plurality of grids including a screen grid, a first loudspeaker system for reproducing

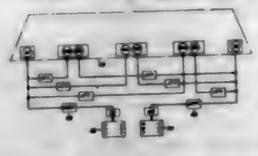
sound in a substantially low audio frequency range, a second loudspeaker system for reproducing sound in a substantially high audio frequency range, means for applying an input signal to one of said grids, means connecting said first and second loudspeaker systems in series circuit arrangement and to said anode, said first loudspeaker system being interposed between said anode and said second loudspeaker system, a capacitor having a reactance value which is substantially low with respect to the impedance of said first loudspeaker system at said high audio frequency range, means connecting said capacitor in shunt across said first loudspeaker system, and means connecting said screen grid to a common point between said first and second loudspeaker systems in said series circuit arrangement.

2,846,504

STEREOPHONIC SOUND TRANSMISSION SYSTEM

Robert M. Mikulyak, Stirling, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 19, 1956, Serial No. 623,133
6 Claims. (Cl. 179—1)



1. A stereophonic sound transmission system comprising a pair of directionally sensitive microphones disposed adjacent each other substantially back to back at the front center of a sound originating area each with its axis of maximum directional sensitivity directed toward a different side of said sound originating area, a separate reproducing channel associated with each of said microphones, a sound reproducing area, a loudspeaker connected to each of said reproducing channels and located at a side of said sound reproducing area corresponding to the location of its associated microphone in said sound originating area, a source of sound in said sound originating area, the volume level of each of said side loudspeakers corresponding to the maximum volume level of said sound received by its associated microphone, as determined by the directional sensitivity characteristics of said microphones, a plurality of reproducing assemblies disposed between said side loudspeakers, each of said reproducing assemblies comprising two loudspeakers each connected to a different one of said reproducing channels, the volume level of each of said loudspeakers corresponding to the volume level of said sound received by its associated microphone as determined by the point on the directional sensitivity characteristic of said microphone corresponding to the lateral position of said loudspeaker in said sound reproducing area.

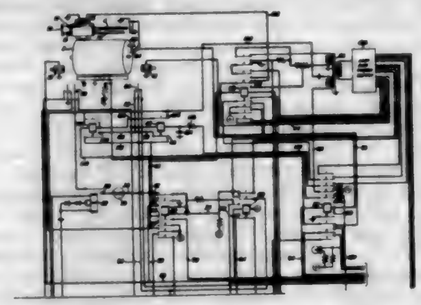
2,846,505

AUTOMATIC TELEPHONE ANSWERING SYSTEM

Clyde R. Keith, Maplewood, Clifford A. Nickerson, Bernardsville, and Charles M. Taris, Cranford, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 11, 1955, Serial No. 493,722
8 Claims. (Cl. 179—6)

1. In an automatic telephone answering system comprising a telephone line, a rotatable message bearing record support, a transducer and a carriage therefor, means for driving said support and providing said carriage with motion relative to said support, a ring-up circuit associated with said telephone line, said driving means being energized by means responsive to and operated by said ring-up circuit, switch means adapted to be actuated by means associated with said record support and carriage after a predetermined time interval, means responsive to a disconnect condition when established by a calling party, means operable when said switch means is actuated to connect said calling party disconnect responsive means to said telephone line, first means for holding said ring-up circuit responsive means in the operated condition, second



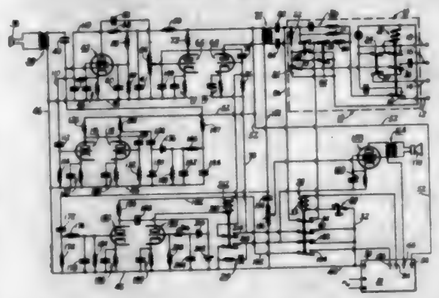
means for holding said ring-up circuit responsive means in the operated condition, said second means including said calling party disconnect responsive means, means operable a predetermined time interval after said switch means is actuated to disable said first holding means, said second holding means retaining control until said calling party disconnect responsive means responds to a disconnect condition.

2,846,506

REMOTE DICTATION SYSTEM

Lloyd R. Jones, Stepney, Rudolf E. Freund, Bridgeport, and Frank H. Palmer, Jr., Milford, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York

Application December 3, 1956, Serial No. 625,714
9 Claims. (Cl. 179—6)



1. For use with a remotely-operated dictation system which includes centrally-located recording and control apparatus having a recording head arranged for relative travelling movement with respect to a record, a remote dictating station coupled to said recording head to transmit sound signals thereto for recording on said record, a transmission circuit for connecting said station to said recording and control apparatus, a recorder condition control device at said dictating station arranged to transmit recorder conditioning signals through said transmission circuit to said control apparatus for establishing selected modes of operation of said recording apparatus, signal-producing means at said recording apparatus for feeding audio-frequency information signals through said transmission circuit to said dictating station for indicating a predetermined condition of said recording and control apparatus; in combination, sound transducing apparatus associated with said dictating station comprising a microphone to produce usable output signals in response

to dictation from a person located a substantial distance away therefrom, first circuit means for coupling said microphone to said transmission circuit so that sound signals may be fed from said microphone through said transmission circuit to said recording head, a loudspeaker mounted in proximity to said microphone to produce high-volume sound signals in response to audio-frequency signals fed thereto, second circuit means for coupling said loudspeaker to said transmission circuit to permit audio frequency signals from said signal-producing means to be reproduced over said loudspeaker, first switch means arranged when actuated to interrupt the coupling between said microphone and said transmission circuit, said first switch means normally being de-actuated during recording of dictation from said microphone, second switch means arranged when actuated to interrupt the coupling between said loudspeaker and said transmission circuit, said second switch means normally being actuated during recording of dictation from said microphone so as to prevent regenerative feedback between said loudspeaker and said microphone, and control means coupled to said transmission circuit and responsive during recording to the information signals developed by said signal-producing means, said control means being arranged when operated to actuate said first switch means and deactuate said second switch means, whereby said information signals are fed to said loudspeaker to develop audible sounds corresponding to said information signals and said microphone is uncoupled from said transmission circuit to prevent regenerative feedback between said loudspeaker and said microphone.

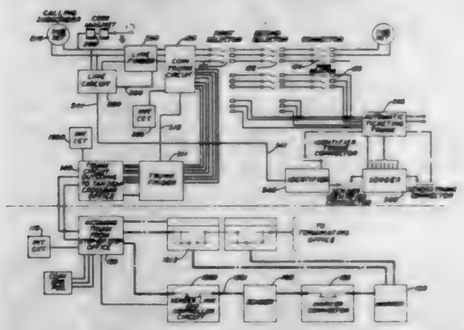
2,846,507

PAY STATION TELEPHONE SYSTEM

George Sandalls, Jr., deceased, late of North Tarrytown, N. Y., by Agnes R. Sandalls, administratrix, North Tarrytown, N. Y., Edward L. Vibbard, La Jolla, Calif., and Wesley T. Wichman, New York, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 3, 1954, Serial No. 434,125

14 Claims. (Cl. 179—6.3)



11. In a telephone switching system, a first exchange, a plurality of lines connected to said first exchange, a second exchange, a plurality of trunks extending between said first and said second exchanges, means in said first exchange responsive to the initiation of a calling condition on one of said lines for seizing an idle one of said trunks, means in said second exchange effective upon the seizure of one of said trunks for supplying dial tone over said seized trunk and through said first exchange to said calling line, means in said second exchange for registering dial pulse information from said calling line, and means in said first exchange effective during the operation of said register means and responsive to dial pulses from said calling line for setting up a local talking connection from said calling line.

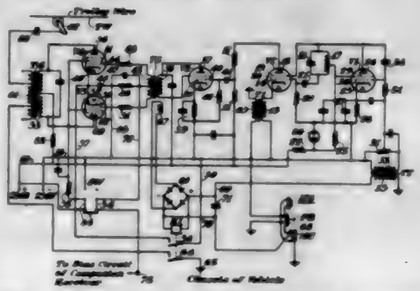
2,846,508

CONTROL MEANS FOR CARRIER SIGNALING AND COMMUNICATION EQUIPMENTS

Ralph K. Crooks, Worthington, Ohio, assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Original application July 7, 1950, Serial No. 172,560, now Patent No. 2,721,979, dated October 25, 1955. Divided and this application September 13, 1955, Serial No. 534,007

5 Claims. (Cl. 179—15.55)



1. In a carrier communication system transmitter, the combination comprising, an electron tube oscillator operable to supply a carrier of a given frequency, keying means including a two-position switch coupled to said oscillator to render the oscillator inactive or active to supply said carrier according as the switch is set at a first or a second position, an electron tube power amplifier, a transformer having a primary winding coupled to the output of said oscillator and a secondary winding coupled to the input of said power amplifier, a control relay, a full wave rectifier, said transformer being provided with an auxiliary secondary winding to receive carrier energy when the oscillator is activated, means including said rectifier to connect said auxiliary secondary winding to a winding of said relay to energize said relay when said oscillator is activated, and means including a contact closed only when the relay is energized to activate said power amplifier.

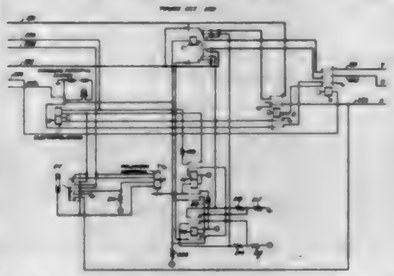
2,846,509

PULSE REPEATING WITH AUTOMATIC COMPENSATION FOR HIGH AND LOW RESISTANCE LOOPS

Arthur S. Dubnar, Parsippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 14, 1956, Serial No. 628,393

5 Claims. (Cl. 179—16)



1. In a telephone switching system, an incoming trunk, low resistance outgoing trunks and high resistance outgoing trunks, switching means for selectively connecting said incoming trunk to any one of said outgoing trunks, a relay connected for response to signal pulses incoming over said incoming trunk, pulse responsive means remotely connected to each outgoing trunk, said relay having contacts for repeating the received pulses to the

pulse responsive means of any outgoing trunk to which said incoming trunk is connected, a resistor and a test relay in series with said relay contacts and the conductors of a connected outgoing trunk, said test relay being operatively responsive to connection in series with said pulse responsive means of a low resistance outgoing trunk and non-responsive to connection in series with said pulse responsive means of a high resistance outgoing trunk, and means controlled by said test relay for short-circuiting said resistor.

2,846,510

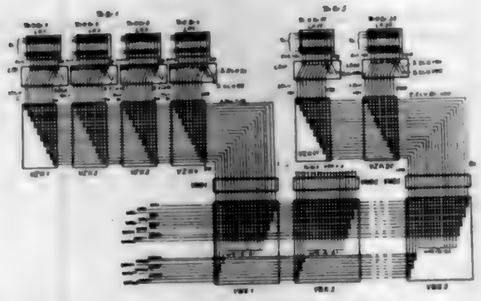
TELEPHONE SYSTEM OF THE RELAY TYPE

Friedrich Spiecker, Berlin-Charlottenburg, Germany, and Fritz Lubberger, deceased, late of Emmendingen, Germany, by Emma Lubberger, sole heir, Emmendingen, Germany, assignors to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany

Application June 18, 1953, Serial No. 362,442

Claims priority, application Germany January 9, 1950

20 Claims. (Cl. 179—18)



1. In a telephone system of the relay type wherein subscriber stations are disposed in subgroups and wherein a plurality of said subgroups are arranged to form line groups and wherein a plurality of said line groups are arranged to form a main group; a plurality of relay switching devices common to said main group for extending calls from subscriber stations belonging to such main group, preselection apparatus for connecting any calling station of any one subgroup with any one of said common switching devices, said preselection apparatus comprising at least one first and at least one second and at least one third finder, each said finder comprising exclusively coupling relays for performing the operations thereof, first trunk lines extending between said first and said second finders, second trunk lines extending between said second and third finders, and allotter means disposed respectively between said first and second finders and between said second and third finders for determining the particular trunk lines over which calls are to be extended to said common relay switching devices.

2,846,511

CIRCUIT-ARRANGEMENT FOR USE IN AN ELECTRONIC AUTOMATIC TELEPHONE EXCHANGE

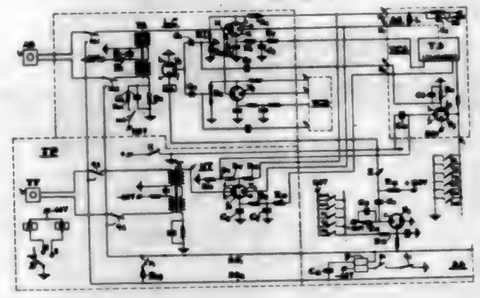
Jacobus Domburg, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 3, 1954, Serial No. 413,911

Claims priority, application Netherlands March 10, 1953

2 Claims. (Cl. 179—18)

1. A telephone circuit arrangement comprising a link circuit, a plurality of subscriber's lines, a plurality of gas-filled tubes connected between said link circuit and the respective said subscriber's lines and each containing a discharge path and an ignition electrode, means for selectively rendering said tubes conductive thereby selectively connecting said subscriber's lines to said link circuit through said discharge paths, a plurality of auxiliary discharge tubes respectively associated with said subscriber's lines and each containing a discharge path and a control electrode, means connecting said control electrodes respectively to said ignition electrodes whereby said auxiliary



tubes are respectively placed in a state to become conductive in response to a positive potential applied to the control electrodes thereof only when the corresponding gas-filled tube is in a conductive state, pulse-producing means included in said link circuit for providing a positive-potential pulse, and means connected to apply said positive-potential pulse to the control electrodes of all of said auxiliary tubes, whereby an auxiliary tube will become conductive in response to said pulse only if the corresponding gas-filled tube is in a conductive state.

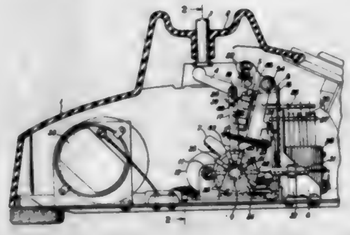
2,846,512

PARTY LINE STATION IDENTIFYING IMPULSE TRANSMITTER

George B. Crofutt, Jr., Verona, and James B. Fisk, New Vernon, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 31, 1956, Serial No. 631,752

12 Claims. (Cl. 179—81)

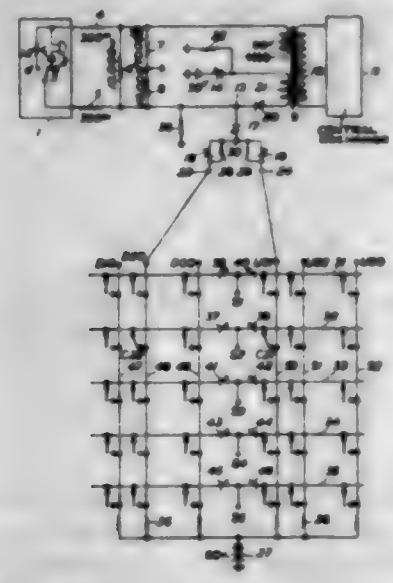


1. In a telephone subscriber's subset including subscriber's line terminals, an auxiliary impulse transmitter comprising a member manually movable in response to the initiation of a call, contacts controlled by said member for closing electrical circuit paths between said subscriber's line terminals, a rotatable member, spring actuated means for rotating said rotatable member, mechanical delay means actuated by said manually movable member for releasing said rotatable member after the operation of certain of said contacts, a plurality of permanent magnets supported on said rotatable member, and a pulsing contact located adjacent said rotatable member interconnected with said subscriber's line terminals.

2,846,513
CIRCUIT ARRANGEMENTS FOR TRANSMITTING SIGNALS SUCH AS RINGING SIGNALS TO SUBSCRIBERS TO AN AUTOMATIC TELEPHONE SYSTEM

Stanislas Van Mierlo, Camille Weill, and Maurice Camille Eugène Bataille, Paris, France, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application September 4, 1953, Serial No. 378,448
Claims priority, application France September 5, 1952
2 Claims. (Cl. 179—84)



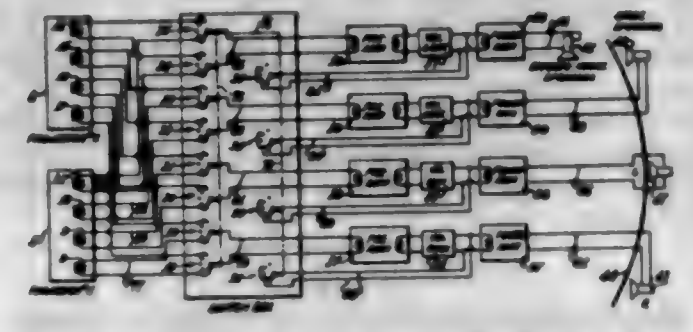
1. A circuit arrangement for transmitting a ringing signal to the subscribers' lines of an automatic telephone exchange system comprising a plurality of lines, a predetermined lesser number of terminals, means for producing a ringing signal of suitable amplitude and frequency, distributing means for applying said ringing signal successively during predetermined time intervals to said terminals, switching means common to said plurality of lines adapted for connecting any number of said terminals to a corresponding number of said lines during the same period, said switching means comprising a crossbar switch, the switching horizontal multiples of which are connected respectively to said terminals and the vertical multiples of which are connected respectively to said lines, the vertical multiples of said switch being divided into two groups, one of the groups corresponding respectively to the units digits of said lines and the other group corresponding respectively to the tens digits, and an electronic coincidence gating circuit for each line connected between said line and said switching means, said gating circuit having two input circuits connected respectively to vertical multiples of said two groups and adapted to operate to pass the ringing signal to the associated line only when said ringing signal appears on both input circuits, said switch being adapted to connect the two vertical multiples corresponding to a called line to the same horizontal multiple.

2,846,514
MULTIPLE SOUND SOURCE SWITCHING SYSTEM

John F. Byrd, Ashland, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application March 22, 1954, Serial No. 417,896
6 Claims. (Cl. 179—100.1)

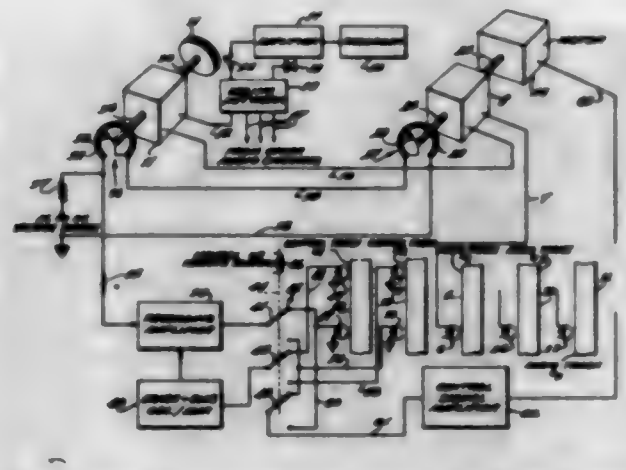
1. A multiple signal source switching system for switching the outputs from one group of signal sources to another comprising a plurality of groups of signal sources, a plurality of preamplifiers sufficient for one group of said plurality of said signal sources, a plurality of the power amplifiers sufficient for one group of said plurality of said signal sources, electrical circuits interconnecting respective ones of said amplifiers and said signal sources, multiple switches in said circuits for simultaneously connecting any one of said groups of signal sources to said amplifiers, and simultaneously operated switches for short-circuiting the outputs of said preamplifiers and the inputs of said power amplifiers during the switching operation.



2,846,515
AUTOMATIC RERECORDING SYSTEM

Carl N. Shipman, Rivera, Calif., assignor to Radio Corporation of America, a corporation of Delaware

Application December 31, 1956, Serial No. 631,683
11 Claims. (Cl. 179—100.1)



1. In a sound rerecording system, the combination of a source of signals, a transmission circuit for signals from said source, said transmission circuit including a pair of signal amplitude attenuators connected together, a pair of voltage varying devices, each device being mechanically connected to a separate one of said attenuators, a source of control current, said voltage varying devices being connected together and to said source of control current, said voltage varying devices being adjustable in accordance with the adjustments of said attenuators, means for recording variations in said control current produced by adjustments of said voltage varying devices, and means for recording said signals as varied by said attenuators.

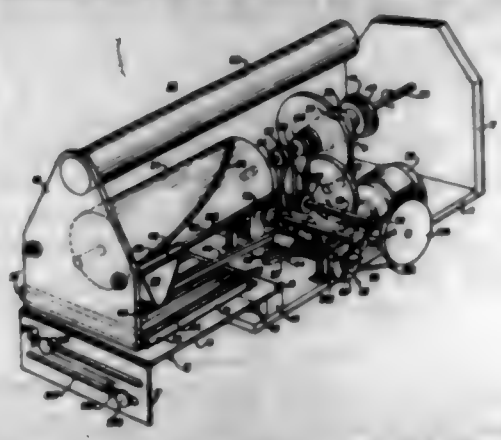
2,846,516
MAGNETIC RECORDING AND REPRODUCING APPARATUS

Chester M. MacChesney, Chicago, Ill., assignor to Ellamac Incorporated, Chicago, Ill., a corporation of Illinois

Application August 10, 1953, Serial No. 373,235
32 Claims. (Cl. 179—100.2)

1. In combination, a record card carrying odd and even groups of adjacent longitudinally extending and laterally spaced-apart elongated magnetic media; and translation apparatus comprising a platen supporting said record card, odd and even electromagnetic transducers respectively cooperating with said magnetic media in said respective odd and even groups, means for moving alternately said odd and even transducers longitudinally along and in cooperating relation with said magnetic media in said respective odd and even groups, means for indexing alternately said odd and even transducers laterally with respect to said individual magnetic media in said corresponding odd and even groups and intermediate

said alternate longitudinal movements thereof, an electric circuit, and means for coupling alternately said odd and even transducers to said electric circuit, whereby in-



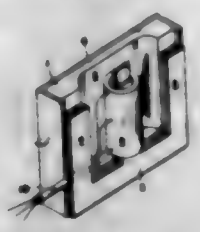
telligence may be translated between said electric circuit and a plurality of said magnetic media continuously and involving sequentially said magnetic media in said odd and even groups.

2,846,517

MAGNETIC HEAD

William A. Farrand and Lester L. Kilpatrick, Downey, and Spencer G. Johnston, Los Angeles, Calif., assignors to North American Aviation, Inc.

Application March 1, 1954, Serial No. 413,394
7 Claims. (Cl. 179—100.2)



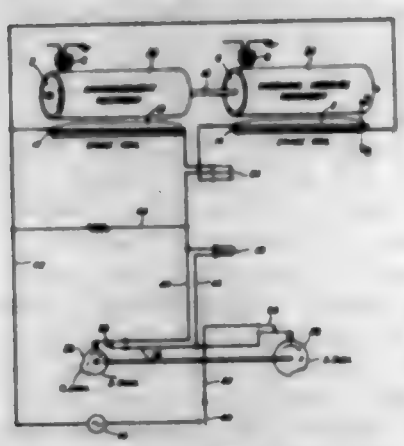
1. In a magnetic head having a central pole face and an encompassing pole face, a core including at least two pole members, a coil disposed on said core, a high permeability, low loss material continguous with one of said pole members and encompassing in fixed spaced relationship the other of said pole members, said latter pole member forming said central pole face, said encompassing material forming said encompassing pole face, said pole faces being substantially coplanar and the area of the encompassing pole face being substantially greater than the area of said central pole face.

2,846,518

MEANS FOR ERASING A MAGNETIC RECORD

William R. Goehner, Harding Township, Morris County, and Charles M. Taris, Cranford, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 5, 1955, Serial No. 538,713
5 Claims. (Cl. 179—100.2)



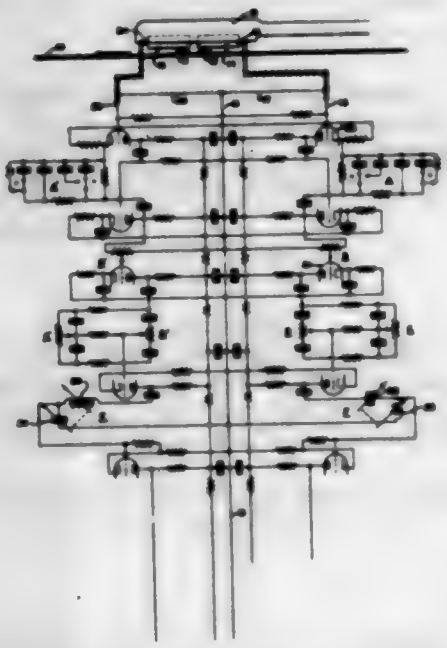
1. Means for erasing a rotating magnetic record medium comprising a stationary magnetic core, an energizing coil wound thereon, said core comprising a pole-piece facing said medium and extending across the width of the record bearing surface thereof, said pole-piece including a center portion disposed a predetermined distance from said record bearing surface and substantially parallel to the axis thereof, and end portions tapered to diverge away from said record bearing surface in such manner that the distance between said pole-piece and said record bearing surface will be greatest at the width defining edges of said record bearing surface.

2,846,519

APPARATUS FOR PSEUDO-STEREOPHONIC SOUND REPRODUCTION

George Arthur Morrell, Jr., Conneaut, Ohio, assignor to The Astatic Corporation, Conneaut, Ohio, a corporation of Ohio

Application October 22, 1954, Serial No. 463,946
3 Claims. (Cl. 179—100.4)



1. Apparatus for reproducing sound from a medium having a single sound track comprising a pair of spaced members arranged in detecting relation to said single sound track and adapted to derive separate sound-producing stimuli therefrom in timed relation, means to separately amplify and filter said separate stimuli, said last mentioned means including adjustable filter circuits having outputs of limited frequency range, one of said ranges being relatively high while the other of said ranges is relatively low, said high and low ranges combining to comprise the whole of the range of reproduction, and separate spaced means associated with said separate means to amplify and filter for separately audibly reproducing said stimuli in timed relation.

2,846,529

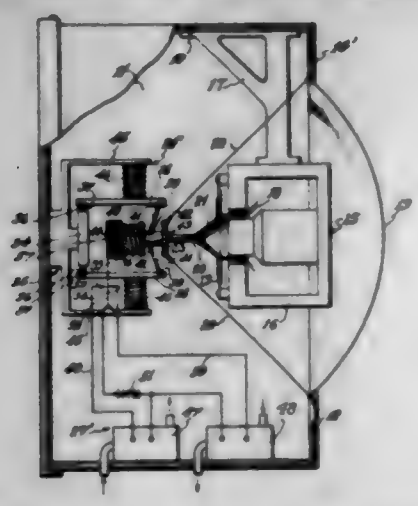
LOW FREQUENCY LOUDSPEAKER

Philip J. Brownscombe, Chatham, N. J.

Application November 22, 1955, Serial No. 548,374
21 Claims. (Cl. 179—115.5)

21. A loudspeaker comprising: structural means enclosing an air volume; plural substantially tensionally inelastic concavo-convex sound reproducing diaphragms resiliently mounted marginally for axial vibration as cooperative units with one side of each radiating into the enclosed air volume and the opposite side radiating into the outside atmosphere; transducer means directly connected by substantially tensionally inelastic means to each diaphragm to drive the same in excursions from the design mid-position of its sound vibrations; and means to maintain a constant average pressure differential between the enclosed air volume and the atmosphere in a manner

to subject the concave side of each diaphragm to the greater pressure, whereby the said diaphragms will be



constantly distended in their normal concavo-convex shapes.

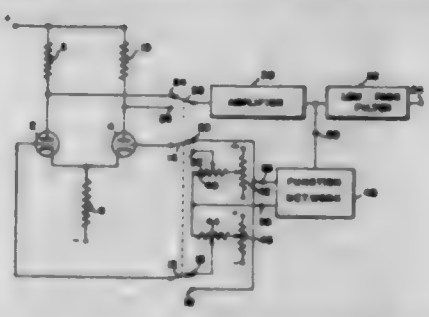
2,846,521
DUAL CHANNEL HEADSET
Sheppard Beidler, New York, N. Y.
Application July 18, 1957, Serial No. 672,597
2 Claims. (Cl. 179—156)



1. A telephonic earpiece device comprising, an earphone unit having a hollow interior serving as an acoustical amplifying chamber, means for locating said earphone unit adjacent one ear of the user, said earphone unit having sound conducting apertures communicating with said chamber along the side thereof to be located against the user's ear, a bracket symmetrical with respect to its cross axes and having a pair of holding elements, respective ones of said holding elements being disposed on opposite sides of one axis of said bracket, and an electro-acoustical pickup capsule held by each of said holding elements, clamping means for fastening said bracket to an interior wall of said chamber, the symmetry of said bracket and said fastening means being such that each acoustical pickup capsule is symmetrically disposed on an opposite side with respect to one axis of said chamber, and substantially in alignment with the other axis of said chamber in order to provide optimum amplification of sound transmitted by each of said capsules.

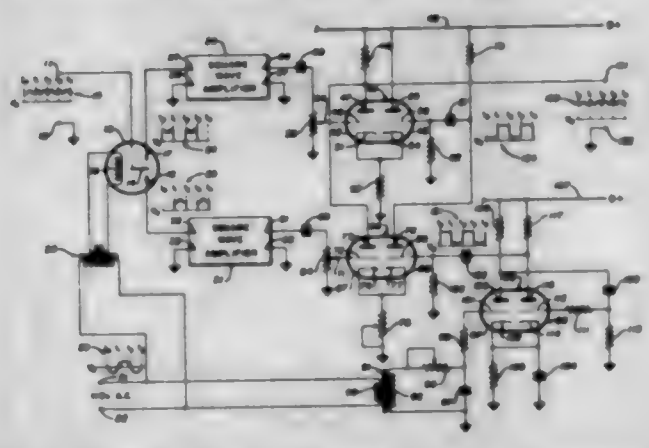
2,846,522
DIFFERENTIAL AMPLIFIER CIRCUITS
Irving Brown, Glenolden, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application February 18, 1953, Serial No. 337,536
7 Claims. (Cl. 179—171)

1. Apparatus comprising a differential amplifier circuit including a pair of thermionic tube assemblies having respective control grids and a pair of individual output terminals, and switching means including a pair of individual terminals for connecting input to said differential amplifier grids, a single output terminal for receiving output from said differential amplifier and means for alternately first simultaneously connecting a first of said input terminals to a first of said grids, the second of said input terminals to the second of said grids and a first of said individual output terminals to said single out-



put terminal, and secondly simultaneously connecting said first of said input terminals to said second of said grids, said second of said input terminals to said first of said grids and the second individual output terminal to said single output terminal.

2,846,523
SQUARE WAVE AMPLIFIER
Minard A. Leavitt, Concord, and Ivan C. Lutz, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application October 29, 1954, Serial No. 465,759
1 Claim. (Cl. 179—171)



In an amplifier of a signal having a direct current component with a susperimposed alternating component, the combination comprising a first and a second square wave amplifier each having an input and an output; terminal means for connection to a signal having a direct current component with a superimposed alternating component; a converter unit having a first fixed electrode connected to the input of said first square wave amplifier, a second fixed electrode connected to the input of said second square wave amplifier, and a vibrating electrode oscillating between said fixed electrodes at a selected frequency connected to said terminal means; a first and a second amplifier tube each having at least a control grid, cathode, and anode; first coupling means connected between the output of said first square wave amplifier and the control grid of said first tube; second coupling means connected between the output of said second square wave amplifier and the control grid of said second tube; a single first dropping resistor connected to the anode of each of said first and second tubes and to a positive terminal of a source of operating potential; a first cathode resistor connected between the cathode of said first tube and a grounded connection of said source of operating potential; a second cathode resistor connected between the cathode of said second tube and said grounded connection; a third and a fourth amplifier tube each having a control grid, cathode, and anode; a first direct connection extended between the cathode of said third tube and the cathode of said first tube; a second direct connection extended between the cathode of said fourth tube and

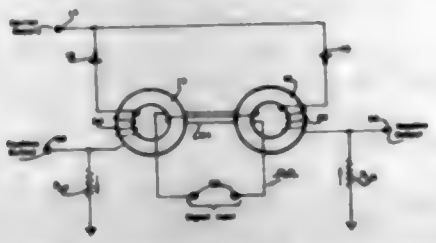
the cathode of said second tube; a third direct connection extended from the anode of said third tube to said positive terminal; coupling means connected between the anode of said fourth tube and the control grid of said third tube and a second dropping resistor connected between the anode of said fourth tube and said positive terminal; a square wave generator synchronized at the frequency of said vibrating electrode coupled to the control grid of said fourth tube and including phasing means to impress positive-going alternations during the time said vibrating electrode contacts said second fixed electrode; whereby an amplified reproduction of said signal is produced at the anode of said second tube.

2,846,524

MAGNETIC AMPLIFIER CIRCUIT WITH OUTPUTS OF OPPOSITE PHASE

Richard W. Spencer, Philadelphia, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application February 7, 1955, Serial No. 486,470
1 Claim. (Cl. 179—171)



In a magnetic amplifier circuit, the combination of; first and second magnetic cores, an alternating current carrier wave source, first means including a coil wound on said first core for coupling said core to said carrier wave source to produce a flux in said core in a first direction during the half cycles of one sense of said carrier wave source, second means including a coil wound on said second core for coupling said core to said carrier wave source to produce a flux in said second core in a first direction during the other half cycles of the alternating current source, and signal winding means linking said first and second cores and wound in such direction that the flux produced in said first core by said one-half cycles of one sense of carrier current produces flux in a second direction opposite to said first direction in said second core and the flux produced in said second core by said other one-half cycles of carrier current produces flux in a second direction opposite to said first direction in said first core, a signal control input means coupled to said signal winding means for selectively applying a signal input current into said winding means in opposition to the currents induced in said winding means by the flux produced in said cores by successive half-cycles of carrier current through said first and second coil means, first and second load impedances connected respectively to said first and second coil means, an output signal of first polarity appearing across said first load impedance and an output signal of opposite polarity appearing across said second load impedance when said signal control input means is operative to apply signal current to said signal winding means, and substantially no output signals appearing across either of said load impedances when said control means is inoperative.

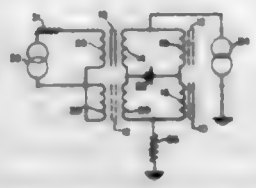
2,846,525

CONSTRAINED BRIDGE MAGNETIC AMPLIFIER

Joseph A. Fingerett, Pacoima, and Frank A. Hill, Van Nuys, Calif., assignors to Librascope, Incorporated, Glendale, Calif., a corporation of California

Application September 20, 1955, Serial No. 535,423
13 Claims. (Cl. 179—171)

1. A magnetic amplifier, including, a first saturable core, a second saturable core, a first pair of windings magnetically coupled to the first core, a second pair of windings magnetically coupled to the second core, means for introducing cyclic line voltage to the windings to produce core saturations, the windings in the first and second pairs being connected in a bridge circuit in which the windings in each pair define opposite legs of the bridge, means for introducing signal energy differentially to the cores to produce a saturation of one of the cores before any saturation of the other core, a load connected to one terminal of the bridge to receive an output cur-



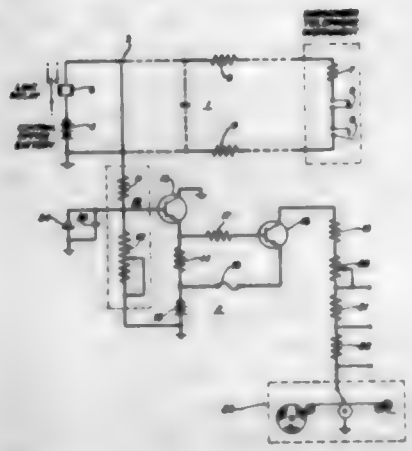
rent upon a saturation of one of the cores in the half cycles and until the end of the half cycles, and a unidirectional member connected between opposite terminals of the bridge and connected to a different terminal than that connected to the load to provide a flow of load current through the windings in one of the pairs upon the saturation of the associated core and to provide a short-circuiting action on the windings in the other pair for preventing the core associated with the other pair of windings from saturating.

2,846,526

POTENTIAL MONITORING CIRCUIT

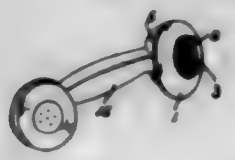
Ernest P. Moore, Newark, and Robert L. Trent, Pluckemin, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 20, 1955, Serial No. 516,642
5 Claims. (Cl. 179—175.2)



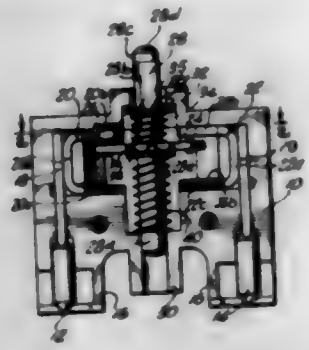
1. An arrangement for monitoring potential variations about a predetermined potential in an electric circuit, said arrangement comprising two monitoring junctions in said circuit, a resistor connected between said monitoring junctions and having a resistance which is of a higher order of magnitude than the resistance of said circuit at said monitoring junctions, an amplifier, a first bias means for biasing said amplifier beyond cutoff in the absence of a potential between said monitoring junctions which differs from said predetermined potential in one direction, a second bias means including said resistor for overriding said first bias means and biasing said amplifier into an active state when the potential between said monitoring junction differs from said predetermined potential in another direction, an electronic switch having output terminals, for biasing said switch open in response to the biasing of said amplifier beyond cutoff, a load impedance connected between said output terminals of said switch, and indicating means connected in series with said load impedance between said output terminals, said switch biasing means biasing said switch closed in response to the biasing of said amplifier into conduction.

2,846,527
TELEPHONE MOUTHPIECE VOICE SILENCER
Leo A. Heintzelman, Grand Rapids, Mich., assignor to Johnson-Hartmann, Chicago, Ill., a partnership
Application December 13, 1954, Serial No. 474,727
5 Claims. (Cl. 179—188)



2. A telephone mouthpiece comprising, an annular body having an enlarged chamber therein adapted to receive and house a telephone mouthpiece, said chamber having a larger interior annular periphery than the annular periphery of a mouthpiece housed therein, a member of thin, flexible, highly elastic rubber secured to said body across and closing said chamber at one side, said member having a generally central opening therethrough of an area less than the cross sectional area of a telephone mouthpiece received in said recess, and a transversely disposed hollow lung at the inner side and lower portion of said chamber extending from one side to the other of said annular body, said body having a vertical slot through its lower portion communicating with the interior of said lung, and said lung, at its upper side having openings communicating with said chamber.

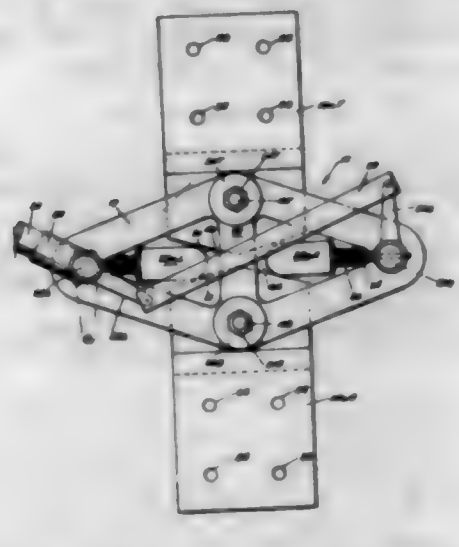
2,846,528
SELECTIVE SWITCHES
Phillip A. Burrell, South Plainfield, N. J., assignor to Federal Pacific Electric Company, a corporation of Delaware
Application July 2, 1956, Serial No. 595,264
20 Claims. (Cl. 200—4)



1. A selective switch including a housing having an endwise reciprocal contact-supporting shaft, a bridging contact member carried by said shaft and two groups of stop elements in parallel planes between which said bridging contact member may be operated, one of said groups of fixed elements including a pair of fixed contact elements diametrically opposite each other relative to said shaft, and the other of said groups of contacts similarly including a pair of fixed contact elements diametrically opposite each other relative to said shaft, said shaft being selectively keyed to the housing for reciprocation of said contact member between said planes in a selected one of plural angularly related paths.

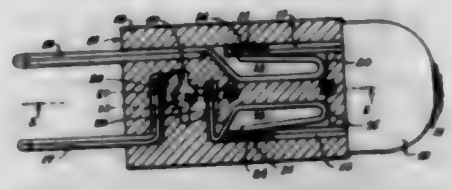
2,846,529
HIGH CURRENT SWITCH
Howard W. Graybill, Greensburg, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application April 5, 1954, Serial No. 423,976
5 Claims. (Cl. 200—16)

1. A high current switch comprised of a plurality of terminal bars; a pair of insulating brackets; a first and second operating shaft; and a first and second plurality of bridging contacts; said plurality of terminal bars spaced from each other by insulating means having a width approximately equal to the width of said terminal bars; said pair of insulating brackets secured to each side of said spaced parallel terminal bars and insulating means; said insulating plates supporting said first and second operating shaft; each of said terminal bars having a first and second wedge shaped gap communicating with each other; said first plurality of bridging contacts associated with



said first gap in each terminal bar; said second plurality of bridging contacts associated with said second gap in each terminal bar; said first operating shaft being operatively connected to and controlling said first plurality of bridging contacts to engage and disengage said first wedge shaped gaps; said second operating shaft being operatively connected to and controlling said second plurality of bridging contacts to engage and disengage said second wedge shaped gaps; means to simultaneously control said first and second operating shaft.

2,846,530
ELECTRICAL DROP CORD SWITCH OPERATED BY REMOVABLE KEY
George Wintrim, Carversville, Pa.
Application October 25, 1954, Serial No. 464,217
7 Claims. (Cl. 200—42)

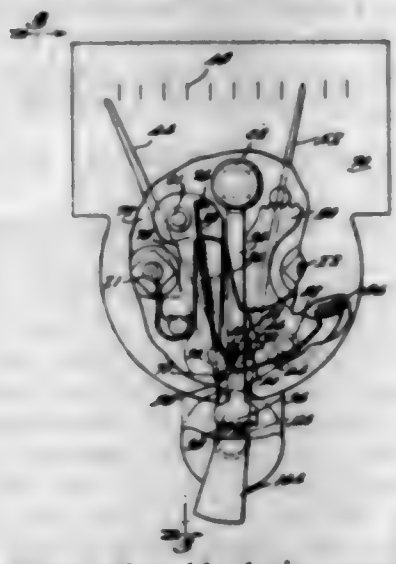


1. An electrical switch comprising a housing having prongs projecting from one end thereof for insertion into an electrical outlet, the housing having openings in its other end at locations for receiving the prongs of a drop cord plug, conductors within the housing in position to engage the prongs of the drop cord plug when fully inserted into the housing, projections on the conductor in position to engage behind surfaces of the prongs of the drop cord plug for permanently locking the prongs of the drop cord plug in the housing, means connecting the conductors which engage the prongs of the drop cord plug with the corresponding prongs which extend from the other end of the switch housing, said means including a key-operated switch between at least one of the conductors and its corresponding prong of the switch housing, the housing having a key hole therein for admitting a key to the switch, and a key for the switch, the key being of a size for admission and removal through said keyhole.

2,846,531
ELECTRICAL INDICATING SYSTEM

Harry I. Baker, Ypsilanti, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan

Application November 7, 1956, Serial No. 620,935
16 Claims. (Cl. 200—56)

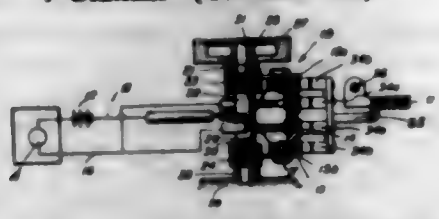


15. A manually adjustable device comprising a setting pointer, manually rotatable means for adjusting said setting pointer, an indicating pointer, a first electrical contact, a polymetallic element carrying said first electrical contact, a heater winding in heat exchange relation with said element for deflecting a portion of said element, means drivingly connecting said element to said indicating pointer, an arm supported independently of said pointers, and a second electrical contact carried by said arm and matable with said first electrical contact.

2,846,532
SIGNAL DEVICE FOR TACHOGRAPHS

Albert Keck, Frankfurt am Main, Germany, assignor to VDO Tachometer Werke, Adolph Schindling G. m. b. H., Frankfurt am Main, Germany, a corporation of Germany

Application January 25, 1957, Serial No. 636,424
Claims priority, application Germany January 26, 1956
7 Claims. (Cl. 200—56)



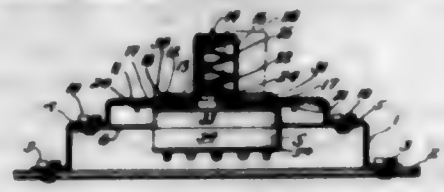
1. A multiple warning device for use with a tachograph to indicate attainment of predetermined speed comprising a base, a plurality of parallel fixed rails and movable rails disposed on said base, concentric shafts each provided with a pinion thereon, racks disposed on said movable rails for meshing engagement with a corresponding pinion, a key engageable with said shafts for rotation thereof in adjusting said movable rails, conductor means slidable over said fixed rails adapted to make contact with each corresponding movable rail at the adjusted positions thereof to effect respective warning signals of said device.

2,846,533
FOOT-OPERATED TURN SIGNAL APPARATUS

John J. Spicer, Jr., Philadelphia, Pa., assignor, by mesne assignments, to United Specialties Company of Illinois, a corporation of Delaware

Application August 25, 1955, Serial No. 530,556
11 Claims. (Cl. 200—61.27)

1. A foot-operated device for a vehicle turn signal system comprising: housing means having a side formed with an elongated slot and detents disposed respectively adjacent opposite ends of said slot; an insulated base connected with the housing and having a plurality of fixed terminals; movable carrier means mounted on said base and having a neutral position and two settable positions, the carrier means having bridging contacts adapted to interconnect said fixed terminals in a predetermined manner; an actuating member operatively connected with said carrier means for moving the same to any of said



positions and including foot contacting means extending through said slot and having a portion slidably engaging said housing; resilient means to normally urge said member to said neutral position; and second resilient means connected between said actuating member and said carrier means and operating when said carrier means is in either settable position to urge a part of said slider portion into a corresponding detent.

2,846,534
SWITCHING MECHANISM

Wayne J. Morrill, Garrett, Ind.

Application July 10, 1956, Serial No. 596,939
8 Claims. (Cl. 200—61.39)

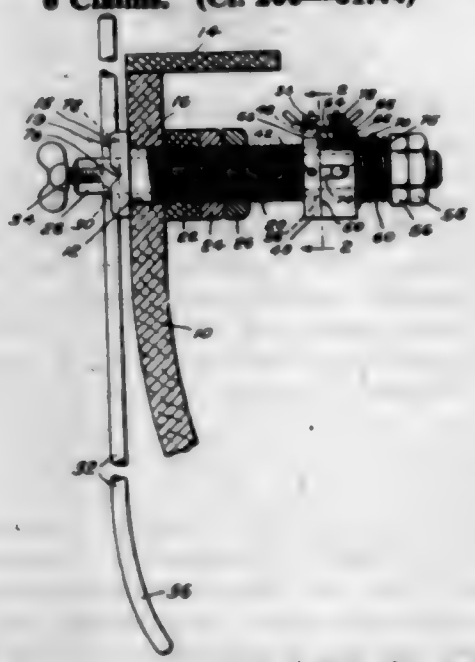


6. A switching mechanism including a rotatable carrier having an axis of rotation, an actuator, pivot means pivotally attaching said actuator to said carrier at a spaced distance from said axis, said actuator comprising first and second lugs spaced from each other and from said pivot means, a circular inertia member extending around said pivot means, and a stop post carried by said carrier in a position to alternatively engage first and second portions of said actuator.

2,846,535
SHALLOW WATER ENGINE CUT-OUT

Charles W. Speich, Clay, N. Y.

Application August 16, 1956, Serial No. 604,528
6 Claims. (Cl. 200—61.44)



1. A shallow water cut-off switch for power driven water craft comprising a bearing sleeve adapted to be

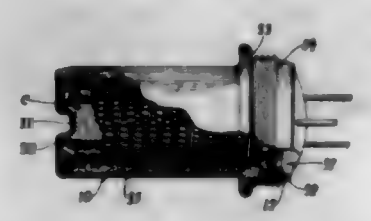
rigidly mounted upon the side wall of a water craft with the sleeve axis extending substantially horizontal and transversely of the side wall, a shaft extending through said sleeve, said shaft having on its outer end a transverse feeler rod of a length to project vertically downwardly into the water to touch bottom in shallow water, switch means mounted on said sleeve and shaft adapted to make and break an electrical circuit upon relative rotation between said shaft and sleeve in response to said rod striking bottom in shallow water when the craft is under way and means coacting between the sleeve and shaft for yieldingly holding said feeler rod in a vertical downwardly projecting position.

2,846,536

ELECTRIC HEATERS

Lester D. Drugmand, Pittsburgh, Pa., and Michael Williams, Warren, Ohio, assignors to Edwin L. Wiegand Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application July 10, 1953, Serial No. 367,323
13 Claims. (Cl. 201—67)



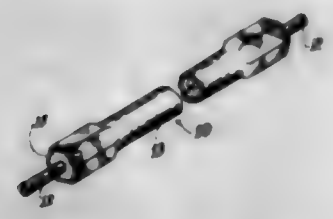
1. An electric heater, comprising a core having a plurality of longitudinally extending channels, and a resistance wire having a plurality of turns wound upon said core, certain of said turns being wound longitudinally of said core and disposed in said channels and certain other of said turns being wound transversely about said core.

2,846,537

ELECTRIC HEATERS

Norman B. Thornhill, Wilmerding, Pa., assignor to Edwin L. Wiegand Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application March 3, 1954, Serial No. 413,920
3 Claims. (Cl. 201—67)



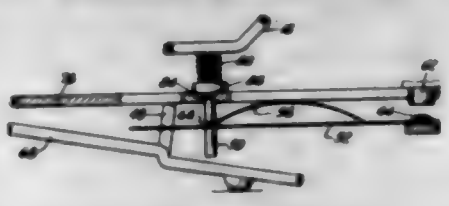
1. The method of producing a sheathed embedded resistor electric heater wherein a resistance conductor is disposed within a metal tubular sheath and has a terminal end accessible through an opening in an end of said sheath, and wherein the resistance conductor is surrounded by and embedded in electric-insulating heat-conducting refractory material, the latter stopping short of said tubular opening to form therewith a pocket, which method comprises disposing an apertured lava plug in said pocket in encompassing relation with respect to the accessible end of said conductor, compressing and deforming the sheath radially inward to compress it about said plug and force the latter into intimate engagement with the entire inner wall of said pocket and with the adjoining peripheral surface of said conductor, and thereafter subjecting at least said sheath end to a temperature sufficient to vitrify said lava plug.

2,846,538

SNAP ACTING SWITCH

Robert R. Hager, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application December 28, 1956, Serial No. 631,245
5 Claims. (Cl. 200—67)



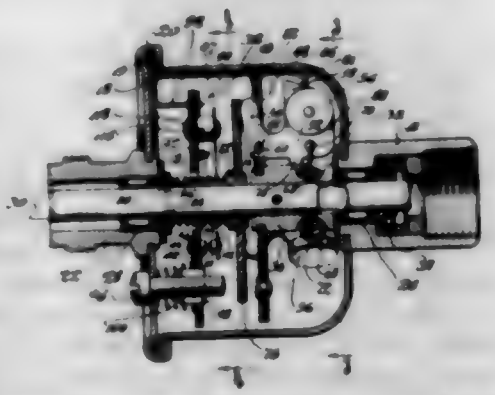
1. A snap acting switch comprising: a body member, first and second support members mounted on said body member for generally parallel movement with respect to each other, a pair of abutments positioned to one side of said first and second support members, said abutments being spaced apart in the direction of said parallel movement, a blade extending generally transversely to and having a generally free pivotal connection to said first member and extending between said pair of abutments, a spring having first and second generally free pivotal connections with said second member and said blade respectively, said blade having a line of force generally passing through its pivotal connections to said first support member and said spring, and said spring having a line of force generally passing through its connections to said second member and said blade, said line of force for the spring normally being to one side of the line of force for the blade, and actuating means constructed and arranged to move one of the support members relative to the other until the line of force for the spring moves to the other side of the line of force for the blade, and continued movement of said means in the same direction thereafter moves the other of said support members until the line of force for the spring again returns to its original side of the line of force for the blade, whereby the blade is snapped from one abutment to the other and then back again upon continued movement in a given direction of said last mentioned means.

2,846,539

SPEED RESPONSIVE WARNING SWITCH

Willard H. Farr, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia

Application December 2, 1953, Serial No. 395,665
6 Claims. (Cl. 200—80)



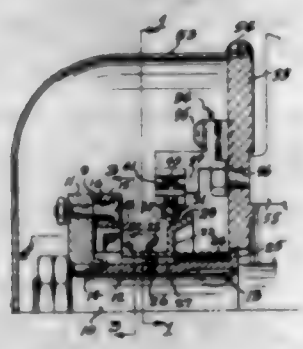
3. A speed responsive switch comprising, in combination, a casing, a rotary drive member journaled in said casing, speed responsive weight means mounted for rotation by said drive member, a plate swingably mounted toward one end thereof within said casing about an axis perpendicular to said rotary drive member, threaded adjusting means connected with said plate near the opposite end thereof for moving the latter in one direction, a spring mounted to urge said plate in the opposite direction, a resilient contact support mounted on said plate, a first switching contact mounted on said support, a second contact mounted on said plate in opposed relation to said

first contact, and means coacting with said weight means for closing said contacts as an incident to rotation of said drive member at a critical speed determined by the position of said plate.

2,846,540
CENTRIFUGAL ELECTRICAL CIRCUIT INTERRUPTING DEVICE

Frederick R. Neal, Darien, Conn., assignor to Electric Specialty Company, Stamford, Conn., a corporation of Delaware

Application December 6, 1954, Serial No. 473,089
8 Claims. (Cl. 200—80)

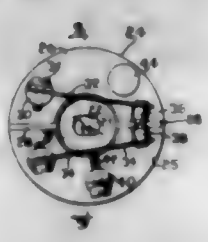


7. In a circuit controlling device of the character described, a rotatable support, a plurality of spring loaded flyweights pivotally mounted on the support adapted to swing outwardly independently of each other under centrifugal force against action of separate springs when the speed of the support reaches a given limit, a spring loaded collar movable toward the support under action of its spring normally held in retracted position against action of its spring by the flyweights in their retracted positions and releasable by outward movement of the flyweights, a stationary support, electrical switches mounted on the stationary support each including movable contacts, and shiftable means operable by movement of the collar from its retracted position under action of its spring upon release by the flyweights to shift said contacts comprising an inclined cam surface on the collar engaging said shiftable means.

2,846,541
ROTATIONAL SPEED GOVERNOR

Lowell D. Evans and Alfred M. Caton, Dayton, Ohio, assignors to Globe Industries, Inc., Dayton, Ohio, a corporation of Ohio

Application May 13, 1955, Serial No. 508,250
19 Claims. (Cl. 200—80)

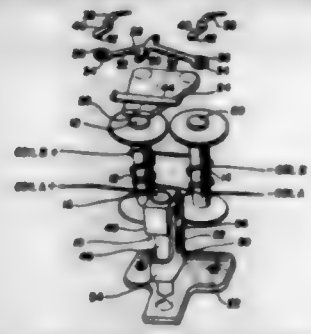


19. A centrifugal switch comprising, in combination: a rotatable disc; a pair of resilient flexible contact fingers mounted at one end on the disc; the other ends of the fingers bearing contact elements and being freely flexible and in resilient engagement one with the other; said contact fingers being mounted astride a diametral plane of the disc, the construction and arrangement being such that centrifugal forces cause flexing of the fingers as each finger moves with respect to the other finger and also causes separation of the fingers upon rotation of the disc above a pre-determined value.

2,846,542
RELAY STRUCTURE

Howard C. Stanley, Glendora, Calif., assignor to North Electric Company, Galion, Ohio, a corporation of Ohio

Application November 13, 1956, Serial No. 621,876
2 Claims. (Cl. 200—93)

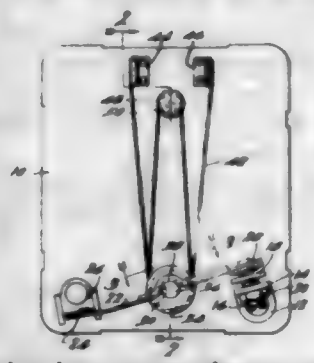


1. In a relay structure, flux-producing means defining three parallel poles disposed in triangular relation, a generally triangular armature conforming to the triangular disposition of said poles pivotally mounted adjacent said poles on an axis intersecting its apex and the midpoint of its base, said pivot axis also intersecting the longitudinal axis of one pole and extending midway between the longitudinal axes of the other two poles, a contact spring spaced at its center from said armature and including a pair of contact carrying arms extending transversely of said pivot axis to opposite sides thereof, said arms being disposed adjacent the apex of said armature and extending beyond the sides thereof, said arms normally engaging said armature at points spaced equally from the pivot axis thereof and normally biasing said armature to a predetermined position, and adjusting means for said arms located adjacent the sides of said armature adjacent its apex.

2,846,543
THERMAL RELAY

Emil E. Sivacek, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan

Application August 20, 1956, Serial No. 604,918
12 Claims. (Cl. 200—113)



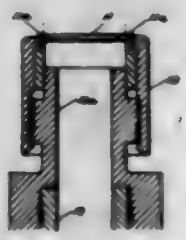
1. A relay mechanism responsive to current flow in an input electrical circuit for controlling the current in an output electrical circuit comprising a base, first and second mateable electrical contacts connectable in the output circuit, means securing said second contact on said base, means supporting said first contact and tending to force said first contact into a preselected relationship with said second contact, a first bearing element on said supporting means, a second bearing element supported upon said base, a wire connectable in the input circuit and adapted to elongate in response to current therethrough, and two anchor means spaced from both of said bearing elements for fixing the ends of said wire relative to said base, one end of said wire being fixed to one of said anchor means, the other end of said wire being fixed to the other one of said anchor means, said wire extending from one of said anchor means, into engagement with first bearing element, into engagement with second bearing element, and then back into engagement with said first bearing element.

2,846,544

EXPENDABLE DISC CUTOUT

Russell A. Wood, Jeannette, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application February 21, 1955, Serial No. 499,410
5 Claims. (Cl. 200—127)



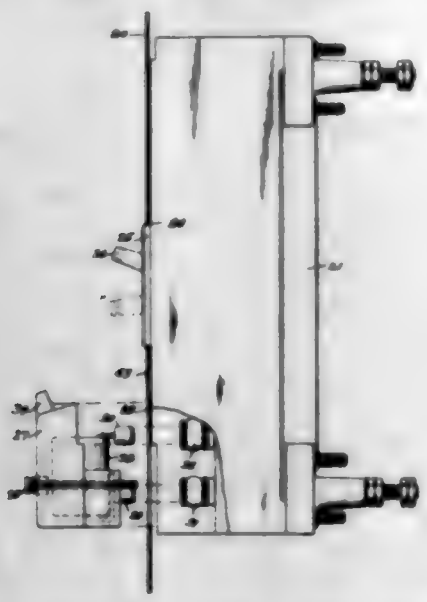
1. A fuse holder being comprised of a fuse tube, a fuse tube end casting, a reusable cap and a rupturable disc; said fuse tube end casting being positioned concentric with and removably secured to said fuse tube; said rupturable disc having a cylindrical section; a portion of said cylindrical section of said rupturable disc being positioned concentric to and between said fuse tube end casting and said reusable cap; said reusable cap having a hollow cylindrical shape and being positioned external to and concentric with said fuse tube end casting; said cap being removably secured to said fuse tube end casting and providing a friction force to secure said rupturable disc in position between said fuse tube end casting and said cap and permitting said rupturable disc to enclose one end of said fuse tube; said cylindrical portion of said rupturable disc being positioned adjacent the interior surface of said cap; said cap having a portion extending above one end of said fuse tube end casting, said cylindrical portion of said rupturable disc being positioned adjacent to the entire interior surface of the portion of said cap extending above said fuse tube end casting to thereby provide a protective barrier between exhaust gases resulting from current interruption and said reusable cap; said rupturable disc being comprised of a thin metal designed to shear around the periphery at a predetermined magnitude of pressure.

2,846,545

MOISTURE GUIDE MEANS FOR FUSE HOUSING

William Harold Edmunds, Havertown, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application June 15, 1956, Serial No. 591,698
6 Claims. (Cl. 200—133)



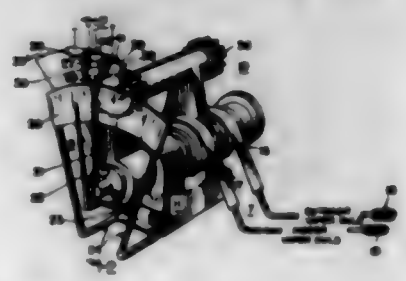
1. A panel board; said panel board having holes; a circuit interrupting device mounted behind said panel board; said circuit interrupting device having a fuse unit; said fuse unit having a housing; said housing protruding through a corresponding hole of said panel board to the front of said panel board; said fuse unit housing having an upper surface; said upper housing surface having a rear edge and a front edge; said rear edge being behind and immediately below the edge of said corresponding hole of said panel board and adjacent said circuit interrupting device; all portions of said upper housing surface being operatively sloped to prevent water from accumulating on said upper housing surface and from draining behind said panel board.

2,846,546

AIR-CONDITIONING-APPARATUS CONTROL-DEVICE

Max De Foew, Chicago, Ill.

Application April 1, 1957, Serial No. 649,934
6 Claims. (Cl. 200—140)



2. An air-conditioning-apparatus control-device comprising, a pair of concentrically-arranged shaft members, temperature-sensitive means connected to effect the relative rotation of the respective shaft members, switch mechanism for controlling the operation of the air-conditioning-apparatus, means on the respective shaft members connected to effect the opposite shifting of the switch mechanism to start and stop the operation of the air-conditioning-apparatus, manually-settable means fixing the rotative disposition of the shaft members for predetermining the relative temperature conditions at which the switch mechanism is actuated to control the operation of the air-conditioning apparatus, a pointer connected to each shaft member and extending radially thereof, and a scale juxtaposed to the outer ends of the pointers to indicate the relative rotative disposition of the shaft members.

2,846,547

ELECTRIC CONTROL MAKING DEVICES

Norman Francis Pettet, Woodside Green, South Norwood, London, England, assignor to Telephone Manufacturing Company Limited, London, England

Application August 28, 1956, Serial No. 606,773
Claims priority, application Great Britain September 1, 1955
5 Claims. (Cl. 200—166)



1. A contact assembly for an electromagnet relay comprising a support member constituted by at least two superposed insulating members defining between contiguous surfaces thereof an elongate opening for the reception and retention of part of a contact carrier, the first of said members having an open recess extending across the upper surface thereof, which recess is closed by the contiguous lower surface of the second of said members to define said opening, said recess being formed with a longitudinal ridge upstanding from the floor of said recess towards said closing surface but spaced from said closing surface by a predetermined spacing, and a contact carrier shaped over at least part of its length to sit astride said ridge when received in said opening.

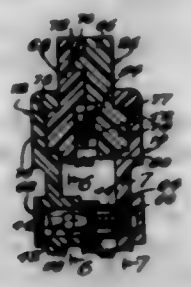
2,846,548

AUTOMATIC CIRCUIT BREAKERS

Paul M. Christensen, West Orange, N. J., assignor to Federal Pacific Electric Company, a corporation of Delaware

Original application April 17, 1951, Serial No. 221,420. Divided and this application May 8, 1956, Serial No. 583,452

8 Claims. (Cl. 200—172)



1. A circuit breaker, comprising a casing having complementary parts, circuit breaker mechanism disposed between and supported by said parts, said mechanism including a movable contact member and means including a movable handle for actuating the latter, said casing parts having sets of aligned bearing portions for supporting said movable contact member and said handle, respectively, said handle being formed in complementary confronting parts having portions movably supported by said bearing portions, respectively, of the casing, said handle parts having interengaging portions which interconnect the handle parts for joint operation, said handle parts having spaced confronting portions which are disposed within the casing, and link means forming a part of said actuating means connected to said handle in the space between said last mentioned portions of the handle.

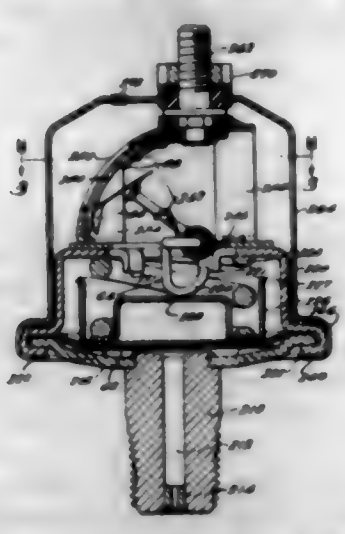
2,846,549

PRESSURE INDICATING DEVICE

Leonard Boddy, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan

Original application August 5, 1949, Serial No. 108,773. Divided and this application December 20, 1954, Serial No. 476,506

7 Claims. (Cl. 201—48)



1. A fluid pressure responsive current modulating means comprising a cup-shaped member, a flexible diaphragm cover for said member, means connected to said member and defining a chamber one wall whereof is constituted by said diaphragm, means defining a passage for admitting pressure fluid to said chamber, a spring acting between the base of said cup-shaped member and said diaphragm, a cup-like retainer for the end of said spring which bears against said diaphragm, and variable resistance means having relatively fixed and movable parts, the movable part being operatively responsive to movement of said spring retainer as influenced by pressures acting against said diaphragm.

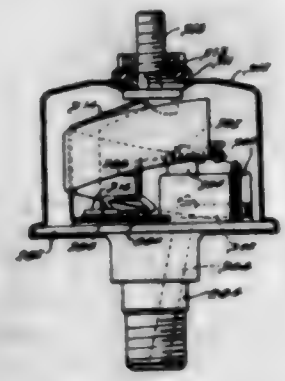
2,846,550

PRESSURE INDICATING DEVICE

Leonard Boddy, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan

Original application August 5, 1949, Serial No. 108,773. Divided and this application December 20, 1954, Serial No. 476,507

5 Claims. (Cl. 201—48)



1. A fluid pressure responsive current modulating means comprising a base member adapted for connection to a source of fluid pressure, a tube of the Bourdon type having one end anchored to said base and the other end free to move, said base defining a passage through which fluid under pressure is admitted to said tube, a resistance element supported by said base, a contact engaging said resistance element, an arm pivotally mounted on said base member, said arm having a plurality of apertures therein, means securing said contact to said arm, and means connecting the free end of said tube to said arm, said connecting means comprising a link connected to said tube and engageable with any one of the apertures in said arm.

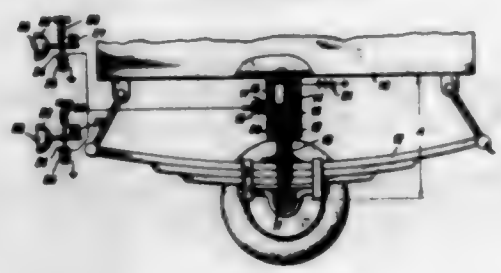
2,846,551

APPARATUS FOR AUTOMATICALLY ADJUSTING VEHICLE LAMPS

Rudolf Linder, Stuttgart-Degerloch, and Karl Rilling, Plochingen (Neckar), Germany, assignors to Robert Bosch G. m. b. H., Stuttgart, Germany

Application October 20, 1955, Serial No. 541,804

11 Claims. (Cl. 201—48)



1. For use in an apparatus for automatically adjusting the position of a vehicle lamp on a vehicle having a spring supported part and a non-spring supported part, in combination, a first control member adapted to be connected to one of the vehicle parts for movement therewith; a second control member movable relative to said first control member; a first spring connected to said second control member and adapted to be connected to the other of the vehicle parts; and a second spring stronger than said first spring and acting in opposition thereto, said second spring engaging said control members for urging the same to move relative to each other, said first and second springs having different strengths which limits movement of said control members relative to each other to a fraction of the movement of said vehicle parts relative to each other.

2,846,552
PLURAL-PURPOSE CONTROLLER FOR ELECTRIC SEWING MACHINES AND THE LIKE

Karl Wisz, Kaiserslautern, Germany, assignor to G. M. Pfaff A. G., Kaiserslautern, Pfalz, Germany, a corporation of Germany

Application September 30, 1955, Serial No. 537,860
Claims priority, application Germany October 9, 1954
5 Claims. (Cl. 201—48)

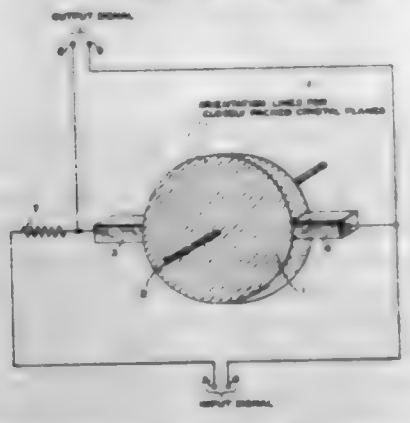


1. In a controller for electric sewing and the like machines comprising a flat casing having top and bottom walls, electrical resistance means within said casing, an intermediate control member connected to said resistance means being normally resiliently urged to a position of maximum resistance and operable over a predetermined path in a direction substantially parallel to said casing walls, to vary the resistance between maximum and minimum, and vice versa, for controlling the operating speed of said machine, a first angular control lever having a first lever arm extending substantially transversely to said casing walls and having one end engaging said member, means removably and pivotally mounting said lever arm upon said casing with the opposite end thereof protruding beyond the top wall of said casing, a second lever arm of said control lever forming an angle with said first lever arm and extending alongside and in spaced relation to said top wall, whereby to allow control of said member by foot pressure applied to the free end of said second lever arm in the horizontal operating position of the controller, and a second control lever having a first lever arm movable in a plane substantially parallel to said casing walls, said last lever arm secured to said member and pivotally mounted upon said casing, a second lever arm removably connectible to said first lever arm of said second control lever, for controlling said member independently of said first control lever, thereby to allow of control of said resistance means with said casing arranged in vertical mounting position by a vertical pulling force applied to said second lever arm of said second control lever.

2,846,553
VARIABLE RESISTOR

James F. Black, Huntington Station, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application September 28, 1956, Serial No. 612,769
3 Claims. (Cl. 201—55)

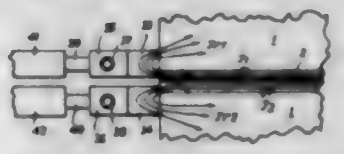


1. A variable resistor comprising an electrically anisotropic semiconductor body having first, second and third mutually perpendicular axes, said body being rotatable about said first axis, said second and third axes respectively defining lines of maximum and minimum electrical resistivity for said body; and a pair of contactors equidistantly spaced circumferentially about said body and in electrical contact therewith, the positions of said contactors defining a line which intersects said first axis and which is coplanar with said second and third axes, the electrical resistivity of said body and said contactors as measured between said contactors having a maximum value when said line is coincident with said second axis and having a minimum value when said line is coincident with said third axis.

2,846,554
BUTT WELDING OF METAL TUBES

Antoine Rodolphe Baffrey, Liege, Belgium, and Raphael Frumkin, Paris, France, assignors to Societe Metallurgique Technique et Commerciale, Casablanca, Morocco, a body corporate of Morocco

Application November 28, 1955, Serial No. 549,421
Claims priority, application France November 30, 1954
9 Claims. (Cl. 219—8.5)

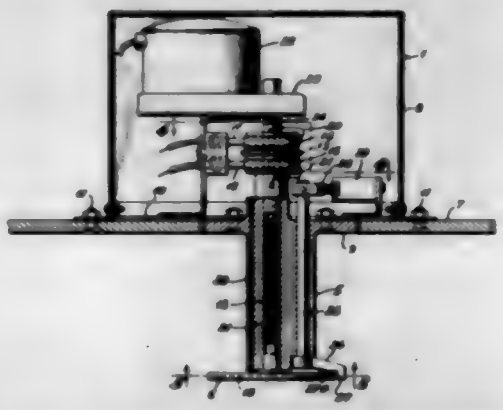


2. An arrangement for butt welding the opposed lips of a roughly-shaped slit tubular member, comprising means for passing concentrated longitudinal electric currents of high intensity along said lips, means for artificially extending the edges of said lips, and means for pressing said opposed lips together.

2,846,555
ICING-CONDITION DETECTING INSTRUMENT

Thomas H. Grieger, Baltimore, Md.

Application May 23, 1955, Serial No. 510,383
4 Claims. (Cl. 219—19)



1. An icing-condition detecting instrument for use with the ice-protection system for a surface exposed to icing-conditions in an air stream, comprising a mounting mast-member extending outwardly from the surface into the air stream, the leading edge of said mast-member having a heating means to prevent the accumulation of ice thereon, a disk member mounted for rotation on a shaft extending through said mast with the plane of the disk generally parallel to said air stream, motor means for rotating said disk at a predetermined constant speed, heater means in said disk, a second shaft extending through said mast to a point adjacent the surface of said disk within the periphery of said disk, an arm extending to the periphery of said disk secured to said second shaft, a feeler member secured to the end of said arm spaced a predetermined distance from the edge of said disk, said instrument including switch means actuated by said second shaft adapted to close an electric circuit when an accumulation of ice in excess of a predetermined space between said feeler member and the edge of said disk causes said feeler member to turn said second shaft about its axis, to give a signal indicative of an accumulation of

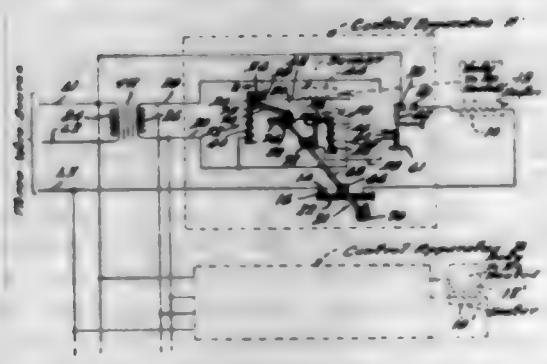
ice in excess of said predetermined amounts and to energize said ice-protection system and said disk heater element.

2,846,556

TEMPERATURE CONTROLLING APPARATUS

George B. Whinery, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan

Application November 7, 1956, Serial No. 620,937
8 Claims. (Cl. 219—20)



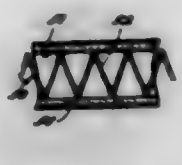
1. In a system associable with a source of electrical energy for controlling a heating means in heat transfer relationship with a body to be heated, the combination of a voltage step-down transformer having a primary and a secondary winding, said primary winding being energizable from the source, a self-interrupting thermal relay including a heater energizable by said secondary winding, a polymetallic element controlled by said heater, and a first pair of electrical contacts, one of which is movable under the control of said polymetallic element, a second thermal relay including a heater energizable by said secondary winding and a second pair of electrical contacts, circuit means including said first pair of electrical contacts for periodically connecting both of said heaters to said transformer secondary winding, output means controlled by said second pair of electrical contacts for controlling the connection of the heating means to the source, a manually rotatable shaft, cam means driven by said shaft for adjusting the relationship between said second pair of contacts, and additional means controlled by said shaft and effective at one rotational position of said shaft for disconnecting said heaters from said secondary winding.

2,846,557

VAPOR TREATING MEANS

Herman W. Schulze, Jenkintown, and Donald W. Scofield, Glenside, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application September 9, 1955, Serial No. 533,493
4 Claims. (Cl. 219—35)



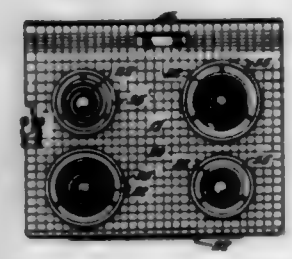
1. In a heating unit wherein an elongated heating element extends across substantially an entire enclosure: a system of tubular bodies of catalytic material within said enclosure, the heating element comprising a helical coil of electrically conductive wire, surrounding a free, central space, the outside of the coil contacting the inside of each tubular body, and the system of tubular bodies extending at least across a major part of said enclosure, to incinerate therein airborne materials such as odors and smoke.

2,846,558

CABINET TOP RANGE UNIT

Thomas H. Mason, Cincinnati, Ohio, assignor to The Brunhoff Manufacturing Company, Cincinnati, Ohio, a corporation of Ohio

Application July 11, 1956, Serial No. 597,296
14 Claims. (Cl. 219—37)



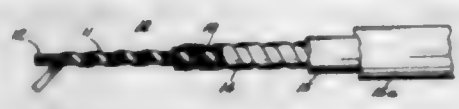
1. In a cabinet top range unit, a metal shell defining the top, front and side panels of said unit, said shell having a plurality of openings in the top panel thereof to receive burner units, said openings being defined by upstanding annular flanges, outturned flanges extending along the lower edges of said front and side panels, and tiles secured to the outer surfaces of said top, front and side panels to form tile surfaces, certain of said tiles abutting against said annular flanges and others abutting against said outturned flanges, said flanges being substantially as wide as said tiles are thick, whereby to support and protect the otherwise exposed end edges of the said abutting tiles.

2,846,559

THERMOSENSITIVE ORGANIC MATERIAL

Joseph Rosenberg, Erie, Pa., assignor to General Electric Company, a corporation of New York

Application May 31, 1957, Serial No. 662,792
6 Claims. (Cl. 219—46)



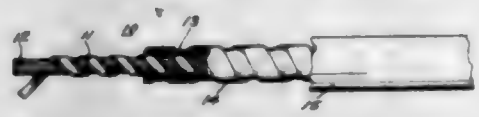
1. An electric heater wire comprising a pair of spaced metallic conductors, and a composition having a high negative coefficient of thermal impedance between said conductors, said composition consisting essentially of a solid copolymer of 30% to 85% by weight of acrylonitrile, 15% to 70% by weight of an acrylic acid ester, and up to 5% by weight of a surface active agent.

2,846,560

HEATER WIRE

Joseph F. Jacoby, Asheboro, N. C., Frank E. Becker, Lexington, Ky., and Joseph Rosenberg, Erie, Pa., assignors to General Electric Company, a corporation of New York

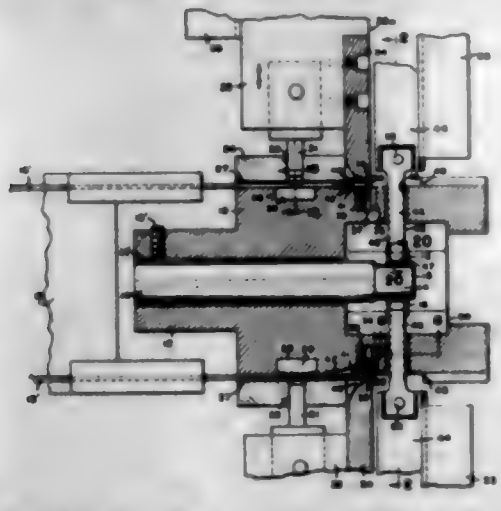
Application May 31, 1957, Serial No. 662,793
14 Claims. (Cl. 219—46)



1. An electric heater wire comprising a pair of spaced metallic conductors, and a composition insulating at room temperature between said conductors, said composition having a high negative coefficient of thermal impedance and having incorporated therein from 0.04% to 5% by weight of a surface active agent compatible with said composition, said surface active agent having a change in coefficient of thermal impedance per 100° F. in excess of 45% and a direct current resistance at 80° F. no greater than three times that of stearyldimethylbenzyl ammonium chloride.

2,846,561
METHOD OF AND APPARATUS FOR FORMING U-SHAPED MEMBERS AND WELDING THE SAME TO METALLIC PARTS

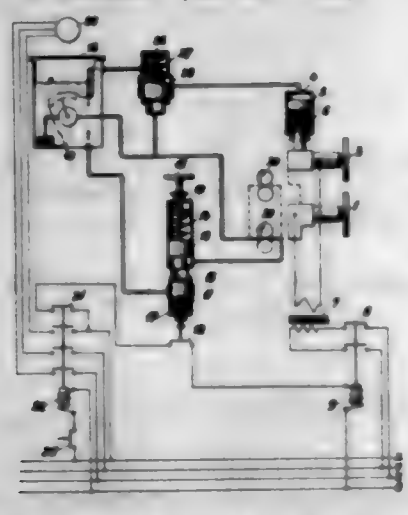
Albert F. Pityo, Cedar Grove, N. J.
Application February 1, 1957, Serial No. 637,819
18 Claims. (Cl. 219—79)



1. A method of forming a substantially U-shaped wire member and welding the same to a metal part, comprising supporting the metal part in a selected position, moving a wire so that its end portion is brought opposite to and spaced from said metal part, severing the end portion from the wire for providing a wire section and holding the wire section in position, moving a punch upon a complete stroke toward the metal part, forming the wire section into a substantially U-shaped member by forcing the wire section through a tubular die arranged near and spaced from the metal part by the movement of the punch during the first part of its stroke, moving the formed U-shaped wire member into contact with the metal part by the movement of the punch during the remainder of its stroke for completing the stroke, welding the U-shaped wire member to the metal part, and separating the punch from the welded U-shaped wire member.

2,846,562
HYDRAULIC DEVICE FOR THE DRIVE OF RESISTANCE SEAM-WELDING MACHINES

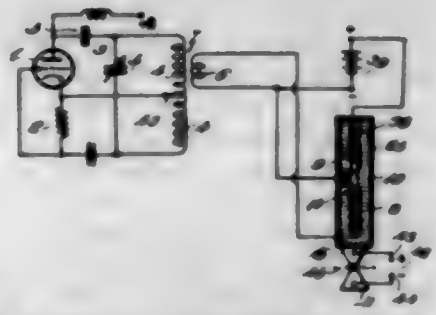
Milan Vltavsky, Bratislava, Czechoslovakia
Application March 30, 1956, Serial No. 575,096
Claims priority, application Czechoslovakia April 5, 1955
3 Claims. (Cl. 219—81)



1. A hydraulic control device for the drive of a resistance seam-welding machine having rotatable rollers movable toward and away from each other to receive an object to be welded therebetween and to which the welding current is supplied; said control device comprising a source of fluid under pressure, a supply pipe extending from said source and having first and second branches, at least one cylinder connected to said first branch and having a piston therein for moving the rollers toward each other in response to the admission of fluid under pressure to said cylinder through said first branch, at least one pressure fluid operated motor connected to said second branch for rotating at least one of the rollers in response to the passage of fluid under pressure through said motor, a first return line extending from said motor back to said source, a pressure regulating device interposed in said first return line and including a housing having large and small diameter portions, a differential piston having large and small diameter portions slidable in said large and small diameter portions, respectively, of said housing, a chamber communicating with said small diameter portion of the housing, said return line opening into said large diameter portion of the housing from said motor and extending to said source from said chamber, adjustable means yieldably urging said differential piston to a position wherein said small diameter portion thereof extends into said small diameter portion of the housing to block the flow of fluid through said return line to said chamber until the fluid under pressure causes said differential piston to move away from said small diameter portion of the housing, a piston in said chamber normally blocking said return line extending from the latter and being moved to uncover the return line in response to the admission of fluid under pressure into said chamber, and a switch for controlling the supplying of welding current to the rollers being actuated by movement of said piston in said chamber.

2,846,563
ULTRASONIC WELDER

Eugene J. Cronin, Menlo Park, Calif.
Application October 7, 1955, Serial No. 539,079
7 Claims. (Cl. 219—86)



1. Welding apparatus comprising a pair of welding electrodes for contacting metal parts to be welded, at least one of said electrodes being hollow, a fluid contained in said hollow electrode, means submerged in said fluid for generating ultrasonic vibrations, means for passing a welding current through said electrodes and means for transmitting said ultrasonic vibrations through said fluid for impressing said vibrations upon the material being welded for preventing the growth of grains therein during the welding operation, and means surrounding said fluid for continuously cooling said fluid while in the condition of ultrasonic vibration.

2,846,564
MEANS FOR PROTECTING AND INSULATING ELECTRIC ROD HOLDERS

Michael G. Nagy, Brisbane, Calif.
Application April 27, 1956, Serial No. 581,154
1 Claim. (Cl. 219—138)



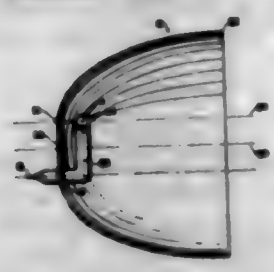
A welding electrode holder embodying in its construction two spring controlled handles spaced in parallelism

one above the other and adjustably connected one to the other, said handles having jaws adapted to grip the electrode, the upper handle being formed with a straight portion and terminating in a curved portion at the outer end thereof and in proximity to the jaw thereon, a heat insulating sleeve mounted on the upper handle, the said heat insulating sleeve being vertically divided in proximity to the said curved portion and formed with a hand hold gripping means on the straight portion, and a shim made of flexible insulating material positioned in the sleeve for tightening the handle in varying sizes of sleeves.

2,846,565
PHOTOGRAPHIC REFLECTOR AND LIGHT SOURCE

Arthur L. Binkley, Denver, and Kingsley C. Rock, Englewood, Colo., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application June 11, 1956, Serial No. 590,513
2 Claims. (Cl. 240—1.3)

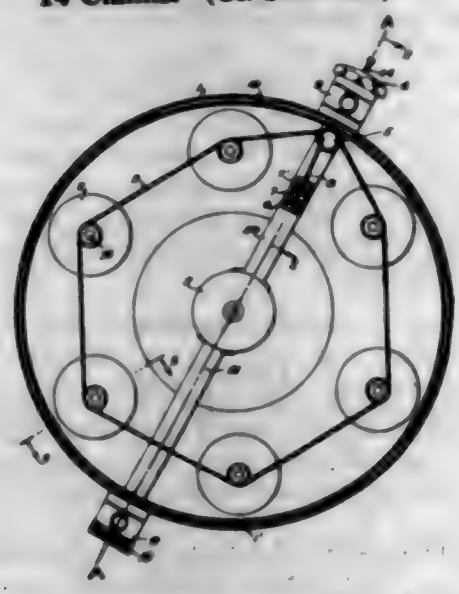


1. A photographic flash light source comprising; an open end reflector having an axis of symmetry and having a concave surface which is formed as a surface of revolution generated by the rotation about the axis of symmetry of a curve having a focal point which lies on a major axis of the curve, the major axis being parallel to and spaced from the axis of symmetry, said open end of said reflector having a diameter substantially equal to the maximum diameter of said surface of revolution, and a substantially circular photographic flash tube mounted coincident to the locus of the focal point which is formed as the focal point is revolved about the axis of symmetry to thereby cause the light emitted by said flash tube to be reflected out of the open end of said reflector in a definite pattern as determined by the characteristics of said curve.

2,846,566
OPERATING TABLE LAMP

Franz Günther and Hermann Günther, Hanau (Main), Germany

Application October 12, 1954, Serial No. 461,834
Claims priority, application Germany October 14, 1953
14 Claims. (Cl. 240—1.4)

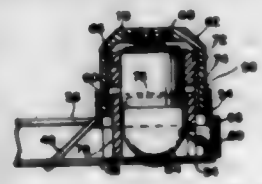


1. An illuminating device comprising, in combination, reflector means for reflecting light in a given direction; lamp carrying means carried by said reflector means for movement in one direction with respect to said reflector means to increase the area illuminated by the device and in an opposite direction with respect to said reflector means to decrease the illuminated area; an electrical circuit including said lamp carrying means for energizing the same, said electrical circuit including a voltage varying means for varying the voltage applied to said lamp carrying means; and moving means operatively connected to said lamp carrying means for moving the same in both of said directions and to said voltage varying means for actuating the latter to increase the voltage applied to said lamp carrying means when said moving means moves said lamp carrying means in said one direction with respect to said reflector means and to decrease the voltage applied to said lamp carrying means when said moving means moves said lamp carrying means in said opposite direction with respect to said reflector means.

2,846,567
INSTRUMENT LIGHTING FIXTURES

Maurice K. Laufer and William D. Hall, Urbana, Ohio, assignors to Grimes Manufacturing Company, Urbana, Ohio, a corporation of Ohio

Application August 8, 1956, Serial No. 602,752
9 Claims. (Cl. 240—8.16)

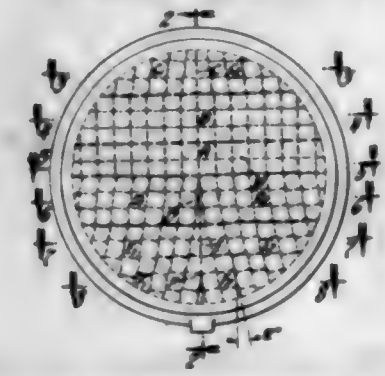


5. In combination, an instrument panel, an instrument mounted on said instrument panel, a cover member adapted to fit around and cover a portion of the face of the instrument, said cover member including a substantially planar apertured back plate having a cut-out portion on its inner apertured edge and a front plate secured to and spaced from said back plate, said front plate being apertured and provided with a light-impervious projection extending inwardly to the plane of the rear plate adjacent the cut-out portion, a lamp bulb having a cylindrical contact and a center contact, means for mounting said lamp bulb on said front plate with its filament end extending inwardly between said front and back plate, said last mentioned means being positioned adjacent said light-impervious projection and holding said lamp bulb in a position to emit rays through said cut-out portion onto the instrument face perpendicular thereto.

2,846,568
HEADLIGHT LENS

Robert N. Faige, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 9, 1954, Serial No. 422,213
1 Claim. (Cl. 240—41.4)



A lens for vehicle headlamps and the like comprising a transparent body divided horizontally into a plurality of portions, each of said portions extending across said

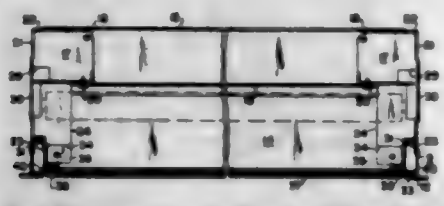
lens and having a plurality of contiguous rectangular surfaces of the same compound curvature, some of said lens portions being vertically divided into two sections, the edges of the rectangular surfaces in one of said sections being at an acute angle to the corresponding edges of the rectangular surfaces in the other of said sections and the optical axes of the surfaces in one of said sections being at an angle with respect to the optical axes of the surfaces in the other of said sections so that said sections are adapted to project, on a screen disposed at a right angle to the optical axis of said lens, rectangular light patterns which are at an acute angle to each other and which overlap to define a generally trapezoidal shape, and each of the remainder of said lens portions having rectangular surfaces of compound curvature with corresponding edges all parallel to each other and being adapted to project a horizontally disposed rectangular light pattern superimposed on a portion of the trapezoidal light pattern.

2,846,569

RECESSED LIGHTING FIXTURE

John S. Frizzell, Greensburg, and Walter Stubbs, Irwin, Pa., assignors to Pittsburgh Reflector Company, Pittsburgh, Pa., a corporation of New Jersey

Application February 23, 1955, Serial No. 489,878
6 Claims. (Cl. 240—51.11)



1. A lighting fixture comprising a housing having a top and sides extending down from the top and which is open at each end, and an end closure at each end of the housing, the end closures being pivotally mounted in the housing and movable from a position within the space between planes passing parallel to and against the ends of the housing to a position outside said space and substantially closing said end, the closure extending across the open end defined by the sides of the housing and from a height equal to the top of the housing and down to a line above the level of the lower edges of the sides of the housing and a U-shaped channel extending across the width of the end closure and closing the space between the lower edge of the end closure and the bottom of the housing, the ends of said channel contacting the sides of the housing to space them from each other.

2,846,570

ADJUSTABLE SUPPORT FOR A FLUORESCENT STREET LIGHT

Donald W. Harling, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware

Application January 28, 1955, Serial No. 484,804
3 Claims. (Cl. 240—67)



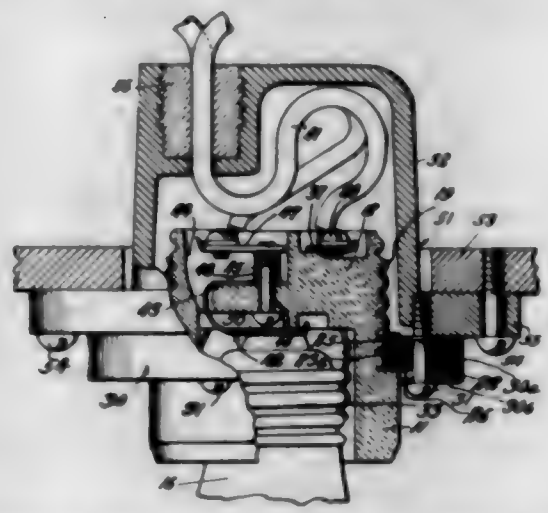
1. An adjustable mounting bracket for supporting an elongated fluorescent street lightnig luminaire at the inner end thereof relative to a vertical support, comprising, in combination, a stationary support member adapted for fastening to said vertical support, a luminaire support member arranged for rigid securement with said inner end to said luminaire, each of said support members defining laterally extending oppositely spaced wall sections, adjacent pairs of which are respectively rotatably slidable relative to one another, pivot means rotatably joining said respective wall sections, at least one of said wall section pairs of said luminaire support member and of said stationary support member defining at least one pair of registerable apertures, one of the apertures of said pair being disposed on an arc spaced from the axis of said pivot means and augularly spaced from the vertical plane parallel with said vertical support and coincident with said axis, the other of said apertures defining an arcuate slot about said axis, releasable fasteners axially slidably received by said registerable apertures and arranged for relative transverse slidable movement with said arcuate slot for maintaining said luminaire at a predetermined angle relative to said vertical support, and adjustable stop means cooperable with said stationary support member and with said inner end of said luminaire and arranged to provide fine angular adjustment in opposed directions relative to said predetermined angle.

2,846,571

LAMP MOUNTING FIXTURE

Edward M. Rothen, Mendham, N. J., assignor to Russell & Stoll Company, Inc., a corporation of New York

Application March 22, 1955, Serial No. 495,963
3 Claims. (Cl. 240—90)



1. A lamp fixture mounting for supporting a lamp fixture on a fixed base subject to high frequency vibrations and comprising a resilient member of soft homogeneous material absorbing high frequency vibrations, first fastening means gripping a portion of said resilient member on opposite sides of a plane through said member for securing said resilient member to said base, second fastening means on said fixture gripping said resilient member on opposite sides of said plane immediately adjacent said first fastening means and spaced therefrom a small fraction of the thickness of said second gripped portion so that said resilient member forms the sole connecting means between said first fastening means and said second fastening means to support the fixture isolated from said high frequency vibrations.

2,846,572

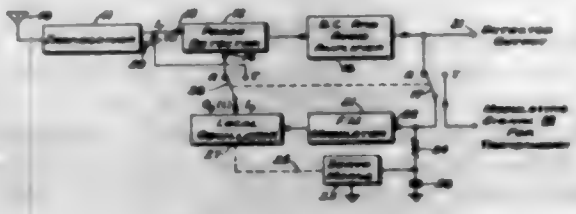
FREQUENCY MODULATION TRANSCEIVER WITH COMBINED FREQUENCY CONTROL

William S. Elliott, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application April 23, 1956, Serial No. 580,073
2 Claims. (Cl. 250—13)

1. Means for detecting and transmitting frequency-modulated carrier signals, wherein the transmitted carrier

frequency is aligned with the received carrier frequency, comprising a phase detector having a pair of inputs, with one input receiving said frequency-modulated signal for their detection, direct current and audio amplifier means having its input connected to the output of said phase detector, a first single-pole double-throw switch having a normally-closed contact connected to the output of said amplifier, a modulating signal source connected to the other contact of said first switch, servo means having its input connected in series with said first switch, a frequency modulator also having its input connected in series with said first switch, a local oscillator having an input



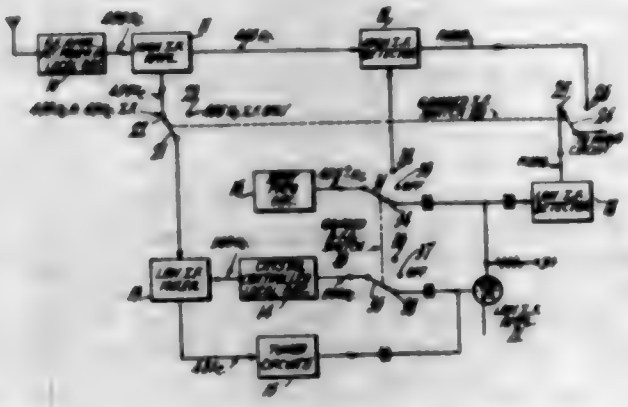
connected to the output of said frequency modulator, the output of said local oscillator being frequency modulated in response to the output of said phase detector, the output of said servo means also connected to said local oscillator to adjust it for a condition of zero direct-current provided from the output of said phase detector, a second single-pole double-throw switch having its pole connected to the output of said local oscillator, with the normally-closed contact of said second switch connected to the other input of said phase detector, and said transmitting means being connected to the other contact of said second switch.

2,846,573

HETERODYNING RECEIVING SYSTEM

Edward W. Mahland, Hollis, N. Y., and George G. Bradley, Sudbury, Mass., assignors to Radio Corporation of America, a corporation of Delaware

Application October 23, 1956, Serial No. 617,771
5 Claims. (Cl. 250—20)



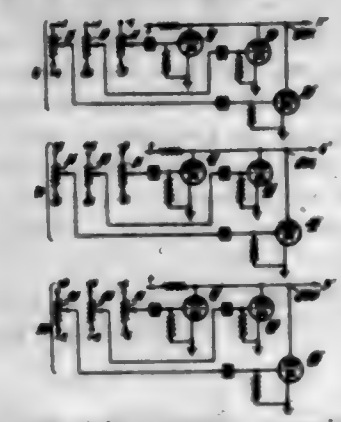
1. Beat frequency heterodyning apparatus having selectable first and second intermediate frequency systems each respectively adapted to pass first and second intermediate frequency signals, comprising a beat frequency oscillator for producing signals having a frequency substantially the same as but different from said first intermediate frequency, a local oscillator for producing signals having a frequency that differs from said first intermediate frequency by an amount that is substantially equal to said second intermediate frequency, and switching means for alternatively coupling said beat frequency oscillator to said first intermediate frequency system or for coupling both said beat frequency oscillator and said local oscillator to said second intermediate frequency system.

2,846,574

MATRIXING APPARATUS

Alfred C. Schroeder, Huntingdon Valley, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application December 14, 1953, Serial No. 398,095
11 Claims. (Cl. 250—27)



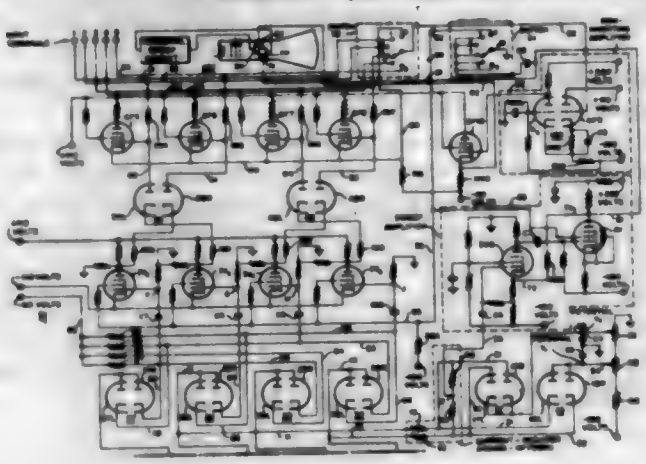
1. In a color television system provided with a plurality of simultaneous component color signals, matrixing apparatus comprising the combination of means for adjustably mixing a first one of said plurality of component color signals with a second one of said component color signals, means for adjustably mixing said first component color signal with a third one of said component color signals, means for adjustably mixing said second component color signal with said third component color signal, and means for combining the outputs of said mixing means to provide an output signal, the amplitude of said output signal when said plurality of simultaneous color signals are substantially equal being independent of the adjustments of said mixing means.

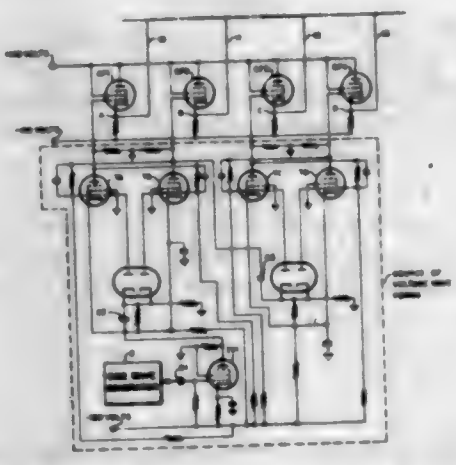
2,846,575

ELECTRONIC SWITCH

Byron L. Havens, Closter, N. J., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application September 29, 1954, Serial No. 459,111
7 Claims. (Cl. 250—27)

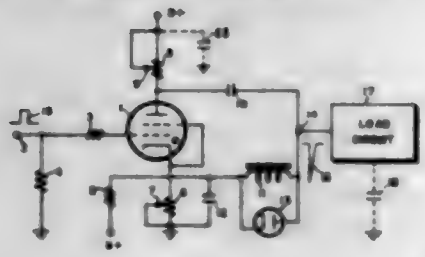




1. A multi-channel electronic switch capable of cyclically assuming a number of conductive conditions, said switch being controlled by a plurality of voltage wave-

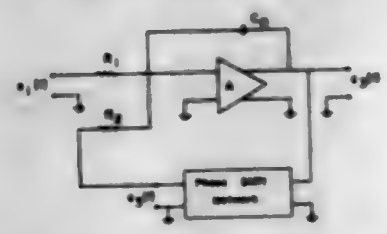
forms and including: a plurality of cathode follower circuit means responsive to said plurality of voltage waveforms; a plurality of inverter circuit means; a plurality of diode mixing circuit means, each coupling a plurality of said cathode follower means to a predetermined one of said inverter circuit means; a plurality of second cathode follower means each comprising a channel of said switch; a plurality of input terminals respectively coupled to said second cathode follower means; clamping diode means respectively coupling each said second cathode follower means to a predetermined one of said inverter circuit means for conditioning said second cathode follower means to transmit an input signal; and means combining the outputs of all of said second cathode follower means into a single output channel, whereby signals respectively impressed on said input terminals are cyclically transmitted to said single output channel.

2,846,576
SHORT PULSE GENERATOR
Harold G. Purinton, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application September 20, 1954, Serial No. 456,989
5 Claims. (Cl. 250—27)



1. A pulse generator comprising a gas discharge tube having a plate, a cathode and a control grid, a load resistor and a power supply connected in series with the gas discharge path of said tube between said plate and said cathode and constituting elements of impedance in said path, a series resonant circuit connected between said plate and said cathode to constitute a pulse forming network, a load circuit connected to said series resonant circuit, said load circuit having a capacity to ground, said capacity to ground acting as an integral part of the pulse forming elements of said resonant circuit, means damping the output of said series resonant circuit only after the first half cycle of the oscillation thereof, means forming a low impedance path for radio frequencies across all elements of impedance in series with the gas discharge path of said tube except those of the said pulse forming network, thus affording greater utilization of the high frequency components of the generated pulse, and means applying a pulse of energy to said control grid of said gas discharge tube.

2,846,577
ELECTRONIC A. C. INTEGRATOR OR INTEGRATING OSCILLATOR
Benjamin P. Blasingame, Palos Verdes Estates, Calif.
Application March 1, 1955, Serial No. 491,287
1 Claim. (Cl. 250—27)



An electronic integrator having means to accept as input a signal modulated carrier voltage expressed mathematically as:

$$g(t) \sin (\omega t)$$

where:

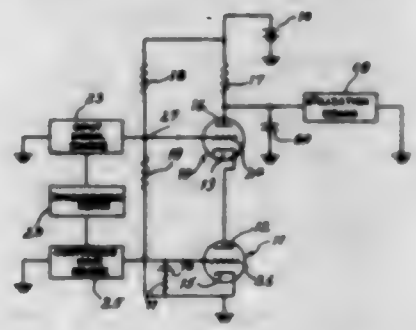
$g(t)$ is the modulating signal voltage
$\sin (\omega t)$ is the carrier voltage of frequency ω or $2\pi f$, ω being measured in radians per second and f being measured in cycles per second

means to produce as output a signal modulated carrier voltage expressed mathematically as:

$$[\int g(t)dt] \sin (\omega t)$$

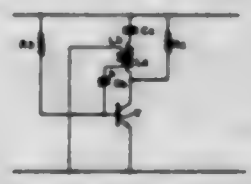
means to shift the phase of the carrier of the output voltage by 90°, and means to amplify, feedback, and combine this shifted or delayed voltage with the input voltage.

2,846,578
DEMODULATOR
Sam Taranter, River Grove, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application February 20, 1956, Serial No. 566,601
16 Claims. (Cl. 250—27)



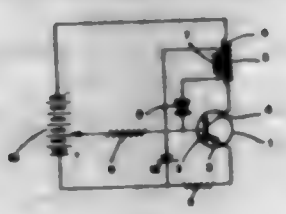
1. A synchronous detector comprising a D.-C. voltage supply, a first triode and a second triode connected in series-arrangement with respect to said D.-C. voltage supply, said triodes each having a control grid, means for applying an amplitude modulated signal to the control grid of said first triode, and means for supplying to the control grid of said second triode a continuous wave signal whose amplitude is substantially constant and whose frequency is equal to the frequency of the carrier signal of said amplitude modulated signal and whose phase bears a predetermined relationship to the phase of said carrier signal, said second triode constructed and arranged to be responsive to said continuous wave signal to become conductive or nonconductive in accordance with the polarity of said continuous wave.

2,846,579
ELECTRIC OSCILLATOR CIRCUIT
Eric Wolfendale, Horley, England, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application April 5, 1955, Serial No. 499,448
Claims priority, application Great Britain April 5, 1954
2 Claims. (Cl. 250—36)



1. A circuit arrangement for producing substantially sinusoidal oscillations comprising a transistor having emitter-collector and base electrodes and an emitter-collector amplification factor less than one, a first series resonant circuit coupled to said collector electrode, and a second series resonant circuit coupled to said base electrode comprising an inductor inductively coupled to said first series resonant circuit thereby producing a regenerative feedback to said base electrode and a capacitor connected in series with said inductor.

2,846,580
OSCILLATOR CIRCUIT ARRANGEMENT
Leon Henry Light, Glasgow, Scotland, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 8, 1955, Serial No. 514,979
4 Claims. (Cl. 250—36)



1. A pulse oscillator circuit arrangement comprising a transistor having emitter, collector and base electrodes, a source of voltage supply, means for applying a first voltage of a polarity such that the transistor will conduct from said source to said base and emitter electrodes, inductive means for deriving a second voltage from the oscillation energy of said pulse oscillator, said oscillation energy being produced in a primary winding connected in the collector circuit of said transistor and said inductive means comprising a secondary winding inductively coupled to said primary winding, and means for combining said first and second voltages comprising a unidirectionally conducting device connected in parallel circuit arrangement between said base and emitter electrodes, said first voltage being periodically overcompensated by said second voltage.

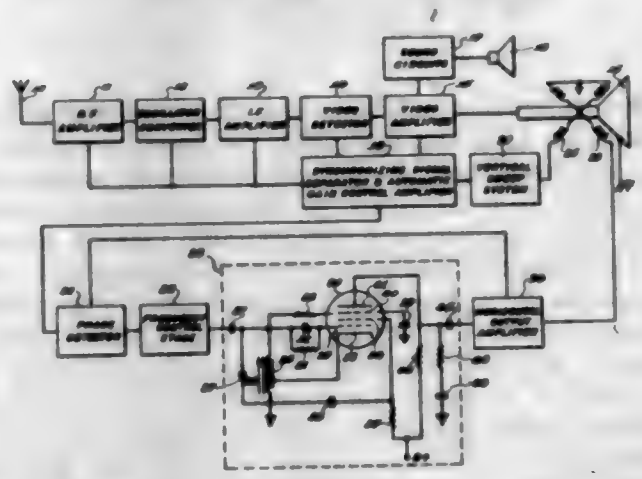
2,846,581
TRANSISTOR PULSE GENERATOR CIRCUIT
Hendrik Volkers, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 17, 1956, Serial No. 598,473
Claims priority, application Netherlands July 20, 1955
5 Claims. (Cl. 250—36)



1. A circuit arrangement comprising a transistor having an input electrode, an output electrode and a third electrode, a voltage source for energizing said transistor, transformer means interconnecting said electrodes in feedback relationship, said transformer means comprising a first winding portion connected in series circuit arrangement with said voltage source to said output electrode and a second winding portion connected in series circuit arrangement between said input and third electrodes, switching means for connecting said source in circuit, said switching means producing a switching pulse upon actuation thereof, and means for facilitating the start of oscillations in said circuit arrangement upon actuation of said switching means comprising a capacitor for applying said switching pulse to said input electrode in a sense initially polarizing said transistor in a forward conducting direction.

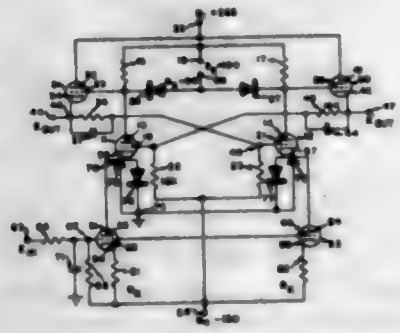
2,846,582
SCANNING GENERATOR
John G. Sprackien, Chicago, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware
Application October 30, 1956, Serial No. 619,195
6 Claims. (Cl. 250—36)

1. In a television receiver, a frequency-controllable single-stage scanning generator for developing a sweep signal of generally sawtooth waveform comprising: an electron-control device including an emitter electrode, an output electrode, a pair of control electrodes, and an accelerating electrode intermediate said control electrodes; an oscillator comprising a resonant frequency-determining circuit coupled to said emitter electrode, said accelerating electrode, and one of said control electrodes for generating a signal of a predetermined frequency; means for applying a signal of said predetermined frequency to the other of said control electrodes in substantial phase



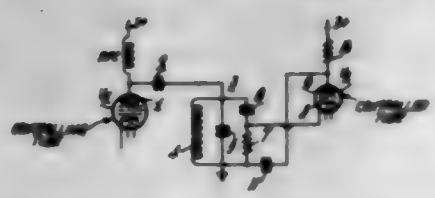
quadrature with the signal appearing at said one control electrode to establish current pulses between said emitter electrode and said output electrode during predetermined intervals recurring at said predetermined frequency; an energy-storage device; a charging circuit for said energy-storage device; and means coupling said energy-storage device to said output electrode for utilizing said current pulses to discharge said energy-storage device during said predetermined intervals.

2,846,583
VOLTAGE CONTROLLED MULTIVIBRATOR OSCILLATOR
Lester I. Goldfischer, New Rochelle, and Anastasio di Benedetto, Bedford, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application December 18, 1956, Serial No. 629,057
5 Claims. (Cl. 250—36)



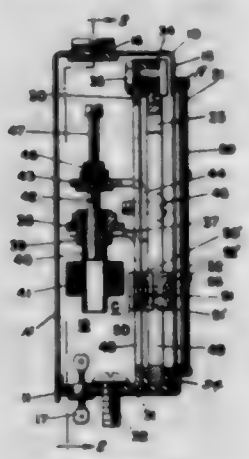
1. A voltage-controlled oscillator comprising, a pair of oscillator tubes each having at least a grid, anode and cathode, a pair of feedback circuits each interconnecting the anode of one of said tubes to the grid of the other, a pair of timing capacitors each connected between the cathode of a respective tube and a voltage reference terminal, a pair of unidirectionally conducting means each shunting a respective one of said capacitors, a pair of constant current generators each connected to apply negative current to the respective junctions of said cathodes and said capacitors, and means applying a single control potential to both of said pair of constant current generators linearly controlling said current amplitudes, said pair of tubes, pair of capacitors and pair of current generators spontaneously generating relaxation oscillations.

2,846,584
SYNCHRONIZED OSCILLATOR
Robert N. Hurst, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 2, 1957, Serial No. 632,233
12 Claims. (Cl. 250—36)



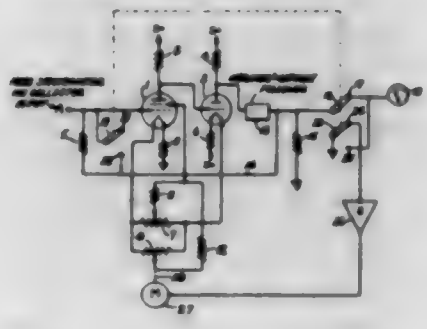
3. A synchronized oscillator system comprising at least one electrode structure including an anode electrode, a control electrode, and a cathode electrode; connections intercoupling said electrodes for the generation of oscillations in said structure and connections, thereby to provide an oscillator capable of being synchronized, a resonant tank circuit wherein there appears oscillatory energy of synchronizing frequency, said tank circuit having a plurality of parallel-connected branches in each of which there is at least one impedance; and a galvanic connection between said cathode electrode and one of the branches of said tank circuit, for feeding synchronizing frequency energy to said structure to synchronize said oscillator, said galvanic connection constituting the only coupling for feeding synchronizing frequency energy from said tank circuit to said structure.

2,846,585
TEMPERATURE COMPENSATING DEVICE FOR FREQUENCY DETERMINING CIRCUITS
Thomas T. N. Bucher, Moorestown, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 7, 1956, Serial No. 564,097
1 Claim. (Cl. 250—40)



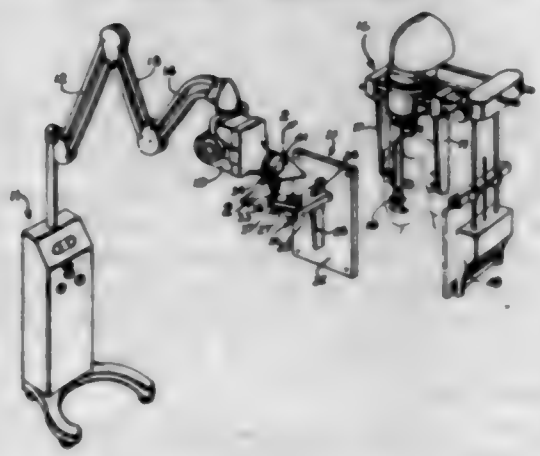
A temperature compensating device for a frequency controlling circuit having coil and core impedance elements which comprises a housing formed of vertical side walls and upper and lower end walls, a fixed elongate support for the coil having its lower end secured to the lower end wall and its upper end positioned in spaced relation with the upper end wall of the housing, a movable elongate support for the core parallelly aligned with the fixed support and being constructed of material having a different coefficient of linear thermal expansion from that of the fixed support, connecting means for the upper ends of the supports, said connecting means permitting the movable support to expand upwardly and the lower end of the movable support being disposed in spaced relation with the lower end of the housing permitting the movable support to expand downwardly, coinciding vertical slots in said support, a clamp including a screw threaded shaft disposed within said slots and having threaded clamping lugs with narrow clamping edges for clamping the supports together at a selected transverse line of contact, means on said shaft to space the supports, said transverse line being selected to provide for movement of the core outward or away from the coil in accordance with the direction of expansion of the movable member.

2,846,586
DRIFT COMPENSATOR FOR DIRECT-COUPLED AMPLIFIER
George Jernakoff, Loudonville, N. Y., assignor to General Electric Company, a corporation of New York
Application May 18, 1955, Serial No. 509,233
3 Claims. (Cl. 250—41.9)



3. In combination with a mass spectrometer and a direct-coupled amplifier having an input circuit coupled to the output of said mass spectrometer and an output circuit, a balancing circuit for said amplifier comprising, switch means operated by said mass spectrometer for periodically short circuiting the input circuit of said amplifier, first and second potentiometer means connected in parallel to a source of potential and respectively having first and second movable taps connected to said amplifier for varying the gain of said amplifier as they are moved, servo amplifier means periodically coupled to the output circuit of said amplifier by said mass spectrometer, and servomotor means coupled to and operated by the output from said servo amplifier means, said servomotor means being connected to said second tap for moving this tap to vary the gain of said amplifier until its output is equal to zero when its input circuit is short circuited, the gain of said amplifier also being adjustable by manual movement of said first tap.

2,846,587
X-RAY FIXATOR
Raymond C. Thurow, Madison, Wis.
Application April 27, 1956, Serial No. 581,020
8 Claims. (Cl. 250—50)

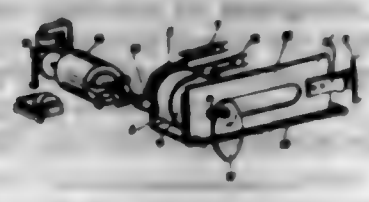


5. A device for fixedly positioning a movable X-ray tube head and its penetrable cone relative to a cephalograph comprising an adapter collar fitted between the head and cone, a bracket mounted in a fixed position relative to said cephalograph, a cradle carried by said bracket, and means on said cradle detachably engageable with means in the collar for supporting the head and cone.

2,846,588
X-RAY SHUTTER APPARATUS

Helmüt Berger, Erlangen, Germany, assignor to Siemens-Reiniger-Werke Aktiengesellschaft, Erlangen, Germany, a corporation of Germany

Application July 21, 1953, Serial No. 369,385
Claims priority, application Germany July 26, 1952
19 Claims. (Cl. 250—62)

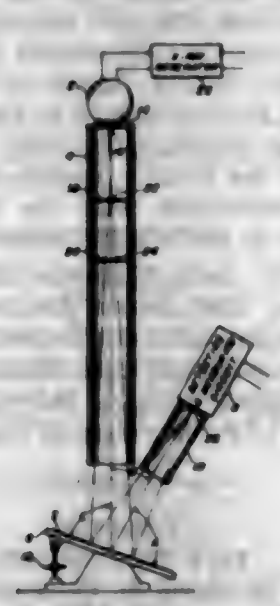


1. X-ray apparatus comprising a device for screening secondary radiations from the photographic element that is to be exposed to the action of the X-rays, said device comprising a screening shutter, a motor, drive means actuated by said motor for reciprocating said shutter, control means coupled with said drive means for causing said shutter to move in one direction only of its reciprocating motion with decreasing speed, and further control means governed by said drive means for effecting the X-ray exposure at a time when said shutter moves with decreasing speed in said one direction of its reciprocating motion.

2,846,589
APPARATUS FOR DETERMINING THE THICKNESS OF ZINC COATING ON A FERROUS METAL BASE

George E. Pellissier and Everett E. Wicker, Pittsburgh, Pa., assignors to United States Steel Corporation, a corporation of New Jersey

Application April 1, 1954, Serial No. 420,337
2 Claims. (Cl. 250—86)

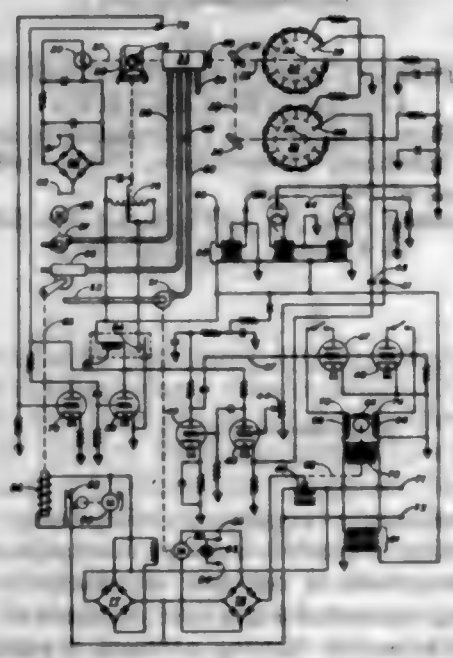


2. Apparatus for determining the thickness of a zinc coating on a ferrous metal base comprising an X-ray tube arranged to direct a primary X-ray beam into the base material, the surface of said base material making an angle of at least approximately 70° with the X-ray beam, a radiation detector arranged on the same side of the ferrous metal base as the X-ray tube for detecting fluorescent radiation from the ferrous metal base, the surface of said base material making an angle of at least approximately 80° with the axis of said radiation detector, and a filter located between the ferrous metal base and the radiation detector, said filter being approximately between .001 and .003 inch thick and formed of a material of the class consisting of nickel, iron and nickel-iron alloys.

2,846,590
NITROGEN RECORDER

Vincent C. Davis, Oakland, and Milton A. Ausman, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application March 16, 1956, Serial No. 572,860
11 Claims. (Cl. 250—204)

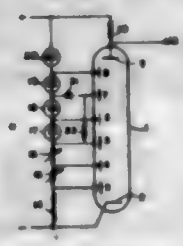


1. In automatic titration apparatus utilizing an indicator in a titration zone, means for passing radiation into said zone and for passing out of said zone the components of said radiation not absorbed by the contents of said zone, beam-splitting plate means for dividing said unabsorbed components into a first beam containing radiation having wave lengths lying with a first predetermined wave length band, and into a second beam containing radiation having wave lengths lying within a different predetermined wave length band, means responsive to changes in relative intensity between said first and second beams caused by changes in the structure of said indicator for producing an alternating current signal, and means responsive to the phase of said signal for varying the proportions of the titrate liquid and liquid reagent in said titration zone.

2,846,591
SAFETY CIRCUIT ARRANGEMENT FOR MULTIPLIER TUBES

Josué Jean Philippe Valeton, Emmasingel, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

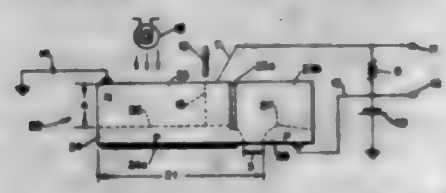
Application May 28, 1956, Serial No. 587,621
Claims priority, application Netherlands June 11, 1955
5 Claims. (Cl. 250—207)



1. A safety circuit for an electron multiplier tube having a cathode, an anode, and at least one secondary emission electrode, said circuit comprising a voltage supply source having negative and positive terminals respectively connected to said cathode and anode and having a first intermediate voltage terminal and a second voltage terminal which has a negative polarity with respect to said first intermediate voltage terminal, a rectifier having an anode connected to said first intermediate voltage terminal and having a cathode connected to said secondary emission electrode, and a resistance connected between said

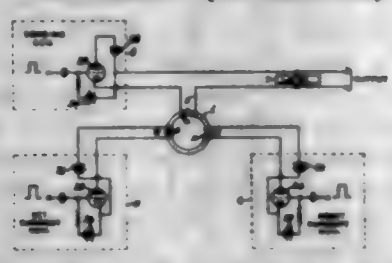
secondary emission electrode and said second voltage terminal, said resistance having a value such that said rectifier is conductive during normal operation of said tube and becomes nonconductive when the current from said secondary emission electrode exceeds a predetermined value.

2,846,592
TEMPERATURE COMPENSATED SEMICONDUCTOR DEVICES
Richard F. Rutz, Fishkill, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 20, 1955, Serial No. 509,853
20 Claims. (Cl. 250—211)



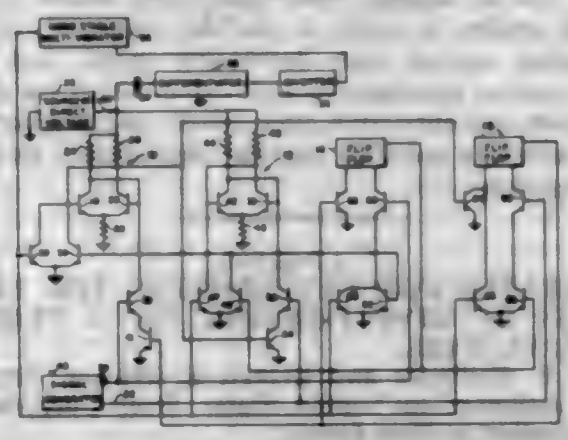
1. Semi-conductor apparatus, comprising a body of semi-conductive material having two adjacent regions formed of materials of opposite conductivity types, said regions being separated by a first junction of substantial area, means reversely biasing at least a portion of said junction, a circuit branch connected in series with said junction, semi-conductor means defining a second junction between regions of opposite conductivity types, said second junction having an effective area and a temperature-current characteristic substantially equal to the area and temperature-current characteristic of the reversely biased portion of the first junction, means reversely biasing said second junction, and means connecting said second junction in series with said first junction and in parallel with said circuit branch, said connecting means including a conductive connection between one region adjacent said second junction and a region of the opposite conductive type adjacent said first junction, so that current flows through the respective regions of both junctions in the same order, both junctions being subjected to the same temperature, so that increments of current flow through said first junction due to temperature changes are accompanied by substantially equal increments of current flow through the second junction and the current flow through said circuit branch is substantially unaffected by temperature variations at said first junction.

2,846,593
LOGICAL COMPUTING ELEMENT
Eugene A. Sands, Mount Kisco, N. Y.
Application January 30, 1953, Serial No. 334,156
20 Claims. (Cl. 307—88)



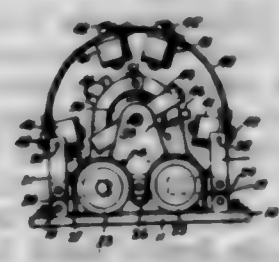
•18. A logical element comprising a saturable magnetic core, two windings linking the core, three multielectrode vacuum tubes, means to bias said tubes to cut off, at least one source of unidirectional voltage, and a load, a first of said tubes being connected with one of said sources and with a first of said windings into a first series circuit capable, upon unbiasing of said first tube, of saturating the core in one sense regardless of its previous condition of magnetization, a second of said tubes being connected with one of said sources, with said load, and with said first winding into a second series circuit producing in the core, upon unbiasing of said second tube, a flux of the same sense as that produced by said first circuit, said second circuit being incapable of reversing the condition of saturation of the core, the third of said tubes being connected with one of said sources and with the second of said windings into a third series circuit capable, upon unbiasing of said third tube, of saturating the core in the opposite sense regardless of its previous condition of magnetization, the impedance of said first winding being so selected that when the core is saturated in said one sense a relatively large current is permitted to flow in said load, and when the core is saturated in said opposite sense a relatively small current is permitted to flow in said load.

2,846,594
RING COUNTER
A. J. Pankratz and Lothar M. Schmidt, Glendale, Calif., assignors to Librascope, Incorporated, Glendale, Calif., a corporation of California
Application March 29, 1956, Serial No. 574,657
9 Claims. (Cl. 307—88.5)



1. A ring counter, including, a plurality of bistable members each having first and second states of operation, means for providing first and second triggering signals and for introducing the first signals to alternate bistable members and the second signals to the other bistable members, means for introducing to each bistable member signals from the preceding bistable member to obtain the triggering of the bistable member to its first state of operation in synchronism with the introduction of the triggering signals to the bistable member upon the occurrence of the first state of operation in the preceding bistable member, and means for introducing to each bistable member signals from the next bistable member in the plurality to return each bistable member to its second state of operation upon the triggering of the next bistable member to its first state of operation.

2,846,595
TOY MOTOR KIT
John W. Reed, St. Petersburg, Fla.
Application February 21, 1956, Serial No. 566,953
3 Claims. (Cl. 310—1)



1. A toy electric motor comprising a horizontally disposed rectangular base provided with a transversely disposed intermediate rectangular cutout, a plurality of vertically disposed flanges depending from the outer edges of said base, an insulated strip extending beneath said cutout and secured to said base, a first bracket including a vertically disposed member provided with an aperture

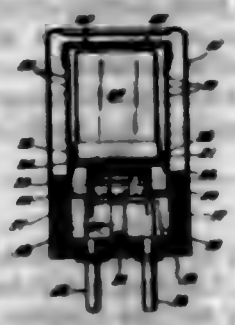
and said bracket further including a horizontally disposed flange detachably connected to said strip, a pair of batteries supported on said base, a support member including a pair of arcuate superposed sections engaging said batteries and said support member including apertured ears secured to said base, a pair of L-shaped lugs secured to said base, an insulated arm extending upwardly from one of said lugs and secured thereto, a metal contact finger pivotally connected to said arm, a metal contact finger pivotally connected to the other lug, said fingers being mounted for movement into and out of engagement with said batteries, a vertically disposed plate extending upwardly from said base adjacent the rear of said cut-out, an insulated bar secured to said plate, a curved spring clip secured to said bar and interconnecting the adjacent ends of said batteries together, a first wire leading from one of said fingers to said bracket, a second bracket including a horizontally disposed flange secured to an end of said base, said second bracket further including a vertically disposed member extending upwardly from said last named flange and provided with an aperture therein, an insulated plate provided with an aperture therein secured to the outer surface of the vertically disposed member of said second bracket, a horizontally disposed rotatable shaft extending through the apertures in the aperture in the vertically disposed member of said first bracket and the aperture in the insulated plate secured to the vertically disposed member of said second bracket, said shaft including an enlarged intermediate portion interposed between said members, an armature extending transversely from said shaft and secured thereto, a metal strip secured to the upper surface of said base and extending transversely there across, a vertically disposed ring member extending upwardly from said strip and secured thereto, a plurality of coils extending inwardly into said ring member and secured thereto, an insulated disc secured to the outer surface of said second bracket, a plurality of contacts extending outwardly from said disc, terminals connected to said contacts and projecting through said second bracket, wires leading from said coils to said contacts, and a plate mounted on said shaft and including a pair of diametrically opposed wiper elements mounted for movement into and out of engagement with said terminals.

2,846,596

CRYSTAL OVEN

Robert B. Corbin, Oak Park, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application December 12, 1955, Serial No. 552,546
6 Claims. (Cl. 310—8.9)



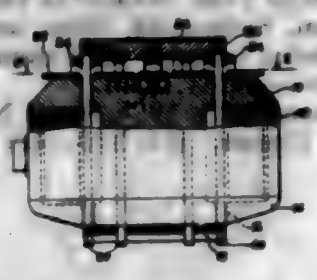
1. A piezoelectric crystal oven and housing structure including in combination, a first housing, a second housing supported in said first housing, said second housing having socket means therein defining a first chamber for containing a crystal and a second chamber, a thermostat supported in said second chamber, heating means controlled by said thermostat and disposed adjacent said first chamber for heating a crystal contained therein, and connector means supported by said first housing for making electrical connection to a crystal contained in said first chamber and to said heating means.

2,846,597

LEAKAGE FLUX COMPENSATING COIL

Hrair Philip Hovnanian and Russell D. Zimmer, Winchester, Mass., assignors, by mesne assignments, to The Calidyne Company, Inc., a corporation of Massachusetts

Application April 2, 1954, Serial No. 423,518
5 Claims. (Cl. 310—27)



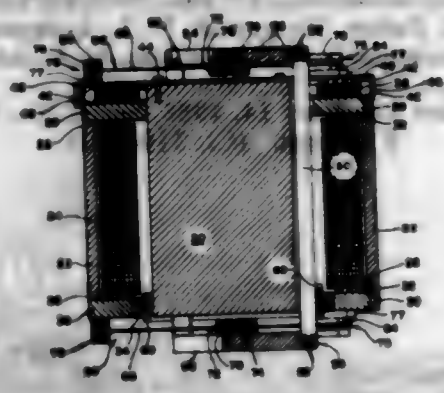
1. Apparatus for producing a reciprocating movement in a test load comprising a core structure forming a high permeability flux path having an air gap therein, a direct current field winding for magnetizing the core structure and producing a unidirectional magnetic flux across the air gap, a reciprocally mounted armature having a table for carrying the test load and an alternating current winding disposed in the air gap for imparting a movement thereto, a leakage flux compensaitng coil including a plurality of turns about a core having a permeability of substantially unity, the coil being interposed between the table and the core structure externally the high permeability flux path thereof, the outer turns of the coil having a greater diameter than that of the table being displaced axially with respect to the inner turns, and means for connecting the compensating coil with a direct power source to cause the flow of a direct current through the turns in a direction to establish a magnetic field which substantially nullifies the core structure leakage flux adjacent the table without substantially opposing the flux in the high permeability path of the core structure.

2,846,598

VIBRATION GENERATOR

Peter Zerigian, Bedford, Mass., assignor, by mesne assignments, to The Calidyne Company, Inc., a corporation of Massachusetts

Application January 13, 1956, Serial No. 558,922
14 Claims. (Cl. 310—27)



1. For supporting the armature structure of vibration test equipment with freedom of movement in an axial direction while restraining the structure in a radial direction relative to an associated core structure, a pair of flexure means disposed in spaced axial relationship, each of the flexure means including at least one deformable strap of a resilient material having a face whose width is materially greater than the strap thickness interposed between the structures with the face of the strap disposed in the direction of axial movement of the armature structure so that the strap is deflected by the movement thereof, and connections between each strap and the adjacent structures for attaching the strap thereto, one of the connections associated with each strap including elastomer elements which are stressed in shear by movement of the

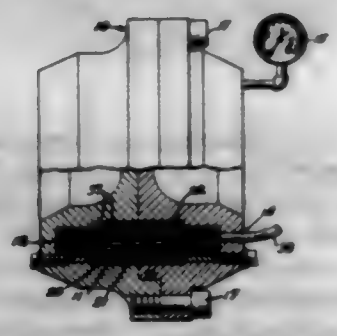
armature structure to provide relief in a direction lengthwise of the associated strap thereby materially to increase the permissible deflection thereof.

2,846,599

ELECTRIC MOTOR COMPONENTS AND THE LIKE AND METHOD FOR MAKING THE SAME

Harry H. McAdam, Springfield, Ohio, assignor to Wetmore Hodges, doing business as Wetmore Hodges and Associates, Redwood City, Calif.

Application January 23, 1956, Serial No. 560,841
10 Claims. (Cl. 310—43)



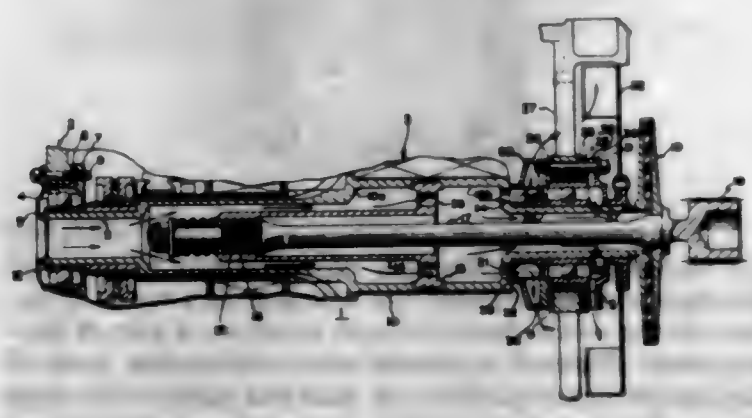
1. A motor stator able to serve as a pressure vessel when its ends are closed, including in combination a laminated metal core and wire windings associated with said core, said wire and said core being made of different metals having different thermal coefficients of expansion; and a thermosetting plastic comprising a mixture of epoxy resin, rubbery butadieneacrylonitrile copolymer, and rubbery polythiopolymercaptan, said plastic filling the voids in said core between laminations and encasing the wires and bonding them substantially immovably together, said plastic being cured in situ and having inherent adhesive properties associated with a tough rubbery resilience that prevents said plastic from cracking and separating from the metal constituents when said stator is subjected to repeated heating and cooling during alternate periods of use and non-use when said metals expand and contract at different rates tending to cause fracture and separation.

2,846,600

DYNAMOELECTRIC MACHINE

Frederick M. Potter, Westwood, N. J., assignor to Bendix Aviation Corporation, Eatontown, N. J., a corporation of Delaware

Application February 14, 1956, Serial No. 565,401
5 Claims. (Cl. 310—61)



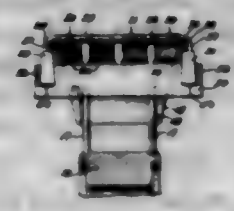
1. In a dynamoelectric machine having a housing, the combination comprising a rotor having a hollow shaft, bearing means for mounting said rotor in said housing, cooling fins positioned in intimate contact with said bearing means, and means including openings in said shaft on each side of said bearing in communication with said cooling fins for directing a flow of coolant through said shaft and over said cooling fins.

2,846,601

BONDING COPPER TO STEEL IN A ROTOR BAR WINDING

Henry S. Jacobs, Milwaukee, Wis., assignor to Harnischfeger Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application May 6, 1955, Serial No. 506,643
20 Claims. (Cl. 310—211)



1. In a magnetic torque coupling device a rotor comprising an annulus of magnetic material having means supporting it for rotation and provided along its inner and outer peripheries with axially extending electrically conductive elements, the elements along the outer periphery of said annulus having substantially radially inturned ends comprising solid electrically conductive bars mechanically and electrically connected with the elements along the inner periphery of said rotor for the completion of current paths about said annulus, said elements along the inner periphery of the rotor being characterized by high operating temperatures, said couplings comprising ferrules to which the ends of the bars are internally bonded to provide good electrical connection between said ends and the inner elements, the ferrules and the said solid bar ends having correspondingly divergent sides in dovetailed connection whereby to resist dislocating stresses longitudinally of said connection, said ferrules being externally bonded to the inner elements.

2,846,602

BUSHES FOR DYNAMO ELECTRIC MACHINE AND OTHER COMMUTATORS

Herbert Henry Collins and David William Ripper, Streetly, England, assignors to Joseph Lucas (Industries) Limited, Birmingham, England

Application August 20, 1956, Serial No. 604,929
Claims priority, application Great Britain August 24, 1955
1 Claim. (Cl. 310—235)



A commutator bush composed of two coaxial and substantially cylindrical parts having expanded adjacent ends interconnected in the manner of a spigot and socket to form an external collar around the centre of the bush, the other ends of the said parts being turned inwardly to form lands for supporting the bush on a spindle.

2,846,603

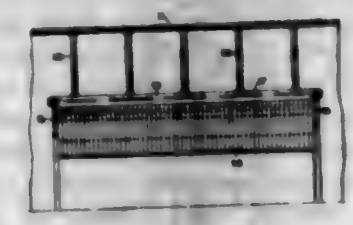
DYNAMO ELECTRIC MACHINES

Frank Alan Webster, London, and John Hewson, Stafford, England, assignors to The English Electric Company Limited, London, England, a British company

Application April 23, 1956, Serial No. 580,830
Claims priority, application Great Britain May 3, 1955
2 Claims. (Cl. 310—258)

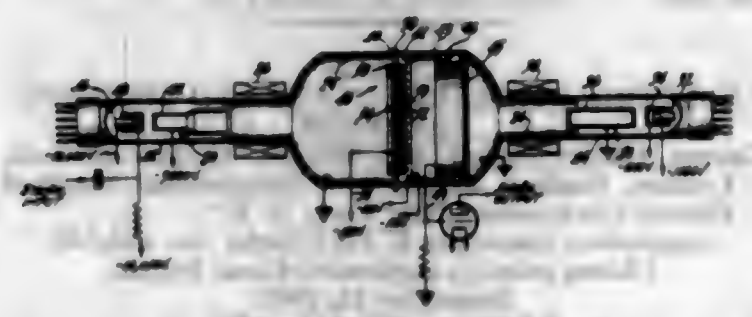
1. A dynamo electric machine having a stator frame including a plurality of axially spaced annular frame rings and a plurality of axially extending core support bars secured to the inner peripheries of the frame rings at circumferentially spaced positions, a laminated stator core mounted on the core support bars, and a rotor member, the size and nature of the machine being such that, in operation, cyclic distortion is set up in the stator

core, each core support bar being slotted tangentially immediately in front of the points of attachment of the core support bars with the annular frame rings, so that the



core support bars themselves provide radial resilience between the laminated stator core and the stator frame rings.

2,846,604
STORAGE TUBE
Leslie E. Flory, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 30, 1953, Serial No. 352,221
4 Claims. (Cl. 313—68)



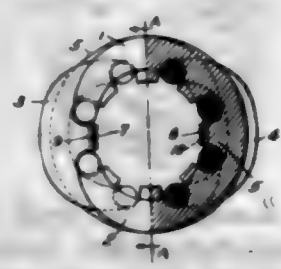
1. An electron discharge device comprising, an envelope, a target electrode having a plane surface within said envelope and including an insulating film having induced conductivity characteristics when struck by electrons at a predetermined velocity, a conductive material extending over one side of said film, an electron gun within said envelope on the other side of said target for providing electrons at a velocity below said predetermined velocity, a barrier grid adjacent said insulating film portion of said target electrode and intermediate said target electrode and said electron gun, and a second electron gun within said envelope, said second electron gun being on said one side of said target electrode and supplying an electron beam of electrons having velocities greater than said predetermined velocity.

2,846,605
CONTROLLABLE LOW NOISE GAS DISCHARGE DEVICE
William M. Webster, Jr., Edward O. Johnson, and Louis Malter, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application January 19, 1954, Serial No. 404,981
10 Claims. (Cl. 313—71)



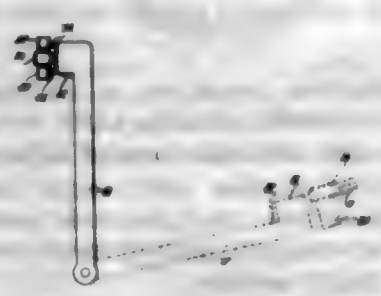
1. A substantially noise free gas discharge device having an envelope containing an ionizable medium at a given pressure, a thermionic cathode, a foraminous electrode, a main cathode, a control electrode and an anode arranged in that order within said envelope, the maximum dimension of the foramina in said foraminous electrode being less than the mean free path of the electrons of said ionizable medium, and said electrode geometry being such that the ratio of the arc voltage drop to the ionization potential at said pressure is less than 3.

2,846,606
TELEVISION RECEIVER
Emlyn Jones, Horley, and Kenneth Edward Martin, Rochampton, London, England, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 10, 1953, Serial No. 360,672
2 Claims. (Cl. 313—76)



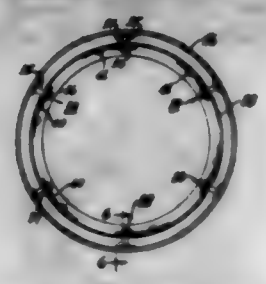
1. A television deflection coil assembly, comprising a pair of line deflection coils positioned to face each other thereby to produce a magnetic line deflection field therebetween when energized, a pair of frame deflection coils positioned to face each other thereby to produce a magnetic frame deflection field therebetween when energized, said pairs of line and frame coils being oriented with respect to each other so that said line and frame deflection fields mutually intersect at right angles, said line deflection coils having the property of producing an undesired alternating magnetic field at a right angle with respect to said line deflection field, said undesired magnetic field having a higher frequency of alternation than does said frame deflection field, and compensating means comprising an electrical coil positioned on a line extending between said line deflection coils and in the path of said undesired magnetic field, said coil being oriented with its axis parallel to the flux lines of said undesired magnetic field so as to be magnetically coupled to said undesired magnetic field without being coupled to said line deflection field, whereby the effective magnitude of said undesired magnetic field is reduced without affecting said line deflection field.

2,846,607
ELECTRON GUN
Charles M. Schott, Brookside, N. J., assignor to Thomas Electronics, Inc., Passaic, N. J., a corporation of New Jersey
Application September 20, 1956, Serial No. 611,001
4 Claims. (Cl. 313—82)



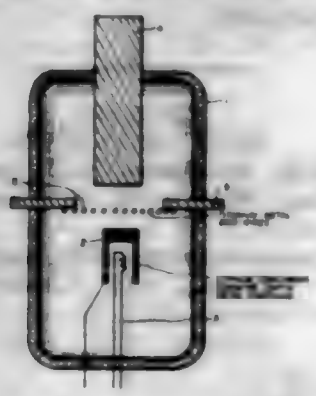
1. A cathode ray tube gun comprising a pair of spaced electrodes each having at least two studs projecting radially therefrom, and a pair of spaced rods connected to said studs and securing said electrodes to one another, each rod being impaled on a stud on each of said electrodes, said rods having a uniform cross section throughout, said cross section being such that each of said rods has at least three flat surfaces, one of said flat surfaces being perpendicular to said studs and pierced thereby, and two of said flat surfaces being located on the side of said rods opposite said first surface and converging toward each other as they extend away from said first surface, said cross section being that of an equilateral polygon.

2,846,608
CATHODE-RAY TUBE
Terry M. Shrader, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application September 14, 1954, Serial No. 455,853
8 Claims. (Cl. 313—85)



1. Means for mounting the mask of a cathode-ray tube of the masked-target variety within the cap-member of the envelope of said tube, said means comprising: a rigid frame-member for said mask; at least three rigid support pins mounted in spaced apart relationship on one of said cap-member and frame-member; at least three leaf-springs mounted on the other of said members, each of said springs having a seat engaging a respective one of said pins, said springs and pins constituting the sole mechanical connecting means between said cap member and said frame-member, whereby flexing of the leaf-springs in which said pins are seated permits said mask-frame to expand and contract substantially without frictional movement between any of the parts of said mask-supporting means.

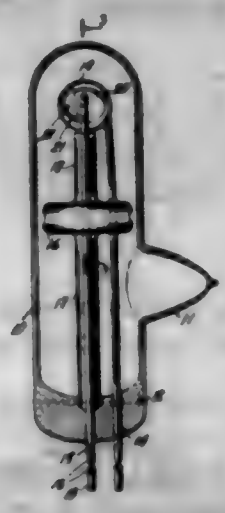
2,846,609
NON-EMISSIVE ELECTRODE FOR ELECTRON DISCHARGE DEVICE
George Andrew Espersen, Dobbs Ferry, N. Y., assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 8, 1954, Serial No. 408,892
5 Claims. (Cl. 313—107)



1. A vacuum tube comprising a thermionic cathode containing a volatilizable alkaline earth metal compound, and a non-emissive electrode located adjacent said cathode in the path of alkaline earth metal compound particles emitted therefrom, said electrode consisting of annealed ductile substantially pure titanium metal wire having a smooth, bright surface.

2,846,610
INDICATOR TUBE
William H. Dass, Fishkill, and Robert R. Koehler, Hopewell Junction, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 7, 1956, Serial No. 626,988
19 Claims. (Cl. 313—108)

1. An electron discharge indicator tube comprising an inert gas filled envelope enclosing a tubular cathode, a pair of anodes respectively spaced from the open ends of the cathode to support a glow discharge between one of the anodes and the cathode that may be switched to the other anode by a low potential difference between the anodes, and a phosphor deposit on one of the anodes



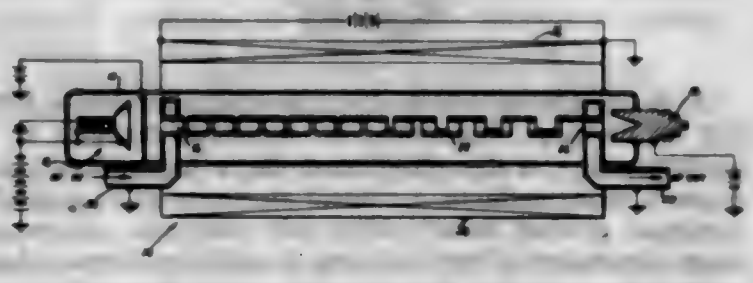
which emits distinctive light when excited by the glow discharge electron current to indicate the condition of the tube.

2,846,611
ELECTRIC DISCHARGE TUBES AND CIRCUITS THEREFOR
George Hubert Hough and Thomas Meirion Jackson, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application December 8, 1951, Serial No. 260,742
Claims priority, application Great Britain December 12, 1950
8 Claims. (Cl. 313—196)



1. A cold cathode gas-filled electric discharge tube comprising, an envelope, a gaseous atmosphere in said envelope, a plurality of electrodes defining a plurality of diode gaps, means for positioning the electrodes defining separate gaps adjacent each other so that the firing of one gap ionizes all the other gaps, and means for positioning the two electrodes of each gap within a distance of each other so near the length of the cathode dark space in said gaseous atmosphere that upon such ionization the striking and maintaining potentials for each gap are substantially the same.

2,846,612
TRAVELING WAVE TUBE SLOW-WAVE STRUCTURE
Thomas E. Everhart, Santa Monica, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application July 11, 1955, Serial No. 521,017
6 Claims. (Cl. 315—3.5)



1. A traveling wave tube adapted for propagating electromagnetic waves therethrough and for effecting an interchange of energy between an electron beam and the electromagnetic waves, the tube comprising: an electron

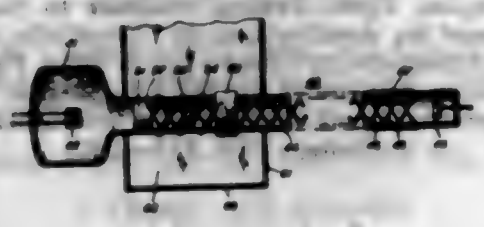
emitter; an electron collector, said emiter and collector being spaced apart; means for projecting a beam of electrons along a predetermined path between said emitter and said collector; a hollow, periodic slow-wave structure of constant pitch disposed along and enclosing a portion of said path, said slow-wave structure including a plurality of axially registering and axially spaced conductive rings, the axial lengths of which decrease toward the collector end of said slow-wave structure thereby to vary the phase velocity of the electromagnetic waves traveling along its length in a manner such that the traveling waves are slowed down whereby the electron beam continues to deliver energy to the traveling waves throughout the length of said slow-wave structure.

2,846,613

BIFILAR HELIX COUPLING CONNECTIONS

John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 23, 1953, Serial No. 387,832
10 Claims. (Cl. 315—3.6)



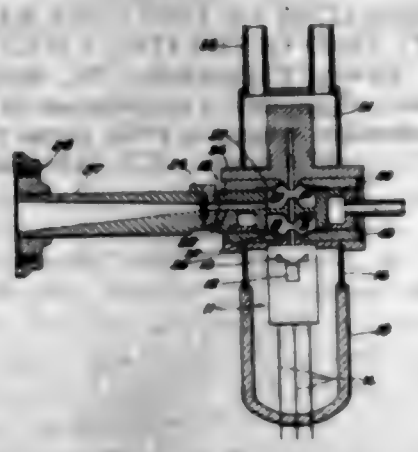
1. In combination, first and second bifilar helices each comprising a pair of helically interwound conductors of a given pitch, the second bifilar helix coaxial with and surrounding the first bifilar helix whereby each helix includes an overlapping region, means for shorting for radio frequencies the two conductors of the first helix at one end of the overlapping region of said first helix, and means for shorting for radio frequencies the two conductors of the second helix at the end of the overlapping region of said second helix remote from the shorted end of the overlapping region of said first helix.

2,846,614

KLYSTRON TUBE

George Andrew Espersen, Dobbs Ferry, N. Y., assignor to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 19, 1954, Serial No. 469,973
5 Claims. (Cl. 315—5.48)



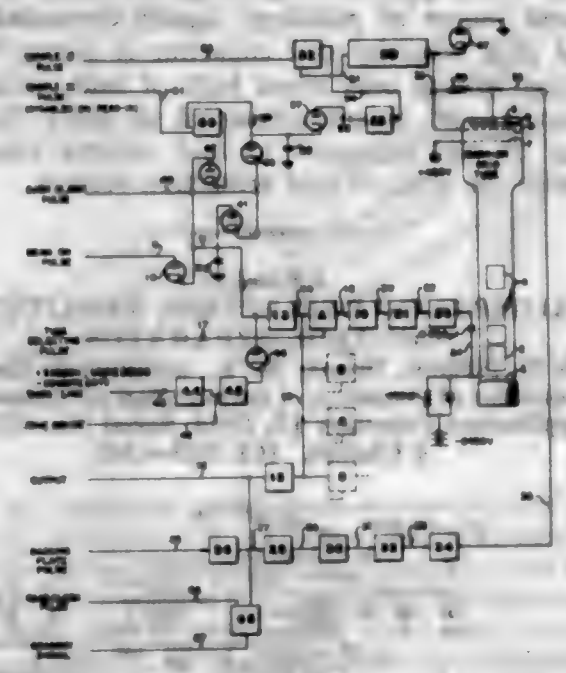
3. A velocity-modulated electron discharge device comprising an enclosure defining a cavity, means to generate and inject a beam of electrons into said cavity, a metal diaphragm within said cavity for adjusting the resonant frequency of the same, and a non-shrinkable synthetic resin surrounding and securing said diaphragm to said enclosure.

2,846,615

ELECTROSTATIC MEMORY SYSTEM

Ralph B. De Lano, Jr., and Donald R. Young, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 26, 1953, Serial No. 357,608
19 Claims. (Cl. 315—12)



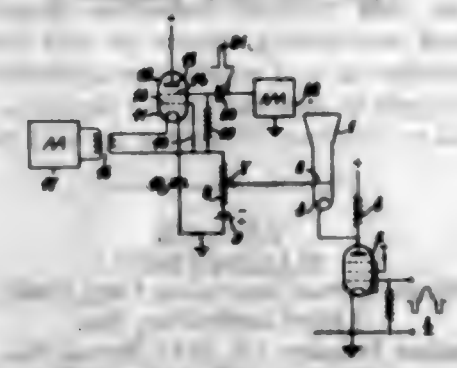
1. Apparatus for storing binary information in an electrostatic memory tube having components including an electron gun, control grid, dielectric target and backing plate; comprising means for applying a short duration voltage pulse to said backing plate during each cycle of tube operation, means for turning on the cathode beam before said short duration voltage pulse is applied to said backing plate, means for selectively turning off the cathode beam before said short duration backing plate pulse is terminated, and further means for turning off the cathode beam after said short duration backing plate pulse is terminated in the event the cathode beam has not been selectively turned off, said cathode beam being on for some interval while said short duration backing plate pulse is applied.

2,846,616

CIRCUIT-ARRANGEMENT PROTECTING THE CATHODE-RAY TUBE OF TELEVISION RECEIVERS

Henricus Jacobus Gits and Johannes Verboom, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 25, 1955, Serial No. 549,087
Claims priority, application Netherlands December 8, 1954
3 Claims. (Cl. 315—20)



1. A circuit for protecting a cathode-ray tube which has a control electrode for controlling the cathode-ray intensity, comprising a source of protection voltage connected to said electrode and having a value at which said cathode-ray has a safe intensity which is lower than normal operating intensity, an electron-discharge tube

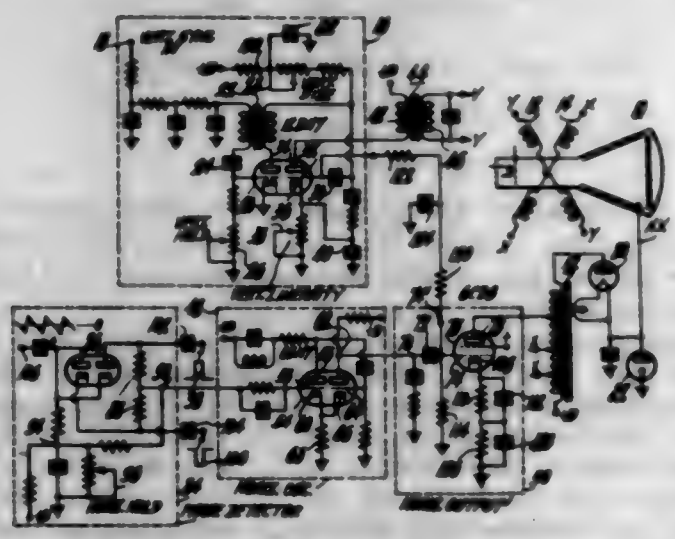
having a cathode, a first grid, a second grid and an anode arranged in the named order, a source of reference potential connected to said first grid, a capacitor and a source of operating voltage connected in a closed series circuit with the cathode-anode path of said electron-discharge tube, a first source of pulsatory signals connected to supply heating energy for said cathode and a second source of pulsatory signals connected to said second grid, whereby said capacitor is charged by said operating voltage only when both of said pulsatory signals occur, and means connected to apply the charge voltage of said capacitor to said control electrode to neutralize the effect of said protection voltage.

2,846,617

AUTOMATIC DEFLECTION AMPLITUDE CONTROL APPARATUS

Morris D. Nelson, Bronx, N. Y., assignor to Radio Corporation of America, a corporation of Delaware

Application February 19, 1954, Serial No. 411,486
6 Claims. (Cl. 315—24)



1. In television apparatus having a cathode ray image tube which includes a target and means for directing an electron beam toward such target, vertical deflection means including an amplifier for deflecting such beam across such target at television field rate, horizontal deflection means including an amplifier for deflecting such beam at television line rate and in a direction substantially perpendicular to the direction of such field rate deflection, such amplifiers being adapted to be furnished with operating potentials from a voltage source inherently subject to undesirable fluctuations, said horizontal deflection amplifier having self-biasing means whereby it is substantially self-regulating with respect to such voltage fluctuations, means for rendering the amplitude of such vertical deflection substantially independent of such voltage fluctuations, said means comprising: a conduction-controlling electrode in said vertical deflection amplifier; means coupling said self-biasing means in said horizontal deflection amplifier to said conduction-controlling electrode whereby to apply to said electrode a direct current voltage proportional to the bias developed by said means.

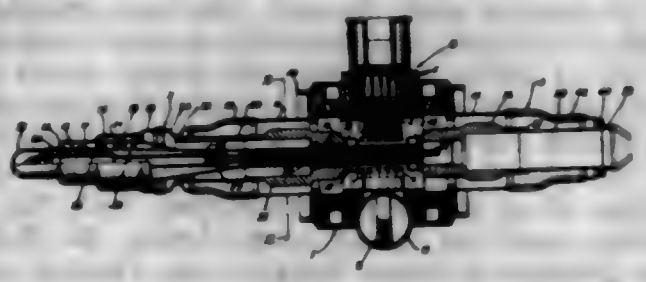
2,846,618

MAGNETRON

Charles Vincent Litton, Redwood City, Calif., assignor to Litton Industries, Inc.

Application January 26, 1953, Serial No. 333,101
5 Claims. (Cl. 315—39.71)

1. A magnetron comprising a supporting body, a cavity resonator system located inside said body, a pair of envelope members fastened to opposite sides of said body each having conductive portions insulated from said body, and a pole piece of magnetic material positioned within each of said envelope members on opposite sides of said cavity resonator system for providing a magnetic field longitudinally through said resonator, characterized by means for mounting at least one of said pole pieces in electrically insulated relation with



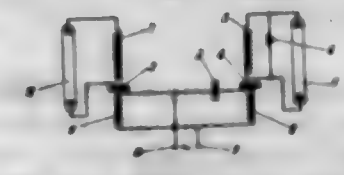
respect to said magnetron body, said means for mounting comprising conductive means connected to said pole piece and to said conductive portion of the respective envelope portion whereby a potential different from that of the body may be applied to said pole piece.

2,846,619

CIRCUIT FOR ENERGIZING AT LEAST ONE GASEOUS ELECTRIC DISCHARGE DEVICE

Daniel Kayser, Paris, France, assignor to Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Paz & Silva, Paris, France

Application November 21, 1955, Serial No. 548,204
Claims priority, application France November 26, 1954
6 Claims. (Cl. 315—282)



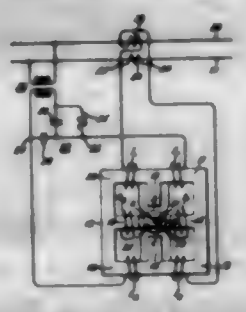
1. A circuit for energizing at least one gaseous electric discharge device, comprising: an alternating current source; a high reactance transformer having a primary winding and at least one secondary winding; means for connecting said primary winding to said source through a condenser; means for connecting said secondary winding to said discharge device; and a semi-conducting resistor the resistance of which remains high when it is subjected to the voltage of said secondary winding under load and decreases largely and gradually when said resistor is subjected to the open circuit voltage of said secondary winding during at least every other half-cycle, said resistor being connected in parallel with said secondary winding.

2,846,620

ELECTROMAGNETIC DISTANCE RELAY WITH AN OFFSET MHO OPERATING CHARACTERISTIC

Clyde G. Dewey, Philadelphia, Pa., assignor to General Electric Company, a corporation of New York

Application August 3, 1956, Serial No. 601,883
17 Claims. (Cl. 317—36)



1. A circuit controlling electromagnetic induction type relay responsive to predetermined phase and magnitude relationships between two input alternating electric quantities comprising, a magnetizable stator providing a magnetic loop and having a plurality of salient poles projecting therefrom, a magnetizable member spaced apart

from the extremities of said poles to define therewith a plurality of gaps, a circuit controlling current conducting rotor disposed for rotation through said gaps in a direction generally transverse to the magnetic fields between said poles and said member, a plurality of magnetic flux producing primary windings on said stator energizable by the two input quantities for establishing magnetic fields in said gaps, and a plurality of shading windings arranged on said stator to retard only a portion of the total magnetic flux produced by each of said primary windings, said magnetic fields interacting in said rotor to produce driving torque, said windings being arranged whereby said driving torque comprises a component proportional to the square of the magnitude of one of the input quantities, a component proportional to the square of the magnitude of the other input quantity and a component proportional to the product of the respective magnitudes of the two input quantities and a function of the phase displacement therebetween.

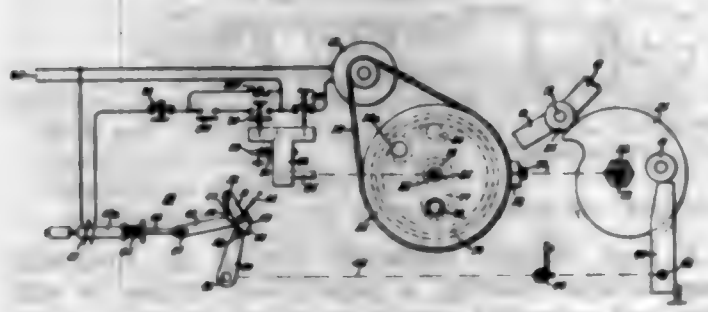
2,846,621

CLOSING MECHANISM FOR AN ELECTRIC CIRCUIT BREAKER

Thellwell R. Coggeshall, Cynwyd, and Ugo R. Tognella, Philadelphia, Pa., assignors to General Electric Company, a corporation of New York

Application September 19, 1956, Serial No. 610,736

7 Claims. (Cl. 317—54)



1. In an electric circuit breaker, motive means operable to produce closing of the breaker, electromagnetic means having a driving part operable from a neutral to an operated position, control means responsive to movement of said driving part from said neutral to said operated position for causing said motive means to operate to produce circuit breaker closing, said control means being ineffective to again cause a breaker-closing operation of said motive means until said driving part is returned at least partially to its neutral position, a selectively-operable first switch connected in series-circuit relationship with said electromagnetic means and closable to produce operation of said electromagnetic means, a second switch connected in series-circuit relationship with said electromagnetic means and with said first switch, switch-actuating means responsive to the operative position of said breaker for closing said second switch when the breaker is open and for opening said second switch when the breaker is closed, said switch actuating means acting to hold said second switch open so long as the breaker is closed, and means effective when said breaker is closed for maintaining said electromagnetic means sufficiently energized to hold said driving part in said operated position in the event that said first switch is held closed during the time said second switch is open, said switch-actuating means acting to close said second switch in response to those breaker-opening operations which occur even while said first switch is being held closed.

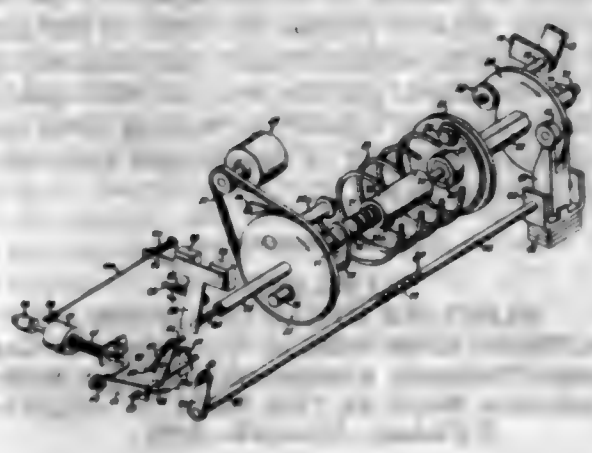
2,846,622

OPERATING MECHANISM FOR AN ELECTRIC CIRCUIT BREAKER

Richard H. Miller, Havertown, and Vincent L. Tilli, Philadelphia, Pa., assignors to General Electric Company, a corporation of New York

Application September 21, 1956, Serial No. 611,331

11 Claims. (Cl. 317—58)



9. In an operating mechanism for an electric circuit breaker, a rotatable circuit breaker operating-member, a chargeable spring having one end coupled to said operating member, a rotatable spring-charging member coupled to the other end of said spring, releasable restraining means normally holding said operating member in a predetermined position but releasable to permit said operating member to be driven by said spring to operate said breaker, motor means operable to drive said charging member to charge said spring, a first controlling member located axially between said rotatable members and radially inward of the turns of said torsion spring, a calibrating rod coaxially disposed relative to one of said rotatable members and coupling said controlling member to said one rotatable member, a second controlling member coupled to the other of said rotatable members, a threaded connection between said controlling members for producing relative axial movement of said controlling members in response to relative rotation of said rotatable members, and means controlled by said axial movement during a spring-charging operation for terminating operation of said motor means when said spring is charged to at least a predetermined energy level, said calibrating rod projecting to a point axially spaced from the region between said rotatable members and being adjustable relative to its rotatable member to adjust the point at which the spring-charging operation is terminated.

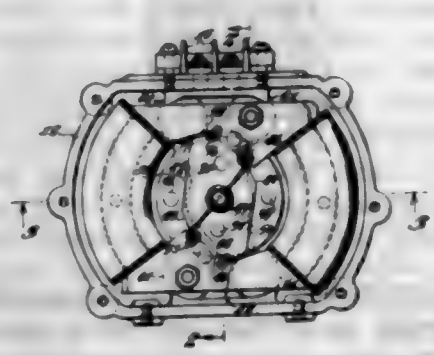
2,846,623

RELAYS AND SOLENOIDS

Hanns H. Wolff, Matawan, N. J., assignor to Leetronics, Inc., a corporation of New York

Application June 21, 1955, Serial No. 517,010

17 Claims. (Cl. 317—180)



11. A rotary alternating current solenoid comprising, in combination, a stator having at least a pair of adjacent faces disposed relative to each other at a predetermined

angle, a rotor movable relative to said stator and also having a pair of faces complemental to said stator faces but disposed relative to each other and at an angle greater than the angle of said stator faces so that the solenoid develops a high and sharply rising torque near the end of its forward movement, a casing enclosing the stator and the rotor, and an abutment spring member carried by the rotor in position to be intercepted by the casing and put under stress to cushion the arrest of the rotor in the final forward movement thereof, said abutment spring member serving also to give the rotor an initial quick start in the return direction against the holding force exerted by the residual magnetism of the solenoid when the current flow is discontinued.

2,846,624

ELECTROLYTIC CAPACITOR

Harry H. Hilton, Glens Falls, N. Y., assignor to General Electric Company, a corporation of New York

Application March 24, 1954, Serial No. 418,315
5 Claims. (Cl. 317—230)



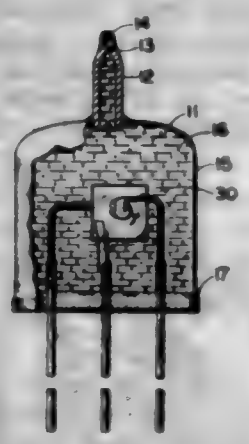
1. An electrolytic capacitor comprising a first electrode consisting of an elongated coil of wire, one end of said wire extending outward from said coil to form a terminal, spacer material impregnated with an electrolyte wrapped around said coil except for the terminal end, a second electrode consisting of a close-fitting metallic container open at one end in which said coil and spacer are positioned with the spacer separating said coil from the sides and bottom of said container and with the terminal end of said coil extending through the open end of said container, and a plug of nonconducting resilient material sealing the open end of said container, said coil terminal extending through said plug.

2,846,625

SEMICONDUCTOR DEVICE

Elmer M. Gustafson, Beverly, and Allen I. Swartz, Malden, Mass., assignors to Columbia Broadcasting System, Inc., Danvers, Mass., a corporation of New York

Application March 31, 1955, Serial No. 498,136
5 Claims. (Cl. 317—234)



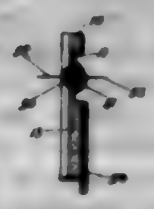
5. A semiconductor device in a hermetically sealed container having an impervious plastic coating on said semiconductor and a substantially water-free interior in said hermetically sealed container the space within said interior being between the inner walls of said container and said semiconductor being filled with a coolant consisting of finely divided alumina suspended in toluene.

2,846,626

JUNCTION TRANSISTORS AND METHODS OF FORMING THEM

Herman P. Nowak, Salem, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application July 28, 1954, Serial No. 446,297
3 Claims. (Cl. 317—235)



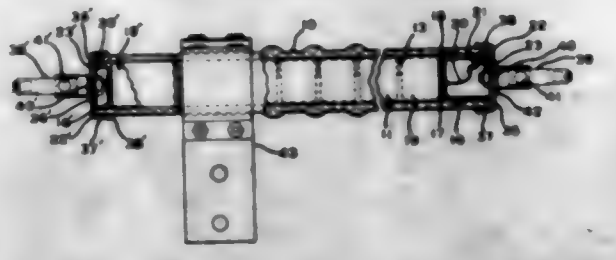
1. A transistor comprising a piece of semiconductor material having one type of conductivity formed with a pair of mutually perpendicular areas of reduced thickness one on each of two opposite faces, a deposit of material imparting the opposite type of conductivity within each area of reduced thickness, and an ohmic contact to the main body of the semiconductor.

2,846,627

HIGH VOLTAGE CONDENSER

Edward C. Doughty, Jr., Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts

Application January 18, 1957, Serial No. 635,014
3 Claims. (Cl. 317—242)



1. A high voltage condenser having an elongated vitreous tubular housing, a capacitance section in said housing and extending almost its entire length, a single corona shield at one end of the housing, said shield being a metal tube slightly narrower than and fitted within the housing, metal end closures hermetically sealing both ends of the housing and carrying terminal leads to the opposite ends of the section, said metal tube having an inwardly bent flange next to the adjacent end of the section, the other end of the section being closely adjacent that housing end closure, a liquid dielectric impregnant almost completely filling the housing, and a mounting bracket secured around the housing at a point intermediate its ends.

2,846,628

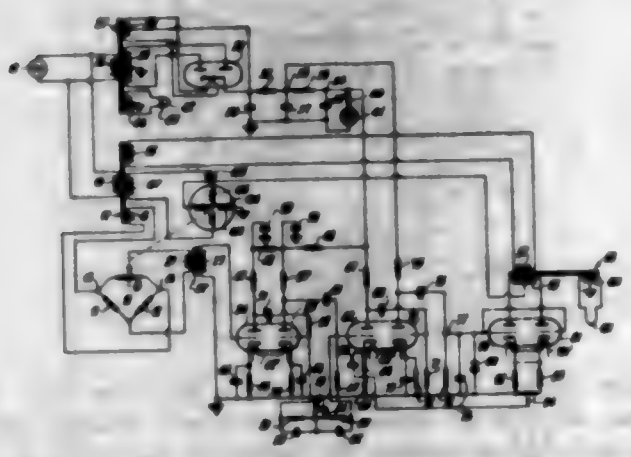
ELECTRICAL SERVO SYSTEM

Sidney R. Kline, El Paso, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application October 18, 1954, Serial No. 462,835
7 Claims. (Cl. 318—28)

1. An electrical servo system including an alternating current voltage source; a reversible motor having first and second windings; means applying said voltage source across the first winding of said motor; an electronic amplifier; a first electron tube having an anode, a cathode and a control grid; a second electron tube having an anode, a cathode and a control grid; a transformer; means applying said voltage source across the primary winding of said transformer; means connecting the end terminals of the secondary winding of said transformer to the anodes of said first and second tubes, respectively; means connecting one output terminal of said amplifier to the control grids of said first and second tubes; circuit means connecting the second output terminal of said

amplifier to the cathodes of said first and second tubes; means connecting one terminal of the second winding of said motor to a center tap on the secondary winding of said transformer and the second terminal of the second winding of said motor to said second output terminal of said amplifier; phase shifting means connected in circuit with one of said motor windings so that the voltages



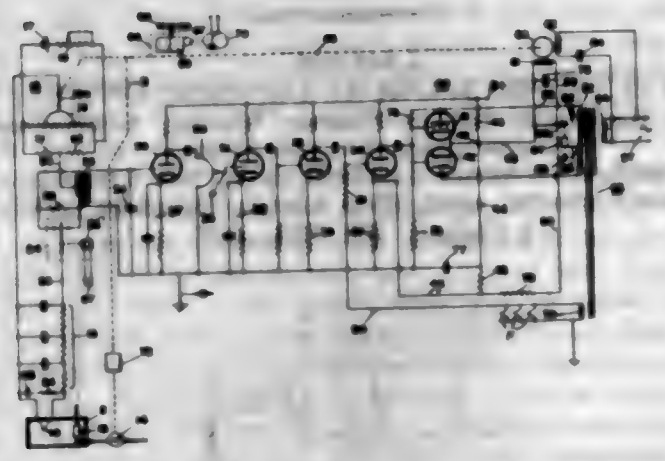
applied to said two motor windings are 90° out of phase with one another; and a degenerative feedback network to pass direct current connected between said circuit means and a point in said amplifier of proper phase to reduce the potential difference between the grids and cathodes of said tubes responsive to current flow through said circuit means.

2,846,629

FAIL-SAFE ARRANGEMENT

William Russell Clark, Jenkintown, Wil McAdam, Blue Bell, and Theodore Cheng, Ardmore, Pa., assignors to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania

Application February 27, 1956, Serial No. 568,185
11 Claims. (Cl. 318—28)



6. In a null-balance system of the type unbalanced by change in the magnitude of a condition, and having means including a reversible motor for rebalancing the system, the combination of an amplifier having a power output stage for controlling the energization of said motor for rotation in one direction or the other and including at least one stage of voltage amplification responsive to unbalance of the system, fail-safe biasing means for applying to said power output stage a fail-safe voltage for energization of said motor in a selected direction in the event of failure of amplifier components ahead of said power output stage, and means for applying to an input of said amplifier a voltage independent of said rebalancing means for producing at said power output stage a voltage compensatory of said fail-safe voltage to reduce to an insignificant amount the effective magnitude of the fail-safe voltage during normal operation of the system.

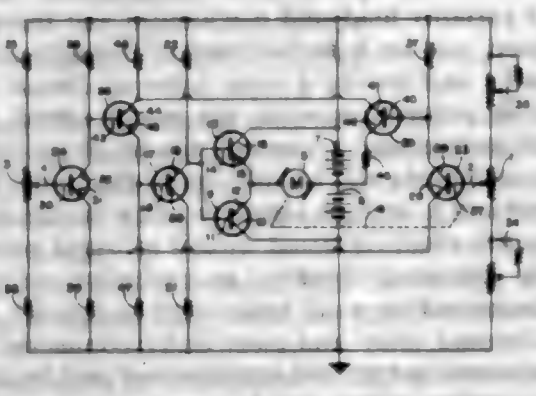
10. A null-balance system as in claim 6 in which said power output stage comprises a pair of electronic tubes each including a plate, a grid and a cathode, a center-tapped transformer having its outer ends connected respectively to said plates, said motor having a control winding serially connected between said cathodes and the center tap of said transformer, said tubes being alternately selectively conductive to produce output signals of opposite phase, said motor being responsive to one of said output signals for rotation in one direction and responsive to another of said output signals of opposite phase for rotation in an opposite direction, said tubes being responsive to the phase of the signal applied to the grids thereof from said voltage-amplification stage to vary the ratio of magnitude between the output signals of said tubes for causing said motor to rotate in one direction or in the opposite direction, said biasing means comprising a conductive connection between the plate of one of said tubes and the grid thereof, and said feedback loop being connected between the transformer side of said control winding and the cathode of said voltage-amplification stage.

2,846,630

TRANSISTORIZED SERVO POSITIONER SYSTEM

Homer G. Boyle, Dayton, and Richard W. Bradmiller, Charles J. Parker, and Allen E. Plogstedt, Cincinnati, Ohio, assignors to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware

Application June 19, 1957, Serial No. 666,527
14 Claims. (Cl. 318—28)

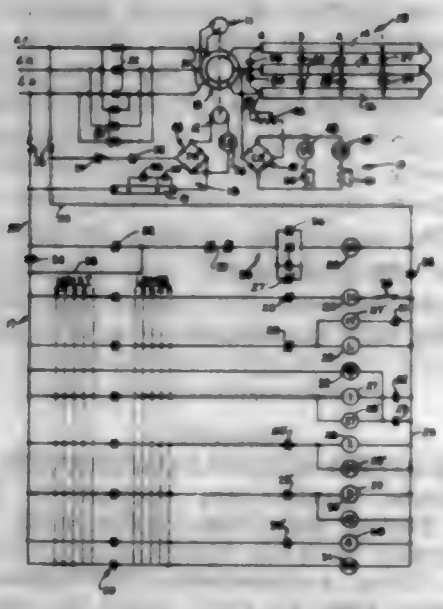


7. A servo positioner system for remotely positioning a reversible shaft comprising: a reversible electric motor coupled to said shaft; means responsive to a condition for selectively energizing said motor in a forward or reverse direction comprising a reference network and an error network; a reference potentiometer in said reference network and an error potentiometer in said error network, said error potentiometer being mechanically coupled to said motor, and both of said potentiometers being connected across a direct current source; a reference amplifier in said reference network and an error amplifier in said error network; the input circuit to said reference amplifier being connected between said reference potentiometer and a point of reference potential, the input circuit of said error amplifier being connected between said error potentiometer and said point of reference potential; an anti-hunting control circuit for said motor responsive to the change in output of said reference amplifier, said anti-hunting control circuit comprising a PNP-type transistor having base, emitter and collector electrodes and an NPN-type transistor having base, emitter and collector electrodes, said emitters being interconnected and said bases being interconnected, said collectors being connected, respectively, to opposite ends of said direct current source; said motor being connected between the junction of said emitters and the center point of said direct current source; whereby said motor drives said error potentiometer to change the input voltage to said error amplifier to rebalance the error and reference amplifiers and de-energize said motor.

2,846,631
EDDY-CURRENT BRAKE FOR HOISTS AND THE LIKE

Albert F. Vogt, Ferndale, Mich., assignor to Northern Engineering Works, Detroit, Mich., a corporation of Michigan

Application June 11, 1956, Serial No. 590,472
2 Claims. (Cl. 318—209)

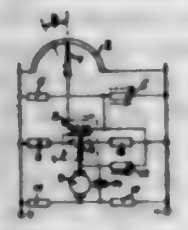


1. In a control system for a hoist or like mechanism having an electromagnetic brake operatively connected thereto to variably load said mechanism and thereby control its speed, and an induction motor drivingly connected to said brake and having a rotor external circuit variably energized in accordance with the motor speed, the improvement comprising a control circuit electrically connected to said brake to variably excite the same, said circuit comprising a voltage sensitive relay electrically connected to the rotor external circuit of said motor and electrically energized thereby, an excitation circuit electrically connected to said brake and a contact element operated by said relay and electrically connected to said excitation circuit to vary the excitation of said brake in response to varying motor speed.

2,846,632
CONTROL SYSTEM

Hans Jurgen Dudenhausen, Stuttgart, Germany, assignor to Intavex, Inc., New York, N. Y., a corporation of New York

Application January 27, 1954, Serial No. 406,483
Claims priority, application Germany July 17, 1953
4 Claims. (Cl. 318—257)

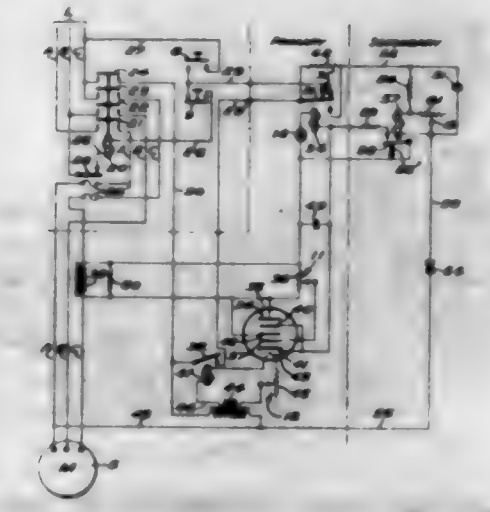


1. A servo mechanism comprising a direct current electric motor, a potentiometer, and a polarized relay having its armature connected in the armature circuit of said motor, the actuating coil of said relay being connected in series between the movable tap of said potentiometer and the armature of said relay, whereby upon energization of said motor via said relay, the back E. M. F. of said motor causes current flow in said actuating coil in opposition to that caused by said potentiometer.

2,846,633
PROTECTION DEVICE FOR MOTOR DRIVEN EQUIPMENT

Harold F. Gingrich, Palmyra, Pa., assignor of one-third to Theodore K. Banks and one-third to Harold Bercene Brewer, both of Hershey, Pa.

Application January 14, 1955, Serial No. 481,766
11 Claims. (Cl. 318—447)

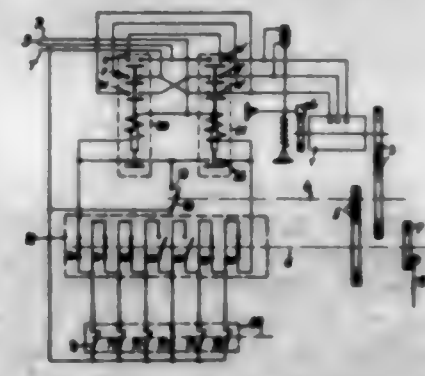


1. In combination with a machine driven by an electric motor having an energizing circuit, driving force limiting means for protecting the machine against overload comprising relay means having current responsive input means operatively associated with said motor energizing circuit for energization at a level determined by the current passing through said energizing circuit and output means connected in controlling relation to said energizing circuit to open the same upon the occurrence of an overload on said machine as determined by a current rise in said energizing circuit, said relay means including adjustable gain amplifier means coupling said output means to said input means for continuous energization thereby, said amplifier means being adjustable to selectively vary the level of energization of said output means for a given energization of said input means.

2,846,634
ELECTROMECHANICAL CONTROL DEVICE

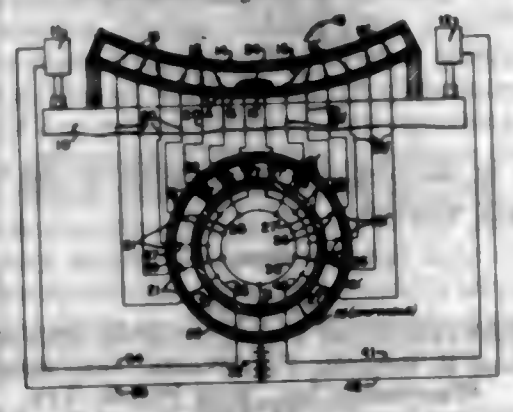
Franz Bauer and Hubert Naimer, Vienna, Austria; said Bauer assignor to said Naimer

Application March 12, 1956, Serial No. 570,872
Claims priority, application Austria March 12, 1955
2 Claims. (Cl. 318—467)



1. An electromechanical control device for producing defined and predeterminable mechanical movements, comprising an electrical drive means, a first shaft arranged to be driven by said drive means, a speed reducer, a second shaft coupled by said speed reducer to said first shaft, first and second control switches operable by said first and second shafts respectively, means for varying the angle of rotation of said second shaft between an initial position and a position in which it operates said second control switch, and means arranged to stop said drive means in response to both said control switches being effective at the same time.

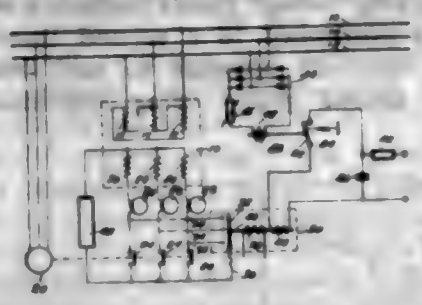
2,846,635
AUTOMATIC LEVELING CONTROL
Rexford P. Shea, Riverside, Calif., assignor to Preco Incorporated, Los Angeles, Calif., a corporation of California
Application June 8, 1954, Serial No. 435,116
15 Claims. (Cl. 318—489)



1. For use with a movable member having reversible motor means connected therewith to tilt the same in one direction or the other, an automatic leveling control for holding said movable member at a predetermined angle of inclination comprising, in combination, a tilt-responsive unit connected to said member to be moved thereby, said unit having a plurality of spaced, aligned contacts provided thereon and arranged in a row, a contact medium bridging two adjacent contacts on said unit, said contact medium being movable progressively along said contacts toward one end or the other of said row in response to tilting of said unit, means providing a source of electrical energy, said means being connected at one side to one side of said motor means, a manually adjustable switch comprising a pair of relatively movable members, both of said switch members having a plurality of aligned contacts provided thereon which are adapted to register with one another, the contacts of one of said switch members being connected to corresponding contacts on said tilt-responsive unit, the contacts of the other switch member being alternately connected to the other side of said motor means and to the other side of said means providing electrical energy, except that two adjacent intermediate contacts of said other switch member are both connected to one of said means, the contacts on one side of said two adjacent contacts being connected to said motor means to operate the same so that said movable member is tilted in one direction and the contacts on the other side being connected to said motor means to operate the same so that said movable member is tilted in the other direction, said two adjacent contracts being operable to produce a condition of like polarity on two adjacent contacts in said tilt-responsive unit, thereby producing a null point in said unit which can be shifted by moving said other switch member with respect to said one switch member, movement of said contact medium to one side or the other of said adjusted null point causing said motor means to restore said movable member to said predetermined angle of inclination.

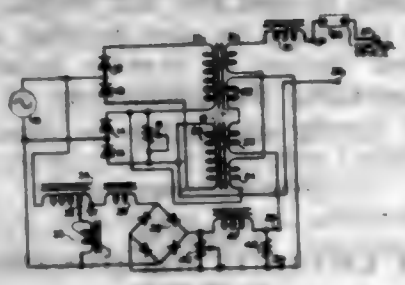
2,846,636
RECTIFIER PROTECTIVE MEANS
Hans-Joachim Kleinvogel, Berlin-Siemensstadt, Germany, assignor to Siemens-Schuckertwerke A. G., Berlin, Germany, a corporation of Germany
Application September 18, 1956, Serial No. 610,462
Claims priority, application Germany September 21, 1955
10 Claims. (Cl. 321—11)

1. In a rectifying device for energizing a direct current load from an alternating current source, a short circuiter comprising a movable contact movable into short circuiting connection with respect to said rectifying device and operating means energizable for initiating said movement of said short circuiter contact; a first and second fault sensing means for energizing said operating means, said first fault sensing means being connected to energize said operating means responsive to flow of



reverse current in said rectifier device, said second fault sensing means being connected to energize said operating means responsive to a decrease in voltage of said alternating current source beyond a predetermined value.

2,846,637
VOLTAGE AND CURRENT REGULATOR
Henry M. Huge, Bay Village, Ohio, assignor to Lorain Products Corporation, a corporation of Ohio
Application July 30, 1953, Serial No. 371,225
13 Claims. (Cl. 321—25)

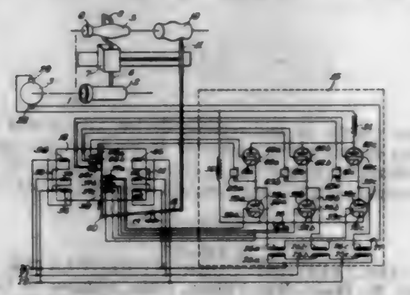


1. Means for energizing a direct current control device comprising in combination, direct current load terminals connected to alternating current input terminals through rectifying means comprising a plurality of rectifying elements, a plurality of saturable magnetic flux paths, biasing winding means embracing said flux paths, means for supplying a substantially constant unidirectional current to said biasing winding means to magnetize said flux paths, a plurality of impedance windings, one embracing each of said flux paths, each of said impedance windings being connected in series with one of said rectifying elements, whereby said flux paths are demagnetized by current flowing through said rectifying elements, a resistance element energized with rectified current from said rectifying elements, compounding winding means embracing said flux paths, direct current circuit means extending between said resistance element and said load terminals and including the compounding winding means and said direct current control device in series, said compounding winding means being polarized to magnetize said flux paths when current flows from said rectifying elements to said load terminals.

2,846,638
MOTOR CONTROL SYSTEM
Yves C. Seel, Paris, France, assignor to Welding Research, Inc., Chicago, Ill., a corporation of Illinois
Application October 19, 1953, Serial No. 387,017
2 Claims. (Cl. 321—38)

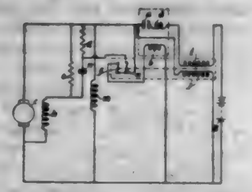
1. A system for providing from a three-phase alternating current source a direct current which varies in accordance with the movement of a member, said system including rectifier means connected to said source of three-phase alternating current, said rectifier means including a first group of three grid controlled rectifier elements each connected to one phase of said three-phase source to provide current of one polarity, and a second group of three grid controlled rectifier elements each connected to one phase of said three-phase source to provide current of the opposite polarity, and phase

shifting means including a first group of three coils positioned in a first three phase field and individually coupled to the grids of said rectifier elements of said first group for applying voltage pulses thereto, a second group of three coils positioned in a second three-phase field moving in a direction opposite to said first field, said coils of said second group being individually coupled



to the grids of said rectifier elements of said second group, said coils of said first and second groups being mechanically connected to said member and following said movement thereof to provide pulses of varying phase for controlling the conductivity of said rectifier elements and thereby controlling the direct current delivered thereby.

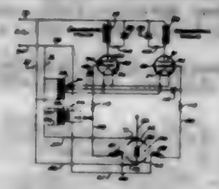
2,846,639
AUTOMATIC CUT-OUTS FOR DYNAMO-BATTERY SYSTEMS
Victor John Read, East Dulwich, London, England, assignor to C. A. V. Limited, London, England
Application June 24, 1957, Serial No. 667,340
Claims priority, application Great Britain July 2, 1956
1 Claim. (Cl. 322—25)



An automatic cut-out of the kind specified for a dynamo-battery system, comprising an electromagnet responsive to the dynamo voltage for closing the cut-out contacts, a dual switch having parts which when closed respectively short-circuit a resistance in the field winding circuit of the dynamo, and close the circuit containing the winding of the said electromagnet, and a second electromagnet comprising opposed current and voltage windings for opening the dual switch when current flows from the battery to the dynamo.

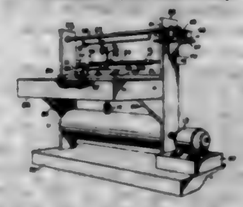
2,846,640
CONTROL CIRCUITS
William J. Cheronos and Lester A. Price, Milwaukee, Wis., assignors to Harnischfeger Corporation, Milwaukee, Wis., a corporation of Wisconsin
Application June 13, 1955, Serial No. 515,078
12 Claims. (Cl. 322—59)

1. An induction controller comprising a primary winding and paired secondary windings, means for shifting the relative position of the primary winding with respect to the secondary windings, said means having a neutral position in which the primary winding is substantially intermediate said secondary windings and in which a voltage of small magnitude is induced in both secondary



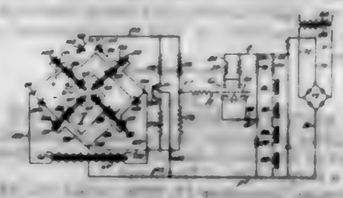
windings in out-of-phase relationship to the voltage of the primary winding.

2,846,641
SERVOMOTOR POSITIONING DEVICE
Raymond B. Basham, Fort Worth, Tex., assignor to Westronics, Inc., Fort Worth, Tex.
Application January 23, 1957, Serial No. 635,857
8 Claims. (Cl. 323—66)



2. A positioning system comprising, a drum mounted for rotation about its central axis, means for rotating said drum, a steerable friction wheel in rolling contact with said drum, a carriage movable responsive to lateral movement of said wheel, an element to be positioned controlled by movement of said carriage, a variable voltage source controlled by movement of said carriage, a steering mechanism for said friction wheel, electromagnetic means adapted for controlling said steering mechanism, and an electronic amplifier having output terminals connected in circuit with said electromagnetic means and having input terminals connected in circuit with the output of said variable voltage source and a source of system input signals.

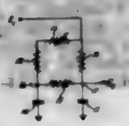
2,846,642
MAGNETIC AMPLIFIER CONTROL SYSTEMS
William Few, Goshen, Ind., and John D. Sauter, Lyndhurst, Ohio, assignors to The Clark Controller Company, Cleveland, Ohio, a corporation of Ohio
Original application July 28, 1952, Serial No. 301,292, now Patent No. 2,744,230, dated May 1, 1956. Divided and this application October 28, 1955, Serial No. 541,721
2 Claims. (Cl. 323—89)



1. A transductor system comprising: four linear circuit elements, each comprising an inductor winding and a rectifier in series; a core in each winding; the circuit elements connected together end to end at four connection points in a closed loop formation, two opposite points being connected to spaced points of an A. C. transformer secondary, the other two opposite points connected to

output terminals; the rectifiers poled so that a first pair of elements are conductive from one terminal connected point to the two opposite A. C. connected points; and so that the second pair of elements are conductive from the two opposite A. C. connected points to the other terminal connected point; a control winding common to all of the cores having terminals for connecting it to be energized by variable control current from a unidirectional source; the control winding and inductor windings poled so that the control winding energization increases the core flux of one pair of elements and decreases the core flux of the other pair of elements; a voltage divider between the output terminals; a connection from an intermediate point on the voltage divider to the mid-point of the secondary, and to a main of a circuit to be controlled; a second voltage divider between the output terminals and a connection from an intermediate point of the second divider to another main of the circuit to be controlled.

2,846,643
COMPENSATED ELECTRICAL INTEGRATOR
Albert H. Foley, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application June 1, 1956, Serial No. 588,925
12 Claims. (Cl. 323—122)



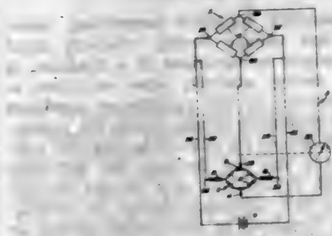
1. A compensated electrical integrating and phase shifting network comprising first and second series combinations of first and second reactive elements of the same type respectively and first and second resistive elements respectively, said series combination being connected in parallel with one end of each of said reactive elements connected together, input voltage means connected across the parallel connected combinations, output circuit means connected across the one element of said first series combination having a lagging voltage with respect to the voltage of the other element of said first series combination, and an impedance element of the same type as said other element connected between the other ends of said reactive elements.

2,846,644
COMBINATION FLASHLIGHT AND CIRCUIT TESTER
William M. Costello, New York, N. Y.
Application December 24, 1956, Serial No. 630,186
3 Claims. (Cl. 324—53)



1. The combination with a flashlight having a control switch, a casing, a flashlight light bulb and flashlight batteries within said casing, of three plug-in sockets mounted on said casing, a test neon tube mounted on said casing having a first terminal conductively connected to a first terminal of the first one of said plug-in sockets while its second terminal is conductively connected to a first terminal of the second one of said plug-in sockets, a change-over switch mounted on said casing and having three terminals the first one of which is conductively connected to a second terminal of said second plug-in socket while the second terminal of said change-over switch is conductively connected to the first terminal of said second plug-in socket as well as to a second terminal of said neon tube, a resistor within said casing having a first terminal conductively connected to a third terminal of said change-over switch and having a second terminal conductively connected to a second terminal of said first plug-in socket, a third plug-in socket mounted on said casing having a first terminal conductively connected to a first terminal of said flashlight light bulb as well as to a first terminal of said flashlight control switch and having a second terminal conductively connected to a second terminal of said control switch as well as to a first terminal of the flashlight battery, whose second terminal is conductively connected to a second terminal of said flashlight light bulb, said change-over switch being adapted for alternatingly conductively connecting its third terminal with its first terminal or with its second terminal, said first and said third plug-in sockets being adapted for having their terminals detachably conductively connected to terminals of an electric circuit to be tested, and said second plug-in contact being adapted for having its terminals detachably and conductively connected to the terminals of a source of current outside of the flashlight.

2,846,645
REMOTE POTENTIOMETER NETWORK MEASURING SYSTEM
Arthur C. Rage, Cambridge, Mass., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application July 2, 1953, Serial No. 365,604
13 Claims. (Cl. 324—57)



1. A measuring circuit comprising at least one first potentiometer network and at least one second potentiometer network, each of said networks having two input and two output terminals, a single source of power for energizing both of said networks, means including a continuous electrical conductor for energizing said first potentiometer network through its input terminals from said sources of power, means including a continuous electrical conductor for energizing said second potentiometer network through its input terminals from said source of power, said last named conductor including in series at least a part of the first named conductor, said second potentiometer network having an electrical impedance which is large relative to the electrical impedance of the path connecting it to the said single source of power exclusive of said part of the first named conductor, whereby the relative magnitudes of the voltages applied across the input terminals of said first and second networks are substantially independent of the electrical impedance of said power conductor means, means for connecting the output terminals of said first potentiometer network and said second potentiometer network thereby to provide a single combined output which is proportional to the algebraic sum of the open circuit outputs of said first and second potentiometer

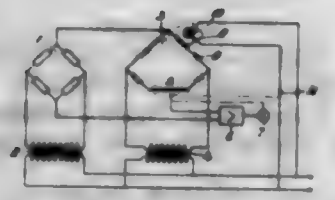
networks, and means responsive to said single combined output, the relative contributions of said first and second potentiometer networks to the single combined output thereby being made substantially independent of the electrical impedances of both of said means for connecting them to said single source of power, said second potentiometer network including a potentiometer having two potentiometer contacts independent of each other and at least one of which is adjustable, said two contacts being connected in series with the output terminals of said second potentiometer network, said potentiometer being interposed between two isolating resistors which together exceed in electrical resistance the resistance of said potentiometer, and said potentiometer and isolating resistors being connected in series with the input terminals of said second potentiometer network.

2,846,646

MEASURING OR RECORDING DEVICE

Gerard Willem Van Santen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application June 7, 1954, Serial No. 434,911
Claims priority, application Netherlands June 17, 1953
8 Claims. (Cl. 324—62)



1. Electrical measuring apparatus comprising means for producing a first voltage having relatively rapid variations as determined by variations of a condition to be measured and having relatively slow variations as determined by variations of the equilibrium condition of said first voltage producing means, means for producing a second voltage, means for interconnecting said voltage producing means and for deriving the difference voltage of said first voltage and said second voltage, means responsive to said difference voltage for producing relatively rapid variations of said second voltage as determined by the said rapid variations of said first voltage, and means coupled to said last-mentioned means for further varying said second voltage as determined by the said relatively slow variations of said first voltage whereby said difference voltage is unaffected by slow variations in said first voltage.

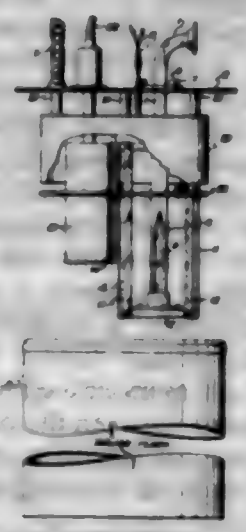
2,846,647

MICROWAVE CALORIMETRIC WATTMETER

Alan C. Macpherson, District Heights, Md., assignor to the United States of America as represented by the Secretary of Commerce

Application June 29, 1956, Serial No. 595,032
2 Claims. (Cl. 324—95)

1. A microwave wattmeter comprising a dewar flask containing a fluid to be heated, a removable closure member for said flask, a section of rectangular waveguide passing through said closure member and projecting into said flask, a heat shield supported from said closure member, an insulating frame affixed to said heat shield supporting the terminal end of said waveguide section, the sides of said waveguide section within said flask including microwave transparent windows having a tapered configuration in a direction away from said terminal end, a plurality of heater wires supported on said frame with a connecting lead passing through said closure member, thermometer means passing through said closure member having a temperature-sensitive element projecting into said flask



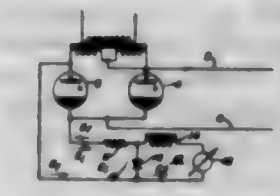
and an indicating element external of said flask, and stirrer means within said flask supported from said shield.

2,846,648

ARC DROP VOLTIMETER

Roswell W. Gilbert, Montclair, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application September 26, 1955, Serial No. 536,446
2 Claims. (Cl. 324—119)



1. Apparatus for measuring the arc drop voltage of a gaseous rectifier in service operation, said apparatus comprising a direct current indicating instrument having a pointer movable over a scale calibrated in volts; an inductor; a resistor; a series diode; leads connecting the said instrument, inductor, series diode and resistor in series across the anode and cathode of the gaseous rectifier, the polarity of said series diode being such that it conducts current when forward current flows through the gaseous rectifier; a first shunting diode connected across said leads and in shunt with both the instrument and the inductor; a second shunting diode connected across said leads and in shunt with the instrument, inductor, first shunting diode and the series diode, the polarity of the said two shunting diodes being such as to block the flow of current therethrough when forward current flows through the gaseous rectifier.

2,846,649

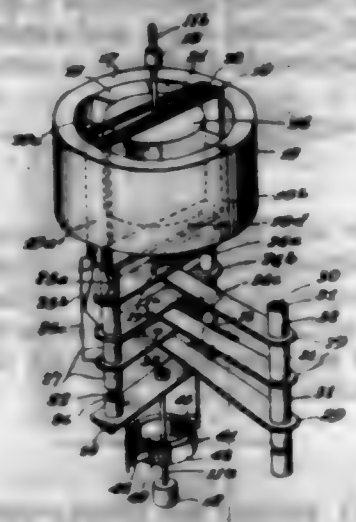
ELECTRICAL CONNECTOR

Willy H. O. Hornauer, Lemont, Ill., assignor to Ampatco Laboratories Corporation, a corporation of Delaware

Application September 26, 1952, Serial No. 311,675
3 Claims. (Cl. 324—155)

2. An electrical connector of the character described, comprising: a coil; mounting means carrying said coil about a transverse pivotal axis; means for establishing a magnetic flux to be cut by a portion of said coil moving circumferentially around said axis; a pair of studs extending from said coil parallel to and on opposite sides of said axis; a first member of conductive material car-

ried between said studs and intersecting said axis, said member being electrically connected to said coil; and a



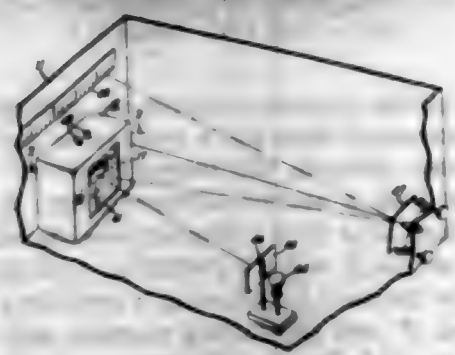
second member of conductive material in fixed position relative to said coil and in electrical conductive contact with said first member at a point on said axis.

2,846,650

LIGHT REFLECTING TRANSDUCER DEVICE

Theodore A. Rich, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application June 26, 1952, Serial No. 295,662
14 Claims. (Cl. 324—97)



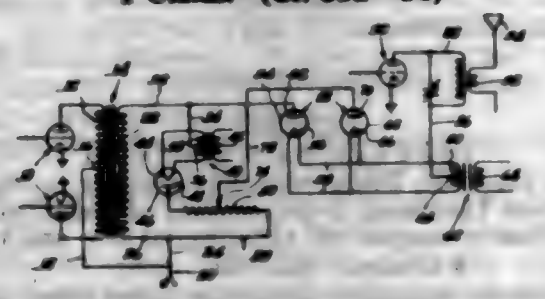
9. A transducer for use in electrical measuring instruments including in combination an electromagnetic core structure having an open area therein, solenoid means surrounding a portion of said core structure for producing a varying magnetic field across said open area proportional to the electrical energy to be measured, a torsional support positioned in said open area, and a combination movable armature and mirror secured to said torsional support and disposed in said open area, said movable armature comprising a relatively lightweight piece of non-magnetizable material having a thin film of magnetizable material covering the surface thereof and forming a mirror surface.

2,846,651

HIGH LEVEL A. M. MODULATION

Joseph D. Liga, Estontown, and Vincent A. Abbatiello, New Shrewsbury, N. J.

Application September 16, 1955, Serial No. 534,698
1 Claim. (Cl. 332—38)



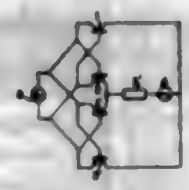
An A. M. modulation circuit comprising a carrier amplifier stage having an input connection for a modulating voltage, a modulation transformer having input and output windings, said output winding providing an alternately relatively positive and negative modulating voltage when a modulation voltage is applied to the input windings, a source of D. C. potential, means connecting one end of the output winding to said source of D. C. potential, a rectifier device, means connecting the cathode end of said rectifier device to the other of said output winding, a potentiometer, means connecting said potentiometer to said source of D. C. potential and to the anode of said rectifier device, no point on said potentiometer being grounded whereby modulating voltage is fed back to said rectifier device to prevent distortion, an electronic switch including a pair of rectifiers each having an anode and a cathode, means connecting the anode of one of said rectifiers to said other end of said output winding, means including a tap on said potentiometer connecting the anode of the second rectifier to the potentiometer, means connecting the cathodes of said rectifiers in parallel to said input connection whereby said electronic switch alternately evects connection of said other end of said output winding and the tap on said potentiometer to said input connection.

2,846,652

TRANSISTOR MODULATOR

Johannes Meyer Clawen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application April 24, 1956, Serial No. 580,355
Claims priority, application Netherlands May 2, 1955
9 Claims. (Cl. 332—52)



1. A modulator circuit arrangement comprising a pair of transistors, each having an emitter electrode, an collector electrode, a base electrode, an emitter-collector path and a collector-base path, means for connecting the emitter-collector path of one of said transistors in series with the collector-base path of the other of said transistors, means for connecting the collector-base path of said one transistor in series with the emitter-collector path of said other transistor, means for controlling the electrical admittance of said emitter-collector paths comprising a first signal source connected between the emitter and base electrodes of said transistors, a second signal source, means for deriving an output signal connected in series circuit arrangement with said second signal source, and means for coupling said collector electrodes comprising said series circuit arrangement.

2,846,653

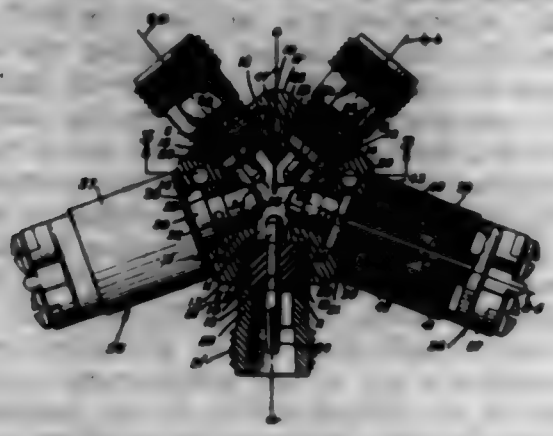
MULTIPLE CHANNEL COAXIAL SWITCH

Donald H. Lanctot, Malibu, and Reginald G. Keaway, Playa Del Ray, Calif., assignors to Transco Products, Inc., Los Angeles, Calif., a corporation of California

Application November 28, 1955, Serial No. 549,319
9 Claims. (Cl. 333—7)

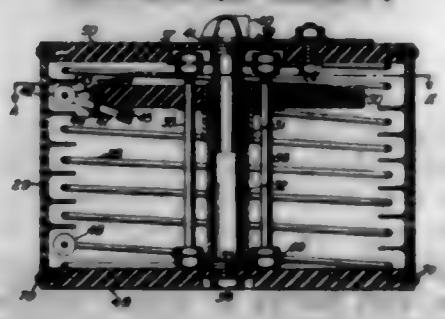
1. In a coaxial switch: a central coaxial conductor unit; branching coaxial conductor units arranged in Y-relation to said central unit and in V-relation to each other, each of said coaxial conductor units comprising an axial conductor and a tubular conductor surrounding the same, the inner ends of said tubular conductors being joined and the inner end of the axial condutcors of said branching conductor units being spaced from the inner end of the axial conductor of the central conductor

unit so as to form gaps; an isolating element comprising a slender wall member of electro-conductive material connected to and projecting inwardly from the junction of said tubular conductors of said branching conductor units toward said axial conductor of said central coaxial



conductor unit and in angular relation to the axes of said branching conductor units; bridging conductors supported so as to be moved between positions bridging said gaps and retracted positions laterally displaced from said gaps; and means for selectively shifting said bridging conductors between said bridging and retracted positions.

2,846,654
MAGNETOSTRICTIVE DELAY LINE
Herman Epstein and Oscar R. Straus, Philadelphia, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application June 25, 1952, Serial No. 295,577
2 Claims. (Cl. 333—30)



2. In pulse delay apparatus the combination of a delay line of tubular section magnetostrictive material formed into a spaced turn helix, means terminating said line at the two ends thereof to produce reflected waves of plural modes and random phase having a low resultant amplitude at points along the line, said terminating means comprising a plurality of leaves of random configuration fixedly mounted by said delay line for vibration thereby, a pair of transducers each comprising a coil surrounding said line to provide magnetic coupling thereto, a lead screw having a pitch equal to that of said helix and fixedly mounted on said frame coaxial with the helix, a member threadably engaging said screw for relative displacement therealong, and means for supporting one of said transducers from said last member for guided displacement over a plurality of turns of said helix upon rotation of said member, said lead screw furnishing axial guidance for said displacement and said helix being unsupported from said frame over the portion thereof traversed by said one transducer.

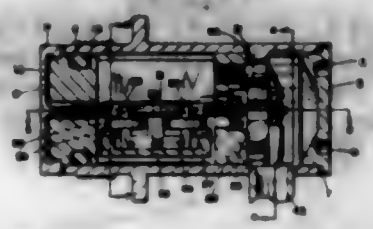
2,846,655
IMPREGNATED FERRITE
Arthur H. Iversen, Santa Monica, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application August 19, 1955, Serial No. 529,512
3 Claims. (Cl. 333—34)

1. A microwave ferrite element impregnated with a vitreous material and having a predetermined proportional composition of ferrite versus vitreous material along a predetermined direction, said composition being substantially all vitreous material at a first portion near the ends of said element along said predetermined direction and predominantly ferrite at a second portion be-



tween said ends and having a continuous transition between said portions for improved impedance match between said ferrite and space and having sufficient impregnation of said vitreous material such that said element is bonded and hermetically sealed at its surface by said vitreous material.

2,846,656
ELECTRICAL PRESSURE DETECTING DEVICE
Charles M. Wolfe, Glendora, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application May 12, 1953, Serial No. 356,262
(Filed under Rule 47(b) and 35 U. S. C. 118)
2 Claims. (Cl. 336—30)

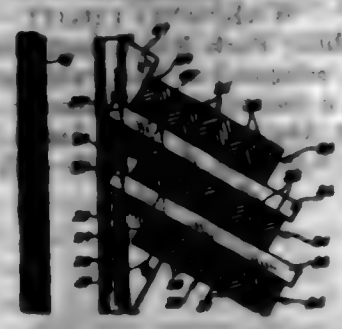


2. An electrical pressure-responsive pickup unit comprising an elongated housing, a transverse partition within the housing dividing the interior thereof into a first compartment and a second compartment, a supporting member within said first compartment having its outer end rigidly attached to said partition, a diaphragm having a flectural portion and having a periphery secured to the inner end of said supporting member and closing the inner end of said first compartment, resilient spacing means between said supporting member and the inner wall of the housing, electrical coil means and a first core means rigidly secured within said supporting member, a flexure element secured to the outer end of the supporting member, yoke means having its inner end rigidly attached to the flectural portion of the diaphragm and its outer end attached to the flexure element whereby said armature is adapted to move along the longitudinal axis of said supporting member and movement of said armature is restricted in all directions except the said axial direction, a second core means secured to the yoke and coacting with the first core means, said first and second core means having balanced air gaps between them whereby changes of pressure against the inner surface of the diaphragm correspondingly move the armature in an axial direction, differentially varying the airgaps and thereby varying the reluctance of the magnetic circuit including said core means and creating a signal proportional to the variation in pressure, electrical connecting means for said coil means located in the second compartment, and means for connecting an external cable to said electrical connecting means.

2,846,657
ELECTRICAL WINDING
Arnold L. Horelick, Bridgeville, Pa., assignor to McGraw-Edison Company, a corporation of Delaware
Application August 27, 1956, Serial No. 606,336
4 Claims. (Cl. 336—180)

1. Stationary induction apparatus comprising, in combination, a magnetic core having a winding leg, an electrical winding including a plurality of coaxially spaced

apart layers of conductor turns surrounding said leg, each of said conductors having a rectangular cross section and being disposed with the longer faces of the rectangle inclined at an acute angle to the axis of said winding, each of said layers being dished so that in any radial cross section through said layer the shorter of the rectangular



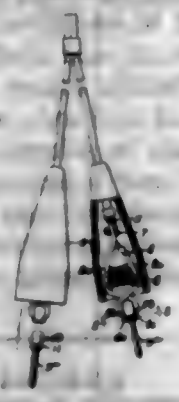
faces of said conductors are in alignment and provide an upwardly inclined surface for guiding dielectric coolant through said winding, adjacent ones of the side-by-side turns in any layer interfering and resisting displacement thereof parallel to the winding axis when short circuit forces act on the winding in a direction parallel to the winding axis.

2,846,658

INSTRUMENT TEST PROBES

Frederick M. Bender, Union N. J., assignor, by mesne assignments, to Dreystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application June 6, 1955, Serial No. 513,543
1 Claim. (Cl. 339—198)



A probe comprising a cylindrical rod pointed at one end and provided with a head integral therewith at its other end, said head being generally square in cross-section and longer than its transverse dimensions to provide two pairs of opposed flat faces, either pair of which is adapted to be engaged flatly for substantially its entire length by flat jaw plates of a clamp connector, and a flange also integral with said rod, generally square in outline and spaced from the adjacent end of said head to receive between it and said head, inturned toothed mating edges of said clamp connector plates, whereby said cylindrical rod will be held against lateral movement between a pair of adjacent teeth of said mating edges, and also serving as a stop against which the outer surfaces of said toothed mating edges may engage.

2,846,659

SOLDERING TERMINAL ASSEMBLY

Emil William Hinspeter, McHenry, and Paul C. Oppelt, Chicago, Ill., assignors to Nuclear-Chicago Corporation, a corporation of Delaware

Application October 14, 1953, Serial No. 385,964
4 Claims. (Cl. 339—198)

1. A soldering terminal assembly comprising an apertured plate and a tubular terminal extending through the plate and seated in the aperture therein, the terminal extending approximately equally from both faces of the plate, said extending portions of the terminal having elongated cylindrical outer portions of greater inner and outer diameter than the central portion and portions of diminishing diameter connecting the outer portions and the central portion to form outwardly facing cups connected by the central portion, the outer ends of the ex-



tending portion being substantially spaced from the plate whereby the terminal is locked in position by the exteriors of the extending portions, around which wires may be wound and soldered, and the cup-shaped interiors facilitate the insertion and soldering of wires therein.

2,846,660

CONNECTOR FOR BATTERY POST AND CABLE

King J. Bogardus, Sr., deceased, late of Litchfield, Conn., by Martha A. Bogardus, executrix, Litchfield, Conn., assignor to King J. Bogardus, Jr.

Application August 26, 1957, Serial No. 680,363
5 Claims. (Cl. 339—225)



1. A battery connector for electrically connecting a terminal post to an electric cable, including: a substantially horizontally disposed lower member having an aperture at one end adapted to loosely receive a battery terminal post, the end of said lower member opposite said aperture having upwardly-turned flanged edges forming a U-shaped channel, the ends of said flanged edges adjacent said aperture being inclined upwardly in aligned relation toward the end opposite said aperture; an elongated substantially Z-shaped upper member having an opening through each respective flange of the Z-shape, the length of said upper member being substantially equal with relation to the length of said lower member and superposed on said lower member with one flange of the Z-shape member disposed downwardly and adapted to loosely receive a battery terminal post through the opening therein, the width of said upper member being at least as great as the transverse width of said U-shaped channel, the other flange of said Z-shape member alignedly disposed above the upper edges of said flanged edges in parallel spaced relation and adapted to grip an electric cable in co-operation with said flanged edges, the web of said Z-shaped upper member slidably contacting the inclined ends of said flanged edges; and bolt means carried by the bight of said U-shaped channel and extended through the opening in the adjacent flange of said upper member for biassing said upper member relative to said lower member and simultaneously gripping a battery terminal post and an electric cable.

2,846,661

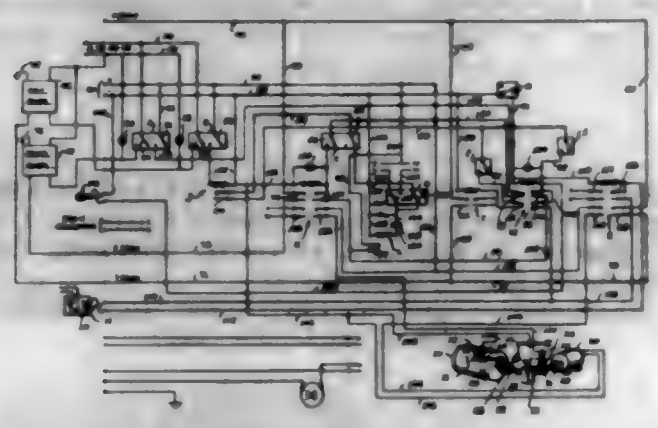
ELECTRICAL CONTROL SYSTEM FOR MAGNETIC-RECORDER

James M. Cunningham, Los Angeles, Calif., assignor to Techno Instrument Company, Los Angeles, Calif., a copartnership

Application August 4, 1952, Serial No. 302,578
20 Claims. (Cl. 340—15)

1. In a magnetic-recorder of the character described having a rotary carrier for a recording medium, magnetic

means for making a record track on said medium and motor means to actuate said carrier the combination therewith of a control system including: a first normally open stop switch adapted to close in response to movement of said carrier to a starting position relative to said magnetic means for starting a recording operation; a second normally open stop switch adapted to close in response movement of said carrier to a second loading position to permit mounting a recording medium on the carrier; a selector switch having a starting position representing the starting position of said carrier and a loading position representing the loading position of the carrier; circuit means having one side; connected to one side of both said first and second stop switches and having



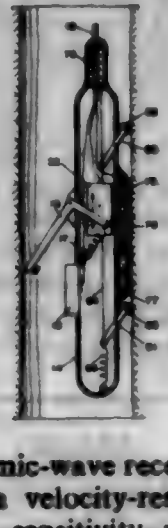
its other side connected to one side of said selector switch to form a control circuit, said selector switch at its starting position making connection with the other side of said first stop switch to close the control circuit therethrough and at its loading position making connection with the other side of said second stop switch to close the control circuit therethrough; a normally closed switch adapted to open only momentarily in response to initial current flow in said control circuit; a motor circuit to actuate said motor; means to close said motor circuit to start rotation of said carrier; and means to open said motor circuit in response to momentary opening of said normally closed switch thereby to stop said carrier automatically at its starting or loading position in accord with the position of said selector switch.

2,846,662

RECEIVING SEISMIC WAVES DIRECTIONALLY

Nell R. Sparks, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

Application October 17, 1955, Serial No. 540,790
2 Claims. (Cl. 340—15)



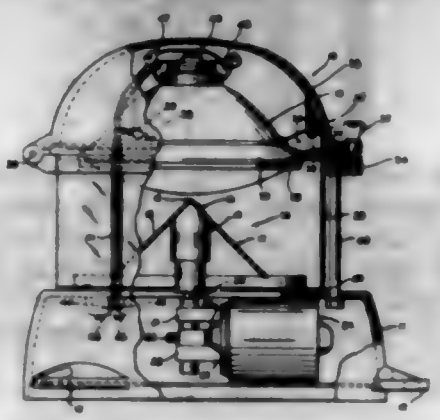
1. A directional seismic-wave receiving system comprising, in combination, a velocity-responsive seismic-wave transducer having its sensitivity axis oriented parallel to the general direction of travel of longitudinal seismic waves to be received, a filar strain gauge also oriented in said direction, means for maintaining contact between said strain gauge and the surface of the seismic-wave transmission medium, means for amplifying the outputs of said transducer and strain gauge to substantially the same predetermined level, and means for recording as separate traces simultaneously the outputs of both said transducer and said strain gauge.

2,846,663

WARNING LIGHT

Arthur C. Heehler, Park Ridge, and Albert E. Ganzert, Chicago, Ill., assignors to The Pyle-National Company, Chicago, Ill., a corporation of Illinois

Application August 23, 1955, Serial No. 530,016
6 Claims. (Cl. 340—59)



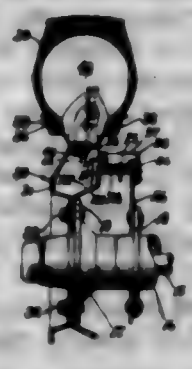
6. In a warning light, a continuously rotatable unit, means in said unit for projecting a beam of light transversely with respect to the axis of rotation thereof, a shutter supported for movement about said axis, means coupling said unit to said shutter to exert a limited drive torque to said shutter, first stop means for limiting rotation of said shutter in one direction, second stop means for limiting rotation of said shutter in the reverse direction, a reversible electric motor coupled to said unit to rotate the same about said axis, and means for selectively energizing said motor to selectively rotate said motor in opposite directions and selectively actuate said shutter into either of two positions, said unit being continuously rotatable by said motor in either direction by virtue of the limited drive torque exerted between said shutter and said unit.

2,846,664

PRESSURE INDICATOR

Hyrum J. Amundsen, Jr., Bakersfield, and Edgar N. Rosenberg, San Diego, Calif.

Application March 28, 1955, Serial No. 497,884
2 Claims. (Cl. 340—58)



1. In a vehicle including a wheel rotatably mounted on the vehicle in supporting relation thereto adapted to rotate at various angular velocities corresponding to various linear velocities of the vehicle during earth traversing movement, a pneumatic tire mounted on the wheel, a pair of spaced electrical switch contacts mounted on the vehicle adjacent to the wheel and subject to inadvertent electrical bridging by rain water, snow, ice, and the like, and a pressure responsive device mounted on the wheel for rotation therewith having pneumatic connection to the tire and including an electrically conductive plunger movable between a position periodically bridging the switch contacts during each revolution of the wheel when the pressure in the tire is below a predetermined mini-

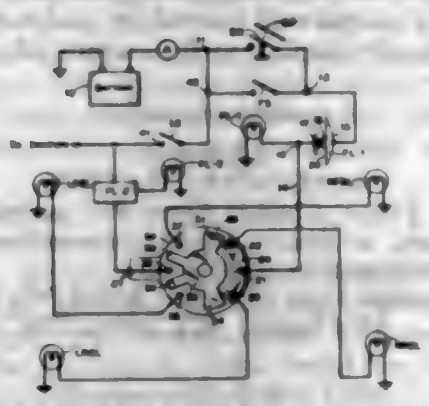
mum and a retracted position spaced from the contacts during revolutions of the wheel when the pressure in the tire is above said minimum; an electrical system for indicating reduction in pressure in the tire below said predetermined minimum adapted to avoid erroneous indication incident to inadvertent bridging of the contacts comprising an ionizable gas discharge tube having a predetermined ionizing potential and adapted to produce a visible glow upon application of a pulse of voltage corresponding to said ionizing potential; a source of low voltage of inadequate potential to span the contacts in the presence of rain water, ice, and the like; and a voltage step-up transformer including a low voltage primary coil connected in series circuit with the contacts and the low voltage source, and a high voltage secondary coil connected in series circuit with the gas tube, the low voltage source being applied in pulses across the low voltage primary coil of the transformer incident to wheel rotation when the plunger is in said bridging position to induce comparatively high voltage pulse current in the secondary coil of ionizing potential for the gas tube to energize the tube.

2,846,665

SIGNALING SYSTEMS FOR AUTOMOTIVE VEHICLES

Jesse R. Hollins, Brooklyn, N. Y., assignor, by mesne assignments, to Abraham Hollins and Jesse R. Hollins, Brooklyn, Lewis S. Hollins, Great Neck, and Theodore D. Davidson, New York, N. Y.

Application December 30, 1955, Serial No. 556,580
6 Claims. (Cl. 340—81)



1. In combination with an automotive vehicle having a battery, a normally open brake pedal operated brake switch in series with said battery, and a pair of stop lamps mounted on either side of the rear of the vehicle; a first flasher including a thermostatic operator and a pair of normally closed contacts in series with said brake switch; a turn signal selector switch interposed between said contacts and said stop lamps, and having a neutral position and a pair of turn signaling positions; and a second flasher in series with said battery and said selector switch; said selector switch, in its neutral position, connecting both stop lamps in parallel to said normally closed contacts and, in either turn signaling position, connecting one stop lamp to said normally closed contacts and the other stop lamp to said second flasher; said thermostatic operator, when both stop lamps in parallel are drawing current therethrough, being sufficiently heated to periodically open and close said contacts and, when only one stop lamp is drawing current therethrough, being insufficiently heated to open said contacts; whereby to flash both stop lamps if the brakes are applied with the selector switch in the neutral position, and to flash said one stop lamp to signal a turn if the selector switch is moved to a turn signaling position without application of the brakes; said other stop lamp, if the brakes are applied while said selector switch is in a turn signaling position, being steadily energized through said contacts in the closed position.

2,846,666

MAGNETOSTRICTIVE PULSE DELAY APPARATUS

Herman Epstein, West Chester, and Oscar B. Strum, Paoli, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Original application June 25, 1952, Serial No. 295,577. Divided and this application April 11, 1956, Serial No. 577,493
1 Claim. (Cl. 340—173)



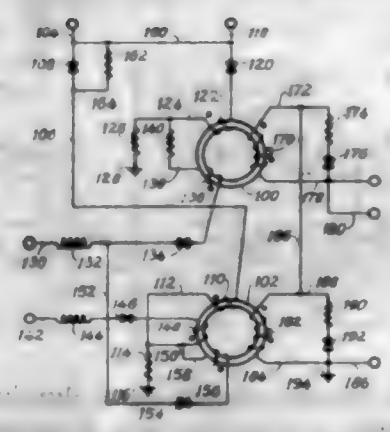
Pulse control apparatus comprising: an elongated tubular shaped element of magnetostrictive material, first transducer means magnetically coupled to said element and responsive to an applied sequence of electrical pulses to generate a similar sequence of acoustic waves therein for propagation therealong, said tubular element being slotted longitudinally to reduce modification of said acoustic waves during propagation thereof, said waves existing in said element in spaced relationship corresponding to the spacing in time of said electrical pulses, a plurality of second transducer means magnetically coupled to said element and responsive to acoustic waves in the element to derive electrical pulses therefrom, the spacing of said second transducer means along said element likewise corresponding to the spacing in time of said electrical pulses whereby portions of like phase of successive acoustic waves appear simultaneously at the locations of successive ones of said second transducer means, and means for the simultaneous utilization of electrical pulses simultaneously derived by different ones of said second transducer means.

2,846,667

MAGNETIC PULSE CONTROLLING DEVICE

John D. Goodell and Tenny Lode, St. Paul, Minn., assignors, by mesne assignments, to Librascope, Incorporated, a corporation of California

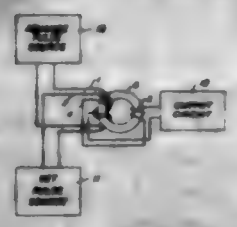
Application May 17, 1954, Serial No. 430,186
7 Claims. (Cl. 340—174)



1. A magnetic pulse controlling element comprising a pair of first and second magnetic cores, each capable of becoming magnetically saturated in each of two opposite states and of retaining the magnetic saturation in each of the two opposite states at least two input lines, means for connecting one input line to a first core and to a second core to magnetize said cores with a flux change in one direction when an input pulse occurs on said one input line, means for connecting the other input line to one of said cores to magnetize said core with a flux change in the opposite direction when an input pulse occurs on said other input line, clock means connected to said cores for magnetizing said cores with a flux change in the opposite direction during intervals of time alternated with input pulse time, and output line means connected to said cores for selectively producing an output

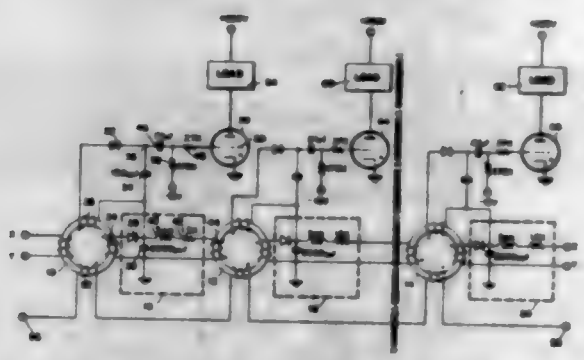
pulse during clock pulse time in dependence upon the presence of an input pulse upon both input lines during input pulse time.

2,846,668
MAGNETIC CORE CIRCUITS
Kermit S. Dunlap, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 7, 1954, Serial No. 454,546
7 Claims. (Cl. 340—174)



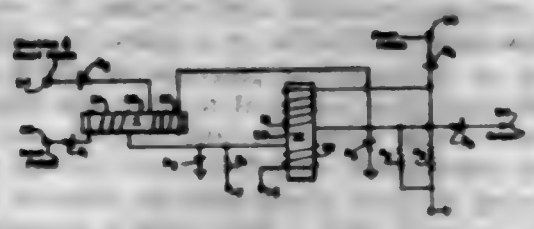
1. A magnetic core circuit including a magnetic core, having a plurality of windings thereon, said windings including at least a set, an advance and an output winding, and means for substantially preventing the appearance of an output pulse on said output winding when an advance pulse is applied to said advance winding and said core is in its unset state, said means including a neutralizing winding closely coupled to said advance winding and connected in series with and in a sense such as to oppose said output winding, said output winding being positioned on said core diametrically opposite said advance winding, and said neutralizing winding having substantially k times the number of turns of said output winding, k being the coefficient of coupling between said neutralizing winding and said output winding.

2,846,669
MAGNETIC CORE SHIFT REGISTER
Wilmer M. McMillan, Wappingers Falls, and Richard W. Lowrie, Poughkeepsie, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 28, 1955, Serial No. 484,677
5 Claims. (Cl. 340—174)



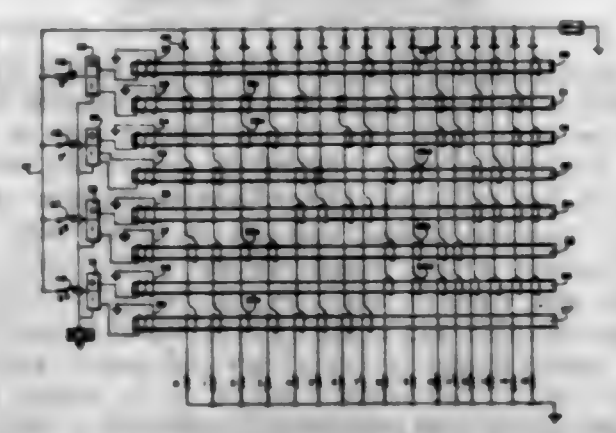
2. A magnetic system comprising a plurality of stages, each stage including a magnetic core of substantial magnetic retentivity having an input winding, a shift winding, a plurality of output windings, an associated load device and transfer means, said transfer means in each stage interconnecting one of said plurality of output windings of said core in that stage with said input windings of the core of the succeeding stage, said transfer means including a first unidirectional impedance element and a first storage device, coupling means interconnecting another of said plurality of output windings of each of said magnetic cores to its associated load device, said coupling means including a second unidirectional impedance element and a second storage device, means serially connecting said first and second storage devices of each stage whereby an output potential equal to the sum of the individual output potentials of said storage devices is supplied to their associated load device.

2,846,670
SCALE OF N COUNTER
Robert D. Terrey, Philadelphia, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application March 29, 1955, Serial No. 497,719
14 Claims. (Cl. 340—174)



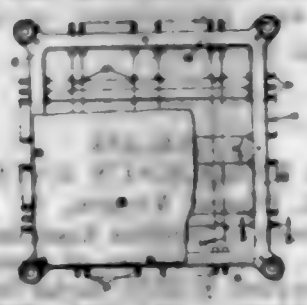
1. A control circuit comprising a magnetic amplifier having an input and an output, a source of pulses, means selectively coupling said source of pulses to said input, said last-named means including variable impedance means having first and second distinct magnitudes, said impedance means comprising a core of magnetic material having a first coil thereon, one end of said first coil being coupled to said source of pulses and the other end of said first coil being coupled to the input of said magnetic amplifier, the saturation state of said core being changed in response to application of a predetermined number of pulses from said source to said coil for changing the impedance of said first coil from said first to said second magnitude, thereby to pass a predetermined signal from said source of pulses via said first coil to the input of said amplifier, and means for selectively causing said impedance means to change from said second to said first magnitude, said last-named means comprising a second coil carried by said core and having one end thereof coupled to the output of said magnetic amplifier.

2,846,671
MAGNETIC MATRIX
Edward W. Yetter, Chadds Ford, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application June 29, 1955, Serial No. 518,910
19 Claims. (Cl. 340—174)



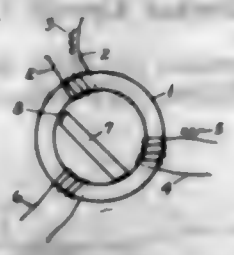
1. In a data translating system for converting signals representing symbols of a first system into signals representing symbols of another system, a saturable core for each symbol of the first system, control means for controlling the region of the hysteresis loop on which each core operates in accordance with the signals representing the symbols of the first system, a plurality of loads for providing outputs representing the second system, a plurality of coils on the cores connected via rectifier means in series with said loads to deliver signals of the second system to said loads and a source of spaced pulses coupled to said loads via said coils and rectifier means for producing pulses in selected ones of said loads dependent upon the region of the hysteresis loops on which the core for the coil is operating as determined by said control means.

2,846,673
CORE MATRIX ASSEMBLY
William M. Hennessey, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application August 31, 1956, Serial No. 607,410
3 Claims. (Cl. 340—174)



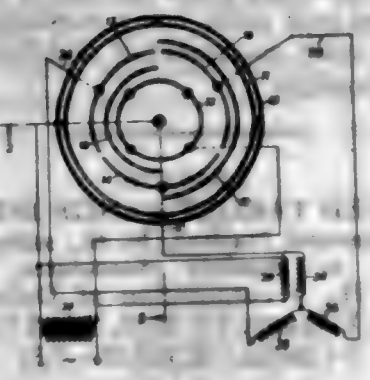
1. A core matrix assembly comprising, an annular frame having aligned apertures in opposite sides thereof, terminal lugs in said apertures, each of said terminal lugs comprising two legs of different lengths in substantially parallel spaced relation, a spacing bridge interconnecting one end of said legs on the inner side of said frame and having a guide hole for a wire, the guide hole of each bridge being axially aligned with the guide hole of its respectively aligned terminal on the opposite side of said frame, means adjacent said bridge to limit the insertion of said legs in said apertures, an outwardly projecting latch on the other end of the shorter of said legs arranged to snap into contact with the outer face of said frame when the lug is inserted in said aperture from the inside of said frame, said longer leg including a portion projecting from said outer face as a connector, wires passing through said guide hole in aligned terminals and soldered under tension to said bridge to form a criss-cross pattern, and toroidal cores positioned at crossover points of said wires with said wires passing through the apertures of said cores.

2,846,673
PULSE TRANSFORMER
Robert B. Gray, Erie, Pa., assignor to Erie Resistor Corporation, Erie, Pa., a corporation of Pennsylvania
Application October 8, 1956, Serial No. 614,571
3 Claims. (Cl. 340—174)



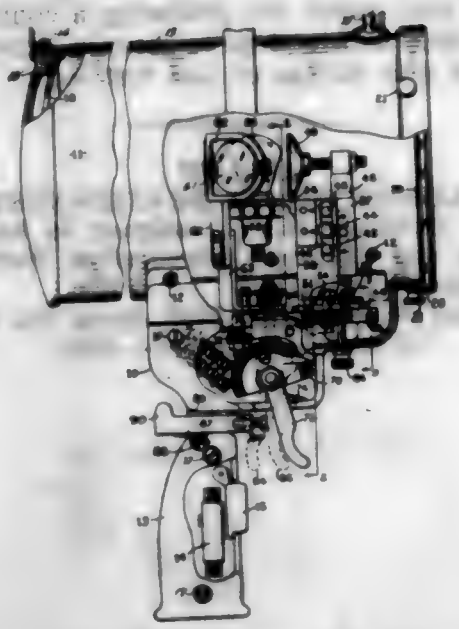
1. In a computer having series of read and write pulses, a transformer having a ring-shaped magnetic core of material capable of assuming stable remanence conditions, a winding on the core connected to receive read pulses and saturating the core in one direction during the read pulses, another winding on the core connected to receive write pulses and saturating the core in the opposite direction during the write pulses, an output winding on a part of the core remote from the other windings whereby the output is different when a read pulse follows a write pulse than when a read pulse follows a read pulse, and a magnetic shunt around the part of the core carrying the output coil, the ratio of the reluctance of the shunt to the reluctance of said part of the core being relatively smaller at saturation than at lower flux densities whereby the shunt is predominantly effective in reducing the output when a read pulse follows a read pulse which has saturated the core.

2,846,674
REMOTE INDICATING APPARATUS
Gustav Wikkenhauser, Hillingdon, Glasgow, Scotland, assignor to Kelvin & Hughes Limited, Hillingdon, Glasgow, Scotland
Application October 27, 1954, Serial No. 465,079
5 Claims. (Cl. 340—209)



1. A remote indicating device comprising a container containing a liquid electrolyte, a pair of current input electrodes fixed in the container, a divided electrode fixed between the input electrodes with the parts of the divided electrode electrically insulated from each other, a movable shutter blade between the divided electrode and one electrode, a second movable shutter between the divided electrode and the other input electrode, the shutters being mounted for rotation on a common axis the shutters being offset from each other about said axis, the parts of the divided electrode being connected to the windings of a receiver.

2,846,675
SIGNAL LIGHT GUN
Royal E. Crossley, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a corporation of New York
Application April 9, 1957, Serial No. 651,775
6 Claims. (Cl. 340—366)



1. A signal light gun comprising a housing consisting of a tubular casing and a hollow handle structure secured to the casing intermediate the ends thereof, said casing having a reflector mounted in one end thereof, the opposite end of the casing being open, a lens detachably secured to the open end of the casing, a frame mounted in said housing, a lamp receptacle carried by said frame, a filter support journalled in the frame, a filter carried by said support, a trigger mounted in the handle structure, said frame being normally positioned with a lamp mounted in said receptacle being positioned at the focal point

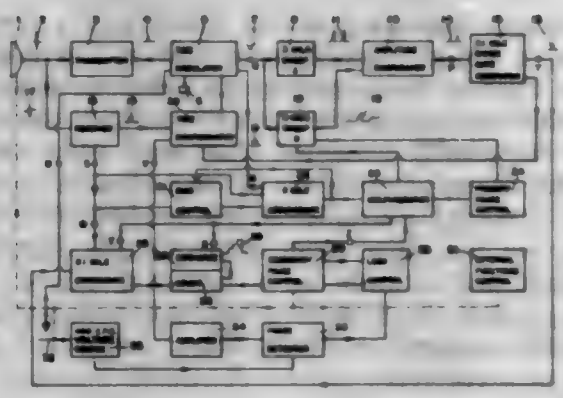
of the reflector, motion transmitting mechanism connecting said trigger to said filter support and being operable upon movement of said trigger to move said screen into and out of the axis of said reflector intermediate the lamp and the reflector, said frame being movable in the housing to move the lamp from the focal point of the reflector to the open end of the casing, said motion transmitting means including parts carried by the trigger and said frame, and said parts being movable into and out of engagement upon movement of said frame toward and from normal position.

2,846,676

HIGH SPEED TARGET RANGE INDICATOR

Martin R. Richmond, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware

Application February 17, 1954, Serial No. 410,757
8 Claims. (Cl. 343—7.3)



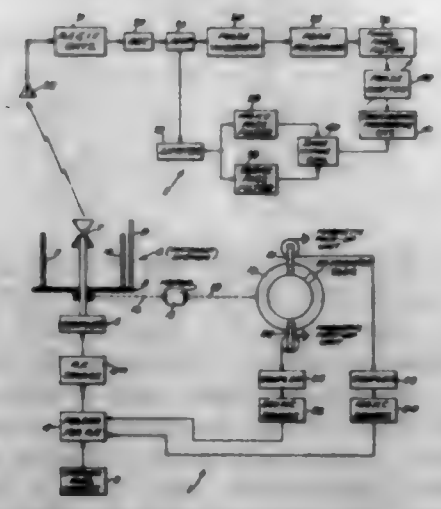
1. An electronic control system comprising a first source of voltage varying with respect to time in a predetermined manner; a second source of voltage varying with respect to time in said predetermined manner, said voltages being synchronous; means responsive to a signal for interrupting the variations of the voltage of said second source and maintaining it at its level at that time; and means responsive to differences in amplitude between said level of said interrupted voltage and the voltage of said first source for producing a control voltage varying in time with a definite relation relative to the variations of said voltage of said first source.

2,846,677

OMNI-DIRECTIONAL BEACON SYSTEM

Gus Stavis, Ossining, N. Y., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application December 31, 1953, Serial No. 401,625
12 Claims. (Cl. 343—106)



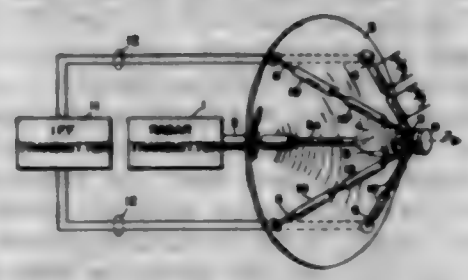
1. A radio beacon system comprising a source of radio frequency energy, means for pulse modulating said radio frequency energy, means for amplitude modulating said pulse modulated energy, means for radiating said amplitude modulated energy to form a directional radiation pattern, means for rotating said directional pattern at a predetermined rate whereby at least one sinusoid is generated for each rotation of said pattern, means for generating a plurality of pulsed reference signals for said sinusoid and means for radiating said reference signals in synchronism with the rotation of said pattern in a plurality of radial directions.

2,846,678

DUAL FREQUENCY ANTENNA

Eldridge C. Best, Mount Vernon, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware

Application June 9, 1955, Serial No. 514,286
6 Claims. (Cl. 343—727)



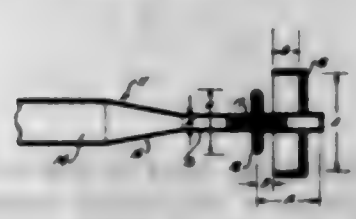
6. A dual frequency antenna for simultaneously radiating or receiving energy with two different frequencies, comprising: a first radiator adapted to radiate plane-polarized energy at a first frequency and having a first axis of polarization; a second radiator having a plurality of radiating elements adapted to radiate plane-polarized energy at a second frequency, the polarization of at least one of said elements being non-orthogonal relative to that of said first radiator; and connecting means adapted to couple said elements to a source of energy and to so phase the energy coupled to each of said elements as to provide a resultant, plane-polarized wave orthogonally polarized relative to the first said axis of polarization.

2,846,679

BEAM FORMING ANTENNA

Alvin Chlavin, Los Angeles, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware

Application December 15, 1953, Serial No. 398,263
4 Claims. (Cl. 343—775)



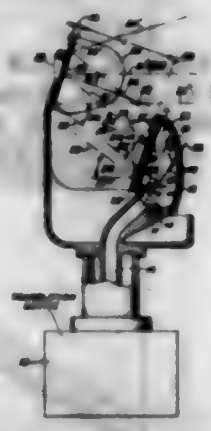
1. A microwave antenna having a radiation pattern representative of a beam which is substantially circular in cross section, said antenna comprising a length of rectangular hollow unconductor waveguide having broad and narrow walls, each of the broad walls of said waveguide being provided with an aperture positioned substantially equidistant from the narrow walls, a dipole element extending across said waveguide and projecting through said apertures, the axis of said dipole element being substantially perpendicular to the longitudinal axis of said waveguide, and a reflector shaped in the form of a right circular cylinder having one of its ends closed, said reflector being disposed with its longitudinal axis coinciding with the longitudinal axis of said waveguide and its open end facing said dipole element.

2,846,680

DIRECTIVE ANTENNAS

Willard D. Lewis, Little Silver, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 29, 1946, Serial No. 680,361
13 Claims. (Cl. 343—838)



2. In combination, a first cylindrical parabolic reflector having an axial plane, a second cylindrical parabolic reflector having an axial plane perpendicular to the axial plane of said first reflector, a pair of parallel end plates attached to said second reflector and forming therewith a rectangular aperture, the plane of said aperture forming an acute dihedral angle with the axial plane of said second reflector.

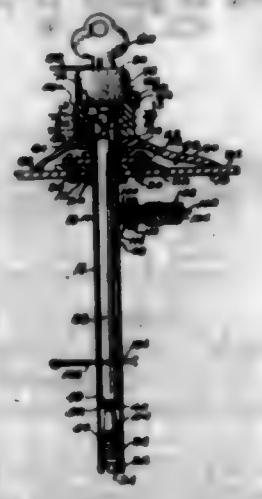
2,846,681

AUTO LOCKING ANTENNA

Isak Beals, New York, N. Y.

Application August 10, 1955, Serial No. 527,482
3 Claims. (Cl. 343—889)

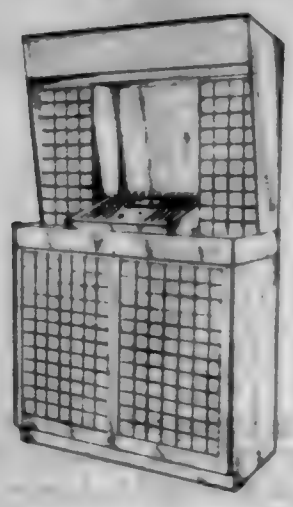
1. An antenna for vehicles, comprising a main hollow tubular housing defining an axial bore, a plurality of telescoping antenna rod sections disposed in said axial bore, and extensible outwardly therefrom for use as antennae, means insulating said antenna rod sections from said main tubular housing, cable means for connecting said antenna to a receiver, brush means for maintaining contact between said antenna rod sections and said cable means, lock supporting base means engaged by and carried by the upper portion of said main tubular housing and having an enlarged recess formed therein defining a lock engaging shoulder, resilient means biasing said antenna rod sections upwardly toward said axial bore outlet end so as to project outwardly past said lock supporting base means, key actuated releasable locking means comprising eccentrically supported shoulder engaging means insertable through said lock supporting base means so that by turning said key thereof, said eccentrically supported shoulder engaging means is turned into engagement with said lock engaging shoulder, for engaging said locking means with said lock supporting base means, and constructed and arranged for blocking, when so engaged, extension of said rod means out of said tubular housing axial bore, and characterized further in that there is hollow bezel means carried by said main tubular housing and defining a hollow bezel recess, gasket means in said hollow bezel recess, positioning plate means overlying said gasket means, and nut means threadedly engaging said main hollow tubular housing above and below said positioning plate means, for maintaining said positioning plate and said gasket means in sandwiched array on said hollow main tubular housing, under said bezel.



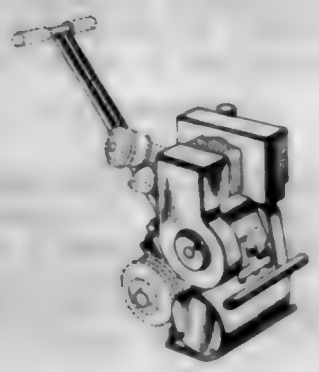
DESIGNS

AUGUST 5, 1958

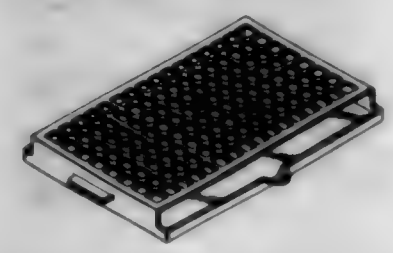
183,296
SELF SERVICE UNIT FOR TESTING AND STORING ELECTRONIC TUBES
Albert Armato, Milwaukee, and Carl R. Riolo, Pewaukee, Wis., assignors to U-Test-M Mfg. Co., Inc.
Application June 5, 1957, Serial No. 46,487
Term of patent 14 years
(Cl. D80—9)



183,297
IMPACTING MACHINE OR SIMILAR ARTICLE
Gerald H. Brown, Columbus, Ohio, assignor, by mesne assignments, to J. Leukart Machine Co., Inc., Columbus, Ohio, a corporation of Ohio
Application January 10, 1956, Serial No. 39,689
Term of patent 14 years
(Cl. D77—1)



183,298
BACON DRAINING RACK OR SIMILAR ARTICLE
Robert C. Browne, Charlotte, N. C.
Application September 21, 1956, Serial No. 43,025
Term of patent 14 years
(Cl. D44—1)



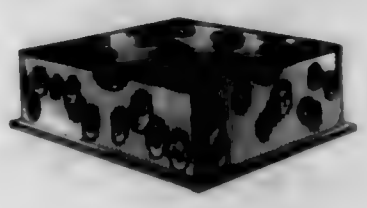
183,299
FISH SCALER
Bernard C. Burch, Acton, Ind.
Application September 13, 1956, Serial No. 42,921
Term of patent 3½ years
(Cl. D31—4)



183,300
COMBINED LENS AND COVERPLATE FOR A SEWING MACHINE LIGHT
George M. Cressaty, New York, N. Y.
Application July 16, 1956, Serial No. 42,257
Term of patent 14 years
(Cl. D70—1)



183,301
BOX OR SIMILAR ARTICLE
Eric De Kolb, New York, N. Y., assignor to Coty, Inc., New York, N. Y., a corporation of Delaware
Application March 4, 1957, Serial No. 45,048
Term of patent 14 years
(Cl. D58—12)



183,302
STEAM-COOKING CASSEROLE
Helen E. Dumbeck, Eugene, Oreg.
Application February 10, 1958, Serial No. 49,580
Term of patent 14 years
(Cl. D44—1)



183,303
DISHWASHER CABINET OR THE LIKE
Charles D. Dunbak, Lisle, Ill., assignor to General Electric Company, a corporation of New York
Application October 29, 1956, Serial No. 43,573
Term of patent 3½ years
(Cl. D49—1)



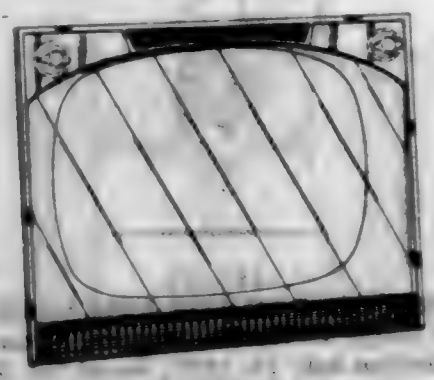
183,304
CLOCK
Harold D. Fetty, Birmingham, Mich., assignor to General Time Corporation, New York, N. Y., a corporation of Delaware
Application November 8, 1957, Serial No. 48,386
Term of patent 14 years
(Cl. D42—7)



183,305
ILLUMINABLE INSPECTION UNIT FOR AIRPLANES OR THE LIKE
Lorin R. Fluber, Wichita, Kans.
Application October 3, 1956, Serial No. 43,226
Term of patent 14 years
(Cl. D57—1)



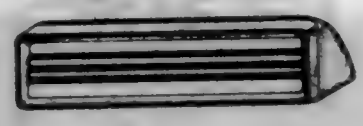
183,306
COMBINED ESCUTCHEON AND FACE PLATE FOR A TELEVISION RECEIVER CABINET
James K. Gerrie, Wilmette, and Jean O. Reinecke, Oak Park, Ill., assignors to Zenith Radio Corporation, a corporation of Delaware
Application October 3, 1956, Serial No. 43,215
Term of patent 7 years
(Cl. D56—4)



183,307
REFRIGERATOR CABINET
Edwin O. Grahn, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 30, 1956, Serial No. 43,587
Term of patent 14 years
(Cl. D67—3)



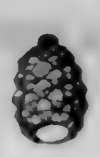
183,308
HEAT VENTING ACCESSORY FOR A CLOTHES DRYER OR THE LIKE
Donald W. Grauschr, Edison, Ohio, assignor to Whirlpool Corporation, a corporation of Delaware
Application September 19, 1956, Serial No. 43,004
Term of patent 14 years
(Cl. D49—1)



183,309
COMBINED BOTTLE AND CAP OR SIMILAR ARTICLE
Edward Hack, London, England, assignor to Flip Limited, London, England
Application August 12, 1957, Serial No. 47,329
Term of patent 14 years
(Cl. D53—9)



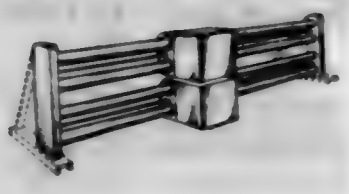
183,310
COMBINED BOTTLE AND CAP OR SIMILAR ARTICLE
Edward Hack, London, England, assignor to Flip Limited, London, England
Application August 12, 1957, Serial No. 47,330
Term of patent 14 years
(Cl. D58—9)



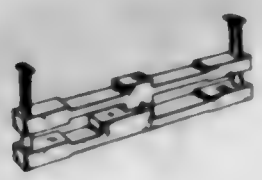
183,311
RECOIL PAD FOR FIREARMS
George L. Herter, Waseca, Minn.
Application July 25, 1957, Serial No. 47,081
Term of patent 14 years
(Cl. D30—1)



183,312
INDUSTRIAL GAUGING HEAD WITH TRAVERSING MOUNT FOR DETECTING MATERIAL PROPERTIES
Bernard C. Holben, Dublin, Ohio, assignor to Industrial Nucleonics Corporation, a corporation of Ohio
Application May 15, 1957, Serial No. 46,179
Term of patent 14 years
(Cl. D52—1)



183,313
INDUSTRIAL GAUGING HEAD FOR DETECTING MATERIAL PROPERTIES
Bernard C. Holben, Dublin, Ohio, assignor to Industrial Nucleonics Corporation, a corporation of Ohio
Application May 15, 1957, Serial No. 46,184
Term of patent 14 years
(Cl. D52—1)



183,314
PULL
Wallace T. Johnson, Burbank, Calif., assignor to Amerock Corporation, Rockford, Ill., a corporation of Illinois
Application May 16, 1956, Serial No. 41,514
Term of patent 14 years
(Cl. D50—3)



183,315
CLOTHES HAMPER
Wesley F. Junker, Copiague, and Alan A. Hicks, New York, N. Y.
Application March 26, 1957, Serial No. 45,447
Term of patent 14 years
(Cl. D58—4)



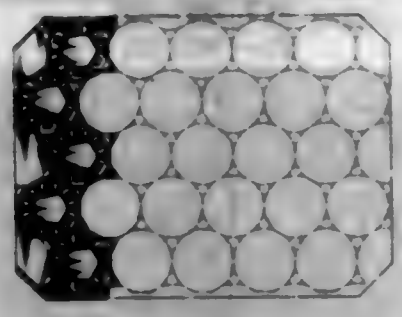
183,316
ADVERTISING DISPLAY
Nicholas Karos, Skokie, Ill.
Application May 21, 1957, Serial No. 46,259
Term of patent 14 years
(Cl. D1—12)



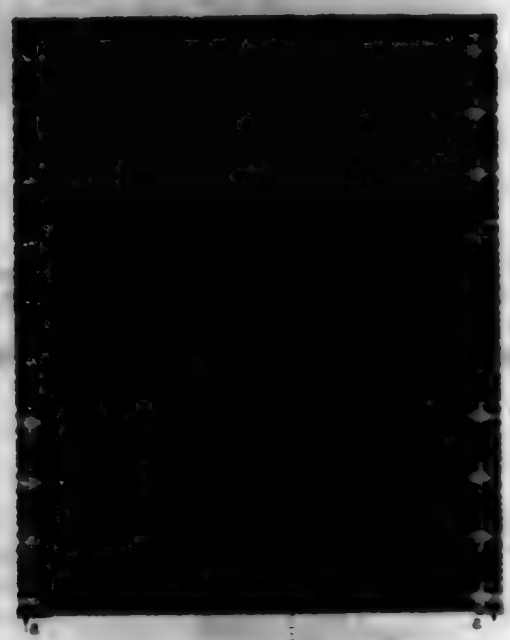
183,317
COPING BLOCK FOR SWIMMING POOLS
John Kautz, San Mateo, Calif.
Application October 20, 1955, Serial No. 38,479
Term of patent 14 years
(Cl. D18—2)



183,318
FRUIT-PACKING TRAY
Guido Martelli, Nerio Martelli, and Francesco Martelli, Bologna, Italy
Application October 16, 1956, Serial No. 43,371
Term of patent 14 years
(Cl. D58—26)



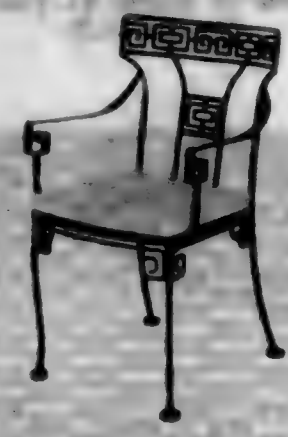
183,319
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application August 1, 1957, Serial No. 47,177
Term of patent 14 years
(Cl. D92—1)



183,320
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application September 3, 1957, Serial No. 47,572
Term of patent 14 years
(Cl. D92—1)



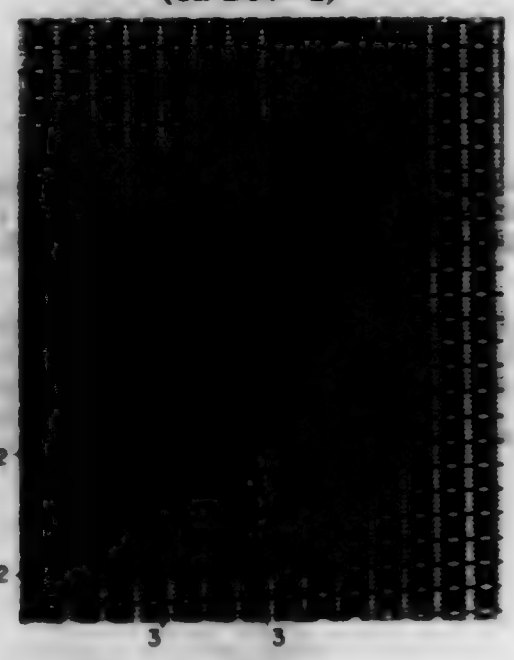
183,321
CHAIR
William W. McTyeire, Jr., Birmingham, Ala.
Application October 14, 1957, Serial No. 48,082
Term of patent 14 years
(Cl. D15—1)



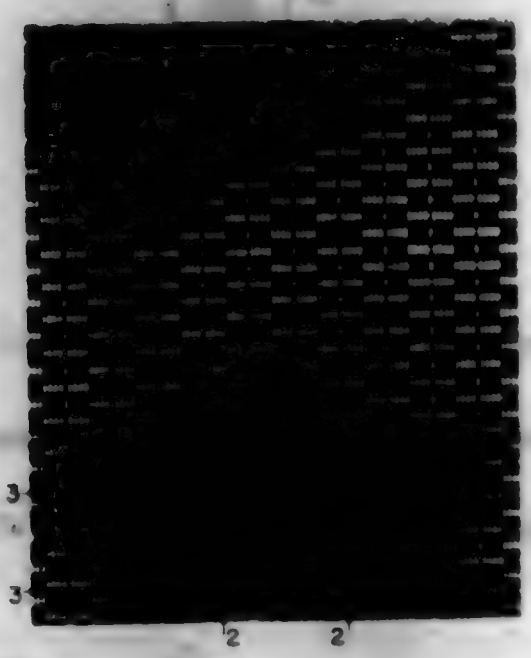
183,322
EMBROIDERED TEXTILE FABRIC OR SIMILAR ARTICLE
Morris Moskowitz, New York, N. Y.
Application September 11, 1957, Serial No. 47,704
Term of patent 3½ years
(Cl. D92—1)



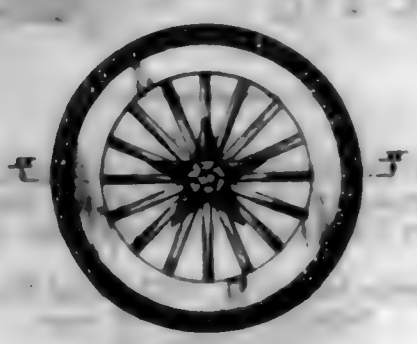
183,323
WOVEN STRUCTURAL MATERIAL
Sawyer M. Pomeroy, Lyndhurst, Ohio, assignor to The W. S. Tyler Company, Cleveland, Ohio, a corporation of Ohio
Application August 12, 1957, Serial No. 47,304
Term of patent 14 years
(Cl. D54—2)



183,324
WOVEN STRUCTURAL MATERIAL
Sawyer M. Pomeroy, Lyndhurst, Ohio, assignor to The W. S. Tyler Company, Cleveland, Ohio, a corporation of Ohio
Application August 12, 1957, Serial No. 47,305
Term of patent 14 years
(Cl. D54—2)



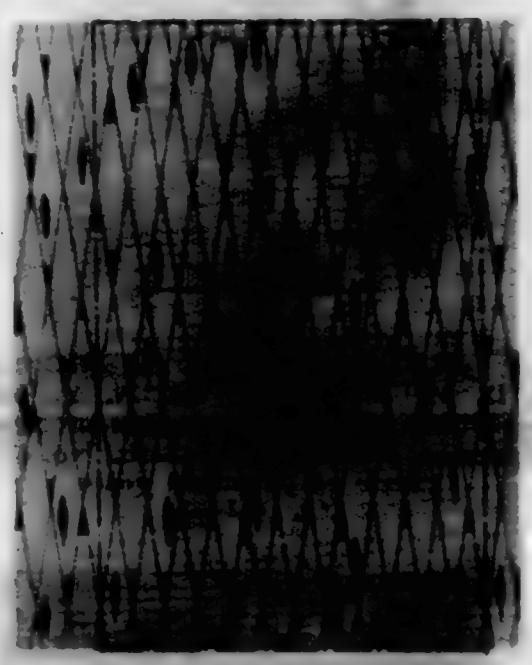
183,325
BROACH OR SIMILAR ARTICLE
Hilda Scott Rogan, Buffalo, N. Y.
Application July 10, 1957, Serial No. 46,890
Term of patent 14 years
(Cl. D45—19)



183,326
WHEEL COVER
Arthur Ross, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 10, 1958, Serial No. 50,428
Term of patent 7 years
(Cl. D14—30)



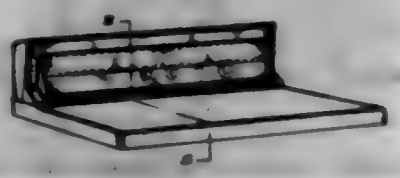
183,327
SHEET PLASTIC FABRIC
Philip Schnee, Columbus, Ohio, assignor to Columbus Coated Fabrics Corporation, Columbus, Ohio, a corporation of Ohio
Application May 8, 1958, Serial No. 59,810
Term of patent 3½ years
(Cl. D87—3)



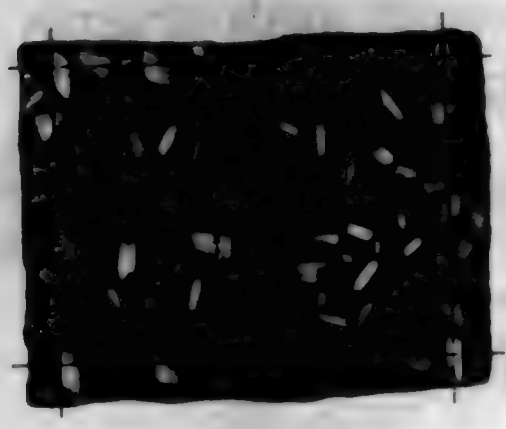
183,328
DINNERWARE
Gerald S. Stone, Scarsdale, N. Y., assignor to Johnson Bros. (Hanley) Limited, Stoke-on-Trent, England, a British company
Application March 31, 1958, Serial No. 50,256
Term of patent 14 years
(Cl. D44—15)



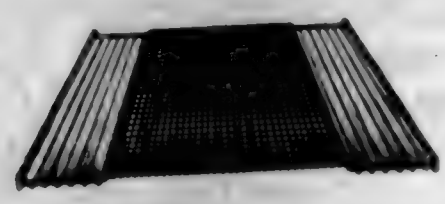
183,329
COMBINED TOP AND REAR CONTROL PANEL FOR A WASHING MACHINE OR SIMILAR ARTICLE
Carl W. Sundberg, Bloomfield Hills, Mich., assignor to Whirlpool Corporation, St. Joseph, Mich., a corporation of Delaware
Application June 4, 1957, Serial No. 46,480
Term of patent 14 years
(Cl. D69—1)



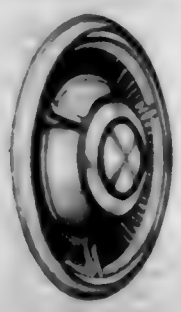
183,330
PLASTIC SHEET MATERIAL OR SIMILAR ARTICLE
Arthur D. Sylvester and Arno H. Scheidling, Rowayton, Conn., assignors to L. E. Carpenter & Co., Inc., Wharton, N. J., a corporation of New Jersey
Application January 29, 1957, Serial No. 44,642
Term of patent 14 years
(Cl. D87—3)



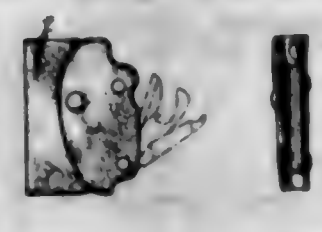
183,331
LIGHTING FIXTURE PANEL
Elmer Sauntry, Chicago, Ill.
Application February 4, 1958, Serial No. 49,494
Term of patent 14 years
(Cl. D48—16)



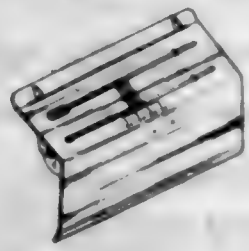
183,332
WHEEL COVER
Robert W. Veryzer, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 16, 1957, Serial No. 48,912
Term of patent 7 years
(Cl. D14—30)



183,333
COMBINED KEY CASE AND POCKET KNIFE
Herbert S. Walker, Needham, Mass., assignor to The W. E. Bassett Company, Derby, Conn., a corporation of Connecticut
Application August 19, 1957, Serial No. 47,451
Term of patent 14 years
(Cl. D87—3)



183,334
HYGROMETER
Ralph C. Wappner, Springfield, Ohio, assignor to The Ohio Thermometer Company, Springfield, Ohio, a corporation of Ohio
Application May 11, 1956, Serial No. 41,450
Term of patent 14 years
(Cl. D52—7)



183,335
BOTTLE
Charles L. Weckesser, Norwich, N. Y., assignor to The Norwich Pharmacal Company, Norwich, N. Y., a corporation of New York
Application November 18, 1957, Serial No. 48,584
Term of patent 14 years
(Cl. D58—8)



183,336
VELOCIPEDE
Norman G. Watermantel, Palos Heights, and Clifford H. Bennett, South Holland, Ill., assignors to American Machine and Foundry Company, a corporation of New Jersey
Application March 26, 1957, Serial No. 45,449
Term of patent 14 years
(Cl. D34—15)



183,337
THERMOSTAT OR SIMILAR ARTICLE
Paul Wrablica, Jr., Corona, N. Y., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application October 29, 1957, Serial No. 48,269
Term of patent 14 years
(Cl. D26—13)





LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 5TH DAY OF AUGUST, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

AMP Inc.: *See*—
Macy, James C. Re. 24,510.
Clark, Donald L., to General Dynamics Corp. Erasing head for magnetic recording. Re. 24,512, 8–5–58, Cl. 179—100.2.
General Dynamics Corp.: *See*—
Clark, Donald L. Re. 24,512.
Macy, James C., to AMP Inc. Electrical connector. Re. 24,510, 8–5–58, Cl. 339—276.
Madison, Darwin R. Outboard motor having tow line device and method for towing. Re. 24,511, 8–5–58, Cl. 115—17.

LIST OF DESIGN PATENTEES

American Machine and Foundry Co.: *See*—
Wintermantel, Norman G., and Bennett. 183,336.
Amerock Corp.: *See*—
Johnson, Wallace T. 183,314.
Armato, Albert, and C. R. Riolo, to U-Test-M Mfg. Co., Inc. Self service unit for testing and storing electronic tubes. 183,296, 8–5–58, Cl. D60—9.
Bassett, W. R., Co., The: *See*—
Walker, Herbert S. 183,333.
Bennett, Clifford H.: *See*—
Wintermantel, Norman G., and Bennett. 183,336.
Brown, Gerald H., to J. Leukart Machine Co., Inc. Impacting machine or similar article. 183,297, 8–5–58, Cl. D77—1.
Browne, Robert C. Bacon draining rack or similar article. 183,298, 8–5–58, Cl. D44—1.
Burch, Bernard C. Fish scaler. 183,299, 8–5–58, Cl. D31—4.
Carpenter, L. E., & Co., Inc.: *See*—
Sylvester, Arthur D., and Scheiding. 183,330.
Chicopee Mills, Inc.: *See*—
McCord, Douglas D. 183,319.
McCord, Douglas D. 183,320.
Columbus Coated Fabrics Corp.: *See*—
Schuss, Philip. 183,327.
Coty, Inc.: *See*—
De Kolb, Eric. 183,301.
Cressaty, George M. Combined lens and coverplate for a sewing machine light. 183,300, 8–5–58, Cl. D70—1.
De Kolb, Eric, to Coty, Inc. Box or similar article. 183,301, 8–5–58, Cl. D58—12.
Dumbeck, Helen E. Steam-cooking casserole. 183,302, 8–5–58, Cl. D44—1.
Dushek, Charles D., to General Electric Co. Dishwasher cabinet or the like. 183,303, 8–5–58, Cl. D49—1.
Fetty, Harold D., to General Time Corp. Clock. 183,304, 8–5–58, Cl. D42—7.
Fisher, Lorin S. Illuminable inspection unit for airplanes or the like. 183,305, 8–5–58, Cl. D57—1.
Flip Ltd.: *See*—
Hack, Edward. 183,309.
Hack, Edward. 183,310.
General Electric Co.: *See*—
Dushek, Charles D. 183,303.
General Motors Corp.: *See*—
Grahn, Edwin G. 183,307.
Ross, Arthur. 183,326.
Veryser, Robert W. 183,332.
General Time Corp.: *See*—
Fetty, Harold D. 183,304.
Gerrie, James K., and J. O. Reinecke, to Zenith Radio Corp. Combined escutcheon and face plate for a television receiver cabinet. 183,306, 8–5–58, Cl. D56—4.
Grahn, Edwin G., to General Motors Corp. Refrigerator cabinet. 183,307, 8–5–58, Cl. D67—3.
Grasmehr, Donald W., to Whirlpool Corp. Heat venting accessory for a clothes dryer or the like. 183,308, 8–5–58, Cl. D49—1.
Hack, Edward, to Flip Ltd. Combined bottle and cap or similar article. 183,309, 8–5–58, Cl. D58—8.
Hack, Edward, to Flip Ltd. Combined bottle and cap or similar article. 183,310, 8–5–58, Cl. D58—9.
Herter, George L. Recoil pad for firearms. 183,311, 8–5–58, Cl. D30—1.
Hicks, Alan A.: *See*—
Junker, Wesley F., and Hicks. 183,315.
Holben, Bernard C., to Industrial Nucleonics Corp. Industrial gauging head with traversing mount for detecting material properties. 183,312, 8–5–58, Cl. D59—1.
Holben, Bernard C., to Industrial Nucleonics Corp. Industrial gauging head for detecting material properties. 183,313, 8–5–58, Cl. D59—1.
Industrial Nucleonics Corp.: *See*—
Holben, Bernard C. 183,312.
Holben, Bernard C. 183,313.
Johnson Bros. (Hanley) Ltd.: *See*—
Stone, Gerald S. 183,328.
Johnson, Wallace T., to Amerock Corp. Pull. 183,314, 8–5–58, Cl. D50—3.
Junker, Wesley F., and A. A. Hicks. Clothes hamper. 183,315, 8–5–58, Cl. D58—4.
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Ackell, Joseph J., to Dow Jones & Co., Inc. High speed control system for line casting machines. 2,846,055, 8–5–58, Cl. 199—18.
Ackermann, Franz, to Ciba Ltd. Water-soluble salts of derivatives of 4 : 4'-diaminostilbene-2 : 2'-disulfonic acid for enhancing the brightness of organic fibrous material. 2,846,397, 8–5–58, Cl. 252—89.
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Alholm, Wayne L., S. R. Ballou, A. J. Lynn, D. L. Shanklin, and R. P. Stokes, to W. R. Grace & Co. Apparatus and method for applying container sealing material. 2,846,335, 8–5–58, Cl. 117—97.
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Andersen, Raymond C., to Flexonics Corp. Machine for corrugating a tube and collapsing the corrugations. 2,845,988, 8–5–58, Cl. 153—73.
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Arnold, Melvin R., L. A. Bryan, and C. S. Miner, Jr., to Flexonics Corp. Charging fluid for thermostats. 2,846,396, 8–5–58, Cl. 252—67.
Arnold, Robert G., C. L. Kehr, and J. J. Verbanc, to E. I. du Pont de Nemours and Co. Process of curing polyalkyleneether polyurethane polymers containing ethylenically unsaturated side chains. 2,846,416, 8–5–58, Cl. 260—77.5.
Ashley, Kenneth D., and M. W. Michael, to American Cyanamid Co. Separation and recovery of mercury. 2,846,303, 8–5–58, Cl. 75—121.
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Berg, Heinz, to Alfred Teves Maschinen- und Armaturenfabrik KG. Piston ring for internal combustion engines and the like. 2,846,280, 8–5–58, Cl. 309—23.

Berg, Knut, O. Ahlin, and H. Lindqvist, deceased (by E. Lindqvist, administrator). Heat exchanger. 2,846,197, 8–5–58, Cl. 257—245.

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Bessinger, Bernice L. Bit dressing device. 2,845,825, 8–5–58, Cl. 76—8.

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Bieber, Herman, and H. M. Hartsband, to Esso Research and Engineering Co. Removal of metal contaminants from heavy oils by hydrogenation followed by solvent extraction. 2,846,358, 8–5–58, Cl. 196—35.

Bien, Hans-Samuel, and F. Baumann, to Farbenfabriken Bayer Akt. Process for the production of grey vat dyestuffs of the benzanthrone series, and the production of olive-green vat dyestuffs therefrom. 2,846,434, 8–5–58, Cl. 260—274.

Binder, Richard, and A. Ludwig. Centrifugal friction clutch. 2,846,040, 8–5–58, Cl. 192—105.

Bing, Herbert A., and D. R. Bishop, to Polaroid Corp. Photographic apparatus for spreading a fluid between superposed sheets. 2,845,850, 8–5–58, Cl. 95—13.

Binkley, Arthur L., and K. C. Rock, to Minneapolis-Honeywell Regulator Co. Photographic reflector and light source. 2,846,565, 8–5–58, Cl. 240—1.3.

Bird, Ralph C., Jr., to General Motors Corp. Induction system. 2,845,812, 8–5–58, Cl. 123—52.

Birkness, Harald A., and J. C. Rhodes, to Standard Oil Co. Mechanical calibration chart. 2,846,143, 8–5–58, Cl. 235—61.

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Björkland, Gustaf E., and S. R. Edvardsson, to Aktiebolaget Dentatus. Dental drills. 2,845,709, 8–5–58, Cl. 32—59.

Bjorksten, Johan: *See*—
Ashley, Warren C., Fiedler, and Bjorksten. 2,845,650.

Bjorksten Research Laboratories, Inc.: *See*—
Ashley, Warren C., Fiedler, and Bjorksten. 2,845,650.

Black, James F., to Sylvania Electric Products Inc. Variable resistor. 2,846,553, 8–5–58, Cl. 201—55.

Blackford, George M. Radiator auxiliary heat distributor. 2,846,196, 8–5–58, Cl. 237—137.

Blagg, Charles D.: *See*—
Shetterly, Karl P., and Blagg. 2,845,692.

Blair, Edgar A., and A. Maggiolo, to The Welsbach Corp. Processes for the oxidation of sulfide compounds and products thereof. 2,846,471, 8–5–58, Cl. 260—537.

Blasingame, Benjamin P. Electronic A. C. integrator or integrating oscillator. 2,846,577, 8–5–58, Cl. 250—27.

Blatt, Leland F., and J. M. Jatsko. Holddown clamp. 2,845,847, 8–5–58, Cl. 90—59.

Blaw-Knox Co.: *See*—
Badlam, Stephen. 2,845,822.

Blasek, William J., to Lempco Products, Inc. Positioning means for guide assemblies of punch press die sets. 2,846,278, 8–5–58, Cl. 308—6.

Blicke, Frederick F., to Regents of The University of Michigan. Preparation of cycloalkanones. 2,846,474, 8–5–58, Cl. 260—586.

Bloch, Herman S., to Universal Oil Products Co. Preparation of maleic anhydride. 2,846,450, 8–5–58, Cl. 260—346.8.

Bloch, Richard, to Liberty Fabrics of New York, Inc. Elastic lace fabric. 2,845,834, 8–5–58, Cl. 87—2.

Blount, Joseph W., and G. G. McCullar. Air compressor. 2,846,130, 8–5–58, Cl. 230—170.

Bocjl Corp.: *See*—
Lang, Joseph C. 2,845,626.

Bock, William M., Jr. Humidifier. 2,845,944, 8–5–58, Cl. 137—408.

Boddy, Leonard, to King-Seeley Corp. Pressure indicating device. 2,846,549, 8–5–58, Cl. 201—48.

Boddy, Leonard, to King-Seeley Corp. Pressure indicating device. 2,846,550, 8–5–58, Cl. 201—48.

Boehme, Werner R., and J. Nichols, to Ethicon, Inc. Pyrrolidylmethyl and piperidylmethyl bicycloheptenes and nortricyclenes. 2,846,436, 8–5–58, Cl. 260—293.

Boehme, Werner R., and J. Nichols, to Ethicon, Inc. Carbamates of bicyclic alcohols. 2,846,465, 8–5–58, Cl. 260—482.

Bogardus, King J., Jr.: *See*—
Bogardus, King J., Sr. 2,846,660.

Bogardus, King J., Sr., deceased, by M. A. Bogardus, executrix, to K. J. Bogardus, Jr. Connector for battery post and cable. 2,846,660, 8–5–58, Cl. 339—225.

Bogardus, Martha A.: *See*—
Bogardus, King J., Sr. 2,846,660.

Bohnenblust, Guido: *See*—
Baumgartner, Hans, and Bohnenblust. 2,846,496.

Bonafide Mills, Inc.: *See*—
Rowe, William. 2,846,064.

Bonnet, William R.: *See*—
Mills, Ivor W., and Bonnet. 2,846,356.

Boosey, Frederick R.: *See*—
Loxham, John, and Boosey. 2,845,791.

Borg-Warner Corp.: *See*—
Anderson, J. Edward C. 2,845,902.
Compton, James A. 2,845,871.
Lock, Thomas. 2,845 870.
Norlin, Francis E. 2,845,868.
Polomski, John B. 2,845,817.

Bormann, Rudolf, and C. Dethlefsen, to Telefunken G. m. b. H. Magnetic tape drive. 2,846,217, 8–5–58, Cl. 271—2.3.

Bosch, Robert, G. m. b. H.: *See*—
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Boston, John A., to Capitol Products Corp. Dough seam control. 2,845,879, 8–5–58, Cl. 107—8.

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Claret, René, and Bousitat. 2,845,710

Bowen, Robert E., to North Carolina Pulp Co. Apparatus for screening pulp. 2,845,848, 8–5–58, Cl. 92—34.

Boyd, William E. Jointed fishing lure. 2,845,743, 8–5–58, Cl. 43—42.15.

Boyle, Homer G., R. W. Bradmiller, C. J. Parker, and A. E. Plogstedt, to Avco Mfg. Corp. Transistorized servo positioner system. 2,846,630, 8–5–58, Cl. 318—28.

Boynton, Donald E., and S. F. Dieckmann, to Hercules Powder Co. Countercurrent contacting apparatus. 2,845,936, 8–5–58, Cl. 134—60.

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Mahland, Edward W., and Bradley. 2,846,573.

Bradley, William E., to Philco Corp. Semiconductor device. 2,846,346, 8–5–58, Cl. 148—33.

Bradmiller, Richard W.: *See*—
Boyle, Homer G., Bradmiller, Parker, and Plogstedt. 2,846,630.

Brady, Robert J., to Visual Slide Co. Projection slides and material for the preparation thereof. 2,845,734, 8–5–58, Cl. 40—158.

Bramming, Carl, to Aladdin Industries, Inc. Gasket for vacuum bottles. 2,846,104, 8–5–58, Cl. 215—13.

Bramming, Carl, to Aladdin Industries, Inc. Vacuum-bottle seal. 2,846,105, 8–5–58, Cl. 215—13.

Brant, David O. Strainer. 2,846,076, 8–5–58, Cl. 210—464.

Bratton, Alfred L., to Oxy-Catalyst, Inc. Incineration apparatus and method. 2,845,882, 8–5–58, Cl. 110—8.

Brauer, Clarence H., to International Harvester Co. Centering guide for machining head. 2,845,827, 8–5–58, Cl. 82—20.

Braun, Robert A., W. E. Craig, and C. Lo, to Rohm & Haas Co. Furoyl dithiocarbamates. 2,846,350, 8–5–58, Cl. 167—33.

Brazil, Robert J. Safety attachment for automatic printing presses. 2,845,862, 8–5–58, Cl. 101—284.

Brederack, Hellmut, and E. Bäder, to W. C. Heraeus G. m. b. H. and Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for the production of polymerization products. 2,846,418, 8–5–58, Cl. 260—80.

Bremi, Theodor, to Schweizerische Lokomotiv- und Maschinenfabrik. Cyclone. 2,846,024, 8–5–58, Cl. 183—88.

Brewer, Harold E.: *See*—
Gingrich, Harold F. 2,846,633.

Bridgeport Brass Co.: *See*—
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British Cotton Industry Research Association, Shirley Institute, The: *See*—
Lord, Edmund. 2,845,837.

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Brochhagen, Frankhart, F. Schmidt, and P. Hoppe. Cellular polyurethane plastics of improved pore structure and process for preparing same. 2,846,406, 8–5–58, Cl. 260—2.5.

Brock, Brantley A.: *See*—
Samfield, Max M., Brock, and Locklair. 2,845,853.

Broders, Claude O., to United States of America, Navy. Bleed governor. 2,845,938, 8–5–58, Cl. 137—51.

Brodkey, Robert S., P. V. Smith, Jr., and F. W. Banes, to Esso Research and Engineering Co. Oxo synthesis of alcohols from heavy petroleum coking reaction. 2,846,464, 8–5–58, Cl. 260—475.

Brogren, Axel V., to Parsons Corp. Lever structure. 2,845,816, 8–5–58, Cl. 74—519.

Brophy, James M. Dispenser. 2,846,152, 8–5–58, Cl. 241—43.

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Brown, Arling D., Jr., and L. F. Valenti, to Clevite Corp. Reversible drive. 2,845,820, 8–5–58, Cl. 74—780.

Brown, Arthur K., Jr.: *See*—
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Brown, Henry, to The Udylite Research Corp. Chromium electroplating. 2,846,380, 8–5–58, Cl. 204—51.

Brown, Irving, to Sun Oil Co. Differential amplifier circuits. 2,846,522, 8–5–58, Cl. 179—171.

Brown, John W. Means for determining patency in the uterus of cows and similar animals. 2,845,930, 8–5–58, Cl. 128—348.

Brown, Leslie S., and K. A. Ives, to Hook-Brown Co. Elastic loop fastener and method of making the same. 2,845,670, 8–5–58, Cl. 24—16.

Brownscombe, Philip J. Low frequency loudspeaker. 2,846,520, 8–5–58, Cl. 179—115.5.

Brownyer, Nelson R., to Rockwell Spring and Axle Co. Multiple clutch mechanism with blocker teeth. 2,846,038, 8–5–58, Cl. 192—48.

Brosowski, Vincent J.: *See*—
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Bruce, Stanford P., to Wheel Truing Tool Co. Rotary solenoid type indexing mechanism. 2,846,920, 8–5–58, Cl. 125—11.

Brundage, Alan D., to Indiana Commercial Filters Corp. Center-tube assembly for filters. 2,846,074, 8–5–58, Cl. 210—457.

Brunhoff Mfg. Co., The: *See*—
Mason, Thomas H. 2,846,558.

Bruns, William H., to Otis Elevator Co. Elevator control system. 2,846,027, 8–5–58, Cl. 187—29.

Brunstrum, Lawrence C., and H. J. Liebe, to Standard Oil Co. Rheopectic grease composition. 2,845,394, 8–5–58, Cl. 252—41.

Bryan, Loren A.: *See*—
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Bryant, Charles C., to Parke, Davis & Co. Vitamin compositions and method for producing the same. 2,846,352, 8–5–58, Cl. 167—81.

Buchan, Rudolph C., to Esso Research and Engineering Co. Prevention of corrosion in wells. 2,846,385, 8–5–58, Cl. 204—148.

Bucher, Thomas T. N., to United States of America, Navy. Temperature compensating device for frequency determining circuits. 2,846,585, 8–5–58, Cl. 250—40.

Bucky, Philip B. Mining method for supporting geological structures. 2,846,205, 8–5–58, Cl. 262—1.

Bulgin, Douglas, to Dunlop Rubber Co. Ltd. Antistatic fabrics. 2,845,962, 8–5–58, Cl. 139—420.

Bulova Watch Co., Inc.: *See*—
Sakalys, Vytautas. 2,845,773.

Buncher, Samuel H.: *See*—
Fleck, Lucile H., and Buncher. 2,846,334.

Burden, Edward E. Self-locking folding box. 2,846,133, 8–5–58, Cl. 229—34.

Burg, George W., to Rol-Away Truck Mfg. Co. Table truck. 2,846,233, 8–5–58, Cl. 280—30.

Burge, Muriel: *See*—
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Burt, Herbert S., to Cit-Con Oil Corp. Recovery of wax from lubricating oil stocks. 2,846,355, 8–5–58, Cl. 196—15.

Burns, Lester W., to The Pyle-National Co. Combination light fixture and ventilating unit. 2,845,855, 8–5–58, Cl. 98—40.

Burrell, Phillip A., to Federal Pacific Electric Co. Selective switches. 2,846,528, 8–5–58, Cl. 200—4.

Burroughs Corp.: *See*—
Epstein, Herman, and Strum. 2,846,554.
Epstein, Herman, and Strum. 2,846,666.
Hennessey, William M. 2,846,572.

Busch, Werner: *See*—
Weha, Julius, Busch, Buchstrek, Beuchausen, Kaiser, and Rumpf. 2,846,151.

Butler, Robert F., and R. C. Dutin, to Allied Chemical & Dye Corp. Process for removal of divinylacetylene from acrylonitrile. 2,846,025, 8–5–58, Cl. 183—115.

Butler, Wallace B., to Olin Mathieson Chemical Corp. Cartridge feeding mechanism. 2,845,738, 8–5–58, Cl. 42—17.

Buvelot, John A., to American Steel Foundries. Brake rigging aligning means. 2,846,032, 8–5–58, Cl. 188—205.

Byrd, John F., to Radio Corp. of America. Multiple sound source switching system. 2,846,514, 8–5–58, Cl. 179—100.1.

C. A. V. Ltd.: *See*—
Bridges, Kenneth A. 2,845,801.
Read, Victor J. 2,846,639.

Calidyne Co., Inc., The: *See*—
Hovnanian, Hrair P., and Zimmer. 2,846,597.
Zerigian, Peter. 2,846,598.

California Ink Co., Inc., The: *See*—
Erskine, Archibald K., Nygard, and Lydon. 2,846,349.

California Research Corp.: *See*—
Cardwell, William T., Jr. 2,845,793.
Davis, Vincent C., and Ausman. 2,846,390.
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Calvert, Glen M. Sizing device for boring apparatus. 2,845,752, 8–5–58, Cl. 51—34.

Calvert, Kenneth O., to Dunlop Rubber Co. Ltd. Production of foam rubber. 2,845,658, 8–5–58, Cl. 18—53.

Camlot Fastener Corp.: *See*—
Newcomer, Jacob R., Jr. 2,846,149.

Campbell, J. Allan, and J. C. Babcock, to The Upjohn Co. 5(10) -stress derivatives. 2,846,452, 8–5–58, Cl. 260—397.4.

Canadian Aviation Electronics Ltd.: *See*—
Ingruber, Otto V. 2,846,386.

Capitol Products Corp.: *See*—
Boston, John A. 2,845,879.

Cardwell, William T., Jr., to California Research Corp. Apparatus for determining the rate of settling of suspensions. 2,845,793, 8–5–58, Cl. 73—53.

Carlson, Franklin R.: *See*—
Leach, Harry S., and Carlson. 2,846,477.

Carlson, Gaynard D. Clothes conveyor. 2,846,049, 8–5–58, Cl. 198—120.

Carlstedt, Ragnar L., to DHB Corp. Supply device for cooling agent in boring machines. 2,845,823, 8–5–58, Cl. 77—55.

Carpenter, James R., to Container Corp. of America. Leak proof carton. 2,846,132, 8–5–58, Cl. 229—31.

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Carrier, Robert M., Jr., to Carrier Conveyor Corp. Resilient connectors. 2,846,216, 8–5–58, Cl. 267—1.

Carron, Maurice C. E. A. F. Jullien, and G. G. M.-M. Preud'Homme to Société Anonyme des Laboratories Robert & Carriere. Method of preparing synthetic di-3 monoamide of l-aminoglutaric acid (di-glutamide. 2,846,469, 8–5–58, 260—534.

Castiglione, Paul. Device for dispensing and applying an adhesive tape. 2,846,106, 8–5–58, Cl. 216—21.

Caton, Alfred M.: *See*—
Evans, Lowell D., and Caton. 2,846,541.

Cawley, George. Hydraulic retarding device. 2,846,020, 8–5–58, Cl. 188—94.

Chadderdon, Jack. Milling cutter for use in oil wells. 2,846,193, 8–5–58, Cl. 255—73.

Chambers, Clarence G., and R. A. Spaulding, to General Motors Corp. Plating equipment and method of plating piston rings. 2,846,379, 8–5–58, Cl. 204—25.

Changewood Corp.: *See*—
Clark, James d'A., 2,845,662.

Chapman, Edward P., Jr.: *See*—
Wood, John A., and Chapman. 2,846,227.

Charles, George K.: *See*—
Robertson, George M., and Charles. 2,845,857.

Charlton, Henry E., to Refinery Equipment & Specialty Co. Ltd. Fluid-control valves. 2,846,182, 8–5–58, Cl. 251—318.

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Clark, William R., McAdam, and Cheng. 2,846,629.

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Thompson, Ralph B., and Chenicek. 2,846,481.

Cherones, William J., and L. A. Price, to Harnischfeger Corp. Control circuits. 2,846,640, 8–5–58, Cl. 322—59.

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Larsen, Lyle V. 2,846,109.
Stoyer, Clifford E. 2,846,110.

Chicago Pneumatic Tool Co.: *See*—
Harcourt, George T. 2,845,826.

Chicago Railway Equipment Co.: *See*—
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Chiavin, Alvin, to Hughes Aircraft Co. Beam forming antenna. 2,845,679, 8–5–58, Cl. 343—775.

Chrisman, Ernest L., to Intercontinental Mfg. Co. Cleaning apparatus. 2,845,786, 8–5–58, Cl. 68—18.

Christensen, Paul M., to Federal Pacific Electric Co. Automatic circuit breakers. 2,846,548, 8–5–58, Cl. 200—172.

Ciaccio, Peter L., to Flexible Mfg. Corp. Drag bucket dumping apparatus. 2,846,100, 8–5–58, Cl. 214—712.

Ciaccio, Peter L., Flexible Mfg. Corp. Drag bucket dumping apparatus. 2,846,101, 8–5–58, Cl. 214—740.

Ciba Ltd.: *See*—
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Ciba Pharmaceutical Products, Inc.: *See*—
Allen, Milton J. 2,846,382.

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Burk, Herbert S. 2,846,355.

Cities Service Research and Development Co.: *See*—
Hughes, William B. 2,846,405.
Hughes, William B. 2,846,440.

Claret, René, and J. Bousitat, to Office National d'Etudes et de Recherches Aeronautiques. Devices for directly measuring and instantaneously recording the angular displacements of a body. 2,845,710, 8–5–58, Cl. 33—1.

Clark Controller Co., The: *See*—
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Clark Equipment Co.: *See*—
Lapsley, Robert. 2,845,873.
Loomis, Jack E. 2,846,264.

Clark, James d'A., to Changewood Corp. Method and apparatus for depositing loose materials on support surfaces. 2,845,962, 8–5–58, Cl. 19—155.

Clark, Trevor P. Fingerling transfer devices. 2,845,770, 8–5–58, Cl. 61—21.

Clark, William R., W. McAdam, and T. Cheng, to Leeds and Northrup Co. Fail-safe arrangement. 2,846,629, 8–5–58, Cl. 318—28.

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Clausing, Paul L. and D. P. 2,845,884.

Clausing, Paul L. and D. P. Subsurface seed and fertilizer planter. 2,845,884, 8–5–58, Cl. 111—91.

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Clevite Corp.: *See*—
Brown, Arling D., Jr., and Valenti. 2,845,802.
Brown, Arling D., Jr. and Valenti. 2,845,820.

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Cobo, Alfred H., to General Motors Corp. Valve lifter cylinder and method of making same. 2,845,914, 8–5–58, Cl. 123—90.

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Lantz, Claude W., Cochran, and Lutz. 2,846,312.

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Coggeshall, Thellwell R., and U. R. Tognella, to General Electric Co. Closing mechanism for an electric circuit breaker. 2,846,621, 8–5–58, Cl. 317—54.

Coleman Co. Inc., The: *See*—
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Dameron, John P., and Coleman. 2,845,890.

Collins, Carroll B., to Peerless Photo Products, Inc. Image reversing device. 2,845,841, 8–5–58, Cl. 88—24.

Collins, Herbert H., and D. W. Ripper, to Joseph Lucas (Industries) Ltd. Bushes for dynamo electric machine and other commutators. 2,846,602, 8–5–58, Cl. 310—235.

Collins, Lowell J. Continuous production combined food mixing and filling machine. 2,846,199, 8–5–58, Cl. 259—10.

Collins Radio Co.: *See*—
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Stover, Harris A. 2,845,808.

Colton, Maxwell B., to E. Schaefer. Bactericidal dental cements. 2,846,322, 8–5–58, Cl. 106—35.

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Compagnie de Pont-A-Mousson: *See*—
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Compco Corp.: *See*—
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Compton, James A., to Borg-Warner Corp. Mixed flow booster pump. 2,845,871, 8–5–58, Cl. 103—113.

Coninx, William A. Valve cleaning apparatus. 2,845,941, 8–5–58, Cl. 15—93.

Conklin, William R., D. G. Thom, and B. E. Stentz, to The Swartzbaugh Mfg. Co. Food service cart. 2,845,780, 8–5–58, Cl. 62—291.

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Conti, John J.: *See*—
Kosiowski, Rudolph and Conti. 2,845,631.

Continental Oil Co.: *See*—
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Cook, Earle S., to Westinghouse Air Brake Co. Fluid pressure brake apparatus. 2,846,270, 8–5–58, Cl. 303—46.

Cook, George R., W. W. Cortise, and A. A. Manteuffel, to The Pure Oil Co. Heavy duty soluble oil composition. 2,846,383, 8–5–58, Cl. 252—33.3.

Cook, Paul W. Larger steering wheel attachment. 2,845,811 8–5–58, Cl. 74—494.

Cooke, Theodore F., L. J. Moretti, and R. C. Conn, to American Cyanamid Co. Magnesium chloride catalyst for modified urea resins. 2,846,337, 8–5–58, Cl. 117—139.4.

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Copeland, Ernest. Animal feeding cabinet. 2,845,896, 8–5–58, Cl. 119—51.

Corbett, Thomas H. Pumps. 2,845,875, 8–5–58, Cl. 103—158.

Corbin, Robert B., to Motorola, Inc. Crystal oven. 2,846,566, 8–5–58, Cl. 310—8.9.

Cordero, Rodolfo S. Juice extractor. 2,845,971, 8–5–58, Cl. 146—76.

Cortina, Warren W.: *See*—
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Costello, William M. Combination flashlight and circuit tester. 2,846,644, 8–5–58, Cl. 324—53.

Cote, Omer E., and J. Fradenburgh, to United States Automatic Box Machinery Co., Inc. Method of and machine for filling bottles with capsules. 2,845,759, 8–5–58, Cl. 53—61.

Craggs, Joseph, and K. McCann, to Goodman Mfg. Co. Extensible conveyors. 2,846,050, 8–5–58, Cl. 198—139.

Craggs, Joseph, and K. McCann, to Goodman Mfg. Co. Apparatus for handling conveyor belting for an extensible conveyor. 2,846,051, 8–5–58, Cl. 198—139.

Craig, W. E.: *See*—
Braun, Robert A., Craig, and Lo. 2,846,250.

Cramer Posture Chair Co., Inc.: *See*—
Cramer, Roy A. 2,845,992.

Cramer, Roy A., to Cramer Posture Chair Co., Inc. Tilting unit for swivel chair. 2,845,992, 8–5–58, Cl. 155—77.

Crawford, Arthur E., to International Harvester Co. Cotton picking spindle moistening assembly. 2,845,767, 8–5–58, Cl. 56—41.

Crawford, Fred C., to Hallmark Cards, Inc. Ornamental pompon bow and method of making same. 2,845,736, 8–5–58, Cl. 41—10.

Crespo y Garcia, Joaquin. Method of canning, bottling and preserving fermentable solids and liquids. 2,846,316, 8–5–58, Cl. 99—182.

Crewe, Samuel. Duplex ratchet mechanism for calk guns. 2,845,805, 8–5–58, Cl. 74—169.

Crofutt, George B., Jr., and J. B. Fisk, to Bell Telephone Laboratories, Inc. Party line station identifying impulse transmitter. 2,846,512, 8–5–58, Cl. 179—81.

Crompton & Knowles Corp.: *See*—
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Cronin, Eugene J. Ultrasonic welder. 2,846,563, 8–5–58, Cl. 219—86.

Crooks, Ralph K., to Westinghouse Air Brake Co. Control means for carrier signaling and communication equipments. 2,846,508, 8–5–58, Cl. 179—15.55.

Crosby, Gifford W., and L. R. E. Hutchings, to The Pure Oil Co. Manufacture of basic petroleum sulfonate salts using two-step neutralization in non-aqueous phase. 2,846,466, 8–5–58, Cl. 260—504.

Cross, Lawrence P. Sausage linking machine. 2,845,656, 8–5–58, Cl. 17—34.

Crossley, Royal E., to Crouse-Hinds Co. Signal light gun. 2,846,675 8–5–58, Cl. 240—336.

Crouse-Hinds Co.: *See*—
Crossley, Royal E. 2,846,675.

Crowley, Matt, Enterprises, Inc.: *See*—
Crowley, Matthew D. 2,846,020.

Crowley, Matthew D., to Matt Crowley Enterprises, Inc. Liquid sound deadening device. 2,846,020, 8–5–58, Cl. 181—33.

Crown Zellerbach Corp.: *See*—
Herschler, Robert J., Jaffe, and Whipple. 2,846,409.

Culver, Joseph S., and W. C. Tunnell, to United States of America, Atomic Energy Commission. Aligning jig. 2,845,710, 8–5–58, Cl. 33—180.

Cunningham, James M., to Techno Instrument Co. Electrical control system for magnetic recorder. 2,846,661, 8–5–58, Cl. 340—15.

Curell, Conrad O., to Kaiser Aluminum & Chemical Corp. Prestressed cast upper fifth wheel structure for articulated vehicles. 2,846,235, 8–5–58, Cl. 280—433.

Curtin, Leo P. Bonding coats for metal. 2,846,342, 8–5–58, Cl. 148—6.16.

Curtiss-Wright Corp.: *See*—
Waits, George F. 2,845,997.

DHB Corp.: *See*—
Carlstedt, Ragnar L. 2,845,823.

Daffin, Douglas E., and H. E. McGowen, Jr., to Sid W. Richardson, Inc. Landing nipple for well tubing. 2,846,014, 8–5–58, Cl. 166—102.

Daigle, Leo T., to Dearborn Fabricating & Engineering Co. Conveyor cable elements and method of manufacture. 2,845,701, 8–5–58, Cl. 29—516.

Dale Products, Inc.: *See*—
Matejka, Joseph. 2,846,118.

Dalmine S. p. A.: *See*—
Rimoldini, Andrea. 2,845,754.

Dameron, John P., and W. R. Coleman, Jr. Barge for liquid and/or dry cargo. 2,845,890, 8–5–58, Cl. 114—78.

Damm, Carl A.: *See*—
Maseffa, George M., and Damm. 2,845,794.

Daniels, Charles J., and E. H. Haber to All American Engineering Co. Pop-up means for an aircraft arresting cable. 2,846,166, 8–5–58, Cl. 244—110.

Darwin, Clifford, to Crompton & Knowles Corp. Multi-shuttle weft replenishing loom. 2,845,956, 8–5–58, Cl. 139—232.

Dass, William H., and R. B. Koehler, to International Business Machines Corp. Indicator tube. 2,846,610, 8–5–58, Cl. 313—108.

Datin, Richard C.: *See*—
Butler, Robert F., and Datin. 2,846,025.

Davenport, Walter W.: *See*—
Aichele, William J., and Davenport. 2,846,314.

Davidson, John T.: *See*—
Stimson, Percy G., and Davidson. 2,846,044.

Davidson, John T., to The Standard Register Co. Inking mechanism. 2,845,864, 8–5–58, Cl. 101—350.

Davidson, Samuel H., and T. J. Reid, to Imperial Chemical Industries Ltd. Method for producing explosive elements. 2,845,833, 8–5–58, Cl. 86—20.

Davidson, Theodore D.: *See*—
Hollins, Jesse E. 2,846,665.

Davis, Arthur M., to Orenda Engines Ltd. Fastening and adjustment of rear frame struts. 2,846,250, 8–5–58, Cl. 287—58.

Davis, Earl W., to Guiberson Corp. Drilling head. 2,846,247, 8–5–58, Cl. 286—16.1.

Davis, Melvin C. Alignment fitting for well tubing heads. 2,846,013, 8–5–58, Cl. 166—75.

Davis, Vincent C., and M. A. Aasman, to California Research Corp. Nitrogen recorder. 2,846,590, 8–5–58, Cl. 250—304.

Day, Harry L., to Olin Mathieson Chemical Corp. Composite firearm barrel. 2,845,741, 8–5–58, Cl. 42—76.

Day, Leslie, and W. A. MacNeriland. Lubricator and sealing device. 2,846,279, 8–5–58, Cl. 308—87.

Daystrom, Inc.: *See*—
Bender, Frederick M. 2,846,658.
Gilbert, Roswell W. 2,846,648.

Deal, Frank L. Shrimp eviscerating and shelling machine. 2,845,654, 8–5–58, Cl. 17—2.

Dean, Ronald A.: *See*—
McNeill, Eric, and Dean. 2,846,357.

Dearborn Fabricating & Engineering Co.: *See*—
Daigle, Leo T. 2,845,701.

De Bourgues Jacques to P. Defontenay. Mode of connection between pinions and shafts. 2,845,696, 8–5–58, Cl. 29—159.2.

Deere & Co.: *See*—
Jones, Frank D. 2,845,932.
Neighbour, Leonard B. 2,846,048.
Neighbour, Leonard B., Lance, and Skromme. 2,846,047.
Oerman, Orey W. 2,845,853.

Defontenay, Paul: *See*—
De Bourgues, Jacques. 2,845,696.

De Fouw, Max. Air-conditioning-apparatus control-device. 2,846,546, 8–5–58, Cl. 200—140.

De Lano, Ralph B., Jr., and D. R. Young, to International Business Machines Corp. Electrostatic memory system. 2,846,615, 8–5–58, Cl. 315—12.

Dell, Robert G. Hand controlling device. 2,845,628, 8–5–58, Cl. 2—20.

Dempsey, John N., to Minneapolis-Honeywell Regulator Co. Method of forming an electron emitting body. 2,846,339, 8–5–58, Cl. 117—223.

Denlay, Sidney W. Silk screen printing machine. 2,845,858, 8–5–58, Cl. 101—123.

De Nora, Oronzio, to Oronzio de Nora Impianti Elettrochimici. Bipolar electrolyser. 2,846,384, 8–5–58, Cl. 204—129.

De Nora, Oronzio, Impianti Elettrochimici: *See*—
De Nora, Oronzio. 2,846,384.

De Noyers, Emil J., to General Electric Co. Switch operating mechanism. 2,845,821, 8–5–58, Cl. 74—304.

Densmore, Neal W., to Joy Mfg. Co. Transfer mechanism for auger drills. 2,846,093, 8–5–58, Cl. 214—130.

Denton, Robert, to Misten Gen Equipment Co. Bronchopulmonary therapeutic apparatus. 2,845,928, 8–5–58, Cl. 128—191.

Derham, Philip A., to Wilkening Mfg. Co. Plastic toy and flexible plastic unit for toys and other articles. 2,845,748, 8–5–58, Cl. 46—152.

Deschamps, Georges A., to International Telephone and Telegraph Corp. Microwave transmission line calculator. 2,845,711, 8–5–58, Cl. 33—1.

Dethlefsen, Carl: *See*—
Bormann, Rudolf, and Dethlefsen. 2,846,217.

Deutsche Gold und Silber-Scheideanstalt vormals Roessler: *See*—
Broderack, Hellmut, and Bäder. 2,846,418.

De Voe, Harlan S. Mortician's tools. 2,845,627, 8–5–58, Cl. 1—47.

Dewey, Clyde G., to General Electric Co. Electromagnetic distance relay with an offset MHO operating characteristic. 2,846,620, 8–5–58, Cl. 317—36.

Dexdale Hosiery Mills: *See*—
Fick, Charles K. 2,845,787.

Diamond Gardner Corp.: *See*—
Struble, Glenn E. 2,846,131.

Diamond Match Co., The: *See*—
Ringler, William A. 2,846,114.

Di Benedetto, Anastasio: *See*—
Goldfischer, Lester L., and di Benedetto. 2,846,583.

Dickineon, Arthur H., to International Business Machines Corp. Card punching machine. 2,846,008, 8–5–58, Cl. 164—115.

Dictaphone Corp.: *See*—
Jones, Lloyd R., Freund, and Palmer. 2,846,506.

Didde, Carl W., and D. A. Glaser. Sheet detector for paper gathering apparatus. 2,846,214, 8–5–58, Cl. 270—56.

Dieckmann, Steffen F.: *See*—
Boynton, Donald E., and Dieckmann. 2,845,036.

Dietz, Carl: *See*—
Vötter, Walter, and Dietz. 2,845,652.

Dilworth, Thomas B., M. Ephraim, Jr., and J. T. Ialeggio, to General Motors Corp. Air heating system. 2,846,148, 8–5–58, Cl. 237—8.

Di Stefano, Helen, ¼ to M. Burga. Upholstered pillow with removable case. 2,845,637, 8–5–58, Cl. 5—339.

Distillers Co. Ltd., The: *See*—
Hadley, David J. 2,846,462.

Doherty, Floyd R. Metallic foil packaging machine. 2,845,765, 8–5–58, Cl. 53—366.

Domburg, Jacobus, to North American Philips Co., Inc. Circuit-arrangement for use in an electronic automatic telephone exchange. 2,846,511, 8–5–58, Cl. 179—18.

Donnelley, Reuben H., Corp., The: *See*—
Nielsen, Harry, and Porth. 2,845,861.

Dorr-Oliver Inc.: *See*—
Goetz, Harvey J. 2,846,072.

Doughty, Edward C., Jr., to Sprague Electric Co. High voltage condenser. 2,846,627, 8–5–58, Cl. 317—242.
Douglas, James K., to The Oilgear Co. Hydraulic power system. 2,845,778, 8–5–58, Cl. 60—52.
Dow Chemical Co., The: *See*—
Berrworth, Frederick C., and Rubin. 2,846,317.
Duke, Marshall W. 2,846,415.
Havens, Carl E. 2,846,412.
Larson, Winston E., and Edmonson. 2,846,426.
Taplin, William H., III. 2,846,483.
Dow Corning Corp.: *See*—
Haluska, Loren A. 2,846,468.
Oppliger, Paul. 2,846,325.
Speier, John L. 2,846,448.
Dow Jones & Co., Inc.: *See*—
Ackell, Joseph J. 2,846,055.
Dowell, Alvis Y., and D. G. Eaton. Fuel burner for tobacco curing. 2,845,999, 8–5–58, Cl. 158—53.
Downing, Mason L., F. J. Herrmann, and S. G. Marx, to Esso Research and Engineering Co. Electrode for electrical coalescence. 2,846,380, 8–5–58, Cl. 204—302.
Dr. Ing. Max Schlotter: *See*—
Frick, Wolfgang, Geidbach, Korpiun, and Sedlacek. 2,846,381.
Drackett Co., The: *See*—
Stewart, James D., and Coogrider. 2,846,124.
Draeger, Kenneth E., and J. F. Ross, to Esso Research and Engineering Co. Fluid hydroforming process. 2,846,366, 8–5–58. Cl. 196—50.
Drake, John E. Packed anti-friction ball and socket coupling. 2,846,242, 8–5–58, Cl. 285—263.
Draper Corp.: *See*—
Ranks, Waldo H., and Thibault. 2,845,957.
Hutchinson, Henry G. 2,845,967.
Dresser-Ideco Co.: *See*—
Smith, Robert W. 2,846,188.
Drugmand, Lester D., and M. Williams, to Edwin L. Wiegand Co. Electric heaters. 2,846,536, 8–5–58. Cl. 201—67.
Dubuar, Arthur S., to Bell Telephone Laboratories, Inc. Pulse repeating with automatic compensation for high and low resistance loops. 2,846,509, 8–5–58, Cl. 179—16.
Dudenhausen, Hans J., to Intavar, Inc. Control system. 2,846,632. 8–5–58. Cl. 318—257.
Duke, Marshall W., to The Dow Chemical Co. Process for raising the melting point of acetone-soluble copolymers. 2,846,415, 8–5–58, Cl. 260—73.
Dunlap, Kermit S., to Bell Telephone Laboratories, Inc. Magnetic core circuits. 2,846,688, 8–5–58, Cl. 340—174.
Dunlop Rubber Co. Ltd.: *See*—
Bulgin, Douglas. 2,845,962.
Du Pont de Nemours, E. I., and Co.: *See*—
Arnold, Robert G., Kehr, and Verbanc. 2,846,416.
Banford, William H., and Manes. 2,846,449.
Shacklett, Comer D. 2,846,417.
Yacoe, Jesse C. 2,846,290.
Duquesne, Victor. Wheel holding and centering apparatus. 2,845,969. 8–5–58, Cl. 144—288.
Eads, Harold O., and A. B. Exline, to McDonough Co., d. b. a. O. Ames Co. Chair. 2,845,993, 8–5–58, Cl. 155—148.
Eastern Rotorcraft Corp.: *See*—
Huber, John R. 2,845,676.
Eastman Kodak Co.: *See*—
Bazendale, Ralph W. 2,846,308.
Eaton, Donald G.: *See*—
Dowell, Alvis Y., and Eaton. 2,845,999.
Ebauches S. A.: *See*—
Beyner, André. 2,845,772.
Eddy, Lee B., to Universal Oil Products Co. Entrained liquid detector. 2,845,790, 8–5–58, Cl. 73—29.
Edlo, Inc.: *See*—
Fahrenbach, Wolfgang B. 2,846,063.
Edlund, Carl A., J. L. Mand, Jr., and L. J. Scheer. Thermometer dispenser. 2,846,058, 8–5–58, Cl. 206—16.6.
Edmonson, Richard E.: *See*—
Larson, Winston E., and Edmonson. 2,846,426.
Edmunds, William H., to I-T-E Circuit Breaker Co. Moisture guide means for fuse housing. 2,846,545, 8–5–58, Cl. 200—133.
Edvardsson, Svante R.: *See*—
Björklund, Gustaf E., and Edvardsson. 2,845,709.
Edward Valves, Inc.: *See*—
Milleville, Bertram J. 2,845,814.
Egre, Walter W., to Fletcher Works Inc. Drive and control mechanism for washer-extractors. 2,846,037, 8–5–58, Cl. 192—3.5.
Eiseman, Louis. Can covers. 2,846,112, 8–5–58, Cl. 220—38.
Eisenhardt, Robert G., to Moore Products Co. Pneumatic measuring apparatus. 2,845,792, 8–5–58, Cl. 73—37.9.
Electric & Musical Industries Ltd.: *See*—
Atherton, Albert H., and Holman. 2,845,691.
Electric Specialty Co.: *See*—
Neal, Frederick R. 2,846,540.
Elkies, Harry I., to Gemaco, Inc. Shoulder strap fastening means. 2,845,630, 8–5–58, Cl. 2—246.
Elliamac Inc.: *See*—
MacChesney, Chester M. 2,846,516.
Ellingen, Robert J., to United States of America, Army. Cam closure. 2,846,113, 8–5–58, Cl. 220—55.
Elliott, William S., to Collins Radio Co. Frequency modulation transceiver with combined frequency control. 2,846,572, 8–5–58, Cl. 250—13.
Elpern, Bill, to Sterling Drug Inc. Lower alkyl 4-phenyl-1-(substituted-alkyl) piperidine-4-carboxylates and preparation thereof. 2,846,437, 8–5–58, Cl. 260—293.4.
Elsner, Edwin C., to Aeroquip Corp. Separable connector. 2,845,680, 8–5–58, Cl. 24—265.
Emanuel, Walter A., C. M. Holstrom, and K. O. Sweeney. Rugged sensitive hydrometer. 2,845,799, 8–5–58, Cl. 73—448.
Emmerling, Anson A., to General Electric Co. Dynamometer. 2,845,795, 8–5–58, Cl. 73—136.
Encinas, Frank A. Exhaust filter for internal combustion gas engines. 2,846,021, 8–5–58, Cl. 183—44.
English Electric Co. Ltd., The: *See*—
Webster, Frank A., and Hewson. 2,846,603.
Engstrom, Thor, and F. L. Rice, to United States Steel Corp. Apparatus for making bottom in soaking pits. 2,846,090, 8–5–58, Cl. 214—18.
Ephraim, Max, Jr.: *See*—
Dilworth, Thomas B., Ephraim, and Laleggio. 2,846,146.
Epstein, Herman, and O. B. Stram, to Burroughs Corp. Magnetostrictive delay line. 2,846,654, 8–5–58, Cl. 333—30.
Epstein, Herman, and O. B. Stram, to Burroughs Corp. Magnetostrictive pulse delay apparatus. 2,846,666, 8–5–58, Cl. 340—173.
Erie Resister Corp.: *See*—
Gray, Robert B. 2,846,673.
Erskine, Archibald M., N. R. Nygard, and R. M. Lydon, to The California Ink Co., Inc. Aryl mercury acid salts and method of preparation thereof. 2,846,249, 8–5–58, Cl. 167—30.
Esch, George H., to A. B. Segur, d. b. a. A. B. Segur and Co. Adjustable scaffolding. 2,846,275, 8–5–58, Cl. 304—29.
Eschenbrenner, Hector E.: *See*—
Eschenbrenner, Hector X. 2,845,682.
Eschenbrenner, Hector X., deceased: H. E. Eschenbrenner, executor. Concrete pipe-forming apparatus having outer form and core members arranged to rotate at different speeds. 2,845,682, 8–5–58, Cl. 25—30.
Eshbaugh, Jesse E., T. W. Lamar, and W. F. Schultz, to General Motors Corp. Steering direction indicator. 2,845,892, 8–5–58, Cl. 116—31.
Espersen, George A., to North American Philips Co., Inc. Non-emissive electrode for electron discharge device. 2,846,609, 8–5–58, Cl. 313—107.
Espersen, George A., to North American Philips Co., Inc. Klystron tube. 2,846,614, 8–5–58, Cl. 315—5.48.
Esso Research and Engineering Co.: *See*—
Bieber, Herman, and Hartzband. 2,846,358.
Brodkey, Robert S., Smith, and Banes. 2,846,464.
Buchan, Rudolph C. 2,846,385.
Downing, Mason L., Herrmann, and Marx. 2,846,380.
Draeger, Kenneth E., and Ross. 2,846,366.
Gladrow, Elroy M. 2,846,365.
Green, Arthur D. 2,846,422.
Jahnig, Charles E. 2,846,360.
Jahnig, Charles E. 2,846,374.
Koenecke, Donald F. 2,846,329.
Meason, George H., and Newsom. 2,846,485.
Moak, Ottis W. 2,846,419.
Morway, Arnold J. 2,846,391.
Morway, Arnold J., and Kolfenbach. 2,846,362.
Welty, Albert B., Jr. 2,846,364.
Wiese, Herbert K. 2,846,467.
Estabrook, Robert J., and N. J. Harvey. Ventilated chair seats. 2,845,998, 8–5–58, Cl. 155—184.
Ethicon, Inc.: *See*—
Boehme, Werner R., and Nichols. 2,846,486.
Boehme, Werner R., and Nichols. 2,846,466.
Ettinger, John H.: *See*—
Austin, Leonard E., Ettinger, and Brown. 2,846,144.
Evans', L. B., Son Co.: *See*—
Spaulding, Earl H. 2,845,724.
Evans, Louis P., to Socony Mobil Oil Co., Inc. Granular solids distributor. 2,846,293, 8–5–58, Cl. 23—288.
Evans, Lowell D., and A. M. Caton, to Globe Industries, Inc. Rotational speed governor. 2,846,541, 8–5–58, Cl. 200—80.
Everhart, Thomas E., to Hughes Aircraft Co. Traveling wave tube slow-wave structure. 2,846,612, 8–5–58, Cl. 315—3.5.
Ewaldson, Waldemar C., C. A. Hallam, and H. C. Slechta, to Western Electric Co., Inc. Device for sensing misaligned pipe seam and twisting same. 2,845,989, 8–5–58, Cl. 153—78.
Excel, Inc.: *See*—
Benda, Theodore R. 2,845,924.
Exline, Ashton B.: *See*—
Eads, Harold O., and Exline. 2,845,993.
Eyer, Ross H. Electric glider and stabiliser. 2,845,685, 8–5–58. Cl. 5—109.
Faber-Castell, A. W.: *See*—
Stanek, Walter. 2,845,898.
Fahrenbach, Wolfgang B., to Edlo, Inc. Carton carrier. 2,846,063. 8–5–58. Cl. 206—65.
Fairchild Camera and Instrument Corp.: *See*—
Neeb, Melvin M. 2,846,500.
Fairmont Railway Motors: *See*—
Sublett, Ira, and Johnson. 2,846,167.
Falge, Robert N., to General Motors Corp. Headlight lens. 2,846,568, 8–5–58, Cl. 240—41.4.
Fansteel Metallurgical Corp.: *See*—
Winters, John D., and Perme. 2,845,888.
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Bien, Hans-Samuel, and Baumann. 2,846,434.
Kleiner, Helmut, Bayer, and Wilms. 2,846,406.
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Wehn, Julius, Busch, Rockstroh, Beushausen, Kaiser, and Rumpf. 2,846,151.
Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning: *See*—
Berthold, Erich, Hoyer, and von Rosenberg. 2,846,330.
Hartmann, Adolf. 2,846,423.
Farmwald, John A.: *See*—
Johnson, Smith M., and Farmwald. 2,846,003.
Farmwald, John A., and N. R. Miller, to The Johnson Rubber Co. Cutting mechanism. 2,846,002, 8–5–58, Cl. 164—41.
Farr, Willard H., to Stewart-Warner Corp. Speed responsive warning switch. 2,846,539, 8–5–58, Cl. 200—80.

Farrand, William A., L. L. Kilpatrick, and S. G. Johnston, to North American Aviation, Inc. Magnetic head. 2,846,517, 8–5–58, Cl. 179—100.2.

Farron, John R., and C.-B. Sung, to Bendix Aviation Corp. Cam pump. 2,845,872, 8–5–58, Cl. 103—123.

Federal-Mogul-Bower Bearings, Inc.: *See*—
McCullough, Harry J. 2,845,687.

Federal Pacific Electric Co.: *See*—
Burrell, Philip A. 2,846,528.
Christensen, Paul M. 2,846,548.

Fehl, Rudolf, to Walden Kohinoor, Inc. Cutting slide fasteners to length. 2,846,006, 8–5–58, Cl. 164—89.

Fessler, William F. Baled hay rack and carrier. 2,845,770, 8–5–58, Cl. 56—473.5.

Few, William, and J. D. Sauter, to The Clark Controller Co. Magnetic amplifier control systems. 2,846,642, 8–5–58, Cl. 323—89.

Feykert, Peter J.: *See*—
Sadler, Ernest N. 2,846,259.

Fick, Charles K., to Dexdale Hosiery Mills. Apparatus for the fluid treatment of textile materials. 2,845,787, 8–5–58, Cl. 68—189.

Fiedler, Stuart O.: *See*—
Ashley, Warren C., Fiedler, and Bjerksten. 2,845,656.

Fields, John W., to Anthony Co. Tipping body. 2,846,267, 8–5–58, Cl. 298—20.

Filiatre, Alphonse A. M., and C. Cesses Filiatre. Combined tool for opening tins and other containers. 2,845,702, 8–5–58, Cl. 30—22.

Findlay, Robert A., to Phillips Petroleum Co. Treatment of polymers. 2,846,427, 8–5–58, Cl. 260—94.9.

Fingerett, Joseph A., and F. A. Hill, to Librascope, Inc. Constrained bridge magnetic amplifier. 2,846,525, 8–5–58, Cl. 179—171.

Firma Krauss-Maffei A. G.: *See*—
Laubender, Ludwig. 2,845,917.

Fischer, Louis, and A. Schlussel; said Fischer assor. to said Schlussel. Webbing clip. 2,845,671, 8–5–58, Cl. 24—84.

Fisher, Thomas: *See*—
Graef, Charles G., and Fisher. 2,845,681.

Fisk, James B.: *See*—
Crofutt, George B., Jr., and Fisk. 2,846,512.

Fitzgerald, Harold J., to Superdisplay, Inc. Display cabinet for confections. 2,846,284, 8–5–58, Cl. 312—119.

Flanagan, Hubert W. Universal coil winding machine. 2,846,156, 8–5–58, Cl. 242—9.

Fleck, Lucile H., and S. H. Bunchen. Method of reconditioning exposed and developed photographic film. 2,846,324, 8–5–58, Cl. 117—63.

Fletcher Works Inc.: *See*—
Egre, Walter W. 2,846,057.

Flexible Mfg. Corp.: *See*—
Ciaccio, Peter L. 2,846,100.
Ciaccio, Peter L. 2,846,101.

Flexo Products, Inc.: *See*—
Hill, John D. 2,845,924.
Hill, John D. 2,845,937.

Flexonics Corp.: *See*—
Andersen, Raymond C. 2,845,988.
Arnold, Melvin R., and Bryan. 2,846,295.
Arnold, Melvin R., Bryan, and Miner. 2,846,396.

Flint, Hyland C., to American Metal Products Co. Unit sinuous spring and brace rod. 2,845,996, 8–5–58, Cl. 155—179.

Flory, Leslie E., to Radio Corp. of America. Storage tube. 2,846,604, 8–5–58, Cl. 313—68.

Foley, Albert H., to General Electric Co. Compensated electrical integrater. 2,846,643, 8–5–58, Cl. 323—122.

Folk, Joseph, to U. S. Slicing Machine Co., Inc. Slicing machine having a slice thickness adjusting means. 2,845,970, 8–5–58, Cl. 146—95.

Folkins, Hillis O., W. L. Jacobs, and V. J. Brosowski, to The Pure Oil Co. Catalysts for naphtha reforming. 2,846,363, 8–5–58, Cl. 196—50.

Foote, Allen M. Box cover. 2,846,130, 8–5–58, Cl. 229—7.

Ford Motor Co.: *See*—
Lindberg, Victor L., and Iriand. 2,845,838.

Forest Door Co., Inc.: *See*—
Forest, William J. 2,846,254.

Forest, William J., to Forest Door Co., Inc. Latch mechanism for doors. 2,846,254, 8–5–58, Cl. 292—76.

Forges & Ateliers de Constructions Electriques de Jeumont: *See*—
Renou, Georges. 2,845,865.

Forry, Donald R. to D. E. McCarty. Wrapper feed for a meat packaging machine. 2,845,764, 8–5–58, Cl. 53—220.

Fotland, Arne, to American Viscose Corp. Fiber cutter. 2,846,004, 8–5–58, Cl. 164—61.

Fowler, Adolphe S. Safety stop for moving stairway. 2,846,045, 8–5–58, Cl. 198—16.

Fox, Harold T., to Tension Envelope Corp. of Kansas City. Combination envelope and easel for containing and/or framing pictures and the like. 2,845,733, 8–5–58, Cl. 40—152.1.

Fox, John E., to Monsanto Chemical Co. Production of chlorinated aliphatic compounds. 2,846,484, 8–5–58, Cl. 260—658.

Fradenburgh, John: *See*—
Cote, Omer E., and Fradenburgh. 2,845,759.

Free Lock Corp.: *See*—
Requa, Roy, and Anderson. 2,846,039.

Freeman, Paul E. Knockdown display panel. 2,846,080, 8–5–58, Cl. 211—148.

Freund, Rudolf R.: *See*—
Jones, Lloyd R., Freund, and Palmer. 2,846,506.

Frey, Harry. Boat steering apparatus. 2,845,891, 8–5–58, Cl. 114—144.

Frick, Charles H., to General Motors Corp. Fuel control mechanism. 2,845,918, 8–5–58, Cl. 123—140.

Frick, Wolfgang A. Geldbach, J. Korpiun, and F. Sedlacek, to Dr. Ing. Max Schlotter. Method of electrolytically depositing smooth layers of tin. 2,846,381, 8–5–58, Cl. 204—54.

Frischknecht, Hans, to Sulzer Freres, Societe Anonyme. Molds for casting disc-shaped bodies. 2,845,667, 8–5–58, Cl. 22—113.5.

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Frykland, Robert A., to Raytheon Mfg. Co. Depth sounding devices. 2,846,288, 8–5–58, Cl. 346—74.

Fuller, James D., and C. C. Terry. Garment hanger. 2,846,128, 8–5–58, Cl. 223—91.

Gabbrielli, Ernesto. Machine for mixing and extruding plastics and the like. 2,845,656, 8–5–58, Cl. 18—12.

Gaborsky, Joseph, Jr., to The Ohio Boxboard Co. Display device. 2,845,731, 8–5–58, Cl. 40—125.

Gandrud, Eberhard S. Roter bar structure for dispensers of granular material. 2,846,125, 8–5–58, Cl. 222—410.

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Gattuso, Henry A. Feeding and registering mechanism. 2,845,859, 8–5–58, Cl. 101—126.

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Gmitz, Joe D., and L. E. Worcester. Machine for making open wire transmission line. 2,846,347, 8–5–58, Cl. 154—2.24.

Gladrow, Elroy M., to Esso Research and Engineering Co. Hydroforming catalyst containing a group VI metal oxide supported on a zinc-aluminate aluminate spinel. 2,846,365, 8–5–58, Cl. 196—50.

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Goertz, Raymond C., W. M. Thompson, and R. A. Olson, to United States of America, Atomic Energy Commission. Electronic master slave manipulator. 2,846,084, 8–5–58, Cl. 214—1.

Goetz, Harvey J., to Dorr-Oliver Inc. Method and apparatus for grit removal from polluted liquids. 2,846,072, 8–5–58, Cl. 210—67.

Goldfischer, Lester I., and A. di Benedetto, to General Precision Laboratory Inc. Voltage controlled multivibrator oscillator. 2,846,563, 8–5–58, Cl. 250—36.

Gomersall, John R., to McGraw-Edison Co. Removable drawer cover. 2,844,286, 8–5–58, Cl. 312—270.

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Cragge, Joseph, and McCann. 2,846,051.

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Gott, Eric, and B. Ulfward, to Allmänna Svenska Elektriska Aktiebolaget. Elevator control system. 2,846,026, 8–5–58, Cl. 187—29.

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Gray, Robert B., to Erie Resistor Corp. Pulse transformer. 2,846,673, 8–5–58, Cl. 340—174.

Gray, Russell J., to Gray Co., Inc. Liquid handling apparatus for delivering paints and other liquid materials to spray guns. 2,846,123, 8–5–58, Cl. 222—240.

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Green, Arthur D., to Esso Research and Engineering Co. Solid liquid heat exchange in low temperature polymerization. 2,846,422, 8–5–58, Cl. 260—85.3.

Green, Lee B. Tangent bender with auxiliary bending means. 2,845,981, 8–5–58, Cl. 153—4.

Green, Lee B. Bending machine with swinging-wing die carrier. 2,845,995, 8–5–58, Cl. 153—46.

Greenawalt, William E. Processes of smelting finely divided metallic ore. 2,846,301, 8–5–58, Cl. 75—40.

Greenawalt, William E. Smelting finely divided iron ore processes. 2,846,302, 8–5–58, Cl. 75—40.

Grenell, Leland H., to General Motors Corp. Method of making refrigerating tubing. 2,845,695, 8–5–58, Cl. 29—157.2.

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Hackett, William R., and D. J. Henry, to General Motors Corp. Method of casting in shell molds. 2,845,669, 8–5–58, Cl. 22—200.

Hadley, David J., to The Distillers Co. Ltd. Process for producing isophthalonitrile and terephthalonitrile. 2,846,462, 8–5–58, Cl. 260—465.

Hager, Robert R., to Bendix Aviation Corp. Snap acting switch. 2,846,538, 8–5–58, Cl. 200—67.

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Halik, Raymond R., and J. W. Payne, to Socony Mobil Oil Co., Inc. Method and apparatus for feeding hydrocarbons and solid particles in a moving bed conversion process. 2,846,370, 8–5–58, Cl. 196—52.

Halik, Raymond R., to Socony Mobil Oil Co., Inc. Hydrocarbon conversion method and apparatus. 2,846,371, 8–5–58, Cl. 196—52.

Hall, Harlow H., and R. G. Benedict, to United States of America, Agriculture. Production of a vitamin containing nutritional composition containing antibiotics. 2,846,310, 8–5–58, Cl. 99—9.

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Hamer, Leland S. Visible wedge valve. 2,845,954, 8–5–58, Cl. 138—94.5.

Hammond, Laurens, to Hammond Organ Co. Keyboard and switching mechanism for electrical musical instruments. 2,845,831, 8–5–58, Cl. 84—423.

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Hansen, George H., Jr., to The Vendo Co. Multiple coin-controlled means for vending machines. 2,846,042, 8–5–58, Cl. 194—10.

Hansen, Julian R. Bent metal door stretcher. 2,845,983, 8–5–58, Cl. 153—35.

Harcourt, George T., to Chicago Pneumatic Tool Co. Riveting machine for simultaneously driving rivets in opposite sides of car or other like constructions. 2,845,826, 8–5–58, Cl. 78—49.

Harland, Philip W., to American Machine and Metals, Inc. Liquid dispensing device. 2,845,964, 8–5–58, Cl. 141—104.

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Hendrickson, Ellis C., to United States of America, Army. Trailing idler. 2,846,276, 8–5–58, Cl. 305—9.

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Higer, Harry, Refuse disposal apparatus. 2,846,155, 8–5–58, Cl. 241—257.

Hill, Arthur M., to Service Pipe Line Co. Nipple plugging device. 2,845,952, 8–5–58, Cl. 138—90.

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Hill, John D., to Fluxo Products, Inc. Respirator with integral rib for clamping filter element and sealing breathing opening. 2,845,927, 8–5–58, Cl. 128—146.

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Hinz, William E. Cigarette lighter. 2,845,784, 8–5–58, Cl. 67—4.1.

Hinspeter, Emil W., and P. C. Oppelt, to Nuclear-Chicago Corp. Soldering terminal assembly. 2,846,669, 8–5–58, Cl. 339—196.

Hintz, Otto E., and P. Sammarco, to International Harvester Co. Forage harvester crop gathering device. 2,845,769, 8–5–58, Cl. 56—344.

Hiscock, Earle F. Wind velocity and wind direction indicator. 2,845,797, 8–5–58, Cl. 73—189.

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Hoehn, Willard M., to G. D. Searle & Co. A-ring-acylated estrone derivatives, and corresponding alcohols, their esters, and ethers. 2,846,453, 8–5–58, Cl. 260—397.4.

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Hoekstra, Age H., and H. A. Klasens, to North American Philips Co., Inc. Lead activated barium zinc silicate phosphor. 2,846,403, 8–5–58, Cl. 252—301.6.

Hoeselbarth, Frank W. E., to C. H. Masland & Sons. Pile fabric. 2,845,960, 8–5–58, Cl. 139—402.

Hoeselbarth, Frank W. E., to C. H. Masland & Sons. Pile jump fabric. 2,845,961, 8–5–58, Cl. 139—406.

Hoffer, Wallace: *See*—
McCormick, Jerry R. D., and Hoffer. 2,846,876.

Hoffmann-La Roche Inc.: *See*—
Isler, Otto, Montavon, Rüegg, and Zeller. 2,846,475.
Isler, Otto, Montavon, Rüegg, and Zeller. 2,846,487.

Hofmann, Roger W., to American Potash & Chemical Corp. Electrode and its manufacture. 2,846,378, 8–5–58, Cl. 204—12.

Hogan, John P., and R. L. Banks, to Phillips Petroleum Co. Stabilized catalyst and improved polymerization process. 2,846,425, 8–5–58, Cl. 260—93.7.

Hoganas-Billesholms Aktiebolag: *See*—
Svensäe, Åke K. E., and Westerlund. 2,845,861.

Holbrook, Orrin C.: *See*—
Lorenz, Roy H., Holbrook, and Bernard. 2,846,012.

Holley Carburetor Co.: *See*—
Kittler, Milton J. 2,846,201.

Hollins, Abraham: *See*—
Hollins, Jesse R. 2,846,665.

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Hollins, Lewis S.: *See*—
Hollins, Jesse R. 2,846,665.

Holm, LeRoy W., and G. M. Longland, Jr., to The Pure Oil Co. Method of reducing corrosion and plugging of solvent extraction process equipment. 2,846,354, 8–5–58, Cl. 196—14.42.

Holman, Herbert E.: *See*—
Atherton, Albert H., and Holman. 2,845,691.

Holmes, James L.: *See*—
Tarjan, Armen C., Yates, and Holmes. 2,846,351.

Holmes, Lawrence, Jr. Gyroscope unit and interlocking means. 2,845,800, 8–5–58, Cl. 74—5.34.

Holstrom, Charles M.: *See*—
Emanuel, Walter A., Holstrom, and Sweeney. 2,845,799.

Hook-Brown Co.: *See*—
Brown, Leslie S., and Ives. 2,845,670.

Hoopes, Theodore R.: *See*—
Herbenar, Edward J., and Hoopes. 2,846,252.

Hopkins, Frank L., and R. H. Ayres, to Bemis Bro. Bag Co. Bag top closing and sealing machine. 2,845,780, 8–5–58, Cl. 53—67.

Hoppe, Peter: *See*—
Brechbagen, Franzkart, Schmidt, and Hoppe. 2,846,408.

Hopper, Kermit D., Sr. Liquid separation decanter. 2,846,073, 8–5–58, Cl. 210—256.

Horelick, Arnold L., to McGraw-Edison Co. Electrical winding. 2,846,657, 8–5–58, Cl. 336—180.

Hornauer, Willy E. O., to Amphenol Laboratories Corp. Electrical connector. 2,846,649, 8–5–58, Cl. 324—155.

Hosdaille Industries, Inc.: *See*—
Johnston, Theodore H. 2,846,253.

Hough, Frank G., Co., The: *See*—
Beyerstedt, Ralph L. 2,846,097.
Beyerstedt, Ralph L., and Laegeler. 2,846,096.

Hough, George H., and T. M. Jackson, to International Standard Electric Corp. Electric discharge tubes and circuits therefor. 2,846,611, 8–5–58, Cl. 313—196.

Houston-Fearless Corp., The: *See*—
Locatis, Leo G. 2,845,982.

Hovnanian, Hrair P., and R. D. Skinner, to The Calidyne Co., Inc. Leakage flux compensating coil. 2,846,597, 8–5–58, Cl. 310—27.
Howard, Edwin C., to Hercules Powder Co. Resin refining. 2,846,429, 8–5–58, Cl. 260—107.
Howard, Harold A., to The Hairlok Co. Ltd. Preparation of hair or other fibres for upholstery or other purposes. 2,845,987, 8–5–58, Cl. 28—4.
Heyer, Hans: *See*—
Berthold, Erich, Heyer, and von Rosenberg. 2,845,850.
Heyer, Michael G. Mechanical recoil compensator. 2,845,737, 8–5–58, Cl. 42—1.
Hubbard, Arthur F., to American Air Filter Co., Inc. Filter mat holder. 2,846,022, 8–5–58, Cl. 183—49.
Huber, Erwin W., to Tenglight Corp. Self-destroying pressure sensitive label. 2,845,728, 8–5–58, Cl. 40—2.
Huber, Glen H. Golf bag stand. 2,846,170, 8–5–58, Cl. 248—96.
Huber, John E., to Eastern Rotorcraft Corp. Release mechanism with manual and power actuation. 2,845,676, 8–5–58, Cl. 24—201.
Hubert, Clarence A., to International Harvester Co. Rotatable tractor seat. 2,845,990, 8–5–58, Cl. 155—14.
Hugo, Henry M., to Lorain Products Corp. Voltage and current regulator. 2,846,637, 8–5–58, Cl. 321—25.
Hughes Aircraft Co.: *See*—
Chirvin, Alvin. 2,846,679.
Everhart, Thomas E. 2,846,612.
Iversen, Arthur H. 2,846,655.
Hughes, William E., to Cities Service Research and Development Co. Composition for and method of inhibiting corrosion of metals. 2,846,405, 8–5–58, Cl. 252—387.
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Hughey, Vaughn V.: *See*—
Pearson, Edward P., and Hughey. 2,846,336.
Hugley, Dale G., and H. M. Wyatt. Pressure regulating means. 2,845,951, 8–5–58, Cl. 166—20.
Hunt, J. Harold, to Motor Wheel Corp. Vehicle wheels. 2,846,268, 8–5–58, Cl. 301—12.
Huntsinger Associates: *See*—
Hanes, James W. E. 2,846,016.
Hupp, Edward E., to Bendix Aviation Corp. Fluid pressure servo-motor. 2,845,904, 8–5–58, Cl. 121—46.5.
Hurst, Robert N., to Radio Corp. of America. Synchronized oscillator. 2,846,584, 8–5–58, Cl. 250—36.
Hutchings, Le Roi E.: *See*—
Crosby, Gifford W., and Hutchings. 2,846,466.
Hutchinson, Henry G., to Draper Corp. Guide bar for chain saws. 2,845,947, 8–5–58, Cl. 148—32.
Hutson, Robert W. Brush. 2,845,640, 8–5–58, Cl. 15—167.
Huvé, André. Pliers for stripping all kinds of electric cables. 2,845,704, 8–5–58, Cl. 20—91.
Huyck, F. C., & Sons: *See*—
Mason, William C. 2,845,836.
Hyman, Benjamin M., to International Harvester Co. Flight chain mounting for portable elevators. 2,846,053, 8–5–58, Cl. 198—175.
I-T-E Circuit Breaker Co.: *See*—
Edmunds, William H. 2,846,545.
Graybill, Howard W. 2,846,529.
Wood, Russell A. 2,846,544.
Ialeggio, John T.: *See*—
Dilworth, Thomas B., Ephraim, and Ialeggio. 2,846,148.
Iaquinta, Nicola, and J. F. Inco, to The Inco Co. Bed spring frame having adjustable hooks. 2,845,636, 8–5–58, Cl. 5—122.
Imperial Chemical Industries Ltd.: *See*—
Davidson, Samuel H., and Reid. 2,845,833.
Gray, John. 2,846,289.
Mitchell, John, Orchard, Twitchett, and Woods. 2,846,306.
Ronnebeck, Heinrich E. 2,846,121.
Sturgeo, Robert W. 2,846,198.
Waterfall, Frederick D., and Hewson. 2,846,344.
Waterfall, Frederick D., and Hewson. 2,846,345.
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Inco Co., The: *See*—
Iaquinta, Nicola, and Inco. 2,845,636.
Inco, Joseph F.: *See*—
Iaquinta, Nicola, and Inco. 2,845,636.
Indiana Commercial Filters Corp.: *See*—
Brundage, Alan D. 2,846,074.
Ingruber, Otto V., to Canadian Aviation Electronics Ltd. Reference electrode for making pH measurements. 2,846,386, 8–5–58, Cl. 204—195.
Inman, Daniel O. Comb cleaner. 2,845,642, 8–5–58, Cl. 15—104.5.
In-Sink-Erator Mfg. Co.: *See*—
Wiecporek, Eugene R. 2,846,154.
Intavez, Inc.: *See*—
Dudenhausen, Hans J. 2,846,832.
Intercontinental Mfg. Co.: *See*—
Chrisman, Ernest L. 2,845,786.
International Business Machines Corp.: *See*—
Barbeau, Raymond A. 2,846,007.
Barbeau, Raymond A., and Young. 2,846,009.
Dass, William H., and Koehler. 2,846,610.
De Lano, Ralph B., Jr., and Young. 2,846,615.
Dickinson, Arthur H. 2,846,008.
Havens, Byron L. 2,846,575.
Hickerson, John E. 2,846,043.
Manning, Clarence E. 2,846,067.
McMillan, Wilmur M., and Lowrie. 2,846,669.
Rats, Richard F. 2,846,582.
Sloat, Daniel H. 2,846,066.
International Cigar Machinery Co.: *See*—
Wheeler, Henry H. 2,846,010.
International Harvester Co.: *See*—
Allin, George S., Sr., and Lin. 2,846,162.
Brauer, Clarence H. 2,845,827.
Crawford, Arthur R. 2,845,787.
Hintz, Otto E., and Rammarco. 2,845,769.
Hubert, Clarence A. 2,845,990.
Hyman, Benjamin M. 2,846,053.
Orelind, John R., and Simpson. 2,846,181.
Siljander, William A. 2,845,818.
Sonneman, Paul E., and Neese. 2,846,065.
Zielke, Walter T. 2,845,763.
International Minerals & Chemical Corp.: *See*—
Joyce, Rose M. 2,846,470.
International Standard Electric Corp.: *See*—
Hough, George H., and Jackson. 2,846,611.
Van Mierlo, Stanislas, Weill, and Bataille. 2,846,518.
International Telephone and Telegraph Corp.: *See*—
Deschamps, Georges A. 2,845,711.
Stavis, Gus. 2,846,577.
Invincible Metal Furniture Co.: *See*—
Pasewalk, Leroy W. 2,846,262.
Iriand, Max J.: *See*—
Lindberg, Victor L., and Iriand. 2,845,838.
Isler, Otto, M. Montavon, R. Rüegg, and P. Zeller, to Hoffmann-La Roche Inc. Processes and intermediates for the preparation of carotenoids. 2,846,473, 8–5–58, Cl. 260—617.
Isler, Otto, M. Montavon, R. Rüegg, and P. Zeller, to Hoffmann-La Roche Inc. Process for the manufacture of carotenoids. 2,846,457, 8–5–58, Cl. 260—644.
Iversen, Arthur H., to Hughes Aircraft Co. Impregnated ferrite. 2,846,655, 8–5–58, Cl. 332—84.
Ives, Kenneth A.: *See*—
Brown, Leslie S., and Ives. 2,845,670.
Jackson, James G. Intermittent moving apparatus for picture projectors. 2,845,840, 8–5–58, Cl. 88—18.3.
Jackson, Thomas M.: *See*—
Hough, George H., and Jackson. 2,846,611.
Jacobs, Henry S., to Harnischfeger Corp. Bonding copper to steel in a rotor bar winding. 2,846,601, 8–5–58, Cl. 310—211.
Jacobs, William L.: *See*—
Folkins, Hillis O., Jacobs, and Brozowski. 2,846,263.
Jacoby, Joseph F., F. E. Becker, and J. Rosenberg, to General Electric Co. Heater wire. 2,846,560, 8–5–58, Cl. 219—40.
Jaffe, Rainer G.: *See*—
Herschler, Robert J., Jaffe, and Whipple. 2,846,409.
Jahnig, Charles E., to Esso Research and Engineering Co. Process for securing chemicals from petroleum residua. 2,846,360, 8–5–58, Cl. 196—49.
Jahnig, Charles E., to Esso Research and Engineering Co. Fluid coking with preparation of seed coke. 2,846,374, 8–5–58, Cl. 196—55.
Jamison, Frederick W. Measuring and mixing device for hot-cake batter. 2,846,200, 8–5–58, Cl. 259—24.
Janssen, Peter J. H., to North American Philips Co., Inc. Automatic gain control circuit-arrangement used in television receiver. 2,846,501, 8–5–58, Cl. 178—7.3.
Jasse, Joseph R., to Societe Nouvelle des Etablissements Brandt. Fuse for a projectile and applications thereof. 2,845,866, 8–5–58, Cl. 102—78.
Jatcko, Joseph M.: *See*—
Blatt, Leland F., and Jatcko. 2,845,847.
Jayle, Gaetan J. Automatic eyelids eyeball fixing device for a surgical intervention. 2,845,925, 8–5–58, Cl. 128—20.
Jenkins, Wallace, and H. L. McCreery, to The Atlas Mfg. & Sales Corp. Vending machine. 2,846,122, 8–5–58, Cl. 222—153.
Jenkinson, Harry C., to Principal Mfg. Corp. Cake serving utensils, and the like. 2,845,705, 8–5–58, Cl. 30—122.
Jenny, Dietrich A., to Radio Corp. of America. Semiconductor devices and method of making same. 2,846,340, 8–5–58, Cl. 148—1.5.
Jepson, Charles W. Attachment for buttonholes. 2,845,678, 8–5–58, Cl. 24—202.
Jernakoff, George, to General Electric Co. Drift compensator for direct-coupled amplifier. 2,846,586, 8–5–58, Cl. 250—41.9.
Jewell, Howard W. Pipe coupling including elastomeric covered clamping means. 2,846,243, 8–5–58, Cl. 285—369.
Joab, Inc.: *See*—
Lowell, John O. 2,846,001.
Johannsen, Adolf, H. Wolf, F. Hettler, W. Kammerer, H. Stumpf, and W. Rasche, to Badische Anilin- & Soda-Fabrik Akt. Process and apparatus for the production of gases containing sulfur trioxide. 2,846,291, 8–5–58, Cl. 23—176.
Johns, William C., and W. J. Wojtowicz, to The H. A. Montgomery Co. Combination pickling and coating baths for ferrous metals and methods of using same. 2,846,341, 8–5–58, Cl. 148—6.14.
Johnson, Axel E. F., to American Hospital Supply Corp. Joint for tubular members. 2,846,249, 8–5–58, Cl. 287—56.
Johnson, Carl E., to National Aluminate Corp. Steam generation and compositions for inhibiting foam therein. 2,846,404, 8–5–58, Cl. 252—321.
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Sublett, Ira, and Johnson. 2,846,187.
Johnson, Edward O.: *See*—
Webster, William M., Jr., Johnson, and Malter. 2,846,605.
Johnson, Gustav J. Adjustable scaffold for ceiling board. 2,846,085, 8–5–58, Cl. 214—1.
Johnson-Hartmann: *See*—
Heintzelman, Leo A. 2,846,527.
Johnson, Herbert L., and S. J. Hetzel, to Sun Oil Co. Emulsion polymerization of butadiene compounds. 2,846,420, 8–5–58, Cl. 260—82.1.
Johnson & Johnson: *See*—
Zackheim, Eli A. 2,845,963.

Johnson Rubber Co., The: *See*—
Farnwald, John A., and Miller. 2,846,002.
Johnson, Smith M., and Farnwald. 2,846,003.

Johnson, Smith M., and J. A. Farnwald, to The Johnson Rubber Co. Machine for cutting strips of rubber or the like. 2,846,003, 8–5–58, Cl. 164—48.

Johnston, Spencer G.: *See*—
Farrand, William A., Kilpatrick, and Johnston. 2,846,517.

Johnstone, Theodore H., to Houdaille Industries, Inc. Hood latch. 2,846,253, 8–5–58, Cl. 292—25.

Jones, Emlyn, and K. H. Martin, to North American Philips Co., Inc. Television receiver. 2,846,606, 8–5–58, Cl. 313—78.

Jones, Frank D., to Deere & Co. Husker having ear holding pockets. 2,845,932, 8–5–58, Cl. 130—5.

Jones, Lloyd R., R. E. Freund, and F. H. Palmer, Jr., to Dictaphone Corp. Remote dictation system. 2,846,506, 8–5–58, Cl. 179—6.

Jones, Tillman F., to The Coleman Co., Inc. Method of forming a flow conduit. 2,845,689, 8–5–58, Cl. 113—34.

Jorgensen, William H., and W. G. Tyson, to Cleereman Machine Tool Co. Control apparatus for drilling and tapping machine. 2,845,630, 8–5–58, Cl. 10—136.

Jorgenson, John P. Boat mooring assembly. 2,845,892, 8–5–58, Cl. 114—230.

Jay Mfg. Co.: *See*—
Densmore, Neal W. 2,846,093.

Joyama, Tokio, to Takeda Pharmaceutical Industries, Ltd. Reaction of threonines with aryl nitriles in a steric inversion process. 2,846,439, 8–5–58, Cl. 260—307.

Joyce, Rose M., to International Minerals & Chemical Corp. Process for producing glutamine. 2,846,470, 8–5–58, Cl. 260—534.

Jullien, Alexandra F.: *See*—
Carron, Maurice C. E., Jullien, and Preud'Homme. 2,846,469.

Jutz, Erich: *See*—
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Carell, Conrad O. 2,846,235.
La Rue, Donald G. 2,846,263.

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Kammerer, William T., to H. A. Kammerer, Inc. Combination storm window and screen. 2,846,000, 8–5–58, Cl. 160—90.

Karper, Abraham S. Streamline rotary index. 2,845,720, 8–5–58, Cl. 40—104.

Kayser, Daniel, to Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Pas & Silva. Circuit for energizing at least one gaseous electric discharge device. 2,846,619, 8–5–58, Cl. 315—282.

Keating, Richard T. Narrow range thermostat. 2,846,147, 8–5–58, Cl. 236—22.

Keck, Albert, to Vdo Tachometer Werke, Adolph Schlosding G. m. b. H. Signal device for tachographs. 2,845,532, 8–5–58, Cl. 200—56.

Keel, Adolf, to Vickers Inc. Power transmission. 2,845,876, 8–5–58, Cl. 103—162.

Kehr, Clifton L.: *See*—
Arnold, Robert G., Kehr, and Verbane. 2,846,416.

Keith, Clyde R., C. A. Nickerson, and C. M. Tarla, to Bell Telephone Laboratories, Inc. Automatic telephone answering system. 2,846,505, 8–5–58, Cl. 179—6.

Kelleher, Herbert W., to Bailey-Kelleher Co. Mirror and support means. 2,845,846, 8–5–58, Cl. 88—100.

Keller, Wayne H., and I. S. Zonis, to National Research Corp. Method of producing titanium. 2,846,303, 8–5–58, Cl. 75—84.5.

Keller, Wayne H., and I. S. Zonis, to National Research Corp. Method of producing titanium. 2,846,304, 8–5–58, Cl. 75—84.5.

Kelley, Oliver K., to General Motors Corp. Control linkage for brake mechanism. 2,846,031, 8–5–58, Cl. 188—152.

Kelly, E. J., & Associates, Inc.: *See*—
Kelly, Edgar J. 2,846,319.
Kelly, Edgar J., and Schlemmer. 2,846,318.

Kelly, Edgar J., to E. J. Kelly & Associates, Inc. Drying process. 2,846,319, 8–5–58, Cl. 99—205.

Kelly, Edgar J., and A. H. Schlemmer, to E. J. Kelly & Associates, Inc. Method of rapid cooling with mineral dehydration. 2,846,318, 8–5–58, Cl. 99—192.

Kelman, Le Roy R., and F. L. Yagyee, to United States of America, Atomic Energy Commission. Can handling fixtures. 2,845,762, 8–5–58, Cl. 53—111.

Kelvin & Hughes Ltd.: *See*—
Wilkenhauser, Gustav. 2,846,674.

Kemper, James M., to The Garrett Corp. Refrigeration compressor. 2,846,140, 8–5–58, Cl. 230—232.

Kennedy, Ralph C., to Radio Corp. of America. Television systems. 2,846,497, 8–5–58, Cl. 178—5.1.

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Kershaw, Royce, to Kershaw Mfg. Co., Inc. Railway roadbed scarifying apparatus. 2,846,206, 8–5–58, Cl. 262—8.

Keymer, John L., to The Trail-Rite Gauge Co. Axle aligning device. 2,845,718, 8–5–58, Cl. 33—193.

Keyser, Glenn T. Stock car racing game. 2,846,225, 8–5–58, Cl. 273—86.

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Bagno, Samuel. 2,845,700.

Kielmann, Ernst: *See*—
Heinemann, Walter, Kielmann, and Schimmelpfennig. 2,846,052.

Kilpatrick, Lester L.: *See*—
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King, Paul A.: *See*—
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King-Seeley Corp.: *See*—
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Boddy, Leonard. 2,846,548.
Boddy, Leonard. 2,846,550.
Slivacek, Emil R. 2,846,542.
Whinery, George B. 2,846,506.

Kinney, John W., Jr., to J. J. Fleckenstein. Sheet retaining device. 2,846,931, 8–5–58, Cl. 129—1.

Kirk, Walter B., to Westinghouse Air Brake Co. Fluid pressure brake apparatus with equalizing reservoir pressure build-back preventing means. 2,846,272, 8–5–58, Cl. 303—55.

Kletzer, Herman H. Sliding window and door lock. 2,845,789, 8–5–58, Cl. 70—90.

Kitchel, Eugene R. Crescent-shaped nut retainer for nuts used in heavy industrial equipment. 2,845,977, 8–5–58, Cl. 151—29.

Kittler, Milton J., to Holley Carburetor Co. Mixture distribution control. 2,846,202, 8–5–58, Cl. 261—23.

Klaasse, Hendrik A.: *See*—
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Klein, Jerome G.: *See*—
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Kleiner, Helmut, O. Bayer, and H. Wilms, to Farbenfabriken Bayer Akt. Process for the production of polymeric amines and ammonium salts from olefin-carbon monoxide polymers. 2,846,406, 8–5–58, Cl. 260—2.1.

Kleinvogel, Hans-Joachim, to Siemens-Schuckertwerke A. G. Rectifier protective means. 2,846,636, 8–5–58, Cl. 321—11.

Kline, Sidney R., to Phillips Petroleum Co. Electrical servo system. 2,846,628, 8–5–58, Cl. 318—28.

Kliwer, Arthur G. Tapered coupling connection. 2,846,248, 8–5–58, Cl. 287—2.

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Klump, Johann, to North American Philips Co., Inc. Output stages for low-frequency amplifiers comprising two loudspeakers. 2,846,503, 8–5–58, Cl. 179—1.

Knapp, Walter I., 50% to R. M. Apple. Plastics fillet. 2,845,666, 8–5–58, Cl. 20—74.

Knauth, Berthold A. Vortex flow throttling device. 2,845,788, 8–5–58, Cl. 73—230.

Knibb, Leroy H. Collapsible mandrel for use in fabricating plastic pipe. 2,845,668, 8–5–58, Cl. 18—45.

Knobel, Max, to Pneumatic Scale Corp., Ltd. Vacuum filling and weighing machine. 2,846,177, 8–5–58, Cl. 249—63.

Knowles, William S., to Monsanto Chemical Co. Synthesis of steroids. 2,846,446, 8–5–58, Cl. 260—340.5.

Koehler, Raymond V., and M. Batenburg, to American Motors Corp. Accelerator throttle control. 2,845,815, 8–5–58, Cl. 74—513.

Koehler, Robert B.: *See*—
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Koenecke, Donald F., to Esso Research and Engineering Co. Process for bodying vegetable drying oils with polymer oil. 2,846,329, 8–5–58, Cl. 106—265.

Kohlstrunk, Arthur T., to Wheel Trueing Tool Co. Tool assembly. 2,845,822, 8–5–58, Cl. 125—35.

Kolfenbach, John J.: *See*—
Morway, Arnold J., and Kolfenbach. 2,846,392.

Kongelbeck, Sverre, to United States of America, Navy. Air shut-off valve. 2,846,180, 8–5–58, Cl. 251—66.

Kopp, Philip E. Tile handling conveyer. 2,846,096, 8–5–58, Cl. 214—314.

Kordes, Heinrich, to Klockner-Georgsmarienwerke A. G. Vehicle wheels. 2,846,260, 8–5–58, Cl. 295—15.

Korpiun, Joachim: *See*—
Frick, Wolfgang, Geidbach, Korpiun, and Sedlacek. 2,846,381.

Koslowski, Rudolph, and J. J. Conti. Plumbing ferrule. 2,845,631, 8–5–58, Cl. 4—1.

Kozub, Stanley S. Golf ball and tee holder. 2,846,077, 8–5–58, Cl. 211—14.

Kradoska, Edward C. Lock seam unrolling machine. 2,845,887, 8–5–58, Cl. 113—1.

Krogh, Kristian P. Drum sieve with comminuting arms and spraying means therein. 2,846,153, 8–5–58, Cl. 241—62.

Kronhaus, Henry. Telescoping support unit. 2,846,171, 8–5–58, Cl. 248—161.

Kuleski, Kazimiers T., to Aero Supply Mfg. Co., Inc. Aircraft tank vent valve. 2,845,987, 8–5–58, Cl. 137—38.

Köhle, Engelbert, R. Wegler, and F. Grewe, to Farbenfabriken Bayer Akt. Trichloromethyl-sulphenic acid esters of cyclic oximides and their production. 2,846,442, 8–5–58, Cl. 260—526.

Kumpf, Emil. Automatic dispenser for drinking straws. 2,846,117, 8–5–58, Cl. 221—156.

Kurek, Edwin J., to The Pyle-National Co. Combination light fixture and ventilating apparatus. 2,845,854, 8–5–58, Cl. 98—40.

Laburte, Roland, to Compagnie de Pont-A-Mousson. Automatic control device for a gear box. 2,845,819, 8–5–58, Cl. 74—754.

Laegeler, Julius C., Jr.: *See*—
Beyerstedt, Ralph L., and Laegeler. 2,846,096.

La Guardia, Nicholas. Carrier or holder for bottles and the like. 2,846,115, 8–5–58, Cl. 220—113.

Lamar, Thomas W.: *See*—
Eshbaugh, Jesse E., Lamar, and Schultz. 2,845,898.

Lambert, Donald R., to Powers-Samas Accounting Machines Ltd. Servomechanism. 2,845,804, 8-5-58, Cl. 74—110.

Lance, Orville P.: *See*—
Neighbour, Leonard R., Lance, and Shremmer. 2,846,047.

Lanctot, Donald H., and R. G. Kenway, to Transco Products, Inc. Multiple channel coaxial switch. 2,846,653, 8-5-58, Cl. 333—7.

Land, Edwin H., to Polaroid Corp. Photographic products. 2,845,309, 8-5-58, Cl. 96—76.

Landry, Henry J. Folding play-yard. 2,845,634, 8-5-58, Cl. 5—99.

Landry, Henry J. Combined table and folding chair. 2,845,985, 8-5-58, Cl. 155—165.

Lang, Harold M., to Pan American Petroleum Corp. Generating seismic waves. 2,846,018, 8-5-58, Cl. 181—5.

Lang, Joseph C., to Bocli Corp. Stapling apparatus. 2,845,626, 8-5-58, Cl. 1—48.1.

Lantz, Claude W., W. M. Cochran, and R. E. Luts, to The Glidden Co. Process for preparing fluid shortening. 2,846,312, 8-5-58, Cl. 99—118.

Lapsley, Robert, to Clark Equipment Co. Rotating fluid pump. 2,845,873, 8-5-58, Cl. 103—125.

Larsen, Leonard O., and W. O. Simpson, to Western Electric Co., Inc., Machine for automatically coiling stiff wire into a helix. 2,845,986, 8-5-58, Cl. 153—64.

Larsen, Lyle V., to Chicago Bridge & Iron Co. Emergency drain. 2,846,109, 8-5-58, Cl. 220—26.

Larson, Winston E., and R. H. Edmonson, to The Dow Chemical Co. Polyamerization in vapor phase with complex metal catalysts. 2,846,428, 8-5-58, Cl. 260—94.9.

La Rue, Donald G., to Kaiser Aluminum & Chemical Corp. Vehicle. 2,846,263, 8-5-58, Cl. 296—28.

Laubender, Ludwig, to Firma Krauss-Maffei A. G. Cylinder and piston arrangement. 2,845,917, 8-5-58, Cl. 123—191.

Laufer, Maurice K., and W. D. Hall, to Grimes Mfg. Co. Instrument lighting fixtures. 2,846,567, 8-5-58, Cl. 240—8.16.

Lavoud, Edward A. Tool sharpening devices. 2,845,752, 8-5-58, Cl. 51—36.

Lawrence, Ray V., and V. M. Loeblich, to United States of America, Agriculture, Processing pine oleoresin. 2,846,430, 8-5-58, Cl. 260—109.

Leach, Harry S., and F. R. Carlson, ½ to Monsanto Chemical Co. and ½ to Hayden Newport Chemical Corp. Purification of methanol. 2,846,477, 8-5-58, Cl. 260—643.

Leavitt, Minard A., and I. C. Lutz, to United States of America, Atomic Energy Commission. Square wave amplifier. 2,846,523, 8-5-58, Cl. 179—171.

Leddy, Frank H. Saddle. 2,845,763, 8-5-58, Cl. 54—46.

Leeds and Northrup Co.: *See*—
Clark, William R., McAdam, and Cheng. 2,846,629.

Leeper, Frederick R. Garment rack for delivery truck. 2,846,079, 8-5-58, Cl. 211—122.

Leetronics, Inc.: *See*—
Wolff, Hanna H. 2,846,623.

Leitz, Ernest, G. m. b. H.: *See*—
Leitz, Ludwig, and Frischman. 2,845,842.

Leitz, Ludwig, and K. Frischman, to Ernest Leitz G. m. b. H. Microphotographic apparatus. 2,845,842, 8-5-58, Cl. 88—24.

Lempco Products, Inc.: *See*—
Blasek, William J. 2,846,278.

Les Laboratoires Francais de Chimiotherapie: *See*—
Muller, Georges. 2,846,455.

Lessler, Lew W., and J. K. Polhemus, to General Aniline & Film Corp. View finder for photographic camera. 2,845,836, 8-5-58, Cl. 88—1.5.

LeTourneau, R. G., Inc.: *See*—
LeTourneau, Robert G. 2,845,694.

LeTourneau, Robert G., to R. G. LeTourneau, Inc. Means and method for forming coils. 2,845,694, 8-5-58, Cl. 29—155.57.

Lever Brothers Co.: *See*—
Scott, Alan D., and Hazard. 2,846,400.

Law, Henry Y., to California Research Corp. Alkyl sulfate detergent compositions. 2,846,402, 8-5-58, Cl. 252—152.

Lewfor Development Corp.: *See*—
Mestre, Luis. 2,845,860.
Mestre, Luis. 2,846,220.

Lewis, Willard D., to Bell Telephone Laboratories, Inc. Directive antennas. 2,846,680, 8-5-58, Cl. 343—838.

Liberty Fabrics of New York, Inc.: *See*—
Bloch, Richard. 2,845,834.

Librascope, Inc.: *See*—
Fingerett, Joseph A., and Hill. 2,846,526.
Goodell, John D., and Lode. 2,846,667.
Pankratz, A. J., and Schmidt. 2,846,894.

Liebmann, Gerhard: *See*—
Bailey, Roy, and Liebmann. 2,846,141.

Liebe, Hubert J.: *See*—
Brunstrum, Lawrence C., and Liebe. 2,846,294.

Lifland, Philip P., to Socony Mobil Oil Co., Inc. Hydrocarbon conversion process. 2,846,367, 8-5-58, Cl. 196—52.

Liga, Joseph D., and V. A. Abbatiello. High level A. M. modulation. 2,846,651, 8-5-58, Cl. 333—88.

Liggett & Myers Tobacco Co.: *See*—
Samfield, Max M., Brock, and Locklair. 2,845,633.

Light, Leon H., to North American Philips Co., Inc. Oscillator circuit arrangement. 2,846,580, 8-5-58, Cl. 250—36.

Lindberg, Victor L., and M. J. Irland, to Ford Motor Co. Apparatus for controlling thickness of deposited layers in producing interference filters. 2,845,858, 8-5-58, Cl. 88—14.

Lindenblad, Nils E., to Radio Corp. of America. N-type thermoelectric devices. 2,846,493, 8-5-58, Cl. 136—5.

Lindenblad, Nils E., to Radio Corp. of America. Thermoelectric devices. 2,846,494, 8-5-58, Cl. 136—5.

Linder, Rudolf, and K. Rilling, to Robert Bosch G. m. b. H. Apparatus for automatically adjusting vehicle lamps. 2,846,551, 8-5-58, Cl. 201—48.

Lindhagen, Teodor I.: *See*—
Nilsson, Hans R., and Lindhagen. 2,845,777.

Lindqvist, Ella: *See*—
Berg, Knut, Ahlin, and Lindqvist. 2,846,197.

Lindqvist, Harry: *See*—
Berg, Knut, Ahlin, and Lindqvist. 2,846,197.

Link-Belt Co.: *See*—
Richard, Joseph J. 2,846,071.

Link, Edwin A., to E T & E Corp. Liquid-containing electrical bushing. 2,846,495, 8-5-58, Cl. 174—31.

Linton, Merwyn B. Floating door. 2,845,664, 8-5-58, Cl. 20—19.

Lipic, Emil J.: *See*—
Lipic, Joseph, Jr., and E. J. 2,845,899.

Lipic, Joseph, Jr., and E. J. Writing instrument. 2,845,899, 8-5-58, Cl. 120—42.03.

Littell, Ruddy: *See*—
Bernstein, Seymour, and Littell. 2,846,454.

Litton, Charles V., to Litton Industries, Inc. Magnetron. 2,846,618, 8-5-58, Cl. 315—39.71.

Litton Industries, Inc.: *See*—
Litton, Charles V. 2,845,618.

Liu, John K.: *See*—
Allis, George S., Sr., and Liu. 2,846,162.

Ljungströmer, Lars-Einar: *See*—
Nilsson, Gustav O., and Ljungströmer. 2,846,087.

Lo, Chien-Pen: *See*—
Braun, Robert A., Craig, and Lo. 2,846,350.

Locatis, Leo G., to The Houston-Fearless Corp. Reciprocating flange forming apparatus. 2,845,982, 8-5-58, Cl. 153—28.

Lock, Thomas, to Borg-Warner Corp. Fuel booster pump. 2,846,870, 8-5-58, Cl. 103—113.

Locklair, Earl E.: *See*—
Samfield, Max M., Brock, and Locklair. 2,845,633.

Lode, Tenny: *See*—
Goodell, John D., and Lode. 2,846,667.

Loeblich, Virginia M.: *See*—
Lawrence, Ray V., and Loeblich. 2,846,430.

Loecy, Joe, Jr. Automatic device for dressing grinding wheels or the like. 2,845,921, 8-5-58, Cl. 125—11.

Longfield, James E.: *See*—
Saunders, Kenneth W., Smolin, and Longfield. 2,846,479.

Longland, George M., Jr.: *See*—
Holm, LeRoy W., and Longland. 2,846,354.

Loomis, Jack E., to Clark Equipment Co. Latch mechanism. 2,846,264, 8-5-58, Cl. 296—35.

Lorain Products Corp.: *See*—
Hage, Henry M. 2,846,637.

Lord, Edmund, to The British Cotton Industry Research Association Shirley Institute. Method of and means for measuring the staple length of fibres. 2,845,837, 8-5-58, Cl. 88—14.

Lorenz, Roy H., O. C. Holbrook, and G. G. Bernard, to The Pure Oil Co. Recovery of oil from partially depleted reservoirs by secondary recovery. 2,846,013, 8-5-58, Cl. 166—38.

Loroco Industries Inc.: *See*—
Tomarin, Harry A. 2,846,127.

Lovgren, Einar C., and E. C. Prest. Concrete wall form joint. 2,845,685, 8-5-58, Cl. 25—131.

Lowe, Donald J., to Young-Brothers Co. Oven duct and duct inlet means. 2,845,720, 8-5-58, Cl. 34—150.

Lowell, John O., to Joab, Inc. Shoe cutting die. 2,846,001, 8-5-58, Cl. 164—20.

Lowrie, Richard W.: *See*—
McMillan, Wilmur M., and Lowrie. 2,846,689.

Lowthian, Walter E. Method of packaging cylindrical containers. 2,845,758, 8-5-58, Cl. 53—14.

Loxham, John, and F. R. Boosey, to The Sigma Instrument Co. Ltd. Pneumatic gauges. 2,845,791, 8-5-58, Cl. 73—37.5.

Lubberger, Emma: *See*—
Splecker, Friedrich, and Lubberger. 2,846,810.

Lubberger, Fritz: *See*—
Splecker, Friedrich, and Lubberger. 2,846,810.

Luber, Anthony J. Power driven screw driver having screw holding means. 2,845,968, 8-5-58, Cl. 144—32.

Lucas, Joseph (Industries) Ltd.: *See*—
Collins, Herbert H., and Ripper. 2,846,602.

Luchterhand, Elmer. Snow vehicle with endless tread propelling device. 2,846,017, 8-5-58, Cl. 180—5.

Ludwig, Adolf: *See*—
Binder, Richard, and Ludwig. 2,846,040.

Luettringhaus, Arthur, and U. Schmidt. Pyruvic acid-3-(p-methoxy phenyl)-1,2-dithiol-5-one azine. 2,846,444, 8-5-58, Cl. 260—327.

Lummus Co., The: *See*—
Mekler, Valentine. 2,846,361.
Schutte, August H. 2,846,373.

Lummus, James L., E. P. Murphy, Jr., and P. P. Scott, Jr., to Pan American Petroleum Corp. Process for recovering lost circulation. 2,846,390, 8-5-58, Cl. 252—8.5.

Lutes, Harold R., to Compco Corp. Stereoscopic projector and polarizing filter combination. 2,845,843, 8-5-58, Cl. 88—26.

Lutz, Ivan C.: *See*—
Leavitt, Minard A., and Lutz. 2,846,523.

Lutz, Reinhard E.: *See*—
Lantz, Claude W., Cochran, and Lutz. 2,846,312.

Lydon, Richard M.: *See*—
Erskine, Archibald M., Nygard, and Lydon. 2,846,349.

Lynn, Arthur J.: *See*—
Alholm, Wayne I., Ballou, Lynn, Shanklin, and Stokes. 2,846,336.

Lyon, George A. Wheel cover. 2,846,269, 8-5-58, Cl. 301—37.

Lytle, Jackson K.: *See*—
Ross, Aylmer O. 2,846,377.

Macaulay, Thomas W. Glass cutting tables. 2,845,713, 8–5–58, Cl. 33—32.

MacChesney, Chester M., to Ellamac Inc. Magnetic recording and reproducing apparatus. 2,846,516, 8–5–58, Cl. 179—100.2.

MacDuff, Stanley I., to Bendix Aviation Corp. Back pressure producing device for hydraulic system. 2,845,901, 8–5–58, Cl. 121—38.

MacLaughlin, Lucius "T." Lawn hose guide. 2,846,189, 8–5–58, Cl. 254—190.

MacNerland, William A.: *See*—
Day, Leslie, and MacNerland. 2,846,279.

Macpherson, Alan C., to United States of America, Commerce. Microwave calorimetric wattmeter. 2,846,647, 8–5–58, Cl. 324—96.

Maggiolo, Allison: *See*—
Blair, Edgar A., and Maggiolo. 2,846,471.

Mahland, Edward W., and G. G. Bradley, to Radio Corp. of America. Heterodyning receiving system. 2,846,573, 8–5–58, Cl. 250—20.

Maier, Karl W., to Olin Mathieson Chemical Corp. Buffer mechanism. 2,845,908, 8–5–58, Cl. 123—7.

Mallinckrodt Chemical Works: *See*—
Tarjan, Armen C., Yates, and Holmes. 2,846,351.

Malter, Louis: *See*—
Webster, William M., Jr., Johnson, and Malter. 2,846,606.

Maluss, Giorgio, and M. Rossoni, to Società Edison S. p. A. Process apt to improve the recovery of selective solvents, and particularly of solvents destined to the separation of acetylene from gasses containing same. 2,846,443, 8–5–58, Cl. 260—326.5.

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Edlund, Carl A., Mand, and Scheer. 2,846,058.

Manes, Myron M.: *See*—
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Manning, Clarence R., to International Business Machines Corp. Record controlled machine. 2,846,067, 8–5–58, Cl. 209—110.

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Richter, Walter E. 2,845,877.

Manteuffel, Allan A.: *See*—
Cook, George R., Cortiss, and Manteuffel. 2,846,393.

Mapes, Dwight B., and T. P. Moots, Jr., to Pan American Petroleum Corp. Process for recovering chemicals from aqueous soap solutions. 2,846,460, 8–5–58, Cl. 260—450.

Marggraf, Kurt A., to Ampatco Laboratories Corp. Motion responsive apparatus. 2,846,207, 8–5–58, Cl. 204—1.

Marien-Metal Products Co.: *See*—
Marsh, Lyle L. 2,845,714.

Marsh, Luther, to Griffith Tool Works, Inc. Head and handle assembly for striking tools. 2,846,277, 8–5–58, Cl. 306—29.

Marsh, Lyle L., to Marien-Metal Products Co. Volumetric paint mixer. 2,845,714, 8–5–58, Cl. 33—126.7.

Martin, Kenneth E.: *See*—
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Martin, William E. Truck hitch for trailing vehicles. 2,846,237, 8–5–58, Cl. 280—496.

Marvel Engineering Co.: *See*—
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Marx, Sam G.: *See*—
Downing, Mason L., Herrmann, and Marx. 2,846,389.

Marzocchi, Alfred, A. W. Brown, and G. E. Rammel, to Owens-Corning Fiberglas Corp. Glass fiber sizing. 2,846,348, 8–5–58, Cl. 154—90.

Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
Herwig, Otto. 2,846,297.

Masland, C. H., & Sons: *See*—
Hoeselbarth, Frank W. E. 2,845,960.
Hoeselbarth, Frank W. E. 2,845,961.

Mason, Thomas H., to The Brunhoff Mfg. Co. Cabinet top range unit. 2,846,558, 8–5–58, Cl. 219—37.

Mason, Walter A. Product and method for effecting a cold chemical oxidation of aluminum and its alloys. 2,846,343, 8–5–58, Cl. 148—6.24.

Mason, William C., to F. C. Huyck & Sons. Apparatus and method for forming endless fabrics. 2,845,680, 8–5–58, Cl. 28—1.

Matejka, Joseph, to Dale Products, Inc. Gas flow control system. 2,846,118, 8–5–58, Cl. 222—3.

Matheson, Duayne L., ¼ to I. Wright. Motion picture film reels. 2,846,219, 8–5–58, Cl. 271—2.17.

Mattson, Vernon L.: *See*—
Smith, William A., Mattson, Meyer, and Baxter. 2,846,065.

Maurice, Jean, and M. Rist, to Societe Anonyme Francaise du Ferodo. Gear-changing levers. 2,846,036, 8–5–58, Cl. 192—3.5.

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Peiler, Alva K. 2,845,660.

Maxwell, Keaton B. Nursing bottle. 2,846,103, 8–5–58, Cl. 215—11.

May, Donald R.: *See*—
Smolin, Edwin M., Saunders, and May. 2,846,478.

Maseffa, George M., and C. A. Damm. Multi-purpose test fixture assembly. 2,845,704, 8–5–58, Cl. 73—88.

McAdam, Harry H., to Hodges Wetmore, d. b. a. Hodges Wetmore and Associates. Electric motor components and the like and method for making the same. 2,846,599, 8–5–58, Cl. 310—43.

McAdam, Will: *See*—
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Cragga, Joseph, and McCann. 2,846,050.
Cragga, Joseph, and McCann. 2,846,051.

McCarthy, Thomas M., and A. S. Roald, to The Procter & Gamble Co. Granular detergent compositions. 2,846,401, 8–5–58, Cl. 252—138.

McCarty, Dale E.: *See*—
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McCormick, Jerry R. D., and W. Hoffer, to American Cyanamid Co. Purification of triethylamine. 2,846,376, 8–5–58, Cl. 202—42.

McCreery, Hugh L.: *See*—
Jenkins, Wallace, and McCreery. 2,846,122.

McCullar, Grover G.: *See*—
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McDonnell, Joseph M., and G. N. Wright, to General Motors Corp. Pipe end to pipe side joint. 2,846,241, 8–5–58, Cl. 285—192.

McDonough Co.: *See*—
Eads, Harold O., and Exline. 2,845,093.

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Dunn, Douglas E., and McGowen. 2,846,014.

McGraw-Edison Co.: *See*—
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Harling, Donald W. 2,846,570.
Horelick, Arnold L. 2,846,657.

McIlvaine, Oran T. Metallurgy. 2,845,394, 8–5–58, Cl. 118—49.1.

McKenzie, Clarence M. Tire appliance. 2,845,978, 8–5–58, Cl. 152—228.

McKinney, Gerald W. Toy flying machine. 2,845,746, 8–5–58, Cl. 46—78.

McMillan, Wilmur M., and R. W. Lowrie, to International Business Machines Corp. Magnetic core shift register. 2,846,669, 8–5–58, Cl. 340—174.

McNeill, Eric, and R. A. Dean, to The British Petroleum Co. Ltd. Refining of light and heavy petroleum hydrocarbons separately with alkali and cresylic acid followed by regeneration of the alkali solution. 2,846,357, 8–5–58, Cl. 196—32.

Measom, George H., and T. M. Newsom, to Esso Research and Engineering Co. Production of high purity cyclohexane concentrate. 2,846,485, 8–5–58, Cl. 260—666.

Medway Paper Sacks Ltd.: *See*—
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Menkin, Benjamin D., S. F. Rabin, and M. D. Scisorek, to J. Bayard, S. F. Rabin, and M. D. Scisorek. Flavored drinking straw. 2,846,313, 8–5–58, Cl. 99—138.

Merck & Co., Inc.: *See*—
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Merck, E., Akt. Darmstadt: *See*—
Muller, Wilhelm. 2,846,383.

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Patterson, Robert G., and Yamada. 2,846,295.

Mermelstein, Morris. Paint mixing device. 2,846,201, 8–5–58, Cl. 259—72.

Mestre, Luis, to Lewfor Development Corp. Two-color offset printing press. 2,845,860, 8–5–58, Cl. 101—177.

Mestre, Luis, to Lewfor Development Corp. Sheet feeder for printing press. 2,846,220, 8–5–58, Cl. 271—31.

Metals & Controls Corp.: *See*—
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Meyer, Edwin W., and J. G. Klein, to The Glidden Co. Stabilized unsaturated polyester composition containing an amidine salt and process of making same. 2,846,411, 8–5–58, Cl. 260—45.4.

Meyer, Gene: *See*—
Smith, William A., Mattson, Meyer, and Baxter. 2,846,065.

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Meyers, Hugh L., to Sun Oil Co. Preventing loss of color on aging by treating with alcohol and alkali. 2,846,359, 8–5–58, Cl. 196—41.

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Ashley, Kenneth D., and Michael. 2,846,305.

Mickam, Elizabeth H. Doll eye and method of making. 2,845,749, 8–5–58, Cl. 46—165.

Midgley, Calvin P. Testing unit providing a teaching aid for the demonstration of chemistry experiments to students. 2,845,722, 8–5–58, Cl. 35—18.

Mid-West Abrasive Co.: *See*—
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Miessner, Benjamin F. 2,845,829.

Mikulyak, Robert M., to Bell Telephone Laboratories, Inc. Stereophonic sound transmission system. 2,846,504, 8–5–58, Cl. 179—1.

Miller, Arthur S. Collapsible roll-up container. 2,845,976, 8–5–58, Cl. 150—52.

Miller, Edsel L.: *See*—
McClaflin, Gifford G., and Miller. 2,846,480.

Miller, Elmer L., to The Pure Oil Co. Preparation of hydrogenation catalysts. 2,846,486, 8–5–58, Cl. 260—667.

Miller, Nelson R.: *See*—
Farnwald, John A., and Miller. 2,846,002.

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Miller, Vance V. Two speed drill. 2,845,808, 8–5–58, Cl. 74—342.

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Milleville, Bertram J., to Edward Valves, Inc. Valve operator. 2,845,814, 8–5–58, Cl. 74—509.

Millman, Victor, to General Dynamics Corp. Protective device for jet engines. 2,846,023, 8–5–58, Cl. 183—51.

Mills, Ivor W., and W. M. Bennet, to Sun Oil Co. Hydrorefining followed by heat stabilising. 2,846,356, 8–5–58, Cl. 196—24.

Miner, Carl S., Jr.: *See*—
Arnold, Melvin R., Bryan, and Miner. 2,846,396.
Wenaas, Paul E., and Miner. 2,846,321.

Miner, W. H., Inc.: *See*—
Mulcahy, Harry W. 2,846,083.

Minneapolis-Honeywell Regulator Co.: *See*—
Binkley, Arthur L., and Rock. 2,846,565.
Dempsey, John N. 2,846,339.
Morgan, Clarence R., and Olds. 2,846,459.

Minneapolis-Moline Co.: *See*—
Hedtke, Robert G. 2,845,972.

Minnesota Mining and Mfg. Co.: *See*—
Tiers, George V. D. 2,846,472.

Mino, Guido, to American Cyanamid Co. Copolymerisation of acrylonitrile employing azo-bis-arylalkane catalysts. 2,846,424, 8–5–58, Cl. 260—85.5.

Minor, Burt S., to Regan Forge and Engineering Co. Conical-type blowout preventer. 2,846,178, 8–5–58, Cl. 251—2.

Miste, Gem Equipment Co.: *See*—
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Mitchell, John, S. E. Orchard, H. J. Twitchett, and G. Woods, to Imperial Chemical Industries Ltd. Photographic process. 2,846,306, 8–5–58, Cl. 96—11.

Mitchell, Murray: *See*—
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Mitchell, William and M., and L. Nierenberg. Manufacture of furs. 2,845,788, 8–5–58, Cl. 69—22.

Moak, Ottis W., to Esso Research and Engineering Co. Removing residual catalyst from resin polymerisate. 2,846,419, 8–5–58, Cl. 260—82.

Mohasco Industries, Inc.: *See*—
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Moleye, Arthur W. Key post. 2,845,872, 8–5–58, Cl. 24—116.

Monckton, Mary C. Sleeve valve. 2,846,170, 8–5–58, Cl. 251—4.

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Monsanto Chemical Co.: *See*—
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Beaver, David J., and Stoffel. 2,846,399.
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Harris, James O. 2,846,435.
Knowles, William S. 2,846,446.
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Isler, Otto, Montavon, Bloesz, and Zeller. 2,846,487.

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Moore, Ernest P., and R. L. Trent, to Bell Telephone Laboratories, Inc. Potential monitoring circuit. 2,846,526, 8–5–58, Cl. 179—175.2.

Moore, Frank, to M. Turchan, d. b. a. Turchan Follower Machine Co. Automatic two dimensional tracer. 2,845,942, 8–5–58, Cl. 137—330.

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Moore Products Co.: *See*—
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Moore, Ralph T., deceased (V. J. Moore, executrix), to V. J. Moore. Boom loader for overhead crane. 2,846,081, 8–5–58, Cl. 212—17.

Moore, Vivian J.: *See*—
Moore, Ralph T. 2,846,081.

Moote, Truman P., Jr.: *See*—
Mapes, Dwight B., and Moote. 2,846,460.

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Morison, Jack R., to The Regents of the University of California. Wave force meter. 2,845,796, 8–5–58, Cl. 73—170.

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Morrill, Wayne J. Switching mechanism. 2,846,534, 8–5–58, Cl. 200—61.39.

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Morway, Arnold J., and J. J. Kolfenbach, to Esso Research and Engineering Co. Metal soap-salt complexes and lubricants containing same. 2,846,392, 8–5–58, Cl. 252—33.2.

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Muehlbauer, Fritz, R. Zell, E. Plankenhorn, and E. Juts, to Badische Anilin- & Soda-Fabrik Akt. Production of a solvent-stable alpha-modification of copper phthalocyanine. 2,846,441, 8–5–58, Cl. 260—314.5.

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Neeb, Melvin M., to Fairchild Camera and Instrument Corp. Photomultiplier circuit with output modulation. 2,846,500, 8–5–58, Cl. 178—6.6.

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Neisler, Charles E., Jr. Direct spun shantung yarn and method of making same. 2,845,771, 8–5–58, Cl. 57—140.

Nelson, Austin, to Archer Works Engineering Co. Ltd. Releasable couplings. 2,845,653, 8–5–58, Cl. 16—172.

Nelson, Averd G., to Preway Inc. Oven door hinge mechanism. 2,845,923, 8–5–58, Cl. 126—191.

Nelson, Kenneth E. Melody playing figure carrying toy carrousel. 2,846,228, 8–5–58, Cl. 272—31.

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Nesty, Glenn A., to Allied Chemical Corp. Dispersions of solids in caprolactam and process of making them. 2,846,332, 8–5–58, Cl. 106—306.

Newcomer, Jacob R., Jr., to Camlot Fastener Corp. Fastener assembly. 2,846,149, 8–5–58, Cl. 238—260.

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Nilsson, Hans R., and T. I. Lindhagen, to Svenska Rotor Maskiner Aktiebolag. Improvements in inlet port means for rotary elastic fluid actuated positive displacement power plants. 2,845,777, 8–5–58, Cl. 60—39.61.
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Northrop Aircraft, Inc.: *See*—
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O'Brien, George R. Fishing rod holder. 2,846,129, 8–5–58, Cl. 224—5.
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Orter, Ralph H. Corner formers for planter boxes, or the like. 2,846,107, 8–5–58, Cl. 217—12.
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Paige, Richard E. Holder for receptacles. 2,846,062, 8–5–58, Cl. 294—65.
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Parker, Frank H., to S. C. Peplin. Mixing valve. 2,845,949, 8–5–58, Cl. 137—625.41.
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Patterson, Robert G., and Y. Yamada, to Mergenthaler Linotype Co. Etching bath. 2,846,295, 8–5–58, Cl. 41—42.
Payne, Hugh F., and F. W. Bauer, to John B. Pierce Foundation. Apparatus for heating fluids. 2,845,907, 8–5–58, Cl. 122—275.
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Péras, Lucien, to Regie Nationale des Usines Renault and Societe des Haute-Fourneaux et Forges d'Allevard. Permanent mold having a removable core. 2,845,968, 8–5–58, Cl. 22—168.

Peras, Lucien, to Regie Nationale de Usines Renault. Sealing device for cables or pipes passing through a wall or partition. 2,846,246, 8–5–58, Cl. 286—16.

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Peters, Clifford M.: *See*—
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Petersen, Ove, to Aktieselskabet Burmeister & Wain's Maskin-Og Skibsbyggeri. Reciprocating engine, particularly an internal combustion engine. 2,845,919, 8–5–58, Cl. 123—195.

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Pierce, Joseph M. Transmission and cylinder head hoist. 2,846,188, 8–5–58, Cl. 254—146.

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Lessler, Lew W., and Polhemus. 2,845,836.

Polin, Herbert S. Devices for dosage control. 2,846,057, 8–5–58, Cl. 206—5.

Poling, Kenneth W.: *See*—
Shelby, Donald E. 2,846,078.

Pollock, Lyle W., to Phillips Petroleum Co. High heat capacity cooling medium. 2,846,421, 8–5–58, Cl. 260—82.3.

Polomski, John B., to Borg-Warner Corp. Transmission controls. 2,845,817, 8–5–58, Cl. 74—645.

Porter, William J., to Parkmaster Systems Inc. Loading platforms for mechanical parking systems. 2,846,086, 8–5–58, Cl. 214—16.1.

Porth, Christopher H.: *See*—
Nielsen, Harry, and Porth. 2,845,861.

Portland Co., The: *See*—
Payson, Richard C. 2,845,934.

Potter, Frederick M., to Bendix Aviation Corp. Dynamo-electric machine. 2,846,600, 8–5–58, Cl. 310—61.

Powell, Paul R., to United States of America, Navy. Hold-back and release unit. 2,845,677, 8–5–58, Cl. 24—201.

Power Jets (Research and Development) Ltd.: *See*—
Alcock, John F. 2,846,195.

Powers-Samas Accounting Machines Ltd.: *See*—
Lambert, Donald R. 2,845,804.

Preco Inc.: *See*—
Shea, Rexford P. 2,846,635.

Prest, Edward C.: *See*—
Lovgren, Einar C., and Prest. 2,845,685.

Preud'Homme, Genevieve G. M.-M.: *See*—
Carron, Maurice C. E., Jullien, and Preud'Homme. 2,846,469.

Preway Inc.: *See*—
Nelson, Averd G. 2,845,923.

Pribble, Noble F., to Bendix Aviation Corp. Dual modulator for fuel injection system. 2,845,910, 8–5–58, Cl. 123—32.

Price, Bernard M. Windshield wiper. 2,845,803, 8–5–58, Cl. 74—57.

Price, Earl R., to Bendix Aviation Corp. Fluid pressure servo-motor. 2,845,903, 8–5–58, Cl. 121—46.5.

Price, Lester A.: *See*—
Cherones, William J., and Price. 2,846,640.

Price, Ralph E., to Gardner Machine Co. Selective control devices for disc grinders. 2,845,755, 8–5–58, Cl. 51—112.

Principal Mfg. Corp.: *See*—
Jenkinson, Harry C. 2,845,705.

Probst, Delbert C., to General Motors Corp. Ventilation window booster. 2,846,255, 8–5–58, Cl. 296—44.

Procter & Gamble Co., The: *See*—
McCarthy, Thomas M., and Roald. 2,846,401.

Provencal, Athena M. and R. J. Scraper applicable to a conventional spring-clamp floor mop without modification of the latter. 2,845,643, 8–5–58, Cl. 15—105.

Provencal, Ralph J.: *See*—
Provencal, Athena M. and R. J. 2,845,643.

Provost, Virgile E. Hanger. 2,846,176, 8–5–58, Cl. 248—317.

Puckett, Ronald G. Vehicle tow truck. 2,846,018, 8–5–58, Cl. 180—6.2.

Pullman-Standard Car Mfg. Co.: *See*—
Gutridge, Jack E. 2,845,878.
Gutridge, Jack E., and Gribnitz. 2,846,172.

Purdy, Bruce B., and A. T. Godschalx. Loom control. 2,845,958, 8–5–58, Cl. 139—353.

Pure Oil Co., The: *See*—
Annable, Weldon G., O'Malley, and Walsh. 2,846,376.
Cook, George R., Cortiss, and Manteuffel. 2,846,393.
Crosby, Gifford W., and Hutchings. 2,846,466.
Folkins, Hillis O., Jacobs, and Brozowski. 2,846,363.
Holm, Le Roy W., and Longland. 2,846,354.
Lorenz, Roy H., Holbrook, and Bernard. 2,846,012.
Miller, Elmer L. 2,846,488.

Purinton, Harold G., to Bendix Aviation Corp. Short pulse generator. 2,846,576, 8–5–58, Cl. 250—27.

Putman, Scott J.: *See*—
Wickham, Ellemerie R. 2,846,227.

Pyle-National Co., The: *See*—
Burns, Lester W. 2,845,855.
Heehler, Arthur C., and Gansert. 2,846,668.
Kurek, Edwin J. 2,845,854.

R T & E Corp.: *See*—
Link, Edwin A. 2,846,495.

Rabin, Stanley F.: *See*—
Menkin, Benjamin D., Rabin, and Sciaorek. 2,846,313.

Racklyeft, Carl E., to Acton Mfg. Co., Inc. Refrigeration compressor. 2,846,138, 8–5–58, Cl. 230—152.

Radio Corp. of America: *See*—
Byrd, John F. 2,846,514.
Flory, Leslie E. 2,846,604.
Hurst, Robert N. 2,846,584.
Jenny, Dietrich A. 2,846,340.
Kennedy, Ralph C. 2,846,497.
Lindenblad, Nils E. 2,846,493.
Lindenblad Nils E. 2,846,494.
Mahland, Edward W., and Bradley. 2,846,573.
Nelson, Morris D. 2,846,617.
Richter, Donald L. 2,846,230.
Roush, George E. 2,846,502.
Schroeder, Alfred C. 2,846,574.
Shipman, Carl N. 2,846,515.
Shrader, Terry M. 2,846,608.
Webster, William M., Jr., Johnson, and Malter. 2,846,605.

Raffelson, Harold, to Monsanto Chemical Co. Synthesis of steroids. 2,846,445, 8–5–58, Cl. 260—340.5.

Rahl, Forrest J., to Allied Chemical Corp. Process of dispersing solids in caprolactam. 2,846,331, 8–5–58, Cl. 106—308.

Rammel, Gerald E.: *See*—
Marzocchi, Alfred, Brown, and Rammel. 2,846,848.

Rasche, Wilhelm: *See*—
Johannsen, Adolf, Wolf, Hettler, Kammerer, Stumpfl, and Rasche. 2,846,291.

Ray, Milton H. Convertible truck cover and tent. 2,846,262, 8–5–58, Cl. 296—23.

Rayette, Inc.: *See*—
Zemlin, John C., and Tabata. 2,846,457.

Raytheon Mfg. Co.: *See*—
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Nowak, Herman P. 2,846,626.

Reach, Milton R. Golf club of the "iron" type. 2,846,228, 8–5–58, Cl. 273—169.

Read, Victor J., to C. A. V. Ltd. Automatic cut-outs for dynamo-battery systems. 2,846,639, 8–5–58, Cl. 322—25.

Redmond, Benjamin. Table dispenser for butter and similar products. 2,845,707, 8–5–58, Cl. 31—21.

Reed, John W. Toy motor kit. 2,846,595, 8–5–58, Cl. 310—1.

Reeves, Wilson A., and J. D. Guthrie, to United States of America, Agriculture. Phenolic methylol-phosphorus polymers. 2,846,413, 8–5–58, Cl. 260—47.

Refinery Equipment & Specialty Co. Ltd.: *See*—
Charlton, Henry E. 2,846,182.

Regan Forge and Engineering Co.: *See*—
Minor, Burt S. 2,846,178.
Regie Nationale des Usines Renault: *See*—
Péras, Lucien. 2,845,663.
Péras, Lucien. 2,846,246.
Reid, Thomas J.: *See*—
Davidson, Samuel H., and Reid. 2,845,933.
Reliance Steel Products Co.: *See*—
Nagin, Harry E. 2,845,851.
Rennick, John L.: *See*—
Heuer, Charles H., and Rennick. 2,846,489.
Renold, Adolph, and W. J. Van Loo, Jr., to American Cyanamid Co. Warp size containing dicyandiamide and a polyacrylate salt. 2,845,689, 8–5–58, Cl. 28—80.
Renou, Georges, to Forges & Ateliers de Constructions Electriques de Jeumont. Artillery casing. 2,845,865, 8–5–58, Cl. 102—43.
Requa, Roy, and M. B. Anderson; said Requa assor. to Free Lock Corp. Cam operated transversely moving positive pawl clutch. 2,846,039, 8–5–58, Cl. 192—71.
Reynolds, Dwight W. Road guide. 2,846,159, 8–5–58, Cl. 242—67.1.
Reynolds, Schuyler. Tiltable chute competitive game apparatus. 2,846,226, 8–5–58, Cl. 273—110.
Rhodes, Joseph C.: *See*—
Birkness, Harald A., and Rhodes. 2,846,143.
Rice, Frank L.: *See*—
Engstrom, Thor, and Rice. 2,846,080.
Rich, Theodore A., to General Electric Co. Light reflecting transducer device. 2,846,650, 8–5–58, Cl. 324—97.
Richard, Joseph J., to Link-Belt Co. Washing jig. 2,846,071, 8–5–58, Cl. 209—455.
Richardson, Sid W., Inc.: *See*
Daffin, Douglas E., and McGowen. 2,846,014.
Richmond, Martin R., to Sanders Associates, Inc. High speed target range indicator. 2,846,670, 8–5–58, Cl. 343—7.3.
Richoux, Raymond. Flexible transmission. 2,845,813, 8–5–58, Cl. 74—501.
Richter, Donald L., to Radio Corp. of America. Phonograph record. 2,846,230, 8–5–58, Cl. 274—42.
Richter, Walter E., to Manning, Maxwell & Moore, Inc. Crane. 2,845,877, 8–5–58, Cl. 104—98.
Rilling, Karl: *See*—
Linder, Rudolph, and Rilling. 2,846,551.
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Ringler, William A., to The Diamond Match Co. Collapsible bottle carriers. 2,846,114, 8–5–58, Cl. 220—113.
Ripper, David W.: *See*—
Collins, Herbert H., and Ripper. 2,846,602.
Rist, Michel: *See*—
Maurice, Jean, and Rist. 2,846,036.
Rittenhouse, Howard E., to Tokheim Corp. Tank filling apparatus. 2,845,965, 8–5–58, Cl. 141—207.
Roald, Arnvid S.: *See*—
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Robbins, Elmer A., to Tokheim Corp. Presettable predeterminer and hydraulic cut-off valve mechanism. 2,846,119, 8–5–58, Cl. 222—20.
Robertson, George M., and G. K. Charles. Cheese making and apparatus thefefor. 2,845,857, 8–5–58, Cl. 100—127.
Robinson, Herbert H. Toothbrush and paste holder. 2,845,646, 8–5–58, Cl. 15—138.
Robishaw, Earl J., and R. E. Todd. Traction vehicle. 2,845,725, 8–5–58, Cl. 37—2.
Rock, Kingsley C.: *See*—
Binkley, Arthur L., and Rock. 2,846,565.
Rockstroh, Joachim: *See*—
Wehn, Julius, Busch, Rockstroh, Beushausen, Kaiser, and Rumpf. 2,846,151.
Rockwall Co.: *See*—
Bell, Robert. 2,845,684.
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Brownyer, Nelson R. 2,846,038.
Roethel Engineering Corp.: *See*—
Roethel, John H. 2,846,256.
Roethel, John H., to Roethel Engineering Corp. Door lock. 2,846,256, 8–5–58, Cl. 292—280.
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Braun, Robert A., Craig, and Le. 2,846,350.
Rol-Away Truck Mfg. Co.: *See*—
Burg, George W. 2,846,233.
Ronnebeck, Heinrich R., to Imperial Chemical Industries, Ltd. Apparatus for dispensing fluids. 2,846,121, 8–5–58, Cl. 222—133.
Roselle, Ronald F. Flag football belt. 2,846,224, 8–5–58, Cl. 273—55.
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Rosenberg, Joseph: *See*—
Jacoby, Joseph F., Becker, and Rosenberg. 2,846,560.
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Rosner, George J., to The Griffith Laboratories, Inc. Manufacture of improved doughnut and the resulting product. 2,846,311, 8–5–58, Cl. 99—92.
Rosner, George J., to The Griffith Laboratories, Inc. Manufacture of doughnut sugar. 2,846,315, 8–5–58, Cl. 99—143.
Ross, Aylmer O., to J. K. Lytle. Mold cavities and force plugs. 2,846,377, 8–5–58, Cl. 204—6.
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Draeger, Kenneth E., and Ross. 2,846,386.
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Maluss, Giorgio, and Rossoni. 2,846,443.
Roth, Robert G., and W. F. Yates, to Monsanto Chemical Co. Inhibition of polymerization of vinyl chloride by diaryl carbonates. 2,846,491, 8–5–58, Cl. 260—652.5.
Roth, Robert G., and W. F. Yates, to Monsanto Chemical Co. Inhibition of polymerization of vinyl chloride. 2,846,492, 8–5–58, Cl. 260—652.5.
Rothen, Edward M., to Russell & Stoll Co., Inc. Lamp mounting fixture. 2,846,571, 8–5–58, Cl. 240—90.
Roush, George E., to Radio Corp. of America. Automatic phasing for synchronous radio telegraph systems. 2,846,502, 8–5–58, Cl. 178—50.
Rowe, William, to Bonaside Mills, Inc. Tile shipping package. 2,846,064, 8–5–58, Cl. 206—65.
Royal, Douglas E. Can opener. 2,845,702, 8–5–58, Cl. 30—6.1.
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Isler, Otto, Montavon, Rüegg, and Zeller. 2,846,475.
Isler, Otto, Montavon, Rüegg, and Zeller. 2,846,487.
Ruge, Arthur C., to Baldwin-Lima-Hamilton Corp. Remote potentiometer network measuring system. 2,846,645, 8–5–58, Cl. 324—57.
Rummelsburg, Alfred L., to Hercules Powder Co. Isomerization of carane. 2,846,486, 8–5–58, Cl. 260—666.
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Rutledge, Thomas F., to Air Reduction Co., Inc. Reactions of sodium acetylide with alkyl halides. 2,846,491, 8–5–58, Cl. 260—678.
Rutz, Richard F., to International Business Machines Corp. Temperature compensated semi-conductor devices. 2,846,592, 8–5–58, Cl. 250—211.
Sack, Leo P. Barbecue spit supporting means. 2,845,856, 8–5–58, Cl. 99—421.
Sadler, Ernest N., to P. J. Feytsert. Manhole cover lifter. 2,846,259, 8–5–58, Cl. 294—15.
St. Palley, Zoltan O. Apparatus for cleaning pipe lines. 2,845,935, 8–5–58, Cl. 134—57.
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Hahn, Willard E. 2,845,849.
Sakalys, Vytautas, to Bulova Watch Co., Inc. Watch case. 2,845,775, 8–5–58, Cl. 58—90.
Samfield, Max M., B. A. Brock, and E. M. Locklair, to Liggett & Myers Tobacco Co. Process of converting fragmented tobacco into coherent sheets. 2,845,933, 8–5–58, Cl. 131—140.
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Sandalls, George, Jr., deceased (by A. R. Sandalls, administratrix), E. L. Vibbard, and W. T. Wichman, to Bell Telephone Laboratories, Inc. Pay station telephone system. 2,846,507, 8–5–58, Cl. 179—6.3.
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Best, Ethridge C. 2,846,678.
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Sands, Eugene A. Logical computing element. 2,846,593, 8–5–58, Cl. 307—88.
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Wardwell, George W., Jr. 2,846,255.
Sarett, Lewis H., to Merck & Co., Inc. Steroid 21-aldehydes. 2,846,456, 8–5–58, Cl. 260—397.45.
Satterfield, Walter R., to Armco Steel Corp. Refractory and method. 2,846,324, 8–5–58, Cl. 106—44.
Saunders, Kenneth W., E. M. Smolin, and J. R. Longfield, to American Cyanamid Co. Purification of non-converted material in the catalytic cracking of diarylalkanes. 2,846,479, 8–5–58, Cl. 260—650.
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Scarrone, Alfredo R. Sewing machine for burlap bags. 2,845,885, 8–5–58, Cl. 112—10.
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Schlebusch, Ludwig. Screening apparatus. 2,846,070, 8–5–58, Cl. 209—238.
Schlecht, Leo, and E. Oestreicher, to Badische Anilin- & Soda-Fabric Akt. Production of metal powders. 2,846,299, 8–5–58, Cl. 75—0.5.
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Schneible, Frank. Internal combustion engines. 2,845,913, 8–5–58, Cl. 123—75.
Schneider, Abraham, and A. P. Stuart, to Sun Oil Co. Stabilized petroleum oils. 2,846,372, 8–5–58, Cl. 196—52.
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Williams, Selden T. 2,845,980.
Seamon, Louis. Pass case. 2,845,975, 8–5–58, Cl. 150—39.
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Sivacek, Emil E., to King-Seeley Corp. Thermal relay. 2,846,543, 8–5–58, Cl. 200—113.
Sjoquist, Carl A. Wheel jack. 2,846,009, 8–5–58, Cl. 214—331.
Sjostedt, Helge I. Flame cutting machines. 2,846,209, 8–5–58, Cl. 266—23.
Skillman, Elmer N. Device for use below ice. 2,845,742, 8–5–58, Cl. 43—26.1.
Skinner, Charles E. Collapsible stage structure. 2,846,221, 8–5–58, Cl. 272—31.
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Sloat, Daniel H., to International Business Machines Corp. Record controlled machine. 2,846,066, 8–5–58, Cl. 209—110.
Smith, Edward W. Hydraulically operated bit drive. 2,846,191, 8–5–58, Cl. 255—4.4.
Smith, Leroy H., Jr., to General Electric Co. Construction for axial-flow turbomachinery. 2,846,137, 8–5–58, Cl. 230—122.
Smith, Paul V., Jr.: *See*—
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Smith, Robert W., to Dresser-Ideco Co. Vehicle-handling and transfer dolly for mechanical parking garages. 2,846,186, 8–5–58, Cl. 254—7.
Smith, William A., V. L. Mattson, G. Meyer, and R. A. Baxter, to American Metal Climax, Inc. Concentration of potash ores containing sylvite. 2,846,068, 8–5–58, Cl. 209—166.
Smith, William H. Boilers. 2,845,905, 8–5–58, Cl. 122—30.
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Smolin, Edwin M., K. W. Saunders, and D. R. May, to American Cyanamid Co. Halogen nuclear substituted diaryl paraffins. 2,846,478, 8–5–58, Cl. 260—648.
Societa Edison S. p. A.: *See*—
Maluss, Giorgio, and Rossoni. 2,846,448.
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Audemar, Pierre. 2,846,208.
Société Anonyme des Laboratories Robert & Carriere: *See*—
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Societe Anonyme Francaise du Ferodo: *See*—
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Societe Anonyme pour les Applications de l'Electricite et des Gaz Rares-Etablissements Claude-Paz & Silva: *See*—
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Societe des Hauts-Fourneaux et Forges d'Allevard: *See*—
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Societe d'Optique et de Mecanique de Haute: *See*—
Balutaud, Jean-Michel. 2,845,845.
Société financière d'Expansion Commerciale et Industrielle S. A. "Sindex": *See*—
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Societe Metallurgique Technique et Commerciale: *See*—
Baffrey, Antoine R., and Frumkin. 2,846,554.
Societe Nationale d'Etude et de Construction de Moteurs d'Aviation: *See*—
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Somerville, Stephen L., R. P. Urry, and B. R. Halpern, to The Monotype Corp. Ltd. Collocating apparatus for making corrections, alterations and additions on a photo-type composed film or sheet. 2,845,717, 8–5–58, Cl. 33—184.5.

Sondheimer, Franz, O. Mancera, and G. Rosenkranz, to Syntex S. A. Cyclopentanophenanthrene derivatives and process. 2,846,451, 8–5–58, Cl. 260—397.3.
Sonneman, Paul R., and W. I. Neese, to International Harvester Co. Power loader. 2,846,095, 8–5–58, Cl. 214—140.
Southwest Welding & Mfg. Co.: *See*—
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Spaeth, Irvin J., to Chicago Railway Equipment Co. Brake beam support and safety device. 2,846,082, 8–5–58, Cl. 188—213.
Sparks, Neil R., to Pan American Petroleum Corp. Receiving seismic waves directionally. 2,846,662, 8–5–58, Cl. 340—15.
Spaulding, Earl H., to L. B. Evans' Son Co. Turned slipper having vamp portions free of outsole. 2,845,724, 8–5–58, Cl. 36—18.
Spaulding, Robert A.: *See*—
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Speich, Charles W. Shallow water engine cut-out. 2,846,535, 8–5–58, Cl. 200—61.44.
Speier, John L., to Dow Corning Corp. Organosilicon dioxolanes. 2,846,448, 8–5–58, Cl. 260—340.9.
Spencer, Richard W., to Sperry Rand Corp. Magnetic amplifier circuit with outputs of opposite phase. 2,846,624, 8–5–58, Cl. 179—171.
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Yetter, Edward W. 2,846,671.
Spicer, John J., Jr., to United Specialties Co. of Illinois. Foot-operated turn signal apparatus. 2,846,522, 8–5–58, Cl. 200—61.27.
Spiecker, Friedrich, F. Lubberger, deceased, by E. Lubberger, sole heir, to Siemens & Halske Akt. Telephone system of the relay type. 2,846,510, 8–5–58, Cl. 179—18.
Sportsman Sleeper, Inc.: *See*—
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Sprachlen, John G., to Zenith Radio Corporation. Scanning generator. 2,846,582, 8–5–58, Cl. 250—36.
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Brunstrum, Lawrence C., and Liehe. 2,846,364.
Standard Register Co., The: *See*—
Davidson, John T. 2,845,864.
Stimson, Percy G., and Davidson. 2,846,044.
Stanek, Walter, to A. W. Faber-Castell. Writing instrument chuck. 2,845,898, 8–5–58, Cl. 120—21.
Stanley, Howard C., to North Electric Co. Relay structure. 2,846,542, 8–5–58, Cl. 200—93.
Stavis, Gus, to International Telephone and Telegraph Corp. Omni-directional beacon system. 2,846,077, 8–5–58, Cl. 343—106.
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Steinkamp, Frank F., and W. H. Ulrich. Knee action suspension for motor vehicle wheels. 2,846,234, 8–5–58, Cl. 280—96.2.
Stempel, Laszlo M., to John Waldron Corp. Single sheet delivery device for web fed press. 2,846,046, 8–5–58, Cl. 198—31.
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Elpern, Bill. 2,846,437.
Stewart, James M. Bulk feeding apparatus. 2,846,089, 8–5–58, Cl. 214—17.
Stewart, James U., and R. C. Cooprider, to The Drackett Co. Dispensing pump unit. 2,846,124, 8–5–58, Cl. 222—321.
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Stimler, Morton. Template for analyzing multichannel oscillograph data. 2,845,712, 8–5–58, Cl. 33—1.
Stimson, Percy G., and J. T. Davidson, to The Standard Register Co. Strip feeding device. 2,846,044, 8–5–58, Cl. 197—126.
Stoddard, Edgar S., to General Electric Co. Apparatus for extracting the ions of electrolytes from liquid solvents. 2,846,387, 8–5–58, Cl. 204—229.
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Stoyer, Clifford E., to Chicago Bridge & Iron Co. Wear plate for floating roof tank. 2,846,110, 8–5–58, Cl. 220—26.
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Epstein, Herman, and Stram. 2,846,666.
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Strean, Kenneth W. Canned milk server. 2,846,120, 8–5–58, Cl. 222—86.
Streng, Flora. Multiple compartment handbag. 2,845,973, 8–5–58, Cl. 150—28.
Struble, Glenn E., to Diamond Gardner Corp. Tubular carton having automatically erectible diagonal partition. 2,846,131, 8–5–58, Cl. 229—27.
Strumia, Max M., to United States of America, Federal Security Agency. Apparatus for the collection and cooling of blood. 2,845,929, 8–5–58, Cl. 128—276.
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Sturges, Robert W., to Imperial Chemical Industries Ltd. Heat exchangers. 2,846,198, 8–5–58, Cl. 257—245.
Sublett, Ira, and C. D. Johnson, to Fairmont Railway Motors, Inc. Hydraulic spike pulling apparatus. 2,846,187, 8–5–58, Cl. 254—18.
Suel, Yves C., to Welding Research, Inc. Motor control system. 2,846,638, 8–5–58, Cl. 321—38.
Sullivan, John J. Four-way channel support. 2,846,169, 8–5–58, Cl. 248—62.
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Supligeau, Charles L. H., to Perine-Guyot & Cie.-C. Supligeau. Device for folding endless bands of paper. 2,846,215, 8–5–58, Cl. 270.60.
Svensk, Åke K. R., and K. O. Westerlund, to Hoganas-Billesholms Aktiebolag. Apparatus for a uniform distribution of a fibrous material on a conveyor belt. 2,845,661, 8–5–58, Cl. 19—155.
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Taplin, William H., III, to The Dow Chemical Co. 3,2-dichloropropene-1 from 1,3-dichloropropene. 2,846,483, 8–5–58, Cl. 260—654.
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Taris, Charles M.: *See*—
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Tarjan, Armen C., V. J. Yates, and J. L. Holmes, to Mallinckrodt Chemical Works. Method of using fatty acids to remove nematodes from livestock. 2,846,351, 8–5–58, Cl. 167—53.
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Thomas Electronics, Inc.: *See*—
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Thomas, William A., to Marvel Engineering Co. Filters. 2,846,078, 8–5–58, Cl. 210—457.
Thomason, Louis S., to Telecinecolor Enterprises, Inc. Separable motion picture film reel. 2,846,160, 8–5–58, Cl. 242—71.8.
Thomcsek, Eugene J. Work holder. 2,845,838, 8–5–58, Cl. 82—31.
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Thompson Products, Inc.: *See*—
Bayer, Frank C. 2,845,939.
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Thompson, Ralph B., and J. A. Chenicek, to Universal Oil Products Co. Production of esters of dithiocarboxylic acids. 2,846,461, 8–5–58, Cl. 260—455.
Thompson, Stanley H. A., to The Tan-Sad Chair Co. (1931) Ltd. Adjustable clamping means for the back rest of a chair or seat. 2,845,984, 8–5–58, Cl. 155—160.
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Thurow, Raymond C. X-ray fixator. 2,846,587, 8–5–58, Cl. 250—50.
Tiers, George V. D., to Minnesota Mining and Mfg. Co. Process for making organic sulfonyl fluorides. 2,846,472, 8–5–58, Cl. 260—543.
Tilli, Vincent L.: *See*—
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Torrey, Robert D., to Sperry Rand Corp. Scale of *N* counter. 2,846,670, 8–5–58, Cl. 340—174.
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Tournère, Marcel J., to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Locking device for the moving blades of turbo-machines. 2,846,184, 8–5–58, Cl. 253—77.
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Usuki, Makoto. Mechanical hammer. 2,845,990, 8–5–58, Cl. 121—50.
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Brown, Arling D., Jr., and Valenti. 2,845,820.
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Van Santen, Gerard W., to North American Philips Co., Inc. Measuring or recording device. 2,846,646, 8–5–58, Cl. 324—62.
Van Veen, Anton. Resetting means for counter assembly. 2,846,145, 8–5–58, Cl. 235—144.
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Vltavsky, Milan. Hydraulic device for the drive of resistance seam-welding machines. 2,846,562, 8–5–58, Cl. 219—81.
Vogt, Albert F., to Northern Engineering Works. Eddy-current brake for hoists and the like. 2,846,631, 8–5–58, Cl. 318—209.
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24: 2,846,617
30.71: 2,846,618
883: 2,846,619
317— 86: 2,846,620
94: 2,846,621
98: 2,846,622
120: 2,846,623
230: 2,846,624
234: 2,846,625
238: 2,846,626
242: 2,846,627
318— 28: 2,846,628
2,846,629
2,846,630
209: 2,846,631
257: 2,846,632
447: 2,846,633
467: 2,846,634
469: 2,846,635
321— 11: 2,846,636
95: 2,846,637
98: 2,846,638
99: 2,846,640
323— 25: 2,846,639
89: 2,846,640
325— 68: 2,846,641
99: 2,846,642
122: 2,846,643
324— 58: 2,846,644
87: 2,846,645
93: 2,846,646
96: 2,846,647
97: 2,846,650
119: 2,846,648
126: 2,846,649
232— 38: 2,846,651
63: 2,846,652
325— 7: 2,846,653
20: 2,846,654
84: 2,846,655
326— 20: 2,846,656
189: 2,846,657
329— 105: 2,846,658
188: 2,846,659
228: 2,846,660
276: Re.24,510
340— 13: 2,846,661
2,846,662
20: 2,846,663
86: 2,846,664
81: 2,846,665
173: 2,846,666
174: 2,846,667
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2,846,672
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209: 2,846,674
266: 2,846,675
343— 7.3: 2,846,676
108: 2,846,677
727: 2,846,678
775: 2,846,679
828: 2,846,680
869: 2,846,681
345— 74: 2,846,288

Classification of Designs

D 1—12: Des. 183,216
D14—30: Des. 183,220
Des. 183,232
D15— 1: Des. 183,221
D18— 2: Des. 183,217
D26—13: Des. 183,227
D30— 1: Des. 183,211

D31— 4: Des. 183,209
D34—16: Des. 183,226
D42— 7: Des. 183,204
D44— 1: Des. 183,208
Des. 183,202
15: Des. 183,228
D45—19: Des. 183,225

D45—16: Des. 183,231
D49— 1: Des. 183,203
Des. 183,206
Des. 183,229
D60— 3: Des. 183,214
D62— 1: Des. 183,212
Des. 183,213

D62— 7: Des. 183,234
D64— 2: Des. 183,223
Des. 183,224
D66— 4: Des. 183,206
D67— 1: Des. 183,205
D69— 4: Des. 183,218
8: Des. 183,235

D68— 8: Des. 183,208
Des. 183,210
12: Des. 183,201
26: Des. 183,215
D67— 3: Des. 183,207
D70— 1: Des. 183,200
D77— 1: Des. 183,207

D82— 9: Des. 183,236
D87— 3: Des. 183,227
Des. 183,230
Des. 183,233
D92— 1: Des. 183,219
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
August 5, 1958 Volume 733 Number 1

TRADE-MARKS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Ireland to the London 1934 Revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective May 14, 1958, of Ireland to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
June 11, 1958. *Commissioner of Patents.*

Annual Publication of Commissioner's Decisions

The 1957 bound volume of the Decisions of the Commissioner of Patents is released from the printer and available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., price $2.50.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 174,822 (DOBBS FIFTH AVENUE AND DESIGN), Dobbs & Co., Caps, hats for men, women and children, leather and fabric gloves, etc.; Reg. No. 570,578 (DOBBS AND DESIGN), same, Canes, umbrellas, etc.; Reg. No. 513,066 (DOBBS), Hat Corp. of America, Articles of wearing apparel and dress accessories, etc., filed Mar. 14, 1958, D. C., S. D. N. Y., Doc. 131/65, *Hat Corporation of America* v. *Fran-Stef Mfg. Co. et al.* Consent judgment; defendants enjoined June 20, 1958.

Reg. No. 568,744 (OILATUM), McKesson and Robbins, Inc., Ointment for burns, scalds, bruises, etc., filed June 24, 1958, D. C., S. D. N. Y., Doc. 135/58, *Stiefel Laboratories, Inc.* v. *Averne Corp.*

Reg. No. 570,578. (See Reg. No. 174,822.)

Reg. No. 498,106 (CRESCENDOE AND DESIGN), The Superb Glove Co., Ladies' gloves of leather, fabric, etc., filed July 25, 1956, D. C., S. D. N. Y., Doc. 111/288, *Crescendoe Gloves, Inc.* v. *Julius Kayser & Co.* Stipulation and order of discontinuance Oct. 30, 1957 (received June 11, 1958).

Reg. No. 501,138 (FINELINE), W. A. Schaeffer Pen Co., Mechanical pencils, parts thereof and leads therefor; Reg. No. 572,000, same; Reg. No. 606,739 (FINELINE "500"), same; Reg. No. 567,778 (SNORKEL), same, filed June 12, 1958, D. C., S. D. N. Y., Doc. 134/255, *W. A. Schaeffer Pen Co.* v. *John Burrey Ltd.*

Reg. No. 501,708 (ROTHMOOR), Rothmoor Corp., Ladies' coats and suits, filed Mar. 13, 1956, D. C., S. D. N. Y., Doc. 107/396, *Rothmoor Corp.* v. *Rosemore Coats, Inc.* Stipulation and order of dismissal without prejudice June 18, 1958.

Reg. No. 507,668. (See Reg. No. 621,438.)

Reg. No. 513,066. (See Reg. No. 174,822.)

Reg. No. 524,000 (KING KORN), Big Stone Canning Co., Canned sweet corn, whole kernel corn, etc.; Reg. No. 607,725 (KING KORN AND DESIGN), same, filed June 16, 1958,

CONDITION OF TRADEMARK APPLICATIONS AS OF JUNE 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	12,655
Date of oldest new application	Dec. 12, 1957
Date of oldest amended application	Nov. 16, 1957

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	12-12-57	11-16-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	1-3-58	1-3-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	12-16-57	1-13-58
Renewals (All Classes)	5-25-58	6-20-58
Sec. 12 (c) Publications (All Classes)	6-2-58	6-20-58

Applications Filed During the Month of June 1958—1,900

Registrations Issued	338—No. 665,210 to No. 665,547
Renewals Issued	61

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

D. C., N. D. Ill. (Chicago), Doc. 58c1039, *Big Stone Canning Co. v. King Kern Stamp Co.*

Reg. No. 560,340 (EVER-TITE), Ever-Tite Coupling Co., Inc., Separable hose couplings and fittings, filed June 18, 1958, D. C., W. D. Mo. (Kansas City), Doc. 11884, *Ever-Tite Coupling Co., Inc. v. Central Machine & Tool Co. et al.*

Reg. No. 551,291 (MILIUM), The Vadium Corp., Textile fabrics having heat reflective and/or heat absorbing properties, filed May 28, 1956, D. C., S. D. N. Y., Doc. 110/65, *Deering, Milliken & Co., Inc. v. Gilbert Textile Co.* Judgment holding patent infringed; defendants enjoined June 11, 1958.

Reg. No. 554,843 (COOPER'S CARLTON), Cooper Mattress Mfg. Co., Mattresses, bed-springs, box springs, sofa beds, etc.; **Reg. No. 557,778** (CARLTON), Bedding Manufacturers Associates, Inc., same, filed June 24, 1958, D. C., S. D. N. Y., Doc. 135/33, *Bedding Manufacturers Associates, Inc. v. Atlantic Spring Products Corp.*

Reg. No. 561,782. (See Reg. No. 631,702.)

Reg. No. 567,772. (See Reg. No. 501,128.)

Reg. No. 572,880. (See Reg. No. 501,128.)

Reg. No. 578,411 (CLEMCO), Clementina Co., Spray nozzles and guns, filed Nov. 12, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1265/57-WB, *Clementina Co. and Clementina Ltd. v. Clemco Aero Products, Inc.* Stipulation of dismissal without prejudice (notice June 19, 1958).

Reg. No. 591,675 (MEDITERRANEA), Heritage Furniture, Inc., Furniture—namely, upholstered, wood, plastic or metal furniture, etc., filed Apr. 19, 1956, D. C., S. D. N. Y., Doc. 109/82, *Heritage Furniture, Inc. v. Boris Kroll Fabrics, Inc.* Stipulation and order of discontinuance June 20, 1958.

Reg. No. 606,739. (See Reg. No. 501,128.)

Reg. No. 607,788. (See Reg. No. 524,050.)

Reg. No. 609,716. (See Reg. No. 621,438.)

Reg. No. 621,438 (FRESH), Pharma-Craft Corp., Deodorant and nonperspirant; **Reg. No. 609,716**, same, **Reg. No. 567,068**, same, filed June 18, 1958, D. C., S. D. N. Y., Doc. 134/365, *Joseph E. Seagram & Sons, Inc. et al. v. Revlon, Inc.*

Reg. No. 629,324. (See Reg. No. 631,702.)

Reg. No. 631,151. (See Reg. No. 631,702.)

Reg. No. 631,702 (DAIRY ISLE), Commissary Corp., Food processing machinery etc.; **Reg. No. 631,151**, same, Buildings, for preparing and dispensing of such as products of ice cream etc.; **Reg. No. 629,324**, same, Containers for food products, including ice cream etc.; **Reg. No. 567,721** (DAIRY ISLE AND DESIGN), R. S. C., Co., Packaged ice cream, milk shakes, etc.; **Des. 167,378**, C. S. Shank, Dairy bar; **Des. 181,670**, same, filed June 20, 1958, D. C., W. D. N. Y. (Buffalo), Doc. 7893, *Commissary Corp. v. Dairy Isle Cooperative of Western N. Y., Inc. et al.*

Reg. No. 667,778. (See Reg. No. 554,843.)

Registration to Practice

The following list contains the names of all applicants for registration to practice before the United States Patent Office who attained passing grades in the examination of April 29, 1958. Information tending to affect the eligibility of any of said applicants on moral or ethical grounds should be furnished the Commissioner of Patents on or before September 5, 1958.

ARTHUR W. CROCKER,
July 15, 1958. *Chairman, Committee on Enrollment.*

List of Applicants Who Passed the Examination for Registration to Practice Before the Patent Office Held April 29, 1958

Alabama

Hammond, Thomas M., 1022 Grant St., S. E., Decatur, Ala.

Arkansas

Pittman, Ralph R., 5324 Southwood Road, Little Rock, Ark.

California

Belansky, Andrew J., 259 E. Calaveras St., Altadena, Calif.
Brevik, E. Lawrence, 4420 W. 58th Place, Los Angeles 43, Calif.
Carlson, Donald L., 5805 Garford St., Long Beach 15, Calif.
Clouse, Clifton E., Jr., 1556 Mariposa St., Richmond 6, Calif.
Fowler, Allan R., 531 Bridger St., Covina, Calif.
Halstead, Mervin, Hdqtrs., 14 Naval District, Navy #128, % Fleet Post Office, San Francisco, Calif.
Jones, J. L., Sr., 1070 Glen Oaks Blvd., Pasadena 2, Calif.
Kern, Warren L., 1720 Fairmount Ave., La Canada, Calif.
March, George G., 7358 Neo St., Apt. E, Downey, Calif.
Mitchell, James Theodore, 246 Los Cerros Ave., Walnut Creek, Calif.
Moore, Alan J., Rt. 6, Box 184-C, San Jose 99, Calif.
Price, Kenneth A., 727 Chautauqua Blvd., Pacific Palisades, Calif.
Riddell, Baylor G., 368 Waverly St., Menlo Park, Calif.
Thiel, Walter R., 2305 Penmar Ave., Venice, Calif.
Thornton, Robert R., 1475 Powell St., Oakland 8, Calif.
Zentner, Rene David, 2987 Dwight Way, Berkeley 4, Calif.

Connecticut

Franklin, Richard K., 11 Bedford Ave., Apt. K2, Norwalk, Conn.
Kraft, Julius B., Patent Dept., Remington Rand, Wilson Ave., South Norwalk Conn.
Paulding, Theodore R., 74 Westlock Road, Wethersfield, Conn.

Delaware

Collat, Robert, 104 Stimson Place, Wilmington 3, Del.
Sandt, Bernd W., 1427 Prospect Drive, Kynlyn Apts., Wilmington 3, Del.

District of Columbia

Albright, Penrose Lucas, 708 Perpetual Bldg., Washington 4, D. C.
Cockfield, James E., 3130 Wisconsin Ave., Apr. 6, N. W., Washington 16 D. C.
Comfort, James T., % IBM, 425 13th St., N. W., Washington 4, D. C.
Conroy, Edward A., Jr., 3415 38th St., N. W., Washington 16, D. C.
Cutonilli, Anthony, 3825 Davis Place, Apt. 302, Washington, D. C.
Follmer, Frank A., 419 6th St., N. W., Washington, D. C.
Hall, Charles S., Burroughs Patent Div., 1737 H St., N. W., Washington 6, D. C.
Hughes, Robert R., 3047 Porter St., N. W., Washington, D. C.
Klaas, Bruce G., 711 14th St., N. W., Rm. 1203, Washington 5, D. C.
Kruger, Walter, 1159 National Press Bldg., Washington, D. C.
Kurtz, Richard E., 1506 44th St., N. W., Washington, D. C.
Kubani, Thomas L., 1506 44th St., N. W., Washington 7, D. C.
Lubic, Robert B., 2501 Q St., N. W., Apt. 412, Washington 7, D. C.
Macpeak, Thomas J., 1415 K St., N. W., Suite 306, Washington, D. C.
McKeever, James J., 800 Wyatt Bldg., Washington 5, D. C.
Ruff, Robert T., 3516 Texas Ave., S. E., Washington 20, D. C.
Sullivan, Mary E. D., 2727 29th St., N. W., Washington 8, D. C.

Illinois

Alexander, Richard E., 917 Forest Ave., Evanston, Ill.
Beggs, Gregory B., 304 S. Euclid Ave., Oak Park, Ill.
Beland, Walter H., 26 E. 122nd St., Chicago 28, Ill.
Camasto, Nicholas A., 1176 S. Oak Park Ave., Oak Park, Ill.
Chaban, Marvin M., 330 N. Austin Blvd., Oak Park, Ill.
Clemency, Robert E., 1767 Granville Ave., Chicago 26, Ill.
Dierstein, Melinda Lois, 7645 Sheridan Road, Chicago 26, Ill.
Fosse, John S., 557 Fairview Ave., Glen Ellyn, Ill.
Greenberg, Carl J., 60 E. 32nd St., Chicago 16, Ill.
Hemminger, Paul W., 9817 Richard St., Franklin Park, Ill.
Jennings, James J., Jr., 434 S. Clay St., Hinsdale, Ill.
Kaufman, David D., 5465 S. Everett Ave., Chicago 15, Ill.
Krusemark, Frederick A., 303 S. Second Ave., Maywood, Ill.
Ladd, David L., 5527 So. Woodlawn Ave., Chicago 37, Ill.
Lohr, Jack L., 1715 11th St., Waukegan, Ill.
Meister, Jacque L., 1980 Hawthorne, Melrose Park, Ill.
Prussaczyk, Henry 423 Bluff St., Alton, Ill.
Sowell, John B., 576 Sheridan Square, Evanston, Ill.
Winokur, Louis L., 741 Brummel St., Evanston, Ill.
Wolfe, Richard R., 1430 Lake Shore Drive, Chicago 10, Ill.

Indiana

Chenez, Gordon H., 1026 S. Parkway, South Bend 19, Ind.
Hay, Louis E., 328 Southmore, Plainfield, Ind.
Nemmers, James C., 1801 N. O'Brien St., South Bend 28, Ind.
Ryan, John Phillip, 229 W. Jackson Blvd., Elkhart, Ind.
Thompson, William S., 1002 E. Victoria, South Bend 14, Ind.

Maryland

Barry, Ronald E., 1542 East-West Highway, Silver Spring, Md.
Becker, John E., 725 Richmond Ave., Silver Spring, Md.
Berger, Robert L., 247-A Rodgers Forge Road, Baltimore 12, Md.
Bonsteel, Lloyd O., 23 Fairmont Place, Indian Head, Md.
Byrne, John J., 7523 Glennon Drive, Bethesda, Md.
Davidson, Samuel L., 4701 Bradley Blvd., Chevy Chase 15, Md.
Fryer, William T., III, 7307 Clarendon Road, Bethesda 14, Md.
Kling, Carl C., 1700 Lebanon St., Adelphi, Md.
Marben, Robert L., 8019 Glenbrook Road, Bethesda 14, Md.
McMorrow, Robert G., 4309 Warner St., Kensington, Md.
Sandler, Donald M., 4101 Barrington Road, Baltimore 7, Md.
Sloan, Arthur M., 1909 East-West Highway, Apt. 104, Silver Spring, Md.
Smyth, Frederick J., 7620 Maple Ave., Apt. 322, Takoma Park 12, Md.
Thomas, Richard H., 8210 Custer Road, Bethesda, Md.
Webb, Thomas H., 2226 Beechwood Road, Hyattsville, Md.

Massachusetts

Dacey, G. Eugene, 74 Hammond St., Cambridge 38, Mass.
Dempsey, John J., 261 Maplesbade Ave., East Longmeadow, Mass.
Keay, David M., 53 Barrett St., Needham 92, Mass.

McDevitt, John F., Shawinigan Resins Corp., Springfield 2, Mass.
Schiller, Robert J., Polaroid Corporation, 730 Main St., Cambridge 39, Mass.
Tiffany, James B., Jr., 10 Lisa Road, West Peabody, Mass.
Toelken, Richard W., 32 Elm St., Agawam, Mass.

Michigan

Huizenga, Everett Leroy, 380 Fuller Ave., S. E., Grand Rapids, Mich.
Randles, Carl A., Jr., 5845 Portage St., Kalamazoo, Mich.
Spurrell, Donald W., 673 N. Eton Road, Birmingham, Mich.

Minnesota

Johnson, Clayton R., 832 Midland Bank Bldg., Minneapolis, Minn.
Loos, Calvin J., 5247 Xerxes Ave., S., Minneapolis 10, Minn.
Nikolai, Thomas J., 2085 Lincoln Ave., St. Paul 5, Minn.
Ohm, Kenneth D., 2512 Minikahda Court, St. Louis Park 16, Minn.
Siegfried, Kenneth D., 2601 Yukon Ave., Minneapolis 26, Minn.
Smith, James A., 589 S. Cleveland Ave., Apt. 19, St. Paul 16, Minn.
Somermeyer, Herbert F., 2726 Merrill St., St. Paul 13, Minn.

Missouri

Aldrich, C. Frank, 2640 Belair Terrace, Florissant 31, Mo.
Hovey, Robert D., 2528 W. 91, Kansas City 15, Mo.
Williams, Warren N., 5708 E. 47th Terrace, Kansas City, Mo.

New Jersey

Allen, Frank H., Jr., 58 Mercer Ave., North Plainfield, N. J.
Benjamin, Lawrence P., 38—43 Brookside Ave., Fairlawn, N. J.
Berlow, Cynthia, 26 John St., Passaic, N. J.
Bissell, Henry M., 23 Crescent Drive, Whippany, N. J.
Dunn, Robert T., Apt. 11-M, 65 Manor Drive, Newark 6, N. J.
Giancola, Dominic J., 239 Overlook Ave., Leonia, N. J.
Johnson, Olin B., 727 E. Front St., Plainfield, N. J.
Kane, Samuel, 3 S. Haviland Ave., Audubon 6, N. J.
Kenney, J. Ernest, 296 Larch Ave., Dumont, N. J.
Kovalich, John G., 30 Crescent Ave., Jersey City, N. J.
Stanger, Leo, 47 Ethan Drive, Murray Hill, N. J.

New York

Bramlett, Garold E., 1063 McKinley St., Baldwin, N. Y.
Cannaday, Richard L., 1158 5th Ave., New York 29, N. Y.
Ceccon, Clario, 1918 Broadway, Grand Island, N. Y.
Cody, Robert F., 2505 Bellaire St., Wantagh, N. Y.
Comery, Edward G., 66 Vincent Ave., Staten Island 6, N. Y.
Coplein, Gordon D., % Darby and Darby, 405 Lexington Ave., New York 17, N. Y.
Dana, William H., 163 Watauga Ave., Corning, N. Y.
De Simone, Daniel V., 32 Washington Square, W., New York 11, N. Y.
Dowling, Thomas P., 3500 Snyder Ave., Brooklyn 3, N. Y.
Fier, Robert D., Scarsdale Manor Apts., Scarsdale, N. Y.
Fitzgerald, Frank R., Hanover Road, R. F. D. 1, Box RR, Yorktown Heights, N. Y.
Fogiel, Max, 57 Second Ave., New York 3, N. Y.
Frank, Robert J., 697 Colonade Road, West Hempstead, N. Y.
Gilman, Michael G., 48—10 43rd St., Woodside 77, N. Y.
Harsh, Gene, 8 Paragut Ave., Tonawanda, N. Y.
Kilgannon, Thomas J., Jr., 405 Bement Ave., Staten Island 10, N. Y.
King, Stephen L., 100 Bank St., Apt. 5C, New York 14, N. Y.
Klein, Arthur O., 241 E. 38th St., New York, N. Y.
Klitzke, Ramon A., 80—08 135th St., Apt. 219, Jamaica 35, N. Y.
Krein, Arthur N., 117 Bobrich Drive, Rochester 10, N. Y.
Leibowitz, Michael R., 1620 Ocean Ave., Brooklyn 30, N. Y.
Levin, Harry, P. O. Box 288, Fishkill, N. Y.
Levine, Alan H., 67—12 Yellowstone Blvd., Forest Hills 75, N. Y.
Lieber, Robert, 1212 Newkirk Ave., Brooklyn 30, N. Y.
Marn, Louis E., 365 Madison Ave., The Lummus Co., New York 17, N. Y.
Mateer, Kenneth W., 125 Christopher St., New York 14, N. Y.
McGeady, Bernard X., 333 E. 43rd St., New York 17, N. Y.
O'Connell, Thomas B., 69—16 Harrow St., Forest Hills 75, N. Y.
Ostrow, Harvey, 25 Hillside Ave., New York 40, N. Y.
Plunkett, Richard P., 110 Christopher St., New York 14, N. Y.
Popper, Howard R., 463 West St., New York, N. Y.
Ralabate, James J., 106 Shoreham Blvd., Buffalo 16, N. Y.
Russo, Matthew M., 460 Lafayette Blvd., Long Beach, N. Y.
Sherman, Sylvan, 113 Greenbelt Lane, Levittown, N. Y.
Spiecens, Camil P., 71—50 Austin St., Forest Hills 75, N. Y.
Stark, Leon T., 85—07 Britton Ave., Elmhurst 73, N. Y.
Togut, Isidore, 279 E. 203rd St., Bronx 58, N. Y.
Whinston, Arthur L., 36 Russell Road, Garden City, N. Y.
Zentner, Richard, 290 Clinton St., Brooklyn 1, N. Y.

North Carolina

Park, Charles B., III, 904 Johnston Bldg., Charlotte 2, N. C.

Ohio

Dence, Richard B., 3544 Homewood, Toledo 12, Ohio.
Doerr, Edward L., Monsanto Chemical Co., Station B, Box 8, Dayton 18, Ohio.
Fralick, James E., 2973 Nell Ave., Columbus 2, Ohio.
Henry, Frank C., 2686 Rocklyn Road, Shaker Heights 22, Ohio.
Limbach, George C., 2110 Cornell Road, Cleveland 6, Ohio.
Netter, George J., 4301 Lyman Road, Toledo 12, Ohio.
Nielsen, Olaf, 1016 Emma Ave., Akron 2, Ohio.
Patmore, Alfred L., Jr., 2519 Strauss Ave., Toledo 6, Ohio.
Witte, Richard C., 927 Lakeshore Drive, Cincinnati 31, Ohio.

Oklahoma

Johnson, Paul H., 722 E. 49th St., N., Tulsa 6, Okla.
Peterson, Jerome B., E. Hillcrest Road, Ponca City, Okla.
Worth, Daniel P., 806A S. Osage, Bartlesville, Okla.

Pennsylvania

Christoffersen, Harold, 2445 Jenkintown Road, Glenside, Pa.
Conley, Ned L., 7876 Spring Ave., Philadelphia 17, Pa.
Corcoran, John P., 632 Cresson Lane, Morton, Pa.
Cornish, C. Daniel, 4614 5th Ave., Pittsburgh 13, Pa.
Curley, John E., 120 Sunset Drive, Pittsburgh 9, Pa.
Dreyer, Frederic C., RD 1, Box 358, Slatington, Pa.
Dubroff, Stanley, 6913 Heyward St., Philadelphia 19, Pa.
Guay, Francis W., 138 Mt. Lebanon Blvd., Pittsburgh 28, Pa.
Hargis, Harry W., III, 8126 Gilham St., Philadelphia 49, Pa.
Harvey, Richard P., 111 Berg Drive, Pittsburgh 36, Pa.
Kaufmann, Henry W., Post Office Box 123, Mont Clare, Pa.
Klipfel, Ernest P., 218 Garlow Drive, Pittsburgh 35, Pa.
Lennon, Thomas A., 2020 Ridgelawn Ave., Bethlehem, Pa.
McHale, Clement L., 140 La Crosse St., Avon Hall, Pittsburgh 18, Pa.
Safady, Richard J., 1000½ Edgewood Road, New Kensington, Pa.
Sager, Edward A., 201-A W. Parkway Ave., Chester, Pa.
Turner, Burton R., 927 Roland Road, Pittsburgh 21, Pa.

South Carolina

Lawson, Louis R., Jr., 39A Meeting St., Charleston, S. C.

Texas

Garland, H. Mathews, P. O. Box 900, Dallas 21, Tex.
Harris, William D., Jr., 1600 Niels Esperson Bldg., Houston 2, Tex.
Jackson, John L., 248 Esperson Bldg., Houston 2, Tex.
Keys, Clarence E., P. O. Box 35206, Dallas 35, Tex.
Sansom, Ernest R., Box 117, Lake Jackson, Tex.

Virginia

Adams, Harold W., 1113 Powhatan St., Alexandria, Va.
Benoit, John E., 661 Rose Lane, Falls Church, Va.
Briody, Thomas A., 3614 S. Wakefield St., Arlington, Va.
Burgess, Harry C., Jr., 2210 Commonwealth Ave., Alexandria, Va.
Connor, P. Phillips, 1577 Colonial Terrace, Arlington 7, Va.
Cooper, D. Kendall, 954 N. Longfellow, Arlington, Va.
Cooper, Richard C., 602 N. Imboden St., Alexandria, Va.
Crutcher, William C., 1107 N. Barton, Arlington 1, Va.
Dumont, Harry R., 4828 N. 26th St., Arlington 7, Va.
Freilich, Arthur, 1500 Arlington Blvd., Arlington, Va.
Gordon, Hugh L., 1815 Norfolk Lane, Falls Church, Va.
Hoscheit, Dale H., 2701 N. Military Road, Arlington, Va.
Lane, Munson H., Jr., 402 N. Montague St., Arlington 3, Va.
McCandlish, Harrison E., 1909 N. Ode St., Arlington, Va.
McCoy, Garland T., 700 S. George Mason Drive, Arlington, Va.
Montgomery, Robert H., 130 N. Wayne St., #6, Arlington 1, Va.
Musumeci, Alfred V., 2310 N. 10th St., Arlington 1, Va.
Parker, Gayle, 5100 Third St., N., Arlington 3, Va.
Petko, Edward A., 1404 28th St., S., Arlington 6, Va.
Posin, Jack, 1617 28th St., S. Arlington 6, Va.
Reidy, Edward J., 2900 13th Road, S., Arlington 4, Va.
Rogers, John T., 1402 Howard St., Falls Church, Va.
Sullivan, Thomas V., 1010 S. Quebec St., Arlington 4, Va.
Weeks, Alfred, Jr., 2741 S. Ives St., Arlington, Va.
Williams, Melvin P., 3079 S. Woodrow St., Arlington 6, Va.
Ziems, Robert F., 3437A S. Stafford St., Arlington 6, Va.
Zimmerman, Jack P., 716 S. Wayne St., Arlington, Va.

Wisconsin

Marden, Earle R., Jr., 720 S. Losey Blvd., La Crosse, Wis.
Morsell, Curtis B., Jr., 5249 N. Diversey Blvd., Milwaukee 17, Wis.
Robertson, William S., Jr., 2320 S. 92nd St., West Allis 19, Wis.
Sager, Karl E., 620 E. North St., Appleton, Wis.
Swartwout, Willis B., III, 10813 W. Jeffrey Lane, Milwaukee 13, Wis.
Tibbitts, Lewis W., 3741 N. 76th St., Milwaukee 16, Wis.
Wiviott, Fred, 4880 N. Shoreland Ave., Milwaukee 17, Wis.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 15,263. Burgess Seed and Plant Company, Galesburg, Mich. Filed Sept. 7, 1956.

BLIZZARD BELT

For Seeds, Bulbs, and Plants.
First use December 1950.

SN 25,308. The Barber-Webb Company Incorporated, Los Angeles, Calif. Filed Mar. 1, 1957.

PARALINE

Owner of Reg. No. 576,881.
For Rigid and/or Flexible Polyvinyl Chloride Pipe and Rigid and/or Flexible Polyvinyl Chloride Sheet Stock.
First use on or about May 8, 1956.

SN 31,161. Stevens' Fireplace Log Corporation, Oakland, Calif. Filed May 31, 1957.

PAK-A-FYR

For Combustible Fireplace Logs Formed of Sawdust, Wood Shavings, and the Like.
First use February 1953.

SN 31,170. Central Carolina Farmers Exchange, Inc., Durham, N. C. Filed May 10, 1957.



The drawing is lined for red and blue, but no claim is made to the particular coloring.
For Seeds.
First use Jan. 1, 1956.

SN 31,972. Celanese Corporation of America, New York, N. Y. Filed June 14, 1957.

CELAFIL

Owner of Reg. Nos. 337,158 and 373,405.
For Staple Fiber.
First use June 3, 1957.

TM 4

SN 41,396. Prime Manufacturing Company, Lynn, Mass. Filed Nov. 26, 1957. Sec. 2(f) as to "Prime."



For Insoles and Sheet Material for Insoles.
First use Nov. 15, 1956.

Class 2—Receptacles

SN 42,694. Fairbanks Ward Industries, Inc., Chicago, Ill. Filed Dec. 19, 1957.

FOREVER-WARE

For Plastic Dishes.
First use Nov. 14, 1957.

Class 4—Abrasives and Polishing Materials

SN 21,885. R. S. Doeren, Kansas City, Mo. Filed Dec. 31, 1956.



For Shoe Shine Kits.
First use Dec. 1, 1956.

SN 40,478. The Martindale Electric Co., Lakewood, Ohio. Filed Nov. 12, 1957.



Applicant disclaims the right to the exclusive use of the representation of commutator cleaning stones apart from the mark. The drawing is lined for shading purposes only.

For Artificial Abrasives for Resurfacing Commutators of Electric Motors and Generators; and Commutator Cleaning Stones.

First use 1930.

SN 45,572. S. C. Johnson & Son, Inc., Racine, Wis. Filed Feb. 10, 1958.

PLEDGE

For Furniture Polish and Cleaner.
First use Jan. 2, 1958.

SN 46,243. Red Devil Tools, Union, N. J. Filed Feb. 20, 1958.

Dragon Skin

For Abrasive Sheeting.
First use Jan. 20, 1958.

Class 5 — Adhesives

SN 39,261. Norton Company, Troy, N. Y. Filed Oct. 21, 1957.



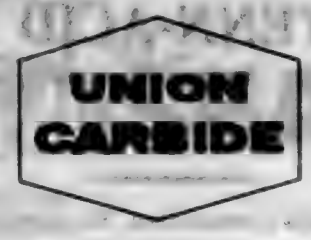
Owner of Reg. Nos. 548,718, 570,426, and others.
For Pressure Sensitive Adhesive Tapes.
First use Mar. 7, 1957.

SN 42,632. Caram Manufacturing Company, Monrovia, Calif. Filed Dec. 18, 1957.

FOAMWELD

For Adhesives or Cements Having a Rubber or Elastomer Base and Useful in the Bonding of Foam Materials.
First use Apr. 21, 1952.

SN 43,229. Union Carbide Corporation, New York, N. Y. Filed Feb. 3, 1958.



For Carbon Powder and Synthetic Resin for Preparing Adhesive Cement for Use With Carbon and/or Graphite Substances.
First use Jan. 13, 1958.

Class 6 — Chemicals and Chemical Compositions

SN 26,267. The Harshaw Chemical Company, Cleveland, Ohio. Filed Mar. 15, 1957.

ALIZACHROME

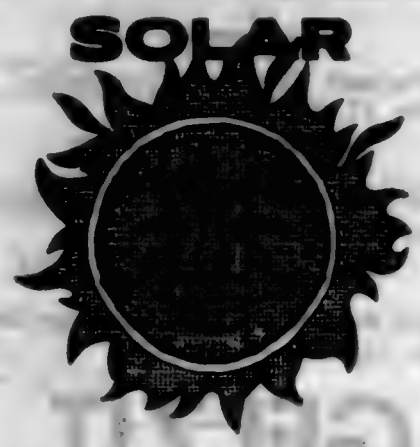
Owner of Reg. No. 348,274.
For Dyestuffs.
First use on or about Nov. 16, 1936.

SN 32,702. The Senefelder Company, Inc., Woodside, N. Y. Filed June 26, 1957.

"SENESPRAY"

For Desensitizing Coating Used on Lithographic Plates.
First use June 14, 1957.

SN 32,998. Solar Salt Company, Salt Lake City, Utah. Filed July 1, 1957.



The design represents a yellow sun outlined in red with an inscribed face outlined in red.

For Salt for General Industrial and Agricultural Use.
First use Jan. 23, 1957.

SN 36,738. Plough, Inc., Memphis, Tenn. Filed Sept. 5, 1957.

KwiK Rid

For Insecticides, Rodenticides, Crab Grass Killer, Weed Killer, Rose Pest Killer and Fungicide.
First use Feb. 8, 1956.

SN 39,345. Tennessee Corporation, New York, N. Y. Filed Oct. 22, 1957.

TENN-ACID

For Surface Active Agents Comprising Alkyl Aryl Base Acids.
First use July 11, 1957.

SN 40,257. Petrolite Corporation, St. Louis, Mo. Filed Nov. 7, 1957.

PETRECO

For Catalytic Material for Hydrocarbon Sweetening Process.
First use May 11, 1957.

SN 40,712. Rufus B. Smith, d. b. a. Cardees, Cincinnati, Ohio. Filed Nov. 14, 1957.

Cardeez

For Electrolytic Conductor in Jelly Form for Use With Electro Cardiograph Electrodes.
First use Apr. 14, 1957.

SN 40,875. Peck's Products Company, St. Louis, Mo. Filed Nov. 18, 1957.

FREAN

For General Purpose Disinfectant.
First use in March 1957.

SN 43,089. General Aniline & Film Corporation, New York, N. Y. Filed Dec. 27, 1957.

COSMOLEATHER

For Dyestuffs.
First use on or about Dec. 31, 1936.

SN 43,108. Pennsalt Chemicals Corporation, Philadelphia, Pa. Filed Dec. 27, 1957.

SURE-FLOC

For Coagulant and Filter Aid for Water Purification.
First use Dec. 11, 1957.

SN 43,229. The Baker Castor Oil Company, Bayonne, N. J. Filed Dec. 31, 1957.

GELZIT

For Solid, Vegetable Oil Derivatives in Finely Divided Form Used To Impart Body or Other Rheological Properties to Petroleum Oils, Mineral Oils, Vegetable Oils, and Other Organic Liquids.
First use Aug. 22, 1957.

Class 12 — Construction Materials

SN 19,274. Tibbals Flooring Company, Oneida, Tenn. Filed Nov. 14, 1956. Sec. 2(f).

TIBBALS FLOR-BLOX

Owner of Reg. Nos. 604,946, 604,947, and 604,948.
For Wood Parquet Blocks for Flooring Purposes.
First use September 1951.

SN 19,708. Torginol Vertriebsgesellschaft Berlin G. m. b. H., Berlin-Tempelhof, Germany. Filed Nov. 21, 1956.

TORGINOL

Owner of German Reg. No. 635,152, dated Mar. 3, 1953.
For Synthetic Resin Plastic Material Used for Both the Underlaying and Surfacing of Floors and Walls and Capable of Giving Seamless or Jointless Surfaces.

SN 24,364. Lynn Corporation, Inc., Marshall, Mich. Filed Feb. 13, 1957.

LYNN-O-FLECT

For Fiberboard Faced With Aluminum on Both Sides.
First use Oct. 1, 1956.

SN 26,567. Robbins Floor Products, Inc., Tuscumbia, Ala. Filed Mar. 20, 1957.



In the drawing, the lining and the mottled effect both imply the use of red color as part of the mark.
For Vinyl Floor Tile.
First use Jan. 30, 1957.

SN 27,267. Chas. H. Anderson Floors, Inc., Chicago, Ill. Filed Apr. 1, 1957.

Vitro-Surf

For Glazed Surfacing Material Consisting of a Combination of Portland Cement, Graded Silicates, Mineral Pigments, and Organic Hardeners Which Is Applied to Interior and Exterior Walls of Buildings.
First use July 5, 1956.
Subj. to Intf. with SN 28,061.

SN 28,061. R. H. Olson Company, Incorporated, Milwaukee, Wis. Filed Apr. 12, 1957.

VITRO-SURF

For Portland Cement.
First use Nov. 14, 1956.
Subj. to Intf. with SN 27,267.

SN 28,906. Volunteer Portland Cement Co., Knoxville, Tenn. Filed Apr. 25, 1957.

VOLUNTEER MORTAR MIX

No claim is made to the words "Mortar" and "Mix" apart from the mark. Owner of Reg. Nos. 261,810 and 261,811.
For Masonry Cement.
First use Sept. 2, 1954; Mar. 13, 1929, as to "Volunteer."

SN 29,332. Roy Charles Horne, d. b. a. Horne & Associates, Reno, Nev. Filed May 2, 1957.



The wording "Perfect Plank" is disclaimed apart from the mark as shown.
For Glue Laminated Wood.
First use July 1, 1953.

SN 30,272. Season-All Sales Corporation, Pittsburgh, Pa. Filed May 17, 1957.

THERMO-GARD

For Storm Windows and Doors.
First use Apr. 17, 1957.

SN 30,294. American Box Board Company, Grand Rapids, Mich. Filed May 20, 1957.

HY-TRIP

For Paperboard for Packaging Purposes.
First use May 29, 1954.

SN 30,380. Water Conditioning Products Co., St. Charles, Ill. Filed May 20, 1957.

"LINCOLN"

For Swimming Pools.
First use Mar. 8, 1957.

SN 30,423. General Concrete Products, Inc., Van Nuys, Calif. Filed May 21, 1957.

General **ROMANCRETE**

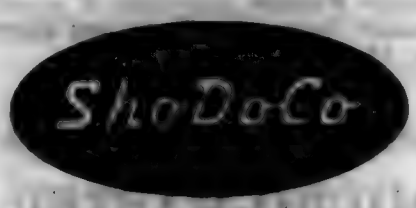
For Concrete Slabs and Blocks for Construction Purposes.
First use on or about June 1, 1952.

SN 30,424. General Concrete Products, Inc., Van Nuys, Calif. Filed May 21, 1957.

General **Terracrete**

For Concrete Slabs and Blocks for Construction Purposes.
First use on or about Sept. 1, 1954.

SN 30,452. Shower Door Company of America, Atlanta, Ga. Filed May 21, 1957.



For Shower and Bathtub Enclosures, Shower Stalls, Shower Doors, Grills for Bathtub Enclosures and Shower Doors, Rolling Glass Doors, and Parts Thereof.
First use Apr. 17, 1957.

SN 30,500. The Kaul Clay Manufacturing Company, Toronto, Ohio. Filed May 23, 1957.

Presto**SEAL**

For Vitrified Clay Pipe.
First use Apr. 23, 1957.

SN 31,189. Bird & Son, Inc., East Walpole, Mass. Filed June 3, 1957.

PLANTATION STONE

For Insulating Siding.
First use May 17, 1957.

SN 31,332. Seaview Industries, Inc., Miami, Fla. Filed June 4, 1957.



Owner of Reg. No. 586,264.
For Ventilated Awnings and Covers for Patios Made of Metal.
First use Mar. 1, 1956.

SN 31,808. Winthrop Mfg. Co., Inc., Brooklyn, N. Y. Filed June 11, 1957.

GOLD-E-LOCKS

For Storm Windows.
First use May 15, 1957.

SN 31,804. Winthrop Mfg. Co., Inc., Brooklyn, N. Y. Filed June 11, 1957.

T. C. P.

For Storm Windows.
First use May 15, 1957.

SN 34,818. Robbins Floor Products, Inc., Tuscumbia, Ala. Filed Aug. 1, 1957.

METALTONES

Owner of Reg. Nos. 561,297 and 566,354.
For Vinyl Tile.
First use June 11, 1956.

SN 34,927. Dallas Iron & Wire Works, Inc., Dallas, Tex. Filed Aug. 30, 1957.

KAR KOVERS

For Metal Carports, Awnings and the Like, and Parts Therefor.
First use on or about June 15, 1957.

SN 35,697. Societa Applicazioni Gomma Antivibranti "Saga" S. p. A., Milan, Italy. Filed Aug. 16, 1957.

AFO

Owner of Italian Reg. No. 132,344, dated May 16, 1957.
For Sunproof and Soundproof Panels.

SN 38,721. United States Plywood Corporation, New York, N. Y. Filed Oct. 10, 1957.

TEKPAK

Owner of Reg. No. 312,741.
For Paper-Veneer Laminated Panels for Use Primarily for Packaging, Toys, and General Fabricating and Construction Works.
First use Sept. 12, 1957.

SN 39,324. Frank P. Davis, d. b. a. Frank P. Davis Co., Philadelphia, Pa. Filed Oct. 22, 1957.

MASTI-PLETE

For Asphalt Mastic Flooring Mix.
First use Nov. 15, 1955.

SN 39,569. Granite Board, Inc., Goffstown, N. H. Filed Oct. 14, 1957.

G B

For Particle Board, a Pressed Board Form of Construction Material.
First use in November 1954.

SN 39,865. The Dow Chemical Company, Midland, Mich. Filed Oct. 31, 1957.

SCORBORD

For Multicellular Expanded Synthetic Resin in the Form of Boards for Construction Purposes.
First use Aug. 20, 1957.

SN 40,210. Consolidated General Products, Inc., Houston, Tex. Filed Nov. 7, 1957.

CONSOLITE

For Plastic Skylights.
First use on or about Aug. 1, 1955.

SN 40,411. C. Arnold & Son, Inc., Cullman, Ala. Filed Nov. 12, 1957.

CA

For Windows and Window Units.
First use May 9, 1957.

SN 40,496. Products Plus, Inc., Brooklyn, N. Y. Filed Nov. 12, 1957.

ARMORITE

For Wall Tiles.
First use Apr. 1, 1957.

SN 40,726. Forest-Wool Insulation Company, Incorporated, Big Rapids, Mich. Filed Feb. 13, 1958.

FOREST-WOOL

For Finely Divided Insulating Material in Bulk Form Made From Ground Pulp Paper, Chemically Treated To Resist Fire and Vermin.
First use Nov. 1, 1948.

SN 41,544. Edward Hines Lumber Co., Chicago, Ill. Filed Nov. 29, 1957.

WEAVBORD

For Hardboard.
First use July 23, 1957.

SN 41,867. United States Plywood Corporation, New York, N. Y. Filed Dec. 5, 1957.

OLD CRAFTSMAN

For Wood Products—Namely, Plywood.
First use in March 1957.

SN 43,847. Gunite Restoration Company, Inc., Malden, Mass. Filed Jan. 13, 1958.

STA-FLEX

For Plastic Mortar, Waterproofing Plastic for Exterior Brick, Stucco, Concrete and Cinder Blocks, Plastic Thinner to Thin Plastic Mortar; and a Compound, and a Mineral Filler, for Sealing and Waterproofing of Masonry Cracks, Joints, Holes and Voids Permanently.
First use on or about May 13, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 21,834. Sprayers & Nozzles, Inc., St. Petersburg, Fla. Filed Dec. 28, 1956.

REDIMIX

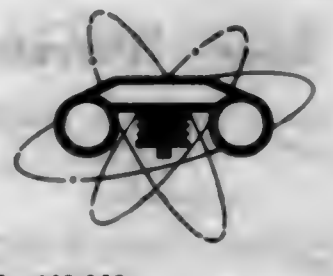
For Portable Sprayers for Attaching to a Garden Hose for Applying Fertilizers, Insecticides, Fungicides, Germicides, Coating Compositions, and Cleaning Compositions.
First use July 17, 1953.

SN 32,017. Rope Manufacturing Company, Denver, Colo. Filed June 14, 1957.

Safe-Hi

For Safety Devices More Specifically Identified as: Industrial Safety Belts, Safety Lanyards, Shock-Absorbing Connectors and Rope Grabs Adapted for Use With Safety Lanyards.
First use May 15, 1930.

SN 32,197. Micro-Master, Inc., Kansas City, Mo. Filed June 18, 1957.



Owner of Reg. No. 609,909.
For Photographic Developing Sinks and Tanks.
First use Dec. 13, 1955.

SN 32,198. Micro-Master, Inc., Kansas City, Mo. Filed June 18, 1957.

MICRO-MASTER

Owner of Reg. No. 609,909.
For Photographic Developing Sinks and Tanks.
First use Dec. 18, 1955.

SN 32,878. The Cleveland Cap Screw Company, Cleveland, Ohio. Filed June 21, 1957.



For Cap Screws, Set Screws, and Special Headed and Threaded Products.
First use May 23, 1957.

SN 32,560. U. S. Industries, Inc., New York, N. Y. Filed June 24, 1957.



The drawing is lined for red. Owner of Reg. No. 637,048.
For Valves for Admitting Gas Into a Column of Liquid in a Well in Order To Cause the Liquid To Flow From the Well, Surface Control Valves and Actuators Therefor for Controlling the Pressure of Gas so Admitted and the Amount Thereof, Check Valves for Preventing Reverse Flow of Gas or Liquid, Automatic Valves for Controlling Flow From Wells and to and From Tanks, Relief Valves, Rotary Swivels Having Means for Circulation Therethrough, Sleeve Valves for Establishing or Shutting Off Flow Into a Well Conduit, and Valves for Shutting Off Flow Therethrough When Pressure Reaches a Predetermined High or Low.
First use Apr. 1, 1957.

SN 35,027. Bernard E. "Bull" Mathsen, d. b. a. Bull Mathsen's Pin Puller Company, Seattle, Wash. Filed Aug. 6, 1957.

BULL MATHSEN'S

For Skiff Release on Seine Boats for Catching Salmon.
First use Aug. 20, 1949.

SN 38,461. Tracy S. Holmes, d. b. a. Mariner Company, Santa Monica, Calif. Filed Oct. 7, 1957.

DOLPHIN  ANCHOR

SIGN OF THE FINEST SMALL BOAT EQUIPMENT

For Small Boat Fittings and Findings—Namely, Block Sheaves, Swivels, Shackles, Sheet Locks, Sheave Mountings, Cleats, and Parts Thereof.
First use Mar. 11, 1957, on block sheaves.

SN 39,301. Hague & McKenzie Limited, Birmingham, England. Filed Sept. 30, 1957.

GAYGRIP

Owner of British Reg. No. 750,842, dated Feb. 4, 1956.
For Domestic Utensils, and Containers, Not of Precious Metals or Coated Therewith—Namely, Kitchenware and Cooking Utensils Made of Metal.

SN 41,337. United States Steel Corporation, Pittsburgh, Pa. Filed Nov. 25, 1957.

RUSTAKE

For Fencing and Gates of Woven Steel Wire With Wooden Slats Inserted Therein.
First use Aug. 1, 1957.

SN 41,482. Laurence F. Shesler, d. b. a. Satellite Ball Co., Yonkers, N. Y. Filed Nov. 27, 1957.

SATELLITE

For Ball Valves for Toilet Tanks and Component Parts Thereof.
First use Nov. 4, 1957.

SN 42,273. The Danielson Manufacturing Company, Danielson, Conn. Filed Dec. 12, 1957.

DANCO

For Marine Hardware, Pipe and Tubing Made of Nylon, Tube Couplings and Fittings, Tube Coupling Ring Holders and Rings, Unions, Mounting Plates, Cable Guides, Cable Clamps and Fittings.
First use April 1952 on tube couplings and fittings.

SN 42,946. Swingline, Inc., Long Island City, N. Y. Filed Dec. 23, 1957.

Swingline

Owner of Reg. Nos. 641,731, 358,506, and others.
For Staples.
First use June 2, 1937.

SN 44,241. Zeigler-Harris & Co., Burbank, Calif. Filed Jan. 17, 1958.

Lami-Lock

For Stainless Steel Sink and Stove Fieldjoints.
First use on or about Jan. 31, 1957.

SN 44,252. The Bradson Company, Inc., San Diego, Calif. Filed Jan. 20, 1958.



For Garden Hose Spray Guns.
First use Mar. 9, 1947.

SN 44,253. The Bradson Company, Inc., San Diego, Calif. Filed Jan. 20, 1958.



For Garden Hose Spray Guns.
First use Mar. 9, 1947.

Class 14—Metals and Metal Castings and Forgings

SN 25,540. The Indium Corporation of America, Utica, N. Y. Filed Mar. 5, 1957.

INDALLOY

For Indium-Containing Rods, Bars, Ribbons, Wires, Ingots, Pellets, Spheres and Pre-Forms Used for Soldering and in the Manufacture of Semi-Conductors.
First use in August 1953.

SN 41,563. Olin Mathieson Chemical Corporation, East Alton, Ill. Filed Nov. 29, 1957.

WESTERN

For Copper and Its Alloys, Particularly Brass and Bronze in Sheet, Tube, and Rod Form.
First use on or about Feb. 1, 1933.

SN 41,940. Republic Steel Corporation, Cleveland, Ohio. Filed Dec. 6, 1957.

LOCORE

For Electrical Silicon Steels.
First use Aug. 30, 1957.

SN 42,320. Strategic Metals Corporation, Conshohocken, Pa. Filed Dec. 12, 1957.

TUNG-AD

For Self-Reducing Tungsten.
First use July 31, 1957.

Class 15—Oils and Greases

SN 42,804. Theodore Hierts Metal Company, St. Louis, Mo. Filed Dec. 23, 1957.

SILCOLITH

For Silicone Spray Lubricant and Mold Releasing Agent.
First use Aug. 15, 1957.

Class 16—Protective and Decorative Coatings

SN 1,451. Walter G. Legge Company, Inc., New York, N. Y. Filed Jan. 25, 1956.

KOLORCO

For Colored Floor Seal for Wood, Concrete, Linoleum, Terrazzo, and Other Floor Coverings.
First use June 16, 1941.

SN 34,330. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed July 24, 1957.

MAGICOVER

For Paints, Paint Primers, Paint Enamel, Stains, Varnishes, Asphalt Products, and Paint Colors.
First use in February 1957.

SN 38,923. Schultz Products Company, Inc., St. Louis, Mo. Filed Sept. 9, 1957. Sec. 2(f).



Owner of Reg. No. 594,248.
For Liquid Coating Preparation To Be Applied to Plant Foliage To Enhance Its Luster.
First use on or about June 30, 1952.

SN 45,927. Titanine, Inc., Union, N. J. Filed Feb. 14, 1958.



For Ready Mixed Paints.
First use Nov. 12, 1957.

SN 47,831. Beverlee's Satin Stain, Visalia, Calif. Filed Mar. 17, 1958.

Beverlee's

For Wood Finishing Materials—Namely, Paint and Finish Remover, Filler, Stain, and Finish, in Individual Containers, or a Combination of Said Containers in Kits.
First use May 11, 1954.

SN 47,977. The Sherwin-Williams Company, Cleveland, Ohio. Filed Mar. 18, 1958.

LOXON

For Masonry Coating Compositions in the Nature of Paints, Surfacers, and Conditioners.
First use Mar. 3, 1958.

SN 48,049. Proficient Paint Corporation, Mt. Kisco, N. Y. Filed Mar. 19, 1958.



For Interior and Exterior Paints.
First use Oct. 22, 1957.

SN 48,078. American-Marietta Company, Chicago, Ill. Filed Mar. 20, 1958.

A-M LAC

For Lacquers and Sealers.
First use on or about Nov. 2, 1956.

Class 18—Medicines and Pharmaceutical Preparations

SN 30,516. N. V. Napro, Haarlem, Netherlands. Filed May 22, 1957.

ULTOX

For Preparation for the Treatment of Stomach Ailments.
First use May 15, 1952; in commerce May 15, 1952.

SN 37,218. Benger Laboratories Limited, Holmes Chapel, England. Filed Sept. 16, 1957.

EXUDASE

Owner of British Reg. No. 694,747, dated Dec. 18, 1950.
For Preparation for Use in the Treatment of Respiratory Disorders.

SN 38,115. Nutritional Quality Controls, Inc., New York, N. Y. Filed Sept. 16, 1957.

FERAVIM

For Tonic Tablet Including Iron, Liver, and Vitamins.
First use Aug. 15, 1957.

SN 38,118. Nutritional Quality Controls, Inc., New York, N. Y. Filed Sept. 16, 1957.

FEMALIN

For Tonic Tablet for the Treatment of Iron Deficiency and Anemia.
First use Aug. 15, 1957.

SN 38,838. Clarence C. Moreland, d. b. a. Vedder Drug Store and Land Lab., Rushville, Ill. Filed Oct. 14, 1957.

LEG-LAX

For Medicinal Preparation Useful in the Treatment of Leg Cramps.
First use Aug. 1, 1956.

SN 40,163. Wallace & Tiernan Incorporated, Belleville, N. J. Filed Nov. 5, 1957.

CHOLAN V

Owner of Reg. No. 574,159.
For Hydrocholeretic-Anticholinergic Preparation Used in the Treatment of Biliary Dysfunction.
First use Oct. 1, 1950.

SN 40,164. Wallace & Tiernan Incorporated, Belleville, N. J. Filed Nov. 5, 1957.

CHOLAN HMB

Owner of Reg. No. 574,160.
For Hydrocholeretic-Spasmolytic Sedative Used in the the Treatment of Bil'ary Dysfunction.
First use Jan. 1, 1950.

SN 41,585. Travenol Laboratories, Inc., Morton Grove, Ill. Filed Nov. 29, 1957.

SYNTRIT

For Liothyronine Hydrochloride for the Treatment of Thyroid Disorders.
First use May 23, 1957.

SN 42,610. H. L. Sigloch, d. b. a. S & S Pharmacal Company, Oklahoma City, Okla. Filed Dec. 17, 1957.

Sigloch's

For Solution for Relief of Bronchial Asthma.
First use June 26, 1956.

SN 44,783. Harvey Wolfson, d. b. a. Columbia Medical Company, New York, N. Y. Filed Jan. 27, 1958.

HISTAFORT

For Capsules of Medicament for Colds.
First use Aug. 20, 1957.

SN 44,811. Feedstuffs Processing Company, Oakland, Calif. Filed Jan. 28, 1958.

NUFAC

For Protein, Fat, Fibre, and Ash Mixture Adapted as a Food Supplement in the Preparation of Livestock and Poultry Feeds.
First use Nov. 22, 1957.

SN 44,892. The Evron Company, Inc., Chicago, Ill. Filed Jan. 29, 1958.

EVRASONE

For Pharmaceutical Preparation for Conditions Responsive to Cortisone and Hydrocortisone Generally, Particularly Rheumatic Fever, Rheumatoid Arthritis, Disseminated Lupus Erythematosus and Other Collagen Diseases, Intractable Hay Fever, Chronic Asthma, Allergic and Inflammatory Diseases of the Eye and Skin, and in Nephrosis.
First use Jan. 16, 1958.

SN 45,754. The Purdue Frederick Company, New York, N. Y. Filed Feb. 12, 1958.

EUZYME

For Multivitamin Preparation.
First use Dec. 23, 1957.

SN 45,755. The Purdue Frederick Company, New York, N. Y. Filed Feb. 12, 1958.

BILAGOL

For Pharmaceutical Preparation in the Form of an Anti-Spasmodic.
First use Oct. 18, 1957.

SN 45,937. Abbott Laboratories, North Chicago, Ill. Filed Feb. 17, 1958.

LAYETS

For Multiple Vitamin-Mineral Preparation.
First use Dec. 4, 1957.

SN 45,960. Dumas-Wilson & Co., St. Louis, Mo. Filed Feb. 17, 1958.

NEOPASALATE

For Tablets of Para-Aminosalicylic Acid and Its Sodium Salt, for Use in the Treatment of Tuberculosis.
First use Feb. 18, 1957.

SN 46,011. The Purdue Frederick Company, New York, N. Y. Filed Feb. 17, 1958.

MATERNAZYME

For Multivitamin Preparation.
First use Feb. 11, 1958.

SN 46,012. The Purdue Frederick Company, New York, N. Y. Filed Feb. 17, 1958.

PROBILAGOL

For Biliary Digestive Tonic.
First use Feb. 5, 1958.

SN 46,292. Consolidated Midland Corporation, Katonah, N. Y. Filed Feb. 21, 1958.

FUMEX

For Anti-Smoking Lozenge.
First use Jan. 15, 1958.

SN 46,502. Sterling Drug Inc., d. b. a. Winthrop Laboratories, New York, N. Y. Filed Feb. 24, 1958.

OMNIFUGE

For Veterinary Preparation Used in the Treatment of Worm Infestations.
First use Feb. 6, 1958.

SN 51,535. A. H. Robins Company, Inc., Richmond, Va. Filed May 13, 1958.

ANGIBAR

For Coronary Vasodilator Medicinal Preparation for the Treatment of Anginal Pain.
First use Dec 28, 1956.

Class 19 — Vehicles

SN 35,051. Holsclaw Bros., Inc., Evansville, Ind. Filed Aug. 16, 1957.

Holsclaw BOAT TRAILER

The words "Boat Trailer" are disclaimed.
For Boat Trailers and Parts Therefor.
First use June 5, 1953.

SN 36,207. Gordon B. Miller & Co., Cincinnati, Ohio. Filed Aug. 26, 1957.

Stretchit-Ketchit

For Coated Fabric Grease and Oil Receptacle for Suspension Under Automobiles To Receive Dripping Oil.
First use Aug. 15, 1957.

SN 42,157. Regie National des Usines Renault, Billancourt, Seine, France. Filed Dec. 10, 1957.

DAUPHINE FLORIDA

Priority claimed under Sec. 44(d) on French Reg. No. 465,691, dated June 20, 1957 (Seine); Natl. Inst. No. 92,051. Owner of U. S. Reg. No. 649,217.
For Automobiles and Trucks, Including Bodies and Structural Parts.

SN 42,363. Edward J. Curran, New York, N. Y. Filed Dec. 13, 1957.



No claim is made to the representation of the automobile and the goods, apart from the mark shown.
For Fitted Rainproof Cover Sheets for Automobiles.
First use Aug. 19, 1957.

SN 42,746. Velo-Stadion, Narodni Podnik, Rakovnik, Czechoslovakia. Filed Dec. 19, 1957.

STADION

The term "Stadion" is a Greek word from which the English word "stadium" is derived. The Greek word "Stadion" indicates a Greek Measure of length and has also been used to describe a course for foot races. Owner of Czechoslovakian Reg. No. 115,980, dated Oct. 3, 1931.
For Bicycles and Motorcycles and Parts Thereof.

SN 45,866. The Firestone Tire & Rubber Company, Akron, Ohio. Filed Feb. 14, 1958.

AIR-BUOY

For Boat Trailers.
First use Feb. 3, 1958.

Class 20 — Linoleum and Oiled Cloth

SN 39,828. New London Mills, Inc., New London, Conn. Filed Oct. 30, 1957.

PLASTI-LON

For Plastic Surface Floor Covering.
First use on or about Oct. 11, 1957.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 26,912. American Rectifier Corporation, New York, N. Y. Filed Mar. 26, 1957.

SELENIBRAKE

For Electrical Apparatus Applied to the Starter of an A. C. Motor To Apply Braking Action.
First use Jan. 30, 1957.

SN 28,578. Datascan Incorporated, Little Falls, N. J. Filed Apr. 22, 1957.

DATASCAN

For Electronic Switches for Industrial Control.
First use Apr. 8, 1957.

SN 28,893. Swivelier Company Inc., Brooklyn, N. Y. Filed Apr. 25, 1957.

swivelier

MIDGET SHADE

Applicant disclaims the word "Shade" apart from its use in connection with the mark as shown.
For Adjustable Lighting Fixtures.
First use July 19, 1949.

SN 31,372. Akrad Associates, d. b. a. Shield Electronics Company, Akron, Ohio. Filed June 5, 1957.



The lining indicates shading. Owner of Reg. No. 644,125.
For Various Electrical Apparatus and Supplies—Namely, Radio Headphones, Microphones, Loop Antennas, Transcrip-

tion Arms, Loud Speakers, Knife Switches, Clips, Microphone Plugs, Test Leads, Plug and Jack Sets, Phono Cartridges, Lapel Microphones, Pick-Up Coils, Head Sets, Earphones, Pillow Speakers, Crystal Microphones, Telephone Pick-Ups, Musical Instrument Microphones, Ferritic Antenna Coils, or Ferrite Rod Antennas, Universal Transformers, Speaker Grills, Crossover Networks, Condensers, A. C.-D. C. Dynamic Microphones, Transformer Kits, Knob Sets, and Magnetic Recording Tape.

First use on or about July 1, 1955, on magnetic recording tape.

SN 34,658. The Baldwin Piano Company, Cincinnati, Ohio. Filed July 31, 1957.

CHORA-TONE PROJECTOR

Applicant disclaims the word "Projector" excepting in the association shown.

For Electronic Frequency-Modifying Means for Obtaining Chorus Effects in Musical Instruments.

First use Mar. 8, 1957.

SN 34,783. Electronic Reproducers, Inc., Houston, Tex. Filed Aug. 1, 1957.

SANTI

For Sound Reproducing Electronic Loud Speaker System and Acoustical Cabinet.

First use July 13, 1957.

SN 35,424. Electronic Reproducers, Inc., Houston, Tex. Filed Aug. 12, 1957.

Santi

For Sound Reproducing Electronic Loud Speaker System and Acoustical Cabinet.

First use July 13, 1957.

SN 35,460. Spark-O-Matic Corporation, Milford, Pa. Filed Aug. 13, 1957.

SPARK-O-MATIC

For Spark Plugs, Ignition Points, Coils and Timing and Octane Selectors for Internal Combustion Engines.

First use Oct. 22, 1955.

SN 35,680. The Rado-Matic Corporation, Cleveland, Ohio. Filed Aug. 16, 1957.

Rolo-matic

For Electrically Operated Garage Door Mechanisms, and Controls Therefor and Parts Thereof.

First use June 21, 1957.

SN 35,976. Bendix Aviation Corporation, Detroit, Mich. Filed Aug. 22, 1957.

Vibrasonic

For Processing Equipment Employing Compressional Waves of Sonic or Ultrasonic Frequency in Liquids for Increasing the Action of the Liquid on Objects Being Treated Therewith.

First use Aug. 3, 1956.

SN 40,584. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Nov. 13, 1957.

SCOTCHLOK

Owner of Reg. No. 586,588.

For Connectors for Electrical Wires.

First use in April 1952.

Class 22 — Games, Toys, and Sporting Goods

SN 16,044. Legetojsfabriken Lego, Billund A/S, Billund Station, near Vejle, Jutland, Denmark. Filed Sept. 20, 1956.

LEGO

For Toy Models and Sets Comprising Houses and Other Type Building Structures, Cars, Trucks and Other Vehicles, Signs, Trees, Grass Plots, and the Like, All Made of Rigid Plastics.

First use in January 1934; in commerce June 4, 1958.

SN 38,724. Aqua-Buoy Corporation of Miami, West Hartford, Conn. Filed Oct. 11, 1957.

aqua-buoy

For Inflatable Device To Be Worn by a Swimmer as an Aid or Support for Swimming.

First use May 26, 1956.

SN 39,015. Tudor Metal Products Corporation, Brooklyn, N. Y. Filed Oct. 16, 1957.

tudor

Owner of Reg. No. 640,978.

For Banks.

First use Apr. 15, 1957.

SN 42,994. South Bend Tackle Company, Inc., South Bend, Ind. Filed Dec. 24, 1957.

MAVERICK

For Artificial Fishing Lures.
First use Nov. 21, 1957.

SN 43,793. Wizard Manufacturing Company, North Hollywood, Calif. Filed Jan. 10, 1958.

TRIM-FORM

For Exercising Apparatus—Namely, a Lounge Having Oscillating Mechanism Associated Therewith Upon Which Lounge the User Reclines in Any Desired Position.
First use Aug. 27, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 16,570. Sunbeam Corporation, Chicago, Ill. Filed Sept. 27, 1956.

Sunbeam

For Wire Brush Wheels.
First use Oct. 26, 1954.

SN 20,543. P. R. Myers & Company, Mamaroneck, N. Y. Filed Dec. 6, 1956.

Lady Sand

For Stainless Steel Flatware.
First use Jan. 13, 1956.

SN 22,508. Calex Distributing, Inc., Compton, Calif. Filed Jan. 14, 1957.



The drawing is lined for red, yellow, and blue. Applicant makes no claim to the words "Mufflers" and "Cal-Ex Distributing Inc. Compton, Calif." apart from the mark as shown.
For Mufflers (Used in Exhaust Systems).
First use Jan. 2, 1956.

SN 34,709. Knapsack-Griesheim Aktiengesellschaft, Knapsack, near Cologne (Rhine), Germany. Filed July 31, 1957.

FLUIDIP

Owner of German Reg. No. 696,988, dated Nov. 9, 1956.
For Apparatus for Applying a Protective Coating of Fusible Powdered Material to Various Objects.

SN 36,209. The Geolograph Company, Oklahoma City, Okla. Filed Aug. 28, 1957.

RE-LI

For Well Logging Equipment.
First use May 17, 1957.

SN 41,540. H. A. W. Corporation, Aurora, Ill. Filed Nov. 29, 1957.

EQUA-LIFT

For Hydraulically Operated Lifts for Farm Machinery of the Type Including Loading Forks, Threshing Machines, and Grain Drills.
First use on or about Nov. 6, 1957.

SN 42,001. Diamond Calk Horseshoe Company, Duluth, Minn. Filed Dec. 9, 1957.

DIAMOND

Owner of Reg. Nos. 401,457, 657,081, and others.
For All Types of Pliers, Wrenches, Nippers, Tin Snips, Railroad Picks, Box Openers, Clevis Hooks, Chain Hooks, Crow-Bars and Mattocks.
First use Oct. 1, 1924.

SN 42,062. Root Manufacturing Company, Inc., Baxter Springs, Kans. Filed Dec. 9, 1957.



Applicant disclaims any right to the wording "Mfg. Co., Inc.," and "Baxter Springs, Kansas."
For Power Mowers and Related Equipment.
First use May 31, 1957.

SN 42,951. Trim-Master Corporation, Reading, Pa. Filed Dec. 23, 1957.

TAPE MASTER

For Machine for Making Sweater and Other Garment Blanks.
First use Oct. 10, 1954.

SN 42,997. Trim-Master Corporation, Reading, Pa. Filed Dec. 24, 1957.

GOLIATH

For Cutting and Trimming Blades Used in the Garment Industry.
First use Feb. 28, 1956.

SN 43,509. Washington Iron Works, Seattle, Wash. Filed Dec. 31, 1957. Sec. 2(f).

TRAKLOADER

Owner of Reg. No. 562,644.
For Tractor-Mounted Crane.
First use July 10, 1945.

SN 43,720. T. B. Wood's Sons Company, Chambersburg, Pa. Filed Jan. 9, 1958.

SURE-FLEX

For Flexible Couplings.
First use Oct. 29, 1957.

SN 43,784. The Beloit Tool Corporation, near Beloit, Wis. Filed Jan. 10, 1958.

REGAL JET

Owner of Reg. No. 636,777.
For New Continuous Left Hand Spiral Flute High Speed Steel Ground Thread Tap.
First use Dec. 14, 1957.

SN 44,567. The Strong-Scott Manufacturing Company, Minneapolis, Minn. Filed Jan. 23, 1958.

[redacted] TURBULIZER

For Continuous Mixing Machine for Aggregates or the Like.
First use Jan. 3, 1958; June 1956 as to "Turbulizer."

SN 44,586. Bacon American Corporation, Muncie, Ind. Filed Jan. 24, 1958.

MATRO MATIC

For Tire Retreading Equipment.
First use in October 1957.

SN 44,629. Robert K. Little, d. b. a. RKL Valve & Manufacturing Company, Maple Shade, N. J. Filed Jan. 24, 1958.

ROLLOMOTOR

For Air Operated Rolling Diaphragm Air Motor.
First use Feb. 5, 1957.

SN 45,048. Societe Bertin & Cie, Paris, France. Filed Jan. 20, 1958.

ELASTIMATIC

Owner of French Reg. No. 463,993, dated Apr. 3, 1957 (Seine); Natl. Inst. No. 88,145.
For Transmissions for All Types of Vehicles and Machines.

SN 46,871. American Biltrite Rubber Co., Inc., Chelsea, Mass. Filed Mar. 3, 1958.

ROTOCURE

Owner of Reg. No. 379,466.
For Machinery for Vulcanizing or Curing Elastomeric Materials.
First use Feb. 28, 1940.

SN 47,791. Techno-Products Corporation, Springfield, Pa. Filed Mar. 14, 1958.

FLAR-A-LOCK

For Drill Bushings and Work Locators.
First use on or about May 1, 1956.

SN 47,936. Bucyrus-Erie Company, South Milwaukee, Wis. Filed Mar. 18, 1958.

HYDROHOE

The drawing is lined merely to show contrast, and the color black is not claimed. Owner of Reg. No. 591,808.
For Mobile Mounted Excavators for Use in Trenching, Ditching, Excavating, Filling, and Other Similar Operations.
First use June 28, 1951.

SN 47,993. Aldens, Inc., Chicago, Ill. Filed Mar. 19, 1958.

Aldens

For Outboard Motors.
First use Dec. 23, 1957.

SN 48,024. Era Meter Co., Chicago, Ill. Filed Mar. 19, 1958.

ERA

For Variable Speed Drive Shifting Levers and Attachments.
First use June 30, 1946.

SN 48,055. Roovers-Lotsch Corporation, Brooklyn, N. Y. Filed Mar. 19, 1958.

ROOVERS

For Embossing and Stamping Machines, Seals and Supplies.
First use in 1883.

Class 24 — Laundry Appliances and Machines

SN 39,887. The Maytag Company, Newton, Iowa. Filed Oct. 31, 1957.

HALO OF HEAT

For Automatic Dryer.
First use July 29, 1957.

SN 41,605. Ald, Inc., Chicago, Ill. Filed Dec. 2, 1957.

ALDIRON

Owner of Reg. Nos. 539,267, 648,696, and others.
For Automatic Pressing Machines.
First use Apr. 1, 1957.

Class 25 — Locks and Safes

SN 35,198. The Mosler Safe Company, Hamilton, Ohio. Filed Aug. 8, 1957.

SEA SAFE

Applicant disclaims exclusive rights to the word "Safe" apart from the mark as shown.
For Safes.
First use on or about Feb. 20, 1957.

Class 26—Measuring and Scientific Appliances

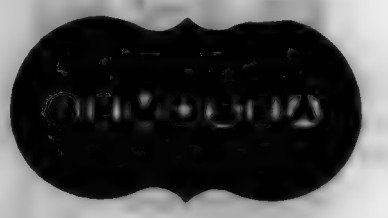
SN 35,357. Kreonite, Inc., Wichita, Kans. Filed Aug. 12, 1957.

Kreonite

For Laboratory Equipment of Molded Resin Materials for Processing Operations in the Fields of Photography, the Graphic Arts, Medicine, Dentistry, and Chemistry—Namely, Sinks, Cabinet Sinks, Stand Sinks, Print and Negative Washers, Processing Trays and Tanks, Table Tops, and Work Surfaces.
First use in August of 1955 on cabinet sinks and print washers.

Class 28—Jewelry and Precious-Metal Ware

SN 29,347. Frederic J. Essig & Co., Chicago, Ill. Filed May 3, 1957.



For Pearls.
First use Feb. 8, 1957.

SN 34,286. Flex-Let Corporation, East Providence, R. I. Filed July 24, 1957.

WONDER FIT

For Expansion Type Watch Bracelets.
First use Apr. 2, 1956.

SN 34,998. E. W. Reynolds Co., Los Angeles, Calif. Filed Aug. 5, 1957.

Rénold

For Costume Jewelry, Gold-Filled Jewelry, and Solid Gold Jewelry—Namely, Finger Rings, Earrings, Bracelets, and Necklaces.
First use Apr. 23, 1953.

SN 38,822. Hickok Manufacturing Co. Inc., Rochester, N. Y. Filed Oct. 14, 1957.

VICOUNT

For Tie Bars and Cuff Links.
First use Sept. 1, 1957.

SN 41,905. Gainsboro of Boston, Brookline, Mass. Filed Dec. 6, 1957. Sec. 2(f).

GAINSBORO

For Rings.
First use in December 1919.

Class 31—Filters and Refrigerators

SN 47,400. The Marley Company, Kansas City, Mo. Filed Mar. 10, 1958.

PERMATOWER

For Liquid Cooling Towers and Parts Thereof.
First use Jan. 28, 1958.

SN 40,722. Union Carbide Corporation, New York, N. Y. Filed Apr. 15, 1958.

UNION CARBIDE

For Synthetic Zeolite Adsorbents.
First use on or about Mar. 27, 1958.

Class 32—Furniture and Upholstery

SN 31,441. N. Wasserstrom & Sons, Inc., Columbus, Ohio. Filed June 5, 1957.

MOBILEEZ

For Portable Food Service Equipment—Namely, Tables for Processing Food.
First use May 1, 1956.

SN 34,705. Joal Manufacturing Co., Inc., Chicago, Ill. Filed July 31, 1957.

BONDI-COTE

For Wrought Iron Products—Namely, Tables, Chairs, Lounges, Chaise Lounges, and Occasional Furniture.
First use July 10, 1957.

SN 36,296. Hickory Springs Manufacturing Company, Inc., Hickory, N. C. Filed Aug. 27, 1957.

HI-CO

For Rocker Spring Units and Other Springs and Metal Fittings for the Bedding and Furniture Trade.
First use prior to Sept. 1, 1954.

SN 36,406. Vallone Manufacturing Inc., Buffalo, N. Y. Filed Aug. 28, 1957.

SUPER ORTHO-BRACER

Owner of Reg. No. 646,098.
For Mattresses and Box Springs.
First use May 3, 1956.

SN 44,989. Stein Bros. Mfg. Co., d. b. a. Acme Products, Chicago, Ill. Filed Jan. 30, 1958.

AIRCOMFORT

For Inflatable Mattresses, Pillows, and Cushions.
First use Sept. 1, 1957.

SN 45,866. Hedstrom Union Company, Fitchburg, Mass. Filed Feb. 10, 1958.

Beachcomber

For Play Pens.
First use Jan. 14, 1958.

SN 45,741. Warren Lloyd, Inc., Paterson, N. J. Filed Feb. 12, 1958.

VISION

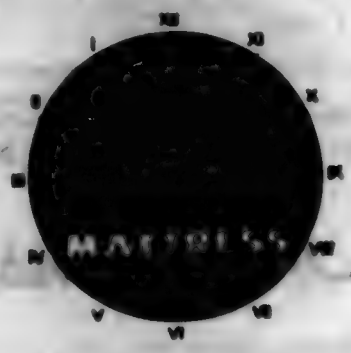
For Tables, Upholstered Furniture, and Furniture Case Goods.
First use June 10, 1957.

SN 45,751. Necchi Sewing Machine Sales Corporation, New York, N. Y. Filed Feb. 12, 1958.

LIFT-O-MATIC

For Sewing Machine Cabinets.
First use Nov. 25, 1957.

SN 45,933. The Spring-Air Company, Chicago, Ill. Filed Feb. 5, 1958.



The word "Mattress" is disclaimed apart from the mark as shown.
For Mattresses and Boxsprings.
First use during November 1957.

SN 46,496. Sleepmaster Products Company, Inc., Newark, N. J. Filed Feb. 24, 1958.

ZEPHYR

For Mattresses, Bed Springs, Box Springs, Box Spring Assemblies, Furniture Springs, Pillows, Pads, Studio Couches, Beds, Sofas, Cushions, Folding Cots, Gliders, Headboards for Beds, Chairs, Tables, Foam Rubber, Synthetic Foam, Such as Polymer or Made of Polymer Used as and/or for Mattresses, Box Springs, Pillows, Pads, Studio Couches, Cushions, Folding Cots, Beds, Headboards for Beds, Sofa Beds.
First use 1934.

SN 47,376. Griggs Equipment, Inc., Belton, Tex. Filed Mar. 10, 1958.

GRIGGS Tempo

For School Furniture—Namely, Tables, Chairs, and Desks.
First use on or about Apr. 1, 1957.

SN 48,109. Herman Miller Furniture Company, Zeeland, Mich. Filed Mar. 20, 1958.

MMG

For Office Furniture—Namely, Desk, Chairs, Storage Cabinets, and Typing Units.
First use Jan. 17, 1958.

SN 48,320. Palace Metal Products, Inc., Brooklyn, N. Y. Filed Mar. 24, 1958.

Palace

Applicant disclaims the word "Line" apart from the mark as shown.
For Steel Kitchen Cabinets, Steel Wardrobes, Steel Utility Closets, and Steel Cabinets.
First use January 1947.

SN 48,499. Roberts Incorporated, Birmingham, Mich. Filed Mar. 26, 1958.

BAR-B-BUOY

For Folding Table for Outdoor Use.
First use Dec. 20, 1957.

SN 48,632. Gruber Industries, Inc., Royersford, Pa. Filed Mar. 28, 1958.

ALL ABOARD

For Portable Display Racks.
First use Feb. 11, 1958.

Class 33—Glassware

SN 42,365. Dearborn Glass Company, Bedford Park, Ill. Filed Dec. 13, 1957.

FADE SHIELD

For Glass in Sheet Form Usable as Panes in Light Admitting Openings and for Other Purposes.
First use Nov. 25, 1957.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 41,981. Bloom Engineering Company, Inc., Pittsburgh, Pa. Filed Dec. 9, 1957.

HTR

For Burners for Furnaces.
First use on or about Nov. 22, 1957.

SN 44,145. Wright Manufacturing Company, Phoenix, Ariz. Filed Jan. 16, 1958.

WRIGHT-aire

For Air Cooled Refrigeration Air Conditioning Apparatus.
First use Oct. 26, 1956.

SN 44,146. Wright Manufacturing Company, Phoenix, Ariz. Filed Jan. 16, 1958.

WRIGHT

For Evaporative Coolers.
First use Oct. 10, 1950.

SN 44,293. Modine Manufacturing Company, Racine, Wis. Filed Jan. 20, 1958.

MODINE

For Heat Exchangers.
First use 1918.

SN 44,385. Erich Schumm, d. b. a. Schumm & Co. K. G., Murrhardt, Wurttemberg, Germany. Filed Jan. 20, 1958.

Esbit

For Non-Electric Cooking Stoves.
First use in 1933; in commerce June 30, 1953.

SN 44,577. J. M. Voith Gesellschaft mit beschrankter Haftung, Heidenheim, Brens, Germany. Filed Jan. 23, 1958.

Owner of German Reg. No. 687,482, dated Feb. 12, 1956.
For Devices and Machines for Cooling, Ventilating, and Drying, Especially Blowers Used for Instance for Ventilating Tunnels, Wind Tunnels, Mine Shafts, and for Climatizing Paper Machine Installations and the Like, and Cooling Installations for Motor Vehicles.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 25,079. British Belting & Asbestos Limited, Cleckheaton, England. Filed Mar. 7, 1957.

MINTEX

Owner of British Reg. No. 687,717, dated Mar. 28, 1950; and U. S. Reg. No. 210,152.
For Clutch Facings, Brake Facings and Brake Blocks Made Wholly or Principally of Asbestos or Admixtures of Asbestos and Plastics the Asbestos Predominating; Machinery Packing; Seals and Piston Rings.

SN 42,639. George E. Failing Company, Enid, Okla. Filed Dec. 18, 1957.

"Mudmaster"

Owner of Reg. No. 562,730.
For Slush Pump Piston Cups.
First use in August 1937.

SN 44,894. Thermoid Company, Trenton, N. J. Filed Jan. 30, 1958.

THUNDERBIRD

For Air Hose.
First use Sept. 6, 1957.

Class 36—Musical Instruments and Supplies

SN 26,577. Frank Umbriaco, Denver, Colo. Filed Mar. 20, 1937.

UNICO

For Accordions, Accordion Parts, and Amplifiers Used With Accordions.
First use June 1, 1933.

SN 28,194. Revere Record Corporation, Phoenix, Ariz., by change of name from Rev Records, Inc. Filed Apr. 15, 1957.

REL

For All Types, Kinds, and Sizes of Grooved Phonograph Records.
First use Feb. 1, 1957.

SN 32,235. Crystal Research Laboratories, Incorporated, Hartford, Conn. Filed June 19, 1957. Sec. 2(f).

Metronoma

For Electric Metronome.
First use Feb. 5, 1946.

SN 39,573. Atlantic Recording Corporation, New York, N. Y. Filed Oct. 28, 1957.

For Phonograph Records.
First use on or about February 1948.

SN 40,264. Sears, Roebuck and Co., Chicago, Ill. Filed Nov. 7, 1957.

SYNTRONIC

For Phonograph Record Changers.
First use on or about Apr. 15, 1948.

SN 40,296. Winter & Company, Inc., New York, N. Y. Filed Nov. 7, 1957.

Resolomir

For Pianos.
First use on or about Nov. 10, 1936.

SN 40,350. Kranich & Bach, New York, N. Y. Filed Nov. 8, 1957.

"VIOLYN"

For Pianos.
First use on or about Jan. 1, 1909.

SN 41,072. Bomar Distributors, Inc., New York, N. Y. Filed Nov. 21, 1957.

Marca Oro

The English meaning of the word is "Mark of Gold."
For Accordions.
First use Feb. 17, 1955.

SN 41,511. The Boombass Company, Chicago, Ill. Filed Nov. 29, 1957.

BOOMBASS

For Musical Instrument of the Multiple Percussion Type Comprising a Tambourine, Cymbals, and a Sound Block Mounted on a Pole.
First use on or about Nov. 4, 1957.

SN 41,600. Winter & Company, Inc., New York, N. Y. Filed Nov. 29, 1957.

CAMEO

For Pianos.
First use on or about Sept. 2, 1936.

SN 41,681. Winter & Company, Inc., New York, N. Y. Filed Dec. 2, 1957.

Resollector

For Pianos.
First use on or about Nov. 9, 1936.

Class 37—Paper and Stationery

SN 15,762. The Brown-Bridge Mills, Inc., Troy, Ohio. Filed Sept. 17, 1956. Sec. 2(f).

FLAT-AS-A-PANCAKE

For Gummed and Coated Paper and Cloth.
First use in 1934.

SN 25,855. Gibraltar Corrugated Paper Company, Inc., Jersey City, N. J. Filed Mar. 11, 1957.

SCULP-TU-ROLL

For Decorative Embossed Heavy-Paper Sheet Material, and Heavy-Paper Sheet Material Embossed and Colored in Imitation of Walls, Floors, Brick Work, Stone Work, Wood Work, and Like Structures, for Use in Forming Decorations and Displays in Stores and Shops and Also for Home Decoration.
First use in June 1937.

SN 38,882. Zellerbach Paper Company, San Francisco, Calif. Filed Oct. 14, 1957.

seaglass

For Tracing Paper.
First use Aug. 1, 1956.

SN 40,513. Clarence P. Taylor, Manhattan Beach, Calif. Filed Nov. 12, 1957.

KLEEN WAY

For Drafting Powder.
First use July 26, 1957.

SN 43,501. American Linen Supply Co., Chicago, Ill. Filed Dec. 30, 1957.

SAV-TI-WYP

For Paper Towels for Cleaning Automobile Windshields.
First use July 15, 1957.

Class 38—Prints and Publications

SN 30,743. Cutter Laboratories, Berkeley, Calif. Filed May 27, 1957.

SELECT-O-TAB

For Printed Index Cards.
First use Apr. 1, 1957.

SN 31,065. Alumni Association of the Massachusetts Institute of Technology, Cambridge, Mass. Filed May 31, 1957.

TECHNOLOGY REVIEW

For Magazine, a Periodical.
First use Jan. 1, 1899.

SN 31,579. Edward A. Ossmann & Associates, Inc., Rochester, N. Y. Filed June 7, 1957.

SHORT PULSES

For Trade Journal Published Quarterly.
First use Mar. 22, 1957.

SN 35,184. Frederick Luks, Mount Vernon, N. Y. Filed Aug. 8, 1957.

OUTDOOR GUIDEPOSTS

For News Column Presently Issued as Part of a Monthly Service Bulletin.
First use June 28, 1957.

SN 38,191. The Merrill Anderson Company, Inc., New York, N. Y. Filed Oct. 2, 1957. Sec. 2(f).

YOU AND YOUR PROPERTY

For Monthly Publication Concerning Estates, Trusts, and Taxes.
First use in June 1945.

SN 38,192. The Merrill Anderson Company, Inc., New York, N. Y. Filed Oct. 2, 1957. Sec. 2(f).

TRUST AND ESTATE NEWS AND VIEWS

For Monthly Bulletin on Wills, Trusts, and Taxes.
First use January 1950.

SN 40,124. Paul Klemtner & Company, Inc., Newark, N. J. Filed Nov. 5, 1957.

DUANAT

For Prepared Advertising Sold as Such—Namely, Embossed and Printed Sheets in the Form of Publication Inserts, Folders, Broadsides, Mailing Pieces, Giant Post Cards, Brochures, and the Like.
First use Nov. 1, 1957.

SN 41,720. Shapiro, Bernstein & Co. Inc., New York, N. Y. Filed Dec. 3, 1957.



The words "Educational Music" are disclaimed except when and as used in connection with the trademark.
For Music Folios, Music Booklets and Sheet Music of Educational Music.
First use Oct. 24, 1957.

SN 43,838. The Exclusive Company, Philadelphia, Pa. Filed Jan. 13, 1958.



For Greeting Cards.
First use May 28, 1957.

Class 39 — Clothing

SN 27,262. B. Altman & Co., New York, N. Y. Filed Apr. 1, 1957.

SORRENTOS

For Women's Shoes.
First use April 1953.

SN 36,995. The Cashmere Corporation of America, Weaverville, N. C. Filed Sept. 11, 1957.

HADLEY BILTMORE

Owner of Reg. Nos. 502,901, 640,032, and others.
For Men's, Women's, and Children's Knitted Sweaters, Cardigans, and Pullovers.
First use Aug. 5, 1957.

SN 37,573. Hiroshima Gomu Kogyo Kabushiki Kaisha (Hiroshima Rubber Industrial Co., Ltd.), Fukuyama-shi, Japan. Filed Sept. 20, 1957.



For Rubber Sandals, Sponge Sandals, Rubber Slippers, Sponge Slippers, Rubber Boots, Rain Shoes, and Vinyl Shoes.
First use about Nov. 15, 1955; in commerce on or about Nov. 15, 1955.

SN 37,581. Angelo Markoulis, d. b. a. Mark Angelo Shoe Company, San Francisco, Calif. Filed S. R. Sept. 20, 1957. Am. P. R. June 13, 1958.



For Women's Shoes.
First use Apr. 15, 1957.

SN 38,496. Carol B. Sullivan, New York, N. Y. Filed Oct. 7, 1957.

"GLAMOURBAND"

For Headband.
First use June 1, 1957.

SN 38,763. Palmland Fashions Inc., Miami, Fla. Filed Oct. 11, 1957.



For Men's and Boys' Sportswear—Namely, Swimwear, Leisure Jackets, Walk Shorts, and Pants.
First use Sept. 27, 1957.

SN 39,582. Bourque Shoe Co, Inc., Raymond, N. H. Filed Oct. 28, 1957.



For Ladies' Shoes.
First use July 31, 1957.

SN 39,778. Camp & McInnes, Inc., Reading, Pa. Filed Oct. 30, 1957.

TOUCH 'N TINGLE

For Men's Socks, Women's and Children's Hose, and Knitted Shirts and Sweaters.
First use Mar. 22, 1954.

SN 40,830. Golo Footwear Corporation, New York, N. Y. Filed Nov. 18, 1957.

ROMANZA'S BY GOLO

Owner of Reg. Nos. 154,552 and 435,249.
For Women's Shoes.
First use Nov. 11, 1957.

SN 40,835. Hat Corporation of America, Norwalk, Conn. Filed Nov. 18, 1957.

DOUBLE TONE

For Straw Hats and Felt Hats for Men.
First use Sept. 1, 1957.

SN 40,954. Melville Shoe Corporation, New York, N. Y. Filed Nov. 19, 1957.

WEEK-ENDER

For Shoes.
First use Oct. 21, 1957; Sept. 21, 1956, as to "Week-Enders."

SN 41,356. City Stores Company, Philadelphia, Pa. Filed Nov. 26, 1957.

SWARTHMORE

Owner of Reg. No. 653,130.
For Men's and Boys' Shirts and Underwear.
First use March 1934.

SN 41,501. Woodrow Stores, Inc., New York, N. Y. Filed Nov. 27, 1957.

SHOPPERS CORNER

For Men's Wear—Namely, Sport Coats, Slacks, and Sport Shirts.
First use Nov. 6, 1957.

SN 41,655. The H. D. Lee Company, Incorporated, Kansas City, Mo. Filed Dec. 2, 1957. Sec. 2(f) as to "Lee."

LEEsures: Style Favorites by LEE

That portion of the mark comprising the words "Style Favorites by" is disclaimed apart from the mark as shown.
Owner of Reg. Nos. 130,792, 631,361, and others.
For Outer Garments for Women, Men, and Boys—Namely, Shorts, Slacks, Jackets, and Work or Utility Trousers.
First use Sept. 26, 1957, on shorts; June 18, 1919, as to "Lee."

SN 42,085. Henry J. Tully & Co., Inc., New York, N. Y. Filed Dec. 9, 1957.

WHISTLE-TOPS

For Ladies' and Girls' Knitted Outerwear Jackets.
First use July 1, 1957.

SN 42,634. Cluett, Peabody & Co., Inc., New York, N. Y. Filed Dec. 18, 1957.

IRON CHEATER

For Outer Shirts.
First use Nov. 20, 1957.

SN 42,674. U. S. Knitwear Co., New York, N. Y. Filed Dec. 18, 1957. Sec. 2(f).

FORM CONTROL

Owner of Reg. No. 571,440.
For Ladies' Bathing Suits.
First use April 1951.

SN 42,678. Charles L. Roy Welton, Saratoga, Wyo. Filed Dec. 18, 1957.

The Belle of the West

For Hats, and Especially for Western Style Hats.
First use on or about Dec. 1, 1955.

SN 42,977. Etablissements B. Flechet, Chazelles sur Lyon, Loire, France. Filed Dec. 24, 1957. Sec. 2(f).

FLÉCHET

Owner of U. S. Reg. Nos. 353,713 and 593,323.
For Hats and Hat Bodies for Men, Women, and Children.
First use 1859; in commerce 1930.

SN 43,011. Consolidated-National Shoe Corporation, Boston, Mass. Filed Dec. 26, 1957.

IMPRESARIO'S

For Women's and Misses' Shoes.
First use Dec. 10, 1957.

SN 43,029. Johnston & Murphy, Newark, N. J. Filed Dec. 26, 1957.

Charioteers

For Men's Shoes of Leather and Cloth and Leather.
First use June 24, 1957.

SN 43,063. Edward Saunders, d. b. a. Edward Saunders Co., New York, N. Y. Filed Dec. 24, 1957.

"Formal Star"

For Men's Formal Clothes—Namely, Dinner Jackets, Tuxedo Suits, Full Dress Suits, Cutaway Jackets, Vests, Trousers, Cummerbunds, Formal Shirts, Collars, Ascots, Ties, Handkerchief Ensembles, and Gloves.
First use Nov. 12, 1957.

SN 43,097. L. Grief & Bro., Inc., Baltimore, Md. Filed Dec. 27, 1957.

NOMAD

For Suits, Top Coats, Overcoats, Slacks, Sport Coats, and Jackets for Men, Boys, and Youths.
First use Nov. 18, 1957.

SN 43,152. Forster's, East Lansing, Mich. Filed Dec. 30, 1957.

TOURIGINAL

For Clothing Such as Ladies' Hats, Men's Hats, Children's Hats, Dresses, Sweaters, Suits, and Blouses.
First use Jan. 8, 1957.

SN 43,371. Bonnie Deb Togs, Inc., New York, N. Y. Filed Jan. 3, 1958.

BONNIE DEB

For Children's Blouses, Halters, and Shorts.
First use Dec. 5, 1957.

SN 44,810. Elaine of Hollywood Brassiere Co., Los Angeles, Calif. Filed Jan. 28, 1958.

Elaine of HOLLYWOOD

For Brassieres.
First use on or about Aug. 15, 1938.

Class 40—Fancy Goods, Furnishings, and Notions

SN 29,220. Lidz Brothers, Inc., New York, N. Y. Filed May 1, 1957.

PERLMATE

For Buttons.
First use Dec. 5, 1956.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 14,503. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

HONEYDEW

Owner of Reg. No. 174,026.
For Cloth of Wool and Mixtures of Wool, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Mar. 1, 1918.

SN 14,504. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

PALATIA

Owner of Reg. No. 189,917.
For Cloth of Wool and Mixtures of Wool, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Oct. 2, 1923.

SN 14,505. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

PREFERENTIA

Owner of Reg. No. 189,918.
For Cloth of Wool or Wool and Other Natural Fibers, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Oct. 2, 1923.

SN 14,506. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

ROYAL TROPHY

Owner of Reg. Nos. 366,914 and 369,190.
For Cloth of Wool or Wool and Other Natural Fibers, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Dec. 6, 1938.

SN 14,507. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

TOLIMA

Owner of Reg. Nos. 354,973 and 517,850.
For Cloth of Wool or Wool and Other Natural Fibers, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Nov. 18, 1936.

SN 14,508. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

TANGARA

Owner of Reg. No. 516,906.
For Cloth of Wool or Wool and Other Natural Fibers, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Sept. 1, 1937.

SN 14,509. S. Stroock & Co., Inc., New York, N. Y. Filed Aug. 22, 1956.

TULEMONDE

Owner of Reg. No. 293,726.
For Cloth of Wool or Wool and Other Natural Fibers, Sold in the Piece to Garment Makers for Making Into Women's Coats.
First use Oct. 26, 1931.

Class 44—Dental, Medical, and Surgical Appliances

SN 12,484. American Cyanamid Company, New York, N. Y. Filed Nov. 20, 1957.

MELACAST

For Orthopedic Compositions—Namely, Bandages and Splints Impregnated With Resin and Plaster of Paris.
First use Nov. 15, 1955, on bandages.

SN 35,879. Propper Manufacturing Company, Inc., Long Island City, N. Y. Filed Aug. 20, 1957.

TROPHY

For Clinical Thermometers, Hypodermic Syringes, and Surgical Scissors.
First use 1950.

Class 45—Soft Drinks and Carbonated Waters

SN 40,429. The Coca-Cola Bottling Company of New York, Inc., New York, N. Y. Filed Nov. 12, 1957.

Koop

For Carbonated Flavored Beverages Sold as Soft Drinks and for Use as Mixers.
First use Oct. 24, 1957.

Class 46 — Foods and Ingredients of Foods

SN 860. Meyer Wolfson, d. b. a. Farmer Pete Packing Company, Denver, Colo. Filed Jan. 16, 1956.

Farmer Pete Brand

Applicant disclaims the word "Brand."
For Fresh Frozen Meats and Frozen Prepared Meat Products.
First use in 1943.

SN 28,268. Oulliber Coffee Company, Inc., New Orleans, La. Filed Apr. 16, 1957.

REVEILLE

For Coffee.
First use Oct. 25, 1956.

SN 31,071. Arnold Doughnuts, Incorporated, Saylesville, R. I. Filed May 31, 1957.

THREE SISTERS

For Bakery Products—Namely, English Muffins, Doughnuts, and Crullers.
First use Mar. 20, 1957.

SN 31,343. Nu Products Company, Inc., Brooklyn, N. Y. Filed June 4, 1957.

UNISOL

For Food Seasonings Used as Flavor Boosters.
First use on or about Apr. 12, 1956.

SN 32,974. National Tea Co., Chicago, Ill. Filed July 1, 1957.

TOP taste

Owner of Reg. No. 444,626.
For Bread and Rolls.
First use November 1945.

SN 35,283. Peanut Corporation of America, d. b. a. Peanut Products Company, Des Moines, Iowa. Filed Aug. 9, 1957.

HI-BALL

For Shelled Processed Peanuts.
First use Apr. 1, 1957.

SN 37,231. Country Cousins, Inc., Portland, Oreg. Filed Sept. 16, 1957.



For Preserved Fruits, Jellies, Jams, and Fruit Syrups Used for Food Purposes.
First use July 1, 1957.

SN 38,297. Estelle L. Nemkov, d. b. a. Estelle L. Mendelsohn or Mendelsohn, Sweet Talk, New York, N. Y. Filed Oct. 3, 1957.

SWEET TALK

For Candy Containing an Ingredient Intended To Sweeten and Deodorize the Breath.
First use Sept. 25, 1957.

SN 38,997. Fontana-Hollywood Corp., d. b. a. Labrocel Packing Co., New York, N. Y. Filed Oct. 16, 1957.

CONVENTO

"Convento" is the Italian word for "convent."
For Edible Olive Oil.
First use July 1, 1910.

SN 39,264. Ore-Ida Potato Products, Inc., Ontario, Oreg. Filed Oct. 21, 1957.

TATER TOTS

For Frozen Shredded Potatoes.
First use Dec. 1, 1956.

SN 39,522. The East Asiatic Company, Inc., San Francisco, Calif. Filed Oct. 25, 1957.

SELANDIA

Owner of Reg. No. 541,486.
For Canned Fruits, Canned Vegetables, Canned Fish, Canned Fruit Nectars, Dried Fruits, and Meats Packed in Tin and Glass.
First use Sept. 28, 1948.

SN 40,079. Red Star Yeast and Products Company, Milwaukee, Wis. Filed Nov. 4, 1957.

MONODYNE

For Yeast Product for the Desugaring of Egg Melange Prior to Dehydration.
First use Oct. 14, 1957.

SN 40,272. Standard Brands Incorporated, New York, N. Y. Filed Nov. 7, 1957.



The drawing is lined for red, yellow, black, and blue which are claimed as features of the mark. The words "Baking Powder" are disclaimed. Owner of Reg. Nos. 48,077, 571,015, and others.
For Baking Powder.
First use in April 1873.

SN 40,361. Multiforsa AG. (Multiforsa S. A.) (Multiforsa Ltd.), Steinhausen, Zug, Switzerland. Filed Nov. 8, 1957.

WEKOVIT

Owner of Swiss Reg. No. 163,560, dated Dec. 20, 1956.
For Food Additions of Wheat Germ.

SN 40,521. Western Tomato Growers and Shippers, Inc., Oxnard, Calif. Filed Nov. 12, 1957.

SHARI

For Fresh Tomatoes.
First use Sept. 24, 1957.

SN 40,620. Helen K. Salsburg's Candies, Wilkes-Barre, Pa. Filed Nov. 13, 1957.

CHOC-O-LOPS

For Candy.
First use Oct. 28, 1957.

SN 40,925. Crosbie's Pure Food Company Limited, Bradley, England. Filed Nov. 19, 1957.



For Marmalade.
First use Feb. 20, 1932; in commerce in 1947.

SN 41,579. J. R. Simplot Company, Boise, Idaho. Filed Nov. 19, 1957.

SPUDNICKS

For Dehydrated Potatoes.
First use Nov. 26, 1957.

SN 42,689. The Borden Company, New York, N. Y. Filed Dec. 19, 1957.

MELOMALT

For Frozen Confection on a Stick.
First use Oct. 29, 1957.

SN 45,177. Maple Lawn Farms Incorporated, New Park, Pa. Filed Feb. 3, 1958.



For Fresh Eggs.
First use Jan. 2, 1958.

SN 45,271. Clayton H. Perry, d. b. a. Nampa Flour Company, Decatur, Ga. Filed Feb. 4, 1958.



For Flour.
First use August 1922.

SN 45,335. Oscar Mayer & Co., Inc., Chicago, Ill. Filed Feb. 5, 1958.

GRILLERS

For Sausage.
First use Dec. 30, 1957.

SN 46,285. Central Soya Company, Inc., Fort Wayne, Ind. Filed Feb. 21, 1958.

MASTER MADE

Owner of Reg. Nos. 531,457 and 629,653.
For Livestock and Poultry Feeds.
First use Jan. 2, 1958.

Class 48 — Malt Beverages and Liquors

SN 40,828. Glazer's Wholesale Drug Company, Inc., Dallas, Tex. Filed Nov. 18, 1957.



For Beer.
First use Oct. 22, 1957.

SN 40,829. Glazer's Wholesale Drug Company, Inc., Dallas, Tex. Filed Nov. 18, 1957.



For Beer.
First use Oct. 22, 1957.

Class 49—Distilled Alcoholic Liquors

SN 41,284. London & Company, Inc., Elizabeth, N. J. Filed Nov. 25, 1957.

LONOFF

For Vodka.
First use Oct. 1, 1957.

Class 50—Merchandise Not Otherwise Classified

SN 39,771. Alpha Wire Corporation, New York, N. Y. Filed Oct. 30, 1957.

ALPHLEX

Owner of Reg. No. 646,410.
For Plastic Tubing Stripe That Are Adapted To Form a Tube.
First use May 31, 1957.

SN 42,009. George W. Faulstich, d. b. a. Dewcap Division, Black Mountain Spring Water Co., San Carlos, Calif. Filed Dec. 9, 1957.

dewcap

For Plastic Bottle Caps.
First use Nov. 7, 1957.

Class 52—Detergents and Soaps

SN 11,176. Mac's Super Gloss Co., Inc., d. b. a. Mac's Super Gloss Company, Los Angeles, Calif. Filed June 28, 1956. Sec. 2(f).

MAC'S SUPER GLOSS

Owner of Reg. Nos. 425,262, 503,054, and 610,506.
For Car Washing Preparation and Automobile Finish Cleaner.
First use in 1931.

SN 40,137. National Aluminate Corporation, Chicago, Ill. Filed Nov. 5, 1957.

NALCLEAN

For Cleaning Composition for Removing Water-Formed and Process-Formed Deposits From Industrial Equipment.
First use Aug. 5, 1957.

SN 51,400. Lever Brothers Company, New York, N. Y. Filed May 15, 1958.

HANDY ANDY

For Liquid Detergent for General Household Cleaning and for Laundry.
First use May 12, 1958.

SERVICE MARKS

Class 100—Miscellaneous

SN 23,248. Petty Geophysical Engineering Company, San Antonio, Tex. Filed Jan. 25, 1957.

VARI-PATTERN

For Geophysical and Engineering Services in Connection With Seismatic Gravity Magnetic Surveys Relating to the Oil and Mineral Exploration.
First use December 1956.

SN 35,067. Slim-Zelle Salons Une, Inc., Pittsburgh, Pa. Filed Aug. 6, 1957.

Slim Zelle

For Operation of Weight Reducing Salons.
First use Nov. 17, 1955.

SN 35,068. Slim-Zelle Salons Une, Inc., Pittsburgh, Pa. Filed Aug. 6, 1957.



For Operation of Weight Reducing Salons.
First use Nov. 17, 1955.

Class 101—Advertising and Business

SN 14,488. Associated Merchandisers, Inc., Jackson, Miss. Filed Aug. 22, 1956.



For Promoting the Sale of Goods and Services of Others by Means of Trading Stamps Which Are Redeemable in Premiums.
First use Feb. 1, 1956.

Class 102—Insurance and Financial

SN 41,793. Automobile Mutual Insurance Company of America, Providence, R. I. Filed Dec. 5, 1957.



For Underwriting Fire and Casualty Insurance.
First use in 1923.

Class 104—Communication

SN 40,470. KXOK Broadcasting, Inc., St. Louis, Mo. Filed Nov. 12, 1957.

CLOUD CLUB

For Title of a Radio Disc Jockey Program.
First use Oct. 2, 1954.

Class 105—Transportation and Storage

SN 13,649. The De La Rama Steamship Co., Inc., Manila, Republic of the Philippines. Filed May 31, 1957.

DE LA RAMA LINES

Applicant disclaims the use of the word "Lines" apart from the use of the mark as such.

For Transportation of Cargo and Passengers by Motor Ships.
First use Jan. 2, 1950; in commerce Jan. 2, 1950.

SN 37,672. Pan American World Airways, Inc., New York, N. Y. Filed Sept. 23, 1957.



The drawing is lined for the color blue but no claim is made to color.

For Transporting Freight and Passengers by Air.
First use Oct. 5, 1956.

Class 107—Education and Entertainment

SN 32,954. Hospital TV Rentals, Inc., Denver, Colo. Filed July 1, 1957.

MOBILVISION

For Radio and Television Rental Services.
First use Aug. 6, 1956.

SN 39,602. Walt Disney Productions, Burbank, Calif. Filed Oct. 28, 1957.



For Title of a Television Program Presented Through the Means of Motion Pictures.
First use Oct. 10, 1957.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 10,336. National Board of the Young Men's Christian Associations, New York, N. Y. Filed June 15, 1956.

YMCA

For Indicating Membership in Applicant's Association.
First use in or about 1855.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

665,210. LAWN PARK. William G. Scarlett and Company (Maryland corporation), assignee of William G. Scarlett & Company (firm). SN 11,193. Pub. 5–20–58. Filed 6–28–56.

665,211. BABBITRITE ETC. AND DESIGN. Babbitrite Products Company. SN 22,787. Pub. 5–20–58. Filed 1–18–57.

665,212. LUTHER BURBANK AND DESIGN. W. Atlee Burpee Co. SN 27,085. Pub. 5–20–58. Filed 3–28–57.

665,213. PICNIC CHEF CCC AND DESIGN. Carolina Charcoal & Chemical Co. SN 28,490. Pub. 5–20–58. Filed 4–18–57.

665,214. DLP. Dawbarn Brothers, Incorporated. SN 28,496. Pub. 5–20–58. Filed 4–19–57.

665,215. MASTERBRIDGE. Masterseal Company. SN 28,871. Pub. 5–20–58. Filed 4–25–57.

665,216. STYLOUR. The Gilman Brothers Company. SN 29,717. Pub. 5–20–58. Filed 5–9–57.

665,217. CHATHAM. Seton Leather Company. SN 35,128. Pub. 5–20–58. Filed 8–7–57.

665,218. LAREDO. Armour and Company. SN 37,543. Pub. 5–20–58. Filed 9–20–57.

665,219. CAMELLIA. Blanchard Bro. & Lane, Inc. SN 37,772. Pub. 5–20–58. Filed 9–25–57.

665,220. PELBRITE. American Colloid Company. SN 37,982. Pub. 5–20–58. Filed 9–27–57.

665,221. CAMBRIDGE PARK. Metropolitan Seed Corporation. SN 38,480. Pub. 5–20–58. Filed 10–7–57.

Class 2—Receptacles

665,222. SAV-A-PAN. Continental Can Company, Inc. SN 23,219. Pub. 5–20–58. Filed 1–25–57.

665,223. KINGTEX NETS. Kingsboro Mills, Inc. SN 27,107. Pub. 5–20–58. Filed 3–28–57.

665,224. COLE ETC. AND DESIGN. R. D. Cole Manufacturing Company. SN 38,345. Pub. 5–20–58. Filed 10–4–57.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

665,225. SPUTNIK. A. J. Siris Products Corp. SN 39,161. Pub. 5–20–58. Filed 10–18–57.

Class 4—Abrasives and Polishing Materials

665,226. TEXIER. Texize Chemicals, Inc. SN 33,579. Pub. 5–20–58. Filed 7–11–57.

665,227. VIKING AND DESIGN. Industri-Aktiebolaget Viking. SN 37,250. Pub. 5–20–58. Filed 9–17–57.

Class 5—Adhesives

665,228. BORNE SCRYMSER. Borne Chemical Company, Inc., by change of name from Borne, Scrymser Company. SN 13,905. Pub. 5–20–58. Filed 8–14–56.

665,229. TRIAC. Miller Dial and Name Plate Co. SN 21,929. Pub. 5–20–58. Filed 12–31–56.

665,230. ARNO. Arno Adhesive Tapes, Inc. SN 30,054. Pub. 5–20–58. Filed 5–15–57.

665,231. TESABORDE. P. Beiersdorf & Co, A. G. SN 35,973. Pub. 5–20–58. Filed 8–22–57.

665,232. TESAFILM. P. Beiersdorf & Co. A. G. SN 35,974. Pub. 5–20–58. Filed 8–22–57.

665,233. TESAFLEX. P. Beiersdorf & Co. A. G. SN 35,975. Pub. 5–20–58. Filed 8–22–57.

665,234. TESAMOLL. P. Beiersdorf & Co. A. G. SN 36,041. Pub. 5–20–58. Filed 9–9–57.

Class 6—Chemicals and Chemical Compositions

665,235. RED E GAS. Penola Oil Company, assignee of Red-E-Gas Company, formerly Red-E-Gas & Equipment Corporation. SN 639,778. Pub. 2–22–55. Filed 12–19–52.

665,236. ETHOLAN. Robinson-Wagner Co., Inc. SN 12,534. Pub. 4–2–57. Filed 7–20–56.

665,237. JEL-LITE. Georges C. St. Laurent and Marian H. St. Laurent, d. b. a. Hotel Research Laboratories. SN 27,397. Pub. 5–20–58. Filed 4–2–57.

665,238. KYLAN. Kylan Corporation. SN 28,713. Pub. 5–20–58. Filed 4–23–57.

665,239. RE-TAN-ER. Ben P. Arnold, d. b. a. Arnold Leather Products Company and Arnold Leather Products Co. SN 30,138. Pub. 5–20–58. Filed 5–16–57.

665,240. DYNAM ETC. AND DESIGN. Dynam Electrolyte Company. SN 32,173. Pub. 5–20–58. Filed 6–18–57.

665,241. SHEROSOPE. Continental Oil Company. SN 33,125. Pub. 5–20–58. Filed 7–3–57.

665,242. PEAK. Commercial Solvents Corporation. SN 33,333. Pub. 5–20–58. Filed 7–8–57.

665,243. PUR-GAM. Wilson & Toomer Fertilizer Co. SN 35,073. Pub. 5–20–58. Filed 8–6–57.

665,244. ARBAN. The Dow Chemical Company. SN 35,752. Pub. 5–20–58. Filed 8–19–57.

665,245. DYNAWET. The Dow Chemical Company. SN 35,755. Pub. 5–20–58. Filed 8–19–57.

665,246. SPORTY. Orville P. Brink, d. b. a. Price Chemical Company. SN 35,979. Pub. 5–20–58. Filed 8–22–57.

665,247. LANO-FAB. Thomas Wilson & Co., Inc. SN 36,490. Pub. 5–20–58. Filed 8–29–57.

665,248. WEATHER-MATE. Prairie States Oil & Grease Company. SN 36,533. Pub. 5–20–58. Filed 8–30–57.

665,249. NAXOL. Allied Chemical & Dye Corporation. SN 37,557. Pub. 5–20–58. Filed 9–20–57.

665,250. UNION CARBIDE AND DESIGN. Union Carbide Corporation. SN 38,402. Pub. 5–20–58. Filed 10–4–57.

665,251. CAPSULON. H. H. Robertson Company. SN 38,940. Pub. 5–20–58. Filed 10–15–57.

665,252. CAPSUFLEX. H. H. Robertson Company. SN 38,947. Pub. 5–20–58. Filed 10–15–57.

665,253. FERRO-PAK. The Cromwell Paper Company. SN 39,047. Pub. 5–20–58. Filed 10–17–57.

665,254. GAS MASTER. Rust Master Chemical Corporation. SN 39,095. Pub. 5–20–58. Filed 10–17–57.

665,255. RAYLENE. Wyandotte Chemicals Corporation. SN 39,115. Pub. 5–20–58. Filed 10–17–57.

665,256. STYROBEADS. The Dow Chemical Company. SN 39,387. Pub. 5–20–58. Filed 10–23–57.

665,257. KARATCLAD. Sel-Rex Corporation. SN 39,414. Pub. 5-20-58. Filed 10-23-57.

665,258. CARBIUM. Diamond Alkali Company. SN 39,455. Pub. 5-20-58. Filed 10-24-57.

665,259. AFROX. Atlas Powder Company. SN 39,574. Pub. 5-20-58. Filed 10-28-57.

Class 7 — Cordage

665,260. "LAVAN." Olson Company of Sarasota, Inc. SN 33,996. Pub. 5-20-58. Filed 7-18-57.

665,261. JL. Jones & Laughlin Steel Corporation. SN 38,053. Pub. 5-20-58. Filed 9-30-57.

Class 8 — Smokers' Articles, Not Including Tobacco Products

665,262. AUTOLITER. Cory Corporation. SN 18,490. Pub. 5-20-58. Filed 10-31-56.

665,263. EXECUTIVE. Larus & Brother Company. SN 37,964. Pub. 5-20-58. Filed 9-27-57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

665,264. HERCOL. Hercules Powder Company. SN 37,875. Pub. 5-20-58. Filed 9-26-57.

Class 12 — Construction Materials

665,265. S-C. The Celotex Corporation. SN 5,822. Pub. 5-20-58. Filed 4-5-56.

665,266. DOR-GARDS. Republic Industries, Inc. SN 30,037. Pub. 5-20-58. Filed 5-14-57.

665,267. HONEYCOMB TROPIGLAS. Russell Reinforced Plastics Corporation. SN 35,005. Pub. 5-20-58. Filed 8-5-57.

665,268. CALCORE. Caloric Appliance Corporation. SN 35,982. Pub. 5-20-58. Filed 8-22-57.

665,269. VERBLOX. American Vermiculite Corporation. SN 39,120. Pub. 5-20-58. Filed 10-18-57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

665,270. CORALWARE AND DESIGN. Coralware Company, Inc. SN 21,359. Pub. 5-20-58. Filed 12-20-56.

665,271. KEVLOK AND DESIGN. Lakeview Manufacturing Corporation. SN 38,468. Pub. 5-20-58. Filed 10-7-57.

665,272. FOX. Fox Products Company. SN 38,683. Pub. 5-20-58. Filed 10-10-57.

665,273. NYBUCK. Buckingham Manufacturing Co., Inc. SN 38,729. Pub. 5-20-58. Filed 10-11-57.

665,274. FABUCK. Buckingham Manufacturing Co., Inc. SN 38,730. Pub. 5-20-58. Filed 10-11-57.

665,275. SNAC-PIC. H. J. Dowd Company Inc. SN 39,794. Pub. 5-20-58. Filed 10-30-57.

Class 14 — Metals and Metal Castings and Forgings

665,276. BLUE ANCHOR AND DESIGN. Vanadium-Alloys Steel Company. SN 28,082. Pub. 5-20-58. Filed 4-12-57.

665,277. RED ANCHOR ETC. AND DESIGN. Vanadium-Alloys Steel Company. SN 28,083. Pub. 5-20-58. Filed 4-12-57.

665,278. PENDULOY. P. R. Mallory & Co. Inc. SN 28,362. Pub. 5-20-58. Filed 4-17-57.

665,279. SPEED-CUT. Vanadium-Alloys Steel Company. SN 31,425. Pub. 5-20-58. Filed 6-5-57.

665,280. EUREKALLOY. Welding Equipment & Supply Co. SN 36,822. Pub. 5-20-58. Filed 9-6-57.

665,281. DRAWALLOY. Welding Equipment & Supply Co. SN 36,824. Pub. 5-20-58. Filed 9-6-57.

665,282. ALL-STATE ETC. AND DESIGN. All-State Welding Alloys Co., Inc. SN 36,988. Pub. 5-20-58. Filed 9-11-57.

665,283. SONICAST. Monarch Governor Company. SN 37,031. Pub. 5-20-58. Filed 9-11-57.

665,284. MACRO-CLEAN. Green River Steel Corporation. SN 37,256. Pub. 5-20-58. Filed 9-16-57.

Class 16 — Protective and Decorative Coatings

665,285. THERMO-JET. Caloric Appliance Corporation. SN 39,362. Pub. 5-20-58. Filed 9-24-57.

665,286. AMSHIELD. American-Marietta Company. SN 43,368. Pub. 5-20-58. Filed 1-3-58.

665,287. TRAX. The Reardon Company. SN 43,401. Pub. 5-20-58. Filed 1-3-58.

Class 17 — Tobacco Products

665,288. MID-WEST. Mid-West Tobacco Co. SN 37,511. Pub. 5-20-58. Filed 9-19-57.

665,289. MARSH WHEELING. M. Marsh and Son. SN 37,582. Pub. 5-20-58. Filed 9-20-57.

665,290. TROCADERO. Hijos de J. Cano y Compania. SN 37,657. Pub. 5-20-58. Filed 9-23-57.

665,291. DIGEST. Philip Morris Incorporated. SN 37,804. Pub. 5-20-58. Filed 9-25-57.

Class 18 — Medicines and Pharmaceutical Preparations

665,292. SOLU CONES. Graham Chemical Corp. SN 18,687. Pub. 5-20-58. Filed 10-19-56.

665,293. AMBURGO. The Amburgo Company Inc. SN 22,649. Pub. 5-20-58. Filed 1-16-57.

665,294. BRIANBEL. Lionel Kent (S. A.) (Proprietary) Limited. SN 29,062. Pub. 5-20-58. Filed 4-29-57.

665,295. RHENA VARIDRESS AND DESIGN. Internationale Verbandstoff-Fabrik Schaffhausen. SN 29,910. Pub. 5-20-58. Filed 5-13-57.

665,296. CRUZYLAN. Primus Produktion, Pharmaceutische und Kosmetische Präparate Mutter & Co. SN 31,945. Pub. 5-20-58. Filed 6-13-57.

665,297. BIKE. The Kendall Company. SN 32,320. Pub. 5-20-58. Filed 6-20-57.

665,298. TRUODINE. Herman Fels, d. b. a. Rumeidine Co. SN 34,231. Pub. 5-20-58. Filed 7-23-57.

665,299. TRIODINE. Herman Fels, d. b. a. Rumeidine Co. SN 34,232. Pub. 5-20-58. Filed 7-23-57.

665,300. RONDAR. American Home Products Corporation, d. b. a. Wyeth Laboratories, Division of American Home Products Corporation. SN 35,969. Pub. 5-20-58. Filed 8-22-57.

665,301. W-R-MIN. Murphy Products Company. SN 36,782. Pub. 5-20-58. Filed 9-5-57.

665,302. STAPENOR. Farbenfabriken Bayer Aktiengesellschaft. SN 37,783. Pub. 5-20-58. Filed 9-25-57.

665,303. SUL-SPANTAB. Smith Kline & French Laboratories. SN 38,493. Pub. 5-20-58. Filed 10-7-57.

665,304. ANALEPTONE. Reed & Carnrick. SN 39,549. Pub. 5–20–58. Filed 10–25–57.

665,305. HUMATIN. Parke, Davis & Company. SN 40,694. Pub. 5–20–58. Filed 11–14–57.

665,306. HUMEVAC. Parke, Davis & Company. SN 40,695. Pub. 5–20–58. Filed 11–14–57.

Class 19—Vehicles

665,307. AIR LIFT. Universal Air Lift, Inc. SN 27,755. Pub. 5–20–58. Filed 4–8–57.

665,308. THE SKY DIVER. Parachutes, Incorporated. SN 30,599. Pub. 5–20–58. Filed 5–23–57.

665,309. BUCKEROO. Elmer J. Seiden, d. b. a. Burlington Manufacturing Company. SN 36,930. Pub. 5–20–58. Filed 9–9–57.

665,310. SAF-T-FEND. Saf-T-Fend Mfg. Co. SN 37,598. Pub. 5–20–58. Filed 9–20–57.

665,311. BAKER TOWKING. Independent Iron Works, Inc. SN 39,232. Pub. 5–20–58. Filed 10–21–57.

665,312. PAK-PAL. Rex Applegate. SN 39,550. Pub. 5–20–58. Filed 10–25–57.

665,313. DESIGN OF IMPALA AND FLAGS. General Motors Corporation. SN 39,619. Pub. 5–20–58. Filed 10–28–57.

665,314. FLORLIFE. Lewis-Shepard Products, Inc. SN 39,651. Pub. 5–20–58. Filed 10–28–57.

665,315. CANARY. Lynebilt Corporation. SN 39,817. Pub. 5–20–58. Filed 10–30–57.

665,316. HUCK FINN. Richmond Cedar Works Mfg. Corp. SN 39,899. Pub. 5–20–58. Filed 10–31–57.

665,317. CATALINA. Wagemaker Company. SN 40,005. Pub. 5–20–58. Filed 11–1–57.

665,318. AUTOTERIA. Roy E. Lowe, d. b. a. Autoteria. SN 40,061. Pub. 5–20–58. Filed 11–4–57.

Class 21—Electrical Apparatus, Machines, and Supplies

665,319. AGEMA. Societa Anonima per la Costruzione di Macchine. SN 19,332. Pub. 5–20–58. Filed 11–15–56.

665,320. INFRATROL. Infratrol Oven Corporation. SN 23,471. Pub. 5–20–58. Filed 1–30–57.

665,321. THERMO CHANNEL. Sears, Roebuck and Co. SN 23,854. Pub. 5–20–58. Filed 2–5–57.

665,322. FERROLINE. Airtron, Inc. SN 27,483. Pub. 5–20–58. Filed 4–4–57.

665,323. SIFEMAG. Thomas and Skinner, Inc. SN 29,841. Pub. 5–20–58. Filed 5–10–57.

665,324. USI AND DESIGN. U. S. Industries, Inc. SN 31,287. Pub. 5–20–58. Filed 6–3–57.

665,325. MARCONI AND DESIGN. Marconi's Wireless Telegraph Company Limited. SN 31,677. Pub. 5–20–58. Filed 6–10–57.

665,326. SONOSOLDER. Aeroprojects Inc. SN 36,341. Pub. 5–20–58. Filed 8–28–57.

665,327. "K & M." Keasbey & Mattison Company. SN 36,456. Pub. 5–20–58. Filed 8–29–57.

665,328. WEAREVER AND DESIGN. David Kahn, Inc. SN 37,738. Pub. 5–20–58. Filed 9–24–57.

665,329. CELEBRITY. The Electric Storage Battery Company, assignee of Ray-O-Vac Company. SN 37,975. Pub. 5–20–58. Filed 9–27–57.

665,330. CUB. The Electric Storage Battery Company, assignee of Ray-O-Vac Company. SN 37,976. Pub. 5–20–58. Filed 9–27–57.

665,331. THERMOLYNE. Thermo Electric Manufacturing Co. SN 38,101. Pub. 5–20–58. Filed 9–30–57.

665,332. COUNTER-MATE. Wells Manufacturing Co. SN 38,106. Pub. 5–20–58. Filed 9–30–57.

665,333. "WHITECAP." Aerovox Corporation. SN 38,321. Pub. 5–20–58. Filed 10–4–57.

665,334. 3V. General Bronze Corporation. SN 38,533. Pub. 5–20–58. Filed 10–8–57.

665,335. PARAFLO. Day-Brite Lighting, Inc. SN 38,596. Pub. 5–20–58. Filed 10–9–57.

665,336. LEGSTAT. Walter G. Legge Company, Inc. SN 38,618. Pub. 5–20–58. Filed 10–9–57.

665,337. CADENZA. Simon Sound Service Limited. SN 38,640. Pub. 5–20–58. Filed 10–9–57.

665,338. EXCEL. Excel Trading Corporation. SN 38,678. Pub. 5–20–58. Filed 10–10–57.

665,339. SAFETRONIC. Fox Products Company. SN 38,680. Pub. 5–20–58. Filed 10–10–57.

665,340. AUTO-LITE. The Electric Auto-Lite Company. SN 38,740. Pub. 5–20–58. Filed 10–11–57.

665,341. BLENDAL. Harry A. Dewenter. SN 39,026. Pub. 5–20–58. Filed 10–4–57.

Class 22—Games, Toys, and Sporting Goods

665,342. RAINBOW AND DESIGN. Donald F. Duncan, Incorporated. SN 9,450. Pub. 5–20–58. Filed 6–1–56.

665,343. PHOENIX HARBURG AND DESIGN. Phoenix Gummiwerke Aktiengesellschaft. SN 34,004. Pub. 5–20–58. Filed 7–18–57.

665,344. BUDDY L. Moline Pressed Steel Corporation. SN 37,585. Pub. 5–20–58. Filed 9–20–57.

665,345. SPUTNIK. Herbert A. Stuart, d. b. a. Al's Goldfish Lure Co. SN 39,557. Pub. 5–20–58. Filed 10–25–57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

665,346. THORSEN ETC. AND DESIGN. Thorsen Manufacturing Company. SN 24,214. Pub. 5–20–58. Filed 2–11–57.

665,347. TRUCLOADER. Clark Equipment Company. SN 27,088. Pub. 5–20–58. Filed 3–28–57.

665,348. MICROLYZED AND DESIGN. John W. Bolton & Sons, Inc. SN 27,486. Pub. 5–20–58. Filed 4–4–57.

665,349. MORHAUL. Moore-Handley Hardware Co., Inc., d. b. a. Moore-Handley. SN 31,133. Pub. 5–20–58. Filed 5–31–57.

665,350. LITHOSET. Ormig Organisationsmittel G. m. b. H. SN 31,142. Pub. 5–20–58. Filed 5–31–57.

665,351. FEINPRUF AND DESIGN. Feinprüf, Feinmess- und Prüfgeräte Gesellschaft mit beschränkter Haftung. SN 32,481. Pub. 5–20–58. Filed 6–24–57.

665,352. P AND DESIGN. Powdercraft Corporation. SN 32,628. Pub. 5–20–58. Filed 6–25–57.

665,353. VITS. Vits Elektro G. m. b. H. SN 33,104. Pub. 5–20–58. Filed 7–2–57.

665,354. CURVIT. Kilham Engineering, Inc. SN 33,249. Pub. 5–20–58. Filed 7–5–57.

665,355. TRI-TEMP. Velvet Soft, Inc. SN 37,697. Pub. 5–20–58. Filed 9–23–57.

665,356. BRILL RE-BILT. Brill Equipment Company. SN 38,013. Pub. 5–20–58. Filed 9–30–57.

665,357. ZIP-SPAT. Jack W. Steindorf. SN 38,306. Pub. 5–20–58. Filed 10–3–57.

665,358. PRECIFILM. Herminghausen-Werke G. m. b. H. SN 39,226. Pub. 5–20–58. Filed 10–21–57.

665,359. HASTY-TASTY. Popeil Bros., Inc. SN 39,493. Pub. 5–20–58. Filed 10–24–57.

665,360. ROTA-MULCH. Phil E. Davis, d. b. a. Phil Davis Rota-Mulch. SN 39,600. Pub. 5–20–58. Filed 10–28–57.

665,361. JAK-ET-PAK. Continental Can Company, Inc. SN 39,785. Pub. 5–20–58. Filed 10–30–57.

665,362. KROM-I-DEE. United States Steel Corporation. SN 41,335. Pub. 5–20–58. Filed 11–25–57.

665,363. "BOX TOPPER." Clauss Cutlery Company. SN 41,620. Pub. 5-20-58. Filed 12-2-57.

665,364. TOT. Swingline, Inc. SN 42,740. Pub. 5-20-58. Filed 12-19-57.

665,365. PINCOR. Pioneer Gen-E-Motor Corporation. SN 43,110. Pub. 5-20-58. Filed 12-27-57.

665,366. TIPY-TASTER. Albert Bloom. SN 43,295. Pub. 5-20-58. Filed 1-2-58.

665,367. DUO-FAST. Fastener Corporation. SN 43,306. Pub. 5-20-58. Filed 1-2-58.

665,368. VAPOR AND DESIGN. Vapor Heating Corporation. SN 43,410. Pub. 5-20-58. Filed 1-3-58.

Class 26 — Measuring and Scientific Appliances

665,369. OPTICASE AND DESIGN. The Opticase Company. SN 26,555. Pub. 5-20-58. Filed 3-20-57.

665,370. B-TROL. Robertshaw-Fulton Controls Company. SN 35 681. Pub. 5-20-58. Filed 8-16-57.

Class 28 — Jewelry and Precious-Metal Ware

665,371. JULIANA. Wallace Silversmiths, Inc. SN 30,266. Pub. 5-20-58. Filed 5-17-57.

665,372. MINUET. The International Silver Company. SN 36,376. Pub. 5-20-58. Filed 8-28-57.

665,373. TPS. Wallace Silversmiths, Inc. SN 37,320. Pub. 5-20-58. Filed 9-16-57.

665,374. TRAVELOGUE. Coro, Inc. SN 37,780. Pub. 5-20-58. Filed 9-25-57.

Class 29 — Brooms, Brushes, and Dusters

665,375. PEERLESS AND DESIGN. The Peerless Manufacturing Company. SN 39,340. Pub. 5-20-58. Filed 10-22-57.

Class 31 — Filters and Refrigerators

665,376. FSP. Whirlpool Corporation. SN 30,701. Pub. 5-20-58. Filed 5-24-57.

665,377. MODERN MAID. Modern Maid Associates, Inc. SN 38,223. Pub. 5-20-58. Filed 10-2-57.

665,378. TOSHIBA. Tokyo Shibaura Electric Company Limited. SN 41 858. Pub. 5-20-58. Filed 12-5-57.

Class 32 — Furniture and Upholstery

665,379. KARPEN KONVERTABLE AND DESIGN. Schnadig Corporation, by merger from International Furniture Company. SN 658,116. Pub. 5-20-58. Filed 12-17-53.

665,380. KARPEN-CHAIRE. Schnadig Corporation, assignee of S. Karpen & Bros. Incorporated. SN 682,153. Pub. 5-20-58. Filed 2-23-55.

665,381. WILLIAM FETNER, INC. AND DESIGN. William Fetner, Inc. SN 33,808. Pub. 5-20-58. Filed 7-16-57.

665,382. ROSEART. Philip M. Rose. SN 35,390. Pub. 5-20-58. Filed 8-12-57.

665,383. RELAX-A-BED. Relax-A-Bed Corporation. SN 41,671. Pub. 5-20-58. Filed 12-2-57.

665,384. STUDIO 37 KENMORE PRODUCTS AND DESIGN. Kenmore Products Corp. SN 42,031. Pub. 5-20-58. Filed 12-9-57.

665,385. CONSERV-A-FILE BY SUPREME. Supreme Steel Equipment Corp. SN 42,011. Pub. 5-20-58. Filed 12-17-57.

665,386. S-ARC. The Steadley Company. SN 43,117. Pub. 5-20-58. Filed 12-27-57.

665,387. SPEEDRACK. Storage Products Corporation. SN 45,078. Pub. 5-20-58. Filed 1-31-58.

665,388. RESTLANE. The Spring-Air Company. SN 45,282. Pub. 5-20-58. Filed 2-4-58.

665,389. UNI-MOTION. Pullman Couch Company. SN 45,347. Pub. 5-20-58. Filed 2-5-58.

Class 34 — Heating, Lighting, and Ventilating Apparatus

665,390. FIRE-BALL AND DESIGN. National Heating & Cooling Manufacturing Corporation. SN 28,264. Pub. 5-20-58. Filed 4-16-57.

665,391. HOMERCAMP. The Workman Pillifant Company. SN 29,509. Pub. 5-20-58. Filed 5-6-57.

665,392. AAF. American Air Filter Company, Inc. SN 37 206. Pub. 5-20-58. Filed 9-16-57.

665,393. EXCELSIS AND DESIGN. Progressive Bronze Works, Inc. SN 38,634. Pub. 5-20-58. Filed 10-9-57.

665,394. STRESS-SPUN. American Concrete Corporation. SN 39,690. Pub. 5-20-58. Filed 10-29-57.

Class 35 — Belting, Hose, Machinery Packing, and Nonmetallic Tires

665,395. BOND-SEAL. The Atlas Rubber Products Company. SN 39,575. Pub. 5-20-58. Filed 10-28-57.

Class 36 — Musical Instruments and Supplies

665,396. MASTERSEAL HI FI ETC. AND DESIGN. Remington Records, Inc. SN 26,387. Pub. 5-20-58. Filed 3-18-57.

665,397. JENSEN. Jensen Industries, Inc. SN 37,166. Pub. 5-20-58. Filed 9-13-57.

665,398. SILCLOTH. Jensen Industries, Inc. SN 37,168. Pub. 5-20-58. Filed 9-13-57.

Class 37 — Paper and Stationery

665,399. PUR-REX AND DESIGN. Groveton Papers Co. SN 665,285. Pub. 2-7-56. Filed 4-27-54.

665,400. DOODLEBUG. Cory Corporation. SN 10,214. Pub. 5-20-58. Filed 6-14-56.

665,401. STAR AND DESIGN. The Star Publications, Inc. SN 28,892. Pub. 5-20-58. Filed 4-25-57.

665,402. NATIONWIDE. Nationwide Products Company. SN 33,212. Pub. 5-20-58. Filed 7-5-57.

665,403. ETHAN ALLEN. Joseph Dixon Crucible Company. SN 33,804. Pub. 5-20-58. Filed 7-16-57.

665,404. COSCO. William D. Winders, d. b. a. The Columbus Office Supply Co. SN 35,548. Pub. 5-20-58. Filed 8-14-57.

665,405. GRANITEX. The Sorg Paper Company. SN 35,604. Pub. 5-20-58. Filed 8-15-57.

665,406. COSCOGRAPH. William D. Winders, d. b. a. The Columbus Office Supply Co. SN 35,837. Pub. 5-20-58. Filed 8-19-57.

665,407. GRAND. The Grand Union Company. SN 35,868. Pub. 5-20-58. Filed 8-20-57.

Class 38 — Prints and Publications

665,408. SUPERKLEEN SELLAGRAM. Devoe & Raynolds Company, Inc. SN 29,125. Pub. 5-20-58. Filed 4-15-57.

665,409. ALLEN CREST AC AND DESIGN. Michigan Lithographing Company. SN 29,812. Pub. 5-20-58. Filed 5-10-57.

665,410. FABULOUS FIFTY. Northern Virginia Broadcasters, Inc. SN 30,184. Pub. 5-20-58. Filed 5-16-57.

665,411. FUN 'N' FROLIC. United Printers and Publishers (Incorporated). SN 35,601. Pub. 5-20-58. Filed 8-15-57.

665,412. CONSTRUCTION IN NORTH CAROLINA ETC. Construction Publishing Co., Inc. SN 36,998. Pub. 5-20-58. Filed 9-11-57.

665,413. THEY'LL DO IT EVERY TIME. Hearst Publishing Company, Inc. SN 40,836. Pub. 5-20-58. Filed 11-18-57.

665,414. HOT STUFF AND DESIGN. Illustrated Humor, Inc. SN 40,841. Pub. 5-20-58. Filed 11-18-57.

665,415. MAKING YOUR MONEY GROW. United Newspapers Magazine Corporation. SN 40,975. Pub. 5-20-58. Filed 11-19-57.

665,416. THE EVENING TRIBUNE. Eagle-Tribune Publishing Company. SN 41,083. Pub. 5-20-58. Filed 11-21-57.

Class 39 — Clothing

665,417. BLIZZAND AND DESIGN OF HUMAN FIGURE. Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Société à Responsabilité Limitée. SN 9,115. Pub. 5-20-58. Filed 5-28-56.

665,418. BOTTICELLI. Botticelli, Inc. SN 12,065. Pub. 7-16-57. Filed 7-13-56.

665,419. LA FETE. San Remo Mills, Inc. SN 12,748. Pub. 5-20-58. Filed 7-24-56.

665,420. ZAGRI. Lois H. Zagri. SN 14,114. Pub. 5-20-58. Filed 8-16-56.

665,421. TRADEWINDS. Johnson, Stephens and Shinkle Shoe Company. SN 22,113. Pub. 7-16-57. Filed 1-4-57.

665,422. FAYETTE. Nannette Manufacturing Company, Inc. SN 30,436. Pub. 5-20-58. Filed 5-21-57.

665,423. SOFT-O-HEELS. Jack Meltzer. SN 31,409. Pub. 5-20-58. Filed 6-5-57.

665,424. LITTLE BRANDSONS. J. L. Brandeis & Sons, Inc. SN 33,330. Pub. 5-20-58. Filed 7-2-57.

665,425. CORDE DE PARIE. Cordé de Paris Corset Company, Inc. SN 33,536. Pub. 5-6-58. Filed 7-11-57.

665,426. O'LANNO. Associated Lerner Shops of America, Inc. SN 33,675. Pub. 5-20-58. Filed 7-15-57.

665,427. NOCONA. The Nocona Boot Co., Inc. SN 33,988. Pub. 5-20-58. Filed S. R. 7-18-57. Am. P. R. 3-21-58.

665,428. WIL-KO. W. Kotkes & Son, Inc. SN 34,541. Pub. 5-20-58. Filed 7-29-57.

665,429. ROCKO. Rocky Mountain Textile Mills, Inc. SN 36,624. Pub. 5-20-58. Filed 9-3-57.

665,430. PRIMSTYLE. F. W. Woolworth Co. SN 36,640. Pub. 5-20-58. Filed 9-3-57.

665,431. LANE-FLEX. Lane Bryant, Inc. SN 36,717. Pub. 5-20-58. Filed 9-5-57.

665,432. SALLY V. Sally Victor, Inc. SN 36,758. Pub. 5-20-58. Filed 9-5-57.

665,433. BERTLYN AND DESIGN. Bertlyn Corporation. SN 36,842. Pub. 5-20-58. Filed 9-9-57.

665,434. THE BRIDESMAID. Roscoe E. Winkley. SN 37,117. Pub. 5-20-58. Filed 9-12-57.

665,435. STOCK SHOW. Acme Boot Company, Inc. SN 37,333. Pub. 5-20-58. Filed 9-17-57.

665,436. COURTSHIP. S. S. Kresge Company. SN 37,662. Pub. 5-20-58. Filed 9-23-57.

665,437. MARSHMALLOWS. Tru-Step Hosiery Company. SN 37,985. Pub. 5-20-58. Filed 9-27-57.

665,438. LANGDALE. M. M. Cohn Company. SN 38,432. Pub. 5-20-58. Filed 10-7-57.

665,439. OVERTONE. Maiden Form Brassiere Company, Inc. SN 39,148. Pub. 5-20-58. Filed 10-18-57.

665,440. PLAYAFORE. Levin & Co. Inc. SN 39,234. Pub. 5-20-58. Filed 10-21-57.

Class 40 — Fancy Goods, Furnishings, and Notions

665,441. MISS APLI-PAT AND DESIGN. Appliques Incorporated. SN 16,487. Pub. 5-20-58. Filed 10-31-56.

665,442. LORRAINE WAVE SET. Bolta Comb Company. SN 38,291. Pub. 5-20-58. Filed 10-3-57.

665,443. LORRAINE PROFESSIONAL. Bolta Comb Company. SN 39,025. Pub. 5-20-58. Filed 10-8-57.

Class 41 — Canes, Parasols, and Umbrellas

665,444. BUTTERFLY. Frankford Umbrella Mfg. Co. SN 34,526. Pub. 5-20-58. Filed 7-29-57.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

665,445. ANDANTE. D. B. Fuller & Co., Inc. SN 19,707. Pub. 6-4-57. Filed 11-23-56.

665,446. BURMISEAL. Burlington Industries, Inc. SN 23,026. Pub. 5-20-58. Filed 1-23-57.

665,447. ANGLONIZED. Anglo Fabrics Company, Inc. SN 28,006. Pub. 5-20-58. Filed 4-12-57.

665,448. STEVENS TWIST TWILL ETC. AND DESIGN. J. P. Stevens & Co., Inc. SN 36,484. Pub. 5-20-58. Filed 8-29-57.

665,449. VANTA AND DESIGN. The Vanta Company, Inc. SN 36,821. Pub. 5-20-58. Filed 9-6-57.

665,450. CLIP-TOP. D. B. Fuller & Co., Inc. SN 38,689. Pub. 5-20-58. Filed 10-10-57.

665,451. SOFT MUSIC. D. B. Fuller & Co., Inc. SN 38,686. Pub. 5-20-58. Filed 10-10-57.

665,452. JOTTO. D. B. Fuller & Co., Inc. SN 38,690. Pub. 5-20-58. Filed 10-10-57.

Class 43 — Thread and Yarn

665,453. DESIGN OF MISCELLANEOUS FIGURE. American Enka Corporation. SN 38,413. Pub. 5-20-58. Filed 10-7-57.

Class 44 — Dental, Medical, and Surgical Appliances

665,454. MAGIC-EAR. The Dahlberg Company. SN 7,575. Pub. 5-20-58. Filed 5-3-56.

665,455. PROTEK-BAK. Protek-Bak Corporation. SN 22,772. Pub. 5-20-58. Filed 1-17-57.

665,456. RELAX-IT. Relax-It Vibrator Company, Incorporated. SN 27,135. Pub. 5-20-58. Filed 3-28-57.

Class 45 — Soft Drinks and Carbonated Waters

665,457. NESTLE'S. The Nestlé Company, Inc. SN 36,526. Pub. 5-20-58. Filed 8-30-57.

Class 46 — Foods and Ingredients of Foods

665,458. CANDY CANE. Joseph Souza. SN 695,453. Pub. 5-20-58. Filed 9-27-55.

665,459. RIVIERA. Reddi-Wip, Inc. SN 14,476. Pub. 5-20-58. Filed 8-23-56.

665,460. PULAKOS 926 AND DESIGN. Pulakos, Incorporated. SN 17,663. Pub. 5-20-58. Filed 10-17-56.

665,461. DEXTRO-MALTO. Mead Johnson & Company. SN 20,948. Pub. 5-20-58. Filed 12-12-56.

665,462. LIPMAN POULTRY AND DESIGN. Lipman Bros., Inc. SN 21,973. Pub. 5-20-58. Filed 12-6-56.

665,463. FRE-ZEG AND DESIGN. David Rasky, d. b. a. Fre-Zeg Corp. SN 22,335. Pub. 5-20-58. Filed 1-9-57.

665,464. CATHERINE CLARK'S ETC. Brownberry Ovens, Inc. SN 26,608. Pub. 5-20-58. Filed 3-21-57.

665,465. LES PRINCES. Société Anonyme des Laiteries de la Vallee de la Vire et du Cotentin Anciens Etablissements H. Claudel. SN 28,891. Pub. 5-20-58. Filed 4-25-57.

665,466. WHY COOK. Your Cupboard. SN 31,061. Pub. 5-20-58. Filed 5-29-57.

665,467. FRESNO BELLA. Leo Marino. SN 31,239. Pub. 5-20-58. Filed 6-3-57.

665,468. PICK 'N' PLEASE. Robert A. Johnston Company. SN 34 538. Pub. 5-20-58. Filed 7-29-57.

665,469. VELTOSE. Penick & Ford, Ltd., Incorporated. SN 34,865. Pub. 5-20-58. Filed 8-2-57.

665,470. VINTNER. Louis Milani Foods, Inc. SN 35,524. Pub. 5-20-58. Filed 8-14-57.

665,471. OLD MILL. Swift & Company. SN 36,754. Pub. 5-20-58. Filed 9-5-57.

665,472. KANDY KART AND DESIGN. E. Rosen Company. SN 37,110. Pub. 5-20-58. Filed 9-12-57.

665,473. AGUILA QUEEN. Norton & McElroy Produce, Inc., d. b. a. Norton & McElroy Produce Co. SN 37,175. Pub. 5-20-58. Filed 9-13-57.

665,474. DESIGN OF ARCHER. Dirigo Sales Corporation. SN 37,239. Pub. 5-20-58. Filed 9-16-57.

665,475. PROTOSOL. Dirigo Sales Corporation. SN 37,240. Pub. 5-20-58. Filed 9-16-57.

665,476. HANS BRINKER. Hans Brinker, Inc. SN 37,778. Pub. 5-20-58. Filed 9-25-57.

665,477. HOLIDAY BRAND. Geo. A. Fox Products Co., Inc. SN 38,602. Pub. 5-20-58. Filed 10-9-57.

665,478. LN AND DESIGN. Lewis Nielsen, d. b. a. Nielsen Packing Co. SN 40,074. Pub. 5-20-58. Filed 11-4-57.

665,479. TWO-TEN. Safeway Stores, Incorporated. SN 40,083. Pub. 5-20-58. Filed 11-4-57.

665,480. CORSAIR. Golden Pick Foods, Inc. SN 40,453. Pub. 5-20-58. Filed 11-12-57.

665,481. SMOKEY DELITE. Marshal Smoked Fish Co. Inc. SN 40,475. Pub. 5-20-58. Filed 11-12-57.

665,482. PLYMOUTH. Piggly Wiggly Corporation. SN 40,604. Pub. 5-20-58. Filed 11-13-57.

665,483. PRIME. General Mills, Inc. SN 40,827. Pub. 5-20-58. Filed 11-18-57.

Class 47 — Wines

665,484. JOHAN VAN RIEBEECK. Distillers Corporation (S. A.) Limited. SN 23,687. Pub. 5-20-58. Filed 2-4-57.

Class 49 — Distilled Alcoholic Liquors

665,485. STAR HILL. Old Samuels Distillery, Inc., d. b. a. Burke Spring Distillery. SN 38,482. Pub. 5-20-58. Filed 10-7-57.

Class 50 — Merchandise Not Otherwise Classified

665,486. POSTERLOID PIN-UPS. Posterloid Corporation. SN 27,363. Pub. 5-20-58. Filed 4-1-57.

665,487. POUR-A-PLANT. Plastic Fashions, Inc. SN 29,656. Pub. 5-20-58. Filed 5-8-57.

665,488. RAIL-O-MATIC. Symington-Wayne Corporation, assignee of The Wayne Pump Company. SN 30,381. Pub. 5-20-58. Filed 5-20-57.

665,489. LUXUTRON. Columbia Plastics Corporation. SN 30,740. Pub. 5-20-58. Filed 5-27-57.

665,490. CR. Continental Can Company, Inc. SN 32,920. Pub. 5-20-58. Filed 7-1-57.

665,491. SATIN STEP. The General Tire & Rubber Company. SN 35,768. Pub. 5-20-58. Filed 8-19-57.

665,492. AMERAP. American Cutting and Binding Company. SN 38,010. Pub. 5-20-58. Filed 9-30-57.

Class 51 — Cosmetics and Toilet Preparations

665,493. PILON AND DESIGN. Esther Irene Pestaner, d. b. a. Pilon Company. SN 16,829. Pub. 5-20-58. Filed 10-2-56.

665,494. CASAQUE. Jean d'Albret, S. A. R. L. SN 23,680. Pub. 5-20-58. Filed 2-4-57.

665 495. OUTLINE. Lehn & Fink Products Corporation. SN 26,710. Pub. 5-20-58. Filed 3-22-57.

665,496. ANGELIQUE. Angelique and Company, Inc. SN 27,560. Pub. 5-20-58. Filed 4-5-57.

665,497. SCENT-SATION. Dixie Sports, Inc. SN 27,570. Pub. 5-20-58. Filed 4-5-57.

665,498. WAG-NOLIA. Dixie Sports, Inc. SN 27,581. Pub. 5-20-58. Filed 4-5-57.

665,499. CLOUDSILK. Richard Hudnut. SN 27,694. Pub. 5-20-58. Filed 4-8-57.

665,500. AQUA-PED. G. H. G. Products, Inc. SN 29,628. Pub. 5-20-58. Filed 5-8-57.

665,501. FRESH. Joseph E. Seagram & Sons, Inc. SN 29,832. Pub. 5-20-58. Filed 5-10-57.

665,502. TOISON. Myrurgia, S. A. SN 33,732. Pub. 5-20-58. Filed 7-15-57.

665,503. MR. FRESH. Joseph E. Seagram & Sons, Inc. SN 33,916. Pub. 5-20-58. Filed 7-17-57.

665,504. PROTOID. Samuel Bonat & Bro. Inc. SN 35,736. Pub. 5-20-58. Filed 8-19-57.

665,505. BINELLA. Ciba Limited. SN 36,566. Pub. 5-20-58. Filed 9-3-57.

665,506. DEEP DEW. The Andrew Jergens Company. SN 37,357. Pub. 5-20-58. Filed 9-17-57.

665,507. MELADIN. Richard Hudnut. SN 38,542. Pub. 5-20-58. Filed 10-8-57.

Class 52 — Detergents and Soaps

665,508. SIDOLIN. Siegel & Co. SN 2,582. Pub. 5-20-58. Filed 2-13-56.

665,509. KALDAR-SEE. Kaldar, Inc. SN 24,356. Pub. 5-20-58. Filed 2-13-57.

665,510. KORK KLEEN. Korkay, Inc. SN 24,358. Pub. 5-20-58. Filed 2-13-57.

665,511. KORK RUB. Korkay, Inc. SN 24,359. Pub. 5-20-58. Filed 2-13-57.

665,512. KORK BUFF. Korkay, Inc. SN 24,361. Pub. 5-20-58. Filed 2-13-57.

665,513. GLASSHEEN. Silicone Industries Inc. SN 31,158. Pub. 5-20-58. Filed 5-31-57.

665,514. LADY LA FRANCE. General Foods Corporation. SN 33,286. Pub. 5-20-58. Filed 7-5-57.

665,515. SANI-KEM. Sanitek Products, Inc. SN 36,536. Pub. 5-20-58. Filed 8-30-57.

665,516. ANGEL CURL. Chesebrough-Pond's Inc. SN 37,416. Pub. 5-20-58. Filed 9-16-57.

665,517. ANGEL WAVE. Chesebrough-Pond's Inc. SN 37,632. Pub. 5-20-58. Filed 9-23-57.

665,518. SANEGG. Dare Products, Incorporated. SN 39,195. Pub. 5-20-58. Filed 10-21-57.

Service Marks

Class 101—Advertising and Business

665,519. NAMES UNLIMITED. Names Unlimited, Inc. SN 7,619. Pub. 5-20-58. Filed 5-3-56.

Class 103—Construction and Repair

665,520. ORKIN AND DESIGN. Orkin Exterminating Company, Inc. SN 31,140. Pub. 5-20-58. Filed 5-31-57.

Class 104—Communication

665,521. SHADRACK SEVEN AND DESIGN. Tri-City Broadcasting Company. SN 31,606. Pub. 5-20-58. Filed 6-7-57.

Class 105—Transportation and Storage

665,522. Z, ZIEMAN'S ETC. AND DESIGN. Zieman Manufacturing Company. SN 23,488. Pub. 5-20-58. Filed 1-29-57.

Class 107—Education and Entertainment

665,523. ECHOES FROM CALVARY. David Karroll Kline. SN 25,544. Pub. 5-20-58. Filed 3-5-57.

665,524. THE ROSES. The Roses. SN 36,625. Pub. 5-20-58. Filed 9-3-57.

Certification Marks

Class A—Goods

665,525. FLORIDA FLOWER ASSN. ETC. AND DESIGN. Florida Flower Association. SN 20,375. Pub. 5-20-58. Filed 12-4-56.

665,526. FEMA ETC. AND DESIGN. Farm Equipment Manufacturers Association. SN 27,290. Pub. 5-20-58. Filed 4-1-57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 6—Chemicals and Chemical Compositions

665,527. Brown & Bigelow, St. Paul, Minn. SN 677,387. Filed P. R. 11-29-54. Am. S. R. 12-12-57.

REDI-FLAME

For Cigarette Lighter Fuel Cartridges Containing Compressed Liquefied Petroleum (Butane).
First use on or about April 1950.

Class 12—Construction Materials

665,528. L. O. F Glass Fibers Company, Toledo, Ohio. SN 10,891. Filed P. R. 6-25-56. Am. S. R. 6-11-58.

NEXT TIME
Replace for the LAST time!

For Reinforced Plastic Sheets for Use in Doors, Windows, Skylights, Partitions, and for Other Glazing Purposes.
First use Mar. 20, 1956.

665,529. Holzmosaik- & Parkett A. G., Basle, Switzerland. SN 11,770. Filed P. R. 7-9-56. Am. S. R. 5-29-58.

ORIGINAL HOLZMOSAIK NOEL

Owner of Swiss Reg. No. 149,151, dated Apr. 18, 1953.
For Wooden Parquet and Mosaic Floor Coverings.
First use Dec. 1, 1954.

665,530. L. O. F Glass Fibers Company, Toledo, Ohio. SN 25,809. Filed P. R. 3-11-57. Am. S. R. 5-11-58.

TILE GUARD

For Porous Weblike Mat Made From Glass Fibers for Covering Pipe Lines, Drainage Tiles, Joints and Fittings To Retard the Passage of Soil Particles While Allowing the Passage of Water Therethrough.
First use Feb. 21, 1957.

Class 18—Medicines and Pharmaceutical Preparations

665,531. James William Clayton, d. b. a. The Clayton Company, Columbus, Ga. SN 41,149. Filed P. R. 11-22-57. Am. S. R. 6-10-58.

CLAYTON

For Medicinal Throat and Mouth Gargle.
First use Oct. 1, 1952.

Class 19—Vehicles

665,532. Rockford Engineered Products Co., Rockford, Ill. SN 22,135. Filed P. R. 1-4-57. Am. S. R. 6-4-58.

Map-visor

For Combination Map Holder and Sun Visor.
First use Dec. 1, 1954.

Class 21—Electrical Apparatus, Machines, and Supplies

665,533. The Thomas & Betts Co., Elizabeth, N. J. SN 35,202. Filed 8-8-57.

COLOR-KEYED

For Electrical Connectors—Namely, Compression Sleeves, Lugs, Taps, and Two-Way Connectors.
First use June 6, 1956.

665,534. Raymond P. Bilger, Langhorne, Pa. SN 41,071. Filed P. R. 11-21-57. Am. S. R. 6-10-58.

TAPEDCODE

For Recorded and Magnetic Sound Reproducing Tapes.
First use Apr. 11, 1956.

Class 24—Laundry Appliances and Machines

665,535. The J. R. Clark Company, Spring Park, Minn. SN 25,317. Filed P. R. 3-1-57. Am. S. R. 6-19-58.

ROLL-OR-TOTE

For Laundry Carts.
First use January 1957.

Class 31—Filters and Refrigerators

665,536. Worthington Corporation, Harrison, N. J. SN 45,712. Filed 2-11-58.

THE SIGN OF VALUE AROUND THE WORLD

For Residential, Commercial, and Industrial Air Conditioning Apparatus and Industrial Refrigeration Apparatus.
First use in June 1952.

Class 32—Furniture and Upholstery

665,537. International Manufacturing Co., Roxbury, Mass. SN 47,584. Filed 3-12-58.

KANT-WAIT

For Portable Chair for Babies and Children.
First use Nov. 14, 1956.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

665,538. Lee Rubber & Tire Corporation, d. b. a. Republic Rubber Division, Youngstown, Ohio. SN 26,039. Filed P. R. 3-13-57. Am. S. R. 5-19-58.



For Gasoline Hose, Distillate Hose, Oil and Grease Hose, Hydraulic Control Hose, High Pressure Air and Water Hose, and Steam Hose Made With Wire and Combinations of Wire and Textiles.
First use Mar. 7, 1957.

Class 37—Paper and Stationery

665,539. Thomson Paper Mills, Inc., New York, N. Y. SN 31,280. Filed P. R. 6-3-57. Am. S. R. 5-21-58.

KINGSTON

For Facial Tissues.
First use Apr. 17, 1957.

Class 38—Prints and Publications

665,540. Glenview Products Inc., Milwaukee, Wis. SN 31,483. Filed P. R. 6-6-57. Am. S. R. 5-26-58.

GRAND VIEW

For Picture Murals.
First use May 20, 1957.

Class 39—Clothing

665,541. The Bamberger-Reinthal Company, Cleveland, Ohio. SN 27,008. Filed P. R. 5-31-57. Am. S. R. 6-9-58.

Ashton

For Men's Sweaters.
First use Feb. 27, 1957.

Class 45—Soft Drinks and Carbonated Waters

665,542. C. O. & W. D. Bethness Co., Chicago, Ill. SN 31,698. Filed P. R. 6-10-57. Am. S. R. 5-12-58.

CARBO SIDRAL

The Spanish word "Sidral," meaning "apple," is disclaimed apart from the mark.
For Carbonated Apple-Flavored Soft Drinks and Concentrates for Use Therein.
First use on or about Nov. 25, 1955.

Class 46—Foods and Ingredients of Foods

665,543. V. F. Garsa, d. b. a. Mexican Products Sales Co. and V. F. Garsa and Sons, Indiana Harbor, Ind. SN 14,204. Filed P. R. 8-22-56. Am. S. R. 5-15-58.



The Spanish words are translated as follows: "El Popular" as "the popular one," "De La Olla" as "from the earthen pot," and "Frijoles" as "pinto beans."

For Mexican Style Canned Beans.

First use in or about July 1953.

665,544. Farmers Cooperative Creamery Co., Ogilvie, Minn. SN 14,635. Filed P. R. 8-27-56. Am. S. R. 8-5-57.

KWIKLAC

For Non-Fat Dry Milk Solids.

First use July 31, 1956.

665,545. Plough, Inc., Memphis, Tenn. SN 17,304. Filed P. R. 10-11-56. Am. S. R. 5-28-58.

Ril-Sweet

For Liquid Saccharin Solution, for Use as a Food Additive.

First use October 1954.

Class 50—Merchandise Not Otherwise Classified

665,546. Ra-Ce Tool & Metal Stamping Co., Inc., Glendale, N. Y. SN 34,304. Filed P. R. 7-24-57. Am. S. R. 6-11-58.

ALL SAFE

For Highway Reflecting Danger Signs.

First use May 13, 1957.

Service Mark

Class 107—Education and Entertainment

665,547. Safe Driving Institute, Providence, R. I. SN 2,723. Filed P. R. 2-15-56. Am. S. R. 1-18-57.



For Instruction and Indoctrination of Others in the Proper Care and Maintenance of Motor Vehicles Whereby To Prepare Them in Turn To Teach Courses Relating to Said Subject.

First use in December 1945.

TRADEMARK REGISTRATIONS RENEWED

121,410. HELMET. Cl. 40. 4-30-18.
121,927. NOPCO. Cl. 15. 6-11-18.
123,293. PETER RABBIT AND DESIGN. Cl. 39. 10-22-18.
123,611. ANACAHUITA. Cl. 18. 11-19-18.
352,077. TRIPLE AAA AND DESIGN. Cl. 45. 11-16-37.
356,219. DAREX. Cl. 26. 4-19-38.
356,636. NORGE. Cl. 30. 5-3-38.
356,743. CALA. Cl. 18. 5-10-38.
356,880. DANSK SMOR AND DESIGN. Cl. 46. 5-17-38.
357,056. GEMLOK. Cl. 28. 5-24-38.
357,134. TURKEY BUILDER. Cl. 46. 5-24-38.
357,137. CHLORANOL. Cl. 18. 5-24-38.
357,176. GROWER'S CHOICE. Cl. 42. 5-24-38.
357,215. TANNETTE AND DESIGN. Cl. 18. 5-24-38.
357,263. UNI FILL AND DESIGN. Cl. 29. 5-31-38.
357,270. TAPETEX. Cl. 21. 5-31-38.
357,385. HEIRLOOM. Cl. 40. 6-7-38.
357,468. GLEN ROW. Cl. 20. 6-7-38.
357,523. BRACE. Cl. 52. 6-7-38.
357,527. GAY-NEE. Cl. 20. 6-7-38.
357,627. CELANNOVA. Cl. 42. 6-7-38.
357,840. THE BUILDING BUG. Cl. 36. 6-14-38.
357,907. WAL-LUX. Cl. 16. 6-21-38.
358,097. NORBAKE. Cl. 33. 6-28-38.
358,167. CIBAGENE. Cl. 6. 6-28-38.
358,168. LYOPRINT. Cl. 6. 6-28-38.
358,169. MELOCOL. Cl. 5. 6-28-38.
358,190. MELOPAL. Cl. 5. 6-28-38.
358,232. COY DESIGN. Cl. 34. 7-5-38.
358,366. MARCRAFT. Cl. 49. 7-12-38.
358,852. MISS VANITY. Cl. 39. 7-26-38.
359,417. BISTSIDE. Cl. 27. 8-16-38.
359,555. CEMENTHIDE. Cl. 16. 8-23-38.
359,657. CARBOSEAL. Cl. 6. 8-30-38.
359,846. JOYCYCLE. Cl. 22. 8-30-38.
359,880. TEN STRIKE. Cl. 9. 8-30-38.
360,101. HOUSE BEAUTIFUL BUILDING MANUAL. Cl. 38. 9-6-38.
360,314. GIMLET. Cl. 49. 9-13-38.
360,377. FINALIST. Cl. 22. 9-13-38.
360,570. TZIGANE. Cl. 51. 9-20-38.
361,149. PROLIFEROL. Cl. 18. 10-11-38.
361,339. BLUE RAY. Cl. 22. 10-11-38.
361,340. GREEN RAY. Cl. 22. 10-11-38.
361,432. SMOOTHY AND DESIGN. Cl. 46. 10-18-38.
361,456. KA'RAJAH. Cl. 39. 10-18-38.
361,494. ROSEWOODFABRIC. Cl. 42. 10-18-38.
361,507. ROSELANE PRINTS. Cl. 42. 10-18-38.
361,533. WOODCUTE. Cl. 37. 10-18-38.
361,695. FOAMY TOP AND DESIGN. Cl. 49. 10-25-38.
361,744. TRELLIS. Cl. 46. 11-1-38.
361,746. DULCE. Cl. 46. 11-1-38.
361,781. GOLDEN BUD. Cl. 46. 11-1-38.
361,937. STAR. Cl. 23. 11-8-38.
361,990. ROSEQUEEN. Cl. 46. 11-8-38.
361,991. OH-KAY AND DESIGN. Cl. 46. 11-8-38.
361,996. TROVADOR. Cl. 46. 11-8-38.

362,011. CERADINE. Cl. 18. 11-8-38.
362,196. CONVERSE COOLETTES ETC. AND DESIGN. Cl. 39. 11-15-38.
362,290. I AND DESIGN. Cl. 28. 11-15-38.
362,330. RACER. Cl. 40. 11-15-38.
362,425. RED HAWK AND DESIGN. Cl. 23. 11-15-38.

TRADEMARK REGISTRATIONS CANCELED

Section 8

87,053. ZENOTA. Cl. 46. 6-25-12.
299,012. OLYMPIC STARS. Cl. 46. 11-15-32.
426,395. BLUE SHAWL. Cl. 46. 12-24-46.
521,560. CASCADE. Cl. 21. 3-28-50.
526,717. CALVERT. Cl. 5. 6-20-50.

The following registrations issued June 17, 1958

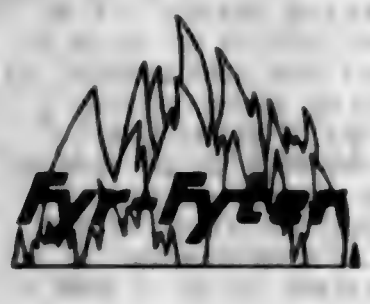
560,037. MADEMOISELLE JULIETTE. Cl. 39.
560 047. CONCORDIA. Cl. 42.
560,055. BRITISH OAK. Cl. 32.
560,067. PREVUE MOVIE BUTTONS. Cl. 40.
560,068. LIP SERVICE. Cl. 37.
560,073. GLACIER. Cl. 46.
560,075. REWBON. Cl. 16.
560,077. TELE-TEMPLATE. Cl. 26.
560,082. FRUMIX. Cl. 46.
560,089. BAY VIEW. Cl. 46.
560,094. MULE TRAIN. Cl. 18.
560,096. JUSTOWRITER. Cl. 37.
560,100. REF-O-LOG. Cl. 37.
560,101. REPRESENTATION OF A WOMAN. Cl. 40.
560,106. TOP-SAUL RAINWEAR. Cl. 39.
560,107. MERIT BRAND AND ENTIRE DESIGN. Cl. 37.
560,108. 4 INL. Cl. 18.
560,109. SYLVANIA ENAMEL. Cl. 37.
560,113. KIT-O-KOUNTER. Cl. 37.
560,114. LO-ROD MAGIC TOUCH. Cl. 18.
560,116. BUST-O. Cl. 22.
560,118. STRAWBERRY. Cl. 46.
560,120. HOMOTEX. Cl. 39.
560,131. SCHWARN'S. Cl. 46.
560,134. PICCOLO. Cl. 40.
560,145. GARTER GUARD. Cl. 39.
560,146. PNEUMATRAN. Cl. 26.
560,150. WHITTALL HOLIDAY. Cl. 42.
560,152. WHITTALL GRANDELLE. Cl. 42.
560,154. NICE'N-DRY. Cl. 39.
560,155. FERT-L-ETTS. Cl. 10.
560,157. WESTLAND. Cl. 37.
560,159. CRAYOLA AND DESIGN. Cl. 37.
560,160. PERMA AND DESIGN. Cl. 37.
560,162. GARDNER BOARD AND CARTON ETC. AND DESIGN. Cl. 37.
560,163. JIMMY GREEN. Cl. 22.
560,165. PERMA-SEAM. Cl. 40.
560,180. TACCO. Cl. 40.
560,181. RADIOMOSER. Cl. 21.
560,189. BACTERIOSEPTIC. Cl. 39.
560,191. NEPTUNE. Cl. 40.
560,194. NEONITE. Cl. 40.
560,195. L-Y-L. Cl. 46.
560,196. PENRON. Cl. 32.
560,206. HAIR-TRIX. Cl. 40.
560,209. GLEAM. Cl. 37.
560,210. CURVES. Cl. 39.
560,215. BOW XX AND DESIGN. Cl. 14.
560,219. "FLIRTIE." Cl. 39.
560,220. APOLLO. Cl. 40.
560,224. TISCO. Cl. 37.
560 227. SUBURBAN. Cl. 23.
560,228. SINBAD. Cl. 46.
560,232. DUROTYPE. Cl. 37.
560,236. CARROLL HOUSE. Cl. 42.
560,237. GAYFLEX. Cl. 39.
560,242. TEMPO. Cl. 22.
560,244. FANCIFUL FIGURE DESIGN. Cl. 23.
560,246. MIRSEC. Cl. 42.
560,247. MITAFFA. Cl. 42.
560,249. OREGON WORSTED CO. AND DESIGN. Cl. 42.
560,253. KINDER KRAFT SCHOOL. Cl. 107.
560,254. RED HOUSE. Cl. 103.
560,255. FATTIES ANONYMOUS. Cl. 107.
560,259. FATTIES ANONYMOUS F. A. I WON AND DESIGN. Cl. 107.
560,260. DESIGN OF BOXING GLOVES AND SCALES. Cl. 107.
560,267. FISHER'S. Cl. 46.
560,268. PLYSHEL. Cl. 2.
560,269. REDI-RICE. Cl. 46.
560,270. PARIS. Cl. 46.
560,276. McVITIE & PRICE. Cl. 46.
560,281. WASHINGTON FARMS AND DESIGN. Cl. 46.
560,288. HELBROS FASHION AWARD. Cl. 27.
560,285. LEVL-TRAC. Cl. 26.
560,289. EASY-ON. Cl. 44.
560,292. DRIVE-ON AND DESIGN. Cl. 19.
560,296. LAMPREY. Cl. 22.
560,297. BEAUTY BARROW. Cl. 19.
560,301. DI-FRAM-FILL. Cl. 18.
560,302. FEATHERLITE. Cl. 21.
560,304. LEVY'S OVEN KRUST. Cl. 46.
560,305. SOFTERIZED. Cl. 37.
560,307. COASTERETTE. Cl. 2.
560,308. EVER-SHAPE. Cl. 42.
560,315. TWIRLER. Cl. 22.
560,317. SUREOUT AND DESIGN. Cl. 23.
560,318. KRIBTOG. Cl. 39.
560,320. LA MEXICANA. Cl. 46.
560,322. COOL TEMP AND DESIGN. Cl. 12.

Vacation of Order of Cancelation

The order of cancelation dated November 5, 1957, canceling Registration No. 549,419, appearing in OFFICIAL GAZETTE of December 3, 1957, page TM 36, was inadvertently entered and has been vacated.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

111,826. FYR FYTER AND DESIGN. Cl. 23. 8-8-16. Roscoe C. Iddings. The Fyr-Fyter Company, Dayton, Ohio. Amended to appear:



358,327. THE VARSITONIAN AND DESIGN. Cl. 39. 7-5-38. Jordan Marsh Company, Boston, Mass. Amended to appear:

VARSITONIAN

362,571. IMCO MANGA. Cl. 23. 11-22-38. Iowa Manufacturing Company of Cedar Rapids, Iowa, Cedar Rapids, Iowa. Corrected: In the heading, signature, certificate lines 2 and 16, and statement column 1, line 1, after "Company" *of Cedar Rapids, Iowa* should be inserted.

354,929. STERLING AND DESIGN. Cl. 48. 5-5-48. Sterling Brewers, Inc., Evansville, Ind. Amended to appear:



505,582. NUTONE AND DESIGN. Cl. 21. 1-11-49. Nutone, Incorporated, Chicago, Ill. Corrected: In the statement, column 1, line 2, "Illinois" should be deleted and *New York* should be inserted.

515,545. K KIDDE AND DESIGN. Cls. 2, 6, 21, 23, and 26. 9-27-49. Walter Kidde & Company, Inc., Belleville, N. J. Amended: In the statement, page 2, column 1, lines 3 through 8, "; apparatus for use on textile machinery for controlling the tension and density of yarn as wound on a package; and machines for impregnating and bonding fibrous yarns" is deleted.

515,546. KIDDE. Cls. 2, 6, 21, 23, and 26. 9-27-49. Walter Kidde & Company, Inc., Belleville, N. J. Amended: In the statement, column 2, lines 39 through 42, and column 3, lines 1 and 2, "; apparatus for use on textile machinery for controlling the tension and density of yarn as wound on a package; and machines for impregnating and bonding fibrous yarns" is deleted.

565,542. DE SOTO STYLE-KOTE AND DESIGN. Cl. 16. 10-21-52. De Soto Paint & Varnish Co. United Wallpaper Inc., Chicago, Ill. Amended: In the statement, column 2, lines 15 through 18 are deleted, and the drawing is amended to appear:

STYLE-KOTE

566,856. DE SOTO OLD MASTER AND DESIGN. Cl. 16. 11-18-52. De Soto Paint & Varnish Co. United Wallpaper Inc., Chicago, Ill. Amended: In the statement, column 2, lines 15 through 18 are deleted, and the drawing is amended to appear:

OLD MASTER

567,997. REPRESENTATION OF A SOCK. Cl. 39. 12-16-52. Interwoven Stocking Company, New Brunswick, N. J. Amended: In the statement, column 1, line 14 "comprising" through line 17 "tion" are deleted; column 2, lines 3 through 7 are deleted and *The trademark consists of the upper portion of the toe of the sock colored green* is inserted.

574,501. CHEMCO AND DESIGN. Cl. 26. 5-19-53. Chemco Photoproducts Company, Inc., Glen Cove, N. Y. Corrected: In column 1, line 14, "Ross" should be deleted and *Roll* should be inserted and in column 2, line 40, "342,510" should be deleted and *353,510* should be inserted.

641,771. JOHNNY REB AND BILLY YANK. Cl. 38. 2-19-57. New York Herald Tribune Inc., New York, N. Y. Amended to appear:

JOHNNY REB

642,196. WEATHER-KING. Cl. 12. 3-5-57. Barber-Colman Company, Rockford, Ill. Amended: In column 2, line 1, after "doors" *of the upwardly acting overhead type* is inserted.

661,194. BEAN-N-BUTTER. Cl. 46. 4-29-58. Francis V. Hoffman and Cosmas J. Hoffman, doing business as Bean-N-Butter Co., Madison, Wis. Corrected: In column 1, line 2, "Nut" should be deleted and *N* should be inserted.

661,628. GENERAL AND DESIGN. Cl. 23. 5-13-58. General Corrugated Machinery Company, Palisades Park, N. J. Corrected: In column 1, line 4, after "Palisades" *Park* should be inserted.

662,125. SILIFILM. Cl. 16. 5-27-58. Societe Anonyme Dite: Etablissements L. Van Malderen, Paris, France. Corrected: In column 2, lines 1 and 2, "Protective and decorative coatings" should be canceled and *Powders, liquids, products for building work and especially a flat-oil paint, washable, fireproof, waterproof, with great covering power, emulsifiable with water, for the interiors and exteriors of buildings and applicable on all materials having a lime reaction* should be inserted.

662,292. SCRUB PUP. Cl. 42. 5-27-58. Homefield Associates, Inc., Chicago, Ill. Corrected: In column 1, line 1, "Associated" should be deleted and *Associates* should be inserted.

662,420. SUPER 9. Cl. 7. 6-3-58. Sperry Rand Corporation, New Holland, Pa. Corrected: In column 2, line 1, "Butler" should be canceled and *Bater* should be inserted.

662,752. REX. Cl. 6. 6-10-58. Rex Research Corporation, Toledo, Ohio. Corrected: In the heading the filing date "1958" should be deleted and *1957* should be inserted.

663,014. SHELL PEBLUM. Cl. 15. 6-17-58. Shell Oil Company, New York, N. Y. Amended: In column 2, line 1, "oil" is deleted and *oils for industrial plant purposes* is inserted.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

353,754. FAMILEX. Cl. 46. Romeo Parent, doing business as Familex Products Company. 1-18-38. New Cert. Sec. 7(c), to Produits Familex Products Ltd., Montreal, Quebec, Canada, 8-5-58.

360,443. FAMILEX. Cl. 6. Romeo Parent, doing business as Familex Products Company. 9-20-38. New Cert. Sec. 7(c), to Produits Familex Products Ltd., Montreal, Quebec, Canada, 8-5-58.

415,391. REPRESENTATION OF A SHOEMAKER. Cl. 39. The Yankee Shoemakers, Inc. 8-7-45. New Cert. Sec. 7(c), to Sam Smith Shoe Corporation, Newmarket, N. H., 8-5-58.

422,063. YANKEE DEB. Cl. 39. Yankee Shoemakers, Inc. 7-2-46. New Cert. Sec. 7(c), to Sam Smith Shoe Corporation, Newmarket, N. H., 8-5-58.

438,409. LITTLE YANKEE AND DESIGN. Cl. 39. Yankee Shoemakers, Inc. 4-30-48. New Cert. Sec. 7(c), to Sam Smith Shoe Corporation, Newmarket, N. H., 8-5-58.

571,131. GOODNESS-YES! Cl. 46. Eddy Bakeries, Inc. 2-24-53. New Cert. Sec. 7(c), to Eddy Bakeries Company, Inc., Helena, Mont., 8-5-58.

627,464. EDDY'S BREAD AND DESIGN. Cl. 46. Eddy Bakeries, Inc. 5-22-56. New Cert. Sec. 7(c), to Eddy Bakeries Company, Inc., Helena, Mont., 8-5-58.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 1—Raw or Partly Prepared Materials

353,207. Nov. 22, 1937. The Georgia Granite Corporation, Elberton, Ga. Pub. by Coggins Granite and Marble Industries, Inc., Elberton, Ga.

STONE ETERNAL

For Granite—Namely, Blue Granite, Gray Granite, Monumental Stone, Granite Quarried in the Rough, Sawed Granite, and Partly Finished Granite.

424,348. Oct. 1, 1946. Monsanto Chemical Company, St. Louis, Mo. Pub. by registrant.

VYRAM

For Synthetic Resins for General Use in the Industrial Arts, Including Molding, Casting, Surface Coating, and Impregnation.

440,809. Sept. 28, 1946. Monsanto Chemical Company, St. Louis, Mo. Pub. by registrant.

LUSTREX

For Synthetic Resins of a Polystyrene Base in Solid Form for Use in Molding, Casting or Extruding a Wide Variety of Rigid Articles of Manufacture Including Industrial and Household Goods Such as Implement Parts, Structural Parts, Containers, Costume Jewelry, Utensils, Tools, Tableware, Kitchen Accessories, Bathroom Accessories, Toys, Notions, Structural, Decorative and Utility Architectural Parts and Panels, and Furniture.

Class 2—Receptacles

49,079. Jan. 23, 1906. National Casket Co., Allegheny, Pa. Pub. by National Casket Company, Incorporated, Boston, Mass.

NACASCO

For Burial Caskets and Casket Attachments.

49,441. Feb. 6, 1906. National Casket Co., New York, N. Y. Pub. by National Casket Company, Incorporated, Boston, Mass.

NATIONAL

For Burial Caskets and Coffins.

TM 38

Class 4—Abrasives and Polishing Materials

410,951. Dec. 26, 1944. Glynn Holbrook, d. b. a. Berry Chemical & Manufacturing Co., Chicago, Ill. Pub. by Irving Tugend, Chicago, Ill.

Skimzol

For Cleaning Compound for Cleaning Woodwork, Painted and Enameled Surfaces, and Fabrics.

Class 9—Explosives, Firearms, Equipments, and Projectiles

121,175. Apr. 16, 1918. E. I. du Pont de Nemours & Company, Wilmington, Del. Pub. by registrant.



For Dynamite.

Class 12—Construction Materials

140,227. Mar. 8, 1921. The Texas Company (Texas corporation), Houston, Tex. Pub. by The Texas Company (Delaware corporation), New York, N. Y.



For Solid, Semi-Solid, and Liquid Asphalt, Paving Cement, Tank Bottom Cement, and Impregnating Compound.

231,433. Aug. 16, 1927. The Sparta Ceramic Company, East Sparta, Ohio. Pub. by registrant.

SPARTAN

For Tiles.

416,423. Sept. 11, 1945. L. Sonneborn Sons, Inc., New York, N. Y. Pub. by registrant.

TRIMIX

For Liquid Preparation To Be Incorporated With or Applied to Cement and Concrete for the Purpose of Controlling and Accelerating Its Setting, Increasing Its Hardness, Tensile Strength and Durability, Rendering the Resulting Product Impervious to Water and Preventing Its Freezing During Winter Construction.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

184,278. May 20, 1924. The Babcock & Wilcox Tube Co., Beaver Falls, Pa. Pub. by The Babcock & Wilcox Company, New York, N. Y.



For Steel Tubes.

353,791. Jan. 18, 1938. Fisher Scientific Company, Pittsburgh, Pa. Pub. by registrant.



For Rubber and Metal Antisplash Filter Attachment.

Class 14—Metals and Metal Castings and Forgings

15,225. Feb. 21, 1888. The Phosphor Bronze Smelting Company, (Limited), Philadelphia, Pa. Pub. by The Seymour Manufacturing Co., Seymour, Conn.

"PHOSPHOR BRONZE."

For Metallic Alloys.

15,226. Feb. 21, 1888. The Phosphor Bronze Smelting Company, (Limited), Philadelphia, Pa. Pub. by The Seymour Manufacturing Co., Seymour, Conn.

Phosphor Bronze

For Metallic Alloys.

290,924. Jan. 19, 1932. Fuller Lehigh Company, New York, N. Y. Pub. by The Babcock & Wilcox Company, New York, N. Y.

ELVERITE

For Chilled Iron Castings.

397,878. Sept. 29, 1942. Stewart-Warner Corporation, Chicago, Ill. Pub. by registrant.



For Die Castings of Non-Ferrous Metal.

Class 15—Oils and Greases

121,338. Apr. 23, 1918. William C. Robinson & Son, Company, Baltimore, Md. Pub. by registrant.

ROBSOIL

For Quenching-Oil Used in the Treatment of Iron, Steel, and Other Metals.

Class 18—Medicines and Pharmaceutical Preparations

45,682. Aug. 29, 1905. Lambert Pharmacal Co., St. Louis, Mo. Pub. by Warner-Lambert Pharmaceutical Company, Morris Plains, N. J.

LISTERINE

For Antiseptic Medicinal Preparations.

111,892. Aug. 8, 1916. Lambert Pharmacal Company, St. Louis, Mo. Pub. by Warner-Lambert Pharmaceutical Company, Morris Plains, N. J.



For Antiseptic for Medical Use, Personal Hygiene, and Toilet.

356,418. Apr. 26, 1938. Schulte Herbruggen & Co. G. m. b. H., Herdecke-Ruhr, Germany. Pub. by registrant.

„Zirkulin"

For Medicinal Preparation Used in the Treatment of High Blood Pressure To Aid Digestion and as a General Tonic.

Class 21 — Electrical Apparatus, Machines, and Supplies

355,195. Mar. 8, 1938. Paramount Paper Tube Company, Fort Wayne, Ind. Pub. by Paramount Paper Tube Corporation, Fort Wayne, Ind.

PARAMOUNT

For Paper Tubing Used in the Manufacture of Magnet Coils and Other Electrical Apparatus.

407,198. May 23, 1944. Tung-Sol Lamp Works, Inc., Newark, N. J. Pub. by Tung-Sol Electric Inc., Newark, N. J.



For Electronic Tubes, Incandescent Electric Lamps, Electric Headlamps for Automobiles and Electric Flashers.

424,182. Sept. 24, 1940. Breeze Corporations, Inc., Union, N. J. Pub. by registrant.

BREEZE MARK

For Casings for the Electrical Equipment of Motors and Similar Power Apparatus To Prevent Electrical Emanations From Leaving or Outside Electrical Impulses From Affecting Said Equipment, Electrical Connectors, Switches, Junction Boxes, Fuse Boxes, Resistor Boxes, and Terminal Boxes.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

357,692. June 14, 1938. Robins Conveying Belt Company, New York, N. Y. Pub. by Hewitt-Robins Incorporated, New York, N. Y.

GYREX

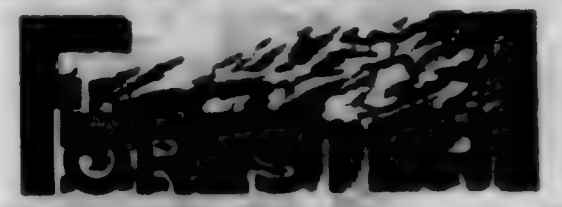
For Vibrated Screen Separating Machines for Loose Materials, Such as Coke, Crushed Stone, Ore, Sand, and Gravel.

357,693. June 14, 1938. Robins Conveying Belt Company, New York, N. Y. Pub. by Hewitt-Robins Incorporated, New York, N. Y.

VIBREX

For Vibrated Screen Separating Machines for Loose Materials, Such as Coke, Crushed Stone, Ore, Sand, and Gravel.

364,351. Jan. 31, 1939. Robert St. J. Orr, d. b. a. California Fire Extinguisher Company, San Francisco, Calif. Pub. by Western Fire Equipment Company, San Francisco, Calif.



For Forest Fire Fighting Equipment Comprising Knapsack Fire Pumps, Fire Hoes, Combination Fire Rake and Hoe, Shovels, and Fire Axes (Not Including Axes for General Use).

Class 26 — Measuring and Scientific Appliances

368,207. June 13, 1939. Stewart-Warner Corporation, Chicago, Ill. Pub. by registrant.

CADET

For Speedometers.

418,904. Jan. 15, 1946. Stewart-Warner Corporation, Chicago, Ill. Pub. by registrant.

ALEMITE

For Electronic Apparatus for Indicating Conditions of Balance or Unbalance in Automotive Wheels and for Indicating Specific Points and Degrees of Such Unbalance Therein.

Class 28 — Jewelry and Precious-Metal Ware

61,366. Mar. 19, 1907. Towle Manufacturing Company, Newburyport, Mass. Pub. by registrant.



For Solid Silver Knives, Forks, and Spoons.

368,796. June 27, 1939. Towle Manufacturing Company, Newburyport, Mass. Pub. by registrant.

OLD LACE

For Silver and Silver Mounted Flatware (Implements With a Handle or Finger Hold for Culinary, Feeding, Serving or Personal Use); and Silver and Silver Mounted Hollow Ware (Vessels, Plates, Platters, Carriers, Covers and Supports for Storing, Holding, or Covering Foods, Liquids, or Commodities).

376,480. Mar. 26, 1940. Towle Manufacturing Company, Newburyport, Mass. Pub. by registrant.

DRURY LANE

For Silver and Silver Mounted Flatware (Implements With a Handle or Finger Hold for Culinary, Feeding, Serving or Personal Use).

388,064. June 10, 1941. Towle Manufacturing Company, Newburyport, Mass. Pub. by registrant.

OLD MIRROR

For Silver and Silver Mounted Flatware (Implements With a Handle or Finger Hold for Culinary, Feeding, Serving or Personal Use); and Silver and Silver Mounted Hollow Ware (Vessels, Plates, Platters, Carriers, Covers and Supports for Storing, Holding, or Covering Foods, Liquids, or Commodities).

Class 31—Filters and Refrigerators

387,173. May 6, 1941. York Ice Machinery Corporation, York, Pa. Pub. by Borg-Warner Corporation, Chicago, Ill.

YORK

For Refrigerating Apparatus and Parts Thereof and Ice-Making Apparatus and Parts Thereof.

Class 32—Furniture and Upholstery

372,091. Nov. 7, 1939. Sealy, Incorporated, Chicago, Ill. Pub. by registrant.

Health-Flex

For Mattresses.

Class 34—Heating, Lighting, and Ventilating Apparatus

89,810. Jan. 14, 1913. The Babcock & Wilcox Company, New York, N. Y. Pub. by registrant.

STIRLING

For Steam-Generating Boilers, Steam Superheaters, Mechanical Stokers, and Parts Thereof.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

120,863. Mar. 12, 1918. The Gutta Percha & Rubber Manufacturing Company, New York, N. Y. Pub. by Hewitt-Robins Incorporated, New York, N. Y.

AJAX

For Belting and Hose Made of Rubber and Fabric.

430,512. July 6, 1948. Industrial Products Suppliers, Englewood, N. J. Pub. by registrant.

ARTUS

For Shim Stock, Gaskets, Non-Metallic Washers, and Shims, Comprising Differently Colored Shims Each Color Indicating a Different Thickness of the Shim.

Class 36—Musical Instruments and Supplies

55,340. Aug. 14, 1906. W. W. Kimball Company, Melrose Park, Ill. Pub. by registrant.

·KIMBALL·

For Organs.

Class 38—Prints and Publications

356,061. Apr. 12, 1938. News Printing Company, Paterson, N. J. Pub. by registrant.

THE PATERSON EVENING NEWS

For Daily Newspaper.

417,730. Nov. 13, 1945. Time, Incorporated, New York, N. Y. Pub. by registrant.

THE FORUM

For Featured Column Appearing in Registrant's Monthly Magazine "Architectural Forum."

Class 39—Clothing

201,216. July 21, 1923. Rosner Manufacturing Company, New York, N. Y. Pub. by Even-Pul Foundations, Inc., New York, N. Y.

EVEN-PUL

For Brassieres and Bandeaux.

357,111. May 24, 1935. Morris Sobelman, d. b. a. Perfect Garment Company, Baltimore, Md. Pub. by registrant.



For Women's, Misses', and Children's Clothing—Namely, One and Two Piece Dresses and Outer Clothing Suits.

411,333. Jan. 16, 1945. Sears, Roebuck and Co., Chicago, Ill. Pub. by registrant.

Action Aires

For Shoes Made of Leather, Fabric, Rubber, and/or Combinations Thereof.

417,700. Nov. 13, 1945. D. Byford & Company Limited, Leicester, England. Pub. by registrant.

BLACKBIRD

For Stockings and Socks.

442,343. Mar. 29, 1949. D. Byford & Company Limited, Leicester, England. Pub. by registrant.

D Byford.

For Stockings and Socks and Three-Quarter Hose.

Class 44 — Dental, Medical, and Surgical Appliances

356,583. May 3, 1938. T. J. Smith & Nephew, Limited, Hull, England. Pub. by registrant.

TENSOCREPE

For Crepe Medical and Surgical Bandages and Crepe Surgical Dressings, Non-Medicated.

Class 46 — Foods and Ingredients of Foods

181,360. Mar. 25, 1924. Bridgetts & Co., New York, N. Y. Pub. by Maritime Fish Products Co., New York, N. Y.



FOX RIVER BRAND

For Sun-Dried and Salt-Cured Codfish.

225,157. Mar. 15, 1927. Kauai Fruit & Land Co. Ltd., Kalaheo, Kauai, Territory of Hawaii. Pub. by Kauai Pineapple Co. Limited, Lawai, Territory of Hawaii.

HAWAIIAN CROSS

#

For Canned Pineapple.

359,074. Aug. 2, 1938. Paul Hawkins Company, Los Angeles, Calif. Pub. by registrant.

Freshway

For Marmalade Made From Citrus Fruit.

443,878. Apr. 4, 1950. Newark Packing Company, Inc., Newark, N. J. Pub. by registrant.

ASTER

For Salted Nuts, Sugar Toasted Nuts, Shelled Nuts, and Peanut Butter.

444,650. Jan. 22, 1952. Boston Molasses Company, South Boston, Mass. Pub. by registrant.



For Molasses, Honey, and Pancake Syrup.

444,651. Jan. 22, 1952. Boston Molasses Company, South Boston, Mass. Pub. by registrant.



For Molasses, Honey, and Pancake Syrup.

Class 50—Merchandise Not Otherwise Classified

120,884. Mar. 12, 1918. The Gutta Percha & Rubber Manufacturing Company, New York, N. Y. Pub. by Hewitt-Robins Incorporated, New York, N. Y.



For Rubber Goods as Follows, Mats, Matting; Printers' Blankets and Coverings for Cylinders or Rolls, Such as Used in Various Industries; for Instance, on Type-Writers, Wringing-Machines, or Printing Presses and the Like.

352,208. Nov. 23, 1937. The Georgia Granite Corporation, Elberton, Ga. Pub. by Coggins Granite and Marble Industries Inc., Elberton, Ga.

STONE ETERNAL

For Stone Monuments, Stone Memorials, Stone Tablets, and Tombstones.

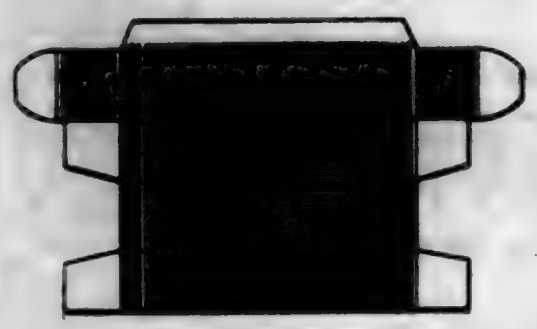
Class 51—Cosmetics and Toilet Preparations

118,052. Aug. 14, 1917. Lambert Pharmacal Company, St. Louis, Mo. Pub. by Warner-Lambert Pharmaceutical Company, Morris Plains, N. J.

LISTERINE

For Tooth Paste.

305,582. June 2, 1942. Lambert Pharmacal Company, Wilmington, Del. Pub. by Warner-Lambert Pharmaceutical Company, Morris Plains, N. J.



For Tooth Paste.

INDEX OF REGISTRANTS

AUGUST 5, 1958

(Registered; Renewed; Canceled; Amended, Disclaimed, Corrected etc.; New Certificates; 12c Publications.)

A. S. R. Products Corp.: *See*—
American Safety Razor Corp.
Acme Boot Co., Inc., Clarksville, Tenn. 665,435, pub. 5–20–58. Cl. 39.
Acushnet Process Co., New Bedford, Mass. 360,377, ren. 9–13–58. Cl. 22.
Acushnet Process Co., New Bedford, Mass. 361,339, ren. 10–11–58. Cl. 22.
Acushnet Process Co., New Bedford, Mass. 361,340, ren. 10–11–58. Cl. 22.
Aeroprojects Inc., West Chester, Pa. 665,326, pub. 5–20–58. Cl. 21.
Aerovox Corp., New Bedford, Mass. 665,333, pub. 5–20–58. Cl. 21.
Airtron, Inc., Linden, N. J. 665,322, pub. 5–20–58. Cl. 21.
Allied Chemical & Dye Corp., New York, N. Y. 665,249, pub. 5–20–58. Cl. 6.
All-State Welding Alloys Co., Inc., White Plains, N. Y. 665,282, pub. 5–20–58. Cl. 14.
Al's Goldfish Lure Co.: *See*—
Stuart, Herbert A.
Amburgo Co. Inc., The, Philadelphia, Pa. 665,293, pub. 5–20–58. Cl. 18.
Amerace Corp.: *See*—
American Hard Rubber Co.
American Air Filter Co., Inc., Louisville, Ky. 665,392, pub. 5–20–58. Cl. 34.
American Colloid Co., Chicago, Ill. 665,220, pub. 5–20–58. Cl. 1.
American Concrete Corp., Chicago, Ill. 665,394, pub. 5–20–58. Cl. 34.
American Crayon Co., The, Sandusky, Ohio. 560,180, canc. Cl. 40.
American Cutting and Binding Co., Chicago, Ill. 665,402, pub. 5–20–58. Cl. 50.
American Enka Corp., Enka, N. C. 665,458, pub. 5–20–58. Cl. 43.
American Fabrics Co., The, Bridgeport, Conn. 560,101, canc. Cl. 40.
American Hard Rubber Co., Hempstead and New York, N. Y., to Amerace Corp., New York, N. Y. 362,330, ren. 11–15–58. Cl. 40.
American Home Products Corp., d. b. a. Wyeth Laboratories, Division of American Home Products Corp., New York, N. Y. 665,300, pub. 5–20–58. Cl. 18.
American Machine and Metals, Inc., New York, N. Y., and Sellersville, Pa. 560,146, canc. Cl. 26.
American-Marietta Co., Chicago, Ill. 665,286, pub. 5–20–58. Cl. 16.
American Safety Razor Corp., Brooklyn, to A. S. R. Products Corp., New York, N. Y. 361,937, ren. 11–8–58. Cl. 28.
American Vermiculite Corp., New York, N. Y. 665,269, pub. 5–20–58. Cl. 12.
Angelique and Co., Inc., Wilton, Conn. 665,496, pub. 5–20–58. Cl. 51.
Anglo Fabrics Co., Inc., New York, N. Y. 665,447, pub. 5–20–58. Cl. 42.
Appliques Inc., Manila, Republic of the Philippines. 665,441, pub. 5–20–58. Cl. 40.
Armour and Co., Chicago, Ill. 665,218, pub. 5–20–58. Cl. 1.
Arms Textile Mfg. Co., Manchester, N. H., and New York, N. Y. 560,308, canc. Cl. 42.
Arno Adhesive Tapes, Inc., Michigan City, Ind. 665,230, pub. 5–20–58. Cl. 5.
Arnold, Ben P., d. b. a. Arnold Leather Products Co. and Arnold Leather Products Co., South Euclid, Ohio. 665,239, pub. 5–29–58. Cl. 6.
Arnold Leather Products Co.: *See*—
Arnold, Ben P.
Arrow Distilleries, Inc., to Arrow Liqueurs Corp., Detroit, Mich. 358,366, ren. 7–12–58. Cl. 49.
Arrow Liqueurs Corp.: *See*—
Arrow Distilleries, Inc.
Associated Lerner Shops of America, Inc., New York, N. Y. 665,426, pub. 5–20–58. Cl. 39.
Atkins & Durbrow, Inc., New York, N. Y. 560,155, canc. Cl. 10.
Atlantic Paper Co., Philadelphia, Pa. 560,109, canc. Cl. 37.
Atlas Canning Co., Inc., to Laddie Boy Dog Foods, Inc., Glendale, N. Y. 361,432, ren. 10–18–58. Cl. 46.
Atlas Canning Co., Inc., New York and Glendale, N. Y., to Laddie Boy Dog Foods, Inc., Glendale, N. Y. 361,991, ren. 11–8–58. Cl. 46.
Atlas Mineral Products Co. of Pennsylvania, The, Mertztown, Pa. 560,075, canc. Cl. 16.
Atlas Powder Co., Wilmington, Del. 665,259, pub. 5–20–58. Cl. 6.
Atlas Rubber Products Co., The, Stamford, Conn. 665,395, pub. 5–20–58. Cl. 35.
Autoteria: *See*—
Lowe, Roy E.
Babbitrite Products Co., Milwaukee, Wis. 665,211, pub. 5–20–58. Cl. 1.
Babcock & Wilcox Co., The: *See*—
Babcock & Wilcox Tube Co., The.
Fuller Lehigh Co.
Babcock & Wilcox Co., The, New York, N. Y. 89,810, 12(c) pub. 8–5–58. Cl. 34.
Babcock & Wilcox Tube Co., The, Beaver Falls, Pa., by The Babcock & Wilcox Co., New York, N. Y. 184,278, 12(c) pub. 8–5–58. Cl. 18.
Bamberger-Reinthal Co., The, Cleveland, Ohio. 665,541. Cl. 39.
Barber-Colman Co., Rockford, Ill. 642,196. Am. 7(d). Cl. 12.
Bean-N-Butter Co.: *See*—
Hoffman, Francis V., and Cosmas J. Hoffman.
Beiersdorf, P., & Co. A. G., Hamburg, Germany. 665,231–4, pub. 5–20–58. Cl. 5.
Berry Chemical & Mfg. Co.: *See*—
Holbrook, Glynn.
Bertlyn Corp., New York, N. Y. 665,433, pub. 5–20–58. Cl. 39.
Biggar & Biggar, Fort Myers, Fla. 426,395, canc. Cl. 46.
Bilger, Raymond P., Langhorne, Pa. 665,534. Cl. 21.
Binney & Smith Co., New York, N. Y. 560,159, canc. Cl. 37.
Binney & Smith Co., New York, N. Y. 560,160, canc. Cl. 37.
Blanchard Bro. & Lane, Inc., Newark, N. J. 664,219, pub. 5–20–58. Cl. 1.
Bloom, Albert, New York, N. Y. 665,366, pub. 5–20–58. Cl. 28.
Blue Anchor Co., Inc.: *See*—
Caracciolo, Louis D.
Bolta Comb Co., New York, N. Y. 665,442–3, pub. 5–20–58. Cl. 40.
Bolton, John W., & Sons, Inc., Lawrence, Mass. 665,348, pub. 5–20–58. Cl. 23.
Bonat, Samuel, & Bro. Inc., West Paterson, N. J. 665,504, pub. 5–20–58. Cl. 51.
Borg-Warner Co., Chicago, Ill. 358,097, ren. 6–28–58. Cl. 33.
Borg-Warner Corp., Chicago, Ill. 356,636, ren. 5–3–58. Cl. 30.
Borg-Warner Corp.: *See*—
York Ice Machinery Corp.
Borne Chemical Co., Inc., by change of name from Borne, Scrymser Co., Elizabeth, N. J. 665,228, pub. 5–20–58. Cl. 6.
Borne, Scrymser Co.: *See*—
Borne Chemical Co., Inc.
Boston Molasses Co., South Boston, Mass. 444,650, 12(c) pub. 8–5–58. Cl. 46.
Boston Molasses Co., South Boston, Mass. 444,651, 12(c) pub. 8–5–58. Cl. 46.
Botticelli, Inc., New York, N. Y. 665,418, pub. 7–16–57. Cl. 39.
Bowen & Co.: *See*—
Bowen, William S.
Bowen, William S., d. b. a. Bowen & Co., Westfield, N. J. 560,195, canc. Cl. 46.
Brandeis, J. L., & Sons, Inc., Omaha, Nebr. 665,424, pub. 5–20–58. Cl. 39.
Breese Corp., Inc., Newark, N. J. 424,182, 12(c) pub. 8–5–58. Cl. 21.
Bridgetts & Co., by Maritime Fish Products Co., New York, N. Y. 181,560, 12(c) pub. 8–5–58. Cl. 46.
Brill Equipment Co., New York, N. Y. 665,356, pub. 5–20–58. Cl. 23.
Brink, Orville P., d. b. a. Price Chemical Co., West Palm Beach, Fla. 665,246, pub. 5–20–58. Cl. 6.
Brinker, Hans, Inc., Rye, N. Y. 665,476, pub. 5–20–58. Cl. 46.
Brown & Bigelow, St. Paul, Minn. 665,527. Cl. 6.
Brownberry Ovens, Inc., Oconomowoc, Wis. 665,464, pub. 5–20–58. Cl. 46.
Brush Development Co., The, Cleveland, Ohio. 560,302, canc. Cl. 21.
Buckingham Mfg. Co., Inc., Binghamton, N. Y. 665,273–4, pub. 5–20–58. Cl. 13.
Burke Spring Distillery: *See*—
Old Samuels Distillery, Inc.
Burlington Industries, Inc., New York, N. Y. 665,446, pub. 5–20–58. Cl. 42.
Burlington Mfg. Co.: *See*—
Selden, Elmer J.
Burlington Mills Corp., Greensboro, N. C. 560,047, canc. Cl. 42.
Burpee, W. Atlee Co., Philadelphia, Pa. 665,212, pub. 5–20–58. Cl. 1.
Byford, D., and Co. Ltd., Leicester, England. 417,700, 12(c) pub. 8–5–58. Cl. 39.
Byford, D., & Co. Ltd., Leicester, England. 442,843, 12(c) pub. 8–5–58. Cl. 39.
California Fire Extinguisher Co.: *See*—
Orr, Robert St. J.
Cal-Mex Corp., Los Angeles, Calif. 560,320, canc. Cl. 46.
Calorie Appliance Corp., Philadelphia, Pa. 665,268, pub. 5–20–58. Cl. 12.
Calorie Appliance Corp., Philadelphia, Pa. 665,285, pub. 5–20–58. Cl. 16.
Canada Cycle & Motor Co., Ltd., Toronto, Canada. 359,846, ren. 8–29–58. Cl. 22.
Caracciolo, Louis D., to Blue Anchor Co., Inc., Blue Anchor, N. J. 560,089, canc. Cl. 46.

Carbide and Carbon Chemicals Corp., to Union Carbide Corp., New York, N. Y. 359,657, ren. 8–30–58. Cl. 6.
Carolina Charcoal & Chemical Co., Asheville, N. C. 665,213, pub. 5–20–58. Cl. 1.
Carroll, P. H., Corning, Calif. 560,315, canc. Cl. 22.
Cascade Television Co., Newark, N. J. 521,560, canc. Cl. 21.
Case History, The, Detroit, Mich. 560,077, canc. Cl. 26.
Castiglione Accordion Co.: *See*—
Castiglione, Vincent.
Celanese Corp. of America, New York, N. Y. 357,627, ren. 6–7–58. Cl. 42.
Celotex Corp., The, Chicago, Ill. 665,265, pub. 5–20–58. Cl. 12.
Chemco Photoproducts Co., Inc., Glen Cove, N. Y. 574,501, cor. Cl. 26.
Chesebrough-Pond's Inc., New York, N. Y. 665,516–17, pub. 5–20–58. Cl. 52.
Chipman Knitting Mills, Easton, Pa. 560,145, canc. Cl. 39.
Ciba Ltd.: *See*—
Society of Chemical Industry in Basle.
Ciba Ltd., Basel, Switzerland. 665,505, pub. 5–20–58. Cl. 51.
Clark Equipment Co., Buchanan, Mich. 665,347, pub. 5–20–58. Cl. 23.
Clark, J. R., Co., The, Spring Park, Minn. 665,535. Cl. 24.
Clauss Cutlery Co., Fremont, Ohio. 665,363, pub. 5–20–58. Cl. 23.
Clayton Co., The: *See*—
Clayton, James W.
Clayton, James W., d. b. a. The Clayton Co., Columbus, Ohio. 665,531. Cl. 18.
Cline Advertising Service: *See*—
Cline, Winfield E.
Cline Advertising Service Inc.: *See*—
Cline, Winfield E.
Cline, Winfield E., d. b. a. Cline Advertising Service, to Cline Advertising Service Inc., Boise, Idaho. 357,340, ren. 6–14–58. Cl. 38.
Conn, Nicholas C., d. b. a. Redi-Rice Co., Houston, Tex. 560,269, canc. Cl. 46.
Columbus Office Supply Co., The: *See*—
Winders, William D.
Coggings Granite and Marble Industries Inc.: *See*—
Georgia Granite Corp., The.
Cohn, Leon: *See*—
Lewis, Paul N.
Cohn, M. M., Co., Little Rock, Ark. 665,438, pub. 5–20–58. Cl. 39.
Cole, R. D., Mfg. Co., Newman, Ga. 665,224, pub. 5–20–58. Cl. 2.
Columbia Plastics Corp., New York, N. Y. 665,469, pub. 5–20–58. Cl. 50.
Commercial Controls Corp., Rochester, N. Y. 560,096, canc. Cl. 37.
Commercial Solvents Corp., New York, N. Y. 665,242, pub. 5–20–58. Cl. 6.
Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Societé à Responsabilité Limitée, Paris, France. 665,417, pub. 5–20–58. Cl. 39.
Consolidated Safety Pin Co., Bloomfield, N. J., to The Risdon Mfg. Co., Naugatuck, Conn. 121,410, ren. 4–30–58. Cl. 40.
Construction Publishing Co., Inc., Roanoke, Va. 665,412, pub. 5–20–58. Cl. 28.
Continental Can Co., Inc., New York, N. Y. 665,222, pub. 5–20–58. Cl. 2.
Continental Oil Co., Ponca City, Okla. 665,241, pub. 5–20–58. Cl. 6.
Continental Can Co., Inc., New York, N. Y. 665,361, pub. 5–20–58. Cl. 23.
Continental Can Co., Inc., New York, N. Y. 665,490, pub. 5–20–58. Cl. 50.
Converse Rubber Co., to Converse Rubber Corp., Malden, Mass. 362,196, ren. 11–15–58. Cl. 39.
Converse Rubber Corp.: *See*—
Converse Rubber Co.
Cool-Temp Awning Co. of Kansas, Inc., Wichita, Kans. 560,322, canc. Cl. 12.
Cornlware Co., Inc., Chicago, Ill. 665,270, pub. 5–29–58. Cl. 13.
Cordé de Parie Corset Co., Inc., New York, N. Y. 665,425, pub. 5–6–58. Cl. 39.
Coro, Inc., New York, N. Y. 665,374, pub. 5–20–58. Cl. 28.
Cory Corp., Chicago, Ill. 665,262, pub. 5–20–58. Cl. 8.
Cory Corp., Chicago, Ill. 665,400, pub. 5–20–58. Cl. 37.
Cromwell Paper Co., The, Chicago, Ill. 665,253, pub. 5–20–58. Cl. 6.
Crown Zellerbach Corp., San Francisco, Calif. 560,157, canc. Cl. 37.
Coynco Products, Inc., Tulsa, Okla. 358,232, ren. 7–5–58. Cl. 34.
Dahlberg Co., The, Minneapolis, Minn. 665,454, pub. 5–20–58. Cl. 44.
d'Albret, Jean, S. A. R. L., Paris, France. 665,494, pub. 5–20–58. Cl. 51.
Dare Products, Inc., Battle Creek, Mich. 665,518, pub. 5–20–58. Cl. 52.
Davis, Phil E., d. b. a. Phil Davis Rota-Mulch, Mesa, Ariz. 665,360, pub. 5–20–58. Cl. 23.
Dawbarn Brothers, Inc., Waynesboro, Va. 665,214, pub. 5–20–58. Cl. 1.
Day-Brite Lighting, Inc., St. Louis, Mo. 665,335, pub. 5–20–58. Cl. 21.
De Soto Paint & Varnish Co. United Wallpaper Inc., Chicago, Ill. 565,542. Am. 7(d). Cl. 16.
De Soto Paint & Varnish Co. United Wallpaper Inc., Chicago, Ill. 566,856. Am. 7(d). Cl. 16.
Devoe & Raynolds Co., Inc., Louisville, Ky. 665,408, pub. 5–20–58. Cl. 38.
Dewenter, Harry A., South Pasadena, Calif. 665,341, pub. 5–20–58. Cl. 21.
Dewey and Almy Chemical Co., to W. R. Grace & Co., Cambridge, Mass. 356,219, ren. 4–19–58. Cl. 26.
Diamond Alkali Co., Cleveland, Ohio. 665,258, pub. 5–20–58. Cl. 6.
Dick, A. B., Co., Niles, Ill. 560,232, canc. Cl. 37.
Di-Fram-Ette Co., Inc.: *See*—
Di-Fram-Ette, Inc.
Di-Fram-Ette, Inc., from M. R. Mayer, d. b. a. Di-Fram-Ette Co., Inc., Denver, Colo. 560,301, canc. Cl. 18.
Dirigo Sales Corp., Boston, Mass. 665,474, pub. 5–20–58. Cl. 46.
Dirigo Sales Corp., Boston, Mass. 665,475, pub. 5–20–58. Cl. 46.
Distillers Corp. (S. A.) Ltd., Stellenbosch, Cape Province, Union of South Africa. 665,484, pub. 5–20–58. Cl. 47.
Dixie Sports, Inc., Miami, Fla. 665,497–8, pub. 5–20–58. Cl. 51.
Dixon, Joseph, Crucible Co., Jersey City, N. J. 665,403, pub. 5–20–58. Cl. 37.
Dow Chemical Co., The, Midland, Mich. 665,244–5, pub. 5–20–58. Cl. 6.
Dow Chemical Co., The, Midland, Mich. 665,256, pub. 5–20–58. Cl. 6.
Dowd, H. J., Co., Inc., Cambridge, Mass. 665,275, pub. 5–20–58. Cl. 13.
Drits-Traum Co., Inc., to Heirloom Needlework Guild, Inc., New York, N. Y. 357,385, ren. 6–7–58. Cl. 40.
Duluth-Superior Milling Co., Duluth, Minn. 87,053, canc. Cl. 46.
Duncan, Donald F., Inc., Chicago, Ill. 665,342, pub. 5–20–58. Cl. 22.
Du Pont, E. I., de Nemours & Co., Wilmington, Del. 121,175, 12(c) pub. 8–5–58. Cl. 9.
Dynam Electrolyte Co., Miami, Fla. 665,240, pub. 5–20–58. Cl. 6.
Eadington Fruit Co., Fullerton, Calif. 361,746, ren. 11–1–58. Cl. 46.
Eagle-Tribune Publishing Co., Lawrence, Mass. 665,416, pub. 5–20–58. Cl. 38.
Eddy Bakeries Co., Inc.: *See*—
Eddy Bakeries, Inc.
Eddy Bakeries, Inc., to Eddy Bakeries Co., Inc., Helena, Mont. 627,464, new cert. Cl. 46.
Eddy Bakeries, Inc., to Eddy Bakeries Co., Inc., Helena, Mont. 571,131, new cert. Cl. 46.
Electric Auto-Lite Co., The, Toledo, Ohio. 665,340, pub. 5–20–58. Cl. 21.
Electric Storage Battery Co., The, Philadelphia, Pa., from Ray-O-Vac Co., Madison, Wis. 665,329–30, pub. 5–20–58. Cl. 21.
Emerick, Lucille, New York, N. Y. 560,244, canc. Cl. 22.
Essencefabriek Alex Groot: *See*—
Groot, Alex.
Even-Pul Foundations, Inc.: *See*—
Rosner Mfg. Co.
Excel Trading Corp., New York, N. Y. 665,338, pub. 5–20–58. Cl. 21.
Familex Products Co.,: *See*—
Romeo Parent.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 665,302, pub. 5–20–58. Cl. 18.
Farm Equipment Manufacturers Association, St. Louis, Mo. 665,526, pub. 5–20–58. Cl. A.
Farmers Cooperative Creamery Co., Ogilvie, Minn. 665,544. Cl. 46.
Fastener Corp., Franklin Park, Ill. 665,367, pub. 5–20–58. Cl. 23.
Fastex, Inc., Cleveland, Ohio. 560,113, canc. Cl. 37.
Fatties Anonymous, Inc., New York, N. Y. 560,258, canc. Cl. 107.
Fatties Anonymous, Inc., New York, N. Y. 560,259, canc. Cl. 107.
Fatties Anonymous, Inc., New York, N. Y. 560,260, canc. Cl. 107.
Fetner, William, Inc., Hamlet, N. C. 665,281, pub. 5–20–58. Cl. 32.
Feinprüf, Feinmess- und Prüfgeräte Gesellschaft Mit Beschränkter Haftung, Gottingen, Germany. 665,351, pub. 5–20–58. Cl. 23.
Fels, Herman, d. b. a. Rumeldine Co., Brooklyn, N. Y. 665,298–9, pub. 5–20–58. Cl. 18.
Fisher, Herman C., Co., San Francisco, Calif. 560,267, canc. Cl. 46.
Fisher Scientific Co., Pittsburgh, Pa. 358,791, 12(c) pub. 8–5–58. Cl. 18.
Florida Flower Association, Bradenton, Fla. 665,525, pub. 5–20–58. Cl. A.
Fox, Geo. A., Products Co., Inc., Kansas City, Mo. 665,477, pub. 5–20–58. Cl. 46.
Fox Products Co., Philadelphia, Pa. 665,272, pub. 5–20–58. Cl. 13.
Fox Products Co., Philadelphia, Pa. 665,339, pub. 5–20–58. Cl. 21.
Frankford Umbrella Mfg. Co., Philadelphia, Pa. 665,444, pub. 5–20–58. Cl. 41.
Fre-Zeg Corp.: *See*—
Rasky, David.
Fuller, D. B., & Co., Inc., New York, N. Y. 665,445, pub. 6–4–57. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 665,450–2, pub. 5–20–58. Cl. 42.
Fuller Lehigh Co., by The Babcock & Wilcox Co., New York, N. Y. 290,924, 12(c) pub. 8–5–58. Cl. 14.
Fyr-Fyter Co., The: *See*—
Iddings, Roscoe C.
G. H. G. Products, Inc., Bristol, Pa. 665,500, pub. 5–20–58. Cl. 51.
Gardner Board and Carton Co., The, Middletown, Ohio. 560,162, canc. Cl. 37.

Garan, V. F., and Sons: *See*—
Garan, V. F.

Garan, V. F., d. b. a. Mexicana Products Sales Co. and V. F. Garan and Sons, Indiana Harbor, Ind. 665,543. Cl. 46.

Gemex Co., Newark, to The Gemex Corp., Union, N. J. 357,050, ren. 5–24–58. Cl. 28.

Gemex Corp., The: *See*—
Gemex Co.

General Corrugated Machinery Co., Palisades Park, N. J. 661,628, cor. Cl. 23.

General Bronze Corp., Garden City, N. Y. 665,334, pub. 5–20–58. Cl. 21.

General Foods Corp., White Plains, N. Y. 665,514, pub. 5–20–58. Cl. 52.

General Mills, Inc., Minneapolis, Minn. 357,134, ren. 5–24–58. Cl. 46.

General Mills, Inc., Minneapolis, Minn. 665,483, pub. 5–20–58. Cl. 46.

General Motors Corp., Detroit, Mich. 665,313, pub. 5–20–58. Cl. 19.

General Products Co.: *See*—
Gorfinkel, Harry J.

General Tire & Rubber Co., The, Akron, Ohio. 665,491, pub. 5–20–58. Cl. 50.

Georgia Granite Corp., The, by Coggins Granite and Marble Industries Inc., Elberton, Ga. 352,208, 12(c) pub. 8–5–58. Cl. 50.

Georgia Granite Corp., The, by Coggins Granite and Marble Industries Inc., Elberton, Ga. 352,207, 12(c) pub. 8–5–58. Cl. 1.

Gilman Brothers Co., The, Gilman, Conn. 665,216, pub. 5–20–58. Cl. 1.

Ginser, Grandell Co., Chicago, Ill. 560,118, canc. Cl. 46.

Glenview Products Inc., Milwaukee, Wis. 665,540. Cl. 38.

Golden Pick Foods, Inc., Los Angeles, Calif. 665,480, pub. 5–20–58. Cl. 46.

Goodman, H., & Sons Inc., Jersey City, N. J., and New York, N. Y. 560,194, canc. Cl. 40.

Global Watch Co., Inc., New York, N. Y. 560,181, canc. Cl. 21.

Goode, Walker W., Humphrey, Nebr. 560,108, canc. Cl. 13.

Gopher State Canneries, Inc., to Green Giant Co., Le Sueur, Minn. 361,744, ren. 11–1–58. Cl. 46.

Gordon's Dry Gin Co. Ltd., Linden, N. J. 360,314, ren. 9–13–58. Cl. 40.

Gorfinkel, Harry J., d. b. a. General Products Co., Montreal, Quebec, Canada. 526,717, canc. Cl. 8.

Grace, W. R., & Co.: *See*—
Dewey and Almy Chemical Co.

Graham Chemical Corp., Springfield Gardens, N. Y. 665,292, pub. 5–20–58. Cl. 18.

Grand Union Co., The, East Paterson, N. J. 665,407, pub. 5–20–58. Cl. 37.

Green Giant Co.: *See*—
Gopher State Canneries, Inc.

Green River Steel Corp., Owensboro, Ky. 665,284, pub. 5–20–58. Cl. 14.

Groot, Alex, d. b. a. Essencefabriek Alex Groot, Rotterdam, Netherlands. 560,082, canc. Cl. 46.

Groveton Papers Co., Groveton, N. H. 665,399, pub. 5–7–58. Cl. 37.

Gruen Industries, Inc.: *See*—
Gruen Watch Co., The.

Gruen Watch Co., The, Cincinnati and Time Hill, Cincinnati, to Gruen Industries, Inc., Cincinnati, Ohio. 359,417, ren. 8–16–58. Cl. 27.

Gutta Percha & Rubber Mfg. Co., The, by Hewitt-Robins Inc., New York, N. Y. 120,863, 12(c) pub. 8–5–58. Cl. 35.

Gutta Percha & Rubber Mfg. Co., The, by Hewitt-Robins Inc., New York, N. Y. 120,864, 12(c) pub. 8–5–58. Cl. 50.

Hairnet Corp. of America, New York, N. Y. 560,208, canc. Cl. 40.

Hamill, Annette C., Bethlehem, Pa. 560,114, canc. Cl. 13.

Harms of California Glove Co.: *See*—
Harms, Richard H.

Harlem-Adler & Co., Inc., New York, N. Y. 560,067, canc. Cl. 40.

Harms, Richard H., d. b. a. Harms of California Glove Co., San Francisco, Calif. 560,219, canc. Cl. 39.

Hawkins, Paul, Co., Los Angeles, Calif. 359,074, 12(c) pub. 8–5–58. Cl. 46.

Hearst Corp., The: *See*—
Hearst Magazines Inc.

Hearst Magazines Inc., to The Hearst Corp., New York, N. Y. 360,101, ren. 9–6–58. Cl. 38.

Hearst Publishing Co., Inc., Wilmington, Del. 665,418, pub. 5–20–58. Cl. 38.

Heckert, F. W., Co., Inc., Dayton, Ohio. 560,285, canc. Cl. 26.

Heirloom Needlework Guild, Inc.: *See*—
Drits-Traum Co., Inc.

Helbros Watch Co., Inc., New York, N. Y. 560,283, canc. Cl. 27.

Hercules Powder Co., Wilmington, Del. 665,264, pub. 5–20–58. Cl. 9.

Herminghausen-Werke G. m. b. H., Hannover-Wolfel, Germany. 665,358, pub. 5–20–58. Cl. 23.

Hewitt-Robins Inc.: *See*—
Gutta Percha & Rubber Mfg. Co., The.
Robins Conveying Belt Co.

Hickey-Freeman Co., Rochester, N. Y. 361,456, ren. 10–18–58. Cl. 39.

Hijos de J. Cano y Compania, Havana, Cuba. 665,290, pub. 5–20–58. Cl. 17.

Hoffman, Cosmas J.: *See*—
Hoffman, Francis V., and Cosmas J. Hoffman.

Hoffman, Francis V., and Cosmas J. Hoffman, d. b. a. Bean-N-Butter Co., Madison, Wis. 661,194, cor. Cl. 46.

Holbrook, Glynn, d. b. a. Berry Chemical & Mfg. Co., by I. Tugend, Chicago, Ill. 410,951, 12(c) pub. 8–5–58. Cl. 4.

Holt, John, & Co., Inc., New York, N. Y. 560,228, canc. Cl. 46.

Holzmosaik- & Parkett A. G., Basel, Switzerland. 665,529. Cl. 12.

Homefield Associates, Inc., Chicago, Ill. 662,292, cor. Cl. 42.

Hooper Paper & Twine Co., Inc., Philadelphia, Pa. 560,107, canc. Cl. 37.

Hotel Research Laboratories: *See*—
St. Laurent, Georges C., and Marian H. St. Laurent.

Hudnut, Richard, Morris Plains, N. J. 665,499, pub. 5–20–58. Cl. 51.

Hudnut, Richard, Morris Plains, N. J. 665,507, pub. 5–20–58. Cl. 51.

Iddings, Roscoe C., The Fyr-Fyter Co., Dayton, Ohio. 111,826, Am. 7(d). Cl. 23.

Illustrated Humor, Inc., New York, N. Y. 665,414, pub. 5–20–58. Cl. 38.

Independent Iron Works, Inc., Oakland, Calif. 665,311, pub. 5–20–58. Cl. 19.

Industri-Aktiebolaget Viking, Orebro, Sweden. 665,227, pub. 5–20–58. Cl. 4.

Industrial Products Suppliers, Englewood, N. J. 439,512, 12(c) pub. 8–5–58. Cl. 35.

Infratrol Oven Corp., Milwaukee, Wis. 665,320, pub. 5–20–58. Cl. 21.

International Furniture Co.: *See*—
Schnadig Corp.

International Mfg. Co., Roxbury, Mass. 665,587. Cl. 32.

International Milling Co.: *See*—
Midland Flour Milling Co., The.

Internationale Verbandstoff-Fabrik Schaffhausen, Schaffhausen, Switzerland. 665,295, pub. 5–20–58. Cl. 18.

International Silver Co., The, Meriden, Conn. 665,372, pub. 5–20–58. Cl. 28.

Interwoven Stocking Co., New Brunswick, N. J. 567,997, Am. 7(d). Cl. 39.

Iowa Mfg. Co. of Cedar Rapids, Iowa, Cedar Rapids, Iowa. 362,371, cor. Cl. 23.

Irons & Russell Co., Providence, R. I. 362,290, ren. 11–15–58. Cl. 28.

Jamestown Lounge Co., Jamestown, N. Y. 560,055, canc. Cl. 32.

Jensen Industries, Inc., Forest Park, Ill. 665,397–8, pub. 5–20–58. Cl. 38.

Jergens, Andrew, Co., The, Cincinnati, Ohio. 665,506, pub. 5–20–58. Cl. 51.

Johnson, Stephens and Shinkle Shoe Co., St. Louis, Mo. 665,421, pub. 7–16–57. Cl. 39.

Johnston, Robert A., Co., Milwaukee, Wis. 665,468, pub. 5–20–58. Cl. 46.

Jones & Laughlin Steel Corp., Pittsburgh, Pa. 665,261, pub. 5–20–58. Cl. 7.

Jordan Marsh Co., Boston, Mass. 358,327. Am. 7(d). Cl. 39.

Juliette Frocks: *See*—
Juliette Frocks, Inc.

Juliette Frocks, Inc., Chicago, Ill., from S. Rothbart, d. b. a. Juliette Frocks. 560,037, canc. Cl. 39.

Kahn, David, Inc., North Bergen, N. J. 665,328, pub. 5–20–58. Cl. 21.

Kajdar, Inc., Gloversville, N. Y. 665,509, pub. 5–20–58. Cl. 52.

Karpen, S., & Bros., Inc.: *See*—
Schnadig Corp.

Kauai Fruit & Land Co. Ltd., Kalaheo, Kauai, by Kauai Pineapple Co. Ltd., Lawai, Territory of Hawaii. 225,157, 12(c) pub. 8–5–58. Cl. 46.

Kauai Pineapple Co. Ltd.: *See*—
Kauai Fruit & Land Co. Ltd.

Keasbey & Mattison Co., Ambler, Pa. 665,327, pub. 5–20–58. Cl. 21.

Kendall Co., The, Boston, Mass. 665,297, pub. 5–20–58. Cl. 18.

Kenmore Products Corp., New York, N. Y. 665,384, pub. 5–20–58. Cl. 32.

Kidde, Walter, & Co., Inc., Belleville, N. J. 515,546. Am. 7(d). (Consolidated certificate, Classes 2, 6, 21, 23, and 26.)

Kilham Engineering, Inc., Plainville, Mass. 665,354, pub. 5–20–58. Cl. 23.

Kimball, W. W., Co., Melrose Park, Ill. 55,340, 12(c) pub. 8–5–58. Cl. 36.

Kinder Kraft: *See*—
Norman, Elsie F.

Kingsboro Mills, Inc., Chattanooga, Tenn. 665,223, pub. 5–20–58. Cl. 2.

Kline, David K., Little Rock, Ark. 665,523, pub. 5–20–58. Cl. 107.

Korkay, Inc., Gloversville, N. Y. 665,510–12, pub. 5–20–58. Cl. 52.

Kothes, W., & Son, Inc., New York, N. Y. 665,428, pub. 5–20–58. Cl. 39.

Kresge, S. S., Co., Detroit, Mich. 665,426, pub. 5–20–58. Cl. 39.

Kylan Corp., Spartanburg, S. C. 665,238, pub. 5–29–58. Cl. 6.

L. O. F. Glass Fibers Co., Toledo, Ohio. 665,528. Cl. 12.

L. O. F. Glass Fibers Co., Toledo, Ohio. 665,530. Cl. 12.

L. Lacroix Fils (London) Ltd., Wembley, England. 560,209, canc. Cl. 37.

La Brea Securities Co., d. b. a. Rosemary Packing Co., Los Angeles and Santa Maria, to Oceano Packing Co., Oceano, Calif. 361,990, ren. 11–8–58. Cl. 46.

Laddie Boy Dog Foods, Inc.: *See*—
Atlas Canning Co., Inc.

Lakeview Mfg. Corp., Milwaukee, Wis. 665,271, pub. 5–20–58. Cl. 18.

Lamar, Maurice H., Stephenville, Tex. 560,100, canc. Cl. 37.

Lambert Pharmacal Co., St. Louis, Mo., by Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 45,682, 12(c) pub. 8–5–58. Cl. 18.

Lambert Pharmacal Co., St. Louis, Mo., by Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 111,893, 12(c) pub. 8–5–58. Cl. 18.
Lambert Pharmacal Co., St. Louis, Mo., by Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 118,052, 12(c) pub. 8–5–58. Cl. 51.
Lambert Pharmacal Co., Wilmington, Del., by Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 395,582, 12(c) pub. 8–5–58. Cl. 51.
Landbrugsministeriet, Copenhagen, Denmark. 356,880, ren. 5–17–58. Cl. 46.
Lane Bryant, Inc., New York, N. Y. 665,431, pub. 5–20–58. Cl. 39.
Lanman & Kemp, New York, N. Y., to Lanman & Kemp-Barclay & Co., Inc., Palisades Park, N. J. 123,611, ren. 11–19–58. Cl. 18.
Lanman & Kemp-Barclay & Co., Inc.: *See*—
Lanman & Kemp.
Larus & Brother Co., Richmond, Va. 665,263, pub. 5–20–58. Cl. 8.
Lee Rubber & Tire Corp., d. b. a. Republic Rubber Division, Youngstown, Ohio. 665,538. Cl. 35.
Legge, Walter G., Co., Inc., New York, N. Y. 665,336, pub. 5–20–58. Cl. 21.
Lehn & Fink Products Corp., Bloomfield, N. J. 665,495, pub. 5–20–58. Cl. 51.
Leroux and Co., Inc., Philadelphia, Pa. 361,695, ren. 10–25–58. Cl. 49.
Levin & Co. Inc., New York, N. Y. 665,440, pub. 5–20–58. Cl. 39.
Levitt, Daniel, New York, N. Y. 560,237, canc. Cl. 39.
Levy, Henry S., & Son, Inc., Brooklyn, N. Y. 560,304, canc. Cl. 46.
Lewis, Paul N., Brooklyn, to L. Cohn, New York, N. Y. 560,068, canc. Cl. 37.
Lewis-Shepard Products, Inc., Watertown, Mass. 665,314, pub. 5–20–58. Cl. 19.
Lional Plastics Corp., New York, N. Y. 560,094, canc. Cl. 13.
Lionel Kent (S. A.) Proprietary Ltd., Benoni, Transvaal, Union of South Africa. 665,294, pub. 5–20–58. Cl. 18.
Lipman Bros., Inc., Augusta, Maine. 665,462, pub. 5–20–58. Cl. 46.
Lowe, Roy E., d. b. a. Autoteria, Detroit, Mich. 665,318, pub. 5–20–58. Cl. 19.
Lynebilt Corp., Norfolk, Va. 665,315, pub. 5–20–58. Cl. 19.
Maiden Form Brassiere Co., Inc., New York, N. Y. 665,439, pub. 5–20–58. Cl. 39.
Makert, John, Chicago, Ill. 560,296, canc. Cl. 22.
Mallory, P. R., & Co. Inc., Indianapolis, Ind. 665,278, pub. 5–20–58. Cl. 14.
Marconi's Wireless Telegraph Co. Ltd., Great Baddow, England. 665,325, pub. 5–20–58. Cl. 21.
Margolin, Max, New York, N. Y. 560,318, canc. Cl. 39.
Marino, Leo, Del Rey, Calif. 665,467, pub. 5–20–58. Cl. 46.
Maritime Fish Products Co.: *See*—
Bridgetts & Co.
Marsh, M., and Son, Wheeling, W. Va. 665,289, pub. 5–20–58. Cl. 17.
Marshal Smoked Fish Co. Inc., Brooklyn, N. Y. 665,481, pub. 5–20–58. Cl. 46.
Masterseal Co., Ventura, Calif. 665,215, pub. 5–20–58. Cl. 1.
Mayer, Marie R.: *See*—
Di-Fram-Ette, Inc.
McKesson & Robbins, Inc., New York, N. Y. 356,743, ren. 5–10–58. Cl. 18.
McKesson & Robbins, Inc., New York, N. Y. 357,523, ren. 6–7–58. Cl. 52.
McVitie & Price Ltd., Edinburgh, Scotland. 560,276, canc. Cl. 46.
Mead Johnson & Co., Evansville, Ind. 665,461, pub. 5–20–58. Cl. 46.
Meltzer, Jack, Hollywood, Calif. 665,423, pub. 5–20–58. Cl. 39.
Mengel Co., The, Louisville, Ky. 560,268, canc. Cl. 2.
Merck & Co., Inc., Rahway, N. J. 357,137, ren. 5–24–58. Cl. 18.
Merzon, Ruth, Fifth Avenue, Inc., New York, N. Y. 560,210, canc. Cl. 39.
Metropolitan Seed Corp., Jersey City, N. J. 665,221, pub. 5–20–58. Cl. 1.
Michigan Lithographing Co., Grand Rapids, Mich. 665,409, pub. 5–20–58. Cl. 38.
Midland Flour Milling Co., The, Kansas City, Mo., to International Milling Co., Minneapolis, Minn. 361,996, ren. 11–8–58. Cl. 46.
Mid-West Tobacco Co., Cincinnati, Ohio. 665,288, pub. 5–20–58. Cl. 17.
Milani, Louis, Foods, Inc., Los Angeles, Calif. 665,470, pub. 5–20–58. Cl. 46.
Miller Dial and Name Plate Co., El Monte, Calif. 665,229, pub. 5–20–58. Cl. 5.
Miller, E. B., Associates, Inc., New York, N. Y. 560,242, canc. Cl. 22.
Miro-Flex Co., Inc., The, Wichita, Kans. 560,317, canc. Cl. 23.
Miron Mills, Inc., Clinton, Mass. 560,246, canc. Cl. 42.
Miron Mills, Inc., Clinton, Mass. 560,247, canc. Cl. 42.
Modern Maid Associates, Inc., Gary, Ind. 665,377, pub. 5–20–58. Cl. 31.
Moline Pressed Steel Corp., East Moline, Ill. 665,344, pub. 5–20–58. Cl. 22.
Monarch Governor Co., Willow Run, Mich. 665,283, pub. 5–20–58. Cl. 14.
Monsanto Chemical Co., St. Louis, Mo. 424,348, 12(c) pub. 8–5–58. Cl. 1.
Monsanto Chemical Co., St. Louis, Mo. 440,809, 12(c) pub. 8–5–58. Cl. 1.
Moore-Handley Hardware Co., Inc., d. b. a. Moore-Handley, Birmingham, Ala. 665,349, pub. 5–20–58. Cl. 23.
Morris, Philip, Inc., New York, N. Y. 665,291, pub. 5–20–58. Cl. 17.
Mueller Furniture Co., Grand Rapids, Mich. 560,227, canc. Cl. 32.
Murphy Products Co., Burlington, Wis. 665,301, pub. 5–20–58. Cl. 18.
Myrurgia, S. A., Barcelona, Spain. 665,502, pub. 5–20–58. Cl. 51.
Names Unlimited, Inc., New York, N. Y. 665,519, pub. 5–20–58. Cl. 101.
Nannette Mfg. Co., Inc., Philadelphia, Pa. 665,422, pub. 5–20–58. Cl. 39.
National Casket Co., Allegheny, Pa., by National Casket Co., Inc., Boston, Mass. 49,079, 12(c) pub. 8–5–58. Cl. 2.
National Casket Co., New York, N. Y., by National Casket Co., Inc., Boston, Mass. 49,441, 12(c) pub. 8–5–58. Cl. 2.
National Casket Co., Inc.: *See*—
National Casket Co.
National Heating & Cooling Mfg. Corp., Columbus, Ohio. 665,390, pub. 5–20–58. Cl. 34.
National Oil Products Co., to Nopco Chemical Co., Harrison, N. J. 121,927, ren. 6–11–58. Cl. 15.
Nationwide Products Co., Brooklyn, N. Y. 665,402, pub. 5–20–58. Cl. 37.
Nestle Co., Inc., The, White Plains, N. Y. 665,457, pub. 5–20–58. Cl. 45.
Newark Packing Co., Inc., Newark, N. J. 443,878, 12(c) pub. 8–5–58. Cl. 46.
News Printing Co., Paterson, N. J. 356,061, 12(c) pub. 8–5–58. Cl. 38.
New York Herald Tribune Inc., New York, N. Y. 641,771, cor. Cl. 38.
Nielsen, Lewis, d. b. a. Nielsen Packing Co., Salinas, Calif. 665,478, pub. 5–20–58. Cl. 46.
Nielsen Packing Co.: *See*—
Nielsen, Lewis.
Nocona Boot Co., Inc., The, Nocona, Tex. 665,427, pub. 5–20–58. Cl. 39.
Nopco Chemical Co.: *See*—
National Oil Products Co.
Norman, Elsie F., d. b. a. Kinder Kraft, Kansas City, Mo. 560,253, canc. Cl. 107.
Northern Virginia Broadcasters, Inc., Arlington, Va. 665,410, pub. 5–20–58. Cl. 38.
Northwest Metal Products, Inc., Seattle, Wash. 560,297, canc. Cl. 19.
Norton & McElroy Produce Co.: *See*—
Norton & McElroy Produce, Inc.
Norton & McElroy Produce, Inc., d. b. a. Norton & McElroy Produce Co., Phoenix, Ariz. 665,473, pub. 5–20–58. Cl. 46.
Nutone, Inc., Chicago, Ill. 505,582, cor. Cl. 21.
Nutt Bros., Los Angeles, Calif. 299,012, canc. Cl. 46.
Oceano Packing Co.: *See*—
La Brea Securities Co.
Old Samuels Distillery, Inc., d. b. a. Burks Spring Distillery, Bardstown, Ky. 665,485, pub. 5–20–58. Cl. 49.
Olson Co. of Sarasota, Inc., Sarasota, Fla. 665,260, pub. 5–20–58. Cl. 7.
Opticase Co., The, Newark, N. J. 665,309, pub. 5–20–58. Cl. 26.
Orchard Paper Co., St. Louis, Mo. 361,533, ren. 10–18–58. Cl. 37.
Oregon Worsted Co., Portland, Oreg. 560,249, canc. Cl. 42.
Orkin Exterminating Co., Inc., Atlanta, Ga. 665,520, pub. 5–20–58. Cl. 103.
Ormig Organisationsmittel G. m. b. H., Berlin-Tempelhof, Germany. 665,350, pub. 5–20–58. Cl. 23.
Orr, Robert St. J., d. b. a. California Fire Extinguisher Co., By Western Fire Equipment Co., San Francisco, Calif. 364,351, 12(c) pub. 8–5–58. Cl. 23.
Packaged Products Corp., New York, N. Y. 560,116, canc. Cl. 22.
Parachutes, Inc., Bedford, N. Y. 665,308, pub. 5–20–58. Cl. 19.
Paramount Paper Tube Co., by Paramount Paper Tube Corp., Fort Wayne, Ind. 355,195, 12(c) pub. 8–5–58. Cl. 21.
Paramount Paper Tube Corp.: *See*—
Paramount Paper Tube Co.
Parfums Corday, Inc., New York, N. Y. 360,570, ren. 9–20–58. Cl. 51.
Paris Gum Corp., of America, The, to The Paris Gum Corp. of America, McAllen, Tex. 560,270, canc. Cl. 46.
Parke, Davis & Co., Detroit, Mich. 665,305–6, pub. 5–20–58. Cl. 18.
Peavey Paper Mills, d. b. a. White Sail Tissue Mills, Ladysmith, Wis. 560,305, canc. Cl. 37.
Peerless Mfg. Co., The, New Durham, N. H. 665,375, pub. 5–20–58. Cl. 29.
Penick & Ford, Ltd., Inc., New York, N. Y. 665,469, pub. 5–20–58. Cl. 46.
Penney, J. C., Co., New York, N. Y. 357,176, ren. 5–24–58. Cl. 42.
Penney, J. C., Co., New York, N. Y. 357,468, ren. 6–7–58. Cl. 39.
Penney, J. C., Co., New York, N. Y. 357,527, ren. 6–7–58. Cl. 39.
Penola Oil Co., New York, N. Y., from Red-E-Gas Co., formerly Red-E-Gas & Equipment Corp., Webster Groves, Mo. 665,235, pub. 2–22–55. Cl. 6.
Penron, Inc., New York, N. Y. 560,196, canc. Cl. 32.
Perfect Garment Co.: *See*—
Sobelman, Morris.
Pestaner, Esther I., d. b. a. Pilon Co., San Francisco, Calif. 665,493, pub. 5–20–58. Cl. 51.
Phelps Terkel, Inc., Los Angeles, Calif. 560,254, canc. Cl. 103.
Phil Davis Rota-Mulch: *See*—
Davis, Phil R.

Phoenix Gummiwerke Aktiengesellschaft, Hamburg-Harburg, Germany. 665,343, pub. 5–20–58. Cl. 22.
Phosphor Bronze Smelting Co. (Ltd.), The, Philadelphia, Pa., by The Seymour Mfg. Co., Seymour, Conn. 15,225, 12(c) pub. 8–5–58. Cl. 14.
Phosphor Bronze Smelting Co. (Ltd.), The, Philadelphia, Pa., by The Seymour Mfg. Co., Seymour, Conn. 15,226, 12(c) pub. 8–5–58. Cl. 14.
Physicians and Hospitals Supply Co., Inc., d. b. a. Ulmer Pharmacal Co., Minneapolis, Minn. 361,140, ren. 10–11–58. Cl. 18.
Physicians and Hospitals Supply Co., Inc., d. b. a. Ulmer Pharmacal Co., Minneapolis, Minn. 362,011, ren. 11–8–58. Cl. 18.
Piggly Wiggly Corp., Jacksonville, Fla. 665,482, pub. 5–20–58. Cl. 46.
Pilon Co.: *See*—
Pestaner, Esther I.
Pioneer Gen-E-Motor Corp., Chicago, Ill. 665,365, pub. 5–20–58. Cl. 23.
Pittsburgh Plate Glass Co.: *See*—
Thresher Varnish Co.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 357,263, ren. 5–31–58. Cl. 29.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 359,555, ren. 8–23–58. Cl. 16.
Plastic Fashions, Inc., East Cleveland, Ohio. 665,487, pub. 5–20–58. Cl. 50.
Plough, Inc., Memphis, Tenn. 665,545. Cl. 46.
Plymouth Wholesale Dry Goods Corp., New York, N. Y. 560,236, canc. Cl. 43.
Pollak, Henry, Inc., New York, N. Y. 560,191, canc. Cl. 40.
Pollak, Henry, Inc., New York, N. Y. 560,220 canc. Cl. 40.
Popell Bros., Inc., Chicago, Ill. 665,359, pub. 5–20–58. Cl. 23.
Posterloid Corp., New York, N. Y. 665,486, pub. 5–20–58. Cl. 50.
Powdercraft Corp., Spartanburg, S. C. 665,352, pub. 5–20–58. Cl. 23.
Prairie States Oil & Grease Co., Danville, Ill. 665,248, pub. 5–20–58. Cl. 6.
Price Chemical Co.: *See*—
Brink, Orville P.
Primus Produktion, Pharmazeutische und Kosmetische Praparate Mutter & Co., Munich, Germany. 665,296, pub. 5–20–58. Cl. 18.
Produits Familex Products Ltd.: *See*—
Romeo Parent.
Progressive Bronze Works, Inc., Chicago, Ill. 665,393, pub. 5–20–58. Cl. 34.
Protecto Products Co., Inc., Pomona, Calif. 560,224, canc. Cl. 37.
Protek-Bak Corp., Baltimore, Md. 665,455, pub. 5–20–58. Cl. 44.
Pulakos, Inc., Erie, Pa. 665,460, pub. 5–20–58. Cl. 46.
Pullman Couch Co., Chicago, Ill. 665,389, pub. 5–20–58. Cl. 32.
Ra-co Tool & Metal Stamping Co., Inc., Glendale, N. Y. 665,346. Cl. 50.
Rasky, David, d. b. a. Fre-Zeg Corp., Burbank, Calif. 665,463, pub. 5–20–58. Cl. 46.
Ray-O-Vac Co.: *See*—
Electric Storage Battery Co., The.
Reardon Co., The, St. Louis County, Mo. 665,287, pub. 5–20–58. Cl. 16.
Red-E-Gas Co.: *See*—
Penola Oil Co.
Red-E-Gas & Equipment Corp.: *See*—
Penola Oil Co.
Reddi-Wip, Inc., Los Angeles, Calif. 665,459, pub. 5–20–58. Cl. 46.
Redi-Rice Co.: *See*—
Coan, Nicholas C.
Reed & Carnrick, Jersey City, N. J. 665,304, pub. 5–20–58. Cl. 18.
Relax-A-Bed Corp., New York, N. Y. 665,383, pub. 5–20–58. Cl. 32.
Relax-It Vibrator Co., Inc., North Hollywood, Calif. 665,456, pub. 5–20–58. Cl. 44.
Remington Records, Inc., New York, N. Y. 665,396, pub. 5–20–58. Cl. 36.
Republic Industries, Inc., Chicago, Ill. 665,266, pub. 5–20–58. Cl. 12.
Republic Rubber Division: *See*—
Lee Rubber & Tire Corp.
Researchers Universal, Inc., Sonoma, Calif. 560,163, canc. Cl. 22.
Rex Applegate, Mexico City, Mex. 665,312, pub. 5–20–58. Cl. 19.
Rex Research Corp., Toledo, Ohio. 662,752, cor. Cl. 6.
Rhoads, John H., and Louis F. Horvath, Reading, Pa. 560,292, canc. Cl. 19.
Richmond Cedar Works Mfg. Corp., Richmond, Va. 665,316, pub. 5–20–58. Cl. 19.
Risdon Mfg. Co., The: *See*—
Consolidated Safety Pin Co.
Robertshaw-Fulton Controls Co., Richmond, Va. 665,370, pub. 5–20–58. Cl. 26.
Robertson, H. H., Co., Pittsburgh, Pa. 665,251–2, pub. 5–20–58. Cl. 6.
Robins Conveying Belt Co., Passaic, N. J., and New York, N. Y., by Hewitt-Robins Inc., New York, N. Y. 357,692, 12(c) pub. 8–5–58. Cl. 23.
Robins Conveying Belt Co., Passaic, N. J., and New York, N. Y., by Hewitt-Robins Inc., New York, N. Y. 357,693, 12(c) pub. 8–5–58. Cl. 23.
Robinson-Wagner Co., Inc., New York, N. Y. 665,236, pub. 4–2–57. Cl. 6.
Robinson, William C., & Son Co., Baltimore, Md. 121,338, 12(c) pub. 8–5–58. Cl. 15.
Rockford Engineered Products Co., Rockford, Ill. 665,532. Cl. 19.
Rocky Mountain Textile Mills, Inc., Denver, Colo. 665,429, pub. 5–20–58. Cl. 39.
Romeo Parent, d. b. a. Familex Products Co., to Produits Familex Products Ltd., Montreal, Canada. 353,754, new cert. Cl. 46.
Romeo Parent, d. b. a. Familex Products Co., to Produits Familex Products Ltd., Montreal, Canada. 360,443, new cert. Cl. 6.
Rose, Philip M., Bradford, Pa. 665,382, pub. 5–20–58. Cl. 32.
Rosemary Packing Co.: *See*—
La Brea Securities Co.
Rosen, E., Co., Providence, R. I. 665,472, pub. 5–20–58. Cl. 46.
Rosenholz, J., Inc., New York, N. Y. 361,507, ren. 10–18–58. Cl. 42.
Rosenholz, J., Inc., to Rosenwood Fabrics, Inc., New York, N. Y. 361,494, ren. 10–18–58. Cl. 42.
Rosenwood Fabrics, Inc.: *See*—
Rosenholz, J., Inc.
Roses, The, Odessa, Tex. 665,524, pub. 5–20–58. Cl. 107.
Rosner Mfg. Co., by Even-Pul Foundations, Inc., New York, N. Y. 201,216, 12(c) pub. 8–5–58. Cl. 39.
Rothbart, Sam: *See*—
Juliette Frocks, Inc.
Rumoildine Co.: *See*—
Fels, Herman.
Russell Reinforced Plastics Corp., Lindenhurst, N. Y. 665,267, pub. 5–20–58. Cl. 12.
Rust Master Chemical Corp., Cambridge, Mass. 665,254, pub. 5–20–58. Cl. 6.
Safe Driving Institute, Providence, R. I. 665,547. Cl. 107.
Safeway Stores, Inc., Oakland, Calif. 665,479, pub. 5–20–58. Cl. 46.
Saf-T-Fend Mfg. Co., Chicago, Ill. 665,310, pub. 5–20–58. Cl. 19.
St. Laurent, Georges C., and Marian H. St. Laurent, d. b. a. Hotel Research Laboratories, Closter, N. J. 665,237, pub. 5–20–58. Cl. 6.
Sanitek Products, Inc., Los Angeles, Calif. 665,515, pub. 5–20–58. Cl. 52.
San Remo Mills, Inc., Wyoming, Del. 665,419, pub. 5–20–58. Cl. 39.
Saul Bros., Atlanta, Ga. 560,106, canc. Cl. 39.
Scarlett, William G., & Co.: *See*—
Scarlett, William G., and Co.
Scarlett, William G., and Co., from William G. Scarlett & Co., Baltimore, Md. 665,210, pub. 5–20–58. Cl. 1.
Sealy, Inc., Chicago, Ill. 372 691, 12(c) pub. 8–5–58. Cl. 32.
Sears, Roebuck and Co., Chicago, Ill. 411,333. 12(c) pub. 8–5–58. Cl. 39.
Sel-Rex Corp., Nutley, N. J. 665,257, pub. 5–20–58. Cl. 6.
Seymour Mfg. Co.: *See*—
Phosphor Bronze Smelting Co. (Ltd.), The.
Schnadig Corp., by merger from International Furniture Co., Chicago, Ill. 665,370, pub. 5–20–58. Cl. 32.
Schnadig Corp., from S. Karpen & Bros. Inc., Chicago, Ill. 665 380. pub. 5–20–58. Cl. 32.
Schonbrunn, S. A., & Co., Inc., New York, N. Y. 361,781, ren. 11–1–58. Cl. 46.
Schulte Herbruggen & Co. G. m. b. H., Herdecke-Ruhr, Germany. 356,418. 12(c) pub. 8–5–58. Cl. 18.
Schwab, Armand, & Co., Inc., New York, N. Y. 560,134, canc. Cl. 40.
Schwahn, A. F., & Sons Co., Eau Claire, Wis. 560,131, canc. Cl. 46.
Seagram, Joseph E., & Sons, Inc., New York, N. Y. 665,501, pub. 5–20–58. Cl. 51.
Seagram, Joseph E., & Sons, Inc., New York, N. Y. 665,509, pub. 5–20–58. Cl. 51.
Sears, Roebuck and Co., Chicago, Ill. 665,321, pub. 5–20–58. Cl. 21.
Selden, Elmer J., d. b. a. Burlington Mfg. Co., Burlington, Iowa. 665,309, pub. 5–20–58. Cl. 19.
Sethness, C. O. & W. D., Co., Chicago, Ill. 665,542. Cl. 45.
Seton Leather Co., Newark, N. J. 665,217, pub. 5–20–58. Cl. 1.
Shell Oil Co., New York, N. Y. 663,014. Am. 7(d). Cl. 15.
Siegel & Co., Koln-Braunsfeld, Germany. 665,508, pub. 5–20–58. Cl. 52.
Silicone Industries Inc., Boston, Mass. 665,513, pub. 5–20–58. Cl. 52.
Simon, L. M., & Co., to Tapetex Products Inc., Rochester, N. Y. 357,270, ren. 5–31–58. Cl. 21.
Simon Sound Service Ltd., London, England. 665,337, pub. 5–20–58. Cl. 21.
Simonis Co., The, Chicago, Ill. 560,120, canc. Cl. 29.
Siris, A. J., Products Corp., New York, N. Y. 665,225, pub. 5–20–58. Cl. 8.
Smith Kline & French Laboratories, Philadelphia, Pa. 665,303, pub. 5–20–58. Cl. 18.
Smith, Sam, Shoe Corp.: *See*—
Yankee Shoemakers Inc., The.
Smith, T. J., & Nephew, Ltd., Hull, England. 356,583, 12(c) pub. 8–5–58. Cl. 44.
Sobelman, Morris, d. b. a. Perfect Garment Co., Baltimore, Md. 357,111, 12(c) pub. 8–5–58. Cl. 39.
Societa Anonima per la Costruzione di Macchine, Minusio, Switzerland. 665,319, pub. 5–20–58. Cl. 21.
Société Anonyme des Laiteries de la Vallee de la Vire et du Cotentin Anciens Etablissements H. Claudel, Paris (Seine), France. 665,465, pub. 5–20–58. Cl. 46.
Société Anonyme Dite: Etablissements L. Van Malderen, Paris, France. 662,125, cor. Cl. 16.
Society of Chemical Industry in Basle, to Ciba Ltd., Basle, Switzerland. 358,187, ren. 6–28–58. Cl. 6.
Society of Chemical Industry in Basle, to Ciba Ltd., Basle, Switzerland. 358,188, ren. 6–28–58. Cl. 6.

Society of Chemical Industry in Basle, to Ciba Ltd., Basle, Switzerland. 358,189, ren. 6–28–58. Cl. 5.
Society of Chemical Industry in Basle, to Ciba Ltd., Basle, Switzerland. 358,190, ren. 6–28–58. Cl. 5.
Sonco, Inc., Mattapan, Mass. 560,289, canc. Cl. 44.
Sonneborn, L., Sons, Inc., New York, N. Y. 416,423, 12(c) pub. 8–5–58. Cl. 12.
Sorg Paper Co., The, Middletown, Ohio. 665,405, pub. 5–20–58. Cl. 37.
Sousa, Joseph, Atwater, Calif. 665,458, pub. 5–20–58. Cl. 46.
Sparta Ceramic Co., The, East Sparta, Ohio. 231,433, 12(c) pub. 8–5–58. Cl. 12.
Sperry Rand Corp., New Holland, Pa. 662,420, cor. Cl. 7.
Spring-Air Co., The, Chicago, Ill. 665,388, pub. 5–20–58. Cl. 32.
Standard Ribbon Co., New York, N. Y. 560,165, canc. Cl. 40.
Star Publications, Inc., The, St. Paul, Minn. 665,401, pub. 5–20–58. Cl. 37.
Steadley Co., The, Carthage, Mo. 665,386, pub. 5–20–58. Cl. 32.
Steindorf, Jack W., Corvallis, Oreg. 665,357, pub. 5–20–58. Cl. 23.
Sterling Brewers, Inc., Evansville, Ind. 394,929. Am. 7(d). Cl. 48.
Stevens, J. P., & Co., Inc., New York, N. Y. 665,448, pub. 5–20–58. Cl. 42.
Stewart-Warner Corp., Chicago, Ill. 368,207, 12(c) pub. 8–5–58. Cl. 26.
Stewart-Warner Corp., Chicago, Ill. 397,878, 12(c) pub. 8–5–58. Cl. 14.
Stewart-Warner Corp., Chicago, Ill. 418,904, 12(c) pub. 8–5–58. Cl. 26.
Storage Products Corp., Skokie, Ill. 665,387, pub. 5–20–58. Cl. 32.
Stuart, Herbert A., d. b. a. Al's Goldfish Lure Co., Indian Orchard, Mass. 665,345, pub. 5–20–58. Cl. 22.
Super Flow Solder Co., Inc., Albany, N. Y. 560,215, canc. Cl. 14.
Supreme Steel Equipment Corp., Brooklyn, N. Y. 665,385, pub. 5–20–58. Cl. 32.
Swift & Co., Chicago, Ill. 665,471, pub. 5–20–58. Cl. 46.
Swingline, Inc., Long Island City, N. Y. 665,364, pub. 5–20–58. Cl. 23.
Symington-Wayne Corp., from The Wayne Pump Co., Salisbury, Md. 665,488, pub. 5–20–58. Cl. 50.
Tapetex Products Inc.: *See*—
Simon, L. M., & Co.
Tedcastle, A. W., & Co., to Kreider-Creveling Shoe Co., Boston, Mass. 123,293, ren. 10–22–58. Cl. 39.
Texas Co., The, Houston and Port Arthur, Tex., by The Texas Co., New York, N. Y. 140,227, 12(c) pub. 8–5–58. Cl. 12.
Texize Chemicals, Inc., Greenville, S. C. 665,226, pub. 5–20–58. Cl. 4.
Thermo Electric Mfg. Co., Dubuque, Iowa. 665,331, pub. 5–20–58. Cl. 21.
Thomas & Betts Co., The, Elizabeth, N. J. 665,533. Cl. 21.
Thomas and Skinner, Inc., Indianapolis, Ind. 665,323, pub. 5–20–58. Cl. 21.
Thomson Paper Mills, Inc., New York, N. Y. 665,539. Cl. 37.
Thorsen Mfg. Co., Oakland, Calif. 665,346, pub. 5–20–58. Cl. 23.
Thresher Varnish Co., Dayton, Ohio, to Pittsburgh Plate Glass Co., Pittsburgh, Pa. 357,907, ren. 6–21–58. Cl. 16.
Time, Inc., New York, N. Y. 417,739. 12(c) pub. 8–5–58. Cl. 38.
Tokyo Shibaura Electric Co. Ltd., Kawasaki-shi, Japan. 665,378, pub. 5–30–58. Cl. 31.
Towle Mfg. Co., Newburyport, Mass. 61,366, 12(c) pub. 8–5–58. Cl. 28.
Towle Mfg. Co., Newburyport, Mass. 368,796, 12(c) pub. 8–5–58. Cl. 28.
Towle Mfg. Co., Newburyport, Mass. 376,480, 12(c) pub. 8–5–58. Cl. 28.
Towle Mfg. Co., Newburyport, Mass. 388,064, 12(c) pub. 8–5–58. Cl. 28.
Tri-City Broadcasting Co., Wheeling, W. Va. 665,521, pub. 5–20–58. Cl. 104.
Triple "AAA" Co., Oklahoma City, Okla. 352,077, ren. 11–16–57. Cl. 45.
Tru-Step Hosiery Co., Milwaukee, Wis. 665,437, pub. 5–20–58. Cl. 39.
Tugend, Irving: *See*—
Holbrook, Glynn.
Tung-Sol Electric Inc.: *See*—
Tung-Sol Lamp Works, Inc.
Tung-Sol Lamp Works, Inc., by Tung-Sol Electric Inc., Newark, N. J. 407,198, 12(c) pub. 8–5–58. Cl. 21.
Ulmer Pharmacal Co.: *See*—
Physicians and Hospitals Supply Co., Inc.
Union Carbide Corp.: *See*—
Carbide and Carbon Chemicals Corp.
Union Carbide Corp., New York, N. Y. 665,230, pub. 5–20–58. Cl. 6.
Union Fork and Hoe Co., Columbus, Ohio. 362,425, ren. 11–15–58. Cl. 23.
United Newspapers Magazine Corp., New York, N. Y. 665,413, pub. 5–20–58. Cl. 38.
United Printers and Publishers (Inc.), Dedham, Mass. 665,411, pub. 5–20–58. Cl. 38.
U. S. Industries, Inc., Goleta, Calif. 665,324, pub. 5–20–58. Cl. 21.
United States Steel Corp., Pittsburgh, Pa. 665,362, pub. 5–20–58. Cl. 23.
United Wallpaper Inc.: *See*—
De Soto Paint & Varnish Co.
Universal Air Lift, Inc., Lansing, Mich. 665,307, pub. 5–20–58. Cl. 19.
Universal Match Corp., Ferguson, Mo. 350,880, ren. 8–30–58. Cl. 9.
Valentine Laboratories, Inc., to Valentine Laboratories, Inc., Chicago, Ill. 337,215, ren. 5–20–58. Cl. 18.
Vanadium-Alloys Steel Co., Latrobe, Pa. 665,276, pub. 5–20–58. Cl. 14.
Vanadium-Alloys Steel Co., Latrobe, Pa. 665,277, pub. 5–20–58. Cl. 14.
Vanadium-Alloys Steel Co., Latrobe, Pa. 665,279, pub. 5–20–58. Cl. 14.
Vanity Corset Co., Inc., to Vanity Corset Co. Inc., New York, N. Y. 258,852, ren. 7–26–58. Cl. 39.
Vanta Co., Inc., The, Brockton, Mass. 665,440, pub. 5–20–58. Cl. 42.
Vapor Heating Corp., Chicago, Ill. 665,368, pub. 5–20–58. Cl. 23.
Velvet Soft, Inc., Holland, Mich. 665,355, pub. 5–20–58. Cl. 23.
Victor, Sally, Inc., New York, N. Y. 665,432, pub. 5–20–58. Cl. 39.
Vits Elektro G. m. b. H., Duesseldorf, Germany. 665,353, pub. 5–20–58. Cl. 23.
Wagemaker Co., Grand Rapids, Mich. 665,317, pub. 5–20–58. Cl. 19.
Wallace Silversmiths, Inc., Wallingford, Conn. 665,371, pub. 5–20–58. Cl. 28.
Wallace Silversmiths, Inc., Wallingford, Conn. 665,373, pub. 5–20–58. Cl. 28.
Warner-Lambert Pharmaceutical Co.: *See*—
Lambert Pharmacal Co.
Warren Knitting Mills, Inc., New York, N. Y. 560,180, canc. Cl. 39.
Washington Farms Corp., Davisboro, Ga. 560,281, canc. Cl. 46.
Wayne Pump Co., The: *See*—
Symington-Wayne Corp.
Wee Pants, Inc., New York, N. Y. 560,154, canc. Cl. 39.
Weiland, Jerome G., Evanston, Ill. 560,307, canc. Cl. 2.
Welding Equipment & Supply Co., Detroit, Mich. 665,280–1, pub. 5–20–58. Cl. 14.
Wells Mfg. Co., San Francisco, Calif. 665,382, pub. 5–20–58. Cl. 21.
Western Fire Equipment Co.: *See*—
Orr, Robert St. J.
Whirlpool Corp., St. Joseph, Mich. 665,376, pub. 5–20–58. Cl. 31.
White Sail Tissue Mills: *See*—
Peavey Paper Mills.
Whittall, M. J., Associates, Inc., Worcester, Mass. 560,150, canc. Cl. 42.
Whittall, M. J., Associates, Inc., Worcester, Mass. 560,152, canc. Cl. 42.
Wilson, Thomas, & Co., Inc., New York, N. Y. 665,247, pub. 5–20–58. Cl. 6.
Wilson & Toomer Fertilizer Co., Jacksonville, Fla. 665,243, pub. 5–20–58. Cl. 6.
Winders, William D., d. b. a. The Columbus Office Supply Co., Columbus, Ohio. 665,404. Cl. 37.
Winders, William D., d. b. a. The Columbus Office Supply Co., Columbus, Ohio. 665,406, pub. 5–20–58. Cl. 37.
Winkley, Roscoe E., Rochester, N. H. 665,434, pub. 5–20–58. Cl. 39.
Woolworth, F. W., Co., New York, N. Y. 665,430, pub. 5–20–58. Cl. 39.
Workman Pillifant Co., The, Ottawa Lake, Mich. 665,391, pub. 5–20–58. Cl. 34.
Worthington Corp., Harrison, N. J. 665,536. Cl. 31.
Wyandotte Chemicals Corp., Wyandotte, Mich. 665,255, pub. 5–20–58. Cl. 6.
Wyeth Laboratories: *See*—
American Home Products Corp.
Yankee Shoemakers Inc., The, to Sam Smith Shoe Corp., Newmarket, N. H. 415,391, new cert. Cl. 39.
Yankee Shoemakers Inc., The, to Sam Smith Shoe Corp., Newmarket, N. H. 422,063, new cert. Cl. 39.
Yankee Shoemakers Inc., The, to Sam Smith Shoe Corp., Newmarket, N. H. 438,409, new cert. Cl. 39.
York Ice Machinery Corp., York, Pa., by Borg-Warner Corp., Chicago, Ill. 387,173, 12(c) pub. 8–5–58. Cl. 31.
Young, B., & Co, Ltd., London, England. 560,073, canc. Cl. 46.
Your Cupboard, Glenview, Ill. 665,466, pub. 5–20–58. Cl. 46.
Zagri, Louis H., Chicago, Ill. 665,420, pub. 5–20–58. Cl. 39.
Zieman Mfg. Co., Whittier, Calif. 665,522, pub. 5–20–58. Cl. 105.

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PATENTS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Ireland to the London 1934 Revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective May 14, 1958, of Ireland to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

June 11, 1958.

Adjudicated Patent

(C. A. Calif.) Stauffer Patent No. 2,240,679 (128—70), for muscle relaxing machine. Claim 1 *Held* invalid. *Stauffer v. Standardville Systems of California, Inc.*, 254 F.2d 127; 115 USPQ 347.

Disclaimer

Des. 183,088.—*Lloyd A. Christensen, Lowell C. Christensen, William A. Christensen,* and *Weston W. Christensen,* Lohrville, Iowa. VIBRATING MASSAGE MACHINE. Patent dated June 17, 1958. Disclaimer filed June 30, 1958, by the inventors.

Hereby enter this disclaimer to the claim of said design patent.

Patents Available for Licensing or Sale

2,662,278. Power Driven Can Opener. Joseph M. Karwacki, 2418 S. Sawyer Ave., Chicago 23, Ill.

2,669,146. Adjustable Wrench Having Inner Jaw Actuated by Pivotal Handle (Slide-Action Removable Jaw To Convert to Box-End). Estel E. Florence, Buffalo, Minn.

2,836,077. Door Handle Operating Mechanism (Such as Taxicabs). Narcisse Belanger, 12082 Manor, Detroit 4, Mich.

2,838,839. Mooring Device. Gus Gasdorf, Rolland L. Stratton, and David W. Culp, 342 E. North St., Lima, Ohio.

General Electric Company is prepared to grant non-exclusive licenses in *the field of radio purposes* under the following 14 patents.

Applications for licenses may be addressed to: Patent Counsel, Electronic Components Division, General Electric Company, Syracuse, N. Y.

2,806,963. Remote Base Transistor.

2,820,534. Hermetic Ceramic-Metal Seal and Method of Making the Same.

2,822,308. Semiconductor P–N Junction Units and Method of Making the Same.

2,822,309. P–N Junction Device and Method of Making the Same by Local Fusion.

2,823,896. Lifting Aid.

2,823,917. Pick-up Device.

2,832,057. Electrically Connecting Shock Mount.

2,832,478. Automatic Transfer Device.

2,835,856. Gas Discharge Device.

2,835,841. Getter Support Structure.

2,836,797. Multi-Electrode Field Controlled Germanium.

2,837,682. Electric Discharge Device Structure and Method.

2,837,870. Apparatus for Making Tube Envelopes.

2,838,708. Electron Discharge Device and Method of Gettering.

Registration to Practice

The following list contains the names of all applicants for registration to practice before the United States Patent Office who attained passing grades in the examination of April 23, 1958. Information tending to affect the eligibility of any of said applicants on moral or ethical grounds should be furnished the Commissioner of Patents on or before September 5, 1958.

ARTHUR W. CROCKER,
Chairman, Committee on Enrollment.

July 15, 1958.

List of Applicants Who Passed the Examination for Registration to Practice Before the Patent Office Held April 23, 1958

Alabama

Hammond, Thomas M., 1022 Grant St., S. E., Decatur, Ala.

Arkansas

Pittman, Ralph R., 5824 Southwood Road, Little Rock, Ark.

California

Belansky, Andrew J., 259 E. Calaveras St., Altadena, Calif.
Brevik, E. Lawrence, 4420 W. 59th Place, Los Angeles 43, Calif.
Carlson, Donald L., 5805 Garford St., Long Beach 15, Calif.
Clouse, Clifton E., Jr., 1556 Mariposa St., Richmond 6, Calif.
Fowler, Allan R., 531 Bridger St., Covina, Calif.
Halstead, Mervin, Hdqtrs., 14 Naval District, Navy #128, % Fleet Post Office, San Francisco, Calif.
Jones, J. L., Sr., 1070 Glen Oaks Blvd., Pasadena 2, Calif.
Kern, Warren L., 1720 Fairmount Ave., La Canada, Calif.
March, George G., 7358 Neo St., Apt. E, Downey, Calif.
Mitchell, James Theodore, 246 Los Cerros Ave., Walnut Creek, Calif.
Moore, Alan J., Rt. 6, Box 184–C, San Jose 99, Calif.
Price, Kenneth A., 727 Chautauqua Blvd., Pacific Palisades, Calif.
Riddell, Baylor G., 868 Waverly St., Menlo Park, Calif.
Thiel, Walter R., 2305 Penmar Ave., Venice, Calif.
Thornton, Robert R., 1475 Powell St., Oakland 8, Calif.
Zentner, Rene David, 2987 Dwight Way, Berkeley 4, Calif.

Connecticut

Franklin, Richard K., 11 Bedford Ave., Apt. K2, Norwalk, Conn.
Kraft, Julius B., Patent Dept., Remington Rand, Wilson Ave., South Norwalk, Conn.
Paulding, Theodore R., 74 Westlook Road, Wethersfield, Conn.

New Applications Received During June 1958

Patents	6,860
Designs	485
Plant Pats	10
Reissues	17
Total	7,372

Issues

Patents	991—No.	2,846,682	to No.	2,847,672, incl.
Designs	41—No.	183,338	to No.	183,378, incl.
Plant Pats	3—No.	1,740	to No.	1,742, incl.
Reissues	7—No.	24,513	to No.	24,519, incl.
Total	1,042			

Delaware

Collat, Robert, 104 Stimson Place, Wilmington 3, Del.
Sandt, Bernd W., 1427 Prospect Drive, Kyakyn Apts., Wilmington 3, Del.

District of Columbia

Albright, Penrose Lucas, 706 Perpetual Bldg., Washington 4, D. C.
Cockfield, James E., 3130 Wisconsin Ave., Apr. 6, N. W., Washington 16, D. C.
Comfort, James T., % IBM, 425 13th St., N. W., Washington 4, D. C.
Conroy, Edward A., Jr., 3415 38th St., N. W., Washington 16, D. C.
Cutonilli, Anthony, 3825 Davis Place, Apt. 302, Washington, D. C.
Follmer, Frank A., 419 6th St., N. W., Washington, D. C.
Hall, Charles S., Burroughs Patent Div., 1737 H St., N. W., Washington 6, D. C.
Hughes, Robert B., 3047 Porter St., N. W., Washington, D. C.
Klaas, Bruce G., 711 14th St., N. W., Rm. 1203, Washington 5, D. C.
Kruger, Walter, 1159 National Press Bldg., Washington, D. C.
Kurtz, Richard E., 1506 44th St., N. W., Washington, D. C.
Kubani, Thomas L., 1506 44th St., N. W., Washington 7, D. C.
Lubic, Robert B., 2501 Q St., N. W., Apt. 412, Washington 7, D. C.
Macpeak, Thomas J., 1415 K St., N. W., Suite 306, Washington, D. C.
McKeever, James J., 800 Wyatt Bldg., Washington 5, D. C.
Ruff, Robert T., 3516 Texas Ave., S. E., Washington 20, D. C.
Sullivan, Mary E. D., 2727 29th St., N. W., Washington 8, D. C.

Illinois

Alexander, Richard E., 917 Forest Ave., Evanston, Ill.
Beggs, Gregory B., 304 S. Euclid Ave., Oak Park, Ill.
Beland, Walter H., 26 E. 122nd St., Chicago 28, Ill.
Camasto, Nicholas A., 1176 S. Oak Park Ave., Oak Park, Ill.
Chaban, Marvin M., 230 N. Austin Blvd., Oak Park, Ill.
Clemency, Robert E., 1767 Granville Ave., Chicago 26, Ill.
Dierstein, Melinda Lois, 7645 Sheridan Road, Chicago 26, Ill.
Fosse, John S., 557 Fairview Ave., Glen Ellyn, Ill.
Greenberg, Carl J., 60 E. 32nd St., Chicago 16, Ill.
Hemminger, Paul W., 9617 Richard St., Franklin Park, Ill.
Jennings, James J., Jr., 434 S. Clay St., Hinsdale, Ill.
Kaufman, David D., 5465 S. Everett Ave., Chicago 15, Ill.
Kruesmark, Frederick A., 303 S. Second Ave., Maywood, Ill.
Ladd, David L., 5527 So. Woodlawn Ave., Chicago 37, Ill.
Lahr, Jack L., 1715 11th St., Waukegan, Ill.
Meister, Jacque L., 1980 Hawthorne, Melrose Park, Ill.
Prusaczyk, Henry, 423 Bluff St., Alton, Ill.
Sowell, John B., 576 Sheridan Square, Evanston, Ill.
Winokur, Louis L., 741 Brummel St., Evanston, Ill.
Wolfe, Richard R., 1480 Lake Shore Drive, Chicago 10, Ill.

Indiana

Chance, Gordon H., 1026 S. Parkway, South Bend 19, Ind.
Hay, Louis E., 228 Southmore, Plainfield, Ind.
Nemmers, James C., 1801 N. O'Brien St., South Bend 28, Ind.
Ryan, John Phillip, 229 W. Jackson Blvd., Elkhart, Ind.
Thompson, William S., 1002 E. Victoria, South Bend 14, Ind.

Maryland

Barry, Ronald E., 1542 East-West Highway, Silver Spring, Md.
Becker, John E., 725 Richmond Ave., Silver Spring, Md.
Berger, Robert L., 247-A Rodgers Forge Road, Baltimore 12, Md.
Bonsteel, Lloyd O., 23 Fairmont Place, Indian Head, Md.
Byrne, John J., 7523 Gleneon Drive, Bethesda, Md.
Davidson, Samuel L., 4701 Bradley Blvd., Chevy Chase 15, Md.
Fryer, William T., III, 7507 Clarendon Road, Bethesda 14, Md.
King, Carl C., 1700 Lebanon St., Adelphi, Md.
Marben, Robert L., 8019 Glenbrook Road, Bethesda 14, Md.
McMorrow, Robert G., 4309 Warner St., Kensington, Md.
Sandler, Donald M., 4101 Barrington Road, Baltimore 7, Md.
Sloan, Arthur M., 1909 East-West Highway, Apt. 104, Silver Spring, Md.
Smyth, Frederick J., 7620 Maple Ave., Apt. 322, Takoma Park 12, Md.
Thomas, Richard H., 8210 Custer Road, Bethesda, Md.
Webb, Thomas H., 2226 Beechwood Road, Hyattsville, Md.

Massachusetts

Dacey, G. Eugene, 74 Hammond St., Cambridge 38, Mass.
Dempsey, John J., 261 Maplehade Ave., East Longmeadow, Mass.
Keay, David M., 59 Barrett St., Needham 92, Mass.
McDevitt, John F., Shawinigan Resins Corp., Springfield 2, Mass.
Schiller, Robert J., Polaroid Corporation, 730 Main St., Cambridge 39, Mass.
Tiffany, James B., Jr., 10 Lisa Road, West Peabody, Mass.
Toelken, Richard W., 32 Elm St., Agawam, Mass.

Michigan

Huisenga, Everett Leroy, 380 Fuller Ave., S. E., Grand Rapids, Mich.
Randles, Carl A., Jr., 5845 Portage St., Kalamazoo, Mich.
Spurrell, Donald W., 673 N. Eton Road, Birmingham, Mich.

Minnesota

Johnson, Clayton R., 832 Midland Bank Bldg., Minneapolis, Minn.
Loos, Calvin J., 5247 Xerxes Ave., S., Minneapolis 10, Minn.
Nikolai, Thomas J., 2065 Lincoln Ave., St. Paul 5, Minn.
Ohm, Kenneth D., 3512 Minikahda Court, St. Louis Park 16, Minn.
Siegfried, Kenneth D., 2601 Yukon Ave., Minneapolis 26, Minn.
Smith, James A., 589 S. Cleveland Ave., Apt. 19, St. Paul 16, Minn.
Sommermeyer, Herbert F., 2795 Merrill St., St. Paul 13, Minn.

Missouri

Aldrich, C. Frank, 2640 Belair Terrace, Florissant 21, Mo.
Hovey, Robert D., 2528 W. 91, Kansas City 15, Mo.
Williams, Warren N., 3708 E. 47th Terrace, Kansas City, Mo.

New Jersey

Allen, Frank H., Jr., 58 Mercer Ave., North Plainfield, N. J.
Benjamin, Lawrence P., 38—43 Brookside Ave., Fairlawn, N. J.
Berlow, Cynthia, 26 John St., Passaic, N. J.
Bissell, Henry M., 22 Crescent Drive, Whippany, N. J.
Dunn, Robert T., Apt. 11-M, 65 Manor Drive, Newark 6, N. J.
Giancola, Dominic J., 230 Overlook Ave., Leonia, N. J.
Johnson, Otis B., 727 E. Front St., Plainfield, N. J.
Kane, Samuel, 3 S. Haviland Ave., Audubon 6, N. J.
Kenney, J. Ernest, 296 Larch Ave., Dumont, N. J.
Kovalich, John G., 30 Crescent Ave., Jersey City, N. J.
Stanger, Leo, 47 Ethan Drive, Murray Hill, N. J.

New York

Bramlett, Gerald B., 1063 McKinley St., Baldwin, N. Y.
Cannaday, Richard L., 1156 5th Ave., New York 29, N. Y.
Ceccon, Clario, 1918 Broadway, Grand Island, N. Y.
Cody, Robert F., 2506 Bellaire St., Wantagh, N. Y.
Comery, Edward G., 66 Vincent Ave., Staten Island 6, N. Y.
Coplein, Gordon D., % Darby and Darby, 405 Lexington Ave., New York 17, N. Y.
Dana, William H., 163 Watauga Ave., Corning, N. Y.
De Simone, Daniel V., 33 Washington Square, W., New York 11, N. Y.
Dowling, Thomas P., 3500 Snyder Ave., Brooklyn 3, N. Y.
Fier, Robert D., Scarsdale Manor Apts., Scarsdale, N. Y.
Fitzgerald, Frank R., Hanover Road, R. F. D. 1, Box RR, Yorktown Heights, N. Y.
Fogiel, Max, 57 Second Ave., New York 3, N. Y.
Frank, Robert J., 697 Colonade Road, West Hempstead, N. Y.
Gilman, Michael G., 43—10 43rd St., Woodside 77, N. Y.
Harsh, Gene, 3 Faragut Ave., Tonawanda, N. Y.
Kilgannon, Thomas J., Jr., 406 Bement Ave., Staten Island 10, N. Y.
King, Stephen L., 100 Bank St., Apt. 5C, New York 14, N. Y.
Klein, Arthur O., 241 E. 38th St., New York, N. Y.
Klitzke, Ramon A., 80—08 125th St., Apt. 219, Jamaica 35, N. Y.
Krein, Arthur N., 117 Bobrich Drive, Rochester 10, N. Y.
Leibowitz, Michael E., 1620 Ocean Ave., Brooklyn 30, N. Y.
Levin, Harry, P. O. Box 383, Fishkill, N. Y.
Levine, Alan H., 67—12 Yellowstone Blvd., Forest Hills 75, N. Y.
Lieber, Robert, 1212 Newkirk Ave., Brooklyn 30, N. Y.
Marn, Louis E., 385 Madison Ave., The Lummus Co., New York 17, N. Y.
Mateer, Kenneth W., 125 Christopher St., New York 14, N. Y.
McGeady, Bernard X., 333 E. 43rd St., New York 17, N. Y.
O'Connell, Thomas E., 69—14 Harrow St., Forest Hills 75, N. Y.
Ostrow, Harvey, 25 Hillside Ave., New York 40, N. Y.
Plunkett, Richard P., 110 Christopher St., New York 14, N. Y.
Pepper, Howard E., 462 West St., New York, N. Y.
Salabato, James J., 106 Shoreham Blvd., Buffalo 16, N. Y.
Russo, Matthew M., 460 Lafayette Blvd., Long Beach, N. Y.
Sherman, Sylvan, 113 Greenbelt Lane, Levittown, N. Y.
Spiecens, Camil P., 71—50 Austin St., Forest Hills 75, N. Y.
Stark, Leon T., 85—07 Britton Ave., Elmhurst 73, N. Y.
Togut, Isidore, 370 E. 203rd St., Bronx 58, N. Y.
Whinston, Arthur L., 26 Russell Road, Garden City, N. Y.
Zentner, Richard, 290 Clinton St., Brooklyn 1, N. Y.

North Carolina

Park, Charles B., III, 904 Johnston Bldg., Charlotte 2, N. C.

Ohio

Deuce, Richard E., 2544 Homewood, Toledo 12, Ohio.
Deerr, Edward L., Monsanto Chemical Co., Station B, Box 8, Dayton 18, Ohio.
Fralick, James E., 2913 Neil Ave., Columbus 2, Ohio.
Henry, Frank C., 2686 Rocklyn Road, Shaker Heights 22, Ohio.
Limbach, George C., 2110 Cornell Road, Cleveland 6, Ohio.
Netter, George J., 4301 Lyman Road, Toledo 12, Ohio.
Nielsen, Olaf, 1018 Emma Ave., Akron 2, Ohio.
Patmore, Alfred L., Jr., 2619 Strange Ave., Toledo 6, Ohio.
Witte, Richard C., 927 Lakeshore Drive, Cincinnati 31, Ohio.

Oklahoma

Johnson, Paul H., 722 E. 49th St., N., Tulsa 6, Okla.
Peterson, Jerome E., E. Hillcrest Road, Ponca City, Okla.
Worth, Daniel P., 806A S. Osage, Bartlesville, Okla.

Pennsylvania

Christoffersen, Harold, 2445 Jenkintown Road, Glenside, Pa.
Conley, Ned L., 7876 Spring Ave., Philadelphia 17, Pa.
Corcoran, John P., 632 Cresson Lane, Morton, Pa.
Cornish, C. Daniel, 4614 5th Ave., Pittsburgh 13, Pa.
Curley, John E., 120 Sunset Drive, Pittsburgh 9, Pa.
Dreyer, Frederic C., RD 1, Box 358, Slatington, Pa.
Dubroff, Stanley, 6913 Heyward St., Philadelphia 19, Pa.
Guay, Francis W., 138 Mt. Lebanon Blvd., Pittsburgh 28, Pa.
Hargis, Harry W., III, 8126 Gilham St., Philadelphia 49, Pa.
Harvey, Richard F., 111 Berg Drive, Pittsburgh 38, Pa.
Kaufmann, Henry W., Post Office Box 123, Mont Clare, Pa.

Klipfel, Ernest P., 218 Garlow Drive, Pittsburgh 35, Pa.
Lennon, Thomas A., 2020 Ridgelawn Ave., Bethlehem, Pa.
McHale, Clement L., 140 La Crosse St., Avon Hall, Pittsburgh 18, Pa.
Rafady, Richard J., 1000½ Edgewood Road, New Kensington, Pa.
Sager, Edward A., 201-A W. Parkway Ave., Chester, Pa.
Turner, Burton G., 927 Roland Road, Pittsburgh 21, Pa.

South Carolina

Lawson, Louis E., Jr., 39A Meeting St., Charleston, S. C.

Texas

Garland, H. Mathews, P. O. Box 900, Dallas 21, Tex.
Harris, William D., Jr., 1600 Niels Esperson Bldg., Houston 2, Tex.
Jackson, John L., 248 Esperson Bldg., Houston 2, Tex.
Keys, Clarence E., P. O. Box 35304, Dallas 35, Tex.
Sansom, Ernest S., Box 117, Lake Jackson, Tex.

Virginia

Adams, Harold W., 1113 Powhatan St., Alexandria, Va.
Benoit, John E., 661 Rose Lane, Falls Church, Va.
Briody, Thomas A., 3614 S. Wakefield St., Arlington, Va.
Burgess, Harry C., Jr., 2210 Commonwealth Ave., Alexandria, Va.
Connor, P. Phillips, 1577 Colonial Terrace, Arlington 7, Va.
Cooper, D. Kendall, 964 N. Longfellow, Arlington, Va.
Cooper, Richard C., 602 N. Imbodan St., Alexandria, Va.
Crutcher, William C., 1107 N. Barton, Arlington 1, Va.
Dumont, Harry E., 4826 N. 26th St., Arlington 7, Va.
Frelick, Arthur, 1500 Arlington Blvd., Arlington, Va.
Gordon, Hugh L., 1815 Norfolk Lane, Falls Church, Va.
Hoschelt, Dale H., 3701 N. Military Road, Arlington, Va.
Lane, Munson H., Jr., 402 N. Montague St., Arlington 3, Va.
McCandlish, Harrison E., 1909 N. Ode St., Arlington, Va.
McCoy, Garland T., 700 S. George Mason Drive, Arlington, Va.
Montgomery, Robert H., 130 N. Wayne St., #6, Arlington 1, Va.
Muenmeel, Alfred V., 2310 N. 10th St., Arlington 1, Va.
Parker, Gayle, 5100 Third St., N., Arlington 3, Va.
Petko, Edward A., 1404 28th St., S., Arlington 8, Va.
Posin, Jack, 1617 28th St., S. Arlington 6, Va.
Reidy, Edward J., 2900 18th Road, S., Arlington 4, Va.
Rogers, John T., 1402 Howard St., Falls Church, Va.
Sullivan, Thomas V., 1010 S. Quebec St., Arlington 4, Va.
Weeks, Alfred, Jr., 2741 S. Ives St., Arlington, Va.
Williams, Melvin P., 3079 S. Woodrow St., Arlington 6, Va.
Ziems, Robert F., 2437A S. Stafford St., Arlington 6, Va.
Zimmerman, Jack P., 716 S. Wayne St., Arlington, Va.

Wisconsin

Marden, Earle R., Jr., 720 S. Losey Blvd., La Crosse, Wis.
Merrell, Curtis R., Jr., 5240 N. Diversey Blvd., Milwaukee 17, Wis.
Robertson, William S., Jr., 2220 S. 92nd St., West Allis 19, Wis.
Sager, Karl E., 620 E. North St., Appleton, Wis.
Swartwout, Willis E., III, 10613 W. Jeffrey Lane, Milwaukee 13, Wis.
Tibbitts, Lewis W., 8741 N. 76th St., Milwaukee 16, Wis.
Wiviott, Fred, 4880 N. Shoreland Ave., Milwaukee 17, Wis.

CONDITION OF PATENT APPLICATIONS AS OF JUNE 30, 1958

Total number of pending applications (excluding Designs)	207,166
Total number of pending Design applications	6,822
Total number of applications awaiting action (excluding Designs)	88,714
Total number of Design applications awaiting action	3,312
Date of oldest new application	July 18, 1957
Date of oldest amended application	July 1, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 21, 38, 42, 48, 50, 56, 59, 60, 62, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 23, 37, 41, 49, 54, 55, 61, 64, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 31, 34, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 52, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 6, 20, 29, 33, 36, 43, 52, 65.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 28, 33, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 14, 19, 25, 30, 32, 46, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Applications: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Furrows and Diggers; Plows.	11-13-57	10-25-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	10-11-57	10-4-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	1-3-58	1-3-58
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	10-14-57	10-8-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	10-4-57	9-16-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	11-12-57	11-6-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	10-31-57	11-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-30-57	11-1-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	11-6-57	10-16-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	11-12-57	10-31-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	1-29-58	1-6-58
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	10-2-57	10-3-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-14-57	10-1-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	10-1-57	10-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	10-4-57	10-2-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	10-1-57	10-1-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12-2-57	12-3-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	10-3-57	10-1-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	11-8-57	10-8-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	10-7-57	10-11-57
21. (III) MADER, R. C., Textiles	9-8-57	9-3-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	10-1-57	10-1-57
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	8-7-57	8-6-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	1-2-58	12-30-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	10-3-57	10-17-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-15-57	12-2-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	12-10-57	12-6-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	10-3-57	10-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	10-1-57	7-26-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminuters; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	12-16-57	11-26-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	11-15-57	11-21-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-23-57	10-23-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-25-57	12-30-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	12-5-57	12-5-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	2-7-58	2-5-58
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	9-3-57	9-5-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	10-10-57	10-1-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthracenes, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	1-6-58	1-10-58
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	1-3-58	1-3-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	12-3-57	12-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	10-8-57	10-8-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	9-3-57	9-3-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	10-4-57	10-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	10-1-57	10-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	10-17-57	10-8-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	12-4-57	12-3-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	11-22-57	10-21-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	10-4-57	10-1-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators	11-20-57	1-3-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	11-1-57	11-15-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	11-6-57	10-7-57
52. (V) NEFF, P. R., Supports and Racks	10-3-57	10-14-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	1-3-58	1-3-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	12-17-57	12-16-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Asserting Solids (part)	10-1-57	10-1-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Casting or Plastic Compositions; Electrical and Wave Energy Chemistry	10-7-57	10-4-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	1-6-58	1-7-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufacture; Packaging (part)	12-10-57	12-3-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	11-4-57	10-4-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	1-16-58	12-12-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	10-1-57	10-1-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	12-11-57	12-9-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	10-4-57	10-7-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	10-1-57	10-3-57
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	9-26-57	9-11-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Asserting Solids (part)	10-8-57	10-2-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	12-9-57	12-9-57
CLASS DIVS. I—BAILEY, J. S., Laminated Fabrics	11-15-57	11-15-57
CLASS DIVS. II—LADY, J. E., Oscillators	1-7-58	1-8-58
CLASS DIVS. III—WAHL, R. A., Cutting and Punching	10-1-57	10-1-57
CLASS DIVS. IV—BERLOWITZ, W., Earth Boring	10-14-57	10-10-57
CLASS DIVS. V—ANGEL, C. D., Rods; Scaffolds; Masonry and Concrete Structures	10-4-57	10-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	7-15-57	7-1-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	11-20-57	1-9-58
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	10-14-57	10-11-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during August 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,251,258 to 2,254,196, inclusive
Plant Patents ..... Numbers 480 to 488, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

In re Libby

No. 6358. Decided May 23, 1958. Petition for rehearing denied June 24, 1958

[— CCPA —; — F.2d —; 118 USPQ 94]

1. Prior Art—Patents—Application Statement Applied to Prior Art Patents.

Where appellant's application stated that "the commercial grades of amidoalkylidene sulfonates nearly always contain from 1 to about 20% or more of fatty material as an impurity," *Held* that such impurities would normally be present in such sulfonates as used by the reference patentees.

2. Patentability—Composition of Matter—Composition Suggested by Prior Art But Function and Advantages Not Stated.

"Since the references fairly suggest a detergent composition satisfying the requirements of the appealed claims, it is immaterial that they do not state that such a composition will function in the manner set forth in appellant's application, or that it will have the specific advantages which he alleges for it. It is well settled that a patent cannot be properly granted for the discovery of a result which would flow naturally from the teaching of the prior art."

3. Same — Reference — Reference Patentee Need Not Understand Scientific Principles Involved.

"It is true that Richardson does not appear to have recognized that the amidoalkylidene sulfonates contain fatty impurities which inhibit sudsing, or that the inhibiting effect of such impurities may be overcome by the claimed alkylolamides, but he does recognize that improved cleaning and sudsing result when the latter compounds are added to detergents which contain the former. It is not necessary that a patentee should understand the scientific principles underlying his invention, so long as he makes a sufficient disclosure to enable other persons skilled in the art to practice the invention."

4. Same—Invention—Discovery of Efficiency and Underlying Principle Unavailing When Compositions Suggested by Prior Art.

"We * * * are of the opinion that the compositions covered by the appealed claims are fairly suggested by the prior art cited and that neither appellant's alleged discovery that such compositions are more efficient than might have been expected, nor his discovery of a principle underlying such efficiency, constitutes a patentable invention."

5. Same—Particular Subject Matter—Detergent Composition.

Claims to a detergent composition *Held* unpatentable over a combination of prior art patents.

Appeal from the Patent Office. Serial No. 154,739.

AFFIRMED.

Brumbaugh, Free, Graves & Donohue (*Eben M. Graves* and *John R. Janes* of counsel) for Libby.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before Johnson, *Chief Judge*, and O'Connell, Worley, and Rich, *Associate Judges*

O'Connell, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the Primary Examiner's rejection of claims 1, 2, 5, and 7 of appellant's application, No. 154,739, for a patent on a cleaning composition. The remaining claims of the application were held to be not readable on the elected species and were not considered by the Board. Accordingly they are not before us for consideration. *In re Hill et al.*, 34 CCPA (Patents) 788, 158 F.2d 1001, 72 USPQ 203.

Claims 2, 5, and 7 are dependent upon claim 1 and are each more specific than that claim as to one of the elements of the composition. However, the alleged patentability of claims 2, 5, and 7 depends entirely on the matter contained in claim 1, and it is clear that all the rejected claims must stand or fall together. Accordingly it will be sufficient for the purposes of this opinion to consider only claim 1 specifically. That claim is as follows:

1. A detergent composition comprising between about 10 and about 20% of a detergent mixture consisting essentially of from about 85 to about 50% of a water-soluble alkyl aryl sulfonate and from 15 to 50% of an amidoalkylidene sulfonate of the structure:

$$R{-}CO{-}N{-}(CH_2)_nSO_3A$$
$$\quad\quad\quad

sition and that an alkylolamide, when added to the composition in the amount set forth in claim 1 overcomes this inhibiting effect with a resultant increase in sudsing. It does not appear to be alleged that any of the proportions of ingredients set forth in the appealed claims are critical or that they involve anything more than judicious selection within the skill of the ordinary worker in the art.

The Lewis patent discloses a detergent comprising (1) a phenyl polypropylene sulfonate, which sulfonates, as conceded in appellant's brief, are alkyl aryl sulfonates, (2) an amidoalkylidene sulfonate ("Igepon") and (3) tetrasodium pyrophosphate, which is an alkali metal pyrophosphate. Lewis thus discloses a detergent composition containing the first, second, and fourth of the four essential components of appellant's claim 1, as above set forth. The third claimed ingredient, namely, the alkylolamide of the structure set forth in claim, is not disclosed by Lewis.

The Board found that the Richardson patent discloses the use in detergents of "appellant's amidoalkylidene sulfonate," and that holding, in our opinion, is correct. It is not, in fact, disputed here by appellant, who concedes in his brief that "the actual substances disclosed in Lewis and Richardson, if combined, inherently give a detergent composition having the characteristics of the appellant's." Accordingly, as properly stated by the Board, the sole issue here is whether it involved invention to add the alkylolamide of Richardson to the above-described detergent mixture of Lewis. That question was answered in the negative by the Board, and we agree with its decision for the following reasons.

The Richardson patent discloses that alkylolamides, including those of the structure set forth in appellant's claims, are effective for increasing the cleansing and sudsing properties of a wide variety of detergents, including "Higher fatty acid amides of low molecular weight aminoalkyl sulfonic acids, such as the ammonium salt of the oleic acid amide of methyl taurine." The compounds thus described include appellant's amidoalkylidene sulfonates. [1] While Richardson makes no mention of fatty impurities, it is stated in appellant's application that "the commercial grades of amidoalkylidene sulfonates nearly always contain from 1 to about 20% or more of fatty material as an impurity," and it follows that such impurities would normally be present in such sulfonates as used by Richardson and Lewis.

Since Richardson discloses the desirability of adding an alkylolamide of the structure claimed by appellant to detergents which include amidoalkylidene sulfonates, and since the Lewis patent discloses detergents containing such sulfonates, we are of the opinion that it would not involve invention to combine the Richardson and Lewis disclosures in the manner above described, which would produce the detergent claimed here by appellant. The detergents disclosed by Lewis are of the type which Richardson proposes to improve by the addition of his alkylolamides.

[2] Since the references fairly suggest a detergent composition satisfying the requirements of the appealed claims, it is immaterial that they do not state that such a composition will function in the manner set forth in appellant's application, or that it will have the specific advantages which he alleges for it. It is well settled that a patent cannot be properly granted for the discovery of a result which would flow naturally from the teaching of the prior art. *In re Kepler*, 30 CCPA (Patents) 726, 132 F.2d 180, 56 USPQ 177; *In re Bourdon*, 44 CCPA (Patents) 740, 240 F.2d 858, 112 USPQ 328; *In re Eisenhut*, 44 CCPA (Patents) 974, 245 F.2d 481, 114 USPQ 287.

[3] It is true that Richardson does not appear to have recognized that the amidoalkylidene sulfonates contain fatty impurities which inhibit sudsing, or that the inhibiting effect of such impurities may be overcome by the claimed alkylolamides, but he does recognize that improved cleansing and sudsing result when the latter compounds are added to detergents which contain the former. It is not necessary that a patentee should understand the scientific principles underlying his invention, so long as he makes a sufficient disclosure to enable other persons skilled in the art to practice the invention. *In re Charles Ebert et al.*, 19 CCPA (Patents) 1087, 57 F.2d 356, 13 USPQ 124.

Moreover, we agree with the Patent Office tribunals that, so far as the instant case is concerned, there is no substantial difference between increasing the sudsing properties of a detergent and overcoming the inhibiting effect of an impurity in the detergent. The net result in either case would be an improvement in the production of suds.

The situation here presented is similar to that in *In re Gauerke*, 24 CCPA (Patents) 725, 86 F.2d 330, 31 USPQ 330. In that case the appellant had discovered that the addition of sunflower seed oil to certain resins would prevent them from yellowing. The prior art taught the use of vegetable oil in the preparation of such resins and sunflower seed is, of course, a vegetable oil. It was held that since the art fairly suggested the addition of sunflower seed oil to the resins, it was immaterial that the specific advantage with respect to yellowing was not disclosed, since that advantage would inherently be obtained when the oil was used. Similarly, in the instant case, the proposed combination of the Richardson and Lewis disclosures will inherently result in the overcoming of the suds inhibiting effect of the fatty impurities which, appellant states, are nearly always present in the amidoalkylidene sulfonate.

Appellant contends that the Board's holding in the present case is in conflict with its decision in *Ex parte Vitale et al.*, Appeal No. 422—20, in the file of U. S. Patent No. 2,746,981. That decision, of course, is not controlling here. So far as the two decisions may appear to be in conflict, we are of the opinion that the decision in the instant case, rather than the earlier one, states the correct principles to be followed.

[4] We have given careful consideration to appellant's arguments but are of the opinion that the compositions covered by the appealed claims are fairly suggested by the prior art cited and that neither appellant's alleged discovery that such compositions are more efficient than might have been expected, nor his discovery of a principle underlying such efficiency, constitutes a patentable invention.

[5] The decision of the Board of Appeals is affirmed.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

IN RE HALL ET AL.

No. 6346. Decided May 2, 1958

[— CCPA —; 254 F.2d 629; 117 USPQ 403]

1. PATENTABILITY—REFERENCES—WORDS USED IN OTHER THAN DICTIONARY SENSE IN APPLICATION—WORDS AND PHRASES—"SLURRY."

In regard to an argument that a reference patentee did not call his moist substance a slurry, and his patent did not disclose that his apparatus could be utilized to handle a slurry, *Held* that "while slurry is usually taken to mean a *fluid* mixture of solid and liquid, thin and watery, which is its dictionary meaning, appellants, exercising their privilege of being their own lexicographers, have used it in a different sense," and the "equal amounts by weight of carbon black and water" of the patent "is 'slurry' by appellants' standards."

2. SAME—PARTICULAR SUBJECT MATTER—RECOVERING CARBON BLACK AND CONVERTING IT INTO PELLET FORM—COMBINING REFERENCES.

In an application claiming a process of recovering flocculent carbon black from furnace gases and converting it into pellet form, *Held* that a teaching of removal of carbon black from a gaseous stream might be combined with a teaching of pellet formation to anticipate the application.

APPEAL from the Patent Office. Serial No. 102,812.

AFFIRMED.

Herbert W. Kenway, Kenway, Jenney, Witter & Hildreth, and *Dos T. Hatfield* for Hall et al.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the decision of the Patent Office Board of Appeals affirming the Examiner's rejection of claims 23, 25–28, 30 and 31 of the application of Arthur L. Hall and Charles A. Stokes entitled "Recovery of Pigments from Aerosols," Serial No. 102,812, filed July 2, 1949.

The application claims a process of recovering flocculent carbon black or other finely divided pigment from furnace gases and converting it into pellet form convenient for handling and transportation.

Claim 28, one of the more limited claims, is descriptive of the invention and reads as follows:

> 28. The process of recovering furnace carbon black from reaction product gases which comprises the steps of conducting furnace reaction product gases with carbon black suspended therein through a dry collection zone thereby separating a portion of the black from the gases, then passing the gases through a water scrubbing zone thereby washing the greater proportion of the remaining black out of the gases and forming a carbon black-water slurry, concentrating the slurry to a solids content of 2–10% by weight, mixing a wetting and dispersing agent therewith, conducting the previously separated dry black and the slurry to a pelleting zone in proportions such that the ratio of carbon black to water therein ranges from 3:1 and 1:3 by weight, and mechanically agitating the black until it is converted into discrete self-sustaining pellets.

The references relied upon are:

Lewis, 1,801,436, Apr. 21, 1931.
Skoog et al., 2,213,056, Aug. 27, 1940.
Offutt, 2,228,704, Jan. 14, 1941.
Hedberg et al., 2,278,194, Feb. 17, 1942.
Thodos, 2,457,963, Jan. 4, 1949.
Potts (British), 429,088, May 23, 1935.

In essence, the procedure is to burn some material such as natural gas in a starved oxygen atmosphere and pass the escaping gases therefrom, carrying flocculent carbon, through a series of conventional cyclone separations and thereafter washing the gaseous stream in a conventional scrubber. The slurry produced from the scrubber is employed as a source of the requisite liquid for a conventional pelleting operation in which the dry product of the cyclone separation is combined therewith. A wetting agent may be employed in the latter process.

The Board affirmed the rejection of all the claims as unpatentable over Lewis or Hedberg et al. in view of Thodos, Offutt or Skoog et al. The Potts British patent was relied upon to demonstrate the use of a wetting agent in the formation of a slurry of carbon black.

The Lewis and Hedberg et al. patents show the removal of finely divided particles from a gaseous suspension by passing it through a water spray. Hedberg et al. appears to be more concerned with cleaning gases whereas Lewis' particular object is the removal of flocculent carbon from the gas stream. The carbon is removed by passing the gases through a *series* of collectors. After the removal of the carbon, the slurry of Lewis is passed through a filter press wherein cakes are formed and later submitted to a conventional drying process.

The patents to Skoog et al., Offutt and Thodos disclose the preparation of carbon black pellets. Appellants admit that the pelleting methods they use are old and we need not consider them beyond noting that a certain amount of liquid, such as water, is needed to form pellets and dry fluffy carbon must be fed into the process.

The Potts reference discloses that a stable aqueous suspension of carbon black and water may be obtained with or without a surface tension depressing agent. As a specific example the reference teaches 15 to 25 parts of carbon black and 85 to 75 parts of water containing the wetting agent.

As we view the case, it is not necessary to further discuss the other references.

We are of the opinion that appellants' claimed process is unpatentable over Lewis in view of Skoog et al. and shall therefore only consider appellants' arguments directed toward those references.

Appellant contends that Lewis is not concerned with making pellets, but merely with making filter cakes. As we view the Lewis reference it teaches exactly what it is relied on for, viz: the removal of carbon black from a gaseous stream by a series of conventional separators, and counsel for appellants at oral argument admitted this to be old and no part of the invention. What Lewis and appellants eventually do with the product of the separators is of no weight on the question of whether Lewis is an applicable reference.

In their brief, counsel for appellants admit that the Skoog et al. reference teaches pelleting involving the introduction of water, a wetting agent, and dry flocculent carbon which are admixed to form a moist substance, and the later admission of more dry carbon to that moist substance. The argument appears to be over the fact that Skoog does not call his moist substance a slurry, and that the reference does not disclose that the apparatus could be utilized to handle a slurry.

[1] While slurry is usually taken to mean a *fluid* mixture of solid and liquid, thin and watery, which is its dictionary meaning, appellants, exercising their

privilege of being their own lexicographers, have used it in a different sense. In their application they say,

> While the process of our invention * * * is best adapted to the use of a pumpable and sprayable *slurry* * * * it may be adapted to the use of *slurries* wherein the weight of the solids is nearly equal to that of the liquid * * *. A heavy *slurry* not easily pumpable may be screw conveyed. * * * The use of such *slurries* of heavy solids concentration is within the contemplation of our invention. [Emphasis ours.]

Earlier they pointed out, picturesquely,

> A pound of feathers mixed with as much as two gallons of water, representing a 6% concentration on a weight basis, will make an extremely doughy paste. The same is true, for instance, of carbon black, such that a 6% carbon black *slurry* has the consistency of heavy cream. A 10% slurry is highly viscous with a consistency comparable to petrolatum * * *. [Emphasis ours.]

What then of a "slurry" having a carbon content nearly equal by weight to the water? Skoog discloses "equal amounts by weight of carbon black and water" fed to his pelleting machine. That is "slurry" by appellants' standards.

Counsel for appellants urge that the slurry composition must be within a critical range and refer in their brief to a portion of his application to substantiate the point. This argument does not impress us since we note the very portion relied on discloses a lack of criticality, 2–10% being the range claimed and the specification showing that the process "may be carried out employing any pumpable and sprayable slurry" and that "a slurry of more than 30% is not readily pumpable."

Summarizing, appellants are employing in their process an admittedly old carbon black recovery process ending with a water scrubbing step which produces a slurry. They argue the prior art references do not show "dividing this entire production into a slurry component and a dry component and utilising these components to produce a pelletized product." But division is inherent in the old recovery steps they elected to use. To pelletize is nothing but a commercial election of product form. Having made that election, nothing could be more obvious than to use the slurry as the source of the essential wetted carbon.

[2] We are of the opinion that the Lewis teaching of removal of carbon black from a gaseous stream may be combined with the Skoog teaching of pellet formation to anticipate the instant application.

The decision of the board is affirmed.

AFFIRMED.

JACKSON, *J.*, retired, recalled to participate was present at the argument of this case but did not participate in the decision.

U. S. Court of Customs and Patent Appeals

S. C. JOHNSON & SON, INC.

v.

CONSUMERS COOPERATIVE ASSOCIATION

No. 6947. Decided June 18, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. TRADEMARKS—OPPOSITION—LONG PRIOR, BRIEF ENTRY INTO BUSINESS WITHOUT USE OF TRADEMARK.

Where the opposer, to the registration of "GLO-CANDLE" for wax in bulk for molding candles, for a short time during the later part of World War II made and sold candles to the Quartermaster Corps but stopped with the cessation of hostilities, and there was no showing that any trademark was used in conjunction with the sales and the sales ceased long ago, *Held* that opposer's brief entry into the candle business was of no significance in the opposition, and that the public would not be led to associate opposer with either candles or candle wax.

2. SAME—SAME—OPPOSER'S SALES FOR OTHER THAN APPLICANT'S USES AND WITHOUT TRADEMARK.

"We are of the same mind as to opposer's bulk wax sales. The record does not clearly show that any bulk wax sales were made by opposer for use in candle manufacture though it is possible some bulk wax it has sold *could* be used for that purpose. In any case, bulk wax sales were not shown to have been made under any trademark and their only possible significance is that they were made by the company that owns the "GLO-COAT" trademark. Under the circumstances of this case we do not feel that this is a very significant factor on the main issue of likelihood of confusion as between the marks involved."

3. SAME—SAME—"GLO-CANDLE" AND "GLO-COAT."

Held that the decision of the Assistant Commissioner, dismissing the opposition to registration of "GLO-CANDLE" for wax in bulk for molding candles by the registrant of "GLO-COAT" for "paint enamels and liquid polishes for finishing and coating floors and other surfaces," is affirmed.

APPEAL from the Patent Office. Opposition No. 32,527.

AFFIRMED.

Francis C. Browne (*Mead, Browne, Schuyler & Beveridge* of counsel) for S. C. Johnson & Son, Inc.

C. Earl Hovey for Consumers Cooperative Association.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the decision of the Assistant Commissioner of Patents (111 USPQ 137) in Opposition No. 32,527 to an application to register "GLO-CANDLE" for "Wax in Bulk for Molding Candles," (use since February of 1951 being asserted), by the registrant of "GLO-COAT" for paint enamels and liquid polishes for finishing and coating floors and other surfaces.[1]

The Examiner of Interferences dismissed the opposition and his decision was affirmed by the Assistant Commissioner.

Only the opposer took testimony, at the taking of which applicant was not represented. In this court opposer's counsel appeared and argued the case but applicant submitted on brief.

The facts shown by the record are not in dispute and the principal facts are as follows:

Opposer is a well-known manufacturer of waxes and polishes. One of its major products is, to quote the actual label, "Johnson's GLO-COAT A Self Polishing Wax for Floors." Sales of this product since 1932 have exceeded $158,000,000 and advertising expenditures therefor during the same period exceeded $22,000,000. As the Assistant Commissioner held, "There is no doubt but that opposer has wide consumer acceptance of its 'GLO-COAT' polish, and it enjoys a valuable goodwill symbolized by the mark." The record does not show that "GLO-COAT" is applied to any product other than the self-polishing liquid floor wax. Opposer also has a registration, No. 544,990, for "ORANGE GLO," said to be for a colored wax emulsion for coating vegetables. This registration is not pleaded in the notice of opposition but was introduced in evidence, during the taking of testimony, as an exhibit. Opposer has also sold over $1,300,000 worth of sugar cane wax in bulk since 1947 for the fruit

[1] Reg. No. 321,364, issued January 29, 1935, published in accordance with section 12(c) on April 27, 1948.

coating emulsion business and various industrial uses, but these sales in recent years appear to have been made through another corporation. For a short time during the later part of World War II opposer made and sold candles to the Quartermaster Corps but this business stopped with the cessation of hostilities.

[1] We regard opposer's brief entry into the candle business during the war as of no significance here. There is no showing that any trademark was used in conjunction with such sales and the sales themselves ceased long ago. The public would not be led thereby to associate opposer with either candles or candle wax.

[2] We are of the same mind as to opposer's bulk wax sales. The record does not clearly show that any bulk wax sales were made by opposer for use in candle manufacture though it is possible some bulk wax it has sold *could* be used for that purpose. In any case, bulk wax sales were not shown to have been made under any trademark and their only possible significance is that they were made by the company that owns the "GLO-COAT" trademark. Under the circumstances of this case we do not feel that this is a very significant factor on the main issue of likelihood of confusion as between the marks involved.

The "ORANGE-GLO" mark, as we have said, was not pleaded as a ground of opposition, and, while one witness said it is a mark still in use, no evidence was given as to the extent of its use. It is not mentioned in either of the opinions below and the opposer has very little to say about it here. Every time it is mentioned in appellant's brief, the use of this mark is referred to in the past tense and it has not been alleged that there is any likelihood of confusion by reason of concurrent use of "GLO-CANDLE" and "ORANGE-GLO."

It is apparent that when the issue is cleared of irrelevancies, it comes down to the question of whether opposer's use of "GLO-COAT" has been such as to make it likely that purchasers and prospective purchasers of "GLO-CANDLE Wax" will be deceived or confused into thinking that the source of the latter merchandise is the same as that of "GLO-COAT" floor wax. After thoughtful consideration of the record, briefs and the opposer's oral argument, we find ourselves in complete accord with the conclusions of the Assistant Commissioner which are all contained in the following paragraph:

> The sole question, then, is whether or not purchasers familiar with "Glo-Coat" liquid polish are likely, upon seeing "Glo-Candle" candle wax, to associate it with opposer's product or with opposer and assume that it originates with the producer of "Glo-Coat" liquid polish. This question involves an evaluation of the probable psychological reaction in the minds of such purchasers when they see the marks on the goods. "Glo-Coat" on liquid polish is likely to stimulate an association with a coating which imparts a shine. "Glo-Candle" on candle wax is likely to stimulate an association with incandescence. This is to say that although each of the marks embodies the common word "Glo" (a misspelling of "glow") the prefix portion of the marks, when combined with the respective suffixes and applied to the respective products, creates a quite different impression. Under these circumstances, it is not believed that purchasers are likely to associate "Glo-Candle" candle wax either with opposer's product or its producer.

We are, further, in agreement with the conclusion of the Examiner of Interferences that the cumulative effect of the differences between the goods and the differences between the marks obviates any reasonable likelihood of confusion.

Appellant's major attack on the Assistant Commissioner's reasoning is that she applied an erroneous test in considering "confusion as to *goods* rather than *source of origin* of the goods." In view of her express statement, above quoted, that the question is whether purchasers might assume that "GLO-CANDLE" candle wax "originates with the producer of 'GLO-COAT' liquid polish," the alleged error of the Assistant Commissioner appears to be based on a misreading of her opinion. She was clearly passing on likelihood of confusion as to source or origin.

To add our own reaction to appellee's mark as shown in the specimen attached to its application, the impression we get from it is that the product is wax for making glo-candles, whatever they are. On the other hand the impression we get from the "GLO-COAT" labels in evidence is that "GLO-COAT" is one of the several wax products of S. C. Johnson & Son, Inc. The by-line "made by the makers of Johnson's Wax" enhances this reaction. This company has created for itself and its wax by advertising such notoriety that "GLO-COAT" does not create the impression of a trademark for wax products generally (and it surely is not such a mark) but rather that the makers of Johnson's wax have brought forth a specific product called "GLO-COAT." The result is that even though this trademark is representative of a valuable goodwill for the product to which it is applied, and specifically for Johnson its maker, it is not such a mark as would cause any wax product sold under any mark including the word "glow" or its phonetic equivalents to be associated in the public mind with the opposer. In spite of the ingenious forensic efforts to bring bulk wax and candles into association with the trademark "GLO-COAT," in our opinion no such association exists.

[3] For the foregoing reasons, the decision of the Commissioner of Patents is affirmed.

AFFIRMED.

WORLEY, *J.*, concurs in result.

JACKSON, *J.*, retired, recalled to participate, was present at the argument of this appeal, but did not participate in the decision.

U. S. Court of Customs and Patent Appeals

IN RE WYNNE ET AL.

No. 6368. Decided June 18, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—COMBINATION—SOLUTION OF A PROBLEM, DESIRABLE NEW RESULT—CLAIMED STEPS OLD INDIVIDUALLY.

"It is stated in appellants' specification that previous attempts to form sheets of slow setting opaque glass by continuous processes were unsuccessful due to distortion of the glass. Neither the Examiner nor the Board has disputed that statement and no reference showing the formation of such glass by a continuous process has been cited. It appears, therefore, that by the claimed combination of steps, appellants have been able to solve a problem and produce a desirable result not heretofore obtainable. Under such circumstances, it is immaterial that the claimed steps may be old individually."

2. SAME—RESULT FLOWING NATURALLY FROM TEACHING OF PRIOR ART—CASE DISTINGUISHED.

"While it is true that patentability may not be predicated on a result which would flow naturally from the teaching of the prior art, even though the art does not suggest that particular result or its desirability, * * *, the process recited by the appealed claim would not naturally be produced by following the teachings of the references."

3. SAME—PROCESS—*In re Ducci* DISTINGUISHED.

"In holding that the application of the claimed method to slow setting glass was not inventive, the Board relied on *In re Ducci*, 42 CCPA (Patents) 1068, 225 F.2d 683, 107 USPQ 66, in which it was held that the application to glass having a particular linear coefficient of expansion of a process previously applied to other types of glass was unpatentable. In that case, however, the court pointed out that appellants' glass was analogous to the glass of the references and that 'it is quite evident that it can be converted to multicellular glass by the method disclosed in the references.' Here, on the other hand, it clearly could not be evident that a continuous process which had been successful with quick setting glass would also be applicable to slow setting glass, since previous attempts to apply the continuous process to the slow setting glass had not been satisfactory."

4. SAME—INVENTION—DOUBT RESOLVED IN FAVOR OF APPLICANTS.

"* * * it cannot be said that the soundness of the rejection is clear beyond doubt; and doubts in such cases are to be resolved in favor of applicants."

5. SAME—PARTICULAR SUBJECT MATTER—METHOD OF MANUFACTURING GLASS.

A claim to a "continuous method of manufacturing opaque glass in ribbon form from a slow setting glass composition" *Held* patentable over the cited prior art.

APPEAL from the Patent Office. Serial No. 291,822.

REVERSED.

Morrison, Kennedy & Campbell (*Luther E. Morrison* and *S. Augustus Demma* of counsel) for Wynne et al.

Clarence W. Moore (*S. Wm. Cochran* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the decision of the Patent Office Board of Appeals affirming the rejection of claim 1, the only remaining claim of appellants' application No. 291,822, for a patent entitled "Method of Manufacture of Opaque Glass in Ribbon Form" on the ground of lack of invention over prior art.

The appealed claim reads:

1. A continuous method of manufacturing opaque glass in ribbon form from a slow setting glass composition which comprises continuously drawing molten glass from a reservoir, continuously casting it in ribbon form and continuously feeding the formed ribbon towards a supporting surface, and forming by impression on the reverse face of the ribbon while in plastic form and while in transit towards said supporting surface intersecting sets of reinforcing ribs of thread like nature, the height of the ribs from the reverse face being about .03" to .06", the faces of the ribs being mutually divergent at an angle which may vary from about 135° to about 90°, each set of ribs being spaced at a pitch of about seven to the inch, the ratio of a total surface of the reverse face to the area of the obverse face being approximately between 1.1 to 1 and 1.4 to 1 whereby an accelerated cooling and setting of the glass in the ribs is achieved, and an integral stiffening mesh of chilled glass is produced on the reverse face during the continuous movement of the ribbon towards said supporting surface.

The references relied on are:

Walsh (Design), 44,948, Nov. 25, 1913.
Ferris, 83,841, Nov. 10, 1868.
Brogan et al., 370,176, Sept. 20, 1887.
Nameche, 1,928,026, Sept. 26, 1933.

Appellants' application discloses a process of the type in which molten glass passes from a tank between spaced upper and lower rolls which form it into a sheet of the desired thickness, after which it passes over a short inclined surface and onto a horizontal cooling support. Upon leaving that support it is transported by rollers to a lehr where it is annealed. The process is continuous and the glass is in the form of a uniformly moving sheet, rather than in batches.

It is stated in appellants' specification that previous attempts to manufacture slow setting glass by a process of the kind above described, which is an old process as applied to quick setting glass, have been unsuccessful, apparently due to the fact that the glass remains so soft that it becomes distorted in passing from the forming rolls to the cooling surface, which distortion is increased during cooling.

Appellants avoid such distortion of the glass by providing their lower roll with two intersecting sets of grooves which form on the under surface of the glass passing over the roll intersecting sets of upstanding ribs of the proportions specifically set forth in the appealed claim. The provision of these ribs not only increases the exposed surface area, with a resultant increase in the rate of cooling, but also increases the rigidity of the glass, so that distortion of the ribbon between leaving the rolls and deposit on the cooling surface is eliminated. Appellants' specification indicates that the particular size and spacing of the ribs as set forth in the appealed claim, are essential to proper operation.

The Brogan et al. patent relates to the manufacture of checkered glass by a batch process in which a sheet of molten glass is cast upon a table having a checkered surface and is rolled with a smooth roller, so that its lower surface conforms to the surface of the table. After the glass has cooled enough to be partially stiffened it is momentarily lifted, by hand, at one end "to admit air under it and prevent dimming of the checkered surface of the glass by the rapid cooling action of the table." The patent also suggests, as less satisfactory, an alternative prior art procedure in which the roller has a checkered surface and the table a smooth one.

The Walsh patent merely shows a design for checkered sheet glass in which there are grooves where appellants have ribs and adds nothing material to which is disclosed by Brogan et al.

The patent to Ferris discloses a continuous process of making sheet glass in which the glass is formed between rollers and passes onto a horizontal cooling surface. It is stated in the patent specification that the glass may be ornamented by engraving any desired design upon either roller "to produce either relief or countersunk designs in the glass."

The Nameche patent also relates to a continuous process of making sheet glass and discloses an arrangement of glass tank, upper and lower rolls and supporting and cooling surfaces similar to those shown by appellants. The surfaces of the rolls are smooth and no provision is made for forming ribs or other protuberances on either surface of the glass.

In considering the claim, it is to be noted that appellants' specification defines the "reverse" face of the glass as the one which "lies on the table" or, in other words, the lower face.

The claim was rejected on Brogan et al. on the ground that it would be obvious in view of the teaching of that patent to form checkered glass in a continuous sheet by correspondingly shaping one of the rolls by which the sheet was formed, and was further rejected on Ferris or Nameche in view of Walsh on the ground that it would not require invention to provide one of the rollers of either of the former patents with the design disclosed by the latter.

While the rejections involve specifically different selections of features from the various references, they

are actually based on a single proposition, which may be stated as follows: (1) Slow setting opaque glass is old; (2) It is old to form quick setting sheet glass by a continuous process in which molten glass is passed between upper and lower rolls, either of which may be engraved to produce a desired ornamental design on the glass, after which the glass is cooled on a supporting surface; (3) It is old to ornament sheet glass with a pattern of intersecting sets of ribs; and (4) It would be obvious to select a design of intersecting ribs of the dimensions specified in the appealed claim and to apply it to the lower surface of a sheet of slow setting glass by impressing it on the lower roll. The first three statements are correct and it is only necessary to determine whether they support the fourth.

Superficially it might appear that the kind of glass, specific design and particular roll to which the design is applied are merely matters of choice; and that would doubtless be the case if the particular features selected did not combine to produce a new result not suggested by the references. Such a result, however, is clearly produced by the specific combination set forth in the appealed claim.

[1] It is stated in appellants' specification that previous attempts to form sheets of slow setting opaque glass by continuous processes were unsuccessful due to distortion of the glass. Neither the Examiner nor the Board has disputed that statement and no reference showing the formation of such glass by a continuous process has been cited. It appears, therefore, that by the claimed combination of steps, appellants have been able to solve a problem and produce a desirable result not heretofore obtainable. Under such circumstances, it is immaterial that the claimed steps may be old individually.

[2] While it is true that patentability may not be predicated on a result which would flow naturally from the teaching of the prior art, even though the art does not suggest that particular result or its desirability, *In re Kepler*, 30 CCPA (Patents) 726, 132 F.2d 130, 56 USPQ 177, the process recited by the appealed claim would not naturally be produced by following the teachings of the references. They do not even recognize the existence of a problem in the continuous production of slow setting glass.

There is nothing in any of the references to suggest that the placing of ribs on sheet glass tends to avoid distortion or facilitates the manufacture of the glass in any way. Accordingly, since the application of a continuous process employing rolls to smooth slow setting glass had been found not to be feasible, there would be no reason to suppose that such glass could be produced by that process if a design were impressed on it.

[3] In holding that the application of the claimed method to slow setting glass was not inventive, the Board relied on *In re Ducci*, 42 CCPA (Patents) 1088, 225 F.2d 683, 107 USPQ 88, in which it was held that the application to glass having a particular linear coefficient of expansion of a process previously applied to other types of glass was unpatentable. In that case, however, the court pointed out that appellants' glass was analogous to the glass of the references and that "it is quite evident that it can be converted to multicellular glass by the method disclosed in the references." Here, on the other hand, it clearly could *not* be evident that a continuous process which had been successful with quick setting glass would also be applicable to slow setting glass, since previous attempts to apply the continuous process to the slow setting glass had not been satisfactory.

While each of the steps of appellants' process is old, individually, their combination in the specific manner claimed is not disclosed or fairly suggested by the references and it produces a new and unobvious result. The appealed claim is commensurate in scope with their invention and fairly defines their contribution to the art. Certainly [4] it cannot be said that the soundness of the rejection is clear beyond doubt; and doubts in such cases are to be resolved in favor of applicants. *In re Hummer*, 44 CCPA (Patents) 814, 241 F.2d 742, 113 USPQ 66; *In re Citron*, 45 CCPA (Patents) 773, 251 F.2d 610, 116 USPQ 409.

[5] The decision of the Board of Appeals is reversed.

REVERSED.

REISSUES

AUGUST 12, 1958

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

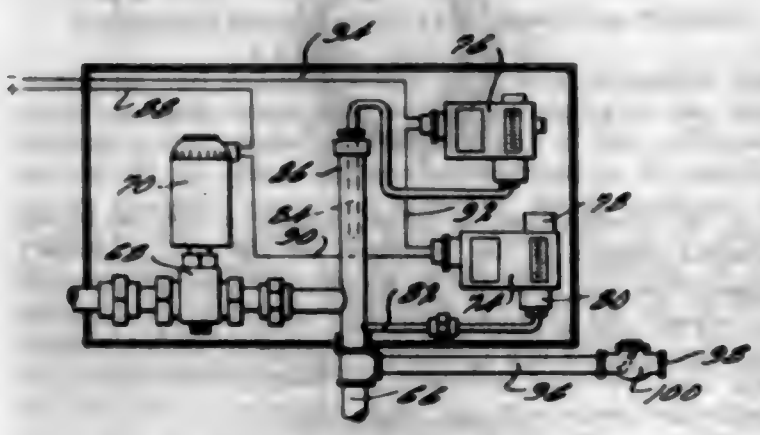
24,513

STEAM HEATING SYSTEM

Joseph T. Reader, Grosse Ile, and Robert P. Butler, Birmingham, Mich.

Original No. 2,788,177, dated April 9, 1957, Serial No. 322,372, November 25, 1952. Application for reissue December 10, 1957, Serial No. 701,950

18 Claims. (Cl. 237—9)



1. A steam heating system having a relatively low temperature return line for condensate and noncondensable gases, and a relatively high-temperature return line for condensate and noncondensable gases, pump means in the relatively low-temperature return line for pumping condensate through the line and for maintaining the line under a predetermined pressure less than atmospheric, a separate air inlet for said pump means, pump means in the relatively high-temperature return line for pumping condensate through the line, a receiver in said high-temperature return line in which air and noncondensable gases are separated from liquid condensate traversing said line, a separate air outlet in said receiver through which noncondensable gases in the condensate are vented, a pipe interconnecting the outlet with said inlet, a normally closed valve in and controlling flow through the pipe, pressure-sensitive means for opening said valve in response to pressure conditions in said relatively high-temperature return line, said pressure-sensitive means adapted to open said valve when pressure in the relatively high-temperature return line reaches a predetermined maximum pressure less than atmospheric so as to connect said return line to vacuum in said first-mentioned pump means and to close said valve when pressure in the relatively high-temperature return line reaches a predetermined minimum pressure less than atmospheric so as to close communication between the return line and said first-mentioned pump means, temperature-sensitive means for controlling the valve in conjunction with said pressure-sensitive means and for controlling said pressure-sensitive means in response to temperature conditions in a predetermined portion of the relatively high-temperature return line, said temperature-sensitive means being operative to maintain said valve closed whenever temperature in said location exceeds a predetermined temperature, and a high-temperature vent for said high-temperature return line adapted to release gases to the atmosphere whenever pressure in the line becomes approximately equal to atmospheric pressure.

24,514

PROCESS FOR THE MANUFACTURE OF POLYURETHANE PLASTICS

Peter Hoppe, Troisdorf, and Erwin Weinbrenner and Cornelius Mühlhausen, Leverkusen-Bayerwerk, and Karl Breer, Koln-Flittard, Germany, assignors, by direct and mesne assignments, of one-half to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany, a corporation of Germany, and one-half to Mobay Chemical Company, St. Louis, Mo., a corporation of Delaware

Original No. 2,764,565, dated September 25, 1956, Serial No. 527,106, August 8, 1955. Application for reissue July 18, 1957, Serial No. 675,793

Claims priority, application Germany December 24, 1951

30 claims. (Cl. 260—2.5)

1. In a process for producing solid polyurethane plastics comprising bringing together in an enclosed mixing zone an organic compound having at least two reactive hydrogen atoms, said organic compound being capable of forming polyurethanes, a polyisocyanate and a component influencing the reaction leading to the formation of said solid polyurethane plastics, the improvement which comprises injecting at least one of the two last-mentioned components into said mixing zone intermittently at high frequency at a pressure substantially higher than that in said mixing zone and thereby effecting substantially instantaneous and intimate mixing of said components, and then discharging the resulting mixture while in a liquid state from said mixing zone into a zone where conversion of said liquid mixture into said solid polyurethane plastic takes place.

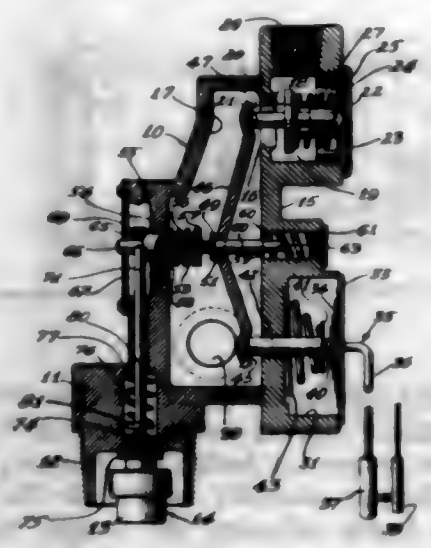
24,515

COMBINATION OVER-TEMPERATURE SHUT-OFF AND FLAME SAFETY VALVE

Samuel G. Eskin, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Original No. 2,758,642, dated August 14, 1956, Serial No. 371,875, August 3, 1953. Application for reissue July 19, 1957, Serial No. 673,751

12 Claims. (Cl. 158—142)



1. A fluid control safety valve particularly adapted to supply gas to a main gas burner comprising a valve body having a chamber therein, an inlet into said chamber, an outlet from said chamber, a valve controlling the passage of gas from said inlet to said outlet, a spring biasing said valve into a closed position, a thermal responsive element,

means operated by said thermal responsive element for opening said valve upon a predetermined temperature rise caused by the heat of a pilot flame, a latch maintaining said means in position to retain said valve in an open position, and a power type thermostatic element having an extensible piston engageable with said latch upon overtemperature conditions, to release said latch and accommodulate said spring to close the valve.

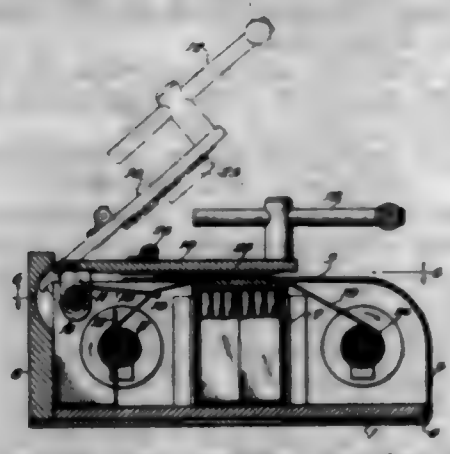
24,516

MACHINE FOR APPLYING TRANSFERS

Kenneth H. Brownlee, Skokie, Ill., assignor to The Meyercord Co., Chicago, Ill., a corporation of Illinois

Original No. 2,493,523, dated January 3, 1950, Serial No. 652,429, March 6, 1946. Application for reissue April 4, 1956, Serial No. 576,225

9 Claims. (Cl. 41—1)



1. In a machine for applying transfers to groups of articles simultaneously, means for moving groups of transfers into applying position, a movable cover carrying a plurality of applying means, means operated by movement of said cover for moving said applying means into applying position, and means operable by movement of said cover after each of said applying means has performed an applying operation for moving additional groups of transfers into applying position.

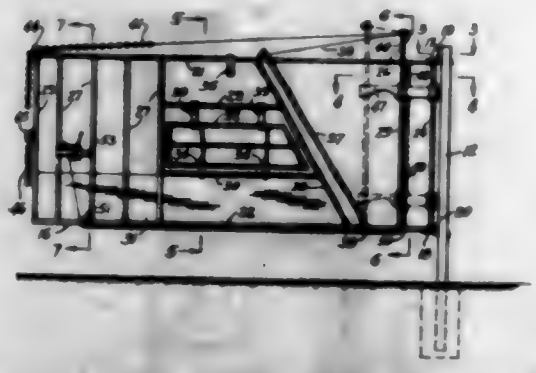
24,517

ANIMAL HOLDING DEVICE

Nels Clarence Cederberg, Longmont, Colo.

Original No. 2,787,982, dated April 9, 1957, Serial No. 572,136, March 16, 1956. Application for reissue October 10, 1957, Serial No. 690,593

8 Claims. (Cl. 119—98)



1. An animal holding device of the character described comprising vertical support means, a vertical frame hinged to said support means for horizontal swinging movement, a detention element pivotally secured to the lower portion of said frame adjacent the hinged vertical edge thereof and extending upwardly beyond the top edge of said frame, vertical guide means positioned between said detention element and said hinged vertical edge and rigidly mounted on said frame, a first flexible control member having the intermediate portion slidably supported in said guide means and having one end secured to the top end portion of said detention element and having the other end detachably secured to the part of said frame remote from said hinged vertical edge, a horizontal yoke member slidably mounted on said guide means and extending substantially over the pivoted end of said detention element, means yieldably supporting said yoke member in elevated position on the frame, and a second flexible control member operatively connected to a reeling mechanism carried by a part of said frame remote from said hinged vertical edge and having one end connected to said yoke member.

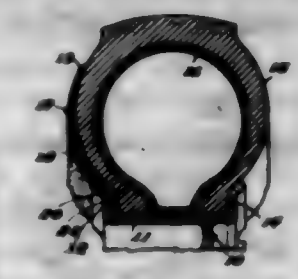
24,518

SIDE WALL FOR TIRES

Bryan W. Nickerson, Jr., Flanders, Del.

Original No. 2,691,550, dated October 12, 1954, Serial No. 222,583, April 24, 1951. Application for reissue October 1, 1956, Serial No. 613,359

3 Claims. (Cl. 301—37)



3. In combination, a wheel having a rim including annular flanges, a tire mounted on the rim, a unitary ornamental side wall having an annular body portion and a recessed lip portion, said side wall having a central circular opening and a peripheral edge of reduced thickness that is curved inwardly, the body portion having an unstressed cross-sectional shape defining a plane that is axially inwardly of the operating position of said body portion, said lip portion being connected to the inside peripheral edge of the body portion and being arcuately recessed for insertion between the rim flange and adjacent portion of the tire, the body portion and lip portion coacting to cause the side wall to engage the inflated tire, and said side wall being constructed of a single piece of elastic material.

24,519

WHEEL COVER

George Albert Lyon, Detroit, Mich.

Original No. 2,757,985, dated August 7, 1956, Serial No. 381,828, September 23, 1953. Application for reissue October 4, 1957, Serial No. 688,817

3 Claims. (Cl. 301—37)



1. In a wheel structure including a wheel having a multi-flanged tire rim, a sheet metal circular cover for the wheel having a curved outer margin terminating in a rearwardly underturned portion doubled back over the rear side of said margin but spaced therefrom and leading into an axially rearwardly disposed continuous circular flange, and a plurality of spaced cover retaining spring fingers curvingly doubled back over said flange

in hook-like form in spaced relation thereto, each comprising an integral extension of said flange and being bent radially outwardly therefrom into a turned portion leading into a substantial[ly] generally axially extending resilient leg overlapping and generally parallel to but closely spaced to said flange and which terminates in an angled short relatively stiff terminal edge for slide-on yieldable and detachable gripping engagement with a wheel rim flange, said leg being yieldable toward said cover flange in the space therebetween, when said angled edge engages said rim flange, to tension said edge in its gripping of said rim flange, *and said fingers being responsive, by resilient yielding of the resilient legs thereof, to pry-off force applied to the cover to release progressively from said gripping engagement of the rim flange.*

PLANT PATENTS

GRANTED AUGUST 12, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,740
ROSE PLANT

Thomas Edison Motose, Fairport, N. Y., assignor to George B. Hart, Inc., Rochester, N. Y., a corporation of New York

Application December 16, 1957, Serial No. 701,949
1 Claim. (Cl. 47—61)

A new and distinct variety of hybrid polyantha rose plant classified botanically as, and belonging to, the continuous or recurrent blooming variety of the cultivated species of the genus Rosa, characterized as to novelty by its thornless canes and branches, by its tendency to produce large number of lateral branches, by its small and narrow leaflets, by the clear pink coloring of its blooms, by its great production of blooms, by its distinctive floral pattern, and by the combination of all the said characteristics, substantially as herein described and illustrated.

1,741
GLADIOLUS PLANT

Carl H. Fischer, St. Charles, Minn., assignor to Selected Glads, Inc., Nashville, Tenn., a corporation of Tennessee

Application December 16, 1957, Serial No. 703,230
1 Claim. (Cl. 47—60)

The new and distinct variety of gladiolus plant substantially as herein shown and described, characterized by its vigorous growth, its novel combination of contrasting colors, the lacy, graceful arrangement of florets on the stem and the needlepointing of its petals.

1,742
ROSE PLANT

Walter E. Lammerts, Livermore, Calif., assignor, by mesne assignments, to Germain's, Inc., Van Nuys, Calif., a corporation of California

Application December 23, 1957, Serial No. 704,851
1 Claim. (Cl. 47—61)

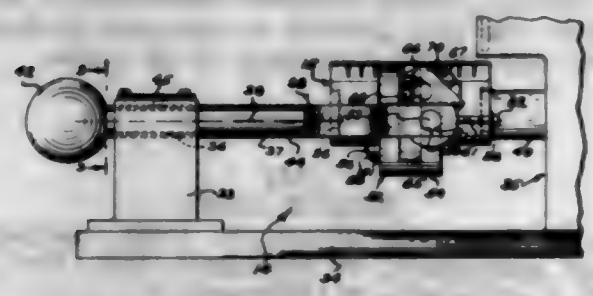
A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by its bushy habit of growth, glossy green foliage, with the new growth heavily pigmented with anthocyanin and giving the new growth and foliage a bronze appearance, its free-branching and cluster-flowering habit, with both the individual flower stems and the cluster flower stems of good length and suitable for cut flower use, its dark red urn-shaped flower buds, its glowing dark red open flowers, ranging in general color tonality from Currant Red to dark Rose Red, and having an almost fluorescent quality, the good color retention of its flowers and their unusually small magenta color content, and the upright habit of its flower petals which surround and cover the stamens and pistils.

PATENTS

GRANTED AUGUST 12, 1958

GENERAL AND MECHANICAL

2,846,682
DEVICE FOR HOLDING A COMPOSITE ARTICLE IN DIFFERENT POSITIONS
Theodore W. Kalbow, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application November 9, 1956, Serial No. 621,330
5 Claims. (Cl. 1—128)



1. A device for supporting an article in different positions comprising a hollow longitudinally slotted cylindrical holder for holding a cylindrical slotted article, a pair of jaws mounted on said holder for circumferential movement toward and away from each other and the slot therein to engage the marginal portions of the slotted article, means for supporting said holder for rotation about an axis transversely of a longitudinal axis through said holder, and cam means on said supporting means for actuating said jaws from open to closed position in response to a predetermined turning movement of the holder about said transverse axis.

2,846,683
STABILIZING CHIN STRAP
Edward R. Dye, Orchard Park, and John M. Egly and Ronald M. Bykowski, Kenmore, N. Y., assignors to the United States of America as represented by the Secretary of the Army
Application October 12, 1956, Serial No. 615,730
16 Claims. (Cl. 2—3)



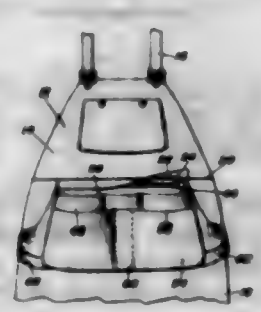
1. The combination with a protective helmet having a transverse axis defining a transverse center of gravity; of a stabilizing chin strap, said chip strap comprising a central chin-engaging portion and bifurcated opposite ends each having comparatively short and substantially vertically directed furcation and a comparatively long rearwardly and upwardly directed furcation, means securing said vertically directed furcations to opposite sides of said helmet forwardly of said center of gravity, said rearwardly directed furcations crossing at the rear of said helmet and extending partially around the same inwardly thereof, and means securing said rearwardly directed furcations to opposite sides of said helmet rearwardly of said center of gravity.

2,846,684
REMOVABLE LENS GOGGLES
John D. Hill, Rocky River, Ohio
Application December 15, 1952, Serial No. 326,099
12 Claims. (Cl. 2—14)



4. A goggle construction comprising an eye ring formed with an internal lens receiving groove, the eye ring also being formed with an elongated slot registering with the groove, a lens removably received in the groove and a wiping element of thin flexible material carried by the eye ring and disposed to engage and make substantially line contact with a received lens.

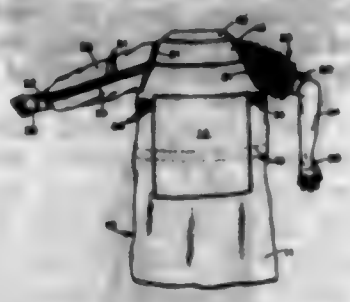
2,846,685
DETACHABLE NAIL AND SMALL TOOL APRON
Walter L. Ehrich, Chebanse, Ill.
Application December 3, 1956, Serial No. 625,655
1 Claim. (Cl. 2—51)



In combination with a workman's garment of the overall type having a main body and front bib joined thereto along a horizontal seam, a depending flap attached to said seam, a tape of a slide fastener assembly attached to said seam, said flap and tape forming an integral part of said horizontal seam, a second tape of a slide fastener assembly, a slide for detachably connecting the edges of the tape together, said flap terminating below the line of juncture of the tapes and concealing the slide fastener assembly, a generally vertically disposed backing member attached to said second tape, an intermediate member attached to the lower edge of said backing member, said intermediate member being reversely folded upon itself in spaced relation to the lower edge of the backing member and extending in overlying relation to the backing member, said backing member and intermediate member being connected with a plurality of vertical rows of stitching thereby forming a plurality of vertically opening pockets, said intermediate member being reversely folded upon itself a second time and forming the upper edge of the pockets and extending downwardly below the first mentioned reverse fold, and an outer member secured to the lower edge of the intermediate member, said outer panel extending in overlying relation to the intermediate member and terminating below the last mentioned reverse fold, said outer member and intermediate member being interconnected by a plurality of vertical rows of stitching thereby forming a plurality of vertically opening pockets disposed below the first mentioned pockets, and an outwardly ex-

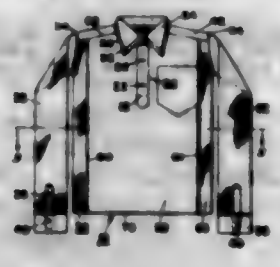
tending tab on each lower corner of the intermediate panel for attachment to the garment thereby holding the pockets adjacent the garment.

2,846,686
SURGICAL GOWNS
Daniel Tamez, Chicago, Ill.
Application June 6, 1955, Serial No. 513,414
1 Claim. (Cl. 2—114)



A surgeon's operating gown comprising in combination, a front section, a pair of back sections having free adjacent edges, fastening means for closing said back sections when the gown is donned from the front thereof, a pair of sleeves extending from sleeve openings in said sections, said sleeves each terminating in a rib-knitted cuff for gripping the wearer's wrist just above the hand, each sleeve being provided with an elastic strip extending from the cuff to the shoulder portion of the gown, said elastic strip comprising elastic threads which are stretched in the normal extended position of the sleeve, thereby constantly exerting an upward pull on the cuff, whereby upon occasion to bare the forearm, the corresponding strip effectively maintaining the corresponding cuff above the elbow, upon pushing the cuff to such position.

2,846,687
MAN'S SHIRT
Bernard Lippman, New York, N. Y.
Application September 13, 1955, Serial No. 534,100
4 Claims. (Cl. 2—115)



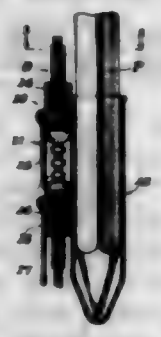
1. A man's shirt including a body of knitted fabric having armholes, sleeves of knitted fabric secured to said armholes, cuffs of woven fabric of synthetic polymer having a high resistance to wrinkling secured at the ends of said sleeves, a yoke of woven fabric of synthetic polymer having a high resistance to wrinkling joined to the knitted fabric, a shirt front of woven fabric of synthetic polymer having a high resistance to wrinkling joined to the knitted fabric, said shirt front superposed above said knitted fabric, and occupying substantially the entire area of the front of the shirt extending from closely adjacent one armhole to closely adjacent the other armhole, a collar band of woven fabric of synthetic polymer having a high resistance to wrinkling joined to said yoke and shirt front, and a fold-over collar of woven fabric of synthetic polymer having a high resistance to wrinkling and including free collar tabs permanently attached to said collar band.

2,846,688
APPAREL FOR NECKWEAR
William H. Meeker, Rochester, N. Y., assignor to Hickok Manufacturing Co. Inc., Rochester, N. Y., a corporation of New York
Application August 10, 1953, Serial No. 373,179
2 Claims. (Cl. 2—150)



1. A slide member for a cord type necktie comprising a casing having a front wall of substantially frusto-triangular outline and edge walls of substantially semi-cylindrical configuration joined to said front wall, back wall portions joined to said edge walls and extending substantially parallel to said front wall, said back wall portions being disposed in abutting relationship to define a back wall whereby a closed hollow casing is defined open only at the ends thereof, said casing being interiorly of gradually decreasing cross sectional area from the base portion to the apical portion, the back wall having in the apical portion a depressed area having edges extending substantially parallel to the edge walls of the slide member so as to define a pair of diverging passages between opposite edges of the depressed area and the adjacent edge walls of the slide member, said depressed area extending toward said front wall.

2,846,689
PENCIL HOLDER
Herman J. Engel, Monterey Park, Calif.
Application December 5, 1955, Serial No. 551,112
2 Claims. (Cl. 2—250)



1. The combination, in a garment, of a pocket comprising two similar and centrally divided pieces of fabric joined to the garment by parallel lines of stitching along the outer edge of each said piece of fabric and a line of stitching along one transverse edge of the pieces of fabric to form said pocket with an open end opposite said transverse edge; a slide fastener connecting the inner adjacent edges of the fabric pieces and extending between the open end of the pocket and said line of transverse stitching, said fastener being permanently closed at the end thereof adjacent said transverse line of stitching; a pencil-holding clip disposed wholly within said pocket and having a longitudinal position with respect to the longitudinal ex-

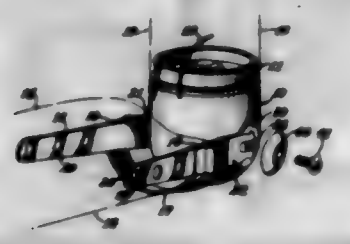
tent of the fastener; two similar and oppositely arranged slides engaged with the fastener, one of said slides being fixedly connected to the clip for longitudinally moving the clip between open and transversely stitched ends of the pocket, one slide, according to the direction of movement of the clip, connecting the separable sides of the fastener and the other disconnecting the same; a pull tab carried by the slide that is unconnected to the clip for lifting the pencil holding clip to the open end of the pocket or lowering it; and a member separate from the clip rigidly connecting the slides.

2,846,690

PROSTHETIC HINGE STRAP

Walter H. Goodwin, Sierra Madre, Calif., assignor to Sierra Engineering Co., Sierra Madre, Calif., a corporation of California

Application December 26, 1956, Serial No. 630,654
6 Claims. (Cl. 3—12.2)



1. A prosthetic joint comprising a butt adapted for attachment to the limb of a user, a hinge strap adapted to be secured to a prosthetic limb and comprising spaced parallel side elements and a connection therebetween, a pin extending through the butt, a projection at each end of the pin having at least one straight side, ends of said side elements each having a slot with at least one straight side and adapted to slide endwise over the respective projection, outside edges of each said end having an irregular configuration, a lock-on element for each end having an open end recess complementary to the respective irregular configuration and adapted to fit thereon, a hold-on element on each side adapted to overlie the lock-on element and a securing member on each side extending through said elements and said end into engagement with the pin.

2,846,691

SPOUT-SHOWER PLUMBING FIXTURE

Rudolf P. Zettinig, Milwaukee, Wis., assignor to Milwaukee Faucets, Inc., Milwaukee, Wis., a corporation of Wisconsin

Application November 19, 1956, Serial No. 623,215
7 Claims. (Cl. 4—148)



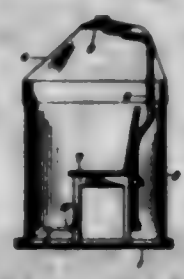
1. In a spout-shower fixture, a conduit member provided with a transverse bore communicable through an inlet with a source of liquid under pressure and through a primary outlet with a discharge spout and through a secondary outlet with a shower head, a round liquid flow control element rotatably confined within said bore and having therein a diametrical through opening providing a passage within the element of gradually enlarging area extending from said inlet to said primary outlet and also having therein a radial opening of smaller area communicating with a medial portion of the said diametrical opening for alternately connecting said through opening with said secondary outlet, and a pendent weight suspended from said element and cooperating therewith to automatically rotate the element to connect said through opening with said inlet and said primary outlet whenever the liquid supply from said source is interrupted.

2,846,692

TRANSPORTABLE DOMESTIC SUDATORIUM

Ernst Baumann, Basel, Switzerland

Application April 7, 1955, Serial No. 499,987
Claims priority, application Switzerland April 9, 1954
4 Claims. (Cl. 4—160)



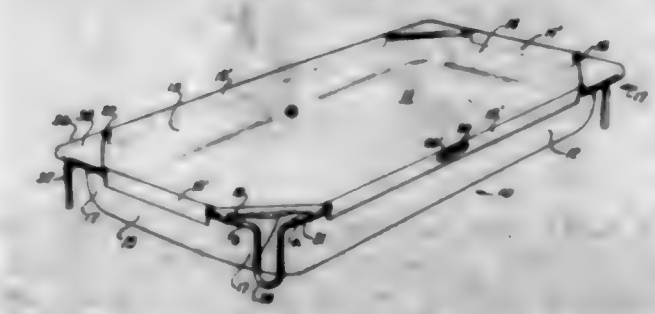
1. A transportable domestic sudatorium comprising a base, an erectable and closable roll-up wall on said base comprising a plurality of flexibly interconnected vertical wooden boards forming an enclosed compartment with an open top, a bell-like cover made of flexible material for fitting over the open top of said enclosed compartment and extending downwardly over a portion of the roll-up wall, a supporting frame to support the topmost and central portion of said bell-like cover, a substantially vertical rod with the upper end curved toward said supporting frame and connected thereto, a hollow column mounted on said roll-up wall and slidably receiving the vertical portion of said rod, and a clamp on said hollow column for locking said rod in said column to adjust the height of the supporting frame and the cover so that an occupant of the enclosed compartment will not come into contact with the cover at any point.

2,846,693

PORTABLE WADING POOL

Frank Costarella, Corona, N. Y., assignor to Ernest Chandler, Inc., New York, N. Y., a corporation of New York

Application September 14, 1955, Serial No. 534,369
6 Claims. (Cl. 4—172)



1. A knock-down wading pool frame for supporting a flexible container, comprising a plurality of rails having adjacent ends disposed in spaced relation, leg members for connecting adjacent rail ends and for supporting said rails, each of said leg members consisting of a reversely bent rod to provide an elbow for contact with the ground and having upwardly extending parallel upright arms spaced from each other in pairs for each leg member and each pair in a plane diagonal to the corner of said container to which the respective leg is adjacent, each of said arms terminating in an upper laterally extended portion, said portions being disposed in opposite angular relation to and spaced from each other and telescopically attached to said adjacent ends of said rails.

2,846,694
SUPPORTING FRAMEWORK FOR SWIMMING POOLS

Earl C. Wallace, Andrews, Ind., assignor to The Hedrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio

Application April 12, 1957, Serial No. 652,451
3 Claims. (Cl. 4—172)

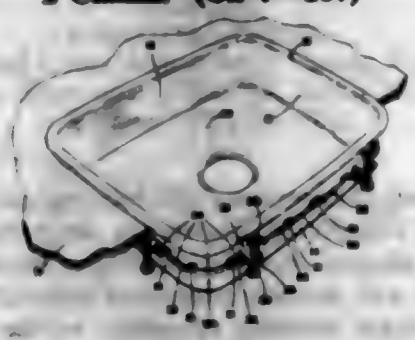


1. A supporting framework of closed configuration for swimming pools, comprising a plurality of open-mesh stiff wire panels having spaced horizontal strands and vertical strands joined thereto, said horizontal strands having opposite end portions with substantially J-shape bends providing open loops, said panels being disposed end-to-end with the loops at the ends of adjacent panels interdigitating with one another and cooperating to define substantially vertical channels, substantially vertical posts engaged in said channels, said posts having sockets at the ends thereof, and substantially horizontal rails extending from post-to-post, said rails having angular end portions engaged in said sockets.

2,846,695
SINK ATTACHMENT

Robbert Hartog, Toronto, Ontario, Canada, assignor to Kitchen Installations Ltd., Toronto, Ontario, Canada, a corporation of Toronto

Application December 3, 1956, Serial No. 625,661
2 Claims. (Cl. 4—187)



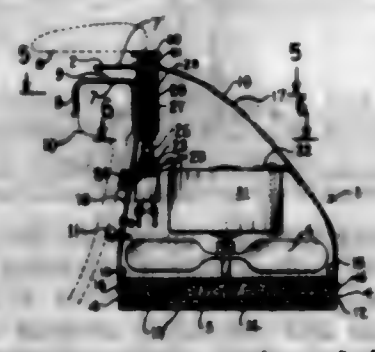
1. A sink bowl of the kind having a bottom wall, a peripheral side wall, and a flange extending outwardly of the peripheral side wall and adapted to mask an edge of an opening in a structural member in which the bowl is to be mounted, in combination with a strip encircling the peripheral side wall substantially parallel to the flange, the strip being crimped transversely of its length to provide a continuous series of alternate ridges and troughs, the portions of the strip providing the ridges being of less length than the portions of the strip providing the troughs and being presented and secured to the peripheral side wall for the portions of the strip providing the troughs to define with the peripheral side wall a continuous series of apertures for the reception of an element of a jack, the portions of the strip intermediate the ridge and trough providing portions extending outwardly of said peripheral side wall for that edge of the strip adjacent the flange of the bowl to provide a guide for the said jack element when that element is abutted against that edge.

2,846,696
TOILET DEODORIZER

James R. Herriott, Alamo, Calif.

Application March 22, 1954, Serial No. 417,735
1 Claim. (Cl. 4—213)

In a deodorizer for a toilet bowl having an enlarged rim at the upper end thereof, a flat, horizontal mouth-piece adapted for lying on said rim, a pair of clamping members projecting from the mouth-piece and adapted for clamping over the inner face of the rim, a housing having a reduced, horizontally disposed neck portion directly connected to said mouth-piece, the housing extending downwardly from the neck and expanding downwardly into annular form, and the housing having an inner wall facing the toilet bowl, with an upper section bearing on the outer face of the rim for cooperation with the clamps in gripping the rim for suspension of the housing from the rim with the axis of the lower end of the housing in substantially

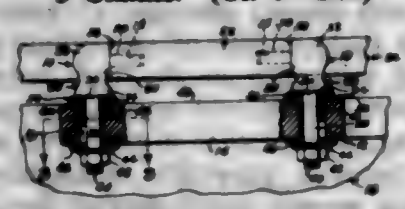


vertical position, the lower section of the inner wall of the housing having an adjustable member movable for contact with the bowl for bracing the housing against the bowl, and the lower cylindrical end of the housing having a deodorizing magazine mounted therein, with a blower mounted in the housing above the magazine, and the said upper section of the inner wall having a switch member mounted for vertical sliding movement immediately adjacent thereto, with the head of the switch member projecting above the neck in close relation to the rim for operation by the toilet seat projecting slightly beyond the rim.

2,846,697
COMPENSATING HINGE POST AND WASHER UNIT

David Phillips, Detroit, Mich., assignor to Swedish Crucible Steel Company, Detroit, Mich., a corporation of Michigan

Application March 14, 1956, Serial No. 571,467
3 Claims. (Cl. 4—248)



1. A compensating hinge post unit for mounting a toilet seat upon a toilet bowl having variably spaced hinge post holes therein, said unit comprising a hinge post having a threaded shank insertable in the toilet bowl hinge post holes, a nut threaded upon the lower end portion of said shank, and a compensating washer of elastic deformable material mounted upon said shank and having a substantially circular upper disc-shaped portion and a boss of substantially circular cross-section extending downwardly from said disc-shaped portion for insertion into the toilet bowl hinge post hole, said washer having a hinge post shank hole therethrough substantially concentric with the axis of said upper portion but eccentric to the axis of said boss, said boss having a downwardly-tapered side surface adapted to be wedged into its respective hinge post hole in response to the tightening of said nut upon said shank.

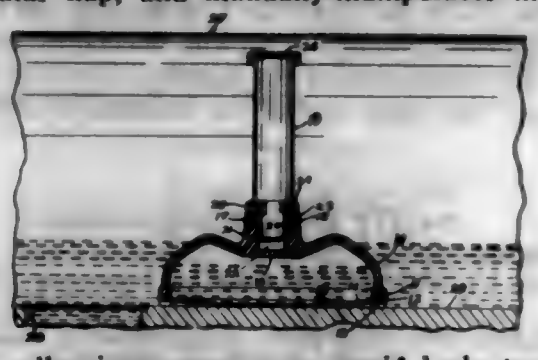
2,846,698
HYDRAULIC FORCE PUMP

Fay M. Tomlinson, Daytona Beach, Fla.

Application September 28, 1956, Serial No. 612,848
3 Claims. (Cl. 4—255)

1. A hydraulic force pump comprising an elastic, hollow, bell-shaped body having an open end, and having a

restricted port opposite its open end, valve means dominating said port to prevent fluid flow through said port to the interior of said body but to permit restricted fluid flow through said port from the interior of said body, a ring secured to the boundary of said open body end and carrying an inwardly-extending, readily-flexible, continuous annular flap, and manually-manipulable means for



exerting collapsing pressure upon said body toward the open end thereof, said annular flap leaving a substantial area of said body end open for free fluid movement therethrough, and said ring being serrated on its surface remote from said opposite end of said body, and said flap being fixed at its outer edge to said ring substantially at the level of the serration roots and free at its inner edge.

2,846,699
INFANT CARRIER DEVICE
Harry F. Watson, Alhambra, Calif.
Application May 7, 1956, Serial No. 583,328
3 Claims. (Cl. 5—98)



1. A carrier article, comprising: first and second generally U-shaped frame members, each having side parts and an end part joining one end of each of the side parts, the side parts of one of said frame members being channeled and open at the ends away from the joinder end part thereof and adapted to receive within the end opening the free ends of the other of said frame members to form a generally rectangular adjustable frame; first and second pouch shaped flaccid receptacle members each open on one end and each having a substantially flat bottom portion and side and end portions, each of the frame members being arranged with the free edges of the side and end portions of the respective receptacle members securable thereto to form a pouch open at the top with at least a portion of the bottom and side portions of one of said receptacle members disposed within and adjacent at least a portion of the bottom and side portions of the other of said receptacle members; and detachable fastening means on both of said receptacle members for securing them to each other at selectively spaced intervals whereby at least one dimension of the pouch may be varied by adjusting said frame members relative to each other and by securing said two of said receptacle members to each other in accordance with the selected adjustment of said frame members.

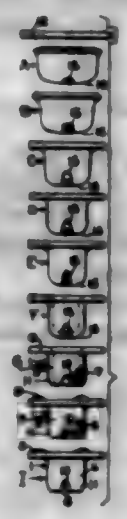
2,846,700
INFANTS DRESSING TABLE
Charles T. De Puy, Rochester, N. Y., assignor to Trimble Inc., Rochester, N. Y., a corporation of New York
Application May 16, 1957, Serial No. 659,502
2 Claims. (Cl. 5—317)

1. The combination with an infant's metal dressing table having strap receiving slots therein, of a plastic retaining strap extending through said slots under the bottom of the dressing table, and a fastening device above the table connecting the ends of the strap, the strap having integral lugs arranged intermediate the side edges



of the strap and extending therefrom over the top of the dressing table adjacent to said slots and acting to retain the central portion of the strap against the bottom surface of the dressing table.

2,846,701
METHOD OF FORMING A SHEET METAL LOCK NUT
William A. Bedford, Jr., North Scituate, Mass., assignor to United-Carr Fastener Corporation, Cambridge, Mass., a corporation of Delaware
Original application October 12, 1950, Serial No. 189,780. Divided and this application March 10, 1955, Serial No. 493,415
1 Claim. (Cl. 10—86)

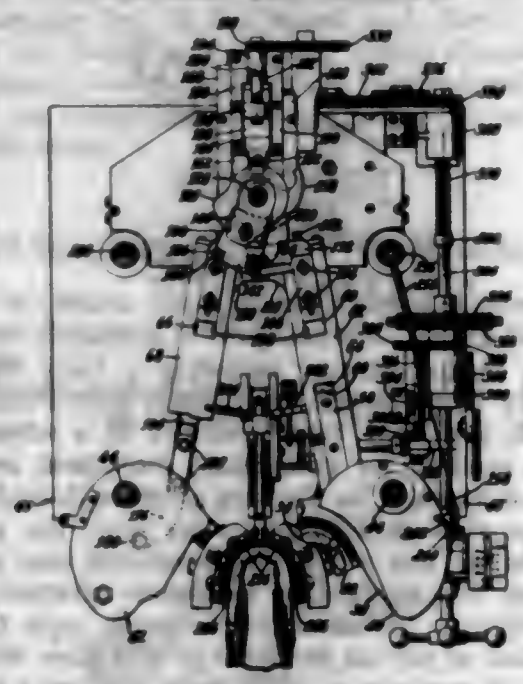


The method of forming a self-locking nut from a sheet metal blank comprising drawing a sheet metal blank to form a cup-shaped member having a base portion and a peripheral wall portion extending upwardly therefrom, forming a single opening off-center in the base portion immediately adjacent the peripheral wall portion, drawing the cup-shaped member to force material of the periphery of the base portion into the wall portion and to transfer a portion of the opening to the wall portion and to stretch the wall longitudinally with a corresponding elongation of the opening transferred thereto, cutting the base portion from the wall portion along a line passing through the opening with the end of the wall having a notch formed by the portion of the aperture transferred thereto, internally threading the side walls and inwardly crimping the end of the wall adjacent the notch so that opposite sides thereof will be inclined radially inwardly to restrict the bore for frictional engagement with a bolt, the amount of inward inclination of said inclined end progressively increasing toward the notch from a point substantially diametrically opposite said notch.

2,846,702
HEEL END LASTING MECHANISMS
Edward Quinn, Saugus, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Original application November 9, 1951, Serial No. 255,673, now Patent No. 2,740,138, dated April 3, 1956. Divided and this application January 17, 1955, Serial No. 481,998
55 Claims. (Cl. 12—12.3)

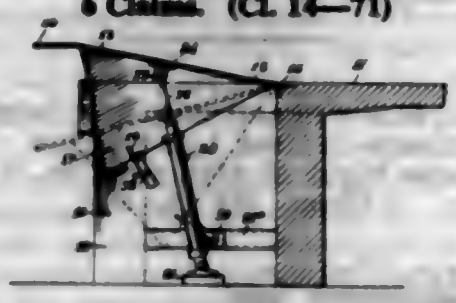
34. In a shoe machine, a lasting wiper, a slide, a carrier for the slide, means for advancing the slide to cause the

wiper to perform a wiping operation toewardly of a shoe in the machine, an operating member, means actuated by the operating member for advancing the wiper together with the slide and the carrier widthwise of the shoe from a remote position into predetermined relation to the



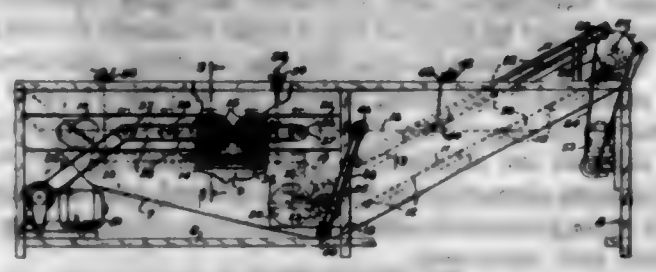
shoe, a latch for holding the carrier against return movement, means for actuating the operating member to cause the wiper to perform a wiping operation widthwise of the shoe, and power operated means for releasing the latch to permit the return of the carrier together with the slide and the wiper to their rest positions.

2,846,703
LOADING DOCK
Michael Louis Adley, New Haven, Conn.
Application September 27, 1955, Serial No. 536,882
6 Claims. (Cl. 14—71)



1. In a loading dock construction, a stationary main platform having a recess; a ramp platform movably mounted in the recess of the main platform and movable between positions located below and above the main platform, said ramp platform having an edge portion adapted to rest on the body of a vehicle and be supported thereby; power means for raising said movable platform; means operable when the movable platform reaches a lowermost position below the level of the main platform, for automatically activating said power means to lift the platform to a raised position wherein the edge portion thereof is normally disposed above the level of the vehicle body, said power means comprising a fluid cylinder, a valve for controlling the supply of fluid to the cylinder, an electrical actuator for the valve, and an electrical switch for controlling said actuator; means including a second electrical actuator for the valve and a second switch for controlling said second actuator, providing for controlled discharge of fluid from the cylinder to enable the ramp platform to descend to said lowermost position, the said means which is operable when the platform reaches said lowermost position including a limit switch connected in parallel with said first-mentioned switch, for controlling the first-mentioned electrical actuator.

2,846,704
WASHER FOR PICKLES OR THE LIKE
Edwin A. Bella, Berlin, Wis., assignor to Berlin Chapman Company, Berlin, Wis., a corporation of Wisconsin
Application April 5, 1956, Serial No. 576,279
4 Claims. (Cl. 15—3.15)



4. In a washer for pickles or the like, means forming an elongated liquid basin provided at one portion with a commodity inlet and at another portion with an upwardly inclined and advancing perforated discharge conveyor deck extending above the liquid level in the basin while its intermediate portion is provided with cooperating commodity advancing scrubbing brushes extending over the lower commodity receiving end of the deck, means for cascading fresh liquid downwardly onto the commodity delivered by said brushes onto and while resting upon said deck and through the deck perforations, and means for deflecting said fresh liquid upwardly through the deck perforations and against the bottom of the advancing commodity.

2,846,705
LINE DRESSER
Raymond W. Marz, Ann Arbor, Mich.
Application March 18, 1955, Serial No. 495,164
6 Claims. (Cl. 15—134)



1. A line dresser for applying dressing to a line comprising an open end elongated container having a pair of abutting axially aligned separable pads disposed in said open end, a dressing reservoir within said container and partially defined by the innermost of said pads, means supporting the outermost of said pads for bodily movement relative to the innermost pad to receive the line between said pads, and means movable longitudinally in said container and disposed in said reservoir for supplying dressing to said pads.

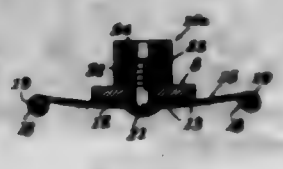
2,846,706
BRUSH
William L. Royall, Port Chester, N. Y.
Application March 4, 1954, Serial No. 414,187
9 Claims. (Cl. 15—145)



1. A holder and handle for the support of an attachment comprising a pair of elongated complementary

handle elements, an extension at one end of each of the handle elements, resilient attachment gripping means carried by each of said extensions remote from the respective handle element, said resilient attachment gripping means extending outwardly from opposite lateral sides of each of said extensions, and mutually engaging interlocking means carried by each of the handle elements for locking the handle elements together in abutting relationship, the attachment gripping means of the two handle elements being urged into clamping engagement with opposite sides of the attachment for the support thereof when the handle elements are locked together, and the attachment being released when the handle elements are detached and separated.

2,846,707
BROOM OR MOP FRAME
Karl I. Strand, Huntington Park, and Verle E. Minkler, Downey, Calif.
Application March 5, 1956, Serial No. 569,567
5 Claims. (Cl. 15—147)



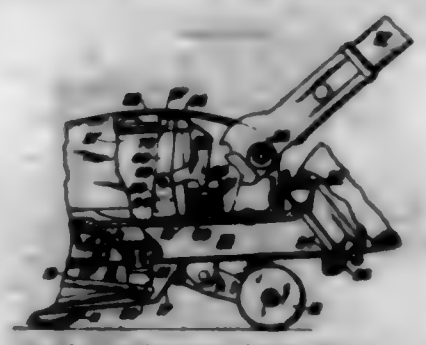
1. In combination, a rectangular mounting plate having an under surface with longitudinal ribs including ribs adjacent longitudinal edges; a mop frame comprising a length of wire formed to have a flattened O-shape with one side thereof having the ends of said wire in end-spaced relation and located midway between the opposite ends of the O-shaped wire, a transversely concave connector plate substantially the same length as the mounting plate and spanning between the wire sides, the ribs adjacent the longitudinal edges of the mounting plate impinging on corresponding longitudinal portions of the connector plate on each side of a medial line of the latter plate and means to locate said connector plate in fixed relationship to the said wire ends; said mounting plate being, thereby, disposed longitudinally of and within the concavity of the connector plate; and means to secure the plates together.

2,846,708
CLEANING AND POLISHING DEVICES
Peter S. Vosbikian and Thomas S. Vosbikian, Melrose, Pa.
Application November 15, 1954, Serial No. 468,812
4 Claims. (Cl. 15—244)



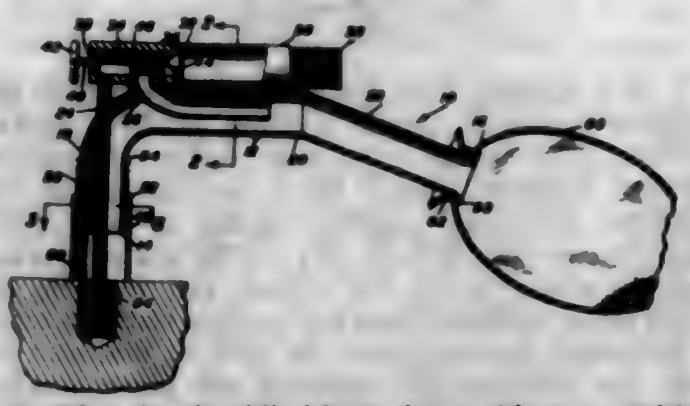
3. A cleaning and polishing device, comprising a plurality of rectangular strips of resilient, cellular and absorbent material, each strip being folded upon itself to form inner V shaped bases and outer diverging portions, said folded strips being assembled in generally cylindrical formation with the sides of the inner base portions in contact, and strip fastening means compressing said inner bases together to maintain a bunch formation of the strips and cause the portions of the inner base portions inwardly of the fastening means to be expansible and adapted to receive a handle between them.

2,846,709
SUCTION CLEANERS
Louis E. Segerstrom, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application February 8, 1954, Serial No. 408,872
5 Claims. (Cl. 15—339)



1. In a suction cleaner including a body having a downwardly facing nozzle for contact with a surface to be cleaned; said body being mounted in a substantially horizontal position for ambulatory movement over said surface; a suction fan for drawing air through said nozzle; an exhaust passage communicating with the pressure side of said fan and a filter for separating dust and dirt from the air flowing through the cleaner attached to said exhaust passage; the arrangement being such that the accumulation of dirt on the walls of said filter will cause a rise in back pressure in said exhaust passage; a pressure responsive device in communication with said exhaust passage and responsive to the pressure therein; a signal device connected to said pressure responsive device so as to be actuated thereby upon a rise in pressure in said exhaust passage to a predetermined value and blocking means for rendering said signal device invisible during normal operation of the cleaner and requiring that said predetermined pressure be applied to said pressure responsive device and that said body be tilted from its normal horizontal position in a direction to raise said nozzle from said surface before becoming operative to render said signal device visible.

2,846,710
TOOL FOR CLEANING BLIND BORES
George F. Hake, Lansing, Mich.
Application March 29, 1954, Serial No. 419,417
1 Claim. (Cl. 15—345)



A tool for cleaning blind bores in an object comprising an open-ended barrel of uniform diameter having front and rear first and second sections connected by an intermediate section at a right angle to the first section a coaxial, terminal, spring-loaded sleeve on said first section extending and spring biased to project outwardly therefrom for positioning against an object and around a bore in the object, a tubular valve housing on said intermediate section parallel therewith for connection at one end to a source of air under pressure, a first tube extending radially from the other end of the valve housing through said first section and sleeve along the axis thereof and along the major portion of the length of the sleeve for blowing air from said valve housing into a bore and being spaced from said front section and sleeve to provide a

vacuum space communicating with said intermediate section, a second tube leading from said other end of the valve housing into said intermediate section in the axis thereof and opening rearwardly in said intermediate section and being spaced therefrom to blow air from said valve housing out of the barrel and create a suction through said barrel, and a spring-loaded plunger valve in said housing manually operative longitudinally of said housing for controllably admitting air from said housing into both tubes.

2,846,711
NAP FLICKER TYPE SUCTION CLEANING NOZZLE

George A. Bruce, Highland Park, Ill., assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application September 17, 1953, Serial No. 380,798
10 Claims. (Cl. 15—359)



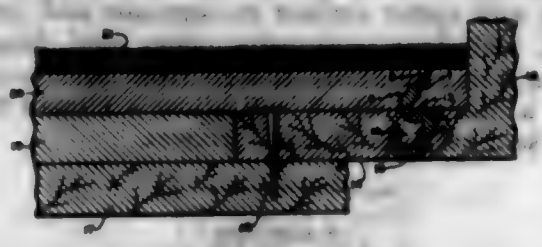
1. A suction nozzle for use with a suction cleaner having a hollow main body provided with an elongated air inlet mouth and having an air outlet opening adapted to be connected to the inlet of a suction device, pontoon means having a wide area flat lower surface underlying said nozzle and carried thereby for supporting said inlet mouth closely adjacent the plane of a surface to be cleaned, said pontoon being positioned between the opposite ends of said elongated nozzle and rearwardly of the long front wall thereof whereby the front wall as well as either end of said inlet mouth may be moved into contact with the wall of a room and against furniture and the like without interference from said nozzle supporting pontoon, at least one row of nap flickers movably mounted on said body and extending lengthwise of said elongated mouth, said flickers extending below said mouth for penetration into the nap of the carpet as the nozzle moves thereacross and mounted so as to incline in a direction opposite to the direction of nozzle movement and flick the nap so as to flick dirt into said mouth, said pontoon means extending below said mouth for contact with the nap and being movably mounted therein so as to move relative thereto in a direction away from said nap flickers and toward but short of the opposite side of said mouth so as to increase the effective area of said mouth between said pontoon means and said nap flickers and decrease the effective area of said mouth between said pontoon means and the opposite side of said mouth.

2,846,712
TACKLESS RUG FASTENER MEANS

Moe Markman, Brooklyn, N. Y., assignor, by mesne assignments, to The Miracle Strip Corporation, Brooklyn, N. Y., a corporation of New York

Application October 19, 1954, Serial No. 463,224
2 Claims. (Cl. 16—16)

1. A carpet fastener of the character described, comprising a strip containing nails, said nails having substantially flat top and bottom sections terminating in a point, said top and bottom sections being parallel each to the other and inclined to said strip and joined together at their central portion by a substantially flat platform parallel to and in contact with said strip; said top section



extending above said strip and adapted to engage a carpet and said bottom section embedded within said strip.

2,846,713
DOOR CHECK

Doe Shaakwiler, Highland Park, Mich.

Application May 24, 1956, Serial No. 587,017
11 Claims. (Cl. 16—83)



1. A door check for mounting on a door, said door check having means adapted to engage the door jamb in the final movement of the door toward closed position, said means comprising a resilient block and a cam member having a cam surface engageable with the door jamb during the final movement of the door toward closed position, means for mounting said block member and said cam member on the inside surface of the door adjament the free vertical edge thereof so that said block member and said cam surface are obliquely disposed with respect to a corner of the door jamb, means permitting relative movement between said block member and said cam member so as to interpose said block member between the inside surface of the door and said corner when a predetermined force of closure is imparted to the door whereby said cam member will pivot said block member clear of the door jamb when less force of closure than said predetermined force is imparted to the door and said block member will assume a position adjacent the door jamb inwardly of said corner when the door is in the fully closed position.

2,846,714
HANDLE FOR SHOPPING BAGS

Dorothy C. Charlick, Washington, D. C.

Application May 14, 1956, Serial No. 584,832
1 Claim. (Cl. 16—114)



A handle for a shopping bag having two cord carrying loops comprising, a longitudinal member having a lower surface adapted to be gripped in the hand of the user, an upper surface for receiving said cord loops, said member having wall members extending upwardly above said upper surface only at the four corner portions thereof to confine said cords on said surface, said wall members having end portions along the longitudinal ends of said handle, and having second end portions facing the center of said handle, said second end portions defining a distance along said upper surface, overhanging flanges substantially perpendicular to and integral with each of said wall members, each wall member and overhanging

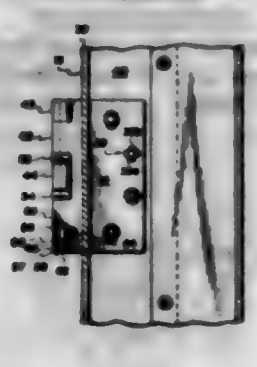
flange forming with said upper surface a groove of a width to receive said cord, and a projection located centrally on said upper surface to separate said cords and maintain each loop outwardly under said flange, said projection being centrally spaced from said second end portions a distance which will allow a human finger to displace said cords from said grooves.

2,846,715

DOOR HINGE

Walter L. Clifton, Jr., Atlanta, Ga., assignor, by mesne assignments, to American Art Metals Company, Atlanta, Ga., a corporation of Delaware

Application November 2, 1953, Serial No. 389,638
1 Claim. (Cl. 16—169)



A hinge for joining a door to a door frame comprising a pair of hinge leaves, hinge knuckles extending from each leaf in spaced relation to each other for interfitting engagement with hinge knuckles of the other leaf, said hinge knuckles being provided with axially aligned bores, one end knuckle of said hinge being movable and having a bore of larger diameter than the bores of the other hinge knuckles, a plug member positioned in said bore of said end knuckle, said plug being provided for a portion of its length with a pin-receiving bore, and also being provided with a bore of smaller diameter than said pin-receiving bore extending from said pin-receiving bore of said plug to the outer end of said plug for receiving a pin-ejecting means, a headless pin extending through said axially aligned hinge knuckle bores, and into the pin-receiving bore of said plug, and a set screw extending through said one end knuckle and said plug transversely of the longitudinal axis of said pin-receiving bore of said plug into engagement with said pin to retain said pin against removal, said set screw being movable with said end knuckle as said end knuckle moves from an open to a closed position of said hinge, and said set screw being concealed and inaccessible when said hinge is in a closed position and being exposed and accessible when said hinge is in an open position whereby the set screw means may not be loosened when the door to which the hinge is attached is closed but may be loosened when said door is opened.

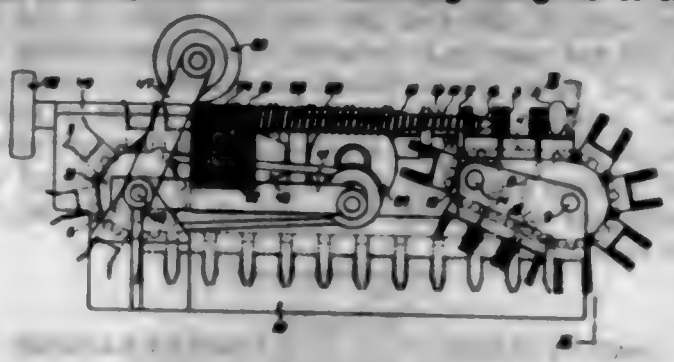
2,846,716

FISH EVISCERATING MACHINE

Paul Danielsson, St. Essingen, Sweden, assignor to Arenco Aktiebolag, Stockholm, Sweden, a Swedish joint-stock company

Application October 7, 1955, Serial No. 539,237
Claims priority, application Sweden October 18, 1954
5 Claims. (Cl. 17—3)

4. In a fish eviscerating machine, a spit provided with screw threads on its outer surface and having a free end, a conveyor extending alongside of said spit in position to feed fish conveyed thereby laterally into position to thread said fish by their gill openings onto said free end of said spit, and means drivingly interconnecting said conveyor and said spit for rotating said spit to cause said screw threads to feed the fish laterally in synchronism with said conveyor and to pull, by its rotary movements, the gills and viscera out of the body of the fish, said spit having a roll-shaped extension behind said screw threads, another roll extending alongside of said



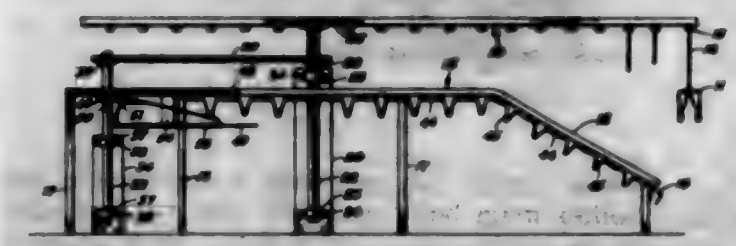
extension and being positioned to operatively cooperate therewith to continue and finish the pulling action upon the gills of said fish.

2,846,717

FOWL HEAD HOLDING AND POSITIONING APPARATUS

William J. Patterson, La Grange, and Ernest H. Haase, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

Application February 15, 1955, Serial No. 488,194
11 Claims. (Cl. 17—11)



1. A device suitable for use in positioning shackled fowl during the defeathering of the fowl, said device including a frame, a conveyor on said frame, means connected to said conveyor for moving said conveyor along a predetermined path, head holding means on said conveyor, said head holding means including a hoop having a V section extending downwardly to receive the necks of shackled fowl, and releasing means on said frame at a point along the path of movement of said conveyor to remove the heads and necks of the shackled fowl from said head holding means, said releasing means including a first and second camming means, said first camming means positioned behind the V section of said hoop and under the main portion of said hoop to raise the heads of the fowl substantially near the top portion of said V section and said second camming means positioned in front of the V section of said hoop to raise the necks of the fowl out of said V section, said second camming means extending beyond and rising above said first camming means to ultimately move the necks and heads of the fowl out of association with said hoop.

2,846,718

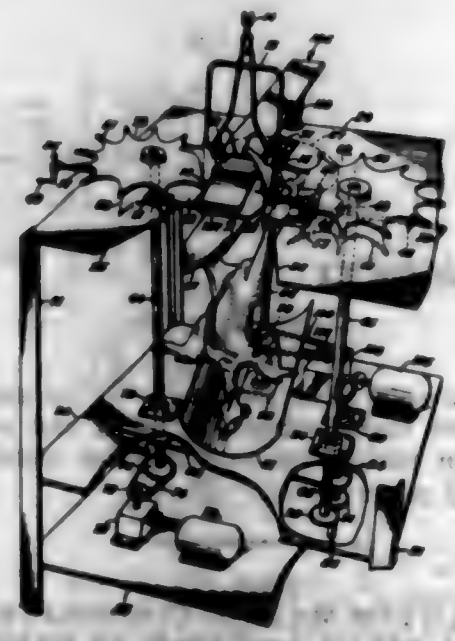
APPARATUS FOR CUTTING UP POULTRY

John F. Sengelaub, Park Forest, and Merritt I. Darrow, La Grange, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

Application June 27, 1955, Serial No. 518,184
9 Claims. (Cl. 17—11)

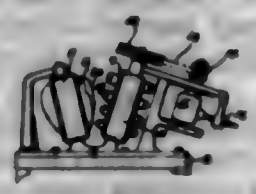
1. In an apparatus designed for severing an extremity from the carcass of a poultry, the combination comprising an overhead conveyor, a shackle movably carried by said conveyor and designed to support the poultry, a passageway beneath said conveyor and parallel thereto and adapted to receive the extremity of the carcass, a cutting means extending substantially across said passageway, means independent of said conveyor and associated with the passageway for forcing the extremity along the passageway into contact with said cutting means, and

self-regulating means associated with the passageway and the cutting means for vertically adjusting the elevation of the poultry carcass with relation to the cutting means



to assure that severance of the extremity will occur at substantially the same relative place of each poultry processed.

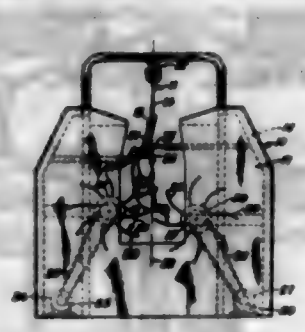
2,846,719
CONTINUOUS FOWL PICKING MACHINE
Julian A. Bried, Berkeley, Calif., assignor to Honolulu Oil Corporation, a corporation of Delaware
Application November 4, 1954, Serial No. 466,835
12 Claims. (Cl. 17—11.1)



1. A fowl picking machine comprising spaced walls forming the sides of an elongated straight trough of a size to receive and support fowls therein for being tumbled about therealong and defeathered, at least one of said walls being an endless belt and means for driving said belt rapidly, said belt provided with spaced flexible frictional fowl defeathering fingers projecting from its inner side into the trough arranged to strike and tumble fowls about therein and move them bodily along said trough when the belt is running and remove the feathers.

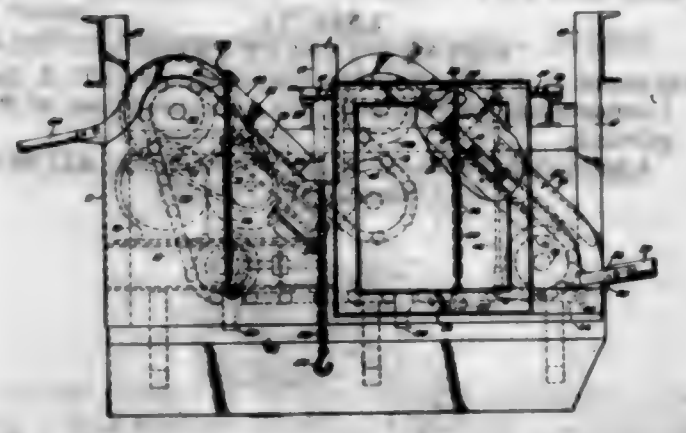
2,846,720
POULTRY HEAD REMOVING DEVICE
Delos B. Van Dolah and Irvin R. Lentz, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois
Application October 20, 1954, Serial No. 463,436, which is a division of application Serial No. 261,998, December 17, 1951, now Patent No. 2,716,257, dated August 30, 1955. Divided and this application March 1, 1957, Serial No. 643,286
2 Claims. (Cl. 17—12)

1. A device for use in the processing of poultry comprising means to support said poultry including an overhead conveyor and a head and leg poultry shackle attached to said conveyor for movement in a given plane, a generally straight bar, and mounting means attached to said bar adjacent the ends thereof to position said bar parallel to said plane and adjacent thereto, at an elevation corresponding to the elevation of the necks of the poultry hung in said head and leg shackle whereby the birds may be hooked in said shackle with the legs and necks of the birds on opposite sides of the bar, said bar having a re-entrant portion at an end thereof toward



which the birds are moved by said conveyor whereby the heads will be pulled from the birds by the movement of the shackle beyond said re-entrant portion.

2,846,721
ARTICLE RELEASING APPARATUS
Theodore H. Schoenwise, Peoria, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
Application September 20, 1954, Serial No. 457,188
5 Claims. (Cl. 17—24)

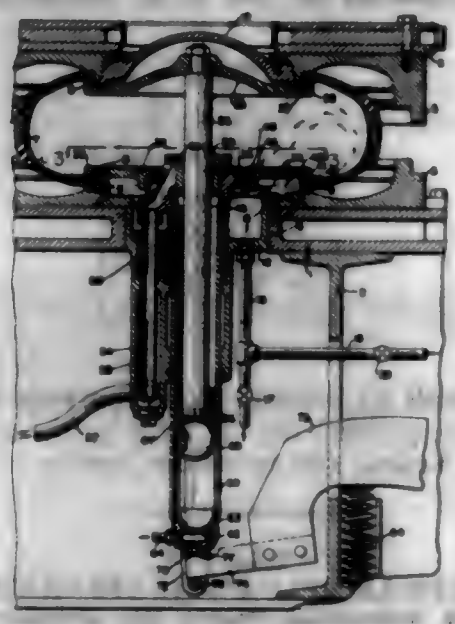


2. In apparatus for releasing an animal carcass from overhead rails wherein an appendage of said carcass is releasably shackled to a carcass support and wherein said support is releasably mounted on overhead rails, an angularly elevated section of rail having a drop section providing no vertical support for said article supports whereby said article supports passing over said drop section are subjected to a precipitous drop, means for conveying said support on said elevated section, and clamping means associated substantially with said drop section for engaging said appendage below the level of the shackle, whereby said support is gravitationally released from said rail at said drop section and said appendage is engaged by said clamping means to disengage said support from said carcass by retarding the fall of the carcass during said precipitous drop of said support and said carcass.

2,846,722
PRESS FOR SHAPING AND VULCANIZING PNEUMATIC TIRES
Leslie E. Soderquist, Silver Lake, Ohio, assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application January 7, 1955, Serial No. 480,497
4 Claims. (Cl. 18—17)

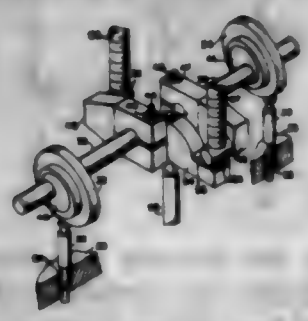
1. In a press having separable mold halves for curing tires with a curing medium in contact with the interior of the tire, the combination of, upper and lower bead rings for clamping said tires in said mold halves and means to spread said bead rings apart during opening movement of said mold halves after curing, said lower bead ring having at least one substantially centrally located passage for discharge of the curing liquid by gravity after opening the mold halves and a plurality of

gas nozzles disposed radially of said passage immediately above the clamping portions of said lower bead ring to



blow residual curing liquid out of the tire through said passage.

2,846,723
ROTARY TABLET PRESS
Raymond G. Frank, Ambler, Pa., assignor to F. J. Stokes Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application February 27, 1957, Serial No. 642,865
11 Claims. (Cl. 18—20)



1. In a tablet press including a plurality of punches, a pair of pressure rolls and means for moving said punches relative to said rolls to bring each said punch in endwise bearing contact against the peripheral surface of one said roll and thereafter against the peripheral surface of the other said roll, the improvement which includes a first axle rotatably carrying said one roll and supported for rotation about an axis eccentric to the axis of rotation of said one roll, a second axle rotatably carrying said other roll and supported for rotation about an axis eccentric to the axis of rotation of said other roll, a first means affixed to said first axle defining a bearing surface eccentric to the axis of rotation of said first axle, a second means affixed to said second axle eccentric to the axis defining a bearing surface of rotation of said second axle, a loading beam bearing against each said bearing surface in a direction tending to rotate said axles and thereby the axes of rotation of said rolls to bias said rolls into said bearing contact with said punches, and pressure means forcing said loading beam against said bearing surfaces.

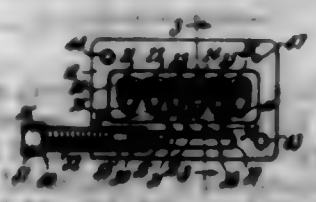
2,846,724
SOLAR REFLECTION DEVICE AND MEANS FOR PRODUCING THE SAME
Thomas C. Aylwin, Ottawa, Ontario, Canada
Application July 13, 1956, Serial No. 597,712
4 Claims. (Cl. 18—34)

4. A method of producing a solar reflector which comprises arranging a plurality of reflecting surfaces in substantially contiguous relation to each other, tilting each said surface to reflect solar rays to a common point while maintaining the center points of all said surfaces in a common plane, and utilizing the composite surface composed of said plurality of reflecting surfaces as a mold



to produce a solar reflector having a top surface complementary to said composite surface, and providing a plane bottom surface on said reflector parallel to the plane of said center points.

2,846,725
APPARATUS FOR MAKING COMBINATION ARTIFICIAL TEETH AND DISPLAY CARRIER
Frederic Tryfus, Forest Hills, N. Y.
Application January 18, 1955, Serial No. 482,542
2 Claims. (Cl. 18—34.1)

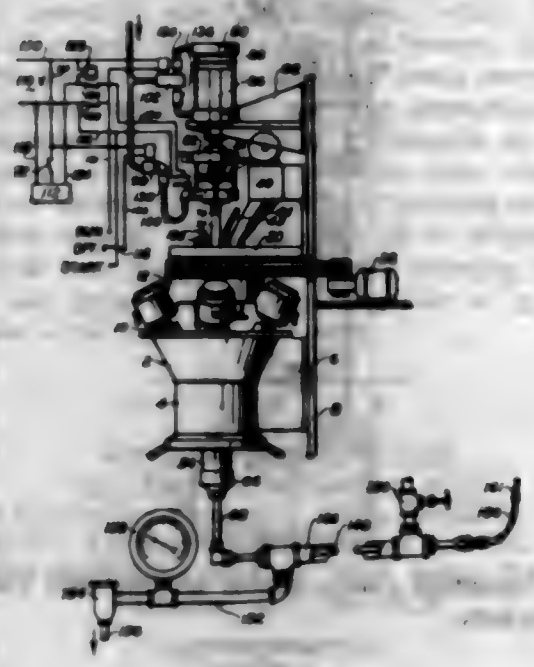


1. A device for forming artificial teeth of relatively high density from a formable material, comprising at least two mold portions, each of said mold portions being provided with complementary, juxtapositioned elongated cavities for molding therein said teeth and for receiving and compressing said formable material when said mold portions are closed, trough means located in at least one of said portions and extending from one end of the latter in a direction transversely to the length of said cavities and spaced therefrom, said mold portions being provided with respective frame forming recess means at least partly encompassing said cavities, and elongated channel means establishing communication between said cavities and said trough means via said frame forming recess means for delivering additional formable material to said cavities, said trough means including pressure exerting means movable therein and adapted to supply said additional material from said trough means toward said cavities in lengthwise direction of the latter, whereby further pressure may be exerted on said formable material when contained in said cavities of said closed mold portions.

2,846,726
METHOD AND APPARATUS FOR MIXING
Morris M. Bean, Yellow Springs, Ohio, assignor to Morris Bean and Company, Yellow Springs, Ohio, a corporation of Ohio
Original application December 2, 1953, Serial No. 395,737. Divided and this application May 28, 1957, Serial No. 666,580
2 Claims. (Cl. 18—47.5)

1. The process of preparing a settable and moldable slurry including a water-setting constituent, such as gypsum plaster, which consists in mixing the theretofore dry constituents of the slurry with water, chilling the slurry to a temperature sufficiently below atmospheric to strongly retard the setting of the slurry, rubbing and squeezing the wetter solid particles of the slurry during the mixing until occluded gases have been substantially

completely expelled while retaining the temperature of the slurry substantially below atmospheric, then ejecting



the slurry under pressure into a form with heating of the slurry as it is discharged.

2,846,727
AQUEOUS DISPERSIONS OF POLYMERS AND SHAPED ARTICLES THEREFROM
Max Fredrich Bechtold, Kennett Square, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application September 30, 1953, Serial No. 383,374
20 Claims. (Cl. 18—57)

1. A process for the production of a shaped article from a synthetic, water-insoluble organic polymer which comprises dispersing said polymer in the form of discrete particles having a size less than about 15 microns in an aqueous mixture comprising water and a solvent metal salt for said polymer dissolved therein, the said salt being taken from the group consisting of the water-soluble thiocyanates, iodides, bromides and chlorides of group I and II metals of atomic number 3 to 48 of the periodic table and being present in an amount at least one-half of the weight of the polymer but in an amount insufficient to form a salt solution which dissolves said polymer; forming the resultant dispersion containing about 2% to about 60% of said salt, about 25% to about 95% water and about 2% to about 35% of said polymer, all by weight, into the shape of said article; evaporating water from said article until coalescence occurs; and washing the salt from the resultant shaped article.

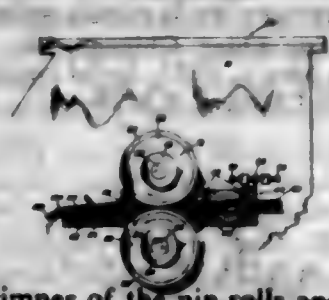
2,846,728
APPARATUS FOR PRODUCING STAPLE FIBRE YARNS FROM CONTINUOUS FILAMENTS
Rudolf Wildbolz, Winterthur, Switzerland, assignor to Joh. Jacob Rieter & Cie., Winterthur, Switzerland, a corporation of Switzerland
Application February 7, 1955, Serial No. 486,311
Claims priority, application Switzerland February 8, 1954
4 Claims. (Cl. 19—.6)

1. A drafting arrangement comprising, in combination, feed rollers, delivery rollers, breaking means interposed between said feed and delivery rollers at a fixed distance from the latter, for producing a staple fibre ribbon from a filament bundle, and adjustable guide means separate and spaced from said breaking means for causing the filament bundle to enter said breaking means at an adjust-



able angle, said guide means including a heating element for heating the passing filament bundle prior to breaking.

2,846,729
TOW CRIMPER
Mario Sussino, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application November 4, 1955, Serial No. 545,023
11 Claims. (Cl. 19—66)

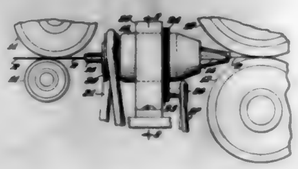


1. A tow crimper of the nip-rolls and stuffing-box type having a feed trumpet that tapers inwardly and through which the tow is fed to the nip of the rolls, thereby confining the tow at said nip, the taper of the said feed trumpet being between about 4° and about 15°, and the member comprising the said feed trumpet being integral with the stuffing box proper and constituting an extension thereof so that it is a unitary structure; a discharge trumpet that tapers toward the nip of the rolls, the taper of the said discharge trumpet being between about 4° and about 15°; a pivotally mounted gate adapted to close the outlet end of said discharge trumpet and which is yieldably raisable, during operation of the tow crimper, under the pressure of the crimped tow to be discharged from said discharge trumpet, the angle formed by the said yieldably raisable gate, when closed, with the horizontal axis of the said discharge trumpet being between about 8° and about 20°; and means for regulating the pressure in the aforesaid discharge trumpet.

2,846,730
TEXTILE DRAFTING
Samuel L. Abbott, Wilton, N. H., assignor to Abbott Machine Co., Inc., Wilton, N. H., a corporation of New Hampshire
Application January 26, 1953, Serial No. 333,202
8 Claims. (Cl. 19—130)

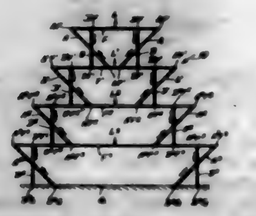
1. Process of textile drafting of the type in which the roving is confined under pressure in the drafting zone, the process comprising causing a roving to enter the rear entrance to the drafting zone in a condition of excessive twist such as would materially interfere with drafting under pressure confinement at that degree of twist, confining the roving under pressure within the drafting zone at at least the front and rear ends of a length of roving spaced from the front and rear of the drafting zone, subjecting both the rear and front ends of the so confined

length of roving to rotation around its axis in the same direction at both said ends and counter to the twist of the roving approaching the drafting zone and in such amount as to reduce the twist of the roving entering the confined length to a value satisfactory for drafting within said confined length and materially below the



twist of the roving approaching the drafting zone, and simultaneously feeding into the forward length of attenuating roving betwen the front end of said confined length and the front end of the drafting zone twist derived from such reduction from said condition of excessive twist to said satisfactory value of twist entering the confined length.

2,846,731
MULTIPLE STORY BUILDING STRUCTURE
Julius Abler, Chicago, Ill.
Application May 1, 1957, Serial No. 656,327
16 Claims. (Cl. 20—1)



1. In a multiple story building structure, a plurality of vertically spaced horizontal floor beams, a vertical supporting column connected to each floor beam at a point spaced inwardly from the end thereof so as to cause the end of the floor beam to overhang the column, each vertical supporting column for each floor beam being connected to the floor beam therebelow, and a diagonally downwardly and inwardly extending truss member connected at one end to the overhanging end of each floor beam and at its other end to the floor beam therebelow at a point spaced inwardly from the point where the vertical supporting column for the upper floor beam is connected to the lower floor beam.

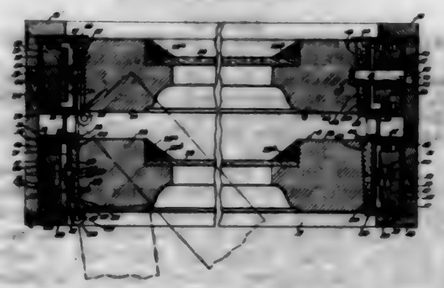
2,846,732
BRACING ELEMENTS AND DEMOUNTABLE BUILDINGS EMPLOYING SAME
Adele Burns, West Palm Beach, Fla.
Application March 9, 1953, Serial No. 341,271
3 Claims. (Cl. 20—2)

3. A demountable building comprising wall units, and roof units constructed to be joined to form walls and roofs, said units comprising beams and columns grooved to receive slidable panels therein, and interlocking bracing members fastening said building units in predetermined removable fastened relationship, said interlocking bracing members comprising a pair of tapered socket members secured to adjacent abutting building units, a bar, tapered extensions on each end of said bar constructed and arranged to engage said socket members, and



pivotally mounted clamp means locking said extensions in said sockets.

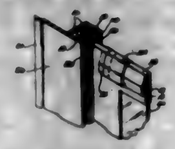
2,846,733
WINDOW WITH SLIDABLE LOWER AND UPPER SASHES
Armando Barsotti, Chicago, Ill.
Application August 23, 1955, Serial No. 530,163
5 Claims. (Cl. 20—50)



1. A window structure adapted to be mounted in an opening of a wall of a building and comprising a rigid upstanding rectangular frame consisting of spaced apart side members, a sill-forming bottom member between the lower ends of the side members, and a top member between the upper ends of said side members, a pair of elongated vertically extending pieces mounted on, and extending throughout the length of, the inner side surfaces of the frame side members respectively and shaped to form spaced apart inside and outside inwardly facing opposed slideways, a lower sash disposed normally in the inner portion of the interior of the frame and provided at the opposite sides thereof with composite vertically extending slide bars which fit slidably in the opposed inner slideways so that the lower sash may be raised and lowered, said composite slide bars consisting of channel-shaped inner parts and laterally movable outer parts nested within the inner parts, and embodying spring means between their inner and outer parts for urging the outer parts outwards into such frictional engagement with the respective opposed inner slideways that they serve frictionally to hold the inner sash in the various positions into which it is raised or lowered, means releasably securing one side of said lower sash to the inner part of its adjacent composite slide bar, means hingedly securing the other side of said lower sash to the inner part of its adjacent composite slide bar, an upper sash

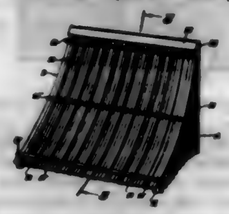
disposed normally in the outer portion of the frame interior and provided at the opposite sides thereof with composite vertically extending slide bars which fit slidably in the opposed outer slideways so that the upper sash may be lowered and raised, said latter composite slide bars consisting of channel-shaped inner parts and laterally movable outer parts nested within the inner parts, and embodying spring means between their inner and outer parts for urging the outer parts outwards into such frictional engagement with the respective opposed outer slideways that they serve frictionally to hold the upper sash in the various positions into which it is lowered or raised, means releasably securing one side of said upper sash to the inner part of its adjacent composite slide bar, and means hingedly securing the other side of said upper sash to the inner part of its adjacent composite slide bar.

2,846,734
WINDOW STRUCTURES
Abe Zitomer, Milwaukee, Wis.
Original application January 2, 1948, Serial No. 198, now Patent No. 2,664,599, dated January 5, 1954. Divided and this application May 25, 1953, Serial No. 357,268
4 Claims. (Cl. 20—52.2)



1. A window sash for a frame structure having sash ways defining channels in which said sash is vertically slidable and movable laterally to and from positions of engagement and release, said sash having an integral check rail provided with a weatherstripping flange having a portion offset from alignment with said channels and shorter than the spacing between sash ways at opposite sides of the frame to provide a clearance gap between the end of said check rail and a sash way, and a slide reciprocable upon the check rail and comprising means for the extension of said flange to close said gap, said slide being retractible on the check rail to open said gap to permit of the manipulation of the sash.

2,846,735
AWNING
Peter John Zelmer, Torrance, Calif.
Application April 5, 1955, Serial No. 499,281
9 Claims. (Cl. 20—57.5)



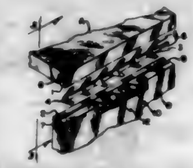
1. An awning of wood construction: a relatively rigid frame structure comprising a plurality of laterally spaced supports; a plurality of cross bars, including two terminal cross bars and at least one intermediate cross bar, extending from side to side between said supports and mounted thereon; and a plurality of longitudinally extending parallel panel strips extending between and mounted in the respective cross bars; said cross bars having respective sets of slots, each slot of one set being related to corresponding slots of the other sets to constitute a longitudinally extending course of matched terminal and intermediate slots disposed in a common surface of single curvature about an axis parallel to said cross bars and to which said cross bars are normal, and staggered so that an intermediate slot is out of alignment with the terminal slots of the course; each panel strip extending through the slots of a respective course and being sprung from its normal longitudinal contour into a longitudinally bowed condition as the result of confinement in the staggered slots of the respective course, and thereby having frictionally gripping engagement with opposite walls of alternate slots of the respective course, thus being secured against longitudinal displacement from its installed position.

2,846,736
COMBINED THRESHOLD AND DOOR-BOTTOM SEAL
Henry N. Quoss, Dallas, Tex.
Application October 8, 1956, Serial No. 614,681
6 Claims. (Cl. 20—64)



1. A combined threshold and door-bottom seal for mounting on a floor under a door, formed in one continuous piece of a resilient material, consisting of two threshold portions and a sealing portion bridged between them; said sealing portion being made thin enough to bulge upwardly to contact the bottom end of a closed door when one of said threshold portions is moved toward the other said threshold portion before securing the threshold portions to said floor, floor engaging supports extending downwardly from the under side substantially along each of the lines defining the joining of said sealing portion at each of its sides with said threshold portions; and floor engaging surfaces formed on the under side of the edges of said threshold portions.

2,846,737
JOINT CONNECTION
Robert L. Propst, Englewood, Colo., assignor to Beauty Products, Ltd., Denver, Colo., a corporation of Colorado
Application September 30, 1957, Serial No. 687,054
5 Claims. (Cl. 20—92)



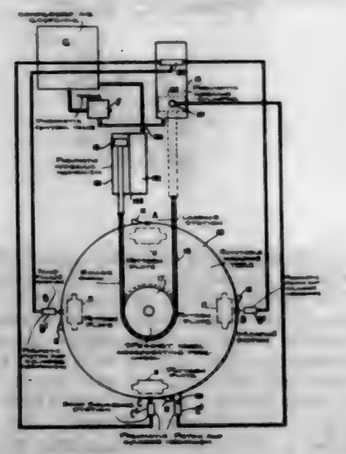
1. A joint connection of the type described including at least a first member connectable to a second member with both members having meeting faces in the area of connection comprising an elongated element having a body portion and spaced cooperating angled wings extending therefrom, each of said faces being grooved, insert means integrally secured in each groove, each insert means having spaced cooperating angled slots therein for receiving the spaced cooperating angled wings, and means cooperating with the body portion after the wings are received in the slots for securing the members together and for drawing the faces into binding and locked engagement.

2,846,738
FOLDABLE SEATING ASSEMBLAGE
Robert S. Walworth and Norman F. De Nasser, Berlin, Wis., assignors to Berlin Chapman Company, Berlin, Wis., a corporation of Wisconsin
Application July 16, 1954, Serial No. 443,884
6 Claims. (Cl. 20—1.126)



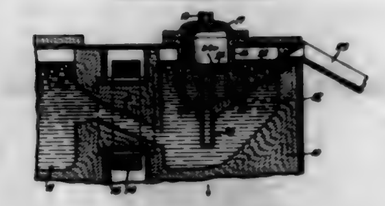
6. A foldable seating assemblage comprising, successive transverse rows of upright supports of gradually decreasing heights, means for interconnecting the upright supports of each of said rows, a forwardly presented seat supporting beam pivotally secured to each of said upright supports, means for swinging each of said beams in a vertical plane about its pivot to effect independent adjustments in the angularity thereof relative to its respective upright support, the upright supports of each of said rows being slidably cooperable with the forwardly presented beam of the next succeeding higher row, ground engaging tandem wheel units carried by at least some of said rows of supports, said wheel units being positioned in staggered relationship to each other to permit passing, means for swinging said uprights to effect independent adjustments in the angularity thereof relative to its wheel unit, and means for interconnecting said successive rows of supports to permit relative movement thereof toward and away from the highest of said rows while maintaining parallelism thereof.

2,846,739
FOUNDRY MOULDING MACHINES
Henry Bertram Hallsworth, Walsall, England, assignor to Rubery, Owen & Co. Limited, Darlaston, England, a limited-liability company of Great Britain
Application September 9, 1954, Serial No. 454,872
9 Claims. (Cl. 22—21)



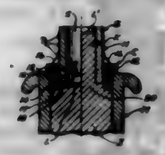
1. A foundry moulding machine having loading, sand filling, sand squeezing and unloading stations and incorporating a turnable supporting means adapted to carry a plurality of patterns arranged at spaced intervals thereon, fluid operated piston and cylinder mechanism for indexing the turnable table from the loading station where a moulding box is fitted to a pattern to the station where the fitted moulding box is filled with sand, thence to the sand squeezing station where pressure is applied to the sand in the moulding box, subsequently to the unloading station where the completed mould is removed from the pattern and thence back to the loading station, fluid operated means for occasioning a filling of the moulding box with sand at the sand filling station, fluid operated means for applying pressure to the sand at the sand squeezing station, fluid operated means for effecting the removal of the mould from the pattern at the unloading station, means for arresting the movement of the table as the patterns arrive at the respective stations and fluid operated means for effecting the operation of the said arresting means, the fluid operated means at the sand filling station, the fluid operated means at the sand squeezing station and the fluid operated means at the unloading station being interconnected with the cylinder of the fluid operated indexing mechanism and being controlled by the movement of the piston therein so that initial movement of the piston in the cylinder of the indexing mechanism causes the arresting mechanism to be brought into operation to arrest the table when the patterns arrive at a station and so that continued movement of the said piston subsequently occasions the bringing into operation simultaneously of the fluid operated means at the sand filling, sand squeezing and unloading stations so that sand filling, sand squeezing and mould removal operations take place simultaneously, together with a rotatable hopper for feeding sand into a moulding box at the sand filling station, the rotation of said hopper for discharge purposes being effected by means associated with the indexing mechanism whenever a moulding box arrives at the sand filling station.

2,846,740
FURNACE LADLING APPARATUS
Elmer Edstrand, Berkley, Ill., assignor to Lindberg Engineering Company, Chicago, Ill., a corporation of Illinois
Application September 17, 1956, Serial No. 610,077
7 Claims. (Cl. 22—79)



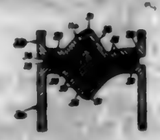
1. Furnace ladling apparatus comprising a hollow chamber to contain molten metal, a crucible in the chamber, means defining a vertically extending passage projecting at its lower end into the molten metal and terminating at its upper end in an inlet opening in the crucible above the bottom thereof, means defining an outlet opening in the crucible below the inlet opening, a discharge tube communicating with the outlet opening and extending upward therefrom to a level above the normal level of molten metal in the chamber, and means to apply fluid pressure to the upper part of the crucible to force metal in the crucible beneath the inlet opening through the outlet opening and discharge tube, said passage being of sufficient vertical height that fluid under the applied pressure will not blow past the molten metal therein.

2,846,741
HOT TOP
Donald D. Whitacre, Waynesburg, Ohio, assignor to The Whitacre-Greer Fireproofing Company, Waynesburg, Ohio, a corporation of Ohio
Application November 2, 1954, Serial No. 466,326
3 Claims. (Cl. 22—147)



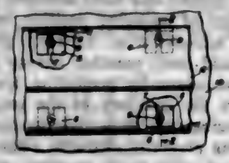
1. A ceramic hot top for use with ingot molds for casting ingots comprising an inner substantially cylindrical burned clay sleeve portion open at both ends with a central food opening and adapted to be disposed above and coaxially of the mold, the wall of said sleeve portion being characterized by its substantially uniform porosity, density and thickness, low density, low heat capacity and high insulating value, having a density of about ⅓ ounce per cubic inch and insulating value which under steady heat conditions can maintain about 1000° F. at its inner surface with about 200° F. at its outer surface, the said opening of said sleeve portion having from about 10% to 50% greater height than mean transverse dimension, said hot top also comprising a collar portion formed of dense, strong burned clay with density approximately twice the density of said sleeve portion and with a central opening formed complementarily to the exterior of the lower part of said sleeve portion and closely and freely receiving and encompassing the lower part of said sleeve portion and having a height of between about ⅛ to ½ the height of said sleeve portion and having an exterior form complementary to the interior of the upper end of the ingot mold and adapted to be closely and freely disposed therein, means for supporting said collar portion adjacent the brim of said mold with its lower part disposed below the brim, means for holding said sleeve portion against substantial upward or downward motion relative to said collar portion, and means for sealing the lower end of said sleeve portion in relation to said collar portion against flash or flow of fluid metal upwardly therebetween when the ingot is poured and said sleeve portion is substantially filled with fluid metal, said hot top having an internal volume of not more than about 10% of the volume of the ingot and crop and said collar portion having strength in shear and resistance to spalling where it is externally engaged by and bonded to metal of the ingot.

2,846,742
PATTERN AND METHOD OF MOLDING
Paul W. Wagner, Yellow Springs, Ohio, assignor to Morris Bean and Company, Yellow Springs, Ohio
Application April 17, 1953, Serial No. 349,446
19 Claims. (Cl. 22—164)



15. Pattern equipment for making of molds and cores, for metal casting which comprises a molded composition of sand bonded with an epoxy resin.

2,846,743
AUTOMOBILE MOLDING CLIP
Woodie Patton, Concord, Calif.
Application August 1, 1956, Serial No. 601,449
3 Claims. (Cl. 24—73)



1. A clip for securing molding of the type comprising marginal flanges to an automobile body, said clip including a pair of upper and lower plates having vertical slots therein for the reception of fastening means for adjustably mounted said plates on the body, and outturned jaws on the upper and lower ends of the plates engageable in the flanges.

2,846,744
FASTENING DEVICE
Philip Dix Becker, Hingham, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application December 21, 1953, Serial No. 399,499
1 Claim. (Cl. 24—108)



A securing device for assembly onto a stud projecting through a panel opening, comprising a dome-shaped cap having an inturned lower edge, and an attaching plate retained by said inturned edge, said attaching plate having a medial portion which is generally cone-shaped and extending upwardly into the cap, said cone-shaped portion having a group of tongues formed therein with biting ends for engaging an inserted stud, said attaching plate having a group of radially extending substantially flat portions extending from the periphery of the cone-shaped portion, the outer edges of said radially extending portions being retained by said inturned edge of the cap, and resilient legs disposed intermediate the radially extending flat portions, said legs extending radially from the periphery of the cone-shaped portion and being inclined slightly downwardly, said legs being capable of upward flexing independent of said tongues formed in the cone-shaped portion.

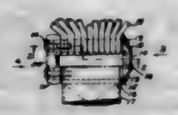
2,846,745
BUCKLE
William Martin Lafirop, Sherman Oaks, Calif., assignor to Cummings & Sander, Los Angeles, Calif., a copartnership
Application September 7, 1954, Serial No. 454,283
4 Claims. (Cl. 24—179)



1. A buckle comprising a plate-like base, a handle pivotally mounted at one end of said base upon an axis parallel to the general plane of the base, said handle overlying said base, spring means between the base and

handle urging said handle toward the base, said base and handle providing a space therebetween for the reception of an apertured tongue plate to be releasably secured, a latch member mounted on said base for pivotal movement about the pivotal axis of said handle, means connecting said handle and latch member for moving the latch member out of engaging position, said means permitting limited movement of the latch member relative to the handle, said latch member having a tongue-plate-engaging portion normally projecting toward said base for reception in the aperture of the tongue plate, and spring means urging said latch member toward said base, said handle being pivotally movable away from the base whereby to carry said latch member and release the tongue plate, said latch member having a vertical shoulder facing the other end of said base for engagement by an edge of the aperture in the tongue plate, said latch member having an overlying portion above and projecting beyond said shoulder adapted to overlie the upper surface of the tongue plate whereby to limit the pivotal movement of the latch member under load, said base being provided with an opening to receive the tongue-plate engaging portion of said latch member, and an abutting shoulder formed by the edge of said opening nearest said pivotal axis of the handle, said tongue-plate engaging portion of said latch member extending through said apertured tongue plate and into said opening in the base in position to bear against said abutment shoulder under load.

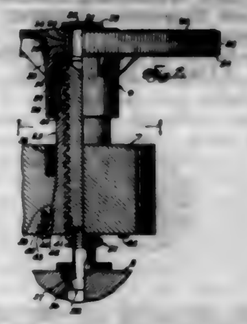
2,846,746
PARACHUTE HARNESS LINK
George W. Webster and Arvin C. Webster, Birmingham, Mich.
Application March 5, 1956, Serial No. 569,356
4 Claims. (Cl. 24—265)



1. A take-apart link for connecting the looped ends of two parachute harness members comprising a pair of substantially parallel shanks adapted to engage said looped ends, an end piece extending between said pair of shanks at each end thereof to connect said shanks in spaced, parallel relation, at least one of said end pieces being detachable and formed with a pair of bores, each dimensioned to receive and engage a portion of one end of each of said pair of shanks, abutment means in said bores to limit the extent of such engagement between said bores and said shanks, said shank end portions each being provided with an internally threaded longitudinally extending hole, and a pair of headed screws each extending through said detachable end piece into engagement with one of said threaded holes to draw said shanks into firm engagement with the bores of said detachable end piece.

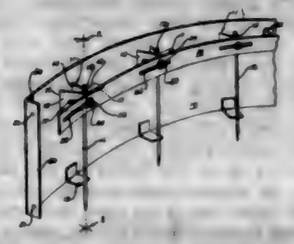
2,846,747
FRICTION PRESS
Norman B. Owen and Frank W. Owen, Hermosa Beach, Calif.
Application November 7, 1955, Serial No. 545,165
3 Claims. (Cl. 25—45)

1. In a friction press having a yoke provided with a tapered seat diverging in a downward direction, a nut having a tapered body engaged in said seat, a bull wheel, a lead screw on which the bull wheel is mounted and engaged with the threads of said nut and carrying a member adapted to create a thrust force in a direction to press the nut body into the seat, the nut being provided with a portion extending beyond the yoke, and the bull wheel being



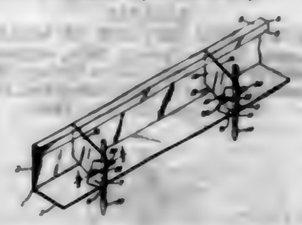
formed to have a bushing-provided hub in running fit engagement around the extending portion.

2,846,748
CONSTRUCTION FORMS
Leroy E. Owen, Vestal, and Richard C. Yates, Binghamton, N. Y., assignors to Binghamton Metal Forms, Inc., Binghamton, N. Y., a corporation of New York
Application February 21, 1955, Serial No. 489,466
7 Claims. (Cl. 25—118)



1. A construction form comprising a flexible web, a plurality of stake pockets secured to one face of said web, and means for connecting the ends of said stake pockets remote from the web, said means including a flexible member and means for adjustably securing said member to each of said stake pockets.

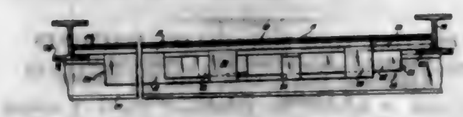
2,846,749
CONSTRUCTION FORMS
Richard C. Yates, Binghamton, and Leroy E. Owen, Vestal, N. Y., assignors to Binghamton Metal Forms, Inc., Binghamton, N. Y., a corporation of New York
Application April 12, 1956, Serial No. 577,798
7 Claims. (Cl. 25—118)



1. A construction form comprising a form body having a vertical web and a flat horizontal web, and a sheet metal helical stake pocket secured to said body and comprising two side wall portions diverging toward said vertical web and a bight connecting said wall portions, one of said wall portions being secured at one end to said vertical web above the horizontal web and extending

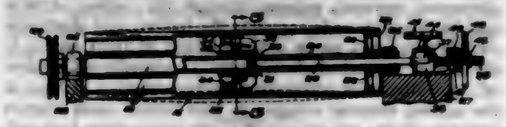
downwards to the horizontal web adjacent the outer free edge of the latter, and both said wall portions having lower edge portions thereof secured to the upper surface of said horizontal web adjacent the outer edge only of the latter, said bight extending beyond said outer edge of the horizontal web, and the other wall portion terminating intermediate said outer edge and said vertical web and nearest the former.

2,846,750
FORMBOARD SUPPORT
James M. Anderson, Miami, Fla.
Application September 17, 1957, Serial No. 684,523
6 Claims. (Cl. 25—131.5)



1. A longitudinally adjustable beam for use as a temporary formboard support in casting and curing light concrete slabs comprising a pair of nested elongated angle members the flanges of which are disposed with their respective outer and inner surfaces in sliding surface engagement; guide means secured to one of said members and having portions in overlying relation to the other member for maintaining said angle members in sliding assembled relation for adjustable telescopic movement; and stop means carried by one member for engaging the other member and limiting said telescopic movement in an inner and an outer direction.

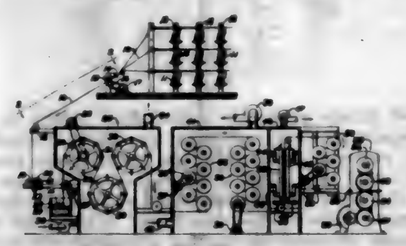
2,846,751
BOW STRAIGHTENING APPARATUS
Nelson E. Woodward, Tyngsboro, Mass.
Application June 29, 1953, Serial No. 364,573
6 Claims. (Cl. 26—63)



1. A roll for use in straightening bows in cloth, said roll comprising a pair of heads, a tubular shaft supporting said heads and having axially disposed and transversely alined slots intermediate said heads, a plurality of flexible slats interconnecting said heads, a rod slidable in said shaft with one end protruding therefrom, a sleeve slidably supported by said shaft between said heads and connected to said rod through said slots, said sleeve including a plurality of radially disposed first members, one for each slat, and each slat including a radially disposed second member connected to a corresponding one of said first members for movement in a radial direction when said sleeve is moved in an axial direction.

2,846,752
METHOD OF REDUCING ELONGATION OF CORDS
Edward T. Lessig, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application March 16, 1956, Serial No. 571,921
16 Claims. (Cl. 28—72)

1. The method of reducing the elongation of cords formed of thermoplastic filaments while preparing the cords for use as reinforcements in elastomeric articles comprising tensioning said cords, applying to the tensioned cords a liquid cord-to-rubber adhesion promoting substance, removing excess liquid from the surfaces of the cords by vibrating the latter, drying said cords to an amount such that said adhesion promoting substance does not transfer from the cords to surfaces which the cords contact, increasing the tension on said cords to an



amount at least several times the tension during the application of the liquid, heating the cords while under said increased tension to a temperature in the order of the melting point of the cords for a time interval less than that sufficient to melt the cords, and reducing the temperature of the cords to a temperature well below the melting point of the cords while the latter are still under said increased tension.

2,846,753
METHOD OF MAKING THIN METAL SECTIONS VACUUM TIGHT
Michael J. Zunick, Greenfield, and John E. Illingworth, Waukesha, Wis., assignors to General Electric Company, a corporation of New York
Original application September 28, 1951, Serial No. 248,766. Divided and this application August 18, 1952, Serial No. 304,968
3 Claims. (Cl. 29—25.14)



1. The method of making vacuum tight an X-ray tube anode of cast metal having a target button mounting wall of relatively thin sectional dimension, which comprises pre-forming, as separate elements, the target button and a vacuum sealing member comprising a thin layer of dense impervious metal, mounting said button and sealing member in closely spaced, surface facing relation as inserts in a mold, and then casting a suitable anode metal into the mold under vacuum conditions to envelop and embed said sealing insert in the cast metal comprising said mounting wall, between the opposite faces thereof, and to apply a joining layer of the cast metal between the closely spaced facing surfaces of said inserts to integrate the same by and with said joining layer.

2,846,754
SCRAP METAL BREAKER
Alexander Raizk and Lincoln Raizk, Wilmington, Ohio
Application July 7, 1955, Serial No. 520,542
4 Claims. (Cl. 29—66)

4. On a scrap metal breaking floor including a mobile electro-magnetic crane, a scrap metal breaker comprising a stationary, free-standing guide which includes a tubular guide sleeve and braced leg structure secured to said floor and supporting said sleeve vertically and over a predetermined point on said floor, and a dropping bar having a length greater than the distance of the upper end of said sleeve above said floor slidably contained

within said sleeve, the upper surface of said dropping bar being engageable by said crane to be raised thereby



and released therefrom for a scrap breaking free fall on a vertical line toward said point.

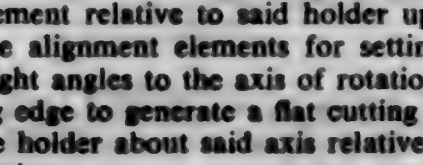
2,846,755
FILE TOOL HANDLE
Elof Granberg, Richmond, Calif.
Application March 25, 1957, Serial No. 648,335
6 Claims. (Cl. 29—80)



1. A manually applicable and removable handle for tools such as files or the like having a smooth tapered shank, comprising a unit knob having an axial recess and means extending into said recess on a taper and terminating in proximity to the surface of said knob opposite the entrance to said recess, said means being adapted to automatically grip such shank during rotational insertion of such shank into said recess.

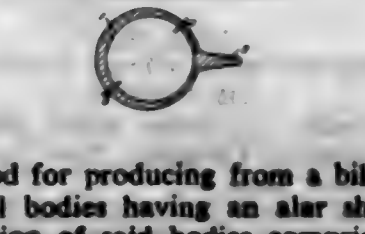
2,846,756
CUTOFF TOOL AND HOLDER THEREFOR
Raymond E. Novkov, Akron, Ohio, assignor to Manchester Machine & Tool Co., Akron, Ohio, a corporation of Ohio
Application May 2, 1955, Serial No. 505,488
9 Claims. (Cl. 29—96)

1. A cutoff tool of the character described, comprising; a tool body; a support blade having a bit-receiving marginal edge and being releasably secured to said tool body in non-shiftable relationship therewith; a clamping block, shiftably mounted on said tool body and having an elongated clamping arm projecting from one surface of said block and longitudinally overlying a substantial portion of said bit-receiving edge; and an elongated insert



bit receivable upon said bit-receiving edge and being engaged, throughout a substantial portion of its length by said clamping arm upon shifting of said clamping block into clamping position.

2,846,757
CUTTING TOOL FOR MILLING MACHINES
Vincent F. Klosterkemper, Cincinnati, Ohio
Application June 7, 1956, Serial No. 589,960
4 Claims. (Cl. 29—105)



1. A face milling cutter comprising a tool holder having mounting means for attaching the same to a rotating spindle for rotation about an axis of rotation, said holder having a bit mounting opening formed therein outwardly from said axis, said opening residing in a plane generally parallel with the said axis of rotation, a cutting element mounted in said opening and having a cutting edge projecting outwardly from the holder, a swivel element passing through said opening and through said cutting element along an axis generally at right angles to the said axis of rotation, said swivel element having opposite end portions anchored in said holder, and a pair of rotatable alignment elements passing through the cutting element and having their ends engaging the holder, said alignment elements residing along axes generally at right angles to the axis of the swivel element and on opposite sides thereof, said alignment elements imparting rocking motion to the cutting element relative to said holder upon relative rotation of the alignment elements for setting said cutting edge at right angles to the axis of rotation and causing the cutting edge to generate a flat cutting plane upon rotation of the holder about said axis relative to the surface of a workpiece.

2,846,758
METHOD FOR MANUFACTURING HOLLOW METAL SECTIONS
Jacques Sejournet, Paris, France, assignor to Comptoir Industriel d'Etirage et Profilage de Metaux, Paris, France, a corporation of France
Application March 29, 1954, Serial No. 419,553
Claims priority, application France April 17, 1953
3 Claims. (Cl. 29—156.8)



1. In a method for producing from a billet a plurality of hollow metal bodies having an alar shape in which the hollow portion of said bodies comprises a substantially lateral displacement away from the tip of said bodies, said bodies having a predetermined cross-section

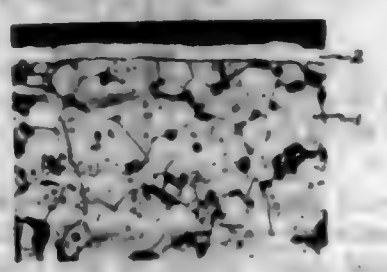
length and wall thickness, the steps comprising hot extruding the billet into a hollow tubular piece with a fin extending longitudinally thereof and being integral therewith, said hollow tubular piece having both a wall thickness and a peripheral development greater than those of the final hollow body, drawing said tubular piece into a tubular element having a peripheral development substantially equal to the peripheral development of the final hollow body and having said fin extending longitudinally thereof, cutting said tubular element into elementary portions, each of which has a fin portion integral therewith and extending outwardly away from the hollow portion thereof, reaming the inside of each elementary portion to provide a wall thickness substantially equal to that of the final hollow body and pressing said elementary portions to the shape of the final hollow body.

2,846,759

PLATED POROUS MATERIALS AND METHOD OF MAKING THE SAME

Robert T. Foley, Lanesboro, and Edward V. Raymond, Cheshire, Mass., assignors to General Electric Company, a corporation of New York

Application September 7, 1954, Serial No. 454,568
9 Claims. (Cl. 29—191.2)



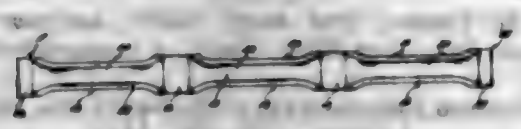
9. A corrosion resistant plated porous product comprising a porous metallic base material formed of pressed bronze powder, said porous metallic base material being impregnated with a liquid consisting essentially of oil having a viscosity between 255 Saybolt seconds at 130° F. and 0.6 centistoke at 78° F. and electroplated with a firmly adherent continuous coating of a metal selected from the group consisting of tin, zinc, cadmium, copper and silver and an alloy of tin and zinc.

2,846,760

CROSS BRACE AND METHOD OF MAKING SAME

Ivan Dwight Rohn, Peoria, Ill.

Application August 23, 1955, Serial No. 530,173
1 Claim. (Cl. 29—193.5)



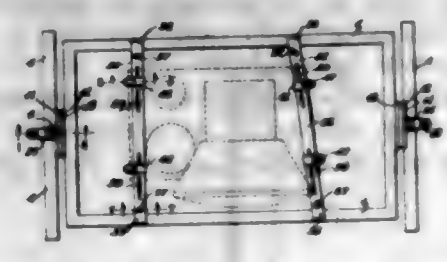
As an article of manufacture, a bendable transverse strap, for spacing and holding together a plurality of longitudinal tower posts, comprising a single metal stamping made of a strip of substantially uniform width and thickness, said stamping including a series of longitudinally spaced intermediate flat areas, each being bendable and of a length to engage transversely around a substantial portion of a post, laterally flanged portions between said areas and ends of the stamping for rigidifying and strengthening the strap, and end portions each of arcuate cross-section in a longitudinal direction such that, upon bending of the strap around the tower posts, said end portions will align with each other around a post, for securement thereto, contemporaneously with the bending of said flat areas around other posts.

2,846,761

REPAIR TABLES

Charles Howard Evans, Lake Worth, Fla.

Application March 16, 1953, Serial No. 342,524
2 Claims. (Cl. 29—288)



1. A tiltable work holder comprising spaced tubular standards, a rectangular work support frame comprising opposed side members and opposed end members pivotally mounted between said standards, said frame being pivotally mounted by means comprising a pivot bolt fixed at its inner end to said frame and extending outwardly through one standard, a quick-acting clamp for releasably clamping said frame to said standard in selected rotated position, said clamp comprising coacting first, second and third clutch discs through which said pivot bolt extends, said first disc being fixed to the outer side of one of said end members, said second disc being fixed to the inner side of said standard, and said third disc being rotatably mounted on said pivot bolt between said first and second discs, a cam sleeve rotatably mounted on said pivot bolt outwardly of said standard, means to rotate said sleeve, a raised cam surface on the inner end of said sleeve for engaging the outermost surface of said tubular standard to tension said pivot bolt and draw said clutch discs together, thereby clamping said frame to said standard, and a depressed surface on the inner end of said cam sleeve for engaging said outermost surface outwardly from said raised cam surface to release the tension on said pivot bolt, thereby releasing said clutch discs from each other to unclamp said frame from said standard.

2,846,762

METAL PLATING PROCESS

David E. Walker, Park Forest, and Robert A. Noland, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application February 17, 1955
Serial No. 489,002
7 Claims. (Cl. 29—471.5)

1. A process of firmly bonding a cladding of metal of the group consisting of steel and metals of the iron group to a member of uranium metal comprising coating said uranium member with silver, applying a silver layer to said cladding, assembling the cladding and the uranium member so that silver-coated surfaces contact each other, and pressure-rolling the assembly formed at between 550 and 650° C. until a reduction of from 10 to 50% has been obtained.

2,846,763

SPRING ACTUATED QUICK ACTING SAFETY RAZOR

Hildreth A. Spafford, Springfield, Ill.

Application April 20, 1955, Serial No. 502,540
6 Claims. (Cl. 30—60.5)

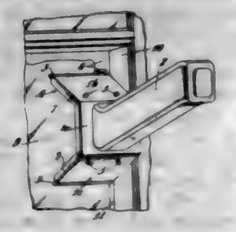
1. In a quick acting safety razor, the combination with a blade supporting member, a barrel rigid therewith, a spindle reciprocable within the barrel, a cap carried by the spindle, and a spring urging the spindle to a position closing the cap on the blade supporting member, of a plunger reciprocable with the spindle and projecting from the barrel at its end opposite said blade supporting member, a longitudinal slot in said plunger, a detent in said slot, resilient means carried by the plunger urging the

detent outwardly, a formation on the detent, a second formation in the barrel cooperating with the first formation to hold the razor open against the force of the



spring, and a third formation in the barrel spaced outwardly of the second formation for holding the razor partially open.

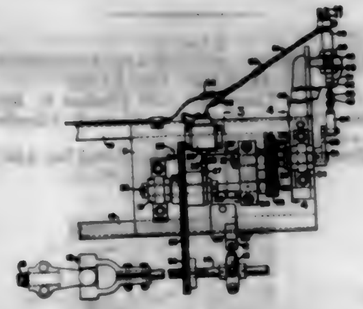
2,846,764
SCRAPING DEVICES
John R. Hynemon, Chatham, N. J.
Application January 6, 1956, Serial No. 557,746
1 Claim. (Cl. 30—172)



A scraping device operable by firm back and forth scraping strokes to remove hard adherent materials from hard smooth work surfaces having boundary members, comprising, a support member having a central handle mounting section with a substantial hand grip handle mounted thereon and having two identical U-shaped end sections each with broad bases and with short sides extending perpendicularly downward from said bases and each of said end sections holding a thin slightly flexible scraping blade which when in operation extends downwardly to make an angle of approximately 45° with a work surface, said blades serving alternately as leading cutting blade and trailing aligning blade depending upon the direction of motion, flexible retaining means attached to said support member pressing said blades upward against said bases, said flexible retaining means and said downwardly extending sides in combination providing protection of said leading blade against breakage as a consequence of accidental engagement of said leading blade with said boundary frame members.

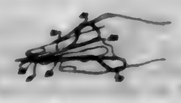
2,846,765
POWER LOPPING SHEARS
Warner D. Schofield, Edwin F. Koch, and Robert L. Schofield, Westlake, Ohio
Application May 13, 1954, Serial No. 429,556
8 Claims. (Cl. 30—228)

1. Power lopping shears comprising a frame, a shaft rotatably mounted on said frame, a crank arm on said shaft, an anchor block fixedly supported on said frame, a push-pull unit comprising an outer flexible sheath capable of resisting substantial axial compression without buckling, and an inner cable loosely received in said sheath, one end of said sheath terminating in a sleeve, means on said anchor block restraining said sleeve against axial shifting with respect to said frame, one end of said cable passing through said sleeve and extending toward said crank arm, means connecting said one end of said cable to said crank arm for reciprocation of said cable by said crank arm, a shearing head assembly remote from said frame, the opposite end of said sheath being fixed to one end of said shearing head assembly, lopping shears comprising a pair of scissors, one blade of said pair being fixedly mounted on the opposite end of said shearing head assembly, the opposite end of said cable having extension means extending through said shearing head assembly and operatively attached to the other blade of said pair, drive linkage means to drive said shaft, said drive linkage means comprising continuously driven means, clutch means between said continuously driven means and said



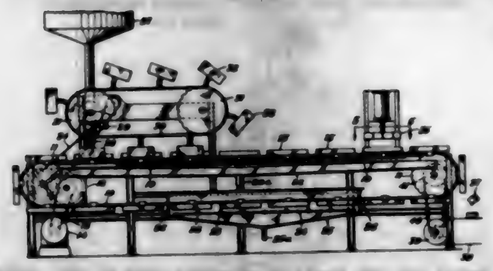
shaft, solenoid means on said frame, and means operatively connected to and controlled by said solenoid means to engage said clutch means for one rotation of said shaft upon actuation of said solenoid means and to disengage said clutch means upon completion of said one rotation in the absence of continued actuation of said solenoid means, switch means on said shearing head assembly to control actuation of said solenoid means, means operatively connecting said switch means and said solenoid means, said shearing head assembly comprising tube means, said cable extension means extending axially through said tube means, and swivel connections in said shearing head assembly to enable swivelling movement of said opposite end of said shearing head assembly with respect to the portion of said push-pull unit extending between said anchoring block and said shearing head assembly.

2,846,766
SCISSORS HAVING HANDLES WITH FLEXIBLE LOOPS
Charles H. Harter, Red Bluff, Calif., assignor to Ideavelopers, Inc., Red Bluff, Calif., a corporation of California
Application February 10, 1956, Serial No. 564,685
1 Claim. (Cl. 30—341)



A pair of scissors having pivotally interconnected handles provided with ball chain couplings at the free ends thereof and provided with ball chain loops each connected at one end to one of said ball chain couplings and at its other end to the handle carrying such coupling at a point intermediate such coupling and the pivotal interconnection between said handles, said ball chain couplings being releasable to permit various lengths of said loops to be held.

2,846,767
APPARATUS FOR THE MECHANICAL CHEDDARING OF CHEESE
Bernard T. Hengen and Walter H. Boland, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois
Application January 31, 1955, Serial No. 484,922
6 Claims. (Cl. 31—48)



1. A machine for the continuous manufacture of cheddar cheese, comprising: a frame, a conveyor mounted on said frame, a plurality of curd receptacles attached at spaced intervals on said conveyor, said receptacles provided with drains to remove released whey, drive means for advancing said conveyor and receptacles along a defined path, means for depositing portions of curd on the said receptacles at one station along said path, and cutting means at another station along said path to subdivide the curd to facilitate release of the whey.

2,846,768
SUNDIAL
Stephen R. Putnam, Scituate, Mass.
Application July 11, 1956, Serial No. 597,241
2 Claims. (Cl. 33—62)



1. In a sundial, a cylindrical transparent gnomon having its axis of symmetry parallel to the earth's axis, the gnomon protruding from both sides of a flat translucent dial, the gnomon refracting the sun's rays and thereby causing the emergent rays to be concentrated into a wedge of light, the emergent rays intercepted by the dial thus creating a pointer of light which moves around the dial with the movement of the sun, markings on the dial dividing its surface into units of time and means permitting the dial to be rotated about the axis of the gnomon whereby it may be set to the correct time.

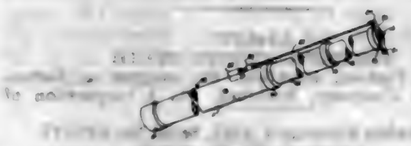
2,846,769
MEASURING DEVICE
George R. Colaut, Detroit, Mich.
Application October 21, 1955, Serial No. 542,008
5 Claims. (Cl. 33—125)

4. In a lathe having a bed and a carriage movable therealong, a scale graduated in full inches and in predetermined portions thereof and secured to said carriage, a slide cooperating with said scale and connected to the lathe bed, said slide having a mark thereon adapted to be positioned on said graduated scale to produce a reading thereon as said carriage is moved relative to said bed, a dial indicator mounted on said slide and having a hand drivingly connected to said scale to respond to the relative movements of said scale and said slide, the dial of said indicator being divided into portions representing thousandths of an inch, with one full revolution of the dial hand being produced as the slide is moved on the scale through the distance equal to one smallest portion of an inch into which the scale is divided, and means to adjust the slide to the zero point on the scale at any position of the scale on said bed.



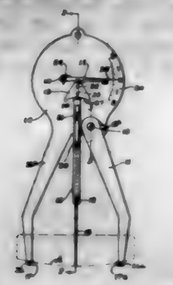
5. In a measuring instrument, a scale graduated in full inches and in predetermined portions thereof, a slide provided on said scale and having a mark thereon adapted to be positioned on said graduated scale to produce a reading thereon as the slide is moved along said scale relative thereto; a rack provided on said scale along the entire graduated portion thereof; a dial indicator mounted on said slide and including a dial, a hand shaft and a hand provided thereon; a driven gear on said hand shaft, a train of gears between said scale rack and said driven gear drivingly connecting said scale and said indicator hand to respond to the relative movements of said slide and said scale, the driving ratio of said gear train being so selected that as the slide moves relative to the scale for a distance equal to the smallest division on said scale, the indicator hand rotates through one full revolution, the indicator dial being graduated into as many portions as there are thousandths of an inch in one smallest inch division on said graduated scale; resilient means acting on the entire driving connection between the scale rack and the driven gear and operating to maintain said connection in constant tight resilient contact to prevent occurrence of backlash between the indicator hand and the rack.

2,846,770
MEASURING IMPLEMENT
Edward J. Williams, Charlotte, N. C., assignor to Pneumatil Corporation, Charlotte, N. C., a corporation of Delaware
Application June 3, 1955, Serial No. 512,980
4 Claims. (Cl. 33—161)



3. A measuring implement comprising: an elongate tubular body; an extensible portion telescoping within said body; caps on the exposed end of the body and the extensible portion to close off the interior of the body and extensible portion, preventing any moisture accumulations therein; a flexible scale supported externally between the tubular body and the remote end of the extensible portion whereby the distance between the remote end of the extensible portion and said body is directly readable on said scale; and spirit levels provided adjacent said scale to facilitate orientation of the measuring implement in either a horizontal or vertical plane.

2,846,771
APPARATUS FOR MEASURING THE THICKNESS OF LENSES
Celso Paciello, New York, N. Y.
Application March 15, 1957, Serial No. 646,295
Claims priority, application Brazil January 17, 1957
4 Claims. (Cl. 33—172)



1. An apparatus for measuring the thickness of an object mounted on a base comprising a body and a pair of legs mounted on the body, at least one of the legs being pivotally mounted on the body so that it can be moved to and from the other leg, means on the legs to hold the object whose thickness is to be measured, a measuring arm pivoted on the body in such fashion that it can move vertically about the pivot, means to adjust the length of the measuring arm below the pivot, and means on the body to measure the upward displacement of the measuring arm from an original set position.

2,846,772
WEDGE-SHAPED RULE
Arian E. Stransser, Reading, Pa.
Application February 12, 1954, Serial No. 409,842
2 Claims. (Cl. 33—174)



1. A triangular-shaped rule which is calibrated on its sloping edge in fractions of an inch to indicate the number of fractions of an inch rise for a given distance from a corner having an acute angle, and a foldable attachment thereon including an extension arm having pivotally connected thereto a level adapted to be held against a vertical surface.

2,846,773
CHECKING CUTTER TEETH
Carol H. Carlson, Rockford, Ill., assignor to Barber-Colman Company, Rockford, Ill., a corporation of Illinois
Application February 1, 1957, Serial No. 637,717
7 Claims. (Cl. 33—179.5)

1. For use in comparing the positional relation of cutter teeth arranged in a row extending around a rotary body, each tooth having sides converging toward each other along said row and away from the cutting face of the tooth, the combination of, means rotatably supporting said body to advance said teeth along a predetermined path with the narrow ends of each tooth leading the cutting faces thereof, a support mounted for movement transversely of said path in either direction away from a predetermined centered position, means for sensing, amplifying, and recording the successive movements of said support away from said centered position, and a pair of feelers on said support spaced apart a fixed distance less than the width of said teeth and straddling said path for engagement with opposite sides of said cutter teeth, said feelers being staggered relative to each other longitudinally of said row so that in passing said



feelers the side flanks of successive ones of said cutter teeth engage the feelers successively and cam said support outwardly away from said centered position while the other feeler is out of contact with the other side flank of the tooth.

2,846,774
WHEEL ALIGNMENT TOOL
William F. Race, Collingwood, Ontario, Canada
Application September 21, 1953, Serial No. 381,499
3 Claims. (Cl. 33—203)

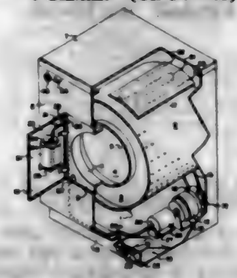


3. Means for measuring the wheel caster and camber of automobiles comprising: a rigid datum member mountable on a wheel spindle and having at least two surface contacting points on which said datum member may rest in contact with a supporting surface while supporting said automobile, said at least two surface contacting points each being radially farther from said spindle than the shortest radial distance from said spindle to said supporting surface and means for measuring the inclination of said datum member.

2,846,775
METHOD OF CONTACTING GRANULAR SOLIDS WITH GASEOUS FLUIDS
Wesley N. Lindsay, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
No Drawing. Application January 8, 1954
Serial No. 403,861
12 Claims. (Cl. 34—10)

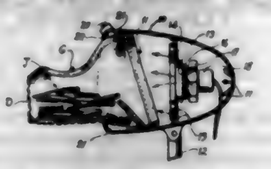
1. In the method of contacting gaseous fluids with granular solids having a high electrical resistivity wherein the gaseous fluid is passed upwardly through successive superposed beds of the granular material to fluidize the granular material and coact therewith, and wherein the fluidized granular material progressively flows downwardly from one bed to another, the improvement which comprises introducing finely divided electrical conductive particles into the contacting zone to prevent the agglomeration of the granular material by conducting any static electrical charges formed on the particles of said granular material away from said particles.

2,846,776
CLOTHES CONDITIONER
David L. Clark, Buechel, Ky., assignor to General Electric Company, a corporation of New York
Application January 11, 1954, Serial No. 403,388
4 Claims. (Cl. 34—45)



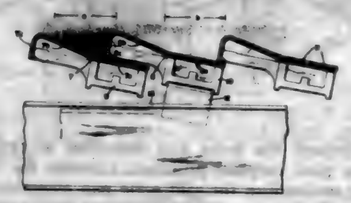
4. In a clothes dryer or the like, a basket in which clothes may be tumbled, drive means for rotating said basket at tumbling speed, electrical heating means positioned adjacent said basket for supplying heat to the laundry tumbling therein to evaporate moisture therefrom, liquid injection means associated in operative relationship with said basket to dampen the laundry tumbling therein, means operated by said drive means to discharge liquid through said liquid injection means into said basket in finely divided particles, and control means for selectively energizing said drive means with said heating means for drying the laundry in said basket and with operation of said liquid injection means and without said heating means for dampening the laundry within said basket.

2,846,777
HAIR DRIER ATTACHMENT
Hazel Collins, Long Beach, Calif.
Application July 29, 1957, Serial No. 674,778
9 Claims. (Cl. 34—98)



1. In combination with an electric hair drier of the type including a substantially bucket-shaped drier head having an inwardly extending flange encircling the open end thereof, and means positioned within said drier head adjacent the closed end thereof and electrically operable for propelling a current of heated air toward said open end, a comb and brush drying attachment comprising: a container made of a pliable sheet material and having two openings therein which are contiguous and are disposed at substantially a right angle to each other, one of said openings being adapted to be joined to the open end of said drier head, the other of said openings being normally upwardly disposed; a normally circular spring steel support member encircling said one opening of said container and defining a boundary between said one opening and said other opening; means maintaining said support member in supporting engagement with said container; and means for adjusting the circumference of said support member to be greater than the inner circumference of said flange but less than the inner circumference of said drier head whereby said support member when flexed and inserted within said drier head is operable to support said drying attachment so that heated air generated by said electric drier enters said container via said one opening and leaves via said other opening.

2,846,778
HORIZONTAL HEAT-EXCHANGE APPARATUS
Harry A. Markle, Jr., Allentown, Pa., assignor to Fuller Company, a corporation of Pennsylvania
Application April 9, 1957, Serial No. 651,676
4 Claims. (Cl. 34—164)

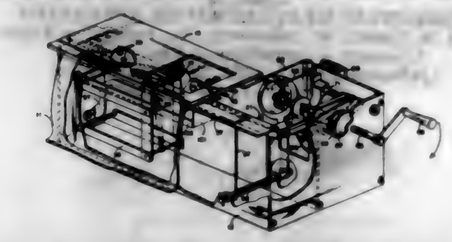


1. A heat-exchange apparatus comprising a longitudinal, substantially horizontally-disposed chamber, having an entrance for material at one end and a discharge port for material at the other end, a series of grates extending longitudinally of the chamber, said series of grates being substantially horizontally disposed and including fixed grates alternating with movable grates, the forward portion of each grate element overlapping the rear portion of the next forward grate element, the upper surfaces of the grates being adapted to support a substantially horizontally-disposed bed of discrete particles of material, the forward portion of each grate being upwardly and forwardly inclined relative to the rear portion, means for reciprocating the movable grates to cause the forward portion of each movable grate to move over the rear portion of the next forward stationary grate, the movable grates having a downwardly-extending forward face, means at each longitudinal side of the series of grates to confine material at such side to the space over the grates, whereby upon forward reciprocation of the movable grates material on each stationary grate will be engaged by the forward face of the next rearward movable grate and will be pushed forwardly and upwardly along the upwardly-inclined portion of the stationary grate and will spill over the forward end of the stationary grate onto the rear portion of the next forward movable grate, and material on the grates will be moved stepwise along the series of grates from the entrance end of the chamber to the discharge port from which it will be discharged, the grates of said series having openings extending therethrough, a chamber below the series of grates, and means for admitting air under pressure to the chamber below the grates to flow upwardly through the grates and into overlying material to effect heat exchange with respect to such material.

2,846,779
TEACHING MACHINE
Burrhus Frederic Skinner, Cambridge, Mass., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application May 12, 1955, Serial No. 507,912
6 Claims. (Cl. 35—9)

1. Apparatus for the teaching of arithmetic or the like, said apparatus comprising a tape carrying a series of questions in printed form and the corresponding answers thereto in the form of coded punched holes, a housing structure for said tape including a masking plate to expose only one of said questions to view at a time, manually operable means to register an answer to the time

exposed one of said questions including a plurality of movable elements whose respective positions are representative of the components of the answer to be registered, a plurality of fingers individually coupled to said movable elements, said fingers being positioned adjacent said holes by said movable elements when the positions of the latter are collectively representative of the answer carried by the tape, a scale pan assembly to urge said



fingers through the holes and thereafter to return said fingers to their original positions adjacent the tape, an actuating mechanism for said scale pan assembly, a tape transit mechanism, means to condition said tape transit mechanism to advance the tape in response to a displacement of said scale pan assembly, an indicating device actuated by said tape transit mechanism, and a main drive shaft coupled to said actuating mechanism and to said tape transit mechanism to motivate same.

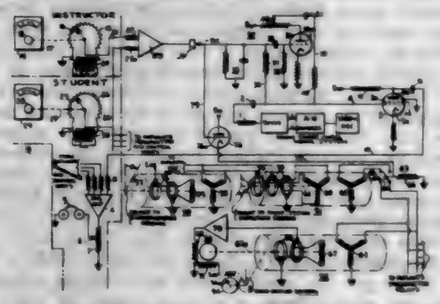
2,846,780

FLIGHT TRAINING APPARATUS FOR SIMULATING RADIO STATION TUNING

Joseph E. Gallo, Livingston, N. J., assignor to Curtiss-Wright Corporation, Propeller Div., a corporation of Delaware

Continuation of application Serial No. 105,132, July 16, 1949. This application January 27, 1955, Serial No. 484,546

8 Claims. (Cl. 35—10.2)



1. In a training system for radio navigation having means for continuously generating simulated radio range signals and means for receiving said signals by a student, means for simulating radio station tuning by a navigator comprising variable electrical means representing a transmitter adjustable to a plurality of predetermined settings by an instructor for representing a given range of station frequencies respectively, and a second variable electrical means representing a receiver independently adjustable to a similar plurality of settings by a student for representing the same range of station frequencies, additional means responsive jointly to said instructor's and student's variable electrical means for producing an electrical control quantity according to a difference in said adjustments, said control quantity being a minimum for corresponding settings of said variable means representing a tuned condition of the receiver and transmitter, and additional electrical means responsive to said control quantity for controlling the transmission of said radio range signals from said generating means to said receiving means according to the difference in settings of said variable electrical means in simulation of off-tuning.

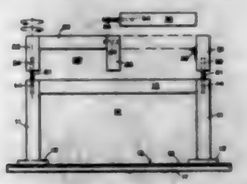
2,846,781

COMPONENTS FOR THREE-DIMENSIONAL INDUSTRIAL MODEL

Jack R. Parker, Malverne, N. Y.

Continuation of application Serial No. 468,340, November 12, 1954. This application May 26, 1955, Serial No. 511,192

3 Claims. (Cl. 35—16)



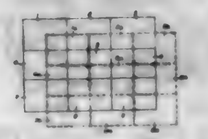
1. For use in a three-dimensional scale model of an industrial plant including piping, a pipe supporting rack assembly comprising a paramagnetic metal foundation plate; a pair of first uprights each having a supporting base of magnetized metal for adherence to said foundation plate, each upright having a central hole in its upper end surface to receive a dowel pin; a first pipe supporting cross member interconnecting the upper ends of said uprights; a second upright member having a central hole in its lower end surface to receive one of said dowel pins to form an extension of one of said first uprights; a second pipe supporting cross member, of less than the length of said first cross member, secured to the upper end of said second upright and projecting laterally therefrom; and a third upright secured to the outer end of said second cross member and extending downwardly therefrom to support the free end of said second cross member on said first member.

2,846,782

ARRANGEMENT OF MAPS

Olav Hofshagen, Trondheim, Norway

Application August 13, 1956, Serial No. 603,774
Claims priority, application Norway August 26, 1955
2 Claims. (Cl. 35—42)



1. A map comprising a base of stiff sheet material, mapping material on each face of the base, and the material appearing adjacent one of the corners of the material on one face being located adjacent the central area of the other face.

2,846,783

EDUCATIONAL TABLE

Robert J. Meyflinker, Chicago, Ill.

Application February 8, 1957, Serial No. 639,110
7 Claims. (Cl. 35—60)

1. An educational device comprising a framework including a pair of relatively spaced side members having opposed surfaces provided with elongated ways arranged in substantially coextensive relation, a cover member disposed intermediate said side members and having portions thereof accommodated within and movable with respect to said ways, to effect movement of said cover mem-

ber through a predetermined sector relative to said framework, first means carried by said framework and engageable by said cover member to define the end limits of said predetermined sector, and second means carried on said framework and disposed in spaced relation with said ways



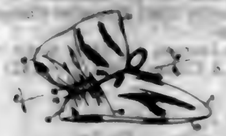
for engagement by said cover member when the latter is moving in one relative direction through said predetermined sector, and effect pivoting of said cover member about said second means as fulcrum and sliding movement of the accommodated cover member portions within said ways.

2,846,784

BOOTIE

Theresa E. Bush, Denver, Colo.

Application March 7, 1955, Serial No. 492,574
1 Claim. (Cl. 36—9)



A bootie comprising a sole; an upper formed of fabric and connected to said sole and constructed and arranged to enclose the foot of a wearer and also a portion of the leg of a wearer including the ankle, said upper including a front portion and a rear portion attached together along a seam at each side of said bootie, each said seam extending from said sole at a point adjacent the front of the heel of a wearer upwardly and rearwardly to the top of said bootie, said rear portion from the ankle region of said wearer to the top thereof having a width normally considerably greater than the circumferential distance around said region between said seams whereby said front and rear portions provide a relatively large opening at the top; an elastic band extending circumferentially around said rear portion and attached to said upper at the position of each said seam at an elevation above the maximum rearward extension of the heel of a wearer, said band having a normal unstretched length less than the normal width of said rear portion of said upper, and each said seam extending from said sole upwardly at a substantial angle to a perpendicular to said sole at least past said band; means forming a passage for said elastic band in said rear portion; and a separate tie attached to each end of said band and to said upper adjacent said seam.

2,846,785

WHEELED SIDE-DUMPING SCOOP

Roy J. Underwood, Drexel Hill, Pa.

Application February 11, 1954, Serial No. 409,559
20 Claims. (Cl. 37—53)

1. A manually operable scoop for handling snow or the like comprising an undercarriage having a pair of laterally spaced wheels and a bearing sleeve supported above and generally half way between said wheels, the axis of the sleeve being generally at right angles to the axis of the wheels, a shaft extending through said sleeve and axially rotatable relative thereto, said shaft carrying a scoop portion at one end, and quick-adjustable means mounted upon said shaft for locking said shaft against axial move-



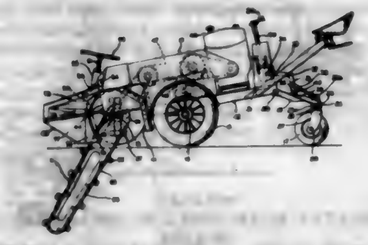
ment relative to said sleeve while permitting free relative rotation, said lockilng means permitting ready shifting of the sleeve along the shaft, whereby the angle of attack of the scoop portion as well as the mechanical advantage can be varied.

2,846,786

MOBILE DITCHING MACHINE

Harry A. Barber and Edmund M. Garbe, Aurora, Ill., assignors to Barber-Greene Company, Aurora, Ill., a corporation of Illinois

Application December 1, 1955, Serial No. 550,426
15 Claims. (Cl. 37—86)



1. In a ditching apparatus of the class described, a mobile frame, front and rear wheels supporting said frame, a cutter bar transversely pivoted to said frame forwardly of said front wheels and a cutter chain guided for orbital movement about said cutter bar, a cutter chain drive shaft coaxial with the pivot of said cutter bar and having a sprocket thereon for driving said cutter chain about said cutter bar, means for driving said cutter chain drive shaft and sprocket and driving said cutter chain about said cutter bar, means for pivoting said cutter bar about the axis of said shaft to feed said cutter chain and bar downwardly into the ground and excavate a ditch therein, soil flingers on said shaft at opposite sides of said cutter bar and extending radially therefrom and rotating with said shaft for laterally flinging the soil removed from the ditch by said cutter chain and means for tilting said frame with respect to the rear wheels to position said soil flingers in close proximity with respect to the ground.

2,846,787

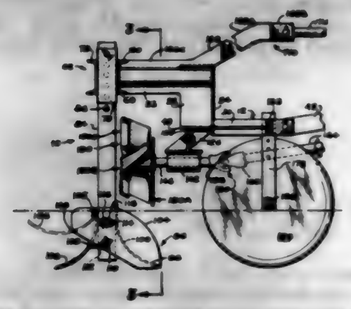
TRENCHING DEVICE

Charles M. Knowles, St. Petersburg, Fla.

Application August 1, 1955, Serial No. 525,532
4 Claims. (Cl. 37—99)

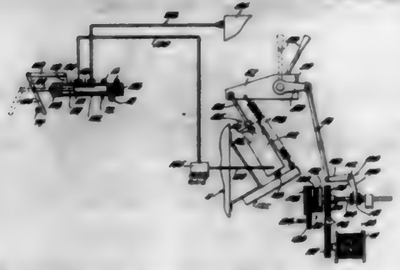
1. In combination with a tractor having a power take off shaft and a hydraulic lift mechanism, a trenching device, said trenching device comprising a front and rear frame, means rigidly connecting said frames together, a pair of cutting ground engaging discs, means mounting said cutting discs for rotation on said front frame, means connecting a plow on said rear frame in depending relationship relative thereto, an impeller mounted on said front frame above said plow for distributing the

earth from said plow, means connecting said impeller for rotation with said power take off shaft, and means



pivotally connecting said front frame with said hydraulic lift mechanism.

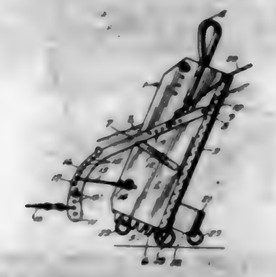
2,846,788
AUTOMATIC EJECTOR STOP FOR EARTH-MOVING SCRAPERS
Raymon B. Vance, Nashville, Tenn.
Application September 10, 1954, Serial No. 455,307
3 Claims. (Cl. 37—126)



1. In earth working machinery having a part movable in opposite directions through a predetermined path, means including a clutch for moving said part in one direction and resilient means for retracting said part in an opposite direction, the improvement comprising a cylinder and piston unit operatively connected to said clutch to disengage same upon admission of fluid to said cylinder, conduit means connecting the cylinder of said unit to a source of fluid under pressure, a valve in said conduit having a pressure relief port therein, said valve being alternately operable to establish communication between said cylinder and either said fluid source or said relief port, and means resiliently actuating said valve to normally maintain the cylinder in communication with the relief port, valve actuating means operatively connected to said movable part and operative responsive to movement thereof in said one direction for actuating said valve to establish communication between said cylinder and the source of fluid under pressure, whereby the resulting disengagement of said clutch will permit the resilient means to retract the said movable part with consequent functioning of said resilient valve actuating means to reestablish communication between the cylinder part and said relief port.

2,846,789
SCOOP FOR HANDLING BULK MATERIAL
Mentor C. Addicks, Minneapolis, Minn.
Application January 6, 1954, Serial No. 402,542
3 Claims. (Cl. 37—135)

1. In a device of the class described, a scoop element, a drawbar acting leg pivotally secured at its upper end to the scoop element at the upper end portion thereof for swinging movements in a vertical plane toward and away from the bottom portion of said scoop element, said leg element normally extending downwardly and forwardly from its pivotal connection to the scoop element and terminating in a floor-engaging shoe forwardly of the bottom of said scoop element, said leg having means for



attachment to a pulling cable, a scoop-engaging stop arm on said leg and engageable with said scoop element on swinging movement of said leg in the direction thereof, and a coupling connected to said scoop element and leg and limiting swinging movement of said leg in the opposite direction relative to said scoop.

2,846,790
TOOTH ASSEMBLY
Jefferson J. Davis, Donald J. McNeil, and Norval T. Grubb, Portland, Oreg., assignors, by mesne assignments, to Electric Steel Foundry Company, a corporation of Oregon
Application January 13, 1955, Serial No. 481,666
6 Claims. (Cl. 37—142)

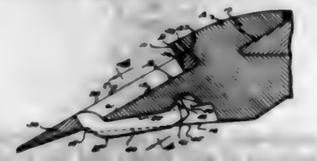


1. In a tooth assembly adapted to be mounted on buckets and the like, an adapter equipped with a tapered nose having a passage extending vertically therethrough, a point having facing diverging walls defining a tapered chamber therein adapted to receive said nose, said facing walls being provided with openings therethrough alignable generally with said passage, a locking pin provided with a notch intermediate the ends thereof and extending through said passage with the ends thereof positioned within each of the respective openings, the top wall of said nose having a forwardly extending recess therein opening into said passage, and a resilient keeper member positioned within said recess and only partially filling the same and being adapted to bear against said pin at the notched portion thereof, said keeper member having tapered top and bottom walls converging toward said pin, said keeper member having also a hardened reinforcing member horizontally embedded therein adjacent the end thereof adapted to bear against said pin.

2,846,791
MOUNTING FOR DIGGER TOOTH BLADE
Chester C. Hosmer, Long Beach, and Ernie L. Launder, Montebello, Calif., assignors to H. & L. Tooth Company, Montebello, Calif., a corporation of California
Continuation of application Serial No. 125,523, November 4, 1949. This application August 18, 1955, Serial No. 529,288
4 Claims. (Cl. 37—142)

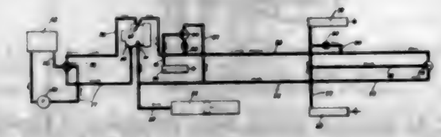
1. In combination, an elongate tooth tip having a base with a forwardly opening socket therein below the top

of the tip and spaced from the sides thereof and a body projecting forward from the base immediately below the socket and having a bottom and a flat top, a flat, elongate blade of resilient material seated on the top of the body, a projection on the blade at the rear end thereof engaged in said socket and held thereby against upward and lateral movement relative to the tip, and retaining means adapted to hold the forward portion of the blade seated on the



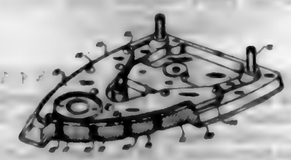
body including a flexible tongue struck downwardly from the blade leaving an elongate opening therein and substantially narrower than the blade and projecting rearward and downward from the blade from a point immediately forward of the body and engaging the bottom of the body and having latching engagement therewith, the tongue being disposed below and coextensive with the opening in the blade.

2,846,792
CONTROL SYSTEM FOR FINISH LEVELERS
Harold W. Hobday, Gilroy, Calif., assignor to Gurries Manufacturing Co., San Jose, Calif., a corporation of California
Application February 14, 1955, Serial No. 487,741
3 Claims. (Cl. 37—186)



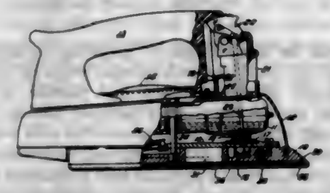
1. A hydraulic pressure system for operating the blade-level controlling ram of a ground working implement including pressure and return conduits, a valve to which the conduits extend, a conduit from the valve to the ram, the pressure and return conduits being arranged for alternate connection with the last named conduit upon operation of the valve in opposite directions from a normal neutral position, means actuated by variation in ground level to so operate the valves upon travel of the implement along the ground, a separate conduit connecting the return conduit and the last named conduit, a check valve in said separate conduit opening toward the ram, and hand controlled means to feed fluid pressure to the return conduit.

2,846,793
SMOOTHING IRON SOLEPLATE
Clair W. Studer, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application April 21, 1955, Serial No. 502,764
2 Claims. (Cl. 38—77)



1. A composite soleplate for smoothing irons comprising a body portion of aluminum having a high heat conductivity, tubular inserts embedded in the body portion extending between the underside of the body portion and the opposite face thereof forming steam passages for the delivery of steam to the smoothing surface of the soleplate, a highly abrasion resistant steel shoe bonded to the underside of the body portion and the contiguous end portions of the inserts, a non-corrosive sheath of nickel covering the shoe and extending into the inserts to cover the junction of the shoe and the inserts.

2,846,794
STEAM DISTRIBUTOR FOR STEAM IRON
Mary C. Pavlic, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application March 20, 1956, Serial No. 572,765
8 Claims. (Cl. 38—77)



1. In a steam iron; a sole plate; a flash boiler formed in the upper face of said sole plate; an opening formed through said sole plate; steam passages formed in said sole plate and forming communicating passages between said flash boiler and said opening; a cover plate secured to said sole plate and overlying said flash boiler, opening and steam passages, and a rigid porous steam distributor of powdered sintered metal closing the lower end of said opening and forming a permanent integral part of said sole plate.

2,846,795
PLASTIC LABEL HOLDER WITH ATTACHING MEANS
Philip Baisbus, Detroit, Mich., assignor to Office Products, Inc., Detroit, Mich., a corporation of Michigan
Application January 19, 1955, Serial No. 482,778
11 Claims. (Cl. 40—10)

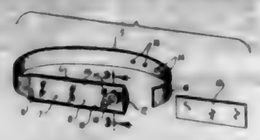


1. A label holder including, in combination, a rectangular frame of plastic material having sections of longitudinally extending apertures on opposite side edges thereof with the sections having alternate spaced open sides, said frame having a central opening forming a window for a label, and securing means for the frame anchored within the longitudinally extending apertures at opposite sides thereof for securing the label holder to an element.

2,846,796
IDENTIFICATION BAND
Winfred J. Polzin, Thiensville, Wis., assignor to Will Ross, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application May 16, 1957, Serial No. 659,665
3 Claims. (Cl. 40—19)

2. An identification device comprising: a band of flexible material; means on one end portion of the band defining an elongated pocket having its mouth at the adjacent extremity of the band and having opposing walls one of which is formed integrally with the band, the other wall of the pocket being permanently bonded to said first designated wall along both longitudinal margins of the latter and along a transverse line which is adjacent to

the junction between the band and the pocket, and said other wall being transparent so as to enable indicia on a card or the like inserted into the pocket to be readily viewed, and said pocket being adapted to receive a substantial length of the opposite end portion of the band, said wall of the pocket which is integral with the band having a width greater than said transparent wall and being held by its bonded joint therewith in an outward transversely bowed condition providing ready access to the mouth of the pocket; and means for closing the mouth of the pocket so as to preclude displacement of



a card from the pocket, and for securing the opposite end portion of the band to both of said walls of the pocket with a length of said opposite end portion of band in the pocket, comprising a snap fastener having cooperating male and female elements secured to said walls of the pocket adjacent to the mouth thereof, and longitudinally spaced apertures in said opposite end portion of the band, each of a size to receive the male member of the snap fastener, and through any one of which the male member may be projected when the fastener is closed to form the band into a bracelet.

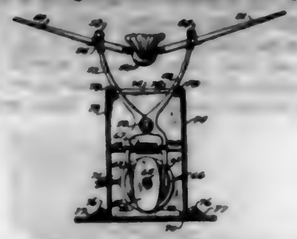
2,846,797
CHANGEABLE DISPLAY DEVICE
Leland R. Boyd, Canopolis, Mich.
Application March 16, 1956, Serial No. 572,107
6 Claims. (Cl. 40—30)



1. A changeable display device comprising a support member adapted to support an article to be displayed, said support member including an upright front wall, a cross bar pivotally secured adjacent one end to said front wall, a changeable sign at said one end of said cross bar, and means for oscillating said cross bar, said sign having means incorporated therein for changing the legend exposed thereon in coordination with the change of position of said cross bar.

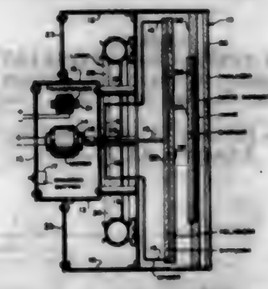
2,846,798
ELECTRO MECHANICAL BIRD DEVICE
William Eugene Polk, New York, N. Y.
Original application June 25, 1953, Serial No. 364,019, now Patent No. 2,770,918, dated November 20, 1956. Divided and this application September 28, 1956, Serial No. 613,362
4 Claims. (Cl. 40—106.33)

1. In a toy, housing, a fanciful body arranged above said housing and including a pair of movable wings horizontally disposed rods for supporting said wings, T-shaped fittings connected to said rods, arcuate arms having their upper ends secured to said fittings, a pin extending through said arms providing a pivotal support for said arms, bearings mounted in said arms for supporting said pin, fingers having a flattened portion thereon depending from said arms, a cam engaged by the flattened portions of said fingers, a shaft connected to said cam, a motor for rotating said shaft, and a coil spring having



its ends connected to said fingers intermediate of the flattened portions of said fingers and the pivotal connections of said arms.

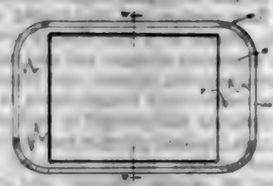
2,846,799
DISPLAY DEVICES
Nicholas Vlasiocky and Steven Vlasiocky, New York, N. Y.
Application September 18, 1953, Serial No. 381,018
3 Claims. (Cl. 40—130)



1. An illustrated display device comprising: a housing; a motor compartment centrally located at the base of said housing; a motor in the compartment; a shaft rotatable by said motor extending from the compartment interiorly of said housing; a set of spider legs positioned on said shaft; a translucent light diffusing sheet rotatably supported adjacent the peripheral edge thereof by said spider legs; a circular fluorescent light spaced radially outward of said spider legs, the central opening of the circular fluorescent light being wider than the motor compartment whereby said light may pass around said compartment upon removal through the base of the housing, said light being generally positioned to substantially uniformly illuminate the translucent diffusing sheet; a light polarizing sheet coextensive with said diffusing sheet and attached thereto for rotation therewith; a stationary birefringent image supported in said housing; and a stationary light polarizing sheet supported in said housing; said rotatable diffusing and polarizing sheets, said stationary birefringent image and said stationary polarizing sheet being in that order aligned in said housing between said light source and the eye of an observer whereby as said motor and spider legs turn said rotatable polarizing sheet the observer views variable color effects.

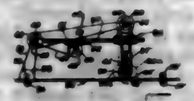
2,846,800
FRAME FOR MIRROR IN TRAIN CASE
Lou F. Marks and Leonard Loufk, Pittsburgh, Pa., assignors to Bruce Molded Plastics Products, Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application December 4, 1956, Serial No. 626,208
4 Claims. (Cl. 40—152)

2. A molded plastic frame for a glass plate, the frame comprising a generally rectangular body provided with a large opening surrounded by a rabbet in the back of the body for receiving the marginal area of a rectangular glass plate, flanges projecting from the outer walls of the rabbet inward across the rabbet for overlying said marginal area of the glass plate to hold it in the frame,



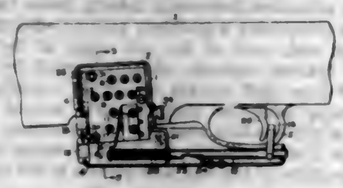
and a flexible lip surrounding said body and flaring forward therefrom, said lip being tapered in cross section toward its outer edge and adapted to be contracted by the side wall of a surrounding enclosure when the frame is pressed rearwardly into that enclosure.

2,846,801
WOOD-EMBELLISHING APPARATUS
Owen Brown, Los Angeles, Calif.
Original application April 27, 1948, Serial No. 23,649, now Patent No. 2,724,642, dated November 22, 1955. Divided and this application July 21, 1955, Serial No. 523,919
7 Claims. (Cl. 41—1)



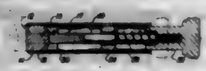
1. In a surface-marking machine, the combination which includes: a rotary brushing head positioned for intermittent contact with a surface to be abrasively scarified thereby—a slotted grid member—intermediary of the respective surface and brushing elements—against portions of which said surface moves slidably and against the oppositely disposed portions of which said brushing head scrapes rotatively as well as rotatively-abrasively into direct contact with the surface itself through the grid openings; means to move said surface relative to both said grid and said brushing head; and cooperative other means, including power and power-transmission means, operable to lower and raise said head to and from said surface at timed intervals.

2,846,802
GUN SWITCH CONNECTOR
Thomas F. Trofny, Jamaica, N. Y.
Application November 30, 1956, Serial No. 625,432
1 Claim. (Cl. 42—84)



In a rifle of the type having a trigger in a trigger guard and a chamber for a cartridge clip; removable electrical connector means mounted in said chamber comprising a casing, a switch mounted in said casing, and connecting means connecting said switch and said trigger, said connecting means comprising a rod rotatably mounted in said casing, one end of said rod being connected to said switch and the other end of said rod being curved in a U-shape whereby when said rod is rotated said U-shaped end enters the area enclosed by said trigger guard and connects operatively with said trigger.

2,846,803
FISH HOOK BAITER
David F. Reilig, Redlands, Calif.
Application April 24, 1956, Serial No. 580,243
1 Claim. (Cl. 43—4)



Apparatus for use in baiting a fish hook with soft bait without touching the bait, comprising a hollow cylindrical member having an interior portion thereof at one end of larger inside diameter than the inside diameter of the remainder of the cylindrical member, the enlarged diameter end being slightly larger than the transverse dimension of the hooked end of the fish hook which is to be baited for receiving said hooked end, said portion having a thin wall for slicing into the bait material, a plunger having a spherically concave end face and slidably positioned in said portion, the plunger being larger in diameter than the inside diameter of the remainder of the cylindrical member, whereby the plunger engages the end of the smaller diameter portion of the cylindrical member as a stop, a push shaft secured to the plunger and extending out through the small inside diameter end of the cylindrical member so that a fisherman may hold the cylindrical member in one hand and operate the plunger by pushing on the shaft with a thumb or finger of the same hand, and a spring coupled between the cylindrical member and the shaft for urging the plunger against the stop, the larger inside diameter region of the cylindrical member extending beyond the end face of the plunger a distance slightly larger than the logitudinal dimension of the hooked end of the fish hook which is to be baited when said plunger is against said stop, the spherically concave end face of the plunger conforming the bait to the curvature of the hook, whereby a compact plug of bait may be formed on a hook to completely cover and conceal the hooked end of a hook with a minimum of bait material and said baited hooked end may be ejected from said large diameter end by said plunger.

2,846,804
AUTOMATIC LINE RELEASE FOR USE ON FISHING RODS
Joseph Elliott, Inglewood, New Zealand
Application October 23, 1956, Serial No. 617,798
8 Claims. (Cl. 43—25)



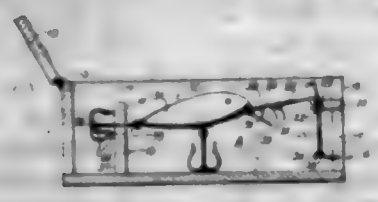
1. An automatic line release device for use on a fishing rod comprising a mount for detachably clamping to a fixed part, a base detachably secured to the mount, a rotor shaft journalled in the base to be capable of rotation and having a projecting pin thereon, a stud fixed on the rotor shaft around which a fishing line is adapted to pass and an adjusting screw threaded through a part of the base for an inner end of the screw to normally be across the rotative path of the pin on the shaft to prevent rotation of the shaft when the pin and the screw are in contact, the casting action of the rod sliding the pin along the screw and when the pin is freed from the end of the screw the line releases from the stud upon rotation of the shaft.

2,846,805
FISHING LURE
Richard H. Waltzman, San Jose, Calif.
Application August 3, 1956, Serial No. 602,000
5 Claims. (Cl. 43—42.06)



1. A fishing lure comprising a generally tubular body, means for attaching a fishing line to one end of said body whereby when pull is exerted on the line, said body will assume a position in the water with the axis thereof generally aligned with the direction of pull, means including a baffle disposed within said body diagonally relative to its axis whereby the force of water against said baffle urges said tubular body into a predetermined disposition when pull is exerted on the fishing line, said line-attaching means being disposed at the lower perimetric edge of said tubular body when in said predetermined disposition.

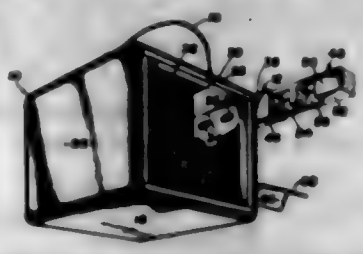
2,846,886
FISH LURE HOLDER
Robert L. Gaines, Austin, Tex.
Application September 8, 1954, Serial No. 454,803
5 Claims. (Cl. 43—54.5)



1. A fishing lure holder comprising a container having a bottom wall, side walls, a back wall, and a front wall, the side walls and the back wall having coplanar upper edges and said front wall having an upper edge spaced below said coplanar edges, a cover hinged on said back wall at the upper edge thereof adapted to be closed to engage said coplanar edges, a first bar secured in the container and extending thereacross attached to the top of the front wall and being perpendicular thereto, said first bar having an upper edge spaced below said coplanar edges, the upper edge of said first bar having spaced vertical slots therein, a second bar extending across the interior of the container and secured to said front wall along the upper edge of the front wall, said second bar extending rearwardly into the container from said front wall, said first and second bars and said front wall being sufficiently spaced below the cover when closed to provide a lure-drying space thereat below the cover, said second bar having vertical holes therethrough which are aligned with the slots in said first bar, flexible and resilient members having intermediate portions trained through the holes of the second bar, said members having first end portions having lure-engaging catches thereon and second end portions, and means securing the second end portions of said members to the container at points below the second bar with the portions of said intermediate portions of the flexible members below said second bar in vertical alignment with the second bar holes.

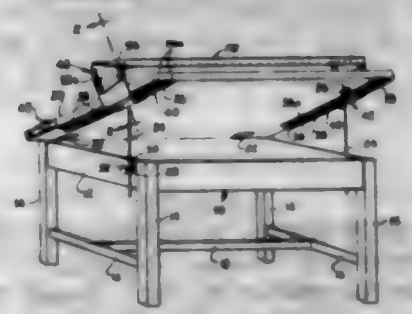
2,846,887
LIVE BAIT DISPENSER
Stephen C. Tucker, Atlanta, Ga., assignor of one-half to J. Ralph Hart, Whitesburg, Ga.
Application June 10, 1957, Serial No. 664,645
6 Claims. (Cl. 43—55)

1. A live bait dispenser comprising a receptacle defined by a bottom wall, side walls extending upwardly from said bottom wall and a top wall attached to the upper ends of said side walls, one of said side walls having an aperture near the upper end thereof, a tubular dispensing plunger support member mounted against the outside of said apertured wall over said aperture, said support member having an aperture therein aligned with the aperture in said wall, said support member having an imperforate floor portion and also having a slot running longitudinally thereof in a side thereof away from said receptacle, a dispensing plunger, and said support member receiving said dispensing plunger, said dispensing plunger adapted to be reciprocated longitudinally in said support, means to reciprocate said plunger in said support including a pin fastened to said plunger and extending through said slot, said plunger having a pocket therein, said pocket having an opening adjacent said apertured wall



of the receptacle, and a second opening adjacent the imperforate floor of said support member, said first opening in said plunger being adapted to register with the apertures in said wall and said support member when said plunger is in a first position, said second opening in said plunger being closed by said imperforate floor of the support when said plunger is in said first position, said openings being both exposed outside of said receptacle when said plunger is moved forward to assume a second position, whereby when said plunger is in said first position a live insect captive in said receptacle can climb through said wall and said support member into said pocket, and whereby when said plunger is moved forward to said second position such insect is carried forward and drops through said second opening in said pocket to the outside of said receptacle.

2,846,888
DRAWING TABLE TRAY ATTACHMENT
J. C. Hubert Ivester, Greenville, S. C.
Application April 12, 1956, Serial No. 577,794
5 Claims. (Cl. 45—131)



1. An adjustable instrument holding device for a drawing table comprising a trackway secured adjacent and in alignment with each of the side edges of the drawing table, a bracket assembly slidably carried by each of the trackways, said bracket assemblies extending above the drawing table, an elongated tray carried adjacent the top of the brackets, said bracket assemblies including means for tiltably adjusting the tray and means for adjusting the position of the tray with respect to the trackways.

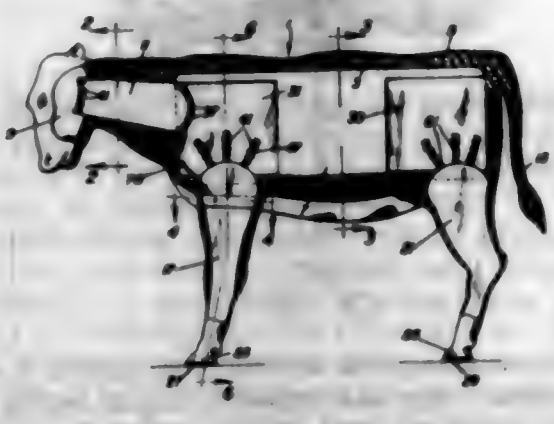
2,846,889
TOY CONSTRUCTION SETS
Eugene J. Majewski, Chicago, Ill.
Application April 17, 1956, Serial No. 578,673
3 Claims. (Cl. 46—29)

1. A toy construction set comprising: a plurality of lightweight, substantially spherical connecting elements

with a predetermined radius of curvature and having smooth, uninterrupted rigid surfaces capable of maintaining a vacuum; a plurality of rods; and resilient suction cups carried by the rods, at least some of the rods carrying suction cups at both ends, the suction cups having a radius of curvature sufficiently smaller than that of the elements to permit the suction cups to adhere to the elements by suction.

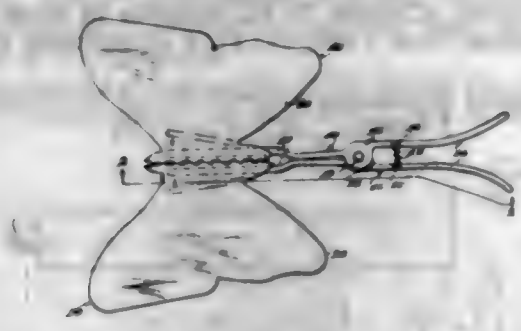


2,846,810
DUMMY CALF FOR PRACTICING ROPING, LASSOING AND TYING
Willie B. Ory, Clovis, N. Mex.
Application May 31, 1957, Serial No. 662,919
3 Claims. (Cl. 46—123)



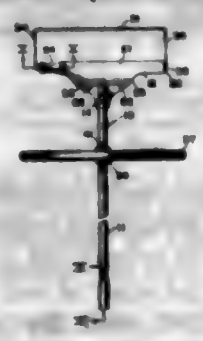
1. A dummy simulating a calf and for practice purposes in roping and tying the legs thereof comprising a frame including a trunk core, a head core, resilient means connecting said cores, front and hind legs, and resilient joint means connecting said legs to said trunk core, and a pull member connecting said front legs together and slidably extended through said trunk core and operative to swing one front leg forwardly at its joint in response to swinging of the other front leg rearwardly.

2,846,811
FLAPPING WING TOY
William Eugene Polk, New York, N. Y.
Application September 6, 1956, Serial No. 608,262
2 Claims. (Cl. 46—124)



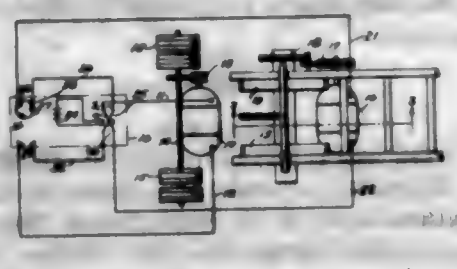
1. In a flapping wing toy, a pair of handles, a pin pivotally connecting said handles together intermediate the ends thereof, each of said handles being shaped to include a curved hand gripping portion on one end thereof, a coil spring interposed between said hand gripping portions, each of said handles further including a shank on the other end thereof, there being a slot in each of said shanks, said shanks being mounted for movement towards and away from each other, said hand gripping portions being mounted for movement towards and away from each other, a pair of similar sections each shaped to include a wing and a body portion, said body portions being arranged angularly with respect to said wings, there being notches in said body portions, a resilient band encircling said body portions and engaging said notches, each of said body portions being provided with a pair of opposed notched areas, and resilient bands extending through said slots and engaging said notched areas on the body portions.

2,846,812
COMBINATION HOOP AND BALANCE STICK
Herbert F. Schmiege, Saginaw, Mich.
Application January 14, 1955, Serial No. 481,832
3 Claims. (Cl. 46—220)



2. In a balance stick structure, the combination comprising: a shaft; a handle and detachable guard secured to one end of said shaft; a face portion plate transversely secured to the end of said shaft opposite said handle; a leading edge defining the upper portion of said face portion plate; a tapered extension of said leading edge at one end; a roller secured to rotate and extending outwardly from the end of said face portion plate opposite said tapered extension; and a bail-like wire extending from said face portion plate and said roller and detachably secured thereto against rotation.

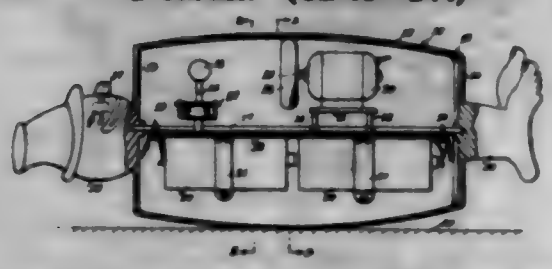
2,846,813
REMOTELY CONTROLLED TOY VEHICLE
Andrew N. Giardina, Pittsburgh, Pa.
Application December 17, 1954, Serial No. 475,907
1 Claim. (Cl. 46—244)



A toy vehicle comprising a tractor and a trailer, the latter having its front end pivotally mounted on the rear portion of the tractor to provide relative pivotal movements in a horizontal plane, a reversible electric motor mounted on said tractor, a separate remote control unit comprising a housing enclosing dry cells electrically connected by flexible electric wires to said motor, said trailer having mounted on the forward end thereof a pedestal bearing in the form of two parallel vertical walls having aligned notches formed in the top edges thereof, a pivotal shaft supported in said notches, a spring having one end connected centrally of said shaft and the other end being connected to a base portion of the forward end of said trailer for holding said shaft in said notches, a ladder having one end pivotally mounted on said shaft, said end having an arcuate segment portion substantially concentric with said shaft and extending vertically downwardly in the space between said vertical walls, a drive

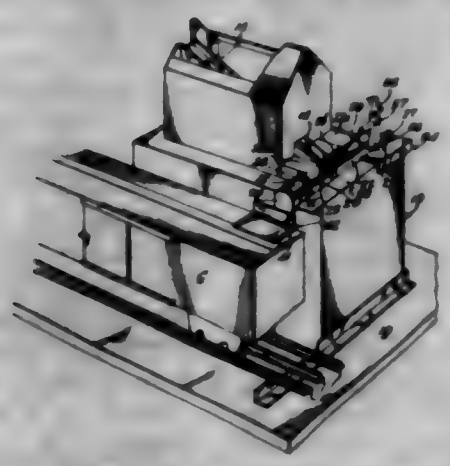
shaft is tangential, frictional engagement with said arcuate segment portion, and means for turning said drive shaft in either direction, whereby turning of said drive shaft in one direction will cause pivotal raising movement of said ladder, and turning of said drive shaft in an opposite direction will effect lowering of said ladder, and whereby after the ladder has reached either its limit of raising or lowering movement, further turning of said drive shaft will effect slippage thereof relative said arcuate segment portion.

2,846,814
SELF PROPELLED REVERSING TOY
Frank A. Lottieri, Red Bank, N. J.
Application September 6, 1957, Serial No. 682,431
2 Claims. (Cl. 46—244)



2. In a toy, a hollow body portion of barrel-like formation, and said body portion including a continuous outer wall member which is arcuate in cross section, first and second end walls on the ends of said body portion, a head member extending from said first end wall, a foot-like member extending from the other end wall, a shaft extending longitudinally through said body portion, a base positioned below said shaft, clamps connecting said base to said shaft, a plurality of batteries positioned below said base, brackets connecting said batteries to said base, a switch mechanism supported by said base, posts extending upwardly from said base, a platform secured to said posts, a reversible motor mounted on said platform, a drive wheel arranged in frictional engagement with the inner surface of the wall member of the body portion, said drive wheel being connected to said motor, said switch mechanism including a pivotally mounted bar, an arm extending upwardly from said bar, a weight on the upper end of said arm, spaced apart contacts adapted to be selectively actuated by said bar, said head member, body portion and foot-like member simulating a fanciful creature, and whereby the toy is constructed so that when the body portion rolls into contact with an obstruction, the switch mechanism moves to reverse rotation of the motor and drive wheel.

2,846,815
TOY RAILROAD ACCESSORIES
Richard G. Smith, Hagaman, N. Y.
Application January 26, 1955, Serial No. 484,258
11 Claims. (Cl. 46—245)
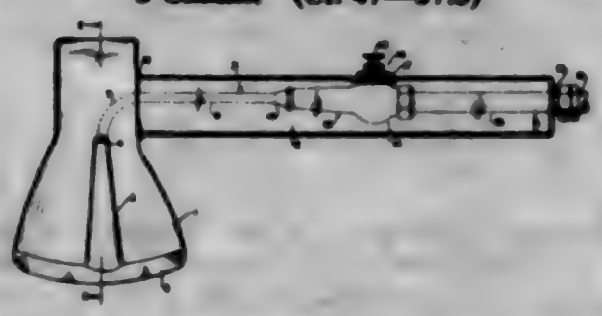


11. A toy for simulating the loading of a railway car by dropping an article through an opening in its roof, comprising a toy railroad track, a toy railroad car on the track and having an opening in its roof through which articles may be dropped, a normally closed door covering the opening, and a trackside structure secured to the track spaced laterally of the car body to form a gap, and past which the car is movable, the trackside structure having above the level of the car roof and extending laterally from its car-adjacent side an article support, a pusher in the same plane as said support normally behind the article, a reciprocable obstacle between the article and said car, means to reciprocate said pusher to push the article toward the car and against the obstacle and cause the article to be gripped between the pusher and obstacle and then be carried therebetween over the gap and the roof opening, and then to cause said door to open and then to cause the pusher and obstacle to separate and release the article into the car.

2,846,816
AIR HANDLING AND HEATING APPARATUS
Ralph P. Maloof, San Bernardino, Calif.
Application October 1, 1954, Serial No. 459,009
8 Claims. (Cl. 47—2)



1. Air circulating and conditioning apparatus including, a vertically disposed standard, a head on the upper end of the standard with a spindle carried by the standard and with a hub rotatably supported by the spindle, an air circulating means carried by and at the forward side of the hub on an axis projecting by the vertical axis of the standard at a point spaced laterally therefrom and including a prime mover driving a fan, an air conditioning means carried by the hub and adapted to receive and temper a portion of the air delivered thereto by the circulating means, and a control means for stopping and positioning the hub as it is rotated including a series of circumferentially spaced pins positioned and released by an escapement having a part successively engageable with the pins.

2,846,817
TREE POISONING AXE
John A. Halsted, Clinton, N. C., assignor to Riegel Paper Corporation, New York, N. Y., a corporation of Delaware
Application September 6, 1955, Serial No. 532,543
3 Claims. (Cl. 47—57.5)



1. A tree poisoning axe comprising an axe head affixed to a hollow handle, a poison delivery conduit directed

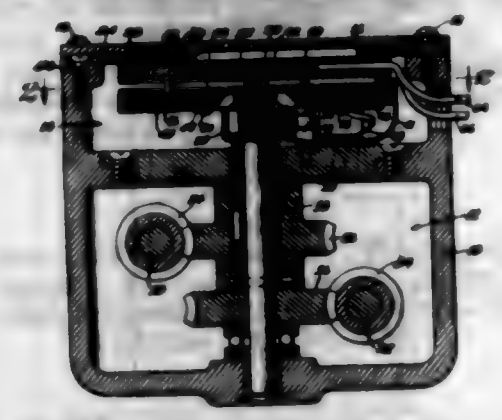
down through the interior of said hollow handle into a bore in said axe head, a shallow trough in a face of the axe head and leading toward the cutting edge of said axe head, said bore in said axe head discharging into said trough, a valve in said delivery conduit for controlling the flow of said poison therethrough, the body of said valve being entirely enclosed within said handle, and valve actuating means protruding therefrom through an aperture in said hollow handle.

2,846,818

ELECTRIC SYNCHRONIZER FOR GLASS MACHINE FEEDER

Harold E. Larison, Anderson, Ind., assignor to Lynch Corporation, Anderson, Ind., a corporation of Indiana

Application April 9, 1956, Serial No. 577,101
12 Claims. (Cl. 49—5)



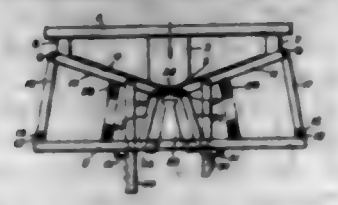
11. In an electric synchronizer for glass machine feeders, a pair of revolving elements, one driven in synchronism with the feeder and the other driven in synchronism with the machine, and control means for automatically synchronizing the machine with the feeder by controlling the clutch of the machine, said control means comprising a go solenoid for effecting throw in of the clutch and a stop solenoid for effecting throw out of the clutch, a push button for energizing said go solenoid, a timer switch in series therewith whereby both the push button and the timer switch must be closed to energize said go solenoid, means for mounting said timer switch on one of said pair of revolving elements, a cam on the other thereof for closing said timer switch in only one position of relative rotation between said revolving elements, and means for conducting current to said timer switch comprising a pair of concentric grooves in said one of said revolving elements and connected with the poles of said timer switch, mercury in each of said grooves, and stationary current carrying elements contacting the mercury in said grooves.

2,846,819

APPARATUS FOR MANUFACTURING TOUGHENED BENT GLASS

Henry W. Baker, Birmingham, England, assignor to Pilkington Brothers Limited, Liverpool, England, a corporation of Great Britain

Application September 15, 1953, Serial No. 380,208
Claims priority, application Great Britain September 20, 1952
8 Claims. (Cl. 49—67)



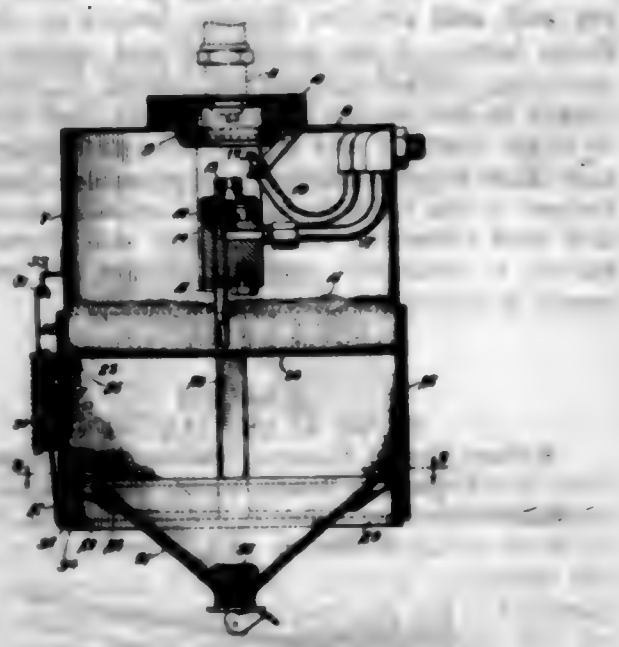
1. Apparatus for imparting a V shape to vertically suspended flat glass, which has been heated up to near its softening point, comprising two co-operating members, one of which includes a vertical post about which the vertically suspended flat glass to be bent is wrapped during bending, whilst the other co-operating member includes a vertical base and two plates hinged on vertical axes disposed at points beyond the ends of the curved portion required in the glass, means for initially setting said plates into coplanar position, said plates being resiliently supported on said base so as to constitute yielding supports for the flat portions of the glass each side of the V movable as the angle in the bend is formed by the said post, means for causing relative movement between the co-operating members whereby flat glass is given a V bend, means supporting and guiding said plates for movement with the respective flat portions of the glass in contact therewith to prevent relative movement between the flat portions of the glass and the respective plates during the bending operation, and holding means for the plates operatively associated with the respective base and adapted to hold the plates in fully yielded position during retraction of the vertical post, thereby immediately releasing the suspended glass to cause the glass to hang free of the plates for immediate transfer to a toughening station.

2,846,820

SPARK PLUG CLEANER

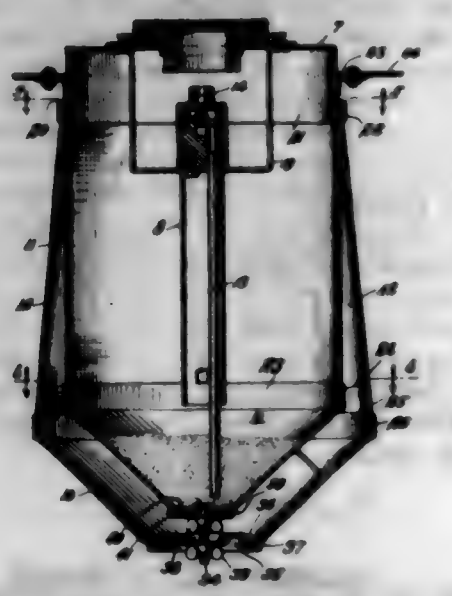
George Perusk, Jr., Verona, and James F. Russell, Pompton Plains, N. J., assignors to The Olfjak Manufacturing Co., Inc., Montclair, N. J., a corporation of New Jersey

Application May 28, 1956, Serial No. 587,989
4 Claims. (Cl. 51—8)



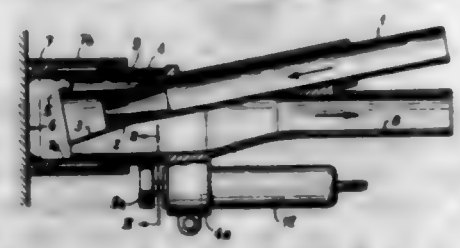
1. Spark plug cleaner comprising the combination of an abrasive containing chamber, an abrasive nozzle, an abrasive supply tube extending from within said chamber to said nozzle, said abrasive containing chamber being made up of a can having a lower open end and a flexible fine mesh screen stretched across said open lower end, a breather bag attached to the edge of said screen, an upper supporting ring telescopically engaged over the lower end of said can with the upper end of the breather bag looped over the same, a hopper bottom for collecting screened material, struts connecting said hopper bottom to said upper supporting ring and supporting said hopper bottom in spaced relation below the screen, said hopper bottom having a dependent annular flange about the rim of the same and the lower end of the breather bag being folded inwardly and upwardly over said flange, a clamping ring telescopically engaged within said flange and clamping the folded lower end portion of the breather bag to the flange and spring means yieldingly and detachably connecting said clamping ring to the body of the can.

2,846,821
SELF-CLEANING SPARK PLUG CLEANER
George Pernak, Jr., Verona, N. J., assignor to The Olfjak Manufacturing Co., Inc., Montclair, N. J., a corporation of New Jersey
Application August 12, 1957, Serial No. 677,653
6 Claims. (Cl. 51—8)



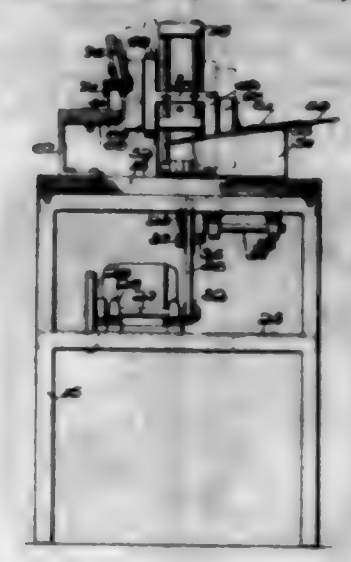
1. Self-cleaning spark plug cleaner, comprising the combination of abrasive spark plug cleaning nozzle, abrasive containing chamber about the same having an upright annular abrasive retaining filter wall, a dust collecting chamber surrounding and spaced from said abrasive chamber having an upright annular dust arresting wall, said abrasive chamber having an abrasive confining hopper at the bottom of said upright filter wall, said dust collecting chamber having a dust confining hopper at the bottom of said upright dust arresting wall of larger diameter and spaced from said abrasive hopper, said dust hopper having a removable closure at the bottom of the same for removal of dust accumulated in said dust collecting chamber and said abrasive hopper having a releasably confined closure for enabling removal of abrasive.

2,846,822
SAND BLAST MACHINE
Robert Steffen, Geneva, Switzerland, assignor to Walter F. Brack, Vaud, Switzerland
Application November 7, 1955, Serial No. 545,439
3 Claims. (Cl. 51—11)



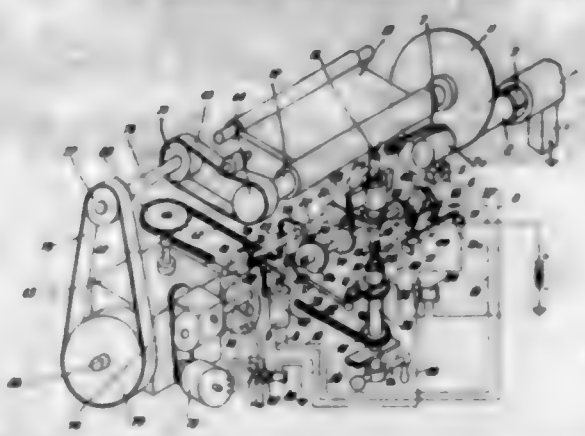
1. In a sand blast machine, comprising a tube intended to conduct a mixture of compressed air and sand, a sanding nozzle ending this tube, a casing surrounding said tube and said nozzle, said casing being provided with an aperture allowing the sand jet going out of the nozzle to reach the surface which is to be sanded, and a tube opening in said casing for evacuating the sand and the air after their utilization in said machine, at least one sleeve shaped flexible and compressible packing provided at the edge of said aperture and intended to ensure the tightness between said casing and the surface to be sanded, said packing having an inner and an outer wall along at least a part of its length, a connection between said inner wall and the extremity of said casing, a sleeve rotatably mounted on said casing, a mechanism acting on said sleeve for imparting to it an oscillatory movement, and a connection between said outer wall and said oscillating sleeve whereby a part of said packing is submitted to an oscillatory movement intended to facilitate the displacements of the machine on the surface to be sanded.

2,846,823
KNIFE HONING MACHINE FOR SWEET CORN CUTTERS
Harry F. Malone and Vera M. Krause, Le Sueur, Minn., assignors to Green Giant Company, Le Sueur, Minn., a corporation of Minnesota
Application August 21, 1952, Serial No. 305,662
1 Claim. (Cl. 51—65)



A machine for sharpening a knife including an arm having a concave face terminating in an arcuate cutting edge, said sharpening machine comprising a knife holder, means mounting said knife holder for movement in an arcuate path about a predetermined axis, means for mounting the knife on the holder with the concave face of the knife arm spaced from and facing toward said axis, an elongated sharpening tool having a longitudinally straight and transversely curved convex working surface, said working surface being positioned between said axis and said cutting edge, means mounting the tool for endwise rectilinear reciprocation in a direction inclined to said axis with the working surface of the tool in engagement with the concave face of the knife arm adjacent the cutting edge, means for reciprocating the sharpening tool in said direction, and means for moving the knife holder in said arcuate path about said axis during engagement of the knife arm with the reciprocating sharpening tool.

2,846,824
CROSS-CUTTING DEVICE
Groot Hansen Dahl, Saint-Cloud, France
Application December 23, 1953, Serial No. 400,606
Claims priority, application France December 30, 1952
4 Claims. (Cl. 51—98)



1. A machine for cross-cutting metal bars or the like by means of a rotatable cutting disc, comprising a machine frame; a spindle for said cutting disc; an electric motor driving said spindle; a holder rotatably support-

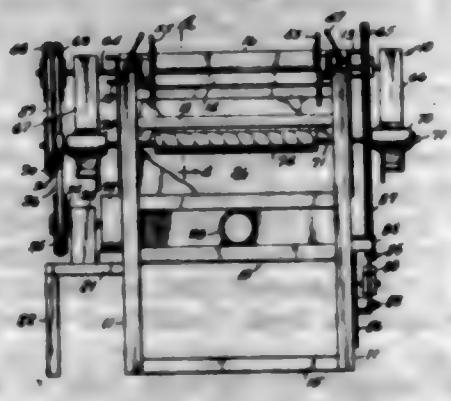
ing said spindle in said frame and displaceable in a direction substantially perpendicular to the rotational axis of said spindle between two adjustable predetermined end positions; a socket mounted unrotatably but slidably in longitudinal direction in said frame; a threaded shaft engaging said socket, the upper end face of said shaft contactively supporting said holder; an auxiliary shaft rotatably mounted in said frame parallel to said spindle; first means actuated by said auxiliary shaft to reciprocatively displace said socket with the engaging threaded shaft and thereby said holder; driver means for turning said threaded shaft into said socket; electromagnetic means to control said driver means; the metal bar to be cut through adapted to carry the electric current for said driver means; and second means actuated by said auxiliary shaft to excite electrically said electromagnetic means when the metal bar is not completely cut through, thus causing the actuated driver means to turn said threaded shaft into said socket and lowering the predetermined lower end position of the reciprocating holder to correct the wear of the cutting disc.

2,846,825

INSULATION FORMING MACHINE

David L. Schwartz, North Miami, Fla.

Application September 29, 1954, Serial No. 459,106
8 Claims. (Cl. 51—101)



2. A pipe insulation forming machine comprising a support, a pair of plate means rotatably mounted on said support in spaced relation to each other, said plate means each having a radially disposed slot extending to substantially a center of said plate means, spindle means mounted on said support in juxtaposition with said plate means, abrasive means mounted on said spindle means, means for rotating said spindle means, an elongated member secured to each of said plate means on each side of said centers for supporting said insulation between said plate means, said elongated members lying in a plane substantially contiguous with said centers of said plate means and a plurality of pins mounted on each of said plate means adapted to engage said insulation.

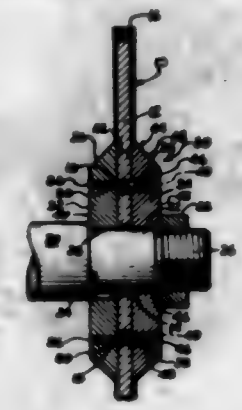
2,846,826

MOUNTING AND TRUING DEVICE FOR PERIPHERAL TYPE CIRCULAR GRINDING OR CUTTING WHEELS

Harold C. Miller, Chicago, Ill., assignor to Super-Cut, Inc., Chicago, Ill., a corporation of Illinois

Application February 26, 1957, Serial No. 642,531
8 Claims. (Cl. 51—168)

1. In a device for operatively mounting a peripheral type grinding wheel or the like having a wheel body provided with a mounting opening therein on a machine spindle between a shoulder normal to and rotating with the spindle and a clamping nut on the forward end of the spindle, in combination, front and rear clamping collars surrounding the spindle between the shoulder and nut in concentric relation with respect to the spindle and in engagement with the opposite faces respectively of the wheel in clamping relation thereto under the influence of said clamping nut, there being an opening in said wheel body extending transversely therethrough at each of at at least three circumferentially spaced regions thereabout, each of said openings having a wall surface a portion of which is presented radially inwardly of the wheel body, one of said clamping collars being formed with an interiorly threaded bore in at least partial register with each of said openings, and an adjusting screw



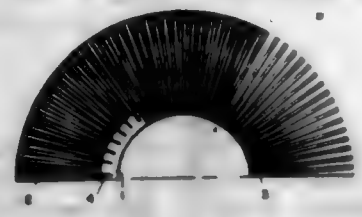
threadedly received in each of said bores and having a cam surface thereon designed for camming engagement with said inwardly presented wall surface of one of said openings whereby rotational movements of the screw in a direction tending to advance the screw in its respective bore toward said inwardly presented surface will impart increments of shifting movement to the grinding wheel body in a radial plane relative to the axis of said spindle.

2,846,827

BRUSH AND BRUSH MATERIAL

Ruben O. Peterson, University Heights, Ohio, assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application September 6, 1952, Serial No. 308,243
1 Claim. (Cl. 51—193.5)



As a new article of manufacture, a rotary brush having a back and brushing material extending therefrom comprising an assembled group of braided fabric cords individually impregnated with glue carrying powdered abrasive material and such glue having been set as by treatment with formaldehyde and the like, whereby the individual cords are rendered hard and self-sustaining, and such individual cords having a superficially applied, adherent thin non-abrasive film of an acid and alkali resistant synthetic plastic.

2,846,828

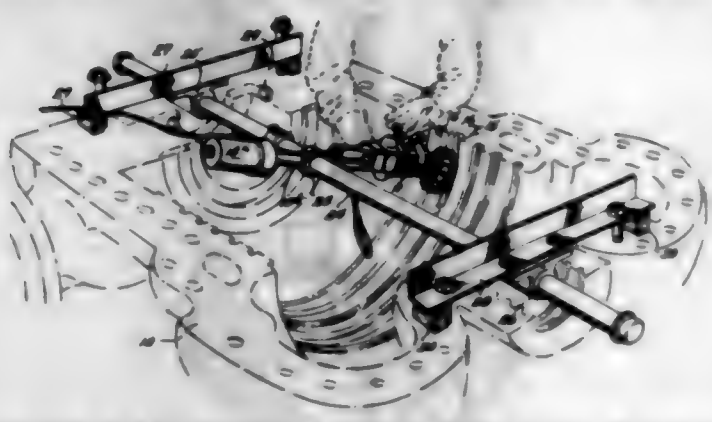
PROCESS AND APPARATUS FOR GRINDING SURFACES

Earl L. Pilon, Sr., Utica, N. Y., assignor to Skenandoa Rayon Corporation, Utica, N. Y., a corporation of Delaware

Application February 29, 1956, Serial No. 568,684
3 Claims. (Cl. 51—241)

1. In a device for refinishing and restoring to cylindrical form the internal surfaces of a two-part turbine casing after said casing has been disassembled and the eroded internal surfaces thereof have been built-up by having metal irregularly deposited thereon, a shaft, an arm, arm mounting means rotatably mounting said arm on said shaft for movement longitudinally thereof, a grinding tool comprising an electric motor and an abrasive wheel driven by the motor, means adjustably securing said grind-

ing tool to said arm and permitting adjustment thereof along said arm toward and away from said shaft, a pair of mounting means adjacent the ends of said shaft for mounting said shaft on one of the parts of said casing so that the longitudinal axis of said shaft occupies the position normally occupied by the longitudinal axis of the turbine rotor, said arm and grinding tool being located between the two mounting means whereby said grinding



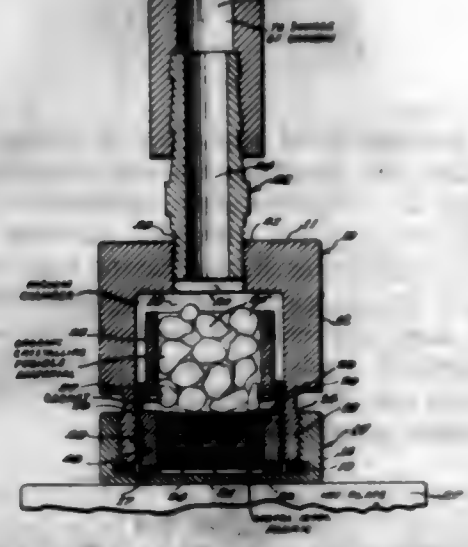
tool will be in position to engage the internal surfaces of the turbine casing when said shaft is mounted as aforesaid, said arm mounting means permitting said arm to be swung manually and slowly about the axis of said shaft whereby the abrasive wheel of said grinding tool describes an arc and grinds away the excess metal deposited on the internal surfaces of the turbine casing to thereby restore said surfaces to their original condition.

2,846,829

METHOD OF MAKING A THERMALLY RESPONSIVE ELEMENT

Samuel G. Eskin, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Application March 10, 1954, Serial No. 415,351
6 Claims. (Cl. 53—22)



2. A method of making a thermally responsive element which comprises providing a vacuum chamber, confining a predetermined amount of metal wool fabric within a casing, placing an open ended container on said casing in communication with the metal wool fabric therein and sealing the container thereto, placing in said container in juxtaposed relation to the metal wool fabric in said casing a quantity of a solid organic crystalline substance having a fusing point within a predetermined temperature range, said quantity of solid organic crystalline substance comprising from about 75 to 40% by weight of the thermally responsive element to be produced, evacuating said vacuum chamber to reduce the pressure therein, maintaining said vacuum chamber at a reduced pressure and applying heat thereto to cause said organic crystalline substance to fuse and impregnate said compressible fabric under the influence of gravity, cooling said chamber and restoring normal air pressure therein, removing any excess organic crystalline substance adhering to the surface of said compressible fabric, then sealing said casing with a metallic diaphragm deflectable upon fusion of said thermally expansible material.

2,846,830

PACKAGING OF AMPOULES AND OTHER ARTICLES

Alfred J. Bond, Bottmingen, Basel-Land, Switzerland, assignor to Rosaura Establissement, Vaduz, Liechtenstein, a corporation of Liechtenstein

Application November 30, 1955, Serial No. 549,991
Claims priority, application Switzerland December 8, 1954
19 Claims. (Cl. 53—35)



9. A machine for packaging ampoules and other longitudinally elongated articles comprising, in combination, a hopper for containing said articles arranged heterogeneously relative to disposition of the neck and base ends of said articles; a conveyor at the base of said hopper, on which conveyor said articles rest, said conveyor having a downwardly inclined discharge portion; spaced plates positioned above said discharge portion to define a series of paths for the flow of said articles therethrough; a downwardly inclined article feeding member positioned with its receiving end spaced from the discharge end of said paths, a distance such that an article cannot fall through this space; a tipper positioned with its forward edge above said space, the said forward edge being positioned to be engaged by the neck ends of said articles when said neck ends are leading in the direction of movement of said articles and to permit the passage therebeneath of the base ends of said articles; an article grouper disposed to receive the articles from the discharge end of said article feeding member, said grouper comprising a downwardly inclined support on which said articles are disposed in a group in side-by-side relation, means for receiving the group of articles from said support, means for interrupting the movement of said group of articles from said downwardly inclined support to said group receiving means, and means for moving said interrupting means and said article receiving means so that the interrupting means are moved out of the path of movement of the group of articles and the articles are received by the group receiving means; a conveyor for moving said group of articles from the group receiving means; a chute with which the discharge end of said conveyor communicates; and means for feeding corrugated receivers having article receiving compartments beneath the discharge end of said chute.

2,846,831

METHOD OF ATTACHING RESILIENT END CLOSURES TO CONTAINERS

Walter J. Dobbins, Wheaton, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Original application April 12, 1954, Serial No. 422,383, now Patent No. 2,804,988, dated September 3, 1957. Divided and this application January 28, 1957, Serial No. 636,688
4 Claims. (Cl. 53—40)

4. A method of attaching a resilient material closure member to a container for liquid products, comprising

the steps of providing a container having a U-shaped ring including a countersink wall section permanently secured to one end of said container and a laterally inwardly spaced locking wall section projecting upwardly above said container and having an outwardly projecting protuberance thereon, said locking wall section in cooperation with said countersink wall section setting off therebetween an open annular channel, providing a resilient material closure member having an annular depending flange with an inner face of substantially the same annular dimensions as the outer annular dimensions of said locking wall



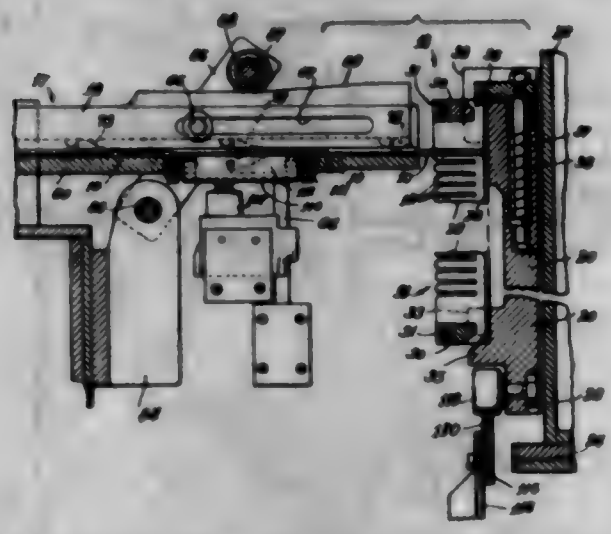
section and with a recess in said inner face to produce a snap-on closure member, snapping said closure member over said locking wall section of said ring with said protuberance disposed in said flange recess to lock said flange in position on said ring, and applying a pressure against said flange and said locking wall section simultaneously in a direction axially of said ring, whereby said locking wall section is collapsed axially into said container and said flange simultaneously is compressed in to said open channel to permanently attach said resilient material closure member to said container.

2,846,832

APPARATUS FOR CONTINUOUS LOADING OF ARTICLES INTO MAGAZINES

Elmer W. Larsen, Elmhurst, and Ben L. Wright, Des Plaines, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of Delaware

Application July 28, 1954, Serial No. 446,312
12 Claims. (Cl. 53—60)



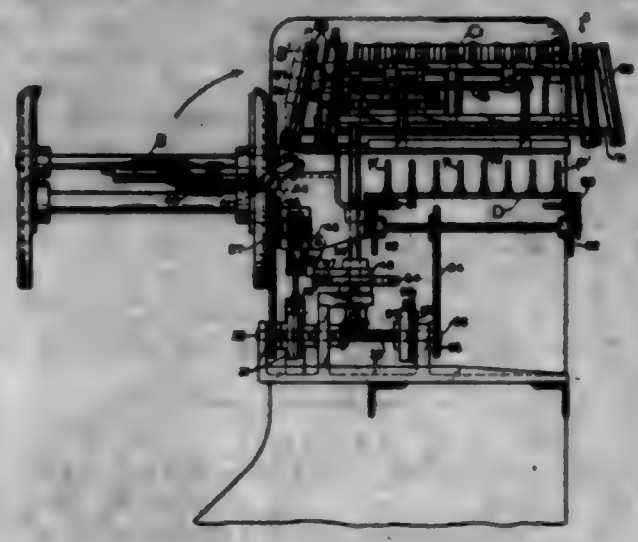
1. An apparatus for loading parts into a magazine comprising means including a reciprocable feed bar for intermittently advancing a row of said parts in a predetermined path and ejecting them at a predetermined location, a magazine having a plurality of recesses therein for supporting the parts in spaced relation to each other, means for supporting said magazine for vertical movement to different positions for receiving said parts as they are ejected, elevating means for elevating the magazine step by step at said predetermined location to align successive recesses with said path of travel to receive said parts, means on said feed bar for actuating said elevating means, and means operable in response to the absence of a part in said row at the point of ejection for rendering said elevating means inoperative.

2,846,833

APPARATUS FOR LOADING BOBBINS ON PIN-BOARDS

Gerald A. Snow, Uxbridge, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts

Application March 25, 1953, Serial No. 344,627
3 Claims. (Cl. 53—160)



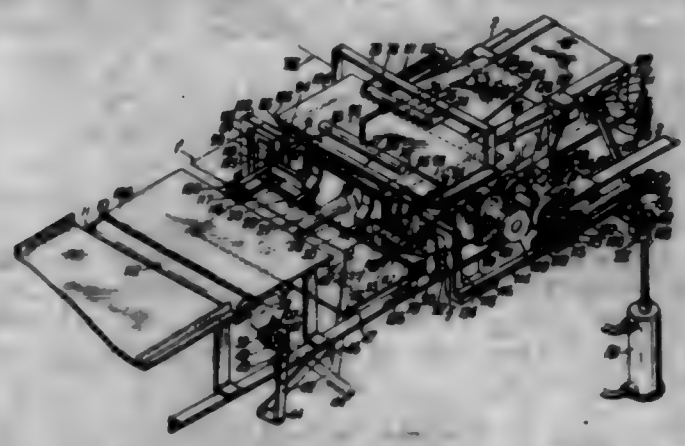
1. Pin-board loading mechanism comprising a carrier conveyor having a plurality of bobbin-holding carrier units, means to advance said carrier conveyor step-by-step, a continuously-moving collecting conveyor having buckets to receive and transport full bobbins, a single means to transfer a full bobbin direct from a bucket to a carrier unit, a pin-board, friction chains suppporting said pin-board beneath said carrier conveyor, and means to intermittently advance said chains, and said latter means including a normally-stationary but rotatable ratchet wheel, a concentric stationary shield having a limited cut-away portion, an arm supporting a pawl which yieldingly engages said ratchet wheel, and means to give said arm and pawl a single revolution each time said transfer means is operated.

2,846,834

PACKAGE WRAPPING MACHINES

George Edward Spriggs, Felstead, England, assignor to British Sugar Corporation Limited, London, England

Application June 8, 1954, Serial No. 435,216
Claims priority, application Great Britain June 9, 1953
20 Claims. (Cl. 53—232)



1. A package wrapping machine comprising a table vertically displaceable between an upper position and a lower position and adapted to receive a wrapping sheet and a group of articles loaded manually on said sheet when in its upper position, means for displacing said table vertically between said upper and lower positions, means serving automatically when the table is lowered and responsive thereto to raise front and rear walls of the wrapper about the articles to form a partially wrapped package, a rearwardly extending bed plate level with the table when the table is in its lower position, horizontal

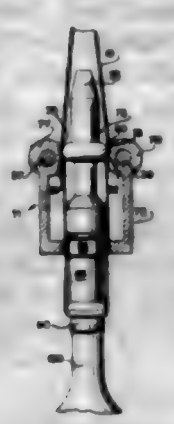
ram means intermittently operable for displacing successive packages rearwardly off the table in said lower position on to said bed plate, means associated with the ram and actuatable automatically therewith to fold the upper margin of the front wall of the wrapper over the top of the group of articles and to tuck in side portions of said front wall against the sides of the group of articles while the ram is displacing the thus partly wrapped package rearwardly, automatic wrapper folding, tucking and sealing means successively arranged horizontally in relation to the bed plate, means for operating said folding, tucking and sealing means sequentially, a glue roller disposed in adjacent relation to the upper position of the displaceable table to engage and support the underside of the transverse margin of the front wall of a wrapping sheet laid on the table, and to apply glue to said margin and means, actuated through movement of the table, for rotating the glue roller for gluing said wrapping sheet margin.

2,846,835

BAND APPLYING DEVICE AND METHOD

John G. Aguilar, Concord, and Harold B. Rice, San Leandro, Calif., assignors to John Burton Machine Corporation, Concord, Calif.

Application November 14, 1955, Serial No. 546,332
15 Claims. (Cl. 53—291)



9. A device for longitudinally feeding an elongated flexible walled tubular member onto the neck of a vertically disposed bottle comprising: an elongated vertical mandrel adapted to be supported at its bottom on the top of said bottle with said member surrounding said mandrel, an inner gripping element slidably supported on said mandrel for movement relative to said mandrel from a first point toward said top to a second point, an outer gripping element, means for urging said outer element toward said inner element at said first point for gripping a portion of the wall of said member therebetween, means for translating said elements from said first point to said second point while said portion is so gripped, means for releasing said outer element from said wall and means for returning said elements to said first point, a cutting element provided with a circular cutting edge surrounding the top of said bottle, and means for oscillating said cutting element in a rotary motion around said bottom of the mandrel and into cutting engagement therewith for severing said member.

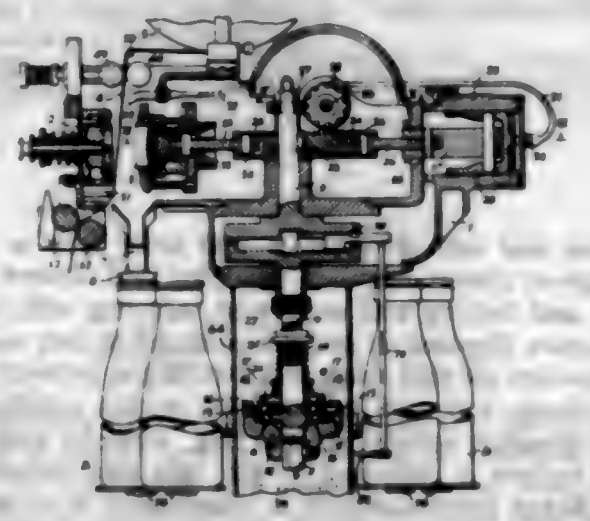
2,846,836

TORQUE LIMITING COUPLING

Geoffrey Ewart Ford, Bedford, England, assignor to Fords (Flusbury) Limited, Bedford, England, a British company

Application July 26, 1954, Serial No. 445,639
Claims priority, application Great Britain July 28, 1953
13 Claims. (Cl. 53—296)

4. A bottle-capping machine incorporating press tools for forming caps for metal foil passed through the machine, a drive shaft for said machine, a driven shaft in said machine, connection means between said driven shaft and said tools, a further shaft operable to feed foil to said press tools, a driving connection between said driven shaft and said further shaft, a torque-limiting coupling between said drive shaft and said driven shaft, and a torque-limiting coupling included in said further shaft, each of said torque-limiting couplings comprising two disc-like members arranged face to face, apertures in the first of said members extending therethrough at spaced points around its axis, locating balls in said apertures, said balls having a diameter larger than the thickness of said first member so that portions of the balls will project from opposite faces thereof, apertures in said



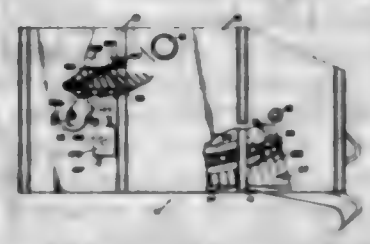
second disc-like member, the apertures in said second member corresponding to the positions of the balls projecting from said first member and into which the portions of the balls projecting from the adjacent face of said first member extend for a short distance, a collar member bearing on said balls where they project from the opposite side of said first disc-like member and separate spring means operating on said collar member for urging said collar member into engagement with said balls to urge said balls, in turn, into the said apertures in said second disc member when the apertures in said disc-like members are in register.

2,846,837

COTTON PICKING MEANS

John J. Bramblett, Pine Bluff, Ark., assignor to Ben Pearson, Incorporated, Pine Bluff, Ark., a corporation of Arkansas

Application November 9, 1955, Serial No. 545,965
6 Claims. (Cl. 56—42)



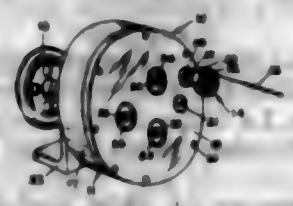
1. In a cotton picking machine, a spindle-carrying slat comprising a body member having an outer face, end bearing means connected to and extending inwardly from said body member, said body member being provided with a socket alined with said end bearing means and extending inwardly from said outer face through said body member, intermediate bearing means, said intermediate bearing means comprising a hollow retaining plug and a bearing member removably housed in said plug, said plug being disengageably inserted in said socket to mount said intermediate bearing means in said slat, and a spindle assembly rotatably supported by said bearing means, said spindle assembly including a rod-like spindle, a roller fixed to said spindle adjacent but spaced outwardly from the inner end of said spindle, said roller being disposed intermediate said end bearing means and said

intermediate bearing means and being of a diameter less than the diameter of said socket for spindle-assembly insertion in and removal from said slat outer face while said intermediate bearing means is disengaged from said socket.

2,846,838
APPARATUS FOR UNTWISTING TEXTILE STRANDS

Homer L. Wolfe, Parkersburg, W. Va., assignor to L-O-F Glass Fibers Company, Toledo, Ohio, a corporation of Ohio

Application February 2, 1955, Serial No. 485,790
4 Claims. (Cl. 57—1)



1. In apparatus for untwisting a previously twisted textile strand of given diameter by rotating the same in a direction opposite to the direction of twist, a gear train, a driving shaft for actuating said gear train, a hand wheel secured to said driving shaft for rotating the same, a driven shaft rotated by said gear train, and a head assembly secured to said driven shaft and mounted for rotation therewith, said head assembly including a flange positioned for rotation in a plane normal to the axis of rotation of said shaft and having formed therein a slot of less diameter than said strand within which the strand is retained while being untwisted.

2,846,839
SNAG RESISTANT BULKY MULTI-PLY SUPERPOLYAMIDIC YARN

Jacques Billion, Lyon, France, assignor to Societe Billion & Cie., Lyon, France

Original application May 18, 1953, Serial No. 355,712. Divided and this application October 15, 1957, Serial No. 694,469
Claims priority, application France May 20, 1952
6 Claims. (Cl. 57—140)

1. A yarn having a superpolyamidic base comprising a plurality of bundles of component superpolyamidic filaments, the fibers within each bundle having kinky undulations formed therein and extending substantially parallel at zero twist relative to each other, said bundles being held together by a twist of assembly of between about 400 and 800 turns per meter.

2,846,840
SUPERPOLYAMIDIC THREADS AND MANUFACTURE THEREOF

Jacques Billion, Lyon, France, assignor to Societe Billion & Cie., Lyon, France

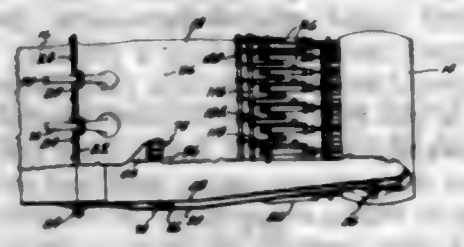
Application May 18, 1953, Serial No. 355,712
Claims priority, application France May 20, 1952
8 Claims. (Cl. 57—157)

1. A method of producing a yarn having a superpolyamidic base which comprises subjecting superpolyamidic yarns each consisting of a plurality of filaments individually to a high twisting of the order of about 1500 to about 4000 turns per meter, permitting the resulting highly twisted yarns to shrink freely, setting the deformation resulting from the shrinkage of the yarns, back twisting the individual yarns until each individual yarn has reached a final twist in one and the same predetermined direction of an intermediate magnitude corresponding to about 400 to about 800 turns per meter, and finally combining a number of yarns having an identical intermediate twist in said predetermined direction by twisting them together in a direction opposite to said predetermined direction to a twist of assembly having a magnitude equal to that of the intermediate twist of the individual yarns, whereby, the individual yarns have no twist remaining and are held together by said twist of the assembly.

2,846,841
PRESSURIZED AFTERBURNER COOLING SHROUD

Donald J. Jordan, Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application October 25, 1952, Serial No. 316,905
2 Claims. (Cl. 60—35.6)

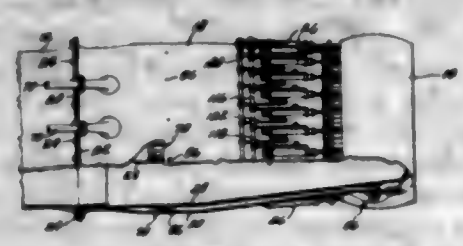


2. A jet engine having in combination, a compressor, a turbine, an afterburner downstream of said turbine, said afterburner having two shells, said two shells forming a space therebetween, and means for pressurizing the space between said shells with a cooling fluid and permitting said fluid to flow therethrough, said last named means including openings into the forward part of the space, means in the space between said inner and outer shell adjacent said openings for restricting the flow of cooling fluid through said space, said last named means including two juxtapositioned annular seal members each having a cylindrical portion and a segmented frusto-conical portion projecting inwardly therefrom and each having its cylindrical portion fixedly spaced from said outer shell with the segments of said frusto-conical portion of one of said seal members overlapping the segments of said frusto-conical portion of the other of said seal members, and said seal members having the inner periphery of said segments biased against said inner shell.

2,846,842
AFTERBURNER SHROUD CONSTRUCTION

Edmund D. Brown, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application October 25, 1952, Serial No. 316,920
2 Claims. (Cl. 60—35.6)



2. A jet engine having a compressor, a turbine, a burner located therebetween and an afterburner, said afterburner having a unitary inner shell of circular cross section and defining the combustion zone of said afterburner and culminating in a rearward end which defines an exhaust gas outlet for said engine and an outer shell of circular cross section and concentric with, spaced from and enveloping said inner shell to define an annular flow passage therebetween, the forward end of the outer shell being

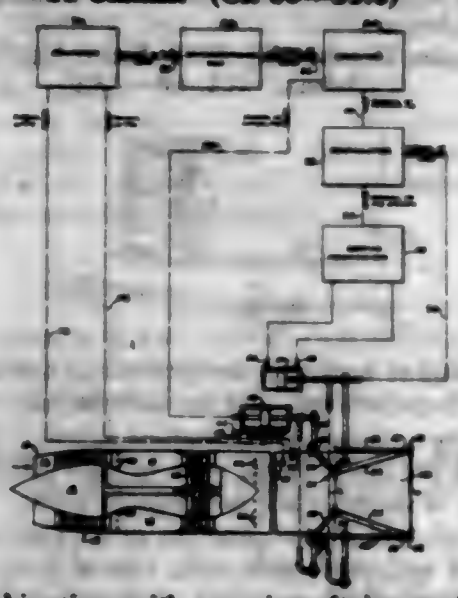
fixedly mounted to said engine, said outer shell being formed of at least two parts, a first part having a flange extending radially outwardly from its forward periphery, a second part having a larger diameter than said first part and having a flange extending radially outwardly from its rearward periphery, said last two flanges being fixedly mounted one in relation to the other, a flange member being fixedly held in sealed relation between said two flanges and supporting an axially rearwardly extending annular ring of circular cross section and of substantially the same diameter as said first part and positioned in spaced radial relation to and within said outer shell to form a rearwardly opening annular space therewith, the front circular portion of said inner shell being located in said space with radial clearance between said member, said outer shell and said inner shell, said front end of said inner shell and said member being constructed and arranged so that said front end will remain in said space during any relative movement between the two shells, means for mounting the rearward ends of said shells in a manner to prevent axial relative movement and to permit radial relative movement therebetween, said last named means including a plurality of circumferentially spaced mounting devices, each mounting device comprising a pin type member fixed to and projecting radially outwardly from said inner shell and a bushing type member fixed to said outer shell and receiving said first member in sliding engagement, flow restricting means comprising a duct member of circular cross section attached to the rearward end of said outer shell and extending rearwardly therefrom while converging toward said inner shell and culminating in a rearward end which is positioned radially outwardly of said inner shell rearward end to define a first outlet for said annular flow passage therewith and spaced radially therefrom so that when said inner shell expands due to afterburner operation at elevated temperatures said flow restricting means rearward end contacts and supports said inner shell rearward end in concentricity, and said flow restricting member having a plurality of circumferentially spaced holes therein to define a second outlet for said annular flow passage to permit metered flow through said annular flow passage when said inner shell rearward end and said flow restricting means rearward end contact.

2,846,843

VARIABLE AREA CONVERGENT-DIVERGENT EXHAUST NOZZLE AND CONTROL THEREFOR

Donald B. Clark, Pines Lake, George S. Kelley, Ridgewood, and Walter W. Mahnken, Union City, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware

Application January 7, 1953, Serial No. 329,956
11 Claims. (Cl. 60—35.6)



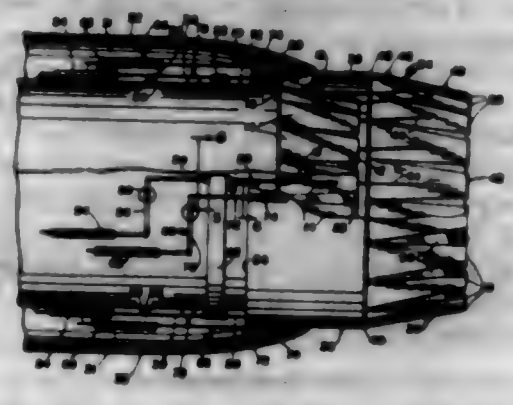
1. In combination with an aircraft jet engine having a convergent-divergent nozzle through which the engine exhaust gases discharge for providing the engine with forward propulsive thrust, said nozzle having an adjustable exit area; means providing a signal which is a predetermined function of the total pressure of the exhaust gases upstream of the nozzle throat and the static pressure of the surrounding atmosphere; and means responsive to said signal and operatively connected to said nozzle for regulating the nozzle exit area such that an increase in said total pressure of the exhaust gases and a decrease in said static pressure of the surrounding atmosphere both tend to effect an opening adjustment of the nozzle exit.

2,846,844

VARIABLE AREA THRUST DEFLECTOR-AUGMENTER FOR JET ENGINES

Neil W. O'Rourke, La Jolla, Calif., assignor to The Ryan Aeronautical Co., San Diego, Calif., a corporation of California

Application January 24, 1956, Serial No. 560,937
5 Claims. (Cl. 60—35.54)



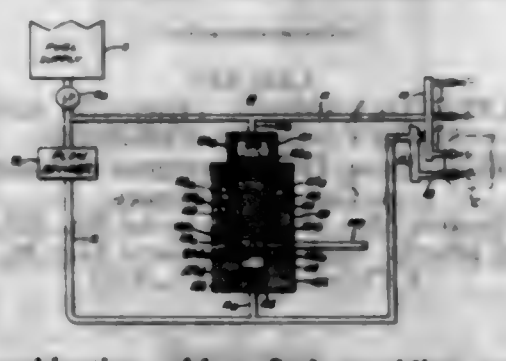
2. An exhaust orifice control assembly for a jet engine, comprising: a nozzle having complementary elements defining a primary orifice, said elements being shiftable to vary the area of the primary orifice; an annular member mounted around said nozzle for slight universal tilting movement relative thereto; direction controlling deflectors pivotally mounted on said annular member and defining a variable area secondary orifice; said deflectors being connected to move with said elements whereby the secondary orifice varies generally with the primary orifice in cross-sectional area.

2,846,845

FUEL DRAINAGE SYSTEM FOR PLURAL MANIFOLDS

Theodore B. Parker, Hamilton, Ohio, assignor to General Electric Company, a corporation of New York

Application June 24, 1953, Serial No. 363,711
5 Claims. (Cl. 60—39.09)



1. In combination with a fuel providing system for an aircraft gas turbine combustion chamber having fuel nozzles supplied from pressurized fuel manifolds with the flow of fuel to one of said manifolds being controlled by the fuel pressure in said system, an automatic drainage arrangement comprising a valve assembly interconnecting said manifolds and in parallel therewith and having an outlet externally open of the system, said valve assembly including a stepped bore section having a pair

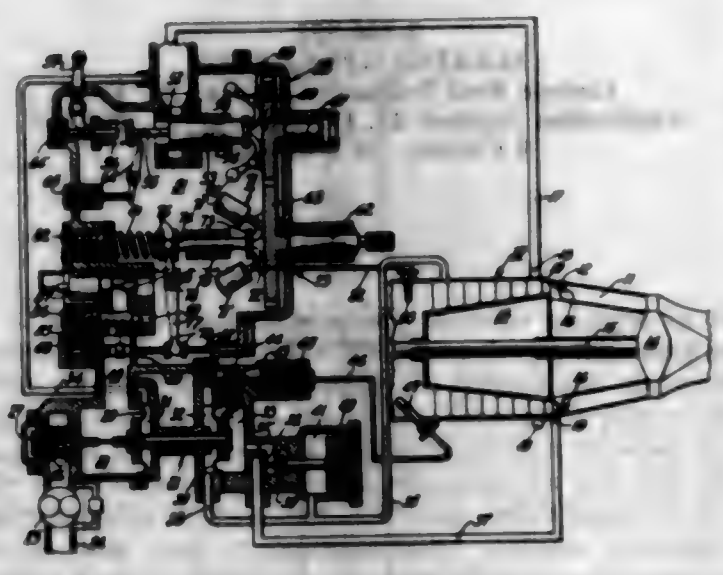
of spaced sealing seats, a valve piston fitting into said section and carrying sealing means for cooperation with said seats, and a spring adapted to be retained in said section between said piston and the inner of said pair of seats, the wider portion of said section being in communication with a manifold subject to existent fuel pressure and the narrower portion of said section being in communication with said other of said manifolds whereby differential pressure maintains said valve piston in sealing position to prevent fuel drainage from said system, and an outlet for fuel drainage upon fuel pressure relief.

2,846,546

FUEL SYSTEM FOR GAS TURBINE ENGINES HAVING MEANS FOR AVOIDING COMPRESSOR INSTABILITY

Frank C. Mock, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application June 14, 1951, Serial No. 231,556
16 Claims. (Cl. 60—39.28)



1. In a system for controlling the rate of fuel feed to a gas turbine engine having a compressor, means for metering fuel to the engine at a rate proportional to

$$\frac{\sqrt{P_2-P_1}}{T_1}$$

times a function of P_1 with an exponent between 1 and ½ where P_1 represents compressor inlet pressure, P_2 compressor discharge pressure, and T_1 compressor inlet temperature, and means for modifying the effects of compressor inlet temperature on the rate of fuel feed in the intermediate speed range of the engine.

2,846,547

BEARING SUPPORT

Wilbur G. Simmons, Simsbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application June 29, 1956, Serial No. 594,723
4 Claims. (Cl. 60—39.32)

1. In a gas turbine engine, an annular supporting housing, a shaft extended axially through said housing, a circular diaphragm transverse to said shaft having an axial opening through which said shaft extends, a bearing on said shaft supported by said diaphragm, said diaphragm having an annular flange at its periphery extended in an axial direction, and annular diaphragm supporting means carried by said housing having a continuous axially extended annular band frictionally engaging and radially supporting the peripheral flange on said diaphragm and also having a connected annular attaching portion provided with marginal slots therein forming a plurality of axially extended fingers, said band and flange being free for relative axial movement, and means for resiliently



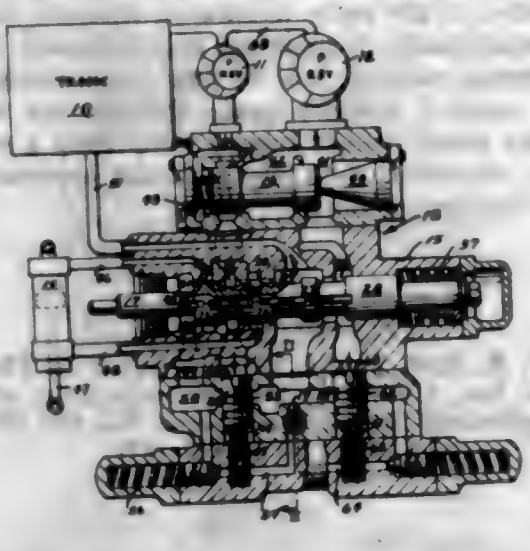
supporting said annular band including means for rigidly connecting the free ends of said fingers to said housing.

2,846,848

FLUID PRESSURE SYSTEM AND CONTROL

Morton M. Coker, Peoria, Ill., assignor to Caterpillar Tractor Co., Peoria, Ill., a corporation of California

Application May 16, 1955, Serial No. 508,692
2 Claims. (Cl. 60—52)



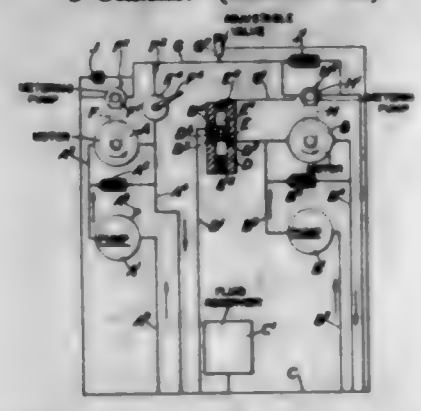
1. A fluid pressure system comprising a source of fluid supply, a fluid operated servomotor, two positive displacement pumps having different volumetric capacities, a fluid flow and pressure control valve unit, and fluid transmitting conduits between the source of supply, the pumps, the control valve unit, and the servomotor, the said fluid flow and pressure control valve comprising a valve body, an inlet channel communicating with the discharge side of the smaller pump, an inlet channel communicating with the discharge side of the larger pump, means to establish communication between said inlet channels, a valve spool in a valve bore to selectively direct the fluid output of the smaller pump or the combined fluid output of both pumps to the servomotor, a relief valve in the operating circuit of the servomotor, a pilot operated unloader valve in the discharge circuit of the larger pump, and a pilot valve controlling the action of said unloader valve and responsive to fluid pressure in the operating circuit of the servomotor.

2,846,849

APPARATUS FOR MAINTAINING A PREDETERMINED RELATIONSHIP BETWEEN THE SPEEDS OF TWO INDEPENDENTLY DRIVEN MEMBERS

Francis Benjamin Lovetus and George Edward Chittenden, Allesley, Coventry, England, assignors to The Keelavite Company Limited, Coventry, England, a British company

Application November 28, 1955, Serial No. 549,497
3 Claims. (Cl. 60—53)



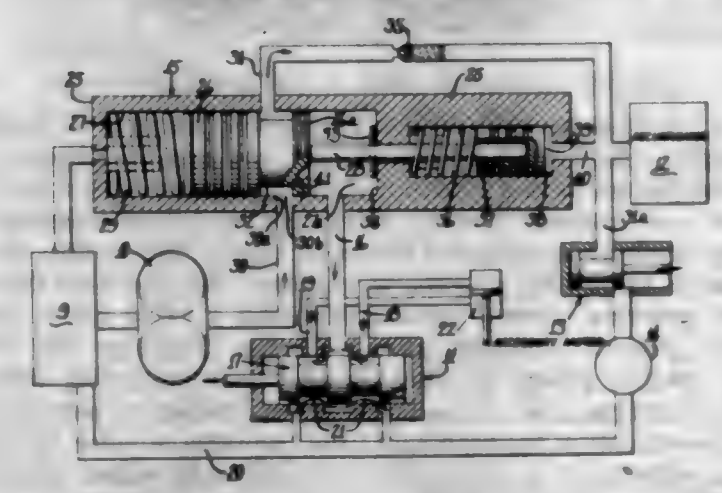
1. Apparatus for maintaining a predetermined relationship between the speeds of two independently driven members, at least one of which is driven by a hydraulic motor of the displacement type, including, in combination, displacement pumps of the metering type connected to be driven respectively from the two members, a pressure chamber, valve apparatus connected to control the volumetric rate of flow of fluid through the hydraulic motor and hence the speed of this motor, said valve apparatus being operable in response to variation in pressure in said pressure chamber, speed control means including a control pressure space comprising a passage interconnecting the delivery of one of the metering pumps and the inlet of the other metering pump, and the pressure chamber of the valve apparatus, whereby the speed control means tends to maintain approximately constant the volumetric rates of flow of fluid respectively to and from the control pressure space through the metering pumps, and phase control means comprising a normally stationary reversible fluid displacement apparatus connected to the control pressure space.

2,846,850

CONTROL VALVE

George V. B. Hall, Euclid, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application July 2, 1956, Serial No. 595,506
5 Claims. (Cl. 60—97)



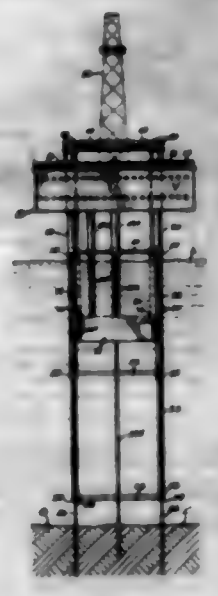
1. In combination in a centralized power system for a plurality of fluid motors supplied by a single fluid pump wherein one of said motors is controlled by an open-center valve normally by-passing fluid to a low pressure reservoir when said one motor is inactive and wherein at least one other of the motors is controlled through a closed-center valve, a single distributing and control valve comprising a housing, a core member in said housing and moved in a chamber therein into a first position by a biasing means, a supply port in said housing introducing fluid from said pump to said chamber, a first exit port connecting said chamber to said one motor via said open center valve, a second exit port connecting said chamber to said other motor via said closed center valve, a restricted orifice continuously connecting said supply port and said first exit port and extending through said member, a port extending through said member and connecting said supply port and said second exit port when said member is in said first position, means referencing the pressure in said first exit port against said member to move said member into a second position in which said supply port and first exit port are directly connected and said second exit port is substantially closed off from said supply whereby actuating of said open-center valve will cause a pressure build up against said member to by-pass said restricted orifice and supply said one motor with fluid under pressure to the exclusion of said other motor.

2,846,851

MARINE APPARATUS

George Fred Pelham, Scarsdale, N. Y.

Application January 21, 1955, Serial No. 483,287
4 Claims. (Cl. 61—46.5)



1. In marine apparatus for underwater operations comprising a barge adapted to be transported by floatation on a body of water from one location to another location at which the underwater operations are to be performed; means for firmly supporting said barge above the high wave water line comprising a plurality of laterally spaced vertically extending tubular supports mounted on said barge, each of said supports comprising a plurality of telescopically arranged longitudinally extending tubular support members, said barge being mounted for relative vertical movement along the length of one of said members of each of said supports from a floating position to a position above the high wave water line, said support members being relatively movable from a contracted disposition in which said members have substantial lengths thereof disposed above the normal water line to a projected supporting disposition in which said members have substantial lengths thereof disposed below the water line, said support members being adapted to be secured to the underwater ground in said supporting disposition whereby to provide for the firm support of said barge relative to the underwater ground, and means for raising said barge from a floating position to a position above the high wave water line along the length of said one members when said support members are secured to the underwater ground, said last mentioned means comprising a chamber carried by said barge for movement therewith in the transportation by said flotation there-

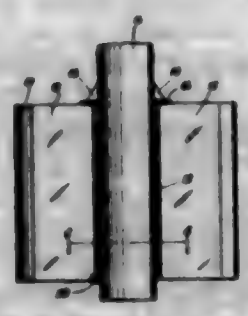
of, said chamber being also movable in relation to said barge from an upper position to a lower submerged position, means for admitting water into said chamber for moving it to said lower position, and cable means connected to said chamber and extending upwardly therefrom to said one member in movable engagement therewith and downwardly of said one member to said barge for raising the latter when said chamber moves downwardly in response to the admission of water thereto, said chamber having means thereon engaging said vertical supports and laterally bracing them when said chamber is in said lower position.

2,846,852

MUD RING FOR THE DEVELOPMENT OF PASSIVE RESISTANCE IN SOFT SOILS

Roy G. Cappel, Metairie, La., assignor to W. Horace Williams Company, Incorporated, New Orleans, La., a corporation of Delaware

Application August 15, 1955, Serial No. 528,316
5 Claims. (Cl. 61—53)



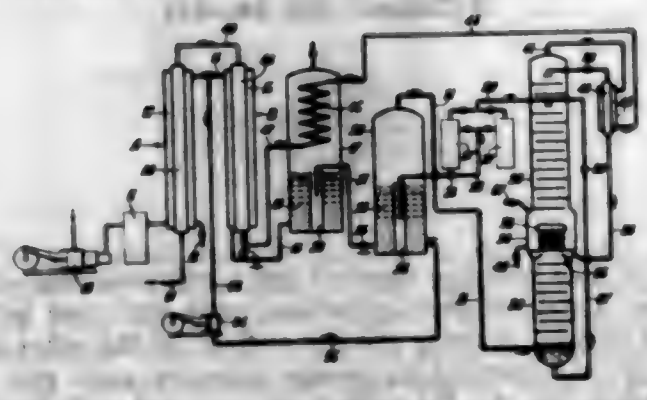
1. A piling comprising a pile member adapted to be driven into the earth and a mud ring device including an inner member adapted slidably to receive and surround the pile and to engage it along a substantial part of its length so as to provide a stable connection between the pile and the mud ring; means engaging the pile and the inner member to transmit pile-driving forces from the pile to the mud ring; a shell-like outer member outwardly spaced from the inner member and being several times as large in cross section as the pile and the inner member; and support means connecting the outer member to the inner member and forming a sturdy device capable of being driven into the ground, the outer member being formed of sheet metal and providing vertical wall components resisting lateral displacements of the device when it is submerged in the earth, the support means comprising plate-like elements secured to the inner and outer members, and the outer and inner members and the support means constituting an assembly that is open at the top and bottom.

2,846,853

HIGH PRESSURE SCRUBBER LIQUEFIER IN AIR SEPARATION SYSTEMS

Ladislas C. Matsch, Kenmore, N. Y., assignor to Union Carbide Corporation, a corporation of New York

Application June 1, 1954, Serial No. 433,436
27 Claims. (Cl. 62—14)



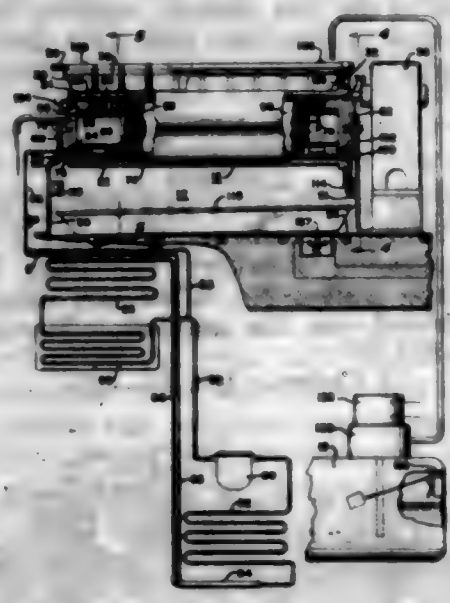
1. In a process for the separation of air containing atmospheric impurities including carbon dioxide by low temperature rectification in which the air is prepared for rectification by cooling steps including heat exchange with at least one product of rectification, by expansion to lower pressure, and at least partial liquefaction, and by subjecting the air to an impurity removing operation, and in which a stream of the air is provided at a supercritical pressure and cooled to a temperature such that substantially all its moisture content is eliminated, the improvement for avoiding carbon dioxide accumulations when cooling to liquefaction temperatures comprising the steps of cooling said air stream by indirect countercurrent heat exchange with a product stream of the rectification to a temperature of about —140° C. and above —155° C.; reducing the pressure of such cooled air stream to a first intermediate pressure between about 200 and 300 p. s. i. g. providing vapor and liquid portions thereof; scrubbing the vapor portions of said air stream at said first intermediate pressure with the liquid portion of said air stream, the carbon dioxide and other impurities being retained in the scrubber liquid portion; effecting at least partial liquefaction of the scrubbed vapor portion of said air stream at said first intermediate pressure by indirect heat exchange with a colder fluid of the system which subsequently becomes said product stream that is passed in heat exchange with the incoming air stream; subjecting at least the scrubber liquid portion of said air stream to an impurity removing operation; and passing said liquids to the product-producing rectification.

2,846,854

ICE CUBE MAKER

Robert Galin, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 18, 1954, Serial No. 411,160
4 Claims. (Cl. 62—233)



4. In an ice maker, a cylindrical evaporator, a cylindrical ice tray support mounted on said cylindrical evaporator and journalled thereon, a liquid heat transfer medium between said evaporator and said tray support, and O ring bearing means between said evaporator and said tray support for confining said heat transfer medium and serving as the sole bearing support for said ice tray support.

2,846,855

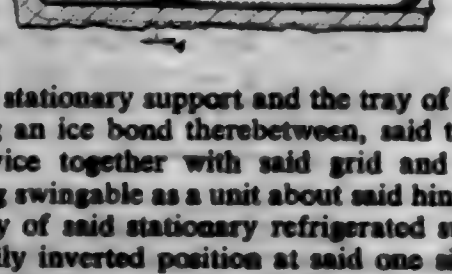
ICE BLOCK MAKER

Arthur J. Frei, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 6, 1957, Serial No. 644,310
7 Claims. (Cl. 62—301)

1. In an ice block making apparatus, the combination of a unitary freezing device comprising a substantially non-distortable elongated metal tray, a grid locked in said tray against detachment therefrom including a plu-

rality of spaced apart rigid walls inclined with respect to the vertical and unattached to but loosely anchored in said tray for tilting movement relative thereto and a shiftable actuating member for said walls, said inclined grid walls dividing the interior of said tray into compartments in which water is to be frozen into separated ice blocks, a stationary refrigerated support upon which said unitary freezing device is supported in an upright substantially horizontal plane during freezing of water therein, a side of the tray of said freezing device being hingedly mounted at one side of said support, a first means on said freezing device movable relative thereto and acting



betwixt said stationary support and the tray of said device for breaking an ice bond therebetween, said tray of said freezing device together with said grid and ice blocks therein being swingable as a unit about said hinged mounting upwardly of said stationary refrigerated support into a substantially inverted position at said one side thereof, and a second means associated with said apparatus for shifting said actuating member lengthwise along said elongated inverted unitary freezing device, while said grid remains locked in the tray thereof, whereby said member engages and tilts said inclined grid walls toward the vertical to enlarge said compartments and eject ice blocks therefrom.

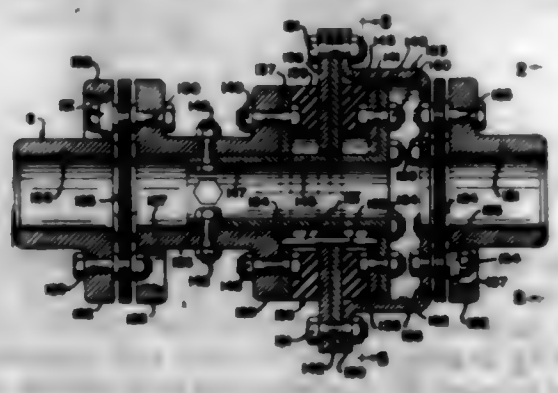
2,846,856

TORSIONALLY RESILIENT FLEXIBLE COUPLINGS

Ernest Hagenlocher, Warren, Pa.

Original application February 11, 1952, Serial No. 271,008, now Patent No. 2,745,267, dated May 15, 1956. Divided and this application March 19, 1956, Serial No. 572,577

6 Claims. (Cl. 64—13)



2. A flexible coupling structure comprising a pair of shaft attaching coupling parts, each including an attaching flange, two sets of transversely flexible laminated metal disc sets, one of each for the attaching flanges of the coupling parts bolt connected at the inner sides of said attaching flanges at spaced circumferential locations, a spool having end attaching flanges, said sets being respectively bolt connected to the attaching flanges of the spool at locations circumferentially spaced from those locations where said sets are bolt connected to the respective attaching flanges of the coupling parts, a pair of rubber sandwiches each of which includes a rubber sandwich core and side metal plates bonded with the core, means connecting the adjacent and facing plates of said rubber sandwiches together, means connecting the outer plate of one of said rubber sandwiches to the attaching flange of said spool remote from the above mentioned spool connected coupling part, means also connecting the outer plate of the other rubber sandwich to said spool, and means connecting the innermost attached plates of said sandwiches to the other transversely flexible laminated disc set at locations spaced from those locations where said other set is connected to its respective coupling attaching flange.

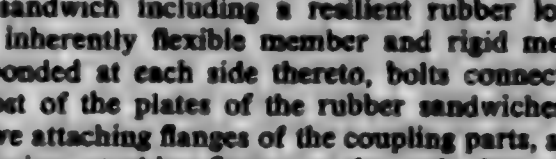
2,846,857

TORSIONALLY RESILIENT FLEXIBLE COUPLINGS

Ernest Hagenlocher, Warren, Pa.

Original application February 11, 1952, Serial No. 271,008, now Patent No. 2,745,267, dated May 15, 1956. Divided and this application March 19, 1956, Serial No. 572,578

7 Claims. (Cl. 64—13)



1. A flexible coupling structure comprising coupling parts each including hubs and an attaching flange, a rubber sandwich for each of the coupling parts, each rubber sandwich including a resilient rubber load supporting inherently flexible member and rigid metal side plates bonded at each side thereto, bolts connecting the outermost of the plates of the rubber sandwiches to the respective attaching flanges of the coupling parts, a central spool having attaching flanges at the ends thereof, transversely flexible metal disc sets located between each attaching flange of the spool and the innermost adjacent plate of the adjacent rubber sandwich, bolt means connecting the respective disc sets to the adjacent attaching flange of the spool at spaced circumferential locations, bolts connecting each of the flexible disc sets at circumferentially spaced locations staggered with respect to those bolts which connect the respective disc sets to the attaching flanges of the spool, the last mentioned bolts being connected to the adjacent innermost plates of the adjacent rubber sandwiches.

2,846,858

UNIVERSAL JOINTS

Andrea Bellomo, Turin, Italy, and Jerome Bernard Clifford Du Mont, London, England

Application July 17, 1956, Serial No. 598,401

8 Claims. (Cl. 64—21)

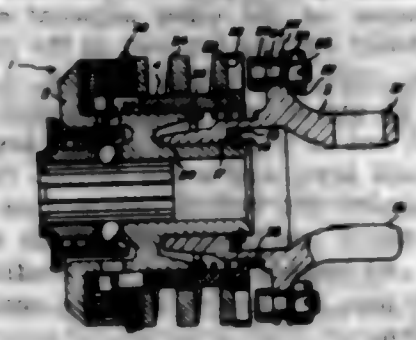


8. A load carrying member for a universal joint comprising a pair of part cylindrical pads each one having a flat surface abutting the flat surface of the other pad, and pivotal interlocking means engaging each pad and extending into the flat surface of each pad such that the pads are relatively rotatable about an axis normal to their flat surfaces.

2,846,859
FREEWHEELING SAFETY CLUTCH

Kurt Schröter, Herkenrath, near Bergisch-Gladbach, and Bernhard Walterscheid-Müller, Lohmar, Siegkreis, Germany, assignors to Jean Walterscheid, Maschinenfabrik und Hammerwerk, Siegburg, Germany

Application March 28, 1957, Serial No. 649,863
10 Claims. (Cl. 64—29)

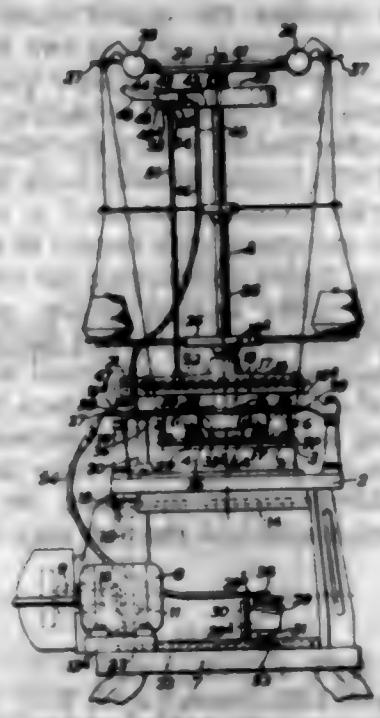


1. A freewheeling clutch comprising a driving member, a driven member, an intermediate clutch member for engaging said driving and driven members, means on one end of said clutch member for drivingly engaging said driven member, auxiliary spring means for urging said clutch member into disengagement from said driven member, means on the other end of said clutch member for drivingly engaging said driving member, and means coacting with said last-mentioned means for disengaging said driven member from said clutch member when a predetermined torque is exceeded.

2,846,860
MEANS FOR THE DISPERSAL OF FLUFF OR LINT FROM KNITTING MACHINES

Arthur Shorthand, Leicester, England, assignor to Mellor Bromley & Co. Limited, Leicester, England, a British company

Application September 10, 1956, Serial No. 608,740
Claims priority, application Great Britain September 19, 1955
13 Claims. (Cl. 66—168)

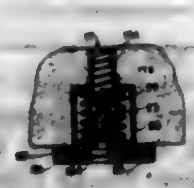


1. In a circular knitting machine of the cylinder and dial type, in combination, a top plate supporting a knitting head having parts requiring to be kept substantially free from fluff, a bottom plate spaced beneath said top plate for supporting fabric winding-down mechanism, a bracket mounted upon said bottom plate, an air compressor which is secured to said bracket and is adapted to supply compressed air at a low pressure, means driving the machine, means driving the compressor when the machine is driven, and, connected with the output side of said compressor, conduit means for the transmission of the compressed air to a location from which it is directed in the form of at least one jet at the aforementioned parts.

2,846,861
CIGAR LIGHTER FLINT POSITIONING MECHANISM

Warren I. Nixon, East Stroudsburg, Pa., assignor to Ronson Corporation, Newark, N. J., a corporation of New Jersey

Application January 4, 1956, Serial No. 557,287
3 Claims. (Cl. 67—7.1)



1. A pyrophoric lighter including a casing having a fuel chamber therein, an abradant member mounted exteriorly of said fuel chamber, a flint tube extending through said chamber and having one end portion thereof positioned adjacent said abradant member, means mounting said flint tube fixedly in position in said casing the opposite end portion of said tube having a mouth which opens through a wall of the casing, and a closure plug for the mouth of the flint tube, said plug having at its outer end a head which is directly manually engageable to move the plug both longitudinally and angularly relative to the tube, said plug having a shank portion extending from said head and which is rotatably and slidably received in the mouth of the tube, said plug also having at portions thereof disposed inwardly along its shank, at least one lug projecting transversely of the plug beyond the confines of said shank, the side wall of said flint tube, inwardly of the mouth portion thereof, being indented to provide at least one shoulder extending into the bore of the tube and directed transversely of the tube, the wall of the tube being continuous and imperforate at the juncture of said shoulder with the adjacent portions of the tube said shoulder extending part way around the inner wall of the flint tube, a pressure spring within said tube and bearing against the inner end portion of said plug, whereby said plug may be manually pressed inwardly as aforesaid against the pressure of said spring until said lug is positioned inwardly of said shoulder, and thereupon manually moved angularly to aline said lug with said shoulder, said spring urging said lug into engagement with said shoulder upon release of the aforesaid manual pressure, to hold the plug against withdrawal from the mouth of the flint tube.

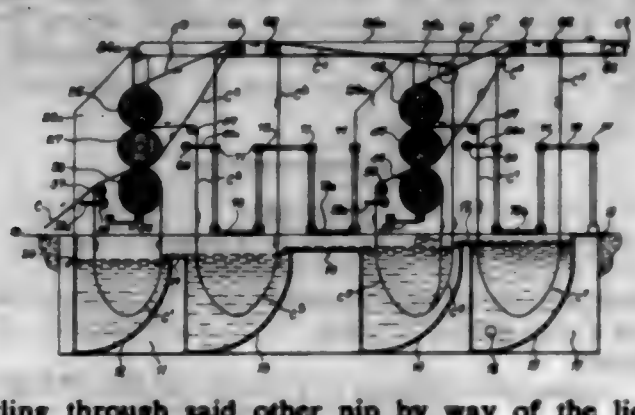
2,846,862
CONTINUOUS WASHER

Frank B. Merrill, North Adams, Mass., assignor to James Hunter Machine Company, North Adams, Mass., a corporation of Massachusetts

Application March 27, 1956, Serial No. 574,184
13 Claims. (Cl. 68—22)

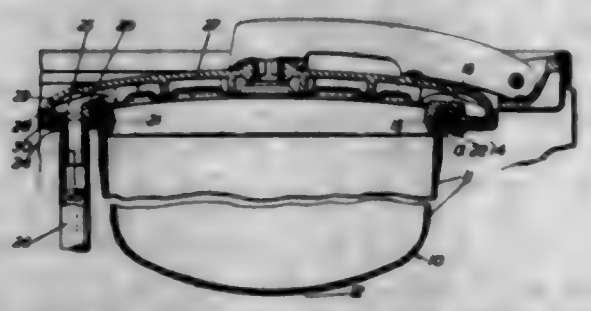
1. In a continuous washer for textile materials, and the like, having at least two bowls adapted to contain a washing liquid and through which a length of said material is passed serially, the improvement which comprises a set of three parallel squeeze rolls forming two nips and including a driven intermediate roll, means for guiding said length to one of the nips in a series of loops extending through said one nip and the liquid in the

first bowl, and means for guiding said length from said one nip to the other nip in a second series of loops



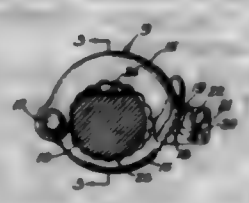
extending through said other nip by way of the liquid in the second bowl.

2,846,863
SQUEEZE DRIERS
Frederick Roy Sibbald, Greenford, England, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application November 19, 1954, Serial No. 470,048
Claims priority, application Great Britain December 4, 1953
3 Claims. (Cl. 68—242)



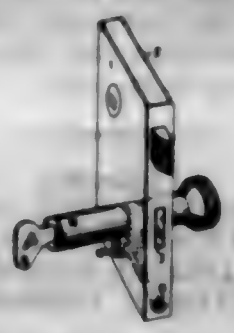
1. A suction squeeze drier for squeezing liquid from clothes comprising a supporting platform having an opening, a flexible impervious bag disposed in said opening and having a mouth to receive the clothes, a flange extending outwardly from said mouth and having an inner part and an outer part overlying said platform, clamping means clamping said inner part of said flange to said platform, a cover for said bag, means defining a sealing surface on said outer part of said bag flange and surrounding the clamping means for contact with said cover when in closed position, means defining a space between said platform and said outer part of said flange for displacement of said outer part of said flange toward said platform when said cover contacts said sealing surface in its closed position, and conduit means formed in said bag flange intermediate said sealing surface and bag mouth and communicating with the latter for connecting said bag mouth to a source of suction.

2,846,864
EMERGENCY BRAKE LOCK
Bill T. Polston, Louisville, Ky.
Application August 16, 1955, Serial No. 528,768
2 Claims. (Cl. 70—181)



1. The combination with a bracket dependingly carried by a vehicle panel and a hand brake pull rod having spaced notches therealong mounted in said bracket for extensile and retractile movements, of a lock device positioned in abutting relation with respect to said bracket and connectable to the portion of the pull rod outwardly of said bracket when said pull rod is in an extended position, said device comprising a pair of jaws arranged to face to face relation and connected together at one of their adjacent ends for opening and closing movement with respect to each other positioned so that the adjacent faces of said jaws abut against said bracket with the jaws embracingly engaging said pull rod portion, cooperating interlocking means on the other adjacent ends of said jaws for detachably holding the jaws in the closing movement position, said means embodying a pawl pivotally carried by one of said jaws releasably engageable with a selected one of a plurality of notches formed on the other of said jaws, and a lug carried by said pawl and bearing against the bowed intermediate portion of a leaf spring which has its extends fixedly anchored to said one jaw, and tooth means on the confronting faces of each of said jaws engageable with the notches on said pull rod portion.

2,846,865
LOCK
Max Huber, Geneva, Switzerland, assignor to Mefina S. A., Fribourg, Switzerland, a company of Switzerland
Application May 14, 1953, Serial No. 354,957
Claims priority, application Switzerland September 8, 1952
1 Claim. (Cl. 70—370)



In a locking mechanism, the combination of a casing having two spaced apart face plate members, said face plate members each having an opening therethrough, said openings being in alignment with each other, guiding means positioned between the spaced apart face plate members, said guiding means including two spaced apart plates and a cross-bar member securedly positioned between said two plates and connected to each of said plates, said cross-bar member having a bore therethrough transversely positioned with respect to said plates, a cylindrical safety locking device securedly attached to said guiding means for rotative movement with respect to said guiding means, said guiding means constituting the catch support of said cylindrical safety locking device, said guiding means and said cylindrical safety locking device securedly attached thereto being removably positioned in said casing in said openings of said face plate members thereof, and means for attaching said guiding means between said face plates at said cross-bar member at the bore therethrough, whereby said guiding means, including the cylindrical safety locking device attached thereto, may be changed at will.

2,846,866
KEY CONTAINER
David Hill, Brooklyn, N. Y.
Application December 31, 1953, Serial No. 401,593
4 Claims. (Cl. 70—456)

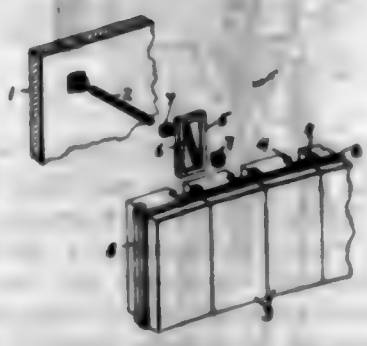
2. A key container comprising a pair of opposed plates, at least one having a pivot post integral therewith on which to pivotally mount a key, a tongue between said plates, integrally and resiliently anchored at one end to one of them and extending to an edge thereof across the shank position of a key when mounted on said post and lying within the container to frictionally retain such key

within the container, and means for displacing said tongue away from its retaining position to free a frictionally held key for pivotal movement out of said container by



gravity, said means including an extension of said tongue up through an opening in the plate to which said tongue is integrally anchored.

2,846,867
CHAMBER LINING
George P. Ralstjen, Kansas City, Mo.
Application September 8, 1953, Serial No. 378,965
1 Claim. (Cl. 72—19)



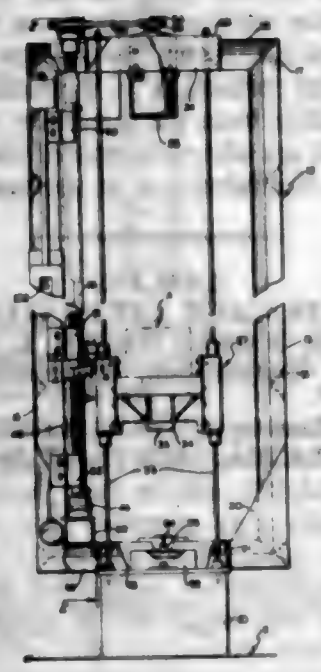
A chamber lining comprising a supporting structure, a tile lining for said structure comprising a plurality of rows of identical abutting tile, each pair of adjacent tile having their abutting side edges formed with recessed flanges conjointly forming a T-shaped slot opening through the rear face of the tile, rows of spaced studs projecting in fixed relation from the supporting structure and having threaded ends received within the T-slots, rectangular anchor castings having their opposite longitudinal edges received within the recessed flanges of each pair of adjacent tile, said rectangular castings have a diagonal slot receiving the studs and permitting longitudinal and lateral displacement of the castings on the studs to compensate for misalinement of the T-slots in relation to the stud location, and clamp nuts threaded on the studs on opposite sides of the castings to secure said castings in fixed position on the studs.

2,846,868
METAL DOOR FRAMES
Axel Gustaf Werner Wedberg, Stockholm, Sweden
Application June 18, 1953, Serial No. 360,790
7 Claims. (Cl. 72—98)



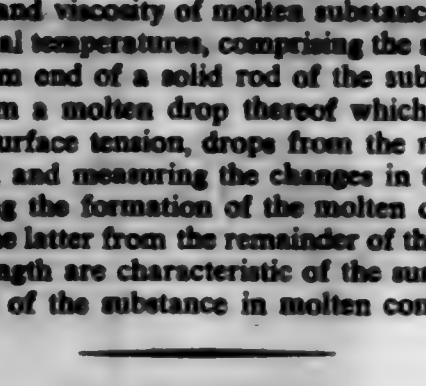
1. In a building construction, the combination of a sheet metal door frame having a vertical jamb member of U-shaped cross-section and having the arms of the U formed inwardly towards each other and terminating in vertical locking edges with said locking edges separated from each other horizontally, said locking edges being of channel form with the open sides of the channels facing outwardly away from the body of the channel, vertically aligned wall slabs extended between the locking edges and into the U-space of the jamb member, and means to lock all of said parts together comprising horizontal anchor plates seated between vertically successive wall slabs at the location of the door jamb, each anchor plate comprising a flat body element seated between a pair of slabs at the location of the door jamb member and including an endwise extending and outwardly reaching hook shaped projection at each lateral edge of said body element together with an endwise extending tongue spaced laterally outwardly away from each hook shaped projection and separated from such projection a distance to leave an L-shaped slot between such projection and tongue, the width of the anchor plate being such as to accommodate the channel form locking edges of the proximate arms of the door jamb in the L-shaped slots of the anchor plate with the tongues aforesaid in locking engagement of the channels of the arms of the door jamb.

2,846,869
SHOCK IMPULSE TESTING APPARATUS
Vernal M. Tyler, Rolling Hills, John R. Gray, Los Angeles, and Homer L. Sergeant, Anaheim, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application October 1, 1956, Serial No. 614,778
3 Claims. (Cl. 73—12)



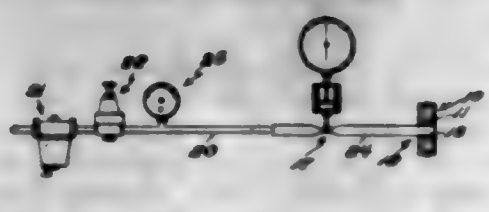
1. In a drop testing apparatus for producing a sawtooth shaped shock wave impulse, said apparatus having a vertically disposed frame structure, a platform mounted for vertical travel in said frame structure, said platform being adapted to carry an article to be shock tested, a platform guiding structure carried by said frame structure, means for raising said platform to a predetermined height, a base structure, a permanently deformable pellet carried by said base structure and extending thereabove, and strike means carried by said platform and adapted for engagement with and deformation of said pellet upon free fall of said platform from said predetermined height, the combination with said drop testing apparatus of a platform guiding structure engaging and vertical position control mechanism comprising: vertically elongated guides carried by said platform and slidably engaging said guiding structure, said guides being disposed in parallel relationship; a latch forming a portion of said platform raising means and adapted for vertical travel within said frame structure; means for connecting said latch to said platform; and means for releasing said latch upon elevation of said platform to said predetermined height to permit said free fall of said platform, said latch being thereafter adapted for downward travel and reconnection with said platform.

2,846,870
METHOD AND APPARATUS FOR DETERMINING THE SURFACE TENSION AND VISCOSITY OF MOLTEN SUBSTANCES
Antonín Novotný, Kounov, near Horovice, Czechoslovakia
Application August 16, 1955, Serial No. 528,793
5 Claims. (Cl. 73—15)



1. A method for simultaneously determining the surface tension and viscosity of molten substances which are solid at normal temperatures, comprising the steps of heating the bottom end of a solid rod of the substance to be tested to form a molten drop thereof which, after overcoming the surface tension, drops from the remainder of the solid rod, and measuring the changes in the length of the rod during the formation of the molten drop and the removal of the latter from the remainder of the rod, which changes in length are characteristic of the surface tension and viscosity of the substance in molten condition.

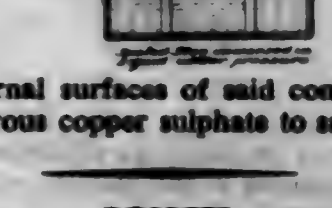
2,846,871
AIR GAGE APPARATUS
John H. Werthen, Warwick Neck, R. I., assignor to Federal Products Corporation, a corporation of Rhode Island
Application January 27, 1956, Serial No. 561,824
1 Claim. (Cl. 73—37.9)



An air gage apparatus comprising a measuring plug, a conduit from an air supply to said plug, a nozzle in said conduit through which the air passes, said nozzle having a converging-diverging passage forming a throat, said plug having jet means comprising at least one opening therein through which air is exhausted the flow of which may be restricted by proximity of the work gaged, said jet means having a cross sectional area substantially equal to the cross sectional area of said throat to maintain the air pressure between the throat and plug substantially constant, and means connected to said throat to indicate changes in pressure at the throat in response to the amount of restriction of the jet means by the work gaged.

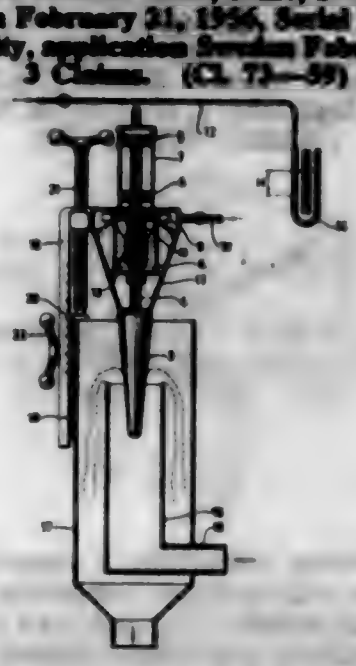
2,846,872
LEAKAGE TESTING METHOD
William A. McAdams, Richland, Wash., and Martyn H. Foss, Santa Fe, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application August 2, 1945, Serial No. 608,604
5 Claims. (Cl. 73—45.5)

1. A method of testing a sealed container for leaks comprising placing said container in water under pressure, then removing said container from said water, then



drying the external surfaces of said container, and then applying anhydrous copper sulphate to said surfaces.

2,846,873
VISCOSITY METER
Karl Torsten Kille, Sulle, Sweden
Application February 21, 1956, Serial No. 566,978
Claims priority, application Sweden February 25, 1955
3 Claims. (Cl. 73—59)

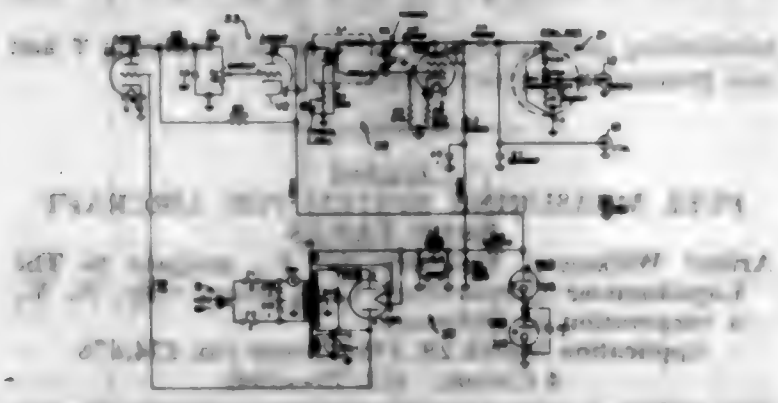


1. A viscosity meter for continuously indicating the viscosity or concentration of flowing liquids and suspensions, comprising a vertical stationary tube having an open upper end, means for supplying liquid to be measured into a lower section of the tube to provide an upstream therein, said open tube end serving as an overflow outlet defining an overflow edge for said tube, a rotary member rotatable around a vertical axis and having the form of an elongated truncated cone with its inwardly tapering end directed vertically downwardly, mounting means supporting said rotary member and holding said rotary member only partly below the overflow edge of said tube, whereby said rotary member is only partly immersed in the fluid contained in and overflowing said tube, means for rotating said member and means indicating the resistance against its rotation caused by varying viscosity of the liquid.

2,846,874
ULTRASONIC TESTING DEVICE
Charles E. Horn, Fort Worth, Tex., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application February 24, 1956, Serial No. 567,558
7 Claims. (Cl. 73—67.1)

1. Apparatus for determining a characteristic of a structure comprising: a first triode electron discharge device having a control electrode connected to a sinusoidal, low frequency, high voltage source, an anode connected to a high direct voltage source through a high load resistance, and a cathode connected to ground potential whereby said sinusoidal voltage saturates said electron discharge device and a low frequency square wave appears at said anode, an integrating circuit connected to said anode whereby said square wave is converted to a triangular wave; a second electron discharge device connected to said integrating circuit in a cathode follower circuit responsive to said triangular wave, a variable in-

ductor having a first winding serially connected in circuit with said second electron discharge device and a second winding connected to a capacitor, said variable inductor and said capacitor comprising a resonant circuit having a resonant frequency varying in accordance with said triangular wave; a third electron discharge device having a control electrode connected to a first terminal of said resonant circuit, an anode and a screen electrode connected to a second terminal of said resonant circuit, and a cathode, said third electron discharge device and said resonant circuit comprising in combination a high powered, high frequency oscillator wherein the high frequency signal is frequency modulated in accordance with said



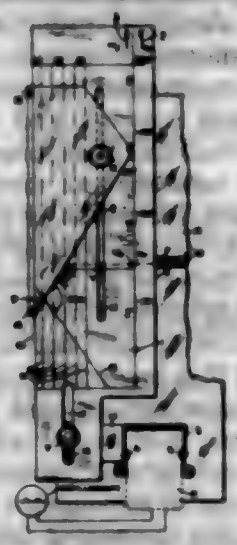
triangular wave; a high impedance output capacitor connected to said oscillator to provide a substantially constant current frequency modulated signal; a piezoelectric transducer having a resonant frequency within the frequency band of said frequency modulated signal and accoustically coupled to said structure whereby amplitude modulation is imposed upon said frequency modulated signal in accordance with a characteristic of said structure, a diode detector connected to said piezoelectric transducer for detecting said amplitude modulation, and a cathode ray oscilloscope connected to said diode detector for displaying detected amplitude modulation representing a characteristic of said structure.

2,846,875

APPARATUS FOR LOCATING DEFECTS

Werner Grabendörfer, Leverkusen-Schlebusch, Germany, assignor to Joseph Krautkrämer and Herbert Krautkrämer, Köln-Lindenthal, Germany

Application March 23, 1954, Serial No. 418,178
10 Claims. (Cl. 73—67.8)



1. In combination with a sound wave emitting and echo detecting and measuring device for detecting flaws in objects and having a sound head adapted to rest on the object, said head including means to transmit sound wave pulses into the object at an angle to the surface thereof and to receive echos of reflected sound wave pulses, said device further including a cathode ray tube connected to said sound head for representing visually said pulse echos, said tube having division marks thereon by which the length of the sound path from the head to a flaw is indicated, a member mounted on said head and extending therefrom in the direction in which sound waves are emitted into the object and adapted to lie beside the object, said member having thereon a set of divisions extending in a direction parallel to the surface of the object proportional to those on the cathode ray tube and calibrated in accordance with the angle of emission of the sound head, said divisions having their zero point at the point of emission of the pulses, whereby the distance of a flaw from the sound head along the surface of the object can be found directly from said set of divisions.

2,846,876

WELL TESTING DEVICE

James E. Willingham, Jr., Corpus Christi, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application December 28, 1955, Serial No. 554,215
3 Claims. (Cl. 73—152)



1. A retrievable device for use in a cased well which comprises, in combination with a tubing arranged in said casing, a tubular member in said tubing provided with an inlet port and an outlet port for passage of fluid therethrough, a pressure recording means attached to the lower end of the tubular member, said tubular member and pressure recording means being lowerable in and retrievable from said tubing, means in the lower end of the tubing for supporting and sealing said tubular member in the lower end of the tubing, a mandrel attached to the lower end of the tubing below the supporting and sealing means having an inside diameter greater than that of the tubing, a pipe member arranged in said mandrel having an inside diameter providing a full opening bore through the tubing on retrieval of said tubular member and pressure recording means, means for sealing between the mandrel and the pipe member, a compressible sealing element arranged in said mandrel for sealing the pressure recording means from the inlet port, attaching means releasably connecting the mandrel and the pipe member for slidable movement of the mandrel with respect to the pipe member, and means for anchoring the lower end of the tubing to the casing whereby relative movement between the mandrel and the pipe member may be achieved, said compressible sealing element sealing on movement of the mandrel from a first position to a second position.

2,846,877

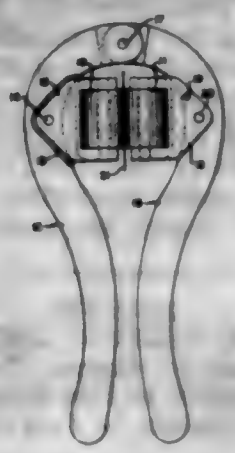
CALENDER DEVICE

Daniel B. Granzow, Jr., Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland

Application July 29, 1957, Serial No. 674,879
2 Claims. (Cl. 73—159)

1. An article of manufacture, comprising a pair of arms pivoted together at one end, a bracket fixed to one arm,

a second bracket pivotally mounted on the other arm, and a roller carried in each bracket, said rollers movable into engagement with each other, when the handles are



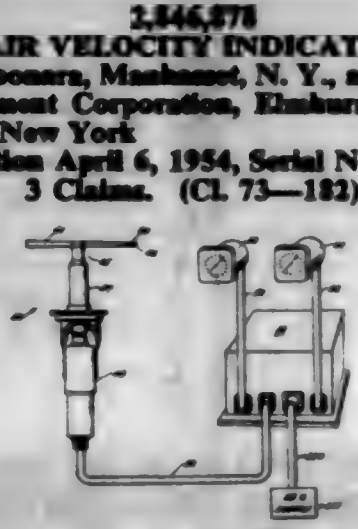
moved toward each other, the engagement of the rollers being such as to grip material therebetween throughout the entire length of the rollers.

2,846,878

AIR VELOCITY INDICATOR

Victor E. Carbonara, Manhasset, N. Y., assignor to Kollsman Instrument Corporation, Elmhurst, N. Y., a corporation of New York

Application April 6, 1954, Serial No. 421,290
3 Claims. (Cl. 73—182)



1. An air speed indicating system for a helicopter with at least one rotatable blade comprising a Pitot tube extending generally horizontally on the helicopter, structure mounting said Pitot tube for independent rotation on the helicopter in a region of the helicopter of relatively low air turbulence, motor means coupled to said structure for rotating said Pitot tube at a predetermined substantially constant speed independently of the blade rotation, a transducer responsive to pressure variations in said Pitot tube when rotated to produce corresponding alternating signals at the frequency of the rotation of said Pitot tube, and indicating means connected to said transducer to provide indications of the air speed of the helicopter from said alternating signals.

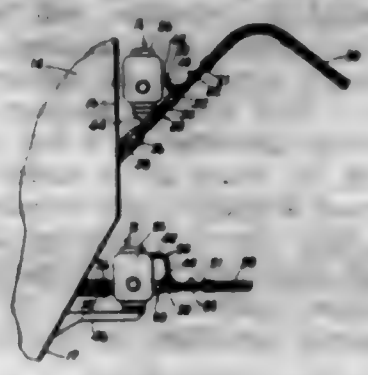
2,846,879

MATERIAL LEVEL CONTROLS

John H. Kauffman, Elkhart, and William F. Hope, South Bend, Ind., assignors, by mesne assignments, to Studebaker-Packard Corporation, a corporation of Michigan

Application December 7, 1951, Serial No. 260,474
4 Claims. (Cl. 73—302)

1. A device for sensing material within a hopper or the like, comprising an inlet nipple adapted for attachment to an air hose at one end thereof, a needle valve connected at its inlet side to the opposite end of said nipple, a reducing T connected at one end thereof to the outlet side of said needle valve, an outlet conduit communicating at one end thereof with the opposite end of said reducing T, said outlet conduit at the opposite end thereof being formed for connection to a wall of a hopper to communicate with the interior of the hopper, a control assembly carried by said outlet conduit, said control assembly comprising pressure responsive means and a control device adapted to be actuated by said means, and a conduit connected to the T of said reducing T and



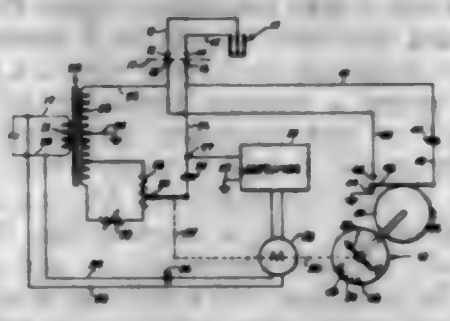
establishing communication between said reducing T and said pressure responsive means.

2,846,880

FUEL MEASURING SYSTEM FOR AIRCRAFT DROP TANKS

Arthur Wickesser, Westbury, N. Y., assignor to The Liquidometer Corporation, Long Island City, N. Y., a corporation of Delaware

Application March 29, 1956, Serial No. 574,676
4 Claims. (Cl. 73—304)



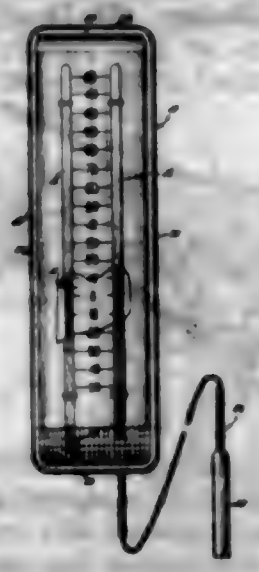
1. A liquid fuel quantity measuring and indication system for an aircraft fuel tank, wherein provision is made for dropping the tank from the aircraft while said system is in operation, said system comprising a measuring impedance carried by said tank and having an impedance value which is a function of the quantity of liquid fuel in said tank, and wherein said measuring impedance is separated from the remainder of said system when said tank is dropped from the aircraft in which said system is carried, a balanceable electrical network in which said measuring impedance is normally connected and which has a null electrical output when said network is in balance, a servomotor electrically connected to said network so as to be controlled in its operation by said electrical output of said network and mechanically connected to a variable electrical component of said network so as to balance said network and thereby to reduce the electrical output thereof substantially to zero, an indicating means mechanically driven by said motor and having a normal range of movement between predetermined boundary positions indicative of maximum and minimum tank contents respectively, said network being so constructed and arranged that upon the dropping of said tank and consequent disconnection of said measuring impedance from said network, said motor will move said indicating means beyond one of said predetermined positions defining its normal range of movement; a fixed impedance adapted to be electrically connected into said network in the place of said measuring impedance and having an impedance value such that when it is so connected into said network, the normal operation of said network will move said indicating means to indicate a predetermined value outside of the limits of said normal range, and switch means mechanically responsive to said indicating means moving a predetermined distance past one of the predetermined boundaries of said normal range for electrically connecting said fixed impedance into said network in the place of said measuring impedance.

2,846,881

THERMOMETER CONSTRUCTION

John L. Hobbs, Springfield, Ohio, assignor to Thermometer Corporation of America, Springfield, Ohio, a corporation of Ohio

Application February 16, 1955, Serial No. 488,450
10 Claims. (Cl. 73—340)



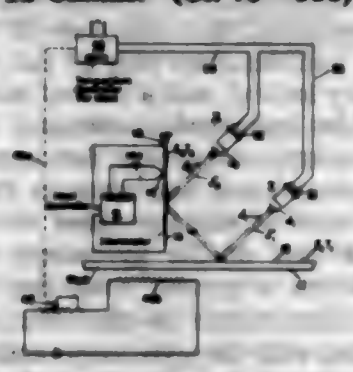
1. In an indoor-outdoor thermometer, a casing comprising an elongate body of transparent plastic material having in its rear side a cavity extending for the major portion of the length thereof and having rearwardly extending side walls, the walls having adjacent the rear edges thereof inner and outer shoulders, a card supported on said inner shoulders in a predetermined position in said cavity and bearing a longitudinal series of temperature indications centrally thereof, a pair of thermometer tubes supported in fixed relation one on either side of said series of temperature indications whereby both said tubes may be read on said one series of temperature indications, one of said tubes being a small bore tube having an integral bulb of relatively small volumetric capacity at one end thereof and the other of said tubes being a large bore tube adapted to receive in the bore thereof one end of a capillary tubing connected at its other end to a remotely located temperature sensing bulb of relatively large volumetric capacity, and a closure for the rear portion of said cavity supported on said outer shoulders and having a plurality of spaced projections engaging said card to maintain the card and closure in spaced relation and the card firmly pressed against said inner shoulders, said body having its front portion shaped to provide magnification of said thermometer tubes.

2,846,882

APPARATUS FOR MEASURING AND/OR CONTROLLING SURFACE TEMPERATURES UNDER NON-BLACK-BODY CONDITIONS

William T. Gray, Jenkintown, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania

Application September 20, 1952, Serial No. 310,696
12 Claims. (Cl. 73—355)



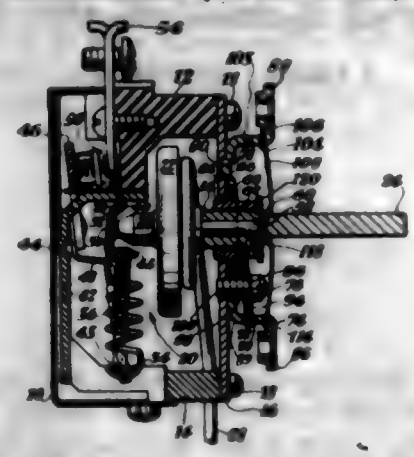
1. An emissivity-independent pyrometer system for use with an adjustably heated work surface under non-black-body conditions and without physical contact therewith comprising a heated illuminator plate, said plate having an emissivity less than unity, means supporting said plate with one surface thereof adjacent a limited area of the heated work surface thereby to effect a cooperative relation between said surfaces for reflection by one of radiant energy emitted by the other, radiant-energy responsive means having different electrical outputs for different radiant energy inputs disposed to view separately and directly said one surface of said plate and said limited area of said work surface, the relative disposition of said radiant-energy responsive means, said plate, and the work surface being such that the beam of radiant energy received by said radiant-energy responsive means directly from said limited area of the work surface comprises radiant energy emitted thereby and radiant energy emitted by the adjacent surface of said plate and reflected from said limited area, the beam of radiant energy received by said radiant-energy responsive means directly from said plate comprising radiant energy emitted thereby and radiant energy emitted thereby and radiant energy emitted by said limited area and reflected from the adjacent surface of said plate, means responsive to said electrical outputs for determining when said beams are of equal intensity, means for adjusting the temperature of a selected one of said surfaces to vary the intensity of both of said beams in accordance with the response of said responsive means to the difference in said electrical outputs for establishment of equality of intensity of said beams, and means thermally associated with said illuminator plate for measuring the temperature of said plate as a replica of the temperature of the work surface upon establishement of said equality between said beams.

2,846,883

THERMOSTAT ADJUSTING DEVICES

Victor Weber, Greensburg, Pa., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application November 24, 1954, Serial No. 471,069
4 Claims. (Cl. 73—362.4)



1. A regulator for a variable condition, comprising a casing having an apertured wall, control means movable between controlling positions in said casing, condition responsive means operatively associated with said control means for movement thereof in response to variations in a variable condition, adjusting means having a threaded portion projecting through said apertured wall and being operatively engageable with said condition responsive means, means for rotating said adjusting means, means for mounting said threaded portion on said casing wall for axial movement of said adjusting means relative to said condition responsive means upon operation of said rotating means, said mounting means including an annular flange abutting said casing wall, a holding plate overlying said flange, securing means extending through said plate and said casing wall for releasably clamping said mounting means in abutting relation there-

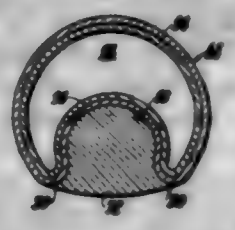
with, and means carried by said mounting means and operable upon release of said securing means for rotating said mounting means in either direction relative to said plate and said casing and causing said axial movement of said adjusting means to a predetermined position, said securing means being operable for reclamping said mounting means in said abutting relation to said casing wall following said rotating movement while said adjusting means remains in said position.

2,846,554

TEMPERATURE RESPONSIVE DEVICE

James U. Daly, Latrobe, Pa., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware

Application August 5, 1955, Serial No. 526,760
10 Claims. (Cl. 73—362.4)



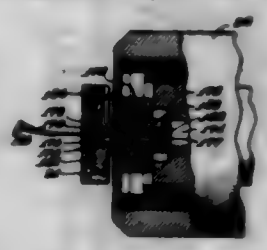
1. In a thermally responsive control device having an expansible and contractible element, a capillary tube and a bulb containing a temperature sensitive fluid, the bulb being constructed of layers of metal of different coefficients of expansion autogenously joined to form a tubular member of substantially circular cross-section interrupted by a re-entrant portion which defines by its outer wall a longitudinal groove extending substantially the entire length of said member, and a flexible insulating material filling said groove.

2,846,885

SHAFT MOUNTING

James P. Watson, Lynwood, Calif.

Original application March 22, 1954, Serial No. 417,598, now Patent No. 2,732,719, dated January 31, 1956. Divided and this application March 21, 1955, Serial No. 495,496
5 Claims. (Cl. 74—5)



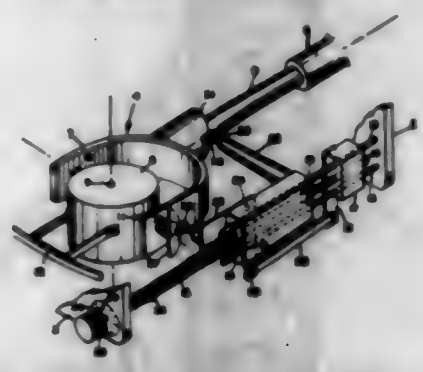
1. Mounting for a gyroscope spin motor shaft comprising: a gimbal frame having a pair of spaced, substantially parallel arms, a spin motor shaft having its ends fitted closely between said arms within said frame, each end of said shaft being secured to the adjacent frame arm by means comprising aligned bores in shaft and arm of substantially equal diameter, at least one of said frame arms having a lateral groove extending from one side thereof to the bore in said frame arm for temporarily receiving and providing passage for electric wiring extending generally axially from said shaft, during positioning of said shaft within said frame, said shaft having a threaded bore slightly smaller in diameter than the common bore in said shaft and arm and forming a coaxially inward continuation of said bore, and a pin joining said shaft to said arm having its inner end threaded and engaged in the threaded bore in the shaft and having an unthreaded smooth portion closely engaged in said aligned bores, said pin having a head bearing against said frame for drawing said shaft into close butting engagement with and within said frame.

2,846,886

VERTICAL GYRO COMBINED CAGING AND ERECTING MECHANISM

Paul E. Soffried, New City, N. Y., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application April 25, 1956, Serial No. 580,646
14 Claims. (Cl. 74—5.1)



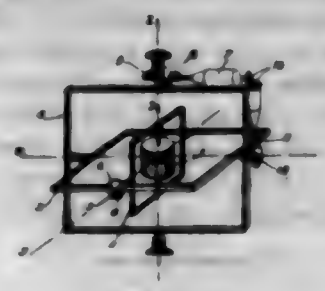
1. In a vertically seeking gyro including a first gimbal having a longitudinal axis, a second gimbal bearing the gyro and having a horizontal axis perpendicular to the said longitudinal axis defined by trunnions pivoted in arms of the first gimbal, means for leveling the gimbals to bring their respective longitudinal and horizontal axes in mutual perpendicular relation to each other, means for simultaneously locking the gimbals in this leveled position, and said last mentioned means including means for releasing only the second gimbal from said locked position and adjusting it angularly about its horizontal axis to a desired position.

2,846,887

SUSPENSION FOR A VERTICAL-INDICATING GYROSCOPE

Pierre André Chambard, Boulogne-sur-Seine, France, assignor to Etat Français, represented by the Secretary of State for Armed Forces (Air), Paris, France

Application February 20, 1956, Serial No. 566,733
Claims priority, application France February 21, 1955
12 Claims. (Cl. 74—5.2)



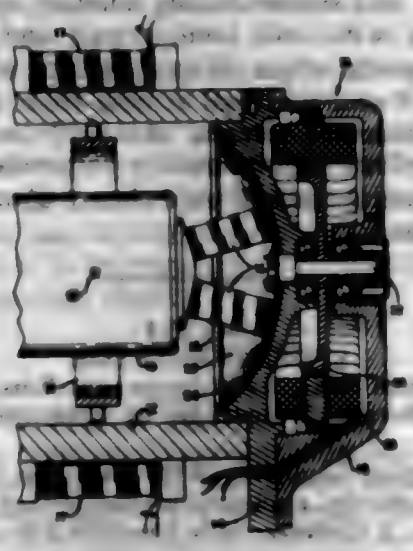
1. Improved suspension for a vertical-indicating gyroscope for overcoming the operational defects which occur in conventional two-ring cardan suspensions when the angle between the outer axis of the said suspension and the axis of the gyroscope becomes equal to or lower than the critical angle, comprising a third suspension ring, means for putting this improved suspension in two different states of operation, viz.: one state in which the third suspension ring and the outer ring of the original suspension are mutually locked, and a second state in which the outer ring of the improved suspension is locked relatively to the support, and means for automatically controlling the passage from one state to the other at the moment when one of the free axes of the suspension makes with the axis of the gyroscope an angle of a predetermined value α greater than the largest possible value of the critical angle so that the suspension ring whose axis makes with the gyroscope axis an angle equal to or less than α is automatically locked and replaced by another ring which is placed in substantially the optimum conditions.

2,846,888

ELECTRICAL NUTATION DAMPING MECHANISM FOR CONSTRAINED EDDY CURRENT GYROSCOPE

Lloyd G. Mosier, Glen Burnie, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application September 29, 1955, Serial No. 537,663
5 Claims. (Cl. 74—5.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



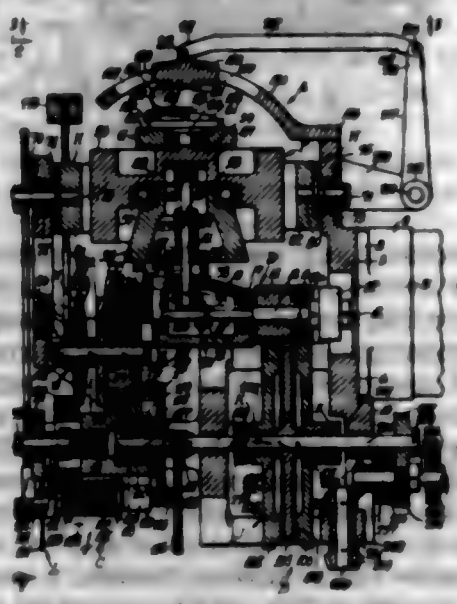
1. In a constrained gyroscope device adaptable to have flux established between the gyroscope frame element and the gyroscope element, a gyroscope oscillation damper means comprising an electrically conductive disc fixed on one of said elements in the flux path whereby any shift of position of flux will establish eddy currents in said conductive disc opposing the shift of the flux producing a damping action on the gyroscope element.

2,846,889

GYROSCOPE CONTROL SYSTEM

Maurits Ten Bosch, White Plains, and Paul Lang, Katonah, N. Y., assignors to M. Ten Bosch, Inc., Pleasantville, N. Y., a corporation of New York

Application April 7, 1952, Serial No. 280,952
34 Claims. (Cl. 74—5.34)



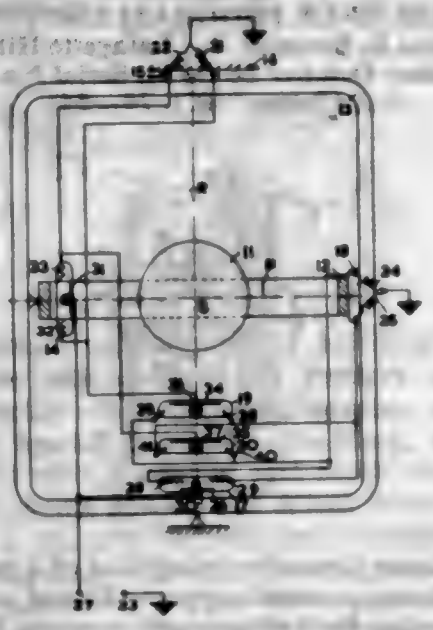
1. A torque amplifier comprising an input shaft, an output shaft, a clutch unit, means to drive said clutch unit, said clutch unit serving to drive said output shaft, said output shaft being longitudinally displaceable and connected to engage said clutch to drive said shaft in one rotational direction when moved longitudinally in one direction and in the opposite rotational direction when moved longitudinally in the other direction, and a differential nut unit to move said shaft longitudinally actuated by said input shaft and a feed-back loop from said output shaft to said differential nut unit.

2,846,890

GYROSCOPE APPARATUS

Alfred Flannagan, Farnborough, England, assignor to National Research Development Corporation, London, England, a British corporation

Application June 15, 1953, Serial No. 361,780
Claims priority, application Great Britain June 20, 1952
4 Claims. (Cl. 74—5.47)



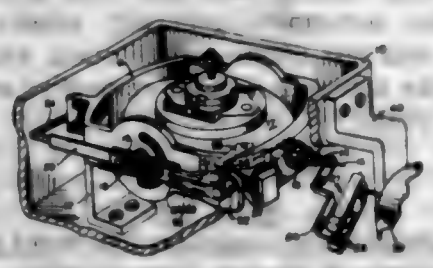
1. Gyroscope apparatus for defining the vertical on a moving craft having erecting means including a pitch torque motor for effecting erection in pitch, pitch switch means responsive to deflection in pitch for operating said pitch torque motor, a roll torque motor for effecting erection in roll, and roll switch means responsive to deflection in roll and to displacement of apparent gravity in turns for normally operating said roll torque motor and for switching said roll torque motor for operation by said pitch switch means during turns in excess of a predetermined rate.

2,846,891

GYROSCOPIC APPARATUS

James H. Casterlin, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

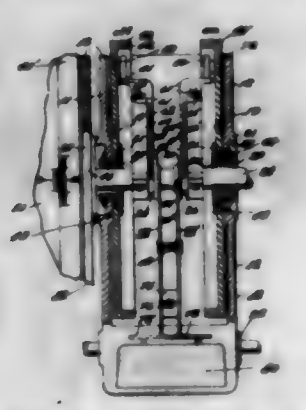
Application May 24, 1957, Serial No. 661,448
3 Claims. (Cl. 74—5.47)



1. Gyroscopic apparatus comprising, in combination, a support, a gimbal ring mounted on said support for movement about a first axis, a rotor bearing casing mounted in said gimbal ring for movement about a second axis normal to said first axis, said rotor bearing casing being coupled to a pivoted lever, electrical contactors associated with said apparatus for closing circuits upon movement about said axes, comprising a first contact finger affixed to a hollow stud attached to said gimbal ring at the pivot point thereof and extending through said support, a pair of contact elements cooperating therewith, each of said contact elements being pivotally displaceable over a shaft upon engagement with said finger due to movement of said gimbal ring and follow-up means mounted on said support including said shaft for displacing both said elements simultaneously; a second contact finger attached to said lever, a second pair of contact elements cooperating therewith and mounted on said

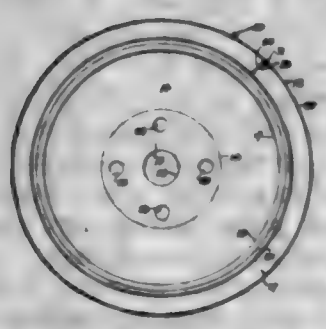
gimbal ring, each being displaceable upon engagement with said last-mentioned finger due to movement of said rotor bearing casing and follow-up means for displacing both said contact elements of said second pair in unison.

2,846,892
SEQUENCE PROGRAM CONTROL
Charles E. Roessler, Jr., Lafayette Hills, Pa.
Application October 26, 1954, Serial No. 464,669
2 Claims. (Cl. 74—54)



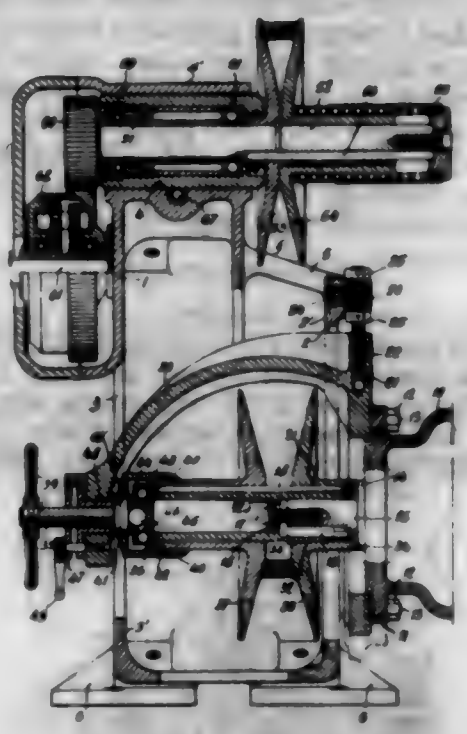
1. A sequence controller comprised of a pair of spaced generally planar parallel supports having aligned apertures and means for holding said supports in fixed relation defining a compartment, first and second dials mounted on said respective supports in spaced relation in said compartment in general parallelism with said supports and disposed for manual angular positioning in said compartment, first camming means mounted on said first dial inwardly of the periphery thereof, second camming means mounted on said second dial inwardly of the periphery thereof, a driven shaft in said apertures and extending across said compartment, bracket means mounted on said shaft in said compartment inwardly of said dials, a first bell crank lever pivotally mounted on said bracket means in the space between said dials having one arm directed toward said first dial in position to intersect and react from the said camming means thereof and one arm directed toward said shaft for movement generally axially of the latter in response to such reaction, a second bell crank lever pivotally mounted on said bracket means in the space between said dials having one arm directed toward said second dial to intersect and react from the camming means thereof and one arm directed toward said shaft for movement generally axially thereof in response to said last mentioned reaction, and means responsive to the actuations of the respective arms directed toward said shaft.

2,846,893
FABRICATED GROOVED PULLEY
Bruce R. Bagley, Detroit, Mich.
Application February 25, 1953, Serial No. 338,733
4 Claims. (Cl. 74—230.8)



1. A fabricated grooved sheet metal pulley comprising a cup-shaped one-piece sheet metal hub having an approximately cylindrical side wall and a disc-shaped end wall integral with said side wall disposed perpendicular to said side wall adjacent one end thereof, said end wall having means thereon for attaching said hub to a rotary support; and a grooved annular one-piece sheet metal sheave of truncated approximately V-shaped cross-section mounted on said side wall in offset relationship to said end wall and providing an overhang for said sheave relatively to said end wall, said sheave having an annular bottom wall tightly secured with a stretch fit to the exterior of said cylindrical side wall of said hub with said sheave in a state of tension and said hub in a state of compression, said sheave having annular opposite lateral walls integral with said bottom wall and flared away from the opposite edges of said bottom wall, said hub at the edge of said side wall remote from said end wall having an abutment integral therewith and projecting outward therefrom approximately perpendicular thereto, one of said lateral walls of said sheave abuttingly engaging said abutment.

2,846,894
SPEED VARIATOR
Georges Marius Mas, Les-Clayes-sous-Bois, France, assignor to Societe Industrielle de Transmissions, Paris, France
Application August 4, 1953, Serial No. 372,358
Claims priority, application France May 7, 1953
3 Claims. (Cl. 74—230.17)



1. A variable speed transmission comprising, in combination, a driven pulley composed of a pair of independent, coaxial, frusto-conical driven flanges; support means supporting said driven pulley for rotation about its axis and supporting at least one of said driven flanges for movement toward and away from the other of said driven flanges, said support means having a free end portion extending from one side of said driven pulley; a driving pulley having an axis parallel to that of said driven pulley and composed of a pair of independent, coaxial, frusto-conical driving flanges; a motor coaxial with said driving pulley, fixed to one of said driving flanges thereof for rotating said one driving flange, and located at the side of said one driving flange opposite from the other of said driving flanges so that said one driving flange is located between said motor and said other driving flange; guide means extending along the axis of said driving pulley and guiding said other driving flange for movement toward and away from said one driving flange; a belt passing about and operatively engaging said pulleys for transmitting a drive from said driving to said driven pulley; adjusting means operatively connected to said other driving flange for adjusting the

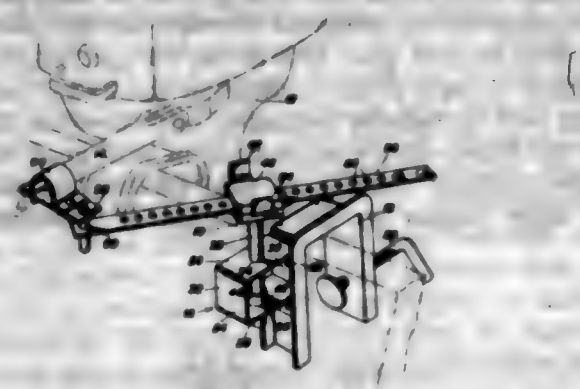
distance thereof from said one driving flange, said adjusting means being located in its entirety at the side of said other driving flange opposite from said one driving flange so that said other driving flange is located between said adjusting means and said one driving flange, said driving pulley, guide means, and adjusting means all being spaced from said support means, and said adjusting means having a part which remains stationary with respect to said support means; and mounting means mounting said motor on said support means and connected to said support means only at the same side of said belt as said one driving flange, said mounting means including an arm extending from said side of said belt through the runs thereof and carrying said part of said adjusting means so that said belt may be removed from said driven pulley, passed about said free end portion of said support means, removed from said driving pulley, and passed about said adjusting means to be removed from the apparatus without any disassembly thereof.

2,846,895
GEAR MECHANISM
Jose Severin, Duisburg, Germany, assignor to Friedrich Kocks G. m. b. H., Duesseldorf, Germany
Application March 31, 1954, Serial No. 420,101
Claims priority, application Germany April 5, 1949
1 Claim. (Cl. 74—394)



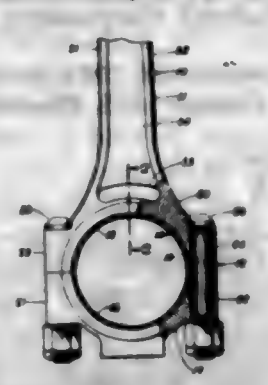
A gear mechanism, for use in connection with an arm rotatably mounted, said gear mechanism comprising driving means for rotating the arm at a first substantially constant angular velocity during a portion of a cycle of rotation of the arm and for rotating the arm at a different angular velocity during the remainder of the cyle of rotation of the arm, said driving means including a sun gear, a planetary gear engaging said sun gear, a ring gear engaging said planetary gear, adjustable means in driven connection with said driving means and operable for rotating said ring gear at a different selectively adjustable angular velocity during said remainder of a cycle of rotation than during said portion thereof, and means connecting said planetary gear to the arm for rotation thereof in response to rotation of the planetary gear about the axis of said sun gear, said means for rotating said ring gear comprising a pair of gears, a pair of racks, each engaging one of said pairs of gears, reciprocally movable means connected to said racks for reciprocating said racks in unison in response to reciprocal movement of said movable means, clutch means releasably drivingly connecting one of said pair of gears to said ring gear when the racks move in one direction and for releasably drivingly connecting the other one of said pair of gears to said ring gear when said racks move in the opposite direction, and means driven from said driving means and operable for reciprocating said reciprocally movable means during different portions of a cycle of rotation of the arm, said clutch means comprising a pair of electromagnetic clutches, each being drivingly connected between one of said pairs of gears and said ring gear, and switch means actuatable in response to a predetermined angular position of said arm for controlling the energization of said electromagnetic clutches.

2,846,896
OUTBOARD MOTOR STEERING STABILIZER
Hartley Allen, Wenonah, Pa.
Application August 28, 1956, Serial No. 606,659
4 Claims. (Cl. 74—495)



1. An outboard motor steering stabilizer comprising a member for attachment to the transom of a boat, a mounting bracket attached to said member, a shaft journaled in said bracket and carrying a block, a bar adjustably mounted with respect to said block, said shaft being hollow, a spring pressed ball detent in said shaft, said bar having a plurality of apertures therethrough, said ball detent engaging said bar in a selected one of said apertures to adjustably hold said bar against movement with respect to said block caused by vibration, and clamp means detachably swivelly engaging said bar for attachment to the tiller of an outboard motor.

2,846,897
CONNECTING ROD
Harold L. Schall, South Bend, Ind., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application July 28, 1955, Serial No. 523,237
3 Claims. (Cl. 74—579)

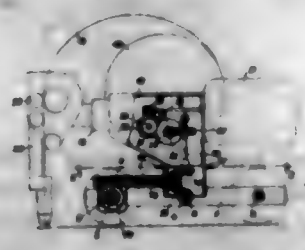


1. A one piece connecting rod member comprising a shank portion, an arch portion integrally connected to said shank portion having an arcuate bearing engaging surface, said rod member being formed to define an arcuate slot between said shank portion and said arch portion in generally coaxial relation to said arcuate bearing engaging surface.

2,846,898
CARRIAGE CONSTRUCTION FOR AUTOMATIC WELDING MACHINES
Albin Cink, Bratislava, Czechoslovakia, assignor of one-half to CKD Ceska Lipa, narodni podnik, Ceska Lipa, Czechoslovakia
Application August 31, 1955, Serial No. 531,791
Claims priority, application Czechoslovakia
September 4, 1954
2 Claims. (Cl. 74—640)

1. In an automatic welding machine; the combination of a carriage having two pairs of wheels mounted on parallel, spaced apart rotatable axles to support the carriage for advancement along a weld, a rotatable screw journalled in said carriage and extending parallel to said axles at a location between the latter, a gear box mounted

on said screw and on one of said axles for movement therealong in a direction at right angles to the direction of movement of said carriage on said wheels along a weld, said gear box having a circular flange in a plane parallel to a plane containing both of said parallel axles, a superstructure mounted movably on said flange to pivot relative to said gear box about an axis which is perpendicular to said plane containing the axles, means in said gear box threadably engaging said screw so that rotation of the latter causes movement of said gear box and said superstructure relative to said carriage in said direction at right angles to the direction of movement of the



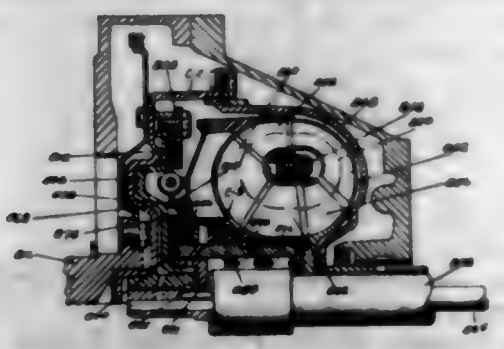
carriage, drive means in said superstructure, and transmission means between said drive means and said one axle including a first bevel gear in said gear box concentric with the pivoting axis of said superstructure and driven from said drive means in the latter, a drive shaft in said gear box extending at right angles to said axles and having a second bevel gear at one end meshing with said first bevel gear and a worm at the other end proximate to said one axle, and a worm gear slidable axially on said one axle and non-rotatable with respect to the latter, said worm gear meshing with said worm of the drive shaft.

2,846,899

TRANSMISSION

Warren G. Bopp, Grosse Pointe Woods, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan

Application February 26, 1954, Serial No. 412,691
17 Claims. (Cl. 74—645)



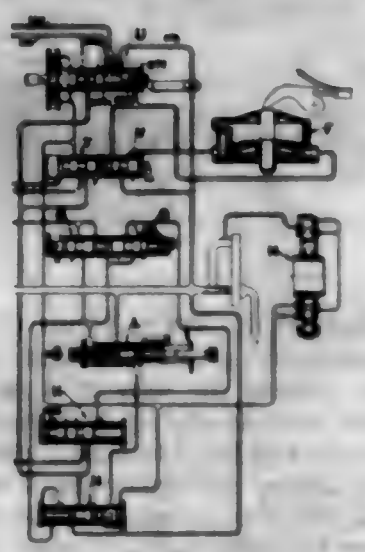
1. In the combination of a throttle-operated fuel powered engine having a power driving shaft and a throttle controlling linkage positionable in a normal range of movement between first and second positions corresponding respectively to meager throttle and fully open throttle conditions and movable into an over travel position beyond said normal range of movement, and change speed mechanism operatively connected to the engine, a pressure operated control arrangement operatively connected to said mechanism and having means including control valving for controlling the latter, said change speed mechanism incorporating a common converter-and-clutch containing housing, planetary gearing within said housing having an input member, a power output member, and planet pinions mounted for rotation on the output member so as to mesh with and orbit about the input member, a fluid flow element forming a pump in the converter and connected to the power driving shaft, a main turbine element included in the converter and connected for movement with the input member in the planetary gearing, a sun gear meshed with the planet pinions, a secondary turbine and a reactor in the converter each having means for preventing reverse rotation thereof, a normally pressurized first clutch for coupling together the sun gear and the secondary turbine, a second clutch pressurizable to become engaged and clutch together the power driving shaft and at least one of the planetary input and output members for conjoint rotation therewith, the control valving in said pressure operated control arrangement including an abruptly operating part actuatable to cause said second clutch to be pressurized and to become engaged as aforesaid, fluid directing means for exerting an actuating force on said part that corresponds to magnitude of speed of the change speed mechanism, fluid directing means for exerting an opposing force on said part that corresponds to magnitude of throttle opening as determined by the position of said linkage in the normal range of movement aforesaid between the first and second positions, and means responsive to a position of over travel assumed by said linkage beyond said normal range of movement for venting the first clutch to release the sun gear from the secondary turbine in the converter.

2,846,900

TRANSMISSION AND CONTROL SYSTEM

Forest R. McFarland, Huntington Woods, Carroll J. Lucia, Birmingham, and John Z. De Lorean, Detroit, Mich., assignors to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan

Application March 31, 1955, Serial No. 498,464
28 Claims. (Cl. 74—645)



1. A transmission and control system for an accelerator pedal control engine comprising a drive shaft, a torque converter connecting with the drive shaft, a relatively low speed high torque drive and a relatively high speed low torque drive including gears connecting with the converter, a hydraulically operated clutch means to provide a direct drive through the converted to the low and high speed drives, an output shaft connecting with the low and high speed drives, a hydraulically operated means to engage the high range drive, a hydraulically operated piston means adapted to engage and positively disengage the low range drive, resilient means to normally condition said piston means to positively disengage the low range drive, a fluid pressure reservoir, a fluid conveying means connecting the reservoir with the high range engaging means and the low range engaging and disengaging means, a control valve connected in series with said fluid conveying means, a control valve being movable in one direction to admit fluid pressure to the high range engaging means and to the piston means to disengage the low range drive, and said control valve being movable in the opposite direction to vent pressure delivered to the high range engaging means and to the piston means to disengage the low range drive, a speed responsive governor control operatively responsive to the speed of rotation of the output shaft connecting with the reservoir

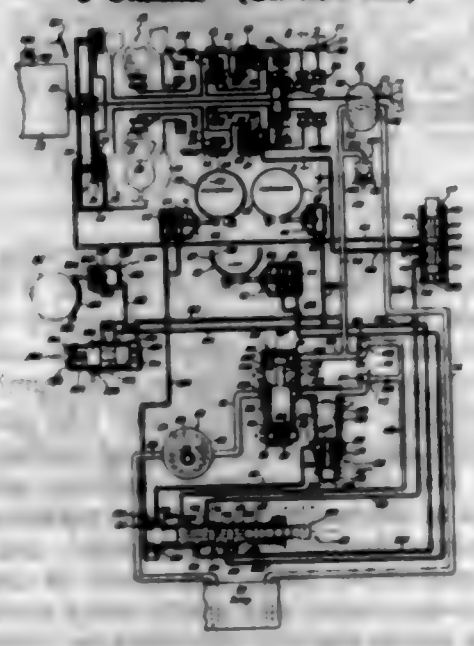
and the control valve, said governor control being adapted to admit fluid pressure to the control valve which is substantially proportional to the speed of rotation of the output shaft to move the control valve in said one direction, a throttle control operatively responsive to the speed increasing position of the accelerator podal connecting with the reservoir and the control valve, said throttle control being adapted to admit fluid pressure to the control valve which is substantially proportional to the speed increasing position of the accelerator pedal to move the control valve in said opposite direction in opposition to the governor pressure, a second control valve which is operatively responsive to the throttle and governor pressures, connecting with the direct drive clutch means and said control valve to receive fluid pressure therefrom when the latter is moved in said one direction, said second control valve being movable in one direction by the governor pressure to admit fluid pressure from said control valve to said direct drive clutch means to engage the direct drive as the speed of rotation of the output shaft is increased, and said second control valve being movable in the opposite direction by the throttle pressure in opposition to the governor pressure to vent fluid pressure delivered to the direct drive clutch means thereby disengaging it, a manually operated valve connected in series with the fluid conveying means and which is also connected with said control valve, said manually operated valve being adapted to be selectively positioned in anyone of a plurality of positions including; a first position to admit fluid pressure to the high range engaging means and to the piston means to assist the resilient means to positively disengage the low range drive, and also to return fluid pressure for engaging the low range drive to the reservoir; a second position to admit fluid pressure to the piston means to engage the low range drive and to admit fluid pressure to the high range engaging means and to the piston means to disengage the low range drive when the control valve is moved in said one direction; and to a third position to close the fluid conveying means connecting with the reservoir and the low and high range operating means, hydraulically engageable locking means to lock the manually operated valve in any one of its operating positions, and means to conduct governor pressure to said locking means to engage the latter when the governor pressure exceeds a predetermined, relatively low value.

2,846,901

BRAKING SYSTEM

Werner G. Baule, Detroit, Mich., assignor to The Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application November 15, 1951, Serial No. 256,490
3 Claims. (Cl. 74—732)



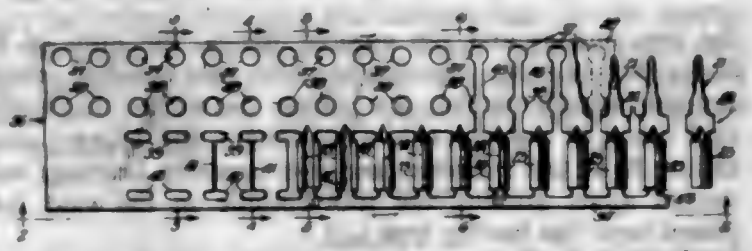
1. In transmission mechanism for an automotive vehicle having a driving engine, the combination of a drive shaft adapted to be driven by the vehicle engine, a driven shaft adapted to drive the vehicle, means for providing a power train between said shafts and including a hydrodynamic coupling device for transmitting power through the train, said last named means also including a brake drum and a brake band engageable with the drum for completing the train, and means responsive to the speed of the vehicle for temporarily holding said driven shaft from rotation due to torque transmitted through said hydrodynamic device and power train at vehicle engine idling speeds and including means for simultaneously completing a second different power train between said shafts, said last named means including a brake shoe engageable with a second drum for providing a limited braking action on the latter drum whereby an increase of power from said driving engine causes said driven shaft to be driven by means of said first power train and said brake shoe to slip on said second drum for breaking said second power train.

2,846,902

DRILL ELEMENTS

William E. Cowley, Louisville, Ky., assignor to American Saw & Tool Company, Louisville, Ky., a corporation of Kentucky

Application February 6, 1956, Serial No. 563,493
9 Claims. (Cl. 76—108)



9. In the process of manufacturing drill elements from a length of flat sheet stock the steps which comprise punching the flat sheet stock at selected intervals along its length, using said punchings to intermittently feed and successively locate predetermined sections of said sheet stock between a pair of separated shearing dies, said dies having parts adapted as the dies are brought together to cut from said sections portions defining the opposed cutting edges of drill elements which include a countersink forming portion having opposed converging side edges and a long narrow drill portion, bringing the dies together to effect shearing of each successively located section while holding said section against movement and in a plane intersecting at a pre-selected angle other than normal thereto the axis along which the dies are brought together, whereby the side edges of the drill and countersink forming portions of the drill elements will be simultaneously imparted a desired clearance angle as the drill elements are sheared out of the sheet stock, and, thereafter, separating the dies to permit insertion of the next successive section of the sheet stock therebetween.

2,846,903

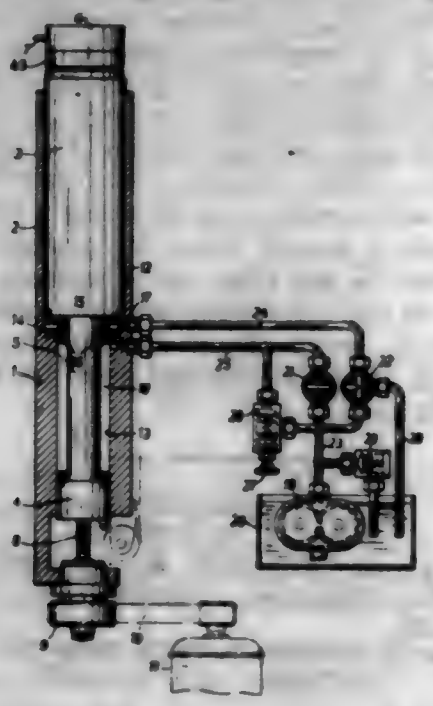
MACHINE TOOLS WITH A HYDRAULIC FEED ARRANGEMENT FOR A ROTATING SPINDLE SUPPORTING THE TOOL

Curt Pleger, Zurich-Erlenbach, Switzerland

Application June 27, 1955, Serial No. 518,223
3 Claims. (Cl. 77—33.5)

1. A fine-boring machine, comprising: a machine casing, a hydraulic feed cylinder forming an integral part of the casing, an annular flange projecting inwards from the internal surface of the cylinder about midway between its ends, a spindle sleeve axially slidable in the cylinder, the spindle sleeve consisting of two pistons and an axial shank uniting them, the diameter of the shank being less than the diameter of the pistons, sealing means

enabling the shank of the spindle sleeve to slide through the annular flange of the cylinder in a fluidtight manner, a tool spindle rotatable but not axially slidable in the spindle sleeve, the tool spindle being adapted to carry a fine-boring tool, means for selectively supplying liquid under pressure to the two cylinder spaces bounded by



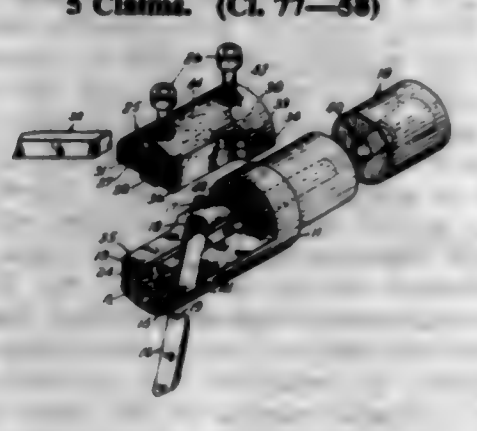
the two pistons and the annular flange, the bore of the hydraulic cylinder constituting the sole guiding means for the spindle sleeve, the piston nearer to the boring tool being of considerable axial length and being a close sliding fit in the cylinder, and two separate bearings well spaced apart guiding the tool spindle in the said long piston near the boring tool.

2,846,904

BORING BAR

William E. Dow, Windsor, Vt., assignor to Cone Automatic Machine Company, Inc., Windsor, Vt., a corporation of Vermont

Application February 1, 1956, Serial No. 562,759
5 Claims. (Cl. 77—58)



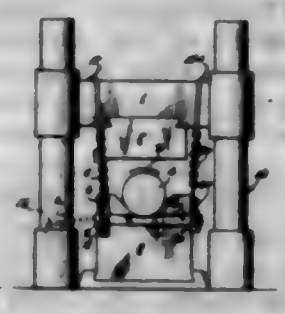
2. In a boring bar of the type having an elongated cylindrical shank and means forming a coaxially extending fluid passageway in the shank the combination of a toolholder base member rigid with and extending axially of the shank, the base member being provided with a flat surface extending longitudinally of the longitudinal axis of the shank, a cap member mounted on the base member and having a flat surface generally coextensive with the flat surface of the base member and engaged therewith, the base member being provided with a U-shaped tool bit guideway disposed along the flat surface thereof in communication with the flat surface of the cap member, a tool bit having one end portion contained within said guideway and engaged between said guideway and the flat surface of the cap member, a groove in one of said members disposed along the flat surface thereof, and extending in a direction axially of the shank on both sides of said guideway, a pair of key members integral with the other member and receivable in said groove on opposite sides respectively of the guideway to maintain said members in lateral alignment, and a setscrew threadably received in the base member in longitudinal alignment with the guideway thereon and extendable longitudinally into said guideway.

2,846,905

WORKPIECE-SHIFTING MEANS FOR USE WITH FORGING PRESSES

Karl Lichtenfeld, Neumark-Geloslitzl, Germany, assignor to Veb Leuna-Werke Walter Ulbricht, Leuna (Kreis Merseburg), Germany

Application October 21, 1954, Serial No. 463,741
9 Claims. (Cl. 78—98)



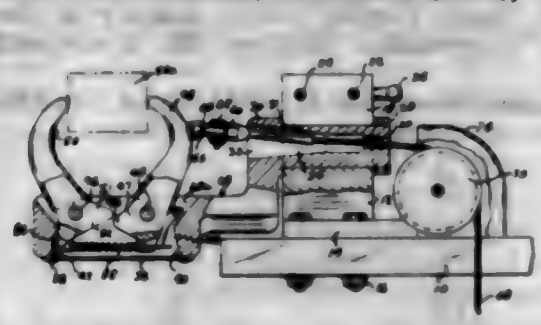
2. A workpiece-displacing device for use in connection with a forging press or the like, comprising a vertically reciprocable element, means for mounting said element for vertical reciprocation, work-piece supporting means, a rigid beam, and means to support said beam from said reciprocable element below said work piece and at an angle to the horizontal, whereby raising of said element brings said beam into contact with the work piece to lift said work piece and rotatably displace the same.

2,846,906

UNIVERSAL MECHANICAL HAND AND HOLDING FIXTURE THEREFOR

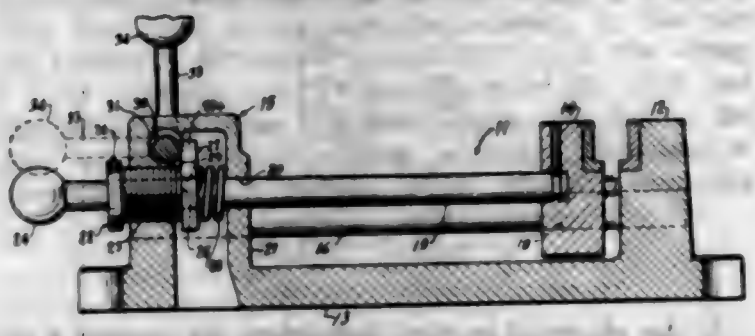
James M. Hill and Edgar R. Nuckols, San Antonio, Tex., assignors to the United States of America as represented by the Secretary of the Air Force

Application November 14, 1955, Serial No. 546,839
9 Claims. (Cl. 81—17)
(Granted under Title 35, U. S. Code (1952), sec. 266)



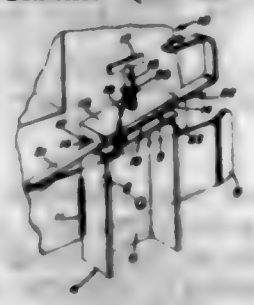
6. A universal mechanical hand comprising a thumb and an oppositely disposed set of fingers, a cradle for mounting said hand, said thumb and fingers each being pivotally mounted between their ends to said cradle, complementary grasping surfaces on said thumb and said fingers, interacting lugs on said thumb and fingers positioned on ends opposite their grasping surfaces, means for moving said thumb to open position, said fingers being opened at the same time by the interaction of said lugs, said means comprising a foot podal, and a pulley and cable, said cable being connected to said thumb through a universal joint, said cradle being provided with an orifice of conico-frustum formation to allow arcuate movement of said thumb.

2,846,907
VISE WITH AN ADJUSTABLE SUPPORT FOR A LOCKING PLATE
Harry B. Sprink, Whitehouse, Ohio, assignor to L-W Chuck Company, Toledo, Ohio, a corporation of Ohio
Application July 15, 1957, Serial No. 671,397
4 Claims. (Cl. 81—17)



1. A quick-acting vise comprising a frame, a fixed jaw on said frame, a slidable jaw, a beam secured to said slidable jaw and slidably supported by said frame whereby said slidable jaw can be moved toward and away from said fixed jaw, a locking plate having an opening through which said beam extends, a cam rotatably carried by said frame, means for turning said cam from an unlocked to a locked position for causing said cam to contact and tilt said plate to cause edges of the opening in said plate to bite against said beam, a support carried by said frame and surrounding a portion of said beam, said support having an end face which is perpendicular to said beam and adjustable between positions behind and in front of a forward face of said cam when in the unlocked position and capable of supporting said plate independently of said cam, and a spring normally holding said plate against said end face of said support.

2,846,908
CLIMBING-IRON VISE
Charles E. Kelly, Salina, Kans.
Application August 7, 1956, Serial No. 602,626
2 Claims. (Cl. 81—33)



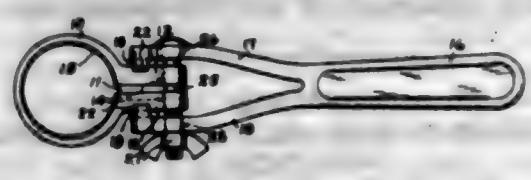
1. A vise of the character described comprising: a metallic frame including a vertical channel member for mounting on a motor vehicle bumper, a table on the upper portion of said channel member for receiving and supporting a climbing iron, a flange on the frame overlying the table in spaced, opposed relation thereto, a pressure plate insertable in loose position between said flange and a climbing iron positioned on the table, and a screw threadedly mounted on said flange and engageable with the plate for actuating same for clamping a climbing iron between said plate and said table.

2,846,909
POWER-DRIVEN PIPE TONG
James C. Mason, Paramount, Calif., assignor, by direct and mesne assignments, to Mason-Carlton Tool Co., Inc., a corporation of California
Application June 24, 1954, Serial No. 439,061
8 Claims. (Cl. 81—53)

1. A power-driven pipe tong, comprising: a frame member; a jaw member pivotally secured to said frame member that cooperates therewith to define a pipe-receiving opening; track means formed on said members and encompassing said opening; a pair of support half rings rotatably mounted on said track means; two semi-circular die carriers rotatably mounted on said half rings; a plurality of circumferentially spaced, radially movable die blocks mounted on said die carriers; cam means disposed at fixed positions relative to said half rings, which cam means is slidably engaged by the exterior ends of said die blocks when said die carriers are rotated in either of two possible directions relative to said half rings, with said die blocks being moved inwardly when said slidable movement takes place; latch means for releasably locking said frame and jaw members together; power means; and variable speed transmission means that connect said power means to said half rings to rotate the same, said transmission means being capable of permitting said power means to suddenly rotate said half rings so as to cause initial relative movement between said half rings and said die carriers due to the inertia of the latter to the extent that before rotating with said die carriers and half rings said blocks are first moved inwardly to grip the exterior surface of a pipe disposed in said opening.



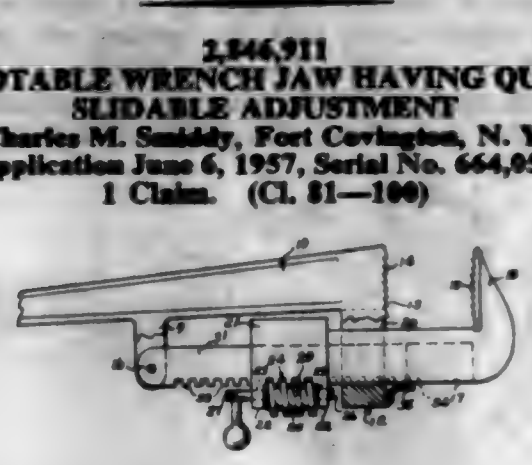
2,846,910
WRENCH INCLUDING INTERNALLY THREADED SPLIT RING
Chauncey T. Brown, Seattle, Wash., assignor to Spring Load Manufacturing Corp., Seattle, Wash., a corporation of Washington
Application April 28, 1955, Serial No. 504,610
1 Claim. (Cl. 81—64)



In a clamp wrench for application to an externally threaded cylindrical member, an internally threaded self expanding split clamping ring of resilient metal having a slot extending from interior to exterior thereof; two spaced apart lugs rigidly connected with said clamping ring externally of the ring and on opposite sides of the slot adjacent the slot; a forked handle terminating at one end in two spaced apart resilient arms spanning said two lugs and receiving said two lugs therebetween; a clamping bolt extending through said handle arm and said lugs and having an adjustable nut thereon, said bolt pivotally and contractably connecting the handle and the clamping ring, said handle and clamping ring being relatively angularly movable between a position in which they are approximately in a common plane and a position in which they are substantially at right angles to each other; stop means limiting relative angular movement of said handle and clamping ring in one direction beyond a position in which they are substantially in a common plane; and cam means provided between at least one handle arm and the lug adjacent thereto, said cam means including an inclined ring tightening surface extending part way across the face of the handle arm and a flat holding surface extending beyond the inclined ring tightening surface, said cam means releasing said clamping ring ex-

pansively when the handle and clamping ring are substantially at right angles to each other and contracting said clamping ring when the handle and clamping ring are substantially in a common plane in prolongation of each other and with the handle extending away from the ring.

2,846,911
PIVOTABLE WRENCH JAW HAVING QUICK SLIDABLE ADJUSTMENT
Charles M. Smiddy, Fort Covington, N. Y.
Application June 6, 1957, Serial No. 664,052
1 Claim. (Cl. 81—100)



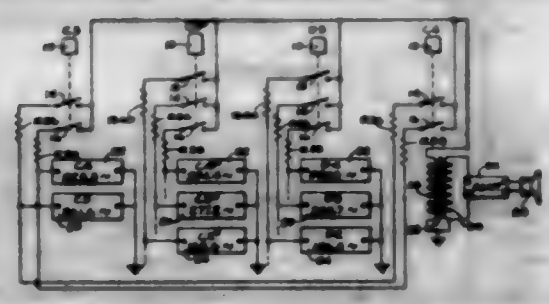
In a wrench, a handle, a pair of spaced parallel ears extending outwardly from said handle and secured thereto, a head arranged on an end of said handle and provided with a slot therein, a bar projecting through said slot, a jaw on one end of said bar, said bar being provided with an elongated groove, a support member on an opposite end of said bar, said support member including a pair of spaced parallel lugs provided with registering openings therein; a link having one end connected to said ears and its other end extending into the groove in said bar, said link being provided with a plurality of teeth thereon; and a body member including a main cylindrical portion interposed between the lugs of said support member, trunnions extending from the ends of said main cylindrical portion and projecting into the openings in said lugs, and a manually operable knob secured to one of said trunnions, threads on the main cylindrical portion of said body member and meshing with said teeth, said threads having longitudinally aligned interrupted portions movable into registry with the teeth on said link for quick slidable adjustment of said bar and its jaw.

2,846,912
ADJUSTABLE, SLIDABLE JAW, OPEN-END WRENCH
Alan G. Day, Fairfield, Conn.
Application July 9, 1956, Serial No. 596,627
7 Claims. (Cl. 81—179)



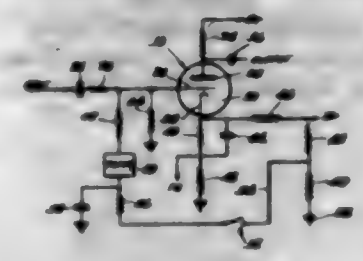
1. A wrench having spaced jaws with gripping portions which are in a spaced parallel relationship with each other when the wrench is in a nut gripping position, one of said jaws being fixed to the wrench and having a projecting tongue received by bifurcated arms of the other jaw for sliding movement therebetween, a slot in said tongue, mating slots in said bifurcated arms, a guide block in said tongue slot on which the other jaw may slide so that the gripping portions will be parallel in all positions of the jaws but may alter their spaced relationship, and spring means between the jaws to bias said movable jaw into said nut gripping position.

2,846,913
CIRCULAR SCALE ELECTRICAL MUSICAL INSTRUMENT
Laurens Hammond, Chicago, Ill., assignor to Hammond Organ Company, a corporation of Delaware
Application June 23, 1950, Serial No. 169,901
6 Claims. (Cl. 84—1.01)



1. An electrical musical instrument for playing a circular scale; comprising a plurality of scale tone signal sources including individual phonic wheels having a plurality of equally spaced notches, said notches being alternately deep and shallow, an output system coupled with said sources, and a plurality of playing keys connected with said sources for sounding said sources individually, said sources including a group of sources comprising phonic wheels having said deep notches which are alternately very deep and less deep, said very deep notches of the sources of said group in ascending order being progressively deeper and deeper.

2,846,914
GATE CIRCUIT FOR ELECTRIC ORGAN
Carl L. Wolgast, Niagara Falls, N. Y., assignor to The Rudolph Wurlitzer Company, North Tonawanda, N. Y., a corporation of Ohio
Application June 30, 1953, Serial No. 365,183
4 Claims. (Cl. 84—1.04)

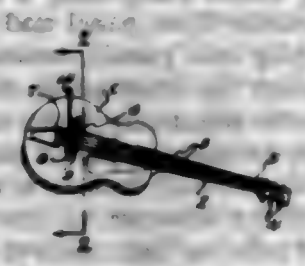


1. In a continuous reed electronic organ, the gate circuit comprising an electronic tube having plate, grid, and cathode elements, an input circuit connected to the grid and cathode elements of said tube, a plurality of continuously vibrating wind driven organ tone generator reeds tending to accumulate static charges, a plurality of organ keys individually manually movable from idle to playing position operatively to connect said tone generators selectively to said input circuit, a source of B+ voltage, a voltage divider connected to said source of B+ voltage and to said cathode element normally to limit amplification of said tube to a low value with all of said keys in idle position, and means including voltage divider means for applying B+ voltage to said grid element when a key is moved to playing position to raise the bias of said grid element relative to said cathode element to effect substantially higher amplification of said tube.

2,846,915
ADJUSTABLE BRIDGE FOR STRINGED MUSICAL INSTRUMENTS
James Vincent Durta, Yonkers, N. Y.
Application May 16, 1955, Serial No. 508,458
4 Claims. (Cl. 84—307)

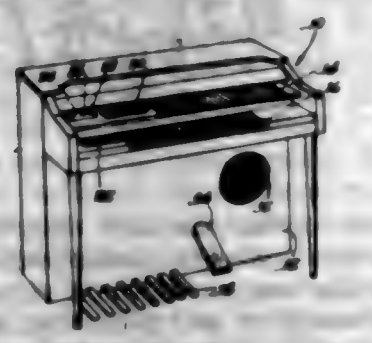
1. In the combination of a bridge assembly and a stringed instrument having a body portion and at least one taut string which is anchored at opposite ends to the instrument and extends longitudinally over the body

portion, wherein the bridge assembly includes a base member mounted atop the body portion and an elongated plate surmounting the base member in transverse relation to and below the string; a pair of aligned longitudinally spaced ears upstanding integrally from the plate and spaced laterally of the path of the string, a threaded shaft journalled at its ends for rotation in the ears and extending in parallel spaced relation to the string, a block member axially threaded upon the shaft and adapted to ride along the shaft in one direction or the other accordingly as the shaft is rotated clockwise or counterclockwise, a stepped down shoulder extending



from the block transversely of the underside of the string, a post projecting up from the shoulder having a trackway defining a seat for and parallel to the string whereby the seat is caused to ride longitudinally relative to the string as the shaft is rotated, and a set screw threaded through the shoulder having a bottom projecting end in abutment with the plate, the set screw being threadable in the block whereby the block is adapted to be moved angularly on its shaft in a vertical plane so as to press or relax the seat of the post against the string accordingly as the screw is threaded inwardly or outwardly of the shoulder.

2,846,916
ORGAN STOPS AND KEY SWITCHES
Fred H. Osborne, Snyder, and Howard G. Bauer, Tonawanda, N. Y., assignors to The Rudolph Wurlitzer Company, North Tonawanda, N. Y., a corporation of Ohio
Application June 30, 1953, Serial No. 365,136
2 Claims. (Cl. 84—341)



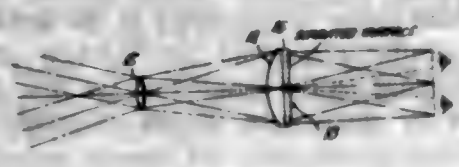
1. A switch construction comprising an insulating support, a contact strip carried by the support and extending outwardly therefrom, insulating means connected to the contact strip for movement thereof, a rotatable contact rod of non-conducting material adjacent the strip and engageable thereby, said rod having a conductive insert extending axially over a major portion of the length thereof and partially embedded therein but extending radially outwardly from the surface of the rod, said insert and rod being in the path of movement of said contact strip, means selectively to rotate the rod to move the insert into and out of the path of movement of the strip, an insulating support for said rod, said insulating support having a generally circular opening therein rotatably receiving said rod, said opening having a radially projecting arcuate enlargement accommodating the conductive insert in the rod and limiting pivoting movement thereof.

2,846,917
NECK KEY FOR SAXOPHONES
Henri Lefevre-Selmer, Mantes, France
Application July 18, 1955, Serial No. 522,732
5 Claims. (Cl. 84—385)



1. In a musical instrument such as a saxophone, a neck piece, a transversely disposed tubular hinge fixedly mounted on said neck piece, a neck key, inwardly turned spaced ears on said key, and a key rod connected betweeen said ears and extending through said hinge for pivotal movement of said key.

2,846,918
BINOCULAR EYE LENS SYSTEM
John R. Miles, Chicago, Ill., assignor to Chicago Aerial Industries, Inc., Chicago, Ill., a corporation of Illinois
Application November 13, 1953, Serial No. 391,837
3 Claims. (Cl. 88—1)

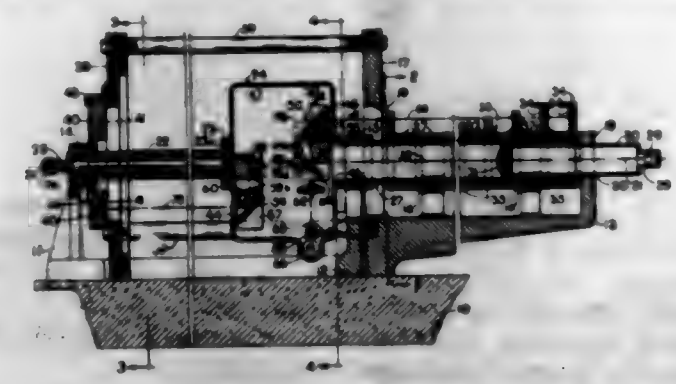


1. A binocular viewing device having a laterally elongated exit pupil comprising an objective lens unit having a diameter of approximately 2.5 inches and a focal length of approximately 25 inches, a field lens unit having a diameter of approximately .7 inches and a transparent light spreader having a diameter of approximately 7 inches disposed substantially at the image formed by said objective lens unit, one surface of said light spreader having a plurality of vertically disposed contiguous cylindrical segments formed therein, the radius of said cylindrical segments being approximately .065 inch and the maximum slope thereof being approximately $\frac{1}{10}$ where the slope is the tangent of the angle formed by the normal to the surface of the light spreader with the major axis of said light spreader, the chord of each cylindrical segment being approximately .013 inch, the distance of the objective lens to the field lens being approximately 25 inches and said laterally elongated exit pupil being located approximately 25 inches from said field lens.

2,846,919
INTERFEROMETER
Kenneth B. Thompson, Sierra Madre, Calif., assignor of one-half to Penn Optical and Instrument Co., Pasadena, Calif., a corporation of California
Application April 27, 1954, Serial No. 425,908
15 Claims. (Cl. 88—14)

1. An interferometer comprising: a base; a collimating light source having a reference axis along which it projects light rays; carriage means mounted to said base and reciprocably movable in a direction parallel to said reference axis; a planar splitter mirror having the property of reflecting first portion and transmitting a second portion of light rays incident thereon from said light source; said splitter mirror being mounted to said

carriage so as to intercept said reference axis at an oblique angle thereto; a pair of planar mirrors mounted to said carriage at positions which are laterally spaced from said reference axis, the said three mirrors being mounted mutually perpendicular to each other so as to form a triple reflection, retrodirectively reflecting system wherein said first portion of light is reflected by the said retrodirectively reflecting system along a first path which is initially parallel to and laterally spaced from said reference axis; first planar terminal mirror means fixed to said base in a plane perpendicular to said reference axis for reversing the direction of said retrodirectively



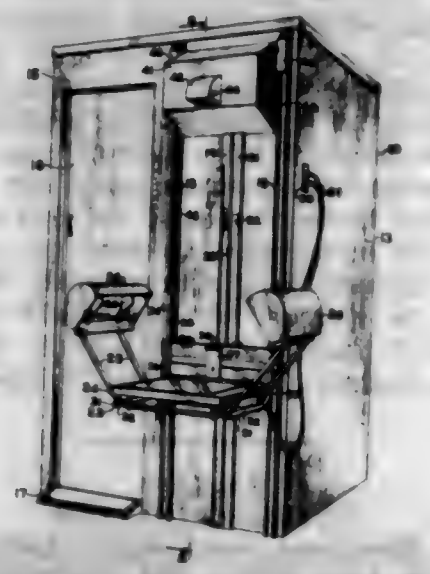
reflected rays so that the said rays retrace their route to the said retrodirective reflecting system; the second portion emerging from said splitter mirror along a second path which is initially parallel to said reference axis; second planar terminal mirror means fixed to said base in a plane perpendicular to said reference axis for reversing the direction of rays in said second path so that they retrace their route to the splitter mirror, the light in the two paths recombining at the splitter mirror, thereby to exhibit countable interference effects as a function of change in the lengths of the first and second paths caused by movement of the carriage along said axis.

2,846,920

PHOTOCOPYING AND PHOTOPRINTING APPARATUS

Murray Friedel, Miami Beach, Fla.

Application September 2, 1955, Serial No. 532,242
3 Claims. (Cl. 88—24)



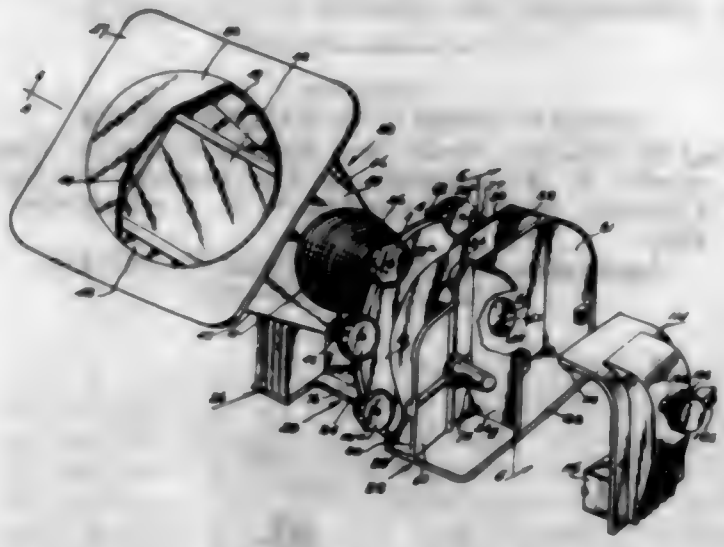
1. A photocopying apparatus comprising a light-proof housing, adapted to receive the operator therein, a pair of parallel channels secured vertically to the housing wall, rubber tubes secured to the housing wall parallel to and intermediate the channels, a calibrated scale adjacent the rubber tubes, a carriage mounted in the channels and movable longitudinally therein, the carriage provided with a holder plate and light reflector means, a pair of cables secured to the carriage and extending along the channels into the housing, a pair of pulleys secured to the housing and adapted to carry the cables, a counterbalance weight within the housing secured to the cable ends, a plate pivotally secured to the carriage, a finger piece secured to the top of the plate, a serrated clamp provided at the end of the plate, a spring secured to the plate and adapted to tension the clamp against the rubber tubes, an extension integral with the housing above the carriage and provided with a projecting hood, a lens and prism secured within the hood, the prism disposed directly over the holder plate and adapted to reflect an image thereon through the lens into the housing, a printing frame within the housing, means for lateral movement of the printing frame with respect to the prism, tensioning means to lock the printing frame at selective distances from the prism, the printing frame comprising a framework provided with a transparent front panel and a pair of translucent, image-retaining rear panels, means for tensioning the rear panels against the front panel, means for separating the rear panels selectively from the front panel, guide lines provided on the rear panels for centering sensitized paper in the printing frame, a calibrated scale adapted to measure the distance of the printing frame from the prism and reflector light control means disposed within the housing.

2,846,921

DEVICE FOR SELECTIVELY FORMING VARIOUS PICTORIAL REPRESENTATIONS AND FOR PROJECTING SAME ON A VIEWER

Marvin I. Glass, Howard E. Morris, and Henry A. Goldsmith, Chicago, Ill.; said Morris and said Goldsmith assignors to said Glass

Application July 16, 1956, Serial No. 598,119
9 Claims. (Cl. 88—27)



1. In a device of the character described including a projection lens and a viewing screen positioned forwardly of said projection lens, a movable picture disc holder supported rearwardly of said projection lens, said holder comprising a pair of plates joined together to form a housing, a plurality of picture discs rotatably supported in said housing on a common axis, said plates of said housing each having an aligned opening, each picture disc having formed thereon a plurality of concentric bands of pictorial representations so that the pictorial representations of the bands having the same radius may be aligned to form a composite picture adjacent said aligned openings in said housing, means for moving said picture disc housing and picture discs as a unit to position any of said concentric bands of said picture discs in alignment with said projection lens, a light source positioned rearwardly of said picture disc housing and in alignment with said projection lens and adapted to project said composite pictures on said viewing screen, said picture disc housing having a plurality of manually rotatable members, each engaging one of said picture discs for rotating said picture discs with respect to each other.

2,846,922

OPTICAL SYSTEM FOR A PRISM BINOCULAR

Horst Kohler, Heidenheim (Brenz), Wurttemberg, Germany, assignor to Carl Zeiss, Heidenheim (Brenz), Wurttemberg, Germany

Application August 4, 1955, Serial No. 526,393
Claims priority, application Germany August 18, 1954
3 Claims. (Cl. 88—57)



1. Optical system for a prism binocular including, for the purpose of achieving a relatively short overall length and a large subjective angular field of 60° or more, two objective lens systems of the telephoto type, two collective ocular systems and two prism systems each arranged in optical alignment between one of said objective lens systems and one of said ocular systems, said objective lens systems consisting each of a single positive front biconvex lens element and a rear negative meniscus shaped lens element having its concave side turned towards the said positive front lens element, the individual focal length of the said positive front lens element and the individual focal length of the said rear negative meniscus lens element being so related that the two said lens elements are axially separated apart by an air space amounting at least to 3% and at most 10% of the total focal length of the whole objective and the back focal length is at least 70% and at most 90% of the total focal length of the whole objective lens system, whereby the rear principal focal plane of the objective lens system is displaced forwards of the objective lens system in the direction towards the object, and the total focal length being reduced and the clear aperture enlarged to such an extent that the quotient of the third power of said total focal length and the second power of the clear aperture of said objective lens system is smaller than 1500 mm., said collective ocular systems consisting each of four members separated by air spaces from each other and including two inner positive lens members enclosed by two external members, the one on the image side and the other on the eye-side being thick menisci turning their concave surfaces outwards and consisting each of two cemented lenses of opposite refractive power, the dispersive lenses of which standing on the outside, the axial thicknesses of each said menisci being greater than .25 times the focal length of the ocular, and the external radius of the meniscus standing on the image side being smaller than 1.5 times, and the external radius of the meniscus standing on the eye-side being smaller than 1.3 times of the ocular focal length, and the individual focal length of the meniscus standing on the image side being greater than five times the focal length of the ocular, said prism systems for the purpose of reducing chromatic difference of magnification consisting of a glass the quotient

$$\frac{n_F - n_C}{n_d^2}$$

of which being greater than .0055, n_F, n_C and n_d signifying the refractive indices for the Fraunhofer lines F, C and d.

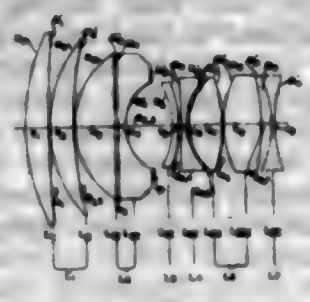
2,846,923

HIGH SPEED OBJECTIVE LENS WITH ANASTIGMATICALLY FLATTENED FIELD

Albrecht Wilhelm Tronnier, New York, N. Y., assignor to Farrand Optical Co., Inc., New York, N. Y., a corporation of New York

Application February 25, 1957, Serial No. 642,096
9 Claims. (Cl. 88—57)

1. A high speed optical objective lens system of modified Gaussian type comprising, from front to back, and head of the diaphragm position, a first convergent component L_1, a first negative meniscus component L_2, and, behind the diaphragm position, a second negative meniscus component L_3, a negative component L_4 of unequal



surface curvatures, and a second convergent component L_5, the sums $\phi_{(1)}$ to $\phi_{(5)}$ of the powers of the outer surfaces of the said components L_1 to L_5 respectively being related to the total equivalent power ϕ of the objective as follows:

$$.5\phi < \phi_{(1)} < 1.3\phi$$
$$.8\phi < -\phi_{(2)} < 1.6\phi$$
$$.3\phi < -\phi_{(3)} < .8\phi$$
$$1.3\phi < -\phi_{(4)} < 2.6\phi$$
$$3\phi < \phi_{(5)} < 6\phi$$

the sum $\phi_{(2,3)}$ of the powers of the rear surface of component L_2 and of the front surface of the component L_3 being in addition related to the total equivalent power ϕ as follows:

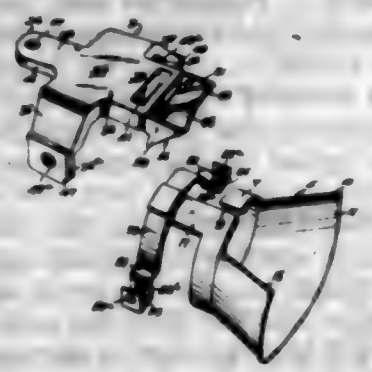
$$2.5\phi < -\phi_{(2,3)} < 4.5\phi$$

2,846,924

ROCKET LAUNCHER, BREECH GUARD AND CONTACTOR LATCH

Robert A. Doak, Jr., and Luis R. Garza, San Antonio, Tex., assignors to the United States of America as represented by the Secretary of the Army

Application August 28, 1953, Serial No. 377,267
1 Claim. (Cl. 89—1.7)



In combination with a rocket launcher tube, a breech guard assembly comprising a cylindrical portion adapted to fit concentrically about the rear end of said launcher tube and a flared outwardly tapering rear portion integral with said cylindrical portion and forming therewith a shoulder adapted to lie in abutting engagement with the upright face of the rear end of said tube, the inner surface of said flared portion forming with the inner surface of said tube a smooth, continuous surface at the jointure of said flared portion and said tube, a forwardly extending tab integral with said cylindrical portion and terminating in a semi-cylindrical segment adapted to encircle a corresponding portion of said launcher tube, there being U-shaped supports formed at the opposed ends of said segment, a contactor latch mechanism pivotally mounted upon said U-shaped supports and comprising a flat body portion adapted to overlie the upper surface of said launcher tube adjacent the rear end thereof, downwardly and outwardly inclined sides integral with said flat body portion, and forwardly and rearwardly extending flat reduced portions integral with said body portion, a vertically disposed pad secured to each opposed end of said downwardly inclined sides, each said

pad adapted to lie adjacent a respective U-shaped support, there being radially alined holes formed in said U-shaped supports and said pads for receiving a pivot pin, a latch blade secured to the rear end of said rearwardly extending reduced portion, said blade having a downwardly and rearwardly inclined arcuate concave face movable through a cut-out section formed in the flared portion of said breech guard, said face having an inclination normally parallel to the inner surface of said flared portion, and resilient means engaging the forward end of said forwardly extending reduced portion, and the upper surface of said launcher tube for urging said latch in rocket engaging position.

2,846,925

AUTOMATIC FIREARM WITH BREECH BLOCK OPERATED DISCONNECTOR

Joseph W. Norman, Springfield, Mass., assignor to Smith and Wesson Inc., Springfield, Mass., a corporation of Massachusetts

Application September 26, 1955, Serial No. 536,487
3 Claims. (Cl. 89—145)



2. In a firearm of the type automatically recocked on recoil, a frame, a breech member slidingly mounted on the frame, a firing mechanism comprising a hammer, a sear releasably engaging the hammer, a spring yieldingly urging the sear toward hammer engaging position, a trigger, a trigger bar for connecting the trigger and sear, said bar being pivotally supported at one end by the trigger to swing between an inoperative position and a position operative to engage the sear, said sear having an abutment holding said bar in inoperative position after said trigger is pulled to release the hammer and after said hammer is recocked by recoil, so that said sear may re-engage the hammer and prevent repeated firing if the trigger remains pulled, a disconnector mounted on the frame and having at one end a cam nose in the path of the breech member and opposed to said bar to move said bar to inoperative position when said cam nose is engaged by said breech member on recoil, thereby to disconnect the trigger and bar from the sear during recoil, and a spring-urged lever pivoted on the frame in engagement with said disconnector, said frame having a space for receiving a magazine, and said lever extending into said space and normally pressing said disconnector to disconnect said bar as aforesaid, whereby when the magazine is inserted in said space said lever is engaged and pressure relieved from the disconnector allowing the bar to engage the sear.

2,846,926

FLOATING BARREL ACTION FOR AUTOMATIC PISTOL

John W. Kimball, Detroit, Mich.

Application December 14, 1954, Serial No. 475,321
4 Claims. (Cl. 89—196)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a firearm having a receiver, a recoiling barrel having a cartridge chamber therein and being slidably mounted in the receiver for reciprocal movement from and toward a fully forward battery position, a breechblock slidably mounted in the receiver for recoil movement in response to the firing of a cartridge, said breechblock and said barrel being unlocked relative to the receiver and to each other at the instant prior to the discharge of the cartridge and being structurally independent of each other during the entire reciprocal movements thereof, extractor means in the forward end of said breechblock for gripping the rear end of the cartridge whereby the pressure of the expended walls of the fired cartridge case against the interior surfaces of said barrel



chamber couples said barrel to said breechblock to lock the breech for a limited interval of time dependent on the degree of chamber pressure generated by the firing of the cartridge, and resilient means operative upon disengagement of the fired cartridge case from said chamber to return said barrel to the battery position thereof while said breechblock continues to recoil.

2,846,927

METHOD OF MAKING ABSORBENT DENTAL POINT

Joseph N. Mancl, Metuchen, N. J., and William H. Ashton, Philadelphia, Pa., assignors to Johnson & Johnson, a corporation of New Jersey

Application October 25, 1954, Serial No. 464,490
4 Claims. (Cl. 93—1)



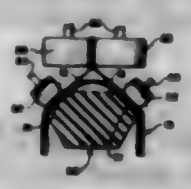
1. The method of making an absorbent dental point which comprises moistening a blank of manila hemp paper having substantially triangular shape and fibers oriented substantially in the direction from one angle thereof toward the middle of the opposite side, with an aqueous lubricant of the group consisting of water and an aqueous solution of polyvinyl alcohol, rolling said blank into a point by starting at one corner and tightly winding until the entire sheet has been tightly wound, the fibers being oriented substantially in the direction of the axis of said point, and drying said point.

2,846,928

METHOD OF MAKING BAGS

Emanuel S. Kardon, Melrose Park, and Hans Vellenkef, Philadelphia, Pa., assignors to American Bag & Paper Co., Philadelphia, Pa., a corporation

Application February 6, 1956, Serial No. 563,649
2 Claims. (Cl. 93—35)



1. The method of sealing a pair of adjacent flaps of the bottom of a partially formed bag in which the bottom is formed of two flaps each of which is wider than one-half the width of the bag thereby providing a pair of overlaping portions at the center of the bag, the steps comprising conveying the partially formed bag along a support in a flat condition substantially parallel to the surface of the support with a portion of one of the flaps overlying the other and with the overlapping portions extending longitudinally of the direction of movement of the bag, bending the bag on each side of the longitudinal center

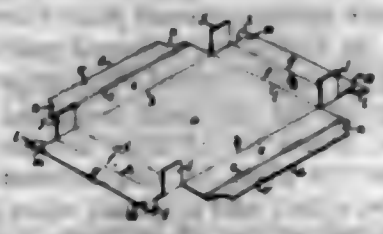
as it travels along the support to cause the overlapping portions to assume a vertical position adjacent each other, and sealing the said portions to each other while in such position.

2,846,929

METHOD OF ERECTING CARTONS

Robert J. Hickin, Seville, Ohio, assignor to The Ohio Boxboard Company, Rittman, Ohio, a corporation of Ohio

Application June 13, 1955, Serial No. 514,948
2 Claims. (Cl. 93—36)



1. The method of erecting the blank of a carton having a bottom, side walls foldably connected with the bottom and formed of outer and inner plies relatively foldable into juxtaposition, and end walls foldably connected with the bottom and formed of outer and inner plies relatively foldable into juxtaposition and provided at the lateral edges of their outer plies with foldable corner locking flaps to be engaged between and adhesively secured to the two plies of the side walls; comprising the steps of successively feeding such blanks to a forming station with their bottom and multiple side and end wall forming elements all in non-folded flat-blank condition and in the plane constituted by the single thickness of the blank, while the blanks are in such feeding travel applying adhesive to the faces of the inner plies of said side walls which lie, when folded, in juxtaposition to said outer plies, at said forming station folding said corner locking flaps inwardly substantially normal to said end walls, folding said end walls substantially normal to said bottom to thereby rotate said corner locking flaps through an angle of substantially 90°, folding said side walls substantially normal to said bottom and in juxtaposition to the previously folded and rotated corner flaps, folding the adhesive furnished inner plies of the side walls against and with their adhesive bearing surfaces in juxtaposition to said corner locking flaps and the inner surfaces of the outer plies of the side walls, and thereafter folding the inner plies of said end walls into juxtaposition to their outer plies.

2,846,930

METHOD OF AND APPARATUS FOR MAKING A CARTON

Frank C. Gross, Somers, Conn., assignor to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts

Application May 28, 1952, Serial No. 290,545
4 Claims. (Cl. 93—51)



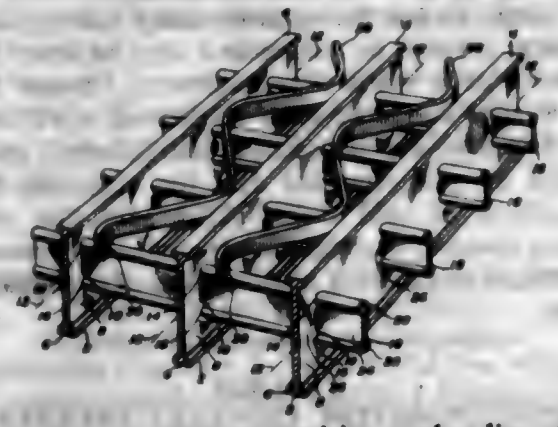
2. In a carton forming machine for forming cartons from pre-cut blanks having bottom, side and end walls, the side walls being provided with straight line, closed end cuts adjacent but spaced from and substantially parallel to the ends of the side walls and the ends of the end walls having straight sided, blunt ended, spatulate tongues of a width and length to freely enter said cuts, said machine having a mandrel plunger and a cooperating folding die through which said blank is carried by the plunger to fold the side walls of the blank against the sides of the plunger at right angles to the bottom wall of the blank; projections carried by the plunger and engaging the side walls at points outwardly of and intermediate the closed ends of the cuts to open the cuts without substantial distortion of the portions of the side walls between the cuts and the ends of the side wall, rolls mounted at the sides of the path of the plunger and positioned to make peripheral engagement with the side walls of the carton intermediate the cuts and the ends of the side walls, means to supply fast setting adhesive in fresh, unset condition directly to the peripheries of the rolls, means positioned below said rolls to substantially simultaneously fold the end walls against the plunger and the tongues against the side walls with the ends of the tongues extending inwardly of the adjacent slots as the carton is moved out of contact with the said rolls by the plunger, and presser rolls positioned below the said end wall and tongue folding means and making peripheral engagement with the carton in alignment with said first-named rolls to press the portions of the tongues intermediate the cuts and ends of the side wall into engagement with the underlying adhesively coated portions of the side walls.

2,846,931

GRATING STRUCTURE

Henry M. Priest, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application November 12, 1953, Serial No. 391,518
2 Claims. (Cl. 94—30)



1. A grating structure comprising a plurality of spaced apart parallel longitudinal beams each having a vertical web, each of said beams having a plurality of openings therethrough, each of said openings including a bulbous top portion and a vertical web receiving portion arranged around the horizontal neutral axis of the beam, the openings in each beam being aligned with the corresponding openings in the other beams, a cross bar having substantially the same shape as said openings passing through each set of aligned openings, each of said cross bars having a bulbous top portion and a vertical web, welds at the intersections of the beams and cross bars connecting the beams and the bars, said welds extending vertically along the webs of said beams and cross bars, and a serpentine bar between each pair of longitudinal beams resting on and fastened to the tops of said cross bars with the top thereof approximately in the plane of the top of the longitudinal beams.

2,846,932

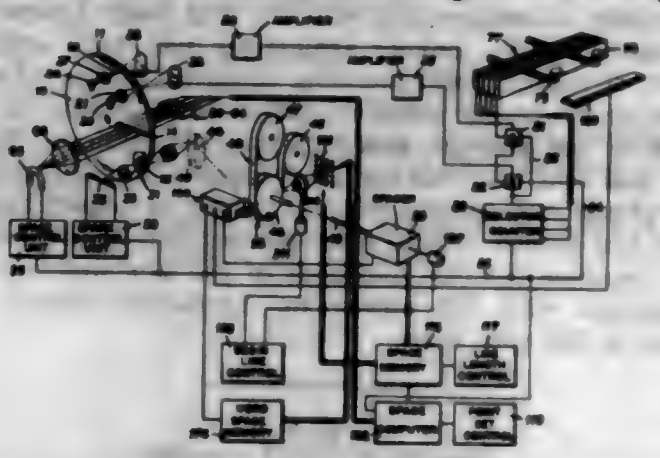
PHOTOGRAPHIC TYPE COMPOSITION

Frederick J. Hooven and Richard C. O'Brien, Dayton, Ohio, assignors to Harris-Intertype Corporation, Cleveland, Ohio, a corporation of Delaware

Application September 17, 1953, Serial No. 380,802
20 Claims. (Cl. 95—4.5)

1. A photocomposing apparatus for producing a photographic image of a justified line of composition com-

prising a record strip and a film, means for reproducing on said record strip selected characters in groups forming words separated by uniform word spaces to form an unjustified readable line of composition suitable for photographic reproduction, means for counting the number of said work spaces contained in said line, means for measuring the combined width in space units of the words in said line, means for subtracting said combined width from the desired width of a justified line of composition leaving a difference, means for dividing said difference by said number of word spaces to determine the width of a justified word space, means for recording on said record strip data for justifying said line of composition, a first movable shutter adapted to cover por-



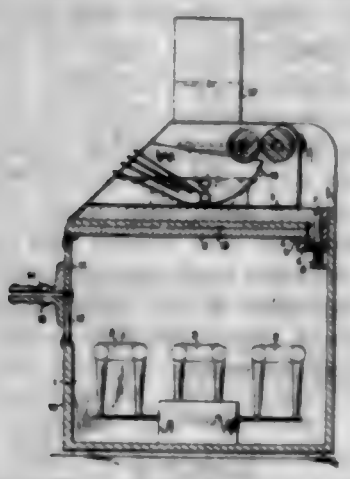
tions of said record strip, a second movable shutter adapted to cover other portions of said record strip, means for intermittently moving said first shutter relative to said record strip to uncover successively each word on said record strip, means for intermittently moving said second shutter relative to said record strip to cover up after an interval each word thus uncovered, means for projecting a word image of each uncovered word from said record strip onto said film during said interval, and means controlled by said recorded data for adjusting the relative positions of said record strip, said film and said projecting means for regulating the spacing between said word images to create a justified line of composition on said film.

2,846,933

PHOTOGRAPHIC CONTACT PRINTER

Harm Kleinstra, Utrecht, Netherlands, assignor, by mesne assignments, to A. B. Dick Company, Niles, Ill., a corporation of Illinois

Application June 5, 1953, Serial No. 359,901
Claims priority, application Netherlands June 7, 1952
6 Claims. (Cl. 95—73)



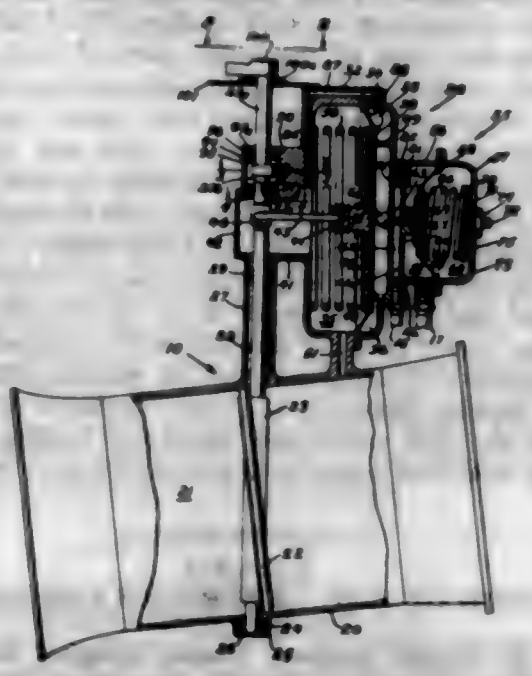
1. A device for the exposure of a light-sensitive sheet and an original for the production of copies thereof comprising an enclosure including a stationary, horizontally disposed top wall and a side wall dimensioned to have a width at least as great as the width of the said light-sensitive sheet and original and which is separable from the top wall across its upper edge, a rigid transparent plate adjacent the under side of the top wall and dimensioned to cover the major portion thereof from the side edge rearwardly to about the opposite edge, means pivotally supporting the edge of the transparent plate opposite the side wall for rocking movement between a raised and a lowered position of adjustment, an operative connection between the side edge of the transparent plate and the upper edge portion of said side wall, means for displacement of the upper portion of the said side wall vertically in the direction toward and away from the top wall between a raised and lowered position of adjustment concurrently to move the side edge of the transparent plate therewith to rock the transparent plate therewith about its pivot between its raised and lowered positions of adjustment whereby the front edge of the transparent plate and the upper edge of the side wall is spaced from the top wall to enable access to the area between the top wall and the transparent plate for displacement and removal of light-sensitive sheets and originals when in the lowered position of adjustment and whereby the transparent plate is brought into contacting relation with the top wall to compress the light-sensitive sheets and originals therebetween when in raised position, and illuminating means within the enclosure below the said transparent plate.

2,846,934

CABIN PRESSURE OUTFLOW VALVE

Lloyd F. Mauldin, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application August 10, 1953, Serial No. 373,381
9 Claims. (Cl. 98—1.5)



9. In pressure control mechanism for controlling the pressure in an enclosure supplied with air from a source of air under pressure, and having an outlet: an outflow control valve controlling said outlet; outflow valve actuating means including a pressure sensitive valve actuating element connected to said outflow control valve, said pressure sensitive element being subjected on one side to a relatively low pressure, the other side of said element being subjected to a relatively high operating pressure derived from said source of air under pressure; means, including a pilot valve controlling the flow of said relatively high pressure air to said other side of said element; a pressure responsive member for controlling said pilot valve; means defining a control pressure chamber on one side of said pressure responsive member and a chamber on the opposite side of said member; means defining a bleed for said control pressure chamber, said bleed connecting said control pressure chamber with said relatively high pressure source, the pressure in said control pressure chamber urging the pressure responsive member in

the pilot valve closing direction, the chamber on the opposite side of said pressure responsive member being open to enclosure pressure; and pneumatic means for controlling the pressure in said control pressure chamber.

2,846,935
FLUE BREATHER
August J. Still, Atchison, Kans.
Application February 16, 1956, Serial No. 565,886
3 Claims. (Cl. 98—48)



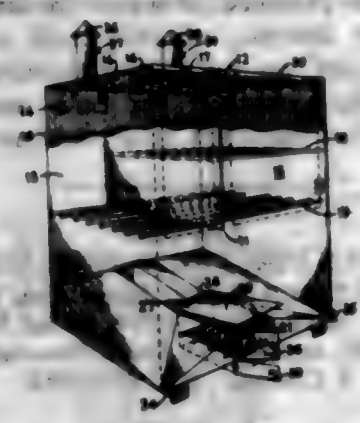
1. A breather adapted for connection with a lateral opening in a flue for effecting a substantially continuously open inlet for flow of air through said lateral opening and into the upper part of the flue to displace flue gases tending to collect in the upper portion of the flue, said breather including a substantially horizontal tubular casing having an open end adapted to be connected with the lateral opening in said flue, a transverse partition at the opposite end of the casing and provided with an air inlet, guide pins projecting substantially horizontally from the partition on the side facing the flue, and a damper having free sliding support on said guide pins and to depend from said guide pins in spaced relation with the partition to uncover the air inlet and provide for free flow of air through said air inlet of the partition and into the flue for keeping flue gases from collecting in the upper portion of the flue, said damper being movable on said guide pins from said spaced position into contact with the partition for closing said air inlet opening responsive to a downdraft in said flue and said damper being retractable on said guide pins to said open position responsive to pressure of external air acting on the damper after suspension of said downdraft to re-establish said air flow into the flue.

2,846,936
WINDOW VENTILATOR CONSTRUCTION
William M. Copeland, Stratford, Conn., assignor to General Electric Company, a corporation of New York
Application June 13, 1955, Serial No. 515,014
7 Claims. (Cl. 98—94)



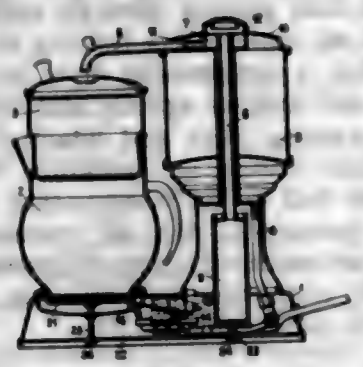
1. A fan assembly mounting structure comprising an adjustable frame and an adjustable panel, said frame comprising a central section and end sections, said sections being movable relative to each other to expand or contract said frame, said panel comprising a plurality of sub-panels mounted in said frame, some of said sub-panels being movably mounted with respect to the central and end sections of said frame so as to permit expansion or contraction of said panel when said frame is expanded or contracted, and a flange integrally formed at an edge of one of said sub-panels, one of said frame sections having a portion thereof partially surrounding and engaging said flange for preventing disassembly of said one of said sub-panels from the frame section in the event the frame section is spread apart.

2,846,937
COOKING APPARATUS
Wilbur H. Jones, Hendersonville, N. C.
Application August 19, 1955, Serial No. 529,434
2 Claims. (Cl. 99—259)



1. Apparatus for smoking and cooking comprising the combination of a chamber constructed of fireproof material, means in the upper portion of said chamber for holding meat, a door providing access to said means, a chimney in the upper portion of said chamber, a fire box in the lower portion of said chamber, a cover member hingedly connected at the back edge of said fire box and adapted to cover the top of said fire box, said cover member adapted to extend an appreciable distance beyond a vertical plane intersecting the interior sides of said fire box, means for adjusting said cover member, said fire box being situated in the central portion of said chamber, the floor of said chamber on either side of said fire box sloping away from said fire box and toward an outside wall of said chamber, and a sloping deflector assembly comprising a plurality of spaced longitudinal troughs disposed in overlapping relationship between said fire box and said upper portion and adapted to permit smoke to pass upwardly and to intercept fluids falling downwardly.

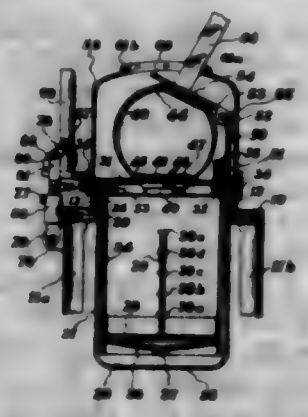
2,846,938
HOUSEHOLD APPLIANCE FOR THE PREPARATION OF HOT BEVERAGES
Wilhelm Brandl, Zarich, Switzerland
Application February 2, 1955, Serial No. 485,767
Claims priority, application Switzerland February 5, 1954
1 Claim. (Cl. 99—281)



A household appliance for the preparation of hot beverages by the infusion of substances of the group consisting of coffee and tea, with boiling water, comprising in combination: a pedestal, a removable dispenser container for the hot beverage and a container for the cold water to be heated mounted on said pedestal, infusion means on top of said removable container, an electrically heatable through flow heater supported by said pedestal and disposed below the container for the cold water, a riser pipe in communication with an outlet at the top of the said heater and extending through the container for the cold water, said riser pipe being insulated from the cold water, a pipe connecting said outlet and ending with a spout over said infusion means, a pipe in communication at its entry with the container for the cold water and at its exit with an inlet at the bottom of the said through

flow heater, a membrane responsive to water pressure carried by said pedestal, a switch mounted in said pedestal operatively connected to the said membrane and controlling a current supply to the said heater, and a branch leading from said last named pipe to the membrane for transmitting the pressure of water in the container for the cold water thereto, whereby said switch is automatically switched on by said membrane when water is filled into the container for cold water, and automatically switched off when said container is emptied.

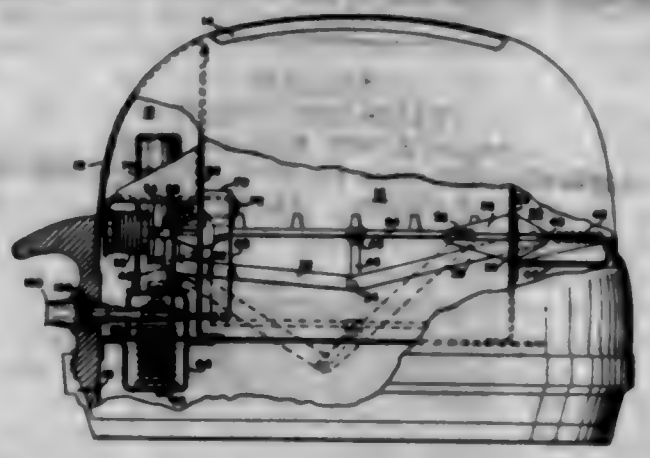
2,846,939
APPARATUS FOR PREPARING INFUSIONS
Carlos Sunret Ponsa, Barcelona, Spain
Application November 9, 1956, Serial No. 621,454
Claims priority, application Spain November 19, 1955
4 Claims. (Cl. 99—302)



1. In an apparatus for preparing infusions of coffee, tea or similar substances, by air pressure, the combination of a substance holding filtering container having in its interior a free compressing grid, a disc acting as a hermetic sealing means of said container, said disc being provided with a central hole, means of support comprising a supporting ring adapted to hold up said container and means for sustaining said supporting ring at such a height that it is possible to place freely below said container a suitable receptacle for collecting the infusion, air injecting means comprising an elastically deformable ball having a central thicker band which promotes its quick recovery on release of external pressure, said ball being provided with two air inlet valves and one air outlet valve, the latter being located in the lowest part of said ball and meeting with and passing through said central hole in the disc, said air outlet valve helping to fix the said ball to the said disc, a compressing plate pivotally connected to said disc and applied against said ball, an arm fixed to said compressing plate and adapted to be manually operated, which causes, on operation, the regular compressing of the ball by the compressing plate and, consequently, the passage of the air contained in said ball through said air outlet valve into the container, and means for detachably connecting and securing said disc to said container with uniform pressure.

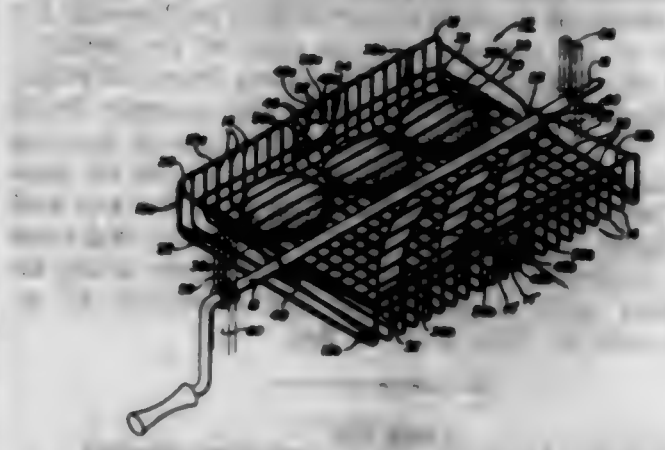
2,846,940
FLUID SYSTEM FOR TOASTERS AND THE LIKE
John N. Polivka and Edmond G. Franklin, Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application July 1, 1954, Serial No. 440,672
12 Claims. (Cl. 99—329)

10. In an electric toaster, an electrical heating unit, switch means in circuit with said heating unit, a bread rack movable with respect to said heating unit, first and second bellows, a conduit connecting said bellows with each other, means for applying a compressive force against the first bellows, means engageable by said second bellows for moving said bread rack in one direction relative to said heating unit, means biasing said bread rack in an opposite direction when said means for applying a compressive force is rendered ineffectual, a bimetallic element for sensing a temperature condition within the toaster for actuating said switch means to control the energization of said heating unit, a portion of said bi-



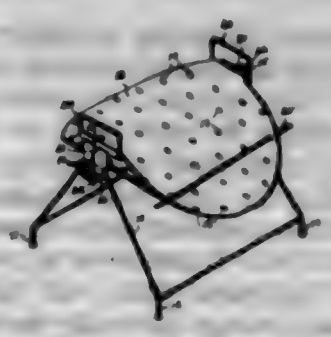
metallic element being in heat conductive relation with a portion of said conduit, and means providing a thermal barrier between said bimetallic element and said two bellows, whereby fluid flow through said conduit in either direction at a temperature lower than that of the bimetallic element will cool said element.

2,846,941
BARBECUE BASKET
Fred William Goodwin, Orinda, Calif.
Application February 13, 1956, Serial No. 564,933
4 Claims. (Cl. 99—340)



1. A barbecue basket having a grilled body and pairs of superposed resilient bars secured across opposite ends of said body and having oppositely directed indentations located in adjacent parallel planes arranged to overlap partially to form resiliently expansible loops at opposite points of said body.

2,846,942
FOWL CARCASS SUPPORTING MEANS
Ellen K. Bowman, Johnson County, Iowa
Application June 4, 1956, Serial No. 589,180
4 Claims. (Cl. 99—427)



4. In a carcass support, a frame, two spaced apart open U-bearings on said frame, a cradle open at its top and open at each end and free of end obstructions, two shafts extending from the two sides of said cradle respectively and adapted to detachably engage said two

U-bearings respectively, a finger on one of said shafts, and a bracket secured to said frame having a row of holes for selectively receiving said finger.

2,846,943

APPARATUS FOR SEPARATING LIQUID AND SOLID MATERIAL

Wilbur C. Belk, Lakeland, Fla., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Application August 13, 1954, Serial No. 451,417
2 Claims. (Cl. 100—168)



1. In an apparatus for separating liquid and solid material having a perforated straining tube adapted to receive a liquid and solid mass and a rigid tubular plunger movable within the straining tube for exerting pressure on the liquid and solid mass to force the liquid portion thereof out of the tube through its perforations and the solid portion thereof through said tubular plunger, an arrangement for preventing sticking of the plunger in the straining tube comprising an expandable knife supported on one end of the tubular plunger projecting axially outwardly therefrom and adapted to bear against the inner surface of the straining tube to remove accumulations of solid material therefrom upon pressure exerting movement of said plunger, said expandable knife defining an opening for receiving and compressing solids, said opening being arranged to communicate with the bore of said tubular plunger for discharging the solid portion of the mass therethrough, and an open ended tubular sleeve of material that is relatively soft compared with the material of the inner surface of the straining tube tightly covering substantially the entire outer wear surface of the plunger to prevent galling of said tube and said plunger.

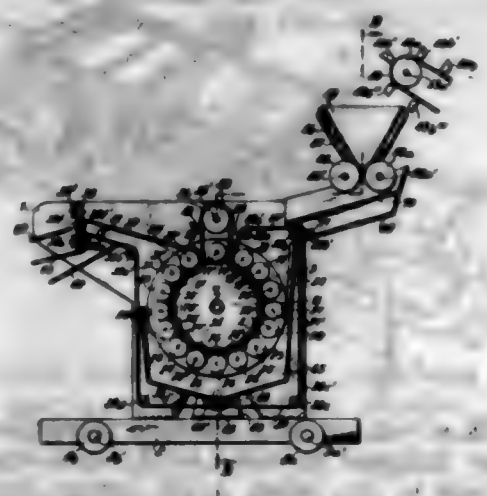
2,846,944

APPARATUS FOR PRESSING FOODSTUFFS

Josef Willmes, Bensheim an der Bergstrasse, and Oskar Braun, Bensheim-Auerbach, Germany

Application December 14, 1953, Serial No. 398,152
Claims priority, application Germany December 13, 1952
4 Claims. (Cl. 100—153)

1. Apparatus for pressing foodstuffs, comprising, in combination, support means; a central roll and a plurality of rigid peripheral rolls distributed spaced from each other all along the periphery of said central roll, all of said rolls being turnably carried by said support means for turning movement about fixed axes, and a central roll having an elastic fluid-tight wall; conduit means communicating with the interior of said central roll for supplying a fluid under pressure to the interior of the latter; inner and outer conveyer belts located against each other and between said central and peripheral rolls, said inner belt engaging said central roll and said outer belt engaging said peripheral rolls, said central roll urging said belts toward each other and urging the portions of said belts located between adjacent peripheral rolls into the free



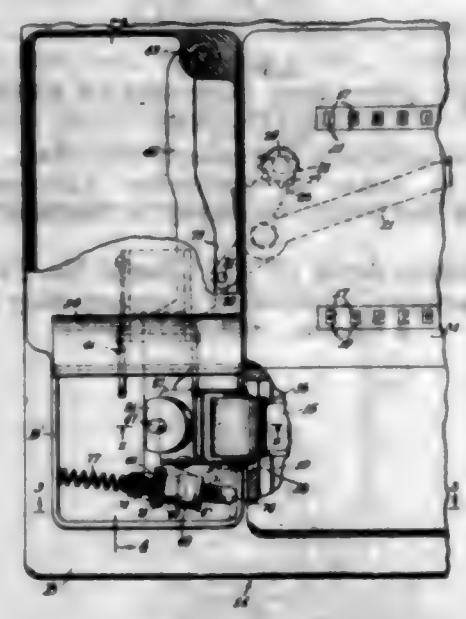
spaces between said rolls; and guide means mounted on said support means and guiding said belts for movement toward each other at one region between adjacent peripheral rolls along lines forming an acute angle and for movement away from each other at another region between adjacent peripheral rolls along lines forming an angle larger than said acute angle.

2,846,945

INKING DEVICE FOR VALUE PRINTING METERS

Frederick W. Uthenwoldt, Glenbrook, and John William Bach, Stamford, Conn., assignors to Pitney-Bowes, Inc., Stamford, Conn., a corporation of Delaware

Application May 18, 1956, Serial No. 585,684
10 Claims. (Cl. 101—91)

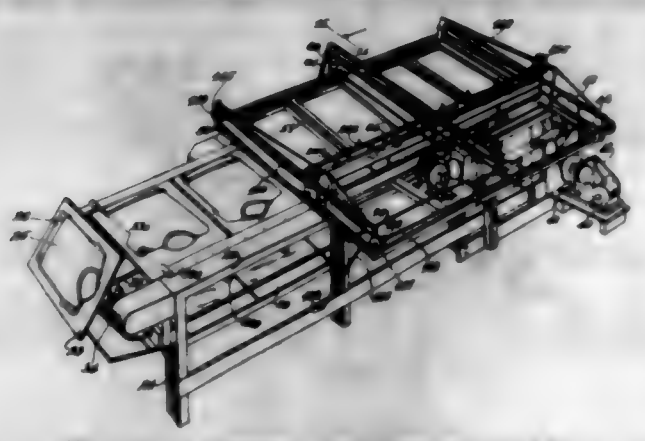


1. In a value printing device, a base including a housing; a meter removably mounted on the base and including a housing situated adjacent the base housing when in place, and a rotary printing drum therein; an inking roller normally situated partially within the base housing and projecting through adjacent openings in the base housing and meter housing in operative position to make inking contact with the printing surface of the printing drum; means for locking the meter to the base and for unlocking it for removal therefrom; and means responsive to unlocking operation of said first named means for retracting said inking roller into said base housing, and responsive to locking operation of said first named means for returning said inking roller to operative position.

2,846,946
SILK SCREEN PRINTING MACHINES

Arthur Schwarzberger, Chicago, Ill., assignor to American Automation, Inc., Chicago, Ill.

Application January 30, 1956, Serial No. 562,167
5 Claims. (Cl. 101—115)

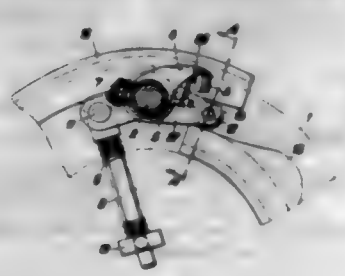


1. A silk screen printing machine comprising a frame, a conveyor designed to move work units from one side of the frame to the other, a silk screen frame pivoted over the machine frame to open and close with silk screen sections in relation to said work units, said conveyor being operated with a stop motion registering the work units with the silk screen frame sections, a squeegee carriage in the silk screen frame and having a series of of squeegee elements engageable with said sections to print the work units, and means to operate said conveyor when the silk screen frame is in the open position, said stop motion involving a rotary disc operated by a power source and having a slot, a latch rod supported alongside the disc and adapted to enter said slot at a point in the rotation of the disc whereby to stop the latter, an electrical circuit, second means in said circuit operative to close the silk screen frame over the work units stationed by said stopping action, and third means in said circuit actuated by the latch rod during said stopping action to operate said second means.

2,846,947
GRIPPER CONTROL FOR SHEET PRINTING MACHINES

Andreas Rodenhausen, Offenbach am Main, Germany, assignor to Faber & Schleicher Aktiengesellschaft, Offenbach am Main, Germany, a German body corporate

Application April 19, 1955, Serial No. 502,299
Claims priority, application Germany May 5, 1954
2 Claims. (Cl. 101—409)

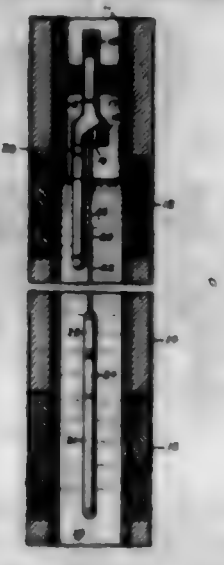


1. In a machine for printing on sheets having a rotary printing cylinder and spring-actuated grippers associated with said printing cylinder for gripping the sheets and transferring them through the machine, a rocking shaft for the said grippers on which they are loosely mounted, a clamp on said rocking shaft, a spring acting on the said rocking shaft over the said clamp to move said grippers into closing position, cam means in fixed relation on the printing machine for opening the grippers against the action of said spring, other springs for exerting an additional turning moment in gripper closing direction on the said grippers, a stationary control cam on the printing machine for varying the tension of said other springs, and a cam follower lever connected to the said springs for transmitting the pressure of said control cam to the said other springs and to thereby increase the pressure on the grippers while the said grippers are closed.

2,846,948
OIL AND GAS WELL PERFORATING METHODS AND APPARATUS

Maurice P. Lebourg, Houston, Tex., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application June 17, 1953, Serial No. 362,213
5 Claims. (Cl. 102—21)



1. In a method for initiating operation of apparatus for use in a well having a casing therein, the steps of setting tubing in the well with the lower open end thereof at a selected level in the well, disposing at the lower end of said tubing without substantially obstructing the opening therein a first shaped explosive charge well casing perforating device including excitable operation initiating means, lowering through the tubing a second shaped explosive charge well casing perforating device including means capable of exciting said operation initiating means, causing said second well casing perforating device to perforate the casing and earth formation at a given level in the well below said first casing perforating device, positioning the exciting means of said second well casing perforating device in exciting relation to said first well casing perforating device, and causing the exciting means of said second well casing perforating device to excite the operation initiating means of said first well casing perforating device to initiate operation of the same.

2,846,949
ARMING OF RIFLE GRENADES

Maurice Apstein, Bethesda, and Ronald E. Bowles, Silver Spring, Md., David G. Mitchell, Falls Church, Va., and Leo P. Rougeu, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Army

Application February 14, 1956, Serial No. 565,514
1 Claim. (Cl. 102—65.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A rifle grenade comprising: an explosive charge at one end of said grenade, a cylindrical fuze well with one end in said charge, a gas chamber integral with the other end of said fuze well for receiving propelling gases, an integral deformable bulkhead forming a gas tight seal between said fuze well and said gas chamber, a coaxial cy-

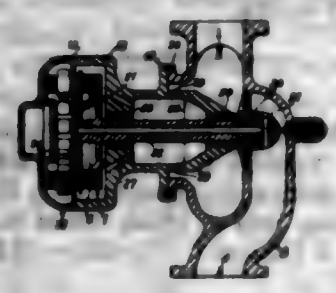
lindrical fuze in said well, vertically disposed first and second arming leaves in said fuze, the upper and lower ends of said first and second leaves being pivotally connected to said fuze, said first and second leaves being so arranged that their respective lower and upper ends engage each other when the first leaf is substantially vertical, the engagement between leaves preventing said second leaf from falling and arming the grenade, said first leaf when free to pivot and when subjected to acceleration in the direction of grenade propulsion disengaging from said second leaf permitting said second leaf to fall, an arming pin slidable within said fuze and having its longitudinal axis substantially coaxial with said fuze, one end of said arming pin providing a portion which extends at substantially a right angle to the horizontal axis of said pin, a spring operatively connected to said pin and holding said portion in locked engagement with said upper end of said first arming leaf thereby preventing said leaf from pivoting out of engagement with said second leaf, the other end of said pin extending adjacent said bulkhead, the propelling gases released on launching deforming said bulkhead in the direction of grenade propulsion thereby pushing the right angle portion of said pin out of locked engagement with said first leaf, said first leaf thereupon pivoting and disengaging from said second leaf in response to grenade acceleration, said second leaf then falling to arm the grenade.

2,846,950
ELECTRICAL IMPACT FUSES
Ulrich Günther, Zurich, Switzerland, assignor to Inventa A.-G., für Forchung und Patentverwertung Luzern, Lucerne, Switzerland
Application February 11, 1954, Serial No. 409,613
Claims priority, application Switzerland
February 19, 1953
3 Claims. (Cl. 102—70.2)



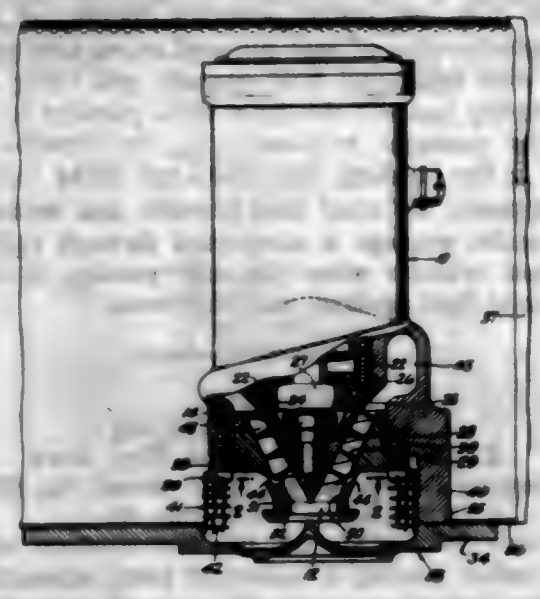
1. An electrical impact fuse for a projectile comprising a permanent magnet arranged to form the nose of the projectile and defining a closed magnetic circuit for the magnetic flux generated by said magnet, said magnet having two spaced side legs constituting the side walls of the nose and extending to the forward end of said fuse, said side legs forming part of the path of said magnetic circuit, a magnet coil disposed in the magnetic field of said magnet and adapted to fire the detonator in said projectile by the current induced therein upon changes in the magnetic field, said magnet coil being located near the rear end of said magnet and spaced a substantial distance axially from the forward ends of said legs, the forward ends of said legs being adapted to be destroyed upon impact, whereby an air gap is created therebetween, causing interruption in the path of the magnetic flux, whereby current is induced in said magnet coil by the resulting change in the magnetic field, a base plate normally connecting the side legs of the magnet near the rear end thereof axially remote from the forward end of said magnet to define part of the path of the magnetic circuit and displaceable axially from said side legs to form an air gap between said side legs and said base plate upon displacement of said base plate, and a rod connected to said base plate and extending axially of said magnet to the forward end thereof, to transmit displacement force to said base plate upon impact with a target, said rod being part of said magnet and constituting the core of said magnet coil, said rod being located between and extending along said legs, said legs at their forward ends extending laterally to said rod.

2,846,951
CIRCULATOR
Charles Metral, Ecully, and Albert Richard, Caluire, France, assignors to Societe Emeriy, Lyons, France, a corporation of France
Application August 27, 1956, Serial No. 606,372
Claims priority, application Switzerland
September 13, 1955
4 Claims. (Cl. 103—87)



1. An electric circulating pump comprising a casing having an inlet and an outlet, an impeller rotatably mounted in said casing for receiving fluid from the inlet and pumping it to the outlet, said impeller having an axis of rotation substantially transverse to the direction of the inlet and the outlet, an annular rotor member in said casing connected to said impeller and spaced from said impeller along the axis of said impeller and rotatable about the axis of said impeller, a wall of non-magnetic material on said casing axially spaced from said rotor member on the opposite side of said rotor member from said impeller, and an annular stator member on the opposite side of said wall from said rotor member and spaced axially from said rotor member, at least one of said members having two annular parts consisting of a spirally wound metal strip, at least one of which annular parts has a plurality of radial notches therein for receiving a winding, said annular parts abutting each other to close said notches.

2,846,952
FUEL PUMP
Alexander C. Ridland, Rancho Santa Fe, Calif., assignor to Hydro-Aire, Inc., Burbank, Calif., a corporation of California
Application December 27, 1955, Serial No. 555,444
8 Claims. (Cl. 103—113)



1. A submerged fuel pump adapted for mounting in a liquid fuel tank comprising, a casing defining an upwardly and outwardly flaring volute and including an inlet adapter, said adapter having an axial inlet at its lower end in lateral communication with liquid fuel surrounding said pump and a peripheral outlet at its upper end for connection with a point of liquid fuel delivery, a power-driven outwardly flaring conical impeller rotatably supported in said inlet adapter having spirally ar-

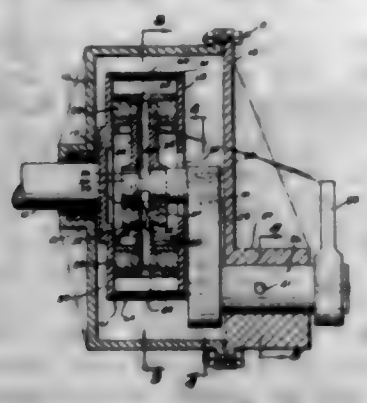
ranged blade means thereon for propelling fuel through said inlet and discharging the same from said outlet, and a plurality of fuel outlet ports opening outwardly through the side wall of said inlet adapter radially opposite said impeller blade means at points closely adjacent said fuel inlet whereby vapor present in the inlet area of said pump is discharged through said fuel ports so that liquid fuel can contact said blade means and be propelled thereby toward said fuel outlet.

2,846,953

REVERSIBLE PUMP FOR USE IN A HYDRAULIC TORQUE CONVERTER

Martin P. Schira, Jr., Spring Lake Heights, N. J.

Application July 9, 1954, Serial No. 442,266
2 Claims. (Cl. 103—161)



1. A variable displacement hydraulic pump comprising a housing having parallel front and rear walls, a power input shaft journaled in said front wall, oppositely directed radially extending first and second cylinders secured on said shaft in said housing, a piston in each cylinder, a displacement control shaft pivotally mounted in said rear wall, an arm secured perpendicular to said control shaft in said housing, a crank pin secured to the end of said arm, an axial piston rod connected to the piston of the first cylinder and pivotally connected to said crank pin, whereby the position of the piston in said first cylinder may be varied by rotating said control shaft, respective coextensive and identical fluid inlet and outlet passages formed in said control shaft, said last-named piston and rod being formed with an axial fluid passage, said control shaft, arm and pin being formed with respective fluid inlet and outlet passages opening at diametrically opposite sides of said pin and being alternately registrable with said axial fluid passage and being arranged to alternately connect the axial fluid passage to the inlet and outlet passages responsive to the rotation of said cylinder in the housing, the piston rod being formed with a port opposite the axial fluid passage, and means whereby the outlet passage is connected through said port to the second cylinder when the inlet passage is connected to said axial fluid passage, and vice versa.

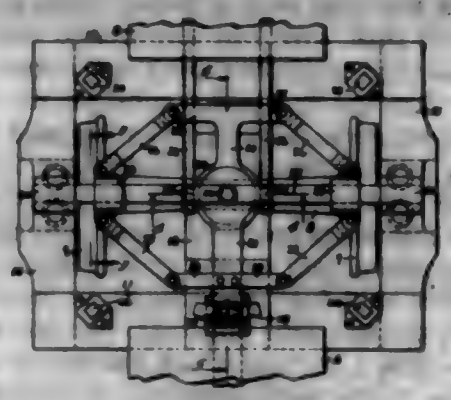
2,846,954

ARTICULATED CAR

Keyes C. Geyner, Sioux City, Iowa

Application December 14, 1955, Serial No. 553,099
3 Claims. (Cl. 105—4)

1. In an articulated car, the combination of a pair of car bodies having a universal joint connection with each other including a swivelling member having a vertically swingable connection with one of said car bodies and a planar connection with the other of said car bodies, a truck carrying said universal joint connection and free to turn relative thereto, said truck having a wheeled single axle, push-pull linkage between opposite sides of said swivelling member and the corresponding opposite ends of said truck, and push-pull linkage connections between opposite sides of the other car body and opposite ends of said truck, each of said linkage connections having sliding anchorage mountings on said truck whereby horizontal and vertical angular movements of said truck



and car bodies relative to each other when the car bodies are moving over a curved track of varying vertical curvature is permitted.

2,846,955

AXLE JOURNAL COUPLING FOR LOCOMOTIVES

Joseph P. Ruth, Denver, Colo.

Application March 16, 1953, Serial No. 342,487
7 Claims. (Cl. 105—318)



1. In a locomotive, in combination, a rigid frame, a pair of wheeled, spacedly-parallel axles laterally of said frame, journal housings rotatably mounting said axles and spanning across the frame in vertically-slidable engagement of their ends with elements of said frame, springs resiliently supporting said frame from said housings, and a beam rigidly intercoupling said housings longitudinally of the frame.

2,846,956

HINGE CONSTRUCTION FOR DROP END GATES

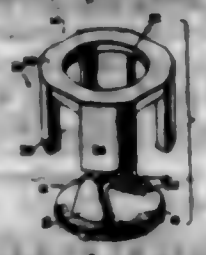
Victor G. Smith, Elmwood, Ill., assignor to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application November 14, 1952, Serial No. 320,529
3 Claims. (Cl. 105—253)



3. A gondola car end assembly including corner posts extending vertically upward, a bearing opening through each of said posts near its bottom extending in coaxial alinement to each other, a drop end gate extending between said corner posts, a hollow beam at the lower edge of said gate extending from side to side thereof, a hinge pin bearing secured to the outside of each post in horizontal axial alinement with said bearing openings and hollow beam, a pair of hinge pins each extending axially through said bearing, bearing opening and into said beam at its opposite ends, stops fixed within the beam for limiting the extent of penetration of said pins inwardly of said beam, respectively, said hinge pins being insertable through said bearings, posts, and into said beam, and key means for closing said bearings, respectively, for preventing the accidental withdrawal of said hinge pins.

2,846,957
LADING BAND ANCHOR
Walter L. Fleshr, Toledo, Ohio, assignor to Unitcast Corporation, a corporation of Ohio
Application June 24, 1954, Serial No. 439,019
2 Claims. (Cl. 105—369)



1. In a lading anchor for a vehicular body or the like and attachable to a supporting surface of the body, a cylindrical housing member superimposed on said surface and adapted to be rigidly secured thereto, a disc-shaped anchor element loosely telescopically received within said housing to be confined between the housing and the support surface and to be free for rotational and axial displacement relative thereto, said housing having an upper annular end portion spaced from the supporting surface to limit the axial displacement of said anchor element and axially extending web portions limiting the lateral displacement of said anchor element, said web portions being spaced circumferentially about said annular end portion to define spaces between adjacent web portions, means carried by said anchor element and projecting from the upper surface thereof for receiving a lading band or strap, said band receiving means being extensible through said annular end portion of said housing axially beyond said housing, integral radially extending dependent ribs on said anchor element for ejecting from said housing foreign matter interposed between said anchor element and said supporting surface, said foreign matter being ejected between said spaces between said adjacent web portions of said housing upon free rotational movement of said element within said housing.

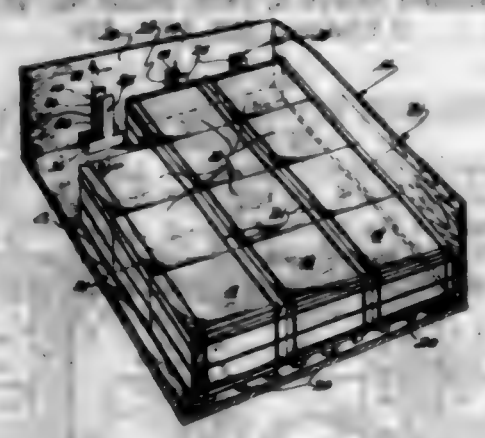
2,846,958
LADING STRAP ANCHOR
Roland E. Cale, Pittsburgh, Pa., assignor to Schaefer Equipment Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 6, 1955, Serial No. 532,707
4 Claims. (Cl. 105—369)



4. A lading strap anchor for a railway car or the like, comprising a ring that is round in radial section, a plate rigidly joined to the ring and secured to the inside of said car, and a stirrup having a shank and a strap-receiving end, the opposite end portion of the shank being substantially cylindrical and extending through the ring and being bent to partly encompass an arcuate portion of the ring to hold the stirrup therein, said opposite end portion of the shank being rotatable in the ring, and the diameter of said cylindrical portion being nearly as great as the internal diameter of the ring.

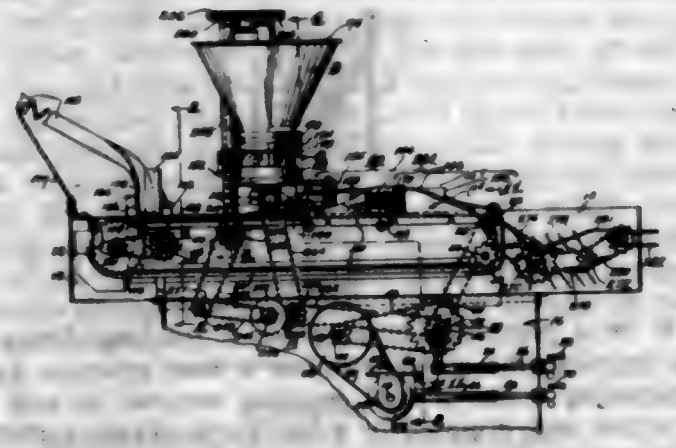
2,846,959
SHOCK ABSORBER FOR CARLOADINGS
Archie N. Parry, Wilmette, Ill., assignor to Signode Steel Strapping Company, Chicago, Ill., a corporation of Delaware
Application January 23, 1956, Serial No. 560,752
1 Claim. (Cl. 105—374)

A shock absorber for interposition between a wall of a load-carrying vehicle and the load carried therein, comprising, in combination, a first inverted T-shaped member comprised of at least one layer of corrugated fiberboard adapted for attachment to a wall of a load-carrying vehicle in face to face contact therewith, a second member of substantially the same shape as said first member and comprised of at least one layer of corrugated fiberboard, said first and second members being arranged in parallel relationship to each other, and a plurality of generally cylindrical posts extending between said members and secured to the adjacent faces of the stems and crossbars of each of them, each of said posts comprising a plurality of juxtaposed substantially concentric layers of corrugated fiberboard with the layers thereof secured together



and the corrugations thereof extending generally perpendicular to said first and second members, the free end portion of the stem of said first member extending appreciably beyond the free end of the stem of said second member and the adjacent end post between the stems of said members, whereby said shock absorber may be secured to the vehicle wall by fasteners extending through said stem end portion and into the vehicle wall with the load abutting the outer face of said second member and said posts resisting and absorbing movement of the load toward the wall to prevent the load from sliding thereagainst and being damaged as the result of such sliding movement.

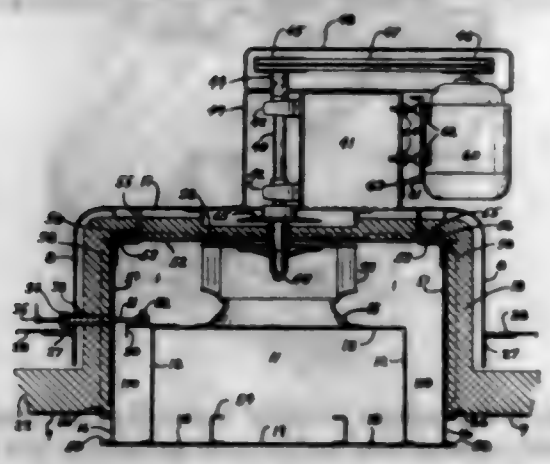
2,846,960
DEPOSITOR FOR SANDWICHING MACHINE
Edward A. Govatos, Canton, Mass., assignor to Peters Machinery Company, Chicago, Ill., a corporation of Illinois
Application November 1, 1955, Serial No. 544,255
13 Claims. (Cl. 107—1)



1. A depositor for a sandwiching machine of the character disclosed comprising a hopper, a rotatable drum therebelow having a plurality of receiving and discharging openings therein, a bottom member for said hopper having a bore therein, a piston slidable in said bore and terminating in a follower head biased against said drum, said piston and head being hollow for feeding fill material from said hopper to said drum, spiral screw means rotatable in said hopper for pressurizing the material therein

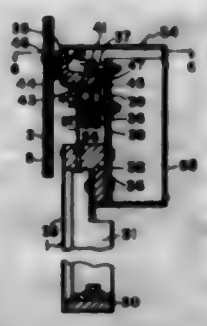
and feeding it through said piston and head and then through said receiving and discharging openings into said drum, a cylinder eccentrically mounted in said drum to effect squeezing of said fill material from the drum through said receiving and discharging openings onto a cookie or the like, and a cut-off wire engaging the surface of said drum next to such cookie to cut off fill material extruded from said receiving and discharging openings by said cylinder.

2,846,961
OVEN CIRCULATOR
Robert E. Nelson, Willow Springs, Calif.
Application March 8, 1955, Serial No. 493,621
3 Claims. (Cl. 107—55)



1. A circulator for ovens and like equipment having an open process chamber including a ceiling thereof, comprising a power-driven fan or blower, a collector box in said ceiling extending transversely thereof and communicating with the inlet of said fan or blower, a distributor box communicating with the outlet of said fan or blower and having a top and sides surrounding said collector box in spaced relationship to the top and sides thereof, and delivery means into said process chamber connecting with the lower portions of the spaces formed between the sides of said distributor box and said collector box.

2,846,962
PROTECTIVE HOUSINGS
Edward L. Morgan, Asheville, N. C., assignor to Oerlikon Tool and Arms Corporation of America, Swannanoa, N. C., a corporation of Delaware
Application July 13, 1955, Serial No. 521,738
7 Claims. (Cl. 108—2)



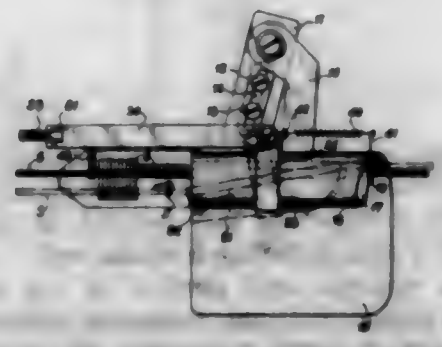
6. In a protective housing for a tracking device and its operator, the combination of a base structure having upstanding walls; a ring member secured to said base structure and disposed in a horizontal plane; a plurality of bearing units mounted on said ring member and disposed in a horizontally extending circular series, each of said bearing units including a lower supporting roller and an upper hold-down roller spaced thereabove, said rollers being mounted for rotation about parallel horizontal axes; a top structure including at least one sighting opening, said top structure including a dependent skirt surrounding said ring member; a ring gear secured to said top member and disposed in a horizontal plane spaced above said ring member, said ring gear including an inwardly directed horizontally extending annular flange, said flange being disposed between the supporting and hold-down rollers of said bearing units; a dependent annular flange carried by said ring gear and disposed to embrace said series of bearing units, said ring member being provided at its upper surface with a horizontally extending annular fluid-receiving groove disposed in alignment with and receiving said dependent annular flange, and drive means mounted on said base structure and including a driving pinion meshed with said ring gear.

2,846,963
REINFORCING INSERT FOR FURNACE BLOCK
Donald W. Mason and William H. Myers, Glen Burnie, Md., assignors to Harbison-Walker Refractories Co., Pittsburgh, Pa., a corporation of Pennsylvania
Application December 13, 1956, Serial No. 628,854
6 Claims. (Cl. 110—99)



1. A reinforcing insert adapted to be molded into an upright brick that has a hanger-receiving recess in one side near its upper end, the insert comprising an upright metal plate adapted to extend vertically through the brick at one side of its recess, and a vertical metal strip extending along a vertical edge of the plate at an angle to the plate and integral therewith, said vertical strip being only long enough to cover a portion of the recessed side of the brick below the recess, and the upper end of the strip having an extension bent in across the plate and then curving upward and outward to form a tongue-like lining for the top and bottom of said hanger recess.

2,846,964
TIE STRING LOOPER AND FOLDER
Dewey M. Clymer, Reidsville, N. C., assignor to Chase Bag Company, New York, N. Y., a corporation of Delaware
Application April 23, 1954, Serial No. 425,126
6 Claims. (Cl. 112—2)



4. In a cloth folding and hem sewing attachment for a sewing machine having a guide plate turned over at one end to form upper and lower guide surfaces for a bag blank and so designed that upon insertion of said blank between said guide surfaces a hem will be turned over on one edge of said blank, and having a movable string guide normally positioned to guide a string through the hem of the bag blank formed by the guide plate, the improvement comprising pivot means forming a center of rotation of said string guide, a movable link attached to the string guide and adapted to rotate the string guide about said pivot means, a spring biasing said link so as to place the string guide in its normal position, a depressed toe member on the link positioned to

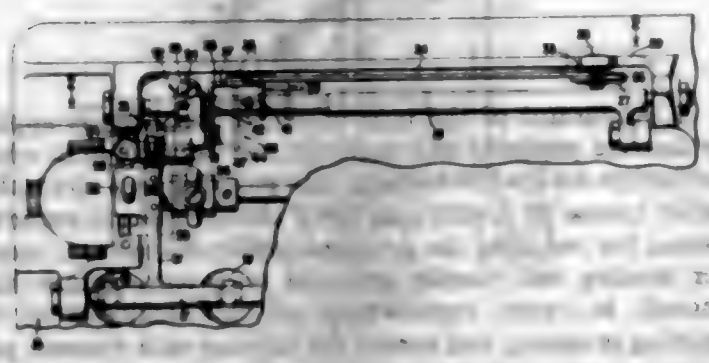
intercept and move with the edge of the bag blank as the bag blank advances under a sewing needle which is sewing the seam in the hem and adapted by transmitting its movement to the movable link to rotate the string guide about the pivot means, and guide means for said link.

2,846,965

FEEDING MECHANISMS FOR SEWING MACHINES

Edward J. Herbst, South Plainfield, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application July 28, 1955, Serial No. 523,296
6 Claims. (Cl. 112—210)



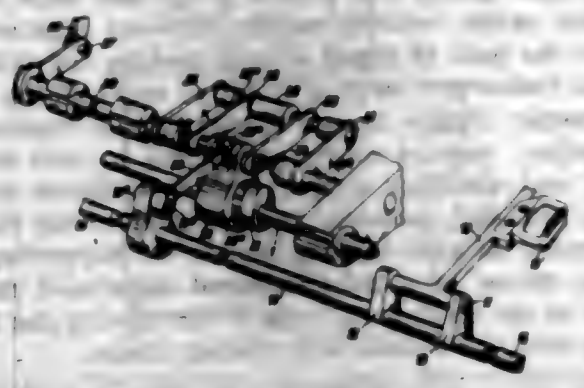
1. A feed-dog throw-out device comprising in combination a feed-lift rock-shaft; a slider slidably mounted on though not rockable with said feed-lift rock-shaft; an apertured bracket having one end secured to said feed-lift rock-shaft and therefore rockable therewith; a lever pivotally supported on the other end of said bracket; a pin slidably mounted in one of the apertures in said bracket and thereby rockable with said feed-lift rock-shaft, one end of said pin being tapered to engage said lever, and means connecting the other end of said pin to said slider for rocking of said pin relatively to said slider.

2,846,966

ZIG-ZAG SEWING MACHINE WITH SIMPLIFIED MATERIAL FEED CONTROL GEARING

Wolfgang Emmi, Bielefeld, Germany

Application January 18, 1956, Serial No. 560,010
Claims priority, application Germany January 18, 1955
3 Claims. (Cl. 112—210)



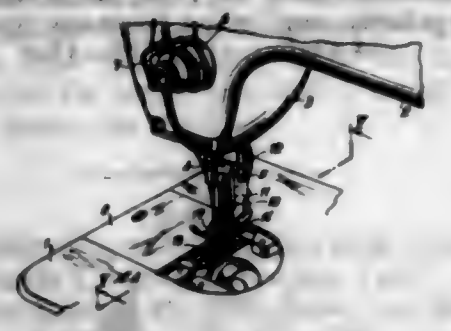
1. In a zig-zag sewing machine of the type having a needle bar, a machine base having a cloth plate and front and rear longitudinal sides, a hook rotatable in a plane disposed perpendicularly to the direction of material feed, a hook supporting shaft, and a hook drive shaft having driving engagement at one end with said hook supporting shaft and extending rearwardly of said hook longitudinally of said machine along said rear side and having a driven member at the other end, a feed dog supported by a feed bar above said hook, a material feed shaft extending rearwardly of said hook presenting lever means supporting said feed bar, a stitch setting mechanism having a member extending externally of the machine, a cam on said hook drive shaft, a connecting rod having one end in operative engagement with said cam and the other end in engagement with a link member of said stitch setting mechanism, a crank arm on said feed shaft and a substantially horizontally extending toggle joint having a joint portion in engagement with said connecting rod, one arm in engagement with said crank arm and another arm defining said link member of said stitch setting mechanism, said cam, said connecting rod, said crank arm, said feed shaft, said feed bar and said toggle joint being concentrated in an area extending proximate said hook and said dog and on one side thereof over a length substantially that of said feed bar, thereby reducing the dimensions of said feed shaft and reducing vibration of the machine mechanism.

2,846,967

THREAD SEVERING DEVICE FOR SEWING MACHINES

Johannes Doerr and Wilhelm Dreher, Kaiserslautern, Germany, assignors to G. M. Pfaff A.-G., Kaiserslautern, Germany, a corporation of Germany

Application December 9, 1955, Serial No. 552,685
Claims priority, application Germany December 10, 1954
12 Claims. (Cl. 112—252)



1. In a thread severing device for sewing machines having a pressure foot and a needle plate and a needle bar carrying a needle, in combination, a first mechanism disposed below said needle plate for severing the lower thread, and a second mechanism operable for severing the upper thread and comprising a body connected to said pressure foot a cutter connected to said body and a releasable vise including jaws guided in said body for movement adjacent said cutter reciprocably in opposite directions towards and from the path of said needle and engaging and being settable for gripping said upper thread, said vise and cutter cooperating for severing said thread, means operable for moving said jaws from a rest position towards said needle path, and resilient means urging said jaws to return to said rest position, vise release means connected to said body and being movable between an active position wherein it projects into the path of said needle bar and blocks the return of one jaw and, respectively, an inactive position wherein it is spaced from said path and unblocks said one jaw, and means moving said release means into said active position during movement of said vise towards the needle path, said needle bar actuating said release means by impact during the last phase of the next succeeding downward stroke to return the release means to the inactive position thereby to release said vise.

2,846,968

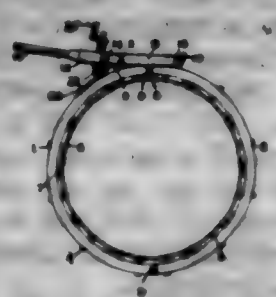
MECHANICAL PIPE LINE CLAMP

John J. Tipton, Paola, Kans.

Application November 28, 1955, Serial No. 549,381
2 Claims. (Cl. 113—102)

1. In a pipe aligning clamp, a pair of semi-circular clamp members pivoted together at one end, each member comprising a pair of spaced identical elements, a hook projecting radially outward from the free end of the first clamp member, a lever pivoted to the free end of the second clamp member, a link pivoted to the lever at a point outward of the pivotal point of the lever to the

clamp member, a block rockingly carried by the lever, a latch non-rotatably mounted in and longitudinally adjustable of the block, the longitudinal axis of the latch lying in a plane bisecting the space between the identical elements of the clamp members, said latch being threaded at one end, a crank threaded on the end of the latch to reciprocate the latch in the block, and a catch on the free end of the first clamp member for engagement with the latch.

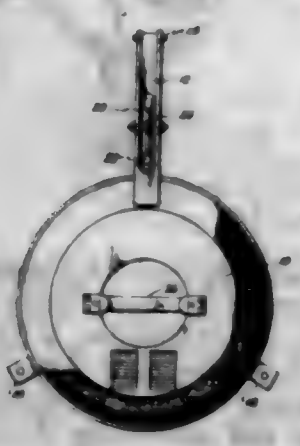


2,846,969

BELLOWS FOR VENTILATING SHELTERS

Karl-August Wichter, Lubeck-Brandenbaum, Germany, assignor to Otto Heinrich Drager, Lubeck, Germany

Application March 26, 1956, Serial No. 573,954
Claims priority, application Germany April 18, 1955
4 Claims. (Cl. 116—114)



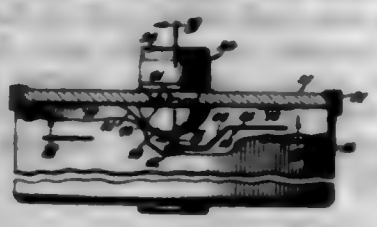
1. In combination with a ventilating device having an oscillating member, the improvement comprising a pendulum independently swingably mounted upon said member with said pendulum having a natural oscillation selected to be at the rate the member is to be oscillated.

2,846,970

ILLUMINATED INSTRUMENT CONSTRUCTION

James N. Dupree, Hollywood, Calif., assignor to California Plastech, Inc., Los Angeles, Calif., a corporation

Application April 5, 1954, Serial No. 420,947
10 Claims. (Cl. 116—129)



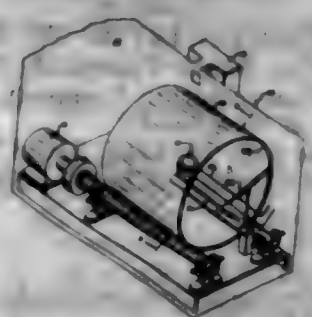
1. In an instrument of the character described having a movable indicator element, the combination therewith of: a face plate for the instrument of light-transmitting material having an aperture therein; a lamp housing mounted in said aperture in said face plate and extending inward from the face plate, said housing being adapted to confine a lamp and having at least one side window for illumination of the instrument by the lamp, said side window intersecting planes of said face plate and extending inward beyond the inner surface of the face plate into the space closed by the face plate.

2,846,971

APPARATUS FOR COATING PARTICULATE MATERIAL BY THERMAL EVAPORATION

Charles A. Burr, Needham, and Robert W. Steeves, Natick, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

Application February 23, 1956, Serial No. 567,357
4 Claims. (Cl. 118—49)



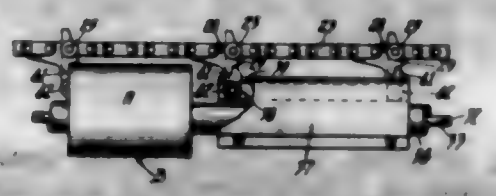
1. Apparatus of the type in which a coating is applied to discrete particles of a material, the improvement which comprises means for holding said particles in a circumferential course by centrifugal force above a source material, means for reducing the pressure within the system, means for heating said source material to a temperature high enough to cause vaporization of said material at the existing pressure, and means for causing said discrete particles to tumble, thereby exposing all surfaces to the coating vapors.

2,846,972

APPARATUS FOR SUPPORTING TREATING DEVICES INSIDE MOVING CAN BODIES

Karl Bolinger, Cincinnati, Ohio, assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application August 21, 1956, Serial No. 605,289
6 Claims. (Cl. 118—317)



1. In a machine for treating can bodies on the interior thereof, the combination of a horn for supporting a plurality of can bodies in spaced end-to-end relation, conveyor means disposed adjacent said horn for propelling said spaced can bodies along said horn in processional order, treating means disposed adjacent said horn in the path of travel of said moving can bodies so that the bodies pass over and around said treating means in telescopic relation thereto for the interior treatment of said bodies, support means connected to said treating means, and auxiliary support means mounted on and moving with said conveyor and engageable with the support means on said treating means for supporting said treating means in a predetermined suspended position relative to the interior surfaces of the moving can bodies passing over and around said treating means.

2,846,973

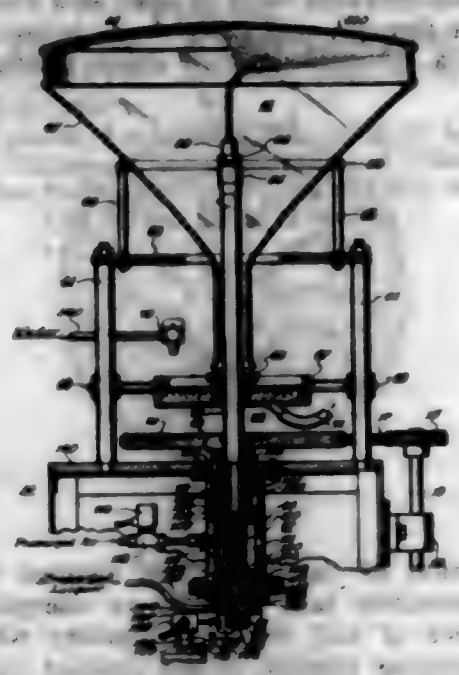
CATHODE-RAY TUBE MANUFACTURING APPARATUS

Jerome J. O'Callaghan, Skokie, Ill., assignor to The Rauland Corporation, a corporation of Illinois

Application July 26, 1957, Serial No. 674,332
2 Claims. (Cl. 118—317)

1. Apparatus for applying an organic film to the exposed surface of a luminescent screen affixed to the faceplate of a cathode-ray tube envelope comprising: means for supporting said envelope in a fixed position with its axis substantially vertically oriented and said faceplate uppermost; solution conveying means comprising a stationary inner conduit and a rotatable outer conduit

coaxial with said inner conduit, said coaxial conduits extending vertically into said envelope from below; a liquid supply of lacquer material coupled to said inner conduit; a supply of compressed gas coupled to said outer conduit; a nozzle fixed to the upper extremity of



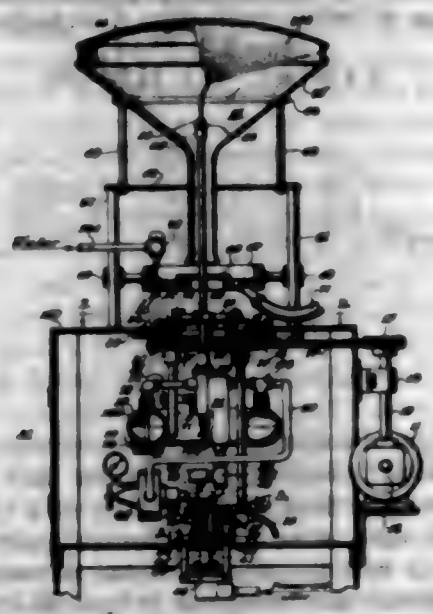
said outer conduit and communicating with both said conduits; and means, including means for rotating said outer conduit with respect to said inner conduit, for producing a rotating spray of atomized lacquer material within said envelope and directed toward said luminescent sceen.

2,846,974

CATHODE-RAY TUBE FILMING APPARATUS

Francis J. Kinsch, Chicago, Ill., assignor to The Rauland Corporation, a corporation of Illinois

Application July 24, 1957, Serial No. 674,333
1 Claim. (Cl. 118—317)



Apparatus for applying an organic film to the exposed surface of a luminescent screen affixed to the faceplate of a cathode-ray tube envelope comprising: means for supporting said envelope in a fixed position with its axis substantially vertically oriented and said faceplate uppermost; solution conveying means comprising a pair of coaxially disposed conduits extending vertically into said envelope from below; a reservoir containing a liquid supply of organic lacquer material under pressure and coupled to the inner one of said conduits; a supply of compressed gas coupled to the outer one of said conduits; a nozzle, comprising an offset portion terminated at the upper extremity thereof by an asymmetrical discharge orifice, fixed to the upper extremity of said outer conduit and communicating with both said conduits; and means, including means for rotating said reservoir and said conveying means, for producing a rotating spray of atomized organic film solution within said envelope and directed towards said luminescent screen.

2,846,975

SELF-CLEANING CONVEYOR

William F. Hennessey, Ipswich, Mass., assignor to Boyle Machine & Supply Co., Inc., Peabody, Mass., a corporation of Massachusetts

Application June 26, 1956, Serial No. 594,004
3 Claims. (Cl. 118—324)



1. Spray coating apparatus comprising a spray head, a plurality of endless filaments, a plurality of sheaves arranged to support said filaments in looped array having an upper conveying run disposed beneath said spray head and a lower return run, spaced idler rolls associated with each filament and mounted adjacent the lower run, adjacent filaments being twisted together in pairs between said spaced idler rolls but in parallel array throughout the upper run, and a trough disposed beneath said lower run.

2,846,976

EGG HOLDER FOR INCUBATOR TRAY

Martin T. Moller, Los Altos, Calif.

Application January 31, 1955, Serial No. 484,870
4 Claims. (Cl. 119—43)



1. In an incubator tray having an open rectangular frame, a plurality of strong, thin channel support bars of inverted U-sectional shape extending transversely of the tray in parallel, spaced relation, a pair of co-operating clip members mounted on adjacent support bars, each clip member comprising a continuous length of light, spring wire comprising alternately disposed egg-engaging loops and intermediate portions, the loops of one clip member extending toward those of the other clip member in opposed, egg engaging pairs, each intermediate portion extending lengthwise of the support bar in fully inserted condition in the channel thereof, a portion of each clip member at each end of the intermediate portion extending transversely within the channel of a support bar upon which the clip member is mounted, the side walls of each support bar extending inwardly toward each other into closely gripping relation with the portions of the clip member inserted therebetween.

2,846,977

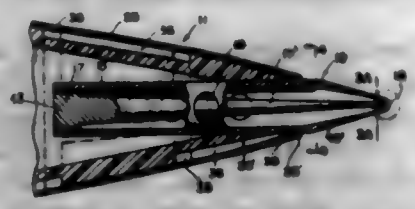
BALL POINT PEN

Bruno D. Aston, Los Angeles, Calif.

Application May 18, 1954, Serial No. 430,703
5 Claims. (Cl. 120—42.4)

1. A ball point pen comprising, in combination, a barrel, a ball, a closed hollow ball mounting tip defining a ball carrier, one end of said ball carrier being closed at one rear end and having a forwardly tapered interior

wall portion at the opposite end thereof defining an opening, said wall having at least one aperture therein, a support within said carrier positioning said ball within the open end thereof, a minor part of the surface of said ball extending outwardly of said carrier and a major part of said ball being freely spaced from the surface of said interior wall portion in direct communication with the interior of said carrier, a sack for writing fluid at one end disposed within said barrel, an open ended inner sleeve supporting said ball carrier at one end in a position in which said ball protrudes outwardly from said sleeve and the apertured part of said carrier extending into said sleeve, the other end of said sleeve being secured to the barrel in alignment with the open end of said fluid sack for feeding fluid from said sack into said aperture in said wall of said ball carrier and to the ball, and an outer sleeve closely fitted upon said inner sleeve, said inner sleeve having an aperture through its wall lead-



ing into the interior of said sleeve, the outer sleeve and the inner sleeve forming therebetween a narrow continuous circuitous path leading from the sleeve ends adjacent to the protruding ball carrying end of said carrier to said aperture in said inner sleeve, the end of said outer sleeve and the carrier defining therebetween circumferentially elongated slots leading into said path to permit air to percolate into said sack during a writing operation and to permit fluid to be sucked into said sack and air to escape therefrom upon creating a partial vacuum therein during a filling operation, the outer wall of the inner sleeve and the inner wall of the outer sleeve defining therebetween a groove to form said circuitous path for the egress of air from an ingress of air into the sack and the ingress of writing fluid into the sack, the remaining wall portions of the sleeves being in close contact one with the other so as substantially to limit the flow of air and fluid to said path.

2,846,978

WRITING IMPLEMENT

Harold V. Scott, Harrisburg, S. Dak.

Application March 5, 1957, Serial No. 644,000
3 Claims. (Cl. 128—102)



1. A writing implement having an elongated handle provided at one end thereof with writing means and with a recess adjacent said writing means, a laterally projecting finger rest provided on said handle and retractable into an inoperative position in said recess, and means for sustaining said finger rest selectively in its projected and retracted positions.

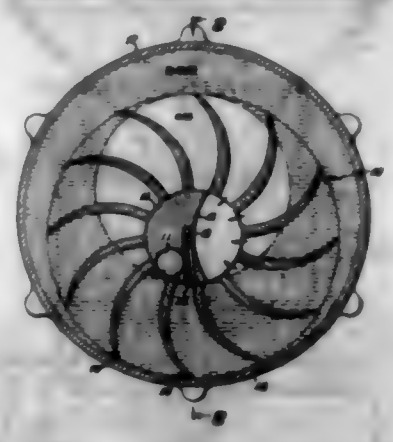
2,846,979

LIQUID PISTON EXPANSIBLE CHAMBER MOTOR CONTROL SYSTEM

Emerson L. Kamen, Pacific Palisades, Calif., assignor to Propulsion Research Corporation, Santa Monica, Calif., a corporation

Application April 4, 1956, Serial No. 576,184
8 Claims. (Cl. 121—1)

7. A control system for controlling the supply of a liquid through a line to a gas turbine or the like, which turbine includes a shaft having a first portion normally contacted by a gas and a second portion normally contacted by the liquid, said control system including in combination: a solenoid-operated valve in the above-mentioned line; a relay for controlling the energization of said solenoid-operated valve to open said valve whenever the current through said relay drops below a threshold value; and a moisture-sensitive element mounted on the



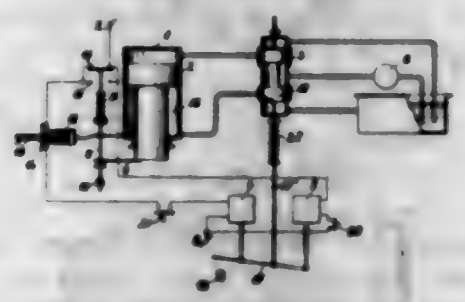
second portion of the shaft, said element including a resistor connecting said relay to an energizing source, the resistance of said resistor increasing whenever the moisture-sensitive element is not covered by the liquid so as to decrease the current through the relay below said threshold value and open said solenoid-operated valve until the liquid contact of the second portion of the shaft is restored.

2,846,980

DEVICE FOR SLOWING DOWN THE MOVEMENT OF THE PRESS PISTON IN HYDRAULIC PRESSES

Milan Vltavsky, Bratislava, Czechoslovakia, assignor of one-half to CKD Ceska Lipa narodni podnik, Ceska Lipa, Czechoslovakia

Application February 28, 1955, Serial No. 491,138
Claims priority, application Czechoslovakia March 1, 1954
4 Claims. (Cl. 121—38)



1. In a hydraulic system having a cylinder, a pressing piston reversibly slidably movable in said cylinder, a source of pressure fluid connected to said cylinder, and a distributing slide valve in said source, said distributing valve having a first position to cause movement of said piston at a given rate of speed in one direction toward the work to be pressed thereby, a second throttling position to cause movement of said piston toward the work at a reduced rate of speed, and a third position to cause movement of said piston in the opposite direction away from the work; means for controlling the position of said distributing valve comprising a control rod axially aligned with and secured at one end to said distributing slide valve, a lever pivotally connected intermediate its ends to the other end of said control rod, a first electromagnet having a movable core secured to on end of said lever, a second electromagnet having a movable core secured to the other end of said lever, electric circuit means for simultaneously energizing both of said electromagnets to cause both ends of said lever to be attracted to a position to set said distributing valve to its first position, and

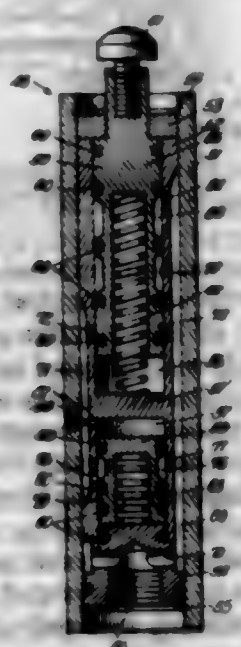
means for breaking the energization of said first electromagnet to cause the end of the lever associated therewith to be moved in a position to set said distributing valve in its second throttling position.

2,846,981

SELF-SHUT-OFF AIR BLEED CONTROL VALVE AND PNEUMATIC ACTUATING SYSTEM EMPLOYING SAME

Stanley F. Kamble, La Grange, Ill., assignor to Tee-Pak, Inc., Chicago, Ill., a corporation of Illinois

Application February 25, 1957, Serial No. 642,245
15 Claims. (Cl. 121—38)



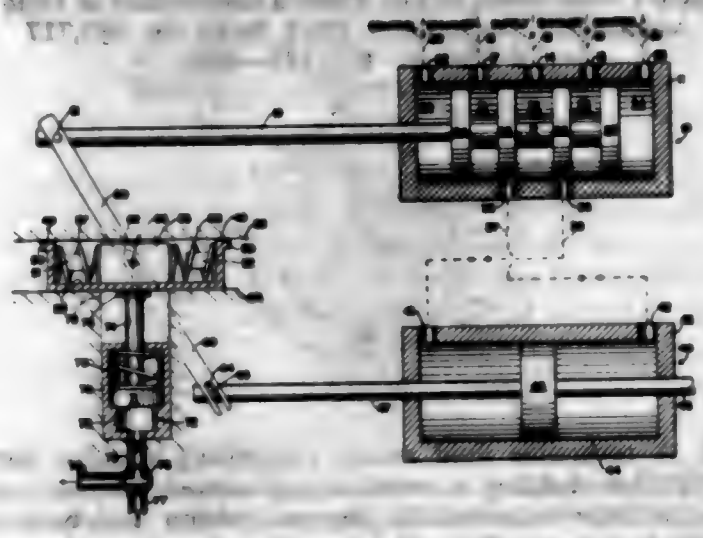
1. A sequence valve comprising, in combination, a valve body having intake and exhaust ports, first and second valve members movable in said valve body, said first valve member being externally operable to open position and said second valve member being movable in a chamber to open position by application thereto of fluid pressure, and means biasing said second valve member to closed position, said valve body being provided with a main passageway between said intake and exhaust ports having a first portion communicating with said intake port and a second portion arranged to communicate with said exhaust port, a portion of said first valve member in closed position being interposed between said second portion of said main passageway and said exhaust port, said second valve member in closed position being interposed between said first and second portions of said main passageway, said valve body being provided with an auxiliary passageway communicating with said chamber and arranged to communicate with said intake port, another portion of said first valve member in open position being interposed between said auxiliary passageway and said intake port, said valve body being provided with a vent passageway between said chamber and said second part of said main passageway, movement of said first valve member to open position preventing further application of fluid pressure to said chamber through said auxiliary passageway while permitting the discharge thereof through said vent passageway to said exhaust port and placing said intake port in communication with said exhaust port, said second valve member being moved to closed position by its biasing means on predetermined reduction of fluid pressure in said chamber to prevent further communication between said intake and exhaust ports until said first valve member is restored to open position and the aforesaid cycle is repeated.

2,846,982

FEEDBACK CONTROL APPARATUS

Donn L. Huppert and Harold P. Sorensen, Minneapolis, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application April 19, 1956, Serial No. 579,257
7 Claims. (Cl. 121—41)



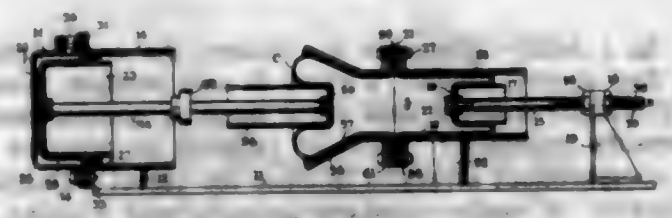
1. In control apparatus, the combination comprising a fluid control valve having a movable valve portion, a fluid motor having a movable actuator, said fluid motor being operatively connected to said fluid control valve through a fluid flow connection, and a feedback mechanism normally inoperative but capable of providing feedback movement from said movable actuator to said movable valve portion, said mechanism comprising a feedback member operatively connected to said movable valve portion and to said movable actuator, a normally movable pivot member operatively fastened to said feedback member, a normally movable container for said pivot member, spring means for biasing said pivot member to a central position within said container, said container having a stop member at each end thereof, guide means comprising two opposed fixed surfaces for guiding said container, and means for selectively locking said container in said guide means thereby allowing limited movement of said pivot member against the bias of said spring means before one of said stop members is encountered by said pivot member and feedback movement is transmitted by said feedback member to said movable valve portion.

2,846,983

SINGLE ACTING MOTOR WITH PNEUMATIC RETURN SPRING

Carl A. Otto, Milwaukee, Wis., assignor to Johnson Service Company, Milwaukee, Wis., a corporation of Wisconsin

Application April 14, 1955, Serial No. 501,251
3 Claims. (Cl. 121—46)



1. A gas spring comprising in combination a cylinder element having one closed end; a plunger element extending coaxially through the open end of the cylinder element; and a rolling seal of the folded, flexible tube type closing the annular interval between the cylinder and plunger elements whereby a variable volume working space is provided, one of said coaxial elements including a coaxial conoidal portion in the region within which the

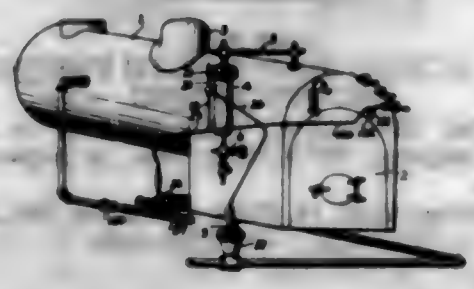
rolling seal moves, said conoidal portion being arranged so that the effective area of the plunger element and seal decreases as the working volume decreases.

2,846,984
MOTOR CONSTRUCTION
Robert E. Zwayer, Bryan, Ohio, assignor to Aro Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application November 9, 1954, Serial No. 467,717
6 Claims. (Cl. 121—84)



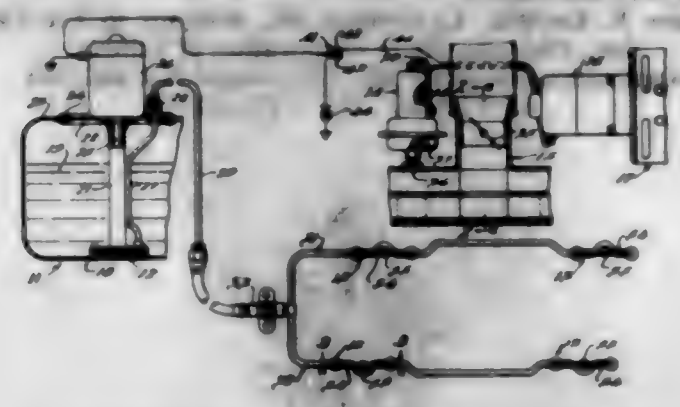
1. A reversible fluid motor comprising a stator having a bore defining a continuously curved internal surface, a rotor eccentrically disposed within said bore in bearing contact with said internal surface to define an elongated fluid chamber of symmetrically increasing cross section from a minimum area at the ends thereof to a maximum area midway therebetween, said stator having a pair of ports communicating with said chamber at opposite ends thereof closely adjacent said portion of rotor bearing contact, one of said ports providing an inlet during forward rotor rotation and a secondary exhaust during reverse rotor rotation and the other of said ports providing a secondary exhaust during forward rotor rotation and an inlet during reverse rotor rotation, and said stator having on only one side of said maximum chamber area a third port communicating with said chamber intermediate said pair of ports and closer to said other of said ports than to said one of said ports to provide the only primary exhaust from said chamber.

2,846,985
AUTOMATIC CONTROL MECHANISM FOR PRESSURE VESSELS
Alva G. Blanchard, Shreveport, La.
Application March 7, 1945, Serial No. 581,373
5 Claims. (Cl. 122—504.2)



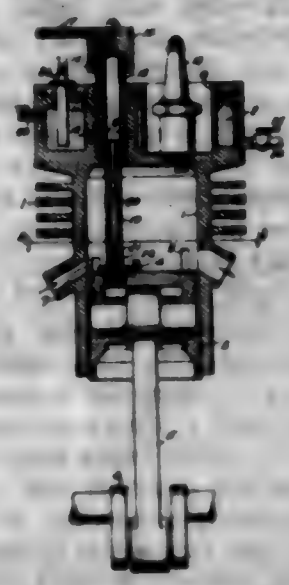
1. In a safety apparatus for boilers, the combination of a fuel supply conduit, a valve in said conduit, means for yieldingly holding said valve open, a compartment, a pressure responsive means to respond to pressure in said compartment arranged to close the valve, a housing, a plurality of outlet passages through said housing, a needle valve in each of said passages, single means responsive to conditions within said boiler to open said valves in sequence, a conduit connecting the last of said sequentially opening valves to open with said compartment to supply fluid under pressure from said housing to said compartment to force said fluid against the pressure responsive means, and a conduit connecting another of said sequentially opening valves to an audible alarm actuating mechanism.

2,846,986
NOZZLE FOR FUEL INJECTION SYSTEMS
Ben G. Parsons, Grosse Pointe, Mich., assignor to Fuelcharger Corporation, Detroit, Mich., a corporation of Michigan
Original application December 5, 1950, Serial No. 199,325, now Patent No. 2,687,123, dated August 24, 1954. Divided and this application December 17, 1954, Serial No. 629,309
5 Claims. (Cl. 123—32)



1. The combination with an internal-combustion engine of a pair of nozzles for injecting fuel into adjacent cylinders thereof; each of said nozzles comprising a shell having an annular side wall adapted to fit within a recess in said engine, a fuel injection orifice at the lower end of said shell, a body portion fitting snugly within said shell, the lower end of said body portion being spaced above said orifice, a radial bore extending through the upper end of said body portion and adapted to receive a fuel distributing line therethrough, an axial passageway leading from said radial bore to the lower end of said body portion, and means for holding said pair of nozzles in place, said holding means comprising a clamping bar having opposite ends engageable with the upper ends of said body portions, and means engageable with an intermediate portion of said bar for drawing the bar toward said engine.

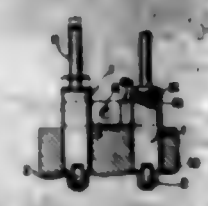
2,846,987
RECIPROCATING INTERNAL COMBUSTION ENGINE
Frederick Nettel, Manhasset, N. Y.
Application March 13, 1956, Serial No. 571,285
17 Claims. (Cl. 123—41.42)



1. Reciprocating internal combustion engine for liquid or gaseous fuels having a cylinder, cylinder head, piston, piston rod and crankshaft, comprising a fuel injection pump plunger mechanically connected at one end to the piston crown, a fuel chamber connected to said cylinder head, a pump barrel arranged in said fuel chamber with its open end in connection with the cylinder interior disposed to engage with said pump plunger, valved conduit means for connecting said fuel chamber with the said

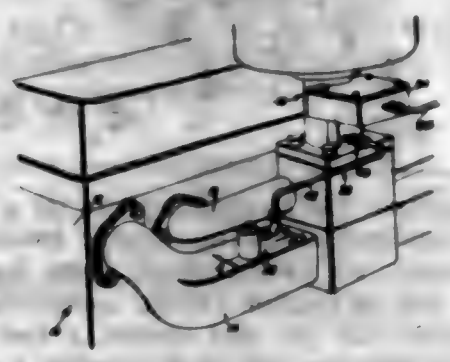
pump barrel, said pump plunger having an axial bore and nozzle means connecting said bore with the cylinder interior at a point near the piston crown for injecting fuel into said cylinder.

2,846,988
GUIDE MEANS FOR NON ROTATABLE VALVE LIFTERS
Edward Iskenderian, Inglewood, Calif.
Application October 30, 1956, Serial No. 619,311
3 Claims. (Cl. 123—90)



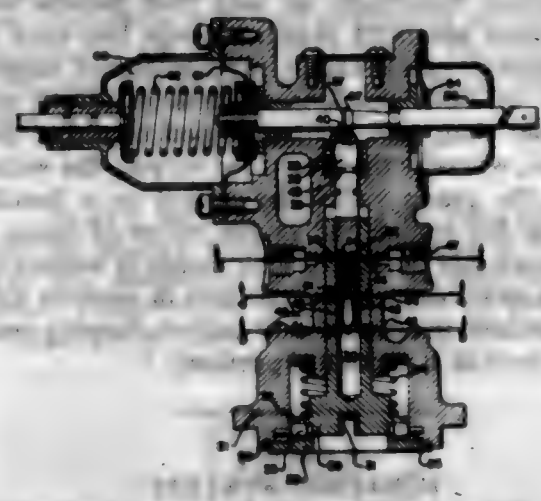
1. A pair of tubular members having associated releasable guide means, the tubular members being spaced apart, and at least a portion of the said guide means being attached to each tubular member, the said guide means having means to permit vertical and lateral movement without permitting rotation of one member relative to the other, each tubular member having a roller attached to one end and having an aperture spaced from the roller, a single piece guide member carried in the aperture in one guide member, and a two piece guide member carried in the aperture in the other of said pair of tubular members with spaced apart portions extending laterally outside of its associated tubular member, the first of said guide means extending laterally outside of its associated tubular member and positioned between the spaced apart portions of the two piece guide member and freely slidable therein when the tubular members are spaced apart a predetermined distance.

2,846,989
CARBURETOR DE-ICER
Robert F. Eskew, Effingham, Ill.
Application September 11, 1957, Serial No. 683,282
8 Claims. (Cl. 123—122)



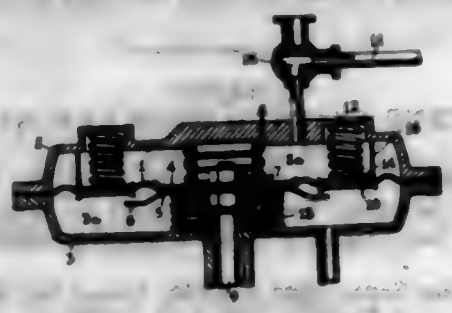
7. A carburetor de-icer comprising an air heater, tubing connected to said air heater for receiving heated air from said air heater, an idle control needle valve member, said needle valve member being tubular and including an inner end and an outer end, an air outlet opening adjacent said inner end, an air inlet fitting at said outer end, said air inlet fitting connecting said tubing to said needle valve member for delivering heated air thereto, said air heater being of the exhaust manifold heated type, said air heater including a hollow body, an air inlet pipe opening into said hollow body, an air outlet opening into said hollow body remote from said air inlet pipe whereby air passing through said hollow body from said air inlet pipe into said air outlet fitting is heated, said hollow body having an open end adapted to be closed by an exhaust manifold, means on said hollow body for securing said hollow body to an exhaust manifold.

2,846,990
HIGH SPEED INJECTION MEANS
Paul E. Braun, Birmingham, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application July 25, 1956, Serial No. 599,983
4 Claims. (Cl. 123—139)



1. In a combination fuel injector pump and distributor for internal combustion engines having N cylinders that improvement comprising a body defining a fuel inlet, a spill port, and a plurality of fuel injector outlets, a cylindrical distributing sleeve mounted for rotational and reciprocal motion within said body, means imparting N cycles of reciprocal motion to said sleeve for each revolution thereof, said sleeve defining an inlet port and an outlet port, said inlet port being in registration with said fuel inlet, said outlet port successively registerable with said injector outlets upon rotation of said sleeve, a metering rod mounted within said sleeve and axially adjustable therewith in accordance with engine load, said sleeve forming with said rod a pumping chamber operable upon reciprocal motion of said sleeve, said rod defining a first spill orifice in communication with said chamber, said sleeve defining a second spill orifice in communication with said spill port and registerable with said first spill orifice during a portion of the cycle of reciprocal motion, the length of said portion determined by the axial position of said rod, said rod defining a chamber outlet in communication with said sleeve outlet port, check valve means interposed said injector outlets and said chamber permitting flow only from said chamber into said outlets.

2,846,991
ADJUSTABLE-VOLUME VOLUMETRIC INJECTION PUMP
Lucien Perne, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France
Application October 11, 1955, Serial No. 539,898
Claims priority, application France October 15, 1954
8 Claims. (Cl. 123—140)



1. In an improved adjustable-volume-volumetric injection pump particularly intended for injecting fuel into engines having an intake manifold, means for varying the volumetric output of the pump, a single pressure-responsive member connected to said output varying means and having two sides, communication means between one

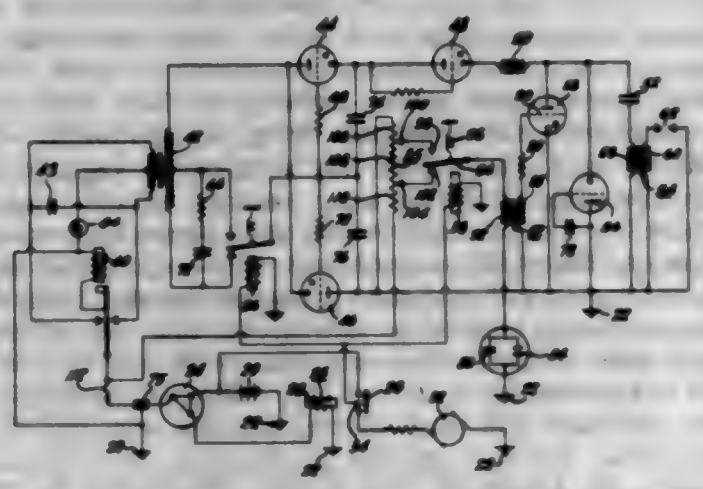
side of said pressure-responsive means and the intake manifold so as to be responsive to the pressure therein, means defining a first control portion and a second control portion in said pressure-responsive member so that the portions are independently and cooperatively responsive to said intake manifold pressures, means permitting a predetermined movement of said first portion when a predetermined manifold pressure range less than atmospheric pressure exists and a predetermined cooperative movement of both portions when a manifold pressure range higher than said predetermined manifold pressure range exists, whereby the means for varying the volumetric output of the pump varies the output as a function of the load on the engine and in one range of intake manifold pressures said output varying means is subject only to the first of said control portions and in another range of intake manifold pressures, said output varying means is subject to both of said control portions.

2,846,992

IGNITION SYSTEM

Brooks H. Short and Harry E. Freeman, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 26, 1956, Serial No. 561,487
9 Claims. (Cl. 123—179)



1. In an ignition system for an internal combustion engine having; a source of D. C. current and voltage, a means for increasing the voltage of said source to a higher voltage, a load connectable to said source for decreasing the voltage of said source, a primary circuit connected with said higher voltage means, and an electronic switch connected in said primary circuit for controlling current flow in said primary circuit from said higher voltage means, means including a transformer having a primary winding connected in circuit with said source lower means and a secondary winding connected with said electronic switch for controlling current flow through said switch and a means in the circuit between the source and primary winding for increasing the voltage across the primary winding when the load is connected to said source.

2,846,993

TOY ENGINE STARTER WITH REPLACEABLE PULL CORD

Eddy L. Baccus, Culver City, and John W. McRoskey, West Los Angeles, Calif., assignors to Wen-Mac Corporation, Los Angeles, Calif., a corporation of California

Application September 4, 1956, Serial No. 607,692
1 Claim. (Cl. 123—179)

A starting device for a toy engine having a main shaft, comprising: a stationary part having an opening therein; a winding drum concentric of said shaft, said drum having an opening therein adapted to be aligned with the stationary part opening; a flexible starting cord wound on said drum and having its inner end anchored thereto; a spring for actuating the drum in a direction to rewind the starting cord; a member rotatable with said shaft and having an opening therein adapted to be aligned with the drum opening; one way clutch means connectible between said drum and member for rotating said shaft when a pulling force is exerted on the cord; manually operable crank means having an end portion adapted for insertion endwise through the aligned member opening



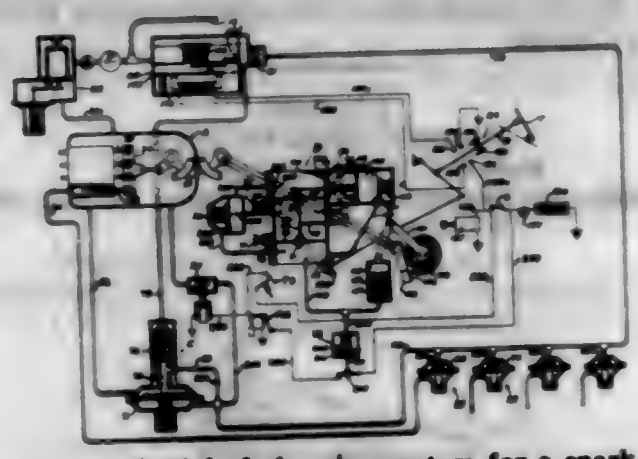
and drum opening to connect said shaft and drum for unitary movement independently of said clutch means and enable unwinding movement of the drum by the crank means to a position for exposing the anchored end of the pull cord and for aligning the drum opening with the stationary part opening, whereupon said end portion may be further inserted into the latter opening for holding the drum against the rewind action of said spring while replacing the pull cord.

2,846,994

FUEL INJECTION SYSTEM

James F. Armstrong, St. Louis, Mo., assignor to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey

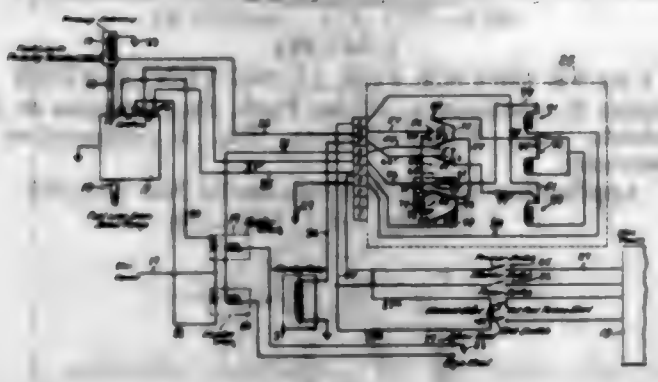
Application March 14, 1957, Serial No. 646,862
13 Claims. (Cl. 123—179)



9. A pressurized fuel charging system for a spark ignition type of internal combustion engine having a source of electric power, an electric circuit from the source to the ignition, and an ignition switch, comprising, in combination, a fuel inlet for said system, a fuel outlet for said system discharging fuel to the engine, a pump supplying fuel under pressure to said fuel inlet, a fuel line normally pressurized from said pump connecting said inlet and said outlet, a pressure regulator having a movable wall controlling a valve at said fuel outlet, a datum pressure system including a by-pass extending around said pump, opposed expansible chambers separated by said movable wall and connected with said datum system and said fuel line, respectively, whereby said regulator maintains the fuel in said fuel line at a pressure proportional to the controlled pressure in said datum system, means for establishing a controlled pressure in said datum system at a fixed differential with respect to said pump supply pressure, a pressure equalizing line extending between the said fuel line and said datum pressure system, a normally open, solenoid closed valve in said pressure equalizing line, and an electric circuit energized by operation of said ignition switch connected to said solenoid operated valve to close the valve when the switch is turned on the start the

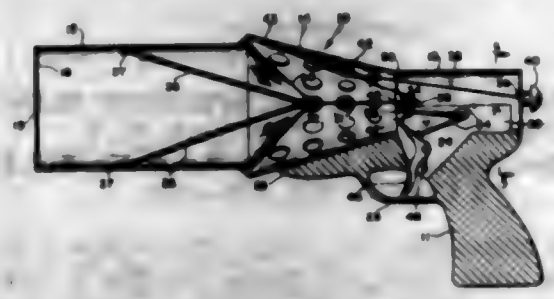
engine, whereby opening of said ignition switch equalizes the pressure between said fuel line and datum system to close said valve at said outlet and cut off the fuel discharged to the engine.

2,846,995
ENGINE STARTING SYSTEM
Gerrald G. Foltz, Dayton, Ohio, assignor to United Aircraft Products, Inc., Dayton, Ohio, a corporation of Ohio
Application April 8, 1957, Serial No. 651,490
2 Claims. (Cl. 123—179)



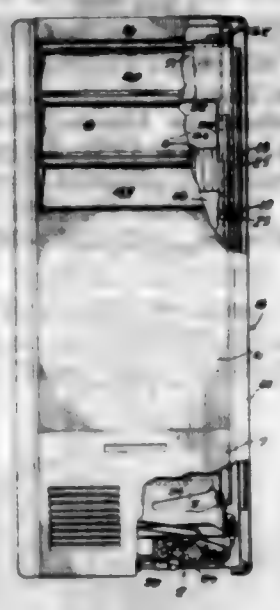
1. A starting system for an internal combustion engine providing hot fuel prime components including a starting relay, a priming solenoid which when energized admits priming fuel to the engine, heaters for heating the fuel, a thermal switch responsive to the temperature of the fuel, a priming switch and a starting switch, and a relay-switch assembly controlling operation of the system in response to the selective closing of said priming switch and said starting switch, said priming switch and said starting switch being normally open and pending to resume an open position when released by the operator; characterized by auxiliary priming and starting switches connected in parallel relation to the first said priming and starting switches, said auxiliary switches being constructed to remain in closed position when so adjusted until manually opened.

2,846,996
TOY VORTEX GUN
John E. Drynan, Ocean Park, Wash.
Application May 23, 1955, Serial No. 510,376
3 Claims. (Cl. 124—1)



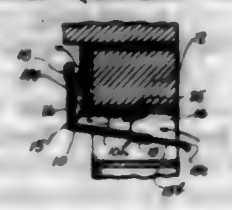
1. A vortex gun comprising a barrel having a muzzle end with an air discharge opening of smaller diameter than the barrel, a limp, lightweight, flexible diaphragm in said barrel, means for fixedly securing the periphery of said diaphragm to said barrel at a distance from said muzzle end, said diaphragm having sufficient fullness of material in excess of the cross sectional area of the barrel to permit its center portion to extend a considerable distance axially of the barrel in opposite directions from the point of securement of its periphery without stretching said material, resilient means operable on said center portion of the diaphragm to hold said center portion in extended position a considerable distance ahead of said point of securement of its periphery, cocking means for moving said center portion of the diaphragm against the force of said resilient means to an extended position a considerable distance behind said point of securement, latch mechanism for holding the diaphragm in said last position, and a trigger for releasing said latch mechanism to produce the rapid forward movement of the diaphragm to its forward extended position under the action of said resilient means, said cocking means including a manipulable cocking member having a lost motion connection with said diaphragm so that said cocking member is not required to follow the forward movement of the diaphragm when said latch mechanism is released.

2,846,997
WALL MOUNTED ROOM HEATER
Herbert M. Reeves, Kankakee, and John B. Mathis, Chicago, Ill., assignors, by mesne assignments, to Heil-Quaker Corporation, a corporation of Delaware
Application March 9, 1955, Serial No. 493,266
5 Claims. (Cl. 126—116)



1. A wall mountable room heater comprising a wall plate assembly having a back panel mountable on a wall, upstanding support tabs vertically spaced along each vertical side of the back panel, a rear plate mountable over said support tabs and spaced from said rear panel, a combustion chamber defined by a pair of spaced metal plates closed along their vertical side edges and mountable on the ends of said tabs and spaced from said rear member, an elongated gas burner supported from said combustion chamber at the lower open end thereof, a first hood supported adjacent the top open end of the combustion chamber for directing the combustion products outwardly away from the wall plate, and a front cabinet enclosure mountable on said wall plate, said cabinet having a lower opening for admitting cool air and an upper front discharge opening through which said first hood extends for directing the heated gases rising from the combustion chamber and the heated air rising in front of the combustion chamber into the room, and a second hood extending through said discharge opening near the top thereof above the first hood.

2,846,998
LINTEL AND LINTEL SHIELD COMBINATION
Albert P. Robinson, Seattle, Wash.
Application February 14, 1955, Serial No. 487,929
4 Claims. (Cl. 126—120)



4. In combination, a lintel for support of the masonry across the top of the front opening of a fireplace; said

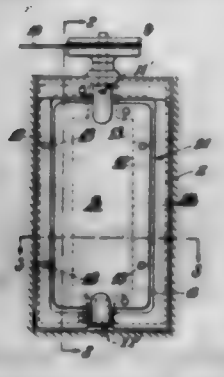
lintel comprising an angle bar adapted to have opposite end portions thereof embedded in the masonry at opposite sides of said opening for its support, a metallic shield extended along the angle bar to protect it from exposure to direct fireplace heat, said shield terminating short of the supporting end portions of the angle bar but extending substantially to the full width of the fireplace opening and supporting means for the shield associated with the single bar whereby it is held in fixed spacing from the bar to provide an open passage between them through which cooling air, from outside the fireplace, can flow with cooling influence on angle bar and shield; said supporting means being adjustable along the mounting end portions of the lintel to suit the width of the fireplace opening and length of the shield.

2,846,999

FLUE SEALING MEANS FOR USE IN CONDUITS HAVING UNIDIRECTIONAL GAS FLOW

Ernst Loewenheim, London, England, assignor to Thermo-Technical Development Limited, London, England

Application August 28, 1952, Serial No. 306,893
Claims priority, application Great Britain September 12, 1951
2 Claims. (Cl. 126—292)



1. Flue sealing means comprising an open frame having side and end walls for installation in a flue, a damper, opposed pintles medially of the damper journalled in each end wall, abutment elements on the frame extending throughout the length of each side wall and along each end wall toward and terminating adjacent the pintles with said abutment elements defining the inner margin of the frame, the said damper being of such dimensions that the perimeter thereof is spaced inwardly of the abutment elements to provide a perimetric spacing between the abutment elements and the damper, the damper being movable between a first position allowing the free passage of flue gases through the said frame and a second position closing the passage through the frame except for the perimetric spacing, and heat resistant spring strips of sufficient length to span the perimetric spacing between the abutment elements and the damper when the damper is in the second position, each of said strips overlapping a corresponding edge of the damper and an adjacent one of said abutment elements, and one strip being secured to the damper and the other strip being secured to a corresponding abutment element to form a gas tight seal substantially entirely about the damper.

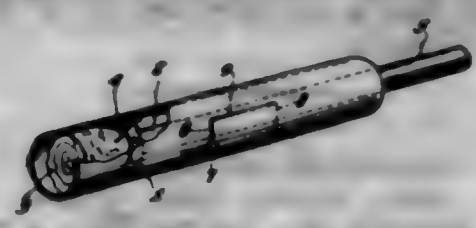
2,847,000

DEVICE FOR OBTAINING BODY CELL SPECIMENS

Herbert E. Nieburgs, New York, N. Y.

Application July 2, 1957, Serial No. 669,648
5 Claims. (Cl. 128—2)

1. Device for obtaining body cell specimens for microscopic examination comprising an open ended tube, a plunger of smaller diameter within said tube and adapted for longitudinal movement therein, a tampon secured to one end of said plunger, a flexible transparent slide of a width less than the internal circumference of said tube,



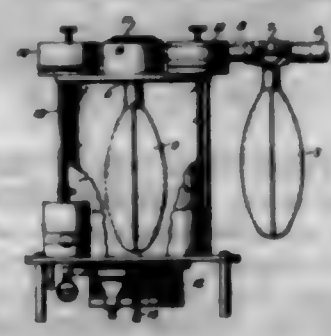
said slide being bent and held in said tube, said slide adapted to flatten when removed from said tube.

2,847,001

VALVE DEVICE FOR LUNG VENTILATOR

Christian B. Andreasen, Elkins Park, Pa., assignor to Air-Shields, Inc., Bucks County, Pa., a corporation of Delaware

Application April 27, 1956, Serial No. 581,282
4 Claims. (Cl. 128—29)



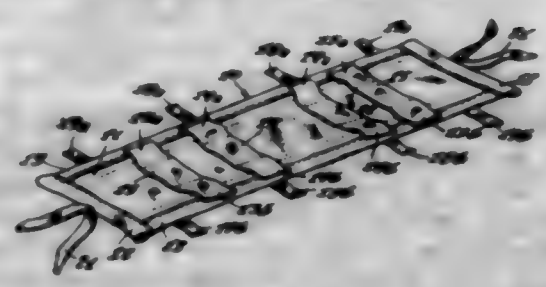
1. Lung ventilating apparatus having a breathing bag, a duct for connecting said bag to an anesthesia machine system, a chamber interconnecting said bag and said duct, a variable pressure chamber in which said breathing bag is supported, pressure varying means connected to said pressure chamber for providing alternate positive and negative pressure phases, a relief valve device mounted in said interconnecting chamber above the breathing bag, said device having an upper wall, side walls and a ring member forming a lower inturned flange, tubular members holding said device above the bottom of said interconnecting chamber, each of said members forming a channel between the upper side of said flange and said variable pressure chamber and a disc normally engaging said flange to form the movable portion of said valve device.

2,847,002

POSTOPERATIVE ARM-SUSPENSION SLING

Florence Doumar, New York, N. Y.

Application December 10, 1956, Serial No. 627,273
2 Claims. (Cl. 128—94)



1. An arm-suspension sling comprising a longitudinal main web section having a transversely extending tubular portion at each end, a transversely extending arm positioning flap secured to the inside surface of said main web section at each side of the central transverse axis thereof and each having a free end at each extremity thereof, and a sling securement strip secured to the outside surface of said main web section on each side of said central transverse axis and each having a free end at each extremity thereof, said sling being adapted to be folded about said transverse axis into encircling engage-

ment with the forearm of a patient, the opposed free ends of said flaps being adapted to be secured together around the forearm, and the opposed free ends of said securement strips being adapted to be secured adjacent to the opposed side edges of said main section.

2,847,003
PROTECTIVE MOUTHPIECE
Norman D. Helmer, Long Beach, and Fred H. Easton, Los Angeles, Calif.; said Easton assignor to said Helmer
Application October 22, 1956, Serial No. 617,556
10 Claims. (Cl. 128—136)



1. A protective mouthpiece for the upper and lower teeth of a person wearing a helmet having a chin strap affixed thereto, including: a resilient generally semi-circular cushion that is adapted to be positioned between said upper and lower teeth; first resilient means that extend upwardly from at least a portion of the forward edge of said cushion and cover at least a portion of said upper teeth; second resilient means that extend upwardly from at least a portion of the rearward edge of said cushion, which first and second means are so laterally spaced that they tend to grip at least a portion of said upper teeth therebetween; and third resilient means affixed to said cushion, having attaching means for connection with a chin strap.

2,847,004
CUSHIONING DEVICE
Leonard Cecil Lowth, London, England, assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York
Application April 25, 1956, Serial No. 580,652
3 Claims. (Cl. 128—153)



1. In a cushioning device for application to a body extremity, a pair of superposed body parts secured together, a reversely folded neck portion integral with said body parts, and a digit loop engaged with said neck portion, said body parts and said neck portion comprising a sheet of cushioning material and a sheet of smooth material laminated to one face of said cushioning material.

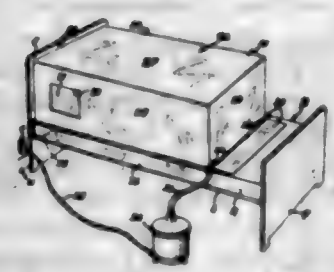
2,847,005
SURGICAL DRESSING FOR FORMING A FINGER COT
John A. Bourne, Hamilton, Bermuda
Application December 14, 1956, Serial No. 628,429
4 Claims. (Cl. 128—157)

2. A surgical dressing for self application to the end portion of a finger or the like comprising an elongated flexible body member permanently formed as an arcuate trough for disposition longitudinally along the outer surface of a finger, said trough including an open rear end and a closed forward end portion, one side of the body member being of a greater length than the other and defining a longitudinal flap portion for disposition in overlying relationship on an outer side portion of the other side of the body member, said body member including a strip of adhesive material on the inner surface thereof adjacent the open end of the body member, and



a strip of adhesive material extending the length of the inner surface of the flap portion for facilitating the forming of a finger cot in circumposed relationship about an injured finger, said body member including an integral pad having an arcuate trough configuration conforming to the forward end portion of the body member for protection of the end portion of an injured finger.

2,847,006
VAPOR CABINET
Leona E. Griffith, Spokane, Wash.
Application December 7, 1956, Serial No. 626,998
1 Claim. (Cl. 28—191)

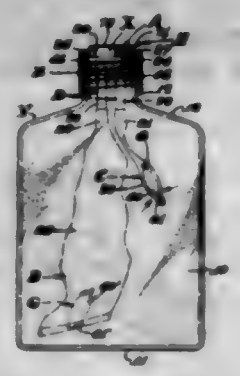


The combination with a bed having a spring and mattress, of a portable vapor cabinet comprising a collapsible rigid tubular support frame including removable legs; protective tips on the lower ends of said legs; said tips resting upon said mattress and supporting said frame upright and spaced above the surface thereof; a fabric tent of closely woven pervious material and having a top and side walls; said side walls being secured contiguously to each other at the corners of said tent by stitching for a distance from the top to a point equal to the height of said frame and unsecured from said point downwardly to the bottom edges of said walls and terminating in integral flaps extending the full horizontal lengths of said side walls; certain ones of said flaps being tucked between the mattress and the spring of said bed and others resting thereupon to close and releasably hold said tent with respect to said bed; means for introducing pressurized inhalants into said tent including a tubular conduit; and said conduit entering said cabinet at the juncture of two flaps and a corner formed by their respective walls, whereby no opening through the tent fabric is required.

2,847,007
FLUID HANDLING UNIT AND APPARATUS
Stanley L. Fox, deceased, late of Los Angeles, Calif., by Dorothy Brown Fox, executrix, Los Angeles, Calif.
Application July 19, 1954, Serial No. 444,066
11 Claims. (Cl. 128—214)

3. A unitary fluid handling device of the character described, including, a single head, a plurality of fluid handling containers permanently joined to the head, there being tubular connectors projecting from the head and in communication with the containers, seals at each con-

nector closing the connector and container in communication therewith, and a supplementary fracturable con-



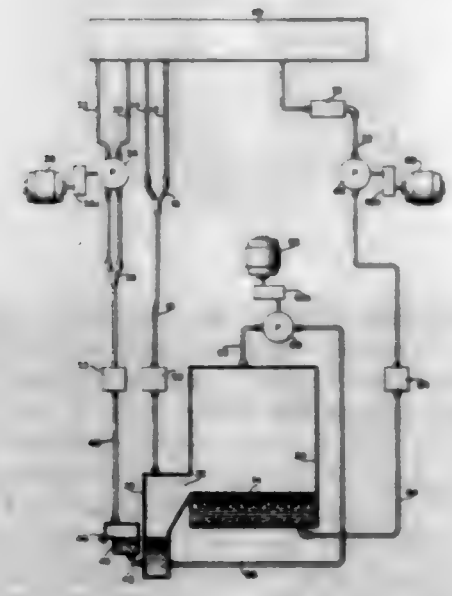
tainer within one of the said containers and adapted to release material into the said container.

2,847,008

BLOOD HANDLING SYSTEM FOR EXTRA-CORPOREAL CIRCULATION DEVICES

Richard Taylor, Binghamton, Donald K. Rex, Endicott, and Harry C. Kuntzleman, Newark Valley, N. Y., assignors, by direct and mesne assignments, to Research Corporation, New York, N. Y., a corporation of New York

Application November 14, 1955, Serial No. 546,724
4 Claims. (Cl. 128—214)



1. A blood pumping system for extracorporeal circulation devices having a blood oxygenating unit shaped to provide a reservoir of predetermined capacity for oxygenated blood comprising blood receiving means positioned to receive all oxygenated blood from said oxygenating unit in excess of said predetermined capacity thereof and all of the venous blood from a source thereof, a first pump for pumping blood from said blood receiving means into said oxygenating unit and a second pump for withdrawing oxygenated blood from said oxygenating unit in return to the source thereof.

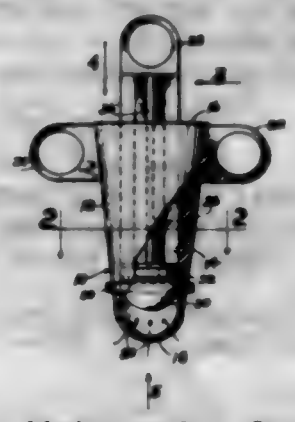
2,847,009

DISPENSING LIQUIDS

Wilfred J. Blease, Greenville, N. H.

Application December 20, 1954, Serial No. 476,242
2 Claims. (Cl. 128—222)

1. A device of the class described comprising an elongated container portion having a hollow cylindrical interior opening at one end of the container, the opposite end of the container being provided with an entrance aperture, the apertured closed end of the container being blunt and rounded, a plunger in the cylinder, a piston on said plunger closely engaging the walls of the cylinder, and guide means on said plunger engaging the walls of the cylinder, said guide means being in the form of



radially extending blades, and a finger-hold on said plunger extending outwardly from said container.

2,847,010

EYEWASH CONTAINER-APPLICATOR

George D. Knight, San Francisco, Calif., assignor of one-tenth of The Gadget-Of-The-Mouth Club, Inc., Los Angeles, Calif., a corporation of California

Application December 27, 1955, Serial No. 555,435
4 Claims. (Cl. 128—249)



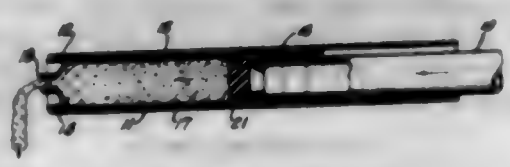
1. A container for fluids, comprising: a variform generally rigid hollow main body including a basal section of generally circular conformation, a stem section of reduced diameter communicating with an opening upwardly from said basal section, and a cup section extending upwardly from said stem section and having an ovular aperture at the top thereof, the edge of said cup section around said ovular aperture being lipped and rounded to provide a laterally extended ridge around the circumference thereof, said aperture of said cup section being provided with closure means comprising; a thin sheet of water resistant plastic film tightly disposed across said aperture and downwardly curvedly disposed on said outwardly extended ridge thereof and adhesively attached to the exterior surface of said cup section below the top edge thereof.

2,847,011

SINGLE DOSE APPLICATOR

Edmund A. Jones, Somerville, N. J., assignor to Ortho Pharmaceutical Corporation, a corporation of New Jersey

Application August 14, 1956, Serial No. 604,004
3 Claims. (Cl. 128—261)



1. In combination, a single use applicator adapted to inject pharmaceutical formulations into body cavities comprising a first cylindrical tube constricted at one end; a moisture-proof cylindrical container for said pharmaceutical composition closed at one end with a slidable moisture-proof seal; the other end of said container having a breakable tip of reduced diameter, said container being of such size as to slidably fit within the first tube and be retained by the constriction; and a second cylindrical tube adapted to slide coaxially within the first tube and exert pressure on the slidable moisture-proof seal.

2,847,012
DEVICE FOR RUPTURING THE AMNIOTIC MEMBRANES

Robert L. Eastman, Mount Vernon, Ohio
Application October 13, 1954, Serial No. 462,026
4 Claims. (Cl. 128—303)



1. A surgical glove adapted for use in an obstetrical operation which involves rupturing the amniotic membrane to release the amniotic fluid and facilitate childbirth, said glove being formed of a relatively thin pliable and contractible rubber-like sheet material whereby it fits over the hand of the user and closely conforms to the contour thereof, said glove having finger enclosing portions and an integral membrane rupturing member at the end of one of said finger enclosing portions, said membrane rupturing member comprising a relatively hard generally cone-shaped non-metallic element integrally attached at its base to the glove, which cone-shaped element is formed to provide a relatively hard pointed end projecting from said finger enclosing portion for engaging the membrane by manipulation of the finger whereby the same may be readily ruptured.

2,847,013
OBSTETRICAL FORCEPS

Wallace B. Shute, Ottawa, Ontario, Canada
Application September 13, 1957, Serial No. 683,777
6 Claims. (Cl. 128—323)



1. A pair of obstetrical forceps comprising two main members adapted to move in parallel relation to one another, each of said members having a handle at one end thereof and a blade at the end remote from said handle, a bore within a first of said handles, a screw-threaded member adapted to move longitudinally within said bore, said threaded member having an inner end and an outer end, a recess in said first handle arranged at right angles to the longitudinal axis of said bore and communicating therewith, a wheel located within said recess, a threaded axial bore in said wheel for engagement with said threaded member, means located in a second of said handles cooperating with said outer end of said threaded member for bringing about detachable engagement of said second handle with said threaded member, and means located in said first handle and co-operating with said inner end of said threaded member to prevent relative rotation of said first handle and said threaded member.

2,847,014
TOURNIQUET

Harry Cohen, New York, N. Y., assignor to David Cohen, New York, N. Y.
Application September 4, 1956, Serial No. 607,608
1 Claim. (Cl. 128—327)



A tourniquet for applying pressure to a selected position upon an arm or limb, said tourniquet comprising two complementary members, means pivotally securing said members intermediate their ends, one of said complementary members comprising a handle member having an eye loop at one end thereof, and a gripping member at the other end, the other complementary member having a straight handle member at one end thereof and a gripping member at the other end, a spring-like arm attachment having an opening intermediate its ends, said attachment being fixed to one end of said straight handle member and longitudinally offset thereon, the other end resting upon the looped handle member for forcibly separating said complementary members, and an arcuate ratchet having concave edges and teeth upon said concave edges, said straight handle member rigidly supporting said arcuate ratchet at one end, said ratchet projecting outwardly through said opening of the arm attachment, said looped handle member having a slot, said slot being substantially aligned with said opening, said arcuate ratchet extending through said slot, an adjusting mechanism comprising a pin carried by said looped handle member, a member swingably mounted upon said pin and having one end extending through said slot and another supporting end, a worm wheel rotatably mounted upon said supporting end, a pawl fixed to said supporting end, and a leaf spring fixed to said looped handle member and having a free end engaging said one end of the last mentioned member to cause said worm wheel to engage said teeth in the selected position when the tourniquet is applied to said arm or limb.

2,847,015
HAIR CURLER

Robert J. Davis, Houston, Tex.
Application December 20, 1956, Serial No. 629,708
6 Claims. (Cl. 132—42)



1. A hair curler comprising an elongated generally tubular-shaped body provided with an internal passage closed at one end and open adjacent its other end, and a hair guide spiraling about the body from a point adjacent said other end to a point spaced from said one end, said body provided with a plurality of openings disposed along the length of the hair guide and the one end whereby fluid

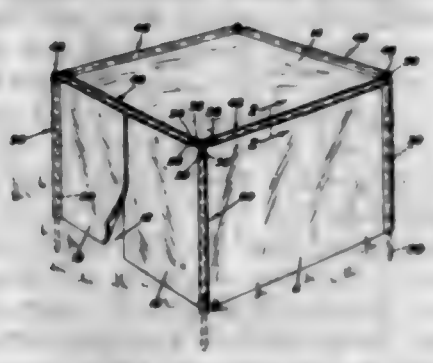
introduced into said passage flows through said openings and wets hair spiraled about the body in the hair guide and curled about said one end.

2,847,016
PONY TAIL HAIR CLASP AND ORNAMENT
Mildred H. Rabinowitz, Houston, Tex.
Application March 8, 1957, Serial No. 644,888
6 Claims. (Cl. 132—48)



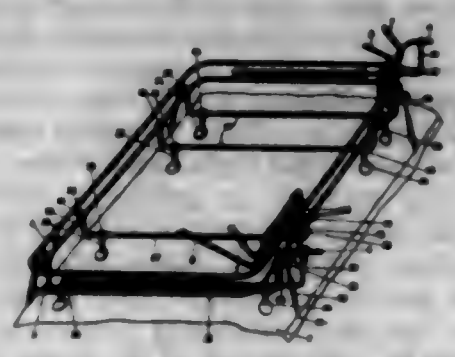
1. A hair clasp comprising a sleeve adapted to extend about a selected quantity of hair at the back of the head and comprising hingedly connected, arcuate sections cooperating, in one position to which they are swung relative to each other, in forming a continuous sleeve; and abutment means extending forwardly, downwardly from the respective sections for engagement against the back of the head to space the sleeve a predetermined distance therefrom, comprising a pair of overlapping wings, said wings being connected to the respective sections and being formed as wide, generally segmentally shaped members transversely curved to conform generally to the shape of the back of the head.

2,847,017
PORTABLE KNOCKDOWN TENT
Philip Drago, Port Arthur, Tex.
Application January 4, 1957, Serial No. 632,467
1 Claim. (Cl. 135—3)



A temporarily usable tent-type beach cabana for bathers comprising a ready-to-erect knockdown framework embodying four rigid tubular members serving as vertical posts and having their lower ends driven and thus anchored in the beach, a horizontal top frame embodying four rigid coplanar horizontal frame members, a collapsible one-piece canvas tent embodying top, side, front and rear walls having their cooperating vertical and horizontal marginal edges joined permanently by sewn seams, each seam having an open-ended hem embodied therein, said hems providing elongated open-ended pockets, said posts and also said frame members being fitted removably in their respective vertical and horizontal pocket-forming hems and serving to tauten the walls and maintain the tent in its usable condition, all of said hems being shorter than the seams in which they are incorporated, the upper ends of the vertical hems and opposite outer ends of the horizontal hems closest to said upper ends being spaced from each other and also from the cooperating upper corners of the over-all tent in a manner to expose the connectible portions of the posts and frame members, the upper ends of said posts being open and defining and providing sockets, the respective ends of said frame members being flattened, overlapped and having registering holes, and headed frame member assembling and retaining pins passing downwardly through their respective holes in the flattened overlapped ends and fitting telescopingly and removably into the upper ends of their respective corner-posts in a manner to thus tautly attach the vertical walls to the corner-posts and the marginal edge portions of the top wall and upper edge portions of the vertical walls to the horizontal frame members whereby upon withdrawing the pins and disconnecting the overlapped ends, the horizontal frame members may be readily slipped out of the hems in which they have beeen fitted and the vertical hems may be slid upwardly on and readily detached from the corner-posts.

2,847,018
VEHICLES WITH ATTACHED STOWABLE TENT-LIKE STRUCTURES
Peter Weninger, Innsbruck, Austria
Application March 6, 1956, Serial No. 569,894
Claims priority, application Switzerland March 11, 1955
6 Claims. (Cl. 135—5)



1. A device for producing a shelter on an automotive vehicle having at least four wheels so as to be self-supporting and stable; said device comprising a rectangular frame adapted for mounting on the roof of an automotive vehicle and including side members and cross members spacing apart said side members so that the latter extend along the opposite side edges of the roof, bearing means mounted on one of said side members adjacent the opposite ends thereof, a plurality of generally U-shaped hoops each including two leg portions and a longitudinal portion connecting the latter at one end, said longitudinal and leg portions of each hoop corresponding in length to said side and cross members, respectively, of said frame, each of said hoops having the free ends of its leg portions pivotally mounted in said bearing means so that each hoop is swingable about an axis extending along said one side member between a stored position, wherein said leg portions and said longitudinal portion overlie said cross members and the other side member, respectively, and an erected position wherein each hoop is angularly displaced to a predetermined extent from its stored position, a tent awning secured along one edge to said other side member of the frame and being secured to at least said longitudinal portion of each hoop to limit the angular displacement of the latter to its erected position, said tent awning being dimensioned and so secured to said hoops that one of said hoops, in its erected position, extends vertically and upwardly from said one side member of the frame substantially in the vertical plane of the adjacent side edge of the vehicle roof, while another of said hoops, in its erected position, projects horizontally laterally beyond the adjacent side edge of the roof a distance substantially equal to the length of said leg portions thereof, and tent curtains depending from the latter said leg portions and said longitudinal portion of the horizontally positioned hoop in said erected position of the latter so that said tent awning and curtains, when supported by said hoops in the erected positions of the latter, define enclosed spaces on top of the vehicle roof and along one side of the vehicle, respectively, which are in communication with each other under the longitudinal portion of the vertically positioned hoop which defines a ridge-line, and

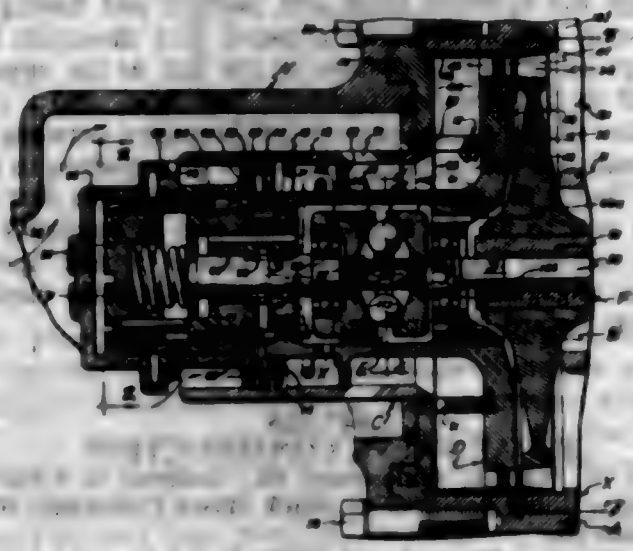
also in communication with the interior of the automotive vehicle through doors in said one side of the latter; said free ends of the leg portions of each hoop being curved inwardly toward each other and having aligned bearing pins projecting therefrom, and each of said bearing means including a bracket extending upwardly from said one side member and having vertically spaced apart bores extending therethrough and rotatably receiving the bearing pins projecting from the adjacent free ends of said hoops so that the swinging axes of said hoops are disposed one above the other.

2,847,019
BOAT AWNING
Hatton G. Ogle, Sr., Dallas, Tex., assignor of ten percent to Jessie H. Haws and ninety percent to Bertie Harrison Gordon, Dallas, Tex.
Application December 18, 1956, Serial No. 629,074
3 Claims. (Cl. 135—6)



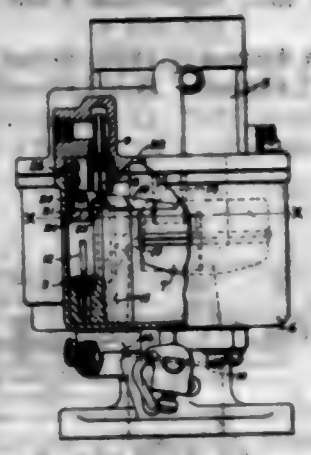
1. An awning for a boat having a transom including a pair of upright stern stanchions fastened to the transom in spaced relation to each other, an upright bow stanchion resting on the bow of the boat, flexible elements connecting the intermediate portion of the bow stanchion to the sides and nose of the bow, a rectangular flexible cover extending longitudinally of the boat between the stanchions, substantially coextensive rods extending transversely across the front and rear ends of the cover, the rear transverse rod having its ends fastened to the upper end portions of the stern stanchions, flexible elements connecting the ends of the front transverse rod to the sides of the bow, and a flexible element connecting the intermediate portion of said front rod to the upper end portion of said bow stanchion.

2,847,028
CONTROL MECHANISM
Paul E. Anderson, Los Angeles, and Stephen A. Stam, Glendale, Calif., assignors to Harvey Machine Co., Inc., Torrance, Calif., a corporation of California
Application January 12, 1953, Serial No. 330,822
7 Claims. (Cl. 137—36)



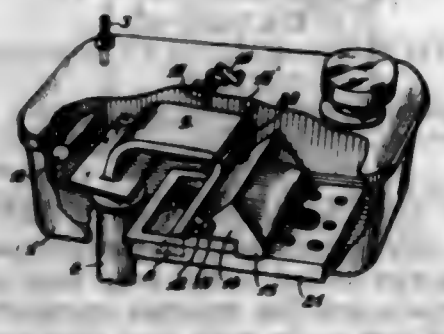
1. A throttle valve mechanism for controlling the rotative speed of turbines and the like, including, a valve body adapted to receive the flow of fluid under pressure at one end thereof, a balanced sleeve type valve element shiftably carried in the body and urged toward a closed position in response to the pressure of the said fluid and adapted to deliver the flow of said fluid from the other end of the body, means normally yieldingly urging the valve element toward an open position, and a control adapted to vary the position of the valve element including, a pressure bleed valve adapted to vary the pressure of fluid acting on said valve element, a shaft adapted to be rotated by said turbine, and means connecting the shaft and the pressure bleed valve including a member rotated by the shaft and adapted to be operated by centrifugal force to operate the pressure bleed valve.

2,847,031
CARBURETOR FLOAT VALVE STABILIZER
Harold A. Carlson, Brentwood, and James T. W. Moseley, Richmond Heights, Mo., assignors, by mesne assignments, to ACF Industries, Incorporated, a corporation of New Jersey
Application June 27, 1955, Serial No. 518,058
9 Claims. (Cl. 137—39)



9. In a constant level liquid supply device, a reservoir having an inlet connection, an inlet valve in said connection, a valve actuating mechanism including a float in said reservoir operable to maintain a substantially constant depth of fuel in the reservoir, and another valve actuating mechanism operable responsive to sudden change in condition of motion of the device to close said inlet valve independently of said first-mentioned mechanism, said other valve actuating mechanism including a movable member mounted within said reservoir to close said valve responsive to impact of a body of fuel moving generally transverse to the depth direction of the fuel in the reservoir responsive to a sudden change in condition of motion of the device.

2,847,022
AUTOMATICALLY PRIMED SIPHON MECHANISM FOR FLUSHBOXES
Marcel Nestor Jules Delvoye, Verviers, Belgium
Application February 25, 1954, Serial No. 412,519
Claims priority, application Belgium March 3, 1953
4 Claims. (Cl. 137—135)



1. Automatic liquid dispenser of the kind including a tank continuously supplied with liquid, and a substantially U-shaped siphon pivotally supported in said tank and linked, at one end, to the discharge conduit of the tank, comprising in combination, a siphon in the form of a flat tube of substantially rectangular section, the

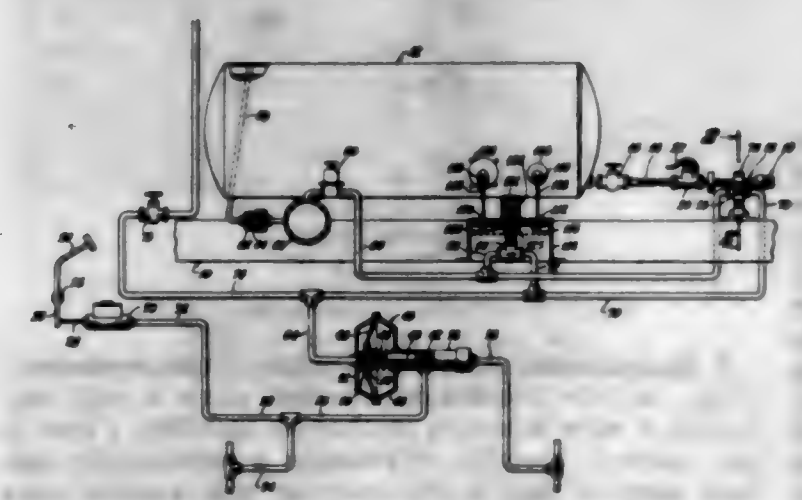
free end of said siphon tube being substantially funnel-shaped, a float including a container portion open at the top, and a floatation supporting portion integral with said container portion, pivotally connected with said siphon, a check mounted in the top portion of said tank, said float being adapted to be pivotally displaced, at the start of the tank filling operation, into its floating position and to pivotally displace said siphon until, as the liquid level rises, said float abuts against said check whereby said float container portion is filled with liquid, descends in the liquid and by a corresponding lowering of the siphon, causes a rapid discharge of the tank.

2,847,823

MEANS TO PREVENT OPERATION OF A TRUCK WHILE A TANK THEREON IS IN FLUID COMMUNICATION WITH ANOTHER TANK

Donald J. Hansen, Inglewood, and Fred A. Tann, Los Angeles, Calif., assignors to Equipment Manufacturing Company, Inc., Inglewood, Calif., a corporation of California

Application August 3, 1955, Serial No. 526,194
17 Claims. (Cl. 137—351)



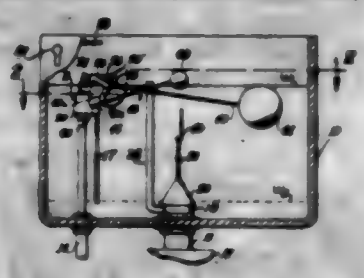
5. In a truck having a tank with an inlet, the combination therewith of means to prevent operation of the truck while said inlet is connected to fluid source for filling the tank, said means comprising: a member retractable from a position on the tank at said inlet to prevent use of the inlet; and means responsive to the retraction of said member from said position to prevent operation of the truck.

2,847,824

FLOAT VALVE

Leslie Lamb, Chicago, Ill.

Application May 23, 1957, Serial No. 661,051
3 Claims. (Cl. 137—417)



1. A valve control mechanism for a flush tank having a liquid inlet, comprising in combination: a main float; a main arm affixed to the main float; means supporting the main arm for swinging movement about a predetermined axis as the main float rises and falls and permitting such movement from an elevated position where the main float is near the liquid surface with the tank full and a lowered position spaced from the elevated position by substantially the extent of the drop in water level in flushing operation; valve mechanism operably associated with the main arm to close the liquid inlet progressively as the main float rises from the lowered position and to shut off the liquid inlet as the main float reaches said elevated position; an auxiliary float; an auxiliary arm affixed to the auxiliary float; means supporting the auxiliary arm, said means including a first element on the main arm spaced from said axis and a second element of fixed position, whereby the elements shift in relation to each other as the main arm rises and falls, one of said elements supporting the auxiliary arm for swinging movement about an axis spaced from said first axis and the other of said elements being in the form of a substantially horizontal cam surface spaced from both of said axes in all operating positions and having a substantially vertical shoulder, the auxiliary arm having conformations resting on said cam surface to support the auxiliary arm until the main float descends to said lowered position at which time the auxiliary arm drops over said shoulder and locks the main arm against rising movement until the tank is nearly full.

2,847,825

FLOAT-OPERATED VALVE

Abraham L. Reitman, Oakland, Calif.

Application November 29, 1954, Serial No. 471,614
4 Claims. (Cl. 137—426)



1. In a float-controlled valve of the type described, a body providing a flow passage, a shut-off valve for said passage, a valve-control lever pivoted to the body and swingable in a plane fixedly related to the body and having an extending flattened arm portion disposed parallel to the plane of swinging of the lever, a float, a stem extending from said float in fixed relation thereto, a headed bolt having its shank extending transversely through the flattened lever arm portion and having the float stem complementarily engaged in a diametric hole through an extending portion of the bolt at the opposite side of the arm portion from the bolt head, and a compression spring means constantly operative between the bolt head and the opposed side of the arm portion to normally clamp the mounted float stem against the first side of the arm to fix the stem and the arm in angularly adjusted relation for their mutual release by and upon a manual engagement of the bolt head to axially displace the bolt toward the opposed arm side.

2,847,826

FLOAT VALVE CONSTRUCTION

Permil N. Nelson, Galesburg, Ill., assignor to Lynn H. Ewing, doing business as Black Hawk Company, Rock Island, Ill.

Application November 4, 1957, Serial No. 694,446
3 Claims. (Cl. 137—434)

1. A float operated valve of the type described comprising a vertical standpipe for attachment through an opening in the bottom wall of a water closet reservoir, a valve body having a vertical bore, said bore being tapped

for mounting on the top of said standipipe, a horizontally disposed frusto-conically shaped valve chamber in said housing having its smaller end communicating with said bore, a tapered plug valve horizontally reciprocal to open or close said valve chamber, said plug valve having a headed medial stem, a valve operating lever having a wall adjacent the larger end of said plug valve, said lever having an elongated slot through said wall, said stem extending through said slot with its head beyond said



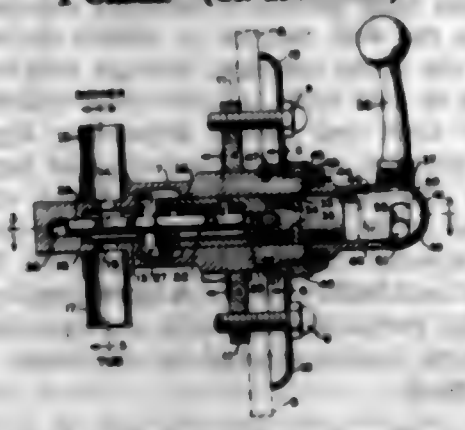
wall, a pair of arms extending upwardly from said valve housing, a pivot pin mounted through said arms, said valve operating lever mounted on said pivot pin, a rod extending upwardly from said lever and a float ball connected to the end of said rod, said valve operating lever adapted to have its wall engage behind said head to move it and the plug valve away from said valve chamber whenever said float ball is lowered and return said plug valve to closing position by having its adjacent wall engage the larger end of said plug valve to push the same.

2,847,027

MIXING, DISTRIBUTING AND VOLUME CONTROLLING VALVE

Daniel F. Kuuppasa, Dover, N. J.

Application March 23, 1954, Serial No. 418,028
1 Claim. (Cl. 137—597)



A proportioning and volume controlling valve comprising the combination of a valve body having a longitudinally extending cylindrical bore provided with inlet ports in opposite sides and a piston rotatably and longitudinally slidably adjustable in said bore and ported circumferentially in line with said inlet ports for cooperation with said inlet ports in the rotary and longitudinal adjustments of said piston, a cap mounted in freely rotatable longitudinally fixed relation over the outer end of said valve body, said piston having an angular cross section outer end portion projecting into said cap and provided with a cam slot, a handle having crank discs fulcrumed in the outer end of said cap at opposite sides of the angular end extension of the piston on an axis transverse to the longitudinal axis of the piston and in rotary sliding engagement with opposite sides of said angular end extension for effecting rotary adjustments of said piston by turning movements of said handle about the axis of said cylindrical bore and a crank pin carried by said crank discs and engaged in said cam slot for effecting longitudinal sliding movements of said piston by rotary movements of said handle about the fulcrum axis of said crank discs, said valve body having a reduced cylindrical chamber at the inner end of the cylindrical bore, provided with outlet ports at opposite sides, a tubular diverter rotatably adjustable in said chamber having a wide slot therein registrable with said outlet ports and a stem projecting from the inner end of said piston through said diverter and having a transverse key projecting into said slot in the diverter and providing lost motion connection between the piston and diverter.

2,847,028

TWO-WAY ANTI-DRIP DISTRIBUTING VALVE

William M. Ross, Memphis, Tenn.

Application September 23, 1955, Serial No. 536,212
8 Claims. (Cl. 137—609)



1. A valve having a chamber with outlets adjacent opposite ends thereof and an inlet between said outlets, a pair of seats mounted in said chamber between the inlet and the outlets and respectively associated by proximity with said outlets, a pair of plungers respectively associated with said seats disposed on the outlet sides thereof, means for reciprocating said plungers so as to move one away from the adjacent outlet and towards its associated seat and to move the other towards the adjacent outlet and away from its associated seat and vice versa, means mounting said seats for reciprocating movement in said chamber whereby, upon being engaged by their associated plungers, said seats and plungers move together as a piston away from the associated outlets so as to suck back fluid therefrom, lost motion means respectively connecting said plungers and the associated seats for returning the seats towards the associated outlet upon predetermined movement of the plungers towards their associated outlets; said plungers and seats permitting the flow of fluid therepast when disengaged, and means for limiting the movement of said seats towards their associated outlets.

2,847,029

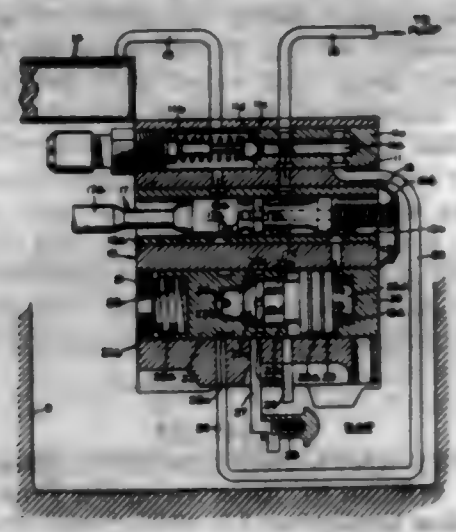
CONTROL VALVE FOR TRACTOR HYDRAULIC SYSTEMS

Edwin C. McRae, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application December 28, 1953, Serial No. 400,494
4 Claims. (Cl. 137—621)

1. In a hydraulic control system, a valve housing having an inlet port and a return port, and a fluid connection from said inlet port to said return port, a fluid pressure responsive shiftable valve seat in said fluid connection, a fluid pressure responsive shuttle valve shiftable in alignment with said valve seat and normally held out of engagement with said valve seat by the pressure in said fluid connection, control means movable to a position admitting fluid from said inlet port to said shuttle valve to move said shuttle valve into engagement with said valve seat to

close said fluid connection and interrupt the flow of fluid from said inlet port to said return port to produce a build-up of pressured fluid in said inlet port, and resilient means urging said valve seat toward said shuttle valve, said resilient means being proportioned to exert an initial biasing force on said valve seat substantially less than the effective maximum pressure force developed on said shuttle valve when in closed position, whereby the rate of initial pressure build-up in the system by shifting of said shuttle valve to closed position is substantially reduced by displacement of said valve seat against the bias of said resilient means.

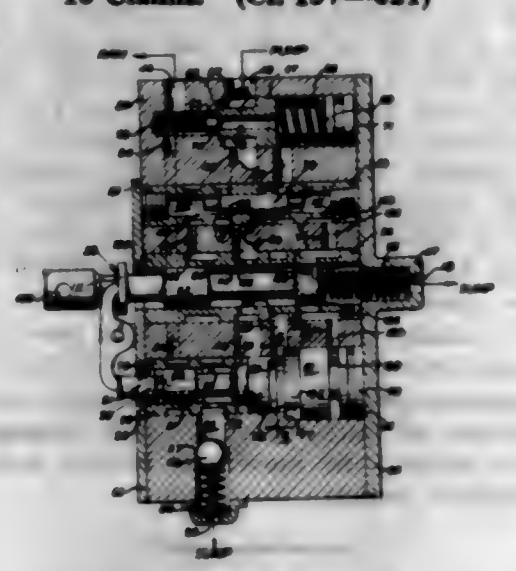


2,847,830

VALVE MEANS FOR TRACTOR HYDRAULIC SYSTEM

Edwin C. McRae, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application January 3, 1955, Serial No. 479,493
18 Claims. (Cl. 137—621)



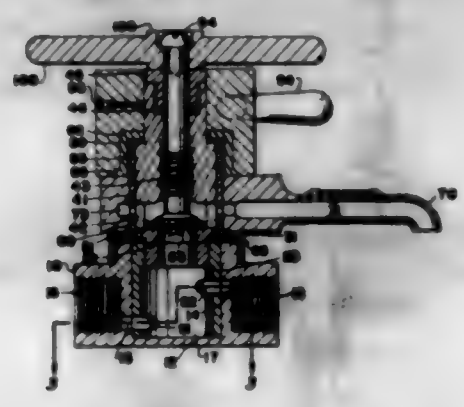
1. Valve mechanism for a hydraulic system of the type wherein pump output fluid is either bypassed to a sump or is directed to a work producing mechanism, and wherein fluid from the work producing mechanism is discharged to the sump, comprising a valve housing having an inlet port adapted to be connected to said pump, return means adapted to be connected to said sump and an outlet port adapted to be connected to said work producing mechanism, a valve reciprocably mounted in said valve housing for movement between one open and two closed positions, said valve being moveable in one direction to a closed position closing communication between said inlet port and said return means to build up pressure in said outlet port, hydraulically actuated valve positioning means independently reciprocable between two predetermined positions, said valve being moveable in the opposite direction to one of two open positions determined by the position of said positioning means, said valve in one of said two last mentioned positions opening communication between said inlet port and said return means and in the other of said two last mentioned positions opening communication between said outlet port and said return means.

2,847,831

MIXING FAUCET

Charles Kepler Brown, Jr., Verona, N. J.

Substituted for abandoned application Serial No. 269,831, February 4, 1952. This application December 28, 1956, Serial No. 631,991
3 Claims. (Cl. 137—637.4)



1. In a mixing valve, a body having a cylindrical bore with hot and cold water supply ports connected therewith in one plane, a cylindrical plug within said cylindrical bore, said plug having an internal cylindrical chamber therein and a pair of oppositely situated and offset lateral ports in the wall thereof, said plug being rotatably movable within said cylindrical bore, said lateral ports being selectively connectible with said hot and cold water supply ports in said body, said plug having an internal slot in the upper portion thereof, a key element having lower depending portions fitting in said slot and engaging therewith, whereby rotary movement of said key element causes rotary movement of said plug, said key element having an internal chamber communicating with said cylindrical bore of said plug, said key member having an upper flange and a pair of oppositely disposed grooves on the face of said flange, a hollow shell having an enlarged cylindrical portion fitting over said body and said key element, said shell having a series of circular arranged openings in the wall thereof to permit discharge therethrough of the water admitted through said hot and cold water ports in said body, a cylindrical clutch extending within said shell and having depending lugs engaging with said grooves on said face of said key flange, a valve stem threaded in said clutch, said stem having a valve head at the end thereof controlling the discharge from said internal chamber in key element through the openings in said hollow shell, an operating head secured to said clutch to rotate said clutch and operate said plug, and a control handle secured to said stem to operate said valve head.

2,847,832

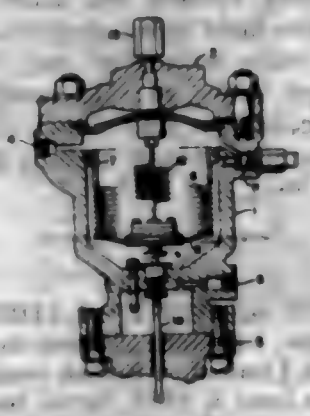
RELIEF VALVE FOR PRESSURE MEASURING APPARATUS

Jonathan B. Fleming, Wickliffe, Ohio, assignor to Bailey Meter Company, a corporation of Delaware

Application February 25, 1955, Serial No. 490,526
8 Claims. (Cl. 137—785)

1. A relief valve system for a meter responsive to differential pressure including, in combination, a casing for receiving the pressures of the differential, a pressure responsive wall dividing the casing, a valve housing mounted on the responsive wall and providing an internal chamber with a first passage opening to one side of the

wall and a second passage registering with an opening in the wall to the other side, a connecting rod fixed to the housing and extending into the internal chamber, a valve member in the housing slidable along the rod in seating on the internal surface of the housing over the first passage opening to the one side of the wall, a spring within the internal chamber to urge the valve on to its seat, a rigid wall member dividing the casing below the pressure



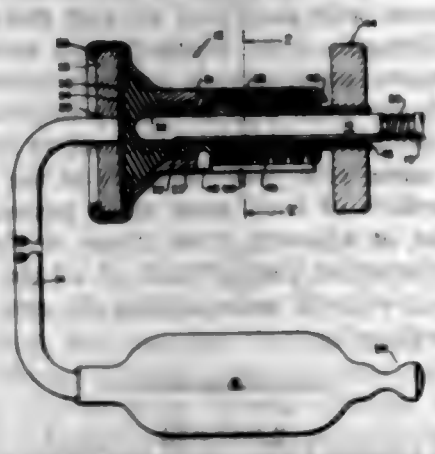
responsive wall and accommodating the connecting rod loosely through an aperture, a first seal member for the rigid wall aperture between the rigid wall and the pressure responsive wall and slideable on the connecting rod, and an actuating sleeve between the first seal member and the valve and which extends into the internal chamber of the housing to lift the valve from its seat after the seal member contacts the rigid wall and the housing continues to move toward the rigid wall.

2,847,033

ADJUSTABLE TRANSDUCER

William E. Baker, Wellesley, Mass., assignor to Standard-Thomson Corporation, Waltham, Mass., a corporation of Delaware

Application July 8, 1955, Serial No. 520,821
3 Claims. (Cl. 137—788)



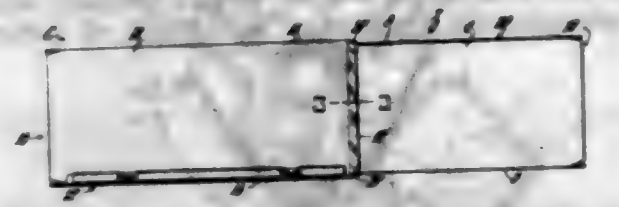
1. A pressure-motion transducer having, in combination, a shell member defining a chamber with a communicating tubular portion, said portion having a longitudinal guide therein, a hollow sleeve rotatably and slidably received in said portion and having an outside thread, a rigid pin slidably received in the sleeve, a deformable body within the chamber and lying adjacent the pin and sleeve, means to apply pressure to displace said body and thereby to move the pin, an overtravel compression spring within said tubular portion and around the sleeve, one end of the spring being threaded onto the sleeve and engaged with said guide and the other end being restrained in relation to the shell, and means for adjustably rotating the sleeve within the shell to adjust the position of the pin at a given pressure through displacement of said body, said guide preventing rotation of the spring and the shell limiting extension of the spring while permitting compression thereof.

2,847,034

DUCT CONSTRUCTION

Russell F. Swett, Longmeadow, Mass., assignor to Duo-Pac, Inc., East Longmeadow, Mass., a corporation of Massachusetts

Application May 18, 1956, Serial No. 585,844
2 Claims. (Cl. 138—25)



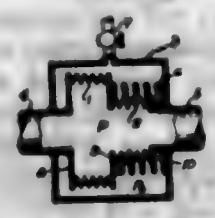
1. Duct construction comprising an elongated unitary inner duct component and an elongated unitary outer connector each formed from sheet metal and being rectangular in cross section to have opposite and adjacent walls, said inner duct component having adjacent longitudinal edges of adjacent walls joined as a seam interiorly and extending longitudinally thereof, said outer connector having adjacent longitudinal edges of adjacent walls joined as a seam exteriorly and extending longitudinally thereof, the walls of said connector arranged for a snug sliding fit of said connector on said inner component, each side wall of said connector at corresponding ends thereof being provided with a lip, opposite ends of the lips being free of adjacent lips of adjacent walls, and the said lips extending outwardly of said ends of the walls and relatively converging and being independently yieldable to frictionally engage the side walls of said inner component.

2,847,035

FLUID CIRCUITRY

Melville F. Peters, Livingston, N. J.

Application August 11, 1954, Serial No. 449,202
6 Claims. (Cl. 138—30)



1. An expansion unit for fluid line interposition comprising, a fixed wall rigidly secured to each of the opposed ends of the fluid line, a covering around said end walls and forming a sealed chamber therewith, a centrally bored movable wall member within the chamber, a first bellows secured at one end to the fluid line and at its opposite end to one side of the movable wall, a second bellows secured at one end to the fluid line opposite the first bellows and at its other end to the opposite side of the movable wall member, said first and second bellows differing in their respective effective areas.

2,847,036

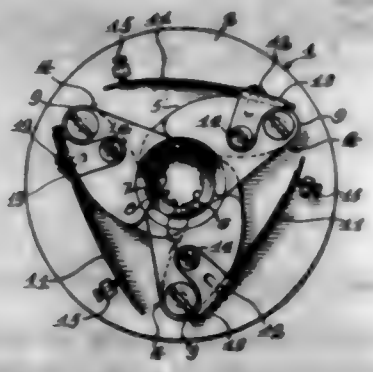
AUTOMATICALLY SELF-CONFORMING FLUID PRESSURE REDUCER

Thomas D. A. Dow, Dorval, Quebec, Canada, assignor to Northern Electric Company, Limited, Montreal, Quebec, Canada, a corporation of Canada

Application April 18, 1955, Serial No. 502,094
5 Claims. (Cl. 138—45)

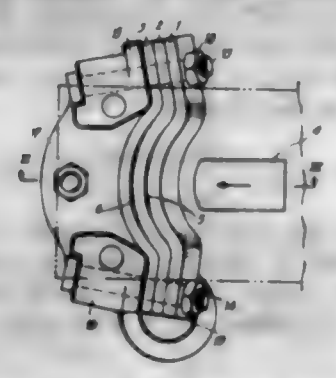
1. An automatically expandable fluid pressure reducer conforming to an elongated body which passes therethrough in the direction of its major axis between zones of different pressures comprising in combination a mounting plate having a centrally located aperture, a plurality of rigid finger plates individually pivoted near the periphery of said mounting plate, spaced apart around said aperture, each finger plate having an inner edge face

thereat in abutting relation with a selected portion of a similar face on an adjacent finger plate arranged to define a central orifice of a predetermined diameter concentric



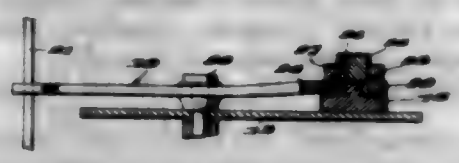
with said aperture, individual resilient means in association with each of the finger plates for urging the finger plates into closed relation with the elongated body as it advances through the orifice.

2,847,837
STOPPING MEANS FOR THE PICKER STICK IN WEAVING LOOMS
Jaime Picanol, Zillebeke-lez-Ypres, Belgium
Application November 1, 1956, Serial No. 619,788
Claims priority, application Belgium December 17, 1955
1 Claim. (Cl. 139—166)



Process for manufacturing stopping means for the picker stick in weaving looms, comprising the steps of superposing a plurality of equal rectangular slabs of a suitable pliant material each having holes therein at opposite ends, passing bolts through corresponding holes of each of said slabs so as to keep said holes in alignment, screwing a nut on each of said bolts so as to clamp said slabs firmly together, mounting such bolts as are engaged in opposite ends of said slabs in slanting relationship with respect to each other so as to cause said slabs to bulge in the direction of divergence of said bolts, and exerting sufficient pressure on the bulging middle portions of said slabs so as to cause said slabs to bulge in the opposite direction thus producing small spacings between said middle portions of said slabs.

2,847,838
FILLING STOP MOTION FOR LOOMS
William H. Bell, Greenwood, S. C.
Application February 6, 1957, Serial No. 638,564
2 Claims. (Cl. 139—374)



2. In a loom filling stop mechanism, a breast beam extension having an upper flat face, a reciprocatory knock-off plunger to be aligned with a lay carried bunter and mounted upon the breast beam extension, a head carried by the knock-off plunger and having a flat bottom face for substantial sliding contact with the flat upper face of the breast beam extension, an upstanding pivot element carried by said head, a knock-off lever pivotally mounted upon the breast beam extension and swingable above said extension and having an end portion overlying said head, said end portion of the knock-off lever having a screw-threaded opening formed therethrough larger than the pivot element of the head, a bushing having screw-threaded engagement within the screw-threaded opening of the knock-off lever and having an opening in its lower end pivotally receiving the pivot element, said bushing being adjustable toward and from said head and adapted to urge the head into substantial sliding contact with the breast beam extension and being unyielding against the upward thrust of said head during the operation of said mechanism, and a lock nut having screw-threaded engagement with said bushing at the upper side of the knock-off lever.

2,847,839
MANUFACTURE OF WOVEN LADDER WEBBING
Roger French, Hale, England, assignor to Thomas French & Sons Limited, a British company
Application June 1, 1955, Serial No. 512,510
Claims priority, application Great Britain June 8, 1954
12 Claims. (Cl. 139—384)

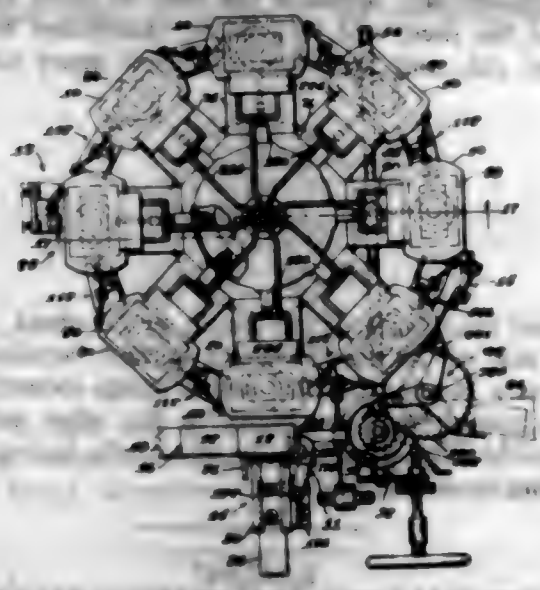


1. Uncut woven ladder webbing of the kind comprising at least two woven main webs between adjacent pairs of which is located at least one row of longitudinally at least partially in-line cross straps having their ends secured to the said main webs by binding in during the weaving thereof, characterised in that all the cross straps are at least part woven with each pick of weft thread extending completely throughout the width thereof and in that any partially unwoven cross strap is partially unwoven at each end and each unwoven part is wholly overlaid longitudinally by, or overlies, a woven portion of an adjacent cross strap in the same row, warp threads at the ends of the bound in portions of each cross strap passing through a woven portion of adjacent cross straps in the same row, whereby a substantial part at least of all the cross straps may be woven without necessitating the use of an additional shuttle therefor.

2,847,840
VACUUM FILLING MACHINE
Edward J. McCarthy, Braintree, and Arthur F. Whitehead, Quincy, Mass., assignors to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts
Application March 18, 1954, Serial No. 417,198
15 Claims. (Cl. 141—51)

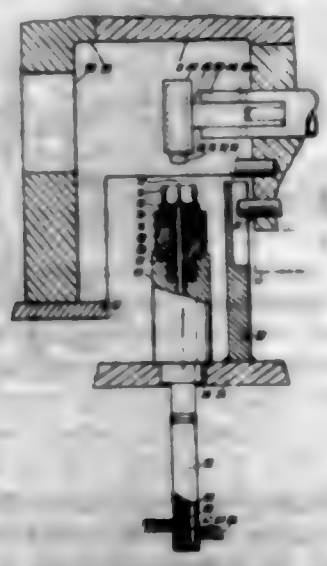
1. In a vacuum filling machine of the character described, in combination, a vacuum filling means including a plurality of vacuum filling heads, a plurality of elevating platforms, means for transferring successive containers from a supply thereof onto successive platforms, means for elevating the platforms to present the containers into operative relation to said vacuum filling heads, said elevating platforms being lowered to remove the containers from operative relation to said vacuum filling heads after the filling operation, and control means including a movable element for detecting the presence of a container on a platform in its partially lowered posi-

tion, and means responsive to movement of said element when a platform lowers without a container thereon for terminating the operation of the machine in the



event that a container is not present on the platform at such time indicating that such container has failed to be lowered from operative relation to its filling head.

2,847,041
DISPENSING APPARATUS FOR LIQUIDS
John Waddell and Horace Frank Parker, Warrington, England, assignors to United Kingdom Atomic Energy Authority, London, England
Application March 19, 1956, Serial No. 572,391
4 Claims. (Cl. 141—91)



1. Apparatus for injecting liquids into evacuated containers comprising a small capacity reservoir for the liquids, means for flushing liquids through the reservoir and thereafter filling it to a predetermined level, a hypodermic-type needle having its unpointed end open to the reservoir below said predetermined level and its pointed end exposed above said level, means clampingly supporting an evacuated, rubber-capped bottle of greater capacity than the reservoir and means for advancing and withdrawing the rubber-capped evacuated bottle supporting means on to and away from the needle so that the needle can penetrate the rubber cap to inject fluid from the reservoir into the bottle.

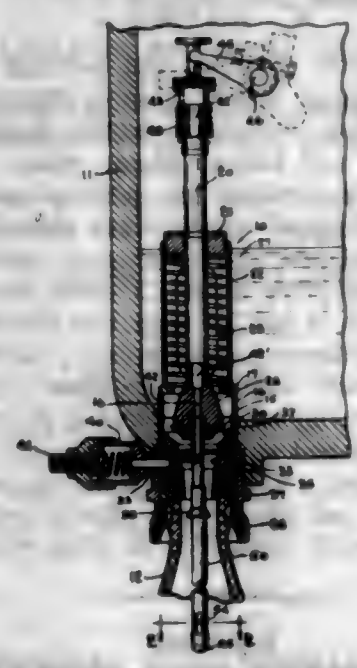
2,847,042
BATTERY FILLER
Robert B. Edelmann, Chicago, Ill., assignor to E. Edelmann & Co., Chicago, Ill., a corporation of Illinois
Application April 18, 1955, Serial No. 501,970
5 Claims. (Cl. 141—94)

1. A battery filler comprising a jar adapted to contain a supply of liquid, a liquid dispensing tube communicating with the interior of said jar and extending from said jar, a plug member mounted in the extended end of said dispensing tube and being shaped to at least partially define a plurality of passageways therethrough, at least one of said passageways being non-circular in cross-section, and an elongated air-bleed tube of resiliently flexible material disposed in said jar and having one end thereof deformed to enter said non-circular passageway and



having said deformed end snugly inserted in said non-circular passageway to be frictionally held in position relative to said plug member, said air-bleed tube being of smaller dimension than the inner dimension of said dispensing tube and being of a length to extend from said plug member through said dispensing tube into the interior of said jar and to engage a wall of said jar substantially opposite the discharge end of said dispensing tube.

2,847,043
COUNTER-PRESSURE FILLER VALVE FOR BEVERAGES
Walter J. Sommers, Milwaukee, Wis., assignor to Geo. J. Meyer Manufacturing Company, Cudahy, Wis., a corporation of Wisconsin
Application March 5, 1957, Serial No. 643,980
1 Claim. (Cl. 141—305)



In a filler valve for a counter-pressure filling machine, a liquid valve adapted to control the flow of liquid to a container to be filled, a hollow stem connected to the upper end of said liquid valve, a valve on said stem adapted to permit passage of a counter-pressure gas to and from the container, a vent tube attached to the lower end of said liquid valve and in communication with the passage through said valve stem, said vent tube having a

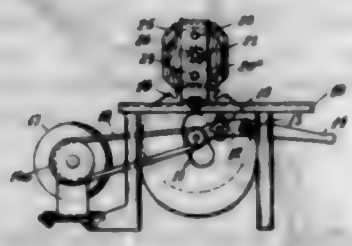
spreader element thereon located intermediate the ends thereof and deflecting the beverage from the tube onto the inner wall of the container and means closing the end of said vent tube, said vent tube having an elongated opening adjacent the lower end of the vent tube to break the surface tension on liquid entering or leaving the vent tube to prevent shorts.

2,847,844

ATTACHMENT FOR TABLE SAWS TO PRODUCE CIRCULAR DISCS AND CYLINDERS

Walter A. Anderson, Pittsburgh, Pa.

Application March 29, 1957, Serial No. 649,368
8 Claims. (Cl. 143—171)



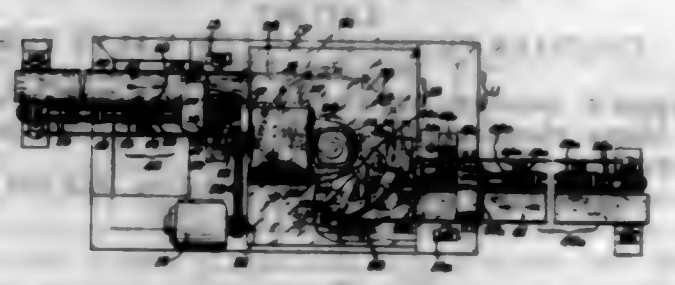
1. A mechanism for cutting circular discs and the like comprising a table, a saw blade adjustably positioned to project partially above said table, means on the table receiving a shaft substantially parallel to the axis of the blade and adjustably spaced therefrom, feed means adapted to traverse the shaft parallel to the axis of the blade, means for rotating said shaft and work holding means on the shaft adapted to hold a work piece being formed.

2,847,845

COMBINATION CHIPPING AND BARKER DEVICE

Donald E. Brown, Lakewood, N. J.

Application January 3, 1956, Serial No. 556,872
2 Claims. (Cl. 144—162)



1. A combination chipping and barking device comprising in combination a base, chipper means including a top plate, a bottom plate and cutting means extending between said top and bottom plates, means for rotating and chipper means, means for feeding material to be chipped to said chipper means, said means for feeding material to be chipped to said chipper means including a conveyor having drive means, a drive shaft connected to the drive means, a pair of sprockets fixed to the drive shaft, a pair of endless chains driven by said sprockets, a plurality of grippers connected between said chains on which woody material to be chipped is placed, conveyor side guards positioned substantially parallel to and outside said chains, and a hold-down roller mounted between said side guards and above said chains and adapted to contact said material to hold it in place while chipping.

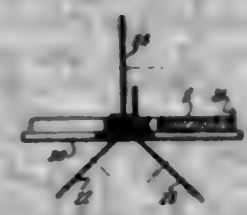
2,847,846

METHODS OF MAKING WALL AND CEILING TILE

Chester M. Page, Cresskill, N. J.

Original application November 29, 1950, Serial No. 198,106, now Patent No. 2,694,233, dated November 16, 1954. Divided and this application August 24, 1954, Serial No. 451,779
5 Claims. (Cl. 144—309)

1. The method of manufacturing tile blanks out of a board-like material which comprises making one cut from one face part way through the blank, making a second cut at right angles to the first and cutting from the same face only to the first cut, making a cut from the opposite face substantially opposite the line of entry of the first cut into the sheet and to a depth insufficient to intersect the first cut, and breaking the sheet apart so that the



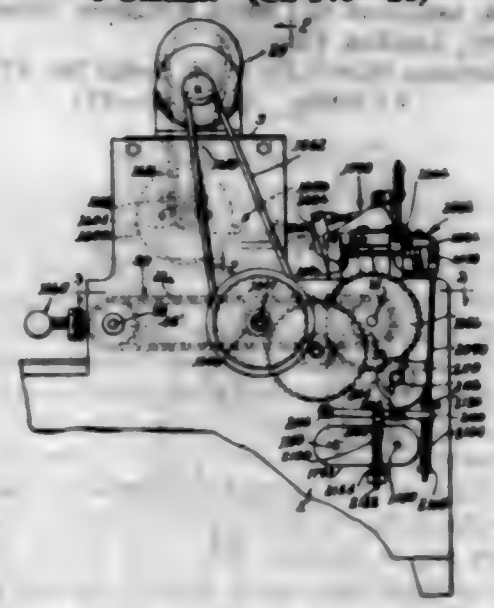
separated blanks are of the length of the sheet, the blank to one side of the cuts having a narrow beveled portion, a reversely beveled portion and a flange extending to an outside corner, and the blank to the other side having a deeper beveled edge and an oppositely facing shoulder extending to an inside corner.

2,847,847

FRUIT HALVING AND PITTING MACHINE

Henry A. Skog, Olympia, Wash., assignor to Special Equipment Company, Portland, Oreg., a corporation of Oregon

Original application December 14, 1950, Serial No. 200,705, now Patent No. 2,788,818, dated April 16, 1957. Divided and this application March 15, 1955, Serial No. 494,366
6 Claims. (Cl. 146—28)



3. In a fruit treating machine, means for dividing whole fruit along one plane while the same is moving, means for deseeding the fruit divisions while moving with their seed containing surfaces facing uppermost and in angularly disposed planes, continuously moving fruit conveyor means, fruit holder means connected to and swingably mounted relative to the conveyor means for receiving whole fruit and carrying the whole fruit past said dividing means and all the fruit divisions past the deseeding means with their seed containing surfaces facing uppermost and in angularly disposed planes as the conveyor means moves continuously, and stationary divergent spreader members between said dividing means and said deseeding means for moving the fruit halves and fruit holders away from each other sufficiently for the fruit to be retained by gravity in the holders as the fruit passes from the dividing means to the deseeding means.

2,847,848

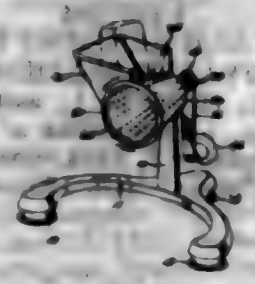
PERFORATED ROTARY GRATER SHELL

Lester G. Gildersleeve, La Crescenta, Calif.

Application January 25, 1955, Serial No. 483,959
4 Claims. (Cl. 146—91)

2. A rotary grater shell for use in a food grinder, said grater comprising a thin-walled cup-shaped metal shell

having a bottom and flaring side walls provided with closely spaced generally circular perforations, the rims of said perforations being struck outwardly from axes similarly offset from the center of the perforations, said



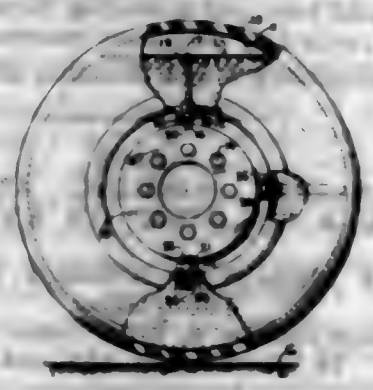
rim edges on one side projecting to a greater distance than the rim edges there opposite, said further projecting rim edges being sharpened and serrated longitudinally thereof.

2,847,849

INFLATING AND DEFLATING MEANS FOR PNEUMATIC-HYDRAULIC TIRE

Albert E. Bloemquist, Ringoes, N. J.

Application September 21, 1956, Serial No. 611,334
4 Claims. (Cl. 152—339)



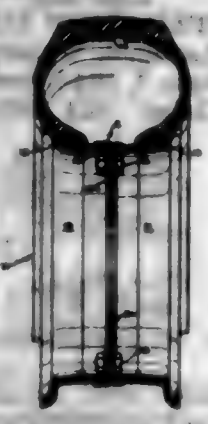
1. In combination with a rim having a penumatic-hydraulic tire mounted thereon, inflating and deflating means for said tire comprising a first conduit passing through said rim having an exterior opening at one end adapted for attachment of an air supply line thereto and an interior opening spaced substantially from the inner surface of said rim on the interior of said tire, said conduit being composed of substantially imperforate semi-rigid material extending from the inner surface of said rim to said interior opening adapted to yieldably maintain said interior opening substantially at a predetermined spacing from the inner surface of said rim, a removable one-way valve in said first conduit adapted to permit ingress of fluid into and prevent egress of fluid from said tire, a second conduit passing through said rim spaced substantially from said first conduit having an exterior opening adapted for the attachment of a liquid supply line thereto and an interior opening adjacent said rim, a one-way valve in said second conduit adapted to permit ingress of fluid into and prevent egress of fluid from said tire, and port means passing through said rim spaced substantially from said first conduit and extending from adjacent the exterior of said rim to the interior of said tire adjacent said rim, said port having a removable closure adapted to normally close it to prevent egress of fluid from said tire and a removable tube insertable in said port in fluid-tight relation therewith and extending from adjacent the maximum radial spacing of the inner surface of said tire from said rim to the exterior of said rim for discharge of liquid from said tire upon injecting air through said first conduit when said rim is disposed with said port in approximately its lowermost position.

2,847,850

WHEEL ASSEMBLIES

Harold J. Burke, Saginaw, Mich., assignor to Saginaw Products Corporation, Saginaw, Mich., a corporation of Michigan

Application March 15, 1955, Serial No. 494,368
6 Claims. (Cl. 152—404)



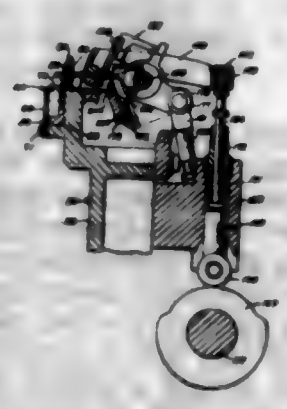
1. In a wheel assembly, a pair of oppositely disposed wheel sections having mating radial disk portions with oppositely and outwardly extending flanges thereon shaped to form a tire retaining rim, said flanges at the juncture of the disk portion and flange of each section being shaped to provide a peripheral groove between said sections having converging side walls; means securing the disk portions of said wheel sections together in facial engagement; a tubeless, pneumatic tire having an interior air chamber closed in part by said rim held on said rim on said flanges; and a member, comprising a flexible, deformable, wedge shaped section having converging side walls, seated in said groove outward of the juncture of the facially engaged sections of the said disk portions, with the converging side walls of the member in engagement with the converging side walls of the wheel sections; said tire being inflatable with a fluid medium under pressure which presses the side walls of the said member into tight, sealed engagement with the converging walls of the sections and wedges the deformable, wedge shaped section into tight relation with the inner portion of the groove at the juncture of the facially engaged sections of the said disk portions.

2,847,051

EDGER MEANS FOR BENDING THE EDGE OF A CAN BLANK

Roland E. Renard, Los Gatos, Calif., assignor to National Can Corporation, Chicago, Ill., a corporation of Delaware

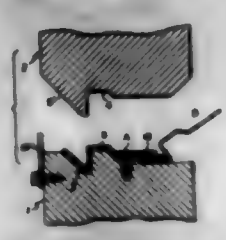
Original application May 3, 1954, Serial No. 427,244. Divided and this application March 19, 1957, Serial No. 647,144
7 Claims. (Cl. 153—16)



1. Edger means for a can bodymaker for bending the edge of a can blank backwards at an acute angle comprising a first steel, a second steel, means for mounting said first and second steels, for pivotal movement, clamp means for holding a can blank with one edge engaging said first steel, means for separately pivoting said steels in sequence to first move said first steel in one direction

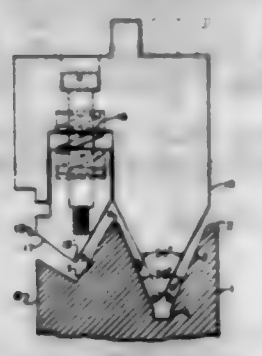
against the edge of said blank to bend said edge approximately at 90° about said clamp means, and then to move said second steel in the opposite direction to bend said edge backward at an acute angle about said clamp means.

2,847,852
DOUBLE OPERATION FORMING DIE
Leon Hardman, Wantagh, N. Y.
Application June 7, 1954, Serial No. 434,763
1 Claim. (Cl. 153—21)



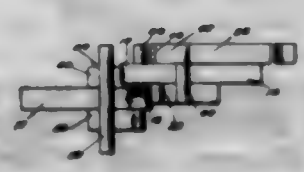
A double operation sheet metal die for performing successive forming and squeezing operations on the same portion of a metal sheet comprising an integral lower member having a first V-shaped recessed portion in the top plane thereof spaced from a first side of said lower member, a second recessed portion spaced from said first recessed portion, said second recessed portion comprising first and second step portions from said top plane, a spacer mounted on said first step portion and extending over said second step portion, a first stop affixed to said first side of said lower member, an upper member having a first V-shaped projecting member positioned to mate with said first recessed portion of said lower member, said upper member having a second projecting member positioned to mate with said spacer, said V-shaped means being arranged to form a V-bend in a metal sheet during a first mating of said dies and said spacer cooperating with said second step portion of said lower member and said second projecting portion of said upper member to form said V-bend into a U shape of predetermined spacing around said spacer during a second mating of said dies.

2,847,853
DIE MEANS FOR FORMING DEEP BENDS
Leon Hardman, Wantagh, N. Y.
Application June 7, 1954, Serial No. 434,764
1 Claim. (Cl. 153—21)



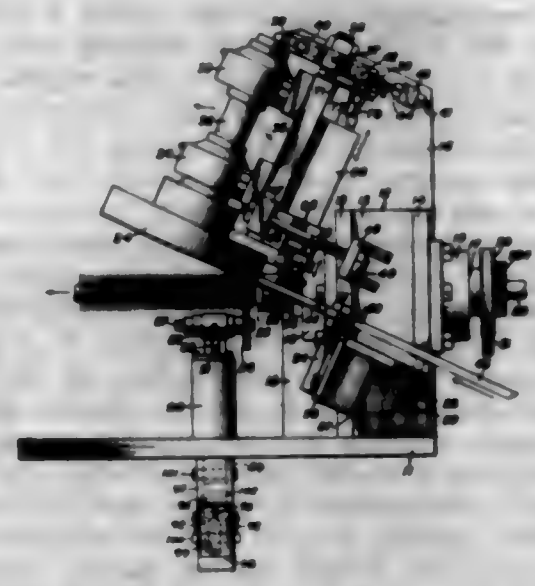
Multiple deep bend single stroke die means comprising a lower die member having a first V-shaped recess, a second V-shaped recess beside said first recess, said first recess being deeper than said second recess and having an expansion notch at the bottom thereof to permit travel of the work piece, a positive upper die member having a first V-shaped projecting member positioned to mate at a first time with said first V-shaped recess, said first projecting member having a greater angle between its tapering sides than the angle between the tapering sides of said first recess, a second V-shaped projecting member adapted to nest in said positive upper die member and being positioned to mate with said second V-shaped recess after said first time, connecting means connecting said second V-shaped projecting member and said upper die member and permitting longitudinal displacement of said second V-shaped projecting member with respect to said upper die member, and expansion spring means positioned between said second V-shaped projecting member and said positive upper die member.

2,847,854
FORMING AND BENDING TOOL WITH REMOVABLE BENDING PIN
Harold E. Sutcliffe, Hope, R. I., assignor to Weldmore Company, Inc., a corporation of Rhode Island
Application October 5, 1956, Serial No. 614,297
4 Claims. (Cl. 153—46)



1. A forming and bending tool of the character described comprising a pair of elongated arms, one of said arms having a circular portion at one extremity thereof, an opening extending through said circular portion, said other arm having an upstanding stud at one end thereof, said opening rotatably receiving said stud whereby said arms are connected to each other for pivotal movement, an axial bore in said stud, an elongated pin removably mounted in said bore and extending therefrom, and abutment means carried by said arms intermediate the length thereof and extending in the direction of said pin.

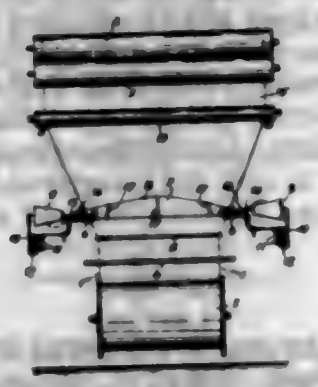
2,847,855
APPARATUS FOR FORMING AND SPIRALLY WINDING A FIN STRIP ON AN ADVANCING TUBE
William F. Matheny and William F. Matheny, Jr., Tulsa, Okla.
Application January 6, 1955, Serial No. 480,114
10 Claims. (Cl. 153—64.5)



1. In apparatus for forming spirally wound finned tubing, including a hollow guide shaft, means for rotating said shaft, and means for continuously rotating and advancing longitudinally through said shaft, a length of tubing; a strip feeding and fin forming assembly comprising a forming roll fixed coaxially on the exit end of said hollow shaft and rotatable therewith, said roll having protruding therefrom, a substantially frusto-conical smooth forming nose with a coaxial opening to receive said advancing tubing, said nose being rotatable in the same direction and at the same rate of speed as said advancing tubing, a complementary forming wheel freely mounted for independent rotation, on an inclined fixed axis which intersects the axis of said hollow shaft, the

periphery of said wheel having a smooth forming surface concentric with the axis of the wheel and arranged in opposed relation to the periphery of said nose, a strip feeding device for delivering a continuous strip of metal between the opposed peripheries of said wheel and nose, and means for adjusting the angle of the axis of said wheel to regulate the plane of presentation of the periphery of said wheel to the periphery of said nose.

2,847,856
METHOD AND APPARATUS FOR PRODUCING REINFORCED SHEET MATERIAL
Pierre Georges Emile Auguste Vanlaer, Paris, France
Application February 20, 1956, Serial No. 566,731
Claims priority, application France February 25, 1955
15 Claims. (Cl. 154—1.7)



15. Apparatus for the manufacture of a lamination comprising a station for the formation of a reinforcing sheet constituted by a sheet of crossed threads, a station for impregnating the said sheet with plastic material, a drying station for the sheet of threads impregnated with plastic material, and conveying means for conveying the sheet sequentially through the stations; the station for forming the reinforcing sheet comprising a fixed guiding support having an outlet end and an inlet end with the shape of a circular cylinder progressively flattened towards the outlet end, the outlet end having substantially the form of a straight edge parallel to a plane containing the base of the circular cylinder at the inlet end, the width of the flattened outlet end being equal to half the circumference of said base, means operatively associated with the support by which selected of the threads are distributed around the said base and by which the said threads are drawn from said edge in the form of a sheet of parallel threads, means operatively associated with the support by which transverse threads are wound into sinusoidal turns around the parallel threads at a position in proximity to the base of the fixed guiding support, means operatively associated with the support by which the winding pitch of the sinusoidal turns is caused to vary, and means operatively associated with the support by which the tension of the transverse threads is varied and by which the sinusoidal turns wound close to the base of the said guiding support are transformed into straight and parallel half turns at the outlet end.

2,847,857
WALKING AID
Ralph L. Holcombe, Ada, Okla., assignor to Walk-A-Gain Walking Aids, Inc., Ada, Okla.
Application May 3, 1954, Serial No. 427,004
1 Claim. (Cl. 155—22)

A device of the character described comprising a frame, wheels supporting said frame, a hollow cylinder mounted on each side of said frame, a shaft extending vertically from each of said cylinders and yieldably mounted therein, an elbow-supporting pad affixed to the upper end of each shaft, a forwardly and inwardly extending arm affixed to the upper end portion of each shaft, an integrally formed rearwardly extending portion for each of said arms, and a hand grip



mounted upon the rearward end of each of said rearwardly extending portions.

2,847,858
FOLDING WHEEL CHAIR
Robert E. Lee, Alexandria, Va., assignor to Anthony G. Allison, Chicago, Ill.
Application September 18, 1953, Serial No. 379,361
10 Claims. (Cl. 155—30)



1. A wheel chair comprising a pair of spaced parallel side frames, a seat extending between said side frames, and a linkage extending between said side frames, said seat comprising two parts pivotally connected together centrally between said side frames and each pivotally connected adjacent its outer side to one of said side frames, said linkage comprising a pair of horizontal links each pivotally connected adjacent its outer end to one of said side frames, said links being pivotally connected to one another centrally between said side frames, a vertical link pivotally connected at its lower end to the central connection of said horizontal links and pivotally connected at its upper end to said seat parts centrally between said side frames, a block slidably mounted on said vertical link, and a pair of diagonal links each pivotally connected at its inner end to said block and at its outer end adjacent the outer end of one of said horizontal links.

2,847,859
SEAT FOR SPORTSMEN
Thomas Albert Kline, Harborcreek Township, Erie County, Pa.
Application May 27, 1957, Serial No. 661,835
1 Claim. (Cl. 155—78)

A chair comprising a seat made of a rectangular sheet of flexible material having two opposite edges turned back on themselves and their turned back edges attached to said sheet to each form a hem, a rigid rod disposed in each said hem, a cord, one end of said cord being attached to the central portion of one said rod, the other end being attached to the central portion of the other said rod, the bight portion of said cord adapted

to be disposed against the trunk of a tree on the side thereof adjacent said seat above said seat, and a sling, said sling adapted to be disposed around the other side of said tree trunk, the ends of said sling being attached to said cord, said seat tensioning said ends to draw said



bight portion and said sling tight on said tree trunk, the rear edge of said seat being adapted to be disposed adjacent said tree trunk to receive a person, the edge of said sheet remote from said tree forming the front edge of said seat.

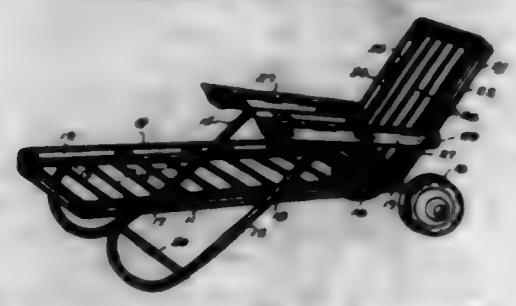
2,847,060

ADJUSTABLE CHAISE LONGUE

Morton Pearistine, Cynwyd, Pa., assignor to The Bunting Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Continuation of application Serial No. 516,920, June 21, 1955. This application June 11, 1957, Serial No. 665,018

5 Claims. (Cl. 155—159)



1. A chaise longue comprising a horizontally extending seat and leg rest main frame including a pair of longitudinally extending ground engaging opposite side rails for supporting said main frame, a back rest pivotally mounted upon said main frame, and a pair of arm rest assemblies pivotally secured to said back rest and respectively seated upon and releasably latched to said side rails for securing said back rest in a selected one of a number of different reclining positions, said side rails each having a raised intermediate portion of generally inverted V-shape disposed with the apex of the V immediately beneath an associated arm rest assembly at a point located between the opposite ends of said assembly, said arm rest assemblies being shiftable rearwardly and the aft ends thereof being swingable downwardly in response to swinging movement of said back rest rearwardly and downwardly, the rearwardly extending branches of said inverted V-shaped portions of the side rails being sharply inclined downwardly from the apices thereof to provide clearance for free swinging movement of said arm assemblies relatively to said side rails in response to the back rest swinging movement aforesaid, an elongated latching member provided in each of said arm assemblies as a part thereof, said latching member being shiftable in the vertical plane of the side rail immediately associated therewith and having a series of enlarged openings interconnected by a continuous slot extending length wise of the latching member, and a latching pin fixed to each side rail substantially at the apex of said raised intermediate portion thereof for interlocking engagement with any selected one of said openings, said spring means being operative to normally bias said back rest member forwardly into substantially upright position and to shift said arm assemblies longitudinally forward along their associated supporting side rails.

2,847,061

CHAIR AND METHOD FOR MAKING SAME

Herschel B. Morton, Lincoln, Nebr.

Application March 18, 1955, Serial No. 495,085

1 Claim. (Cl. 155—191)



A chair comprising a frame including a seat and a back, and a one-piece foam rubber casting fitted in said frame and including a seat portion supported on the frame seat and a back portion supported against the frame back, the front of said one-piece foam rubber casting having formed therein a single continuous impression, said impression conforming to the shape of a person's back, buttocks, and posterior thighs, the thickness of said foam rubber casting throughout its entire extent being sufficient to give full, comfortable support to the back, buttocks and posterior thighs of a person seated in said chair.

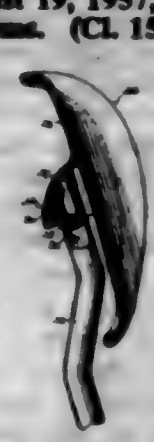
2,847,062

CHAIR BACK CONSTRUCTION

Bror W. Henriksen, Alfred C. Hoven, and Walter E. Nordmark, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey

Application August 19, 1957, Serial No. 678,899

6 Claims. (Cl. 155—191)



2. In a chair structure: a frame including an upstanding back support; and a chair back comprising a backrest and a depending member extending rearwardly from the backrest and then downwardly and connected to the upper end of said back support, said chair back being integrally molded of slightly resilient material so as to permit flexing of the backrest relative to said depending member and said back support.

2,847,063

GAS AND LIQUID FUEL BURNER ASSEMBLY

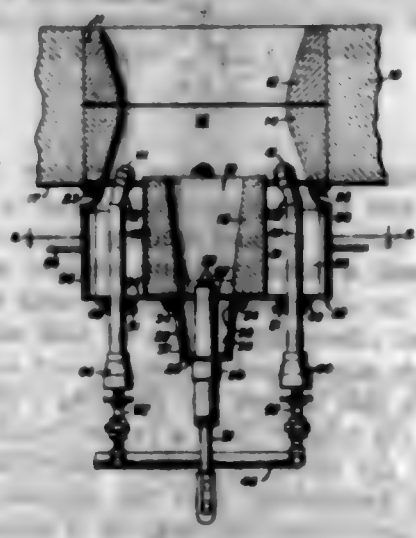
Robert D. Reed, John S. Zink, Jr., and Robert P. Duncan, Tulsa, Okla., assignors to John Zink Company, Tulsa, Okla., a corporation of Delaware

Application December 27, 1955, Serial No. 555,464

1 Claim. (Cl. 158—106)

In a fuel burner assembly for firing into a ceramic lined opening in a furnace wall, a cup-shaped frame adapted to be secured to said wall, an end portion on said frame adapted to be spaced from said wall, an annular refractory member carried by said end portion having a smaller diameter than the cup-shaped frame, said end portion having an opening therethrough registering with the interior of the upstream end of said annular refractory member, a plurality of mixing tubes arranged in circumferentially spaced relationship around the exterior of said refractory member each extending substantially

parallel to the axis of the refractory member, a pipe rigidly connected to the downstream end of each mixing tube and disposed at an angle with respect to the axis of the associated mixing tube, a burner head carried by the downstream end of each pipe having a discharge orifice aligned with the axis of the associated pipe, each of said mixing tubes extending through an opening in said end portion, a member surrounding each mixing tube carried by said end portion for supporting the mixing tubes with each mixing tube rotatable about its axis, a manifold in-



cluding means associated therewith for supplying gaseous fuel into each mixing tube, means for supporting the manifold on all of the mixing tubes, said cup-shaped frame member having circumferentially spaced windows therein, an annular shutter surrounding said cup-shaped frame and said windows and supported for rotation thereon, said shutter having circumferentially spaced openings therethrough, and means for controlling the volume of air admitted through said opening in said end portion for movement into the interior of said refractory member.

2,847,064
STORM SHADE
Leo Roth, Palos Heights, Ill.
Application January 19, 1955, Serial No. 482,721
2 Claims. (Cl. 160—267)



2. A weather protective covering for the outside of a screened opening framed by side, top and bottom pieces comprising: a roller, means for rotatably securing said roller to the outside surface of the top piece of the frame adjacent the opening, a shade having one end secured to the roller and being wound thereon, said shade having a length and width larger than the corresponding dimensions of the opening, a pulley secured to the inside surface of the top piece of the frame, a cord having an end attached to the free end of the shade, a friction reducing device mounted on said bottom piece and having a rotatable cord carrying and guiding member for guiding the cord through an opening in said bottom piece, said cord having a free end hanging from the pulley on the inside of the top piece of the frame, said free end being provided as a connecting means for raising and lowering the shade, a pair of parallel vertical guide members having substantially L-shaped cross sections, one leg of each guide member being set back from the opening and being secured to the outside of a side piece of the frame, the other leg of each guide member overlaying the frame in the direction of the opening and forming a substantially U-shaped guide channel for guiding a side edge of the shade, said channel having a side formed by the side piece of the frame, a base formed by the leg of the guide member secured to the side piece of the frame, and another side formed by the other leg of the guide member, said channel being exteriorly of and closely adjacent to said screen, each guide member having an end closely adjacent said roller and shaped to accommodate said roller, each said channel having an end adjacent the roller, a plurality of bars extending across said opening, and means of rigidly securing said bars to said guide members adjacent to and exteriorly of said guide channels.

2,847,065
SCREEN DOOR
John A. Tolman, Hollywood, Calif., and Herbert W. O'Farrell, Detroit, Mich., assignors to Andean Corporation, Pasadena, Calif., a corporation of California
Continuation of abandoned application Serial No. 224,212, May 2, 1951. This application December 7, 1953, Serial No. 396,472
15 Claims. (Cl. 160—378)



1. A fabricated metal screen door of the type having top, bottom and side sheet metal peripheral frame members forming an aperture and a foraminous screen extended across the aperture defined by said members, said side frame members comprising hollow sheet metal elements provided on their inwardly facing opposed edges with vertically extending channels, elongated slide members seating opposite sides of said screen and positioned in said channels, and screw elements extended between each of said slide members and the channel in which it is positioned to adjust said slide members laterally relative to said side members.

2,847,066
TIME OPERATED FISH FEEDING DEVICE
Joseph Paul Kleiber, Yonkers, and Odif Podell, Pleasantville, N. Y.
Application April 14, 1955, Serial No. 501,408
2 Claims. (Cl. 161—10)

1. In a feed measuring and dispensing apparatus the combination of a casing with a chamber therein for a

quantity of feed, said casing provided with a removable cover for filling said chamber, a rotary driven dispensing cup, said cup driven by a synchronous motor, means for frictionally attaching the cup to the drive shaft to



permit adjusting the position of said cup, said dispensing cup supported on a spring arm, a cam mounted within said chamber to deflect said spring arm of said cup during its cycle of rotation, an adjustable feed discharging outlet.

2,847,067

STERILIZATION INDICATOR

John H. Brewer, Towson, Md., assignor to Hynson, Westcott & Dunning, Inc., Baltimore, Md., a corporation of Maryland

Application September 1, 1955, Serial No. 531,871
1 Claim. (Cl. 161—15)



A sterilization indicator including in combination an integral glass assembly having in use a substantially vertical axis, said assembly comprising a pair of substantially identical receptacles having inner end portions, a neck connecting the inner end portions and presenting a fixed bore providing a metering orifice between such receptacles and a vent tube also extending between and having its ends in communication with the interiors of said receptacles at corresponding points intermediate the lengths of the latter, a mass of solidified material having a predetermined melting point disposed within the outer end of an upper receptacle at a zone above that at which the adjacent end of the vent tube is connected thereto, a support including a socket extending upwardly at an angle to the vertical, said socket receiving the outer end zone of the lowermost receptacle to maintain the indicator in a similar position, a notch formed in that face of the socket which is inclined rearwardly and faces outwardly and said notch receiving a portion of said vent tube to prevent rotation of said assembly with respect to said socket.

2,847,068

ELASTIC BAND FORMING AND FEEDING APPARATUS

Carl W. Mott, Lake Ozark, Mo., assignor, by mesne assignments, to The Kendall Company, Boston, Mass., a corporation of Massachusetts

Original application November 20, 1948, Serial No. 61,224, now Patent No. 2,709,836, dated June 7, 1955. Divided and this application October 11, 1954, Serial No. 461,586
9 Claims. (Cl. 164—42)



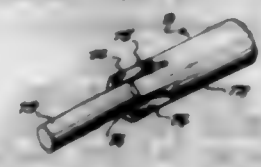
1. In a mechanism for cutting a rubber band from a rubber tube and feeding such cut band, a cutting and feeding head having a band feeding chute with opposed inner sides and a tube-receiving section adjacent said chute, means for directing a tube into said section transversely to and adjacently to one of said sides, shearing means movable across said section toward said chute and along said one side thereof for shearing a transverse end portion from the tube to form a rubber band and to place such band in the chute, a plunger movable endwise in said chute in parallelism with the opposed inner sides thereof for transferring the band to a delivery position therein, and means operating said plunger coordinately with the shearing means to move the plunger endwise of the chute subsequent to such movement of the shearing means.

2,847,069

FLUTED PERFORATING PUNCH DEVICES OR TOOLS

John F. Koperynski, North Tonawanda, N. Y.

Application December 6, 1955, Serial No. 551,376
7 Claims. (Cl. 164—124)



1. A piercing punch for punching a disc from a sheet blank, which comprises a body having at one end a cylindrical punching stem, a larger diameter shank portion at the other end by which said body may be mounted for endwise reciprocation, and an intermediate connecting portion between said stem and said shank portion, said intermediate portion being tapered from the stem to the shank portion, said shank portion having a plurality of tongues at the junction with the tapered portion extending along the tapered portion and along and spaced from the part of the stem adjoining the tapered portion, the outer surfaces of the tongues being continuations of the peripheral surface of said shank.

2,847,070

METHOD OF CONTROLLING WELL CASING CORROSION

Leendert De Witte, Laguna Beach, Calif., and Frederick J. Radd, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

No Drawing. Application July 5, 1955
Serial No. 520,154
5 Claims. (Cl. 166—1)

1. A method of inhibiting corrosion of a casing extending through a well bore wherein the well bore traverses a plurality of formations, which comprises running a log of said well bore to obtain the ionic activity of the water in each of the formations, and filling the annular space between the casing and the walls of the well bore

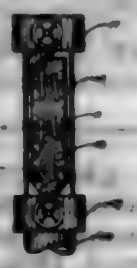
opposite each of said formations with a drilling mud having an ionic activity corresponding substantially to the ionic activity of the water of each of said formations as obtained by said log.

2,847,071

METHODS OF IGNITING A GAS AIR-BURNER UTILIZING PELLETIZED PHOSPHORUS

Coral L. De Priester, Fullerton, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application September 28, 1955, Serial No. 535,462
2 Claims. (Cl. 166—39)



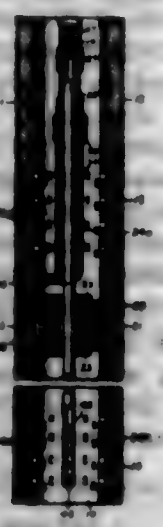
1. The method of igniting a downhole gas-air burner comprising the steps of introducing into said burner a pellet comprising elemental phosphorus surrounded by ice, said ice melting in said burner to expose said phosphorus, and supplying a gaseous, combustible, oxygen-containing mixture to said burner for oxidizing said exposed phosphorus to produce a temperature sufficient to ignite said combustible mixture.

2,847,072

METHODS FOR DUAL COMPLETION OF OIL AND GAS WELLS

Maurice P. Lebourg, Houston, Tex., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application June 15, 1953, Serial No. 361,583
2 Claims. (Cl. 166—46)



1. A method for completing a well having a casing set therein traversing a plurality of vertically spaced formations of interest and containing a column of drilling fluid, comprising the initial steps of setting apertured packer means in said casing between two of said formations, installing production control equipment at the well head, permanently setting tubing in said casing to a position adjacent the upper of said two formations, and replacing the drilling fluid with a lighter fluid, and thereafter the subsequent steps of perforating said casing and said upper and lower formations above and below said packer means, then lowering tubing extension means within said tubing to extend from the lower end of the tubing and through the aperture in said packer means in sealing engagement therewith to said lower formation, and thereafter separately producing said formations.

2,847,073

TOOL FOR CONTROLLING FLUID CIRCULATION IN WELL BORES

Bryant P. Arterbury and George M. Clark, Houston, Tex., assignors of thirty-three and one-third percent to Roy L. Arterbury, Houston, Tex.

Application August 6, 1954, Serial No. 448,285
27 Claims. (Cl. 166—147)



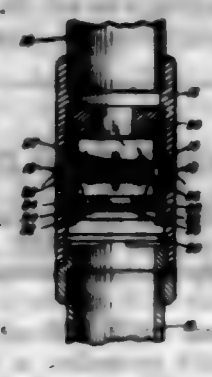
27. In a tool for controlling fluid circulation in well bores, a mandrel adapted for attachment to a tubing lowered into a well bore and movable from the top of the well, a sleeve assembly slidable on said mandrel and adapted to frictionally engage said well bore whereby said mandrel and said sleeve assembly are relatively movable, packer means on said sleeve assembly, fluid communication means provided by said tool upon relative movement between said mandrel and said sleeve assembly to positively indicated selective positions whereby pressurized fluid may be circulated in said tubing and selectively in said well bore above said packer means, to extend said packer means, below said packer means, and to retract said packer means, said mandrel and said sleeve having lug means thereon at the upper and lower ends thereof to cooperate in selectively positioning said fluid communication means in said positions and in indicating said positions.

2,847,074

WELL CASING FILL-UP DEVICE

Joe W. Maly and James C. St. John, Duncan, Okla., assignors to Halliburton Oil Well Cementing Company, Duncan, Okla.

Application November 14, 1955, Serial No. 546,620
2 Claims. (Cl. 166—224)



1. An improved device for filling a well casing which includes a tubular body adapted to be connected in a well casing, a sleeve movable from an upper to a lower position within said body, said sleeve and said body having transverse ports therein positioned in registry only at said upper position of said sleeve, a check valve controlling inflow of fluids through said registered ports operable in response to a predetermined pressure differential applied across said ports from outside said body, a partition means in

the bore of said sleeve having a plurality of orifices therethrough, a yieldable closure initially closing one of said orifices, a releasable support initially holding said sleeve in said upper position, and a latch adapted to retain said sleeve in said lower position, the arrangement being such that a predetermined fluid pressure exerted through the casing moves said sleeve from said upper position to said lower position, and a greater predetermined fluid pressure exerted through the casing opens said yieldable closure.

2,847,075

TOOL AND GUIDE THEREFOR

Raymon L. Halbrook, Marion S. Harris, and Kenneth S. Kennerly, Odessa, Tex., assignors to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 13, 1956, Serial No. 591,284
8 Claims. (Cl. 166—241)



2. Vertical tubing of circular cross section having a substantially uniform diameter, an obstruction in said tubing intermediate the ends thereof, said obstruction having a vertical opening therethrough that is concentric with the tubing, a vertically elongated guide disposed within the tubing above said obstruction, said guide having a vertical passageway extending entirely therethrough, the lowermost end portion of the passageway being tapered upwardly and inwardly, said guide being vertically movable in the tubing and including means adjacent the upper and lower ends thereof for maintaining the passageway concentric with the tubing, said guide being engageable with said obstruction to limit downward movement of the guide, a vertically elongated tool reciprocably disposed within the passageway for free vertical movement downwardly from the guide, said passageway having a restricted portion adjacent the upper end thereof preventing vertical movement of the tool upwardly from the guide, said tool being freely movable vertically through the opening in the obstruction, and a flexible supporting element secured to the upper end of the tool and extending upwardly from the guide through the passageway.

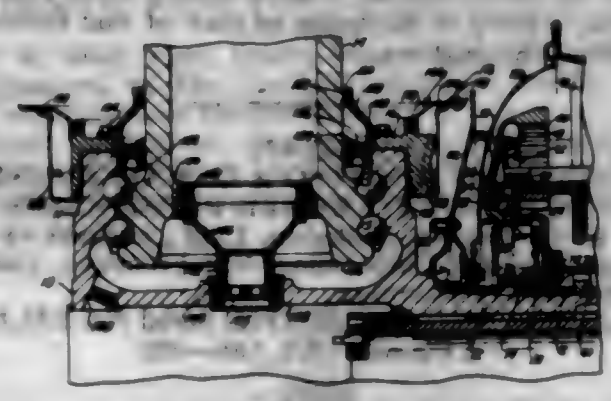
2,847,076

CONTROLLABLE PITCH PROPELLER

Maurice E. Cushman, Verona, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware

Original application March 6, 1953, Serial No. 340,778. Divided and this application November 21, 1955, Serial No. 548,106
2 Claims. (Cl. 170—160.24)

1. In a variable pitch propeller, a hub having a plurality of integral blade sockets, a blade journalled in each socket, a worm wheel secured to each blade outwardly of its hub socket, projections formed on said hub, there being one set of projections for each blade socket, a set of bearing brackets secured to each set of projections, a worm carried by each set of bearing brackets, one worm drivably engaging each worm wheel, a housing for each worm wheel separate from the hub and supported in major part by respective worm wheels and with respect to which said worm wheels are rotatable, and a housing for each worm each supported by one of said sets of



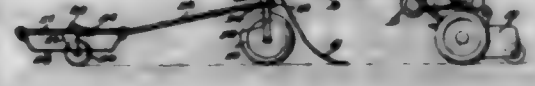
brackets, each said worm housing being sealingly secured to the corresponding worm wheel housing.

2,847,077

AUTOMATIC MOWING MACHINE GUIDE

Delmas Leon Vaughan, Monroe County, Ind.

Application January 3, 1956, Serial No. 556,978
5 Claims. (Cl. 180—79.1)



1. A guiding attachment for a mowing machine or harvester, comprising a vertical steering shaft, bearing means for said shaft, a guide wheel rotatably supported on the lower end of said shaft, a pulley secured to said shaft, a reversible motor supported adjacent said shaft, and provided with a pulley, a belt surrounding said pulleys, an elongated feeler bar disposed in advance of said steering shaft and connected thereto for movement therewith, said feeler bar in use being disposed above the cut plant growth and below the top of the uncut plant growth and adapted to be normally disposed adjacent the vertical plane of the junction of cut and uncut plant growth, a dual-output generator supported adjacent said motor and adapted to supply current thereto and to said feeler bar for electrically charging same, means grounding said attachment, said feeler bar upon movement into the unmowed plant growth through rotation of said steering shaft by said motor, making a circuit and upon opposite movement to a position above the cut plant growth breaking the circuit, and electric means operative upon movement of said feeler bar for reversing said motor upon making and breaking the circuit, whereby said steering wheel is caused to move in a line substantially parallel to the line of demarcation between the cut and uncut plant growth.

2,847,078

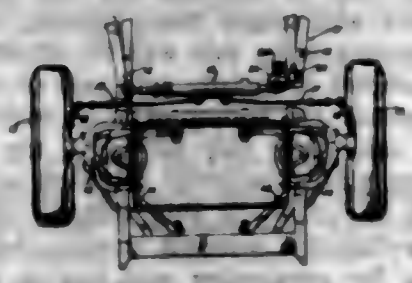
POWER STEERING DEVICE OF THE HYDRAULIC TYPE

George H. Muller, Northville, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application January 4, 1956, Serial No. 557,340
6 Claims. (Cl. 180—79.2)

1. A power steering device for a motor vehicle having a frame, a manually rotatable steering shaft, a pitman arm on said steering shaft, steerable road wheels, and steering linkage connected to the road wheels, comprising a cylinder disposed generally transversely of said vehicle and pivotally connected adjacent one end to said pitman arm, a piston within said cylinder, a piston rod member secured to said piston and projecting beyond the end of said cylinder remote from its pivotal connection to said pitman arm, means nonrotatably connecting the projecting

end of said piston rod member to said vehicle frame, means pivotally connecting said steering linkage to an intermediate point on said cylinder to actuate said linkage and said steering wheels by reciprocation of said cylinder relative to said frame, and a rod member non-



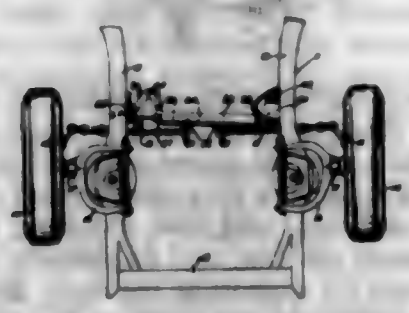
rotatably connected to said cylinder, one of said members being generally tubular and telescopically and nonrotatably receiving the other of said members to prevent rotation of said cylinder about its axis while permitting reciprocation of said cylinder and the steering linkage connected thereto relative to said vehicle frame.

2,847,879

POWER STEERING MECHANISM WITH HYDRAULIC CYLINDER STABILIZING MEANS

John A. Cota, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application February 27, 1956, Serial No. 567,829
2 Claims. (Cl. 180—79.2)



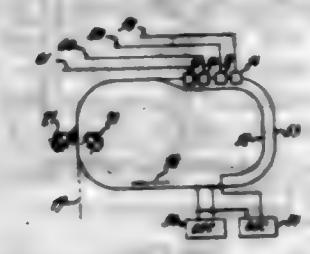
1. Power steering mechanism for a motor vehicle having a pair of longitudinal box section frame rails and a pair of steerable road wheels, a power steering cylinder disposed transversely between said frame rails, a steering gear shaft pivotally mounted upon one of said frame rails, a pitman arm on said shaft pivotally connected to one end of said power steering cylinder, a pair of steering links pivotally connected at their inner ends to said cylinder and at their outer ends to said road wheels so that transverse movement of said cylinder will result in steering movements of said wheels, a piston reciprocable within said cylinder, a piston rod connected to said piston and extending from one end of said cylinder, a supporting bracket having a vertical flange secured to the inner side wall of the other of said box section frame rails and an integral horizontal flange secured to the lower wall of said one frame rail, said vertical flange of said supporting bracket extending beneath said frame rail and connected to the extending portion of said piston rod, said vertical flange having a transversely extending flange projecting toward said cylinder, a link pivotally connected to said transversely extending flange, a second link pivotally connected to the adjacent end of said cylinder, said links extending diagonally with respect to said piston rod and cylinder and lying in a common plane extending in the same general direction as said pitman arm, said links being pivotally connected together at their free ends to restrain rotation of said cylinder about its transverse axis while permitting transverse translation of said cylinder to effect steering of said road wheels.

2,847,880

AUTOMATIC CONTROL SYSTEM FOR VEHICLES

Vladimir K. Zworykin, Leslie E. Flory, and Winthrop S. Pike, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application June 30, 1954, Serial No. 440,452
39 Claims. (Cl. 180—82)



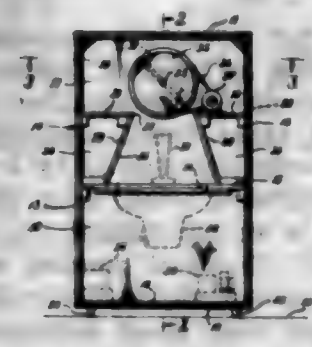
36. In a vehicle guidance system in which one vehicle follows another vehicle along a predetermined path, the combination comprising means disposed adjacent said path and actuated by the first of said vehicles for providing an output signal of duration in accordance with the speed of said first vehicle along said path, and means controlled by said first named means for propagating a warning signal along said path actuated by said output signal, the duration of which is related to the speed of said first vehicle as it passes adjacent said first-named means.

2,847,881

ACOUSTICAL ENCLOSURE TO SIMULATE ORGAN TONES

Harris H. Santi, La Porte, Tex., assignor, by direct and mesne assignments, to Electronic Reproducers, Inc., a corporation of Texas

Application April 25, 1955, Serial No. 503,609
9 Claims. (Cl. 181—31)



2. An acoustical enclosure for a speaker, comprising a cabinet having upper and lower chambers and being closed except for an outlet from the upper chamber and an inlet to the lower chamber which comprises a choke through the bottom wall thereof, a passageway connecting the upper and lower chambers, and means at the lower end of the passageway having a substantially circular opening therethrough for receiving a speaker cone suspended within the lower chamber, said passageway surrounding the substantially circular opening through the speaker cone receiving means at its lower end and being gradually convergent upwardly to an elongate portion at its upper end connecting with the upper chamber, the area of said elongate portion being substantially that of the substantially circular opening through the speaker cone receiving means for transforming the sound waves emanating from the cone from a circular to an oval pattern.

2,847,882

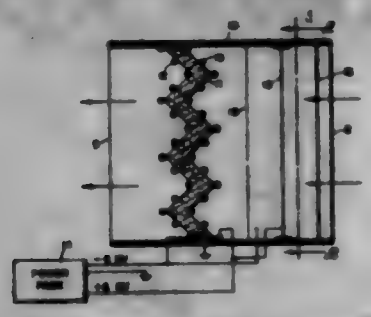
ELECTROSTATIC PRECIPITATORS

William J. Roos, Sharon, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 3, 1955, Serial No. 544,628
3 Claims. (Cl. 183—7)

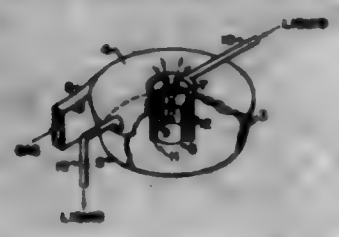
1. An electrostatic precipitator comprising an air guiding enclosure having an open air inlet and an open air

outlet, a mat of conductive filaments extending crosswise said enclosure between said inlet and outlet, a first plurality of spaced-apart conductors having insulation therearound in contact with the side of said mat facing



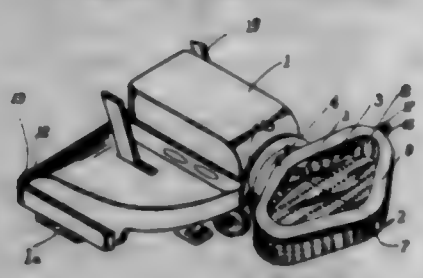
said inlet, a second plurality of spaced-apart conductors having insulation therearound in contact with the side of said mat facing said outlet, and means for establishing electrostatic fields between said first conductors and said mat and between said second conductors and said mat.

2,847,083
FRACTIONATOR DESIGN
Henry J. Hibshman, Plainfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application June 18, 1956, Serial No. 591,909
2 Claims. (Cl. 183—24)



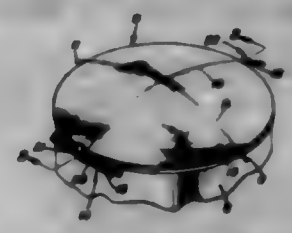
1. Apparatus for intimately contacting a liquid with a vapor comprising an inverted frusto-conical vessel; a tangential vapor inlet communicating with the interior of said vessel; a vapor outlet communicating with the interior of said vessel and defined by a perforated cylindrical member extending axially from the bottom of said vessel to a port in the top thereof, the area of the perforations in said cylindrical member and the area of said port being substantially equal to the cross-sectional area of said vapor inlet; liquid inlet conduits projecting through the top of said vessel and extending the length of said vessel in proximity to said cylindrical member, said conduits being perforated to direct liquid streams toward the periphery of said vessel; a liquid inlet manifold communicating with said inlet conduits; and a liquid outlet extending through the top of said vessel at the periphery thereof.

2,847,084
DUST COLLECTING RECEPTACLE FOR VACUUM CLEANER
Edna M. Wolfskill, Louis X. Gallas, and Wilbur C. Dickinson, Reading, Pa.
Application September 15, 1954, Serial No. 456,132
1 Claim. (Cl. 183—51)



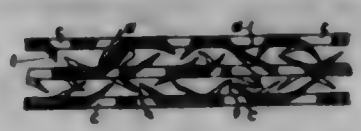
A dust collecting receptacle for attachment directly to the exhaust passageway of a vacuum cleaner, said receptacle being of rigid material having perforated side and bottom walls and a readily detachable top lid and having an air outlet opening in said side wall, said lid having a window portion of rigid transparent material, said receptacle having readily detachable mounting means including an air outlet nozzle for attaching the receptacle on the vacuum cleaner so that said air outlet opening will be in registry with said exhaust passageway, a disposable filter bag of substantially the same shape as said receptable and snugly fitted therein, said filter bag having an opening in its side wall for attachment to said nozzle and adapted to register with said air outlet opening of said receptacle for communication with said exhaust passageway, said filter bag having a top wall portion of transparent plastic material disposed substantially in registry with and close to said window portion of the receptacle so that the window portion will serve as a rigid backing for supporting said bag as air from said vacuum cleaner exhausts therethrough, throughout the side and bottom walls, and through the perforations in the side and bottom walls of said receptacle, whereby the contents of said bag may be viewed at all times through said window portion.

2,847,085
TRASH BURNER COVER
Clarence W. Ehlers, Junction City, Kans.
Application July 3, 1956, Serial No. 595,746
1 Claim. (Cl. 183—51)



A trash burner attachment comprising a substantially dome-shaped foraminous removable cover including a wire frame and a circular screen mounted on said frame, said frame comprising a ring and crossed arcuate rods mounted on said ring, said rods including end portions projecting beyond the ring and engageable with the top of a trash burner for supporting the cover thereon, means for pivotally connecting the cover to the burner, means for releasably securing said cover in closed position on the burner, said first mentioned means including a plate adapted to be mounted horizontally on the burner, leaves including aligned knuckles on the medial portion of either side of said plate and on said ring, and a removable pin engaged in the aligned knuckles, said last mentioned means comprising a latch including a pair of opposed, resilient jaws for receiving and retaining therebetween one of said projecting end portions of said rods, a stop projecting upwardly from the rear edge of said plate whereby a stop is provided to limit the open position of said cover.

2,847,086
FILTERING MATERIAL
Paul Adolf Müller, Herrliberg, Switzerland
Application August 3, 1954, Serial No. 447,478
Claims priority, application Switzerland August 4, 1953
10 Claims. (Cl. 183—69)



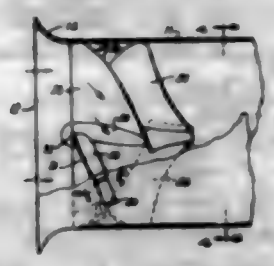
1. Filtering means for tobacco smoke and like gaseous medium; comprising at least two adjacent layers of fibrous material having surfaces provided with a plurality of spaced openings defined by open bases and projections extending from said open bases and beyond said surfaces of the respective layers, said projections of said

layers being directed toward each other and spacing the surfaces one from the other, said projections being made of said fibrous material and terminating in irregularly shaped frayed ends, whereby the projections of one layer may interlace with the projections of the other layer, to thereby provide a tortuous path for said medium between said layers and to thereby enhance the filtering action when said medium streams between said layers and along said surfaces of the latter.

2,847,087
DUST COLLECTORS

John Cunningham Johnson, Belfast, Northern Ireland, assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

Application November 28, 1955, Serial No. 549,476
Claims priority, application Great Britain November 26, 1954
1 Claim. (Cl. 183—80)

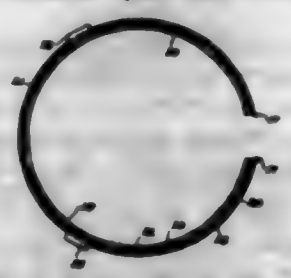


A dust separator and collector comprising a tubular member through which dust-laden air can be passed, vanes mounted in the inlet end of said tubular member to impart vortical motion to such dust-laden air, a casing forming an outer chamber into which said tubular member extends, an outlet pipe of reduced diameter extending into the outlet end of said tubular member coaxially thereof and discharging externally of said casing so that dust in said air will be thrown centrifugally outwardly and will pass between the outer surface of said pipe and the inner surface of said tubular member into said outer chamber, said tubular member having orifices therein immediately adjacent the downstream faces of said vanes and rearwardly of the outer edges thereof for aspirating air from said outer chamber, and shields disposed between said orifices and the leading edges of the vanes in the angles formed by the downstream faces of the vanes and the wall of the tubular member, whereby air passing over said shields will create a rarified pressure condition over said orifices for aiding in carrying out the aspiration of air from said outer chamber.

2,847,088
BRAKE DRUM LINING

Joseph A. Two, Rockford, Ill., assignor of one-fourth to Clarence B. Paden, one-fourth to Francis W. Gaffney, and one-fourth to Clarence J. McCue, all of Rockford, Ill.

Application January 4, 1954, Serial No. 401,927
7 Claims. (Cl. 188—218)

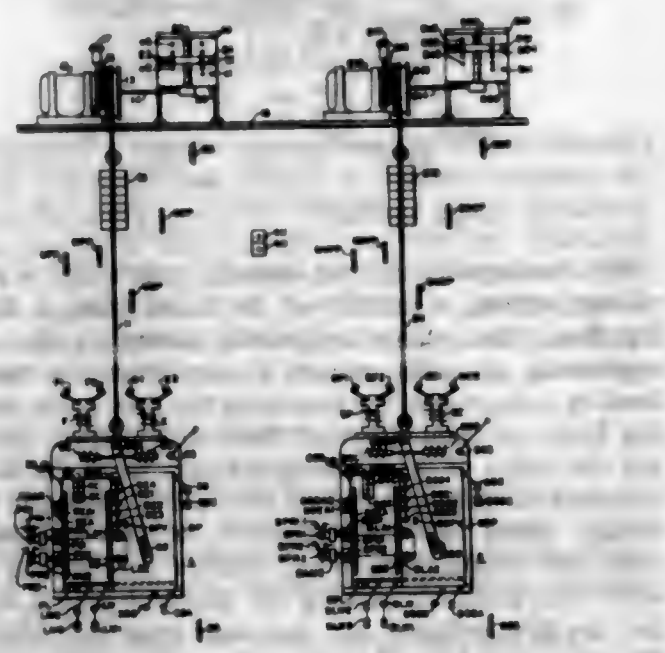


1. In combination, a brake drum having a circumferentially extending brake rim portion in the inner side of which is provided a transversely extending recess between the inner and outer edges thereof and terminating short of the outer edge, a circular spring metal band that is split transversely at one point of its circumference and when removed from the rim portion is of larger radius than the inside radius of said brake rim portion but is resiliently radially compressible to be inserted in the rim portion and expansible to fit closely but removably within said rim portion with said transversely split portion disposed in register radially with said recess, said band having at said transversely split portion radially outwardly extending projections on and transversely of the separable ends of the band entered in said recess and serving to hold said band releasably against turning with respect to said drum in either direction, and brake lining secured to the inner periphery of said band and removable with it from said drum.

2,847,089
ELEVATOR SYSTEMS

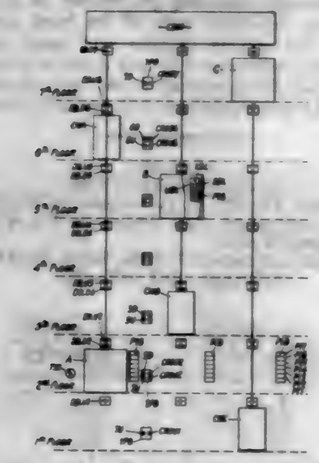
Danilo Santini, Tenafly, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 27, 1956, Serial No. 612,552
23 Claims. (Cl. 187—29)



23. In an elevator system, a structure having a pair of terminal landings and a plurality of intermediate landings, an elevator car having a door, door-operating means for opening and closing the door, means mounting the elevator car for movement relative to the structure to serve said landings, motive means for moving the elevator car, and control means cooperating with the motive means for controlling operation of the elevator car, said control means comprising means for stopping the elevator car at a preselected landing and initiating a door-opening operation of said door-operating means, initiating means responsive to the expiration of a substantial time following the stopping of the elevator car at said preselected landing for initiating a door-closing operation of the door-operating means, start control means responsive to closure of the door for initiating a starting operation of the elevator car, switch means having a first condition when the door occupies a position spaced from fully-closed position of the door by an amount less than a predetermined distance which is insufficient to permit passage of a person through the remaining door opening, said switch means having a second condition when the door is spaced from fully-closed position by a distance greater than said predetermined distance, and initiating means responsive to the conjoint presence of an object in the closing path of the door and the first condition of said switch for initiating a releasing door-opening operation of the door-operating means, said initiating means being responsive during said releasing door-opening operation to operation of the switch means to the second condition for controlling the door-operating means to initiate a door-closing operation of the door.

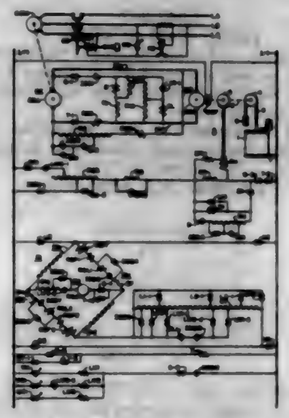
2,847,090
LIFT CONTROL SYSTEMS
William John Bailey, Bexley, England, assignor to J. and E. Hall Limited, London, England, a British company
Application February 19, 1957, Serial No. 641,184
Claims priority, application Great Britain February 23, 1956
42 Claims. (Cl. 187—29)



40. A despatching and control system for a plurality of cars serving a number of floors including a despatching floor, the system comprising means in the cars for registering car calls, means at the floors for registering landing calls, means for returning the cars to the despatching floor on completion of their trips, means for selecting the order of despatch of the cars from the despatching floor, a despatch signal device for each car for initiating, when operated, despatch of the associated car from the despatching floor, service call means serving when energised for placing the despatch signal device of the car first selected for despatch from the despatching floor in a condition for operation, car circuits associated one with each car, a landing call circuit that is closed only when there is an outstanding landing call from a floor other than the despatching floor, electrical connections connecting the service call means, the car circuits and the landing call circuit together in series, means for setting the direction of travel of each car, and means in each car circuit for forming a completed path through the car circuit when the associated car is set for travel towards the despatching floor and a landing call occurs for the opposite direction of travel.

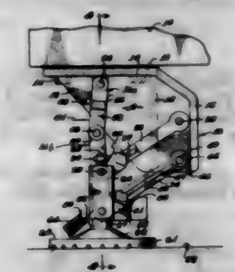
2,847,091
LEVELING ELEVATOR SYSTEMS
Danilo Santini, Tenafly, and Milton Fink, Ridgewood, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 29, 1957, Serial No. 662,416
14 Claims. (Cl. 187—29)

14. In an elevator system for a structure having a plurality of vertically-spaced landings, an elevator car for carrying load from one to another of said landings, a counter-balance mechanism, a sheave, a flexible cable extending between the elevator car and the counter-balance mechanism over said sheave, electromotive means effective when energized for applying a vertical force to the elevator car relative to the structure, releasable brake mechanism for preventing movement of the elevator car relative to the structure, load-responsive mechanism operable from a first condition to a second condition in response to a predetermined loading of the elevator car, elevator car displacement means operable from a first condition to a second condition in response to a predetermined displacement of the elevator car from a landing, and control means cooperating with the electromotive means and the brake mechanism for moving the elevator car and stopping the elevator car at desired landings, said control means including aiding means responsive to operation of the load-responsive mechanism and the displacement means to their second conditions while the elevator car is intended to be stopped at a landing for energizing the electromotive means to aid the brake mecha-



nism in holding the elevator car stationary, said aiding means supplying insufficient energization to the electromotive means to produce movement of the elevator car with the brake mechanism applied, and said control means including leveling means responsive to a loading less than said predetermined loading and to displacement of the elevator car from registry with a landing at which the car is stopped for releasing the brake mechanism and energizing the electromotive means to level the elevator car with the last-named landing.

2,847,092
FLOOR LOCK
Hazlehurst Ross Noyes, Hollywood, and Milton E. Ross, Burbank, Calif., assignors to Tracy S. Holmes
Application March 18, 1955, Serial No. 495,175
8 Claims. (Cl. 188—5)



1. For use on a hand truck or the like, a floor lock comprising in combination: a base frame adapted to be fixed to the chassis of a truck; a movable carrier adjacent said frame and adapted for vertical movement between an upper retracted position and a lower locking position; a parallelogram linkage connected between said frame and carrier to maintain the latter in a predetermined attitude throughout said movement thereof; latching means including two toggle links hinged together on a horizontal hinge axis, the outer ends of said toggle links being pivotally attached to said frame and said carrier respectively on pivotal axes parallel to said hinge axis whereby to interconnect said frame and carrier for limited relative movement thereof, said hinge axis and the pivotal connections to said frame and carrier being adapted to lie in a common plane when said carrier is extended a maximum distance from said frame and said links being adapted to fold toward each other with said hinge axis lying on one side of said plane and substantially spaced therefrom when said carrier is in retracted position; stop means to limit the relative movement of said toggle links in a position wherein said hinge axis lies on the other side of said plane and relatively close thereto, whereby to latch said carrier against movement towards said frame; foot means mounted on said carrier below the same to engage the floor beneath said truck when said carrier is latched as aforesaid, whereby to immobilize said truck; and an operating member on one of said toggle links positioned and adapted to receive operating pressure to rotate said last named link about its said pivotal connection in a direction to move said hinge axis through said plane and permit retraction of said carrier as aforesaid.

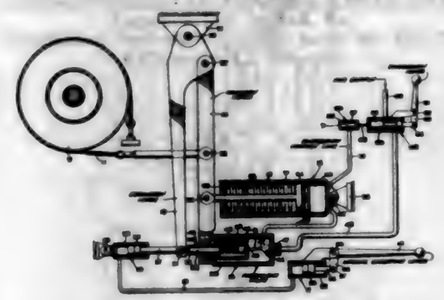
2,847,093
BRAKE
John Z. De Lorean, Detroit, Mich., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application March 31, 1955, Serial No. 498,483
9 Claims. (Cl. 188—77)



1. In a brake, the combination of a brake band having two ends adapted to be stressed for changing the diameter of the band to apply it to a drum, one of said ends having a slot formed therein, a strut fitting in said slot for stressing the band, and expansible connector means for limiting freedom of movement of the strut in two directions from the slot in the end of the band, and including a notch formed with a restriction in one and a member fast to the other of said strut and band with the member fitting in the notch and restrained by the restriction, said strut and band including contacting surfaces disposed one on each side of the interfitting member and notch for applying stress through the contacting surfaces between the strut and the band.

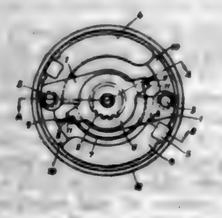
2,847,094
POWER OPERATED BRAKE FOR DRAWWORKS
James G. Abraham, Rolling Hills, Calif., assignor, by mesne assignments, to The National Supply Company, Pittsburgh, Pa., a corporation of Ohio
Application March 15, 1954, Serial No. 416,167
5 Claims. (Cl. 188—151)

1. Apparatus for tensioning a brake band about a brake drum, comprising in combination: a lever having a fixed pivotal support and provided with a short arm and a long arm, a floating beam pivotally supported upon the short arm, means for applying an operating force to the lever at the end of the long arm thereof, means for connecting the brake band to the floating beam, a spring operatively connected to move the floating beam in one direction about said pivot means, a fluid-actuated device opposing the action of the spring, means for energizing the fluid-actuated device to compress the spring and thereby move said floating beam in the other direction about said pivot means, said energizing means including a valve assembly having a housing and a relatively movable valve part therein, means connected to the valve assembly responsive to relative pivotal movement of the lever and floating beam to move the valve part relative



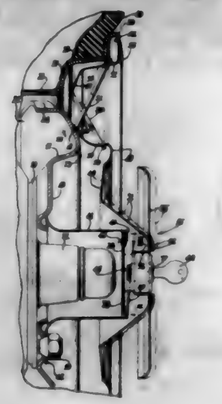
to the housing, a conduit connecting the valve assembly with said fluid-actuated device, a conduit adapted for supplying the valve assembly with fluid under pressure, the valve assembly being adapted to vent the fluid-actuated device upon any relative pivotal movement of the lever and floating beam in one direction, and to pressurize the fluid-actuated device upon any relative pivotal movement of the lever and floating beam in the other direction.

2,847,095
SPEED GOVERNOR, PARTICULARLY FOR DIALS
Carl Oscar Sohlberg, Stockholm, and Hans Gösta Thames, Hagersten, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application June 19, 1956, Serial No. 592,305
Claims priority, application Sweden July 29, 1955
2 Claims. (Cl. 188—184)



1. A speed governor comprising, in combination, a substantially circular brake sleeve, a body portion rotatably supported within said sleeve, a pair of brake weights each comprising a lever having a brake sleeve engaging portion and an extension, pivot means disposed between said sleeve engaging portion and said extension pivotally supporting said lever on said body portion, a spring support plate rotatably supported within said sleeve, temperature responsive bimetallic spring means slidably received within said support plate and disposed in adjustable engagement between each extension of each said levers, a temperature responsive lubricant acting between relatively movable elements of said governor, the pressure of said bimetallic spring member against said lever extensions increasing in response to a decrease in temperature to reduce the braking action of said brake weights and said brake sleeve as the resistance to movement between said relatively movable parts increases due to the increase in viscosity of said lubricant.

2,847,096
WHEEL STRUCTURE
George Albert Lyon, Detroit, Mich.
Application January 19, 1953, Serial No. 331,951
21 Claims. (Cl. 188—264)



1. In a wheel structure including wheel body and tire rim parts, a cover held on the wheel under axially inward tension, said cover having spur-like elements thereon in thrusting axially inward edgewise biting engagement with one of said wheel parts and resisting turning of the cover on the wheel.

2,847,097
PORTABLE MAST
Dewey R. Moore, Garland, Tex., assignor to United States Steel Corporation, a corporation of New Jersey
Application May 21, 1953, Serial No. 356,350
9 Claims. (Cl. 189—11)



1. In combination, a substructure, a two-legged mast pivoted at its lower end to said substructure and including a plurality of sections joined end-to-end, a gin pole pivoted at its lower end to said substructure independently of said mast and adapted to extend along said substructure rearwardly of its pivot in a prone position both when the mast is erected and when it is dismantled, guy lines connected between the upper portion of said mast legs and the front portion of said substructure, detachable sling lines connected between the upper portion of said mast legs and the outer extremity of said gin pole for transmitting a lifting force from said gin pole to said mast during the erection process, and releasable hold-down means fixing said sling lines with respect to said substructure when the mast is erected, said guy lines, sling lines and hold-down means cooperating to hold the erected mast from turning downwardly in either direction about its pivot.

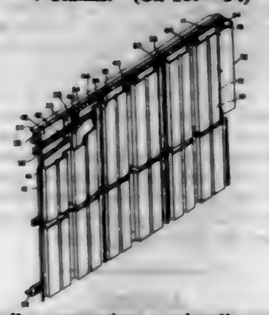
2,847,098
PORTABLE WELL DRILLING MACHINE AND TELESCOPING TRIPOD MAST THEREFOR
George Heinish, Akron, Ohio
Application July 14, 1954, Serial No. 443,223
3 Claims. (Cl. 189—11)

1. A portable unitary well drilling machine including a wheeled vehicle frame, a telescoping tripod mast including a main leg and two secondary legs, each leg having an upper section and a lower section telescoping together, the upper ends of the upper sections of all legs being pivotally secured together with a universal joint, means secured to the main leg of the mast releasably securing together the lower sections of all legs, means pivotally securing the mast to the frame near the well end thereof with the bottom end of the mast extending out over the well, said main leg of the mast having a transverse sill at its lower end, the ends of the sill engaging with opposite sides of the frame when the mast is raised to brace the frame from the mast, a plurality of sheaves journalled on the sill, a plurality of sheaves journalled on the frame, a sheave journalled at the lower end of the upper section of the main leg of the mast, a sheave journalled near the upper end of the lower section



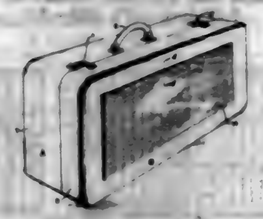
of the main leg of the mast, a power winch on the frame, a cable having one end secured to the winch, the cable extending in several reaches between the sheaves on the frame and the sheaves on the sill, then extending around the sheave near the upper end of the lower section of the main leg, then around the sheave at the lower end of the upper section of the main leg, and with the end of the cable attaching to the lower section of the main leg near the upper end, means for releasably locking the sections of the main leg in telescoped position, jack screws on opposite ends of the sill to position the mast and frame transversely, jack screws on the lower ends of the secondary legs to position the mast fore and aft, and at least one sheave near the upper end of the upper section of each mast leg to receive the cable for loading the mast.

2,847,099
METAL WALL PANELS
Joseph J. Gruber, Lancaster, N. Y., assignor to Fenestra Incorporated, a corporation of Michigan
Application January 16, 1956, Serial No. 559,330
4 Claims. (Cl. 189—34)



1. In a wall construction, a plurality of edge-lapped panels, a flanged support bar carried by each panel intermediate its edges, the flange of said bar being parallel to and spaced from the plane of said panel, a girt member of U-shaped cross-section having a length to span a plurality of panels, the free edges of the legs of said U-shaped girt member engaging the flanges of said flanged bars, the webs of said U-shaped girt members being spaced from the plane of said flanges, clips securing said girt members to said flanges, said clips comprising a U-shaped portion overlying said girt members and apertured assembly flanges engaging the flanges of said support bars, and rivets connecting said assembly flanges to the flanges of said support bars.

2,847,100
CASE CONSTRUCTION
Sidney Hoeldaver, San Francisco, Calif.
Application May 15, 1956, Serial No. 585,071
3 Claims. (Cl. 190—41)

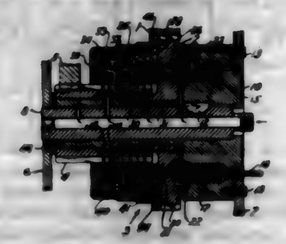


1. A case construction comprising a portable rigid case of relatively smooth material on two opposite, substantially planar sides; and a pad of corrugated, soft rubber-like material adhesively secured to at least one of said sides over the major area thereof and projecting from said case.

2,847,101
OVERLOAD RELEASING MAGNETIC POWDER-CLUTCH
Friedrich Bergmann, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
No Drawing. Application November 6, 1952
Serial No. 319,167
Claims priority, application Germany November 10, 1951
4 Claims. (Cl. 192—21.5)

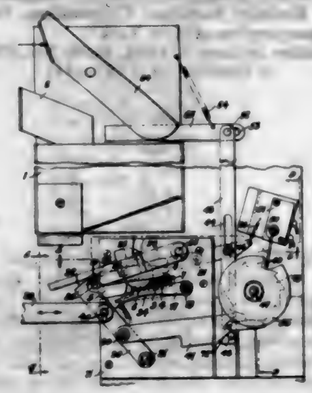
1. A magnetic coupling for the transmission of torque from one member to another by the application of a magnetic field to a magnetizable powder therebetween, wherein said magnetizable powder consists at least partly of a ferrite powder selected from the group consisting of manganese ferrite, lead ferrite and manganese-zinc ferrite, said powder having a magnetic Curie point between about 200° and 400° C. and below temperatures injurious to said magnetizable powder, whereby the coupling is effective at operating temperatures and automatically disconnects below injurious temperatures when overheated.

2,847,102
ELECTRICALLY ACTUATED CLUTCH
Robert K. Tiedeman, Packanack Lake, and Joseph M. Morgen, Verona, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware
Application December 5, 1955, Serial No. 550,955
6 Claims. (Cl. 192—84)



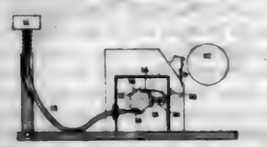
2. A magnetically actuated coupling comprising a non-rotating solenoid having concentric annular pole-pieces, an annular rotatable armature attractable by said solenoid when energized, said armature having a plurality of holes therethrough, a ring rotatably engaging the face of said solenoid in thrust bearing relation and having pins thereon passing through said armature openings, an annular member on said armature defining a clutch cavity, a stack of friction clutch plates including a thrust ring at one end within said cavity, said thrust ring being engaged by said pins and the other end of the stack being engaged by said annular member, and a member drivably engaged by some of said plates, others of said plates being drivably engaged with said annular member, said plate stack upon solenoid energization being squeezed together between said pins and said annular member to provide a driving engagement between the plates.

2,847,103
COIN-CONTROLLED VENDING APPARATUS
Eugene J. Lux, Atlanta, Ga.
Application September 30, 1955, Serial No. 537,775
6 Claims. (Cl. 194—61)



1. In a vending apparatus, a movable coin-rest having parts for the support of coins of different denomination, means for engaging the coins while supported on the coin-rest and retaining them in position thereon, a coin-ejector mounted for pivotal movement and adapted to move the coins from the coin-rest upon swinging movement of said ejector, a locking bar normally positioned in the path of swing of the coin-ejector and preventing the swing of the same through a coin-ejection arc, and manually-operated coin-lifting means for engaging and lifting the coin-rest to bring the coins thereon into contact with the locking bar to thereby move said locking bar out of the path of swing of the coin-ejector to permit the coin-ejector to engage the coins and move the same from off the coin-rest.

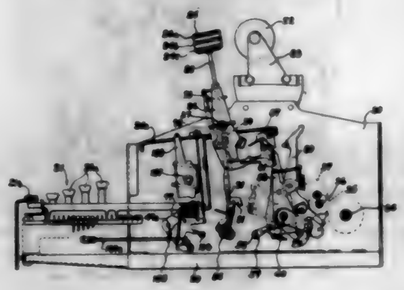
2,847,104
DEVICE FOR MARKING PAPER TAPES IN SHORTHAND TYPEWRITERS, CALCULATING MACHINES AND THE LIKE
Jean Segal, Vincennes, France, assignor to Société Anonyme dite: Stenotype Grandjean, Paris, France
Application December 16, 1953, Serial No. 398,607
Claims priority, application France August 3, 1953
2 Claims. (Cl. 197—9)



1. A machine of the shorthand typewriter, calculating and like type adapted through keys and type levers to print signs or characters on a paper tape fed longitudinally, said machine having a universal bar actuated by said keys and comprising at least one additional type-

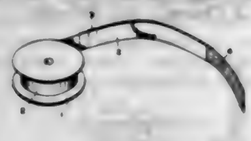
lever adapted to print a particular sign on a given portion of the paper tape, and means for putting said type-lever in its operative condition, the said universal bar comprising a portion acting as a cam adapted to control the actuation of said additional type-lever when it is in its operative condition, each time said universal bar is swung consequent upon a depression of a key in such a manner that said additional type-lever prints said particular sign on the paper tape, in addition to the type controlled by the depressed key.

2,847,105
MOVABLE DRUM TYPEWRITER
Fred M. Carroll, Binghamton, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 3, 1955, Serial No. 479,393
16 Claims. (Cl. 197—16)



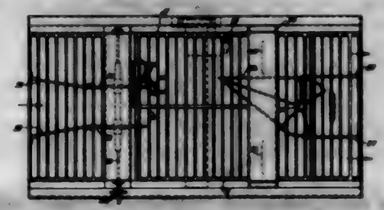
1. A machine of the class described comprising a type drum having peripheral rows of printing characters forming two sets of type, means mounting said drum for axial and rotary movement, mechanisms for selectively rotating the drum and moving it axially to select a character to be printed in one of said sets, means for shifting the drum to place the other set under printing control of said mechanisms, whereby said mechanisms are operable to select a character to be printed in said other set, a striker for moving the drum to print a character selected by said mechanisms, a main actuator connected to said mechanisms and striker for operating the same, and means responsive to operation of said drum shifting means for rendering the striker inoperable by said actuator.

2,847,106
TYPEWRITER RIBBON
Foster C. Yawger, Scottsville, and Eugene E. McCarthy, Rochester, N. Y., assignors to Kee Lox Manufacturing Company, Rochester, N. Y., a corporation of New York
Application May 16, 1957, Serial No. 659,599
12 Claims. (Cl. 197—172)



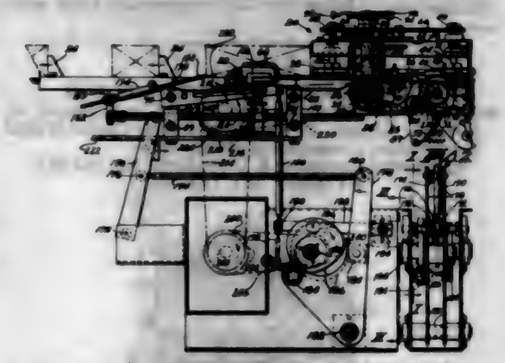
1. In a typewriter ribbon comprising a spool and an inked ribbon wound thereon, the improvement which consists in a strip of adhesive de-inking tape of the same width as the ribbon and having its adhesive surface attached to the outer face of the ribbon for a substantial distance from the end thereof, said adhesive tape acting to absorb substantially all the ink from the underlying portion of the ribbon.

2,847,107
ARTICLE SELECTOR FOR CONVEYOR SYSTEM
Charles S. Pennington, Lombard, Ill., assignor to The Peterson Oven Company, Franklin Park, Ill., a corporation of Illinois
Application May 31, 1955, Serial No. 511,822
7 Claims. (Cl. 198—31)



1. A pan selector comprising an elongated conveyor mechanism to move a plurality of pans in succession from the inlet end of the mechanism to the discharge end thereof, a gate near the inlet end of the conveyor mechanism movable to a blocking position to engage a pan and hold it against movement and to a release position to release the pan for movement, means for moving the gate to its blocking and release positions, and control means for the moving means positioned substantially opposite to the gate to be engaged by a pan as it is passing the gate to hold the gate in its release position and to move the gate to its blocking position when disengaged by the pan as its trailing end passes the gate to block a following pan, the conveyor mechanism including a high speed section downstream of the gate and a lower speed section upstream of the gate.

2,847,108
ARTICLE ORIENTING AND CONVEYING MECHANISMS
Frank C. Gross, Wilbraham, Mass., assignor to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts
Application September 25, 1957, Serial No. 686,877
6 Claims. (Cl. 198—33)



1. Article orienting mechanism comprising infeed conveyor means, and discharge conveyor means aligned to carry articles through a substantially straight path of movement, a turntable movable between said conveyor means, means for rotating said turntable as it is so moved, means for releasing one article at a time from the infeed conveyor in proper timed relation to the movement of the turntable for the article to be properly seated on the turntable, guide means spaced apart the width of the article and disposed between the infeed conveyor means and the turntable when an article is released, and means for withdrawing said guide means from the path of movement of the article as soon as the turntable commences to rotate.

2,847,109
SHINGLE STACKING MACHINE
Ralph H. Gauthier, Allendale, and Fred L. White, Ridgewood, N. J., assignors to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts
Application October 5, 1956, Serial No. 614,118
8 Claims. (Cl. 198—35)



1. A machine for stacking shingles comprising a first pair of parallel conveyors one rising above the other, a second pair of parallel conveyors arranged adjacent the ends of said first pair and a pair of guide plates substantially parallel but converging inwardly from said first pair of conveyors to said second pair of conveyors adapted to guide shingles travelling on said conveyors into a position one above the other.

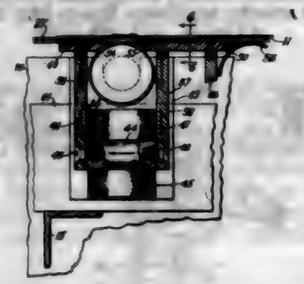
2,847,110
ARRANGEMENT IN CONVEYORS FOR TRANSPORTING PILES OF LUMBER
Alpo Aarne Ryyti, Kaukas, Finland, assignor to Oy. Kaukas Ab., Kaukas, Finland, a company of Finland
Application June 13, 1957, Serial No. 665,415
3 Claims. (Cl. 198—35)



3. Apparatus for transporting lumber arranged in successive vertical piles crosswise from one pile to another which comprises a first conveyor for transporting said lumber, said conveyor having an upwardly inclined portion at the exit end thereof to cause the foremost pile of lumber to lean backwards against the following piles whereby said piles are forced to fall off of the end of said conveyor, pile by pile, a second conveyor positioned to receive said falling piles and a control device positioned for actuation by said lumber on said second conveyor, said control device acting to control the movement of said first conveyor to prevent a subsequent pile from falling onto said second conveyor until the pile thereon has been moved out of the way.

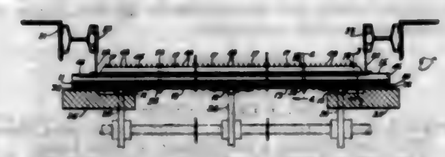
2,847,111
METAL SHEET HANDLING APPARATUS
Dario Bacciconi, Gary, Ind., assignor to Bacciconi Engineering Company, Inc., Gary, Ind., a corporation of Indiana
Application April 2, 1957, Serial No. 650,180
12 Claims. (Cl. 198—41)

3. A magnetic conveyor comprising a pair of spaced side support rails having belt supporting rollers at opposite ends thereof, a relatively wide work carrying belt having a flat outer work receiving surface carried on said rollers, and a series of longitudinally spaced magnet assemblies extending between said side rails, each of said magnet assemblies extending between said side rails, each of said magnet assemblies comprising a plurality of electromagnets arranged in row forming relation and having pole members positioned in parallel relation in a horizontal plane and extending in a direction lengthwise of the conveyor, a pair of longitudinally spaced transversely extending vertical plates connecting the



ends of the pole members, said vertical plates having transversely extending horizontal plates at their upper edges, said horizontal plates having a series of longitudinally extending transversely spaced grooves and separating rib formations in their upper surfaces, said work carrying belt having complementary grooves and rib formations in its under surface whereby relatively thin continuous belt areas overlie the rib portions of said horizontal planes and provide a minimum gap in the flux path through the work carried on said belt and said pole members.

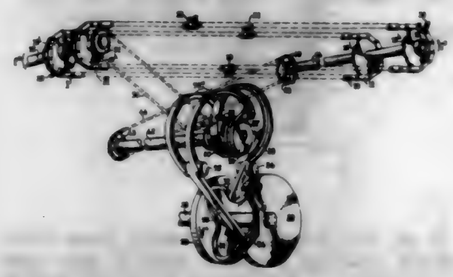
2,847,112
APRON CONVEYOR
Harold G. Black, Spartanburg, S. C., and Burton A. Arnatz, Abington, and Herbert C. Scheufele, Philadelphia, Pa., assignors to Proctor & Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application May 8, 1957, Serial No. 657,867
3 Claims. (Cl. 198—57)



1. Stock feeding apparatus comprising a hopper having opposite side walls, an endless apron conveyor having upper and lower runs extending transversely across the hopper and beyond the opposite side walls thereof, said conveyor comprising a continuous apron, a plurality of guides mounted in spaced parallel relation on said apron transversely thereof and a like number of elongated flights having slides thereon and slidable longitudinally in said transverse guides, said flights having a reduced thickness overlying the marginal portions of said conveyor, said side walls including an elongated structural member overlying the marginal portion of said upper run and spaced upwardly from and substantially parallel to said upper run a distance greater than the maximum thickness of said flights, and a sealing strip releasably suspended from said structural member projecting into closely-spaced relation to the reduced end portions of said flights on the upper run of the conveyor inwardly of the side edges thereof to expose the outer marginal portions of said upper run,

said flights being removable from said conveyor apron upon removal of said sealing strips and longitudinal displacement of said flights in said guides.

2,847,113
CONVEYOR MEANS FOR CONFECTIONERY MOULDS OR OTHER ARTICLES
Albert Dumas, Puteaux, France, assignor to Anciens Etablissements A. Savy, Jeanjean & Cie, Courbevoie, France, and Sté: Barker & Perkins Limited, Peterborough, England
Application May 17, 1956, Serial No. 585,425
Claims priority, application France May 18, 1955
6 Claims. (Cl. 198—135)



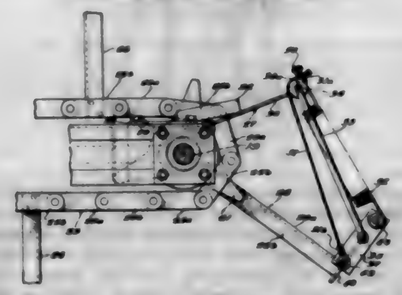
1. In conveyor means comprising at least two parallel endless chains driven in the same direction, lugs fixed on each of said chains in equally spaced relation, the lugs of one chain being offset relatively to the lugs of the other chain longitudinally of the chains, whereby each article to be conveyed is confined between one lug of one chain and one lug of the other chain; intermittent driving means for imparting to each of said chains a series of advancements constituting a cycle, the cycles of advancements imparted to the two chains by said intermittent driving means being equal, and additional intermittent driving means whose action is superimposed on the action of said intermittent driving means, said additional means imparting, during each cycle, an additional advancement alternately applied to one chain in one cycle and to the other chain in the following cycle, whereby, on each chain, each lug alternately serves as a pushing lug for one article, then as a retaining lug for the following article, said articles being fed longitudinally of the chains on the upstream ends of said chains.

2,847,114
BELT CONVEYOR
Howard S. Orr, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application March 1, 1956, Serial No. 568,756
6 Claims. (Cl. 198—202)



1. A belt conveyor comprising a pair of spaced apart pulleys, an endless belt passing around said pulleys, the outer surface of each of said pulleys having a wide central flat portion of maximum diameter and portions adjacent each end of its flat portion gradually decreasing in diameter toward its outer ends, said belt having a normal cross section constructed so that the inner surface of said belt has a wide central flat portion of maximum circumference and portions adjacent each end of its flat portion gradually decreasing in circumference toward its outer ends, said belt being free to move transversely and radially outwardly on said pulleys under external forces, a shaft for each of said pulleys, and relatively flexibly mounted bearings located beyond the central flat portion of said pulley for supporting said shaft.

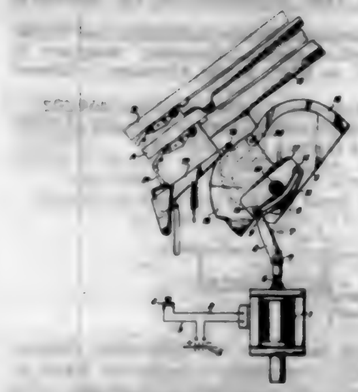
2,847,115
FLIGHT SCRAPER FOR CONTINUOUS CHAIN TYPE BARN GUTTER CLEANERS
Robert G. Ferris and Robert L. Yeager, Harvard, Ill., assignors to Starline, Inc., a corporation of Illinois
Continuation of application Serial No. 489,332, February 21, 1955. This application April 19, 1957, Serial No. 662,812
12 Claims. (Cl. 198—229)



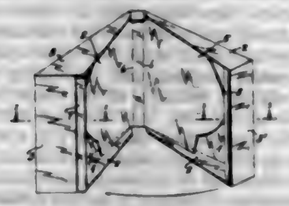
1. In a barn gutter cleaner having a trough with an open end, a sprocket mounted on a shaft journalled adjacent the open end of the trough, a continuous chain which travels around the sprocket, and spaced flights having their inner ends secured to the chain to carry refuse along and off the end of the trough, flight scraper means comprising: a mounting bracket fixedly secured adjacent the chain; a scraper carrying arm mounted on a pivot on said bracket for swinging movement in a plane generally parallel to the path of the flights traveling around the sprocket; a flight scraper mounted on a pivot on the free end of the arm, said scraper having an upright scraping edge generally parallel to the front face of a flight to scrape said face; means for rocking the scraper about its pivotal connection with the arm so that it normally lies at a constant angle to the front face of the flight as it traverses the flight; and means urging said arm toward a free-riding position with said scraping edge in the path of the inner end portion of a flight which has left the outer end of the trough, the relative positions of the sprocket shaft and the arm pivot being such that the scraper traverses the flight and rides off its outer end as the flight travels around the sprocket.

2,847,116
LINE-COMPOSING AND CASTING MACHINES
Karl Debus, Bad Homburg V. D. H., and Kurt Helmel, Frankfurt am Main, Germany, assignors to Linotype Gesellschaft mit beschränkter Haftung, Berlin-Tempelhof, Germany
Application February 7, 1956, Serial No. 564,877
Claims priority, application Germany February 8, 1955
1 Claim. (Cl. 199—45)

In a line-composing and casting machine having a plurality of magazines, a magazine changeover device comprising an electromagnet having a movable armature, a pushrod coupled to said armature, a mechanism for moving a selected magazine to an operative position, which mechanism has an operating shaft, a cam plate secured to said shaft, the cam plate comprising a cam member shaped and arranged to cooperate with said pushrod so that a rotation of said shaft takes place in one direction on movement of the armature effected by energization of the electromagnet and, after the electromagnet has been deenergized, said push rod is guided by said cam member to such a position that rotation of said shaft in the opposite direction is effected during the next working stroke.



2,847,117
BOXES ADAPTED FOR DISPLAY OF APPAREL
Robert P. Vuillemenot, Oradel, N. J., assignor to Maiden Form Brassiere Co. Inc., New York, N. Y., a corporation of New York
Application August 19, 1957, Serial No. 678,788
4 Claims. (Cl. 206—7)



1. A display box comprising two connected members and connected at a hinged end for folding into open and closed positions, each member having a major face wall, side walls and front wall, the walls of one member being adapted to overlap the walls of the second member, and latching means carried at the front walls of said box members and consisting of a display panel assembly comprising an innermost sheet member substantially coextensive with the major face walls and the front walls, one front wall of the panel being folded to provide an area substantially coextensive with one front wall of the box and being formed with an inwardly projecting flap, the opposite end of said panel wall being folded to provide an area extending inwardly against the second front wall of the box and thence folded against the outer surface of said last named box end wall to provide a latching abutment for such flap, said panel wall hingedly carrying a coacting wall foldable along its center line, and at the hinge line of the two box members, and extending at the opposite sides of said hinge line as apparel holding wings.

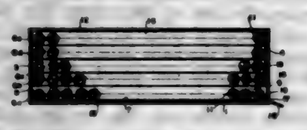
2,847,118
STAMP DISPENSER
Stanley R. Johnson, La Grange, Ill.
Application August 30, 1955, Serial No. 531,406
10 Claims. (Cl. 206—39)

1. A dispenser for stamps and similar thin articles which are adapted to be folded in accordion fashion, said dispenser comprising an elongated body member having a pair of spaced outer lateral walls which run substantially the entire length of said body member, a pair of elongated inner walls having spaced terminal ends, a transverse inner wall interconnecting said spaced terminal ends of said inner walls, each inner wall being arranged relative to said pair of outer walls so as to form between said inner wall and one of said outer walls a storage compartment of relatively large width adapted to receive and store therein a supply of said accordion-



folded articles, and to form between said inner wall and the other of said outer walls a passageway of relatively narrow width adapted to have articles pass therethrough unfolded and in single file, each said passageway, which is defined in part by one inner wall, communicating with the storage compartment defined in part by the other inner wall, and said pair of passageways extending from said storage compartments in opposite directions.

2,847,119
DISPENSING CONTAINER
Margaret J. La Padura, College Point, N. Y., assignor to Q-Tips, Inc., Long Island City, N. Y., a corporation of New York
Application October 1, 1956, Serial No. 613,157
1 Claim. (Cl. 206—56)

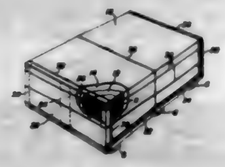


A dispensing container for sanitary cotton tipped swabs which container comprises a box having a bottom, front and rear side walls, the height of said walls being substantially an integral multiple of the diameter of the swabs to be dispensed, said front wall having a dispensing aperture in the lowermost portion thereof, said aperture being formed by vertical cuts adjacent the junctures of the front and side walls and by a horizontal cut connecting the vertical cuts at a height above the box bottom substantially equal to the diameter of the swabs to be dispensed, a door for said aperture, said door being formed by the portion of said front wall cut out to form the aperture and hinged to said bottom along a fold line, a plurality of article trays in stacked relation in said box, each tray comprising a bottom and front and rear walls, said front wall of each tray being hingedly connected to the bottom of said tray and having a height over at least a portion of its length which is greater than the height of the aperture and which is releasably retained in an upright position by engagement of the upper margin thereof with the inner surface of the front end wall of said box, and closure means for the top of said box.

2,847,120
PACKAGE FOR TIN PLATE OR THE LIKE
Ernest F. Miller, Gary, Ind., and Wilbert G. Nichol, Pittsburgh, Pa., assignors to United States Steel Corporation, a corporation of New Jersey
Application June 28, 1956, Serial No. 594,614
1 Claim. (Cl. 206—60)

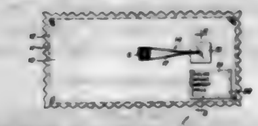
A package for sheets of tin plate or the like comprising a platform having a deck and at least two runners supporting said deck, said runners being spaced inwardly from the ends of said deck, the ends of said runners

having a cutout upper portion, a pile of sheets resting on said deck, a waterproof paper lining surrounding said pile with the ends thereof extending a short distance under said deck, a cover surrounding said paper lining, said cover being formed of a single generally rectangular sheet of material having a length substantially greater than the length of the sheets of tin plate plus twice the height of the pile and a width slightly greater than the width of the sheets of tin plate plus twice the height of the pile, said sheet of material having two longitudinal cuts at each end one spaced inwardly from each side a distance substantially equal to the height of the pile, each cut having a length equal to substantially one-half the difference between the length of the sheet of material and the length of the sheets of tin plate, said sheet having two pairs of parallel fold lines traversing the sheet at right angles to each other, one pair connecting the corresponding inner ends of the cuts and being in alignment therewith and the other pair traversing the sheet and connecting the adjacent ends of the cuts at right angles



thereto, said cuts and fold lines defining a central rectangular panel, end and side panels and flaps connected to said side panels, the center panel of said sheet of material forming the top of the cover, the side and end panels of said sheet of material being bent downwardly around the pile and the flaps being bent around the ends of the pile beneath the end panel, the ends of said end panels being bent under said platform, a vertical angle at each corner having one leg on the outside of the side of said cover and the other leg between the inwardly bent flaps and downwardly bent end panel, an angle extending along the bottom of each side of the pile on the outside of the container with one leg extending into the said cutout portion beneath the deck and the other leg extending vertically against the outer free end of said side panel, horizontal straps extending around the package one at the level of the bottom angles and another around the top of the vertical angles, and vertical straps extending around the package beneath the deck one around the vertical angles at each end and around one end of the bottom angles.

2,847,121
LOOSE GEM MERCHANDISING DISPLAY DEVICE
Gerhardt C. Neugebauer, Sturgis, S. Dak.
Application April 4, 1956, Serial No. 576,078
3 Claims. (Cl. 206—80)



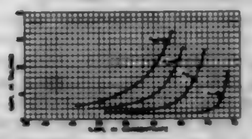
1. A gem display device including a supporting bed of a material and color selected to enhance the eye appeal of the gem being displayed, a gem clip comprising a metal base, means securely superimposing said base on said bed, a slot in one edge of said base, a pair of resilient gem-engaging arms fixed at one end in said slot and projecting laterally from said base, overlying a portion of said bed, and means at the free ends of said arms for engaging the bezel of a gem.

2,847,122
MEASURING DEVICE FOR THE MECHANICAL AUTOMATIC EVALUATION OF THE MEAN VALUES OF THE DIMENSIONS OF HOLLOW BODIES
Ehrenfried Zimmermann, Bunde-Soffengern, and Gustav Becker, Main-Gonnesheim, Germany, assignors to Bunder-Glas G. m. b. H., Bunde, Germany, a German company
Application February 9, 1954, Serial No. 409,262
Claims priority, application Germany February 13, 1953
14 Claims. (Cl. 209—88)



5. A measuring device for the mean inner diameter of a hollow body, comprising a hexagonal frame including six junction members with a connecting member connecting each pair of adjacent junction members with the exception of two, six spring-controlled feelers, means for maintaining said feelers assembled in circular relation, a cam and cam follower associated with each feeler and operative to compress the feelers before introduction within the hollow body and expand them after introduction, a spring-controlled radial link oscillatable in the circumferential direction connecting each feeler with a junction member of the hexagonal frame, a belt connected to each of the two neighboring junction members between which a connecting member does not extend, and a contact and indicator arm mounted on a spring-loaded shaft on which each of the two belts is wound, winding and unwinding movement of the belts effecting rotation of the shaft respectively in opposite directions, the said winding movement acting to move the contact and indicator arm over a series of arcuately spaced contact segments wherein each contact segment is included in an energizing circuit of relay operative to actuate a valve of a sorting device whereby the hollow bodies are sorted according to the mean diameter value.

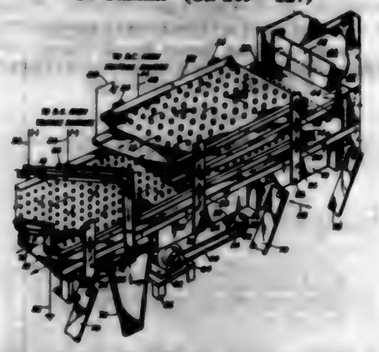
2,847,123
DRYING METHOD
James E. Lawyer, Lakeland, Fla., assignor to International Minerals & Chemical Corporation, a corporation of New York
Application September 1, 1953, Serial No. 377,779
9 Claims. (Cl. 209—127)



1. The method of preparing relatively soft and attritionable nonmetallic ore for electrostatic separation which comprises subjecting the washed, comminuted ore to drying gases under agitation conditions in a first stage of drying where the solids are moved by hot drying gases having a velocity in excess of that for maintaining a teetering condition for the largest particles being dried, removing the partially dried solids from suspension at a temperature in the range of 175° F. to about 210° F., and subjecting the partially dried particles in a final stage of moisture removal to drying gases under conditions giving a time of agitation in the range of about 0.1 second to about 15 minutes, the shorter periods of agitation being utilized when the agitation is greatest, and a heat

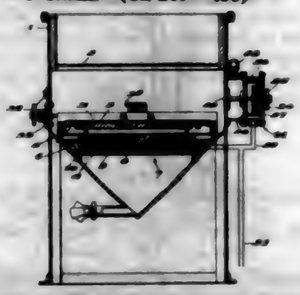
transfer permitting attainment of a solids temperature in excess of about 250° F. during the period of agitation electrically charging the dried ore particles and subjecting the charged dry ore to an electrostatic separation to beneficiate the same.

2,847,124
SUPPRESSOR ELECTRODE FOR A PERFORATED TYPE OF ELECTROSTATIC SEPARATOR MACHINE
William A. Brastad, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application February 8, 1955, Serial No. 486,951
14 Claims. (Cl. 209—127)



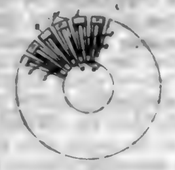
10. An electrostatic separator comprising spaced upper and lower electrodes, the upper electrode having a plurality of openings therein through which material attracted from the lower electrode may pass onto the upper surface of the upper electrode, means for feeding a stream of material along the lower electrode, means for maintaining a difference of potential between the electrodes, suppressor means including an elongated member spaced with respect to one of said electrodes and located adjacent the discharge edge thereof, and means for maintaining said elongated member at a preferred potential, which potential will reduce the field intensity in the region of said elongated member and thus prevent undesired displacement of particles in said region in a direction having a component normal to said electrodes.

2,847,125
MINERAL CONCENTRATOR
Henri Edmond Bolliard, Sao Joao del Rei, Minas Gerais, Brazil
Application October 24, 1955, Serial No. 542,386
Claims priority, application Brazil October 11, 1955
1 Claim. (Cl. 209—465)



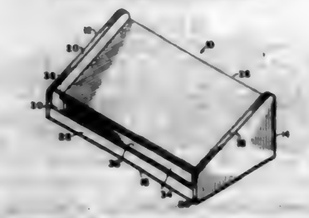
In a mineral concentrator having a frame with a horizontal screen mounted therein adapted to support the material to be treated, a pulsator secured in said frame beneath the screen comprising a horizontal flexible diaphragm, a substantially flat horizontally-arranged armature secured to the under side of said diaphragm, an electromagnet fixed with respect to the frame beneath said armature and adapted to attract said armature and said diaphragm upon the application of current thereto, said electromagnet consisting of an iron core having a flat upper surface with an energizing coil recessed therein, and spring means urging said armature upwardly from said electromagnet upon the interruption of current thereto to cause the armature to be spaced from said electromagnet by an air gap of approximately one inch; conduit means for supplying liquid to said concentrator above said diaphragm; a solenoid valve in said conduit means for controlling the fluid supply; and rotary switch means for simultaneously controlling the cyclic application of electrical energy to said electromagnet and to said solenoid valve.

2,847,126
FILTERS FOR LIQUIDS
Hugh Frederick Goodman, London, England, assignor to The A. P. V. Company Limited
Application April 9, 1954, Serial No. 422,186
11 Claims. (Cl. 210—411)



1. A filter comprising a stack of filter elements formed of thin metal and each having radial finger parts of a length substantially greater than their width and inner and outer circular boundary parts of greater thickness than the finger parts, which finger parts extend lengthwise between said boundary parts, the elements being arranged in the stack with their finger parts in alignment so that the openings between adjacent finger parts provide radially disposed inflow and outflow chambers, the boundary parts also being aligned so as to support corresponding finger parts of adjacent elements in spaced relationship to provide filter clearances through which fluid flow can take place from one chamber to another in the direction of the width of the finger parts.

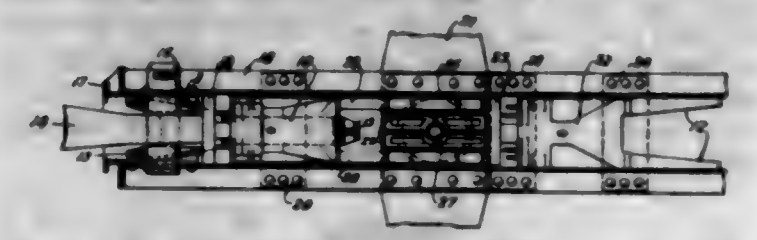
2,847,127
COMBINED DRAINAGE RACK AND STORAGE RECEPTACLE
Marvin Glassenberg, Chicago, Ill.
Application February 26, 1954, Serial No. 412,839
3 Claims. (Cl. 211—34)



3. In a footgear combined drainage rack and storage compartment of the character described; an inclined drainage board communicating at its lower end with a collecting trough, a housing defining a storage compartment and including a pair of side walls, said drainage board comprising the top wall of said storage compartment housing, and a scraper bar extending between said side walls and positioned above and slightly in front of the front edge of said drainage board, said drainage

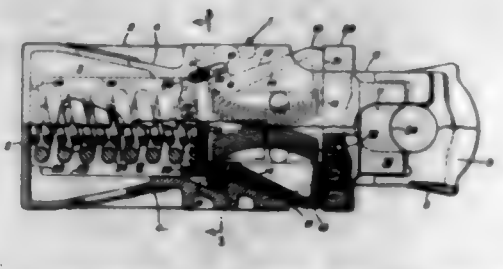
board adapted to support footgear in draining position, and said scraper bar comprising a stop member for footgear on the drainage board.

2,847,128
TANDEM DRAFT GEAR
Bertil E. Peterson, Chicago, Ill., assignor to Cardwell Westinghouse Company, a corporation of Delaware
Application December 23, 1953, Serial No. 399,970
5 Claims. (Cl. 213—11)



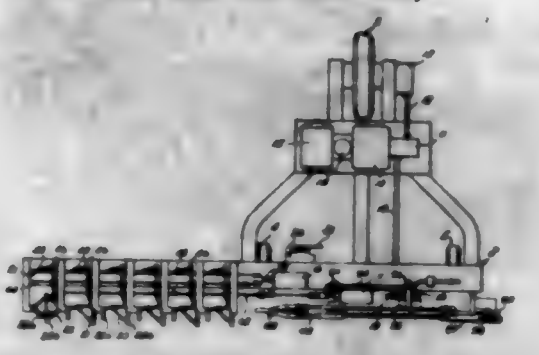
5. In a draft rigging for a railway car frame wherein front and rear draft gears are mounted on opposite sides of a bolster center filler, said rigging including front and rear lugs carried by center sills on opposite sides of the center filler, with the front end of the front gear cooperating with the front lugs in draft and with the rear end of the rear gear cooperating with the rear lugs in buff, the improvement wherein the rear draft gear has a given closure travel, the bolster center filler is formed with a vertical center pin opening flanked by lengthwise extending reinforcing walls that are carried between the top and bottom walls of the center filler and that cooperate with longitudinally extending vertical flanges carried at opposite sides of the top and bottom walls of the center filler to define lengthwise passages extending substantially the entire height of the bolster center filler, said flanges being fixed to said center sill to secure the center filler to the car frame, wear blocks disposed in said passages and resting on the bottom wall of said center filler to provide for rearward movement of the front gear, and thrust means substantially filling said passages and projecting therethrough into abutting engagement with said gears to space the front gear forwardly of the center filler, a clearance distance in excess of the amount of the closure travel of the rear gear to provide for rearward movement of the front gear, said thrust means being loose with respect to at least one of said gears.

2,847,129
DRAFT MECHANISM
Emil H. Blattner, Williamsville, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application December 2, 1953, Serial No. 395,649
8 Claims. (Cl. 213—65)



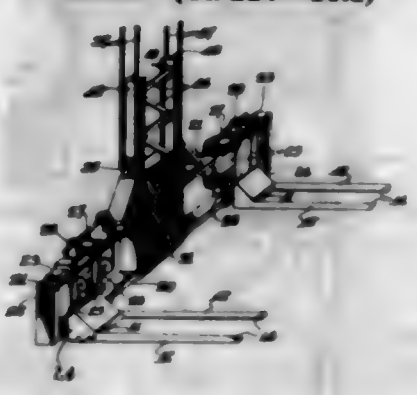
1. Draft mechanism comprising a housing having a forwardly opening pocket closed at all sides and rear by longitudinal and rear walls of said housing, spaced yoke arms each integral with and projecting forwardly of each one of a transversely spaced pair of said longitudinal walls for connecting said housing to an associated coupler, outwardly diverging friction surfaces in said housing and extending between said longitudinal walls, a plurality of wedges in said housing and each having a wedging face frictionally engaging one of said friction surfaces, spring means between and acting laterally on certain of said wedges for maintaining said frictional engagement between said wedges and housing, a front follower straddled by said arms and interposed between said wedges and coupler and frictionally engaged by said wedges, release spring means within said pocket inwardly of said wedges and normally urging said wedges outwardly of said housing, a floating follower common to and between said wedges and spring means and frictionally engaged by said wedges, and means on said wedges and housing and interlocked in normal position under force of said spring means for maintaining said draft mechanism in assembled relation.

2,847,130
TOBACCO LATHING MACHINE
Joseph L. Krist, Broad Brook, Conn.
Application June 1, 1955, Serial No. 512,451
9 Claims. (Cl. 214—5.5)



1. In a tobacco lathing machine of the type having a series of horizontally spaced aligned holders for receiving and holding the stalks of tobacco, stalk piercers mounted below said holders and movable relative thereto to penetrate stalks depending from the holders, and means for moving a lath endwise through the apertures made by said piercers, the combination therewith of means for embracing and providing lateral support for the stalks in the region subjected to stress by the piercers comprising a shaft mounted for reciprocation longitudinally of the aligned holders, a bracket fixed to and projecting from the shaft adjacent but below each holder adjacent the piercers, a pair of jaws mounted on each of the brackets for movement therewith into and out of engagement with stalks depending from the holders, and means for reciprocating the shaft following a piercing and lathing operation.

2,847,131
AUTOMOBILE STORAGE
Fred A. Miller, Wilmington, Del.; Leona Nell Miller, executrix of the estate of said Fred A. Miller, deceased
Application January 17, 1956, Serial No. 139,065
3 Claims. (Cl. 214—16.1)



1. A method of storing automobiles which comprises simultaneously laterally inserting from one side of the automobile a pair of two-pronged lifting forks, one beneath the front pair of wheels and the other beneath the back pair, the prongs being so spaced that each side-by side pair of wheels is cradled between the prongs of a different fork, raising the said forks to support and lift the

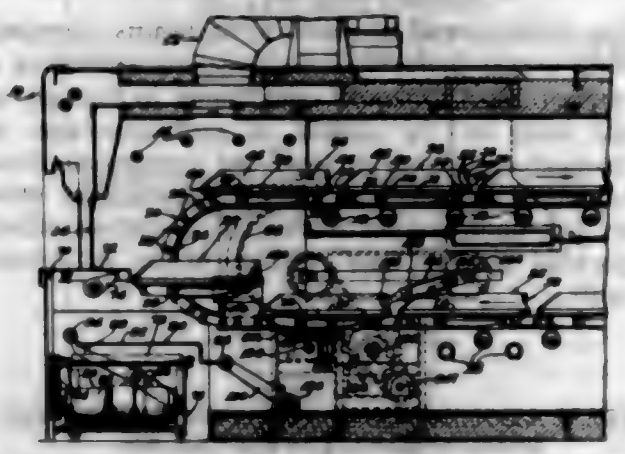
automobile, transporting it while so supported down an aisle between superposed tiers of berths, inserting the automobile laterally while so supported into one of said berths, lowering the lifting forks until the automobile is supported by its wheels on the floor of the berth, and then laterally withdrawing said lifting forks from beneath the wheels, wherein the automobile, while cradled on the prongs of the lifting forks, is turned about a vertical axis so that it can be introduced lengthwise into the aisle between the opposed tiers of berths.

2,847,132

POSITIVE PUSH-OFF OVEN UNLOADER

Wallace W. Wittenberger, Elmhurst, Ill., assignor to The Petersen Oven Company, Franklin Park, Ill., a corporation of Illinois

Application August 22, 1955, Serial No. 529,688
17 Claims. (Cl. 214—18)



1. A conveyor system for moving goods through a baking oven comprising, in combination, a first conveyor means within the oven arranged to move over a closed continuous path; a plurality of trays having substantially horizontally disposed bottoms, for carrying goods thereon, moved by said first conveyor means along said closed continuous path in a manner to constantly maintain said tray bottoms horizontal; a loading station adjacent a portion of the path of said first conveyor means; a discharge station adjacent a portion of the path of said first conveyor means located before said loading station; a second conveyor means for carrying away goods that are discharged from said first conveyor means; a substantially horizontally disposed goods-receiving means adapted to receive goods discharged horizontally from said trays and to transfer the discharged goods therefrom to said second conveyor means; actuating means for moving said goods-receiving means between a position in horizontal alignment with the goods carrying bottoms of the trays, for receiving goods from said trays, to a position where the goods are transferred from said goods-receiving means to said second conveyor means; discharge means for discharging the goods carried by said trays, while the trays are moving, in a direction parallel to the direction of movement of the said trays, and means synchronizing the movement of said goods-receiving means with the movement of said first conveyor means and with the movement of said discharge means.

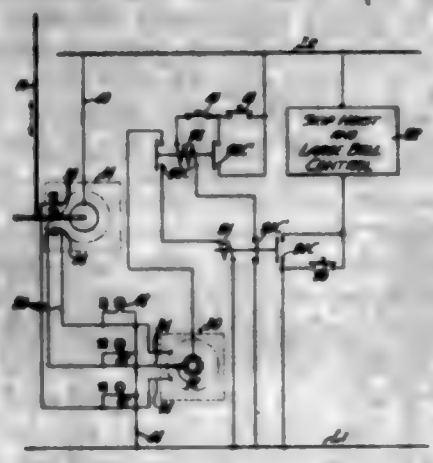
2,847,133

BLAST FURNACE CHARGING REGULATOR

Charles A. Janser, Chicago, Ill.

Application August 19, 1953, Serial No. 375,228
3 Claims. (Cl. 214—19)

1. In a blast furnace having a large bell, a skip hoist for charging raw materials onto said large bell, an electrical control for controlling operation of said skip hoist and said large bell, and means for indicating the height of the charge beneath said large bell; the combination including a switch operable by said indicating means when the charge reaches a predetermined minimum level, means for changing the level at which said switch is operated, a relay coil in series with said switch, and a



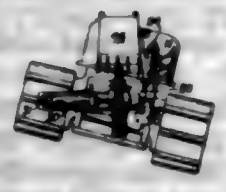
normally open contact operable by said relay coil to complete a circuit to said electrical control to initiate operation thereof.

2,847,134

DITCH DIGGING ATTACHMENT FOR TRACTORS

Leslie Slate, Smithfield, Tex., assignor of one-third to H. J. Whitt and one-third to O. P. Leonard, both of Fort Worth, Tex.

Application May 31, 1955, Serial No. 511,960
2 Claims. (Cl. 214—138)



1. An excavating machine for attachment to a tractor, said machine comprising a vertical mounting plate adapted to be mounted on said tractor, a horizontal stub shaft extending from said mounting plate, said stub shaft including a groove therearound, a retaining ring in said groove, a mounting bracket journalled on said stub shaft, a locking plate secured to said mounting bracket and engaging said retaining ring, normally vertical bearing arms on opposite sides of said mounting bracket, a normally vertical shaft journalled on said bearing arms, a boom pivotally connected with said normally vertical shaft, an actuator pivotally connected with said normally vertical shaft and with said boom, a digging implement pivotally attached to said boom, means carried by said boom actuating said digging implement, and means rotatably actuating said mounting bracket on said stub shaft.

2,847,135

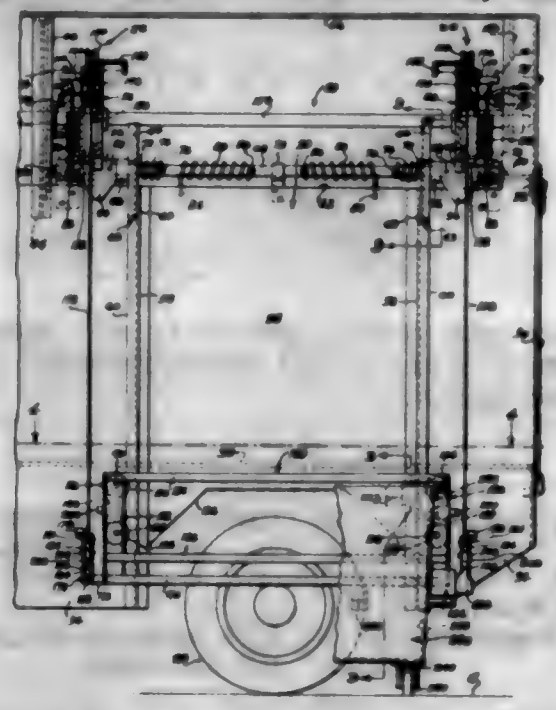
VEHICLE LOADER

Victor A. Galloway, St. Clair Shores, Mich.

Application October 1, 1954, Serial No. 459,614
19 Claims. (Cl. 214—302)

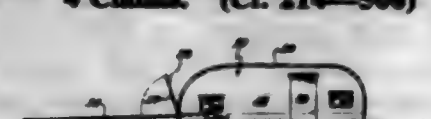
1. A material loader for use at the upper edge of an upstanding vehicle body comprising a container inverting arm pivotally mounted adjacent the upper edge of the body to swing thereover between outwardly- and inwardly-projecting positions, a cable guide mounted on said arm near the outer end thereof, an elongated container elevator guideway disposed vertically on the vehicle body, a bottomless container elevator disposed adjacent said body in guided engagement with said guideway for travel vertically therealong, a cable winder mounted on the upper part of said body, a cable extending from said cable winder over said cable guide downwardly to said elevator, a material container separably connectible to said elevator, said container elevator guideway including a pair of laterally-spaced substantially parallel vertical guide rails

and said elevator including a material container abutment structure disposed approximately in a common vertical plane adjacent said guide rails and extending laterally therebetween in guided engagement therewith said material container having abutment-engaging portions disposed approximately in a common vertical plane in abutting engagement with said abutment structure, a container coupling device on said elevator detachably connecting



said container to said elevator, and cable winder actuating mechanism operatively connected to said cable winder for winding the cable thereon to move said elevator upwardly along said guideway and consequently to lift the container coupled thereto upwardly against said arm and thereafter swing said arm and container over said upper edge of said body into an inverted container-emptying position.

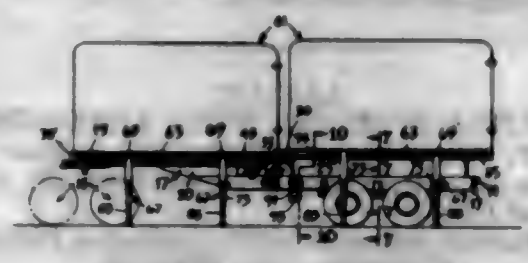
2,847,136
BOAT CARRYING HOUSE TRAILER
Phillip V. D. Neff, Tucson, Ariz.
Application December 23, 1957, Serial No. 704,798
4 Claims. (Cl. 214—500)



1. In a boat carrying house trailer structure including a house trailer having a bottom and sides connected to said bottom, cabinets, sink, stove and sleeping facilities carried on said sides and bottom, ground wheels to support said house trailer, a rear access door in said house trailer, a cradle to portably support a boat demountably carried thereon, demountable road wheels on said cradle, removable when said cradle and boat are fully slid into said house trailer and attachable when said cradle is partially slid out therefrom and while supported by the floor of said house trailer, said road wheels serving to facilitate transporting said boat and cradle to and from the launching site when removed completely from said house trailer.

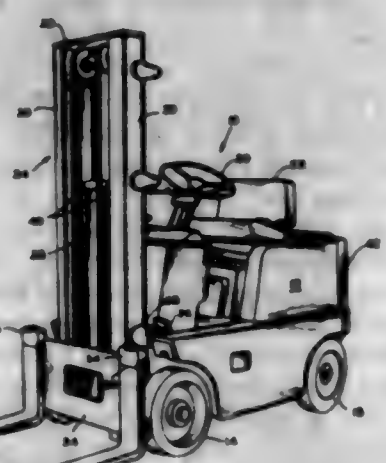
2,847,137
DETACHABLE-BODY CARGO CARRIER
Thomas Carter Stringfellow, Nashville, Tenn.
Application February 23, 1955, Serial No. 490,053
11 Claims. (Cl. 214—515)

1. A detachable-body cargo carrier, comprising: longitudinally extending chassis members, at least one van-type cargo-carrier body adapted to be supported above said chassis members for transportation thereby, lifting means connected to said chassis members and engageable with said body to lift or lower the same away from or toward said chassis members, power-applying means for raising or lowering said lifting means, means for co-ordinating the lifting action of said lifting means and power-applying means to provide desired lifting and lowering of said body, said body having longitudinally



extending support- and frame-forming beams thereunder, said lifting means including longitudinally extending elements supportingly engaging said beams to liftingly support said body on the chassis of said apparatus, said lifting means comprising at least one rectangular frame, and link means connecting said frame to said chassis members for holding said frame and members substantially parallel during their relative lifting or lowering movements.

2,847,138
LATCH ADJUSTMENT FOR FORK TINES OF INDUSTRIAL LIFT TRUCKS
Elmer Ryan Beckofen and James H. Newhouse, Battle Creek, Mich., assignors to Clark Equipment Company, a corporation of Michigan
Application April 11, 1956, Serial No. 577,595
5 Claims. (Cl. 214—730)



1. Latch means for the fork tines of industrial lift trucks comprising bracket means connected to and forming part of the fork tine for attaching same to a fork carriage, a longitudinally extending groove formed in the upper surface of the bracket means, a lever member substantially fully confined within said groove, pin means pivoted on said lever and depending downwardly therefrom, and means urging said pin means downwardly.

2,847,139
SCREW CAP
Brer Gunnar Christiansson, Stockholm-Vallingby, and Karl Gunnar Fredrik Thornberg, Pajala, Sweden
Application August 11, 1955, Serial No. 527,825
Claims priority, application Sweden August 19, 1954
1 Claim. (Cl. 215—9)

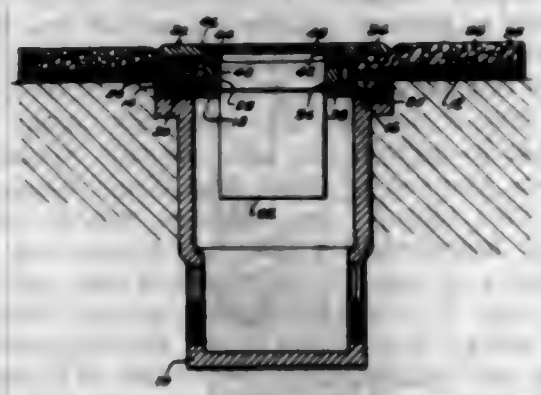
A safety cap for a container comprising a cap having sealing means with said container, a casing rotatably

mounted on said cap, plate means located between said cap and casing operative for uniting said cap and casing for sealing said cap to said container, said casing having spaced projections and said plate means having apertures



through which said projections project in order to unite said plate means to said casing and said cap having recesses for cooperation with said projections in order to release said cap from said sealing means.

2,847,140
COMBINATION FLOOR OUTLET BOX AND FLOOR PLATE EXTENSION
Harold E. Vom, McHenry, Ill.
Application March 5, 1956, Serial No. 569,420
3 Claims. (Cl. 220—3.3)



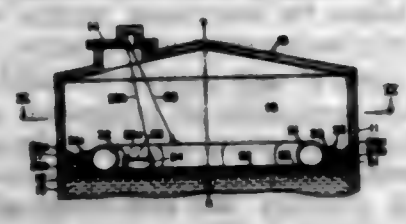
3. The combination with a floor outlet box of the type having a flat top plate, said plate having a tapped opening for a flat screw-threaded close-up cap, of a floor plate extension, said floor plate extension having a flat cover plate and a medially disposed tubular exteriorly threaded downwardly depending shank portion of the same diameter as the tapped opening in said top plate, said shank portion adapted for engagement with said tapped opening, said cover plate having a tapped opening in the face thereof for reception of the close-up cap of the floor outlet box, said extension capable of attachment to the floor outlet box to compress a floor covering between the top plate of the floor outlet box and the cover plate of the extension, the diameters of the top plate of the outlet box and the floor plate being the same, said floor plate having a plurality of concentric ridges on its bottom face.

2,847,141
CLOSURE FOR LAUNDRY MACHINE RECEPTACLE
Tord Erik Daniel Bilde, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden
Application January 22, 1952, Serial No. 267,653
Claims priority, application Sweden January 23, 1951
10 Claims. (Cl. 220—35)



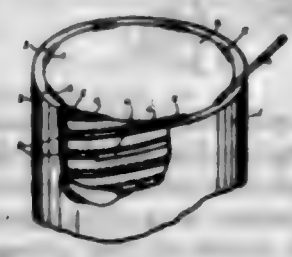
1. A receptacle having a top access opening essentially of round form and a cover of generally similar shape for closing the opening, the marginal edge portion of the receptacle at the opening including a first vertically extending wall section and a second horizontally disposed wall section extending radially inward from an upper part of said first wall section, the cover in its closed position being disposed within the receptacle and having the peripheral edge portion thereof located beneath and in the immediate vicinity of the underside of said second wall section, the gap between diametrically opposed regions of the marginal edge portion being sufficiently wide for the cover to be moved sideways therethrough into the interior of the receptacle and be withdrawn therefrom, said first vertically extending wall section, at a region below said second horizontally disposed wall section, having spaced apart apertures distributed about the access opening, and mechanical means including members carried by the receptacle and forming a unitary part thereof which project radially inward through the apertures and coact with the peripheral edge portion of the cover when the latter is located beneath and in the immediate vicinity of the underside of said second wall section to hold the cover in its closed position, the members of said mechanical means being rendered operable responsive to the act of moving the cover to its closed position within the receptacle.

2,847,142
FLOATABLE PARTITION FOR LIQUID STORAGE TANKS
John H. McClintock, Cranford, and Robert W. Mertz, Jr., Hopatcong, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application July 8, 1954, Serial No. 442,170
13 Claims. (Cl. 220—26)



1. A collapsible floating roof assembly comprising a hollow, tubular, annular continuous pontoon element of a substantially fluid-impervious, flexible, deformable material, an annular seal ring of a flexible, deformable material secured at its inner periphery to the outer periphery of said pontoon element, in fluid-tight relation thereto and extending radially outward therefrom, a substantially flat membrane of a flexible, deformable material joined to the outer surface of said pontoon element in substantially fluid-tight tangential relation thereto, and forming a floor for said pontoon extending over the entire area enclosed thereby, and valve means communicating with the interior of said pontoon element adapted to permit inflation and deflation of said pontoon element.

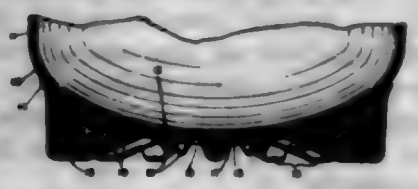
2,847,143
MECHANICAL CONNECTION
Harold A. Smith, Deep River, Ontario, Canada, assignor to Atomic Energy of Canada Limited, Ottawa, Ontario, Canada
Application November 26, 1956, Serial No. 624,314
Claims priority, application Canada December 21, 1955
1 Claim. (Cl. 220—55)



An assembly of a cylindrical vessel and an internally fitting complementary end closure member therein having a planar outer surface flush with an end of the

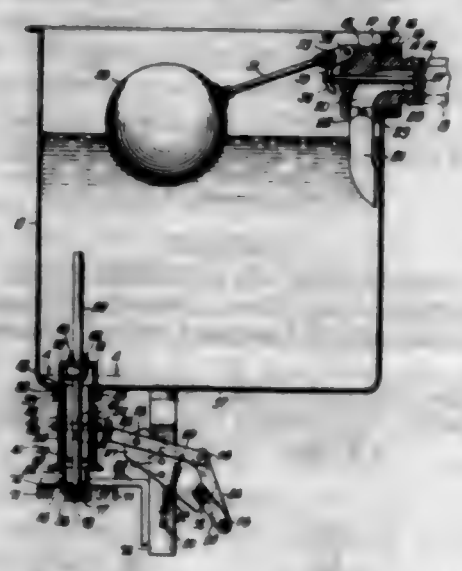
cylindrical vessel, comprising a plurality of keyways formed in the internal peripheral surface of said vessel and a plurality of keyways formed in the external peripheral surface of said closure member, said keyways co-operating in pairs to form helically extending passageways each terminating in a port at said planar outer surface, and a plurality of keys, each engaged in one of said passageways.

2,847,144
VESSEL BASES
Richard T. Cornelius, Minneapolis, Minn.
Application September 4, 1956, Serial No. 607,947
8 Claims. (Cl. 220—69)



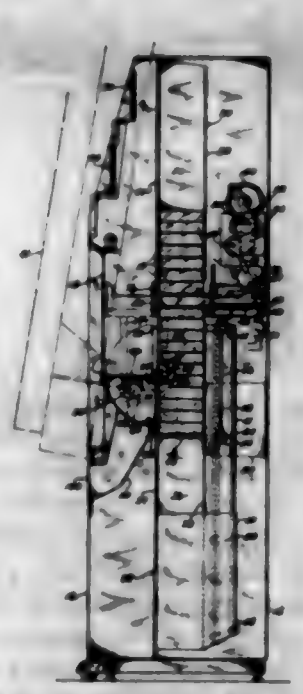
8. In a vessel constructed of metal and having a convex bottom, a base constructed of a flexible material and having a sheet-like covering conforming to the configuration of said bottom and adhered thereto, an even number of solid circumferentially spaced elongated feet integral with said bottom and extending in a radial direction, said feet being spaced circumferentially to form grooves therebetween increasing in width throughout their extent from their inner to their outer ends, said feet having soles at their outer ends for engagement with a supporting surface and disposed below the lowermost portion of the covering, said feet terminating short of the center of the covering to leave a space at such locality bounded by the inner ends of said feet, a plurality of projections equal to half the number of feet extending outwardly from said covering and disposed in said space, said projections lying in alignment with alternate feet and being arranged in a circle concentric with the bottom of the vessel.

2,847,145
DISPENSING MECHANISM
Maurice J. Brasile and Jack Bertrand Richardson, Woodstock, Ill.; said Richardson assignor to said Brasile
Application September 14, 1954, Serial No. 455,918
18 Claims. (Cl. 222—57)



13. In a dispensing mechanism the combination of a fluid container, means for supplying fluid to said container, means in said container operable to maintain the fluid in said container at a preselective level, a valve mounted on said container for dispensing fluid from said container into a receptacle, said valve comprising a cylindrical conduit communicating with said container having a downwardly projecting open end, a sleeve mounted for sliding movement on said conduit, said sleeve having a section projecting beyond said open end of said conduit, a valve seat having a passageway therethrough mounted internally on said section, a plug seated against said valve seat closing said passageway to prevent the discharge of fluids from the container, a floating valve stem connected to said plug and extending upwardly within said conduit into said container adapted to ride a part of the distance with said sleeve, and means for discharging fluids from the container including a stop stop mounted on said stem within said container for limiting the downward travel of said stem to a distance less than the distance of said sleeve movement, whereby said plug is separated from said valve seat.

2,847,146
VENDING MACHINES FOR PACKAGED MERCHANDISE OR THE LIKE
Amos R. Oborn, Janesville, Wis.
Application February 9, 1955, Serial No. 487,038
9 Claims. (Cl. 221—129)



7. In a vending machine for packs of goods, said machine having a cabinet, a plurality of vertically disposed upper magazines in said cabinet having bottom dispensing ends located intermediate the height of the cabinet toward which packs are urged by gravity, a plurality of vertically disposed lower magazines having top dispensing ends located intermediate the height of the cabinet and below the dispensing ends of the upper magazines, means for urging packs of merchandise upwardly in said lower magazines, a horizontally disposed housing having an upper wall positioned to support bottoms of the columns of merchandise packs in the upper magazines and having a bottom wall against which the tops of the columns of merchandise packs in the lower magazines are urged, a pack pushout member for each upper magazine positioned to engage the lowermost pack of its magazine, a pushout plunger for each of said pushout members slidable in said housing and connected to its pushout member to operate the latter, a pack pushout member for each lower magazine below the bottom wall of the horizontal housing positioned to engage the uppermost pack of its lower magazine, a pushout plunger for each of said last-mentioned pushout members slidable in said housing and connected to its pushout member for operating the latter, a movably mounted plunger operating bar extending transversely of all of said plungers, and means for releasably connecting a selected plunger to said operating bar.

2,847,147

LIQUID DISPENSING DEVICE

Hendrik Jan Bernard Lund, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 4, 1955, Serial No. 538,358
Claims priority, application Netherlands October 29, 1954
6 Claims. (Cl. 222—341)



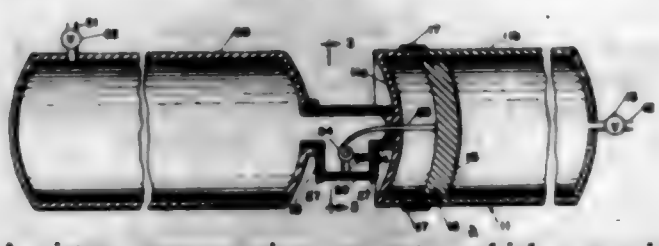
1. A device comprising a container adapted to hold a liquid and having a discharge opening, a plunger, said plunger having an end portion and means in the said end portion for transporting a predetermined quantity of liquid, means mounting said plunger in said container in a manner whereby said end portion of said plunger continuously blocks said discharge opening, means moving said plunger into and out of said container, and means for transferring said predetermined quantity of liquid from said first-mentioned means to a desired point when said plunger is projected out of said container, said last-mentioned means comprising a guide pin member secured to one end to said container and adapted to contact said desired point at the other end thereof.

2,847,148

FLUID PRESSURE OPERATED DISPENSING DEVICE

John H. Altseimer, Pomona, Calif., assignor to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio

Application August 4, 1955, Serial No. 526,430
10 Claims. (Cl. 222—389)



1. A piston programming apparatus which comprises in combination a fluid chamber having an outlet orifice and an inlet orifice, piston means enclosed within said chamber adapted to isolate fluids on either side of said piston, a rod of varying cross section along a substantial length of said rod attached to said piston and passing through one of said orifices, and pressure means in communication with one of said orifices the cross sectional area of said rod being smaller than the cross sectional area of the said orifice through which it passes along the entire length of said rod.

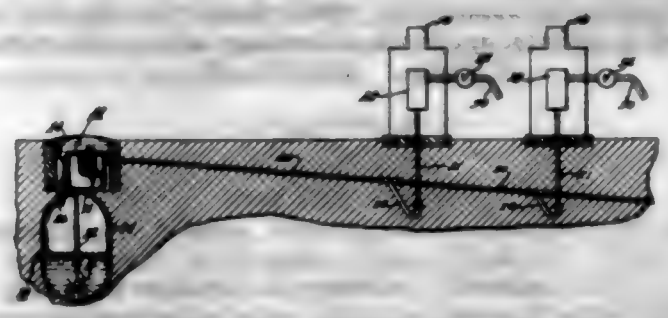
2,847,149

AIR ELIMINATING DEVICE

Freedom H. Ainsworth, Salisbury, Md., assignor to Symington Wayne Corporation, Salisbury, Md., a corporation of Maryland

Application August 17, 1956, Serial No. 604,784
6 Claims. (Cl. 222—544)

1. A device for eliminating gases and vapors from a fluid piping system which connects a pump to a remote dispensing unit including a check valve which has purging means connected to its inlet side and its outlet side connected by a downwardly sloping supply line to said remote dispensing unit, said device comprising wall means providing a collecting chamber disposed adjacent and connected to said outlet side of said check valve for accumulating gases and vapors in said system adjacent said check valve, conduit means connecting said inlet and outlet sides of said check valve, a relief valve disposed within said conduit means, said relief valve being constructed and arranged to permit said fluid to flow in the



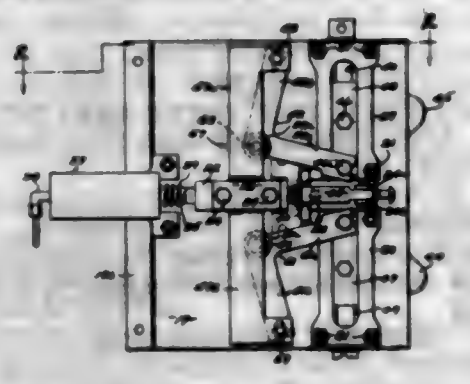
direction from said outlet side of said check valve to said inlet side of said check valve only when the pressure at said outlet side is more than a predetermined pressure greater than the pressure at said inlet side, and said predetermined pressure being less than the pressure within said system at the outlet side of the check valve when said check valve and said system are closed to permit a quantity of fluid including any gases and vapors trapped at the outlet side of said check valve to flow back into said inlet side of said check valve after said check valve closes.

2,847,150

COLLAR HOLDER

Edmund N. Neckel, Cincinnati, Ohio, assignor to The American Laundry Machinery Company, Cincinnati, Ohio, a corporation of Ohio

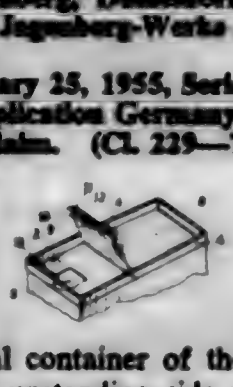
Application July 3, 1956, Serial No. 595,662
9 Claims. (Cl. 223—52.1)



1. In shirt folding means of the type wherein a laundered shirt is laid upon a folding surface with its collar downwardly disposed, collar holding means and operating means therefor comprising a pair of internal side collar supports movable in a path transversely with respect to the folding surface and convergently and divergently with respect to each other, a front collar support movable longitudinally towards and away from said path, and means for operatively moving said side collar supports comprising a pair of bell crank levers disposed immediately beneath said supports, each crank lever having a pair of arms extending away from a pivot point beneath said supports and in an outwardly divergent sector, the two said pivot points being disposed one each side of and adjacent to a longitudinal central vertical plane through the collar form, the driving arm of each crank lever extending generally along and adjacent to said vertical plane and having an operating end connected to a respective side collar support, the driven arm of each crank lever extending generally outwardly away from said vertical plane, actuating means operatively connect-

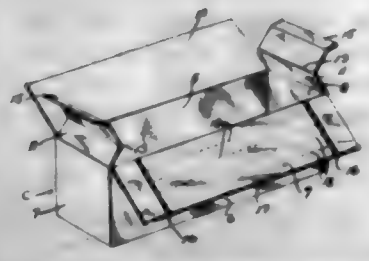
ing the two outer ends of the two driven arms whereby to be adapted to produce simultaneous operative movement of both crank levers, and consequently simultaneous movement of said side collar supports.

2,847,151
CONTAINER MADE OF PAPER, CARDBOARD OR THE LIKE
Günther Meyer-Jagenberg, Dusseldorf-Grafenberg, Germany, assignor to Jagenberg-Werke Akt.-Ges., Dusseldorf, Germany
Application January 25, 1955, Serial No. 483,952
Claims priority, application Germany March 23, 1953
1 Claim. (Cl. 229—7)



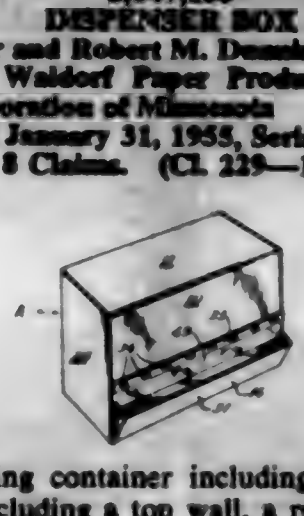
In a sheet material container of the type including a tubular body having upstanding side walls and an open rim at one end, an inserted closure panel recessed below said rim and including flanges applied against at least the inner periphery of the rim, a foil layer between the flanges on the panel and the inner periphery of the rim and completely underlying said panel, said panel having a completely cut out dispensing opening therein, a resealable flap means overlying at least the opening through the panel and an adjacent portion of the panel, said resealable flap means including two portions separated by a score line and covering the area of the body panel comprised between the flanges, one portion being adhesively united to the top of the body panel and the other portion constituting a pivotally mounted portion and including a free extension adapted to be gripped during the opening of the container, and said pivotally mounted portion having opposite edges adapted to make a force-fit engagement with the interior of opposite flanges of the inserted closure panel so as to be releasably clamped upon the top of the closure panel when the flap means is closed.

2,847,152
SHIPPING CARTON FOR WRAP-AROUND WINDSHIELDS AND THE LIKE HAVING FOLDABLE CUSHIONING FLAPS
Lloyd D. Van Antwerpen, Milwaukee, Wis.
Original application June 14, 1955, Serial No. 515,394, now Patent No. 2,812,855, dated November 12, 1957. Divided and this application November 19, 1956, Serial No. 622,881
2 Claims. (Cl. 229—14)



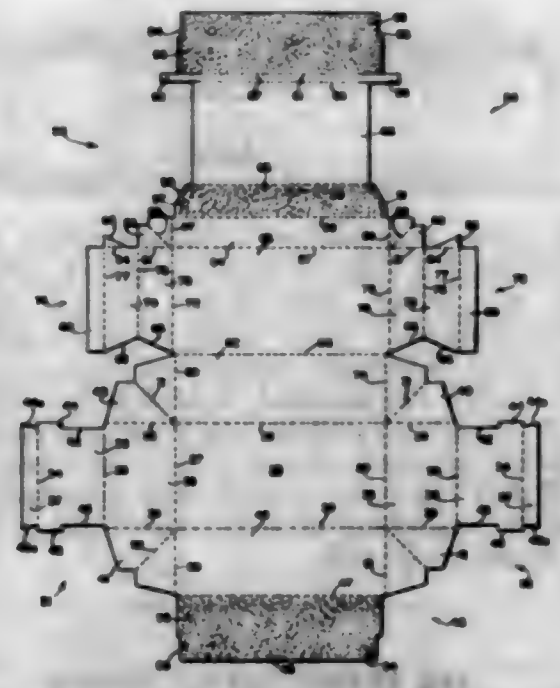
1. A carton comprising spaced parallel side walls, end walls and top and bottom walls, at least one of said top and bottom walls including inner and outer side closure flaps, inwardly projecting V-shaped end cushioning blocks formed on the end walls and said end cushioning blocks having bent back tongues, said inner side flap having transversely extending slots disposed across the entire width of said inner flap and adjacent to its opposite ends defining a central main body portion, said body portion being weakened along longitudinally extending spaced parallel lines, the tongues of the corner cushioning flaps being insertable in said slots and over the end portions of said inner flap, the main body portion of the inner flap being folded on the weakening lines to define an inwardly projecting longitudinally extending cushioning and blocking tube, said tube lying between the corner cushioning blocks.

2,847,153
DISPENSER BOX
Reynolds Guyer and Robert M. Denning, St. Paul, Minn., assignors to Waldorf Paper Products Co., St. Paul, Minn., a corporation of Minnesota
Application January 31, 1955, Serial No. 485,170
8 Claims. (Cl. 229—17)



1. A dispensing container including rectangularly arranged walls including a top wall, a rear wall, a bottom wall and a front wall, said front wall including an upper portion terminating above said bottom wall and a bottom portion in overlapping relation with said upper portion and lying outwardly thereof, closing flaps on said bottom wall, said rear wall, said top wall and the upper portion of said front wall designed to fold into overlapping relation to provide end closures, and flaps on the ends of the bottom portion of the front wall, the bottom portion of said front wall being hingeable from its overlapping relation with said upper portion about its foldable connection with said bottom wall, and said flaps on said bottom portion of said front wall including shoulder means limiting outward swinging of the lower portion of said front wall by engagement with the inner surface of the upper portion of said front wall.

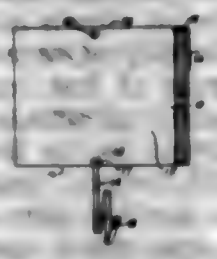
2,847,154
CARTON
William P. Frankenstein, Cincinnati, Ohio
Application June 29, 1951, Serial No. 234,213
13 Claims. (Cl. 229—31)



1. In a carton of the class described formed from a single blank comprising a carton proper and an integral cover articulated thereto, said carton proper including a bottom with upstanding front, back and end walls, said front and end walls each including an outer wall member articulated to the bottom panel and an inner wall member articulated to the outer wall member to depend

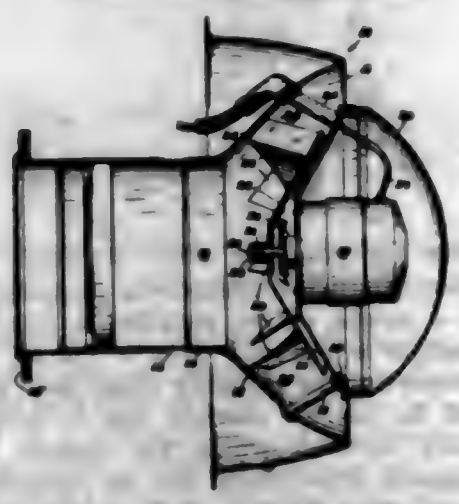
within the carton proper, said back wall including an outer wall member articulated to the bottom panel, a cover including an outer panel and an inner panel articulated to one another to form a double thickness two ply cover with said cover outer panel articulated to the back wall outer wall member, a back wall inner wall member articulated to the cover inner panel with said back wall inner wall member depending within the carton adjacent to and in contact with the back wall outer wall member to form a double thickness two ply back wall, and adhesive securing the plies of one of said double thickness cover and double thickness back wall to one another, said articulation of the cover inner panel to the back wall inner wall member being through a line of separable perforations.

2,847,155
FASTENERS
Nicholas L. Kreyenson, Garden City, N. Y.
Application December 12, 1956, Serial No. 627,931
3 Claims. (Cl. 229—77)



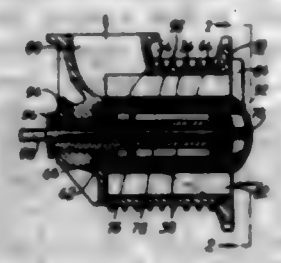
1. The combination of a stationery folder and a bonding element, said bonding element attachable to said folder, said bonding element provided as an elastic strand with a metal clip at one end thereof to anchor said elements to said folder and a hook shaped fastening element at the opposite end thereof, said folder provided with a slit aperture adjacent to the lower edge to receive said bonding element and a circular aperture adjacent the upper edge to receive said fastening element and in which both said clip and said fastening element are formed of a rigid material and permanently affixed to said bonding element.

2,847,156
FAN ASSEMBLY
Frank Bieler, Chicago, Ill., assignor to Stewart Industries, Inc., Indianapolis, Ind., a corporation of Indiana
Application May 18, 1954, Serial No. 428,695
11 Claims. (Cl. 230—117)



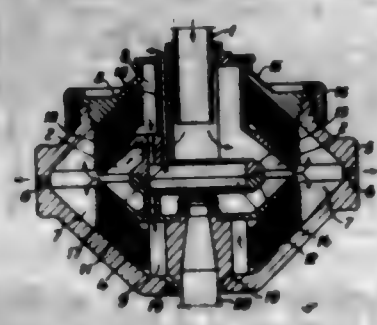
1. A fan of the character described comprising a substantially conical, non-rotatable housing having an inlet port at the apex thereof, a substantially conical rotor member, means supporting said rotor member in said housing for axial rotation substantially about the axis of said housing, said rotor member being spaced from the inner wall of said housing to define an open, annular passage from said inlet port through said housing, motor means operatively connected to rotate said rotor member in one direction, and a plurality of peripherally spaced blade means supported from said rotor member and projecting toward the inner wall of said housing, the root of each of such blade means conforming substantially to a spiral curve having its origin at the apex of said rotor member and retreating therefrom toward the periphery of said rotor means in the direction opposite the direction of rotor rotation, while the tip of each such blade means terminates just short of the inner wall of said housing and lies in a plane substantially perpendicular to the surface of said rotor means and tangent to said spiral curve at the point of intersection of said curve with the periphery of said rotor means.

2,847,157
ROTARY DEVICE
Hans Robert Nilsson, Ektorp, Sweden, assignor, by mesne assignments, to Svenska Rotor Maskiner Aktiebolag, Nacka, Sweden, a corporation of Sweden
Application October 26, 1954, Serial No. 464,689
Claims priority, application Sweden October 27, 1953
15 Claims. (Cl. 230—143)



1. A helical screw device operating with a gaseous medium and comprising a casing providing a jacket and having an inlet and an outlet opening disposed adjacent opposite ends, a set of rotors having cooperating convex lands and concave grooves rotatably mounted in said casing, said casing being provided with only a single end plate at its high pressure end, while the low pressure end of said casing terminates freely at an open end of the casing, spindles mounted on said end plate and projecting into said casing and said rotors being overhung on said end plate and being journalled as sleeves on said spindles.

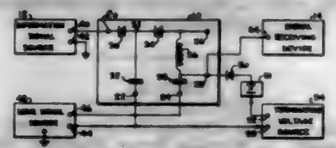
2,847,158
CENTRIFUGAL SEPARATOR
Henric Wilhelm Thylefors, Stockholm, Sweden, assignor to Aktiebolaget Separator, Stockholm, Sweden, a corporation of Sweden
Application September 12, 1956, Serial No. 609,475
Claims priority, application Sweden September 22, 1955
7 Claims. (Cl. 233—29)



1. A centrifugal separator having a hollow rotor, two sets of conical discs in said rotor for increasing the separating efficiency, said disc sets being arranged substantially as mirror images of each other symmetrically on opposite sides of a plane at right angles to the rotation axis of the rotor, there being a feed space located between the two disc sets and through which the liquid to be separated is fed to the disc sets, means in the rotor forming a discharge chamber separated from said feed space and located substantially in said plane, the rotor having

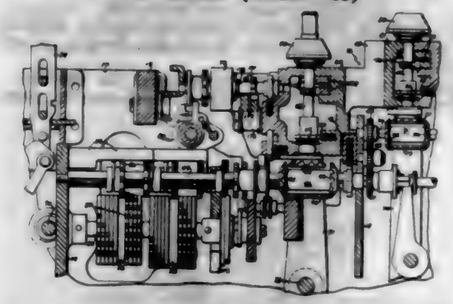
an outlet for a separated lighter component leading from said chamber, and channels leading to said chamber from the inner edges of the two disc sets.

2,847,159
PASSIVE ELEMENT SIGNAL STEPPING DEVICE
Daniel L. Curtis, Venice, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware
Application July 22, 1952, Serial No. 300,286
18 Claims. (Cl. 235—61)



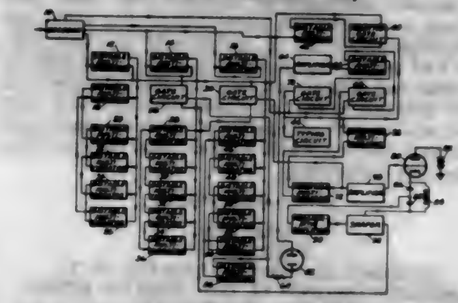
1. An electrical signal stepping device for sequentially stepping applied electrical intelligence signals, said stepping device comprising: an input terminal for receiving the intelligence signals; a first control terminal; a first series circuit intercoupling said input terminal and said first control terminal, said first series circuit including a first storage capacitor coupled to said first control terminal, a first diode coupled to said input terminal, and a junction terminal coupled between said first capacitor and said first diode; a second control terminal; a second series circuit intercoupling said second control terminal and said junction terminal, said second series circuit including a second storage capacitor having first and second ends, said first end being connected to said second control terminal, and a second diode and an inductor interconnecting said junction terminal and said second end of said second capacitor; and at least one output terminal connected intermediate said second series circuit.

2,847,160
CALCULATING MACHINE
Nathaniel F. Hawthorne, Alameda, and Nils H. Bergfelt, San Francisco, Calif., assignors to Friden, Inc., a corporation of California
Application March 31, 1955, Serial No. 498,218
17 Claims. (Cl. 235—63)



1. In a calculating machine, a shiftable carriage, a register in said carriage, a source of power, means for shifting said carriage driven by said source of power, means for resetting said register driven by said source of power, a power-operated means for effecting operation of said shifting means, a control means for enabling the operation of said power-operated means and said resetting means, said last-named means including a plurality of control keys, and means controlled by one of said keys upon manipulation thereof to disable said power-operated means thereby preventing operation of said shifting means.

2,847,161
COUNTING CIRCUIT
Alexander Greenfield, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application February 21, 1951, Serial No. 212,168
10 Claims. (Cl. 235—92)



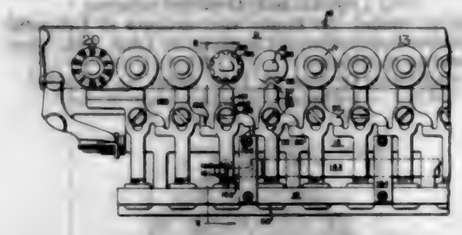
1. In combination, a plurality of successively disposed first counters for counting signals in each of a plurality of first channels, a plurality of second counters disposed between successive pairs of first counters for counting the decimal complement of signals in a plurality of second channels alternate to the first channels, means operative upon a full decimal count in each second counter to provide a positive carry over into the preceding first counter, and means operative upon a full decimal count in each first counter to provide an equivalent negative carry over into the preceding second counter.

2,847,162
COUNTING OF PARTICLES
Ernest William Meyer, St. Margarets, England
Application October 31, 1952, Serial No. 318,110
Claims priority, application Great Britain November 2, 1951
6 Claims. (Cl. 235—92)



1. Apparatus for counting small particles, such for example as blood particles, comprising magnifying means for scanning a sample of the particles, a mask through which the sample is scanned over a known area and which has an aperture only slightly wider than the magnified image of the largest particle that it is desired to detect, a mask through which the sample is simultaneously scanned and which has an aperture whose width is only a small fraction of the width of the first-named aperture, particle-image detecting means disposed beyond each of the apertures in the said masks and responsive to the appearance in respective apertures of magnified particle images, and counting means operatively connected to the detecting means for counting the difference between the number of images which appear in the large aperture and the number which appear in the small aperture during scanning.

2,847,163
CENTRALIZER FOR OUTBOARD TENS-TRANSFER MECHANISM
Grant C. Ellerbeck, San Leandro, Calif., assignor to Friden, Inc., a corporation of California
Application July 27, 1953, Serial No. 370,387
11 Claims. (Cl. 235—139)



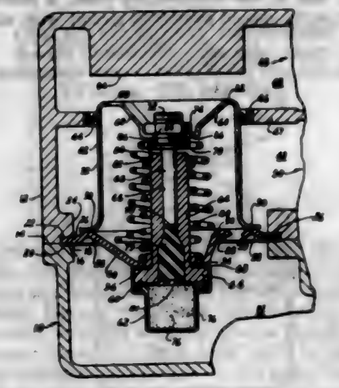
1. In a calculating machine having an ordinally arranged actuating mechanism, a motor for driving said actuating mechanism, a carriage shiftable with respect to said actuating mechanism, a plurality of ordinally arranged register wheels in said carriage, certain of said wheels lying inboard of said actuating mechanism and others of said wheels lying outboard thereof, a main transfer mechanism adjacent said actuating mechanism for effecting transfers in the register wheels cooperating with said actuating mechanism, and an auxiliary transfer mechanism for each of the register wheels lying outboard when the carriage is in its end position and including normally disengaged gearing positionable to interconnect said outboard register wheels for effecting transfers therein and means operated by the highest order register wheel operated by said main transfer mechanism for operating said auxiliary transfer mechanism, a motor-operated means for centralizing an outboard predetermined intermediate one of said register wheels associated with said auxiliary transfer mechanism during operation of said auxiliary transfer mechanism.

2,847,164
VALUE APPROXIMATION MECHANISM
Grant C. Ellerbeck, San Leandro, Calif., assignor to Friden, Inc., a corporation of California
Application October 30, 1953, Serial No. 389,375
7 Claims. (Cl. 235—144)



1. In combination with a calculating machine register having a plurality of rotatable dials and clearing means for rotating said dials to a "0" position: a multilated gear connected to a selected one of said dials, gear means movable to a first position to engage said mutilated gear and to a second position to disengage the same, means operated simultaneously with operation of said clearing means for moving said last-mentioned gear means to said second position during operation of the clearing means to return the dials to "0" position and for causing said gear means to move to said first position to engage said mutilated gear after said dials have returned to their "0" positions, and means for rotating said gear means after such engagement.

2,847,165
THERMOSTATS
John S. Fruhmuth, St. Clair Shores, Mich., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application November 7, 1956, Serial No. 620,985
2 Claims. (Cl. 236—34.5)

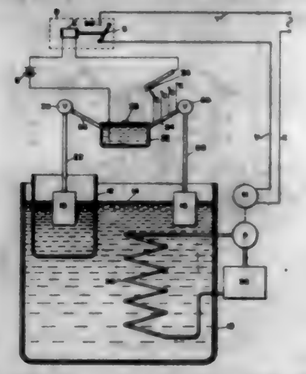


1. In an engine cooling system; wall means forming an inlet passage; a first opening in said wall means; a second wall cooperating with the first wall means to define a first discharge passage; a second opening in said second wall in axial alignment with the first opening; a third wall cooperating with the second wall to define a second discharge passage and an abutment surface in registry with the second opening; a plate mounted in said first opening; said plate having a central opening and at least one fluid flow opening therethrough; a cylindrical valve element slidably extending through said second opening for reciprocable movement between the plate and the abutment surface so as to inversely vary the fluid flow into the discharge passages; a thermostatic power element including a cup positioned in the inlet passage and a sleeve freely extending from said cup through the central opening in the plate; thermally expansible material within the cup; a piston slidably positioned in the sleeve for outward axial movement in response to expansion of the expansible material; means connecting the piston with the cylindrical valve element; tension spring means between the piston-cylindrical valve element assembly and plate for urging the piston into the sleeve on fluid temperature decrease; means forming a shoulder on the sleeve; and compression spring means between said shoulder and the plate for mounting the power element while permitting the power element sleeve to slide in the plate central opening if the fluid temperatures should become sufficiently high to cause the cylindrical valve element to exert more than a predetermined pressure on the abutment surface.

2,847,166
AUTOMATIC CONTROL SYSTEM
James L. Smith, Philadelphia, Pa.
Application September 6, 1955, Serial No. 532,807
3 Claims. (Cl. 236—91)
(Granted under Title 35, U. S. Code (1952), sec. 266)

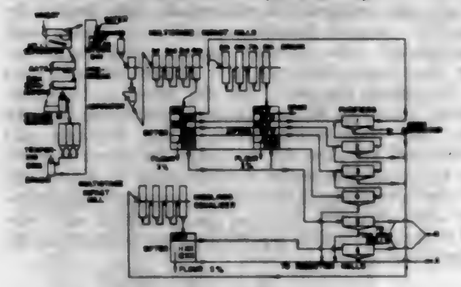
1. A control system for maintaining a substantially constant temperature difference between a liquid bath and a liquid specimen disposed within said bath in heat exchange relation therewith which comprises a heat exchange conduit within said bath, a heat exchange fluid reservoir and a motor operated pump, said heat exchange conduit having one end in communication with the reservoir and its other end in communication with the pump for circulating a fluid in heat exchange relation with

said liquid bath, a first pressure device in the liquid bath having a first pressure line extending therefrom, a second pressure device in the liquid specimen having a second pressure line extending therefrom, a transmitting fluid reservoir, a first transmitting line between the reservoir and the first pressure line, a second transmitting line between the reservoir and the second pressure line, contact means in one of the transmitting lines, a power source and a normally closed switch in circuit with said motor



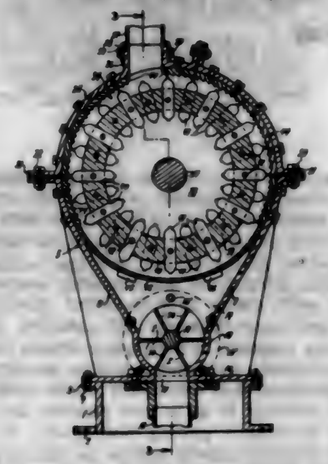
operated pump for circulating the heat exchange fluid through the heat exchange conduit, a manual selector arm in circuit with said contactor means, a solenoid in circuit between the fluid in the transmitting fluid reservoir and the manual selector arm, said solenoid being operable to open said switch and stop circulation of the heat exchange fluid when the temperature difference between the bath and the specimen forces the transmitting fluid upwardly in said one transmitting line to the contactor means.

2,847,167
MILLING PROCESS FOR WHEAT AND SIMILAR GRANULAR FOOD PRODUCTS
Nandor Szasz, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application December 16, 1954, Serial No. 475,708
11 Claims. (Cl. 241—5)



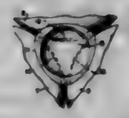
1. In the process of milling wheat and other natural granular food products the steps comprising cleaning the grain kernels without weakening their hull, applying a short final tempering to the grain to make only the hull elastic, impacting the thus cleaned and tempered grain in a plurality of continuously succeeding steps in each of which the grain is projected at predetermined speed against an impact surface in a manner designed to provide substantially a single effective impact at said speed, substantially maintaining the difference in grinding resistance between the elastic hull and the brittle endosperm during said succeeding impact steps, grading the broken up granules and thereby obtaining middlings of graded size, separately purifying the middlings of the respective graded sizes, equalizing the purified middlings by subjecting at least the coarser graded sizes to a series of immediately successive impact steps without intermediate sifting, and thereafter finishing the equalized middlings to flour upon reduction rolls.

2,847,168
PRESSURIZED REFINING BLENDER FOR REDUCING LIQUID-SOLID SUSPENSIONS
Lloyd D. Smiley, St. Louis, Mo., assignor to Gruendler Crusher and Pulverizer Company, St. Louis, Mo., a corporation of Missouri
Application October 29, 1954, Serial No. 465,572
2 Claims. (Cl. 241—46)



1. A refining blender having a pressure tight cage, the bottom portion of which is formed by a foraminous screen, a rotor operatively mounted for rotation within the cage, a plurality of radially projecting hammers mounted around the rotor, means for introducing a liquid-solids mixture into the cage under pressure, a sump-forming housing mounted beneath the screen and forming an integral pressure-tight downward extension of the cage, said pressure-tight extension including opposed arcuate wall sections and end closure plates, shaft rotatably mounted in said pressure-tight downward extension and located between the arcuate wall sections, and a plurality of plate-like wings extending radially outwardly of said shaft and adapted to form with said arcuate wall sections and closure plates fluid-tight pockets, thereby making it possible to retain pressure in the cage and at the same time permit discharge of slurry from the sump as the shaft and wings rotate.

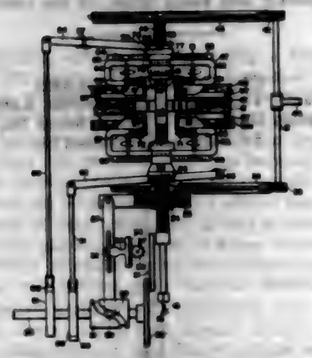
2,847,169
GRINDING CHARGE FOR BALL MILLS
William Walter Hartmann, Los Angeles, Calif.
Application November 25, 1955, Serial No. 548,924
2 Claims. (Cl. 241—184)



2. For use in a ball mill, a new and improved grinding element the shape of which conforms approximately with the interstice within a group of four balls symmetrically stacked so that the centers of each three of said four balls lie approximately at the vertices of four substantially identical equilateral triangles formed by straight lines joining the centers of each three of said four stacked balls,

and the surface of said grinding element having four concave grinding depressions registering approximately with the adjacent portion of the convex surfaces of said four symmetrically stacked balls.

2,847,170
WINDING APPARATUS FOR DISTRIBUTED WOUND STATORS
John F. Lill, Fort Wayne, and Robert J. Eninger, Kendallville, Ind., assignors to Fort Wayne Tool, Die & Engineering Company, Fort Wayne, Ind., a company of Indiana
Application March 18, 1957, Serial No. 646,653
10 Claims. (Cl. 242—1.1)



1. In a stator winding apparatus of the type in which a winding head moves relative to a slotted stator in a path sequentially parallel to and transverse to the axis of the stator bore in placing a winding between two angularly separated stator slots: a wire guiding means comprising wire-receiving members mounted in radially extending position adjacent the stator slots, a wire guiding member adapted to be moved in a path paralleling the transverse path of movement of the winding head and in synchonism therewith as it moves between the stator slots, wire pick-off means for releasably securing the wire dispensed from the winding head to said wire guiding member, said wire guiding member positioning the wire on said wire-receiving members as it moves through its said transverse path.

2,847,171
WIRE COILING APPARATUS
James E. Keesee, Jacksonville, Fla., assignor to Mid-States Steel & Wire Company, Jacksonville, Fla., a corporation of Indiana
Application February 21, 1955, Serial No. 489,406
8 Claims. (Cl. 242—82)



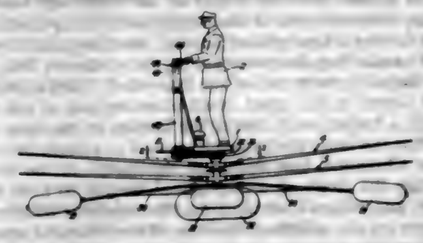
6. Wire coiling apparatus comprising a hollow rotatable shaft having a lateral opening near one end through which a wire may extend, a tapered block having a flange at its larger end, means mounting the block for free rotation with its larger flanged end adjacent to said one end of the shaft, guide means carried by the shaft to direct wire extending from the shaft over the flange on the block to coil the wire on the block as the shaft turns relative to the block, an elongated guide rod extending forwardly and laterally from the smaller end of the block to receive coils of wire from the block and means engaging the end of the guide rod to hold it against vertical movement thereby to hold the block against rotation.

2,847,172
COILED MATERIAL DISPENSER
Joseph L. Salfield, Cupertino, Calif.
Application June 5, 1956, Serial No. 589,406
3 Claims. (Cl. 242—129)



1. A portable dispensing device for a coil of wire, rope or the like, said portable device comprising a base, a post rising from said base and carried thereby, a reel mounted for rotation on said post, said reel including a frame concentrically arranged with said post, a plurality of flexible elements secured at their lower ends to said frame, a bearing mounted for rotation on the upper end of said post, means securing the opposite ends of said flexible elements to said bearing in order to thereby support said frame for rotation on said post, a tube slidably adjustably mounted on each flexible element, said tubes having outwardly bent lower ends in order to form a seat on which to support the coil, the effective diameter of said seat being adjustable by adjusting said tubes along the lengths of said flexible elements.

2,847,173
HELICOPTER
Lewis C. McCarty, Jr., Toronto, Ontario, Canada
Application January 5, 1956, Serial No. 557,516
13 Claims. (Cl. 244—17.11)

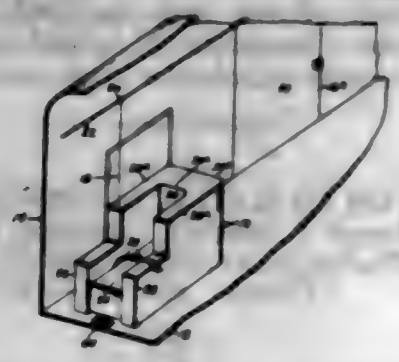


1. A helicopter comprising rotary wing means having a central hub assembly and blades extending radially therefrom, said blades being unrestricted as to flapping movement except as restrained by their root end connections to said hub assembly; a load carrying chassis mounted above said rotary wing means; and means connecting said chassis to said rotary wing means, whereby the center of gravity of the helicopter when loaded will be located a substantial distance above said hub assembly.

2,847,174
RELEASABLE AIRPLANE CHAIR WITH PARACHUTE
Bohdan Sribny, Chicago, Ill.
Application October 23, 1956, Serial No. 617,864
5 Claims. (Cl. 244—141)
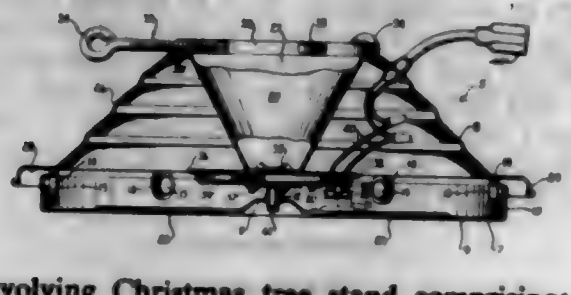
1. The combination with an airplane having a cabin, a floor in said cabin, of an airplane chair releasably fastened to the floor of said cabin, said chair comprising a seat having a back and arm portions, said back and arm portions having inner and outer walls and a bottom

wall to form a compartment therein, a collapsed parachute positioned in said compartment, a flexible cover for said compartment, a ripcord extending from said



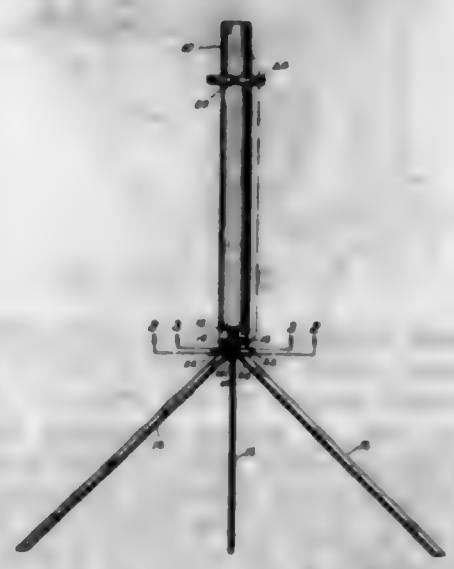
parachute through said cover, means normally holding said chair connected to the floor and manually operated means for releasing said chair when desired.

2,847,175
REVOLVING STAND
George F. Farley, Elm Grove, and Arnold Hildebrandt, Milwaukee, Wis., assignors to Spincraft, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application January 30, 1956, Serial No. 562,274
1 Claim. (Cl. 248—45)



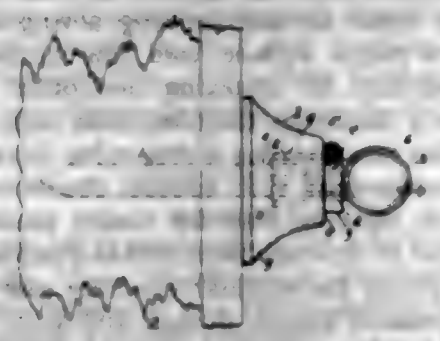
A revolving Christmas tree stand comprising: a stationary base having a substantially flat bottom wall; a rotatable member comprising concentric oppositely tapering inner and outer shells each having an axial length several times greater than the height of the stationary base, the large diameter end of the outer shell being lowermost and having its peripheral portion overlying and substantially encircling the periphery of the stationary base, and the large diameter end of the inner shell being uppermost and joined to the upper small diameter end of the outer shell; a bottom wall closing the bottom of the inner shell so that the inner shell provides a well to receive the trunk of a Christmas tree; means at the mouth of the well to engage the trunk of a tree placed therein to hold it upright and secure it to the rotatable member; cooperating means on the peripheral portion of the rotatable member and on the stationary base to freely rotatably and stably support the rotatable member; a vertical cylindrical bearing fixed to one of said bottom walls at the center thereof and opening towards the other bottom wall; a cylindrical stub shaft fixed to said other bottom wall at the center thereof, rotatably received in the bearing to constrain the rotatable member to rotation about a central vertical axis; the annular space between the inner and outer shells of the rotatable member and above the bottom wall of the stationary base providing a relatively large mechanism compartment; a drive unit comprising an electric motor, a driving pinion having spur teeth and a gear reduction transmission connecting the motor with the pinion; means mounting said drive unit on the bottom wall of the stationary base inside said compartment with the axis of the pinion vertical and with no part of the drive unit obstructing direct access to the pinion from above; electric outlet means on the outer shell, said outlet means having a plug receiving socket opening to the exterior of the shell to receive the plug of a string of Christmas tree lights; a spur gear fixed on the lower end of the inner shell meshing with the pinion; a collector ring fixed with respect to the rotatable member to turn therewith and located below the gear, said collector ring having a pair of downwardly facing concentric contact rings at the underside thereof; conductors connecting said contact rings with said electric outlet means; electric contact brushes mounted on but insulated from the bottom wall of the stationary base, said brushes having upwardly biased end portions pressing against the contact rings; and means for connecting the brushes and the electric motor with a source of current; the teeth of the pinion and of the gear lying substantially parallel with the axis about which the rotatable member turns and the cylindrical stub shaft being readily axially separable from the bearing in which it is received so that the entire upper rotatable member may be quickly and easily lifted off the stationary base.

2,847,176
COLLAPSIBLE STANDS
John Thomas Phillips, Wichita, Kans.
Application December 19, 1952, Serial No. 326,895
5 Claims. (Cl. 248—170)



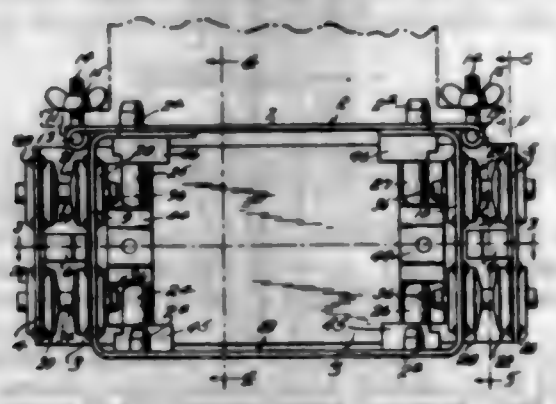
1. In a collapsible stand which has a central vertical support, a plurality of legs, and a plurality of pivots that secure the inner ends of each of said legs to the lower end of said support, said pivots confining the said inner ends of said legs so said inner ends of said legs pivot in a plane perpendicular to said pivots, said pivots being transverse of said support so the outer ends of said legs can rotate close to said support and can also rotate away from said support to an extended position, the improvement which comprises a latch for said legs that overlies the inner ends of said legs in one position of said latch and clears said inner ends of said legs in another position of said latch, and spaced apart surfaces on said support that are grouped in pairs and that extend generally radially of said support to define a plurality of substantially vertical slots that are spaced above the level of the pivots, a distance less than the length of one of said legs and that are spaced above the level of said latch, said spaced apart surfaces remaining fixed on said support during the extending and retracting of said legs of said collapsible stand, said slots selectively receiving said outer ends of said legs, said slots being just wider than the thicknesses of the outer ends of said legs, said slots opening outwardly away from said support, the planes of said slot forming surfaces being displaced from the plane of swing of said legs to cause distortion and consequent binding of said legs as the outer ends thereof are moved into said slots, said latch being wholly spaced from said legs whenever the outer ends of said legs are in said slots, whereby the tendency of said legs to return to normal unstressed position can act to bind said legs against accidental movement out of retracted position.

2,847,177
GRAB BAR MOUNTING MEANS
William J. Ramm, Detroit, Mich., assignor to Safety Bath Rail, Inc., Dearborn, Mich.
Application October 12, 1955, Serial No. 540,136
2 Claims. (Cl. 248—216)



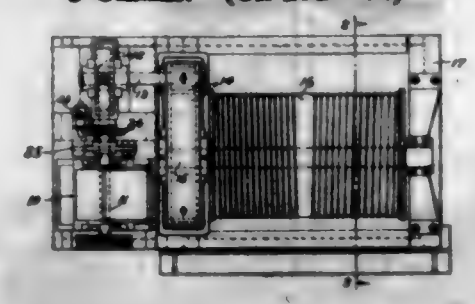
1. A mounting means for supporting a tubular grab bar or the like upon a wall in spaced relation therewith, including an elongated screw adapted to be threadably mounted upon said wall to project outwardly therefrom, said screw having opposed flat wrench receiving portions at its outer end and peripheral notches between said portions, a bell housing positioned axially over the outer end of said screw, an outwardly flanged sleeve positioned on the outer end of said screw and having a tubular shank projecting into said housing with its flange bearing against an outer surface of said housing, an arcuate strap adapted to surround said tubular grab bar and terminating in a pair of opposed arcuate ends positioned over the outer end of said screw within said tubular sleeve, and a set screw extending through said flange and an end of said strap and within one of said notches to retain said housing, sleeve and strap in fixed relation relative to said screw.

2,847,178
SHOCK MOUNT
Alois B. Esser, Glendale, and Samuel Schalkowsky, Astoria, N. Y., assignors to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware
Application January 7, 1957, Serial No. 632,875
2 Claims. (Cl. 248—358)



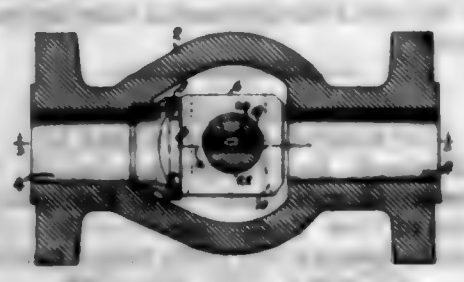
1. A flexible suspension mechanism of the character described comprising bracket means having a base which is adapted to be secured in fixed position on a vehicle and a pair of laterally spaced forwardly extending vertically disposed arms, a rectangular instrument supporting frame having a pair of spaced vertically disposed side members connected together at the upper ends thereof by a horizontally disposed top member, and at the lower ends thereof by a horizontally disposed bottom member, an upper abutment member secured to the underside of said top member and a lower abutment member secured to the upper side of said bottom member, means by which said frame is mounted between said forwardly extending arms in forwardly spaced relation to said base, said means comprising; a pair of similar horizontal axially aligned resilient vibration isolators one of which is connected to and between one of said arms and the adjacent side member of said frame and the other of which is connected to and between the other of said arms and the adjacent side member of said frame, and a pair of similar resilient shock absorbers interposed between said base and said frame with the axes thereof disposed in a plane perpendicular to the axes of said vibration isolators, one of said shock absorbers being connected to said base and extending forwardly and upwardly therefrom into engagement with the said upper abutment member which is secured to the underside of the said top member of said frame, and the other of said shock absorbers being connected to said base and extending forwardly and downwardly therefrom into engagement with the said lower abutment member which is secured to the upper side of the said bottom member of said frame.

2,847,179
SAFETY DEVICE FOR ACTUATING HYDRAULIC GATES
Samuel D. Payzer and Benjamin G. Sayles, Wausau, Wis., assignors to D. J. Murray Manufacturing Co., Wausau, Wis., a corporation of Wisconsin
Application November 18, 1955, Serial No. 547,741
5 Claims. (Cl. 251—64)



1. In a hydro-electric power plant, a gravity closing gate normally operable by a main alternating current electric motor, a brake for normally holding the gravity biased gate in raised position, direct current storage means chargeable by alternating electric current normally being supplied to actuate said main motor, an auxiliary normally inactive electric motor operable by direct current derived from said storage means and being available for use to cause said gate to close when the supply of alternating current for actuating said main motor fails, and means for releasing said brake to allow said auxiliary motor to become active to cause said gate to close.

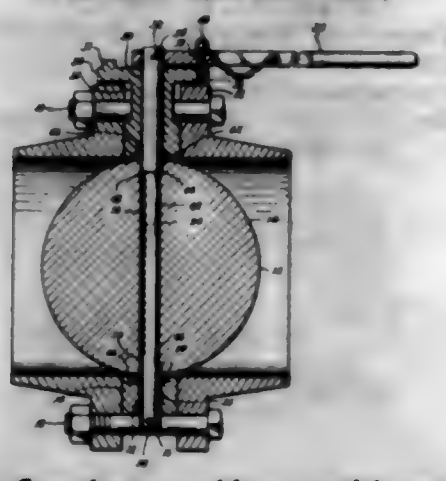
2,847,180
VALVE MECHANISM
Oscar Lederman, New York, N. Y.
Application June 28, 1956, Serial No. 594,589
2 Claims. (Cl. 251—163)



1. Valve mechanism comprising, in combination, a valve casing; an inlet duct and an outlet duct for the casing, said ducts and casing being coaxial; a rotatable valve within said casing provided with a passageway therethrough extending transversely of the axis of rotation of the valve; a valve seat for said valve concentrically disposed about the inner end of one of said ducts; a valve stem, rotatable in fixed bearings, for rotating said valve, the axis of rotation of said stem being eccentric to a line drawn perpendicularly to and through the center of a line drawn across the valve seat parallel to the plane of the seat; and an interlocking connection between the inner end of said valve stem and the valve for cracking

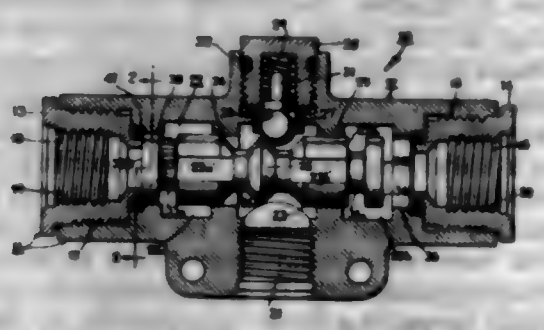
the valve from its seat without rotation of the valve on initial rotation of the valve stem, further rotation of the stem imparting rotation to the valve about an axis eccentric to the axes of the said ducts, valve casing and valve seat, until said passageway is in alignment with said ducts; said interlocking connection providing for rotation of the valve stem without rotation of the valve on initial rotation of the stem in closing the valve, to displace the valve toward its seat, continued rotation of the valve stem effecting rotation of the valve about an axis eccentric to the axes of said ducts, to bring the valve to its seat with a wedging approach.

2,847,181
BUTTERFLY VALVE
Frank G. Muller, La Porte, Tex.
Application September 16, 1955, Serial No. 534,751
2 Claims. (Cl. 251—306)



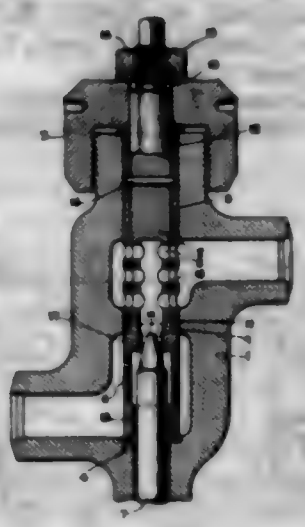
1. A butterfly valve assembly comprising a casing having a cylindrical flowway therethrough, a disk-shaped valve having a peripheral surface of spherical shape, means for supporting the valve in the casing for rotation therein with said spherical surface disposed in radially inwardly spaced, concentric relation to the internal surface of the flowway to permit the valve to be rotated, said casing having an internal groove positioned to lie opposite said spherical surface when the valve is closed and whose bottom wall is spherical and concentrically disposed relative to said spherical surface and whose side walls converge inwardly and seal forming means of substantially circular shape in cross section disposed in said groove in position for sealing engagement with the valve and casing when the valve is closed and whose cross-sectional diameter is greater than the depth of said groove and whose cross-sectional area is less than the cross-sectional area of said groove to provide space between the seal forming means and housing in the groove into which the seal forming means may extend when the valve is closed.

2,847,182
VALVE STRUCTURE
Joseph J. Mascuch, Jr., Eastchester, N. Y., assignor to Hydra-Power Corporation, New Rochelle, N. Y., a corporation of New York
Application January 31, 1952, Serial No. 269,198
6 Claims. (Cl. 251—332)



2. In a valve assembly, a valve casing having a passage therein and an annular recess formed internally of said casing in the surfaces of the passage; a valve element movable axially of said casing and in the passage and having an outer valve face; a rigid ring member mounted upon said casing in the passage adjacent the recess and having an outer surface for forming an annular chamber in cooperation with the surface of such recess, portions of such outer surface forming a ring-casing joint line with such recess surface, said ring member having an annular surface for engaging said outer valve face and acting as a limit-stop therefor, such annular surface and outer valve face forming a ring-valve joint line when they are in engagement, such annular chamber having an annular mouth opening into the casing passage; and a sealing annulus of deformable material positioned in and substantially filling the annular chamber and interposed between the annular mouth thereof and such ring-casing joint line; said valve element having an annular portion for entering said mouth, pressing against said sealing annulus and thrusting same into sealing relation with said joint lines, said ring-casing joint line being spaced axially from those areas of said sealing annulus which are accessible to fluid under pressure, such spacing being measured from such areas towards the bottom of such chamber, said ring-casing joint line defining the inner boundary of a relatively close joint between such outer surface and such recess surface, said joint defining a fluid leakage path in communication with the atmosphere via a passage in said valve assembly.

2,847,183
HIGH PRESSURE VALVE
Alfred Ruri, Winterthur, Switzerland, assignor to Sulzer Freres, Société Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application November 27, 1953, Serial No. 394,859
Claims priority, application Switzerland December 11, 1952
4 Claims. (Cl. 251—363)



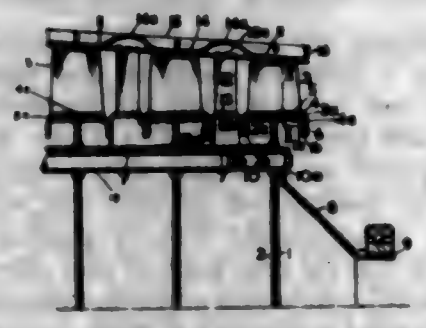
1. A high pressure valve comprising a casing, a bore in said casing, an inlet cavity communicating with said bore, an outlet cavity communicating with said bore, a sleeve lining said bore, said sleeve having transverse apertures communicating with one of said cavities, a piston within said sleeve and having a solid portion extending outside of said casing, said piston having a hollow portion extending into and communicating with the other of said cavities, said hollow portion of said piston having transverse apertures communicating with said apertures in said sleeve to form a flow passage from one of said cavities through said hollow portion to the other of said cavities, said hollow portion of said piston having an external annular shoulder, said sleeve having an inner end facing said shoulder, a packing interposed between said shoulder and said inner end of said sleeve, closure means coaxial of said bore and screwed onto said casing, said closure means having an annular surface facing the outer

end of said sleeve, a packing interposed between said annular surface and the outer end of said sleeve, tightening means for tightening said packings, said tightening means being disposed outside of said closure means and screwed to the solid end of said piston for pressing said shoulder against said sleeve, said hollow portion of said piston having an internal annular shoulder forming a valve seat positioned in said flow passage, and a valve member extending into said hollow portion coaxially of said piston and having a seat portion facing said interior shoulder.

2,847,184
BLADED ROTORS AND STATORS

Leonard Islip, Cove, Farnborough, England, assignor to Power Jets (Research and Development) Limited, London, England, a British company

Application March 30, 1953, Serial No. 345,574
Claims priority, application Great Britain April 2, 1952
5 Claims. (Cl. 253—39)

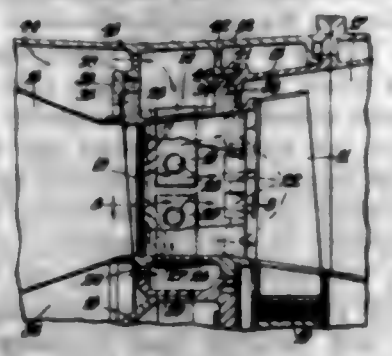


1. A bladed rotor comprising two coaxial sheet metal discs having central parts extending transversely to the rotor axis, and having their peripheries bent over to form flanges extending away from one another in a generally axial direction; a row of outwardly extending tubular blades disposed circumferentially around the rotor, each blade being of aerofoil cross-section and having a concave and a convex face and being formed at its root end with a skirt extending from at least one of said faces transversely to the blade axis and seating upon the outer surfaces of the flanges; a reinforcing strip superimposed upon a skirt of a blade the edge of the strip being shaped to fit closely against said face at its junction with the skirt; and means securing said strip and said skirt to the flange.

2,847,185
HOLLOW BLADING WITH MEANS TO SUPPLY FLUID THEREINTO FOR TURBINES OR COMPRESSORS

James Alexander Petrie, Littleover, Derby, and Charles William Robey, King's Newton, Derby, England, assignors to Rolls-Royce Limited, Derby, England, a British company

Application March 29, 1954, Serial No. 419,476
Claims priority, application Great Britain April 13, 1953
8 Claims. (Cl. 253—39.1)

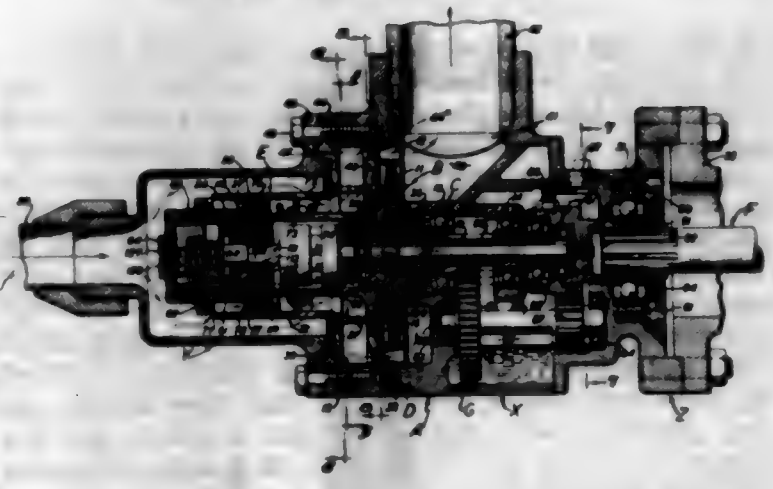


6. A hollow blading element for use in a turbine or compressor having an outer wall defining a cavity extending substantially over the length of the blading element and fluid delivery manifold means extending within the cavity substantially from end to end thereof and with a clearance from said outer wall, said manifold means comprising a pair of tubular members, each affording a manifold passage, one of the tubular members extending from one end of the blading element to adjacent its mid-length and the other of the tubular members extending from adjacent the opposite end of the blading element to adjacent its mid-length, and each of said tubular members being open at its end adjacent the respective end of the blading element and closed at its opposite end, each of said tubular members having first outlet means therefrom extending lengthwise over a substantial part thereof to distribute fluid into the clearance space between the outer wall and the said manifold means, and second outlet means from said space through said outer wall to externally of the blading element.

2,847,186
FLUID DRIVEN POWER UNIT

Paul E. Anderson, Los Angeles, and Stephen A. Stam, Glendale, Calif., assignors to Harvey Machine Co., Inc., Torrance, Calif., a corporation of California

Application January 12, 1953, Serial No. 330,821
15 Claims. (Cl. 253—59)



1. A fluid driven power unit of the character described including, a body adapted to conduct a stream of driving fluid, a rotor carried in the body and driven by the fluid, a throttle to control flow of fluid to the rotor and positioned by a piston in axial alignment with the rotor and responsive to the pressure of fluid in the body, and an independent control means driven by the rotor and responsive to the speed of operation of the rotor and including, a shiftable pressure releasing valve within the piston and governing the fluid pressure acting on the piston to control flow of fluid to the rotor, and a speed responsive means driven from the rotor and positioning the pressure releasing valve.

2,847,187
BLADE LOCKING MEANS

George B. Murphy, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

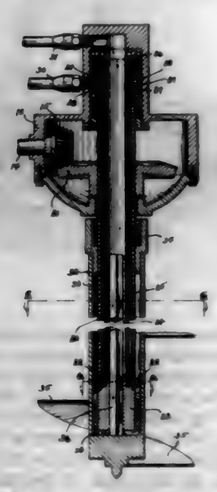
Application January 21, 1955, Serial No. 483,325
9 Claims. (Cl. 253—77)



1. In elastic fluid apparatus, a disc member having root receiving slots extending transversely of said member at

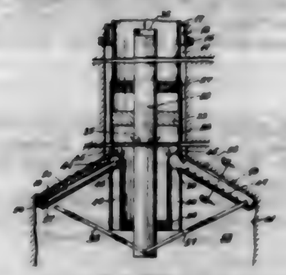
its periphery, and blade members having roots engaging in said slots, said roots and slots interlocking to prevent radial movement of said blades outwardly of the disc, the base surface of each root being spaced from the base surface of the slot to provide a clearance space, the base surface of one of said cooperating blade and disc members having a notch therein, in combination with locking means in the form of a resilient strip of material in said clearance space, said strip having a tab at each end out of the plane of the strip and engaging the ends of the other of said members, and a projection on the strip between its ends for engagement in said notch, said projection being resiliently urged into said notch by the resiliency of the strip, the base surface of said other of said members being recessed between its ends and radially opposite to the projection on the strip to permit deflection of the strip during assembly of the blade.

2,847,188
HYDRAULIC EXPANDING AND RETRACTING ROTATING MEMBER
Tracy R. Wiltse, Marshalltown, Iowa
Application July 29, 1955, Serial No. 525,204
1 Claim. (Cl. 255—22)



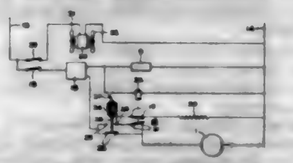
In a device of the class described, a housing, a pipe shaft rotatably mounted in and extending downwardly from said housing, a second pipe shaft inside and spaced apart from said first pipe shaft, a piston element secured to the lower ends of said first and second pipes, a closed cylinder slidably embracing said piston element and said first pipe shaft; said pipe shaft and said cylinder creating a closed space between them by the central portion of said cylinder having an inside diameter substantially greater than the outside diameter of said pipe shaft, a passageway in said first pipe shaft communicating with the space between said first pipe shaft and said second pipe, and the space between said cylinder and said first pipe shaft; said piston element having a passageway communicating with the inside of said second pipe and the forward inside of said cylinder, a conduit adapted to be connected to a source of hydraulic fluid under pressure communicating with the inside of said second pipe, a conduit adapted to be connected to a source of hydraulic fluid under pressure communicating with the space between said first and second pipes, a means for rotating said first pipe, and a drive shaft, rectangular in cross section secured to said closed cylinder and slidably extending through a rectangular passageway in said piston element, whereby the said drive shaft will rotate with said piston element.

2,847,189
APPARATUS FOR REAMING HOLES DRILLED IN THE EARTH
Austen M. Shook, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application January 8, 1953, Serial No. 330,213
4 Claims. (Cl. 255—76)



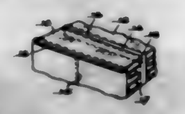
1. Apparatus for reaming a hole drilled in the earth comprising a rotatable stem; an arm pivotally mounted at a near end on said stem for movement transversely thereof, said arm comprising a blade having sides inclined together at an angle and meeting in a cutting edge on the leading side of said arm, said cutting edge extending longitudinally from a position adjacent said near end to the far end, both of said sides also being inclined upwardly when said arm is in extended position; said arm also having a plurality of ports spaced longitudinally along said arm on the lagging side thereof opposite said cutting edge and above the bisectors of said angle, for projecting a fluid at high velocity therefrom in an upward direction transversely of said arm and away from said cutting edge when said arm is in extended position, said ports being inclined upwardly to the outlets thereof; and means for moving said arm transversely of said stem into and out of extended cutting position.

2,847,190
AIR CONDITIONING APPARATUS HAVING AUTOMATIC DEFROST
John P. Slattery, Erie, and Robert J. Lehnen, Wesleyville, Pa., assignors to General Electric Company, a corporation of New York
Application November 16, 1955, Serial No. 547,069
12 Claims. (Cl. 257—3)



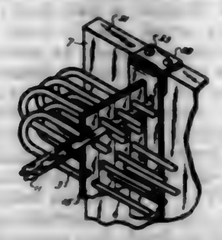
1. In a self-contained, air conditioning unit for heating and cooling an enclosure, a reversible cycle refrigeration system having a pair of interconnected heat exchangers one inside and one outside said enclosure, said heat exchangers operable interchangeably as a condenser or evaporator, an auxiliary heater for heating air for said enclosure, means to condition said system for operation on a cooling cycle with the inside heat exchanger as the evaporator, means to condition said system for operation on the heating cycle with the inside heat exchanger as the condenser, means responsive to the temperature of said outdoor heat exchanger during said heating cycle for de-activating at a predetermined low temperature said refrigeration system and activating said heater and means for bypassing said outdoor heat exchanger temperature responsive means to provide for operation of said system on the cooling cycle under outdoor temperature conditions wherein said outdoor temperature responsive means requires energization of said heater.

2,847,191
RADIATOR FOR MOTOR VEHICLES
Edward Matta and Emil George Matta, Glassport, Pa.
Application May 9, 1957, Serial No. 658,068
2 Claims. (Cl. 257—130)



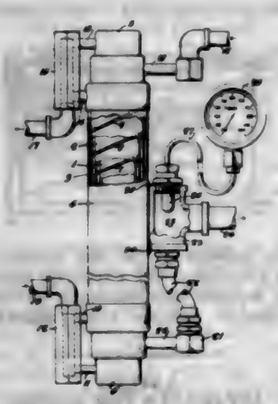
1. The combination with upper and lower water chambers of a water-cooled radiator system for motor vehicles, the chambers having oppositely disposed openings that are of generally rectangular shape, of a radiator core generally rectangular in form, which comprises individually-formed vertical tubes that have flat side walls which extend forwardly and rearwardly approximately the full depth of the core, the tubes being spaced apart in parallel planes, and each having relatively narrow end walls that are integral with both side walls, each of the spaces between the tubes at the spaced areas being closed at its upper and lower ends by flat horizontal web-like members each of which is integral with one of the tube walls and is welded to the adjacent wall of another tube, at the sides of each space, the upper and lower ends of the core extending into the respective water-flow chambers, which are soldered to the ends of the web-like members and to the said end walls along approximately straight lines at the sides and ends of the chamber edges, the spaces between the various tubes being open forwardly and rearwardly for the flow of air therethrough.

2,847,192
TUBE SUPPORTING AND SPACING STRUCTURE FOR HEAT EXCHANGERS
Lewis Raymond Smith and McLean A. Ambrose, Jackson, Mich., assignors to Acme Industries, Inc., Jackson, Mich., a corporation of Delaware
Application September 12, 1955, Serial No. 533,855
9 Claims. (Cl. 257—163)



1. In a heat exchanger, a pair of spaced horizontal supports, divider support means disposed between said horizontal supports and having a plurality of openings therethrough, and a plurality of lengths of tubing disposed in said openings, some of said lengths of tubing resting on said horizontal supports and others of said lengths of tubing being supported by said divider support means, said horizontal supports being spaced apart longitudinally of said lengths of tubing substantially the thickness of said divider support means to give lateral support to both sides of said divider support means.

2,847,193
HEAT EXCHANGER
Richard H. Carter, Fostoria, Ohio
Application August 30, 1954, Serial No. 452,908
3 Claims. (Cl. 257—246)

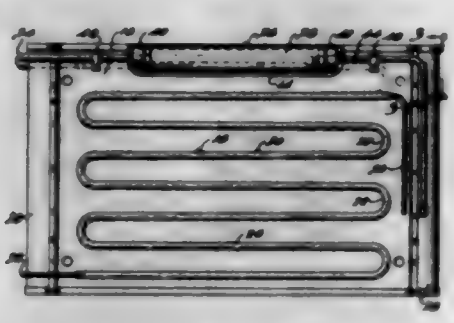


1. In a heat exchanger, four concentric tubes including a first innermost tube, a second tube encircling the first, a third tube encircling the second and an outside tube encircling the third, the first and second tubes being of equal length and longer than the third tube and exteriorly extending a short distance beyond both ends of the third tube, the third tube being longer than the outside tube and exteriorly extending a short distance beyond both ends of the outside tube, the diameters of the tubes being gauged to provide a narrow annular chamber between each adjacent pair; a thin-walled cap fixed in sealing relation over each set of ends of the tubes, each of said caps having a central flat circular area overlying and completely closing the ends of the first and second tubes, a contiguous primary cylindrical skirt embracing the outside of the exteriorly extending end portion of the second tube, a flat annular shoulder from the edge of the skirt overlying and completely closing the end of the third tube and the space between it and the second tube, a contiguous secondary skirt embracing the outside of the exteriorly extending end of the third tube, said skirt terminating in another flat annular shoulder overlying and completely closing the end of the outside tube and the space between it and the third tube, and a final contiguous cylindrical skirt embracing the outside of the end of the outside tube; means providing a liquid flow opening through the primary cylindrical skirt of each cap and the second tube into the space between the first and second tubes, means providing a liquid flow opening through the secondary cylindrical skirt of each cap and the third tube into the space between the second and third tubes, means providing a liquid flow opening through the final skirt of each cap and the outside tube into the space between the third and outside tubes, and means in the annular chamber between each adjacent pair of tubes directing the flow of liquid therethrough in a longitudinally-advancing circumferential path.

2,847,194
REFRIGERATION EVAPORATOR CONSTRUCTION
William A. Collins and Edward D. Floreen, Dowagiac, Mich., assignors to Rudy Manufacturing Company, Dowagiac, Mich., a corporation of Michigan
Application February 19, 1953, Serial No. 337,762
1 Claim. (Cl. 257—256)

A heat exchanger comprising a pair of spaced flat plates, a pair of conduits of serpentine form, one of said conduits bonded to each of said plates, a pair of spaced

panels which may vary in length to vary the height of the exchanger joined to said plates to form a compartment, said panels being joined to the edges of said plates by inturned flanges which may vary in length to



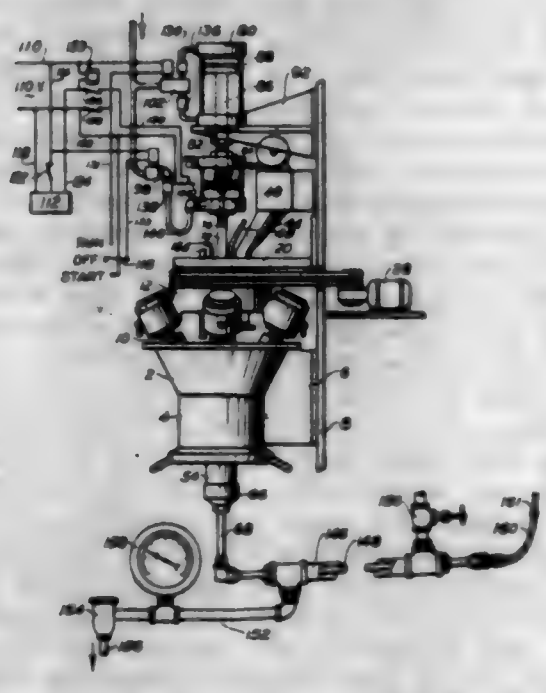
determine the position of the side panels outwardly of the edges of the plates, and a separate attachable cross-over conduit member interconnecting said conduits, said cross-over conduit member being attachable to said conduits.

2,847,195

APPARATUS FOR MIXING

Morris M. Bean, Yellow Springs, Ohio, assignor to Morris Bean and Company, Yellow Springs, Ohio, a corporation of Ohio

Application December 2, 1953, Serial No. 395,737
18 Claims. (Cl. 259—5)



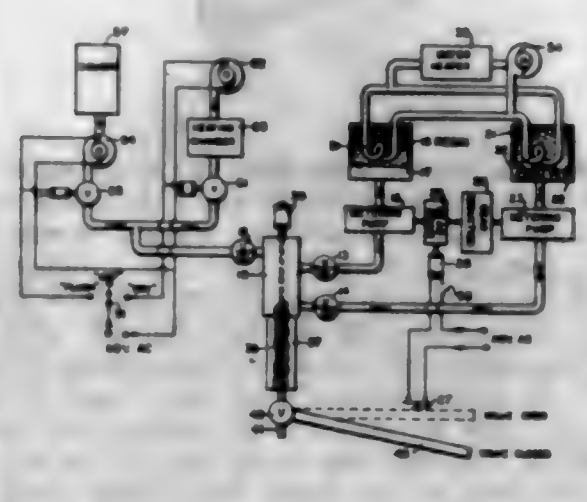
1. Apparatus for mixing a quick setting slurry and promptly ejecting it under pressure which comprises a delivery conduit, a mixing chamber with an inlet for ingredients of said slurry and an outlet opening into said conduit at a position remote from said inlet, means for mixing ingredients of a slurry in said chamber between said inlet and said outlet and continually rubbing the mixture along the surfaces of the chamber and moving it toward and away from said surfaces during its flow toward said outlet, and means operating in the flow of said mixture from the chamber for ejecting the slurry from the chamber through, and out of the end of, said conduit, whereby said ejecting means is continually scrubbed by the flowing slurry, said chamber, outlet and delivery conduit presenting substantially continuous surfaces surrounding a flow path for delivery of the slurry whereby the apparatus is free from substantial delay pockets into which slurry could escape from the flow long enough to set.

2,847,196

DISPENSER FOR THERMOSETTING MATERIALS

Philip J. Franklin, Washington, D. C., and John E. Seed, Arnold, Pa., assignors to the United States of America as represented by the Secretary of the Army

Application June 28, 1955, Serial No. 518,709
3 Claims. (Cl. 259—8)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for automatically mixing and dispensing a thermosetting material, comprising: a first reservoir containing a resin; a second reservoir containing a catalyst adapted to cause setting of said resin when mixed therewith; a first metering pump for withdrawing resin from said first reservoir; a second metering pump for withdrawing catalyst from said second reservoir; a first electric motor; gear means driven by said motor for causing flow of said resin from said first metering pump and of said catalyst from said second metering pump in response to the application of electric supply current to said motor, the ratio of flow of resin to flow of catalyst being determined by said gear means; automatic mixing means for mixing outflows of said pumps, said mixing means comprising a reception head, first and second check valve means for admitting the outflows of said first and second metering pumps respectively to said reception head, a mixing chamber below said reception head, a stirrer inside said chamber, a shaft fixedly connected to said stirrer, and a second electric motor connected to said shaft for driving said shaft; an outlet aperture for dispensing outflow from said mixing means; output valve means for opening and closing said outlet aperture; electric switch means associated with said outlet valve means for switchably applying electric current to said first electric motor, said current being automatically turned on when said outlet aperture is open and turned off when said outlet aperture is closed; purging means comprising: a third reservoir containing a solvent; a third check valve in said reception head; duct means for conducting said solvent from said third reservoir to said third check valve; electrically operated third pump means and solenoid valve means interposed in said duct means; second electric switch means for switchably controlling the application of electric current to said third pump means and to said solenoid valve, solvent being caused to flow into said reception head when said switch is in a "flush" position; third electric switch means; and means controlled by said third electric switch means for switchably injecting heated air onto said duct means between said third check valve and said third pump means and solenoid valve means.

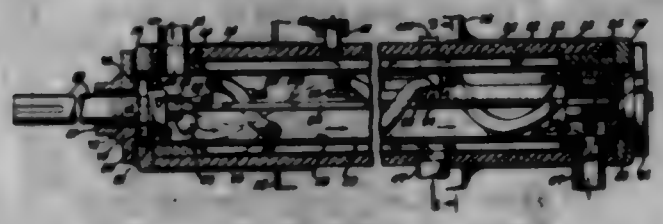
2,847,197

DASHER MEANS FOR FROZEN CONFECTIONS PRODUCING APPARATUS

Emery Thompson, Jr., New Rochelle, N. Y., assignor to Emery Thompson Machine & Supply Company, New York, N. Y., a corporation of New York

Original application August 31, 1951, Serial No. 244,638, now Patent No. 2,740,264, dated April 3, 1956. Divided and this application July 11, 1955, Serial No. 522,489

14 Claims. (Cl. 259—109)



1. In apparatus for producing frozen confections, dasher means for a freezing cylinder of certain internal diameter comprising an elongated, axially-hollow, rotatable structure open from end to end and having a plurality of obliquely arranged, successive, plastic material-advancing means located therealong with outer portions thereof adapted to define in rotation circular paths of a diameter slightly less than the cylinder internal diameter, a plurality of opposed and axially aligned pairs of bearing means successively-arranged longitudinally along and about said structure and carried by said successive material-advancing means, and a plurality of centrifugally-cockable, longitudinally-lapping scrapers each rotatably supported substantially parallel to the axis of said structure by one of said pairs of bearing means.

2,847,198

BEATER BLADE ASSEMBLY

Aaron H. Smith, Ipswich, Mass., assignor to Signal Manufacturing Co., Lynn, Mass., a corporation of Massachusetts

Application June 26, 1956, Serial No. 593,892

7 Claims. (Cl. 259—131)



2. In a beater mechanism, a frame, a pair of fixed bearing sockets mounted on the frame for receiving the shafts of a pair of beaters with their axes in spaced parallel relation, each beater comprising a short shaft adapted to be drivably engaged with a socket, and a plurality of blade loops disposed in planes intersecting the axis of the shaft, said loops being connected at their upper ends to the lower end of the shaft and at their lower ends to each other, said loops having diameters which are not less than twice the distance between the sockets, and means supporting the shafts in the sockets whereby one of the shafts is tiltable with reference to the other during engagement of the shaft with the socket or disengagement therefrom to permit clearing the lower end of the other beater.

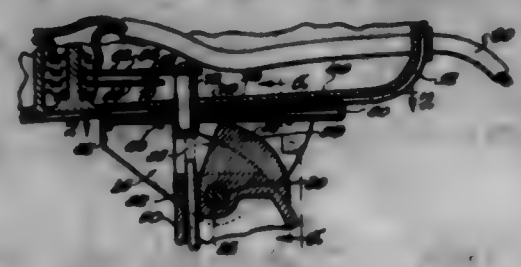
2,847,199

MOTOR CUT-OFF FOR ELECTRICAL MIXING APPLIANCE

John J. Gasparotti, St. Louis, Mo., assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware

Application July 5, 1956, Serial No. 596,836

11 Claims. (Cl. 259—135)



3. A mixing apparatus comprising, in combination, an electrically energized mixer including a normally closed control switch therefor, support means for said mixer, means pivotally mounting said mixer on said support means for selective pivoting into a mixing position and out of said mixing position, switch actuating means operatively associated with said control switch and adapted, when actuated, to open said control switch and shut off the mixer, cam means on said support means positioned to cooperate with said switch actuating means, when the mixer is pivoted out of its mixing position, to open said control switch and shut off the mixer, and control means positioned to engage and actuate said switch actuating means to open said control switch to shut off the mixer when the mixer is in the mixing position.

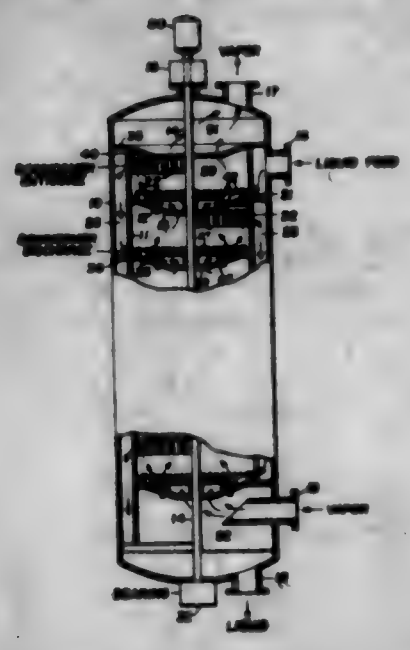
2,847,200

CENTRIFUGAL CONTACTING OF FLUID PHASES

L. Tom Ung, Elizabeth, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application April 30, 1956, Serial No. 581,619

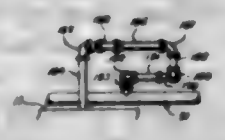
7 Claims. (Cl. 261—84)



1. An apparatus for countercurrently contacting two fluids of differing specific gravities which comprises in combination a vertical chamber having inner and outer walls forming an annular space defining downcomers, said vertical chamber being made up of a number of contact stage sections, each section in turn having inner and outer walls forming an annular space, the sections being assembled such that the annular space is partitioned off into a number of semi-annular downcomers extending alternately over two stages, a plurality of vertically spaced baffled circular deck plates disposed within said tower and defining a plurality of vertically superposed contacting zones connected by said downcomers, each

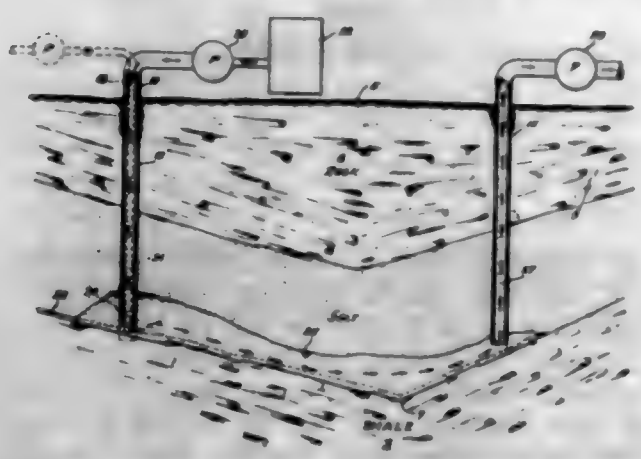
of said plates extending from an inner wall member downwardly towards the centerline of said chamber and being provided with a centrally disposed opening, a horizontally disposed, vaned rotor positioned within each of said central openings, means for rotating said rotor, conduit means in the upper and lower portion of said chamber adapted to introduce the lighter and heavier phases respectively, ingress means positioned near the upper end of each of said downcomers, egress means positioned near the lower end of each of said downcomers, and vent passageways positioned intermediate the upper end of said downcomers and said ingress means.

2,847,201
PORTABLE SULPHUR PLANT FOR USE IN A REGION OF SUBSIDENCE
Gilbert B. Ebarb, Sr., Rosenberg, Tex., assignor, by mesne assignments, to Carroll R. Graham, Houston, Tex.
Application November 9, 1954, Serial No. 467,719
7 Claims. (Cl. 262—3)



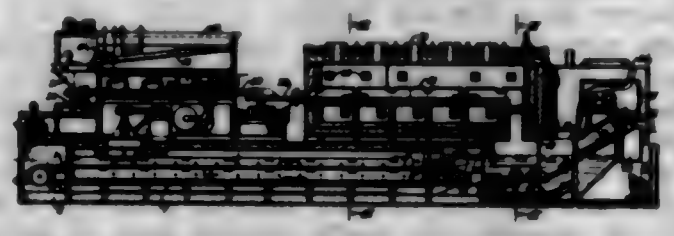
1. The process of inexpensively producing sulphur mine heating water in a plant adjacent a sulphur well in an area where formation subsidence may occur, comprising the steps of providing water for use in the plant in part as boiler feed water and in majority to be heated in the plant in a gas fired heater, using steam generated from the boiler feed water to operate plant equipment, heating the majority of water in the heater from an entering temperature of approximately 220° Fahrenheit at approximately 180 p. s. i. to approximately 320 to 340° Fahrenheit at approximately 160 p. s. i., such process including supporting plant equipment headers, including boiler and heater headers, respectively, separate from the plant equipment including separately supported units as boiler and heater means, and connecting the headers respectively to the plant equipment including boiler and heater means by means permitting three dimensional adjustment for relative subsidence therebetween.

2,847,202
METHOD OF MINING SALT USING TWO WELLS CONNECTED BY FLUID FRACTURING
Milton W. Pullen, Jr., Urbana, Ill., assignor, by mesne assignments, to Food Machinery and Chemical Corporation, New York, N. Y., a corporation of Delaware
Application February 9, 1956, Serial No. 564,417
5 Claims. (Cl. 262—3)



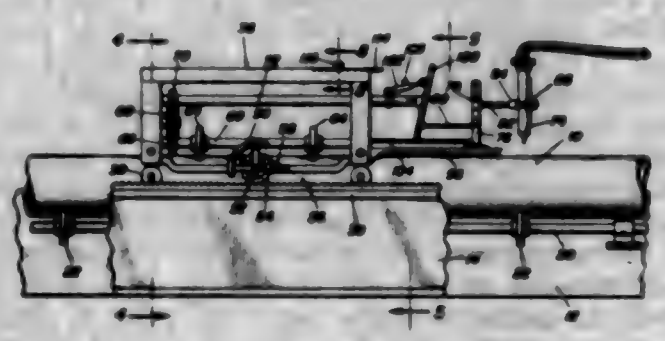
1. The process of mining a bed soluble in a liquid, said bed lying in a dense underground formation and in a stratum immediately above a lithologic stratum insoluble in said liquid and having a clear parting line interface between said strata, comprising sinking a well into said lower stratum, casing the well to a point in the soluble bed near to but above the said parting line, applying a fluid fracturing pressure through said casing, above and below said interface to fracture the said strata substantially at their parting line interface, sinking another well substantially so said parting line interface, communicating with said fracture and providing communication between said wells substantially at said parting line interface, introducing a liquid solvent through one of said wells to the parting line interface at one place along the fracture and withdrawing the solvent through another of said wells at a point remote from the place at which the solvent is introduced but within the compass of the fracture causing the solvent to flow along the fracture and to dissolve said soluble mineral formation substantially from the bottom upwardly.

2,847,203
HEAT TREATING APPARATUS
Vernon H. Ferguson, Pittsburgh, Pa.
Application April 30, 1956, Serial No. 581,727
3 Claims. (Cl. 266—4)



1. Heat treating apparatus for metal articles, comprising a lower furnace having a loading rear end and a discharge front end, a conveyor extending forward through the furnace, an upper furnace mounted on the lower furnace and having a loading front end and having a discharge rear end projecting behind the lower furnace, a conveyor extending rearwardly in the upper furnace, a quenching tank disposed behind and at substantially the same level as the lower furnace and below the discharge end of the upper furnace in position to receive heated articles discharged from the upper furnace, a conveyor in the tank adapted to carry said articles back through the tank and out its rear end, a cleaning tank extending along each side of the quenching tank, a conveyor extending forward through each cleaning tank, conveyor means connecting the rear end of the quenching tank conveyor with the rear ends of the cleaning tank conveyors, and transverse conveyors located between the quenching tank and lower furnace and connecting the front ends of the cleaning tank conveyors with the lower furnace conveyor at its loading end, whereby said articles will be discharged from the front end of the lower furnace.

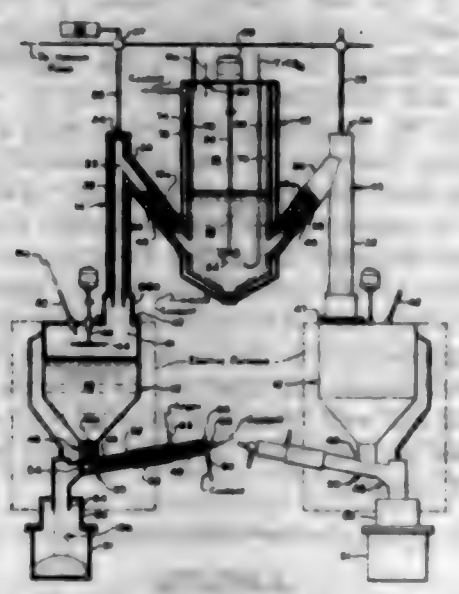
2,847,204
PIPE MITERING MACHINE
Henry E. Menser, Roy L. Jeffords, and Cyrus O. Vancil, Paducah, Ky.
Application July 12, 1955, Serial No. 521,460
2 Claims. (Cl. 266—23)



1. In a pipe mitering machine which includes a support structure having a bed of live rollers on which a pipe is

adapted to be mounted and by which the pipe is adapted to be rotated, a carriage mounted on said structure for movement longitudinally of the pipe, means connected with the carriage for traversing the same on said support, a locking device operatively connected with the last mentioned means to hold said carriage in a selected position, means to support a blow pipe for pivotal adjustment about an axis transverse to the pipe longitudinal axis to adjust the bevel of the miter cut, a standard for said blow pipe support means, means mounting said standard on said carriage for reciprocatory movement on said carriage in a plane extending longitudinally of the pipe, a shaft in said carriage, means for rotating said shaft in response to pipe rotation, a cam means adjustably securing said cam to said shaft for rotation therewith, a cam follower operable on said cam and secured to said standard longitudinally of said pipe for moving said standard in response to cam rotation, and means to accommodate said cam follower in a plurality of positions with respect to the axis of rotation of the cam for compensating for variations in pipe diameter.

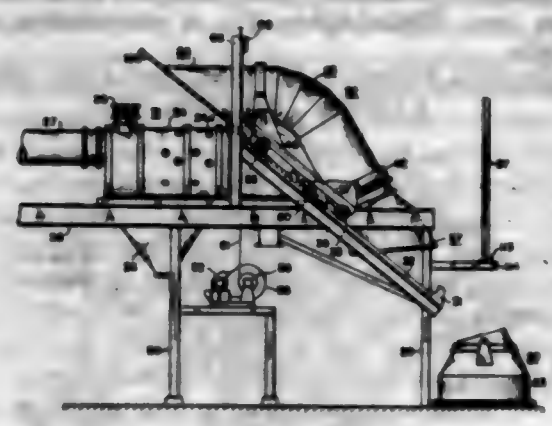
2,847,285
PRODUCTION OF METALS
Milo P. Hallicks, Jr., Concord, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application October 13, 1954, Serial No. 461,981
7 Claims. (Cl. 266—34)



2. Apparatus for producing a refractory metal by the reduction of a compound thereof carried in a molten salt, said system comprising a first chamber, a second chamber, means defining a passage for molten salt connecting said two chambers, means for partially plugging the passage, and means for feeding a refrigerant to the interior of the plugging means.

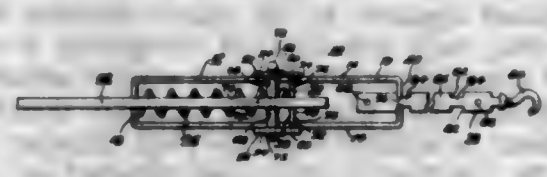
2,847,286
EXHAUST APPARATUS
Harry L. McFeaters, New Castle, Pa., assignor to Pennsylvania Engineering Corporation, New Castle, Pa., a corporation of Pennsylvania
Application June 20, 1955, Serial No. 516,597
19 Claims. (Cl. 266—35)

1. Apparatus for receiving a hot fluid effluent from the mouth of a generator such as a converter and for conducting the effluent to a discharge-receiving means including an enclosing hood defining an effluent passageway therethrough and open at its lower end to receive the effluent from the mouth of the generator, said hood being open at its upper end to discharge the effluent therefrom into the discharge-receiving means, and means for moving the upper end portion of said hood into and out of a registry with the discharge-receiving means, while moving



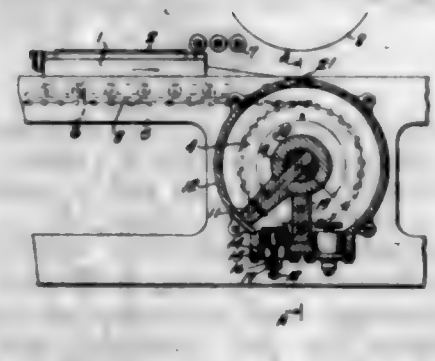
its lower end portion into and out of a cooperative effluent-receiving relationship with the mouth of the generator.

2,847,287
SECURING DEVICE
William J. Chulack, Collingswood, N. J., and Lee I. Luther, Philadelphia, Pa.
Application February 8, 1955, Serial No. 486,932
17 Claims. (Cl. 267—1)



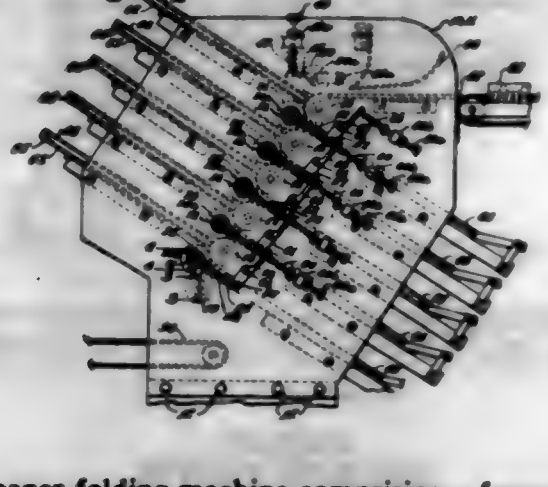
1. A securing device comprising a frame unit with an extensible securing element slidably received therein, a contractible spring member for urging said element towards its retracted position, and cam means supported by said frame unit and engaging said element for contracting said spring member and inactivating said device.

2,847,288
INERTIA COMPENSATING DEVICE FOR PRINTING PRESS WITH RECIPROCATING TYPE BED
Artur Büttner, Heidelberg, Germany, assignor to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany, a corporation of Germany
Application November 21, 1955, Serial No. 548,208
Claims priority, application Germany December 4, 1954
5 Claims. (Cl. 267—75)



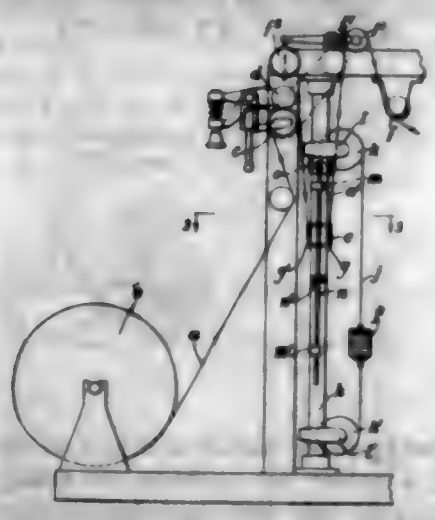
1. In a printing press having a frame of the reciprocating type bed, a rotary air cushion for compensating the forces of inertia of said type bed during its reciprocation comprising a cylindrical casing anchored on said frame, a vane coupled with said type bed and movable arcuately in said casing throughout the movement of said type bed, and a radial vane fixed in said casing, cooperating with said movable vane, said casing being provided with at least one port opening to the atmosphere and spaced circumferentially from said fixed vane to locate said selected portions of said casing, each portion alternately comprising compression and expansion portions in said casing.

2,847,209
BUCKLE TYPE FOLDING MACHINE
Edwin Olson, Cleveland, Ohio, assignor to Russel Ernest Baum, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application February 28, 1955, Serial No. 490,957
1 Claim. (Cl. 270—68)



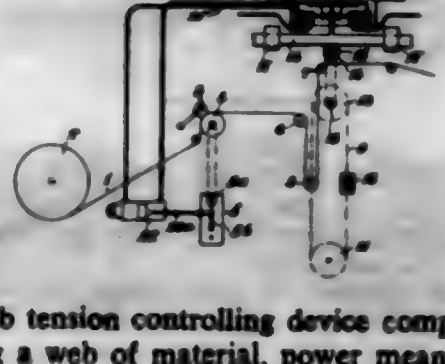
In a paper folding machine comprising a frame mounting coacting work rolls and buckling pockets, a series of folding rolls disposed in rectilinear spaced relation and fixedly journaled in said frame, a series of pressure rolls disposed opposite to the spaces between the said folding rolls, each pressure roll comprising a resilient journaled mounting urging the roll toward adjacent successive folding rolls while being yieldable therefrom in all directions to accommodate the folds of paper passing through the machine, a drive gear mounted on each of said folding rolls, a drive gear mounted on each of said pressure rolls and engaging successive gears comprising the said series of folding rolls, and supplementary driving means comprising an idler gear disposed between and engaging each successive pair of the said folding rolls drive gears.

2,847,210
WEB TENSION CONTROLLING MEANS FOR USE IN ASSOCIATION WITH PRINTING MACHINES
Angus Murray Halley, Moseley, Birmingham, England
Application December 6, 1954, Serial No. 473,484
Claims priority, application Great Britain December 14, 1953
6 Claims. (Cl. 271—2.3)



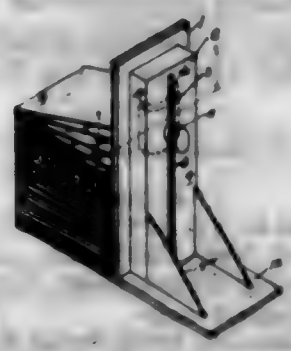
1. In mechanism for maintaining a substantially constant tension on a web through variation in the extent of a loop thereof while the web is moving, and wherein there is a drive for the web; said drive comprising a driven device composed of a constant speed input pulley and a coaxial variable speed output pulley consisting of one member secured to said input pulley and a coacting second member non-rotatably and axially slidably mounted on said one member, a control element rotatably screw-threaded on said driven device coaxially of said pulleys and also axially slidable thereon in different directions through and according to the variation in said loop, and a movable part mounted on said driven device providing a motion transmitting connection between said control element and said second output pulley member operable through the axial movement of said element to relatively adjust said output pulley members to cause an increase or decrease in the speed of said drive.

2,847,211
WEB TENSION CONTROLLING DEVICE PARTICULARLY FOR USE IN ASSOCIATION WITH PRINTING MACHINES
Angus Murray Halley, Moseley, Birmingham, England
Application April 16, 1956, Serial No. 578,290
5 Claims. (Cl. 271—2.3)



1. A web tension controlling device comprising means for feeding a web of material, power means for varying the speed of the web feeding means, a tensioning roll supported within a loop formed in the web, a contact member, and means for displacing the contact member in magnitude and direction in proportion to vertical displacement of the tensioning roll comprising a traversably mounted slide carrying a pair of oppositely positioned control members for said power means traversable with said slide, a contact arm having means for moving it in relatively opposite directions in response to vertical displacements of the tensioning roll to operate one or the other of the pair of control members and to impart traversing movement to said slide, and means connected to said power means and operable to increase or decrease the speed of the web feeding means in response to operation of one or the other of said control members by said contact member.

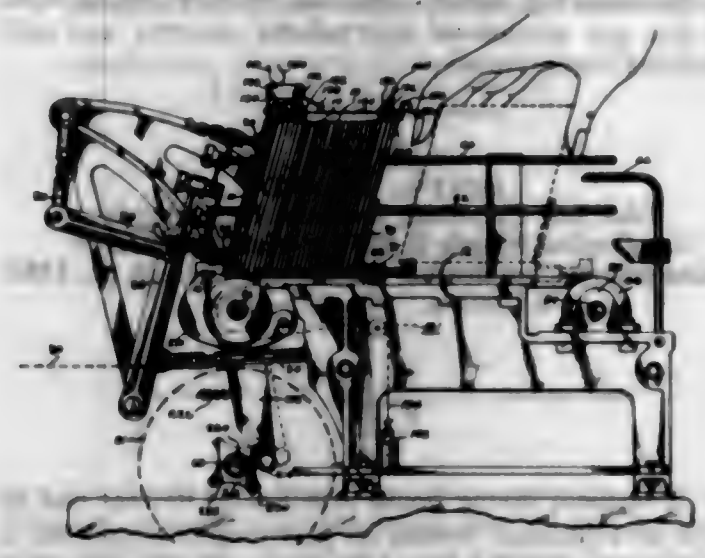
2,847,212
METHOD AND APPARATUS FOR SEPARATING MAGNETIC SHEETS
Donald E. Stem, Santa Rosa, Calif.
Application September 13, 1954, Serial No. 455,583
3 Claims. (Cl. 271—18)



1. A magnetic device for separating the top sheets from a stack of sheets of magnetic material comprising a generally vertical non magnetic guide element beside the stack, one side of said element being adapted to guide the edges of said sheets at the adjacent side of said stack, a magnet slidable along the other side of said element and being adapted to hold adjacent edges of several top sheets raised from said stack, the magnetic

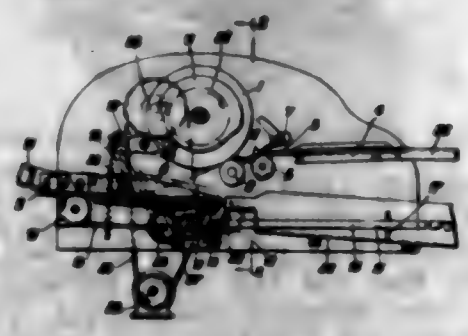
field between said raised sheets and said magnet and the force of gravity on said magnet interacting to lower said magnet and raise further sheets from said stack substantially in proportion to the removal of top sheets from the stack.

2,847,213
SHEET FEEDING APPARATUS
Robert H. Duncanson, Minneapolis, and Donald W. Schoen, St. Paul, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application August 31, 1955, Serial No. 531,788
9 Claims. (Cl. 271—62)



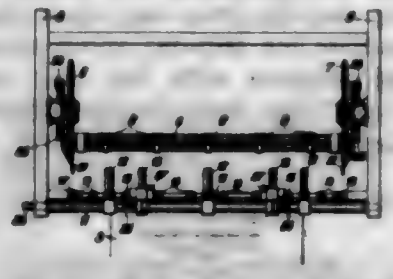
1. Sheet supply means comprising at least one belt member having a portion adapted to engage one edge of each of a plurality of sheets and move said sheets forwardly toward a transfer station at one end of said portion, rotary shaft means for driving the belt member portion toward said station, a follower member having a portion engaging the rear surface of at least one rearwardly located sheet, a rotary member, means for moving said follower member toward said station in response to rotation of said rotary member, and connecting means between said rotary shaft means and said rotary member for driving the latter and moving said follower member at the same rate and direction as said belt portion, said connecting means including manually operable clutch means for selectively disconnecting the rotary member and shaft means for independent withdrawal of the follower member during insertion of additional sheets.

2,847,214
EJECTOR MECHANISM FOR PRINTING MACHINES
Wilhelm Ritzerfeld, Berlin-Dahlem, and Gerhard Ritzerfeld, Berlin-Grunewald, Germany
Application March 2, 1955, Serial No. 491,574
Claims priority, application Germany March 8, 1954
13 Claims. (Cl. 271—64)



1. In a rotary duplicating machine, in combination, a pair of cooperating rotary printing rollers for printing sheets passing between the same in one direction from one side of said printing rollers to the other side of the same; a transferring table pivotally mounted at said other side of said printing rollers and being movable between a first position for receiving printed sheets from said printing rollers and a second angularly displaced position; ejector means moving in a direction opposite to said one direction at a speed higher than the peripheral speed of said printing rollers and cooperating with said transferring table in said second position of the same to eject sheets supported on said transferring table; cam means connected to one of said printing rollers for rotation therewith; linkage means connected to said transferring table and including cam follower means cooperating with said cam means for moving said transferring table between said positions of the same in accordance with the angular position of said one printing roller; and receiving means for receiving sheets ejected by said ejector means and being located at said one side of said printing rollers.

2,847,215
STACKING DEVICE FOR PRINTING MACHINES
Werner Koch, Offenbach (Main), Germany, assignor to Faber & Schleicher Aktiengesellschaft, Offenbach (Main), Germany, a German body corporate
Application December 9, 1954, Serial No. 474,262
Claims priority, application Germany December 28, 1953
10 Claims. (Cl. 271—88)

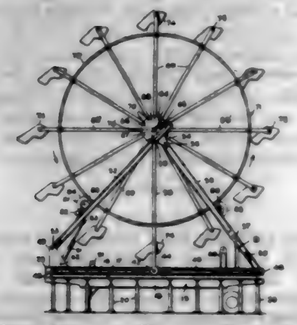


1. In a sheet stacking device comprising an exchangeable main stacking table and in which the sheets which are delivered during the exchange of the said main stacking table are preliminarily deposited on an auxiliary stacking table above a stack on the main table, a grate to serve as the auxiliary stacking table, a front cross bar on said grate, a horizontal main track for guiding the said front cross bar in a substantially parallel path over the stack on the said main stacking table, a steeply inclined branch at one end of the said main track for guiding the said front cross bar at the beginning of its movement at a steep inclination toward the top surface of said stack on the main stacking table, and a lesser inclined branch adjacent said steeply inclined branch for guiding said cross bar and grate on their return movement away from the said stack.

2,847,216
AMUSEMENT RIDE APPARATUS
John F. Courtney, Chicago, Ill.
Application August 28, 1956, Serial No. 604,924
6 Claims. (Cl. 272—36)

1. A collapsible amusement ride apparatus comprising a primary supporting base, a horizontal turntable arranged above the supporting base, bearing means interconnecting the supporting base and turntable so that the turntable may rotate upon a vertical axis, a pair of short upwardly extending inclined legs fixedly mounted upon the turntable near one side of the same, a companion pair of relatively long legs having their lower ends pivotally secured to the turntable near the opposite side thereof and being vertically swingable and adapted to extend upwardly from the turntable in inclined converging relation to said pair of short legs, passenger wheel mounting brackets carried by the upper ends of said long legs, a pair of leg sections of intermediate length having their lower ends detachably secured to the tops of the short legs and their upper ends pivotally secured to said mounting brackets and constituting continuations

of the short inclined legs and converging upwardly with the long legs when the amusement ride apparatus is in an erected operative condition, and a foldable passenger carrying wheel having a horizontal axle journaled for rotation in a vertical plane upon said mounting brackets and between said pairs of legs and leg sections, the arrangement being such that the ride apparatus may be



readily collapsed so as to lie generally horizontally upon said turntable by first folding the passenger carrying wheel and then disconnecting the lower ends of said intermediate leg sections from said short legs and swinging the intermediate leg sections about their upper ends into underlying relation with the long legs and then swinging the long legs downwardly about their lower ends and toward said short legs.

2,847,217
JUMPING DEVICE
Robert Clinton Adams and Irma O. Adams, Escondido, Calif.
Application February 13, 1956, Serial No. 565,831
2 Claims. (Cl. 272—57)



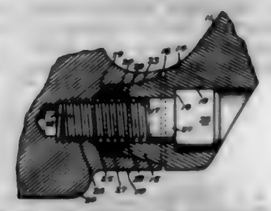
1. Vertically fixedly mounted jumping apparatus comprising: a hollow longitudinal vertical tubular member; a vertical longitudinal rod member substantially longer than said tubular member partially disposed relatively slidably within said tubular member; said tubular member having first and second end portions; said rod member having a first end portion positioned below said first end portion of said tubular member and having a second end portion positioned above said second end portion of said tubular member; fixed underlying support means affixed to and carrying said first end portion of said rod member embedded therein and fixedly positioning said rod member in upstanding vertical disposition extending upwardly from said underlying support means; said tubular member being provided with laterally aligned oppositely positioned horizontal first and second foot support stirrups in the region of said first end portion of said tubular member, said tubular member also being provided, in the region of said second end portion thereof, with a first pair of threaded apertures laterally aligned and oppositely positioned with respect to said tubular member and also being provided with a second pair of threaded apertures laterally aligned and oppositely positioned with respect to said tubular member, said first pair of threaded apertures and said second pair of threaded apertures being vertically spaced along the tubular member; first and second threaded hand rungs selectively threadable into the threaded apertures of said first pair of threaded apertures or said second vertically spaced pair of said threaded apertures and horizontally aligned and oppositely directed on each side of said tubular member; and a free coil compression spring disposed about said vertical rod member between said underlying support means and said first end portion of said tubular member and cooperable therewith for compression only by and between said first end portion of said tubular member and said underlying support means.

2,847,218
DIVING BOARD
Dirk Jan Gerritsen, Boskoop, Netherlands
Application March 9, 1955, Serial No. 493,195
Claims priority, application Netherlands March 18, 1954
2 Claims. (Cl. 272—66)



1. A resilient diving board attached at its rear end by means of a linkage, having its axis loosely supported at the mid-section of the board by means of a fulcrum, said board being characterized by the fact that the change of length between said fulcrum and the rear end of the board as caused by the deflection of the board is compensated for by a forward motion of the rear end of the board by the provision of a pair of parallel upstanding lugs, provided on the board and outwardly projecting trunnions mounted on said lugs in a line above the general plane of the board, said trunnions being pivotally supported by a stationary structure at the rear end of the board, said stationary structure comprising uprights arranged on either side of the diving board adjacent the rear thereof and having said trunnions mounted adjacent said uprights and with the rear end of said board pivotally suspended therefrom.

2,847,219
ADJUSTABLE GOLF CLUB
John D. Shoemaker and Walter R. Rikli, Pontiac, Mich.
Application August 7, 1957, Serial No. 676,831
3 Claims. (Cl. 273—79)



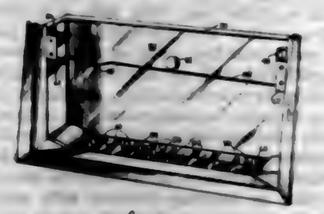
1. An angularly adjustable golf club head comprising a shank, an offset extension formed on one end of said shank, a tapered boss projecting from said offset extension, said boss and said offset extension having a shouldered bore extending therethrough, an inwardly tapered annular end wall formed on the outer end of said tapered boss, a ball striking portion, said ball striking portion having a tapered socket formed therein engaging said tapered boss, said tapered socket having a cylindrical bore extending inwardly therefrom, an inwardly tapered annular end wall formed on said ball striking portion at the inner end of said cylindrical bore, said ball striking portion having a threaded bore extending axially inwardly from said cylindrical bore, an annular ring having oppositely tapering side edges positioned in said cylindrical bore with the tapered side edges thereof engaging the tapered end walls on said ball striking portion and said tapered boss, and a bolt extending through said shouldered bore, said ring and into said threaded bore locking said shank and said ball striking portion together in adjusted position.

2,847,220
FISH HOOK
Joseph Heffron and Lillian Heffron, Fairbanks, Territory of Alaska
Application August 6, 1953, Serial No. 372,631
1 Claim. (Cl. 43—44.83)



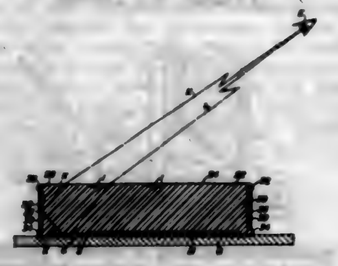
A fish hook structure comprising a shank, a fish hook formed integrally with the lower end of the shank and extending laterally therefrom, and a spiral line attaching formation on such shank at the upper end thereof, said spiral formation being formed integrally with the material of the shank and having its axis extending at a right angle to the axis of the shank and radially in a direction diametrically opposite to the direction of said hook, and said spiral formation having a free end and having its convolutions freely spaced from each other to permit a fishing line loop to be moved along the convolutions from the free end of the spiral formation to a position adjacent said shank.

2,847,221
BALL ROLLING GAME APPARATUSES
Edward J. Collins and James L. Collins, West Los Angeles, Calif., and Clarence Schuyler, Chicago, Ill., assignors to Games, Inc., Chicago, Ill., a corporation of Illinois
Application December 9, 1957, Serial No. 701,663
12 Claims. (Cl. 273—95)



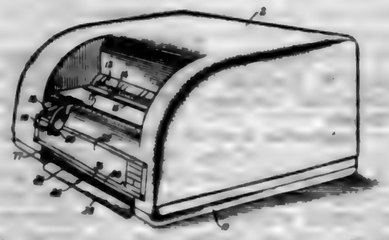
1. A game apparatus of the character described comprising a cabinet having a transparent front wall panel, a central wall within said cabinet spaced from said panel, a game piece supporting means inclinedly arranged transversely with respect to and between said central wall and said panel, said game piece supporting means spaced from said central wall a sufficient distance to cooperate therewith to support a rolling game piece therebetween, game piece score registering openings provided by said cabinet at the base of said central wall and beneath said game piece supporting means, means for successively delivering a rolling game piece onto said game piece supporting means for gravitation theredown, means mounted on said cabinet between said panel and said central wall adjacent the vertical edges of said central wall for pivotally positioning said game piece supporting means in game piece supporting position, means operative upon said pivotally positioning means for yieldably maintaining said game piece supporting means in a game piece supporting position with respect to said central wall, and means operatively connected to said pivotally positioning means and cooperating therewith for pivoting said game piece supporting means away from said central wall out of game piece supporting position so as to cause a rolling game piece supported thereon to drop into a score registering opening.

2,847,222
GAMEBOARD AND GAMEPIECE THEREFOR
Ruth B. Weeks, Wyckoff, N. J.
Application March 4, 1955, Serial No. 492,072
4 Claims. (Cl. 273—131)



4. In combination a gameboard and at least one gamepiece for said gameboard, said gameboard comprising a playing surface divided into playing spaces, each of which has a size equal to the size of said gamepiece so that when the gamepiece is positioned on a particular space it will completely cover it, said gamepiece comprising a body made of a material through which light rays may pass, said body having a bottom side, adapted to seat on said gameboard, and an upper side, said body bearing indicia which is visible from said upper side, an opaque element beneath said indicia and registering therewith, said opaque element having a size greater than that of the indicia and an area less than the area of either said upper or bottom sides of said body.

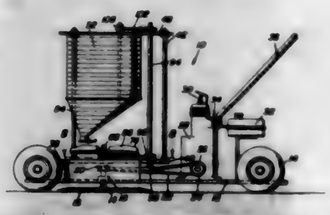
2,847,223
SOUND RECORDING AND REPRODUCING APPARATUS
Douglas E. Taylor, Westport, Ralph H. Sherman, Jr., Fairfield, Arthur W. Skoog, Bridgeport, and Joseph A. Rescenski, Trumbull, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn.
Application September 16, 1952, Serial No. 309,882
40 Claims. (Cl. 274—4)



14. In a sound recording or reproducing machine adapted to use a sheet record, apparatus comprising a translating head, a rotatable mandrel for supporting a

sheet record, a chute assembly having a record-insertion channel extending adjacent said mandrel so that records can be fed onto the mandrel through said channel, circumferential record-guiding means adjacent said mandrel for maintaining the sheet record in close contact with the mandrel surface and having a transverse opening therein, and movable bridging means having a first position extending across said opening in said record-guiding means to prevent jamming when inserting or ejecting sheet records and a second position extending into said channel during sound recording or reproducing in position to prevent the passage of records therealong, whereby said channel can be closed when a record is on said mandrel so that a second record cannot be fed inadvertently into said machine.

2,847,224
SPREADER ATTACHMENT FOR MOWER
Alden Stout, Wapakoneta, Ohio
Application July 29, 1955, Serial No. 525,216
2 Claims. (Cl. 275—8)



1. A spreader comprising a wheeled frame, a power source on said frame, a drive shaft on said power source, belt means connected to said drive shaft, a rotatable plate having a shaft mounted on said frame in upstanding relation for rotation about a vertical axis, a hopper disposed above said plate, a discharge spout on said hopper, means for controlling flow of material from the spout onto the plate, a plurality of upwardly projecting radial flanges on said plate, and means interconnected with said belt means for rotating said plate thereby spreading material discharged from the spout onto the plate, and means for agitating the material in the hopper, and means interconnected with said belt drive means for driving said agitating means, said flanges being adjustably mounted on said plate for varying the pattern of spreading thereof, said plate including a plurality of radially disposed slots, an annular actuating member disposed between the plate and the upstanding flanges, depending fasteners on the inner ends of the flanges extending through said actuator plate and slots, said actuator plate having enlarged apertures permitting passage of said fasteners, said flanges being pivoted to said plate at their outer ends whereby rotation of said actuator plate will cause simultaneous angular adjustment of all of said flanges, and means for locking the plate and actuator plate in angularly adjusted position.

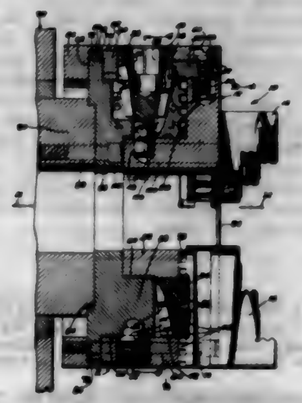
2,847,225
TOOL HOLDER AND EJECTOR
Joseph W. Kosinski, Chicago, Ill., assignor to Scully-Jones and Company, Chicago, Ill., a corporation of Illinois
Application April 22, 1954, Serial No. 424,924
1 Claim. (Cl. 279—103)

A tool ejector for the purposes set forth having a substantially round engaging portion with one side having a flat tapered engaging surface for engagement with the tang of a tool and having a specially formed longitudinal cam merging into said flat side, the lowest portion of the cam being substantially at the center of the tang when in engaging position and gradually increasing in diameter toward the outer periphery of said circular portion, said engaging portion having means for turning the same, the arrangement being such that when the engaging



portion is in engagement with the end of the tang and is turned for ejecting the tool, the camming action will occur substantially with the starting of the turning movement and given the greatest leverage for ejecting the tool.

2,847,226
UNIVERSAL CHUCK OF THE CENTER-ADJUSTABLE TYPE
Harry E. Sloan, Hartford, Conn., assignor to The Cushman Chuck Company, Hartford, Conn., a corporation of Connecticut
Application June 27, 1955, Serial No. 518,013
14 Claims. (Cl. 279—116)



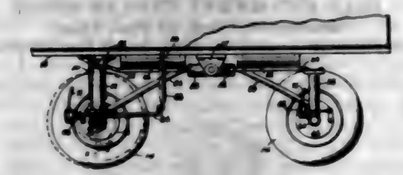
1. A universal chuck of the center-adjustable type, comprising a cylindrical body with a longitudinal axis having longitudinal through-holes, radial guideways in its front and a rear face lying in a plane normal to said axis and provided with an annular recess; jaws movable in said guideways; jaw-operating mechanism including a scroll disc turnable in said recess; an adapter disc provided with through-holes and having front and rear faces in planes normal to said axis and provisions for its rearward attachment to a support, and being with its front face in abutting relation with said rear face of said body to retain said scroll disc in said recess; a retainer ring in abutting relation with said rear face of said adapter disc; bolts having heads accessible at the front of said body and extending fittedly and with clearance through said holes in said body and adapter disc, respectively, and being threadedly received in said retainer ring for holding said body and retainer ring in abutting relation with said adapter disc and permitting sliding movement in any direction within a limited range of said body and retainer ring as a unit on said front and rear faces of said adapter disc; and angularly spaced radial set screws in said body and bearing against said adapter disc for adjustment of said unit thereon.

2,847,227
COLLAPSIBLE HAMPER CART
Harry G. Lankford, Wichita, Kans.
Application December 30, 1955, Serial No. 556,562
8 Claims. (Cl. 280—42)



8. Hinging means for folding frame members, comprising, a frame member with pivotally connected portions, a housing having a passageway therethrough, a portion of said frame member having the point of pivot of said pivotally connected portions mounted in said housing with said frame members projecting out of the ends of said passageway, and a fixed pin member in said housing pivotally mounting one of said pivotally connected portions of said frame member in the inner end portion of said one of said pivotally connected portions to pivot about said pin to so mount said portion of said frame member in said housing and so that said pivotally connected portions move simultaneously upon the movement of either portion, and a portion of said housing adjacent one of said outlets of said passageways forming stop means to limit movement of said frame member and position said frame members in pivoted, out-of-alignment position.

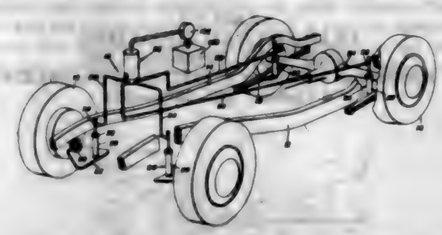
2,847,228
WHEEL SUSPENSION FOR TRAILERS
Joseph E. Hall, Waterloo, Iowa
Application May 3, 1954, Serial No. 427,107
2 Claims. (Cl. 280—81)



2. In a wheel suspension for a trailer having a chassis and sets of fore and aft wheels, caster mountings for one of said sets of wheels, the wheel axes of said set being selectively slidable in a fore-and-aft direction to a position behind the castering axis by pulling the trailer forwardly and to a position ahead of the castering axis by pushing the trailer rearwardly, and means to lock said set of wheels at either of said castering positions after they are slid thereto comprising a normally operable lock pin, a solenoid for rendering said lock pin inoperable when said solenoid is energized and a control circuit for said solenoid including a control switch remotely located relative to said means to lock said wheels.

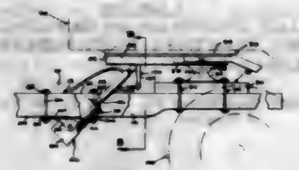
2,847,229
SHOCK ABSORBING SYSTEM FOR VEHICLES
Joseph Mario Cosentino, Baltimore, Md.
Application November 23, 1955, Serial No. 548,666
5 Claims. (Cl. 280—104)

1. In combination with a vehicle body movably mounted on a mobile frame for limited vertical movement in relation thereto, a shock absorbing system comprising a plurality of fluid shock absorbers disposed between the body and frame, a fluid conduit connected to each shock absorber, an expansion device, said conduits being connected to said expansion device for permitting fluid flow for equalizing the fluid pressure in each of the shock absorbers, said expansion device including a hollow housing, a diaphragm mounted centrally in said housing and dividing the housing into two compart-



ments, one of said compartments communicating with said conduits whereby the diaphragm will be forced towards the other compartment, means for retaining a variable pressure in said other compartment for equilizing the fluid pressure on both sides of the diaphragm and equalizing the fluid pressure in the shock absorbers, said compartments having closure plates therein, said plates having openings for throttling the flow of fluid in relation to the compartment.

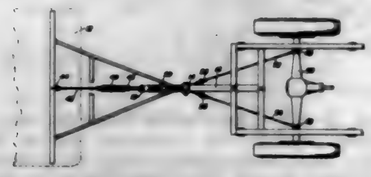
2,847,230
FIFTH WHEEL CONSTRUCTION FOR FORCE DISTRIBUTION BETWEEN TRACTOR AND SEMI-TRAILER
John V. Hendrickson and George J. Hartwick, Waukegan, Ill., assignors, by direct and mesne assignments, of one-half to said Hendrickson and one-half to Russell W. Bullamore, Kenosha, Wis.
Application February 10, 1956, Serial No. 564,717
7 Claims. (Cl. 280—406)



1. In a tractor and semi-trailer having a fifth wheel assembly therebetween including a lower member mounted on horizontal pivot axis means on the tractor frame and a cooperating upper member on the semi-trailer, a combined fluid controlled motor and resilient shock absorbing and dampening assembly extending between a frame portion of the tractor and a lower surface portion of the lower member of the fifth wheel assembly for providing a relatively stable connection with the fifth wheel assembly, said combined fluid controlled motor and resilient shock absorbing and dampening assembly comprising a support member carried on a transverse horizontal pivot axis portion on an intermediate portion of said tractor forward of the rear axle thereof, a shock absorbing and fluid motor cylinder member including a lower end portion mounted on an intermediate portion of said support member, a fluid motor assembly including a piston and piston rod assembly, said piston rod including a lower end portion extending into the upper end portion of said cylinder member, compression spring means in said cylinder member in engagement with said lower end portion of said piston rod, said fluid motor assembly including a fluid motor cylinder circumposed about said piston and piston rod assembly and having defined therein two variable

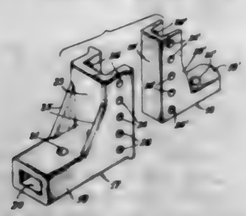
volume chambers, a fluid pressure line in communication with one of said chambers for controlling the relative position between said fluid motor cylinder and said piston and piston rod assembly, a follower element secured on an outer end portion of said fluid motor cylinder, and guide means disposed on said lower surface portion of said lower member of the fifth wheel assembly, said guide means being slidably engaged with said follower element.

2,847,231
TRAILER LOAD EQUALIZER
Albert Miller, Victorville, Calif.
Application September 9, 1957, Serial No. 682,838
4 Claims. (Cl. 280—483)



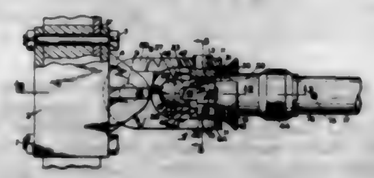
1. A flexible trailer load equalizer for use with a tractor vehicle having a trailer drawbar and a trailer having a tongue coupled to said drawbar by a trailer hitch, comprising a spring secured at its rear end to said trailer, a pair of rear flexible tension members disposed beneath said tongue and secured at their rear ends to the front end of said spring, a pair of forward flexible tension members disposed beneath said drawbar and having a rear end of each connected to a forward end of said rear tension members and having their forward ends divergent, means securing each divergent forward end of said forward tension member to the rear axle housing of said tractor vehicle, one of said pair of tension members being operatively engaged with said draw-bar and tongue and exerting a resilient upward force thereon.

2,847,232
VERTICALLY ADJUSTABLE COUPLING FOR CONNECTING TRACTORS WITH IMPLEMENTS OR VEHICLES
Wray F. Graham, Aurora, Ill.
Application September 10, 1956, Serial No. 608,979
2 Claims. (Cl. 280—490)



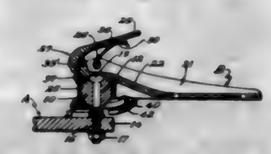
2. A coupling device for effecting connection between two vehicles such as a tractor having a drawbar extending longitudinally rearwardly therefrom and a trailer having a drawbar for connection with tractor drawbar, comprising a first rigid L-shaped member having a first and second leg disposed substantially normal to each other, said first leg having a pair of channel sides disposed in parallelism and extending longitudinally thereof and outwardly therefrom in a direction opposite to said first leg, said second leg having a socket formed therein and communicating with the outer end thereof to receive said tractor drawbar therein, a second rigid L-shaped member comprising a third leg and a fourth leg disposed substantially normal to each other, said third leg being proportioned to fit between said channel sides on said first leg and being slidably movable lengthwise thereof in such fitted relationship, said channel sides on said first leg, and said third leg having spaced openings therethrough with corresponding sets of openings positioned in alignment to receive an interconnecting pin therethrough, said fourth leg having means formed thereon for connection with said trailer drawbar, said fourth leg being positioned above said first leg in one pinned position thereof and being positioned below said first leg in another pinned position thereof.

2,847,233
TRAILER HITCH WITH MULTIPLE PIVOT AXES
Leslie A. Minton, Portland, Oreg.
Application May 6, 1955, Serial No. 506,466
3 Claims. (Cl. 280—504)



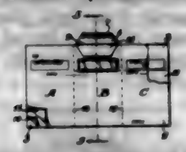
1. In a trailer coupler, a female member adapted to be pivotally attached to a tractor vehicle and having an opening for longitudinal insertion of a trailer tongue, a male member carried by said tongue, and locking means on said members for cooperatively and releasably securing said members together, said means including relatively rotatable locking portions on said members to prevent withdrawal of said trailer tongue from said opening, relatively axially movable interengaging portions on said members for preventing rotational disengagement of said locking portions, and releasably interlocking parts on said members to prevent relative axial movement between said interengaging portions and also prevent longitudinal withdrawal of said trailer tongue from said opening in the female member.

2,847,234
BALL AND SOCKET TRAILER HITCH
Sherman W. Clark, St. Paul, Minn.
Application August 24, 1953, Serial No. 376,112
3 Claims. (Cl. 280—512)



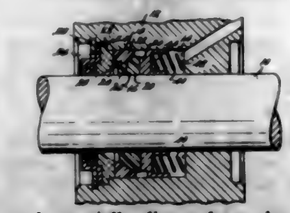
1. A trailer hitch including a strap-like member having an elongated attaching portion at one end thereof and having a substantially vertical socket in its under surface at the other end, a ball designed to removably fit into said socket, said ball having a substantially radially extending attachment means projecting therefrom, a lever hingedly connected to said member on a pivot extending transversely of said strap like member and above said socket, said lever having a bifurcated end which extends beneath said socket in one position so as to straddle said attachment means when the ball is positioned in the socket, and means for preventing the spreading of said bifurcated lever end including a loop terminally connected to laterally opposite sides of said strap-like member adjacent to said socket portion, said loop being so arranged that it embraces and abuts the outer surfaces of the ends of the bifurcated portion when the latter is in the position straddling the attachment means.

2,847,235
CORRESPONDENCE FORM
Lewis Blumenthal, Chicago, Ill.
Application March 6, 1956, Serial No. 569,870
3 Claims. (Cl. 282—23)



3. In combination in a foldable correspondence set, a plurality of sheets separably joined together in superposed relation, said sheets being of substantially the same size, duplicating means between the uppermost sheet and the one next below it, said sheets comprising an intermediate portion and two oppositely placed marginal portions, windows in said sheets located in the intermediate portion of each and in register with each other, said marginal portions being foldable over said intermediate portion selectively to display, through said windows, material on the selected marginal portion.

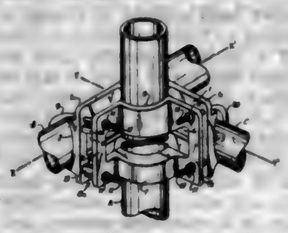
2,847,236
WEAR COMPENSATING SHAFT SEAL
John M. Lazar, Detroit, Mich., assignor to Flexible Seal Company, a partnership
Application November 5, 1954, Serial No. 467,057
2 Claims. (Cl. 286—11.16)



1. In a seal, coaxially disposed annular sealing members having respective exposed inner and outer annular sealing surfaces and cooperating bevelled pressure surfaces opposite said sealing surfaces, both of said sealing members being of a plastic resin material having cold flow characteristics and each being continuous and unbroken around its circumference, the bevelled surfaces of one sealing member extending initially radially inwardly at least to the inner edge of the bevelled surface of the other sealing member and the bevelled surface of said other sealing member extending initially radially outwardly at least to the outer edge of the bevelled surface of said one sealing member, and retaining members behind and bearing against respective sealing members, said retaining members having flat radial annular bearing surfaces engaging correspondingly flat radial bearing surfaces of said sealing members, at least one of said retaining members being movable axially against its sealing member and the outer periphery of its radial bearing surface being substantially coincident to the periphery of the radial bearing surface of said sealing member and axially in line with the bevelled surface of said other sealing member.

2,847,237
COUPLING FOR PIPING SECTIONS
Paul Isidor Ackermann, Marrakech, Morocco
Application December 14, 1953, Serial No. 398,135
Claims priority, application France July 2, 1953
2 Claims. (Cl. 287—54)

1. In a coupling device for pipe sections, a first retaining part having a pair of adjacent flanges defining a right angle therebetween and provided with first and second bearing surfaces on the outside of said flanges, respectively, the inside of said flanges defining a third bearing surface extending in substantially perpendicular direction to said first and second surfaces and located at a predetermined distance from a given axis on one side thereof, a second retaining part having a pair of flanges directed toward and spaced from said flanges of said first retaining part, respectively, and provided with a fourth bearing surface complementary with said third bearing surface and spaced substantially at said distance from said axis on the opposite side thereof, a pair of clamping means for holding pipe sections, respectively, on said first and second bearing surfaces and for holding said



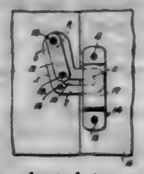
first and second retaining parts together, and spacer means remote from said third bearing surface extending from only one of said flanges of one retaining part adjacent one of said clamping means toward the opposite flange of the other of said retaining parts for maintaining the latter two flanges spaced from each other, whereby upon inserting a pipe section between said first and second retaining parts on said third and fourth bearing surfaces for retention in predetermined position relative to pipe sections held on said first and second bearing surfaces, displacement of said retaining parts toward each other upon operation of said one clamping means is limited adjacent the latter clamping means by said spacer means.

2,847,238
PIN RETAINER
Thomas J. Bolling, Jr., Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 3, 1954, Serial No. 472,861
11 Claims. (Cl. 287—110)



1. A retainer for pins and the like which comprises, in combination, a housing having an opening defining a first surface, a pin member having a shank defining a second surface arranged in said opening, said pin member substantially filling said opening, at least one rectangular recess in only one of said surfaces, an annular continuous, deformable member in said recess having a circular cross section of a diameter greater than the depth of said recess, said recess having sufficient volume to contain said deformable member when deformed between said surfaces on insertion of said pin member in said opening, the surface opposite the surface containing said recess having an entry conical surface defining an angle with the longitudinal axis of the pin member between about 15° and about 30°, the diameter of the entry being different from the diameter of the area circumscribed by the operative surface of said deformable member in said recess.

2,847,239
PIVOTED CLOSURE LATCH
Montie A. Wallace, Fort Stockton, Tex.
Application August 30, 1956, Serial No. 607,653
3 Claims. (Cl. 292—67)



2. A closure latch adapted to engage a keeper, said latch comprising an L-shaped member embodying a body portion and a laterally extended latch section for engagement under said keeper, each of said sections having a slot disposed longitudinally thereof, the upper edge of one of said slots having an offset portion adjacent the end thereof, headed securing members extending through said slots, pivotally securing said latch to a closure, one of said headed securing members adapted to move into said offset portion temporarily holding said latch member in its unlatched position, and an operating pin extending laterally from said latch member for effecting operation of said latch member.

2,847,240
SNAP-IN CATCH
Roy A. Stone and Leonard K. Ploughman, Rockford, Ill., assignors to National Lock Company, Rockford, Ill., a corporation of Delaware
Application August 12, 1954, Serial No. 449,381
8 Claims. (Cl. 292—70)



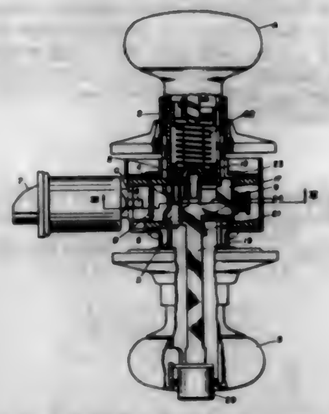
2. A catch for a metal cabinet and the like for retaining a pivotally mounted door on the cabinet in closed position, consisting of an integral catch member composed wholly of a resilient plastic composition adapted to be mounted in an opening in the door, said catch member having a body part adapted to be projected through the opening and provided with a centrally disposed sleeve having an inwardly opening bore, a peripheral flanged part adapted to provide a resilient bumper on the interior face to the door, and longitudinally extending anchoring embossments on the body part encompassing and spaced from the sleeve and when projected through the opening in the door engage the interior of the door about the opening, whereby the catch member is anchored in the door.

2,847,241
SCREEN DOOR LATCH HOLDER
George Rushing, Jr., Little Rock, Ark.
Application December 28, 1956, Serial No. 631,251
1 Claim. (Cl. 292—95)



A screen door latch structure comprising, a backing plate, means adapted for securing said backing plate to a screen door, an elongated hook, means mounting said hook to said plate for universal movement thereon, and means to detachably secure the free end of said hook to said backing plate, including a spring clip having one end secured to said plate and the other end portion formed arcuately and spaced from said plate, said arcuately formed portion being normally biased toward said plate for resiliently engaging said hook to detachably secure said hook to said plate.

2,847,243
SPINDLE LOCKING CONSTRUCTION
Ernest L. Schlage, Burlingame, Calif., assignor to Schlage Lock Company, a corporation
Application January 23, 1956, Serial No. 560,664
2 Claims. (Cl. 292—169)



1. In a door lock that includes a retractor connected with a latch bolt and an outer knob spindle provided with rollbacks adapted to retract said retractor upon rotation of said outer spindle, spring means urging said retractor toward said rollbacks to a projected position corresponding to the projected position of said bolt, said spindle being formed with a slot opening outwardly of its inner end and adapted to receive an axially movable dog therein for holding said spindle against rotation in a centered position with said roll backs spaced from said retractor whereby an impact applied to said spindle is not transmitted to said retractor, said slot being flared at said one end to a width sufficient to receive said dog therein when said spindle is offset from said centered position and being formed along its length to a smaller width whereby said spindle is centered by said dog upon such axial movement inwardly of said slot.

2,847,343
BATTERY LIFTER
Aaron H. Hare, Amarillo, Tex.
Application July 18, 1956, Serial No. 597,853
6 Claims. (Cl. 294—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



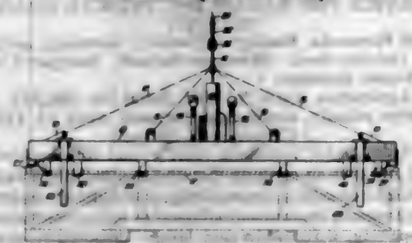
1. An article carrier comprising a rod-like handle member adapted to extend in article carrying position horizontally and a distance above the article being carried, a pair of article grasping elements journalling said handle member for rotation therein, each of said grasping elements comprising segments extending immovably outwardly and downwardly from the journal in a direction at an angle to the vertical, parallel sections adapted to lie at opposite vertical edges of an article to be carried, and a pair of inwardly directed sections insertable beneath the shoulder ledge of a battery or beneath the lower edges of any rectangular container, a pair of braces connecting the analogous angularly directed segments of one grasping member to the analogous angularly directed segments of the other grasping member, stop members rigidly attached to the ends of said rod member extending normally and radially therefrom and rotatable therewith, for selectively allowing or preventing relative sliding movement in either direction of an article being grasped.

2,847,244
CABLE GRIP TUBE PULLER
Joseph Di Palma, Westport, Conn.
Application August 22, 1956, Serial No. 605,636
6 Claims. (Cl. 294—20)



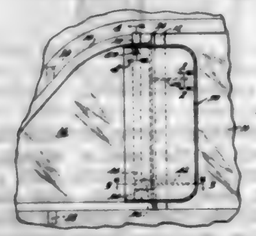
1. In a gripping device in combination, a plurality of solid wire strands interwoven to form an open mesh tube open at one end and having its strands at the opposite or draft end divided and formed into two groups of twisted pairs, the adjacent edges of each group lying in a flat plane and being spaced apart from each other a distance greater than the normal diameter of said tube, each group being comprised of a plurality of twisted pairs which have substantially parallel extremities and at least one twisted pair in each group being bent to substantially a right angle and functioning as a depth gauge, and a U-shaped handle formed of tubing and having one of said groups embedded in one end thereof and having the other of said groups embedded in the opposite end thereof, said bent strands engaging the open ends of the handle and gauging the depth of insertion of said twisted pairs, the height of said handle from the apex thereof to said tube being sufficient for an article gripped by said device to pass between the end of said handle and said opposite end of said tubular grip.

2,847,245
BOX HANDLING DEVICES
Thomas L. Leslie, Honolulu, Territory of Hawaii, assignor to Libby, McNeill & Libby, Chicago, Ill., a corporation of Maine
Application November 16, 1954, Serial No. 469,213
5 Claims. (Cl. 294—110)



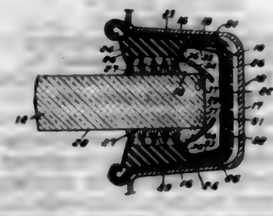
1. In a box handling device for use with boxes having a substantially open upper face and flanges extending laterally from the upper edges of said box walls, a frame adapted to substantially register with the upper edges of the box walls, a plurality of hooks hingedly mounted on said frame and extending to hook under the flanges on said box when in engaged position, means for moving said hooks from engaged to disengaged position and vice versa, said means comprising a system of levers mounted on said frame and connected to said hooks, means for suspending said frame for movement relative to the boxes, weights connected to said frame-suspending means for movement thereby, lifting means, and means for connecting said lifting means and weights when said weights are in a lowered position and for disconnecting said lifting means and weights when said weights are in an intermediate raised position, portions of said lever system extending for contact with and movement by said weights to move said hooks into engaged position when said weights are moved downwardly a predetermined extent and portions of said lever system extending for contact with and movement by said lifting means to disengage said hooks when said lifting means and weights are connected and said weights are moved upwardly a predetermined extent.

2,847,246
AIR-VENT EXTENSION DEFLECTOR
Charles Carabeona, Detroit, Mich.
Application October 11, 1954, Serial No. 461,557
2 Claims. (Cl. 296—44)



1. In combination with a vertically pivoted vehicle ventilator, an air-vent extension deflector of the class described comprising, a vertical outwardly directed transparent vane, said vane comprising an inner portion parallel to and abutting the ventilator at the rearward edge thereof, an outer portion parallel to the inner portion but offset outwardly therefrom, an intermediate portion curved so as to integrally join said inner and outer portions, said portions being of equal height throughout the entire lengths thereof and means for detachably fastening the vane to the rearward edge of the ventilator.

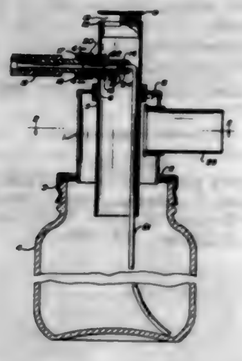
2,847,247
MOTOR VEHICLE BODY CONSTRUCTION
Clarence F. Kramer, Birmingham, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application July 16, 1956, Serial No. 598,068
7 Claims. (Cl. 296—44.5)



1. A glass run assembly for a motor vehicle window glass comprising a generally U-shaped channel having a base and opposed side flanges embracing the marginal

edge portion of said window glass, means carried by said side flanges adapted to engage the opposite faces of said window glass, and a resilient plastic member mounted adjacent the base of said channel and having a flexible portion thereof engageable with a marginal edge of said window glass, the flexible portion of said member being distorted from its free position in a direction toward the base of said channel when in engagement with said window glass.

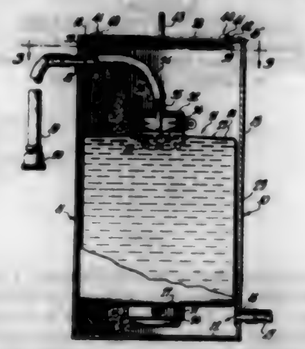
2,847,248
NEBULIZER
Joy B. Schmitt and William H. Corbett, Somerset, Pa., assignors to The De Vilbiss Company, Toledo, Ohio, a corporation of Ohio
Application December 19, 1955, Serial No. 554,098
6 Claims. (Cl. 299—88.5)



1. A nebulizer having a vertically positioned cylindrical shell, a receptacle for the liquid to be nebulized, a retainer holding the receptacle to the shell, a cylindrical tube smaller in diameter than the shell mounted concentrically within the shell, a laterally directed outlet from the shell, an atomizing nozzle inside of the tube facing downwardly toward the open lower end of the tube and the surface of the liquid within the receptacle, said nozzle being formed of a horizontally-positioned, single piece of tubular stock with an axial bore at one end for the entry of air and an axial bore at the other end for the entry of liquid, said bores terminating short of each other, and said tubular stock having a discharge opening in its lower side to which lateral passages from the inner ends of the two axial bores communicate, a tubing delivering liquid from the receptacle to the nozzle, and a connection for conveying atomizing air to the nozzle, the various elements being so designed and arranged that the spray discharged from the nozzle travels down the tube into the receptacle and upwardly therefrom into the shell and through the laterally directed outlet, with the larger particles removed from the spray by impingement against the surfaces of the tube, the shell and the liquid in the receptacle.

2,847,249
LIQUID SPRAYING DEVICE
Walter G. Evans, Richmond, Va.
Application February 26, 1957, Serial No. 642,514
2 Claims. (Cl. 299—90)

1. A spraying device comprising an outer cylindrical metal tank including a circular top wall having an elliptical opening therein and an integral lip portion bounding said opening, a resilient plastic bag for containing a spraying fluid, said inner bag being deformable to be shifted through said opening and dispose the same within said outer tank and having at least one access opening and removable closure means therefor, a spraying head located externally of said outer tank, a discharge conduit communicating with said spraying head located externally of said tank at one end thereof, said discharge conduit extending through and being supported by a side of said outer tank and having coupling means at the other end thereof internally of said tank for removably coupling the conduit with said closure means in communication with said inner bag, conduit means communicating with said outer tank for conducting fluid under pressure to the interior of said outer tank to apply contracting pressure to said inner bag and discharge the contents thereof through said discharge conduit and said spraying head, an elliptical lid adapted to be inserted into said outer tank through said elliptical opening to occupy a position paralleling said top wall and immediately underlying and lapping said lip portion for closing said elliptical opening and supporting said outer tank in suspended relation therefrom upon elevation of said lid, the ellipse defined by said lid being similar to and larger than said elliptical

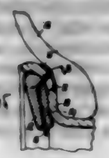


opening and the minor axis of said lid being shorter than the major axis of said elliptical opening to permit insertion of said lid through said elliptical opening and rotation of the same within said tank about its center through substantially 90 degrees to dispose the periphery thereof in uniformly underlapping relation to said lip portion of said top wall, whereby the peripheral region of said lid underlapping said lip portion engages and supports said top wall and said tank upon elevation of said lid, and handle means projecting upwardly from said lid to an exposed position, said lid being freely displaceable through a selected range of relative movement normal to the plane of said top wall upon application of lifting force to said handle means and having annular gasket means supported on the perimeter of said lid and be compressed between to engage said lip portion upon relative elevation of the lid for sealing the lapping portions of said lid and said lip portion by the weight of the outer tank and its contents to seal said lapping portions against passage of fluid therebetween.

2,847,250
DEVICE FOR BALANCING VEHICLE ROAD WHEELS
Rudolf Hennecke, Esslingen (Necker), Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application April 11, 1955, Serial No. 500,525
Claims priority, application Germany April 15, 1954
3 Claims. (Cl. 301—5)

1. A device for balancing vehicle road wheels provided with a rim and an opening therein for attaching a balancing weight assembly, comprising a balancing weight, a holder fastened thereto and adapted to be inserted through said opening, a recess in said holder disposed in the direction of the circumference of said rim with said weight bearing against said rim to enable tangential movement

of said holder relative to said rim past a lateral edge of said opening and to thereby bring said recess into engage-



ment with the rim wall upon such tangential movement of said holder, whereby said balancing weight assembly is securely fastened to said rim.

2,847,251
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application March 4, 1953, Serial No. 340,181
9 Claims. (Cl. 301—37)



1. In a wheel structure including a body portion and a multi-flange tire rim, a cover for disposition at the outer side of the wheel and having a generally axially inwardly extending intermediate flange structure, said flange structure carrying a series of retaining spring clips having portions thereof retainingly engageable in press-on pry-off relation with respect to the tire rim, said clips having additional portions thereon arranged to bear under resilient tension against a portion of the tire rim and having edges engageable in gripping relation with the tire rim to hold the cover against turning on the wheel.

2,847,252
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application March 4, 1953, Serial No. 340,184
13 Claims. (Cl. 301—37)



1. In a wheel structure including a tire rim and a wheel body supporting the tire rim, a cover for disposition at the outer side of the wheel comprising an inner annular generally axially extending member, an outer annular member substantially spaced from said inner annular member and dimensioned to substantially overlie the tire rim, said inner annular member having a turned marginal flange on its axially outer side having a series of elongated spoke simulating elements projecting generally radially outwardly therefrom and connected to said outer annular member, and attaching means comprising a rotary latch device including a member slidably rotatable within said inner annular member and engageable with retaining means on the wheel body, said outer annular cover member having means axially inwardly with respect to said spoke simultaing elements engageable under tension with the wheel as an incident to attachment of the cover to the wheel by means of said latch device.

2,847,253
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application December 6, 1954, Serial No. 473,201
2 Claims. (Cl. 301—37)



1. In a wheel structure including a tire rim and a wheel body, a cover for disposition over the outer side of the wheel comprising a one-piece sheet metal member including a central substantially rigid crown portion for overlying the central portion of the wheel body and a substantially rigid annular radially outer portion for overlying the tire rim and substantially spaced from said crown portion, said crown and radially outer annular portions being connected by substantially spaced narrow transversely arched rigid integral ribs merging on rigid junctures at their respectively inner and outer ends with respectively the crown and radially outer annular portions, and a series of cover retaining spring fingers derived from material from between said spokes and comprising extensions from the radially inner edge of said radially outer annular cover portion, said fingers having elongated generally radially outwardly and axially inwardly extending legs substantially concealed behind said outer annular cover portion and provided with return bent generally axially outwardly and radially inwardly angled terminal legs with retaining terminals angled radially and axially outwardly therefrom and engageable in resilient thrusting retaining gripping direct edgewise relation against a radially inwardly facing rim flange, one of the openings between said spokes accommodating a valve stem for access through the cover.

2,847,254
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application December 27, 1954, Serial No. 477,774
5 Claims. (Cl. 301—37)

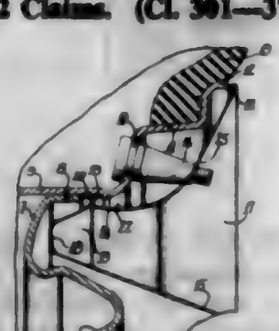
1. In a wheel structure including a wheel body and a tire rim with openings through the wheel for air circulation, a cover for disposition at the outer side of the wheel having a portion thereof to lie opposite the wheel openings in substantially spaced relation to the portion of the wheel with the openings, and said cover portion having a series of spaced openings therein adjacent to the tire rim with arcuate flanges defining the openings and having generally axially inward extensions from said flanges providing retaining fingers engageable with the

tire rim for retaining the cover on the wheel, said retaining finger extensions being transversely arcuate for resil-



ient stiffness and having the sides thereof flaring into merger with the arcuate flanges.

2,847,255
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application April 26, 1955, Serial No. 504,016
12 Claims. (Cl. 301—37)



1. In a wheel structure including a wheel body and a tire rim, the wheel body having a dished outer margin with a generally axially outwardly extending annular

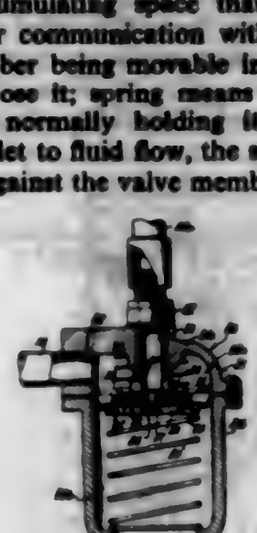
axially inwardly from the location of the retaining means on the body, a cover assembly for disposition at the outer side of the wheel including a circular inner cover member having radially outer annular terminal structure engageable with said shoulder structure, and a circular outer cover member having radially inner terminal structure separably retainingly engageable with said cover-retaining means and engageable with the terminal structure of the inner cover member for clamping the same against said shoulder structure.

2,847,257
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application May 22, 1956, Serial No. 586,448
3 Claims. (Cl. 301—37)



1. In a wheel structure including a wheel having a tire rim including a radial rim flange, and an axially outwardly extending terminal rim flange which flanges are joined together and generally right angularly related, a cover structure overlying the wheel including a cover, said cover having a radially and axially inwardly inclined outer margin overlying to conceal the rim but spaced therefrom to facilitate cover removal and provided with circumferentially spaced cover openings for

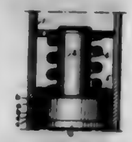
second chambers with the inlet and outle
the first chamber and forming in the se
a pressure accumulating space that is c
lated except for communication with the
said valve member being movable into en
the outlet to close it; spring means beari
valve member normally holding it agai
to close the outlet to fluid flow, the spring
fluid pressure against the valve member in



ber to open the outlet; fluid passage m
between the two chambers for restricted
the second chamber to equalize fluid pr
two chambers, permitting the valve mem
its normal position under the force of sai
and a check valve on the movable valve
prising a hole through the valve member
member covering the hole at the side of
ber to permit fluid flow through the
second chamber only.

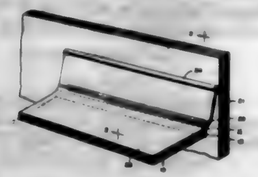
2,847,259
SCAFFOLD BRACE FASTENING
David E. Beatty, Hillsborough,
Application March 29, 1956, Serial N
3 Claims. (Cl. 304—40)

ing cylindrical surfaces, said sealing means comprising a sealing ring means accommodating housing defined between a radial surface on the inner member, the cylindrical surface of the outer member and a facing cylindrical surface on the inner member extending axially of



the radial surface, plastically deformable sealing ring means within said housing and including at least two zones of different hardness characteristics and resiliently actuated means continuously compressing the sealing ring means in the housing against facing cylindrical surfaces thereof.

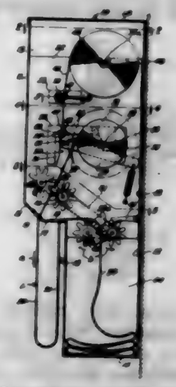
2,847,263
BACK SPLASH MOLDING
Robert Osborne, Mercer Island, Wash.
Application August 11, 1955, Serial No. 527,833
2 Claims. (Cl. 311—103)



1. A back splash molding for a table top in combination with a flexible table top cover, said molding comprising a molding member adapted to be secured to an edge surface of the table top, said member having a depending portion adapted to engage and extend along an edge surface of the table top, a fastener portion extending in a plane generally perpendicular from said depending portion and adapted to penetrate between the top and bottom surfaces of the table top edge for securing the molding member thereto, said fastener portion having a serrated surface to oppose withdrawal from the table top after penetration thereof, and said molding member having a splash portion adjoining said depending portion to extend in an arc upwardly from the plane of the top surface of the table top when said molding is secured thereto to provide a continuous surface from the table top to a point adjacent the top of said splash portion, the upper edge of said splash portion having an overlying lip configuration, and a sheet of table top covering material adapted to extend in an unbroken surface over both the table top surface and the arcuate splash molding portion to the upper edge thereof and adapted to be inserted in said slot.

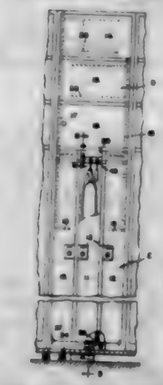
2,847,264
MECHANISM FOR SUPPORTING AND UNITING ROLLS COMPOSED OF SPIRALLY WRAPPED WEBS
Leslie R. Tansley, Columbus, Ohio, assignor to White Castle System, Inc., Columbus, Ohio, a corporation of Delaware
Application September 16, 1954, Serial No. 456,381
7 Claims. (Cl. 312—38)

2. Supporting and dispensing mechanism for rolls composed of spirally wrapped textile webs, comprising: supporting means having two sets of spaced axle bearings; removable axle members each carried by one of said sets of bearings and supporting spaced active and reserve rolls on said means; guide appliances on said supporting means directing a web drawn from the active roll along a confined course of linear travel; complemental guide means for maintaining a leading edge of the web of said reserve roll in a stationary position of attachment on said means for joinder with the trailing edge of the active roll web; removable coupling appliances carried by the leading edge of the reserve roll web disposed in said position of attachment, and means operative when the active roll



becomes exhausted and upon application of pulling forces to the web thereof to move the axle member of said active roll laterally from its position on the bearings of said supporting means to one of engagement with said coupling devices, whereby to unite the roll webs for uninterrupted advance in response to sustained pulling forces thereon.

2,847,265
SELF CHECKING HAT AND COAT LOCKER
Sigmund A. Kulik, Chicago, Ill.
Application October 21, 1954, Serial No. 463,659
4 Claims. (Cl. 312—222)



1. A self contained locker unit comprising spaced side walls and a pair of intermediate partition walls spaced from each other and the side walls to define three side by side, vertically elongate and narrow coat compartments, there being three superposed hat compartments above the coat compartments formed between opposite side wall portions and vertically spaced shelf members with the hat compartments being wider than the individual coat compartments, closure means for all of said compartments, means interconnecting the two opposite side coat compartment closure means with respective ones of the two uppermost hat compartment means so that the interconnected closure means are opened and closed simultaneously and as a unit, latch means engaging the closure means of the lowermost hat compartment, and means connected with said latch means

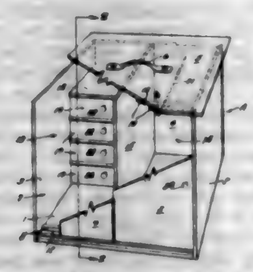
to release the same and permit the last mentioned closure means to be opened when the center coat compartment closure means is opened.

2,847,266
SLIDING DOOR SUPPORT AND GUIDE MEANS
Theodore F. Biere, Cincinnati, Ohio, assignor to The Kent Corporation, Covington, Ky., a corporation of Kentucky
Application June 3, 1954, Serial No. 434,199
8 Claims. (Cl. 312—227)



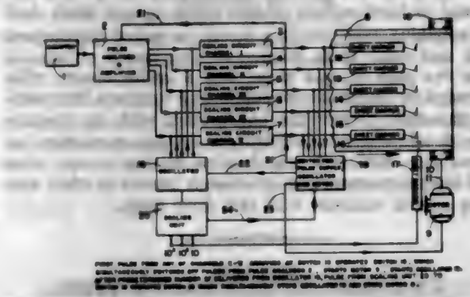
1. In a cabinet of the class described the combination with a cabinet having an open front end, of a U-shaped trackway comprising a base and arms normal to the base adjacent the cabinet open front end, a sliding door having a portion thereof in said trackway and of less width than the space between the trackway arms, said door portion within the trackway including a frame disposed within the trackway between its arms, and means carried by said door frame projecting therebelow and laterally thereof for respectively supporting the door upwardly of the trackway base and engaging the trackway arms for spacing the door from said trackway arms and guiding the said door in its movement in the trackway.

2,847,267
DOLL HOUSE
Dorothy M. Lund, Lennox, S. Dak.
Application December 3, 1957, Serial No. 700,479
2 Claims. (Cl. 312—310)



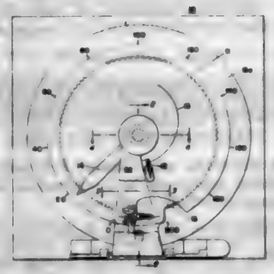
1. A doll house comprising a floor, upstanding side walls, a rear wall, a top wall, and a pair of cooperating sliding door-acting panels mounted for sliding movements in the open front end thereof, a vertical partition dividing the interior of said house into a pair of forwardly opening compartments, a chest of forwardly opening drawers in the rear portion of one of said compartments, said drawers having a transverse width corresponding approximately to the width of said one compartment and having a greater length from front to rear thereof than the distance from the front of said chest to the plane of said door-acting panels, one of said panels in all positions of sliding movement thereof overlapping said one of said compartments and preventing complete removal of said drawers from said chest.

2,847,268
PULSE AMPLITUDE DISTRIBUTION RECORDER
George Cowper, Deep River, Ontario, Canada, assignor to the United States of America as represented by the United States Atomic Energy Commission
Application May 25, 1955, Serial No. 510,930
3 Claims. (Cl. 346—14)



1. Apparatus for recording pulse amplitude distribution of a sequence of pulses comprising means separating said pulses into individual groups according to amplitude; individual scaling means, each capable of counting the same number of pulses, counting the pulses in each of said groups; means for generating a number of timed pulses equal to said same number of pulses; means operable responsive to any one of the scaling means counting said same number of pulses for starting said generator means and simultaneously applying said timed pulses to all of said scaling means and cutting off the separated pulses to all of said scaling means; means indicating the difference in time between when the first scaling means counts said same number of pulses and when each of the other scaling means counts said same number of pulses.

2,847,269
CIRCULAR-CHART EXHIBITING DEVICE
John H. Moore, Havertown, Pa., assignor to Leeds and Northrop Company, Philadelphia, Pa., a corporation of Pennsylvania
Application August 30, 1955, Serial No. 531,335
4 Claims. (Cl. 346—17)



1. A circular chart recorder comprising a chart back-up plate, a drive shaft disposed centrally of said plate, a chart-supporting hub mounted concentrically with respect to said drive shaft for supporting the chart for rotation, said drive shaft having a groove opening at one end thereof and of decreasing dimension in a direction away from said end and a recess having a surface inclined toward said end of said shaft, said recess being displaced from said groove and longitudinally displaced from said end of said shaft, an indicator, indicator-supporting structure pivotally mounted at a point disposed from the periphery of said chart back-up plate structure, coupling means for connecting said indicator to said drive shaft and rotatably mounted at the free end of said indicator-supporting structure, said coupling means com-

prising a member with a counterbore having solidly affixed thereto a pin extending radially into the counterbore for seating engagement with said groove of said drive shaft for effecting a high-torque, zero-backlash connection between said drive shaft and said indicator, a second pin resiliently mounted on said member and extending radially into said counterbore to be received by said inclined surface of said recess in said drive shaft for retaining said coupling means in seated engagement with said drive shaft, friction driving means engageable with one side of said chart, and a spring-biased roller mounted on said indicator-supporting structure intermediate the ends thereof for engagement with an opposite side of said chart for effecting a driving connection between the chart and said friction driving means when said indicator-supporting structure is moved to effect coupling of said indicator with said drive shaft.

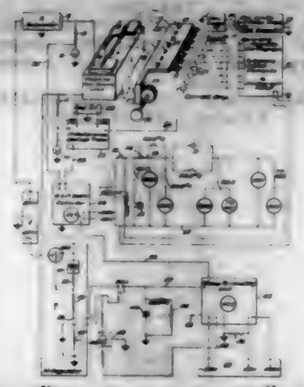
2,847,270

CALUTRON OSCILLOGRAPH SYSTEM

Quentin A. Kerns, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application November 28, 1945, Serial No. 631,422
28 Claims. (Cl. 346—17)

28. In apparatus wherein an operating voltage having a linear sweep characteristic controls a physical quantity representative of a condition of operation of the apparatus, a sweep circuit for generating the required linear sweep voltage, means associated with said apparatus for continuously recording said physical quantity, sweep terminating means responsive to a predetermined magnitude of said sweep voltage for terminating said sweep and stop-



ping said recording means, means, normally responsive to operation of said terminating means, for actuating a signal device, and means responsive to abnormal conditions in said apparatus during the course of said sweep for rendering ineffective said last-named means.

CHEMICAL

2,847,271

POLYVINYL CHLORIDE COMPOSITION AND PROCESS FOR WETSPINNING SAME

Francesco Siciari and Angelo Bellano, Cesano Maderno, Italy, assignors to Snia Viscosa Società Nazionale Industria Applicazioni Viscosa, Milan, Italy, an Italian company

No Drawing. Application March 15, 1954
Serial No. 416,376
Claims priority, application Italy April 13, 1953
2 Claims. (Cl. 18—54)

1. As new compositions of matter, spinnable solutions of polyvinyl chloride consisting of said polyvinyl chloride and of methyl-tetrahydrofurfurylamine as the solvent.

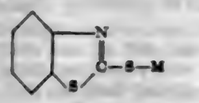
2,847,272

PRODUCTION OF ARTIFICIAL FILAMENTS, THREADS AND THE LIKE

John Harold Edwards and Ernest Edward Tallis, Coventry, England, assignors to Courtaulds, Limited, London, England, a British company

Application May 12, 1954, Serial No. 429,324
Claims priority, application Great Britain June 25, 1953
5 Claims. (Cl. 18—54)

1. A process for the production of artificial filaments comprising extruding viscose containing at least 0.1 millimole per 100 grams of viscose of a mercapto thiazole having the general formula



where M represents a radical selected from the group consisting of hydrogen, an alkali metal radical and a nitrogen-containing basic radical into an aqueous coagulating bath containing sulphuric acid, sodium sulphate and zinc sulphate.

2,847,273

MANGANESE DIOXIDE METHOD FOR PREPARATION OF PROTOACTINIUM

Leonard I. Katzin, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 19, 1948
Serial No. 3,168
17 Claims. (Cl. 23—14.5)

1. The method of obtaining U^{233} in a relatively pure state, which comprises carrying out a separation cycle on Pa^{233} contained in an aqueous solution of neutron-irradiated thorium, said cycle comprising treating said solution with a water-soluble manganous compound and a water-soluble compound having an anion containing manganese in a valence state not less than +6 and oxygen, separating the carrier precipitate of manganese dioxide thus formed together with its associated Pa^{233} from the solution and dissolved contaminants, dissolving the carrier precipitate in an aqueous acidic solution containing a reducing agent sufficiently electronegative to reduce the tetravalent manganese to the divalent state, and following said separation cycle aging the protoactinium until it has been substantially converted to U^{233} by radioactive decay, then forming a manganese dioxide precipitate by treating the Mn^{+2} ions present in solution with a water-soluble compound having an anion containing manganese in a valence state not less than +6 and oxygen, and separating the manganese dioxide precipitate thus formed from the U^{233}-containing solution.

2,847,274

SULFIDE METHOD PLUTONIUM SEPARATION

Robert B. Duffield, Champaign, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application May 4, 1948
Serial No. 25,975
6 Claims. (Cl. 23—14.5)

1. The process of separating plutonium from contaminants normally associated therewith in neutron-irradiated uranium, which comprises treating an aqueous alkaline solution containing plutonium values and contaminants normally associated therewith, said plutonium having a valence state less than +5, in the presence of a source of uranyl ions, with a soluble sulfide, whereby a plutonium-containing uranyl precipitate is formed, separating said precipitate from the solution, treating said precipitate with an aqueous solution containing carbonate ion in excess, whereby the plutonium is dissolved away from the fission product sulfides insoluble in excess carbonate, and separating said insoluble fission product sulfides from the plutonium-containing solution.

2,847,275

URANIUM RECOVERY PROCESS

James H. Yeager, St. Louis, Mo., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 4, 1955
Serial No. 479,873
6 Claims. (Cl. 23—14.5)

1. A process for recovering uranium values from uranium-containing solid materials comprising adding a strongly ionizing acid to said materials, digesting said materials with said acid whereby a digest slurry is obtained, contacting said digest slurry with an organic substantially water-immiscible solvent whereby the uranium values of the solid as well as of the liquid part of the slurry are taken up by said solvent and an extract phase is formed, and separating said extract phase from a slurry raffinate.

2,847,276

SOLVENT EXTRACTION OF NEPTUNIUM

John P. Butler, Deep River, Canada, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 15, 1955
Serial No. 501,740
1 Claim. (Cl. 23—14.5)

A method of extracting neptunium values from aqueous nitrate solutions, which are about 5 N in nitric acid and about 0.1 M in ferrous ion and containing neptunium, other actinides and fission products which comprises treating the solution with tributyl phosphate in an inert organic solvent, separating the organic phase from the aqueous phase, scrubbing the organic phase with substantially 4 N aqueous nitric acid which is substantially 0.1 M in ferrous ion and washing the organic phase with water to recover the neptunium values.

2,847,277

PRECIPITATION OF URANIUM PEROXIDE OF LOW FLUORIDE CONTENT FROM SOLUTIONS CONTAINING FLUORIDES

Edward J. King and Herbert M. Clark, New Haven, Conn., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 27, 1945
Serial No. 601,948
12 Claims. (Cl. 23—14.5)

1. In the recovery of uranium peroxide by precipitation from a uranyl salt solution containing fluoride ions, the improvement which comprises effecting the uranium peroxide precipitation in the presence of aluminum ions.

2,847,278

PRECIPITATION OF ZIRCONIUM, NIOBIUM, AND RUTHENIUM FROM AQUEOUS SOLUTIONS

Archie S. Wilson, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application February 21, 1957
Serial No. 641,768
8 Claims. (Cl. 23—14.5)

1. A process of simultaneously removing zirconium, niobium and ruthenium values from an aqueous nitric acid solution without substantial volatilization of ruthenium, comprising adding a water-soluble symmetrical lower dialkyl ketone to said solution, incorporating a manganese dioxide precipitate into said solution whereby zirconium, niobium and ruthenium values are carried on said precipitate, and separating said precipitate from said aqueous solution.

2,847,279

METHOD FOR OBTAINING IRON-FREE ALUMINUM COMPOUND FROM CLAYS

Stanley Tucker, Collingdale, Pa.

No Drawing. Application May 25, 1955
Serial No. 511,118
5 Claims. (Cl. 23—102)

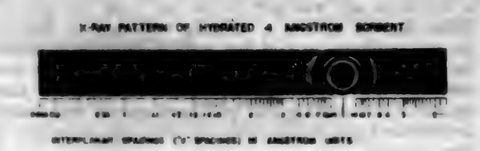
1. A process for the recovery of an iron-free aluminum compound from a clay or like silicate mineral containing chemically combined iron which comprises contacting said mineral with a 0.1 to 5 molar aqueous nitric acid solution, dissolving iron and aluminum into said acid solution, filtering off undissolved silica, adding calcium chloride to said acid solution in sufficient amount to saturate said acid solution with such calcium chloride, extracting the iron from said acid solution by dissolving the iron in methyl isobutyl ketone, and retaining all of the aluminum dissolved in the nitric acid solution.

2,847,280

PRODUCTION OF SELECTIVE MINERAL SORBENTS

John H. Estes, Wappingers Falls, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application October 23, 1956, Serial No. 617,735
8 Claims. (Cl. 23—113)

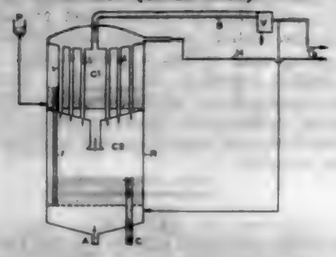


1. A process for production of synthetic crystalline zeolite characterized by the empirical formula

$$Na_2O \cdot Al_2O_3 \cdot 2SiO_2 \cdot 4\text{–}5H_2O$$

and an effective pore size of 4 A. upon dehydration which comprises forming a mixture of hydrous silica and by-product sodium salt by reacting an aqueous solution of sodium silicate with at least one substance selected from the group consisting of CO_2, SO_2, H_2S, sodium bicarbonate, sodium bisulfite, and sodium hydrosulfide; adding sodium aluminate to said mixture in an amount sufficient to establish the proportions of aluminum and silicon in the resulting mixture stoichiometric for the formulation $Na_2O \cdot Al_2O_3 \cdot 2SiO_2$; aging the resulting mixture for 8–170 hours at a temperature not substantially above about 100° F.; thereafter maintaining the aged mixture under autogenous pressure at a temperature of 150°–325° F. for at least about 3 hours; and recovering said crystalline zeolite as the resulting solid fraction.

2,847,281
CONTINUOUS PROCESS FOR TREATING ARSENIC AND SULFUR-CONTAINING ORE UNDER FLUIDIZING CONDITIONS
Angel Vian Ortuno, Conrado Iriarte Fernandez, and Carlos Melches Serrano, Madrid, Spain, assignors to Instituto Nacional de Industria, Madrid, Spain
Application March 18, 1954, Serial No. 417,111
Claims priority, application Spain March 24, 1953
6 Claims. (Cl. 23—177)



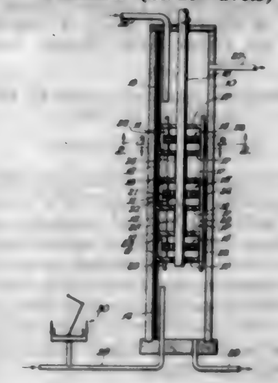
1. A continuous process for treating arsenic and sulfur-containing ore under fluidizing conditions in at least two treatment zones which comprises continuously feeding said ore to the first zone; dividing hot sulfur dioxide gas from the last zone into first and second streams; passing the first of said streams of hot sulfur dioxide gas in out-of-contact heat exchange with the ore in the first zone for heating said ore without contaminating said stream of gas with arsenic and separately withdrawing said arsenic-free sulfur dioxide gas; passing the second of said streams of hot sulfur dioxide gas from the last zone through and in direct contact with the ore in the first zone, said sulfur dioxide gas being introduced at a velocity sufficient to maintain the ore in fluidized condition and being at a temperature sufficient to volatilize the arsenic content of the ore as arsenic sulfide but not the labile sulfur of the ore; separately and continuously withdrawing the resulting arsenic sulfide containing sulfur dioxide gas; continuously transferring a substantially arsenic-free ore residuum from the first zone to the last zone, thereby maintaining a substantially constant amount of fluidized ore and arsenic-free residuum under treatment in the first zone and feeding said ore residuum to the last zone; continuously passing an oxygen-containing gas upwardly through and in direct contact with the arsenic-free ore residuum in the last zone for oxidizing sulfur therein and at a velocity sufficient to maintain the ore residuum in said last zone in fluidized condition, the amount of oxygen in said last-mentioned gas being sufficient for supporting combustion and thereby forming hot sulfur dioxide gas; and continuously withdrawing desulfurized and arsenic-free ore residuum from the last zone.

2,847,282
COUNTERCURRENT EXTRACTION APPARATUS
John W. Dunning, Lakewood, Alexander K. Moses, Jr., Elyria, and Lyman E. Matthews, Lakewood, Ohio, assignors, by mesne assignments, to International Basic Economy Corporation, New York, N. Y., a corporation of New York
Application November 12, 1954, Serial No. 468,216
8 Claims. (Cl. 23—270)



1. Apparatus for the extraction of soluble fractions by means of a solvent liquid from material containing such fractions, comprising a first horizontal extraction chamber of length exceeding its width, material moving means extending longitudinally in said chamber adapted to move comminuted solid material throughout the length of said chamber, means for admitting solvent liquid to said chamber and for causing it to flow concurrently with said moving material, a settling tank adjacent the end of said chamber towards which the solvent liquid is flowing, said settling tank having liquid and solid flow communication with said chamber, a second horizontal extraction chamber, means for receiving solid material from said first extraction chamber and conveying it into said second extraction chamber, material moving means extending longitudinally through said second extraction chamber, means for admitting solvent liquid to said second extraction chamber in counterflow relationship to the material moving therethrough, a second settling tank at the end of said second extraction chamber towards which said last named solvent liquid is flowing, means for causing flow of said last named solvent liquid into said second settling tank, means for recycling clarified liquid from said second settling tank and injecting it into said first extraction chamber, means for returning settled fines from said second settling tank back into said second extraction chamber, means for heating said clarified liquid before it enters said first extraction chamber, and means for withdrawing from said first settling tank solvent liquid containing soluble fractions in solution therein.

2,847,283
PULSED MIXER-SETTLER SOLVENT EXTRACTION CONTACTORS
Warren S. Figg, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application November 25, 1955, Serial No. 549,207
8 Claims. (Cl. 23—270.5)



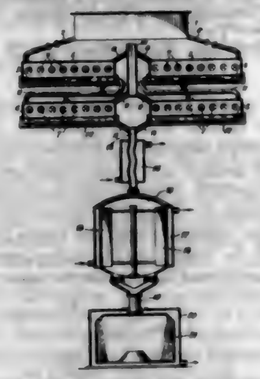
1. An apparatus for intimately contacting and separating substantially immiscible liquids of different specific gravities, comprising a hollow column, means for dividing the column into a plurality of mixing and settling zones, a rotary drive shaft extending coaxially through the column, a plurality of impellers fixed to the shaft and located in the mixing zones, said impellers comprising a hub having a plurality of arms extending radially outwardly therefrom, each arm having an opening extending inwardly from the periphery thereof, said hub having a plurality of openings extending therethrough transversely to the openings in the arms and communicating therewith, an inlet for heavy liquid at one end of the column, an outlet for light liquid at said one end of the column, an inlet for light liquid at the other end of the column, an outlet for heavy liquid at the said other end of the column, and a pulse generator connected to the inlet for light liquid.

2,847,284
APPARATUS FOR CATALYTICALLY COMBINING GASES
Harold M. Busey, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application March 10, 1955, Serial No. 493,579
3 Claims. (Cl. 23—288)



1. An apparatus for combining oxygen and hydrogen gases consisting of a closed vessel, means in the bottom of said vessel for admitting oxygen and hydrogen gases into said vessel and for collecting condensed vapor from said vessel, a vertical chimney supported within the upper portion of said vessel and spaced from the top and sides of said vessel, a flow directing baffle supported below said chimney for directing said gases into said chimney, at least one catalyst supporting member vertically disposed within said chimney, said catalyst supporting member supporting a catalyst for combining said oxygen and hydrogen gases to form water vapor, said catalyst being distributed over said member with a majority of said catalyst located on the lower portion of said catalyst supporting member, and coolant means surrounding said vessel adjacent said chimney for cooling said gas and vapor between said vessel and said chimney.

2,847,285
PROCESS FOR MANUFACTURING CRYSTALLIZED PURE AND ANHYDROUS PHOSPHORIC ACID, AND INSTALLATION FOR CARRYING OUT SAID PROCESS
René Pahud, Bex, Switzerland, assignor to La Fonte Electrique S. A., Bex, Switzerland, a corporation of Switzerland
Application April 5, 1954, Serial No. 421,126
Claims priority, application Switzerland February 9, 1954
2 Claims. (Cl. 23—300)



1. A process for manufacturing crystallized pure and anhydrous phosphoric acid from an aqueous solution thereof, which comprises incorporating an oxidizing agent into said aqueous solution, spreading the solution into which the oxidizing agent has been incorporated over an extended area in the form of a liquid sheet having an exposed upper surface, applying heat to said liquid sheet at its exposed surface only from above said surface in order to cause a superficial evaporation of water therefrom, without concomitant dehydration of the phosphoric acid into pyro- or meta-phosphoric acid, until the liquid sheet assays at least 68% of P_2O_5, in a subsequent stage cooling and crystallizing the resultant liquid mass until the crystals formed in the liquid mass attain at least 1 mm. in their larger dimensions, and finally centrifuging the said crystals in order to free them from their cooled mother liquor.

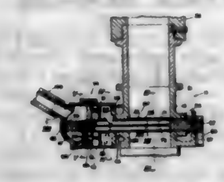
2,847,286
METHOD OF FORMING A GLOSSY SURFACE
Heinrich Neumaig, Glindorf, Friedrich Baumann, Bad Godesberg, and Werner Helling, Grevenbroich, Germany, assignors to Vereinigte Aluminium-Werke Aktiengesellschaft, Bonn, Germany
No Drawing. Application December 28, 1955
Serial No. 554,130
Claims priority, application Germany December 23, 1954
15 Claims. (Cl. 41—42)

1. In a method of forming a glossy surface on an aluminum body, the step of treating said surface for a period of between 8 and 30 seconds at a temperature of between 40° and 90° centigrade with an aqueous solution free of ammonium ions and containing as active ingredients between 1.2% and 9.5% by weight of nitric acid, between 2% and 14% by weight of hydrofluoric acid, and between 0.025% and 0.2% by weight of lead ions, whereby a glossy surface is formed on said body.

2,847,287
ETCHING PROCESSES AND SOLUTIONS
Clarence R. Lundgren, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
No Drawing. Application July 20, 1956
Serial No. 599,047
8 Claims. (Cl. 41—42)

1. The process of etching selectively p-type surface portions of a silicon body including both p-type and n-type surface portions which comprises the step of immersing the body in an aqueous solution of hydrofluoric acid and potassium permanganate.

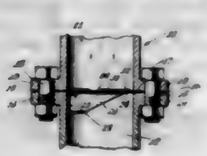
2,847,288
CARBURETING MEANS
William T. Taylor, Marks, Miss.
Application July 30, 1956, Serial No. 600,785
15 Claims. (Cl. 48—180)



1. In a carburetor device, an air intake pipe, a butterfly valve in said air intake pipe, a hollow shaft journalled in said pipe and supporting said valve for movement to and from a closed position in which said valve substantially closes said pipe against air flow, through an intermediate position in which said butterfly valve is partially open and less than fully open, from and to an open position in which said butterfly valve is fully open and air flow through said pipe is substantially unrestricted by

said valve, a baffle extending longitudinally of said shaft and dividing said shaft into first and auxiliary passageway means, fuel metering means connected with said pipe comprising a fuel receiving header chamber, a flow receiving main chamber, and an auxiliary chamber; means dividing said header chamber from said main chamber comprising an apertured disc and a main valve plate closingly covering the aperture in said disc, said valve plate being shiftable to uncover and cover said aperture to respectively establish and disestablish flow communication between said header chamber and said main chamber, said first passageway means being segregated from said auxiliary chamber apertured adjacent one side of said butterfly valve communicating said main chamber with said air pipe adjacent said one side of said butterfly valve; means dividing said main chamber from said auxiliary chamber comprising a second apertured disc and a second valve plate closingly covering the aperture in said second disc, said second valve plate being shiftable to respectively establish and disestablish flow communication between said main chamber and said auxiliary chamber, said auxiliary passageway means being apertured adjacent the other side of said butterfly valve and communicating said auxiliary chamber with said air pipe adjacent said other side of said butterfly valve; said valve plates being connected to said shaft for conjoint movement with said butterfly valve, said main valve plate being positioned to substantially cover its related disc aperture when said butterfly valve is in said closed position and to progressively uncover said related aperture concurrently with movement of said butterfly valve toward said open position, establishing flow to said butterfly valve one side, said second valve plate being positioned to cover the aperture in said second disc and to maintain aperture closing coverage through a substantial portion of movement of said second valve plate with said butterfly valve movement toward said open position, whereby to maintain disestablishment of fuel flow to said auxiliary chamber and said butterfly valve other side during at least butterfly valve opening movement to said intermediate position, movement of said butterfly valve beyond said intermediate position toward said open position effecting shift of said second valve plate to progressively uncover the aperture in said second disc to establish communication through said auxiliary chamber and said auxiliary passageway means to said butterfly valve other side, whereby to establish fuel flow to said butterfly valve other side at least during a terminal portion of the movement of said butterfly valve to said open position.

2,847,289
MIXING AND TURBULENCE-EFFECTING MEANS FOR CARBURETED FUEL
John C. Buhrmeister, Staten Island, N. Y.
Application November 30, 1956, Serial No. 625,344
2 Claims. (Cl. 48—180)



1. Means for increasing the turbulence in a stream of carbureted fuel mixture, comprising an elongate, hollow member adapted to be disposed transversely across a fuel intake pipe, said member having a bulbous surface facing opposite to the direction of flow of the fuel mixture, and having an opening in said surface by which there is reduced the tendency for vacuum to form at the hollow side of the member, and said member being at one end tubular, and said member further having diagonal edges extending from said tubular portion toward the other end of the member.

2,847,290
ANTI-SLAKING BUFFING COMPOSITIONS
Byron E. Marsh, Brookfield, and Richard L. Belcher, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application April 10, 1957
Serial No. 651,828
6 Claims. (Cl. 51—304)

6. A lime buffing composition consisting of about 65% by weight of Vienna lime, 15% stearic acid, 15% acidless tallow, and 5.0% of N-tallow-trimethylene diamine.

2,847,291
GELATIN DYNAMITE EXPLOSIVES CONTAINING WATER
Takehiko Sakurai, Tokyo, Japan
No Drawing. Application May 9, 1956
Serial No. 583,615
5 Claims. (Cl. 52—5)

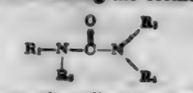
1. A gelatin dynamite explosive composition comprising an oxygen-supplying agent, a combustible material and konjac mannan gel present in the amount of 2 to 4% by weight of the composition, said gel consisting of powdered konjac mannan and 8 to 12 times the weight thereof of water.

2,847,292
NITROFORM INHIBITED FUELS
Karl F. Heger, Clearfield, Pa., and Morris Rosenthal, Sherman Oaks, Calif.; said Heger assignor to the United States of America as represented by the Secretary of the Army
No Drawing. Application October 16, 1956
Serial No. 616,354
14 Claims. (Cl. 52—5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A liquid fuel mixture consisting essentially of a major amount of an aqueous solution of a water soluble organic compound of the class consisting of alcohols and ketones and a minor amount of an inhibitor of the class consisting of nitroform and the potassium salts of nitroform sufficient to inhibit corrosion of metal surfaces.

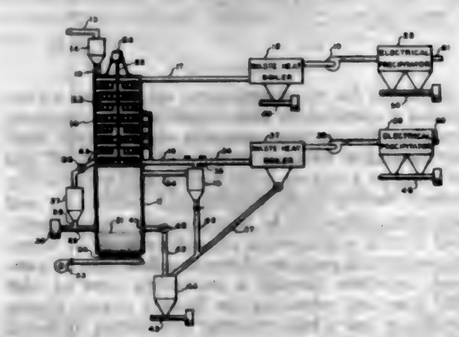
2,847,293
PLANT GROWTH CONTROL AND HERBICIDAL COMPOSITION AND PROCESS OF USING THE SAME
Linden E. Harris, Portland, Oreg., Vernon L. Hall, Palo Alto, Calif., and Frank J. Seibert, Bound Brook, and Irvin W. Bales, Westfield, N. J., assignors to Chipman Chemical Company, Inc., Bound Brook, N. J., a corporation of New York
No Drawing. Application May 23, 1955
Serial No. 510,508
16 Claims. (Cl. 71—2.4)

1. A plant growth control and herbicidal composition capable when applied in one application at a sufficient rate of imparting a long-lasting soil sterilant effect against the growth of grasses and deep-rooted and leafy plants enduring at least 9½ months, said composition comprising as the essential active ingredients an alkali metal chlorate and an amount within the range from about 0.5 to about 10% by weight of the active ingredients of an N-aryl urea compound having the formula



wherein R is an aromatic radical having from one to five substituents selected from the group consisting of hydrogen, halogen, a nitro group, alkyl groups having from one to eight carbon atoms and aromatic radicals, and R_2, R_3 and R_4 each are selected from the group consisting of hydrogen and aliphatic hydrocarbon radicals having from one to three carbon atoms, and not more than two of R_2, R_3 and R_4 is hydrogen, said herbicidal composition containing said admixture of said herbicidal compounds in a herbicidal concentration, said herbicidal compounds being mutually activating and producing a synergistic herbicidal effect, the effect of the chlorate against the growth of deep-rooted and leafy plants being synergized by the N-aryl urea compound, and the effect of the N-aryl urea compound against the growth of grasses being synergized by the chlorate to extend the duration of the effectiveness against grasses and deep-rooted and leafy plants over said period of at least 9½ months.

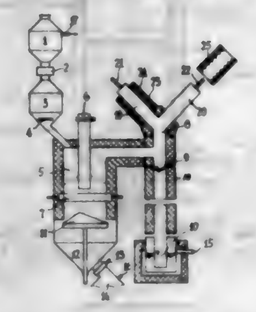
2,847,294
METHOD OF PURIFYING AND DESULFURIZING ZINC SULFIDE ORES AND CONCENTRATES
Carleton C. Long and Herand K. Najarian, Beaver, Pa., assignors to St. Joseph Lead Company, New York, N. Y., a corporation of New York
Application January 7, 1952, Serial No. 265,318
3 Claims. (Cl. 75—9)



1. The process for purifying and desulphurizing zinc sulphide ore containing volatilizable compounds of metallic impurities such as lead, tin and cadmium which comprises passing an oxidizing gas in contact with the ore in a first oxidizing zone at a rate regulated to oxidize at least 10% and not more than 70% of the sulphite content of the ore and to maintain the temperature in at least a substantial portion of said first zone in the range of 850° C. to 1050° C., and thereafter completing the oxidation of the ore by transferring the partially oxidized ore to a second oxidizing zone through which an oxidizing gas is blown to maintain a bed of the ore in a fluidized state and to oxidize autogenously the remaining sulphide content of the ore.

2,847,295
PROCESS AND APPARATUS FOR THE ELECTRO-THERMAL PRODUCTION OF MAGNESIUM
Otto Brotzeschelder, Knapsack, near Köln, Germany, and Wilhelm Moschel, deceased, late of Leverkusen, near Köln, Germany, by Hedwig Moschel geb. Gücher, widow, Leverkusen, Brigitte Carstensen geb. Moschel, Jugenheim, Bergstrasse, and Renate Moschel and Albrecht Moschel, Leverkusen, Germany, heirs, assignors to Knapsack-Griesheim Aktiengesellschaft, Knapsack, near Köln, Germany, a corporation of Germany
Application December 13, 1954, Serial No. 474,948
Claims priority, application Germany December 19, 1953
13 Claims. (Cl. 75—10)

1. A process for the electro-thermal production of magnesium which comprises the steps of introducing a finely-divided substance selected from the group consisting of magnesium oxide, burned dolomite and serpentine together with a finely-divided metallic reducing agent, the metallic reducing agent yielding under reducing conditions non-volatile reaction products, heating the material to reduction temperature and evolving magnesium vapor, condensing a major portion of the magnesium



vapor in a first condensing zone to form molten magnesium, ultimately condensing the remaining magnesium vapor in one of several condensing zones to form solid magnesium while heating another condensing zone containing previously solidified magnesium to form further molten magnesium and continuously withdrawing molten magnesium product.

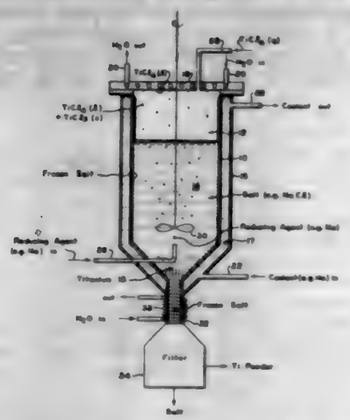
2,847,296
EXOTHERMIC MANGANESE ADDITION AGENTS
Donald C. Hilty, Niagara Falls, Philip H. Crayton, Tonawanda, and John J. Darby, Niagara Falls, N. Y., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application May 12, 1954
Serial No. 429,374
10 Claims. (Cl. 75—27)

9. In an exothermic reaction mixture including an alloy addition for a ferrous melt capable upon ignition in the melt of generating sufficient heat to permit the addition of said alloy without causing an objectionable temperature drop, said mixture consisting of at least one oxidizing agent from the group consisting of manganese ore and iron ore and at least one reducing agent from the group consisting of silicon, calcium, aluminum and alloys thereof, the improvement comprising the use of at least one accelerator from the group consisting of alkali metal halides, alkali metal carbonates, alkaline earth metal halides and alkaline earth metal carbonates for the improved recovery of manganese, said alloy being present as ferromanganese.

2,847,297
METHOD OF PRODUCING TITANIUM CRYSTALS
William O. Di Pietro, Watertown, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application August 23, 1952, Serial No. 306,026
2 Claims. (Cl. 75—84.5)

1. In a method of producing titanium, the step of growing titanium crystals in a molten salt bath containing a dissolved lower titanium chloride by substantially continuously introducing into the molten salt bath a liquid metal reducing agent comprising a metal from the group consisting of the alkali metals and the alkaline-earth metals magnesium and calcium to form some free titanium metal in the salt bath, maintaining the titanium metal so formed in the presence of dissolved lower chloride in the molten salt bath to permit the growth of titanium crystals of substantial size while reduction of said dis-

solved titanium lower chloride to titanium metal continues within the molten salt bath adjacent the growing



titanium crystals, and thereafter separating the titanium crystals from the salt bath.

2,847,298
METHOD OF PRODUCING REFRACTORY METALS
James L. Vaughan, Needham, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application July 2, 1954, Serial No. 441,108
6 Claims. (Cl. 75—84.5)

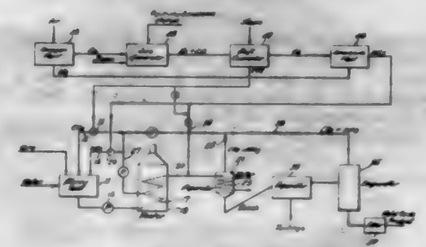


1. In a process for manufacturing a refractory metal selected from the class consisting of titanium, zirconium, vanadium, columbium, tungsten, tantalum and molybdenum, wherein a substantial quantity of a halide of said refractory metal is dissolved in a bath of a molten salt which is inert to said halide and the dissolved refractory metal halide is reduced to refractory metal by means of a reducing agent comprising at least one metal from the class consisting of the alkali metals and the alkaline earth metals magnesium and calcium, the improvement which comprises positioning a grid in the bath so that at least a portion of the grid is below the surface of the molten salt bath, and feeding molten reducing agent to the grid over an extended period of time.

2,847,299
PRODUCTION OF METALS
Wayne H. Keller, Waban, and Irwin S. Zonis, Belmont, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
No Drawing. Application April 28, 1955
Serial No. 504,677
6 Claims. (Cl. 75—84.1)

1. A process for manufacturing thorium wherein a thorium halide is dissolved in a bath of a fused salt and is reduced to thorium crystals by supplying a metallic reducing agent to the bath, the reducing agent comprising a metal selected from the class consisting of the alkali metals and the alkaline earth metals and the fused salt comprising a halide selected from the class consisting of the alkali metal halides and the alkaline earth metal halides, the improvement of which comprises maintaining between the supply of reducing agent and a major portion of the salt bath containing the dissolved thorium halide a zone comprising fused salt which is substantially free of thorium halide.

2,847,300
PROCESS FOR RECOVERING METAL VALUES FROM ORE
Peter L. Pauli, Norwalk, Conn., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware
Application November 15, 1956, Serial No. 622,374
12 Claims. (Cl. 75—103)



1. A process for recovering metal values from an ore comprising a metal which forms water soluble complexes with carbon dioxide and ammonia, said process comprising forming a flowable mixture of particles of said ore in water in a mixing zone; passing said mixture into a confined heating zone; heating said mixture in said heating zone sufficiently to vaporize said water thereby forming therein a dispersion of said particles in steam; disintegrating said particles of ore to a finer size by passing said dispersion through a succeeding zone of high velocity flow and subjecting the flowing stream therein to turbulence and a high velocity; introducing ammonia and carbon dioxide into association with said ore in at least one of said zones; condensing said dispersion and forming a mixture of ore particles in a water solution of the metal complexes formed by reaction with said ammonia and carbon dioxide; and separating said solution from said ore particles.

2,847,301
PROCESS OF PRODUCING STAINLESS STEEL
Richard B. Shaw, Tarentum, Pa., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
No Drawing. Application June 10, 1955
Serial No. 514,771
3 Claims. (Cl. 75—130.5)

1. In the process of producing stainless steel substantially free from refractory oxide inclusions by the oxidation-reduction method in which gaseous oxygen is utilized in the melt under a slag cover to effectively lower the carbon content to a predetermined value, the gaseous oxygen also effecting oxidation of a portion of the chromium of the melt while increasing the temperature of the melt to above 2900° F. and the chromium oxide being thereafter reduced from the slag into the melt, the improvement comprising, introducing a master alloy consisting of manganese and silicon in the proportion of from 2 to 4 parts by weight of manganese to 1 part by weight of silicon into the melt and the slag cover therefor at the end of the oxidation period, cooling the melt to a temperature in the range between 2750° F. and 2850° F. and thereafter adding sufficient reducing agents to effectively reduce the chromium oxide from the slag, the master alloy being introduced in an amount equal to at least an amount required to combine with the dissolved oxygen of the melt while maintaining at least a 2 to 1 ratio of manganese to silicon in the melt, maintaining the melt at a temperature in the range between 2750° F. and 2850° F. until the reducing agent effectively reduces the chromium oxide of the slag and the reduced chromium returns to the melt, decanting the slag cover, and thereafter adding a new slag and additional chromium to obtain a predetermined analysis of the steel substantially free from refractory oxide inclusions.

2,847,302
ALLOYS FOR BONDING TITANIUM BASE METALS TO METALS
Roger A. Long, Bay Village, Ohio
No Drawing. Application March 4, 1953
Serial No. 340,383
2 Claims. (Cl. 75—134)

1. A material for bonding together titanium base metal and other metals or alloys to provide a joint having high tensile and shear strength at room and at elevated temperatures consisting essentially of about 65 to 92% by weight of a binary alloy of about 70 to 60% nickel and 30 to 40% titanium, and the balance being a material selected from the group consisting of copper, silver, chromium, manganese, cobalt, and beryllium and mixtures of the foregoing.

2,847,303
COPPER-BASE ALLOYS
Matei Pruna, Paris, France, assignor of one-fourth to Georges René Jean Lafeuille, Paris, and one-fourth to Pierre Lafeuille, Oise, France
No Drawing. Application May 21, 1957
Serial No. 660,461
Claims priority, application France January 4, 1957
11 Claims. (Cl. 75—153)

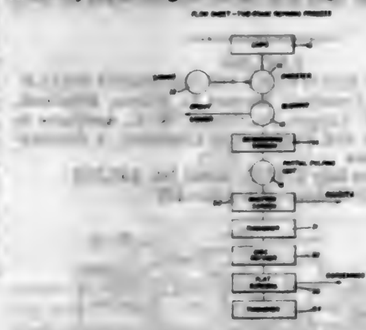
6. A copper-base alloy which consists of, by weight:

	Percent
Zirconium	0.01 to 1
Phosphorus	0.005 to 0.5
Cadmium	0.1 to 2
Iron	0.005 to 0.01
Silicon	0.005 to 0.01

and the remainder consisting of copper with at most only traces of other elements.

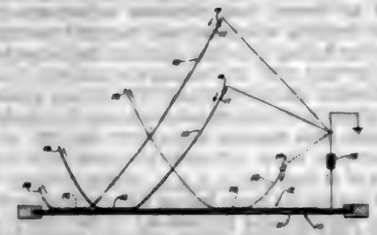
2,847,304
SEMI-CHEMICAL PULP PROCESS
Royal Henry Rasch, Kenneth Hoffman Fleming, Paul Lambert Leemhuis, and Harvey Sutton, Erie, Pa., assignors to Hammermill Paper Company, Erie, Pa., a corporation of Pennsylvania
Application April 10, 1952, Serial No. 281,512
9 Claims. (Cl. 92—6)

1. A semi-chemical process for pulping wood chips having hard dirt-forming and shive-forming constituents therein resistant to softening by semi-chemical cooking treatment, to produce pulp suitable for use in the manufacture of high grade writing and printing papers and the like, which comprises cooking said wood chips with a softening liquor thereby only partially to remove lignin constituents therefrom and leave substantial amounts of such constituents therein, subjecting said cooked chips to mild selective mechanical disintegration by relative movement across an abrading surface whose clearance with respect to any opposing surface exceeds the size of the largest aggregate under treatment, such disintegration being sufficient to reduce the softened portions of the chips substantially to aggregates of fibers but not severe enough to reduce substantially the size of said dirt-forming and shive-forming constituents, separating said fiber aggregates from said dirt-forming and shive-forming constituents, discarding said dirt-forming and shive-forming



constituents, and mechanically refining said fiber aggregates to effect substantially total reduction thereof to individual fibers.

2,847,305
XEROGRAPHIC TRANSFER PROCESS
Lewis E. Walkup, Columbus, Ohio, assignor, by mesne assignments, to Haloid Xerox Inc., Rochester, N. Y., a corporation of New York
Application December 16, 1954, Serial No. 475,746
1 Claim. (Cl. 96—1)



In the process of xerography wherein an electrostatically charged, flat xerographic plate comprising a photoconductive layer on a conductive backing is exposed to a light image to form an electrostatic latent image on the plate surface corresponding to the light image and the plate is developed with oppositely charged particles of developing material to form a xerographic powder image on the plate surface corresponding to the light image and the powder image is transferred to a transfer sheet, the improvement for effecting said powder image transfer under conditions of high relative humidity from the xerographic plate to a flexible transfer sheet having a leading edge and a trailing edge and having the property of high lateral conductivity under conditions of high relative humidity comprising the steps of establishing surface contact between the leading edge of the transfer sheet and one end of the plate and simultaneously withholding the trailing edge of the transfer sheet from the remainder of the plate surface, whereby a limited area of the transfer sheet immediately adjacent the leading edge thereof is in contact with the plate, progressively contacting successive portions of the transfer sheet approaching its trailing edge with successive portions of the plate surface approaching its opposite end and simultaneously withdrawing the leading edge and successive portions of the sheet from the corresponding portions of the plate surface, whereby successive limited areas of the sheet are progressively placed in surface contact with the plate throughout the movement of the sheet, and maintaining a potential difference between the transfer sheet and the plate by forming an electrical circuit between an electrode attached only to the leading edge of the transfer sheet, a D. C. voltage source and the conductive back-

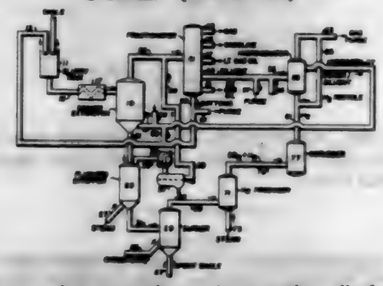
ing of the xerographic plate, thereby to effect powder image transfer in such successive limited areas of contact.

2,847,306

PROCESS FOR RECOVERY OF OIL FROM SHALE

Joseph Stewart, Cranford, Stewart C. Fulton, Elizabeth, and Arthur W. Langer, Jr., Nixon, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application July 1, 1953, Serial No. 365,343
1 Claim. (Cl. 196—14)



A process for recovering and converting oils from oil shale which comprises subdividing the oil shale into small particles, forming a slurry of the subdivided oil shale particles with a partially hydrogenated thermal tar, said thermal tar having been obtained as bottoms from a catalytic cracking operation, said partially hydrogenated thermal tar having a boiling point in the range between about 600° and 950° F., heating the slurry to a temperature between about 750° and 950° F. and passing the heated slurry to a soaking zone wherein it is maintained at a temperature between about 750° and 950° F. for a time between about 0.5 and 10 hours and under a pressure of at least 200 p. s. i. g., adding partially hydrogenated thermal tar lower boiling than said first-mentioned partially hydrogenated thermal tar to the slurry in said soaking zone, said second-mentioned partially hydrogenated thermal tar having a boiling range between about 500° and 750° F., whereby oil is extracted from the subdivided oil shale particles by the solvent action of said partially hydrogenated thermal tar fractions and hydrogen is transferred from the partially hydrogenated thermal tar fractions to said oil, the total amount of partially hydrogenated thermal tar used being in the range of about 5 to 15 parts by weight based on the weight of kerogen in the oil shale, separating an oil phase from spent shale particles by settling, treating the oil phase to recover oil products and a spent thermal tar fraction for reuse in the process, passing the spent shale particles to a stripping zone, stripping the spent shale particles in said stripping zone to recover oil from the spent shale particles and burning the stripped shale particles to provide heat for at least part of the process.

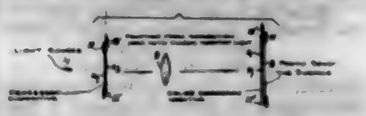
2,847,307

PHOTO-MECHANICAL CORRECTION OF COLOURS

Willy Thiele, Munich, Germany

Application October 1, 1951, Serial No. 249,056
Claims priority, application Germany June 6, 1950
2 Claims. (Cl. 96—30)

2. A method of making a corrected image of a color component of an object, that comprises: (*a*) making color separation negatives of an object in identical registry on plates identically positioned by mechanical positioning means contacting three predetermined points on said plates lying at the apices of a triangular pattern and processing said plates to produce a plurality of separation negatives each representing a different color in the object; (*b*) positioning a first of said negatives in the first of two predetermined conjugated planes in a position predetermined by mechanical positioning means contacting the said predetermined points on said negative and located at said first plane, positioning a first photosensitized plate in a predetermined restorable position in the second of said conjugate planes with the aid of like mechanical positioning means contacting three predetermined points on said plate lying at the apices of a triangular pattern and disposed at said second plane, photographing on said first plate the image of the object from said first negative with the aid of lens means disposed between said two planes and a first light source positioned adjacent the first plane at the side thereof remote from said lens means, removing said first negative, and removing and processing said first plate to produce a



first diapositive mask, while leaving undisturbed the mechanical positioning means disposed at said first and second planes; (*c*) positioning one of said negatives other than said first negative in said first plane in the position predetermined by said undisturbed mechanical positioning means thereat and disposing a photosensitized plate other than said first photosensitized plate on the side of said other negative remote from said lens means, replacing said diapositive mask in said second plane in the position predetermined by said undisturbed mechanical positioning means thereat, and photographing on the last named sensitized plate the so mechanically registered images of the object from said other negative and from the so replaced mask with the aid of said lens means and a second light source positioned adjacent said second plane at the side thereof remote from said lens.

2,847,308

METHOD FOR THE REMOVAL OF HEAVY METAL IONS FROM FOOD BEVERAGES

Frederick C. Bersworth, East Orange, N. J., and Albert E. Frost, Millis, Mass., assignors, by direct and mesne assignments, to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 26, 1953
Serial No. 364,493
7 Claims. (Cl. 99—48)

1. The method of removing heavy metal ions from food products which comprises bringing the food products into intimate contact with a water insoluble calcium salt of a calcium chelate to exchange calcium for metal ion in the food, and subsequently separating the resulting insoluble chelate from the food product.

2,847,309

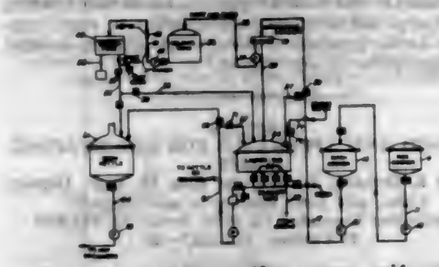
BREWING PROCESS

Harold Howard Rohrbach, Olympia, Wash., assignor to Olympia Brewing Company, Olympia, Wash., a corporation of Washington

Application May 21, 1956, Serial No. 586,087
6 Claims. (Cl. 99—52)

1. A brewing apparatus, comprising a mash cooker in which malt and cereals may be cooked into a mash comprising wort and grain and fines in intermixed relation, a lauter tub, means for conducting one part of the mash produced by the mash cooker to the lauter tub, said lauter tub being operable to form a filter bed of the grains of said one part of said mash and to filter wort through such bed, separating means, means for conducting the remainder of said mash from the mash cooker to said separating means, said separating means being operable to separate at least part of the wort and fines of said remainder from

the grains of said remainder, means for conducting grains which are separated by said separating means to said lauter tub where they are added to the filtering bed, a centrifuge means, means for conducting wort and fines separated out by said separating means from said sep-



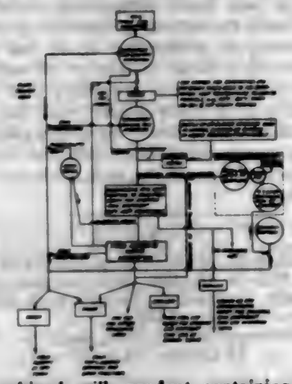
arating means to said centrifuge means, said centrifuge means being operable to separate at least a part of the fines from the wort, a brew kettle for brewing wort, means for conducting wort from said centrifuge means to said brew kettle, and means for conducting filtered wort from said lauter tub to said brew kettle.

2,847,310

PROCESSES FOR PRESERVING THE FRESH NATURAL FLAVOR OF BUTTERFAT AND PRODUCTS PRODUCED THEREFROM

Grover D. Turnbow, Piedmont, Calif., assignor to Foremost Dairies, Inc., San Francisco, Calif., a corporation of New York

Application March 17, 1955, Serial No. 494,864
18 Claims. (Cl. 99—54)



1. A recombined milk product containing as an ingredient anhydrous milk fat which has been heat treated and contains not more than four parts per million of sulfur when analyzed by completely burning said fat and measuring the sulfur evolved therefrom.

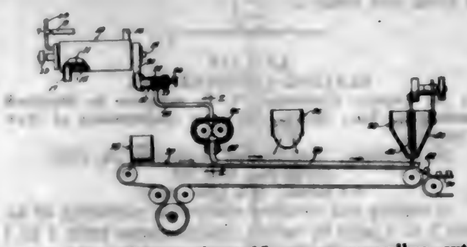
2,847,311

CONFECTION AND PROCESS FOR PRODUCING THE SAME

Alexander J. Doumak, Los Angeles, Calif., and James Doumak, deceased, late of Los Angeles, Calif., by Maria J. Doumakes, executrix, Los Angeles, Calif., assignors to National Dairy Products Corporation, a corporation of Delaware

Application April 17, 1956, Serial No. 578,653
6 Claims. (Cl. 99—134)

1. A continuous process for manufacturing marshmallows comprising the steps of preparing a mixture of saccharides, gelatin and moisture, the moisture comprising less than about 19 percent and more than about 13 percent of said mixture, the saccharides comprising monosaccharides and disaccharides in a ratio of between about .5 and about 1.5, beating said mixture under gas pressure to provide a product having a density of from about 30



ounces per gallon to about 65 ounces per gallon, extruding said product in a continuous strip into a zone of product quiescence and cutting said product after a period of quiescence and prior to substantial gelling.

2,847,312

CURING MEAT EMULSION

Robert H. Harper, Park Forest, and Marvin M. Voegeli, Downers Grove, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application August 29, 1955
Serial No. 531,276
3 Claims. (Cl. 99—159)

1. In a process for preparing a cured sausage item having an improved color, the steps comprising forming an emulsion of meat and water, substantially drawing off the oxygen associated with the meat of the emulsion before substantial contacting of the heme pigments of the meat with a curing salt, and thereafter while maintaining substantially oxygen free conditions reacting the heme pigments of said substantially oxygen free meat with curing salt to form a cured color.

2,847,313

METHOD OF TREATING FRESH MEATS

Ernest E. Elliss, La Grange Park, Ill., assignor to Tee-Pak, Inc., Chicago, Ill., a corporation of Illinois

No Drawing. Application December 1, 1955
Serial No. 550,513
4 Claims. (Cl. 99—174)

1. A method for controlling the development of the incipient bloom, color and organoleptic characteristics of comminuted fresh meats which comprises enclosing comminuted fresh meat within about 30 minutes after comminution in a film material which has a permeability of oxygen through said film ranging from about 0.01 to 1.0 cc./mm./sec./cm.²/cm. $Hg \times 10^{10}$, a moisture vapor permeability of from about 0.40 to 0.60 ($\times 10^6$) gm.—cm./sq. cm./24 hrs., maintaining the said comminuted meat in the said film material chilled for a period in excess of that at which unwrapped meat loses a significant part of its red color after comminution, removing the said meat from its encasement in the said film material and mixing the said meat in contact with the atmosphere.

2,847,314

METHOD FOR MAKING CERAMIC ARTICLES

Joseph R. Fisher, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application June 2, 1955
Serial No. 512,891
8 Claims. (Cl. 106—39)

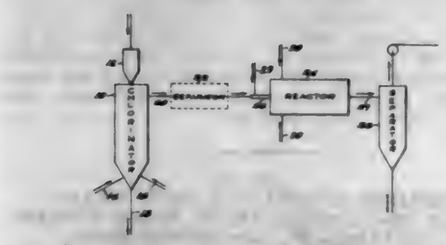
1. The method of making a shaped body of ceramic materials, which method comprises mixing the finely-divided ingredients of said ceramic material, water, and 3 percent by weight to 6 percent by weight of poly-

methacrylic acid, calculated on the basis of the dry ingredients, removing excess water to give a plastic mass, forming said mass into a shaped body, drying said body, and firing said body.

2,847,315
SEALING COMPOSITION
Earl M. Turner, Chatham, N. J., assignor to Mohawk Industries, Inc., Sparta, N. J., a corporation of New Jersey
No Drawing. Application September 26, 1955
Serial No. 536,761
5 Claims. (Cl. 106—123)

1. A sealing and caulking compound consisting of asbestos 2 to 5 parts by weight, diatomaceous earth 1 to 3 parts by weight, tall oil 1.5 to 4.0 parts by weight, petroleum oil residue 1.5 to 4.0 parts by weight, a quaternary ammonium compound 0.1 to 0.3 part by weight, a drier selected from the group consisting of lead oxide and cobalt oxide 0.1 to 0.3 part by weight, and balata resin 0.1 to 0.3 part by weight, said weights being approximate.

2,847,316
PROCESS FOR PRODUCTION OF MIXED METAL OXIDES
Laurent P. Michel, Watertown, and Thomas H. Goodgame, Ipswich, Mass., assignors to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts
Application September 29, 1954, Serial No. 459,014
8 Claims. (Cl. 106—288)

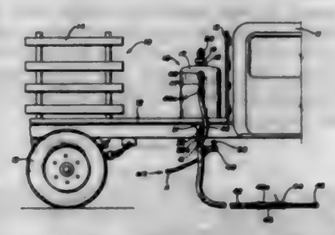


1. A process for producing finely-divided mixed metal oxides, comprising forming a reactive bed by intermingling a crude siliceous ore of a metal selected from the group consisting of aluminum and zirconium with at least sufficient carbon for stoichiometric reaction with the total oxide content thereof and a solid metallic material which reacts strongly exothermically with chlorine, reacting the intermingled ore, carbon, and solid metallic material with free-chlorine-containing gas at a temperature of about 1000° C. generated within the bed by the reaction of the chlorine with the solid metallic material thereby converting much of the silicon as well as the other metals in the ore to the corresponding metal chlorides in homogeneous vaporous admixture, contacting said vaporous mixed metal chlorides with an oxygen-containing gas at elevated temperature, thereby converting them to the corresponding mixed metal oxides in the form of ultra-fine solid particles of uniform composition in gaseous suspension and recovering the finely-divided mixed metal oxides thus produced from the other reaction products.

2,847,317
VANADIUM-BEARING CERAMIC PIGMENT
Thomas D. Carnahan and Edwin H. Ray, Washington, Pa., assignors to B. F. Drakenfeld & Co., Inc., New York, N. Y., a corporation of New York
No Drawing. Application July 5, 1956
Serial No. 595,817
12 Claims. (Cl. 106—299)

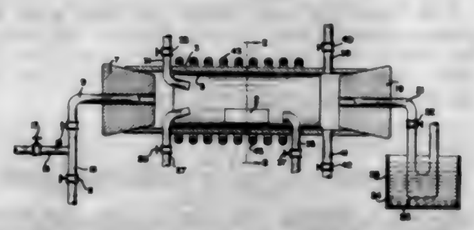
1. In a method of preparing a vanadium-bearing pigment for coloring ceramic articles where a mixture of pigment-forming materials in amounts to form a pigment and including a vanadium compound is calcined and produces a calcined pigment containing an uncombined oxide of vanadium, and the resultant calcined pigment is ground in water and filtered, that step comprising incorporating in said calcined pigment an alkaline-reacting metal compound in an amount sufficient to react completely, in the presence of water, with said uncombined vanadium oxide in said calcine.

2,847,318
METHOD AND APPARATUS FOR RESURFACING ROOFS
George E. Dowlen, Aurora, and Ross M. Tefft, Denver, Colo.; said Tefft assignor to said Dowlen
Application December 14, 1955, Serial No. 553,050
10 Claims. (Cl. 117—2)



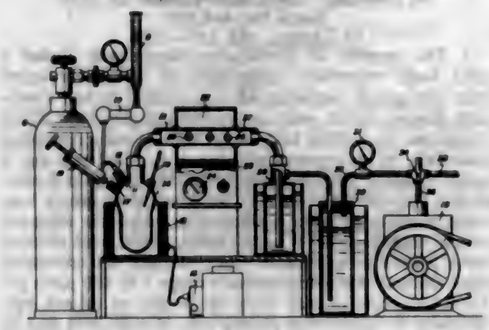
7. The method of resurfacing composition roofs of the shingled type, which comprises directing a pressure discharge of an unheated liquid composition along a succession of substantially horizontal courses against the exposed surfaces of composition shingles lying along such course, said liquid composition including asbestos fibre distributed throughout a liquefied asphaltic composition containing an evaporating agent, said pressure discharge forming a fluent coating of substantial thickness on the shingles, and then directing a high velocity, airborne discharge of finely-divided rock into the coating surface of each course before the evaporation causes it to set, said discharge being under sufficient force to flatten loose shingles and cause the rock discharge to adhere to said coating.

2,847,319
GAS PLATING OF AGGREGATES
Philip R. Marvin, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
Application April 26, 1954, Serial No. 425,363
15 Claims. (Cl. 117—47)



8. The process for depositing metal from heat decomposable gaseous metal bearing compounds to fill with metal the interstices of a compacted aggregate solid body of particles, which method comprises heating the body to a temperature above that of the thermal decomposition point of a metal bearing gas, cooling the exterior of the body below the said thermal decomposition point and while the interior of the body is still above the said thermal decomposition point permeating the interstices of the body with an atmosphere containing a metal bearing gas decomposable at the interior temperature but not at the exterior temperature to deposit metal interiorly of the body.

2,847,320
METHOD FOR GAS PLATING WITH ALUMINUM ORGANO COMPOUNDS
Jack J. Balloff, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio
Application May 8, 1956, Serial No. 583,422
4 Claims. (Cl. 117—47)



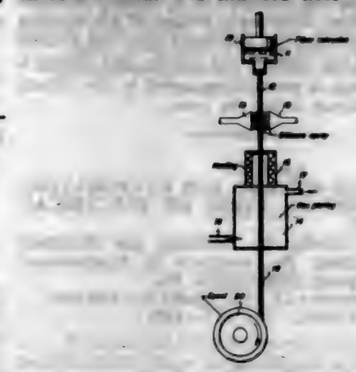
1. A method of gas plating aluminum metal onto substrate by decomposition of an organo aluminum halide compound which comprises the steps of cleaning the substate to remove foreign matter and moisture from the surface, heating the cleaned substrate in an unoxidizing atmosphere which is free of water vapor, subjecting the thus heated substrate to an atmosphere containing a heat-decomposable organo metallic alkyl halide compound of aluminum, the temperature of the substrate being high enough to cause thermal decomposition of the organo metallic halide aluminum compound and deposition of aluminum metal onto said substrate.

2,847,321
METAL SURFACE TREATMENT
Lowell D. Eubank, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application March 16, 1945
Serial No. 583,176
8 Claims. (Cl. 117—51)

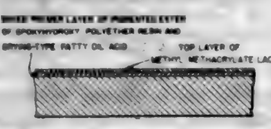
6. A process for coating uranium by immersion into a molten metal bath, comprising passing the uranium article to be coated through an alkali metal halide-containing flux selected from the group consisting of alkali metal chloride, a mixture of alkali metal chloride and alkali metal fluoride, and a mixture of alkali metal chloride and alkaline earth metal chloride.

2,847,322
GAS PLATING SILICONE TREATED FIBERS
Folsom E. Drummond, Washington, D. C., assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
Application June 23, 1955, Serial No. 517,647
5 Claims. (Cl. 117—71)

1. A method of producing gas plated metallized heat-sensitive fibers which comprises heating a fiber-forming thermoplastic resin to melt the same, subjecting said melted resin to extrusion to form a fiber of continuous length, applying a heat-resistant silicone resin onto said extruded fiber, and subjecting the extruded and silicone resin treated fiber to a heat-decomposable gaseous metal compound, said gaseous metal compound being brought in contact with said extruded fiber while heated to a temperature to cause decomposition of said gaseous metal compound and deposition of the metal constituent.

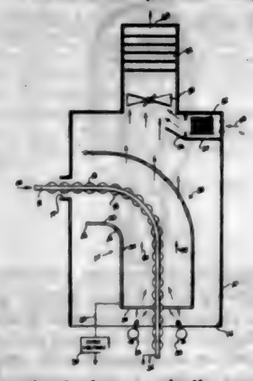


2,847,323
COATED METAL ARTICLES
John Lloyd Evans, Springfield, Pa., and Joseph Anthony Pappalardo, Dayton, Ohio, assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application December 1, 1955, Serial No. 558,140
8 Claims. (Cl. 117—73)



1. A metal article having a hard, adherent, crack-resistant, multiple-layer coating comprising a layer of primer and a superposed layer of methyl methacrylate lacquer in adherent contact therewith, said primer being a baked layer of a liquid coating composition comprising pigment, solvent, and, as the principal organic film-forming material, epoxyhydroxy polyether resin esterified with 10–50%, by weight based on said resin, of drying-type fatty oil acid.

2,847,324
METHOD AND APPARATUS FOR CONTROL OF CHARGED PARTICLES IN ELECTROSTATIC MACHINES
Adam Oglat, Anaheim, Calif., assignor, by mesne assignments, to Adolf Schoepe, Anaheim, Calif.
Application July 21, 1955, Serial No. 523,440
12 Claims. (Cl. 117—93)



4. A method of electrostatically coating articles including the steps of: positioning the articles to be coated

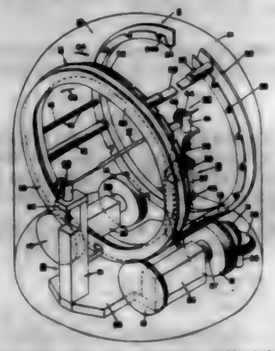
in a coating zone; establishing an electrostatic field in the coating zone; projecting particles of a coating material into the coating zone; directing a stream of gas through the zone so that particles not impinging upon the articles are carried out of the zone by the stream; and adding a quantity of ozone as a neutralizing agent to the stream of gas after the stream leaves the zone.

2,847,325

APPARATUS AND METHOD FOR EVAPORATING FILMS IN CERTAIN TYPES OF ELECTRICAL COMPONENTS

Jacob Riseman, Dorothy M. Hoffman, and Benjamin Solow, Philadelphia, Pa., assignors to International Resistance Company, Philadelphia, Pa.

Application February 23, 1955, Serial No. 490,006
23 Claims. (Cl. 117—107)



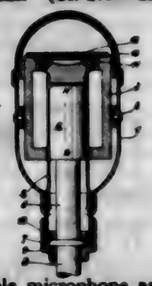
1. Apparatus for use in coating cylindrical members by thermal evaporation in a vacuum comprising in combination, a rotatable support, means for rotatably mounting said cylindrical members on said support a substantially equal distance from and parallel to the axis of said support, a coated filament, means for mounting said coated filament substantially along the axis of said support, and means for heating said filament to evaporate the coating therefrom.

2,847,326

MICROPHONE COMPRISING A MAGNET SYSTEM

Friedrich Wilhelm Müller, Hamburg-Blankenese, Germany, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application July 28, 1952, Serial No. 301,175
Claims priority, application Germany March 13, 1952
3 Claims. (Cl. 179—115.5)



1. An exchangeable microphone assembly comprising a support, a housing including a portion permeable to sound waves, a microphone magnetic system having a central cavity disposed in said housing and comprising a permanent magnet in engagement with said cavity for producing a magnetic field, a coil disposed in said field, and a diaphragm secured to said housing and said coil and responsive to sound waves passing through the permeable portion of said housing, said permanent magnet being rigidly secured to said support, said housing being detachably secured to said support.

2,847,327

PROCESSES OF CHEMICAL NICKEL PLATING AND BATHS THEREFOR

Paul Talmey, Barrington, Ill., and Gregoire Gutwirt, Highland, Ind., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York

No Drawing. Application October 25, 1954
Serial No. 464,592
11 Claims. (Cl. 117—130)
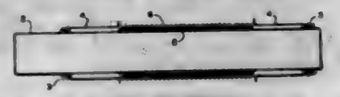
1. The process of chemically plating with nickel a solid body essentially comprising an element selected from the group consisting of iron, cobalt, nickel, aluminum, copper, silver, gold, palladium and platinum, which comprises contacting said body with a bath consisting essentially of an aqueous solution of a nickel salt and a hypophosphite and an additive of the oriented hydrophobic film forming type, said additive comprising a long chain aliphatic organic compound in which the aliphatic radical contains from 8 to 18 carbon atoms, said additive being present in solution in said bath only in a controlled trace amount in the approximate range 5 to 100 parts per 1,000,000 parts of said bath by weight so as not substantially to reduce the plating rate of said bath and so as to inhibit random decomposition of said bath.

2,847,328

METHOD OF MAKING THORIUM OXIDE CATHODES

James E. Cline, Brookline, and John P. Judeikis, Belmont, Mass., assignors to the United States of America as represented by the Secretary of the Army

Application March 4, 1957, Serial No. 643,895
2 Claims. (Cl. 117—201)



1. Method of making thorium oxide cathodes of large areas for high power magnetrons comprising mixing in powdered form about 50 parts by weight of thorium oxide, about 50 parts by weight of molybdenum, and about one part by weight of ruthenium into an organic solvent to make a paste, pasting said mixture into a wire mesh consisting of molybdenum and firing the coated wire mesh at about 1800° C.

2,847,329

SENSITIZATION OF PHOTOCONDUCTIVE CELLS BY THE USE OF INDIUM VAPOR

Lloyd E. Schilberg, China Lake, and George G. Kretchmar, Arlington, Calif., assignors to the United States of America as represented by the Secretary of the Navy

Application February 15, 1957, Serial No. 640,563
1 Claim. (Cl. 117—211)
(Granted under Title 35, U. S. Code (1952), sec. 266)



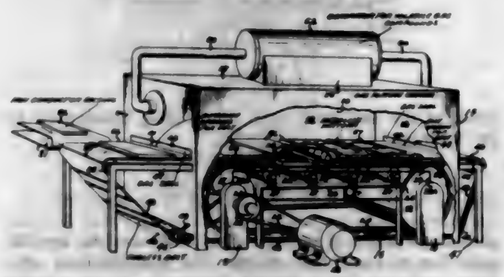
A process for making photoconductive elements which consists in simultaneously evaporating cadmium telluride and indium at a temperature between about 580° C. to about 640° C. onto a surface in a vacuum.

2,847,330

METHOD AND APPARATUS FOR GAS PLATING PRINTING CIRCUITS

Harry A. Toulmin, Jr., Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application July 28, 1954, Serial No. 446,307
6 Claims. (Cl. 117—212)



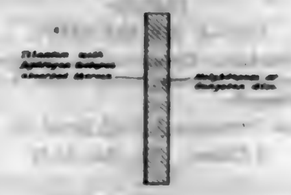
1. In the method of making printed circuits by the deposition of metal from a gaseous metallic compound, forming a grid-like heating element in a predetermined conductive pattern, moving the heating element in a substantially straight line within a chamber while protecting the upper surface of the heating element from the chamber atmosphere, positioning a non-conductor backing immediately above the grid during the straight line movement thereof, passing an electric current through the element to heat the same to the decomposition temperature of the metal to be deposited, and introducing a gaseous metal compound into the chamber to enable the metal to be deposited on the heated portions of the backing to form a conductive pattern thereon.

2,847,331

HYDROGEN ISOTOPE TARGETS

Robert W. Ashley, Deep River, Ontario, Canada, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application December 24, 1954, Serial No. 477,595
4 Claims. (Cl. 117—220)



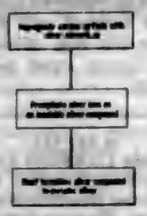
4. A method of preparing hydrogen isotope targets which comprises thoroughly cleaning a backing disc of a metal selected from the group consisting of molybdenum and tungsten, placing the disc in a closed vessel under vacuum in the presence of titanium metal, heating to evaporate the titanium to coat the disc, cooling the coated disc within the vacuum vessel, and heating the coated disc under vacuum in the presence of a hydrogen isotope selected from the group consisting of deuterium and tritium to cause absorption of the isotope by the heated coating, and maintaining the temperature at not substantially higher than 500° C. to prevent desorption of the isotope.

2,847,332

METHOD FOR INTRODUCING METALLIC SILVER IN CARBON WITH UNIFORM DISTRIBUTION

Dimiter Ramadanoff, Berea, Ohio, assignor to Union Carbide Corporation, a corporation of New York

Application September 7, 1955, Serial No. 533,821
4 Claims. (Cl. 117—228)



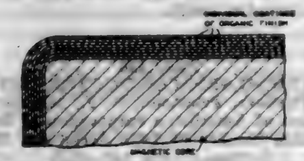
1. A method of introducing and uniformly distributing metallic silver into a carbon article, which method comprises impregnating the carbon article with an aqueous solution of silver nitrate, precipitating the silver ions out of said silver nitrate solution as an insoluble silver compound from the class consisting of silver oxide and silver carbonate, and subsequently heating said article to reduce the silver compound to metallic silver and drive off undesirable reaction products.

2,847,333

METHODS OF MAKING MAGNETIC CORES

John Allen Geshner, Downers Grove, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application July 18, 1956, Serial No. 596,866
8 Claims. (Cl. 117—232)



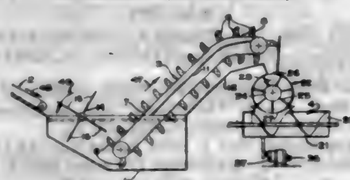
1. The method of making temperature stabilized magnetic cores, which comprises forming a core from a magnetic material having characteristics such that the formed core has a positive temperature stability of inductance coefficient, and covering the core with at least one coating of a material having a negative stability characteristic sufficient to reduce the positive temperature stability of inductance coefficient of the core.

2,847,334

METHOD OF PEELING FRUIT AND VEGETABLES

Robert W. Kilburn, Lake Wales, Fla., and Frank D. Hickey, Mountain View, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Original application January 17, 1952, Serial No. 266,882, now Patent No. 2,781,070, dated February 12, 1957. Divided and this application October 8, 1956, Serial No. 614,635
10 Claims. (Cl. 146—235)



1. The method of processing fruit or the like which comprises treating the fruit with a caustic solution at a

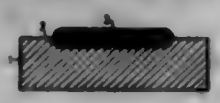
predetermined temperature and concentration for a period of time insufficient to enable a solution of such concentration and temperature to begin rapid disintegrating action upon the skin of the fruit, leaving a coating of said caustic treating solution upon the unpeeled fruit, subjecting the coated unpeeled fruit to the action of steam under pressure in excess of atmospheric to thereby activate said caustic solution and produce a rapid disintegrating effect on the skin of the fruit, and subsequently cooling the fruit to arrest the chemical and thermal action thereupon.

2,847,335

SEMICONDUCTOR DEVICES AND METHOD OF MANUFACTURING THEM

Rolf Grenmeimaier and Heinrich Welker, Erlangen, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany

Application August 17, 1954, Serial No. 450,459
Claims priority, application Germany September 15, 1953
15 Claims. (Cl. 148—1.5)



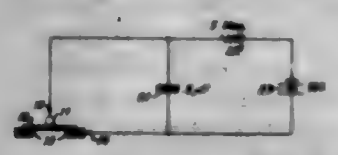
5. The method of producing an electric semiconductor device, which comprises placing a crystalline body of a binary semiconductor compound of homopolar character in contact with an electrode substance of an element of said binary compound body, heating the electrode substance on said body above melting temperature a sufficient time to dissolve a zone of said compound body in said substance, and permitting the substance and the body to cool whereby the dissolved compound segregates back onto the body.

2,847,336

PROCESSING SEMICONDUCTOR DEVICES

Jacques I. Pankove, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application January 30, 1956, Serial No. 562,853
7 Claims. (Cl. 148—1.5)



1. In the method of making a P–N junction semiconductor device including alloying a quantity of conductivity determining impurity material having low edge dislocation density to a body of crystalline semiconductor material, said impurity material having a lower melting point than said semiconductor body, the step of disturbing the crystal structure of the semiconductor body at the desired electrode site and then alloying said quantity of impurity material into the semiconductor body by heating to a temperature above the melting point of said impurity but below the melting point of said semiconductor body.

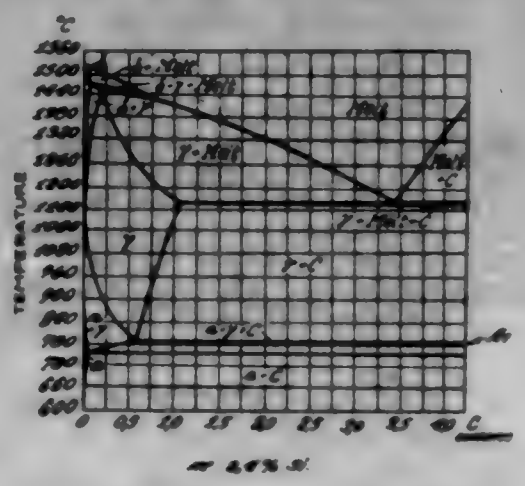
2,847,337

PROCESS FOR THE PRODUCTION OF CAST IRON HAVING NEEDLE-SHAPED CRYSTALLINE STRUCTURE

Wolfram Ruff, Frankfurt am Main, Germany, assignor to Alfred Teves, Maschinen- und Armaturenfabrik KG, Frankfurt am Main, Germany

Application May 2, 1956, Serial No. 582,191
Claims priority, application Germany July 8, 1955
3 Claims. (Cl. 148—21.7)

1. The process of producing wear-resistant cast iron having a needle-shaped crystal structure, which comprises heat-treating iron having an eutectical saturation



value of 0.9 and over, said value being determined by the formula:

$$Sc = \frac{\text{Percent C}}{4.23 - \frac{\text{Percent Si}}{3.2}}$$

at a temperature of at least 120° C. above the equilibrium temperature line of the FeCSi-equilibrium diagram, designated as A_1 in said diagram, and then quenching the iron to a temperature ranging from 300°–425° C.

2,847,338

MOISTURE RESISTANT BRAZING ROD

William G. Morrison, Jr., Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application July 19, 1955
Serial No. 523,116
2 Claims. (Cl. 148—23)

1. A welding and brazing flux coating composition for a brazing rod exhibiting high stability under changing humidity conditions, the composition consisting of 8% to 12% powdered sodium bicarbonate, 65% to 69% boric acid, and 21% to 25% of an organic, non-hygroscopic, resinous binder material, said binder material being so disposed as to prevent premature chemical reaction between said sodium bicarbonate and said boric acid prior to reaching fusion temperatures.

2,847,339

INSOLE RIB STRIPPING

Conrad C. Strickland, Richmond, Va., assignor to Prime Manufacturing Company, Lynn, Mass., a corporation of Massachusetts

Application November 3, 1955, Serial No. 544,776
2 Claims. (Cl. 154—53.5)



1. Insole rib stripping of the class described comprising a relatively thick core coated with tacky adhesive on one surface, a ply of moisture-resistant reinforcing fabric covering the entire other surface of the core, and a tape attached to the coated face of the core, the tape being folded on itself on a fold line exposing approximately half of the coated and tacky surface of the core for direct attachment to an insole and extending substantially beyond one edge of the core, presenting an un-

coated surface facing in the same direction as the fabric ply, and a tacky adhesive-coated surface facing in the same direction as the coated surface of the core.

2,847,340

METHOD OF ATTACHING A TEARING STRIP KEY TO A CAN WALL

Richard L. Jooston, Elmhurst, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application November 30, 1954, Serial No. 471,965
3 Claims. (Cl. 154—129)



1. The method of attaching a metal opener to a metal can end, said opener having a shank portion intermediate its ends and an opening in one end, comprising heating a hot melt adhesive to a temperature above its softening point to render it tacky, applying said adhesive while tacky to a limited area of said can end, pressing said shank portion of said opener into said adhesive while said adhesive is in a tacky state to secure said opener against displacement relative to said can end, depositing a second adhesive dissolved in a volatile solvent to the assembled opener and can end in said opening in the end of said opener, and heating said assembled opener and can end to a temperature below the softening point of said hot melt adhesive to evaporate said volatile solvent to set said second adhesive while said opener is held against displacement by said hot melt adhesive.

2,847,341

ETHOXYLINE RESIN COMPOSITIONS AND THEIR PREPARATION

Leo S. Kohn, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application March 7, 1957
Serial No. 644,447
5 Claims. (Cl. 154—140)

1. A composition of matter comprising the heat reaction product of (1) 100 parts by weight of a complex epoxide resin having an epoxide equivalent of from 175 to 375, containing 1, 2 epoxide groups and comprising a polyether derivative of a polyhydric organic compound selected from a class consisting of polyhydric alcohols and phenols having at least two phenolic hydroxyl groups, (2) from 3 to 20 parts by weight of lactam and (3) from 2 to 10 parts by weight of organic titanium ester.

2,847,342

ETHOXYLINE RESIN COMPOSITIONS AND THEIR PREPARATION

Leo S. Kohn, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application March 7, 1957
Serial No. 644,482
4 Claims. (Cl. 154—140)

1. A composition of matter comprising the heat reaction product of (1) 100 parts by weight of a complex epoxide resin containing 1, 2 epoxide groups and comprising the polyether derivative of a polyhydric organic compound selected from the class consisting of polyhydric alcohols and phenols, having at least two phenolic hydroxyl groups, (2) at least 6 parts by weight of organic nitrogen containing base, and (3) from 5 to 40 parts by weight of lactam.

2,847,343

ETHOXYLINE RESIN COMPOSITIONS AND THEIR PREPARATION

Leo S. Kohn, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application March 7, 1957
Serial No. 644,483
5 Claims. (Cl. 154—140)

1. An impregnating and coating material comprising the heat reaction product of (1) 100 parts by weight of a complex epoxide resin having an epoxy equivalent of from 175 to 375, containing 1,2 epoxide groups and comprising a polyether derivative of a polyhydric organic compound selected from the class consisting of polyhydric alcohols and phenols, having at least two phenolic groups, (2) from 2 to 6 parts by weight of BF_3-organic base complex, and (3) from 5 to 20 parts by weight of lactam.

2,847,344

LOWER-ALKYL 5-AMINO-2-(TERTIARY-AMINO-ALKOXY) BENZOATES AND THEIR PREPARATION

Raymond O. Clinton, North Greenbush Township, Rensselaer County, and Stanley C. Laskowski, Menands, N. Y., assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application August 29, 1956
Serial No. 606,795
20 Claims. (Cl. 167—52)

1. A composition of matter selected from the group consisting of: (*a*) a lower-alkyl 5-amino-2-[lower-tertiary-amino(polycarbon-lower-alkoxy)]benzoate where the lower-tertiary-amino radical is a member of the group consisting of di-(lower-alkyl)amino, 1-piperidyl, (lower-alkylated)-1-piperidyl, 1-pyrrolidyl, (lower-alkylated)-1-pyrrolidyl and 4-morpholinyl; and, (*b*) its non-toxic acid addition salts.

20. A local anesthetic composition comprising: a compound selected from the group consisting of a lower-alkyl 5-amino-2-[lower-tertiary-amino(polycarbon-lower-alkoxy)]benzoate and its acid addition salts; and an excipient.

2,847,345

ANTI-SUCKING COMPOSITION FOR CALVES

Florian J. Zajachowski, Norrie, Wis.

No Drawing. Application April 20, 1955
Serial No. 502,744
4 Claims. (Cl. 167—53.2)

1. A composition for a spray preventing very young calves from sucking one another, said spray consisting of a mixture of pine tar, peppermint and camphor in alcohol.

2,847,346

LAXATIVE COMPOSITIONS CONTAINING DIOCTYL SODIUM SULFOSUCCINATE AND 1,8-DIHYDROXYANTHRAQUINONE

Joseph B. Vaughan, Norwood, Ohio, assignor to Lloyd Brothers, Inc., Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application November 28, 1956
Serial No. 623,282
6 Claims. (Cl. 167—56)

1. A composition in dosage unit form for treating constipation consisting essentially of 10 to 100 mg. of 1,8-dihydroxyanthraquinone, 20 to 480 mg. of dioctyl sodium sulfosuccinate and a pharmaceutical carrier.

2,847,347

PREPARATION OF IMPROVED THROMBOPLASTIN

Heron O. Singher, Plainfield, and Emanuel A. Swart, Somerville, N. J., assignors to Ortho Pharmaceutical Corporation, a corporation of New Jersey

No Drawing. Application May 27, 1954
Serial No. 432,894

6 Claims. (Cl. 167—74)

1. A process for the preparation of thromboplastic material comprising the steps of: suspending in 0.85 percent aqueous sodium chloride solution a first thromboplastic material, comprising a finely divided tissue residue resulting from the extraction of rabbit brain tissue with acetone; and a second thromboplastic material, resulting from the extraction of finely divided rabbit tissue, selected from the class consisting of brain and lung tissue, with an aqueous solution buffered at a pH within the range of 5–8 and containing an alcohol, selected from the group consisting of methanol and ethanol and mixtures thereof, in the amount of 5–20 percent by volume and 0.01–6.0 percent by weight of an amino acid having not more than nine carbon atoms, separation of the finely divided tissue from the extracting solution and dialysis of the extracting solution against distilled water; the amount in each ten cc. portion of suspension of the first thromboplastic material being 50–200 milligrams and of the second thromboplastic material 20–200 milligrams; incubating the suspension in sodium chloride solution of the first and second thromboplastic materials for about twenty minutes at 50° C., centrifuging the incubated suspension, adding aqueous calcium chloride solution to the supernatant from the centrifugation in an amount such that the calcium ion concentration therein is 0.004–0.015 molar and centrifuging to provide a supernatant containing a highly active thromboplastic material.

2,847,348

PLASMA FRACTIONATION AND PRODUCT THEREFROM

Heron O. Singher, Plainfield, and Emanuel A. Swart, Somerville, N. J., assignors to Ortho Pharmaceutical Corporation, a corporation of New Jersey

No Drawing. Application May 27, 1954
Serial No. 432,895

4 Claims. (Cl. 167—74)

1. A process for the preparation of a substance capable of increasing the activity of thromboplastic material, conducted at a low temperature throughout, comprising the steps: adding to a unit volume of prothrombin-free plasma selected from the class consisting of horse, bovine, human, and rabbit prothrombin-free plasma, three to five volumes of a first aqueous alcohol solution buffered at a pH of 4–5 and containing about 15–30 percent by volume of an alcohol selected from the class consisting of methanol and ethanol and mixtures thereof, stirring and centrifuging the mixture, separating the supernatant from the residue; and adding to the residue three to five volumes based on plasma volume of a second aqueous alcohol solution buffered at a pH of 6–8 and containing 5–20 percent by volume of an alcohol selected from the class consisting of methanol and ethanol and mixtures thereof and 4–6 percent by weight of an alkali metal salt of an amino acid having not more than six carbon atoms, stirring and centrifuging the mixture, filtering the supernatant, dialyzing the filtered supernatant against distilled water, and lyophilizing the dialyzed supernatant.

2,847,349

PLASMA PREPARATION

Heron O. Singher, Plainfield, and Emanuel A. Swart, Somerville, N. J., assignors to Ortho Pharmaceutical Corporation, a corporation of New Jersey

No Drawing. Application May 27, 1954
Serial No. 432,896

4 Claims. (Cl. 167—74)

1. A process for the preparation of a plasma fraction for use in the determination of the prothrombin time of thromboplastic material comprising the steps of: dissolving in oxalated bovine plasma two to ten milligrams per milliliter of oxalated plasma of a plasma fraction prepared from prothrombin-free plasma, selected from the class consisting of horse, bovine, human, and rabbit prothrombin-free plasma, by a process conducted at a temperature within the range of −5° to 0° C. throughout comprising adding thereto three to five volumes of a first aqueous alcohol solution buffered at a pH of 4–5 and containing about 15–30 percent by volume of an alcohol selected from the class consisting of methanol and ethanol and mixtures thereof, stirring and centrifuging the mixture, separating the supernatant from the residue; and adding to the residue three to five volumes of a second aqueous alcohol solution buffered at a pH of 6–8 and containing 5–20 percent by volume of an alcohol selected from the class consisting of methanol and ethanol and mixtures thereof and 4–6 percent by weight of an alkali metal salt of an amino acid having not more than six carbon atoms, stirring and centrifuging the mixture, filtering the supernatant, dialyzing the filtered supernatant against distilled water, and lyophilizing the dialyzed supernatant.

2,847,350

PREPARATION OF HIGHLY ACTIVE THROMBOPLASTIN

Heron O. Singher, Plainfield, and Emanuel A. Swart, Somerville, N. J., assignors to Ortho Pharmaceutical Corporation, a corporation of New Jersey

No Drawing. Application May 27, 1954
Serial No. 432,897

6 Claims. (Cl. 167—74)

1. A method for preparing a highly active, stable thromboplastic material comprising the steps of: suspending in 0.85 percent aqueous sodium chloride solution a first thromboplastic material comprising a finely divided tissue residue resulting from the extraction of rabbit brain tissue with acetone; a second thromboplastic material prepared by the extraction of finely divided rabbit tissue, selected from the class consisting of brain and lung tissue, with an aqueous solution buffered at a pH within the range of 5–8 and containing an alcohol, selected from the group consisting of methanol and ethanol and mixtures thereof, in the amount of 5–20 percent by volume and 0.01–6.0 percent by weight of an amino acid having not more than nine carbon atoms, separation of the finely divided tissue from the extracting solution, dialysis of the extracting solution against distilled water; and lyophilization of the dialysate; and a substance capable of increasing the activity of thromboplastic material prepared at a low temperature throughout from prothrombin-free plasma selected from the class consisting of prothrombin-free horse, human, bovine, and rabbit plasma by adding to the prothrombin-free plasma three to five volumes of a first aqueous alcohol solution buffered at a pH of 4–5 and containing about 15–30 percent by volume of an alcohol selected from the class consisting of methanol and ethanol and mixtures thereof, stirring and centrifuging the mixture, separating the supernatant from the residue; and adding to the residue three to five volumes of a second aqueous alcohol solution buffered at a pH of 6–8 and containing 5–20 percent by volume of an alcohol selected from the class consisting of methanol and ethanol and mixtures

thereof and 4–6 percent by weight of an alkali metal salt of an amino acid having not more than six carbon atoms, stirring and centrifuging the mixture, filtering the supernatant, dialyzing the filtered supernatant against distilled water, and lyophilizing the dialyzed supernatant; the suspension containing, for each ten milliliters of sodium chloride solution, 50–200 milligrams of the first thromboplastic material, 20–100 milligrams of the second thromboplastic material, and 5–100 milligrams of the substance capable of increasing the activity of thromboplastic material, incubating the suspension, centrifuging the incubated suspension, adding an amount of aqueous calcium chloride solution to the supernatant from the centrifugation sufficient to bring the calcium ion concentration therein to 0.004 to 0.015 molar, and centrifuging the supernatant containing calcium chloride.

2,847,351

HAIR WAVING COMPOSITION COMPRISING A DISULFIDE AND EITHER A NON-CORRESPONDING MERCAPTAN OR THIOUREA DIOXIDE

Alfred E. Brown, Washington, D. C., and Herman Begaty, Silver Spring, Md., assignors to The Gillette Company, Boston, Mass., a corporation of Delaware

No Drawing. Application November 8, 1955 Serial No. 545,799

12 Claims. (Cl. 167—87.1)

1. A water-soluble hair waving composition comprising (1) a member of the class consisting of the disulfide of thioglycolic acid, water-soluble salts thereof, and the disulfide of thioglycerol, (2) a reducing agent selected from the class consisting of thiomalic acid, dimercaptoadipic acid, water-soluble salts thereof, and thiourea dioxide, and (3) water-soluble alkaline material in excess of that required to react with any acid groups present in the disulfide and reducing agent compounds.

2,847,352

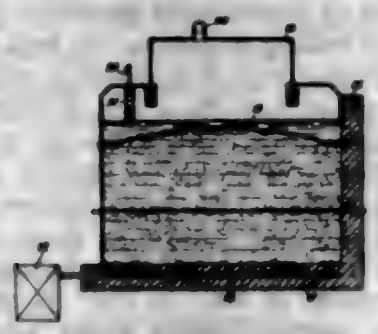
PROCESS AND APPARATUS FOR THE PRODUCTION OF MANURE GAS

Marcel Delacommune, Godewaersvelde, France, assignor to Societe Anonyme Immobiliere Canadienne Francaise, Godewaersvelde, France, a French company

Application October 18, 1954, Serial No. 462,983

Claims priority, application France October 29, 1953

4 Claims. (Cl. 195—143)



1. Apparatus for the fermentation of manure comprising in combination at least one closed fermentation vat having a masonry bottom, heating elements embedded in the said masonry bottom and distributed evenly over substantially the entire area of said bottom, a plurality of lateral side walls on said bottom, a network of manure restraining means removably attached to said lateral walls near the tops thereof at a level beneath a level at which liquid for immersing the manure will be kept, a cover on said vat, and evacuation tubing for the gas produced by fermentation of said manure in said vat positioned above the level at which the immersing liquid will be kept.

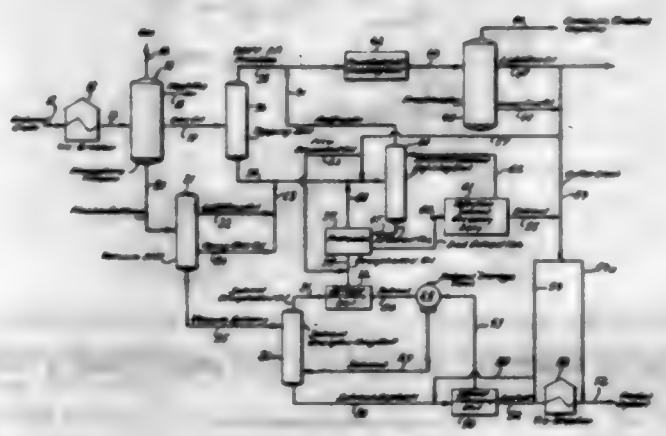
2,847,353

TREATMENT OF RESIDUAL ASPHALTIC OILS WITH LIGHT HYDROCARBONS

David K. Beavon, Westport, Conn., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application December 30, 1955, Serial No. 556,495

20 Claims. (Cl. 196—14.11)



1. A process for treating a residual oil containing asphaltic constituents which comprises heating said oil to an elevated temperature under vis-breaking conditions, fractionating the resulting vis-broken oil to yield a first gas oil fraction and a first bottoms fraction, fractionating said first bottoms fraction to produce a second gas oil fraction and a second bottoms fraction, fractionating said first gas oil fraction to separate therefrom constituents having a boiling point not greater than about 500° F. and to yield a third bottoms fraction, subjecting said second bottoms fraction to contact with a liquid deasphalting solvent under deasphalting conditions to separate said asphaltic constituents from said second bottoms fraction and to yield a deasphalted oil fraction, contacting said deasphalted oil fraction with a first solvent extract mix to yield a deasphalted oil raffinate and a second solvent extract mix, combining said third bottoms fraction, said second gas oil fraction and said deasphalted oil reaffinate, subjecting the resulting combined stream to solvent refining in contact with a liquid solvent at least partially immiscible therewith under the conditions of contacting and which is a selective solvent for relatively more aromatic hydrocarbons, recovering from the aforesaid solvent refining operation said first extract mix and a finished raffinate having a reduced amount of relatively more aromatic hydrocarbons relative to said combined stream, recovering from said second extract mix an extract having an increased amount of relatively more aromatic hydrocarbons relative to said combined stream, combining said finished raffinate with said constituents having a boiling point not greater than about 500° F., and subjecting the resulting combined stream to catalytic cracking.

2,847,354

HYDANTOIN SOLVENTS FOR REMOVAL OF METAL CONSTITUENTS FROM GAS OILS

William Judson Mattox and Charles Newton Kimberlin, Jr., Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application November 1, 1955, Serial No. 544,125

8 Claims. (Cl. 196—14.27)

1. A process for upgrading a hydrocarbon oil boiling within the range of about 450° to 1300° F. and including constituents boiling above about 950° F., and which contain metal-comprising contaminants, which comprises contacting said oil with about 50 to 400 volume percent

of a compound selected from the class of hydantoin and alkyl substituted hydantoin at a temperature in the



range of about 80° to 500° F., and segregating a treated oil.

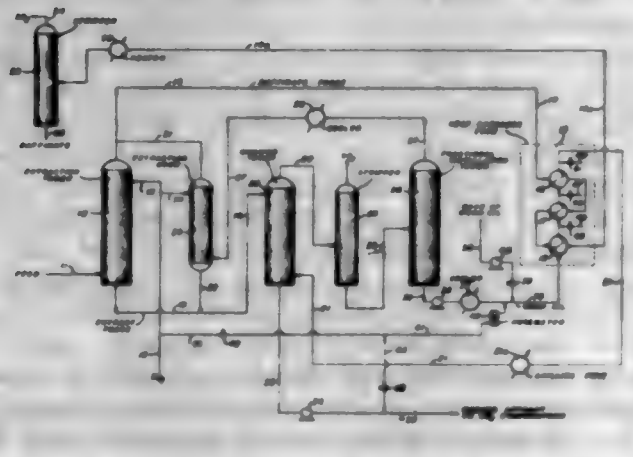
2,847,355

SOLVENT EXTRACTION PROCESS

John S. Bonner, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application July 21, 1955, Serial No. 523,580

5 Claims. (Cl. 196—14.47)



1. In a low temperature sulfur dioxide extraction of a hydrocarbon fraction boiling in the range from about 100° to about 600° F. in which aromatic hydrocarbons are separated from aliphatic hydrocarbons into a solvent-containing extract phase and a raffinate phase and the extract phase is contacted in a washing zone with an aliphatic hydrocarbon wash oil containing moisture and having a higher boiling range than the aliphatic hydrocarbons in the hydrocarbon fraction and in which the raffinate phase containing sulfur dioxide is passed in heat exchange relationship in a heat exchange zone with the wash oil at a sufficiently low temperature such that the viscosity of the wash oil increases to an extent to impair heat transfer efficiency and ice tends to form in said heat exchange zone, the improvement which comprises introducing into the wash oil prior to complete passage through said heat exchange zone a sufficient amount of a cooled solvent-containing component of said extract phase to form a single liquid phase of reduced viscosity and to inhibit formation of ice whereby the heat transfer in said heat exchange zone between the raffinate phase and the wash oil is improved, and then returning said wash oil including said solvent-containing component to said washing zone.

2,847,356

FLOTATION DEWAXING

Willem Johan Pieters, Lucas Alders, and Johannis Deers, Amsterdam, Netherlands, assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application September 15, 1953, Serial No. 380,357

Claims priority, application Netherlands September 19, 1952

8 Claims. (Cl. 196—19)

1. In a flotation process of dewaxing oils wherein a mixture of solid wax and oil is separated into an oil product containing a smaller proportion of wax than in said mixture and a wax product containing a smaller proportion of oil than in said mixture by means of a passing of a gas through said mixture to a surface thereof in the presence of less than about 1% by weight of a separate aqueous phase thereby producing a wax-bearing gaseous froth and a remaining oil phase as the only liquid phase and separating said wax-bearing froth from said remaining oil phase, the improvement comprising effecting said passing of gas through said mixture in the presence of a minor amount of an at least partially oil-soluble surface-active agent.

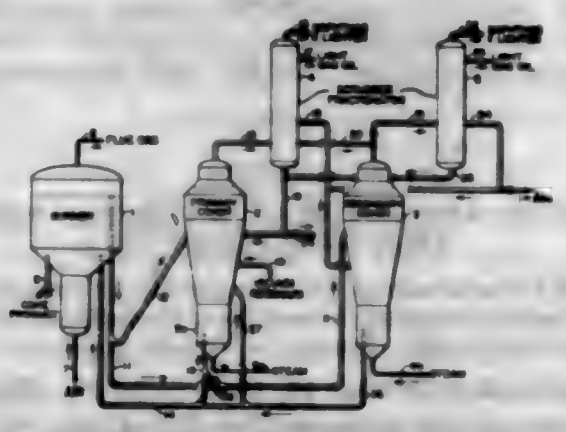
2,847,357

FLUID COKING PROCESS

John F. Moser, Jr., Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application June 21, 1954, Serial No. 438,277

3 Claims. (Cl. 196—49)



1. A process for upgrading heavy petroleum oils to obtain maximum quantities of light and middle distillates with a minimum of degradation products, comprising introducing a high boiling petroleum oil into a coking zone containing a fluidized bed of particulate coke maintained at a coking temperature in the range of 950° to 1200° F., whereby said high boiling petroleum oil is pyrolytically upgraded depositing carbonaceous residue on said particulate coke and evolving relatively lighter hydrocarbon vapors, withdrawing and separating from said relatively lighter hydrocarbon vapors, products having an end boiling point in the range of 600° to 950° F., an intermediate heavy distillate fraction boiling above said end boiling point and residue boiling above a temperature in the range of 950° to 1150° F., recycling said residue to said coking zone for further treatment therein, injecting said heavy distillate fraction into a milder thermal cracking zone containing another fluidized bed of particulate coke maintained at a thermal cracking temperature in the range of 600° to 850° F., whereby said heavy distillate fraction is converted predominantly in liquid phase to relatively lower boiling hydrocarbons, recovering said relatively low boiling hydrocarbons, and circulating portions of the fluidized coke in said coking and thermal cracking zones to an external heating zone and back to maintain said coking and thermal cracking temperatures.

2,847,358

CONVERSION OF WAX INTO OIL

Jacob D. Kemp, El Cerrito, and Robert P. Sieg, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application September 24, 1954
Serial No. 458,276
10 Claims. (Cl. 196—49)

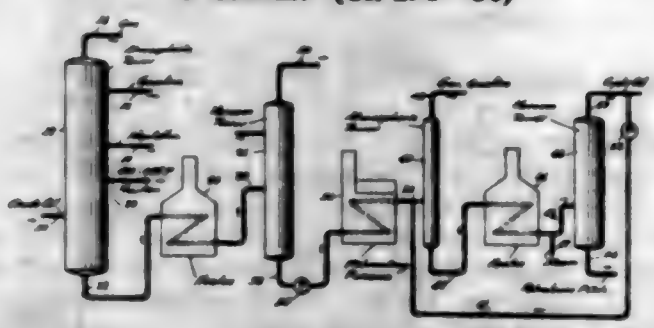
1. The process of producing oil from a hydrocarbon wax, which comprises passing said hydrocarbon wax in the liquid phase and at a temperature between about 600 and 800° F., through a catalyst comprising activated alumina on which is deposited from 0.1 to 10% by weight, in terms of the metal component thereof, of at least one compound selected from the group consisting of the oxides of vanadium and tungsten, together with at least one metal oxide selected from the group consisting of molybdenum oxide, cobalt oxide and nickel oxide.

2,847,359

PETROLEUM PITCH AND PROCESS FOR ITS MANUFACTURE

Harold Beuther, Penn Township, Allegheny County, and William C. Offutt and Paul Slecke, Mount Lebanon Township, Allegheny County, Pa., assignors, by direct and mesne assignments, to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application July 2, 1953, Serial No. 365,644
3 Claims. (Cl. 196—50)



1. A process for the preparation of a petroleum pitch substantially completely soluble in benzene and having a softening point above 350° F. comprising distilling a reduced crude petroleum oil selected from the group consisting of paraffinic and mixed base crude oils under a vacuum to produce a residual stock having a Conradson carbon number of at least 18, an API gravity below 10, and a viscosity, SUS at 210° F., of at least 6000, heating the residual stock to a temperature of 900° to about 1000° F. and quickly thereafter quenching the heated residual stock to bisbreak the residual stock in a high severity, short-period visbreaking operation, said visbreaking operation yielding about 15% gasoline and lighter hydrocarbons, flashing low boiling fractions from the visbroken products to leave a visbroken bottoms product, heating the visbroken bottoms, and vacuum distilling the thus heated bottoms at a distillation temperature above 1075° F., corrected to 760 mm. of mercury absolute pressure, in the presence of steam to form the petroleum pitch as a residual product.

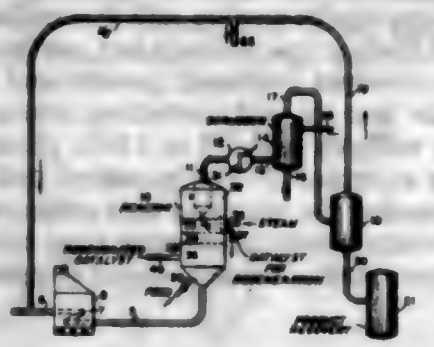
2,847,360

HYDROFORMING PROCESS WITH TEMPERATURE GRADIENTS

Charles E. Hemminger, Westfield, Homer Z. Martin, Cranford, Wilson C. Rich, Jr., Mountainside, and Edward J. Gornowski, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application October 5, 1953, Serial No. 384,261
4 Claims. (Cl. 196—50)

1. In a process for hydroforming petroleum naphthas in contact with finely divided hydroforming catalyst particles in accordance with the fluidized solids technique, the improvement which comprises maintaining temperature gradients in the reactor by feeding naphtha reactant vapors to a lower portion of a vertical reactor containing a plurality of superimposed beds of fluidized solids catalysts at reaction temperature within the range of about 800° to 1000° F.; passing the reactant vapors upwardly through successive zones containing the beds of catalyst; introducing hot recycle gas at a temperature between about 1000° and 1300° F. and hot regenerated catalyst



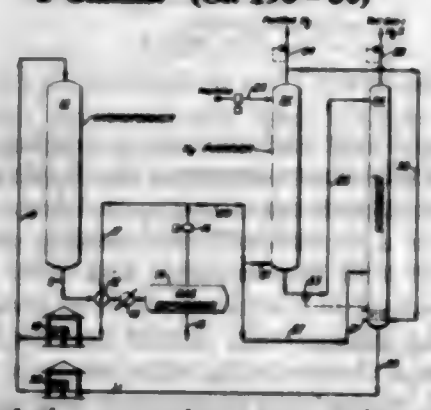
to a lower portion of the reactor; withdrawing spent catalyst from an upper portion of the reactor; regenerating and heating the catalyst by an oxidative combustion process; returning the hot regenerated catalyst to the lower portion of the reactor as aforesaid; and thereby maintaining a concurrent flow of naphtha vapors and catalyst in which successive higher zones of said reactor are at successively lower reaction temperatures.

2,847,361

SEPARATION OF HYDROGEN SULFIDE AND HYDROCARBONS FROM HYDROGEN STREAMS

Robert J. Hengstebeck, Valparaiso, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application April 12, 1954, Serial No. 422,323
5 Claims. (Cl. 196—50)



1. In a catalytic conversion system wherein there is a net production of hydrogen containing H_2S and condensable hydrocarbons, the method of obtaining a purified hydrogen stream which comprises countercurrently scrubbing a portion of the net hydrogen stream with absorber oil in a first absorption zone under pressure for effecting removal of H_2S and condensable hydrocarbons from said portion, countercurrently scrubbing the remainder of the net hydrogen stream in a second absorption zone with rich absorber oil obtained from the bottom of the first absorption zone whereby condensable hydrocarbons are recovered in the absorber oil from the total total net hydrogen stream and the H_2S from the total net hydrogen stream is concentrated in tail gas vented from the top of the second absorption zone.

2,847,362

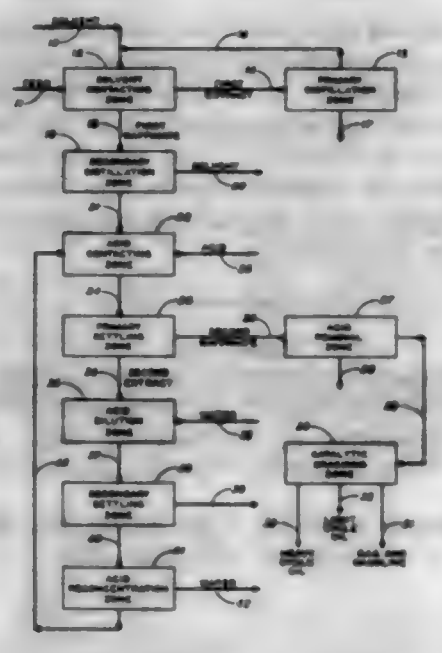
TWO-STAGE TREATING PROCESS

Jacob David Kemp, El Cerrito, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application September 29, 1954, Serial No. 459,868
9 Claims. (Cl. 196—50)

6. In a process for the conversion of hydrocarbon oils which contain basic nitrogen compounds and organo-

metallic compounds, the steps comprising contacting said hydrocarbon oils with methanol in a solvent contacting zone; recovering a first raffinate and a first extract composed essentially of methanol and highly basic nitrogen compounds; passing said first extract into a primary distillation zone wherein said first extract is separated into an overhead fraction composed essentially of methanol and a bottoms fraction composed essentially of highly basic nitrogen compounds; passing said first raffinate into a secondary distillation zone wherein any methanol in said first raffinate is removed overhead; passing said methanol-free first raffinate into an acid contacting zone and there contacting the raffinate with 90 to 116% phosphoric acid in an amount in excess of 0.10 pound of acid per gallon of raffinate; passing the resulting acid-raffinate mixture into a primary settling zone; recovering from said settling zone as the bottom layer a second extract composed essentially



of phosphoric acid and containing organo-metallic compounds and nitrogen compounds less basic than the basic nitrogen compounds contained in said first extract, and as the top layer a second raffinate; passing said second extract into an acid dilution zone and there adding water to dilute the acid to a concentration of from about 40 to 50% H_3PO_4; passing said diluted acid into a secondary settling zone and recovering an upper layer composed essentially of nitrogenous compounds and organo-metallic compounds and a bottoms layer composed essentially of dilute H_3PO_4; passing said dilute acid bottoms layer into an acid concentration zone wherein water is removed and the H_3PO_4 is concentrated to the range of from about 90 to 116%; treating said second raffinate so as to remove substantially all of the acid therefrom; and contacting the acid-free second raffinate with a catalytic cracking catalyst under cracking conditions to form substantial amounts of low boiling hydrocarbons.

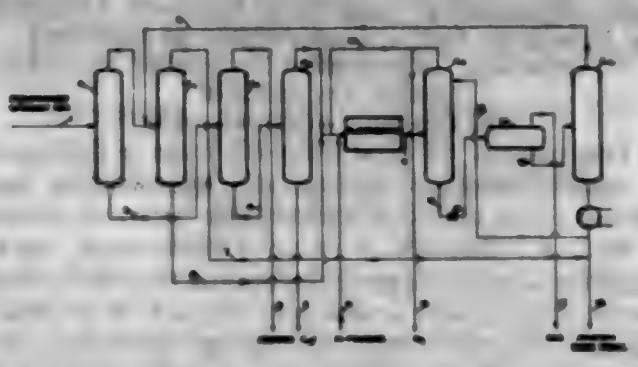
2,847,363

AROMATIZATION OF STRAIGHT RUN NAPHTHENIC GASOLINES

Ivor Gray Nixon, The Hague, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application August 23, 1955, Serial No. 529,986
Claims priority, application Netherlands October 24, 1951
4 Claims. (Cl. 196—50)

2. In the production of gasoline from straight run naphthenic distillates boiling in the gasoline boiling range the improvement which comprises removing from the distillate all of the material boiling up through hexane and material boiling above the gasoline boiling range, adding to the remainder from 25 to about 70% of the amount thereof of normal pentane, reforming the resulting mixture in the presence of added hydrogen with an



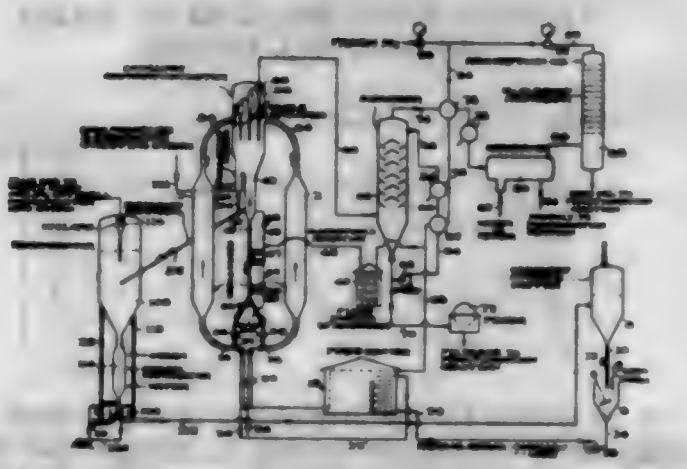
acid platinum catalyst, and fractionating the resulting product to separate normal pentane.

2,847,364

PROCESS FOR CONVERSION OF HYDROCARBONS AND FOR TRANSPORT OF SOLID PARTICLES

Joel H. Hirsch, Oakmont, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application September 12, 1952, Serial No. 309,234
8 Claims. (Cl. 196—53)



5. A cyclic catalytic operation for converting a high boiling hydrocarbon which contains residual components into lower boiling hydrocarbons wherein the catalyst, during each cycle, is treated with hydrogen to remove carbonaceous deposits therefrom, which process comprises introducing particles of hydrogenating catalyst which are suspended in vapor of the high boiling hydrocarbon and hydrogen and which contain a substantial amount of absorbed liquid hydrocarbon into the lower part of a reaction chamber which is maintained under destructive hydrogenation conditions, preventing substantial repeated contact of catalyst particles with fresh high boiling hydrocarbons during a single cycle by maintaining, at the hydrocarbon charging zone, a linear velocity of the gas and vapors above the velocity of reverse flow of the catalyst particles, removing treated hydrocarbon vapors and unreacted hydrogen together with catalyst particles from the top of the reaction chamber, separating these removed catalyst particles from the treated hydrocarbon vapors and hydrogen, treating at least part of the separated catalyst particles with hydrogen at a temperature which will cause destructive hydrogenation of carbonaceous material deposited on the catalyst particles, again passing these catalyst particles and fresh high boiling hydrocarbon together with hydrogen through said reaction chamber, maintaining the recycled catalyst particles during the entire cyclic operation at substantially the pressure which exists in the reaction chamber, passing part of the separated catalyst particles into one end of a conduit communicating with a regenerator at a substantially lower pressure, adjusting the density of the particles in the conduit by introducing gas into the con-

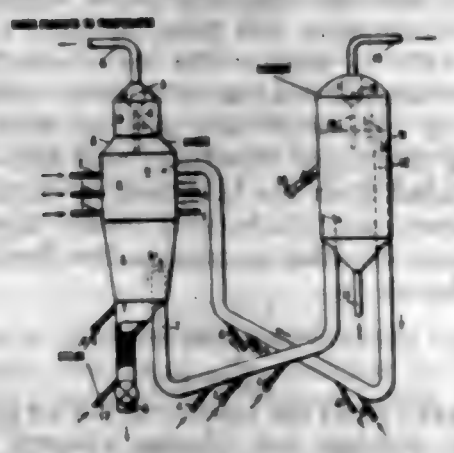
duit, maintaining the catalyst particles suspended in said gas during the entire period of passage through the conduit, removing the catalyst particles from the other end of the conduit, regenerating these catalyst particles and returning them to the reaction chamber for re-use in the process.

2,847,365

COKING PROCESS AND APPARATUS

Byron V. Molstedt, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application April 21, 1954, Serial No. 424,671
4 Claims. (Cl. 196—55)



2. In a process wherein a petroleum oil is subjected to pyrolysis by contact with a fluidized mass of high temperature particulate coke in a coking vessel, vapors are removed overhead as product, a portion of said mass is continuously circulated to an external heating zone and back to supply the necessary heat for the pyrolysis and the excess coke produced by the pyrolysis is removed as product, an improved method for preventing the accumulation of oversized particles that disrupt fluidization and circulation of the solids in said process comprising circulating only particulate coke below a predetermined size from said coking vessel to said external heating zone and back to supply said heat, collecting in the base of said coking vessel oversized particles above said predetermined size as a mobilized mass fluidized at minimum fluidization gas velocities in the range of 0.1 to 2.5 ft./sec. and withdrawing said oversize particles from said system as product.

3. In a system wherein heavy petroleum oils are subjected to pyrolysis in a coking vessel, wherein product vapors are removed overhead and wherein conduit means are provided for circulating particulate coke from said coking vessel to a heating vessel and back, the improvement comprising restraining means in said coking vessel at the entrance of said conduit means for preventing flow of solid particles greater than a predetermined size from said coking vessel to said heating vessel, a trap located in the lower portion of said coking vessel below said restraining means permitting the collection of coke particles above said predetermined size, means for aerating at minimum fluidizing gas velocities the particles so collected and conduit means for withdrawing particles so collected.

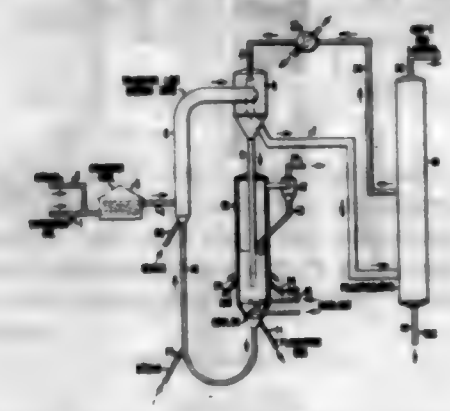
2,847,366

STEAM CRACKING PROCESS

Worth William Bolsture, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application March 4, 1955, Serial No. 492,273
3 Claims. (Cl. 196—63)

1. In a now catalytic, steam cracking process wherein an oil is diluted with steam and subjected to cracking temperatures in the range of 1200° to 1600° F. in a cracking coil, the improvement which comprises introducing the high temperature effluent from said coil into a transfer line quench zone containing a dispersed suspension of flowing relatively cool particulate solids, the solids-feed ratio being in the range of 10–2, the density of the resultant mixture being in the range of 2–10 lbs./ft. and the average solids residence time in the transfer line quench zone being in the range of 1 to 7 seconds whereby said effluent is quench to a temperature in the range of 800° to 1000° F. and liquid residue in an amount of from 1



to 5% on oil feed is deposited on said solids, separating solids and vapors from the effluent so quenched in a separation zone, further cooling said vapors by injecting a relatively cool quench oil, passing solids from said separation zone to a cooling zone containing a fluid bed of solids, circulating a coolant in indirect heat transfer relationship with said fluid bed to maintain the temperature thereof at least 100° F. below the temperature of said transfer line quench zone, and circulating cool solids from said fluid bed to said transfer line quench zone.

2,847,367

MICROCRYSTALLINE WAX COMPOSITIONS

John W. Walsh, Crystal Lake, and Weldon Grant Annable, Mundelein, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application October 29, 1954
Serial No. 465,736
4 Claims. (Cl. 196—149)

1. A microcrystalline hydrocarbon wax composition of high laminating strength and low-temperature flexibility consisting of approximately 85 parts by weight substantially oil-free microcrystalline hydrocarbon wax having a melting point between 170 and 180° F. and approximately 15 parts by weight of an aromatic extract obtained by solvent extraction of mineral lubricating oil fractions, said composition having a laminating strength of at least 69 grams per inch and a flexibility at about —10° F. of at least 30 bends.

2,847,368

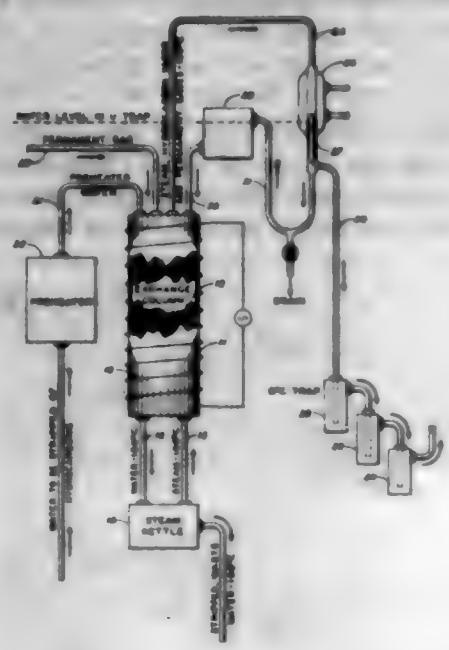
EXTRACTION OF HYDROCARBONS FROM WATER

Albert E. Worthington, Laguna Beach, Charles J. Walters, La Habra, and Keith E. Chave, La Mirada, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application September 24, 1956, Serial No. 611,606
7 Claims. (Cl. 202—46)

1. The method of extracting trace amounts of hydrocarbons from water comprising the steps of introducing said water into an exchange column, introducing steam into said column to provide a countercurrent contact between said steam and said water, the continued contact of said steam with said water in said column producing a number of theoretical equilibrium stages between said steam and said water to remove said hydrocarbons from

said water and to cause said removed hydrocarbons to move to the top of said column, withdrawing said removed



hydrocarbons from said column, and condensing said withdrawn hydrocarbons.

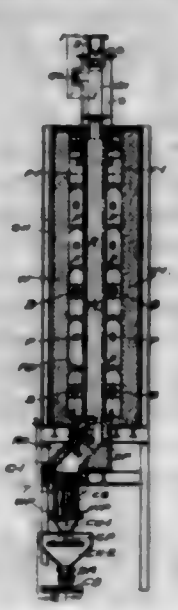
2,847,369

VERTICAL RETORTS WITH A SIDE DISCHARGE DEVICE

Robert H. Hughes and Charles H. Hughes, Glen Ridge, N. J., Fred P. Hart, Whitestone, N. Y., and Harold Reintjes, Short Hills, N. J.; said Robert H. Hughes, said Charles H. Hughes, and said Hart assignors to Hughes By-Product Coke Oven Corporation, New York, N. Y., a corporation of New York, and said Reintjes assignor to Petrocarb Equipment, Inc., New York, N. Y., a corporation of Delaware

Application September 13, 1954, Serial No. 455,532

4 Claims. (Cl. 202—120)



1. In a continuously-operated, vertical retort having a rectangular cross section and heated indirectly by external flues capable of heat treating solid material including the carbonization of carbonaceous material and the production of red hot coke and other hot products, the improvement which comprises a refractory deflector floor located directly under the retort to support the vertical, rectangular column of hot material undergoing heat treatment and extending from a broad side of the rectangular retort to beyond the axis of the retort and the other broad side thereof, said deflector floor having a slope greater than the angle of repose of the heat-treated material after heat treatment and being constituted of a substantially flat sliding surface, a plurality of front piers and associated arches supporting said other broad side of said retort to provide side discharge ports for the heat-treated material, back piers having negative skew angles and extending from said front piers to the wall surface of said first named broad side of said retort, said back piers being wider than said front piers at the plane of junction to prevent the depositing of heat-treated material and the impeding of flow of said material, a covering roof located over said deflector floor at approximately the same angle thereof and defining and encompassing a closed discharge chamber with said floor and side walls, said discharge chamber communicating with said side discharge ports, supporting means positioned underneath said deflector floor, covering roof and side walls to support the same together with the vertical, rectangular column of material undergoing heat treatment in the retort and the hot heat-treated material being discharged therefrom, said supporting means being protected from the heat coming from the interior of said retort, and discharging means mounted under said discharge chamber to remove free-flowing hot heat-treated material.

2,847,370

METHOD OF ORNAMENTATION

Leonard L. Howard and Charles Maxwell Tyler, Crisfield, Md., assignors to Chas. D. Briddell, Inc., Crisfield, Md., a corporation of Maryland

Application September 18, 1956, Serial No. 610,565

1 Claim. (Cl. 204—18)



A method of ornamenting a plastic article with a metallic inlay consisting of molding a portion of the design in the plastic article to produce ridges and cavities in the surface thereof, directly spraying the entire plastic surface of the article with a vehicle containing a conductive base metal, drying and removing said vehicle from the sprayed article, removing the conductive base metal from the ridges by buffing, subjecting the article to an electroplating bath containing a metallic salt so as to deposit the metal in the cavities of the article, removing the article from the bath when the metal is plated to the desired thickness, abrading the article to bring the plastic and metal portions to a smooth surface finish, and finally buffing the article and applying a protective coating thereto.

2,847,371

CHROMIUM PLATING ON ALUMINUM

Paul J. Topelian, Newark, N. J., assignor to Tiarco Corporation, Newark, N. J., a corporation of New Jersey

No Drawing. Application June 28, 1955

Serial No. 518,663

10 Claims. (Cl. 204—33)

1. A process of electroplating an aluminum article with chromium comprising immersing the article in an aqueous solution containing chromic acid, hydrochloric acid and chromic chloride, the ingredients being present by conventional means to the upper end of the conductor in the approximate proportions of three (3) pounds of chromic acid, five (5) gallons of hydrochloric acid having a concentration of about 20° Bé. and ten (10) to twenty (20) ounces of chromic chloride, removing the article from the solution after gassing occurs, and electroplating with chromium.

2,847,372
METHOD OF ELECTROLYTICALLY COATING A METALLIC OBJECT WITH PLATINUM

Popko Reinder Dijksterhuis and Albertus Remko Hovingh, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application September 18, 1956
Serial No. 610,675
Claims priority, application Netherlands October 19, 1955
3 Claims. (Cl. 204—37)

1. A method of electrolytically coating a metallic object with platinum comprising the steps, immersing the metallic object in an electrolytic bath comprising an aqueous solution of chloroplatinic acid (H_2PtCl_6) and mercuric chloride, the concentration of the chloroplatinic acid being from about 150 to 300 gms. per liter and the concentration of the mercuric chloride being about 1 to 15 gms. per liter, while passing a suitable current through the bath for a time sufficient to deposit a layer of platinum black of the desired thickness, and sintering said layer at a temperature of about 1000° C. to convert it to platinum substantially free of mercury.

2,847,373
ELECTROPLATING ZINC ON BASIS METAL

John E. Logan, Pittsburgh, Pa., assignor to The Wean Engineering Company, Inc., Warren, Ohio, a corporation of Ohio

No Drawing. Application November 12, 1953
Serial No. 391,743
4 Claims. (Cl. 204—55)

1. A method of electroplating zinc on basis metal comprising passing an electroplating current from an anode to the basis metal as a cathode through an acid electrolyte consisting essentially of about the quantities below indicated of the ingredients listed:

Zinc sulphate	16 oz. of zinc as metal per gallon of electrolyte.
At least one metal of the group consisting of calcium and strontium	.004 oz. per gallon of electrolyte.
A silicofluoride	.2 oz. per gallon of electrolyte.

2,847,374
METAL PROCESSING

Hugh G. Webster and Robert H. Shoemaker, Detroit, Mich., assignors to Kolene Corporation, Detroit, Mich.

No Drawing. Application June 12, 1956
Serial No. 590,840
8 Claims. (Cl. 204—145)

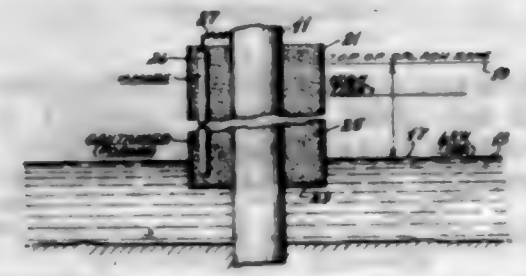
6. A stress-relieving bath composition in which the metal parts are heated for stress-relieving, comprising by weight, about 75 to 90% sodium hydroxide, 7 to 13% sodium chloride, up to about 6% sodium fluoride, 0.5 to 5% sodium aluminate and 1 to 15% of a hydrated hydroxide of an alkali earth metal.

2,847,375
APPARATUS FOR CORROSION PREVENTION

Gordon J. W. Murphy, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

Application July 13, 1953, Serial No. 367,678
2 Claims. (Cl. 204—197)

1. In combination a metal member which extends from above the surface of a body of an aqueous electrolyte down into said body below the lowest surface level reached thereby, said member having at least a part thereof above said lowest surface level that is normally wet only intermittently by aqueous electrolyte from said body; a bibulous mass of material coextensively surrounding and contacting said part and extending down below said lowest surface level; an aqueous electrolyte permeable shell coextensively surrounding and contacting said mass and retaining said mass in contact with said metal member; a sacrificial metal anode of metal which has a higher anodic solution potential than does

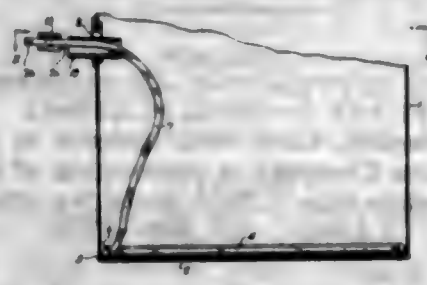


the material of said metal member, said anode being entirely imbedded within said mass in spaced relationship to said member and said shell and connected electrically to said metal member in a manner to permit autogenous generation and impression of electrical current upon said metal member.

2,847,376
APPARATUS FOR ELECTROCLEANING WELDS IN INTERNAL CORNERS

Cecil Schofield, Lakewood, Ohio, assignor to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey

Application November 5, 1954, Serial No. 467,171
7 Claims. (Cl. 204—224)



1. Apparatus for electrocleaning welds at the internal corners of a metal drum having a bung hole, comprising a pair of elongated electrodes, each having a semicircular lengthwise contour, said electrodes together forming a substantially complete circle having a diameter slightly smaller than that of one end of the drum, spacer means of insulating material attached to said electrodes and adapted to engage both sides of a corner, a pair of elongated handle bars, one attached to each electrode at adjacent ends thereof, said bars having a curved lengthwise contour such that when the electrodes are adjacent one end of the drum, with said spacer means engaging said one end and the adjacent side, the bars are spaced inwardly from the sides of the drum and the free ends of the bars project outwardly through the bung hole, said bars extending closely parallel throughout most of their length and being curved away from each other adjacent their outer ends, a clamp engaging said outer ends and forcing them toward each other and thereby forcing said spacer means against the sides and ends of the drum, and means for supplying electric current to the outer ends of the bars.

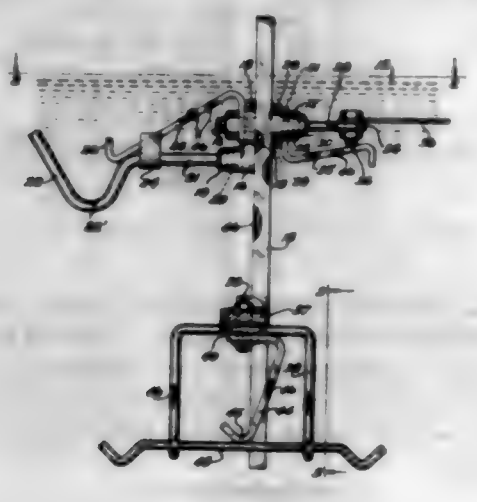
2,847,377
ELECTROPLATING RACKS

Sylvester T. Stroinski, deceased, late of Milwaukee, Wis., by Lucille E. Stroinski, administratrix, Milwaukee, Wis.

Application February 1, 1954, Serial No. 407,363
6 Claims. (Cl. 204—297)

1. In a plating rack having a metallic spine adapted to extend into an electrolyte, a station supporting member having a base secured to said spine in a position to be below the level of the electrolyte and having spaced sockets projecting from said base, a band spring hav-

ing one end secured to said spine and having a part which extends away from the spine and which has a deflectable pressure exerting end, a metal article-holding station member having spaced inner ends slidably supported in electric circuit completing position in said sockets and having means at its other end for engaging



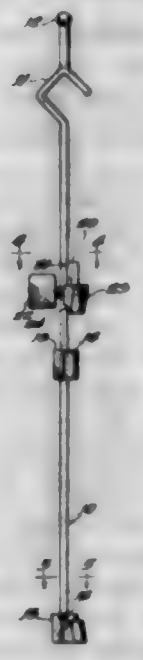
the article to be plated to support the latter and make electrical contact therewith, said deflectable end of the spring being located to resiliently press against said article-holding station part to prevent accidental displacement from the sockets and to improve the circuit completing engagement therein.

2,847,378

RACK FOR SUPPORTING AN ELECTROTYPE PLATE DURING PLATING

Elmore H. Mundell, Gary, Ind., assignor to R. R. Donnelley & Sons Company, a corporation of Delaware

Application May 7, 1954, Serial No. 428,176
1 Claim. (Cl. 204—297)



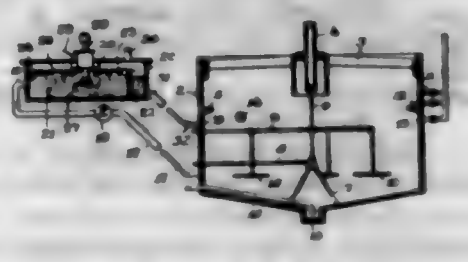
A rack for supporting a curved electrotype plate during plating, comprising: a vertically elongated, relatively narrow rack bar which has a metal hook at its upper end portion for engagement with an electric conductor member to suspend the rack vertically, said rack bar having a longitudinal slot; a series of transverse teeth on the rack bar; an elongated metal contact member on and intermediate the upper and lower ends of the rack bar which is in electric communication with the hook and has an arcuate forward face of substantial area adapted to make a substantially continuous surface contact with the back of a curved electrotype plate; an arcuate, transverse ledge member at the lower end of the rack bar to support an electrotype plate with its rear surface in contact with the face of the conductor member, said ledge member having upstanding means at its forward margin to engage the lower marginal portion of a plate; and clamp means vertically slidably mounted on the rack bar above the contact member, said clamp means including a clamp block having an arcuate rear face with overhanging lip means at the front, a toothed finger which extends upwardly from the clamp block, and screw means to draw the lip means of the clamp block rearwardly into firm clamping engagement with the top marginal portion of a plate which is on the ledge member and press said plate into firm electric contact with the contact member, and to engage the toothed finger with the teeth on the rack bar.

2,847,379

METHOD AND APPARATUS FOR TREATING SEWAGE SLUDGE

Milton Spiegel, Glencoe, and Miles A. Lamb, Chicago, Ill., assignors to Chicago Pump Company, a corporation of Delaware

Application May 31, 1952, Serial No. 290,848
2 Claims. (Cl. 210—6)



1. In a sewage sludge digestion apparatus, a heater tank comprising two compartments with an inlet leading to one of said compartments and an outlet leading from the other, a weir separating said compartments, the top edge of said weir extending high enough to prevent sludge entering said inlet from passing directly through said outlet, and a burner in said one compartment, said burner having ports positioned below the level of the top edge of said weir whereby sludge in said one compartment is heated by said burner before it passes over said weir into said other compartment.

2,847,388

LUBRICATING COMPOSITION CONTAINING SURFACE-ESTERIFIED SILICEOUS SOLID AND ORGANOPHILIC CLAY

Jacques L. Zakin, Flushing, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application January 17, 1955
Serial No. 482,383
9 Claims. (Cl. 252—28)

1. A grease composition consisting essentially of an oleaginous lubricant liquid and a sufficient amount to thicken said liquid to a grease consistency of a thickening agent consisting essentially of a mixture of an organophilic bentonite in which the exchangeable inorganic cation has been replaced by an organic ammonium base having a carbon chain of at least 10 carbon atoms and an organophilic esteril comprising a supercolloidal substrate coated with —OR groups, the substrate having a surface of silica and having a specific surface area of from 25 to 900 square meters per gram, the coating of —OR groups being chemically bound to said silica, R being a hydrocarbon radical of from 2 to 18 carbon atoms, wherein the carbon atom attached to oxygen is also attached to hydrogen in which the weight ratio of said bentonite to said esteril is between about 3:1 to about 1:3.

2,847,381
ANHYDROUS CALCIUM-BASE GREASE
Thomas W. Martinek, Crystal Lake, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
No Drawing. Application December 13, 1955
Serial No. 553,709
6 Claims. (Cl. 252—39)

1. An anhydrous calcium soap grease comprising viscous mineral oil and a gelation agent consisting essentially of calcium soaps of mixed acids from group (1) saturated, hydroxy fatty acids having 12–24 carbon atoms, and group (2) saturated, non-hydroxy fatty acids having 20–24 carbon atoms in the molecule and differing in the number of carbon atoms by at least 2 from the number of carbon atoms in the group (1) acid, the group (1) acid constituting approximately 25–75% by weight of the mixed acids of said calcium soaps, and the group (2) acid constituting approximately 75–25% by weight of the mixed acids of said calcium soaps, the gelation agent being present in a sufficient amount to produce a gelled grease structure, and approximately 0.5–15% by weight of final composition of a calcium salt of an aliphatic mono-carboxylic acid having 1 to 8 carbon atoms.

2,847,382
PROCEDURE FOR MANUFACTURE OF LITHIUM GREASE
Marvin E. Erwin, Leslie U. Franklin, and Julius C. Gebhart, Port Arthur, Tex., assignors to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application August 30, 1954
Serial No. 453,118
5 Claims. (Cl. 252—41)

1. A method of preparing a lithium base grease which comprises heating a mixture comprising a fatty material, a lithium compound capable of saponifying therewith, an oil and about 0.6 to about 3.0 percent by weight of water in a closed container until a pressure of about 30 to about 90 pounds per square inch is reached, venting the vapors formed therein from said container beginning at said pressure and progressively reducing the pressure therein while continuing to heat the same, continuing such heating until the contents of said container are substantially simultaneously at a temperature of about 360° to about 420° F. and about atmospheric pressure, and thereafter adding to the resulting mixture obtained additional oil to produce the desired grade of grease.

2,847,383
SYNTHETIC DIESTER LUBRICATING OILS
Raymond Spencer Airs, Hooton, Philip James Garner, Hooton, Wirral, James Hartley, Whitby, Wirral, and James Donald Shimmin, Little Sutton, England, assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware
No Drawing. Application October 12, 1953
Serial No. 385,678
Claims priority, application Great Britain November 19, 1952
15 Claims. (Cl. 252—42.7)

11. A synthetic lubricating oil prepared by a process comprising heating a mixture of a substantial amount of each of at least two normally liquid diesters of at least one saturated aliphatic dicarboxylic acid in which the carboxyl radicals are separated by a chain of from about 4 to about 12 carbon atoms and alkanols of from about 4 to about 20 carbon atoms, said mixture containing not less than 5 parts of each diester per 100 parts by weight of said mixture, with an alkali metal to a temperature above the melting point of said alkali metal and below the temperature at which the mixture of diesters decomposes.

12. A synthetic lubricating oil composition comprising a major proportion of the synthetic lubricating oil of claim 11, a polymer of an ester of an alpha, beta-olefinically unsaturated acid, and an amount of a group II metal salt of a condensation product of an alkyl substituted phenol, said alkyl group having at least 4 carbon atoms, and an aldehyde sufficient to give a metal content to the composition of from about 0.01% to about 1.0% by weight.

2,847,384
DESCALANT COMPOSITION AND USE
Dwight B. Conklin, Wyandotte, Mich., and Robert S. Shane, Danbury, Conn., assignors to Wyandotte Chemicals Corporation, Wyandotte, Mich., a corporation of Michigan
Application October 19, 1954, Serial No. 463,148
2 Claims. (Cl. 252—82)

1. A descalant composition consisting essentially of (1) 60% by weight of sodium xylene sulfonate, (2) 30% by weight of sodium acid sulfate, (3) 6% by weight of tartaric acid and (4) 4% by weight of a cogeneric mixture of conjugated polyoxypropylene-polyoxyethylene compounds containing in their structure oxypropylene groups, oxyethylene groups and an organic radical derived from an organic compound containing a plurality of reactive hydrogen atoms, the compounds being characterized in that all of the oxypropylene groups are present in polyoxypropylene chains that are attached to the organic radical at the site of a reactive hydrogen atom to thereby constitute a polyoxypropylene polymer, the oxyethylene groups are attached to the polyoxypropylene polymer in polyoxyethylene chains, the average molecular weight of the polyoxypropylene polymers in the mixture is at least 900 as determined by hydroxyl number, and the oxyethylene groups present constitute 20–90% by weight of the mixture.

2,847,385
DETERGENT-SOIL SUSPENDING COMPOSITION CONTAINING CARBOXYMETHYL DEXTRAN
Malvern J. Hiler, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
No Drawing. Application October 7, 1954
Serial No. 461,005
20 Claims. (Cl. 252—152)

1. A detergent-soil suspending composition consisting essentially of a synthetic soapless detergent selected from the group consisting of anionic and non-ionic detergents and carboxymethyl dextran containing an average of 0.2 to 3.0 carboxymethyl groups per anhydroglucose unit in an amount of from 0.1% to 5.0% on the combined weights of the detergent and carboxymethyl dextran.

2,847,386
ELECTROLUMINESCENT MATERIALS
Robert M. Mazo, Camden, and Simon Larach, New Brunswick, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application November 27, 1953, Serial No. 394,647
5 Claims. (Cl. 252—301.6)



1. A method for producing an electroluminescent material which comprises heating together in a bromine containing atmosphere at temperatures of about 1000° C. to 1200° C. a mixture comprising about 50 to 70 mole percent of zinc sulphide, about 50 to 30 mole percent of zinc selenide, and about 0.08% to 0.2% by weight of copper activator.

2,847,387

ALUMINA COMPOSITIONS

Everet F. Smith, Des Plaines, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application December 30, 1954
Serial No. 478,935
6 Claims. (Cl. 252—466)

1. A method for preparing alumina from aluminum which comprises reacting aluminum metal with water in the presence of about 0.1 to 2 percent by weight of gallium as catalyst, at a temperature above about 140° F. for a time sufficient to form hydrous alumina.

4. The method of claim 1 including the step, after formation of said hydrous alumina, of incorporating platinum therein.

2,847,388

FOUNDRY SAND CORE COMPOSITIONS AND METHOD OF PREPARATION

Stuart H. Rider, Longmeadow, Thomas Anas, Springfield, and William D. Burke, West Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 5, 1954
Serial No. 421,194
10 Claims. (Cl. 260—17.3)

1. A foundry sand core composition consisting essentially of about 1000 parts by weight of sand, about 7–15 parts by weight of cereal, about 35 parts by weight of water and about 7–20 parts by weight of a mixture of about 50–80% by weight of a core oil with, correspondingly, about 50–20% by weight of a compound taken from the group consisting of tetra-, penta- and hexamethylol melamines fully etherified with saturated aliphatic monohydric alcohols having from 1 to 6 carbon atoms.

2,847,389

SPINNING SOLUTION COMPRISING TERNARY POLYMERS OF ACRYLONITRILE DISSOLVED IN CONCENTRATED AQUEOUS SALT SOLUTIONS

Robert D. Evans, Norwalk, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 11, 1953
Serial No. 379,739
11 Claims. (Cl. 260—29.6)

1. A spinning solution comprising (1) a ternary polymer of a mixture of comonomers consisting of, by weight, from 2 to 15% of at least one acrylamide represented by the formula



where R represents a member of the class consisting of hydrogen and the methyl radical, from 1.5 to 15% of at least one vinylpyridine, and the remainder acrylonitrile, and (2) a solvent for said ternary polymer comprising a concentrated aqueous solution of a water-soluble salt which yields highly hydrated ions in an aqueous solution.

2,847,390

ORGANIC FLUOSILICATE-CONTAINING POLYMERIC COATING COMPOSITION AND METHOD OF APPLYING

Derek E. Till, Concord, Mass., assignor to Arthur D. Little, Inc., Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application August 28, 1956
Serial No. 606,545
12 Claims. (Cl. 260—29.6)

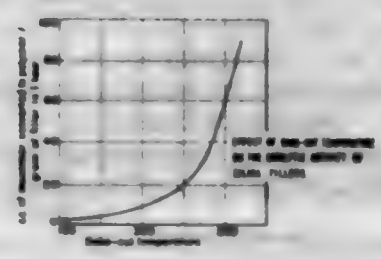
1. A coating composition comprising 5 to 15% by weight of a polymeric material selected from the group consisting of polyvinyl acetate, polyvinyl alcohol, polyvinyl acetals, copolymers of vinyl acetate and vinyl chloride, copolymers of vinyl alcohol and vinyl acetate, and copolymers of vinyl alcohol, vinyl acetate and vinyl chloride in admixture with 0.1 to 2% by weight of an organic amine fluosilicate based upon the amount of said polymeric material present in an inert liquid medium.

2,847,391

VAPOR-PHASE POLYMERIZATION OF TETRAFLUOROETHYLENE IN THE PRESENCE OF FILLERS

Ahlborn Wheeler, Arden, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application February 24, 1955, Serial No. 490,198
15 Claims. (Cl. 260—41)



9. A process for preparing filled compositions of polytetrafluoroethylene and inorganic fillers, containing at least 20% by weight of hydrated silica, comprising heating the filler to at least 400° C. and cooling to below 150° C. in the absence of water and admixing with tetrafluoroethylene within the range of —20° C. to 150° C. to cause polymerization of the tetrafluoroethylene in the absence of water.

2,847,392

METHOD OF CONDITIONING SOIL WITH A NONELECTROLYTE ELASTOMERIC CONJUGATED DIENE POLYMER

John C. Eck, Convent, N. J., assignor to Allied Chemical Corporation, New York, N. Y., a corporation of New York

No Drawing. Application June 15, 1953
Serial No. 361,827
9 Claims. (Cl. 260—41.5)

1. The method of improving the porosity of soils having low porosity which comprises impregnating the soil with a coagulable material consisting essentially of a latex of a water-insoluble, nonelectrolyte, elastomeric polymer produced by polymerization of a conjugated diene compound containing from 4 to 6 carbon atoms per molecule, the quantity of the polymer deposited being 12 to 100 pounds per acre of soil per inch of depth of penetration of the soil, thereby leaving the soil porous, loose and crumbly.

2,847,393

POLYEPOXIDE POLYESTER AND PHENOL-ALDEHYDE COMPOSITIONS AND PROCESS OF MAKING SAME

Sylvan O. Greenlee, Racine, Wis., assignor to S. C. Johnson & Son, Inc., Racine, Wis.

No Drawing. Application June 2, 1955
Serial No. 512,895
13 Claims. (Cl. 260—44)

1. Compositions useful for the production of complex reaction products comprising polyepoxide polyesters of tetrahydrophthalic acid and glycols, said polyesters containing epoxide groups formed by replacing one bond of the olefin linkage of tetrahydrophathalic acid with epoxy oxygen, and active hydrogen-containing phenol-aldehyde condensates.

2,847,394

COMPOSITIONS OF POLYEPOXIDE POLYESTERS AND AROMATIC SULFONAMIDE-ALDEHYDE CONDENSATES AND METHOD OF MAKING SAME

Sylvan O. Greenlee, Racine, Wis., assignor to S. C. Johnson & Son, Inc., Racine, Wis.

No Drawing. Application June 2, 1955
Serial No. 512,883
16 Claims. (Cl. 260—45.3)

1. Reaction mixtures useful in the production of more highly polymerized reaction products comprising polyepoxide polyesters of tetrahydrophthalic acid and glycols, said polyesters containing epoxide groups formed by replacing one bond of the olefin linkage of tetrahydrophthalic acid with epoxy oxygen, and active hydrogen-containing condensates of aromatic sulfonamides and aldehydes.

2,847,395

STABLE HEAT-CURING EPOXY RESIN COMPOSITIONS

Robert L. Wear, West St. Paul, Minn., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application June 13, 1955
Serial No. 515,229
14 Claims. (Cl. 260—47)

1. A composition of matter having a prolonged shelf life at normal room temperatures and capable of rapidly curing to a hard, tough state at moderately elevated temperatures comprising a blend of an epoxy resin having an average of more than one 1,2-epoxy group per average molecular weight and a polyfunctional hardener compound of the formula:

$$Z_aR_n\left(\begin{array}{c}O\\ \|\\ C\end{array}-NHNH_2\right)_{\nu-a}$$

wherein R is a polyvalent organic radical having ν valences, each of which valences emanates from a carbon atom, n is a member of the group consisting of zero and the integer 1, each Z is a member of the group consisting of the amino, hydroxyl, and carboxylic acyl hydrazide groups, and a is equal to $\nu-1$.

2,847,396

GUANYLUREA RESINS AND PROCESS FOR PRODUCING THEM

Lucien Sellet, Saddle River, N. J.

No Drawing. Application August 5, 1953
Serial No. 372,603
20 Claims. (Cl. 260—70)

1. A process for the production of water dispersible cation-active guanylurea resin compositions comprising reacting guanylurea with formaldehyde in the presence of water in a first stage reaction, the proportion of formaldehyde being in the range of 1.5 to 6.0 moles per mole of guanylurea to form a water soluble reaction product and, in a second stage reaction, reacting the water soluble reaction product of the first stage with a salt selected from the group consisting of basic aluminum acetate, an aluminum acetate having the formula

$$Al(OH)_2(CH_3COO)\cdot\tfrac{1}{3}H_3BO_3$$

aluminum formo acetate having the formula

$$Al(OH)(OOCH)(OOCCH_3)$$

aluminum formate, basic chrome sulfate, chrome sulfate, chrome alum ($Cr_2(SO_4)_3K_2SO_4\cdot12H_2O$), zirconium sulfate, basic zirconium sulfate, zirconium chloride, basic zirconium chloride, zirconium acetate, copper acetate, copper sulfate, copper chloride, iron formate, iron sulfate, iron gluconate, iron chloride, zinc acetate, zinc chloride and zinc formate, the amount of metal salt based on the amount of guanylurea used in the first stage being at least one quarter mole per mole of guanylurea.

2,847,397

PROCESS OF POLYCONDENSATION OF DIOL-ESTERS OF AROMATIC DICARBOXYLIC ACIDS

Johannes Kleine, Munich, and Erhard Siggel, Laudenbach (Main), Germany, assignors to Vereinigte Glanzstoff-Fabriken Aktiengesellschaft, Wuppertal-Elberfeld, Germany, a joint-stock company of Germany

No Drawing. Application December 22, 1953
Serial No. 399,823
Claims priority, application Germany December 24, 1952
3 Claims. (Cl. 260—75)

1. Process for producing polymerized glycol esters of terephthalic acid of high purity which comprises heating the monomeric ester and a condensation catalyst at a temperature of about 200° to 240° C. in a mixture of about 60 percent of an inert solvent for the polymer selected from the group consisting of diphenylmethane, diphenyl oxide, diphenyl and methyl-naphthalene, and about 40 percent of a hydrocarbon nonsolvent boiling in the range of about 140° to 240° C., both of said solvent and non-solvent being capable of forming an azeotrope with excess glycol split off during the condensation, and removing the azeotrope of glycol, inert solvent, and nonsolvent.

2,847,398

VINYLENE CARBONATE-ETHYLENE COPOLYMER AND METHOD OF PRODUCING SAME

Earl W. Gluesenkamp and John D. Calfee, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 18, 1953
Serial No. 355,859
5 Claims. (Cl. 260—77.5)

1. A process which comprises subjecting a monomeric material consisting of a major proportion by weight of ethylene and a minor proportion by weight of vinylene carbonate to copolymerization at a pressure of at least 15,000 pounds per squire inch and a temperature within the range of 50° C. to 100° C.

2,847,399

VINYL ETHERS OF SUBSTITUTED BIURETS, THEIR POLYMERS, AND THEIR PREPARATION

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application October 8, 1954
Serial No. 461,287
16 Claims. (Cl. 260—77.5)

11. A composition comprising a substituted biuret having the Formula I

(I) $CH_2=CHOANRCONHCONH_2$

where R is selected from the group consisting of hydrogen, benzyl, cyclohexyl, and alkyl groups of 1 to 18 carbon atoms, and A is a divalent hydrocarbon group selected from the class consisting of straight and branched chain alkylene groups of 2 to 18 carbon atoms and alkylene groups substituted by a member selected from the group consisting of cyclohexyl and saturated and unsaturated aliphatic hydrocarbon substituents, at least two of the carbon atoms of the alkylene group separating the adjoining oxygen atom from the adjacent nitrogen atom.

2,847,400

ACRYLIC AND METHACRYLIC DERIVATIVES OF UREA AND POLYMERS THEREOF

Newman M. Bortnick, Overland, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 10, 1955
Serial No. 514,767
9 Claims. (Cl. 260—77.5)

1. A composition of matter comprising a compound $CH_2=CR'CONHANHCONHR$ where R is a tertiary alkyl group having 4 to 24 carbon atoms having a tertiary carbon atom attached to the adjacent nitrogen atom, R' is selected from the group consisting of H and CH_3, and A is an alkylene group of 2 to 4 carbon atoms, of which at least 2 extend in a chain between the adjoining NH radicals.

2,847,401

INTERPOLYMERS OF VINYLENE CARBONATE WITH HALO-SUBSTITUTED ETHYLENES

Earl W. Gluesenkamp and John D. Calfee, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 5, 1955
Serial No. 550,827
18 Claims. (Cl. 260—77.5)

12. An interpolymer of vinylene carbonate with a halo-substituted ethylene.

2,847,402

HIGH PRESSURE HOMOPOLYMERIZATION AND INTERPOLYMERIZATION OF VINYLENE CARBONATE

Earl W. Gluesenkamp and John D. Calfee, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 5, 1955
Serial No. 550,828
11 Claims. (Cl. 260—77.5)

1. A process which comprises subjecting a member selected from the group consisting of (*a*) vinylene carbonate alone and (*b*) vinylene carbonate plus a co-monomeric material comprising an unsaturated organic compound copolymerizable therewith and having at least three carbon atoms in the molecule, to polymerization at a pressure of at least 5,000 pounds per square inch.

2,847,403

METHOD FOR PREPARING POLYAMPHOLYTES BY ESTERIFYING A CARBOXYL GROUP CONTAINING POLYMER WITH AN N,N-DIALKYL FORMAMIDE COMPLEX OF AN AMINOALCOHOL

Leo L. Contois, Jr., Corpus Christi, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 8, 1955
Serial No. 533,238
18 Claims. (Cl. 260—78.5)

1. A process for preparing polyampholytes which comprises esterifying an alkali-soluble, carboxyl group-containing essentially linear polymer by heating said polymer with an essentially anhydrous organic solution containing less than a stoichiometrically equivalent quantity of an N,N-dialkylformamide complex of a monohydric aliphatic aminoalcohol to a temperature at which substantially all of the hydroxyl groups of the aminoalcohol will react with the carboxyl groups of the alkali-soluble polymer; said organic solvent being free of (1) functional groups reactive with the N,N-dialkylformamide complex of the monohydric aliphatic aminoalcohol and (2) functional groups reactive with the alkali-soluble polymer; said alkali-soluble, carboxyl group-containing polymer being selected from the group consisting of homopolymers of homopolymerizable alpha, beta-ethylenically unsaturated carboxylic acids and interpolymers of (*a*) a monomer of the group consisting of alpha,beta-ethylenically unsaturated monocarboxylic acids, alpha,beta-ethylenically unsaturated dicarboxylic acids, anhydrides of alpha, beta-ethylenically unsaturated dicarboxylic acids and mixtures thereof and, (*b*) an interpolymerizable monomer of the group consisting of vinyl halides, vinylidene halides, mono- and di-olefinic hydrocarbons containing 2–5 carbon atoms, vinyl esters of carboxylic acids, esters of alpha,beta-ethylenically unsaturated carboxylic acids, vinyl aromatic hydrocarbons, vinyl ethers and mixtures thereof.

2,847,404

HIGH STABILITY LATICES

Joseph Bruce Hoertz, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application June 30, 1955
Serial No. 519,242
11 Claims. (Cl. 260—80)

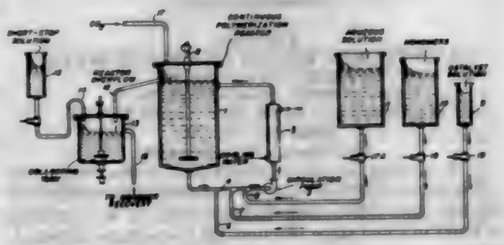
1. The method for preparing stable, emulsifier-free, alkali metal ion-free latices of polymerizable monomers which comprises polymerizing in water 100 parts of a monomeric mixture comprising greater than 30% conjugated dienes and at least one other vinylidene compound containing the $H_2C=C<$ group, at least one of which said vinylidene compound monomers is present in the monomeric mixture in an amount so that at least about 0.5% of said vinylidene monomers are dissolved in water, in the presence of about 0.1 to 3 parts of ammonium persulfate and about 0.1 to 3 parts of sulfur dioxide, in the absence of emulsifiers and alkali metal ions and in the presence of about 1×10^{-4} to 10×10^{-4} part of iron ions.

2,847,405

CONTINUOUS PROCESS FOR THE POLYMERIZATION OF ACRYLONITRILE

William Charles Mallison, Westport, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application January 10, 1957, Serial No. 633,473
10 Claims. (Cl. 260—80.5)



9. A continuous process for producing polymer in aqueous medium, which comprises feeding, in a continuous manner, into an agitated polymerization zone, an aqueous monomer composition, acidic aqueous liquor, and a redox catalytic system, the monomer content of the total feed being from between 11 and 50% by weight, said monomer containing a mixture of 90% by weight acrylonitrile, 5% by weight methyl acrylate, and 5% by weight allyl amine, said acidic aqueous liquor being sufficient to maintain said aqueous medium at a pH of from between 1 and 4, said redox catalytic system comprising an oxygen liberating catalyst and an oxidizable component, said catalyst being present in an amount of from between about .01 and about 10%, based on the weight of the monomer, said oxidizable component being employed with respect to said catalyst in an amount of from between 1:5 and about 4:1, respectively, whereby

the employment of such continuous process at steady state results in the conversion of at least about 70% of the monomeric material to a corresponding polymeric material.

2,847,406

CROSS LINKED COPOLYMER

Norman R. Legge, Bucchel, Ky., assignor, by mesne assignments, to American Synthetic Rubber Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 15, 1954
Serial No. 416,439
4 Claims. (Cl. 260—80.7)

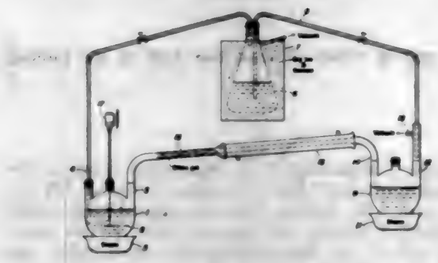
1. In the batch emulsion polymerization process for producing synthetic rubber by copolymerization of butadiene and styrene in the proportions of 60% to 83% butadiene and 40% to 17% of styrene in a reaction mixture that includes divinylbenzene as a cross-linking agent, the improvement which comprises adding the divinyl benzene to the reaction mixture in two or more separate portions at substantially spaced intervals during the reaction period to improve the tensile strength of the rubber polymer.

2,847,407

MOLECULAR WEIGHT FRACTIONATION OF POLYVINYLPYRROLIDONE

William A. Hosmer, Lee, Mass., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

Application April 27, 1956, Serial No. 581,225
8 Claims. (Cl. 260—88.3)



1. Apparatus for separating polyvinylpyrrolidone into fractions of relatively narrow molecular weight range comprising a container having a stirrer therein, a heating jacket there around, inlet and outlet ports, means for the delivery of polyvinylpyrrolidone and solvent thereto together with means for separating stratified fluid layers therein; a second container having a refrigerating jacket there around together with inlet, outlet and drain ports; the said inlet ports being connected to the said first container together with a second stratification separating means in said second container; a third container having a heating jacket there around for volatilizing solvent therein; the third container being connected to the stratification separating means in the second container.

2,847,408

POLYMERIZATION OF ACRYLIC ACID NITRILE

Ernst First, Erlenbach (Main), Germany, assignor to Vereinigte Glanzstoff-Fabriken Aktiengesellschaft, Wuppertal-Elberfeld, Germany, a joint-stock company of Germany

No Drawing. Application December 14, 1953
Serial No. 398,227
Claims priority, application Germany December 18, 1952
3 Claims. (Cl. 260—88.7)

1. The two-stage method of polymerizing acrylonitrile to obtain a polymer substantially free from low molecular weight polymers which comprises (1) adding acrylonitrile gradually to an aqueous solution of a per-compound selected from the group consisting of ammonium per sulfate and ammonium per borate and containing ammonium sulfite, while heating said solution to a temperature of between about 35° and 40° C., while maintaining the pH of said solution in the range 3.5 to 4.5 for approximately one half hour until the initial polymerization reaction is substantially completed, and then (2) raising the temperature of the polymerization mixture to about 65–80° C. and then introducing sulfur dioxide into the mixture until the pH reaches a value of about 1, and continuing the heating and addition of sulfur dioxide until completion of the polymerization.

2,847,409

UNSATURATED AMINOSILANES, POLYMERS THEREOF AND METHODS OF MAKING THEM

Peter L. de Benneville, Philadelphia, and Marvin J. Hurwitz, Elkins Park, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application May 12, 1955
Serial No. 507,972
17 Claims. (Cl. 260—89.7)

16. A composition comprising an addition copolymer of methyl methacrylate with N-trimethylsilyl-N-methyl-2-aminoethyl vinyl ether.

2,847,410

METHOD FOR POLYMERIZING VINYL CHLORIDE

Beryl M. Kuhn and Walter J. Zybert, Morristown, N. J., assignors to Allied Chemical Corporation, a corporation of New York

No Drawing. Application February 16, 1954
Serial No. 410,704
4 Claims. (Cl. 260—92.8)

1. In the preparation of polyvinyl chloride products wherein vinyl chloride is polymerized as a suspension of droplets of the liquid monomer dispersed in an aqueous medium in a closed reaction vessel, that improvement which comprises introducing into said reaction vessel bodies of solid inert material and during the polymerization rotating said reaction vessel and thus effecting a grinding action by said solid bodies on the dispersed particles of vinyl chloride, thereby forming a polyvinyl chloride product of fluffy particles having high surface area and low apparent density, which more readily mixes with and more quickly fuses with plasticizers than a polyvinyl chloride prepared by the same process but without the introduction of said solid bodies into the reaction vessel.

2,847,411

PROCESS FOR PRODUCING HYDROXYETHOXYCELLULOSE

Reid Logan Mitchell, Robert Friedrich Bampton, and William Hughes Wadman, Shelton, Wash., assignors to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

No Drawing. Application February 15, 1955
Serial No. 488,438
2 Claims. (Cl. 260—231)

1. The process of producing hydroxyethoxycellulose suitable to form strong filaments and clear tough films which comprises continuously passing a sheet of cellulose of indefinite length through an operation in which an aqueous solution of sodium hydroxide is continuously passed through the sheet in such volume as to effect uniform alkalization, said sheet being formed of cellulose having relatively uniform chain lengths, removing most of the excess aqueous solution adhering to the sheet, passing the continuously moving sheet of alkalized cellulose into a chamber in which ethylene oxide gas is forced

through the moving sheet of alkalized cellulose to effect uniform etherification with the substitution of from about 2% to about 8% of ethylene oxide on the alkalized cellulose, the uniform alkalization and etherification resulting in hydroxyethoxycellulose which is substantially all soluble in a 5% aqueous sodium hydroxide solution at about 0° C. but substantially insoluble in water, and dissolving substantially all the hydroxyethoxycellulose in a dilute aqueous solution of sodium hydroxide at a temperature above the freezing point of the solution.

2,847,412

18-OXYGENATED ETIOCHOLENIC ACID DERIVATIVES

Robert E. Harmon, Avenel, Norman G. Brink, Westfield, Edward A. Ham, Plainfield, and Lewis H. Sarett, Princeton, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application October 13, 1954
Serial No. 462,098
10 Claims. (Cl. 260—239.57)

10. A compound selected from the group consisting of 18,20-lactone of Δ^4-3,11β,18-trihydroxyetiocholene-17β-carboxylic acid, 18,20-lactone of Δ^4-3,11-dioxo-18-hydroxyetiocholene-17β-carboxylic acid and 18,20-lactone of Δ^4-3-oxo-11,18-dihydroxyetiocholene-17β-carboxylic acid.

2,847,413

5'-DESOXYRIBOFLAVIN AND PROCESSES FOR PREPARING THE SAME

Karl A. Folkers, Plainfield, and Clifford H. Shunk, Scotch Plains, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 23, 1953
Serial No. 393,944
4 Claims. (Cl. 260—251.5)

1. 5'-desoxyriboflavin.

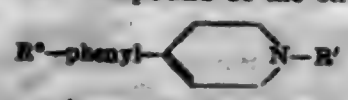
2,847,414

4-ARYLPYRIDINES

Claude J. Schmidle, Moorestown, and Richard C. Mansfield, Haddonfield, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application April 13, 1956
Serial No. 577,943
4 Claims. (Cl. 260—290)

1. A process for preparing 4-arylpyridines which comprises heating at a dehydrogenating temperature between 125° and 220° C. a compound of the structure



wherein R' is a member of the class consisting of hydrogen and the lower alkyl groups and R° is a member of the class consisting of hydrogen and alkyl, phenyl, and benzyl groups, with a palladium dehydrogenating catalyst, whereby dehydrogenation of said compound is accomplished in liquid phase so as to form 4-arylpyridine.

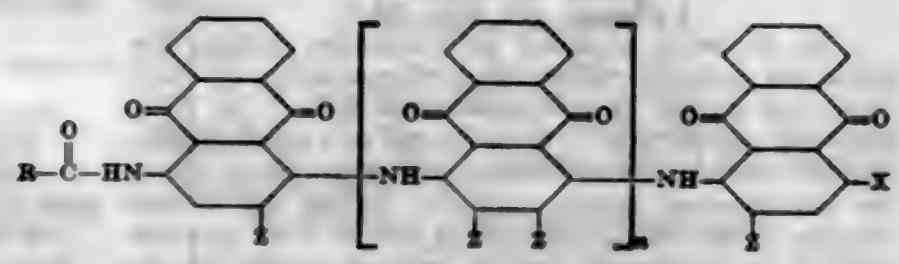
2,847,415

NEW ANTHRAQUINONE VAT DYESTUFFS

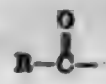
Maurice Greiat, Basel, and Walter Kern, Sissach, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application February 15, 1954
Serial No. 410,463
Claims priority, application Switzerland
February 18, 1953
9 Claims. (Cl. 260—295.5)

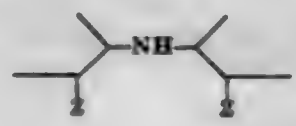
1. An anthraquinone vat dyestuff which corresponds to the formula



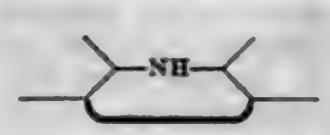
in which n represents a whole number greater than 1, R is a member selected from the group consisting of alkyl, unsubstituted aryl, halo-aryl, alkoxyaryl and pyridino radicals, X represents a member selected from the group consisting of a hydrogen atom, a chlorine atom and



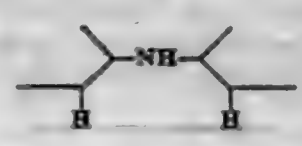
group, and in which at least one half of the radicals



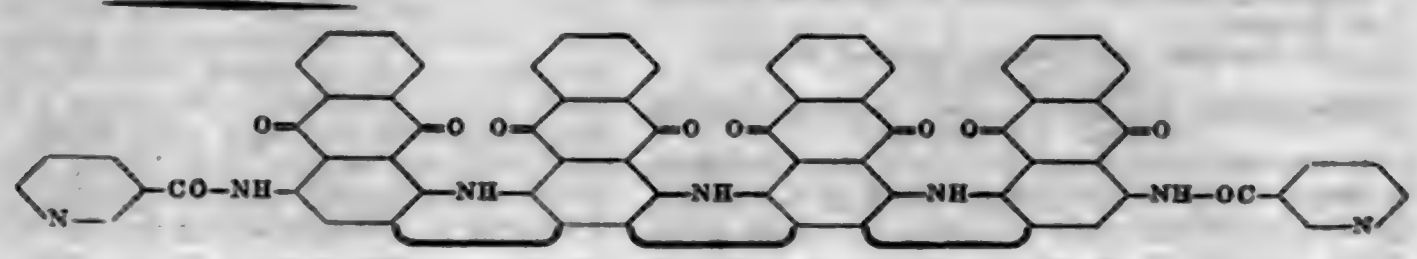
represent atomic groupings of the formula



and the remainder of those radicals represent atomic groupings of the formula



8. The anthraquinone vat dyestuff which corresponds to the formula



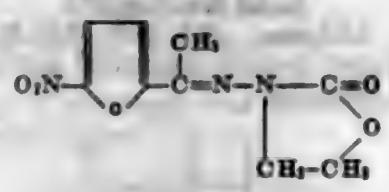
2,847,416
N-[1-(5-NITRO-2-FURYL) ETHYLIDENE]-3-AMINO-2-OXAZOLIDONE

Gabriel Gever, Oxford, N. Y., assignor, by mesne assignments, to The Norwich Pharmacal Company, Norwich, N. Y., a corporation of New York

No Drawing. Original application February 28, 1952, Serial No. 274,866, now Patent No. 2,742,462, dated April 17, 1956. Divided and this application February 15, 1956, Serial No. 565,534

1 Claim. (Cl. 260—307)

N - [1 - (5 - nitro - 2 - furyl)ethylidene] - 3 - amino - 2-oxazolidone represented by the formula:



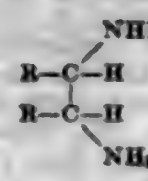
2,847,417
PREPARATION OF IMIDAZOLE COMPOUNDS

William E. Erner, Wilmington, Del., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 13, 1956
Serial No. 597,593

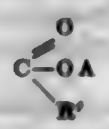
10 Claims. (Cl. 260—309)

1. The method which comprises admixing an alkylene diamine of the Formula 1



[1]

[2]



with a mono carboxylate of the Formula 2 wherein in [1] the R substituent is selected from the group consisting of hydrogen and alkyl radicals of 1 to 4 carbon atoms and in which formula the several R substituents may differ from one another, and in [2] the R′ substituent is selected from the group consisting of hydrogen, alkyl radicals, phenyl, and benzyl radicals; and the A substituent is selected from the group consisting of acyl residues of aliphatic acid anhydrides, and R and R′ substituents; vaporizing the resulting admixture and contacting the obtained vapors with a solid dehydrocyclization catalyst at temperatures in the range of 600 to 1000° F., said catalyst being composed of a noble metal of the platinum family supported on a carrier.

2,847,418
DI(HYDROXYETHYL) IMIDAZOLIDONE-2 AND PRODUCTION OF N,N′-DI-(2-HYDROXYETHYL) ETHYLENE DIAMINE

Arthur B. Steele, Ossining, N. Y., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application May 6, 1955
Serial No. 506,668

12 Claims. (Cl. 260—309.7)

1. 1,3-di-(2-hydroxyethyl)-imidazolidone-2.

11. A process for the production of N,N′-di-(2-hydroxyethyl)ethylene diamine which comprises reacting an aqueous mixture containing monoethanolamine and diethanolamine in molar ratios of from 10:1 to 1:10 with carbon dioxide in a molar ratio of from 5:1 to 1:1 of amines to carbon dioxide at an elevated temperature of from 130° C. to 200° C. under superatmospheric pressures in the range of from 200 to 600 pounds per square inch absolute to form a reaction mixture comprising N,N′-di(2-hydroxyethyl)ethylene diamine and 1,3-di-(2-hydroxyethyl)imidazolidone-2; and hydrolysing said imidazolidone in said reaction mixture to produce additional N,N′-di-(2-hydroxyethyl)ethylene diamine.

2,847,419
PROPYNYL DITHIOCARBAMATES

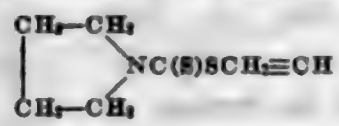
Marion W. Harman, Nitro, and John J. D'Amico, Charleston, W. Va., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 26, 1954
Serial No. 471,505

10 Claims. (Cl. 260—313)

1. A propynyl ester of a nonaromatic dithiocarbamic acid.

7. The propynyl ester of the structure



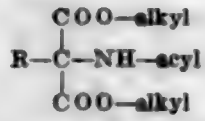
2,847,420
PREPARATION OF DL-AMINO ACIDS AND THEIR N-ACYL DERIVATIVES

John C. Vander Weele and Halbert C. White, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 22, 1953
Serial No. 369,721

12 Claims. (Cl. 260—319)

1. A method which comprises saponifying and decarboxylating a dialkyl ester of an acylamido malonic acid compound having the general formula



solely by means of heat and alkali, the saponification and decarboxylation step consisting in mixing and heating the said ester with from 1.3 to 2.5 equivalent weights of an alkali for each mol of said ester, in an aqueous medium, under superatmospheric pressure, at a temperature between 150° and 300° C.; the symbol R in said formula being selected from the group consisting of hydrogen and, alkyl groups containing from 1 to 18 carbon atoms, hydroxyalkyl, mercaptoalkyl, alkoxyalkyl, alkyl-mercaptoalkyl, benzyl, phenethyl, phenyl, tolyl, xylyl, ethyl phenyl, isopropyl phenyl, naphthyl, thienyl, pyridyl, methyl pyridyl, furyl, pyranyl, indolyl methyl, pyridyl ethyl and thienyl methyl.

3. A method as claimed in claim 1, wherein the ester subjected to saponification and decarboxylation is a dialkyl ester of acetamido-(3-indolylmethyl)malonic acid.

2,847,421
ASCORBIC ACID INTERMEDIATES

Alfred A. D'Addieco, Grand Island, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 13, 1956
Serial No. 627,979

1 Claim. (Cl. 260—340.7)

In the conversion of 1,3,2,4-bisethylidene-D-sorbitol to 3,5,4,6-bisethylidene-L-gulonic acid the steps which comprise oxidizing said sorbitol in aqueous solution with oxygen in the presence of a platinum catalyst at a temperature between 40 to 60° C. and maintaining the reaction mixture at a pH between about 7 and 8 by the addition thereto of sodium bicarbonate.

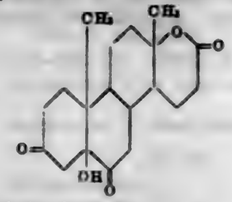
2,847,422

HYDROXYLATED 2,13-DIMETHYL-7,9-DIOXO-POLYHYDROPHENANTHRENE - 1 - PROPIONIC ACID LACTONES AND SALTS

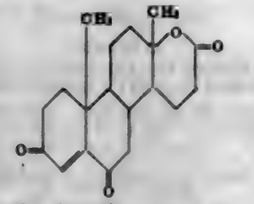
Raymond M. Dodson, Park Ridge, and Charles G. Castle, Evanston, Ill., assignors, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application August 28, 1953
Serial No. 377,260
3 Claims. (Cl. 260—343.2)

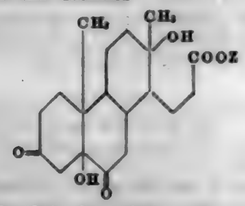
1. A member of the group consisting of a compound of the formula



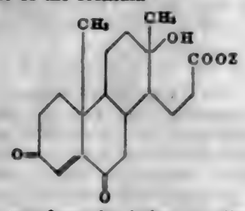
a compound of the formula



compounds of the formula



and compounds of the formula



Z in the latter two formulas being an alkali metal.

2,847,423

PREPARATION OF 3-ACETYL-4-HYDROXY-COUMARIN

Richard Norman Lacey, Hull, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application September 17, 1954
Serial No. 456,871
Claims priority, application Great Britain September 25, 1953
4 Claims. (Cl. 260—343.2)

1. A process for the production of 3-acetyl-4-hydroxy-coumarin which comprises refluxing in an inert organic solvent boiling between 50° and 100° C. acetylsalicylyl chloride with a molar excess of at least 10% and not more than 20% of a pre- and separately-formed reactant consisting of the calcium derivative of an acetoacetic ester of an alkanol containing from three to six carbon atoms per molecule, said alkanol having at least one hydrogen atom directly attached to the carbon atom carrying the hydroxy group, cyclising the resulting intermediate compound with aqueous alkali metal hydroxide solution, and liberating the 3-acetyl-4-hydroxy-coumarin from the resulting alkali metal salt by acidification.

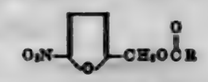
2,847,424

HALOGENATED ESTERS OF NITROFURFURYL ALCOHOL

William C. Ward, Norwich, N. Y., assignor, by mesne assignments, to The Norwich Pharmacal Company, Norwich, N. Y., a corporation of New York

No Drawing. Application July 3, 1953
Serial No. 366,974
6 Claims. (Cl. 260—347.4)

1. A compound having fungicidal activity and represented by the formula:



wherein R represents a member of the group consisting of bromo-, chloro-, and iodo-lower alkyl and chlorophenyl.

2,847,425

18-OXYGENATED-Δ^4-ETIOCHOLENE-17β-CARBOXYLIC ACID DERIVATIVES

Norman G. Brink, Westfield, Edward A. Ham, Clark, Robert E. Harman, Avenel, and Lewis H. Sarett, Princeton, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Original application October 13, 1954, Serial No. 462,098. Divided and this application November 30, 1955, Serial No. 550,179
8 Claims. (Cl. 260—397.1)

8. A compound selected from the class consisting of Δ^4-3,18-dioxo - 11β - hydroxyetiocholene - 17β - carboxylic acid, and Δ^4-3,11β,18-trihydroxyetiocholene-17β-carboxylic acid.

2,847,426

METHOD OF PREPARING TACHYSTEROL

Leon Velluz, Paris, Gaston Amiard, Noisy le Sec, and Bernard Goffinet, Paris, France, assignors to UCLAF, Paris, France, a corporation of France

No Drawing. Application February 8, 1956
Serial No. 564,133
Claims priority, application France May 13, 1955
6 Claims. (Cl. 260—397.2)

1. The method of producing tachysterol from precalciferol, which comprises subjecting a solution of precalciferol under the atmosphere of an inert gas to ultraviolet radiation at a temperature ranging from −30 to +20° C.

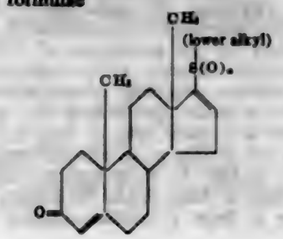
2,847,427

Δ^4 OR 5,16 ANDROSTADIEN-17-ALKYLSULFONES AND SULFOXIDES

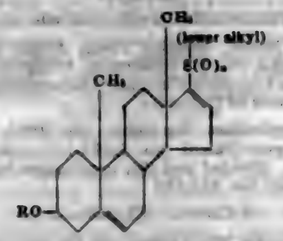
Paul B. Sollman, Skokie, and Raymond M. Dodson, Park Ridge, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application September 9, 1957
Serial No. 682,682
5 Claims. (Cl. 260—397.3)

1. A compound selected from the group of compounds having the formulae



and



wherein n is an integer selected from the group consisting of 1 and 2, and R is selected from the group of radicals consisting of hydrogen and lower alkanoyl having less than 9 carbon atoms.

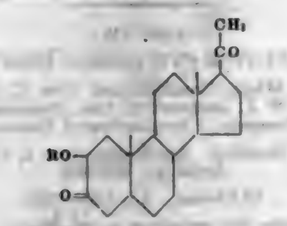
2,847,428

PREGNAN-2-OL-3,20-DIONE, ALLOPREGNAN-2-OL-3,20-DIONE, ESTERS THEREOF, AND PREPARATION THEREOF

Robert L. Clarke, Elmsere, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application October 27, 1955
Serial No. 543,273
7 Claims. (Cl. 260—397.4)

1. A compound having the formula



wherein R is selected from the group consisting of hydrogen and acyl groups derived from acids selected from the groups consisting of lower-alkanoic acids, lower-alkanedicarboxylic acids and monocarbocyclic aromatic carboxylic acids.

2,847,429

PROCESS FOR THE PREPARATION OF 3-ENOL LOWER ALKANOYL ACYLATES OF 17β-ACYLOXY Δ^5-ANDROSTENE-3-ONE

Alberto Ercoli, Milan, and Pietro de Ruggieri, Casatenovo Brianza, Italy; said de Ruggieri assignor to Francesco Vismara Societa per Azioni, a company of Italy

No Drawing. Application January 27, 1956
Serial No. 561,949
7 Claims. (Cl. 260—397.5)

1. A process for the preparation of 3-enol lower alkanoyl acylates of 17β-acyloxy Δ-4-androstene-3-one which comprises reacting at approximately room temperature a compound selected from the group consisting of (*a*) 3-enol lower alkyl ethers and benzyl ether and (*b*) 3-ethylene glycol ketal of 17β-acyloxy Δ-4-androstene-3-one, wherein the acyl group is the radical of an organic carboxylic acid containing from one to nine carbon atoms inclusive, with an anhydride of a lower alkanoic acid, in the presence of a strong acid selected from the group consisting of perchloric acid, Lewis' acids and organic sulfonic acids to produce a 3-enol lower alkanoyl acylate of 17β-acyloxy-Δ-4-androstene-3-one.

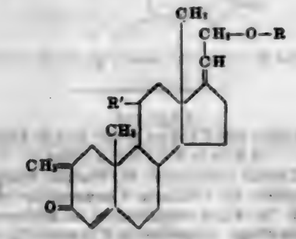
2,847,430

2-METHYLENE 3-KETO Δ^4 STEROIDAL COMPOUNDS AND PROCESS TO MAKE THE SAME

Philip F. Beal III, Portage Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

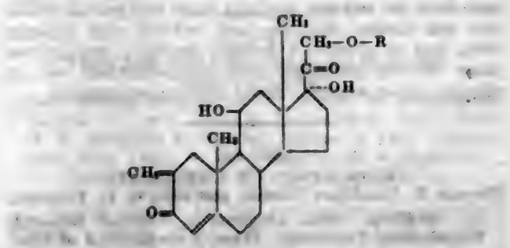
No Drawing. Application November 16, 1955
Serial No. 547,306
15 Claims. (Cl. 260—397.45)

1. 2-methylene-21-oxy-4,17(20)-pregnadien-3-one represented by the following formula:



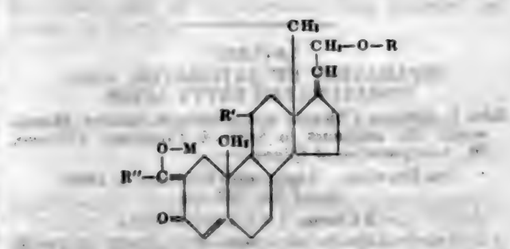
wherein R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and wherein R′ is selected from the group consisting of hydroxy and keto.

5. 2-methylene-11β,17α-dihydroxy-21-oxy-4 - pregnene-3,20-dione represented by the following formula:



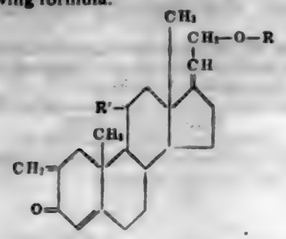
wherein R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

12. The process which comprises the steps of first, condensing aqueous formaldehyde with the alkali-metal enolate of 2-carbonyl-21-oxy-4,17(20)-pregnadien-3-one, represented by the following formula:



wherein R is selected from the group consisting of hydrogen and the acyl radical of an organic carboxylic acid, wherein R′ is selected from the group consisting of hydroxy and keto, wherein R″ is selected from the group consisting of hydrogen, carbo-lower-alkoxy, lower-alkoxy and trifluoromethyl, and wherein M is an alkali-metal, to produce a 2-hydroxymethyl-2-carbonyl steroid; and reacting the thus-produced 2-hydroxymethyl-2-carbonyl steroid with an aqueous alkali-metal base to produce a 2-

methylene-21-oxy-4,17(20)-pregnadien-3-one represented by the following formula:



wherein R and R′ have the values given hereinbefore.

2,847,431

OXIDATION OF ETHYLENICALLY UNSATURATED FATTY ACIDS

Chester S. Morgan and James W. Walker, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application February 7, 1955
Serial No. 486,677
9 Claims. (Cl. 260—406)

1. Process for the oxidative scission of oleic acid, which comprises partially oxidizing an oleic acid-containing feedstock by passing air through a solution of said feedstock in a solvent comprising acetic acid and containing a metallic catalyst for the oxidation of oleic acid with oxygen, separating a major portion of said solvent from the mixture resulting from said partial oxidation and further oxidizing said mixture with aqueous nitric acid to produce a product having a non-aqueous phase wherein pelargonic acid is concentrated and an aqueous phase wherein azelaic acid is concentrated.

2,847,432

PRODUCTION OF CHEMICALS

Thomas R. Steadman, Waban, and John O. H. Peterson, Jr., Medford, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application April 23, 1956
Serial No. 579,759
5 Claims. (Cl. 260—406)

1. A process for oxidizing an alkyl ester of 12-ketostearic acid which comprises reacting said compound with a nitric acid solution in the presence of a mixed catalyst containing a copper-bearing material and a compound of vanadium.

2,847,433

SEPARATION OF SATURATED AND UNSATURATED FATTY ACIDS

John L. Ohlson, Chicago, and Charles S. Steiner, Homewood, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application February 1, 1956
Serial No. 562,656
5 Claims. (Cl. 260—406)

1. A method for the separation of saturated fatty acids containing stearic acid having improved color and color stability from a mixture of saturated and unsaturated fatty acids which comprises: reacting said mixture of saturated and unsaturated fatty acids with an oxidizing agent selected from the group consisting of chromic acid, nitric acid, potassium permanganate, peracetic acid, perbenzoic acid, and monoperphthalic acid, and contacting said mixture with a liquefied normally gaseous hydrocarbon to selectively dissolve said saturated acids free from the oxidized acids and color bodies.

2,847,434

PRODUCTION OF CHEMICALS

Albert Di Nardo, Jamaica Plain, James H. Gardner, Weston, and Nat C. Robertson, Wellesley, Mass., assignors to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

Original application December 30, 1953, Serial No. 401,346, now Patent No. 2,824,142, dated February 18, 1958. Divided and this application November 18, 1957, Serial No. 697,288
4 Claims. (Cl. 260—413)

1. The process which comprises the steps of dissolving propylene in an organic solvent selected from the group consisting of inert nonalkylated aromatic and inert aliphatic compounds, passing an elemental-oxygen-containing gas into said solution while the solution is held under pressure to oxidize and polymerize said propylene to a liquid polymeric material, maintaining said solution at a temperature above about 130° C. while said gas passes therethrough, said polymeric material being moderately unsaturated, the majority of said material containing at least two propylene residues per molecule, there being, on the average, at least one oxygenated functional group for each molecule, said functional group being from the class consisting of the hydroxy, carbonyl, carboxy, alkoxy and ester groups, and oxidizing substantially all of the oxidizable functional groups of the polymeric material resulting from the reaction to carboxy groups to produce acids having a carbon number greater than three.

2,847,435

CARBOXYLATED CYCLODIENE DERIVATIVES

Herbert K. Wiese, Cranford, and Ober C. Slotterbeck, Rahway, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 1, 1955
Serial No. 498,748
14 Claims. (Cl. 260—429)

1. A process for preparing a monobasic acid which comprises mixing a polycyclodiene dibasic acid with a dianophilic cyclodiene selected from the group consisting of cyclopentadiene, methylcyclopentadiene, hexachlorocyclopentadiene, dicyclopentadiene, dimethyldicyclopentadiene and heating the mixture at a temperature sufficient to cause depolymerization of the dibasic acid.

13. A metal salt of a dicyclopentadiene monocarboxylic acid wherein the metal is selected from the group consisting of manganese, cobalt, lead, calcium, copper, mercury, and arsenic.

2,847,436

2-ARYL-1,1,3,3-TETRACYANOPROPENES AND THEIR SALTS, AND PREPARATION THEREOF

George N. Sausen, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 15, 1955
Serial No. 501,720
10 Claims. (Cl. 260—438)

1. The 2-aryl-1,1,3,3-tetracyanopropenide salt selected from the group consisting of metal salts and quaternary ammonium salts, wherein said 2-aryl substituent consists of a carbocyclic hydrocarbon group, having 1 to 2 rings, and up to one substituent on a ring of said hydrocarbon group selected from the class consisting of amino, hydroxy, lower alkoxy, chloro and nitro substituents.

2. The process for preparing a 2-aryl-1,1,3,3-tetracyanopropenide which comprises reacting a tricyanovinyl aromatic compound with sodiomalononitrile.

2,847,437

PROCESS FOR THE PREPARATION OF FERRIFERRO COBALTOCHLOROAMINOACETATE

Joseph B. Vaughan, Norwood, Ohio, and Harry M. Leyland, Milwaukee, Wis., assignors to Lloyd Brothers, Inc., Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application December 5, 1955
Serial No. 550,858
2 Claims. (Cl. 260—439)

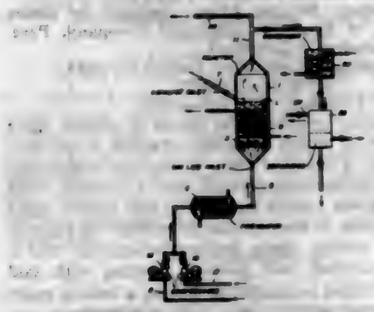
1. The process of preparing a cobalt-iron-amino-acid complex which comprises fusing a mixture of cobaltous chloride hexahydrate, ferric chloride hexahydrate and aminoacetic acid at a temperature of about 110–130° C. and for a sufficient time to provide a reaction product which turns to a solid on cooling, the amounts of cobaltous and ferric salts and amino acid in said fused mixture being such as to provide a complex with a Co:Fe:amino acid ratio of 1:1:3 to 1:8:24.

2,847,438

STARTING UP PROCEDURE FOR THE SYNTHESIS OF HYDROCARBONS

Simpson D. Sumerford and James E. Moise, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Original application November 12, 1948, Serial No. 59,462. Divided and this application June 3, 1952, Serial No. 291,414
3 Claims. (Cl. 260—449.6)



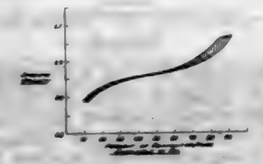
1. In the synthesis of hydrocarbons by contacting a bed of iron synthesis catalyst with a total feed gas consisting of a synthesis gas consisting of hydrogen and carbon monoxide in a mol ratio of not above 2.0:1 and recycled gas comprising a fraction of the products of the reaction at a superatmospheric synthesis pressure and an elevated reaction initiation temperature of above about 420° F. in a synthesis unit comprising a catalytic reaction zone and a liquid product recovery zone in which said recycled gas is separated from the product gases formed in the catalytic reaction zone, the method of starting up the unit which comprises pressuring the unit with a gas consisting of hydrogen to said superatmospheric synthesis pressure, circulating said gas consisting of hydrogen in said unit comprising said catalytic reaction zone and said liquid product recovery zone at said reaction initiation temperature and said superatmospheric synthesis pressure at a rate sufficient to maintain the catalyst in the fluidized state, then, while maintaining the unit at said superatmospheric synthesis pressure by controlling the introduction of hydrogen, introducing synthesis gas into the circulating hydrogen in advance of said catalytic reaction zone at an increasing rate controlled to maintain the temperature of the catalyst in the reaction zone below about 650° F. while recycling reactor effluent until the fresh feed to said unit consists of said synthesis gas, and continuing the introduction of synthesis gas into said unit in an on-stream period during which hydrocarbons are synthesized.

2,847,439

PROCESS FOR PRODUCING OIL-INSOLUBLE MATERIALS

George B. Kirkwood and Edward F. Twieg, Port Arthur, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

Application April 7, 1955, Serial No. 499,937
2 Claims. (Cl. 260—451)



1. A direct process for converting macrocrystalline paraffin wax into an oxidate more than 70% insoluble in liquid hydrocarbons which comprises: forming a reaction mixture of slack wax of 7 to 25% oil content and 0.3% to 0.8% metalliferous oxidation catalyst based on the weight of said wax; for about 3 to 6 hours passing through the reaction mixture a gas containing molecular oxygen as the sole gasiform oxidizing agent therein at a superficial velocity of 0.25 to 1.0 feet per second while maintaining a temperature between 300° and 380° F. and a pressure of at least 30 p. s. i. g.; and terminating the oxidation reaction when the specific gravity of the reaction mixture reaches between about 1.02 and about 1.08.

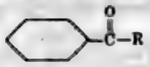
2,847,440

PROCESS FOR THE PREPARATION OF ISOCYANATES

Albert Bloom, Summit, N. J., Harlan B. Freyermuth, Easton, Pa., and James B. Normington, Little Silver, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

Application July 9, 1956, Serial No. 596,714
8 Claims. (Cl. 260—453)

1. In the process for the preparation of isocyanates wherein a slurry, in an inert organic solvent having a boiling point below the boiling point of the isocyanate being prepared, of a compound selected from the group consisting of organic amine salts with a volatile acid, and an organic amine carbamyl chloride-hydrochloride is treated at an elevated temperature in the range of about 100 to 200° C. with phosgene, whereby the isocyanate is formed; the improvement which comprises employing, as the inert organic solvent in said reaction, an alkyl aryl ketone having a boiling point lower than the boiling point of the isocyanate being prepared and having the formula



wherein R is an alkyl group of 1 to 4 carbon atoms.

2,847,441

ALIPHATIC POLY (OXYMETHYLISOTHIOCYANATES) AND METHODS FOR MAKING THEM

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

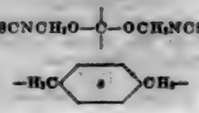
No Drawing. Application April 15, 1955
Serial No. 501,707
9 Claims. (Cl. 260—454)

1. A compound selected from the group consisting of those having the structure of formulas

(I) $SCNCH_2O—R—OCH_2NCS$

(II) $C(CH_3)_{4-m}(CH_2OCH_2NCS)_m$

where R is selected from the group consisting of cyclohexylene



and



where s indicates that the ring is saturated, an alkylene group of 2 to 10 carbon atoms having at least 2 carbons in a chain extending between the two oxygen atoms, and a group of the formula —R'(OR')$_n$— wherein n is an integer having a value of 1 to 4 and R' is an alkylene group of 2 to 3 carbon atoms having at least 2 carbon atoms in a chain extending between the adjoined oxygen atoms, and m is an integer having a value of 3 to 4.

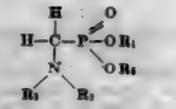
2,847,442

NEW COMPOUNDS CONTAINING NITROGEN AND PHOSPHORUS

Richard Sailmann, Basel, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application February 21, 1955
Serial No. 489,805
Claims priority, application Switzerland March 5, 1954
7 Claims. (Cl. 260—459)

1. A member selected from the group consisting of compounds of the formula



water-soluble acid addition salts thereof and quaternary ammonium salts thereof, wherein R_2 and R_3 each represents a lower alkyl radical, R_1 represents an alkyl radical containing 1–4 carbon atoms, and R_4 represents an alkyl radical containing 8–30 carbon atoms.

2,847,443

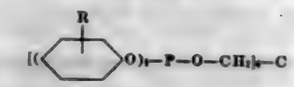
PENTAERYTHRITOL PRODUCTS

Ingenuin Hechenbleikner, Clarksburg, and Francis C. Lanoue, North Adams, Mass., assignors to Shea Chemical Corporation, Jeffersonville and Columbia, Ind., a corporation of Maryland

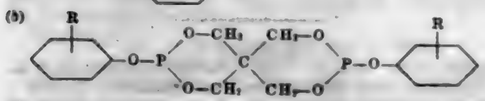
No Drawing. Application May 2, 1956
Serial No. 582,075
8 Claims. (Cl. 260—461)

1. A product selected from the group consisting of

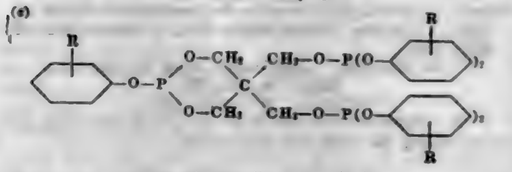
(a)



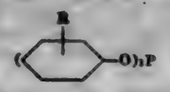
(b)



(c)

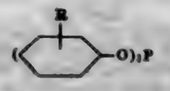


where R is a member of the group consisting of hydrogen, alkyl, cyclohexyl, chloro and bromo; and (*d*) partial transesterification products of a member of the group consisting of dipentaerythritol and tripentaerythritol with a compound having the formula



where R is selected from the group consisting of hydrogen, alkyl, cyclohexyl, chloro and bromo, said partial transesterification product having the formula $C_{20}H_{32}O_{13}P_2$ when the member of the group is dipentaerythritol and having the formula $C_{111}H_{164}O_{36}P_2$ when the member of the group is tripentaerythritol and R is hydrogen and the corresponding analogs thereof when R is other than hydrogen.

7. A process of preparing a mixed phosphite ester comprising condensing an ester having the formula



where R is selected from the group consisting of hydrogen,

2,847,444

THE BORATE OF METHYL ALPHA HYDROXYISOBUTYRATE

James H. Gardner, Weston, Mass., assignor, by mesne assignments, to Escambia Chemical Company, Pace, Fla., a corporation of Delaware

No Drawing. Application August 25, 1955
Serial No. 530,620
3 Claims. (Cl. 260—462)

1. A method for preparing the borate of methyl alpha hydroxyisobutyrate which comprises reacting at elevated temperatures in a reaction zone a mixture comprising methyl alpha hydroxyisobutyrate and a normal alkyl borate having fewer carbon atoms than said methyl alpha hydroxyisobutyrate in the presence of pentane to produce the borate of methyl alpha hydroxyisobutyrate and a normal alkyl alcohol, said pentane forming with said normal alkyl alcohol an azeotrope having a boiling point below that of said methyl alpha hydroxyisobutyrate and said normal alkyl alcohol, continuously distilling said azeotrope from the reaction zone, and recovering from the reaction zone the borate of methyl alpha hydroxyisobutyrate.

2,847,445

DIBASIC AROMATIC ACIDS AND DERIVATIVES THEREOF

Louis A. Mikeska, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 24, 1954
Serial No. 418,471
7 Claims. (Cl. 260—465)

1. A process for making bifunctional derivatives of cyclic hydrocarbons which comprises reacting one mole of a bis-mercaptomethyl cyclic compound having the formula $HS.CH_2.X.CH_2SH$ wherein X is 2,3,5,6-tetramethyl phenylene, with at least three moles of an acrylic compound having the formula CH_2:CR.Y wherein R is selected from the group consisting of hydrogen, chlorine, methyl and ethyl radicals, and Y is selected from the group consisting of carbalkoxy and cyanide radicals.

4. A new compound having the formula

$$R'.CH_2CH_2.S.CH_2.X.CH_2.S.CH_2CH_2.R'$$

wherein X is a 2,3,5,6-tetramethylphenylene radical and R' is a radical selected from the group consisting of CH_3OOC—, HOOC— and NC—.

2,847,446

PRODUCTION OF ACRYLONITRILE

Frank Maslan, Brookline, and Edgar A. Stoddard, Jr., Brighton, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application October 24, 1955
Serial No. 542,474
1 Claim. (Cl. 260—465.3)

A process for the vapor phase production of acrylonitrile which comprises passing a dilute acetylene stream containing less than about 15 percent acetylene and an amount of hydrogen cyanide which is theoretically less than that required to react with the acetylene present through a reactor maintained at a temperature between about 450° C. and 700° C. and containing an inert support carrying a catalyst selected from the class consisting of the alkali metal hydroxides, cyanides and carbonates, thereafter adding to the resultant reaction mixture an amount of hydrogen cyanide that is in excess of the theoretical amount required to react with the acetylene present in said reaction mixture, passing said mixture over additional catalyst, and recovering the acrylonitrile produced.

2,847,447

PRODUCTION OF ACRYLONITRILE

Thomas R. Steadman, Waban, and James F. Gabbett, Jr., Weymouth, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application April 3, 1956
Serial No. 575,707
7 Claims. (Cl. 260—465.3)

1. In the process for the production of acrylonitrile by reacting a mixture of acetylene and hydrogen cyanide in the vapor phase in the presence of an inert catalyst support carrying a compound selected from the group consisting of the alkali metal hydroxides, cyanides and carbonates, the improvement which comprises reacting said mixture in a reactor having a reactant-contacting surface consisting essentially of iron and aluminum in alloy form.

2,847,448

PRODUCTION OF ACRYLONITRILE

James F. Gabbett, Jr., Weymouth, and L Hunt Sutherland, Wellesley, Mass., assignors to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application March 8, 1957
Serial No. 644,719
11 Claims. (Cl. 260—465.3)

1. In the process for the production of acrylonitrile by reacting a mixture of acetylene and hydrogen cyanide in the vapor phase in the presence of an inert catalyst support carrying a compound selected from the group consisting of the alkali metal hydroxides, cyanides and carbonates, the improvement which comprises reacting said mixture in a reactor having a reactant-contacting surface selected from the group consisting of copper and alloys of copper with at least one metal of the group consisting of zinc, tin, nickel and mixtures thereof.

2,847,449

VAPOR PHASE PRODUCTION OF ACRYLONITRILE

Frank Maslan, Newton Highlands, and Edgar A. Stoddard, Jr., Randolph, Mass., assignors to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application May 14, 1957
Serial No. 658,950
9 Claims. (Cl. 260—465.3)

1. A process for the vapor phase production of acrylonitrile which comprises introducing acetylene and hydrogen cyanide into the inlet of a reactor, said reactor containing an inert support carrying a catalyst selected from the group consisting of the alkali metal hydroxides, carbonates and cyanides and being maintained at a temperature between about 450° C. and 700° C., adding further quantities of at least one reactant maintained at a temperature below 450° C. to the reactor at a plurality of points distributed along the length of the reactor to maintain proper temperature control of the reaction, and recovering the acrylonitrile formed.

2,847,450

PRODUCTION OF ACRYLONITRILE

Thomas R. Steadman, Waban, and Leslie H. Sutherland, Wellesley, Mass., assignors to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application July 25, 1957
Serial No. 674,822
6 Claims. (Cl. 260—465.3)

1. The process of producing acrylonitrile which comprises reacting hydrogen cyanide and acetylene at a temperature within the range of 450° C. to 700° C. in the presence of a catalyst prepared by treating unactivated charcoal with from about 1.5% to about 10% by weight of an alkali metal.

2,847,451

GROWTH ACCELERATOR

Stuart Schott and Virgil L. Hansley, Cincinnati, Ohio, assignors to National Distillers and Chemical Corporation, a corporation of Virginia

No Drawing. Application October 1, 1954
Serial No. 459,835
1 Claim. (Cl. 260—465.4)

Acetyl methionine nitrile of the formula

$$CH_3SCH_2CH_2CHNH(Ac)CN$$

wherein Ac is an acetyl radical.

2,847,452

STABILIZATION OF UNSATURATED NITRILES

Fred Applegath and Raymond A. Franz, El Dorado, Ark., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application October 8, 1956
Serial No. 614,338
7 Claims. (Cl. 260—465.9)

1. A composition comprising an alpha, beta-unsaturated nitrile containing a minor amount of at least 0.5 part by weight of an amine selected from a group consisting of dialkyl amines and trialkyl amines per million parts by weight of nitrile and a minor amount of at least 10 parts by weight of acetaldehyde per million parts by weight of nitrile.

2,847,453

PROCESS FOR THE PREPARATION OF ALPHA NITRATO- AND ALPHA HYDROXYISOBUTYRIC ACIDS

James H. Gardner, Wayland, and Thomas R. Steadman, Waban, Mass., assignors to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application January 6, 1958
Serial No. 707,079
10 Claims. (Cl. 260—466)

1. In the process of producing acids selected from the group consisting of alpha nitratoisobutyric acid, alpha hydroxyisobutyric acid and mixtures thereof wherein isobutylene is reacted with liquid dinitrogen tetroxide to form some of the desired acids and other nitrogen-containing derivatives of isobutylene which are intermediates in the conversion of isobutylene to the desired acids, the improvement which comprises maintaining said intermediates in the presence of water and an oxidizing agent selected from the group consisting of oxides of nitrogen and

nitric acid until a preponderance of such intermediates are converted to the desired acids, and separating one of said acids from the reaction medium and from the other of said acids.

2,847,454

CARBAMATE OF A TETRACYCLIC ALCOHOL

Werner R. Boehme, Somerville, and Joseph Nichols, Princeton, N. J., assignors to Ethicon, Inc., a corporation of New Jersey

No Drawing. Application March 26, 1956
Serial No. 573,586
1 Claim. (Cl. 260—482)

2 - carbamyloxy - 1,4,5,8 - bisendomethylene - $\Delta^{6,7}$-octalin.

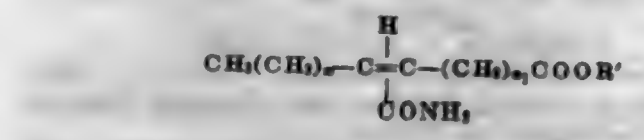
2,847,455

12-CARBOXYAMIDO-11 OR 12-OCTADECENOIC ACIDS AND ESTERS THEREOF

Thomas R. Steadman, Waban, and John O. H. Peterson, Jr., Burlington, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application April 2, 1957
Serial No. 650,065
5 Claims. (Cl. 260—482)

1. The chemical compounds of the general formula



where R' is selected from the group consisting of hydrogen and lower alkyl groups, n is a whole number of from 4 to 5, n_1 is a whole number of from 9 to 10, and where when n is 4, n_1 is 10 and when n is 5, n_1 is 9, the $-CONH_2$ group in each instance being attached to the 12 carbon atom.

2,847,456

ACYLALS

Charles D. Hurd, Evanston, Ill., assignor to Columbia-Southern Chemical Corporation, Pittsburgh, Pa., a corporation

No Drawing. Application July 10, 1953
Serial No. 367,343
5 Claims. (Cl. 260—484)

1. An alkenyloxymethyl ester of an aliphatically saturated monocarboxylic acid selected from the group consisting of formic, acetic and 2-acetoxypropionic, said alkenyl group having from 3 to 12 carbon atoms.

2,847,457

STEROID INTERMEDIATES

William S. Johnson, Madison, Wis., Alexander D. Kemp, Rochester, N. Y., and Raphael Pappo, Madison, Wis., assignors to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin

No Drawing. Application May 26, 1955
Serial No. 511,397
14 Claims. (Cl. 260—488)

1. A product selected from the group consisting of trans-anti-trans and cis-anti-trans 1-RO-8,12-di-lower-alkanoyloxy - 10a - methyl - 4b,5,6,6a,7,8,9,10,10a,10b,11,12-dodecahydrochrysene, where R is a lower alkyl group.

4. A product selected from the group consisting of trans-anti-trans and cis-anti-trans 1-keto-8,11-dihydroxy-10a - methyl - 1,2,3,4,4b,5,6,6a,7,8,9,10,10a,10b,11,12-hexadecahydrochrysene and trans-anti-trans and cis-anti-trans 1-keto-8,11-dihydroxy-10a-methyl-1,4,4a,4b,5,6,6a,7,8,9,10,10a,10b,11,12,12a-hexadecahydrochrysene.

7. A product selected from the group consisting of trans-anti-trans and cis-anti-trans 1-keto-8,11-dihydroxy-10a-methyl-octadecahydrochrysene.

2,847,458

PREPARATION OF ARYLPHOSPHONIC ACIDS

Tsai H. Chao, Somerville, Hans Z. Lecher, Plainfield, and Ruth A. Greenwood, Somerville, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 25, 1955
Serial No. 496,934
15 Claims. (Cl. 260—500)

1. A process of producing an arylphosphonic acid which comprises heating at least 5 molar equivalents of the corresponding aromatic carbocyclic compound, free from polar substituents capable of reacting with P_4S_{10} at a temperature falling within the range of 140–250° C. with 1 molar equivalent of P_4S_{10} and hydrolyzing the reaction product by heating with water until evolution of hydrogen sulfide substantially ceases.

14. 2-isopropylnaphthylphosphonic acid.

15. A compound having the following formula



2,847,459

PREPARATION OF AROMATIC SULFONATE SALTS

Joseph Edward Mitchell, East Rutherford, N. J., assignor to Colgate-Palmolive Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application April 29, 1955
Serial No. 505,043
5 Claims. (Cl. 260—505)

1. A process for the preparation of higher alkyl aryl sulfonate water soluble salts of substantially stable pH comprising reacting a higher alkyl substituted aromatic compound with anhydrous sulfur trioxide, neutralizing the resulting product in an aqueous medium with a salt-forming base capable of forming water soluble sulfonate salts, and aging the thus neutralized material at a temperature from about 65° C. to about 100° C. for a period of time from about ¼ to about 2½ hours sufficient to produce an alkyl aryl sulfonate salt of substantially stable pH.

2,847,460

6-METHYL-3-CYCLOHEXENE-1-ACRYLIC ACID

Walter B. Trapp and Donald E. Fletcher, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 17, 1956
Serial No. 604,603
1 Claim. (Cl. 260—514)

6-methyl-3-cyclohexene-1-acrylic acid.

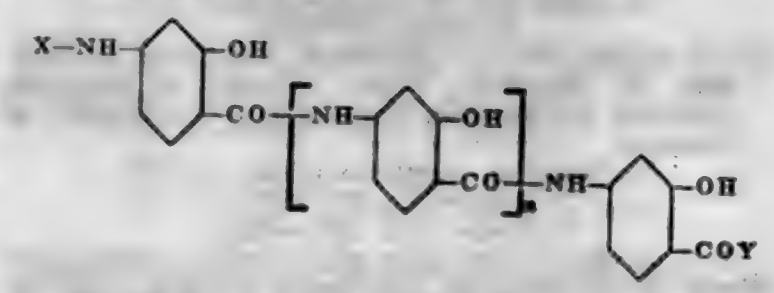
2,847,461

CONDENSATION PRODUCTS OF P-AMINO-SALICYLIC ACID

Hans Z. Lecher, Plainfield, and Bennett G. Buell, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 16, 1953
Serial No. 362,146
6 Claims. (Cl. 260—519)

1. Compounds of the structure



in which X is selected from the group consisting of H

and carboxylic acyl, Y is chosen from the group consisting of OH and —NH—Ar in which Ar is an aryl radical having less than three rings and x is an integer >-1<7.

2,847,462

METHOD OF FRACTIONATING MIXED ISOMERS OF TRICHLOROBENZOIC ACID

George M. Steger, Pearl River, N. Y., assignor to Heyden Newport Chemical Corporation, a corporation of Delaware

No Drawing. Application March 2, 1956
Serial No. 568,974
5 Claims. (Cl. 260—525)

1. In the process of fractionating a mixture of isomers of trichlorobenzoic acid starting material containing the 2,3,6-isomer and another isomer, the improvement comprising treating the mixture of isomers with an alkyl acetate in which the alkyl group contains 1–5 carbon atoms and forming a mixture of an alkyl acetate solution of trichlorobenzoic acid containing a higher percentage by weight of the 2,3,6-isomer than the trichlorobenzoic acid starting material and an undissolved portion containing a lower percentage by weight than the trichlorobenzoic acid starting material, and separating the alkyl acetate solution from the undissolved trichlorobenzoic acid.

2,847,463

PREPARATION OF ADIPIC ACIDS

William G. Toland, San Rafael, and Edwin A. Goldsmith, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application March 30, 1955, Serial No. 497,954
13 Claims. (Cl. 260—531)

1. A process for converting benzoic acid to hexahydrobenzoyl alcohol, which comprises esterifying benzoic acid with hexahydrobenzyl alcohol in an esterification zone to produce hexahydrobenzyl benzoate, reducing the hexahydrobenzyl benzoate to hexahydrobenzyl hexahydrobenzoate by catalytic hydrogenation, producing from said hexahydrobenzyl hexahydrobenzoate by catalytic hydrogenation hexahydrobenzyl alcohol in an amount of two molar parts from each molar part of hexahydrobenzyl hexahydrobenzoate, and returning a portion of the hexahydrobenzyl alcohol to the esterification zone to react with more benzoic acid.

7. Process for producing adipic acid from hexahydrobenzyl alcohol, which comprises esterifying benzoic acid with hexahydrobenzyl alcohol in an esterification zone to produce hexahydrobenzyl benzoate, reducing the hexahydrobenzyl benzoate to hexahydrobenzyl hexahydrobenzoate by catalytic hydrogenation, producing from said hexahydrobenzyl hexahydrobenzoate by catalystic hydrogenation approximately two molar parts of hexahydrobenzyl alcohol from each part of hexahydrobenzyl hexahydrobenzoate, returning about one-half of the hexahydrobenzyl alcohol to the esterification zone to react with more benzoic acid, and oxidizing the remainder of the hexahydrobenzyl alcohol to adipic acid with nitric acid.

2,847,464

PREPARATION OF LACTIC ACID

Nat C. Robertson, Wellesley, and Erwin F. Schoenbrunn, Needham, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application December 29, 1955
Serial No. 556,067
3 Claims. (Cl. 260—533)

1. The process which comprises contacting propylene with an oxidizing medium at a temperature below about 40° C., said oxidizing medium containing at least one mole of nitric acid and at least one mole of dinitrogen tetroxide for each mole of propylene employed, said nitric acid having an HNO_3 concentration in excess of about 25 percent by weight, subjecting the resultant reaction products to hydrolysis conditions, and recovering a preponderance of lactic acid.

2,847,465

PRODUCTION OF ALPHA HYDROXYISOBUTYRIC ACID

Nat C. Robertson, Wellesley, and Thomas R. Steadman, Waban, Mass., assignors to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application January 15, 1957
Serial No. 634,148
10 Claims. (Cl. 260—533)

1. The process for the production of alpha hydroxyisobutyric acid which comprises reacting isobutylene at a temperature below about 50° C. with nitric acid having an HNO_3 concentration in excess of 50% by weight, the mole ratio of nitric acid to isobutylene being at least 1 to 1, treating the resultant reaction mixture with water, and recovering alpha hydroxyisobutyric acid.

2,847,466

ALKALINE OXIDATION OF MONOKETO MONOCARBOXYLIC ACIDS

Thomas R. Steadman, Waban, and John O. H. Peterson, Jr., Medford, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application July 12, 1955
Serial No. 521,618
5 Claims. (Cl. 260—537)

1. A process for preparing dicarboxylic acids from a stearic acid containing only a single keto group which comprises reacting said acid with an alkali metal hydroxide in the presence of water and a material selected from the group consisting of cadmium oxide and zinc oxide at a temperature between about 300° C. and 375° C., the quantity of water present being at least twice by weight the quantity of alkali metal hydroxide employed, acidifying the resultant aqueous solution, and recovering an acid mixture comprised essentially of a dicarboxylic acid containing the same number of carbon atoms between the carboxyl groups as the number of carbon atoms between the keto group and the carboxyl group of said monoketo stearic acid and a second dicarboxylic acid containing one less carbon atom than said first mentioned dicarboxylic acid.

2,847,467

PURIFICATION OF DODECANEDIOIC AND UNDECANEDIOIC ACIDS

Thomas R. Steadman, Waban, and John O. H. Peterson, Jr., Medford, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

No Drawing. Application November 14, 1956
Serial No. 622,007
3 Claims. (Cl. 260—537)

1. The process which comprises dissolving a mixture of dodecanedioic and undecanedioic acids contaminated with stearic acid in an aqueous solution of acetic acid, heating said solution to a temperature on the order of the boiling point of the solution, removing the oily phase which separates from the hot solution, cooling the resultant clear, aqueous acetic acid phase, and recovering a high purity mixture of dodecanedioic and undecanedioic acids.

2,847,468

SEPARATION OF FORMIC ACID FROM EPOXIDES

James H. Gardiner, Weston, and Charles I. Tewksbury, Chestnut Hill, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application May 9, 1956
Serial No. 583,630
4 Claims. (Cl. 260—542)

1. Process of separating formic acid from a mixture containing formic acid and an epoxide which comprises contacting said mixture with calcium carbonate at an elevated temperature, said calcium carbonate being employed in an amount which is at least that theoretically required to neutralize the formic acid present in said mixture, and separating the resulting calcium formate.

2,847,469

METHOD OF MANUFACTURE OF $RP(O)Cl_2$ FROM $RP(O)(OR)_2$ AND $SOCl_2$

Thomas P. Dawson, Bel Air, Md., and Jack W. Armstrong, Concord, Calif., assignors to the United States of America as represented by the Secretary of the Army

No Drawing. Application April 26, 1955
Serial No. 504,127
4 Claims. (Cl. 260—543)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of producing an alkylphosphonic dichloride which comprises refluxing thionyl chloride at a temperature of substantially 78° C., passing vapors of said thionyl chloride up a column heated to a temperature in the range 130° to 200° C., and feeding a lower dialkyl alkylphosphonate down said column.

2,847,470

MANUFACTURE OF HALOCARBONYLS

Merton H. Douthitt, Ossining, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 23, 1955
Serial No. 548,776
4 Claims. (Cl. 260—544)

1. A process for producing a phosgene which comprises: passing a mixture of synthesis gas containing hydrogen and carbon monoxide in the ratio of about 0.8–2 mols of H_2 per mol of CO, not more than about 5 percent of carbon dioxide, nitrogen, and methane, and having water content below 0.25 mg. per liter and chlorine having water content below 0.25 mg. per liter in the ratio of 0.8–0.99 mol of chlorine per mol of carbon monoxide in said synthesis gas into contact with particulate activated carbon catalyst in a reaction zone; establishing and maintaining gas phase conditions at temperature of said mixture in said reaction zone between about 160° and about 300° F. until practically all of the chlorine fed has been reacted with the carbon monoxide; and withdrawing a gasiform product containing phosgene from said reaction zone.

2,847,471

METHOD FOR PURIFYING TETRACYCLINE

John Vandeputte, Milltown, and Leon J. Heuser, Princeton, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application March 4, 1955
Serial No. 492,295
6 Claims. (Cl. 260—559)

1. A method of isolating tetracycline from a fermentation broth containing the same and appreciable quantities of chlortetracycline, which comprises acidifying said broth; filtering the broth; treating the filtrate with an inorganic metal compound selected from the group consisting of the relatively water-insoluble salts and bases of the light metals of groups IIA and IIIB of the periodic table at a pH in the range of about 9 to about 10, said compound being present in a concentration greater than about 0.005 gram of compound per milliliter of filtrate, whereby an insoluble association of tetracycline and inorganic compound precipitates; separating the precipitate; mixing the precipitate with an organic solvent for tetracycline thereby forming a mixture comprising water, organic solvent, inorganic metal compound and tetracycline; acidifying the mixture to a pH in the range of about 1.5 to about 2.5 with an acid which forms an insoluble salt with the cation of the inorganic metal compound in said solvent at said acid pH; removing the insoluble salt; and recovering the tetracycline from the solvent by adjusting the pH thereof to the range of about 4 to about 4.5, whereby tetracycline precipitates.

2,847,472

CONDENSATION PRODUCTS OF 2,3-DICHLOROANILINE AND A BENZALDEHYDE COMPOUND

Dale N. Robertson, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 10, 1957
Serial No. 651,813
3 Claims. (Cl. 260—566)

1. A compound selected from the group consisting of α-(2,3-dichlorophenylimino)-o-cresol, 4-chloro-α-(2,3-dichlorophenylimino)-o-cresol, and 4,6-dichloro-α-(2,3-dichlorophenylimino)-o-cresol.

2,847,473

2,3-DICHLORO-N-(O-CHLOROBENZYLIDENE) ANILINE

Dale N. Robertson, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 10, 1957
Serial No. 651,815
1 Claim. (Cl. 260—566)

2,3-dichloro-N-(o-chlorobenzylidene)aniline.

2,847,474

2-(4-BROMOPHENYL)-1,3-DIKETOHYDRINDENE

Louis Freedman, Mount Vernon, and Seymour L. Shapiro, Hastings on Hudson, N. Y., and Karl Geiger, Passaic, N. J., assignors to U. S. Vitamin Corporation, New York, N. Y., a corporation of New York

No Drawing. Application March 5, 1954
Serial No. 414,512
1 Claim. (Cl. 260—590)

The compound 2-(4-bromophenyl)-1,3-diketohydrindene.

2,847,475

COPPER-CONTAINING CATALYSTS AND PROCESS OF PRODUCING ALDEHYDES

Hervey H. Voge, Berkeley, and Leland T. Atkins, Orinda, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application June 6, 1955
Serial No. 513,597
8 Claims. (Cl. 260—604)

1. A catalyst composition comisting essentially of particles of solid support material and an adherent pellicular deposit of copper metal formed upon said particles by the action of a reducing agent comprising hydrazine upon an ammoniacal solution of a reducible copper salt in the presence of said solid support material.

6. The process for converting olefinic hydrocarbons containing from three to four carbon atoms to the molecule to the corresponding unsaturated carbonylic compounds comprising alpha,beta-acrolein and methacrolein,

respectively, which comprises contacting said olefinic hydrocarbons under conditions of controlled incomplete hydrocarbon oxidation in the temperature range of from about 150 to about 600° C. with a copper-containing catalyst composition consisting essentially of a solid support and an adherent uniformly distributed deposit of oxidized pellicular copper obtained by heating in an oxygen-containing atmosphere particles of solid support material comprising an adherent pellicular deposit of copper metal formed on the surface of said particles by the action of a reducing agent comprising hydrazine upon an ammoniacal solution of a reducible copper compound in the presence of said solid support material.

2,847,476

HYDRATION OF ACETYLENE USING CADMIUM PYROPHOSPHATE CATALYST

Thomas R. Steadman, Wakan, Mass., assignor, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application March 27, 1953
Serial No. 345,256
10 Claims. (Cl. 260—605)

1. The method for hydrating acetylenes to carbonyl compounds which comprises reacting an acetylene with steam at a temperature between 300° and 440° C. in the presence of a cadmium pyrophosphate catalyst prepared by heating cadmium ammonium phosphate to remove ammonia and water, the heating being continued until the remaining cadmium phosphate has the empirical formula $Cd_2P_2O_7$, pelleting the resulting pyrophosphate with a volatile organic lubricant, and heating the pellets to form a porous catalyst structure.

2,847,477

ALLYL ETHERS

Warren H. Watanabe, Philadelphia, Pa., and Lawrence E. Conlon, Esmond, R. I., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 13, 1956
Serial No. 603,814
11 Claims. (Cl. 260—611)

6. A process for preparing allyl ethers which comprises reacting allyl alcohol with a non-tertiary alcohol at the reflux temperature with separation of water formed from the class consisting of sulfuric acid, hydrofluoric acid, boron trifluoride, and boron trifluoride coordinated complexes, said non-tertiary alcohol being selected from the group consisting of alkanols, alkenols having at least three carbon atoms, cycloalkanols, alkylcycloalkanols, dicycloalkanols, terpenols, arylalkanols, alkylarylalkanols, alkoxyalkanols, aryloxyalkanols, alkylaryloxyalkanols, and alkylarylpolyethoxyalkanols.

2,847,478

ALLYL TRANSETHERIFICATION

Jesse C. H. Hwa, Levittown, and Warren H. Watanabe, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 13, 1956
Serial No. 603,840
11 Claims. (Cl. 260—611)

6. A process for preparing allyl ethers which comprises reacting diallyl ether with a non-tertiary alcohol at the reflux temperature with separation of water formed from the class consisting of sulfuric acid, hydrofluoric acid, boron trifluoride, and boron trifluoride coordinated complexes, said non-tertiary alcohol being selected from the group consisting of alkanols, alkenols having at least four carbon atoms, cycloalkanols, alkylcycloalkanols, dicycloalkanols, terpenols, arylalkanols, alkylarylalkanols, alkoxyalkanols, aryloxyalkanols, alkylaryloxyalkanols, and alkylarylpolyethoxyalkanols.

2,847,479

3-CYCLOHEXYLIDENEPROPYL ETHINYL METHYL CARBINOL AND PREPARATION THEREOF

Joseph Donald Surmatis, West Caldwell, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Original application October 1, 1954, Serial No. 459,866, now Patent No. 2,812,361, dated November 5, 1957. Divided and this application July 17, 1957, Serial No. 672,380
2 Claims. (Cl. 260—617)

1. 3-cyclohexylidenepropyl ethinyl methyl carbinol.

2,847,480

RECOVERING VOLATILIZED VALUES INCLUDING ETHANOL FROM WAREHOUSE ATMOSPHERES

Ralph R. Kaiser, Cincinnati, Ohio, assignor to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application February 21, 1955
Serial No. 489,781
2 Claims. (Cl. 260—643)

1. A process for recovering volatilized values including ethyl alcohol normally lost from warehouses during the aging of whiskey which comprises the steps in combination of controlling the ethyl alcohol content of the atmosphere within the warehouse to not less than a minimum concentration level of about 0.34 lb. per M. S. C. F. of ethyl alcohol and maintaining said concentration level within the range of about 0.34 to 0.70 lb. per M. S. C. F., exhausting the alcohol-enriched atmosphere from the warehouse at a rate of from 1.16 to 2.39 S. C. F. M. per M. S. C. F. of free warehouse volume and controlling said exhaust at a rate not greater than about 2.39 S. C. F. M. per M. S. C. F. of free warehouse volume such as to maintain at least said minimum concentration level of ethyl alcohol within said warehouse, passing said exhausted atmosphere over an adsorbent whereby the volatile values including ethyl alcohol are adsorbed thereon and thereafter recovering said volatile values including ethyl alcohol therefrom.

2,847,481

PRODUCTION OF OCTACHLOROMETHYLENECYCLOPENTENE

Aylmer H. Maude and David S. Rosenberg, Niagara Falls, N. Y., assignors to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York

No Drawing. Application August 9, 1954
Serial No. 448,736
5 Claims. (Cl. 260—648)

1. The process which comprises reacting chlorine with a partially chlorinated hydrocarbon selected from the group consisting of partially chlorinated n-hexane, partially chlorinated iso-hexane, partially chlorinated methylcyclopentane, their corresponding olefins and diolefins, and mixtures thereof, said partially chlorinated hydrocarbon having at least 3 chlorine atoms per molecule, in the presence of a porous surface active catalyst at a temperature between about 250 and 460 degrees centigrade and recovering the organic product containing octachloromethylenecyclopentene.

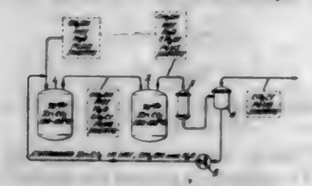
2,847,482
PROCESS FOR PRODUCING PERCHLORETHYLENE
Carlo Longiave and Federico Zanetti, Milan, Italy, assignors to Montecatini Società Generale per l'Industria Mineraria e Chimica, Milan, Italy, a corporation of Italy
No Drawing. Application July 14, 1954
Serial No. 443,434
Claims priority, application Italy August 4, 1953
7 Claims. (Cl. 260—654)

1. In the process of producing perchlorethylene, which comprises reacting a compound of the class consisting of methane and saturated and unsaturated hydrocarbons having 2 to 3 carbon atoms with an excess of chlorine while passing through a hot enclosed zone, the improvement which consists in cooling and recycling a portion of the gaseous products leaving the enclosed zone, which portion represents between 76.6 and 81.2% by volume of the gaseous charge entering the enclosed zone, and adjusting the temperature within said enclosed zone to between 350° and 650° C.

2,847,483
PRODUCTION OF VINYL HALIDES
Richard L. Meek, El Dorado, Ark., assignor, by mesne assignments, to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application October 14, 1954
Serial No. 462,399
2 Claims. (Cl. 260—656)

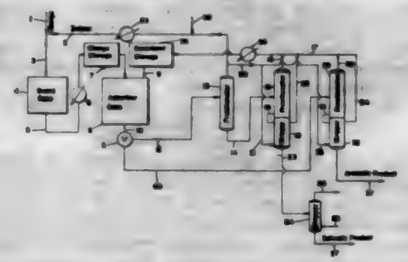
2. A process for the preparation of vinyl chloride which comprises passing a mixture of acetylene and hydrogen chloride in the vapor phase over a mixed preformed catalyst of mercurous and mercuric chloride and ferrous and ferric chloride supported upon and intimately commingled with a material of high surface activity, said catalyst being prepared by treating said material of high surface activity with aqueous solutions of mercuric chloride and ferrous chloride under conditions such as to permit at least a partial oxidation-reduction reaction to take place in situ, said mercuric chloride and ferrous chloride being employed in an approximately molar ratio of 1:1.

2,847,484
PREPARATION OF METHYL CHLORIDE
Leon A. Kolker, Larchmont, N. Y.
Application March 1, 1957, Serial No. 643,334
3 Claims. (Cl. 260—657)



1. A continuous process for making methyl chloride which comprises (1) introducing methanol and aqueous HCl of from 5 to 35 percent weight concentration into an aqueous zinc chloride solution, (2) removing the formed volatile materials comprising methyl chloride which is present in an amount equal to at least 50%, by weight, of the total weight of the HCl and methanol, and unreacted HCl and methanol, (3) introducing the volatile mixture of ingredients described in (2) into another aqueous zinc chloride solution, (4) removing the volatile products thereby obtained comprising an increased yield of methyl chloride over that obtained in step (1), (5) recycling a mixture of HCl, methanol and water obtained from the volatile materials of step (4) and containing entrained zinc chloride to the first zinc chloride solution, each aqueous zinc chloride solution having a weight concentration of from 65–75% and the temperature of each zinc chloride solution being within the range of from about 115–145° C., the rate of throughput of the feed comprising the methanol and aqueous HCl being within the range of from 4 to 10 mols of the feed per mol of zinc chloride in each zinc chloride solution per hour, and (6) recovering the formed methyl chloride.

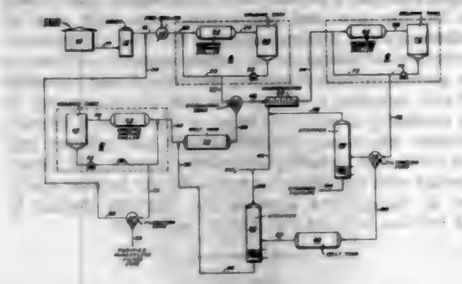
2,847,485
RECOVERY OF DESORBENT COMPONENTS
James Van Dyck Fear, Upper Providence, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application August 31, 1955, Serial No. 531,773
3 Claims. (Cl. 260—674)



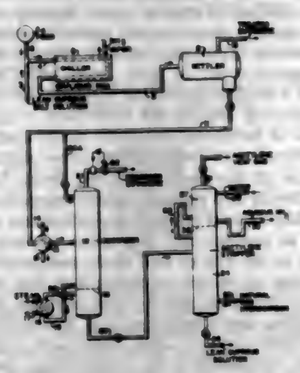
1. In a cyclic adsorption process wherein a bed of adsorbent on which aromatic hydrocarbons are adsorbed in preference to saturated hydrocarbons is alternatively contacted with a hydrocarbon charge stock comprising aromatics and saturates boiling in the lubricating oil range in admixture with a lower boiling saturated hydrocarbon diluent, and with a desorbent comprising an aromatic hydrocarbon boiling below the boiling range of the charge stock in admixture with a further quantity of said diluent, the diluent boiling below the said desorbent aromatic component, and in which during each cycle the effluent from the adsorbent is collected in a first portion comprising charge saturates, diluent, and desorbent aromatics, and in a second portion comprising charge aromatics, diluent, and desorbent aromatics; the improvement which consists in subjecting each of said portions to fractional distillation, recovering from said fractional distillation a charge saturate fraction, a charge aromatics fraction, a vaporized diluent fraction, and a fraction comprising diluent and desorbent aromatics, said charge saturate fraction and charge aromatics fraction containing minor amounts of desorbent aromatics, separately contacting the charge saturate fraction and the charge aromatics fraction with a portion of said vaporized diluent fraction in an amount and at a temperature sufficient to substantially completely strip desorbent aromatics from the said fractions, and recovering a charge saturate fraction and a charge aromatics fraction essentially free of desorbent aromatics.

2,847,486
CRYSTALLIZATION OF PARAMETHYL AROMATIC COMPOUNDS EMPLOYING CARBON TETRACHLORIDE FOR FURTHER RECOVERY OF PARAMETHYL COMPOUND
Delos E. Bown, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application September 19, 1955, Serial No. 535,020
12 Claims. (Cl. 260—674)

1. In a process for the recovery of a polymethyl C_8 to C_{10} benzene containing a paramethyl grouping from an aromatic hydrocarbon feed stock containing the same in admixture with closely boiling aromatic compounds and wherein the feed stock is chilled to about the lowermost temperature of selective crystallization of said paramethyl aromatic compound to form a first slurry which is filtered to provide a first filter cake fraction and a first filtrate fraction, the improvement which comprises mixing said first filtrate fraction with about 20 to 45 weight percent of carbon tetrachloride, chilling said mixture to about the temperature of said first slurry to form a second slurry containing a crystalline complex of said carbon tetrachloride with said paramethyl compound in a second mother liquor, filtering said second slurry to obtain a second filter cake and stripping carbon tetrachloride from said second filter cake.

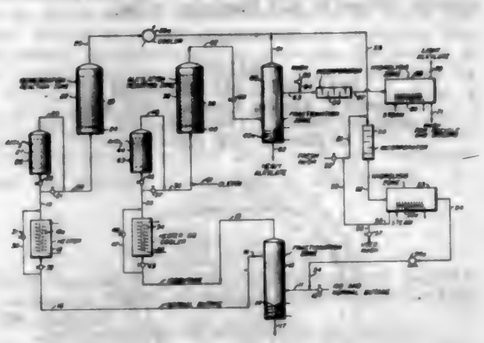


2,847,487
PREWASH FOR ACETYLENE REMOVAL FROM BUTADIENE STREAM
William N. Kestner, Walter C. Kohfeldt, and Samuel B. Eubank, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application December 31, 1952, Serial No. 329,064
2 Claims. (Cl. 260—681.5)



1. A prewashing operation for eliminating an acetylene from butadiene-bearing stream prior to extraction of the butadiene, which comprises admixing with said stream a cuprous salt solvent solution in an amount of from about 3 to 8 parts of said stream to one part solvent, chilling the mixture to a temperature of about 20 to 50°, to selectively absorb acetylene and a small amount of butadiene, separating the resulting extract solution of the absorbed acetylene with a small amount of absorbed butadiene dissolved in said salt solution from the remaining treated liquid butadiene, passing a portion of said extract solution separated from the treated liquid butadiene as a stream through a preheating zone into an intermediate part of a butadiene desorption zone wherein the butadiene is vaporized in said extract at temperatures in the range of 140° to 180° F., passing the butadiene vapors through an upper part of butadiene desorption zone, passing another portion of said extract solution separated from the liquid butadiene into an upper part of said butadiene desorption zone at temperatures in the range of 20° to 50° F. to impart a temperature of 50° to 90° F. to the butadiene vapors as they are taken overhead from said butadiene desorption zone to minimize acetylene desorption from said butadiene desorption zone, passing the residual extract solution of absorbed acetylenes free of butadiene from a bottom part of said butadiene desorption zone into an acetylene stripping zone, stripping the acetylene from the extract solution in said stripping zone by injection of natural gas containing C_1–C_4 gaseous paraffinic hydrocarbons without the addition of heat.

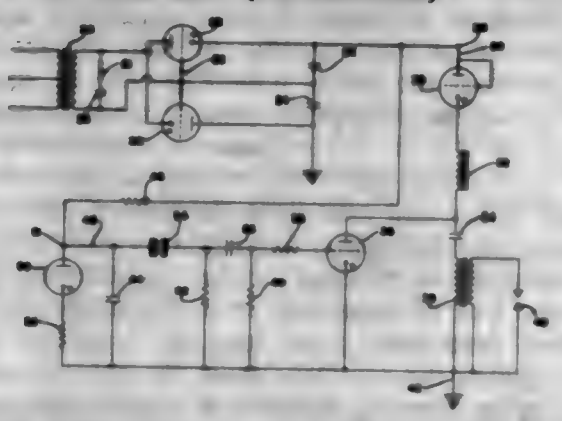
2,847,488
ISOMERIZATION AND ALKYLATION OF HYDROCARBONS
Harry G. Boynton and Joseph T. Horeczy, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application September 7, 1954, Serial No. 454,384
12 Claims. (Cl. 260—683.53)



1. A process which comprises contacting normal butane with a supported Friedel-Crafts catalyst under isomerization conditions to form a reaction product containing normal butane, isobutane, and alkyl chlorides, removing said normal butane and said alkyl chlorides from said isomerization product and contacting said isobutane and an olefin with a supported Friedel-Crafts catalyst under alkylation conditions to alkylate said isobutane with said olefin.

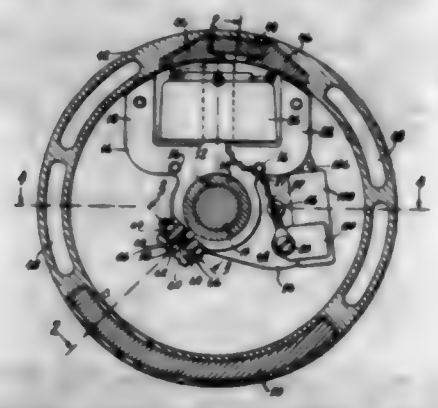
ELECTRICAL

2,847,489
IGNITION SYSTEM
Brooks H. Short, Anderson, Ind., and Stanley E. Jacke, Walled Lake, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 8, 1954, Serial No. 402,912
7 Claims. (Cl. 123—148)



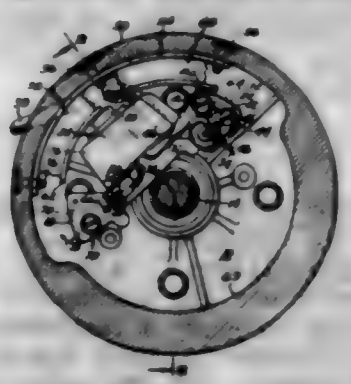
1. In an ignition system for an internal combustion engine having a source of substantially high voltage direct current, the combination comprising; a primary circuit including; an electronic switch connected to said source adapted to pass current therethrough in one direction of current flow only, an inductance, and a capacitance connected between the electronic switch and the primary winding of a coil for inducing an electrical current in a secondary winding of said coil, a triggering means including an electronic switch for regulating a flow of current in said primary circuit, and a voltage regulating means for providing a current having a substantial constant voltage to said triggering means.

2,847,490
MAGNETO MECHANISM
Russell E. Phelon, Longmeadow, Mass.
Application March 4, 1955, Serial No. 492,158
16 Claims. (Cl. 123—149)



1. A magneto and engine assembly comprising in combination, a stationary engine plate having an opening therein and including an integral boss which has a substantially cylindrical periphery and is unobstructed at its front end, a rotatable shaft extending through said opening in the engine plate, a core formed of a plurality of flat laminations of magnetic metal all substantially identical in shape and thickness and in face-to-face contact with each other throughout the major portions of their areas which laminations are provided collectively with an opening into which said boss projects with the interior surface of the opening in at least some of said laminations directly engaging said cylindrical surface of said boss so as to prevent any movement of said core perpendicularly to said boss, said boss and core being so related to each other that said core is longitudinally movable into its fully engaged position on said boss and all of said laminations of said core being shaped to provide at least three poles having faces which are equally spaced from the axis of said shaft when said core is in its said engaged position, a primary coil surrounding one of said poles of the core and cooperating with said core to constitute a stator, means engaging the core for preventing rotative movement of the stator around said boss, a rotor carried by said projecting portion of said rotatable shaft and including a magnet and pole pieces movable in close proximity to said pole faces of the stator, a breaker mechanism electrically connected with said primary coil of the stator and including separable contacts, and means connected with said shaft for operating the breaker mechanism to engage and separate the contacts thereof in timed relation with the rotation of said rotor.

2,847,491
MAGNETO MECHANISM
Russell E. Phelon, Longmeadow, Mass.
Application March 2, 1956, Serial No. 569,110
9 Claims. (Cl. 123—149)

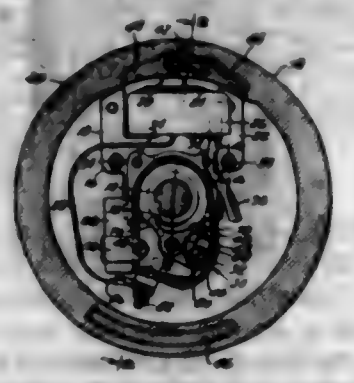


1. A magneto and engine assembly comprising in combination, a stationary engine plate having an opening therein and having two integral forward projections extending from the front face of said plate which projections are unobstructed at their front ends, a rotatable shaft having a portion extending through said plate opening and projecting beyond the front face of said plate, a core formed of laminated magnetic metal and shaped to provide a plurality of poles having faces equally spaced from the axis of the shaft, said core being formed and shaped to provide two portions which respectively engage and fit the sides of said integral projections on said engine plate so as to prevent any movement of said core perpendicularly to the axis of said shaft, said projections and said core being so related to each other that said core is longitudinally movable into its fully engaged position on said projections, means engaging said core to prevent forward movement thereof away from said engine plate, primary and secondary coils surrounding one of said poles of the core and cooperating with said core to constitute a stator, and a rotor carried by the projecting portion of said rotatable shaft and including a magnet and pole pieces movable in close proximity to said pole faces of the stator.

2,847,492
MAGNETO MECHANISM
Russell E. Phelon, Longmeadow, Mass.
Application March 2, 1956, Serial No. 569,109
5 Claims. (Cl. 123—149)

1. A magneto and engine assembly comprising in combination, a stationary engine plate including an outwardly projecting integral hub having a front face and having a central axis, said hub being provided with a cylindrical periphery concentric with said axis and unobstructed at its outer end, a rotatable shaft concentric with said hub axis and having a portion extending through

and projecting beyond said front face of the hub, a magnetic core formed of laminated metal and shaped to provide a plurality of poles having faces equally spaced from the axis of the shaft, said core having a relatively large partly cylindrical opening therein adjacent one edge thereof which opening is so located that it receives and fits the cylindrical periphery of said hub through substantially more than 180° but substantially less than 360° so as to provide a gap in said core adjacent said hub, means for holding said core in a fixed position on said engine plate, primary and secondary coils surrounding one of said poles of the core and cooperating with

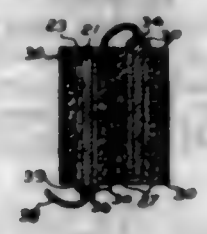


said core to constitute a stator, a breaker cam on said shaft located with a major portion thereof behind the plane of the front face of the core, a breaker mechanism electrically connected with said primary coil and operable by said cam which breaker mechanism is located with at least a portion of the cam engaging element thereof in said gap in the core and between the front and back planes of said core, and a rotor carried by the projecting portion of said rotatable shaft and including a magnet and pole pieces movable in close proximity to said pole faces of the stator.

2,847,493
BATTERY

Donald M. Smyth, George A. Shira, and Kurt Lehovec, Williamstown, Mass., assignors to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts

Application March 22, 1955, Serial No. 495,984
4 Claims. (Cl. 136—83)



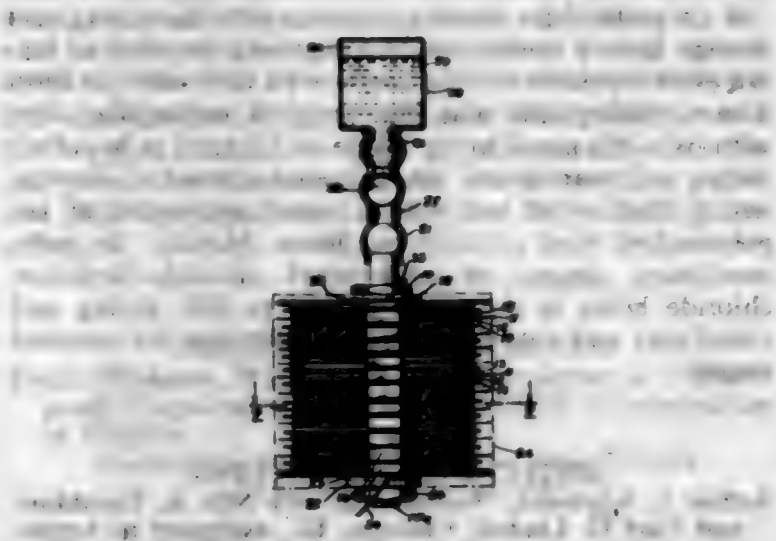
4. A primary cell comprising a silver negative electrode, an iodine positive electrode, an inter-electrode ionic conductor disposed between and connecting said electrodes, said inter-electrode ionic conductor including a layer of silver iodide, and said inter-electrode ionic conductor also including a barrier-electrolyte layer of silver chloride disposed between said silver negative electrode and said layer of silver iodide.

2,847,494
BATTERY OF DEFERRED ACTION CELLS

Robert A. A. Jeannin, Paris, France, assignor to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme), Romainville, France, a company of France

Application March 8, 1956, Serial No. 570,353
Claims priority, application France October 10, 1955
9 Claims. (Cl. 136—90)

9. A battery of the character described comprising a casing, a plurality of cell groups all within said casing and consisting of a pile of apertured sheets of similar shape whose apertures are aligned and including in said pile sheets having positive electrode characteristics, sheets having negative electrode characteristics and interposed separator sheets between respective adjoining sheets having positive and negative electrode characteristics, and isolator diaphragm sheets between each cell group of the battery defined by a sheet having positive electrode characteristics, a sheet having negative electrode characteristics and an interposed separator sheet, said isolator diaphragm sheets having largest outer peripheral dimensions of all the sheets and smallest aperture dimensions thereof, said sheets having positive electrode characteristics and said sheets having negative electrode characteristics having smallest outer peripheral dimensions and largest aperture dimensions of all the sheets, and said



separator sheets having outer peripheral dimensions and aperture dimensions intermediate those of the isolator diaphragm sheets and those of the sheets having positive and negative electrode characteristics, a tube having perforations in its length traversing the aligned apertures of all the sheets without contact with any of the sheets, said tube serving to permit introduction of electrolyte into the battery for substantially simultaneous distribution to all separator and electrode sheets therein, a container for a determined amount of electrolyte under pressure, a conduit connecting said container to said tube and a frangible closure member in said conduit which must be broken to permit pressure delivery of said electrolyte from said container of said tube via said conduit.

2,847,495
VOLTAIC CELLS

Witold Nagorski, Whitley Bay, Northumberland, England, assignor to Burndept Limited, London, England, a British company

Application July 18, 1955, Serial No. 522,625
Claims priority, application Great Britain July 21, 1954
1 Claim. (Cl. 136—111)



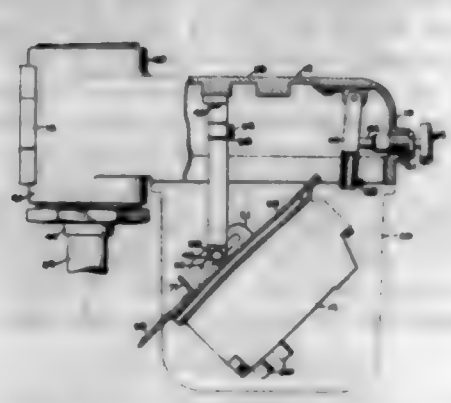
A unit for an electric dry battery of the layer type, consisting of the electrical components of a cell, all of flat form and substantially rectangular shape, assembled in register, and a seamless tube of an elastic plastic material which is dielectric and resists the electrolyte but permits the diffusion of gases produced in the cell tightly enclosing said components, the axis of said tube being parallel with the flat faces of the components and the ends of the tube sealed by welding so as to leave pockets adapted to accommodate gases and/or liquid produced in the storage and operation of the cell, and a conductive tongue electrically connected with one end component and protruding through one welded end of the tube, the weld being sealed to the tongue.

2,847,496
GLASS-FIBER-TUBE TYPE LEAD-ACID STORAGE BATTERY PLATE
Mamo Yamaura, Takatsuki-City, Japan
Application October 5, 1955, Serial No. 538,659
3 Claims. (Cl. 136—148)



1. A method for making a porous tube for a lead acid storage battery positive plate comprising the steps of laying glass filaments at right angles with each other to form a mat, cutting said mat into required rectangular sizes with its width equal to the length of the tube to be rolled, rolling said mat several times around a mandrel, impregnating said rolled mat with a water suspension of copolymerized vinyl chloride-vinylidene chloride, the polymerization degree of said vinyl chloride-vinylidene chloride being in the range of 200 to 300, drying said rolled mat and cutting said rolled mat into the required length.

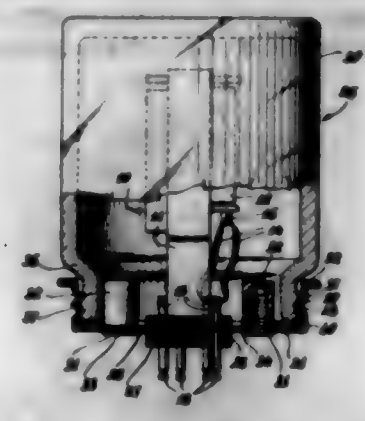
2,847,497
SWITCHGEAR MOUNTING
Arthur I. Appleton, Northbrook, and Nils A. Tornblom and Carl H. Lindell, Chicago, Ill., assignors to Appleton Electric Company, Chicago, Ill., a corporation of Illinois
Application January 24, 1952, Serial No. 267,954
2 Claims. (Cl. 174—52)



2. In a sealed switchgear housing, the combination of a hollow circular casing open at the bottom, a cover threadedly attachable to the bottom of said casing to define a sealed chamber within the same, a depending bracket fixed to the top wall of said casing inside the same and terminating in a pair of closely spaced lugs, a switchgear mounting plate having a longitudinally slotted tongue thereon pivotally secured between said closely spaced lugs, and a pivot pin mounted transversely of said lugs, said pivot pin including means for clamping said lugs against said slotted tongue to maintain said mounting plate in selected angular positions relative to said bracket.

2,847,498
DISENGAGEABLE HERMETICALLY SEALED CLOSURE FOR ELECTRICAL AND ELECTRONIC COMPONENTS
Stanley L. Rosenberg, Massepequa Park, and Harry Sussman, Great Neck, N. Y., assignors to Electrosational Engineering Co., Long Island City, N. Y., a partnership of New York
Application October 1, 1951, Serial No. 249,168
1 Claim. (Cl. 174—59)

An hermetically sealed, openable closure for electrical and electronic components comprising, in combination, a metal attachment base having a threaded circumferential flange; attachment means secured to said base; a component mounting bracket on said base and extending inwardly therefrom; a rigid dielectric terminal block mounted in an aperture in said base and projecting on either side of said base, said block having terminals extending therethrough to both sides of said base, the peripheral portions of said block being in spaced relation



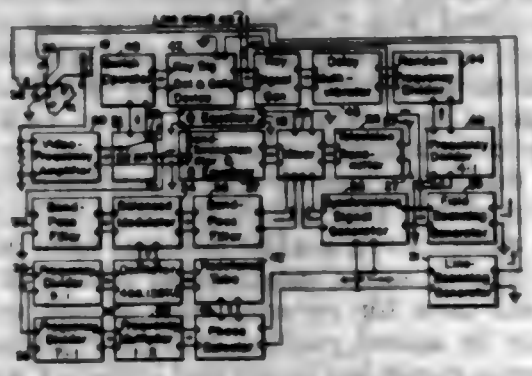
to said base flange; a transparent cover detachably engageable tightly with said base and having a threaded neck screwable into said flange; and a sealing gasket interposed for compression between adjacent surfaces of the base and cover, said attachment means comprising closed end, internally threaded inserts having their outer ends secured in said base, said inserts projecting inwardly of said base.

2,847,499
COAXIAL CABLE
Thomas F. Peterson, Shaker Heights, Ohio, assignor to Preformed Line Products Company, Cleveland, Ohio, a corporation of Ohio
Application June 16, 1954, Serial No. 437,047
3 Claims. (Cl. 174—107)



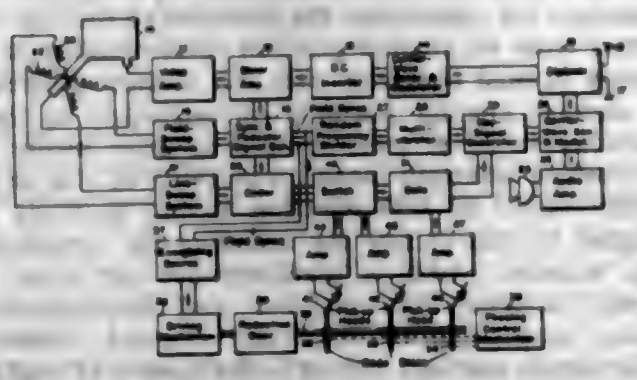
1. Coaxial cable comprising in combination a plurality of helical preformed strips of outer insulation, a relatively flat strip of inner insulation given a helical twist to conform in pitch to the preformed strips, at least one conducting material layer on a central portion of at least one of the preformed strips, at least one conducting material layer carried by a center portion of the flat strip, and sealing means holding the edge portions of the flat strip between edges of the preformed strips to hold the conducting material layers in substantially coaxial arrangement with a primarily gas dielectric.

2,847,500
SUBSCRIPTION TELEVISION SYSTEM
Walter S. Druz, Chicago, and Erwin M. Roschke, Broadview, Ill., assignors to Zenith Radio Corporation, a corporation of Delaware
Application August 9, 1951, Serial No. 241,081
12 Claims. (Cl. 178—5.1)



1. A subscription type television system comprising: a source of video signals having frequency components extending over a predetermined frequency band and occurring during trace intervals having a given repetition frequency; means for deriving from said source one signal including frequency components in a selected fractional portion of said band and another signal including frequency components in the remainder of said band; a frequency changer coupled to said signal-deriving means and including a source of heterodyning signal having a frequency substantially equal to an odd multiple of one-half said repetition frequency for shifting the frequency components of one of said signals into interleaving relation with those of the other of said signals; a mixer coupled to said signal-deriving means and to said frequency changer for combining said one signal, as shifted in frequency, with said other signal to produce a third signal; means for radiating a subscription program signal; a coding device for completing a signal path for said third signal to said radiating means; a receiver for intercepting said subscription program signal; and means in said receiver, responsive to said subscription program signal, for deriving said first-named video signal for reproduction.

2,847,501
SUBSCRIPTION TELEVISION SYSTEM
Alexander Ellett, River Forest, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware
Application February 6, 1952, Serial No. 270,173
10 Claims. (Cl. 178—5.1)



3. A subscription television transmitter comprising: means for supplying a television signal representing a scanned subject for transmission to subscriber receivers; a coding device coupled to said means for varying the mode of transmission of said television signal to effect coding thereof in accordance with characteristic variations of an applied signal; means for developing a plurality of individual coding signals respectively having characteristic variations occurring at intervals determined by different predetermined coding schedules independent of and unrelated to each other; a selecting device coupled to said last-mentioned means having a plurality of discrete operating conditions and responsive to an applied signal for selectively applying said coding signals to said coding device in accordance with actuation of said selecting device between said discrete operating conditions; means for deriving a selecting signal representing a selecting schedule and for applying said selecting signal to said selecting device to determine the order of application of said plurality of coding signals to said coding device, whereby said coding device is actuated in accordance with one of said predetermined coding schedules during certain time intervals and in accordance with another of said coding schedules during intervening time intervals as determined by said selecting schedule; a control network responsive to an applied signal for controlling said selecting device to render said selecting device unresponsive to said selecting signal during spaced operating intervals; a key-signal generator for producing a key signal representing a random control schedule and for supplying said key-signal to said control network; and means for disseminating the coded television signal and said key signal concurrently to the subscriber receivers.

2,847,502
TELESCRIBING APPARATUS
Jacob Rabinow, Washington, D. C., assignor to Telautograph Corporation, Los Angeles, Calif., a corporation of Virginia
Application April 2, 1956, Serial No. 575,574
3 Claims. (Cl. 178—18)

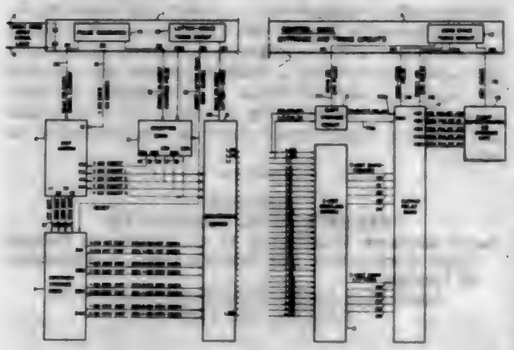


1. In combination with a stylus at a telescribing station for providing signals representing the movements of the stylus with respect to a platen in first and second directions, a coupling member, means including a pair of arms pivotally connected to the stylus and a pair of linkages pivotally coupling the arms to the coupling member for translating movements of the stylus along the platen into corresponding movements of the coupling member, a frame including at least first and second racks disposed in driven relationship to the coupling member for movements in accordance with the movements of the coupling member, first and second pinions each disposed in driven relationship to a different one of the racks to receive movements independently of the movements of the other pinion, and first and second potentiometers each disposed in driven relationship to a different one of the pinions to provide a voltage having an amplitude variable in accordance with the movements of its associated pinion to represent the movements of the stylus in a different one of the first and second directions.

2,847,503
TELEGRAPH CODE CONVERTER
Bertram Stentaford Diamond, Madison, N. J., and John Baldwin Walker, New Cannan, Conn., assignors to The Commercial Cable Company, New York, N. Y., a corporation of New York
Application December 29, 1954, Serial No. 478,312
16 Claims. (Cl. 178—26)

1. A telegraph code converter for converting signals received in a first code into signals of a second code comprising receiving means for receiving first signal elements in a first code, said first signal elements having different characteristics, signal generating means coupled to said receiving means for generating second signal

elements under control of said receiving means, said second signal elements having uniform characteristics, counting means coupled to said generating means for counting said second signal elements, first combining means coupled to said counting means and said receiving means for combining said counted signal elements with each received first signal element, said first combining means under joint control of said receiving means and said generating means, first storage means coupled to said first combining means for storing the combined information derived from said first combining means, second combining means coupled to said first storage means and said



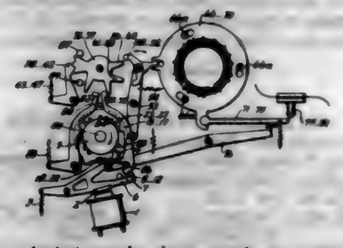
counting means for combining the final count in said counting means with the information stored in said first storage means under control of said generating means, second storage means for storing information in said second code, translating circuit means coupled intermediate said second combining means and said second storage means for producing an output in said second code under control of said second combining means in response to each combined item of information received from said second combining means, and utilization means coupled to said second storage means and said generating means adapted to respond to second code output of said second storage means under control of said generating means.

2,847,504

DEVICE FOR THE RECEPTION AND EVALUATION OF TELEGRAPH SIGNALS

Gerhard Wilhelm Kratt, Pforzheim, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application May 3, 1954, Serial No. 427,313
Claims priority, application Germany May 5, 1953
6 Claims. (Cl. 178—33)



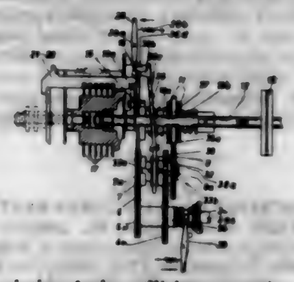
1. In a start-stop teleprinter receiver a rotatable control shaft, a receiver magnet, an armature for said electromagnet, means under control of said shaft for periodically moving said armature in proximity to said magnet independent of the nature of the received signal, a plurality of cams coupled to said shaft, a plurality of testing levers, one for each element of the telegraph code to be received, each adapted to cooperate with a different one of said cams, a plurality rockable setting devices, each adapted to be rocked from a first position to a second position by a different one of said testing levers, a plurality of exploring levers each associated with a different one of said setting devices, a plurality of selector means, each associated with a different one of said exploring levers, common means under control of another one of said cams for periodically moving each of said exploring levers against its associated setting device, each of said exploring levers adapted to be set in one of two angular positions dependent upon the rocked position of its associated setting device, each of said selector means adapted to be set in either of two angular positions upon movement of said common means, means under control of another one of said cams for restoring each of said setting devices from its second position to its first position after said common means has moved said exploring levers, and detent means coupled to said armature for selectively rendering the motion imparted to said testing levers by their associated cams effective or ineffective to rock said setting devices from their first position to their second position dependent upon the respective state of deenergization or energization of said magnet.

2,847,505

DEVICE TO DRIVE CIRCULAR TYPE-CARRIERS

Gerhard Kratt, Nuruberg, and Otto Holstein, Pforzheim, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application November 23, 1955, Serial No. 548,731
Claims priority, application Germany December 1, 1954
9 Claims. (Cl. 178—34)



1. In a printing device utilizing a rotating type carrier, apparatus for controlling the direction of rotation of said carrier from an angular position corresponding to a previously printed character over the shortest possible path to another angular position corresponding to the next character to be printed, comprising drive means, angular position selection means, a plurality of stop members under control of said selection means, detecting means coupled to said carrier for detecting the actuation of a stop member within a predetermined arc from a previously selected stop member and direction-reversing means adapted to be selectively coupled between said drive means and said carrier under control of said detecting means when a stop member is actuated within the length of said arc.

2,847,506

RECEIVER AMPLIFIER

Robert C. Gray, San Francisco, and Harry A. Greene, Jr., San Carlos, Calif., assignors to Rembar Company, Ltd., San Francisco, Calif., a corporation of California

Application September 15, 1955, Serial No. 534,545
9 Claims. (Cl. 179—1)

1. In a receiver amplifier of the type adapted to be attached to the receiver portion of a conventional telephone handset, a housing adapted to be attached to the receiver portion, a clamping arm pivotally connected to said housing and movable between a position parallel to the plane of the housing and a position at substantially right angles to the plane of the housing, pick-up means mounted in said clamping arm for picking up the signal from the receiver portion, amplifier means connected to said pick-up means and mounted within said housing for amplifying the signal picked up by said pick-up means, a receiver unit connected to said amplifier, neu-



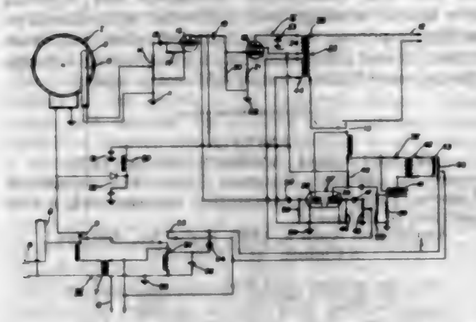
tralizing means mounted in said clamping arm for neutralizing or balancing out any extraneous signals picked up by said pick-up means from extraneous fields, and means for supplying power to said receiver amplifier, said last named means including a switch adapted to be operated by movement of said clamping arm, the switch being in closed position when said clamping arm is extending in a plane substantially at right angles to the plane of the housing and open when said clamping arm is extending in a plane substantially parallel to the plane of the housing.

2,847,507

AUTOMATIC ALARM SYSTEM

Charles R. Stradley, Littleton, Colo.

Application September 11, 1953, Serial No. 379,494
3 Claims. (Cl. 179—5)



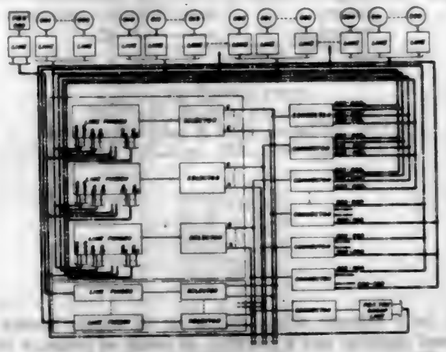
1. In an automatic alarm system adapted for connection through telephone lines to a central station inclusive of a detector circuit with plural switches for activating the circuit, which comprises means responsive to disturbance of said switches for activating said detector circuit, means inclusive of a sound transcriber responsive to activation of said circuit for reproducing an audio impulse corresponding to the dial number impulses of said central station, means inclusive of an amplifying circuit for picking up said audio impulse and impressing an equivalent impulse on said telephone lines to dial the telephone number of said central station, means in a said sound transcriber inclusive of an audio tone break and a repeat of the audio dial impulses for redialing the number of said central station when the circuit is not completed, means inclusive of an audio signal for relaying information to said central station on completing connection thereto, and means inclusive of a resonant reed operating a holding coil switch for breaking the alarm circuit operative from said central station by impressing a tone resonant with said reed for operating said holding coil to break the alarm circuit and prevent further automatic operation of the activated circuit.

2,847,508

STAGE-BY-STAGE ALL-RELAY TELEPHONE SWITCHING SYSTEM USING VOICE FREQUENCY CONTROL

William H. T. Holden, Pasadena, Calif., and Edward Vroom, Brooklyn, Conn., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application February 4, 1954, Serial No. 408,120
14 Claims. (Cl. 179—16)



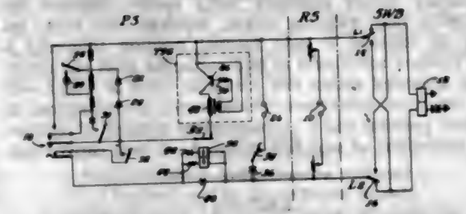
1. In a telephone switching system, a plurality of subscriber stations, a plurality of transmission lines each of which is connected at its one end to an individual one of said subscriber stations, a switching center to which is connected the other end of each of said transmission lines, voice frequency signal generators located at each of said subscriber stations for simultaneously transmitting over said transmission lines two voice frequency signals for each symbol of a called subscriber station designation upon the initiation of a call, a plurality of selectively operable switching stages in said switching center, and means at the first stage responsive to the first two voice frequency signals simultaneously transmitted by a subscriber station whereby the succeeding simultaneously transmitted voice frequency signals are transmitted to a succeeding stage.

2,847,509

PARTY LINE PAYSTATION IDENTIFICATION

Harry G. Evert, Genoa, and James R. Wylie, Belvidere, Ill., assignors to Leich Electric Company, Genoa, Ill., a corporation of Illinois

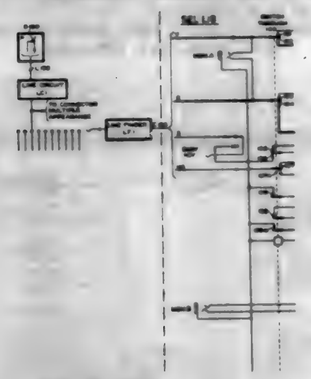
Application November 9, 1955, Serial No. 545,874
9 Claims. (Cl. 179—17)



6. In a telephone exchange system having line conductors connected to a paystation, a tone generator connectible to said paystation for generating a characteristic tone signal for identifying paystation calls, said tone generator having a transistor and cooperating elements forming an oscillating circuit therewith, first circuit means for controlling the predetermined duration of generation of said tone signal said first circuit means

including capacitor-resistor means, and second circuit means for applying said tone signal to said line conductors for transmission to the exchange.

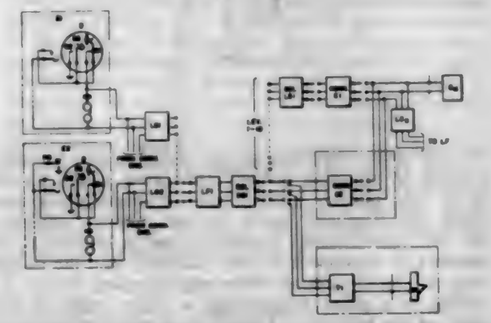
2,847,510
DROP-BACK TYPE SELECTOR
Ernest H. Getzert, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application April 18, 1955, Serial No. 502,055
7 Claims. (Cl. 179—18)



1. In a selector comprising a set of wipers having a normal position and a plurality of levels of contacts disposed for engagement by said wiper set and including a particular level and other levels, means for transmitting directive signals for selectively moving said wipers in a primary direction to any one of said levels, means thereafter operative for advancing said wipers in a secondary direction within said any one level in a hunting operation, means operative in response to primary movements of said wiper set for restoring said wiper set to normal position, first means operative in response to each of a series of successive primary movements of said wiper set to certain of said levels including a first movement to one of said other levels and an intermediate movement to said particular level for operating said restoring means and for registering each of a series of movements and thereafter operative in response to a subsequent primary movement of said wiper set to said any one level for rendering said secondary means operative, other means operative in response to a primary movement of said wiper set to said particular level for placing said first means in condition to render said secondary means operative, means operative in response to said first registering operation of said first means for rendering said other means inoperative, and said other means in operative condition and said first means in condition to render said secondary means operative being jointly effective for operating said restoring means, whereby said wiper set may be restored to said normal position following a first primary movement to said particular level and thereafter advanced within said particular level or within said any one level subsequent to said series of restorations to normal position and a corresponding number of registering operations of said first means have been carried out.

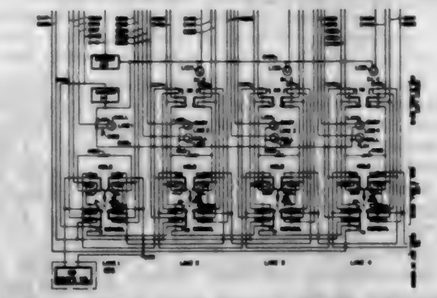
2,847,511
RAPID CHANGE-OVER IN AUTOMATIC SWITCHES
Clarence E. Lomax, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application June 17, 1955, Serial No. 516,063
12 Claims. (Cl. 179—18)

1. In a telephone system, a telephone station having a calling device, an automatic switch having a plurality of wipers, a line having a pair of conductors interconnecting said calling device to said switch, a direct current source in said switch comprising a ground potential and a battery potential, a line relay in said switch having a pair of windings with one end of each winding connected to a different one of said potentials of said source and the other end of each winding connected to a different one of said conductors, said line relay operated responsive to a set of impulses transmitted over said conductors from said calling device, means operated by said line relay for controlling movement of said switch wipers, a differentially wound relay having its windings



connected to said line conductors in serial relation with the windings of said line relay and remaining unoperated by said set of impulses due to the opposing action of its windings, a ground potential at said station, means included in said calling device for momentarily applying the ground potential at said station to both said conductors immediately after transmission of said set of impulses to short-circuit one winding of said differential relay and thus momentarily unbalance said opposing action of said windings, said differential relay thereafter operating responsive to said unbalanced action, and means operated by said differential relay for controlling a change in the manner of movement of said switch wipers.

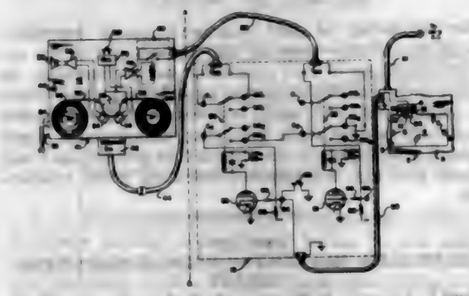
2,847,512
SECRETARIAL ANSWERING SYSTEM
Leonard F. Crabtree, Downers Grove, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application April 8, 1955, Serial No. 500,064
3 Claims. (Cl. 179—27)



1. In a telephone system having a plurality of telephone lines connected to an exchange, a secretarial answering position including a secretary's telephone and a plurality of keys each individual to one of said lines, a signal on each line and a signal at the secretary's telephone individual to each line, means responsive to the receipt of an incoming call from the exchange for operating the signal on the called one of said lines and for operating the corresponding signal at the secretary's telephone, means responsive to the operation of a key at the telephone or

the key at the secretary's telephone for answering the call, a second key at the secretary's telephone for each line, a plurality of direct line links, each of said second keys connecting one of said direct line links to the secretary's telephone when operated, means responsive to the operation of one of said last keys when operated by the secretary for signalling the subscriber on the associated line over the associated link, means controlled by the response of the subscriber on said last line for completing a connection to the secretary's telephone over said link, and means controlled by the subscriber on said line for disconnecting the connection to the secretary's telephone and establishing a connection to the associated exchange line and thereby preventing any connection between the secretary's telephone and the calling line.

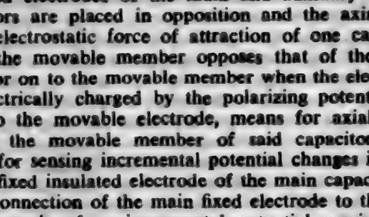
2,847,513
SOUND EFFECT CONTROL
Hubert J. Schlafly, Jr., Hollis, N. Y., assignor to Teleprompter Corporation, New York, N. Y., a corporation of New York
Application April 18, 1956, Serial No. 579,000
3 Claims. (Cl. 179—100.1)



1. Apparatus for the reproduction of sound effects as accompaniments to the oral delivery of a speech, said apparatus comprising in combination a speech cuing device including a movable record medium bearing graphic indicia of the speech to be delivered, means disposed along said medium to generate first electrical control signals at selected phases of the motion of said medium, a sound reproducer including a second record medium for the spaced recording thereon of said sound effects and of record medium stopping signals between adjacent sound effects as recorded on said second record medium, means to generate upon playback of said second medium second electrical control signals representative of said stopping signals, means to initiate motion of said second medium in response to said first control signals, and means to interrupt motion of said second medium in response to said second control signals.

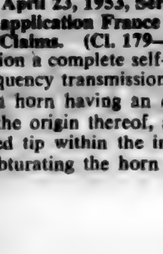
2,847,514
AUTOMATIC VARIABLE PITCH CONTROL APPARATUS FOR DISC RECORDERS
Arthur G. Evans, Indianapolis, Ind., assignor to Radio Corporation of America, a corporation of Delaware
Application September 23, 1955, Serial No. 536,240
9 Claims. (Cl. 179—100.4)

1. In a recording system for recording signals on a record, a recording head, means for propelling said head over said record, means responsive to signals between a predetermined high amplitude and a predetermined low amplitude for varying the speed of propulsion of said head substantially proportionally in accordance with the amplitude of said signals, means responsive to signals greater than said high amplitude to limit these signals to a first control signal of constant amplitude for maintaining the speed of propulsion of said head at a constant maximum speed, and means responsive to signals below said predetermined low amplitude to limit these signals to a second control signal of constant amplitude



for maintaining the speed of propulsion of said head at a minimum constant speed.

2,847,515
TRANSDUCER
Henry W. Parker, Flushing, N. Y.
Application May 5, 1954, Serial No. 427,805
3 Claims. (Cl. 179—111)

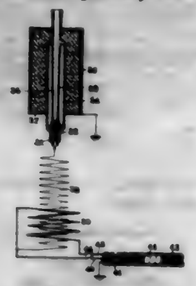


1. A displacement-electric potential transducer comprising main and auxiliary coaxial cylinder capacitors and a common movable coaxial member electrode constrained to move axially, means for grounding the fixed electrode member of the auxiliary coaxial capacitor, means for applying a bias potential to the fixed insulated electrode member of the main coaxial cylinder capacitor, means for insulating the common movable coaxial member electrode and applying a polarizing potential thereto, the fixed electrodes of the main and auxiliary coaxial capacitors are placed in opposition and the axially directed electrostatic force of attraction of one capacitor on to the movable member opposes that of the other capacitor on to the movable member when the electrodes are electrically charged by the polarizing potential applied to the movable electrode, means for axially displacing the movable member of said capacitors, and means for sensing incremental potential changes induced on the fixed insulated electrode of the main capacitor by direct connection of the main fixed electrode to the control electrode of an incremental potential sensing tube whose input network supplies the bias potential and a network time constant comparable with the period of the lowest frequency to be sensed.

2,847,516
TRANSDUCER
Siegfried Klein, Paris, France, assignor to Charles Legorju, Saint-Maur, France
Application April 23, 1953, Serial No. 350,594
Claims priority, application France December 29, 1952
5 Claims. (Cl. 179—113)

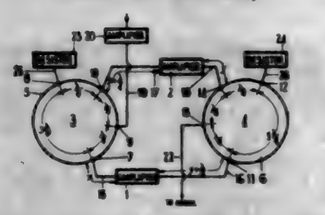
1. In combination a complete self-contained transducer unit and high frequency transmission line, said transducer unit comprising a horn having an electrically insulating portion defining the origin thereof, a discharge electrode having an exposed tip within the insulating portion and located at and obturating the horn origin, another elec-

trode insulated from said discharge electrode located in a forward position with respect to said first electrode, a high frequency high voltage transformer comprising a primary and a secondary winding, connections between said transmission line and primary for exciting the same



with low voltage high frequency oscillations modulated by the waves to be transduced and means for impressing the high frequency secondary potentials on said two electrodes to create a corona discharge at said discharge electrode.

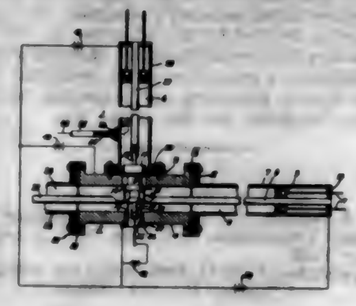
2,847,517
ELECTRIC AMPLIFIER ARRANGEMENTS
George Frederick Small, Bellingdon, near Chesham, England, assignor to The General Electric Company Limited, London, England
Application June 15, 1954, Serial No. 436,925
Claims priority, application Great Britain June 23, 1953
5 Claims. (Cl. 179—171)



1. An electric amplifier arrangement comprising a pair of amplifiers each having an input and an output, means to supply the same signal to be amplified to the inputs of both of said amplifiers whereby both of said amplifiers pass identical signals having the same frequency and carrying the same intelligence, a hybrid device which has first and second input terminals and first and second output terminals and which serves to combine at the first output terminal oscillations that are supplied in phase to the two input terminals and to combine at the second output terminal oscillations that are supplied in antiphase to the two input terminals, two paths which are connected respectively between the two amplifier outputs and the two input terminals of the hybrid device and which have electrical lengths differing by an odd number of quarter wavelengths at the frequency of operation, an output path connected to the first output terminal of the hybrid device, and resistance connected to the second output terminal of the hybrid device.

2,847,518
HIGH FREQUENCY AMPLIFIER CIRCUIT
Norman T. Lavoo, Watervliet, and Rudolph A. Dehn and James E. Beggs, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application December 22, 1954, Serial No. 476,912
5 Claims. (Cl. 179—171)

3. A high frequency amplifier circuit comprising a concentric cavity input resonator including inner and outer conductors, an electron discharge device within said resonator, said device including in plane parallel relationship a cathode, a first grid, a second grid, and an anode, said cathode and first grid defining a first grid gap and said first grid and second grid defining a second grid gap, capacitive means for coupling said cathode to the exterior conductor of said concentric cavity resonator, means for directly coupling said first grid to the in-



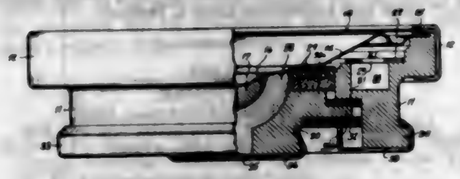
terior conductor of said concentric cavity resonator, means for directly coupling said second grid to the exterior conductor of said concentric cavity resonator, an output cavity resonator coupled to said anode, and means for applying an input signal between the inner and outer conductors of said input resonator, whereby said signal appears simultaneously across said first grid gap and said second grid gap in opposite alternating phase relationship.

2,847,519
STABILIZED TRANSISTOR SIGNAL AMPLIFIER CIRCUIT
Albert I. Aronson, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application February 27, 1956, Serial No. 567,831
2 Claims. (Cl. 179—171)



2. A signal amplifier circuit comprising, in combination, a first driver stage including a first transistor of one conductivity type having base, emitter, and collector electrodes; means for applying an input signal to the base electrode of said first transistor; a second driver stage including a second transistor of said one conductivity type and a third transistor of an opposite conductivity type, each having base, emitter, and collector electrodes; means direct-current-conductively connecting the collector of said first transistor with the base electrodes of said second and third transistors for applying an amplified signal to the base electrodes of said second and third transistors; an output stage including a fourth transistor of said one conductivity type and a fifth transistor of said opposite conductivity type, each having base, emitter, and collector electrodes; means direct-current-conductively connecting the emitter electrodes of said second and third transistors with the base electrodes of said fourth and fifth transistors for applying a push-pull signal from the emitter electrodes of the transistors of said second driver stage to the base electrodes of said fourth and fifth transistors; a signal output circuit coupled with the emitter electrodes of said fourth and fifth transistors; means providing a source of biasing potential including a pair of terminals; means connecting the collector electrodes of said first, second, and fourth transistors with one terminal of said source; means connecting the emitter electrode of said first transistor and the collector electrodes of said third and fifth transistors with the other terminal of said source; and a stabilizing bias circuit connected between the emitter electrodes of said fourth and fifth transistors and the base electrode of said first transistor including a direct current conductive Zenner diode, said bias circuit providing a bias current for the base electrode of said first transistor to stabilize the circuit operation of said signal amplifier circuit.

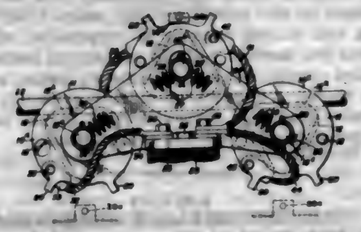
2,847,520
DAMPED MICROPHONE
Gaston A. Marchand, New York, N. Y., assignor to Rosswell Corporation, Brooklyn, N. Y., a corporation of New York
Application July 26, 1954, Serial No. 445,811
2 Claims. (Cl. 179—100)



1. A microphone comprising a rigid body member of generally annular contour and having in one side an annular channel open toward said one side, a diaphragm unit including a thin circular diaphragm having a concave central portion and a load of solder localized in said central portion, said load having a mass slightly greater than the effective mass of the diaphragm and at least partially filling said central portion, said diaphragm unit having a frequency response characteristic which is generally flat throughout the range of audible frequencies, except for a resonant frequency within that range and which is determined by said load independently of manufacturing variations in the mass of the diaphragm, an annular disc of rigid material fastened to said body member and covering said open channel, said body member and said disc cooperating to define an annular chamber of fixed volume, said disc having at least one opening therein providing communication with said chamber, and means including said disc, said diaphragm, and said body member, and defining a variable volume annular chamber communicating with said fixed volume chamber through said aperture, said chambers and said aperture cooperating to dampen the vibrations of said diaphragm unit at said resonant frequency, so that the frequency response characteristic of the microphone is substantially flat throughout the audible range.

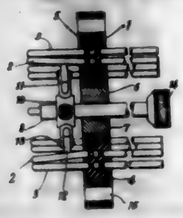
2,847,521
MULTIPLE CONTACT CURRENT COLLECTOR
John F. Drummey, Manhasset, N. Y., assignor to Morganite Incorporated, Long Island City, N. Y., a corporation of New York
Application May 4, 1955, Serial No. 505,845
5 Claims. (Cl. 191—68)

1. In a multiple contact current collector assembly including a mounting bracket, means for fixing said bracket on a current conducting support, collector units, carried by said bracket, each comprising a pair of opposed side plates, a multi-sided current collecting insert mounted coaxially between and spacing said side plates, the edges of said side plates projecting radially beyond the boundaries of said insert to provide opposed guide flanges for a trolley wire, a contact groove in each side of said insert, means detachably connecting said side plates together over said insert, to permit the adjustment of said insert about its axis, whereby successive contact grooves may be



presented for engagement with said trolley wire, and means for connecting a shunt to at least one side plate of each unit, and shunts electrically connecting at least one of each pair of side plates to said current conducting support.

2,847,522
ELECTRIC SWITCHES
James L. Bernard, Jr., Eatontown, N. J.
Application July 27, 1955, Serial No. 524,653
1 Claim. (Cl. 200—6)



A switch comprising a support of insulating material, a metal bearing ring embedded centrally in said support, a shaft rotatably mounted in said ring, an actuating member on said shaft adjacent one face of said support, elongated conductor elements mounted in said support and having notches and projections on portions that are embedded in said support, said elements projecting from said support at both their ends, and being parallel to said shaft, and all extending outward at substantially the same distance from said face of the support said elements being arranged in circular rows concentric with said shaft and adjacent said member, one element in each row being adjacent an element in the other row, said elements being flexible and elastic, said member when operated causing said adjacent elements in each row to assume contact-making positions, all said adjacent elements being in radial alinement with respect to said axis.

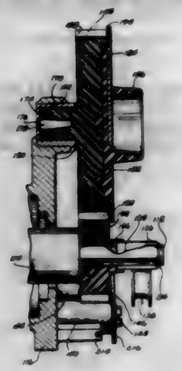
2,847,523
SWITCH ARRANGEMENT
Petrus Bernardus Carolus van Amelsfort, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application September 24, 1956, Serial No. 611,436
Claims priority, application Netherlands October 18, 1955
5 Claims. (Cl. 200—11)



1. A switching device comprising a first member of relatively stiff electrically insulating material, first contact means comprising a layer of electrically conducting

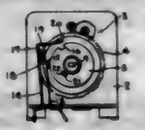
material shaped in a predetermined pattern, means for supporting said first contact means by said first member, second member of relatively flexible electrically insulating material, second contact means comprising a layer of electrically conducting material shaped in a predetermined pattern, means for supporting said second contact means on said second member, means rotatively positioning said second member in cooperative relationship with said first member whereby said second contact means maintains contact with said first contact means, and spring means having a plurality of radially extending portions for maintaining said second contact means in contact under pressure with said first contact means.

2,847,524
MAGNETO BREAKER MECHANISM
Fred S. Slick, Rockford, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application June 7, 1954, Serial No. 434,903
1 Claim. (Cl. 200—36)



In an ignition system of the type having a rotatable shaft, the improvement which comprises a cam body within the shaft and having a lobe projecting through and beyond the side thereof, a gear on the shaft, being provided with a recess substantially complementary to said cam lobe and within which a portion of said cam lobe is axially disposed for keying said first-mentioned gear to rotate with said shaft.

2,847,525
TIMERS
Joseph J. Everard, Two Rivers, Wis., assignor to Paragon Electric Company, Two Rivers, Wis.
Application November 2, 1956, Serial No. 628,038
2 Claims. (Cl. 200—38)



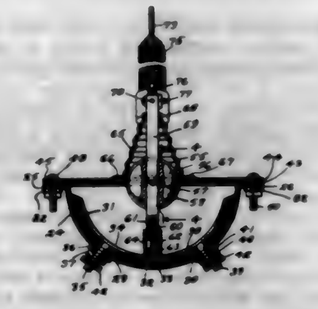
1. An interval timer comprising a switch construction including a cam having a circular portion provided with a notch, said cam being circular throughout except for said notch, motor means for driving said cam, a pair of spring blades biased towards said cam and supported adjacent one end and having outwardly projecting free ends and having cooperating contacts, the free end of one of said blades having a portion adapted to enter the notch of said cam, the other of said blades constituting a cooperating blade and having a portion bent angularly with reference to the body portion of such blade and resting directly upon the circular portion of said cam when the cam follower blade is within the notch of said cam, whereby motion of the cooperating blade towards the cam follower blade is limited by the direct engagement of the angularly bent portion of said cooperating blade with the circular portion of said cam.

2,847,526
SAFETY DEVICE TO RESTRICT OPERATION OF SWITCH CONTROL LEVERS
Heyward J. Pearce, Rochester, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application June 21, 1957, Serial No. 667,169
4 Claims. (Cl. 200—42)



1. A safety device to restrict the operation of a switch control lever comprising a hollow cylindrical knob of a distinctive warning color and having means formed on its inside surface to permit attachment to said switch control lever yet prevent operation of said switch control lever when said cylindrical knob is rotated.

2,847,527
CURB FINDER
Robert G. Wolters, Chickasaw, Ohio
Application January 3, 1956, Serial No. 556,879
2 Claims. (Cl. 200—61.44)

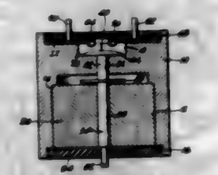


1. A curb feeler switch comprising a generally flat cover, a ball having a pair of perpendicularly related intersecting bores extending therethrough, a sweep arm extending through one of said bores, means extending through the other of said bores locking said sweep arm to said ball, means on said cover cooperating with said last-named means securing said ball to said cover for pivotal movement thereon about a transverse axis, a housing including a semi-cylindrical wall securing to said cover with the axis of curvature of said semi-cylindrical wall coinciding with the transverse pivot axis of said ball, a pair of circumferentially spaced contacts supported on said wall within said housing, and a moving contact secured to said sweep arm at the end thereof adjacent said cylindrical wall and arranged for engagement with a selected one of said contacts on pivotal movement of said sweep arm.

2,847,528
MAGNETIC SWITCH
Donald E. Combs, Baldwin Park, Calif.
Application February 21, 1955, Serial No. 489,529
18 Claims. (Cl. 200—67)

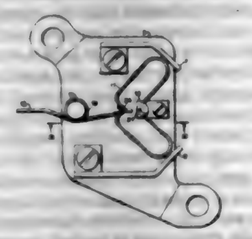
1. A switch, including, a casing, a permanent magnet disposed within the casing, a button extending through the casing in linearly depressible relationship from a

position outside of the casing, a coupling member disposed within the casing and engageable by the button for movement upon a depression of the button, an armature movable with the coupling member between first and second positions and disposed within the casing in contiguous relationship to the magnet in the first and second positions for attraction by a first pole of the magnet with a sufficient force in the first and second positions



of the armature to obtain a movement of the armature toward that pole and a free movement of the armature in accordance with such attraction, a first electrical contact disposed in stationary relationship within the casing, and a second contact movable with the coupling member for engagement with the first electrical contact upon a depression of the button and disposed for movement with the armature out of engagement with the first contact upon a release of the button.

2,847,529
ELECTRICAL CONTACT ASSEMBLY
Robert D. Muns, Endwell, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1956, Serial No. 631,621
3 Claims. (Cl. 200—67)



1. An electrical contact assembly comprising, in combination, a base plate of insulating material, a first and a second pivot post mounted on said base plate, an actuating member pivoted for rotation on said first pivot post, a movable contact member comprising a single length of resilient contact material formed into two loops extending oppositely from a first and a second pivot point formed by the junction of the loops, said movable contact member being arranged for rotation at said first pivot point about said second pivot post, and operatively connected to said actuating member at said second pivot point, and at least one stationary contact element adapted to be engaged by said movable contact member.

2,847,530
CENTRIFUGAL SWITCH
Lyman A. Rice, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 24, 1955, Serial No. 542,370
11 Claims. (Cl. 200—80)

11. A centrifugal switch mechanism for use in combination with a dynamoelectric machine including a rotatable shaft; a support adapted to be mounted on and rotate with said shaft, a snap action switch mounted on said support and off-center with respect to said shaft, said switch including stationary and movable contacts operable to be snapped from closed to open circuit position, means responsive to centrifugal force caused by rotation of said support associated with said switch and adapted



to actuate the same in response to predetermined changes in centrifugal force as determined by the speed of rotation of said support, and stop means for limiting the movement of the centrifugally responsive means.

2,847,531
SWITCHING SYSTEM
Edward A. Davis, Harwichport, Mass.
Application April 21, 1954, Serial No. 424,735
7 Claims. (Cl. 200—87)

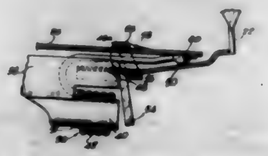


1. An electrical switching device having a support, a vertical shaft rotatably carried on said support, means for rotating said shaft, a contact disc concentrically disposed with respect to the axis of said shaft and in floating arrangement with respect thereto, a series of stationary contacts arranged concentrically about the axis of said shaft and located beneath the plane of said disc in the vicinity of the periphery of the disc, means spatially aligned with an edge portion of said disc for mounting said disc to be universally rockable on its center progressively into contact with different ones of said stationary contacts selectively in accordance with the diametrical line of the disc along which the disc is rocked, a switch actuating member connected to said shaft to rotate therewith and mounted to move about said disc adjacent its periphery, a freely vertically movable power connection between said actuating member and said disc in the vicinity of the periphery thereof and circumferentially movable by said actuating member whereby said disc is progressively rocked into contact with different ones of said contacts in accordance with different positions of the actuating member relatively to said disc, a source of electrical current, said stationary contacts being connected in parallel to one pole of said source of current and said means mounting said disc to be universally rockable on its center being connected to the other pole of said source of current.

2,847,532
CIRCUIT BREAKERS
Paul M. Christensen, West Orange, and John Bryan, Newark, N. J., assignors to Federal Pacific Electric Company, a corporation of Delaware
Application June 11, 1956, Serial No. 590,584
6 Claims. (Cl. 200—88)

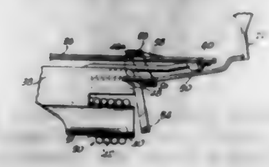
1. in a circuit breaker having separable contacts, manually operable mechanism for opening and closing

the contacts, and a latching assembly causing automatic opening of the contacts in response to fault currents, said latching assembly including a current-responsive bimetal arranged to carry circuit breaker current, a latch extending generally along said bimetal and having a latching end and having a separable pivot at the op-



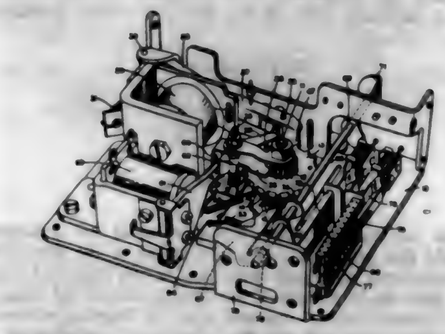
posite end, thereof, said pivot being separable in the direction toward said latching end, and an insulating tensioner connected between said current-responsive bimetal and said latch, biasing the latch both endwise towards its pivot and pivotally into cooperation with the current-responsive bimetal.

2,847,533
CIRCUIT BREAKERS
Paul M. Christensen, West Orange, N. J., assignor to Federal Pacific Electric Company, a corporation of Delaware
Application June 11, 1956, Serial No. 590,684
12 Claims. (Cl. 200—88)



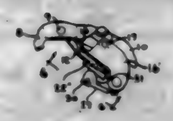
1. A thermal and magnetically tripped circuit breaker having a pair of separable contacts, a manually operable mechanism to open and close the contacts and a metallic actuator effective when released to cause automatic opening of the contacts, a movable arm carrying one of said contacts and having a metallic pivot to said actuator, and a latching assembly movably carried by said contact arm and effective under normal current conditions to arrest said actuator, and to release said actuator in response to overload currents, said latching assembly including a current-responsive bimetal connected electrically in series with said contacts and joined at one end thereof to the contact arm and having a free end that shifts laterally in response to thermal changes in the bimetal, a magnetic pole structure united to the contact arm at the same point where said current-responsive bimetal is united thereto, said core structure embodying a core and having a recessed formation that opens toward said actuator, a latch-and-armature unit having a portion rockably received in said recessed formation as a readily separable hinge, said latch-and-armature unit including an elongated latch disposed substantially lengthwise in the path of said actuator during normal current conditions and having a two-armed armature, one arm of the armature extending opposite said pole and the other arm of the armature being movable laterally along a portion of said magnetic core structure, an insulating element at the movable end of said current-responsive bimetal, biasing means normally holding said latch-and-armature unit both in rockable assembly with said core structure and laterally in engagement with the insulating element on said current-responsive bimetal, and a coil on said core and connected in series with said current-responsive bimetal.

2,847,534
STEPPING SWITCH
Frank R. Edgerton, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application March 24, 1955, Serial No. 496,585
9 Claims. (Cl. 200—165)



1. A stepping switch comprising, a movable switch contact, a ratchet gear, means interconnecting said contact and said gear for moving said contact as said gear is moved, an escapement cog having a plurality of spaced cog teeth on its periphery, said gear and said cog being secured together, means including a spring and disposed for tensioning said spring as said gear and cog assembly is moved in a first direction and to urge movement of said gear and cog assembly in a second direction, a drive pawl, a retaining pawl, resilient means to urge said retaining pawl into engagement with the toothed surface of said ratchet gear to thereby prevent second direction motion of said gear, means for moving said drive pawl to and from said ratchet gear to engage a ratchet tooth and impart first direction motion to said gear and tension said spring, escapement lever means disposed for engaging a cog tooth of said cog during first direction movement of said gear to thereby limit the first direction movement of said gear for each movement of said drive pawl towards said ratchet gear, and shift means movable from a normal position to a second position for engaging and moving said drive pawl to a position for engaging said retaining pawl as said drive pawl is moved towards said ratchet gear and thereby disengage said retaining pawl from the toothed surface of said ratchet gear to permit said gear to move in the second direction by the tension of said spring, said escapement lever means being disposed for engaging a cog tooth of said cog during second direction movement of said gear to thereby limit the amount of second direction movement of said gear for each movement of said drive pawl into engagement with said retaining pawl.

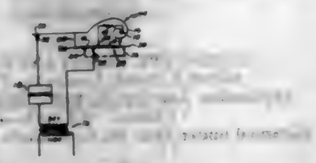
2,847,535
FUSE CONSTRUCTION
George R. McCloud, Cudahy, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application December 9, 1955, Serial No. 552,147
2 Claims. (Cl. 200—114)



1. An expulsion fuse device comprising an expulsion fuse tube having an open end, contact means adjacent opposite ends of said tube, the contact means adjacent the open end of said tube including a lever pivoted there-

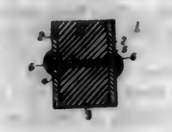
to and having a free end, a fuse link within said tube joining said contact means and extending out of the open end of said tube and over the free end of said lever, said lever having a stud projecting therefrom, a wedge carried by said lever and having a slot through which said stud extends, said fuse link being positioned between said wedge and said lever, a releasable lever carried by said stud and located on the outer side of said wedge and having cam means for providing pressure against said wedge, said wedge having its thin edge projecting towards the free end of said first mentioned lever and slideable in the direction in which the thin edge of the wedge points, and manually operable means for rocking said first mentioned lever to break said fuse link within said fuse tube.

2,847,536
ANTICIPATORY HEATER CIRCUIT FOR THERMOSTAT CONTROLS
Chester K. Bishop, Columbus, Ohio, assignor, by mesne assignments, to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application April 17, 1956, Serial No. 578,832
18 Claims. (Cl. 200—122)



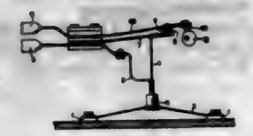
1. A control device comprising: a bimetal control element having switching means attached to one end thereof and being supported at the other end, an electric heater winding associated with said bimetal element for heating said bimetal element, a first electric circuit connection from said switching means to an end of said bimetal element and from the other end of said bimetal element to an intermediate portion of said heater winding, a second electric circuit connection from said switching means to a fixed terminal on said heater winding, and a movable tap on said heater winding, said tap being movable between a position adjacent said fixed terminal and a position beyond said intermediate portion toward the other end of said heater winding for providing a controlled anticipatory heating effect on said control device with different magnitudes of current passing through said switching means.

2,847,537
MODULAR LOW IMPEDANCE FUSE
Frederick J. Koncka, South Hampton, N. H., assignor to The Chase-Shawmut Company, Newburyport, Mass.
Application July 22, 1955, Serial No. 523,832
3 Claims. (Cl. 200—135)



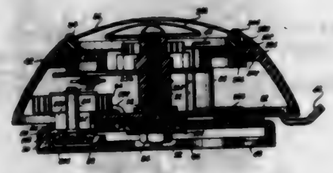
1. An instrument type fuse comprising a stamping formed from metal-clad laminated plastic sheet material of the kind used for printed circuits comprising a pair of layers of sheet metal laminated on both sides of a sheet of a synthetic resin evolving gas when subjected to the heat of an electric arc, the insulating edge face of said stamping being flush with the metallic edge faces thereof, and a short length of fuse wire threaded through a bore projecting transversely across said stamping and conductively connected to the metallic surfaces thereof.

2,847,538
THERMALLY CONTROLLED SWITCH
Wicher Kornelis Bouwman, Drachten, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 18, 1957, Serial No. 640,921
Claims priority, application Netherlands September 25, 1956
3 Claims. (Cl. 200—137)



1. A thermally controlled electric switch for electrical apparatus having a base member and an insulator comprising a thermo-responsive operating element which opens said contacts upon the reaching of a predetermined temperature level, a current-dependent operating element which urges the contacts in the direction of closure during the passage of current through said switch, the time constant of the thermo-responsive operating element exceeding the time constant of said current-dependent operating element, said thermo-responsive operating element being insulated from said electric circuit and being electrically and mechanically connected to said apparatus, said thermo-responsive operating element including a tautened wire secured at each end to said base member, the coefficients of expansion of said base member and said wire being different and the movement of a portion of said wire being operatively transferred to said contacts by means of said insulator.

2,847,539
CONTROL DEVICE
Richard T. Pounds, Goshen, Ind., and Leroy L. Green, Columbus, Ohio, assignors, by mesne assignments, to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application September 13, 1956, Serial No. 609,569
26 Claims. (Cl. 200—138)



11. In a thermostat, a base of moldable insulating material having a centrally located bore, switch contacts including a fixed contact member supported on said base and a movable contact member, a temperature sensitive element supported on said base at a position spaced from said central bore and carrying on its free end said movable contact member, a plurality of outwardly extending members formed integrally with said base and projecting beyond said temperature sensitive element, one of said outwardly extending members comprising a U-shaped wall with the side of the wall corresponding to the bottom leg of said U being slotted to receive the free end of said temperature sensitive element adjacent said movable contact whereby said switch contacts are on opposite sides of the slotted wall from said bimetal element, a dial plate housing mounted on the free ends of said outwardly extending members and having a projecting surface complementary to the sides of said slot in the slotted wall for facilitating positioning of the hous-

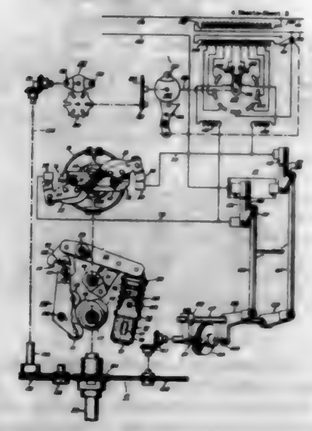
ing on the base and a central bore axially aligned when assembled with said bore in said base, and means securing said housing and said base together.

2,847,540
DEVICE FOR EXTINGUISHING ELECTRICAL ARCS
Adolf Pfeiffer and Heinz Fehling, Neumuenster, Holstein, Germany, assignors to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application November 13, 1956, Serial No. 621,761
Claims priority, application Germany November 10, 1955
8 Claims. (Cl. 200—144)



1. In a device for extinguishing electrical arcs composed of an arc ignition chamber and a plurality of arc extinguishing chambers, the improvement of a plurality of arc horns arranged in pairs, said arc horns being connected at their respective bases to form a U-shaped configuration, each pair of horns having a direction which is opposite to the direction of the neighboring horns.

2,847,541
DOUBLE BREAK LIQUID BLAST CONTACTOR
Orin P. McCarty and Emil J. De Noyers, Pittsfield, and James F. McKenney, Lenox, Mass., assignors to General Electric Company, a corporation of New York
Application October 24, 1955, Serial No. 542,158
19 Claims. (Cl. 200—150)



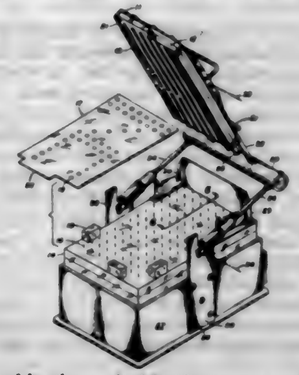
1. An electrical contactor comprised of a pair of rotatable contacts mounted for rotation about a common axis and being electrically connected together, a pair of stationary contacts disposed in the path of rotation of said rotatable contacts, a pair of pivot means, said rotatable contacts being pivotally mounted for rotation on said pivot means, resilient means biasing said rotatable contacts in the same direction about their respective pivot means, stop means limiting the angular displacement of said rotatable contacts about their respective pivot means, and means for rotating said rotatable contacts through a predetermined angle about said common axis in one direction to effect the contacting and in the other direction to effect the separating of said rotatable and stationary contacts.

2,847,542
VIBRATORY CURRENT CONVERTER
Rolf Ritter, Heilbronn-Sontheim, Germany, assignor to Firma Kupfer-Asbest-Co. Gustav Bach, Heilbronn-Sontheim, Germany
Application January 22, 1957, Serial No. 635,269
Claims priority, application Germany January 28, 1956
2 Claims. (Cl. 200—166)



1. A vibratory chopper of the biased contact spring type, comprising a contact spring, a support associated therewith, and an intermediate disk interposed between said spring and the top of said support, whereby to impart the required bias to the spring in the absence of bends in the spring and in the support.

2,847,543
CARD-TYPE RESISTANCE DEVICE
Alfred E. Cobb, Lexington Park, Md.
Application January 18, 1955, Serial No. 482,688
7 Claims. (Cl. 201—63)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In combination, a bed having upper and lower sides and holding a plurality of parallel rows of spring-loaded insulated single contact rods which extend from the upper to the lower side, a plate containing a plurality of parallel conducting insulated bars having the same spacing as the parallel rows of said bed, hinge means for connecting said bed to said plate for providing a wiping action between said bars and said spring-loaded contact rods when placed in contact with each other, an insulated card adapted to be placed on said bed and having apertures alignable with some of said spring-loaded contacts, and a resistor adapted to be placed in a pressure contact relationship on the lower side of said bed with a plurality of spring-loaded contacts of one row.

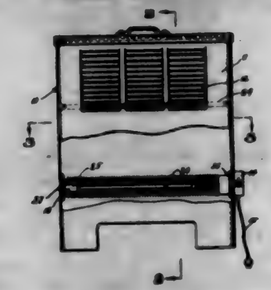
2,847,544
SILICON SEMICONDUCTIVE DEVICES
Ernest A. Taft, Jr., and Fordyce Hubbard Horn, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application December 16, 1955, Serial No. 553,461
5 Claims. (Cl. 201—63)

1. A semiconductor control member comprising a monocrystalline body of silicon having therein a number of uncompensated acceptor activator impurities not exceeding 10^{16} atoms thereof per cu./cm. of silicon and impregnated with from 10^{14} to 10^{18} atoms per cubic centi-



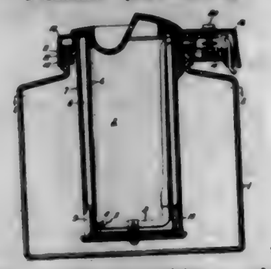
meter of manganese containing less than 10 parts per million of any material selected from the group consisting of donor and acceptor activator impurities.

2,847,545
PORTABLE ELECTRICAL HEATING DEVICE
Carl Z. Alexander, Chatham, N. J.
Application January 23, 1957, Serial No. 635,774
1 Claim. (Cl. 219—38)



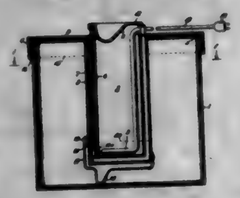
A portable electrical heating device, comprising a hood having an upper portion and a lower portion, a convector element having a plurality of parallel heating pipes, fins carried by said pipes, heating rods within said pipes, and separate manifolds connected with opposite ends of said pipes; means connected with said manifolds and supporting said convector element in the lower portion of said hood, a thermostat carried upon an outer surface of the hood on the level of said convector element and firmly connected with said convector element, louvres upon one surface of the upper portion of said hood, and a deflector located within said upper hood portion in front of said louvres and between two inner surfaces of said upper hood portion.

2,847,546
VAPORIZER STEAM DRY CONTROL
George C. Crowley, Walter H. Gordon, Jr., and Robert A. Wise, Asheboro, N. C., assignors to General Electric Company, a corporation of New York
Application May 28, 1957, Serial No. 662,254
5 Claims. (Cl. 219—38)



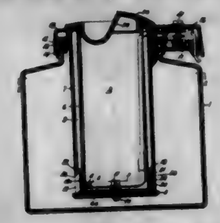
3. A liquid vaporizer comprising an electric heating element normally immersed in the liquid to be vaporized with the heating element temperature limited by the vaporization temperature of the liquid; a switch biased to a normally open position; manually operable means for closing said switch; a current sensitive relay effective when fully energized to maintain closure of said switch, said heating element, switch and relay connected in a series electrical circuit; and a thermostat effective upon sharp rise in heating element temperature to reduce current flow through said relay, thereby to release said switch to its normally open position.

2,847,547
VAPORIZER WITH STEAM GENERATOR
Walter H. Gordon, Jr., Asheboro, N. C., assignor to General Electric Company, a corporation of New York
Application May 28, 1957, Serial No. 662,255
7 Claims. (Cl. 219—38)



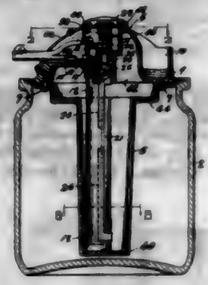
1. A steam vaporizer comprising an outer water container, an inner container defining a steam chamber and having outer and inner side and bottom wall means and outwardly extending flange means forming a cover for said water container, an aperture through said side wall means of said inner container adjacent said bottom wall thereof, a heating element within said inner container having the major portion thereof below said aperture, sealing and clamping means for securing said cover to said water container and for establishing an enclosed vacuum space within said water container, air being permitted to enter said vacuum space only through said aperture when the water level in said inner container is below said aperture, a normally closed valve for said aperture mounted on said inner container, means opening said valve when said cover is clamped into position, and a medicament cup removably positioned on said inner container with a steam aperture therein.

2,847,548
VAPORIZER
Walter H. Gordon, Jr., and Robert A. Wise, Asheboro, N. C., assignors to General Electric Company, a corporation of New York
Application May 28, 1957, Serial No. 662,256
11 Claims. (Cl. 219—38)



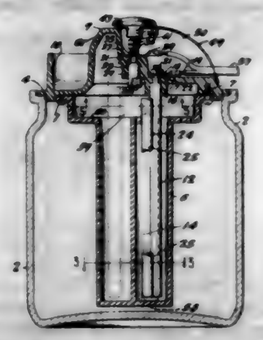
1. A vaporizer comprising: a liquid vessel; an inner container defining a vaporization chamber within said vessel; a heating element within said chamber; an outer container surrounding said chamber and enclosing an insulating space between said containers; sealing means between said outer container and said vessel; an aperture through said outer container adjacent the bottom thereof providing an air inlet for said vessel; a liquid passage; and a liquid inlet through said inner container angularly displaced from said aperture and in communication with said passage.

2,847,549
ELECTRIC STEAM VAPORIZER
Joy B. Schmitt and William H. Corbett, Somerset, Pa., assignors to The De Vilbiss Company, Toledo, Ohio, a corporation of Ohio
Application May 6, 1957, Serial No. 657,236
7 Claims. (Cl. 219—40)



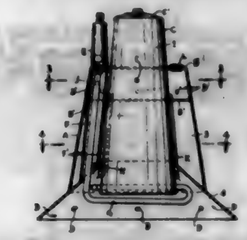
1. An electric steam vaporizer for the treatment of respiratory ailments including a water container, a head assembly mounted on the container, a pair of steam generating electrodes suspended in spaced relation in the container from the head assembly, a vertically elongated casing depending from the head assembly and enclosing the pair of electrodes, said casing being ported at its lower end for the entry of water from the container, means forming a steam chamber in the head assembly above and in communication with the casing, there being a steam discharge orifice providing an outlet to the atmosphere for steam from said chamber, an open topped receptacle for volatile medicaments on the exterior of the head assembly and positioned adjacent and below the path of steam issuing from the discharge orifice, a mounting within the head assembly for one of the electrodes permitting movement of the said electrode relative to the other electrode, and a rotatable element in the head assembly for actuating the movement of said electrode.

2,847,550
ELECTRIC STEAM VAPORIZER
William H. Corbett, Joy B. Schmitt, and Albert D. Brunell, Somerset, Pa., assignors to The De Vilbiss Company, Toledo, Ohio, a corporation of Ohio
Application December 12, 1957, Serial No. 702,459
6 Claims. (Cl. 219—40)



6. In an electric steam vaporizer, a receptacle for water, a main body assembly with which the receptacle is associated, a pair of electrodes depending from the body assembly in spaced relation within the receptacle, a vertical partition within the receptacle, the first of the pair of electrodes being in a fixed position on one side of the partition, and adjustable mounting means for the second of the pair of electrodes so arranged that said second electrode may be selectively moved relatively closer to the first electrode and to the same side of the partition therewith and relatively farther away from the first electrode and to the opposite side of the partition from that on which the first electrode is in a fixed position.

2,847,551
ELECTRIC IMMERSION WATER HEATER FOR WASHING MACHINES
Jean Pierre Staudt, Luxembourg, Luxembourg, assignor to Electro Radio Oech, Luxembourg, Luxembourg, a corporation of Luxembourg
Application May 15, 1956, Serial No. 584,927
Claims priority, application Luxembourg May 17, 1955
5 Claims. (Cl. 219—41)



1. In an immersion water heater comprising an electric heating resistor for use in a conventional washing machine of the domestic type, a device comprising four compartments, the body of said device having two concentric compartments forming two bells which are fitted one into the other and turned with their common ring-shaped base forming a cover, the internal open compartment extending upwardly and closing in the form of a dome its upper end serving as means for raising the apparatus or for centering an agitator, and means for communicating steam and discharging air when the device is immersed in water.

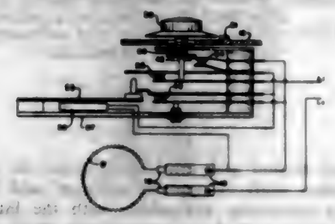
2,847,552
STEAM TABLES
Earl J. Gates, Affton, Mo., assignor to Servco Equipment Company, St. Louis, Mo., a corporation of Missouri
Application April 23, 1954, Serial No. 425,250
4 Claims. (Cl. 219—43)



1. Food storage and serving means for use in restaurants and the like comprising a horizontal table top having an aperture therein, support means rigidly mounted in downwardly spaced relation to the opening, a horizontal plate shiftably mounted on the support member for vertically shifting movement with respect thereto, spring means for biasing the plate upwardly, heating means operatively mounted on the under side of the plate, a first pan mounted in and extending downwardly through said opening and having a flat bottom wall in facewise contact with said plate, and a second pan of somewhat smaller dimension than, and geometrically similar in shape with respect to, the first pan for nested disposition therein, said second pan having a peripheral

rim extending outwardly over the periphery of the first pan for supporting the second pan with its side and bottom walls in spaced relation to the first pan, said spring means and the weight of said first pan, when loaded, being so balanced that the first pan will be suspended within the opening and in contact with the table top and also will contact the plate.

2,847,553
CONTROL FOR HEATING APPARATUS
Alan D. Smith, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 5, 1957, Serial No. 670,846
10 Claims. (Cl. 219—44)



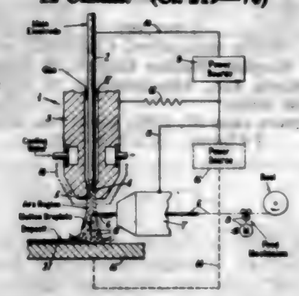
1. In a control for a cooking appliance having a heating element, the combination of a main switch controlling energization of the heating element, a device responsive to the temperature of said appliance for actuating said switch, an auxiliary heater for said device, a second switch controlling energization of said auxiliary heater, and manually adjustable means for determining the temperature of said device at which said main switch is actuated and for controlling said second switch, said manually adjustable means having one range of adjustment in which it controls the second switch to deenergize said auxiliary heater, thereby conditioning said main switch for actuation primarily in response to the temperature of said appliance, said manually adjustable means having a second range of adjustment, throughout which said second switch is actuated to condition said auxiliary heater for energization under control of the main switch, providing actuation of said main switch in response to heat received by said device from both the appliance and the auxiliary heater.

2,847,554
ELECTRICAL HEATING APPARATUS
John W. Huffman, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 5, 1957, Serial No. 670,847
12 Claims. (Cl. 219—44)



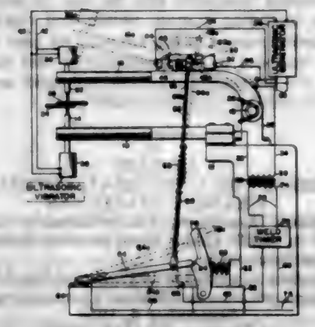
1. A control for an electrically heated cooking vessel or the like comprising a main switch for controlling the energization of the vessel heater, a thermally responsive means for sensing the temperature of said vessel and actuating said main switch, a manually adjustable member for selecting the temperature of said thermally responsive means at which said switch is actuated, an auxiliary heater for said thermally responsive means connected in series with said switch, a thermally actuated auxiliary switch connected in circuit with said auxiliary heater to control energization thereof, means responsive to the temperature of said vessel for actuating said auxiliary switch to energize the auxiliary heater when the vessel reaches a temperature which is below the boiling temperature of water, means operable by said manually adjustable member for holding said auxiliary switch in a position to maintain said auxiliary heater deenergized, said last-mentioned means so holding the auxiliary switch when said manually adjustable member is in any of a plurality of positions for adjusting said main switch in a range of temperatures above the boiling temperature of water.

2,847,555
HIGH PRESSURE ARC PROCESS AND APPARATUS
Donald M. Yenni, Williamsville, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application October 11, 1955, Serial No. 539,870
12 Claims. (Cl. 219—76)



1. The combination with an arc torch having an arc directing and wall-stabilizing orifice from which a high pressure arc effluent is discharged, a wire gun for directing a metal wire continuously toward said effluent, and a source of current connected to said torch and to said gun for energizing a high pressure arc, said arc melting the end of such wire as it is fed thereto, and the so-melted metal being projected by and with said effluent.

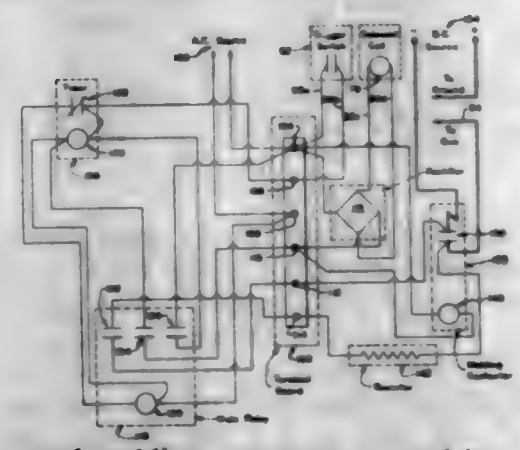
2,847,556
METHOD AND APPARATUS FOR BREAKING UP OXIDE ON, AND WELDING, METAL
Ronald F. Brennen and James A. Bucci, Brooklyn, N. Y., assignors to Welding Industry Research & Patent Corporation, New York, N. Y., a corporation of New York
Application September 7, 1956, Serial No. 608,546
3 Claims. (Cl. 219—86)



1. An oxide breaking and welding assembly comprising a fixed electrode; a movable holder carrying a movable electrode movable toward the fixed electrode; a yieldable spring to urge movable electrode from the fixed electrode; an ultra-sonic vibrator mounted fast on each electrode; means including an electric supply circuit to supply ultrasonic frequency current to the vibrators; a switch in said circuit comprising a blade hinged on said holder and contact jaws mounted on and insulated from the holder through which jaws the blade may pass; a weak spring

to urge the blade from the holder and jaws; a foot switch comprising a pedal member having upper, intermediate and lower positions and a fixed contact engaged by said pedal member when in lower position; electrical supply means connected to the electrodes and the foot switch to supply welding current to the electrodes; a connector connecting the pedal member to the switch blade; the weak spring being of such strength and the connector being of such length that when the pedal member is in the intermediate position the switch blade will move and stop between the jaws and the movable electrode will press lightly upon the work piece, and when the pedal member is moved to the lower position the switch blade will move beneath the jaws.

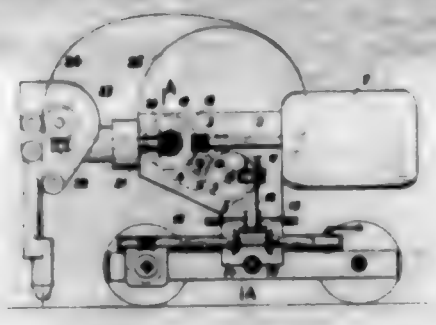
2,847,557
STUD WELDING CIRCUIT
Lawrence P. English, Haddon Heights, N. J., assignor to KSM Products, Inc., Merchantville, N. J., a corporation of New Jersey
Application June 27, 1955, Serial No. 518,035
4 Claims. (Cl. 219—98)



1. In a stud welding apparatus comprising a welding gun which includes means for holding a stud and means, including a solenoid, for moving said stud-holding means in lift direction, the combination with said gun of means for operatively connecting a source of welding current thereto, control means adapted to be connected to a source of alternating current independent of said welding source for operating said welding gun, said control means comprising a rectifier adapted to be connected with said alternating current source for supplying direct current to said solenoid, said rectifier being connected in series with only a predetermined resistance and the coil of said solenoid, and means including a main switch and relay switches, said last-named means being actuated by said alternating current in response to the operation of said main switch to control the energization of said solenoid and the passage of said welding current to said gun.

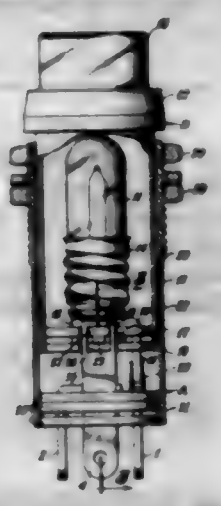
2,847,558
GEARBOX FOR UNIVERSAL AUTOMATIC WELDING MACHINES
Martin Mosný, Bratislava, Czechoslovakia, assignor of one-half to CKD Ceska Lipa, narodni podnik, Ceska Lipa, Czechoslovakia
Application August 31, 1955, Serial No. 531,790
Claims priority, application Czechoslovakia September 4, 1954
4 Claims. (Cl. 219—125)

1. In an automatic, universally mobile arc welding machine having an undercarriage with wheels thereon to movably support the latter, a welding head and means for feeding welding rod to the welding head; the combination of a gear box including a lower part mounted on the undercarriage and an upper part mounted rotatably on said lower part for unrestricted swinging relative to the latter about a vertical axis and adapted to support the welding head, a motor on said upper part having a rotated motor shaft, a layshaft journalled in said upper part, meshing gear means on said layshaft and motor shaft transmitting rotation of the latter to said layshaft, a rotatable drive shaft coaxial with the axis of rotation of said upper part and extending from the latter into said lower part of the gear box, transmission means between said layshaft and drive shaft within said upper part, a first bevel gear on said drive shaft within said lower part, drive transmission means within said lower part adapted to reversibly drive wheels of the carriage and including a drive transmission shaft journalled in said lower part and extending at right angles to said drive



shaft and second and third bevel gears on said drive transmission shaft at opposite sides of said first bevel gear and selectively engageable with the latter to reversibly drive said drive transmission shaft from said drive shaft, a drive shaft extending horizontally from said upper part and adapted to actuate the means for feeding welding rod to the welding head, and transmission means within said upper part between said layshaft and said horizontally extending drive shaft for rotating the latter from said layshaft so that both the feeding of welding rod to the head and the driving of the undercarriage wheels can be simultaneously effected from said motor.

2,847,559
ILLUMINATED PUSH BUTTON SWITCH
Frank A. Harrington, Brea, and Thomas W. Jentges, Santa Ana, Calif., assignors to Marco Industries Company, Inc., Anaheim, Calif., a corporation of California
Application November 25, 1955, Serial No. 549,146
9 Claims. (Cl. 240—2)



2. In an illuminated push button switch, a tubular casing having means for mounting it in a supporting panel; insulator means fixed in the rear end of said casing; four terminals fixed in said insulator means; a barrel fitted within said casing and slidable therein; a push button head on the outer end of said barrel and having a light transmitting window therein; an electric lamp mounted in said barrel and facing said window for illuminating the same, said lamp having respective electrical contact parts; means providing electrical connections between said lamp contact parts and two of said terminals; a pair of axially spaced insulator washers fixed in the inner end of said barrel and providing the mount-

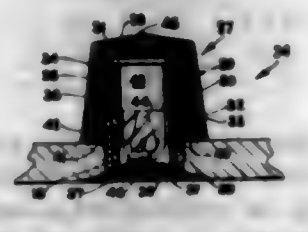
ing for said lamp; a movable switch contact disc sandwiched between said insulator washers and having a contact exposed at the periphery thereof; and means providing an electrical connection between said movable switch contact and another of said terminals; the fourth of said terminals projecting into the casing to constitute a fixed switch contact; said movable contact being engageable with said fixed switch contact upon movement of said barrel axially in said casing.

2,847,560

LAMP SOCKET AND ASSOCIATED ELECTRICAL CONNECTING MEANS

Maitland J. Peak, Malibu, and Rodger H. Jensen, Los Angeles, Calif., assignors to Coastal Manufacturing Corporation, a corporation of California

Application July 14, 1955, Serial No. 522,141
2 Claims. (Cl. 240—8.16)



1. An edge lighted panel comprising, in combination: a light transmitting core in the form of a flat sheet having a plurality of apertures in predetermined spaced relationship with respect to each other; printed circuit means consisting of a first and a second series of narrow paths of electrically conductive material coated on portions of opposite faces of said sheet and extending between said apertures, said paths having a width less than the diameter of said apertures, and means for connecting said paths adjacent said apertures on both faces of said sheet, said connecting means being shaped about said apertures to define circular connecting portions concentric with said apertures; and a plurality of lamp sockets mounted, respectively, in said apertures, each of said lamp sockets being provided with a first and a second terminal and including: an opaque insulating cap having an open end engaging said sheet and surrounding and covering both the adjacent circular connecting portion of the printed circuit means on one face of said sheet and the adjacent open end of the corresponding aperture; a first annular conducting member electrically connected to said first terminal and disposed wholly within said cap in engagement with said adjacent circular connecting portion; a second annular conducting member concentric with said first annular member and constituting said second terminal; insulating means intermediate said first and second annular members; and a conducting base member electrically connected to said second annular member, said base member engaging the adjacent circular connecting portion of the printed circuit means on the other face of said sheet, and said base member being flush with said other face of said sheet.

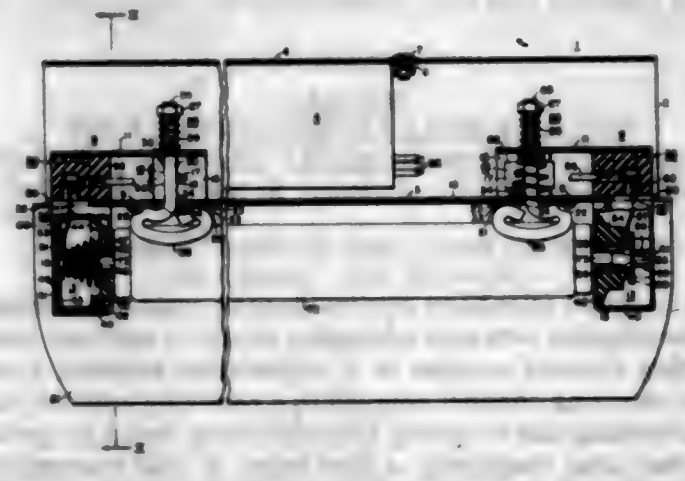
2,847,561

FLUORESCENT LUMINAIRE

Edward C. Huerkamp, Fairview Park, and Joseph W. Steiner, North Olmsted, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 15, 1954, Serial No. 410,294
5 Claims. (Cl. 240—51.11)

1. A luminaire comprising, an elongated inverted trough member, spaced transverse supports in said trough member extending across parts thereof adjacent the lower edges of the sides of said trough member and at each end thereof, means securing opposite ends of each of said supports to opposite sides of said trough member, respectively, ballast means mounted in said trough member intermediate said supports, a terminal block mounted on each of said supports and having terminals supported thereby, electrical conductors in said trough member connecting said ballast means and said terminals, an elongated reflector formed of a single sheet of material having opposite sides bent downwardly and an intermediate longitudinally extending portion adapted at its operative position to directly engage the lower ends of



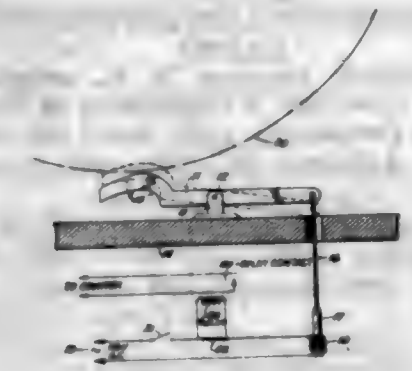
the sides of said trough member to close the lower open side thereof, lampholders mounted on each end of said reflector, contact means on the upper side of said reflector at each end thereof and positioned to engage said terminals when said reflector is at its aforesaid operative position, means electrically connecting said lampholders to said contacts, and releasable means on each of said supports engaging said intermediate part of the reflector for holding the latter at its operative position with said contacts engaging said terminals.

2,847,562

CAR ACTUATED CIRCUIT CONTROLLER

John A. Marquardt, Elmhurst, Ill., assignor to Streeter-Amet Company, Chicago, Ill., a corporation of Illinois

Application June 22, 1953, Serial No. 362,985
4 Claims. (Cl. 246—249)



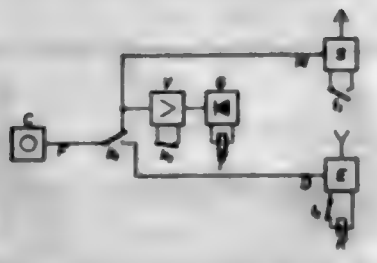
2. A track switch comprising a member movably mounted adjacent to the path of travel of a moving body and having a part adapted to project into the path of the moving body whereby the member will be moved when it is engaged by the moving body, a stationary electric coil, a core movable in the coil and connected to the member, the coil when energized moving the core in a direction to move said part on the member into said path so that a body moving in said path will engage said part and move the member and the core in the other direction, an energizing circuit for the coil connecting it to a source of alternating current, and sensing means in the energizing circuit operable when the coil is energized to detect differences in impedance in the coil when the core is shifted in the coil by movement of the member when it is engaged and moved by the moving body.

2,847,563

CIRCUIT ARRANGEMENT FOR THE CONNECTION OF TWO-WIRE CIRCUITS TO A TRANSMISSION PATH IN INTERCOMMUNICATION SYSTEMS

Walter Kloepfer, Pforzheim, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application October 30, 1953, Serial No. 389,379
Claims priority, application Germany October 31, 1952
2 Claims. (Cl. 250—13)



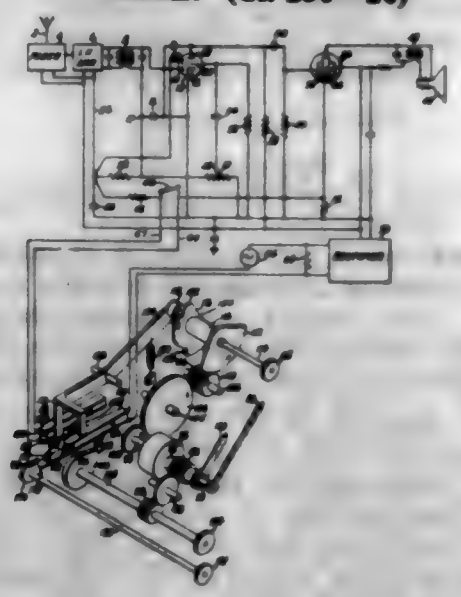
1. A radio telephony communication system comprising a one-channel two-way substation circuit, a one-way transmitting channel coupled to a transmitting antenna, a one-way receiving channel coupled to a receiving antenna, said transmitting and receiving channels being tuned to operate on the same frequency, a first relay in said transmitting channel, a second relay in said receiving channel, means for energizing said first relay responsive to the transmission of telephone signals over said substation circuit, a first pair of normally-open contacts associated with said first relay and arranged upon energization of said first relay to render said transmitting channel operative, a second pair of normally-closed contacts associated with said first relay and included in the circuit of said second relay, means for energizing said second relay responsive to the reception of radio signals at said frequency, a pair of normally-closed contacts associated with said second relay and arranged upon energization of said second relay to disable said transmitting channel, and further contact means associated with said second relay and arranged upon energization of said second relay to disconnect said substation circuit from said transmitting channel and connect it to said receiving channel.

2,847,564

VOLUME CONTROL CIRCUIT FOR A CLOCK RADIO

Joseph A. Worcester, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

Application October 13, 1955, Serial No. 540,244
4 Claims. (Cl. 250—20)



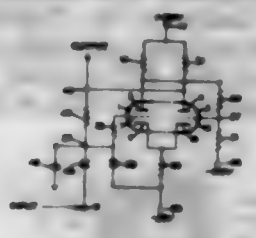
1. In a receiver, the combination of an automatic gain control circuit having a bus upon which the automatic gain control voltage appears, a point of positive direct-current potential, a muting switch, a resistive impedance connected in series between said point and said automatic gain control bus, a power switch for energizing said receiver, and a timer having means for closing said muting switch and opening said power switch for a first predetermined period, and for closing said power switch after a second predetermined period.

2,847,565

PULSE GAP DETECTOR

Gerung L. Clapper, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 31, 1954, Serial No. 479,148
7 Claims. (Cl. 250—27)



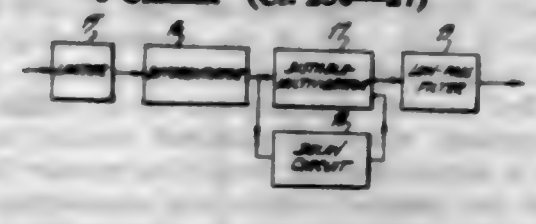
1. A pulse gap detector for detecting an interval greater than a predetermined time between input pulses supplied thereto, comprising, in combination, a capacitor and a resistor connected in series, a source of operating voltage, means for charging said capacitor from said source through said resistor, means responsive to the supply of input pulses for recurrently discharging said capacitor, voltage sensitive means connected to said capacitor and arranged to provide an output signal when and only when the voltage across said capacitor exceeds a predetermined level as a result of said capacitor being charged for a time greater then said predetermined time, and means for changing the value of said operating voltage in response to said output signal.

2,847,566

DEMODULATION SYSTEM

Sidney Metzger, Trenton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application January 10, 1955, Serial No. 480,785
6 Claims. (Cl. 250—27)



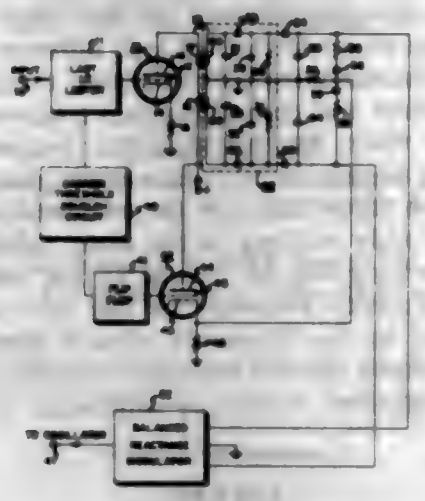
1. A demodulation system for demodulating a signal frequency modulated by a frequency shift on-off type of signal, said modulated signal shifting in frequency between a first and second frequency, comprising, in combination, an input circuit to which said modulated signal is applied, means connected to said input circuit to convert said modulated signal into a train of narrow pulses of uniform amplitude, said train of narrow pulses having repetition rates corresponding to the first and second frequencies of said modulated signal, a bistable multivibrator including a first and second current conducting device, pulse selecting means connected to said converting means to pass only the pulses of a given polarity, a delay line arranged to provide a delay of a constant amount greater than the interval of time between adjacent ones of said pulses of given polarity corresponding to said modulated signal when of said first frequency and smaller than the interval of time between adjacent ones of said pulses of given polarity corresponding to said modulated signal when of said second frequency, means for feeding said pulses of given polarity to said first device and to said delay line, said first device being

responsive to each of said pulses of given polarity to cause said multivibrator to assume a given one of the stable states thereof, means for feeding the pulses of given polarity each delayed by said constant amount from said delay line to said second device, said second device being responsive to each of said delayed pulses of given polarity to cause said multivibrator to assume the other stable state thereof, and an output circuit connected to one of said devices and including means for integrating the output of said multivibrator.

2,847,567
AUTOMATIC FREQUENCY CONTROL CIRCUIT

Lance R. Jacobsen, Lynwood, Calif., assignor to Hoffman Electronics Corporation, a corporation of California

Application June 10, 1955, Serial No. 514,436
6 Claims. (Cl. 250—27)

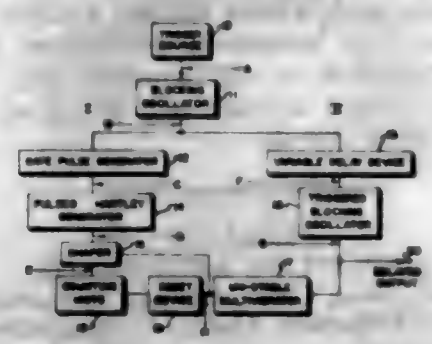


1. In combination, an input circuit adapted for coupling to a signal source, a discriminator coupled to said input circuit and having an output circuit, said discriminator output circuit including at least one capacitor, a series-connected resistor and diode combination shunting said capacitor and providing a discharge path for said capacitor, bias means coupled to said input circuit and responsive to reductions in energy level below a predetermined threshold of an input signal frequency therefrom and connected to said resistor and diode combination for biasing and thereby rendering non-conductive said diode for durations of decreased energy levels of said signal, said capacitor being adapted for coupling to a frequency control circuit.

2,847,568
DISTANCE DIGITAL DISPLAY OR THE LIKE

Julian A. Saucedo, Covina, Calif., assignor to Hoffman Electronics Corporation, a corporation of California

Application October 24, 1955, Serial No. 542,208
2 Claims. (Cl. 250—27)



1. In combination, a trigger source, a first blocking oscillator coupled to said trigger source and having first and second output circuits, a gate pulse generator coupled to said first output circuit of said first blocking oscillator, a sinusoidal-signal producing oscillator coupled to said gate pulse generator, a shaper coupled to said sinusoidal-signal producing oscillator, a delay means coupled to said second output circuit of said first blocking oscillator, a second blocking oscillator coupled to said delay means, a unistable multivibrator having an input circuit coupled to said second blocking oscillator and first and second output circuits, said first output circuit of said unistable multivibrator being coupled to said shaper, at least one counting unit means coupled to said shaper and responsive to signals therefrom for presenting a visual display representing the delay introduced by said delay means, and a reset device intercoupling said second output circuit of said unistable multivibrator and said counting unit.

2,847,569
RELAXATION OSCILLATOR CIRCUIT

Morris E. Finkelstein, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application March 30, 1955, Serial No. 497,829
10 Claims. (Cl. 250—36)

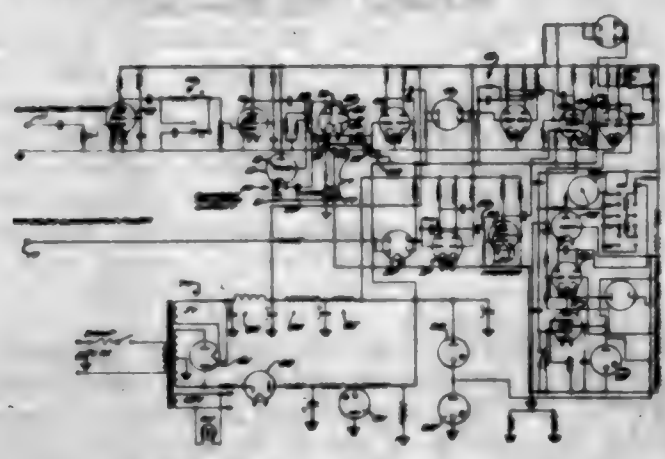


1. A pulse generator comprising, in combination, a transistor having base, emitter and collector electrodes, means including a transformer having a primary and a secondary winding connected for regenerative feedback between said collector and base electrodes to provide a stable state of low current conduction and a stable state of high current conduction for said transistor, the emitter current of said transistor being substantially constant during said stable state of high current conduction and zero during said stable state of low current conduction, said primary winding being connected with said collector electrode, direct-current conductive means connecting said secondary winding between said base electrode and a point of reference potential, means connecting said emitter electrode with said point of reference potential, and means providing biasing potentials for said transistor serially connected with said primary winding and said collector electrode.

2,847,570
APPARATUS FOR MEASURING PULSE CHARACTERISTICS

Raymond W. Brown, Evergreen Park, Ill., and Gerald A. Mitchell, White Bear Lake, Minn., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

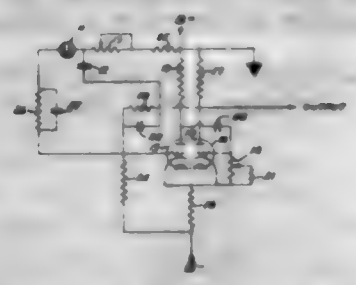
Application May 13, 1955, Serial No. 508,038
9 Claims. (Cl. 250—36)



1. An apparatus for detecting missing pulses, which comprises means for creating a train of pulses of a pre-

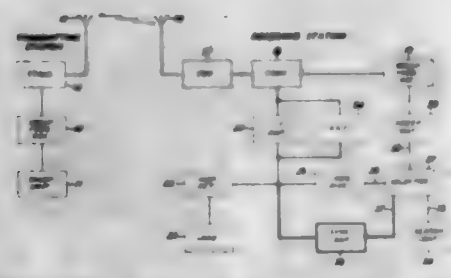
determined frequency to trigger a magnetron, a first means for blocking each magnetron pulse below a predetermined energy level, means for sending the pulses of said train toward a meter, and a second means operable by said first blocking means for blocking each pulse of said train coincident with a magnetron pulse above said predetermined energy.

2,847,571
PULSE GENERATOR
Walter D. Calkins, San Jose, Calif., assignor to Jennings Radio Manufacturing Corporation, San Jose, Calif., a corporation of California
Application May 13, 1955, Serial No. 508,151
5 Claims. (Cl. 250—36)



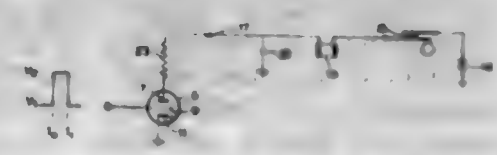
1. A pulse generator comprising a single-shot, cathode-coupled multivibrator including two tubes having at least anode, cathode and control grid electrodes, a pair of plate load impedance elements, a source of positive potential individually applied to each of said anodes through a different one of said plate load impedance elements, a cathode impedance element, a source of negative potential commonly applied to both of said cathodes through said cathode impedance element, a capacitor connecting the anode of one tube to the control grid of the second tube, a variable impedance element connecting the control grid of the second tube to its cathode, an impedance element connecting the control grid of the first tube to the negative terminal of said cathode impedance element, a gas tube relaxation oscillator including a serially connected variable impedance element and charge capacitor shunting the plate load impedance element for the second tube, and a serially connected gas tube and impedance element shunting said charge capacitor and connected to the control grid of said first tube to apply a positive trigger voltage thereto in response to substantial current conduction in the second tube thereby momentarily overcoming the cut off bias applied to the first tube by the cathode impedance element and producing a free-running generator of pulses.

2,847,572
SYNCHRONIZED AUTOMATIC FREQUENCY CONTROL SYSTEM
David L. Favin, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 20, 1956, Serial No. 572,751
12 Claims. (Cl. 250—36)



1. An automatic frequency control for locking-in the frequencies of two heterodyned signals at a predetermined frequency difference therebetween comprising means connectable to a source of one of the signals for cyclically sweeping the frequency thereof over one range at a time-rate different from a time-rate sweep of the other of said signals over another frequency range which partly overlaps the first-mentioned range, a frequency discriminator connectable to said one source, said frequency discriminator being responsive to one portion of a component heterodyned from the one and other signals and having the predetermined frequency therebetween for sweeping the signal frequency of said one source over said one range at a time-rate substantially the same as the time-rate frequency sweep of the other signal, and means responsive to a different portion of said heterodyned component for controlling the connection of said sweeping means and frequency discriminator respectively to said one signal source, said control means connecting said sweeping means to said one signal source and disconnecting said frequency discriminator therefrom substantially upon the disappearance of the other signal and thereby substantially upon the disappearance of said different component portion, said control means further responding to the reappearance of the other signal and thereby to the reappearance of said different component portion for disconnecting said sweeping means from said one signal source and connecting said frequency discriminator thereto when the instantaneous frequencies of the one and other signals have predetermined relative numerical values, the frequencies of the one and other signals are simultaneously varying in the same numerical direction, and the time-rate of change of the predetermined frequency difference between the one and other signals as represented by the frequency of said component is a minimum whereby the one and other signals are locked-in at the predetermined frequency difference therebetween.

2,847,573
THYRATRON CIRCUIT
Carl D. Southard, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application August 17, 1956, Serial No. 604,766
3 Claims. (Cl. 250—36)



1. In combination, a source of electrical energy, a load device, a thyratron having an anode, a cathode and at least one control electrode, a work circuit including stray capacitance connected to said source of energy and to said anode and cathode, said work circuit requiring a predetermined minimum current, means for supplying control pulses to said control electrode to initiate relaxation oscillations in said thyratron, and means for isolating said anode and cathode from the work circuit comprising a decoupling resistor connected between said work circuit and said anode, said resistor having a value sufficiently high to permit said relaxation oscillations to continue after the termination of the control pulse, and sufficiently low to permit at least said minimum current to flow in said work circuit.

2,847,574
AMPLITUDE REGULATOR
Walter Donner, Brea, Calif., assignor to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California
Application October 16, 1956, Serial No. 616,178
9 Claims. (Cl. 250—36)

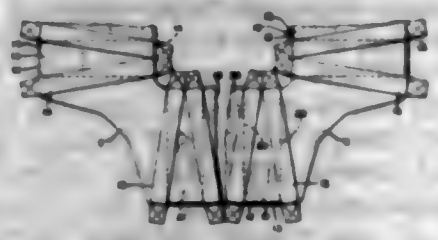
1. In a circuit for exciting the plates of a radio frequency mass spectrometer at constant amplitude and varying frequency, the combination of: a radio frequency oscillator having a control element for varying the amplitude of the output of said oscillator and having

a tuned circuit with a variable reactance element therein; a radio frequency amplitude detector for producing an output which changes as a function of a high frequency input; a capacitor for coupling said tuned circuit to said detector and to said plates in signal transmitting rela-



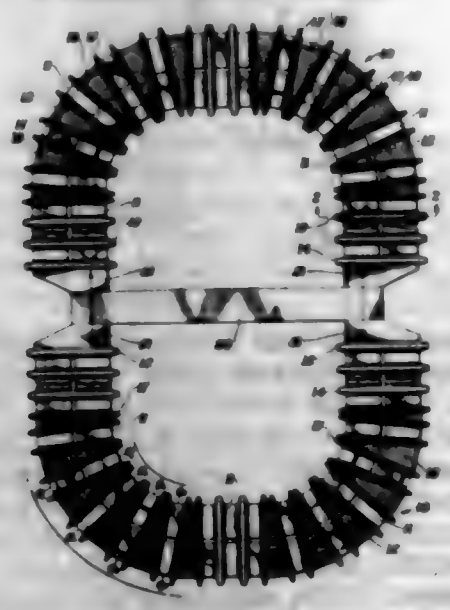
tionship, the impedance of said capacitor being many times greater than the impedance of said plates; circuit means coupling said output of said detector to said control element in controlling relationship; and drive means for varying the reactance of said variable reactance element.

2,847,575
CALUTRONS
Ernest D. Kane, Berkeley, Calif., assignor to the United States of America as represented by the Atomic Energy Commission
Application January 9, 1946, Serial No. 640,109
5 Claims. (Cl. 250—41.9)



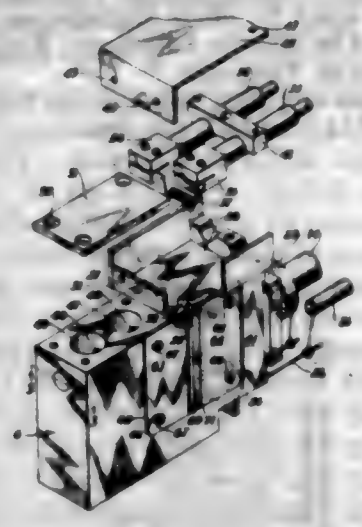
1. A calutron system comprising a series of substantially fluid-tight, relatively flat tanks arranged side by side in substantially abutting relationship, electromagnetic ion separating mechanism in said tanks, and means for setting up a continuous magnetic field traversing said tanks from side to side, said means comprising a plurality of sets of windings surrounding said series of tanks and arranged to leave opposite edges of adjacent tanks clear for access to the interior thereof.

2,847,576
CALUTRON SYSTEM
Ernest O. Lawrence, Berkeley, Calif., assignor to the United States of America as represented by the Atomic Energy Commission
Application January 16, 1946, Serial No. 641,620
5 Claims. (Cl. 250—41.9)



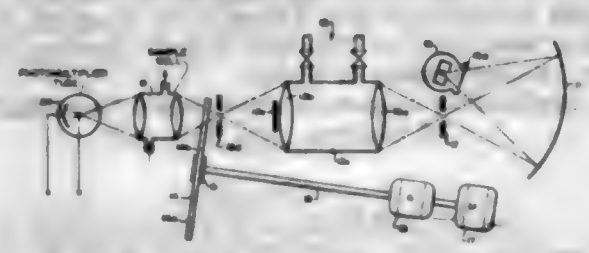
1. A calutron system comprising a closed series of alternated tanks and electromagnets, said tanks enclosing electromagnetic isotope separating means, and a yoke section spanning said closed series so as to provide a complete magnetic circuit through only a portion of said tanks, while the magnets alternated with the remaining tanks may be de-energized.

2,847,577
CALUTRON
Fred H. Schmidt, Berkeley, Calif., assignor to the United States of America as represented by the Atomic Energy Commission
Application February 4, 1946, Serial No. 645,460
4 Claims. (Cl. 250—41.9)



1. A calutron comprising an electrically conductive block having a gas ionizing chamber therein and a passage establishing communication between said chamber and the exterior of said block, and a pair of electrically conductive coplanar plates mounted upon said block for individual movement transversely of said passage, means establishing an electrical potential upon said block and said plates, and means engaging said block and said plates for holding said plates in selected transverse position thereby to assist in establishing the contour of the electrical field adjacent said block.

2,847,578
ULTRA-VIOLET ANALYZER
Hi W. Staten, Jr., Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 31, 1954, Serial No. 479,072
9 Claims. (Cl. 250—43.5)



3. In a butadiene analyzer, a source of ultraviolet radiation, a photomultiplier tube arranged to receive a single beam of radiation from said source, a sample cell in the path of said beam incorporating a sample containing butadiene, filter means in said beam arranged to pass a band of radiation having a wavelength of 2200 to 2600 angstrom units and to exclude radiation of other wavelengths, a rotatable chopper disk in the path of said beam having a quartz section transparent to said band of radiation and a section of glass containing about 96 percent silicon dioxide having ultraviolet transmission characteristics approximating those of butadiene opaque to said band of radiation, a shaft connected to said chopper disk, a motor connected to said shaft to rotate same, a generator driven by said shaft and constructed and arranged to produce a sinusoidal output voltage synchronized with the shaft rotation, a synchronous recti-

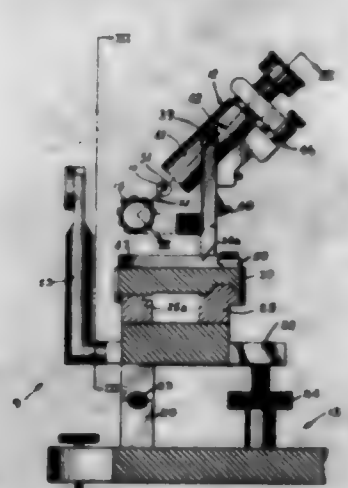
fier including a pair of triodes, a transformer having its primary winding connected to said photomultiplier tube and its secondary winding connected to the respective control grids of said tubes, leads connecting said generator to a center-tap on the secondary winding of said transformer, a filter connected in the anode-cathode circuits of said tubes, indicating means connected to the output of said filter, and means for maintaining constant the average current flowing through said photomultiplier tube.

2,847,579

CRYSTAL ORIENTER

Wade W. Allen, Kalamazoo Township, Kalamazoo County, and John W. Shell, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

Application June 25, 1956, Serial No. 593,489
14 Claims. (Cl. 250—52)



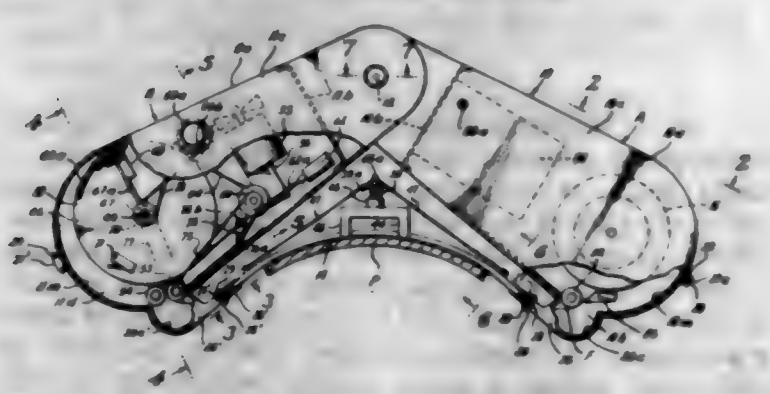
6. Apparatus for positioning a selected axis of a crystal in coincidence with a reference axis, comprising: a base; a crystal holding device rotatable about said reference axis; adjustment means on said device for positioning said selected axis in coincidence with said reference axis; an optical system supported upon said base and having a line of sight passing through said reference axis; and means providing a graticule within said system, parallel with said reference axis, and intersecting said line of sight.

2,847,580

ROLL FILM HOLDER FOR RADIOGRAPHIC WORK

Kiryako Arvanetakis and Clarence W. Radcliff, Houston, Tex., assignors to Pipeline X-Ray Service, Houston, Tex., a corporation of Texas

Application August 6, 1956, Serial No. 602,273
20 Claims. (Cl. 250—66)



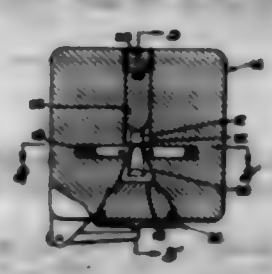
7. A roll film holder comprising, a first housing, a film supply spool mounted in said first housing, a second housing, a film take-up spool mounted in said second housing, means pivotally connecting one end of said first housing to one end of said second housing, said first housing having a film feed opening near the other end thereof, said second housing also having a film feed opening near the other end thereof, and a flexible film guide housing extending from the film feed opening in said first housing to the film feed opening in said second housing for guiding the film from said film supply spool to said film take-up spool and for flexing to conform at least a portion of the film in the guide housing to the external curved surface of a tubular object, said film guide housing having an exposure area through which X-rays and the like may pass, and means to prevent X-rays and the like which are directed towards said exposure area from penetrating the film except in said exposure area.

2,847,581

NUCLEONIC X-RAY APPARATUS

John W. Clark, Santa Monica, Calif., assignor to Litton Industries of California, Beverly Hills, Calif.

Application May 5, 1955, Serial No. 506,225
12 Claims. (Cl. 250—106)



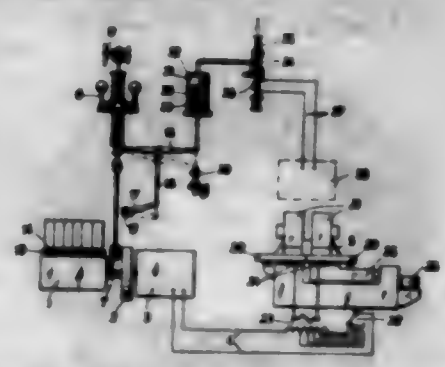
1. A nucleonic diagnostic X-ray apparatus for generating an X-ray beam in which secondary radiation normally produced by beta rays is materially reduced, said apparatus compriaing: an X-ray source consisting essentially of a radio-active isotope; a shielded housing member surrounding said source, said housing member having an aperture therein communicating between said source and the exterior of said housing member for forming the X-ray beam; and magnetic means positioned adjacent said X-ray source for generating a magnetic field in the aperture adjacent said source, said magnetic field being operative to deflect beta rays emitted from said source in such a manner as to reduce the amount of secondary radiation in the X-ray beam.

2,847,582

INTERNAL COMBUSTION ENGINE POWER PLANT

René Feiss, Winterthur, Switzerland, assignor to Schweizerische Lokomotiv- und Maschinenfabrik, Winterthur, Switzerland

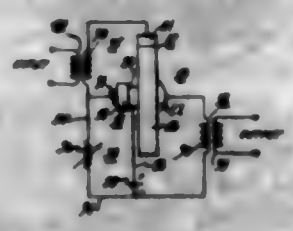
Application August 15, 1955, Serial No. 528,372
Claims priority, application Switzerland, August 19, 1954
4 Claims. (Cl. 290—40)



1. In combination with an internal combustion engine having a variable feed fuel pump, a generator driven by said engine, a current consumer connected with said generator, fuel delivery adjusting means for said pump, an engine speed governor, movement transmission means between said governor and said fuel delivery adjusting means, a control device for said fuel delivery adjusting means, a winding connected to said consumer and operating said control device responsive to changes of load of said consumer, means operatively connecting said control device to said movement transmission means to inde-

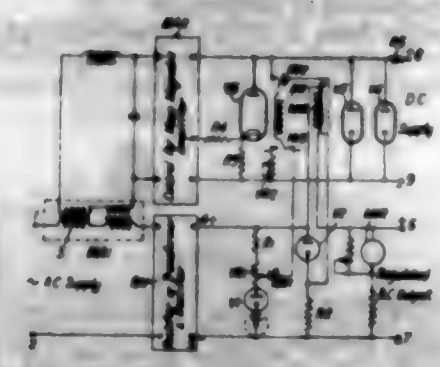
pendently transmit control movements either from said governor or from said control device to said fuel delivery adjusting means, means released upon actuation of said operating winding to impart a sudden control movement to said fuel delivery adjusting means, and an adjustable movement limiting member for limiting the stroke imparted by said control device to said movement transmitting means.

2,847,583
SEMICONDUCTOR DEVICES AND STABILIZATION THEREOF
Hung Chang Lin, Levittown, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application December 13, 1954, Serial No. 474,679
13 Claims. (Cl. 307—88.5)



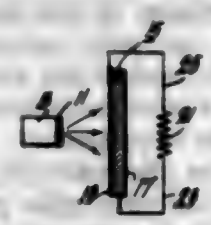
1. Semiconductor apparatus comprising a first semiconductor device having a semiconductor crystal and emitter, collector and base electrodes, a bias voltage circuit loop connected between said emitter and base electrodes, and a temperature-sensitive semiconductor diode including a semiconductor crystal, base and emitter electrodes and having a circuit loop a portion of which is common with a portion of said bias voltage circuit loop, said emitter electrodes being in direct contact with each other whereby compensation is provided for changes in the operating conditions of said first device due to ambient and internal temperature variations.

2,847,584
REGULATED POWER SUPPLY EQUIPMENTS
Richard Kelly and Patrick Stanley Kelly, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application May 6, 1955, Serial No. 506,531
Claims priority, application Great Britain May 14, 1954
16 Claims. (Cl. 307—150)



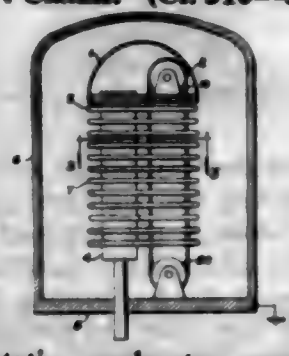
12. Regulated electric power supply equipment for the supply of unidirectional current to a load circuit which comprises terminals for connection to an alternating current supply, alternating current rectification equipment connected to said terminals, and a saturable reactor regulating device having a main winding connected in the circuit from said terminals to said rectification equipment; load circuit terminals connected to unidirectional current output terminals of said rectification equipment in series with the main controlling winding of a magnetically controlled diode having also an auxiliary winding; a marginal voltmeter relay connected in shunt with said load terminals and set to float free of its low voltage terminal at a predetermined value of load voltage; a current controlling network bridging the said output terminals of said rectification equipment, which network comprises a pair of gas-filled regulating devices and a pair of linear resistors arranged in a Wheatstone Bridge network, like elements being in conjugate arms, one diagonal thereof being connected at one end to one of said output terminals and at its other end to a variable resistor and a unidirectional conducting device in series, the other end of said series arrangement being connected to said other output terminal, while the other diagonal of said bridge network comprises a series arrangement of a unidirectional conducting device and the said auxiliary winding, the direction of the first said unidirectional conducting device being such as to assist the flow of current through the said network while the direction of the second said unidirectional conducting device is such as to permit the flow of current through said auxiliary winding when a predetermined value of output voltage is exceeded, the direction of current flow in the said auxiliary winding being such as to assist the regulating action of the said main winding; a controlling circuit for said saturable reactor comprising a magnetic amplifier connected at its output terminals to an auxiliary winding on said saturable reactor and being controlled at its input terminals by voltage derived from the said diode; terminals for connecting said diode and said magnetic amplifier to a source of direct current; stabilising devices for stabilising the voltage of a direct current supply so connected; means under the control of said marginal relay for transferring said diode auxiliary control winding from the said bridge network to said stabilised voltage supply when said predetermined load voltage is reached; and manually controlled means for transferring said diode auxiliary winding between said stabilised supply and said network as required.

2,847,585
RADIATION RESPONSIVE VOLTAGE SOURCES
Schuyler M. Christian, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 31, 1952, Serial No. 318,003
15 Claims. (Cl. 310—3)



8. A primary source of electrical energy comprising, a semiconductive device exhibiting an electron-voltaic effect, means for irradiating said semiconductive device with nuclear emissions to generate an electric potential, and connection means to said device for utilizing said potential to supply a load current.

2,847,586
ELECTROSTATIC ACCELERATOR
Bernard G. E. Stiff, North Reading, Mass., assignor to High Voltage Engineering Corporation, Cambridge, Mass., a corporation of Massachusetts
Application February 29, 1956, Serial No. 568,470
4 Claims. (Cl. 310—5)



1. An electrostatic accelerator comprising in combination: a base plate; a high-voltage terminal assembly; a traveling charge-conveying endless belt for carrying elec-

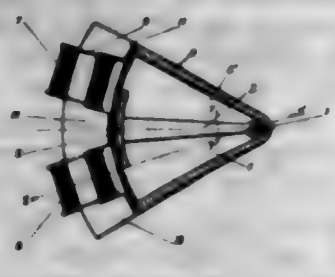
tric charge between said high-voltage terminal assembly and said base plate; and an acceleration tube mechanically supporting said high-voltage terminal assembly upon said base plate.

2,847,587

DRIVING MECHANISM FOR HEAD OF SOUND RECORDING AND REPRODUCING APPARATUS

Endore Desire Brasseur, Mont-sur-Marchienne, Belgium, assignor to Societe Anonyme de Constructions Electriques Charleroi, Brussels, Belgium, a corporation of Belgium

Application November 22, 1955, Serial No. 548,522
Claims priority, application France June 30, 1955
9 Claims. (Cl. 310—19)



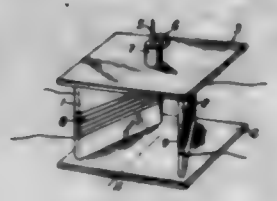
1. In sound recording and reproducing apparatus wherein a sound recording and reproducing head is oscillated between two fixed limits, an improved mechanism for driving said head comprising a closed chamber having two opposite parallel walls, said chamber being symmetrical about a plane perpendicular to said walls, said chamber being substantially filled with liquid, a head-driving shaft having a portion mounted for oscillation in the chamber perpendicular to said walls, a partition-like lever arm mounted on the shaft in a plane substantially normal to said walls and for oscillation with the shaft within the chamber thereby dividing said chamber into two compartments, said lever being adapted to alternately displace liquid at an equal rate of displacement from one thus-formed compartment in the chamber to the other when oscillated, a laterally symmetrical pole piece mounted on the outer end of the lever, and at least two alternately energized electro-magnets, one located on each side of the plane of symmetry, alternately to attract the pole piece in one direction and then the other to oscillate the shaft, and said pole piece being provided with means whereby it is attracted at a substantially uniform rate of attraction by said electro-magnets.

2,847,588

MAGNETOSTRICTIVE TRANSDUCER ELEMENTS

John M. Herbert, Horton, England, assignor to The Plessey Company Limited, Ilford, England, a British company

Application April 29, 1957, Serial No. 655,917
2 Claims. (Cl. 310—26)



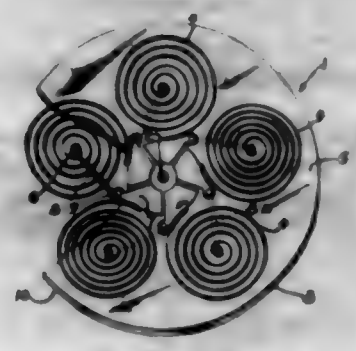
1. A magnetostrictive transducer element of the window-frame type having two leg-forming plates extending with their edges between the opposed surfaces of two end plates spaced in substantially parallel relation, wherein the plane of one of the leg-forming plates is displaced relative to that of the other leg-forming plate, so that the surfaces of these two plates, while being both perpendicular to the two end plates, are disposed at an angle to each other.

2,847,589

ELECTRIC ROTATING MACHINERY

Arthur W. Haydon, Milford, Conn., assignor to Consolidated Electronics Industries Corp., Waterbury, Conn., a corporation of Delaware

Application June 9, 1955, Serial No. 514,276
11 Claims. (Cl. 310—46)



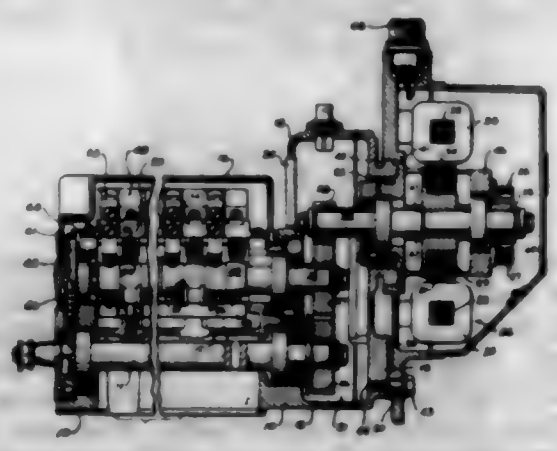
1. A disk rotor for an electric rotating machine having a supporting disk made of insulating material, a plurality of windings located radially about said disk between the center and circumference thereof in adjacent non-overlapping sectors each winding comprising a strip of conductive material formed into a continuous spiral, the direction of said spiral in all windings being identical, conductive links connecting said windings together in series by connecting the innermost extreme of each winding to the outermost extreme of the succeeding winding, each link passing between said extremes at least partially along the face of the disk opposite that face upon which one of the windings is formed, the passage of said links from face to face being made through perforations in the disk, and a plurality of commutator segments each electrically connected to a separate spiral winding, said commutator segments being located on a face of said disk radially about the center of rotation of said disk in adjacent non-overlapping sectors, and each having a common radial distance from said center of rotation.

2,847,590

ELECTRICAL IGNITION GENERATOR

Richard B. Clark and Glen H. Dingman, Sidney, N. Y., assignors to Bendix Aviation Corporation, Sidney, N. Y., a corporation of Delaware

Application June 1, 1955, Serial No. 512,540
8 Claims. (Cl. 310—70)

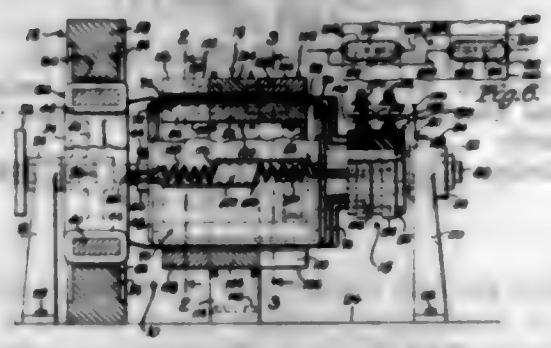


1. Apparatus of the class described comprising a first casing, a drive shaft supported by said casing, current distributing means comprising a cam shaft supported in said casing with its axis parallel to the axis of said drive shaft, gear means drivably connecting said shafts, means encasing said gear means, and a current generating unit removably supported by said encasing means and comprising rotor means drivably connected with said cam shaft within said encasing means and stator means angularly adjustable about the axis of said rotor means.

2,847,591
DIRECT CURRENT GENERATOR

Alex Serna, Dearborn, Mich.

Application March 28, 1956, Serial No. 574,401
7 Claims. (Cl. 310—68)

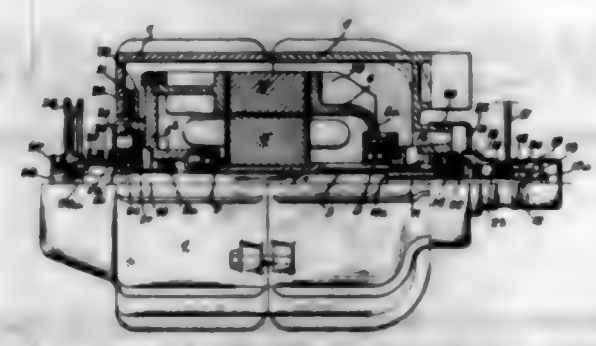


1. A direct current generator comprising an alternating current generating machine including a rotor having a winding thereon with circumferentially-spaced pairs of diametrically-oppositely-disposed taps therein, an approximately cylindrical rotary commutator structure and a pair of current-collecting rings all operatively connected to said rotor for rotation therewith, said commutator structure having an approximately cylindrical support with pairs of axially-disposed magnetically-responsive current flow interrupting devices disposed at circumferentially-spaced intervals in two belts therearound, the devices of each pair being spaced axially apart from one another along said support, the devices of each pair being connected at one end thereof to one of said taps and at the opposite ends thereof respectively to said collecting rings, terminal contact elements slippingly engaging said collecting rings, and a commutator magnet structure encircling said support, said magnet structure including a magnet adapted to provide a magnetic flux and a pair of axially-spaced interrupted annular magnetic pole units secured to opposite poles of said magnet and respectively encircling said belts of axially-spaced current flow interrupting devices, said pole units each having a peripheral gap therein, said peripheral gaps being spaced circumferentially apart from one another.

2,847,592
MOTOR FOR INDUSTRIAL AND HOUSEHOLD SEWING MACHINES

Auguste Henri Gerbaud, Paris, France

Application March 19, 1956, Serial No. 572,284
Claims priority, application France March 23, 1955
8 Claims. (Cl. 310—78)

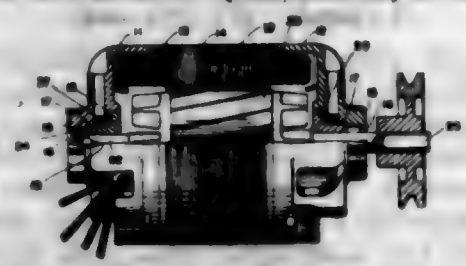


1. An electric power unit comprising a casing, a hollow shaft fixed at one end in said casing, a second shaft slidably mounted within said hollow shaft to move between two extreme positions, a stator on said hollow shaft, a rotor surrounding said stator and journaled on said hollow shaft, clutch means on said rotor, brake means on said casing, drive means journaled on said second shaft in axially fixed relation thereto and extending beyond said casing for connection with a driven member, a carrier connected with said drive means and disposed within said casing between said rotor clutch means and said casing brake means, brake means on said carrier cooperative with said casing brake means when said second shaft is at one extreme position to hold said drive means stationary, clutch means on said carrier for cooperation with said rotor clutch means when said second shaft is slid axially to its other extreme position to drive said drive means in synchronism with said rotor, and reduction gear means in said casing in driving relation between said rotor and said drive means, said reduction gear means including clutch means that is operative at an intermediate position of said second shaft to drive said drive means at a lower speed and is inoperative at the extreme positions of said second shaft.

2,847,593
ELECTRIC MOTOR

Lawrence G. Selbach, Harold C. Bodine, Robert R. Wentz, and Doran O. Hatfield, Chicago, Ill., assignors to Bodine Electric Company, Chicago, Ill., a corporation of Illinois

Application April 21, 1955, Serial No. 502,824
3 Claims. (Cl. 310—90)

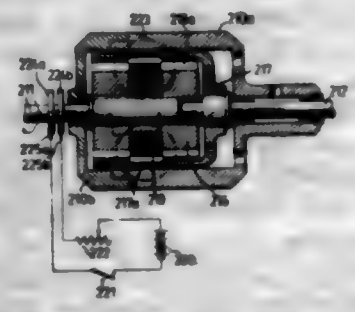


1. In an electric motor having a housing and a plurality of circumferentially spaced field poles mounted in said housing, said housing having a pair of oppositely disposed hubs formed to provide seats for a pair of bearings and a bearing mounted in each of said seats, the improvement comprising a shaft mounted on said bearings and having an annular shoulder adjacent one of said bearings, a rotor mounted on said shaft in a manner that the magetic center thereof is offset axially with respect to said field poles in the direction of said shoulder with the result that during operation of the motor a constant thrust is exerted on the shaft in a direction opposite to the direction of offset, said shaft having a tapered center at the end adjacent the other of said bearings and a ball seated in said center, the hub mounting the other of said bearings being formed with an inwardly facing shoulder outwardly of the bearing seat, a thrust disk disposed in engagement with said ball, and a snap ring in abutting relation to said hub shoulder and operable to retain said disk in position against said ball, said shoulder on said shaft being normally spaced a predetermined distance from the bearing adjacent thereto when said motor is in operation and said disk having a thickness proportioned to establish said predetermined distance.

2,847,594
ELECTROMAGNETIC SLIP COUPLING

Elie Cohen and Szymon Roth, Paris, France, assignors to Leon Naiditch, New York, N. Y.

Application February 21, 1955, Serial No. 489,642
2 Claims. (Cl. 310—96)



1. An electromagnetic coupling comprising three coaxial, at least partly ferromagnetic, relatively rotatable cylinders including an intermediate cylinder telescoped between two other cylinders, said other cylinders includ-

ing a first cylinder provided with coil means for producing an electromagnetic flux and a second cylinder adapted to complete a path for said flux across said intermediate cylinder, one of said other cylinders being provided with longitudinal ribs of ferromagnetic material approaching said intermediate cylinder, said intermediate cylinder having at least two solidly ferromagnetic, thin-walled, smooth-surfaced annular portions flanking said coil means and further having at least one annular magnetic portion of increased longitudinal magnetic reluctance intermediate said ferromagnetic portions, the last-mentioned portion being integral with but narrower in cross section than said ferromagnetic portions.

2,847,595

SPRING CONTACT HIGH VOLTAGE CONNECTOR

Paul W. Kaseman, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application January 6, 1956, Serial No. 557,695
9 Claims. (Cl. 313—64)



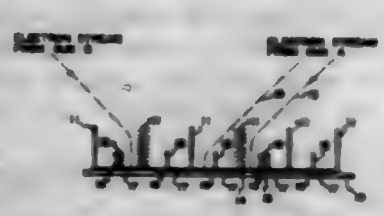
1. A lead-in for electric devices such for example as electron tubes, comprising a supply conductor, having an exposed end portion, a coiled multi-turn wire spring surrounding said exposed end portion and having a plurality of turns extending beyond the exposed end of said conductor, the tip of said conductor being electrically fastened to an intermediate one of said plurality of turns.

2,847,596

SCREEN STRUCTURE FOR TWO-COLOR CATHODE RAY TUBES OR THE LIKE

Buddy M. Felberg, Los Angeles, Calif., assignor to Hoffman Electronics Corporation, a corporation of California

Application June 28, 1955, Serial No. 518,446
6 Claims. (Cl. 313—70)



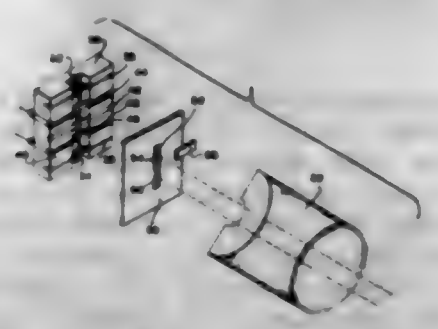
1. In combination, a screen structure and a face plate associated therewith for employment in a two-color cathode ray tube provided with two electron guns the electron paths from which approach said face plate at oppositely inclined angles substantially removed from normal incidence; said screen structure comprising at least one set of parallel, equally spaced, strip elements, each being longitudinally positioned with a first edge thereof disposed normal to and in proximate relation with said face plate within said tube; first and second, differently colored, interlaced sets of parallel phosphor coating strips disposed upon said face plate so that each of at least half of the boundaries of adjacent, differently colored phosphor strips are disposed in proximate relationship with a corresponding strip element; and said strip elements each having a second edge vertically projecting a substantial height above said phosphor strips, said height being related to the surface dimensions of said phosphor strips such that said strip elements simultaneously provide a physical barrier to the impingement of electrons from each of said guns upon the phosphor strip set corresponding to the other of said guns and, further, aid in the impingement of electrons from each of said guns upon the phosphor strip set corresponding thereto.

2,847,597

ELECTRON DISCHARGE DEVICE

Robert McNeil Bowie, Manhasset, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application November 25, 1955, Serial No. 548,943
11 Claims. (Cl. 313—70)



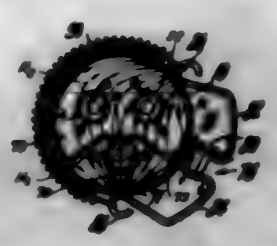
1. In combination with first means for generating a single electron stream and second means for collecting said stream, a first electrically conductive member provided with a slot and positioned between said first and second means in such manner that said slot is interposed in the path of said stream in intimate association with said first means; at least one second electrically conductive member electrically connected to said first member and spanning said slot so as to divide said slot into two sections, said stream being apportioned between said sections to form corresponding electron beams as it passes through said slot; and a first beam intensity control electrode spanning one of said slot sections to control the intensity of the corresponding beam, said electrode being electrically insulated from said first and second members.

2,847,598

ELECTRON GUN STRUCTURE FOR PLURAL BEAM TUBES

Richard H. Hughes, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware

Application April 16, 1956, Serial No. 578,434
8 Claims. (Cl. 313—70)



1. An electron discharge device comprising an envelope, an electron gun structure within said envelope for producing separate electron beams along three paths not in a common plane and extending in the same general direction, a magnetically permeable plate structure mounted within said envelope and extending between one of said three electron beam paths and the other two of said beam paths, a magnet including two pole structures mounted with one of said pole structures closely spaced from one end of said plate structure and the other of said pole structures having one portion thereof closely spaced from and on the side of said one electron beam path opposite to said permeable plate and another portion of said other pole structure closely spaced from and on the side of said other two beam paths opposite to said permeable plate.

2,847,599
BULB SPACER SHIELD
Paul Warren Kaufman, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application January 9, 1956, Serial No. 558,019
13 Claims. (Cl. 313—82)



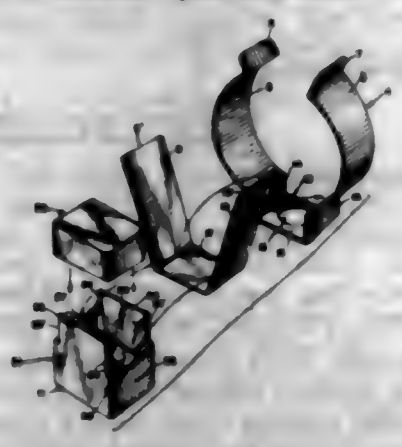
13. An electrode for high voltage electron tubes, comprising a tubular metal member, a plurality of flexible fins attached symmetrically around said member, and a shield for the outer edges of said fins, said shield comprising a thin metal strip attached to said electrode and being bent to form a loop enclosing the ends of said fins.

2,847,600
TRI-COLOR KINESCOPE
Albert M. Morrell, East Petersburg, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application September 30, 1953, Serial No. 383,340
16 Claims. (Cl. 313—84)



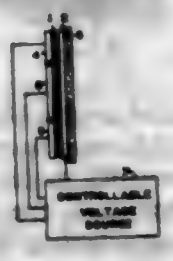
4. An electron discharge device comprising a plurality of electron guns, each of said electron guns including a plurality of electrodes insulatingly spaced along an axis, means mounting said electron guns with their axes converging, said electrodes of each of said guns including portions for forming and accelerating an electron beam along a path coinciding with the axis of said respective gun, and a different pair of magnetic pole pieces positioned on opposite sides of the axis of each of said electron guns for establishing a magnetic field between said different pair of pole pieces and transverse to said respective beam path to adjust the convergence of said electron beams.

2,847,601
ION TRAP AND METHOD OF MAKING SAME
Myron R. Heppner, Round Lake, Ill., assignor to Heppner Mfg. Co., a corporation of Illinois
Application November 30, 1955, Serial No. 550,647
6 Claims. (Cl. 313—84)



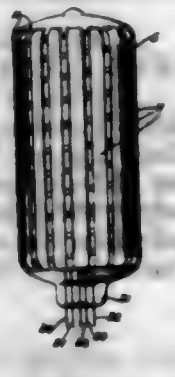
1. The method of assembling an ion trap, comprising: the steps providing a relatively wide C-shaped spring clip with a U-shaped outwardly offset base portion, nesting the base portion in an open retainer shaped to confine movement of the base laterally, nesting a permanent magnet in the offset base portion so as to be within the retainer to confine lateral movement of the magnet, and then turning a lip on the retainer over the nested base portion and magnet to hold them together in the retainer.

2,847,602
VOLTAGE CONTROLLED EMISSION FROM A PHOSPHOR SCREEN
Hyman A. Michlin, New York, N. Y.
Application October 7, 1957, Serial No. 688,522
13 Claims. (Cl. 313—108)



1. Electroluminescent display device for producing changing resultant colors comprising electroluminescent phosphor layer having arranged therein different kinds of phosphors, each said kind emitting in a different luminosity for each change of potential difference applied thereto, each said kind emitting in a different color, and each said kind arranged in the layer so that on being subjected to a potential difference the emitted different colors therefrom are capable of being combined in the additive process; said layer of phosphors having an electrode at each side thereof at least one electrode being transparent; and a source of controllable voltage arranged to apply different potentials to said electrodes.

2,847,603
GLOW DISCHARGE DEVICE
Douglas C. Engelbart, Oakland, Calif., assignor to Digital Techniques, Inc., Berkeley, Calif., a corporation of California
Application November 28, 1956, Serial No. 624,906
10 Claims. (Cl. 313—188)

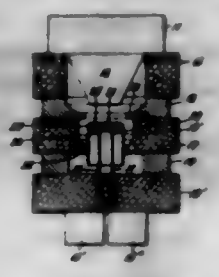


1. A glow discharge device comprising, a sealed envelope, an ionizable gas therein, a member of dielectric material mounted in said envelope and formed to define a gaseous discharge channel, and a plurality of electrodes arrayed along said channel to control glow discharge therein.

2,847,604
THERMIONIC CATHODE AND DIRECT CURRENT HEATER ASSEMBLY
James E. Beggs and Harold F. Webster, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application June 2, 1955, Serial No. 512,723
9 Claims. (Cl. 313—337)

1. A thermionic cathode and direct current heater assembly comprising a conducting disc forming a cathode base member, an electron emissive coating on one side of said disc, a metal foil cylinder supporting said disc and bonded to the periphery thereof at one end of said cylin-

der, an elongated conductor bonded at one end to a central portion of said disc on the side thereof opposite said coating and providing a thermoelectric junction on said disc, a terminal connected to the other end of said conductor and a second terminal connected with said foil support so that said conductor, said disc and said foil



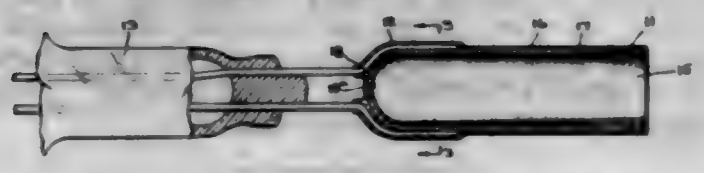
are in series between said terminals, the materials of said conductor, disc and foil having successively more positive thermoelectric characteristics in one direction around the circuit between said terminals, the terminal connected to the more positive thermoelectric material providing the connection for the positive terminal of a direct current heater supply voltage.

2,847,605

ELECTRODE FOR FLUORESCENT LAMPS

Abner Albert Byer, Great Neck, N. Y.

Application November 18, 1954, Serial No. 469,781
8 Claims. (Cl. 313—346)



1. An electrode for a fluorescent lamp, said electrode comprising an elongated metallic tubular terminal having one end closed and the other end open and an emissive coating along an internal wall thereof, said emissive coating varying uniformly in thickness from said one end of said terminal to the other.

2,847,606

TRAVELING WAVE ELECTRON DISCHARGE DEVICE

Stanley John Willshire, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application July 9, 1954, Serial No. 442,410
Claims priority, application Great Britain July 13, 1953
5 Claims. (Cl. 315—3)



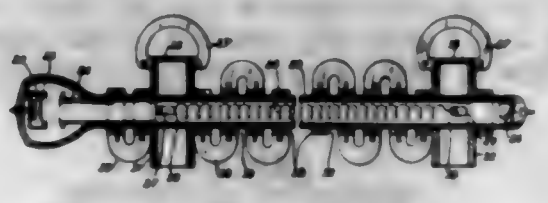
1. In the method of manufacture of a travelling wave tube having a conductive helix connected at one end to a lead-in connection, and an electron collector electrode adjacent the other end of the helix, the electron collector electrode being arranged so that an external connection may be made thereto, the steps of outgassing the helix comprising fusibly linking the adjacent end of the helix to said collector electrode, connecting a source of helix heating current between the said lead-in connection and the collector electrode until the helix is outgassed, and then applying a current surge to fuse and break the fusible linkage.

2,847,607

MAGNETIC FOCUSING SYSTEM

John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application April 29, 1953, Serial No. 351,983
6 Claims. (Cl. 315—3.5)



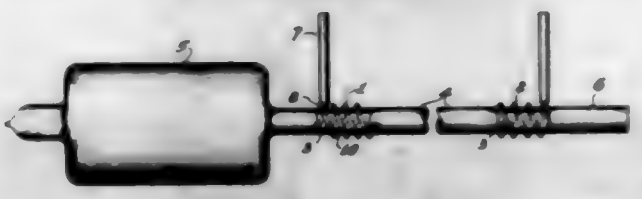
2. A traveling wave tube comprising an evacuated envelope, means for forming a cylindrical beam of electrons for flow axially through said envelope, an interaction circuit for propagating a slow electromagnetic wave in field coupling relation with said beam, and means for maintaining the electron beam cylindrical and of substantially uniform diameter during its progression past said interaction circuit, said means comprising a succession of identical pole pieces spaced equal distances apart along the path of said flow, and a plurality of substantially identical magnet means comprising a plurality of substantially U-shaped permanent magnets having poles abutting adjacent of said pole piece cylinders interposed between adjacent pole pieces, each of said pole pieces being common to like poles of two adjacent magnet means and each adjacent pair of said pole pieces defining a gap of the same length as the other of said gaps, whereby said pole pieces and magnet means provide a longitudinal region of periodic spatially alternating magnetic field along the axis of the electron beam.

2,847,608

SUPPORTING DEVICE FOR HELIX IN TRAVELING WAVE TUBES

David L. Thornburg, Metuchen, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application May 2, 1956, Serial No. 582,163
2 Claims. (Cl. 315—3.5)

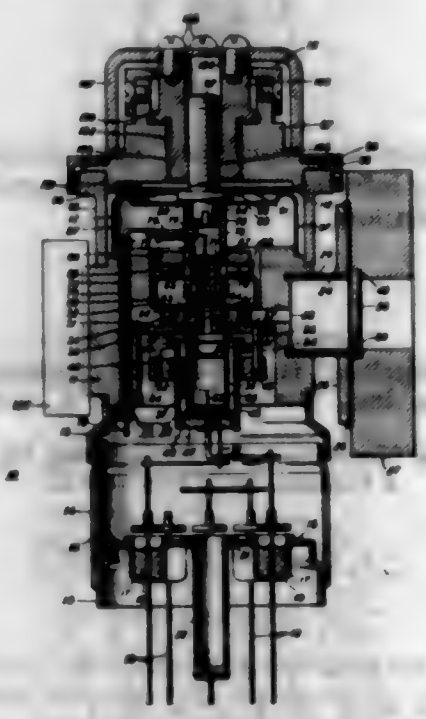


1. In a traveling wave tube the combination of an evacuated glass envelope having an elongated tubular portion, a metallic helix contained within said glass tubular portion, a resilient tubular support between said helix and said tubular portion comprising a sleeve surrounding said helix and having an internal diameter substantially equal to the external diameter of said helix, said sleeve having an external diameter equal to the internal diameter of said tubular portion, said sleeve comprising a woven structure of fiber glass.

2,847,609
REFLEX KLYSTRON

James O. Hamilton, Allentown, Pa., and Joseph P. Laico, Springfield, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application February 11, 1957, Serial No. 639,313
15 Claims. (Cl. 315—5.22)



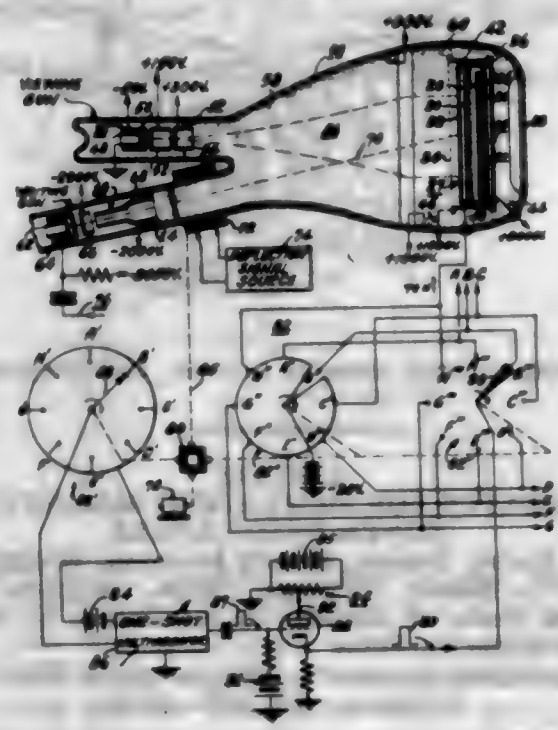
1. An electron discharge device of the reflex klystron type comprising an envelope having an integral annular flange on its inner wall intermediate the ends thereof, means including a flexible wall member defining a cavity resonator mounted within said envelope, electron gun means situated adjacent said resonator remote from said flexible wall member for projecting a stream of electrons through said resonator, a repeller electrode, means mounting said repeller electrode to the other side of said resonator than said gun means in the path of said electron stream and adjacent said flexible wall member, and means for tuning said resonator, said tuning means including a hollow cylindrical sleeve member surrounding said repeller electrode and bearing on said flexible wall member, said sleeve member having apertures in the side thereof through which the repeller mounting means extends, a flexible diaphragm forming an end closure for said envelope, said diaphragm having side portions secured to the walls of said envelope, an intermediate portion extending across said envelope and a central portion secured to said hollow cylindrical sleeve member, and a tuning member secured to said central portion and extending into said hollow sleeve member for depressing said diaphragm, said sleeve, and said flexible wall member.

2,847,610
DIRECT-VIEW ELECTRICAL STORAGE TUBE AND ERASING SYSTEM THEREFOR

Harold Borkan, Franklin Township, Somerset County, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application August 27, 1952, Serial No. 306,706
16 Claims. (Cl. 315—12)

7. An electron discharge device comprising, an electron source, a fluorescent screen spaced from said source, an electron permeable screen positioned between said source and said fluorescent screen closely spaced from said fluorescent screen and for storing a desired electrical charge pattern, and a plurality of electron permeable coplanar conductive units insulated from each other and in contact with one surface of said permeable screen, each of said coplanar units being individually capable of con-

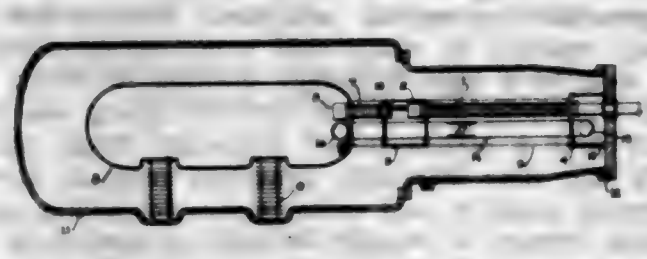


trolling the flow of electrons from said source to said fluorescent screen.

2,847,611
APPARATUS FOR VOLTAGE STABILIZATION OF CONSTANT-POTENTIAL HIGH-VOLTAGE GENERATORS

Robert J. Van de Graaff, Belmont, Mass., assignor to High Voltage Engineering Corporation, Cambridge, Mass., a corporation of Massachusetts

Application May 21, 1954, Serial No. 431,439
11 Claims. (Cl. 315—30)



5. Apparatus for accelerating charged particles to high energy comprising in combination: an evacuated acceleration tube energized by a charged body; a second charged body near said first charged body; means for conveying electric charge to said charged bodies for the purpose of maintaining their potentials at high voltage; at least one auxiliary vacuum tube adapted to provide a current flow between said charged bodies; and means for controlling said current flow so that the kinetic energy of charged particles accelerated in said acceleration tube is substantially constant.

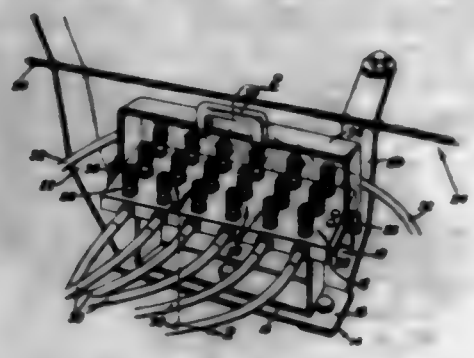
2,847,612
SPARK INTENSIFIER

William A. Mertens, Belleville, Ill.

Application April 8, 1957, Serial No. 651,432
7 Claims. (Cl. 315—36)

1. A spark intensifier for a high voltage circuit of an ignition system, said spark intensifier comprising an insulated base, a plurality of conductors carried by said

base, said conductors being arranged with portions in spaced aligned relation to form spark gaps, said spark



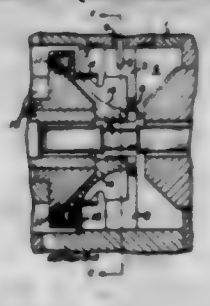
gaps being at least three in number and progressive in length.

2,847,613

APPARATUS FOR DISPLACING MAGNETRON TUNER RESONANCES

Palmer Derby, Weston, Harold Jacobson, Waltham, and John L. Turner, Needham, Mass., assignors to the United States of America as represented by the Secretary of the Air Force

Application January 9, 1956, Serial No. 558,172
2 Claims. (Cl. 315—39.61)



1. In combination with a magnetron of the type having an anode block containing a plurality of radial vanes forming the resonant cavities of the magnetron and having a movable tuner for capacitively tuning said cavities, in which said tuner consists of a block of radial metal having a plurality of slots adapted to receive said vanes without electrical contact, in which means are provided for provided for moving said tuner from a low frequency position in which said vanes substantially fill said slots to a high frequency position in which said vanes are wholly outside said slots for tuning said magnetron over a predetermined frequency range, and in which said slots inherently constitute resonant cavities inherently tuned by said vanes: means for adding an increasing amount of capacity to said slot cavities as said tuner moves from said low frequency position to said high frequency position, said means comprising a conductive element surrounding said tuner and having a surface in proximity thereto, said surface having a dimension in the direction of movement of said tuner at least approximating the depth of said slots, said element being fixed relative to said vanes and being positioned so that said surface covers an increasing portion of the outer ends of said slots as said tuner moves from said low frequency position to said high frequency position.

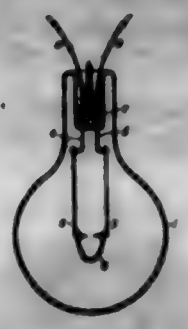
2,847,614

ELECTRIC DISCHARGE LAMP

William T. Anderson, Jr., Maplewood, and Rudolf W. Samer, Cranford, N. J., assignors to Engelhard Industries, Inc., a corporation of New Jersey

Application August 11, 1954, Serial No. 449,883
4 Claims. (Cl. 315—46)

1. An electric lamp comprising a transparent envelope, an ionizable atmosphere and at least a pair of spaced electrodes within said envelope, and incandescent filament bridging said electrodes, means for energizing said filament and said electrodes, said ionizable atmosphere consisting of xenon with not more than 5 percent of another rare gas, said filament and the arc between said



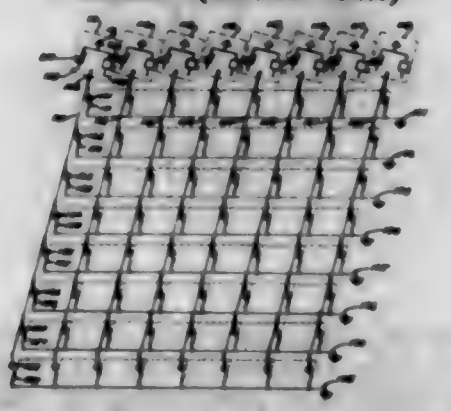
electrodes comprising combined light sources emitting predominantly infrared radiations supplemented by long ultraviolet radiations.

2,847,615

MEMORY DEVICE

Douglas C. Engelbart, Oakland, Calif., assignor to Digital Techniques, Inc., Berkeley, Calif., a corporation of California

Application November 28, 1956, Serial No. 624,988
6 Claims. (Cl. 315—84.6)



6. A memory device comprising, an envelope, an ionizable gas therein, a dielectric member mounted in said envelope and formed with a plurality of elongated grooves in one side thereof, a closure member of dielectric material mounted on said side closing said grooves to define a plurality of gaseous discharge channels, a first electrode mounted in and extending longitudinally of each of said grooves and in contact with the gas therein, a plurality of second electrodes of elongated form carried by said closure member and traversing said grooves so as to define with said first electrodes a plurality of longitudinally spaced cells in each of said channels, a coating of dielectric material separating said second electrodes from said channels and providing a dielectric boundary for each of said cells, said dielectric boundary and said second electrodes defining a capacitor at each of said cells for storing a charge representing information to be held, an R.-F. generator connected to each of said first electrodes and furnishing a potential and frequency sufficient to sustain and propagate an existing glow discharge in said channels while being incapable of initiating such glow discharge, said members providing a gas channel extending across and intersecting said first named channels, and means associated with said last named channel and providing a serial shifting register of the multiple position glow discharge type capable of sustaining and selectively shifting a discrete glow discharge into said first mentioned channels.

2,847,616

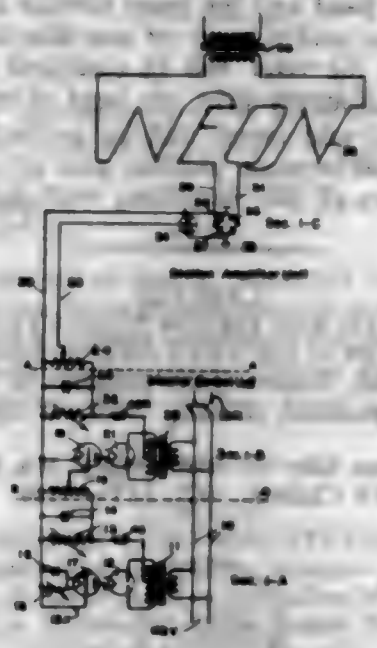
ELECTRONIC CIRCUITS FOR CONTROLLING ILLUMINATION INTENSITY IN IONIZABLE GAS DISPLAY TUBES OR THE LIKE

Dayse D. Hansen, Seattle, Wash.

Application April 19, 1954, Serial No. 424,990
17 Claims. (Cl. 315—181)

1. A low-frequency signal generator comprising a relaxation oscillator of the grid-controlled thyratron type

having in the blocking circuit thereof a time constant network and having in the output circuit thereof a time constant network intermittently charged from a direct current source, said low-frequency signal generator further comprising means for selecting at least a portion of the signal developed across the second-mentioned time



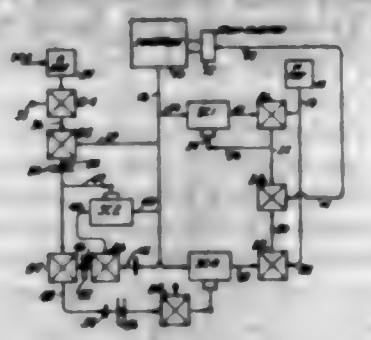
constant network and impressing the same on the grid of a grid-controlled vacuum tube having in the plate circuit thereof a time constant network intermittently charged from a second direct current source, and means for selecting at least a portion of the signal generated across said last-mentioned time constant network as the output low-frequency signal.

2,847,617

PHASE SYNCHRONIZING SYSTEM

William H. Clark, Jr., Wakefield, Mass., assignor to Curtiss-Wright Corporation, a corporation of Delaware

Application March 28, 1957, Serial No. 649,216
16 Claims. (Cl. 317—6)



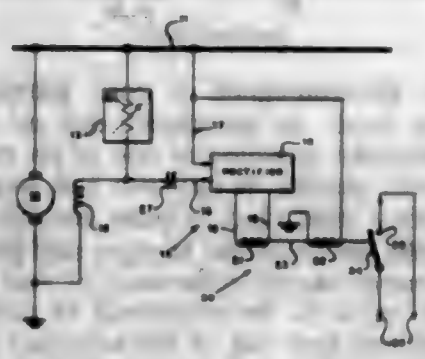
1. In a synchronizing system for a plurality of powerplants, each powerplant having a speed regulator, stabilized means for each powerplant responsive to the speed thereof and to a desired speed having an output connected to the respective speed regulator, and operable to control the speed regulator to urge the powerplant toward speed synchronism with other powerplants, said powerplants having interconnected phase reference rotors jointly rotating in phase synchronism, each powerplant having a phase trimming control mechanism comprising a subtracting differential driven by a phase reference rotor and the powerplant having an output positioned according to phase error, an integrator for said phase error, means to sum the phase error and the integrated phase errors, means to integrate the summed phase errors, and differential means to insert the thus integrated phase errors in the operating connection from said stabilized means to said speed regulator.

2,847,618

OVERVOLTAGE FAULT DETECTION MEANS IN ELECTRIC GENERATING SYSTEMS

Oscar Markowitz, Philadelphia, Pa.

Application August 8, 1955, Serial No. 527,184
6 Claims. (Cl. 317—13)
(Granted under Title 35, U. S. Code (1952), sec. 266)



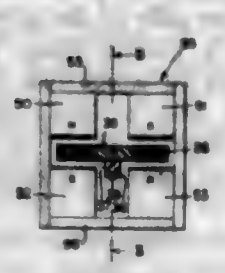
1. In an electrical generating system having a generator and a variable resistance voltage regulator, the combination with said variable resistance voltage regulator of an overvoltage detecting apparatus to discriminate between an overvoltage due to a fault in the system and an overvoltage due to transitory loading conditions comprising: a biasing network connected in shunt with said variable resistance voltage regulator, said network comprising, coupling means, rectifier means connected to said coupling means, and a bias coil connected as a unilateral load to said rectifier means; a main coil connected across the generator in polarity opposition relative to said bias coil; said main and bias coils comprising electrical actuating elements of a relay disposed in a normally open position, whereby the relay is actuated to the closed position in response to a fault of a type involving disablement of the variable resistance voltage regulator.

2,847,619

ELECTRICAL DEVICE

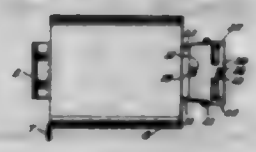
Philip E. Shafer, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application June 1, 1954, Serial No. 433,505
9 Claims. (Cl. 317—166)



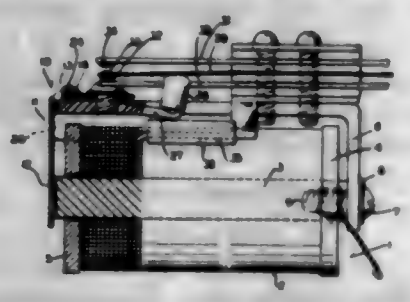
9. In an electric-to-force transducer, the combination comprising a flattened planar electrical coil having two opposite sides which are long relative to the ends of said coil, magnet means defining a pair of parallelly extending magnetic fields of opposite polarity with respect to each other, and means for supporting said coil relative to said field defining means wherein one of said long sides is positioned in one of said pair of fields and the other of said long sides is in the other of said fields, said supporting means including a resilient torsion pivot extending perpendicularly of the plane defined by said coil through a point remote from said coil whereby said coil is supported for pivotal movement in the plane defined by said coil and transverse to the fields defined by said magnet means, said movement being responsive to the interaction of said fields and electric current signals applied to said coil.

2,847,620
ELECTROMAGNETS
Andrew W. Vincent, Rochester, N. Y.
Application January 25, 1954, Serial No. 405,797
9 Claims. (Cl. 317—189)



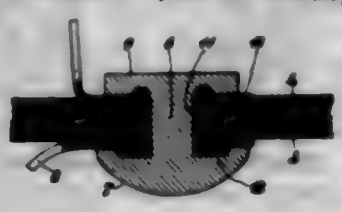
1. In an electromagnet, a core provided with flat aligned pole faces, an energizing coil on said core, an armature hingedly mounted at one of its ends on one of said pole faces leaving its opposite end free to swing toward the other pole face to close the air gap therebetween whereby the armature engages said pole faces when the coil is energized, the reluctance of said air gap being substantially equal to the reluctance of said core, a support adjacent the free end of the armature provided with a line bearing, a lever mounted near its first end for rocking movement about said line bearing to extend in the direction of the hinged end of the armature, and a link connecting the free end of the armature to said first end of the lever.

2,847,621
RELAY SWITCHES
Stanley F. Plaisance, West Newton, Mass., assignor to Joseph Pollak Corporation, Dorchester, Mass., a corporation of Massachusetts
Application October 1, 1953, Serial No. 383,583
6 Claims. (Cl. 317—198)



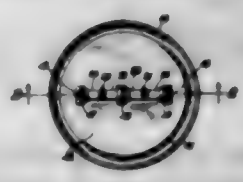
1. In a relay switch of the type described having a relay coil and armature; means including said armature forming a bell crank lever in which said armature forms an arm on one side of the pivot of the lever with the other arm on the other side of the pivot, said pivot including a pivoted rod, a plastic sheet element having the surface characteristics of a smooth durable waxlike surface wrapped about said pivoting rod and providing a self lubricating bearing for the rod, and means securing said pivoting rod in its pivoting position within the plastic sheet.

2,847,622
ELECTROLYTIC CAPACITOR
Roelof Dirk Bügel, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 9, 1953, Serial No. 367,002
Claims priority, application Netherlands July 10, 1952
4 Claims. (Cl. 317—230)



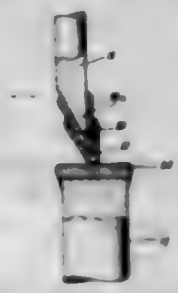
1. An electrolytic capacitor comprising an enclosure having an apertured insulating wall portion, and an anode connection mounted in the aperture of said wall portion for effecting external circuit connection to the inside of said enclosure, said connection comprising a rivet member constituted of film-forming metal extending through the aperture of said insulating wall portion and riveted to said wall portion, and having a head within said enclosure, a supply strip constituted of film-forming metal disposed within said enclosure and clamped between the rivet head and the inner surface of the insulating wall portion, and a layer of non-film-forming metal disposed under the rivet and in electrical contact with the rivet and the supply strip, the head of said rivet completely covering said layer, and an external connecting member clamped between another part of said rivet and the outer surface of said insulating wall portion.

2,847,623
FULL WAVE RECTIFIER STRUCTURE AND METHOD OF PREPARING SAME
Jay W. Thornhill, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application July 27, 1955, Serial No. 524,744
10 Claims. (Cl. 317—234)



1. A structure for use as a full wave rectifier comprising a pair of semiconductor elements each characterized by an n-type region and a p-type region with a p–n junction formed therebetween, a metallic coating embracing an area of the surface of each said element in its n-type region, a substantially pure layer of tin overlying each said metallic coating, a conductor fixed in common to said tin layers, and conductive means attached to the p-type regions of said elements.

2,847,624
SEMICONDUCTOR DEVICES AND METHODS
Irwin Goldman, Malverne, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application February 24, 1955, Serial No. 490,269
13 Claims. (Cl. 317—236)

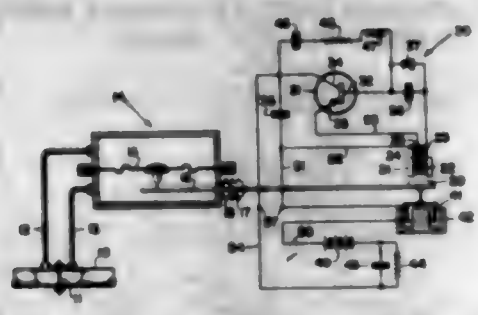


1. In the manufacture of a translating device, the steps including depositing a doping agent onto a metallic electrode, electrolytically depositing a plating of germanium onto said electrode and heat treating the assembly to diffuse the doping agent into the plating of germanium.

2,847,625
ELECTRICAL CONTROL APPARATUS
William J. Popowsky, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application July 9, 1954, Serial No. 442,264
20 Claims. (Cl. 318—28)

19. An electrical transducer comprising a transistor oscillator having a tapped inductance coil, a transistor having a base electrode, emitter electrode, and collector electrode, said emitter electrode being connected to the

tap of said coil and said base and collector electrodes being connected to the ends of said inductance coil, variable responsive means including a movable member for varying the signal feedback amplitude of said coil and thereby the amplitude of oscillation of said oscillator, a



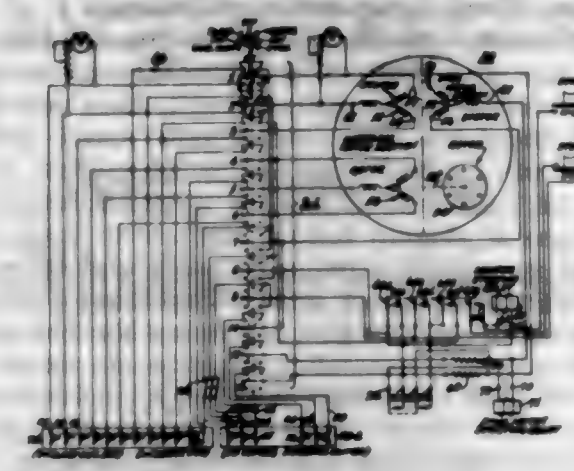
two terminal source of power connected to said oscillator so that variations in oscillation of said oscillator produce variations in the current flowing from said source, and means responsive to the current flowing from said source connected to produce a balancing force on said movable member.

2,847,626

MOTOR CONTROL SYSTEM

James L. Pettus, Encino, Calif., assignor to Radio Corporation of America, a corporation of Delaware

Application October 8, 1954, Serial No. 461,059
7 Claims. (Cl. 318—42)



1. A motor control system comprising, in combination, a plurality of drive motors, each motor including a three-phase synchronous motor section having a stator and a rotor, and an independent, three-phase induction motor section developing a substantially larger torque than said synchronous motor section, said induction motor section including a rotor mechanically connected to the rotor of said synchronous motor section, and a stator; connection means for a source of three-phase power; first switch means for connecting the connection means for two of the phases of said power to the stator of one of said induction motor sections; second switch means for connecting, in parallel, all synchronous motor section stators, all induction motor section stators, and all induction motor section rotors; and third switch means for connecting the connection means for the third phase of said power to the stator of said one induction motor section, and the connection means for the three-phases of said power to the stator of said synchronous motor section.

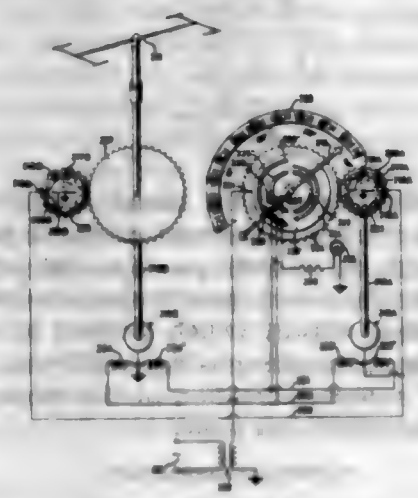
2,847,627

REMOTE-CONTROL APPARATUS FOR POSITIONING A LOAD

Isadore Lieberman, Brooklyn, N. Y., assignor to Novel Products Corp., New York, N. Y., a corporation of New York

Application January 5, 1956, Serial No. 557,533
11 Claims. (Cl. 318—74)

1. An apparatus for positioning a load, comprising a first and a second motor, first circuit-breaker means adapted to be periodically opened and closed by said first motor, second circuit-breaker means adapted to be periodically opened and closed by said second motor, a first energizing circuit for said first motor including both of said circuit-breaker means in parallel, a second energizing circuit for said second motor independent of both of said circuit-breaker means, control means including switch contacts for simultaneously opening and closing both of



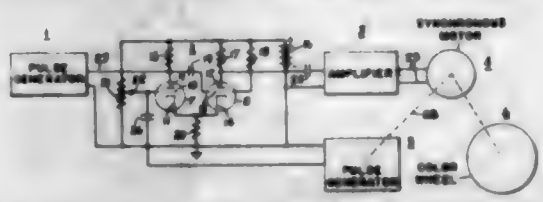
said energizing circuits, the speed ratio of said motors being such that the period of closure of said second circuit-breaker means is at least equal to the open-circuit interval of said first circuit-breaker means but less than a complete cycle of opening and closure of said first circuit-breaker means, and indicator means coupled with one of said motors, the other of said motors being coupled with said load.

2,847,628

SYNCHRONIZING SYSTEM

Robert G. Day, Constantia, and Laurance M. Leeds, Syracuse, N. Y., assignors to General Electric Company, a corporation of New York

Application November 18, 1954, Serial No. 469,716
9 Claims. (Cl. 318—175)



1. In combination, a source of synchronizing pulses, a pulse generator for developing pulses, means for applying said synchronizing pulses to said pulse generator, said pulse generator having means responsive to another series of pulses for controlling the length of pulses generated therefrom, a synchronous motor, means for applying the output of said pulse generator to said synchronous motor for driving said motor in synchronism with said source of synchronizing pulses, means for deriving another series of pulses in constant phase relationship with the rotation of said synchronous motor, means for applying said other series of pulses to said length controlling means of said pulse generator, whereby the phase of rotation of said synchronous motor is automatically synchronized with said source of synchronizing pulses.

2,847,629

INSTANTLY REVERSING MOTOR

Edward J. Schaefer, Fort Wayne, Ind.

Application May 22, 1957, Serial No. 660,850
18 Claims. (Cl. 318—207)

1. In a split phase reversible motor, a pair of axially displaced primary windings, a double throw control switch for connecting either of said primary windings across a supply line as a running winding in a running circuit for running in forward or reverse directions, a phase splitter,

a speed responsive switch arranged to connect the remaining winding and the phase splitter across the line in a starting circuit in parallel relation with the running winding when the speed responsive switch is closed, said speed responsive switch being adapted to open when the motor attains running speed for deenergizing said starting circuit, and means including a rotation sensing movable switch



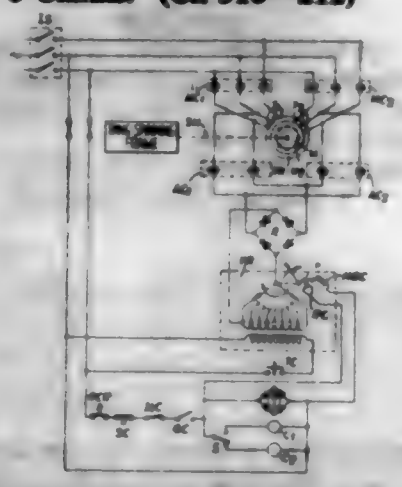
element for providing a shunt circuit around said speed responsive switch upon movement of said control switch between forward and reverse positions for effecting said parallel relation while said speed responsive switch is still open, said rotation sensing switch element being movable for subsequently deenergizing said shunt circuit in response to a change in running direction of the motor after said speed responsive switch has closed.

2,847,630

MACHINES HAVING INDUCTION MOTOR DRIVES

Frederick Brereton Holt, Antrobus, near Northwich, George Peter Fleming Nowlands, Davyhulme, and Alfred Cotton, Bolton, England, assignors to Metropolitan-Vickers Electrical Company Limited, London, England, a British company

Application November 16, 1953, Serial No. 392,426
Claims priority, application Great Britain November 20, 1952
3 Claims. (Cl. 318—212)



1. In combination with electrically driven equipment provided with squirrel cage induction motor drive and requiring to be started smoothly to avoid snatching, means for driving the equipment with controlled starting acceleration comprising a multiple-wound squirrel cage induction machine directly coupled with the equipment, together with means for temporarily applying to one winding of said machine, concurrently with application of energising alternating current to another winding of the machine to start up the equipment, direct current effective to cause the first mentioned winding to exert a retarding action on said machine thereby to limit the starting acceleration of the equipment, said direct current being progressively reduceable from an initial maximum value to permit progressively increasing acceleration during the starting period.

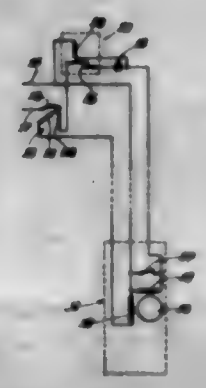
2,847,631

PROTECTION AND REMOTE OPERATING CONTROL OF ELECTRIC MOTORS

Edward J. Schaefer, Fort Wayne, Ind.

Application May 17, 1956, Serial No. 585,573
15 Claims. (Cl. 318—221)

1. In a motor driven installation, an electric motor including a plurality of windings, a current responsive overload protecter in circuit with said windings for stopping said motor when the current to said windings exceeds a predetermined magnitude, and means responsive to a variable characteristic in the installation for short



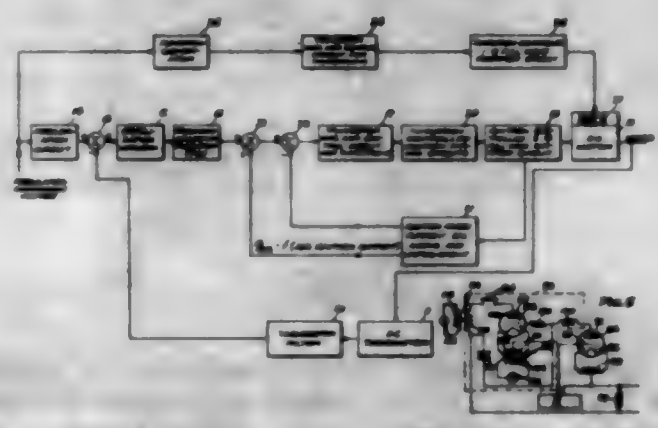
circuiting at least a portion of one of said windings upon said characteristic reaching a predetermined limit whereby said current is increased to exceed said predetermined magnitude.

2,847,632

ELECTRIC MOTOR CONTROLS

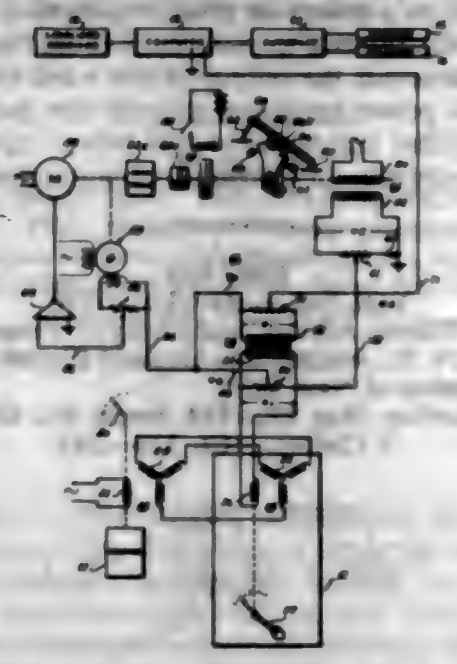
Winston S. Harvey, Bedford, and Henry Elsler, Brighton, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application April 25, 1957, Serial No. 655,143
11 Claims. (Cl. 318—327)



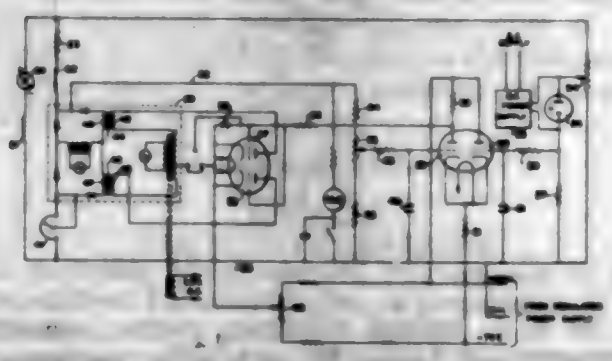
1. A control system for a D. C. motor having a field winding and an armature, comprising grid-controlled gaseous-discharge means for generating the rated value of D. C. voltage for a field winding of the motor, a plurality of controlled gaseous-discharge devices for generating the rated value of D. C. voltage for the armature winding of said motor, means for obtaining voltages proportional to the current through each controlled gaseous discharge device and means for obtaining a voltage proportional to the average current through the controlled gaseous discharge devices, means for comparing these proportional voltages and means for applying any resulting difference voltage to the control means of the controlled gaseous discharge device the current through which varies from the average in such polarity and amplitude as to correct for the deviation of its current from the average current, means for generating a voltage proportional to the speeed of the motor, a variable source of reference voltage, means for comparing said speed-indicating voltage to said reference voltage, means under control of the difference voltage for controlling the output of the controlled gaseous-discharge voltage-generating means for the armature, and means under control of the reference voltage for controlling the output of the controlled gaseous discharge voltage-generating means for the field winding.

2,847,633
ELECTROMOTOR HEADING CONTROL SYSTEM
Seymour L. Finkel, North Arlington, and John Elliot Taylor, New Milford, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application February 25, 1955, Serial No. 490,522
7 Claims. (Cl. 318—489)



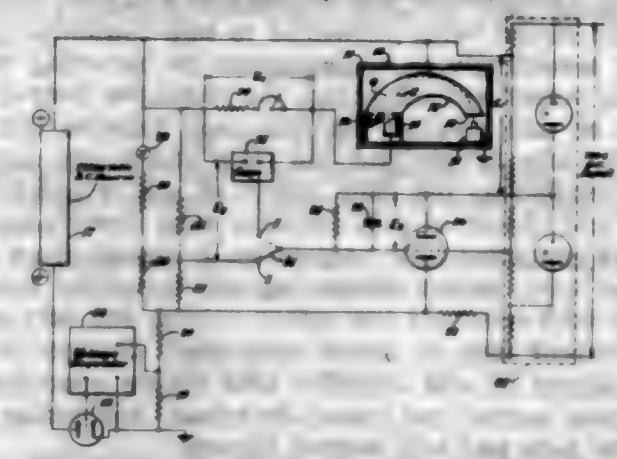
6. In a control system for a craft, transmitter and receiver inductive devices, reference means responsive to the heading of said craft for positioning said transmitter device, heading preselecting means for positioning said receiver device, whereby the signal developed at said receiver corresponds to the error between the actual and preselected headings of said craft, means for applying said signal to first and second outputs, a second signal device for developing an output, motor means for actuating said second signal device, means connecting said first output and said last named output in opposition to operate said motor means by the difference in outputs to actuate said second signal device to reduce said difference to zero, means for limiting the actuation of said second signal device, whereby said difference corresponds to the extent said first output exceeds the actuation limit of said second signal device, and means for adding said difference to said second output.

2,847,634
VOLTAGE AND SPEED REGULATING APPARATUS
Charles W. E. Walker, Powell River, British Columbia, and Oliver M. Juison, Westview, British Columbia, Canada, assignors to Powell River Company Limited, Vancouver, British Columbia, Canada, a corporation of British Columbia
Application December 6, 1954, Serial No. 473,376
5 Claims. (Cl. 322—28)



2. Apparatus for regulation of a direct current generator having a shunt field winding, comprising a magnetic amplifier having a control circuit for control of saturation in said amplifier and having a primary circuit including two series connected primary windings, means for supplying said control circuit with a voltage proportional to errors in regulation of said generator; said primary circuit comprising in series connection in this order; said primary windings, a first, a second, a third and a fourth direct current rectifier, the first and fourth rectifiers being connected in the same polarity and the second and third rectifiers being connected in opposite polarity to the first and fourth; a source of alternating current connected to the common connection between the second and third rectifiers and the common connection between said primary windings; said field winding and a source of direct current being series connected across the second and third rectifiers, said source of direct current being connected in such polarity as to supply current through the output voltage of said generator with a predetermined reference voltage thereby obtaining a difference voltage proportional to errors in regulation of said generator, a voltage amplifier for amplifying said difference voltage, and connections for supplying the amplified difference voltage to the control circuit of the magnetic amplifier, the voltage amplifier and the magnetic amplifier having time constants which are short compared to that due to the inductance of said shunt field winding.

2,847,635
ELECTRICAL REGULATING APPARATUS INCLUDING AN IONIC CURRENT REGULATOR
Howard W. Brackney, Oak Ridge, Tenn., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application February 4, 1946, Serial No. 645,458
5 Claims. (Cl. 323—20)

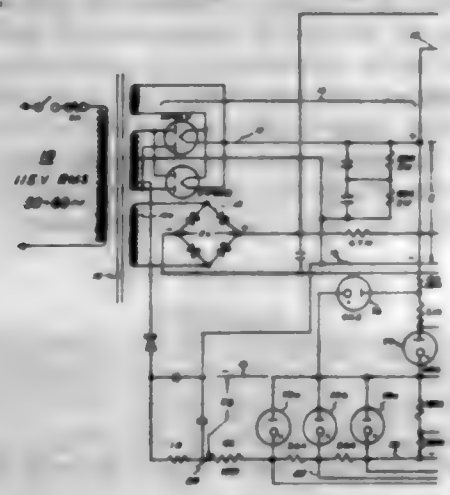


1. In apparatus in which a load voltage is derived from a voltage divider having several segments in series, a primary voltage source connected across the divider, a regulator associated with the primary source for varying the magnitude of the source voltage to maintain constant the voltage drop across one of the segments of the divider, an auxiliary voltage source connected across another segment of the divider, means responsive to an operating condition of the apparatus for varying the magnitude of the auxiliary voltage within a known range, means responsive to a portion of the voltage drop across said other segment for maintaining constant the auxiliary voltage at a value substantially midway its operating range, and means for rendering the last-mentioned responsive means operative whenever the first-mentioned responsive means is rendered inoperative.

2,847,636
DIRECT CURRENT POWER SOURCE
Conrad G. De Blasio, Middletown, N. J.
Application August 29, 1956, Serial No. 605,133
11 Claims. (Cl. 323—22)

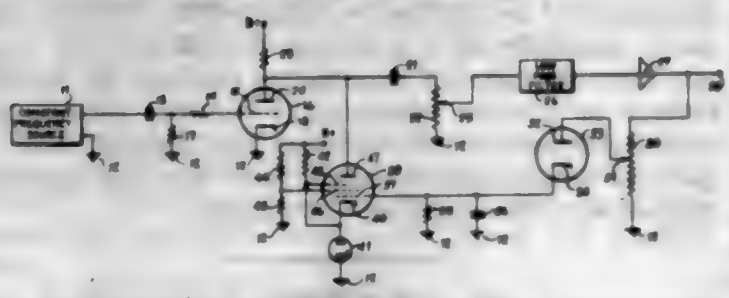
1. In a direct current power source of the character described, lines respectively positive and negative, a control element series-connected in said positive line, means for supplying and applying direct current input voltage

across the respective input terminals of said lines, the potential at said negative line being permanently fixed equivalent to a ground, a third line, means for supplying and applying across said negative line and said third line a reference potential under the condition whereat the potential of said third line is always negative with respect to the potential of said negative line, a first resistance and a second resistance series-connected with respect to each other and constituting jointly a constant-current divider connected across said third line and the output terminal of said positive line, said power source embodying an electrical bridge configuration wherein said input voltage with said control element and with said reference potential forms one arm of said bridge and wherein said first and second resistances form the other



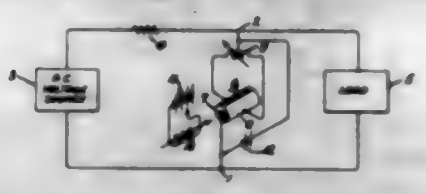
arm of said bridge, an input balanced detector tube constituting a comparator and having grid and plate circuits, said grid circuit being connected to said constant-current divider accordingly to be responsive to occurring variations in output voltage across the respective output terminals of said positive line and said negative line, an amplifier tube having grid and plate and screen circuits, means connecting the plate circuit of said detector tube to the grid circuit of said amplifier tube thereby to render said amplifier tube responsive to signals from said detector tube, means connecting said amplifier tube to operate with relatively low screen voltage and very small plate current thus to permit only small changes in the plate current of said amplifier tube during operation of said power source, and means electrically connecting said amplifier tube and said control element.

2,847,637
VOLTAGE REGULATOR FOR A. C. POWER SUPPLIES
Boris F. Grib, Huntington Station, N. Y., assignor to Philamon Laboratories, Inc., Westbury, Long Island City, N. Y., a corporation of New York
Application September 21, 1956, Serial No. 611,284
6 Claims. (Cl. 323—22)



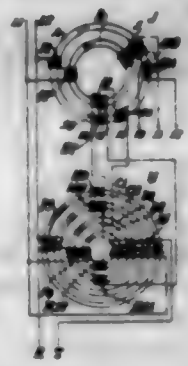
1. An alternating current power amplifier power supply, comprising a source of substantially constant frequency, a wave form squarer stage coupled to said source, a bandpass filter coupled to the output of said wave form squarer stage, an amplifier coupled to said bandpass filter to receive the filtered output of said filter, a rectifier adapted to rectify at least a portion of output of said amplifier, said rectifier having a positive and a negative output terminal, a shunting tube having its control grid connected to the positive terminal of said rectifier, a voltage reference device connected between the cathode of said tube and the negative output terminal of said rectifier for maintaining said cathode at a substantially constant reference voltage with respect to said negative terminal, resistive means connecting the junction of said voltage reference tube and said cathode to a source of positive potential, and means connecting the cathode-to-plate path of said pentode in a shunt circuit across the output of the wave form squarer stage of said power amplifier, whereby the output voltage of said amplifier and hence of said power supply is regulated with reference to a voltage reference device.

2,847,638
VOLTAGE REGULATOR
Donald A. Wilbur, Albany, and Philip H. Peters, Jr., Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application May 27, 1954, Serial No. 432,634
5 Claims. (Cl. 323—29)



1. A voltage regulator comprising a source of voltage to be regulated, a magnetron discharge device having a cathode and an anode electrode, a resonant output system including said anode electrode, means for producing a magnetic field along the space between said anode and cathode, an impedance, means coupling said cathode and said anode respectively through said impedance to said voltage source to produce an electric field between said cathode and said anode and operate said magnetron at the resonant frequency of said output system whereby the low dynamic resistance of the magnetron causes a large current change therethrough corresponding to relatively small voltage changes in said source to obtain a regulated voltage across said discharge device having a magnitude determined by the strength of said magnetic field and the resonant frequency of said output system.

2,847,639
AUTOMATIC VOLTAGE STABILISING DEVICES FOR A. C. CIRCUITS
Harry Howe, Hale Barns, England
Application September 7, 1954, Serial No. 454,426
Claims priority, application Great Britain September 9, 1953
9 Claims. (Cl. 323—45)



1. An A. C. voltage stabilizing system, comprising a pilot transformer having for each phase, two closed core elements made of materials of dissimilar magnetic characteristics, at least one primary winding for energizing the core elements, secondary windings linked respectively with one and with two core elements per phase, and adapted to yield two output voltages which are equal only

when the input voltage is at its normal value; and a booster unit having at least two pairs of closed core elements, a primary winding in each phase for energizing the core elements, two exciting windings each associated with at least one core element per phase and arranged non-inductively with respect to the primary windings and each receiving one of the secondary voltages from the pilot transformer, and at least one secondary winding per phase connected between the supply system and the distribution circuit to supply a corrective voltage when necessary.

2,847,640

DIELECTRIC VOLTAGE DIVIDER

George E. Pihl, Abington, Mass., assignor, by mesne assignments, to Acton Laboratories, Inc., Acton, Mass.

Application March 4, 1954, Serial No. 414,206
1 Claim. (Cl. 323—79)



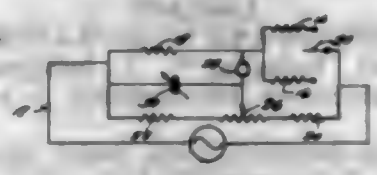
A voltage divider having capacitance and resistance comprising a casing containing a liquid dielectric having a finite resistance characteristic, at least two of parallel flat fixed electrodes immersed in said dielectric liquid, and a third immersed electrode movable in a circular path between said fixed electrodes, said path being perpendicular to the planes of said fixed electrode.

2,847,641

METHOD FOR ANALYZING WHITE FUMING NITRIC ACID

John D. Clark, Kinnelon, N. J.

Application December 1, 1953, Serial No. 395,626
3 Claims. (Cl. 324—30)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. The method of analyzing white fuming nitric acid consisting in dividing the acid into three parts, one part constituting the original acid, a second part constituting a first concentration of the acid in water, and a third part constituting a second concentration of the acid in water, bringing each of said parts to the same temperature, measuring the electrical resistance of each part, determining the ratio of the value of the electrical resistance of the first part to the value of the electrical resistance of the second part, determining the ratio of the value of the electrical resistance of the second part to the value of the electrical resistance of the third part, and, thereafter, evaluating these ratios according to a previously calibrated chart having one series of curves representing the percentage of water in the acid and having another series of curves representing the percentage of nitric dioxide in the acid.

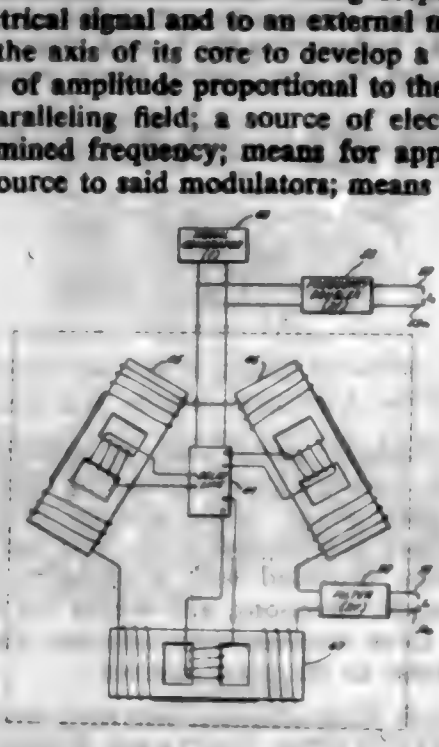
2,847,642

FLUX GATE COMPASS

David B. Smith, Meadowbrook, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application May 10, 1952, Serial No. 287,172
2 Claims. (Cl. 324—43)

1. In combination: first, second and third magnetic modulators, each of said modulators being provided with a core of ferromagnetic material, said cores having their respective longitudinal axes disposed in a predetermined common plane and displaced from each other by 120 degrees, each of said modulators being responsive to an applied electrical signal and to an external magnetic field paralleling the axis of its core to develop a varying electrical signal of amplitude proportional to the intensity of said axis paralleling field; a source of electrical signals of predetermined frequency; means for applying signals from said source to said modulators; means for deriving,



from said modulators respectively, signals developed by said modulators in response to said applied signals in mutual 120 degree phase relation; means for additively combining said derived signals to produce a single resultant signal; means for selecting from said single resultant signal only components of substantially twice said predetermined frequency; and means for deriving from said source a signal of reference phase for said derived components.

2,847,643

DETECTING DEVICE

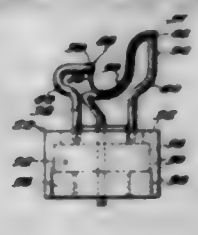
Deslonde R. de Boisblanc, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application April 9, 1951, Serial No. 220,113
7 Claims. (Cl. 324—71)



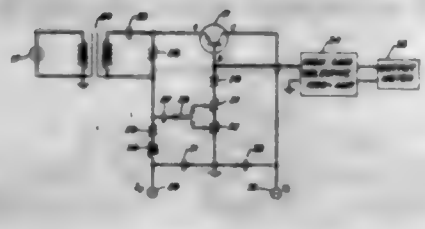
7 Apparatus to detect an ion producing chemical reaction comprising an electrically conductive ceramic resistance element adapted to be positioned directly within the region of the reaction to be detected, a first amplifier adapted to pass fluctuating voltage signals, the input terminals of said first amplifier being connected to respective end terminals of said resistance element, a first capacitor having one terminal thereof connected to the first output terminal of said first amplifier, a unidirectional current conducting element having one terminal thereof connected to the second terminal of said first capacitor, a second amplifier, the second terminal of said conducting element being connected to the first input terminal of said second amplifier, means connecting the second output terminal of said first amplifier to the second input terminal of said second amplifier, a first resistor having one terminal thereof connected to the second terminal of said first capacitor, the second terminal of said first resistor being connected to the second output terminal of said first amplifier, a second resistor having one terminal thereof connected to the first input terminal of said second amplifier, the second terminal of said second resistor being connected to the second input terminal of said second amplifier, a second capacitor connected in parallel with said second resistor, and current indicating means connected to the output terminals of said second amplifier.

2,847,644
HIGH SENSITIVITY ELECTROSCOPE
Francis R. Shonka, Riverside, and Anthony J. Ohlenbusch, Lemont, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application April 14, 1954, Serial No. 423,264
5 Claims. (Cl. 324—109)



3. An electrometer comprising, in combination, fiber support means, an electrically conducting fiber totally disposed in a single plane in the absence of electrostatic forces and affixed at both ends to the fiber support means, said fiber being provided with a plurality of adjacent bends in opposite directions, and means for applying an electrostatic force between two adjacent bends of the fiber and normal to the plane thereof.

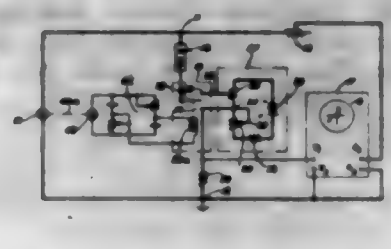
2,847,645
NULL-TYPE TRANSISTOR ALPHA MEASURING SET
Donald E. Thomas, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 23, 1955, Serial No. 548,580
8 Claims. (Cl. 324—158)



2. In combination with a transistor having an emitter electrode, a collector electrode, and a base electrode, an arrangement for measuring the current amplification factor of said transistor which comprises means to bias said emitter electrode in the forward direction, means to bias said collector in the reverse direction, a potentiometer having a resistance arm connected between said collector and base electrodes and a movable contact on said resistance arm, an input signal source connected between said emitter electrode and said movable contact, and null-reading voltage measuring means connected between said collector and base electrodes substantially in parallel with said resistance arm, whereby the current amplification factor of said transistor is represented by the position of said movable contact on said resistance arm at which a null indication is obtained on said voltage measuring means and the accuracy of representation is independent of fluctuations in the amplitude of the signal produced by said source.

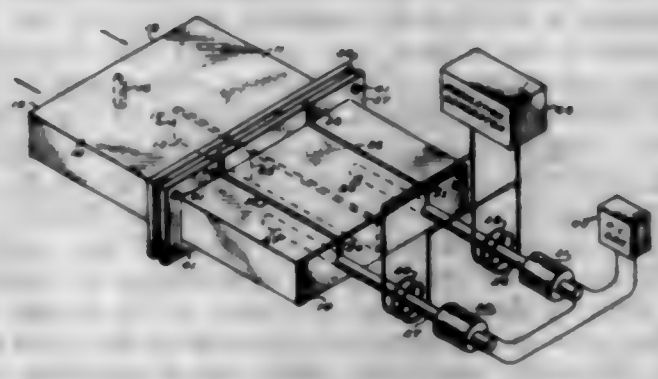
2,847,646
DIODE TEST SET
Frank C. Marino, Montclair, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 1, 1957, Serial No. 656,301
10 Claims. (Cl. 324—158)

1. Means for deflecting the electron beam in a cathode ray oscilloscope to display on the screen thereof predetermined portions of the electric current conduction characteristics of an impedance device, said means comprising a source potential for generating a cyclically repeating output wave of varying amplitude and polarity, switching means, means for actuating said switching means in response to predetermined portions of said output wave, a source of direct potential, means including said switching means for cyclically first connecting said impedance device in a series loop circuit with said variable potential source during a portion of said output wave of one polarity for biasing said device into conduction on a first predetermined portion of its conduction characteristic, said last-mentioned cyclical means then connecting said source of direct potential in series with said impedance device in said series loop circuit during a portion of said output wave of different polarity for biasing said device into conduction on a second pre-



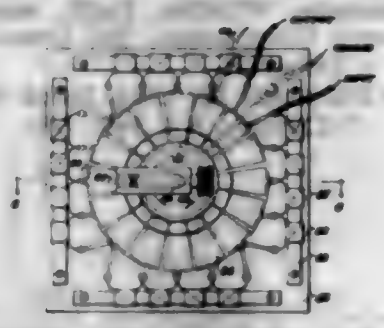
determined portion of its conduction characteristic, means connected to said loop circuit for deriving therefrom a first signal which is a function of the current in said device, means for applying said first signal to said oscilloscope for deflecting said electron beam in a first direction in a sense and an amount which are functions of the sense and amount of the current conducted by said device, means for deriving from said loop circuit and applying to said oscilloscope a second signal which is a function of said output wave amplitude exclusive of the output of said direct potential source for deflecting said electron beam in a second direction in a sense and an amount which are functions of the sense and magnitude, respectively, of said second signal.

2,847,647
MICROWAVE MODULATOR
John F. Zaleski, Valhalla, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application August 9, 1956, Serial No. 602,974
7 Claims. (Cl. 332—17)



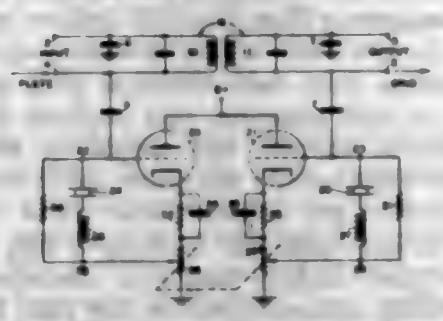
1. A microwave modulator comprising, a waveguide section, a ferrite rod extending through a wall of said waveguide section having one end thereof positioned internally of said waveguide section and extending longitudinally therealong with its other end projecting externally of said waveguide section, a slot interrupting the peripheral wall of said waveguide section extending along the entire longitudinal length thereof, choke coupling means for said waveguide section, said choke coupling means comprising a pair of flanges insulated from each other, one of said flanges being affixed to an end of said waveguide section and being provided with a slot forming an extension of the slot in the wall of said waveguide section, and means coupled to the end of the rod exterior to said waveguide section for modulatingly magnetizing said rod.

2,847,648
PRINTED DELAY LINE
Eugene S. Wendelkowski, Hempstead, and Alfred C. Walker, Levittown, N. Y., assignors to Control Electronics Company, Inc., Huntington, N. Y.
Application February 2, 1954, Serial No. 407,760
2 Claims. (Cl. 333—29)



1. A variable delay line comprising a plurality of coils connected in series, a plurality of condensers each connected from one of said coil connections and to the other side of the line, said condensers comprising a plate of di-electric material, a conductive element on one side of said plate, and a plurality of separate conductive elements arranged in a circle on the other side of said plate each of said members being connected to one of said coil connections, said coils being mounted on said plate and a switch mounted on said plate, and comprising a rotatable wiper adapted to contact said separate conductive elements to thereby provide a variable delay line.

2,847,649
VARIABLE BANDWIDTH DOUBLE-TUNED TRANSFORMER
John Carl Seddon, Alexandria, Va.
Application August 26, 1955, Serial No. 530,914
6 Claims. (Cl. 333—72)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. An improved double-tuned transformer comprising two inductively coupled parallel resonant tuned circuits, frequency sensitive variable impedance means shunting at least one of said parallel resonant tuned circuits, said frequency sensitive variable impedance means comprising a piezoelectric crystal element and an inductance connected in series across its respective tuned circuit of the double-tuned transformer, said crystal element being parallel resonant at substantially the same frequency as the tuned circuit it shunts, said inductance having a magnitude operative to resonate with the equivalent capacitance of said crystal element at the parallel resonant frequency of the crystal, plus means for varying the impedance of said frequency sensitive impedance means.

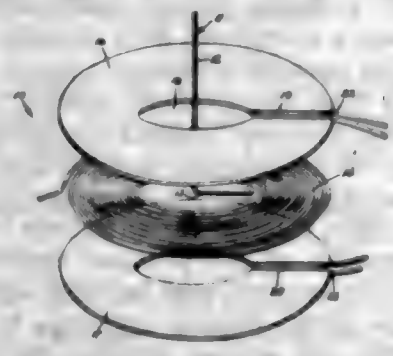
2,847,650
SPLIT COLLAR INSULATION FOR STATIONARY ELECTRICAL INDUCTION APPARATUS
Andrew Glassmoyer, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application April 4, 1956, Serial No. 576,118
10 Claims. (Cl. 336—197)

1. In a stationary electrical induction apparatus of the type comprising a plurality of leg members of magnetic material joined at their respective ends by a pair of yoke members of magnetic material, having electrical windings on at least one of said legs with annular disk shaped insulating means at the ends of said windings and having split collar insulating means adjacent said disk shaped means for transmitting axial clamping forces to said winding from coil clamp means, said split collar means and disk shaped insulating means being axially separated by radially extending spacing means, means for preventing



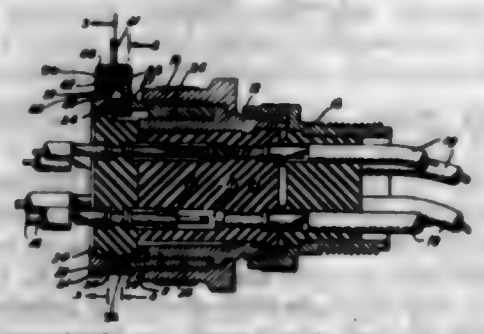
displacement of said split collar insulating means with respect to said disk shaped insulating means comprising a first portion of each of said radially extending spacing means rigidly affixed to said split collar means and a second portion of each of said radially extending spacing means being rigidly affixed to said disk shaped means, at least a part of respective said first and second portions being radially overlapped.

2,847,651
COUPLING TRANSFORMER FOR RADIO FREQUENCY HEATING APPLICATIONS
Charles Schamneck, Farmington, Mich., assignor to Robotron Corporation, Detroit, Mich., a corporation of Michigan
Application June 26, 1956, Serial No. 593,955
4 Claims. (Cl. 336—200)



1. A transformer comprising in combination: a conductor including a portion wound in co-planar, involute form and defining the primary winding; rings on, and in contact with, either side of said portion but electrically insulated therefrom, said rings being of a magnetically conductive material, each ring having a slot therein extending from the inward to the outward edge thereof; a second conductor on each of said rings, and extending therearound from one edge of said slot thereof to the other, said second conductor defining a secondary winding of said transformer.

2,847,652
ELECTRICAL CONNECTOR
Edward Kokalas, Sidney, N. Y., assignor to Bendix Aviation Corporation, Sidney, N. Y., a corporation of Delaware
Application July 24, 1956, Serial No. 599,864
11 Claims. (Cl. 339—45)



7. An explosively operated breakaway connector which comprises two confronting bodies each carrying one of a

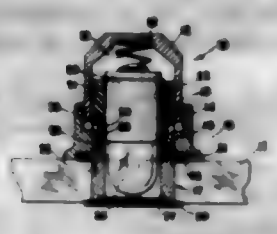
cooperating pair of disconnectable electrical contacts, means including a casing member enclosing the contacts for connecting the bodies in operative relationship, a circumferentially extending recess in the edge portion of a first one of said bodies, said recess having a mouth open toward the second of said bodies, an explosive charge disposed in the recess substantially continuously therealong, the mouth of the recess snugly receiving an edge of the casing member therein outwardly of the explosive charge, a primer in communication with the explosive charge, and angularly spaced shear pins breakable by explosion of the charge extending through a wall of the recess and into openings in the edge of the casing member for holding the first body and the casing member in assembled relationship.

2,847,653
SAFETY ELECTRIC CONNECTION
Arthur Charles Hicks, Westminster, Mass.
Application December 19, 1955, Serial No. 554,061
2 Claims. (Cl. 339—91)



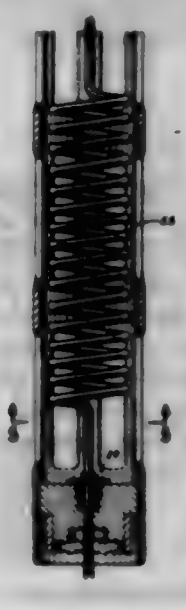
1. A safety electric connection comprising a socketed member, electric contacts therefor, a pronged member for cooperation with the socketed member to make the electric contact, a flange having radial notches on the socketed member, a cylindrical filler element surrounding the prongs on the pronged member, a flange on the filler element spaced from the pronged member, a rotatable sleeve on the filler element between the flange of the latter and the body of the pronged member and held against axial motion thereby, fingers on the sleeve extending forwardly past the filler element for entry into certain of the notches upon motion of the pronged member to insert the prongs into the sockets, and inclined surface locking lugs at the ends of the fingers, said lugs being directed radially inwardly and passing through the notches and behind the notched flange upon rotation of the sleeve relative to both the pronged and socketed members, the inclined surfaces on the locking lugs engaging the flange at the edge thereof directed away from the pronged member and axially camming the latter tightly into engagement with the socketed member.

2,847,654
LAMP SOCKET FOR EDGE LIGHTED PANEL
Maitland J. Peak, Malibu, and Rodger H. Jensen, Los Angeles, Calif., assignors to Coastal Manufacturing Corporation, a corporation of California
Application June 7, 1956, Serial No. 589,898
5 Claims. (Cl. 339—130)



5. A lamp socket for mounting in an aperture of an edge lighted panel, said socket comprising: a generally cylindrical fixture dimensioned to be received in said aperture and extend therethrough, said fixture having one end protruding above one surface of said panel; said fixture comprising a cylindrical plastic shell, a conducting member imbedded in said shell and exposed on the inner surface of said shell, and an increased diameter flange connected to said conducting member exterior of and adjacent the other end of said fixture; a nut coupled to the outer periphery of said one end; and, a cap threadedly connected to the inner surface of said nut.

2,847,655
LOGGING DEVICE
Glenn A. Schuerman, Whittier, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application December 28, 1954, Serial No. 478,147
3 Claims. (Cl. 340—18)

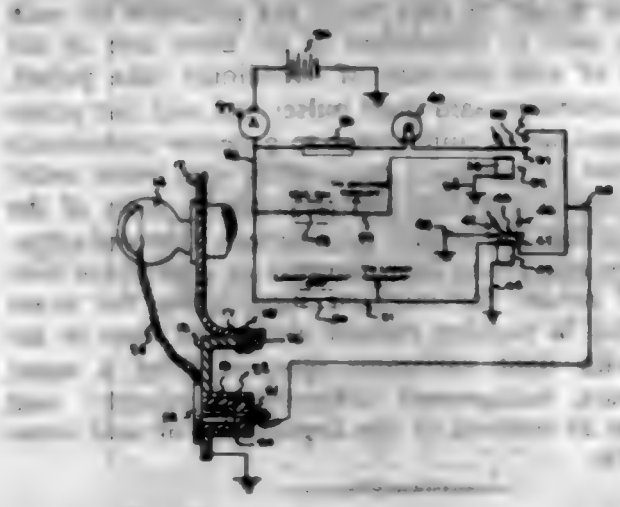


3. A logging instrument comprising an electrical plug which is connected to a rigid hollow tube, a resilient hollow tube rigidly affixed to the rigid hollow tube so that a passageway is formed from the plug through the rigid hollow tube into the resilient hollow tube, the resilient hollow tube being coiled in the form of a spring, means joining a detector to the end of the resilient hollow tube to form a passageway from the rigid hollow tube through the resilient hollow tube to the detector, electrical conductors extending from said electrical plug through said passageways to said detector, said resilient hollow tube being adapted to support the weight of said detector and to absorb substantially the entire cable break energy, a collar affixed to the detector, said collar surrounding the resilient hollow tube and forming a ring around the rigid hollow tube slightly larger in diameter than the rigid hollow tube, enlargements on the rigid hollow tube on either side of the collar and so positioned that when the detector is supported by the rigid hollow tube the stops are out of contact with the collar but no appreciable movement of the detector relative to the rigid hollow member may be made without causing the stops to contact the collar.

2,847,656
PROTECTIVE ALARM SIGNAL FOR MOTOR VEHICLES
Marc Ricks, Berkeley, Calif.
Application November 29, 1957, Serial No. 699,587
3 Claims. (Cl. 340—52)

1. A warning apparatus for a motor vehicle provided with a battery having one terminal thereof grounded to the vehicle frame and having the other terminal thereof ungrounded, a key-controlled ignition switch operable by a key from an open position to a closed position, and an ignition circuit connected to said ungrounded terminal through said switch, said apparatus comprising an ignition key operatively engageable in said switch, a body of magnetic metal secured to and depending from said key, a permanently magnetized contact element insulated from the vehicle frame mounted subjacent said switch in a position to be engaged by said body, said body being sufficiently large to electrically connect said contact ele-

ment to the frame of the vehicle when the key is in the switch, a relay having its winding connected between the vehicle frame and said ungrounded terminal through said switch, said relay having a pair of contacts which are closed when said winding is deenergized and open



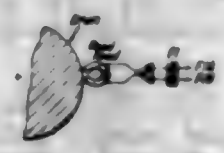
when the winding is energized, and an electrical signal circuit connected from the ungrounded terminal of the battery through said contacts of said relay to said contact element and adapted to be energized when the ignition key is in said switch and said switch is open.

2,847,657

STORAGE OF ELECTRICAL INTELLIGENCE

George Clifford Hartley and Frederick Harry Bray, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application May 19, 1954, Serial No. 430,943
Claims priority, application Great Britain April 26, 1954
6 Claims. (Cl. 340—174)



1. Storage equipment for electrical intelligence comprising a number of stores each capable of storing a related set of intelligence signals including an identification signal, reading means associated with said stores and adapted to scan intelligence stored in said stores seriatim, means for temporarily storing the intelligence signals read by said reading means, means independent of said stores for producing a series of control signals, a comparator connected to said temporary storing means, and to said means for producing control signals for comparing an identification signal stored in said temporary storing means with one of said control signals to determine whether there is a predetermined relation between them, and means responsive to the operation of said comparator for performing a further operation in respect of a store when said comparator finds the said predetermined relation.

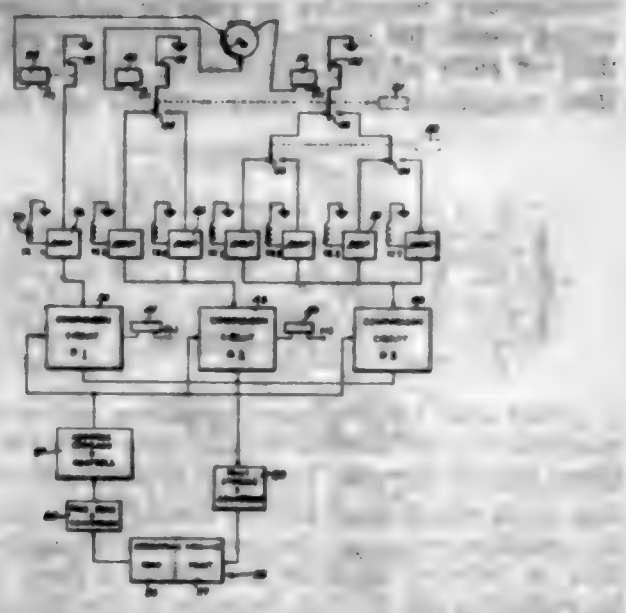
2,847,658

DRUM STORAGE LOOK-UP DEVICE

Francis V. Adams, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 24, 1954, Serial No. 470,881
5 Claims. (Cl. 340—174)

1. A drum storage look-up system for seeking information that is stored in sequence within a track and as between successive predetermined tracks on the drum comprising means for skip-track searching beginning with a central track and normally continuing in a given sequential sense toward an end track to determine the presence or absence of certain information in each track searched, said searching means including means for temporarily storing said certain information, means for comparing the sequential value of said certain information with each successive value of the sequentially stored information in each searched track on said drum to determine whether the information sought is within the



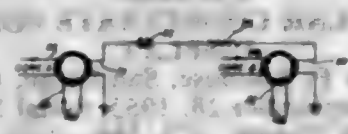
searched track or should be in a track toward or away from said end track with relation the currently searched track, and means responsive to each determination of said comparing means for controlling the direction of each succeeding skip-track search operation with relation to said end track.

2,847,659

COUPLING CIRCUIT FOR MAGNETIC BINARIES

Harold R. Kaiser, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application February 16, 1956, Serial No. 566,042
7 Claims. (Cl. 340—174)



1. In combination, a pair of magnetic cores, each of said cores having at least a signal winding coupled thereto, and a closed bi-directional transfer loop intercoupling the said signal windings of said magnetic cores, said closed loop including at least an electrostatic storage device connected in series circuit relationship with said windings, said storage device having a storage capacity sufficient for storing the energy generated in one of said windings during a change of state of the corresponding magnetic core and being effective to transfer said stored energy through the said one winding to the other winding of said loop upon the change of magnetic state of said corresponding magnetic core for changing the state of the other magnetic core.

2,847,660

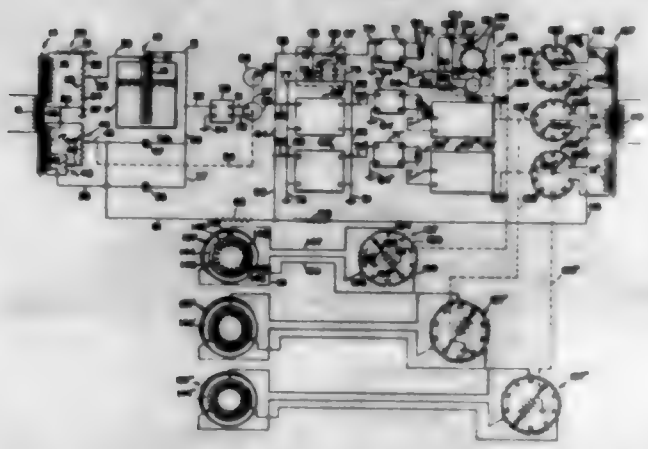
SERVO APPARATUS

John H. Baldwin, Minneapolis, and Kimball C. Cummings, Golden Valley, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application October 2, 1953, Serial No. 383,906
6 Claims. (Cl. 340—187)

1. Indicating apparatus comprising in combination: a signal source; a plurality of signal discriminating means connected to said signal source; a plurality of impedances, the signals from said impedances being of opposite direction to the signal from said source; rebalance means adding the signals from said plurality of impedances and impressing the resultant signal on the input

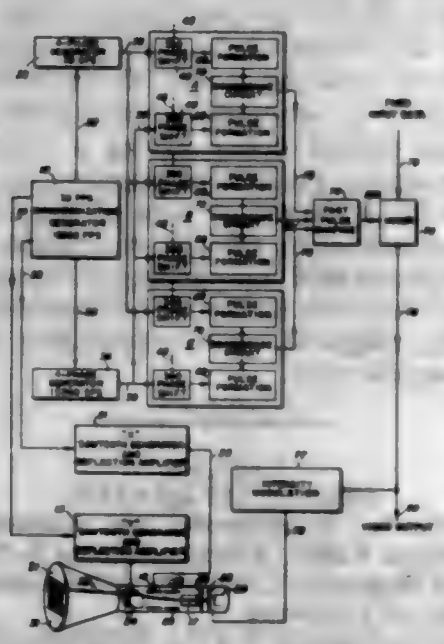
circuits of said plurality of discriminating means such that it opposes the signal from said sources; each of said signal discriminating means being responsive to a different magnitude of the resultant signal regardless of direction; unidirectional actuating means connected to and continuously responsive to each of said signal discriminating means for unidirectionally varying the output signals of each of said impedances from one extreme of their magnitude to the other extreme and thereupon re-



peating the cycle; said actuating means being operative to cause the differential between said resultant signal and the signal from said source to be reduced to a value at which said actuating means becomes inoperative; and a plurality of digital indicator means for digitally indicating the magnitudes of the signal from said source, said indicator means being operatively connected to and unidirectionally driven by said actuating means so that the magnitude of the digits goes from one extreme value to the other extreme and thereupon repeating the cycle.

2,847,661
RECTANGULAR COORDINATE POINT DATA DISPLAY

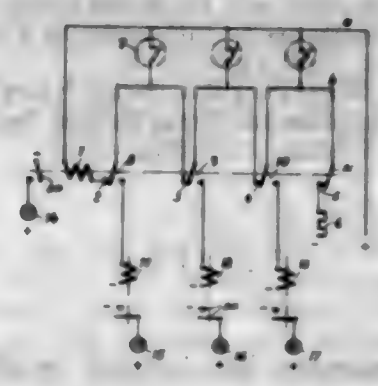
Charles F. Althouse, San Diego, Calif.
Application September 28, 1953, Serial No. 382,881
14 Claims. (Cl. 348—212)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. An apparatus for displaying a plurality of coordinate data points in relation to background information pertinent thereto comprising a cathode ray tube having an electron beam, means for moving said beam relative to the tube screen repetitively over a field of parallel lines generated from harmonically related line and field controlling time bases, means for generating short pulses respectively delayed in time from the initiation of each of said lines in proportion to one of the coordinates of said plurality of coordinate data points, means for generating line pulses having a pulse width equal to and coinciding with the width of said lines, means for respectively delaying said line pulses in time from the initiation of each field of the lines in proportion to the other one of the coordinates of said plurality of coordinate data points, means for combining said short pulses and said line pulses when the same are in coincidence to generate coincidence signals, means for intensity modulating said beam under control of said coincidence signals whereby spots of the beam appear on the screen in positions thereon corresponding respectively to said plurality of coordinate data points, and means for intensity modulating the beam from position to position thereof along said lines in accordance with light variations received from a scene depicting said background information whereby said spots appear in relation to the appearance of said scene on the screen.

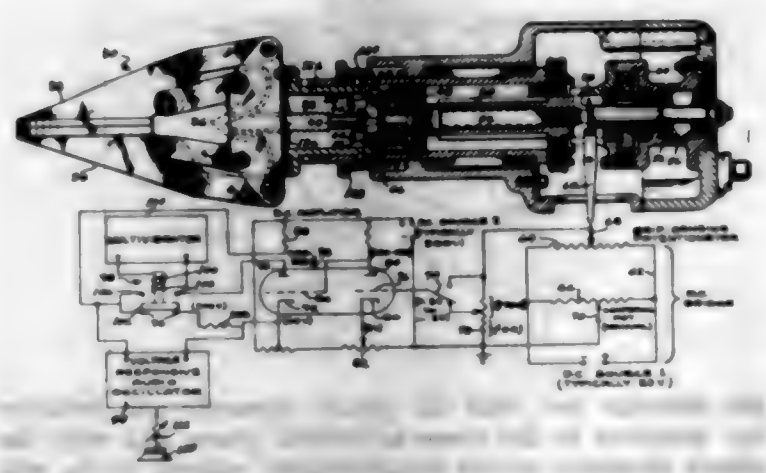
2,847,662
SIGNALLING SYSTEM FOR AUTOMATIC FIRE ALARM INSTALLATION

Erik Gustaf Lindgren, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application March 25, 1955, Serial No. 496,880
Claims priority, application Sweden April 1, 1954
7 Claims. (Cl. 340—227)



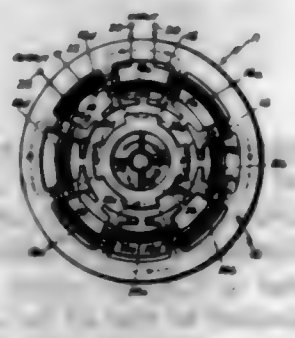
1. A signalling system for an automatic fire alarm installation, said system comprising, in combination, a closed two-wire energizing circuit means, a plurality of cross connections across the two wires each including a detecting temperature sensitive switch contact biased into the open position but closing in response to an ambient temperature above a predetermined value, a common control relay means having and controlling a plurality of pairs of relay contacts, the coil of said relay means and one contact of each pair being included in series in said two-wire circuit means, the said series contacts being closed in the energized state of said relay means, a plurality of supervisory relay means each having one terminal of its coil connected to one wire of said two-wire circuit means and the other terminal to the second contact of a respective pair, and a plurality of indicating means each controlled by a respective one of said supervisory relay means whereby, upon deenergization of said control relay means only due to a fault in said two-wire circuit means, said circuit means is separated in a plurality of networks by opening of said series contacts, each network including a respective supervisory relay means and at least one open detecting contact and whereby, upon closing of one of said detecting contacts and deenergization of said control relay means due to an excessive ambient temperature, said two-wire circuit means are separated in said several networks and the respective supervisory relay means is energized for actuating its signal means over said other contact of the respective pair of relay contacts.

2,847,663
AUDIO GRIP FORCE AND DISCONNECT INDICATOR AND METHOD
Orren J. Stoddard, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application August 8, 1955, Serial No. 526,899
14 Claims. (Cl. 340—282)



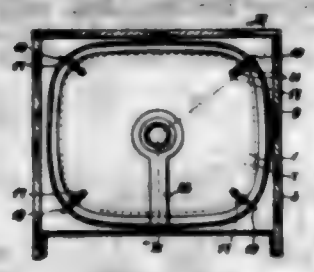
1. In combination with a pair of relatively movable work clamping members, an audio grip force indicator comprising sound producing means, means for producing a reference tone from said sound means having a given pitch, and means operatively associated with one of said clamping members for producing a tone from said sound means having a pitch variable in accordance with the force exerted by said clamping members against an object held therebetween, and means for repeatedly alternating said reference tone, with said variable tone in a cyclic manner.

2,847,664
GYROSCOPE PICK-OFF DEVICES
John W. Lewis, North Easton, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application January 28, 1954, Serial No. 406,858
8 Claims. (Cl. 340—345)



6. In combination, an electromagnetic device including a stationary member and a rotating member, said members each having a plurality of pole pieces, a continuous input winding wound about a first set of pairs of adjacent pole pieces of one of said members, said input winding being supplied with electrical energy for producing magnetic flux in the pole pieces of said one member which is in the same direction in both pole pieces of each pair of said first set but in opposite directions in the pole pieces of adjacent pairs, and a continuous output winding wound about a second set of pairs of adjacent pole pieces of said one member which are displaced from said first set, said output winding being linked by said magnetic flux, and being electrically separated from said input winding.

2,847,665
TELEVISION RECEIVER
Johannes Cornelis Janssen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application March 1, 1955, Serial No. 491,478
Claims priority, application Netherlands March 6, 1954
5 Claims. (Cl. 340—367)



1. A device for mounting a cathode-ray tube having a screen and a metal cone in a receiver cabinet, comprising at least three lugs welded at spaced intervals to said metal cone adjacent to the screen of said cathode-ray tube, said lugs protruding outwardly beyond the outer periphery of said screen, and a supporting member secured in said receiver cabinet and positioned around the periphery of said screen and engaging said lugs.

2,847,666
RANGE GATED DOPPLER RADAR
France B. Berger, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application December 8, 1953, Serial No. 396,883
12 Claims. (Cl. 343—8)

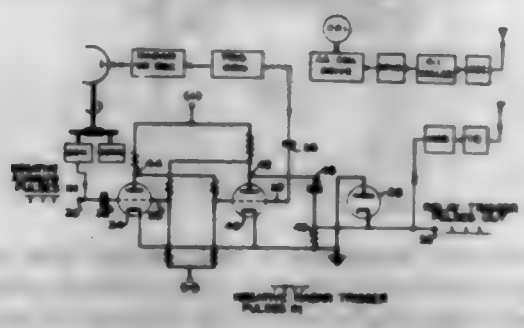


1. A radio echo system for determining the Doppler frequency of pulse echo signals the time duration of which is in excess of the duration of the transmitted pulse signals which give rise thereto comprising, a plurality of separate similar channels having said received echo signals impressed thereon, means for sequentially rendering said channels conductive during limited time intervals, means in each of said channels for producing an electrical quantity the magnitude of which is representative of the Doppler frequency of the signal transmitted therethrough, and means for averaging the electrical quantities produced by each of the several channels.

2,847,667
SYNCHRONIZATION SYSTEM
Chalmers W. Sherwin, Leonia, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 12, 1946, Serial No. 661,595
4 Claims. (Cl. 343—16)

4. In a radar relay system wherein synchronizing pulses are transmitted from a first radar set to a remote radar set and employed thereat both to indicate the time at which said first radar set is triggered to radiate a search pulse and to maintain the radial sweep of the plan posi-

tion indicator in said remote radar set in synchronism with the movement of the rotating scanning antenna of the first radar set, the combination of a source of trigger pulses having a first repetition rate for periodically pulsing said first radar set, means for generating azimuth pulses at equally spaced azimuth angle positions of the directional antenna of said first radar set, said azimuth pulses having a repetition rate which is lower than said first rate, a multivibrator, means for coupling said trigger pulses to



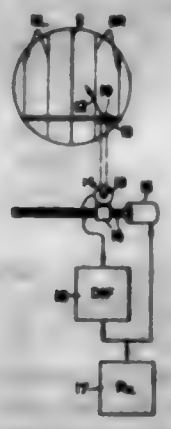
one input of said multivibrator to initiate a rectangular output voltage wave and for coupling said azimuth pulses to a second input of said multivibrator for terminating said output voltage wave, means for differentiating said output voltage wave thus generated whereby positive and negative peaked pulses are produced corresponding to the time of occurrence of the leading and trailing edges respectively of said output voltage wave, and means for transmitting only said positive peaked pulse as synchronizing pulses to said remote radar set.

2,847,668

PILOT'S INDICATORS FOR AIRCRAFT INSTRUMENT LANDING OR APPROACH SYSTEMS

Edward Spence Calvert, Camberley, England, assignor to National Research Development Corporation, London, England, a British corporation

Application July 20, 1953, Serial No. 369,181
Claims priority, application Great Britain July 30, 1952
19 Claims. (Cl. 343—107)



1. An aircraft pilot's instrument approach indicator comprising two elongated indicator elements, mountings supporting said elements for relative translational motion and relative angular motion, means operative under the control of radio beam signals for effecting relative translational motion of said elements in accordance with a function of angular displacement as such of an aircraft from a radio beam about the source of said beam, and means for effecting relative angular motion of said elements in accordance with a function of rate of change as such of said angular displacement.

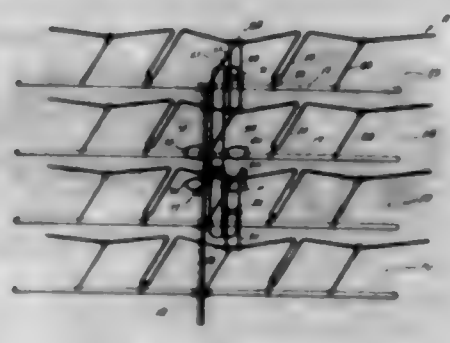
2,847,669

STACKED COPLANAR ANTENNA ARRAY

Joseph V. Fisher, Pittsburgh, Pa.

Application May 28, 1954, Serial No. 433,151
6 Claims. (Cl. 343—727)

1. In a broad band antenna of the character described, a straight reflector bar, a pair of dipole elements, each dipole element comprising a conductor rod formed at an intermediate portion thereof with a U-shaped, relatively narrow loop of a length equal to one quarter of a wave length of an upper V. H. F. television frequency and having its bight portion located closely adjacent to said reflector bar, and respective insulators rigidly and supportingly connecting the bight portions of said loops to



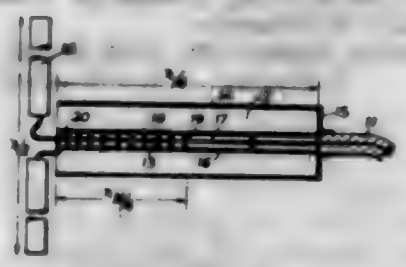
the reflector bar with the dipole elements and reflector bar disposed in the same horizontal plane and with the dipole elements spaced symmetrically relative to the mid point of said reflector bar, the arm portion of each dipole element located outwardly of its loop being substantially V-shaped and facing away from the reflector bar, said V-shaped outer arm portions being in the common horizontal plane of the loops and reflector bar.

2,847,670

IMPEDANCE MATCHING

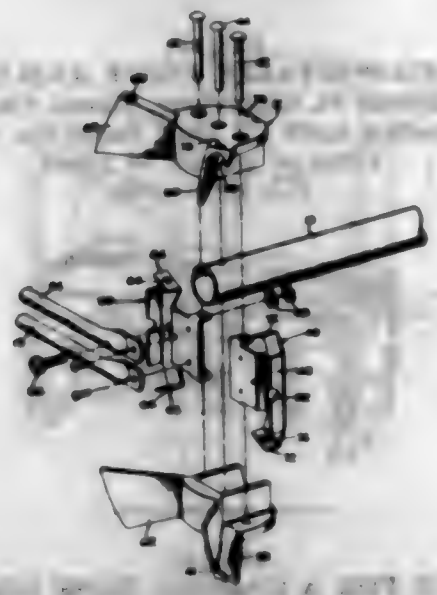
Frederick James Cox, Taplow, England, assignor to British Telecommunications Research Limited, Taplow, England

Application November 12, 1953, Serial No. 391,689
Claims priority, application Great Britain November 26, 1952
6 Claims. (Cl. 343—821)



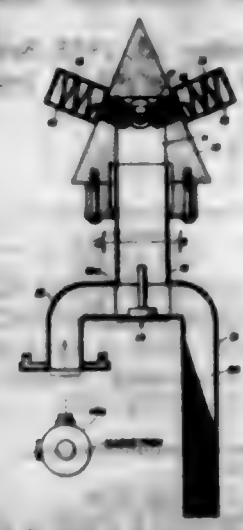
1. Electric apparatus comprising a radio-frequency oscillation source of output impedance Z_1 connected to a load of input impedance Z_2 through an impedance transformer whose impedance can be adjusted over a range including the value $\sqrt{Z_1 Z_2}$ to enable the impedance of the load to be matched to that of the source, the impedance transformer comprising a tube of conducting material, and an inner conductor of substantially the same length as the tube supported substantially coaxially within the tube and being removable therefrom, the inner conductor being supported by spaced discs of insulating material, the planes of the discs being transverse of the longitudinal axis of the tube, each disc having an aperture therein through which the inner conductor is threaded, the diameters of the discs being such that the discs are a sliding fit in the tube, the inner conductor being sufficiently rigid to ensure that when the inner conductor has the discs fitted thereto it can be slid into and out of the tube repeatedly without buckling, and the dimensions of the apertures in said discs being such that the inner conductor is a push fit in the apertures to maintain said discs in set positions on said inner conductor during sliding thereof into and out of said tube.

2,847,671
ANTENNA SYSTEM
Harry K. Lieh, Canoga Park, Calif., assignor to Clear Beam Antenna Corp., a corporation
Application March 27, 1956, Serial No. 574,189
2 Claims. (Cl. 343—833)



1. In an antenna system, releasable means to fix at least one conductive arm of the system in its operative position, said releasable means comprising: a bracket having a projection on one side thereof, first means loosely and pivotally connecting the conductive arm on said one side of said bracket to permit said arm to swing over said projection, second means forming a trough, third means for rotatably mounting said bracket to said second means, and releasable means for fixing said bracket to said trough with said projection overlying said trough, whereby the conductive arm may be fixed in position in said trough by rotating said bracket toward said trough, swinging the conductive arm into said trough, and operating said releasable means to fix securely the position of said projection over the top of said trough.

2,847,672
ANTENNA ARRAYS
George S. Gillie and Darling G. Killion, Fort Wayne, Ind., and Mark N. Haller, Galion, Ohio, assignors to International Telephone and Telegraph Corporation
Application July 13, 1954, Serial No. 597,685
3 Claims. (Cl. 343—895)

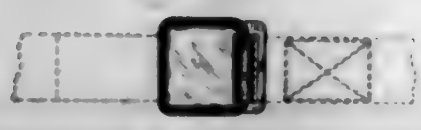


1. An antenna array comprising a circular arrangement of separate radiators of the helix type, the arrangement being characterized by each of the radiators having a probe lead extending into circularly spaced points in a round cavity, said cavity communicating with a round waveguide and with a source of circularly polarized microwave energy so that the wave front passing the plane of the probes energizes the several probes successively and in time phase corresponding to the angular displacement of the probes about the circular wall of the cavity.

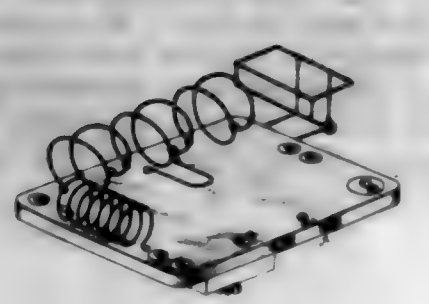
DESIGNS

AUGUST 12, 1958

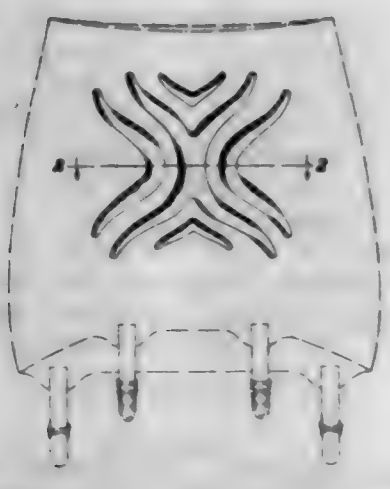
183,338
SEAT BELT BUCKLE
Lloyd L. Anderson, Grand Rapids, Mich., assignor to Jervis Corporation, Grandville, Mich., a corporation of Michigan
Application December 23, 1955, Serial No. 39,463
Term of patent 14 years
(Cl. D17—1)



183,339
TRAY ATTACHMENT FOR A GOLF CART
John W. Bailey, Van Nuys, Calif.
Application November 18, 1957, Serial No. 48,589
Term of patent 14 years
(Cl. D34—5)



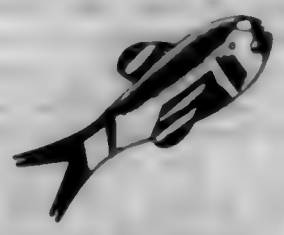
183,340
GIRDLE
Rodney R. Bartchy, Dover, Del.
Application September 11, 1957, Serial No. 47,702
Term of patent 14 years
(Cl. D20—2)



183,341
COMBINED PORTABLE STOVE AND GRIDDLE
Joseph M. Chiaccione, Miami, Fla.
Application April 17, 1957, Serial No. 45,771
Term of patent 14 years
(Cl. D81—10)



183,342
COVER FOR A GARDEN HOSE NOZZLE
Steve Falcetti, Forest Hills, N. Y.
Application September 25, 1957, Serial No. 47,861
Term of patent 3½ years
(Cl. D91—1)



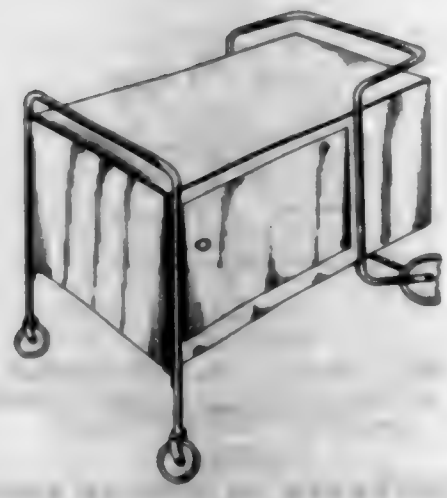
183,343
LOUDSPEAKER CABINET
Robert W. Fuldner, New York, N. Y., assignor to Electro-Voice, Incorporated, Buchanan, Mich., a corporation of Indiana
Application July 26, 1957, Serial No. 47,898
Term of patent 14 years
(Cl. D26—14)



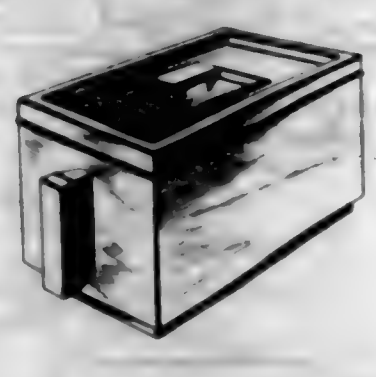
183,344
CHARM OR THE LIKE
Mildred Goldman, New York, N. Y.
Application November 21, 1956, Serial No. 43,869
Term of patent 7 years
(Cl. D45—17)



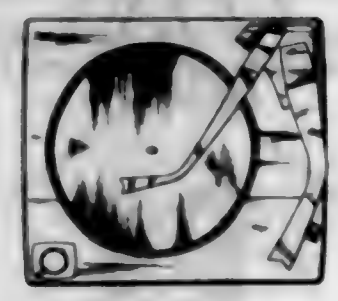
183,345
MOVABLE UTILITY FREEZER CART
Richard A. Gottlieb, Oak Park, Mich.
Application May 23, 1957, Serial No. 44,309
Term of patent 3½ years
(Cl. D14—3)



183,346
GREASE CONTAINER
Helen P. Hardy, Kinston, N. C.
Application November 12, 1957, Serial No. 48,422
Term of patent 3½ years
(Cl. D44—6)



183,347
AUTOMATIC RECORD CHANGER
Jon W. Hauser, St. Charles, Ill., assignor to Glaser-Steers Corporation, Belleville, N. J., a corporation of New Jersey
Application October 3, 1957, Serial No. 47,968
Term of patent 14 years
(Cl. D26—14)



183,348
SWEATER OR SIMILAR ARTICLE
Frank V. Hollerbier, Charlotte, N. C., assignor to Huntley Hosiery Company, Charlotte, N. C., a corporation of North Carolina
Application August 15, 1957, Serial No. 47,378
Term of patent 14 years
(Cl. D3—4)



183,349
COMBINED HELICOPTER AND GLIDER
Clyde Carl Johnson, Inglewood, Calif.
Application June 5, 1957, Serial No. 46,484
Term of patent 14 years
(Cl. D71—1)



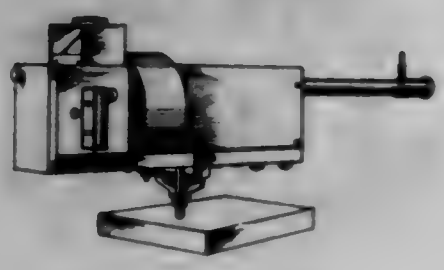
183,350
FLUID DISPENSER
Henry C. Keck and Burnie M. Craig, Pasadena, and Thomas K. Hale, Glendale, Calif., assignors to Dispensers, Inc., Los Angeles, Calif., a corporation of California
Application January 10, 1958, Serial No. 49,190
Term of patent 14 years
(Cl. D44—21)



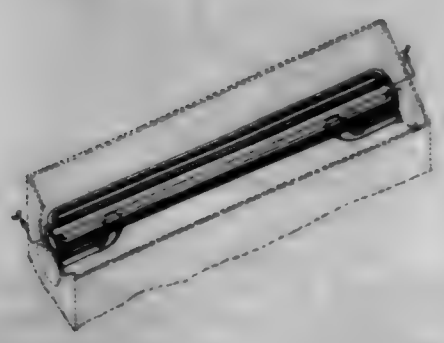
183,351
CHRISTMAS ORNAMENT OR SIMILAR ARTICLE
Hermoush Keljik, Evanston, Ill.
Application August 1, 1957, Serial No. 47,183
Term of patent 7 years
(Cl. D29—1)



183,352
COIN OPERATED PNEUMATIC AMUSEMENT APPARATUS OR SIMILAR ARTICLE
Jerry C. Koci, Barrington, Ill., assignor to Chicago Dynamic Industries, Inc., Chicago, Ill., a corporation of Illinois
Application March 28, 1957, Serial No. 45,473
Term of patent 14 years
(Cl. D34—15)



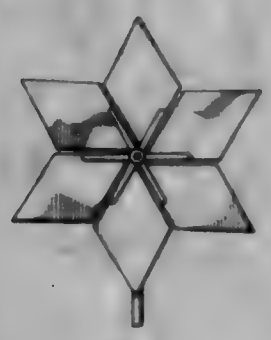
183,353
GLASS CHROMATOGRAPHIC TRAY UNIT
Joseph Kopp, Jackson Heights, N. Y.
Application May 18, 1955, Serial No. 36,988
Term of patent 7 years
(Cl. D16—1)



183,354
SHOE OR SIMILAR ARTICLE
George S. Lahum, Wichita, Kans.
Application February 7, 1958, Serial No. 49,533
Term of patent 14 years
(Cl. D7—7)



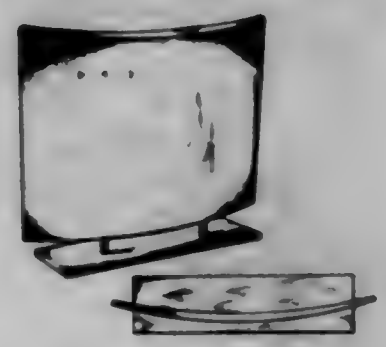
183,355
PINWHEEL TOY
Paul Millard Lewis, Chicago, Ill.
Application May 14, 1957, Serial No. 46,151
Term of patent 7 years
(Cl. D34—15)



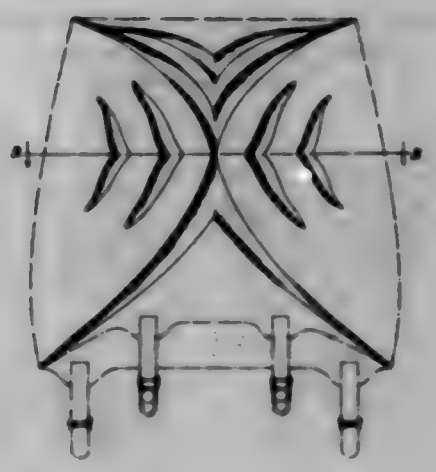
183,356
DOUBLE PINWHEEL TOY
Paul Millard Lewis, Chicago, Ill.
Application May 14, 1957, Serial No. 46,152
Term of patent 7 years
(Cl. D34—15)



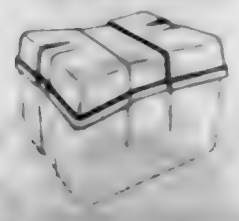
183,357
LOUD-SPEAKER OR SIMILAR ARTICLE
Theodore Lindenberg, West Islip, N. Y., and Raymond Spilman, Darien, Conn., assignors to Pickering Associates, Inc., Oceanside, N. Y., a corporation of New York
Application October 18, 1956, Serial No. 43,405
Term of patent 14 years
(Cl. D26—14)



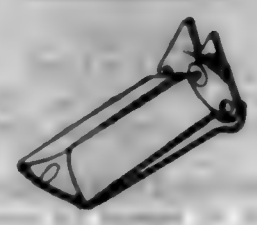
183,358
GIRDLE
Johanna M. Maier, Dover, Del.
Application September 11, 1957, Serial No. 47,695
Term of patent 14 years
(Cl. D20—2)



183,359
BATTERY BOX COVER
George R. Mallory, El Cerrito, Calif., assignor to Kimball Manufacturing Corporation, San Rafael, Calif., a corporation of Delaware
Application July 24, 1957, Serial No. 47,101
Term of patent 14 years
(Cl. D26—6)



183,360
GUNSIGHT
Ralph E. McCabe, Auburn, Calif.
Application March 11, 1957, Serial No. 45,177
Term of patent 14 years
(Cl. D30—1)



183,361
COMBINED DESK AND CONSOLE
Joseph H. McCarthy, Youngstown, Ohio, and Herbert P. Zimmermann, Amityville, N. Y., assignors to The General Fireproofing Company, Youngstown, Ohio, a corporation of Ohio
Application November 8, 1957, Serial No. 48,400
Term of patent 14 years
(Cl. D33—7)



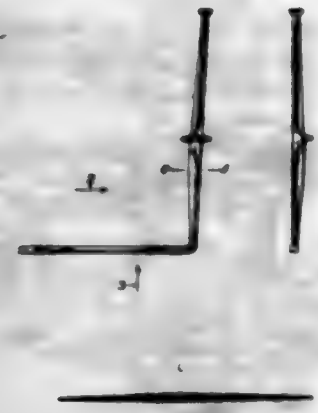
183,362
BINDER FOR PHOTOGRAPHIC SLIDES OR SIMILAR ARTICLE
Clarence B. Mitchell, Chicago, Ill., and Herbert R. Leopold, Havertown, Pa., assignors to Optics Manufacturing Corporation, Philadelphia, Pa., a corporation of Illinois
Application September 30, 1957, Serial No. 47,917
Term of patent 14 years
(Cl. D61—1)



183,363
PHOTOGRAPHIC SLIDE BINDER OR SIMILAR ARTICLE
Clarence B. Mitchell, Chicago, Ill., and Herbert R. Leopold, Havertown, Pa., assignors to Optics Manufacturing Corporation, Philadelphia, Pa., a corporation of Illinois
Application September 30, 1957, Serial No. 47,921
Term of patent 14 years
(Cl. D61—1)



183,364
CAST ALUMINUM FRONT LEG AND ARM FOR FURNITURE
Robert H. Monroe, East Orange, N. J., and Marvin K. Culbreth, Wilton, Conn., assignors to Molin Incorporated, Westbury, N. Y., a corporation of New York
Application November 21, 1957, Serial No. 48,595
Term of patent 14 years
(Cl. D15—8)



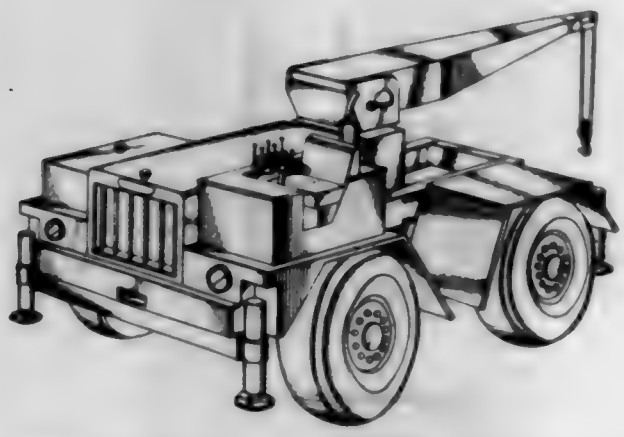
183,365
CAST ALUMINUM REAR LEG AND BACK REST SUPPORT FOR FURNITURE
Robert H. Monroe, East Orange, N. J., and Marvin K. Culbreth, Wilton, Conn., assignors to Molin Incorporated, Westbury, N. Y., a corporation of New York
Application November 21, 1957, Serial No. 48,596
Term of patent 14 years
(Cl. D15—8)



183,366
PHONOGRAPH PICKUP ARM
Joseph Palma, Jr., Wheaton, Ill., assignor to Shure Brothers Incorporated, Evanston, Ill., a corporation of Illinois
Application December 17, 1957, Serial No. 48,929
Term of patent 14 years
(Cl. D26—14)



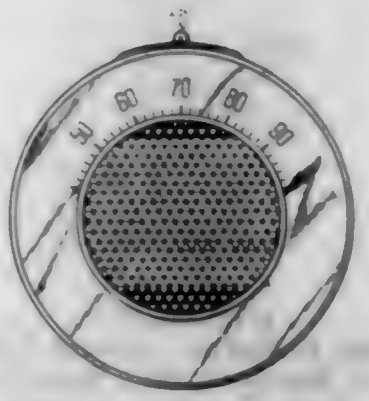
183,367
SELF-PROPELLED CRANE
Glenn S. Park, Streator, Ill., assignor to Anthony Company, Streator, Ill., a corporation of Illinois
Application October 4, 1957, Serial No. 47,972
Term of patent 14 years
(Cl. D14—3)



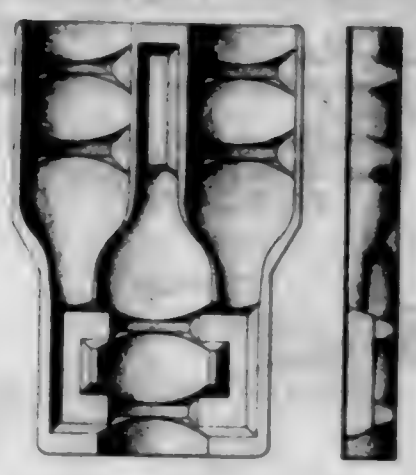
183,368
TOY BANK
Carl F. Peterson and Karl Gust Bergman, Detroit, Mich., assignors to Duro Mold and Manufacturing, Inc., Detroit, Mich.
Application October 17, 1957, Serial No. 48,147
Term of patent 14 years
(Cl. D34—11)



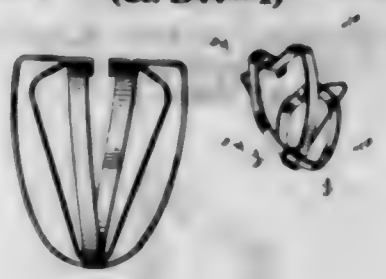
183,369
THERMOSTAT
William A. Ray, North Hollywood, and Mario D. Rosello, Glendora, Calif., assignors to General Controls Co., Glendale, Calif., a corporation of California
Application September 23, 1957, Serial No. 47,868
Term of patent 14 years
(Cl. D52—7)



183,370
BOTTLE PACK
Horace W. Raymond, Waterville, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application December 11, 1956, Serial No. 44,158
Term of patent 14 years
(Cl. D58—13)



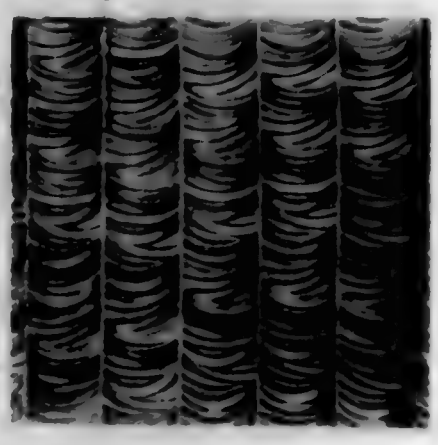
183,371
ELECTRIC MIXER BLADE OR SIMILAR ARTICLE
Earl F. Rutan, Pound Ridge, N. Y., assignor to Loral Electronics Corp., Bronx, N. Y., a corporation of New York
Application March 5, 1958, Serial No. 49,906
Term of patent 14 years
(Cl. D44—1)



183,372
PANEL OF PLASTIC SHEET MATERIAL OR SIMILAR ARTICLE
Arno H. Scheidling, Rowayton, Conn., assignor to L. E. Carpenter & Company, Inc., Wharton, N. J., a corporation of New Jersey
Application November 27, 1957, Serial No. 48,687
Term of patent 14 years
(Cl. D87—3)



183,373
PANEL OF PLASTIC SHEET MATERIAL OR SIMILAR ARTICLE
Arno H. Scheidling, Rowayton, Conn., assignor to L. E. Carpenter & Company, Inc., Wharton, N. J., a corporation of New Jersey
Application November 27, 1957, Serial No. 48,688
Term of patent 14 years
(Cl. D87—3)



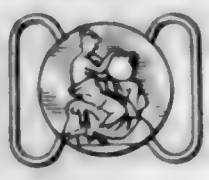
183,374
PANEL OF PLASTIC SHEET MATERIAL OR SIMILAR ARTICLE
Arno H. Scheidling, Rowayton, Conn., assignor to L. E. Carpenter & Company, Inc., Wharton, N. J., a corporation of New Jersey
Application January 3, 1958, Serial No. 49,134.
Term of patent 14 years
(Cl. D87—3)



183,375
DRIVE-IN SALES BUILDING
Richard G. Schorling, Denver, Colo., assignor to Continental Air Lines, Inc., Denver, Colo., a corporation of Nevada
Application June 7, 1956, Serial No. 41,808
Term of patent 14 years
(Cl. D13—1)



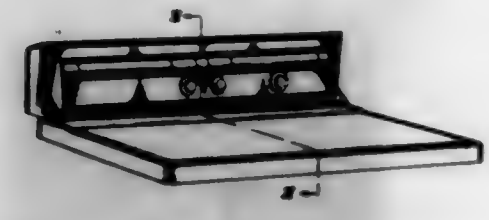
183,376
BELT BUCKLE
Harry E. Stollman, West New York, N. J.
Application January 2, 1958, Serial No. 49,105
Term of patent 3½ years
(Cl. D17—1)



183,377
COMBINED BACKGUARD, CONTROL PANEL, AND TOP FOR A WASHING MACHINE OR SIMILAR ARTICLE

Carl W. Sundberg, Bloomfield Hills, Mich., assignor to Whirlpool Corporation, St. Joseph, Mich., a corporation of Delaware

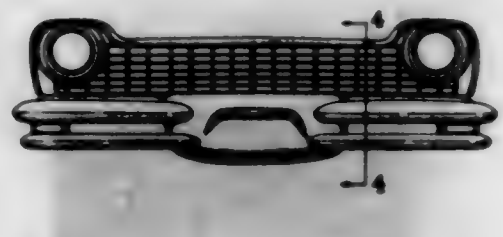
Application June 4, 1957, Serial No. 46,481
Term of patent 14 years
(Cl. D49—1)



183,378
COMBINED BUMPER, GRILLE, AND LAMP UNIT FOR AN AUTOMOBILE

Clifford C. Vess, Clawson, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application July 29, 1957, Serial No. 47,124
Term of patent 7 years
(Cl. D14—18)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 12TH DAY OF AUGUST, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Breer, Karl: *See*—
Hoppe, Peter, Weinbrenner, Muhlhausen, and Breer. Re. 24,514.

Brownlee, Kenneth H., to The Meyercord Co. Machine for applying transfers. Re. 24,516, 8–12–58, Cl. 41—1.

Butler, Robert P.: *See*—
Reader, Joseph T., and Butler. Re. 24,513.

Cederberg, Nels C. Animal holding device. Re. 24,517, 8–12–58, Cl. 119—98.

Dole Valve Co., The: *See*—
Eskin, Samuel G. Re. 24,515.

Eskin, Samuel G., to The Dole Valve Co. Combination over-temperature shut-off and flame safety valve. Re. 24,515, 8–12–58, Cl. 158—142.

Farbenfabriken Bayer Akt.: *See*—
Hoppe, Peter, Weinbrenner, Muhlhausen, and Breer. Re. 24,514.

Hopper, Peter, E. Weinbrenner, C. Muhlhausen, and K. Breer, ½ to Farbenfabriken Bayer Akt., and ½ to Mobay Chemical Co. Process for the manufacture of polyurethane plastics. Re. 24,514, 8–12–58, Cl. 260—2.5.

Lyon, George A. Wheel cover. Re. 24,519, 8–12–58, Cl. 301—37.

Meyercord Co., The: *See*—
Brownlee, Kenneth H. Re. 24,516.

Mobay Chemical Co.: *See*—
Hoppe, Peter, Weinbrenner, Muhlhausen, and Breer. Re. 24,514.

Muhlhausen, Cornelius: *See*—
Hoppe, Peter, Weinbrenner, Muhlhausen, and Breer. Re. 24,514.

Nickerson, Bryan W., Jr. Side wall for tires. Re. 24,518, 8–12–58, Cl. 301—37.

Reader, Joseph T., and R. P. Butler. Steam heating system. Re. 24,513, 8–12–58, Cl. 237—9.

Weinbrenner, Erwin: *See*—
Hoppe, Peter, Weinbrenner, Muhlhausen, and Breer. Re. 24,514.

LIST OF PLANT PATENTEES

Fischer, Carl H., to Selected Glads, Inc. Gladiolus plant. 1,741, 8–12–58, Cl. 47—60.

Germain's, Inc.: *See*—
Lammerts, Walter E. 1,742.

Lammerts, Walter E., to Germain's, Inc. Rose plant. 1,742, 8–12–58, Cl. 47—61.

Motose, Thomas K., to George B. Hart, Inc. Rose plant. 1,740, 8–12–58, Cl. 47—61.

Selected Glads, Inc.: *See*—
Fischer, Carl H. 1,741.

LIST OF DESIGN PATENTEES

Anderson, Lloyd L., to Jervis Corp. Seat belt buckle. 183,338, 8–12–58, Cl. D17—1.

Anthony Co.: *See*—
Park, Glenn S. 183,367.

Bailey, John W. Tray attachment for a golf cart. 183,339, 8–12–58, Cl. D34—5.

Bartchy, Rodney R. Girdle. 183,340, 8–12–58, Cl. D20—2.

Bergman, Karl G.: *See*—
Peterson, Carl F., and Bergman. 183,368.

Carpenter, L. E., & Co., Inc.: *See*—
Scheiding, Arno H. 183,372.
Scheiding, Arno H. 183,373.
Scheiding, Arno H. 183,374.

Chiasclone, Joseph M. Combined portable stove and griddle. 183,341, 8–12–58, Cl. D61—10.

Chicago Dynamic Industries, Inc.: *See*—
Koci, Jerry C. 183,352.

Chrysler Corp.: *See*—
Voss, Clifford C. 183,378.

Continental Air Lines, Inc.: *See*—
Schorling, Richard G. 183,375.

Craig, Burnie M.: *See*—
Keck, Henry C., Craig, and Hale. 183,350.

Culbreth, Marvin K.: *See*—
Monroe, Robert H., and Culbreth. 183,364.
Monroe, Robert H., and Culbreth. 183,365.

Dispensers, Inc.: *See*—
Keck, Henry C., Craig, and Hale. 183,350.

Duro Mold and Mfg., Inc.: *See*—
Peterson, Carl F., and Bergman. 183,368.

Electro-Voice, Inc.: *See*—
Fuldner, Robert W. 183,343.

Falcetti, Steve. Cover for a garden hose nozzle. 183,342, 8–12–58, Cl. D61—1.

Fuldner, Robert W., to Electro-Voice, Inc. Loudspeaker cabinet. 183,343, 8–12–58, Cl. D26—14.

General Controls Co.: *See*—
Ray, William A., and Rostello. 183,360.

General Fireproofing Co., The: *See*—
McCarthy, Joseph H., and Zimmermann. 183,361.

Glaser-Steers Corp.: *See*—
Hauser, Jon W. 183,347.

Goldman, Mildred. Charm or the like. 183,344, 8–12–58, Cl. D45—17.

Gottlieb, Richard A. Movable utility freezer cart. 183,345, 8–12–58, Cl. D14—3.

Hale, Thomas K.: *See*—
Keck, Henry C., Craig, and Hale. 183,350.

Hardy, Helen P. Grease container. 183,346, 8–12–58, Cl. D44—6.

Hauser, Jon W., to Glaser-Steers Corp. Automatic record changer. 183,347, 8–12–58, Cl. D26—14.

Hoffecker, Frank V., to Huntley Hosiery Co. Sweater or similar article. 183,348, 8–12–58, Cl. D3—4.

Huntley Hosiery Co.: *See*—
Hoffecker, Frank V. 183,348.

Jervis Corp.: *See*—
Anderson, Lloyd L. 183,338.

Johnson, Clyde C. Combined helicopter and glider. 183,349, 8–12–58, Cl. D71—1.

Keck, Henry C., B. M. Craig, and T. K. Hale, to Dispensers, Inc. Fluid dispenser. 183,350, 8–12–58, Cl. D44—21.

Keljik, Heranoush. Christams ornament or similar article. 183,351, 8–12–58, Cl. D29—1.

Keyes Fibre Co.: *See*—
Raymond, Horace W. 183,370.

Kimball Mfg. Corp.: *See*—
Mallory, George R. 183,359.

Koci, Jerry C., to Chicago Dynamic Industries, Inc. Coin-operated pneumatic amusement apparatus or similar article. 183,352, 8–12–58, Cl. D34—15.

Kopp, Joseph. Glass chromatographic tray unit. 183,353, 8–12–58, Cl. D16—1.

Laham, George S. Shoe or similar article. 183,354, 8–12–58, Cl. D7—7.

Leopold, Herbert R.: *See*—
Mitchell, Clarence B., and Leopold. 183,362.
Mitchell, Clarence B., and Leopold. 183,363.

Lewis, Paul M. Pinwheel toy. 183,355, 8–12–58, Cl. D34—15.

Lewis, Paul M. Double pinwheel toy. 183,356, 8–12–58, Cl. D34—15.

Lindenberg, Theodore, and R. Spilman, to Pickering Associates, Inc. Loud-speaker or similar article. 183,357, 8–12–58, Cl. D26—14.

Loral Electronics Corp.: *See*—
Rutan, Earl F. 183,371.

Maier, Johanna M. Girdle. 183,358, 8–12–58, Cl. D20—2.

Mallory, George R., to Kimball Mfg. Corp. Battery box cover. 183,359, 8–12–58, Cl. D26—6.

McCabe, Ralph E. Gunsight. 183,360, 8–12–58, Cl. D30—1.

McCarthy, Joseph H., and H. P. Zimmerman, to The General Fireproofing Co. Combined desk and console. 183,361, 8–12–58, Cl. D33—7.

Mitchell, Clarence B., and H. R. Leopold, to Optics Mfg. Corp. Binder for photographic slides or similar article. 183,362, 8–12–58, Cl. D61—1.

Mitchell, Clarence B., and H. R. Leopold, to Optics Mfg. Corp. Photographic slide binder or similar article. 183,363, 8–12–58, Cl. D61—1.
Molla Inc.: *See*—
Monroe, Robert H., and Culbreth. 183,364.
Monroe, Robert H., and Culbreth. 183,365.
Monroe, Robert H., and M. K. Culbreth, to Molla Inc. Cast aluminum front leg and arm for furniture. 183,364, 8–12–58, Cl. D15—8.
Monroe, Robert H., and M. K. Culbreth, to Molla Inc. Cast aluminum rear leg and back rest support for furniture. 183,365, 8–12–58, Cl. D15—8.
Optics Mfg. Corp.: *See*—
Mitchell, Clarence B., and Leopold. 183,362.
Mitchell, Clarence B., and Leopold. 183,363.
Palma, Joseph, Jr., to Shure Brothers Inc. Phonograph pick-up arm. 183,366, 8–12–58, Cl. D26—14.
Park, Glenn S., to Anthony Co. Self-propelled crane. 183,367, 8–12–58, Cl. D14—3.
Peterson, Carl F., and K. G. Bergman, to Duro Mold and Mfg., Inc. Toy bank. 183,368, 8–12–58, Cl. D34—11.
Pickering Associates, Inc.: *See*—
Lindenberg, Theodore, and Spilman. 183,357.
Ray, William A., and M. D. Rosiello, to General Controls Co. Thermostat. 183,369, 8–12–58, Cl. D52—7.
Raymond, Horace W., to Keyes Fibre Co. Bottle pack. 183,370, 8–12–58, Cl. D58—13.
Rosiello, Mario D.: *See*—
Ray, William A., and Rosiello. 183,369.
Rutan, Earl F., to Loral Electronics Corp. Electric mixer blade or similar article. 183,371, 8–12–58, Cl. D44—1.
Scheiding, Arno H., to L. E. Carpenter & Co., Inc. Panel of plastic sheet material or similar article. 183,372, 8–12–58, Cl. D87—3.
Scheiding, Arno H., to L. E. Carpenter & Co., Inc. Panel of plastic sheet material or similar article. 183,373, 8–12–58, Cl. D87—3.
Scheiding, Arno H., to L. E. Carpenter & Co., Inc. Panel of plastic sheet material or similar article. 183,374, 8–12–58, Cl. D87—3.
Schorling, Richard G., to Continental Air Lines, Inc. Prive-in sales building. 183,375, 8–12–58, Cl. D13—1.
Shure Brothers Inc.: *See*—
Palma, Joseph, Jr. 183,366.
Spilman, Raymond: *See*—
Lindenberg, Theodore, and Spilman. 183,357.
Stollman, Harry E. Belt buckle. 183,376, 8–12–58, Cl. D17—1.
Sundberg, Carl W., to Whirlpool Corp. Combined backguard, control panel and top for a washing machine or similar article. 183,377, 8–12–58, Cl. D49—1.
Voss, Clifford C., to Chrysler Corp. Combined bumper, grille and lamp unit for an automobile. 183,378, 8–12–58, Cl. D14—18.
Whirlpool Corp.: *See*—
Sundberg, Carl W. 183,377.
Zimmermann, Herbert P.: *See*—
McCarthy, Joseph H., and Zimmermann. 183,361.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 12TH DAY OF AUGUST, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc.: *See*—
Armstrong, James F. 2,846,904.
Carlson, Harold A., and Moseley. 2,847,021.

A. P. V. Co. Ltd., The: *See*—
Goodman, Hugh F. 2,847,126.

Abbott Machine Co., Inc.: *See*—
Abbott, Samuel L. 2,846,730.

Abbott, Samuel L., to Abbott Machine Co., Inc. Textile drafting. 2,846,730, 8–12–58, Cl. 19—130.

Abler, Julius. Multiple story building structure. 2,846,731, 8–12–58, Cl. 20—1.

Abraham, James G., to The National Supply Co. Power operated brake for drawworks. 2,847,094, 8–12–58, Cl. 188—151.

Ackerman, Paul I. Coupling for piping sections. 2,847,237, 8–12–58, Cl. 287—54.

Acme Industries, Inc.: *See*—
Smith, Lewis R., and Ambrose. 2,847,192.

Acton Laboratories, Inc.: *See*—
Pihl, George E. 2,847,640.

Adams, Francis V., to International Business Machines Corp. Drum storage look-up device. 2,847,658, 8–12–58, Cl. 340—174.

Adams, Irma O.: *See*—
Adams, Robert C. and I. O. 2,847,217.

Adams, Robert C. and I. O. Jumping device. 2,847,217, 8–12–58, Cl. 272—57.

Addicks, Mentor C. Scoop for handling bulk material. 2,846,789, 8–12–58, Cl. 37—135.

Adley, Michael L. Loading dock. 2,846,703, 8–12–58, Cl. 14—71.

Aerojet-General Corp.: *See*—
Altseimer, John H. 2,847,148.

Aguilar, John G., and H. B. Rice, to John Burton Machine Corp. Band applying device and method. 2,846,835, 8–12–58, Cl. 53—291.

Ainsworth, Freedom H., to Symington Wayne Corp. Air eliminating device. 2,847,149, 8–12–58, Cl. 222—544.

Air-Shields, Inc.: *See*—
Andreasen, Christian B. 2,847,001.

Airs, Raymond S., P. J. Garner, J. Hartley, and J. D. Shimmin, to Shell Development Co. Synthetic diester lubricating oils. 2,847,383, 8–12–58, Cl. 252—42.7.

Aktiebolaget Elektrolux: *See*—
Bilde, Tord E. D. 2,847,141.

Aktiebolaget Separator: *See*—
Thylefors, Henric W. 2,847,158.

Alders, Lucas: *See*—
Pieters, Willem J., Alders, and Doorn. 2,847,356.

Alexander, Carl Z. Portable electrical heating device. 2,847,545, 8–12–58, Cl. 219—38.

Allegheny Ludlum Steel Corp.: *See*—
Shaw, Richard B. 2,847,301.

Allen, Hartley. Outboard motor steering stabilizer. 2,846,896, 8–12–58, Cl. 74—495.

Allen, Wade W., and J. W. Shell, to The Upjohn Co. Crystal orienter. 2,847,579, 8–12–58, Cl. 250—52.

Allied Chemical Corp.: *See*—
Eck, John C. 2,847,392.
Kuhn, Beryl M., and Zybert. 2,847,410.

Allison, Anthony G.: *See*—
Lee, Robert E. 2,847,058.

Althouse, Charles F. Rectangular coordinate point data display. 2,847,661, 8–12–58, Cl. 340—212.

Altseimer, John H., to Aerojet-General Corp. Fluid pressure operated dispensing device. 2,847,148, 8–12–58, Cl. 222—389.

Ambrose, McLean A.: *See*—
Smith, Lewis R., and Ambrose. 2,847,192.

American Art Metals Co.: *See*—
Clifton, Walter L., Jr. 2,846,715.

American Automation, Inc.: *See*—
Schwarzberger, Arthur. 2,846,946.

American Bag & Paper Co.: *See*—
Kardon, Emanuel S., and Volkedorf. 2,846,928.

American Can Co.: *See*—
Bofinger, Karl. 2,846,972.
Dobbins, Walter J. 2,846,831.
Joosten, Richard L. 2,847,340.

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Chao, Tsai H., Lecher, and Greenwood. 2,847,458.
Evans, Robert D. 2,847,389.
Lecher, Hans Z., and Buell. 2,847,461.
Mallison, William C. 2,847,405.
Sonnino, Mario. 2,846,729.

American Laundry Machinery Co., The: *See*—
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American Radiator & Standard Sanitary Corp.: *See*—
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Johnson, John C. 2,847,087.

American Saw & Tool Co.: *See*—
Cowley, William R. 2,846,902.

American Seating Co.: *See*—
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American Synthetic Rubber Corp.: *See*—
Legge, Norman R. 2,847,406.

Amiard, Gaston: *See*—
Vellus, Leon, Amiard, and Goffinet. 2,847,426.

Anas, Thomas: *See*—
Rider, Stuart H., Anas, and Burke. 2,847,388.

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Dumas, Albert. 2,847,113.

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Tolman, John A., O'Farrell. 2,847,065.

Anderson, James M. Formboard support. 2,846,750, 8–12–58, Cl. 25—131.5.

Anderson, Paul E., and S. A. Stam, to Harvey Machine Co., Inc. Control mechanism. 2,847,020, 8–12–58, Cl. 137—36.

Anderson, Paul E., and S. A. Stam, to Harvey Machine Co., Inc. Fluid driven power unit. 2,847,186, 8–12–58, Cl. 253—59.

Anderson, Walter A. Attachment for table saws to produce circular discs and cylinders. 2,847,044, 8–12–58, Cl. 143—171.

Anderson, William T., Jr., and R. W. Samer, to Engelhard Industries, Inc. Electric discharge lamp. 2,847,614, 8–12–58, Cl. 315—46.

Andreasen, Christian B., to Air-Shields, Inc. Valve device for lung ventilator. 2,847,001, 8–12–58, Cl. 128—29.

Annable, Weldon G.: *See*—
Walsh, John W., and Annable. 2,847,367.

Applegath, Fred, and R. A. Franz, to Monsanto Chemical Co. Stabilization of unsaturated nitriles. 2,847,452, 8–12–58, Cl. 260—465.9.

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Appleton Electric Co.: *See*—
Appleton, Arthur I., Tornblom, and Lindell. 2,847,497.

Apstein, Maurice, R. E. Bowles, D. G. Mitchell, and L. P. Rongus, to United States of America, Army. Arming of rifle grenades. 2,846,949, 8–12–58, Cl. 102—65.2.

Arenco Aktiebolag: *See*—
Danielsson, Paul. 2,846,716.

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Schonwise, Theodore H. 2,846,721.

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Dawson, Thomas P., and Armstrong. 2,847,469.

Armstrong, James F., to ACF Industries, Inc. Fuel injection system. 2,846,994, 8–12–58, Cl. 123—179.

Arnais, Burton A.: *See*—
Black, Harold G., Arnais, and Schenfele. 2,847,112.

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Zwayer, Robert E. 2,846,984.

Aronson, Albert L., to Radio Corp. of America. Stabilized transistor signal amplifier circuit. 2,847,519, 8–12–58, Cl. 179—171.

Arterbury, Bryant P., and G. M. Clark, 33⅓% to R. L. Arterbury. Tool for controlling fluid circulation in well bores. 2,847,073, 8–12–58, Cl. 166—147.

Arterbury, Roy L.: *See*—
Arterbury, Bryant P., and Clark. 2,847,073.

Arvanetakis, Kiryako, and C. W. Radcliff, to Pipeline X-Ray Service. Roll film holder for radiographic work. 2,847,580, 8–12–58, Cl. 250—66.

Ashley, Robert W., to United States of America, Atomic Energy Commission. Hydrogen isotope targets. 2,847,331, 8–12–58, Cl. 117—220.

Ashton, William H.: *See*—
Masci, Joseph N., and Ashton. 2,846,927.

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Atkins, Leland T.: *See*—
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Smith, Harold A. 2,847,148.

Aylwin, Thomas C. Solar reflection device and means for producing the same. 2,846,724, 8–12–58, Cl. 18—34.

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Bach, John W.: *See*—
Uthenwoldt, Frederick W., and Bach. 2,846,945.

Backofen, Elmer R., and J. H. Newhouse, to Clark Equipment Co. Latch adjustment for fork tines of industrial lift trucks. 2,847,138, 8–12–58, Cl. 214—730.

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Baer, Charles A., and R. W. Steeves, to National Research Corp. Apparatus for coating particulate material by thermal evaporation. 2,846,971, 8–12–58, Cl. 118—49.

Bagley, Bruce R. Fabricated grooved pulley. 2,846,893, 8–12–58, Cl. 74—230.8.

Bailey Meter Co.: *See*—
Fleming, Jonathan B. 2,847,032.
Bailey, William J., to J. and E. Hall, Ltd. Lift control systems. 2,847,090, 8–12–58, Cl. 187—29.
Baker, Henry W., to Pilkington Brothers Ltd. Apparatus for manufacturing toughened bent glass. 2,846,819, 8–12–58, Cl. 49—67.
Baker, William E., to Standard-Thomson Corp. Adjustable transducer. 2,847,033, 8–12–58, Cl. 137—788.
Balaban, Philip, to Office Products, Inc. Plastic label holder with attaching means. 2,846,795, 8–12–58, Cl. 40—10.
Baldwin, John H., and K. C. Cummings, to Minneapolis-Honeywell Regulator Co. Servo apparatus. 2,847,660, 8–12–58, Cl. 340—187.
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Carlson, Carl H. 2,846,773.
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Barber, Harry A., and Garbe. 2,846,786.
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Bean, Morris M., to Morris Bean and Co. Apparatus for mixing. 2,847,195, 8–12–58, Cl. 259—5.
Beatty, David E. Scaffold brace fastening means. 2,847,250, 8–12–58, Cl. 304—40.
Beauty Products, Ltd.: *See*—
Propst, Robert L. 2,846,737.
Beavon, David K., to The Texas Co. Treatment of residual asphaltic oils with light hydrocarbons. 2,847,353, 8–12–58, Cl. 196—14.11.
Bechtold, Max F., to E. I. du Pont de Nemours and Co. Aqueous dispersions of polymers and shaped articles therefrom. 2,846,727, 8–12–58, Cl. 18—57.
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Zimmermann, Ehrenfried, and Becker. 2,847,122.
Becker, Philip D., to United-Carr Fastener Corp. Fastening device. 2,846,744, 8–12–58, Cl. 24—108.
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Bedford, William A., Jr., to United-Carr Fastener Corp. Method of forming a sheet metal lock nut. 2,846,701, 8–12–58, Cl. 10—86.
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Lavoo, Norman T., Dehn, and Beggs. 2,847,518.
Beggs, James E., and H. F. Webster, to General Electric Co. Thermionic cathode and direct current heater assembly. 2,847,604, 8–12–58, Cl. 313—337.
Beland, Walter H.: *See*—
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Belk, Wilber C., to Food Machinery and Chemical Corp. Apparatus for separating liquid and solid material. 2,846,943, 8–12–58, Cl. 100—108.
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Fisher, Joseph R. 2,847,314.
Hamilton, James O., and Laico. 2,847,609.
Landgren, Clarence R. 2,847,287.
Marino, Frank C. 2,847,646.
Pierce, John R. 2,847,607.
Thomas, Donald E. 2,847,645.
Bell, William H. Filling stop motion for looms. 2,847,038, 8–12–58, Cl. 139—374.
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Siciari, Francesco, and Bellano. 2,847,271.
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Greenfield, Alexander. 2,847,161.
Kokalas, Edward. 2,847,652.
Mock, Frank C. 2,846,846.
Seifried, Paul E. 2,846,886.
Berger, France B., to General Precision Laboratory Inc. Range gated doppler radar. 2,847,666, 8–12–58, Cl. 343—8.
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Hawthorne, Nathaniel F., and Bergfelt. 2,847,160.
Bergmann, Friedrich, to Badische Anilin- & Soda-Fabrik Akt. Overload releasing magnetic powder-clutch. 2,847,101, 8–12–58, Cl. 192—21.5.
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Bella, Edwin A. 2,846,704.
Walworth, Robert S., and De Namur. 2,846,738.
Bernard, James L., Jr. Electric switches. 2,847,522, 8–12–58, Cl. 200—6.
Bersworth, Frederick C., and A. E. Frost, to The Dow Chemical Co. Method for the removal of heavy metal ions from food beverages. 2,847,308, 8–12–58, Cl. 99—48.
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Beuther, Harold, W. C. Offutt, and P. Siecke, to Gulf Research & Development Co. Petroleum pitch and process for its manufacture. 2,847,359, 8–12–58, Cl. 196—50.
Biere, Theodore F., to The Kent Corp. Sliding door support and guide means. 2,847,266, 8–12–58, Cl. 312—227.
Bilde, Tord B. D., to Aktiebolaget Elektrolux. Closure for laundry machine receptacle. 2,847,141, 8–12–58, Cl. 220—25.
Billion, Jacques, to Societe Billion & Cie. Snag resistant bulky multi-ply superpolyamidic yarn. 2,846,839, 8–12–58, Cl. 57—140.
Billion, Jacques, to Societe Billion & Cie. Superpolyamidic threads and manufacture thereof. 2,846,840, 8–12–58, Cl. 57—157.
Binghamton Metal Forms, Inc.: *See*—
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Yates, Richard C., and Owen. 2,846,749.
Bishop, Chester K., to Robertshaw-Fulton Controls Co. Anticipatory heater circuit for thermostat controls. 2,847,536, 8–12–58, Cl. 200—122.
Black, Harold G., B. A. Arnaiz, and H. C. Scheufele, to Proctor & Schwartz, Inc. Apron conveyor. 2,847,112, 8–12–58, Cl. 198—57.
Blanchard, Alva G. Automatic control mechanism for pressure vessels. 2,846,985, 8–12–58, Cl. 122—504.2.
Blattner, Emil H., to The Symington-Gould Corp. Draft mechanism. 2,847,129, 8–12–58, Cl. 213—65.
Blease, Wilfred J. Dispensing liquids. 2,847,000, 8–12–58, Cl. 128—222.
Bleier, Frank, to Stewart Industries, Inc. Fan assembly. 2,847,156, 8–12–58, Cl. 230—117.
Blomquist, Albert E. Inflating and deflating means for pneumatic-hydraulic tire. 2,847,049, 8–12–58, Cl. 152—330.
Bloom, Albert, H. B. Freyermuth, and J. B. Normington, to General Aniline & Film Corp. Process for the preparation of isocyanates. 2,847,440, 8–12–58, Cl. 260—453.
Blumenthal, Lewis. Correspondence form. 2,847,235, 8–12–58, Cl. 282—23.
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Bodine, Harold C.: *See*—
Selbach, Lawrence G., Bodine, Wentz, and Hatfield. 2,847,593.
Boehm, Werner R., and J. Nichols, to Ethicon, Inc. Carbamate of a tetracyclic alcohol. 2,847,454, 8–12–58, Cl. 260—482.
Bofinger, Karl, to American Can Co. Apparatus for supporting treating devices inside moving can bodies. 2,846,972, 8–12–58, Cl. 118—317.
Bogaty, Herman: *See*—
Brown, Alfred E., and Bogaty. 2,847,351.
Bolsture, Worth W., to Esso Research and Engineering Co. Steam cracking process. 2,847,366, 8–12–58, Cl. 196—63.
Bolling, Thomas J., Jr., to Esso Research and Engineering Co. Pin retainer. 2,847,238, 8–12–58, Cl. 287—110.
Bonner, John S., to Esso Research and Engineering Co. Solvent extraction process. 2,847,355, 8–12–58, Cl. 196—14.47.
Bopp, Warren G., to Studebaker-Packard Corp. Transmission. 2,846,899, 8–12–58, Cl. 74—645.
Borg-Warner Corp.: *See*—
Baule, Werner G. 2,846,901.
Lebourg, Maurice P. 2,846,948.
Lebourg, Maurice P. 2,847,072.
Borkan, Harold, to Radio Corp. of America. Direct-view electrical storage tube and erasing system therefor. 2,847,610, 8–12–58, Cl. 315—12.
Bortnick, Newman M., to Rohm & Haas Co. Acrylic and methacrylic derivatives of urea and polymers thereof. 2,847,400, 8–12–58, Cl. 260—77.5.
Bossi, Alfred J., to Ronagra Etablissement. Packaging of ampoules and other articles. 2,846,830, 8–12–58, Cl. 53—35.
Bourne, John A. Surgical dressing for forming a finger cot. 2,847,005, 8–12–58, Cl. 128—157.
Bouwman, Wicher K., to North American Philips Co., Inc. Thermally controlled switch. 2,847,538, 8–12–58, Cl. 200—137.
Bowie, Robert M., to Sylvania Electric Products Inc. Electron discharge device. 2,847,597, 8–12–58, Cl. 313—70.
Bowles, Romald E.: *See*—
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Bowman, Ellen K. Fowl carcass supporting means. 2,846,942, 8–12–58, Cl. 99—427.
Bown, Delos E., to Esso Research and Engineering Co. Crystallization of paramethyl aromatic compounds employing carbon tetrachloride for further recovery of paramethyl compound. 2,847,486, 8–12–58, Cl. 260—674.
Boyd, Leland R. Changeable display device. 2,846,797, 8–12–58, Cl. 40—30.
Boyle Machine & Supply Co., Inc.: *See*—
Hennessey, William F. 2,846,975.
Boynton, Harry G., and J. T. Horecry, to Esso Research and Engineering Co. Isomerization and alkylation of hydrocarbons. 2,847,488, 8–12–58, Cl. 260—683.53.
Brace, George A., to The Hoover Co. Nap flicker type suction cleaning nozzle. 2,846,711, 8–12–58, Cl. 15—350.
Brackney, Howard W., to United States of America, Atomic Energy Commission. Electrical regulating apparatus including an ionic current regulator. 2,847,635, 8–12–58, Cl. 323—20.
Bramblett, John J., to Ben Pearson Inc. Cotton picking means. 2,846,837, 8–12–58, Cl. 56—42.

Brandt, Wilhelm. Household appliance for the preparation of hot beverages. 2,846,938, 8–12–58, Cl. 99—281.
Brastie, Maurice J., and J. B. Richardson, said Richardson to said Brastie. Dispensing mechanism. 2,847,145, 8–12–58, Cl. 222—67.
Brasseur, Eudore D., to Societe Anonyme de Constructions Electriques Charleroi. Driving mechanism for head of sound recording and reproducing apparatus. 2,847,587, 8–12–58, Cl. 310—19.
Brastad, William A., to General Mills, Inc. Suppressor electrode for a perforated type of electrostatic separator machine. 2,847,124, 8–12–58, Cl. 209—127.
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Brennen, Ronald F., and J. A. Bucci, to Welding Industry Research & Patent Corp. Method and apparatus for breaking up oxide on, and welding, metal. 2,847,556, 8–12–58, Cl. 219—86.
Bretschneider, Otto, and W. Moschel, deceased (by H. Moschel geb. Gilcher, widow, B. Carstensen geb. Moschel, and R. and A. Moschel, heirs), to Knapsack-Griesheim Akt. Process and apparatus for the electro-thermal production of magnesium. 2,847,295, 8–12–58, Cl. 75—10.
Brewer, John H., to Hynson, Westcott & Dunning, Inc. Sterilization indicator. 2,847,007, 8–12–58, Cl. 161—15.
Briddell, Chas. D., Inc.: *See*—
Howard, Leonard L., and Tyler. 2,847,370.
Bried, Julien A., to Honolulu Oil Corp. Continuous fowl picking machine. 2,846,719, 8–12–58, Cl. 17—11.1.
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Brink, Norman G., R. A. Ham, R. E. Harman and L. H. Sarett, to Merck & Co., Inc. 16-oxygenated-Δ^4-etiocholene-17β-carboxylic acid derivatives. 2,847,425, 8–12–58, Cl. 260—397.1.
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Spriggs, George E. 2,846,834.
British Telecommunications Research Ltd.: *See*—
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Brock, Walter F.: *See*—
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Brown, Alfred E., and H. Bogaty, to The Gillette Co. Hair waving composition comprising a disulfide and either a non-corresponding mercaptan or thiourea dioxide. 2,847,351, 8–12–58, Cl. 167—87.1.
Brown, Charles K., Jr. Mixing faucet. 2,847,031, 8–12–58, Cl. 137—637.4.
Brown, Chauncey T., to Spring Load Mfg. Corp. Wrench including internally threaded split ring. 2,846,910, 8–12–58, Cl. 81—64.
Brown, Donald E. Combination chipping and barker device. 2,847,045, 8–12–58, Cl. 144—162.
Brown, Edmund D., to United Aircraft Corp. Afterburner shroud construction. 2,846,842, 8–12–58, Cl. 60—35.6.
Brown, Owen. Wood-embellishing apparatus. 2,846,801, 8–12–58, Cl. 41—1.
Brown, Raymond W., and G. A. Mitchell, to Western Electric Co., Inc. Apparatus for measuring pulse characteristics. 2,847,570, 8–12–58, Cl. 250—36.
Bruce Molded Plastics Products, Inc.: *See*—
Marks, Lou F., and Louik. 2,846,800.
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Christensen, Paul M., and Bryan. 2,847,532.
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Brennen, Ronald F., and Bucci. 2,847,556.
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Bucciconi, Dario. 2,847,111.
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Lecher, Hans Z., and Buell. 2,847,461.
Bügel, Roelof D., to North American Philips Co., Inc. Electrolytic capacitor. 2,847,622, 8–12–58, Cl. 317—230.
Buhrmeister, John C. Mixing and turbulence-effecting means for carbureted fuel. 2,847,289, 8–12–58, Cl. 48—180.
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Pearistine, Morton. 2,847,060.
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Burdick, Sherman R. 2,847,258.
Burdick, Sherman R., to Burdick Bros. Inc. Safety valve for fluid control system. 2,847,258, 8–12–58, Cl. 303—84.
Burt, Alfred, to Société Anonyme Sulzer Freres. High pressure valve. 2,847,183, 8–12–58, Cl. 251—363.
Burke, Harold J., to Saginaw Products Corp. Wheel assemblies. 2,847,050, 8–12–58, Cl. 152—404.
Burke, William D.: *See*—
Rider, Stuart H., Anas, and Burke. 2,847,388.
Burndept Ltd.: *See*—
Nagorski, Witold. 2,847,495.
Burns, Adele. Bracing elements and demountable buildings employing same. 2,846,732, 8–12–58, Cl. 20—2.
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Busey, Harold M., to United States of America, Atomic Energy Commission. Apparatus for catalytically combining gases. 2,847,284, 8–12–58, Cl. 23—288.
Bush, Theresa E. Bootie. 2,846,784, 8–12–58, Cl. 36—9.
Butler, John P., to United States of America, Atomic Energy Commission. Solvent extraction of neptunium. 2,847,276, 8–12–58, Cl. 23—14.5.
Buttner, Artur, to Schnellpressenfabrik Akt. Heidelberg. Inertia compensating device for printing press with reciprocating type bed. 2,847,208, 8–12–58, Cl. 267—75.
Byer, Abner A. Electrode for fluorescent lamps. 2,847,605, 8–12–58, Cl. 313—346.
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Dye, Edward R., Egly, and Bykowski. 2,846,683.
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Toland, William G., and Goldsmith. 2,847,463.
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Calkins, Walter D., to Jennings Radio Mfg. Corp. Pulse generator. 2,847,571, 8–12–58, Cl. 250—36.
Calvert, Edward S., to National Research Development Corp. Pilot's indicators for aircraft instrument landing or approach systems. 2,847,668, 8–12–58, Cl. 343—107.
Cappel, Roy G., to W. Horace Williams Co., Inc. Mud ring for the development of passive resistance in soft soils. 2,846,852, 8–12–58, Cl. 61—53.
Caradonna, Charles. Air-vent extension deflector. 2,847,246, 8–12–58, Cl. 296—44.
Carbonara, Victor E., to Kollsman Instrument Corp. Air velocity indicator. 2,846,878, 8–12–58, Cl. 73—182.
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Carlson, Carl H., to Barber-Colman Co. Checking cutter teeth. 2,846,773, 8–12–58, Cl. 33—179.5.
Carlson, Harold A., and J. T. W. Moseley, to ACF Industries, Inc. Carburetor float valve stabilizer. 2,847,021, 8–12–58, Cl. 137—39.
Carnahan, Thomas D., and E. H. Ray, to B. F. Drakenfeld & Co., Inc. Vanadium-bearing ceramic pigment. 2,847,317, 8–12–58, Cl. 106—299.
Carroll, Fred M., to International Business Machines Corp. Movable drum typewriter. 2,847,105, 8–12–58, Cl. 197—16.
Carter, Richard H. Heat exchanger. 2,847,193, 8–12–58, Cl. 257—246.
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Casterlin, James H., to General Aniline & Film Corp. Gyroscopic apparatus. 2,846,891, 8–12–58, Cl. 74—5.47.
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Charlick, Dorothy C. Handle for shopping bags. 2,846,714, 8–12–58, Cl. 16—114.
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Chombard, Pierre A., to Etat Français, represented by the Secretary of State/or Armed Forces (Air). Suspension for a vertical-indicating gyroscope. 2,846,867, 8–12–58, Cl. 74—5.2.
Christensen, Paul M., to Federal Pacific Electric Co. Circuit breakers. 2,847,533, 8–12–58, Cl. 200—88.
Christensen, Paul M., and J. Bryan, to Federal Pacific Electric Co. Circuit breakers. 2,847,532, 8–12–58, Cl. 200—88.
Christian, Schuyler M., to Radio Corp. of America. Radiation responsive voltage sources. 2,847,585, 8–12–58, Cl. 310—3.
Christiansson, Bror G., and K. G. F. Thornberg. Screw cap. 2,847,139, 8–12–58, Cl. 215—9.
Chulack, William J., and L. I. Luther. Securing device. 2,847,207, 8–12–58, Cl. 267—1.
Ciba Ltd.: *See*—
Grelat, Maurice, and Kern. 2,847,415.
Sallmann, Richard. 2,847,442.

Cink, Albin, ½ to CKD Ceska Lipa, narodni podnik. Carriage construction for automatic welding machines. 2,846,898, 8–12–58, Cl. 74—640.

Clapper, Genung L., to International Business Machines Corp. Pulse gap detector. 2,847,565, 8–12–58, Cl. 250—27.

Clark, David L., to General Electric Co. Clothes conditioner. 2,846,776, 8–12–58, Cl. 34—45.

Clark, Donald B., G. S. Kelley, and W. W. Mahnken, to Curtiss-Wright Corp. Variable area convergent-divergent exhaust nozzle and control therefor. 2,846,843, 8–12–58, Cl. 60—35.6.

Clark Equipment Co.: *See*—
Backofen, Elmer R., and Newhouse. 2,847,138.

Clark, George M.: *See*—
Arterbury, Bryant P., and Clark. 2,847,073.

Clark, Herbert M.: *See*—
King, Edward J., and Clark. 2,847,277.

Clark, John D. Method for analyzing white fuming nitric acid. 2,847,641, 8–12–58, Cl. 324—30.

Clark, John W., to Litton Industries of California. Nucleonic X-ray apparatus. 2,847,581, 8–12–58, Cl. 250—108.

Clark, Richard B., and G. H. Dingman, to Bendix Aviation Corp. Electrical ignition generator. 2,847,590, 8–12–58, Cl. 310—70.

Clark, Sherman W. Ball and socket trailer hitch. 2,847,234, 8–12–58, Cl. 280—512.

Clark, William H., Jr., to Curtiss-Wright Corp. Phase synchronizing system. 2,847,617, 8–12–58, Cl. 317—6.

Clarke, Robert L., to Sterling Drug Inc. Pregnan-2-ol-3,20-dione, allopregnan-2-ol-3.20-dione, esters thereof, and preparation thereof. 2,847,428, 8–12–58, Cl. 260—397.4.

Clear Beam Antenna Corp.: *See*—
Lieb, Harry K. 2,847,671.

Clifton, Walter L., Jr., to American Art Metals Co. Door hinge. 2,846,715, 8–12–58, Cl. 16—169.

Cline, James E., and J. P. Jasionis, to United States of America, Army. Method of making thorium oxide cathodes. 2,847,328, 8–12–58, Cl. 117—201.

Clinton, Raymond O., and S. C. Laskowski, to Sterling Drug Inc. Lower-alkyl 5-amino-2-(tertiary-aminoalkoxy) benzoates and their preparation. 2,847,344, 8–12–58, Cl. 167—52.

Clymer, Dewey M., to Chase Bag Co. Tie string looper and folder. 2,846,964, 8–12–58, Cl. 112—2.

Coastal Mfg. Corp.: *See*—
Peak, Maitland J., and Jensen. 2,847,560.
Peak, Maitland J., and Jensen. 2,847,654.

Cobb, Alfred E. Card-type resistance device. 2,847,543, 8–12–58, Cl. 201—63.

Cohen, David: *See*—
Cohen, Harry. 2,847,014.

Cohen, Elie, and S. Roth, to L. Maiditch. Electromagnetic slip coupling. 2,847,594, 8–12–58, Cl. 310—96.

Cohen Harry, to D. Cohen. Tourniquet. 2,847,014, 8–12–58, Cl. 128—327.

Coker, Morton M., to Caterpillar Tractor Co. Fluid pressure system and control. 2,846,848, 8–12–58, Cl. 60—52.

Collins, Edward J. and J. L., and C. Schuyler, to Games, Inc. Ball rolling game apparatuses. 2,847,221, 8–12–58, Cl. 273—95.

Collins, James L.: *See*—
Collins, Edward J. and J. L., and Schuyler. 2,847,221.

Collins, Hazel. Hair drier attachment. 2,846,777, 8–12–58, Cl. 34—90.

Collins, William A., and E. D. Floreen, to Rudy Mfg. Co. Refrigeration evaporator construction. 2,847,194, 8–12–58, Cl. 257—256.

Colont, George R. Measuring device. 2,846,769, 8–12–58, Cl. 33—125.

Columbia-Southern Chemical Corp.: *See*—
Hurd, Charles D. 2,847,456.

Combs, Donald E. Magnetic switch. 2,847,528, 8–12–58, Cl. 200—87.

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Diamond, Bertram S., and Walker. 2,847,503.

Commonwealth Engineering Co. of Ohio, The: *See*—
Bulloff, Jack J. 2,847,320.
Drummond, Folsom E. 2,847,322.
Hiler, Malvern J. 2,847,385.
Marvin, Philip R. 2,847,319.
Toulmin, Harry A., Jr. 2,847,330.

Comptoir Industriel d'Etirage et Profilage de Metaux: *See*—
Sejournet, Jacques. 2,846,758.

Cone Automatic Machine Co., Inc.: *See*—
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Conklin, Dwight B., and R. S. Shaw, to Wyandotte Chemicals Corp. Descalant composition and use. 2,847,384, 8–12–58, Cl. 252—82.

Conlon, Lawrence E.: *See*—
Watanabe, Warren H., and Conlon. 2,847,477.

Consolidated Electronics Industries Corp.: *See*—
Haydon, Arthur W. 2,847,589.

Continental Oil Co.: *See*—
De Witte, Leendert, and Radd. 2,847,070.

Contois, Leo L., Jr., to Monsanto Chemical Co. Method for preparing polyampholytes by esterifying a carboxyl group containing polymer with an N,N-dialkyl formamide complex of an aminoalcohol. 2,847,403, 8–12–58, Cl. 260—78.3.

Control Electronics Co., Inc.: *See*—
Wendolkowski, Eugene S., and Walker. 2,847,648.

Copeland, William M., to General Electric Co. Window ventilator construction. 2,846,936, 8–12–58, Cl. 98—94.

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Schmitt, Joy B., and Corbett. 2,847,248.
Schmitt, Joy B., and Corbett. 2,847,540.

Corbett, William H., J. B. Schmitt, and A. D. Brunell, to The De Vilbiss Co. Electric steam vaporizer. 2,847,550, 8–12–58, Cl. 219—40.

Cornelius, Richard T. Vessel bases. 2,847,144, 8–12–58, Cl. 220—69.

Cornelius, Richard T. Piston construction. 2,847,261, 8–12–58, Cl. 309—20.

Cosentino, Joseph M. Shock absorbing system for vehicles. 2,847,229, 8–12–58, Cl. 280—104.

Costarella, Frank, to Ernest Chandler, Inc. Portable wading pool. 2,846,693, 8–12–58, Cl. 4—172.

Cota, John A., to Ford Motor Co. Power steering mechanism with hydraulic cylinder stabilizing means. 2,847,079, 8–12–58, Cl. 180—79.2.

Cotton, Alfred: *See*—
Holt, Frederick B., Newlands, and Cotton. 2,847,630.

Courtaulds, Limited: *See*—
Edwards, John H., and Tallis. 2,847,272.

Courtney John F. Amusement ride apparatus. 2,847,216, 8-12-58, Cl. 272—36.

Cowley, William E., to American Saw & Tool Co. Drill elements. 2,846,902, 8–12–58, Cl. 76—108.

Cowper, George, to United States of America, Atomic Energy Commission. Pulse amplitude distribution recorder. 2,847,268 8–12–58, Cl. 346—14.

Cox, Frederick J., to British Telecommunications Research Ltd. Impedance matching. 2,847,670, 8–12–58, Cl. 343—821.

Crabtree, Leonard F., to General Telephone Laboratories, Inc. Secretarial answering system. 2,847,512, 8–12–58, Cl. 179—27.

Crayton, Philip H.: *See*—
Hilty, Donald C., Crayton, and Darby. 2,847,296.

Crowley, George C., W. H. Gordon, Jr., and R. A. Wise, to General Electric Co. Vaporiser steam dry control. 2,847,546. 8–12–58, Cl. 219—38.

Cummings, Kimball C.: *See*—
Baldwin, John H. and Cummings. 2,847,660.

Cummings & Sander: *See*—
Lathrop, William M. 2,846,745.

Curtis Daniel L. to Hughes Aircraft Co. Passive element signal stepping device. 2,847,150, 8–12–58, Cl. 235—61.

Curtiss-Wright Corp.: *See*—
Clark, Donald B., Kelley, and Mahnken. 2,846,843.
Clark, William H., Jr. 2,847,617.
Cushman, Maurice E. 2,847,076.
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Curtiss-Wright Corp., Propeller Div.: *See*—
Gallo, Joseph E. 2,846,780.

Cushman Chuck Co., The: *See*—
Sloan, Harry E. 2,847,226.

Cushman, Maurice E., to Curtiss-Wright Corp. Controllable pitch propellers. 2,847,076, 8–12–58, Cl. 170—160.24.

D'Addieco, Alfred A. to E. I. du Pont de Nemours and Co. Ascorbic acid intermediates. 2,847,421, 8–12–58, Cl. 260—340.7.

Dahl, Groot H. Cross-cutting device. 2,846,824, 8–12–58, Cl. 31—98.

Daimler-Benz Akt.: *See*—
Henecke, Rudolf. 2,847,250.

Daly, James U., to Robertshaw-Fulton Controls Co. Temperature responsive device. 2,846,884, 8–12–58, Cl. 73—362.4.

D'Amico, John J.: *See*—
Harman, Marion W., and D'Amico. 2,847,419.

Danielsson, Paul, to Arenco Aktiebolag. Fish eviscerating machine. 2,846,716, 8–12–58, Cl. 17—3.

Darby, John J.: *See*—
Hilty, Donald C., Crayton, and Darby. 2,847,296.

Daria, James V. Adjustable bridge for stringed musical instruments. 2,846,915. 8–12–58, Cl. 84—307.

Darrow, Merritt I.: *See*—
Sengelaub, John F., and Darrow. 2,846,718.

Davis Edward A. Switching system. 2,847,531, 8–12–58, Cl. 200—87.

Davis Jefferson J., D. J. McNeil, and N. T. Grubb, to Electric Steel Foundry, now by change of name to Electric Steel Foundry Co. Tooth assembly. 2,846,790, 8–12–58, Cl. 37—142.

Davis, Robert J. Hair curler. 2,847,015, 8–12–58, Cl. 132—42.

Dawson, Thomas P., and J. W. Armstrong, to United States of America, Army. Method of manufacture of $RP(O)Cl_2$ from $RP(O)(OR)_2$ and $SOCl_2$. 2,487,469, 8–12–58, Cl. 260—543.

Day, Alan G. Adjustable, slidable jaw, open-end wrench. 2,846,912, 8–12–58, Cl. 81—179.

Day, Robert G. and L. M. Leeds, to General Electric Co. Synchronizing system. 2,847,628, 8–12–58, Cl. 318—175.

De Benneville, Peter L., and M. J. Hurwitz, to Rohm & Haas Co. Unsaturated aminosilanes, polymers thereof and methods of making them. 2,847,409, 8–12–58, Cl. 260—89.7.

De Blasio, Conrad G. Direct current power source. 2,847,636, 8–12–58, Cl. 323—22.

De Boisblanc, Deslonde R., to Phillips Petroleum Co. Detecting device. 2,847,643, 8–12–58, Cl. 324—71.

Debus, Karl, and K. Heimel, to Linotype Gesellschaft mit beschränkter Haftung. Line-composing and casting machines. 2,847,116 8–12–58, Cl. 199—45.

Dehn, Rudolph A.: *See*—
Lavoo, Norman T., Dehn, and Beggs. 2,847,518.

Delacommune, Marcel, to Societe Anonyme Immobiliere Canadienne Francaise. Process and apparatus for the production of manure gas. 2,847,352, 8–12–58, Cl. 195—143.

De Lorean, John Z.: *See*—
McFarland, Forest R., Lucia, and De Lorean. 2,846,900.

De Lorean John Z. to Studebaker-Packard Corp. Brake. 2,847,093. 8–12–58, Cl. 188—77.

Delvoye, Marcel N. J. Automatically primed siphon mechanism for flushboxes. 2,847,022, 8–12–58, Cl. 137—135.

De Namur, Norman F.: *See*—
Walworth, Robert S., and De Namur. 2,846,738.

De Noyers, Emil J.: *See*—
McCarty, Orin P., De Noyers, and McKenney. 2,847,541.

De Priester, Coral L., to California Research Corp. Methods of igniting a gas air-burner utilizing pelletized phosphorus. 2,847,071, 8–12–58, Cl. 166—39.

De Puy, Charles T., to Trimble Inc. Infant's dressing table. 2,846,700, 8–12–58, Cl. 5—317.

Derby, Palmer, H. Jacobson, and J. L. Turner, to United States of America, Air Force. Apparatus for displacing magnetron tuner resonances. 2,847,618, 8–12–58, Cl. 315—39.61.

De Ruggieri, Pietro: *See*—
Ercoli, Alberto, and de Ruggieri. 2,847,429.

De Vilbiss Co., The: *See*—
Corbett, William H., Schmitt, and Brunell. 2,847,550.
Schmitt, Joy B., and Corbett. 2,847,248.
Schmitt, Joy B., and Corbett. 2,847,549.

De Witte, Leendert, and F. J. Radd, to Continental Oil Co. Method of controlling well casing corrosion. 2,847,070, 8–12–58, Cl. 166—1.

Diamond, Bertram S., and J. B. Walker, to The Commercial Cable Co. Telegraph code converter. 2,847,503, 8–12–58, Cl. 178—26.

Dick, A. B., Co.: *See*—
Kleinstra, Harm. 2,846,933.

Dickinson, Wilbur C.: *See*—
Wolfskill, Edna M., Gallas, and Dickinson. 2,847,084.

Dictaphone Corp.: *See*—
Taylor, Douglas E., Sherman, Skogg, and Rescanski. 2,847,223.

Digital Techniques, Inc.: *See*—
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Engelbart, Douglas C. 2,847,615.

Dijksterhuis, Popko R., and A. R. Hovingh, to North American Philips Co., Inc. Method of electrolytically coating a metallic object with platinum. 2,847,372, 8–12–58, Cl. 204—37.

Dillon, Stephen V. Rod stabilizer device for wells. 2,847,260, 8–12–58, Cl. 308—4.

Di Nardo, Albert, J. H. Gardner, and N. C. Robertson, to Escambia Chemical Corp. Production of chemicals. 2,847,434, 8–12–58, Cl. 260—413.

Dingman, Glen H.: *See*—
Clark, Richard B., and Dingman. 2,847,590.

Di Palma, Joseph. Cable grip tube puller. 2,847,244, 8–12–58, Cl. 294—20.

Di Pietro, William O., to National Research Corp. Method of producing titanium crystals. 2,847,297, 8–12–58, Cl. 75—84.5.

Distillers Co. Ltd., The: *See*—
Lacey, Richard N. 2,847,423.

Doak, Robert A., Jr., and L. R. Garza, to United States of America, Army. Rocket launcher, breech guard and contactor latch. 2,846,924, 8–12–58, Cl. 89—1.7.

Dobbins, Walter J., to American Can Co. Method of attaching resilient end closures to containers. 2,846,831, 8–12–58, Cl. 53—40.

Dodson, Raymond M.: *See*—
Soilman, Paul B., and Dodson. 2,847,427.

Dodson, Raymond M., and C. G. Castle, to G. D. Searle & Co. Hydroxylated 2,13 - dimethyl - 7,9 - dioxopolyhydrophenanthrene-1-propionic acid lactones and salts. 2,847,422, 8–12–58, Cl. 260—343.2.

Doerr, Johannes, and W. Dreher, to G. M. Pfaff A.-G. Thread severing device for sewing machines. 2,846,967, 8–12–58, Cl. 112—252.

Dole Valve Co., The: *See*—
Eskin, Samuel G. 2,846,829.

Donnelley, R. R., & Sons Co.: *See*—
Mundell, Elmore H. 2,847,378.

Donner, Walter, to Beckman Instruments, Inc. Amplitude regulator. 2,847,574, 8–12–58, Cl. 250—36.

Doorn, Johannis: *See*—
Pieters, William J., Alders, and Doorn. 2,847,356.

Doumak, Alexander J., and James Doumak deceased (by M. J. Doumak, executrix) to National Dairy Products Corp. Confection and process for producing the same. 2,847,311, 8–12–58, Cl. 99—134.

Doumak, James: *See*—
Doumak, Alexander J. and James. 2,847,311.

Doumak, Marta J.: *See*—
Doumak, Alexander J. and James. 2,847,311.

Doumar, Florence. Postoperative arm-suspension sling. 2,847,002. 8–12–58, Cl. 128—94.

Douthitt, Merton H., to The Texas Co. Manufacture of halocarbonyls. 2,847,470, 8–12–58, Cl. 260—544.

Dow Chemical Co., The: *See*—
Berryworth, Frederick C., and Frost. 2,847,308.
Robertson, Dale N. 2,847,472.
Robertson, Dale N. 2,847,473.
Trapp, Walter R., and Pletcher. 2,847,460
Vander Weele, John C., and White. 2,847,420.

Dow, Thomas D. A., to Northern Electric Co., Ltd. Automatically self-conforming fluid pressure reducer. 2,847,036, 8–12–58, Cl. 138—45.

Dow, William E., to Cone Automatic Machine Co., Inc. Boring bar. 2,846,904, 8–12–58, Cl. 77—58.

Dowlen, George E., and R. M. Tefft; said Tefft to said Dowlen. Method and apparatus for resurfacing roofs. 2,847,318, 8–12–58, Cl. 117—2.

Drager, Otto H.: *See*—
Wachter, Karl-August. 2,846,969.

Drago, Philip. Portable knockdown tent. 2,847,017, 8–12–58, Cl. 135—3.

Drakenfeld, B. F., & Co., Inc.: *See*—
Carnahan, Thomas D., and Ray. 2,847,317.

Dreher, Wilhelm: *See*—
Doerr, Johannes and Dreher. 2,846,967.

Drummey, John F., to Morganite Inc. Multiple contact current collector. 2,847,521, 8–12–58, Cl. 191—58.

Drummond, Folsom E., to The Commonwealth Engineering Co. of Ohio. Gas plating silicone treated fibers. 2,847,322, 8–12–58, Cl. 117—71.

Drus, Walter S., and E. M. Roschke, to Zenith Radio Corp. Subscription television system. 2,847,500, 8–12–58, Cl. 178—5.1.

Drynan, John E. Toy vortex gun. 2,846,996, 8–12–58, Cl. 124—1.

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Swett, Russell F. 2,847,034.

Duffield, Robert B., to United States of America, Atomic Energy Commission. Sulfide method plutonium separation. 2,847,274, 8–12–58, Cl. 23—14.5.

Dumas, Albert, to Anciens Etablissements A. Savy Jeanjean & Cie, and Sté: Barker & Perkins Ltd. Conveyor means for confectionery moulds or other articles. 2,847,113, 8–12–58, Cl. 198—135.

Du Mont, Jerome B. C.: *See*—
Bellomo, Andrea, and Du Mont. 2,846,858.

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Duncanson, Robert H., and D. W. Schoen, to General Mills Inc. Sheet feeding apparatus. 2,847,213, 8–12–58, Cl. 271—62.

Dunning, John W., A. K. Moses, Jr., and L. E. Matthews, to International Basic Economy Corp. Countercurrent extraction apparatus. 2,847,282, 8–12–58, Cl. 23—270.

Dunning, Robert M.: *See*—
Guyer, Reynolds, and Dunning. 2,847,153.

Du Pont de Nemours, E. I., and Co.: *See*—
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D'Addieco, Alfred A. 2,847,421.
Evans John L., and Pappalardo. 2,847,323.
Sausen, George N. 2,847,436.
Wheeler, Ahlborn. 2,847,391.

Dupree, James N., to California Plasteck, Inc. Illuminated instrument construction. 2,846,970, 8–12–58, Cl. 116—129.

Dye, Edward R. J. M. Egly, and R. M. Bykowski, to United States of America, Army. Stabilising chin strap. 2,846,683 8–12–58, Cl. 2—3.

Eastman, Robert L. Device for rupturing the amniotic membranes. 2,847,012, 8–12–58, Cl. 128—303.

Easton, Fred H.: *See*—
Helmer, Norman D., and Easton. 2,847,003.

Eberly, Gilbert B., Sr., to Carroll R. Graham. Portable sulphur plant for use in a region of subsidence. 2,847,201, 8–12–58, Cl. 262—3.

Eck, John C., to Allied Chemical Corp. Method of conditioning soil with a nonelectrolyte elastomeric conjugated diene polymer. 2,847,392, 8–12–58, Cl. 260—41.5.

Edelmann, E., & Co.: *See*—
Edelmann, Robert B. 2,847,042.

Edelmann, Robert B., to E. Edelmann & Co. Battery filler. 2,847,042 8–12–58, Cl. 141—94.

Edgarton, Frank R., to General Dynamics Corp. Stepping switch. 2,847,534, 8–12–58, Cl. 200—105.

Edstrand, Elmer, to Lindberg Engineering Co. Furnace ladling apparatus. 2,846,740, 8–12–58, Cl. 22—29.

Edwards, John H., and E. E. Tallis, to Courtaulds, Ltd. Production of artificial filaments, threads and the like. 2,847,272, 8–12–58, Cl. 18—54.

Egly, John M.: *See*—
Dye, Edward R., Egly, and Bykowski. 2,846,683.

Ehlers, Clarence W. Trash burner cover. 2,847,085, 8–12–58, Cl. 183—51.

Ehrich, Walter L. Detachable nail and small tool apron. 2,846,685, 8–12–58, Cl. 2—51.

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Harvey, Winston S., and Eisler. 2,847,632.

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Electro Radio Osch: *See*—
Staudt, Jean P. 2,847,551.

Electronic Reproducers, Inc.: *See*—
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Electronational Engineering Co.: *See*—
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Ellerbeck, Grant C., to Friden, Inc. Centralizer for outboard tens-transfer mechanism. 2,847,163, 8–12–58, Cl. 235—139.

Ellerbeck, Grant C., to Friden, Inc. Value approximation mechanism. 2,847,164, 8–12–58, Cl. 235—144.

Elliott, Alexander, to Zenith Radio Corp. Subscription television system. 2,847,501, 8–12–58, Cl. 178—5.1.

Ellies, Ernest E., to Tee-Pak, Inc. Method of treating fresh meats. 2,847,313, 8–12–58, Cl. 99—174.

Elliott, Joseph. Automatic line release for use on fishing rods. 2,846,804, 8–12–58, Cl. 43—25.

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Engel, Herman J. Pencil holder. 2,846,680, 8–12–58, Cl. 2—250.

Engel, Wolfgang. Zig-zag sewing machine with simplified material feed control gearing. 2,846,966, 8–12–58, Cl. 112—210.

Engelbart, Douglas C., to Digital Techniques, Inc. Glow discharge device. 2,847,603, 8–12–58, Cl. 313—188.

Engelbart, Douglas C., to Digital Techniques, Inc. Memory device. 2,847,615, 8–12–58, Cl. 315—84.6.

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Anderson, William T., Jr., and Samer. 2,847,614.

English, Lawrence P., to K S M Products, Inc. Stud welding circuit. 2,847,557, 8–12–58, Cl. 219—98.

Equipment Mfg. Co., Inc.: *See*—
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Ercolo, Alberto, and P. de Ruggieri; said de Ruggieri to Francesco Vismara Societa per azioni. Process for the preparation of 3-enol lower alkanoyl acylates of 17β-acyloxyΔ4-androstene-3-one. 2,847,429, 8–12–58, Cl. 260—397.5.

Erner, William E., to Houdry Process Corp. Preparation of imidazole compounds. 2,847,417, 8–12–58, Cl. 260—309.

Erwin, Marvin E., L. U. Franklin, and J. C. Gebhart, to Gulf Oil Corp. Procedure for manufacture of lithium grease. 2,847,382, 8–12–58, Cl. 252—41.

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Di Nardo, Albert, Gardner, and Robertson. 2,847,434.
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Gardner, James H. 2,847,444.
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Maslan, Frank, and Stoddard. 2,847,449.
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Eskew, Robert F. Carburetor de-icer. 2,846,989, 8–12–58, Cl. 123—122.

Eskin, Samuel G., to The Dole Valve Co. Method of making a thermally responsive element. 2,846,829, 8–12–58, Cl. 53—22.

Essex, Alois B., and S. Schalkowsky, to Sperry Rand Corp., Ford Instrument Co. Division. Shock mount. 2,847,178, 8–12–58, Cl. 248—358.

Esso Research and Engineering Co.: *See*—
Boisture, Worth W. 2,847,366.
Bolling, Thomas J., Jr. 2,847,238.
Bonner, John S. 2,847,355.
Bown, Delos E. 2,847,486.
Boynton, Harry G., and Horecay. 2,847,488.
Hemminger, Charles E., Martin, Rich, and Gornowski. 2,847,360.
Hibshman, Henry J. 2,847,063.
Kestner, William N., Kohfeldt, and Eubank. 2,847,487.
Mattox, William J., and Kimberlin. 2,847,354.
McClintock, John H., and Marta. 2,847,142.
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Molstedt, Byron V. 2,847,365.
Moser, John F., Jr. 2,847,357.
Stewart, Joseph, Fulton, and Langer. 2,847,306.
Sumerford, Simpson D., and Moise. 2,847,438.
Ung, L. Tom. 2,847,200.
Wiese, Herbert K., and Slotterbeck. 2,847,435.
Willingham, James E., Jr. 2,846,876.

Estes, John H., to The Texas Co. Production of selective mineral sorbents. 2,847,280, 8–12–58, Cl. 23—113.

Etat Français, represented by the Secretary of State/or Armed Forces (Air): *See*—
Chombard, Pierre A. 2,846,857.

Ethicon, Inc.: *See*—
Boehme, Werner R., and Nichols. 2,847,454.

Eubank, Lowell D., to United States of America, Atomic Energy Commission. Metal surface treatment. 2,847,321, 8–12–58, Cl. 117—51.

Eubank, Samuel B.: *See*—
Kestner, William N., Kohfeldt, and Eubank. 2,847,487.

Evans, Arthur G., to Radio Corp. of America. Automatic variable pitch control apparatus for disc recorders. 2,847,514, 8–12–58, Cl. 179—100.4.

Evans, Charles H. Repair tables. 2,846,761, 8–12–58, Cl. 29—288.

Evans, John L., and J. A. Pappalardo, to E. I. du Pont de Nemours and Co. Coated metal articles. 2,847,323, 8–12–58, Cl. 117—73.

Evans, Robert D., to American Cyanamid Co. Spinning solution comprising ternary polymers of acrylonitrile dissolved in concentrated aqueous salt solutions. 2,847,389, 8–12–58, Cl. 260—29.6.

Evans, Walter G. Liquid spraying device. 2,847,240, 8–12–58, Cl. 299—90.

Everard, Joseph J., to Paragon Electric Co. Timers. 2,847,525, 8–12–58, Cl. 200—38.

Evers, Harry G., and J. R. Wylie, to Leich Electric Co. Party line paystation identification. 2,847,509, 8–12–58, Cl. 179—17.

Ewing, Lynn H.: *See*—
Nelson, Permil N. 2,847,026.

Faber & Schleicher Akt.: *See*—
Koch, Werner. 2,847,215.
Rodenhausen, Andreas. 2,846,947.

Farbenfabriken Bayer Akt.: *See*—
Kühle, Engelbert, Wegler, and Growe. 2,846,442.

Farley, George F., and A. Hildebrandt, to Spincraft, Inc. Revolving stand. 2,847,175, 8–12–58, Cl. 248—45.

Farrand Optical Co., Inc.: *See*—
Tronnier, Albrecht W. 2,846,923.

Favin, David L., to Bell Telephone Laboratories, Inc. Synchronized automatic frequency control system. 2,847,572, 8–12–58, Cl. 250—36.

Fear, James V. D., to Sun Oil Co. Recovery of desorbent components. 2,847,485, 8–12–58, Cl. 260—674.

Federal Pacific Electric Co.: *See*—
Christensen, Paul M., and Bryan. 2,847,532.
Christensen, Paul M. 2,847,533.

Federal Products Corp.: *See*—
Worthen, John H. 2,846,871.

Fehling, Heinz: *See*—
Pfeiffer, Adolf, and Fehling. 2,847,540.

Feiss, René, to Schweizerische Lokomotiv- und Maschinenfabrik. Internal combustion engine power plant. 2,847,582, 8–12–58, Cl. 290—40.

Felburg, Buddy M., to Hoffman Electronics Corp. Screen structure for two-color cathode ray tubes or the like. 2,847,596, 8–12–58, Cl. 313—70.

Fenestra Inc.: *See*—
Gruber, Joseph J. 2,847,000.

Fergason, Vernon H. Heat treating apparatus. 2,847,208, 8–12–58, Cl. 266—4.

Fernandez, Conrado I.: *See*—
Ortuno, Angel V., Fernandez, and Serrano. 2,847,261.

Ferris, Robert G., and R. L. Yeager, to Starline, Inc. Flight scraper for continuous chain type barn gutter cleaners. 2,847,115, 8–12–58, Cl. 198—220.

Figg, Warren S., to United States of America, Atomic Energy Commission. Pulsed mixer-settler solvent extraction contactors. 2,847,283, 8–12–58, Cl. 23—270.5.

Fink, Milton: *See*—
Santini, Danilo, and Fink. 2,847,091.

Finkel, Seymour I., and J. E. Taylor, to Bendix Aviation Corp. Electromotor heading control system. 2,847,633, 8–12–58, Cl. 318—439.

Finkelstein, Morris B., to Radio Corp. of America. Relaxation oscillator circuit. 2,847,569, 8–12–58, Cl. 250—36.

Firma Kupfer-Asbest-Co., Gustav Bach: *See*—
Ritter, Rolf. 2,847,542.

Fisher, Joseph R., to Bell Telephone Laboratories, Inc. Method for making ceramic articles. 2,847,314, 8–12–58, Cl. 106—39.

Fisher, Joseph V. Stacked coplanar antenna array. 2,847,669, 8–12–58, Cl. 343—727.

Flannagan, Alfred, to National Research Development Corp. Gyroscope apparatus. 2,846,890, 8–12–58, Cl. 74—5.47.

Fleming, Jonathan B., to Bailey Meter Co. Relief valve for pressure measuring apparatus. 2,847,032, 8–12–58, Cl. 137—785.

Fleming, Kenneth H.: *See*—
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Flexible Seal Co.: *See*—
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Floehr, Walter L., to Unitcast Corp. Lading band anchor. 2,846,957, 8–12–58, Cl. 105—369.

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Foley, Robert T., and E. V. Raymond, to General Electric Co. Plated porous materials and method of making the same. 2,846,759, 8–12–58, Cl. 29—191.2.

Folkers, Karl A., and C. H. Shunk, to Merck & Co., Inc. 5'-desoxyriboflavin and processes for preparing the same. 2,847,413, 8–12–58, Cl. 260—251.5.

Foltz, Gerrald G., to United Aircraft Products, Inc. Engine starting system. 2,846,995, 8–12–58, Cl. 123—179.

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Belk, Wilber C. 2,846,943.
Kilburn, Robert W., and Hickey. 2,847,334.
Lindsay, Wesley N. 2,846,775.
Pullen, Milton W., Jr. 2,847,202.

Ford, Geoffrey E., to Fords (Finsbury) Ltd. Torque limiting coupling. 2,846,836, 8–12–58, Cl. 53—296.

Ford Motor Co.: *See*—
Braun, Paul E. 2,846,990.
Cota, John A. 2,847,079.
Kramer, Clarence F. 2,847,247.
McRae, Edwin C. 2,847,029.
McRae, Edwin C. 2,847,030.
Muller, George H. 2,847,078.

Fords (Finsbury) Ltd.: *See*—
Ford, Geoffrey E. 2,846,836.

Foremost Dairies, Inc.: *See*—
Turnbow, Grover D. 2,847,310.

Fort Wayne Tool, Die & Engineering Co.: *See*—
Lill, John F., and Eminger. 2,847,170.

Foss, Martyn H.: *See*—
McAdams, William A., and Foss. 2,846,872.

Fox, Dorothy B.: *See*—
Fox, Stanley L. 2,847,007.

Fox, Stanley L., deceased, by D. B. Fox, executrix. Fluid handling unit and apparatus. 2,847,007, 8–12–58, Cl. 128—214.

Francesco Viamara Societa: *See*—
Ercoli, Alberto, and de Ruggieri. 2,847,429.

Frank, Raymond G., to F. J. Stokes Corp. Rotary tablet press. 2,846,723, 8–12–58, Cl. 18—20.

Frankenstein, William P. Carton. 2,847,154, 8–12–58, Cl. 229—31.

Franklin, Edmond G.: *See*—
Polivka, John N., and Franklin. 2,846,940.

Franklin, Leslie U.: *See*—
Erwin, Marvin E., Franklin, and Gebhart. 2,847,382.

Franklin, Philip J., and J. E. Bensi, to United States of America, Army. Dispenser for thermosetting materials. 2,847,196, 8–12–58, Cl. 259—8.

Frans, Raymond A.: *See*—
Applegath, Fred, and Frans. 2,847,452.

Freedman, Louis, S. L. Shapiro, and K. Geiger, to U. S. Vitamin Corp. 2-(4-bromophenyl)-1,3-diketohydrindene. 2,847,474, 8–12–58, Cl. 260—590.

Freeman, Harry E.: *See*—
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Frei, Arthur J., to General Motors Corp. Ice block maker. 2,846,855, 8–12–58, Cl. 62—301.

Freismuth, John S., to American Radiator & Standard Sanitary Corp. Thermostats. 2,847,165, 8–12–58, Cl. 236—34.5.

French, Roger, to Thomas French & Sons Ltd. Manufacture of woven ladder webbing. 2,847,039, 8–12–58, Cl. 139—384.

French, Thomas, & Sons Ltd.: *See*—
French, Roger. 2,847,039.

Freyermuth, Harlan B.: *See*—
Bloom, Albert, Freyermuth, and Normington. 2,847,440.

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Friedel, Murray. Photocopying and photoprinting apparatus. 2,846,920, 8–12–58, Cl. 88—24.
Friedrich Kocks G. m. b. H.: *See*—
Severin, Jose. 2,846,895.
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Fuelcharger Corp.: *See*—
Parsons, Ben G. 2,846,986.
Fuller Co.: *See*—
Markle, Harry A., Jr. 2,846,778.
Fulton, Stewart C.: *See*—
Stewart, Joseph, Fulton, and Langer. 2,847,306.
Gabbett, James F., Jr.: *See*—
Steadman, Thomas R., and Gabbett. 2,847,447.
Gabbett, James F., Jr., and L. H. Sutherland, to Escambia Chemical Corp. Production of acrylonitrile. 2,847,448, 8–12–58, Cl. 260—465.3.
Gadget-of-The-Month Club, Inc., The: *See*—
Knight, George D. 2,847,010.
Gaffney, Francis W.: *See*—
Two, Joseph A. 2,847,088.
Gaines, Robert L. Fish lure holder. 2,846,806, 8–12–58, Cl. 43—54.5.
Galin, Robert, to General Motors Corp. Ice cube maker. 2,846,854, 8–12–58, Cl. 62—233.
Gallas, Louis X.: *See*—
Wolfskill, Edna M., Gallas, and Dickinson. 2,847,084.
Gallo, Joseph E., to Curtiss-Wright Corp., Propeller Div. Flight training apparatus for simulating radio station tuning. 2,846,780, 8–12–58, Cl. 35—10.2.
Galloway, Victor A. Vehicle loader. 2,847,135, 8–12–58, Cl. 214—302.
Games, Inc.: *See*—
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Gardner, James H.: *See*—
Di Nardo, Albert, Gardner, and Robertson. 2,847,434.
Gardner, James H., to Escambia Chemical Co. Borate of methyl alpha hydroxyisobutyrate. 2,847,444, 8–12–58, Cl. 260—462.
Gardner, James H., and T. R. Steadman, to Escambia Chemical Corp. Process for the preparation of alpha nitrato- and alpha hydroxyisobutyric acids. 2,847,453, 8–12–58, Cl. 260—466.
Gardner, James H., and C. I. Tewksbury, to Escambia Chemical Corp. Separation of formic acid from epoxides. 2,847,468, 8–12–58, Cl. 260—542.
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Mauldin, Lloyd F. 2,846,934.
Garza, Luis R.: *See*—
Doak, Robert A., Jr., and Garza. 2,846,924.
Gasparotti, John J., to Knapp-Monarch Co. Motor cut-off for electrical mixing appliance. 2,847,199, 8–12–58, Cl. 259—135.
Gates, Earl J., to Servco Equipment Co. Steam table. 2,847,552, 8–12–58, Cl. 219—43.
Gatsert, Ernest H., to General Dynamics Corp. Drop-back type selector. 2,847,510, 8–12–58, Cl. 179—18.
Gauthier, Ralph H., and F. L. White, to The Patent and Licensing Corp. Shingle stacking machine. 2,847,109, 8–12–58, Cl. 198—35.
Gaynor, Keyes C. Articulated car. 2,846,954, 8–12–58, Cl. 105—4.
Gebhart, Julius C.: *See*—
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General American Transportation Corp.: *See*—
Talmey, Paul, and Gutzeit. 2,847,327.
General Aniline & Film Corp.: *See*—
Bloom, Albert, Freyermuth, and Normington. 2,847,440.
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General Dynamics Corp.: *See*—
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Beggs, James E., and Webster. 2,847,604.
Clark, David L. 2,846,776.
Copeland, William M. 2,846,936.
Crowley, George C., Gordon, and Wise. 2,847,546.
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Foley, Robert T., and Raymond. 2,846,759.
Glassanos, Andrew. 2,847,650.
Gordon, Walter H., Jr. 2,847,547.
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Kohn, Leo S. 2,847,342.
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McCarty, Orin P., De Noyers, and McKenney. 2,847,541.
Parker, Theodore B. 2,846,845.
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Taft, Ernest A., Jr., and Horn. 2,847,544.
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General Electric Co. Ltd., The: *See*—
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General Mills, Inc.: *See*—
Brastad, William A. 2,847,124.
Duncanson, Robert H., and Schoen. 2,847,213.
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Szasz, Nandor. 2,847,167.
General Motors Corp.: *See*—
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Short, Brooks H., and Jacke. 2,847,480.
General Precision Laboratory Inc.: *See*—
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Pearce, Heyward J. 2,847,526.
General Telephone Laboratories, Inc.: *See*—
Crabtree, Leonard F. 2,847,512.
Lomax, Clarence E. 2,847,511.
Gerbaud, Auguste H. Motor for industrial and household sewing machines. 2,847,592, 8–12–58, Cl. 310—78.
Gerritsen, Dirk J. Diving board. 2,847,218, 8–12–58, Cl. 272—68.
Geshner, John A., to Western Electric Co., Inc. Methods of making magnetic cores. 2,847,333, 8–12–58, Cl. 117—232.
Gever, Gabriel, to The Norwich Pharmacal Co. N-[1-(5-nitro-2-furyl) ethylidene]-3-amino-2-oxazolidone. 2,847,416, 8–12–58, Cl. 260—307.
Giardina, Andrew N. Remotely controlled toy vehicle. 2,846,813, 8–12–58, Cl. 46—244.
Gifft, George S., D. G. Killion, and M. N. Haller, to International Telephone and Telegraph Corp. Antenna arrays. 2,847,672, 8–12–58, Cl. 343—895.
Glidersleeve, Lester G. Perforated rotary grater shell. 2,847,048, 8–12–58, Cl. 146—91.
Gillette Co., The: *See*—
Brown, Alfred E., and Bogaty. 2,847,351.
Glass, Marvin I., H. E. Morris, and H. A. Goldsmith; said Morris and said Goldsmith assor. to said Glass. Device for selectively forming various pictorial representations and for projecting same on a viewer. 2,846,921, 8–12–58, Cl. 88—27.
Glassanos, Andrew, to General Electric Co. Split collar insulation for stationary electrical induction apparatus. 2,857,650, 8–12–58, Cl. 336—197.
Glassenberg, Marvin. Combined drainage rack and storage receptacle. 2,847,127, 8–12–58, Cl. 211—34.
Gluesenkamp, Earl W., and J. D. Calfee, to Monsanto Chemical Co. Vinylene carbonate-ethylene copolymer and method of producing same. 2,847,398, 8–12–58, Cl. 260—77.5.
Gluesenkamp, Earl W., and J. D. Calfee, to Monsanto Chemical Co. Interpolymers of vinylene carbonate with halo-substituted ethylenes. 2,847,401, 8–12–58, Cl. 260—77.5.
Gluesenkamp, Earl W., and J. D. Calfee, to Monsanto Chemical Co. High pressure homopolymerization and interpolymerization of vinylene carbonate. 2,847,402, 8–12–58, Cl. 260—77.5.
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Glass, Marvin I., Morris, and Goldsmith. 2,846,921.
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Hoerts, Joseph B. 2,847,404.
Lessig, Edward T. 2,846,752.
Goodwin, Fred W. Barbecue basket. 2,846,941, 8–12–58, Cl. 99—340.
Goodwin, Walter H., to Sierra Engineering Co. Prosthetic hinge strap. 2,846,690, 8–12–58, Cl. 3—12.2.
Gordon, Bertie H.: *See*—
Ogle, Hatton G., Sr. 2,847,019.
Gordon, Walter H., Jr.: *See*—
Crowley, George C., Gordon, and Wise. 2,847,546.
Gordon, Walter H., Jr., to General Electric Co. Vaporizer with steam generator. 2,847,547, 8–12–58, Cl. 219—38.
Gordon, Walter H., Jr., and R. A. Wise, to General Electric Co. Vaporizer. 2,847,548, 8–12–58, Cl. 219—38.
Gornowski, Edward J.: *See*—
Hemminger, Charles E., Martin, Rich, and Gornowski. 2,847,360.
Govatsos, Edward A., to Peters Machinery Co. Depositor for sandwiching machine. 2,846,960, 8–12–58, Cl. 107—1.
Grabendorfer, Werner, to Krautkrämer, Joseph and H. Apparatus for locating defects. 2,846,875, 8–12–58, Cl. 73—67.8.
Graham, Carroll R.: *See*—
Ebarb, Gilbert B., Sr. 2,847,201.
Graham, Wray F. Vertically adjustable coupling for connecting tractors with implements or vehicles. 2,847,232, 8–12–58, Cl. 280—490.
Granberg, Elof. File tool handle. 2,846,755, 8–12–58, Cl. 29—80.
Granzow, Daniel B., Jr., to The National Cash Register Co. Calender device. 2,846,877, 8-12-58, Cl. 73—159.
Gratzmuller, Jean L. Sealing devices. 2,847,262, 8–12–58, Cl. 309—23.
Gray, John R.: *See*—
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Gray Robert C., and H. A. Greene, Jr., to Remler Co., Ltd. Receiver amplifier. 2,847,506, 8–12–58, Cl. 179—1.
Gray, William T., to Leeds and Northrup Co. Apparatus for measuring and/or controlling surface temperatures under non-black-body conditions. 2,846,882, 8–12–58, Cl. 73—355.
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Greenlee, Sylvan O., to S. C. Johnson & Son, Inc. Polyepoxide polyester and phenol-aldehyde compositions and process of making same. 2,847,393, 8–12–58, Cl. 260—44.
Greenlee, Sylvan O., to S. C. Johnson & Son, Inc. Compositions of polyepoxide polyesters and aromatic sulfonamide-aldehyde condensates and method of making same. 2,847,394, 8–12–58, Cl. 260—45.3.
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Gremmelmaier, Rolf, and H. Welker, to Siemens-Schuckertwerke Akt. Semiconductor devices and method of manufacturing them. 2,847,335, 8–12–58, Cl. 148—1.5.
Grib, Boris F., to Philamon Laboratories, Inc. Voltage regulator for A. C. power supplies. 2,847,637, 8–12–58, Cl. 323—22.
Griffith, Leona E. Vapor cabinet. 2,847,006, 8–12–58, Cl. 128—191.1.
Gross, Frank C., to Package Machinery Co. Method of and apparatus for making a carton. 2,846,930, 8–12–58, Cl. 93—51.
Gross, Frank C., to Package Machinery Co. Article orienting and conveying mechanisms. 2,847,108, 8–12–58, Cl. 198—33.
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Halbrook Raymon L., Harris, and Kennerly. 2,847,075.
Gulf Research & Development Co.: *See*—
Beuther, Harold, Offutt, and Siecke. 2,847,359.
Hirsch, Joel H. 2,847,364.
Gunther, Ulrich, to Inventa A.-G., fur Forchung und Patentverwertung Luzern. Electrical impact fuses. 2,846,950, 8–12–58. Cl. 102—70.2.
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Gutzeit, Gregoire: *See*—
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Guyer, Reynolds, and R. M. Dunning, to Waldorf Paper Products Co. Dispenser box. 2,847,153, 8–12–58, Cl. 229—17.
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Hosmer, Chester C., and Launder. 2,846,791.
Haase, Ernest H.: *See*—
Patterson, William J., and Haase. 2,846,717.
Hagenlocher, Ernest. Torsionally resilient flexible couplings. 2,846,856, 8–12–58, Cl. 64—13.
Hagenlocher, Ernest. Torsionally resilient flexible couplings. 2,846,857 8–12–58. Cl. 64—13.
Hager, Karl F., and M. Rosenthal, said Hager to United States of America, Army. Nitroform inhibited fuels. 2,847,292, 8–12–58, Cl. 52—0.5.
Haislet, John A., to Riegel Paper Corp. Tree poisoning axe. 2,846,817, 8–12–58, Cl. 47—57.5.
Haka, George F. Tool for cleaning blind bores. 2,846,710, 8–12–58. Cl. 15—345.
Halbrook, Raymon L., M. S. Harris, and K. S. Kennerly, to Gulf Oil Corp. Tool and guide therefor. 2,847,075, 8–12–58, Cl. 166—241.
Hall, George V. B., to Thompson Products, Inc. Control valve. 2,846,850. 8–12–58. Cl. 60—97.
Hall, J. and E., Ltd.: *See*—
Bailey William J. 2,847,090.
Hall, Joseph E. Wheel suspension for trailers. 2,847,228, 8–12–58 Cl. 280—81.
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Harris, Linden E., Hall, Seibert, and Bales. 2,847,293.
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Giffin, George S., Killion, and Haller. 2,847,072.
Halley, Angus M. Web tension controlling means for use in association with printing machines. 2,847,210, 8–12–58, Cl. 271—2.3.
Halley, Angus M. Web tension controlling device particularly for use in association with printing machines. 2,847,211, 8–12–58 Cl. 271—2.3.
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Brink, Norman G., Ham, Harman, and Sarett. 2,847,425.
Ham, Edward A.: *See*—
Harman, Robert E., Brink, Ham, and Sarett. 2,847,412.
Hamilton, James O., and J. P. Laico, to Bell Telephone Laboratories, Inc. Reflex klystron. 2,847,609, 8–12–58, Cl. 315—5.22.
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Rasch, Royal H., Fleming, Leemhuis, and Sutton. 2,847,304.
Hammond, Laurens, to Hammond Organ Co. Circular scale electrical musical instrument. 2,846,913, 8–12–58, Cl. 84—1.01.
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Hansen, Dayne D. Electronic circuits for controlling illumination intensity in ionizable gas display tubes or the like. 2,847,616, 8–12–58. Cl. 315—181.
Hansen, Donald J., and F. A. Tann, to Equipment Mfg. Co., Inc. Means to prevent operation of a truck while a tank thereon is in fluid communication with another tank. 2,847,023, 8–12–58, Cl. 137—351.
Hansley, Virgil L.: *See*—
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Hardman, Leon. Double operation forming die. 2,847,052, 8–12–58, Cl. 153—21.
Hardman, Leon. Die means for forming deep bends. 2,847,053, 8–12–58, Cl. 153—21.
Hare, Aaron H. Battery lifter. 2,847,243, 8–12–58, Cl. 294—16.
Harman, Marion W., and J. J. D'Amico, to Monsanto Chemical Co. Propynyl dithiocarbamates. 2,847,419, 8–12–58, Cl. 260—313.
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Harman, Robert E., N. G. Brink, E. A. Ham, and L. H. Sarett, to Merck & Co., Inc. 18-oxygenated etiocholenic acid derivatives. 2,847,412. 8–12–58, Cl. 260—239.57.
Harper, Robert H., and M. M. Voegeli, to Swift & Co. Curing meat emulsion. 2,847,312, 8–12–58. Cl. 99—159.
Harrington, Frank A., and T. W. Jentges, to Marco Industries Co., Inc. Illuminated push button switch. 2,847,559, 8–12–58. Cl. 240—2.
Harris-Intertype Corp.: *See*—
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Harris, Linden E., V. L. Hall, F. J. Seibert, and I. W. Bales, to Chipman Chemical Co., Inc. Plant growth control and herbicidal composition and process of using the same. 2,847,293, 8–12–58, Cl. 71—2.4.
Harris, Marion S.: *See*—
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Hart, Fred P.: *See*—
Hughes, Robert H. and C. H., Hart, and Reintjes. 2,847,369.
Hart, George B., Inc.: *See*—
Motose, Thomas E. P. P. 1,740.
Hart, J. Ralph: *See*—
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Harter, Charles H., to Ideavelopers, Inc. Scissors having handles with flexible loops. 2,846,766, 8–12–58, Cl. 30—341.
Hartley, George C., and F. H. Bray, to International Standard Electric Corp. Storage of electrical intelligence. 2,847,657, 8–12–58, Cl. 340—174.
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Hartman, William W. Grinding charge for ball mills. 2,847,169, 8–12–58, Cl. 241—184.
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Anderson, Paul E., and Stam. 2,847,020.
Anderson, Paul E., and Stam. 2,847,186.
Harvey, Winston S., and H. Eisler, to Raytheon Mfg. Co. Electric motor controls. 2,847,632, 8–12–58, Cl. 318—327.
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Hawthorne, Nathaniel F., and N. H. Bergfelt, to Friden, Inc. Calculating machine. 2,847,160, 8–12–58, Cl. 235—63.
Haydon, Arthur W., to Consolidated Electronics Industries Corp. Electric rotating machinery. 2,847,589, 8–12–58, Cl. 310—40.
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Heffron, Joseph and L. Fish hook. 2,847,220, 8–12–58, Cl. 43—44.83.
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Heffron, Joseph and L. 2,847,220.
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Debus, Karl, and Heimel. 2,847,116.
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Hengstebeck, Robert J., to Standard Oil Co. Separation of hydrogen sulfide and hydrocarbons from hydrogen streams. 2,847,361, 8–12–58, Cl. 196—50.

Hennecke, Rudolph, to Daimler-Benz Akt. Device for balancing vehicle road wheels. 2,847,250, 8–12–58, Cl. 301—5.
Hennessey, William F., to Boyle Machine & Supply Co., Inc. Self-cleaning conveyor. 2,846,975, 8–12–58, Cl. 118—324.
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Herbst, Edward J., to The Singer Mfg. Co. Feeding mechanisms for sewing machines. 2,846,965, 8–12–58, Cl. 112—210.
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Farley, George F., and Hildebrandt. 2,847,175.
Hiler, Malvern J., to The Commonwealth Engineering Co. of Ohio. Detergent-soil suspending composition containing carboxymethyl dextron. 2,847,385, 8–12–58, Cl. 252—152.
Hill, David. Key container. 2,846,866, 8–12–58, Cl. 70—456.
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Hilty, Donald C., P. H. Crayton, and J. J. Darby, to Union Carbide Corp. Exothermic manganese addition agents. 2,847,296, 8–12–58, Cl. 75—27.
Hirsch, Joel H., to Gulf Research & Development Co. Process for conversion of hydrocarbons and for transport of solid particles. 2,847,364, 8–12–58, Cl. 196—53.
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Hobday, Harold W., to Gurries Mfg. Co. Control system for finish levelers. 2,846,792, 8–12–58, Cl. 37—180.
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Hoertz, Joseph H., to The B. F. Goodrich Co. High stability latices. 2,847,404, 8–12–58, Cl. 260—80.
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Hofshagen, Olav. Arrangement of maps. 2,846,782, 8–12–58, Cl. 33—42.
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Holden, William H. T., and E. Vroom, to Bell Telephone Laboratories, Inc. Stage-by-stage all-relay telephone switching system using voice frequency control. 2,847,508, 8–12–58, Cl. 179—16.
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Hosmer, Chester C., and E. L. Launder, to H. & L. Tooth Co. Mounting for digger tooth blade. 2,846,791, 8–12–58, Cl. 37—142.
Hosmer, William A., to General Aniline & Film Corp. Molecular weight fractionation of polyvinylpyrrolidone. 2,847,407, 8–12–58, Cl. 260—88.3.
Hotchner, Sidney. Case construction. 2,847,100, 8–12–58, Cl. 190—41.
Houdry Process Corp.: *See*—
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Hoven, Alfred C.: *See*—
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Howe, Harry. Automatic voltage stabilising devices for A. C. circuits. 2,847,639, 8–12–58, Cl. 323—45.
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Huerkamp, Edward C., and J. W. Steiner, to Westinghouse Electric Corp. Fluorescent luminaire. 2,847,561, 8–12–58, Cl. 240—51.11.
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Hughes, Robert H. and C. H. Hart, and Reintjes. 2,847,369.
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Hyneman, John R. Scraping devices. 2,846,764, 8–12–58, Cl. 30—172.
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Clapper, Genung L. 2,847,565.
Munn, Robert D. 2,847,529.
Skinner, Burrhus F. 2,846,779.
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International Resistance Co.: *See*—
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International Standard Electric Corp.: *See*—
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Islip, Leonard, to Power Jets (Research and Development) Ltd. Bladed rotors and stators. 2,847,184, 8–12–58, Cl. 253—39.
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Peak, Maitland J., and Jensen. 2,847,654.
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Greenlee, Sylvan O. 2,847,394.
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Johnson, Stanley R. Stamp dispenser. 2,847,118, 8–12–58, Cl. 206—39.
Johnson, William S., A. D. Kemp, and R. Pappo, to Wisconsin Alumni Research Foundation. Steroid intermediates. 2,847,457, 8–12–58, Cl. 260—488.
Jones, Edmund A., to Ortho Pharmaceutical Corp. Single dose applicator. 2,847,011, 8–12–58, Cl. 128—261.
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Jordan, Donald J., to United Aircraft Corp. Pressurized afterburner cooling shroud. 2,846,841, 8–12–58, Cl. 60—35.6.
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Kalbow, Theodore W., to Western Electric Co., Inc. Device for holding a composite article in different positions. 2,846,682, 8–12–58, Cl. 1—128.
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Kane, Eneas D., to United States of America, Atomic Energy Commission. Calutrons. 2,847,575, 8–12–58, Cl. 250—41.9.
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Kaseman, Paul W., to Radio Corp. of America. Spring contact high voltage connector. 2,847,595, 8–12–58, Cl. 313—64.
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Kinsch, Francis J., to The Rauland Corp. Cathode-ray tube filming apparatus. 2,846,974, 8–12–58, Cl. 118—317.
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Kleiber, Joseph P., and O. Podell. Time operated fish feeding device. 2,847,066, 8–12–58, Cl. 161—10.
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Kleine, Johannes, and E. Siggel, to Vereinigte Glanzstoff-Fabriken Akt. Process of polycondensation of diolesters of aromatic dicarboxylic acids. 2,847,397, 8–12–58, Cl. 260—73.
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Knowles, Charles M. Trenching device. 2,846,787, 8–12–58, Cl. 37—99.
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Kohler, Horst, to Carl Zeiss. Optical system for a prism binocular. 2,846,922, 8–12–58, Cl. 88—57.
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Kohn, Leo S., to General Electric Co. Ethoxyline resin compositions and their preparation. 2,847,342, 8–12–58, Cl. 154—140.
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Kokalas, Edward, to Bendix Aviation Corp. Electrical connector. 2,847,652, 8–12–58, Cl. 339—45.
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Kopczynski, John F. Fluted perforating punch devices or tools. 2,847,069, 8–12–58, Cl. 164—124.
Kosinski, Joseph W., to Scully-Jones and Co. Tool holder and ejector. 2,847,225, 8–12–58, Cl. 279—103.
Kozacka, Frederick J., to The Chase-Shawmut Co. Modular low impedance fuse. 2,847,537, 8–12–58, Cl. 200—135.
Kramer, Clarence F., to Ford Motor Co. Motor vehicle body construction. 2,847,247, 8–12–58, Cl. 296—44.5.
Kratt, Gerhard, and O. Holstein, to International Standard Electric Corp. Device to drive circular type-carriers. 2,847,505, 8–12–58, Cl. 178—34.
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Kulik, Sigmund A. Self checking hat and coat locker. 2,847,265, 8–12–58, Cl. 312—222.

Kumm, Emerson L., to Propulsion Research Corp. Liquid piston expansible chamber motor control system. 2,846,979, 8–12–58, Cl. 121—1.

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Pruna, Matei. 2,847,303.

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Lettieri, Frank A. Self propelled reversing toy. 2,846,814, 8–12–58, Cl. 46—244.

Levetus, Francis B., and G. E. Chittenden, to The Keelavite Co. Ltd. Apparatus for maintaining a predetermined relationship between the speeds of two independently driven members. 2,846,849, 8–12–58, Cl. 60—53.

Lewis, John W., to Raytheon Mfg. Co. Gyroscope pick-off devices. 2,847,664, 8–12–58, Cl. 340—345.

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Lill, John F., and R. J. Eminger, to Fort Wayne Tool, Die & Engineering Co. Winding apparatus for distributed wound stators. 2,847,170 8–12–58, Cl. 242—1.1.

Lin, Hung C., to Radio Corp. of America. Semiconductor devices and stabilization thereof. 2,847,583, 8–12–58, Cl. 307—88.5.

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Logan, John E., to The Wean Engineering Co., Inc. Electroplating zinc on basis metal. 2,847,373, 8–12–58, Cl. 204—55.

Lomax, Clarence E., to General Telephone Laboratories, Inc. Rapid change-over in automatic switches. 2,847,511, 8–12–58, Cl. 179—18.

Long, Carleton C., and H. K. Najarian, to St. Joseph Lead Co. Method of purifying and desulfurizing zinc sulfide ores and concentrates. 2,847,294, 8–12–58, Cl. 75—9.

Long, Roger A. Alloys for bonding titanium base metals to metals. 2,847,302, 8–12–58, Cl. 75—134.

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Lyon, George A. Wheel structure. 2,847,096, 8–12–58, Cl. 188—264.

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Maloof, Ralph P. Air handling and heating apparatus. 2,846,816, 8–12–58, Cl. 47—2.
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Markman, Moe, to The Miracle Strip Corp. Tackless rug fastener means. 2,846,712, 8–12–58, Cl. 16—16.
Markowitz, Oscar. Overvoltage fault detection means in electric generating systems. 2,847,618, 8–12–58, Cl. 317—13.
Marks, Lou F., and L. Louik, to Bruce Molded Plastics Products, Inc. Frame for mirror in train case. 2,846,800, 8–12–58, Cl. 40—152.
Marquardt, John A., to Streeter-Amet Co. Car actuated circuit controller. 2,847,562, 8–12–58, Cl. 246—249.
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Marx, Raymond W. Line dresser. 2,846,705, 8–12–58, Cl. 15—134.
Mas, Georges M., to Societe Industrielle de Transmissions. Speed variator. 2,846,894, 8–12–58, Cl. 74—230.17.
Masci, Joseph N., and W. H. Ashton, to Johnson & Johnson. Method of making absorbent dental point. 2,846,927, 8–12–58, Cl. 93—1.
Masian, Frank, and E. A. Stoddard, Jr., to Escambia Chemical Corp. Production of acrylonitrile. 2,847,446, 8–12–58, Cl. 260—465.3.
Masian, Frank, and E. A. Stoddard, Jr., to Escambia Chemical Corp. Vapor phase production of acrylonitrile. 2,847,449, 8–12–58, Cl. 260—465.3.
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Mason, Donald W., and W. H. Myers, to Harbison-Walker Refractories Co. Reinforcing insert for furnace block. 2,846,963, 8–12–58, Cl. 110—99.
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Maude, Aylmer H., and D. S. Rosenberg, to Hooker Electrochemical Co. Production of octachloromethylenecyclopentene. 2,847,481, 8–12–58, Cl. 260—648.
Mauldin, Lloyd F., to The Garrett Corp. Cabin pressure outflow valve. 2,846,934, 8–12–58, Cl. 98—1.5.
Mazo, Robert M., and S. Larach, to Radio Corp. of America. Electroluminescent materials. 2,847,386, 8–12–58, Cl. 252—301.6.
McAdams, William A., and M. H. Foss, to United States of America, Atomic Energy Commission. Leakage testing method. 2,846,872, 8–12–58, Cl. 73—45.5.
McCarthy, Edward J., and A. F. Whitehead, to Pneumatic Scale Corp. Vacuum filling machine. 2,847,040, 8–12–58, Cl. 141—51.
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McCarty, Orin P., R. J. De Noyers, and J. F. McKenney, to General Electric Co. Double break liquid blast contactor. 2,847,541, 8–12–58, Cl. 200—150.
McClintock, John H., and R. W. Martz, Jr., to Esso Research and Engineering Co. Floatable partition for liquid storage tanks. 2,847,142, 8–12–58, Cl. 220—26.
McCloud, George R., to McGraw-Edison Co. Fuse construction. 2,847,535, 8–12–58, Cl. 200—114.
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McRae, Edwin C., to Ford Motor Co. Valve means for tractor hydraulic system. 2,847,030, 8–12–58, Cl. 137—621.
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Michel, Laurent P., and T. H. Goodgame, to Godfrey L. Cabot, Inc. Process for production of mixed metal oxides. 2,847,316, 8–12–58, Cl. 106—288.
Michlin, Hyman A. Voltage controlled emission from a phosphor screen. 2,847,602, 8–12–58, Cl. 313—108.
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Miles, John R., to Chicago Aerial Industries, Inc. Binocular eye lens system. 2,846,918, 8–12–58, Cl. 88—1.
Miller, Albert. Trailer load equalizer. 2,847,231, 8–12–58, Cl. 280—483.
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Miller, Fred A., deceased; L. N. Miller, executrix. Automobile storage. 2,847,131, 8–12–58, Cl. 214—16.1.
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Mitchell, Joseph E., to Colgate-Palmolive Co. Preparation of aromatic sulfonate salts. 2,847,459, 8–12–58, Cl. 260—505.
Mitchell, Reid L., R. F. Bampton, and W. H. Wadman, to Rayonier Inc. Process for producing hydroxyethoxycellulose. 2,847,411, 8–12–58, Cl. 260—231.
Mock, Frank C., to Bendix Aviation Corp. Fuel system for gas turbine engines having means for avoiding compressor instability. 2,846,846, 8–12–58, Cl. 60—39.28.
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Moore, John H., to Leeds and Northrop Co. Circular-chart exhibiting device. 2,847,269, 8–12–58, Cl. 346—17.
Morgan, Chester S., and J. W. Walker, to Celanese Corp. of America. Oxidation of ethylenically unsaturated fatty acids. 2,847,431, 8–12–58, Cl. 260—406.
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Patton, Woodie. Automobile molding clip. 2,846,743, 8–12–58, Cl. 24—73.
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Peak, Maitland J., and R. H. Jensen, to Coastal Mfg. Co. Lamp socket for edge lighted panel. 2,847,654, 8–12–58, Cl. 339—130.
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Polk, William E. Electro mechanical bird device. 2,846,798, 8–12–58, Cl. 40—106.33.
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Pound, Richard T., and L. L. Green, to Robertshaw-Fulton Controls Co. Control device. 2,847,539, 8–12–58, Cl. 200—138.
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Rabinowitz, Mildred H. Pony tail hair clasp and ornament. 2,847,016, 8–12–58, Cl. 132—48.
Race, William F. Wheel alignment tool. 2,846,774, 8–12–58, Cl. 33—203.
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Evans, Arthur G. 2,847,514.
Finkelstein, Morris B. 2,847,569.
Hughes, Richard H. 2,847,598.
Kaseman, Paul W. 2,847,595.
Kaseman, Paul W. 2,847,598.
Lin, Hung C. 2,847,583.
Mase, Robert M., and Larsch. 2,847,586.
Morrell, Albert M. 2,847,600.
Pankove, Jacques I. 2,847,336.
Pettus, James L. 2,847,626.
Thornburg, David L. 2,847,608.
Zworykin, Vladimir K., Flory, and Pike. 2,847,080.
Raisk, Alexander and L. Scrap metal breaker. 2,846,754, 8–12–58, Cl. 29—68.
Raisk, Lincoln: *See*—
Raisk, Alexander and L. 2,846,754.
Ramadanoff, Dimiter, to Union Carbide Corp. Method for introducing metallic silver in carbon with uniform distribution. 2,847,332, 8–12–58, Cl. 117—228.
Rasch, Royal H., K. H. Fleming, P. L. Leemhuis, and H. Sutton, to Hammermill Paper Co. Semi-chemical pulp process. 2,847,304, 8–12–58, Cl. 92—6.
Rauland Corp., The: *See*—
Kinsch, Francis J. 2,846,974.
O'Callaghan, Jerome J. 2,846,973.
Ray, Edwin H.: *See*—
Carnahan Thomas D., and Ray. 2,847,317.
Raymond, Edward V.: *See*—
Foley, Robert T., and Raymond. 2,846,750.
Rayonier Inc.: *See*—
Mitchell, Reid L., Bampton, and Wadman. 2,847,411.
Raytheon Mfg. Co.: *See*—
Harvey, Winston S., and Eisler. 2,847,632.
Lewis, John W. 2,847,664.
Reed, Robert D., J. S. Zink, Jr., and R. P. Duncan, to John Zink Co. Gas and liquid fuel burner assembly. 2,847,063, 8–12–58, Cl. 158—106.
Reeves, Herbert M., and J. B. Mathis, to Florence Stove Co. Wall mounted room heater. 2,846,997, 8–12–58, Cl. 126—116.
Regie Nationale des Usines Renault: *See*—
Péras, Lucien. 2,846,991.
Reintjes, George P. Chamber lining. 2,846,867, 8–12–58, Cl. 72—19.
Reintjes, Harold: *See*—
Hughes, Robert H. and C. H., Hart, and Reintjes. 2,847,369.
Reitman, Abraham J. Float-operated valve. 2,847,025, 8–12–58, Cl. 137—426.
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Gray, Robert C., and Greene. 2,847,506.
Renard, Roland E., to National Can Corp. Edger means for bending the edge of a can blank. 2,847,051, 8–12–58, Cl. 153—16.
Republic Steel Corp.: *See*—
Schofield, Cecil. 2,847,376.
Rescsanski, Joseph A.: *See*—
Taylor, Douglas E., Sherman, Skoog, and Rescsanski. 2,847,223.
Research Corp.: *See*—
Taylor, Richard, Rex, and Kuntzleman. 2,847,008.
Rettig, David F. Fish hook baiter. 2,846,803, 8–12–58, Cl. 43—4.
Rex, Donald K.: *See*—
Taylor, Richard, Rex, and Kuntzleman. 2,847,008.
Rice, Harold B.: *See*—
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Rice, Lyman A., to General Motors Corp. Centrifugal switch. 2,847,530, 8–12–58, Cl. 200—80.
Rich, Wilson C., Jr.: *See*—
Hemminger, Charles E., Martin, Rich, and Gornowski. 2,847,360.
Richard, Albert: *See*—
Metral, Charles, and Richard. 2,846,931.
Ricks, Marc. Protective alarm signal for motor vehicles. 2,847,636, 8–12–58 Cl. 340—52.
Rider, Stuart H., T. Aanas, and W. D. Burke, to Monsanto Chemical Co. Foundry sand core compositions and method of preparation. 2,847,388, 8–12–58, Cl. 260—17.3.
Ridland, Alexander C., to Hydro-Aire, Inc. Fuel pump, 2,846,952, 8–12–58, Cl. 103—113.
Riegel Paper Corp.: *See*—
Haislet, John A. 2,846,817.
Rieter, Joh. Jacob, & Cie.: *See*—
Wildbolz, Rudolf. 2,846,728.
Rikli, Walter R.: *See*—
Shoemaker, John D., and Rikli. 2,847,219.
Riseman, Jacob, D. M. Hoffman, and B. Solow, to International Resistance Co. Apparatus and method for evaporating films in certain types of electrical components. 2,847,325, 8–12–58, Cl. 117—107.
Ritter, Rolf, to Gustav Bach Firma Kupfer-Asbest-Co. Vibratory current converter. 2,847,542, 8–12–58, Cl. 200—166.
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Ritzerfeld, Wilhelm and G. 2,847,214.
Ritzerfeld, Wilhelm and G. Ejector mechanism for printing machines. 2,847,214, 8–12–58, Cl. 271—64.
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Marchand, Gaston A. 2,847,520.
Robertshaw-Fulton Controls Co.: *See*—
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Daly, James U. 2,846,884.
Pound, Richard T., and Green. 2,847,539.
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Robertson, Dale N., to The Dow Chemical Co. Condensation products of 2,3-dichloroaniline and a benzaldehyde compound. 2,847,472, 8–12–58, Cl. 260—566.
Robertson, Dale N., to The Dow Chemical Co. 2,3-dichloro-n-(O-chlorobenzylidene)aniline. 2,847,473, 8–12–58, Cl. 260—566.
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Robertson, Nat C., and T. R. Steadman, to Escambia Chemical Corp. Production of alpha hydroxyisobutyric acid. 2,847,465, 8–12–58, Cl. 260—533.
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Rodenhausen, Andreas, to Faber & Schleicher Akt. Gripper control for sheet printing machines. 2,846,947, 8–12–58, Cl. 101—409.
Roessler, Charles E., Jr. Sequence program control. 2,846,892, 8–12–58, Cl. 74—54.
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De Benneville, Peter L., and Hurwitz. 2,847,409.
Hwa, Jesse C. H., and Watanabe. 2,847,478.
Melamed, Sidney. 2,847,399.
Melamed, Sidney. 2,847,441.
Schmidle, Claude J., and Mansfield. 2,847,414.
Watanabe, Warren H., and Conlon. 2,847,477.
Rohn, Ivan D. Cross brace and method of making same. 2,846,760, 8–12–58, Cl. 29—193.5.
Rohrbeck, Harold H., to Olympia Brewing Co. Brewing process. 2,847,309, 8–12–58, Cl. 99—52.

Rolls-Royce Ltd.: *See*—
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Maude, Aylmer H., and Rosenberg. 2,847,481.

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Hager, Karl F., and Rosenthal. 2,847,292.

Ross, Milton E.: *See*—
Noyes, Haselhurst R., and Ross. 2,847,092.

Ross, Will, Inc.: *See*—
Polsin, Winfred J. 2,846,796.

Ross, William M., to Westinghouse Electric Corp. Two-way anti-drip distributing valve. 2,847,028, 8–12–58, Cl. 137—600.

Roth, Leo. Storm shade. 2,847,064, 8–12–58, Cl. 160—267.

Roth, Saymon: *See*—
Cohen, Elie, and Roth. 2,847,304.

Royall, William L. Brush. 2,846,706, 8–12–58, Cl. 15—145.

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Hallsworth, Henry B. 2,846,739.

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Ruff, Wolfram, to Alfred Teves Maschinen-und Armaturenfabrik KG. Process for the production of cast iron having needle-shaped crystalline structure. 2,847,377, 8–12–58, Cl. 148—21.7.

Rushing, George, Jr. Screen door latch holder. 2,847,241, 8–12–58, Cl. 292—95.

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Ryan Aeronautical Co., The: *See*—
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Rysti, Alpo A., to Oy. Kaukas Ab. Arrangement in conveyors for transporting piles of lumber. 2,847,110, 8–12–58, Cl. 198—35.

Safety Bath Rail, Inc.: *See*—
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Saginaw Products Corp.: *See*—
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St. John, James C.: *See*—
Maly, Joe W., and St. John. 2,847,074.

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Long, Carleton C., and Najarian. 2,847,294.

Sakurai, Takehisa. Gelatin dynamite explosives containing water. 2,847,291, 8–12–58, Cl. 52—5.

Salkield, Joseph L. Coiled material dispenser. 2,847,172, 8–12–58, Cl. 242—129.

Sallmann, Richard, to Ciba Ltd. New compounds containing nitrogen and phosphorus. 2,847,442, 8–12–58, Cl. 260—439.

Samer, Rudolf W.: *See*—
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Santi, Harris H., to Electronic Reproducers, Inc. Accoustical enclosure to stimulate organ tones. 2,487,081, 8–12–58, Cl. 181—31.

Santini, Danilo, to Westinghouse Electric Corp. Elevator systems. 2,847,089, 8–12–58, Cl. 187—29.

Santini, Danilo, and M. Fink, to Westinghouse Electric Corp. Leveling elevator systems. 2,847,091, 8–12–58, Cl. 187—29.

Sarett, Lewis H.: *See*—
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Saucedo, Julian A., to Hoffman Electronics Corp. Distance digital display or the like. 2,847,568, 8–12–58, Cl. 250—27.

Sauret, Ponsa. Apparatus for preparing infusions. 2,846,939 8–12–58, Cl. 99—302.

Sausen, George N., to E. I. du Ponte de Nemours and Co. 2-aryl-1,1,3,3-tetracyanopropenes and their salts, and preparation thereof. 2,847,436, 8–12–58, Cl. 260—438.

Sayles, Benjamin G.: *See*—
Payzer, Samuel D., and Sayles. 2,847,179.

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Schaefer, Edward J. Protection and remote operating control of electric motors. 2,847,631, 8–12–58, Cl. 318—221.

Schaefer Equipment Co.: *See*—
Cale, Roland E. 2,846,958.

Schalkowsky, Samuel: *See*—
Essex, Alois B., and Schalkowsky. 2,847,178.

Schall, Harold L., to Studebaker-Packard Corp. Connecting rod. 2,846,897, 8–12–58, Cl. 74—579.

Schamanek, Charles, to Robotron Corp. Coupling transformer for radio frequency heating applications. 2,847,651, 8–12–58, Cl. 336—200.

Scheufele, Herbert C.: *See*—
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Schilberg, Lloyd E., and G. G. Kretschmar, to United States of America, Navy. Sensitization of photoconductive cells by the use of indium vapor. 2,847,329, 8–12–58, Cl. 117—211.

Schira, Martin P., Jr. Reversible pump for use in a hydraulic torque converter. 2,846,953, 8–12–58, Cl. 103—161.

Schlafly, Hubert J., Jr., to Teleprompter Corp. Sound effect control. 2,847,513, 8–12–58, Cl. 179—100.1.

Schlage, Ernest L., to Schlage Lock Co. Spindle locking construction. 2,847,242, 8–12–58, Cl. 292—169.

Schlage Lock Co.: *See*—
Schlage, Ernest L. 2,847,242.

Schmidle, Claude J., and R. C. Mansfield, to Rohm & Haas Co. 4-arylpyridines. 2,847,414, 8–12–58, Cl. 260—290.

Schmidt, Fred H., to United States of America, Atomic Energy Commission. Calutron. 2,847,577, 8–12–58, Cl. 250—41.9.

Schmiege, Herbert F. Combination hoop and balance stick. 2,846,812, 8–12–58, Cl. 40—220.

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Corbett, William H., Schmitt, and Brunell. 2,847,550.

Schmitt, Joy B., and W. H. Corbett, to The DeVilbiss Co. Nebulizer. 2,847,248, 8–12–58, Cl. 299—88.5.

Schmitt, Joy B., and W. H. Corbett, to The De Vilbiss Co. Electric steam vaporizer. 2,847,549, 8–12–58, Cl. 219—40.

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Duncanson, Robert H., and Schoen. 2,847,213.

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Schofield, Warner D., E. F. Koch, and R. L. Schofield. Power lopping shears. 2,846,765, 8–12–58, Cl. 30—228.

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Schonwise, Theodore H., to Armour and Co. Article releasing apparatus. 2,846,721, 8–12–58, Cl. 17—24.

Schott, Stuart, and V. L. Hansley, to National Distillers and Chemical Corp. Growth accelerator. 2,847,451, 8–12–58, Cl. 260—465.4.

Schroter, Kurt, and B. Walterscheid-Muller, to Jean Walterscheid Maschinenfabrik and Hammerwerk. Freewheeling safety clutch. 2,846,859, 8–12–58, Cl. 64—29.

Schurman, Glenn A., to California Research Corp. Logging device. 2,847,055, 8–12–58, Cl. 340—18.

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Collins, Edward J., Collins, and Schuyler. 2,847,221.

Schwartz, David L. Insulation forming machine. 2,846,825, 8–12–58, Cl. 51—101.

Schwarzberger, Arthur, to American Automation, Inc. Silk screen printing machines. 2,846,946, 8–12–58, Cl. 101—115.

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Feiss, René. 2,847,582.

Scott, Harold V. Writing implement. 2,846,978, 8–12–58, Cl. 120—102.

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Sollman, Paul B., and Dodson. 2,847,427.

Seddon, John C. Variable bandwidth double-tuned transformer. 2,847,649, 8–12–58, Cl. 333—72.

Segesman, Louis E., to The Hoover Co. Suction cleaners. 2,846,709, 8–12–58, Cl. 15—339.

Segui, Jean, to Societe Anonyme dite: Stenotype Grandjean. Device for marking paper tapes in shorthand typewriters, calculating machines and the like. 2,847,104, 8–12–58, Cl. 197—9.

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Seifried, Paul E., to Bendix Aviation Corp. Vertical gyro combined caging and erecting mechanism. 2,846,880, 8–12–58, Cl. 74—5.1.

Sejouret, Jacques, to Comptoir Industriel d'Etirage et Profilage de Metaux. Method for manuacturing hollow metal sections. 2,846,758, 8–12–58, Cl. 29—156.8.

Selbach, Lawrence G., H. C. Bodine, R. R. Wentz, and D. O. Hatfield, to Bodine Electric Co. Electric motor. 2,847,593, 8–12–58, Cl. 310—90.

Sellet, Lucien. Guanylurea resins and process for producing them. 2,847,396, 8–12–58, Cl. 260—70.

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Sensi, John E.: *See*—
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Serna, Alex. Direct current generator. 2,847,591, 8–12–58, Cl. 310—68.

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Shafer, Philip E., to Minneapolis-Honeywell Regulator Co. Electrical device. 2,847,619, 8–12–58, Cl. 317—166.

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Shankwiler, Don. Door check. 2,846,713, 8–12–58, Cl. 16—83.

Shapiro, Seymour L.: *See*—
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Nixon, Ivor G. 2,847,363.
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Voge, Hervey H., and Atkins. 2,847,475.

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Sherman, Ralph H., Jr.: *See*—
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Sherwin, Chalmers W., to United States of America, Navy. Synchronization system. 2,847,667, 8–12–58, Cl. 343—16.

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Airs, Raymond S., Garner, Hartley, and Shimmin. 2,847,353.

Shirn, George A.: *See*—
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Shonka, Francis R., and A. J. Oklesbee, to United States of America, Atomic Energy Commission. High sensitivity electroscope. 2,847,644, 8–12–58, Cl. 324—109.

Shook, Austen M., to The Texas Co. Apparatus for reaming holes drilled in the earth. 2,847,189, 8–12–58, Cl. 256—76.

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Short, Brooks H., and S. E. Jacke, to General Motors Corp. Ignition system. 2,847,489, 8–12–58, Cl. 123—148.

Shortland, Arthur, to Mellor Bromley & Co. Ltd. Means for the dispersal of fluff or lint from knitting machines. 2,846,860, 8–12–58, Cl. 66—166.

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Sibbald, Frederick R., to The Hoover Co. Squeeze driers. 2,846,863, 8–12–58, Cl. 68—242.

Siciari, Francesco, and A. Bellano, to Snia Viscosa Societa Nazionale Industria Applicazioni Viscosa. Polyvinyl chloride composition and process for wetspinning same. 2,847,271, 8–12–58, Cl. 18—54.

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Simmons, Wilbur G., to United Aircraft Corp. Bearing support. 2,846,847, 8–12–58, Cl. 60—39.32.

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Singher, Heron O., and E. A. Swart, to Ortho Pharmaceutical Corp. Plasma fractionation and product therefrom. 2,847,348, 8–12–58, Cl. 167—74.

Singher, Heron O., and E. A. Swart, to Ortho Pharmaceutical Corp. Plasma preparation. 2,847,349, 8–12–58, Cl. 167—74.

Singher, Heron O., and E. A. Swart, to Ortho Pharmaceutical Corp. Preparation of highly active thromboplastin. 2,847,350, 8–12–58, Cl. 167—74.

Shenandoa Rayon Corp.: *See*—
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Slate, Leslie, ⅛ to H. J. Whitt and ⅛ to O. P. Leonard. Ditch digging attachment for tractors. 2,847,134, 8–12–58, Cl. 214—138.

Slattery, John P., and R. J. Lehnen, to General Electric Co. Air conditioning apparatus having automatic defrost. 2,847,190, 8–12–58, Cl. 257—3.

Slick, Fred S., to J. I. Case Co. Magneto breaker mechanism. 2,847,524, 8–12–58, Cl. 200—30.

Sloan, Harry E., to The Cushman Chuck Co. Universal chuck of the center-adjustable type. 2,847,226, 8–12–58, Cl. 279—116.

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Small, George F., to The General Electric Co. Ltd. Electric amplifier arrangements. 2,847,517, 8–12–58, Cl. 179—171.

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Smiddy, Charles M. Pivotable wrench jaw having quick slidable adjustment. 2,846,911, 8–12–58, Cl. 81—100.

Smiley, Lloyd D., to Gruendler Crusher and Pulverizer Co. Pressurized refining blender for reducing liquid-solid suspensions. 2,847,168, 8–12–58, Cl. 241—46.

Smith, Aaron H., to Signal Mfg. Co. Beater blade assembly. 2,847,198, 8–12–58, Cl. 259—131.

Smith, Alan D., to Westinghouse Electric Corp. Control for heating apparatus. 2,847,553, 8–12–58, Cl. 219—44.

Smith, David B., to Philco Corp. Flux gate compass. 2,847,642, 8–12–58, Cl. 324—43.

Smith, Everet F., to Standard Oil Co. Alumina compositions. 2,847,387, 8–12–58, Cl. 252—466.

Smith, Harold A., to Atomic Energy of Canada Ltd. Mechanical connection. 2,847,143, 8–12–58, Cl. 220—58.

Smith, James L. Automatic control system. 2,847,165, 8–12–58, Cl. 236—91.

Smith, Lewis E., and M. A. Ambrose, to Acme Industries, Inc. Tube supporting and spacing structure for heat exchangers. 2,847,192, 8–12–58, Cl. 257—163.

Smith, Richard G. Toy railroad accessories. 2,846,815, 8–12–58, Cl. 46—245.

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Smyth, Donald M., G. A. Shirn, and K. Lehovec, to Sprague Electric Co. Battery. 2,847,493, 8–12–58, Cl. 136—83.

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Siciari, Francesco, and Bellano. 2,847,271.

Snow, Gerald A., to Whitin Machine Works. Apparatus for loading bobbins on pin-boards. 2,846,833, 8–12–58, Cl. 53—160.

Societa Anonyme de Constructions Electriques Charlerol: *See*—
Brasseur, Eudore D. 2,847,587.

Societe Anonyme dite: Stenotype Grandjean: *See*—
Segui, Jean. 2,847,104.

Societe Anonyme Immobiliere Canadienne Francaise: *See*—
Delacommune, Marcel. 2,847,352.

Societe Billion & Cie.: *See*—
Billion, Jacques. 2,846,839.
Billion, Jacques. 2,846,840.

Societe des Accumulateurs Fixes et de Traction (Societe Anonyme): *See*—
Jeannin, Robert A. A. 2,847,494.

Societe Emeriy: *See*—
Metral, Charles, and Richard. 2,846,951.

Societe Industrielle de Transmissions: *See*—
Mas, Georges M. 2,846,894.

Socony Mobil Oil Co., Inc.: *See*—
Zakin, Jacques L. 2,847,380.

Soderquist, Leslie E., to The McNeil Machine & Engineering Co. Press for shaping and vulcanizing pneumatic tires. 2,846,722, 8–12–58, Cl. 18—17.

Sohlberg, Carl O., and H. G. Thames, to Telefonaktiebolaget L M Ericsson. Speed governor, particularly for dials. 2 847,095, 8–12–58, Cl. 188—184.

Sollman, Paul B., and R. M. Dodson, to G. D. Searle & Co. Δ^4 or 5,16 androstadien-17-alkylsulfones and sulfoxides. 2,847,427, 8–12–58, Cl. 260—397.3.

Solow, Benjamin: *See*—
Riseman, Jacob, Hoffman, and Solow. 2,847,825.

Sommers, Walter J., to Geo. J. Meyer Mfg. Co. Counter-pressure filler valve for beverages. 2,847,043, 8–12–58, Cl. 141—305.

Sonnino, Mario, to American Cyanamid Co. Tow crimper. 2,846,729, 8–12–58, Cl. 19—66.

Sorensen, Harold P.: *See*—
Huppert, Dean L., and Sorensen. 2,846,982.

Southard, Carl D., to International Business Machines Corp. Thyratron circuit. 2,847,573, 8–12–58, Cl. 250—36.

Spafford, Hildreth A. Spring actuated quick acting safety razor. 2,846,763, 8–12–58, Cl. 30—60.5.

Special Equipment Co.: *See*—
Skog, Henry A. 2,847,047.

Sperry Rand Corp., Ford Instrument Co. Division: *See*—
Essex, Alois B., and Schalkowsky. 2,847,178.

Spiegel, Milton, and M. A. Lamb, to Chicago Pump Co. Method and apparatus for treating sewage sludge. 2,847,379, 8–12–58, Cl. 210—6.

Spincraft, Inc.: *See*—
Farley, George F., and Hildebrandt. 2,847,175.

Sprague Electric Co.: *See*—
Smyth, Donald M., Shirn, and Lehovec. 2,847,493.

Spriggs, George E., to British Sugar Corp. Ltd. Package wrapping machines. 2,846,824, 8–12–58, Cl. 53—282.

Spring Load Mfg. Corp.: *See*—
Brown, Chauncey T. 2,846,910.

Sprink, Harry B., to L-W Chuck Co. Vise with an adjustable support for a locking plate. 2,846,907, 8–12–58, Cl. 81—17.

Sribny, Bohdan. Releasable airplane chair with parachute. 2,847,174, 8–12–58, Cl. 244—141.

Stam, Stephen A.: *See*—
Anderson, Paul E., and Stam. 2,847,020.
Anderson, Paul E., and Stam. 2,847,186.

Standard Oil Co.: *See*—
Hengstebeck, Robert J. 2,847,361.
Smith, Everet F. 2,847,387.

Standard Oil Development Co.: *See*—
Mikeska, Louis A. 2,847,445.

Standard Railway Equipment Mfg. Co.: *See*—
Small, Victor G. 2,846,956.

Standard Sulphur Co.: *See*—
Ebarb, Gilbert B., Sr. 2,847,201.

Standard-Thomson Corp.: *See*—
Baker, William R. 2,847,032.

Sta-Rite Evenedge Corp.: *See*—
Markman, Moe. 2,846,712.

Starline, Inc.: *See*—
Ferris, Robert G., and Younger. 2,847,115.
Staten, Hi W., Jr., to Phillips Petroleum Co. Ultra-violet analyzer. 2,847,578, 8–12–58, Cl. 250—43.5.
Staudt, Jean F., to Electro Radio Oech. Electric immersion water heater for washing machines. 2,847,551, 8–12–58, Cl. 219—41.
St4: Barker & Perkins Ltd.: *See*—
Dumas, Albert. 2,847,113.
Steadman, Thomas R.: *See*—
Gardner, James H., and Steadman. 2,847,453.
Robertson, Nat C., and Steadman. 2,847,465.
Steadman, Thomas R., and J. O. H. Peterson, Jr., to National Research Corp. Production of chemicals. 2,847,432, 8–12–58, Cl. 260—406.
Steadman, Thomas R., and J. F. Gabbett, Jr., to Escambia Chemical Corp. Production of acrylonitrile. 2,847,447, 8–12–58, Cl. 260—465.3.
Steadman, Thomas R., and L. H. Sutherland, to Escambia Chemical Corp. Production of acrylonitrile. 2,847,450, 8–12–58, Cl. 260—465.3.
Steadman, Thomas R., and J. O. H. Peterson, Jr., to National Research Corp. 12-Carboxyamido- 11 or 13-octadecenoic acids and esters thereof. 2,847,455, 8–12–58, Cl. 260—482.
Steadman, Thomas R., and J. O. H. Peterson, Jr., to National Research Corp. Alkaline oxidation of monoketo monocarboxylic acids. 2,847,466, 8–12–58, Cl. 260—537.
Steadman, Thomas R., and J. O. H. Peterson, Jr., to National Research Corp. Purification of dodecanedioic and undecanedioic acids. 2,847,467, 8–12–58, Cl. 260—537.
Steadman, Thomas R., to Escambia Chemical Corp. Hydration of acetylene using cadmium pyrophosphate catalyst. 2,847,476, 8–12–58, Cl. 260—605.
Steele, Arthur B., to Union Carbide Corp. Di (hydroxyethyl) imidazolidone-2 and production of N,N'-di-(2-hydroxyethyl) ethylene diamine. 2,847,418, 8–12–58, Cl. 260—309.7.
Steeves, Robert W.: *See*—
Baer, Charles A., and Steeves. 2,846,971.
Steffen, Robert, to W. F. Brock. Sand blast machine. 2,846,822. 8–12–58. Cl. 51—11.
Steiner, Charles S.: *See*—
Ohlson John L., and Steiner. 2,847,433.
Steiner, Joseph W.: *See*—
Huerkamp, Edward C., and Steiner. 2,847,561.
Stem, Donald E. Method and apparatus for separating magnetic sheets. 2,847,212, 8–12–58, Cl. 271—18.
Sterling Drug Inc.: *See*—
Clarke, Robert L. 2,847,428.
Clinton, Raymond O., and Laskowski. 2,847,344.
Stewart Industries, Inc.: *See*—
Bleier, Frank. 2,847,156.
Stewart, Joseph, S. C. Fulton, and A. W. Langer, Jr., to Esso Research and Engineering Co. Process for recovery of oil from shale. 2,847,306, 8–12–58, Cl. 196—14.
Stiff, Bernard G. E., to High Voltage Engineering Corp. Electrostatic accelerator. 2,847,586, 8–12–58, Cl. 310—5.
Still, August J. Flue breather. 2,846,935, 8–12–58, Cl. 98—48.
Stoddard, Edgar A., Jr.: *See*—
Maslan, Frank and Stoddard. 2,847,446.
Maslan, Frank, and Stoddard. 2,847,449.
Stoddard, Orren J., to General Mills, Inc. Audio grip force and disconnect indicator and method. 2,847,663, 8–12–58, Cl. 340—282.
Stokes, F. J., Corp.: *See*—
Frank, Raymond G. 2,846,723.
Stone, Roy A., and L. K. Ploughman, to National Lock Co. Snap-in catch. 2,847,240, 8–12–58, Cl. 292—70.
Stout, Alden. Spreader attachment for mower. 2,847,224, 8–12–58, Cl. 275—8.
Stradley, Charles R. Automatic alarm system. 2,847,507, 8–12–58. Cl. 179—5.
Strand, Karl I., and V. E. Minkler. Broom or mop frame. 2,846,707. 8–12–58. Cl. 15—147.
Straumer, Arlan E. Wedge-shaped rule. 2,846,772, 8–12–58, Cl. 33—174.
Streeter-Amet Co.: *See*—
Marquardt, John A. 2,847,562.
Strickland, Conrad C., to Prime Mfg. Co. Insole rib stripping. 2,847,339, 8–12–58, Cl. 154—53.5.
Stringfellow, Thomas C. Detachable-body cargo carrier. 2,847,137. 8–12–58, Cl. 214—515.
Stroinski, Lucille E.: *See*—
Stroinski, Sylvester T. 2,847,277.
Stroinski, Sylvester T. deceased, by L. E. Stroinski, administratrix. Electroplating racks. 2,847,377, 8–12–58, Cl. 204—297.
Studebaker-Packard Corp.: *See*—
Bopp, Waren G. 2,846,899.
De Lorean, John Z. 2,847,003.
Kauffman, John H. and Hope. 2,846,879.
McFarland, Forest K., Lucia, and De Lorean. 2,846,900.
Schall, Harold L. 2,846,897.
Studer, Clair W., to The Hoover Co. Smoothing iron soleplate. 2,846,783. 8–12–58. Cl. 38—77.
Sulzer Frères, Societe Anonyme: *See*—
Buri, Alfred. 2,847,183.
Sumerford, Simpson D., and J. E. Moise, to Esso Research and Engineering Co. Starting up procedure for the synthesis of hydrocarbons. 2,847,438, 8–12–58, Cl. 260—449.6.
Sun Oil Co.: *See*—
Fear, James V. D. 2,847,485.
Super-Cut, Inc.: *See*—
Miller, Harold C. 2,846,826.
Surmatis, Joseph D., to Hoffman-La Roche Inc. 3-cyclohexylidenepropyl ethinyl methyl carbinol and preparation thereof. 2,847,479. 8–12–58, Cl. 260—617.
Sussman, Harry: *See*—
Rosenberg, Stanley L., and Sussman. 2,847,498.
Sutcliffe, Harold E., to Weldmore Co., Inc. Forming and bending tool with removable bending pin. 2,847,054, 8–12–58, Cl. 153—46.
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Gabbett, James F., Jr., and Sutherland. 2,847,448.
Sutherland, Leslie H.: *See*—
Steadman, Thomas R., and Sutherland. 2,847,450.
Sutton, Harvey: *See*—
Raech, Royal H., Fleming, Leemhuis, and Sutton. 2,847,304.
Svenska Rotor Maskiner Aktiebolag: *See*—
Nilsson, Hans R. 2,847,157.
Swart, Emanuel A.: *See*—
Singher, Heron O., and Swart. 2,847,347.
Singher, Heron O., and Swart. 2,847,348.
Singher, Heron O. and Swart. 2,847,349.
Singher, Heron O., and Swart. 2,847,350.
Swedish Crucible Steel Co.: *See*—
Phillips, David. 2,846,697.
Swett, Russell F., to Duc-Pac, Inc. Duct construction. 2,847,034. 8–12–58. Cl. 138—26.
Swift & Co.: *See*—
Harper, Robert H., and Veegell. 2,847,312.
Henagen, Bernard T., and Beland. 2,846,767.
Ohlson, John L., and Steiner. 2,847,433.
Patterson, William J., and Haase. 2,846,717.
Sengelaub, John F., and Darrow. 2,846,718.
Van Dolah, Delos B., and Lentz. 2,846,720.
Sylvania Electric Products Inc.: *See*—
Bowie, Robert M. 2,847,597.
Goldman, Irwin. 2,847,624.
Symington-Gould Corp. The: *See*—
Blattner, Emil H. 2,847,129.
Symington Wayne Corp.: *See*—
Ainsworth, Freedom H. 2,847,149.
Szasz, Nandor, to General Mills, Inc. Milling process for wheat and similar granular food products. 2,847,167, 8–12–58, Cl. 241—3.
Taft, Ernest A., Jr., and F. H. Horn, to General Electric Co. Silicon semiconductive devices. 2,847,544, 8–12–58, Cl. 201—63.
Tallia, Ernest E.: *See*—
Edwards, John H., and Tallia. 2,847,372.
Talmey, Paul, and G. Gutseit, to General American Transportation Corp. Processes of chemical nickel plating and baths therefor. 2,847,327, 8–12–58, Cl. 117—130.
Tames, Daniel. Surgical gowns. 2,846,686, 8–12–58, Cl. 2—114.
Tann, Fred A.: *See*—
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Tansley, Leslie R., to White Castle System, Inc. Mechanism for supporting and uniting rolls composed of spirally wrapped webs. 2,847,264, 8–12–58, Cl. 312—38.
Taylor, Douglas E., R. H. Sherman, Jr., A. W. Skoog, and J. A. Rzeszewski, to Dictaphone Corp. Sound recording and reproducing apparatus. 2,847,223, 8–12–58, Cl. 274—4.
Taylor, John E.: *See*—
Finkel, Seymour I., and Taylor. 2,847,633.
Taylor, Richard, D. K. Rex, and H. C. Kantzleman, to Research Corp. Blood handling system for extracorporeal circulation devices. 2,847,006, 8–12–58, Cl. 128—214.
Taylor, William. Carbureting means. 2,847,208, 8–12–58, Cl. 48—180.
Telautograph Corp.: *See*—
Rabinow, Jacob. 2,847,502.
Tee-Pak, Inc.: *See*—
Ellies, Ernest E. 2,847,313.
Kambic, Stanley F. 2,846,961.
Tefft, Ross M.: *See*—
Dowlen, George E., and Tefft. 2,847,318.
Telefonaktiebolaget L M Ericsson: *See*—
Lindgren, Erik G. 2,847,662.
Sohlberg, Carl O., and Thames. 2,847,095.
Teleprompter Corp.: *See*—
Schlafly, Hubert J., Jr. 2,847,513.
Ten Bosch, M., Inc.: *See*—
Ten Bosch, Maurits, and Lang. 2,846,889.
Ten Bosch, Maurits, and P. Lang, to M. Ten Bosch, Inc. Gyroscope control system. 2,846,880, 8–12–58, Cl. 74—5.34.
Teves, Alfred, Maschinen-und Armaturenfabrik KG: *See*—
Ruf, Wolfram. 2,847,277.
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Gardner, James H., and Tewksbury. 2,847,453.
Texaco Development Corp.: *See*—
Paull, Peter L. 2,847,300.
Texas Co., The: *See*—
Beavon, David K. 2,847,353.
Douthitt, Merten H. 2,847,470.
Estes, John H. 2,847,280.
Kirkwod, George E., and Twiss. 2,847,439.
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Thames, Hans G.: *See*—
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Thermometer Corp. of America: *See*—
Hobin, John L. 2,846,881.
Therme-Technical Development Ltd.: *See*—
Loewenheim, Ernst. 2,846,999.
Thiele, Willy. Photo-mechanical correction of colours. 2,847,307. 8–12–58, Cl. 96—30.
Thomas, Donald E., to Bell Telephone Laboratories, Inc. Null-type transistor alpha measuring set. 2,847,645, 8–12–58, Cl. 324—158.

Thompson, Emery, Jr., to Emery Thompson Machine & Supply Co. Dasher means for frozen confections producing apparatus. 2,847,197, 8–12–58, Cl. 259—104.

Thompson, Emery, Machine & Supply Co.: *See*—
Thompson, Emery, Jr. 2,847,197.

Thompson, Kenneth B., ½ to Penn Optical and Instrument Co. Interferometer. 2,846,919, 8–12–58, Cl. 88—14.

Thompson Products, Inc.: *See*—
Hall, George V. B. 2,846,886.

Thornberg, Karl G. F.: *See*—
Christianssen, Broer G., and Thornberg. 2,847,139.

Thornburg, David L., to Radio Corp. of America. Supporting device for helix in traveling wave tubes. 2,847,606, 8–12–58, Cl. 315—8.5.

Thornhill, Jay W., to Texas Instruments Inc. Full wave rectifier structure and method of preparing same. 2,847,623, 8–12–58, Cl. 317—234.

Thylefors, Hearic W., to Aktiebolaget Separator. Centrifugal separator. 2,847,154, 8–12–58, Cl. 233—29.

Tiarco Corp.: *See*—
Topelian, Paul J. 2,847,371.

Tiedman, Robert K., and J. M. Mergen, to Curtiss-Wright Corp. Electrically actuated clutch. 2,847,102, 8–12–58, Cl. 192—84.

Till, Derek E., to Arthur D. Little, Inc. Organic fluosilicate containing polymeric coating composition and method of applying. 2,847,390, 8–12–58, Cl. 260—29.6.

Tipton, John J. Mechanical pipe line clamp. 2,846,968, 8–12–58, Cl. 113—102.

Toland, William G., and E. A. Goldsmith, to California Research Corp. Preparation of adipic acids. 2,847,463, 8–12–58, Cl. 260—531.

Tolman, John A., and H. W. O'Farrell, to Andean Corp. Screen door. 2,847,065, 8–12–58, Cl. 160—378.

Tomlinson, Fay M. Hydraulic force pump. 2,846,898, 8–12–58, Cl. 4—255.

Topelian, Paul J., to Tiarco Corp. Chromium plating on aluminum. 2,847,371, 8–12–58, Cl. 204—32.

Tornblom, Nils A.: *See*—
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Toulmin, Harry A., Jr., to The Commonwealth Engineering Co. of Ohio. Method and apparatus for gas plating printing circuits. 2,847,380, 8–12–58, Cl. 117—212.

Trapp, Walter B., and D. E. Pletcher, to The Dow Chemical Co. 4-Methyl-3-cyclohexene-1-acrylic acid. 2,847,480, 8–12–58, Cl. 260—514.

Trefny, Thomas F. Gun switch connector. 2,846,802, 8–12–58, Cl. 42—84.

Trimble Inc.: *See*—
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Tronnier, Albrecht W., to Farrand Optical Co., Inc. High speed objective lens with anastigmatically flattened field. 2,846,923, 8–12–58, Cl. 88—57.

Tryfus, Frederic. Apparatus for making combination artificial teeth and display carrier. 2,846,785, 8–12–58, Cl. 18—34.1.

Tucker, Stanley. Method for obtaining iron-free aluminum compound from clays. 2,847,279, 8–12–58, Cl. 23—102.

Tucker, Stephen C., ½ to J. Ralph Hart. Live bait dispenser. 2,846,807, 8–12–58, Cl. 43—55.

Turnbow, Grover D., to Foremost Dairies, Inc. Processes for preserving the fresh natural flavor of butterfat and products produced therefrom. 2,847,310, 8–12–58, Cl. 99—54.

Turner, Earl M., to Mohawk Industries, Inc. Sealing composition. 2,847,315, 8–12–58, Cl. 106—123.

Turner, John L.: *See*—
Derby, Palmer, Jacobson, and Turner. 2,847,613.

Twieg, Edward F.: *See*—
Kirkwood, George B., and Twieg. 2,847,439.

Two, Joseph A. ⅛ to C. B. Paden, ⅛ to F. W. Gaffney, and ¼ to C. J. McCue. Brake drum lining. 2,847,085, 8–12–58, Cl. 188—218.

Tyler, Charles M.: *See*—
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Tyler, Vernal M., J. E. Gray, and H. I. Sargeant, to Hughes Aircraft Co. Shock impulse testing apparatus. 2,846,869, 8–12–58, Cl. 73—12.

U C L A F: *See*—
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Underwood, Roy J. Wheeled side-dumping scoop. 2,846,795, 8–12–58, Cl. 37—53.

Ung, L. Tom, to Esso Research and Engineering Co. Centrifugal contacting of fluid phases. 2,847,200, 8–12–58, Cl. 261—84.

Union Carbide Corp.: *See*—
Hilty, Donald C., Crayton, and Darby. 2,847,394.
Matech, Ladislas C. 2,846,853.
Morrison, William G., Jr. 2,847,228.
Ramadanoff, Dimiter. 2,847,232.
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Yenni, Donald M. 2,847,886.

Uniteast Corp.: *See*—
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United Aircraft Corp.: *See*—
Brown, Edmund D. 2,846,842.
Jordan, Donald J. 2,846,841.
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United Aircraft Products, Inc.: *See*—
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United-Carr Fastener Corp.: *See*—
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Apstein, Maurice, Bowles, Mitchell, and Rongus. 2,846,940.
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Butler, John P. 2,847,276.
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United States Steel Corp.: *See*—
Miller, Ernest F., and Nichol. 2,847,120.
Moore, Dewey R. 2,847,007.
Orr, Howard S. 2,847,114.
Priest, Henry M. 2,846,931.

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Upjohn Co., The: *See*—
Allen, Wade W., and Shell. 2,847,570.
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Uthenwoldt, Frederick W., and J. W. Bach, to Pitney-Bowes, Inc. Inking device for value printing meters. 2,846,945, 8–12–58, Cl. 101—91.

Van Amelsfort, Petrus B. C., to North American Philips Co., Inc. Switch arrangement. 2,847,523, 8–12–58, Cl. 200—11.

Van Antwerpen, Lloyd D. Shipping carton for wrap-around windshields and the like having foldable cushioning flaps. 2,847,152, 8–12–58, Cl. 229—14.

Vance, Raymond B. Automatic ejector stop for earth-moving scrapers. 2,846,786, 8–12–58, Cl. 37—126.

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Van de Graaff, Robert J., to High Voltage Engineering Corp. Apparatus for voltage stabilization of constant-potential high-voltage generators. 2,847,611, 8–12–58, Cl. 315—30.

Vandepatte, John, and L. J. Heuser, to Olin Mathieson Chemical Corp. Method for purifying tetracycline. 2,847,471, 8–12–58, Cl. 260—559.

Vander Weele, John C., and H. C. White, to The Dow Chemical Co. Preparation of di-amino acids and their N-acyl derivatives. 2,847,420, 8–12–58, Cl. 260—319.

Van Dolah, Delos B., and I. R. Lents, to Swift & Co. Poultry head removing device. 2,846,720, 8–12–58, Cl. 17—12.

Vanlaer, Pierre G. E. A. Method and apparatus for producing reinforced sheet material. 2,847,050, 8–12–58, Cl. 154—1.7.

Vaughan, Delmas L. Automatic mowing machine guide. 2,847,077, 8–12–58, Cl. 180—79.1.

Vaughan, James L., to National Research Corp. Method of producing refractory metals. 2,847,298, 8–12–58, Cl. 75—84.5.

Vaughan, Joseph, to Lloyd Brothers, Inc. Laxative compositions containing dioctyl sodium sulfosuccinate and 1,8-dihydroxanthraquinone. 2,847,348, 8–12–58, Cl. 167—56.

Vaughan, Joseph B., and H. M. Leyland, to Lloyd Brothers, Inc. Process for the preparation of ferriferro cobaltochloroaminoacetate. 2,847,437, 8–12–58, Cl. 260—439.

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Velluz, Leon, G. Amiard, and R. Goffinet, to U C L A F. Method of preparing tachysterol. 2,847,426, 8–12–58, Cl. 260—397.2.

Vereinigte Aluminum-Werke Akt.: *See*—
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Vereinigte Glanzstoff-Fabriken Akt.: *See*—
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Classification of Designs

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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

August 12, 1958 Volume 733 Number 2

TRADE-MARKS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Ireland to the London 1934 Revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective May 14, 1958, of Ireland to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

June 11, 1958.

Registration to Practice

The following list contains the names of all applicants for registration to practice before the United States Patent Office who attained passing grades in the examination of April 28, 1958. Information tending to affect the eligibility of any of said applicants on moral or ethical grounds should be furnished the Commissioner of Patents on or before September 5, 1958.

ARTHUR W. CROCKER,
Chairman, Committee on Enrollment.

July 15, 1958.

List of Applicants Who Passed the Examination for Registration to Practice Before the Patent Office Held April 28, 1958

Alabama

Hammond, Thomas M., 1022 Grant St., S. E., Decatur, Ala.

Arkansas

Pittman, Ralph R., 5324 Southwood Road, Little Rock, Ark.

California

Belansky, Andrew J., 230 E. Calaveras St., Altadena, Calif.
Brevik, E. Lawrence, 4420 W. 59th Place, Los Angeles 43, Calif.
Carlson, Donald L., 5805 Garford St., Long Beach 15, Calif.
Clouse, Clifton E., Jr., 1556 Mariposa St., Richmond 6, Calif.
Fowler, Allan R., 531 Bridge St., Covina, Calif.
Halstead, Mervin, Hdqtrs., 14 Naval District, Navy #128, % Fleet Post Office, San Francisco, Calif.
Jones, J. L., Sr., 1070 Glen Oaks Blvd., Pasadena 2, Calif.
Kern, Warren L., 1720 Fairmount Ave., La Canada, Calif.
March, George G., 7358 Neo St., Apt. E, Downey, Calif.
Mitchell, James Theodore, 246 Los Cerros Ave., Walnut Creek, Calif.
Moore, Alan J., Rt. 6, Box 184–C, San Jose 99, Calif.
Price, Kenneth A., 727 Chautauqua Blvd., Pacific Palisades, Calif.
Riddell, Baylor G., 368 Waverly St., Menlo Park, Calif.
Thiel, Walter R., 2305 Penmar Ave., Venice, Calif.
Thornton, Robert E., 1475 Powell St., Oakland 8, Calif.
Zentner, Rene David, 2987 Dwight Way, Berkeley 4, Calif.

Connecticut

Franklin, Richard K., 11 Bedford Ave., Apt. K2, Norwalk, Conn.
Kraft, Julius B., Patent Dept., Remington Rand, Wilson Ave., South Norwalk, Conn.
Paulding, Theodore R., 74 Westlook Road, Wethersfield, Conn.

Delaware

Collat, Robert, 104 Stimson Place, Wilmington 3, Del.
Sandt, Bernd W., 1427 Prospect Drive, Kynlyn Apts., Wilmington 3, Del.

CONDITION OF TRADEMARK APPLICATIONS AS OF JUNE 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 12,655
Date of oldest new application ..... Dec. 12, 1957
Date of oldest amended application ..... Nov. 16, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	12-13-57	11-16-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	1-3-58	1-2-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	12-16-57	1-13-58
Renewals (All Classes)	5-25-58	6-20-58
Sec. 12 (c) Publications (All Classes)	6-2-58	6-20-58

Applications Filed During the Month of June 1958—1,900

Registrations Issued ..... 329—No. 665,548 to No. 665,876
Renewals Issued 72

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District of Columbia

Albright, Penrose Lucas, 708 Perpetual Bldg., Washington 4, D. C.
Cockfield, James E., 3130 Wisconsin Ave., Apt. 6, N. W., Washington 16, D. C.
Comfort, James T., % IBM, 425 13th St., N. W., Washington 4, D. C.
Conroy, Edward A., Jr., 3415 38th St., N. W., Washington 16, D. C.
Cutonilli, Anthony, 3825 Davis Place, Apt. 302, Washington, D. C.
Follmer, Frank A., 419 6th St., N. W., Washington, D. C.
Hall, Charles S., Burroughs Patent Div., 1737 H St., N. W., Washington 6, D. C.
Hughes, Robert B., 3047 Porter St., N. W., Washington, D. C.
Klaas, Bruce G., 711 14th St., N. W., Rm. 1203, Washington 5, D. C.
Kruger, Walter, 1159 National Press Bldg., Washington, D. C.
Kurtz, Richard E., 1506 44th St., N. W., Washington, D. C.
Kubani, Thomas L., 1506 44th St., N. W., Washington 7, D. C.
Lubic, Robert B., 2501 Q St., N. W., Apt. 412, Washington 7, D. C.
Macpeak, Thomas J., 1415 K St., N. W., Suite 306, Washington, D. C.
McKeever, James J., 800 Wyatt Bldg., Washington 5, D. C.
Ruff, Robert T., 3516 Texas Ave., S. E., Washington 20, D. C.
Sullivan, Mary R. D., 2727 29th St., N. W., Washington 8, D. C.

Illinois

Alexander, Richard E., 917 Forest Ave., Evanston, Ill.
Begga, Gregory B., 304 S. Euclid Ave., Oak Park, Ill.
Beland Walter H., 26 E. 122nd St., Chicago 28, Ill.
Camasto, Nicholas A., 1176 S. Oak Park Ave., Oak Park, Ill.
Chaban, Marvin M., 330 N. Austin Blvd., Oak Park, Ill.
Clemency, Robert E., 1767 Granville Ave., Chicago 26, Ill.
Dierstein, Melinda Lois, 7645 Sheridan Road, Chicago 26, Ill.
Fosse, John S., 557 Fairview Ave., Glen Ellyn, Ill.
Greenberg, Carl J., 60 E. 32nd St., Chicago 16, Ill.
Hemminger, Paul W., 9817 Richard St., Franklin Park, Ill.
Jennings, James J., Jr., 434 S. Clay St., Hinsdale, Ill.
Kaufman, David D., 5465 S. Everett Ave., Chicago 15, Ill.
Krusemark, Frederick A., 303 S. Second Ave., Maywood, Ill.
Ladd, David L., 5527 So. Woodlawn Ave., Chicago 37, Ill.
Lahr, Jack L., 1715 11th St., Waukegan, Ill.
Meister, Jacque L., 1980 Hawthorne, Melrose Park, Ill.
Prusaczyk, Henry, 423 Bluff St., Alton, Ill.
Sowell, John B., 576 Sheridan Square, Evanston, Ill.
Winokur, Louis L., 741 Brummel St., Evanston, Ill.
Wolfe, Richard R., 1430 Lake Shore Drive, Chicago 10, Ill.

Indiana

Chenea, Gordon H., 1026 S. Parkway, South Bend 19, Ind.
Hay, Louis E., 328 Southmore, Plainfield, Ind.
Nemmers, James C., 1801 N. O'Brien St., South Bend 28, Ind.
Ryan, John Phillip, 229 W. Jackson Blvd., Elkhart, Ind.
Thompson, William S., 1002 E. Victoria, South Bend 14, Ind.

Maryland

Barry, Ronald E., 1542 East-West Highway, Silver Spring, Md.
Becker, John E., 725 Richmond Ave., Silver Spring, Md.
Berger, Robert L., 247-A Rodgers Forge Road, Baltimore 12, Md.
Bonsteel, Lloyd O., 23 Fairmont Place, Indian Head, Md.
Byrne, John J., 7523 Glennon Drive, Bethesda, Md.
Davidson, Samuel L., 4701 Bradley Blvd., Chevy Chase 15, Md.
Fryer, William T., III, 7507 Clarendon Road, Bethesda 14, Md.
Kling, Carl C., 1700 Lebanon St., Adelphi, Md.
Marben, Robert L., 8019 Glenbrook Road, Bethesda 14, Md.
McMorrow, Robert G., 4309 Warner St., Kensington, Md.
Sandler, Donald M., 4101 Barrington Road, Baltimore 7, Md.
Sloan, Arthur M., 1909 East-West Highway, Apt. 104, Silver Spring, Md.
Smyth, Frederick J., 7620 Maple Ave., Apt. 322, Takoma Park 12, Md.
Thomas, Richard H., 8210 Custer Road, Bethesda, Md.
Webb, Thomas H., 2226 Beechwood Road, Hyattsville, Md.

Massachusetts

Dacey, G. Eugene, 74 Hammond St., Cambridge 38, Mass.
Dempsey, John J., 261 Mapleshade Ave., East Longmeadow, Mass
Keay, David M., 53 Barrett St., Needham 92, Mass.
McDevitt, John F., Shawinigan Resins Corp., Springfield 2, Mass.
Schiller, Robert J., Polaroid Corporation, 730 Main St., Cambridge 39, Mass.
Tiffany, James B., Jr., 10 Lisa Road, West Peabody, Mass.
Toelken, Richard W., 32 Elm St., Agawam, Mass.

Michigan

Huizenga, Everett Leroy, 360 Fuller Ave., S. E., Grand Rapids, Mich.
Randles, Carl A., Jr., 5845 Portage St., Kalamazoo, Mich.
Spurrell, Donald W., 673 N. Eton Road, Birmingham, Mich.

Minnesota

Johnson, Clayton R., 832 Midland Bank Bldg., Minneapolis, Minn.
Loos, Calvin J., 5247 Xerxes Ave., S., Minneapolis 10, Minn.
Nikolai, Thomas J., 2085 Lincoln Ave., St. Paul 5, Minn.
Ohm, Kenneth D., 3512 Minikahda Court, St. Louis Park 16, Minn.
Siegfried, Kenneth D., 2601 Yukon Ave., Minneapolis 26, Minn.
Smith, James A., 589 S. Cleveland Ave., Apt. 10, St. Paul 16, Minn.
Sonnermeyer, Herbert F., 2726 Merrill St., St. Paul 13, Minn.

Missouri

Aldrich, C. Frank, 2640 Belair Terrace, Florissant 31, Mo.
Hovey, Robert D., 2528 W. 91, Kansas City 15, Mo.
Williams, Warren N., 3703 E. 47th Terrace, Kansas City, Mo.

New Jersey

Allen, Frank H., Jr., 58 Mercer Ave., North Plainfield, N. J.
Benjamin, Lawrence P., 38—43 Brookside Ave., Fairlawn, N. J.
Berlow, Cynthia, 26 John St., Passaic, N. J.
Bissell, Henry M., 33 Crescent Drive, Whippany, N. J.
Dunn, Robert T., Apt. 11-M, 65 Manor Drive, Newark 6, N. J.
Giancola, Dominic J., 239 Overlook Ave., Leonia, N. J.
Johnson, Olin B., 727 E. Front St., Plainfield, N. J.
Kane, Samuel, 3 S. Haviland Ave., Audubon 6, N. J.
Kenney, J. Ernest, 298 Larch Ave., Dumont, N. J.
Kovalich, John G., 30 Crescent Ave., Jersey City, N. J.
Stanger, Leo, 47 Ethan Drive, Murray Hill, N. J.

New York

Bramlett, Garold E., 1063 McKinley St., Baldwin, N. Y.
Cannaday, Richard L., 1158 5th Ave., New York 29, N. Y.
Ceccon, Clario, 1913 Broadway, Grand Island, N. Y.
Cody, Robert F., 2505 Bellaire St., Wantagh, N. Y.
Comery, Edward G., 68 Vincent Ave., Staten Island 6, N. Y.
Coplein, Gordon D., % Darby and Darby, 405 Lexington Ave., New York 17, N. Y.
Dana, William H., 163 Watauga Ave., Corning, N. Y.
De Simone, Daniel V., 23 Washington Square, W., New York 11, N. Y.
Dowling, Thomas P., 3500 Snyder Ave., Brooklyn 3, N. Y.
Fier, Robert D., Scarsdale Manor Apts., Scarsdale, N. Y.
Fitzgerald, Frank R., Hanover Road, R. F. D. 1, Box RR, Yorktown Heights, N. Y.
Fogiel, Max, 57 Second Ave., New York 3, N. Y.
Frank, Robert J., 697 Colonade Road, West Hempstead, N. Y.
Gilman, Michael G., 48—10 43rd St., Woodside 77, N. Y.
Harsh, Gene, 8 Farragut Ave., Tonawanda, N. Y.
Kilgannon, Thomas J., Jr., 405 Bement Ave., Staten Island 10, N. Y.
King, Stephen L., 100 Bank St., Apt. 5C, New York 14, N. Y.
Klein, Arthur O., 241 E. 38th St., New York, N. Y.
Klitzke, Ramon A., 80—08 135th St., Apt. 219, Jamaica 35, N. Y.
Krein, Arthur N., 117 Bobrich Drive, Rochester 10, N. Y.
Leibowitz, Michael R., 1620 Ocean Ave., Brooklyn 30, N. Y.
Levin, Harry, P. O. Box 388, Fishkill, N. Y.
Levine, Alan H., 67—12 Yellowstone Blvd., Forest Hills 75, N. Y.
Lieber, Robert, 1212 Newkirk Ave., Brooklyn 30, N. Y.
Marn, Louis E., 385 Madison Ave., The Lummus Co., New York 17, N. Y.
Mateer, Kenneth W., 125 Christopher St., New York 14, N. Y.
McGeady, Bernard X., 333 E. 43rd St., New York 17, N. Y.
O'Connell, Thomas B., 69—16 Harrow St., Forest Hills 75, N. Y.
Ostrow, Harvey, 25 Hillside Ave., New York 40, N. Y.
Plunkett, Richard P., 110 Christopher St., New York 14, N. Y.
Popper, Howard R., 463 West St., New York, N. Y.
Ralabate, James J., 106 Shoreham Blvd., Buffalo 16, N. Y.
Russo, Matthew M., 460 Lafayette Blvd., Long Beach, N. Y.
Sherman, Sylvan, 113 Greenbelt Lane, Levittown, N. Y.
Spiecens, Camil P., 71—50 Austin St., Forest Hills 75, N. Y.
Stark, Leon T., 85—07 Britton Ave., Elmhurst 73, N. Y.
Togut, Isidore, 279 E. 203rd St., Bronx 58, N. Y.
Whinston Arthur L., 36 Russell Road, Garden City, N. Y.
Zentner, Richard, 290 Clinton St., Brooklyn 1, N. Y.

North Carolina

Park, Charles B., III, 904 Johnston Bldg., Charlotte 2, N. C.

Ohio

Dence, Richard B., 3544 Homewood, Toledo 12, Ohio.
Doerr, Edward L., Monsanto Chemical Co., Station B, Box 8, Dayton 18, Ohio.
Fralick, James E., 2913 Neil Ave., Columbus 2, Ohio.
Henry, Frank C., 2686 Rocklyn Road, Shaker Heights 22, Ohio.
Limbach, George C., 2110 Cornell Road, Cleveland 6, Ohio.
Netter, George J., 4301 Lyman Road, Toledo 12, Ohio.
Nielsen, Olaf, 1016 Emma Ave., Akron 2, Ohio.
Patmore, Alfred L., Jr., 2619 Strauss Ave., Toledo 6, Ohio.
Witte, Richard C., 927 Lakeshore Drive, Cincinnati 31, Ohio.

Oklahoma

Johnson, Paul H., 722 E. 49th St., N., Tulsa 6, Okla.
Peterson, Jerome B., E. Hillcrest Road, Ponca City, Okla.
Worth, Daniel P., 806A S. Osage, Bartlesville, Okla.

Pennsylvania

Christoffersen, Harold, 2445 Jenkintown Road, Glenside, Pa.
Conley, Ned L., 7846 Spring Ave., Philadelphia 17, Pa.
Corcoran, John P., 832 Cresson Lane, Morton, Pa.
Cornish, C. Daniel, 4614 5th Ave., Pittsburgh 13, Pa.
Curley, John E., 120 Sunset Drive, Pittsburgh 9, Pa.
Dreyer, Frederic C., RD 1, Box 358, Slatington, Pa.
Dubroff Stanley, 6913 Heyward St., Philadelphia 19, Pa.
Guay, Francis W., 138 Mt. Lebanon Blvd., Pittsburgh 28, Pa
Hargis, Harry W., III, 3126 Gilham St., Philadelphia 49, Pa
Harvey, Richard F., 111 Berg Drive, Pittsburgh 38, Pa.
Kaufmann, Henry W., Post Office Box 123, Mont Clare, Pa

Klipfel, Ernest P., 218 Garlow Drive, Pittsburgh 35, Pa.
Lennon, Thomas A., 2020 Ridgelawn Ave., Bethlehem, Pa.
McHale, Clement L., 140 La Crosse St., Avon Hall, Pittsburgh 18, Pa.
Safady, Richard J., 1000½ Edgewood Road, New Kensington, Pa.
Sager, Edward A., 201-A W. Parkway Ave., Chester, Pa.
Turner, Burton R., 927 Roland Road, Pittsburgh 21, Pa.

South Carolina

Lawson, Louis R., Jr., 39A Meeting St., Charleston, S. C.

Texas

Garland, H. Mathews, P. O. Box 900, Dallas 21, Tex.
Harris, William D., Jr., 1600 Niels Esperson Bldg., Houston 2, Tex.
Jackson, John L., 248 Esperson Bldg., Houston 2, Tex.
Keys, Clarence E., P. O. Box 35206, Dallas 35, Tex.
Sansom, Ernest S., Box 117, Lake Jackson, Tex.

Virginia

Adams, Harold W., 1113 Powhatan St., Alexandria, Va.
Benoit, John E., 661 Rose Lane, Falls Church, Va.
Briody, Thomas A., 3614 S. Wakefield St., Arlington, Va.
Burgess, Harry C., Jr., 2210 Commonwealth Ave., Alexandria, Va.
Connor, P. Phillips, 1577 Colonial Terrace, Arlington 7, Va.
Cooper, D. Kendall, 934 N. Longfellow, Arlington, Va.
Cooper, Richard C., 602 N. Imboden St., Alexandria, Va.
Crutcher, William C., 1107 N. Barton, Arlington 1, Va.
Dumont, Harry R., 4828 N. 26th St., Arlington 7, Va.
Freilich, Arthur, 1300 Arlington Blvd., Arlington, Va.
Gordon, Hugh L., 1815 Norfolk Lane, Falls Church, Va.
Hoscheit, Dale H., 2701 N. Military Road, Arlington, Va.
Lane, Munson H., Jr., 402 N. Montague St., Arlington 3, Va.
McCandlish, Harrison E., 1909 N. Ode St., Arlington, Va.
McCoy, Garland T., 700 S. George Mason Drive, Arlington, Va.
Montgomery, Robert H., 130 N. Wayne St., 26, Arlington 1, Va.
Musumeci, Alfred V., 2310 N. 10th St., Arlington 1, Va.
Parker, Gayle, 5100 Third St., N., Arlington 3, Va.
Petko, Edward A., 1404 28th St., S., Arlington 6, Va.
Posin, Jack, 1617 28th St., S. Arlington 6, Va.
Reidy, Edward J., 2900 13th Road, S., Arlington 4, Va.
Rogers, John T., 1402 Howard St., Falls Church, Va.
Sullivan, Thomas V., 1010 S. Quebec St., Arlington 4, Va.
Weeks, Alfred, Jr., 2741 S. Ives St., Arlington, Va.
Williams, Melvin P., 3079 S. Woodrow St., Arlington 6, Va.
Ziems, Robert F., 3437A S. Stafford St., Arlington 6, Va.
Zimmerman, Jack P., 716 S. Wayne St., Arlington, Va.

Wisconsin

Marden, Earle R., Jr., 720 S. Losey Blvd., La Crosse, Wis.
Morsell, Curtis B., Jr., 5249 N. Diversey Blvd., Milwaukee 17, Wis.
Robertson, William S., Jr., 2320 S. 92nd St., West Allis 19, Wis.
Sager, Karl E., 620 E. North St., Appleton, Wis.
Swartwout, Willis B., III, 10813 W. Jeffrey Lane, Milwaukee 18, Wis.
Tibbitts, Lewis W., 3741 N. 76th St., Milwaukee 16, Wis.
Wiviott, Fred, 4880 N. Shoreland Ave., Milwaukee 17, Wis.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 22,641. U. S. Plastic Products Corporation, Metuchen, N. J. Filed Jan. 15, 1957.

LUSTREGLOW

For Acrylic Resin Sheet Material.
First use Dec. 13, 1956.

SN 22,642. U. S. Plastic Products Corporation, Metuchen, N. J. Filed Jan. 15, 1957.

SWIRLUSTRE

For Acrylic Resin Sheet Material.
First use Dec. 7, 1956.

SN 35,758. The Dow Chemical Company, Midland, Mich., assignee of Dowell Incorporated, Tulsa, Okla. Filed Aug. 19, 1957.

F. L. A.

For Petroleum Derivative in Powdered Form for Incorporating Into Fluids Used in Hydraulically Fracturing Oil Producing Earth Formations, Which Material Decreases the Penetrability of the Fracturing Fluid Into the Earth Formation.
First use Jan. 3, 1956.

SN 41,417. Roy H. Weller, Farmington, Pa. Filed Nov. 26, 1957.

PENN CREST

For Christmas Trees.
First use Nov. 12, 1957.

SN 41,970. Armour and Company, Chicago, Ill. Filed Dec. 9, 1957.

CHIARRA

For Upper Leather.
First use Oct. 11, 1957.

SN 41,980. Blackhawk Tanning Co., Inc., Milwaukee, Wis. Filed Dec. 9, 1957.

PAWNEE

For Glove Leather.
First use Oct. 17, 1957.

SN 42,625. Armour and Company, Chicago, Ill. Filed Dec. 18, 1957.

LARGO

For Upper Leather.
First use Nov. 29, 1957.

Class 2—Receptacles

SN 34,987. Orleans Manufacturing Company, New Orleans, La. Filed Aug. 5, 1957.

Orleans
DUAL-SEAL

No exclusive right to the words "Dual" and "Seal" is claimed by the applicant.
For Caskets.
First use June 17, 1957.

SN 37,922. Weber Electric Manufacturing Co., Detroit, Mich. Filed Sept. 26, 1957.

WEMCO

For Wire Coilers, Wire Reels, and Portable Reel Carts and Stands.
First use Feb. 26, 1957.

SN 41,189. Riverside Manufacturing Co., Inc., Murfreesboro, N. C. Filed Nov. 22, 1957.

NESTAINER

For Containers, Specifically, Wooden, Paperboard, and Fiberboard Shipping Containers.
First use Nov. 12, 1957.

SN 43,031. Kellogg Company, Battle Creek, Mich. Filed Dec. 26, 1957. Sec. 2(f).

WEATHER-FOIL

Owner of Reg. No. 551,407.
For Inner Bag Liner for Cartons Made of Laminated Aluminum Foil.
First use Aug. 7, 1950.

SN 43,274. Daniel Silverman, d. b. a. Jameco Metal Products Company, New York, N. Y. Filed Dec. 31, 1957.

GOLD TONE

The drawing is lined for the color gold.
For Jewelry Boxes.
First use May 16, 1957.

SN 43,224. Miss Photo Products Company, Inc., Chicago, Ill. Filed Jan. 2, 1958.

TRAY SEAL

For Receptacles for Storing Photographic Slides.
First use in September 1957.

SN 43,451. Glassipe Inc., Towson, Md. Filed Jan. 6, 1958.

VALLEY

For Butter Chips, Coasters, and Plates Made of Press Formed Flexible Material, With or Without a Coating Thereon.
First use Oct. 22, 1956.

SN 43,664. Bruce Carton Company, Memphis, Tenn. Filed Jan. 9, 1958.

FLEXOVURE

For Folding Paper Cartons, Folding Paper Boxes, and Display Containers.
First use Dec. 3, 1957.

SN 43,695. Plastic Products Corporation, Bedford Heights, Ohio. Filed Jan. 9, 1958.

Town & Country

For Fiber Glass Mailboxes.
First use Aug. 1, 1957.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 28,519. Hinton & Company, Inc., New York, N. Y. Filed Apr. 19, 1957.

HAPPINESS SPLIT LEVEL HOME

Owner of Reg. No. 597,238.
For Bird Cages.
First use Apr. 19, 1956.

SN 43,337. Philadelphia Brief Case Co., Philadelphia, Pa. Filed Jan. 2, 1958.

Leath-O-steel

For Handles for Suit Cases, Handbags, Brief Cases, Portfolios, and Trunks.
First use on or about July 1, 1957.

SN 43,338. Philadelphia Brief Case Co., Philadelphia, Pa. Filed Jan. 2, 1958.

Plast-O-steel

For Handles for Suit Cases, Handbags, Brief Cases, Portfolios, and Trunks.
First use on or about July 1, 1957.

SN 43,830. Dog-A-Long Corporation, Detroit, Mich. Filed Jan. 13, 1958.

DOG-A-LONG

For Screen for Use in Partitioning a Portion of a Motor Vehicle To Provide a Separate Compartment for Animals.
First use Sept. 7, 1957.

Class 4—Abrasives and Polishing Materials

SN 42,207. The Dow Chemical Company, Midland, Mich. Filed Dec. 11, 1957.

DOBIE

For Scouring, Polishing, and Cleaning Pads.
First use Nov. 7, 1957.

Class 5—Adhesives

SN 41,174. Lehman Bros., Cleveland, Ohio. Filed Nov. 22, 1957.

AQUASEAL

For Aquarium Adhesive Cement.
First use Nov. 17, 1953.

Class 6—Chemicals and Chemical Compositions

SN 15,935. American Cyanamid Company, New York, N. Y. Filed Oct. 23, 1957.

A-T-A

For Weed Killer.
First use Sept. 14, 1956.

SN 20,432. Mississippi Lime Company, Alton, Ill. Filed Nov. 15, 1956. Sec. 2(f).

MISSISSIPPI HYDRATED LIME

Applicant makes no claim to the words "Hydrated Lime" apart from the mark.
For Hydrated Lime as Used for Chemical Purposes.
First use Jan. 1, 1924.

SN 22,762. National Aluminate Corporation, Chicago, Ill. Filed Jan. 17, 1957.

NALCO

Owner of Reg. Nos. 298,080, 611,989, and others.
For Antilubricant Used in Conditioning Rails To Improve Adherence and Reduce Wheel Slipping.
First use October 1956.

SN 28,930. Dow Corning Corporation, Midland, Mich. Filed S. R. Apr. 26, 1957. Am. P. R. Feb. 17, 1958. Sec. 2(f).

PAN GLAZE

For Silicone Release Agents for Baking Pans.
First use Dec. 13, 1946.

SN 31,830. Farbwerke Hoechst Aktiengesellschaft, vormals Meister Lucius und Bruning, Frankfurt am Main Hochst, Germany. Filed June 12, 1957.

Malix

Owner of German Reg. No. 396,440, dated Jan. 4, 1929.
For Agents for Exterminating Animal and Plant Pests.

SN 32,811. Food Industries Company, Inc., Dallas, Tex. Filed June 28, 1957.

HAZEBAN

For Chillproofing Enzyme for Use in Beer and Other Beverages and Foods.
First use Oct. 3, 1956.

SN 34,451. Nott Manufacturing Co., Inc., Mount Vernon, N. Y. Filed July 26, 1957.

PLANT-SHOOT

For Wetting Agent for Adhesion of Growth Stimulants and the Like to Plants.
First use Mar. 4, 1957.

SN 38,030. The Dow Chemical Company, Midland, Mich. Filed Sept. 30, 1957.

DOWLAP

For Organic Compound for Use Principally as an Ingredient in Compositions for Killing Lamprey.
First use Aug. 21, 1957.

SN 40,144. Permachem Corporation, West Palm Beach, Fla. Filed Nov. 5, 1957.

PERMACHEM

For Chemical Preparations for Manufacturing Use in Germ Proofing, Mildew Proofing, Mold Proofing, Odor Proofing, and Fungus Proofing of Textiles, Paper, Articles of Clothing, Shoe Linings, Blankets and Mattresses, Household and Personal Articles Made of Vinyl Plastics and the Like, and Rendering Such Material Permanently Antiseptic.
First use 1955.

SN 40,237. Koppers Company, Inc., Pittsburgh, Pa. Filed Nov. 7, 1957.

dbpc

Owner of Reg. No. 585,640.
For Polyalkyl Hydroxybenzene—Namely, Di-Tertiary-Butyl-Para-Cresol.
First use June 1953.

SN 40,259. Phillips Petroleum Company, Bartlesville, Okla. Filed Nov. 7, 1957.

PHILGAS

Owner of Reg. Nos. 244,921 and 249,082.
For Liquefied Petroleum Gas.
First use in November 1927.

SN 41,519. Diamond Alkali Company, Cleveland, Ohio. Filed Nov. 29, 1957.

DACFIA

For Grain Fumigant.
First use Nov. 4, 1957.

SN 41,800. Drake Corporation, Norfolk, Va. Filed Dec. 5, 1957.

DRAKO-TALLO-WX

For Warp Sizing and Finishing Compounds.
First use Oct. 14, 1957.

SN 42,022. The Houston Oil Field Material Company, Inc., Houston, Tex. Filed Dec. 9, 1957.

HOMCO

Owner of Reg. Nos. 428,004 and 432,221.
For Quebracho, an Additive to Oil Well Drilling Fluid.
First use December 1947.

SN 42,517. Monsanto Chemical Company, St. Louis, Mo. Filed Dec. 16, 1957.

VIS A TROL

For Modifier for Synthetic Resins.
First use Dec. 4, 1957.

SN 42,712. Monsanto Chemical Company, St. Louis, Mo. Filed Dec. 19, 1957.

MOD EPOX

For Modifier for Synthetic Resins.
First use Dec. 4, 1957.

SN 48,853. Industrial Soap Company, St. Louis, Mo. Filed Jan. 13, 1958.

FANFARE

For Room Deodorant Spray.
First use Dec. 14, 1957.

SN 52,906. L. K. R. Chemical Products Corporation, Detroit, Mich. Filed May 6, 1958.

L·K·R

The drawing is lined for red.
For Sealing Solvent and Corrosion Preventative.
First use Sept. 1, 1945.

Class 7 — Cordage

SN 41,623. Columbian Rope Company, Auburn, N. Y. Filed Dec. 2, 1957.

STALONg

For Nylon Rope.
First use July 26, 1957.

SN 42,238. Emile Reguiers Company (U. S. A.) Inc., New York, N. Y. Filed Dec. 11, 1957.

RED STRIPE

For Baler and Binder Twines.
First use Oct. 15, 1957.

SN 42,876. Henequen Industrial, S. A., Merida, Yucatan, Mexico. Filed Dec. 23, 1957.

Winston

For Wrapping, Binder and Baler Twine, and Rope.
First use Dec. 3, 1957.

SN 42,877. Henequen Industrial, S. A., Merida, Yucatan, Mexico. Filed Dec. 23, 1957.

MAYA

For Wrapping, Binder and Baler Twine, and Rope.
First use Dec. 8, 1940.

Class 8 — Smokers' Articles, Not Including Tobacco Products

SN 37,805. Philip Morris, Incorporated, New York, N. Y. Filed Sept. 25, 1957.

HI-FI

For Filters for Cigarettes.
First use Sept. 19, 1957.

SN 40,898. The Vernon Company, Newton, Iowa. Filed Nov. 18, 1957.

VERNCO

For Cigarette Lighters.
First use in September 1953.

SN 41,915. Oswald J. Marcotte, Ironton, Mo. Filed Dec. 6, 1957.

LITTLE
MiZeR

For Device for Rolling Individual Cigarettes.
First use Oct. 2, 1957.

SN 42,697. Larry E. Gelbert, New York, N. Y. Filed Dec. 19, 1957.

TOWN-TOPIC

For Cigarette and Cigar Lighters.
First use Apr. 19, 1955.

SN 42,698. Larry E. Gelbert, New York, N. Y. Filed Dec. 19, 1957.

EXCELLO

For Cigarette and Cigar Lighters.
First use Mar. 14, 1955.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 36,384. The Lyman Gun Sight Corporation, Middlefield, Conn. Filed Aug. 28, 1957.

TRU-LOCK

For Mounts by Which Telescopic Gun Sights Are Fixed on Firearms.
First use on or about July 24, 1957.

SN 42,333. Diamond Gardner Corporation, New York, N. Y. Filed Nov. 20, 1957.



The drawing is lined for green.
For Matches.
First use Jan. 19, 1933.

Class 10 — Fertilizers

SN 9,084. The Wickes Corporation, Saginaw, Mich. Filed June 5, 1956.

GRAFLOW

For Fertiliser Additive To Assure Free Flow.
First use Apr. 25, 1956.

SN 17,075. Southern Nitrogen Company, Inc., Savannah, Ga. Filed Oct. 17, 1956.

SOUTHERN
NITROGEN

The use of the word "Nitrogen," insofar as it stands for the name of the element, is disclaimed apart from the mark.
For Fertiliser.
First use Sept. 4, 1956.

SN 17,677. Southern Nitrogen Company, Inc., Savannah, Ga. Filed Oct. 17, 1956.

SOUTHERN N NITROGEN

The use of the word "Nitrogen," insofar as it stands for the name of the element and the letter "N" insofar as it stands for the symbol of nitrogen are disclaimed apart from the mark.
For Fertilizer.
First use Sept. 4, 1956.

SN 36,814. Stern's Garden Products, Inc., Geneva, N. Y. Filed Sept. 6, 1957.

MIRA-CELL

For Plant Growth Stimulant.
First use Mar. 25, 1957.

SN 45,460. The Farm Bureau Cooperative Association Inc., Columbus, Ohio. Filed Feb. 7, 1958.

LANDMARK

For Plant Food and Fertilizer.
First use Jan. 31, 1958.

SN 46,639. Princeton Phytochemicals, Inc., Princeton Junction, N. J. Filed Feb. 26, 1958.

Rootagen

For Hormone Powder for Treating Cut Plants and Growing Roots Thereon.
First use Apr. 1, 1957.

SN 46,640. Princeton Phytochemicals, Inc., Princeton Junction, N. J. Filed Feb. 26, 1958.

SUPER-BUD-SPROUT

For Chemical Stimulant for Promoting Growth and Budding of Plants.
First use Apr. 1, 1957.

SN 46,856. Stern's Nurseries, Inc., d. b. a. Stern's Nurseries, Geneva, N. Y. Filed Feb. 28, 1958.

MIRACLE-GRO

For Water Soluble Plant Food.
First use Apr. 15, 1951.

Class 11 — Inks and Inking Materials

SN 32,397. Metro-Atlantic, Inc., Centredale, R. I. Filed June 21, 1957.

METRO

For Printing Inks and Textile Printing Compositions.
First use in 1949.

SN 43,151. Formulabs, Incorporated, d. b. a. Formulabs, Inc., Escondido, Calif. Filed Dec. 30, 1957.

"FOTOCOP"

For Ball Pen Ink.
First use Dec. 13, 1956.

Class 12 — Construction Materials

SN 12,233. Union Wire Rope Corporation (Ohio corporation), Kansas City, Mo., assignee of Union Wire Rope Corporation (Delaware corporation), Kansas City, Mo. Filed July 16, 1956.

TUFWIRE

For High-Strength Wire and Strand for Use in Prestressed Concrete.
First use Apr. 15, 1955.

SN 33,015. Welsh Plywood, Inc., Memphis, Tenn. Filed July 1, 1957.

PLYWELSH

For Decorative Prefinished Hardwood Plywood Paneling and Prefinished Hardwood Molding.
First use June 1, 1957.

SN 37,749. Seaboard Lumber Sales Company Limited, Vancouver, British Columbia, Canada. Filed Sept. 24, 1957.

SEABOARD

Owner of Canadian Reg. No. 80/20879, dated July 16, 1957.
For Lumber, Timber Fully or Partly Dressed, and Wood Shingles.
First use 1935 on lumber and timber; in commerce 1935.

SN 37,809. Plywood Corporation of America, Oakland, Calif. Filed Sept. 25, 1957.

PLYCOA

For Plywood.
First use Sept. 4, 1956.

SN 42,672. United States Steel Corporation, Pittsburgh, Pa. Filed Dec. 18, 1957.

RO-DRAIN

For Flumes.
First use Sept. 3, 1957.

SN 44,517. Babson Bros. Co., Chicago, Ill. Filed Jan. 23, 1958.

SAW-TOOTH

For Milking Parlor Stalls.
First use Jan. 3, 1958.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

SN 10,308. Rheo Products Company, Chicago, Ill. Filed June 15, 1956.

SHORE CRAFT

Owner of Reg. No. 436,320.
For Baking Pans, Baking Pan Covers, Cake Fillers, Strainers, Utility Bowls, Skillets, Beverage Serving Vessels, Hollowware, Bottle Stoppers, Metallic Foil Pans, Dishes, Plates, Cups and Trays, and Equipment for Handling, Shipping, Storing and Displaying Meats, Produce and Other Products—Namely, Pans and Trays.
First use on or about Apr. 1, 1956.

SN 37,120. Alabama Pipe Company, Anniston, Ala. Filed Sept. 13, 1957.

ALTITE

For Sealing Joints for Sections of Cast Iron Watermains.
First use Aug. 27, 1957.

SN 41,898. Ecoff Products Co., Inc., Cleveland, Ohio. Filed Dec. 6, 1957.

EPCO

For Dielectric Pipe Unions and Flanges.
First use August 1949.

SN 43,870. Petrolite Corporation, St. Louis, Mo. Filed Jan. 13, 1958.

ELECTROFINING

For Devices Used in Connection With Electric Treatment of Fluids, Which Devices Include Treating Tanks, Valves, Conduits, and Fittings.
First use Mar. 21, 1957.

SN 44,063. Harold M. Book, Van Wert, Ohio. Filed Jan. 16, 1958.

ULTRAFLO

For System for the Remote Control of the Flow of Fluids, Including Push-Button Operated Faucets for Building Plumbing Systems.
First use Nov. 1, 1957.

SN 44,080. Gerber Sheet Metal Incorporated, Minneapolis, Minn. Filed Jan. 16, 1958.

RED HEAD

For Flexible Steel Spouts and Spout Sections and Parts Thereof Used in and as a Part of Grain Handling and Elevator Equipment.
First use on or before Mar. 29, 1955.

SN 44,126. M. Siegel Co., Chicago, Ill. Filed Jan. 16, 1958.

ROBIN-WARE

For Steel Enameled Bathtubs and Sinks; Steel Kitchen Cabinets; Vitreous China Tanks, Toilet Bowls and Lavatories; Cast Rough Brass and Chrome Plated Brass Plumbers' Fittings and Faucets.
First use Mar. 19, 1957.

SN 44,122. Tactair, Inc., Bridgeport, Pa. Filed Jan. 16, 1958.

TACTAIR

For Valves Manually Operated, Mechanically Operated and Fluid or Gas Operated; and Servo Valves.
First use August 1956.

SN 44,213. Star Expansion N. Y., Inc., New York, N. Y. Filed Jan. 17, 1958.

STAR PIN-DRIVE

For Expansion Anchors.
First use in May 1957.

SN 44,234. Western Wire Products Company, St. Louis, Mo. Filed Jan. 17, 1958.

CASTLE COTTER

For Cotter Pins.
First use Sept. 16, 1957.

SN 44,307. Polar Ware Company, Sheboygan, Wis. Filed Jan. 20, 1958.

POLAR

Owner of Reg. Nos. 129,305, 324,540, and others.
For Kitchen, Hospital, Clinic and Sickroom Utensils and Equipment Made of Metal—Namely, Sinks, Pus and Wash Basins, Coffee Kettles, Water Bottles, Bowls (Both Hospital and Kitchen), Milk and Batter Cans, Steam Table Pan Covers, Toast Covers, Drinking Cups, Medicine Cups, Solution Cups, Soup Cups, Steam Table Insets, Irrigators, Applicator Jars, Ointment Jars, Forcep Jars, Ladles, Measures, Pails (Kitchen and Hospital), Bed Pans, Steam Table Pans, Cooking Pans and Pots, Pitchers (Hospital and Kitchen), Tea and Coffee Pots, Serving Platters, Spoons, Sterilisers, Hospital and Kitchen Trays, Foot Tubs, and Urinals.
First use Jan. 1, 1909, on pots, pans, and kettles.

SN 44,308. Polar Ware Company, Sheboygan, Wis. Filed Jan. 20, 1958.



Owner of Reg. No. 129,305.
For Kitchen, Hospital, Clinic and Sickroom Utensils and Equipment Made of Metal—Namely, Sinks, Pus and Wash Basins, Coffee Kettles, Water Bottles, Bowls (Both Hospital and Kitchen), Milk and Batter Cans, Steam Table Pan Covers, Toast Covers, Drinking Cups, Medicine Cups, Solution Cups, Soup Cups, Steam Table Insets, Irrigators, Applicator Jars, Ointment Jars, Forcep Jars, Ladles, Measures, Pails (Kitchen and Hospital), Bed Pans, Steam Table Pans, Cooking Pans and Pots, Pitchers (Hospital and Kitchen), Tea and Coffee Pots, Serving Platters, Spoons, Sterilisers, Hospital and Kitchen Trays, Foot Tubs, and Urinals.
First use Jan. 1, 1909.

SN 44,514. Aktiebolaget Arca Regulatorer, Stockholm, Sweden. Filed Jan. 23, 1958.

ARCA

Owner of Swedish Reg. No. 20,617, dated Apr. 30, 1918.
For Hydraulic Regulators and Parts Thereof.

SN 44,707. Hardware Specialties Company, Kansas City, Mo. Filed Jan. 27, 1958.

PLY-FAS-NERS

For Fasteners for Joining Slab Materials in Edge Abutting Relation.
First use Sept. 30, 1957.

SN 44,762. Sall Brothers Company, Rockford, Ill. Filed Jan. 27, 1958.

TEMP-MATIC

For Automatically Reseating Temperature and Pressure Relief Valves.
First use Dec. 5, 1957.

SN 44,776. Versal, Inc., South Bend, Ind. Filed Jan. 27, 1958.

MONOSUMP

For Prefabricated Sump and in Particular a Sump of This Type Formed of a Polyester Resin Reinforced With Glass Fibers.
First use Jan. 14, 1958.

SN 44,786. The Babcock & Wilcox Company, New York, N. Y. Filed Jan. 8, 1958.

CROLOY

For Metallic Tubes.
First use Nov. 13, 1935.

Class 14 — Metals and Metal Castings and Forgings

SN 42,850. Wilbur B. Driver Company, Newark, N. J. Filed Dec. 23, 1957.

NIRON

For Nickel Iron Alloys for Glass to Metal Sealing Applications.
First use Nov. 19, 1957.

Class 15 — Oils and Greases

SN 26,528. Bayou State Oil Corporation, Shreveport, La. Filed Mar. 20, 1957.



No claim is made to the words "Mileage Performance Horse-Power," apart from the mark shown.
For Motor Lubricating Oils and Greases, Diesel Fuel Oils, and Gasoline.
First use Dec. 20, 1935.

SN 35,779. S. C. Johnson & Son, Inc., Racine, Wis. Filed Aug. 19, 1957.

J-CUT

For Metal Working Chemical Compound for Use as a Lubricant.
First use June 15, 1955.

SN 35,780. S. C. Johnson & Son, Inc., Racine, Wis. Filed Aug. 19, 1957.

J-COOL

For Metal Working Chemical Compound for Use as a Lubricant and/or Coolant.
First use June 1, 1956.

SN 39,209. Everlube Corporation of America, North Hollywood, Calif. Filed Oct. 21, 1957.

EVERLUBE

For Solid Lubricant Compositions for Use in Coating Metal Surfaces To Provide Dry Film Lubrication Thereon.
First use 1952.

SN 41,583. The Texas Company, New York, N. Y. Filed Nov. 29, 1957.

SUPER-CHIEF

Owner of Reg. Nos. 308,574, 635,070, and others.
For Gasoline.
First use Oct. 29, 1957.

SN 41,609. American Petrofina, Incorporated, New York, N. Y. Filed Dec. 2, 1947.

FINA

Owner of Reg. No. 620,240.
For Gasoline.
First use Oct. 8, 1957.

SN 41,790. American Petrofina, Incorporated, New York, N. Y. Filed Dec. 5, 1957.



The drawing is lined for blue and red. Owner of Reg. No. 620,240.
For Gasoline.
First use Oct. 8, 1957.

SN 41,865. United States Aviex Company, Niles, Mich. Filed Dec. 5, 1957.

AVIEX

Owner of Reg. No. 360,760.
For Additive for Crank Case Motor Oil, Motor Tune-Up Oil Used as an Additive for Gasoline, Penetrating Oil, Detergent Oil Supplement, Additive for Diesel Fuel Oil and Heating Fuel Oil, and for Brake Fluid for Hydraulic Brake Systems.
First use Apr. 20, 1936.

Class 16 — Protective and Decorative Coatings

SN 11,130. Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany. Filed June 28, 1956.

THERMOCOLOR

For Heat Sensitive Paint Pigments for Use as Temperature Indicators.
First use Aug. 16, 1938; in commerce May 28, 1952.

SN 38,484. Plastop Corporation, Wooster, Ohio. Filed Oct. 7, 1957.

PLASTOP

For Waterproof Liquid Plastic Protective Coatings.
First use on or about Aug. 28, 1957.

SN 40,133. Mantrose Corporation, Brooklyn, N. Y. Filed Nov. 5, 1957.

SHELLACPLUS

For Shellac and Varnishes.
First use Apr. 23, 1957, on shellacs.

SN 46,456. Jamestown Paint & Varnish Company, Jamestown, Pa. Filed Feb. 24, 1958.

Japco

For Paints, Enamels, Varnishes, Stains, Dryers, Asphaltums, Coating Oils, Thinners, and Alkyd Resins.
First use in 1922.

Class 17 — Tobacco Products

SN 41,772. Philip Morris Incorporated, New York, N. Y. Filed Dec. 4, 1957.

MERIT

Owner of Reg. No. 353,061.
For Cigarettes.
First use Oct. 28, 1936.

SN 41,828. Philip Morris Incorporated, New York, N. Y. Filed Dec. 5, 1957.

ROYCROFT

Owner of Reg. Nos. 353,310 and 371,852.
For Cigarettes.
First use Nov. 4, 1936.

SN 41,829. Philip Morris Incorporated, New York, N. Y. Filed Dec. 5, 1957.

MARTINI

Owner of Reg. No. 353,423.
For Cigarettes.
First use Nov. 13, 1936.

Class 18 — Medicines and Pharmaceutical Preparations

SN 8,086. Sanex, Inc., Minneapolis, Minn. Filed May 24, 1956.

Sanex

Owner of Reg. No. 208,042.
For Pharmaceutical Composition With Deodorant, Astringent, Refreshant, Antiseptic, Germicidal, Insecticidal, Disinfectant, and Analgesic Properties.
First use June 11, 1925.

SN 24,906. Armour and Company, Chicago, Ill. Filed Feb. 25, 1957.

TORUMEN

For Digestive Aid Comprising Plasmolized Yeast for Veterinary Use.
First use Jan. 10, 1957.

SN 27,626. Recherches et Propagande Scientifiques, Societe a Responsabilite Limitee, Paris, France. Filed Apr. 5, 1957.

ACTITHIOL

Owner of French Reg. No. 450,165, dated Mar. 30, 1955 (Seine); Natl. Inst. No. 54,424.
For Medicinal Composition Containing Cysteine Methyl Ester Hydrochloride, for Use in the Treatment of Subacute and Chronic Affections of the Respiratory System.

SN 29,878. Crescenta Products, Inc., Los Angeles, Calif. Filed May 13, 1957.

Nutrient-Plus

For Vitamin and Mineral Food Supplement.
First use Jan. 21, 1957.

SN 32,457. David Block, d. b. a. Blockiderma, Philadelphia, Pa. Filed June 24, 1957.

Blockiderma

For Skin Medicine Effective in the Treatment of Any Type of Skin or Scalp Irritation.
First use June 17, 1957.

SN 33,442. Ward Blenkinsop & Company Limited, London, England. Filed July 9, 1957.

PENOTRANE

Owner of British Reg. No. 658,384, dated Apr. 21, 1947.
For Fungicides and Bactericides for Use in Human and Animal Medicine.

SN 33,737. Olin Mathieson Chemical Corporation, New York, N. Y. Filed July 15, 1957.

MEDOTOPES

For Radiopharmaceuticals for Investigative, Diagnostic, and Therapeutic Use.
First use Apr. 17, 1957.

SN 33,897. The National Drug Company, Philadelphia, Pa. Filed July 17, 1957.

HESPER-C

For Prenatal Nutritional Supplement.
First use July 11, 1948.

SN 35,916. Corn Products Refining Company, New York, N. Y. Filed Aug. 21, 1957.



The mark consists of the letters "CP" in a cross-sectional representation of an ear of corn.
For Inositol, Sugar, and Calcium Phytate for General Use in the Pharmaceutical Field.
First use Mar. 1, 1957, on sugar.

SN 37,974. Pharmacy Girl, Inc., Brookfield, Conn. Filed Sept. 27, 1957.

Pharmacy Girl

For Medical Preparations—Namely, Antiseptic Cleansing Ointment for Treating Scratches and Bruises, Liquid Analgesic, Antacid Analgesic in Tablet Form, Aspirin and Aspirin Compounds, Toothache Drops, Cold Capsules, Throat Lozenges, Hygienic Powder for Vaginal Douches, Rectal Antiseptic for Treating Conditions Associated With Hemorrhoids, Rectal Ointment, Rectal Suppositories, Sleeping Capsules, Sedatives in Tablet Form, Preparation for the Relief of Pain and Discomfort Associated With Rheumatism and Arthritis Sold in Tablet Form, Liquid Preparation Used in Treating Skin Irritations and Infections, and Medicated Creme for Treating Cold Sores, Chapped Lips, Etc.
First use Jan. 1, 1957.

SN 38,843. No-Beau, Inc., Los Angeles, Calif. Filed Oct. 14, 1957.

NO-BEAU

For Preparation in Wafer Form for Subverting the Attraction of Female Animals During Mating Period.
First use Oct. 1, 1957.

SN 41,000. Blaine Parker Products Incorporated, Brooklyn, N. Y. Filed Nov. 20, 1957.

BANOBESE

For Time Disintegrating Obesity Control Capsules.
First use Oct. 10, 1957.

SN 41,727. Standex Laboratories, Inc., Columbus, Ohio. Filed Dec. 3, 1957.

PRE-17

For Dietary Supplement Containing Vitamins and Minerals.
First use Jan. 19, 1957.

SN 42,986. McNeil Laboratories Incorporated, Philadelphia, Pa. Filed Dec. 24, 1957.

PARAFLEX

For Skeletal Muscle Relaxant.
First use Apr. 10, 1957.

SN 43,577. American Cyanamid Company, New York, N. Y. Filed Jan. 9, 1958.

GEVRABIOTIC

Owner of Reg. Nos. 564,695, 643,172, and others.
For Antibiotic Preparation.
First use Dec. 6, 1957.

SN 43,619. Lanthasol-Verwaltung, Wilhelm Lipsky, Hamburg-Niendorf, Germany. Filed Jan. 6, 1958.

LANTHASOL-INHALAT

Owner of German Reg. No. 627,222, dated Sept. 25, 1952.
For Medicals and Chemical Substances for Purposes of Health—Namely, Inhalations.

SN 43,716. Vinita Hay & Grain Company, Inc., Vinita, Okla. Filed Jan. 9, 1958.

PASTURE AID

For Ruminant Animal Feed Supplement.
First use Nov. 14, 1955.

SN 44,884. E. F. Drew & Co., Inc., New York, N. Y. Filed Jan. 29, 1958.

VITAND

Owner of Reg. No. 352,171.
For Concentrated Cod Liver Oil for Poultry and Animal Feed.
First use in October 1938.

SN 45,056. Merck & Co., Inc., Rahway, N. J. Filed Jan. 31, 1958.

GLYCARB

For Compound for Use in the Prevention of Infectious Diseases, Particularly Coccidiosis, in Animals.
First use Jan. 20, 1958.

SN 45,615. Nutrition Enterprises, Chicago, Ill. Filed Feb. 13, 1958.

NUTRI-TIME

For Dietary Food Supplement.
First use Sept. 1, 1954.

SN 48,849. Kirkman Pharmacal Company, Seattle, Wash. Filed Apr. 1, 1958.

ORANJET

While the drawing shows an orange color for the mark, applicant disclaims color as an essential part of its claim.
For Orange Flavored Ascorbic Acid (Vitamin C) Tablets.
First use Mar. 27, 1958.

Class 19—Vehicles

SN 24,150. Ford Motor Company, Dearborn, Mich. Filed Feb. 11, 1957.

COUNTRY SEDAN

For Automobiles.
First use Feb. 1, 1952.

SN 41,509. B & L Industries, Inc., Alma, Mich. Filed Nov. 29, 1957.

DURATOP

For Tops for Mobile Homes and Trailers.
First use May 16, 1956.

SN 45,915. Roguewoods Boats, Central Point, Oreg. Filed Feb. 14, 1958.

TRU-V

For Boats.
First use Mar. 25, 1957.

SN 46,085. Zieman Products Inc., Whittier, Calif. Filed Feb. 17, 1958.

Zetellite

For Boat Trailers.
First use Jan. 6, 1958.

SN 46,172. Transportation Specialties Co., Chicago, Ill. Filed Feb. 19, 1958.



For Freight Supporting and Retaining Apparatuses for Freight Transportation Vehicles.
First use July 15, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 23,644. Sunbeam Corporation, Chicago, Ill. Filed Feb. 1, 1957.

SUNBEAM

For Light Bulbs.
First use in August 1940.

SN 28,358. Lok-Products Company, Los Angeles, Calif. Filed Apr. 17, 1957.

Lok ELECTRIC

The word "Electric" is disclaimed apart from the mark.
For System for Mounting Electric Lights on an Acoustical Suspended Ceiling and Components Thereof.
First use Mar. 28, 1957.

SN 30,945. The Radalite Corporation, Long Island City, N. Y. Filed May 28, 1957.

RADALITE

For Electronically Energized Advertising Signs.
First use Oct. 10, 1956.

SN 32,715. Joseph Waldman & Sons, Irvington, N. J. Filed June 26, 1957.

E-CASE

For Plastic Cups, Primarily for Use in the Encapsulation of Electrical and Electronic Components.
First use June 6, 1957.

SN 33,790. Ateliers de Constructions Electriques de Charleroi, Brussels, Belgium. Filed July 16, 1957.

ACEC CHARLEROI

Owner of Belgian Reg. No. 3,862, dated Sept. 7, 1956.
For Electrical and Electronic Apparatus—Namely, Motors, Generators, Exciters, Rotary Converters, Frequency Changers, Transformers, Reactance Coils, Condensers, Stationary and Mobile Substations, Lightning Arresters, Switches, Circuit Breakers, Relays, Starting and Regulating Apparatus for Motors and Generators, Controllers, Control Panels, High-Frequency Apparatus for Heating by Induction and by Dielectric Loss Rectifiers, Electronic Control and Regulating Equipment, Electronic Timers, Electronic Dust Separators, Ultrasonic Apparatus, Electronic Tubes, X-Ray Tubes, Photo-Electric Cells, Ion Sources, Particle Accelerators and Deflectors, Incandescent Lamps, Fluorescent Lamps, Radio, Telephone and Television Transmitting and Receiving Equipment, Sound Recording and Reproducing Apparatus, Electric Household Appliances, Wires and Cables, Electric Signalling Equipment.

SN 38,392. Schulmerich Carillons, Inc., Sellersville, Pa. Filed Oct. 4, 1957.

INSPIRATION

For Electronic Sound Reproducer Instruments Sold for Use in Churches, Institutions, Buildings and the Like, Said Instruments Having a Source of Vibrations for Energising an Amplifier Connectable With Remotely Located Loudspeaker Means.
First use Aug. 14, 1957.

SN 43,707. Rochester Ropes, Inc., Culpeper, Va. Filed Jan. 9, 1958.

ROCHESTER

For Electric Cables.
First use about 1885.

SN 43,719. Wincharger Corporation, Sioux City, Iowa. Filed Jan. 9, 1958.

WINCHARGER

Owner of Reg. Nos. 332,094, 357,700, and others.
For Dynamo-Electric Machines, Particularly Motors, Generators, Dynamotors, Inverters, and Converters; Prime-Mover-Driven Electric Generators, Particularly Engine-Generator Combinations and Starting-Control Units Therefor; Engine-Generator Components and Accessories Including Idling Controls, Carrying Frames, Wheeled Dollies and Underground Storage Tanks; Electric Power Supplies; Wind-Electric Equipment, Particularly Wind-Driven Generators and Components Thereof Including Impellers, Governors, Tailvanes, and Towers; and Parts of Any of the Foregoing.
First use in January 1935 on wind-electric equipment.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 24,296. Vlier Engineering Corporation, Los Angeles, Calif., assignee of Vlier Engineering, Inc., Los Angeles, Calif. Filed Feb. 12, 1957.

VLIER ball plunger

No claim is made to the term "Ball Plunger" nor to the design, apart from the remainder of the mark. Owner of Reg. No. 606,346.

For Pressure Applying Tools Mountable in Jigs and Fixtures—Namely, Ball Plungers.

First use on or about Sept. 19, 1956.

SN 27,401. Sprayers & Nozzles, Inc., St. Petersburg, Fla. Filed Apr. 2, 1957.

RediMix

For Portable, Hand-Manipulated Sprayers for Applying Fertilizers, Insecticides, Fungicides, Germicides, Coating Compositions, and Cleaning Compositions, in Fluid Vehicles.

First use Dec. 13, 1956.

SN 29,247. Weber Engineered Products, Incorporated, Cincinnati, Ohio. Filed May 1, 1957.

SAFE T GUARD

For Rotary Lawn Mowers.

First use Mar. 20, 1957.

SN 32,559. U. S. Industries, Inc., New York, N. Y. Filed June 24, 1957.

USI

The drawing is lined for red. Owner of Reg. No. 626,502.

For Tools for Use in Cutting and Milling Pipe Within a Well, Whipstocks for Deflecting the Passage of Drilling Equipment at a Predetermined Angle With Respect to the Well, Tools for Securing Cores From the Side Wall of a Well Bore, Tubing Heads for Oil Wells, Tubing Flow Mandrels for Use in Oil Wells, Wire Line Operated Tools for Shifting Sleeve Valves Within a Well Conduit Between Opened and Closed Positions and Determining if the Valve Has Been Moved to One of the Positions, Free Pistons for Raising Fluid From a Well and a Lubricator for Retaining Piston at Ground Level, Tools for Enlarging Restrictions in a Well Bore To Permit a Drill Collar To Be Passed Therethrough, and Tools for Indicating Drift in a Well Bore.

First use Apr. 1, 1957.

SN 33,176. The Kemax Corporation, Chicago, Ill. Filed Aug. 8, 1957.

KEMAX

For Spray Gun.

First use Jan. 29, 1957.

SN 36,424. Buck Equipment Corporation, Cincinnati, Ohio. Filed Aug. 29, 1957.



The drawing is shaded for contrasting colors.

For Portable Power-Operated Self-Erecting Hoisting Towers and Parts Thereof.

First use August 1956.

SN 43,493. Josef Willmes, d. b. a. Fa. Josef Willmes, Rensheim, Bergstrasse, Germany. Filed Jan. 6, 1958.

WILLMES

For Filter Presses, Fruit Juice Presses and Brewery Machinery.

First use Sept. 8, 1952; in commerce Sept. 17, 1952.

SN 44,020. Hale Fire Pump Company, Conshohocken, Pa. Filed Jan. 15, 1958.

TORRENT

For Self-Priming Portable Pumps for Home, Farm, Industrial, and Construction Use.

First use Nov. 15, 1957.

SN 44,280. Jo-Line Tools, Inc., South Gate, Calif. Filed Jan. 20, 1958.

JO LINE

For Mechanics' Hand Tools—Namely, Wrenches, Torque Wrenches, Adaptors, and Hand Drills.

First use Apr. 2, 1954.

SN 44,604. Dempster Brothers, Inc., Knoxville, Tenn. Filed Jan. 27, 1958.

DEMPSTER DUMPMASTER

Owner of Reg. Nos. 353,486, 597,881, and others.

For Lifting Mechanism for Truck for Dumping Detachable Containers.

First use Apr. 19, 1957; Oct. 6, 1947, as to "Dumpmaster."

SN 44,719. F. J. Littell Machine Company, Chicago, Ill. Filed Jan. 27, 1958.

VAC-U-MATION

For Tools and Apparatus of the Vacuum Pick-Up Type Including Vacuum Pick-Up Safety Tools for Punch Press Operators and Vacuum Plate Lifters With Turn-Over Mechanism.

First use Jan. 6, 1958.

SN 44,819. Hercules Motors Corporation, Canton, Ohio. Filed Jan. 28, 1958.



For Diesel Engines.

First use Jan. 7, 1958.

SN 45,081. Thomson Industries, Inc., Manhasset, N. Y. Filed Jan. 31, 1958.

FLUOROLINER

For Bearings.

First use Jan. 16, 1958.

SN 45,304. American Brake Shoe Company, New York, N. Y. Filed Feb. 6, 1958.

SIMPLEX

For Teeth for Use With Buckets, Dippers or the Like Used on Power Shovels.

First use Nov. 18, 1957.

SN 46,722. Greer Hydraulics, Inc., Jamaica, N. Y. Filed Feb. 27, 1958.

GREEROLATOR

Owner of Reg. No. 434,118.

For Hydraulic Pressure Vessels.

First use Jan. 20, 1958.

SN 47,375. The Great Lakes Tractor Company, Rock Creek, Ohio. Filed Mar. 10, 1958.

LANCER

For Power Lawn Mowers.

First use Feb. 7, 1958.

SN 48,110. Package Machinery Company, East Longmeadow, Mass. Filed Mar. 20, 1958.

REED-PRENTICE

Owner of Reg. No. 428,922.

For Die Casting Machines, Plastic Injection Molding Machines, Lathes, Milling Machines, and Plastic Extruding Machines.

First use Aug. 21, 1945.

Class 24—Laundry Appliances and Machines

SN 42,327. The Vogel Manufacturing Company, Bridgeport, Conn. Filed Dec. 12, 1957.

WONDER PEG

The word "Peg" is disclaimed apart from the mark as shown.

For Clothes Pins.

First use on about Oct. 1, 1957.

Class 26—Measuring and Scientific Appliances

SN 19,503. Photo-Crystals, Inc., Geneva, Ill. Filed Nov. 19, 1956.

HYGROPAK

For Electric Humidity Measuring Element.

First use on or about Oct. 12, 1956.

SN 25,052. Union Atomic, Inc., Windsor, Conn. Filed Feb. 25, 1957.

NUCLON

For Electronic, Atomic, and Avionic Instruments—Namely, Dynamo Test Sets, Frequency Meters, Colorimeter Power Meters, Signal Generators, Analog Computers, Altimeters, Speedometers, Scalers, and Scintillation Detectors.

First use Jan. 15, 1957.

Class 27—Horological Instruments

SN 30,858. Compagnie des Montres Longines, Francillon S. A. (Longines Watch Co. Francillon Ltd.), St-Imier, Switzerland. Filed Sept. 9, 1957.

LONGINES

Owner of Swiss Reg. No. 101,865, dated Apr. 2, 1942; and U. S. Reg. No. 65,109.

For Watches and Watch Movements and Parts Thereof.

First use about 1880; in commerce about 1880; in 1869 as to "Longines."

SN 42,485. Kay Jewelry Stores, Inc., Washington, D. C. Filed Dec. 16, 1957.

HE-MAN

For Watches.

First use Oct. 18, 1957.

SN 42,486. Kay Jewelry Stores, Inc., Washington, D. C. Filed Dec. 16, 1957.

IRVING

For Watches.

First use 1948.

SN 43,688. Mastercrafters Clock and Radio Company, Chicago, Ill. Filed Jan. 9, 1958.

PERKY

For Electric Clocks.

First use Nov. 15, 1957.

SN 45,612. Rodania Watch Company, Inc., New York, N. Y. Filed Feb. 10, 1958.

ZONE-X

For Watches and Parts of Watches.

First use Jan. 24, 1958.

Class 28—Jewelry and Precious-Metal Ware

SN 26,696. Hamilton Watch Company, Lancaster, Pa. Filed Mar. 22, 1957.



For Jewelry—Namely, Pins.

First use Mar. 14, 1957.

SN 41,718. Sears, Roebuck and Co., Chicago, Ill. Filed Dec. 3, 1957.

FRATERNITY PREP

For Jewelry—Namely, Tie Clasps and Cuff Links.
First use on or about June 7, 1957.

SN 42,137. Hobé Cie Ltd., New York, N. Y. Filed Dec. 10, 1957. Sec. 2(f).

Hobé

Owner of Reg. Nos. 503,571 and 389,665.
For Bracelets, Brooch Pins, Lapel Pins, Earrings, Necklaces, Finger Rings, Charms, and Lockets.
First use Jan. 2, 1926.

SN 42,140. Marvella Pearls, Inc., New York, N. Y. Filed Dec. 10, 1957.

MATURELLE

For Simulated Pearls for Personal Wear.
First use in June 1957.

SN 42,489. Kay Jewelry Stores, Inc., Washington, D. C. Filed Dec. 16, 1957.

STYLECREST

For Finger Rings.
First use at least as early as 1939.

SN 42,562. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Dec. 16, 1957.

MY LOVE

For Sterling Silver Flatware, i. e., Knives, Forks, and Spoons.
First use Nov. 1, 1957.

SN 43,167. The International Silver Company, Meriden, Conn. Filed Dec. 30, 1957.

PINE SPRAY

For Sterling Silver Flatware—Namely, Knives, Forks, and Spoons.
First use Dec. 16, 1957.

SN 43,322. Joseph H. Meyer Bros., Brooklyn, N. Y. Filed Jan. 2, 1958.

GEM-TONES

For Costume Jewelry—Namely, Necklaces, Bracelets, Earrings, and Brooches.
First use in July 1957.

Class 29—Brooms, Brushes, and Dusters

SN 37,450. Hans M. Rosen, New York, N. Y. Filed Sept. 18, 1957.

LOUVRE

For Artists' Brushes.
First use August 1952.

SN 40,936. Furlager Manufacturing Co., Inc., Corona, N. Y. Filed Nov. 19, 1957.

SANI-PUF

For Powder Puffs.
First use Nov. 6, 1957.

SN 41,395. Pitegoff Brothers, Inc., Brooklyn, N. Y. Filed Nov. 26, 1957.

KURL-X

For Paint Brushes.
First use in October 1957.

SN 41,505. American-Marietta Company, O'Cedar Division, Chicago, Ill. Filed Nov. 29, 1957.

CAROUSEL

For Mops and Refill Heads Therefor.
First use on or about Sept. 16, 1957.

Class 31—Filters and Refrigerators

SN 45,282. Societe d'Exploitation des Plastiques, Gennevilliers (Seine), France. Filed Feb. 4, 1958.

POREFLEX

Owner of French Reg. No. 464,642, dated May 2, 1957 (Seine); Natl. Inst. No. 89,673.
For Filter of Porous Polyvinyl Resin Usable as a Filter.

SN 45,307. Barnes Ice & Fuel Co., Inc., Gary, Ind. Filed Feb. 5, 1958.

ICELLER

Owner of Reg. No. 642,627.
For Ice Cabinets.
First use July 14, 1956.

Class 32—Furniture and Upholstery

SN 37,977. Sealy, Incorporated, Chicago, Ill. Filed Sept. 27, 1957. Sec. 2(f).

"SLEEPING ON A SEALY IS LIKE SLEEPING ON A CLOUD"

Owner of Reg. Nos. 423,307 and 578,391.
For Mattresses and Box Springs.
First use 1919.

SN 49,234. F. W. Woolworth Co., New York, N. Y. Filed Apr. 7, 1958.

TABLEAU

For Photograph Frames.
First use Jan. 22, 1958.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 37,021. Keramische Industrie Bedarfs Kom-Ges. Paul Gatzke, Berlin-Charlottenburg, Germany. Filed Sept. 11, 1957.

KERABEDARF

Owner of German Reg. No. 417,484, dated Apr. 24, 1930.
For Illuminating, Heating, Cooking, Cooling, Drying, and Ventilating Apparatus, and Implements and Ceramic and Metallurgical Kilns of All Kinds.

SN 39,153. Alan D. Nusbaum, d. b. a. The Vistair Company, Livonia, Mich. Filed Oct. 16, 1957.

VISTA-VENT

For Ventilating Device for Aircraft Adapted To Be Mounted on a Window of an Aircraft at an Opening in Such Window.
First use July 7, 1957.

SN 41,954. United States Radium Corporation, Morristown, N. J. Filed Dec. 6, 1957.

ISOLITE

For Radioactivated Light-Giving Elements and Articles Containing the Same, Including Calibrated Light Standards, Markers for Vehicles, Obstructions, and Emergency Exits, Hand and Signal Lamps and Lanterns, and Signs.
First use Aug. 29, 1950.

SN 42,328. Tru-Co-Lite, Inc., New York, N. Y. Filed Dec. 12, 1957.

TRUCOLITE

The drawing is lined for color but no claim is made to color.
For Lighting Fixture.
First use June 26, 1957.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 45,717. H. Y. Carson, d. b. a. H. Y. Carson Company, Birmingham, Ala. Filed Feb. 12, 1958.

NEOPRESS

For Gaskets.
First use May 14, 1957.

Class 36—Musical Instruments and Supplies

SN 38,414. American Heritage Publishing Co., Inc., New York, N. Y. Filed Oct. 7, 1957.

AMERICAN HERITAGE

Owner of Reg. No. 628,293.
For Grooved Phonograph Records.
First use in November 1955.

SN 40,103. Winter & Company, Inc., New York, N. Y. Filed Nov. 4, 1957.

RESOTONIC

For Pianos.
First use Nov. 10, 1936.

SN 40,200. Pickwick Sales Corporation, Brooklyn, N. Y. Filed Nov. 7, 1957.

DESIGN

The color linings on the drawing represent the color red or pink directed to the left, yellow or gold directed upwardly and slightly to the right, and blue directed downwardly.
For Grooved Phonograph Records.
First use July 2, 1956.

SN 41,755. Ivy Music Corporation, New York, N. Y. Filed Dec. 4, 1957.

IVY

For Mechanically Grooved Phonograph Records.
First use Dec. 1, 1957.

SN 42,708. Ralph Wigham, Veneta, Oreg. Filed Dec. 20, 1957.

PHEASANT

For Phonograph Records.
First use Oct. 22, 1957.

SN 42,972. Columbia Broadcasting System, Inc., Bridgeport, Conn. Filed Dec. 24, 1957.

HARMONY

Owner of Reg. Nos. 198,096, 210,354, and 211,835.
For Grooved Phonograph Records.
First use on or about Jan. 1, 1912.

SN 43,275. Daniel Silverman, d. b. a. Jameco Metal Products Company, New York, N. Y. Filed Dec. 31, 1957.

GOLD TONE

The drawing is lined for the color gold.
For Music Boxes.
First use May 16, 1957.

Class 37—Paper and Stationery

SN 27,543. Sperry Rand Corporation, New York, N. Y. Filed Apr. 4, 1957.

PROCEL

For Duplicator Stencils.
First use Dec. 1, 1945.

SN 38,674. The Dow Chemical Company, Midland, Mich. Filed Oct. 10, 1957.

DOWRAP

Owner of Reg. No. 623,077.
For Transparent Plastic Film for Use as a Wrapping Material.
First use Sept. 25, 1957.

Class 38—Prints and Publications

SN 5,441. The Michigan State Board of Alcoholism, Lansing, Mich. Filed Mar. 29, 1956.

MICHIGAN ALCOHOLISM REVIEW

For Prints and Publications Issued Periodically.
First use Oct. 1, 1955.

SN 26,679. Broadcasting Publications, Inc., Washington, D. C. Filed Mar. 22, 1957.

B-T TELESTATUS

Owner of Reg. No. 552,949.
For Columns or Sections of Periodical Publications.
First use May 2, 1955; on Sept. 1, 1947, in a different display.

SN 44,201. Ortho Productions, Los Angeles, Calif. Filed Jan. 17, 1958.

ORTHO

For Motion Pictures.
First use Sept. 18, 1950.

SN 44,221. Talman Federal Savings and Loan Association of Chicago, Chicago, Ill. Filed Jan. 17, 1958.

TALMANAC

For Magazine Devoted Primarily to News, Events, and Ideas of Interest to Savers and Borrowers.
First use in summer of 1941.

SN 44,223. United Feature Syndicate, Inc., New York, N. Y. Filed Jan. 17, 1958.

It's Only a Game

For Comic Drawings Published in a Series, in Daily and Sunday Newspapers.
First use Nov. 3, 1957.

SN 44,686. Robert J. Brown, d. b. a. Bob Brown, Asheville, N. C. Filed Jan. 27, 1958.

SCIENSTUNTS

For Newspaper Feature.
First use Jan. 21, 1958.

SN 45,042. Express Publishing Company, San Antonio, Tex. Filed Jan. 31, 1958.

RELAX

For Sunday Supplement.
First use Oct. 20, 1957.

Class 39—Clothing

SN 699,532. Stahl-Urban Company, Brookhaven, Miss. Filed Dec. 6, 1955.

"WEEKENDER"

For Trousers and Jackets Styled for Work or Play for Men and Boys.
First use Nov. 1, 1954.

SN 25,172. L. Greif & Bro., Inc., Baltimore, Md. Filed Feb. 27, 1957.

Calendar

For Suits, Top Coats, Overcoats, Slacks, Sport Coats and Jackets for Men, Boys, and Youths.
First use June 28, 1956.

SN 32,195. McGregor-Doniger Inc., New York, N. Y. Filed June 18, 1957.

LEAP FROG

For Shirts and Coats.
First use May 1, 1957.

SN 32,440. Stadium Manufacturing Company, Inc., Baltimore, Md. Filed June 24, 1957.

TRIP-KIT

For Packaged Robes and Pajamas.
First use May 15, 1957.

SN 32,957. Independent Supply Company, Marion, Ind. Filed July 1, 1957.

Insulacs

For Insulated Wearing Apparel—Namely, Jackets, Coats, Pants, Slacks, Hats, Caps, Helmets, Gloves, Mittens, Vests, Waistcoats, Socks, Boots, Overalls, Coveralls, Underwear, and Under Garments.
First use Jan. 15, 1957.

SN 34,567. Triangle Hosiery Company, Inc., High Point, N. C. Filed July 29, 1957.

GOLDEN TRIANGLE

For Hosiery for Men and Boys.
First use in March 1957.

SN 35,060. Quality Mills, Incorporated, Mount Airy, N. C. Filed Aug. 6, 1957.

Monogram

For Men's and Boys' Knitted Underwear.
First use in July 1957.

SN 35,562. Amory Counter & Plastics Co., Inc., Boston, Mass. Filed Aug. 15, 1957.

ABCO

For Heel Bases for Shoes.
First use on or about May 17, 1957.

SN 38,377. Nu-Way Shoe Co. Inc., New York, N. Y. Filed Oct. 4, 1957.

Scarpini

For Women's Shoes.
First use Jan. 6, 1956.

SN 38,444. Field Bros. Inc., Brooklyn, N. Y. Filed Oct. 7, 1957.

DE BALETTI

For Men's Suits, Coats, Sport Jackets, Slacks, Smoking Jackets, Bathrobes, Shirts.
First use May 1, 1956.

SN 39,071. The H. D. Lee Company, Incorporated, Kansas City, Mo. Filed Oct. 17, 1957.

Leematic

Owner of Reg. Nos. 130,792, 631,361, and others.
For Waistbands Sold Only in Outer Garments for Women, Men, and Boys—Namely, Shorts, Slacks, and Work or Utility Trousers.
First use Sept. 26, 1957, on shorts.

SN 40,784. Kaysam Corporation of America, Paterson, N. J. Filed Nov. 15, 1957.

NAVIGATORS

For Overshoes.
First use Feb. 27, 1957.

SN 40,856. Nathan J. Litsak, New Bedford, Mass. Filed Nov. 18, 1957.

Tee Geez

For Women's Shoes Principally of Leather.
First use July 16, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 37,928. Centrotex, Podnik Zahranicniho Obchodu pro Dovoz a Vyvoz Textilniho a Koseneho Zbozi, Prague, Czechoslovakia. Filed Sept. 4, 1957.



The drawing is lined for blue, gold, and green. Owner of Czechoslovakian Reg. No. 150,109, dated Apr. 17, 1950.
For Linen Goods of All Kinds—Namely, Linen Piece Goods, Decorative Linens, Art Linens, Sheets, Blankets, Pillow Casings, Bedspreads, Shirtings, Sheetings, Tablecloths, Napkins, Handkerchiefs, Towels, Wash Cloths, Diapers.

SN 38,842. New England Maid Rug Co., Inc., Southbridge, Mass. Filed Oct. 14, 1957.



For Braided Rugs and Carpets.
First use Dec. 30, 1947.

SN 42,362. Crompton Company, New York, N. Y. Filed Dec. 13, 1957.

REXSHIRE

For Textile Fabrics in the Piece Composed of Corduroy.
First use Oct. 31, 1957.

SN 44,119. Rubber Fabrics Company, New York, N. Y. Filed Jan. 16, 1958.

SLIMMER

For Rubber Coated Fabrics, Used for Making Girdles.
First use Feb. 11, 1957.

SN 44,149. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Jan. 17, 1958.

CABLETWEED

For Fine Textured Carpets.
First use Dec. 2, 1957.

SN 44,245. Angelica Uniform Company, St. Louis, Mo. Filed Jan. 20, 1958.

ANGELICA

Owner of Reg. Nos. 225,700 and 578,857.
For Piece Goods—Namely, Cotton Sheeting, Cotton Twill, Cotton Duck, and Synthetic Fiber Cloth.
First use Dec. 31, 1957.

SN 44,246. Angelica Uniform Company, St. Louis, Mo. Filed Jan. 20, 1958.

ANGELICRON

For Combination Synthetic Fiber and Cotton Fabric.
First use Dec. 31, 1957.

SN 44,292. Ludlow Manufacturing & Sales Co., Needham Heights, Mass. Filed Jan. 20, 1958.

COM-PAK

For Jute Bagging.
First use in March 1957.

Class 43—Thread and Yarn

SN 41,708. The Linen Thread Co., Inc., New York, N. Y. Filed Dec. 3, 1957.

VARICK

For Thread.
First use in 1931.

Class 44—Dental, Medical, and Surgical Appliances

SN 41,186. J. A. Preston Corporation, New York, N. Y. Filed Nov. 22, 1957.

GYM-KIT

For Finger and Hand Therapeutic Exercising Board.
First use Sept. 22, 1954.

Class 45—Soft Drinks and Carbonated Waters

SN 31,137. Necta Cola Corp., San Antonio, Tex. Filed May 31, 1957.

ELEVN DOWN

For Syrup for Making Soft Drinks.
First use July 17, 1956.

SN 31,923. General Foods Corporation, White Plains, N. Y. Filed June 13, 1957.

NOVELTEE

For Powders for Making Soft Drinks.
First use on or about May 9, 1957.

SN 41,944. S. E. Rykoff & Company, Los Angeles, Calif. Filed Dec. 6, 1957.

S. E. R.

For Syrups, Extracts, and Bases for Making Soft Drinks.
First use in September 1950.

SN 42,213. Green River Corporation, Chicago, Ill. Filed Dec. 11, 1957.

GREEN RIVER

Owner of Reg. No. 129,217.
For Soft Drinks and Bases and Concentrates and Syrups and Extracts for Making Same.
First use on or about Apr. 1, 1918.

Class 46—Foods and Ingredients of Foods

SN 698,362. Gold Medal Candy Corporation, Brooklyn, N. Y., assignee of Korday Candies, Inc., Brooklyn, N. Y. Filed Nov. 16, 1955.

Bunsman's Hostess Mix

Owner of Reg. Nos. 419,561, 646,997, and others.
For Candy.
First use Nov. 24, 1953.

SN 8,768. Gordon's All Pork Products Company, Detroit, Mich. Filed May 22, 1956. Sec. 2(f).

Gordon's

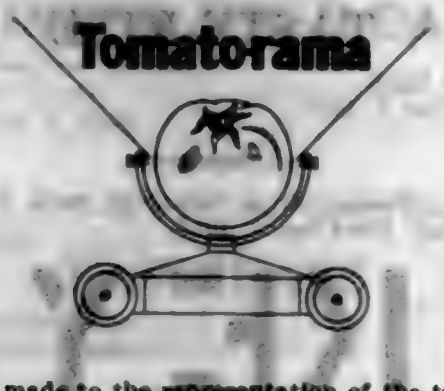
For Pork Sausage.
First use September 1938.

SN 15,441. Barton's Candy Corporation, Brooklyn, N. Y. Filed Sept. 11, 1956. Sec. 2(f).

BARTON'S

Owner of Reg. Nos. 328,007 and 542,871.
For Candy, Candied and Salted Nuts, and Cookies.
First use Aug. 1, 1940.

SN 20,837. Hunt Foods, Inc., Fullerton, Calif. Filed Dec. 11, 1956.



No claim is made to the representation of the tomato apart from the mark as shown.

For Stewed Tomatoes, Whole Peeled Tomatoes, Tomato Catsup, Tomato Paste, Tomato Sauce, Tomato Puree, Chili Sauce, Tomato Juice, All of Which Goods Are Canned Products.

First use Nov. 23, 1956, for tomato sauce.

SN 21,216. Sioux City Dressed Beef, Inc., Sioux City, Iowa. Filed Dec. 17, 1956.



The drawing is lined for red, green, and yellow. The words "Beef From the Corn Belt" are disclaimed apart from the mark as shown. The representation of the goods is disclaimed.

For Fresh Beef.

First use Sept. 4, 1956.

SN 24,918. Bowman Dairy Company, Chicago, Ill. Filed Feb. 25, 1957.

PRO-TEN

For High-Protein Compound for Use in Baking and Containing Gluten Flour, Non-Fat Dry Milk, Refined Wheat Germ, Salt, Soya Flour, and Concentrated Milk Protein.

First use Feb. 12, 1957.

SN 28,817. Tillman Produce Co., Inc., Wilton, Wis. Filed Apr. 24, 1957.

MINNE-KÄ-JUN

The expression "Minne-Kä-Jun" means female Indian bird.

For Dressed Poultry.

First use Oct. 1, 1956.

SN 32,857. Saltwater Farm Incorporated, Damariscotta, Maine. Filed June 28, 1957.

SALTWATER FARM

Owner of Reg. No. 556,452.

For Live Lobsters, Live Clams, Herring Fillets, Canned Minced Clams, Canned Clam Chowder, Canned Fish Chowder, Canned Clam Bisque, Canned Newburg Sauce Base, Canned Lobster Newburg, Canned Lobster Spread, Canned Lobster Meat, Canned Crab Meat, Canned Deviled Kippers, Canned Scallop Newburg, Canned Lobster Bisque, Canned Indian Pudding, Canned Clam Spread, Canned Crab Spread, Canned Salmon Spread, Canned Sardine Spread, and Canned Tuna Spread.

First use May 1949 on live lobsters.

SN 33,770. Wisconsin Produce, Inc., d. b. a. Wis-Produce, Inc., Eleva, Wis. Filed July 15, 1957.

NORTHERN PRIDE

For Fresh and Frozen Chickens, Especially for Frying.

First use July 5, 1957.

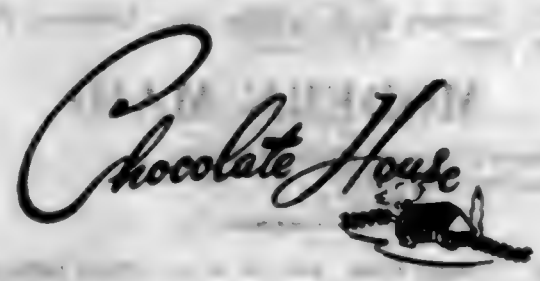
SN 34,664. Clotilde Castaneda, Vda. de Barrientos, Tezlutlan, Puebla, Mexico. Filed July 31, 1957.

MIBAR

Owner of Mexican Reg. No. 86,700, dated Oct. 10, 1956.

For Coffee.

SN 35,196. Maroun Candies, Inc., d. b. a. The Chocolate House, Milwaukee, Wis. Filed Aug. 8, 1957.



For Candies.

First use in January 1946.

SN 35,913. Corn Products Refining Company, New York, N. Y. Filed Aug. 21, 1957.



The mark consists of the letters "CP" in a cross-sectional representation of an ear of corn.

For Starch, Chocolate Flavorings, Table Syrups, Refined Vegetable Oil, Sugar, Frosting Mixes, Livestock Feeds, and Dog and Cat Food.

First use Mar. 1, 1957, on sugar.

SN 36,184. C. E. Grosjean Rice Milling Co., San Francisco, Calif. Filed Aug. 26, 1957.



The drawing is lined for red. The words are translated as "Red Bird—California Rice." Applicant disclaims exclusive rights to the words "Arroz de California."

For Rice.

First use in or about May 1938.

SN 37,487. P. L. Echols, d. b. a. P. L. (Phil) Echols, Anna, Ill. Filed Sept. 19, 1957.

PHILS

For Fresh Fruits and Vegetables—Namely, Cabbage, Beans, Cucumbers, Tomatoes, Peppers, Egg Plant, Potatoes, Apples, Peaches, Strawberries, Pears, and Prunes.
First use on or about Mar. 15, 1955.

SN 37,521. Lester T. Sawyer, d. b. a. Hycrest Farms, Sterling, Mass. Filed Sept. 19, 1957.



For Fluid Milk, Cream, Ice Cream, Ice Cream Mixes, Cottage Cheese, Coffee, and Chocolate Flavored Milk Drinks.
First use Sept. 1, 1945, on fluid milk and ice cream.

SN 37,967. Modern Maid Packers, Inc., Lebanon, Pa. Filed Sept. 27, 1957.

MODERN MAID

For Frozen Prepared Meat Products.
First use Mar. 25, 1957.

SN 38,435. Crispo Bros., Inc., d. b. a. Crispo Bros., Salinas, Calif. Filed Oct. 7, 1957.



Applicant disclaims the word "Melon" apart from the mark as shown.
For Fresh Melons.
First use June 5, 1957.

SN 41,691. Borneo Sumatra Trading Co. of California, Inc., d. b. a. Borsumy Trading Company of California, Inc., San Francisco, Calif. Filed Dec. 3, 1957.

SOLEDAD

The mark translated into English means "Solitude."
For Dried and Canned Fruits and Vegetables.
First use Nov. 22, 1955.

SN 41,957. James O. Welch Company, Cambridge, Mass. Filed Dec. 6, 1957.

ROYAL CLUSTERS

No exclusive claim is made to the designation "Clusters" apart from the mark as shown.
For Candy.
First use Aug. 2, 1956.

SN 42,125. Food Products Company of America, Chicago, Ill. Filed Dec. 10, 1957.

MUCH MORE

For Food and Grocery Products—Namely, Canned Vegetables, Catsup, Canned Soups, Pork and Beans, Chocolate for Cooking and Eating, Cocoa, Hominy, Canned Mackerel, Molasses, and Alimentary Pastes.
First use Dec. 24, 1934.

SN 43,546. Mississippi Valley Egg Co., Worthington, Iowa. Filed Jan. 7, 1958.

TASTE-RITE

For Fresh Eggs.
First use Oct. 5, 1957.

SN 43,570. Wesson Oil & Snowdrift Sales Company, New Orleans, La. Filed Jan. 7, 1958.

KEY

For Shortening Made of Hydrogenated Vegetable Oil.
First use Oct. 18, 1957.

SN 43,571. Wesson Oil & Snowdrift Sales Company, New Orleans, La. Filed Jan. 7, 1958.

QUIK

For Shortening Made of Hydrogenated Vegetable Oil.
First use Oct. 18, 1957.

SN 43,947. Charles E. Merry, Inc., d. b. a. The Wales Company, Newton Center, Mass. Filed Jan. 14, 1958.

HOUSE OF WALES

For Canned Welsh Rarebit and Indian Pudding.
First use Sept. 4, 1957.

SN 44,268. Edlo, Inc., San Francisco, Calif. Filed Jan. 20, 1958.

SLIM DIP

Owner of Reg. Nos. 608,411 and 634,947.
For Cottage Cheese.
First use Jan. 8, 1958.

SN 44,697. Food Marketing Corp., Fort Wayne, Ind. Filed Jan. 27, 1958.

fmc

For Canned Goods—Namely, Fruits, Fruit Cocktail, Applesauce, Vegetables, Pork and Beans, Hominy, Tomato Puree and Tomato Sauce; Catsup; Chili Sauce; Mustard; Salad Dressings and Mayonnaise; Pickles; Sweet Relish, Pickled Watermelon Rind; Table Syrup; Gelatin Dessert Powders; Alimentary Pastes; Spices; Sugar; and Coffee.
First use June 1, 1957.

SN 44,854. XLNT Spanish Food Co., Los Angeles, Calif. Filed Jan. 28, 1958.

HACIENDA

For Frozen Spanish Food Products—Namely, Frozen Meatless Tacos.
First use Dec. 20, 1957.

SN 45,383. Hales & Hunter Co., Chicago, Ill. Filed Feb. 6, 1958.

PIONEER VIG-R-CALF

Owner of Reg. No. 533,308.
For Feed for Cattle.
First use Jan. 7, 1958.

SN 45,574. S. M. Jones & Co., Inc., Canal Point, Fla. Filed Feb. 10, 1958.

SAWGRASS

For Fresh Vegetables.
First use Jan. 10, 1958.

SN 45,609. Earl C. Recker, d. b. a. Earl C. Recker Co., Mesa, Ariz. Filed Feb. 10, 1958.

ALLURE

Owner of Reg. No. 341,239.
For Fresh Vegetables, Melons, and Fresh Citrus Fruits.
First use June 11, 1936.

SN 45,610. Earl C. Recker, d. b. a. Earl C. Recker Co., Mesa, Ariz. Filed Feb. 10, 1958.

GOLD RUSH

Owner of Reg. No. 308,188.
For Fresh Vegetables, Melons, and Fresh Citrus Fruits.
First use Mar. 15, 1932.

SN 45,679. Drake Bakeries Incorporated, New York, N. Y. Filed Feb. 11, 1958.

RING DING

For Cakes.
First use Jan. 30, 1958.

SN 46,157. Pepperidge Farm Incorporated, Norwalk, Conn. Filed Feb. 19, 1958.

ISLAND OF GUERNSEY

For Fruit Cake.
First use Nov. 22, 1957; Oct. 1, 1945, as to "Guernsey."

SN 46,493. Seven Keys Co. of Florida, Fort Lauderdale, Fla. Filed Feb. 24, 1958.



For Coconut Spread.
First use Sept. 17, 1957.

SN 46,534. Commerce Poultry, Inc., Commerce, Ga. Filed Feb. 25, 1958.

GEORGIANNA

For Dressed Poultry.
First use on or about Jan. 27, 1958.

SN 46,671. Standard Brands Incorporated, New York, N. Y. Filed Feb. 26, 1958.

RAINBOW

Owner of Reg. No. 219,348.
For Malt Sirup.
First use May 24, 1926.

SN 46,753. Pen Argyl Milling Company, Inc., Pen Argyl, Pa. Filed Feb. 27, 1958.



Owner of Reg. Nos. 417,569, 629,266, and others.
For Creamy Buckwheat Grits.
First use Dec. 14, 1957.

Class 47—Wines

SN 690,556. House of Old Molineaux, Inc., Boston, Mass. Filed June 30, 1953. CONCURRENT USE to be restricted to the United States except California, Oregon, Washington, Idaho, Utah, Nevada, Arizona, New Mexico, Colorado, Wyoming, and Montana. Concurrent use with SN 648,522.



For Wines.
First use July 23, 1935.

SN 34,035. Brookside Vineyard Company, Guasti, Calif. Filed July 19, 1957.

ASSUMPTION ABBEY WINES

No claim is made to the word "Wines" apart from the mark.
For Wines.
First use Apr. 5, 1957.

SN 42,265. Austin, Nichols & Co. Incorporated, New York, N. Y. Filed Dec. 12, 1957.

AUSTIN

Owner of Reg. No. 517,641.
For Wines.
First use on or about Oct. 10, 1951.

Class 49—Distilled Alcoholic Liquors

SN 648,522. The American Distilling Company, Pekin, Ill. Filed June 10, 1953. CONCURRENT USE to be restricted to California and Nevada. Concurrent use with SN 690,556 and SN 690,557.

3-Monks

Owner of Reg. No. 318,945.
For Brandy.
First use May 22, 1953.

SN 600,557. House of Old Molineaux, Inc., Boston, Mass. Filed June 30, 1955. CONCURRENT USE to be restricted to the United States except California, Oregon, Washington, Idaho, Utah, Nevada, Arizona, New Mexico, Colorado, Wyoming, and Montana. Concurrent use with SN 648,322.

Three Monks



For Brandy.
First use December 1940.

SN 40,169. The American Distilling Company, d. b. a. Clarke's Distilling Company, New York, N. Y. Filed Nov. 6, 1957. Sec. 2(f).

CLARKE'S

For Whiskey, Gin, and Alcoholic Cordials.
First use Aug. 6, 1929.
Subj. to Intf. with Reg. No. 631,464.

SN 40,303. The American Distilling Company, New York, N. Y. Filed Nov. 8, 1957. Sec. 2(f).

The pick of all Clarke's

For Whiskey and Gin.
First use Aug. 6, 1929.
Subj. to Intf. with Reg. No. 631,464.

SN 40,552. The R. L. Buse Company, Cincinnati, Ohio. Filed Nov. 13, 1957.

RLB

For Whiskey.
First use Mar. 11, 1955.

SN 42,234. Jack Poust & Company, Inc., New York, N. Y. Filed Dec. 11, 1957.

JACPOUST

For Mixed Wine and Vodka Beverages.
First use June 13, 1957.

Class 50 — Merchandise Not Otherwise Classified

SN 40,175. Irving Air Chute Co., Inc., Lexington, Ky. Filed Nov. 6, 1957.

IRVIN AIRSHELTER

For Pneumatically Inflatable and Collapsible Fabric Type Housing.
First use June 17, 1957.

SN 42,266. Bernie Shoe Company, d. b. a. Personal Contour Shoe Company, Haverhill, Mass. Filed Dec. 12, 1957.

Quick Cast

For Molding Kits for Shoe Forms and Component Parts Thereof Including Molding Compound.
First use Apr. 27, 1957.

SN 42,340. Bert Bacharach Inc., New York, N. Y. Filed Dec. 13, 1957.

TRAVEL TRIFLES

For Package Containing Travel Items, Such as Spot Remover, Lighter Fluid, Calendar Mirror, Eyeglass Tissues, Shoe Polish Cloth, Metric Size Chart, Band-Aid and Styptic, Foreign Money Guide, Travel Tips, Nail Kit, Shoe Horn, Shoe Laces, Bottle Cap, Sewing Kit, Soap Leaves, Plastic Bag, Collar Stays, and Rubber Bands.
First use Nov. 11, 1957.

SN 42,402. Societe des Usines Chimiques Rhone-Poulenc, Paris, France. Filed Dec. 13, 1957.

LUMALINE

Priority claimed under Sec. 44(d) on French Reg. No. 465,500, dated June 13, 1957 (Paris); Natl. Inst. No. 90,221.
For Metallized Plastic Material in the Form of Leaves, Sheets, Plates, Plaques, Tubes, Chains, and Strands.

Class 51 — Cosmetics and Toilet Preparations

SN 28,760. Chesebrough-Pond's Inc., New York, N. Y. Filed Apr. 24, 1957.

LAVISH

For Cosmetic Facial and Body Cream.
First use Mar. 18, 1957.

Class 52—Detergents and Soaps

SN 34,638. William W. Shepard, d. b. a. Warhill Products, Amelia, Ohio. Filed July 30, 1957.

Shampads

For Fabric Pads Impregnated With a Shampoo Suitable for Use on Dogs and Other Animals.
First use Nov. 8, 1956.

SN 42,175. Tip 'N Twinkle, Inc., Roanoke, Va. Filed Dec. 10, 1957.

TIP 'N TWINKLE

For Liquid Gem Cleaner.
First use Nov. 12, 1954.

SN 44,578. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Jan. 23, 1958.

EXPRAY

For Metal Cleaners for Spray Washer Applications.
First use Nov. 16, 1955.

SN 44,580. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Jan. 23, 1958.

MERSOCLEAN 540

For Solvent Type Metal Cleaner.
First use Mar. 23, 1956.

SN 44,705. The Grand Union Company, East Paterson, N. J. Filed Jan. 27, 1958.

GRAND

Owner of Reg. No. 424,232.
For Liquid Detergent.
First use on or about Sept. 26, 1957.

SN 45,091. Amalgamated Paints (London) Limited, Mitcham, England. Filed Jan. 31, 1958.

MAGIC WAND

Owner of British Reg. No. 760,727, dated June 20, 1957.
For Soap Powders, Detergents (Not for Use in Industrial and Manufacturing Processes) and Scouring Preparations.

SN 45,206. Wybrant System Products Corporation, New York, N. Y. Filed Feb. 4, 1958. Sec. 2(f).

THE WYBRANT SYSTEM

For Shampoo for the Treatment of All Types of Human Hair Including Coarse, Fine, Oily, or Dry.
First use in September 1947.

SN 46,640. Shiseido Company, Limited, Chuo-ku, Tokyo, Japan. Filed Feb. 26, 1958.

Owner of Japanese Reg. Nos. 106,930, dated Sept. 12, 1919, and 108,120, dated Oct. 16, 1919.
For Soaps, Cleansing and Polishing Materials.

SN 47,027. Universal Products Corp., St. Louis, Mo. Filed Mar. 3, 1958.

WOOL QUEEN

For Cold Water Soap.
First use Jan. 2, 1957.

SN 50,057. Hi-Point Co., Detroit, Mich. Filed Apr. 21, 1958.

HI-POINT

For Liquid Cleaning Compound for Glass, Metal, Wood Surfaces, Tile, Porcelain, Etc.
First use Apr. 17, 1958.

SN 50,575. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Apr. 28, 1958.

FAIRTREX

For Alkaline Cleaner Useful for Pressure Gun and Soak Tank Operations.
First use Feb. 24, 1953.

SERVICE MARKS

Class 100—Miscellaneous

SN 699,125. Alfred Belok, New York, N. Y. Filed Nov. 30, 1955.

Colortech

For Production of Still and Moving Picture Film to the Order of Others.
First use Mar. 26, 1953.

SN 25,647. Standards Engineers Society, Camden, N. J. Filed Mar. 6, 1957.

SES

For Dissemination of Information Pertaining to Standardization Techniques in Various Professions, Such as Engineering, Teaching, and Management, and in Various Industries; for Advisory, Informational, and Educational Services to Members of Applicant's Association Concerning Problems Relating to Standards and Standardization Techniques; and for the

Promotion of Knowledge of and Use of Approved Standards Issued From Time to Time by Regularly Constituted Standardizing Bodies.

First use during March 1949.

SN 29,721. Guide Dog Foundation for the Blind, Inc., Forest Hills, N. Y. Filed May 9, 1957.

SECOND SIGHT

For Services Rendered in Connection With the Selection, Transportation and Training of Guide Dogs for the Blind, and in the Selection, Transportation and Training of Blind Persons in the Use of Guide Dogs and in Supplying Said Dogs to Said Persons.

First use Dec. 1, 1956.

SN 30,843. Snak-King Corp., Brookline, Mass. Filed May 27, 1957.

Snak KING

The term "Snak" is disclaimed apart from the mark as shown in the drawing, but without waiving rights at common law thereto.

For Lunch-Counter, Drive-In and General Restaurant Services.

First use Jan. 10, 1955.

SN 36,191. International Research Associates, Inc., New York, N. Y. Filed Aug. 26, 1957.



For Research, Advice and Consultation Services Rendered to Others in the Fields of Marketing, Public Relations, and Management.

First use June 1956.

SN 40,807. Birdwell, Inc., Bradford, Pa. Filed Nov. 18, 1957.

BIRDWELL

For Making Geophysical Surveys—Namely, Determining and Logging the Temperature, Size Variations, Deviation, Direction, and Rate of Flow of Fluids and Electrical Properties of Well Bores Including Gamma Ray, Neutron and Radioactive Tracer Logging, and Photographing Well Bores.

First use on or about Jan. 29, 1952.

SN 42,653. Marifex Co. Inc., Washington, D. C. Filed Dec. 18, 1957.

THE BRICKSKELLER

For Restaurant Services.

First use Oct. 7, 1957.

SN 47,298. Water Resources Council, Inc., New York, N. Y. Filed Mar. 7, 1958.



For Association Services—Namely, the Encouragement of Water Conservation and Dissemination of Information in Connection Therewith.

First use Feb. 1, 1956.

Class 101 — Advertising and Business

SN 20,364. Dun & Bradstreet, Inc., New York, N. Y. Filed Dec. 4, 1956.

AUDEX

For Assembling, Analysing, and Furnishing Market Information in the Drug Field Which Information Is Disseminated by Means of Periodical Reports.

First use October 1956.

Class 102 — Insurance and Financial

SN 9,252. Combined Insurance Company of America, Chicago, Ill. Filed May 29, 1956.

COMBINED INSURANCE COMPANY OF AMERICA

For Underwriting of All Forms of Accident and Health Insurance.

First use in January 1940.

SN 43,293. American Security and Trust Company, Washington, D. C. Filed Jan. 2, 1958.

AMERICAN SECURITY

For Banking Services.

First use at least as early as 1900.

Class 103 — Construction and Repair

SN 41,182. Orkin Exterminating Company, Inc., Atlanta, Ga. Filed Nov. 22, 1957. Sec. 2(f) as to "Orkin."



Owner of Reg. Nos. 289,510, 647,232, and others.

For Protecting Structures Against Infestation by Termites and Other Pests by the Use of Chemicals.

First use Sept. 22, 1937; in 1901 as to "Orkin."

Class 105 — Transportation and Storage

SN 30,461. Westfal-Larsen & Co., A/S, Bergen, Norway. Filed Sept. 18, 1957. Sec. 2(f).

INTEROCEAN LINE

For Steamship Agency and Transportation Services.
First use August 1930.

SN 34,240. National Van Lines, Inc., Broadview, Ill. Filed July 23, 1957.

NATIONAL

Owner of Reg. Nos. 548,018 and 563,950.
For Transporting of Goods by Motor Vehicle and Packing and Storing Goods Incidental Thereto.
First use in or about October 1928.

Class 106 — Material Treatment

SN 29,886. Empire Piece Dyeing & Finishing Co., Inc., Hawthorne, N. J. Filed May 13, 1957.

COLORBOND

For Service of Applying Dyes or Colors to Fabric and Yarns of Others.
First use Jan. 2, 1957.

SN 31,974. Chroma, Inc., Seattle, Wash. Filed June 14, 1957.

CHROMA

For Film Processing, Printing, and Duplicating.
First use Sept. 23, 1946.

Class 107 — Education and Entertainment

SN 691,980. Keller Breland, Hot Springs, Ark. Filed July 27, 1955.

KELLER BRELAND

For Rental of Trained Animals for Entertainment and for the Presentation of Animal Acts.
First use in the spring of 1947.

SN 6,228. Continental Schools, Inc., Los Angeles, Calif. Filed Apr. 12, 1956.

CONTINENTAL SCHOOLS

The word "Schools" is disclaimed apart from the mark as shown.
For Correspondence Courses.
First use Mar. 8, 1955.

SN 13,253. Martin Snyder, Inc., New York, N. Y. Filed Aug. 1, 1956.

THEATRE HOLIDAY

For Travel and Entertainment Agency Services—Namely, the Gathering Together Groups of Persons, and Arranging for Transportation, Hotel Accommodations and Entertainment for Said Groups in Various Cities in Different States of the United States.
First use on or about Jan. 1, 1956.

SN 15,810. The National Management Association, Dayton, Ohio. Filed Sept. 17, 1956.



For Collecting and Disseminating Information Respecting Problems of Management and Their Solution Through the Medium of Correspondence, Informational Pamphlets and Directories, Periodical Bulletins, and Related Material.
First use Apr. 1, 1956.

SN 19,164. Morton Salt Company, Chicago, Ill. Filed Nov. 13, 1956.

TOPIC FOR TODAY

For the Title of a Radio and Television News Commentary Program.
First use Sept. 3, 1956.

SN 23,910. Elvis Green, Houston, Tex. Filed Feb. 6, 1957.

PREMIERS QUARTET

For Entertainment Service by a Vocal Quartet Through the Media of Personal Appearances and Radio Broadcast Programs.
First use Nov. 27, 1956.

CERTIFICATION MARKS

Class A — Goods

SN 7,900. American Bonded Cars, Incorporated, Philadelphia, Pa. Filed May 8, 1956.



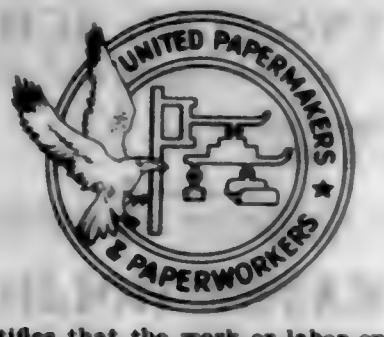
The drawing is lined for gold. The mark certifies that an inspection of cars bearing the certification mark has been performed by applicant and that applicant warrants the cars are in good mechanical condition.
For Used Cars Offered for Sale by Used Car Dealers.
First use Apr. 9, 1956.

SN 15,989. United States Rubber Company, New York, N. Y. Filed Sept. 10, 1956.

VIBRIGLAZE

The mark certifies that the building blocks have been plastic faced by using resin sold by applicant under its trademark "Vibrin" in accordance with methods and standards set by applicant.
For Plastic-Faced Cementitious Building Blocks.
First use Sept. 4, 1956.

SN 48,030. United Papermakers and Paperworkers, Albany, N. Y. Filed Jan. 8, 1958.



The mark certifies that the work or labor on the goods was performed by a member or members of the applicant association.

For Paper and Paper Products.

First use Mar. 6, 1957.

SN 48,443. United States Department of Commerce, Washington, D. C. Filed Mar. 25, 1958.



The mark certifies that the goods conform to Commercial Standard CS 21–30 promulgated by applicant, and in subsequent editions promulgated as CS 21–34, CS 21–36, CS 21–38, and CS 21–58, respectively.

For Interchangeable Ground-Glass Joints, Stopcocks, and Stoppers.

First use Aug. 1, 1930.

Class B — Services

SN 45,814. National Association of Broadcasters, Washington, D. C. Filed Feb. 13, 1958.



The mark certifies that the television programming of the station transmitting the mark is in accordance with the applicant's Television Code.

For Broadcasting of Television Programs.

First use Jan. 17, 1958.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

665,548. NORDICALF. Barrett & Company, Inc. SN 20,084. Pub. 5–27–58. Filed 11–29–56.

665,549. RUSTICALF. Barrett & Company, Inc. SN 20,086. Pub. 5–27–58. Filed 11–29–56.

665,550. H. C. Spinks Clay Co., Inc. SN 24,461. Pub. 5–27–58. Filed 2–14–57.

665,551. PF AND DESIGN. Pennsylvania Fluorocarbon Company, Inc. SN 35,116. Pub. 5–27–58. Filed 8–7–57.

665,552. SAMOA. Armour and Company. SN 37,545. Pub. 5–27–58. Filed 9–20–57.

665,553. EZE. Agrashell, Inc. SN 37,843. Pub. 5–27–58. Filed 9–26–57.

665,554. THOMPSON'S WHITE ROCKS. A. W. Thompson Hatchery, Inc. SN 39,296. Pub. 5–27–58. Filed 10–21–57.

Class 2—Receptacles

665,555. TITE-VAC PROCESS ETC. AND DESIGN. Milprint, Inc. SN 680,776. Pub. 5–27–58. Filed 1–31–55.

665,556. CRYSTALWOOD. Robert F. Stearn. SN 16,499. Pub. 5–27–58. Filed 9–26–56.

665,557. "COLOR-VUE." Plastic Packaging Company. SN 27,625. Pub. 5–27–58. Filed 4–5–57.

665,558. MARVIL. Atlas Plywood Corporation. SN 27,766. Pub. 5–27–58. Filed 4–9–57.

665,559. EA. Elgin American, Inc. SN 29,202. Pub. 5–27–58. Filed 5–1–57.

665,560. TRIM MAID. Plastomatic Corporation. SN 29,552. Pub. 5–27–58. Filed 5–7–57.

665,561. MEASUR-IT. Edward Greeman. SN 30,485. Pub. 5–27–58. Filed 5–22–57.

665,562. IMCO AND DESIGN. Injection Molding Company. SN 37,735. Pub. 5–27–58. Filed 9–24–57.

665,563. "TOPS" AND DESIGN. The Apollo Company, Inc. SN 38,789. Pub. 5–27–58. Filed 10–14–57.

665,564. MESS HAUL. Chicago Molded Products Corporation. SN 38,808. Pub. 5–27–58. Filed 10–15–57.

665,565. MONARCH WHI-TEX. Wilbert W. Haase Co. SN 39,394. Pub. 5–27–58. Filed 10–23–57.

665,566. MONARCH TITIAN. Wilbert W. Haase Co. SN 39,395. Pub. 5–27–58. Filed 10–23–57.

665,567. MONARCH PREMIER. Wilbert W. Haase Co. SN 39,396. Pub. 5–27–58. Filed 10–23–57.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

665,568. MARLITE. The Baltimore Luggage Co. SN 34,838. Pub. 5–27–58. Filed 8–2–57.

665,569. PLASMOLD. The Baltimore Luggage Co. SN 34,839. Pub. 5–27–58. Filed 8–2–57.

665,570. STARBRITE. The Baltimore Luggage Co. SN 34,840. Pub. 5–27–58. Filed 8–2–57.

Class 4—Abrasives and Polishing Materials

665,571. SPEED-D-BURR. Speed-D-Burr Corporation. SN 22,474. Pub. 4–22–58. Filed 1–11–57.

665,572. MAGICOLOR. Enterprise Paint Manufacturing Company. SN 37,420. Pub. 5–27–58. Filed 9–18–57.

665,573. SUPERBAK. Norton Company. SN 37,807. Pub. 5–27–58. Filed 9–26–57.

665,574. QUICKIE. James R. Barnet, d. b. a. Jim Richards Shoe Co. and Skill Built Tool Co. SN 38,423. Pub. 5–27–58. Filed 10–7–57.

Class 5—Adhesives

665,575. COLORAMIC. Coloramic Tile Co., Inc. SN 34,512. Pub. 5–27–58. Filed 7–29–57.

665,576. PENICK & FORD AND DESIGN. Penick & Ford, Ltd., Incorporated. SN 37,009. Pub. 5–27–58. Filed 9–12–57.

Class 6—Chemicals and Chemical Compositions

665,577. ZONE D-ICER. The Southwestern Petroleum Company, d. b. a. The Zone Company. SN 16,565. Pub. 5–27–58. Filed 9–27–56.

665,578. INTRUSION-AID. Intrusion-Prepakt, Inc. SN 23,322. Pub. 5–27–58. Filed 1–28–57.

665,579. SERVO AND DESIGN. Servo Corporation of America. SN 23,945. Pub. 5–27–58. Filed 2–6–57.

665,580. PITT-CONSOL AND DESIGN. Pitt-Consol Chemical Company. SN 29,654. Pub. 5–27–58. Filed 5–8–57.

665,581. W WEST CHEMICAL PRODUCTS INC. AND DESIGN. West Chemical Products, Inc. SN 29,849. Pub. 5–27–58. Filed 5–10–57.

665,582. QO. The Quaker Oats Company. SN 35,744. Pub. 5–27–58. Filed 7–15–57.

665,583. REGAL. Godfrey L. Cabot, Inc. SN 34,585. Pub. 5–27–58. Filed 7–30–57.

665,584. CONOCO AND DESIGN. Continental Oil Company. SN 39,786. Pub. 5–27–58. Filed 10–30–57.

665,585. CONOCO. Continental Oil Company. SN 39,787. Pub. 5–27–58. Filed 10–30–57.

665,586. SOL-PAKS. R. T. Vanderbilt Company, Inc. SN 39,926. Pub. 5–27–58. Filed 10–31–57.

Class 9—Explosives, Firearms, Equipments, and Projectiles

665,587. WHITE LINE AND DESIGN. Mershon Co., Inc. SN 10,825. Pub. 5–27–58. Filed 6–20–56.

665,588. ANKRETE. Roberts Manufacturing Co. SN 25,467. Pub. 5–27–58. Filed 3–4–57.

665,589. SUNSPOT. The Poly Choke Company, Incorporated. SN 38,560. Pub. 5–27–58. Filed 10–8–57.

665,590. SKYLITER. Aerial Products, Inc. SN 41,126. Pub. 5–27–58. Filed 11–22–57.

Class 10—Fertilizers

665,591. RSC. Reynolds Soil Development Corporation (of Chuckawalla Valley). SN 32,989. Pub. 5–27–58. Filed 7–1–57.

665,592. TRIPLE TONIC. Northrup, King & Co. SN 39,259. Pub. 5–27–58. Filed 10–21–57.

Class 12 — Construction Materials

665,593. FLOR-BLOX. Tibbals Flooring Company. SN 19,273. Pub. 5–27–58. Filed 11–14–56.

665,594. NEW FORMULA PERLMIX. Midwest Perlite Products, Inc. SN 27,872. Pub. 5–27–58. Filed 4–10–57.

665,595. VITROCEM. R. H. Olson Company, Incorporated. SN 28,062. Pub. 5–27–58. Filed 4–12–57.

665,596. WEATHERBAN. Minnesota Mining and Manufacturing Company. SN 29,090. Pub. 5–27–58. Filed 4–29–57.

665,597. WEATHERSHIELD. Kane Manufacturing Corporation. SN 30,785. Pub. 5–27–58. Filed 5–27–57.

665,598. RENAISSANCE. American Biltrite Rubber Company, Inc. SN 33,449. Pub. 5–27–58. Filed 7–10–57.

665,599. KOVER KING. Dallas Iron & Wire Works, Inc. SN 34,928. Pub. 5–27–58. Filed 8–30–57.

665,600. MOSAIC TROPIGLAS. Russell Reinforced Plastics Corporation. SN 35,002. Pub. 5–27–58. Filed 8–5–57.

665,601. CLAD REX. Clad-Rex Corporation. SN 35,565. Pub. 5–27–58. Filed 8–15–57.

665,602. QUALITY MILLWORK AND DESIGN. Diamond Gardner Corporation, by change of name from The Diamond Match Company. SN 36,648. Pub. 5–27–58. Filed 9–4–57.

665,603. DUOTONE. Tilo Roofing Company, Inc. SN 37,300. Pub. 5–27–58. Filed 9–16–57.

665,604. TUFLEX. The General Tire & Rubber Company. SN 39,218. Pub. 5–27–58. Filed 10–21–57.

665,605. MODIGLASS. Modiglass Fibers, Inc. SN 40,590. Pub. 5–27–58. Filed 11–13–57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

665,606. ALUMA-WARE. Aluma-Ware, Inc. SN 24,826. Pub. 5–27–58. Filed 2–21–57.

665,607. SAFCA. René Pollet. SN 30,942. Pub. 5–27–58. Filed 5–28–57.

665,608. ANY FLOW. Noel M. Anderson, d. b. a. Merrill Manufacturing Company. SN 28,480. Pub. 6–3–58. Filed 4–19–57.

665,609. WHITFORD. Whitford Drain Co. SN 37,325. Pub. 5–27–58. Filed 9–16–57.

665,610. BUCKINGHAM ETC. AND DESIGN. Buckingham Manufacturing Co., Inc. SN 38,731. Pub. 5–27–58. Filed 10–11–57.

665,611. GRILL-WELL. Grill-Well Products, Inc. SN 38,746. Pub. 5–27–58. Filed 10–11–57.

665,612. S SHORELINE. Shore-Calnevar, Inc. SN 39,013. Pub. 5–27–58. Filed 10–16–57.

665,613. TUBALITE. Pioneer Iron Works. SN 39,080. Pub. 5–27–58. Filed 10–17–57.

665,614. PYRO PLY. Norris-Thermador Corporation. SN 39,152. Pub. 5–27–58. Filed 10–18–57.

665,615. PARK-O-MATE. Joseph T. Di Bianca, d. b. a. DB Enterprises. SN 39,200. Pub. 5–27–58. Filed 10–21–57.

665,616. NO SEE. Atlas Tack Corporation. SN 39,443. Pub. 5–27–58. Filed 10–24–57.

665,617. SPUN-O-MATIC. Western Foundry Company. SN 39,562. Pub. 5–27–58. Filed 10–25–57.

665,618. BESTALOY. Stockham Valves & Fittings, Inc. SN 39,676. Pub. 5–27–58. Filed 10–28–57.

665,619. VENTAFIL. Scully Signal Company. SN 39,751. Pub. 5–27–58. Filed 10–29–57.

665,620. UNITRON. Josam Manufacturing Co. SN 39,811. Pub. 5–27–58. Filed 10–30–57.

665,621. MANGALOY. Appleton Wire Works, Inc. SN 39,855. Pub. 5–27–58. Filed 10–31–57.

665,622. MIRRO. Aluminum Goods Manufacturing Company. SN 40,111. Pub. 5–27–58. Filed 11–5–57.

665,623. "FLOORMATES." Childlore Co., Inc., d. b. a. Childlore Corporation. SN 40,920. Pub. 5–27–58. Filed 11–19–57.

665,624. SEA LAWN AND DESIGN. Sea Lawn Products Company. SN 43,515. Pub. 5–27–58. Filed 1–3–58.

Class 15 — Oils and Greases

665,625. ASTRAL WIZARD. Septimus Adams. SN 38,319. Pub. 5–27–58. Filed 10–4–57.

Class 16 — Protective and Decorative Coatings

665,626. 'PROTECTO-GLAZE.' Los Angeles Water Softener Co., Inc. SN 27,612. Pub. 5–27–58. Filed 4–5–57.

665,627. GLAZIT. Glaze-On Co., Inc. SN 33,340. Pub. 5–27–58. Filed 7–8–57.

665,628. SEAPRENE. H. A. Calahan, Inc. SN 38,897. Pub. 5–27–58. Filed 10–15–57.

665,629. GENUINE "OLDE PINE" FINISH AND DESIGN. Three Mountaineers, Inc. SN 41,950. Pub. 5–27–58. Filed 12–6–57.

665,630. CILCO AND DESIGN. Commercial Ink & Lacquer Co. Inc. SN 43,073. Pub. 5–27–58. Filed 12–27–57.

665,631. CILCO. Commercial Ink & Lacquer Co. Inc. SN 43,074. Pub. 5–27–58. Filed 12–27–57.

665,632. AMF AND DESIGN. American Machine & Foundry Company. SN 43,367. Pub. 5–27–58. Filed 1–3–58.

665,633. HARBINSEAL. James K. Harbinson & Co., Inc. SN 43,673. Pub. 5–27–58. Filed 1–9–58.

665,634. HURLOX. Hurlox Sales Company. SN 43,759. Pub. 5–27–58. Filed 1–10–58.

665,635. HURLOX SC AND DESIGN. Hurlox Sales Company. SN 43,760. Pub. 5–27–58. Filed 1–10–58.

665,636. SOF-SATIN. T. C. Esser Company. SN 43,833. Pub. 5–27–58. Filed 1–13–58.

Class 17 — Tobacco Products

665,637. SILVER CUP AND DESIGN. David Forry Tobacco Company. SN 34,498. Pub. 5–27–58. Filed 7–11–57.

665,638. BIRCH MINT AND DESIGN. United States Tobacco Company. SN 37,387. Pub. 5–27–58. Filed 9–17–57.

665,639. HI-FI. Philip Morris Incorporated. SN 37,803. Pub. 5–27–58. Filed 9–25–57.

Class 18 — Medicines and Pharmaceutical Preparations

665,640. NOVOCORT. American Cyanamid Company. SN 25,297. Pub. 5–27–58. Filed 3–1–57.

665,641. "PARAPHARM." Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung. SN 25,654. Pub. 5–27–58. Filed 3–7–57.

665,642. "VASOSAPHIR." Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung. SN 25,655. Pub. 5–27–58. Filed 3–7–57.

665,643. "ATMASAPHIR." Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung. SN 25,656. Pub. 5–27–58. Filed 3–7–57.

665,644. "POLYSAPHIR." Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung. SN 25,657. Pub. 5–27–58. Filed 3–7–57.

665,645. "PARASAPHIR." Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung. SN 25,658. Pub. 5–27–58. Filed 3–7–57.

665,646. "MONOSAPHIR." Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung. SN 25,659. Pub. 5-27-58. Filed 3-7-57.

665,647. "SAPHIR." Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung. SN 25,660. Pub. 5-27-58. Filed 3-7-57.

665,648. "NEOSAPHIR." Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung. SN 25,663. Pub. 5-27-58. Filed 3-7-57.

665,649. BLUE SEAL. The Integrity Magnesia Corporation. SN 30,089. Pub. 2-25-58. Filed 5-15-57.

665,650. POLYCAINE. Arrow Medical Co., Inc. SN 38,942. Pub. 5-27-58. Filed 7-18-57.

665,651. MIRAMYCIN. Chas. Pfizer & Co., Inc. SN 34,168. Pub. 5-27-58. Filed 7-22-57.

665,652. CARTRAX. Chas. Pfizer & Co., Inc. SN 35,449. Pub. 5-27-58. Filed 8-13-57.

665,653. PLASMANATE. Cutter Laboratories. SN 39,861. Pub. 5-27-58. Filed 10-31-57.

665,654. CERVILAXIN. The National Drug Company. SN 39,982. Pub. 5-27-58. Filed 11-1-57.

665,655. McKINNEY'S MIXTURE. Chalmers Dow McKinney, d. b. a. McKinney's Laboratory. SN 40,357. Pub. 5-27-58. Filed 11-8-57.

665,656. PHARMASORB. Minerals & Chemicals Corporation of America. SN 41,109. Pub. 5-27-58. Filed 11-21-57.

Class 19—Vehicles

665,657. POWER SKI AND DESIGN. Marin-E-Products, assignee of James M. Hicks, d. b. a. Marin-E-Products. SN 30,250. Pub. 5-27-58. Filed 5-17-57.

665,658. FIT-RITE. Rudolph Aloise, d. b. a. Fit-Rite Metal Products Company. SN 30,389. Pub. 5-27-58. Filed 5-21-57.

665,659. MZ AND DESIGN. VEB Motorradwerk Zschopau. SN 35,404. Pub. 5-27-58. Filed 8-12-57.

665,660. ELIGO. Società Applicazioni Gomma Antivibranti "Saga" S. p. A. SN 35,695. Pub. 5-27-58. Filed 8-16-57.

665,661. BATRASTELLA. Società Applicazioni Gomma Antivibranti "Saga" S. p. A. SN 35,698. Pub. 5-27-58. Filed 8-16-57.

665,662. TRAIL-A-WAY. Dormi Industries, Inc. SN 40,035. Pub. 5-27-58. Filed 11-4-57.

665,663. AEROTHANE. Disogrin Industries, Inc. SN 40,328. Pub. 5-27-58. Filed 11-8-57.

665,664. GUARDIAN AND DESIGN. Guardian Mobile Homes Corporation. SN 40,341. Pub. 5-27-58. Filed 11-8-57.

Class 21—Electrical Apparatus, Machines, and Supplies

665,665. SQUARE-DUCT. Square D Company. SN 652,238. Pub. 5-27-58. Filed 8-24-53.

665,666. AGEMASPARK. Società Anonima per la Costruzione di Macchine. SN 19,333. Pub. 5-27-58. Filed 11-15-56.

665,667. S AND DESIGN. Stephens Tru-Sonic Inc. SN 22,980. Pub. 5-27-58. Filed S. R. 1-22-57. Am. P. R. 9-20-57.

Class 22—Games, Toys, and Sporting Goods

665,668. CORKORE. A. G. Spalding & Bros. Inc. SN 16,758. Pub. 5-27-58. Filed 10-1-56.

665,669. SNO-BRONCO. Aluminum Goods Manufacturing Company. SN 35,843. Pub. 5-27-58. Filed 8-20-57.

665,670. "AMY." Bantam-U. S. Toys, Inc. SN 35,899. Pub. 5-27-58. Filed 8-21-57.

665,671. SCOTCH RITER. The Watkins-Strathmore Company, assignee of The Strathmore Company. SN 36,753. Pub. 5-27-58. Filed 9-3-57.

665,672. EDSEL. Henry Bjorkman. SN 37,626. Pub. 5-27-58. Filed 9-23-57.

665,673. SONIC FLITE AND DESIGN. Walter R. Warner, Jr. SN 39,928. Pub. 5-27-58. Filed 10-31-57.

665,674. LUCKY BARB. Bruck Tackle & Manufacturing Company. SN 39,942. Pub. 5-27-58. Filed 11-1-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

665,675. SILVERSKILL. R. Wallace & Sons Manufacturing Company. SN 661,557. Pub. 10-18-55. Filed 2-11-55.

665,676. UNIVERSAL. Clarence R. Taylor, d. b. a. Ferance Construction Co. SN 25,042. Pub. 5-27-58. Filed 2-25-57.

665,677. CARLOADER. Clark Equipment Company. SN 27,089. Pub. 5-27-58. Filed 3-28-57.

665,678. FORM'N FRY. David Douglas & Co., Inc. SN 30,575. Pub. 5-27-58. Filed 5-23-57.

665,679. AMERICAN ETC. AND DESIGN. Luther Corporation. SN 30,812. Pub. 5-27-58. Filed 5-27-57.

665,680. CORNETA. Gebr. Weyersberg. SN 31,893. Pub. 5-27-58. Filed 6-5-57.

665,681. JNJ AND DESIGN. Johns-Nigrelli-Johns. SN 33,246. Pub. 5-27-58. Filed 7-5-57.

665,682. NO-JOINT. No-Joint Concrete Pipe Co. SN 34,982. Pub. 5-27-58. Filed 8-5-57.

665,683. AUTO LIFT. Vulcan-Hart Manufacturing Company. SN 37,388. Pub. 5-27-58. Filed 9-17-57.

665,684. ESPERIA. Necchi Società per Azioni. SN 38,071. Pub. 5-27-58. Filed 9-30-57.

665,685. STEELFLEX. The Falk Corporation. SN 38,578. Pub. 5-27-58. Filed 9-23-57.

665,686. OCELCO. Andrew Kux, d. b. a. Occidental Electric Company. SN 39,969. Pub. 5-27-58. Filed 11-1-57.

665,687. MAGNALOY. Robert R. Chater, d. b. a. Detroit Power Coupling Company. SN 40,030. Pub. 5-27-58. Filed 11-4-57.

665,688. TRU-SET. Saco-Lowell Shops. SN 40,152. Pub. 5-27-58. Filed 11-5-57.

665,689. MONITOR. The International Silver Co. SN 40,234. Pub. 5-27-58. Filed 11-7-57.

665,690. HYDRASONIC. Detrex Chemical Industries, Inc. SN 40,326. Pub. 5-27-58. Filed 11-8-57.

665,691. PROTECT-O-MATIC. Rival Manufacturing Company. SN 42,538. Pub. 5-27-58. Filed 12-16-57.

665,692. BERG, ETC. AND DESIGN. Berg Equipment Company. SN 42,620. Pub. 5-27-58. Filed 12-18-57.

665,693. MULTI-KUT. Heller Brothers Company. SN 43,026. Pub. 5-27-58. Filed 12-26-57.

665,694. STRAINRITE. The Star Porcelain Company. SN 43,116. Pub. 5-27-58. Filed 12-27-57.

665,695. POWERMAX. Tuthill Pump Company. SN 43,355. Pub. 5-27-58. Filed 1-2-58.

665,696. PINE. The Pine Sewing Machine Manufacturing Co., Ltd. SN 43,477. Pub. 5-27-58. Filed 1-6-58.

665,697. WARRIOR. The Great Lakes Tractor Company. SN 43,684. Pub. 5-27-58. Filed 1-9-58.

665,698. NICHOLSON AND DESIGN. Nicholson File Company. SN 43,776. Pub. 5-27-58. Filed 1-10-58.

665,699. KROME KING. DeLuxe Saw and Tool Company. SN 43,826. Pub. 5-27-58. Filed 1-13-58.

Class 24—Laundry Appliances and Machines

665,700. JL WARE AND DESIGN. Jones & Laughlin Steel Corporation. SN 38,051. Pub. 5–27–58. Filed 9–30–57.

Class 26—Measuring and Scientific Appliances

665,701. QUICK-STAT. Eugene Dietzgen Co. SN 696,220. Pub. 3–13–56. Filed 10–11–55.

665,702. SOLOGOGGLE. The Fibre-Metal Products Company. SN 20,742. Pub. 6–25–57. Filed 12–10–56.

665,703. HOWETRONIC AND DESIGN. The Howe Scale Company. SN 38,921. Pub. 5–27–58. Filed 10–15–57.

665,704. CYCLOPS. Optics Manufacturing Corporation. SN 39,084. Pub. 5–27–58. Filed 10–17–57.

665,705. MOTOROLA. Motorola Inc. SN 39,256. Pub. 5–27–58. Filed 10–21–57.

665,706. REPRORECORD. General Aniline & Film Corporation. SN 39,721. Pub. 5–27–58. Filed 10–29–57.

665,707. SPINDICATOR. Schroeder Brothers Corporation. SN 40,087. Pub. 5–27–58. Filed 11–4–57.

665,708. MICROMATIC. Eugene Dietzgen Co. SN 40,215. Pub. 5–27–58. Filed 11–7–57.

665,709. DESIGN PAK. Calcoin Corporation. SN 40,316. Pub. 5–27–58. Filed 11–8–57.

665,710. DIGIDIAL. Helipot Corporation. SN 40,457. Pub. 5–27–58. Filed 11–12–57.

665,711. LAMBDA-PETTES. Research Specialties Co. SN 40,617. Pub. 5–27–58. Filed 11–13–57.

665,712. CRAM. Radio Frequency Laboratories, Inc. SN 40,967. Pub. 5–27–58. Filed 11–19–57.

665,713. CORROSOMETER. Magna Products Incorporated. SN 41,083. Pub. 5–27–58. Filed 11–20–57.

665,714. UNI-GRAVER. Harold K. Adams, d. b. a. Universal Instrument Co. SN 41,061. Pub. 5–27–58. Filed 11–21–57.

665,715. ALDCOIN. Ald, Inc. SN 41,062. Pub. 5–27–58. Filed 11–21–57.

665,716. FR. The FR Corporation. SN 41,262. Pub. 5–27–58. Filed 11–25–57.

665,717. NEWLO. Optics Manufacturing Corporation. SN 41,303. Pub. 5–27–58. Filed 11–25–57.

665,718. CHECKTROL. General Controls Co. SN 41,536. Pub. 5–27–58. Filed 11–29–57.

665,719. ROTO-STAT. Philadelphia Thermometer Company. SN 41,566. Pub. 5–27–58. Filed 11–29–57.

665,720. MICRO-SET. Philadelphia Thermometer Company. SN 41,567. Pub. 5–27–58. Filed 11–29–57.

Class 29—Brooms, Brushes, and Dusters

665,721. CHAMIE-TEX. Milwaukee Dustless Brush Co. SN 34,364. Pub. 4–8–58. Filed 7–25–57.

665,722. CROWN 400 SPONGE MOP AND DESIGN. Crown 400 Corporation. SN 35,746. Pub. 5–27–58. Filed 8–19–57.

Class 31—Filters and Refrigerators

665,723. MODIGLASS. Modiglass Fibers, Inc. SN 40,588. Pub. 5–27–58. Filed 11–13–57.

665,724. DONACLONE. Donaldson Company, Inc. SN 42,002. Pub. 5–27–58. Filed 12–0–57.

665,725. DONACLONE. Donaldson Company, Inc. SN 42,003. Pub. 5–27–58. Filed 12–0–57.

Class 32—Furniture and Upholstery

665,726. BRYTONE. Mechanical Mirror Works, Inc. SN 15,047. Pub. 5–27–58. Filed 9–4–56.

665,727. WALRUS. Walrus Manufacturing Company. SN 34,571. Pub. 5–27–58. Filed 7–29–57.

665,728. ARABESQUE. Arabesque, Incorporated. SN 36,835. Pub. 1–7–58. Filed 9–0–57.

665,729. ADD-A-UNIT. Display Studios, Inc. SN 39,201. Pub. 5–27–58. Filed 10–21–57.

665,730. THE SIGNATURE LINE. Monteverdi-Young Co., d. b. a. Monteverdi-Young. SN 42,519. Pub. 5–27–58. Filed 12–16–57.

665,731. SERVLINE. Wichita Precision Tool Company, Inc. SN 42,564. Pub. 5–27–58. Filed 12–16–57.

665,732. SEA LAWN AND DESIGN. Sea Lawn Products Company. SN 43,514. Pub. 5–27–58. Filed 1–3–58.

665,733. SIGNET. Carolina Mirror Corporation. SN 43,117. Pub. 5–27–58. Filed 2–3–58.

665,734. STERLING NOMAR. Sterling-Freeland Industries, Inc. SN 45,500. Pub. 5–27–58. Filed 2–7–58.

665,735. NEVAWET. Bunny Bear Inc. SN 45,527. Pub. 5–27–58. Filed 2–10–58.

665,736. SLEEPCART. Burton-Dixie Corporation. SN 45,528. Pub. 5–27–58. Filed 2–10–58.

665,737. BABY DRI. Koicraft Products, Inc. SN 45,644. Pub. 5–27–58. Filed 2–10–58.

665,738. SLUMBERCART. Burton-Dixie Corporation. SN 45,716. Pub. 5–27–58. Filed 2–12–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

665,739. ELECTRO SAFETEMP AND DESIGN. The Electro-Temp Corporation. SN 40,217. Pub. 5–27–58. Filed 11–7–57.

665,740. MODELITE. Holophane Company, Inc. SN 40,346. Pub. 5–27–58. Filed 11–8–57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

665,741. AMERICAN BRAKEBLOK. American Brake Shoe Company. SN 32,656. Pub. 5–27–58. Filed 6–26–57.

665,742. ROBBINS. Robbins Tire and Rubber Company, Inc. SN 35,298. Pub. 5–27–58. Filed 8–9–57.

665,743. SELECT O RING. Bearings, Inc. SN 37,126. Pub. 5–27–58. Filed 9–13–57.

665,744. LIFETIME. Patch Rubber Company. SN 39,489. Pub. 5–20–58. Filed 10–24–57.

Class 36—Musical Instruments and Supplies

665,745. DETROIT AND DESIGN. Vincent Castiglione, d. b. a. Castiglione Accordion Co. SN 25,218. Pub. 5–27–58. Filed 4–8–57.

665,746. LUDWIG. Ludwig Drum Co. SN 36,720. Pub. 5–27–58. Filed 9–5–57.

Class 37—Paper and Stationery

665,747. PREMIER. Office Products, Inc. SN 17,396. Pub. 5–27–58. Filed 10–12–56.

665,748. 20/20 BUFF AND DESIGN. National Blank Book Company. SN 33,733. Pub. 5–27–58. Filed 7–15–57.

665,749. ARANS AND DESIGN. Le Febure Corporation. SN 34,545. Pub. 5–27–58. Filed 7–29–57.

665,750. CHECKRETARY. W. C. Horn Bro. & Co. SN 35,590. Pub. 5–27–58. Filed 8–15–57.

665,751. INITIALIST. Zephyr American Corporation. SN 36,266. Pub. 5–27–58. Filed 8–26–57.

665,752. AUTOMEMO. Zephyr American Corporation. SN 36,267. Pub. 5–27–58. Filed 8–26–57.

665,753. CARDINAL. Crown Zellerbach Corporation. SN 36,360. Pub. 5–27–58. Filed 8–28–57.

665,754. DORSETTE. American Can Company, assignee of Marathon Corporation. SN 36,605. Pub. 5–27–58. Filed 9–5–57.

665,755. FIFTH AVENUE. F. W. Woolworth Co. SN 37,327. Pub. 5–27–58. Filed 9–16–57.

665,756. SABRE. The Champion Paper and Fibre Company. SN 38,341. Pub. 5–27–58. Filed 10–4–57.

665,757. CAMELOT. The Champion Paper and Fibre Company. SN 38,342. Pub. 5–27–58. Filed 10–4–57.

Class 38 — Prints and Publications

665,758. LOFFLAND BROTHERS CO. ETC. AND DESIGN. Lofland Brothers Company. SN 36,970. Pub. 5–27–58. Filed 9–10–57.

665,759. BELL SYSTEM ETC. AND DESIGN. American Telephone and Telegraph Company. SN 38,889. Pub. 5–27–58. Filed 10–15–57.

665,760. PRINTON. General Aniline & Film Corporation. SN 38,989. Pub. 5–27–58. Filed 10–16–57.

665,761. MOTOROLA NEWSGRAM. Motorola Inc. SN 39,257. Pub. 5–27–58. Filed 10–21–57.

665,762. MOTOUR. H. S. Crocker Co., Inc. SN 39,321. Pub. 5–27–58. Filed 10–22–57.

Class 39 — Clothing

665,763. SURF SHIRT. Cluett, Peabody & Co., Inc. SN 11,153. Pub. 5–27–58. Filed 6–28–56.

665,764. LYKENS. Lykens Hosiery Mills, Inc. SN 15,800. Pub. 5–27–58. Filed 9–17–56.

665,765. LYKENS AND DESIGN. Lykens Hosiery Mills, Inc. SN 15,801. Pub. 5–27–58. Filed 9–17–56.

665,766. LYKENS THRIFT-PAK. Lykens Hosiery Mills, Inc. SN 15,804. Pub. 5–27–58. Filed 9–17–56.

665,767. CONNOISSEUR. La Vigna, Inc. SN 16,547. Pub. 5–27–58. Filed 9–27–56.

665,768. NITE GLO SLIPPERCRAFT AND DESIGN. Julius Goldstein & Sons Co. SN 17,277. Pub. 5–27–58. Filed 10–11–56.

665,769. TRAVELOGS. The May Department Stores Company. SN 20,039. Pub. 5–21–57. Filed 11–28–56.

665,770. STEWART. Sunbeam Corporation. SN 22,279. Pub. 5–27–58. Filed 1–8–57.

665,771. AIR-LOOM. Superba Cravats, Inc. SN 22,983. Pub. 5–27–58. Filed 1–22–57.

665,772. MARK-FORE & STRIKE INC. AND DESIGN. Mark-Fore & Strike, Inc. SN 24,179. Pub. 5–27–58. Filed 2–11–57.

665,773. CARESSA. Firma Carl Freudenberg Kommanditgesellschaft auf Aktien. SN 25,691. Pub. 5–27–58. Filed 3–7–57.

665,774. RED DIAMOND MADE BY DUNDEE AND DESIGN. Dundee Mills, Inc. SN 26,796. Pub. 5–27–58. Filed 3–25–57.

665,775. KENSINGTON. John B. Stetson Company. SN 28,070. Pub. 5–27–58. Filed 4–12–57.

665,776. SWAN AND DESIGN. Swan Shoe Company, Incorporated. SN 28,295. Pub. 5–27–58. Filed 4–16–57.

665,777. SLEEPEASE. Sleep-Ease, Inc. SN 28,553. Pub. 5–27–58. Filed 4–19–57.

665,778. BLUE SWAN. The McKay Products Corp. SN 28,719. Pub. 5–27–58. Filed 4–23–57.

665,779. SHOE ZOO. Edward R. Bergstein. SN 29,195. Pub. 5–27–58. Filed 5–1–57.

665,780. STEEGAN. Stevenson & Son Limited. SN 30,204. Pub. 5–27–58. Filed 5–16–57.

665,781. ARGYLL THE DUKE OF ARGYLL. Burlington Industries, Inc. SN 30,227. Pub. 5–27–58. Filed 5–17–57.

665,782. GORDON. Brown Durrell Co. SN 30,988. Pub. 5–27–58. Filed 5–29–57.

665,783. NORMAN. Capitol Manufacturing Co. SN 31,632. Pub. 5–27–58. Filed 6–10–57.

665,784. BOBBY TEEN. Jack L. Honig, Inc. SN 32,493. Pub. 5–27–58. Filed 6–24–57.

665,785. NI-HEELS. The Guida Wood Heel Company. SN 32,950. Pub. 5–27–58. Filed 7–1–57.

665,786. LION. Craddock-Terry Shoe Corporation. SN 35,633. Pub. 5–27–58. Filed 8–16–57.

665,787. SALLY VICTOR AND DESIGN. Sally Victor, Inc. SN 36,759. Pub. 5–27–58. Filed 9–5–57.

665,788. SUPP-HOSE. Chester H. Roth Co., Inc. SN 37,044. Pub. 5–27–58. Filed 9–11–57.

665,789. STRATFORD. Battelstein's, Inc. SN 37,211. Pub. 5–27–58. Filed 9–16–57.

665,790. THE BUCKS COUNTIAN. Jacques de Loux, Inc. SN 37,234. Pub. 5–27–58. Filed 9–16–57.

665,791. SILV-A-LINE. Dunham Brothers Company. SN 37,243. Pub. 5–27–58. Filed 9–16–57.

665,792. GALLENKAMPS OF CALIFORNIA. Gallenkamp Stores Co. SN 37,340. Pub. 5–27–58. Filed 9–17–57.

665,793. CUSHION TRED BY GALLENKAMP'S. Gallenkamp Stores Co. SN 37,351. Pub. 5–27–58. Filed 9–17–57.

665,794. ZEROWEAR AND DESIGN. The S. E. Hyman Company. SN 37,432. Pub. 5–27–58. Filed 9–18–57.

665,795. ZERO WEAR. The S. E. Hyman Company. SN 37,433. Pub. 5–27–58. Filed 9–18–57.

665,796. MESHTONE. Meshtone Manufacturing Company, Inc. SN 37,445. Pub. 5–27–58. Filed 9–18–57.

665,797. GOSSAMERE. Weber and Heilbroner, Inc. SN 37,834. Pub. 5–27–58. Filed 9–25–57.

665,798. SMITTY'S OF TEXAS. Honey Togs, Inc. SN 38,748. Pub. 5–27–58. Filed 10–11–57.

665,799. DEANSGATE. Famous-Sternberg, Inc. SN 38,910. Pub. 5–27–58. Filed 10–15–57.

665,800. MONTARA. Halper Brothers, Inc. SN 39,063. Pub. 5–27–58. Filed 10–17–57.

665,801. CLAYBAR OF CALIFORNIA. Claybar of California, Inc. SN 39,130. Pub. 5–27–58. Filed 10–18–57.

665,802. UNDERTONE. Maiden Form Brassiere Company, Inc. SN 39,140. Pub. 5–27–58. Filed 10–18–57.

665,803. LOVERIA. M. K. M. Knitting Mills, Inc. SN 39,240. Pub. 5–27–58. Filed 10–21–57.

665,804. BALINEASE. Bali Brassiere Co., Inc. SN 39,372. Pub. 5–27–58. Filed 10–23–57.

665,805. DRIVE MASTER. Boyce-Lazarus Company. SN 39,377. Pub. 5–27–58. Filed 10–23–57.

665,806. MARA. Jack Spiro & Co. Inc. SN 39,501. Pub. 5–27–58. Filed 10–24–57.

665,807. LOVABLE LADY. The Lovable Brassiere Co. SN 39,815. Pub. 5–27–58. Filed 10–30–57.

Class 40 — Fancy Goods, Furnishings, and Notions

665,808. LEE ANN AND DESIGN. Sheltex Manufacturing Co., Inc. SN 36,240. Pub. 5–27–58. Filed 8–26–57.

665,809. LAYTAPE. United States Rubber Company. SN 38,178. Pub. 5–27–58. Filed 10–1–57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

665,810. COUNTRY VELVET. William Heller, Incorporated. SN 23,305. Pub. 5–27–58. Filed 1–29–57.

665,811. TARPOLITE. Interchemical Corporation. SN 27,801. Pub. 5–27–58. Filed 5–17–57.

665,812. RUFFSPUN. Ehniger Mills, Inc. SN 27,855. Pub. 5–27–58. Filed 4–10–57.

665,813. "THE MURRAY HILL COLLECTION." United Merchants and Manufacturers, Inc. SN 36,031. Pub. 5–27–58. Filed 8–22–57.

665,814. SURFCAST. J. P. Stevens & Co., Inc. SN 36,633. Pub. 5–27–58. Filed 9–3–57.

665,815. ROYAL SMOOTHIE. McCampbell & Company, Inc. SN 36,973. Pub. 5–27–58. Filed 9–10–57.

665,816. DESIGNER COTTONS. Dan River Mills, Incorporated. SN 38,026. Pub. 5–27–58. Filed 9–30–57.

665,817. MATADOR. E. T. Barwick Mills, Inc. SN 38,726. Pub. 5–27–58. Filed 10–11–57.

665,818. SAYCO. Cecil Saydah. SN 39,282. Pub. 5–27–58. Filed 10–21–57.

665,819. ATLANTIS. D. B. Fuller & Co. Inc. SN 40,222. Pub. 5–27–58. Filed 11–7–57.

665,820. BOXER. D. B. Fuller & Co. Inc. SN 40,225. Pub. 5–27–58. Filed 11–7–57.

Class 44—Dental, Medical, and Surgical Appliances

665,821. SUNBEAM. Sunbeam Corporation. SN 38,645. Pub. 5–27–58. Filed 10–9–57.

665,822. SEAT-O-MATIC. Lewis and Matthews Corporation. SN 38,758. Pub. 5–27–58. Filed 10–11–57.

Class 45—Soft Drinks and Carbonated Waters

665,823. DR. SWETT'S. O-So Grape Co. SN 29,550. Pub. 5–27–58. Filed 5–7–57.

Class 46—Foods and Ingredients of Foods

665,824. LIDO. Arkansas Frozen Foods, Inc., assignee of Lido Frozen Foods, Inc. SN 664,953. Pub. 11–6–55. Filed 4–21–54.

665,825. WYTOLA. J. S. Short Milling Company. SN 23,257. Pub. 10–29–57. Filed 1–25–57.

665,826. SCOT LAD. H. S. Davies, Inc. SN 28,120. Pub. 5–27–58. Filed 4–15–57.

665,827. SCRAMBLE. Edy's Character Candies of Northern California. SN 28,583. Pub. 5–27–58. Filed 4–22–57.

665,828. CAPT. KITT. John H. Sunley. SN 29,311. Pub. 5–20–58. Filed 5–2–57.

665,829. PENNSYLVANIA DUTCH MEGS. Megs Macaroni Company. SN 29,645. Pub. 5–27–58. Filed 5–8–57.

665,830. LONGVIEW FARMS. Long View Farms, Inc. SN 34,547. Pub. 5–27–58. Filed 7–29–57.

665,831. COCOA-VAN. Dodge & Olcott, Inc. SN 35,921. Pub. 5–27–58. Filed 8–21–57.

665,832. SLIDDO. American Bredido Corp. SN 36,342. Pub. 5–27–58. Filed 8–28–57.

665,833. TEEN QUEEN. The Creasey Company. SN 36,968. Pub. 5–27–58. Filed 9–10–57.

665,834. BIMBO AND DESIGN. Marteri Bros., Distributers. SN 37,174. Pub. 5–27–58. Filed 9–13–57.

665,835. HERSHEY'S. Hershey Creamery Company. SN 37,656. Pub. 5–27–58. Filed 9–23–57.

665,836. 3 ANGELS. Western Tomato Growers and Shippers, Inc. SN 40,522. Pub. 5–27–58. Filed 11–12–57.

Class 48—Malt Beverages and Liquors

665,837. WIBRO. C. Wilhreen Bryggeri, Heise m. fl. A/S. SN 39,942. Pub. 5–27–58. Filed 11–1–57.

Class 49—Distilled Alcoholic Liquors

665,838. COLONEL LEE. Barton Distilling Company. SN 22,500. Pub. 5–27–58. Filed 1–14–57.

665,839. GLENMORE TEXAS FIFTH AND DESIGN. Glenmore Distilleries Company. SN 35,586. Pub. 5–27–58. Filed 8–15–57.

665,840. FLEISCHMANN'S. Standard Brands Incorporated. SN 38,495. Pub. 5–27–58. Filed 10–7–57.

Class 50—Merchandise Not Otherwise Classified

665,841. PRISMO. Prismo Safety Corporation. SN 35,530. Pub. 5–27–58. Filed 8–14–57.

665,842. RAINBOW AND DESIGN. E. H. Teasley & Co., Inc. SN 36,934. Pub. 5–27–58. Filed 9–9–57.

Class 51—Cosmetics and Toilet Preparations

665,843. PEN-RAY. Rayette, Inc. SN 676,663. Pub. 5–27–58. Filed 11–15–54.

665,844. HALDINE. Hope Hillary Cosmetics Ltd., d. b. a. Hope Hillary. SN 682,146. Pub. 5–27–58. Filed 2–23–55.

665,845. ERICA JENIS. Erica Jenis, Inc. SN 685,276. Pub. 5–27–58. Filed 4–11–55.

665,846. YOUR GRACE. L'Argene Products Co., Inc., d. b. a. L'Argene. SN 15,794. Pub. 5–27–58. Filed 9–17–56.

665,847. LE COUTURIER AND DESIGN. L'Argene Products Co., Inc., d. b. a. L'Argene. SN 15,796. Pub. 5–27–58. Filed 9–17–56.

665,848. SECURA. International Laboratories, Inc. SN 18,905. Pub. 5–27–58. Filed 11–7–56.

665,849. TOP-SOIL. Augusta Clayton, d. b. a. Madam Augusta and as Top-Soil Hair Products Mfg. Co. SN 20,017. Pub. 5–27–58. Filed 11–28–56.

665,850. PERFEMME. Perfemme Incorporated. SN 20,050. Pub. 2–18–58. Filed 11–28–56.

665,851. INSTA-CLEAN. Weco Products Company. SN 23,763. Pub. 5–27–58. Filed 2–4–57.

665,852. PANZYMA. Panzyma Laboratories, Inc. SN 26,861. Pub. 5–27–58. Filed 3–25–57.

665,853. FIRST. Carter Products, Inc. SN 27,180. Pub. 5–27–58. Filed 3–29–57.

665,854. WHISKY. Raphael Parfums, Société Anonyme. SN 30,444. Pub. 5–27–58. Filed 5–21–57.

665,855. HAND-A-CURA. Hand-A-Cura Co. SN 34,748. Pub. 5–27–58. Filed 7–31–57.

665,856. GRIN. The Barbasol Company. SN 35,729. Pub. 5–27–58. Filed 8–19–57.

665,857. HILATION. Natone Company. SN 35,801. Pub. 5–27–58. Filed 8–19–57.

665,858. FAIR AND COOLER. Societe Monsavon-L'Oreal. SN 35,953. Pub. 5-27-58. Filed 8-21-57.

665,859. A de M AND DESIGN. Alexandra de Markoff Sales Corporation. SN 37,147. Pub. 5-27-58. Filed 9-13-57.

665,860. TWEEDIE. Helene Curtis Industries, Inc., assignee of Lentheric, Inc. SN 37,172. Pub. 5-27-58. Filed 9-13-57.

Class 52 — Detergents and Soaps

665,861. DRI-ZIT. The Johnson-March Corporation, by change of name from Waverly Petroleum Products Company. SN 691,914. Pub. 5-27-58. Filed 7-25-55.

665,862. REVE D'OR. Parfumerie L. T. Piver S. A., d. b. a. L. T. Piver. SN 31,781. Pub. 5-27-58. Filed 6-11-57.

665,863. SUSPENSOIL. Diamond Alkali Company. SN 33,467. Pub. 5-27-58. Filed 7-10-57.

665,864. INJECTORALL. Everett Wollman, d. b. a. Injectorall Co. SN 35,894. Pub. 5-27-58. Filed 8-20-57.

665,865. DRIVETTE. G. H. Linton & Company Limited. SN 37,090. Pub. 5-27-58. Filed 9-12-57.

665,866. DESIGN OF MAN. The Procter & Gamble Company. SN 38,384. Pub. 5-27-58. Filed 10-4-57.

Service Marks

Class 102 — Insurance and Financial

665,867. RENEWAL EQUITY AND DESIGN. Provident Life and Accident Insurance Co. SN 29,485. Pub. 1-14-58. Filed 5-6-57.

665,868. ROYAL ETC. AND DESIGN. Royal Life Insurance Company of America. SN 31,511. Pub. 4-22-58. Filed 6-6-57.

Class 107 — Education and Entertainment

665,869. NOS AND DESIGN. National Orchestra Service, Inc. SN 37,264. Pub. 5-27-58. Filed 9-16-57.

Certification Mark

Class A — Goods

665,870. APR AND DESIGN. Association of Petroleum Re-Refiners, Inc. SN 47,543. Pub. 5-27-58. Filed 3-12-58.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

665,871. Cleveland Steel Products Corporation, Cleveland, Ohio. SN 44,067. Filed 1-16-58.

CLEVELAND

For Universal Joints, Propeller Shafts, and Power Take-Off Joints for Automotive, Industrial, and Agricultural Equipment.
First use during the year 1923.

Class 28 — Jewelry and Precious-Metal Ware

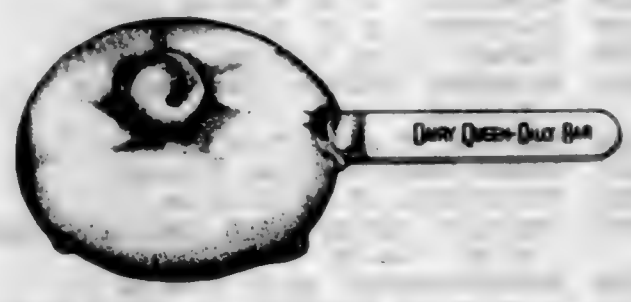
665,872. Speidel Corporation, Providence, R. I. SN 28,968. Filed P. R. 4-26-57. Am. S. R. 6-12-58.

CONVERTIBLE

For Watch Bracelets (Not Including Watches).
First use Apr. 12, 1957.

Class 46 — Foods and Ingredients of Foods

665,873. National Dairy Queen Development Co., Davenport, Iowa, assignee of D & F Enterprises, St. Paul, Minn. SN 672,930. Filed P. R. 9-9-54. Am. S. R. 2-20-58.



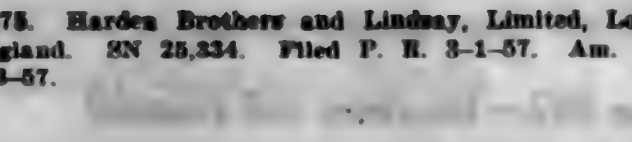
The mark consists of the cylindrical configuration of the goods and the words "Dairy Queen-Dilly Bar."
For Frozen Confections—Namely, Frozen Ice Cream and Ice Milk Bars, Which Bars Are Coated With Chocolate or Other Flavors.
First use July 17, 1954.

665,874. Bel-Air Food Products Co., Los Angeles, Calif. SN 19,734. Filed P. R. 11-23-56. Am. S. R. 3-10-58.

DIP STIX

For Seasoned Croutons.
First use Oct. 31, 1956.

865,875. Harden Brothers and Lindsay, Limited, London, England. SN 25,334. Filed P. R. 3-1-57. Am. S. R. 9-3-57.

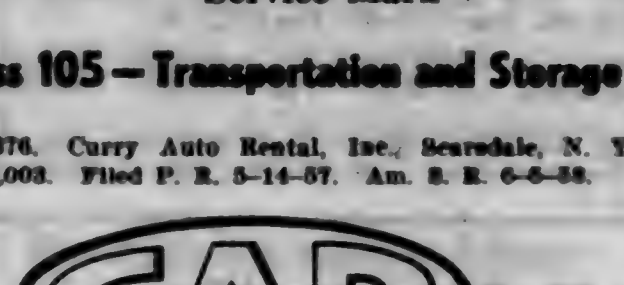


Owner of British Reg. No. 169,100, dated Dec. 9, 1892.
For Tea.

Service Mark

Class 105 — Transportation and Storage

885,876. Curry Auto Rental, Inc., Scarsdale, N. Y. SN 30,003. Filed P. R. 5-14-57. Am. S. R. 6-5-58.



For Automobile Leasing.
First use Dec. 1, 1956.

TRADEMARK REGISTRATIONS RENEWED

122,700. GRO-NUPS. Cl. 39. 9-10-18.
123,010. PIONEER. Cl. 7. 10-8-18.
123,096. CAMACHINE. Cl. 23. 10-15-18.
123,416. HAPPY HIT AND DESIGN. Cl. 17. 11-12-18.
123,449. TREASURY AND DESIGN. Cl. 37. 11-12-18.
123,635. WEST ROCK MILL. Cl. 37. 11-19-18.
352,234. PURITY ETC. AND DESIGN. Cl. 28. 11-23-37.
355,314. OLD MISSION AND DESIGN. Cl. 47. 3-15-38.
356,185. VENUSFORM. Cl. 39. 4-19-38.
356,410. TRILACTIC. Cl. 6. 4-26-38.
357,250. DUDE RANCH. Cl. 39. 5-31-38.
357,280. LILY OF THE VALLEY AND DESIGN. Cl. 18. 5-31-38.
357,315. GÜNTHER'S BEER AND DESIGN. Cl. 48. 5-31-38.
357,519. HAVERILL HOUSE. Cl. 42. 6-7-38.
357,520. THE GRADUATE SCHOOL OF BANKING. Cl. 38. 6-7-38.
357,543. DURACHROME. Cl. 23. 6-7-38.
357,593. OUR FOURFOOTED FRIENDS. Cl. 39. 6-7-38.
357,602. PURAYONIER. Cl. 1. 6-7-38.
357,766. SPUR. Cl. 51. 6-14-38.
357,769. "PIC." Cl. 38. 6-14-38.
357,784. THE IRON ARM AND DESIGN. Cl. 44. 6-14-38.
358,053. CARRANO. Cl. 46. 6-28-38.
358,159. GUARDIAN. Cl. 26. 6-28-38.
358,179. ZAPONITE. Cl. 16. 6-28-38.
358,388. WEMCO. Cl. 23. 7-12-38.
358,526. ECONOMY BRAND AND DESIGN. Cl. 46. 7-19-38.
358,632. SEDETS. Cl. 18. 7-19-38.
358,634. LABEL DESIGN. Cl. 46. 7-19-38.
358,693. TYTANWAL. Cl. 16. 7-19-38.
358,743. CHARING CROSS SHOE ETC. AND DESIGN. Cl. 39. 7-26-38.
358,799. SUPERWASHED. Cl. 1. 7-26-38.
358,919. MACKENZIE TWEEDS. Cl. 42. 7-26-38.
359,199. SUPERWASHED, ETC. AND DESIGN. Cl. 1. 8-9-38.
359,306. PTP. Cl. 45. 8-9-38.
359,490. STAXONSTEEL. Cl. 32. 8-23-38.
359,563. PERDURO. Cl. 13. 8-23-38.
359,581. WOODWIND. Cl. 51. 8-23-38.
359,766. REPRESENTATION OF A BLUE RIM. Cl. 4. 8-30-38.
359,767. REPRESENTATION OF RED RIM. Cl. 4. 8-30-38.
359,768. REPRESENTATION OF YELLOW RIM. Cl. 4. 8-30-38.
359,769. YELLOW-RIM. Cl. 4. 8-30-38.
359,817. S. U. Cl. 23. 8-30-38.
359,931. REPRESENTATION OF BELL. Cl. 46. 9-6-38.
360,043. BLUE-RIM. Cl. 4. 9-6-38.
360,054. RELIATEX. Cl. 50. 9-6-38.
360,071. SILVER CRAFT. Cl. 46. 9-6-38.
360,222. PENNMOOR. Cl. 39. 9-13-38.
360,328. GOLD SEAL. Cl. 26. 9-13-38.
360,588. HEBULON. Cl. 18. 9-20-38.
360,656. THESODATE. Cl. 18. 9-20-38.
361,302. HYPRESS. Cl. 23. 10-11-38.
361,321. REPRESENTATION OF A MAN SHOULDERING GLOBE. Cl. 49. 10-11-38.
361,416. EIFFEL TOWER. Cl. 46. 10-18-38.
361,629. H. E. B. Cl. 46. 10-25-38.
361,631. BURNDY. Cl. 21. 10-25-38.
361,731. OLD SMOOTHIE. Cl. 46. 11-1-38.
361,761. Z. Cl. 21. 11-1-38.
361,932. AURAGREEN. Cl. 6. 11-8-38.
361,958. MR. BOSTON'S SPOT BOTTLE. Cl. 49. 11-8-38.
361,976. PARKSWEDE. Cl. 42. 11-8-38.
362,006. UDI-GLOBIN. Cl. 18. 11-8-38.
362,186. HI-SPEED. Cl. 12. 11-15-38.
362,231. CARNIVAL. Cl. 46. 11-15-38.
362,243. MADA AND DESIGN. Cl. 39. 11-15-38.
362,244. GLOVEAL "AS SOFT AS A GLOVE." Cl. 39. 11-15-38.
362,287. M D M AND DESIGN. Cl. 16. 11-15-38.
362,288. NEOPRONTOSIL. Cl. 18. 11-15-38.
362,365. KENTUCKY FARMER. Cl. 49. 11-15-38.
362,374. GOOD PHOTOGRAPHY. Cl. 38. 11-15-38.
362,421. ROOSTER. Cl. 46. 11-15-38.
362,454. THERMATITE. Cl. 31. 11-15-38.
362,533. MAYFLOWER. Cl. 46. 11-22-38.

TRADEMARK REGISTRATIONS CANCELED

Section 8

84,232. "HOSTETTER'S ETC. AND REPRESENTATION OF LABEL. Cl. 18. 11-21-11.
256,631. STAR. Cl. 23. 5-21-29.
293,637. HABITEE. Cl. 39. 5-3-32.
555,625. EVERT CARBONAIRE AND DESIGN. Cl. 31. 3-4-52.

The following registrations issued June 24, 1918

560,336. LUSTRETILE. Cl. 4.
560,345. AROMEX. Cl. 46.
560,347. SCOTTY. Cl. 21.
560,349. JOHNSON. Cl. 23.
560,350. SEARS APPROVED. Cl. 51.
560,352. ARCO VENT. Cl. 30.
560,353. STYL-TILE. Cl. 12.
560,369. GOLD RIBBON GROUP. Cl. 39.
560,375. DURIZED. Cl. 23.
560,376. PLAKRON COMPENSATOR. Cl. 21.
560,380. A-C-F. Cl. 23.
560,381. Q-TEE-CONES AND DESIGN. Cl. 50.
560,383. ROSE BOUQUET. Cl. 28.
560,391. PONDUS. Cl. 44.
560,397. JET. O. MAT. Cl. 23.
560,402. YELLOW CORE. Cl. 21.
560,409. METALURE. Cl. 4.

560,416. WHITE CAT AND DESIGN. Cl. 4.
560,418. SURF LINE. Cl. 30.
560,419. SOLO-MATIC. Cl. 31.
560,421. NEW DAY GIZ MU AND DESIGN. Cl. 52.
560,422. MAD DOG TYSON AND DESIGN. Cl. 21.
560,423. TEMCO ETC. AND DESIGN. Cl. 21.
560,426. THORKON. Cl. 18.
560,432. DAINTY FOOT BY MARILYN. Cl. 39.
560,433. FIREX ETC. AND DESIGN. Cl. 6.
560,434. GREATREX ETC. Cl. 39.
560,436. POLAR WET. Cl. 6.
560,442. O-CIN-O. Cl. 46.
560,447. BONOMOLD-O. Cl. 6.
560,448. FRISK-O. Cl. 5.
560,449. TECHNI-TAPE. Cl. 5.
560,450. SQUIRLY WHIRL. Cl. 22.
560,451. VAN SVB AIRE ETC. AND DESIGN. Cl. 21.
560,455. PRINTANE. Cl. 18.
560,459. TWIRLOMAT. Cl. 31.
560,474. CURIC. Cl. 22.
560,476. ADELCIA. Cl. 28.
560,477. CRAWFORD. Cl. 27.
560,479. QUEEN OF SCOTS. Cl. 46.
560,487. ADAPTAPLATE. Cl. 21.
560,494. HAVVA. Cl. 39.
560,498. DODEX-FEAFORTE. Cl. 18.
560,499. IRONIZE. Cl. 4.
560,506. PLYON. Cl. 5.
560,508. EXPOX LABEL AND DESIGN OF COW'S HEAD. Cl. 18.
560,513. T W AIR-HYDRAULIC. Cl. 21.
560,515. POL-I-GERM. Cl. 1.
560,521. ROLOC. Cl. 52.
560,522. PURE-SURE. Cl. 21.
560,531. CULTIVAY. Cl. 51.
560,532. FF. Cl. 1.
560,538. NOT GUILTY. Cl. 51.
560,546. MIRIDIS. Cl. 28.
560,547. TROPIC TILE. Cl. 12.
560,556. NAOMI MEANS PROGRESS. Cl. 28.
560,561. BELT-MATE. Cl. 39.
560,562. BLUE DAHLIA. Cl. 51.
560,564. CRIMSON PEARL. Cl. 51.
560,565. FUCHSIA JADE. Cl. 51.
560,566. ORANGE FROST. Cl. 51.
560,567. RED SABLE. Cl. 51.
560,568. RENEGADE RED. Cl. 51.
560,569. RUNAWAY RED. Cl. 51.
560,570. SCARLET TULIP. Cl. 51.
560,571. FLOWERING PLUM. Cl. 51.
560,572. DEPLESAL. Cl. 18.
560,575. AFA AND DESIGN. Cl. 28.
560,576. 100X. Cl. 18.
560,577. FLIRTATION. Cl. 28.
560,585. AMIGO. Cl. 18.
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560,598. VEROXINE. Cl. 18.
560,601. HEPVAC. Cl. 18.
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560,611. PARACON. Cl. 21.
560,614. SALLY. Cl. 39.
560,619. PENNDRO. Cl. 6.
560,620. REPRESENTATION OF AN ESKIMO. Cl. 6.
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560,626. 85. Cl. 35.
560,627. LOONY LIDS. Cl. 22.
560,631. TRAVELTONE. Cl. 39.
560,632. FIESTA. Cl. 35.
560,633. ENRAPTURE. Cl. 39.
560,635. SPINMERE. Cl. 43.
560,649. C & S. Cl. 105.
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560,655. THE WOODSTOCK. Cl. 39.
560,658. ROLIT. Cl. 23.
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560,667. STA-KEEN AND DESIGN. Cl. 23.
560,672. SHUREFLASH. Cl. 21.
560,674. TWIN KNOB AND DESIGN. Cl. 13.
560,682. "THE FAMILY CAMERA." Cl. 26.
560,683. METERITE. Cl. 26.

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AUGUST 12, 1958

(Registered; Renewed; Canceled; Amended, Disclaimed, Corrected, etc.; New Certificates; 12c Publications.)

Adam Hat Stores, Inc., to Miller Bros. Hat Co. Inc., New York, N. Y. 362,243, ren. 11–15–58. Cl. 39.
Adams, Harold K., & b. a. Universal Instrument Co., Brentwood, Md. 665,714, pub. 5–27–58. Cl. 26.
Adams, Septimus, Brooklyn, N. Y. 665,625, pub. 5–27–58. Cl. 15.
Adelcia, St. Petersburg, Fla. 560,476, canc. Cl. 28.
Advance Colors, Inc., St. Petersburg, Fla. 560,521, canc. Cl. 52.
Aerial Products, Inc., Elkton, Md. 665,590, pub. 5–27–58. Cl. 9.
Agrashell, Inc., Los Angeles, Calif. 665,553, pub. 5–27–58. Cl. 1.
Air Force Association, Washington, D. C. 560,575, canc. Cl. 28.
Aktiebolaget Bofors, Bofors, Sweden. 560,447, canc. Cl. 6.
Ald, Inc., Chicago, Ill. 665,715, pub. 5–27–58. Cl. 26.
Alexander, Edward G., Columbia, S. C. 560,538, canc. Cl. 51.
Aloise, Rudolph, d. b. a. Fit-Rite Metal Products Co., Pittsburgh, Pa. 665,658, pub. 5–27–58. Cl. 19.
Aluma-Ware, Inc., Cleveland, Ohio. 665,606, pub. 5–27–58. Cl. 18.
Aluminum Goods Mfg. Co., Manitowoc, Wis. 665,622, pub. 5–27–58. Cl. 13.
Aluminum Goods Mfg. Co., Manitowoc, Wis. 665,669, pub. 5–27–58. Cl. 22.
American Bil-rite Rubber Co., Inc., Trenton, N. J. 665,598, pub. 5–27–58. Cl. 12.
American Brake Shoe Co., New York, N. Y. 665,741, pub. 5–27–58. Cl. 35.
American Breddo Corp., New York, N. Y. 665,832, pub. 5–27–58. Cl. 46.
American Can Co., New York, N. Y., from Marathon Corp., Menasha, Wis. 665,754, pub. 5–27–58. Cl. 37.
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American Cyanamid Co., New York, N. Y. 665,640, pub. 5–27–58. Cl. 18.
American Machine & Foundry Co., New York, N. Y. 665,632, pub. 5–27–58. Cl. 16.
American Telephone and Telegraph Co., New York, N. Y. 665,759, pub. 5–27–58. Cl. 38.
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Amigo Associates, Houston, Tex. 560,585, canc. Cl. 18.
Anderson, Noel M., d. b. a. Merrill Mfg. Co., Storm Lake, Iowa. 665,608, pub. 6–3–58. Cl. 13.
Animal Rescue League of Boston, The, Boston, Mass. 357,593, ren. 6–7–58. Cl. 38.
Apollo Co., Inc., The, Detroit, Mich. 665,563, pub. 5–27–58. Cl. 2.
Appleton Wire Works, Inc., Appleton, Wis. 665,621, pub. 5–27–58. Cl. 13.
Arabesque, Inc., Chicago, Ill. 665,728, pub. 1–7–58. Cl. 32.
Archer Rubber Co., Milford, Mass. 560,352, canc. Cl. 39.
Arkansas Frozen Foods, Inc., from Lido Frozen Foods, Inc., Little Rock, Ark. 665,824, pub. 11–8–55. Cl. 46.
Armour and Co., Chicago, Ill. 665,552, pub. 5–27–58. Cl. 1.
Arrow Medical Co., Inc., Coral Gables, Fla. 665,650, pub. 5–27–58. Cl. 18.
Association of Petroleum Re-Refiners, Inc., Arlington, Va. 665,870, pub. 5–27–58. Cl. A.
Atlas Plywood Corp., Boston, Mass. 665,558, pub. 5–27–58. Cl. 2.
Atlas Powder Co., Wilmington, Del., to The Glidden Co., Cleveland, Ohio. 358,179, ren. 6–28–58. Cl. 16.
Atlas Tack Corp., Fairhaven, Mass. 665,616, pub. 5–27–58. Cl. 12.
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Ball Brassiere Co., Inc., New York, N. Y. 665,804, pub. 5–27–58. Cl. 39.
Baltimore Luggage Co., The, Baltimore, Md. 665,568–70, pub. 5–27–58. Cl. 3.
Bankers Box Co., Franklin Park, Ill. 359,490, ren. 8–23–58. Cl. 32.
Bantam-U. S. Toys, Inc., New York, N. Y. 665,670, pub. 5–27–58. Cl. 22.
Barbasol Co., The, Indianapolis, Ind. 665,856, pub. 5–27–58. Cl. 51.
Barnet, James R., d. b. a. Jim Richards Shoe Co. and Skill Built Tool Co., Wellesley Hills, Mass. 665,574, pub. 5–27–58. Cl. 4.
Barrett & Co., Inc., Newark, N. J. 665,548–9, pub. 5–27–58. Cl. 1.
Barton Distilling Co., Chicago, Ill. 665,838, pub. 5–27–58. Cl. 49.
Barwick, E. T., Mills, Inc., Chamblee, Ga. 665,817, pub. 5–27–58. Cl. 42.
Basis Vegetable Products, Inc.: *See*—
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Battelstein's, Inc., Houston, Tex. 665,789, pub. 5–27–58. Cl. 39.
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Bel-Air Food Products Co., Los Angeles, Calif. 665,874. Cl. 46.
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Berg Equipment Co., Marshfield, Wis. 665,692, pub. 5–27–58. Cl. 23.
Bergstein, Edward R., Charleroi, Pa. 665,779, pub. 5–27–58. Cl. 39.
Berrie, Nathan, & Sons, New York, N. Y. 560,556, canc. Cl. 28.
Bio-Cam Products, Inc., Chicago, Ill. 560,588, canc. Cl. 18.
Bjorkman, Henry, Barton, Vt. 665,672, pub. 5–27–58. Cl. 22.
Boake, A., Roberts & Co. Ltd., London, England. 560,345, canc. Cl. 46.
Borg-Warner Corp., Chicago, Ill. 560,349, canc. Cl. 23.
Bowey's Inc., Chicago, Ill. 361,731, ren. 11–1–58. Cl. 46.
Boyce-Lazarus Co., Johnstown, N. Y. 665,805, pub. 5–27–58. Cl. 39.
Brewer & Co., Inc., Worcester, Mass. 360,658, ren. 9–20–58. Cl. 18.
Bridgewater Woolen Co., Bridgewater, Vt. 358,919, ren. 7–26–58. Cl. 42.
British Kipper Exporters, Ltd., Edinburgh, Scotland. 560,479, canc. Cl. 46.
Brown Durrell Co., Cambridge, Mass. 665,782, pub. 5–27–58. Cl. 39.
Bruck Tackle & Mfg. Co., Portland, Oreg. 665,674, pub. 5–27–58. Cl. 22.
Bruning, Charles, Co., Inc., New York, N. Y., to Charles Bruning Co., Inc., Mount Prospect, Ill. 360,328, ren. 9–13–58. Cl. 26.
Bryggeri, C. Wilbroes, Heise n. fl. A/S, Helsingor, Denmark. 665,887, pub. 5–27–58. Cl. 48.
Buckingham Mfg. Co., Inc., Binghamton, N. Y. 665,610, pub. 5–27–58. Cl. 13.
Bunny Bear Inc., Everett, Mass. 665,735, pub. 5–27–58. Cl. 32.
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Burndy Engineering Co., Inc., New York, N. Y., to Burndy Corp., Norwalk, Conn. 361,761, ren. 11–1–58. Cl. 21.
Burton-Dixie Corp., Chicago, Ill. 665,736, pub. 5–27–58. Cl. 32.
Burton-Dixie Corp., Chicago, Ill. 665,738, pub. 5–27–58. Cl. 52.
Butt, H. E., Grocery Co., Corpus Christi, Tex. 361,629, ren. 10–25–58. Cl. 46.
Cabot, Godfrey L., Inc., Boston, Mass. 665,583, pub. 5–27–58. Cl. 6.
Calahan, H. A., Inc., Mamaroneck, N. Y. 665,638, pub. 5–27–58. Cl. 16.
Calcoln Corp., Los Angeles, Calif. 665,709, pub. 5–27–58. Cl. 26.
California Mission Vintage Co.: *See*—
Guerrieri, Lewis.
Cameron Machine Co., Dover, N. J. 123,096, ren. 10–15–58. Cl. 23.
Capitol Mfg. Co., Jackson, Mass. 665,783, pub. 5–27–58. Cl. 39.
Caprice of Hollywood, Los Angeles, Calif. 560,633, canc. Cl. 39.
Carolina Mirror Corp., North Wilkesboro, N. C. 665,733, pub. 5–27–58. Cl. 32.
Carter Products, Inc., New York, N. Y. 665,853, pub. 5–27–58. Cl. 51.
Castiglione, Vincent, d. b. a. Castiglione Accordion Co., Detroit, Mich. 665,745, pub. 5–27–58. Cl. 36.
Champion Paper and Fibre Co., The, Hamilton, Ohio. 665,756–7, pub. 5–27–58. Cl. 37.
Charing Cross Shoes, Ltd., New York, N. Y. 358,743, ren. 7–26–58. Cl. 39.
Charles of the Ritz, Inc., New York, N. Y. 357,766, ren. 6–14–58. Cl. 51.
Chater, Robert B., d. b. a. Detroit Power Coupling Co., Detroit, Mich. 665,687, pub. 5–27–58. Cl. 28.
Chicago Molded Products Corp., Chicago, Ill. 665,564, pub. 5–27–58. Cl. 2.
Chicago & Southern Air Lines, Inc., Memphis, Tenn. 560,649, canc. Cl. 105.

Childlore Co., Inc., d. b. a. Childlore Corp., Kansas City, Mo. 665,623, pub. 5–27–58. Cl. 13.
Childlore Corp.: *See*—
Childlore Co., Inc.
Clad-Rex Corp., Denver, Colo. 665,601, pub. 5–27–58. Cl. 12.
Clark Equipment Co., Buchanan, Mich. 665,677, pub. 5–27–58. Cl. 23.
Claybar of California, Inc., Los Angeles, Calif. 665,801, pub. 5–27–58. Cl. 39.
Clayton, Augusta, d. b. a. Madam Augusta and as Top-Soil Hair Products Mfg. Co., San Diego, Calif. 665,849, pub. 5–27–58. Cl. 51.
Cleveland Steel Products Corp., Cleveland, Ohio. 665,871. Cl. 23.
Cluett, Peabody & Co., Inc., Troy, N. Y. 665,768, pub. 5–27–58. Cl. 39.
Coahoma Chemical Co., Inc., Clarksdale, Miss., and Beacon, N. Y. 560,591, canc. Cl. 10.
Cochran, Jacqueline, Inc., New York, N. Y. 560,531, canc. Cl. 51.
Coloramic Tile Co., Inc., Chicago, Ill. 665,575, pub. 5–27–58. Cl. 5.
Commercial Ink & Lacquer Co., Inc., Fair Lawn, N. J. 665,630–1, pub. 5–27–58. Cl. 16.
Compco Corp., Chicago, Ill. 560,682, canc. Cl. 26.
Continental Oil Co., Ponca City, Okla. 665,584–5, pub. 5–27–58. Cl. 6.
Cook, Oscar T., Sr., Kansas City, Mo. 560,606, canc. Cl. 46.
Craddock-Terry Shoe Corp., Lynchburg, Va. 665,786, pub. 5–27–58. Cl. 39.
Crawford Watch Corp., New York, N. Y. 560,477, canc. Cl. 27.
Creasey Co., The, Louisville, Ky. 665,833, pub. 5–27–58. Cl. 46.
Crocker, H. S., Co., Inc., San Francisco, Calif. 665,762, pub. 5–27–58. Cl. 38.
Crown 400 Corp., Chicago, Ill. 665,722, pub. 5–27–58. Cl. 29.
Crown Zellerbach Corp., San Francisco, Calif. 665,753, pub. 5–27–58. Cl. 37.
Curry Auto Rental, Inc., Scarsdale, N. Y. 665,870. Cl. 105.
Curtis, Helene, Industries, Inc., from Lentheric, Inc., Chicago, Ill. 665,860, pub. 5–27–58. Cl. 51.
Cutlery Corp., Bridgeport, Conn. 560,375, canc. Cl. 23.
Cutter Laboratories, Berkeley, Calif. 665,653, pub. 5–27–58. Cl. 18.
DB Enterprises: *See*—
Di Bianca, Joseph T.
D & F Enterprises: *See*—
National Dairy Queen Development Co.
Dallas Iron & Wire Works, Inc., Dallas, Tex. 665,599, pub. 5–27–58. Cl. 12.
Dan River Mills, Inc., Danville, Va. 665,816, pub. 5–27–58. Cl. 42.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 560,563, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 560,564 canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 560,565, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 560,566, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 560,567, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to Les Parfums de Dana, Inc., New York, N. Y. 560,568, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 560,569, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 560,570, canc. Cl. 51.
Daniels, Ward, to Ventura County Fruit Growers, Inc., Fillmore, Calif. 260,071, ren. 9–6–58. Cl. 46.
Davies, H. S., Inc., Chicago, Ill. 665,826, pub. 5–27–58. Cl. 46.
Del-O Co., St. Paul, Minn. 560,576, canc. Cl. 18.
DeLuxe Saw and Tool Co., Louisville, Ky. 665,690, pub. 5–27–58. Cl. 23.
De Markoff, Alexandra, Sales Corp., New York, N. Y. 665,859, pub. 5–27–58. Cl. 51.
Detrex Chemical Industries, Inc., Detroit, Mich. 665,690, pub. 5–27–58. Cl. 23.
Detroit Power Coupling Co.: *See*—
Chater, Robert R.
Diamond Alkali Co., Cleveland, Ohio. 665,803, pub. 5–27–58. Cl. 52.
Diamond Match Co., The: *See*—
Gardner Corp.
Di Bianca, Joseph T., d. b. a. DB Enterprises, Flemington, N. J. 665,615, pub. 5–27–58. Cl. 13.
Dietzgen, Eugene, Co., Chicago, Ill. 665,708, pub. 5–27–58. Cl. 26.
Dietzgen, Eugene, Co., Wilmington, Del. 665,701, pub. 3–13–56. Cl. 26.
Diosgrin Industries, Inc., Jamaica, N. Y. 665,663, pub. 5–27–58. Cl. 19.
Display Studios, Inc., Kansas City, Mo. 665,729, pub. 5–27–58. Cl. 32.
Dodge & Olcott, Inc., New York, N. Y. 665,831, pub. 5–27–58. Cl. 46.
Donaldson Co., Inc., St. Paul, Minn. 665,724–5, pub. 5–27–58. Cl. 31.
Dormi Industries, Inc., Moline, Ill. 665,662, pub. 5–27–58. Cl. 19.
Douglas, David, & Co., Inc., Manitowoc, Wis. 665,678, pub. 5–27–58. Cl. 23.
Dundee Mills, Inc., Griffin, Ga. 665,774, pub. 5–27–58. Cl. 39.
Dunham Brothers Co., Brattleboro, Vt. 665,791, pub. 5–27–58. Cl. 39.
Economy Food Co., Vacaville, to Basis Vegetable Products, Inc., San Francisco, Calif. 358,526, ren. 7–19–58. Cl. 46.
Edy's Character Candies of Northern California, Oakland, Calif. 665,827, pub. 5–27–58. Cl. 46.
Einiger Mills, Inc., New York, N. Y. 665,812, pub. 5–27–58. Cl. 42.
Electro-Temp Corp., The, Springfield, Mass. 665,739, pub. 5–27–58. Cl. 34.
Elgin American, Inc., Elgin, Ill. 665,559, pub. 5–27–58. Cl. 2.
English Needle & Fishing Tackle Co. Ltd., The, Studley, to Shrimpton & Fletcher Ltd., Birmingham, England. 357,784, ren. 6–14–58. Cl. 44.
Enterprise Paint Mfg. Co., Chicago, Ill. 665,572, pub. 5–27–58. Cl. 4.
Esrry, David, Tobacco Co., York, Pa. 665,637, pub. 5–27–58. Cl. 17.
Erica Jenis, Inc., New York, N. Y. 665,845, pub. 5–27–58. Cl. 51.
Eskimo Pie Corp., Bloomfield, N. J. 560,674, canc. Cl. 13.
Essential Products, Inc., Atlanta, Ga. 560,426, canc. Cl. 18.
Esser, T. C., Co., Milwaukee, Wis. 665,636, pub. 5–27–58. Cl. 16.
Evert, Orville F., San Francisco, Calif. 555,625, canc. Cl. 31.
FR Corp., The, New York, N. Y. 665,716, pub. 5–27–58. Cl. 26.
Fabergé, Inc., New York, N. Y. 359,581, ren. 8–23–58, Cl. 51.
Fairy Silk Mills, Inc., Shillington, Pa. 293,637, canc. Cl. 39.
Falk Corp., The, Milwaukee, Wis. 665,685, pub. 5–27–58. Cl. 23.
Famous-Sternberg, Inc., New Orleans, La. 665,799, pub. 5–27–58. Cl. 39.
Fawcett Publications, Inc., Greenwich, Conn. 362,374, ren. 11–15–58. Cl. 38.
Ferance Construction Co.: *See*—
Taylor, Clarence R.
Fibre-Metal Products Co., The, Chester, Pa. 665,702, pub. 6–25–57. Cl. 26.
Firma Carl Freudenberg Kommanditgesellschaft auf Aktien, Weinheim an der Bergstrasse, Germany. 665,772, pub. 5–27–58. Cl. 39.
Fisher Silversmiths, Inc., The, Jersey City, N. J., and New York, N. Y. 560,383, canc. Cl. 28.
Fit-Rite Metal Products Co.: *See*—
Aloise, Rudolph.
Flintkote Co., The, New York, N. Y. 560,606, canc. Cl. 12.
Fordom Forest Products Corp., New York, N. Y. 560,532, canc. Cl. 1.
Fromm Laboratories, Inc., Grafton, Wis. 560,601, canc. Cl. 18.
Fuller, D. B., & Co. Inc., New York, N. Y. 665,819–20, pub. 5–27–58. Cl. 42.
Gallenkamp Stores Co., Los Angeles, Calif. 665,792–3, pub. 5–27–58. Cl. 39.
Gardner Corp., by change of name from The Diamond Match Co., New York, N. Y. 665,602, pub. 5–27–58. Cl. 12.
Gardner Machine Co., South Beloit, Ill., to Gardner Machine Co., Beloit, Wis. 359,766, ren. 8–23–58. Cl. 4.
Gardner Machine Co., South Beloit, Ill., to Gardner Machine Co., Beloit, Wis. 359,767, ren. 8–30–58. Cl. 4.
Gardner Machine Co., South Beloit, Ill., to Gardner Machine Co., Beloit, Wis. 359,768, ren. 8–30–58. Cl. 4.
Gardner Machine Co., South Beloit, Ill., to Gardner Machine Co., Beloit, Wis. 359,769, ren. 8–30–58. Cl. 4.
Gardner Machine Co., South Beloit, Ill., to Gardner Machine Co., Beloit, Wis. 360,043, ren. 9–6–58. Cl. 4.
Gebr. Weyersberg, Solingen-Ohligs, Germany. 665,680, pub. 5–27–58. Cl. 23.
General Aniline & Film Corp., New York, N. Y. 665,706, pub. 5–27–58. Cl. 26.
General Aniline & Film Corp., New York, N. Y. 665,760, pub. 5–27–58. Cl. 38.
General Controls Co., Glendale, Calif. 665,718, pub. 5–27–58. Cl. 26.
General Tire & Rubber Co., The, Akron, Ohio. 665,604, pub. 5–27–58. Cl. 12.
Georgia Automatic Gas Co., Atlanta, Ga. 560,433, canc. Cl. 6.
Glass-on Co., Inc., Boston, Mass. 665,627, pub. 5–27–58. Cl. 16.
Glenmore Distilleries Co., Louisville, Ky. 665,839, pub. 5–27–58. Cl. 49.
Glidden Co., The: *See*—
Atlas Powder Co.
Goldstein, Julius, & Sons Co., Boston, Mass. 665,708, pub. 5–27–58. Cl. 39.
Goodenow-Morley Co., also d. b. a. Mid-West Associates, Oklahoma City, Okla. 560,506, canc. Cl. 5.
Goodyear Tire & Rubber Co., The, Akron, Ohio. 560,632, canc. Cl. 35.
Graduate School of Banking, The, New York, N. Y. 357,520, ren. 6–7–58. Cl. 38.
Grand Bag & Paper Co., Inc., New York, N. Y. 560,662, canc. Cl. 2.
Great Lakes Tractor Co., The, Rock Creek, Ohio. 665,697, pub. 5–27–58. Cl. 23.
Greatrex Ltd., New York, N. Y. 560,434, canc. Cl. 39.
Greeman, Edward, New York, N. Y. 665,561, pub. 5–27–58. Cl. 2.
Grill-Well Products, Inc., Kettering, Ohio. 665,611, pub. 5–27–58. Cl. 13.
Guardian Mobile Homes Corp., Omaha, Nebr. 665,664, pub. 5–27–58. Cl. 19.
Guerrieri, Lewis, d. b. a. California Mission Vintage Co., to A. Moramarco, Los Angeles, to Schenley Industries, Inc., d. b. a. Weston Winery, Fresno, Calif. 355,314, ren. 3–15–58. Cl. 47.
Guida Wood Heel Co., The, Brooklyn, N. Y. 665,785, pub. 5–27–58. Cl. 39.

Gunther Brewing Co., Baltimore, Md. 357,215, ren. 5-21-58. Cl. 46.
Haase, Wilbert W., Co., Forest Park, Ill. 665,585-7, pub. 5-27-58. Cl. 2.
Hahn, William, & Co., Washington, D. C. 122,709, ren. 9-10-58. Cl. 29.
Halper Brothers, Inc., New York, N. Y. 665,800, pub. 5-27-58. Cl. 39.
Hand-A-Cars Co., Fort Wayne, Ind. 665,835, pub. 5-27-58. Cl. 51.
Harbinson, James K., & Co., Inc., New York, N. Y. 665,633, pub. 5-27-58. Cl. 16.
Hardee Brothers and Lindsay, Ltd., London, England. 665,875. Cl. 48.
Havva Hosiery Mills: *See*—
Joseph, Shalom.
Hellpot Corp., Newport Beach, Calif. 665,710, pub. 5-27-58. Cl. 24.
Heller Brothers Co., Newark, N. J. 665,693, pub. 5-27-58. Cl. 23.
Heller, William, Inc., New York, N. Y. 665,810, pub. 5-27-58. Cl. 42.
Hershey Creamery Co., Harrisburg, Pa. 665,835, pub. 5-27-58. Cl. 46.
Hicks, James M.: *See*—
Marin-E-Products.
Hill, C. V., and Co., Inc., Trenton, N. J. 362,454, ren. 11-15-58. Cl. 31.
Hollywood Shoe Polish Inc., Richmond Hill, N. Y. 560,499, canc. Cl. 4.
Holophane Co., Inc., New York, N. Y. 665,740, pub. 5-27-58. Cl. 34.
Honey Toga, Inc., Gladewater, Tex. 665,795, pub. 5-27-58. Cl. 39.
Honig, Jack L., Inc., New York, N. Y. 665,784, pub. 5-27-58. Cl. 39.
Hope Hillary: *See*—
Hope Hillary Cosmetics Ltd.
Hope Hillary Cosmetics Ltd., d. b. a. Hope Hillary, New York, N. Y. 665,844, pub. 5-27-58. Cl. 51.
Horn, W. C., Bro. & Co., Newark, N. J. 665,750, pub. 5-27-58. Cl. 27.
Hostetter Co., The, Pittsburgh, Pa. 84,232, canc. Cl. 16.
Household Co., Chicago, Ill. 560,667, canc. Cl. 23.
Howe Scale Co., The, Rutland, Vt. 665,703, pub. 5-27-58. Cl. 26.
Hudnut, Richard, New York, N. Y. 560,571, canc. Cl. 51.
Hunter-Wilson Distilling Co., Inc.: *See*—
Wilson Distilling Co., Inc.
Hurlox Sales Co., Abington, Pa. 665,694-5, pub. 5-27-58. Cl. 16.
Hyman, S. E., Co., The, Fremont, Ohio. 665,794-5, pub. 5-27-58. Cl. 39.
Ideal Toy Corp., Hollis, N. Y. 560,627, canc. Cl. 22.
Injection Molding Co., Kansas City, Mo. 665,562, pub. 5-27-58. Cl. 2.
Injectorall Co.: *See*—
Wollman, Everett.
Integrity Magnesia Corp., The, Philadelphia, Pa. 665,649, pub 2-25-58. Cl. 18.
Interchemical Corp., New York, N. Y. 665,811, pub. 5-27-58. Cl. 42.
International Laboratories, Inc., Rochester, N. Y. 665,848, pub. 5-27-58. Cl. 51.
International Silver Co., The, Meriden, Conn. 665,689, pub. 5-27-58. Cl. 23.
Intrusion-Prepakt, Inc., Cleveland, Ohio. 665,578, pub. 5-27-58. Cl. 6.
Jacques, de Loux, Inc., Sellersville, Pa. 665,790, pub. 5-27-58. Cl. 39.
Jeffrey Mfg. Co., The, Columbus, Ohio. 359,563, ren. 8-23-58. Cl. 13.
Johns-Nigrelli-Johns, Chicago, Ill. 665,681, pub. 5-27-58. Cl. 23.
Johnson-March Corp., The, by change of name from Waverly Petroleum Products Co., Philadelphia, Pa. 665,861, pub. 5-27-58. Cl. 52.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. 665,700, pub. 5-27-58. Cl. 24.
Josam Mfg. Co., Michigan City, Ind. 665,620, pub. 5-27-58. Cl. 13.
Joseph, Shalom, d. b. a. Havva Hosiery Mills, Chicago, Ill. 560,494, canc. Cl. 39.
Juvenile Shoe Corp. of America, The, Aurora, Mo. 362,244, ren. 11-15-58. Cl. 39.
Kane Mfg. Corp., Kane, Pa. 665,597, pub. 5-27-58. Cl. 12.
Knothe Brothers Co. Inc., New York, N. Y. 560,561, canc. Cl. 39.
Kolcraft Products, Inc., Chicago, Ill. 665,737, pub. 5-27-58. Cl. 32.
Kreisler, Jacques, Mfg. Corp., North Bergen, N. J. 560,577, canc. Cl. 28.
Kux, Andrew, d. b. a. Occidental Electric Co., Nogales, Ariz. 665,686, pub. 5-27-58. Cl. 23.
L'Argene: *See*—
L'Argene Products Co., Inc.
L'Argene Products Co., Inc., d. b. a. L'Argene, New York, N. Y. 665,846-7, pub. 5-27-58. Cl. 51.
La Vigna, Inc., New York, N. Y. 665,767, pub. 5-27-58. Cl. 39.
LeFebure Corp., Cedar Rapids, Iowa. 665,749, pub. 5-27-58. Cl. 37.
Lantheric, Inc.: *See*—
Curtis, Helene, Industries, Inc.
Leonard, Eusemar, Miami, Fla. 357,280, ren. 5-31-58. Cl. 18.
Les Parfums de Dana, Inc.: *See*—
Dana Perfumes, Inc.
Lewis and Mathews Corp., Los Angeles, Calif. 665,822, pub. 5-27-58. Cl. 44.
Lido Frozen Foods, Inc.: *See*—
Arkansas Frozen Foods, Inc.
Light, Wayne W., New York, N. Y. 560,548, canc. Cl. 28.
Linton, G. H., & Co. Ltd., London, England. 665,885, pub. 5-27-58. Cl. 52.
Lofland Brothers Co., Tulsa, Okla. 665,758, pub. 5-27-58. Cl. 39.
Long View Farms, Inc., Middleport, N. Y. 665,830, pub. 5-27-58. Cl. 46.
Los Angeles Water Softener Co., Inc., Glendale, Calif. 665,626, pub. 5-27-58. Cl. 16.
Louisville Cement Co., Louisville, Ky. 362,186, ren. 11-15-58. Cl. 12.
Lovable Brassiere Co., The, Atlanta, Ga. 665,807, pub. 5-27-58. Cl. 39.
Ludwig Drum Co., Chicago, Ill. 665,746, pub. 5-27-58. Cl. 36.
Luhrs, Charles H., Hackensack, N. J. 560,474, canc. Cl. 22.
Luther Corp., Warsaw, Ind. 665,679, pub. 5-27-58. Cl. 23.
Lykens Hosiery Mills, Inc., Marion, N. C. 665,764-6, pub. 5-27-58. Cl. 39.
M. K. M. Knitting Mills, Inc., Manchester, N. H. 665,803, pub. 5-27-58. Cl. 39.
Macy, R. H., & Co., Inc., New York, N. Y. 357,519, ren. 6-7-58. Cl. 42.
Macy, R. H., & Co., Inc., New York, N. Y. 358,053, ren. 6-28-58. Cl. 46.
Macy, R. H., & Co., Inc., New York, N. Y. 358,054, ren. 7-19-58. Cl. 46.
Madam Augusta: *See*—
Clayton, Augusta.
Magna Products Inc., Santa Fe Springs, Calif. 665,713, pub. 5-27-58. Cl. 26.
Maiden Form Brassiere Co., Inc., New York, N. Y. 665,802, pub. 5-27-58. Cl. 39.
Makiola, Dr. Bernhard A., Institut fur Arzneimittelforschung: *See*—
Makiola, Dr. Bernhard-Alfons.
Makiola, Dr. Bernhard-Alfons, d. b. a. Dr. Bernhard A. Makiola, Institut fur Arzneimittelforschung, Vaduz, Liechtenstein. 665,641-8, pub. 5-27-58. Cl. 18.
Mallinckrodt Chemical Works, St. Louis, Mo. 361,932, ren. 11-8-58. Cl. 6.
Mancusi, Attilio, d. b. a. Tyson Radio Co., Carle Place, N. Y. 560,422, canc. Cl. 21.
Marathon Corp.: *See*—
American Can Co.
Marilyn Hosiery Mill, Lehighton, Pa. 560,432, canc. Cl. 39.
Marin-E-Products, from James M. Hicks, d. b. a. Marin-E-Products, Sausalito, Calif. 665,657, pub. 5-27-58. Cl. 19.
Mark, Fore & Strike, Inc., Delray Beach, Fla. 665,772, pub. 5-27-58. Cl. 39.
Markl, Emil, Basle, Switzerland. 560,391, canc. Cl. 44.
Martori Bros., Distributors, Phoenix, Ariz. 665,834, pub. 5-27-58. Cl. 46.
Mavest, Inc., New York, N. Y. 560,655, canc. Cl. 39.
Maxson, W. L., Corp., The, New York, N. Y. 560,487, canc. Cl. 21.
May Department Stores Co., The, New York, N. Y. 665,760, pub. 5-21-57. Cl. 39.
McCampbell & Co., Inc., New York, N. Y. 665,815, pub. 5-27-58. Cl. 42.
McCarter, Gertrude E., b. d. a. Trudy Mfg. Co., Osceola, Ind. 560,442, canc. Cl. 46.
McCloskey, Elizabeth M., Forest Hills, N. Y. 560,547, canc. Cl. 12.
McKay Products Corp., The, New York, N. Y. 665,775, pub. 5-27-58. Cl. 39.
McKinney, Chalmers D., d. b. a. McKinney's Laboratory, Georgetown, S. C. 665,655, pub. 5-27-58. Cl. 18.
McKinney's Laboratory: *See*—
McKinney, Chalmers D.
Mechanical Mirror Works, Inc., New York, N. Y. 665,726, pub. 5-27-58. Cl. 32.
Megs Macaroni Co., Harrisburg, Pa. 665,829, pub. 5-27-58. Cl. 46.
Merrill Mfg. Co.: *See*—
Anderson, Noel M.
Mershon Co., Inc., Glendale, Calif. 665,567, pub. 5-27-58. Cl. 9.
Meshtone Mfg. Co., Inc., New York, N. Y. 665,796, pub. 5-27-58. Cl. 39.
Midland Shoe Co., to Midland Shoe Co., St. Louis, Mo. 360,222, ren. 9-13-58. Cl. 39.
Mid-West Associates: *See*—
Goodenow-Morley Co.
Midwest Perlite Products, Inc., West Des Moines, Iowa. 665,594, pub. 5-27-58. Cl. 12.
Miller Bros. Hat Co. Inc.: *See*—
Adam Hat Stores, Inc.
Milprint, Inc., Milwaukee, Wis. 665,555, pub. 5-27-58. Cl. 2.
Milwaukee Dustless Brush Co., Milwaukee, Wis. 665,721, pub. 4-8-58. Cl. 29.
Minerals & Chemicals Corp. of America, Menlo Park, N. J. 665,656, pub. 5-27-58. Cl. 18.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 665,596, pub. 5-27-58. Cl. 12.
Min-R-L-Rubr Corp., New York, N. Y. 560,397, canc. Cl. 23.
Mission Dry Corp., Los Angeles, Calif. 560,683, canc. Cl. 26.
Mr. Boston Distiller Inc.: *See*—
Ben-Burk, Inc.
Modiglass Fibers, Inc., Bremen, Ohio. 665,605, pub. 5-27-58. Cl. 12.
Modiglass Fibers, Inc., Bremen, Ohio. 665,723, pub. 5-27-58. Cl. 31.
Monsanto Chemical Co., St. Louis, Mo. 560,620, canc. Cl. 6.
Monteverdi-Young: *See*—
Monteverdi-Young Co.
Monteverdi-Young Co., d. b. a. Monteverdi-Young, Los Angeles, Calif. 665,730, pub. 5-27-58. Cl. 32.

Moramarco, A.: *See*—
Guerrieri, Lewis.
Morris, Philip, Inc., New York, N. Y. 665,639, pub. 5–27–58. Cl. 17.
Motorola Inc., Chicago, Ill. 665,705, pub. 5–27–58. Cl. 26.
Motorola Inc., Chicago, Ill. 665,761, pub. 5–27–58. Cl. 38.
National Blank Book Co., Holyoke, Mass. 665,748, pub. 5–27–58. Cl. 37.
National Dairy Queen Development Co., from D & F Enterprises, Davenport, Iowa. 665,873. Cl. 46.
National Drug Co., The, Philadelphia, Pa. 665,654, pub. 5–27–58. Cl. 18.
National Orchestra Service, Inc., Omaha, Nebr. 665,809, pub. 5–27–58. Cl. 107.
Natone Co., Los Angeles, Calif. 665,857, pub. 5–27–58. Cl. 51.
Necchi Societa per Azioni, Pavia, Italy. 665,684, pub. 5–27–58. Cl. 23.
Nehi Corp.: *See*—
Nehi, Inc.
Nehi, Inc., to Nehi Corp., Columbus, Ga. 359,306, ren. 8–9–58. Cl. 45.
New Day Products Co.: *See*—
Parks, Tom W.
Nicholson File Co., Providence, R. I. 665,698, pub. 5–27–58. Cl. 23.
No-Joint Concrete Pipe Co., Yuba City, Calif. 665,682, pub. 5–27–58. Cl. 23.
Norris-Thermador Corp., Los Angeles, Calif. 665,014, pub. 5–27–58. Cl. 13.
Northern Rubber Products, Inc., Minneapolis, Minn. 560,353, canc. Cl. 12.
Northrup, King & Co., Minneapolis, Minn. 665,592, pub. 5–27–58. Cl. 10.
Norton Co., Troy, N. Y. 665,573, pub. 5–27–58. Cl. 4.
Nu-Type Mfg. and Development Corp., Freeport, N. Y. 560,459, canc. Cl. 31.
Occidental Electric Co.: *See*—
Kux, Andrew.
Office Products, Inc., Detroit, Mich. 665,747, pub. 5–27–58. Cl. 37.
Okonite Co., The, Passaic, N. J. 560,402, canc. Cl. 21.
Olin Mathieson Chemical Corp.: *See*—
Squibb, E. R., & Sons.
Olson, R. H., Co., Inc., Milwaukee, Wis. 665,595, pub. 5–27–58. Cl. 12.
Optics Mfg. Corp., Philadelphia, Pa. 665,704, pub. 5–27–58. Cl. 26.
Optics Mfg. Corp., Philadelphia, Pa. 665,717, pub. 5–27–58. Cl. 26.
Organon Inc., Orange, N. J. 560,498, canc. Cl. 18.
O-So Grape Co., Peoria, Ill. 665,823, pub. 5–27–58. Cl. 45.
Panzyma Laboratories, Inc., New York, N. Y. 665,852, pub. 5–27–58. Cl. 51.
Parfumerie L. T. Piver S. A., d. b. a. L. T. Piver, Paris, France. 665,862, pub. 5–27–58. Cl. 52.
Parker, Joseph, & Son Co., New Haven, Conn. 123,449, ren. 11–12–58. Cl. 37.
Parker, Joseph, & Son Co., New Haven, Conn. 123,635, ren. 11–19–58. Cl. 37.
Parker, Wilder & Co., New York, N. Y. 361,976, ren. 11–8–58. Cl. 42.
Parks, Tom W., d. b. a. New Day Products Co., Anderson, S. C. 560,421, canc. Cl. 52.
Patch Rubber Co., Akron, Ohio. 665,744, pub. 5–20–58. Cl. 35.
Patterson-Sargent Co., The, Cleveland, Ohio. 358,693, ren. 7–19–58. Cl. 16.
Patterson-Sargent Co., The, Cleveland, Ohio. 362,287, ren. 11–15–58. Cl. 16.
Penick & Ford, Ltd., Inc., New York, N. Y. 665,576, pub. 5–27–58. Cl. 5.
Pennsylvania Fluorocarbon Co., Inc., Philadelphia, Pa. 665,551, pub. 5–27–58. Cl. 1.
Perfect Circle Corp., Hagerstown, Ind. 560,626, canc. Cl. 35.
Perfemme Inc., New York, N. Y. 665,850, pub. 2–18–58. Cl. 51.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 665,651–2, pub. 5–27–58. Cl. 18.
Phelps, Norman J.: *See*—
Dana Perfumes, Inc.
Philadelphia Thermometer Co., Philadelphia, Pa. 665,719–20, pub. 5–27–58. Cl. 26.
Picpix, Inc., to Street & Smith Publications, Inc., New York, N. Y. 357,769, ren. 6–14–58. Cl. 38.
Pine Sewing Machine Mfg. Co., Ltd., The, Utsunomiya, Japan. 665,696, pub. 5–27–58. Cl. 23.
Pioneer Iron Works, Sioux City, Iowa. 665,613, pub. 5–27–58. Cl. 13.
Pitt-Consol Chemical Co., Newark, N. J. 665,580, pub. 5–27–58. Cl. 6.
Pittsburgh Chemical Laboratory, Pittsburgh, Pa. 560,336, canc. Cl. 4.
Piver, L. T.: *See*—
Parfumerie L. T. Piver S. A.
Pixie Potters, Los Angeles, Calif. 560,418, canc. Cl. 30.
Plastic Packaging Co., Chicago, Ill. 665,557, pub. 5–27–58. Cl. 2.
Plastomatic Corp., Malvern, Pa. 665,560, pub. 5–27–58. Cl. 2.
Plymouth Citrus Growers Association, Plymouth, Fla. 362,333, ren. 11–22–58. Cl. 46.
Pollet, Rene, Paris, France. 665,607, pub. 5–27–58. Cl. 13.
Poly Choke Co., Inc., The, East Hartford, Conn. 665,589, pub. 5–27–58. Cl. 9.
Popper Gray & Co., Inc., New York, N. Y. 361,416, ren. 10–18–58. Cl. 46.
Popper-Morson Co., Inc., to Popper Morson Corp., Jersey City, N. J. 362,365, ren. 11–15–58. Cl. 49.
Popper Morson Corp.: *See*—
Popper-Morson Co., Inc.
Prismo Safety Corp., Huntingdon, Pa. 665,841, pub. 5–27–58. Cl. 50.
Procter & Gamble Co., The, Cincinnati, Ohio. 665,866, pub. 5–27–58. Cl. 52.
Professional Laboratories, Inc., New York, N. Y. 356,410, ren. 4–26–58. Cl. 6.
Provident Life and Accident Insurance Co., Chattanooga, Tenn. 665,867, pub. 1–14–58. Cl. 102.
Pure Oil Co., The, Chicago, Ill. 560,522, canc. Cl. 21.
Quaker Oats Co., The, Chicago, Ill. 362,231, ren. 11–15–58. Cl. 46.
Quaker Oats Co., The, Chicago, Ill. 665,582, pub. 5–27–58. Cl. 6.
Radio Frequency Laboratories, Inc., Boonton, N. J. 665,712, pub. 5–27–58. Cl. 26.
Raphael Parfums, Societe Anonyme, Paris, France. 665,854, pub. 5–27–58. Cl. 51.
Rayette, Inc., St. Paul, Minn. 665,848, pub. 5–27–58. Cl. 51.
Rayonier Inc., New York, N. Y. 357,602, ren. 6–7–58. Cl. 1.
Reliance Mfg. Co., Chicago, Ill. 560,622, canc. Cl. 39.
Research Specialties Co., Berkeley, Calif. 665,711, pub. 5–27–58. Cl. 26.
Reynolds Soil Development Corp. (of Chuckawalla Valley), Monrovia, Calif. 665,591, pub. 5–27–58. Cl. 10.
Richards, Jim, Shoe Co.: *See*—
Barnet, James R.
Rival Mfg. Co., Kansas City, Mo. 665,691, pub. 5–27–58. Cl. 23.
Robbins Tire and Rubber Co., Inc., Tuscumbia, Ala. 665,742, pub. 5–27–58. Cl. 35.
Roberts Mfg. Co., Los Angeles, Calif. 665,588, pub. 5–27–58. Cl. 9.
Rosen & Son Dress Co., Inc., Boston, Mass. 560,631, canc. Cl. 39.
Roth, Chester H., Co., Inc., New York, N. Y. 665,788, pub. 5–27–58. Cl. 39.
Royal Life Insurance Co. of America, Atlanta, Ga. 665,868, pub. 4–22–58. Cl. 102.
Russell Reinforced Plastics Corp., Lindenhurst, N. Y. 665,600, pub. 5–27–58. Cl. 12.
Rust-A-Way Co.: *See*—
Rustaway Corp.
Rustaway Corp., from Rust-A-Way Co., New York, N. Y. 560,409, canc. Cl. 4.
S. U. Carburetter Co. Ltd., The, Birmingham, England. 359,817, ren. 8–30–58. Cl. 23.
Sackman Brothers Co., New York, N. Y., to Sackman Brothers Co., Telford, Pa. 357,250, ren. 5–31–58. Cl. 39.
Saco-Lowell Shops, Boston, Mass. 665,686, pub. 5–27–58. Cl. 23.
Santiago Orange Growers Assn., Orange, Calif. 362,421, ren. 11–15–58. Cl. 46.
Saydah, Cecil, Los Angeles, Calif. 665,818, pub. 5–27–58. Cl. 42.
Schaffhausen, Albert N., Sr., St. Paul, Minn. 560,450, canc. Cl. 22.
Schenley Industries, Inc.: *See*—
Guerrieri, Lewis.
Schiffman, M. W., & Co.: *See*—
Schiffman, M. W., & Co. Inc.
Schiffman, M. W., & Co. Inc., to M. W. Schiffman & Co., New York, N. Y. 352,234, ren. 11–23–57. Cl. 28.
Schloss Bros. & Co., Inc., Baltimore, Md. 560,369, canc. Cl. 39.
Schroeder Brothers Corp., McKees Rocks, Pa. 665,707, pub. 5–27–58. Cl. 26.
Scruggs-Vanderwoort-Barney, Inc., St. Louis, Mo. 560,451, canc. Cl. 21.
Scully Signal Co., Melrose, Mass. 665,619, pub. 5–27–58. Cl. 13.
Sea Lawn Products Co., Long Beach, N. Y. 665,624, pub. 5–27–58. Cl. 13.
Sea Lawn Products Co., Long Beach, N. Y. 665,732, pub. 5–27–58. Cl. 32.
Sears, Roebuck and Co., Chicago, Ill. 560,850, canc. Cl. 51.
Seco Co., Inc., St. Louis, Mo. 560,347, canc. Cl. 21.
Servo Corp. of America, New Hyde Park, N. Y. 665,579, pub. 5–27–58. Cl. 6.
Shapiro, Henry, Crescent City, Calif. 560,381, canc. Cl. 50.
Sheltex Mfg. Co., Inc., Brooklyn, N. Y. 665,808, pub. 5–27–58. Cl. 40.
Shore-Calnevar, Inc., Los Angeles, Calif. 665,612, pub. 5–27–58. Cl. 13.
Short, J. B., Milling Co., Chicago, Ill. 665,825, pub. 10–29–57. Cl. 46.
Shrimpton & Fletcher Ltd.: *See*—
English Needle & Fishing Tackle Co. Ltd., The.
Shureflash Laboratory, Inc., Newport, Ky. 560,672, canc. Cl. 21.
Skill Built Tool Co.: *See*—
Barnet, James R.
Sleep-Ease, Inc., New York, N. Y. 665,777, pub. 5–27–58. Cl. 39.
Smith, Kline & French Laboratories, Philadelphia, Pa. 560,455, canc. Cl. 18.
Societa Anonima per la Costruzione di Macchine, Minusio, Switzerland. 665,666, pub. 5–27–58. Cl. 21.
Società Applicazioni Gomma Antivibranti "Saga" S. p. A., Milan, Italy. 665,660–1, pub. 5–27–58. Cl. 19.
Societe Monsavon-L'Oreal, Paris, France. 665,858, pub. 5–27–58. Cl. 51.
Socony-Vacuum Oil Co., Inc., New York, N. Y. 560,507, canc. Cl. 15.
Southern Gas Corp., Atlanta, Ga. 560,621, canc. Cl. 6.
Southwestern Petroleum Co., The, d. b. a. The Zone Co., Fort Worth, Tex. 665,577, pub. 5–27–58. Cl. 6.
Spalding, A. G., & Bros. Inc., Chicopee, Mass. 665,668, pub. 5–27–58. Cl. 22.

Speare's, Alden, Sons Co., The, Cambridge, Mass. 560,658, canc. Cl. 23.
Speed-D-Burr Corp., Glendale, Calif. 665,571, pub. 4–22–58. Cl. 4.
Speidel Corp., Providence, R. I. 665,872. Cl. 28.
Spiegel, Inc., Chicago, Ill. 560,614, canc. Cl. 39.
Spinks, H. C., Clay Co., Inc., Paris, Tenn. 665,550, pub. 5–27–58. Cl. 1.
Spinnerin Yarn Co., Inc., South Hackensack, N. J. 560,635, canc. Cl. 43.
Spiro, Jack, & Co. Inc., New York, N. Y. 665,806, pub. 5–27–58. Cl. 39.
Square D Co., Detroit, Mich. 665,665, pub. 5–27–58. Cl. 21.
Squibb, E. R., & Sons, to Olin Mathieson Chemical Corp., New York, N. Y. 360,588, ren. 9–20–58. Cl. 18.
Standard Brands Inc., New York, N. Y. 665,840, pub. 5–27–58. Cl. 49.
Star Porcelain Co., The, Trenton, N. J. 665,694, pub. 5–27–58. Cl. 23.
Stearn, Robert F., Elizabethtown, N. Y. 665,556, pub. 5–27–58. Cl. 2.
Stephens Tru-Sonic Inc., Culver City, Calif. 665,667, pub. 5–27–58. Cl. 21.
Sterling Drug Inc.: *See*—
Winthrop Chemical Co., Inc.
Sterling-Freeland Industries, Inc., Chicago, Ill. 665,734, pub. 5–27–58. Cl. 32.
Stetson, John B., Co., Philadelphia, Pa. 665,775, pub. 5–27–58. Cl. 39.
Stevens, J. P., & Co., Inc., New York, N. Y. 665,814, pub. 5–27–58. Cl. 42.
Stevenson & Son Ltd., Dungannon, County Tyrone, Northern Ireland. 665,780, pub. 5–27–58. Cl. 39.
Stockham Valves & Fittings, Inc., Birmingham, Ala. 665,618, pub. 5–27–58. Cl. 13.
Strathmore Co., The: *See*—
Watkins-Strathmore Co., The.
Street & Smith Publications, Inc.: *See*—
Picpix, Inc.
Suds-All Co., Inc., Evanston, Ill. 560,436, canc. Cl. 6.
Sunbeam Corp., Chicago, Ill. 665,770, pub. 5–27–58. Cl. 39.
Sunbeam Corp., Chicago, Ill. 665,821, pub. 5–27–58. Cl. 44.
Sunley, John H., New York, N. Y. 665,828, pub. 5–20–58. Cl. 46.
Superba Cravats, Inc., Rochester, N. Y. 665,771, pub. 5–27–58. Cl. 39.
Swan Shoe Co., Inc., Baltimore, Md. 665,776, pub. 5–27–58. Cl. 39.
Taylor, Clarence R., d. b. a. Ferance Construction Co. 665,676, pub. 5–27–58. Cl. 23.
Taylor-Winfield Corp., The, Warren, Ohio. 560,513, canc. Cl. 21.
Teale Machine Co., Rochester, N. Y. 560,653, canc. Cl. 2.
Teasley, E. H., & Co., Inc., Dallas, Tex. 665,842, pub. 5–27–58. Cl. 50.
Terwilliger, H. John, Productions: *See*—
Terwilliger, Howard J.
Terwilliger, Howard J., d. b. a. H. John Terwilliger Productions, Kingston, N. Y. 560,508, canc. Cl. 18.
Texas Engineering and Mfg. Co., Inc., Grand Prairie, Tex. 560,423, canc. Cl. 21.
Thompson, A. W., Hatchery, Inc., Hoschton, Ga. 665,554, pub. 5–27–58. Cl. 1.
Thompson, Marvin R., Inc., Stamford, Conn. 560,598, canc. Cl. 18.
Thompson Products, Inc., to Thompson Products, Inc., Cleveland, Ohio. 357,543, ren. 6–7–58. Cl. 23.
Three Mountaineers, Inc., Asheville, N. C. 665,629, pub. 5–27–58. Cl. 16.
Tibbals Flooring Co., Oneida, Tenn. 665,593, pub. 5–27–58. Cl. 12.
Tilo Roofing Co., Inc., Stratford, Conn. 665,603, pub. 5–27–58. Cl. 12.
Toledo Scale Corp.: *See*—
Toledo Scale Mfg. Co.
Toledo Scale Mfg. Co., to Toledo Scale Corp., Toledo, Ohio. 358,150, ren. 6–28–58. Cl. 26.
Top-Soil Hair Products Mfg. Co.: *See*—
Clayton, Augusta.
Trudy Mfg. Co.: *See*—
McCarter, Gertrude E.
Tuthill Pump Co., Chicago, Ill. 665,695, pub. 5–27–58. Cl. 23.
Tyson Radio Co.: *See*—
Mancusi, Attilio.
United Drug Co., Boston, Mass., to Rexall Drug Co., Los Angeles, Calif. 358,632, ren. 7–19–58. Cl. 18.
United Drug Co., Boston, Mass., to Rexall Drug Co., Los Angeles, Calif. 362,006, ren. 11–8–58. Cl. 18.
United Merchants and Manufacturers, Inc., New York, N. Y. 665,813, pub. 5–27–58. Cl. 42.
United States Rubber Co., New York, N. Y. 665,809, pub. 5–27–58. Cl. 40.
United States Tobacco Co., New York, N. Y. 665,638, pub. 5–27–58. Cl. 17.
Universal Instrument Co.: *See*—
Adams, Harold K.
VEB Motorradwerk Zschopau, Zschopau, Germany. 665,659, pub. 5–27–58. Cl. 19.
Van Cleef Bros., Inc., Chicago, Ill. 560,448, canc. Cl. 5.
Van Cleef Bros., Inc., Chicago, Ill. 560,449, canc. Cl. 5.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 665,586, pub. 5–27–58. Cl. 6.
Ventura County Fruit Growers, Inc.: *See*—
Daniels, Ward.
Venus Lingerie Co., Inc., New York, N. Y. 356,185, ren. 4–19–58. Cl. 39.
Victor, Sally, Inc., New York, N. Y. 665,787, pub. 5–27–58. Cl. 39.
Video Corp. of America, Wilmington, Del., and New York, N. Y. 560,376, canc. Cl. 21.
Virginia Smelting Co., West Norfolk, Va. 560,619, canc. Cl. 6.
Vlchek Tool Co., The, Cleveland, Ohio. 256,631, canc. Cl. 23.
Vulcan-Hart Mfg. Co., Baltimore, Md. 665,683, pub. 5–27–58. Cl. 23.
Wallace, R., & Sons Mfg. Co., Wallingford, Conn. 665,675, pub. 10–18–55. Cl. 23.
Walrus Mfg. Co., Decatur, Ill. 665,727, pub. 5–27–58. Cl. 32.
Ward Products Corp., The, Cleveland, Ohio. 560,611, canc. Cl. 21.
Warner, Walter R., Jr., Millville, N. J. 665,673, pub. 5–27–58. Cl. 22.
Water Treaters, Inc., St. Paul, Minn., to Automatic Pump & Softener Corp., Rockford, Ill. 560,419, canc. Cl. 31.
Watkins-Strathmore Co., The, from The Strathmore Co., Aurora, Ill. 665,671, pub. 5–27–58. Cl. 22.
Waverly Petroleum Products Co.: *See*—
Johnson-March Corp., The.
Weber and Heilbroner, Inc., New York, N. Y. 665,797, pub. 5–27–58. Cl. 39.
Weco Products Co., Chicago, Ill. 665,851, pub. 5–27–58. Cl. 51.
West Chemical Products, Inc., Long Island City, N. Y. 665,581, pub. 5–27–58. Cl. 6.
Western Foundry Co., Tyler, Tex. 665,617, pub. 5–27–58. Cl. 13.
Western Machinery Co., San Francisco, Calif. 358,388, ren. 7–12–58. Cl. 23.
Western Tomato Growers and Shippers, Inc., Oxnard, Calif. 665,836, pub. 5–27–58. Cl. 46.
Weston Winery: *See*—
Guerrieri, Lewis.
White Cat Products Co., San Francisco, Calif. 560,416, canc. Cl. 4.
White Laboratories, Inc., Newark, N. J. 560,572, canc. Cl. 18.
Whitford Drain Co., Louisville, Ky. 665,609, pub. 5–27–58. Cl. 13.
Wichita Precision Tool Co., Inc., Wichita, Kans. 665,731, pub. 5–27–58. Cl. 32.
Willow Branch Feed and Grain Co., Inc., Willow Branch, Ind. 560,515, canc. Cl. 1.
Wilson Distilling Co., Inc., Bristol, Pa., to Hunter-Wilson Distilling Co., Inc., Louisville, Ky. 361,321, ren. 10–11–58. Cl. 49.
Winthrop Chemical Co., Inc., to Sterling Drug Inc., New York, N. Y. 362,288, ren. 11–15–58. Cl. 18.
Wollman, Everett, d. b. a. Injectorall Co., Brooklyn, N. Y. 665,864, pub. 5–27–58. Cl. 52.
Woolworth, F. W., Co., New York, N. Y. 665,755, pub. 5–27–58. Cl. 37.
Zephyr American Corp., New York, N. Y. 665,751–2, pub. 5–27–58. Cl. 37.
Zone Co., The: *See*—
Southwestern Petroleum Co., The.

U. S. GOVERNMENT PRINTING OFFICE: 0——1958

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PATENTS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Ireland to the London 1934 Revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective May 14, 1958, of Ireland to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

June 11, 1958.

Disclaimer

2,831,988.—*Bernard Ostendorf, Jr.*, Stamford, Conn. TRICOM CIRCUIT. Patent dated Apr. 22, 1958. Disclaimer filed July 11, 1958, by the assignee, *Bell Telephone Laboratories, Incorporated.*

Hereby enters this disclaimer to claim 9 of said patent.

Adverse Decisions in Interferences

In the designated interferences involving the indicated claims of the following patents final decisions have been rendered that the respective patentees were not the first inventors with respect to the claims listed.

Pat. 2,603,983, J. D. Rieser, Self-aligning unimount drive, decided Oct. 31, 1956, Interference No. 86,744, claims 1, 3, and 4.

Pat. 2,635,602, G. N. Hein, Jr., Hypodermic injection apparatus, decided July 9, 1958, Interference No. 89,248, claims 2, 3, 4, 7, and 8.

Pat. 2,653,819, B. Roberts, Magnetic recording system, decided Nov. 14, 1957, Interference No. 86,866, claims 1, 2, 4, 5, 6, 7, and 8.

Pat. 2,708,767, T. K. Young, Transparent electrically conducting unit, decided Nov. 26, 1957, Interference No. 87,488, claims 1 and 3.

Classification Order No. 253

The following class transfer is hereby ordered to take effect on Monday, July 21, 1958:

From Classification Division V to Division 30
Class 62, REFRIGERATION

The reclassification of this class having been completed, the reclassified art is hereby returned to Division 30.

M. C. ROSA,
Director, Patent Examining Operation.

Classification Order No. 254

The following transfers are hereby ordered to take effect on Monday, July 21, 1958:

From Classification Division IV to Division 1
Class 55, HARROWS AND DIGGERS
Class 97, PLOWS

The reclassification of these classes has advanced to a stage at which concurrent examination of applications pending therein is no longer advantageous. Reclassification will continue to completion in Classification Division IV.

M. C. ROSA,
Director, Patent Examining Operation.

Classification Order No. 255

The following class transfer, for concurrent reclassification and examination of applications pending therein, is directed to take effect on Thursday, July 24, 1958:

From Division 49 to Classification Division IV
Class 255, EARTH BORING

M. C. ROSA,
Director, Patent Examining Operation.

New Applications Received During June 1958

Patents	6,860
Designs	485
Plant Pats	10
Reissues	17
Total	7,372

Issue

Patents	1,045	No. 2,847,673 to No.	2,848,717, incl.
Designs	38	No. 183,379 to No.	183,414, incl.
Plant Pats	1	No. 1,743	
Reissues	3	No. 24,520 to No.	24,522, incl.
Total	1,085		

CONDITION OF PATENT APPLICATIONS AS OF JUNE 30, 1958

Total number of pending applications (excluding Designs)		207,166
Total number of pending Design applications		6,832
Total number of applications awaiting action (excluding Designs)		88,714
Total number of Design applications awaiting action		3,312
Date of oldest new application	July	18, 1957
Date of oldest amended application	July	1, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 58, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 68.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 37, 55, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 30, 36, 38, 49, 49, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 33, 36, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 29, 32, 40, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting: Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows	11-12-57	10-28-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	10-11-57	10-4-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	1-2-58	1-6-58
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	10-14-57	10-9-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	10-4-57	9-16-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	11-12-57	11-6-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	10-31-57	11-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-28-57	11-1-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	11-6-57	10-14-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	11-12-57	10-31-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	1-23-58	1-6-58
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	10-2-57	10-3-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-14-57	10-1-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	10-1-57	10-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	10-4-57	10-3-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	10-1-57	10-1-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12-2-57	12-3-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	10-3-57	10-1-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	11-6-57	10-8-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	10-7-57	10-11-57
21. (III) MADER, R. C., Textiles	9-3-57	9-3-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	10-1-57	10-1-57
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	9-7-57	9-6-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	1-2-58	12-30-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	10-3-57	10-17-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-15-57	12-2-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	12-10-57	12-6-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyors; Pressure Modulating Relays; Wheel Substitutes	10-3-57	10-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	10-1-57	7-26-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminuters; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	12-16-57	11-26-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	11-13-57	11-21-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-23-57	10-22-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-25-57	12-30-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	12-2-57	12-3-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	9-7-56	9-6-56
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	9-3-57	9-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	10-18-57	10-1-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	1-6-58	1-10-58
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	1-2-58	1-2-58
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	12-2-57	12-2-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	10-3-57	10-8-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	9-3-57	9-3-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	10-4-57	10-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	10-1-57	10-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	10-17-57	10-8-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	12-4-57	12-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	11-25-57	10-21-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Condensers, Transistors, Barrier Layer Rectifiers	10-4-57	10-1-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Concentrating Evaporators	11-29-57	1-2-58
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber; Synthetic Resins (part) (e. g., Butadiene Polymers and Copolymers, Polyacrylonitriles, Acrylate Polymers and Copolymers)	11-1-57	11-15-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	11-6-57	10-7-57
52. (V) NEFF, P. R., Supports and Racks	10-3-57	10-14-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	1-3-58	1-2-58
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	12-17-57	12-16-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	10-1-57	10-1-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	10-7-57	10-4-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	1-6-58	1-7-58
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	12-10-57	12-3-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	11-4-57	10-4-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part); Miscellaneous Polymers (e. g., Vinyl Polymers); Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	1-16-58	12-13-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	10-1-57	10-1-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	12-11-57	12-9-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	10-4-57	10-7-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	10-1-57	10-2-57
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	9-26-57	9-11-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	10-8-57	10-3-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	12-9-57	12-9-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	11-15-57	11-15-57
CLASS. DIVS. II—LADY, J. E., Oscillators	1-7-58	1-6-58
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	10-1-57	10-1-57
CLASS. DIVS. IV—BERLOWITZ, W., Earth Boring	10-14-57	10-10-57
CLASS. DIVS. V—ANGEL, C. D., Roofs; Scaffolds; Masonry and Concrete Structures	10-4-57	10-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part) i. e., Polyethylenes	7-10-57	7-1-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	11-20-57	1-6-58
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	10-14-57	12-11-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 66 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during August 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents..... Numbers 2,251,258 to 2,254,196, inclusive
Plant Patents..... Numbers 480 to 488, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

TOLLE ET AL. *v.* STARKEY

No. 6339. Decided June 18, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. INTERFERENCES — COMMISSIONER'S NOTICE PUBLISHED APRIL 27, 1954, 681 O. G. 864—APPLICATION CLAIM NOT EXACTLY CORRESPONDING TO COUNT.

Where an interference between a patent and an application was declared under the practice set forth in the Commissioner's Notice published April 27, 1954, 681 O. G. 864, on a count reciting "rubber and synthetic elastomers" as materials and "a temperature of from 150° F.," and the application accordingly did not contain a claim exactly corresponding to the count, but a similar claim which recited only rubber as a material and 250° F. as the temperature, *Held* that the difference was not important since "it is well settled that the party who is the first to invent any species falling within the scope of an interference count is entitled to the award of priority."

2. APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—MATTER BEFORE COURT—ASSIGNMENT OF ERROR LACKING.

"In the brief for appellants it is contended that the interference count is not supported by the disclosure of either of appellee's applications * * *. However, appellants' reasons of appeal do not assign error in the holdings of the Patent Office tribunals that those disclosures support the count and accordingly those holdings cannot be reviewed here."

3. INTERFERENCES — COMMISSIONER'S NOTICE PUBLISHED APRIL 27, 1954, 681 O. G. 864—APPLICATION NEED NOT DISCLOSE BROAD SUBJECT MATTER OF PATENT CLAIM FORMING COUNT.

On consideration of an interference between a patent of appellants and a continuation application of appellee, declared under the practice set forth in the Commissioner's Notice published April 27, 1954, 681 O. G. 864, *Held* that it was not necessary, so far as the question of priority of invention was concerned, that appellee's applications should disclose the broad subject matter of the claim of the patent forming the count of the interference, and that it was "sufficient if those applications disclose the subject matter of the more limited claim on which appellee was included in the interference."

4. SAME — EVIDENCE — ORIGINALITY — FAILURE TO REBUT UNEQUIVOCAL TESTIMONY.

"The failure to rebut unequivocal testimony on the issue of originality raises a strong presumption that it is accurate."

5. SAME—SAME—CORROBORATION—TESTIMONY OF WITNESS AFTER DEATH OF INVENTOR.

"* * *, the rule which requires corroboration of an inventor's testimony does not apply to the testimony of a single witness testifying after the death of the inventor, as to disclosures made to him by the inventor."

6. SAME—ORIGINALITY—EFFECT OF BEING FIRST TO REDUCE TO PRACTICE.

"We are of the opinion, * * *, that the record shows Tolle disclosed no more than the idea of heating the wheels to dry them, and that the idea of heating them to the temperature specified in the count and coating them while hot originated with Starkey and was disclosed by him to Tolle and Ludy. Under these circumstances it is immaterial when or by whom the invention was first reduced to practice, since Tolle and Ludy cannot be regarded as original inventors."

7. SAME—SAME—STIMULATING ANOTHER TO CONCEIVE AN INVENTION.

"* * *, we are of the opinion that, while Tolle's proposal of drying the wheels in an oven prior to coating may have stimulated Starkey's conception of heating them to the temperature set forth in the count and coating them while hot, Tolle's proposal did not involve or suggest the latter idea, and did not constitute Tolle or Ludy an inventor of the invention in issue."

APPEAL from the Patent Office. Serial No. 87,020.

AFFIRMED.

D. C. Staley (*G. L. De Mott* of counsel) for Tolle et al.

Verne A. Trask (*Richard R. Trexler* and *Francis C. Browne* of counsel) for Starkey.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal from the decision of the Patent Office Board of Patent Interferences awarding priority of invention of the subject matter of Interference No. 87,020 to the senior party, William A. Starkey, the appellee here. The invention in issue is a method of coating articles made of rubber or synthetic elastomers and is defined in a single count which is as follows:

In the method of coating a substantially electrically non-conductive article made from a material selected from the class consisting of rubber and synthetic elastomers, which article includes a metal insert therein, with a solvent containing paint, the steps of: heating the article to a temperature of from 150° F. to 250° F., passing the heated article into an electrostatic field of defined character, and simultaneously spraying a solvent containing paint on the article whereby a uniform, strongly adhering coating is obtained.

The count corresponds to claim 1 of Patent No. 2,555,519 granted to appellants, Tolle and Ludy, on June 5, 1951, on an application filed March 11, 1947. Starkey is involved in the interference on his application No. 290,007, filed May 26, 1952, which is a continuation of application No. 689,116, filed August 8, 1946. The Primary Examiner held that the interfering subject matter was disclosed in the last-mentioned application, and made Starkey the senior party, and the Board of Patent Interferences refused to disturb that ruling.

[1] The interference was declared under the practice set forth in the Commissioner's Notice published in 681 O. G. 864, April 27, 1954, because of the fact that Starkey's earlier application disclosed only one material to be coated (rubber) and one temperature (250° F.). Accordingly, Starkey's later application, which is involved in the interference, does not contain a claim exactly corresponding to the count, but a similar claim which recites only rubber as a material to be coated and 250° F. as the temperature to which it is to be heated. That difference, however, is not important here since it is well settled that the party who is the first to invent any species falling within the scope of an interference count is entitled to the award of priority. *Den Beste* v. *Martin*, 45 CCPA (Patents) 798, 252 F.2d 302, 116 USPQ 584, and cases there cited.

[2] In the brief for appellants it is contended that the interference count is not supported by the disclosure of either of appellee's applications above referred to. However, appellants' reasons of appeal do not assign error in the holdings of the Patent Office tribunals that those disclosures support the count and accordingly those holdings cannot be reviewed here. *Reed* v. *Edwards*, 26 CCPA (Patents) 901, 101 F.2d 550, 40 USPQ 620; *Kohl* v. *Wilms*, 36 CCPA (Patents) 1099, 175 F.2d 466, 82 USPQ 173. [3] It may be noted, however, that in view of the peculiar practice under which the instant interference was declared it

is not necessary, so far as the question of priority of invention is concerned, that appellee's applications should disclose the broad subject matter of claim 1 of the Tolle and Ludy patent. It is sufficient if those applications disclose the subject matter of the more limited claim on which appellee was included in the interference.

The issue here involved is one of originality, since it is agreed that the invention was conceived during the course of some experimental work on August 1, 1944, at which only Tolle, Ludy, Starkey and Edwin M. Ransburg, the vice-president of the Ransburg Electro-Coating Corporation, were present. The following facts are not disputed or are clearly established by the evidence of record:

Throughout 1944, Tolle and Ludy were employed by the Inland Division of General Motors Corporation, while Starkey was employed by the Ransburg Electro-Coating Corporation. During the spring of 1944, the Ransburg Company, at the request of General Motors, conducted tests to determine whether it was practicable to coat rubber-covered steering wheels by an electrostatic process corresponding to that covered by the count, except that the wheels were not heated in these tests. On June 21, 1944, Ransburg wrote to General Motors, stating that the results of such tests were not satisfactory but expressing the hope that improvement might be possible and suggesting a conference within a few weeks to discuss the matter further.

On August 1, 1944 Tolle and Ludy visited the Ransburg Company and, together with Starkey and Ransburg, participated in some experiments on electrostatic coating of steering wheels. It is not contended that either party, prior to those experiments, had thought of applying the coating to the wheels while they were at an elevated temperature, which is the essential novel feature of the invention in issue.

During the course of the August 1, 1944 experiments at least one steering wheel was heated and coated. It is agreed that the wheel was placed in an oven for approximately thirty minutes, that the oven temperature was in the vicinity of 250° F. and that the wheel was coated while it was still hot. It is clear, and appears to be agreed by the parties, that the experiment just described establishes a conception of at least one species coming within the terms of the count, and the only point in issue is whether the conception was that of Tolle and Ludy or of Starkey. The only direct evidence as to that matter is the testimony of Tolle, Ludy and Ransburg, Starkey having died prior to the taking of testimony. Since the testimony was given more than ten years after the events to which it relates and is based principally on recollection, it is not surprising that the statements of the witnesses are in some respects vague and contradictory.

Ludy testified that he was present, with Tolle and Ransburg, during the experimental work on August 1, 1944. He did not remember that anyone else was present. He stated that he suggested that the difficulty in coating might be due to moisture on the wheels and that some wheels were put into an oven and preheated, after which they were satisfactorily coated. He thought the suggestion of placing the wheels in the oven was made by Tolle.

Tolle, like Ludy, did not remember that Starkey was present at the experiments on August 1, 1944. He testified that Ludy mentioned the possibility that moisture on the wheels might cause difficulty in coating and that he (Tolle) "suggested we put it in an oven," after which several wheels were placed in an oven for about half an hour and then coated with fairly satisfactory results "but not what we exactly wanted."

Ransburg's testimony as to the events of August 1, 1944 was substantially more detailed than that of Tolle and Ludy. He agreed that the initial suggestion of drying the wheels in an oven prior to coating was made by "the men from Inland," i. e., Tolle and Ludy, but stated that their suggestion was that the wheels be placed in the oven for only a brief period of about one minute, and that when that was done no improvement in the coating was noted. Thereafter, according to Ransburg, Starkey, who was present at the experiments, proposed that the wheels be left in the oven for about thirty minutes, but Tolle and Ludy objected to such a procedure, whereupon Starkey, without telling them, heated a wheel in the oven for thirty minutes and coated it successfully. Ransburg and Starkey then disclosed the result of that test to Dr. Emory P. Miller, the director of research and development of the Ransburg Company, who made a memorandum of it, and, later in the day, Starkey and Ransburg disclosed it to Tolle and Ludy and, in their presence, satisfactorily sprayed a wheel which had been heated for thirty minutes or longer.

It is evident that a wheel left in an oven having a temperature in the neighborhood of 250° F. for only one minute would not be heated to the degree required by the count, and it is therefore necessary to determine whether the idea of continuing the heating for thirty minutes was suggested by appellants or appellee.

From the foregoing summary of the testimony, it will be seen that neither Tolle nor Ludy testified categorically that the suggestion of heating the wheels for thirty minutes originated with them. Ludy did not say how long the wheels were left in the oven, while Tolle, although he testified to a heating period of thirty minutes, did not state that he suggested a period of such duration.

Notwithstanding the uncertainty of their testimony of this important point, neither Tolle nor Ludy saw fit to testify in rebuttal of Ransburg's definite assertion that Starkey made the suggestion of heating for the longer period. Their failure to offer rebuttal testimony under such circumstances as to matters clearly within their knowledge justifies the inference that Ransburg's testimony is correct so far as it relates to matters allegedly taking place in the presence of Tolle and Ludy. [4] The failure to rebut unequivocal testimony on the issue of originality raises a strong presumption that it is accurate. *Winslow* v. *Austin*, 14 App. D. C. 137, 1899 C. D. 301.

Appellants rely on a memorandum prepared by Ludy relative to the experiments of August 1, 1944, and dated August 3, 1944. The existence of that memorandum on or about the date which it bears is satisfactorily established, and it contains the following pertinent statements:

> • • • I [Ludy] suggested that the moisture present in the compound might cause the surface charge since these wheels were recently through our washer. Mr. Tolle suggested that we place one wheel in a nearby oven at 250° F. for thirty

minutes and then test for surface charge. This wheel was completely satisfactory.

Mr. Ransburg expressed some doubt about the moisture present causing the trouble; however, the pre-heating of the wheel seems to be the answer to the problem. It is believed that a shorter bake and a lower temperature would meet with equal results.

Ludy's memorandum, of course, is not under oath, is essentially self-serving in nature and is clearly hearsay, insofar as it might be relied upon to prove the truth of the facts contained therein. Moreover, it is significant that Tolle's testimony showed that he had no definite idea of what a surface charge is or how it could be measured, and clearly indicated that his only reason for suggesting that the wheels be heated was to dry them. It seems extremely unlikely, therefore, that he would have suggested testing for surface charge as stated in the memorandum.

It is also to be noted that the memorandum suggests that a shorter bake and lower temperature "would meet with equal results." This appears to corroborate Ransburg's testimony that Tolle and Ludy were not in favor of a thirty minute heating period. If they had made the original suggestion of that period there is no apparent reason why it should have been emphasized in the memorandum that a shorter period and lower temperature would probably do as well.

We agree with the Board of Patent Interferences that the Ludy memorandum "merely sets forth the results of a coalescence of ideas developed by both parties at the meeting" and that it affords no substantial evidence that Tolle suggested the thirty minute heating period.

Appellants contend that Ransburg's testimony as to Starkey's suggestion of heating for thirty minutes is not corroborated and therefore cannot be accepted as sufficient. However, as pointed out in *Snead & Co. Iron Works* v. *Behn*, 55 App. D. C. 275 (1925), 4 F.2d 942, [5] the rule which requires corroboration of an inventor's testimony does not apply to the testimony of a single witness testifying after the death of the inventor, as to disclosures made to him by the inventor. Moreover, as above pointed out, Ransburg's testimony is considerably strengthened by the failure of appellants to testify in rebuttal.

[6] We are of the opinion, as was the Board of Patent Interferences, that the record shows that Tolle disclosed no more than the idea of heating the wheels to dry them, and that the idea of heating them to the temperature specified in the count and coating them while hot originated with Starkey and was disclosed by him to Tolle and Ludy. Under these circumstances it is immaterial when or by whom the invention was first reduced to practice, since Tolle and Ludy cannot be regarded as original inventors.

Appellants contend, however, that since the initial suggestion of heating was admittedly made by Tolle, and that suggestion was the "spark" which led to the final satisfactory result, Starkey could not properly be regarded as the first inventor of the subject matter of the count even if he was the first to suggest the thirty minute heating period. That contention would have substantial merit if the initial suggestion left nothing to be done but the experimental determination of the optimum temperature, but that is by no means the case.

Tolle's idea was merely to dry the wheels, and it seems to have been no part of his conception that they should be heated to any particular temperature or that they should be coated while heated, as required by the count. Accordingly, one following his idea would not have been led to heat the wheels to the temperature specified in the count, nor would he have considered it essential to coat them while heated. The temperature would have been considered immaterial, so long as the wheels were dry.

It follows that Tolle's idea lacked the essential feature which give vitality to the count, namely, that the wheels must be at a particular elevated temperature when they are coated. We agree with the Board of Patent Interferences that the last mentioned feature was suggested by Starkey and that he is, therefore, the original inventor of the subject matter in issue.

It may be noted that the situation here presented is quite similar to that in *O'Donnell* v. *Hartt*, 22 CCPA (Patents) 958, 75 F.2d 195, 24 USPQ 379. The invention in issue in that case was a method of securing a binding coated with meltable adhesive, which involved blowing a hot gas against the coated surface. It was held that O'Donnell was the first inventor even though Hartt had suggested to him the broad idea of heating the coated surface with hot gas, since the conception of *blowing* a hot gas against the surface originated with O'Donnell. The court found that O'Donnell must have received from Hartt at least "a stimulation for further experimentation in the application of hot air or hot gas to the adhesive material," but did not consider that stimulation and the disclosure of the basic concept of heating with gas to be enough to constitute Hartt the original inventor of a claim calling for a particular method of heating with gas.

[7] Similarly, in the instant case, we are of the opinion that, while Tolle's proposal of drying the wheels in an oven prior to coating may have stimulated Starkey's conception of heating them to the temperature set forth in the count and coating them while hot, Tolle's proposal did not involve or suggest the latter idea, and did not constitute Tolle or Ludy an inventor of the invention in issue.

The decision of the Board of Patent Interferences is accordingly affirmed.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

IN RE RUBIN ET AL.

No. 6356. Decided June 18, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—INVENTION—PURE HYDROGEN AS A REDUCING GAS—MINIMUM CONTACT TIME AND TEMPERATURE FOR REACTION.

Where appellant's claim, to a method of reducing iron oxide comprising suspending finely divided iron oxide in an upwardly flowing reducing gas consisting of hydrogen for a certain minimum contact time and at a certain minimum temperature, was rejected on a Lewis patent disclosing the use of some air with hydrogen, the heating of iron oxide "for a sufficient period of time" to completely reduce it, and a minimum temperature set at "that necessary to support the reaction between hydrogen and iron oxide," *Held* that "the fact that Lewis suggests adding a small amount of air to cause combustion of the hydrogen to maintain the desired temperature does not render appellants' reducing gas patentably different from Lewis'" and *Held* that the "selection of minimum temperature and contact time is clearly within the purview of the skilled artisan."

2. SAME—SAME—"PSEUDO-LIQUID DENSE PHASE" CONDITION AS A LIMITATION.

"* * * even if we were to assume that a 'pseudo-liquid dense phase' condition included only a system wherein there was no net movement of the particles, this limitation alone is not sufficient to patentably define over Lewis. True, * * *, Lewis discloses a circulating system (the same system originally disclosed by appellants as an alternative system, but which has since been canceled from their specification) and it also might be argued that Lewis' particles are *dispersed* whereas appellants' are in a *dense phase* condition. These differences alone, however, mean little as far as the appealed claims are concerned. Both systems are recognized as 'fluidized' in the art; in both the particles assume a pseudo-liquid state and the system resembles a boiling liquid. Appellants have pointed to no difference between the two systems upon which patentability can be predicated. Indeed, Lewis refers to his system as 'fairly dense,' which would seem to bring the two systems closer together. The fact that in one system there is net movement of the particles, whereas in the other, there is no net movement also means little as far as this case is concerned."

3. SAME—SAME—EXPERIMENTING WITH PROCESS OF REFERENCE.

"* * * claim 25 was properly rejected by the Board over Lewis. For purposes of this case we will accept as true appellants' contentions that 950° F. is a critical temperature above which their process will not work due to defluidization. * * *. * * * we are of the opinion that one using the Lewis process or appellants' process (which we have said is not substantially different from Lewis' process) would know exactly what to do if defluidization took place. Throughout the prosecution of this case, it seems to have been taken for granted that the defluidization takes place due to sintering of the particles so that agglomerates are formed which are larger than can be practicably fluidized. * * *. If it is sintering or 'sticking' together of the particles that cause defluidization (and the skilled artisan would experience no difficulty in determining that the particles had sintered or stuck together), it is difficult to conclude other than that the operator of the process would be forced to the conclusion that, if fluidization is to be effected, the reducing temperature must be lowered. * * *. The only limitation on the lowering of the reduction temperature would be the reaction temperature of hydrogen and iron oxide. It would certainly not involve invention for one to experiment by reducing the temperature to such a point that defluidization would cease, with the reduction of iron oxide still taking place."

4. SAME—REFERENCE—ASSUMING ATMOSPHERIC PRESSURE WHEN NONE SPECIFIED.

"Claim 28 * * * merely states that the process is carried out at a pressure below 100 p. s. i. Lewis says nothing about the pressure used in his process and we assume that one following the Lewis teachings would work at atmospheric pressure or the like. No invention resides in this limitation."

5. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—MOTION TO STRIKE PORTIONS OF BRIEF DEFERRED—MOTION MOOT AFTER DECISION.

"Before oral argument of this case, appellants filed a motion to strike portions of the brief for the Commissioner on the ground that they contained arguments relating to grounds of rejection and references not considered by either the Board or the Examiner. We deferred decision on this motion due to the fact that it would have required consideration of many of the same matters which would have had to be considered to reach a decision on the merits of the case. Since we have found it unnecessary to rely upon any of the matter to which the motion is directed, the questions presented by the motion are moot and do not require our consideration."

6. PATENTABILITY—PARTICULAR SUBJECT MATTER—METHOD OF REDUCING IRON OXIDE.

Claims to a method of reducing iron oxide by means of a fluidized bed process *Held* unpatentable over the cited prior art.

APPEAL from the Patent Office. Serial No. 91,186.

AFFIRMED.

E. F. Hiebrecht and *G. H. Palmer* (*Cruzan Alexander* of counsel) for Louis C. Rubin and Henry G. McGrath.

Clarence W. Moore (*J. Schimmel* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal from a decision of the Patent Office Board of Appeals affirming the Examiner's rejection of claims 25, 27, 28, 33 and 35 of appellants' application No. 91,186, filed May 3, 1949, for "Synthesis of Organic Compounds." The rejection was twofold: unpatentability over the prior art, and double patenting.

Claim 25 is representative of the appealed claims and reads as follows:

A method for reducing an iron oxide which comprises suspending a quantity of finely divided iron oxide in an upwardly flowing reducing gas consisting of hydrogen in a pseudo-liquid dense phase condition at a temperature and for a sufficient length of time of at least 5 hours to cause substantial reduction of iron oxide to elementary iron and maintaining the temperature of contact between reducing gas and finely divided iron oxide above about 550° F. but not substantially higher than 950° F. at substantially all times.

Appellants' alleged invention relates to a method of reducing iron oxide either completely or partially to elemental iron by means of a fluidized bed process. Iron oxide to be treated is ground into finely divided form and charged into a reactor. A heated reducing gas, consisting essentially of hydrogen, is blown up into the reactor at a velocity great enough to suspend the finely divided particles in the reactor and to cause them to assume a condition which may be described as "pseudo-liquid," since the mass exhibits many of the properties of a true liquid, particularly as to flowability and density. The heating temperatures employed vary, depending upon the alkali content of the oxide, the application as filed indicating that under no circumstances may the temperature exceed 1050° F. As originally filed, the application indicated that either of two fluidized processes could be employed to produce the desired result, one wherein the finely divided oxide particles are in a "pseudo-liquid dense phase" condition and the other in which they are in a highly dispersed condition. In the former, there is no net movement of the particles in the reactor, the gas being injected at a velocity only sufficient to suspend them therein. In the latter, the reducing gas is injected at a sufficiently high velocity so that the particles continuously move in the direction of flow of the gases out through the top of the reactor, said particles eventually being recycled to the reactor.

The references relied upon are:[1]

Lewis, 2,343,780, March 7, 1944.

McGrath et al., 2,671,765, March 9, 1954.

The Lewis patent refers to a method of recovery of elemental metals from their ores, such as iron from iron ore. In essence, the method involves the suspension of the powdered ore in a flowing stream of reducing gas rich in free hydrogen "in such a way that the mixture presents the appearance of a boiling liquid." The patentee alternately refers to the condition of the mixture as a "substantially uniform dis-

[1] Two other references were relied upon by the Board in its rejection of claims 29 through 32. Appellants did not appeal from that rejection, however, and it is unnecessary, therefore, to discuss these references.

persion" and a "fairly dense suspension." The reducing temperature is disclosed as "in the neighborhood of 700° C., and in any event below that temperature at which iron assumes a plastic state." The minimum temperature is disclosed as "that necessary to support the reaction between hydrogen and iron oxide." The embodiment disclosed by Lewis is apparently similar to the second embodiment of appellants in that the ore moves slowly along with the gas and out of the reactor, it eventually being recycled to said reactor.

The McGrath et al. patent is appellants' own, and was applied against all the claims on appeal in the Board's double patenting rejection. In the view we take of the case, however, it will be unnecessary to discuss either the McGrath et al. patent or the Board's double patenting rejection.

The Board was of the opinion that Lewis discloses substantially the same process as that claimed by appellants and that the only limitations in the claims which are not substantially anticipated by Lewis are those directed to the reduction time and temperature. It regarded the former as a matter within the ken of a skilled artisan. As to the temperature limitations in the claims, the Board stated:

> * * * if it is found that when the reduction temperature is raised to 1300° F.[2] the charge becomes defluidized, it involves no invention to carry out the reduction at the lower temperature. This is particularly true in view of the fact that while Lewis indicated that a temperature "in the neighborhood of 700° C." may be used, he stated that in any event the temperature should be "below the temperature at which iron assumes a plastic state." We are of the opinion that this statement constitutes ample indication to a metallurgist that the temperature should not be raised to a point at which the iron becomes sintered and agglomerated because this condition arises only after the iron is heated to a sufficient degree to become somewhat fused at the surface and is, therefore, in the plastic state at least at its surface. * * *

The Board found no patentable significance in the other limitations of the appealed claims.

Appellants' arguments will be set forth as each claim on appeal is discussed.

With respect to claim 25, appellants argue that the following limitations are not shown by Lewis:

(1) A reducing gas *consisting* of hydrogen (they claim Lewis discloses a mixture of hydrogen and air);

(2) A minimum contact time of 5 hours (they claim that Lewis says nothing about minimum contact time);

(3) A minimum temperature of about 550° F.;

(4) The maintenance of a "pseudo-liquid dense phase" condition (they claim that Lewis discloses a dispersed system only); and

(5) A maximum temperature of 950° F. (they claim that Lewis discloses a temperature of 700° C. [or about 1300° F.] or, in any event, a temperature below the *melting* point of iron).

As to the first, second and third contentions, little need be said. [1] Both appellants and Lewis use hydrogen gas to reduce the iron oxide and the fact that Lewis suggests adding a small amount of air to cause combustion of the hydrogen to maintain the desired temperature does not render appellants' reducing gas patentably different from Lewis'. Appellants themselves suggest mixing other gases, such as methane and recycle gas, with their hydrogen. The selection of minimum temperature and contact time is clearly within the purview of the skilled artisan. Lewis heats his oxide "for a sufficient period of time" to completely reduce it and sets a minimum temperature at "that necessary to support the reaction between hydrogen and iron oxide."

[2] As to the fourth contention, even if we were to assume that a "pseudo-liquid dense phase" condition included only a system wherein there was no net movement of the particles, this limitation alone is not sufficient to patentably define over Lewis. True, as appellants point out, Lewis discloses a circulating system (the same system originally disclosed by appellants as an alternative system, but which has since been canceled from their specification) and it also might be argued that Lewis' particles are *dispersed* whereas appellants' are in a *dense phase* condition. These differences alone, however, mean little as far as the appealed claims are concerned. Both systems are recognized as "fluidized" in the art; in both the particles assume a pseudo-liquid state and the system resembles a boiling liquid. Appellants have pointed to no difference between the two systems upon which patentability can be predicated. Indeed, Lewis refers to his system as "fairly dense," which would seem to bring the two systems closer together. The fact that in one system there is net movement of the particles, whereas in the other, there is no net movement also means little as far as this case is concerned.

The gravamen of the case, however, resides in the argument found in appellants' fifth point of difference. Appellants urge that there is a critical maximum temperature above which their system becomes defluidized; that this temperature is 950° F. with iron oxide containing less than 0.8 weight percent alkali and 850° F. with iron oxide containing more than 0.8 percent alkali; and that Lewis suggests a temperature in the neighborhood of 700° C. (approximately 1300° F.) or in any event "below that temperature at which iron assumes a plastic state." Appellants point to Lewis' alternative use of the terms "plastic state" and "melting point" in his claims and urge that this indicates that Lewis was really concerned with the melting point of iron, which is above 2000° F., when he spoke of "plastic state." Appellants have introduced into the record two affidavits which describe test reduction runs on iron oxide and which state that 950° F. is a maximum critical temperature beyond which defluidization takes place.

[3] We are of the opinion that, notwithstanding appellants' arguments to the contrary, claim 25 was properly rejected by the Board over Lewis. For purposes of this case we will accept as true appellants' contentions that 950° F. is a critical temperature above which their process will not work due to defluidization. We feel, however, that appellants' solution to the defluidization problem is either suggested by Lewis or, at the least, would be obvious to the skilled artisan based upon the Lewis disclosure. It is true, as appellants argue, that Lewis' reference to the "plastic temperature" of iron is not entirely clear, since Lewis uses that term and the phrase "melting point" interchangeably. It is difficult to understand, however, how anyone skilled in the art could possibly conclude that what Lewis is referring to is the point at which iron *actually melts* (which is in excess of 2000° F.); it

[2] This is the approximate Fahrenheit equivalent of the 700° C. figure suggested by Lewis.

would seem more reasonable, in the context of things, to conclude that Lewis was referring to the temperature at which the *surface* of the particles became "melted" or—put another way—became "plastic" so that *sticking* of the particles to one another, or *agglomeration*, would occur. But even assuming that this is not the case, we are of the opinion that one using the Lewis process or appellants' process (which we have said is not substantially different from Lewis' process) would know exactly what to do if defluidization took place. Throughout the prosecution of this case, it seems to have been taken for granted that the defluidization takes place due to sintering of the particles so that agglomerates are formed which are larger than can be practicably fluidized. Indeed, the affidavit of Smith states specifically that at temperatures above the critical temperature, "sticking of the catalyst" takes place. If it is sintering or "sticking" together of the particles that causes the defluidization (and the skilled artisan would experience no difficulty in determining that the particles had sintered or stuck together), it is difficult to conclude other than that the operator of the process would be forced to the conclusion that, if fluidization is to be effected, the reducing temperature must be lowered. For it is only when the temperature is too high that sintering will take place. The only limitation on the lowering of the reduction temperature would be the reaction temperature of hydrogen and iron oxide. It would certainly not involve invention for one to experiment by reducing the temperature to such a point that defluidization would cease, with the reduction of iron oxide still taking place. In our opinion, this is all that appellants have done.

Claim 27 differs in substance from claim 25 only in that the iron oxide is recited as containing alkali and it is specifically stated that the particles "remain resident" in the reduction zone. As indicated in connection with claim 25, where we assumed that "pseudo-liquid dense phase" meant that there was no net movement of the particles (viz., that the particles "remained resident" in the reduction zone), there is no patentable significance to the latter limitation. As to the inclusion of alkali in the iron oxide, the most that can be said is that alkali might lower the maximum temperature of reduction. If such were the case, the situation would not differ materially from that in connection with claim 25. One skilled in the art would nonetheless experiment by lowering the temperature of reduction if defluidization took place.

[4] Claim 28 depends from claim 27 and merely states that the process is carried out at a pressure below 100 p. s. i. Lewis says nothing about the pressure used in his process and we assume that one following the Lewis teachings would work at atmospheric pressure or the like. No invention resides in this limitation.

Claim 33 differs from claim 25 in that it adds the limitation that the maximum reducing temperature is between 850° and 950° F., "the higher temperature within said range of 850 to 950° F. being used with iron oxide containing less than 0.8 weight percent alkali and the lower temperature being used with iron oxide containing more than 0.8 weight percent alkali." As disclosed by appellants in their specification, the alkali reduces the incipient fusion temperature of the fluidized particles. While the limitations as to the presence of alkali are more specific in this claim than in claim 27, the reasoning used with respect to that claim applies with equal force here. Regardless of whether the skilled worker recognized that the alkali caused the defluidization at the lower temperature, he would nonetheless be spurred into experimenting with lower temperatures and would arrive at the results obtained by appellants.

Claim 35 differs from claim 25 in substance in the following particulars:

(1) the material to be treated is recited as "consisting *principally* of iron oxide" [emphasis added];

(2) said material contains less than 0.8 weight percent alkali;

(3) there is substantially no net movement of the particles;

(4) the minimum temperature is 650° F.; and

(5) the quantity of reducing gas used is recited as at least 2 standard cubic feet per hour per pound of iron.

The second and third differences have already been treated in connection with our consideration of claims 33 and 27, respectively. The first distinction has no significance since Lewis specifically discloses the use of iron oxide and his process would obviously be as applicable where the ore used contained much or little of the oxide. The fourth distinction is without significance, as well (see our discussion of appellants' third contention with respect to claim 25). The fifth difference is patently without patentable significance as it involves merely a matter of choice and proper coordination of the reaction conditions.

For the foregoing reasons, we agree with the Board that the appellants' claims are not patentable over Lewis. In light of our conclusion, it is unnecessary to review the Board's decision on the double patenting rejection.

It is necessary, however, to consider one additional matter. [5] Before oral argument of this case, appellants filed a motion to strike portions of the brief for the Commissioner on the ground that they contained arguments relating to grounds of rejection and references not considered by either the Board or the Examiner. We deferred decision on this motion due to the fact that it would have required consideration of many of the same matters which would have had to be considered to reach a decision on the merits of the case. Since we have found it unnecessary to rely upon any of the matter to which the motion is directed, the questions presented by the motion are moot and do not require our consideration.

[6] For the foregoing reasons, the decision of the Board of Appeals is affirmed.

AFFIRMED.

JACKSON, *J.*, retired, recalled to participate, was present at the argument of this appeal, but did not participate in the decision.

U. S. Court of Customs and Patent Appeals

IN RE VAN ORMER

No. 6364. Decided June 18, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—CRITICALITY—BROAD RANGE OF VALUES RECITED.

With regard to a limitation that a contact wheel for supporting an abrading belt against a workpiece have diagonal lands "disposed at an angle of from about 10° to 85° from the axial direction of said contact wheel," *Held* that the "broad range of 10° to 85° indicates a lack of criticality in the particular angle of displacement which, * * *, would be a matter of routine experimentation for the skilled artisan."

2. SAME—OBVIOUSLY DESIRABLE CHARACTERISTIC.

A limitation that serrations, on a contact wheel for supporting a flexible abrading element, are "of such size and depth as to increase materially the cutting action of the flexible abrading element" *Held* without patentable significance and aptly characterized "as the 'unbased comparative,' for there is no indication as to what the datum is from which the increase will be measured," and *Held* that it would be an obviously desirable characteristic of any contact wheel similar to applicant's and cannot serve to distinguish from a reference patent to McVey.

3. SAME—EQUIVALENCY—LANDS AND GROOVES, AND BARS.

"Appellant argues that McVey does not show a 'land and groove' structure, but rather shows elements (the bars) which 'are *completely spaced from each other* and, instead of there being a *groove* between the elements, there is a complete void extending downwardly to the hub of the wheel.' * * *. In our opinion, this is a distinction without a difference. True, McVey's 'voids' are not, technically speaking, 'grooves.' It would appear, however, that the bars of McVey are fully equivalent to the 'lands' of applicant and that McVey's voids correspond to applicant's grooves. We have been shown no reason why they should not be treated as equivalents."

4. SAME—APPARATUS—DIRECTION OF ROTATION OF WHEEL OF REFERENCE IMMATERIAL.

In regard to an argument that a McVey reference patent did not state in which direction a contact wheel for an abrading belt rotated, *Held* that "it is immaterial in which direction McVey's wheel rotates, since what is involved here is not a method claim but an apparatus claim which is not limited as to the direction of rotation."

5. SAME—AFFIDAVITS—SHOWING SUPERIORITY OVER REFERENCE NOT RELIED ON TO SHOW ESSENCE OF ALLEGED INVENTION.

Applicant's affidavit purporting to demonstrate that his device is superior to that of a reference patent *Held* to serve no useful purpose, since the patent had not been relied upon to show the basic land and groove arrangement which is the essence of applicant's alleged invention.

6. SAME—SAME—LACK OF COMPARISON WITH DEVICE OF REFERENCE.

An affidavit, setting "forth results of comparisons with 'various competitive products,' 'competitive prior art devices,' 'a standard serrated wheel of the prior art,' 'competitive wheels of the type heretofore commonly considered as most suitable for certain types of cutting operations,' etc.," *Held* insufficient to show any superiority over the device of a specific reference patent.

7. SAME—CRITICALITY—CONDITIONS UNDER WHICH RECITED RANGE WAS USED NOT RECITED.

"Claim 47 differs from claim 46 only in that the angle of the lands and grooves is set forth as 45° to 60° instead of 10° to 85°. The Board was of the opinion that the angularity of Herchenrider's grooves was within the range recited in this claim. The Solicitor additionally argues that the restricted range of 45° to 60° is non-critical in view of applicant's disclosure that such a range is used where the wheels are of a certain durometer hardness. Since the claims contain no limitations as to hardness, it is argued that the restricted range is not critical. We are of the opinion that both the foregoing arguments are well taken and accordingly affirm the rejection of this claim."

8. SAME—SAME—APPLICATION INDICATING LACK OF CRITICALITY.

"Claim 48 is identical to claim 46 except for the additional limitation that the ratio of land area to groove area at the extreme periphery of the wheel is 'around 1 : 4.' Since applicant's own disclosure indicates the lack of criticality in the ratio of land to groove area, and since McVey expressly refers to the increase in 'striking' effect with an increase in the 'spacing' between the bars, this limitation is not deemed to define patentably over McVey."

9. SAME—PARTICULAR SUBJECT MATTER—ABRADING MACHINE.

The rejection of claims to an abrading machine as unpatentable over the cited prior art is affirmed.

APPEAL from the Patent Office. Serial No. 238,712.

AFFIRMED.

William H. Webb (*Donald A. Gardiner* of counsel) for Van Ormer.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal from a decision of the Patent Office Board of Appeals rejecting as unpatentable over the prior art claims 46 through 49 and 52 through 54, in appellant's application No. 238,712, filed July 26, 1951, for "Supporting Devices for Coated Abrasive Products." Claims 50, 51, 55 and 56 were withdrawn from further consideration as not readable on the elected species and are thus not before us on this appeal.

Claim 46 is illustrative of the appealed claims and reads as follows:

46. In an abrading machine, the combination of a flexible abrading element of the coated abrasive belt type, a contact wheel for supporting the abrading element against a workpiece brought into contact with the abrading element, said contact wheel having a monolithic rim structure embodying therein a serrated peripheral supporting surface comprising a plurality of axially diagonal lands and grooves disposed at an angle of from about 10° to 85° from the axial direction of said contact wheel, each of said lands having in lateral cross-sectional relief a steeply pitched leading side face and a more gradually sloped trailing face, said serrations being of such size and depth as to increase materially the cutting action of the flexible abrading element, and means for supporting and moving the flexible abrading element over the rim of the contact wheel in contact with said serrated peripheral supporting surface.

The appealed claims are directed to the combination, in an abrading machine, of a flexible abrading element, a contact wheel for supporting the abrading element against the workpiece to be abraded and a means for supporting and moving the flexible abrading element over the contact wheel. The essence of applicant's alleged invention resides in the specific structure of the contact wheel. Broadly speaking, applicant's contact wheel resembles a gear, with teeth referred to by applicant as "lands" and the spaces between the "lands" being referred to as "grooves." The "lands" and "grooves" are diagonally disposed to the axis of the wheel at an angle of from 10° to 85°. In cross section, the "lands" have a "steeply pitched leading side face and a more gradually sloped trailing face," or "a rake angle[1] of 0° to 15°" and "a clearance angle[2] of 10° to 85°." In one embodiment, the rim of the wheel is constructed of yieldable material, such as rubber. The specification indicates

[1] The "rake" angle is described by applicant as the angle between the leading side of a "land" and the radial line of the wheel.

[2] The "clearance" angle is described as the angle between the line of the trailing face of a "land" and a line tangential to the periphery of the wheel.

that various ratios of land to groove area may be used, ranging from "somewhat under 1:1 to an extreme condition under which the land is of practically zero or line width at the peripheral face of the land." The rim structure of applicant's contact wheel is described in each of the appealed claims as "monolithic."[1]

The references relied upon are:

Herchenrider, 2,162,279, June 13, 1939.
McVey, 2,581,270, January 1, 1952.
Ross, 431,997, July 8, 1890.

McVey discloses the same general system as does applicant, viz—the combination, in an abrading machine, of a flexible abrading element, a contact wheel for supporting the abrading element against the workpiece to be abraded and a means for supporting and moving the flexible abrading element over the contact wheel. McVey's contact wheel consists of a centrally disposed hub with a circular plate bolted to each side of the hub (to serve as the sides of the wheel). A plurality of axially disposed back-up bars are removably inserted between the plates around the periphery thereof. Each bar consists of a hard metal core with a resilient covering, such as rubber or plastic. Each bar is rectangular in cross-section except for one of the short sides which is shown in the drawings as being beveled for about two-thirds of its length at an angle of approximately 10°–15°. In at least one embodiment, the edge containing the beveled surface is the portion of the bar which extends beyond the periphery of the wheel and which comes in contact with the flexible abrading element. McVey discloses that the spaces between the bars may be varied but that "a more definite striking, or saw-tooth, action" is obtained by increasing the space between the bars. McVey states that the bars may be axially disposed or may be helically disposed [the latter embodiment serves to prevent "chattering" of the flexible abrasive belt].

Both Ross and Herchenrider disclose contact wheel structures. Each was cited generally by the Examiner to show a contact wheel with a "monolithic" rim structure. The Board additionally referred to Ross and Herchenrider as showing the angled relationship of the teeth or "lands" to the axis of the wheel within the range specified in applicant's claims.

Each of the claims on appeal was rejected as unpatentable over McVey in view of Ross or Herchenrider and, alternatively, as unpatentable over Ross or Herchenrider in view of McVey. It was the Board's and the Examiner's opinion that, except for the "monolithic" rim structure, the structure defined in each of the claims is shown by McVey. Ross and Herchenrider were applied to show such a "monolithic" rim structure.

Applicant urges that the decision of the Board is erroneous in numerous particulars. The most significant of these appears to be the argument that each of applicant's claims recites "a steeply pitched leading side face and a more gradually sloped trailing face" whereas McVey is said to have steeply pitched leading side and trailing faces with only the *top* of each of McVey's bars sloping. Two affidavits have been introduced into the record in an attempt to demonstrate the advantage of applicant's device over prior art devices.

For the reasons to follow, we are of the opinion that the Board's decision was correct and must be affirmed.

Since all of the claims are basically modifications of claim 46, we will discuss that claim first. There is no question but that McVey discloses the general combination claimed. And though McVey does not disclose a "monolithic" structure, it would be obvious, in view of Ross or Herchenrider, to use an integral structure in lieu of McVey's adjustable structure if such were desired.

McVey does not specify the specific angle at which his bars are disposed relative to the axis of the wheel (in the helical embodiment). He does state that the purpose of the axial displacement is to prevent chattering, which appears to be the same purpose for which applicant displaces his "lands." Not only has applicant stated in his specification and through counsel at oral argument that such angular displacement is conventional, but Ross and Herchenrider would seem to be additional testimony to this fact. [1] The broad range of 10° to 85° indicates a lack of criticality in the particular angle of displacement which, we think, would be a matter of routine experimentation for the skilled artisan.

[2] The limitation in claim 46 that the serrations are "of such size and depth as to increase materially the cutting action of the flexible abrading element" is manifestly without patentable significance. The Solicitor aptly characterized this phrase as the "unbased comparative," for there is no indication as to what the datum is from which the increase will be measured. Furthermore, it would seem to be an obviously desirable characteristic of any contact wheel similar to applicant's or McVey's and therefore cannot serve to distinguish from McVey. *In re Jewett et al.*, 45 CCPA (Patents) 714, 247 F.2d 953, 115 USPQ 184.

[3] Appellant argues that McVey does not show a "land and groove" structure, but rather shows elements (the bars) which "are *completely spaced from each other* and, instead of there being a *groove* between the elements, there is a complete void extending downwardly to the hub of the wheel." [Emphasis quoted.] In our opinion, this is a distinction without a difference. True, McVey's "voids" are not, technically speaking, "grooves." It would appear, however, that the bars of McVey are fully equivalent to the "lands" of applicant and that McVey's voids correspond to applicant's grooves. We have been shown no reason why they should not be treated as equivalents. They do the same thing in the same way and, as far as we can determine from the record, produce the same result (setting aside, for the moment, the effect of the particular configuration of the lands and grooves).

The essence of applicant's case resides in his last argument. As aforesaid, he argues that McVey doesn't show the "steeply pitched leading side face and a more gradually sloped trailing face" of his bars, a limitation present in each of applicant's claims; that McVey has a steeply pitched trailing face, at 90° to the horizontal; and that the fact that McVey slopes the *top surface* of his bars is immaterial to the instant case. He further argues to the effect that even if the sloped

[1] Throughout the prosecution of this case, applicant has referred to his rim structure as "monolithic." It is obvious that applicant does not intend this word to be defined literally (monolithic is the adjective form of the noun "monolith," which literally means "a single stone") but rather, intends it to be synonymous with "integral." We have, for purposes of this appeal, used it in the latter sense.

surface is treated as a side (rather than the top), McVey does not state in which direction his wheel rotates and therefore there is no indication of whether the "leading side face" or the "trailing face" will be steeply pitched.

[4] Taking the second argument first, it is immaterial in which direction McVey's wheel rotates, since what is involved here is not a method claim but an apparatus claim which is not limited as to the direction of rotation. If, in fact, McVey has the equivalent of a steep face and gradually sloping face, this is sufficient for purposes of this case. Be this as it may, McVey's disclosure clearly indicates that the third of the "top" edge which is not beveled is adjacent the leading face. Note the references in the disclosure to "the cutting area 24" and to the fact that an "intermittent *striking*, or saw-tooth, action" is effected. It is doubtful if a "striking" action could be effected if the sloping surface were on the leading side of the bar.

As to the first argument, it will be noted from Figure 6 of McVey that what applicant refers to as the "top" surface of the bar actually consists of a horizontally disposed portion extending for one-third of the distance and a beveled portion extending the other two-thirds of the distance. From Figures 2 and 3 (especially the latter) it may be seen that only approximately one-fifth, if that much, of the vertical extent of the bar is exposed beyond the periphery of McVey's wheel. The full effect of this is that the trailing edge of the sloping portion almost merges with the periphery of the wheel, leaving virtually no "steep" (or 90°) trailing side exposed. When this is compared to Figure 5 of applicant, it will be seen that there is little difference between the two.

But were we to assume that so long as even the slightest portion of the trailing vertical side of McVey were exposed applicant's claims would not read literally on the McVey device, our conclusion would be the same. The reason for this is that there is nothing in the record to indicate that the elimination of this portion of the side [4] would result in new or unexpected results. The affidavits introduced by applicant are insufficient for this purpose. The first affidavit, applicant's own, merely purports to demonstrate that applicant's device is superior to that of Ross. Since Ross has been relied upon not to show the basic land and groove arrangement which is the essence of applicant's alleged invention, but only to show a "monolithic" contact wheel, [5] this affidavit can serve no useful purpose here. The second affidavit, that of Seward, does not purport to show that applicant's device is superior to that shown by McVey. On the contrary, this affidavit sets forth results of comparisons with "various competitive products," "competitive prior art devices," "a standard serrated wheel of the prior art," "competitive wheels of the type heretofore commonly considered as most suitable for certain types of cutting operations," etc. [6] Clearly, this affidavit is insufficient to show any superiority over the device of McVey. The rejection of claim 46 is accordingly affirmed.

Since claim 53 is broader than claim 46, it is rejected for the reasons set forth above.

[4] Were this portion eliminated, the McVey bars and voids would be the full equivalent of an embodiment such as that shown in Figure 5 of applicant.

[7] Claim 47 differs from claim 46 only in that the angle of the lands and grooves is set forth as 45° to 60° instead of 10° to 85°. The Board was of the opinion that the angularity of Herchenrider's grooves was within the range recited in this claim. The Solicitor additionally argues that the restricted range of 45° to 60° is non-critical in view of applicant's disclosure that such a range is used where the wheels are of a certain durometer hardness. Since the claims contain no limitations as to hardness, it is argued that the restricted range is not critical. We are of the opinion that both the foregoing arguments are well taken and accordingly affirm the rejection of this claim.

Since claim 54 is broader than claim 47, it is rejected for the reasons set forth in our discussion of that claim.

[8] Claim 48 is identical to claim 46 except for the additional limitation that the ratio of land area to groove area at the extreme periphery of the wheel is "around 1:4." Since applicant's own disclosure indicates the lack of criticality in the ratio of land to groove area,[5] and since McVey expressly refers to the increase in "striking" effect with an increase in the "spacing" between the bars, this limitation is not deemed to define patentably over McVey. At best, the specific spacing used would seem to be a mere matter of choice.

Claim 49 does not differ from claim 46 except for the additional limitation that each land has a "rake" angle of 0° to 15° and a "clearance" angle of 10° to 85°. McVey shows a rake angle of 0°, and, as we have construed McVey's disclosure,[6] shows a "clearance" angle of what would seem to be approximately 10° to 15°. In any event, it has not been shown, that the specific "clearance" angle is critical. The rejection of claim 49 is accordingly affirmed.

Claim 52 adds to claim 46 the limitation that the monolithic rim structure is "of yieldable material." This limitation is clearly met by McVey, who describes his bars as having "a resilient covering."

[9] For the foregoing reasons, the rejection of all the claims on appeal is affirmed.

AFFIRMED.

RICH, *J.* (concurring):

In spite of the apparent showing of the affidavits that appellant has acquired a certain degree of technical wisdom about how to improve abrasive belt backup wheel performance, I feel obliged to concur in the affirmance of the rejection of the claims.

As the affidavits, claims and arguments all show, appellant seeks a patent on a backup device or wheel characterized by a diagonally serrated peripheral surface comprising lands and grooves in which the lands have steeply pitched leading faces and more gradually sloped trailing faces. The apparent limitations of the claims do little to narrow them to less than this broad concept and it is, unfortunately for appellant, fully disclosed by McVey if we assume his wheel runs in the direction in which it was apparently intended to run.

While the McVey specification would seem to indicate

[5] Applicant's brief states that "this ratio can range from a wheel in which the ratio of land area to groove area is somewhat under 1:1 to an extreme condition under which the land is of practically zero or line width at the peripheral face of the land."

[6] See our discussion with respect to claim 46.

that the patentee thought he would get an increased rate of cut by using the square sides of his bars (the equivalent of lands) rather than the sides which are so shaped as to meet the appealed claims, he also teaches that there are many other factors which affect rate of cut including land spacing and flexibility in particular. Optimum results in this art apparently depend on a nice balancing of several factors. Moreover, appellant's own tests show that *rate* of cut is a relative matter and that even his wheels which have an over all performance superior to "Ross type" wheels have a lower *initial* rate of cut.

Whatever refinements of design and attendant advantages appellant may have discovered, I fail to see how the appealed claims point them out in such a way as clearly to distinguish anything which can be regarded as patentable over the cited prior art.

U. S. Court of Customs and Patent Appeals

IN RE E. J. BRACH & SONS

No. 6374. Decided June 18, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. TRADEMARKS — REGISTRABILITY — BACKGROUND MATERIAL APART FROM ASSOCIATED WORD MARKS.

"* * * this court has approved the registration of background material apart from the word marks with which it is associated, without any proof of secondary meaning of the former. * * * the essential question is whether or not the background material is or is not *inherently distinctive*. * * *. If the background portion is inherently distinctive, no proof of secondary meaning need be introduced; if not, such proof is essential."

2. SAME—SAME—SAME—*In re Swift*, 42 CCPA 1048, 223 F.2d 950, 1955 C. D. 360, 106 USPQ 286, CONSTRUED.

"* * * the real significance of the Swift case is that the polka-dot background was distinctive apart from its accompanying words. In effect, the background material there was not part of a composite mark (the polka-dot design plus the word) but was *one of two distinctive marks*."

3. SAME—SAME—SAME.

In affirming the refusal to register a decorative panel which serves as the background for applicant's registered mark "Brach's," *Held* that the background is not itself distinctive and that only a single commercial impression can be created from the use of the background together with the word "Brach's."

APPEAL from the Patent Office. Serial No. 663,770.

AFFIRMED.

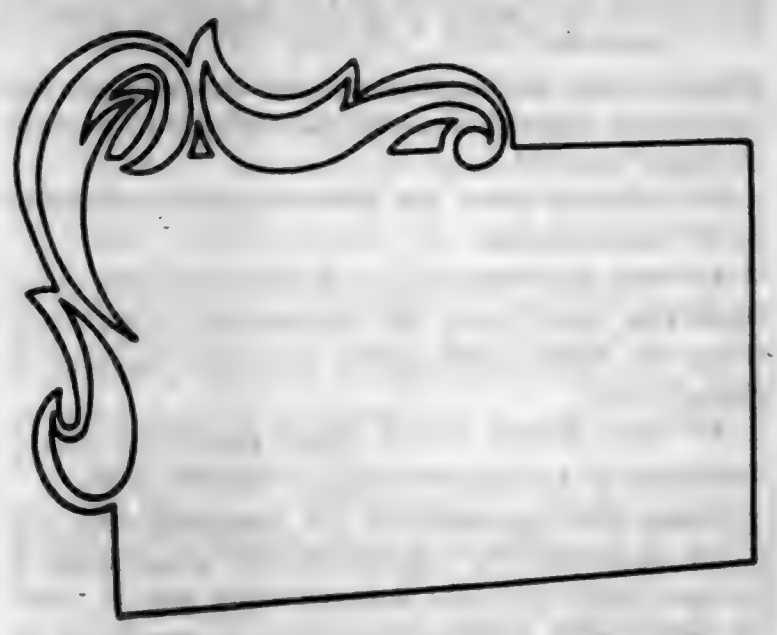
Cromwell, Greist & Warden (*Fred S. Lockwood* of counsel) for E. J. Brach & Sons.

Clarence W. Moore for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal from the decision of the Assistant Commissioner of Patents, 112 USPQ 267, affirming the decision of the Examiner of Trademarks which refused registration of applicant's alleged trademark. The "mark" sought to be registered consists of a decorative panel which forms the setting or serves as the background for applicant's registered mark "Brach's."[1] Following is a representation of the panel:



As set forth in the application for registration, the "mark" is used in connection with candy, use since February 11, 1953 having been asserted.

The record indicates that applicant uses the panel in question on approximately 99% of all its products, on advertising, letterheads, packages, etc. A number of advertisements of applicant's products are in the record but in none of them is the decorative panel sought to be registered used alone without "Brach's" superimposed thereon. There is no evidence in the record that the panel is ever used without applicant's word mark.

The Examiner refused registration of the panel on two grounds:

(1) that it is "merely a non-distinctive frame or background design for the word 'Brach's' and, in the absence of evidence to the contrary, is felt incapable of distinguishing applicant's goods from those of others"; and

(2) that "the mark shown in the drawing is not the mark actually being used, but is only a portion of it."

The Assistant Commissioner did not break down her decision into two grounds, as did the Examiner, though her decision seems to have been based upon the same considerations. A number of cases, included in which was *In re Hillerich & Bradsby Co.*, 40 CCPA (Patents) 990, 204 F.2d 287, 97 USPQ 451, were cited in support of her holding.

A petition for reconsideration was denied by the Assistant Commissioner, and applicant has appealed.

We are of the opinion that the decision below was correct and must be affirmed.

Since much stress has been placed on the Hillerich case, supra, by both the Assistant Commissioner and the Solicitor, it would be well to discuss that case at the outset. There, the applicant sought to register an oval line which appeared around the identifying words "Louisville Slugger" (and other words) on baseball bats. Registration was sought under § 2(f) of the Lanham Act (the secondary meaning section), applicant having admitted that the oval was not inherently distinctive. It was also admitted that the oval was never used without the identifying words. In the course of its opinion, this court stated:

Concededly, buyers never see applicant's bats with only the oval thereon. Consequently, it is clear that usage of the oval per se has never been attempted as an origin-designating

[1] Reg. No. 516,342, issued Oct. 18, 1949. Applicant is also the owner of Reg. No. 561,109, issued Oct. 13, 1953, for the combination of the decorative panel and the word "Brach's."

medium. The oval, *not being inherently distinctive*, must acquire that quality through such usage and association as will establish in the minds of the buying public that the oval of a bat clearly indicates a bat manufactured by applicant. * * * [Emphasis added.]

The court, not finding that the oval had acquired distinctiveness through use, affirmed the refusal of registration of the oval.

The Solicitor urges the Hillerich case as standing for two propositions:

(1) "that mere background display of a mark is not registrable apart from the dominating word mark, except in those cases where secondary meaning is shown"; and

(2) "that subject matter which constitutes only a component of a composite mark is unregistrable."

Unless these propositions are amplified they are apt to be misleading. As to the first proposition, it must be made clear that it is not every case in which the background display of a mark is sought to be registered apart from the word mark with which it is associated that secondary meaning must be shown. It is only in those cases where what is sought to be registered is "*more* background material" that this holds true. This distinction is important, for [1] this court has approved the registration of background material apart from the word marks with which it is associated, without any proof of secondary meaning of the former. *In re Swift & Co.*, 42 CCPA (Patents) 1048, 223 F.2d 950, 106 USPQ 286. One reading both the Swift and Hillerich cases can only conclude that the essential question is whether or not the background material is or is not *inherently distinctive*. (Note the italicized portion of the quote from the Hillerich case, supra.) If the background portion is inherently distinctive, no proof of secondary meaning need be introduced; if not, such proof is essential.

As to the Solicitor's second proposition, it must be noted that in the Swift case, there was no indication that the polka-dot background sought to be registered was ever used without the accompanying printed matter appearing in the specimens. If what the Solicitor is referring to when he uses the words "composite mark" is something equivalent to the "polka-dot-plus-words" specimens of the Swift case, his second proposition would appear to be rebutted by the holding in that case. But if what is meant is that where the background material plus the word marks so blend together that they are inherently incapable of creating more than a single commercial impression, his views would be consistent with the Swift case. [2] For the real significance of the Swift case is that the polka-dot background was distinctive apart from its accompanying words. In effect, the background material there was not part of a composite mark (the polka-dot design plus the word) but was *one of two distinctive marks*.

[3] In the instant case, however, the background sought to be registered is not itself distinctive. We do not think that the average consumer of applicant's product will regard its background frills and curves as "an unmistakable, certain, and primary means of identification pointing distinctly to the commercial origin of such product," as this court felt was likely in the Swift case. In short, we feel that only a single commercial impression can be created from the use of applicant's background together with the word "Brach's."

The merits of *Ex parte Dole Refrigerating Co.*, 111 USPQ 282 (Commr. Pats. 1956), cited by applicant, need not be discussed here, as this decision would not in any event be binding upon us.

For the foregoing reasons, the decision of the Assistant Commissioner is affirmed.

AFFIRMED.

WORLEY (concurring):

I concur solely on the basis of our decision in *In re Hillerich & Bradsby Co.*, 40 CCPA (Patents) 900, 204 F.2d 287, 97 USPQ 451.

U. S. Court of Customs and Patent Appeals

RIESER v. WILLIAMS

No. 6367. Decided May 23, 1958

[— CCPA —; — F.2d —; 118 USPQ 96]

1. PATENTABILITY—MATTER OF CHOICE—MOTOR MOUNTED RIGIDLY WITH OR SEPARATELY FROM DEVICE.

"Whether a motor is mounted rigidly with or separately from the device or gearing which it drives is a matter of choice well within the province of a skilled mechanic."

2. INTERFERENCES—ESTOPPEL UNDER 35 U. S. C. 135—CLAIMING THE SAME INVENTION—EQUIVALENT EXPRESSIONS—"BASE MEMBER" AND "SUPPORTING BRACKET."

On the question of whether claim 6 of the application of appellee Williams defined substantially the same subject matter as the interference counts, *Held* that the expression "a base member adapted to be secured to a foundation" of the counts and the expression "a supporting bracket" of the claim, both referring to a member which supports a projection, "are substantially equivalent, since 'base' means a supporting member, broadly, and a bracket is a conventional form of supporting member."

3. SAME—SAME—SAME—DISTINCTION HAVING NO INVENTIVE SIGNIFICANCE.

"The counts further state that the spherical portion of the support element is 'coaxial' with the longitudinal axis of the power takeoff, while Williams' claim 6 does not include such a limitation. We agree with the Board, however, that that distinction has no inventive significance. The exact location of the axis of the power takeoff with respect to the support is a matter of design and convenience and it would be an obvious expedient to make the two coaxial."

4. SAME—SAME—SAME—DIFFERENCES INVOLVING MECHANICAL EXPEDIENTS ONLY—ALLOWANCE OF BROADER APPLICATION CLAIM INDICATING UNNECESSARY LIMITATIONS IN COUNTS.

"* * *, we conclude that the differences between the counts and claim 6 of Williams involve mechanical expedients only and that the essential patentable subject matter is the same in each case. The fact that claim 6 was allowed by the Examiner, notwithstanding the fact that it does not include the limitations above discussed, affords an indication that those limitations were not necessary to the allowance of the interference counts. It follows that Williams was claiming substantially the invention here in issue within one year of the issuance of Rieser's patent and accordingly is not estopped to contest priority of that invention."

5. SAME — SAME — SAME — *Andrews* v. *Wickenden* DISTINGUISHED.

"The decision in *Andrews* v. *Wickenden*, 39 CCPA (Patents) 860, 194 F.2d 729, 93 USPQ 27, * * *, is not controlling here, since in that case, * * *, the patent claim copied by the applicant contained a critical limitation which was not present in the claims relied on by him as being drawn to the same invention."

6. SAME—SAME—SAME—IMMATERIAL LIMITATIONS OF COUNT MAY BE DISREGARDED.

"The rule that every limitation of an interference count must be considered material, which rule is applied in determining the right to make the count and priority of invention, is not controlling on the question of estoppel under 35 U. S. C. 135. In the latter situation, the question as to the materiality of limitations is to be considered on its merits, and limitations found to be immaterial may be disregarded."

7. SAME—RIGHT TO MAKE.

Held that, in the determination of the right of appellee Williams to make the interference counts, "each limitation must be regarded as material, and they are to be compared with the disclosure of the application rather than with what was claimed in it before the counts were copied from the Rieser patent."

8. WORDS AND PHRASES—"HORIZONTAL MEMBER."

"* * *, while Rieser's base member includes a horizontal pad portion, that portion is considerably shorter than the vertical part of the member; and, accordingly, the base as a whole would not be properly described as a horizontal member."

9. INTERFERENCE—RIGHT TO MAKE—RELATIONSHIP SUGGESTED BY DRAWING.

On the question of whether the interference counts were supported by the disclosure of appellee Williams' application, *Held* that while it was not stated in the application that a power takeoff was coaxial with a spherically curved support element, as required by the counts, such a relationship was clearly suggested by the drawing.

10. WORDS AND PHRASES—"JOURNALLED."

Held that the term "journalled" does not require ball bearings.

11. SAME—"THE SUPPORT CONSTITUTES THE BEARING FOR THE OUTPUT SHAFT" AND "THE SHAFT HAS A BEARING IN THE SUPPORT."

"Rieser argues that Williams' statement that the support constitutes the bearing for the output shaft does not mean that the shaft has a bearing in the support. In our opinion, however, those expressions are synonymous. If the support constitutes a bearing for the shaft, there must be a contact between the two which permits the shaft to rotate; and with such a contact, the shaft would be journalled in the support."

12. INTERFERENCE—ESTOPPEL UNDER 35 U. S. C. 135—RIGHT TO MAKE—EFFECT OF APPLICANT'S INTENT.

"Rieser contends that Williams' testimony indicates that he did not consider certain features of the counts to be important and did not intend to disclose or claim them. However, the issue here is not what Williams intended to do, but what he actually did. Assuming, without deciding, that evidence as to intent might be material if the meaning of the disclosure or claims were uncertain, such evidence cannot be accepted to alter such meaning where as here it is clear. In the instant case we find the Williams disclosure and original claim 6 to be free from ambiguity, and his testimony as to intent is, therefore, not material."

13. SAME—RIGHT TO MAKE—CLAIMS COPIED FROM PATENT.

"* * * an applicant who copies a patent claim has the burden of showing a clear basis for the claim in his disclosure."

14. SAME—EVIDENCE—UNCORROBORATED TESTIMONY.

"* * * diligence, as well as conception and reduction to practice, cannot be established by the uncorroborated testimony of the inventor, * * *"

15. SAME—DILIGENCE—ESTABLISHING ACTIVITY JUST PRIOR TO OPPONENT'S REDUCTION TO PRACTICE.

Held that the testimony of appellant Rieser, who had "to show that he was active at and just prior to September 29, 1950," that drawings were prepared by him "some time perhaps in August or September 1950," "would not establish activity by him at any particular time in August or September of 1950, and that accordingly it would not show that he was doing anything toward preparing or filing his application during a period of a month or more immediately preceding Williams' entry into the field."

APPEAL from the Patent Office. Interference No. 86,744.

AFFIRMED.

George B. White for Rieser.

Paul & Paul and *Austin R. Miller* (*Henry N. Paul, Jr.* of counsel) for Williams.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Patent Interferences of the United States Patent Office awarding priority of invention of the subject matter in issue in interference No. 86,744 to the senior party, William A. Williams, the appellee here. The invention in issue is an adjustably mounted speed change unit defined in three counts. Count 1, which is typical, reads as follows:

1. A speed change transmission comprising, a driven shaft, a journal support for said driven shaft, a prime mover and a speed change device operably coupled to form a speed change unit, said speed change device having a power take-off including means to couple it rigidly about a portion of said driven shaft, a universal support for said speed change unit including, a support element, a spherical portion on said support element, a base member adapted to be secured to a foundation and adjustably engaging said spherical portion for supporting said support element, said spherical portion being coaxial with the longitudinal axis of said power take-off, and said rigidly coupled driven shaft being journalled in said support element for supporting said speed change unit so as to permit said universal support to position said speed change unit to compensate for parallel and angular mounting misalignment between said longitudinal axis and said base member.

The counts originated in the patent of appellant, John D. Rieser, which was granted July 22, 1952, on an application filed March 30, 1951. The Williams application here involved was filed October 19, 1950.

The Rieser patent discloses a unitary device comprising a motor and a speed change gear mechanism, connected by a belt and supported on a common mounting means. The mounting means comprises a laterally extending projection having a convex spherical surface. The axis of a hollow output shaft, which is driven by the change speed mechanism, passes through the center of the sphere which forms the above-mentioned surface, and the shaft is referred to in the counts as being "coaxial" with that surface. The spherical surface of the projection is received in a correspondingly shaped concave portion of a bracket member which is adjustably mounted on a horizontal portion of the frame of the machine or other device which is to be driven. The shaft of the driven device extends coaxially into the hollow output shaft of the speed change mechanism and is rigidly secured thereto.

The Williams application discloses a speed change device which in one embodiment comprises a gear casing having a lateral projection with a convex spherical surface which is received in and supported by a corresponding concave spherical portion of a bracket member supported adjustably on a vertical surface of the frame on which the pulley to be driven by the device is mounted. The speed change device includes a hollow output shaft which passes through the lateral projection and is adapted to receive and be rigidly secured to the shaft of the driven pulley. Power is supplied to the device through a pulley mounted on an input shaft coaxial with the output shaft, but it is stated in the specification of the application that "an incorporated electric motor" may be used instead.

Rieser makes three separate contentions as to why he should have been awarded priority, namely: first, that Williams is estopped to contest priority by reason of the fact that he did not copy the claims correspond-

ing to the counts in issue from Rieser's patent until more than a year after it was issued; second, that the disclosure of Williams' application does not support the counts; and third, that Rieser conceived the invention in issue prior to Williams and exercised reasonable diligence over the critical period in reducing it to practice. These contentions, as to each of which the Board of Patent Interferences ruled adversely to Rieser, will be considered in the order above given.

It is not disputed that Williams failed to present the actual claims here in issue in his application until more than a year after they appeared in Rieser's patent. The Board of Patent Interferences held, however, that an estoppel under 35 U. S. C. 135 did not exist for the reason that allowed claim 6 of the Williams application, which was included therein as filed, defines substantially the same subject matter as the interference counts. Claim 6 of Williams, and claim 1, on which it is dependent, read as follows:

1. In combination, a powered speed change device having a casing and an output shaft extending through one side of the casing and adapted to be fixedly attached in axial relation to one end of the shaft of a machine or apparatus to be driven; a supporting bracket; means for rigidly securing the bracket to a stationary member of the machine; and means whereby the device is connected to the bracket with capacity for limited play to compensate for flexure of the shaft of the machine or apparatus, and to serve as the sole means for rotatively sustaining the aforesaid end of the latter shaft.

6. The invention according to claim 1, wherein the connecting means comprises a spherical projection at one side of the casing of the device constituting the bearing for the output shaft and fitting a spherical socket opening in the bracket.

It is apparent that Williams' claim 6 is broader than the counts, but the Board found that the additional limitations defined by the counts were of no patentable significance.

The first limitation in claim 1 which does not appear in claim 6 of Williams is that the motor which drives the speed change mechanism forms a unit with it, which unit is supported by the spherical portion of the projection. In our opinion that distinction involves no more than a choice of obvious mechanical expedients. [1] Whether a motor is mounted rigidly with or separately from the device or gearing which it drives is a matter of choice well within the province of a skilled mechanic. The problem of affording universal support for the speed change unit is substantially the same whether or not the motor is supported with it.

[2] The counts refer to the member which supports the spherical projection as "a base member adapted to be secured to a foundation," while Williams' claim 6 refers to it as "a supporting bracket." Those expressions are substantially equivalent, since "base" means a supporting member, broadly, and a bracket is a conventional form of supporting member.

[3] The counts further state that the spherical portion of the support element is "coaxial" with the longitudinal axis of the power takeoff, while Williams' claim 6 does not include such a limitation. We agree with the Board, however, that that distinction has no inventive significance. The exact location of the axis of the power takeoff with respect to the support is a matter of design and convenience and it would be an obvious expedient to make the two coaxial.

Count 1 states that the driven shaft is journalled in the support element, which, in the light of Rieser's disclosure, means that the power takeoff, which surrounds the driven shaft, has a bearing in the support element. Claim 6 of the Williams application states that the "spherical projection," which corresponds to the support element of the counts, constitutes the bearing for the output shaft (power takeoff). In our opinion, count 1 and Williams' claim 6 are fully equivalent in that respect.

Counts 1 and 3 also state that the universal adjustment of the support compensates for "parallel and angular mounting misalignment" between the base and the axis of the takeoff. We agree with the Board that the spherical supporting means recited in Williams' claim 6 would inherently provide for such adjustment. The counts do not specify that the base member is horizontal.

[4] For the reasons given, we conclude that the differences between the counts and claim 6 of Williams involve mechanical expedients only and that the essential patentable subject matter is the same in each case. The fact that claim 6 was allowed by the Examiner, notwithstanding the fact that it does not include the limitations above discussed, affords an indication that those limitations were not necessary to the allowance of the interference counts. It follows that Williams was claiming substantially the invention here in issue within one year of the issuance of Rieser's patent and accordingly is not estopped to contest priority of that invention.

[5] The decision in *Andrews* v. *Wickenden*, 39 CCPA (Patents) 860, 194 F.2d 729, 93 USPQ 27, relied on by Rieser, is not controlling here, since in that case, as properly pointed out in *In re Tanke et al.*, 41 CCPA (Patents) 919, 213 F.2d 551, 102 USPQ 93, the patent claim copied by the applicant contained a critical limitation which was not present in the claims relied on by him as being drawn to the same invention. [6] The rule that every limitation of an interference count must be considered material, which rule is applied in determining the right to make the count and priority of invention, is not controlling on the question of estoppel under 35 U. S. C. 135. In the latter situation, the question as to the materiality of limitations is to be considered on its merits, and limitations found to be immaterial may be disregarded. *In re Tanke et al.*, supra; *Emerson* v. *Beach*, 42 CCPA (Patents) 711, 215 F.2d 290, 103 USPQ 45; *Chapman* v. *Beede*, 54 App. D. C. 209, 296 Fed. 956; *Jenks* v. *Knight*, 24 CCPA (Patents) 1227, 90 F.2d 654, 33 USPQ 601.

[7] The determination as to whether the counts are supported by the disclosure of the Williams application involves a consideration of the same limitations that have been discussed above, but from a different viewpoint. Here each limitation must be regarded as material, and they are to be compared with the disclosure of the application rather than with what was claimed in it before the counts were copied from the Rieser patent.

While Williams does not illustrate a device in which the driving motor is supported as a unit with the speed change mechanism, he states in the introductory portion of his specification that his invention relates to devices which are "powered either by a pulley belt from an external power source, or by a motor incorporated in the unit." The manner in which such a motor could be incorporated is obvious and we consider the quoted language to be a sufficient disclosure of the unitary mounting called for by the counts.

As above indicated, we are of the opinion that the term "base" as used in the counts, is sufficiently broad

to include the supporting bracket of Williams, and we do not find that the references in counts 1 and 3 to compensation for "parallel and angular" misalignment between the base and the axis of the power takeoff defines anything not disclosed by Williams. Rieser argues that since the takeoff is horizontal, the base must also be horizontal or there can be no question of parallel misalignment between the two. However, [8] while Rieser's base member includes a horizontal pad portion, that portion is considerably shorter than the vertical part of the member; and, accordingly, the base as a whole would not be properly described as a horizontal member.

It follows that the reference in the counts to parallel misalignment between the takeoff and base can refer only to misalignment between the takeoff and the horizontal portion of the base. While the bracket of Williams, which includes the spherically curved concavity, is primarily a vertical member, it has, of course, some horizontal extent, although its width in the horizontal direction is not as great as that of Rieser's horizontal pad. So far as the structure recited by the counts is concerned, it is immaterial what the horizontal extent of the base member is. The essential feature is that compensation be made for deviation of the takeoff from a horizontal direction. That result is effected by the Williams device, and in our opinion that device satisfies both the letter and the spirit of the counts as to compensation for misalignment.

[9] It is not stated in the Williams application that the power takeoff is coaxial with the spherically curved support element, as required by the counts, but we agree with the finding of the Board that such a relationship is clearly suggested by the drawing.

As regards the limitation in count 1, that the driven shaft is "journalled in said support," it is to be noted that that shaft in the Rieser device is not journalled directly in the support, but lies within the power takeoff which is journalled in the support. Williams shows a similar arrangement and his original claim 6 states that the spherical projection, which forms the support called for by count 1, constitutes the bearing for the output shaft (power takeoff). [10] While Williams does not appear to show ball bearings at the point specified, we agree with the Board that the term "journalled" does not require such bearings, and that Williams' disclosure fairly satisfies the requirement of count 1 as to journalling. [11] Rieser argues that Williams' statement that the support constitutes the bearing for the output shaft does not mean that the shaft has a bearing in the support. In our opinion, however, those expressions are synonymous. If the support constitutes a bearing for the shaft, there must be a contact between the two which permits the shaft to rotate; and with such a contact, the shaft would be journalled in the support.

Counts 2 and 3 state that there is a bearing support for the power takeoff shaft "in said speed change device." Since the spherical support member is a part of the speed change device, these counts are supported by the Williams disclosure in the same manner as count 1. Moreover, the power takeoff shaft of Williams would normally have an additional bearing within the casing of the speed change device.

[12] Rieser contends that Williams' testimony indicates that he did not consider certain features of the counts to be important and did not intend to disclose or claim them. However, the issue here is not what Williams intended to do, but what he actually did. Assuming, without deciding, that evidence as to intent might be material if the meaning of the disclosure or claims were uncertain, such evidence cannot be accepted to alter such meaning where as here it is clear. In the instant case we find the Williams disclosure and original claim 6 to be free from ambiguity, and his testimony as to intent is, therefore, not material.

We have given careful consideration to all the points raised and arguments advanced by Rieser in support of his contentions that Williams is estopped to contest the interference involved in this appeal and that his application disclosure does not support the counts. Furthermore, we have given full weight to the principle that [13] an applicant who copies a patent claim has the burden of showing a clear basis for the claim in his disclosure. However, for the reasons stated herein and in the decision of the Board of Patent Interferences, with which we are in agreement, we conclude that Williams is not estopped, and that the counts find proper support in the disclosure of his application.

It is conceded in Rieser's brief that Williams' application was completed on September 29, 1950; and that concession is justified by the record. Accordingly, Williams' date of entry into the field was at least as early as September 29, 1950, since, as held above, his application discloses the invention here in issue. Rieser alleges no actual reduction to practice and is accordingly restricted to the constructive reduction to practice resulting from the filing of his application on March 30, 1951. He was therefore the last to reduce to practice, since Williams is entitled to a constructive reduction to practice as of the filing date of his application, October 19, 1950. It follows that Rieser cannot prevail here unless he has shown that he was first to conceive and that he exercised reasonable diligence during the critical period from a time just prior to September 29, 1950, until March 30, 1951, when his application was filed.

Rieser appears to have conceived the invention here involved at least as early as 1949, and to have written to an attorney, one Robert G. Pierce, on October 12, 1950, with a view to having a patent application prepared. He was unsuccessful, apparently through no fault of his own, in having Pierce prepare the application, and eventually prepared and filed it himself. However, assuming that he was diligent after October 12, 1950, it was still incumbent on him to show that he was active at and just prior to September 29, 1950.

The only evidence of any activity prior to that date by Rieser in connection with the filing of his application consists in his testimony as follows:

Q. 182. About when did you prepare the patent drawings that you sent in October to Mr. Pierce?
A. I would say they were prepared some time perhaps in August or September 1950.

That testimony, apparently based on recollection alone, was given in June 1955, almost five years after the event to which the testimony relates, and is wholly uncorroborated. The lack of corroboration alone would be fatal to Rieser's case, since [14] diligence, as well as conception and reduction to practice, cannot be established by the uncorroborated testimony of the inventor, *Kendall* v. *Searles*, 36 CCPA (Patents) 1045,

173 F.2d 966, 81 USPQ 363. [15] Moreover, we agree with the findings of the Board that Rieser's testimony, even aside from the question of corroboration, would not establish activity by him at any particular time in August or September of 1950, and that accordingly it would not show that he was doing anything toward preparing or filing his application during a period of a month or more immediately preceding Williams' entry into the field.

A situation closely paralleling the instant one was presented in *Brown, Jr.* v. *Barton*, 26 CCPA (Patents) 889, 102 F.2d 193, 41 USPQ 99. In that case it was held that a party was not diligent where there was no showing of activity between August 22, 1932, and October 18, 1932, his opponent having entered the field on September 24, 1932. Similarly, in *Scharmann* v. *Kassel*, 37 CCPA (Patents) 908, 179 F.2d 991, 84 USPQ 472, it was held that a party had not shown the requisite diligence where his last activity prior to his opponent's filing date of February 15, 1950, took place on January 19, 1950; and in *Fearon* v. *Krasnow et al.*, 36 CCPA (Patents) 785, 172 F.2d 233, 80 USPQ 435, where it was held that the appellant having established diligence from November 8, 1939, to his filing date, December 27, 1939, was nevertheless unsuccessful in the interference because there was no evidence of activity on his part immediately prior to appellee's filing date, October 24, 1939.

In view of the cited decisions, it would be necessary to hold that Rieser has not established diligence immediately prior to the entry of Williams into the field, even if his testimony, that he prepared drawings at some unspecified time during August or September 1950, were properly corroborated.

The decision of the Board of Patent Interferences for the reasons hereinbefore stated is affirmed.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

IN RE THE SINGER MANUFACTURING CO.

No. 6375 Decided June 18, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. TRADEMARKS—USE OF MARK—DESIGN ON LABELS ALSO USED ON GOODS AS ORNAMENT.

"* * * the application of appellant's design to the goods themselves, even assuming that it serves there as an ornament only and not as a trademark, does not disqualify the use of the design on the labels on the cartons as a trademark use."

2. SAME—NATURE OF MARK—DESCRIPTIVENESS—PICTORIAL REPRESENTATION OF GOODS.

"* * * a design consisting merely or essentially of a pictorial representation of the goods on which it is used is descriptive, and is not a valid trademark. * * *, but such a representation may be a good trademark if combined with arbitrary features capable of indicating origin."

3. SAME—USE OF MARK—SIZE OR DEGREE OF PROMINENCE OF A DESIGN.

"No authority is cited, and none has been found, to the effect that a trademark use requires a display of a design of any particular size or degree of prominence. The important question is not how readily the mark will be noticed, but whether, when it is noticed, it will be understood as indicating origin of the goods."

4. SAME—REGISTRABILITY—DESIGN APPLIED TO LABELS ON CARTONS FOR SEWING MACHINES.

Held that appellant's design, as applied to labels on cartons for sewing machines, constitutes a valid trademark and, so far as appeared from the record, is registrable, and that it was accordingly unnecessary to consider whether the design, as applied to the goods themselves, also functions as a trademark.

APPEAL from the Patent Office. Serial No. 671,534.

REVERSED.

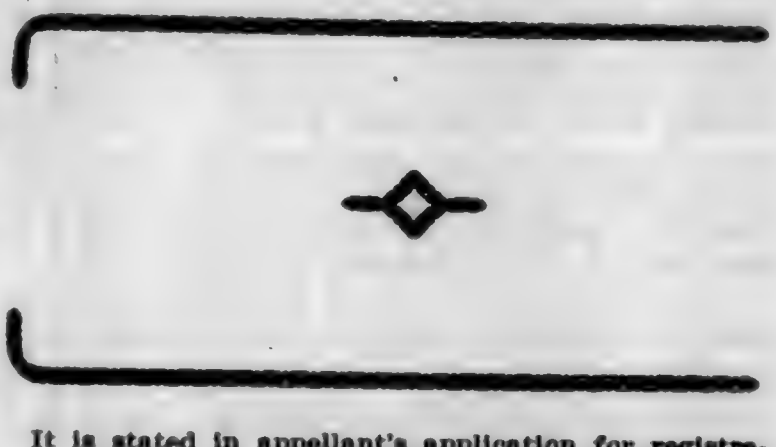
Chester A. Williams, Jr. (*Robert B. Harmon* of counsel) for The Singer Manufacturing Co.

Clarence W. Moore for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Assistant Commissioner of Patents, 112 USPQ 268, affirming the decision of the Examiner of Trademarks and refusing registration of appellant's mark for sewing machines. The mark consists of the design herewith reproduced:



It is stated in appellant's application for registration that the foregoing design has been "applied directly upon the goods, and/or upon labels which are affixed upon containers for the goods." It further appears from the record that, as applied to sewing machines, the two opposite lines of the design lie along the longer sides of the base, with the central device of the design appearing at the center of the base, and that as applied to containers, the design is printed on labels 1¾ by 3 inches which are affixed to the cartons containing the sewing machines.

Registration was refused by both tribunals of the Patent Office on the stated ground that appellant's design is merely ornamentation and has not been used as a trademark.

It is properly indicated in appellant's brief that there are three possible issues involved in the instant appeal; namely, (1) Whether the use of appellant's design only on labels affixed to the cartons containing the goods would be a distinguishing trademark and registrable use; (2) Whether the use of the design on the goods themselves is a trademark use; and (3) Whether the mark as used on the labels affixed to the cartons would be rendered unregistrable by reason of its concurrent use directly on the inclosed goods, which enhances their appearance.

Both the Examiner and the Assistant Commissioner treated the use of the design on the goods themselves at some length, but dealt rather summarily with the use on the cartons. The Examiner stated that:

Label specimens of record are adequate and in harmony with the presentment on the drawing. It is the Office position that this design-like or geometric presentment does not appear to distinguish applicant's goods from those manufactured and sold by others. It is believed that purchasers would regard this presentment as mere ornamentation.

The Assistant Commissioner held that: "the tiny reproduction of the decoration on a small white gummed label pasted on the carton can hardly make a commercial impression, particularly where, as here, the purchaser is not apt to see it until the machine which he (or she) selects is delivered in the carton."

While there is no doubt that the use of the design on the goods serves the purpose of ornamentation, whether or not it also functions as a trademark, it seems preposterous that anyone would suppose that the tiny reproduction on a small white gummed label pasted on the carton was applied to the cartons merely as an ornament. The design is so proportioned that it serves as an ornament when applied to the goods but its ornamental effect otherwise vanishes when displayed apart from the goods. Aside from the question as to whether the design is used as a trademark on the goods themselves, we think it clear that, as used on the labels, it must be taken from the realities of the situation as presented by the record, that its sole function is one indicating the origin of the goods, in the same manner as the "circle, square, triangle, a cross or a star," referred to in *Leschen Rope Co.* v. *Broderick*, 201 U. S. 166; and that such use is accordingly a trademark use.

[1] We are of the opinion that the application of appellant's design to the goods themselves, even assuming that it serves there as an ornament only and not as a trademark, does not disqualify the use of the design on the labels on the cartons as a trademark use. The situation in the instant case is quite similar to that involved in *Barron-Gray Packing Company* v. *Bruce's Juices, Inc.*, 34 CCPA (Patents) 1106, 162 F.2d 217, 74 USPQ 99. In that case it was held that a mark consisting of a picture of three waiters each carrying a tray on which there was a glass of fruit juice was properly registered as a trademark even though it had been used only on cartons containing several dozen cans of juices. The contention that the mark was merely a fragmentary decorative display was not sustained by the court, which agreed with the Patent Office tribunals that the pictures were used in a trademark sense.

[2] It is, of course, true that a design consisting merely or essentially of a pictorial representation of the goods on which it is used is descriptive, and is not a valid trademark. *In re Pierce Arrow Motor Car Co.*, 19 CCPA (Patents) 900, 55 F.2d 484, 12 USPQ 315, but such a representation may be a good trademark if combined with arbitrary features capable of indicating origin. *Jantzen Knitting Mills* v. *West Coast Knitting Mills*, 18 CCPA (Patents) 843, 46 F.2d 182, 8USPQ 40; *Keller Products, Inc.* v. *Rubber Linings Corp.*, 213 F.2d 382, 101 USPQ 307.

While the design here sought to be registered appears on the goods, it clearly is not a pictorial representation of such goods, and is, at most, merely suggestive of the goods in a general sense. It is not so nearly descriptive of the goods as a mark which actually pictures the goods in combination with other features.

We are unable to agree with the Assistant Commissioner that appellant's labels, because of their relatively small size, "can hardly make a commercial impression." [3] No authority is cited, and none has been found, to the effect that a trademark use requires a display of a design of any particular size or degree of prominence. The important question is not how readily the mark will be noticed, but whether, when it is noticed, it will be understood as indicating origin of the goods.

[4] For the reasons given, we conclude that appellant's design, as applied to the labels on the cartons, constitutes a valid trademark and, so far as appears from the record here, is registrable. It is accordingly unnecessary to consider whether the design, as applied to the goods themselves, also functions as a trademark.

The decision of the Assistant Commissioner is reversed.

REVERSED.

WORLEY, *J.*, dissents.

U. S. Court of Customs and Patent Appeals

IN RE RUBCETTA ET AL.

No. 6377. Decided May 29, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. COURTS—DECISIONS—SHOULD BE CONSTRUED IN ACCORDANCE WITH PRECISE ISSUE BEFORE THE COURT.

"* * *, we deem it advisable to reiterate the warnings given in the past * * *, that undue liberties should not be taken with court decisions, which should be construed in accordance with the precise issue before the court, and that a fertile source of error in patent law is the misapplication of a sound legal principle established in one case to another case in which the facts are essentially different and the principle has no application whatsoever."

2. PATENTABILITY—GENERIC CLAIMS—SPECIES DISCLOSED IN REFERENCE.

"* * *, the situation here involves a one year statutory bar under 35 U. S. C. 102(b). The claims on appeal were first supported by and made in an application filed May 9, 1955, and the British specification had been published nearly two years before on May 18, 1953, fully disclosing the invention as applied to tantalum, a species within the generic claims. * * *, it is axiomatic that the disclosure of a species in a reference is sufficient to prevent a later applicant from obtaining generic claims, unless the reference can be overcome, and so the British specification disclosing the species tantalum, published over a year before appellants filed their generic disclosure is clearly a statutory bar to the granting of the generic claims."

3. SAME—DECISIONS—*In re Steenbock*, 23 CCPA 1244, 83 F.2d 912, 1936 C. D. 594, 30 USPQ 45, AND *In re Stempel*, 44 CCPA 820, 241 F.2d 755, 1957 C. D. 200, 113 USPQ 77, COMPARED.

"The only disposition we made of the Steenbock opinion in the Stempel case was to say that it had nothing much to do with the Stempel issues, which were concerned with swearing back of a reference where there was no one year statutory bar, whereas Steenbock was decided on the basis of a statutory bar. Similarly we can now say the converse, that the Stempel case has no bearing on the present issues which are concerned with a statutory bar in the British publication."

4. SAME—SAME—*In re Stempel*, 44 CCPA 820, 241 F.2d 755, 1957 C. D. 200, 113 USPQ 77, DISCUSSED.

"A fair and careful reading of the Stempel opinion will show that we were careful to point out several times that our decision had no bearing on a situation in which a reference was a 'statutory bar' in the sense of having issued more than one year prior to the applicant's actual effective United States filing date."

5. SAME—STATUTORY BARS—MAY RESULT FROM ACTS OF APPLICANT.

"* * *, it is of no moment whether the bar of a patent, printed publication, public use or sale results from the acts of the applicant or of others, * * *."

6. SAME—INVENTION—WHERE OBVIOUS TO TRY METHOD, PROOF OF WORKABILITY DOES NOT MAKE IT PATENTABLE.

"It being shown in the British specification that tantalum can be etched for use as an electrode metal by appellants' process it seems to us that it would be most obvious to one skilled in the art, in view of the teaching of Taylor, to apply the same etching process to the other known electrolytic capacitor metals or to alloys of two of those metals. Appellants' method as originally disclosed was designed to etch a metal most resistant to corrosion and hence difficult to etch, namely tantalum, and if it would etch tantalum one would not be surprised if it etched the others. Certainly it would be obvious to try it and mere proof that it worked would not make it patentable over the disclosure of the British specification. 35 U. S. C. 103."

7. SAME—PARTICULAR SUBJECT MATTER—METHOD OF ETCHING CAPACITOR ELECTRODES.

Claims to a method of etching capacitor electrodes *Held* unpatentable over the cited prior art.

APPEAL from the Patent Office. Serial No. 507,010.

AFFIRMED.

Gilbert P. Tarleton (*Sidney Greenberg* and *Oscar B. Waddell* of counsel) for Ruscetta et al.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

Ralph A. Ruscetta and Alfred L. Jenny, have appealed from the decision of the Patent Office Board of Appeals affirming the Examiner's rejection of claims 1, 2, 3, 19, 20, 21 and 22 of their application entitled "Method of Etching Capacitor Electrodes," Serial No. 507,010, filed May 9, 1955.

The central issue presented in this appeal is a question of law involving the legality of using appellants' [1] British complete patent specification No. 691,500, published May 13, 1953, as a basis for rejecting the appealed claims.

The references relied upon are:

Taylor,[2] 2,368,688, February 6, 1945.

British patent, 691,500, May 13, 1953.

On August 29, 1950, appellants filed an original United States application, Serial No. 181,998, entitled "Etched Capacitor Electrodes and Method of Etching." The invention related to etched tantalum electrodes for electrolytic capacitors and to the etching of tantalum by an apparently novel liquid solution.

On July 11, 1951, appellants filed a second United States application, Serial No. 236,128, entitled "Method of Etching Capacitor Electrodes" as a continuation-in-part of the aforesaid original application. This second application was filed as a result of a Patent Office requirement of division. The original application became abandoned on February 7, 1953.

On May 13, 1953, the complete British specification No. 691,500 was published as a result of an application filed August 21, 1951, which specification is, except for the claims, substantially a copy of appellants' aforesaid original United States application. It was, in fact, a convention application based thereon.

On May 9, 1955, appellants filed a third application, Serial No. 507,010, the one involved in this appeal, as a continuation-in-part of the second application. This third application added to the disclosure of tantalum the metals zirconium, titanium, niobium, and alloys of tantalum and niobium, on the basis of which generic and certain species claims were added to the case.[3]

The two continuation-in-part applications contained the cross-references to the earlier applications required by 35 U. S. C. 120 and there was also the necessary copendency to comply with that statute.

On July 21, 1955, the Examiner issued a final rejection of claims 1–3 and 19–22 for "lack of invention over" the British specification, relying on *In re Steenbock*, 23 CCPA (Patents) 1244, 88 F.2d 912, 30 USPQ 45, as controlling. He allowed claims 4–18, which were directed to tantalum, the sole metal disclosed in the original application. On February 13, 1957, the Board of Appeals affirmed the Examiner, also holding the Steenbock case to be controlling, and saying:

Appellants do not show possession of the invention described in the claims on appeal with respect to zirconium, niobium or titanium at a time prior to the patenting date of the British patent.

Of course, we do not know anything about the patenting date, if any, of the British specification and the Board was no doubt referring to its publication date. We shall make that assumption. However, we do not understand the Examiner's rejection to have been predicated on appellants' failure to have been in possession of the invention of the appealed claims *before the publication of* the British specification. What the Examiner said in his final rejection was, "The reference is a statutory bar to any subject matter not disclosed in the parent case." And, in a letter to the Patent Office subsequent thereto, the applicants' attorney summed up the situation thus:

At the interview the final rejection of claims 1–3 and 19–22 on applicants' British patent was clarified by the Examiner at the request of applicants' attorney. The Examiner stated that the British patent was being *used as a printed publication* which, being *published more than one year before the filing of the present application*, constituted (as the Examiner holds) a statutory bar against the rejected claims. [Emphasis ours.]

In the Examiner's answer on appeal to the Board he concisely restated his position as follows:

The publication date of the British patent is *more than one year prior to the filing date of the instant application, and is therefore a statutory bar under 35 U. S. C. 102b*, unless applicants' are here entitled to the filing date of one of their parent co-pending applications. [Emphasis ours.]

Appellants have been given the benefit of the filing date of their parent application as to what it discloses, and of course they are "entitled" to it to that extent, and the method claims 4–18 specific to the etching of

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[1] Appellants have referred to the British "patent" as being theirs, which is only loosely true. For the sake of accuracy, it is noted that appellants appear to have assigned their U. S. rights to General Electric Company whose attorneys have prosecuted the applications. The British reference bears the name of The British Thomson-Houston Company, Limited and does not name the inventors.

[2] This reference is so designated though in fact it is not relied on as a patent nor shown by the record to be such under British law. What is relied on is actually the publication of the "Complete Specification" which took place on May 13, 1953, and we shall refer to it as the "British specification."

[3] Claims 1 and 19–22 read:

1. The method of electrolytically etching a refractory, film-forming metal selected from the group consisting of tantalum, zirconium, niobium, titanium, and alloys of tantalum and niobium, which comprises making the metal the anode in an electrolyte solution consisting essentially of from 6.5 to 99% by weight of methanol, from about 87 to 0% by weight of an organic liquid miscible with methanol and from 3000 to 135,000 ppm. of water, and at least one methanol-soluble inorganic salt dissolved therein producing a solution having a conductivity capable of passing a current therethrough and being incapable of producing a film on the metal when current is passed through the electrolyte solution, said organic liquid forming with said methanol and water a combined solvent for said inorganic salt.

19. The method of claim 1, wherein the metal is zirconium.

20. The method of claim 1, wherein the metal is niobium.

21. The method of claim 1, wherein the metal is titanium.

22. The method of claim 1, wherein the metal is an alloy of tantalum and niobium.

tantalum stand allowed. The claims on appeal, however, being either specific to metals first disclosed in the application of May 9, 1955, or generic to those metals and tantalum, find no support in the earlier applications and it is for this reason that the British specification is cited against them. Appellants do not contend that the applications prior to the one involved here contain any *support for claims* to the added metals, whether specific or generic, but rely on them here only as a means of *getting rid of the British reference altogether*.

Appellants tell us that they "base their main argument on the case of *In re Stempel* (CCPA 1957), 118 USPQ 77 [44 CCPA (Patents) 820, 241 F.2d 755] decided by the court subsequent to the Board of Appeals decision appealed from in this case." In view of the nature of the argument which has been erected on certain passages in the Stempel opinion, [1] we deem it advisable to reiterate the warnings given in the past by Judge Hatfield in *Conover* v. *Downs*, 17 CCPA (Patents) 587, 592, 35 F.2d 59, 8 USPQ 58, and Judge O'Connell in *In re Newton*, 38 CCPA (Patents) 877, 880, 187 F.2d 337, 88 USPQ 554, that undue liberties should not be taken with court decisions, which should be construed in accordance with the precise issue before the court, and that a fertile source of error in patent law is the misapplication of a sound legal principle established in one case to another case in which the facts are essentially different and the principle has no application whatsoever.

As we have indicated, [2] the situation here involves a one year statutory bar under 35 U. S. C. 102(b). The claims on appeal were first supported by and made in an application filed May 9, 1955 and the British specification had been published nearly two years before on May 13, 1953, fully disclosing the invention as applied to tantalum, a species within the generic claims. As reiterated in the Steenbock case, it is axiomatic that the disclosure of a species in a reference is sufficient to prevent a later applicant from obtaining generic claims, unless the reference can be overcome, and so the British specification disclosing the species tantalum, published over a year before appellants filed their generic disclosure is clearly a statutory bar to the granting of the generic claims.

Furthermore the present case is an exact parallel to the situation in the Steenbock case. The application there involved disclosed and claimed the irradiation of fungus material broadly. It was filed May 14, 1932,[1] as a continuation-in-part of an application filed December 27, 1926, which did not disclose the broad genus "fungus material," but only a specific fungus, yeast. The references were two publications of 1925 and 1927 and Steenbock's own British specification published November 12, 1926. Steenbock was allowed his specific yeast claims, supported by his parent application, because there was no two year statutory bar against them (the law then allowed two years) and he was able to swear back of the references and show prior invention. But as to the broad fungus material claims, all three references were held to be statutory bars as two year publications by the Board of Appeals. While appellants argue strenuously that this court did not affirm that rejection but affirmed on another ground allegedly applied by the Board to the effect "that the fungus claims were broader than and unsupported by a disclosure of the single yeast species," there was no such other ground of rejection. It is all of a piece. The Board's finding was that because of the lack of supporting disclosure for broad fungus claims *in the parent applications*, Steenbock had to rely on his 1932 filing date and therefore the references were two year statutory bars as to it; and this court, after restating the Board's rejection as having been "for the reason that each of the references * * * was published more than two years prior to the filing of the involved application," affirmed that rejection. The Steenbock case is therefore directly in point and clear authority for the rejection of the broad claims herein.

We come now to the Stempel case, on which appellants "base their main argument." They say in their brief, "the Steenbock case was disposed of by this court in the Stempel case except as to its statutory bar aspect which was not involved in the Stempel case, but about which there seems to be some confusion."

[3] The only disposition we made of the Steenbock opinion in the Stempel case was to say that it had nothing much to do with the Stempel issues, which were concerned with swearing back of a reference where there was no one year statutory bar, whereas Steenbock was decided on the basis of a statutory bar. Similarly we can now say the converse, that the Stempel case has no bearing on the present issues which are concerned with a statutory bar in the British publication.

Appellants indulge in some ingenious but specious reasoning based on the Stempel case. They point out that there the reference *sworn back of* disclosed only a single species and that we held that when that species was antedated by a Rule 131 affidavit, the reference was disposed of. They then say that here the British specification discloses but one species, that their United States parent application antedates it as to all it discloses and therefore it is disposed of as a reference. The two situations, however, are not thus comparable.

There is one fundamental which appellants consistently overlook, namely that what they are here claiming was first disclosed and claimed by them in their third application and that they are entitled to no date, *as to this subject matter*, earlier than May 9, 1955, when that application was filed. Copendency with earlier filed applications disclosing different subject matter, viz. the tantalum species of the invention only, avails them nothing on the appealed claims. It is of significance only as to the tantalum species. Antedating the reference as to this species does not remove it from the category of a printed publication, published in 1953. As such it is quite unlike the reference in the Stempel case. There, if the Amos patent had been issued more than a year before Stempel's filing date, he could not have sworn back of it. Rule 131 in terms would have prohibited it and, even though he could have established *priority*, the Amos patent would have stood as a statutory bar to his claim. It is precisely in this way that the British specification stands as a bar to the claims of the appellants.

[4] A fair and careful reading of the Stempel opinion will show that we were careful to point out several times that our decision had no bearing on a situation in which a reference was a "statutory bar" in the

[1] The opinion does not disclose this date and we have obtained it from the record on file in this court.

sense of having issued more than one year prior to the applicant's actual effective United States filing date.[1] There is such a bar here.

The principle applicable in this case did not originate in *In re Steenbock* and is not dependent thereon but is statutory in its origin and a rule of general application. It was applied by the Supreme Court under slightly different circumstances in *Muncie Gear Co. v. Outboard Co.*, 315 U. S. 759, 53 USPQ 1. There a certain device had been put on sale and had gone into public use after the filing of the patent application but the claims to that device were not made in the application, until they were inserted by amendment two years after such public use, by reason of which they were held invalid. The pendency of the application prior to the commencement of the statutory bar was of no avail.

In the Muncie Gear Co. case the court predicated its decision on that part of R. S. 4886 which is now codified in section 102(b) dealing with events which constitute bars to a patent if they occur more than a year before the applicant's effective filing date in the United States. A filing date, to be effective, must be that of an application which *supports the claims*. Appellants' earlier applications fail them in this respect. If course, [5] it is of no moment whether the bar of a patent, printed publication, public use or sale results from the acts of the applicant or of others, so the circumstance that the British specification was applicants' own cannot be taken into account.

There remains for consideration the species claims 19–22, directed to the method as applied to the metals or alloys other than tantalum. The principal argument as to these claims is that the British specification is not usable as a reference but we have held otherwise. It disclosed the tantalum species of the method. The Examiner combined therewith the Taylor Patent 2,368,688 and said in his rejection, "As stated in Taylor, Zr, Nb and Ti are known equivalents of Ta." He said also that Taylor was cited merely to verify "the previous statement of common knowledge as to the equivalency of the several metals." The Board affirmed this rejection without discussion.

As we view the matter, the etching process as applied to tantalum, being in effect in the "prior art" through publication of the British specification, the question is whether applying that process to zirconium, niobium, titanium and alloys of tantalum and niobium would be obvious to a person having ordinary skill in the art in view of the teaching of the Taylor patent. We feel sure it would.

The Taylor patent relates to electrolytic condensers, which are the same as appellants' electrolytic capacitors. Appellants recognized that it was old to use tantalum electrodes and that it was desirable to increase their surface area by etching them. Taylor likewise emphasizes tantalum as an electrode metal because it is a "film-forming corrosion-resistant metal" and recognizes the advantages of extended surface area. Along with tantalum he lists as other metals in the same category of known film-forming corrosion-resistant metals usable as electrolytic capacitor electrodes, zirconium, titanium and columbium (another name for niobium), exactly the same four elemental metals named by appellants.

[6] It being shown in the British specification that tantalum can be etched for use as an electrode metal by appellants' process it seems to us that it would be most obvious to one skilled in the art, in view of the teaching of Taylor, to apply the same etching process to the other known electrolytic capacitor metals or to alloys of two of those metals. Appellants' method as originally disclosed was designed to etch a metal most resistant to corrosion and hence difficult to etch, namely tantalum, and if it would etch tantalum one would not be surprised if it etched the others. Certainly it would be obvious to try it and mere proof that it worked would not make it patentable over the disclosure of the British specification. 35 U. S. C. 103.

[7] The decision of the Board is affirmed.

AFFIRMED.

[1] See, for example, the following excerpts from the Stempel opinion:

In the case of a reference, it is fundamental that it is valid only for what it discloses and if the applicant establishes *priority* with respect to that disclosure, *and there is no statutory bar*, it is of no effect at all.

What is a "reference"? It is nothing more than a patent or publication cited to show that all or part of the invention for which a patent is sought was in the prior art, either more than a year before the filing date to which the applicant is entitled, *in which case it is a "statutory bar" and cannot be sworn back of*, or before the applicant's date of invention.

When a reference is not a statutory bar, Rule 131 provides a procedure by which the applicant is permitted to show, if he can, that his date of invention was earlier than the date of the reference. [Emphasis added.]

U. S. Court of Customs and Patent Appeals

IN RE O'BRIEN

No. 6425. Decided June 18, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—RECORD—CORRECTING DIMINUTION OF RECORD.

"The motion to correct diminution of record seeks the addition of the Kannenberg and Hanert patents. Since those patents were relied on by the Examiner and his decision with respect to them was not reversed by the Board they clearly should have been included in the record; and this does not appear to be disputed by appellant. The motion to correct diminution is accordingly granted."

2. SAME—MATTER BEFORE COURT—LACK OF SPECIFIC ASSIGNMENT OF ERROR—MOTION FOR SUMMARY JUDGMENT OF AFFIRMANCE.

In regard to a "Motion for Summary Judgment of Affirmance" based on a contention that, since there was no specific assignment of error with respect to certain reference patents (said by the Board of Appeals to be "cumulative only relative to" another reference), the court was bound to affirm a rejection so far as it was based on those patents, and the issues raised in the assignments of error were, therefore, moot, *Held* that neither the applicable statutes nor the rules of the court contain any provision for a "summary judgment of affirmance," and that, on the contrary, 35 U. S. C. 143" provides that, prior to a decision on the merits, the court shall afford a hearing and the Commissioner shall furnish the court with the grounds of the decision of the Patent Office in writing 'touching all points involved by the reasons of appeal,'" and *Held* that the motion accordingly should be dismissed.

3. SAME—AMENDMENT OF REASONS OF APPEAL.

In regard to appellant's petition for permission to amend his appeal to include in the reasons of appeal a reference to patents not before mentioned therein, *Held* that the determination of the questions raised by the petition would require consideration of the entire record, which would involve a duplication of the consideration necessary at the hearing of the appeal, and that the petition accordingly should be denied without prejudice to its renewal at that time.

ON MOTION. Serial No. 297,089.

DENIED.

Willis B. Rice (*Robert I. Dennison* of counsel) for O'Brien.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

PER CURIAM:

This case comes up for consideration of motions by the Solicitor of the United States Patent Office to correct diminution of record and for "Summary Judgment of Affirmance," and a petition by appellant for permission to amend his appeal and to file a supplementary brief.

The record shows that the Examiner rejected appellant's claims on a patent to Muller, in "view of Hanert, Hammond or Kannenberg," the latter three patents being relied on as showing essentially the same feature. In affirming that rejection the Board of Appeals said:

> We have studied the subsidiary art and find that Kannenberg and Hanert are cumulative only relative to Hammond. We will, therefore, confine our further attention to Hammond and Muller.

Appellant, in his reasons of appeal, did not mention the Kannenberg or Hanert patent, and those patents are not included in the record; and it is from that omission that the instant motions and petition arise.

[1] The motion to correct diminution of record seeks the addition of the Kannenberg and Hanert patents. Since those patents were relied on by the Examiner and his decision with respect to them was not reversed by the Board they clearly should have been included in the record; and this does not appear to be disputed by appellant. The motion to correct diminution is accordingly granted.

The "motion for Summary Judgment of Affirmance" is based on the contention that since there is no specific assignment of error with respect to the Kannenberg and Hanert patents, this court is bound to affirm the rejection so far as it is based on those patents, and the issues raised in the assignments of error are therefore moot.

[2] Neither the applicable statutes nor the rules of this court contain any provision for a "summary judgment of affirmance." On the contrary, Title 35 U. S. C. Section 143 provides that, prior to a decision on the merits, the court shall afford a hearing and the Commissioner shall furnish the court with the grounds of the decision of the Patent Office in writing "touching all points involved by the reasons of appeal." The motion for "summary judgment of affirmance" is accordingly dismissed.

[3] Appellant's petition seeks permission to include in the reasons of appeal a reference to the Kannenberg and Hanert patents, and to file a supplementary brief with respect thereto. It appears that the determination of the questions raised by that petition will require consideration of the entire record, which would involve a duplication of the consideration necessary at the hearing of the appeal. The petition is accordingly denied without prejudice to its renewal at that time.

In accordance with the request contained in the motion to correct diminution of the record the time for filing the Commissioner's brief is reset to expire July 24, 1958.

DENIED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,180,943, R. F. Peo, Air conditioning systems for automobiles, filed June 30, 1958, D. C., S. D. Tex. (Houston), Doc. 12166, *Albert L. Reiser* v. *The Forston Co. et al.*

2,204,228, F. H. Richterkessing, Traffic signals; **2,213,469**, L. Quilliam, Traffic control system; **2,220,552**, Stolp and Wagner, Time element release for control of traffic signals; **2,234,606**, F. H. Richterkessing, Railway preference traffic signal control; **2,234,616**, T. Tone, Traffic signal with electric control; **2,234,636**, Stolp and Richterkessing, Control for traffic control system, filed Sept. 22, 1953, D. C., W. D. Ky. (Louisville), Doc. 2867, *Nachod and United States Signal Co.* v. *Eastern Industries, Inc. et al.* Order of dismissal with prejudice Nov. 2, 1953 (notice received July 3, 1958).

2,213,469. (See 2,204,228.)

2,220,552. (See 2,204,228.)

2,222,946, R. Y. Hall, Fabric construction, filed Sept. 9, 1954, D. C., S. D. N. Y., Doc. 95/296, *Kimberly Knitwear, Inc.* v. *Renee Y. Hall.* Stipulation and order of dismissal with prejudice July 2, 1958.

2,234,606. (See 2,204,228.)

2,234,616. (See 2,204,228.)

2,234,636. (See 2,204,228.)

2,249,688, C. L. MacIntosh, Bracelet linkage, appeal filed Nov. 12, 1957, C. C. A., 1st Cir., Doc. 5311, *Foster Metal Products, Inc.* v. *Jacoby-Bender, Inc.* Judgment of District Court, Massachusetts affirmed (notice June 27, 1958).

2,256,092, D. Deskey, Plywood panels; **2,262,492**, W. C. Bailey, Process of making balanced laminated panels; **2,262,927**, same, Balanced striated plywood panels, appeal filed May 14, 1957, C. C. A., 2nd Cir., Doc. 24656, *Georgia-Pacific Plywood Co.* v. *United States Plywood Corp.* Judgment of District Court, Southern District, New York reversed; action remanded (notice July 1, 1958).

2,294,784, T. A. O'Leary, Screws, filed July 8, 1958, D. C. N. J. (Newark), Doc. 753/58, *Theodor A. O'Leary* v. *Pheoll Mfg. Co. et al.*

2,858,185, J. G. Oetsel, Magnetic friction device; **2,554,874**, same, Magnetic friction element; **2,765,058**, P. A. Harter, Magnetic torque producing device, filed June 30, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c186, *Warner Electric Brake & Clutch Co.* v. *Eaton Manufacturing Co.*

2,262,492. (See 2,256,068.)

2,262,927. (See 2,256,068.)

2,272,891, E. Pick, Container closure; **2,606,719**, W. Wood, Seawater desalting composition; **2,642,771**, E. Pick, Liquid treatment device, filed July 2, 1958, Ct. Cls., Doc. 300/58, *Pfaudler Permutit, Inc.* v. *The United States.*

2,406,904, F. W. Roberts, Wood grinding machines, filed May 16, 1956, D. C., W. D. Wis. (Madison), Doc. 2808, *Charles B. Roberts, Trustee of Fred W. Roberts, deceased* v. *Appleton Machine Co., Inc. et al.* Final consent decree; by stipulation (notice July 8, 1958).

2,480,061, Roberts and Roberts, Method of making flexible tubes; **2,486,763**, R. E. Roberts, Apparatus for making flexible tubes; **2,524,679**, same; **2,569,269**, same; **2,584,501**, same, Method of making a flexible corrugated tube; **2,780,273**, F. T. Roberts, Method and apparatus for making a molded flexible hose; **2,779,976**, Roberts and Roberts, Method of making hose; **2,813,573**, R. E. Roberts, Method and apparatus for making corrugated flexible hose; **2,830,632**, Roberts and Roberts, Hose and method of making same, filed July 5, 1956, D. C., M. D. Pa. (Scranton), Doc. 6354, *Frederick T. Roberts et al.* v. *Herbert Cooper Co., Inc.*

2,451,227, N. R. Krause, Self-cleaning screens or filters, filed July 2, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c191, *N. R. Krause* v. *Massey-Ferguson, Inc.*

2,452,529, J. L. Snoek, Magnet core; **2,452,530**, same; **2,452,531**, same; **2,490,780**, J. A. M. Smelt, Method of manufacturing magnetic mass cores; **2,531,711**, J. L. Snoek et al., Manganese zinc ferrite core; **2,570,978**, same, Soft ferromagnetic material and method of making same, suit for Declaratory Judgment filed Jan. 24, 1952; **2,626,909**, J. L. Snoek et al., Magnetic core, supplemental complaint filed May 5, 1953, D. C., S. D. N. Y., Doc. 72/382, *Henry L. Crowley & Co., Inc. v. Philips Laboratories, Inc. et al.* Stipulation and order of dismissal of supplemental complaint without prejudice June 17, 1953; stipulation and order of dismissal June 27, 1958.

2,452,530. (See 2,452,529.)

2,452,531. (See 2,452,529.)

2,486,761. (See 2,430,081.)

2,499,141, W. G. Helmus, Heat-treatment of webs of textile materials; **2,499,142**, same, appeal filed Apr. 24, 1957, C. C. A., 2nd Cir., Doc. 24631, *Triangle Finishing Corp. v. Fair Lawn Finishing Co.* Decision of District Court, Southern District of New York affirmed as modified by eliminating the declaration of non-infringement (notice June 17, 1958).

2,499,142. (See 2,499,141.)

2,524,679. (See 2,430,081.)

2,529,949, S. H. Ross, Method of magnetizing permanent magnet rotors, filed July 7, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18841, *Eastern Air Devices, Inc. v. Rotating Components, Inc.*

2,533,527, J. A. Soltis, Baby's automobile seat; **2,690,787**, same, filed July 8, 1958, D. C., S. D. N. Y., Doc. 135/220, *Dennis Mitchell Industries v. Bunny Bear, Inc.*

2,551,711. (See 2,452,529.)

2,554,874. (See 2,353,185.)

2,560,269. (See 2,430,081.)

2,564,310, Nussbaum and Obert, Means for controlling the head pressure in refrigerating systems; **2,761,287**, Malkoff and Nussbaum, same, filed June 30, 1958, D. C. N. J. (Trenton), Doc. 722/58, *Kramer Trenton Co. v. Melchior, Armstrong, Dessau Co.*

2,570,978. (See 2,452,529.)

2,584,561. (See 2,430,081.)

2,600,719. (See 2,372,391.)

2,636,809. (See 2,452,529.)

2,636,809, J. L. Snoek et al., Magnetic core, filed May 4, 1953, D. C., S. D. N. Y., Doc. 84/373, *Henry L. Crowley & Co., Inc. v. Philips Laboratories, Inc. et al.* Stipulation of discontinuance and dismissal of action June 27, 1958.

2,643,771. (See 2,372,391.)

2,650,265, L. P. Martin, Sort verifier for punched cards, filed July 3, 1958, Ct. Cls., Doc. 303/58, *C. H. Grant v. The United States.*

2,677,971, H. B. Greenwood, Angular adjustment device; **2,705,143**, same, Skip-feed mechanism, filed June 1, 1955, D. C. Md. (Baltimore), Doc. 8283, *Henry B. Greenwood v. Flynn & Emrich Co.* Final decree after mandate July 3, 1958.

2,683,437, T. W. Merritt, Milking system, filed Mar. 5, 1956, D. C., E. D. Wis. (Milwaukee), Doc. 58c50, *Babson Bros. Co. v. National Cooperative, Inc.* Judgment for plaintiff (notice June 27, 1958).

2,690,787. (See 2,533,527.)

2,699,234, F. Pettit, Airplane toy, filed Mar. 12, 1956, D. C., S. D. N. Y., Doc. 107/383, *Frank Pettit v. Gilbert G. Smith et al.* Stipulation and order of discontinuance (notice July 1, 1958).

2,705,058. (See 2,353,185.)

2,705,143. (See 2,677,971.)

2,713,882, L. L. Krieger, Brassieres, filed July 1, 1958, D. C., S. D. N. Y., Doc. 135/158, *International Latex Corp. v. Wynton Brassiere Co., Inc. et al.*

2,718,966, Re. 24,189, V. H. Peoples, Spreader control, filed July 2, 1958, D. C., S. D. N. Y., Doc. 135/170, *Traumatic Machine & Tool Co., Inc. v. O. M. Scott & Sons Co.*

2,723,858, W. H. F. Schmieding, Brazier, filed Jan. 20, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 19466–PH, *Warren H. F. Schmieding v. Big Boy Mfg. Co.* Stipulation and order of dismissal (notice June 12, 1958).

2,754,653, S. J. Adams, Stop motion devices, filed June 24, 1958, D. C., M. D. Ga. (Macon), Doc. 754, *Simpson J. Adams et al. v. Columbus Mfg. Co., Inc. et al.*

2,761,287. (See 2,564,310.)

2,770,715, Brown and Landers, Low fluid loss composition, filed June 26, 1958, D. C., W. D. Tex. (Pecos), Doc. 3048, *Continental Oil Co. v. Dowell, Inc. et al.* Same, Doc. 3049, *Continental Oil Co. v. The Western Company of Midland, Texas.*

2,779,976. (See 2,430,081.)

2,780,273. (See 2,430,081.)

2,782,431, J. Winson, Mitten, filed July 1, 1958, D. C., S. D. N. Y., Doc. 135/153, *Air Baby, Inc. v. Nolan Glove Co., Inc. et al.*

2,794,375, Di Falco and Di Falco, Jr., Sectional curb for parking lots and the like, filed Feb. 13, 1958, D. C. N. J. (Camden), Doc. 193/58, *Alco Kar Kurb, Inc. v. G. P. Farmer Coal & Supply Co., Inc. et al.* Consent judgment against Edward Campbell Co.; consent order of discontinuance against Weiss and Brower, G. P. Farmer Coal & Supply Co., Inc. and Allan Lombardi (notice June 27, 1958).

2,802,088, P. Chilo, Lamp harp, filed June 27, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18825, *Chilo Mfg. & Plating Co., Inc. v. Angel Harp Mfg. Corp.*

2,813,573. (See 2,430,081.)

2,828,899, J. Zuckerman, Cover for garment hanger, filed July 2, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18837, *Yankee Plastics, Inc. v. Nathan Mill et al.*

2,830,622. (See 2,430,081.)

2,833,595, W. Hastings, Portable exercising device; **Des. 182,669**, same, filed Apr. 29, 1958, D. C. Mass. (Boston), Doc. 58/454–F, *Beacon Enterprises, Inc. v. J. M. Smith Co., Inc. et al.* Final consent decree for injunction June 25, 1958.

Re. 24,189. (See 2,718,966.)

Des. 168,974, J. H. Spaulding, Fluorescent lighting fixture, filed Oct. 11, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1094, *Whiteway Mfg. Co. v. Guardian Light Co., Inc.* Patent held invalid; compiaint dismissed June 26, 1958.

Des. 178,436, C. C. Unzicker, A pull; **Des. 180,582**, L. E. Clayton, same, filed Mar. 28, 1958, D. C., W. D. Mich. (Grand Rapids), Doc. 3411, *Amerock Corp. v. Tassell Hardware Co.* Consent decree as to Des. 178,436; dismissed as to Des. 180,582 (notice July 5, 1958).

Des. 180,582. (See Des. 178,436.)

Des. 182,660. (See 2,832,595.)

REISSUES

AUGUST 19, 1958

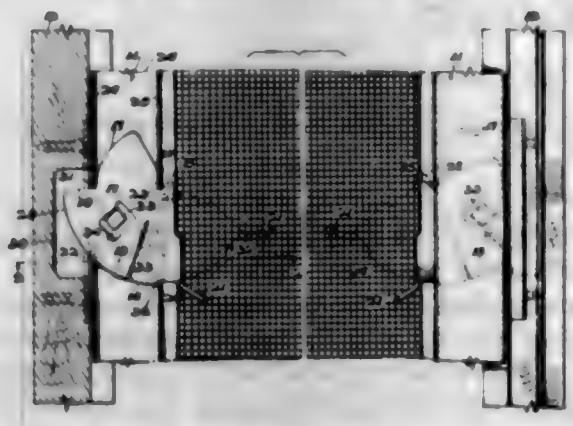
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,520
SELF-RETAINING LATCH

Owen Conrad, Miami, Fla., assignor to American Screen Products Company, a corporation of Florida

Original No. 2,776,002, dated January 1, 1957, Serial No. 336,926, February 16, 1953. Application for reissue August 21, 1957, Serial No. 680,613

13 Claims. (Cl. 160—369)



1. In a hollow frame member having spaced parallel side walls and having a first slot in one of said walls and a second slot in the other wall, a latch member adapted to be mounted in the frame member, said latch member comprising a disc loosely mounted in the hollow frame for bodily shifting movement and pivotal movement, said disc being formed with a V-notch at the top, said notch pivotally engaging the upper edge of the first slot, said disc having a circular portion normally slidably engaging the lower edge of the first slot, and a portion presented as a tongue slidably engaging the second slot, said tongue portion being protruded beyond the second slot when the disc is pivotally moved in one direction about the V-notch and being retracted when the disc is pivotally moved in the opposite direction, said disc having a recessed portion at one end of the circular portion to engage the lower edge of the first slot when the disc is pivoted to the position where the tongue portion protrudes through the second slot, said disc being provided with a second circular portion in slidable engagement with the wall containing the second slot.

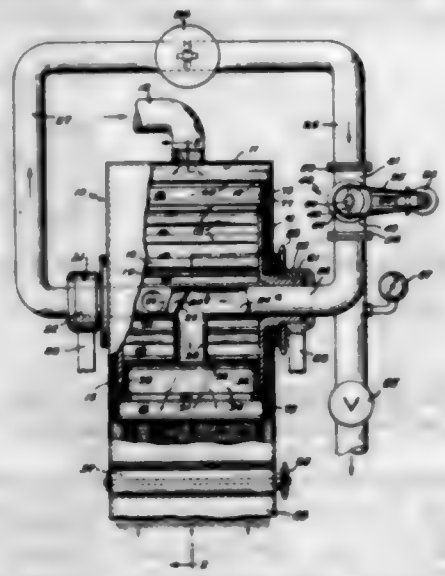
24,521
DUST COLLECTOR

Frank W. Young, Medfield, Mass.

Original No. 2,732,912, dated January 31, 1956, Serial No. 333,639, January 28, 1953. Application for reissue April 17, 1958, Serial No. 732,408

8 Claims. (Cl. 183—61)

1. A continuous rotary dust collector which comprises, in combination, a container providing a filtration chamber having an inlet for the gaseous mixture to be filtered, a generally cylindrical hollow gas permeable filter base structure mounted in said chamber for rotation about its principal axis, a filter cloth surrounding and carried by said structure, a source of suction, a conduit connecting said source to the interior of said structure, stationary baffles mounted within said structure extending into engagement with the inner surface thereof and defining a discharge sub-chamber isolated from said suction adjacent a narrow discharge area of said cloth, [and a source of rapidly pulsating gas under very low pressure in communication with said sub-chamber for rapidly] *a source of flowing pulsating gas and a conduit connecting said source of pulsating gas to said sub-chamber for* vibrating



said cloth in said discharge area thereby to discharge therefrom into said filtration chamber any particles deposited on the outer surface thereof.

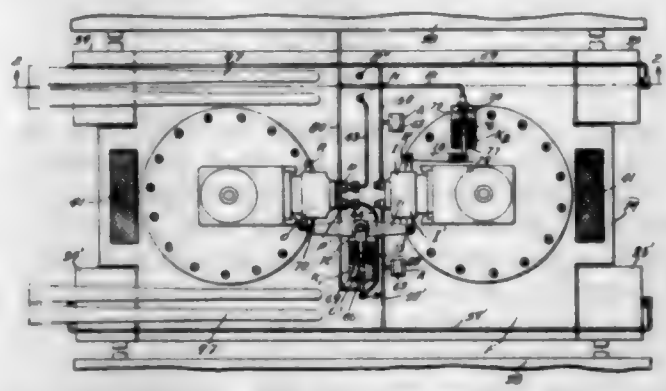
24,522
FREE-PISTON MOTOR-COMPRESSORS

Erich A. Wachsmuth, Michigan City, Ind.

Original No. 2,755,988, dated July 24, 1956, Serial No. 297,745, July 8, 1952. Application for reissue March 12, 1958, Serial No. 721,068.

Claims priority, application Germany July 11, 1951

25 Claims. (Cl. 230—56)



1. In combination, in a motor driven compressor, a diesel motor having fuel-pumping means having an adjustment for the quantity of fuel pumped and a compressor actuated by said motor and having a device for varying the quantity of fluid delivered per stroke, which device has an adjustment which controls the quantity of delivered fluid, a pressure responsive device responsive to compressor discharge pressure from atmospheric pressure to the lower limit of the designed operating range, another pressure responsive device responsive to compressor discharge pressure from said lower limit to the maximum desired compressor discharge pressure, an operating connection between said first mentioned pressure responsive device and said first mentioned adjustment by which said device causes said adjustment to increase fuel supply with increasing compressor discharge pressure, said operating connection including a

lever to which, between its ends, said first mentioned pressure responsive device is connected and which has one of its opposite arms connected to said first mentioned adjustment, an operating connection between said second mentioned pressure responsive device and said second mentioned adjustment by which said second mentioned pressure responsive device causes said second mentioned adjustment to reduce the quantity of fluid compressed and delivered per stroke as compressor discharge pressure increases from said lower limit, and a further connection actuated by said second mentioned pressure responsive device and connected with the arm of said first mentioned lever which is not connected with said first mentioned adjustment for causing said first mentioned adjustment to reduce fuel delivery proportionally to reduction in fluid delivered, said diesel motor having a cylinder containing opposed pistons and exhaust ports uncovered by one of said pistons and scavenging ports uncovered by the other of said pistons at an instant at which motor cylinder pressure starts to fall below atmospheric, said exhaust ports having connecting with them an exhaust system in which successively there are produced a pressure wave, a subatmospheric pressure and a return pressure wave, the last two effecting the induction through the scavenging ports and the supply for compression within said motor cylinder of all the scavenging air required by said motor under any normal operating conditions.

PLANT PATENTS

GRANTED AUGUST 19, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,743

PEACH TREE

Paul K. Fujihara, Del Rey, Calif.

Application December 13, 1957, Serial No. 702,743

1 Claim. (Cl. 47—62)

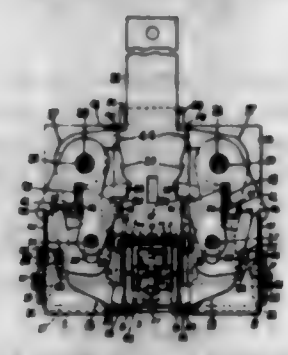
A new and distinct variety of peach tree substantially as shown and described herein and especially characterized by: high sugar and low acid content having an excellent flavor for eating purposes; an early blooming habit, later than the Giant Babcock and approximately concurrently with the Red Haven; ripening approximately two weeks later than the Giant Babcock and a month later than the Red Haven; more prominent red and yellow coloring of the fruit than the Giant Babcock; and a marked ability to hold on the tree in prime condition for longer periods of time after ripening than the Red Haven or the Giant Babcock.

PATENTS

GRANTED AUGUST 19, 1958

GENERAL AND MECHANICAL

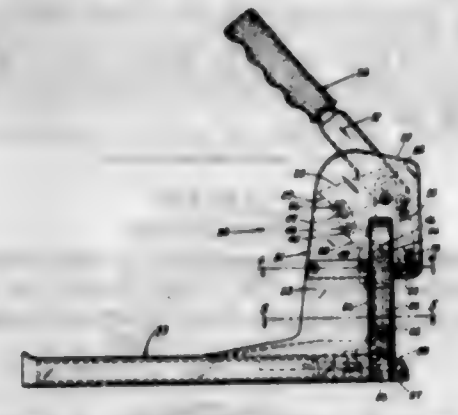
2,847,673
FASTENER APPLYING DEVICE
Herman J. Spencer, Ingomar, Pa.
Application August 13, 1956, Serial No. 604,156
7 Claims. (Cl. 1—49)



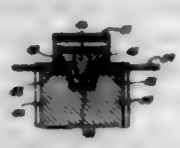
1. Stapling mechanism comprising a frame, a driver with cam surfaces reciprocable therein, a staple guide adapted to guide staples to a position in the path of said driver, pivoted anvil plates which have projections at their lower ends for piercing material to be stapled and for bending the legs of a staple as it is driven downwardly, pivot means on said anvil plates and pivot guiding means for said pivot means on said frame for limiting downward movement of said anvil plates after they have penetrated said material, releasable interlocking means below said cams between said driver and the upper ends of said anvil plates for moving the anvil plates downwardly to penetrate said material, anvil plate arms operated by said driver for moving and then holding the upper end of said anvil plates in interlocking position with said driver during its upwardly movement, and means to release said anvil plates during downward movement of said driver to permit it to move its cams downwardly into engagement with the upper ends of said anvil plates to shift their projections into staple-bending position, operable anvil plate locking means connected and reciprocated with and operated by said anvil plates when they are shifted into staple-bending position, obstruction means on said frame to obstruct upward movement of said anvil plate locking means to thereby restrict upward movement of said anvil plates from their downwardly position, said anvil plate locking means moved away from said obstruction means by said anvil plate arms when said driver is moving upwardly to thereby permit said anvil plates to be moved upwardly.

2,847,674
HAND OPERATED STAPLING MACHINE
Victor Wasyaczuk, Chicago, Ill., assignor to International Staple & Machine Company, Herrin, Ill., a corporation of Pennsylvania
Application November 1, 1956, Serial No. 619,733
10 Claims. (Cl. 1—49)

4. A stapling machine having a standard, staple driving blade, staple receiving means, means for operating said driving blade and performing a stapling operation, said means comprising an operating handle pivotally connected to said standard, force translating means for converting force applied by an operator to said handle to the staple driving blade, said force translating means including linking means of low mechanical advantage connecting said handle and the staple driving means at an early stage of the stapling operation, and substantially direct driving means of relatively high mechanical advantage connecting said handle and the staple driving means at a final clinching stage of the operation, said substantially direct driving means including a cam element integrally connected to said handle which is adapted to bear against a rigid link pivotally secured to a mounting block which supports the driving blade, said cam element being disengaged from the link at the early stage of the stapling operation.



2,847,675
SEALING TOOL
Winfred M. Brooks, West Orange, N. J., assignor to E. J. Brooks Company, Newark, N. J., a corporation of New Jersey
Original application July 1, 1953, Serial No. 365,488, now Patent No. 2,796,278, dated June 18, 1957. Divided and this application April 10, 1957, Serial No. 651,977
5 Claims. (Cl. 1—215)



1. In a sealing tool having opposed die members for the reception of a sheet material sealing element; one of said die members having a pair of supporting ledges and a pair of curved seats, the units of each of said pairs being separated by a central channel, the other one of said die members having a pair of opposing surfaces in opposition to said pair of curved seats, and having a center punch located intermediate said pair of opposing surfaces in the plane of said central channel; and means to move said die members one with relation to the other.

2,847,676
EXPENDABLE MEDICAL EXAMINING SHIELD FOR THE HANDS
Nathaniel C. Scott, Omaha, Nebr.
Application September 27, 1956, Serial No. 612,546
3 Claims. (Cl. 2—159)

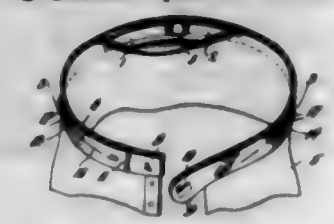
1. As a new article of manufacture, an expendable medical examining shield comprising in combination, a pair of adjacently-disposed members having adjacent marginal edge portions sealed together to form an open-ended pocket for receiving the hand of a wearer and having a base portion adjacent the open end and a finger portion at the closed end, said finger portion having a thumb section, an index finger section, a middle finger section and a combination section of greater width than

either of the other finger sections for receiving both ring and little fingers, said shield being formed of a waterproof plastic material having a non-porous outer sur-



face which is sufficiently thin to allow tactile sensitivity, the seal of said edge portions extending completely to the edges thereof, said seal having a width of less than one-sixteenth of an inch.

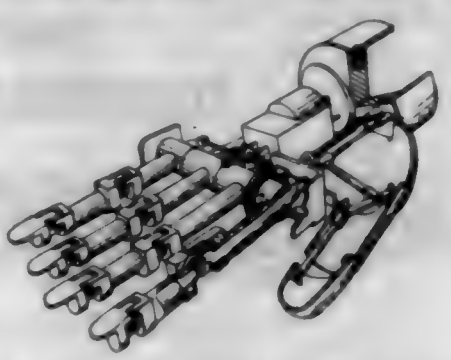
2,847,677
TROUSERS
William Robertson, Grahamstown, Union of South Africa
Application October 11, 1954, Serial No. 461,471
Claims priority, application Union of South Africa October 21, 1953
1 Claim. (Cl. 2—237)



In trousers or like garments having overlapping fly members, a waistband formed of oppositely facing inner and outer lengths of fabric secured to each other along their corresponding opposite edges, the lower edges of said lengths being secured to the upper edges of the trousers, said waistband having two overlapping ends at the front thereof, one of which extends beyond one of said fly members, a pair of supporting belts accommodated within said waistband between said lengths of fabric, one end of each of said belts being secured to one of each of said waistband ends, said belts passing in opposite directions from said waistband ends around and within said waistband then reversely folded and directed forwardly toward the front of the garment, a loop connecting the folds of said belts together at the rear of said waistband, said loop being unsecured to the fabric of said waistband, the other end of each of said belts emerging from within said waistband to the outside thereof through slits in said outer length of fabric, one at each side of said waistband, means for securing said other ends of said belts on the outer surface of said outer length at different positions thereon, whereby said waistband can be adjusted to fit snugly about the waist of the wearer and any puckering resulting therefrom is distributable throughout substantially the entire length of said waistband, a hook attached to one of said waistband ends and engageable with an eye attached to the other of said waistband ends.

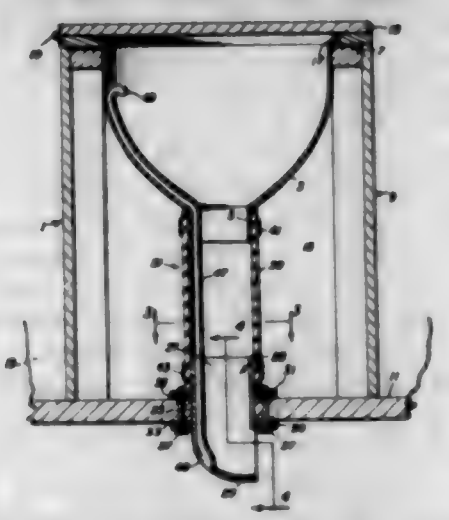
2,847,678
SYSTEM FOR CONTROLLED ACTUATION OF AN ARTIFICIAL HAND
Theodore Opuszenski, Glenbrook, Conn.
Original application July 24, 1951, Serial No. 238,336, now Patent No. 2,669,727, dated February 23, 1954. Divided and this application January 15, 1954, Serial No. 404,297
12 Claims. (Cl. 3—12.7)

1. A fluid pressure power supply means for an artificial hand comprising a pair of chambers having volume varying means therein, the volume varying means in one of said chambers being a driven piston coupled to a reciprocating drive means and the volume varying means in the other chamber being a driving piston coupled to the power output means, an input check valve permitting fluid flow



only into the chamber containing the driven piston, a check valve between the chambers permitting fluid flow only from the chamber containing the driven piston to the chamber containing the driving piston and a release valve permitting controlled discharge of fluid from the chamber containing the driving piston.

2,847,679
TOILET FOR BOATS
Henry Phillip Burgraff, Superior, Wis.
Application June 3, 1957, Serial No. 663,692
3 Claims. (Cl. 4—10)

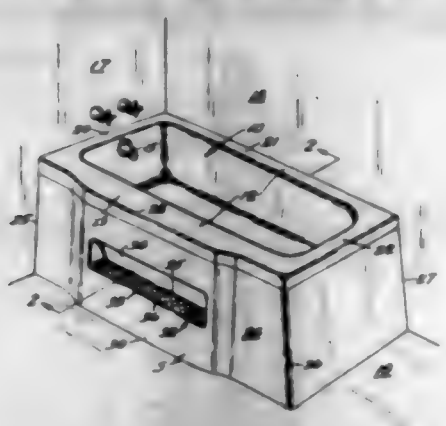


1. A toilet for a boat comprising a bowl having a bottom discharge throat, means for supporting the bowl on the bottom of a boat, a discharge conduit for said bowl attached to said throat to depend therefrom and through a hole in the bottom of a boat and terminating at its lower end in a suction discharge nozzle adapted to extend below the mottor of a boat and to open toward the rear of the boat whereby suction will be created in said condiut in response to forward travel of the boat and nozzle in water to draw matter and water out of the conduit, and a pipe extending upwardly through said conduit and throat into said bowl and having a lower end attached to said nozzle and opening out of the same in the direction of forward travel of the nozzle whereby in response to forward travel of the boat and nozzle water will be forced up said pipe into said bowl to flush matter therein into the conduit.

2,847,680
BATHTUB APRON CONSTRUCTION
Wayne R. Dornack, Rochester, Minn.
Application July 16, 1956, Serial No. 598,184
4 Claims. (Cl. 4—173)

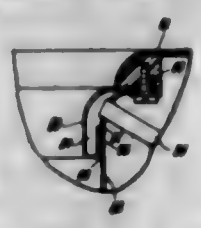
1. In a bathtub assemblage utilizing a conventional bathtuo having a basin and an upper side edge located approximately at knee height when the basin rests upon a floor, a supporting apron adapted to be secured edge-

wise at the side of said bathtub positioned in spaced relation above a supporting floor, said apron having a generally vertical sheet body, a horizontal upper supporting edge on said sheet for positioning underneath a side edge of the bathtub, a lower horizontal edge on the sheet



for resting upon a floor beneath the side edge, and a step inwardly offset from the sheet medially of the upper and lower edges, said apron being of such height as to raise the upper side edge of the tub a distance above the floor approximating waist height.

2,847,681
SELF-RINSING SINK
James W. Jacobs, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 14, 1956, Serial No. 584,514
6 Claims. (Cl. 4—187)

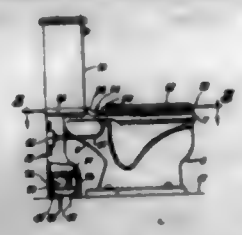


1. In combination, a sink having an inner wall, a member formed with a cavity mounted interiorly of said sink and in fixed relation to said wall, said cavity having a wall spaced from said receptacle inner wall and defining a passageway therewith, means for supplying said cavity with fluid, and means spaced upwardly from the bottom of said cavity for permitting flow between said cavity and said passageway.

6. A valve mechanism comprising, a housing having an inlet adapted to be connected to a fluid supply line and having a chamber, a spout outlet and a rinse spray outlet in said housing, a valve member normally blocking flow between said inlet and said chamber and axially movable for connecting said inlet and chamber, said valve member being rotatable around its longitudinal axis, and means rotatable with said valve member for selectively connecting said rinse spray outlet or said spout outlet with said chamber when said valve member is rotated.

2,847,681
TOILET VENTILATOR
William L. Shay, Reseda, Calif.
Application April 18, 1955, Serial No. 501,904
2 Claims. (Cl. 4—213)

1. In combination with a toilet assembly comprising a bowl including a rim defining a mouth and a tank supporting bracket extending rearwardly from said mouth and embodying a flushing duct; a seat; a pair of laterally spaced hinges providing a hinged connection between said seat and said bowl at the junction between the rear extremity of said mouth and said bracket; a pair of gaskets of resilient compressible material attached to the underside of said seat along the side portions thereof and closing the spaces between said rim and said seat when the latter is lowered, said gaskets being laterally spaced at their rear ends to define an outlet above the rear portion of said rim; a shallow substantially flat withdrawal duct mounted on the upper face of said bracket portion, said duct being of T-shape in plan and including a relatively wide transversely extending rear portion disposed partially over the rear portion of said bracket and partially projecting rearwardly from and overhanging the rear extremity thereof, and including a relatively narrow central portion extending forwardly between said hinges and sealed to said outlet for withdrawing vapors therethrough from said bowl, said withdrawal duct having an outlet port in the underside of said overhanging portion thereof; a scavenging duct having an upper end sealed to the said outlet port and embodying means for withdrawing vapors from said withdrawal duct therethrough; a flushing tank seated upon the upper side of said rear portion of the



withdrawal duct; a collar extending vertically between and joined to the upper and lower walls of said withdrawal duct in said relatively wide rear portion thereof immediately forwardly of said outlet port, said withdrawal duct having an opening extending vertically therethrough and defined by said collar; a nipple extending through the bottom of said tank and downwardly through said opening and sealed in said bracket in communication with said flushing duct, the upper end of said nipple being provided with a valve seat for a flushing valve; a pair of sleeves extending vertically between and joined to the upper and lower walls of said withdrawal duct in said relatively wide portion thereof on either side of said collar and providing a pair of bolt openings extending vertically through said withdrawal duct; and anchor bolts extending through said sleeves and anchoring the bottom of said tank to said bracket with said withdrawal duct interposed between the brackets and the tank, supported by the bracket and in turn supporting the tank.

2,847,683
CLOSURE OR STOPPER FOR DRAINAGE OPENINGS OF SINKS AND THE LIKE
Hans Jordan, Los Angeles, Calif., assignor to Given Machinery Company, Los Angeles, Calif., a partnership
Application January 24, 1955, Serial No. 483,614
3 Claims. (Cl. 4—295)



1. In combination: a drainage sleeve for a sink, which sleeve has an inner upstanding tubular wall and an upper outwardly extending annular flange to be borne on a sink bottom around a discharge outlet therethrough; and a freely movable and rotatable stopper resting on said sleeve flange and being relatively shallow with respect to said upstanding inner tubular wall of said sleeve, and including: a top closure member having an annular rim seating upon said sleeve flange and cutting off water drainage into said sleeve; and plural spaced lugs in annular series depending from the under side of said closure

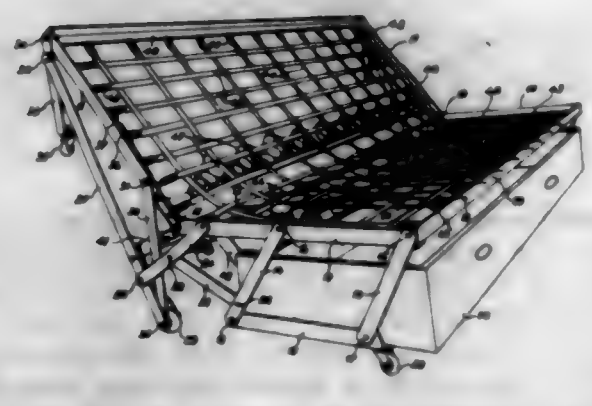
member within the rim thereof and engaging said inner tubular wall in any position of rotation of said stopper to prevent subetantial shift of said stopper transversely while seated on said annular sleeve flange, one of said lugs resting upon said sleeve flange upon tilting of said stopper and provided with a seat fitting upon said flange and resisting relative lateral movement of the stopper within said sleeve when tilted for drainage of water into said sleeve, said closure member being sufficiently narrow with respect to said inner tubular wall that one side portion of said closure member drops into said sleeve when the stopper is tipped for water drainage through said sleeve.

2,847,684

DIVAN-BED AND LIKE CONVERTIBLE FURNITURE

Marcel Robert Pompon, Paris, France

Application May 17, 1955, Serial No. 509,014
Claims priority, application France May 21, 1954
6 Claims. (Cl. 5—38)



1. A divan-bed comprising in combination a seat element and a back element, said elements being adjacent along an intermediate horizontal axis and pivoted to each other along said axis, said elements defining themselves the whole bed surface when the back element is lowered around said axis to form a horizontal extension of said seat element, a first supporting means for supporting the seat element, said first supporting means forming with said seat element a hinged leverage quadrilateral assembly, a second supporting means for supporting the back element, and connecting means having two members hinged with respect to each other and hinged to said assembly and to said second supporting means.

2,847,685

MATTRESS SUPPORTING CONSTRUCTION

Abraham Lincoln Freedlander, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio

Application May 3, 1952, Serial No. 285,901
1 Claim. (Cl. 5—354)



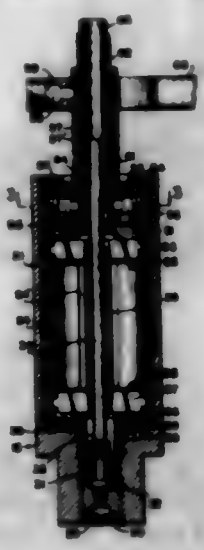
A bedboard construction for positioning between a mattress and a bed foundation member designed to accommodate the weight of the body of a person reclining on said mattress, comprising a sectioned sheet of vulcanized rubber-like material having a plurality of discrete, parallel fibers of relatively short length arranged therein, wherein the individual sections of said sheet lie transversely of the body of a person reclining in normal position upon said mattress, are joined by elastic strips adhered to the marginal portion of their broadside surfaces and are vertically displaceable from their common plane of repose and wherein said fibers extend longitudinally of said sections.

2,847,686

PORTABLE THREADING TOOL FOR THREADING OPPOSITE ENDS OF A BLANK IN A SINGLE OPERATION

Walter H. Jackson, Brooklyn, N. Y.

Application July 19, 1956, Serial No. 598,793
8 Claims. (Cl. 10—92)



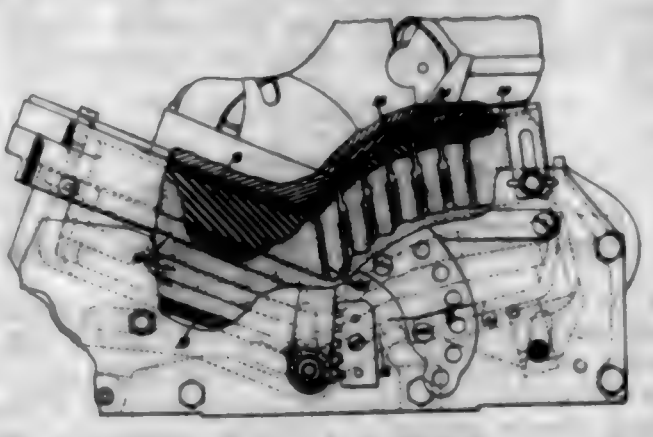
1. A portable tool for threading pipe nipples, stud bolts and the like comprising a hollow body having a depending shank portion adapted to be secured to a socket or vise, said hollow body being open at the top and having a central opening depending from the bottom thereof within the shank portion, a lower die assembly resting in the bottom of the hollow body and having a shank extending into the central opening, releasable means on the body engageable with the shank of the die assembly to hold the same against rotation, means associated with said body to hold a blank piece centered upon the lower die, an upper die carrier, an opposing upper die having a shank extending into the carrier, releasable means on the carrier and engaging with the shank of the upper die to hold the upper die against rotation relative thereto, and against downward displacement therefrom, said carrier and upper die adapted to be slidably fitted into the open end of the hollow body so that the die will engage the upper end of the blank piece, said carrier having an upwardly-extending shank and a turn handle associated with said shank by which the carrier, the upper die and the blank piece can be turned, whereby to effect the cutting of threads upon both ends of the blank piece.

2,847,687

PRESSURE APPLYING PADS

Norman Victor Germany, Leicester, England, assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

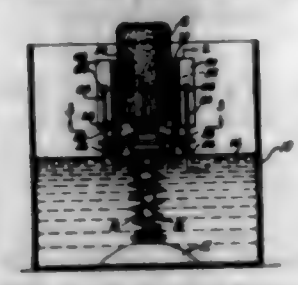
Application September 12, 1956, Serial No. 609,386
Claims priority, application Great Britain October 7, 1955
4 Claims. (Cl. 12—38)



1. In an apparatus for use in applying pressure to shoe bottoms having an underpad, a pressure pad overlying the underpad comprising a single resilient forepart portion,

a single resilient heel portion, and a shank portion consisting of a plurality of resilient, transversely extending sections, each section comprising a pair of members, and means mounting the pair of members of each section for movement together as a unit relatively to the other sections heightwise of the underpad and also for pivotal movement individually about an axis extending lengthwise of said underpad.

2,847,688
GLASS WASHER
Lionel L. P. Croteau, Hamilton, Ontario, Canada
Application October 23, 1956, Serial No. 617,724
2 Claims. (Cl. 15—76)



1. A glass washer comprising a base; a spiral rod rigid with and projecting upwardly from the base; a support plate receiving said rod; means on the support plate having a slot receiving the rod, whereby to cause rotation of the plate on the exertion of pressure thereagainst tending to move the same downwardly against the rod; a center brush projecting upwardly from the support plate and having a connection to the support plate adapted for effecting conjoint rotation of the center brush and the support plate; side brushes pivotally mounted upon the support plate in positions spaced laterally outwardly from the center brush; means connected with the side brushes adapted for shifting the same radially inwardly toward the center brush into engagement with a supported glass, responsive to downward pressure exerted on the center brush to shift the same downwardly with the support plate upon the rod; and means extending about the rod between the base and the lower plate adapted for resiliently, yieldably opposing the downward movement of the plate, thus to effect return movement of the plate following shifting of the same to the lower end of the rod, said connection of the center brush to the plate comprising a tube projecting upwardly from and rigid with the plate, the center brush including a sleeve receiving the tube, the sleeve and tube being connected for relative longitudinal movement, and for conjoint rotation, said means for shifting the side brushes toward the center brush comprising an upwardly bowed leaf spring carried by said plate, the side brushes including frames pivoted on the plate outwardly from the axis of rotation of said plate, said leaf spring having its ends connected to the frames, for rocking of the frames about the pivot axes thereof responsive to flattening of the leaf spring, said leaf spring disposed in the path of slidable movement of the sleeve of the center brush, whereby to be flattened responsive to the downward pressure exerted on the center brush tending to shift the same longitudinally of the tube.

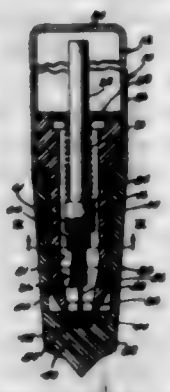
2,847,689
ROOF MOP STRUCTURE
William J. Miller, Pittston, Pa.
Application March 1, 1956, Serial No. 568,726
3 Claims. (Cl. 15—131)

1. A portable mop structure for applying hot roof forming material, comprising a bed including a bottom wall, opposite side walls and front and rear end walls, a pair of wheels supporting said bed and being rotatable on an axis disposed intermediate said front and rear end walls, an elongated rectangular material distributing plate supported by said bed and projecting forwardly of said front wall and co-extensive in length therewith, an elongated generally rectangular mop supported by said plate with the plate overhanging an edge portion of the mop, at least one pair of spaced baffles supported by said plate and being disposed in diverging relation from adjacent said front wall to the front edge of said plate, a normally



closed valve in said front wall for controlled discharge of material from said bed onto said plate adjacent to and behind the rear ends of said baffles, said bed being provided with an elongated handle disposed transversely thereof, and hand engageable means accessible from said handle for opening said valve.

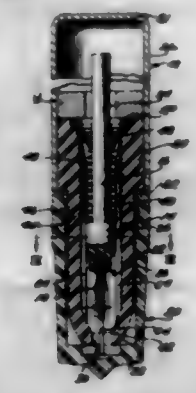
2,847,690
FOUNTAIN APPLICATOR
Sigmund E. Edelstone and Wirt V. Dunlop, Chicago, Ill., assignors to Dupli-Color Products Company, Inc., Chicago, Ill., a corporation of Illinois
Application August 1, 1955, Serial No. 525,484
1 Claim. (Cl. 15—139)



A fountain applicator which comprises a fluid container having a hollow nozzle with a dispensing orifice at one end thereof, an internal valve seat in said nozzle adjacent said orifice, a substantially solid brush and valve unit in said nozzle adapted to receive fluid from the container therearound, spring means in said nozzle urging the valve of said unit against said internal valve seat to control fluid flow to the orifice, said valve having a closed bottom recess with an outwardly chamfered mouth diverging to the orifice when the valve is on said internal valve seat, the brush of said unit having bristles assembled in said recess and projecting from said unit to fit freely through the orifice beyond the nozzle when the valve is seated on said internal valve seat, said brush adapted to be depressed upon application of end load thereon to unseat the valve and permit flow of fluid from the container around the valve through the orifice to the brush, a closure cap for said nozzle having an elongated side wall guided by the nozzle and an end wall for overlying the nozzle to seal the orifice thereof, an elongated relatively thin valve depressing pin in said cap extending from said end wall and terminating inside of said cap, said pin having a free end directed by guiding of the elongated side wall of the cap on the nozzle into said orifice to engage the valve, said chamfered mouth of the recess directing the end of the pin from the nozzle orifice into the recess to engage the valve and depress the brush and valve unit for retracting the brush into the nozzle in communication with the fluid of the container when the cap is applied to the nozzle, and said pin being longer than the length of the brush bristles to hold the brush away from the end wall of the cap whereby application

of the cap to the nozzle will direct the free end of the pin through the orifice and the chamfered mouth of the recess will thereupon direct the pin into the recess for retracting the brush and valve unit axially into the nozzle.

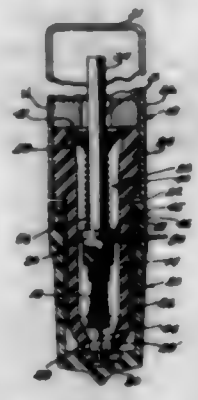
2,847,691
FOUNTAIN APPLICATOR
Sigmund E. Edelstone and Wirt V. Dunlop, Chicago, Ill., assignors to Dupli-Color Products Company, Inc., Chicago, Ill., a corporation of Illinois
Application August 4, 1955, Serial No. 526,529
6 Claims. (Cl. 15—139)



2. In a fountain brush, a liquid dispensing container having a body for containing a supply of liquid and having a nozzle projecting from the forward end of the body, said nozzle having a central bore with a dispensing orifice at the forward end thereof, a dispensing brush assembly slidable in the bore of said nozzle, said brush assembly including an elongated plunger embodying a rearwardly extending stem and an applicator brush means carried in a bore in the forward end thereof, the forward end of said plunger forming a valve for said orifice, a spring retainer ring having a central bore carried by said nozzle at the rear end thereof, the stem of said plunger extending through the central bore of said spring retainer ring, a conical coil spring disposed about the stem of said plunger with its smaller end in contact with said plunger and its larger end in contact with said spring retainer ring, said brush means adapted to fit freely through the orifice and project beyond the forward end of said nozzle, said brush assembly adapted to be depressed upon application of end load thereon to open the valve and receive fluid from the container, a plurality of ribs arranged longitudinally upon the internal annular surface of the nozzle and extending to the area adjacent said orifice, said ribs forming a plurality of passageways for guiding liquid to said orifice, said ribs forming guide rib means for guiding the forward end of said spring and said plunger in the bore of said nozzle, said spring adapted to bias said plunger as a valve in a forward extended position with respect to said orifice, and the bore of said spring retainer and the bore of said nozzle being substantially greater than the diameter of said plunger stem to accommodate a general free flow of liquid within said nozzle about said brush assembly.

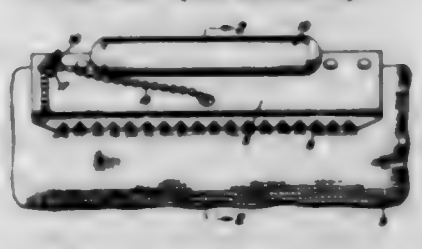
2,847,692
FOUNTAIN APPLICATOR
Sigmund E. Edelstone and Wirt V. Dunlop, Chicago, Ill., assignors to Dupli-Color Products Company, Inc., Chicago, Ill., a corporation of Illinois
Application August 4, 1955, Serial No. 526,530
8 Claims. (Cl. 15—139)

6. A fountain brush having a container adapted to dispense liquid therefrom, said container including a body and a hollow nozzle projecting therefrom and provided at its tip with an orifice, a dispensing brush assembly including a plunger adapted to be slidably carried within said nozzle for reciprocating movement therein, said plunger including an enlarged head providing a valve adapted to seal said orifice, the rear end of said plunger providing a steam, a retainer ring carried by the extreme rear end portion of said nozzle, a coil spring disposed about said stem and bottomed against said retainer ring and adapted to bias the forward end thereof and said plunger outwardly, the rear portion of said spring being conical and flared outwardly toward said retainer ring and in contact therewith and the forward portion of said spring being cylindrical and of a diameter fairly snugly



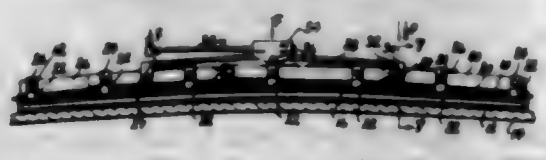
receiving said stem of said plunger, the rear end of said stem extending rearwardly beyond the rear end of said spring through the opening in said retainer ring and into said container body, lug means carried by said head of the plunger extending radially outward to coact with the nozzle bore to provide a plurality of arcuate passageways between the head of said plunger and the internal cylindrical wall of said nozzle to allow liquid to flow to said orifice and to effect a guiding of said plunger.

2,847,693
GRIDDLE CLEANER
Walter W. Guinn, Friona, Tex.
Application October 11, 1955, Serial No. 539,776
1 Claim. (Cl. 15—210)



A holder for a flexible cleaning element comprising a pair of elongated opposite jaws having corresponding longitudinal edges pivotally connected to each other adjacent their ends for swinging of said jaws into clamping relation to a cleaning element, and releasable means for locking said jaws in clamping relation comprising a ball chain extending crosswise of said jaws intermediate the ends thereof with one end of the chain anchored to one jaw, and a notched bracket upstanding from the other jaw adjacent one end thereof, said chain extending outwardly through an opening in said other jaw and longitudinally of said other jaw into interlocking engagement with said notched bracket, and whereby said chain is interlocked to said other jaw at said opening and with said bracket to securely hold the chain in jaw locking position.

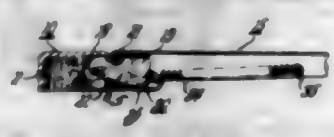
2,847,694
WINDSHIELD WIPER FOR CURVED GLASS
Herbert I. Chambers, Toledo, Ohio
Application July 2, 1953, Serial No. 365,576
12 Claims. (Cl. 15—245)



1. In a device of the class described, a flexible wiping element, a resilient strip to support the wiping element,

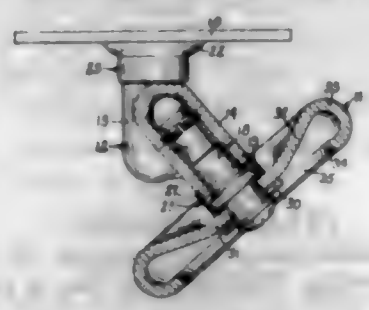
said strip being bendable in one plane and adapted to conform the wiping element to contact a curved surface to be wiped, a bendable member extending the length of the strip and active in the bending plane of the strip, consisting of several mutually reactive links, pivot points being provided between adjacent links at intermediate points, said links interacting with adjacent links between the pivot points, attachment means at said pivot points between the strip and the member whereby the bending of the strip is controlled by the bending of the member, and means to apply pressure to the assembly at two of the spaced pivot points intermediate the ends of the member, whereby the wiping element is conformed to the curved surface by the mutual interaction of the links.

2,847,695
WINDSHIELD WIPER ARM
Frederick W. Sampson and Stanley R. Carson, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 16, 1954, Serial No. 443,878
10 Claims. (Cl. 15—255)



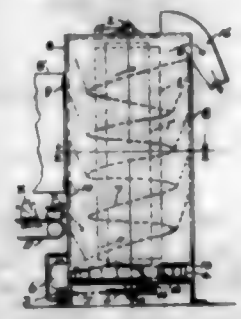
1. A windshield wiper arm comprising, a socket section, an outer section pivotally connected to said socket section, locking means pivotally supported by said socket section, and resilient means indirectly connected to said locking means and directly connected to said outer section for applying wiping pressure to said arm and maintaining the locking means in an operative position.

2,847,696
CASTER
Michael Kramcsak, Jr., Bridgeport, Conn., assignor to The Bassick Company, Bridgeport, Conn., a corporation of Connecticut
Application July 2, 1954, Serial No. 441,145
5 Claims. (Cl. 16—20)



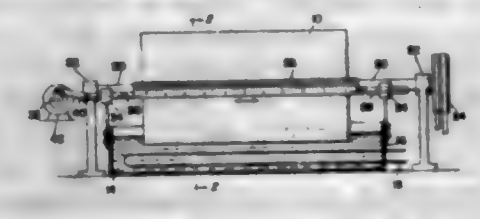
3. A caster comprising a duplex socketed body, the body having an upwardly facing socket part adapted for vertical positioning and having a lateral off-set socket part facing downwardly at an acute angle, the outer periphery of the sockets being necked down at their open ends, a pair of stems bottoming in the socket parts and having collars adjacent the open ends of the socket parts, each stem being provided outwardly of its respective collar with a stem extension, an apertured attaching member embracing the vertical stem extension outwardly of the collar, a wheel having a flat apertured web portion secured to the other stem extension outwardly of the collar, the wheel including a shallow truncated-conical section extending upwardly from the web portion and a generally semi-torroidal rim section extending downwardly from the outer end of the conical section and terminating at a line somewhat beyond a floor-contacting line of the torroidal section, all parts of the web and conical surface, when in their lowermost positions, extending downwardly toward the rim section at an acute angle with the floor to inhibit lodgment of foreign elements on the upper face of the wheel, a pair of cup-shaped members having their bottoms secured between their respective collars and their respective attaching member and wheel, the cup-shaped members extending over and enclosing their respective collars and having side walls with external diameters substantially the same as that of the socket parts and with their distal edges circumferentially enclosing the necked down open ends of the socket parts in close proximity thereto to give full enclosure to the open socket ends as well as to the collar, the side walls being in close engagement with the peripheries of the collars.

2,847,697
FOWL DEFEATHERING APPARATUS
Julien A. Bried, Berkeley, Calif., assignor to Honolulu Oil Corporation, a corporation of Delaware
Application July 8, 1954, Serial No. 442,122
16 Claims. (Cl. 17—11.1)



1. In a loose fowl defeathering apparatus, a rotor comprising a substantially cylindrical assemblage of outwardly projecting flexible spaced frictional defeathering beaters, means for rotating the rotor with its axis extending upwardly, means forming a substantially helicoidal fowl supporting path extending along and around said assemblage arranged to urge loose fowls into striking contact with said beaters for tumbling the fowl about and moving them upwardly along said path.

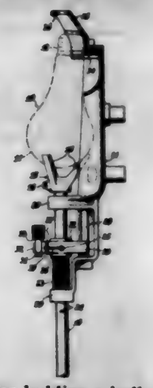
2,847,698
SCRAPER BLADE FOR WAX FLAKER
Samuel G. Ritterson, Chester, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application March 19, 1953, Serial No. 343,287
5 Claims. (Cl. 18—1)



1. In an apparatus for converting a material from fluid to solid form and removing said solid material including means to support a mass of the fluid, a movable collecting means in operating engagement with the fluid mass to remove limited amounts of said material as a solid, and scraping means to remove the solids from said collective means, the improvement in said scraping means comprising a blade member partially slit transversely to provide a plurality of scraping fingers, said fingers varying in length with each adjacent finger, blade supporting means engaging said blade at the partially slit portion being positioned to assist the flexibility of the separate fingers and a backing plate connected thereto extending partially along the extended lengths of the fingers, separate pressuring means cooperating between the backing plate and each finger to regulate the operating engagement thereof with the collecting means, bearings positioning said blade supporting means for operating engagement between the blade and the collecting

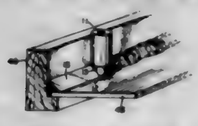
means, and reciprocating means connected to the blade support to slide the blade across said collecting means to remove the solids thereform.

2,847,699
LAMP BASING HEAD
Daniel Mullan, Hillside, and Edward Z. Zilaky, Nutley, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 31, 1953, Serial No. 345,962
6 Claims. (Cl. 18—1)



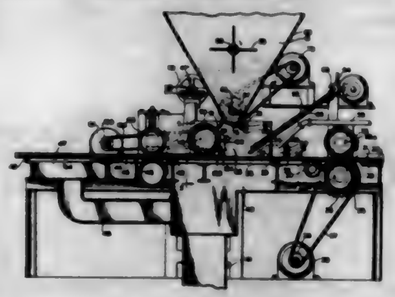
1. A basing head for holding a bulb and base assembly comprising means for supporting said assembly by its bulbous portion, means opposite said supporting means for engaging said base, and means for moving said supporting means and base-engaging means toward and away from each other into positions of clamping and loading respectively, said base-engaging means comprising a cap-like member contoured to define an arcuate surface convergent in a direction away from said supporting means and terminating in a ledge, said cap-like member having an opening therein opposite said arcuate surface and contoured to permit the basal end portion of said assembly to be laterally inserted into and removed from said cap-like member when said supporting means and cap-like member are disposed in loading position but prevent its withdrawal after said moving means have been actuated preparatory to clamping, and said supporting means and cap-like member being spaced and movable along an axis such that said assembly, when in loaded position on said supporting means, is retained within said basing head, and the base of said loaded assembly, upon the movement of said supporting means and cap-like member toward each other, slidingly contacts and is continuously guided by said arcuate surface toward said ledge into seated engagement therewith and subsequently clamped in predetermined relation with said bulb.

2,847,700
GLAZER'S INSTRUMENT
Charles R. Knight, Stamford, Conn.
Application January 10, 1956, Serial No. 558,245
9 Claims. (Cl. 18—3.5)



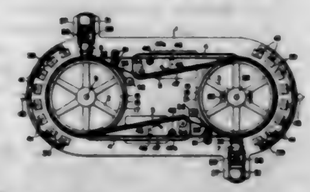
1. A glazer's instrument for shaping putty comprising; a comparatively short bar having a flat bottom surface adapted to rest on a glass pane and be drawn along the edge of said pane; a peripheral surface with portions thereof substantially at right angle to the plane of said bottom surface adapted to engage the edge of a frame supporting said pane; and a shaped surface extending upwardly and outwardly from said bottom surface for engaging said putty and joining said bottom surface with said peripheral surface.

2,847,701
APPARATUS FOR DEPOSITING OVERLAY MATERIAL ON PLYWOOD PANELS
Arthur R. Welch, Hoquiam, Wash.
Application May 9, 1952, Serial No. 287,001
10 Claims. (Cl. 18—4)



1. An apparatus for coating panels with a layer of substantial thickness of a relatively dry, light, fluffy mixture of discrete wood particles and a heat setting synthetic resin, comprising means for conveying a line of panels in end-to-end abutment, means for maintaining above and in contact with the upper surface of the moving line, a transversely extending mass of said mixture of excess thickness, means for continuously agitating the mixture in said mass and for evenly distributing the same to prevent compacting and to maintain the density thereof substantially constant, a rapidly reversely rotating roll directly adjacent to said agitating means, said roll having a plurality of narrow, closely spaced circumferential grooves on its periphery above the moving line of panels for removing the excess of said mixture, to leave thereon a smooth layer of predetermined thickness, and for returning said excess directly to said mass, and means for momentarily compressing said smooth layer on the upper surface of the moving panels to compact the mixture sufficiently to prevent inadvertent disturbance of the layer during subsequent handling of the panels.

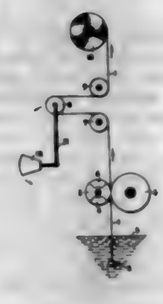
2,847,702
PELLET MAKING
Emil Blaha, Cheltenham, Pa., assignor to Seiss Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application July 25, 1955, Serial No. 524,204
6 Claims. (Cl. 18—5)



4. Apparatus for forming pellets including in combination a first endless belt provided with a plurality of perforations, a pair of parallel reels over which said belt is placed, means to mount said reels on parallel axes so spaced that said belt is taut, a second endless belt longer than said first belt, said second belt being placed over said reels within said first belt, guide means between said reels around which said second belt passes

to take up the slack therein, means engaging said first belt at a point where it is supported by said second belt and one of said reels operative to fill accurately the perforations with a material, and means located between said belts adjacent to said guide means to remove material from the perforation of said first belt.

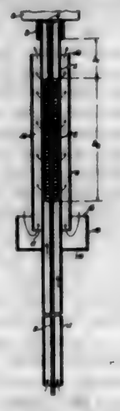
2,847,703
APPARATUS FOR PRODUCING VARYING DENIER FILAMENTS
Hans Alwin Schreuk, Arnhem, and Pieter van Dijk, Velp, Netherlands, assignors to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application August 24, 1954, Serial No. 451,866
Claims priority, application Netherlands September 4, 1953
3 Claims. (Cl. 18—8)



2. Apparatus for the production of variable denier rayon which comprises means for extruding a spinning solution to form thread, means for coagulating the thread and means for collecting the same, a pair of rollers in frictional engagement disposed between the extrusion means and collecting means, one of said rollers being provided with recesses around its periphery and one of said rollers being positively driven whereby when a thread is passed in a straight line therebetween, it is in alternate engagement with the said rollers and in alternate free flight therebetween, said rollers being driven at a lower peripheral speed than that of the collecting device, and means interposed between the collecting device and said pair of rollers for increasing the thread path during the period that the thread is in free flight to build up a reserve for the period it is not in free flight.

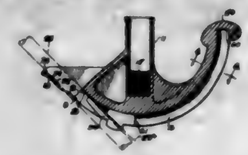
2,847,704
METHOD AND APPARATUS FOR COOLING MELT SPUN THREADS
Hermanus Joseph Hendrikus Scheers, Arnhem, Netherlands, assignor, by mesne assignments, to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application September 22, 1953, Serial No. 381,706
Claims priority, application Netherlands November 27, 1952
6 Claims. (Cl. 18—8)

6. In the manufacture of artificial threads, the automatic thermosyphon ventilation process comprising the steps of extruding a molten thermoplastic thread vertically downwardly into contact with a first column of air, causing said first column of air to flow upwardly primarily as a result of the heating thereof upon contact with the freshly extruded thread, and maintaining limited contact between the heated first column of air and a second column of air concentrically disposed thereabout, thereby inducing upward flow only in said second column of air in a zone concentric with but disposed outwardly of said first column of air as a result of the heating thereof upon contact with the heated first column, whereby a uniform flow of ventilating air axially of the extruded thread



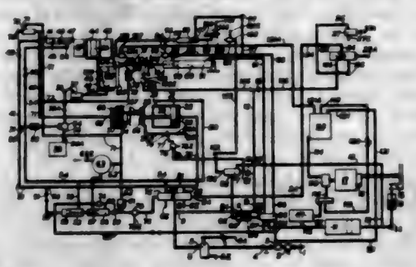
is accomplished without the use of positive air circulating means.

2,847,705
BENDER FOR HOLLOW CONDUITS
August Hollwig, Chicago, Ill.
Application June 14, 1955, Serial No. 515,322
12 Claims. (Cl. 81—15)



1. In a pipe bender having an arcuate body defining a pipe groove at its periphery and having a pipe grip at one end of the groove, an angular scale along the arcuate periphery of the body, and a slidable stop proportioned for a nesting fit within the groove, the stop being characterized by means for removably securing it within the groove and a pointer portion which coacts with the angular scale indicia to measure the angle of bend to be made.

2,847,706
MACHINE FOR FORMING THERMOPLASTIC IMPREGNATED FIBROUS BLANKS
Wallace Gerald Hawkins, Ashcott, near Bridgwater, England, assignor to C. & J. Clark Limited, Street, Somerset, England
Application March 18, 1955, Serial No. 495,320
2 Claims. (Cl. 18—19)



1. A machine for manufacturing moulded components from thermoplastic impregnated fibrous blanks, comprising a base, a magazine for precut blanks awaiting use and mounted on said base, fluid operated means for eject-

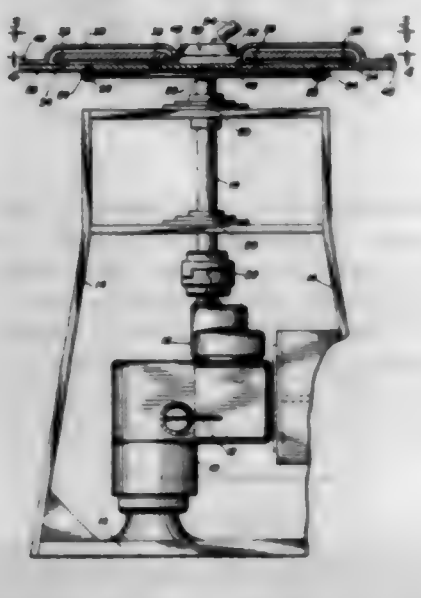
ing separate blanks from said magazine, a substantially closed blank heating chamber on said base including means for heat-conditioning said ejected blank, substantially vertically opposed moulds mounted on said base for moulding said conditioned blank and comprising a fixed mould and a movable mould, fluid cylinder means mounted on said base and operatively connected to said movable mould, means normally extending through said fixed mould for temporarily suspending ejected blanks vertically between said moulds when open, said blank suspension means retreating for said mould closing operation, a carrier slidably mounted on said base, a blank-supporting platform slidably mounted on said carrier for movement relative thereto, fluid-operated means for moving said carrier first to dispose said platform within said blank heating chamber and then to convey the conditioned platform-suspended blank to between said moulds when open, and means for moving said platform relatively to said carrier to present said supported blank to said means for temporary blank suspension, said platform being then movable in reverse direction relatively to said carrier to leave said blank thus temporarily suspended and said carrier being finally movable to remove said platform, now empty, from between said moulds.

2,847,707

APPARATUS FOR ENCAPSULATING ARTICLES IN A PLASTIC COATING

Arthur M. Sullivan, Downers Grove, Ill., assignor to Walter J. Maker, La Grange, Ill.

Application January 23, 1956, Serial No. 560,733
3 Claims. (Cl. 18—26)



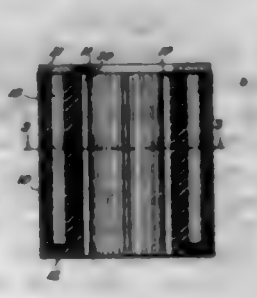
3. An apparatus for encapsulating cores by centrifugal casting comprising a flat bottom mold part having a projecting marginal rim on one side, means engaging the other side of the part for operatively rotating it, an upper mold part fitting removably within the rim for rotation with the bottom mold part and having a central pouring opening at the axis of rotation, the upper mold part having embossed portions extending radially from the central opening and away from the bottom mold part shaped to receive core parts freely therein, means attached to one of the mold parts for supporting a core between the mold parts with space between all parts of the core and the adjacent portions of the parts, means for holding the top part in position rotationally with respect to the bottom part, means between the parts forming discharge openings from said central opening of the top part to each of the embossed portions, a flange inclined centrally from the outer edge of said central pouring opening and outwardly beyond the inner side of the embossing of said upper mold part to receive and retain plastic material fed to the mold through said central opening as the mold parts are rotated.

2,847,708

MEANS FOR MAKING DIE INSERTS

Harry J. Hamjian, Whitesboro, and Faith N. Darmara, New Hartford, N. Y., assignors, by mesne assignments, to Kelsey-Hayes Company, Detroit, Mich., a corporation of Delaware

Application August 28, 1953, Serial No. 375,491
4 Claims. (Cl. 18—34)



1. A mold for forming an article to finished shape and size from comminuted material, said mold comprising coaxial inner and outer tubular side walls closed at one end by an end wall whereby to define an annular mold cavity for the reception of said comminuted material, each said side wall and said end wall being formed from flexible material, the axial space within said inner wall being open whereby to permit the application of uniform hydrostatic pressure on the outer surfaces of said outer wall and said end wall and on the inner surface of said inner wall so as to subject said comminuted material within said annular mold cavity to an evenly applied compressive force through said side and end walls.

2,847,709

PROCESS OF PRODUCING UNORIENTED FORMED ARTICLES FROM HIGH POLYMERS

Sterling S. Sweet, Rochester, N. Y., and Kenneth W. Scott, Akron, Ohio, and Maurice H. Van Horn, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application March 14, 1955
Serial No. 494,224
3 Claims. (Cl. 18—48)

1. The method of treating sheeting formed from diphenyl sulfone-4,4'-dicarboxylic acid, succinic acid, pentamethylene glycol polymers, which polymers crystallize slowly when stretched, which comprises stretching the sheeting so that the length of the sheeting is increased 50% but not more than 250% of its length as initially formed, said stretching being carried out at a temperature from 50–100° C., cooling the stretched sheeting, then subjecting the sheeting without substantial restraint thereon to a heating of 2–10 minutes duration within the temperature range of 70° C.–180° C., whereby the sheeting not being under substantial restraint shrinks to approximately not greater than 120% of its original length and crystal formation takes place in the heated sheeting but the crystals are small so that they are not large enough to scatter light.

2,847,710

METHOD OF IMPROVING FLUID PROPERTIES OF FINELY DIVIDED MATERIALS

Emory W. Pitzer, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application June 7, 1954
Serial No. 435,065
10 Claims. (Cl. 18—55)

1. An improved process for improving the fluid properties of a powdered solid catalytic material comprising a metal compound of an average particle size of less than 25 microns for flowing same into pelleting molds and for pelleting same, which comprises forming an intimate

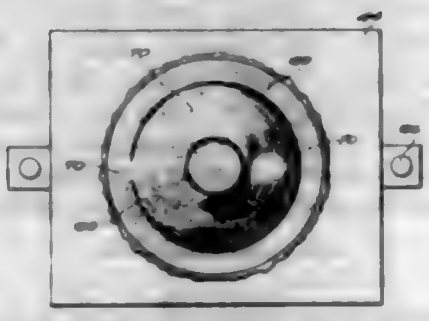
dry mixture of said catalytic material with a normally solid combustible material which melts at an elevated temperature considerably lower than the melting point of said catalytic material in an amount in the range of 5 to 25 weight percent of said catalytic material; heating said dry mixture so as to melt said solid combustible material and form a liquid coating on said catalytic material; cooling said mixture to a temperature below the melting point of said combustible material, thereby rendering the resulting mixture more fluid and better adapted to flow into small pelleting dies; and pelleting said mixture by flowing same into small dies and compressing same therein.

2,847,711

METHOD OF TREATING POLYTETRAFLUOROETHYLENE AND TO POLYTETRAFLUOROETHYLENE SO TREATED

Robert L. Hibbard, Hamden, Conn., assignor, by mesne assignments, to Grinnell Corporation, Providence, R. I., a corporation of Delaware

Application August 10, 1954, Serial No. 448,965
16 Claims. (Cl. 18—55)



16. The method of treating a predetermined quantity of polytetrafluoroethylene to form an article intended to be flexed, which comprises applying to said quantity, while said quantity is within a temperature range defined by the second order transition temperature of said polytetrafluoroethylene and a higher maximum temperature, superatmospheric pressure at least until all portions of said quantity which are intended to be flexed become substantially transparent by observation while said quantity is at a temperature of at least the second order transition temperature but for an insufficient time to produce substantial decomposition of said polytetrafluoroethylene, and cooling said quantity through said transition temperature, said maximum temperature being less than that temperature which produces substantial decomposition of said polytetrafluoroethylene during the period that said quantity is within said temperature range.

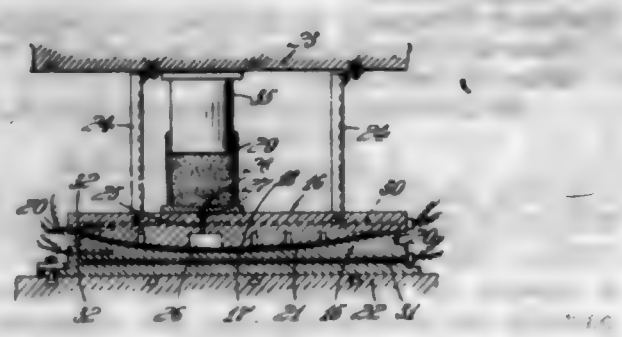
2,847,712

METHOD OF MOLDING RIBBED STRUCTURES FROM THERMOSETTING RESIN AND FIBROUS MATERIAL

Harold John Pollard and John Rees, Bristol, England, assignors, by mesne assignments, to Bristol Aircraft Limited, Bristol, England, a British company

Application October 26, 1953, Serial No. 388,181
Claims priority, application Great Britain November 10, 1952
4 claims. (Cl. 18—55)

1. A method of moulding a component having a stiffening rib system on at least one side of a sheet-form part, consisting of overfilling with fibrous material fully impregnated with a thermosetting resin that part of the cavity of an openable mould for moulding the component which corresponds to the sheet-form part, the rib system part of the mould being left empty and the overfilling being such that when the mould is closed the fibrous material is compressed but not caused to flow from one part of the mould to another, closing the mould, injecting into the empty parts of the mould a mixture of fibrous material and thermosetting resin, raising the temperature



to cure the resin and maintaining during curing an injection pressure sufficient to contain any volatiles produced during curing.

2,847,713

PROCESS FOR PRODUCING SYNTHETIC SAUSAGE SKINS AND OTHER LAMINAR STRUCTURES FROM ALGINATES

Richard Weingand, Walsrode, Germany

No Drawing. Application May 13, 1955
Serial No. 508,325
1 Claim. (Cl. 18—57)

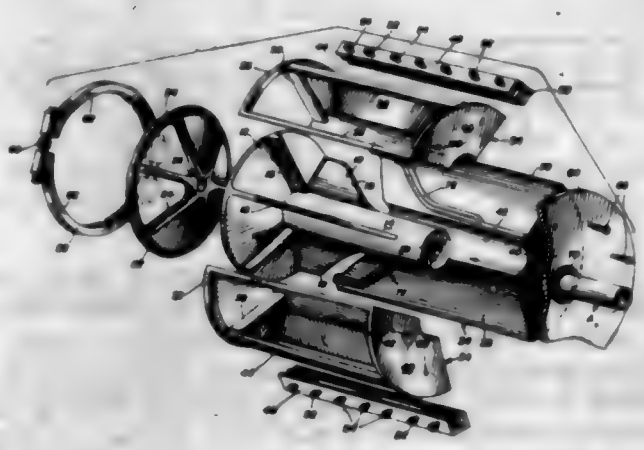
In the process of producing synthetic sausage casings from an alginate solution, by the steps of filtering said solution, deaerating said solution and extruding said solution through an annular orifice, whereby an extruded tube is produced, coagulating and rinsing the extruded tube, the improvement which comprises employing an alginate solution having a concentration of at least 5%, an intrinsic viscosity of at least 10 centipoises measured in a 0.3% solution at 20° C., maintaining said solution during all of the steps of said process at a temperature of 50 to 60° C. and cooling the solution to 30° C. during any interval between two of said steps of a duration of as long as three hours.

2,847,714

METHOD OF MAKING CENTRIFUGAL CASTINGS

Arthur M. Sullivan, Downers Grove, Ill., assignor to Walter J. Maker, La Grange, Ill.

Application January 23, 1956, Serial No. 560,734
4 Claims. (Cl. 18—58.3)



1. The method of centrifugally casting liquid plastic thermosetting resins in a circular integral unit by assembling a plurality of similar connected mold parts coated on their inner resin contacting surfaces with a catalyzing mixture, the step of adding preformed mats of fibrous reinforcing material into the mold parts while they are being assembled, adding plastic thermosetting resins to the rotating mold, continuing the rotation until the resins become set, and heating the mixture until it becomes solid.

2,847,715

METHOD OF PRODUCING DIPPED ARTICLES FROM BUTYL RUBBER-POLYETHYLENE SOLUTIONS

Lucian P. Dousman, South Bend, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 14, 1953
Serial No. 386,185
2 Claims. (Cl. 18—58.4)

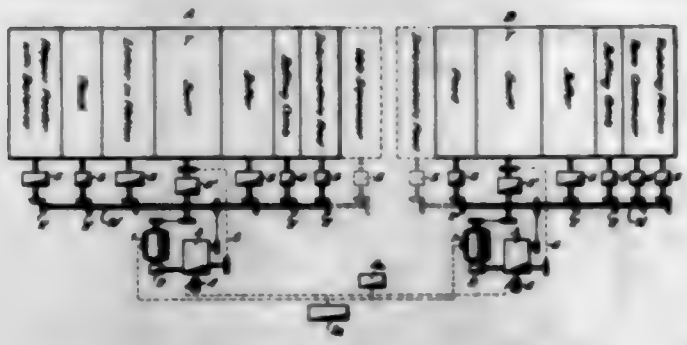
1. The process which comprises forming an intimate mixture of 100 parts by weight of an isobutylene-diolefin rubbery copolymer, from 30 to 70 parts of a filler, and a curative for said copolymer in amount sufficient to partially but incompletely cure said copolymer, masticating said mixture at a temperature at which said curative pre-cures said copolymer, whereby the copolymer becomes partially cured but is still susceptible of further cure, cooling the resulting mixture, intimately incorporating with the resulting mixture, at a temperature at which the subsequently added curative will not react, from 20 to 50 parts of polyethylene having a molecular weight of from 8,000 to 12,000, and a curative in amount sufficient to complete the cure of said copolymer, dissolving the resulting mixture in a volatile organic solvent to a solids content of from 15 to 25%, dipping a form having the configuration of the desired final article in the resulting solution while it is at a temperature of from 150 to 190° F. and is in liquid form, drying the coating thus formed, the said polyethylene serving as a thermoplastic medium through which solvent escapes from all portions of the said coating and the said polyethylene preventing the said coating from skinning and trapping solvent underneath such skin, and thereafter curing the article thus formed on said form by heating at elevated temperature.

2,847,716

DRIVE FOR A SET OF CARDS

Gerhard H. C. Schiese, Bremen-Blumenthal, Germany, assignor to Spinnbau G. m. b. H., Bremen-Farge, Germany

Application February 15, 1954, Serial No. 410,398
Claims priority, application Germany February 25, 1953
6 Claims. (Cl. 19—98)



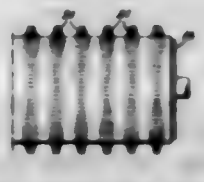
1. A driving arrangement for a set of cards, which includes in combination: a plurality of cards, each of said cards having feeding and discharging means and auxiliary means pertaining thereto, each of said cards also including a swift, a plurality of separate driving shafts respectively associated with said cards so that one driving shaft is arranged along each card and is drivingly connected to said feeding and discharging means and said auxiliary means, a plurality of separate driving means for said cards and respectively associated with said cards in such a manner that each card has a separate driving means, each of said driving means having two output shafts, a plurality of variable transmissions, each of said cards having one of said transmissions associated therewith and arranged for drivingly connecting the driving shaft pertaining to the respective card with one of said output shafts of the driving means pertaining to the same card, the other output shaft of each of said driving means being drivingly connected to the swift of the respective card to which the respective driving means pertains, and means for synchronously controlling said transmissions.

2,847,717

INDUSTRIAL APPARATUS AND METHOD

Joseph Jervis, Dahlonega, Ga., assignor to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania

Application March 9, 1956, Serial No. 570,469
2 Claims. (Cl. 19—106)



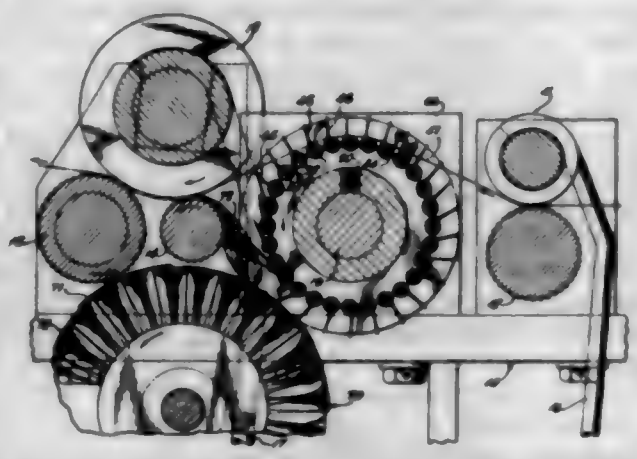
1. In apparatus for producing irregular yarn continuously varying in weight per unit length along the length thereof, a carding set including a main cylinder and a generally cylindrical doffer coextensive in length with said main cylinder, and mounted adjacent thereto, said doffer having bands of card clothing mounted circumferentially thereof, said bands being of a uniform radial dimension about the complete circumference of said doffer, and continuously varying sinusoidally in axial dimension about the circumference of the doffer.

2,847,718

DRAWING FRAME NEEDLE BAR MECHANISM

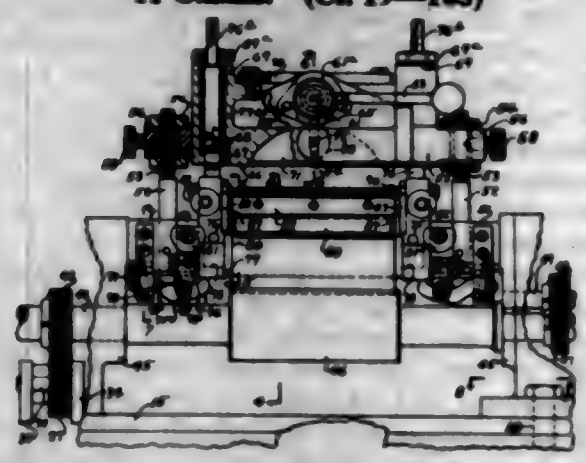
John S. Dudley, Douglas, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts

Application February 10, 1955, Serial No. 487,236
3 Claims. (Cl. 19—130)



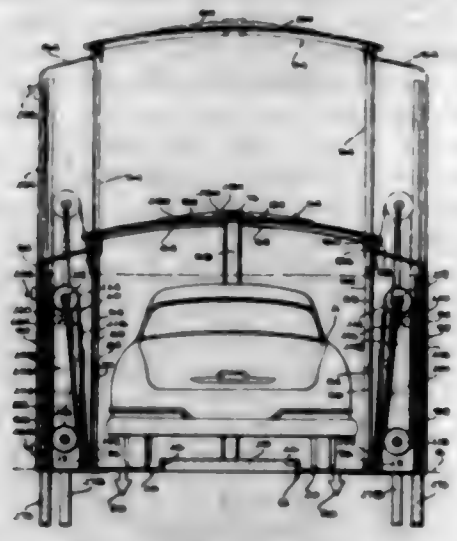
1. A drawing frame needle bar mechanism comprising the combination of a rotatable needle bar frame incorporating rigid, spaced disc portions; a series of needle bars extending between and rotatably supported by said disk portions; needles carried by the bars for entry into and withdrawal from the fibers under treatment upon rotation of said disk portions; a stationary cam track adjacent the outer side of at least one of said disk portions, said track including inner and outer track surfaces; needle bar crank members engaged with the said track surfaces to position the needle bars with respect to their axes; the cam track surfaces having successive relieved sections adjacent the zone of withdrawal of the needles from the fibers, the said relieved sections located one in the outer track surface and the other in the inner track surface and thereby affording the needle bars freedom of movement first in one direction and then in the opposite direction.

2,847,719
GILL BOX
Jack H. Selby, Twinsburg, Ohio, assignor to The Warner & Swasey Company, Cleveland, Ohio, a corporation of Ohio
Application April 22, 1955, Serial No. 503,278
11 Claims. (Cl. 19—165)



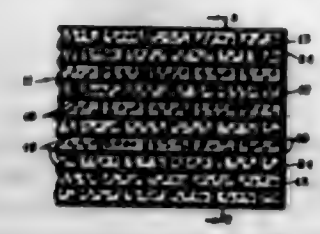
1. A gill box having a draft roll section comprising side frames, a driven draft roll rotatably supported by said frames, said frames above the axis of said driven roll having inwardly extending supporting portions, said supporting portions being provided with upwardly extending parallel posts, a clamping head having a stationary part secured to said posts and a movable part mounted in said stationary part, said supporting portions mounting for vertical sliding movement equalizer blocks, rods contacting said blocks and extending into the movable part of said clamping head, said equalizing blocks rotatably supporting the opposite ends of a cot roll mounted therebetween and cooperating with said driven roll, said movable part of said clamping head being provided with means for imparting a predetermined downward spring load on said rods, and cooperating clamping means carried by said stationary part and by said movable part of said clamping head and acting when in clamping relationship to move said movable part downwardly relative to said stationary part.

2,847,720
ELEVATABLE PROTECTIVE SHELL FOR VEHICLES
Leslie Hamm, Boston, Mass.
Application September 14, 1956, Serial No. 609,901
5 Claims. (Cl. 20—1.13)



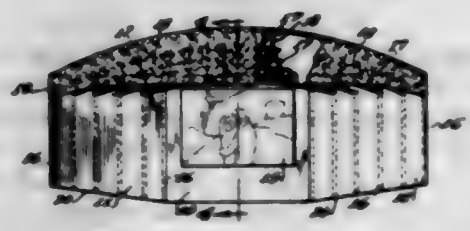
1. A protective enclosure for vehicles comprising a stationary runway onto and off of which a vehicle may be driven; a shell overlying the runway and proportioned to fully enclose a vehicle; pairs of hydraulic cylinders stationarily mounted at opposite sides of the runway, one pair at each side; pistons working in the cylinders of each pair; a cross member connected between the pistons of each pair; pulleys freely rotatable upon said cross member; second pulleys rotatable upon the cylinders; and cables trained about the respective pulleys and connected at one end to said cross member at their other ends to the respective sides of the shell, for elevating the shell to a position wholly clear of the vehicle to permit movement of the vehicle onto and off of the runway, the stationary mounting of the cylinders at opposite sides of the runway comprising, for each pair of cylinders, a retaining plate fixedly secured to the cylinders and including means adapted for anchoring of the retaining plate to the ground, said retaining plate being fixedly connected to the adjacent side of the runway.

2,847,721
SIMULATED BRICK OR THE LIKE WALLPAPER
Lester A. Diamond, Westwood, N. J., assignor of one-half to Bernard Sage and one-half to Joseph Sage, both of New York, N. Y.
Application January 31, 1956, Serial No. 562,399
1 Claim. (Cl. 20—15)



An interior building wall covering, comprising a plurality of panels, one of said panels including a base of flexible material coated with a water soluble adhesive on its rear side for attaching said base to the interior building wall, a plurality of rectangular cork slabs adhesively secured to the front side of said base, said slabs having interstices, texture and grain corresponding to interstices, texture and grain of baked clay brick, said slabs having a coloring corresponding to normal coloring of clay brick, said slabs being disposed in a spaced staggered array simulating laid brick, the spaces between the slabs having the appearance of mortar but being of the same color as the slabs, another of said panels comprising a narrow flat strip of flexible sheet material, and a plurality of rectangular cork slabs mounted in spaced array on said strip, each of the last-named slabs having a length one half of the length of the slabs on said one panel and being spaced apart from each other a distance equal to the width of a slab plus two mortar spaces, the alternate half-length end slabs on said one panel with their underlying base overlying said strip between the half-length slabs thereon so that the assembled covering has a straight lateral edge, said strip being coated on its rear side with a water soluble adhesive, the spaces on the strip between the slabs thereon being colored to resemble the normal coloring of clay brick.

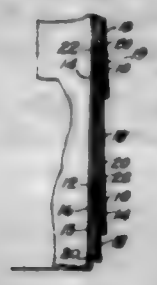
2,847,722
THEATRICAL SHADE FOR ENCLOSING AN OUTDOOR MOVIE SCREEN
Fred E. Wedeking, Gary, Ind.
Application January 22, 1954, Serial No. 405,610
2 Claims. (Cl. 20—1.12)



2. In a theatrical assembly for an outdoor movie, a housing embodying a back wall, side walls extending from

opposite sides of said back wall, a roof extending between said side and back walls and secured thereto, the front of said housing being open, a plurality of trusses extending between said side walls for supporting said roof, a plurality of tie beam secured to said trusses, a picture screen arranged within said housing and positioned contiguous to said back wall, said screen being smaller than said back wall, and a shield on said housing.

2,847,723
PREFABRICATED BUILDING WALL CONSTRUCTION
Charles E. Gollner, Roslyn Heights, N. Y.
Application May 14, 1954, Serial No. 429,929
1 Claim. (Cl. 20—4)



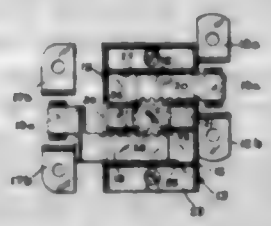
In a prefabricated building wall sheathing construction and shingle support including a plurality of vertically superposed sheathing units, a sheathing unit comprising an elongated horizontal strip having inner and outer parallel faces and upper and lower parallel edges, said strip having a rectangular rabbet extending downwardly from the upper edge and inwardly from the outer face thereof, said strip having a second rectangular rabbet extending upwardly from the lower edge and outwardly from the inner face thereof, said strip having a third rectangular rabbet extending upwardly from the upper limit of said second rectangular rabbet and outwardly from said inner face a distance less than the outward extent of said second rectangular rabbet, said first named, said second and said third rabbets extending longitudinally of said strip from one end thereof to the other, a plurality of wedge-shaped filler members arranged upright in horizontally spaced relation with their thickest ends lowermost and engaged against the upper edge of said strip adjacent said first named rabbet, a sheathing board coextensive with said strip engaging said filler members and having its lower edge seated in said first named rabbet, and means securing said board to said strip and to said filler members, said board having its upper edge seated in the third rabbet of the strip of the next adjacent sheating unit thereabove, said second rabbet providing a keeper for locking the upper ends of shingles overlying said boards.

2,847,724
WINDOW CONSTRUCTION
Harold A. Blood, Holly, Mich.
Application January 21, 1953, Serial No. 332,298
2 Claims. (Cl. 20—11)



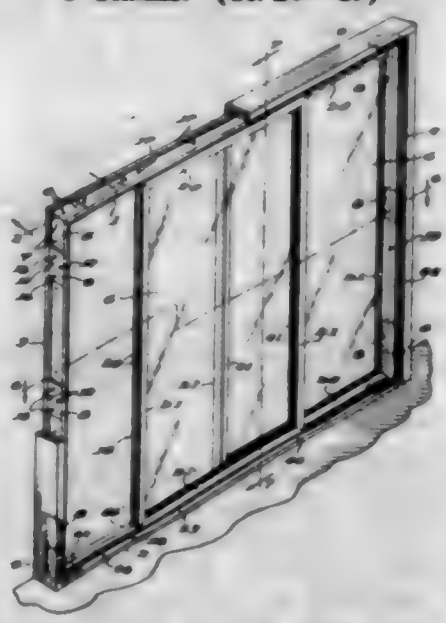
1. A window frame for attachment of a window sash to a facing at a window opening, said frame comprising horizontal upper and lower rails and a pair of vertical side rails mitered at each end and arranged in a rectangular frame having mitered corners, said rails all having the same general cross section and each comprising a longitudinally extending channel section and a longitudinally extending L-shaped section displaced diagonally to one another and integrally connected longitudinally thereof at outer corners of the different sections, said L-shaped section having one of its right-angled walls parallel with and projecting in a direction opposite to the direction of projection of one of the spaced side walls of the channel section and having its other right-angled wall parallel with the intermediate connecting wall of said channel section and also projecting from said channel section, said rails being assembled with said last-mentioned walls of said L-shaped sections forming the inner peripheral edge of said frame and providing a seat against which a window sash may be positioned when inserted within the opening defined by the other and first-mentioned walls of said L-shaped sections, a longitudinally extending undercut bead on the side of the wall of each L-shaped section opposite to that against which the window sash seats, and corner brackets at the mitered ends of the side and end rails and overlapping the end portions of said beads and crimped into their undercut portions for frictional retention, said channel sections being positioned with the free edges of their spaced side walls directed toward the facing of the window opening, and sealing means carried by said channel sections and engaging the facing at the window opening.

2,847,725
WINDOW CONSTRUCTION
Raymond H. Schulte, Orange, N. J.
Application April 25, 1955, Serial No. 503,705
10 Claims. (Cl. 20—12)



1. The combination in a window casing including a detachable parting strip and a detachable molding strip of keepers mounted on said parting strip and said molding strip, strikes attached to said window casing adapted to receive said keepers, slidable tumblers carried by said window casing, and means for moving said tumblers into and out of said keepers for locking and releasing said molding and parting strip relative to the window casing.

2,847,726
SLIDING DOOR CONSTRUCTION
Chester A. Frick, Glendale, Calif.
Application January 10, 1956, Serial No. 558,215
3 Claims. (Cl. 20—19)



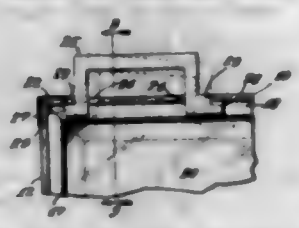
1. A primary frame for a sliding door construction adapted to be installed in a door opening in a building

formed by vertically and horizontally disposed components of the building and serving as a mounting means for a secondary frame and a door slidingly mounted in said secondary frame; said primary frame comprising a top member, a bottom member, and two side members connected together at their ends to form a rectangle, and means for attaching said frame to the building components; said members being of identical cross section and each of said members comprising a strip of sheet metal formed to provide a shallow longitudinally extending channel with laterally extending, longitudinally coextensive flanges disposed one at each side of said channel; said members being disposed with the channels thereof on the exterior of said frame and adjacent to the building components to which the respective members are attached; each of said side members adjacent each end thereof and at least one intermediate point carrying devices adjustable to engage the adjacent building component and operable to position said side members in exact right angle relationship with said bottom and top members, each of said devices including a plate disposed in the channel of the primary frame member, a pair of screws threaded into the portion forming the bottom of the channel and having shank portions rotatably engaging said plate and shoulder portions adjacent to said shank portions effective to prevent movement of said plate axially of said shank portions, said screws being operable to move said plate into and out of said channel to engage the building component while the side member is maintained in an exact right angle relationship with the top and bottom members of said primary frame.

2,847,727
STORM SASH

Russell A. Gillespie, Indianapolis, Ind., assignor, by direct and mesne assignments, of thirty-three and one-third percent to Carl F. Spickelmier, thirty-three and one-third percent to Edith S. Greer, and thirty-three and one-third percent to Betty S. Spicklemire, all of Indianapolis, Ind.

Application April 26, 1954, Serial No. 425,434
9 Claims. (Cl. 20—55)



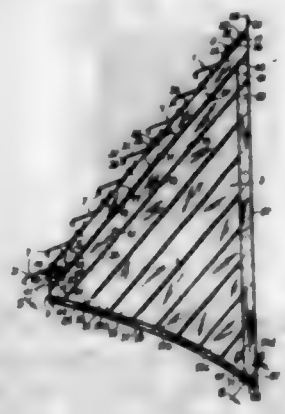
1. In a sash, a pane of glass, a rectangular border frame comprising rails extending along and supporting adjacent edges of said pane and meeting at a corner of the frame, said meeting rails having mitered ends and being provided in their outer faces with transverse grooves, an L-shaped clip having legs extending along said outer rail-faces, and provided with in-turned flanges received in said grooves, said flanges and the grooves receiving them extending obliquely across the outer faces of the respectively associated rails, each of said flanges and the groove-wall it engages being inclined at an acute angle to the associated clip-leg.

2,847,728
AWNINGS

Melvin L. Shinall, Jr., St. Louis County, and Leon M. Ziegler, Manchester, Mo.

Application September 11, 1957, Serial No. 683,320
7 Claims. (Cl. 20—57.5)

2. An awning comprising a roof panel and side panels, the roof panel comprising sheet metal end bars, sheet metal louvers spanning the end bars, and a sheet metal hanging plate spanning the end bars at the upper edge of the roof panel, each side panel comprising a sheet metal upright bar at the rear thereof, a sheet metal bottom bar extending forward from the lower end of the upright bar, a sheet metal trim plate extending between the uppper end of the upright bar and the forward end of the bottom bar with its ends lapping these bars on the outside thereof, sheet metal louvers extending parallel to the trim plate spanning the upright bar and the bottom

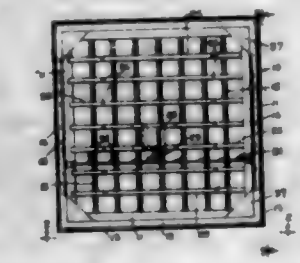


bar with their ends lapping these bars on the outside thereof, said trim plate having an inwardly directed flange portion spaced below its upper edge, the end bars of the roof panel being seated on the said flange portions, the portions of the trim plates above the said flange portions thereof extending up on the outside of the end bars of the roof panel, and means fastening together the end bars of the roof panel and said trim plates.

2,847,729
ADJUSTABLE LOUVER UNIT

Anthony E. Zingone, Massapequa, N. Y., assignor to Neo-Ray Products, Inc., New York, N. Y., a corporation of New York

Application July 1, 1957, Serial No. 669,042
5 Claims. (Cl. 20—62)

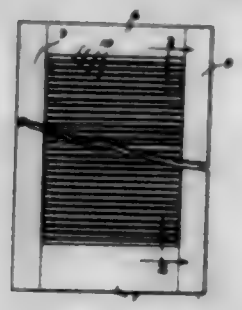


1. In an adjustable louver unit for a skylight, a peripheral frame having an inwardly directed top flange and an outwardly directed bottom flange, a plurality of spaced parallel fixed plates arranged within the peripheral frame and having end portions projecting through slots in opposite sides of said frame, a rod extending through openings in the projecting ends of said plates at each of said opposite sides of the frame fixedly securing said plates to said frame, a plurality of spaced parallel movable plates arranged within the peripheral frame and extending transversely of and intersecting the fixed plates to thereby provide a plurality of rows of cells opening through the top and bottom of the unit, said movable plates having vertical slots for slideably interfitting with the fixed plates at the points of intersections therewith, straps overlying the upper edges of said fixed plates, said straps and said fixed plates having interengageable means securing the same together and securing said fixed and movable plates in assembled relation, means swingably connecting said movable plates with said fixed plates for movement of said movable plates for opening up and closing off said cells, a bar mounted for reciprocatory movement on said unit, and links secured to said movable plates and pivotally connected with said bar for moving said movable plates in unison.

2,847,730
V SHAPED LOUVER CONSTRUCTION

Charles Herbert Warwick, Portland, Oreg., assignor to Nicolai Door Manufacturing Co., Portland, Oreg., a corporation of Oregon

Application February 18, 1955, Serial No. 489,014
10 Claims. (Cl. 20—63)



3. The combination with a structural frame composed of stiles and rails bounding an opening, of a louver element spanning said opening, comprising a stack of parallel chevron-type slats spaced apart at uniform intervals lying in a plane in superimposed relation and joined together by two end splines, one spline being partially embedded and secured edgewise in each end of all of the slats in a stack.

2,847,731
FLOOR MAT

L Preston Hollander, Patterson, N. Y., assignor to Pawling Rubber Corporation, Pawling, N. Y., a corporation of Delaware

Application December 23, 1954, Serial No. 477,292
3 Claims. (Cl. 20—78.3)



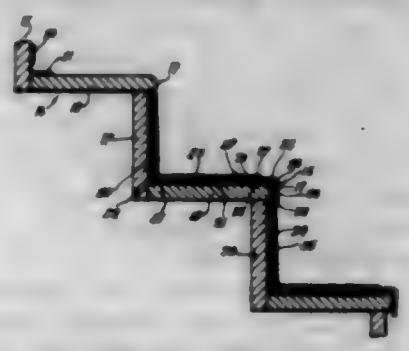
2. In a rectangular mat comprising a plurality of links interlaced by rods running transversely through apertures at the opposite ends of each of said links thereby forming a tread, said mat having a rectangular nosing of rubber and the like material forming the peripheral margin thereof and connected to the linked tread, the combination with the nosing at a pair of opposed sides of the periphery of a plurality of spaced nose connectors of material similar to the nosing connecting the linked tread to the nosing via joints between the nosing and the nosing connectors, the nosing forming one side of the joint having a channel whose walls define prong-like gripping means, the inner surface of said gripping means having shoulders extending inwardly of said channel, the nose connector forming the other side of the joint comprising a tongue within said channel with barb-like extensions projecting substantially transversely from each side of the tongue, said barb-like extensions mechanically dove-tailing with the inwardly extending shoulders within the channel, said nose connector also having a pair of wings which grip the outer surface of said channel walls.

2,847,732
STAIRWAY COVERING

Leo Hyman, Brooklyn, N. Y.

Application October 3, 1955, Serial No. 538,128
2 Claims. (Cl. 20—79)

1. A stairway covering comprising, in combination, with the tread and riser portions of the stairway, a resilient pad on the top surface of the tread portion of the stairway, a rigid spacer member interposed between the edge of the pad and the juncture between the tread and riser portions, a rigid spacer member on the outer surface of the riser portion adjacent its juncture with the tread portion, a strip of carpet overlying the pad, spacer members and outer surface of the riser portion, and a nosing construction on the outer end of the tread portion of the stairway, said construction including an angle plate having a horizontally disposed leg overlying the outer end of the tread portion of the stairway and

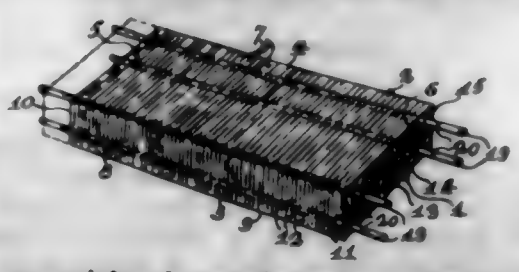


a vertically disposed leg overlying the top end of the riser portion of the adjacent step, the rear end of the horizontally disposed leg being cutaway to provide a recess for receiving the front end of the strip of carpet, the free edge of the cutaway portion engaging the outer edge of the pad.

2,847,733
ARTIFICIAL LUMBER PRODUCTS AND THEIR MANUFACTURE

Henri Georges Roy, Ste. Rose, Quebec, Canada

Application September 2, 1955, Serial No. 532,355
16 Claims. (Cl. 20—91)

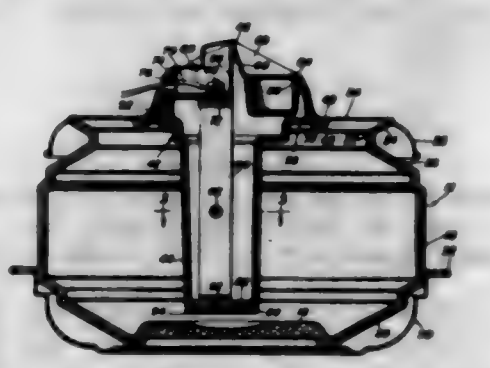


1. As an article of manufacture, an elongated unitary board of artificial lumber, having a length several times its width and several times its thickness, comprising a resin binder, an interbonded and consolidated mass of predominantly prismoidal lignocellulosic particles and at least one tension-bearing filament longitudinally disposed within and intimately secured to said mass of particles, both particles and filament being bound together by said binder, said lignocellulosic particles being predominantly erected and reticulated in layers perpendicularly transverse to the longitudinal axes of said board and of said tension-bearing filament, said layers being additionally superimposed in advance of one another longitudinally of said board and of said tension-bearing filament.

2,847,734
ELECTRIC MEDICINAL VAPORIZER

Daniel Tauben, Carlstadt, N. J.

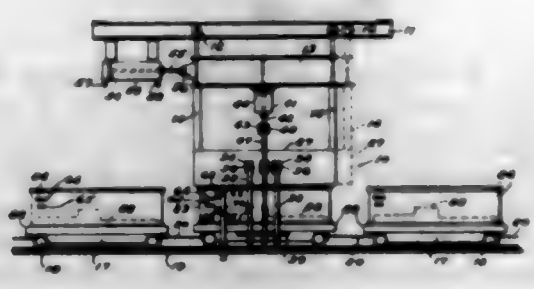
Application October 28, 1955, Serial No. 541,587
4 Claims. (Cl. 21—119)



2. A vaporizer comprising a receptacle having an opening in the upper end thereof, and a vaporizing unit dis-

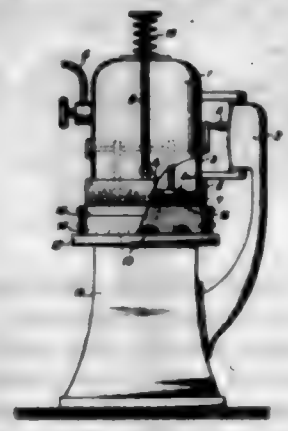
posed in and removably supported in said opening, said vaporizing unit including a depending hollow casing having a headed upper end, said headed upper end being supported on the edge of said opening, a pair of spaced depending conductors mounted in said casing and supported from said upper end, the lower end of said casing having a water inlet opening to permit water to be disposed between the conductors for heating thereof, a vapor outlet opening in the upper end of a casing, and means for retaining a medicament adjacent the discharge path of the vapor whereby the vapor will entrain a portion of the medicament, said headed upper end being generally hollow and semispherical in shape and provided with an inwardly extending pocket integrally formed therewith and forming the means for retaining medicament, a removable container within said pocket for receiving medicament, said pocket depending into the interior of the upper end of the casing whereby steam vapor generated in the casing will heat the container and medicament about the entire surface thereof, said headed upper end of the casing also including a socket therein, said socket having a pair of terminal posts therein electrically connected to said conductors, and a removable cover plate for said socket for protecting persons from accidental contact with the posts, said posts being adapted to be connected to an electrical conducting wire for supplying electrical energy to the depending conductors, said depending hollow casing being generally cylindrical in shape and detachably connected to the upper end of the casing, said depending conductors and casing being eccentrically disposed, and indexing means between the upper end and the depending portion of the casing for properly positioning the depending portion of the casing, said depending portion of the casing having a flat lower surface with a recess portion extending from one edge thereof beyond the inlet opening thereby forming an edge for assuring disengagement of the water from the lower end of the casing whereby the circuit between the conductors created by surface tension of the water will be broken when the water reaches a predetermined low level.

2,847,735
APPARATUS AND METHOD FOR PRESSURE MOLDING FOUNDRY SAND
Thomas J. Butler, Dearborn, Mich.
Application February 25, 1955, Serial No. 490,486
19 Claims. (Cl. 22—28)



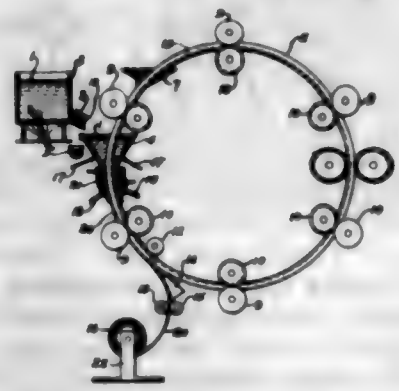
4. Apparatus for molding fluent material such as foundry sand and the like comprising, a molding head which includes molding pressure applying means, a plurality of pattern holders adapted to carry patterns and a fluent material to be molded, means operative to move said pattern holders adjacent said molding head in a continuous movement, means in addition to said pressure applying means operable by said movement to bring said pattern holders and molding head into molding engagement while said pattern holders are moving, and mechanism operable to disengage said pattern holders and molding head after completion of the molding.

2,847,736
DEVICE FOR MAKING SAND MOLDS FOR METAL CASTING
Dietrich Pulvermacher, Hagen, Westphalia, Germany
Application December 31, 1954, Serial No. 479,135
16 Claims. (Cl. 22—36)



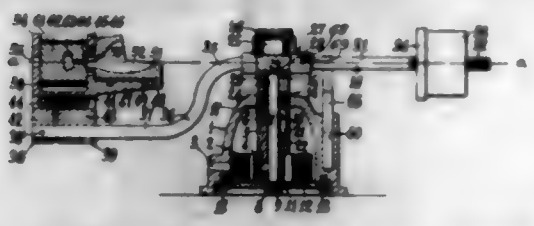
1. A machine for making sand molds for metal castings by pressing the sand onto a pattern, comprising a container adapted to receive the pattern and a predetermined amount of sand, the sand being distributed over the entire pattern surface, and means for forcing, at least once, compressed air onto and, at least partially, into the sand in said container, said means comprising a bell-shaped vessel containing compressed air and said container consisting of a mold flask adapted to receive the pattern at its lower end and a filling frame positioned at the upper end of said mold flask, said vessel being mounted for temporary engagement with said filling frame, at least one valve in the wall of said vessel which temporarily engages said filling frame, and means for operating said valve.

2,847,737
CASTING METHOD
Joseph B. Brennan, Cleveland, Ohio
Application May 2, 1955, Serial No. 505,100
1 Claim. (Cl. 22—57.2)



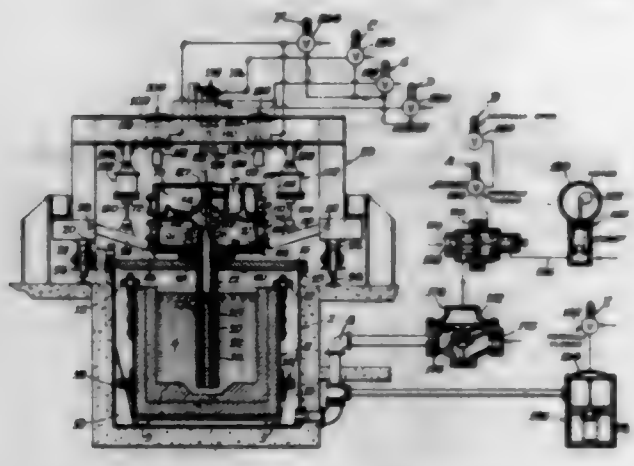
The method of casting composite strip metal comprising the steps of continuously and cyclically passing a core through a first bath of molten metal and an adjoining chilling die to continuously cast a first layer of molten metal on said core; shaping and cooling said first layer of metal on said core as it passes through said die to cause the metal to cling thereto by shrinkage; continuously and cyclically passing said core and first layer of metal thereon through a second bath of molten metal and another adjoining chilling die to continuously cast a second layer of molten metal on the first layer of metal on said core; shaping and cooling said second layer of metal on said first layer as it passes through the die adjoining said second bath of molten metal to cause said second layer of metal to shrink onto said first layer of metal; and continuously removing the composite strip metal comprising said first and second layers of metal from said core prior to continuously and cyclically passing said core through said first and second baths of molten metal and said adjoining chilling dies.

2,847,738
CENTRIFUGAL CASTING MACHINE
John H. Lewis, Williamsville, N. Y., assignor to Buffalo Dental Manufacturing Co., Buffalo, N. Y.
Application February 21, 1956, Serial No. 566,945
10 Claims. (Cl. 22—65.1)



1. In a centrifugal casting machine, normally generally horizontal arm means mounted for rotation about a normally generally upright axis, said arm means having an offset portion generally parallel thereto, mold support means carried by said arm portion for casting in response to the centrifugal force produced by such rotation, and means mounting said arm portion for rearward swinging movement about an axis generally parallel thereto in response to the inertial force thereon during such rotation, said support means being movable with said arm portion and being held against swinging movement relative thereto in response to such forces.

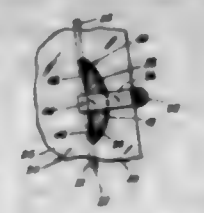
2,847,739
CASTING APPARATUS
Edmund Q. Sylvester, Lake Forest, Ill., assignor to Griffin Wheel Company, Chicago, Ill., a corporation of Delaware
Application July 12, 1951, Serial No. 236,324
14 Claims. (Cl. 22—68)



1. Pressure casting apparatus comprising a mold having a mold cavity, a gate through said mold communicating with said cavity, means for forcing molten metal into said gate at a certain flow rate, means responsive to entrance of said molten metal into said cavity from said gate for automatically reducing said rate to a lesser substantially constant flow rate, and means rendering the first mentioned means effective.

2,847,740
ADJUSTABLE FOUNDRY SLIP BOX
Robert W. Erlbacher, Cape Girardeau, Mo., assignor to Cape Manufacturing Company, Cape Girardeau, Mo., a corporation of Missouri
Application January 31, 1955, Serial No. 485,151
4 Claims. (Cl. 22—112)

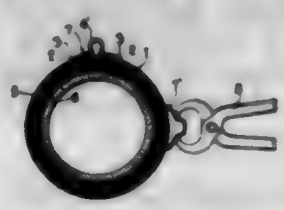
1. A slip box having a plurality of separate sides forming a closure, said sides mating with one another in substantially end-wise relation to form a plurality of corners, and jointure means on at least one of said corners comprising a pin having an arcuate cross-section and extending on one side in mating relation with an arcuate opening provided in an abutting side, said arcuate opening having a configuration conforming generally to the cross section of said pin and having an arcuate bearing surface on a side opposed from a fulcrum point for loosely supporting the pin in load bearing relation and being of slightly larger dimension than the pin for the partial rotation of said pin therein between preselected limits.



2,847,741
METHOD OF MAKING WASHED SHELL MOLD
Donald E. Meves and William D. Lawther, Hammond Lake, Ind., assignors to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
No Drawing. Application November 29, 1954
Serial No. 471,930
4 Claims. (Cl. 22—193)

1. A method of producing low carbon, low alloy steel castings comprising making a shell mold having sand particles bonded together by a thermo-setting resin, said mold having a porous surface defining a contour of a casting to be formed in said mold, then forming a layer on said surface penetrating the pores thereof to a depth of at least 1/64 of an inch and defining a coating on said surface not substantially in excess of 20 microns, said layer being formed of particles consisting of one or more of the group of titanium dioxide, manganese dioxide and cerium oxide, said particles being chemically inactive with respect to said surface in the presence of said steel in the molten state and having a particle size not substantially in excess of 1 micron and then filling said mold with said molten steel.

2,847,742
HOSE CLAMP
Hans Oetiker, Horgen, Switzerland
Application March 12, 1957, Serial No. 645,505
Claims priority, application Switzerland March 14, 1956
5 Claims. (Cl. 24—19)

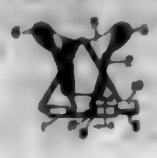


1. In a hose clamp for tightening a hose to a rigid cylindrical member, the combination of a metal band laid around and tightened onto the hose to be clamped and having a plurality of perforations, and a bridge member having a compressible body portion and hooked end portions spaced to be hooked into the perforations at the ends of said metal band prior to tightening of the band, said body portion being compressed for shortening the distance between said hooks and tightening said metal band to the hose.

2,847,743
MONEY CARRIER
Walter Christian Voss, New York, N. Y.
Application January 9, 1956, Serial No. 557,923
13 Claims. (Cl. 24—81)

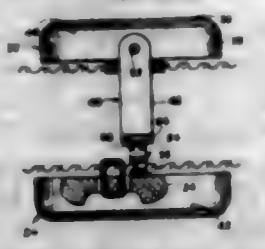
1. A money carrier for bills and the like comprising a plurality of clips each adapted to hold a plurality of bills, a hinge bar connected to the clips so that they may be pivotally moved relative to each other, and a sliding lock mounted adjacent and in contact with the hinge and slidably movable in a straight line relative thereto,

said lock having a pair of cheeks adapted to contact at least two of said clips to hold all the clips in position



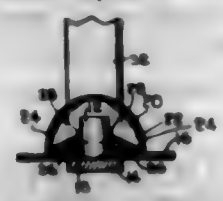
adjacent to each other and when out of contact permitting the clips to fan out around the hinge with the clips in spaced relationship.

2,847,744
CUFF LINK
Frank V. Benton, Jr., Newport, Ky.
Application June 22, 1953, Serial No. 363,005
10 Claims. (Cl. 24—102)



1. A unitary cuff link comprising a pair of head pieces disposed in spaced back-to-back relationship, one of said head pieces defining a recess adapted to receive a button, a generally U-shaped clip having a pair of substantially parallel legs, one of said legs being fixed to the back of said one head piece at a position spaced from a plane which extends transversely through said one head piece intermediate the back and front thereof and overlying said recess, and an elongated connecting member, one end of said connecting member being secured to the other leg of said clip at a position intermediate the edges of said one head, the other end of said connecting member being connected to the other head piece intermediate the edges thereof.

2,847,745
FASTENING DEVICE
Philip D. Becker, Hingham, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application December 21, 1953, Serial No. 399,498
2 Claims. (Cl. 24—108)



1. A securing device for assembly onto a stud comprising a dome shaped cap portion having an elliptical cross section presenting major and minor axes, said cap portion being resiliently compressible along the major axis, said cap portion having a depending peripheral edge, a pair of stud gripping legs disposed on opposing portions of the peripheral edge and extending toward each other and inclined upwardly, said legs bifurcated along the major axis forming a stud receiving aperture and having terminal end portions adapted for biting engagement with a stud to be inserted therebetween.

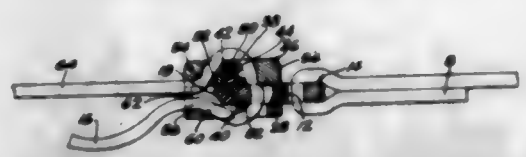
2,847,746
FASTENER
Ellsworth J. Freeman, Abilene, Tex., assignor to Oscar W. Jolly, Abilene, Tex.
Application March 20, 1952, Serial No. 277,620
2 Claims. (Cl. 24—164)

1. An underlying strap having disposed longitudinally thereon, and fastened thereto, a fastener having a flat base lying upon said strap, and two upstanding prongs of substantial width shaped to pass through both said underlying strap and the overlying strap, each prong being bent up from said base at the end thereof so that said prongs are substantially parallel to each other, an overlying strap having a series of slotted holes spaced



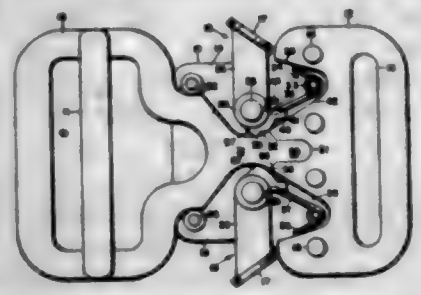
so that the two prongs will fit any two successive holes, each prong having an hole therethrough near the top thereof, and being of such height that it protrudes beyond the top surface of the overlying strap, but no further than to bring the bottom edge of said hole flush with said top surface.

2,847,747
WEBBING ADJUSTER
John A. Gaylord, Pacific Palisades, Calif., assignor of one-half to Rocket Jet Engineering Corp., Glendale, Calif., a corporation of California
Application January 3, 1956, Serial No. 556,955
8 Claims. (Cl. 24—170)



1. An adjuster for a webbing comprising a slider having four corner posts forming a longitudinal slot therethrough, a saddle bar adapted to have one extremity of said webbing affixed thereto and a post formed thereon adapted to enter said slot, a locking member pivotally mounted adjacent said slot and between a pair of said posts and projecting between said post and the webbing receiving portion of said saddle bar, a free extremity of said webbing being reeved through said longitudinal slot around said locking member and back out said longitudinal slot.

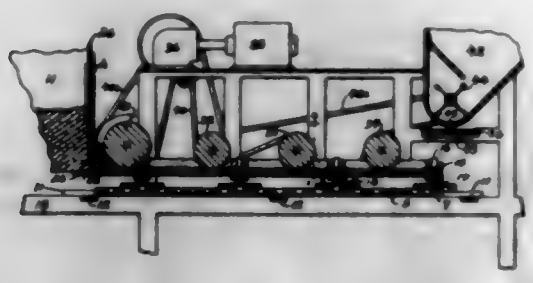
2,847,748
QUICK ATTACH AND RELEASE DEVICE
Frank A. Robinton, El Centro, Calif.
Application April 28, 1953, Serial No. 351,760
2 Claims. (Cl. 24—211)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A quick disconnect for releasing parachute harness straps normally under tension which comprises a first substantially flat elongate connecting member having a strap attaching portion and a longitudinally extending

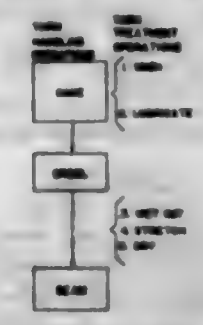
male portion terminating in a free end, said male portion having a first pair of arcuate cam surfaces, each surface being formed on opposite longitudinal edges of the male portion respectively, a second elongate counterpart connecting member having a strap attaching portion and a pair of opposite disposed intermediately pivotal locking levers transversely spaced apart to receive the cam surfaces on the male portion therebetween, said levers having transversely extending arms formed with a second pair of arcuate surfaces, each surface adapted to engage a corresponding cam surface on the male portion in complementary locking relation, spring means for normally urging said arms to a locking position, each of said arcuate surfaces having a center of curvature located substantially at the pivotal axis of the respective locking levers, means for limiting the pivotal movement of said first arms in a direction to wedge said surfaces in self-locking engagement when the connecting members are under tension, said arms being pivotal in an opposite unlocking direction longitudinally toward the free end of the male portion to cam apart said surfaces while under frictional engagement, said levers having a second pair of arms extending respectively transversely beyond opposite longitudinal edges of the members and terminate in finger-engaging portions for grasping by a hand of the user for manually disconnecting said members, said levers and male connecting portion lying substantially in a common plane.

2,847,749
MACHINE FOR MAKING VALLEY TILE
Gus W. Lang, North Miami Beach, Fla.
Application September 2, 1953, Serial No. 378,850
3 Claims. (Cl. 25—43)



1. In combination a traveling conveyer, a plurality of concavo-convex pallets of uniform width throughout their length and having downwardly directed flanges at their opposite side edges, a plurality of pallet supporting assemblies covered by the conveyer, said assemblies comprising heads having concave upper faces the curvature of which conforms to the inner upper face of a concave tile being formed, said heads constituting separating means between the ends of adjacent tiles, said assemblies further comprising vertical plates, one upon each side of said heads, means for spacing said plates away from the adjacent faces of the heads, the upper outer corners of said plates being cut away upon angles such as to constitute seats for the undersurfaces of the downwardly directed flanges of the pallets, said plates having concave upper faces of such radius as to receive the undersurfaces of the pallets and to support said pallets at such level that the upper face of a formed tile upon a pallet will be flush with and conform to the curvate of the concave faces of the adjacent heads, a driven roller disposed along the path of travel of the conveyer, said roller being of ovaloid form in the direction of its length and provided with flaring hubs which project outwardly and overlie and travel in close relation to the upper faces of the flanges along the outer edges of the pallets, the said roller conforming in longitudinal curvature to the concave upper faces of said heads, whereby the heads may pass beneath the roller in close relation thereto.

2,847,750
FLUID PROCESS FOR TREATING RAYON YARN PACKAGES
Fletcher Evans Campbell, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application September 15, 1953, Serial No. 380,161
11 Claims. (Cl. 28—72.6)



1. A process for producing a beam of yarn from a bucket cake of viscose rayon yarn which comprises centrifugally applying an aqueous lubricating composition, heated to a temperature of at least 50° C., to a wet cake of washed viscose rayon yarn rotating at a rate within the limits of from about 1000 R. P. M. to 2400 R. P. M., and thereafter directly creeling the lubricated wet bucket cake, wetting out the resultant warp, followed by stretching, drying and beaming the parallel continuous filaments.

2,847,751
METHOD OF MAKING A BALL FOR BALL POINT PEN
Meuriel F. Reed, St. Louis, Mo., assignor, by mesne assignments, to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware
Application June 13, 1955, Serial No. 515,120
7 Claims. (Cl. 29—148.4)



1. In a method of producing a ball for a ball point pen, the steps of finishing the ball to an intermediate smooth glossy spherical surface, roughening said surface to provide a multiplicity of crater-like indentations and peak-like projections, and subsequently flattening the tops of said peak-like projections to provide a cratered substantially spherical surface on said ball.

2,847,752
VALVE-LIFTER EXTRACTOR
Jesse T. Simmons, Chattanooga, Tenn.
Application May 13, 1955, Serial No. 508,171
2 Claims. (Cl. 29—239)

1. A tool for extracting valve-lifters of the type having a cylindrical housing provided with a locking-ring groove formed in the inner wall thereof, said tool comprising a tubular body having a reduced end portion of a diameter to be inserted into the bore of said housing and having an annular shoulder spaced from the end of said end portion for engaging the end of said housing when said end portion is inserted into said housing, a number of radially movable claw elements carried by said end portion and spaced about the periphery of said end portion, said claw elements being spaced from said annular shoulder in a position to be opposite the locking-ring groove in said housing when said shoulder engages the end of said housing, an expander bolt arranged within the bore of said tubular body and being freely slidable axially of said body, one end of said bolt extending out of said tubular body and having screw-threads formed thereon, said bolt having a portion thereof engaging said movable claw elements for moving said claw elements radially outward by

axial movement of said bolt, means interconnecting said bolt and said body to prevent turning of the bolt in the body while permitting movement of the bolt axially of the body, and an operator for said bolt comprising a rod



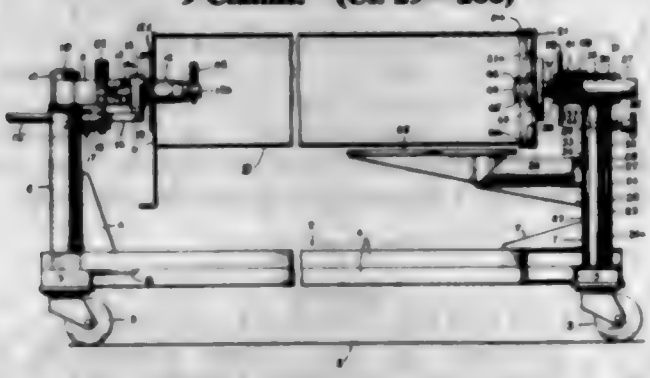
having an internally-threaded bore formed in one end thereof and threaded upon the threaded end of said bolt, with the end face of said rod in contact with the end of said tubular body.

2,847,753

JIG STRIPPING DOLLY

Miles L. Sensenig, Lancaster, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware

Application October 5, 1953, Serial No. 384,002
9 Claims. (Cl. 29—288)



1. A bale case supporting carriage comprising a mobile frame, said frame including a pair of relatively fixed longitudinally spaced vertical standards, rigid arms laterally swingable on the respective standards, normally longitudinally directed and longitudinally aligned work supports carried by the respective arms, one of said work supports being pivoted on its said arm for relative lateral swinging movement, linkage means connected between said support and the frame to constantly maintain said support in its longitudinally directed position during swinging of its arm to move said support longitudinally relative to the other said support, and an auxiliary work positioning shelf laterally swingable on said frame beneath the other work support.

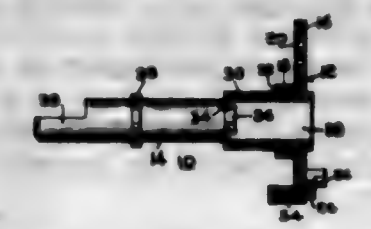
2,847,754

METHOD OF MAKING A SWITCH MECHANISM

Clement A. Woodward, Harvard, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware

Application March 17, 1954, Serial No. 416,889
2 Claims. (Cl. 29—411)

1. The method of making a switch mechanism which comprises the steps of molding as a unit a switch body having a shaft receiving aperture axially extending through said body and an operating shaft in aligned relation with the aperture and joined to said body at one end of the opening by a shearable web, said operating shaft having a peripheral shoulder at a point rearwardly from the shearable web substantially equal to the length of said body, driving said shaft into the aperture, thereby shearing



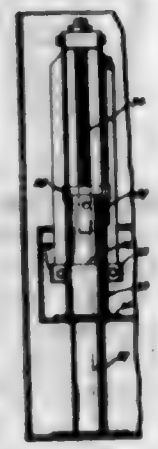
the web, until the peripheral shoulder abuts one end of the body with the end of said shaft protruding from the other end of the aperture in said body, and assembling means in the said end of the shaft to retain it in assembly in the opening.

2,847,755

METHOD OF ERECTING FLOATING ROOFS AND APPARATUS THEREFOR

John F. Mummert, Bart Williams, and Robert L. Brown, Birmingham, Ala., assignors to Chicago Bridge & Iron Company, a corporation of Illinois

Application March 8, 1954, Serial No. 414,778
9 Claims. (Cl. 29—429)



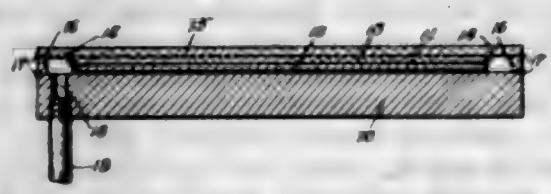
1. The method of constructing a floating roof in a field erected liquid storage tank which comprises, temporarily supporting all roof parts in the tank from the tank bottom and on blocking in areas where roof and tank bottom configuration differ, securing the roof parts together to substantially complete the roof in the tank in its temporarily supported position, placing upright roof supporting posts in the roof so as to bear downwardly on the tank bottom, then jacking the substantially completed roof from a plurality of points as a unit over said posts to proper low service position in the tank and securing the roof to the posts to thereafter limit downward travel of the roof in the tank to the low service position supported on said posts.

2,847,756

CLADDING ASSEMBLY WITH INTERNAL COVER PLATE

George Stanley Saugdahl, Jr., Birmingham, Ala., assignor to Chicago Bridge & Iron Company, a corporation of Illinois

Application April 19, 1955, Serial No. 502,398
2 Claims. (Cl. 29—470.9)



2. The method of vacuum cladding to prevent run-in of brazing material on the surface of the cladding metal

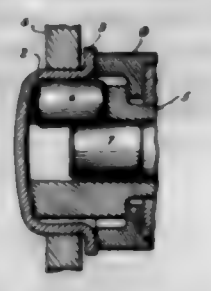
which comprises placing a cladding plate in face-to-face arrangement with a base plate and brazing material between said plates, welding an inner cover plate to about the edges of the cladding plate, placing an outer cover plate in face-to-face arrangement with the inner cover plate, welding the outer cover plate to the base plate, providing an opening to the area between the outer cover plate and the base plate, evacuating the area to be clad through such opening until a vacuum of at least 18 inches of mercury gauge is produced, heating the assembly to a brazing temperature, cooling the assembly and removing the cover plates.

2,847,757

METHOD OF INSERTING AND SEALING A CLOSURE IN A PLUG HOLE

Luther Roy Mock and Eldo K. Koppelmann, Moberly, Mo., assignors to Madison-Faessler Tool Co., a corporation of Missouri

Application March 17, 1955, Serial No. 494,859
1 Claim. (Cl. 29—523)



The method of closing a manufacturing hole which consists of inserting a cup-shaped plug dimensioned to fit loosely in a circular plug hole, inserting a roller expansion means internally of the plug, arranging the rollers of said means into engagement with a substantially cylindrical tubular wall of the plug substantially from the bottom of the plug to a peripheral rim portion of the plug located outwardly of the plug hole, holding the cup-shaped plug stationary relative to the plug hole, expanding the rollers laterally outwardly, thereby expanding the cylindrical tubular wall of the plug into sealing engagement with the wall defining said plug hole, and expanding the peripheral rim portion of the plug.

2,847,758

CUTTING DEVICE

Stephen M. Koran, Astoria, N. Y.

Application March 14, 1957, Serial No. 646,145
2 Claims. (Cl. 30—164.9)



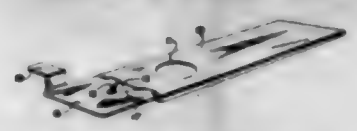
1. A cutting tool for formica and the like comprising a handle, a shank and an arcuate cutting head axially aligned with the handle and shank, said cutting head having a convexly curved outer end extending crosswise of the shank with acute angle end point tips and a cutting edge on the cutting head extending from one of said tips along the convexly curved outer end of the cutting head in the plane of the longitudinal axis of the tool to a point substantially midway the tips, said cutting head having flat sides and said cutting edge being an inclined plane extending from one of the flat sides of the cutting head, at an angle of substantially fifty degrees thereto.

2,847,759

CARD CUTTING DEVICE

Montgomery Osborne Jones, Richmond, Va., assignor to G. Tucker Smith, Coleman Wortham, Jr., and Fielding L. Williams, Richmond, Va., trustees

Application April 4, 1957, Serial No. 650,657
7 Claims. (Cl. 30—229)



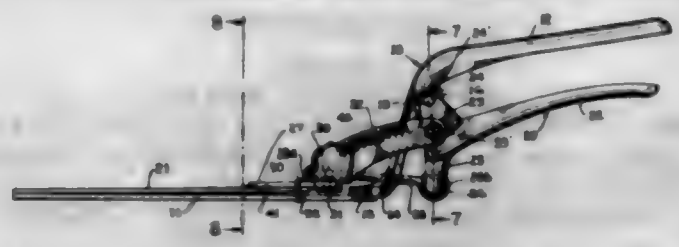
1. A card cutting device comprising a pair of relatively movable members having adjacent ends hinged to each other, one such ends having a notch and the other having a projection extending thereinto and provide with cooperating shearing edges for notching the edge of a card, one of said members being provided with a finger engageable with a pre-formed opening in a card to position said shearing edges relative thereto.

2,847,760

GRASS SHEARS

William C. Albertson, Jr., Lakewood, Ohio, assignor to True Temper Corporation, Cleveland, Ohio, a corporation of Ohio

Application February 11, 1957, Serial No. 639,303
13 Claims. (Cl. 30—238)



1. A pair of shears comprising a fixed blade, a movable blade, a fixed handle rigidly secured to said fixed blade, a blade support, said movable blade pivotally mounted upon said blade support, a movable handle, said blade support pivotally mounted upon said movable handle, said movable handle pivotally mounted upon said fixed handle.

2,847,761

REENTRANT TEMPLET DEVICE

Laurel A. Morehead, St. Paul, Minn., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware

Application February 27, 1953, Serial No. 339,386
11 Claims. (Cl. 33—23)



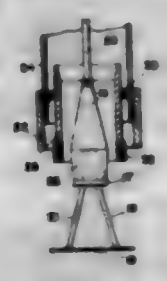
1. Method of making a reentrant cut with a machine operated flame cutting torch responding to a power driven tracer guided by a templet mounted on a fixed base, said cut being of less width than the diameter of the pivoting wheel of the tracer, comprising the steps of advancing the tracer on a templet section pivotally movable relative to said base without moving said section relative to the base, at a preselected position temporarily arresting movement of the tracer relative to the base while driving the movable templet section relative to the base through an arc about its pivot spaced from the axis of the pivoting wheel of the tracer until said section has assumed a predetermined different position, and completing the reentrant cut by again advancing the tracer on the movable templet section without moving said section relative to the base.

2,847,761

MAGNETIZED BOB OPERATED GAUGE HATCH

Harold A. Quint, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application April 1, 1957, Serial No. 650,034
4 Claims. (Cl. 33—126.5)



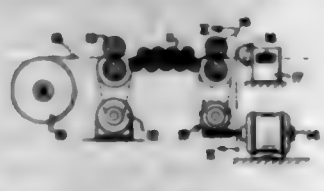
4. Gauge means for liquid storage vessels comprising a non-magnetic sleeve adapted to seat in a gauge opening of a storage vessel, a closure of magnetic material adapted to releasably engage the sleeve in sealing relationship when closed, and a tape-suspended plumb bob with magnetic means in the base thereof for passage through the sleeve to magnetically engage the closure in the gauging operation and return it to re-engagement with the sleeve on completion thereof.

2,847,763

PLURAL MOTOR DRIVE SYSTEM CONTROLLED BY MEASURING ROLLS

Charles W. Thomas, Warren, Ohio, assignor to The McKay Machine Company, Youngstown, Ohio, a corporation of Ohio

Original application January 12, 1952, Serial No. 266,211, now Patent No. 2,735,055, dated February 14, 1956. Divided and this application January 6, 1956, Serial No. 557,729
14 Claims. (Cl. 33—132)



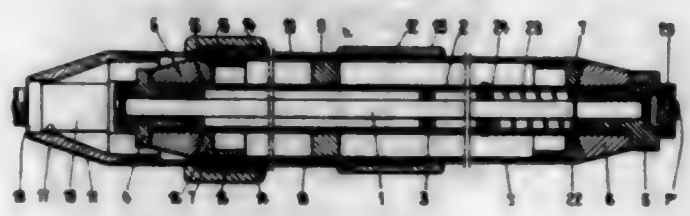
1. In apparatus for feeding continuous stock in predetermined increments the combination of a first electric induction motor for operating said apparatus at relatively high speed, a second electric motor for operating said apparatus at relatively low speed, an overrunning clutch connecting said second mentioned motor with said apparatus operative to disengage said apparatus from said second mentioned motor while said first mentioned motor is driving said apparatus forwardly, an A. C. power source connectable to said motors for operating the same in a forward direction to cause feeding of said stock, inversely connected uni-directional current valves interposed between said first mentioned motor and said source, a first measuring means responsive to the feeding of a predetermined fraction of said predetermined increment operable to render one of said valves nonconducting to cause passage of unidirectional half cycles of said A. C. power to said first mentioned motor whereby said motor and said apparatus are dynamically braked, said second mentioned motor being adapted to thereafter cause feeding movement of said apparatus at slow speed against the restraining action of said first mentioned motor, a second measuring means operative in response to the feeding of the remaining fraction of said predetermined increment to remove the power from said second mentioned motor, and time delay means operative after a predetermined time wherein the restraining action of said first mentioned motor causes the said apparatus to come to rest to disconnect said first mentioned motor from said power source.

2,847,764

INSTRUMENT FOR MEASURING GREAT LENGTHS

Wilhelm Schaerer, Berne, Switzerland, assignor to W. Schaerer & Co. A. G., Berne, Switzerland

Application September 30, 1954, Serial No. 459,460
Claims priority, application Switzerland November 5, 1953
7 Claims. (Cl. 33—168)



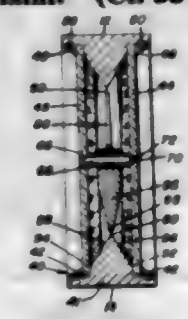
1. An instrument for measuring lengths comprising a supporting tube having opposite ends, a pressure tube enclosing the supporting tube and having opposite ends, connecting means, adjacent ends of the said supporting tube and of the said pressure tube being interconnected with each other by the said connecting means, a pull being set up in the said supporting tube by the said connecting means, the said pull being taken up by the said pressure tube, and a measuring element carried in the said supporting tube.

2,847,765

LEVEL PROTRACTOR TOOL

Floyd E. Bateman, Tupelo, Okla.

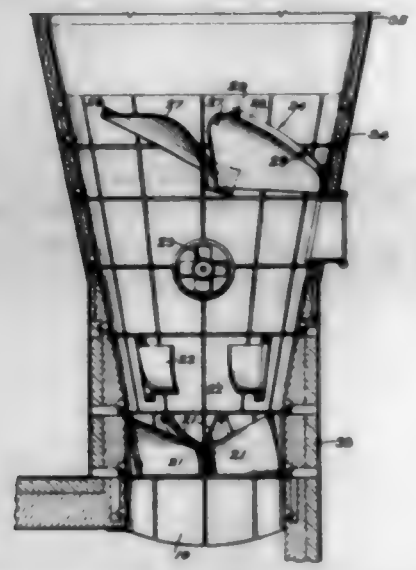
Application January 25, 1957, Serial No. 636,339
1 Claim. (Cl. 33—215)



A level protractor tool comprising an elongated frame having a central circular opening and provided with an annular central flange in said opening substantially V-shaped in cross-section and providing oppositely inclined graduated faces thereon, a pair of transparent coaxial disks fixed in said opening at opposite sides of said flange for viewing the graduations therethrough and closing said opening, a pivot pin extending transversely through said disks in the axis thereof and fixed to said disks, a pair of end-to-end spools on said pivot pin having circumferential V-shaped grooves therein and engaging ends and forming a bearing, and a counterweighted indicator between said disks including a bar extending across and spaced above said engaging ends of said spools and having terminal pairs of end legs straddling and riding in said grooves and whereby said indicator is pivotal laterally on said bearing and rotatable thereon and held against

bodily shifting longitudinally of said pin, said graduated faces providing for reading of said indicator against the graduations from either side of the frame.

2,847,766
DRIER
Harold F. Silver, Denver, Colo., assignor to Silver Engineering Works, Inc., a division of Silver Corporation, Denver, Colo., a corporation of Colorado
Application November 5, 1954, Serial No. 467,059
3 Claims. (Cl. 34—57)



1. In a gas-entrained drying chamber having a relatively small throat section opening into a lower conical portion in which wet granular solids are suspended in a rising high-velocity stream of drying gas and an upper cylindrical portion communicating with said conical portion in which suspended granular solids are dried and then carried out with the rising gas, the improvement which comprises a plurality of lower radial vanes mounted in the lower end of the throat section of said chamber and constructed and arranged to swirl entering gas and thereby disperse and entrain granular material fed into said chamber and to thereby prevent the downward discharge of falling material out of said throat section, a plurality of upper radial vanes mounted in the upper end of said throat section and arranged to stop the swirling gases leaving said lower vanes and provide a vertically rising stream of gas, feed means for granular material extending into said conical section above and in proximity to said upper vanes and arranged to feed a gravity flow of granular material into said chamber and a plurality of curved vanes mounted radially in the upper portion of the conical portion of the chamber above said feed means so as to swirl the gas and suspended particles for passage through the upper cylindrical portion of the chamber.

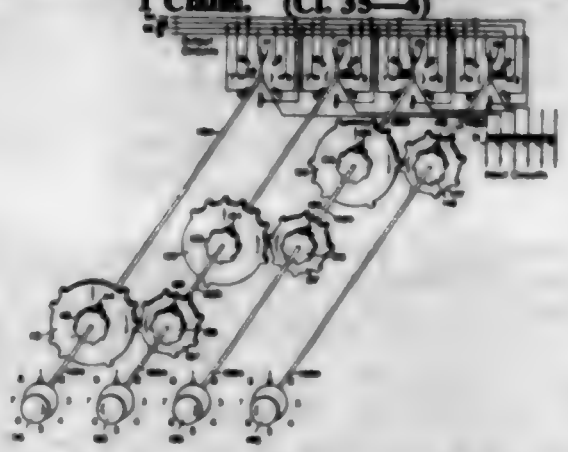
2,847,767
SPIRAL CONVEYORS
Robert M. Carrier, Jr., Louisville, Ky.
Application April 29, 1952, Serial No. 285,020
3 Claims. (Cl. 34—164)

1. In a vibratory conveyor for the treatment of material in discrete form for the purpose of modifying the physical condition thereof, and of the type comprising means defining a first receiving zone, means defining a second delivery zone, said two zones being in spaced superposed relationship, a hollow casing upstanding between said two zones, an ascendant track winding upwardly and closely proximate over its whole length to a bounding surface of said casing, and affording a continuous path for the transfer of the material between said two zones, and means to vibrate said track; apertures being located in said casing at points spaced apart over substantially the entire length thereof, each aperture being located above the maximum level at which material may be disposed on that portion of the track adjacent said aperture and means in communication with the interior of said casing adapted to maintain a pressure



differential of a gaseous medium internally and externally of said casing in order to set up a flow of the gaseous medium through said apertures and over the ascendant track in a direction generally transversely of said track.

2,847,768
SUBSCRIPTION TELEVISION ENCODING APPARATUS
Jack E. Bridges, Franklin Park, Ill., assignor to Zenith Radio Corporation, a corporation of Delaware
Application March 29, 1954, Serial No. 419,301
1 Claim. (Cl. 35—4)



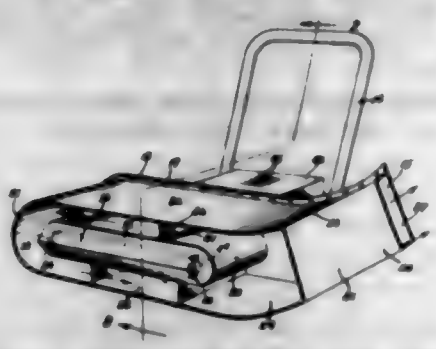
An encoding apparatus for a subscription television system comprising: a plurality of input circuits; a plurality of output circuits; a plurality of rotatable switches for permutably connecting said input circuits to said output circuits in accordance with a selected one of a multiplicity of possible permutation patterns as determined by the instantaneous positions of said rotatable switches; a plurality of rotatable gears each having a series of uniformly spaced teeth; means mechanically coupling said gears to respective assigned ones of said switches for varying the positions thereof; a plurality of independently and manually rotatable actuating controls; a plurality of one-way driving mechanical connections individually intermediate an assigned one of said actuating controls and an assigned one of said gears for effecting movement of said gears; and a plurality of additional one-way driving mechanical connections, each of which includes a mutilated gear having a series of non-uniformly spaced teeth, individually intermediate an assigned one of said actuating controls and an assigned one of said gears for also effecting movement of said gears such that the position of each gear is determined conjointly by at least two of said actuating controls.

2,847,769
SHOES FOR GOLFERS
Joseph H. Schlesinger, New York, N. Y., assignor to Eagle Chemical Co., New York, N. Y.
Application March 8, 1956, Serial No. 570,354
3 Claims. (Cl. 36—2.5)



1. In a shoe for aiding a golfer to assume the correct foot position for play, a bottom member, the inner side portion of whose upper surface is lower than its outer side portion; the rear end portion of such surface, being lower than any portion forward thereof, when said rear end portion is stood on.

2,847,770
POWER SNOW PLOW
Paul A. Wright, Grand Island, Nebr.
Application June 18, 1956, Serial No. 591,919
1 Claim. (Cl. 37—53)



A power snow plow comprising base frame means, means rotatably mounting the forward end of said base frame means, handle means at the rear end of said base frame means for pushing the same, a vertical mounting plate secured to the forward end of said base frame means and extending upwardly and downwardly therebeyond, said mounting plate extending laterally beyond the sides of said base frame means and terminating at one end in a substantially semi-circular portion and at the other end in an outwardly and upwardly curved portion, a hood mounted along the upper and lower and semi-circular end edges of said mounting plate, and presenting a forwardly facing opening, said hood having a horizontal top plate, a horizontal bottom plate and a semi-cylindrical plate at one end adjacent said semi-circular end of said mounting plate, said top and bottom plates of said hood terminating in upwardly curved and outwardly extending portions connected to the outwardly and upwardly extending portion of said vertical mounting plate with the forward edges of said outwardly and upwardly curved portions converging towards said mounting plate, and a plate connecting the forward edges of said upwardly and outwardly curved portions to provide a chute having a relatively small discharge opening, endless belt means rotatably mounted and symmetrically arranged between said top and bottom plates within said hood, cleat means carried by said endless belt means substantially spanning the space between said belt means and said top and bottom plates adapted to move the snow within said hood in the direction of said endless belt means and to discharge the same through said chute, and means for driving said endless belt means comprising a gasoline motor mounted upon said base frame means and including an output shaft having a first pulley mounted thereon, said endless belt means including a pair of laterally spaced apart shafts rotatably supported upon said mounting plate, one of said shafts extending rearwardly beyond said mounting plate and supporting a second pulley, a belt connecting said first and second pulleys, said endless belt means further including a transverse frame member mounted in parallel spaced relationship with said mounting plate within said belt means, a pair of bearing members at opposite ends of said frame member, the forward ends of said shafts being journalled in said bearing members, a pair of rollers mounted on each one of said shafts, a wedge shaped shield mounted upon the forward face of said frame means equally spaced between said top and bottom hood plates adapted to direct the snow both upwardly and downwardly into the path of movement of said plates adjacent to each one of said top and bottom hood plates, and a casing enclosing said motor having air vent openings mounted upon said base frame means.

2,847,771
TRENCHING MACHINE
Elmer E. Colson, Rock Harbor, Fla.
Application April 30, 1954, Serial No. 426,688
1 Claim. (Cl. 37—94)

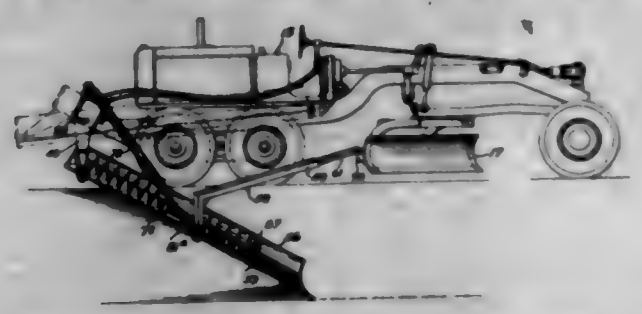


In an excavating machine, a boom pivotally secured at one end to a support for raising and lowering and lateral swinging relative thereto, means on said support for raising and lowering said boom, a pair of spaced depending brackets secured to the other end of said boom, a wheel shaft having its opposite ends journaled in said brackets below said boom, an excavating wheel secured to said shaft between said brackets, an engine on said boom, drive means connecting said engine and said shaft for rotating said wheel, said drive means including a change speed transmission for controlling the differential of rotational speed between said engine and said shaft, flexible control means extending between said change speed transmission and said support, a transfer assembly on said boom, a drive shaft extending between said change speed transmission and said transfer assembly, a pair of intermediate drive shafts above said boom extending from said transfer assembly forwardly thereof at opposite sides of said wheel and having front ends, a pair of final drive shafts extending from adjacent the front ends of said intermediate drive shafts below and perpendicular to said intermediate shafts to points adjacent said wheel shaft, and gear means connecting said final drive shafts with said ends of the intermediate shafts and with opposite ends of said wheel shaft.

2,847,772
SLOPE GRADER ATTACHMENT
Wayne W. McMullen, Bismarck, N. Dak.
Application February 28, 1956, Serial No. 568,331
7 Claims. (Cl. 37—155)

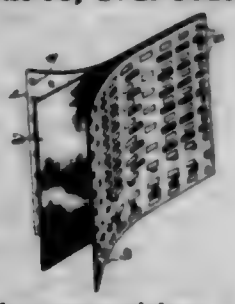
1. The combination with a wheeled frame having a forward end and a rearward end, and an upstanding leveling blade positioned beneath said frame intermediate its ends so that it extends in a direction crosswise of said frame with one of its ends near the forward end of said frame and the other of its ends near the rearward end of said frame and connected to said frame for movement from the aforesaid position to a position in which said one end is near the rearward end of said frame and said other end is near the forward end of said frame, of a slope grader attachment comprising a bracket positioned behind the rearward end of said frame and fixedly secured to said frame, a horizontally disposed anchoring

element positioned parallel to the rearward end of said frame and fixedly carried by said bracket, a horizontally disposed support positioned in confronting end to end aligned relation with respect to said anchoring element and carried by said anchoring element, said anchoring element and said support being positioned so as to slope upwardly toward the forward end of the frame, an upstanding deflecting blade positioned outwardly of said support so that it extends in a downwardly sloping direction away from said support and connected adjacent one end to the non-confronting end of said support for up



and down movement and for rotary movement, means connecting said deflecting blade to said leveling blade so that movement of said leveling blade from the position in which one of its ends is near the forward end of said frame and the other of its ends is near the rearward end of said frame to a position in which said one end is near the rearward end of said frame and the other end is near the forward end of said frame causes the rotary movement of said deflecting blade, and means operatively connected to said deflecting blade for effecting the up and down movement of the latter.

2,847,773
RIBBON HOLDER
Robert E. Herrick, Muscogee County, Ga.
Application December 27, 1955, Serial No. 557,428
5 Claims. (Cl. 40—1.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



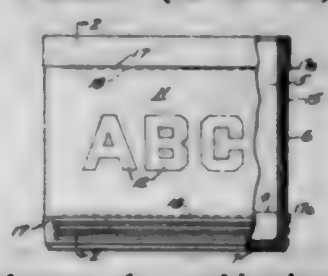
1. A ribbon holder comprising a backing member, a covering on the outer face of the backing member having a color approximating that of the garment with which it is to be associated, said holder provided with pin-receiving openings, and a sheet of material removably mounted on the backing and provided with markings to indicate the proper location of any ribbons to be mounted on the holder.

2,847,774
TAG
Winfred M. Brooks, West Orange, N. J., assignor to E. J. Brooks Company, Newark, N. J., a corporation of New Jersey
Application August 9, 1956, Serial No. 603,106
6 Claims. (Cl. 40—2)



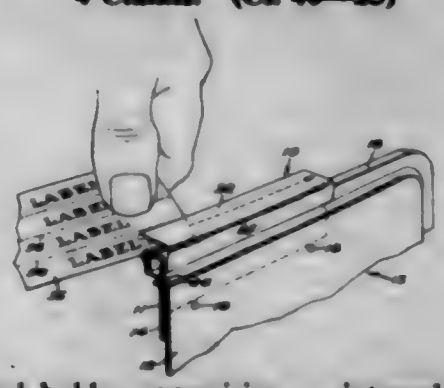
1. A tag of resilient sheet material comprising a lower blank portion and an upper locking portion having an aperture for receiving a stem-like merchandise portion therein, said aperture being coincident with a line extending centrally through both said upper locking portion and said lower blank portion, said locking portion comprising an inner tongue extending perpendicularly of said line from a point in vertical alignment with one side of said aperture and having a free end above said aperture and approximately in vertical alignment with the opposite side of said aperture, and an outer tongue intimately along side of and in the same plane as said inner tongue, the outer tongue extending perpendicularly of said line from a point in vertical alignment with said opposite side of said aperture and having a free end above said inner tongue and toward one side of said aperture, the tag further including an auxiliary tongue extending upwardly from said inner tongue about the free end of the outer tongue, said auxiliary tongue being engageable with a stem-like merchandise portion to bend said auxiliary tongue and said inner tongue out of the plane of the outer tongue to open up a space through which said stem-like portion may pass into said aperture.

2,847,775
NAME PLATE FOR STORAGE BATTERIES
Harold W. Darr, Minneapolis, Minn., assignor to Gould-National Batteries, Inc., St. Paul, Minn., a corporation of Delaware
Application August 10, 1956, Serial No. 603,281
1 Claim. (Cl. 40—2.2)



For a storage battery, the combination with a container having a front wall and end walls, said front wall being formed with upper and lower substantially horizontally extending grooves, said end walls being formed with substantially vertically extending grooves spaced from said front wall, a name plate formed to extend across said front wall and upon adjacent marginal portions of said end walls, substantially horizontally extending flanges formed on said plate to fit in said substantially horizontally extending grooves, and flanges formed on the end portions of said name plate to engage the end walls in said substantially vertically extending grooves respectively, said name plate being sufficiently flexible and elastic to permit said last mentioned flanges to be sprung into said grooves in the end walls and to be retained therein by the elasticity of the plate.

2,847,776
INDEX DEVICE
John W. Robertson, Lakewood, N. Y., assignor to Art Metal Construction Company, Jamestown, N. Y.
Application March 11, 1958, Serial No. 720,646
4 Claims. (Cl. 40—23)



1. A label holder comprising an integral extrusion of transparent plastic having a sectional form including a

flat skirt portion, a box-sectioned body portion including a front flange terminating short of said skirt portion and defining therebetween a mounting gap, a ridge extending upwardly from the rear side of said body portion, and a top flange extending generally parallel in spaced relation to said body portion and over said ridge whereby to define a label holding chamber between said body portion and said top flange into which a label may be inserted upon elastic deformation of said top flange relative to the body portion.

2,847,777

PLANNING BOARD

George Hugh Page, Schirmensee, Switzerland

Application April 11, 1955, Serial No. 500,621
Claims priority, application Switzerland April 29, 1954
1 Claim. (Cl. 40—63)



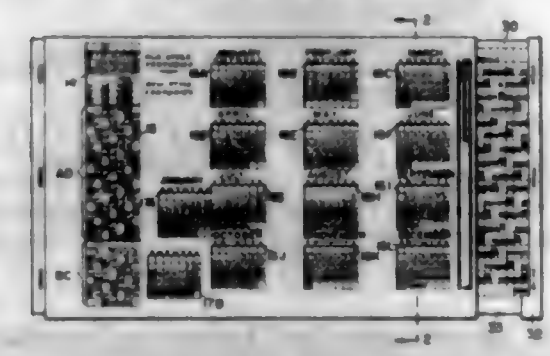
A planning board for removably supporting a plurality of flexible flat indicia strips comprising a flat supporting base, and a unitary facing sheet of uniform thickness secured to said supporting base, said sheet being formed to have a plurality of spaced, parallel rails projecting at right angles to the flat surface of said supporting base, each of said rails having a foot portion of substantially rectangular cross-section with right-angled shoulders at the upper corners thereof and an upper rail portion centrally located on said foot portion between said shoulder portions, said rail portion having angularly arranged walls extending upwardly and outwardly and terminating in a common rounded head having a width greater than the width of the upper rail portion at its point of junction with the rail foot portion, the distance between adjacent rail portions being slightly less than the width of the flexible strips, whereby one of said flexible planning strips may be pressed downwardly toward said base between two adjacent rails and may be supported therebetween in a concave bowed condition by adjacent shoulder portions and adjacent laterals walls of said upper rail portions.

2,847,778

CENTURY CALENDAR

Leib Ber Opoczynski, New York, N. Y.

Application August 27, 1956, Serial No. 606,292
8 Claims. (Cl. 40—109)



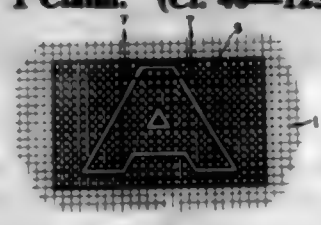
1. A calendar comprising a pair of relatively movable members; one of said members being provided with a century cutout, a schedule of annual digits aligned with said century cutout, twelve mensual cutouts, and hebdomadal markings adjacent said mensual cutouts; the other of said members being provided with diurnal markings visible through said mensual cutouts and with century markings visible through said century cutout, alignment of any annual marking with a particular century marking resulting in the alignment of the proper hebdomadal markings with the diurnal markings in said mensual cutouts for the year designated by the aligned century and annual markings.

2,847,779

ADVERTISING SIGNS AND METHODS OF MAKING THE SAME

Eldon J. Hill, Dallas, Tex., assignor to The Burdick Company, Dallas, Tex., a corporation of Texas

Application September 23, 1954, Serial No. 457,862
1 Claim. (Cl. 40—125)



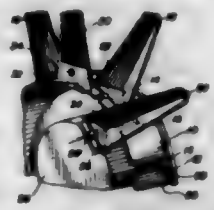
An advertising sign comprising a section of open-mesh screen material formed of unwoven strands and having a sign element located entirely within an area which is substantially smaller than the total area of the section and is spaced inwardly at all points from the peripheral margins of the screen material, said sign element comprising a first sign-forming body consisting of a substantially rigid but somewhat pliable material extending entirely through the interstices of the screen material in a defined area having a selected marginal contour and completely encasing the unwoven strands in such defined area but not completely filling said interstices, and a second sign-forming body consisting of a solid substantially rigid but somewhat pliable material extending through but not completely filling the interstices of the screen material in another defined area directly contiguous to the first-mentioned defined area, said second sign-forming body, furthermore, extending marginally over the first-mentioned sign-forming body in the provision of a tongue-and-groove interlock between the two sign-forming bodies along a line contiguous thereof, the interstices in such overlapped areas being completely filled in the formation of a raised, narrow solid band of substantially uniform width and having an outwardly presented flat face located outwardly of both of said sign-forming bodies, which band forms an area-defining line of separation between said sign-forming bodies.

2,847,780

WALL DISPLAY

Frank G. Ellerman, Evanston, Ill.

Application January 27, 1958, Serial No. 711,256
2 Claims. (Cl. 40—125)



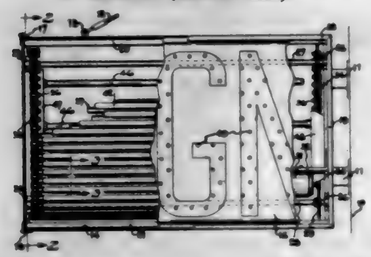
1. A wall display comprising a support with a circular flange having alternate slots extending from the free edge of the flange, a plurality of display members extending radially outward from the support and each having a head with a reduced neck slidably engaging a slot of the flange, and the surfaces of the head adjacent the neck closely engaging the opposite inner and outer curved surfaces of the flange to frictionally hold the member firmly against rocking movement and manually releasable for attachment and disconnection, said alternate slots being of different lengths from the open edges thereof arranging the display members in relatively different planes, and the head portions of the display members outside of the flange overlapping the adjacent members on each side thereof.

2,847,781
ADVERTISING DISPLAY
Richard H. Van Den Berg, Milwaukee, Wis., assignor to Dimensional Products, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application January 30, 1956, Serial No. 562,095
3 Claims. (Cl. 40—132)



1. In combination with a transparent glass surface, a frame having spaced guideways with the guideways having open ends and closed ends, a resilient pad attached to a surface of the frame, adhesive means for attaching the pad to the glass surface, a recessed member having an end surface and side walls and an open end opposite the end surface, said recessed member provided with flanges extending outwardly from opposite side walls, a second recessed member having an end surface and side walls and an open end opposite the end surface, said second recessed member having side walls of greater depth than the first recessed member and having the open end facing in the same direction as the open end of the first recessed member to position the end surfaces of said members in spaced relation and provide a chamber therebetween, said second recessed member having flanges on opposite side walls with the flanges disposed in contiguous relation with the flanges on the first recessed member and the contiguous flanges serving as guides and being slidably disposed within the guideways on said frame to removably secure the recessed members in the frame, and illuminating means disposed within the chamber for illuminating the end surfaces of the recessed members.

2,847,782
ANIMATED SIGN
Richard H. Muse, Skokie, Ill.
Application July 17, 1956, Serial No. 598,309
11 Claims. (Cl. 40—132)



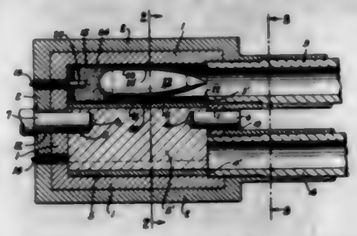
1. An animator unit for an outdoor advertising sign, said aminator comprising, rotatable members, an endless belt-like assembly having extended, spaced parallel runs at the front and back and being engaged around said rotatable members at the respective ends of said runs, said belt-like assembly including a pair of pitch chains at the opposite sides thereof, the respective pitch chains having mating attachment elements thereon, a plurality of elongated, substantially narrow light occlusion bars, said bars being engaged with mating attachment elements at their opposite ends upon the respective pitch chains in spaced parallel relationship, a plurality of elongated light transmitting strips, said light transmitting strips disposed parallel to the light occlusion bars, and the light transmitting strips and light occlusion bars configurated to interengage at their side edges with the light transmitting strips attached to and supported by the light occlusion bars independently of any attachment to the pitch chains.

2,847,783
INTERCHANGEABLE TRIPLE VIEW SIGN
Irvin F. Anderson, Arlington, Va.
Application July 26, 1955, Serial No. 524,351
3 Claims. (Cl. 40—137)



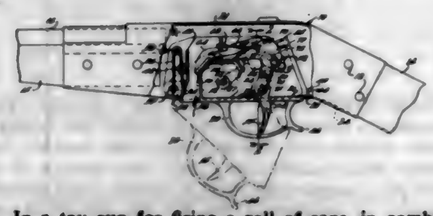
3. In an interchangeable triple view sign, the combination which comprises a frame having upper, lower, and end rails, said upper and lower rails having grooves in inner surfaces thereof, blocks having slots in inner faces freely positioned in said grooves of the upper and lower rails, pairs of strips of transparent material extended between the blocks, with ends of said strips of transparent material retained in the slots of the blocks, screws extended through the upper and lower rails and threaded in said blocks for adjusting the positions of the blocks to increase and relieve tension in the strips of transparent material, a door hinged in the back of the frame, a picture positioned against the face on the inner side of the back, and strips of pictures positioned between the transparent strips of material with the picture portions on the strips facing outwardly.

2,847,784
PRE-STRESSED OPEN-CHAMBER GUN WITH ROTATABLE CYLINDER
David Dardick, Greenwich, Conn., assignor to Dardick Corporation, a corporation of Delaware
Application January 19, 1955, Serial No. 482,905
4 Claims. (Cl. 42—39.5)



1. In an open-chamber gun having, as chamber-forming members, a pre-stressed rotatable cylinder structure and a stationary breech structure, said structures having arcuate surface portions which are concentric and are substantially co-equal in radius of curvature, said cylinder structure comprising a cylindrical jacket having uniformly circumferentially spaced open cartridge chambers in its outer surface and radially extending sockets in its inner surface between said chambers, said sockets each having shoulder portions at opposite sides thereof; and, assembled in said jacket in nested relation thereto, a core having radially extending lobes mated with said sockets, said lobes, respectively, being smaller than said sockets at normal temperatures and prior to assembly and having shoulder portions complementary to and in shrunk fit engagement with those of the socket, whereby a permanent tensile tress is produced in the core and a permanent compressive stress in the jacket.

2,847,785
TOY FIREARM WITH PIVOTED MAGAZINE AND FIRING ASSEMBLY
Oscar M. Birdsall, Wyandotte, Mich., assignor to All Metal Products Company, Wyandotte, Mich., a corporation of Delaware
Application November 13, 1953, Serial No. 391,963
2 Claims. (Cl. 42—57)



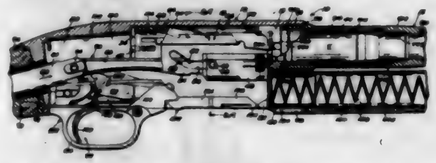
2. In a toy gun for firing a roll of caps, in combination with a housing defining a chamber having an opening in its bottom, a cap magazine and firing assembly pivotally supported adjacent a lower forward portion thereof on said housing for pivotal movement upwardly and rearwardly through said opening into an operative cap firing position within said chamber, wall portions carried by said assembly between the upper and lower edges thereof dividing the assembly into a firing section in the upper portion thereof and a magazine section in the lower portion thereof, said wall portions providing a cap feeding shelf and a cap firing anvil in said firing section, a hammer carried by said assembly and movable in said firing section toward and away from said anvil to effect firing of the caps thereon, trigger means carried by said assembly and projecting downwardly from said housing when said assembly is disposed in its operative position for moving the hammer, and means in the magazine section of said assembly for supporting a roll of caps, said assembly being pivotally movable downwardly and forwardly from said operative position into a loading position wherein the roll supporting means in said magazine section is exposed outside of said chamber and the anvil and hammer in said firing section is isolated therefrom within said chamber by said wall portions.

2,847,786
COMPOSITE FIREARM BARREL COMPRISING GLASS FIBERS
James C. Hartley, Branford, Conn., Harry I. Day, Wellesley, Mass., and John L. Wilson, Madison, Conn., assignors to Olin Mathieson Chemical Corporation, New Haven, Conn., a corporation of Virginia
Application February 7, 1955, Serial No. 486,322
3 Claims. (Cl. 42—76)



1. A composite firearm barrel, comprising a liner provided with a projectile discharge bore and having inadequate strength to withstand ordinary internal firing pressures, and an outer jacket thereon formed of a multitude of glass fibers bonded to each other and to said liner in mutual stress-transmitting relation, the glass fibers constituting about 80 percent by weight of the jacket.

2,847,787
FIREARM WITH MOVABLE CHAMBER AND SEALING SLEEVE
David M. Williams, Godwin, N. C., assignor to Olin Mathieson Chemical Corporation, Incorporated, New Haven, Conn., a corporation of Virginia
Application July 5, 1955, Serial No. 520,618
2 Claims. (Cl. 42—76)



2. In a firearm of the type having a chamber received within and movable relative to a barrel portion, the improvement comprising a sealing sleeve formed on one end of the chamber, an exterior surface of the opposite end of said chamber and an exterior surface of said sleeve making a relatively loose fit with a corresponding interior surface of said barrel, the interior surface of said barrel in the region thereof intermediate the ends of said chamber being undercut so as to cooperate with the corresponding exterior surface of the chamber to define an annular relief passage, the barrel further cooperating with the chamber at said ends to define a pair of spaced annular restrictions communicating with said relief passage.

2,847,788
AUTOMATIC SHOTGUN CHOKE
Lester A. Twigg, Bethesda, Md.
Substitute for abandoned application Serial No. 321,810, November 21, 1952. This application October 3, 1955, Serial No. 538,205
5 Claims. (Cl. 42—79)



1. An automatic choke for firearms comprising, an expansible choke tube including a plurality of resilient fingers normally flexed outwardly to provide an open shot pattern, means for securing said choke tube to the muzzle of a gun, a second tube movably receiving said choke tube, said second tube projecting beyond the open end of said choke tube and being adapted for forward sliding motion relative to said choke tube, means on said second tube for flexing said fingers inwardly to provide a closed shot pattern upon movement of said second tube with respect to said choke tube, a third tube enclosing the rear portion of said second tube and including means for arresting forward movement of said second tube, and a fourth tube secured to said choke tube and adjustably receiving the rear portion of said third tube whereby the forward motion of said second tube may be arrested at intermediate choke stops.

2,847,789
BAIT HOLDER FOR USE IN IMPALING BAIT ON A FISHHOOK
William Carmichael Parkman, Lakeland, Fla.
Application April 17, 1957, Serial No. 653,369
6 Claims. (Cl. 43—1)

5. A bait holder for use in impaling bait on a fishhook comprising, a platform having a groove extending transversely of said platform and terminating in a slot at one side of said platform, a clamping bar pivotally mounted on said platform having its free end portion superposed

upon at least a portion of said slot, said clamping bar being set back from the edge of the side of said platform, said platform having a notch extending from said slot in the direction of the free end of said clamping bar, said clamping bar having a groove in the under side of its free end in alignment with said groove and slot in said platform, said clamping bar having a notch positioned



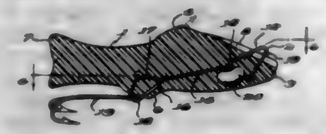
so that the line of juncture of adjacent sides of said notch intersects said slot in said platform to form a guide for the fishhook, for guiding the fishhook through the transverse centerline of the bait by movement of the hook along said line of juncture of adjacent sides of the notch, and means for resiliently biasing said clamping bar away from its superposed position.

2,847,790
LANDING-NET
Rolf Tjernagel, St. Paul, Minn.
Application August 31, 1955, Serial No. 531,702
9 Claims. (Cl. 43—11)



1. A landing-net suitable for retaining fish and comprising an elastic mesh net member of interconnected rubbery elastomeric monofilaments, and handle means for supporting and manipulating said mesh.

2,847,791
FISHING LURE
Clarence C. Simmons, Hollywood, Calif.
Application November 8, 1954, Serial No. 467,407
9 Claims. (Cl. 43—42.26)



1. In a fishing lure, a body formed of soft, rubber like material shaped to resemble a fish including simulations of a head, body and tail and pectoral, dorsal and ventral fins as viewed in side elevation, a ring element embedded in said body and having a portion thereof exposed at the upper surface of said head affording means for connection of the lure to a fishing line, a second ring embedded in said body and having a portion thereof extending through said ventral fin, a fish hook carried by said second ring, and a flexible member embedded in said body and interconnecting said rings, said body including upwardly and rearwardly inclined surfaces effective to cause said lure to descend when dragged through the water, and said tail including forwardly facing surfaces disposed one each at each side thereof opposing movement of the lure through the water and by such opposition being effective to impart a lateral wiggling movement to said lure in close simulation to the natural swimming movement of a fish; the body of said lure in rear of the ventral fin portion being of less cross sectional area than the forward portion of said body with consequent greater flexibility and resultant concentration of the greater portion of said wiggling movement to said rear portion of the body and achievement of said close simulation.

2,847,792
FISHING FLOATS
Edgar E. Kuhlmann, Maywood, Ill.
Application February 25, 1957, Serial No. 642,186
8 Claims. (Cl. 43—44.9)



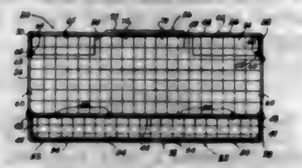
1. In an attachment for a fishing line, a member having an opening, a magnet fixed to said member and having an opening aligned with the opening in said member, said openings being adapted to permit free passage of the fishing line therethrough; and a ferrous metal member adapted to be connected to the line and capable of being attracted to said magnet and separably engaging said magnet.

2,847,793
FISH HOOK DISGORGER
William Z. Breer, Grosse Pointe Park, Mich.
Application March 19, 1956, Serial No. 572,554
3 Claims. (Cl. 43—53.5)



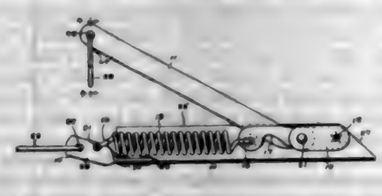
1. A fish hook disgorger comprising an elongated tubular member having the leading end thereof terminating in a plane disposed at an acute angle to the longitudinal axis of the tubular member, said member having a narrow first slot therein having its longer dimension extending circumferentially inwardly from said angled leading end in a plane transverse to the longitudinal axis of said member, said member having a second narrow slot communicating at one end with the inner end of said first slot, said second slot having the longer dimension thereof extending generally parallel to the longitudinal axis of said member, said slots being of a width to receive a fishing hook leader so that said member can be guided by the leader to bring the angled leading end of said member against a fish hook disposed within a fish, said member having a third slot extending circumferentially inwardly from said angled leading end adjacent the rearmost portion of said end, said third slot being adapted to receive a fish hook, said angled leading end of said member defining a guide for said hook, whereby when said member is rotated relative to the hook the hook will be guided into said third slot, and a second tubular member movably sleeved on said first tubular member and having a recess adjacent one end thereof disposed in alignment with at least a portion of said third slot and adapted to retain a fish hook in said third slot when said second member is moved to an advanced position, whereby the hook can be removed from a fish by withdrawing the disgorger from the fish, said second member being movable to a retracted position to permit said hook to be removed from said third slot.

2,847,794
FISH LIVE BOX
Elden E. Loud, Ferguson, Mo., and Edward W. Borchardt, deceased, late of Morse Mill, Mo., by Olive M. Borchardt, administratrix, St. Louis, Mo.
Application September 16, 1954, Serial No. 456,512
7 Claims. (Cl. 43—55)



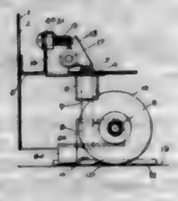
1. A collapsible live box comprising a base portion, said base portion comprising a shallow basket, end panels, a front panel and a rear panel all pivotally mounted on said base portion, a top panel pivotally connected to said rear panel, and a float unit pivotally connected to each end panel, said float units being within said basket when said box is in collapsed position.

2,847,795
ANIMAL TRAP SPRING SUSPENSION
Gordon L. Westby, Deerfield, Wis.
Application May 28, 1957, Serial No. 662,154
4 Claims. (Cl. 43—96)



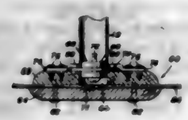
1. A resilient unit for use in a connection of an animal trap to an anchor comprising an elongated base channel-shaped in cross section having anchor connecting means on one end, a lever pivotally mounted in the end of the base opposite to the end in which the anchor connection is provided, trap connecting means in the extended end of the lever, a spring in the base positioned with one end connected to the base, and links connecting the opposite end of the spring to the lever whereby in the cocked position of the unit the pivotal connection of the links to the lever is over the center of the pivotal mounting of the lever in the base, and whereby motion in a trap connected to the lever moves the connection of the lever to the links across the center of the pivotal connection of the lever to the base whereby the lever is drawn to a retracted position by the spring.

2,847,796
ADJUSTABLE APPLIANCE CASTERS WITH WOBBLE STOP AND LOAD SUPPORT FOR SOFT FLOORS
Albert J. Matter, Park Ridge, Ill.
Application April 7, 1955, Serial No. 499,857
2 Claims. (Cl. 45—139)



1. In combination, an appliance, a supporting device underneath and provided with a stem extending slidably up into the appliance, a rocker element in the appliance above and in contact with the top of the stem, a pivot pin securing said element to the appliance, and a screw accessible from the exterior of the appliance engaging said element to adjust the angular position thereof and the vertical position of the stem relative to the appliance.

2,847,797
TOY STEERING WHEEL
Andrew Kruczek, Detroit, Mich.
Application April 16, 1956, Serial No. 578,237
3 Claims. (Cl. 46—1)



1. A toy steering wheel assembly comprising a tubular steering column, a block frictionally mounted within one end of said column, a portion of said block extending out from said column and into a central recess in a hub member, a radially extending flange projecting outwardly from said block between said column and said hub member and overlying at least a portion of said hub member, flange means on said hub member overlying said radially extending flange, a wheel circumferentially connected to said hub member, said flange means being connected to said hub member by screw-threaded connections, said screw-threaded connections being adapted to vary the ease of rotation between said flange means and said radially extending flange upon being threaded in one direction or the other.

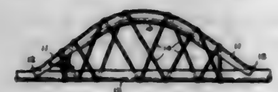
2,847,798
COUPLING DEVICE FOR TOY TRAIN SETS
Ben Orel, Los Angeles, Calif.
Application September 27, 1956, Serial No. 612,484
6 Claims. (Cl. 46—216)



1. A toy comprising a plurality of movable units disposed in sequential relationship to each other, a coupling device removably coupling the adjacent units to each other, said coupling device comprising a stud and a socket formed complementarily to each other, said stud being attached to one of said adjacent units and said socket being attached to the other of said adjacent units, said socket having a flat circular base, said base being disposed against the end of the unit, said socket having side walls extending transversely to said base and then substantially parallel to said base to provide a circular spring holding portion, a substantially circular split ring spring mounted and held within said spring holding portion, the diameter of said spring normally being slightly less than the diameter of said spring holding portion, said stud including a circular base disposed adjacent the end of said unit, an integral outer side wall extending substantially transversely to said base, said outer side wall diverging slightly outwardly from the center of said stud, said outer side wall being looped back to form an integral inner side wall extending substantially transversely to said base, said inner side wall terminating in an integral circular floor extending substantially parallel to the base of said stud, said floor having a central aperture extending therethrough, a nail having a shank ex-

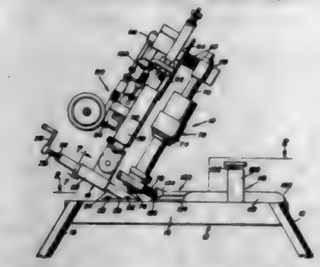
tending through said aperture, the diameter of said shank being smaller than that of said aperture, the said nail having a head disposed on the opposite side of said floor from said unit, said nail being fixedly mounted on the end of said unit, said stud and socket adapted to be coupled and uncoupled by the interaction of the outer side wall of said stud and the spring of said socket, said stud being adapted to cant with respect to said nail to permit the units coupled by said device to swivel in any direction with respect to each other without interfering with the coupling or movement of said units.

2,847,799
SHRUB OR TREE SPLINT AND METHOD OF APPLYING IT
James J. Wilson, Seattle, Wash.
Application August 16, 1955, Serial No. 528,694
2 Claims. (Cl. 47—58)



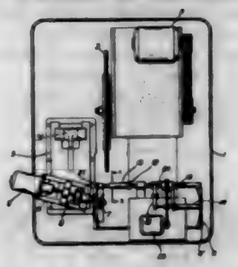
1. A shrub and tree shaper comprising a tubular splint curved in the shape of a bow longitudinally considered and terminating in two integral end portions of approximately semi-circular cross section with their concave sides facing inwardly toward the center of the longitudinal curvature of the splint, the extremities of the semi-circularly shaped end portions of the splint being outwardly curved providing rounded branch engaging parts, said concave end portions receiving therein and contacting at spaced apart points a shrub or tree branch to which the splint is applied; and a pliable binding member extending around the branch and the splint when the splint is on a branch lacing the splint to the branch and applying evenly divided bending force at a plurality of points to the portion of the branch between the two ends of the splint, said pliable binding member frictionally engaging both the branch and the splint at a plurality of locations in resisting relative turning movement of the branch and splint.

2,847,800
AUTOMATIC GRINDER FOR TUNGSTEN CARBIDE DRILL BITS
Howard E. Ingersoll, Carson City, Nev.
Application November 28, 1955, Serial No. 549,269
4 Claims. (Cl. 51—32)



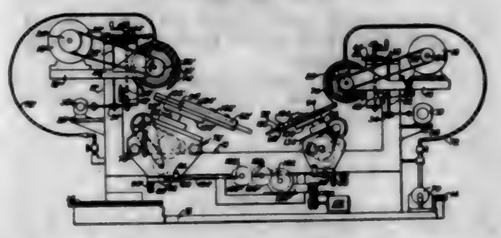
4. A drill grinding fixture comprising a grinder, a base, drill positioning means carried by said base for fixedly positioning a drill, a support assembly carried by said base adjacent said drill positioning means, a carriage mounted on said support assembly for reciprocatory movement generally toward and away from said base, a grinder support arm supported by said carriage for pivotal movement about an axis normal to the direction of movement of said carriage, means supporting said grinder on said grinder support arm in depending relation, said grinder having an axis intersecting the longitudinal axis of said grinder support arm, said grinder support arm being mounted in said carriage for movement longitudinal of said grinder support arm, and drive means connected to said carriage and said grinder support arm for simultaneously effecting reciprocation of said carriage, said grinder support arm and said grinder and oscillation and longitudinal movement of said grinder support arm and said grinder relative to said carriage.

2,847,801
GLASS GRINDING MACHINE
Joseph Sciarbo, Rutherford, N. J.
Application December 1, 1955, Serial No. 550,345
3 Claims. (Cl. 51—89)



1. A machine for grinding cylindrical glass bodies comprising a fixed base; a carriage slidably mounted on the fixed base and carrying a head adjustable about its vertical axis; a pair of spaced vertical supports upstanding from such head and provided with means for horizontally and rotatably supporting a cylindrical glass body between them; a rotatable grinding wheel vertically mounted on the fixed base in the path of the carriage on one side of and opposite to the vertical supports with its axis of rotation at right angles to the path of the carriage; a second carriage slidably mounted on the fixed base on the other side of, and opposite to, the said vertical supports and carrying a head adjustable about its vertical axis; a bevelled rotatable grinding wheel vertically mounted on the head of the second carriage; means for rotating both grinding wheels and means for limitedly advancing the work supporting carriage toward the grinding wheel mounted on the fixed base and then back to its initial position and thereafter limitedly advancing the second carriage toward the work supporting carriage and then back to its initial position.

2,847,802
GRINDING APPARATUS
William Cecil Bryan, Jr., Greenville, S. C.
Application March 16, 1954, Serial No. 416,541
5 Claims. (Cl. 51—94)



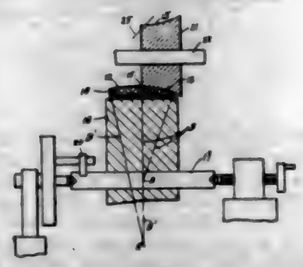
1. A grinding machine comprising a longitudinal trackway, a pair of carriages mounted on said trackway for longitudinal reciprocatory movement thereon, automatically operable means for reciprocating said carriages at a predetermined rate, workholders carried by said carriages, automatically operable means for oscillating the workholders also carried by the carriages at a predetermined rate and means for limiting the angle through which said workholders oscillate whereby, simultaneous reciprocatory and oscillatory movement of the workholders is effected.

2,847,803
CULTIVATOR DISK GRINDING APPARATUS
John H. Nutzman, Clarkston, Wash.
Application January 4, 1956, Serial No. 557,298
3 Claims. (Cl. 51—173)



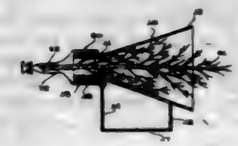
1. A cultivator disk grinding apparatus comprising a horizontally-disposed frame including a front end member and a rear end member, a first rollable means carried by said front end member and engaging a ground surface, a second rollable means carried by said rear end member and engaging said ground surface, said first and second rollable means supporting said frame above said ground surface, an abrading assembly including an endless traveling belt provided with an abrading outer surface positioned longitudinally of said frame with an end portion forwardly of and adjacent the front end member and connected to said frame for movement from the position adjacent said front end member to an elevated position above and spaced from said front end member, and a pair of wheels arranged in lateral spaced relation positioned adjacent each of said front and rear end members and spaced above said ground surface and connected to said frame for simultaneous movement from the position above the ground surface to a position engaging said ground surface and supporting said frame above said ground surface.

2,847,804
METHOD OF MAKING LENSES
Tracy H. Calkins and Thomas S. Hood, Indianapolis, Ind., assignors to Continental Optical Company, Inc., Indianapolis, Ind., a corporation
Application January 25, 1957, Serial No. 636,336
1 Claim. (Cl. 51—284)



The method of making one piece multi-focal lens blanks having distance and near fields of vision separated by straight line shoulders substantially merging at central points, consisting of blocking a plurality of unfinished blanks of optical glass about the peripheral surface of a blocking wheel, said wheel having a radius approximating the radius of the near field to be ground, applying to the near field portions of said blanks a rotating grinding wheel having a grinding surface line on the edge thereof of predetermined radius of cross curvature corresponding to the radii of said near fields to be ground, rotating said blocking wheel and said fields until the radius of spherical curvature of each said near field equals the radius of curvature of said grinding wheel, deblocking said blanks and blocking them about the periphery of a second blocking wheel having a radius approximating the radius of the distance field of vision, applying to the distance field portions of said blanks a second rotating grinding wheel having a grinding surface line on the edge thereof with a radius of cross curvature corresponding to the radius of said distance field of vision, rotating said second blocking wheel and grinding each lens blank in succession until the spherical radii of curvature of said distance field portions equal the radius of cross curvature of said second grinding wheel and until said fields of vision substantially merge at one point and are separated by straight line shoulders increasing in depth from said merging point toward the sides of said blanks.

2,847,805
METHOD FOR PACKAGING CUT TREES
Ernest B. Robbins, Livermore Falls, Maine
Application May 4, 1956, Serial No. 582,713
3 Claims. (Cl. 53—24)

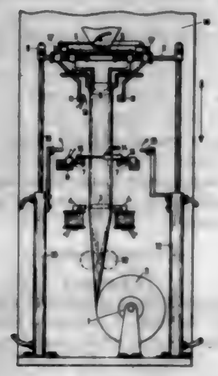


1. The method for packaging a tree having a trunk stub projecting from the lower end which comprises providing an open ended tunnel having one end smaller than the other end with a hollow extension projecting axially from the smaller end, removably attaching to said extension the portion adjacent one end of an open ended flexible casing cut to a length to completely house said tree and trunk stub, arranging the part of said casing between said attached portion and the other end so that it lies in superimposed folds upon said attached portion with the portion adjacent the other end of the casing exteriorly of said extension and in position for ready grasping by a hand of an individual, inserting said tree into the larger end of said tunnel so that the trunk stub faces toward the smaller end, causing the thus inserted tree to be pushed through the tunnel until the trunk stub projects beyond the extension and the portion adjacent the other end of said casing, pulling the portion adjacent the other end of said casing over and beyond the projecting trunk stub and tying said other end casing portion, grasping the part of said casing which surrounds the trunk stub and constricting it into gripping engagement with the trunk stub to simultaneously effect grasping of the trunk stub therethrough, applying a pulling force to the thus grasped casing part and trunk stub until the tree has been fully withdrawn from said tunnel and said extension, detaching the portion adjacent one end of said casing from said extension, and tying said one end casing portion.

2,847,806
PACKING MACHINES
Herman Wang, Oslo, Norway
Application June 5, 1956, Serial No. 589,400
Claims priority, application Norway June 16, 1955
4 Claims. (Cl. 53—29)

1. A packing machine comprising means for feeding a flattened tubular foil from a supply roll along a feed path to a filling station, at least two electro-magnets in association with the feed path of the bag foil, the poles of which face each other on opposite sides of the

feed path at a distance adjusted according to the diameter of the bag foil, a ring of magnetic responsive material in the bag foil between the magnets, the said magnets being adapted to produce a magnetic field through the ring of magnetic responsive material located within the said bag foil, the said ring being thereby kept floating



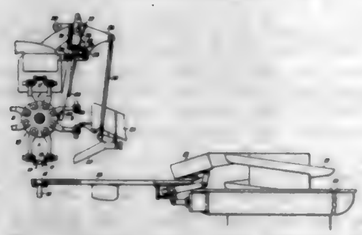
within the bag foil which is held open, means for gripping the edge of the bag foil above the magnets and for pulling the bag foil up to a desired length, means for sealing a bottom in the bag foil above the magnets, means for cutting the bag foil off between the said sealing means and the magnets, and means for sealing the top of the bag after being filled.

2,847,807

WRAPPING MACHINES

Leonard Brook, Leeds, England, assignor to The Forgrove Machinery Company Limited, Leeds, England, a British company

Application November 21, 1956, Serial No. 623,678
Claims priority, application Great Britain November 22, 1955
6 Claims. (Cl. 53—53)



1. A wrapping machine comprising a carrier head movable to traverse articles in succession through wrapping stations to a discharge station, a discharge chute adjacent the discharge station for receiving wrapped articles from the carrier head, an ejector for ejecting in succession from the carrier head to the discharge chute articles arriving at said discharge station, a feeler mounted adjacent to the path of the articles approaching the discharge station, said feeler being moved periodically by contact with the wrapper on each wrapped article from a normal position to a displaced position but remaining in its normal position when an unwrapped article passes it, means for diverting from said discharge chute unwrapped articles ejected from the carrier head by the ejector, and ejector-operated means, controlled by the position of said finger, for actuating said diverting means whenever said feeler is in its normal position during operation of said ejector.

2,847,808

TREE WRAPPING MACHINE

James Wilbur Romine, Monroe, Mich., assignor to Greening Nursery Company, Monroe, Mich., a corporation of Michigan

Application September 6, 1956, Serial No. 608,360
7 Claims. (Cl. 53—124)



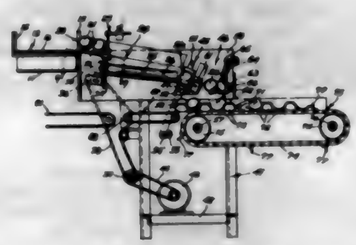
2. A device for packaging the roots of a plant having an extending portion to be disposed outside of the package including, in combination, troughlike means open at one side, closure means for said troughlike means for compacting material around said roots and forming a tunnel over which a bag may be placed, pusher means comprising a member disposed adjacent to said troughlike means and on the opposite side of said extending portion from said closure means when said closure means is in tunnel-forming position, said member being engageable with the packed material and roots for pushing the packed material and roots from the troughlike means into the bag as the bag is pushed from the forward end of the troughlike and closure means, whereby upon moving said closure means from the troughlike means the extending portion may be lifted therefrom and from the pusher means.

2,847,809

MACHINE FOR POSITIONING ARTICLES IN TRAYS

Joseph F. Lindeman and William Gerald Dobbs, Yakima, Wash., assignors to Northwest Equipment Company, Inc., a corporation of Washington

Application April 28, 1955, Serial No. 504,469
8 Claims. (Cl. 53—160)



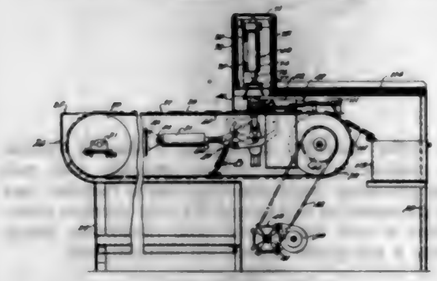
1. In a machine for putting articles in trays having article receiving cups disposed in rows; the combination of means for advancing jumbled articles into the machine; a laterally horizontal bank of rollers angled downwardly from their article receiving ends to their discharge ends journaled on the machine and adapted to receive articles advanced into the machine; power means rotating said rollers all in the same circumferential direction whereby the articles are arranged in successive rows; an article releasing gate movable between an article retaining position and an article releasing position; means for advancing said successive rows of articles to said article releasing gate; means for advancing said trays relative to said gate to deposit the successive rows of articles released from said gate into successive rows of said cups; and means for operating said row advancing means, said gate, and said tray advancing means in timed relation to each other.

2,847,810

MEANS FOR PACKAGING

Sidney M. Davey, Ferndale, and John G. Anderson, Southfield Township, Oakland County, Mich.; said Anderson assignor to said Davey

Application February 8, 1954, Serial No. 408,894
18 Claims. (Cl. 53—198)



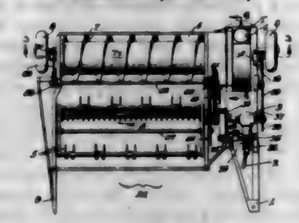
1. In a machine for packaging paper money or the like, an elongated loading section having a plurality of stations, a conveyor movable along said loading section, means for moving said conveyor in intermittent steps, a plurality of trays carried by said conveyor and movable to successive stations, each tray comprising two sections spaced from each other in a transverse direction, an aperture in said conveyor adjacent each tray between the sections thereof, a wrapping station at one end of said loading section, means at said wrapping station for storing in a plurality of bands of flat shape, transfer means for moving bands successively into position across the contents of each tray as it arrives at said wrapping station, a forked member disposed above said wrapping station and movable between a retracted position and a lower position deflecting the ends of said band downwardly through said aperture, a band folding mechanism comprising a pair of fingers movable successively into engagement with said downwardly deflected band ends to cause said ends to overlap under said tray contents, and means engageable with said overlapped band ends to seal the ends and form a package.

2,847,811

MOBILE HARVESTING MACHINE

Menno Z. Martin and Phares Martin, New Holland, Pa., assignors to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware

Application August 4, 1955, Serial No. 526,373
4 Claims. (Cl. 56—1)



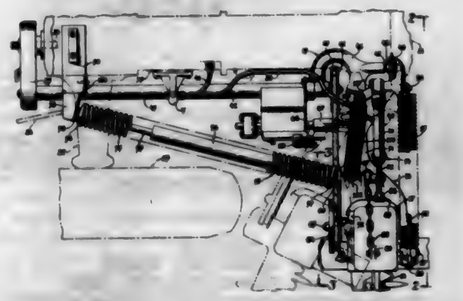
1. In a forage harvester, a housing having an inlet, an annular shear bar mounted in said inlet and defining a feed opening, means for feeding crop material through said feed opening, said feeding means comprising an auger having a discharge end projecting into said feed opening, said auger having a body portion at said discharge end the diameter of which is less than the diameter of said feed opening to thereby provide an annular space for the passage of material, and cutting means within said housing, said cutting means comprising a knife support disc disposed at said discharge end of said auger and extending in a plane transverse to the axis of rotation of the auger, said knife support disc being rotatable about a common axis with said auger and having a diameter less than the diameter of said auger body, one knife at least carried on said knife support disc and having a cutting portion extending beyond the periphery of the disc and across said annular space whereby said cutting portion is continuously engageable with material delivered through said space.

2,847,812

MOUNTING AND LIFTING MEANS FOR A TRACTOR MOUNTED CUTTING ASSEMBLY

Lee E. Elfes, Birmingham, and Leo J. Lorenz, Detroit, Mich., assignors to Massey-Ferguson Inc., Baltimore, Md., a corporation of Maryland

Application October 19, 1954, Serial No. 463,136
9 Claims. (Cl. 56—25)



1. In a mower having a frame mountable at one side of a tractor, a drag bar supported at one end on said frame for universal pivoting movement, a cutter bar drivehead supported at the other end of said drag bar to pivot about an axis, transverse to the longitudinal axis of the bar, a cutter bar rigid with and projecting laterally from said drivehead, power operated means for raising and lowering said drag bar and said cutter bar comprising a bell crank lever having arms of uneven length fulcrumed on said drag bar to pivot about an axis substantially parallel to the pivotal axis of said drivehead, an upstanding lug on said drivehead, a flexible tension link connected between said lug and the shorter arm of said bell crank lever, and a pressure fluid operated actuator connected between the longer arm of said bell crank lever and the tractor upon which the mower frame is mounted, said actuator being operative when supplied with pressure fluid to exert a tension force on said bell crank lever, the arms of said bell crank lever being proportioned so that the drag bar and the drivehead cutter bar assembly are swung simultaneously upon their pivots upon operation of said actuator.

2,847,813

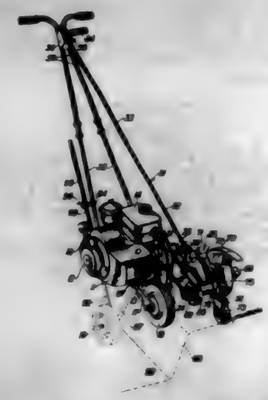
LAWN EDGER WITH ADJUSTABLE WHEEL

Edward S. Hanson, Jr., Racine, Wis., and Raymond K. Strasel, Winthrop Harbor, Ill., assignors to Jacobsen Manufacturing Co., Racine, Wis., a corporation of Wisconsin

Application March 10, 1955, Serial No. 493,388
2 Claims. (Cl. 56—25.4)

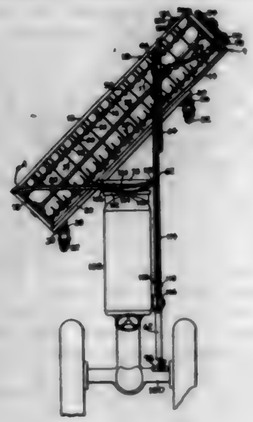
1. A lawn edger comprising a frame, a blade rotatably attached to the front and one side of said frame to be disposed in a vertical plane, a wheel and a guide wheel attached to said one side of said frame to be substantially disposed in said vertcal plane to support the latter for movement on the ground or the like, a wheel axle attached to said frame to be rotatable about one end of said axle with the opposite end thereof disposed at the opposite side of said frame offset from said vertical

plane to be movable to selected vertical positions, a wheel on said opposite end of said axle, an arm attached at one end portion thereof to said opposite end of said



axle and adjustably connected at another portion of said arm to said edger, lock means for securing said arm to said edger in a selected adjusted position.

2,847,814
SIDE DELIVERY RAKE
Calvin P. Weaver, Tipp City, Ohio
Application January 4, 1954, Serial No. 402,065
6 Claims. (Cl. 56—27)



1. In a push type side delivery rake for operation by a tractor and for pulling behind an automobile during transfer of said side delivery rake comprising an elongate frame provided with a pair of side members, rotatable raking means supported by the frame, a pair of caster wheels attached to one of the side members of the frame, a pair of extension bars, each extension bar extending over the frame and being attached to both side members thereof, each of the extension bars being angularly disposed with respect to the side members, the extension bars being substantially normal one to the other, one of said extension bars having an end thereof provided with means for adjustable attachment of said extension bar to the rearward portion of a tractor and to the rearward portion of an automobile, and resilient means for attachment between the forward portion of a tractor and one of the extension bars.

2,847,815
COTTON DOFFING ASSEMBLY
Robert S. Radow and Robert E. Bennet, Dayton, Ohio, assignors to The Dayton Rubber Company, Dayton, Ohio, a corporation of Ohio
Application September 11, 1956, Serial No. 609,238
13 Claims. (Cl. 56—41)



1. A doffer assembly comprising a disc of flexible rubber, reinforcing means formed integrally with said disc and providing crack retarding means therefor, and doffer lugs seated on and having the root portions thereof molded to said disc through said reinforcing means to provide a non-planar connection therebetween.

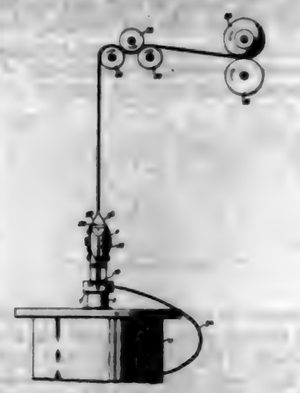
2,847,816
FLEXIBLE HAND RAKE
Isaac U. Yeda, Alameda, Calif.
Application May 10, 1954, Serial No. 428,735
4 Claims. (Cl. 56—400.17)



1. In a sweeping or raking element, a handle stick, a fan-shaped head structure comprising a plurality of finger strips of resilient material having corresponding end portions at the apical end of the head disposed in superposed crossing relationship at a common line transverse thereto, a clamp plate member providing a cylindrically concave handle-receiving channel along its length, mutually coplanar wing portions of the plate extending oppositely from the side edges of the channel at a rear first part of the plate, a U-bolt receiving the superposed finger strip portions at its bight and having its sides spanning the handle thereat and having threaded ends extending through transverse openings in said wing portions of the plate and mounting nuts directly operative to effect and maintain a mutually clamped relation of the engaged strip portions and handle portion between the bight of the bolt and the clamp plate, mutually coplanar second wing portions provided by and extending oppositely from an intermediate second part of the plate channel forwardly of the first wings and arranged to engage flat against the outermost strips of the finger assembly when the plate and U-bolt cooperatively secure the finger assembly and handle stick together, and plate portions extending from a forward third part of the plate channel cooperative with the channel part to provide a split ferrule closely receiving the engaged handle portion thereat.

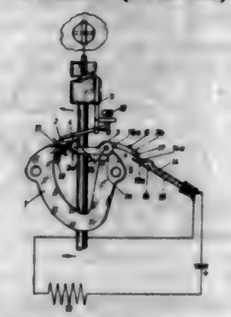
2,847,817
MANUFACTURE OF CORDS
Conrad Joseph Gonsalves, Arnhem, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application March 16, 1955, Serial No. 494,746
Claims priority, application Netherlands April 1, 1954
10 Claims. (Cl. 57—62)

3. Apparatus for forming a cord from two thread elements twisted in the same direction and wound in parallel relationship on a bobbin that comprises a rotatable spindle to support and rotate said bobbin, a draw-off device, means mounted on said spindle coaxially thereabove having thereon elements defining a separate ten-



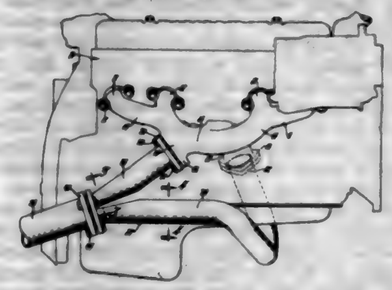
sion path for each of said thread elements, means for driving said spindle mounted means from said spindle, and balloon responsive means for releasing said driving means at a predetermined balloon pressure and for substituting a drive by the ballooning thread elements.

2,847,818
ELECTROMAGNETICALLY OPERATED CLOCKS
Helmut Junghans, Schramberg-Sulgen, and Leo Hartner, Schramberg, Germany
Application February 18, 1953, Serial No. 337,624
Claims priority, application Germany February 20, 1952
16 Claims. (Cl. 58—30)



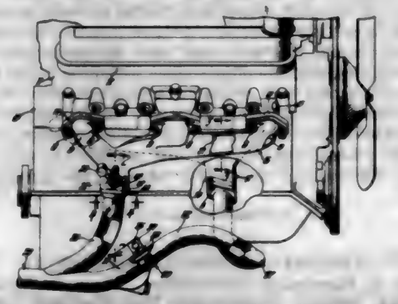
1. In an electromagnetically operated clock, a mechanically oscillating time controlling member, an electric circuit including a magnetizing coil and a source of power for supplying oscillations sustaining power to the mechanically oscillating member by means of electrical current impulses applied to the magnetizing coil cooperating with the oscillating member, an interrupting switching member having contacts for supplying the said current impulses provided in the circuit having contacts, said switching member being controlled by the oscillating member, a driving catch on the oscillating member, a ratchet wheel of ferromagnetic material rotatably mounted in the path of rotation of and driven by the said driving catch, a control lever of ferromagnetic material mounted adjacent the ratchet wheel and adapted to actuate one of the contacts, a permanent magnet adjacent the ratchet wheel and the control lever, said ratchet wheel and said control lever being mechanically out of contact and forming the armature of the permanent magnet whereby upon rotation of the ratchet wheel a force is exerted upon the control lever.

2,847,819
REVERSIBLE EXHAUST MANIFOLD SYSTEM
Lloyd E. Muller, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 7, 1952, Serial No. 319,311
1 Claim. (Cl. 60—29)



An exhaust system for engines comprising a pair of similar exhaust manifolds adapted to be secured to the opposite sides of a V-type engine, said exhaust manifolds having outlets disposed obliquely with respect to the longitudinal axis of said engine with one of said outlets being disposed to open downwardly and rearwardly and the other downwardly and forwardly with respect to said engine, a divided manifold coupling having branch conduits secured to each of said manifold outlets, one of said branch conduits being secured to the one of said manifold outlets facing downwardly and forwardly with respect to said engine and being formed to cross over beneath said engine to the opposite side of said engine and to extend rearwardly and to terminate adjacent the rear end of the other of said conduits, said other of said conduits being formed to project downwardly and rearwardly from the downwardly and rearwardly opening manifold outlet on said opposite side of said engine, and a rearwardly extending exhaust conduit at which the adjacent ends of said branch conduits terminate and to which said conduits are secured in parallel relation, said branch conduits being spaced except at said ends where said branch conduits are so secured and where said branch conduits are secured to one another.

2,847,820
CROSSOVER EXHAUST SYSTEM FOR V-8 ENGINES
Clayton B. Leach, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 30, 1954, Serial No. 440,347
2 Claims. (Cl. 60—29)



1. An exhaust system for engines having obliquely disposed banks of cylinders with the outer walls thereof sloping inwardly toward the crankcase of the engine and comprising, similar exhaust manifolds having manifold outlets projecting downwardly from the main mani-

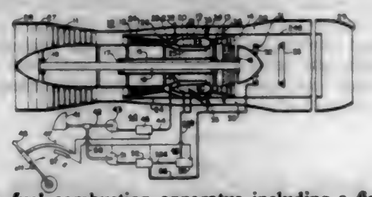
fold passages therein, said manifold passages being formed in said manifolds to extend along said side walls of said banks of cylinders and being oval in formation with the major axes of said oval formations extending inwardly substantially in parallel relation to said side walls, said manifolds being formed to provide upwardly and inwardly disposed branch passages extending from said main manifold passages to provide communications between the exhaust passages in said engine and said main manifold passages, said manifold outlets also being formed to slope downwardly and inwardly along said side walls of said engine from said main manifold passages and from between two of said branch passages at different ends of said manifolds when said manifolds are disposed on opposite sides of said engine, and bifurcated exhaust conduit means having inlets connected to said manifold outlets, said bifurcated exhaust conduit means being disposed principally on one side of said engine with a branch conduit communicating with the manifold outlet adjacent the rear end of one of said manifolds and with another branch conduit extending forwardly and beneath said engine and communicating with the manifold outlet adjacent the front end of the other of said exhaust manifolds, said branch conduits being provided with means telescoping within the ends of said manifold outlets and with flange means engaging the ends of said manifold outlets and with collar means engaging said flange means to compress said flange means against the ends of said manifold outlets.

2,847,821

FUEL IGNITION APPARATUS FOR AN AFTERBURNER IN THE BYPASS DUCT OF A TURBOJET ENGINE

John K. Brown, Sharon Hill, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 21, 1956, Serial No. 592,988
7 Claims. (Cl. 60—35.6)



1. In fuel combustion apparatus including a first fuel combustion structure, a second fuel combustion structure, partition structure separating said first and second fuel combustion structures and means for igniting fuel in said first fuel combustion structure; "hotstreak" fuel ignition structure for igniting the fuel in said second fuel combustion structure comprising means defining an opening in said partition structure, a valve member for blocking said opening, a "hotstreak" fuel ignitor nozzle disposed adjacent said opening, means including a fuel conduit for initiating flow of fuel to said fuel ignitor nozzle for a short time period, means for concomitantly initiating flow of fuel to said second fuel combustion structure and means responsive to fuel pressure in said fuel conduit for moving said valve member in opening direction.

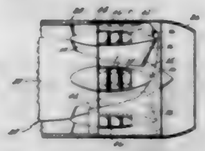
2,847,822

THRUST MODIFYING DEVICE

George F. Hausmann, Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application November 1, 1954, Serial No. 466,070
13 Claims. (Cl. 60—35.54)

1. In a mechanism for reducing the forward propulsive thrust of a jet power plant, the power plant having an exhaust nozzle, a duct leading to said nozzle and adapted to have a gas stream flowing therethrough, streamlined fins located within the power plant upstream of said nozzle and within said duct, said fins radiating outwardly from the center of said duct and extending to the outer wall thereof, said fins including forward portions which are fixed and rearward portions arranged for simultaneous movement about the axis of said duct, means for moving said rearward portions out of alignment with respect to said forward portions to intercept the rearward flowing gases, and means for diverting said gases transversely of the axis of said duct, including passages in the duct walls which are simultaneously opened and closed upon movement of said rearward portions, said passages being opened when said aft portions are in the flow intercepting position and said passages being closed when said aft portions are in alignment with forward portions of said fins.

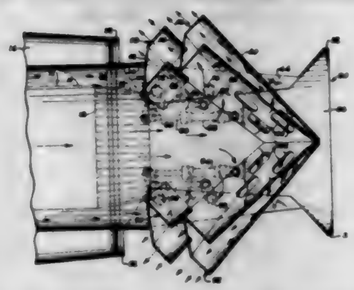


2,847,823

REVERSE THRUST NOZZLE CONSTRUCTION

Thomas L. Brewer, Ridgewood, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware

Application March 15, 1955, Serial No. 494,383
5 Claims. (Cl. 60—35.54)



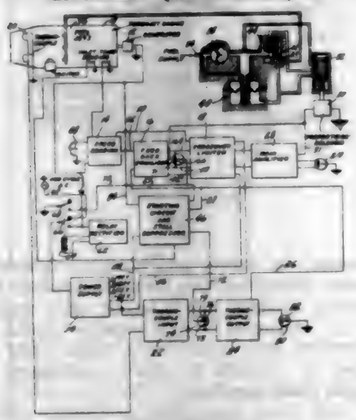
1. A tail pipe extension for jet engines including fixed and movable structure of double walled construction, said movable structure comprising at least a pair of tandem disposed vane elements with the rearmost vane element of said pair being substantially longer in a direction parallel to the longitudinal axis of the extension than the other vane, said vane elements being so shaped and having first positions in which they substantially close an opening in the side wall of said extension and form substantially smooth continuing parts of the extension; and means carried by said extension and operatively connected to said vane elements for pivotally moving said vane elements from their said first positions toward second positions in which their aft ends are inclined inwardly to open said side wall openings for exhaust gas flow outwardly therethrough and said longer vane element extends inwardly across said extension to a greater extent than the other vane element of said pair, the shorter vane element of said pair having a hollow open-ended construction so that when pivotally moved toward its said second position it provides a flow passage between its walls for exhaust gas flow outwardly therebetween as well as around said walls.

2,847,824

STARTING CIRCUIT FOR ELECTRONIC JET FUEL CONTROL

Stanley G. Best, Manchester, and Thomas P. Farkas, Bloomfield, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application April 14, 1952, Serial No. 282,204
23 Claims. (Cl. 60—39.14)



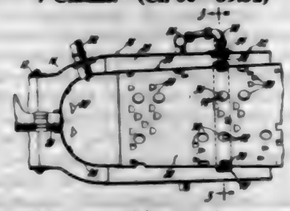
15. In an electric circuit for controlling the flow of fuel to a gas turbine, means for receiving a temperature responsive signal from said turbine, comparing said signal with a datum signal and producing an under temperature signal therefrom in response to a corresponding condition of said turbine, means for receiving speed responsive signals from said turbine comparing said speed responsive signals with a datum signal and producing an under speed signal therefrom in response to a corresponding condition of said turbine, means for converting the least under temperature or under speed signal into an increase fuel signal, means for limiting the value of said under temperature signal fed to said converting means, means for diverting a portion of said under temperature signal, means for comparing said diverted signal with a fixed datum and modifying said compared signal with a speed responsive signal from said turbine to provide a starting circuit signal varying as a function of speed and temperature and means combining said starting circuit signal with said limited under temperature signal to produce a decrease fuel signal during starting of the turbine while the turbine is below a predetermined speed and the temperature is below a predetermined range of temperatures.

2,847,825

GAS TURBINE THRUST AUGMENTER COMPRISING WATER INJECTION RING

Esten W. Spears, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 31, 1953, Serial No. 371,432
7 Claims. (Cl. 60—39.32)



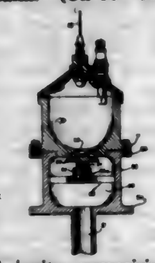
1. A gas turbine comprising an air compressor; a combustor including an annular jacket, a flame tube forming a combustion chamber and spaced within the jacket to form an annular air chamber therewith for receiving air from the compressor, the periphery of the flame tube being provided with spaced perforations therearound to supply air from the air chamber to the combustion chamber, means for supplying fuel to the combustion chamber, and means for igniting the fuel and air supplied thereto; a gas turbine driven by heated gases from the combustion chamber; an exhaust nozzle for discharging exhaust gases from the turbine; a thrust augmenter for injecting thrust augmenting liquid into the combustion chamber comprising a ring manifold in the air chamber encircling the flame tube and provided with spaced orifices around its inner periphery arranged in registering relation with some of the perforations in the flame tube that supply the air from the air chamber to inject the thrust augmenting liquid therethrough and means for supporting the ring manifold for differential thermal expansion relative the combustor jacket and flame tube and so that the outer periphery thereof is spaced from the inner periphery of the jacket and so that the inner periphery thereof is spaced from the outer periphery of the flame tube whereby air flow in the air chamber can progress past said outer and inner peripheries of the ring manifold.

2,847,826

PULSATING TORCH IGNITER

Leslie Dennis Howes, Ottawa, Ontario, Canada, assignor to National Research Council, Ottawa, Ontario, Canada, a body corporate

Application September 8, 1953, Serial No. 378,789
Claims priority, application Great Britain September 10, 1952
1 Claim. (Cl. 60—39.82)



A pulsating torch igniter comprising a generally cylindrical torch igniter chamber, an oxygen inlet pipe extending into said igniter chamber substantially tangentially to the side wall of said igniter chamber, a liquid fuel inlet atomizer connected to said igniter chamber, an igniting device in said igniter chamber, an outlet aperture in the wall of said igniting chamber, said outlet aperture having a cross-sectional area substantially smaller than the lateral cross-sectional area of said igniter chamber and connecting said igniter chamber to an intermediate chamber, a loaded valve controlling gaseous flow through said aperture from said igniter chamber to said intermediate chamber, and an outlet aperture in the wall of said intermediate chamber, said second-mentioned outlet aperture having a cross-sectional area substantially smaller than the lateral cross-sectional area of said intermediate chamber and being adapted for connection to a main combustion chamber.

2,847,827

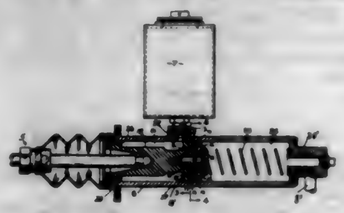
HYDRAULIC COMPENSATING MASTER CYLINDER

Paul Johnson, Lorain, Ohio, assignor to The Thew Shovel Company, Lorain, Ohio, a corporation of Ohio

Application September 13, 1954, Serial No. 455,540
1 Claim. (Cl. 60—54.6)

A hydraulic compensating master cylinder comprising a reservoir for fluid; a cylinder provided with an inlet

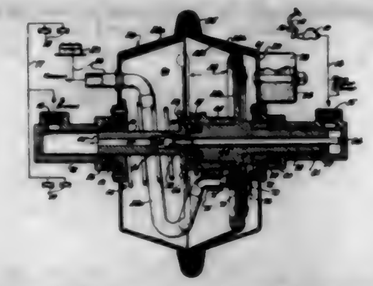
port between its ends in fluid communication with fluid in said reservoir for flow of fluid from said reservoir into said cylinder and vice-versa and provided with a discharge port at one end through which fluid in said cylinder is adapted to be displaced under pressure; a piston assembly reciprocable in said cylinder; said piston assembly comprising an annular piston head, a piston stem including axially spaced apart flanges at one end and a head at the other end between which flanges said piston head is mounted for limited axial movement, a first spring normally biasing said piston head against one flange, said flanges and said piston head defining a passageway outward of said spring for flow of fluid therethrough when said piston head is in its biased position against said one flange, a pair of packing rings carried by said piston head to make sliding, sealed engagement with the wall of said cylinder between such inlet port and such one end and to make sealed engagement with the other flange to close such passageway when said piston head is moved axially away from said one flange, a packing ring car-



ried by the head of said piston stem to make sliding sealed engagement with the wall of said cylinder between the other end of said cylinder and such inlet port; and a second spring disposed between said one flange and such one end of said cylinder to bias said piston assembly to a position whereat the packing rings on said piston head and on the head of said piston stem are disposed on opposite sides of such inlet port, said piston head, when said piston assembly is moved axially toward such one end of said cylinder, being moved by fluid pressure away from engagement with said one flange to close off such passageway as aforesaid for displacement of fluid in said cylinder through such discharge port, said piston head, upon movement of said piston assembly in the opposite direction under the influence of said second spring, being biased by said first spring against said one flange to open such passageway for flow of fluid from said reservoir through such inlet port and such passageway into the portion of said cylinder between said piston head and such one end of said cylinder.

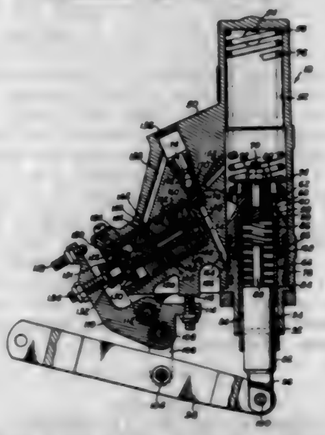
2,847,828
BRAKE BOOSTER
Gilbert E. Porter, Escondido, Calif., assignor of one-sixth to David Frost, one-sixth to Edwin L. Schwartz, and one-sixth to Barney M. Greenberg, all of Los Angeles, Calif.
Application December 5, 1955, Serial No. 550,976
7 Claims. (Cl. 60—54.5)

1. A pressure booster for use in a hydraulic brake system having a master cylinder as a source of primary pressure on hydraulic fluid to operate brake cylinders, comprising: a motor member movable forwardly in response to a differential in fluid pressures applied to the member and biased rearwardly toward a rest position; means for producing a differential in fluid pressure applied to the motor member; an auxiliary cylinder serving as a source of secondary pressure on the hydraulic fluid in the system to actuate the brake cylinders, including a single plunger within the cylinder advanced to a position of increased secondary pressure by the motor member and biased to a rearward rest position, said plunger having substantially the same net effective area as the cross-sectional area of the auxiliary cylinder and being slidably connected to the motor member only at a position outside the auxiliary cylinder for independent movement relative thereto in response to primary hydraulic pressure; first valve means controlling flow of hydraulic



fluid between the master and auxiliary cylinders and, when closed, preventing flow from the auxiliary cylinder to the master cylinder; and a second valve means controlling the differential in fluid pressure applied to the motor member, said second valve means being opened and closed in response to relative movement of the plunger and motor member.

2,847,829
POWER BRAKING SYSTEM
John N. Gladden, Glendale, Calif., assignor to Gladden Products Corporation, Glendale, Calif., a corporation of California
Application November 21, 1955, Serial No. 548,859
15 Claims. (Cl. 60—54.6)



15. In a hydraulic actuator, the combination of: a housing providing a cylinder and having an actuating port communicating with said cylinder adjacent one end thereof; a piston in said cylinder and movable from the other end thereof toward said one end thereof; operating means adapted to have an operating force applied thereto; valve means connected to said operating means and responsive to an operating force applied thereto for admitting fluid under pressure into said cylinder between said piston and said one end of said cylinder; and connecting means projecting axially from said other end of said cylinder and connecting said piston to said operating means for moving said piston toward said one end of said cylinder in response to an operating force applied to said operating means, said connecting means including resilient means providing a yielding connection between said piston and said operating means.

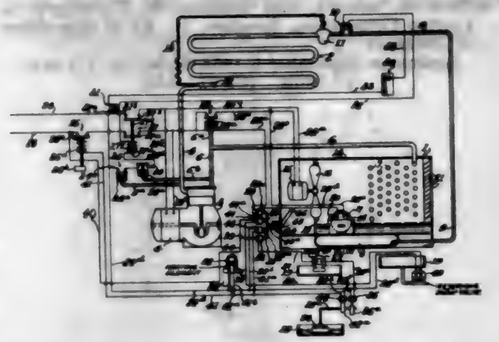
2,847,830
PILE SHELLS
Edward A. Smith, Chatham, N. J., assignor to Raymond International Inc., a corporation of New Jersey
Application June 19, 1956, Serial No. 592,276
11 Claims. (Cl. 61—79)



1. A driving core and pile shell assembly comprising a generally cylindrical, light-gauge metal shell having impact receiving means positioned along its interior surface and a rigid tubular core positioned within said shell and dimensioned so as to provide only a slight peripheral clearance between itself and the shell whereby the core will serve to reinforce the shell during driving and yet will permit of slidable removal therefrom subsequent to driving, said core having mounted therein at spaced longitudinal intervals sets of driving dogs, the dogs of each set being symmetrically spaced about the core periphery, each of said dogs being pivotally mounted in a window in the core, in combination with actuating means extending longitudinally through the interior of the core and having dog cam engaging means spaced therealong at intervals corresponding to the longitudinal spacing between dog sets on the core whereby longitudinal movement of the actuating means relative to the core tube will pivot the dogs into and out of engagement with said impact receiving means provided on the shell, said shell having secured thereto at its lower end a watertight point section of generally frustro-conical form and having a portion of enlarged cross-sectional diameter and an expansible core tip mechanism provided on the lower end of said core and having means for expanding said mechanism into contact with the said enlarged shell point during driving and for collapsing said mechanism subsequent to driving so as to permit read removal thereof through the interior of the smaller diameter shell.

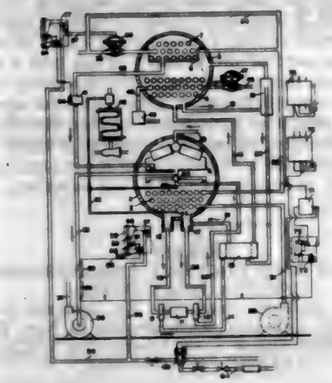
2,847,831
CONTROL MECHANISM FOR COOLING AND CONDENSING EQUIPMENT
Thomas W. Carraway, Dallas, Tex.
Application March 15, 1956, Serial No. 571,771
16 Claims. (Cl. 62—158)

1. In evaporative condenser apparatus, an air duct; a blower for causing a stream of air to flow through said duct; a heat exchanger mounted in said duct; means for dispersing evaporative liquid in said duct; temperature responsive means for controlling said dispersing means to disperse liquid only when the atmospheric temperature is above a predetermined point; disabling means responsive to a failure in the evaporative liquid supply for rendering both said dispersing means and said blower inoperable when the atmospheric temperature is above said predetermined point; and means operable at atmospheric temperatures below said predetermined point for preventing said disabling means from rendering said blower in-



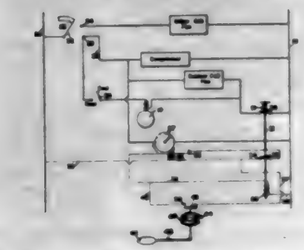
operable in response to failure of the evaporative liquid supply.

2,847,832
ABSORPTION REFRIGERATION SYSTEMS
Stuart E. Johnson, East Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application May 2, 1955, Serial No. 505,368
3 Claims. (Cl. 62—101)



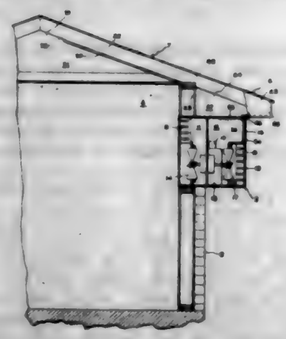
1. In an absorption refrigeration system, the combination of a generator, a condenser, a shell containing an evaporator and an absorber, the absorber being placed in the shell below the evaporator to permit vapor to flow downward to be absorbed by solution in the absorber, the absorber including a plurality of tubes through which cooling medium is passed in heat exchange relation with solution and vapor exteriorly of the tubes, said absorber including a sump-flash chamber arrangement placed below the tubes and forming a portion of the shell, a pump to supply weak solution from the absorber to the generator, means for supplying strong solution from the generator to the flash chamber, strong solution flashing as it enters the chamber, the flash-cooled strong solution mixing with solution in the bottom of the chamber to form a solution of intermediate concentration while the flashed vapor is absorbed by solution being sprayed in the absorber, and a second pump connected to the flash chamber for withdrawing the solution of intermediate concentration from the chamber and for supplying said solution to the absorber to absorb vapor therein to form the weak solution.

2,847,833
DEFROST CONTROL FOR REFRIGERATION SYSTEMS
Richard H. Merrick, East Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application September 1, 1955, Serial No. 531,903
6 Claims. (Cl. 62—155)



1. In air conditioning apparatus utilizing a refrigeration system including a compressor; a first heat exchange coil normally adapted to release heat to a cooling medium; an expansion member; a second heat exchange coil normally adapted to extract heat from air to be supplied to an enclosure, connected to form a closed path of flow for a volatile refrigerant and means for reversing the flow of refrigerant within the circuit to reverse the functions of the heat exchange coils so as to heat the air being supplied to the enclosure, means for defrosting the heat absorbing coil when the apparatus is operating on the heating cycle, said last mentioned means including a primary control circuit, a secondary control circuit in association with the primary circuit, a relay having a first set of contacts forming part of the primary circuit and a second set of contacts forming a part of the secondary circuit, a coil in the secondary circuit controlling the operation of the relay, means for periodically opening the secondary circuit to deenergize the coil and open the primary circuit and means including a by-pass circuit for maintaining the coil energized despite the action of the secondary circuit opening means.

2,847,834
HEATING AND COOLING ARRANGEMENT USING A HEAT PUMP
Leonard W. Atchison, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application August 5, 1957, Serial No. 676,235
3 Claims. (Cl. 62—263)



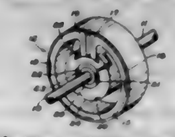
1. A heating and cooling arrangement for a house having an attic and having a roof with eaves overhanging the outer walls thereof comprising a heat pump mounted in the upper portion of an outer wall of said house adjacent said eaves thereof, said heat pump having a first air inlet opening and an outlet opening for circulating outside air through said heat pump, bottom and side walls connected between said eaves and said heat pump to form a duct for directing air from said attic to said heat pump, an opening in said attic for permitting air to flow into the duct, a second inlet opening in said heat pump leading to said duct, and means for closing said outside air inlet opening during winter and for closing said second inlet opening in the summer whereby said heat pump utilizes air from said attic during said winter and outside air during said summer.

2,847,835
TUBE AND STRAINER ASSEMBLY
La Mar S. Cooper, Cedar Rapids, and Elmer J. Dittrich and William J. Noe, Amana, Iowa, assignors to Amana Refrigeration Inc., Amana, Iowa, a corporation of Iowa
Application December 2, 1953, Serial No. 395,802
4 Claims. (Cl. 62—474)



2. In a refrigeration system, a condenser and an evaporator, and means connecting the discharge of said condenser to the inlet of said evaporator, said means comprising a capillary tube and a connector conduit, said connector conduit comprising a bendable tube having one end secured to said condenser discharge and having its other end sealed upon evacuation of the refrigerant system, said capillary tube being inserted at an acute angle relative to said connector tubing through a side wall thereof and extending into abutment with the inner wall of said connector conduit on the side opposite its point of entry through said side wall.

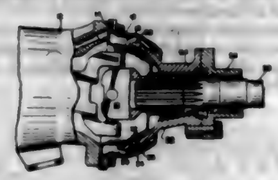
2,847,836
TORQUE LIMITING CLUTCH
Glen B. Morris, Marion, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application October 22, 1956, Serial No. 617,346
6 Claims. (Cl. 64—30)



2. A troque liniting clutch comprising rotatably mounted coaxial input and output shafts, a hub having cam surfaces mounted on said input shaft, rolling means, actuator ring means surrounding said hub, said actuator ring means being in contact with said rolling means so as to be coupled to said cam surfaces, a drum mounted on said output shaft, a clutch shoe coupled to said actuator ring means and engaging said drum, said actuator ring means controlling the friction loading between said clutch shoe and said drum, whereby a limited predetermined torque load is transmitted by said clutch.

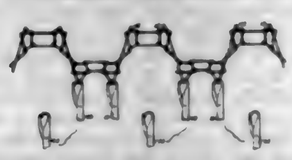
2,847,837
FLUID SEAL
Max P. Baker, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 10, 1955, Serial No. 507,435
10 Claims. (Cl. 64—32)

1. A universal joint member adapted to be movably and sealingly interposed between rigidly spaced inner and outer partially spherical members having concentric partically spherical surfaces, comprising a partially spherical shell having a plurality of spaced circumferentially disposed openings and a molded integral seal comprising an inner and an outer annulus carried on inner and outer



sides of said shell, respectively, in alignment with said openings and a plurality of connecting portions projecting through said opening and joining said annuli said annuli being aligned along a radius of said partially spherical members and said shell.

2,847,838
KNITTED FABRIC AND METHOD OF TRANSFER KNITTING
Clarence Webb Minton, Nashville, Tenn., assignor to May Hosiery Mills, Nashville, Tenn.
Application June 9, 1955, Serial No. 514,311
10 Claims. (Cl. 66—24)



1. A method of transfer knitting hosiery on a transfer knitting machine having dial needles and cylinder needles and mechanism for racking the dial to change the angular position of the dial needles relative to the cylinder needles, said method comprising knitting a ribbed top on alternate pairs of dial needles and cylinder needles and with every third cylinder needle inoperative, knitting a transfer section of several courses on said dial needles and on all cylinder needles to provide an additional stitch between the dial needles comprising each of said pairs of dial needles, said additional stitches providing enlarged stitch loops on said dial needles, racking the dial to position said dial needles over certain of said cylinder needles, transferring the stitch loops on said dial needles to said certain cylinder needles and knitting a foot, whereby said enlarged stitch loops facilitate passage of said certain cylinder needles therethrough during the transfer operation.

2,847,839
MANUAL KNITTING-APPARATUS
Max Lehner-Stirnemann, Granichen, Switzerland
Application June 10, 1954, Serial No. 435,900
Claims priority, application Switzerland June 11, 1953
14 Claims. (Cl. 66—60)



1. In a manual knitting apparatus comprising a needle-bed having a front surface, a plane row of knitting needles disposed on said needle-bed, a slider for actuating said needles to and fro, the improvement defined by mounting on said slider at least one freely rotatable body of revolution disposed below the plane of the row of needles, said body resiliently engaging said front surface.

2,847,840
METHOD OF MAKING HOSIERY
Manuel M. Liba, Clementon, N. J., assignor to Clementon Hosiery Mill, Collingswood, N. J., a corporation of New Jersey
Application December 28, 1953, Serial No. 400,483
1 Claim. (Cl. 66—89)



The method of making a full fashioned stocking, which comprises knitting the leg of the stocking and at the portion of the leg above the knee, introducing flare narrowings with an overlap of the needles and the narrowing fingers at each selvage limited to four points, and in the portion of the calf introducing leg narrowings distributed equally from the top of the calf to the narrowest point of the ankle, with the narrowing fingers in the calf limited in overlap of the needles to four points, and then seaming together the selvage edges in a seam which includes the flare and leg narrowing marks.

2,847,841
YARN CARRIER
Ernest A. Feustel, Hasbrouck Heights, N. J.
Application April 9, 1954, Serial No. 422,123
5 Claims. (Cl. 66—126)

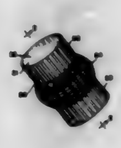


1. A thread carrier for knitting machines, comprising an elongated flat body having a top portion, a lower portion and a curved zone between said portions, an elongated aperture formed in said curved zone, said lower portion having a lower end and consisting of two bifurcated jaws tapering to said lower end and having opposed converging edges of complementary configuration, whereby a slot is formed between said edges which communicates with said aperture, which is wider adjacent said aperture than at said lower end and which tapers from said aperture to said lower end, and a thread guiding tube having an intermediate portion of uniform cross-sectional dimensions located in said slot and frictionally retained by a lower portion of said edges of the jaws, said thread guiding tube having an upper portion which is devoid of contact with said edges and a lower portion projecting beyond said lower end, whereby said tube is swingable out of its position within the slot upon impact of the lower portion thereof with a part of the machine.

2,847,842
LEGGING
Clarence E. Almen, Minneapolis, Minn.
Application March 4, 1957, Serial No. 643,721
5 Claims. (Cl. 66—177)

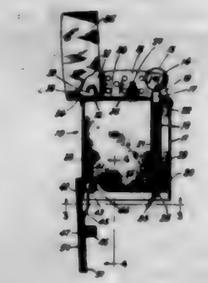
1. A legging comprising a piece of knitted tubular stock provided with spaced ribbed sections intermediate the

ends thereof and expanded sections at the ends of and between the ribbed sections, the ribbed sections having folds intermediate the ends thereof to form from the piece of stock between said folds a shell, with the intermediate expanded section constituting a body for the shell and the adjoining portions of the ribbed sections constituting cuffs for the shell, the portions of the piece of stock outwardly



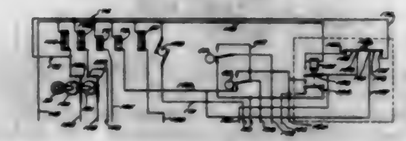
of said folds extending inwardly into the shell and forming a liner for the shell, the outer portions of the ribbed sections of the piece of stock underlying the cuffs of the shell and constituting cuffs for the liner and the expanded end sections of the piece of stock underlying the body of the shell and constituting body portions for the liner and means for maintaining the liner within the shell.

2,847,843
CIGARETTE LIGHTER
Alex Greenhouse, Glen Oaks, and George Cohn, Mount Vernon, N. Y., assignors to Royal Sales Company, New York, N. Y., a partnership
Application September 6, 1956, Serial No. 608,335
3 Claims. (Cl. 67—7.1)



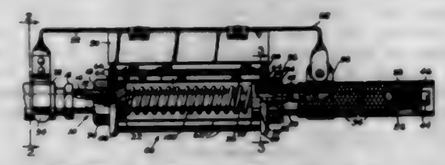
1. A cigarette lighter comprising, in combination, a tubular housing, of metal, having a fixed top wall; absorbent material substantially filling said housing; a wick tube on said top wall having a wick therein in contact with said material; a striking wheel rotatably mounted on said top wall; a flint support tube projecting from said top wall; a flint in said support tube; means biasing said flint against said wheel for spark creating cooperation therewith; a first hinge including a first leaf spring secured within said housing adjacent and substantially closing its lower open end and having a cylindrically curved free end within said housing, and a second leaf spring having a cylindrically curved free end telescoped with that of said first leaf spring; a substantially flat cap adapted to sealingly engage and close said lower open end; said second leaf spring being secured to said flat cap for snapping of said flat cap between open and closed positions; said first leaf spring having an aperture therein; and a piece of absorbent fabric overlying said first leaf spring and covering said aperture, and in contact with said material; whereby the lighter fuel supply may be replenished by snapping open said flat cap and pouring fuel on said piece of fabric through said aperture.

2,847,844
WASHING MACHINE AND FLUID CONTROL SYSTEM
Harold E. Morrison and Peter Edward Goldhof, Benton Harbor, and Luther Ringer, St. Joseph, Mich., assignors, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Original application June 28, 1947, Serial No. 757,852, now Patent No. 2,662,384, dated December 15, 1953. Divided and this application December 9, 1953, Serial No. 397,184
9 Claims. (Cl. 68—12)



1. In a fluid system, the combination comprising a pair of fluid supply conduits having fluids of different temperatures therein, a common delivery conduit connected to both of said supply conduits, electrically operable valves in said supply conduits, a master switch, an auxiliary switch, a pair of cam-operated switches connecting said valves respectively through said master switch to a source of energy, a third cam-operated switch connecting one of said valves through said auxiliary switch to said source of energy, and a cam member movable to any one of four positions to close respectively one or the other or both of said pair of cam switches or said third cam switch, whereby flow of fluid through said delivery conduit is normally controlled by said master switch and the temperature of said fluid is controlled by the position of said cam member in its first three positions, and whereby water from said one of said supply conduits may be passed through said delivery conduit upon closure of said auxiliary switch and movement of said cam member to said fourth position.

2,847,845
FLESHING TOOL
Arthur O. Frank and August J. Bannach, Tacoma, Wash.; said Bannach assignor to said Frank
Application June 1, 1956, Serial No. 588,887
6 Claims. (Cl. 69—20)

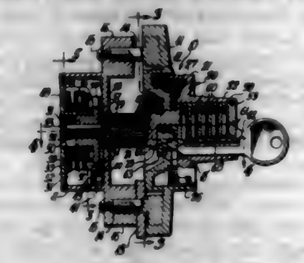


1. A fleshing tool comprising a drive shaft, a plurality of thin, flexible fleshing elements, means for mounting the fleshing elements on the drive shaft for rotation therewith, the fleshing elements being substantially parallel to the drive shaft and spaced therefrom, means for applying resilient pressure against the fleshing elements in an axial direction, and means for connecting the drive shaft to a source of power.

2,847,846
KEY OPERABLE COMBINATION LOCK
James L. Taylor and Arthur Abelson, Rochester, N. Y., assignors to Sargent & Greenleaf, Inc., Rochester, N. Y., a corporation of New York
Application October 25, 1957, Serial No. 692,340
7 Claims. (Cl. 70—285)

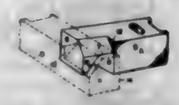
1. A key operable combination lock comprising a lock casing, a plurality of rotatable tumblers, a driving cam therefor, a reciprocative bolt member, a fence lever on

said bolt member operatively associated with said tumblers and said driving cam for shifting said bolt upon rotation of said driving cam when said tumblers occupy a preselected position, an axially movable rotatable spindle having a manually operable dial fixed thereon and first and second driving portions spaced along the axis of the spindle, said bolt member having means thereon disposed adjacent said spindle in a position to be intercoupled with said first driving portion on said spindle at a first position of axial adjustment of the spindle interconnecting the bolt member with the spindle to be driven upon rotation of the latter, and said driving cam having means positioned to be connected to said second driving



portion for rotation with said spindle at a plurality of different angular positions relative to said spindle when said spindle is disposed in a second position of axial adjustment and be decoupled from said second driving portion freeing the spindle for adjustment to a different angular relation with said driving cam when said spindle is displaced axially a selected distance from said second position, means on said spindle for normally restraining said spindle against displacement from said second position of axial adjustment, and key lock means responsive to one key to release said spindle for axial displacement to said first position and responsive to a different key to release said spindle for axial displacement said selected distance from said second position.

2,847,847
INTERLOCKED BLOCKS
Liazz McKinley Moore, Farmville, Va.
Application April 25, 1955, Serial No. 503,380
2 Claims. (Cl. 72—38)



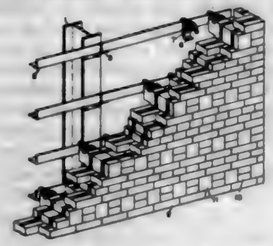
1. An interlocking block assembly consisting of a plurality of superposed longitudinally disposed units and a plurality of superposed transversely extending units which lie at right angles to the longitudinal units, each of said units being of substantially identical formation and comprising a body portion that is substantially square in cross-section and a projecting end portion, said end portion presenting a flat vertical rear side face which lies parallel with the longitudinal axis of the unit, each of said end portions being transversely channeled across the width of its underside for substantially one-half of the height of the unit and providing a passage having three surfaces, to wit, a flat surface at the inner side of the passage which lies perpendicular to the longitudinal axis of the unit and extends entirely across the width of the unit, a horizontal intermediate flat surface extending from the perpendicular flat surface and being disposed at a level approximately half way of the height of the unit, and an inclined outer surface which slopes longitudinally downwardly and outwardly from the outer limit of the intermediate surface to the bottom of the respective unit, the upper front side portion of each of said projecting end portions being shaped to provide an inclined surface which slopes from a longitudinal edge at a point approximately half way transversely across the top of the unit to a longitudinal edge at a point approximately half way of the height of the front side face of the unit, the inclined surface of the upper front side portion extending longitudinally of the projecting end portion from the body portion to the outer end thereof, the said inclined surface so formed at the upper front side portion of a transverse unit conctively engaging with the inclined outer surface of the transverse passage of the superposed longitudinal unit next thereabove, said inclined surfaces corresponding in their degrees of angularity whereby in their coaction to thrust the vertical rear side face of the projecting end of the transverse unit into forcible engagement with the perpendicular surface which forms the inner side of the transverse passage of the unit next above, to thereby cause the adjacent transverse and longitudinal units to seek positions at right angles to each other.

2,847,848
PRECAST MASONRY UNIT
Tamara Grants, Montreal, Quebec, Canada, assignor to Paul R. Grants, Montreal, Quebec, Canada
Application June 28, 1955, Serial No. 518,622
1 Claim. (Cl. 72—41)



A building block comprising a body having a top and a bottom, said body further having sides and end walls, said body having a first substantially V-shaped groove opening into said top and said end walls thereof, said body having a second substantially V-shaped groove opening into said bottom and said end walls thereof, said first groove and said second groove being oppositely disposed, the apices of said grooves being disposed towards opposite sides of said block, each of said grooves extending substantially halfway through said body, said grooves intersecting to form a continuous passage through said block.

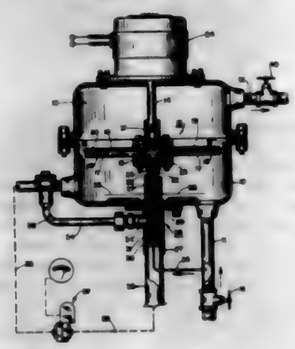
2,847,849
MODULAR SUSPENDED WALL
Georges P. Reiatjes, Kansas City, Mo.
Application November 28, 1955, Serial No. 549,382
1 Claim. (Cl. 72—101)



A furnace wall construction comprising a series of vertically spaced horizontally extending stringers, tile supporting clips horizontally and vertically adjustable on said stringers, each of said clips having a downwardly opening hook and an underlying shelf, a plurality of horizontally spaced tiles defining horizontal courses along said stringers, each tile being supported by one of said clips and having an upper groove engaging a hook thereof

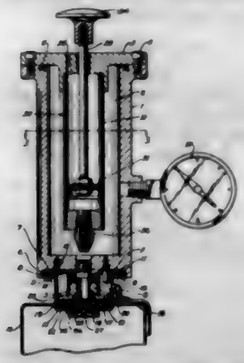
and a bottom recess in seating engagement with the shelf of the same respective clip, each tile having complementary tongues and grooves on its top and bottom surfaces and on its two opposite side surfaces, a plurality of horizontal courses of stretcher bricks being supported by each of said courses of said tile, each of the stretcher bricks having top and bottom tongues and grooves, each brick of one of said courses of stretcher bricks being disposed end to end with each end supported on one of the tiles in a course directly beneath and with the portion of each brick between its ends spanning the space between a pair of adjacent tiles, each stretcher brick in said one course having a tongue and groove interlock with the tiles providing the support therefor, header bricks having tongues and grooves on the top, bottom and side surfaces and being positioned in the spaces between the tiles, another of said plurality of courses of said stretcher bricks directly underlying a course of said tiles supporting said one course of stretcher bricks, and said header bricks having tongue and groove interlock with the spaced tiles, the stretcher brick in said course underlying said tiles and the stretcher brick supported by said tiles.

2,847,850
FLUID DENSITY MEASUREMENT DEVICE
Leland K. Spink, Foxboro, Mass., assignor to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts
Application August 26, 1955, Serial No. 530,714
1 Claim. (Cl. 73—30)



A gas density meaurement system wherein a density representative differential pressure is established by passing a body of gas through a centrifugal impeller, said system comprising, in combination, a vertically cylindrical, closed end main housing, a main gas supply pipe opening into the bottom of said housing and a gas outlet pipe opening from the top portion of said housing as a continuous gas flow arrangement through said housing, an electric motor mounted on the top of said housing in sealed relation therewith, a drive shaft from said motor extending down through the top of said housing, a circular centrifugal disc unit mounted on the lower end of said shaft for rotation in said housing, by said motor, said disc unit having a series of wheel-spoke radial centrifugal passages therein, uniformly disposed around said disc with a central disc opening common to all of said passages and with the outer ends of said radial passages open to the interior of said housing in the curved peripheral form of said disc, a first cylindrical sleeve vertically disposed with its top end secured and sealed to the under side of said disc as a downward continuance of said central disc opening, said first sleeve extending downward and through an opening in the bottom wall of said main housing, a telescoped assembly comprising a second sleeve mounted concentrically within a third sleeve, said telescoped assembly extending vertically up through said bottom wall opening of said main housing and fixedly secured to said housing in sealed relation therewith, with said second sleeve top terminating adjacent and open to said central disc opening, with said first sleeve concentrically telescoped in said telescoped assembly and lying between said second sleeve and said third sleeve, a plug in said telescoped assembly outside of said main housing and forming a bottoming seal between said third sleeve and said second sleeve under the lower end of said first sleeve, a mercury supply tank and a mercury inlet pipe open to said third sleeve on a gravity feed basis to establish a predetermined mercury level between said third sleeve and said first sleeve and between said first sleeve and said second sleeve, whereby gas may be introduced to the center of said centrifugal disc from outside said main housing, through a fixed pipe and while said centrifugal disc is rotating, in a sealed gas passage arrangement with respect to the interior of said main housing, a sample gas supply pipe connected from said main gas supply pipe outside of said housing and extending into said telescoped assembly through said bottoming plug, up inside said second sleeve and terminating above the top end of said second sleeve and closely adjacent said central opening of said centrifugal disc, for introducing sample gas into said disc for centrifugal expulsion through said radial passages of said disc to the interior of said main housing, and a differential pressure sensing device having one pressure connection to the interior of said main housing at the lower end portion thereof and an opposing pressure connection to the lower end of said second sleeve of said telescoped assembly.

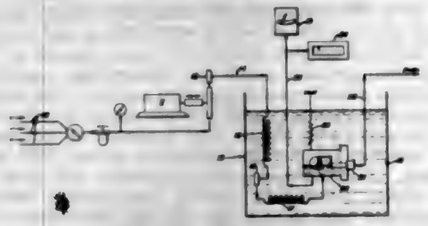
2,847,851
PRESSURE TESTING DEVICES
Milton J. Esell, Lakewood, Ohio
Application January 14, 1955, Serial No. 481,803
5 Claims. (Cl. 73—40)



1. In a pressure testing device for an automobile radiator having a filling spout with a coaxial seat therein facing toward, and spaced from, the inlet end of the spout, with an overflow vent between the seat and inlet end, and with connecting means for connecting a detachable cap to the inlet end of the spout, a fitting including a tank and connecting means carried on one end of the tank and adapted for connecting the tank to the inlet end of said spout, pump means for charging the tank with a supply of air under pressure, check valve means interposed between the pump means and tank for preventing escape of air from the tank into the pump means, a tube connected at one of its ends to said end of the tank and in continuous communication with the interior of the tank at said one of its ends, and continuously open at its other end, and extending endwise outwardly from said end of the tank, a valve plug mounted on the tube, and a pressure gauge connected to the device

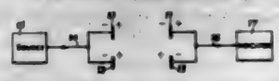
so as to indicate the pressure of the air in the tube, the improvement wherein the valve plug is mounted on the tube for bodily movement axially endwise of the plug relatively toward and away from said end of the tank to different operating positions and having, on the end opposite from the tank and facing away from the tank, a seating area surrounding the tube, sealing means interposed between the plug and tube for preventing the passage of air between the plug and the tube, resilient means urging said plug endwise of the tube toward the opposite end of the tube, said plug being adapted to seat under pressure of the resilient means on said annular seat when the fitting is connected to the spout.

2,847,852
LIGHT ENDS RECORDER
Joseph C. Rhodes, Park Forest, and Sixt Frederick Kapff, Homewood, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application March 7, 1957, Serial No. 644,660
7 Claims. (Cl. 73—53)



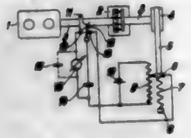
1. An apparatus for continuously determining the volatility characteristics of a liquid which comprises means for supplying liquid at a uniform flow rate and pressure into a first heating means, means for heating the liquid to an equilibrium temperature in said first heating means, second means for maintaining the preheated sample at a constant temperature, pressure-reducing means interposed the flow between said first and second heating means, vapor-liquid separation chamber means into which said second means discharges, and means for measuring the pressure in said chamber as an indication of the volatility characteristics of the sample.

2,847,853
MEASURING APPARATUS EMPLOYING ULTRASONIC WAVES
Alexander B. C. Rankin, Berkingside, England, assignor to Kelvin & Hughes Limited, Glasgow, Scotland
Application June 11, 1954, Serial No. 436,087
Claims priority, application Great Britain June 30, 1953
3 Claims. (Cl. 73—67.6)



1. Measuring apparatus comprising a source of electric oscillations of ultrasonic frequency, electro-mechanical transmitting and receiving transducer means for converting oscillations from said source into mechanical waves and for converting said mechanical waves into electric oscillations respectively, at least one of said transducer means comprising two transducers, each said transducer means having a first and a second terminal, and the transducer means being of such polarities that said first terminal becomes of positive polarity with respect to said second terminal in response to compression of said transducer means, a voltage indicating means, means for supporting two wave transmitting bodies of equal dimensions for the transmission therethrough of waves from said transmitting transducer means to said receiving transducer means, a first electric circuit connecting said source and said transmitting transducer means, and a second electric circuit connecting said receiving transducer means and said indicating means, one of said circuits terminating on a first terminal of one transducer means of said two transducers and a second terminal of a second transducer means of said two transducers, thereby producing substantially zero voltage at said indicating means when said bodies are like.

2,847,854
ARRANGEMENT FOR MEASURING A MECHANICAL EFFECT
Walther Burstyn, Hennigsdorf, near Berlin, Germany
Application May 8, 1956, Serial No. 583,592
2 Claims. (Cl. 73—134)



1. In an arrangement for measuring the power output of a motor driving a dynamometer brake, in combination a potentiometer, a source of constant voltage connected across the end terminals of the potentiometer resistance, means connected to the dynamometer for shifting the potentiometer slider in accordance with the torque developed by said motor, switch means driven by said motor shaft at a rate proportional to shaft speed, a circuit including a condenser and a current measuring instrument, said switch means being connected in said circuit to alternately connect said condenser between the slider and one end of the potentiometer resistance and then to the current measuring instrument.

2,847,855
AIRCRAFT NAVIGATION SYSTEM
France B. Berger, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application February 17, 1954, Serial No. 410,772
11 Claims. (Cl. 73—178)

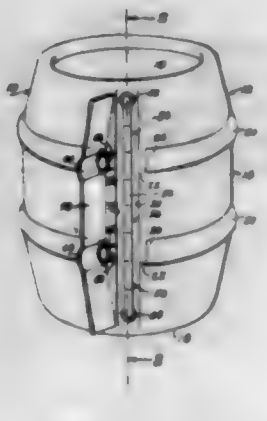


1. An aircraft navigation system for indicating aircraft position comprising, means for recording the variations of terrain elevation along the flight path of said aircraft, means for comparing said recorded terrain elevation variations with known elevation data of the area of said flight path, and means for determining aircraft position from said comparison means.

2,847,856
LIQUID-LEVEL-INDICATING ROLLABLE CONTAINER
Harvey V. Mahon, Southampton, Ontario, Canada
Application October 27, 1955, Serial No. 543,196
2 Claims. (Cl. 73—325)

1. A rollable liquid-level-indicating container comprising a hollow liquid receptacle having end walls and a side wall, said side wall being of substantially the shape of a

geometrical surface of revolution and having an elongated longitudinally-extending recess therein interrupting the continuity thereof, an elongated liquid-level-indicating gauge tube disposed longitudinally in said recess, said side wall having longitudinally-spaced interrupted circumferential rolling ribs extending therearound and having gaps therein at said recess with the rib ends disposed near the edges of said recess, hinges mounted in said gaps and secured to said side wall at said rib ends; a recess



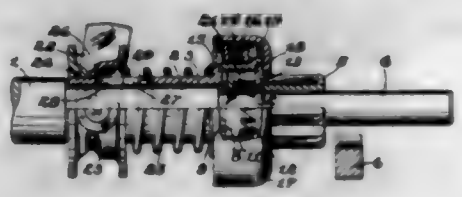
cover secured to said hinges and engageable with said side wall and rib ends, said cover being movable on said hinges into and out of protective covering relationship with said recess and gauge tube, and means releasably holding said cover in engagement with said side wall in covering relationship with said recess, said cover also having the shape of a geometrical surface of revolution similar to that of said side wall and substantially merging with said side wall at opposite edges of said recess.

2,847,857

ENGINE STARTER GEARING

John J. Sabatini, Horseheads, N. Y., assignor to Bendix Aviation Corporation, a corporation of Delaware

Application March 28, 1956, Serial No. 574,511
4 Claims. (Cl. 74—6)



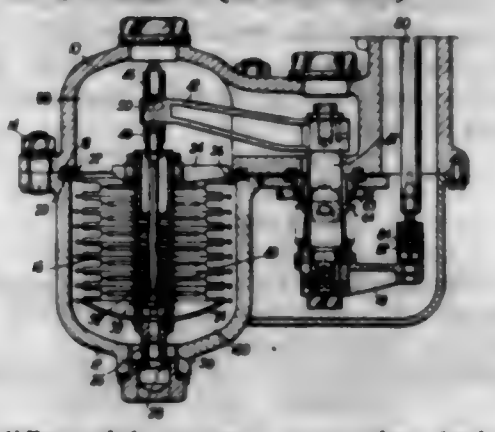
1. In starter gearing a power shaft, a sleeve slidably mounted thereon, means including a spring for traversing the sleeve on the power shaft, means transmitting rotation from the shaft to the sleeve, an actuating member slidably journalled on the power shaft for movement into and out of engagement with a member of the engine to be started, and means for driving the actuating member from the sleeve including a transmission member slidably journalled on the power shaft, having a dental overrunning clutch connection with the sleeve, said transmission member and actuating member having torque-transmitting interengaging projections so inclined that the transmission of torque thereby tends to wedge said members apart; and yielding means resisting the separation of said members; including further means for maintaining a minimum separation of the sleeve and the actuating member sufficient for the transmission member to move into and out of clutching engagement with said sleeve, and yielding means urging the transmission member away from the actuating member and into engagement with the sleeve.

2,847,858

HYDRAULIC MEANS FOR MEASURING SMALL DIFFERENTIAL PRESSURES AT HIGH STATIC PRESSURES

Edvin Maurits Österman, Stockholm, Sweden, assignor to Svenska Ackumulator Aktiebolaget Jungner, Stockholm, Sweden, a corporation of Sweden

Application September 14, 1953, Serial No. 379,970
Claims priority, application Sweden September 20, 1952
5 Claims. (Cl. 74—18.1)



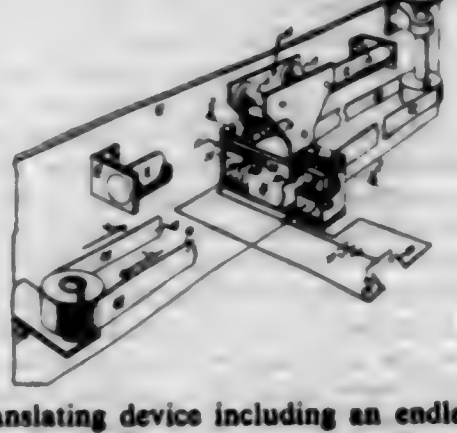
1. In a differential pressure responsive device having a high pressure vessel with a wall opening and a pressure sensitive member within said vessel exposed to the differential pressure, means for transmitting variations in position of said pressure sensitive member from within the pressure chamber to an external region of relatively low pressure comprising a lever connected to said pressure sensitive member and extending through said wall opening, pivot means pivotally connecting said lever to said vessel within said opening, and sealing bellows around said lever to seal said opening, said bellows being secured at one end to said vessel circumferentially about said opening and at the other end to said lever, said pivot means comprising a link ring secured to the end of said lever external of the vessel, a pair of links the lower ends of which are secured to said ring on opposite sides thereof, a bearing ring secured to said vessel circumferentially about said opening, and knife-edges on said bearing ring substantially in the plane of attachment of said bellows to said vessel, said knife-edges supporting the upper ends of said links on opposite sides of said opening, and means for adjustably displacing the end of the bellows attached to the vessel solely in the plane of attachment relative to said pivot bearing ring to a position in which no torsional movement due to the pressure difference on the sealing bellows is transmitted to the lever.

2,847,859

POSITIONING DEVICE

John J. Lynott, Los Gatos, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application April 28, 1954, Serial No. 426,269
5 Claims. (Cl. 74—37)



1. A translating device including an endless tape supported between pulleys, a motor continuously driving

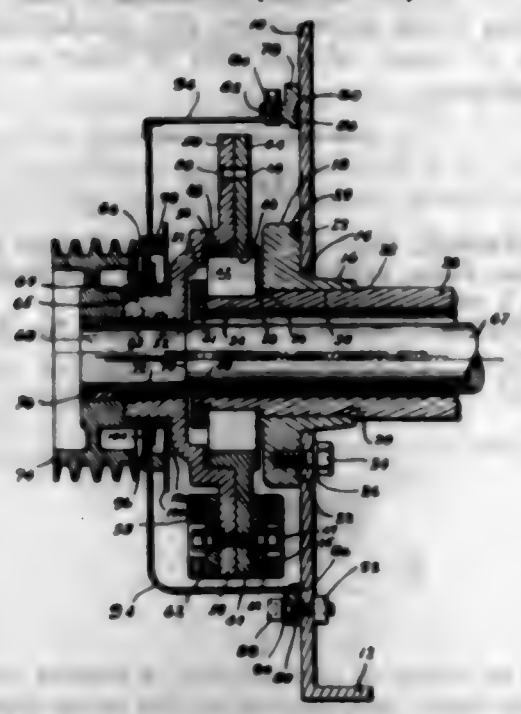
the said tape in a predetermined direction thereby providing two oppositely moving parallel stretches of tape, a carrier, a support member for said carrier to allow said carrier to travel lengthwise of said stretches, a pair of electromagnets on said carrier, an armature coacting with each said electromagnet for clamping one of said stretches therebetween, means capable of being operated to cause energization of one electromagnet whereby the said carrier is engaged by one said stretch of tape and moved in a predetermined direction, and means capable of being operated to cause energization of the other electromagnet while said one electromagnet is energized whereby the said carrier is engaged by the other said stretch of tape and retarded in its motion in the said predetermined direction.

2,847,860

VIBRATING EQUIPMENT

Frank W. Porter, Montgomery, Ill., assignor to Productive Equipment Company, Chicago, Ill., a corporation of Illinois

Application June 4, 1956, Serial No. 589,127
7 Claims. (Cl. 74—87)



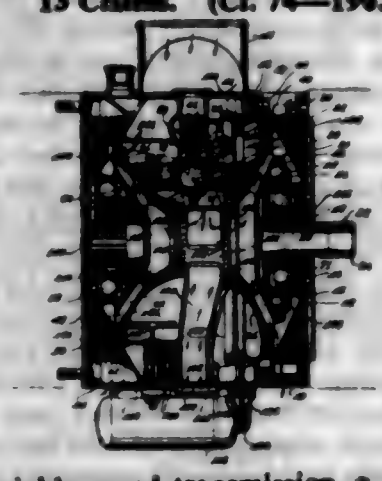
1. A high speed vibrating device that comprises a frame with two spaced-apart side walls, an opening in each of said side walls, said openings being in register with each other, a tubular member extending between said side walls and having the opposite ends thereof projecting through said openings, anti-friction bearings having the inner races thereof fixedly mounted on said opposite ends of said tubular member, discs that are loosely mounted on the outer races of said anti-friction bearings, said discs having cylindrical adjusting surfaces that are eccentric to said outer races, balance wheels that have cylindrical adjusting surfaces complementary to said adjusting surfaces of said discs and that have tapered central openings, said adjusting surfaces of said balance wheels being eccentric to said tapered central openings, a shaft that extends through said tubular member and through said tapered central openings in said balance wheels, tapered sleeves that telescope over the opposite ends of said shaft and that engage and fit within said tapered central openings in said balance wheels, radially projecting shoulders on said shaft to limit movement of said tapered sleeves toward each other, said shoulders being spaced apart sufficiently to maintain a space between said balance wheels and the races of said anti-friction bearings despite manufacturing tolerances, and mounting rings that have axially-extending sleeve portions and that have radially extending flange portions, said axially-extending sleeve portions extending inwardly through said openings in said side walls and telescoping snugly over said tubular member, said radially extending flanges abutting the outer faces of said side walls and being rigidly secured to same, said tubular member and said mounting rings constituting the principal bending-resisting elements of said high speed vibrating device.

2,847,861

VARIABLE SPEED TRANSMISSION

Zenas V. Weisel, Los Angeles, Calif.

Original application June 23, 1953, Serial No. 363,686, now Patent No. 2,748,614, dated June 5, 1956. Divided and this application September 13, 1955, Serial No. 534,139
13 Claims. (Cl. 74—190.5)



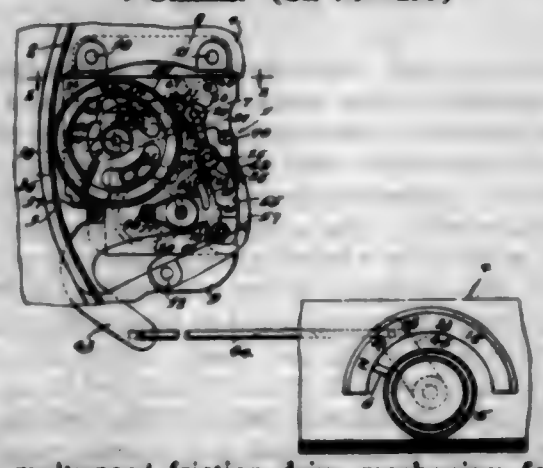
1. In a variable speed transmission, a generally frusto-conical rotary drive member and a similar driven member, said members having opposed surfaces of revolution, a roller bridging said surfaces of revolution, said drive and driven members having hub portions and having fluid conduits entering at said hub portions and extending outwardly to points adjacent the peripheries of said members, and, a fluid supply conduit having an inlet and an outlet, the outlet of said supply conduit being in flow communication with said first-mentioned conduits at said hub portions, the fluid conduits in said rotary drive and driven members being located immediately behind the driving contact surfaces of said members and said roller.

2,847,862

MULTISPEED FRICTION DRIVE MECHANISM

Ernest O. P. Tatter, Bensenville, Ill., assignor, by mesne assignments, to Warwick Manufacturing Corporation, Chicago, Ill., a corporation of Delaware

Application October 15, 1956, Serial No. 616,024
9 Claims. (Cl. 74—199)



1. A multispeed friction drive mechanism for a turntable comprising, in combination, a pair of drive shafts each having a pulley with two pulley sections of different diameter, an idler wheel adapted to be engageable with a rim of the turntable and one of said pulley sections for driving the turntable, means mounting the idler wheel for axial and lateral movement including a vertically extending fixed post, a bushing rotatably and slidably mounted on the post and having at its lower end a pair of laterally spaced cam followers on opposite sides of the post, an

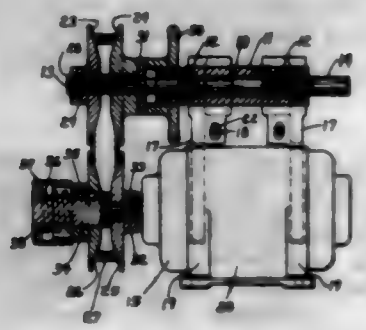
arm extending from the bushing at an angle to a line extending between the cam followers and an idler wheel mounting plate pivoted on said arm, a spring urging said plate and idler wheel toward the turntable rim, a control lever mounted for pivotal movement and having first and second cam sections at opposite sides of the post, a movable detent and a detent section on the control lever for holding the control lever in selected position, said first cam having low portions establishing first and third speed positions with the idler wheel at a first level and high portions establishing second and fourth speed positions with the idler wheel at a higher level and connecting inclined sections between said high and low cam portions whereby the relative movement of the first cam and a cam follower on the bushing from first to second and third to fourth positions requires raising the cam follower on a connecting inclined section and exerts a pivoting action on the bushing to turn the arm and shift the idler wheel from the rim against the action of the spring, the second cam section having a high portion at the second speed position and a low portion at the third speed position with a connecting inclined section and effective when the lever is moved from third to second speed position to engage the other follower and raise the pivoted bushing and exert a pivoting action on the bushing to turn the arm and pull the idler wheel from the rim against the action of the spring, means defining a cutout in the first cam inclined section between second and third speed positions to prevent engagement of said first cam with the associated follower, and manually operated selector means connected to said control lever for placing said lever in a selected speed position.

2,847,863

VARIABLE SPEED ATTACHMENTS FOR MOTORS

Burton H. Locke, Framingham, Mass.

Application December 7, 1956, Serial No. 626,911
1 Claim. (Cl. 74—230.17)



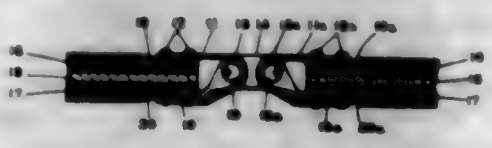
A variable speed drive device for attachment to a motor comprising three parts in combination, a rotable housed countershaft, means to pressure clamp the housing of the countershaft onto a motor and infinite variable speed driving equipment for use intermediate the motor and the countershaft, the countershaft comprising a shaft rotatably mounted in a housing with both ends protruding therefrom, the clamping means comprising at least one pair of opposed clamps disposed to engage the motor and the countershaft housing and rigidly clamp the same together simultaneously by pressure disposed to be applied intermediate the motor and countershaft housing to urge the clamps toward each other and thereby rigidly position the countershaft in spaced relationship to the motor shaft, the variable speed driving equipment comprising a pair of opposed cones for disposition on one of the shafts in a manner to be resiliently urged toward each other and a pair of opposed cones for disposition on the other shaft in a manner to be positively adjusted toward each other and a V-belt to operate over the pairs of cones and means on the device that can be employed to positively adjust the respective pair of cones to adjust the relative speed of the shafts.

2,847,864

CONNECTOR BELTS

Dale L. Waugh, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio

Original application December 5, 1952, Serial No. 324,252, now Patent No. 2,796,911, dated June 25, 1957. Divided and this application January 22, 1957, Serial No. 635,305
2 Claims. (Cl. 74—231)



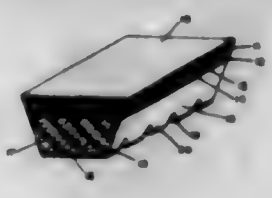
2. A flexible belt comprising a connector, connector pins, and a non-endless belt body, said body consisting of superimposed and integrally united laminae of rubberized fabric including at least one ply of straight-laid fabric interposed between plies of bias-laid fabric, the end portions of said belt being of a reduced thickness but containing the same number of rubberized fabric laminae as the remainder of the belt, said connector comprising straps surmounting and attached to said end portions by means of said pins in order to make said belt continuous.

2,847,865

V-BELTS

Joseph Rockoff, Dale L. Waugh, and Robert S. Radow, Dayton, Ohio, assignors to The Dayton Rubber Company, a corporation of Ohio

Application December 27, 1952, Serial No. 328,168
3 Claims. (Cl. 74—233)



1. As an article of manufacture, a flexible V-belt comprising an inner compression section of synthetic rubber and finely ground textile fibers from 1/16 in. to 1/4 in. in length in the ratio of 5 to 20 parts by weight of textile fibers to 100 parts by weight of synthetic rubber, an intermediate neutral axis section of circumferentially wound inextensible cord and an outer tension section of superimposed strips of rubberized fabric in which the material of said sections is exposed along the sides thereof and forms the side driving surfaces of said belt and in which said compression section has a plurality of longitudinally spaced transverse V-shaped notches extending upwardly from its inner surface, the said inner surface consisting entirely of the exposed material of said compression section.

2,847,866

MULTISPEED RECORDER TRANSMISSION

James E. Thurmond, Bellaire, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware

Application November 29, 1956, Serial No. 625,182
7 Claims. (Cl. 74—352)

1. In a multispeed transmission, a transmission output assembly including an output gear integrally joined with an annular hub, a spur gear integrally joined with an annular hub and journaled for rotation with said output gear on a common shaft, first tensile biasing means mounted to engage the outer periphery of said annular hubs, a yoke mounted for slidable movement in a plane

parallel to said common shaft, second tensile biasing means mounted to maintain said yoke in a predetermined position, a transmission takeoff pinion gear disposed parallel to said shaft and mounted to mesh with said spur gear, a group of intermeshing gear assemblies



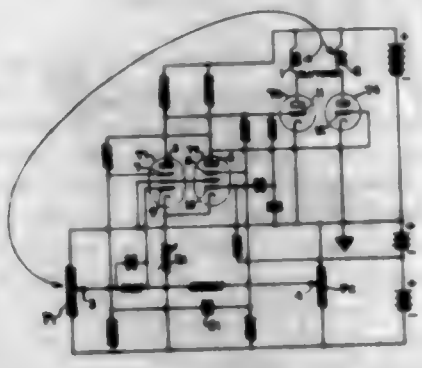
mounted to receive a supply of driving torque, and meshing pinion gears journaled in said yoke for selective rotational engagement with one of said gear assemblies to transfer driving torque to said takeoff pinion gear therefrom.

2,847,867

FOLLOW-UP DEVICE

Francis H. Shepard, Jr., Madison, N. J., assignor, by mesne assignments, to Remco Electronic, Inc., New York, N. Y., a corporation of New York

Application August 24, 1943, Serial No. 499,774
21 Claims. (Cl. 74—388)



1. A follow-up device comprising a position dictating device, a differential position adjusting device, a balanced amplifier for controlling the amount and direction of energy supplied to said adjusting device, means responsive to change of position of said dictating device to unbalance said amplifier, time delay means for accentuating said unbalance, means for controlling the rate at which said unbalance is accentuated, and means responsive to said unbalance for actuating said adjusting device and restoring balance in said amplifier.

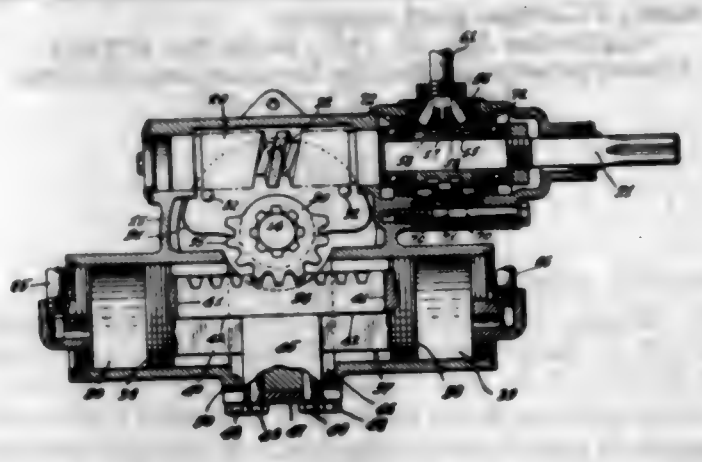
2,847,868

HYDRAULIC STEERING GEAR WITH A GEAR RACK DISPOSED INTERMEDIATE PISTON HEADS

Percy A. Newman, Lafayette, Ind., assignor to Ross Gear and Tool Company, Inc., Lafayette, Ind., a corporation of Indiana

Application January 17, 1956, Serial No. 559,582
5 Claims. (Cl. 74—388)

1. In a hydraulic steering gear, a rock shaft, a pinion fixed to said shaft for rotation therewith, a reciprocable rack meshing with said pinion, a hydraulic motor having a reciprocable piston, a structure rigid with said piston operatively interconnecting the piston and rack, said rack and structure having interengaging thrust-transmitting faces disposed parallel to each other and perpendicular to the path of rack-reciprocation, said rack being



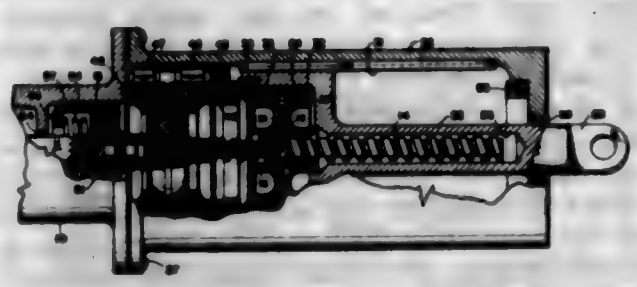
translationally movable relative to said structure toward and away from said pinion, a stationary support, and means mounted in fixed position on said support beyond the limits of travel of said piston and engaging said rack only beyond the limits of travel of the piston to limit its movement away from the pinion.

2,847,869

INERTIA ACTUATOR

Walter H. Hogan, Olmsted Falls, and Anthony F. Karlin, Maple Heights, Ohio, assignors to Cleveland Pneumatic Industries, Inc., a corporation of Ohio

Application November 22, 1954, Serial No. 470,345
8 Claims. (Cl. 74—424.8)



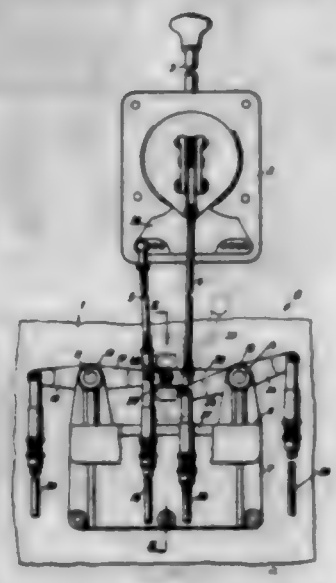
8. An actuator comprising a housing, a screw journaled in said housing for rotation about its axis, a cooperating nut on said screw, an actuating member mounted in said housing for axial motion relative thereto between a first and second position, bearing means between said nut and actuating member journaling said nut for rotation relative thereto and preventing axial motion therebetween, a motor on said housing, clutch means connecting said motor and said screw, a first brake member mounted on said housing for rotary motion relative thereto in only one direction, a second brake member mounted in said housing for rotary motion relative thereto in only the other direction, said screw being formed with a brake plate rotatively fixed to said screw and axially movable between a first position in engagement with said first brake member and a second position in engagement with said second brake member, engagement between said brake plate and either of said brake members preventing relative rotation therebetween, the drag resisting rotation of said screw being arranged to reduce the rotation thereof at a greater rate than the drag resisting rotation of said nut reduces the rate of rotation thereof when both said nut and screw are rotating by virtue of their inertia whereby a reversal of reaction is created between said nut and screw when said motor is shut off which moves said brake plate into engagement with the brake member that is rotatably fixed in the direction of screw rotation.

2,847,870

APPARATUS FOR CONTROLLING THE FUEL SUPPLY AND THE REVERSING GEAR OF A MARINE ENGINE OPTIONALLY BY DIFFERENT CONTROL MECHANISMS

Reinhold Erxleben, Berlin-Steglitz, Germany, assignor to Daimler-Benz A. G., Stuttgart-Unterturkheim, Germany, a German stock company

Application July 15, 1957, Serial No. 672,823
Claims priority, application Germany July 20, 1956
5 Claims. (Cl. 74—472)



1. Apparatus for controlling the fuel supply and the reversing gear of a marine engine optionally by different control mechanisms comprising a support, a pair of parallel shafts, two pairs of spaced bearings mounted on said support for journalling said shafts for rotary and axial displacement, a manually operable member connected with both of said shafts for axially displacing same in unison optionally into a first position or into a second position, arms mounted on said shafts between said bearings to be non-shiftable in axial direction constituting at least three pairs of arms, each pair being comprised of one arm mounted on one of said shafts and another arm mounted on the other one of said shafts, linkage means for connecting the arms of a first one of said pairs with one of said control mechanisms, linkage means for connecting the arms of a second one of said pairs with another one of said control mechanisms, linkage means for connecting the arms of a third one of said pairs with a fuel supply control member and a reversing gear control member of said engine, and means provided on said shafts and said arms for connecting said third one of said pairs of arms either with the first one of said pairs of arms when said shafts are in said first position or with the second one of said pairs of arms when said shafts are in said second position.

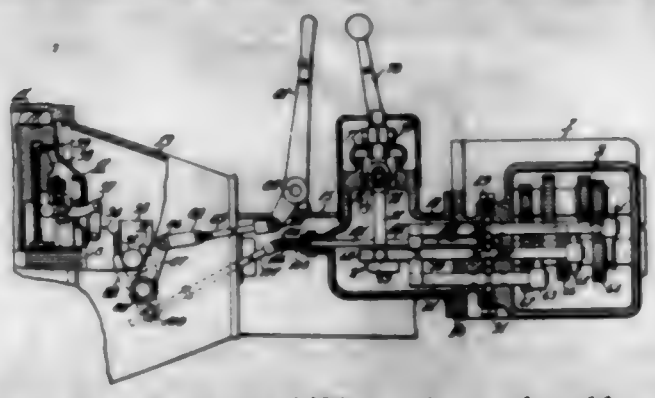
2,847,871

POSITIVE LOCK AND DETENT MECHANISM FOR SHIFT RODS

Frederick A. Schick, Springfield, Ill., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application February 1, 1957, Serial No. 637,754
9 Claims. (Cl. 74—477)

1. A positive lock and detent mechanism comprising: a support housing; first and second coplanar shift rods reciprocably mounted on said support in spaced parallel relation to each other, said rods being individually shiftable from a neutral position into predetermined shifted positions; recess portions provided in said rods coinciding respectively with said neutral and shifted positions; a pair of adjacent retaining elements reciprocably mounted on said support being interposed between said shift rods, said retaining elements being aligned on an axis coplanar with and perpendicular to said rods and registerable respectively with said recess portions; thrust transmitting means reciprocably mounted in said rods, respectively, being operatively engageable with said retaining elements; resilient means anchored on said support for imparting thrust to said retaining elements and said thrust transmitting means whereby one of said retaining elements is biased into registration with one of said recess



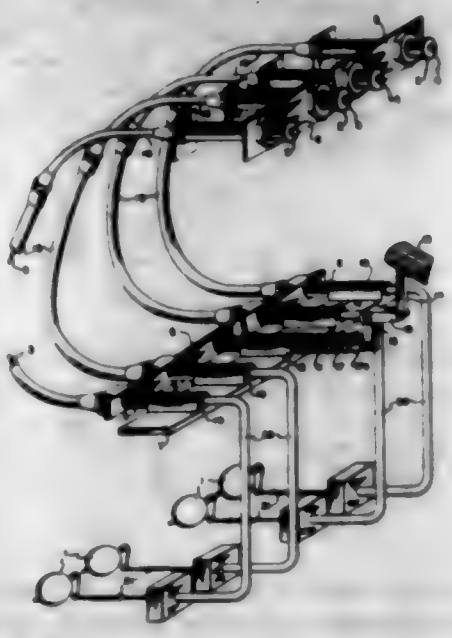
portions in each of said shifting rods to releasably retain the latter respectively in said neutral and shifted positions; locking means mounted on said support for maintaining one of said retaining elements in registration with one of said recess portions in each of said rods thereby positively locking the latter respectively in said neutral and shifted positions.

2,847,872

ADJUSTABLE PLURAL CONTROL DEVICE

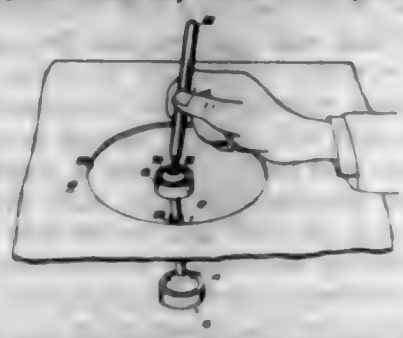
Edwin T. Todd, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 30, 1955, Serial No. 549,927
7 Claims. (Cl. 74—478)



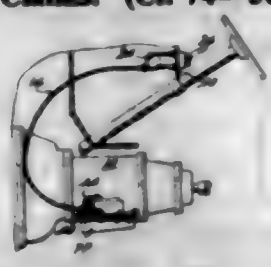
1. In a control arrangement, a fixed cross head, a movable cross head, a foot operated means for causing axial movement of said movable cross head in relation to said fixed cross head, a plurality of units, each unit comprising a controllable element, individual hand control means for controlling the element, a wire extending between each controllable element and the individual control means through the movable cross head and the fixed cross head, and a flexible sheath surrounding a length of the wire between the individual control means and the movable cross head; said individual control means adapted to move said wires independently of said sheaths, said sheaths being fixed against axial movement at one end and attached to said movable cross head at the other end, each sheath including a bow between the ends, whereby actuation of the foot operated means adjusts the controllable elements in unison preserving the relative adjustments of said elements made by the hand control means and permitting independent adjustment of the controllable elements by said hand control means.

2,847,873
PENCIL ATTACHMENT FOR ELECTRONIC DATA PICK-OFF JOY STICK
Wesley E. Woodson, Jr., El Cajon, Calif.
Application August 25, 1955, Serial No. 530,646
7 Claims. (Cl. 74—491)
(Granted under Title 35, U. S. Code (1952), sec. 266)



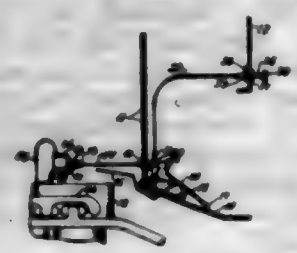
1. A control mechanism comprising a substantially flat fixed arm support having an aperture therethrough, a control lever universally mounted on a pivot spaced from one side of said support and aligned with said aperture, and an elongated control arm universally pivoted to said lever at a point on said lever closely adjacent said aperture substantially in the plane of said support.

2,847,874
TRANSMISSION CONTROL MECHANISM
James R. McCordic, Royal Oak, and Eugene Gonyou, Detroit, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application August 28, 1956, Serial No. 606,765
8 Claims. (Cl. 74—502)



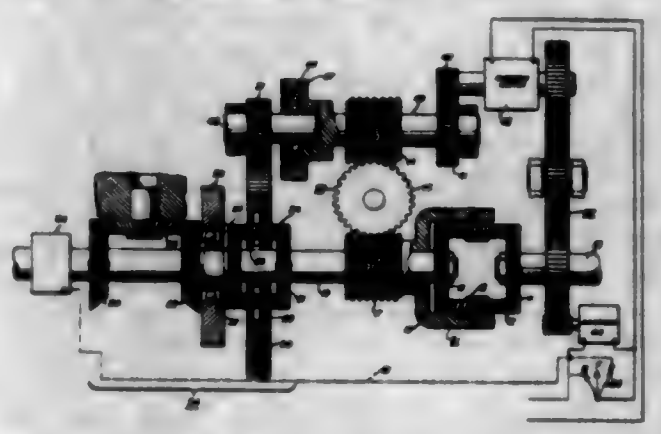
1. In a transmission control mechanism a driver operated device including a support, an output member movably mounted on said support, a manually operable control means carried by said support and operable to position said output member in a plurality of operating stations, a transmission control mechanism carried by a second support and having a member movable to a plurality of stations respectively corresponding to different transmission operating conditions, a cable structure operatively connecting said output member and said transmission control mechanism to position said movable member in a different predetermined station in response to the establishment of said output member in each of its operating stations, said cable structure having an unsupported portion of bowed configuration intermediate its ends and comprising an outer sheath with an inner control element slidably mounted therein, said inner control element having fittings at the respective ends thereof defining a predetermined, permanent, effective length for said inner control element, first and second cooperating fitting means respectively carried by said members, each of said cooperating fitting means being permanently secured in a predetermined relationship with a corresponding fitting on one end of said inner control element, means securing one end of said outer sheath to one of said supports, and means providing an adjustable connection between the other end portion of said outer sheath and the other of said supports whereby adjustment of said connection, which is facilitated by variation in the bowed configuration of said fittings and cable, accommodates the alignment of said cooperating fitting means without varying the relationship between said cable inner control element and said cable outer sheath.

2,847,875
SPEED RESPONSIVE DEVICE FOR AUTOMOBILES
Herbert D. Drain, Elmhurst, Ill.
Application September 28, 1955, Serial No. 537,206
14 Claims. (Cl. 74—526)



1. A speed limiting apparatus for a motor driven vehicle wherein the speed of the vehicle is normally controlled by a foot pedal located within reach of the foot of the driver which controls the feed of the fuel to the motor, said apparatus comprising a stop member movably mounted adjacent the foot pedal where it may be engaged by the foot while the foot engages simultaneously with the pedal, and means for varying the position of the stop member which includes a chamber having a piston mounted therein, a vacuum line connecting the chamber and the manifold of the motor whereby the piston moves in said chamber in response to variations in the vacuum in the manifold, and means connecting the stop member with the piston for imparting movement to the stop member in response to movements of the piston.

2,847,876
TRANSMISSION
George W. Willard, Springfield, Mo.
Application July 3, 1952, Serial No. 297,102
21 Claims. (Cl. 74—751)



1. A power transmission comprising, a driving shaft, a driven shaft, a gear train interconnecting said shafts, said gear train having an epicyclic characteristic and including first gear means revolvable with said driving shaft, second gear means revolvable with said driven shaft, pinion gear means interconnecting said first and second gear means, a revolvable carriage mounting said pinion gear means, said carriage driven in a revolvable path by said pinion gear means, a regulating and constraining gear train driven by said carriage, said regulating and constraining gear train including a first gear driven by said carriage, an intermediate gear driven by said first gear, the interconnection between said first gear and intermediate gear being a non-reciprocal drive whereby said intermediate gear cannot drive said first gear, a second gear meshed with said intermediate gear, the drive interconnecting between said second gear and the intermediate gear being non-reciprocal from said second gear to said intermediate gear, whereby the rotation of the intermediate gear, and consequently the rotation of the pinion gear means is controlled by rotation of the second gear, and said second gear requiring no more power to drive it than sufficient to overcome frictional resistance, and means to rotate said second gear in the direction releasing said in-

termediate gear to rotate under drive from said first gear, said means including a linkage from said driving shaft, a slippable clutch in said linkage.

2,847,877

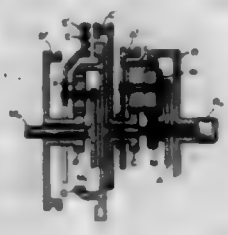
EPICYCLIC CHANGE SPEED GEAR

Pol Ravigneaux, deceased, late of Neuilly-sur-Seine, France, by Pierre Georges Ravigneaux and Marie Jeanne François Ravigneaux, legal representatives, Neuilly-sur-Seine, France, assignors to Clark Equipment Company, a corporation of Michigan

Continuation of application Serial No. 279,841, April 1, 1952, now forfeited. This application August 1, 1956, Serial No. 602,092

Claims priority, application France April 9, 1951

27 Claims. (Cl. 74—759)



27. In a transmission the combination comprising an input member, an output member, a first planetary gear set having a plurality of drive and drive receiving elements constructed and arranged to transmit torque through the first planetary gear set, a first one of said elements receiving power from said input member, a second planetary gear set having a plurality of drive and drive receiving elements constructed and arranged to transmit torque through the second planetary gear set, a first of the elements of the second set being connected to drive said output member, a second of the elements of the first gear set being connected in driving relation with a second element of the second planetary gear set, a selectively operable clutch for connecting a third element of the first gear set with a third element of the second gear set, means for holding one of said third elements stationary so that when said clutch is also engaged the third elements are simultaneously rendered reaction elements for completing a drive between said input member and said output member through said two planetary gear sets, and means for holding one of the elements of the said first gear set stationary for completing a drive between said input member and said output member when said clutch is also engaged during which drive power flows in dual paths between said two gear sets, one path being between said second elements and the other path being between said third elements.

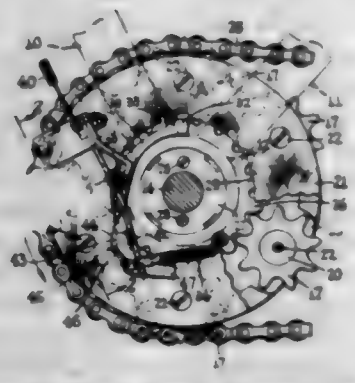
2,847,878

MULTISPEED BICYCLE DRIVE

Thomas A. Scanlan, Cornwall-on-Hudson, N. Y.

Application January 12, 1954, Serial No. 403,618

6 Claims. (Cl. 74—781)



1. A multispeed drive for a bicycle or the like, comprising a frame member; a pedal shaft rotatable in the frame member; a gear rotatable about said pedal shaft; a plurality of spaced-apart wheels disposed in a circle around the periphery of said gear and meshing therewith; a plurality of bearing means for said wheels, fixed to and rotatably movable with the pedal shaft, said bearing means positioning said wheels for driving engagement with a sprocket drive means; a first releasable means for immovably locking said gear to said bearing means for simultaneous rotatable movement therewith, thereby to hold the sprocket wheels against movement about said bearing means and with respect to said gear; means operable to release said locking means; a second releasable means operable alternatively with said first releasable means, for locking the said gear to the said frame member against turning movement in opposite directions; and means, including a manually-operable handle, dependent for operation upon rotation of the said gear for operating the second-locking means to lock the gear to the frame member and for simultaneously operating the first-locking means to release the gear from the said bearing means.

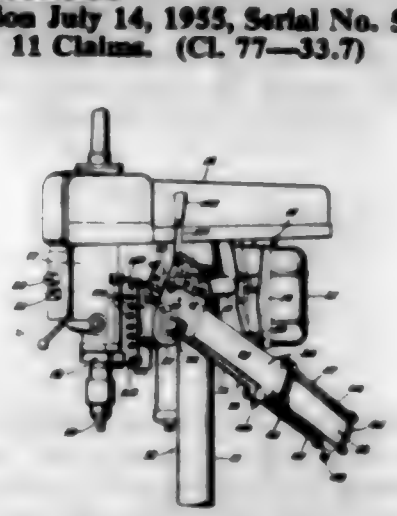
2,847,879

POWER OPERATOR FOR MACHINE TOOLS

Raymond G. Olson, Niles, Ill., and Howard W. Roufeldt, Toledo, Ohio, assignors, by mesne assignments, to Cleveland Pneumatic Industries, Inc., Cleveland, Ohio, a corporation of Ohio

Application July 14, 1955, Serial No. 522,028

11 Claims. (Cl. 77—33.7)



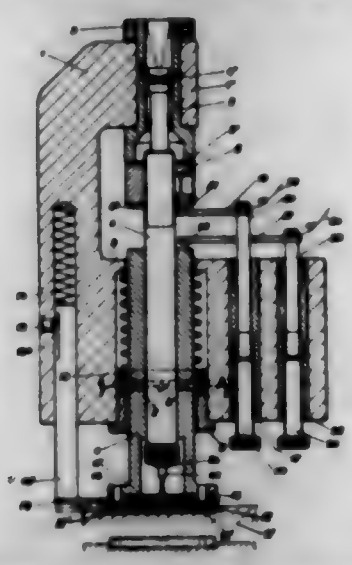
1. A power operator attachment for machine tools of the type having a frame supporting structure, a reciprocable portion and a rotatable shaft for actuating the reciprocable portion, and said power operator comprising: a frame adapted to be affixed to the frame supporting structure of the machine tool, a pinion gear adapted to fit on the rotatable shaft of the machine tool and impart rotation thereto, a two-directional fluid cylinder mounted on said frame, a piston reciprocable within said cylinder, a piston rod attached to said piston, a gear rack journaled on said frame for sliding movement thereon in engagement with said pinion gear, said gear rack attached to and moving with said piston rod, means attaching a source of fluid under pressure to said cylinder, a control valve mounted on said frame, means operating said control valve to effect a movement of said machine tool reciprocable portion, said control valve having oppositely extending bleeder means for actuating said control valve and means operating said bleeder means including a harness mounted on said frame, said harness including a hand lever hinged on said frame, a beam link disposed parallel to and above said control valve, said beam link pivotally attached at one end to an intermediate point on said hand lever, bell-crank members hinged on said control valve adjacent said bleeder means and having their one arms pivotally mounted on said beam link, and the other arms of said bell-crank members arranged and constructed to engage the bleeder means upon swinging movement of said hand lever.

2,847,880
CUTTING TOOL LUBRICATORS AND CLEANERS
Claude E. Noble, Van Nuys, Calif.
Application June 29, 1953, Serial No. 364,889
1 Claim. (Cl. 77—65)



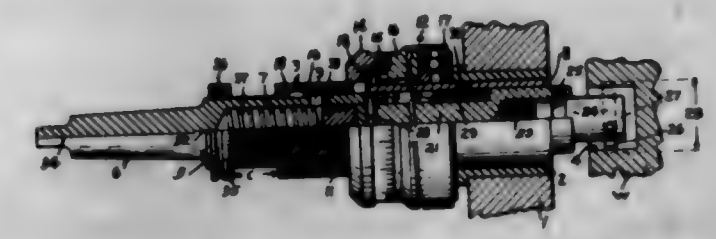
In combination with a fluted cutting tool and a work piece, a lubricating and cleaning member comprising a hollow cylindrical shell having a first or upper and second or lower resilient diaphragms closing the ends of said shell, said first diaphragm having an orifice in the form of a cruciform slit whereby the resilient points formed by the said slit in the said first diaphragm enter the flutes of said cutting tool and said second diaphragm having a circular orifice closely engaging the lands of said fluted cutting tool, said shell and resilient diaphragms being adapted to rotatably engage a working portion of said cutting tool, to rotate therewith, and to be rotatably disengaged from said cutting tool, said rotatable disengagement effecting the cleaning action of said first slitted diaphragm on said cutting tool, and a quantity of thermoplastic lubrication contained within said shell, said lubricating compound being adapted to flow downwardly along the flutes of said cutting tool through said second resilient diaphragm when said cutting tool is heated by rotary contact with said work piece and to cease flowing when said cutting tool is removed from contact with said work piece.

2,847,881
DRILLING MACHINES
Hugo Allemann, Laterbach, Solothurn, Switzerland
Application March 22, 1954, Serial No. 417,784
Claims priority, application Switzerland March 30, 1953
4 Claims. (Cl. 77—55)



1. In a drilling machine, in combination, a spindle adapted to carry a drill and having a journal portion; a bearing engaging said journal portion of said spindle to guide the latter for rotation; support means supporting said spindle and said bearing for movement in axial direction and for tilting movement so that the spindle axis may be oriented with a given point; drive means operatively connected to said spindle for rotating the latter within said bearing without preventing the tilting movement of said spindle and bearing; and means connected directly to said bearing for automatically bringing during movement of said bearing in axial direction the axis of said spindle and a straight line passing through the workpiece into coincidence so that a drill carried by said spindle will drill in the workpiece a hole having an axis coinciding with the spindle axis and the straight line.

2,847,882
RECESSING TOOL
Milton L. Benjamin and Franklyn E. Winnen, Cleveland, Ohio, assignors to Erickson Tool Company, Cleveland, Ohio, a corporation of Ohio
Application February 23, 1956, Serial No. 567,367
2 Claims. (Cl. 77—58)

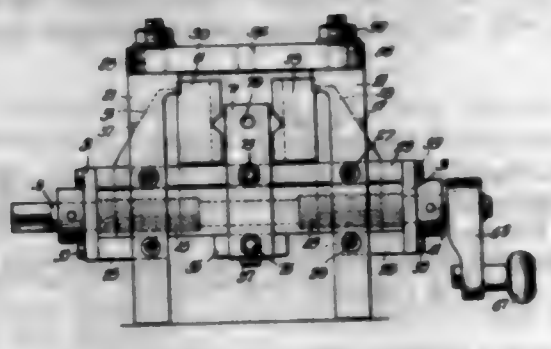


1. A recessing tool comprising a coaxial body member and tubular pilot that are keyed together for rotation in unison and for axially sliding of one end of said body member within one end of said pilot, said body member at its other end being fashioned for connection with a rotary drive and axial feed spindle, and said pilot at its other end being fashioned to enter a stationary guide bushing whereby said body member and said pilot are supported for rotation about the common central axis thereof, stop means axially adjustably mounted on said pilot for abutting engagement with such guide bushing to arrest axial feeding movement of said pilot while said body member continues to be moved axially, such one end of said body member and said pilot respectively being formed with eccentrically disposed bores having an axis that is parallel to the central axis of rotation of said body member and said pilot, a cutter mounting member axially fixedly mounted in said pilot and rotatably supported in such eccentrically disposed bores, the bore of said body member being intersected by diametrically opposite helical slots, said cutter mounting member having radial projections engaged in such slots whereby said cutter mounting member is turned responsive to relative axial movement of said body member and of said pilot and cutter mounting member, a cutter affixed to said cutter mounting member for movement in a spiral path with respect to the axis of rotation of said body member and said pilot when said cutter mounting member is thus turned about the axis of such eccentric bores, such cutter, prior to turning of said cutter mounting member as aforesaid, being adapted to be disposed within an opening of a workpiece to be recessed and, during movement in such spiral path and while said body, said pilot, and said cutter mounting member are rotated about such central axis, being adapted to form a recess in the workpiece, the engagement of said helical slots and projections constituting the sole torque transmitting means between said body member and said cutter mounting member.

2,847,883
DRILL JIG
Ralph B. Bagby, Evanston, Ill.
Application March 23, 1955, Serial No. 496,233
2 Claims. (Cl. 77—62)

1. A drill jig comprising supporting and guiding means, a pair of opposed master jaws slidable in the guide means, a clamping screw associated with the master jaws, said clamping screw serving to move the jaws equidistantly toward and from the meeting plane of the jaws, jig plate locating studs secured to the supporting and guiding means in fixed relation to the meeting plane of the jaws, said studs being in pairs on either side of the axis of the clamp-

ing screw, the pairs having different spacing between members of a pair, and a jig plate having an opening to fit



one of a pair of studs and a side opening recess adapted to fit around the other of the pair of studs.

2,847,884

DEBURRING ATTACHMENT FOR ROTARY DRILLS

Woodrow W. Favre and Harry B. Sadler, Baltimore, Md.

Application March 30, 1956, Serial No. 575,270
6 Claims. (Cl. 77—66)



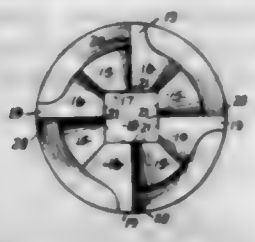
1. In combination, a rotary drill having an elongated slot extending radially into the shank thereof and a deburring attachment pivotally mounted in said slot, the pivotal point of said deburring attachment being so located on the attachment that the lower extremities of the deburring attachment are located at a shorter radial distance from the said pivot point than the upper extremities thereof, two spaced angularly disposed cutting edges on said attachment on opposed sides of the pivotal mounting and on the front face of said attachment and adapted for cutting action on opposed sides of material being drilled, centrifugal force produced on rotation of the drill moving one said cutting edge out of said slot, the other said cutting edge being extendable out of said slot on contact of said one cutting edge with material being drilled.

2,847,885

DEEP HOLE DRILL

William A. Wagner, South Euclid, Ohio, assignor to The Cleveland Twist Drill Company, Cleveland, Ohio, a corporation of Ohio

Application August 2, 1956, Serial No. 601,819
8 Claims. (Cl. 77—68)



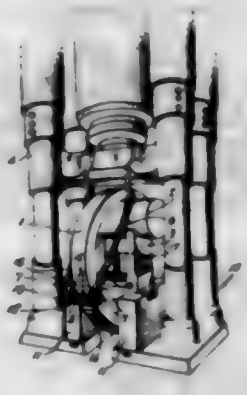
1. A deep hole drill comprising a generally cylindrical body formed with a plurality of exterior lands separated by a plurality of chip carrying grooves and extending from the cutting end of said body toward the shank end; said body being formed with a non-circular cross-section passageway that extends axially into said body from the cutting end, the wall of said passageway having at least three circumferentially spaced areas that are equidistant from and parallel to the longitudinal axis of the drill whereby, upon rotation of the drill about its axis and axial feeding thereof, such areas contact a cylinder of the work piece which is coaxial with the drill, such area contacts axially along such cylinder providing support against horizontal thrust forces in all directions and which cylinder serves together with the periphery of said lands to guide the drill so as to form a straight hole, the remainder of the wall of said passageway between such circumferentially spaced areas being spaced radially outward of such cylinder whereby to define with the latter a series of axially extending passages for flow of oil around and in contact with such cylinder to the cutting end of the drill as the drill is rotated and fed into a workpiece; such cutting end of said body being formed with circumferentially spaced cutting edges extending generally radially from such circumferentially spaced areas to the outer edges of said lands to generate such cylinder upon rotation of the drill, such cutting edges having clearances, the surfaces of which define radially extending passages intersecting such series of axially extending passages and said chip carrying grooves whereby flow of oil through such series of axially extending passages and through said radially extending passages carries the chips formed by said cutting edges out through said grooves, lubricates the guide cylinder left in the workpiece, and lubricates and cools the cutting edges.

2,847,886

CLAMP FOR SHIFTING ANNULAR WORKPIECES IN A FORGING PRESS

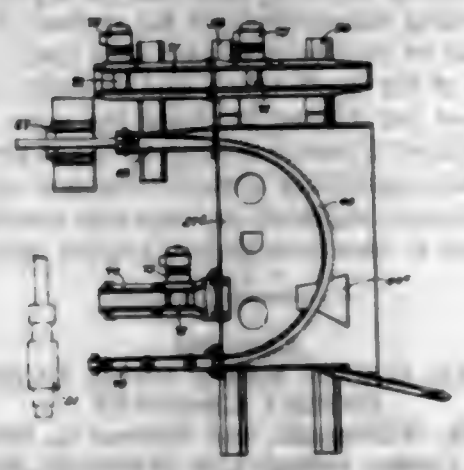
Karl Lichtenfeld, Neumark-Geiseltal, Germany, assignor to VEB Leuna-Werke "Walter Ulbricht," Leuna, Germany

Application September 15, 1954, Serial No. 456,170
4 Claims. (Cl. 78—98)



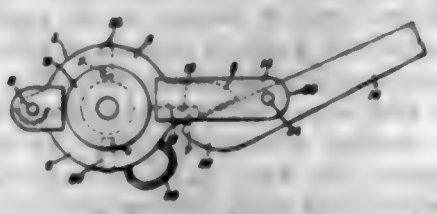
4. For use with a forging press or the like, a clamp to shift a substantially annular object having an outer peripheral surface and opposite side faces, and mounted on its inner periphery over a horizontal member which is arranged to extend therethrough, comprising, a pair of elongated clamping elements arranged on opposite sides of and substantially chordally of said object, a cross-bar pivotally connected to each of said clamping elements and arranged to extend across the outer peripheral surface of said object from one of said side faces to the other, and means connected to said clamping element for drawing said crossbar against and into frictional gripping contact with the outer peripheral surface of said object and simultaneously pivoting said clamping elements toward one another into clamping engagement with said side faces of said object in response to a force directed longitudinally of said clamping elements and away from said crossbar, thereby enabling shifting of said object to a predetermined angle over said member, and for loosening said clamping elements and said crossbar from said object in response to relaxation of said force so as to permit said clamping elements and said crossbar to slide freely over said object without shifting the same on said member.

2,847,887
DEVICE FOR COMBINED REPEATING OR STRAIGHT ROLLING
Edward T. Peterson, Reading, Pa., assignor to Birdsboro Steel Foundry and Machine Company, Dover, Del.
Application February 8, 1955, Serial No. 486,817
2 Claims. (Cl. 80—52)



1. In a rolling mill mechanism for receiving work from one roll stand and delivering it to another roll stand, a repeater having a trough adapted to receive work from one roll stand and reverse it and deliver it to another roll stand, means for shifting the repeater laterally and a cross trough extending across the repeater trough and adapted to communicate with one of the roll stands when the repeater shifts laterally.

2,847,888
CLAMPING SPANNER WRENCH
Medford W. Paulson, Virginia, Minn.
Application November 6, 1956, Serial No. 620,615
1 Claim. (Cl. 81—98)



A spanner wrench comprising first and second split ring members pivotally joined together at one end to form a hinged clamp, opposed contact faces on the free ends of said split ring members engaging each other when said split ring members are pivoted toward each other, a pair of opposed flange plates on the free end of said first split ring member, said flange plates overlying the contact face on said first split ring member and extending longitudinally thereof radially beyond the free end of said first split ring member in spaced parallel relation to each other, a lever pivotally mounted intermediate its ends between said flange plates, one end of said lever engaging the free end of said second split ring member to lock said split ring members together with said opposed contact faces engaging each other when the lever is rotated on its pivot, a pair of opposed spanner projections each extending radially beyond the inner periphery of each of said split ring members, one of said projections being tapered in the direction away from its respective inner surface toward the flange plates.

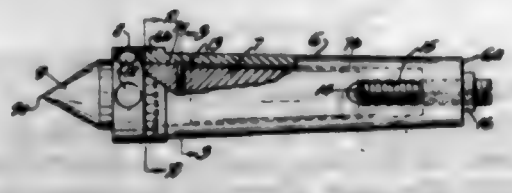
2,847,889
GRIPPING TOOL JAWS
Ferrell O. Cain, Geneva, Ala., assignor of one-half to J. Lewis Phillips, Geneva, Ala.
Application January 24, 1955, Serial No. 483,496
1 Claim. (Cl. 81—425)

In a gripping tool, a pair of opposed gripping jaws movable towards each other about a common pivot point, each of said jaws including a longitudinal concave surface extending to the free end thereof and terminating at its inner end in a transverse abutment for limiting the longitudinal insertion of an article to be gripped, said concave surface having a plurality of inwardly diverging longitudinal serrations therein for gripping the article, said concave surface being defined by flat edge portions having transverse gripping serrations therein, the portion of



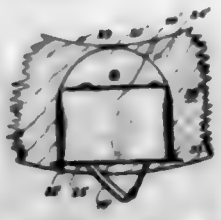
each jaw inwardly of the transverse abutment having transverse concave portions separated at the longitudinal center of the jaw by a longitudinal shoulder thus forming concave portions of different depths, the concave portion on each side of the shoulder having transverse serrations therein with the ridges and valleys of the serrations being in transverse alignment, said longitudinal shoulder limiting the transverse insertion of an article to be gripped.

2,847,890
ADJUSTABLE LATHE CENTER
Joseph H. Jacobs, Osseo, Minn., assignor to Jacobs Wind Electric Company, Minneapolis, Minn., a corporation of Montana
Application December 20, 1952, Serial No. 327,121
4 Claims. (Cl. 82—33)



1. An adjustable lathe center comprising a center point member having an elongated shank with gradually tapered portions and having a pointed work mounting tip with the point thereof disposed eccentrically of the longitudinal axis of said tapered shank portions, a mounting member having a hollow portion with cooperating gradually tapered portions for cooperatively receiving in concentric relation the gradually tapered shank portions of the center point member to frictionally engage the same and hold said shank against rotation during rotation of the work on the mounting tip, and a thrust resisting member carried by said mounting member and engaging said shank to carry only a portion of the thrust on said shank and positively limit the frictional resistance to rotation between said shank and said mounting member to permit said shank to be forcibly rotated within said mounting member to laterally adjust the eccentrically mounted pointed tip.

2,847,891
MUSIC BOX MOUNTS
Joseph F. Scott, New York, N. Y.
Application March 25, 1955, Serial No. 496,751
15 Claims. (Cl. 84—94)



1. A music box and support therefor, comprising, in combination, a bracket having a pair of wall portions extending angularly with respect to each other, one of said wall portions being adapted to be attached to a rock-

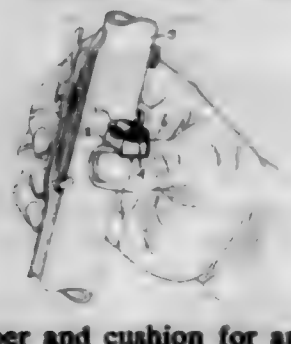
ing chair rocker or the like and the other of said wall portions being formed in an intermediate part thereof with a cutout; a music box housing open at one end and containing components of a music box, one of said components extending outwardly beyond said housing through said open end thereof and having a width substantially smaller than said cutout, said housing being located on said other wall portion of said bracket with the open end of said housing engaging said other wall portion so that the latter extends across said open end of said housing, said one component extending with substantial clearance through said cutout beyond said other wall portion of said bracket; and means rigidly fixing said housing to said other wall portion of said bracket.

2,847,892

BUMPER OR CUSHION FOR THE FINGER REST OF MUSICAL INSTRUMENTS

William E. Lass, Michigan City, Ind., and Robert F. Lass and Everett A. Lass, Houston, Tex.

Application September 21, 1955, Serial No. 535,544
1 Claim. (Cl. 84—380)



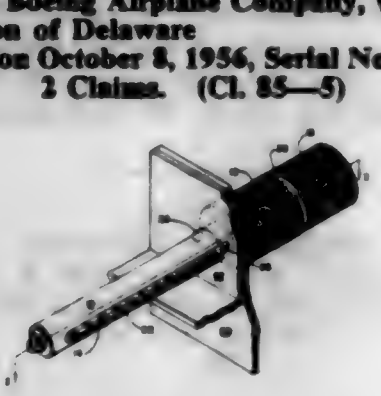
A finger bumper and cushion for an instrument finger rest comprising, a hollow tubular body formed of resilient material whereby it may be engaged on the instrument finger rest, said body being formed of thin wall material of substantially the same diameter throughout its length a pad secured to said body on one side thereof and depending therefrom, said pad being formed of resilient material to conform to the finger adjacent the finger rest, and said pad being substantially rectangular in cross-section and substantially the same thickness as the diameter of said body, and the width of said pad being at least equal to the diameter of said hollow tubular body.

2,847,893

ADJUSTABLE THICKNESS FASTENER HAVING SCREW OPERABLE BALL DETENTS

Rudolph Price and Donald A. Brown, Wichita, Kans., assignors to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware

Application October 8, 1956, Serial No. 614,478
2 Claims. (Cl. 85—5)



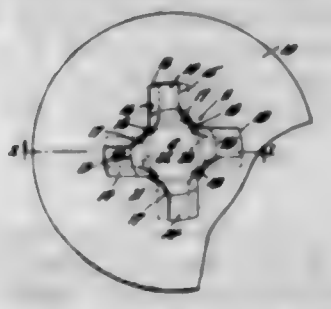
1. An adjustable length fastener to be positioned in aligned openings of a plurality of members to be secured together, comprising: an elongated hollow shank and a fixed head secured to an end thereof, an inner screw rotatably mounted in said shank and secured against movement longitudinally of said shank, an operating member mounted on said head and connected to said screw and operable to rotate the same, said shank having a plurality of elongated longitudinal slots and a ball slidably mounted in each slot and being larger in diameter than the width of the slot and having its major portion inside of the outer surface of said shank, whereby the ball is retained in the slot, said screw having double threads and each ball having an inner portion engaged in the threads of said screw, whereby the balls are together advanced toward and retracted from said head upon rotation of said screw by said operating member, each ball having an outer segment protruding outwardly from the surface of said shank during travel of said balls in said slots toward said head in the area of the shank where said plurality of members to be secured are located to clamp the same, said screw having a reduced diameter portion at its end portion opposite said head permitting inward retraction of said balls so that said outer segments are movable inwardly a sufficient distance to pass through said aligned openings.

2,847,894

SOCKETED SCREW HEAD WITH UNIFORMLY OFFSET GROOVES

Ian A. Smith, Willimantic, and Herman G. Muenchinger, Chaplin, Conn., assignors to American Screw Company, Willimantic, Conn., a corporation of Rhode Island

Application March 16, 1955, Serial No. 494,726
19 Claims. (Cl. 85—45)



11. A screw having a recess extending into its upper end along its longitudinal axis and comprising a central portion having a concave bottom in the general form of an inverted cone and grooves extending outwardly therefrom and terminating substantially inwardly of the outer periphery of said upper end, each said groove having a substantially vertical driving side wall, an opposite substantially vertical side wall, and a bottom wall intersecting said respective side walls, said grooves extending generally radially and having their bottoms inclined upwardly and outwardly, said grooves having their vertical medial planes substantially parallel to, but displaced from, true radial planes, the driving wall of each said groove lying closer to said respective substantially parallel true radial plane than does the opposite wall of the same groove, said grooves being arranged in angularly spaced, oppositely directed pairs.

2,847,895

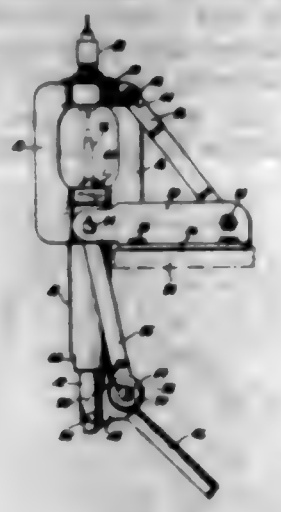
COMBINATION BULLET PRESS AND AMMUNITION RELOADER TOOL

Frederick T. Huntington and Albert M. Swift, Oroville, Calif.

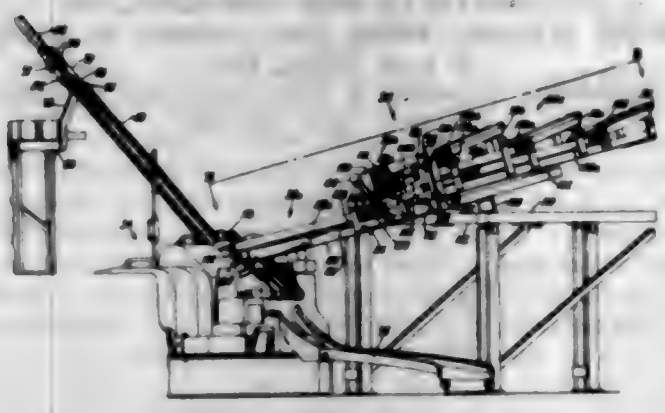
Application June 26, 1950, Serial No. 170,384
1 Claim. (Cl. 86—23)

A device of the class described having a frame comprised of a guide sleeve, a ram slidably disposed therein, and means for moving said ram within said guide sleeve comprising a link having one end thereof pivotally connected to the lower end of said ram, a swingable arm pivotally connected at its upper end to said sleeve a substantial distance above and in alignment with the pivotal point of connection between said ram and link, said arm having its lower end pivotally connected to the other end of said link, said arm being angularly disposed laterally from said sleeve and said link being disposed angularly upwardly and outwardly from its point of connection with the ram when said ram is at the bottom of

its stroke, and said link and arm being so disposed that the pivot point between the link and arm is substantially in alignment with the axis of the ram when the ram is at the top of its stroke, and a handle lever secured to said link to move the same.



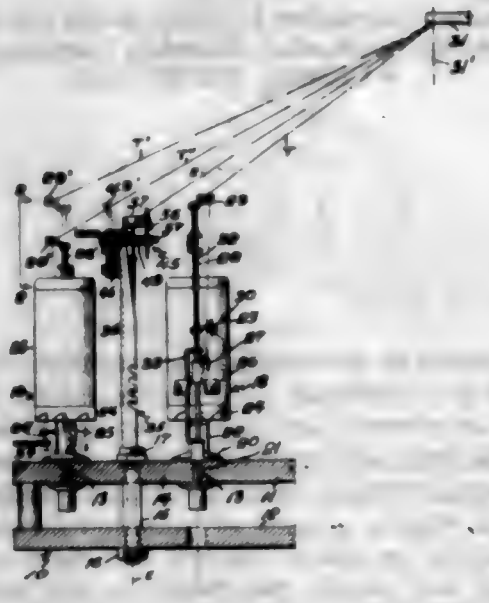
2,847,896
CARTRIDGE RATIO SELECTORS FOR USE IN THE BELTING OF AMMUNITION
Howard W. Boothroyd, Wenham, Mass., assignor to United Shoe Machinery Corporation, Boston, Mass., a corporation of New Jersey
Application August 30, 1955, Serial No. 531,449
7 Claims. (Cl. 86—48)



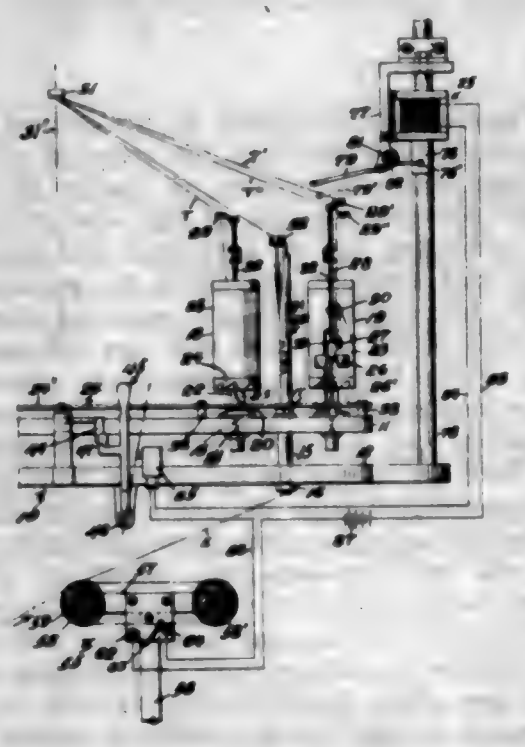
1. In an apparatus for use in the belting of ammunition, trays for receiving respectively different types of cartridges, a ratio selector unit having tracks, means for delivering the cartridges presented to the trays to the tracks respectively, and a selector ramp, said ratio selector unit comprising means including a transfer chute movable between two operating positions for causing a predetermined number of the leading cartridges on each of the tracks of said unit to be delivered to the ramp in a predetermined sequence with relation to a predetermined number of leading cartridges released from the other tracks of said unit.

2,847,897
BRAIDING MACHINE
Walter E. Kelley, Pawtucket, R. I., assignor to Providence Braid Company, a corporation of Rhode Island
Application April 3, 1956, Serial No. 575,748
9 Claims. (Cl. 87—19)

1. A braiding machine comprising a plurality of braider carriers for carrying a thread to be braided, each of said braider carriers having a thread guide from which the thread leads to the point of braiding, a guide held stationary relative to said braider carriers for leading an additional thread therefrom to said point of braiding, one braider carrier having its thread guide carried at a location for leading its thread therefrom to said point of braiding in a path different from the path followed by the threads led to said braiding point from other of said braider carriers, a stop motion operable upon severing of the thread of the carrier guiding its thread in the different path, and thread severing means operable upon the breaking of said thread from said stationary guide to sever the said thread led to said point of braiding along said different path so as to effect the actuation of said stop motion.



2,847,898
BRAIDING MACHINE
Laurent Thibert, Pawtucket, R. I., assignor to Providence Braid Company, a corporation of Rhode Island
Application April 3, 1956, Serial No. 575,749
8 Claims. (Cl. 87—19)



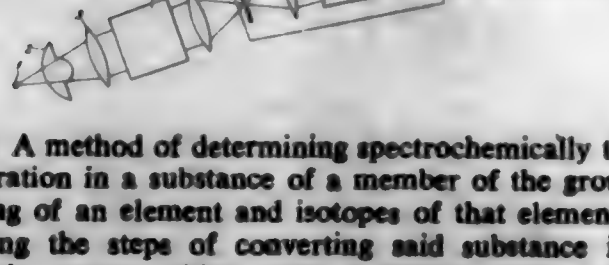
1. In combination, a braiding machine for making elastic braid of non-elastic threads and elastic threads, a stop motion operable to effect stoppage of the machine upon severing of one of the said non-elastic threads, a non-elastic thread severing means, and electrically operated means connected to said severing means operable upon breaking of one of said elastic threads to operate said severing means so as to sever one of said non-elastic threads and effect operation of the stop motion to effect stoppage of the machine.

2,847,899

METHOD OF AND APPARATUS FOR SPECTROCHEMICAL ANALYSIS

Alan Walsh, Canterbury, Victoria, Australia, assignor to Commonwealth Scientific and Industrial Research Organization, East Melbourne, Victoria, Australia, a body corporate

Application November 16, 1954, Serial No. 469,221
Claims priority, application Australia November 17, 1953
6 Claims. (Cl. 88—14)



1. A method of determining spectrochemically the concentration in a substance of a member of the group consisting of an element and isotopes of that element; comprising the steps of converting said substance into an atomic vapour which emits radiation, passing through said atomic vapour a beam of radiation the spectrum of which contains an atomic spectral line characteristic of a member of said group, and measuring the ratio between the incident and emergent intensities of said beam, which ratio is determinative of the concentration of said member.

2,847,900

METHODS AND APPARATUS FOR CHECKING STRAIGHTNESS OF BORES

Chester J. Dudzik, Cranston, R. I., and Bayard E. Quinn, West Lafayette, Ind., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army

Application February 8, 1956, Serial No. 564,333
5 Claims. (Cl. 88—14)



1. The method of checking the straightness of the bore of a gun barrel comprising the steps of introducing a diaphragm with an aperture of smaller diameter than the bore between a source of light and one end of the barrel, projecting rays of light from said source of light through said aperture and along the geometric axis of the bore, intercepting said rays projected along the geometric axis of the bore and said rays reflected from the surface of the bore by a screen at the opposite end of the bore to produce an image comprising a point of light produced by said rays projected along the geometric axis of the bore and a band encircling said point produced by said rays reflected from the area, varying the length of the area of the surface of the bore which reflects said rays from said aperture onto said screen by placing diaphragms having orifices of various diameters between said opposite end of the bore and said screen, and moving said orifice relative to said aperture for changing the position of said area along the bore whereby there is graphically represented on said screen a selected tubular portion of the bore in relationship to the geometric axis thereof.

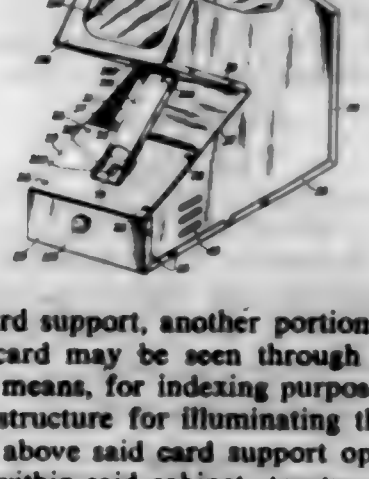
2,847,901

READING APPARATUS

Walter R. Sassaman, Chicago, Ill., and Sidney Teiser, Portland, Oreg., assignors to Microlex Corporation, Rochester, N. Y., a corporation of New York

Application July 27, 1954, Serial No. 446,048
9 Claims. (Cl. 88—24)

1. A reader for use with cards bearing microphotographed material, said reader including a cabinet structure having a card support, an opening extending through said card support in position to permit easy and speedy insertion and removal of cards from said card support, resilient means on said cabinet structure for maintaining a card positioned on said card support, said resilient means having an opening alined with said opening in said card support so that when said card is placed on said support with a portion to be read alined with the opening in the card support, another portion on the opposite face of the card may be seen through said opening in said resilient means, for indexing purposes, means within said cabinet structure for illuminating that portion of a card located above said card support opening, a reading screen fixed within said cabinet structure, and means for enlarging and projecting an image of the illuminated portion of said card onto said reading screen.

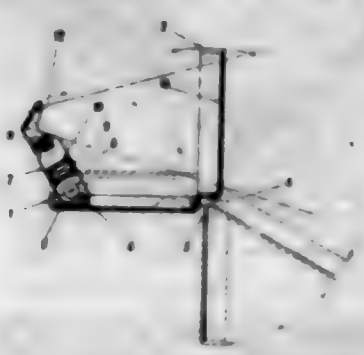


2,847,902

PORTABLE PROJECTION APPARATUS FOR DIAPOSITIVES AND MICROFILMS

Ludovico D'Incerti, Milan, Italy, assignor to Ferrania S. p. A., Milan, Italy

Application December 3, 1954, Serial No. 473,009
1 Claim. (Cl. 88—24)



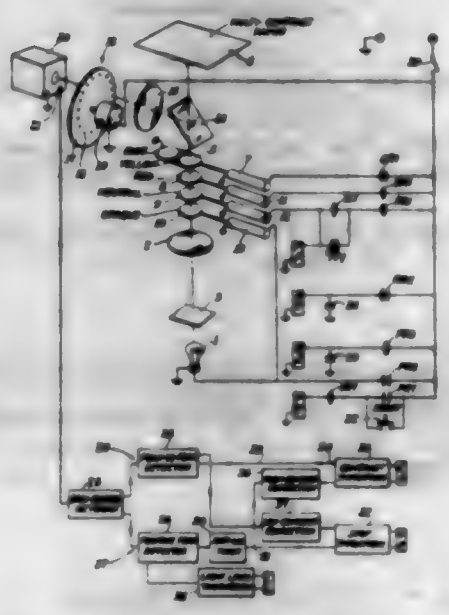
A portable projector arrangement for diapositives and microfilms comprising in combination: a box, said box including a lid hinged to said box and being swingable between a first position in which said lid closes said box and a second position in which said lid is substantially perpendicular to the longitudinal plane of said box, means for securing said lid in said second position, screen means provided on the inner face of said lid, a projector, one end of said projector being swingably mounted within said box, said projector being swingable relative to and within said box between an inoperative, collapsed position in which said lid may be closed and an operative, erect position in which said lid is in said second position, said projector in said erect operative position being inclined slightly rearwardly relative to the vertical plane of said box, and a light deflecting mirror mounted on the top end of said projector in the path of the optical axis of said projector as the last optical means thereof, said lid being movable from said second position to a third position where said lid is not in the path of the image projected by said projector, said mirror in the operative, erect position of said projector being capable of projecting images projected by said projector onto said screen means.

2,847,903

MULTICONTRAST PRINTER CONTROL UNITS

William Modney, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application January 27, 1955, Serial No. 484,367
10 Claims. (Cl. 88—24)



1. In a photographic printer for use with spectrally-responsive, variable-contrast, photo-sensitive paper and including an exposure lamp and differently colored filters alternately movable into operative position between the lamp and the paper to control the effective hardness thereof, logarithmic electro-optical scanning means arranged to scan, element by element, the original to be printed and operative to produce an output signal the amplitude of which at any time corresponds with the optical density of the elemental area then being scanned, a peak detector responsive to said output signal for producing an exposure control signal indicative of the minimum optical density of said original, means for initiating the exposure of said sensitized paper to an image of said original through one of said filters, a timer responsive to said exposure control signal and rendered operative upon actuation of said initiating means to produce an output voltage which varies linearly between predetermined initial and final values, the rate of change of said output voltage being controlled by said exposure control signal and being proportional to the antilogarithm of said exposure control signal and therefore of said minimum density, means controlled by said timer for terminating said exposure when said timer output voltage reaches said predetermined final value, and means controlled by the peak-to-peak amplitude of said output signal from said scanning means for shifting said filters at an intermediate point during said exposure.

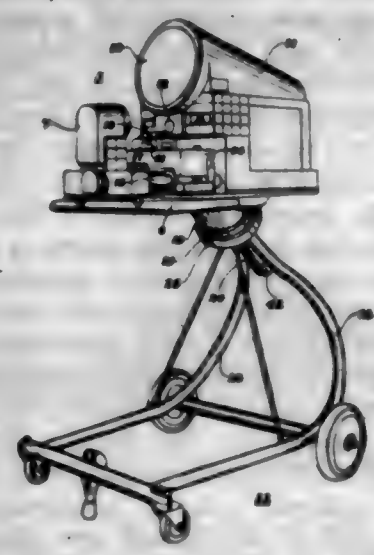
2,847,904

PROJECTOR MOUNTING MECHANISM

Louis C. Nosco, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application March 15, 1957, Serial No. 646,324
9 Claims. (Cl. 88—24)

1. In a contour measuring projector having means for supporting an object, a light source for illuminating said object, a screen, and a lens system for forming an image of said object on said screen including an objective for receiving light from said object along an incident optic axis into which said object is adapted to transversely extend, the combination of: a movable unit housing said projector; a support unit; and pivot means carried by one of said units for pivotally connecting said movable unit to said support unit, said pivot means having an axis disposed at substantially 45° with respect to said incident optic axis whereby said projector may be selectively oscillated 180° between a first position with said incident optic



axis lying in a horizontal plane and a second position with said incident optic axis lying in a vertical plane.

2,847,905

SOUND AND SLIDE PICTURE COORDINATION SYSTEM

Warren D. Novak, Carmel, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application May 27, 1955, Serial No. 511,569
4 Claims. (Cl. 88—27)



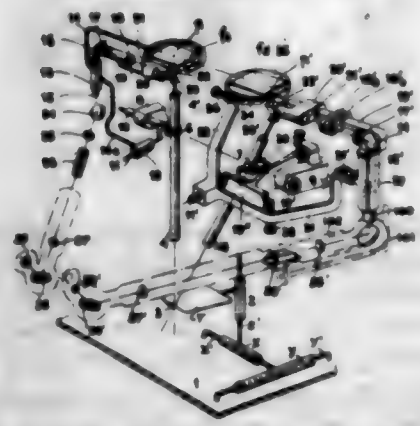
1. A sound and image projector comprising, a sound reproducer, an image projector, a composite sound and image record associated with said reproducer and projector consisting of a sound disc record and an image record having a plurality of image frames carried thereby irremovably secured to said sound disc record but independently rotatable with respect thereto, code indicia carried by said image record and located adjacent the image frames thereof, means controlled by said indicia for determining the duration of projection of each image frame, and means including said indicia for advancing said image record to project succeeding image frames.

2,847,906

PHOTOGRAMMETRIC PLOTTING APPARATUS

Ermenegildo Santoni, Florence, Italy

Application January 11, 1956, Serial No. 558,564
Claims priority, application Italy January 13, 1955
2 Claims. (Cl. 88—29)



1. A mechanical projection photogrammetric plotting apparatus adapted for use with pairs of photographs hav-

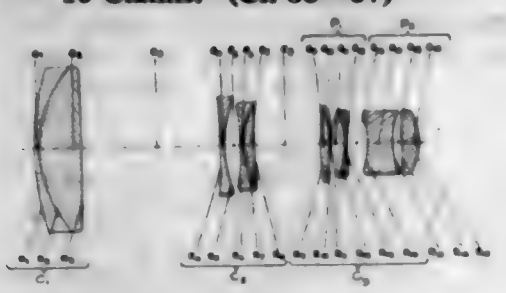
ing parallel and convergent axis comprising a base, a support carried by said base and being movable with respect to said base along three orthogonal directions, a ball joint on said support, telescopic guide rods cooperating with said ball joint, a pair of arm supports carried by said base each movable along three orthogonal directions with respect to said base, a cardan suspension on each of said arm supports each cooperating with a guide rod, the geometric centers of the cardan suspensions representing the shooting points, a member pivoted to each arm support, a nucleal geometric axis passing through the geometric centres of said cardan suspensions, control means for the angular movement of said member with respect to the associated support, a second arm member pivotally connected to each of said first named members on a geometric axis passing through the centre of the corresponding cardan suspension and perpendicular to said nucleal axis, a photogram-slide rotarily mounted on each of said second arm members for a corresponding photogram which results to be rotating in its own geometric plane, a sleeve carried in an adjustable manner by each of said arm members, a guide parallel to said photogram plane and rotarily engaged on each of said sleeves on a rotational geometric axis passing through said nucleal axis in a point outside the geometric segment defined on said nucleal axis by said centres of the cardan suspensions, said rotational geometric axis being perpendicular to the photogram geometric plane and to the ideal geometric plane representing the camera focal plane, for convergent shooting, said focal plane cutting said nucleal axis in a nodal point at least near the meeting point of said nodal axis with said rotational axis of said guide; an exploration slide slidable on each of said guides; a ball link between each of said exploration slides and the extensible end of the corresponding guide rod whereby the exploration slide is moved and the guide rotates according to a plane parallel to the focal plane and to the photogram plane locating each guide parallel to the mark, on the photogram, of the nucleal geometric plane passing through the nucleal axis and through the point each time collimated an optical collimation system for each photogram, involving elements arranged on said guide, elements arranged on the sleeve, elements arranged on linked means ending in the ocular lens, and an Amici prism rotarily mounted on said linked means; and a rotary drive with a 1:½ ratio between each of said guides and the corresponding Amici prism.

2,847,907

VARIABLE FOCAL-LENGTH OBJECTIVES

Pierre Angenieux, Paris, France

Application January 10, 1956, Serial No. 558,356
Claims priority, application France January 24, 1955
10 Claims. (Cl. 88—57)



1. A variable focal-length objective comprising a convergent component positioned at the front, a convergent component positioned at the rear, and a divergent component positioned between said two convergent components, said divergent component consisting of at least three lens elements arranged as two members separated by an air space, the front member having a front concave surface the radius of curvature of which is numerically greater than 200% of the focal length of said divergent component and smaller than infinity, and a rear concave surface the radius of curvature of which is numerically greater than 70% and smaller than 300% of the said focal length, the said divergent component being axially movable in order to obtain a continuous variation of the focal length of the complete system.

2,847,908

AUTOMATIC CHARGER FOR GUNS AND CONTROL THEREFOR

Wayne S. Boak, Los Angeles, Calif., assignor to Hughes Tool Company, Houston, Tex., a corporation of Delaware

Application July 31, 1950, Serial No. 176,877
22 Claims. (Cl. 89—1)



1. A gun charger for a gun having a breech block slide, said gun charger including: a cylinder; a first valve means for connecting said cylinder to a source of fluid pressure, said first valve means including a normally closed valve with a control piston coupled thereto, said control piston being movable in response to fluid pressure of a predetermined value for opening said normally closed valve, and means for applying fluid pressure from said source to said control piston; a drive piston within said cylinder normally held in a first position, but movable to a second position in said cylinder by fluid pressure from said source when said normally closed valve is opened by said control piston; a relief valve responsive to firing of the gun for releasing fluid pressure applied to the control piston so as to prevent said control piston from opening the normally closed valve of the first valve means while the gun is firing, said relief valve being conditioned to remain closed when the gun fails to fire so that fluid pressure applied to said control piston from the fluid pressure source is allowed to reach the predetermined value for opening said normally closed valve to effect movement of the drive piston; and actuating means for coupling said drive piston to the breech block slide of the gun for charging said gun when said drive piston is moved from said first position to said second position.

2,847,909

RIFLE REST

Russell S. Kester, Linwood, Pa.

Application December 26, 1956, Serial No. 629,535
2 Claims. (Cl. 89—40)



1. A rifle rest comprising an elongated, approximately horizontal main frame; front and rear leg frames pivotally connected to the front and rear ends, respectively,

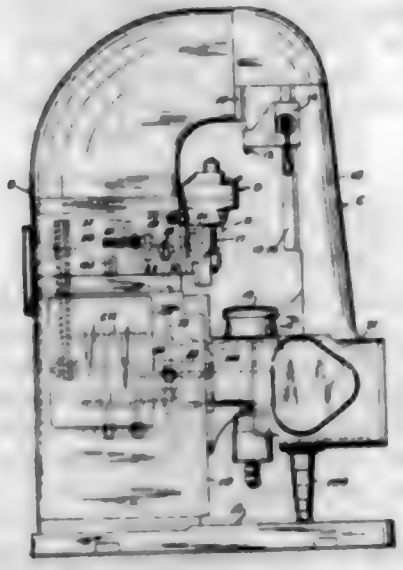
of the main frame for movement about axes extending transversely of the main frame between collapsed and main-frame-supporting positions, the front leg frame projecting upwardly above the main frame when in its supporting position to support a rifle at a forward location thereon, the main frame including means adjacent the rear end thereof for supporting the rear end of the rifle said means embodying a flexible support member extending transversely over the main frame adjacent the rear end and secured to the sides and rear end of said main frame; and brace means connected to the front end of the main frame at one end of the brace means, the other end of the brace means having a detachable connection to the lower end of the rear leg frame, said brace means comprising an elongated rod pivotally connected to the front end of the main frame for swinging movement about the axis of the pivotal connection of the front leg frame, said detachable connection of the brace rod to the rear leg frame comprising a sleeve extending upwardly from the brace rod, the rear leg frame including a depending pin engageable in said sleeve to the main frame.

2,847,910
HOBBING MACHINE

Otis E. Staples, Cleveland, and Anthony J. Bent, Willoughby, Ohio, assignors, by mesne assignments, to Textron Inc., a corporation of Rhode Island

Original application April 12, 1949, Serial No. 86,952, now Patent No. 2,700,324, dated January 25, 1955. Divided and this application July 7, 1954, Serial No. 441,794

3 Claims. (Cl. 90—4)



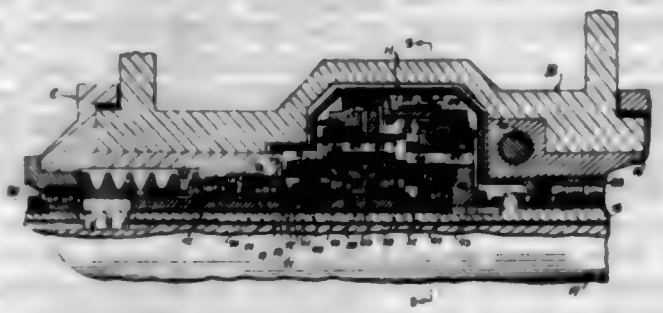
1. In a hobbing machine, a frame, a tool spindle rotatively supported by said frame, a work head including a work spindle supported for vertical movement with respect to said frame, means for moving said work head vertically comprising cooperating nut and vertical lead screw elements, means connecting said lead screw element to said frame below said work head and for supporting said lead screw element against axial and rotative movement, means for rotatably connecting said nut to said work head and for transmitting translatory movement of said nut to said work head, power actuated means including a gear train for rotating said work spindle and said tool spindle in timed relation, and means for operatively connecting said nut element to said gear train for rotation thereby and including a clutch member movable to engage or disengage the drive to said nut element from said gear train, and a motor on said work head operatively connected to said nut element for relatively rotating the same at a relatively rapid rate.

2,847,911
HORIZONTAL BORING, DRILLING, AND MILLING MACHINE

Hallis N. Stephan, Cleveland Heights, Ohio, assignor to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut

Application July 14, 1955, Serial No. 522,065

4 Claims. (Cl. 90—14)



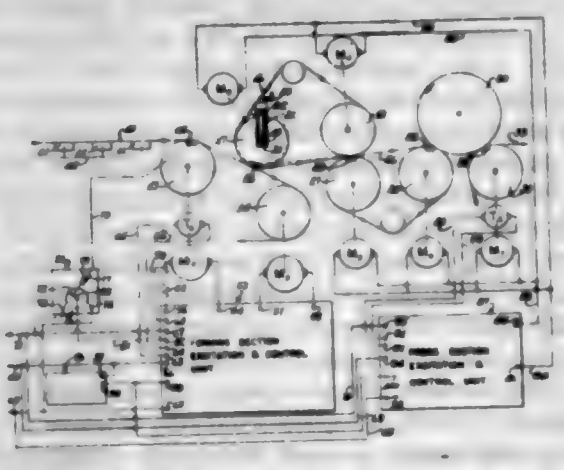
1. In a machine tool, a movable spindle head frame, a spindle drive member supported in said frame for rotation with respect to said frame, a spindle to be driven in one direction at high, intermediate and low angular speeds and positioned coaxially within said spindle drive member and slidably connected thereto to rotate therewith, a driving sleeve coaxial with said spindle and rotatable with respect thereto, a belt drive connected to said driving sleeve for effecting rotation of said driving sleeve at said high angular speed of said spindle, an external sun gear coaxial with and carried by said driving sleeve for rotation therewith, an internal gear rotatable with respect to said frame and positioned coaxially with respect to said sun gear, a planetary pinion gear member having teeth continuously in mesh with said internal gear and said sun gear rotatably supported by said spindle drive member, said gear member being movable about said internal gear and about the axis of said first gear upon rotation of said spindle drive member, brake means for selectively preventing rotation of said internal gear, gear means driven from said driving sleeve for selectively rotating said internal gear with respect to said frame simultaneously with the rotation of said driving sleeve and at a speed to provide a reaction force for said planetary pinion gear member to drive said planetary pinion gear member and spindle drive member in the same direction as said driving sleeve, and means for selectively effecting rotation of said gear means and said internal gear as a unit with said driving sleeve.

2,847,912
PAPER MAKING MACHINE DRIVE AND CONTROL MEANS THEREFOR

Edward D. Beachler, Beloit, Wis., assignor to Beloit Iron Works, a corporation of Wisconsin

Application August 4, 1951, Serial No. 240,353

4 Claims. (Cl. 92—38)



1. In a paper making machine including a forming section and a press section, said forming section comprising a wire onto which stock is supplied to form a web, a couch roll having a peripheral surface portion in driving

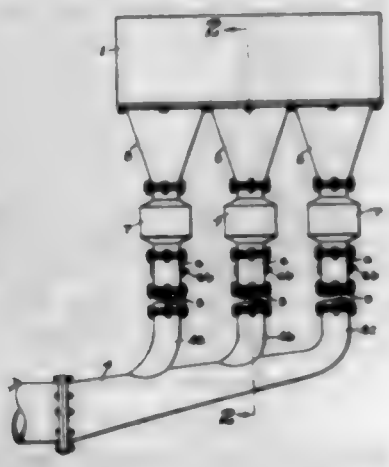
engagement with the wire and a wire-turning roll having a peripheral surface portion in driving engagement with the wire, said press section comprising a looped pick-up felt, a pick-up roll in the loop of said felt and manually operable means connected to said pick-up roll to adjustably move the same toward and away from the wire and selectively obtain either a closed or an open web draw between the wire and the pickup felt, first drive means mechanically coupled to said forming section to drive the same, second drive means mechanically coupled to said press section to drive said pick-up felt, a power source, a pair of coupling means coupling said power source to said first and second drive means, means associated with said coupling means for maintaining a certain speed ratio between the drive speed of said wire and the drive speed of said pick-up felt, sensing means associated with one of said first and second drive means to produce a signal proportional to the output thereof, connection means connecting said sensing means to one of said pair of coupling means to reduce said certain drive speed ratio as the load on one of said drive means increases, and means associated with said connection means to selectively render the same operable for closed web draw operation and inoperable for opening web draw operation.

2,847,913

STOCK INLET SYSTEM FOR A PAPER MAKING MACHINE

Anthony J. Cirrito, Shrewsbury, Mass., assignor to Rice Barton Corporation, Worcester, Mass., a corporation of Massachusetts

Application February 7, 1956, Serial No. 563,934
7 Claims. (Cl. 92—44)



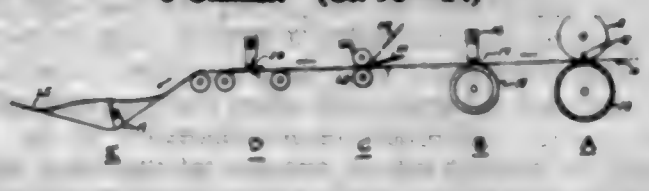
1. Apparatus for supplying dilute paper stock to the distributing means for the slice of a paper making machine comprising means for feeding dilute paper stock from a source of supply of said stock to a plurality of parallel and confined flow paths whose cross-sectional areas are substantially of the same size and shape, a plurality of means connected to the discharge ends of said flow paths for spreading the resulting flow streams from said flow paths into a plurality of thin flat streams of the same width and thickness, said plurality of spreading means being arranged at their discharge ends in side-by-side relation so as to combine the individual so-flattened streams into a single effluent whose width is substantially equal to that of the slice and whose thickness is substantially the same as the thickness of one of said individual so-flattened streams, a flow-varying means in each flow path, a flow meter in each flow path to accurately measure the rate of stock flow therethrough, and control means responsive to each flow meter for so influencing the associated flow-varying means as to maintain equal rates of stock flow in all of said flow paths.

2,847,914

BAG BOTTOMING MACHINE

John S. Davis, Scarborough, N. Y., assignor to Equitable Paper Bag Co., Inc., Long Island, N. Y., a corporation of New York

Application March 9, 1956, Serial No. 570,481
8 Claims. (Cl. 93—14)



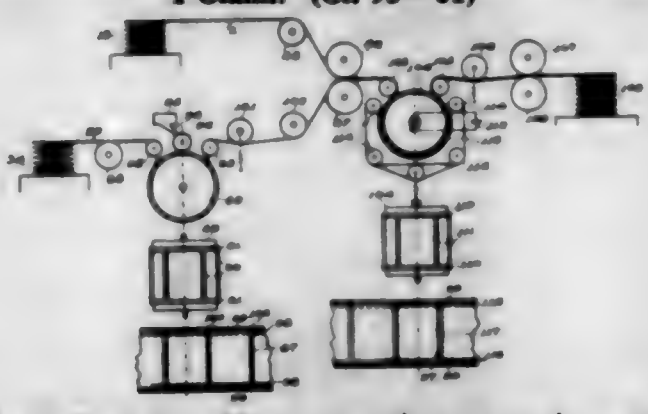
1. In a bag making machine wherein a flat web is perforated at spaced transverse positions to form web sections, means to form a tab in said flat web section extending inwardly from the bottom edge thereof, means to push down said tab to form a temporary notch, means to shape said flat web section into a flattened tube having two opposing faces, means to form slits in both faces on either side of said tab extending inwardly from said bottom edge, and means to separate said faces and to fold same to form a diamond having flaps defined by said slits, said separating means including a clamp clearing said temporary notch to grip one of said faces.

2,847,915

METHOD OF PRODUCING ENVELOPES

Raymond I. Rapp, Philadelphia, Pa., assignor of one-half to William R. Peterson, Philadelphia, Pa.

Application December 23, 1954, Serial No. 477,317
1 Claim. (Cl. 93—61)

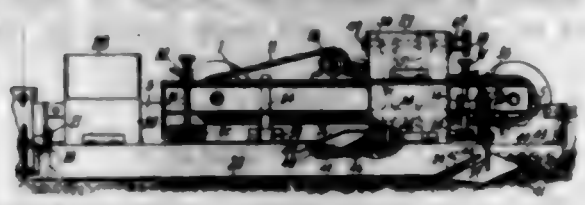


The method of making and sealing an envelope, which consists in perforating the laterally opposite marginal portions of a pair of webs to receive the sprockets of a propelling mechanism, also perforating said webs longitudinally within said sprocket perforations for later severance of said marginal portions from the body portions of said webs, providing in said webs a second line of longitudinal severances in spaced relation inwardly of one of said first such perforations to provide an envelope-opening strip, providing longitudinally spaced transverse severance perforations in said webs corresponding with the bottom edges of the final envelope units, applying to said first web adhesive adjacent to and forwardly of said transverse perforations and also along strip areas immediately inside of said sprocket-perforated marginal portions, applying a second adhesive medium to transverse strip areas of the second web adjacent to and rearwardly of the location of the corresponding transverse strip areas of adhesive on said first web, bringing said webs together so that the first adhesive secures together corresponding roughly U-shaped strip areas forwardly of the now registering rows of transverse perforations of said webs, removing the sprocket-perforated marginal portions of the combined webs, separating the resulting envelopes along said transverse perforations, and bringing the open top edges of each envelope together and effect a sealing of their adjacent adhesive strip areas, said envelopes being thereafter opened by removing from one end of each envelope said opening-strip which is partially separated by said second line of longitudinal perforations.

2,847,916
MACHINE FOR FORMING A COMBINED CURB AND GUTTER STRIP IN A CONTINUOUS OPERATION

Harold L. Andrus and Edward S. Clark, Kalamazoo, Mich.

Application May 31, 1952, Serial No. 290,902
11 Claims. (Cl. 94—46)

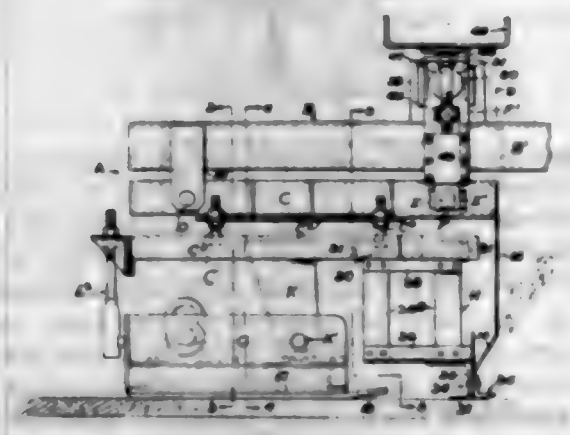


10. A forming structure for a concrete finishing machine comprising, a screed adapted to be advanced longitudinally and having a longitudinally extending gutter forming section, a raised portion on the side of said screed constituting a curb forming section, the front of said curb forming section terminating substantially rearwardly from the front of said gutter forming section, and a plurality of transversely spaced longitudinally extending depressor elements positioned in sets at the fronts of said curb forming section and said gutter forming section, said depressor elements having downwardly and rearwardly inclined front edges extending downwardly below the level of their associated section of said screed, the depressor elements in said sets being spaced apart far enough to pass the fine aggregate of concrete therebetween but being close enough together to intercept and support pieces of large aggregate between adjacent plates.

2,847,917
ROAD SURFACING MACHINE

Ralph W. Heer, Lloyd W. Mundy, and Paul G. Kuhn, Minneapolis, Minn., assignors to Poor & Company, Chicago, Ill., a corporation of Delaware

Application November 10, 1954, Serial No. 468,052
4 Claims. (Cl. 94—46)

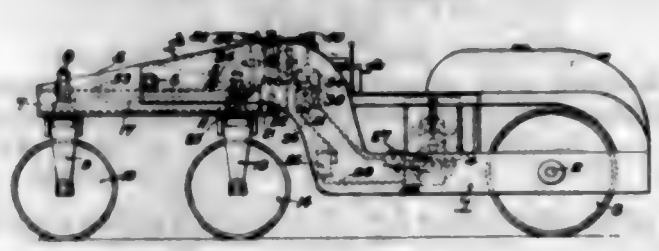


1. A road surfacing machine, comprising, in combination, a tractor, a main frame having forwardly projecting arms pivotally connected to the tractor, said main frame including a relatively horizontally disposed body portion extending substantially to the rear of the arms, a sub-frame below the main frame and in substantially vertical registry therewith, means suspended from the rear side portions of the main frame pivotally supporting the rear portion of the sub-frame, a compactor unit having its front end pivotally suspended from the sub-frame a fixed distance forwardly of said rear connection of said sub-frame with the main frame, means for adjustably supporting the rear end of the compactor unit from the sub-frame, means for vibrating the compactor unit, sectional strike-off elements mounted for lateral oscillating movements from the front end of the sub-frame and in advance of the compactor unit, and adjustable means between the forward side portions of the main frame and the sub-frame for raising and lowering the front end of the sub-frame, whereby, the raising and lowering of the front end of the sub-frame relative to the main frame and the road line will increase or diminish the height of the strike-off elements relative to said road line while the relationship of the elements remains fixed with respect to the compactor unit to thereby regulate the thickness of the mat.

2,847,918
SELECTIVE PRESSURE CONTROL MEANS FOR ROAD ROLLERS

John F. Harrison, Springfield, Ohio, assignor, by mesne assignments, to Kochring Company, Milwaukee, Wis., a corporation of Wisconsin

Application December 18, 1952, Serial No. 326,735
4 Claims. (Cl. 94—50)



1. A self-propelled road roller comprising a frame, a drive roll and a plurality of guide rolls arranged in tandem on said frame; means for supporting at least one of said guide rolls for vertical displacement relative to the other rolls; fluid pressure means connected between said frame and said supporting means for applying a downward pressure on said one guide roll in opposition to the reaction force exerted thereon by the source being rolled; means for adjusting said pressure applying means to control the downward pressure exerted thereby on said one guide roll whereby the proportion of the total weight of the roller carried by said one guide roll may be selected as desired and maintained constant during rolling operations; and means for positively limiting the upward movement of the said one guide roll; said fluid pressure means including a fluid cylinder on the frame; a piston in said cylinder; a piston rod connecting said piston and the one said guide roll support; a fluid circuit for supplying fluid under pressure to either end of said cylinder; a by-pass connecting both ends of said cylinder; a normally open valve in said by-pass having a handle; a bar carried by said piston rod; an adjustable member slidably mounted on said bar and adapted when raised to engage the handle and close said valve; and manually operable means on the bar for adjusting said member thereon.

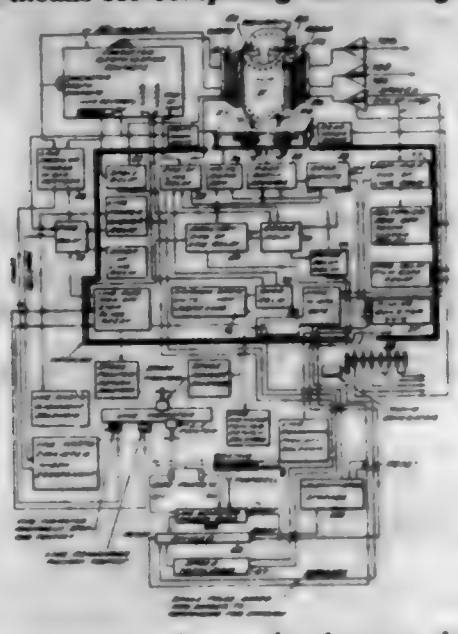
2,847,919
PHOTOCOMPOSING MACHINE

Louis Rossetto, Kings Point, Gino F. Squassoni, Lynbrook, Eugene F. Coleman, Brooklyn, and William Sterling Gorrill, Glen Head, N. Y., assignors to Mergenthaler Linotype Company, a corporation of New York

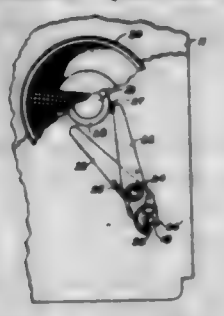
Application March 13, 1953, Serial No. 342,156
48 Claims. (Cl. 95—4.5)

1. In a photocomposing machine, the combination of an electric composing unit and mechanism associated therewith for indicating the length of a composed line, said mechanism including an elongated graduated scale reading from right to left, a line length pointer and a separate space pointer cooperating therewith, the line length pointer being movable from left to right along the scale and the space pointer being movable from right to left along the scale, individual spring controlled supporting slides for the pointers movable intermittently foward each other along the scale as a line is being composed, and electrical means controlled by the actuation of a finger key after a line is completely composed for measuring the remaining justifying space indicated by the space pointer and which must be added to the composed line to bring it to the proper length, together with a justification

computer and storage unit responsive to said electrical measuring means for computing and storing said justification space information for use in photographing a justified line.



2,847,920
DOUBLE EXPOSURE PREVENTION DEVICE FOR PHOTOGRAPHIC CAMERA
John K. Polhemus, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application July 2, 1954, Serial No. 441,031
3 Claims. (Cl. 95—31)



1. A double-exposure prevention device for cameras comprising a camera, a shutter, a shutter trip lever for actuating said shutter, a reciprocating trigger for operating said shutter trip lever, said trigger having an outer portion extending through the camera, a shoulder formed on said outer portion, said shoulder being an abrupt decrease in cross sectional area of said trigger, said cross sectional area at the camera side of said shoulder being greater than said cross sectional area at the outer side of said shoulder, spring means for urging said trigger outwardly, a pair of lock levers pivotally mounted to the camera, and having their lower ends adapted to engage the aforesaid shoulder at the smaller cross sectional area portion thereof for inwardly locking said trigger after exposure, by interposition of said ends into the path of the larger cross sectional area side of said trigger shoulder when said trigger moves outwardly, a film winding knob carried by the camera, and means on said knob for alternately engaging the locking levers upon rotation thereof for removing the lower ends of said levers from engagement with said shoulder thereby permitting outward movement of the trigger after actuation of said film winding knob.

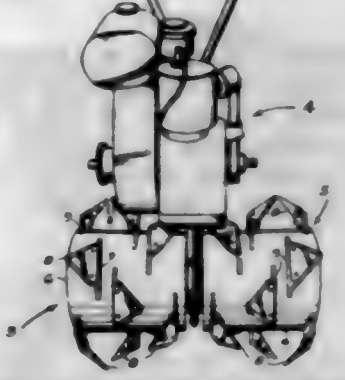
2,847,921
EARTH-PENETRATING POINT
Loyd E. Heckathorn, Garden Grove, Calif., assignor to Towner Manufacturing Co., Santa Ana, Calif., a partnership
Application May 3, 1954, Serial No. 427,833
5 Claims. (Cl. 97—78)

1. In combination in an earth-digging tool: a holder adapted to be affixed to a powered device, and having a forwardly directed socket to be disposed in an advancing digging position, said holder including a pair of spaced attaching wing members extending rearward from opposite sides of said socket member in flared relation and including a web member joining opposed edge portions of said wing members, the rear ends of said wing members being mountable on a powered device; a digging tooth having a mounting stem circular in cross section received in said socket, said tooth having an elongated



shank circular in cross section extending forward integrally from said mounting stem to a forward earth-penetrating tip, said shank being tapered forward from said mounting stem to said tip to penetrate the earth upon movement forward in said socket by a powered device, said tooth having an annular shoulder at the junction between said shank and said mounting stem to engage against the forward end of said socket and position said tooth in the socket; and removable means through said socket and stem.

2,847,922
ROTARY MULCHING AND CULTIVATING DEVICE
Walter H. Stephenson, Portland, Oreg.
Application June 27, 1955, Serial No. 518,207
3 Claims. (Cl. 97—215)

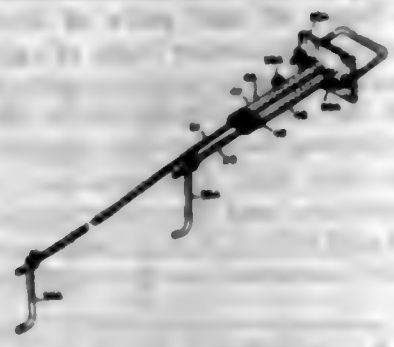


1. An article of manufacture, comprising an elongated large diameter hub member in the form of a tube rotatable about the axis thereof, a plurality of thin flat triangular blades spaced about the outer periphery of said hub with the plane of each blade arranged obliquely to said axis of rotation of the hub, each said blade having a bevel edged front face, the margins of said bevels being sharp to define self-sharpening cutting edges, each said blade being mounted upon an individual base plate arranged substantially normal to the direction of rotation of the hub, each said base plate having a flat attachment portion extending radially out from said hub and a flat blade carrying outer portion arranged at an oblique angle to the radius of the hub portion across a bend, said blade carrying portions being arranged so the blades overlap one another in the direction of rotation of the hub while the device is worked, and each side margin of each base and blade member lying substantially on a tangent to the outer periphery of said hub so as to effect a slicing action when the hub is rotated.

2,847,923
TWO-ROW MARKER
Hubert Bullard, Lumberton, N. C.
Application June 14, 1957, Serial No. 665,859
2 Claims. (Cl. 97—230)

1. Row marking equipment comprising two tubes, means including a bracket releasably attachable to the

shank of an agricultural implement for supporting said tubes in parallel relation for vertical swinging movement, two rods each having an inner end portion telescopically slidable in a different one of said tubes and an outer end portion, said rods being each provided at its outer end portion with a land marker, one of said rods being

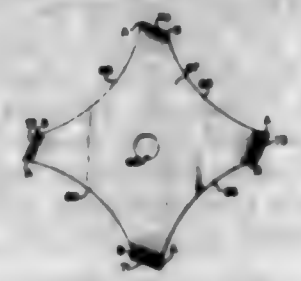


of a length to offset its associated land marker a distance from the implement shank commensurate with a predetermined single row spacing and the other of said rods being of a length to offset its associated land marker a distance from the implement shank commensurate with a plurality of said row spacings.

2,847,924
TINE FOR POWER DRIVEN TILLER

James L. Quick, Springfield, Ohio, assignor to Quick Manufacturing, Inc., Springfield, Ohio, a corporation of Ohio

Application November 9, 1954, Serial No. 467,682
6 Claims. (Cl. 97—217)

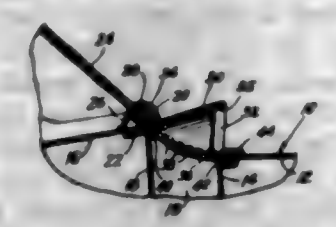


6. A tine of generally cruciform shape comprised of a plate-like substantially planar body provided with an axial opening and having tine teeth extending laterally from the periphery of the body in substantially circumferentially spaced relation, the body periphery having edge portions which extend in a circumferential sense around the tine terminating at the laterally extending teeth, the said edge portions being of greater circumferential length than the teeth and being arcuate inwardly between the teeth.

2,847,925
SNAP-ON SHIELD FOR AUTOMOBILE VENTILATORS

Sylvanus C. Turkenkopf, Sarasota, Fla.

Application February 3, 1956, Serial No. 563,271
2 Claims. (Cl. 98—2)



2. In an automobile, the combination with a cowl having a depending wall, an instrument panel inwardly of and spaced from said cowl depending wall, a fire wall on the edge of said panel adjacent said cowl wall and forming with the cowl wall a conduit having an inlet opening between said cowl and fire walls, a windshield supported on the edge of said panel adjacent said cowl wall, an upwardly extending trim strip forwardly of the edge of said panel supporting said windshield, and a grille covering the inlet opening, a ventilator attachment comprising an elongated body having an end wall at each end with the portion between said end walls curved longitudinally correspondingly to the transverse curvature of the cowl, said body being arranged so that the end walls extend transversely across said inlet opening with one of the edges of said curved portion adjacent to and bearing against said trim strip and the curved portion projecting forwardly and upwardly over the grille and defining a scoop into which air will be channeled for passage through said grille into said conduit, and means securing the end walls and said one edge of said curved portion of said body in position over said inlet opening.

2,847,926
BASEBOARD RADIATOR HOUSING

Abraham B. Chadwick, Fern Creek, Ky., assignor to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

Application July 21, 1955, Serial No. 523,543
6 Claims. (Cl. 98—40)

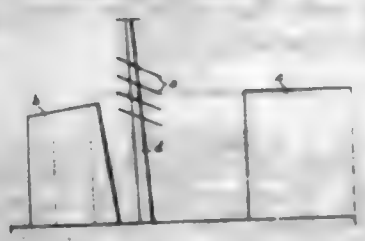


1. In a baseboard radiator enclosure, a housing having a rear wall and having a top wall with a downwardly and rearwardly turned channel along its front edge, a guide member resiliently held at its front and rear edges in said channel and at the juncture of said rear and top walls, respectively, said guide member having channels at its front and rear edges, a slider having its front and rear edges extending into and guided in said guide member channels, an operating arm secured to said slider, a bracket secured to said rear wall and having a forwardly extending supporting arm, a damper pivoted on said supporting arm, and an operating member connecting the lower edge of said damper and said slider member so that lateral sliding of said operating arm will rotate said damper.

2,847,927
FLUID FLOW REGULARIZING AND/OR DIRECTING DEVICE

Henri Veyssiere, Toulon, France, assignor to Societe des Forges et Chantiers de la Mediterranee, Paris, France, a French society

Application October 25, 1954, Serial No. 464,461
Claims priority, application France October 28, 1953
5 Claims. (Cl. 98—60)



1. An arrangement for use upon ships where superstructures located forward of the funnel disturb the flow of air adjacent said funnel comprising a plurality of

parallel plates perpendicular to the vertical plane of symmetry of the ship, said plates being spaced from one another and inclined to the horizontal upwardly from bow to stern, means for supporting said plates forward of said funnel and at a predetermined distance therefrom and said parallel plates being formed as thin flat sheets of rigid material whereby disturbances caused by said superstructures in the flow of air adjacent said funnel are minimized.

2,847,928

SIDE WALL REGISTER

Frederick F. Glass, Comstock Park, Mich., assignor to Air Control Products, Inc., Coopersville, Mich.

Application August 27, 1952, Serial No. 306,560
11 Claims. (Cl. 98—106)



1. In a wall register the combination of a housing comprising top, bottom and side walls having outturned flanges at their forward edges, the bottom wall being narrower than the top and side walls, a face plate overlapping and fixedly secured to said flanges, said face plate having an outwardly offset downwardly and rearwardly inclined upper portion and an upper and lower series of slot-like discharge openings, there being a panel between said upper and lower series of discharge openings, said panel having a horizontal slot therein, the upper series of discharge openings being in said rearwardly inclined upper portion and comprising substantially horizontal intermediate groups and upwardly curved end groups at the outer ends of the intermediate groups, there being downwardly and inwardly inclined louver-like deflectors at the upper edges of the discharge openings of the upper series formed integrally with the face plate, the lower series of discharge openings being vertically disposed and comprising two groups, there being inwardly projecting inwardly inclined louver-like deflectors at the outer edges of the openings of the groups of the lower series formed integrally with the face plate, a rearwardly curved valve pivotally mounted at its upper end between said side walls to close between the side walls with its lower edge in abutting relation to the inner edge of the bottom wall, an upwardly curved rearwardly and downwardly inclined deflector vane extending between the side walls with its forward edge disposed between said upper and lower series of discharge openings, an operating lever disposed through said slot in said panel and pivotally mounted on said deflector vane, a springably bendable link connected to said valve and to the inner end of said operating lever, a stop disposed on the inner side of said face plate and provided with a lug engaging said slot in said panel, and a screw disposed through said slot for adjustably securing said stop to said face plate for limiting the opening movement of the operating lever.

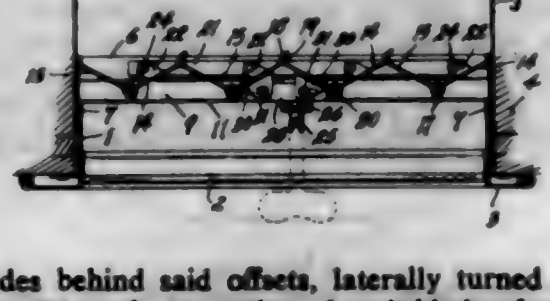
2,847,929

DAMPER FOR REGISTERS OR THE LIKE

Robert L. Leigh, Coopersville, Mich., assignor to Air Control Products, Inc., Coopersville, Mich.

Application December 6, 1955, Serial No. 551,318
2 Claims. (Cl. 98—110)

2. A register frame and damper comprising spaced parallel frame members having opposed longitudinally extending offsets projecting inwardly of the frame, said projections defining alined pairs of pintle openings, pairs of damper blades movably mounted in said frame, one blade of each pair having a rounded pivot member extended beyond the ends of the blade and received in a pair of said openings, first ears projecting beyond one end of one blade of said pairs of blades and turned laterally therefrom, the other blade of each pair of blades having a knuckle member on its forward edge rotatably engaged with the pivot member of its paired blade, second ears projecting beyond the opposite ends of said other blades from said first ears and turned laterally therefrom, whereby said first and second ears are disposed behind said offsets in said frame members, coupling bars pivotally connected to the corresponding ears of



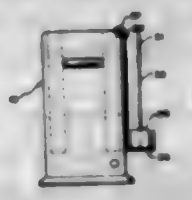
said blades behind said offsets, laterally turned and opposed flanges on the rear edge of each blade of said pairs of blades which abut when the blades are opened in the frame to hold the rear edges further apart than the front edges, further rearwardly turned flanges on the edge of one laterally turned flange on each pair of blades which rearwardly turned flanges overlap the flange on the adjacent blade when the blades are closed in said frame, opposed ears on the ends of the adjacent blades of two of said pairs of blades, an adjusting screw rotatably mounted on one of said frame members in front of said blades, and an adjusting member threaded on said screw and having laterally extending arms with slots therein receiving pins connected to said last ears to adjust all said blades.

2,847,930

BUTTER DISH-BRUSH ATTACHMENT FOR TOASTERS

Pauline B. Evans, Bartlesville, Okla.

Application April 19, 1956, Serial No. 579,229
1 Claim. (Cl. 99—339)

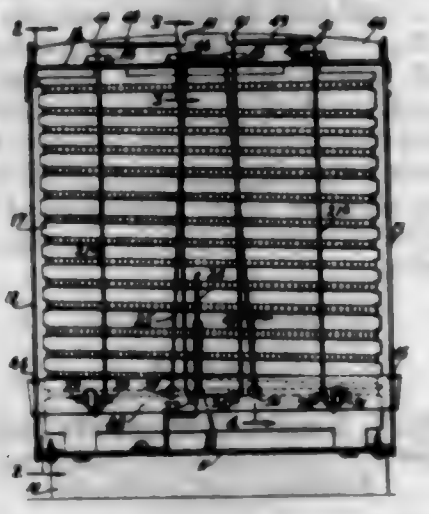


In combination with an electric toaster of the conventional type, said toaster having two toast outlets in the upper horizontal face thereof, a container support means removably attached at the upper end thereof to the outer longitudinal edge of one of said toast outlets by means of an arcuate hook; said support means being in close proximity to said toaster at one side thereof; said support means having the other end formed into the shape of an open-end trough defined by two vertical plates attached on opposite sides of a bottom horizontal plate, said trough being adapted to frictionally hold and support a container therein; said support means having rigidly attached to the bottom of said trough near one end thereof a vertically disposed rod member having a single hook means thereon at the end of said rod opposite the locus of rigid attachment of said rod to said trough, said hook means being capable of supporting a removably mounted pastry brush with the brush-end of said pastry brush being in communication with the inside of said container.

2,847,931
BREAD TOASTERS

David Saint, Rockledge, Pa., assignor to Proctor Electric Company, Philadelphia, Pa., a corporation of Pennsylvania

Application September 11, 1953, Serial No. 379,648
1 Claim. (Cl. 99—389)



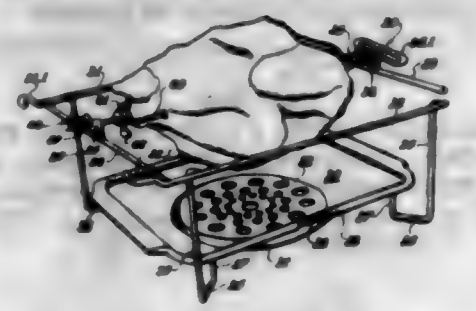
In a bread toaster, the combination comprising a bread heating element, a framework, and a grille wire structure for supporting a bread slice in spaced relation to said heating element and parallel thereto, comprising a plurality of lengths of fine resilient wire each of substantially U-shaped configuration and disposed in spaced coplanar relationship to each other, a first pair of rigid members extending substantially at right angles to said lengths of wire and serving as mounting supports to which the opposite ends of each of said lengths of wire are secured, one of said first pair of rigid members having lugs projecting therefrom, with the bights of the said U-shaped wires mounted on the said lugs while the opposite free ends of said U-shaped wires are affixed to the other of said first pair of rigid members, a second pair of rigid members having parallel slots thereon, said last mentioned pair of rigid members extending substantially perpendicular to said first pair of rigid members, said first and second pairs of rigid members being interconnected with each other at their corresponding ends, said lengths of wire having undulations with crests extending toward said heating element and said first pair of rigid members being spaced from each other with their mounting supports slightly farther apart than the normal untensioned lengths of said wires, whereby said wires are maintained in tensioned condition by said mounting with the crests of said undulations serving to position the slice of bread being toasted in desirable spaced relationship to said heating element, and said other rigid member of said first pair of rigid members is held by the tension of said wires in interlocked relationship with the parallel slots in said second pair of rigid members.

2,847,932
ROTISSERIE RACK

Philip J. More, Evanston, Ill., assignor to General Electric Company, a corporation of New York

Application December 28, 1955, Serial No. 555,805
1 Claim. (Cl. 99—421)

A rotisserie rack, comprising structure providing a rigid frame portion for placement within a cooking cavity and removal therefrom following the cooking operation, said frame having transversely extending front and rear members, leg members for supporting said structure on a counter or the like following such removal, open-topped bearing means carried by said members, a spit removably and rotatably carried by said bearing members, said spit having a polygonal rear end portion, latching means pivotally attached to rear member, said latching means having a bifurcated end defined by wall means engageable with said polygonal spit portion to lock said spit against rotation in said bearing means, and means for maintaining said latching means in disengaged relationship to said spit to permit the free rotation thereof in said bearing means.



2,847,933
TORTILLA HOLDER

Rayford L. Pate, San Antonio, Tex.

Application October 5, 1956, Serial No. 614,217
2 Claims. (Cl. 99—426)



1. A holder for cooking a tortilla to form an edible shell for tacos and the like including, a base to support the tortilla while it is cooking, said base being substantially U-shaped and forming a tortilla support on the outer surface thereof, and means pivotally secured to said base for engaging the tortilla on said base and pivotally movable away from said base to facilitate removal of the tortilla after cooking, said last named means including projections pivotally secured on each side of said base and extending over the portion of said U-shaped base which is in opposed relation thereto, said projections being pivotally secured together at a position above their pivotal connection to said base, upwardly extending portions on each of said projections which are adapted to be moved toward each other to move said projections away from said base whereby the tortilla may be moved from said base.

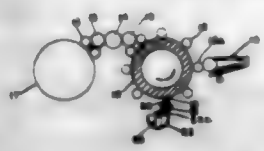
2,847,934

WITHDRAWN

2,847,935
WASHUP ATTACHMENT FOR PRINTING PRESSES AND THE LIKE

Raymond Robert Richter, Menominee Falls, Wis., assignor to The Dayton Rubber Company, a corporation of Ohio

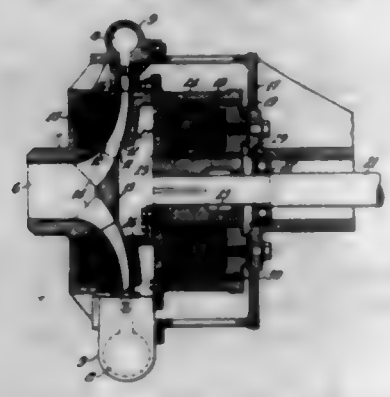
Application December 26, 1952, Serial No. 328,110
2 Claims. (Cl. 101—425)



1. A wash-up device for cleaning a series of rotating cylinders in tangential contact comprising a mounting bar parallel to the rotational axes of said cylinders, a plurality of relatively short individual blade members anchored in closely spaced alignment on said mounting bar, means for positioning said mounting bar so that the blade members mounted thereon will be in substantially

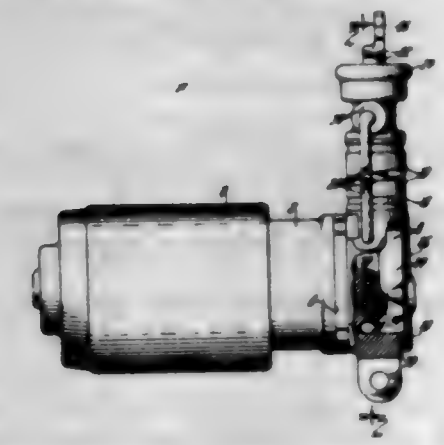
linear contact with the surface of one of said cylinders, and a draw bar adjustably anchored at each end of said mounting bar to control the linearity thereof.

2,847,936
ELECTROMAGNETIC CENTRIFUGAL PUMP
Walther Richter, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application August 14, 1953, Serial No. 374,259
2 Claims. (Cl. 103—1)



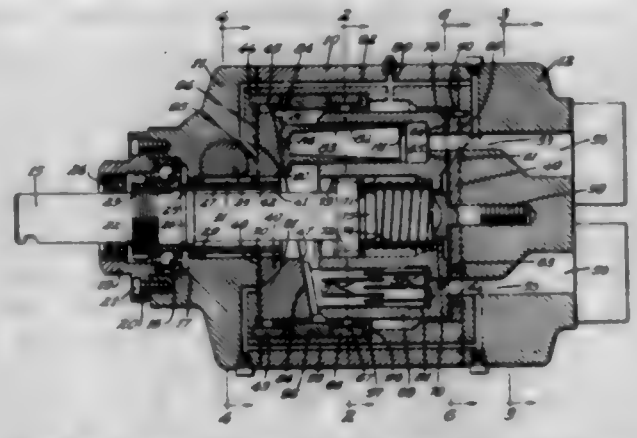
1. An electromagnetic centrifugal pump for an electrically conductive fluid, said pump comprising stationary spaced walls defining an annular gap for the flow of the fluid therethrough, a pump inlet for said fluid at the radially inner portion of said annular gap and a pump outlet for said fluid at the radially outer portion of said annular gap, means producing a magnetic field in a field portion of said annular gap, said means comprising a field coil, a source of direct current for energizing said coil and a plurality of radially extending rotatable pole pieces axially spaced outwardly of one of said walls and corresponding to the shape thereof, means rotating said pole pieces to rotate said magnetic field for causing said fluid to flow circumferentially and radially through the field portion of said annular gap, and guide vanes disposed between said spaced walls to give a predetermined rotation to said fluid as it enters said field portion of said annular gap.

2,847,937
ACTUATOR MECHANISM
Louis P. Garvey, Detroit, Harry A. Mackie, Birmingham, and Clyde H. Schamel, Royal Oak, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 14, 1954, Serial No. 455,836
4 Claims. (Cl. 103—3)



1. In a device of the class described, a reversible fluid pump, a control valve comprising a casing having fluid inlet passages formed therein, said pump having communication with said casing and being selectively operable to cause flow of fluid through one or the other of said passages, means defining a transverse passage between said inlet passages, a pair of fluid conducting passages communicating with opposite ends of said transverse passage, a valve assembly disposed in said transverse passage and operative to control the flow of fluid from said inlet passages to said fluid conducting passages, said valve assembly comprising a pair of cylindrical core members having axially aligned valve seats formed thereon, three closure members engageable with said seats, two of said members being selectively movable against their respective seats responsive to fluid pressure from one or the other of said inlet passages, respectively, so as to permit flow of fluid to one of said fluid conducting passages and to block flow to the other, the other of said closures being normally spring urged against its seat to prevent return flow through one of said fluid conducting passages, and a pair of spacers interposed respectively between said first and second closures and said second and third closures, said spacers being effective upon movement of one of said fluid responsive closures to prevent seating of the other of said closures.

2,847,938
HYDRAULIC PUMP
John T. Gondek, Minneapolis, Minn.
Application December 1, 1955, Serial No. 550,388
5 Claims. (Cl. 103—3)

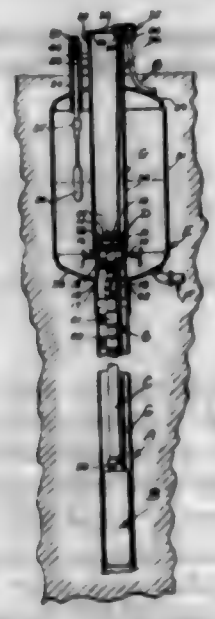


1. A fluid pumping system including a pump housing, a rotatable cylinder barrel supported in said housing, a series of pistons slideably and rotatably supported by said barrel, a swash plate having a surface against which said pistons engage during rotation of said barrel, a valve plate engageable with the end of the cylinder barrel opposite the swash plate, a pair of spaced arcuate ports in said valve plate, said barrel including open ended angularly spaced cylinders supporting said pistons, the ends of the cylinders communicating with said arcuate ports during rotation of said barrel, a fluid reservoir, a super charge pump connected to said reservoir, passages between said pump and said arcuate ports including check valves therein, said pump providing pressure tending to hold said pistons against said swash plate, passages leading from said arcuate ports, a relief valve in said last named passages, said relief valve including a connection to said reservoir, valve means in said last named passages, said last named valve means opening the passage from one arcuate port to said relief valve and closing the other, and including a closed circuit fluid system connected between said arcuate ports.

2,847,939
WELL SYSTEMS
Howard A. Tubbs, Whitewater, Wis.
Application October 25, 1956, Serial No. 618,223
11 Claims. (Cl. 103—6)

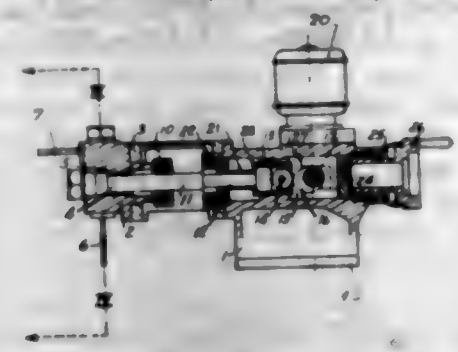
1. For use in a well system including a water storage tank adaptable for underground installation and having a discharge outlet for dispensing the water from the tank toward the place of usage and a pumping system for introducing a fresh supply of water into the storage tank, apparatus for discharging excess air from the interior of the tank to atmosphere comprising: a hollow column projecting through the tank wall so that one end thereof is within the interior of the tank and the other end is located

exteriorly of the tank; an air transfer tube telescopically received within the interior of the column and supported thereby and a valve associated with the tube for permit-



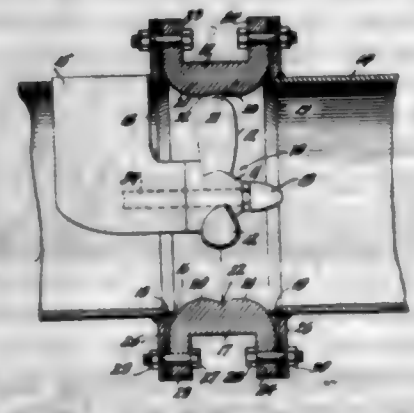
ting escape of air through the tube, said tube having an opening to atmosphere so that communication between the interior of the tank and atmosphere is established when the valve is opened.

2,847,940
MEASURING PUMPS
Jean Paul Justin Serres, Paris, France, assignor to Societe pour l'Etude et la Realisation dans l'Industrie "S. E. R. D. I.," Paris, France, a corporation of France
Continuation of application Serial No. 204,293, January 4, 1951. This application July 28, 1953, Serial No. 370,698
2 Claims. (Cl. 103—38)



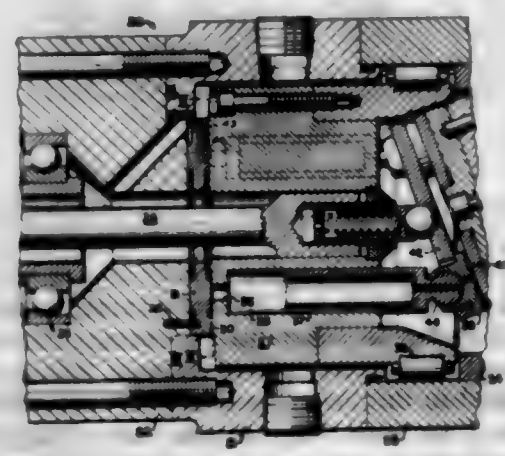
1. A measuring pump adapted to handle a comparatively large throughput of liquid, comprising a pump body, a piston adapted to reciprocate in said body, a rotary cam, the axis of which meets orthogonally the axis of the piston, means controlling the rotation of said cam round its axis, a member rigid with the piston controlled by said cam wherethrough said piston is urged in a predetermined direction by said cam during a first portion of the rotation of the latter, said member including a central operative surface cooperating with the cam and two abutment surfaces arranged symmetrically to either side of the plane containing the axes of the cam and of the piston, a spring urging last mentioned member into engagement with the cam, a member symmetrical with reference to the said plane and extending to either side of the said piston axis and terminating with two stops lying in a common plane perpendicular to said piston axis and symmetrical with reference to said axis, said stops for the cooperating abutment surfaces of the last-mentioned member to stop the progression of the latter and of the piston rigid therewith under the action of the spring during the further portion of the rotation of the cam away from the piston and member rigid therewith, and a handwheel coaxial with the piston and controlling the position of last mentioned member longitudinally of the piston axis with reference to the axis of rotation of the cam.

2,847,941
AXIAL FLOW PUMPS
William M. Jackson, Montgomery, Ala.
Application November 2, 1953, Serial No. 389,718
3 Claims. (Cl. 103—89)



1. In an axial flow pump, a shroud structure having two axially juxtaposed annular inwardly directed convex surfaces comprising venturi sections having a common axis, said surfaces defining between their loci of minimum diameter an annular depression of shallow generally V-shaped cross-section, and a propeller rotatably mounted within said shroud section, said propeller having radially extending blades, said blades having a center line normal to the propeller axis, said center line being located between the points of minimum diameter of said venturi sections, said propeller blades having a diameter less than the minimum diameter of said surfaces.

2,847,942
MEANS OF PROVIDING AIR PURGING IN PISTON PUMP
Edwin L. Shaw, Columbus, Ohio, assignor, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application April 21, 1953, Serial No. 350,200
8 Claims. (Cl. 103—162)



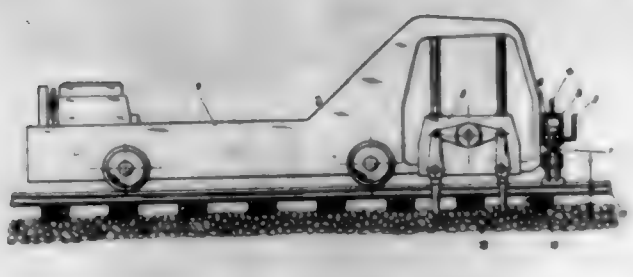
1. In a hydraulic fluid pressure energy translating device of the type having a casing and slidably engaged relatively movable elements, one of said elements providing pumping chambers with valving ports and the other providing spaced inlet and outlet ports alternately communicating with said pumping chamber valving ports upon relative movement of said elements; the combination of an air purging port and passage means in one of said elements establishing communication between each of said pumping chambers and the interior of said casing when the valving port thereof is moving between said outlet port and said inlet port.

2,847,943

MOBILE RAILWAY BALLAST TAMPING MACHINE WITH TRACK LIFTING MECHANISM

Franz Plasser and Josef Theurer, Vienna, Austria

Application October 18, 1956, Serial No. 616,697
Claims priority, application Austria October 25, 1955
4 Claims. (Cl. 104—12)



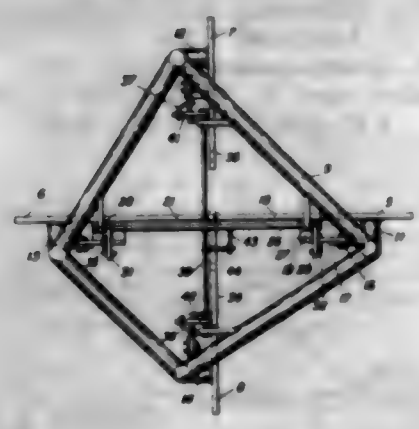
3. A mobile railway ballast tamping machine comprising a freely suspended front end portion, a tamping tool carrier mounted in said front end portion to be positioned above a tie to be tamped, and a track lifting mechanism including a fluid pressure cylinder mounted at the front end of the said portion and ahead of said tamping tool carrier, a piston slidably movable in said cylinder and dividing the cylinder into two chambers, fluid conduit means connected to the cylinder for applying fluid pressure against the piston, a piston rod having one end fixed to the piston and another end extending downwardly outside of the cylinder, and fluid-pressure controlled track gripping means connected to said other piston rod end.

2,847,944

CROSS-OVER SWITCH

Sidney Le Fiell, San Francisco, Calif.

Application August 30, 1957, Serial No. 681,317
1 Claim. (Cl. 104—100)



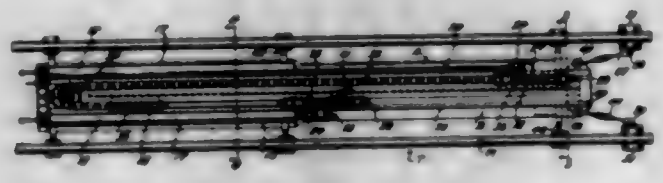
A cross-over switch for suspended tracks and comprising a unit having a substantially rectangular supporting frame, depending arms carried by said frame, track sections secured to the lower ends of each of said arms, two of said track sections being in end to end alignment, the other of said track sections being in end to end alignment and angularly spaced with relation to said first mentioned aligned track sections, all of said track sections lying in the same horizontal plane, a switch section pivoted to each of said track sections whereby the lowering downwardly pivotal action of a set of two switch sections on aligned track sections will form a continuous track for a carrier, and linkage connecting all of said switch sections, said linkage comprising a pair of pivoted cross-bars carried by said frame, a finger carried by each of said cross-bars and adapted to engage each other and a pull rod pivotally connected to each switch section and to a lever formed on said cross-bars whereby the moving to close one set of switch members will actuate said cross-bars to effect an opening of the other set of switch sections.

2,847,945

FLUID-ACTUATED CAR-MOVING APPARATUS

Glenn W. Merritt, Bowerston, Ohio, assignor to The Nolan Company, Bowerston, Ohio, a corporation of Ohio

Application February 16, 1953, Serial No. 337,284
4 Claims. (Cl. 104—162)



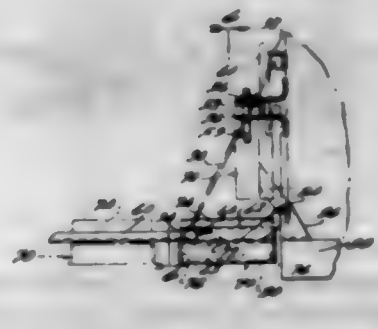
1. In car-shifting apparatus, a base frame adapted to be placed flatly on an associated trackway between car wheel-engaging rails of the trackway; threaded positioning clamps projecting outwardly and laterally at longitudinally spaced intervals from said frame, said clamps having engagement with the web regions of the rails of said trackway to confine said base frame between said rails and in united relationship therewith; a pair of pivoted links connected with the front end of said base frame; rail-carried clamps; pivotal means uniting said links with said rail-carried clamps; and a power-actuated car-shifting mechanism mounted on said frame, said mechanism being engageable with cars positioned on said trackway to move the latter longitudinally of the trackway.

2,847,946

FREIGHT LOADING APPARATUS

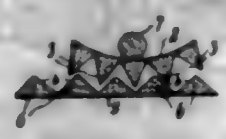
Raymond O. Sturdy, Detroit, Winston T. Rigney, Livonia, and James A. Lowing, Plymouth, Mich., assignors to Evans Products Company, Plymouth, Mich., a corporation of Delaware

Application February 23, 1955, Serial No. 490,854
3 Claims. (Cl. 105—368)



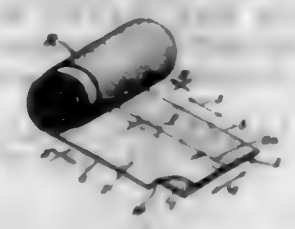
1. A railway car comprising a substantially flat, deck-like surface, an open end on each end of said surface, a retractable ramp secured across substantially the full width of each end of said surface, each said ramp being a structural member hinged to the end of the car so as to swing down to a horizontal position to form an extension of said surface of a width less than half the normal distance between like coupled cars and to swing to a vertical barrier position across the car, means for supporting said ramp in said horizontal position, means to lock said ramp in said vertical position, a tread-like extension member slidably journalled on what is the upper surface of said ramp, when in said horizontal position, and having slide guides secured to said upper surface, a finger-like guide member journalled in a slot in said upper surface, and means for holding said member in an extended position so as to rest on a like ramp of the next adjacent car, each said ramp having only one said extention member extending longitudinally of the car and located at about one-half a normal vehicle tread distance from the longitudinal center line of the car and said extension members on opposite ends of said deck-like surface being on opposite sides of the longitudinal center line of said car.

2,847,947
PROCESS FOR MAKING CANDY
Joseph A. Pelletier, Montreal, Quebec, Canada, assignor to Allan-Crawford Limited, Montreal, Quebec, Canada
Application December 17, 1956, Serial No. 628,749
6 Claims. (Cl. 107—54)



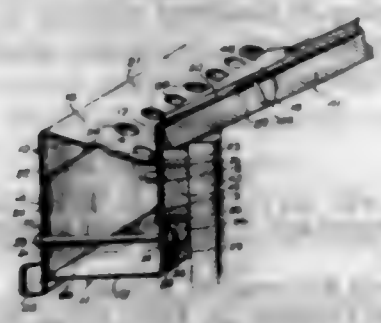
1. In the manufacture of candy, the steps of moulding a first saw toothed candy block and a different coloured second saw toothed candy block, and while said blocks are in a soft plastic state, arranging them in face to face relation with the teeth of the one block fitting generally between the teeth of the other block, then rolling said face to face blocks about a cylindrical candy block to form a composite cylindrical block.

2,847,948
COMPOSITE ROOFING STRIP
William G. Truitt, Philadelphia, Pa.
Application May 6, 1955, Serial No. 506,579
2 Claims. (Cl. 108—6)



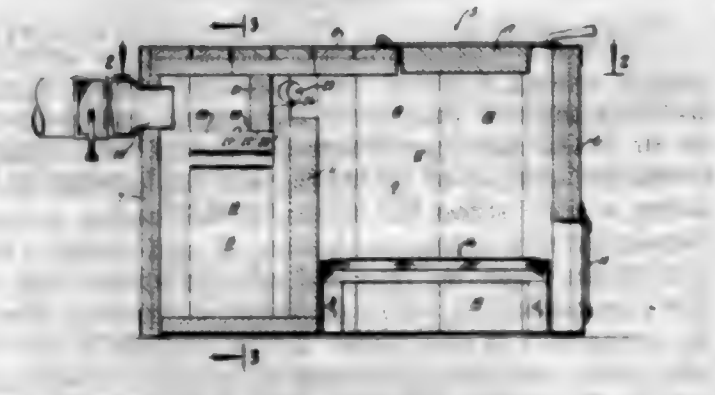
1. A composite roofing or siding covering comprising: a pliable base which can be wound into roll form and unwound into strip form, the base, when unwound, being of generally rectangular shape and being of substantially greater length than width; and a metal sheet fixed to one surface of said base, the sheet being pliable whereby it can be wound with the base into roll form and unwound into strip form, the sheet, when unwound, being of generally rectangular shape and substantially covering said surface between the widthwise edges and one lengthwise edge of the sheet being spaced inwardly from the corresponding lengthwise edge of the base to form an uncovered area on the base and the other lengthwise edge of the sheet being spaced from the other lengthwise edge of the base to form a projected portion.

2,847,949
EAVE TROUGH
Alford L. Pond, Flint, Mich.
Application April 22, 1954, Serial No. 424,874
6 Claims. (Cl. 108—30)



1. An eave trough comprising a piece of sheet metal of an angle shape in cross section and having one panel extending at an obtuse angle from the other panel thereof, one of said panels being positioned substantially vertical and adapted to form a portion of an inner vertical wall of a trough while the other panel is at an angle similar to the inclination of a roof to which it is adapted to be attached; a second piece of sheet metal substantially U-shaped in cross section and having one of its side panels positioned alongside the vertical panel of said angle part while the other side panel and the intermediate panel thereof form an outer side wall and a bottom wall, respectively, of the trough; a third piece of sheet metal with longitudinally extending bends therein to provide a pair of spaced vertical panels that are connected by a perforated third panel arranged at acute angles thereto and from which one of said vertical panels extends downwardly and the other extends upwardly, said third piece of sheet metal also having a fourth panel that projects at an obtuse angle from the upwardly extending vertical panel thereof, said downwardly extending vertical panel of said third piece of sheet metal being positioned outwardly of the outer side panel of said U-shaped part while the other vertical panel of said third-mentioned sheet metal part is positioned adjacent and parallel to the vertical panel of said first-mentioned angle part and thereby positioning the perforated panel that connects said vertical panels over said second-mentioned U-shaped part and also positioning the panel extending at an obtuse angle from the upstanding vertical panel of said third-mentioned piece of sheet metal over the obtuse angled panel of the first-mentioned angle part; and attaching means for all pieces of sheet metal parts whereby said second-mentioned U-shaped part is positioned at an angle extending longitudinally of the trough and relative to said first- and third-mentioned parts.

2,847,950
INCINERATOR
Mick A. Nanlin, Milwaukee, Wis.
Application July 25, 1955, Serial No. 524,223
6 Claims. (Cl. 110—8)



1. An incinerator comprising spaced parallel upright side walls connected by spaced upright front and rear walls defining an enclosure; a flat bottom wall joined to said side front and rear walls; a top wall joined to said side, front and rear walls, said top wall being uniformly spaced from the bottom wall upon any longitudinal plane parallel to the side walls and for the full length of the enclosure; an upright partition wall extending from side wall to side wall parallel to the front and back walls and spaced therefrom to divide the enclosure into a combustion chamber at the front and an expansion chamber at the rear thereof, the upper edge of the partition wall being spaced from the top wall; a grate in the lower portion of the combustion chamber; a charging door in the top wall above the grate through which refuse to be burned may be deposited in the combustion chamber; opposite horizontal ledges on the side walls extending lengthwise thereof behind the partition wall; a drop wall having the ends thereof seated upon said ledges so that the position thereof with respect to the partition wall is readily adjustable, said drop wall extending from side wall to side wall and having its top edge contiguous to the top wall and its bottom edge at

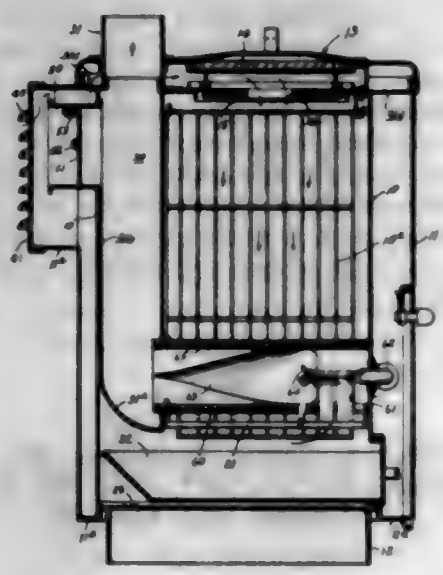
an elevation below the top of the partition wall, the horizontal distance between the partition wall and the drop wall being substantially between one and three times the average distance the bottom edge of the drop wall is spaced below the top edge of the partition wall so that combustion gases and products of combustion passing from the combustion chamber into the expansion chamber are caused to flow downwardly along the rear of the partition wall to the bottom of the expansion chamber; and means at the upper portion of the expansion chamber defining a combustion gas outlet for the incinerator.

2,847,951

INCINERATOR

Kenneth F. Triggs, Huntington, Ind., assignor to The Majestic Company, Inc., Huntington, Ind., a corporation

Application November 7, 1955, Serial No. 545,236
4 Claims. (Cl. 110—8)



1. A down-draft incinerator comprising an upstanding tubular casing, a jacket enclosing said casing, a refuse receiving door at the top of the casing, means forming an air intake opening through the top of said casing between the interior of the casing and the interior of said jacket, a grate across the bottom of said casing, a smoke-consuming tube across the bottom of said casing, a fluid-fuel burner extending into said tube, an updraft flue, said flue communicating with said smoke-consuming tube, an air intake port in said jacket, a draft opening in said flue, said intake port communicating with said air intake opening to the casing and with said draft opening, and a balanced weight damper in said draft opening to regulate the relative amounts of air which moves into said casing and directly into said flue.

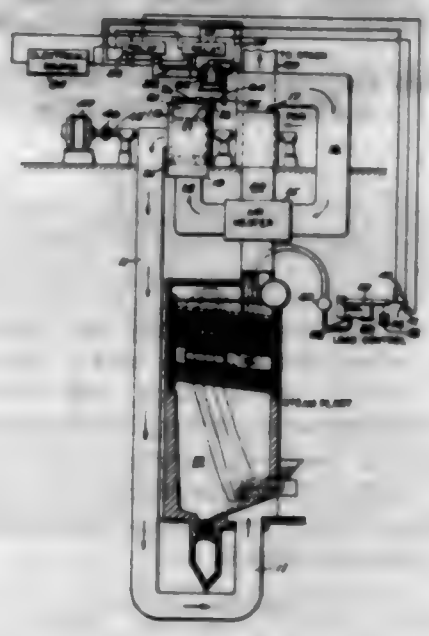
2,847,952

DRIVES FOR FORCED DRAFT FANS IN STEAM PLANTS

John E. McDonald, Newton, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 2, 1954, Serial No. 453,915
3 Claims. (Cl. 110—56)

1. In a steam plant having a combustion chamber, an air heater connected to said chamber and through which the exhaust gases from said chamber flow for heating air for combustion, a forced draft fan having a rotary shaft, a prime mover connected to said shaft for driving said fan, said fan having its outlet connected to the air inlet of said heater, the combination of a hot air turbine having a rotary shaft and a rotor on said last mentioned shaft, means connecting said rotary shafts together, means connecting the air outlet of said heater to the inlet of said turbine, means connecting the outlet of said turbine to said combustion chamber, spin vanes around said turbine rotor, and means including means responsive to the load on said plant



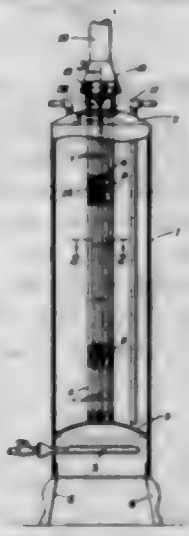
for adjusting said vanes towards closed positions upon a reduction in the load on said plant.

2,847,953

FLUE FOR GAS WATER HEATERS

Albert C. Ernst, Oakland, Calif., assignor to Meat Packers Equipment Co., Oakland, Calif., a corporation of California

Application April 13, 1956, Serial No. 578,048
1 Claim. (Cl. 110—97)



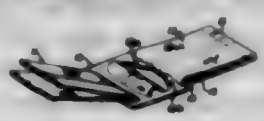
In a water heater, a hot-gas flue including a plurality of circumferentially spaced longitudinal outwardly projecting corrugations arranged in parallel relation lengthwise of the flue, longitudinally spaced baffles in the flue, and means mounting the baffles as a unit in the flue for up and down movement from a predetermined position therein; each baffle including circumferentially spaced tongues projecting in clearance relation into certain ones only of said corrugations, the tongues on adjacent baffles being circumferentially staggered.

2,847,954

METHOD AND APPARATUS FOR FORMING A CLOSED LOOP OF TAPE THREADED THROUGH A BUCKLE

Louis Brownstein, Brooklyn, N. Y.

Application October 11, 1956, Serial No. 615,327
22 Claims. (Cl. 112—2)



1. In an apparatus for forming a closed loop of a length of tape extending through a transverse slot of a

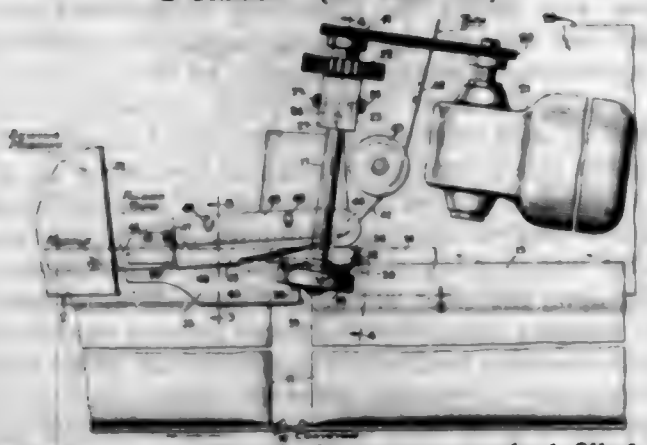
buckle with branches of the tape disposed on opposite sides of the buckle, the combination of a support for said buckle, whereby said branches extend on opposite sides of said support, a retractor member movable between forward and rear limiting positions along a path extending longitudinally of the buckle, said retractor member having two fingers positioned in planes adjacent the opposite faces of the buckle and disposed forwardly of said branches when the retractor member is in its said forward limiting position, said fingers being slidably engageable with said branches upon an operative movement of the retractor member rearwardly from said forward position to said rearward limiting position, thereby to fold said branches, rearwardly, a sewing machine in overlying relation to said path and positioned for operative engagement with said tape branches when they are operatively in their respective folded-back positions, and means to actuate said retractor member and said sewing machine.

2,847,955

BAG CLOSING APPARATUS

William R. Peterson, South Attleboro, Mass., assignor to St. Regis Paper Company, New York, N. Y., a corporation of New York

Application November 21, 1955, Serial No. 548,126
2 Claims. (Cl. 112—11)



1. In apparatus for closing open-mouthed filled bags, the combination comprising a conveyor for conveying the bags in succession in upstanding position, a pair of opposed rollers mounted above said conveyor in positions to engage in a nip therebetween the top portions of the bags, means being provided for resiliently urging said rollers toward each other, said rollers being mounted on axes which extend downwardly and forwardly with respect to the path of travel of the bags whereby the peripheries of the rollers engage the bag tops along lines extending forwardly and upwardly, means for driving said rollers, a member of inverted channel-shaped cross-section extending along and parallel to the desired line of closure of the bag tops, said member forming a stop means which the top edges of the bags are caused slidably to engage by reason of the upward and forward thrusting action thereon of the rollers, and means for guiding a continuing strip of tape and folding over same astride said member and then astride the top end edges of the bag as the latter advance beyond said member.

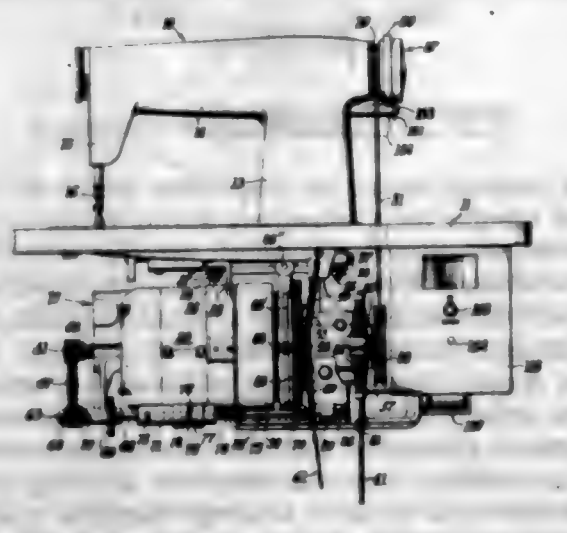
2,847,956

SEWING MACHINE NEEDLE POSITIONING MEANS

Arthur N. Hale, Park Ridge, Ill., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Continuation of application Serial No. 242,715, August 20, 1951. This application June 9, 1955, Serial No. 514,145
32 Claims. (Cl. 112—219)

1. A sewing unit comprising a table; a sewing machine mounted on said table and having a frame and an actuating shaft rotatably supported in said frame; a unitary electric clutch-brake motor carried by said table and having a rotor and a driven shaft, said motor including clutch means for operatively connecting said driven shaft to said rotor and brake means for restraining rotation of said driven shaft, operator actuated means for actuating said clutch and brake means, power transmission means operatively connecting said driven shaft to said actuating shaft; first switch means operatively con-



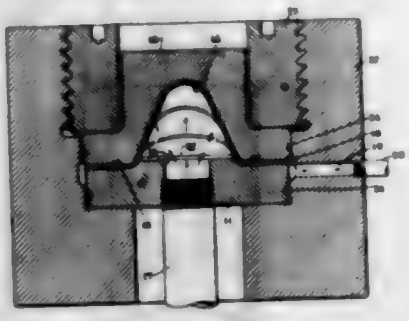
nected to said actuating shaft to be opened and closed in synchronism with rotation of said actuating shaft, a solenoid for controlling engagement of said brake, an electrical circuit operatively connecting said switch means to said solenoid, second switch means operatively connected in said electrical circuit in series relation with said first switch means, and means operable to close said second switch means only when said driven shaft is disengaged from the rotor.

2,847,957

APPARATUS FOR RAPIDLY FORMING DEEP DRAWS IN METAL SHEETS

Michael Watter, Philadelphia, and Garrett D. Pagon, Ambler, Pa., assignors to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application December 20, 1955, Serial No. 554,165
3 Claims. (Cl. 113—44)



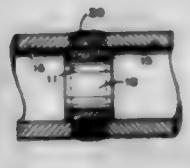
1. Apparatus for forming deep-drawn sheet metal parts from generally flat sheet metal blanks, comprising in combination, mating axially convergent dies formed and arranged to clamp a blank in an annular outer zone, leaving the inner zone unclamped with space to expand axially, means in said dies forming an annular fluid chamber outside said annular zone, means to admit fluid under pressure to said annular fluid chamber to apply uniform pressure radially inwardly on the blank around its entire outer periphery, means sealing the space outside said annular chamber against the leakage of fluid therefrom, means at a distance radially within the outer periphery of the annular zone providing a seal against inward leakage of fluid between the blank and dies, and means for separately and independently applying axial pressure on the blank in the inner unclamped zone while fluid pressure is being applied to the outer periphery of the blank in the clamped zone to form an axial projection in the inner unclamped zone.

2,847,958

WELD BACKING RING OF MOLDED SAND AND BINDER WITH NOTCHED INNER PERIPHERY

Charles L. Norton, Jr., New York, N. Y., and Leonard D. Christie, Jr., Old Greenwich, Conn., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application February 15, 1956, Serial No. 565,734
5 Claims. (Cl. 113—111)



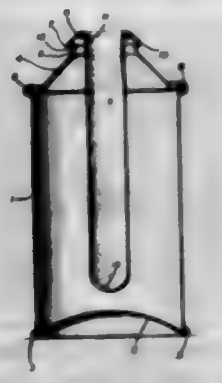
1. A backing device for disposition inside the adjacent ends of tubular metal members during formation of circumferential fusion welded joints therebetween by fusion weld metal deposition around the outside of said adjacent ends, said device comprising a pressure molded monolithic annular member of refractory granular material and an organic binder baked sufficiently to render said member selfsupporting for handling, the binder evolving a weld metal protective gaseous atmosphere when subjected to welding heat; the effects of the high temperatures involved in a fusion welding operation making uncertain the shattering of said annular member by impact on the metal members after completion of the welded joint therebetween; said annular member being formed with circumferentially spaced, open-ended notches extending longitudinally of its inner periphery assuring shattering thereof by impact on the metal members after completion of the welded joint; the outer periphery of said annular member having an uninterrupted cylindrical surface.

2,847,959

METHOD OF APPLYING PREFORMED LINER TO A METAL CONTAINER

Marshall H. Switzer, Glen Ellyn, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application October 16, 1953, Serial No. 386,446
4 Claims. (Cl. 113—120)



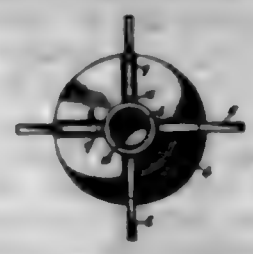
1. The method of lining a container having top and bottom ends secured to the body wall by double seaming wherein the top end has a neck portion terminating in an opening comprising securing one of the ends to the body portion by a loose first operation double seam, inserting a preformed liner of stretchable material into the container through said neck opening, attaching and sealing the open end of the preformed liner to said neck portion, removing the air from between the liner and the interior of the container through the loosely formed double seam so that the liner may be expanded into intimate contact with the interior surface of the container and closing the loosely formed double seam to provide an air-tight seal therein immediately upon the removal of the air from the space between the liner and the wall of the container for permanently holding the liner in contact with the wall of the container.

2,847,960

RADIAL EXPANDING MISSILE TORPEDO FINS

William Eugene Endrezze, Long Beach, Calif.

Application February 2, 1954, Serial No. 407,651
4 Claims. (Cl. 114—20)



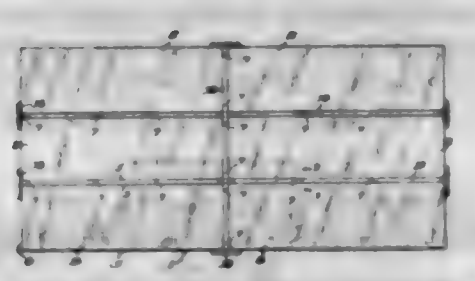
1. In a torpedo missile fin system capable of passing through the bore of a tube or barrel to start on its course for traveling through a fluid body, comprising; an elongate hollow cylindrical shell having a closed central portion of substantially constant exterior diameter that terminates at one end in a forwardly extending and inwardly curving front portion with the opposite end thereof having a rearwardly converging tapered stern portion that terminates in a greatly reduced diametrical end; a plurality of 90° circumferentially spaced, longitudinally disposed movable fins of substantially triangular shape projecting outwardly beyond the exterior surface of said stern portion with the longitudinal top edges of said fins being substantially flush with the exterior surface of said central portion, and having the remaining longitudinal portion of said fins beneath the surface within the confines of said converging portion; a plurality of 90° circumferentially spaced fin slots longitudinally extending through the shell of said converging portion and formed in taper with guide means through which said fins swing; fin pivot means provided at one end of each of said fin slots to which one end of the fins within the slots are attached; a lateral wedging taper faced portion longitudinally extending upon the sides of each of said movable fins providing wedging means by which the fins are held in rigid wedged condition within the taper of said guide means; and a plurality of fin expanders within the shell confines of said converging stern portion, each of which acting upon the loose end of said fins providing means by which the fins are forced outwardly in a radial manner upon clearing the muzzle end of a firing tube, to seat rigidly in wedged condition within the tapered guide means provided upon the converging stern portion of said missile shell for flat trajectory, accuracy, and extended range of said torpedo missile.

2,847,961

PORTABLE DREDGE HULL

John W. Mockenstock, Ottawa, Ill., assignor to Mockum Engineering, Inc., Chicago, Ill., a corporation of Illinois

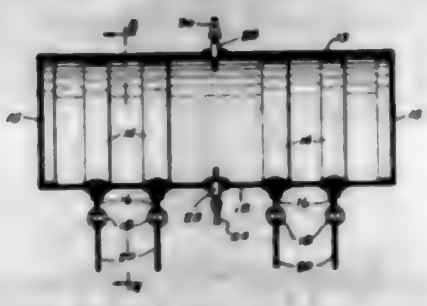
Application August 17, 1956, Serial No. 604,650
1 Claim. (Cl. 114—26)



In a portable dredge hull, the combination of a plurality of hollow, independently buoyant hull sections, each having a bottom, a deck and generally rectangular shaped side and end walls therebetween, said sections being assembled in cooperable arrangement to form a hull structure, each section having a plurality of laterally spaced connecting structures, each cooperable with a like structure on the adjacent section, each structure com-

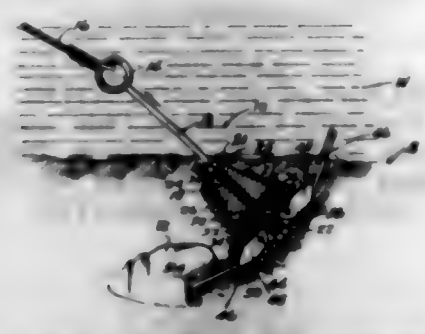
prising a plurality of vertically spaced horizontal flanges extending outwardly from the associated hull wall, and having a hole therein on an axis common to the holes in another cooperable flange, the structures being so arranged on the various sections that the holes in the flanges of each structure may be aligned with the holes in a cooperable structure carried by an adjacent section, and a headed locking pin for each pair of cooperable structures passing through the aligned holes of each pair, reinforcing members connecting aligned exposed walls of adjoining sections adjacent the deck and bottom thereof and rigidly secured thereto, and means extending along and secured to the hull deck, bridging the gaps between adjacent sections and overlying the heads of said locking pins, operative to restrict withdrawal movement of such pins.

2,847,962
SALVAGE APPARATUS
Herbert L. N. Land, Camden, N. J., assignor of one-third to David G. Freedman, Haddon Heights, N. J.
Application April 9, 1954, Serial No. 422,063
2 Claims. (Cl. 114—54)



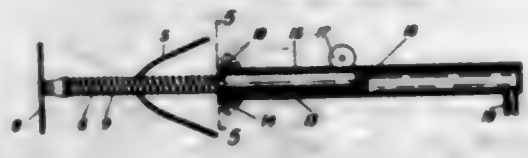
1. Apparatus for raising a sunken vessel, comprising an elongated collapsible cylinder of flexible material having a side wall and opposite ends, said side wall having a top portion and a bottom portion, inflating and deflating valve means secured to and entering the cylinder, shanks spaced along the bottom portion of the cylinder side wall and secured to and depending from said bottom portion, said shanks having lower ends having eyes thereon to which salvage chains are adapted to be connected.

2,847,963
TENSION RESPONSIVE FOLDABLE MARINE ANCHOR
Raymond G. Knitter, Milwaukee, Wis.
Application September 7, 1956, Serial No. 608,517
3 Claims. (Cl. 114—208)



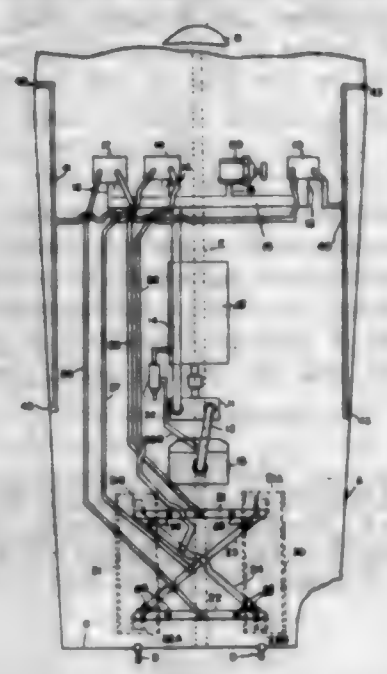
1. A boat anchor comprising an elongated shank having a threaded lower end portion including an upper end and a lower end, an abutment at said upper end, an annular compressible element circumposed on said threaded portion beneath said abutment, a pressure disc on said threaded portion beneath said compressible element, an anchor arm support slidably circumposed on the shank beneath said pressure disc, a nut threaded on the lower end of said threaded portion beneath and engaging said support, said support having radial ears, and anchor arms having inner end portions pivoted on said ears, said inner end portions of the anchor arms terminating in cam ends engageable with the pressure disc above said support in folded positions of the anchor arms, said inner end portions of the anchor arms being engaged with said pressure disc in the spread positions of the anchor arms.

2,847,964
SHIP'S COLLISION PREVENTER AND SHOCK ABSORBER
Kosmas Skiotes, San Francisco, Calif.
Application August 15, 1956, Serial No. 604,114
1 Claim. (Cl. 114—219)



A collision damage preventing means for a marine vessel comprising in combination with a ship's hull, a cylinder mounted in said hull, a plunger slidable in said cylinder hydraulic, means for projecting said plunger forwardly from said cylinder, a spring mounted on said plunger and interposed between said cylinder and the forward portion of said plunger when said plunger is in extended position, and semi-circular members pivotally carried by said cylinder and adapted to be interposed between the end of said spring adjacent said cylinder and said cylinder to maintain said spring in extended position, and a collision plate pivotally mounted on the end of said plunger.

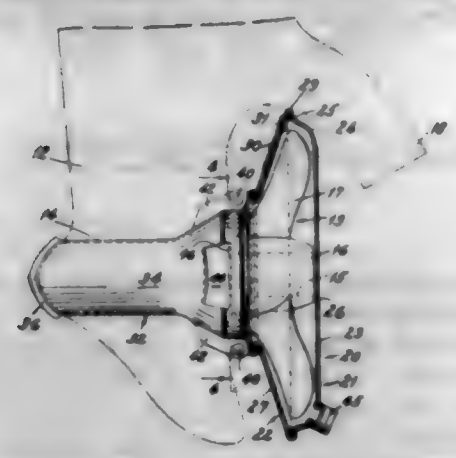
2,847,965
JET PROPULSION MEANS FOR BOATS
Lewis B. Nickles, Livonia, Mich.
Application April 20, 1955, Serial No. 502,596
1 Claim. (Cl. 115—12)



Boat propulsion means comprising a pair of tubular water tunnels fixed to the outer wall of the boat hull parallel to the keel and below the water line, an injector nozzle within and adjacent to each end of each tunnel and arranged to discharge toward the tunnel end adjacent thereto, and means for supplying water under pressure to selected ones of said nozzles, said supply means comprising a pump having its delivery connected to a plurality of manifolds, one of which is connected to those two nozzles at the forward ends of the tunnels, a second one of which is connected to the nozzles at the rearward ends of the tunnels, a third manifold being connected to one forward and one rearward nozzle and a fourth manifold being connected to the other forward and the other rearward nozzles, a check valve in each manifold adjacent

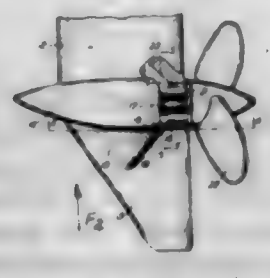
each nozzle and opening toward said nozzle, and valve means for directing pump delivery to a selected one of the manifolds.

2,847,966
OUTBOARD MOTOR PUMP
James A. McIntosh, Detroit, Mich.
Application December 14, 1955, Serial No. 553,084
20 Claims. (Cl. 115—17)



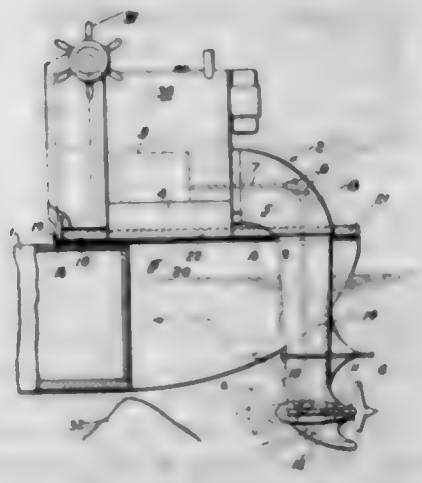
1. In an outboard motor adapted to be mounted on the side of a boat or the like and comprising a small internal combustion engine, a housing projecting downwardly from said engine when the engine is mounted on the boat, a propeller mounted on the lower end of the housing and including a hub and vanes projecting generally radially outwardly from the hub, the configuration of said vanes being such that rotation of the propeller causes the boat to be propelled along the water, said engine having an exhaust pipe directing the exhaust gases of combustion toward one side of the plane of rotation of the propeller, the combination comprising a pump housing surrounding the propeller and having a configuration similar to the solid of revolution generated by the rotation of said propeller, said housing being substantially imperforate and having an inlet opening generally axially of said propeller on the side of said propeller opposite said exhaust pipe, an outlet opening along the periphery of said housing, and an opening adjacent said hub on the side of said housing opposite said inlet opening, and means for mounting and supporting said housing in position surrounding said propeller, whereby when the housing is mounted and supported in position and the propeller is rotated, the boat remains stationary in the water and water is pumped through said inlet opening into said housing and out of said outlet opening.

2,847,967
OUTBOARD MOTOR WATER INLET STRUCTURE
Elmer C. Kiekhaefer, Cedarburg, Wis.
Application May 18, 1956, Serial No. 585,849
1 Claim. (Cl. 115—18)



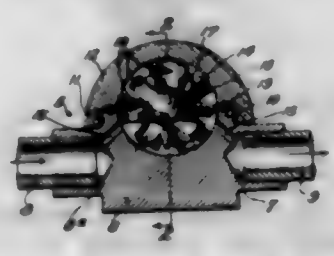
In a dirigible outboard motor wherein the submerged propeller or portion thereof produces a side thrust on the outboard generally requiring a compensating steering position for the outboard to effect forward boat movement, and wherein the motor is water cooled necessitating a constant supply of water thereto during operation, means to assure an adequate water supply and to at least in part compensate said side thrust, said means comprising a generally ellipsoidal streamlined lower gear casing, a downwardly extending skeg centrally and longitudinally disposed beneath said casing, a propeller shaft disposed axially in said casing and extending rearwardly therefrom, a propeller mounted on the rear end of said shaft to drive the boat forwardly through the water, said propeller producing an unbalanced side thrust on said casing and skeg depending upon the location of the propeller relative to the surface of the water, a water inlet port in the bottom of said casing on the side of the skeg toward which said propeller tends to thrust the casing during such forward movement, and a water scoop channel leading upwardly and rearwardly in said side of the skeg and to said inlet port to provide a supply of water to said port even when the outboard is being operated under surface pitch conditions and to provide a side thrust in part compensating said unbalanced propeller side thrust.

2,847,968
OUTBOARD PROPELLER MECHANISM FOR SEA GOING VESSELS
Arthur W. Wanzer, Hingham, Mass.
Application December 13, 1954, Serial No. 474,946
7 Claims. (Cl. 115—41)



1. The combination of a sea going vessel of the known type having a propelling unit including a motor-support having a motor mounted thereon, a depending propeller housing having a propeller at its lower end and driving connections operatively connecting the motor and the propeller and extending through the propeller housing, of means mounting said propelling unit on a vessel to turn about either one of two horizontal axes, one of which is located at the front of the propelling unit and the other of which is located adjacent the rear of said unit.

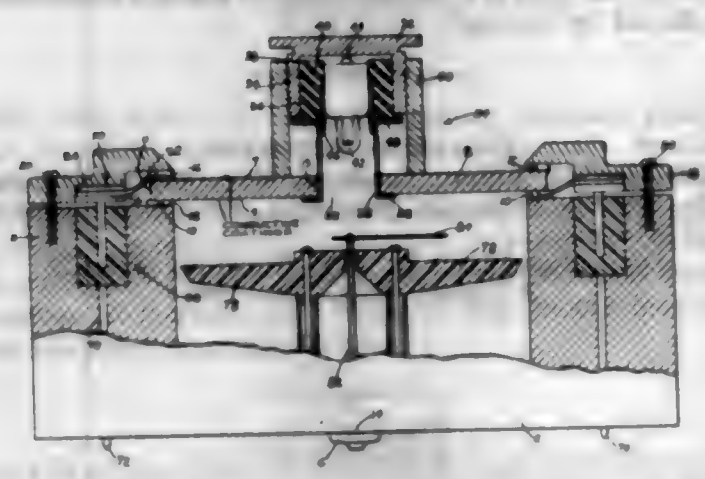
2,847,969
FLUID FLOW INDICATOR
Paul E. Woodruff, Columbus, Ohio, assignor to Walter S. Roboski, Columbus, Ohio
Application July 11, 1956, Serial No. 597,205
8 Claims. (Cl. 116—117)



1. A fluid flow indicator comprising: a casing composed of separably united base and cover sections which when in assembled relationship define an internal spherical chamber, said base section being formed with spaced fluid inlet and outlet openings for connection with associated pipe members of a pipe line through which fluid flow prevails, said inlet and outlet openings each communicating with a plurality of spaced ports leading from

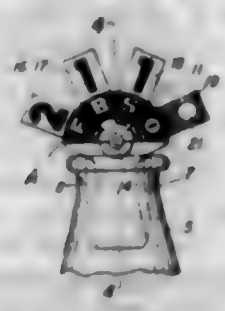
said openings to said chamber, the cover section possessing transparency, and a buoyant flow indicator disposed in said chamber responsive to the passage of fluid therethrough to revolve about the spherical wall of said chamber, whereby to disclose through visual observation the presence of fluid flow in said pipe line.

2,847,970
TRANSILLUMINATED DIAL
Thomas A. Smith, Wilmington, Del., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 16, 1955, Serial No. 488,731
6 Claims. (Cl. 116—129)



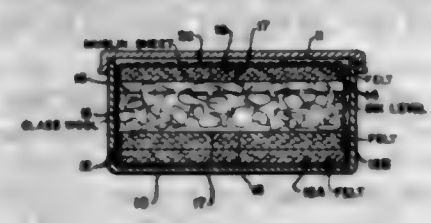
1. A transilluminated dial comprising: a flat member having an upper surface and a lower surface which is tapered from the central portion to the outer edge so that said flat member is thickest at its central portion, said central portion being angled to reflect light internally through the member toward the outer edge, the angle of taper of the lower surface being such as to direct the outer edge area of the flat member light reflected from the central angled surface and impinging upon said tapered surface; and lighting means mounted in front of said flat member and arranged to project light rays upon said central angled surface of said flat member.

2,847,971
ORDER INDICATOR
Claude D. Painter, San Francisco, Calif.
Application November 26, 1956, Serial No. 624,250
1 Claim. (Cl. 116—133)



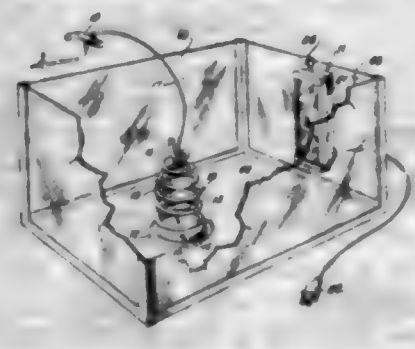
An order indicator for placement in the neck of a milk bottle comprising an elongated supporting leg having a flared end, side flaps on the longitudinal edges of said leg extending therefrom at obtuse angles, a plurality of semi-circular indicia segments pivoted to one side of the flared end of the supporting leg and a plurality of elongated number bearing tabs pivotally mounted on the pivot for the indicia segments at the opposite side of the flared end of the supporting leg and normally occupying a position between the side flaps on the supporting leg, the number bearing tabs being selectively shiftable to present to view the number on the free swinging end thereof in association with selected indicia on an indicia segment.

2,847,972
STAMP PADS
Sidney N. Rosenthal, Richmond Hill, N. Y.
Application March 19, 1956, Serial No. 572,518
1 Claim. (Cl. 118—265)



A stamp pad for use with highly volatile inks comprising a container having an open top and two ink saturant felt pads at the bottom and top thereof; and a pad of glass wool between said felt pads; said glass wool pad being in contact with the felt pads and filling the space between them and supporting the upper felt pad; said container being adapted to contain ink at a level beneath the normal position of the top felt pad; the top felt pad being compressible into the container against the glass wool pad to reach the ink level and being maintained in its normal position above the ink level by the glass wool pad.

2,847,973
DEVICE FOR AQUARIUMS OR THE LIKE
Joe S. Pugh, Hamilton, Tex., assignor to Nu-Lite Neon Company, Hamilton, Tex.
Application October 31, 1955, Serial No. 543,789
2 Claims. (Cl. 119—5)

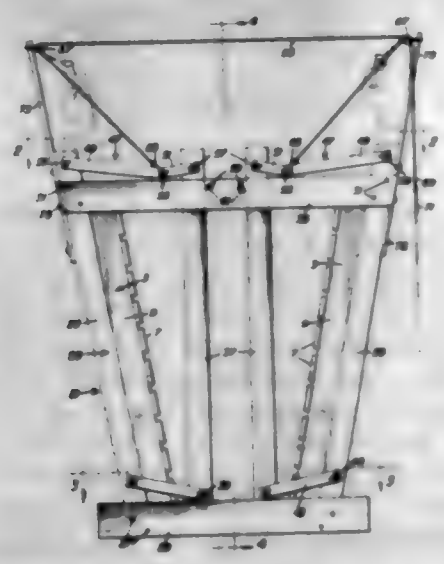


1. An aquarium illuminating device comprising: a transparent tube having vertically ascending convolutions, adjacent pairs of convolutions being of different sizes, said tube providing an ascending path for air bubbles and having its upper end disposed above its lower end; means for introducing air into the lower end of the tube, said means providing a reduced aperture for admitting water into the lower end of the tube; and a light producing source proximate to said tube having a plurality of color filtering means projecting horizontal beams of light of different colors on said tube whereby the bubbles are illuminated and reflect lights of different colors.

2,847,974
CATTLE CHUTE STANCHIONS
Walter R. Londgren, Hollandale, Wis.
Application October 1, 1957, Serial No. 687,492
1 Claim. (Cl. 119—99)

In a cattle chute having upwardly flaring sides, a stanchion comprising a pair of laterally spaced horizontal bars at one end and the bottom of the chute, a pair of laterally spaced horizontal bars extending across the top of the chute, a pair of upright posts forwardly of said end of the chute spaced outwardly of said sides and flaring upwardly in correspondence with said sides and interposed between and fixed to the bars of said pairs, a pair of upright neck yoke bars interposed between the bars of said pairs and slidable vertically and laterally into closed parallel position and into open upwardly diverging relation and seated position against said posts, mounting means for said neck yoke bars comprising a pair of

links adjacent and above the first mentioned pair of spaced bars terminally pivoted to said posts and to said neck yoke bars for vertical swinging in response to vertical and lateral swinging of the neck yoke bars, a pair of operating toggles for said neck yoke bars above the second mentioned bars terminally pivoted to said neck yoke



bars and to said posts and jointed for upward breaking at the joints thereof and downward movement into straightened position to operate the neck yoke bars, and manual means for operating said toggles to break the same upwardly, said manual means comprising a pull cable terminally connected to the joints of said toggles, and pulleys on said posts over which said cable is trained.

2,847,975

WRITING INSTRUMENT

Ray A. Lawton, Milton, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin

Application December 10, 1953, Serial No. 397,449
2 Claims. (Cl. 120—42.4)



1. A ball point writing instrument comprising a casing having a chamber therein, a ball socket at the forward end of said casing, a writing ball rotatably retained in said socket, a capillary filler-and-reservoir element in said chamber including a thin-walled sheet spirally wound upon itself to provide between the convolutions thereof a capillary ink storage space, and a pair of yieldable, resilient and porous members, said members disposed for abutting opposite ends of said sheet and having capillary ink feed passages in communication with said ink storage space, and ink feed means including a rigid member engaging one of said porous members throughout a substantial distance in longitudinal direction and having a fixed capillary ink feed passage connecting the ink feed passages therein and said ball socket.

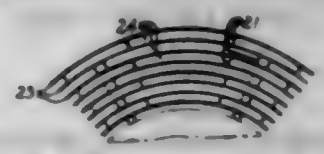
2,847,976

SPACER PATTERN FOR CAPILLARY RESERVOIR ELEMENTS

Raymond L. Spaulding, Janesville, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin

Application October 28, 1955, Serial No. 543,355
2 Claims. (Cl. 120—50)

2. A capillary filler-and-reservoir element for a writing instrument comprising a perforated sheet of thin walled material spirally rolled upon itself, a plurality of elongated spacers lying on one side of said sheet disposed thereon throughout its length and breadth spacing the convolutions thereof throughout their length and breadth to define between said convolutions a spiral ink storage space extending axially of said element, said spacers lying on said sheet acutely angularly of the axial direction of said element and being arranged in intersecting radial alignment so that the spacers on adjacent convolutions intersect thereby providing radial lines of support from the inner-



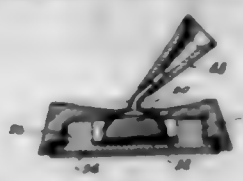
most convolution to the outermost convolution and thereby providing ink paths for the effective flow of ink axially and radially of said element, said element having sufficient capillarity to fill itself by capillary action and to retain the ink therein but insufficient to prevent withdrawal of the ink in writing.

2,847,977

PEN DESK SET BASE

Daniel Parker, Milton Junction, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin

Application March 25, 1955, Serial No. 496,638
3 Claims. (Cl. 120—108)



1. A base for a pen desk set comprising: a base body having a cavity in its under surface, having an aperture opening from the cavity upwardly through the top of the base body, and having a generally downwardly facing annular bearing surface surrounding the aperture and curved in at least one direction and extending no greater than 180 degrees in said direction; a socket member having an upper socket portion and having a lower mounting portion forming a shell shape mounting member curved complementally to said bearing surface and of no greater extent than 180 degrees and positioned with its outer convex side engaging said bearing surface, said upper socket portion projecting from said mounting member out of and above the aperture; a closure plate adjustably secured in said cavity; a dome element in said cavity separate from said closure plate and having a surface curved complementally to said mounting member and said bearing surface and engaging the concave side of said mounting member for friction-gripping the mounting member between said dome element and said bearing surface; a leaf spring interposed between said closure plate and said dome element yieldingly biasing said dome element upwardly; said closure plate having an annular weighting means projecting upwardly therefrom in the cavity in surrounding relation to said dome element; said dome element, said mounting member and said bearing surface all being of very small diameter relative to the base body; the diameters of said cavity and of said closure plate being relatively large and being at least half the diameter of said base body; the under surface of said closure plate together with the under surface of said base body forming the supporting surface of the base.

2,847,978

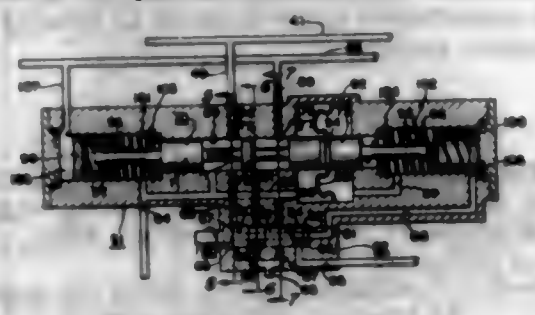
WINDSHIELD WIPER ACTUATING MECHANISM

Oliver K. Kelley, Birmingham, Gilbert K. Hause, Franklin, and Clifford C. Wrigley, Grosse Pointe Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 9, 1955, Serial No. 487,196
16 Claims. (Cl. 121—158)

1. In combination, a fluid motor having a cylinder, a movable member disposed in said cylinder, said movable

member being capable of fluid pressure actuation in both directions, reversing means for controlling the application of pressure fluid to opposite sides of said movable member so as to maintain said member in a state of continuous movement throughout a running stroke, said reversing means including a reciprocable valve, snap acting mechanism for effecting reciprocable movement of said responsive to the pressure increase on opposite sides of



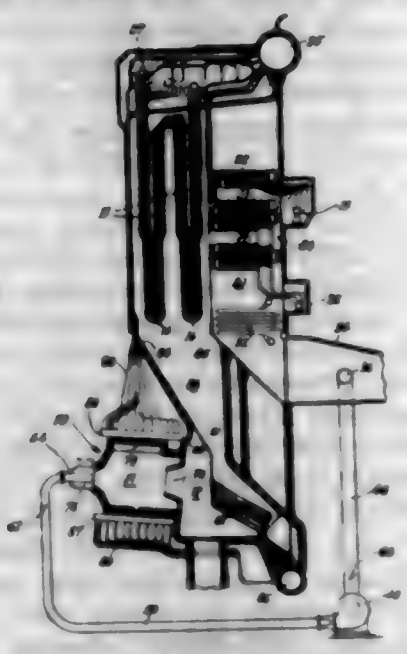
valve and a pair of oppositely acting reaction pistons said movable motor member as said movable member approaches the ends of its running stroke for controlling the operation of said snap acting mechanism, and means operable to interrupt the connection between one reaction piston and the cylinder on one side of said movable motor member to increase the stroke of said motor member and interrupt movement thereof.

2,847,979

METHOD OF AND APPARATUS FOR VAPOR GENERATION BY AXIAL INTRODUCTION OF RECIRCULATED GASES INTO A CYCLONE FURNACE

Andreas Blöcks and Hermann Heinecke, Oberhausen, Rhineland, Germany, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application July 12, 1954, Serial No. 442,824
4 Claims. (Cl. 122—478)



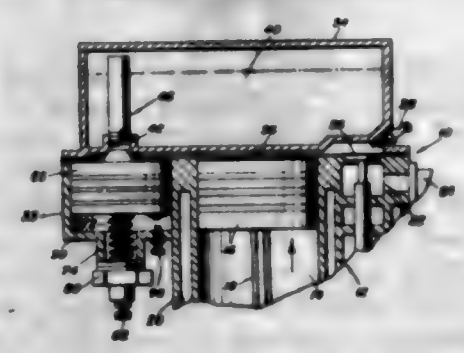
1. A vapor generating and superheating unit comprising walls defining an elongated heating gas chamber, a natural circulation vapor generating system including vapor generating tubes lining walls of said gas chamber, a convection heated vapor superheater arranged to be heated by heating gas in said gas chamber, means for supplying heating gas to said gas chamber comprising a cyclone furnace chamber of circular transverse cross-section having a restricted gas outlet to said gas chamber at one end thereof, vapor generating tubes lining the walls of said furnace chamber and proportioned to maintain a furnace chamber temperature above the fuel ash fusion temperature in the normal operating load range, means for supplying a combustible mixture of slag-forming particulate fuel and air to the opposite end of said furnace chamber in a direction producing a whirling stream of fuel and air and burning the fuel in a helical flow path along the circumferential wall of said furnace chamber towards said restricted gas outlet while depositing a layer of molten slag on said circumferential wall, and means for increasing the convection vapor superheating effect comprising means for withdrawing heating gas from said gas chamber downstream of said vapor superheater and introducing the withdrawn gas into the fuel inlet end of said furnace chamber axially thereof and in a direction towards said restricted gas outlet so as to mix with the fresh combustion gases leaving through said restricted gas outlet.

2,847,980

INTERNAL COMBUSTION ENGINE HAVING A STEAM VAPORIZING ATTACHMENT

Edmund Schlachter, Grand Blanc, Mich.

Application December 19, 1955, Serial No. 553,908
8 Claims. (Cl. 123—25)



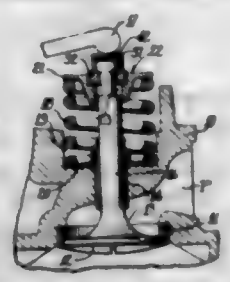
8. In combination with an internal combustion engine of the type including at least one cylinder and one piston, a steam vaporing attachment comprising a head for said cylinder, said head being in the form of a combined water jacket and steam boiler, means for introducing steam from said head into said cylinder in timed sequence to the igniting of fuel in said cylinder, said means including an auxiliary cylinder communicated with the first mentioned cylinder, an auxiliary piston in said auxiliary cylinder, a steam escape port in said head, a valve member carried by said auxiliary piston, a spring in said auxiliary piston towards said head and normally retaining said valve member in a port closing position, and a by-pass opening through said auxiliary piston for equalizing pressures above and below said auxiliary piston whereby said spring may return said piston to said port closing position, a by-pass valve controlling said by-pass opening, means engageable with said by-pass valve for moving said by-pass valve to an open position in response to movement of said piston away from said head.

2,847,981

VALVE ROTATING DEVICE

Achilles C. Sampietro, Ann Arbor, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application October 22, 1954, Serial No. 464,011
20 Claims. (Cl. 123—90)



1. A valve rotating device for a spring-loaded stemmed valve comprising a spring seating valve cap means, locking means to retain said valve cap means on the end of the valve stem and a flat driving member having a tor-

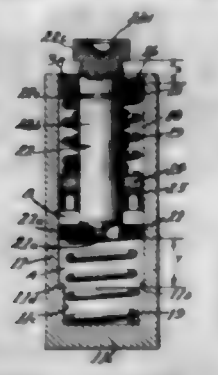
sionally twisted edge providing a plurality of prongs, each of said prongs being twisted an appreciable extent in a direction axial of the driving member, said washer being inserted between said valve stem and said valve cap and relatively displacing the stem and the cap in angular direction when compressed.

2,847,982

AUTOMATIC TAPPET

Clifford H. Allen, Cleveland, and William S. Gleeson, Euclid, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application January 7, 1955, Serial No. 480,566
5 Claims. (Cl. 123—90)



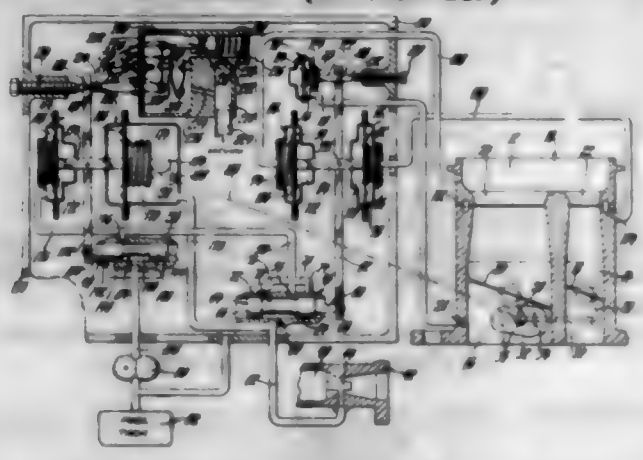
1. A tappet assembly comprising a cylindrical barrel having a closed bottom and an open top, a first spring bottomed against said closed bottom, a slidable member including a valve seating face, a choke ring disposed on said first spring and arranged to provide a seat for said valve seating face, a seal ring slidable along said valve member, a second spring restraining movement of said valve member in one direction, a third spring coaxial with said second spring, said second spring providing said tappet with a rapid recovery rate and said third spring providing said tappet with an extended operating range and means including an annular shoulder within said barrel cooperating with said valve member to limit axial movement of said valve member within said barrel.

2,847,983

FUEL INJECTION SYSTEM

Howard H. Dietrich, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 15, 1957, Serial No. 646,240
15 Claims. (Cl. 123—119)



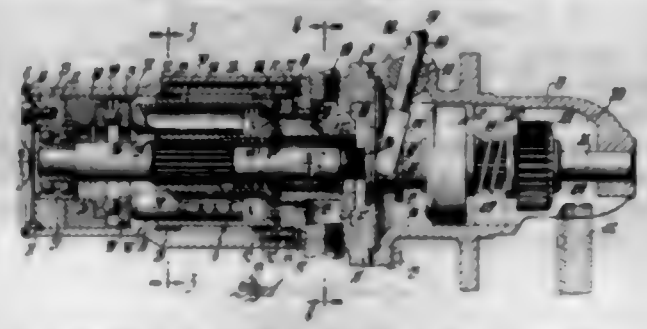
1. A fuel injection system for an internal combustion engine comprising an air intake including a pair of parallel related passages, a throttle valve in each of said passages, a venturi formed in each passage anteriorly of the throttle valve, means for sequentially operating said throttle valves whereby one of said passages only will supply air under low engine operating speeds and both passages will supply air as engine speeds increase, an intake passage communicating each cylinder of said engine with the air induction passages, a source of fuel under pressure, conduit means for connecting said fuel source with each cylinder intake passage whereby fuel will be individually supplied to the cylinders of the engine, a metering valve disposed in said conduit means for controlling the quantity of fuel flowing to the cylinders of said engine, a servo mechanism operatively connected to the metering valve, and conduit means connecting said servo mechanism with said venturis whereby the quantity of fuel flowing to the cylinders of the engine is proportional to the mass of air flowing through the air intake passage.

2,847,984

HYDRAULIC ENGINE-STARTING DEVICE

Raymond A. Gallant, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 7, 1955, Serial No. 545,348
20 Claims. (Cl. 123—179)



1. A hydraulic engine-starting device comprising a housing, a hydraulic motor, a shaft rotatably supported by said housing and drivingly connected to said motor, passage means in said housing through which pressurized fluid is adapted to be delivered to and discharged from said motor to effect rotation of said shaft, a starter drive mechanism including a pinion gear slidably mounted on said shaft and adapted to be rotated therewith, said pinion gear being adapted to engage an engine-driven gear axially spaced from said pinion gear upon sliding movement of said starter drive mechanism on said shaft, a valve assembly for controlling the delivery of pressurized fluid to said motor, said valve assembly including a valve body having an inlet chamber therein adapted to communicate with a source of hydraulic pressure fluid and an outlet chamber communicating with the pressurized-fluid-delivering passage means in said housing, a pilot valve adapted upon movement into one position to establish a limited connection for metering fluid between said inlet and outlet chambers and into another position to prevent the flow of fluid therebetween, and a main valve adapted to be operable to an open position interconnecting said inlet and outlet chambers by the fluid pressure in said outlet chamber in excess of a predetermined amount, and means biasing said main valve to a closed position preventing the flow of fluid between said inlet and outlet chambers when the fluid pressure in said outlet chamber is less than said predetermined amount, and lever means for sliding said starter drive mechanism on said shaft thereby moving said pinion gear toward driving engagement with said engine-driven gear and for shifting said pilot valve member to establish said limited fluid connection between said inlet and outlet chambers as said pinion gear approaches engagement with said engine-driven gear.

2,847,985

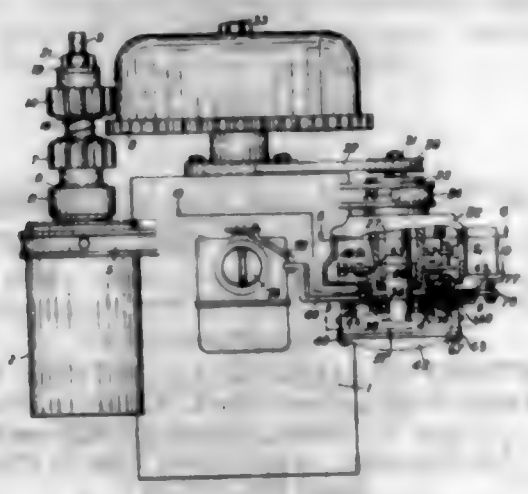
ENGINE STARTING MECHANISM

Charles D. Strang, Oshkosh, Wis., assignor to Kiekhaefer Corporation, Cedarburg, Wis., a corporation of Wisconsin

Application March 30, 1956, Serial No. 575,107
17 Claims. (Cl. 123—179)

1. An internal combustion engine starting mechanism comprising: a starter gear carried by said engine, a starter

motor mounted on said engine, a pinion gear carried by said motor adapted upon rotation of said motor to engage said starter gear to crank same, an ignition housing carried by said engine and pivotal with respect thereto, starter motor switch means actuable by said housing upon



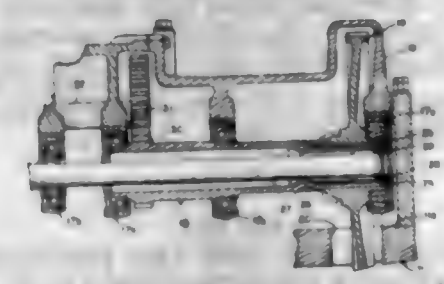
pivotal movement thereof to start said motor whereby said pinion gear cranks said starter gear to start said engine, and ignition means mounted in part in said housing for providing a spark for said engine, said spark being advanced or retarded upon pivotal movement of said housing.

2,847,986

ACCESSORY DRIVE FOR INTERNAL COMBUSTION ENGINE

Herbert H. Haas, Royal Oak, Mich., assignor, by mesne assignments, to Continental Motors Corporation, Muskegon, Mich., a corporation of Virginia

Application June 18, 1956, Serial No. 591,902
9 Claims. (Cl. 123—195)



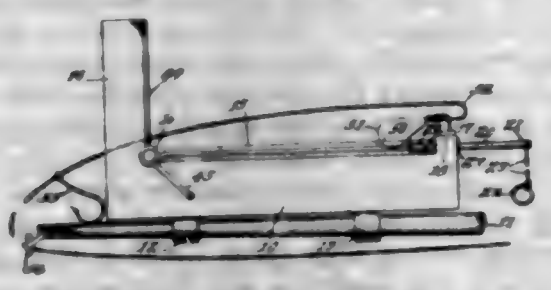
1. In an internal combustion engine having a plurality of accessories each provided with driven means, a crankshaft, and a driving means operably connecting said driven means with said crankshaft, said driving means comprising a substantially rigid driving second element for driving some of said accessories, and a relatively flexible driving element operable for driving other of said accessories and secured to said rigid element in direct driving relation, said second driving element being relatively flexible with respect to said rigid element.

2,847,987

FISHING LINE PROJECTOR

Isadore Solomon Silverstein, Philadelphia, Pa.

Application October 24, 1955, Serial No. 542,331
2 Claims. (Cl. 124—7)



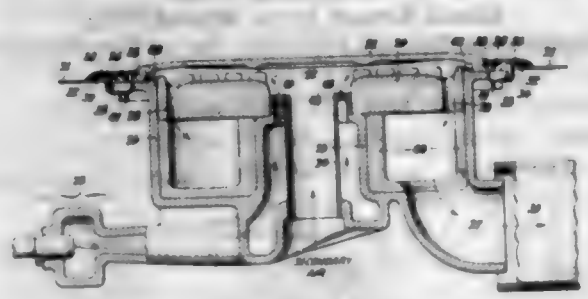
2. In a fishing line throwing device, the combination which comprises an L-shaped mounting element having a base with a stop extended upwardly from one end, spring clips on the base for attaching the base to a fishing rod, an arm having a weight receiving recess therein, a spring pivotally mounting the arm on the mounting element and adapted to actuate the arm to project a weight positioned in the recess thereof, said arm having a recess in each side edge and in the end edge thereof and said spring being seated in said recesses and having a pair of coils therein the ends of which are inserted into the opposite sides of said base, a latch mounted on the base and positioned to engage the arm for retaining the arm in a cocked position, a cord having a finger receiving ring on the extended end attached to the latch and extended to the handle of the fishing rod, and a spring for retaining the latch in the position of holding the arm in said cocked position, said stop extended upwardly from the base having a resilient cushion on the face thereof and said cushion being positioned to be engaged by the arm.

2,847,988

RADIANT HEAT FUEL BURNER

Frederic O. Hess, Philadelphia, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania

Application August 24, 1954, Serial No. 451,780
6 Claims. (Cl. 126—39)



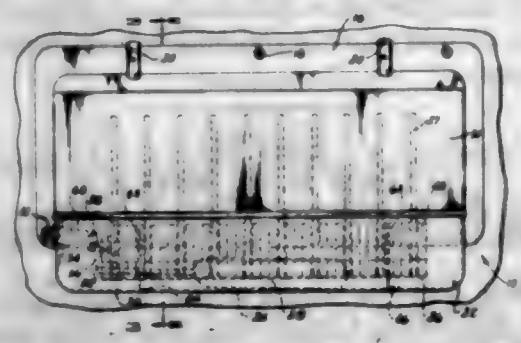
5. Domestic cooking apparatus comprising means forming a substantially flat and horizontally disposed top panel having an aperture therein, seating members extending inwardly from the edge of said aperture, a gas burner including a body and a cover therefor, said body being provided with outwardly projecting supporting wings and being of a size to be received in said aperture with said wings resting on said seats, a clamping ring extending from a position radially outward of said aperture over said top to a point radially inward of the edge of said cover to bridge the space between the two, and means forming part of said ring engaging said wings and seats to lock wings and seats together and thereby hold said cover on said burner and said burner in position on said top.

2,847,989

HUMIDIFIER UNIT

Milton A. Powers and Robert C. Champlin, Detroit, Mich., assignors to Skuttle Manufacturing Company, Milford, Mich., a corporation of Michigan

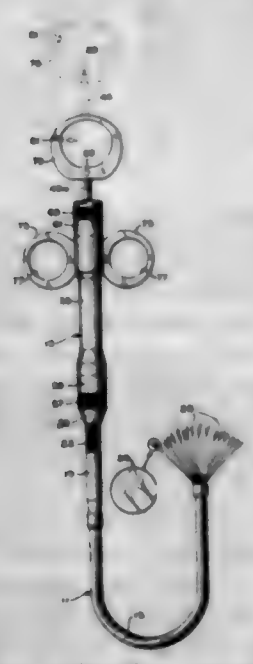
Application June 17, 1954, Serial No. 437,442
5 Claims. (Cl. 126—113)



1. A humidifier unit for mounting on an apertured upright side wall of an air duct in which air is directed in substantially a vertical stream comprising a vertically

disposed frame adapted to be secured to said wall on the external side thereof and over the edges of said aperture, a pan supported from said frame so as to extend lengthwise before the opening of the frame with the edge of the pan adjacent said frame being located below the level of the upper edge of the frame, two brackets mounted on the bottom of said pan in spaced relation and each having an upwardly extending tab, an elongated rack carried on said brackets in generally parallel relation to said frame and movable on the brackets in the lengthwise direction of the pan, said rack having transverse slots in its upper portion extending below the upper level of said tabs, a plurality of relatively rigid porous plates inserted in said slots, two of said plates fitting on opposite sides of said tabs to restrict lengthwise movement of said rack after insertion of said two plates, the upper portions of said plurality of relatively rigid porous plates projecting over the upper edge of said pan but below the upper edge of said frame with each plate having a projecting wing which is adapted to extend laterally into the air duct, means for regulating the flow of water into said pan, and a cover fitting over said pan and said plurality of plates and over the opening in said frame.

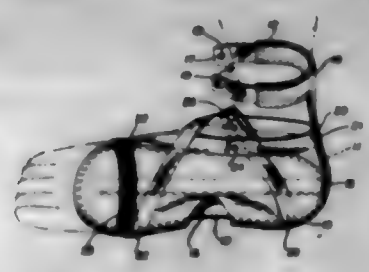
2,847,990
INSTRUMENT FOR OBTAINING CELLS FOR CYTODIAGNOSIS
James Ernest Ayre, Miami, Fla.
Application March 20, 1956, Serial No. 572,733
12 Claims. (Cl. 128—2)



1. Apparatus for collecting specimens for cytodiagnosis comprising, in combination, a tube; a shaft disposed within said tube for longitudinal and rotatable movement, one end of said shaft having specimen collecting means associated therewith and the other end of said shaft having an operating mechanism associated therewith; said operating mechanism comprising an axially movable plunger and means operatively connecting said plunger and said other end of said shaft; said means being operative to cause predetermined longitudinal and rotational movement of said shaft in response to axial movement of said plunger.

2,847,991
DROP FOOT BRACE
Adam Andrews, McDonald, Ohio
Application August 5, 1955, Serial No. 526,728
5 Claims. (Cl. 128—80)

1. A drop foot brace comprising a rigid arch support plate for disposition beneath the foot of the wearer and having a spring strip secured to the heel portion thereof and extending upwardly thereabove and an ankle support brace comprising a U-shaped member secured to the top of said spring strip, separate flexible elastic and non-elastic fastening members secured to the arch support

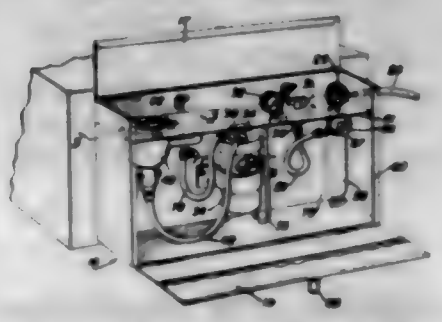


plate, the spring strip and U-shaped member for encircling a wearer's foot and ankle positioned on said brace.

2,847,992
METHOD OF MAKING A SURGICAL CAST
Philip Leslie, Leeds, Frederick J. R. Batten, Morley, and Ernest W. Smith, Dewsbury, England
No Drawing. Application June 7, 1955
Serial No. 513,892
10 Claims. (Cl. 128—90)

1. The method of forming a rigid supporting means, which includes the steps of processing a fabric consisting of threads comprising cellulose derivative material by treating a fabric with a volatile solution which exerts a solvent action on the soluble plastic material of the fabric and which has in respect of the said material a saturation value at 70 degrees Fahrenheit of less than 300 milligrams per 100 cubic centimetres of the solution, and applying at least one layer of the fabric to the part of a body upon which the supporting means is to be formed, these steps being carried out in desired sequence, and, subsequently, treating the fabrics so processed and mounted in position with a volatile solution which exerts a solvent action on the cellulose derivative material of the threads of the fabric, which has, in respect of the said material a saturation value at 70 degrees Fahrenheit, of between 400 and 100,000 milligrams per 100 cubic centimetres of the treating solution and which is allowed to evaporate whilst the fabric is in position on the part.

2,847,993
METHOD AND MEANS FOR THE PREVENTATIVE VACCINATION OF CHICKENS
Frederick E. Woodruff, Montrose, Pa.
Application May 21, 1952, Serial No. 289,173
9 Claims. (Cl. 128—191)



1. Vaccination equipment for vaccinating a relatively large number of chickens simultaneously by means of a vaccine carried by a fluid carrier comprising a spraying unit for spraying and nebulizing a vaccine, including a spraying vessel partly filled with a vaccine carrying fluid, means for spraying the vaccine carrying fluid by compressed air in said spraying vessel, said spraying vaccine carrying fluid filling constantly part of the spraying vessel, a source of air under pressure connected with said spraying means, a closed elongated cage of constant cross-section with a floor space which is large relatively to its volume for confining and holding the number of chickens, means for connecting said closed cage with that part of the spraying vessel containing the vaccine carry-

ing spray, means for producing an air stream connected with the source of air under pressure and further connected with the said connection between the spraying vessel and the cage, said last named means producing a constant secondary air stream entraining sprayed vaccine of the spraying vessel which air stream enters the elongated cage through the aforesaid connection and keeps the same filled with air carrying sprayed vaccine in a constant and predetermined proportion.

2,847,994

DONOR SET NEEDLE AND TUBING COMBINATION

Ralph L. Huber, Seattle, Wash.; Jennie Huber, administratrix of the estate of said Ralph L. Huber, deceased

Application March 3, 1953, Serial No. 339,968
4 Claims. (Cl. 128—214)



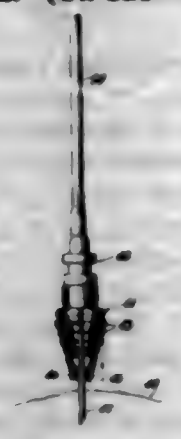
1. A donor set comprising a length of flexible tubing, a needle pierceable stopple on each end thereof, a pair of double ended needles, said needles respectively having end portions projected axially through the said stopples and extending within opposite ends of the tubing, means fixed to each of the needles medially of their respective ends as a finger grip for manipulation thereof in application or removal of the needles from the tubing and stopples, said means fixed to the needles having a portion thereof in holding engagement with the tubing to additionally seal the tubing and resist accidental withdrawal of the needles from their respective stopples.

2,847,995

TRANSFUSION NEEDLE SHEATH

John Q. Adams, Rutherford, N. J., assignor to Becton, Dickinson and Company, Rutherford, N. J., a corporation of New Jersey

Application August 23, 1954, Serial No. 451,552
4 Claims. (Cl. 128—214)



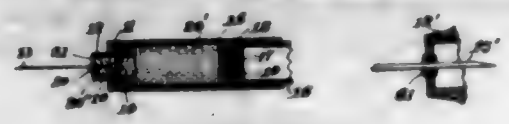
1. In combination, a hypodermic needle comprising a shank terminating in a pointed outer end and having an inner end for connection with a liquid-conducting unit, the lumen of said needle extending uninterruptedly from one to the other end of said shank, a tubular sheath of flexible material comprising a body having a closed outer end and an open inner end, said latter end being connected to said needle to provide a seal preventing access of fluid between the adjacent inner end surfaces of said needle and sheath, the inner lumen end being unobstructed by said sheath, such sheath being concentrically disposed around the length of said shank and extending beyond the outer end of said needle; an area of the sheath material extending adjacent such needle end being engageable with a pierceable body surface whereby—in response to an axial thrusting of the needle—its point will penetrate such area of the sheath and the adjacent pierceable body to provide for an unobstructed path of liquid flow through the lumen from the pointed needle end through to the inner end of the latter and the bore surface of said sheath being corrugated.

2,847,996

HYPODERMIC SYRINGE

Milton J. Cohen, Washington, D. C., and Robert K. McConnaughey, Chevy Chase, Md., assignors to Miljam Instrument Corporation, Washington, D. C., a corporation of Delaware

Application August 13, 1953, Serial No. 374,012
13 Claims. (Cl. 128—218)



1. A hypodermic syringe having a barrel providing a chamber for medicament, a plunger closing one end of the chamber, a hollow cap surrounding the other end of the barrel and providing a second chamber for medicament, a hollow needle mounted on the cap and extending into said chamber and a washer clamped between the end of the barrel and a shoulder on the cap, said washer having a relatively thick outer ring portion and a pretensed membrane extending across the ring abutting said other end of the barrel, said needle having a point located close to said membrane.

9. A hypodermic syringe having a barrel providing a chamber for liquid, a cap at one end of said barrel, a needle projecting from said cap and a rivet mounted in a hole in said cap, said rivet encircling said needle and overlapping the edges of the cap at both ends of the rivet.

2,847,997

CATHETER

James J. Tibone, Rockville Centre, N. Y.

Application January 13, 1956, Serial No. 558,939
9 Claims. (Cl. 128—325)



1. A catheter to be inserted into a nasal passage comprising an elongated tube of relatively small diameter composed of a relatively stiff non-injurious material, an inflatable bulb of soft, resilient material closing one end of said tube, and a layer of a gauze-like material capable of being impregnated with a therapeutic agent adhered to the outside surface of said bulb and capable of expanding with said bulb when inflated.

2,847,998

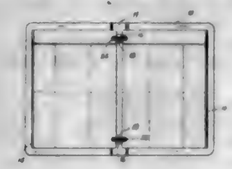
LOOSE LEAF METAL RING CONSTRUCTION

Albert J. Pisano, St. Louis, Mo.

Application November 7, 1955, Serial No. 545,405
2 Claims. (Cl. 129—1)

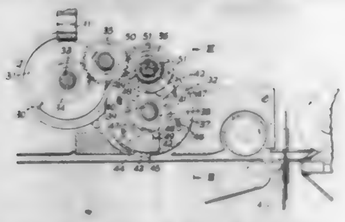
1. A loose leaf binder ring, comprising a single piece of resilient sheet material, including a relatively wide base portion adapted to overlie the edge of a loose leaf binder, a relatively narrow ring part of generally semi-circular shape having one end integrally connected to and extend-

ing from a side edge of the base portion, and extending in a ring-like shape above and across the base portion so that its other end normally rests adjacent but slightly above the opposite side edge of the base portion; a hook part integrally formed with and extending from the said opposite side edge in alignment with the ring part, the hook part extending upwardly and outwardly from the base portion so that its free end projects upwardly toward, and outwardly beyond, the overhanging end of



the ring part, the said free end being curved downwardly at its tip; and the overhanging end of the ring part having a recess, the ring part normally being shaped to position, its tip somewhat above the tip of the hook part and spaced inward from the downturned tip thereof to admit insertion of sheets onto the ring part, but being resilient to enable the overhanging end to be depressed against the downturned end of the hook part, and thereby be deformed over the said hook part to cause the recess to receive and latch.

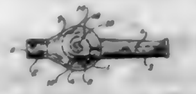
2,847,999
APPARATUS FOR THE MANUFACTURE OF MOUTHPIECE CIGARETTES
Desmond Walter Molins, Deptford, London, England, assignor to Molins Machine Company, Limited, Deptford, London, England, a British company
Application October 22, 1954, Serial No. 464,156
Claims priority, application Great Britain October 29, 1953
3 Claims. (Cl. 131—61)



1. In apparatus for manufacturing cigarettes, means to feed forwardly an unwrapped tobacco filler, means to sever said filler, means to move a severed length of the filler lengthwise away from the length behind it by a distance such as to form between the two said lengths a space no greater than the length of a stub, and a member arranged to engage a stub and move it into said space at a faster forward speed than that of the tobacco lengths, and thereafter while engaging the stub to reduce the forward speed of the latter below that of the tobacco lengths.

2,848,000
CIGARETTE HOLDER
George B. Herbster, Dallas, Tex.
Application March 25, 1954, Serial No. 418,616
5 Claims. (Cl. 131—207)

1. A cigarette holder comprising a body having a mouthpiece portion with a smoke duct therein, a cigarette holding socket with a cigarette holding bore therein, and an enlarged intermediate flat member having a width that is greater than the outside diameter of the socket and a height substantially less than its own width, said enlarged intermediate member having a cavity therein adapted to receive smoke filtering means, said cavity being defined by an end wall and a peripheral wall and having an open end opposite from said end wall, a detachable closure cap closing the open end of the cavity, the filtering means comprising arcuately arranged sheet baffle material that is impervious to smoke and is arranged on edge relative to the end wall and extends edgewise substantially from said end wall to the inner face of the cap and has portions in spaced relation to

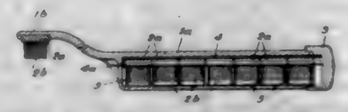


each other in a direction laterally of the cavity and has filtering material between the spaced portions, the central portion of the end wall having an opening for smoke, said holder having another opening leading into the cavity spaced laterally of the cavity from the first opening, said openings being connected one with the bore and one with the duct, whereby smoke entering the cavity from the bore will be caused to travel an arcuate path through the cavity from one of said openings to the other and thence to the duct in the mouthpiece.

2,848,001
ATTACHMENT FOR HAIR NETS
Oliver R. Long, Rockville, Md., assignor of thirty-five percent to Douglas T. Corbin, Washington, D. C.
Application June 17, 1955, Serial No. 516,100
7 Claims. (Cl. 132—49)

1. A hair net assembly comprising: a hair net of reticulated hair net material having a plurality of apertures described by threads of said material and a plurality of units, each of said units having support members secured within certain of said apertures to the threads describing the said apertures, each of said units also having a plurality of legs of substantially equal length fixedly secured to said support members and extending downwardly therefrom and in a direction substantially perpendicular to said hair net material, said perpendicular relationship existing in the area of attachment of said threads to the support member of each unit bearing said legs.

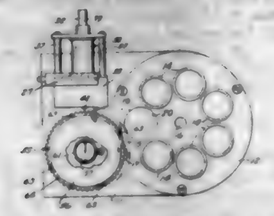
2,848,002
TOOTHBRUSHES
Georg Hirschfeldt, Los Teques, Venezuela
Application July 31, 1957, Serial No. 675,383
1 Claim. (Cl. 132—79)



In a toothbrush, a hollow handle, a plurality of replaceable brush bodies in said handle, means on one end of said handle for attaching thereon one of said brush bodies, each of said brush bodies comprising a holder and bristles on said holder, said holder having means

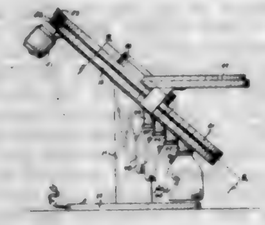
thereon to cooperate with said means on said handle end to attach said holder to said handle, said hollow handle having a bore open at the end of the handle which is opposite the one to which said replaceable brush body is attachable, a removable closure cap covering said open end of the handle, and means on said closure cap for removing at least one of said replaceable brush bodies from the hollow handle when said closure cap is removed.

2,848,003
CHANGE-MAKING MECHANISM
Arthur R. Gross, St. Paul, Minn.
Application June 2, 1955, Serial No. 512,617
11 Claims. (Cl. 133—2)



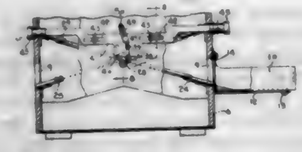
1. In a change-making mechanism, a source of coins of a specific denomination adapted to be dispensed in different amounts responsive to change-making selective means, coin-dispensing means for controllably delivering said coins from said source comprising a perforated disc mounted for rotation, each of the holes formed therein being uniformly circumferentially spaced with their centers equally spaced from the axis of the disc and each being adapted to receive a determined number of said coins from said source at one time, said disc discharging the determined number of coins from each hole at one particular place in the generally circular path of travel of said holes and said source refilling each of said holes with said determined number of coins at each revolution of said disc so that each hole is adapted to deposit the determined number of coins carried therein at said discharge place and then be refilled once during one revolution of said disc, whereby said coin dispensing means is adapted to discharge various integral multiples of said determined number of coins dependent upon the extent of rotation of said disc, a motor connected in driving engagement with said disc, a motor circuit adapted to connect said motor to a source of current, a switch in said motor circuit being yieldingly biased to an open circuit position, a plurality of electromagnetic solenoid relays each comprising a winding and a plunger movably alternately in opposite directions inside the winding, each winding being adapted to be energized by the change-making selective means to move its cooperating plunger in one direction from an inoperative position to an operative position, detent means releasably maintaining each of said plungers at its operative position after deenergization of its cooperating winding, a switch element movable alternately in opposite directions between a motor circuit making position and a motor circuit breaking position being yieldingly biased in one direction to its circuit breaking position and engaged by each of said plungers to be moved to and maintained in its circuit making position by the movement of any one of said plungers to its operative position, each of said plungers being disposed in spaced parallel aligned relationship, a timer for actuating the movement of said plungers from their operative to their inoperative positions comprising a drum mounted for rotation on an axis generally at right angles to said plungers, stop means engaging said drum at one position thereof, resilient yielding means urging said drum in one direction to abut said stop means, a plurality of timing lugs secured to said drum in circumferentially and axially spaced relationship and projecting radially outwardly therefrom, each of said lugs adapted to engage a different one of said plungers to move it from its operative to its inoperative position, a drive train between said motor and said drum to drive said drum in one direction from said stop means against the bias of said resilient ielding means, and a solenoid actuated clutch in said dri rain movable from a drive position to a non-driving position, said clutch at its non-driving position di engaging said drum to permit said resilient yielding means to return the drum to its starting position in engagement with said stop means and at its driving position engaging said drum in driving relationship with said motor.

2,848,004
COIN SORTING MACHINE
Fredrick Illian Bunker and Richard Lindsay Bunker, Lake City, Iowa
Application May 2, 1956, Serial No. 582,217
8 Claims. (Cl. 133—3)



1. In a coin sorting machine, a fixed table having a plurality of concentric circular continuous spaced apart grooves; said table extending forwardly and upwardly, a plate rotatably mounted in spaced relationship and parallel with the top of said table, a plurality of concentric circular continuous spaced apart rows of spaced apart downwardly extending pins on said plate extending into the grooves of said table respectively, a coin entrance passageway through the center of said plate, and a coin discharge passageway in said table adjacent each of said grooves and being offset from the path of the flow of coins being processed through the machine; said pins of said circular rows of pins being progressively closer together as said circular rows increase in diameter.

2,848,005
COIN DELIVERY APPARATUS
Arnold R. Buchholz, Watertown, Wis., assignor to Brandt Automatic Cashier Company, Watertown, Wis., a corporation of Wisconsin
Application June 16, 1954, Serial No. 437,138
4 Claims. (Cl. 133—4)



1. In a coin dispensing machine having delivery openings at opposite sides thereof, the combination of a coin receptacle accessible to the operator of the machine and secured to the machine in line with one of said openings, an exteriorly extending chute mounted on the machine to receive coins from the other of said openings and connected to a receptacle accessible to a customer, a coin magazine, a coin discharge passage from said magazine, a chute pivotally mounted intermediate its ends and

adapted to receive coins from said passage, an operator controlled reciprocatory bar operable from either side of the machine and provided with a slot, and a crank arm carried by the pivot for said last named chute and having a crank pin working in said slot to swing said chute to a position to deliver coins to said first named receptacle or to a position for delivering coins to said exteriorly extending chute.

2,848,806

CLEANING CONTAINER WITH MAGNETIC REMOVAL

John G. Simpson, Atlanta, Ga.

Application April 2, 1954, Serial No. 420,597
8 Claims. (Cl. 134—133)



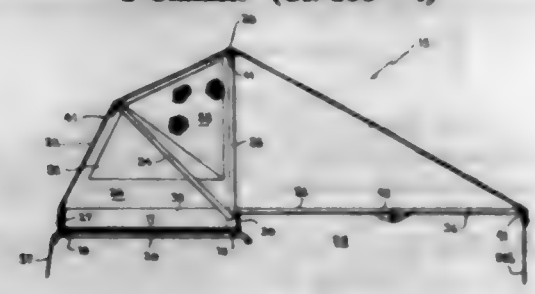
1. In a container of the class described, a body portion having a closed bottom and having an opening therein for the insertion and removal of metal objects, said opening being positioned above the level of a fluid contained in said body in at least one position of said container, a closure member selectively movable on said body portion to close said opening forming a fluid tight container, and magnetic means normally within said container when said closure is in place for holding said metal objects adjacent said opening while said fluid drains therefrom back into said container, said objects being attracted to said magnetic means upon inversion of said container, and said magnetic means being above the level of said fluid in at least one object removal position of said container to permit opening of said closure and removal of said objects through said opening whereby said objects may be readily removed from said fluid after cleaning without removing or spilling the fluid from the container.

2,848,807

PORTABLE CAMPING SHELTER

Kenneth G. Churchill, East Syracuse, N. Y.

Application November 23, 1956, Serial No. 623,917
2 Claims. (Cl. 135—4)



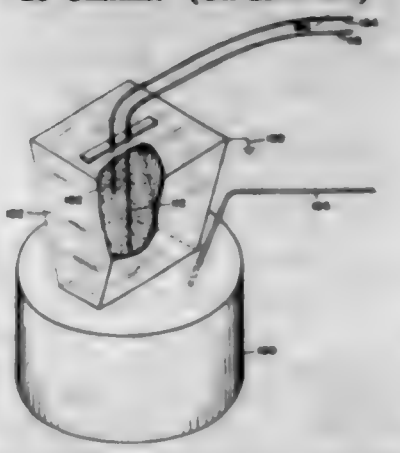
1. In a portable camping shelter adapted to be supported on the top of a vehicle, a base member in the form of a shallow rectangular box, a plurality of bow members pivotally secured at their free ends to said box and normally contained therein with the legs thereof disposed transversely of the box, the legs of one of said bow members being considerably longer than the width of the box and being formed in two approximately equal length sections having hinged joints therebetween to permit the member to fit within the box by being folded back upon itself, and a cover of flexible sheet material secured to said bow members and adapted to be elevated to a position above said box and extending outwardly beyond one side thereof a distance equal to approximately twice the width of the box when the bow members are pivotally moved to project from the box, said sectional bow member being unfolded during such movement so that it projects outwardly from the box in a substantially horizontal position and forms the sole support for the outwardly extending portion of said cover, the hinged joints of said member holding the hinged sections thereof in end to end abutment in such position to provide the maximum possible outward extension of said cover for the length of sections used.

2,848,908

APPARATUS FOR MEASURING, RECORDING, AND/OR CONTROLLING THE MOISTURE CONTENT OF BULK MATERIAL

Harry W. Dietert, Randolph L. Dietert, Howard L. Jameson, and Clarence L. Bowman, Detroit, Mich., assignors to Harry W. Dietert Company, Detroit, Mich., a corporation of Michigan

Application December 14, 1953, Serial No. 398,022
10 Claims. (Cl. 137—90)



1. Moisture control apparatus comprising a batch mill, a hopper disposed to empty into said mill, a liquid tank having an inlet valve controlling admission of liquid to said tank, a liquid connection between said tank and said mill, a discharge valve in said connection controlling flow of liquid from said tank to said mill, a probe insertable in bulk material in said hopper, an electrical measuring circuit connected to said probe having an electrical output dependent on the percentage of moisture in bulk material in said hopper, an electrical measuring circuit having an electrical output dependent on the quantity of liquid in said tank, electrical inlet valve control means comprising a circuit connected to receive the outputs from said measuring circuits and responsive to the percentage moisture in said bulk material and to the quantity of liquid in said tank effective to close said inlet valve when the quantity of liquid in said tank is sufficient to produce a predetermined percentage of moisture in the bulk material when added thereto.

2,848,809

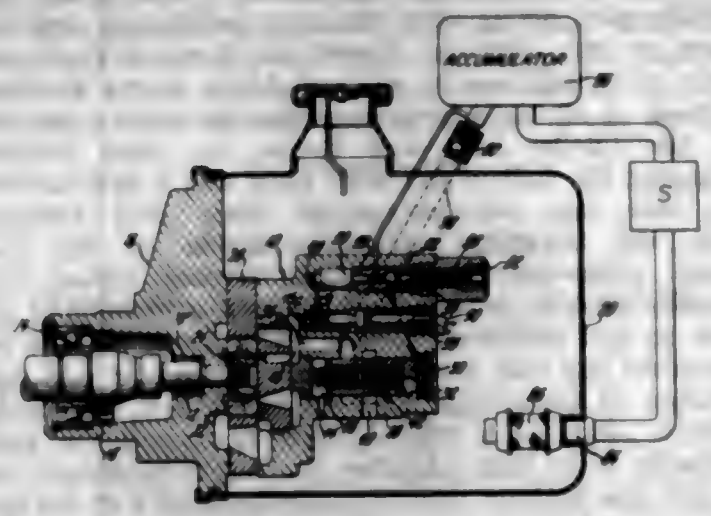
UNLOADING VALVE

Paul V. Wysong, Jr., and Robert P. Rohde, Saginaw, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 16, 1956, Serial No. 565,834
3 Claims. (Cl. 137—108)

1. An unloading device for a hydraulic system including an accumulator and a pump having a by-pass valve associated therewith, said device comprising a casing, a valve element in said casing disposed between a pair of opposed plungers one of which is mechanically resiliently loaded in the direction toward said element, means providing communication between the other plunger and the discharge side of said pump, said other plunger being actuable by the discharge pressure when the same reaches a predetermined value, means inward of said plungers providing a pair of opposed openings serving as seats for said element, the opening nearest said resiliently loaded plunger being larger than the other opening, each plunger having a portion adapted to pass through

the adjacent opening to contact said element, and a pair of passages in said casing leading respectively to said accumulator and to said by-pass valve, said passages becoming interconnected on shifting of said element against



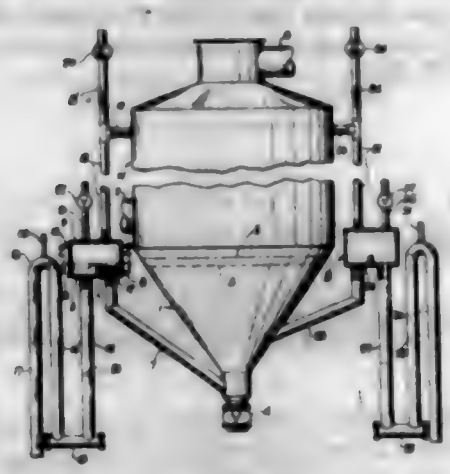
the resistance of the loading of said resiliently loaded plunger by the said other plunger, said element being maintained in its shifted position by accumulator pressure until such pressure becomes reduced to a predetermined extent.

2,848,010

GAS WASHER OVERFLOW APPARATUS

Robert E. Touzalin, Shaker Heights, Ohio, assignor to Arthur G. McKee & Company, Cleveland, Ohio, a corporation of Delaware

Application March 12, 1954, Serial No. 415,883
3 Claims. (Cl. 137—177)



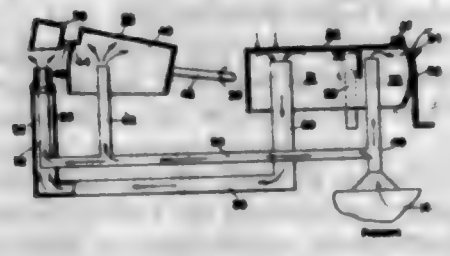
1. Liquid overflow control apparatus for a closed vessel operating under super-atmospheric gas pressure comprising, a closed weir box having a normal overflow weir therein at the elevation of the normal overflow level of said closed vessel, said weir dividing said weir box into upstream and downstream portions, a normal overflow pipe connecting said upstream portion of said weir box to said closed vessel at a point adjacent the lowermost portion thereof, a normal outlet pipe leading from said downstream portion of said weir box and including a liquid seal portion, a pressure conducting conduit connecting said closed vessel above said overflow level to said closed weir box whereby the gas pressure therein will be equalized, a second closed weir box having an emergency overflow weir therein at an elevation above said elevation of the normal overflow level of said closed vessel, said emergency overflow weir dividing said second closed weir box into upstream and downstream portions, an emergency overflow pipe connecting said upstream portion of said second weir box to said closed vessel below said normal overflow level but above the connection of said normal overflow pipe to said vessel, an emergency outlet pipe leading from said downstream portion of said second named weir box and including a liquid seal portion, and a pressure conducting conduit connecting said closed vessel above said overflow level to said second closed weir box whereby the gas pressure therein will be equalized.

2,848,011

JET ACTION RELIEF VALVE

Harold A. Quist, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application March 1, 1957, Serial No. 643,406
6 Claims. (Cl. 137—248)



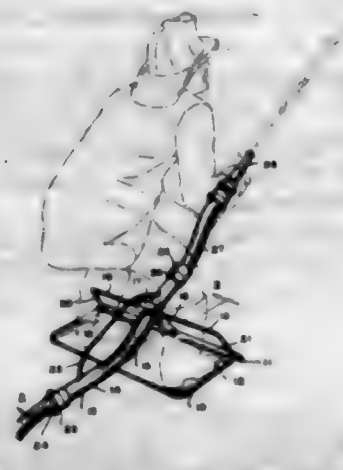
1. A pressure-vacuum relief system for a receptacle comprising a vacuum relief valve having a vacuum responsive operating portion and a valve portion operatively connecting the interior of said receptacle with the atmosphere, a pressure responsive actuator operatively connected to a pressure relief valve connecting the interior of the receptacle with the atmosphere, jet means controlled by the pressure relief valve, and conduit means between the jet and said vacuum responsive operating portion of the vacuum relief valve positioned relative to the jet to transmit a vacuum operating condition to said operating portion as the jet relieves receptacle pressure through said pressure relief valve, thereby operating the vacuum relief valve for pressure venting.

2,848,012

SELF-ATTENDING FIRE HOSE

Charles L. Scott and John C. Klinck, Memphis, Tenn.

Application March 16, 1955, Serial No. 494,788
4 Claims. (Cl. 137—342)



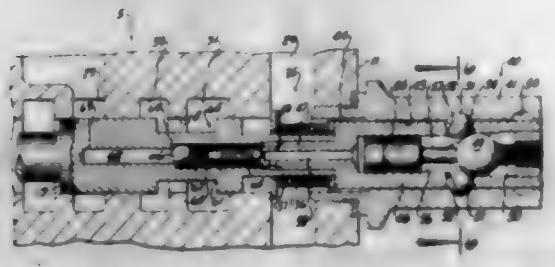
4. A support for a fire hose to take the reaction of a stream of water and provide a support for a nozzle, said support comprising a rigid elongated base plate, a rigid pipe having an obtuse angle located across the width of said rigid base plate with the plane of the angle substantially at right angles thereto and fixedly mounted on said base plate with one leg of the angle of said pipe substantially parallel to the base plate and extending beyond one edge of said base plate in substantially the same plane as the base plate and coacting therewith to aid in supporting said pipe, the other leg extending upwardly and outwardly beyond the other edge of the base plate, means to secure a hose to the free end of said one leg of the pipe and means to secure a nozzle to the free end of said other leg of the pipe.

2,848,013
POULTRY WATERING CUP
Reed S. Kofford, Van Nuys, Calif.
Application June 10, 1957, Serial No. 664,827
2 Claims. (Cl. 137—408)



1. In a pivotally mounted poultry watering device which includes a water inlet member and a cup member, a pivot pin having a bottom leg slidably extending through said water inlet member and said cup member to provide a pivotal connection between said members, said water inlet member having a track extending thereacross transversely with respect to said cup member, said pivot pin having an upper leg mounted for sliding movement within said track transversely with respect to said cup member, the bottom leg of said pivot pin being substantially longer than the transverse length of said water inlet member and cup member at their point of pivotal connection to permit transverse movement of said pivot pin without affecting the pivotal connection between said members, said cup member having an upwardly directed stop member disposed adjacent to said track and extending upwardly above said track, said pivot pin having an upwardly directed portion extending upwardly above said upper leg and above said stop member, said upwardly directed portion having an open area therebeneath, said pivot pin being slidably movable transversely with respect to said cup member between two positions, in one of which a portion of said upper leg is disposed adjacent said stop member to engage said stop member and limit the pivotal movement of said cup member, and in the other of which the upwardly directed portion of said pivot pin is disposed adjacent said stop member to permit extended pivotal movement of said cup member, with said stop member passing through the open area beneath the upwardly directed portion of said pivot pin.

2,848,014
DETENT MECHANISM FOR HYDRAULIC CONTROL VALVES
Francis H. Tennis, Milwaukee, Wis., assignor to Hydraulic Unit Specialties Co., Pewaukee, Wis., a corporation of Wisconsin
Application December 19, 1955, Serial No. 553,783
5 Claims. (Cl. 137—622.5)



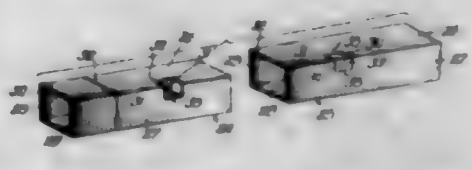
1. In detent mechanism of the character described: a body part having a bore therethrough and a circumferential groove in the wall of the bore; an elongated detent carrier comprising a tubular part axially slidably received in said bore, means secured in one end of the tubular part to close the same, and means secured to the other end of the tubular part providing a longitudinal extension thereof by which the tubular part may be shifted back and forth in said bore, the wall of said tubular part having a radial hole therethrough which registers with said body groove in one position of the carrier; a cam member inaccessibly mounted in the hollow interior of said tubular part and at all times movable axially therein, relative to the tubular part, toward and from a position alongside the inner end of said radial hole; yieldable biasing means inside the tubular part, acting upon the came member to urge the same in one direction toward the inner end of said hole; a cam follower in said radial hole having an inner portion at all times projecting into the hollow interior of the tubular part and having an outer portion engaging the wall of the body bore; and a cam surface on said cam member at all times held engaged with the inwardly projecting portion of the follower under the force of said biasing means and thereby tending to cam the follower outwardly of its hole so that said outer portion of the follower will be projected into said groove in the body bore in said one position of the carrier, and the surfaces of said body groove acting as a cam follower to propel the cam inwardly of its hole whenever the carrier is shifted out of said one position thereof as a consequence of the application of force to said extension of the tubular member, such camming of the cam follower inwardly of its hole producing axial motion of the cam member away from said hole, against the force of the yieldable biasing means acting thereon to thereby require shifting of the carrier out of said position thereof by force exerted on said extension in excess of that exerted on the cam member by its yieldable biasing means.

2,848,015
REENFORCED HOSE AND METHOD OF MAKING SAME
Fred T. Roberts and Robert E. Roberts, Wilton, Conn.
Original application December 1, 1955, Serial No. 550,307, now Patent No. 2,780,274, dated February 5, 1957. Divided and this application June 7, 1956, Serial No. 589,893
4 Claims. (Cl. 138—56)



1. A mold formed, reenforced flexible hose comprising an annularly corrugated body of elastomeric material having separate, annular reenforcing means embedded in the body in a predetermined position with respect to each corrugation, said reenforcing means comprising single coils of resilient wire, each having the ends thereof overlapped.

2,848,016
INSULATION VENTILATOR TUBE
Joseph P. Murphy and Kenneth A. Weimer, Marion, Ind., assignors, by mesne assignments, to Federal Paper Board Company, Inc., Bogota, N. J., a corporation of New York
Application January 17, 1955, Serial No. 482,071
3 Claims. (Cl. 138—78)



1. A tubular construction comprising a pair of generally similar paperboard tubes creased longitudinally for flexure from flat collapsed condition to erected, box-like

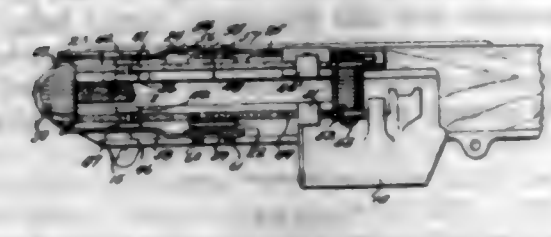
cross sectional outline, each of said tubes being provided with an integral strap partially separated therefrom and hingedly connected at its ends thereto, said strap extending across a longitudinal crease of the tube and being flexible inwardly of the tube outline into a reversible folded position bracing said tube, the tubes being telescopingly interfitted, one within the other, with their respective straps in longitudinal register and in inwardly reversely folded and internested relation to one another.

2,848,017

PICKER STICK CHECK

Cosie M. Smith, Columbus, Ga.

Application January 19, 1956, Serial No. 560,204
1 Claim. (Cl. 139—165)



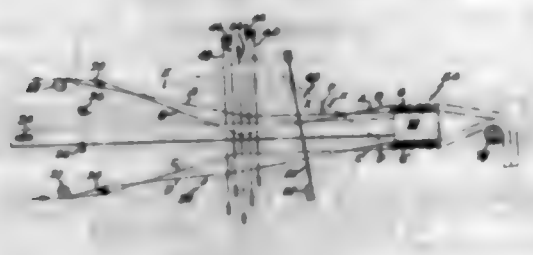
A picker stick check for looms comprising a flexible picker stick encompassing elongated loop, said loop having spaced parallel sides, laminated leather blocks secured in opposite ends of said loop, spaced aligned guides supporting one side of said loop, spaced aligned guides supporting the opposite side of said loop, a brake plate carried by one guide on each side of said loop and arranged to contact said loop, and adjustable resilient means engaging each of said brake plates biasing said brake plates into frictional engagement with said loop whereby movement of said loop through side guides is retarded, said resilient means comprising a generally flat spring arm bearing against said brake plate.

2,848,018

FABRICS AND METHOD OF MAKING THE SAME

Charles Eugene Neisler, Jr., Kings Mountain, N. C., assignor to Neisler Brothers, Incorporated, a corporation of North Carolina

Application June 9, 1953, Serial No. 360,435
14 Claims. (Cl. 139—410)



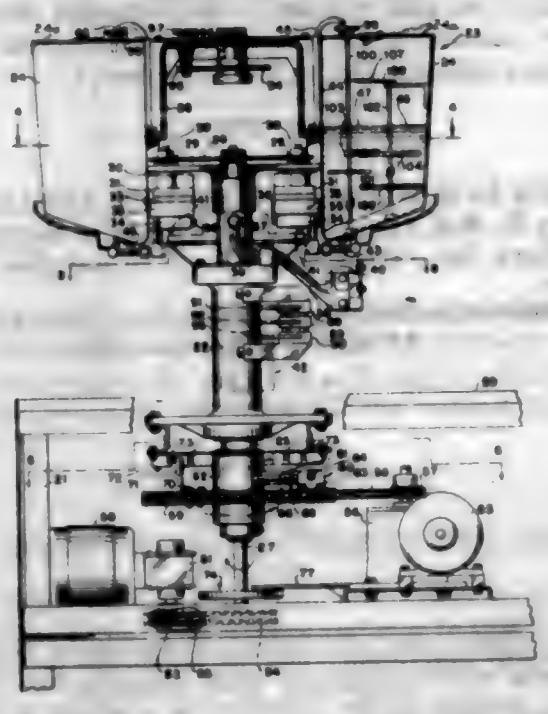
1. The method of making a fabric material formed of a pair of woven fabrics having an intermediate thread extending therebetween and woven thereto, comprising the steps of interweaving warp and weft threads to simultaneously form a pair of fabrics disposed in laterally spaced confronting disposition, weaving said intermediate thread with said warp and weft threads of said pair of fabrics, respectively, in succession during the weaving of said pair of fabrics with said thread extending transversely between said pair of fabrics, temporarily supporting portions of said thread intermediate interwoven portions thereof relative to said pair of fabrics by means of weft threads disposed outwardly of said fabrics, and thereafter removing said last mentioned weft threads whereby to release said portions from said temporary support whereby to permit an increase of the lateral spacing between said pair of fabrics.

2,848,019

PAINT MIXING MACHINE

Milford H. Corbin and Robert L. Lippe, New York, Joseph T. Yater, Staten Island, Thomas E. Goodwin, Baldwin, John P. Drinjak, Uniondale, and Edmund M. Squire, New York, N. Y., assignors, by mesne assignments, to Color Carousel Corp., Staten Island, N. Y., a corporation of California

Application October 27, 1953, Serial No. 388,554
39 Claims. (Cl. 141—100)



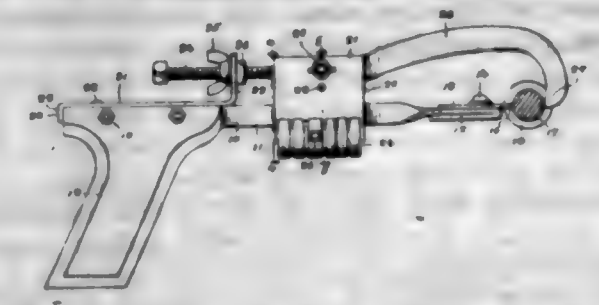
13. Liquid dispensing apparatus of the class described, comprising: a plurality of liquid reservoirs; an electric motor; motor driven means operated by said motor for producing relative movement of said reservoirs and a container to be filled therefrom; braking means for abruptly stopping said motor; a plurality of separate selective means connected to said braking means for stopping said motor when a particular reservoir independently selected in each of said selective means is positioned in dispensing relationship with respect to said container; transfer means interposed between said selective means and said braking means for successively rendering each of said selective means individually effective; a stepping switch common to said plurality of selective means; controllable means for dispensing liquid from said particular reservoir; means for advancing said stepping switch during dispensing operation of said controllable means; and an individual volumetric control means connected to each selective means to be effective therewith for operating said transfer means when said stepping switch has advanced to a position independently determinable by each of said volumetric control means.

2,848,020

TENON CUTTING TOOL

Edmund A. Zemrowski, Michigan City, Ind.

Application May 2, 1957, Serial No. 656,598
1 Claim. (Cl. 142—56)



In a tool, a shank including a main portion terminating in an offset folded end portion, a blade detachably connected to said end portion and provided with a cutting edge, a handle connected to said shank, a support mem-

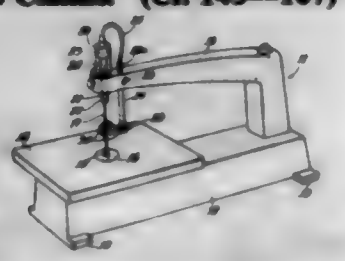
ber movably mounted on said shank and including a pair of plates having said shank extending therebetween, a hand grip mounted on the lower portion of said support member, a caliper having one end connected to said support member and its other end curved and terminating adjacent said blade, a bracket connected to said handle and including a first section arranged contiguous to said handle and secured thereto, a second section arranged at right angles to said first section and extending therefrom in spaced parallel relation to said support member, and a screw member extending through said second section to terminate adjacent said support member.

2,848,021

POWER SAW WORK HOLD-DOWN ATTACHMENT

George R. Bell, Glenview, Ill., assignor to Burgess Vibrocrafters, Inc., Grayslake, Ill., a corporation of Delaware

Application October 16, 1956, Serial No. 616,257
3 Claims. (Cl. 143—167)



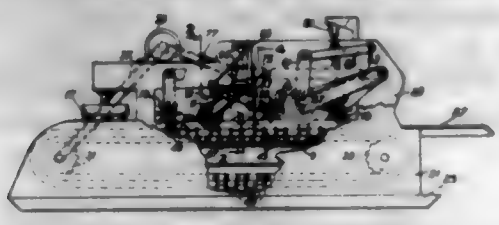
1. A power saw attachment comprising a rod adapted to depend rigidly from the outer end of a saw over-arm, a clevis bracket rigidly mounted on said rod at the lower end thereof and having a pair of spaced parallel legs extending laterally from said rod, an axle mounted in the distal ends of said legs and extending therebetween and beyond each said leg of said bracket, a blade guide roller mounted for rotation upon said axle between said legs and having a blade-receiving annular groove on its outer surface, and a hold-down wheel rotatably mounted upon each end portion of said axle exteriorly adjacent said legs, said wheels being adapted to rigidly engage and hold down a work piece when in operative position.

2,848,022

SLAB BARKER HAVING SCRAPER

John L. Gyllenberg, Baker, Oreg., assignor to Anthony Brandenthaler, Baker, Oreg.

Application November 9, 1956, Serial No. 621,229
2 Claims. (Cl. 144—208)



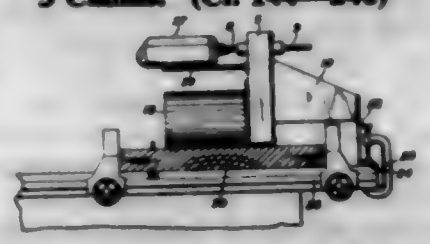
1. In a slab barker, a frame, a conveyor movably supported on said frame for conveying a slab in lengthwise fashion along a predetermined horizontal path with its bark-covered side uppermost, said conveyor having driving spikes for engaging the flat, woody bottom surface of a slab, said driving spikes projecting upwardly farther than any of the other portions of said conveyor, bark-removing means above said path for removing bark from such slab, said bark-removing means including a pair of rotary barking tools mounted for vertical movement toward and away from said path, said barking tools being symmetrically disposed relative to said conveyor and said spikes, power means for rapidly rotating said tools at a rate many times that of the rate of travel of said conveyor, said barking tools having the inner faces thereof laterally spaced from one another a distance just to clear said spikes so as to prevent engagement between said rapidly rotating barking tools and said spikes, a vertical scraper member spaced from said tools in the direction of travel of said conveyor, said scraper member being generally stationary relative to said frame but being pivotally mounted at its upper end for limited pivotal movement about a horizontal transverse axis, said scraper member being symmetrically disposed relative to such tools and conveyor so that said scraper member assumes a position above said spikes, and pneumatic means yieldingly urging said scraper member in a direction opposite the direction of travel of a slab to cause said member to yieldingly engage the central portion of a slab and remove any bark which might be left because of the space betwen said tools, said pneumatic means yielding upon accidental engagement between said scraper member and said spikes to prevent damage to said spikes or scraper member and said pneumatic means being yieldable upon engagement between said scraper member and a nonremovable portion of a slab so as to prevent damage to said scraper member and the spikes driving such slab.

2,848,023

FEED ATTACHMENT FOR WOODWORKING MACHINE

Walter A. Miller, West Bend, Wis.

Application May 15, 1956, Serial No. 584,914
3 Claims. (Cl. 144—246)



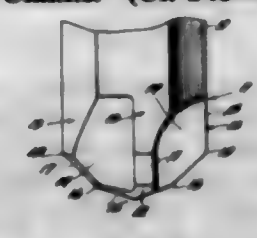
1. In a feeding and hold-down device for woodworking machines of a type including a table, a gear housing, a drive shaft journaled in the housing and having free front and rear end portions projecting outwardly at opposite sides of the housing, a portable power means selectively attached to either end of the shaft to reverse the direction of drive thereof, a feed roller rotatably supported at the front of the housing, gear drive means in the housing connecting the roller to the shaft, attaching means for the housing and supporting the same above the table of the machine, and supporting means on the housing for the power means.

2,848,024

SCREW DRIVER WITH OFFSET WINGS

Ian A. Smith, Willimantic, and Herman G. Muenchinger, Chaplin, Conn.

Application April 18, 1958, Serial No. 729,488
8 Claims. (Cl. 145—50)



1. A driver for threaded fasteners having recessed heads, said driver comprising a shank portion and a shaped bit portion, the bit portion providing a central nib and a plurality of wings extending outwardly therefrom, said nib projecting axially beyond said wings, said wings extending generally radially and with equal angularities of less than 180° between adjacent wings, and having their vertical medial planes substantially parallel to, but displaced from, true radial planes, the driving wall of each said wing lying closer to said respective substantially parallel true radial plane than does the opposite wall of the same wing.

2,848,825
APPARATUS FOR HIGH-OIL CITRUS JUICE RECOVERY

Carl Harden, Pasadena, and Stanley G. Nicholas, Whittier, Calif., and Ronald B. McKinnis, Winter Haven, Fla., assignors to Brown Citrus Machinery Corp., Whittier, Calif., a corporation of California

Application April 15, 1954, Serial No. 423,427
4 Claims. (Cl. 146—3)

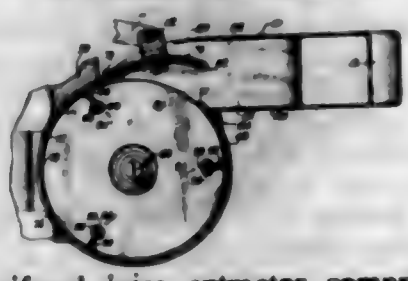


1. In a citrus juice extracting machine of the type using a reamer for extracting the juice, the combination with said reamer of: cup means for conveying a half fruit to said reamer, and a plurality of raised, sharpened elements projecting within said cup means, each of said raised elements providing a cutting edge of substantial length confining an area of the peel, said cutting edges cutting the skin of the fruit and releasing peel oil from said half fruit when said fruit is presented to the reamer, said raised elements being disposed in relatively closely spaced relation over substantially the entire area of the inside of said cup means and in such manner as to permit passage of oil therebetween.

2,848,826
FRUIT JUICING APPARATUS

Tracy Acosta, New Smyrna Beach, Fla.

Application July 16, 1956, Serial No. 598,023
12 Claims. (Cl. 146—3)



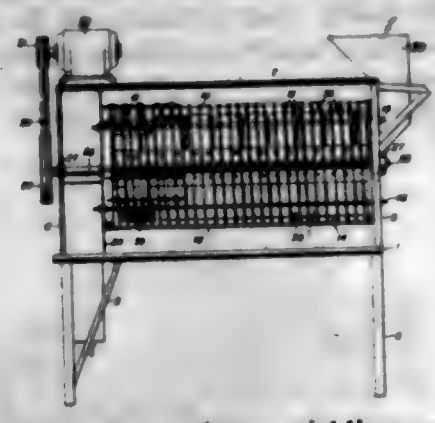
1. A centrifugal juice extractor comprising a housing defining a rotor chamber having an annular side wall, said chamber having an inlet for introducing material containing solids and juice to be extracted, said chamber having a juice outlet and a solids outlet formed in said side wall and annularly spaced apart, means including a rotor in said chamber for rotating the material, said rotor having an open periphery and including a plurality of vanes extending into wiping contact with said side wall of the chamber, a screen overlying said juice opening to permit passage of juice therewith, a door on said housing for closing said solids outlet, means for intermittently introducing a charge of material through said inlet into said chamber, and means operated in timed relation with said last mentioned means for opening said door to permit ejection of the solids from said chamber after the juice has been extracted therefrom.

2,848,827
WALNUT HULLER

Clovis Packwood, Exeter, Mo., assignor of one-half to Jessie M. Elston, Exeter, Mo.

Application February 27, 1956, Serial No. 567,901
5 Claims. (Cl. 146—8)

1. A walnut hulling apparatus comprising a horizontally disposed cylindrical cage formed of spaced rods spirally wound in helical shape, a beater element mounted concentrically within said cage and rotatable with respect thereto, said beater element including spaced resilient members of reinforced rubber material extending to within close proximity of the cage walls and

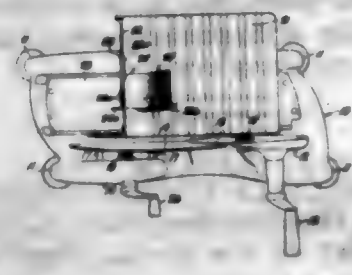


adapted to apply an intermittent, yielding pressure sufficient to disintegrate the hulls of walnuts passing therebetween, and means for rotating said beater element to generate said pressures and to propel the walnuts through the apparatus.

2,848,828
FOOD HOLDING ARRANGEMENT FOR FOOD SLICERS

Henry J. Talge, Kansas City, Mo., and Frank E. Aberer, Kansas City, Kans.; said Aberer assignor to said Talge

Application December 30, 1957, Serial No. 705,999
1 Claim. (Cl. 146—102)



A food body hold-down and feed attachment for food slicers of the type having a blade, a carriage reciprocable edgewise of the blade and having a food platform, and an upstanding flange on the trailing edge of the food platform and disposed normal to the plane of the blade, comprising a slide element in the form of a thin inverted U-shaped member having legs lying on opposite sides of said flange with the bight of the U overlying the upper edge of the flange, said slide element including an upward extension thereon, a vertical flange approximately normal to said first flange secured to said extension on that side of the extension facing away from the food platform and of such extent to provide a guard for the thumb, a downwardly concave sheet-like food engaging element pivotally secured at one end to said extension and extending across and overlying said food platform, said food engaging element having on that edge closest to said blade an upstanding integral shield of substantially equal length with the food engaging element to provide a guard for the fingers, and teeth formed on the concave side of said food engaging element, said teeth being struck from the sheet of which the element is composed and bent approximately normal thereto.

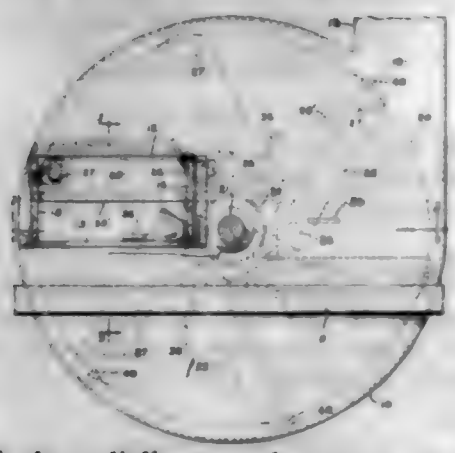
2,848,829
CUTTER AND BLOWER UNIT FOR FORAGE HARVESTERS

James R. West, New Holland, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware

Application December 15, 1954, Serial No. 475,327
2 Claims. (Cl. 146—107)

1. A rotary cutter and blower unit comprising a flywheel disc rotatable about a predetermined axis, a plu-

rality of knives fixedly supported on said disc with their cutting edges extending generally radially and presented in the direction of rotation of the disc, and means extending axially between the disc and the knives for so supporting said knives at their opposite radial ends respectively in axially spaced relation to the flywheel disc, generally radially directed fan blades carried by said supporting means between the opposite radial ends of each said knife and the disc, the said fan blades of each knife



being relatively radially spaced apart on opposite sides of the medial radial section of the knife and spaced from said disc, the spaces between said medial sections of the knives and the disc being unobstructed to permit free movement of cut material between the knives and disc, said support means for the respective knives including a rigid support member for each knife providing a seat for receiving and positioning its respective knife and an integral supporting arm, the respective fan blades being carried on the supporting arms.

2,848,030

TOBACCO CUTTING MACHINE

Willy Rudszinat, Hamburg-Bergedorf, Germany, assignor to Kurt Körber & Co. K.-G., Hamburg-Bergedorf, Germany

Application July 7, 1954, Serial No. 441,770
Claims priority, application Germany July 21, 1953
2 Claims. (Cl. 146—119)



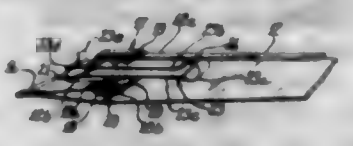
1. In combination with a tobacco cutting machine including a rotary cutter drum element and an elongated horizontally extending mouthpiece arranged in parallel relation to the axis of said drum cutter and on the same horizontal level therewith to form a cutter jaw through which tobacco is fed to said cutter drum and a rotary blade grinder disposed diametrically opposite said mouthpiece, a series of circumferentially spaced adjustable supports mounted on said cutter drum, a flat elongated cutter blade of a length slightly greater than the elongated mouthpiece supported on each of said adjustable supports, said cutter blades being disposed at a longitudinal inclination with respect to the axis of rotation and extending at an acute angle along a longitudinal plane to the axis of the drum, said blades being mounted for adjustment in a direction at right angles to the radius of the drum, and each of said blades being provided with an elliptically curved portion forming a cutting edge adapted to cooperate with said mouthpiece and being displaced a considerable distance from a radial line perpendicular to the blade and extending through the axis of the drum.

2,848,031

SLIDERLESS FASTENER FOR POUCH

Emil F. Svec, New York, N. Y., and Karel Jan Staller, Fairborn, Ohio, assignors to Flexigrip, Inc., New York, N. Y., a corporation of New York

Application November 20, 1953, Serial No. 393,262
3 Claims. (Cl. 150—3)



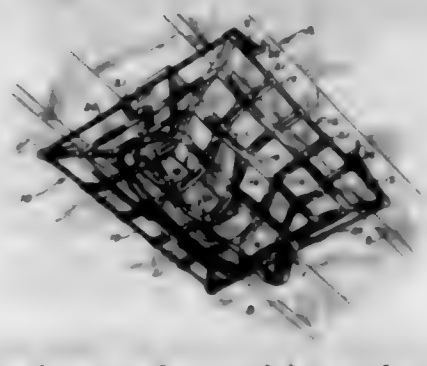
1. A sliderless fastener comprising a thing flexible walled pouch having thickened flexible marginal portions defining the opening into said pouch, said marginal portions having parallel grooves and ridges, the grooves having restricted openings thereinto and the ridges having enlarged heads substantially conforming to the bottoms of said grooves and restricted neck portions conforming to said restricted openings, the ridges of one marginal portion being detachably engageable with the grooves of the other marginal portion upon said marginal portions being pressed together, and a thin narrow flexible strip in the form of a loop with an end of the loop attached to the inside of a wall of said pouch with the legs of the loop extending between, across and beyond said marginal portions, one of said legs being adapted to provide a grasping tab to facilitate opening the fastener responsive to laterally outward pressure applied to said tab.

2,848,032

RECEPTACLE FOR SOILED CLOTHING

Richard T. Nist, Minneapolis, Minn.

Application March 15, 1956, Serial No. 571,655
4 Claims. (Cl. 150—48)



1. A clothes hamper for receiving and storing soiled garments deposited through a chute the lower end of which projects through the ceiling structure of a building confine, an open mouthed receptacle formed of a network of spaced intercrossing strips of flexible material, and a plurality of elongated suspension elements each having one end connected to the receptacle adjacent said opening and having its other end adapted for attachment to said ceiling structure, said strips and suspension elements being formed of elastic webbing.

2,848,033

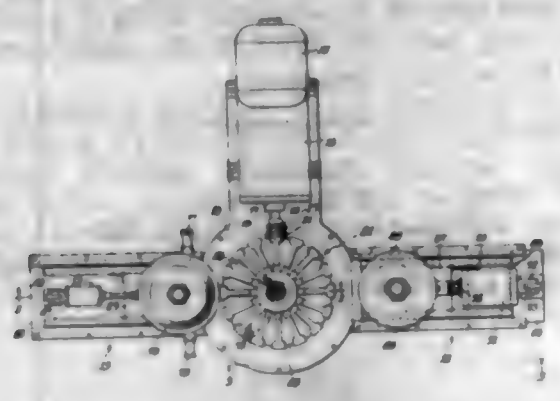
DEVICE FOR TRIMMING AND SHAPING WASHING MACHINE TUBS OR THE LIKE

Robert A. Christy, Park Forest, and John R. Moore, Tinley Park, Ill., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application December 4, 1953, Serial No. 396,222
11 Claims. (Cl. 153—2)

1. A device for forming and shaping the periphery of a substantially round opening formed in a washing machine tub and comprising, in combination, an expansible rotatable mandrel adapted to be positioned within the opening in said tub and expanded into engagement with the periphery of said opening for effecting rotation of the tub, trimming means comprising a first rotatable disc

cooperable with said mandrel for flaring the edge of said opening and a second rotatable cutting disc cooperable with said first disc for trimming the edge of said opening, a curling disc cooperable with said mandrel for



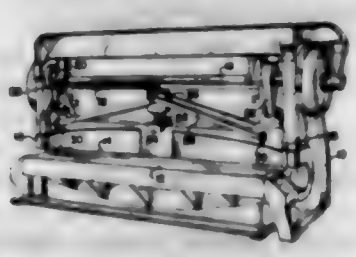
curling the trimmed edge of said opening to provide a smooth periphery therearound, and actuating means for successively expanding said mandrel and actuating said trimming and curling means.

2,848,034

VARIABLE PRESSURE FLUID ACTUATED BRAKE BEAM COMPENSATION

Walter Ernst, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application May 19, 1955, Serial No. 509,491
4 Claims. (Cl. 153—21)



1. In a pressing device having an elongated pressing member and motor means for applying force to said member at spaced points adjacent the ends thereof; an element bearing on the pressing member between said points on the side thereof opposite the side of the working load on the pressing member, and expansible hydraulic motor means carried in its entirety by the pressing member for thrusting said element against said pressing member to counteract the tendency of the member to deflect under load, said hydraulic motor means comprising one part rigid with the ends of the beam and a second part engaging said element, and means for supplying fluid to the hydraulic motor means including means variable in response to the load on said motor means for varying the pressure of the supplied fluid thereby to vary the thrust of the second part on said element so the element is urged against the pressing member with a thrust constantly having a fixed proportion to the load on the pressing member.

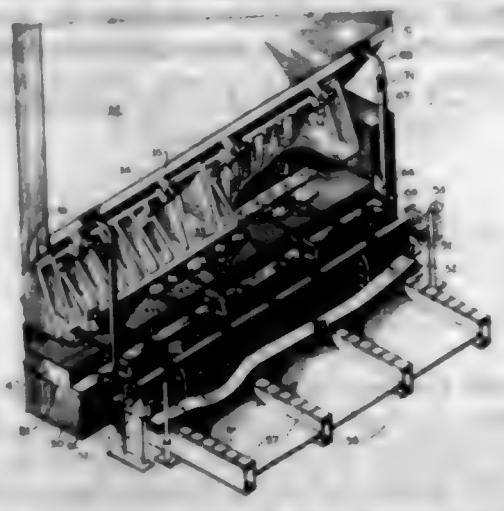
2,848,035

APPARATUS FOR EJECTING ARTICLES FROM A PRESS

Charles C. Halberstadt, Gladwyne, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application January 24, 1955, Serial No. 483,693
4 Claims. (Cl. 153—48)

1. Article ejecting means for a press, comprising in combination, a fixed lower die, a ram carrying an obliquely movable edge-bending die, a pull-out bar slidably mounted in a slot in the lower die and carrying a hinged dog for engaging the article, a hinged guide in the lower die for limiting the rearward movement of the article, a hold-down pivot for the rear end of the pull-out bar, a link hinged to the front or outer end of the pull-out bar, a rock shaft mounted on the lower die and having an arm hinged to said link, a spring connected to said link intermediate its length, means on said edge-bending die for moving said pull-out bar rearwardly to store energy in said spring, a side latch for said pull-out bar near its outer end to hold it in its rearward cocked position, a tripping arm on said shaft, and a tripping bar hinged on



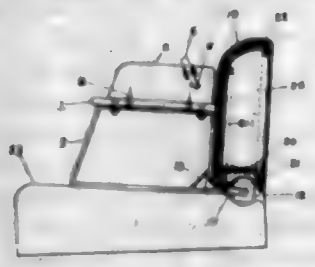
said ram and carrying an element arranged to pass below said tripping arm on its downward movement and to engage it to turn the rock shaft on its upward movement, the turning of said shaft causing the outer end of the pull-out bar to be lifted to raise the article from the lower die and further movement causing the outer end of the pull-out bar to move up above the latch whereby the pull-out bar is jerked outward by the spring to eject the article.

2,848,036

SAFETY APPLIANCE FOR CHILD'S SEAT

Norman L. Campbell, Davenport, Iowa

Application May 11, 1956, Serial No. 584,323
6 Claims. (Cl. 155—11)



1. In connection with a child's chair having a pair of rectangular side frames forming supports for the chair and adapted to rest upon the seat of an automobile and in contact with a padded back of such seat, a safety appliance including belts passing over the bottom members of said frames respectively and in front of the rear members thereof and extending rearwardly therefrom, each belt having a block of wood mounted at the rear thereof several inches in length and approximately one and one-half inches in diameter and having a longitudinal bore through which the belt passes, said belts being of sufficient length to permit the blocks being manually placed between the lower edge of the seat-back of the automobile and the seat cushion, whereby they will prevent the chair being thrown forwardly by a sudden stoppage of the automobile.

2,848,037

CANTILEVER TYPE STOOL

Edgar W. MacKnight, San Leandro, Calif., assignor, by decree of distribution, to Bonna MacKnight

Application August 16, 1954, Serial No. 451,805
4 Claims. (Cl. 155—81)

1. A cantilever type stool comprising a ring base; a pivot post rigidly mounted on said base; a radial arm

rotatably mounted on said pivot post; a standard mounted at the free end of said radial arm and carried entirely thereby; a seat assembly mounted on said standard; said base including a pivot post anchor portion having a channel section with an inner arcuate edge to receive the flanged edge of the base of a patient's chair, additional base portions of arcuate form, sufficient to complete a circle, each such portion being of matching channel section to substantially completely enclose and contain the flanged edge of such chair base, means for removably coupling one portion of said ring base to another portion, said means involving a tongue affixed to an end



of one of said portions along the outer surface thereof and terminating beyond said end in an inwardly directed tongue offset entering an oversize opening in the proximate end of the adjacent base portion to be coupled, and a block affixed to said tongue adjacent said offset and of a size to substantially fit the remainder of said oversize opening, and means for drawing said ring base tightly about the flanged edge of such patient's chair following assembly of said ring base thereto, said means involving a bolt lug on the proximate ends of two adjacent ring base portions, and a tightening bolt interconnecting said lugs.

2,848,038
SPRING UNITS FOR UPHOLSTERY FOUNDATIONS
Albert M. Bank, Jersey City, and Alex J. Katz, West Orange, N. J., assignors to Super Sagless Spring Corp., Hoboken, N. J., a corporation of New Jersey
Application June 27, 1956, Serial No. 594,295
10 Claims. (Cl. 155—179)



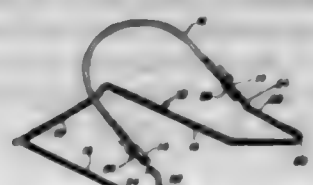
1. In upholstery construction, a frame, a main zig-zag spring attached to a pair of opposite members of the frame; said main spring presenting a convex load-bearing surface, an auxiliary zig-zag spring comprising a front arm and a back arm in acute angle relation; the back arm being securely fixed on the main spring and lying therealong whereby said front arm faces the convex surface of the main spring; the auxiliary spring being positioned on the main spring whereby a portion of the back arm at the region where it contacts the main spring, forms an O-form with a portion of the main spring; the back arm of the auxiliary spring being fixed to the main spring intermediate the ends of said main spring; at least that portion of the back arm which is away from the connection to the main spring, facing the convex surface of said main spring and being in acute angle relation with such main spring and an element connecting both arms of the auxiliary spring at a substantial distance away from the vertex of the angle between the arms of the auxiliary spring.

2,848,039
SLIPCOVER
Lionel C. Lenz, Chicago, Ill.
Application February 23, 1954, Serial No. 411,717
6 Claims. (Cl. 155—182)



1. A slipcover for furniture having a back rest, comprising a back section adapted to cover a rearwardly facing surface of said back rest, a front section connected to said back section and adapted to cover a forwardly facing surface of said back rest, a pair of shoulder covering panels for covering the shoulders of said back rest, each of said shoulder covering panels having rear and forward marginal edges respectively adapted to overlie rearwardly and forwardly facing surfaces of said back rest, a pair of vertically disposed elastic bands, each of said elastic bands having one margin connected to rear and forward marginal edges of one of said shoulder covering panels and a second margin having a rear portion interconnected with said back section, said second mentioned margins of said elastic bands including front portions for overlying forwardly facing surfaces of said back rest, and panel means in addition to said front section interconnecting said front marginal portions of said elastic bands, whereby said shoulder covering panels are adjustable to fit shoulders of various sizes and shapes.

2,848,040
BABY SUPPORT
Victor A. Chernivsky, Downers Grove, Ill.
Application September 1, 1954, Serial No. 453,473
3 Claims. (Cl. 155—189)



1. In a resilient baby support, a marginal frame, a spring wire base having substantially parallel sides connected at the rear by an offset cross piece forming a rear contact portion and having front ends with angular return bends extending outwardly and downwardly to form two front legs and the extremities of the ends extending upwardly and tilted backwardly, a separate back rest spring wire marginal frame having two parallel sides connected by a rounded portion at corresponding ends and the other ends having hollow extremities, the said extremities of the ends of the base inclined slightly out of line with the said hollow extremities of the back rest

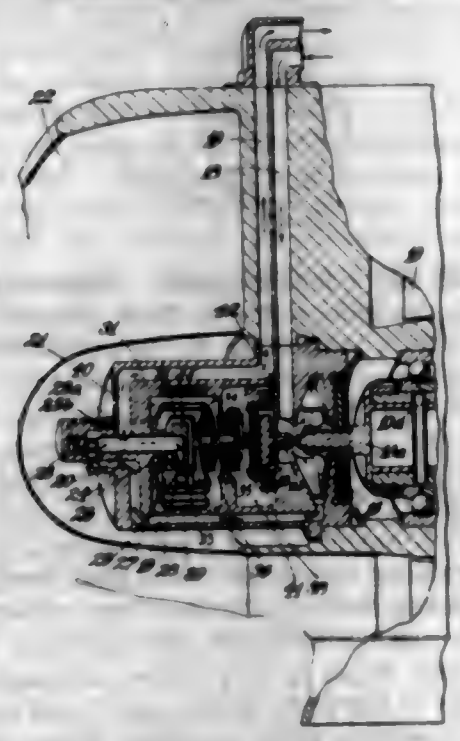
so the extremities of the base must be sprung to engage in the hollow extremities and fitting tightly but removably therein to hold a back rest over the base at an upward inclination rearwardly from the front of the base.

2,848,041

GAS TURBINE ENGINE FUEL SYSTEM INCLUDING A FUEL CONTROL MECHANISM

John Shaw Hollings, Chellaston, England, and David Onuri Davies, Ammanford, Wales, assignors to Rolls-Royce Limited, Derby, England, a British company

Application August 15, 1952, Serial No. 304,591
Claims priority, application Great Britain August 28, 1951
2 Claims. (Cl. 158—36.4)



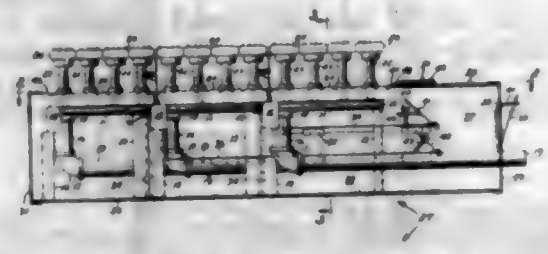
1. A gas-turbine engine including combustion equipment and a fuel system including a fuel pump for supplying fuel through a conduit to said combustion equipment and having a rotor of which the rotational speed increases on increase of the supply of fuel, and a control mechanism comprising a fixed structure, a rotatable unit mounted for rotation in said fixed structure and having formed therein a radially-extending nozzle and a receiving chamber having a tubular inlet aligned with said nozzle and spaced from said nozzle by an annularly-extending space, means to supply pressure fluid to said nozzle thereby to produce a jet of fluid therefrom towards said receiving chamber, a rotatable annularly-extending obturator adapted to extend into the annularly-extending space between said nozzle and said inlet and mounted for rotational movement in said fixed structure relative to said unit between a position in which it substantially interrupts said jet and a position in which it affords no substantial interruption to said jet, whereby the pressure in the receiving chamber depends on the relative positions of said unit and said obturator, a Bourdon tube connected at one end to said unit to have its interior in communication with said receiving chamber and anchored at its other end to said fixed structure and adapted on variation of the pressure in the receiving chamber due to movement of said obturator to cause a movement in the same sense of said unit, magnetic drag clutch means comprising a part mounted coaxially with said rotor and connected to said rotor to rotate therewith and a second part connected to said obturator to rotate it whereby a drag is placed on said second part which is dependent on the rotational speed of the engine rotor, resilient means connected to said second part to oppose said drag, whereby the extent of rotation of said obturator is dependent on the rotational speed of the rotor, and a controlled element including a throttle valve in said fuel supply conduit and connected to said unit for movement relative to said fixed structure to cut down the fuel supply on actuation of the control mechanism due to increase of speed of the engine rotor and to increase the fuel supply on decrease of speed of the engine rotor.

2,848,042

GAS BURNER

Richard C. Wright, Bay Village, Ohio, assignor to Iron Fireman Manufacturing Company, a corporation of Oregon

Application May 23, 1957, Serial No. 661,171
6 Claims. (Cl. 158—106)



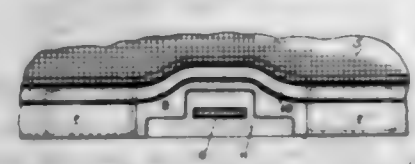
1. Gas burning equipment of the type in which multiple primary gas flames are jetted upwardly into a combustion chamber from a planar hearth interrupted by openings therethrough for the upward emission into the combustion chamber of secondary air streams for the purpose of completing the combustion in the combustion chamber of the gaseous fuel mixture in the primary gas flames, said equipment comprising a plurality of sections and each of said sections comprising an independently supported fuel gas handling structure; an air conduit for supplying combustion air to said structure and a plurality of burner head means for receiving said fuel gas from said gas handling structure, receiving said combustion air from said air conduit and controlling the combustion of said gas in said air; said fuel gas handling structure comprising a horizontal gas header, a first leg structure secured to said header for supporting said header, a plurality of laterally spaced parallel horizontal gas distributor tubes, each sealed respectively at one end into said header normal thereto to receive gas therefrom, a horizontal metal bar spaced parallel to said header and secured to said tubes to close the other ends thereof, a second leg structure secured to said bar for supporting said bar, a plurality of inverted U-shaped parallel laterally spaced horizontal air muffles each aligned with a respective one of said tubes over which said muffle is supported at its ends on said header and said bar and secured respectively thereon, said tubes being formed along their top centerlines in a desired pattern with fuel gas emission holes of a desired size and said muffles being formed in vertical alignment with each of said holes in said tubes with a hole therethrough bounded by a threaded collar.

2,848,043

OPERATOR BRIDGING UNIT FOR METAL WINDOW SCREENS

Russell M. Winnan, Miami, and Burton W. Saxtan, Miami Springs, Fla., assignors to American Screen Products Company, Miami, Fla., a corporation of Florida

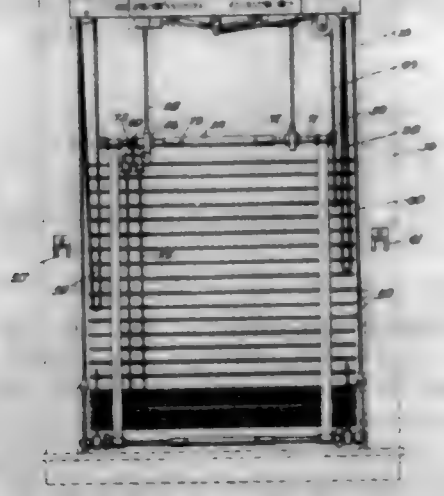
Application April 13, 1956, Serial No. 578,014
4 Claims. (Cl. 160—95)



3. An operator bridging unit for metal window screens having tubular metal frame sections constituting a rail thereof, comprising, a medially arched body having a spline-receiving groove in one face thereof, arms projecting from each end of the body for insertion into

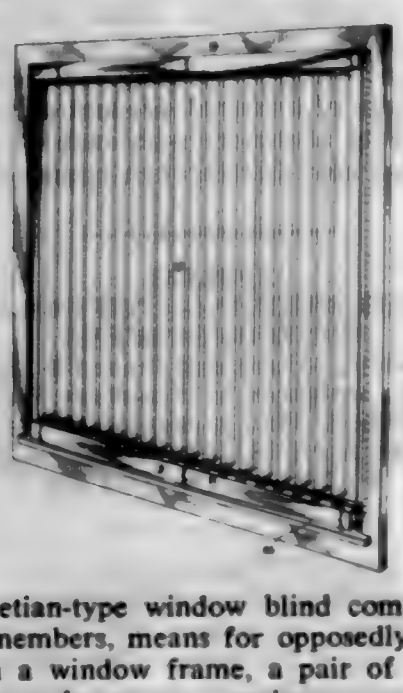
related ends of said tubular sections, and a flnage at the upper edge of each arm forming a continuation of the bottom of the spline groove.

2,848,044
VENETIAN BLIND
John N. Ehrmeyer, Chicago, Ill.
Application February 17, 1955, Serial No. 488,945
7 Claims. (Cl. 160—167)



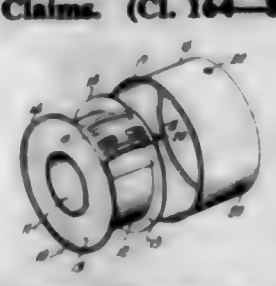
1. A Venetian blind comprising a stationary supporting head adapted to be secured in a window frame, ladder-tapes for individually supporting the slats, a rock-shaft having tilting means to which the tapes are connected and for supporting and operating the tapes to tilt the slats, hangers in which the shaft is journalled and by which it is supported, flexible suspension elements between the hangers and the head for supporting and lifting the hangers, shaft and tapes, means between one of the hangers and the shaft for rocking the shaft to tilt the slats and retain them in tilted positions, and locking-devices mouned on the head for supporting the shaft and releasably engageable with the hangers, for raising the shaft.

2,848,045
VERTICAL VENETIAN BLIND
Dale L. Bennett, La Grange, Ill.
Application June 13, 1956, Serial No. 591,234
3 Claims. (Cl. 160—172)



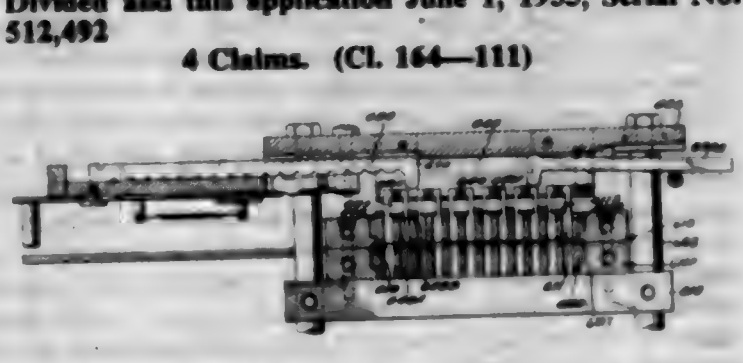
1. A Venetian-type window blind comprising, a pair of support members, means for opposedly mounting the members on a window frame, a pair of parallel shafts journaled on each support member one of which shafts is threaded, a plurality of cradle elements slidable along the respective members, a gear journaled on each cradle element and mounting a vane-supporting bracket, a worm journaled on each cradle element and slidably keyed to the other shaft and meshing with the respective gear whereby the turning of the other shaft effects the simultaneous rotation of the vane brackets, a second gear journaled on one of the cradle elements and meshing with the threaded shaft to shift the cradle element longitudinally of the one shaft, and means for manually rotating the respective shafts independently of each other.

2,848,046
TAPE DISPENSERS
Charles Castelli, New Brunswick, N. J., assignor to Johnson & Johnson, a corporation of New Jersey
Application April 6, 1955, Serial No. 499,596
17 Claims. (Cl. 164—84.5)



5. A cutter for a tape dispenser comprising a sheet of metal having its ends rolled to form respective channels to receive with a snap slide fit the peripheral beads respectively of the end walls of a tape spool for attachment to said spool, said channels being open on their inner sides, thereby permitting limited inward movements of the end walls of the spool in assembled position of the cutter and the spool, and a pair of stop fingers cut out from said sheet and each having a free edge which is located near the corresponding end of the sheet and being integrally connected to the body of the sheet at a region no closer to the latter end of the sheet than said free finger edge when the latter finger is in position substantially in the general plane of the body of the sheet, said fingers being bent from respective latter positions about said regions respectively at respective acute angles with the general plane of the body of the sheet to cause the free edges of the fingers to project from said body into positions to receive substantially edgewise pressures from the adjacent end walls respectively of the spool upon inward movements of said end walls and to limit thereby the extent of said inward movements, said edgewise pressures being in directions to be free from any tendency to move the respective fingers towards said respective positions, the free edge of each finger in bent position of the finger being sufficiently close to the adjacent end wall to prevent the bead on the latter wall from becoming disengaged from the corresponding channel on the cutter upon inward movement of the latter end wall.

2,848,047
PUNCH BLOCKS
Walter T. Gollwitzer, Euclid, Ohio, assignor to Addressograph-Multigraph Corporation, Cleveland, Ohio, a corporation of Delaware
Original application December 16, 1950, Serial No. 201,102, now Patent No. 2,710,406, dated June 7, 1955. Divided and this application June 1, 1955, Serial No. 512,492
4 Claims. (Cl. 164—111)



1. In a selectively operable punch structure, a supporting bed, mated die and guide blocks mounted in station-

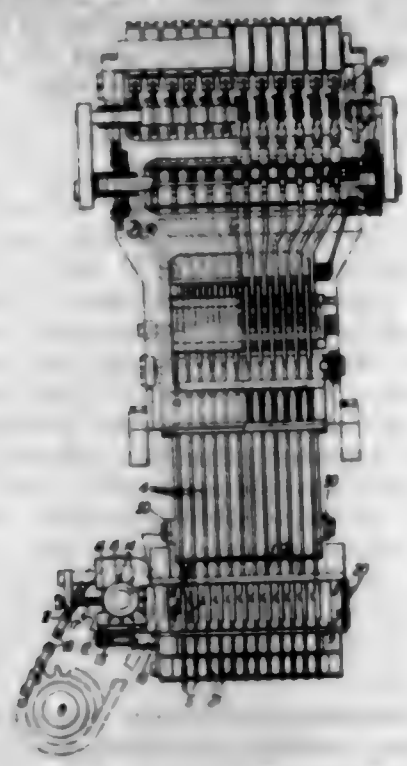
ary relation on said supporting bed and having aligned punch receiving openings therein in a plurality of parallel columns with a plurality of openings similarly arranged in each column so that corresponding openings in the several columns are disposed in transverse lines, a plurality of punches each having an elongated notch in one edge and near one end thereof, said punches being disposed in the respective openings of said guide block with the punches in each column arranged in a plurality of pairs with the notches of the punches of each pair facing each other, retaining bars secured to one face of said guide block and extended between the pairs of punches and of such a width as to project into said notches and thereby limit withdrawal of said punches in respect to said guide block, stripper bars extended between the pairs of punches transversely of said columns and engaging the notches of the punches on each side thereof, a ram plate disposed opposite but in spaced relation to said ends of said punches and mounted for movement through a stroke toward and then away from said punches, interposers movable along said columns of punches between said ram plate and said punches for selecting a punch to be operated, and cheek plates fixed on opposite sides of said ram plate and connected to the ends of said stripper bars for imparting punch stripping movement thereto.

2,848,048

RECORD CONTROLLED STATISTICAL MACHINES

Raymond Owen Parmenter, Mitcham, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company

Application May 8, 1956, Serial No. 583,425
Claims priority, application Great Britain June 2, 1955
6 Claims. (Cl. 164—111)



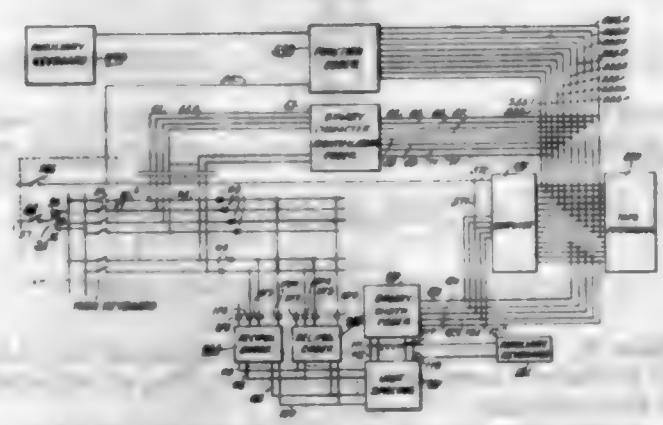
1. In a record controlled statistical machine, apparatus comprising the combination with columns of selectively settable setting elements supported for independent lengthwise movement to and from inactive positions thereof and for each column a latch plate common to all setting elements of the column, said plate being supported for lengthwise movement in a direction transverse to the direction of lengthwise movement of the setting elements and resiliently urged to a normally active position thereof, latching means carried by the setting elements of each column and the latch plate therefor, said latch plate being movable to an inactive position thereof by lengthwise movement of a setting element to the active position thereof under control of a transmission element appropriated thereto and operable by the main shaft of the machine, of a locking element also operable by said main shaft and supported for movement into engagement with an end of the latch plate as it reaches the inactive position thereof and operative positively to restore the latch plate to the active position thereof thereby positively to ensure latching of the active setting element in the active position thereof.

2,848,049

JUSTIFICATION INFORMATION COMPUTER AND TAPE PERFORATOR FOR PHOTOCOMPOSING MACHINES

Daniel H. Robbins, Bronxville, and Victor M. Corrado, Williston Park, N. Y., assignors to Mergenthaler Linotype Company, a corporation of New York

Application September 4, 1956, Serial No. 607,952
63 Claims. (Cl. 164—113)



60. In a machine for producing a coded tape representative of a composed line of type characters which vary in set width on a units-of-an-em basis, the combination of a keyboard, a character identification code mechanism acting in response to key actuation for producing character identification signals in the tape, an automatic computer mechanism acting in response to the same key actuation for computing the total number of units represented by the set widths of the characters and spaces in the composed line, and an indicator mechanism actuated by said automatic computer mechanism to indicate the length of the composed line, said automatic computer mechanism including a plurality of groups of code elements having different character width values as between groups, the different groups of character width code elements representing different type fonts and the code elements in each group representing the set width values of the type characters in the corresponding font, and means for selecting one or another of the groups of character width code elements according to the font of type characters to be composed.

2,848,050

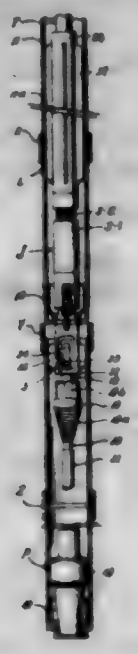
REMOVING CASING AND THE LIKE FROM A WELL BORE

Brown J. Woolley, Kilgore, Tex.

Application March 25, 1955, Serial No. 496,790
14 Claims. (Cl. 166—14)

1. A method of replacing a defective casing section of a well casing located in a well bore, comprising the steps of lowering a combination casing back-off tool and line-up assembly into a well casing on a pipe string, setting said back-off tool in gripping engagement with the casing, rotating said tool to disconnect said casing at a joint below said defective section of the casing, releasing said tool from its set position, lowering said tool below the disconnected joint to position said line-up assembly so as to span said joint, setting said back-off tool in the casing to support said line-up assembly, and thereafter removing the portion of said casing above said joint, and

then lowering a replacement section of casing into the well bore, said line-up assembly guiding said replacement



section into position for readily connecting same to said joint.

2,848,051
METHOD FOR IMPROVING WELL CEMENTING JOBS
William K. Williams, Irving, Tex., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania
Application March 22, 1954, Serial No. 417,737
1 Claim. (Cl. 166—28)



In a process for the cementing of areas in a cased borehole in the presence of clay-type drilling mud wherein a quantity of cement is circulated downwardly through the casing to the bottom of the borehole and then upwardly into a selected area of the annulus between the casing and the walls of the borehole and thereafter circulation is stopped to allow the cement to set, the improvement which comprises circulating to said area of the annulus immediately ahead of said quantity of cement a slug of inert slurry consisting of a suspension of finely divided pozzolan in a liquid.

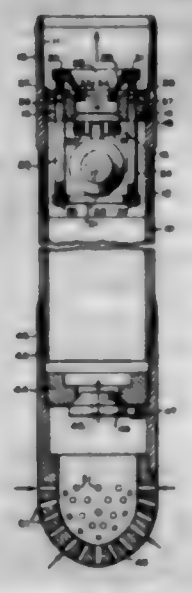
2,848,052
PROCESS FOR VERTICAL FRACTURING
Donald L. Stinson, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application November 19, 1954, Serial No. 470,854
8 Claims. (Cl. 166—42)

1. A process for effecting vertical fracturing of a well comprising placing in the well bore at the depth of a potentially productive formation a tough flexible vertically elongated sack extending over a substantial proportion of the thickness of said formation, said sack being of sufficient strength to allow build-up of fracturing pressure against the wall of said well bore and incapable of sustaining said pressure when said wall fractures; confining said sack within vertical limits so as to prevent substantial vertical expansion of same; filling said sack with liquid so as to force same to take the shape of the surrounding well bore; applying hydraulic pressure to the



liquid within said sack so as to build up fracturing pressure and cause vertical fracturing of the wall of said bore surrounding said sack; and, without interruption, continuing the application of pressure within said sack so as to rupture same and force said liquid into fractures in said formation, thereby extending the fractures deeper into said formation.

2,848,053
BACK PRESSURE VALVE
John L. Curry, Fort Worth, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 21, 1956, Serial No. 592,900
19 Claims. (Cl. 166—224)



1. A back pressure valve for use in a well comprising a tubular housing attachable at the ends to a pipe string; an annular valve support attached to the inner wall of said housing providing an annular seat for an upwardly-closing valve closure member; a valve closure member conforming to said seat and adapted to close the passageway through said valve support; a second annular seat supported spaced-apart from the upper side of said valve support; supporting elements for said second annular seat slidably extending through said valve support and rigidly attached thereto by shear pins; means on the lower portion of said supporting elements for holding said valve closure member away from its seat when said supporting elements are attached by said shear pins to said valve support, and releasing said member when said pins are sheared by a downward force on said second annular seat so as to move same downwardly; a third annular

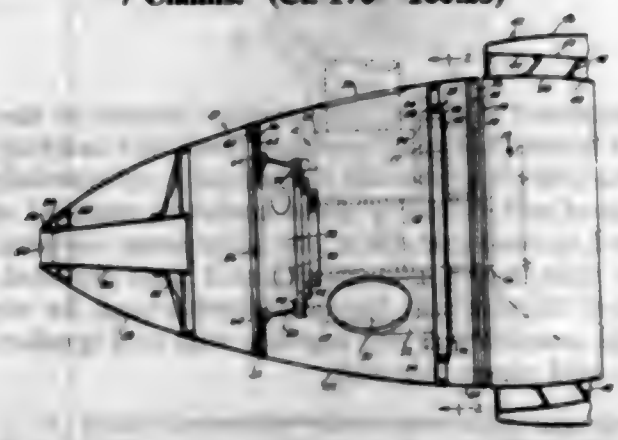
seat of smaller outer diameter than the diameter of the axial opening in said second annular seat and adapted to pass therethrough, said third annular seat being attached to the inner wall of said second annular seat by shear pins requiring greater downward shearing force than first said shear pins; and a flapper check valve, having a flow control orifice therein, positioned in said housing below said supporting elements.

2,848,854

AERONAUTICAL PROPELLER SPINNER

David R. Pearl, West Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application December 29, 1954, Serial No. 478,281
7 Claims. (Cl. 170—160.23)



1. In a cooling spinner for an aeronautical propeller which has a central portion projecting forwardly and rearwardly of its blades, the combination comprising a generally frusto-conical shell surrounding the central portion of the propeller and detachably secured to the propeller for rotation therewith, said shell being open at both ends and having its smaller diameter end projecting forwardly of the propeller blades and having its larger diameter end projecting rearwardly of the blades, a first annular bulkhead extending transversely of said shell forwardly of the blades and forwardly of the central portion of the propeller and having a central opening, an annular wide rim pedestal connected between the forwardly projecting end of the central portion of the propeller and said first annular bulkhead and in the opening of the annular bulkhead and provided with at least one opening in its rim for the flow of ram air from the smaller diameter end of the shell, and a second annular bulkhead extending transversely of the said shell rearwardly of the blades and having a central opening surrounding the rear central portion of the propeller in closely spaced relationship through which opening said ram air flows after passing over the central portion of the propeller, the opening in said pedestal and the opening in said second annular bulkhead being provided to direct the ram air over the central portion of the propeller and said openings being related in size to the opening in the forward end of the shell to control the pressure drop of the ram air within said shell.

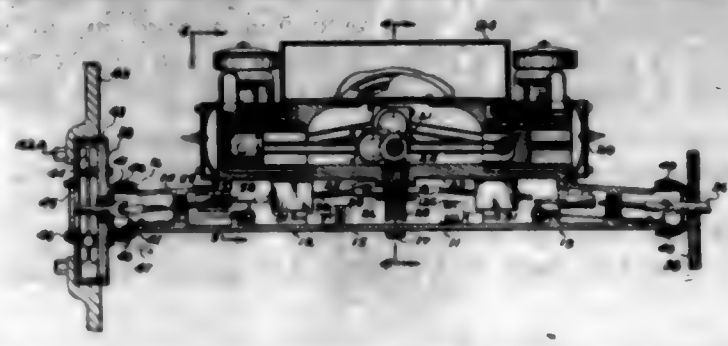
2,848,855

SELF CONTAINED POWER AXLE

Harry A. Toulmin, Jr., Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application October 14, 1954, Serial No. 462,307
4 Claims. (Cl. 180—12)

3. In a self-contained power axle for driving a motor vehicle, a hollow axle comprising a pair of axle halves with each said axle half comprising a cylindrical axle portion extending outwardly from a semi-cylindrical portion, said semi-cylindrical portions being joined together to form a single hollow axle having an open portion, an opposed piston engine disposed in a horizontal plane mounted on the open portion of said axle above the joined semi-cylindrical portions, wheels pivotally mounted on the outer ends of said single hollow axle, means within



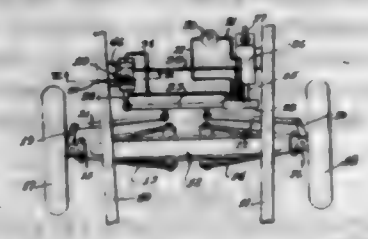
said axle for steering said wheels, and drive shafts within said axle halves to transmit power from said engine to each of said wheels.

2,848,856

POWER STEERING SYSTEM OF THE HYDRAULIC TYPE

Edward J. Herbenar, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application April 18, 1955, Serial No. 502,000
3 Claims. (Cl. 180—79.2)



2. A power steering system comprising a dirigible wheel, a push-pull link steeringly connected to said wheel, manual means secured to one end of said link for actuating said wheel and power means pivotally connected to the opposite end of said link to actuate said wheel, said power means comprising a fluid motor having a single cylindrical bore therein, an output shaft lying transversely of said bore and intersecting the axis thereof, bearings positioned at opposite sides of said bore for supporting said shaft, a pair of pistons reciprocably mounted in said bore on opposite sides of said shaft and straddling said shaft at a point between said shaft supporting bearings, means connecting said pistons to said shaft, and a lever arm fixedly secured to said shaft adjacent one of said bearings and adjacent said power motor and having its opposite end pivotally connected to said link, said means connecting said piston to said shaft comprising a spur gear on said shaft and mating gear teeth on each of said pistons, said spur gear having an axial taper for cooperation with complemental tapers on said piston teeth, and means biasing said shaft axially to urge said tapers together to remove slack from said connection.

2,848,857

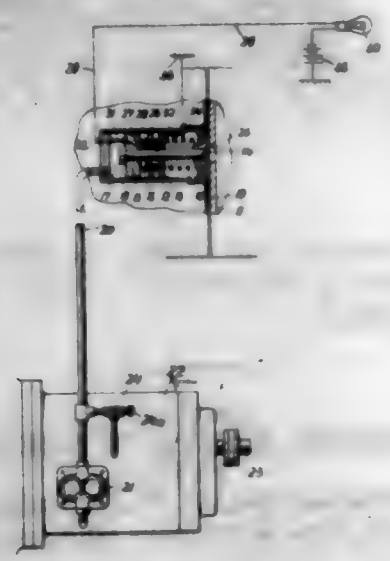
AUTOMATIC DOOR LOCKING DEVICE FOR VEHICLES

Hans Joachim M. Förster, Stuttgart-Bad Cannstatt, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany

Application January 15, 1954, Serial No. 404,357
Claims priority, application Germany January 17, 1953
6 Claims. (Cl. 180—82)

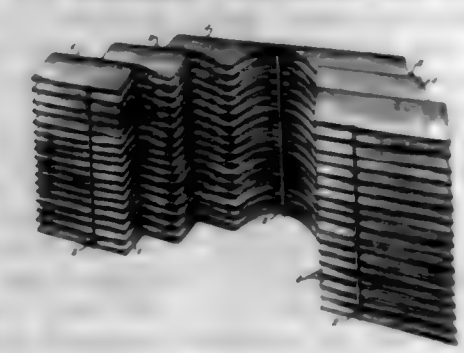
6. A locking device for vehicle doors, comprising a movable locking member for locking the door in a closed position thereof, means for supplying a servo power medium dependent upon the traveling speed, means for causing said servo power medium to act upon said locking member in the locking direction thereof in such a manner as to move the locking member into locking position predominantly under the effect of said servo power

medium as a predetermined traveling speed is exceeded, spring means tending to move the locking member into unlocking position as the traveling speed falls below a predetermined figure, said second-mentioned means including a cylinder, a piston coaxial with and axially movable in relation to said locking member, yielding means



between said piston and said locking member opposing relative axial movement therebetween, contact means on said piston and locking member adapted to be brought into contact to actuate a warning signal when said yielding means is overcome, said yielding means being overcome when the door is not in a fully closed position.

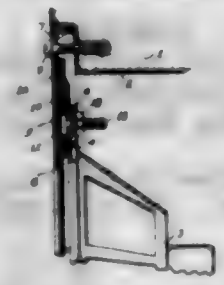
2,848,058
COMPRESSIONAL-WAVE LENS
William L. Hartsfield, Washington, D. C.
Application October 29, 1954, Serial No. 465,671
8 Claims. (Cl. 181—.5)



1. A lens for use with a compressional wave transducer emitting both plane waves and arcuately divergent waves, comprising a plurality of identical parallel stacked plates mutually spaced by a constant gap and rigidly secured in superposed orientation, said plates forming a composite lens assembly symmetrical about its central axis and having a central portion between side portions and having open front, rear and sides, the rear being flat and communicating with said transducer at its forward axis and the front central portion having a curved cut-out recess of approximately the same width as said transducer and diminishing toward the rear of the assembly and said side portions being of constant length in a direction parallel with said central axis and extending outwardly between the front and the rear of the lens sufficiently that the most divergent of said waves will remain between the plates during passage from the rear to the front of the lens.

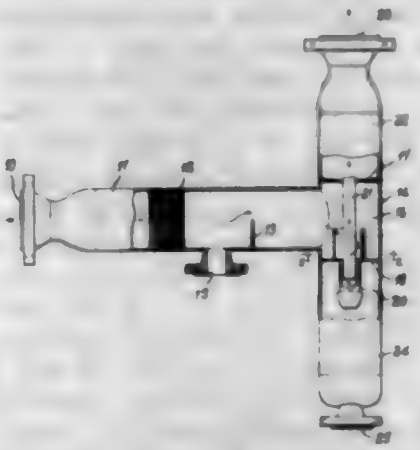
2,848,059
SOUND BAFFLES
Richard Hahn, Olivette, Mo.
Application February 13, 1957, Serial No. 639,877
2 Claims. (Cl. 181—31)

1. An assembled device for mounting as a unit to a supporting wall to cover a loud speaker-receiving recess in said wall, said device including a plate sufficiently large in transverse area to bridge across said recess and provided with a central opening to permit sound from said speaker to discharge therethrough, a foraminous grid sheet fixedly secured in interlocking relation to the inner face of said plate to cover said central opening, studs spaced about the peripherally bounding portion of said grid sheet for interlocking said device to said speaker, spacers of



predetermined thickness permanently secured at the rear of said interlocked plate and grid sheet and carrying said studs to project rearwardly therefrom, a substantially flat annulus of non-vibratory sound-insulating material superimposed on said grid sheet and plate inner surfaces and thicker than that of said spacers, said plate provided with apertures for receiving fasteners therethrough for mounting said assembled device together with said speaker as a unit to said supporting wall.

2,848,060
APPARATUS FOR SEPARATING MIST PARTICLES OR DROPLETS FROM GASES
Charles B. McBride, Port Chester, N. Y., and Philip F. Best, Riverside, Conn., assignors to The Thermix Corporation, Greenwich, Conn., a corporation of Connecticut
Application September 13, 1956, Serial No. 609,719
3 Claims. (Cl. 183—34)



1. Apparatus for separating suspended mist particles from a gas which comprises a substantially horizontal cylindrical agglomerating chamber having an inlet at one end and a liquid outlet in the lower part of said chamber intermediate its ends, a vertical separating chamber at the end of said agglomerating chamber opposite said inlet joined fluid tightly to said end of the agglomerating chamber, said agglomerating chamber opening to said separating chamber, a partition of contacting layers of knitted metallic wire spanning said agglomerating chamber between said inlet end and said liquid outlet, a dam extending upwardly from the bottom of said agglomerating chamber between said liquid outlet and the separating chamber, and upper partition in said separating chamber above its junction with the agglomerating chamber, a lower partition in said separating chamber below said junction and a centrifugal separating tube in said separating chamber having a gas outlet extending through said upper partition and having a liquid discharge end extending through said lower partition.

2,848,861

DUST SEPARATING AGGREGATE OF SMALL-CYCLONES

Claes Allander, Sodra-Angby, and Bengt Lanne, Jonkoping, Sweden, assignors to A B Svenska Flaktfabriken, Kungsgatan, Stockholm, Sweden

Application October 22, 1956, Serial No. 617,543
Claims priority, application Sweden October 27, 1955
4 Claims. (Cl. 183—34)



1. A multiple-cyclone dust-separating aggregate in a partition between a common inlet chamber for raw-gas and a common outlet chamber for clean-gas of said aggregate, and consisting of a number of cyclone units arranged in vertical and horizontal rows, said units in each vertical row being spaced a given vertical distance, each of said cyclone units comprising at least one casing having a cylindrical upper part having a tangential raw-gas inlet open to one side of said partition and a conically-tapered lower part terminating in a dust outlet, a central tube coaxially arranged in the cylindrical upper part as a clean-gas outlet open to the other side of said partition, and a vertical open-ended pipe integral with the unit having a length corresponding to the vertical spacing of said units, the dust outlet of each unit terminating in a wall opening of said pipe, the pipes of the units in each vertical row being in endwise abutting vertical alignment to constitute a common vertical outlet conduit for dust, each cyclone unit also being provided with an outwardly projecting vertical member constituting a rectangular disc angularly disposed with respect to the longitudinal axis of the casing, the vertical and horizontal dimensions of said disc corresponding to the vertical and horizontal spacing between adjacent rows of units, said discs having joining means for fastening the units together to form an aggregate of any desired size, the discs constituting the partition between the inlet and outlet chambers of the separating aggregate.

2,848,862

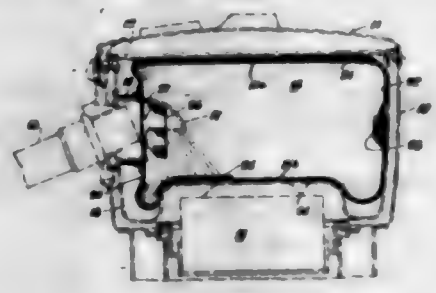
FILTER BAG

Carl E. Meyerhoefer, Little Neck, N. Y., assignor to Lewyt Corporation, Long Island City, N. Y., a corporation of New York

Original application April 22, 1954, Serial No. 424,887, now Patent No. 2,792,076, dated May 14, 1957. Divided and this application March 8, 1957, Serial No. 644,771

1 Claim. (Cl. 183—51)

For use with a vacuum cleaner having a compartment defined by a rigid wall to accommodate and support a filter bag to be discarded after it has once been filled with dust and similar material, a bag including a body formed of air-pervious paper of single thickness throughout at least the major portion of the bag body, said body having side walls formed of said paper, said side walls including an upper part and a lower part, a layer of air-impervious kraft paper overlying a portion of the inner face of said lower part, said layer being more resistant to abrasion by said dust and similar material than said air-pervious paper, said layer being adhesively secured to said body in substantially face-to-face contact, the inner confines of said bag as defined by said body being substantially free from any obstructing means except said layer, a substantially rectangular outer end and base forming a part of said bag and separated from each other by said side walls, said layer having end edges spaced from said outer end,



the base of said bag including a zone having edge portions secured against separation from each other, a collar having an opening therethrough and extending laterally from said outer end, said outer end having zones thereof cooperable to provide a pair of integrally hinged flaps adjacent said collar and normally closing the collar opening and further being pivotable away from each other to a position within the confines of said bag as defined by said body, and each of said hinged flaps being formed of said air pervious paper and having an axis and further being pivotable away from the other of said flaps about its axis, and the axis of each of said flaps being disposed substantially normal to said lower part of said side walls.

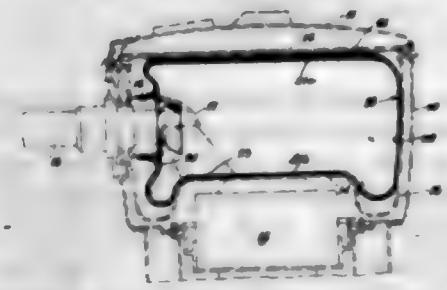
2,848,863

FILTER BAG

Carl E. Meyerhoefer, Little Neck, N. Y., assignor to Lewyt Corporation, Long Island City, N. Y., a corporation of New York

Original application April 22, 1954, Serial No. 424,887, now Patent No. 2,792,076, dated May 14, 1957. Divided and this application March 8, 1957, Serial No. 644,772

1 Claim. (Cl. 183—51)



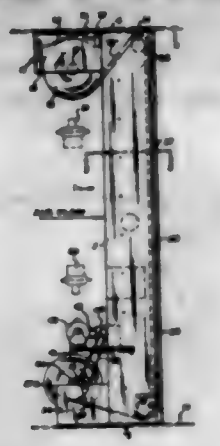
For use with vacuum cleaners having a compartment defined by a rigid wall to accommodate and support a filter bag to be discarded after it has once been filled with dust and similar material, a disposable filter bag comprising a single thickness body throughout the major portion of its area, the material of said body being air-pervious paper, said body having an integral upper part and lower part, an inlet opening spaced from said upper part and communicating with the interior of said body, said lower part having an integral part thereof treated with a substance so that the latter part is impervious to air and more resistant to abrasion by said dust and similar material than said air-pervious paper, said substance being a melamine resin, and said bag as defined by said body being substantially free from any air-obstructing means.

2,848,864

AIR AND GAS FILTER HAVING AUTOMATICALLY CONTROLLED MOVEMENT OF FILTER CURTAIN

William K. Gregory, John F. Babbitt, and Langston P. Bryant, Louisville, Ky., assignors to Continental Air Filters, Inc., Louisville, Ky., a corporation of Delaware

Application March 29, 1957, Serial No. 649,493
19 Claims. (Cl. 183—62)



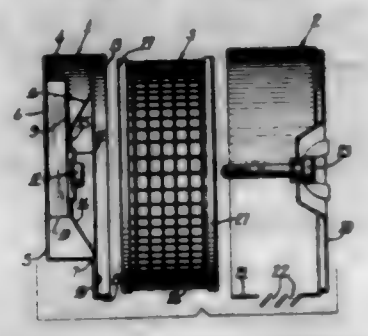
1. In an air and gas filter having a roll for winding a filter curtain thereon, means for driving said roll, means comprising a rotatable member in contact with said curtain and driven thereby for metering the amount of curtain advanced to said roll and being movable simultaneously with said advancing curtain, and means for controlling said driving means in dependence upon the movement of said metering means.

2,848,865

AIR CLEANER

Joseph B. Schok, Dearborn, Mich., assignor, by mesne assignments, to Purolator Products, Inc., Rahway, N. J., a corporation of Delaware

Application February 15, 1956, Serial No. 565,729
3 Claims. (Cl. 183—71)



1. In an air cleaner, a casing section having an open top and a bottom imperforate except for an offset outlet opening, a box-like baffle over said outlet opening and open at the end farthest from said opening, and a second baffle spaced inwardly from the first said baffle and having a depressed central portion in contact with the first baffle, said second baffle having an opening remote from the open end of the first said baffle, air cleaning means seated in said casing section and a cover over said air cleaning means.

2,848,866

DEVICE FOR A SIMULTANEOUS CLEANSING OF THE OUTLETS FOR DUST AND CLEAN-GAS IN CYCLONES

Claes Allander, Sodra Angby, and Bengt Lanne, Johannishov, Sweden, assignors to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden

Application September 26, 1956, Serial No. 612,294
Claims priority, application Sweden September 28, 1955
5 Claims. (Cl. 183—76)

1. In a cyclone having a downwardly tapering conical section terminating in a cylindrical dust outlet tube, and a cylindrical clean-gas outlet tube in the upper portion of said cyclone coaxial with said dust outlet tube, a device for simultaneously cleaning said dust and clean-gas outlet tubes comprising an elongated member extending axially through said dust and clean-gas outlet tubes and having a plurality of substantially annular scraper elements axially movable in said dust and clean-gas outlets, the scraper elements in each outlet having a generally circular outline corresponding in diameter to the inner diameter of the associated outlet to thereby scrape the walls of said dust and clean-gas outlets upon axial movement of said elongated member.

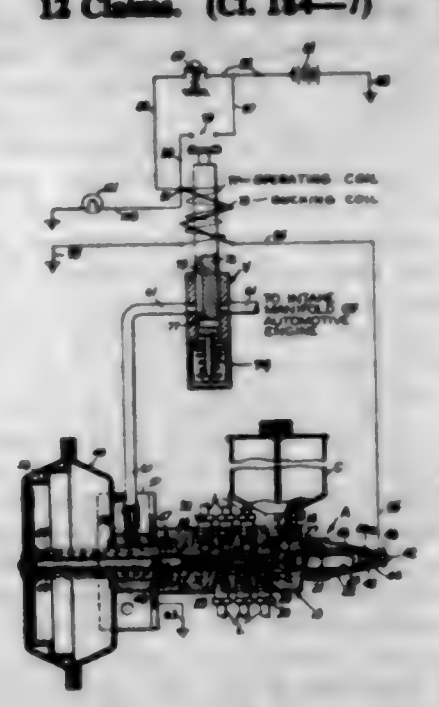


2,848,867

LUBRICATING SYSTEM

Rudy F. Schuster, O'Fallon, Mo., assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio

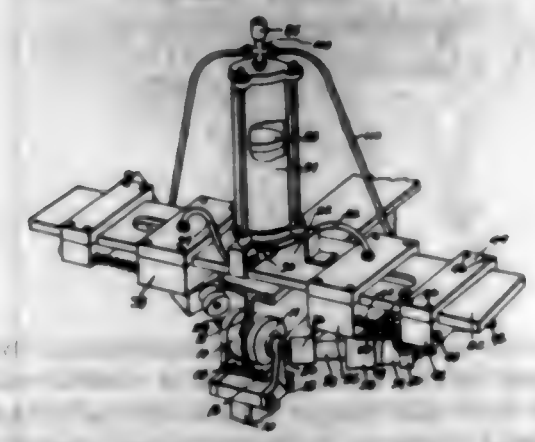
Application March 5, 1956, Serial No. 569,443
12 Claims. (Cl. 184—7)



1. In a lubricating system for an automotive vehicle, said vehicle having an engine, said engine having an intake manifold in which a vacuum is drawn when the engine is running, said system being of the class comprising a lubricant injector, a vacuum-operated motor for operating the injector, means for connecting the vacuum motor to the manifold including an electrically controlled valve having an operating coil and a member having a retracted position in which it vents the vacuum motor while holding vacuum in the manifold when the operating coil is de-energized, said member being movable to an operative position in which it connects the vacuum motor and the manifold when the operating coil is energized, said operating coil being connected in a circuit including means for closing the circuit to energize the operating coil, and a holding circuit for the operating coil, the improvement comprising the provision of the valve with a bucking coil, and means responsive to completion of the operation of the injector for energizing the bucking coil, said mem-

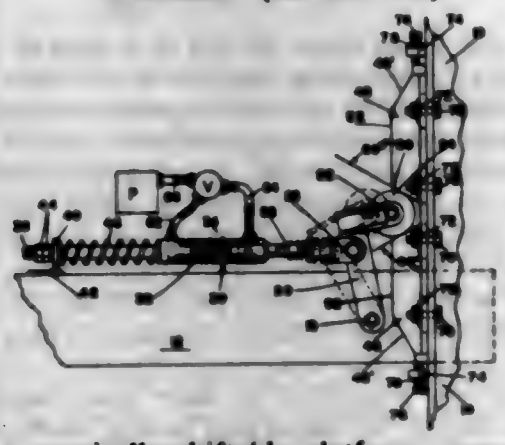
ber returning to retracted position upon energization of the bucking coil to neutralize the effect of the operating coil.

2,848,868
CONVEYOR LUBRICATOR
Carl S. Abbott, Birmingham, Hubert T. Hunt, Jr., Ecorse, and Leonard Dutton, Birmingham, Mich.; said Abbott and Dutton assignors to J. N. Fauver Co. Inc., Detroit, Mich., a corporation of Michigan
Application May 7, 1954, Serial No. 428,359
1 Claim. (Cl. 184—15)



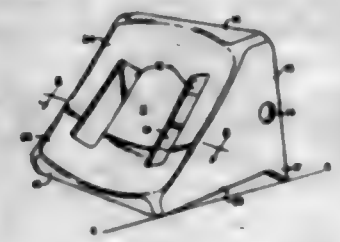
A lubricator for a movable conveyor comprising, a support, a lubricant reservoir carried by said support, a housing slidable on said support for movement toward and away from the conveyor, a rotatable head carried by said housing, said head having a lubricant chamber, a communication between said reservoir and said lubricant chamber, a piston in said lubricant chamber, an operating pressure chamber for moving said piston into said lubricant chamber, a lubricant discharge nozzle leading from said lubricant chamber, a cam carried by said housing, a slide plate movable by said cam, a valve housing carried by said rotatable head having an exhaust passage open to the atmosphere, an opening communicating with said pressure chamber, and an opening communicating with a supply pressure, a movable valve member in said valve housing carried by said slide plate forming a communication from the supply pressure opening to said operating pressure chamber when said valve is in one position, and for forming a communication between said operating pressure chamber and the exhaust passage when said valve is in another position, adjustable means for positioning said movable valve member relative to said slide plate, and spring means for moving said piston in opposition to said operating pressure chamber.

2,848,869
PLATFORM LEVELING MECHANISM
Vaughn A. Sanders, Spokane, Wash., assignor to Pigeon Hole Parking, Inc., Spokane, Wash., a corporation of Washington
Application July 26, 1956, Serial No. 600,282
4 Claims. (Cl. 187—76)



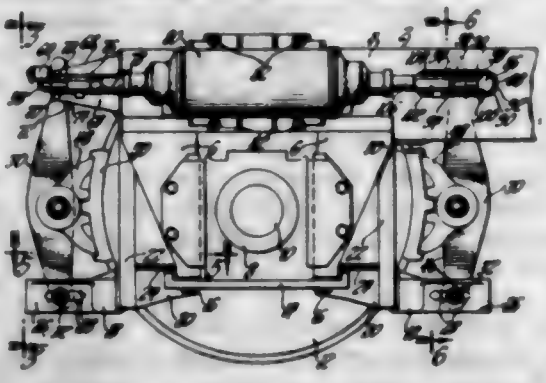
1. In a vertically shiftable platform, means for leveling said platform at predetermined levels comprising a cam plate secured in a fixed position adjacent to the path of movement of said platform and having a socket; a latch wheel carried by said platform and moveable into and out of mating engagement with said socket; an axially reciprocal prime mover for alternately shifting said latch wheel into and out of mating engagement with said socket in accordance with manual selection; and resilient means urging said prime mover to a normal position effective to operate said latch wheel and yieldable to admit of movement thereof when said latch wheel is held against movement in said socket.

2,848,870
WHEEL BLOCK
Marion C. Wilson, Hammond, Ind., assignor to Calumet Steel Castings Corporation, Hammond, Ind., a corporation of Indiana
Application August 22, 1957, Serial No. 679,782
3 Claims. (Cl. 188—32)



1. In a wheel block for use with a pneumatic tired wheel subject to vertical compression and horizontal expansion under a working load to produce a free radius and a roll radius with the ground whereby a complex contour is formed, a blocking surface having a complex curvature generated from a first and second vertical radii, each having a length equal to the free radius, said first radius having its center at the axle height above the ground and said second radius having its center a distance closer to the ground than the axle height and horizontally removed from the blocking surface, said curvature thereby being so constructed and arranged to complement said tire under said working load whereby the block may fit closely against the contour of said tire when placed into position.

2,848,871
BRAKE RIGGING
William F. Holm, Riverside, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 12, 1955, Serial No. 500,783
4 Claims. (Cl. 188—33)



1. A brake rigging for a railway vehicle truck including a truck frame having a pair of downwardly depending pedestals and a wheel and axle supporting said frame, comprising a support secured to the lower end of one of said pedestals below the axis of rotation of said wheel and extending longitudinally and into the plane extended of said wheel, a vertical lever in the plane extended of said wheel having wheel-engaging means adjacent the rim of said wheel, said support having a plurality of polygonal-shaped openings spaced longitudinally therealong and

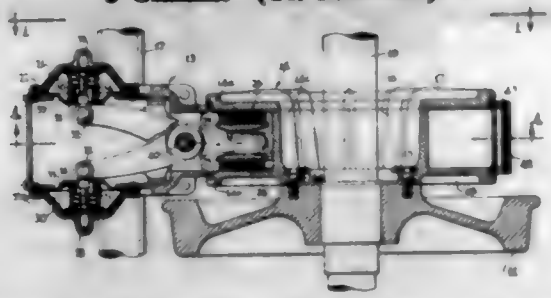
overlapping each other, and an elongated fastening member having a polygonal shank portion extending onto one of said polygonal openings and having a cylindrical portion extending through the lower end of said lever whereby said lever is adjustably and pivotally supported at its lower end on said support, and means operatively connected between the upper end of said lever and said frame operative to pivot said lever on said support whereby said wheel-engaging means engages said wheel.

2,848,872

ENCLOSED DUAL-DISK BRAKES FOR VEHICLES

Robert G. Stacy, Jenkintown, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application May 15, 1956, Serial No. 584,973
8 Claims. (Cl. 188—59)



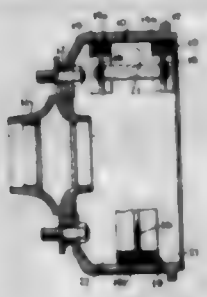
1. A disk brake assembly for rail vehicles comprising in combination, a pair of axially spaced rotatable brake disks having axially spaced braking surfaces facing each other, a brake shoe operating assembly mounted in a fixed position radially outside the disks, said operating assembly including a casing and hinged tong levers carried thereby having their ends entered in the space between the braking surfaces, brake shoes pivoted to the tong levers in position to engage said braking surfaces, means on the operating assembly for actuating said levers to move their outer ends to operate the brake shoes, and a cover carried by said operating assembly casing which, together with the casing, fully encloses the disks and the space between them to exclude water, snow and the like from the braking surfaces and brake shoes.

2,848,873

FRICTION DEVICE SUCH AS A BRAKE

Carolus L. Eksergian, Media, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application April 17, 1956, Serial No. 578,774
8 Claims. (Cl. 188—78)



1. In a friction resistance device, such as a brake or clutch, in combination, a rotatable friction member having a friction surface providing a plurality of adjacent rotational friction zones, a relatively fixed brake lining unit disposed in each zone for braking action on the friction surface of said rotatable member, the lining units in adjoining zones being circumferentially spaced apart so that there is open space on the side of each lining unit in the adjoining zone, the lining unit in each zone being relatively short in circumferential length to leave an open space of greater circumferential length than the unit in its rotational zone, the lining area on one side of the rotational axis being balanced by lining area of the same size on the other side of the axis, and there being no circumferential overlap of lining on opposite sides of the axis.

2,848,874

AUXILIARY BRAKES FOR TRAILERS

Jesse M. Puddy, Hood River, Oreg.

Application December 5, 1955, Serial No. 551,849
3 Claims. (Cl. 188—112)



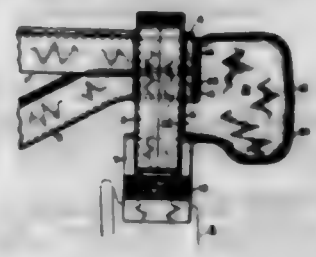
1. A tractor trailer brake system comprising a hydraulic brake system on the tractor vehicle, a conduit extending rearwardly from said tractor vehicle hydraulic brake system, a cylinder supported at the rear of said tractor vehicle and communicating with said conduit, a piston mounted for reciprocation in said cylinder, a piston rod projecting rearwardly from said piston through the end wall of said cylinder, a hydraulic brake system on said trailer, a second cylinder operatively connected to said hydraulic brake system of said trailer and positioned forwardly of said trailer in axial alignment with said first cylinder on said tractor vehicle, a second piston mounted for reciprocation in said second cylinder, a second piston rod extending forwardly from said second piston, means connecting said first and second cylinders in end to end relation with said first and second piston rods in abutting relation whereby movement of said first piston will move said second piston, a floating piston in said second cylinder arranged oppositely to said second piston, and means on said second cylinder for adjusting the position of said floating piston.

2,848,875

TERMINAL EXTENSION FOR UNIT BRAKE BEAM

Arnold G. Schilberg, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

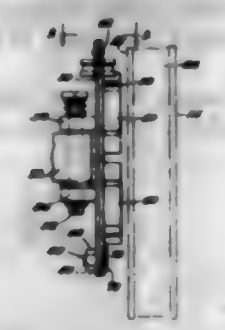
Application October 19, 1955, Serial No. 541,345
2 Claims. (Cl. 188—233.3)



1. In a unit brake beam for use in a railway car truck and having a compression member and a tension member disposed forwardly of the compression member with the ends of the members being integrally secured together to provide a beam end portion, brake head means integrally secured on the end portion of the beam and adapted to engage the car wheel when the beam is actuated forwardly toward the car wheel, a terminal extension adapted to slide within guide means provided on the car truck and comprising a pair of wear elements having opposed forward, rearward and outer edge flanges, each of said elements having a portion of their inner edge seating against the end of the beam and having another portion of their inner edge projecting inwardly and seating against the outer wall of the brake head means forward-

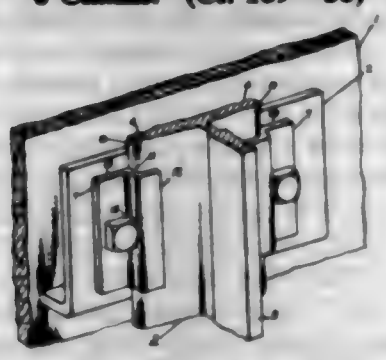
ly of the beam end portion, and welds joining the opposed flanges of the wear elements to form an integral hollow extension and joining the extension to the end of the beam and to the brake head means respectively.

2,848,076
BRAKE HEAD-BRAKE SHOE ASSEMBLY
Louis D. Davis, Jr., Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application November 10, 1955, Serial No. 546,094
7 Claims. (Cl. 188—244)



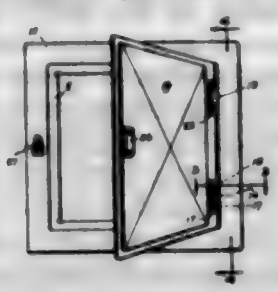
1. In a brake arrangement for a railway car truck having a truck structure and a supporting wheel and axle assembly, the combination of a brake head pivotally supported by said structure, a generally vertically extending backing plate, a lug on said plate defining a generally vertically disposed opening for receiving the upper portion of said brake head, a brake shoe carried by said plate for engagement with a rotatable friction surface of said assembly, a portion of said plate extending below said shoe, aligned openings in the portion and head, a slot in said portion extending from the portion opening to the lower edge of the portion, a pin having a head engageable with said portion, said pin being received within said openings and having a smaller diameter portion, and releasable means associated with said smaller diameter portion for retaining said pin in said head opening while accommodating removal of said plate and shoe.

2,848,077
ELEVATOR GUIDE RAIL FASTENER
Daniel Dario Tofanelli, Bronxville, N. Y., assignor to Otis Elevator Company, New York, N. Y., a corporation of New Jersey
Application January 24, 1956, Serial No. 560,960
6 Claims. (Cl. 189—35)



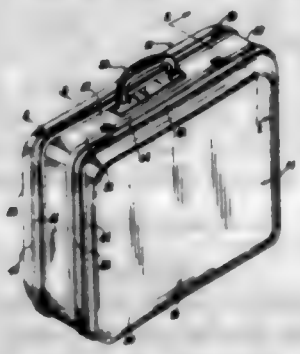
1. A fastener mounting an elevator guide rail on a supporting structure comprising, a mounting member for said guide rail secured to said supporting structure, said guide rail having a pair of oppositely disposed tapered flanges the backs of which contact said mounting member, a pair of clamps, one for each of said flanges, and means securing said clamps to said mounting member along the opposite edges of said flanges, each of said clamps having a spring clamp portion in slidable contact with the front surface of the contiguous tapered flange, whereby said guide rail is free to move vertically relative to said supporting structure without horizontal misalignment of said guide rail.

2,848,078
FLUE CLEANOUT DOOR ASSEMBLY
Kenneth F. Triggs, Huntington, Ind., assignor to The Majestic Company, Inc., Huntington, Ind., a corporation
Application July 12, 1957, Serial No. 671,661
4 Claims. (Cl. 189—46)



1. A flue cleanout door assembly comprising a sheet metal door frame having an indented marginal area defining a rectangular opening, flanges formed integrally with said frame and extending rearwardly from the inner margins thereof, spaced tongues struck from one of said flanges and formed to provide semicircular hinge eyes having their longitudinal axes positioned forwardly of the plane of said marginal area, a sheet metal door adapted to close the rectangular opening, a generally T-shaped slot formed in said door adjacent each of said hinge eyes, the opposed elongated tongues thereby formed at each slot being accommodated within their adjacent hinge eye and having their extremities bent into a plane normal to the longitudinal axis of the hinge eye, said extremities having curved margins corresponding to the curvature of said hinge eyes to limit lateral movement of the door relative to said frame as the door is pivotally moved on the frame.

2,848,079
STITCH CONCEALING BINDING FOR LUGGAGE
Meyer Brodie, Brooklyn, N. Y.
Application July 15, 1957, Serial No. 671,822
5 Claims. (Cl. 190—54)



1. In a valise construction the combination, with a pair of hingedly connected valise sections each including a body composed of a peripheral flange and a pair of side-by-side coverings overlying the flange, of a binding assembly for each flange comprising a retainer strip of resilient material overlying adjacent edges of the coverings and secured to the sections, said strip being channeled so as to include a web and side walls projecting from the web, and a binding element engaged in said strip, the side walls of the retainer strip being resiliently tensioned to normally springably move toward each other into embracing relation to said binding element.

2,848,080
TWO STAGE CLUTCH CONTROL SYSTEM
Richard Binder, Schweinfurt am Main, Germany, assignor to Fichtel & Sachs A. G., Schweinfurt am Main, Germany, a corporation of Germany
Application February 24, 1955, Serial No. 490,360
Claims priority, application Germany March 4, 1954
8 Claims. (Cl. 192—.052)

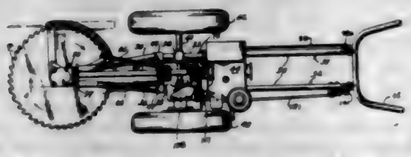
1. In combination with an internal combustion engine; throttle means for controlling the speed and torque of

said engine; a transmission; gear shifting means for selecting a desired gear ratio within said transmission; a clutch selectively engageably and disengageably connecting said engine to said transmission, said clutch permitting partial engagement thereof accompanied by a reduction in the amount of torque transmissible therethrough; and means responsive to the speed of said engine for causing engagement of said clutch whenever said engine speed exceeds a predetermined minimum speed, the provision of: servomotor means operable in response to exchange in the pressure of a pressure fluid therein for disengaging said clutch during times when said engine speed exceeds said predetermined minimum speed and said clutch would otherwise be engaged; control valve means connected to said servomotor means for causing a change in the pressure of said pressure fluid, flow of said pressure fluid to and from said servomotor means being controlled by said valve means; control means interconnecting said



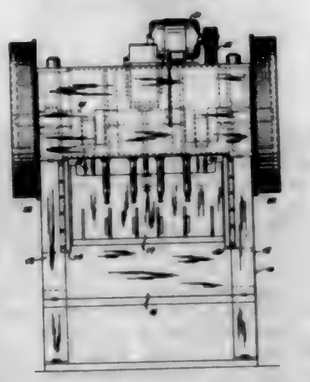
gear shifting means and said control valve means, said control means causing said valve means to change the fluid pressure in said servomotor means for causing complete disengagement of said clutch during shifting actuation of said gear shifting means; pressure regulating means connected with said valve means for causing a pressure change in said servomotor pressure fluid for partially reengaging said clutch after termination of said shifting actuation of said gear shifting means; releasing means, for causing full engagement of said clutch, said releasing means including a displaceable control member acting on said pressure regulating means; and means included in said releasing means for varying the position of said displaceable control member in accordance with variations in said engine speed to cause full engagement of said clutch when said engine speed equals or exceeds a predetermined minimum driving speed, said minimum driving speed being greater than said first-named minimum engine speed at which clutch engagement takes place.

2,848,081
SELF-PROPELLED POWER SAW
George W. Welsh, Kankakee, Ill., and Stanley E. Hill, Bayfield, Colo., assignors to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application March 15, 1954, Serial No. 416,014
2 Claims. (Cl. 192—12)



1. In a self-propelled power saw comprising a frame, a power unit supported on said frame and a pair of traction wheels supporting said frame, power transmission means connecting said power unit to said wheels, said power transmission means including a clutch for transmitting power from said power unit to said wheels, means for operating said clutch, a rockably mounted brake bar on said frame, said bar having an offset portion adapted to engage one of said wheels for braking the same, a crank arm fixed intermediate the ends thereof to said brake bar, linkage means connecting the clutch operating means with one end of said crank arm, a pivotally mounted operating handle on said frame, a pull rod connecting the other end of said crank arm with said operating handle, said operating handle when moved to one position effecting rocking of said crank arm simultaneously to render said clutch operative and to disengage said brake bar from said wheel, said operating handle when moved to another position rocking said crank arm to render said clutch inoperative and to move said brake bar into braking relation with said wheel.

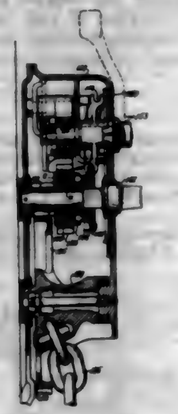
2,848,082
CLUTCH AND BRAKE UNIT FOR PRESSES
Roy F. Dehn, Wickliffe, Ohio, assignor to The Cleveland Crane & Engineering Company, Wickliffe, Ohio, a corporation of Ohio
Application November 4, 1954, Serial No. 466,813
4 Claims. (Cl. 192—12)



1. In a press or the like, a frame, a ram member to be reciprocated with respect to said frame, a drive shaft journalled in said frame and operatively connected to said ram member for reciprocating the ram member upon rotation of the drive shaft, said drive shaft having a removable shaft section and coupling means removably securing said section into said drive shaft as a part thereof, a flywheel journalled on said removable shaft section, fluid pressure actuated clutch means coaxial with said shaft section and connected to said flywheel at one side thereof for selectively connecting said flywheel to said shaft section, said shaft section and said drive shaft having aligned axial bores therein opening into adjacent ends of said shaft section and drive shaft for supplying fluid pressure to said clutch means and said coupling means including separable coupling members cooperating to connect said adjacent ends of said shaft section and said drive shaft and a sealing member having a central opening therethrough and extending between said adjacent ends and said bores to effect the connection of said bores, and brake means coaxial with and about said shaft section at the other side of said flywheel and removable with said shaft section, said brake means including a support member to be fixed with respect to said frame and means for detachably and fixedly connecting said support member to said frame.

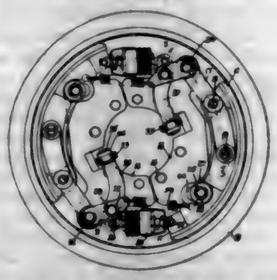
2,848,083
HAND BRAKE FOR RAILROAD CARS
Jack Wilson, Chicago, Ill., assignor to Universal Railway Devices Co., a corporation of Delaware
Application November 23, 1953, Serial No. 393,737
4 Claims. (Cl. 192—16)

1. In a hand brake for railroad cars, a housing adapted to be mounted on a car, a hand wheel shaft journalled in the housing to rotate about a substantially horizontal axis, a pinion concentrically mounted loosely on the shaft, a ratchet wheel concentrically mounted loosely on the pinion, and a friction clutch between the pinion and the



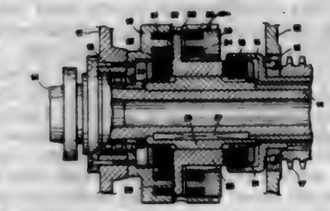
ratchet wheel including an element fast to the pinion and a nut element in threaded relation to the pinion.

2,848,084
TRANSVERSELY ENGAGED CLUTCH WITH COMPENSATING MEANS
Roy H. Zellmer, Elyria, and George C. Noll, North Ridgeville, Ohio, assignors to The Thew Shovel Company, Lorain, Ohio, a corporation of Ohio
Application April 23, 1956, Serial No. 579,977
3 Claims. (Cl. 192—76)



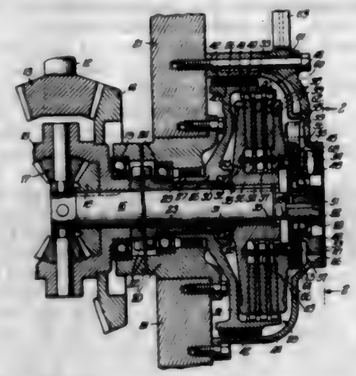
1. A clutch for establishing driving communication between a shaft and a drum comprising in combination a support member adapted to be rigidly secured to said shaft, a shoe having a convex surface adapted to engage the inner surface of said drum, a first arm pivotally secured at one end to said support member and pivotally secured intermediate of its ends to one end of said shoe, the end of said first arm remote from said support member being connected to a central portion of said shoe for limited movement relative thereto, a second arm pivotally secured intermediate of its ends to said support member, a cam slidable axially on said shaft and having a first surface thereon generally parallel to the axis thereof and a second surface thereon diverging obliquely from the axis thereof and terminating in said first surface, said cam adapted to engage one end of said second arm, and resiliently deformable means connecting the other end of said second arm to the end of said shoe remote from said first arm, the dimensions of parts being such that said cam, when contacting said second arm at an intermediate point on said second surface, will effect contact between said shoe and said drum, and said cam, when moved to contact said second arm at a point on said first surface, will maintain said shoe in contact with said drum and compress said resiliently deformable means.

2,848,085
ELECTROMAGNETS AND MORE PARTICULARLY IN ELECTROMAGNETIC CLUTCHES
Rigbetto Mazzaloni, Florence, Italy
Application June 11, 1956, Serial No. 590,706
Claims priority, application Italy April 28, 1956
2 Claims. (Cl. 192—84)



1. An electromagnetic clutch comprising a stationary structure including a pair of standards, a first circular body forming a ferromagnetic core secured to that side of one of said standards which faces the other of said standards and having a pair of concentric annular recesses formed in that face thereof which is presented toward said other standard, an interiorly threaded annular projection formed integrally with the peripheral portion of that face of said first body which is presented toward said other standard, windings mounted in each of said recesses, a second circular body forming an electromagnetic core externally threaded and engaged in said projection and having a pair of concentric annular recesses in that face thereof facing said first mentioned body, windings mounted in the last-mentioned recesses, said cores having their adjacent faces in spaced in parallel relation to each other, a chuck rotatably mounted in said stationary structure and extending centrally through said cores, an armature slidably mounted on said chuck and having an integrally formed disc-shaped portion extending between the adjacent faces of said cores, a first multi-ring clutch engageable with said first body and said chuck, a second multi-ring clutch engageable with said second body and said chuck, and a pair of adjustable screw members mounted on said chuck for adjusting the longitudinal limits of movement of said armature.

2,848,086
POWER TAKE-OFF AND TRACTOR DRIVE MECHANISM
Arthur J. Warsaw, Anchor, Ill., assignor of one-half to Ertel Manufacturing Corporation, and one-half to Elmo Meiners
Application January 13, 1953, Serial No. 331,034
2 Claims. (Cl. 192—93)



1. A clutch construction to releasably couple a pair of coaxial rotary and relatively rotatable power input and

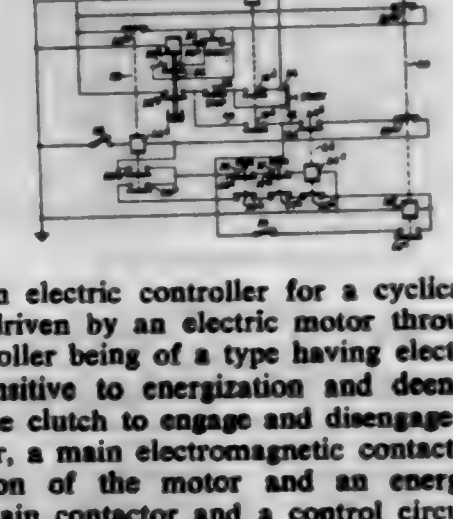
output members, comprising a clutch backing plate, means fixedly anchoring the same relative to one of said members, a clutch pressure plate in fixedly rotative and axially slidable relation to said one of said members, clutch elements compressible between said plates and mounted in axially slidable, fixedly rotative relation to the other member, an axial thrust sustaining abutment adjustable on but normally in axially fixed relation to said one of said members, and axial thrust transmitting means including coacting fixed and relatively rotatable clutch actuating cam members disposed between said clutch pressure plate and said thrust sustaining abutment, whereby the abutment and said anchored backing plate acting directly through said one of said first named members, complete the thrust cycle of said plates, clutch elements and thrust transmitting means, said clutch plates, clutch elements, thrust transmitting means and abutment being mounted in a housing having an external sealing member, which sealing member has means releasably keying the same in rotation-preventing relation to said fixed cam actuating member.

2,848,087

ELECTRIC CONTROLLERS FOR MACHINES

Verne H. Simson, Milwaukee, Wis., and Kenneth L. Smith, Detroit, Mich., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application May 31, 1955, Serial No. 512,156
4 Claims. (Cl. 192—144)



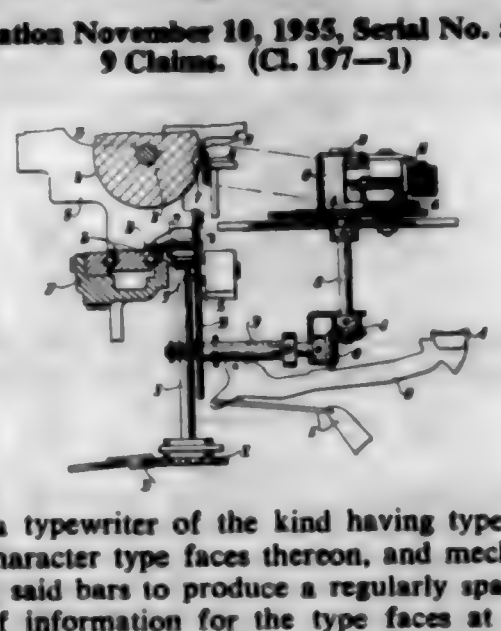
1. In an electric controller for a cyclically operable machine driven by an electric motor through a clutch, said controller being of a type having electro-responsive means sensitive to energization and deenergization to operate the clutch to engage and disengage the machine and motor, a main electromagnetic contactor to control energization of the motor and an energizing circuit for the main contactor and a control circuit for effecting cyclic operation of the machine through the medium of the clutch, said control circuit comprising an operator's switch having normally open and normally closed contacts, a limit switch operated by the machine to open its contacts during a portion of the operating cycle of the machine, a second electromagnetic contactor in series with the limit switch and being dependent for initial energization on closure of the normally closed contacts of the operator's switch, and an energizing circuit for said electro-responsive means comprising in series the normally open contacts of the operator's switch and a normally open contact which is closed in response to energization of said second contactor, the improvement which comprises, an electromagnetic timing relay having a safety contact in series with the energizing circuit of the main contactor and the second contactor and the electro-responsive means, and an energizing circuit for the timing relay comprising in series with the relay parallel branches one containing a normally closed contact operated in response to energization of the second contactor and the other containing a normally closed contact which is operated in response to energization of the electro-responsive means, the timing relay acting when energized to close its contact and to open said contact after a time interval longer than the duration of said portion of the cyclic operation of the machine following de-energization of said timing relay unless the latter is re-energized sooner.

2,848,088

MACHINE FOR PRINTING AND CHECKING MUTUALLY SIMILAR RECORDS

Robert F. Shaw, New York, N. Y., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware

Application November 10, 1955, Serial No. 546,884
9 Claims. (Cl. 197—1)



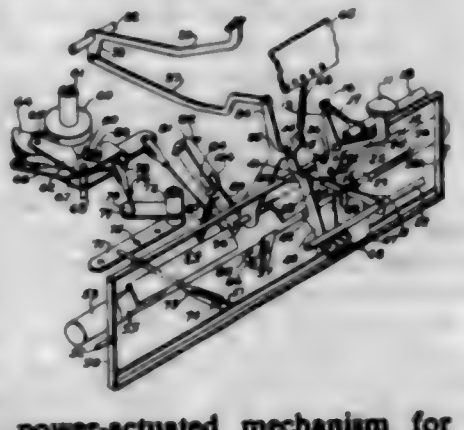
1. In a typewriter of the kind having type bars with legible character type faces thereon, and mechanism for actuating said bars to produce a regularly spaced legible record of information for the type faces at a primary printing location on a first record medium in the machine, that improvement for typing a separate coded record of the same information simultaneously with the legible record, comprising a horizontally compressed coded type face representation of a character carried on each type bar adjacent and vertically aligned with its corresponding legible type face, a secondary printing location for the coded type face adjacent the primary printing location, and means horizontally positioning and feeding a second separate code-receiving record medium adjacent the primary printing location past the secondary printing location for the coded type face, and said means driving said second medium past said secondary printing location in spacing steps smaller than the regular spacing of the first medium past the primary printing station, whereby actuation of the type bars will produce a legible record on the first record medium and simultaneously will produce a horizontally condensed coded record of the same information on the second record medium.

2,848,089

POWER-ACTUATED TYPEWRITER MECHANISM

James F. Smathers, Poughkeepsie, N. Y.

Application May 28, 1956, Serial No. 587,756
5 Claims. (Cl. 197—17)



1. In a power-actuated mechanism for typewriters, the combination comprising a platen roller, a power-driving means, a cam member normally maintained in an

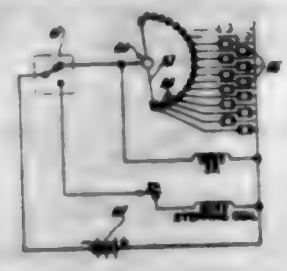
inoperative position with respect to said power-driving means, a linkage for moving said cam member into an operating relationship with said power-driving means, a type bar pivotally mounted for movement into engagement with said platen roller, a type bar linkage pivotally mounted and connected to said type bar, a member connected to said type bar linkage for engaging said linkage, a type key pivotally mounted for movement into an operating position, an operating member pivotally mounted on said type key and normally engaging said member and for moving said member and linkage, upon movement of said type key into said operating position, to move said cam member into said operating relationship, a trip member pivotally mounted for movement into engagement with said member, and a second linkage operatively connected to said trip member and movable by said cam member in its operating relationship whereby said trip member moves said member and said type bar linkage to actuate said type bar.

2,848,090

TYPEWRITER CONTROL MEANS

Arthur H. Sharpe, West Hartford, William J. Hildebrandt, Farmington, and Salvatore J. Intagliata, Hartford, Conn., assignors to Underwood Corporation, New York, N. Y., a corporation of Delaware

Application October 11, 1955, Serial No. 539,724
8 Claims. (Cl. 197—19)



1. In a typewriting machine having a plurality of type actions and an automatic control apparatus for said type actions which is stepwise feedable to cause successive type action operations in accord with a predetermined program; solenoids individually associated with said type actions and energizable to cause operations of the latter, a switch universal to said solenoids and controlled by the type actions during their operations first to open and then to close, means under control of said type actions to step-feed said apparatus during each operation of any type action while said universal switch is open, an electric power source, and solenoid selecting contacts in series with said solenoids, said power source and the said universal switch, and controlled by said apparatus through the step-feeds imparted thereto to cause in accord with said program successive new type-action operations timed by the closures of said universal switch.

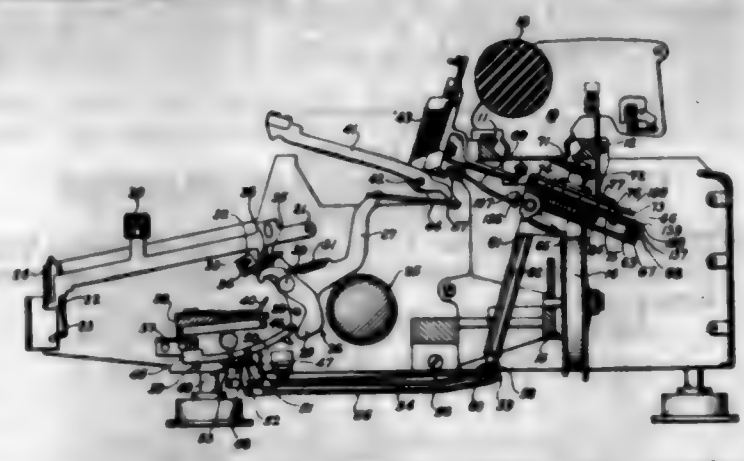
2,848,091

TYPEWRITER ESCAPEMENT MECHANISM

James F. Smathers, Poughkeepsie, N. Y.

Application January 30, 1956, Serial No. 562,136
15 Claims. (Cl. 197—84)

1. A device for varying the movement of a typewriter carriage, comprising drive means operatively connected to said carriage for moving said carriage in a letter-feeding direction, a fixed stop, a plurality of stops selectively arranged in spaced relation to said fixed stop in accordance with the type character being printed, a control member movable in one direction independently of said carriage and said drive means against said fixed stop and movable in the other direction with said carriage into engagement with one of said selected stops, resilient means operatively connected to said control member for moving said control member in said one direction and for retaining said control member and said carriage in engagement during movement in said other direction, and means actuated by the one of said selected



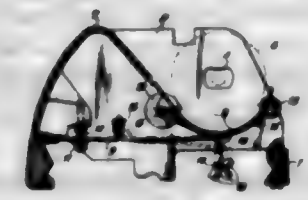
stops engaged by said control member for arresting movement of said carriage.

2,848,092

PAPER FEEDING DEVICE FOR TYPEWRITING MACHINES

John Ivan Georg Östholm, Johanneshov/Stockholm, and Joe Adolf Rasche, Stockholm, Sweden, assignors to Adlerwerke vorm. Heinrich Kleyer Aktiengesellschaft, Frankfurt am Main, Germany

Application January 26, 1954, Serial No. 406,212
Claims priority, application Sweden January 28, 1953
4 Claims. (Cl. 197—138)



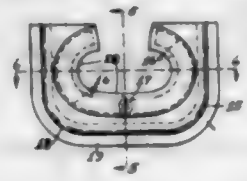
1. In a typewriter, a carriage, a platen journalled in said carriage, at least three paper holding members aligned longitudinally of the platen, spring means normally urging said paper holding members into engagement with said platen for holding a plurality of juxtaposed paper sheets, means for simultaneously disengaging said paper holding members from the platen against the action of said spring means, and means serving for selectively locking any of said holding members in engagement with said platen.

2,848,093

HANDRAIL SAFETY DEVICE

Peter W. Van Etten, Richmond, Ind., assignor to Multiscope, Inc., Brooklyn, N. Y., a corporation of Kansas

Application January 10, 1956, Serial No. 558,220
1 Claim. (Cl. 198—16)



In a moving stairway provided with moving handrails and having newels located at each end thereof with the handrails moving in their respective orbits and entering the newels, a safety device located in a newel and partially encircling a respective handrail in its movement therethrough, said safety device being formed of flexible material with the handrail opening therethrough coinciding with the outer peripheral contour of the handrail and fitting closely thereto, with the safety device having a void formed therein in substantially parallel relation with the outer peripheral contour of the handrail with both ends of the void being closed, a passage communicating

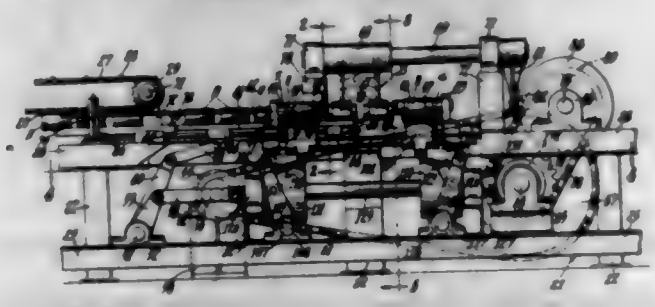
with the void and located substantially midway between the ends thereof, and with the passage being adapted to connect with a pressure-responsive electrical switch electrically connected with the power circuit of the moving stair.

2,848,094

CONTAINER FEEDING AND TRANSFER MECHANISM

William Pechy, Belmar, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application June 1, 1956, Serial No. 588,736
10 Claims. (Cl. 198—19)



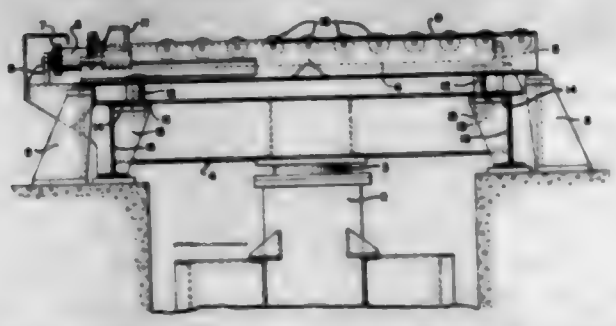
1. A mechanism for feeding and transferring can bodies, comprising in combination a can body entrance lane, a transfer station, an adjacently disposed auxiliary lane, a plurality of spaced working stations in alignment with said auxiliary lane, feeding means disposed adjacent said entrance lane for advancing can bodies therealong in a substantially continuous procession into said transfer station, a transfer device swingably mounted on a horizontal axis at said transfer station in longitudinal alignment with said entrance lane, said transfer device having a plurality of parallel pockets therein for alternately receiving from said entrance lane a plurality of adjacently disposed can bodies, means for swinging said transfer device on said horizontal axis from said entrance lane to said auxiliary lane to position said plurality of can bodies in said auxiliary lane, and means disposed adjacent said auxiliary lane for shifting the can bodies received therein in diverse directions into said working stations for the performance of an operation thereon.

2,848,095

CONVEYING MECHANISM

David E. Dolle, Euclid, Ohio, assignor to Wean Equipment Corporation, Cleveland, Ohio, a corporation of Ohio

Application August 11, 1955, Serial No. 527,847
6 Claims. (Cl. 198—20)



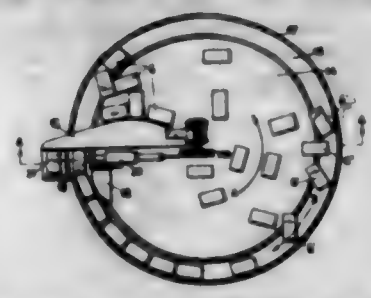
1. Conveying mechanism comprising a stationarily mounted upright cylinder, a piston operable in the cylinder, two conveyors adapted to support material being advanced and to transfer the material from one of the conveyors to the other, at least a portion of one of the conveyors being mounted on the piston for guided movement between an elevation at which its material supporting surface is below the level of the material supporting surface of the adjacent portion of the other conveyor and an elevation at which its material supporting surface is above the level of the material supporting surface of said portion of the other conveyor to effect transfer of the material from one of the conveyors to the other, said portion of the second mentioned conveyor being mounted independently of said portion of the first mentioned conveyor when said portion of the first mentioned conveyor is at the first mentioned elevation, said portions of the conveyors having generally vertically aligned cooperating means engageable with each other when said portion of the first mentioned conveyor rises from the first mentioned elevation to the second mentioned elevation to cause the first mentioned conveyor to carry said portion of the second mentioned conveyor up off of its mounting after the material supporting surface of said portion of the first mentioned conveyor rises above the level of the material supporting surface of said portion of the second mentioned conveyor.

2,848,096

STRAIGHTENING-OUT AND ALIGNING OF ARTICLES

Pierre Luginbühl, Neuhausen am Rheinfall, Switzerland, assignor to Schweizerische Industrie-Gesellschaft, Neuhausen am Rheinfall, Switzerland

Application October 22, 1954, Serial No. 463,986
Claims priority, application Switzerland October 28, 1953
9 Claims. (Cl. 198—30)



1. A device for arranging, aligning and discharging a plurality of articles of any shape supplied at random, comprising in combination a first rotary transporting means, a second rotary transporting means having at least a portion of its article supporting surface in closely spaced relation to said first rotary transporting means, means for driving said first and second rotary transporting means at average velocities differing from each other and with the closely spaced portions thereof moving in opposite directions, article guiding means on said second rotary transporting means for limiting the movement of the articles away from said first rotary transporting means, scraper means extending across said first and second rotary transporting means for deflecting the articles from said first rotary transporting means to said second rotary transporting means whereby when an article is partly on the first rotary transporting means and partly on the second rotary transporting means the centrifugal force and the frictional forces in two opposite directions exerted on the article by the rotary transporting means combine to cause the article to be orderly arranged in engagement with said guiding means on the second rotary transporting means or returned to said first rotary transporting means, and means for removing the articles from said second rotary transporting means.

2,848,097

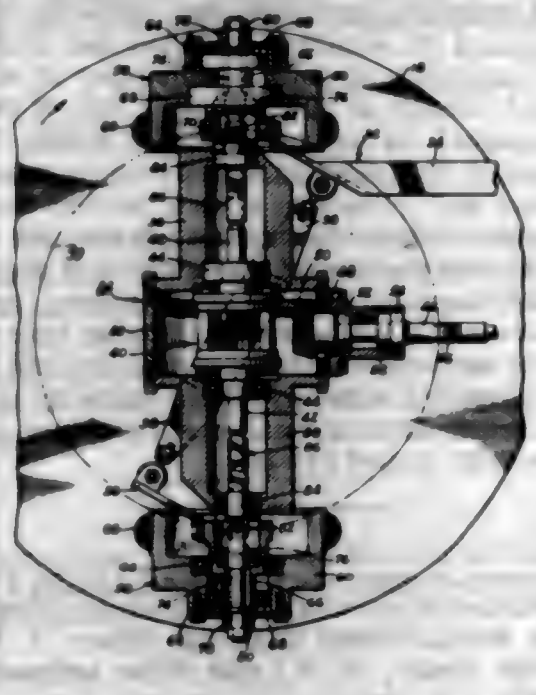
VARIABLE SPEED TRANSMISSION

Walter E. Saxe, Pasadena, Calif., assignor to The Conveyor Company, Los Angeles, Calif., a corporation of California

Application August 24, 1954, Serial No. 451,873
21 Claims. (Cl. 198—39)

1. In a variable speed transmission, the combination of: a rotor; a differential housing; differential gearing in said differential housing and having two input shafts and an output shaft; means for guiding said differential housing for movement transversely of said rotor; two steerable wheels pivotally mounted on said differential hous-

ing and at least one engaging said rotor; two shaft means respectively connecting said steerable wheels to said input shafts, each of said shaft means having an axially slid-



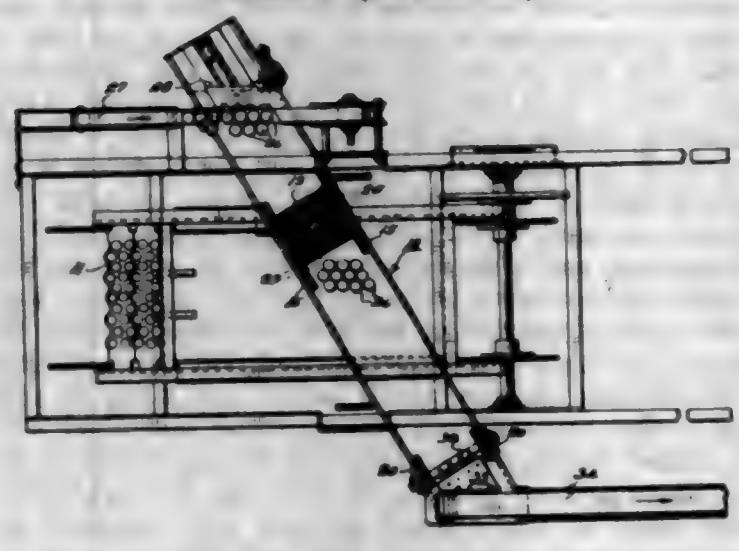
able connection with the corresponding input shaft and having therein a universal joint in alignment with the pivot axis of the corresponding steerable wheel; and means for steering said steerable wheels.

2,848,098

MAGNETIC CONVEYOR APPARATUS

Richard C. Talbot, Joliet, Ill., assignor to J. L. Ferguson Company, Joliet, Ill., a corporation of Illinois

Application May 31, 1955, Serial No. 512,016
9 Claims. (Cl. 198—41)



1. In a conveyor belt for conveying relatively unstable containers in spaced-apart relationship, said containers being magnetically attractable at least adjacent their bottom portions; a flexible belt, magnet means incorporated in said belt, and non-magnetic spacer elements protruding from said belt, said spacer elements being arranged to define areas on said belt to be occupied by said containers.

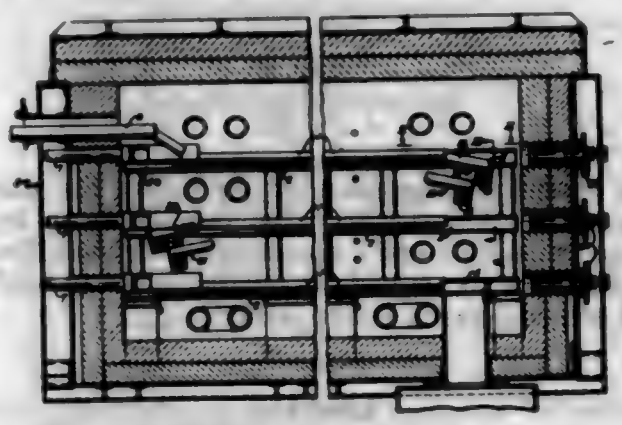
2,848,099

TRANSFER APPARATUS BETWEEN CONVEYORS

Vincent R. Troglione, Pittsburgh, Pa., assignor to Ferguson Equipment Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application October 2, 1956, Serial No. 613,527
6 Claims. (Cl. 198—45)

1. The combination with a pair of vertically spaced furnace conveyors that reciprocate lengthwise for moving articles at one level in one direction and at another level in the opposite direction, of apparatus for transferring said articles from the discharge end of the upper conveyor to the underlying end of the lower conveyor, said apparatus comprising a pair of vertically spaced trays adjacent said ends of the conveyors, the upper tray normally extending rearwardly from beneath the discharge end of the upper conveyor for receiving articles therefrom,



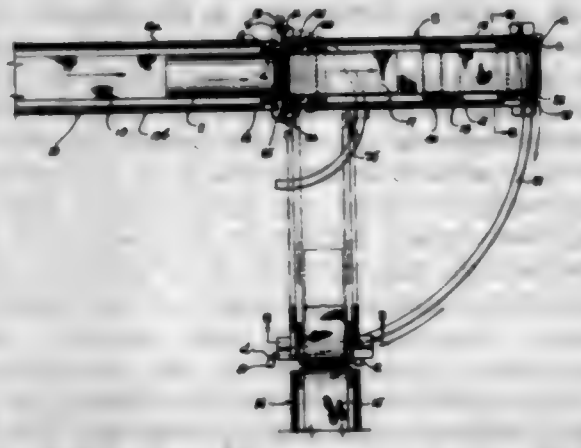
and means for tilting the front ends of the trays downward to slide said articles from the upper tray onto the lower tray and to position the front end of the lower tray adjacent the upper surface of the lower conveyor, whereby to deliver said articles from the upper tray to the lower conveyor.

2,848,100

SWING CONVEYORS

Ronald J. Jasper, Hoquiam, Wash., assignor to Lamb-Grays Harbor Co., Inc., Hoquiam, Wash., a corporation of Washington

Application December 19, 1955, Serial No. 553,933
5 Claims. (Cl. 198—100)



1. The combination with a feed belt and a discharge belt operating along horizontal lines of travel that are in angular relationship and in the same horizontal plane and a swing conveyor with a conveyor belt operating therealong for the reception of articles directly thereonto from said feed belt while in alignment therewith, and adapted to be swung from that position into alignment with the discharge belt for the delivery of said articles therefrom, directly onto the discharge belt and without change in their direction of travel relative to the swing conveyor and a powered mechanism operable to swing said swing conveyor between article receiving and delivering positions.

2,848,101

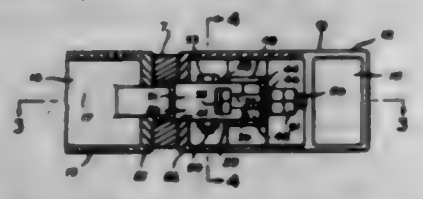
CONVEYOR CHAIN FLIGHTS

Thomas I'Anson, West Vancouver, British Columbia, Canada

Application October 1, 1956, Serial No. 613,227
1 Claim. (Cl. 198—176)

A flight adapted for connection to a link of conveyor chain comprising a pair of aligned mated portions each having a front wall and a top and bottom flange, said portions having opposing inner end walls between which the sides of a chain link are adapted to be clamped, one inner end wall of one mated portion being provided with

a hollow spigot having a slotted wall, the second mated portion enclosing a socket in which the spigot is adapted to be received, said socket having sides, and an apertured end wall, said apertured wall opposing the slotted wall,



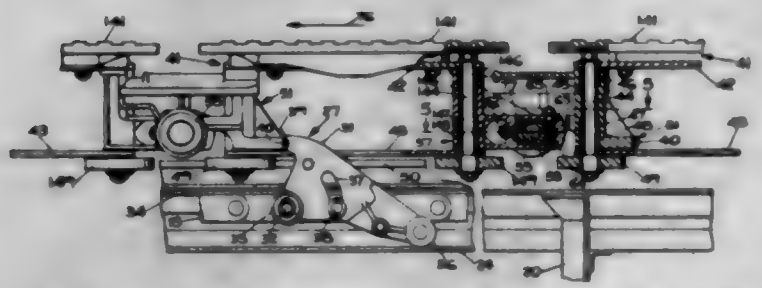
a bolt extending lengthwise of the socket for drawing the mated portions together and into clamping contact with the chain link, and a second bolt extending through the sides of the socket and through the spigot to hold said mated end portions in united position.

2,848,162

MOLD CONVEYER

Paul V. Whitney, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio

Application May 6, 1955, Serial No. 506,551
8 Claims. (Cl. 198—181)



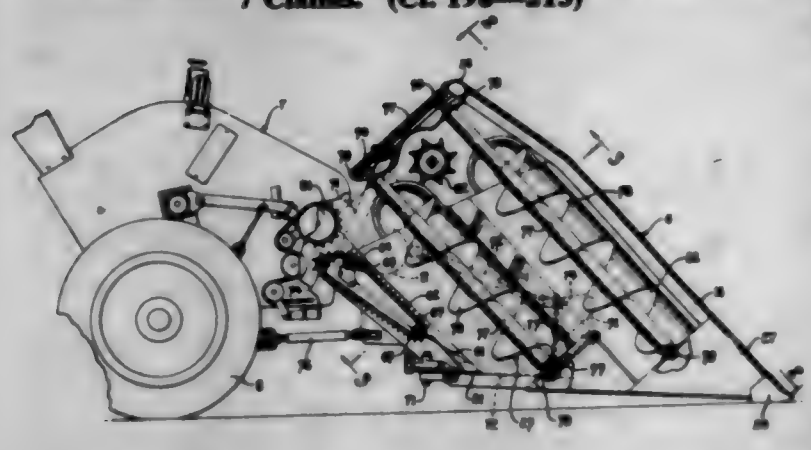
1. A conveyer comprising a plurality of individual trucks each having a load carrying body, said trucks being coupled end to end in succession for movement along a path, coupling means connecting the trucks end to end comprising, an upright spindle at each end of each truck secured to the truck body, a coupling member pivotally mounted on each spindle, pivot means joining the coupling member on one truck to the coupling member on the adjacent end of a successive truck, said pivot means extending transversely of the trucks between successive trucks permitting said successive trucks to move relatively to each other on said pivot means, means on the pivot means for supporting adjacent ends of successive trucks on said coupling members, said coupling members being adapted to pivot on the spindles to permit movement of the trucks laterally relatively to each other.

2,848,163

GATHERING UNIT FOR HARVESTERS

Brantford G. Elliott, Royal Oak, Mich., assignor to Massey-Ferguson Inc., Baltimore, Md., a corporation of Maryland

Application November 25, 1955, Serial No. 549,023
7 Claims. (Cl. 198—213)



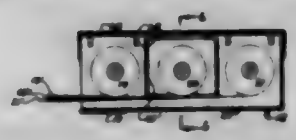
6. A stalk gathering unit for a harvester comprising, a pair of laterally spaced longitudinally extending guide frames defining a stalk conveying passage having parallel vertical walls, one of said walls presenting a pair of vertically spaced elongated troughs facing said other wall and extending rearwardly and upwardly, a pair of parallel spaced rib members associated with each of said troughs and rigidly mounted on the other of said walls in opposed relation to said troughs, a pair of conveying screws mounted on one of said guide frames to rotate about parallel axes disposed in said troughs, respectively, said screws each presenting a blade portion disposed in said passage and spaced a distance less than the diameter of a stalk from portions of said other wall disposed between the associated pair of rib members, and drive means for rotating said screws at different rates of speed whereby a stalk disposed between said ribs and said one wall is engaged at vertically spaced points by said blade portions and is tilted forwardly and conveyed upwardly and rearwardly in said passage.

2,848,164

DISPENSING PROTECTIVE PACKAGES FOR A PLURALITY OF ROLLS OF WEB MATERIAL

Abraham Schor, Forest Hills, and Robert J. Rudnick, Rockville Centre, N. Y.; said Schor assignor to said Rudnick

Application August 21, 1956, Serial No. 605,247
5 Claims. (Cl. 206—58)



1. In a package of the character described, an openable box having walls including two parallel side walls, first and second rolls of web material positioned in spaced parallel relation within the box; the axes of said rolls being perpendicular to said side walls, means on each of said rolls and on the side walls of the box, supporting said rolls so that they can be revolved to unwind, a first partition secured to the box between said rolls, a second partition secured to the box so that the first roll is between both of said partitions; a portion of each web being unwound; such portions being superimposed and lying along one of the walls of the box other than the side walls; said partitions being spaced from such other wall; the unwound portion of the first roll being through the space between the first partition and said other wall and the unwound portion of the second roll being through the spaces between both partitions and said other wall, a channel within the box inclosing the space between the partitions and surrounding the first roll; the longitudinal free edges of said channel pressing said unwound roll portions against said other wall; said channel being releasably engaged and removable from the box when web material is to be withdrawn; one of the walls of the box other than the side walls, being of a construction to permit exit of the webs out of the box so that they emerge close to each other.

2,848,165

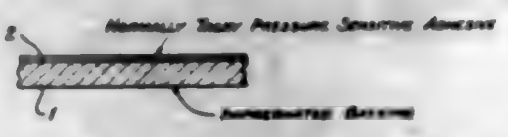
IMPROVED NORMALLY TACKY AND PRESSURE-SENSITIVE ADHESIVE TAPE

Charles Bartell, Arlington, Mass., and Joseph R. Weschler, New Brunswick, N. J., assignors to Permacel-Le Page's Inc., a corporation of New Jersey

Application July 15, 1957, Serial No. 671,886
23 Claims. (Cl. 206—59)

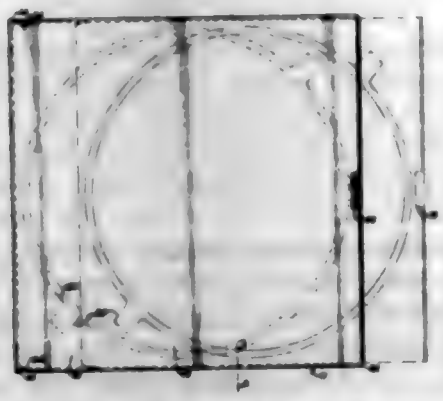
1. A paper-backed normally tacky and pressure-sensitive adhesive tape wound upon itself in roll form having improved characteristics of wet tensile strength and delamination resistance and good flexibility, elongation and edge tear, comprising a unified web internally bonded with a unifying composition in an amount from

about 25 to about 200% of the non-unified web on a dry weight basis, said unifying composition comprising an elastomeric copolymer of a conjugated diene and at least one unlike copolymerizable monomer, one of said monomers containing a carboxylic group, and a cured aldehyde resin derived from a water-dispersible, heat-



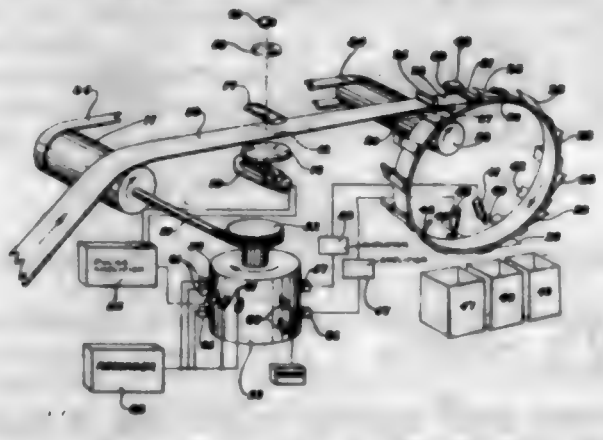
reactive resin selected from the group consisting of phenol-formaldehyde resins, urea-formaldehyde resins and melamine-formaldehyde resins, said cured aldehyde resin being in an amount from about 0.5 to about 25% of the unifying composition on a dry weight basis, and said unified web having at least one major surface coated with a normally tacky and pressure-sensitive adhesive.

2,848,106
CONTAINER FOR PHONOGRAPH RECORD
Frederick H. Rice, Van Nuys, Calif.
Application December 21, 1956, Serial No. 629,989
4 Claims. (Cl. 206—62)



1. A phonograph record container of transparent material and comprising a record holding section and a cover section slidably received on said holding section, said holding section comprising a rectangular tray of plastic material, downwardly extending marginal flanges on the side and rear edges of said tray, the rear ends of said side flanges being beveled inwardly, a flange on the front edge of said tray extending above and below said side flanges, said tray having an aperture defined by a circular flange on said tray and having a diameter slightly greater than the diameter of a record to be received therein, an annular flange extending inwardly of said aperture from said circular flange and having an inner diameter slightly greater than the diameter of the grooved portion of a record to be supported thereon, the distance between the upper surface of said annular flange and the upper surface of said tray being greater than the thickness of said record, diametrically opposed recesses in said circular flange, a mass of yieldable material disposed in each recess and projecting inwardly of said circular flange to engage the edge of a record and releasably hold the same in engagement with said annular flange, finger receiving depressions in the upper surface of said tray adjacent each recess and opening inwardly through said circular flange to facilitate removal of a record and an upstanding boss on the upper surface of said tray adjacent said front edge midway of the width of said tray and having a finger engaging top surface, said cover section comprising a transparent envelope of plastic material having top, bottom, side and rear walls and open along the front and slidably receiving said record holding section, a notch in the front edge of said top wall receiving said boss and inwardly extending integral projections on said sidewalls engaging the beveled ends of said side flanges to frictionally retain said cover section on said record holding section.

2,848,187
FILM CHOPPING AND SORTING APPARATUS
John H. Juengst and Howard J. Emerson, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application April 8, 1954, Serial No. 421,875
2 Claims. (Cl. 209—74)

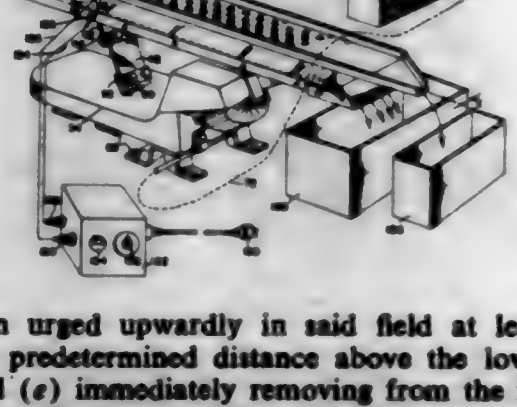


2. In a strip chopping and sorting device having means for moving the strip past an inspection station, a chopper for receiving the inspected strip and for chopping it into sheets of uniform length, and a sorter for receiving the sheets in succession at a sorter station and for rejecting the defective ones, the combination of means for setting up in an electric circuit a pulse corresponding to a defect in the strip at the inspection station, and means for operating said sorter in accordance with said defect pulse including two memory circuits in series, one receiving said defect pulse from the setting up means and producing a second pulse after an interval of time and the other receiving said second pulse and after another interval of time producing a third pulse which operates said sorter, the interval of time for one of said memory circuits corresponding to the time required for the strip to travel from the inspection station to the sorter station and the interval of time for the other memory circuit being variable and corresponding to the time required for the strip to travel the distance between the defect and the end of the sheet having the defect, in which the memory circuit whose interval of time corresponds to strip travel from the inspection station to the sorter station, consists of a layer of magnetic recording material moving in a closed path synchronously with the strip moving means, a magnetic recording head positioned at a point on the path for receiving a pulse and for impressing a magnetic spot on the material for each defect pulse and a magnetic playback head similarly positioned relatively to the path at a distance along the path from the recording corresponding to the time of strip travel from the inspection station to the sorter station, for producing a pulse when a magnetic spot passes the playback head.

2,848,108
METHOD AND APPARATUS FOR ELECTROSTATIC SEPARATION
William A. Brastad, Minneapolis, Minn., and Eli C. Gear, San Diego, Calif., assignors to General Mills, Inc., a corporation of Delaware
Application December 31, 1956, Serial No. 631,860
28 Claims. (Cl. 209—127)

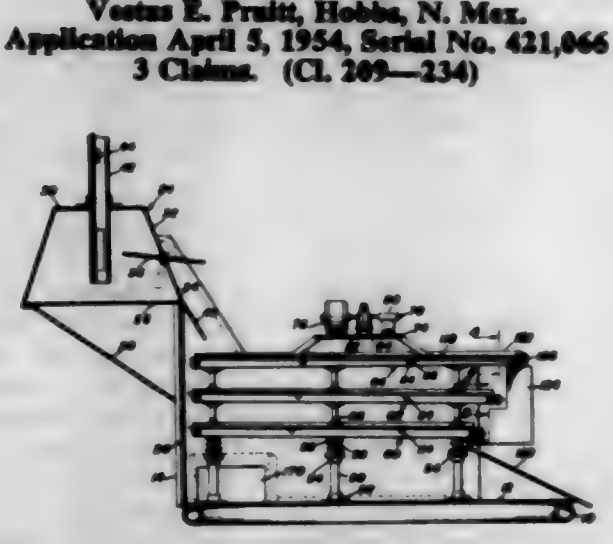
19. The method of purifying stock having at least two different types of substantially non-conducting particles therein which have the property of acquiring frictional charges of the same polarity in response to rubbing engagement with a conducting support, which comprises: (*a*) feeding the stock along a path through a substantially constant and uniform electrostatic field bounded by parallel-extending, vertically-spaced electrodes, the upper electrode having a relative potential with respect to the potential of the lower electrode which is opposite in polarity to that of the frictional charges acquired by the

particles from frictional contact with the lower electrode; (*b*) repeatedly contacting the particles with the lower electrode; (*c*) repeatedly projecting the particles upwardly away from the lower electrode; (*d*) continuing said feeding, contacting, and projecting steps until substantially all particles of a predetermined number of said types



have been urged upwardly in said field at least once beyond a predetermined distance above the lower electrode; and (*e*) immediately removing from the field and separately collecting particles of said types as soon as possible after each such particle has moved upwardly beyond said predetermined distance.

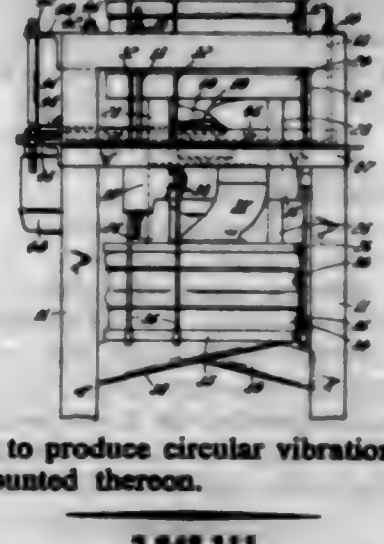
2,848,109
SHALE SHAKER
Vestus E. Pruitt, Hobbs, N. Mex.
Application April 5, 1954, Serial No. 421,066
3 Claims. (Cl. 209—234)



1. A shale shaker comprising a plurality of superposed screens, a resilient mounting supporting the lowermost screen, rigid spacing members supporting the successive screens, each successive screen having limited sliding motion with respect to the rigid spacing members, means operative to vibrate said screens, the uppermost screen being constituted by a plurality of elongated transversely arcuate members secured in rigid edge-to-edge relation, the convex sides of said arcuate members being up, the lower screens being constituted of metal fabric, an arbor, one side and one end of each of said fabric screens being mounted on said arbor, and means operable to stretch said fabric.

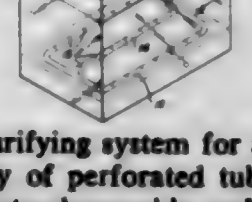
2,848,110
SIEVES AND STRAINERS
Justin Hurst, Mayfield, England, assignor to Russell Constructions Limited, London, England, a British company
Application December 22, 1955, Serial No. 554,792
Claims priority, application Great Britain December 24, 1954
9 Claims. (Cl. 209—332)

1. A sieve comprising in combination a sieve-supporting fly-weight casing, a fly-weight therein, outwardly extending members on the casing, suspension rods flexibly secured to said outwardly extending members in substantially the same plane as the fly-weight, means for supporting the suspension rods flexibly, a sieve base secured to and spaced from the fly-weight casing, a sieve element secured to the sieve base, and means for driving



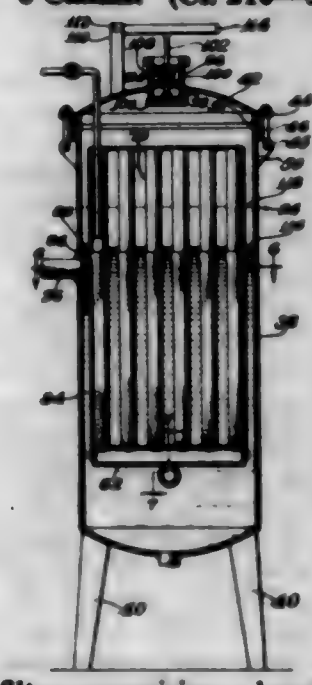
the fly-weight to produce circular vibration in the casing and parts mounted thereon.

2,848,111
WATER PURIFYING SYSTEM FOR AQUARIUMS
Morris Ralph Gore, Hillside, N. J., assignor to Eureka Products Company, Newark, N. J., a corporation
Application December 31, 1954, Serial No. 479,037
2 Claims. (Cl. 210—169)



1. In a water purifying system for an aquarium, which includes a plurality of perforated tubular elements, said tubular elements interchangeable and connected together to fit a predetermined area and positioned slightly below the surface of the sand and gravel bed normally used in an aquarium, an air stem connected to the interconnected tubular elements, said perforations of said tubular elements provided in an unequal spacing, said spacing of said perforations being further apart for all tubular elements adjacent to the air stem and being closer together for all tubular elements positioned away from the air stem.

2,848,112
FILTER APPARATUS
Ernst A. Hass, Chicago, Ill.
Application March 31, 1953, Serial No. 345,767
6 Claims. (Cl. 210—333)



1. A liquid filter comprising a housing having an inlet thereto, a filter element in said housing having an air en-

trapping inverted cup in the upper end thereof and individual thereto and a liquid-permeable portion below said cup, an outlet from the lower end of said element extending to the exterior of said housing, said housing being adapted to hold liquid to cover the open end of said cup, means in said outlet to stop liquid flow therethrough, means for increasing pressure in said housing, and means for venting suddenly said increased pressure developed therein.

2,848,113
CONTINUOUS BELT FILTER AND WASHING DEVICE FOR SAME
Laurens O. Paterson and Clyde Lewis Bragg, Adrian, Mich., assignors to Drug Processors, Inc., Adrian, Mich., a corporation of Michigan
Application June 3, 1955, Serial No. 513,968
2 Claims. (Cl. 210—393)



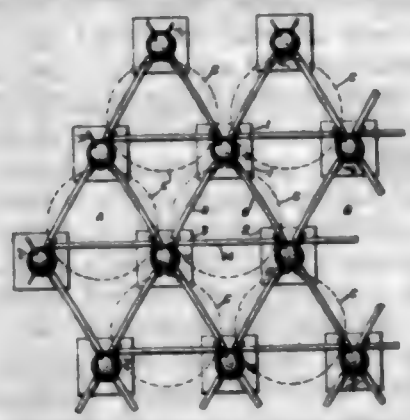
1. In a continuous belt filter having a continuous pervious belt mounted on guide means whereby a portion of said pervious belt is always maintained on a substantially horizontal plane, the improvement comprising at least one washing tube disposed across the entire width of said pervious belt and so positioned relative thereto so as to slidably engage that portion of the belt maintained on a substantially horizontal plane, a source of wash fluid maintained under pressure in communication with said washing tube, said washing tube being appropriately formed so as to simultaneously eject said wash fluid through said pervious belt.

2,848,114
NECKTIE RACK
Cyril Kruger, New York, N. Y.
Application April 21, 1955, Serial No. 502,877
2 Claims. (Cl. 211—49)



1. A tie rack comprising a base, a plurality of upstanding, rod-like support elements thereon about which a plurality of ties can be extended in stacked relation for support of the stack upon the base, means rotatably carrying the base adapted for suspending the base from an adjacent support, said base having a substantially flat top surface and being disposed in a plane normal to the lengths of said elements, said means comprising a pair of elongated support rods projecting upwardly from the base in spaced relation to said support elements, a crossbar connecting the support rods at their upper ends, a suspension hook extending upwardly from and swivelly engaged in the crossbar intermediate the opposite ends of the crossbar, each of said elements being formed from a single length of rod material bent into an inverted U-shape and having its opposite extremities embedded in the base, and an upwardly convex plate disposed centrally on the base, said support elements and support rods being arranged about said plate so that the plate provides a sloped surface for supporting the stack of ties, thus to locate portions of the ties that are in engagement with the plate in parallel planes oblique to the plane of the base.

2,848,115
MEANS FOR VERTICAL STOCKING OF COIL STOCK AND THE LIKE
Samuel Shapiro, Wooster, Ohio, assignor to Summit Steel Corporation, Akron, Ohio, a corporation of Ohio
Application October 25, 1955, Serial No. 542,572
3 Claims. (Cl. 211—49)



1. A coil stacking structure comprising a plurality of parallel rows of uniformly-spaced vertically-extending columns, the columns in each alternate row being in intermediately-spaced relationship to those of the adjacent rows, each column being horizontally equidistant from its immediately surrounding columns whereby said columns define the apices of equilateral triangles providing spaces for the reception of coil stock, rigid coil-supporting elements extending horizontally from each column to each of its immediately surrounding columns, and means for removably securing each of said elements to a pair of columns.

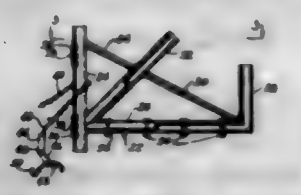
2,848,116
COMBINATION COIN AND PAPER HOLDER
Harry Tracy Odom, Winston-Salem, N. C.
Application March 31, 1955, Serial No. 498,147
3 Claims. (Cl. 211—89)



3. A self-supporting coin holder adapted to frictionally grip a car sun visor or the like comprising a base and a clamping plate pivotally connected together in spaced relation adjacent their medial portions, resilient means extending between the base and clamping plate adjacent proximal edge portions thereof to urge proximal portions of the base and clamping plate remote from said resilient means toward each other and into engagement with opposed surfaces of the car sun visor, a spacer centrally arranged against the surface of the base remote from the clamping plate and said spacer being of smaller cross-sectional area than the base, a coin gripping plate arranged against the spacer and a plurality of resilient projections

extending from the gripping plate beyond the spacer, and the free ends of the resilient projections being normally biased into engagement with the base whereby coins may be held between the projections and the base.

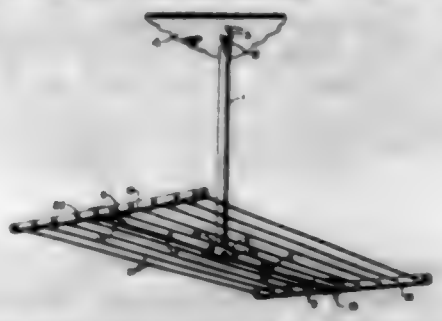
2,848,117
STREET DECORATION SUPPORT BRACKET
Allan Miller, Rolla, N. Dak.
Application May 11, 1956, Serial No. 584,223
1 Claim. (Cl. 211—107)



A street decoration support bracket for detachable connection to an upstanding supporting pole, comprising: a straight, vertically extending support bar formed of angle-iron material and adapted to extend in longitudinally contacting relation to said supporting pole; an elongated, straight lower support arm fixedly secured at one end to and projecting horizontally outwardly from the lower end portion of said bar; an elongated, tubular upper arm having one end fixedly secured to the support bar at the juncture between the support bar and the lower arm, said upper arm extending in a position inclined from the vertical in the included angle defined between the vertical support bar and said horizontal arm, the upper arm having an open upper end for extension of a supported, elongated decoration support member removably into the upper arm in position extending in longitudinal alignment with and outwardly from said upper arm along its opposite longitudinal edges; a first brace rod fixedly connected between the other end of the lower arm and the upper arm, the connection of said first brace rod to the upper arm being spaced a substantial distance longitudinally of the upper arm from said one end of the upper arm; a second brace rod aligned longitudinally with the first brace rod and fixedly connected between the upper end portion of said support bar and said upper arm, the connections of said brace rods to said upper arm being disposed diametrically opposite one another upon the upper arm; and a flexible element engaged with the support bar and adapted to be looped about said supporting pole, said second brace rod, the upper arm, and the support bar forming an opening bounded at one side by the support bar, said flexible element extending through said opening, the second brace rod and the upper arm intersecting the support bar above and below, respectively, the flexible element to limit movement of the flexible element longitudinally of the support bar in opposite directions the formation of the support bar from angle-iron material imparting a V-shaped cross sectional configuration thereto with the side portions of the support bar converging in a direction toward the upper and lower arms when the support bar is viewed in cross section, the respective arms being fixedly connected to the support bar at the apex part of the V defined by the bar when seen in cross section, the support bar including plates welded to the respective side portions, said plates being formed with prongs adapted to be embedded in the surface of said supporting pole, said prongs being located along the respective longitudinal edges of the support bar.

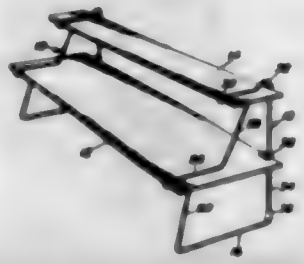
2,848,118
OVERHEAD PORTABLE CLOTHES DRYER
Colin C. Gibson, Piedmont, and Willard A. Spinks, Oakland, Calif.; said Spinks assignor to said Gibson
Application March 6, 1956, Serial No. 569,702
1 Claim. (Cl. 211—118)

In a clothes dryer; a pair of arms, means connecting said arms at one of their ends and supporting said arms at said one of their ends for swinging their opposite outer ends from positions closely adjacent to each other and in which said arms are substantially parallel with each other to positions in which said opposite ends are widely spaced apart and said arms extend away from each other from said one of their ends and vice versa, said means including a pair of opposed plates between which said one of the ends of said arms extend for holding said arms in one plane during said swinging thereof, a pair of opposed end plates at opposite sides of the outer end portion of each arm of said pair at said outer end thereof and rigidly secured thereto, the said end plates of each pair thereof having corresponding, spaced, opposed extensions projecting laterally to one side of each arm and axially outwardly of the terminating outer end of each arm, a pair of cross bars respectively disposed between each pair of said extensions on each pair of said end plates extending perpendicularly across and substantially in engagement with the terminating outer ends of said arms at



points on said bars approximately centrally between the ends thereof, pivots connecting said cross bars with said extensions at points offset laterally and axially outwardly of said arms substantially centrally between opposite ends of said bars for swinging said cross bars from their positions extending across the terminating outer ends of said arms to positions adjacent to and substantially parallel with said arms and vice versa, a plurality of parallel, spaced clothes lines connected with said cross bars at opposite sides of said pivots, said clothes lines being relatively straight when said cross bars are in positions extending across said outer ends of said arms and when said outer ends of said arms are in said positions widely spaced apart for holding said cross bars substantially perpendicular to said arms, and said lines being flexible and slack when said outer ends of said arms are swung to positions relatively close together to permit swinging said cross bars to their positions substantially parallel with said arms.

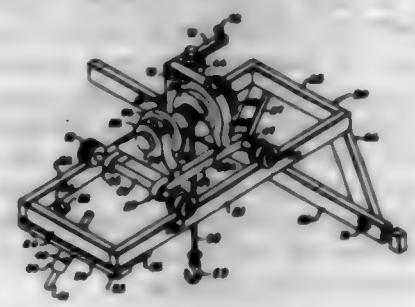
2,848,119
DISPLAY STAND
Robert J. Fitzer, Baltimore, Md.
Application February 11, 1954, Serial No. 409,551
3 Claims. (Cl. 211—137)



1. A display stand comprising a plurality of shelves, and a plurality of supporting brackets therefor, each of said brackets comprising a first horizontal portion having an upturned rear end, a first upwardly and rearwardly inclined portion secured to the forward end of the first horizontal portion, a first U-shaped portion at the upper end of said first inclined portion, a second horizontal portion joined to said first U-shaped portion for engaging the upper surface of a first shelf, a second upwardly and rearwardly inclined portion extending from

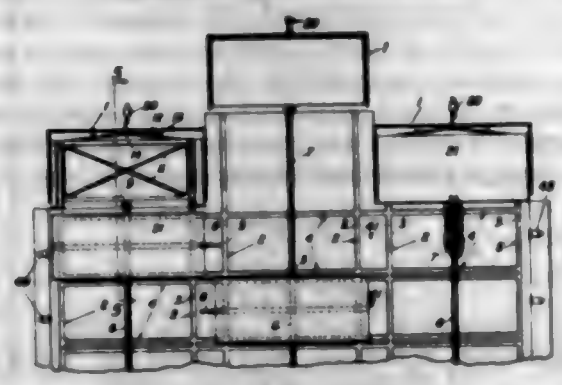
the rear end of said second horizontal portion, a second U-shaped portion on the upper end of the second inclined portion for engaging a second shelf, a third horizontal portion extending from the second U-shaped portion and terminating in a downturned end portion in vertical alignment with the upturned end on the first horizontal portion, a spacer rod having sockets on each end for detachable positioning between the end portion of the first and third horizontal portions, and a U-shaped clip secured to the spacer rod for engaging and supporting the rear edge of the first shelf.

2,848,120
TRANSMISSION HOIST
Frank C. Harmon, Statesville, N. C.
Application April 8, 1954, Serial No. 421,920
1 Claim. (Cl. 212—135)



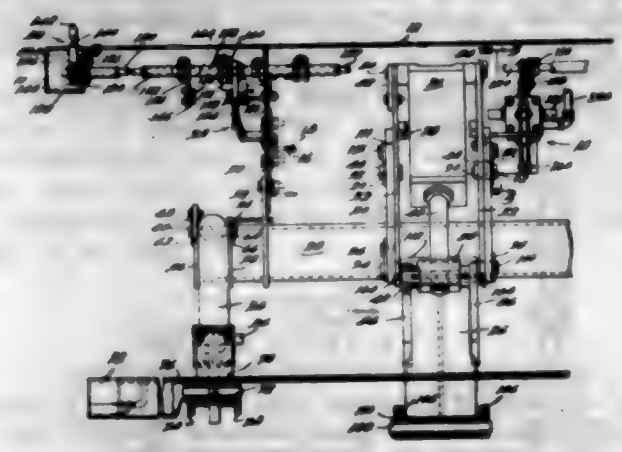
A transmission hoist for motor vehicles comprising an elongated relatively narrow substantially rectangular frame having spaced side frame members forming tracks thereon, a pair of spaced downwardly diverging rear legs secured to said frame member, a base frame member connected to the lower ends of said diverging legs and extending beyond said legs and adapted to rest on the side rails of a vehicle frame adjacent the transmission thereof, an outwardly and downwardly inclined tubular member carried by the medial front portion of said rectangular frame, a front leg adjustably mounted in said tubular member, a carriage comprising a pair of axles each having a pair of grooved wheels thereon adapted to engage and ride upon the tracks, a second pair of side frame members in the front and rear ends of which said axles are mounted, a pair of forwardly and rearwardly spaced bearing members carried by the second pair of frame members, a shaft journaled in said bearing members, a reel fixed on said shaft, a worm gear also secured to said shaft, an upright shaft disposed adjacent the worm gear, a worm fixed on said upright shaft, a hand crank for imparting rotation to the worm and a cable fixed to said reel.

2,848,121
AUTOMATIC STORAGE SYSTEM
Oskar A. Semler, San Francisco, Calif.
Application August 24, 1953, Serial No. 375,949
5 Claims. (Cl. 214—16.1)



1. In a storage system of the character described, a horizontally disposed longitudinal grooved track having a series of transverse grooved tracks connecting therewith, a series of platforms having swiveled supporting rollers adapted to ride in any of the tracks, means for moving a series of platforms upon the longitudinal track to form a continuous line, with the rollers of successive platforms in registry with successive transverse tracks, means operable for advancing any one of the platforms upon its transverse track to produce a gap in the continuous line of platforms, and means operative in response to the advance of any platform along the transverse track to cause the platform next in line on the longitudinal track to advance to fill the gap.

2,848,122
ELEVATING TAILGATE AND CONTROLS THEREFOR
Joseph M. Gwinn, Jr., Dearborn, Mich., assignor to Gar Wood Industries, Inc., Wayne, Mich., a corporation of Michigan
Application February 2, 1955, Serial No. 485,721
19 Claims. (Cl. 214—77)

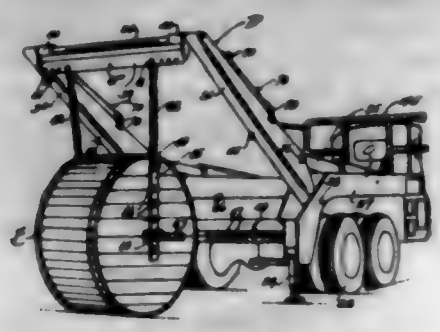


1. In an elevating platform assembly, a support structure, a platform movable in translation relative to said support structure between upper and lower positions and rotatable while in the upper position, a first and a second pivot pin on said platform, a first pivot member on said support structure, an arm extending between said first pivot pin and said first pivot member, a second pivot member supported by said support structure and shiftable transversely of the longitudinal axis of said second pivot member between two positions relative to said support structure, a second arm extending between said second pivot pin and said second pivot member driving means for applying a force to one of said arms, means including said driving means for rotating said one of said arms and for holding said second pivot member in one of said positions throughout said rotation so as to move said platform in translation between said upper and lower positions, and means including said driving means and effective when said platform is in said upper position for moving said second pivot member to the other of said positions for rotating said platform.

2,848,123
CABLE REEL LIFTING, LOADING AND TRANSPORTING APPARATUS
Conrad R. Keys, Newark, N. J.
Application October 18, 1955, Serial No. 541,184
18 Claims. (Cl. 214—77)

1. In apparatus for lifting, loading, transporting and lowering heavy bulky articles, the combination of a truck having running gear and a deck, a hoist unit upon the truck including a boom arm at each side of the deck, a flexible load attaching device connected to the outer ends of the arms for lifting and lowering loads with fore and aft movements of said boom arms, means connected intermediate the ends of said arms for rear connection with a load whereby to facilitate desired movements of the load upon appropriate movements of said arms,

and means connected intermediate the ends of said arms for forward connection with a load whereby to facilitate



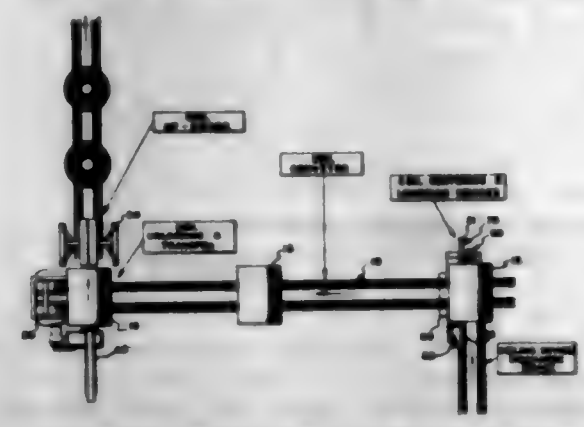
desired movements of the load upon appropriate movements of said arm.

2,848,124

ARTICLE HANDLING APPARATUS

Donald S. Angell, Dishman, Wash., Arne B. Tilseth, Post Falls, Idaho, and George O. Alexander, Walnut Creek, Calif., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application July 1, 1955, Serial No. 519,312
23 Claims. (Cl. 214—91)



1. A conveying system for a coiled article comprising endless conveyor means including an article loading station and an article unloading station, means positioned at said loading station for receiving and centering a coiled article with respect to the longitudinal center line of said endless conveyor means and including means for lowering said coiled article to be conveyed onto said endless conveyor means for movement thereby, unloader means positioned at said discharge station of said endless conveyor means to receive said conveyed coiled article without interrupting and interfering with the normal forward movement of said endless conveyor means, said unloading station being also provided with article push-off means and common control means for actuating all of said means in a predetermined timed sequence of operation so as to effect automatic centering and loading as well as unloading of said coiled article with respect to said endless conveyor means, all of said above-mentioned means acting to maintain said coiled article in a position whereby its axis of winding is parallel to any given horizontal plane to prevent accidental unwinding of said coil article from the time said article is received at said loading station until said article is discharged at said unloading station.

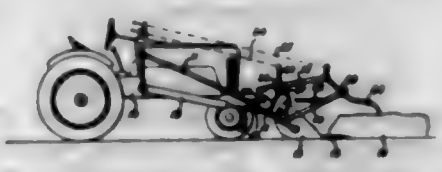
2,848,125

ATTACHMENT FOR TRACTOR MOUNTED FRONT END LOADER OPERABLE BY TRACTOR MOVEMENT

William C. Irvine, Danville, Ky., assignor of one-third to David B. Highbaugh, Danville, Ky.

Application June 24, 1957, Serial No. 667,508
8 Claims. (Cl. 214—144)

7. In combination, a tractor having a front-end loader comprising a pair of transversely spaced longitudinal beams pivoted at their inner ends upon said tractor and having a scoop-type bucket therebetween at their outer ends for ground engagement, an attachment comprising a framework mounted upon said beams and projecting forwardly and upwardly of said outer ends thereof, a grapple pivotally mounted on said framework and having a plurality of tines depending therefrom for engagement with a quantity of material resting upon the ground in advance of said bucket, said grapple being mounted for embedding motion of the tines thereof during for-



ward motion of said tractor, means attached to said grapple for selectively holding the tines thereof in a starting position out of contact with said material prior to loading of the same, and means for positioning said grapple tines into a bucket loading portion in engagement with said material, the lower ends of said grapple tines after initial contact with said material being progressively moved nearer to said bucket during continued forward motion of said tractor, thereby to become securely embedded in said material.

2,848,126

BOAT TRAILER

Leon G. Taylor, Tucson, Ariz.

Application August 9, 1955, Serial No. 527,346
4 Claims. (Cl. 214—506)



1. A boat trailer comprising a wheeled frame, means for attaching the frame to a towing vehicle, a boat carriage mounted on said frame in overlying relation for pivotal movement about a transverse axis, means selectively locking the carriage in generally parallel relation to the frame, means for raising and lowering the front end of said carriage, an elongated upwardly facing channel-shaped rib on said carriage, said rib having the forward end curved upwardly for receiving the bow and keel portion of a boat, means on said carriage for pulling a boat onto the rib, said rib having a plurality of longitudinally spaced openings, a pivotal bracket underlying each opening, a roller mounted on each bracket, and means interconnecting the brackets for selectively moving the rollers through the openings to engage the keel portion of a boat to facilitate relative movement between the boat and rib, said carriage having an upstanding member adjacent the front end thereof, and a winch with a flexible member attached thereto mounted on said upstanding member constituting the means for pulling a boat onto the rib, said carriage having a plurality of pairs of transversely spaced rollers disposed in inclined relation for engaging theh bottom portion of a boat.

2,848,127

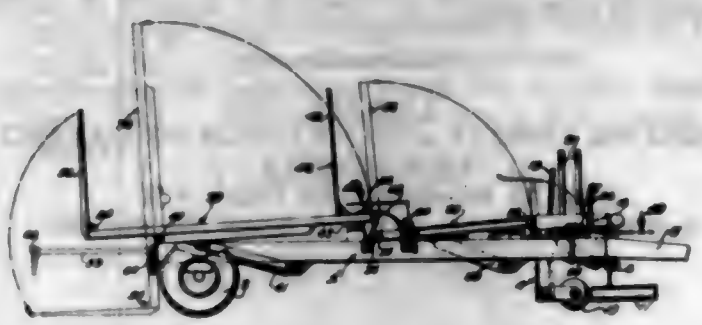
BALE WAGON

Gordon E. Grey, Lancaster, Calif.

Application March 16, 1956, Serial No. 571,934
21 Claims. (Cl. 214—510)

1. A bale wagon, comprising: a chassis structure; a receiving bed, a transfer bed, and a load-carrying bed arranged in tandem on said chassis structure; means for depositing a row of bales on said receiving bed; means

for delivering rows of bales from said receiving bed to said transfer bed to form a layer of bales thereon; and



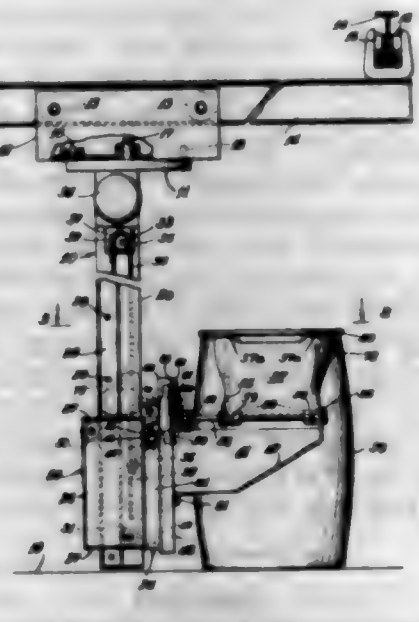
means for delivering layers of said bales to said load-carrying bed to form a stack of bales thereon.

2,848,128

RIM LIFT HOIST FOR BARRELS

Harry Wade Thompson, Chicago, Ill., assignor to Chicago-Tramrail Corporation, Chicago, Ill., a corporation of Illinois

Application February 28, 1956, Serial No. 566,422
5 Claims. (Cl. 214—653)



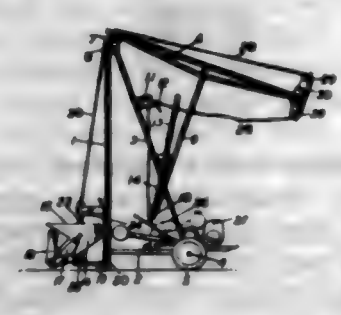
1. A device for lifting an upright positioned barrel type container with external annular shoulder thereabout, the said device comprising a hoist having a work holder which is liftable by the operation of the hoist and has opposed work engaging rocker members between which such upright container is receivable in an interposed position between said rocker members and by which such interposed container is peripherally grippable for lifting thereof by the work holder, each said rocker member being individually pivoted at its lower end and extended upwardly therefrom to swing inwardly above the pivot toward the other rocker member and lean against such aforesaid interposed barrel like container in upwardly and inwardly pushing relation thereagainst, the said rocker members being yieldingly impelled to swing inwardly toward one another and provided at their upper extremities with upwardly facing seats arranged to engage and push upwardly against the underside of the external annular shoulder of such interposed barrel like container in the aforesaid lifting operation of the hoist and said rocker members being connected to common operating means by which they are conjointly swingable away from one another against the force by which they are yieldingly impelled to swing toward one another as aforesaid.

2,848,129

POWER-OPERATED HOISTS

Richard T. Lunn, London, England, assignor to A. C. E. Machinery Limited, London, England, a British company

Application March 20, 1957, Serial No. 647,363
Claims priority, application Great Britain June 18, 1956
2 Claims. (Cl. 214—740)



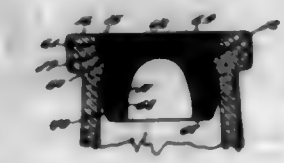
1. A hoist comprising a chassis, a mast comprising a lower section mounted in upright position on the chassis and an upper section movably connected to the lower section for raising and lowering movement relatively thereto, a carrier mounted on the mast for vertical movement thereon, manual means for raising and lowering the upper mast section, and a skip mounted on the carrier for rotational movement on a vertical axis through an angle of at least 180°.

2,848,130

PRESSURE RESISTANT CLOSURES

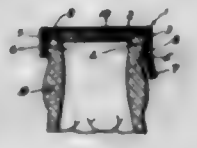
Charles J. Jessig, Newtown Square, Pa., assignor to Duo-Vent Vacuum Closure Company, Philadelphia, Pa., a corporation of Pennsylvania

Application October 7, 1953, Serial No. 384,687
3 Claims. (Cl. 215—31)



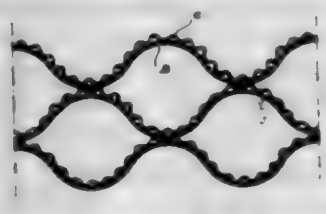
1. A bottle and stopper combination susceptible to autoclaving pressures comprising a bottle having an internal neck surface of predetermined diameter, a neck ring projecting inwardly from said surface and terminating in a peripherally continuous edge of acute angularity axially of the bottle neck, a closure plug of resilient material comprising a solid plug portion of generally cylindrical form, the external diameter of which is not less than the internal diameter of said neck, a tapered hollow shank portion integral with the plug portion, a peripherally continuous slit-like groove partially defined by a generally planar upper surface merging by a curve into the generally cylindrical plug portion and of general conformance in profile with the upper surface of the neck ring, said groove defined in the other part by a generally planar surface merging into the shank by an acutely angled edge, said groove defining surfaces being so close together that upon insertion of the closure into the neck the groove surfaces are stressed into intimate contacting engagement with the respective surfaces of the neck ring with inappreciable spacing of material of the closure and the neck ring whereby the shank and plug are placed in tension stress adjacent to said neck ring to enhance the seal on both surfaces of the neck ring and liquid retention space between the neck ring and said closure is substantially obviated.

2,848,131
BOTTLE CAP
Bernard H. Ward, Atwater, Ohio, assignor to Buhl Chesoweth, Jr., Akron, Ohio
Continuation of application Serial No. 222,030, April 20, 1951. This application June 11, 1956, Serial No. 590,714
3 Claims. (Cl. 215—39)



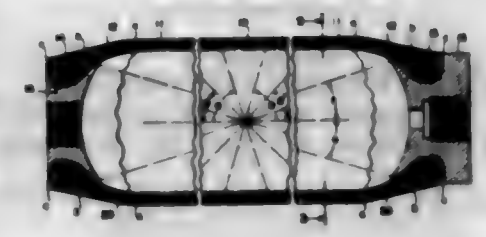
3. In combination with a container having a circular mouth opening, a crown metal bottle cap; comprising a circular top, an integral skirt portion depending downwardly from the peripheral edge of said top portion at substantially right angles thereto, said skirt being defined by a series of corrugated ribs, all of which have their inner faces capable of frictional contact with an exterior wall of said mouth opening, certain of said ribs being instruck, said instruck ribs being arranged contiguously around the periphery in a plurality of arcuate segments whereby each arcuate segment of instruck ribs is separated by an arcuate segment of normal ribs that extend from said circular top at substantially right angles therewith, so as to be in substantial parallelism with an axis passing through the center of said top; said normal rig segments being expandable at their free edge whereby the effective diameter of said skirt may be varied; said arcuate segments of said normal ribs defining a circle having a diameter no larger than the diameter of said external diameter of said mouth opening; said arcuate segments of said instruck ribs defining a circle having a diameter less than the external diameter of said mouth opening and also less than the diameter of the circle defined by said normal ribs, said skirt further including a tab portion defined by one instruck segment and depending beyond the free edge of said skirt, said top including arcuate depressions; said depressions being of an arcuate length corresponding substantially to the peripheral length of each said segment of normal ribs and being radially inwardly of the peripheral edge of said top.

2,848,132
PACKING MEANS
Léon Davous, Uzerche, France
Application January 25, 1951, Serial No. 207,760
Claims priority, application France January 26, 1950
14 Claims. (Cl. 217—23)



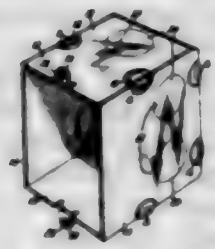
1. Packing means for eggs, fruit, bottles, flasks, electric light bulbs and like fragile articles which comprises a stack of superposed sheets of corrugated cardboard formed from a planar sheet element and a corrugated sheet element adhesively secured thereto, said sheets carrying adhesive on one side thereof along parallel spaced lines extending in the longitudinal direction of the corrugations of the cardboard, the lines of adhesive carried by a sheet in said stack being displaced laterally in relation to the lines of adhesive carried by the sheets overlying each face of said first-named sheet, whereby said adhesive lines are alternately staggered from one sheet to the other to define a network of cells, at least some of which are of a size to receive the article to be packed, the number of lines of adhesive carried by each sheet being less than the number of corrugations in said sheet with said lines of adhesive overlying the corrugations in some portions of each sheet and leaving a plurality of corrugations between adjacent lines of adhesive in other portions of each sheet.

2,848,133
PRESSURE VESSELS AND METHODS OF MAKING SUCH VESSELS
Einar M. Ramberg, Glen Head, N. Y.
Application October 28, 1954, Serial No. 465,407
2 Claims. (Cl. 220—3)



1. A cylindrical container for fluids comprising a solid laminated assembly of non-metallic fibrous strands of threads including a plurality of types of superposed helical enclosing wrappings of said threads, one of said types of helical wrappings being at a predetermined angle to the longitudinal axis and another of said types of helical wrappings being at a different predetermined angle to the longitudinal axis, and a solidified bonding material impregnating said assembly and said threads, filling interstices between the fibers of said threads throughout said assembly and filling the interstices between said threads throughout said assembly and forming therewith a substantially integral structure, and a layer of metal foil interposed between two of said thread wrappings.

2,848,134
LOCKING MEANS FOR A FABRICATED BOX
George Carlson, Trumbull, Conn., assignor to General Electric Company, a corporation of New York
Application May 20, 1955, Serial No. 509,777
2 Claims. (Cl. 220—3.94)



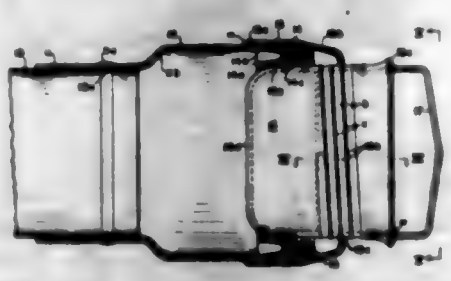
1. A device box comprising a main body member and at least one separate plate member that is to be attached thereto; the invention comprising the means for connecting the adjacent members together with at least one male tab on one member that is locked in a pierced tab on the adjacent member, the said tabs being coined from the edge of their respective members to lie within the plane thereof and leaving depressions on the outer surfaces of the members, so that the outer ends of the tabs may be folded into the depression of the adjacent member to form a square cornered box.

2,848,135
COUPLING NOSE FITTING

Clyde E. Rickard and Gustav A. Hempel, Pittsburgh, Pa., assignors to McDowell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Continuation of application Serial No. 377,887, September 1, 1953. This application July 3, 1957, Serial No. 669,899

5 Claims. (Cl. 220—46)



1. In a fully push-in assembled and a screw-out released and disassembled coupling that positively holds its parts in an assembled position when one part is inserted within the other, wherein one of the parts is a housing body provided with a forwardly-converging internal operating surface defining an open-end throat portion, wherein the other part is a tubular nose for insertion within the housing body, wherein a flexible grip annulus has integral and normally spaced-apart convolutions defining substantially continuous inner and outer contact peripheries therealong and is carried by the housing body for operative movement on the throat portion to hold the nose in position within the housing body, and wherein the annular axis of the grip annulus is adapted to lie on a plane normal to the longitudinal axis of the nose when the coupling parts are being held in an assembled position with respect to each other; a rounded front end annular wall on the nose for pushing it within the housing body, an annular spiral screw wall on the nose behind said front end wall to cooperate with and provide an operating surface for the inner contact periphery of the grip annulus, said screw wall having spiral crest and root portions therealong, said front end wall and the root portions of said screw wall having a radially-spaced relation with the inner contact periphery of the grip annulus when the nose is being inserted within the housing body, the crest portion of said screw wall having frictional engagement with a minor portion of the inner contact periphery of the grip annulus when the nose is being inserted within the housing body, a major portion of the annular length of the inner contact periphery of the grip annulus lying within the root portion and the minor portion of the annular length continuing to frictionally engage the crest portion when an axial withdrawal effort is being applied to the nose, said crest portion being of substantially flat cross-section, and said root portion having a cross-sectional curvature along its length substantially corresponding to the cross-sectional curvature of the grip annulus to positively hold said major portion of the annular length of the grip annulus in position within said root portion and while said crest portion is in frictional engagement with said minor portion of the annular length.

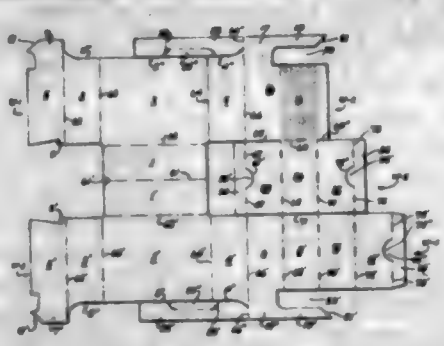
2,848,136
MULTI-CELL BOTTLE CARRIERS

William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware

Application October 11, 1952, Serial No. 314,315

3 Claims. (Cl. 220—113)

1. A multi-cell twin-compartmented bottle carrier formed from a single blank of sheet material having a bottom panel formed by a pair of foldably connected bottom sections, a pair of side panels integrally hinged to the opposite side edges of the bottom panel, a pair of end panel sections at each end of the carrier integrally hinged to the adjacent end edges of the side panels, a center partition panel integrally hinged to one of said end panel sections and extending medially of the carrier for a distance equal to at least one-half of its longitudinal length, a center partition section integrally hinged to each of the other three end panel sections and a center partition liner section integrally hinged along a lower edge portion of said center partition panel and upfolded in fixedly secured relation to the adjacent face thereof, adjacent portions of said center partition panel, center partition sections and center partition liner section being secured together to provide a center divider extending substantially down to the erected bottom panel for the full length of the carrier and defining the twin compartments thereof, a plurality of cross partition sections in each of said twin compartments whose lower ends extend substantially down to the erected bottom panel to thereby provide a plurality of bottle receiving cells, each of said cross partition sections being foldably connected along one vertical edge thereof to the adjacent center partition structure and being foldably connected at the other vertical edge thereof to the inside face of the adjacent side panel, one of said twin compartments having an end bottle receiving cell defined by the adjacent end center partition section which is secured in overlapping relation



to the adjacent face of said center partition panel and whose longitudinal length corresponds to the length of a single bottle receiving cell, a cross partition section integrally hinged along its inner vertical edge to the innermost vertical edge of said center partition section, and attaching means integrally hinged along the outer vertical edge of said cross partition section and secured to the inside face of the adjacent side panel, said other twin compartment having an adjacent end bottle receiving cell whose formation includes a cross partition section integrally hinged along its inner vertical edge to said center partition liner section and integrally hinged along its outer vertical edge to an attaching member secured to the inside face of the adjacent side panel, a single ply handle core portion presenting a finger insertion cut-out therein formed by interfitting extensions projecting above the top edge of the adjacent side panels and integral with said center partition panel and one of said end center partition sections at the other end of the carrier, and a pair of handle forming sections extending substantially the full length of the carrier and secured in overlapping relation to said handle core portion, at least one of said handle forming sections being integrally hinged at one end thereof to the adjacent end edge portion of said center partition panel.

2,848,137
ENVELOPE DISPENSING DEVICE

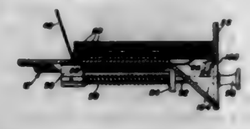
Harold W. Cramer, Kansas City, Mo.

Application December 8, 1954, Serial No. 473,780

2 Claims. (Cl. 221—36)

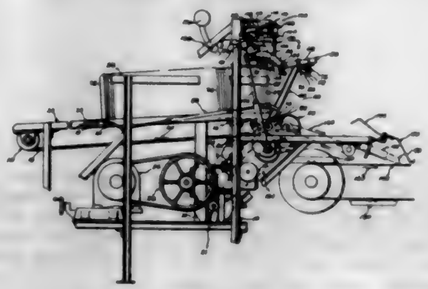
1. An envelope dispensing device comprising a housing having a base for receiving a stack of envelopes, each of said envelopes having a flap provided with a centrally positioned folded tab, said housing provided with a front wall having a dispensing slot therein and

said base having a recess below the slot, said recess providing a finger receiving opening extending rearwardly of said front wall and said envelopes being positioned so that the tab of the bottom envelope registers with said recess, a fixed stop formed on the front wall centrally thereof and projecting below the slot into said



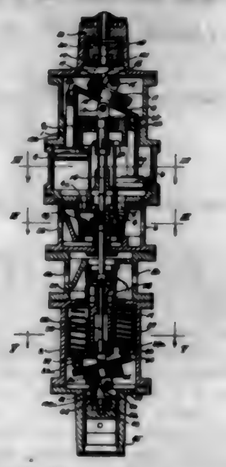
recess in alignment with said tab, and means for engaging the folded tab of the bottom envelope of the stack and moving it downwardly in said recess and into positive abutting engagement with said stop, so that the tab may be manually grasped and the bottom envelope pulled through said slot.

2,848,138
ARTICLE FEEDING APPARATUS
Benson E. Caswell, Oakland, and Martin M. Theriault, Waterville, Maine, assignors to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application February 19, 1952, Serial No. 272,382
4 Claims. (Cl. 221—209)



1. A feeding device comprising a framework, a feed conveyor on said framework, an escapement mechanism and a picker mechanism on said framework in operative relationship to said feed conveyor, said escapement mechanism comprising a pair of vertically movable escapement bars movable in a vertical plane situated adjacent one end of said feed conveyor, linkage individually connecting each of said escapement bars to a reciprocating means for alternate vertical movement thereby, said escapement bars being adapted to engage the endmost article of a stack of articles on said feed conveyor upon movement of the escapement bars to their lowermost vertical positions, said picker mechanism being positioned adjacent said escapement mechanism and comprising a pivotally-mounted picker frame having picker fingers at one end, said picker fingers comprising a slidable finger having a pivoted finger connected thereto, said fingers being resiliently biased in the direction toward the end of the stack, whereby said slidable finger is urged into engagement against one face of said endmost article, and said pivoted finger being provided with an offset end adapted to climb over one edge of said endmost article and engage the opposite face thereof while the said one face thereof is engaged by said slidable finger, an oscillating means for rocking said picker frame about its pivot, and linkage operatively connecting said picker frame to said oscillating means, said oscillating means being connected to said reciprocating means for synchronous operation therewith.

2,848,139
MIXING AND DOSAGE MACHINE FOR TWO OR MORE FLUIDS
Attilio Chiavelassa, Turin, Italy
Application December 16, 1953, Serial No. 398,683
Claims priority, application Italy December 16, 1952
4 Claims. (Cl. 222—26)



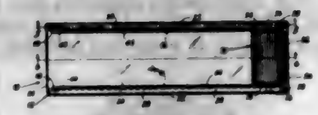
1. An apparatus for metering a plurality of liquids, comprising a separate liquid metering and delivering device for each liquid, each device including a plurality of cylinders, a reciprocable piston mounted in each cylinder, a shaft for each of said devices mounted centrally therein and about which shaft said cylinders are equidistantly disposed, a swash plate mounted on the shaft and coupling said pistons together, inlet means for supplying the respective liquid to successive ones of said cylinders and outlet means for receiving the liquid from successive ones of said cylinders, means for measuring each delivered liquid, means for coupling the central shafts of said devices together, and means for adjusting the angle of tilt of the swash plate of at least one device to vary the stroke of its pistons.

2,848,140
BEVERAGE MERCHANDISING MACHINE
Christian Gabrielsen, Mountain Lakes, N. J., assignor to Rowe Manufacturing Co., Inc., Whippany, N. J., a corporation of New York
Application February 26, 1953, Serial No. 339,026
5 Claims. (Cl. 222—51)



1. In a beverage merchandising machine for dispensing a beverage made of hot water and selected liquids, a hot water valve having a normally closed opening, a plurality of liquid supply valves having respective normally closed openings, a mixing channel, said hot water valve and said liquid supply valves being adapted to be operated to deliver hot water and the selected liquids to said channel, and means mounting said valves with respect to said channel whereby the level of hot water in said channel covers said normally closed openings during the period of operation of said hot water valves.

2,848,141
DEVICE FOR DISPENSING THE CONTENTS OF COLLAPSIBLE TUBES
Dominic Intagliata, St. Louis, Mo.
Application March 13, 1957, Serial No. 645,711
2 Claims. (Cl. 222—101)



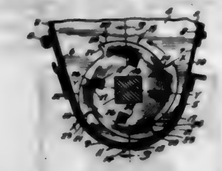
1. In a device for dispensing the contents of a collapsible tube of the type described, the combination of: a rectangular casing for the reception and support of the tube, said casing including a bottom wall, a front end wall, a rear end wall, and a pair of side walls; a circular opening formed centrally in the front end wall, said opening being of a size adapted to have the nozzle portion of the tube extend therethrough; a horizontal flange extending inwardly from the top margin of each side wall; a reciprocable cylindrical roller adapted to be manually incrementally advanced along the upper surface of the tube from the rear to the front end wall of the casing; a pair of transversely spaced guide members for the roller rigidly secured to the bottom wall of the casing and longitudinally substantially coextensive therewith, said guide members also serving to confine the tube body therebetween; a stud projecting axially from each end of the roller; and a pair of relatively heavy downwardly biased leaf springs each including a rear end portion secured to the underside of the rear end portion of one of said horizontal flanges of the casing side walls aforesaid, and a free forwardly extending body portion bearing against one of said studs as the roller is advanced.

2,848,142
CONTAINER
Jay G. Livingstone, Akron, Ohio
Application May 27, 1952, Serial No. 290,227, now Patent No. 2,743,844, dated May 1, 1956, which is a division of application Serial No. 136,432, December 1, 1949. Divided and this application February 20, 1956, Serial No. 566,554
10 Claims. (Cl. 222—111)



1. In combination, a fitment of stretchable resilient plastic and a vessel with a neck, a groove in the outer surface of the neck near the top edge thereof, the fitment having an opening therethrough adapted for the pouring of liquid therethrough with a portion of the fitment located over the end of the neck and in liquid-tight contact therewith and terminating outwardly in a sharp-edged pouring lip, the fitment including a skirt which extends downwardly outside the end of the neck of the vessel with a bead on its inner surface engaged in the groove, threads on the outer surface of the neck below the groove and below the bottom edge of the skirt, the largest outside diameter of the neck above the groove being substantially less than the root diameter of the threads, a cap with internal threads engaged with the threads on the neck, and the largest outside diameter of the skirt of the fitment being less than the inside diameter of the innermost edge of the threads in the cap.

2,848,143
SPREADER FOR GRANULAR MATERIAL AND FEEDING ROTOR THEREFOR
Eberhard S. Gaudrad, Owatonna, Minn.
Application March 1, 1956, Serial No. 568,748
5 Claims. (Cl. 222—242)

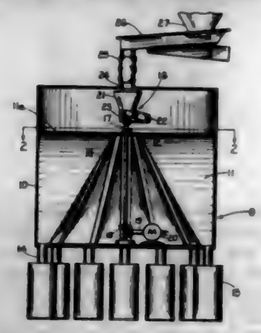


1. In a device of the class described, a hopper having a bottom wall in the form of a portion of a cylinder, said bottom wall having a plurality of longitudinally spaced ports in the bottom portion thereof, a valve-acting gate plate in the form of a portion of a cylinder disposed in underlying face to face relationship with the hopper bottom wall and longitudinally slidable with respect thereto, said gate plate having a plurality of ports of spacing identical to said hopper bottom ports and simultaneously movable into and out of registration with cooperating ones of said hopper bottom ports upon sliding movements of said gate plate in opposite directions, and an elongated feeding rotor comprising a rotary shaft mounted in said hopper in coaxial relation to the cross sectionally arcuate bottom wall, a plurality of disc-like feeder elements mounted fast on said shaft in axially spaced relation, said feeder elements each over-lying a different one of said hopper bottom ports and each defining a plurality of circumferentially spaced teeth having leading faces and outer faces intersecting said leading faces to define outer edges moving over their respective hopper bottom ports upon rotation of said rotor, the outer edge of each of said teeth describing on rotation of the feeding rotor a circle having a radius only sufficiently less than that of the inner surface of the hopper bottom wall to produce a clearance fit between said outer edges and the inner surface of the hopper bottom wall, and a plurality of circumferentially spaced elongated feeder bars corresponding in number to the number of teeth and extending axially through said feeder elements in radially spaced parallel relation to said shaft, each of said feeder bars being disposed circumferentially between adjacent ones of said teeth and radially inwardly of the outer faces thereof, each of said feeder bars being provided with a flat leading face and an outer face, said faces intersecting to define a sharp outer edge, said leading face of each feeder bar diverging forwardly in the direction of rotation of the feeding rotor from a radius of the feeding rotor which includes the outer edge of the feeder bar, said outer face of each feeder bar diverging rearwardly of the direction of rotation of said feeding rotor from a circle described by said outer edge of the feeder bar to provide a rearwardly expanding clearance between the feeder bar and the hopper bottom wall upon rotation of said feeding rotor.

2,848,144
SPLITTER DEVICE
Albert A. Haskell, Las Vegas, and Louis B. Wheeler, Henderson, Nev., assignors to Titanium Metals Corporation of America, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 18, 1954, Serial No. 417,029
4 Claims. (Cl. 222—330)

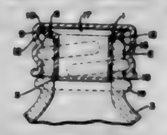
1. A splitting device comprising a cylindrical shell, material feed inlet means in the center of the top of said shell, upwardly converging side walls defining a series of radial vertical open top compartments in said shell, the inner end walls of said shell compartments sloping down-

wardly and outwardly toward the periphery of said shell, material outlet means in the bottom of each of said shell compartments communicating with a generally horizontal conveyer, said conveyer being divided longitudinally by a septum into two conveyor compartments, means for



adjusting the communication of said outlet means with either of said conveyor compartments and rotatable distributing means inside said shell adapted to receive solid subdivided material from said feed inlet means and to distribute it into said shell compartments.

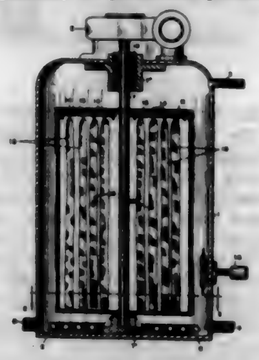
2,848,145
POURING ADAPTER
Jay G. Livingstone, Akron, Ohio
Application March 17, 1955, Serial No. 494,985
6 Claims. (Cl. 222—542)



1. The combination of a vessel with a neck having an outlet therethrough, cap closure means over said outlet and attached to the neck, and an adapter of stiff resilient plastic squeezed between the end of the neck and the closure means; the end of the neck having an annular gasket-seating surface, the adapter being provided with an opening therethrough and an annular body portion extending about the neck and securing the adapter to the neck, the top portion of the inner surface of said opening slanting upwardly and outwardly, a portion of the adapter integral with said body portion extending beyond the end of the neck and said seating surface, said last-named portion having an outwardly opening, annular, substantially V-shaped groove therein with the inner base of the groove positioned over said seating surface, that portion of the adapter on the upper side of the groove tapering outwardly to an annular knife-edge lip and forming a seal with an inside top surface of the closure means, and that portion of the adapter between the lower side of the groove and the seating surface acting as a gasket portion with its under side in sealing contact with said seating surface.

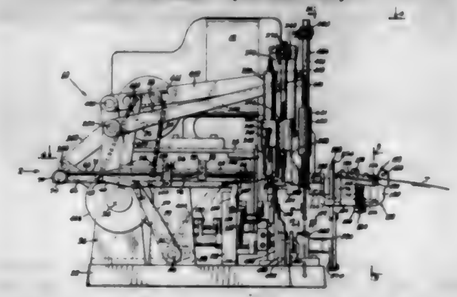
2,848,146
TREATING HOSIERY MADE OF SYNTHETIC FIBERS
Curt Kronsbein, Hagen, Germany, assignor to Emma Elfriede Bellmann, Hagen-Haspe, Ruth Kronsbein, Hagen, and Friedhelm Bellmann, Hagen, Germany
Application May 21, 1956, Serial No. 586,200
Claims priority, application Germany June 25, 1955
2 Claims. (Cl. 223—51)

1. An apparatus for processing hosiery made of synthetic fibers comprising a tank substantially in the shape of an oblong cylinder arranged vertically with the longitudinal axis thereof and sufficient in length to permit suspension of hosiery therein in a stretched out condition, means for heating the inside of said tank, fluid admitting and fluid draining means on said tank, a rotatable shaft mounted inside of said tank arranged along said longitudinal axis thereof, motor means adapted to drive said shaft, a perforated drum arranged inside said tank supported by said shaft, a plurality of perforated partitions subdivid-



ing said drum into a plurality of treating chambers, a plurality of perforated cylinder-segment-shaped doors on said drum one for each of said plurality of treating chambers, a plurality of arms arranged inside said drum adjacent the ceiling thereof extending radially outwardly from said shaft, a plurality of hosiery supports suspended on each of said plurality of arms, and one single lateral door on said tank adapted to expose upon appropriate rotation of said drum each of said plurality of doors to give access to each of said plurality of treating chambers.

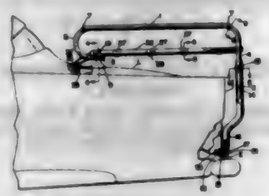
2,848,147
BUCKLE THREADING APPARATUS
Harry Alfandre, Jamaica, N. Y., assignor to Scovill Manufacturing Company, Waterbury, Conn.
Application April 11, 1956, Serial No. 577,582
24 Claims. (Cl. 223—49)



1. In a buckle threading apparatus, a buckle slideway terminating at a threading station to which buckles are advanced along said slideway, means for releasably holding a buckle in position at said station for the threading thereof, and means defining a discharge guideway extending from said station for the delivery of the threaded buckles from said apparatus.

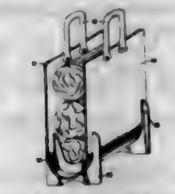
2,848,148
LUGGAGE CARRIER
Martin J. Kutz, University Heights, Ohio
Application October 2, 1956, Serial No. 613,499
1 Claim. (Cl. 224—42.1)

A luggage carrier of the character described, comprising laterally spaced tubular members bent at their forward ends to provide curved downwardly extending ends terminating in short rebent portions substantially parallel with the tubular members and bent at their rear ends to provide downwardly extending vertical portions which extend to a level below the level of said short portions, tubular cross-members interconnecting said spaced members, rubber vacuum cups secured to said short portions, a pair of spaced tubular legs adapted for attachment to the trunk lid of an automobile, said legs receiving said vertical portions of said tubular members and having for-



wardly offset portions, the lower ends of which are flattened, horizontal flanges extending forwardly from said flattened portions, and upturned vertical flanges substantially parallel with said flattened portions, a rectangular frame of angle iron carried by and secured to said short portions and vertical portions, a multiplicity of transversely extending bars secured to flanges of said frame, and means for securing said frame to the front edge of said trunk lid, said means comprising adjustable straps and hook elements secured to said straps.

2,848,149
COMBINATION CARRIER AND CONTAINER
Richard E. Ward, Kelso, Wash., assignor to Weyerhaeuser Timber Company, Tacoma, Wash., a corporation of Washington
Application March 28, 1957, Serial No. 647,364
3 Claims. (Cl. 224—46)



3. A carrier container comprising as a body member a rigid sheet material formed into a U-shaped open end trough; a pair of supporting means each consisting of two oppositely disposed vertical arm members slotted in a vertical direction adapting them to receive the vertical sides of the U-shaped body member and provide on each side of the U a pair of vertically disposed finger supports contiguous respectively to the outer and inner surfaces of such side; a bridge member connecting the two vertical arm members through a slot formed in the curved base of the body member adapted to receive said bridge member in such manner that it forms a wall across each end of the U-shaped trough; and a handle centrally positioned on the upper edge of each side of the body member.

2,848,150
MECHANICS' LADDERS
Lester F. Tans, Waukesha, Wis.
Application January 24, 1955, Serial No. 483,759
1 Claim. (Cl. 228—36)

A ladder for engagement against the side of a tired wheel comprising a pair of staffs of cylindrical material each shaped with an elongated straight staff portion and an upper hooked extremity, a brace extending between the upper ends of the straight portions of said staffs and provided with bearings positioned to receive said

upper ends of said staff portions whereby each of said staffs and said upper hooked extremity thereof is independently revolvable in one of said bearings, and a plane step tread having spaced ears along one side and extending marginally thereof, said ears being slightly angularly disposed with reference to the plane of said step tread and each of said ears being provided normal to said ears with a bore of a diameter to snugly receive one of said staffs, said step tread and said ears being provided



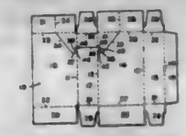
with a continuous depending flange to stiffen said step tread and said ears and hold said step tread and said ears in said angular relationship, whereby in any position of said upper hooked extremity of either one of said pair of staffs over said tire a cylindrical surface of each said straight staff portion is presented in each said bore provided in each said ears for automatic clamping engagement therewith due to weight on said step tread eccentrically placed with respect to the longitudinal axis of said staffs.

2,848,151
SEALED CONTAINER
John G. O'Neil, Minneapolis, Minn., assignor to Safe-Pack Container Co., Minneapolis, Minn., a corporation of Minnesota
Application October 6, 1954, Serial No. 460,541
3 Claims. (Cl. 229—4.5)



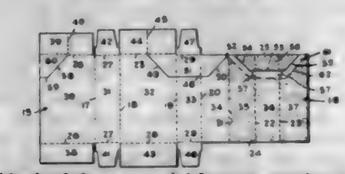
3. In a container formed from a laminated sheet of material comprising two superposed laterally offset layers providing a layer extending beyond the edge of its adjacent layer on oppositely disposed edges of the laminate, a joint structure comprising a sealing tape exhibiting adhesive characteristics disposed between the offset layers adjacent an offset edge of the laminate, a contiguous portion of the tape being reversely bent on itself into contact with the marginal inwardly offset edge of one of the layers and extending over and in contact with the inner face of the adjacent extending layer, a similar sealing tape disposed between the offset layers adjacent the oppositely disposed offset edge of the laminate, a contiguous portion of the last named tape being reversely bent on itself into contact with the marginal inwardly offset edge of the other layer and extending over and in contact with the inner face of its extending adjacent layer, said laminate on overlapped relationship of the extending layers and abutment between the adjacent inwardly disposed offset and extreme marginal edges, respectively, being adhesively secured over the overlapped extending layers and sealed along the abutting marginal edges by the sealing tape.

2,848,152
PAPER CONTAINER AND BLANK FOR CONSTRUCTING SAME
Clarence H. Geiger, Sr., Rogersville, Tenn.
Application October 31, 1956, Serial No. 619,488
1 Claim. (Cl. 229—17)



A blank for constructing a container, said blank being generally rectangular and having pairs of transverse fold lines dividing the blank into a pair of relatively wide rectangular panels and a pair of relatively narrow rectangular panels, said relatively wide and narrow panels being alternately arranged in the blank, a flap carried by one end of the blank to be coated with glue for securing the blank in folded condition to form the body portion of the container, flap means carried by the opposite sides of the blank and foldable to form the end walls of the container, a tongue cut from the material of the blank adjacent one longitudinal side of the blank and being disposed wholly inwardly of such side, said tongue having a pair of diagonal marginal edges which converge inwardly toward the central portion of the blank and away from the side of the blank adjacent the tongue, said tongue having a transverse marginal edge between said diagonal converging edges and extending across one of said relatively narrow panels a substantial distance inwardly of said side of the blank having the tongue, said diagonal edges of the tongue extending a somewhat greater distance inwardly toward the center of the blank and the distance said transverse edge of the tongue is spaced inwardly in the blank, said diagonal converging edges of the tongue extending across corners of the relatively wide panels, a pair of opposed tapered claw-like extensions formed integral with said tongue in spaced relation adjacent to the inner relatively narrow end of the tongue, the extremities of said extensions lying substantially upon the pair of fold lines defining said one relatively narrow panel, and a companion pair of projections cut from the blank just outwardly of said claw-like extensions and interfitting therewith and having corresponding marginal sides in alignment with said transverse edge of the tongue, said projections being disposed in the blank at the opposite sides of said one relatively narrow panel formed by said pair of transverse fold lines, said projections being readily bendable.

2,848,153
PAPER CONTAINER AND BLANK FOR CONSTRUCTING SAME
Clarence H. Geiger, Sr., Rogersville, Tenn.
Application October 31, 1956, Serial No. 619,489
5 Claims. (Cl. 229—17)



1. A blank of sheet material for constructing a container comprising a body portion having fold lines defining first and second relatively wide panels and first and second relatively narrow panels, a liner portion secured to one end of the body portion and foldable upon the body portion and having fold lines adapted to overlie certain fold lines of the body portion, the body portion and liner portion being slit near corresponding sides thereof to form thereon a companion pair of tapering tongues with the tongue of the liner portion being shorter in the tapering direction than the tongue of the body portion, the body portion being further slit at its end remote from the linear portion and near its side having the tongue to form a second generally triangular tongue, the liner portion of the blank being further slit adjacent the inner end of the tongue of the liner portion and adjacent the fold lines of the liner portion to form therein a pair of small tabs, and container end wall forming flaps carried by the opposite sides of the blank body portion.

2,848,154
CARDBOARD CARTON AND INTEGRAL HANDLE ASSEMBLY
Roger H. Hanson, Great Falls, Mont.
Application September 24, 1954, Serial No. 458,194
1 Claim. (Cl. 229—52)



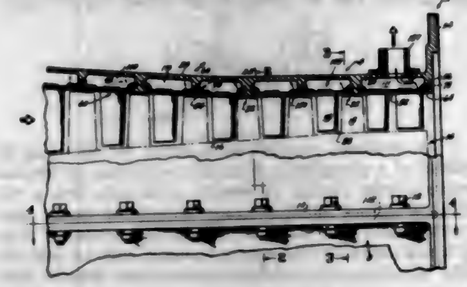
In a one-piece cardboard carton including a pair of adjacent side walls, the provision of a tab hingedly carried by one of said side walls, said tab having a finger receiving aperture, the other of said side walls having a finger hole partially registering with one side of said aperture, and adhesive means releasably fixing the tab onto the other said side wall, said last means being releasable under the pressure of a finger inserted through the aperture and into the opening and bearing under the tab.

2,848,155
BOUNDARY LAYER CONTROL APPARATUS FOR COMPRESSORS
George F. Hausmann, Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Original application November 22, 1950, Serial No. 197,144, now Patent No. 2,738,921, dated March 20, 1956. Divided and this application August 24, 1955, Serial No. 530,349
1 Claim. (Cl. 230—122)



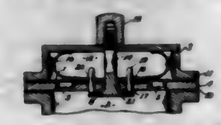
In an axial flow compressor having a plurality of impeller blades, a hub, said blades extending radially from said hub and forming a plurality of rows, a casing surrounding said impeller blades and forming with said hub an annular passage having inner and outer walls converging in a downstream direction, stator blades carried by said casing and extending across said annular passage in alternate rows cooperating with said impeller blades, scoops carried by the ends of at least one row of stator blades adjacent said hub and adapted to intercept the boundary layer flow along the inner wall of said annular passage, said scoops intercepting the boundary layer at a point immediately upstream of the leading edge of said stator blades, passage means in said stator blades connecting said scoops with the outer radial ends of said stator blades, a source of pressure lower than the pressure in said compressor, and scoop means carried by the outer radial ends of said one row of stator blades and intercepting the boundary layer flow along said outer walls immediately upstream of the leading edge of said stator blades, said scoop means having a fluid connection with said source.

2,848,156
FIXED STATOR VANE ASSEMBLIES
Robert Morris Oppenheimer, Nahant, Mass., assignor to General Electric Company, a corporation of New York
Application December 18, 1956, Serial No. 629,075
3 Claims. (Cl. 230—132)



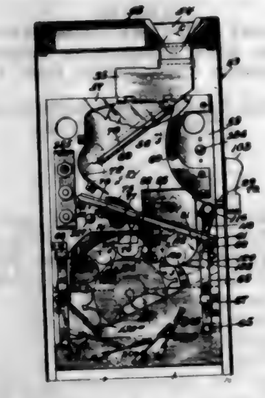
1. A compressor stator assembly comprising a stator casing, a pair of longitudinally spaced vane supporting rabbets extending radially inwardly from said casing, each of said vane supporting rabbets having a radially outwardly facing rabbet surface thereon, a vane ring extending betwene said vane supporting rabbets, at least a portion of said vane ring being spaced radially inwardly from said casing to form a space between said vane ring portion and said casing, a plurality of vanes mounted on said vane ring and extending radially inwardly therefrom, said vane ring having radially inwardly facing rabbet surfaces thereon engaging the radially outwardly facing rabbet surfaces on said vane supporting rabbets to locate and limit the movement of said vane ring in the radially inward direction, said vane ring being free to move relative to said casing in a radially outward direction, and fluid conduit means connecting the space between said vane ring portion and said casing in fluid communication with the main fluid passage of the compressor, the connection to the compressor main fluid passage being made at a point such that the total force exerted radially inwardly on said vane ring by the pressure of the fluid in the space between said vane ring portion and said casing when the compressor is operating is greater than radially outward force exerted on said vane ring by the fluid flowing in the compressor main fluid passage, whereby said vane ring is yieldably urged radially inwardly against the outwardly facing rabbet surfaces on said vane supporting rabbets.

2,848,157
COMPRESSOR VALVE ARRANGEMENT
Robert W. Ayling, Utica, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application June 26, 1953, Serial No. 364,353
11 Claims. (Cl. 230—231)



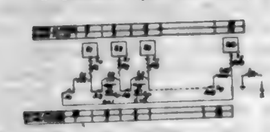
4. In a reciprocating compressor including in combination a compression cylinder, a cylinder head disposed above the cylinder, a valve plate disposed between the cylinder and the head, said valve plate including suction and discharge ports to provide communication between the head and the cylinder, said discharge ports and suction ports lying on axes at substantially right angles to each other, a valve reed disposed above said discharge ports, means above the reed in the head to permit the reed to lift to permit gases to flow through the discharge ports when the gas pressure in the cylinder reaches a predetermined amount, a valve reed disposed below the suction ports, a bolt having a head to connect the valve plate to the cylinder head, said bolt head being disposed in the compression cylinder, and at least one dowel pin disposed in the valve plate, said dowel pin being in contact with and thereby preventing both the discharge valve reed and the suction valve reed from rotating relative to their respective ports, the lower portion of the dowel pin being disposed on the head of the bolt to prevent said pin from falling into said compression cylinder.

2,848,158
POWER DRIVEN FARE COLLECTING AND REGISTERING APPARATUS
Harry B. Miller, Warwick, R. I., assignor, by mesne assignments, to Grant Development Company, Providence, R. I., a corporation of Rhode Island
Application March 21, 1951, Serial No. 216,703
42 Claims. (Cl. 235—32)



28. Fare collection and registering apparatus comprising coin gauging means engageable with an edge of a coin and displaceable thereby different amounts depending upon the diameter of the coin, a cycling shaft which turns one revolution for each cycle of the machine, means, including a rotary registering shaft, for registering coins of different diameters, means for turning the registering shaft comprising an actuator part which is coaxial with the cycling shaft, clutch means for temporarily clutching the actuator part to the cycling shaft, and means carried by the gauging means for operating the clutch means to clutch the actuator part to the cycling shaft at different times in the cycle of rotation of said shaft according to the size of different coins respectively.

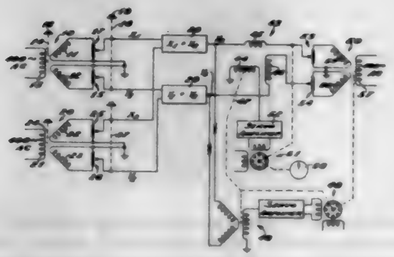
2,848,159
APPARATUS FOR EVALUATING THE RATE OF CHANGE OF A MAGNITUDE
Geoffrey Huson Stephenson, London, and Richard Herbert Booth, Buckinghamshire, England, assignors to Electric & Musical Industries Limited, Hayes, England, a British company
Application April 17, 1952, Serial No. 282,854
Claims priority, application Great Britain April 18, 1951
5 Claims. (Cl. 235—61)



2. Apparatus for evaluating the rate of change of a first variable with respect to a second variable compris-

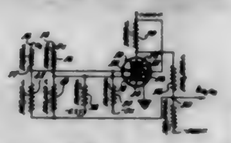
ing an array of inductances magnetically coupled one to another, a switch between each inductance of said array and the next inductance thereof and between the last inductance of said array and the first inductance thereof, each switch when closed being arranged to connect the adjacent inductances, a plurality of impedances one leading to a fixed point on each inductance, means for operating said switches in a cyclic order to connect a cyclically changing plurality of said inductances in a series chain, the cyclic order being predetermined to produce the effect of displacing said fixed points in succession along said chain, and means for applying to said impedances alternating voltages representative of values of the first variable corresponding to values of the second variable represented by said points, the impedance and mutual coupling of said inductances being such that the potential gradient set up along the chain is representative of a smoothed rate of change of the first variable with respect to the second variable.

2,848,160
TRIGONOMETRIC COMPUTING APPARATUS
Ben Biderman, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application August 28, 1952, Serial No. 306,778
5 Claims. (Cl. 235—61)



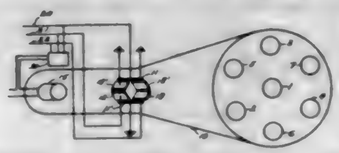
1. A computing apparatus comprising five resolvers, an alternating current voltage source connected to a winding on three of said resolvers, each of said resolvers comprising three windings which form the stator and rotor, a control shaft connected to the rotor of the first resolver, a second control shaft connected to the rotor of the second resolver, a first pair of potentiometers connected across two of the windings of said first resolver, a second pair of potentiometers connected across two of the windings of the second resolver, a first summing amplifier receiving inputs from the first potentiometer of the first and second pair of potentiometers, a second summing amplifier receiving inputs from the second potentiometer of the first and second pair of potentiometers, a pair of windings of the fourth resolver receiving inputs from the first and second summing amplifiers, a pair of windings of said fifth resolver receiving inputs from said first and second summing amplifiers, a first servo motor connected to the rotor of the third, fourth and fifth resolvers, a first servo amplifier connected to one of the windings of the fifth resolver and supplying an input to the first servo motor, a third pair of potentiometers connected across two of the windings of the third resolver, outputs from said third pair of potentiometers connected to the pair of windings of the fourth resolver, a second servo amplifier connected to the third winding of the fourth resolver, and a second servo motor receiving an input from said second servo amplifier and connected to the third pair of potentiometers to vary their positions.

2,848,161
ANALOGUE MULTIPLICATION DEVICE
Harry J. Woll, Audubon, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 31, 1952, Serial No. 317,991
16 Claims. (Cl. 235—61)



1. An analogue multiplication circuit for obtaining the product of a plurality of voltages comprising an electron discharge tube having an anode, a cathode, and a plurality of control electrodes, means applied to the electrodes of said tube to bias it on the linear portion of its operating characteristic, means to apply each of said plurality of voltages to a different one of said control grids, an output terminal, means coupling said output terminal to said tube anode, means coupled from said output terminal to each of the control electrodes to which said plurality of voltages are applied to supply currents to said output terminal to be added in opposition to undesirable linear anode current components to provide an output at said output terminal representative of the product of said plurality of voltages.

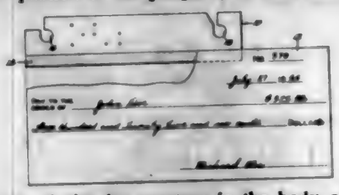
2,848,162
CATHODE RAY TUBE BINARY ADDER
Hans W. Kohler, Washington, D. C.
Original application March 7, 1950, Serial No. 148,251, now Patent No. 2,627,587, dated February 3, 1953. Divided and this application January 19, 1953, Serial No. 333,853
2 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)



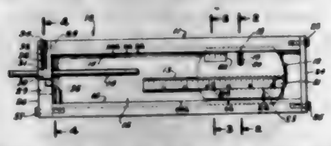
1. An apparatus for performing binary-scale addition comprising a series of cathode ray tubes each of said tubes having three deflecting means for an electron beam therein each beam being normally substantially centered in its tube said deflecting means being effective when separately energized to deflect the same in three planes 120° apart, three inputs for each tube each connected to one of said deflecting means and each to a separate source of signals representing the presence or absence of binary scale digits said means being energized only by signals representing the presence of such digits and two outputs each said tube one of said outputs serving to provide a binary-scale sum of the input signals of its tube and the other of said outputs serving to denote a quantity to be carried for further addition the last-mentioned output being connected to one of the inputs of another cathode ray tube of said series.

2,848,163
RECORD MEMBER FOR COMPUTING SYSTEM
Peter Van Horne Serrell, Pasadena, Calif., assignor to International Telemeter Corporation, Los Angeles, Calif., a corporation of Delaware
Application September 20, 1954, Serial No. 456,960
5 Claims. (Cl. 235—61.12)

3. A tab for affixation to an information bearing document comprising a substantially rectangular sheet having adhesive material along one edge, having walls defining a substantially rectangular cutout portion at one of the corners opposite said one edge, a circular aperture in the body of said tab positioned to open out at one side to said rectangular cutout through a substantially 30° portion of the periphery of said circular aperture, a second circular aperture in the body of said tab near its other corner opposite said one edge, walls defining a 30-degree opening between one side of said second circular aperture and said opposite edge, and an information-bearing area between said first and second apertures.

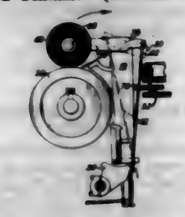


2,848,164
COMPUTER SLIDE RULE FOR AUTOMATIC SCREW MACHINE
Edward B. Spellman, Naugatuck, Conn.
Application April 24, 1957, Serial No. 654,799
8 Claims. (Cl. 235—69)



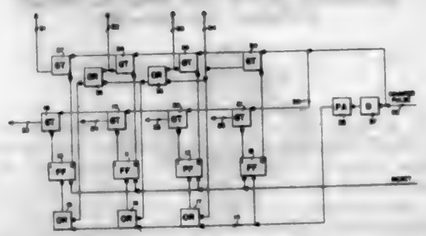
1. A slide rule device for computing the height of cam lobes and tool clearances when setting up automatic screw machines, comprising an elongated base member having a longitudinal recess, a slide member mounted in said recess, a measuring scale member slidably mounted on said slide member, an elongated guide piece slidably mounted in one end of said elongated base member in spaced parallel relation to said measuring scale member, index means for setting said slide member in adjusted position with respect to said elongated base member in accordance with the particular machine size for which calculations are being made, and index means on said elongated member for adjusting the extension of said guide piece in accordance with the extreme forward travel of a corresponding turret tool, or in accordance with the distance by which the work piece to be machined extends from the machine, to determine, selectively, the cam lobe cut-downs or the distance by which the tool will clear the end of the workpiece.

2,848,165
WINDING STATION COUNTER
William Hoyt Gerrells, Danville, Va.
Application June 5, 1953, Serial No. 359,756
12 Claims. (Cl. 235—91)



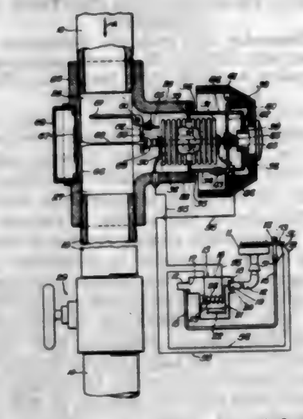
1. Apparatus for counting ends-up on a spooler wherein a pull wire at each winding station is positioned in one outward position when the end at that station is up and is positioned in another more inward position when the end at that station is not up, and a traveler moves around the spooler to knot the ends of properly positioned bobbins at each station, comprising means on the trailing end of said traveler for feeling pull wires in said outward positions only as the traveler moves past the winding stations and means responsive thereto for counting the number of pull wires felt in said outward positions.

2,848,166
COUNTER
Eric G. Wagner, United States Army, assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 3, 1955, Serial No. 544,742
8 Claims. (Cl. 235—92)



1. A counting apparatus including a first means for holding signals representative of a number, a second means coupled to said first means and responsive to a signal for reading out signals representative of the number held as signals in said first means and for reading out signals representative of the complement of the number held as signals in said first means and for changing the signals in said first means to represent the complement of that number decreased by one, third means coupled to said first means and responsive to a signal for causing the number represented as signals in said first means to be complemented, and fourth means coupled to said second and third means for supplying signals to be counted.

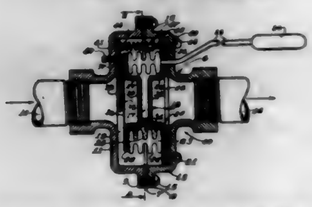
2,848,167
CONDITION RESPONSIVE CONTROL APPARATUS
Russell B. Matthews, Wauwatosa, Wis., assignor to Bazo Inc., Milwaukee, Wis., a corporation of Wisconsin
Application March 26, 1953, Serial No. 344,731
21 Claims. (Cl. 236—21)



17. In combination, a fitting adapted for insertion in the hot water outlet of an instantaneous water heater,

said fitting having a water inlet and a water outlet and a branch opening laterally from said fitting between said inlet and said outlet, a bellows-like enclosure having opposite independently movable ends and supported between said ends on said branch of said fitting, a pair of cooperating contacts within said bellows one movable with one movable end of said bellows and the other movable with the other movable end of said bellows, and a vane pivoted in said fitting for actuation by fluid flow through said fitting and operatively coacting with one of said contacts to actuate the same by the pivotal movement of said vane.

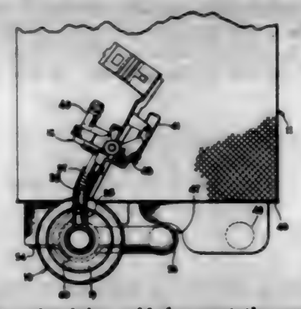
2,848,168
FLOW CONTROL DEVICE
Russell B. Matthews, Wauwatosa, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application April 6, 1955, Serial No. 499,631
8 Claims. (Cl. 236—59)



1. A condition responsive flow control device comprising, container means capable of retaining a liquid and defining a passage for flow therethrough of a fluid to be controlled, said container means comprising spaced relatively movable wall portions at least one of which is foraminous and is in the path of said fluid flow, a second fluid disposed within said container means, said second fluid being impervious to said controlled fluid, and said foraminous wall portion being impervious to said second fluid and perivous to said controlled fluid, and condition responsive actuating means associated with said container means for varying the spacial relationship between said wall portions and thereby moving said second fluid into and out of covering relation with respect to a surface of said foraminous wall portion in accordance with changes in a condition, said second fluid preventing flow of said controlled fluid through the portion of said foraminous wall surface so covered, wherefore the flow of the controlled fluid through said container means is varied in accordance with variations in the condition.

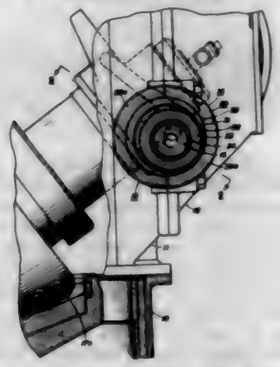
2,848,169
HOT WATER HEATERS AND CONTROL VALVES THEREFOR
Frank E. Obermaier, Oak Park, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application April 18, 1956, Serial No. 579,001
5 Claims. (Cl. 236—79)

1. In a hot water heater having a water circulating core and adapted to have air forced therethrough and heated by the water circulating through said core, a variable volume flow control valve controlling the flow of water through said core in accordance with the temperature requirements and having a vacuum chamber therein and a diaphragm closing an end of said vacuum chamber for setting said valve in accordance with temperature requirements, a thermostatic vacuum control valve controlling the vacuum in said vacuum chamber in accordance with the temperature of the air flowing through said core, means mounting said thermostatic vacuum control valve on said variable volume flow control valve as a unitary part thereof, and means for mounting said flow control valve on said core in fluid communication therewith and positioning said temperature responsive vacuum control valve in position to sense the temperature of the stream of air delivered through said core, comprising a bracket securing said first valve to



said core and maintaining said thermostatic vacuum control valve in heat sensing relation with respect to said core.

2,848,170
WEAR COMPENSATING MEANS FOR PULVERIZING MILLS OF THE RING-ROLLER TYPE
Joe Crites, Larchmont, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application July 24, 1953, Serial No. 369,979
11 Claims. (Cl. 241—117)

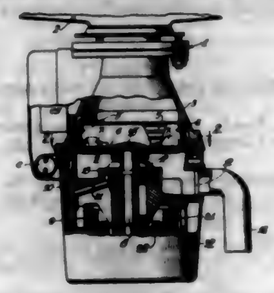


1. In a pulverizing mill having a grinding ring and a grinding roll, the grinding surface of the ring being in parallel relation with the grinding surface of the roll when comparatively new but subjected to unequal wear through use thereby destroying said parallel relation, the combination of a shaft on which said roll is mounted for rotation about the axis thereof, a trunnion shaft operatively connected to said roll shaft transversely thereto and supporting said roll shaft at a point remote from said roll, a bearing supporting said trunnion shaft at a predetermined distance from the said grinding surface of said grinding ring, the axis of said roll shaft forming an acute angle with the said grinding surface of said ring, and means for altering both said predetermined distance and said angle, whereby the non-parallel relation of the said worn grinding surfaces is adjusted to approximate parallel relation thereof.

2,848,171
DRIVE MECHANISM FOR FOOD WASTE DISPOSERS
John L. Andrews, Oak Park, Ill., assignor to General Electric Company, a corporation of New York
Application December 30, 1952, Serial No. 328,749
5 Claims. (Cl. 241—35)

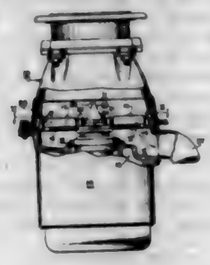
3. Waste disposal apparatus, comprising a chamber to receive waste material, comminution means including a

rotatable comminution element within said chamber, said comminution element having a substantially flat disk-like top facing said chamber, an electric motor for driving said element, a control circuit for said motor, and drive means between said motor and said comminution element, including a shaft driven by said motor, means for mounting said element on said shaft for free rotation thereon, a



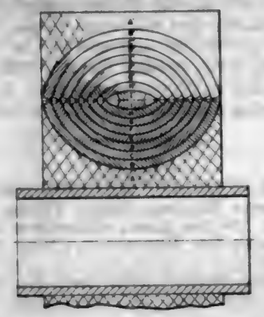
lug integral with said comminution element and disposed in said flat top portion of said element radially outward of said shaft, and a drive arm on said shaft arranged to engage said lug to drive said comminution element only following an initial substantially free rotation of said shaft with respect to said comminution element on said shaft being reversed in direction of rotation from the preceding operation.

2,848,172
FOOD WASTE DISPOSER
Clifton H. Ewing, Westhampton, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 14, 1954, Serial No. 443,354
4 Claims. (Cl. 241—257)



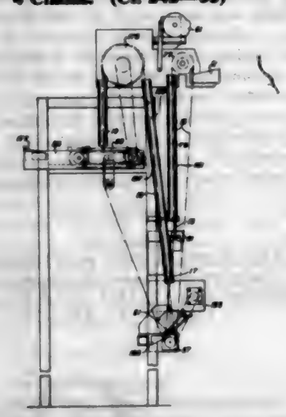
4. A food waste disposer comprising a casing having a grinding chamber therein, a disc-like rotor forming a bottom wall for said chamber and rotatable about a vertical axis, said rotor having an impelling vane on the top thereof, said disposer having a wall portion of circular horizontal section encircling the lower portion of said chamber and the top surface of said rotor, said wall portion having a projection on said inner surface extending upwardly from said rotor, one side of said projection being of stepped configuration having horizontally-facing and upwardly-facing surfaces, said side as a whole facing in a direction inclined upwardly, said rotor being operable in the direction of rotation to impel particles against said one side of said projection, whereby said particles are thrown about in various directions, particularly horizontally and upwardly rather than downwardly.

2,848,173
METHOD AND APPARATUS FOR YARN TRAVERSE
Friedrich Hebberling, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application September 5, 1956, Serial No. 608,158
10 Claims. (Cl. 242—43)



1. A method for yarn traverse in the winding of a length of yarn consisting in sequence and cyclically of winding said yarn in a first stage with a traverse action in harmonic motion at maximum amplitude, then winding said yarn with a traverse action in harmonic motion of progressively modulated amplitude during which the package is filled in and thereafter given a yarn lay down reversed in sense to the yarn configuration built up during the interval when said package is filled in, and then completing the cycle by winding said yarn with harmonic motion at maximum amplitude in reverse order to said first stage but for approximately the same time duration.

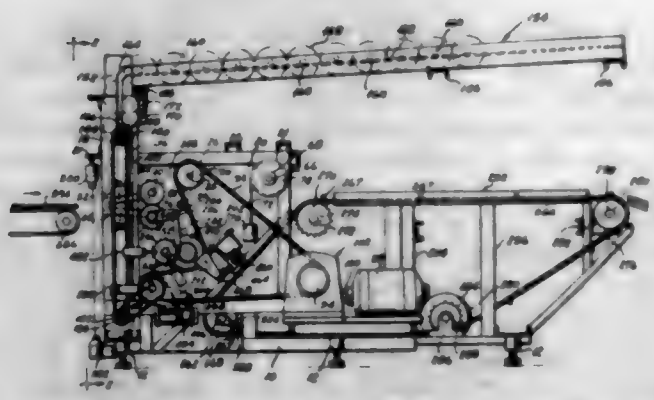
2,848,174
SEMI-AUTOMATIC ROLL FILM STRIPPING APPARATUS
George W. Pierce, David C. Seelbinder, and Walter B. Hausler, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application September 7, 1956, Serial No. 608,539
4 Claims. (Cl. 242—55)



1. A device for stripping roll film from film spools and the paper backing interleaved thereon comprising a frame, a fixed bar mounted in said frame, a stripping bar parallel to said fixed bar and pivotally mounted for movement between a first position remote from said fixed bar and a second position adjacent said fixed bar, means for supporting an end of each of a plurality of film strips between said bars, positioning means en-

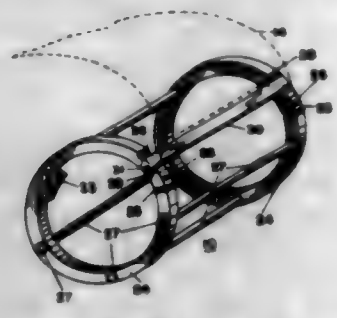
gaging said supporting means for aligning said film strips between said bars, stop means carried by said frame for engaging and retracting said positioning means to a position remote from said supporting means upon movement of said stripping bar to said second position and thereby releasing said supporting means for movement away from said bars, the distance between said fixed bar and said stripping bar in said second position being sufficient to permit said film strips to pass freely therebetween but preventing said spools and coils of said paper backing from passing therebetween, and means for carrying said supporting means away from said bars thereby stripping simultaneously each of said film strips.

2,848,175
LINEAR FEED MAT WINDING MACHINE
Frederick Norton Stephens, Prairie Village, and Carl C. Perkins, Jr., Mission, Kans., assignors to Gustin-Bacon Manufacturing Co., Kansas City, Mo., a corporation of Missouri
Application May 17, 1954, Serial No. 430,012
23 Claims. (Cl. 242—55.1)



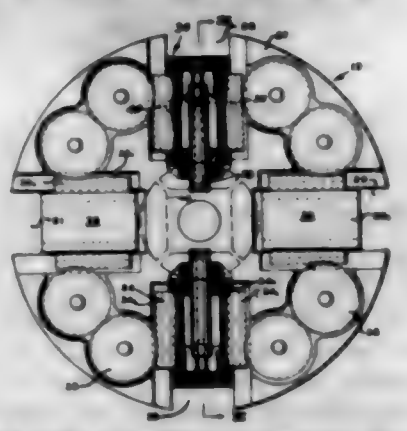
1. In a winding machine for winding respective lengths of a mat of fibrous material successively around mandrels during a number of winding operations, wrapping means for winding a length of mat about a mandrel, a rack for holding a supply of mandrels about which lengths of mat are to be wrapped, each of said mandrels being formed with a pair of journals, a conveyor for moving the mandrels of said supply successively from the rack to a position adjacent the winding means and including a pair of feeding devices disposed between said rack and said inlet conveyor, each of said devices comprising a housing, a plunger slidably mounted in said housing, means for urging said plunger in a direction to support a journal of the mandrel next to be fed to said inlet conveyor, means on said inlet conveyor for moving said plunger to a position where the mandrel supported thereby is permitted to drop onto said conveyor and a finger operated by said plunger to prevent a following mandrel from dropping onto said conveyor.

2,848,176
TAKE-UP DRUM FOR PHOTOPRINTER
Theodore A. Gunter, Baltimore, Md.
Application June 17, 1955, Serial No. 516,093
3 Claims. (Cl. 242—72)



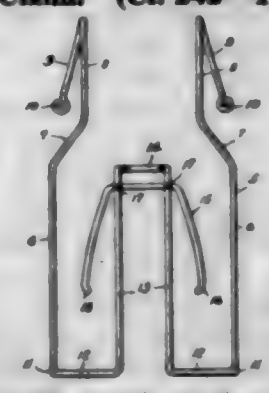
1. A take-off drum comprising in combination, a plurality of rings spaced from each other in parallel relation, bars projecting from the walls of said rings and rigidly holding them together, a fastening plate extending between the rings and mounted on the periphery thereof and adapted to hold photographic paper rolled thereon, said ring being arranged to slip over the take-up spindle of a photographic machine and hold themselves thereon, said rings being split to enable them to be adjusted to fit on various sized spindles, and means for adjusting the split rings to increase and decrease the diameter thereof.

2,848,177
COIL SUPPORTING HEAD FOR METAL STRIP UNCOILERS
Kenneth L. Bandy, Canfield, Ohio, assignor to The McKay Machine Company, Youngstown, Ohio, a corporation of Ohio
Application June 14, 1955, Serial No. 515,478
2 Claims. (Cl. 242—78.6)



1. In a metal strip uncoiling apparatus for winding and reeling metal strip the combination of a base, a support slidably mounted on said base, a spindle journaled on said support, a coil supporting head mounted on one end of said spindle, said coil supporting head comprising a heavy generally circular body member, said body member having a plurality of angularly spaced radial slots therein, slide members mounted in said slots for radial movement, coil supporting chuck segments mounted on said slide members, said slide members each having outwardly extending flanges, the outer edge portions of all of said flanges having gear teeth, pairs of pinions journaled on said coil supporting head between and meshing with said gear teeth of adjacent slide members, alternate ones of said slide members having piston members received therein, piston rods connected to said piston members and said spindle, conduit means comprising passageways in said spindle and said piston rods for directing fluid to either side of said pistons, and means for directing fluid under pressure to said passageways whereby all of said slide members are moved synchronously and forcibly in expanding or retracting radial directions.

2,848,178
TWINE HOLDER
E. J. Kilgore, Dayton, Ohio
Application February 9, 1956, Serial No. 564,399
1 Claim. (Cl. 242—141)



An article supporting rack of the character described comprised of a single length of wire bent upon itself to

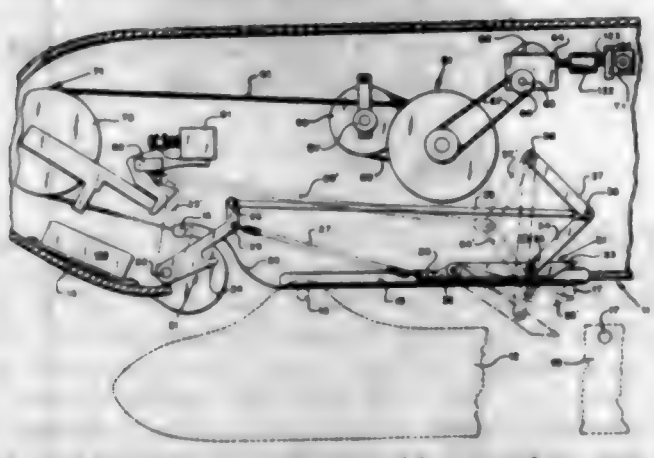
form side bars having their ends extended inwardly and upwardly, with their extremities bent to form rearwardly extending hooks, terminating in eyes at their lower extremities, the lower ends of said side bars being bent to form forwardly and laterally extending portions, said laterally extending portions terminating in spaced apart upwardly extending supporting bars, a rearwardly extending integral curved section of said wire connecting the upper ends of said supporting bars, and a braking member comprising a substantially U-shaped resilient member having its bight fixedly secured to said supporting bars at aligned points adjacent the top thereof, the legs of said U-shaped member extending obliquely downwardly from the top of said supporting bars resiliently to engage the article supported by said rack.

2,848,179

AUTOMATIC RETRIEVING MECHANISM FOR NOSE TOWED BIRD

Harold Maskill Troxell, Burlington, N. J., and G. Thomas Moore, Huntingdon Valley, and John H. Davis, Hatboro, Pa.

Application June 11, 1954, Serial No. 436,261
17 Claims. (Cl. 244—3)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. An airborne automatic launching, towing, and retrieving mechanism for a nose-towed aeroform capsule, said mechanism comprising an elongated supporting frame, a remotely controlled automatically retractable towing cable extending rearwardly from the forward end of said frame and connected at its end to the forward end of a towed capsule, first and second longitudinally spaced latch assemblies mounted upon the lower side of said frame, said latch assemblies being operatively interconnected for coordinated sequential operation in a predetermined manner, a biasing means connected to said supporting frame and arranged to bias the forwardly located first latch assembly toward its opened position, and locking means for retaining said first latch assembly in its closed position, whereby suitable longitudinally spaced fittings on the upper side of a towed capsule are automatically brought into engagement with said latch assemblies as said towing cable is retracted and said latch assemblies are automatically moved to and locked in their closed positions by further retraction of said towing cable.

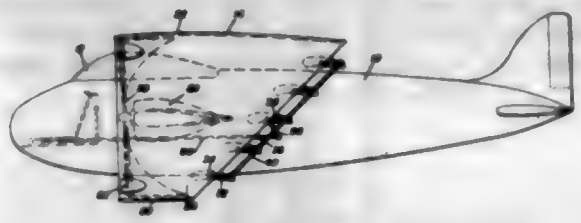
2,848,180

AIRPLANE WING

Gustav Ploger, Cascade, Mont.

Application November 23, 1953, Serial No. 393,560
1 Claim. (Cl. 244—12)

An aircraft comprising a fuselage, wings on each side of the fuselage, each wing having a box-shaped tunnel-like structure with open front and rear ends and with an arcuate top portion and a substantially rectangular cross-section, the longitudinal extension of the wing at the bottom being shorter than the longitudinal extension of the top portion, the open front end being located in a plane perpendicular to the longitudinal axis of the airplane, and the rear open end being in a plane inclined with respect to the plane of the open front end surfaces, a propeller within the box-shaped wing structure substantially in closest proximity to the open front end of the box-shaped tunnel-like wing, shroud sections provided at the open front end of the tunnel-like wing covering the space surrounding the propeller between the circular area through which the propeller moves and the rectangular cross-section of the tunnel-like wing, a plurality of vertically spaced pivotally mounted airfoils, mounted in stair-step like manner, one foil above the other being at the



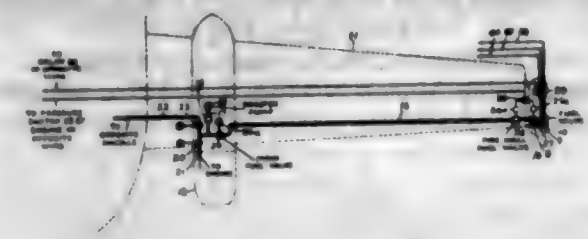
rear of the other, said airfoils being essentially equidistant and leaving between them and the top and bottom ends channels of substantially equal width, means for connecting said airfoils and for adjusting the position of said airfoils relatively to the bottom and top portion of the wing to produce a variable deflection of the airstream produced by the propeller flowing through the tunnel-like wing, the shroud sections being hinged to the sides of the wings, and means for moving the shroud sections inwardly to a position of substantial parallelism with the walls of the tunnel-like wings.

2,848,181

WING TIP JETS

Willard L. Landers, Smithsburg, Md., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland

Application August 1, 1955, Serial No. 525,761
7 Claims. (Cl. 244—58)



1. In an airplane having wings, primary propulsion means, a pair of auxiliary jet engines operable to provide supplemental thrust to the air plane, the auxiliary jet engines being mounted at opposite wing tips of the airplane, means for supplying fuel to both of said auxiliary jet engines and a safety system operable automatically in the event of failure of one of the auxiliary jet engines to render inoperative the other auxiliary jet engine to prevent the operating auxiliary jet engine from producing asymmetrical thrust, said safety system including means to detect a failure of one of the auxiliary jet engines and means actuated in response to the detection of a failure of one of the auxiliary jet engines to cut off the supply of fuel to the other auxiliary jet engine.

2,848,182

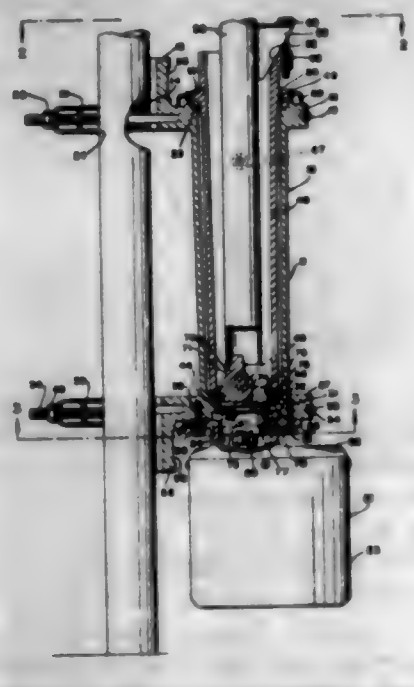
ANTENNA MAST SUPPORTS

Leslie K. Wildberg, Cleveland, Ohio, assignor, by mesne assignments, to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application June 24, 1953, Serial No. 363,793
2 Claims. (Cl. 248—45)

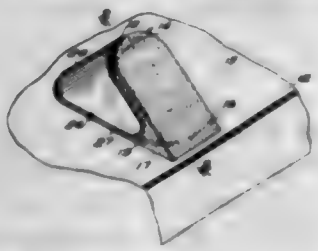
2. An antenna supporting member adapted to be rotatably mounted in a fixed support, said mast supporting member comprising a tubular barrel, tapering elements at the bottom of said tubular barrel arranged to be received

snugly within the base of a tubular antenna mast adapting said tubular member to receive masts of different diameters, a plurality of outwardly projecting ears along the upper margin of said tubular barrel, said tubular barrel having downwardly sloping portions aligned with said ears and being within the confines thereof, triangularly shaped gripping members, one side of each gripping member en-



gaging a sloping portion and another side adapted to engage a mast extending within said barrel, and means coacting with said ears for adjustably securing each gripping member along its respective sloping portion, whereby the gripping members are radially and axially movable toward each other for gripping the intermediate portion of a mast therebetween.

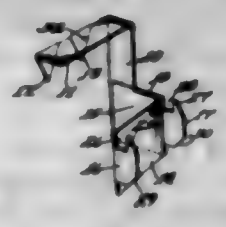
2,848,183
WATCH HOLDER FOR VEHICLE DASHBOARDS AND THE LIKE
Reuben A. Olson, Oakland, Calif.
Application March 3, 1955, Serial No. 491,808
5 Claims. (Cl. 248—195)



1. A device of the character described comprising a substantially prismatic body, said body being formed of a plastic clay material for adhesion to other surfaces and being of a substantially permanent pliant nature, one face of said body being adapted for releasable engagement with a supporting surface and an angularly related face being adapted for releasable engagement with an article to be supported, a substantially rigid U-shaped retainer member overlying a third face of said body and extending along the opposed faces thereof adjacent the edges of the other faces.

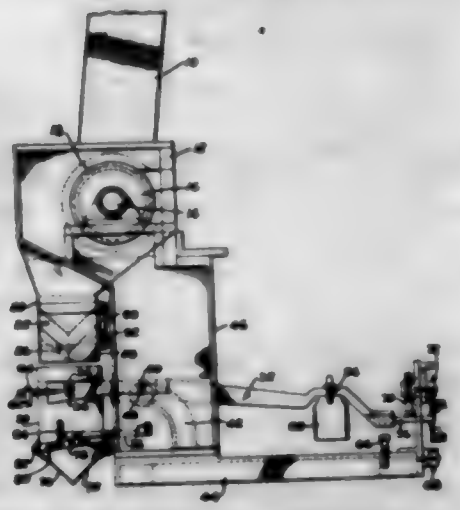
2,848,184
CURTAIN FIXTURE
Clair M. Kennedy, Charleroi, Pa.
Application November 18, 1955, Serial No. 547,760
2 Claims. (Cl. 248—263)

1. In a curtain rod support, the combination which comprises an L-shaped fixture having a horizontally disposed arm and a vertically disposed leg adapted to be positioned on the upper corner of a window frame with the arm resting upon the upper surface of the top rail of the frame and with the leg positioned against the end surface of a vertical rail of the frame, said arm having an opening therein and also having projections positioned to be between the top rail of the window frame and the surface of a wall in which the window frame is posi-



tioned, said leg having an extension extended outwardly therefrom with a horizontally disposed plate having a hook at the outer end thereof carried by the outer edge of said extension and a plate secured to the lower end of said leg and said extension at right angles to the plate on said extension and having a hook on the outer end thereof in alinement with the hook on said plate.

2,848,185
WEIGHING MACHINE
Carl Lehman, Fresno, Calif.
Application August 13, 1951, Serial No. 241,515
5 Claims. (Cl. 249—16)

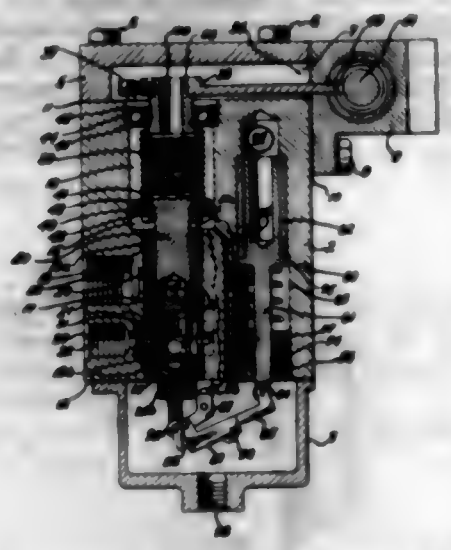


1. A weighing machine comprising: a scale beam, a fulcrum upon which said beam is supported, a scale hopper retained at one extremity of said beam, a weight attached to said beam on the opposite side of said fulcrum from said scale hopper, said scale beam formed so that said weight is below the level of said fulcrum when said scale beam is in a balanced position, a control hopper positioned above said scale hopper, an inclined main feed gate located in said control hopper to permit passage of a primary charge of material to said scale hopper, a precision feed gate adjacent and below said inclined main feed gate to permit passage of a secondary charge to said scale hopper upon closing of said main feed gate, and an adjustable divider between said main and precision gates to cause a delay between passage of said primary and secondary charges to said scale hopper.

2,848,186
THROTTLE VALVE ASSEMBLY
Frank C. Bayer, Euclid, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application October 29, 1953, Serial No. 388,985
8 Claims. (Cl. 251—58)

3. A biactual throttle valve assembly for controlling fluid flow comprising a housing having a valve cylinder and a rotatable and linearly movable valve therein, a first piston and cylinder assembly in said housing to control linear movement of said valve in said housing, a rack and

gear assembly in said housing, a rotary shaft assembled with the gear of said rack and gear assembly, said shaft held against axial shifting by said housing, a second piston and cylinder assembly in said housing cooperating with said rack and gear assembly to control rotary movement of said shaft in said housing, a bellows type motion transmitting mechanism in said housing interconnecting said shaft and said valve, an angular inlet fluid flow aperture and an outlet fluid flow aperture in said valve interconnected by a fluid flow passageway, said angular fluid flow inlet aperture in said valve registerable with an angular fluid flow inlet aperture in the housing and said fluid flow outlet in said piston valve registerable with a fluid flow outlet aperture in the housing to control fluid flow linear-



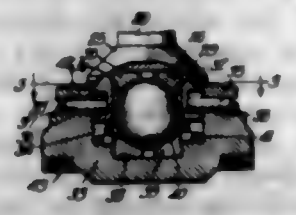
ly with respect to relative axial displacement of the valve and linearly with respect to relative rotational displacement of the valve, said second piston and cylinder assembly in said housing arranged with its axis transversely to the axis of said valve, said rack cooperating with said second piston, said gear associated with said rack and secured to said rotary shaft to thereby rotatably displace said bellows mechanism and said valve and control fluid flow in the cylinder embodying said second piston, whereby the fluid will displace said second piston and the rack cooperating therewith to thereby actuate the gear which rotatably displaces the valve by rotating said shaft and bellows mechanism to control flow of fluid through said angular inlet flow apertures.

2,848,187

BALL TYPE SWIVEL VALVE SEAT

Guy J. Henry, Arlington Heights, Ill.; The Northern Trust Company and Bessie D. Henry, executors of said Guy J. Henry, deceased, assignors to Henry Valve Company, Incorporated, Melrose Park, Ill., a corporation of Illinois

Application January 4, 1954, Serial No. 401,970
4 Claims. (Cl. 251—85)



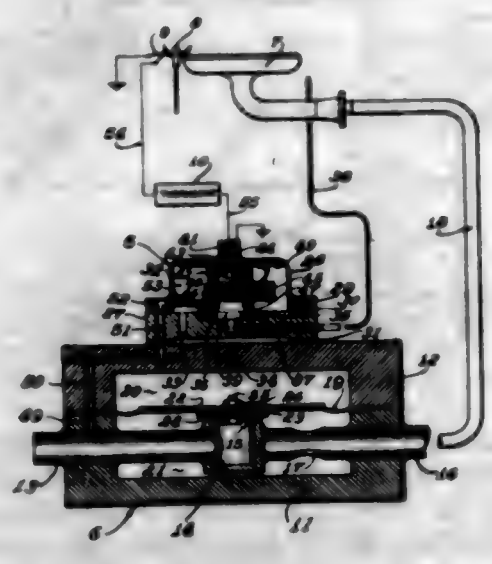
1. A swivel type valve seat comprising a seating member engageable with an annular valve port upon axial movement of said member, a rotatable stem member having means to shift the same axially upon rotative movement thereof, said stem and seating members having portions thereof disposed in axially telescoped relation which are provided with opposed axially aligned insert receiving recesses, a hard thrust ball disposed axially between said members, a thrust insert in each of said recesses between said ball and said members, said inserts each having a conical wear surface engaging the ball to transmit axial thrust from said stem member through said ball and inserts to said seating member upon axial movement of the stem member, resilient means carried in one of said recesses and acting on said members in a direction to separate the same, and connecting means to couple said stem and seating members against axial separation.

2,848,188

MAGNETIC VALVE

Ernst Witzel, Wausau, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin

Application January 22, 1954, Serial No. 405,598
1 Claim. (Cl. 251—141)



In combination: A valve body having a chamber and having a vent passage outlet opening centrally located in the bottom of said chamber and provided therein with a valve seat; a permeable, generally U-shaped magnet frame having a pair of spaced legs terminating in spaced coplanar horizontal pole faces within said chamber spaced above said valve seat, said magnet frame being formed with a fuel inlet passage terminating in a port communicating with one of said pole faces; means for supplying fuel under pressure to said passage; a flux-generating coil on said frame; and a permeable imperforate armature in said chamber coacting with said magnet frame and having upper and lower planar surfaces, said armature being movable in response to energization of said coil from a lowered position wherein the lower armature surface is in sealing engagement with said vent passage valve seat and the upper armature surface is spaced from said magnet pole faces, to a second position wherein the upper armature surface engages the entire surface area of said ported magnet pole face and sealingly closes said fuel inlet passage and the lower armature surface is spaced from said vent passage valve seat, wherefore said chamber is subjected to the fuel pressure of said fuel supplying means when said armature is in said first position and said chamber is isolated from said fuel supplying means and vented to the atmosphere when said armature is in said second position.

2,848,189

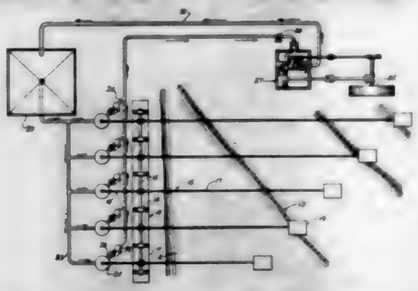
APPARATUS FOR PRODUCING POWER FROM WATER WAVES

John A. Caiola, Elsinore, Calif.

Application April 22, 1955, Serial No. 503,128
2 Claims. (Cl. 253—11)

1. An apparatus for producing power from water waves comprising a support adapted to be positioned adjacent a body of water having waves therein, a horizontally disposed shaft carried by said support, a plurality of levers each fulcrumed intermediate its ends on said shaft and

having the portion between one end and its fulcrum providing a long arm and extending over said body of water and having the portion between the other end and its fulcrum providing a short arm, the long arms of said levers being of varying lengths, a float carried on the free end of each of said long arms and supported on the surface of the water for upward and downward movement in response to the movement of the waves of said water body, an upstanding cylinder having closed upper and lower ends spaced from each of the points of fulcrum of said levers, a piston mounted within said cylinder for reciprocal movement, a piston rod having one end projecting through the upper end of said cylinder and



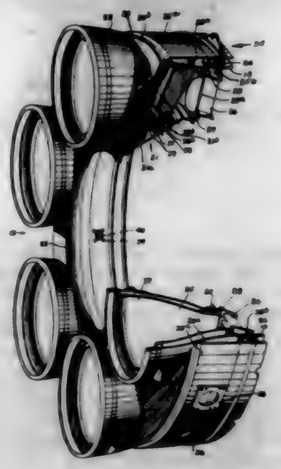
having the lower end operatively connected to said piston for effecting the movement of said piston, the free end of each of the short arms of said levers being connected to the projecting end of said piston rod, a check valved inlet and a check valved outlet at each of the upper and lower ends of said cylinder, a fluid reservoir connected in communication with each of said inlets, a conduit connecting said outlets to the inlet side of a fluid motor, a normally closed relief valve on said last-mentioned conduit operable to open said last-mentioned conduit to the flow of fluid in excess of that needed to drive said fluid motor, and a second conduit connecting the outlet side of said fluid motor to said reservoir.

2,848,190
RADIAL FLOW TURBO-MACHINES
John Charles Barr, Ascot, England, assignor to Power Jets (Research & Development) Limited, London, England, a British company
Application September 28, 1953, Serial No. 382,799
Claims priority, application Great Britain October 2, 1952
4 Claims. (Cl. 253—39)



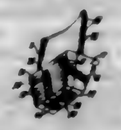
1. A rotor for a radial-flow turbo-machine comprising a hub member having a rotational axis, two axially spaced end faces, a peripheral surface joining said end faces, said peripheral surface being divided axially into a cylindrical portion and an arcuate portion, said arcuate portion having a shape generated by a circular arc oblique to said rotational axis, the shape of said arcuate portion having said rotational axis as its axis of generation, the radial distance between said rotational axis and the arcuate portion of said peripheral surface increasing from one of said end faces to the cylindrical portion of said peripheral surface, a plurality of slots formed in said hub member adapted to receive and retain root-portions of separately fabricated blades, each of said slots having means to prevent slipping of the root-portion beyond a predetermined point through the slot in the direction of increasing radial distance between said rotational axis and the arcuate portion of said peripheral surface, each of said slots being of constant depth and arcuate throughout its length and lying lengthwise in a plane skewed relatively to a plane containing said rotational axis at such an angle that the intersection of said skewed plane and the arcuate portion of said peripheral surface defines a locus of said circular arc.

2,848,191
NOZZLE BOX
Robert Mitchell Sachs and Lloyd Calvin Secord, Toronto, Ontario, Canada, assignors to A. V. Roe Canada Limited, Malton, Ontario, Canada, a corporation
Application November 3, 1951, Serial No. 254,712
2 Claims. (Cl. 253—39.1)



1. A nozzle box structure for a gas turbine engine, comprising an outer casing having a generally radially disposed annular wall and a generally axially directed side wall connected to the outer circumference of the annular wall, an inner casing having a generally axially directed side wall and connected to the inner circumference of the annular wall and surrounding a source of waste cooling air, the casings together forming a channel-sectioned annulus having substantially cylindrical side walls, an open side directed downstream of the engine, the annular wall having spaced-apart port structures projecting into said nozzle box structure for the intake of heated air and the side walls having apertures axially aligned with the spaces between the port structures, substantially radially-extending rigid hollow struts rigidly secured at their ends to the axially extending side walls of the annulus with the wall of each of the struts surrounding one of said apertures in each of the side walls, a channel-section ring secured to the outer side wall to define with a part of the said wall an annular passage in communication with the interiors of the hollow struts and having a cylindrical wall radially spaced from the outer side wall and annular flanges extending from the cylindrical wall to the outer side wall of the casing annulus, and an opening in the cylindrical wall providing an outlet for discharging air, the hollow struts and the annular passage together providing a flow path for the said waste cooling air in contact with the walls of the struts and passage, including the outer side wall of the annulus.

2,848,192
MULTI-PIECE HOLLOW TURBINE BUCKET
John R. Hayes, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 12, 1953, Serial No. 341,907
12 Claims. (Cl. 253—39.15)



1. A turbine bucket or the like comprising, in combination, two parts defining the respective faces of the blade portion of the bucket and a key in dovetail engagement with the two said parts and holding them in opposed abutting relation, each of the parts and the key being provided with a base portion adapted for mounting in, and retention against movement longitudinally of the blade by, a turbine rotor or the like.

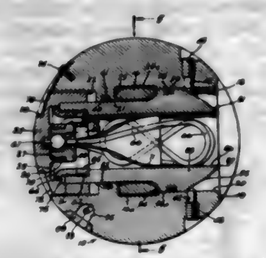
2,848,193
AIR COOLED TURBOMACHINE BLADING
Bert E. Sells, Hamilton, Ohio, and Francis D. Doherty, Winchester, Mass., assignors to General Electric Company, a corporation of New York
Application April 8, 1953, Serial No. 347,426
7 Claims. (Cl. 253—39.15)



1. As an article of manufacture, blading for a turbomachine comprising a base portion and a hollow upper blade member having front and back sections and longitudinal partitions whose planes extend angularly of the longitudinal axis of the blading and radially outwardly from the base portion, said partitions being disposed between and spacing said sections with alternate partitions being fastened to the same section.

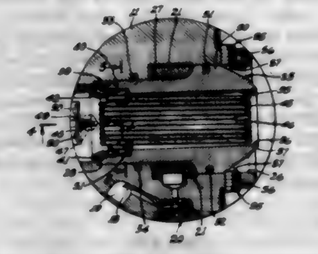
2,848,194
SIDEWALL SAMPLER
Forrest V. Porter, Monterey Park, Calif., assignor, by mesne assignments, to Dresser Industries, Inc., Dallas, Tex., a corporation of Delaware
Application June 28, 1954, Serial No. 439,629
15 Claims. (Cl. 255—1.4)

1. A sidewall sampler comprising in combination: a gun body having a shooting bore therein; a hollow, sample-taking projectile in said bore and of substantially the same length as said bore; cooperating means on said gun body and on said projectile forming a chamber intermediate the ends of said bore for receiving a propellent charge and providing an acting surface on the projectile for said charge for propelling said projectile from said bore; means for adjusting the size of said chamber including a closure member closing the rear end of said bore having means for limiting the rearward position of said projectile in said bore; and a flexible, projectile-retrieving member initially



disposed substantially wholly within the hollow of said projectile and having one end thereof secured adjacent the rear end of said bore and the other end thereof secured to said projectile.

2,848,195
FORMATION SAMPLER
Forrest V. Porter, Monterey Park, Calif., assignor, by mesne assignments, to Dresser Industries, Inc., Dallas, Tex., a corporation of Delaware
Application September 17, 1956, Serial No. 610,278
16 Claims. (Cl. 255—1.4)

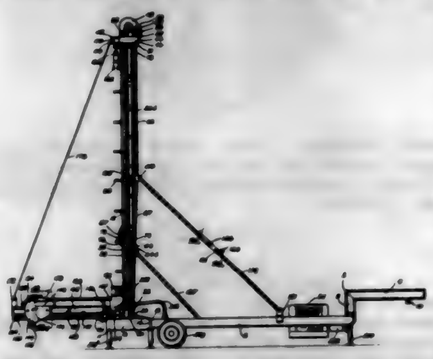


1. A device for obtaining samples of formations traversed by earth boreholes comprising: a gun body adapted to be lowered into a borehole; a gun bore in said body; a tubular sampling projectile initially contained in said gun bore and having an axial passage therein open at the rear end thereof; propulsion means, including a combustible propellent, operatively associated with said gun bore and projectile for propelling said projectile axially from said gun bore into an adjacent formation wall; and at least one elongated, flexible connector member initially positioned and substantially wholly contained within said axial passage in said projectile and having one end thereof attached by a projectile-attachment means to said projectile adjacent the rear end thereof; and having the other end thereof extending out through the rear end opening of said axial passage and attached by a gun body attachment means to the gun body adjacent the rear end of said gun bore.

2,848,196
PORTABLE DRILLING RIG
Wayne W. Simmonds, Tulsa, Okla., assignor to John H. Lucas, trustee for Wayne W. Simmonds and Arlie J. Simmonds, Kansas City, Mo.
Application October 17, 1955, Serial No. 540,821
13 Claims. (Cl. 255—19)

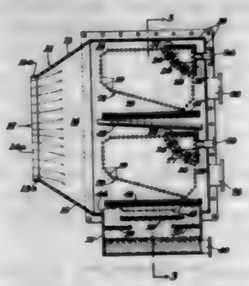
1. A drilling rig of the character described mounted on a vehicle having a frame and having a mast including spaced standards pivotally mounted on said vehicle frame, a head on said mast, a motor having a shaft on said head, a frame slidably mounted in said mast and having

guides engaging said standards, a rotatable drilling head swingably mounted in said last-named frame, said drilling head including a drive spindle, means on said last-named frame for rotating said drilling head, a shaft rotatably mounted on said mast head, gear means including a shaft on said mast head having driving connection with one end of said shaft, chain and sprocket means mounted in spaced relation on said shaft and the lower portion of the mast and having connection with said guides, means on said motor shaft having connection with said gear means



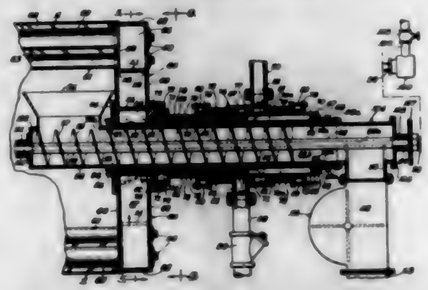
shaft for rotating said rotatable shaft, brace means pivotally connected to said mast and to the vehicle frame, said brace means being foldable upon lowering of said mast, a second brace having one end pivotally connected to the vehicle frame, means on the other end of the last-named brace for pivotally connecting same to said drive spindle on the rotatable head whereby operation of said motor on the mast head in one direction will lower said rotating head to raise said mast and operation of the motor in the opposite direction will lower said mast for transportation on said vehicle.

2,848,197
CONDENSER
George W. Evans, Jr., Teaneck, N. J., and George A. Worn, Greenwich, Conn., assignors to The Lummus Company, New York, N. Y., a corporation of Delaware
Application September 2, 1955, Serial No. 532,176
3 Claims. (Cl. 257—43)



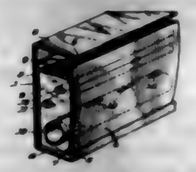
1. The combination of a surface condenser unit including a shell, a nest of substantially horizontal condensing tubes within the shell, means for circulating cooling water through the tubes, the shell having a side steam inlet passage for conducting steam in a substantially horizontal direction to the tube nest for condensation, a hot well positioned below the tube nest to receive partially deaerated steam condensate from said tubes, a substantially horizontal baffle plate located within the shell and dividing the nest into separate groups of tubes, one above the other, said baffle plate being so disposed as to collect condensate from the upper group of tubes and direct such condensate in a separate path away from said inlet passage for discharge into said hot well, a horizontally disposed perforated tray located below said upper group of tubes and above said baffle plate to intercept condensate from said upper group of tubes and shower it in divided streams to said plate whereby said condensate is substantially reheated and partially deaerated by steam passing between said groups of tubes, a second horizontally disposed perforated tray located beneath the lower group of tubes and above said hot well to collect condensate from said tubes and shower it in divided streams downwardly for discharge into said hot well whereby said condensate is substantially reheated and partially deaerated by steam passing under said lower group of tubes, a deaerating device within said hot well to complete deaeration of condensate from the separate discharge paths, and air off-take means leading from a relatively cool portion of each group of tubes and spaced from said side steam inlet passage for removing non-condensable vapors.

2,848,198
FLUID JOINT AND PROCESSED MATERIAL DISCHARGE ASSEMBLY FOR ROTARY PROCESSING VESSELS
Clifford E. Bill, Louisville, Ky., assignor to General American Transportation Corporation, Chicago, Ill., a corporation of New York
Application January 28, 1957, Serial No. 636,610
27 Claims. (Cl. 257—92)



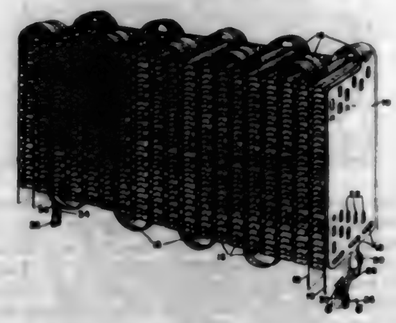
1. In combination with an elongated hermetically sealed vessel for processing material and having a processed material discharge end provided with an end wall, said vessel being mounted for rotation about the longitudinal axis thereof and having a heat exchange conduit therein adapted to be contacted by material being processed therein; a fluid joint and processed material discharge assembly comprising a cylindrical longitudinally extending sleeve unit mounted in an opening in said end wall and with the axis of said sleeve unit coinciding with the axis of rotation of said vessel, said sleeve unit including a rotatable part hermetically sealed to said end wall and a cooperating stationary part hermetically sealed to said rotatable part, a helical conveyor screw extending axially in said sleeve unit and mounted for rotation therein, the diameter of the flights of said screw being only slightly less than the inner diameter of said sleeve unit so as to provide a relatively close fit therebetween, the length of said screw being such that its inner end is exposed to the interior of said vessel and its outer end is located exteriorly thereof, a manifold encompassing and riding upon a portion of said sleeve unit exteriorly of said vessel, said manifold and said sleeve unit having interconnected passages therein communicating with said heat exchange conduit in said vessel for conducting heat exchange fluid to said conduit, means within the interior of said vessel for feeding the processed material to the inner end of said screw during rotation of said vessel, and means for rotating said screw independently of the rotation of said vessel to carry the processed material in an axial discharging direction through said sleeve unit and to the exterior of said vessel during the rotation of said vessel.

2,848,199
BASEBOARD CONVECTORS
Menke Drewes, Jr., Evanston, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application November 28, 1955, Serial No. 549,278
2 Claims. (Cl. 257—133)



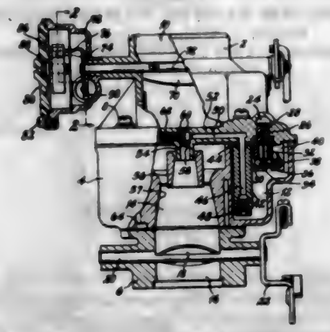
1. A combined heating and cooling apparatus comprising an enclosure, heat exchange means within the said enclosure including a plurality of substantially horizontally disposed tubes having respective inlets and outlets for conducting hot or cold fluids therewithin, additional substantially parallel tubular means within the enclosure below the first named tubes, the latter tubular means being connected to an air supply under pressure and having spaced apart slots at predetermined intervals for emission of air upwardly past the said first named tubes, the said enclosure having a forwardly extending drain pan portion from a rear wall thereof and positioned below the slotted tubular means for collection of condensate from the said tubular means, vertically positioned fins on the said horizontally disposed tubes extending transversely relative to the said tubes and said slotted tubular means, the enclosure having an upper open portion and a lower relieved portion at a forward end portion thereof, the extension of said drain pan forming with said enclosure said lower relieved portion.

2,848,200
HEAT EXCHANGER
James W. Jacobs, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 26, 1954, Serial No. 471,306
1 Claim. (Cl. 257—255)



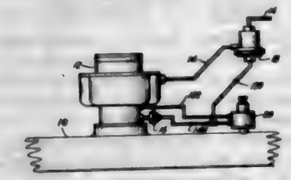
In a heat exchange unit of the type having a plurality of parallel fluid passages, a first relatively flat fluid conduit having a plurality of parallel portions connected by integrally formed relatively flat return bend portions of reduced width, a second relatively flat fluid conduit having a plurality of parallel portions interlaced with the parallel portions of said first conduit and connected by integrally formed relatively flat return bend portions of reduced width arranged in staggered relationship to the return bend portions of said first conduit, and header means connected to said first and second conduits for supplying fluid to said conduits in parallel.

2,848,201
CARBURETOR
Arthur C. Bennett, Penfield, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 21, 1954, Serial No. 457,436
1 Claim. (Cl. 261—39)



In a charge forming device for internal combustion engines having a constant level fuel supply chamber, an intake passage having fuel and air inlets and a mixture outlet for supplying a combustible mixture to said engine, a throttle valve for controlling the flow of mixture to the engine and a choke valve for controlling the admission of air through said inlet; mechanism for automatically controlling the operation of said choke valve comprising thermally responsive means operable to hold the valve closed at low temperatures, a suction operated piston slidable in a cylinder and connected to the choke valve so as to effect movement thereof when the piston is moved in one direction, a suction passage in the wall of said cylinder, said suction passage being so positioned that it will communicate the engine suction to one end of the piston when the choke valve is in closed position, said piston including a land adapted to completely block said suction passage to prevent suction from moving said piston after the choke valve has made a predetermined opening movement, and a passage in the wall of the piston movable into registry with said suction passage after the choke valve has made a further predetermined opening movement, said passage being effective to again communicate the engine suction to the piston to effect opening of the choke valve.

2,848,202
DEGASSER
William E. Leibing, Pasadena, Calif.
Application January 6, 1956, Serial No. 557,789
6 Claims. (Cl. 261—41)



1. A degasser for an internal combustion engine having an intake manifold, a carburetor including an idle

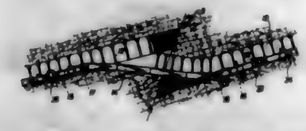
system, an induction passage with a throttle therein, and a fuel supply line, comprising a vacuum actuated valve means for interrupting the flow of fuel from said idle system, a vacuum actuated valve means for interrupting the flow of fuel through said supply line, a vacuum control unit connected to said manifold, a valve in said unit for controlling the vacuum transmitted to said valve means, a means for opening said valve when the manifold vacuum reaches a predetermined degree above that existing at normal idling, and a means connected to the induction passage on the upstream side of the throttle for assisting in the closing of said valve when the throttle is opened.

2,848,203
AERATOR FOR BATH OR WASHING EQUIPMENT
Wiktor S. Misiura, Trenton, N. J.
Application April 12, 1955, Serial No. 500,762
1 Claim. (Cl. 261—124)



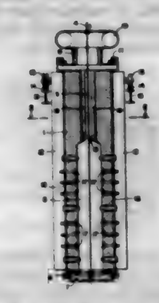
A flat rectangular body support formed to fit within a bath tub, said support being constructed entirely of foldable sheet material comprising a bottom sheet of thin material, a flat strip of thicker material in the form of a rectangular ring cemented to the inner edge portion of said bottom sheet, a plurality of strips of substantially the same width and thickness as the width and thickness of said ring cemented to said bottom sheet inside said ring and in longitudinal relation thereto, said strips being transversely spaced from one another and longitudinally spaced from the respective ends of the ring thereby forming a plurality of relatively narrow longitudinal channels and like intersecting transverse channels at the ends of the ring, said channels being provided with a source of fluid pressure; and a sheet of open mesh fabric cemented to the tops of said ring and other strips over said channels, said meshes providing apertures for the discharge therethrough of fluid pressure from all of said channels.

2,848,204
MINING PLANER FOR USE IN A GALLERY TRAVERSED BY A FAULT
Karl Brandi, Bottrop, Westphalia, and Wulff Rösler, Essen-Margarethenhoehe, Germany, assignors to Gewerkschaft Eisenhuette Westfalia, Lunen, Westphalia, Germany
Application January 8, 1954, Serial No. 402,924
Claims priority, application Germany January 9, 1953
9 Claims. (Cl. 262—8)



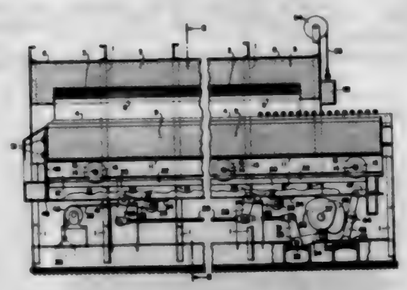
1. In a mining planer having a planer cutter movable back and forth along the forward portion of a longitudinally extending conveyor by means of a flexible traction element driven between drive means and reversing means, the improvement which comprises the conveyor being formed of individual conveyor sections, at least some of said sections being pivotably connected together for limited motion in a vertical direction, and means for adjusting the position of one of said drive means and reversing means along the length of the conveyor whereby the conveyor may be extended through a fault with the drive and reversing means positioned on one side of the fault with the planer cutter operated therebetween.

2,848,205
STRIP HEATING APPARATUS
Frederic O. Hess, Philadelphia, Pa., assignor to Selas Corporation of America, a corporation of Pennsylvania
Application September 24, 1956, Serial No. 611,790
14 Claims. (Cl. 263—3)



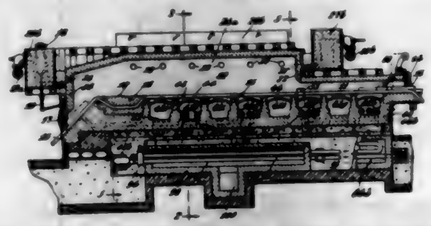
4. The method of heating strip material continuously which comprises moving the strip continuously through a preheating zone and a heating zone, heating the strip in said heating zone with radiant heat and convection heat produced by burning a combustible fuel mixture in the presence of said strip, moving the gaseous products of combustion from the heating zone through the preheating zone, and directing the gases as they pass through the preheating zone in such a manner that they will transfer more heat to the center portion of the strip than to the edge portions thereof to thereby preheat the center of the strip a greater amount than its edges.

2,848,206
FURNACE STRUCTURE
James Kniveton, Wyncote, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application October 14, 1954, Serial No. 462,175
2 Claims. (Cl. 263—6)



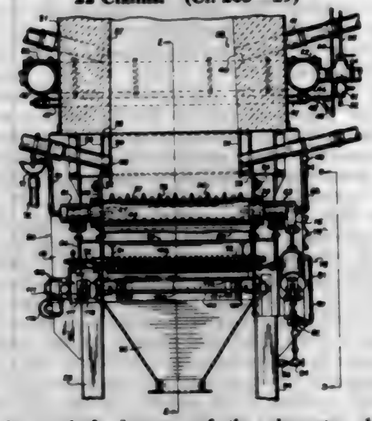
1. In a furnace, the combination of mechanism including a horizontal frame, said mechanism including means to move said frame in a vertical direction and means to move said frame in a horizontal direction, an elongated furnace floor subject to changes in length due to changes in furnace temperature, said floor being mounted on said frame, means between said floor and frame operative to permit relative longitudinal movement between the two, a connection between said frame and one point on said floor whereby the remainder of said floor, upon expansion and contraction thereof, may move relative to said frame, and structure forming furnace side walls and roof above said floor and separate therefrom.

2,848,207
APPARATUS FOR THE SCALE FREE HEATING OF METALS
Frank A. Rascinao, New York, N. Y., assignor to Metallurgical Processes Co., Newark, N. J., a corporation of New Jersey
Application September 15, 1955, Serial No. 534,587
6 Claims. (Cl. 263—15)



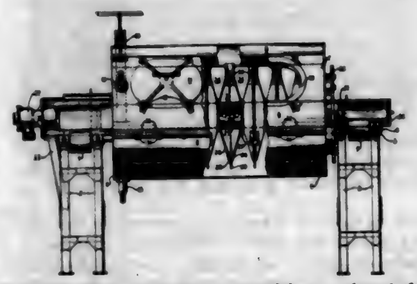
1. A furnace for the scale-free heating of metal comprising a work heating chamber, a plurality of primary combustion chambers disposed about the periphery of said work heating chamber, means for supplying fuel and primary air to said primary combustion chambers, the rates of air to fuel being substantially less than that required for complete combustion, ports extending directly from said primary combustion chamber into said work heating chamber and distributed substantially uniformly about said periphery whereby said primary combustion products will pass into and form a gaseous atmosphere in said work heating chamber, a plurality of secondary combustion chambers disposed beneath said work heating chamber and separated therefrom by refractory walls composed of a material having relatively good heat conductivity, means for venting the atmosphere from said work heating chamber to said secondary combustion chambers, means for supplying supplemental air to secondary combustion chambers in an amount to support secondary combustion of said vented atmosphere, means for exhausting said secondary combustion products from said secondary combustion chambers, and means for passing said primary and supplemental air in heat transfer relation to said exhausted secondary combustion products.

2,848,208
SHAFT FURNACE FOR INDURATING PELLETS
Ira H. Wynne, Milwaukee, and Henry K. Martin, Montreal, Wis., and Kenneth M. Haley, Ashland, Ky., assignors to Ogiebay, Norton and Company, Cleveland, Ohio, a corporation of Delaware
Application June 21, 1951, Serial No. 232,686
22 Claims. (Cl. 263—29)



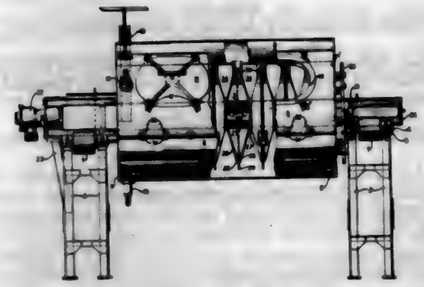
13. In a shaft furnace of the character described having a heating zone for heating pellets, a plurality of spaced breaker rolls below the heating zone and extending horizontally transversely of the furnace with their axes parallel, said rolls having spaced outwardly extending projections, means journalling said rolls in said furnace for individual rocking movement and supporting said rolls in spaced relation such that each of said rolls is spaced from the adjacent rolls a distance sufficient to permit the passage of individual pellets but sufficiently close to one another that the passage of large clusters of pellets is blocked, individual power actuated means operatively connected to each of said rolls to effect individual rocking movement thereof, the said power actuated means each including a motion producing member and a compressible medium acting thereon, and means to control the operation of said power operated means and thereby control rocking of said rolls.

2,848,209
DEHYDRATING APPARATUS
Charles E. Compton, Bridgeport, W. Va.
Application April 16, 1954, Serial No. 423,781
18 Claims. (Cl. 263—34)



15. Dehydrating apparatus comprising a closed drum within which gypsum or the like to be dehydrated is adapted to be disposed, a tube within the drum, an annular accordion-like structure disposed about the tube and forming alternate internal pockets for heating medium and external pockets for the gypsum or the like, the internal pockets being in communication with the interior of the tube, means for introducing heating medium into the tube and means connected with the annular accordion-like structure at the outer ends of the internal pockets receiving and conveying away the heating medium.

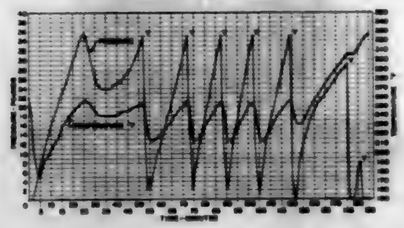
2,848,210
DEHYDRATING GYPSUM OR THE LIKE
Charles E. Compton, Bridgeport, W. Va.
Application April 16, 1954, Serial No. 423,805
1 Claim. (Cl. 263—53)



A method of treating gypsum in a batch process comprising at least partially dividing a mass of gypsum in a closed chamber into smaller masses confined at their sides by generally upright heating surfaces, causing the gypsum to shift relatively to said surfaces while

maintaining the at least partially divided smaller masses confined at their sides by said generally upright heating surfaces by turning the chamber about a generally horizontal axis, preheating the gypsum by conducting heat thereto through said generally upright heating surfaces while the chamber is turning about the generally horizontal axis so that the free moisture driven off from the gypsum builds up steam pressure in the chamber, and subsequently calcining the gypsum by driving off the water of crystallization by conducting heat thereto through said generally upright heating surfaces also while the chamber is turning about the generally horizontal axis and during the calcining venting the chamber to atmosphere to gradually reduce the pressure of the steam in the chamber.

2,848,211
DEHYDRATING GYPSUM OR THE LIKE
Richard R. Ruehle, Clarksburg, W. Va., assignor to Charles E. Compton, Bridgeport, W. Va.
Application January 9, 1956, Serial No. 558,046
9 Claims. (Cl. 263—53)



1. A method of dehydrating gypsum or the like comprising introducing into a dehydrating chamber a mass of pieces of gypsum or the like, substantially sealing the mass of pieces of gypsum or the like in the dehydrating chamber, applying heat to the mass of pieces of gypsum or the like by conduction through the wall of the dehydrating chamber while the mass of pieces of gypsum or the like remains sealed in the dehydrating chamber, resulting in driving off moisture from the pieces of gypsum or the like and forming steam in the dehydrating chamber, and, while continuing to apply heat to the mass of pieces of gypsum or the like by conduction through the wall of the dehydrating chamber, alternately venting the dehydrating chamber and sealing the dehydrating chamber for periods of at least several minutes during which the pressure in the dehydrating chamber builds up and thereby causing the pressure in the dehydrating chamber to alternately rise and fall until the gypsum or the like is substantially dehydrated to calcium sulphate hemihydrate.

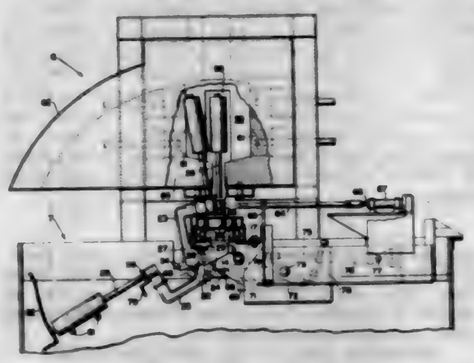
2,848,212
PRESSURE RELIEF DEVICE FOR HYDRAULIC WEIGHING
Norman Edward Kerridge, Saltford, near Bristol, England, assignor to Stothert & Pitt, Limited, Bath, England, a company of Great Britain
Application May 17, 1954, Serial No. 430,296
Claims priority, application Great Britain May 22, 1953
10 Claims. (Cl. 265—47)

1. In apparatus for loading measured quantities of materials into a receptacle, the combination of a load skip, lifting gear for raising the skip from loading position to a position for discharge into the receptacle and vice versa, guide means for the skip by which it is guided to and from discharge position and means for weighing the skip with its contents when in the loading position, comprising a ram device having a ram element movable into and out of engagement with the skip so that its weight is transferred from the lifting gear to the ram element, a pressure fluid circuit including a reservoir having a pump for transmitting pressure to the ram device to produce a displacement thereof to engage the skip, a gauge for measuring the pressure in the circuit, and means controlled by the upward movement of the skip



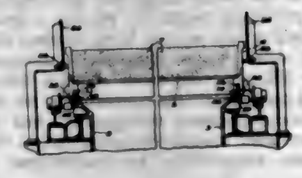
which is automatic on movement of the skip by the lifting gear to the discharge position to relieve pressure in the pressure side of the ram device to permit movement of the latter to a position where it is clear of the skip when the latter is in ground position.

2,848,213
HEAT TREATING MACHINE
Quentin M. Bloom, Huntingdon Valley, and Samuel H. Herman, Philadelphia, Pa., assignors to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application June 8, 1955, Serial No. 513,936
14 Claims. (Cl. 266—4)



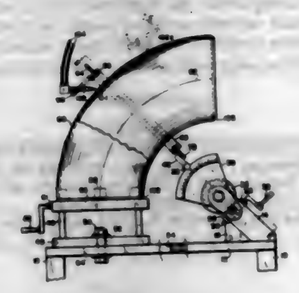
1. In apparatus for operating successively upon a plurality of articles, the combination of a conveyor movable through a closed horizontal path, a plurality of article supporting members carried by said conveyor, means to mount each of said members on said conveyor for pivotal movement relative thereto from a normal substantially vertical position to a second position at an angle to the vertical, said mounting means including a pivot and means to hold said members on opposite sides of a vertical plane extending through said pivot when in their respective vertical positions and second positions whereby said members will stay in either position when moved thereto, mechanism located adjacent to said path including means to move said members out of the vertical position and means to control movement of said members to said second position, means extending adjacent to said path and engaged by said members to determine said second position, additional mechanism located adjacent to said path to move said members from said second position to the vertical position, and means to operate on articles carried by said members in both positions thereof.

2,848,214
SINTERING APPARATUS
Wilfred C. Schofield, Chicago, Ill., assignor to Koppers Company, Inc., a corporation of Delaware
Application October 11, 1955, Serial No. 539,747
2 Claims. (Cl. 266—21)



1. A continuous sintering machine comprising: an endless track having an upper and lower run; a wind box having an upper opening adjacent the upper run of said track and a seal wearing bar fixed relative to said opening; an endless train of pallets adapted to ride along the runs of said track past said wind box opening in the upper run; gravity seal bars floatingly suspended from said pallets by a pin and slot connection and of a weight to seal by their own weight by gravity on said seal wearing bar in the upper run; and yieldable spring pressure means in an intermediate relation, between said pallets and said gravity seal bars, to constantly urge said seal bars in both runs of said track away from said pallets in a direction to contact said seal wear bars, to prevent sticking of said bars by cinder in the pin and slot connection between the pin and the end of the slot remote from the sealing edge of the gravity seal bars.

2,848,215
CUTTING MACHINE FOR CURVED PIPE
Earl K. Pendergrass, Canonsburg, Pa.
Application August 8, 1956, Serial No. 602,730
8 Claims. (Cl. 266—23)



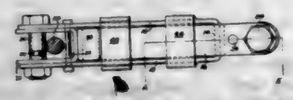
2. Apparatus having a pair of relatively shiftable supports arranged thereon with one adapted to hold a curved elbow in an erected position, traveling torch holding means having swinging arms connected to and supporting the same from their outer ends, a block having a slide connection to the inner end of said swinging arms enabling the latter to adjust the torch holding means in the plane of travel thereof, and having a trunnion joint connecting it to said other support, means operative at said slide connection to hold the arms fast to said block to fix the adjusted position of travel of the torch holding means at a fixed effective length for those arms, and means operable to rotate said trunnion joint to different positions of adjustment and effective to hold the block fast in the position of relative rotation assumed thereby upon said other support.

2,848,216
SHOCK ABSORBING ATTACHMENT FOR THROTTLE RODS AND THE LIKE
Alfred N. McGurk, Denver, Colo.
Application January 11, 1955, Serial No. 481,894
2 Claims. (Cl. 267—1)



1. A shock absorbing attachment for throttle rods and the like of motor vehicles, comprising a cylindrical casing of light weight material, the inner surface of the casing being reamed and reduced in thickness adjacent one end, an annular shoulder at the inner end of the said reamed portion, an internally screw threaded plug press fitted into the reamed end of the casing and bearing against said shoulder, the outer end of the plug being cut away peripherally, the outer circumferential edge of the casing being inturned flush with the plug end and occupying the space formed by the cutting away of the plug end, a first rod having a reduced threaded end engaging the threaded plug, the end surface of the rod adjacent said reduced end bearing against the plug, resilient means in the casing adjacent the inner end of the plug, a second internally threaded plug slidable axially in the casing, an annular groove on the inner surface of the casing at the end adjacent said slidable plug, a ring fitted into said groove and projecting inwardly beyond the casing surface into contact with the end surface of the slidable plug, and a second rod having a threaded end engaging the said second plug and extending outwardly from the casing in axial alignment with said first rod.

2,848,217
TENSION DEVICE
Henry St. Pierre, Worcester, Mass.
Application August 22, 1955, Serial No. 529,623
2 Claims. (Cl. 267—71)

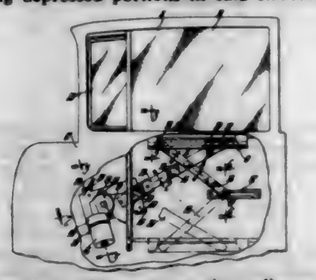


1. A device of the class described comprising a pair of elongated U-shaped brackets each having a closed end and an opposite open end, said brackets being assembled in telescoping relation with the open ends thereof extending in opposite directions and the closed end of each bracket being located within the respective arms of the opposite bracket, a resilient cushion device located between the two closed ends and included within the several respective arms of the two brackets, stop means fixed to each bracket adjacent the open end thereof, said stop means comprising U-shaped members having closed ends extending inwardly from the open ends of the U-shaped brackets and each U-shaped member contacting the closed end of the opposite U-shaped bracket.

2,848,218
WINDOW REGULATOR
James D. Leslie, Birmingham, Clyde H. Schamel, Royal Oak, and Claud S. Semar, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 24, 1953, Serial No. 393,986
4 Claims. (Cl. 268—124)

2. A window regulator adapted to be installed on a structure for moving a window into and out of an opening in said structure, said regulator including a frame comprising an elongated member with a raised center portion extending longitudinally thereof and a pair of

offset edge portions that extend along each side of said center portion substantially parallel thereto, said edge portions forming mounting means adapted to be secured to said vehicle structure and having resilient fingers thereon engaging depressed portions in said structure, power



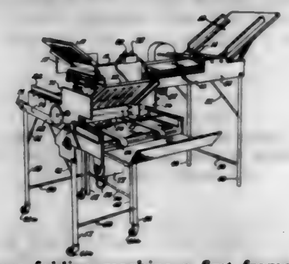
means secured to said center portion adjacent one end thereof, a linkage mechanism having at least a portion thereof mounted on said center portion adjacent the opposite end thereof and in driving relation to said power means for connection to said window.

2,848,219

PAPER FEEDING MACHINE

David C. Beck, Sidney, Ohio, assignor to The Liberty Folder Company, Sidney, Ohio, a corporation of Ohio

Application January 3, 1957, Serial No. 632,374
1 Claim. (Cl. 270—68)



In a paper folding machine a first frame mounting a first folding unit comprising conveying means, a series of folding and creasing rolls and an electrical motor including driving elements arranged to drive said conveying means and said series of folding and creasing rolls, a second frame mounting a second folding unit comprising second conveying means, a second series of folding and creasing rolls, and a second electrical motor including driving elements arranged to drive said second conveying means and said second series of folding and creasing rolls, said first frame and said second frame comprising supporting members of different elevations whereby workpieces emerging from the said first mentioned series of folding and creasing rolls are deposited on the said second conveying means, said first frame and said second frame also comprising bracket members adapted to retain the said frames in rectilinear alignment whereby parallel folds only will be imparted to workpieces, said bracket members also being adapted to selectively retain the said frames in right angled relation whereby both parallel folds and folds at right angles thereto will be imparted to workpieces.

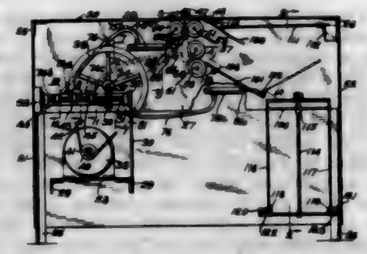
2,848,220

DIAPER FOLDING MACHINES

Billy J. Anderson, Denver, Colo.

Application May 10, 1956, Serial No. 584,947
10 Claims. (Cl. 270—84)

1. A folding machine comprising: a supporting surface having a slot therein sized to pass an article to be folded; a first pair of feed rollers mounted for rotation in side-by-side contacting relation beneath the slot and in alignment therewith, said first pair of rollers providing means for placing a first fold in an article to be folded placed therebetween; a second pair of feed rollers mounted for rotation one above the other in contacting relation beneath one of the rollers of the first pair, said second pair of rollers providing means for placing a second fold in a once-folded article passing from between the first pair of rollers; drive means operatively connected to the rollers for effecting continuous rotation thereof; a first and second cam operatively connected to the drive means for continuous rotational movement; a first and second hydraulic cylinder operatively connected to the first and second cams, respectively, for intermittent movement,



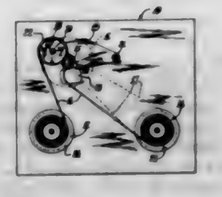
said second hydraulic cylinder operating in time-delay relation to said first cylinder; a first arm operatively connected to the first hydraulic cylinder for intermittent pivotal movement between an inoperative position above the supporting surface to an operating position within the slot whereby an article to be folded lying across the slot will be inserted between the first pair of rollers; a second arm operatively connected to the second hydraulic cylinder for movement in time-delay relation to said first arm between an inoperative position in spaced relation to the second pair of rollers whereby a once-folded article passing from the first pair of rollers can move between said second arm and second pair of rollers and an operative position whereby said once-folded article is inserted between said second pair of rollers.

2,848,221

MAGNETIC RECORDER DRIVE MECHANISM

Marvin Camras, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois

Application February 8, 1954, Serial No. 408,679
5 Claims. (Cl. 271—2.3)



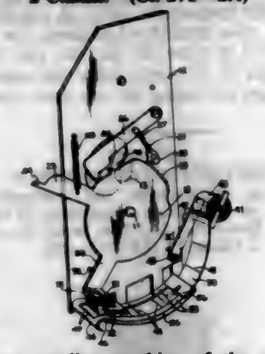
1. In a tape driving mechanism, a capstan having at least a portion of uniform diameter, means arranged to receive tape of a width less than the axial length of said portion and to guide the tape over a central part of said portion, and a wheel having a portion aligned and coextensive with said portion of said capstan for holding the tape thereagainst, said portion of said wheel having a plurality of axially spaced annular grooves.

2,848,222

COIN-CONTROLLED STAMP VENDING MACHINES

Morgan S. Lewis, Oaklawn, Ill., assignor, by mesne assignments, of one-half to Morgan S. Lewis, Oaklawn, and one-half to William B. Fitzgerald, Chicago, Ill.

Application June 29, 1953, Serial No. 364,655
2 Claims. (Cl. 271—2.4)



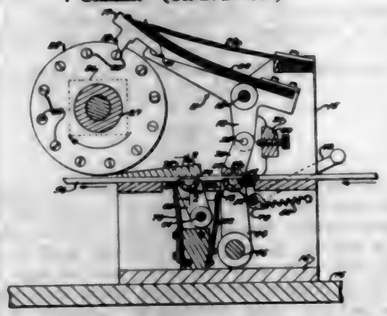
1. A stamp vending machine of the class described comprising a relatively flat mounting plate, an arcuate track carried by the plate adjacent one end thereof and providing a guideway for a perforated web of stamps to be moved therethrough, a disc mounted in facial relation with respect to one side of the plate and having an extension extending radially from the peripheral edge of the disc, stamp-engaging means carried by the outer end portion of the extension to engage the web of stamps within the guideway, said stamp engaging means comprising a foot provided by said extension and extending laterally therefrom, a plurality of independently movable fingers pivotally carried by said foot, each of said fingers being substantially triangular in elevation with the apex thereof disposed to engage in an adjacent perforation of said web of stamps, and a coil spring carried by the foot and having the convolutions thereof engaging the top edge of said fingers to individually bias said fingers in a direction to dispose the apex thereof in said adjacent perforation of said web of stamps, and means for rotating said disc to effectuate movement of said web of stamps intermittently through said guideway by said perforation-engaging fingers.

2,848,223

ADJUSTABLE TAPE FEEDING MECHANISM

Robert O. Birchler, Cicero, Elmer W. Larsen, Elmhurst, and Clarence R. Rasmussen, La Grange, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application November 30, 1954, Serial No. 472,011
7 Claims. (Cl. 271—2.5)



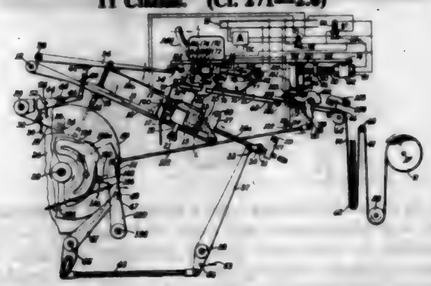
1. A device for feeding material comprising a pair of cooperating members for gripping the material to advance it, means for actuating the members to grip and advance the material, means for guiding the material, means for adjusting the travel of the members to vary the distance the material is fed, means preventing backward movement of said material, means for actuating the cooperating members into inoperative position whereby material can be inserted therebetween, and means responsive to movement of the cooperating members into inoperative position for rendering said backward preventing means inoperative.

2,848,224

REGISTRATION DEVICE FOR WRAPPING MACHINES

Thormod Jensen, Laurelton, N. Y., assignor to American Machine & Foundry Company, a corporation of New Jersey

Original application July 1, 1947, Serial No. 758,417, now Patent No. 2,611,224, dated September 23, 1952. Divided and this application September 20, 1952, Serial No. 310,713
11 Claims. (Cl. 271—2.6)



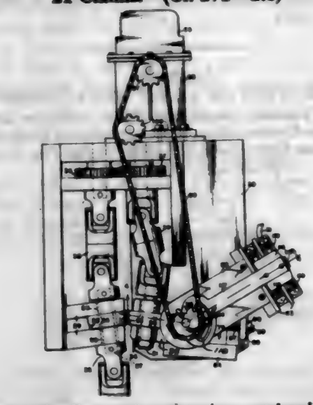
9. The combination with an intermittent web feeding device, a web having spaced indicia located thereon, means independent of and operative during the intermittency of said web feed to re-position the leading end of said web, a mechanism controlling said means and sensitive to said indicia and operative during the intermittency of said feed to inactivate said web re-positioning means when said web re-positioning means have moved said web so that one of said indicia is in a predetermined position.

2,848,225

TAG MAKING MACHINE AND METHOD

Lloyd R. Price, Darien, Conn., and Robert T. Ferguson, Jr., Charlotte, N. C., assignors to Robinson Tag & Label Company, New York, N. Y., a corporation of New York

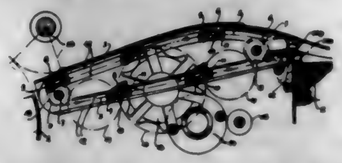
Application February 10, 1956, Serial No. 564,654
21 Claims. (Cl. 271—2.6)



1. A web feeding and registering mechanism for feeding an elongated web having recurrent patterns printed

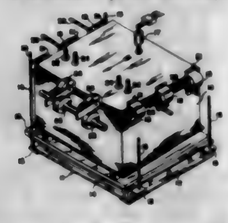
thereon in equally spaced relation to an operating station, comprising a pair of opposed feed rolls by and between which a web is adapted to be fed, at least one of said rolls having a generally toric periphery of such a nature that the diameter thereof progressively increases from a minimum adjacent one side thereof to a maximum adjacent the other side thereof, means for driving said rolls in unison in opposite directions, and means by which the angular relation of the axes of said rolls with respect to each other is automatically changed while maintaining said rolls in contact with a web therebetween.

2,848,226
SHEET-SUPPLYING DEVICE FOR PRINTING AND PAPER-WORKING MACHINES
Artur Buttner, Karl Barthel, and Ludwig Jung, Heidelberg, Germany, assignors to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany
Application October 14, 1953, Serial No. 385,984
Claims priority, application Germany April 11, 1953
10 Claims. (Cl. 271—12)



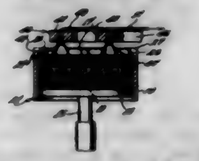
1. A device for feeding from a supply stack paper sheets along a predetermined path with said sheets in overlap formation to each other toward abutment markings adjacent a cylinder printing press and like paper working machine; comprising a plurality of paper sheet gripping units comprising grippers arranged at a predetermined distance from each other, a support for sheets when fed from said stack to said markings, said support being located between said stack and said press, endless transporting means located beneath said support and disposed to extend between said stack of paper sheets and said abutment markings, drive means for intermittently and unidirectionally moving said transporting means along said support, and means connecting said transporting means with said gripping units, whose distance from each other is smaller than the length of each paper sheet to be fed, said gripping units being respectively engageable with said sheets from said stack and extending through said support when said grippers are moved past said stack by said transporting means in a manner diposing said sheets in overlap formation on said support, and so that when one of said gripping units is positioned at said abutment markings, another gripping unit receives a sheet from said supply stack.

2,848,227
SEPARATION OF FILED METAL SHEETS
Kenneth H. Gulick, Northfield, Ohio, assignor to Harris-Intertype Corporation, a corporation of Delaware
Application September 12, 1955, Serial No. 533,640
2 Claims. (Cl. 271—18)



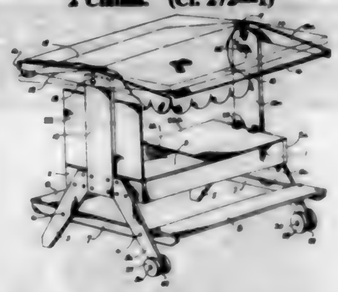
1. In a pile feeder for feeding magnetizable sheets one at a time from the top thereof, horseshoe magnets adjacent at least one side edge of the pile, said magnets having their magnetic poles vertically spaced approximately opposite the top of the pile, means for maintaining the top level of the body of the pile between predetermined high and low limits, said magnets holding the side edges of the uppermost sheets fanned out with the edge of the top sheet at approximately the same level regardless of the level of the body of the pile, air blast means located at a fixed level adjacent the top of the pile and directed to blow air into the pile through the fanned out edges of the sheets below the edge of the top sheet, and means for taking the top sheet and feeding it from the pile.

2,848,228
SHEET FEEDING ASSEMBLY
John J. Kimbro, Indianapolis, Ind., assignor to Radio Corporation of America, a corporation of Delaware
Application December 30, 1954, Serial No. 478,671
2 Claims. (Cl. 271—26)



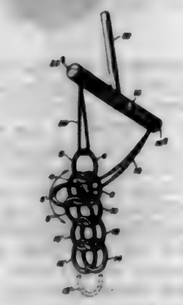
1. A label pickup assembly for labels having a central aperture comprising, in combination, a support member for a stack of labels, a centering pin on said supporting member for aligning said labels, a sleeve member for enclosing said labels and said support member adapted to move in a vertical direction relative to said support member, said sleeve being provided with an inwardly extending, substantially continuous flange at one end whereby said sleeve is supported on said label stack, said flange overlapping the periphery of said labels, said sleeve being provided with a taper between said flange and said sleeve wall, said sleeve being provided with a slot at its flanged end extending through the flanged portion of said sleeve, and suction pickup means dimensioned to extend within the flanged portion of said sleeve to engage the top label on said stack.

2,848,229
COMBINATION SAND BOX AND TABLE
Edgar E. Miller, Kent, Wash.
Application June 6, 1955, Serial No. 513,339
2 Claims. (Cl. 272—1)



1. A device of the character described comprising a frame structure which includes a rectangular box-like member having opposite sidewalls, opposite end walls and a bottom, paired supporting legs fixed to the opposite end walls with the lower ends of each pair of legs being downwardly diverging, plank seats supported from said legs along the opposite sidewalls, a pair of lids forming a cover for the box-like member, standards fixed to the opposite end walls, one of said pair of lids being hinged to each standard and against which said lids may be swung when raised to open position and latches on said standards for holding said lids in open position.

2,848,230
AMUSEMENT DEVICE
Earll R. Muddiman, Levittown, Pa.
Application April 25, 1956, Serial No. 580,523
5 Claims. (Cl. 272—3)



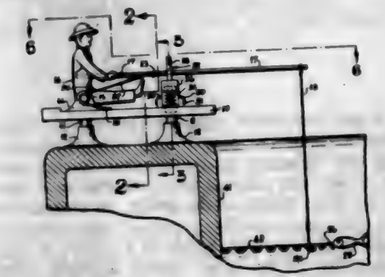
1. An amusement device comprising a first link, a plurality of pairs of links, said first link passing through the first pair of links, one of the second pair of links passing through both of the first pair of links and the other of the second pair of links passing through only one of the first pair of links, the first named of said second pair of links passing through only one of the third pair of links and the second named of said second pair of links passing through both of the third pair of links, the remaining pairs of links being arranged in like manner so that the link in each pair passing through both of the links of the preceding pair of links passes through only one of the links of the next succeeding pair of links and the link in each pair passing through only one of the links of the preceding pair of links passes through both of the links of the next succeeding pair of links, a final link passing through both of the final pair of links, a support for said first link, and a support for the link of the first pair of links that passes through only one link of the second pair of links, said supports including an elongated rigid rod, and a pair of elongated flexible connectors attached to said rod one adjacent each end thereof, the free end of one of said connectors being attached to said first link and the free end of the other of said connectors being attached to said only one of said first pair of links having said other of said second pair of links passing therethrough.

2,848,231
MERRY-GO-ROUND FOR PLAYGROUNDS AND THE LIKE
Robert L. Propst, Englewood, Colo., assignor to Beauty Products, Ltd., Denver, Colo., a corporation of Colorado
Application August 8, 1956, Serial No. 602,753
7 Claims. (Cl. 272—42)



1. In an elevating merry-go-round of the type including a stationary upright pole, a frame mounted on the pole for both rotational and upward and downward movement relative thereto, a member mounted at the top of the pole for relative rotation, and a plurality of angularly spaced flexible connectors suspending the frame from the pole, the improvement which comprises means interconnecting the member and the pole to permit limited relative rotation therebetween in order to facilitate rotation of the frame, said interconnecting means comprising a part mounted for movement with the member and a part mounted on said pole, said parts being arranged to cooperate following the limited relative rotation whereby the connectors will begin to wrap about the pole and elevate the frame.

2,848,232
TOY FISHING APPARATUS
Joe D. Waddell, Charlotte, N. C., assignor to Waddell Construction Company, Inc., Charlotte, N. C., a corporation of North Carolina
Application November 13, 1956, Serial No. 621,812
2 Claims. (Cl. 273—1)



1. In a toy fishing apparatus including a platform, a toy fisherman pivotally mounted adjacent one end of the platform and provided with a pole extending from the toy fisherman across and above the platform and resilient means normally urging the toy fisherman and pole from a first position with the pole in lowered position extending across the platform to a second position with the pole in raised position extending upwardly above the platform at an angle approaching the vertical, latch means pivotally connected to the platform adjacent the pole when in lowered position and including a hook portion extending transversely across said lowered pole, and a compression spring extending between the platform and a portion of the latch spaced from the hook portion and said spring normally urging the hook portion of the latch across the pole to overcome said resilient means and hold the pole in said first position whereby upon said latch means being actuated to overcome the compression spring the hook portion on the latch will be moved away from the pole to permit said resilient means to move the pole and toy fisherman to said second position.

2,848,233
ATHLETIC FIELD COVER
Herman D. Wynn, Knoxville, Tenn., assignor to Southern Athletic Company, Inc., Knoxville, Tenn., a corporation of Tennessee
Application December 13, 1956, Serial No. 628,165
3 Claims. (Cl. 273—27)



1. A water repellent section for athletic field coverings comprising a water resistant body portion, an elongated side flap providing a marginal section doubled along its longitudinal medial axis upon itself and at the

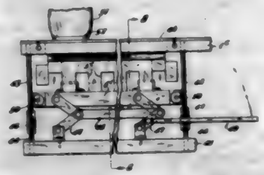
joint location of doubling being interlockingly connected in a felled seam sewn joint with a side marginal edging of the body portion whereby the flaps will extend transversely laterally from the seam to define a pocket which opens at the extreme outer marginal edges of said flaps.

2,848,234
GOLF SWING-CONDITIONER
Thomas O. Brandon, Cucamonga, Calif.
Application July 24, 1957, Serial No. 673,916
6 Claims. (Cl. 273—35)



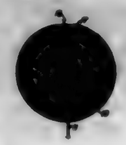
6. A golf instruction apparatus for use in training and teaching a golfer the proper club swinging habits comprising and elongate elastic member having mounting means at one end adapted to be secured to a support at about the head height of the golfer, an elongate longitudinally split grip providing a pair of grip sections having a length to receive both hands of a player in alignment longitudinally of the grip, means hingedly connecting the sections together at one end of the grip, resilient means adjacent the other end of the grip urging the grip sections apart a predetermined distance, said grip sections being moved toward one another against the action of the resilient means when the grip is gripped during the use of apparatus whereby the hand muscles are trained and strengthened to improve the hand grip, and means pivotally connecting the inner end of said grip to the other end of the elastic member to form a normally aligned continuation of said elastic member.

2,848,235
MOVABLE MAGNETIC BOWLING PIN HOLDING APPARATUS
Henry S. Johns, Cleveland Heights, and William H. Johns, Gates Mills, Ohio
Application September 8, 1953, Serial No. 378,812
3 Claims. (Cl. 273—54)



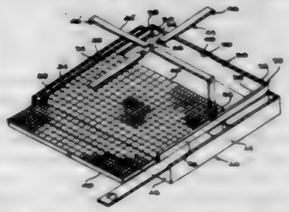
3. In combination, a base floor for the pin receiving area of a bowling alley, a top floor section removably carried and positioned by said base floor, rod and screw means adjustably positioning said base floor to move it vertically for alignment of said top floor with another portion of a bowling alley, said base floor having apertures therein, a plurality of magnet means having poles shaped to be received in said apertures, and means for moving said magnet means as a unit to insert and remove said poles into and from said apertures to exert a variable magnetic force on pins on the bowling alley.

2,848,236
TETHERED SPONGE BALL
James Emory Gibson, Jr., High Point, N. C.
Application February 16, 1954, Serial No. 410,638
2 Claims. (Cl. 273—58)



2. The combination of a sponge rubber ball, an elastic thread extending into said ball and retaining means for preventing withdrawal of said thread from said ball, said retaining means comprising a one-piece wire member provided with a plurality of flat spiral convolutions, said convolutions terminating at the inner end in a shank extending at right angles to the plane of said convolutions, said shank penetrating said ball with said convolutions embedded in the surface of said ball, said shank terminating within said ball in a hook portion, said thread being tightly received in said hook portion to prevent withdrawal of said thread from said ball.

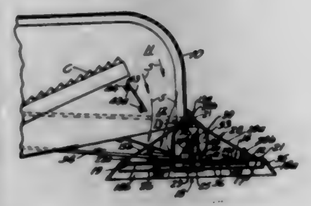
2,848,237
GAME APPARATUS
Frank Svejnoha, Chicago, Ill.
Application June 28, 1957, Serial No. 668,794
3 Claims. (Cl. 273—136)



2. In a game apparatus, a base frame adapted to rest upon a table surface, said frame including a pair of side members arranged in parallel spaced relation and an end member extending between and secured to each of the adjacent ends of said side members, a supporting frame embodying a pair of side pieces arranged in parallel spaced relation and an end piece connecting one of the adjacent ends of said side pieces together, each of said side pieces having a web and a pair of flanges projecting perpendicularly from one face thereof, the side pieces being arranged so that the webs are vertically disposed with the flanges of the webs horizontally disposed in vertical spaced relation and facing each other and forming with the webs opposed slideways, the supporting frame end piece having a flange projecting perpendicularly inwardly from the upper edge thereof, said supporting frame being positioned upon said base frame so that the side pieces extend along and are spaced inwardly of the base side members with the adjacent parts of the lower flanges of the side pieces of said supporting frame resting upon the base frame end members, a game board insertable through the other of the adjacent ends of said supporting frame side pieces and slidable along said slideways until the inserted end abuts against said supporting frame end piece, said game board having a playing surface on its upper face, a plurality of flat masking strips in the form of segment sections arranged in end to end abutting relation so as to cover and block off parts of said board playing surface, and means on one of the ends of certain of said sections interengageable with one or more means provided on the upper flanges of said supporting frame side and end

pieces and the adjacent edges of said game board for holding said sections in assembled relation on said game board playing surface.

2,848,238
STALK AND STRAW DISINTEGRATING AND DISTRIBUTING MECHANISM
Edmund Guise Stevens, Charleswood, Manitoba, Canada
Application February 8, 1956, Serial No. 564,312
10 Claims. (Cl. 275—3)



1. A stalk and straw disintegrating and scattering device for a harvester such as a combine of the general type having a descending stalk and straw discharge passage defined by a multi-wall housing with a generally rectangular opening at the terminal portion thereof, said device comprising a mounting structure adapted for attachment to such a housing adjacent the terminal portion thereof, a pair of substantially vertical shafts journalled in said mounting structure adjacent the opening in said housing and in widely spaced relation with each other, a plurality of arms fixed to each of said shafts and extending generally radially therefrom in a substantially common plane to swing under the discharge passage opening, said arms swinging in orbital paths which have common portions, means carried by said structure and constructed and arranged to define an elongated shear edge disposed above and in close proximity with said arms, and a driving interconnection interposed between said shafts for moving the same in counter-rotation and in an outward direction away from said opening and below said shear edge in the common portions of their orbital paths, and said driving interconnection being adapted for connection to a high speed source of rotary power for rotating said arms at a high speed, whereby stalks and straw discharged through the opening of the housing will be cut into small particles and moved generally outwardly away from the opening by said rotating arms.

2,848,239
FLOATING TOOL HOLDER
Milton L. Benjamin and Stanley S. Benjamin, Cleveland, Ohio, assignors to Erickson Tool Company, a corporation of Ohio
Application November 18, 1954, Serial No. 469,677
4 Claims. (Cl. 279—16)



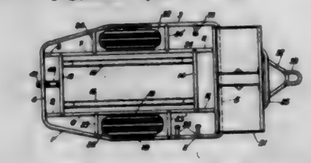
1. In combination, a tubular mount; a tool holder having one end loosely telescoped within said mount for limited angular and transverse movements therein; said holder being formed with an axially extending slot transversely through such one end; a cylindrical stop pin secured in said holder to extend transversely across such slot in axially spaced relation to the bottom of such slot; a cylindrical drive pin secured in said mount to extend loosely through such slot in crosswise relation to said stop pin and loosely between the latter and the bottom of such slot whereby said mount and holder are held together against axial separation by engagement of said pins with each other; said drive pin being engaged by the sides and bottom of such slot to prevent rotation and axial movement of said holder relative to said mount by imposition of torque and axial thrust load on said holder while the looseness permits limited relative rotary, pivotal, axial, and transverse movements to accommodate angular and transverse misalignment of said mount and holder when a tool held by the latter is in operating position; and spring means effective, when said mount and holder are disposed in generally horizontal position, to support at least a portion of the weight of said holder to facilitate transverse lifting thereof by a force couple applied at the end of such tool.

2,848,240
BRACE EXTENSION
Clinton C. Nicol, New Brighton, Minn., assignor to William H. Greene, St. Paul, Minn.
Application November 9, 1953, Serial No. 391,875
5 Claims. (Cl. 279—89)



1. A brace and chuck extension including in combination a pair of end member adapted to be fitted to selective disposable lengths of tubing and being separable therefrom after a drilling operation comprising a first end member having a shank designed at one end for engagement into the brace and at the other end being provided with attachable and detachable means for engaging the one end of a tubular piece of selective length, and a second end member having a chuck at one end for holding a drill and at the other end being provided with attachable and detachable means for engaging an opposite end of the tubular piece of selective length to which the said first one end member is adapted to be attached, whereby said second end member is adapted to be driven by said first end member through the medium of said tubular piece and after the completion of a drilling operation, the said end members are separable from the relative opposite ends of said tubular piece while said tubular piece is in situ as a result of the drilling operation.

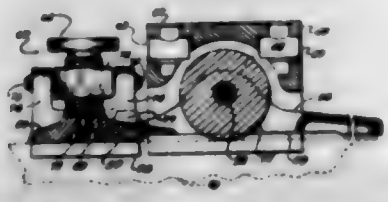
2,848,241
COLLAPSIBLE TRAILER CONVERTIBLE FROM WHEELED VEHICLE TO RUNNER SUPPORTED VEHICLE
Arthur Francis Hubbard, Moline, Ill., assignor to American Air Filter Company, Inc., Louisville, Ky., a corporation of Delaware
Application March 29, 1954, Serial No. 419,248
6 Claims. (Cl. 280—8)



1. A vehicle comprising a pair of transversely disposed end bars, a pair of spaced outer longitudinally disposed bars each having upwardly bent portions adjacent the extremities thereof connecting to said trans-

verse bars, a pair of inner longitudinally disposed bars spaced inwardly from said outer bars and having upwardly bent portions adjacent the extremities thereof connecting to said transverse bars, the portions of said inner longitudinally disposed bars disposed intermediate the bent end portions thereof being contained in a plane disposed intermediate a plane containing the portions of said outer bars disposed intermediate the bent extremities thereof and a plane containing said transversely disposed end bars, a pair of longitudinally spaced inner transverse load supporting bars connected intermediate said longitudinally disposed inner bars adjacent the upwardly bent end portions thereof to provide longitudinally spaced end supports for the load to be transported and means disposed adjacent the midlengths of said inner and outer longitudinally disposed bars for mounting wheels thereon and for selectively permitting unobstructed use of said outer bars as snow runners.

2,848,242
ROLLER AND BRAKE ASSEMBLY
Allan J. Taylor, Pacific Palisades, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application October 28, 1955, Serial No. 543,506
4 Claims. (Cl. 280—29)



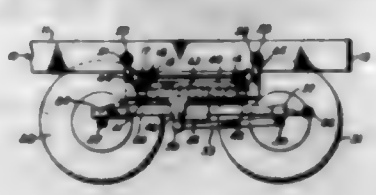
1. A roller brake assembly, comprising: a housing which is substantially U-shaped in cross-section; a shaft rotatably mounted in and extending between the sides of said housing; a roller mounted on said shaft; a brake member pivotally mounted on said shaft and which includes a plate-like portion having a plane surface in near tangential relationship with respect to said roller; threaded means rotatably attached to said brake member and mounted to extend from said plate-like portion on the side thereof opposite said plane surface; a pair of locking members having hooked outer ends and apertured inner ends; and said locking members being pivotally attached by their inner ends to said threaded means in depending relation with said hooked ends in opposing relation and normally positioned below said plane surface so that upon rotation of said threaded means relative movement is imparted to said locking members relative to said brake member.

2,848,243
BOAT HAULING DEVICES
Frank J. Young, West Allis, Wis.
Application October 29, 1956, Serial No. 618,931
2 Claims. (Cl. 280—47.13)



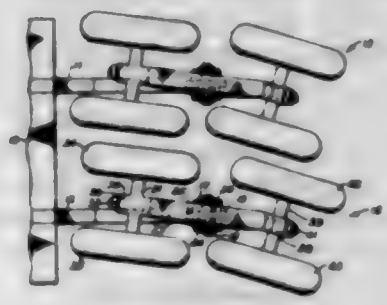
1. An assembly for hauling an inverted boat equipped with oarlock mounting brackets, a drag plate for attachment to an end of said boat, a pair of channel members for receiving the gunwales of the boat, an ear on each channel apertured for connection with an oar-lock mounting bracket of said boat, a leaf spring pivotally attached on a horizontal transverse axis to each channel, an axle secured to the free ends of the springs, and ground-bearing wheels mounted on said axle.

2,848,244
STEERABLE AXLE ASSEMBLY FOR MOTOR VEHICLE TRAILERS
Theodor Georgi, Hilden, Germany, assignor to American European Engineering Corporation, Santa Barbara, Calif., a corporation of California
Application May 16, 1956, Serial No. 585,226
Claims priority, application Germany September 7, 1955
12 Claims. (Cl. 280—81)



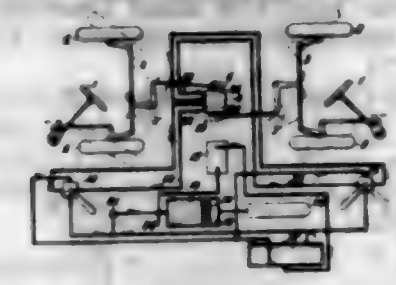
1. In an automatic steering device for a vehicular trailer having a bed, the combination of: a frame for supporting the bed of the trailer, said frame being rotatable in a horizontal plane relative to the bed; an axle assembly for supporting one end of said frame, said axle assembly being rotatable in a horizontal plane relative to said frame; means carried by said frame for supporting the other end of said frame; and lever means having a first extension coupled to the bed at a first level and a second extension coupled to said axle assembly, said lever means being pivotally fixed to said frame at a second level vertically displaced from said first level for rotation about a generally fore-and-aft axis and rotating said axle assembly relative to said frame as a function of the rotation of the bed relative to said frame whereby said axle assembly is steered in response to turning of the trailer.

2,848,245
STEERABLE AXLE ARRANGEMENT FOR MOTOR VEHICLE TRAILERS
Theodor Georgi, Hilden, Germany, assignor to American European Engineering Corporation, Santa Barbara, Calif., a corporation of California
Application May 16, 1956, Serial No. 585,321
Claims priority, application Germany August 26, 1955
9 Claims. (Cl. 280—81)



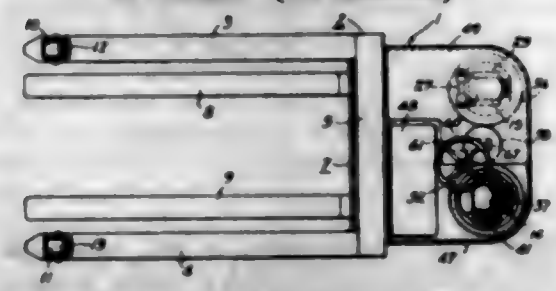
1. In a steerable axle arrangement for a vehicle movable along a roadway, the combination of: an axle support pivotally mounted on the frame of the vehicle, said axle support having forward and rearward extending ends; first bearing means mounted on said axle support adjacent one of said ends, the axis of rotation about said first bearing means being oblique to the roadway; a bearing block rotatably mounted on said first bearing means, said bearing block having a crank arm displaced radially from the axis of rotation thereof; an axle assembly rotatably mounted on said bearing block, the plane of rotation of said axle assembly intersecting the plane of rotation of said bearing block; a control linkage coupling said crank arm to the frame for rotating said bearing block on said bearing means when said axle support is pivoted relative to the frame; and second bearing means mounted on said axle support adjacent the other of said ends for positioning said other end above the roadway.

2,848,246
STEERING DEVICE FOR MOTOR VEHICLES
Walter Ruf, Landhaus am See, Bottighofen, Switzerland
Application October 30, 1954, Serial No. 619,326
Claims priority, application Switzerland November 2, 1955
6 Claims. (Cl. 280—91)



1. In a vehicle having two pairs of wheels, a track rod connecting the two wheels of each of said pairs for steering movement of said wheels, a first linkage connected to one of said track rods and a second linkage connected to the other of said track rods, a first steering wheel connected to act upon the track rod of one of said pairs of wheels, a second steering wheel connected to act upon the track rod of the other of said pair of wheels, a cylinder containing two axially-aligned pistons axially and displaceable individually within said cylinder by fluid pressure means, means within said cylinder and on said pistons and selectively coupling one of said pistons to said cylinder and selectively coupling said pistons to each other, one of said pistons being connected to the linkage to one pair of wheels and the other of said pistons being connected to the linkage to the other pair of wheels.

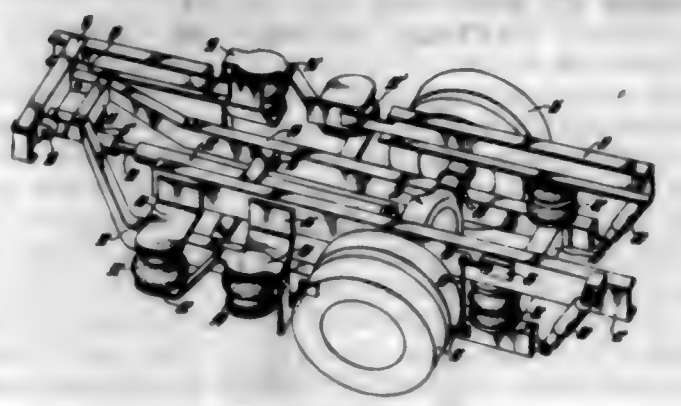
2,848,247
MEANS FOR PRODUCING DIFFERENTIAL STEERING OF A PAIR OF WHEELS
Irvin F. Schreck, South Euclid, Ohio
Application May 5, 1955, Serial No. 506,306
10 Claims. (Cl. 280—96)



2. In a steering mechanism for a truck, a pair of main circular gears having peripheral teeth, means mounting said gears in substantially the same plane for rotation about fixed spaced parallel axes at the centers of curvature of said gears, a small gear having teeth meshing with the teeth of both main gears and having a center movable substantially along a line perpendicular to a line passing through said parallel axes and intersecting the latter line midway between said centers, and means constraining movement of said small gear comprising a rigid link pivotally connected at one end to said small gear at a point spaced from its center and adjacent said last-named line and pivotally connected at its opposite end to a fixed member at a point near said first-named perpendicular line and spaced from said gears.

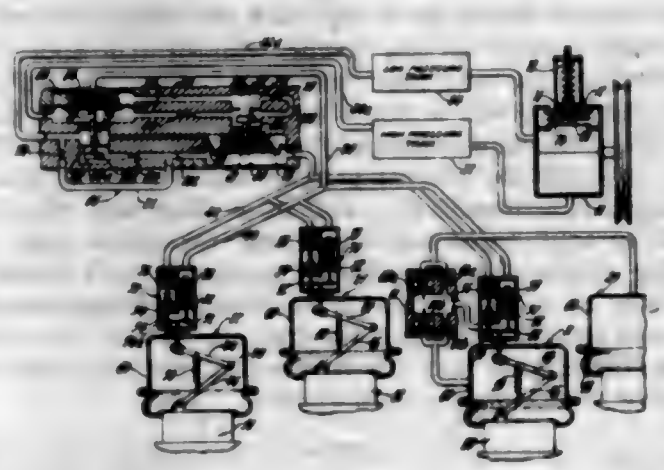
2,848,248
ANTI-ROLL SCHEME
Kai H. Hansen and Maurice Olley, Detroit, and Robert Schilling, Bloomfield Hills, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 20, 1956, Serial No. 566,478
5 Claims. (Cl. 280—124)

1. In a suspension system for automotive vehicles, a frame, a pair of transversely spaced arms pivotally connected to said frame and extending toward the rear thereof for connection to a rear axle and to shock absorbing means linked to said frame, a suspension air bag between each of said arms and said frame inward of said shock absorbing means and pneumatic anti-roll means disposed



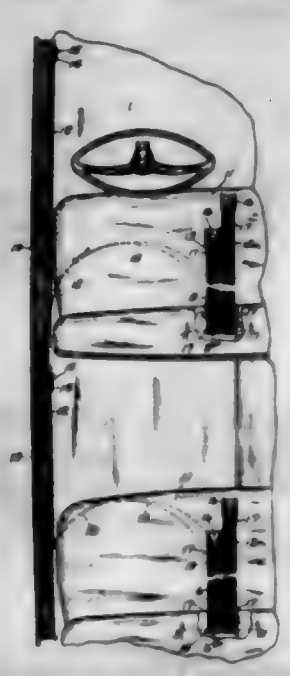
inward of said suspension air bags between each arm and said frame, said means including an air bag acting in compression and an air bag acting in tension, each compression bag being interconnected with the tension bag carried by the opposed arm.

2,848,249
AIR SUSPENSION LEVELLING SYSTEM
Joseph F. Bertsch and Kai H. Hansen, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 24, 1956, Serial No. 606,155
7 Claims. (Cl. 280—124)



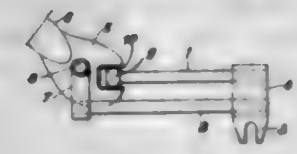
1. Control means for a pneumatic suspension system having a source of air pressure, means for exhausting air from the system and a plurality of air springs in the air circuit between said source and said exhaust means, said circuit including a pressure line from said source to each said spring and an exhaust conduit from each said spring to said exhaust means, said control means comprising an inlet valve and an exhaust valve at each spring controlled by mechanical means actuated as determined by the degree of expansion or contraction of the spring, and master valve means through which all air from said source and to said exhaust means flows, said master valve means including first and second components, said first component receiving air from said source and having an outlet to said springs incorporating a first restriction and a second, normally by-passed smaller restriction, said second component receiving air from said springs and having an outlet to said exhaust means incorporating similar restrictions, the smaller being normally by-passed, each of said components being actuated by a predetermined pressure drop across the corresponding first restriction whereby the air from the other component is compelled to flow through the corresponding second restriction.

2,848,250
SAFETY BELT
Glenn W. Sheren, Mason, Mich., assignor of one-half to Harley Vannickle, doing business as Karbelt Manufacturing Company, Mason, Mich.
Continuation of abandoned application Serial No. 310,884, September 22, 1952. This application December 27, 1955, Serial No. 555,327
9 Claims. (Cl. 280—150)



1. A safety device for motor vehicles comprising in combination with a vehicle body having a front seat and a side door, a door belt, the said door belt being diagonally disposed along the inside wall of the door, said door belt having one of its ends firmly secured to the outer edge of the door, a clip, said clip being secured to the front portion of the inside wall of the door, the other end of the said door belt being secured to said clip while said door belt is not in use, a floor belt, an expansion loop, the said expansion loop being secured to the floor adjacent the seat at a point about midway across the vehicle by means of a bolt, said floor belt being secured to said expansion loop, said expansion loop including a tube disposed around a portion of a cable in the form of a loop, a buckle, said buckle being securely disposed to said floor belt, the free end of said floor belt being connectable with the free end of the door belt for securing an occupant to the vehicle.

2,848,251
SPRING SUSPENSION FOR VEHICLES
Karl Stoll, Duesseldorf, Germany, assignor to Mannesmann Aktiengesellschaft, Duesseldorf, Germany, a corporation of Germany
Application March 28, 1955, Serial No. 497,141
Claims priority, application Germany March 29, 1954
15 Claims. (Cl. 280—277)



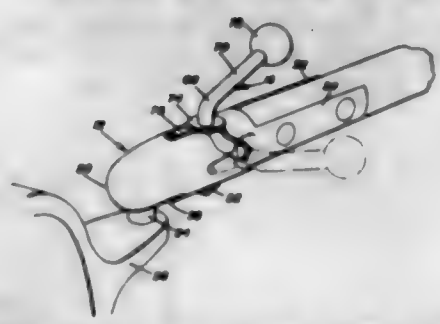
1. In a wheel suspension for a vehicle, a wheel mounting, at least one radius arm and at least one resilient load-carrying member rigidly fixed to the wheel mounting at their deflecting ends and extending therefrom in the same general direction, and separate pivotal anchorages for the radius and resilient members at their other ends on the vehicle, said anchorages being spaced apart in the plane of deflection of the suspension; whereby a large sprung travel of the wheel mounting is obtained for a small bending of the resilient member.

2,848,252
SEPARABLE COMPOSITE TRAILER CONSTRUCTION
William E. Martin, Kewanee, Ill., assignor, by mesne assignments, to Hyster Company, Portland, Oreg., a corporation of Nevada
Original application October 9, 1946, Serial No. 702,249, now Patent No. 2,663,574, dated December 22, 1953. Divided and this application September 15, 1953, Serial No. 380,271
8 Claims. (Cl. 280—415)



1. In a structure of the character indicated, a wheel-supported axle having attaching means connected thereto, a gooseneck provided with hitch means for connecting it to a traction unit, said gooseneck also being provided with attaching means for connecting it to said axle, and joining means for rigidly connecting said two attaching means, said joining means comprising a spanning structure provided at opposite ends with identical attaching means for securement with the first and second mentioned attaching means respectively to form a mobile vehicle.

2,848,253
TRAILER HITCH
Don J. Walker, Plant City, Fla., assignor of one-third to Charles J. McDonald, Plant City, and one-third to Warren M. Cason, Tampa, Fla.
Application May 7, 1957, Serial No. 657,548
2 Claims. (Cl. 280—513)



1. A trailer hitch comprising a ball adaptable to be attached to a towing vehicle, and a socket adapted to be attached to a trailer, said socket comprising an elongate length of tubing having a closed, rounded end provided with a transverse opening therein adaptable to be engaged over said ball, a retainer block within said socket having a concave end opposed to the inner surface of said closed, rounded end of the socket for cooperation therewith in retaining the socket on the ball, said block rotatably and slidably received in said socket, means for locking said block in retaining engagement with said ball, said locking means including a crank extending diametrically through said socket and said block, and a threaded aperture formed integral with said socket, one end of said crank having an operating handle thereon, the opposite end of said crank being threaded to engage said threaded aperture when in a locked position, means for selectively maintaining said crank in a non-rotatative position, said maintaining means including a resilient arm secured to said crank, said arm extending radially outward from said crank, a detent formed in the outer extremity of said arm, said socket having an aperture therein engageable by said detent whereby such engagement will prevent said crank from rotating in said threaded aperture, means for rotatably retracting said block from engagement with said ball whereby the socket may be removed from said ball, said retracting means including a cam track formed in said socket, said crank extending

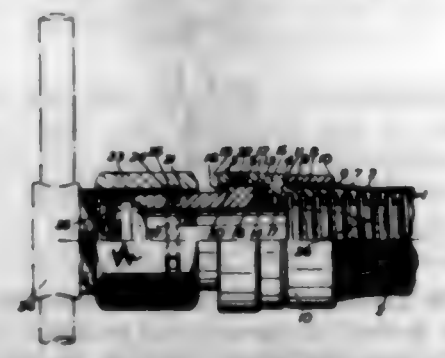
through said cam track, said opposite end of said crank being threadably engaged in said block whereby the crank may be rotated and disengaged from said threaded aperture and the crank and block rotated with relation to the socket, said cam track engaging said crank to cause the block to disengage the ball.

2,848,254

END FITTINGS FOR FLEXIBLE METALLIC HOSE

John Humphrey Millar, Newport, R. I.

Application October 7, 1953, Serial No. 384,720
Claims priority, application Great Britain May 1, 1950
3 Claims. (Cl. 285—149)



1. An end fitting for a corrugated metallic hose having at least one surrounding tubular reinforcement, such end fitting comprising: an annular gripper sleeve coaxially and tight fittingly connected about an end of said hose, said gripper sleeve having an internally grooved part which receives a plurality of the external corrugations of the end portion of said hose lying therewithin, with the corrugations at the front extremity of said hose projecting forwardly beyond the grooved part of said sleeve, and also having an annular portion projecting forwardly from the said grooved part of the sleeve at such a position thereon that such annular portion surrounds the said corrugations at the front extremity of the hose, but is spaced outwardly therefrom; a tubular body mounted coaxially with said gripper sleeve and located forwardly thereof, the said tubular body fitting at its rear extremity closely within the said forwardly projecting annular portion of the gripper sleeve; a tubular spigot projecting rearwardly from the inner edge of said rear extremity of the tubular body and extending as a close fit into said end portion of said hose and within said gripper sleeve; an annular sealing washer coaxial with said gripper sleeve and trapped between said corrugations at the front extremity of the hose and said rear extremity of the said tubular body, the axial distance between the said rear extremity of the tubular body and the said gripper sleeve being such that at least some of the corrugations at the front extremity of the hose are axially crushed, said washer bearing against the said body and also bearing at its inner and outer peripheries respectively against the said spigot and annular portion of the gripper sleeve; a ferrule surrounding said gripper sleeve and trapping between co-operating clamping surfaces on itself and the latter said surrounding tubular reinforcement for the hose so that the front extremity of such reinforcement extends coaxially of the hose; and means for axially drawing together said tubular body and gripper sleeve to effect the said trapping of the said sealing washer.

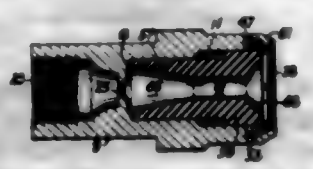
2,848,255

LUBRICANT FITTING COUPLER WITH WEDGED LOCK RING

Victor G. Klein, Defiance, and Carl H. Mueller, Pasadena Hills, Mo., assignors to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio

Application March 24, 1955, Serial No. 496,527
3 Claims. (Cl. 285—267)

1. A coupler for permanently connecting a lubricant delivery line to a standard lubricant-receiving fitting of the type having an undercut coupler-receiving head, comprising a body formed to provide a cylindrical socket at one end thereof for receiving the head of a fitting and a passage from the other end of the body to the socket with a shoulder at the inner end of the socket, said body having an internal annular recess adjacent the outer end of the socket, the diameter of the recess increasing in the direction away from the outer end of the socket, a tubular rubber seat in the socket the outer end of which is engageable by the end of the head of a fitting received in the socket, and a split resilient ring in the recess, said ring being substantially narrower than the recess and, when unstressed, having an inside diameter smaller than the smallest diameter of the recess and an outside diameter larger than the smallest diameter of the recess and smaller than the largest diameter of the recess, said tubular rubber seat being axially compressible by a fitting upon assembly of the coupler therewith, said seat when



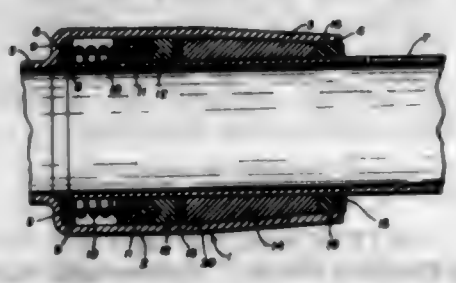
uncompressed prior to assembly of the coupler with a fitting being of such length as to extend from said shoulder to adjacent the outer end of the socket and having its forward end engaging the ring and holding the ring in a plane located at the outer end of the socket substantially at right angles to the axis of the socket, the ring being confined between the forward end of the seat and the outer side of the recess, said recess having a surface portion at a wedging angle to the undercut on the head of the fitting whereby upon application of the body to the fitting, the ring is pushed back toward the inner side of the recess, then expanded by the head of the fitting, and then contracts behind said head, and whereby the seat is axially compressed to seal against the fitting and acts to bias the coupler in the direction away from the fitting so as to hold the ring wedged between the said surface portion and said undercut thereby permanently to hold the coupler tight on the fitting and to resist separation thereof.

2,848,256

PIPE CONNECTOR

Merle D. Tyler, Denver, Colo., assignor to Good-All Electric Mfg. Co., Ogallala, Nebr., a corporation of Nebraska

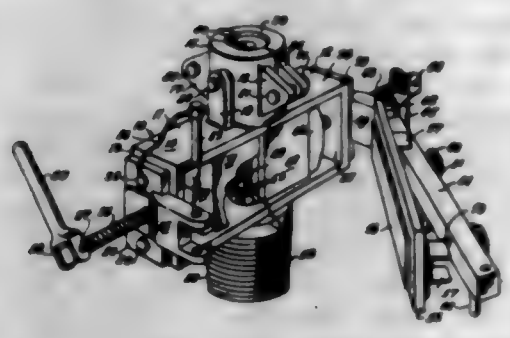
Application November 21, 1955, Serial No. 548,113
1 Claim. (Cl. 285—317)



A connector for joining lengths of tubular members comprising a hollow body arranged to telescope over endwise aligned ends of two tublular members with a substantial clearance therebetween, said body being necked down intermediate the ends thereof forming an internal shoulder in one end of said sleeve arranged to substantially abut the ends of telescoped tubular members, said hollow body member having an elongated axially tapered internal end surface from a maximum diameter at a point spaced from said shoulder to the open ends thereof, a sealing member mounted in said body arranged as a seal between said shoulder and each of the ends of telescoped tubular members, a helical spring in said body on each

side of and abutting said shoulder and arranged to telescope over associated tubular members, an elongated tapered tubular clamping sleeve mounted in said body on each side of said shoulder and arranged to telescope with associated tubular members and provide a substantial contact area therebetween, the inner surface of said clamping sleeve being arranged for a normal close fit in open position permitting entry of a tubular member and a tight gripping fit in closed position on a tubular member, said springs normally urging said clamping sleeves toward said open ends of said body whereby the taper of said inner surfaces thereof tends to close said clamping sleeves, a seal between each said springs and each said clamping sleeves arranged to form second seals between said body and each telescoped tubular member, and a dust seal mounted in the outer end openings of said hollow body forming a third seal at each end between said body and each telescoped tubular member.

2,848,257
WIRE LINE OIL SAVER
William A. Moore, Dallas, Tex.
Application July 19, 1954, Serial No. 444,123
6 Claims. (Cl. 286—16)



1. In an oil saver, a box comprised of complementary sections, each having one open side and one open end, said sections being secured together with said open ends in abutment about a vertical passage for the reception of a reciprocating member and with said open sides in horizontal alignment to define an elongate opening coextensive with said sections, a packing element in each of said sections on opposite sides of said passage, a closure for said elongate opening, a latch bar, hinged at one end to the closed end of one of said sections and latched at its opposite end to the closed end of the companion section, clips on said closure clampingly engaging said latch bar, spaced apart bolts threadedly extending through said latch bar and engaging said closure, means for rotating said bolts to advance the same against said closure to compress said packing elements and means operable at the closed end of each of said sections for advancing said packing elements into frictional engagement with said reciprocating member.

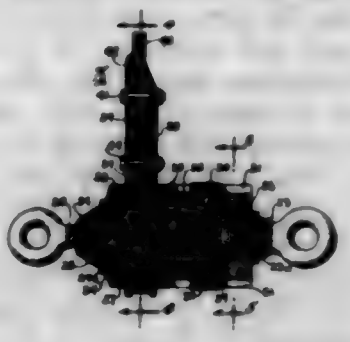
2,848,258
ATTACHMENT DEVICE
Derek Percival Mudd, Guisborough, England
Application May 17, 1954, Serial No. 430,348
Claims priority, application Great Britain
November 13, 1953
6 Claims. (Cl. 287—54)

1. A fitting for releasably connecting the medial portion of a rail to an adjacent structural part, comprising, in combination, a head having a connector integral therewith and extending rigidly from one end thereof, said head defining therein an elongated slot extending thereacross between two arms rigid with the head and forming integral parts thereof, one longitudinal side of said slot being open along the length thereof away from said connector, a pair of opposed rail embracing jaws having two opposed tongues integrally formed on the respective jaws and shaped to fit slidably into said slot in opposed relation to each other, substantially every portion of one tongue and the opposing portion of the other tongue having a combined transverse thickness substantially equal to the corresponding transverse width of the slot, said respective jaws including two rail gripping portions integral with said respective tongues and projecting from said open longitudinal side of said slot, said rail gripping portions projecting from said slot opposing each other across a plane parallel to the slot and having rail embracing extreme ends curving toward each other, said



rail gripping portions being shaped inwardly of said extreme ends thereof to have a rail receiving spacing from each other across said plane which is substantially greater than the spacing between said extreme ends of the jaws, said head defining an opening registering with one longitudinal end of said slot and having a size equal to the maximum transverse size of the slot to provide for free movement of said tongues through said last-mentioned opening into and out of said slot by translation longitudinally with respect to the slot, and clamping means on said head positioned to apply pressure to said tongues when the latter are disposed within said slot.

2,848,259
CHAIN SECURING APPARATUS
John Richard Huber, Warrington, Pa., assignor to Eastern Rotorcraft Corporation, Doylestown, Pa., a corporation of Pennsylvania
Application February 7, 1956, Serial No. 564,033
7 Claims. (Cl. 287—60)



1. Tensioning apparatus incorporating a turnbuckle device having an inner elongated cylindrical threaded member, an outer tubular member threaded on the external surface proportioned to fit around the inner threaded member, an inner cylindrical housing having a female thread at one end to engage the thread of the inner cylindrical threaded member, an outer housing having a generally cylindrical shape proportioned to provide encirclement of the inner housing with an annular space between, a projection at one end of said inner housing, said outer housing having a slot engaging the projection of the said inner housing to prevent relative rotation between the housings, a threaded terminal member to fit the outer cylindrical threaded member and engaging the outer housing member, a resilient device mounted in the annular space between the inner and outer housing members to provide for longitudinal displacement between said housings when load is transferred across the device.

2,848,260
REPLACEABLE BALL-JOINT UNIT

Milton A. Moskovitz, Richmond Heights, Mo., assignor of one-half to Harry Frankel, St. Louis, Mo.

Application April 29, 1957, Serial No. 655,756
8 Claims. (Cl. 287—90)



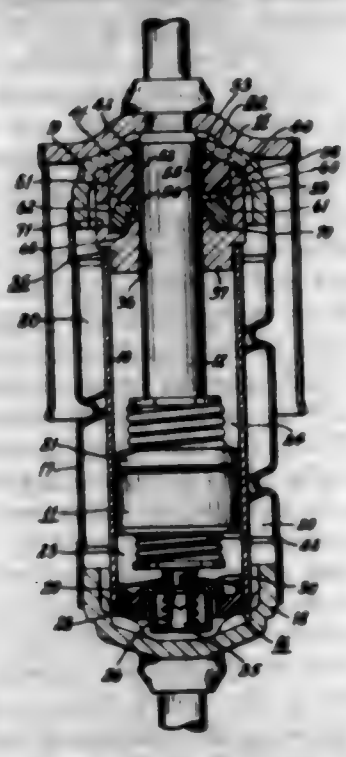
1. In a ball joint for movably interconnecting a pair of linkage members one of which has an eye therethrough, a cartridge unit removably mountable in said eye and which includes an annular casing bored axially therethrough to receive a stud rotatable and tiltable therein, the exterior of the side wall of said casing being threaded and some of said threads being more ductile than others of them.

6. The method of making an externally threaded ferrous hollow casing to receive a stud assembly rotatable and tiltable therein, said shell having one end reduced in diameter and provided with a concave bearing surface interiorly of said casing adjacent said reduced end for bearing engagement with said stud assembly, including the steps of casehardening the entire area of said casing to a predetermined depth of penetration, and then annealing only that portion of said casing that is between said larger end of the casing to a point that is intermediate the length of said threading.

2,848,261
ROD SEAL FOR A SHOCK ABSORBER

Harold E. Schultze, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 13, 1955, Serial No. 521,773
4 Claims. (Cl. 288—19)

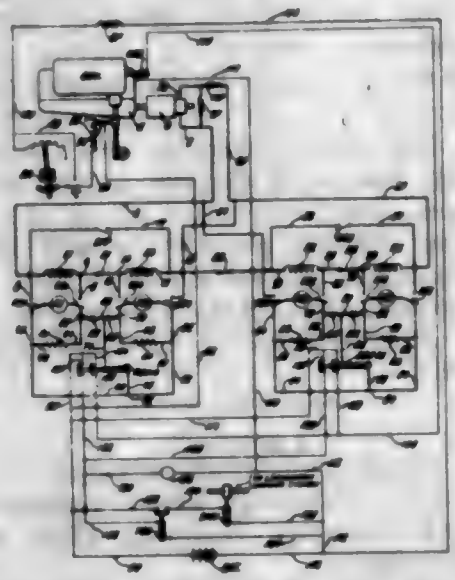


1. A rod seal for a shock absorber, including in the combination, a rod seal member, a rod guide member having a wall provided with a central aperture adapted slidably to receive a rod and having a coaxial wall extending from the apertured wall at one side of the aperture forming an open ended chamber adapted to receive said rod seal member, a closure member on the said coaxial wall closing the open end of said chamber and having an aperture coaxial with the first mentioned aperture and through which a rod extends, a rod disposed in said aperture, and said rod seal member disposed in said chamber and comprising a ring shaped body of resilient material having one end surface engaging one end wall of said chamber and the inner and outer peripheries engaging said rod and said coaxial wall respectively, the opposite end surface of said seal member having a plurality of integral axially extending resilient projections retained by the opposite end wall of said chamber compressably to effect thereby resilient retention of said body in engagement with said rod, said coaxial wall and the said one end wall of the said chamber.

2,848,262
WHEEL SLIDE CONTROL FOR DYNAMIC BRAKING

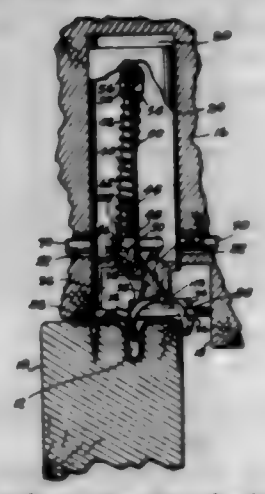
Torsten O. Lilquist, La Grange Park, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 29, 1952, Serial No. 301,427
10 Claims. (Cl. 291—2)



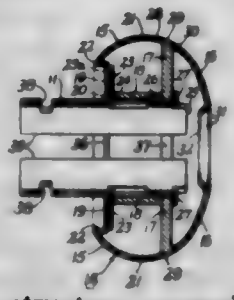
1. In combination with a railway vehicle dynamic braking system including a pair of traction motors having armatures operatively connected to traction wheels and adapted to be turned thereby, a voltage source, a generator, a main field for said generator in electrical circuit with said voltage source, a variable resistor in electrical circuit with said main field and said voltage source, means to turn said generator, fields for exciting said traction motors and in electrical circuit across said generator, resistive loads in electrical circuit across each of said traction motor armatures, wheel slide control means for correcting wheel slide occurring during dynamic braking of said vehicle comprising a bridge circuit electrically connected between low voltage sides of said traction motors and high voltage sides of said traction motors when acting as generators during dynamic braking and containing a solenoid coil energized by any difference of speed between the armatures of said traction motors which causes an unbalance in the voltages generated by said motors and current flow through said bridge circuit and said solenoid coil therein, contact making means operable by said solenoid coil to complete a pair of electrical circuits including said voltage source, one of said electrical circuits containing a relay adapted to vary said variable resistor to add resistance to said main field of said generator and thereby reduce its strength and the field excitation of said traction motors to eliminate differences in speed between said traction motor armatures, the other of said electrical circuits containing a time delay relay adapted to complete a circuit including said voltage source and energizing a third relay for supplying sand to said traction wheels.

2,848,263
SILENT DOOR LATCH
Roy G. Miller, Tacoma, Wash.
Application September 30, 1954, Serial No. 459,278
7 Claims. (Cl. 292—78)



6. A latch for releasably interlocking two relatively swingable members, one of which has a recess in one of its edge surfaces, the latch comprising: link means of fixed length, pivot means positively interconnecting one end of the link means to the other of said relatively swingable members whereby to prevent longitudinal movement of the link means relative to said other swingable member and to permit movement of the opposite end of said link means laterally with respect to said other relatively swingable member, a yoke-shaped latch member dimensioned for entrance of one of its legs into said recess and mounted pivotally on said opposite end of the link means for lateral movement with the latter, and resilient means acting on the latch member for urging the latter to opposite sides of the longitudinal axis of the link means.

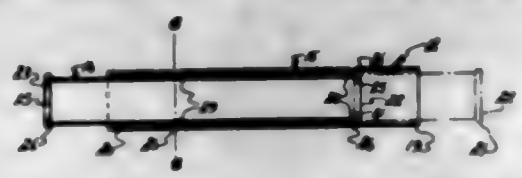
2,848,264
DOOR KNOB STRUCTURE
Robert J. Lynch, Fitchburg, Mass., assignor to Independent Lock Company, Fitchburg, Mass., a corporation of Massachusetts
Application May 25, 1955, Serial No. 510,901
9 Claims. (Cl. 292—347)



1. A door knob structure comprising a shank piece carrying an outer shell member, said shank piece having a skeleton frame comprising contiguously positioned annular members spaced along the length of said shank piece from and about the peripheries of which the outer shell is circumferentially supportingly shaped, the combination including radial distortion resisting means at the contiguous junction of said annular members.

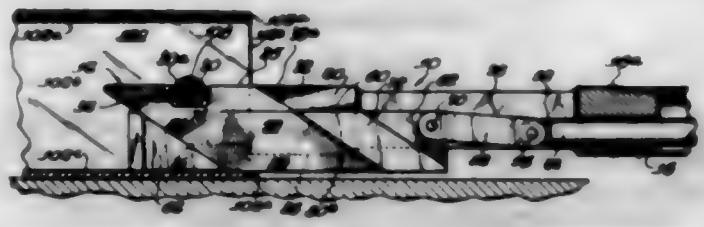
2,848,265
FLARE HOLDER
Ivan E. La France, Fairfield, Calif.
Application April 23, 1956, Serial No. 579,961
3 Claims. (Cl. 294—5.5)

1. A manual holder for tubular flares comprising an open ended tubular body having first and second opposite ends, the first end of said body dimensioned to snugly receive the base of a flare, said body deformed to provide at least one interior abutment defining a cross-section of reduced diameter, a plunger at least as long as said body reciprocally slidably mounted in the bore of said body, each end of said plunger provided with an outwardly projecting flange having an outside diameter larger than the reduced diameter of said bore defined by said abutment, said plunger slidably movable to a first position with a first flanged end thereof having an outside diameter smaller than the bore of said body and engaging said abutment to restrict slidable movement of said plunger in one direction, and with the second flanged end of said plunger projecting out-



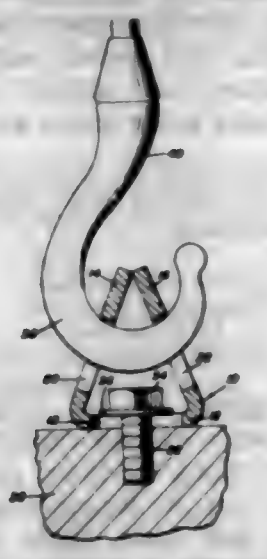
wardly beyond the second end of said body to provide a manually engageable extension of said plunger to permit said plunger to be axially slidably forced to a second position with said first flanged end of said plunger disposed at least flush with the first end of said body whereby a said flare is receivable in the first end of said body when said plunger is in said first position, and said flare is forced out of said body by said first flanged end of said plunger when said plunger is moved to its second position.

2,848,266
REMOTE RETRIEVING TOOL
Leonard W. Fromm, Jr., Glen Ellyn, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application January 13, 1956, Serial No. 559,883
5 Claims. (Cl. 294—19)



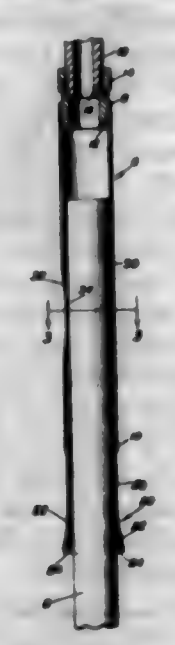
2. An apparatus for remotely engaging, moving, and disengaging an object comprising an elongated hollow member having a control end, a working end, an upper surface, a lower surface, a deep traverse recess on the upper surface of the working end, an oblique under surface at the working end and longitudinal openings in the upper and lower surfaces extending from the traverse recess toward the control end, a movably mounted rod disposed within the hollow member and extending beyond the control end thereof, a reciprocating member having at one end an elongated body portion and having wedge-shaped bosses on either side at the other end thereof, the elongated body portion being disposed within the hollow member and the wedge-shaped bosses adjacent the oblique lower surface, the rod being pivotally connected to the elongated body of the reciprocating member whereby an object may be engaged by the traverse recess when the reciprocating member is retracted by movement of the rod axially with respect to the hollow member in a direction toward the control end thereof causing the wedge bosses to move along the oblique under surface at the working end of the hollow member, raising the working end, causing the recess therein to engage the object, and withdrawing the elongated body portion of the reciprocating member from the recess, wherewith the object may be moved by bodily moving the apparatus while engaging the object and the object may be disengaged by moving the rod axially with respect to the hollow member in a direction toward the working end thereof, forcing the elongated body of the reciprocating member into the recess disengaging the object therefrom.

2,848,267
STUD LIFT ADAPTER
Medard Wroblewski, Tinley Park, Ill.
Application November 28, 1956, Serial No. 624,888
1 Claim. (Cl. 294—86)



A lift adapter for lifting machinery utilizing a stud thereof, said lift adapter comprising an initially flat metal strip bent to triangular form, said metal strip including a base portion and upstanding converging lift portions, said lift portions having upper ends in abutment whereby further convergence of said lift portions is prevented and the lift adapter is rigidified, said base portion being provided with an elongated bolt opening for the attachment of said base portion to a machine to be lifted, said lift portions having aligned hook receiving openings in upper portions thereof, said hook receiving openings being elongated to facilitate the passage of a hook therethrough and the centering of the lift adapter on the hook whereby the lifting force is directly transmitted in alignment with the stud to which the lift adapter is attached whereby bending movements are eliminated.

2,848,268
DRILL BIT RETRIEVER
Dennis N. McAuliffe, Little Falls, N. J., assignor of fifty percent to Harry Cambeis, Little Falls, N. J.
Application November 29, 1955, Serial No. 549,732
2 Claims. (Cl. 294—99)



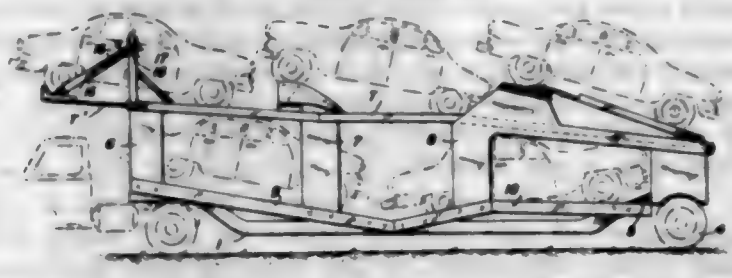
2. For use in expeditiously recovering lost drill bits and the like used, for example, with pneumatic drilling machines, a retriever comprising a copper tube open at its upper and lower ends and having its lower leading end provided with a plurality of slots circumferentially spaced and extending lengthwise and opening through the lower end of the tube and providing gripping fingers, the leading ends of said gripping fingers being flared outwardly and interiorly beveled, the intermediate portion of said tube being provided with at least one pair of spaced parallel circumferential slots defining an intervening strap-like member, the latter being resilient and bowed longitudinally to project into the bore of the tube in a manner to provide a friction grip, and a fitting of sleeve-like form having its lower end fitted telescopically when secured in the upper end of the tube, said fitting being externally flat-faced to provide a tool grip and internally screw threaded to provide an attaching nut.

2,848,269
LOADING MECHANISM
Eugene V. Havens and Ernest H. Johnson, Bridgeport, Conn., assignors to The Bullard Company, a corporation of Connecticut
Application June 6, 1956, Serial No. 589,711
6 Claims. (Cl. 294—89)



1. A work-loading device for use with open-ended hollow bodies comprising in combination, a link; a pivotal support for said link and connected to said link at the middle of its length; flexible lines of the same length attached to each end of said link; and cylinder-like bodies attached to the free end of each line, each having a diameter greater than half that within the workpiece through which the cylinder-like bodies are adapted to pass during a work-loading operation.

2,848,270
AUTOMOBILE CARRIERS
Robert C. Riemer, Baltimore, Md.
Application March 1, 1955, Serial No. 491,391
2 Claims. (Cl. 296—1)

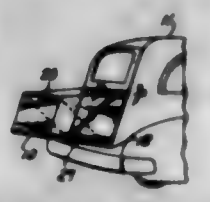


1. In a vehicle for carrying automobiles, the combination of a fixed lower trackway; a fixed intermediate trackway; a removable upper trackway; and an auxiliary trackway slidably mounted on the forward end of said intermediate trackway, and adapted to elongate said intermediate trackway, said auxiliary trackway comprising a U-shaped plate having on its bight an upstanding transverse flange, and a pair of legs extending longitudinally of said intermediate trackway to provide tracks for the automobile wheels.

2,848,271
TAILBOARD COVER FOR OPEN-ENDED VEHICLES
Gerard J. Reilly, Fort Monmouth, N. J.
Application October 1, 1956, Serial No. 613,271
3 Claims. (Cl. 296—37)

1. A tailboard cover for an open-ended vehicle having a tailboard provided with spaced longitudinal edges, said

tailboard being movable to close said open end of such vehicle, comprising a first U-shaped rod pivotally connected to said tailboard for disposition against the rear wall of the vehicle, a second U-shaped rod pivotally secured to said tailboard for rotation to a point substantially parallel with the longitudinal edge of said tailboard, a



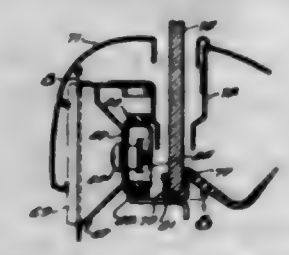
third U-shaped rod pivotally secured to said tailboard for rotation to a point intermediate the first and second rods, a protective covering material secured to said rods, a bracket on the first rod, and a bolt passing through the bracket, engageable with the inner edge of the rear wall of the vehicle adjacent the opening thereof to secure the first rod thereto.

2,848,272

BUMPER FOR LIMITING THE MOVEMENT OF A VEHICLE PANEL

Harold A. Storch, Birmingham, Mich., assignor to Federal Screw Works, a corporation of Michigan

Application July 29, 1955, Serial No. 525,182
12 Claims. (Cl. 296—44)



9. In combination, an assembly including an interior panel, an outer panel, a pane of window glass movably disposed between said interior and outer panels, a frame member connected with the bottom edge of said pane of glass, a flange rigid with said frame member and projecting therefrom toward said interior panel, a bumper device including a generally rectangular sheet metal body having peripheral wall means and a back wall, said back wall having an opening therein, said interior panel having an opening therein, a sleeve of flexible material sleeved over said peripheral wall means, fastener means extending through said openings and connecting said bumper device to said interior panel in position to be engaged by said frame member flange means so that when said frame member and said pane of glass move to a predetermined position relative to said panels the engagement of said bumper device by said flange will limit further movement of said glass in such direction, one of said openings being elongated so as to permit the position of said bumper device to be adjusted relative to said interior panel, and cooperating means on said sleeve and said metal body for preventing accidental displacement of said sleeve relative to said body.

2,848,273

STATION WAGON CONVERTIBLE SEAT

Joseph Raymond Diaz, El Paso, Tex.

Application September 28, 1956, Serial No. 612,689
3 Claims. (Cl. 296—65)

1. In a vehicle body, a storage space, similarly shaped, horizontally aligned main guide tracks on opposite side walls of said storage space and having downwardly and forwardly inclined lower portions, a pair of articulated cover elements slidably mounted in said guide tracks, said guide tracks being formed with horizontal top portions adapted to support the cover elements at times in horizontal positions over said storage space, a downwardly and forwardly extending auxiliary track element integral with and diverging from an intermediate portion of each of the lower portions of said guide tracks, the auxiliary track elements being formed and arranged to guide one of the cover elements toward a substantially horizontal position, and means connected to said one of the cover elements and slidably engaging in the top portions of the main guide tracks and in the upper part



of the lower portions of said main guide tracks, the end portions of each of said means being formed and arranged to move along the lower portions of said main guide tracks and into the terminating ends of the lower portions of the said main guide tracks and of said auxiliary track elements to guide said one section to said horizontal position, the remaining cover element being held in substantially upright position by the intermediate part of the lower portions of said main guide tracks.

2,848,274

REMOVABLE TOP FOR TRUCK BODY

Henry O. Geisler and Clinton P. Martin, Portland, Oreg., assignors to G-M Sheet Metal Works, Portland, Oreg., a copartnership

Application July 5, 1955, Serial No. 519,922
5 Claims. (Cl. 296—102)



3. A removable top for pick-up trucks comprising a frame, said frame including transverse ribs disposed in longitudinally spaced relation and connected at their lower ends by longitudinal frame members, said longitudinal frame members being adapted to rest upon upper edges of a truck body, a lightweight covering over said frame, said top having an open rear portion and an upper rear wall portion, a closure for said open rear portion depending from said rear wall portion and pivotally connected thereto, said rear wall portion including an upwardly open channel part, said closure having an upper flange overlying said channel part, a generally circular cross-sectional rod secured to the underside of said flange, said rod being seated in said channel part and forming in combination therewith a hinge for said closure, said channel part, said flange and said rod being coextensive, and a rain gutter overlying said channel part in vertically spaced relation relative thereto.

2,848,275

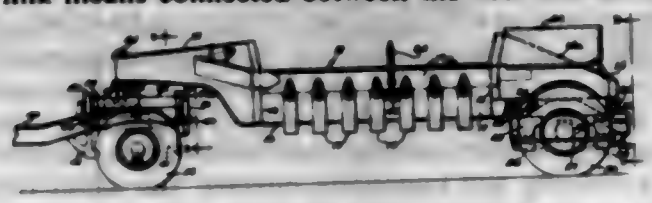
FRAMELESS SIDE DUMP TRAILER

George E. Armington, South Euclid, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 15, 1954, Serial No. 443,472
11 Claims. (Cl. 298—18)

1. An off-the-road vehicle comprising a front and rear axle, each of said axles mounted on wheel means, a truck

mounted on each of said axles, a frameless laterally discharging bed pivotally mounted between said trucks, and link means connected between the bed and the truck



on each of said axles being movable relative to each of said trucks for directing the pivotal movement of said bed.

2,848,276
LIQUID DISTRIBUTOR
Jack F. Clearman, St. Joseph, Mich.
Application November 19, 1956, Serial No. 623,205
6 Claims. (Cl. 299—68)



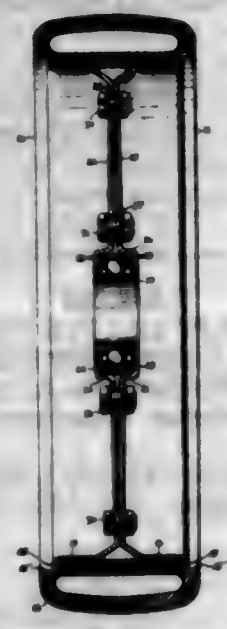
1. A lawn sprinkler or similar device for distributing a quantity of water comprising tubular means defining spaced limiting means, an annular wobble plate freely mounted on said tubular means between said limiting means, a diverter element rigidly supported by said wobble plate in a position spaced from one end of said tubular means and in registry therewith, said wobble plate and said diverter element adapted to effect said distribution of said water in a plurality of directions responsive to the impact thereof.

2,848,277
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application February 18, 1954, Serial No. 411,151
5 Claims. (Cl. 301—37)



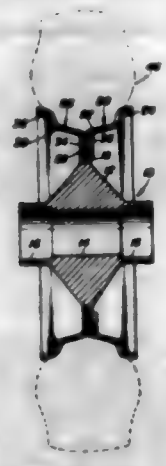
1. In a wheel structure including a tire rim and wheel body having generally radially outwardly directed cover retaining bumps thereon, a cover for disposition at the outer side of the wheel comprising a plate adapted to overlie the wheel body and having an outer extremity to substantially cover the tire rim, said plate having a flange extending in reinforcing relation from the outer extremity thereof inwardly and provided with a terminal flange portion extending generally axially inwardly and having a radially inwardly projecting bump-engaging inner terminal structure thereon engageable in snap-on pry-off relation with the bumps.

2,848,278
GAUGE WHEEL FOR AGRICULTURAL IMPLEMENTS
Everett W. Todd, Racine, Wis., assignor to Massey-Ferguson Inc., a corporation of Maryland
Application October 15, 1954, Serial No. 462,499
1 Claim. (Cl. 301—63)



A gauge wheel for agricultural implements comprising; a pair of complementary axial spaced disks each having around their periphery an axially extending tire seat flange and a radially extending tire retaining flange; a flexible tire mounted on said seat flange and between said retaining flanges and rigidly held thereby; said disks each having a central flange defining an aperture and comprising, an axially extending bearing seating flange, a radially extending bearing clamping flange; said disks each having a radially inner and outer ring of circumferentially spaced apertures, a bearing assembly comprising inner and outer races, said outer race mounted within said bearing seating flange and between said clamping flanges; and means including bolts extending through said apertures for securing said disks together whereby said tire and said bearing assembly are rigidly held by said retaining flanges and said clamping flanges, respectively; said axially extending bearing seating flanges being of less total length in an axial direction than said outer race before said disks are rigidly secured together.

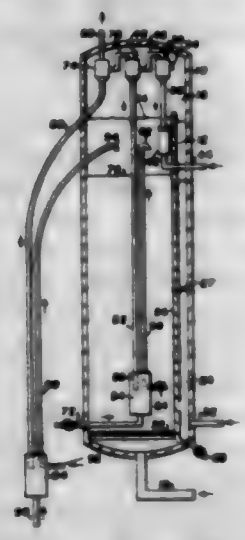
2,848,279
SELF-LOCKING WHEEL ASSEMBLY
James E. Parker, Sr., Warwick, R. I.
Application October 17, 1955, Serial No. 540,800
1 Claim. (Cl. 301—63)



A separable self-locking wheel assembly comprising first and second wheel sections, each of said wheel sections including a tire retaining rim flange portion and a connecting flange, a hub immovably fixed to said connecting flange of one of said sections, said connecting flanges being disposed in face to face engagement, headed

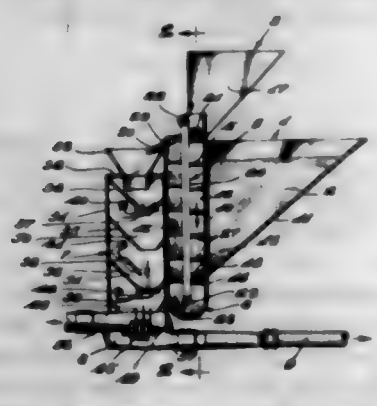
stud members on one of said connecting flanges, aligned slots in the other of said connecting flanges receiving said stud members, heads of said studs engaging a remote surface of said other connecting flange, said slots having enlarged portions receiving said heads, and means on said tire retaining rim flange portions for interlocking with a tire carried by said wheel for preventing relative rotation of said wheel sections to release said stud members when said tire is inflated, said stud members being circumferentially arranged and said slots being both circumferentially arranged and circumferentially elongated to insure alignment of said wheel sections, said stud members and slots forming the sole connections between said first and second wheel sections.

2,848,280
METHOD AND APPARATUS FOR HANDLING FINELY DIVIDED SOLIDS
George F. Pappas, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application September 15, 1953, Serial No. 380,321
9 Claims. (Cl. 302—53)



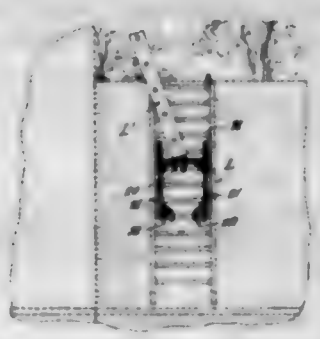
1. In combination, a vessel adapted to contain fluidized solids and provided with an inlet and an outlet for gasiform material, a cyclone separator in the upper portion of said vessel for separating entrained solids from outgoing gasiform material, means for returning separated solids from said cyclone separator to said vessel, said means including a dipleg extending down from said cyclone separator to near the bottom of the vessel, a lift pot associated with the lower end of said dipleg, a riser connected with the top of said lift pot and extending to an upper portion of said vessel and means for introducing gas into the lower portion of said riser to move solids to an upper portion of said vessel.

2,848,281
MEANS FOR SPREADING SEEDED TOP SOIL
Paul Avard, Cap Rouge, Quebec, Canada
Application February 25, 1957, Serial No. 642,285
9 Claims. (Cl. 302—55)



1. A machine for mixing and ejecting granular materials at least one of which is in substantially moist condition and of small particle size such as topsoil, comprising in combination, a conveyor belt, means to discharge said materials onto said conveyor belt, an airlock system, means to discharge the mixture of materials into said system, a circular housing in communication with the lower end of said air lock system, inlet and outlet tubes to feed and discharge a high velocity gas stream into and from said housing, said tubes being tangential to said housing and oppositely directed and offset transversely of the housing so as to cause said gas stream to follow a substantially helical path inside said housing, a transverse partition inside said housing defining an upper and a lower chamber, said inlet tube being in communication with said upper chamber, an aperture within said partition to establish communication between said upper and lower chambers, so arranged that the materials discharged as batch loads from said airlock system into said housing will partly fall on said transverse partition and partly directly enter said lower chamber through said aperture in said partition to be gradually taken up by the helically moving air stream and discharged through said outlet tube.

2,848,282
LADDER PLATFORM
William M. Weber, Berkeley Heights, N. J.
Application November 30, 1955, Serial No. 549,943
1 Claim. (Cl. 304—31.5)



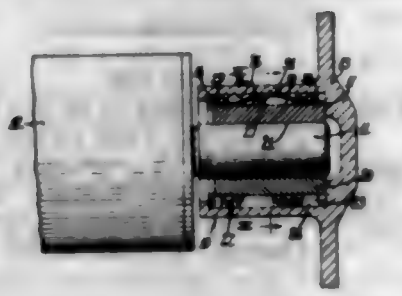
A ladder platform adapted to be supported by the rungs of a roof-laid primary ladder for the support of a secondary ladder, said platform comprising: an elongated platform having a ladder-attachment end and a distal end, said platform being adapted to be arranged in level position with its ladder-attachment end resting upon an upper rung of the primary ladder and being of channel construction having depending flanges along the side edges thereof provided at the ladder-attachment end of the platform with laterally aligned downwardly opening recesses in said flanges to embracingly engage said upper rung of the primary ladder in the manner of a substantially ladder-wide hinge connection; the depending flanges of the platform being provided further with plural longitudinally spaced pairs of laterally aligned downwardly presented adjustment recesses; a pair of struts adapted to be arranged side by side at said distal end of the platform in straddling and slidably overlapping relation thereto and being of sufficient length in relation to the spacing between rungs of a standard ladder that either strut of the pair will overlap the sides of the ladder platform while in level position and reach downward in vertical position to a lower rung of the primary ladder while the other strut reaches downward in obliquely inclined position to the next downwardly adjacent rung; feet provided on the lower ends of said struts and having downwardly facing recesses to embracingly engage and rest upon selected lower rungs of the primary ladder; and horizontally projecting separately vertically adjustable support members provided on the respective struts for selective engagement with the laterally aligned adjustment recesses of any pair in the platform flanges to erect the platform in level position.

2,848,283

BEARING ASSEMBLY FOR A HIGH ALTITUDE BOOSTER PUMP

Victor C. Schroeder, Willoughby, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application July 13, 1956, Serial No. 597,637
3 Claims. (Cl. 308—63)



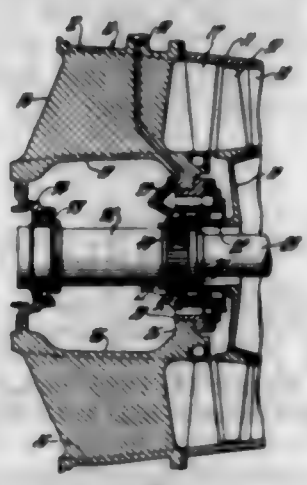
1. In an aircraft fuel pump, a casing having fuel lubricated bearing means alternately subject to wet and dry operation, a rotatable shaft in said bearing means having a peripheral super finished coating forming a surface having a low coefficient of friction for running in said bearing means, said bearing means comprising a bearing sleeve made of carbon ring material and split along its length to form segmental bearing parts, each of said bearing parts having an inner bearing surface together forming a journal surface for engaging said coating on said shaft, a circumferentially continuous retainer sleeve surrounding said bearing sleeve, and a spring strip bowed to engage against the outer surface of an adjoining one of said segmental bearing parts and the inner surface of said retainer sleeve to load said bearing part radially inwardly, said spring strip and said retainer sleeve comprising stainless steel material, whereby prolonged dry-run operation of said pump can be effected.

2,848,284

BEARING OIL SCAVENGER

Robert P. Atkinson and Frederick W. Hoeltje, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 20, 1957, Serial No. 666,898
3 Claims. (Cl. 308—187)



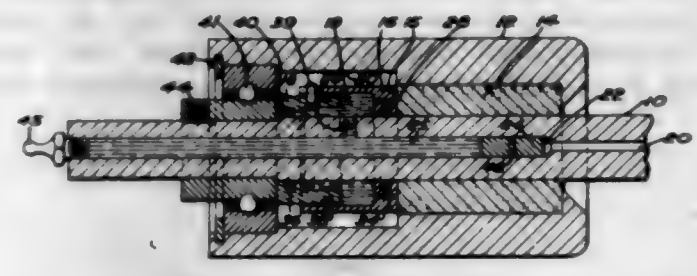
1. The combination of a supporting web, a bearing mounted in the web, a shaft mounted in the bearing, means for supplying oil to the bearing, an oil slinger on the shaft adjacent the bearing, the slinger having a radially ribbed surface facing the bearing, means defining an annular oil-receiving chamber on the web surrounding the periphery of the slinger and open at its radially inner side to receive oil from the slinger, a number of deflectors extending across the chamber adapted to deflect oil from a circumferential path in the chamber toward the web, and means providing a passage through the web at each deflector to transmit the oil through the web.

2,848,285

ROTARY SHAFT SEAL

John J. Fischer, East Stroudsburg, Pa., assignor to The Patterson-Kelley Co., Inc., East Stroudsburg, Pa.

Application March 8, 1956, Serial No. 570,283
4 Claims. (Cl. 308—187.1)



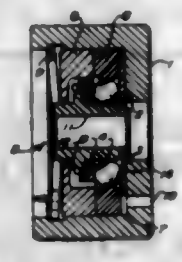
1. A rotary shaft seal comprising a housing adapted to be stationarily mounted to accommodate therein a rotating shaft, said housing having a pressure sealing sleeve bearing at one end therewithin encircling the rotating shaft and having an annular chamber at its outer end, an end thrust ball bearing closing the outer end of said chamber and positionally keyed to said shaft and to said housing, a pressure-expansive sealing device mounted about said shaft within said chamber and comprising a pair of telescopically related cylinders bottomed against said sleeve and ball bearing, respectively, and pressure-sealed to said shaft and to each other, said cylinders being formed to provide interiorly thereof a fluid chamber, said shaft being longitudinally bored for connection in communication with a fluid pressure source and provided with a lateral bore outlet in communication with said fluid chamber, a pressure transmission piston disposed interiorly of said shaft bore and slidable therein, said piston being located between the lateral outlet of said shaft and said fluid pressure source, and a lubricating fluid under pressure filling said shaft bore and said fluid chamber, whereby the pressure from said pressure source will bias said piston against said fluid in said shaft bore thereby biasing one of said sealing cylinders into sealing relation against said sleeve, the pressure exerted by said seal against said bearing being a function of the pressure derived from said source.

2,848,286

BALL BEARING

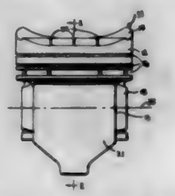
Lawrence S. Williams, Toledo, Ohio, assignor, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio

Application December 14, 1955, Serial No. 553,101
21 Claims. (Cl. 308—193)



1. A device of the class described comprising, in combination, a bearing housing, a ball bearing assembly that is supported within the housing and that includes an outer race, an inner race, a series of bearing balls, and guiding means at the sides of the balls to keep the balls tracking in a substantially vertical plane, the guiding means at one side of the balls being depressed in an area below the inner race to permit axial movement of the balls under load so that axial pressure of said balls under load against said guiding means having said depressed area does not occur, and retainer means for holding the ball bearing assembly within the housing.

2,848,287
PISTON HEAD CONSTRUCTION
Archie D. McDuffie, Berkley, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 14, 1955, Serial No. 515,293
4 Claims. (Cl. 309—11)



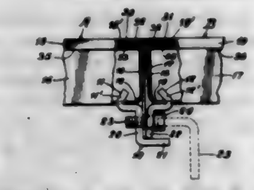
1. A non-distorting piston for an internal combustion engine comprising a wedge-shape head portion, a skirt portion, a wrist pin bearing, the wrist pin bearing axis being substantially normal to any longitudinal wedge section, and expansion grooves formed in said head permitting expansion of said head in the direction of the wrist pin axis without resultant distortion of the remainder of the piston.

2,848,288
PISTON RING
Ralph H. Johnson, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 23, 1955, Serial No. 530,096
6 Claims. (Cl. 309—24)



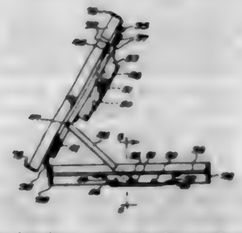
1. A piston ring comprising an annular cylinder engaging member including a pair of continuous and axially spaced and circumferentially extending flanges having circumferentially spaced web members extending radially inwardly from said flanges and connecting said flanges, said circumferentially spaced web members being formed adjacent said flanges to provide support means and between said support means being formed to provide resilient connecting means, said web members at said resilient connecting means being more resilient than elsewhere throughout the extent of said web members.

2,848,289
FURNITURE CLAMPING DEVICE
John H. Page, Muskegon, Mich., assignor to The Shaw-Walker Company, Muskegon, Mich., a corporation of Michigan
Application May 23, 1957, Serial No. 661,136
2 Claims. (Cl. 311—4)



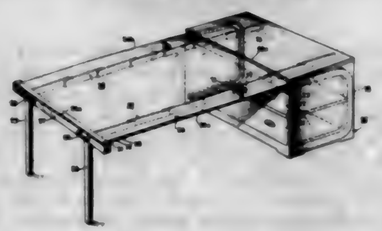
1. A clamping device for table tops and the like comprising two opposed generally parallel apertured jaw members, an apertured filler plate between them, a holding bolt loosely penetrating the aperture in one jaw member and the filler plate and threaded in the aperture in the other member, the jaw member in which the bolt is threaded having a perpendicular extension below the bolt adapted to contact the lower edges of the filler plate and the other jaw member, opposed clamping hooks carried by the jaw members above the bolt, the filler plate extending upwardly above the hooks.

2,848,290
SUPPORTING MECHANISM FOR TILTABLE TABLE TOPS AND THE LIKE
Boyd A. Doty, Buffalo, N. Y., assignor to Hard Manufacturing Company, Buffalo, N. Y.
Application November 18, 1955, Serial No. 547,783
4 Claims. (Cl. 311—38)



1. A table top having a relatively stationary part and a swingable part having a pivotal connection therewith to swing into various angular relations to said relatively stationary part, a latch pivoted at one end thereof on said swingable part, a succession of stops with which the other end of said latch may engage when swinging in one direction to hold said swingable part in different angular positions, a latch guide member movably mounted on said other end of said latch, a track along which said guide member moves when said swingable part is swung about said pivotal connection, said guide member having two track engaging edges spaced at different distances from said other end of said latch, one of said edges being spaced from said other end of said latch at such distance that when in engagement with said track, said latch is supported in position to engage with said stops and the other edge when in engagement with said track supporting said latch in a position clear of said stops, and means for shifting said guide member at each end of the path of movement of said latch to reverse the position of said guide member with relation to said track.

2,848,291
TABLE CONSTRUCTION HAVING RETRACTILE TOP PORTION
Frederick Hafekost, Mohawk Trail, N. J., and Leo Edelson, Mamaroneck, N. Y., assignors to Steel Slides, Inc., New Rochelle, N. Y., a corporation of New York
Application August 15, 1955, Serial No. 528,479
9 Claims. (Cl. 311—54)



1. In a table of the class described, primary table support means; a pair of extension arms each consisting of a plurality of slide elements, one slide element of each pair of extension arms being secured substantially horizontally to said primary table support means thereby positioning the other slide elements of each arm for movement horizontally and in the same direction from such support means; secondary table support means, the outer slide element of each extension arm being connected to said secondary table support means thereby adapting the latter for relative movement toward and away from the primary support means, said extension arms thereby being extendable and contractable in response to the movement of said secondary table support means relative to said primary support means; a table top flexible longitudinally but substantially rigid transversely, such table top being connected at one extremity thereof to said secondary table support means, and connecting means for interconnecting said flexible table top to at least one of said slide elements of each of said extension arms in response to the separation of said primary and secondary table support means by a selected degree, such connecting means including one connecting element secured to at least one such slide element of each extension arm and another connecting element secured to the underside of the flexible table top.

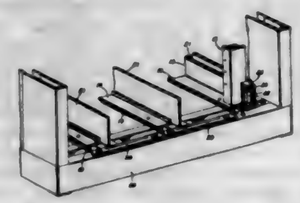
2,848,292
X-RAY FILM CABINET
Ward M. Lewis, Forest Lake, Minn.
Application May 6, 1955, Serial No. 506,566
2 Claims. (Cl. 312—28)



1. A cabinet for filing X-ray films having in combination, a container generally parallelepiped in form having a top opening in a plane inclined downwardly and forwardly and a mating cover hinged over said open top, a plurality of flat members forming dividers adapted to conform to the transverse and vertical dimensions of said container formed of somewhat rigid yet resilient sheet material respectively having their longer side portions bent in the same direction at a right angle, the outer end portions of said bent side portions respectively being bent toward each other somewhat less than a right angle, said dividers being vertically disposed in said container transversely thereof through said open top with adjacent dividers respectively pressing against and moving said last mentioned end portions under tension to right angled positions whereby said dividers are frictionally held in position to form compartments, a substantially narrow member of sheet material having an elongated central portion with spaced upstanding side portions having reversely bent upper ends to be disposed over the sides of one of said dividers to provide a bottom rest at a distance above the bottom of said container to support X-ray film of a height less than the height of said container.

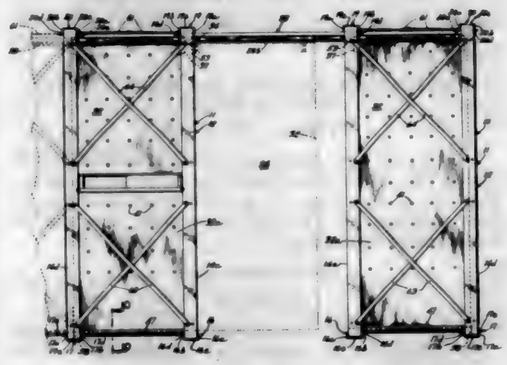
2,848,293
MECHANICAL INTERLOCK FOR CABINET-HOUSED APPARATUS-MOUNTING FRAMEWORKS
William C. Jurgens, Copiague, and Joseph A. Seifert, New Hyde Park, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 2, 1956, Serial No. 595,348
5 Claims. (Cl. 312—222)

1. In combination, a cabinet comprising a plurality of adjacently disposed apparatus units, means mounting each of said apparatus units for individual slidable movement out of and into a home position in said cabinet, and means for preventing the withdrawal of more than one of said apparatus units from their home positions at one time, comprising a plurality of lock bars mounted on said cabinet in tandem array, means mounting said lock bars on said cabinet for limited slidable movement only in a direction at right angles to the direction of movement of said units, each of said lock bars having integrally formed camming surfaces, a guide bar individual to and



rigidly fixed to each of said apparatus units and normally disposed with respect to a camming surface of at least one of said lock bars as to coact therewith to laterally displace the corresponding lock bars when a corresponding apparatus unit is withdrawn from its home position and to interpose itself between a pair of adjacent lock bars whereby the said guide bar of a withdrawn unit functions to prevent lateral displacement of the lock bars by the guide bars of the other of said units and thereby to effectively lock said other units in their home positions in said cabinet.

2,848,294
COMBINATION ARTICLE-SUPPORTING AND DISPLAY RACK AND STORAGE CABINET UNIT
Robert E. Sandberg, North Warren, Pa., assignor to Royal Metal Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application January 3, 1956, Serial No. 556,836
1 Claim. (Cl. 312—234)



A combination self-contained unitary article-supporting display rack and storage cabinet unit for storing a plurality of relatively large flat templates, engineering drawings, or like articles, said unit comprising a pair of cabinets, each including a skeletal steel support structure, disposed in spaced relation to each other to afford an intercabinet examination and work space, a plurality of parallel horizontal channel-shaped trackways mounted on said cabinet support structures, said trackways each extending completely across the inter-cabinet space and substantially completely across the upper part of both of

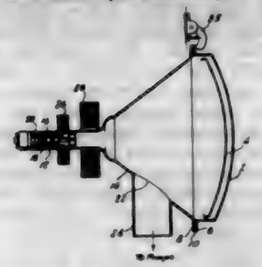
said cabinets, a corresponding plurality of pairs of relatively flat combination article storage and display racks each adapted to be stored within one of said cabinets and each including a horizontally projecting peripheral protective flange of predetermined height, rack suspension means comprising at least two anti-friction rollers mounted on spaced vertically extending hanger elements affixed to each of said racks, said rollers being adapted to engage in said trackways to suspend said racks in pairs therefrom and to permit movement of each of said racks along its trackway from a normal stored position within a cabinet to a display position in said inter-cabinet space, means for mounting a plurality of article supporting hangers on each of said racks at any of a multiplicity of hanger positions to removably suspend a variety of articles of differing sizes and configuration thereon within the confines of said protective flange, elongated guideways mounted below said trackways adjacent the lower portions of said racks in substantially parallel relation to the trackways in position to guidingly engage said racks during movement thereof along said trackways, a plurality of latchdogs pivotally mounted on said trackways, each of said latchdogs having a latching end portion engageable in a slot in the peripheral flange of one of said racks to limit outward movement of said racks and prevent each of said racks from colliding with the other rack on the same trackway when moved to display position, stop means projecting upwardly above said guideways to engage the lower end portions of said racks for limiting inward movement of said racks, and each of said trackways having a dip portion formed in the inner end portion thereof such that when the racks are disposed in normal stored position, at least one of said rollers associated with each of said racks is disposed in said dip portion to thereby yieldingly hold the racks from being accidentally moved out of stored position.

2,848,295

METHOD OF FORMING COLOR PHOSPHOR MOSAIC FOR TELEVISION PICTURE TUBES

Albert M. Skellett, Madison, N. J., assignor to Tung-Sol Electric Inc., a corporation of Delaware

Application May 3, 1956, Serial No. 582,594
2 Claims. (Cl. 316—22)



1. In the method of preparing a phosphor mosaic screen for color television picture tubes wherein a photosensitive color phosphor composition on a face plate is exposed through a mask to radiation from a source located with respect to the face place in accordance with the intended location of the electron color gun during reproduction, the improvement which comprises utilizing an electron gun as such source, providing an enclosure for the electron source and phosphor composition, evacuating such enclosure at a rate rapid enough to bring the pressure down substantially to that within a picture tube without substantial reduction of liquid content of the phosphor composition, scanning the composition through the mask with a beam of electrons from the gun and completing the scanning operation while the composition is still moist.

CHEMICAL

2,848,296

PROCESS FOR THE BASIC DYEING OF VINYLIDENE CYANIDE INTERPOLYMERS

Hansjörg Heller, Basel, Switzerland, assignor to The B. F. Goodrich Company, New York, N. Y., a New York corporation

No Drawing. Application November 17, 1955
Serial No. 547,550
7 Claims. (Cl. 8—55)

1. The process of dyeing vinylidene cyanide interpolymer textiles which comprises treating said textiles with a basic dye in the presence of an additive selected from the class consisting of 2-hydroxy-3-naphthoic acid and N-beta-naphthyl-beta-alanine.

2,848,297

MANGANESE ETHYLENEBISDITHIOCARBAMATE STABILIZED BY DESICCANT; METHOD AND PACKAGE

Sanford J. Hill, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 12, 1953
Serial No. 385,687
3 Claims. (Cl. 21—2)

1. A method for protecting manganese ethylenebisdithiocarbamate from decomposition on storage in a closed container which comprises including within the container a minor amount of a desiccant, sufficient to stabilize the dithiocarbamate.

2,848,298

VAPOR-PHASE CORROSION INHIBITION

Frank Ross and Charles Mellick, Chicago, Ill., assignors to Dearborn Chemical Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application November 23, 1954
Serial No. 470,822
26 Claims. (Cl. 21—2.5)

2. A composition consisting essentially of a mixture of (*a*) a salt of a C_6—C_{10} alkanoic acid and a metal selected from the first two "A" groups of the periodic system, (*b*) a salt of nitrous acid and a metal selected from the first two "A" groups of the periodic system, and (*c*) a di-alkali metal phosphate; the weight ration of (*a*):(*b*) being 1:10 to 10:1 and the weight ratio of (*a*) plus (*b*):(*c*) being 50:1 to 10:1.

2,848,299

CORROSION INHIBITION IN WATER SYSTEMS

Harry Lewis Kahler, Feasterville, Chester A. Bishof, Churchville, and William A. Tanzola, Havertown, Pa., assignors, by mesne assignments, to Betz Laboratories, Inc., a corporation of Pennsylvania

No Drawing. Application January 11, 1956
Serial No. 558,415
8 Claims. (Cl. 21—2.7)

1. The process of reducing the corrosion and sludging in a cooling water system, which system contains metal parts of the class consisting of iron, steel, copper base alloy and aluminum base alloy, and which system contains in the water at least 1 p. p. m. of aluminum ion, which comprises adding to the water containing such aluminum ion and in contact with such metal parts, water soluble fluoride compound in concentration between 10 and 200 p. p. m. expressed as sodium fluoride and water soluble chromate compound in concentration between 1 and 200 p. p. m. expressed as $Na_2Cr_2O_7 \cdot 2H_2O$, and maintaining in the water a pH between 5 and 8.

2,848,300

PROCESS OF SEPARATING URANIUM FROM AQUEOUS SOLUTION BY SOLVENT EXTRACTION

James C. Warf, Los Angeles, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application February 6, 1950
Serial No. 142,707
24 Claims. (Cl. 23—14.5)

1. A process for separating uranium values from an aqueous solution containing a uranium salt, comprising contacting said solution with an organic solvent containing tributyl phosphate whereby the uranium enters the solvent phase, and separating a solvent extract phase from an aqueous phase.

2,848,301

SEPARATION OF PLUTONIUM HYDROXIDE FROM BISMUTH HYDROXIDE

George W. Watt, Austin, Tex., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 21, 1948
Serial No. 34,353
11 Claims. (Cl. 23—14.5)

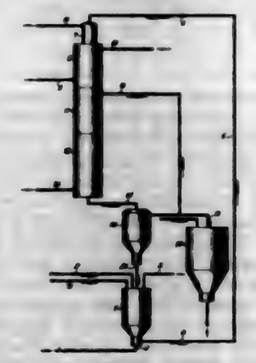
1. The process of separating plutonium from bismuth in a composition of bismuth hydroxide and plutonium hydroxide, which comprises reducing the bismuth to the metallic state by means of a reducing agent having a potential between 0.46 and 2.64 volts in aqueous alkaline solution to reduce bismuth hydroxide but not plutonium hydroxide, and dissolving the plutonium hydroxide by a solvent selected from the group consisting of dilute mineral acids, a mixture of sulfur monochloride and chlorine, and carbon tetrachloride whereby the plutonium hydroxide but not the bismuth metal is dissolved.

2,848,302

METHOD OF PRODUCING AMMONIUM SULFATE AND FERROUS HYDROXIDE FROM FERROUS SULFATE PICKLE LIQUOR

Alfred Jäppelt and Alexander Doerges, Dortmund, and Helmut Schade, Castrop-Rauxel, Germany, assignors to F. J. Collin Aktiengesellschaft, Dortmund, Germany

Application July 20, 1954, Serial No. 444,562
2 Claims. (Cl. 23—119)



1. A cyclic process for the utilization of waste pickle liquor containing ferrous sulfate and sulfuric acid comprising a series of stages as follows: in a first stage, treating the waste pickle liquor with sulfuric acid and with insoluble reaction products obtained by contacting crude coke oven gas containing hydrogen sulphide, hydrogen cyanide and at least as much ammonia as is equivalent to the sum of hydrogen sulfide and hydrogen cyanide contents, with a scrubbing liquor containing ferrous sulfate, during such treatment evolving gas rich in hydrogen sulphide; in a second stage contacting the liquor resulting from the first stage with coke oven gas coming from the next succeeding stage and containing ammonia, whereby all the ammonia is removed from the gas and some ferrous hydroxide is precipitated; in a third stage contacting the liquor from the second stage with coke oven gas coming from the fourth stage of the process and containing ammonia, and adding a circulating ammoniacal solution of ammonium sulfate, whereby part of ammonia is removed from the gas, and ferrous hydroxide is precipitated; in a fourth stage contacting the liquor from the third stage with coke oven gas containing hydrogen sulphide, hydrogen cyanide and at least as much ammonia as is equivalent to the sum of the hydrogen sulphide and hydrogen cyanide contents of the gas, whereby hydrogen sulfide, hydrogen cyanide and part of ammonia are removed from the gas and ferrous sulfide and ferro cyano-compounds are precipitated; in a fifth stage, separating the insoluble reaction products from the resulting ammoniacal ammonium sulfate solution and delivering the insoluble reaction products to the first stage there to be treated with waste pickle-liquor and sulfuric acid, recirculating a portion of the ammonium sulfate solution to the third stage and processing another portion by evaporation to crystalline ammonium sulfate.

2,848,303

PRODUCTION OF LOWER OXIDES OF TITANIUM

Hugh S. Cooper, Shaker Heights, Ohio, assignor to Walter M. Weil, Cleveland, Ohio

No Drawing. Application January 25, 1955
Serial No. 484,063
10 Claims. (Cl. 23—202)

1. The method of converting rutile titanium dioxide into a lower oxide of titanium soluble in sulfuric acid, comprising preparing an intimate mixture of rutile and finely divided carbon in an amount between about 7½% and 15% of the weight of rutile, and heating the mixture for up to several hours in an atmosphere consisting essentially of hydrogen at ambient pressures and at a temperature in the range of about 1300° C. to 1600° C. until the rutile is substantially all reduced at least to the lower oxide, Ti_3O_5, and the carbon is substantially all consumed and evolved as CO.

2,848,304

PROCESS FOR PRODUCING DICOBALT OCTACARBONYL

Toichi Yoshida, Kamakura-shi, Kanagawa-ken, Ryoji Iwanaga, Magome-cho, Ota-ku, Tokyo, and Hisao Mori, Setagaya-ku, Tokyo, Japan, assignors to Ajinomoto Co., Inc., Tokyo, Japan, a corporation of Japan

No Drawing. Application April 4, 1956
Serial No. 575,923
Claims priority, application Japan April 22, 1955
2 Claims. (Cl. 23—203)

1. In a process for producing dicobalt octacarbonyl by reacting cobalt substance in inert solvent with carbon monoxide and hydrogen under pressure and heating, a process for producing dicobalt octacarbonyl comprising performing the reaction in the presence of a pyridine base selected from the group consisting of pyridine, lutidine, and picoline at temperature of about from 100° C. to about 200° C. under pressure from 50 kg./cm.² to 1000 kg./cm.².

2,848,385

APPARATUS FOR THE PRODUCTION OF ACETYLENE BY INCOMPLETE COMBUSTION OF HYDROCARBONS

Erwin Lehrer, Bad Durkheim, and Werner Altstaedt, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

Application June 10, 1955, Serial No. 514,616
Claims priority, application Germany June 12, 1954
5 Claims. (Cl. 23—277)



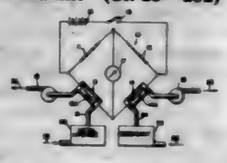
1. An improved apparatus for the production of acetylene by incomplete combustion of heated gaseous hydrocarbons and oxygen in a flame reaction comprising: means to supply the heated reactant gases to a mixing chamber; an elongated mixing chamber conically widened in the direction of gas flow, said mixing chamber and said supply means being supported in fixed relationship with each other; an expansion joint connecting said supply means and said mixing chamber, said expansion joint including a first elongated cylindrical member secured at one end to said supply means and in gaseous connection therewith to receive said gaseous hydrocarbons and oxygen, the other end of said first cylindrical elongated member being free for longitudinal displacement under operating temperatures, and said expansion joint also including a second elongated cylindrical member attached at one end as an extension to the smallest end of said conically widened mixing chamber and extending freely therefrom for longitudinal displacement under operating temperatures, said first elongated cylindrical member being arranged for gaseous connection within said second elongated cylindrical member during longtudinal displacement of said members relative to each other under operating temperatures; an insulating layer surrounding said mixing chamber enclosed by a rigid housing; and a reaction chamber for said flame reaction adapted to receive the reactant gases from said mixing chamber through a gas distributor.

2,848,306

HUMIDITY DETERMINATION

Donald R. Blumer, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application September 23, 1954, Serial No. 457,912
2 Claims. (Cl. 23—232)



1. The method of determining the water vapor content of a gaseous mixture which includes passing a standard reference gas through a first chamber wherein its relative thermal conductivity may be measured, passing a sample of a gas of unknown composition through a metal hydride bed wherein the water vapor is converted to molecular hydrogen, and thence passing said converted gas through a second thermal conductivity chamber wherein its thermal conductivity may be measured and compared with that of the reference gas.

2,848,307

PROCESS FOR DETECTING PRESENCE OF BORANES

William H. Hill, Mount Lebanon, Pa., assignor to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application February 4, 1955
Serial No. 486,266
10 Claims. (Cl. 23—232)

1. A process for detecting the presence of boranes which comprises contacting air contaminated with a volatile borane in an amount less than can be detected by smell with a tetrazolium salt in an alkaline solution to produce a distinct color change.

2,848,308

COMPOSITION OF MATTER

Alfred H. Free, Elkhart, Ind., assignor to Miles Laboratories, Inc., Elkhart, Ind., a corporation of Indiana

No Drawing. Application December 5, 1955
Serial No. 550,859
6 Claims. (Cl. 23—253)

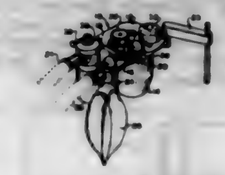
1. A composition for detecting glucose in urine which comprises glucose oxidase, peroxidase, an indicator which is oxidized by hydrogen peroxide in the presence of peroxidase and undergoes a color reaction during such oxidation, a buffer for maintaining the pH of the aforesaid mixture at about 4 to about 6 in the presence of urine, and material selected from the group consisting of proteins and protein degradation products.

2,848,309

CARBON DIOXIDE ABSORBER

Wayne W. Hay, Madison, Wis., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

Application October 23, 1956, Serial No. 617,875
12 Claims. (Cl. 23—284)



1. A carbon dioxide absorber for anesthetic administering apparatus, comprising a housing having an annular seating surface on the bottom thereof, a detachable, cylindrical canister supported by said housing, adapted to hold a supply of carbon dioxide absorbent, having an open top received in substantially gas-tight engagement against said annular seating surface, first and second openings in the bottom of said housing registering with the open top of said canister and forming a part of a breathing circuit through which gases are adapted to be circulated through said canister, said first opening being concentrically disposed with respect to said annular seating surface, a removable down-tube assembly in said canister, including a vertical tubular member registering at its upper end with said first opening and having a radially extending screen at its lower end which is adapted to support thereon a bed of the carbon dioxide absorbent, said screen being seated on the bottom of said canister and shaped with respect thereto to form a distributing chamber at the bottom of said canister communicating with the lower end of said tube, and means for detachably securing said canister to said absorber, including a threaded socket within said first opening and a retaining screw, said retaining screw having an adjusting knob bearing against the bottom of said canister and an elongated shaft extending upwardly through said tubular member, threadedly engaged in said socket.

2,848,310

METHOD OF MAKING SINGLE CRYSTAL FERRITES

Joseph P. Remeika, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 14, 1954, Serial No. 475,239
12 Claims. (Cl. 23—305)



1. A method of making single crystals of ferrite comprising heating lead oxide and the constituent components of a polymetallic ferrite having a spinel crystal structure to a temperature above 880 degrees centigrade at which the ferrite is dissolved in the lead monoxide, and crystallizing the ferrite material out of solution by reducing the temperature of the melt at a rate less than 30 degrees centigrade per hour.

2,848,311

MANUFACTURE OF SILICEOUS PELLETS

Charles A. Greene, Pittsburgh, Pa., assignor, by decree of distribution, to Edith E. Greene

No Drawing. Application April 22, 1954
Serial No. 425,043
2 Claims. (Cl. 23—313)

1. A process of forming synthetic siliceous pigments into round, firm pellets comprising the steps of subjecting the said pigment in the filter cake pulp state, in which state the moisture content of the filter cake pulp is in the order of 85% by weight, to a crumbling action to break the pulp into rough clusters and at the same time drying the mass during said crumbling action to reduce the moisture content of the mass to about 55% to 60% by weight by heating the mass to a temperature not to exceed 95° C., then subjecting the mass to a tumbling action in a rotating drum to form the pellets and at the same time subjecting the mass during the tumbling action to warm dry air to still further reduce the moisture content of the mass by heating the mass to a temperature not to exceed 95° C., screening the mass to isolate the properly formed pellets, subjecting the properly formed pellets to another tumbling action and at the same time reducing the moisture content of the pellets, the rate of tumbling and the rate of reducing the moisture content being controlled so that at the completion thereof, round, firm pellets of desired size will be formed having a moisture content of about 5% by weight.

2,848,313

COMPOSITION CONTAINING 2-METHYL PENTANEDIOL-2,4 HYDROGEN BORATE AND BIS-(2-METHYL PENTANEDIOL-2,4) DIBORATE

Chien-wei Liao, Cleveland, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application October 4, 1956
Serial No. 613,843
2 Claims. (Cl. 44—63)

1. A fuel additive composition consisting essentially of from 5 to 15% solid 2-methyl pentanediol-2,4 hydrogen borate and an amount within the range from 95 to 85% liquid bis-(2-methyl pentanediol-2,4) diborate to dissolve the solid hydrogen borate and maintain the composition homogeneous and fluid at least down to 40° F.

2,848,313

METHOD OF CHEMICALLY DISINTEGRATING AND PULVERIZING SOLID MATERIAL

Riotaro Takahashi and Takehiko Yuiza, Tokyo, Japan

No Drawing. Application August 23, 1955
Serial No. 530,205
Claims priority, application Japan May 4, 1955
14 Claims. (Cl. 75—.5)

9. The process of disintegrating scrap comprising hard metal carbide and a metallic bond, which comprises treating said scrap with a gas containing carbon monoxide whereby the metallic bond forms a carbonyl powder, said scrap thereby being disintegrated and depositing the hard metal carbide as a powder.

10. The process of claim 9, wherein the mass is treated to decompose said carbonyl into free metal powder which at least partly coats the surface of said hard metal carbide powder.

2,848,314

PRODUCTION OF ROASTING PRODUCTS PRACTICALLY FREE FROM COPPER

Adolf Johannsen and Georg Wittmann, Ludwigshafen (Rhine), and Alfred Dietrich and Werner Gebhard, Duisburg, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application August 7, 1956
Serial No. 602,516
Claims priority, application Germany August 9, 1955
9 Claims. (Cl. 75—9)

1. An improved thermal splitting and magnetising roasting process for the production of an oxide concentrate containing a minimum quantity of copper from a copper-containing spathic iron ore of the group consisting of siderite and ferromanganese spar which comprises: magnetising roasting said spathic iron ore as particles in a fluidized layer by reaction with an oxygen-containing gas at a temperature of about 800° C. to 1200° C. whereby carbon dioxide is released by thermal splitting, said particles being maintained in fluidized motion by the oxygen-containing gas and the released carbon dioxide; introducing into said fluidized layer a chlorine-containing gas in an amount up to 5% by volume, with reference to the atmosphere in the reaction zone; removing roasted ore from said fluidized layer; and magnetically separating an iron oxide concentrate from said roasted ore, said concentrate being substantially free of copper.

2,848,315
PROCESS FOR PRODUCING TITANIUM, ZIRCONIUM, AND ALLOYS OF TITANIUM AND ZIRCONIUM BY REDUCTION OF OXIDES OF TITANIUM OR ZIRCONIUM

Richard A. Kluffer and Friedrich Benesovsky, Reutte, Tirol, Austria, assignors to Schwarzkopf Development Corporation, a corporation of Maryland

No Drawing. Application April 25, 1955
Serial No. 503,789
7 Claims. (Cl. 75—10)

1. The process of reducing a metal oxide of a reactive metal selected from the group consisting of titanium and zirconium with at least one reducing substance selected from the group consisting of carbon, silicon, and the carbides and the silicides of an alloying metal selected from the group consisting of molybdenum, tungsten, nickel, chromium, aluminum, iron and manganese which process comprises mixing powder of a metal oxide of at least one of said reactive metals with powder of at least one of said reducing substances, compacting the so-mixed powders into an arc electrode, and thereafter maintaining with the so-formed arc electrode and a cooperating other arc electrode an arc under vacuum with sufficient current to maintain the arc at a high temperature of at least 3000° C. for causing the metal oxide content of the compacted arc electrode to be reduced, and proportioning the reducing substance relatively to the reactive metal oxide of said mixed powders to produce therefrom a resultant metal body containing at most 1% by weight impurities other than the metallic content thereof, which metallic content is selected from the group consisting of titanium, zirconium, an alloy of titanium, with at least one of said alloying metals containing 5% to 95% by weight of titanium, and an alloy of zirconium with at least one of said alloying metals containing 5% to 95% by weight of zirconium.

2,848,316
PROCESS FOR GASEOUS REDUCTION OF IRON ORE

William L. Davis, Jr., and Jerome Feinman, Chicago, Ill., and Leslie R. Little, Jr., New Brighton, Pa., assignors to United States Steel Corporation, a corporation of New Jersey

No Drawing. Application June 7, 1956
Serial No. 589,862
1 Claim. (Cl. 75—26)

A method of reducing iron ore directly comprising preheating minus ¾ inch ore containing 2 to 50 percent by weight of plus 10 mesh particles to about 1700° F., feeding the preheated ore to a reactor to form a bed about 6 to 12 feet in depth, preheating a reducing gas to about 1600° F., the active constituents of said gas consisting of hydrogen and up to about 25 percent by volume of carbon monoxide, introducing ascending currents of the preheated gas to said reactor at a superficial velocity of 1.0 to 3.0 feet per second to fluidize said bed, maintaining the reactor temperature at about 1200 to 1600° F., yet avoiding sticking of the particles by virtue of the presence of the plus 10 mesh particles and recovering a reduced iron product from the reactor.

2,848,317
DESULFURIZING OF STEEL

Werner Coupette and Adolf Sickbert, Wattenscheid-Eppendorf, Germany, assignors, by mesne assignments, to Bochumer Verein für Gusstahlfabrikation Aktiengesellschaft, Bochum, Germany

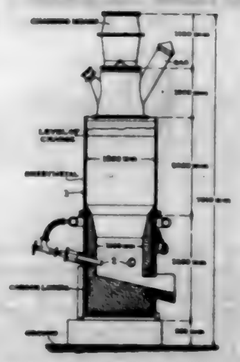
No Drawing. Application January 10, 1956
Serial No. 558,196
Claims priority, application Germany January 13, 1955
12 Claims. (Cl. 75—49)

1. In a method of desulfurizing steel, the steps of introducing a stream of molten steel into a vacuum chamber under a pressure of between 30–0.1 mm. Hg through an opening having a diameter between 25–70 mm. and a sufficient ferrostatic pressure of the molten steel above said opening through which the same is introduced so that said stream of molten steel is disintegrated into droplets having a size between 10 and 10^{-5} mm. upon introduction of said stream into said vacuum chamber; and contacting the thus formed droplets of molten steel in said vacuum chamber with a desulfurizing agent so as to desulfurize said molten steel.

2,848,318
MANUFACTURE OF MANGANESE IN LOW-STACK BLAST FURNACE

Pierre Tardieu, Edea, Cameroun, Africa, assignor to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France

Application July 23, 1957, Serial No. 673,657
Claims priority, application France July 31, 1956
5 Claims. (Cl. 75—80)

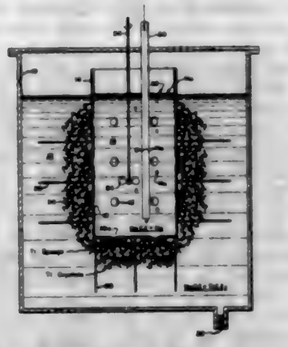


1. Process for treating silica-containing manganese ores comprising the steps of: treating a charge of said manganese ore and carbonaceous material in a low-stack blast furnace with a blast of oxygen-enriched air, whereby the ore is reduced to produce a high-grade managanese metal of low silicon content, and recovering said manganese metal.

2,848,319
METHOD OF PRODUCING TITANIUM

Wayne H. Keller, Waban, and Irwin S. Zonis, Belmont, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts

Application November 22, 1954, Serial No. 470,453
8 Claims. (Cl. 75—84.5)



1. In the process of forming titanium crystals by the reduction of a lower titanium chloride dissolved in an inert fused salt, the improvement which comprises feeding reducing agent to a portion of the salt which is substantially free of lower titanium chloride and isolating said portion from the remainder of the bath by means of a generally vertically extending foraminous shield which prevents rapid flow of fused salt between said portion and the remainder of the bath containing lower titanium chloride, the reducing agent being fed to a portion of the salt which is substantially below the surface thereof so as to substantially saturate the portion of the fused salt to which the reducing agent is fed, the foraminous shield serving as a barrier for segregating on one side thereof the high concentration of reducing agent in the fused salt which is substantially free of titanium chloride, this high concentration of reducing agent grading into the remainder of the fused salt in which the relative concentrations of reducing agent and titanium chloride are reversed.

2,848,320
METHOD OF PRODUCING CHROMIUM AND NIOBIUM

Wayne H. Keller, Waban, Mass., and Irwin S. Zonis, Pensacola, Fla., assignors to National Research Corporation, a corporation of Massachusetts

No Drawing. Application May 29, 1957
Serial No. 660,029
9 Claims. (Cl. 75—84.5)

6. A process for preparing a substantially pure metal from the group consisting of chromium and niobium which comprises providing on the surface of a fused salt bath containing a dissolved chloride of the metal, a salt layer substantially free of the metal chloride and thereafter feeding to the top of said chloride-free salt layer sufficient reducing agent to reduce substantially all the dissolved metal chloride to said metal, said reducing agent consisting of at least one metal selected from the group consisting of the alkali metals and the alkaline earth metals.

2,848,321
DROSSING FLUXES

Frederick Molesworth Bunbury and Francis Walter Pursall, Birmingham, England, assignors to Foundry Services Limited, Birmingham, England, a British company

No Drawing. Application December 31, 1956
Serial No. 631,454
Claims priority, application Great Britain January 2, 1956
10 Claims. (Cl. 75—94)

2. A drossing flux for use with light metals selected from the class consisting of aluminium, magnesium and alloys of either, which comprises aluminium of particle size minus 300 mesh and a fluoride, the ingredients of the composition not being of themselves exothermically reactive with one another.

2,848,322
SEPARATION OF COBALT FROM NICKEL

John B. Coon and William K. Humphrey, Westfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application July 13, 1955
Serial No. 521,888
12 Claims. (Cl. 75—119)

1. A process for removing cobalt from nickel which comprises contacting an ammoniacal solution of a divalent nickel-ammonia complex and higher valence cobalt-ammonia complexes with a cation exchange resin in its salt form to adsorb the nickel and cobalt complexes on the resin and eluting the resin with an aqueous solution containing ammonium hydroxide and an ammonium salt to remove substantially all of the nickel from the resin.

2,848,323
FERRITIC STEEL FOR HIGH TEMPERATURE USE

Geoffrey T. Harris, Sheffield, and Henry Cave Child, Rotherham, England, assignors to The Birmingham Small Arms Company Limited, Birmingham, England, a British company

No Drawing. Application February 17, 1956
Serial No. 566,079
Claims priority, application Great Britain
February 28, 1955
12 Claims. (Cl. 75—124)

1. Alloys comprising the following ingredients within the ranges specified:

	Percent
Carbon	0.05–0.3
Manganese	0.1– 4
Silicon	0.1– 4
Chromium	9– 20
At least one metal of the group consisting of tungsten and molybdenum	0.5– 10
At least one metal of the group consisting of niobium and tantalum, when present	0– 2
Vanadium, when present	up to 2
Titanium, when present	up to 2
Nitrogen	0.05–0.3
Aluminium	0.05– 2
Boron, when present	up to 0.05
Nickel, when present	up to 5
Cobalt, when present	up to 15
Copper, when present	up to 5
Iron and impurities	Balance

2,848,324
METHOD OF PRODUCING AGGLOMERATES HIGHLY RESISTANT AGAINST HEAT AND/OR CHEMICAL ATTACK

Siegfried Krapf, Nuremberg, Germany

No Drawing. Application April 30, 1954
Serial No. 426,930
7 Claims. (Cl. 75—206)

1. In a process for the production of a molded article comprising a homogeneous agglomerate of metal and metal oxide free of slag and regulus, the steps of: introducing an uncompacted finely divided reaction mixture into a mold, the mixture containing at least one pulverized metal and at least one pulverized metal oxide capable of undergoing with each other a nonexplosive self-propagating exothermic reaction, the reaction being of such speed and intensity that no substantial segregation of the metal-containing reaction products occurs; igniting the uncompacted mixture to initiate the exothermic reaction; permitting the reaction to proceed to completion; and subjecting the reacted mixture to a pressure in the order of several hundred kilograms per square centimeter while the mixture is hot to compact the mixture and form it into the mold.

2,848,325
FUEL ELEMENTS FOR NUCLEAR REACTORS AND PROCESS OF MAKING

William E. Roake, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 16, 1957
Serial No. 634,593
12 Claims. (Cl. 75—211)

1. A process of making granules of uranium metal, comprising suspending a powdered uranium material selected from the group consisting of uranium hydride and metallic uranium in a viscous liquid nonreactive with said uranium material and selected from the group consisting of higher alcohols and paraffin oil; pouring the obtained suspension in droplets on a powdered sorbent for said liquid whereby said liquid is taken up by said sorbent

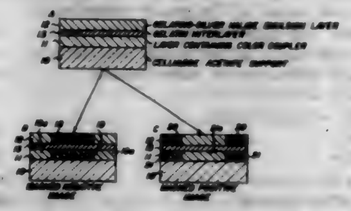
and soft pellets of the uranium material of roughly spherical shape are obtained, said sorbent being selected from the group consisting of magnesium, magnesium oxide and magnesium fluoride; heating the sorbent plus pellets in an inert atmosphere at a temperature at which said viscous liquid volatilizes; heating said pellets while still on said sorbent and in an inert atmosphere at from 1000° to 1200° C. whereby they are sintered; and cooling said pellets to room temperature.

2,848,326

METHOD FOR PREPARING MASKED IMAGES

Keith E. Whitmore, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application September 26, 1955, Serial No. 536,582
8 Claims. (Cl. 96—44)



1. The method of making a masked negative image in a photographic element including a support material and three separate colloid layers superimposed thereon, one of which is adjacent to the support material and contains a colored coupler capable of coupling with the oxidation product of at least one N-alkyl substituted phenylene diamine developing agent and is free of silver halide, another of which is a gelatin interlayer having a thickness of from 1 to 15 microns, and the other of which is over the said interlayer and is a gelatino-silver halide emulsion layer free of coupler, comprising exposing said element to an image, developing said element with a phenolic developing agent to form a negative silver image in the said emulsion layer, fixing and rehalogenating said element to remove unexposed silver halide and to convert the said silver to silver halide, and then redeveloping the said rehalogenated element with a solution containing an N-alkyl substituted phenylene diamine developing agent and an alkali metal hydroquinone disulfonate to reform the negative silver image in the said emulsion layer and to form a negative dye image in the said layer containing the said colored coupler.

2,848,327

GLASS FABRIC RESIN IMPREGNATED BASE COATED WITH A LIGHT SENSITIVE LAYER

Adrian Eichorn, Topanga, Calif., assignor to Screen Engineering Co., Santa Monica, Calif., a corporation of California

No Drawing. Application February 19, 1953
Serial No. 337,890
7 Claims. (Cl. 96—75)

6. A dimensionally stable light transmitting photosensitive flexible sheet material for copying a highly precise image which may be recopied comprising a woven glass fabric filled with a polyester resin which is the polymerization product of styrene with the reaction product of a dicarboxylic acid selected from the group consisting of maleic, fumaric, itaconic and citraconic acids and a dihydric alcohol selected from the group consisting of ethylene glycol, diethylene glycol, triethylene glycol, trimethylene glycol, monoethylin, propylene glycol and an adherent overcoat of a film forming organic material carrying a photosensitive substance selected from the group consisting of ferric salts, diazo compounds, silver halides and bichromated colloids on the surface of the filled fabric.

2,848,328

LIGHT SENSITIVE DIAZO COMPOUND AND BINDER COMPOSITION

Martin Hepher, Harrow, England, assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application May 4, 1955
Serial No. 506,961
Claims priority, application Great Britain June 16, 1954
4 Claims. (Cl. 96—91)

1. A light-sensitive coating composition comprising a mixture of (1) casein, (2) an aqueous dispersion of a latex selected from the group consisting of natural rubber latex and synthetic rubber latex, and (3) an aryl azide compound selected from those represented by the following general formula:

$$N_3—R—CH=CH—R_1$$

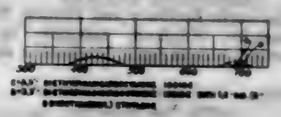
wherein R represents a monocyclic arylene group of the benzene series, R_1 represents a member selected from the group consisting of a carboxylic acyl group and an azidoaryl group of the benzene series, provided that said aryl azide compound contains at least one substituent selected from the group consisting of a sulfo radical, a carboxyl radical, and alkali metal salts of said radicals, said composition being adapted to produce a light-sensitive coating in which an image can be formed by exposure to light and washing in an aqueous solution.

2,848,329

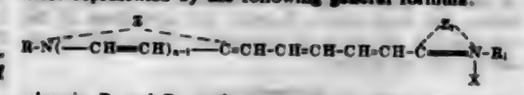
SUPERSENSITIZATION WITH BIS-HETEROCYCLIC BASES

Jonas John Chechak and Jean E. Jones, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

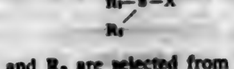
Application May 14, 1956, Serial No. 584,544
10 Claims. (Cl. 96—104)



1. A photographic gelatino-silver-halide developing-out emulsion sensitized with a supersensitizing combination of at least one dicarbocyanine dye selected from those represented by the following general formula:



wherein R and R_1 each represents an alkyl group containing from 1 to 2 carbon atoms, *n* represents a positive integer of from 1 to 2, X represents an acid radical, Z represents the non-metallic atoms necessary to complete a heterocyclic nucleus selected from the group consisting of those of the benzothiazole series, those of the naphthothiazole series, those of the benzoselenazole series, those of the naphthoselenazole series, those of the benzoxazole series, those of the naphthoxazole series, those of the 2-quinoline series, those of the 4-quinoline series, and those of the benzimidazole series, and Z_1 represents the non-metallic atoms necessary to complete a heterocyclic nucleus selected from the group consisting of those of the benzoxazole series, those of the naphthoxazole series, those of the benzoselenazole series, those of the naphthoselenazole series, those of the benzothiazole series, those of the naphthothiazole series, and those of the 2-quinoline series, and at least one heterocyclic base selected from those represented by the following general formula:



wherein Z_3 represents the non-metallic atoms necessary to complete a heterocyclic nucleus selected from the group consisting of those of the thiazole series, those of the benzothiazole series, those of the naphthothiazole series, those of the oxazole series, those of the benzoxazole series, those of the naphthoxazole series, those of the selenazole series, those of the benzoselenazole series, those of the naphthoselenazole series, those of the benzimidazole series, and those of the 2-quinoline series, *d* represents a positive integer of from 1 to 2, D represents a divalent organic radical selected from the group consisting of dithiaalkylene group containing from 1 to 5 carbon atoms, an alkylene group containing from 1 to 10 carbon atoms, an arylene group containing from 6 to 13 carbon atoms, a vinylene group, a thio group, and an oxydimethylene group.

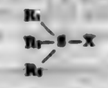
2,848,330

PHOTOGRAPHIC EMULSIONS SENSITIZED WITH SULFONIUM SALTS AND ALKYLENE OXIDE POLYMERS

Jonas John Chechak, John Segal, Jr., and Albert C. Smith, Jr., Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 1, 1955
Serial No. 550,496
14 Claims. (Cl. 96—107)

1. A light-sensitive silver halide emulsion sensitized with a mixture of an alkylene oxide polymer selected from the class consisting of (1) polyalkylene glycols and (2) condensation products of alkylene oxide with organic compounds containing an active hydrogen atom, said alkylene oxide containing from 2 to 4 carbon atoms and said alkylene oxide polymer having a molecular weight of at least 300, and a sulfonium salt having the general formula:



in which R_1 and R_2 are selected from the class consisting of alkyl and aralkyl groups, R_3 represents an alkyl group of more than 8 carbon atoms, and X represents an anion.

2,848,331

GROWTH PROMOTING COMPOSITIONS AND THEIR PREPARATION

Lawrence Fulhart, Jr., Newark, and Edward L. Rohdenburg, Metuchen, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application November 18, 1954, Serial No. 469,756
7 Claims. (Cl. 99—4)

1. A composition useful as a growth-promoting substance for poultry which comprises the product resulting from the fermentation of an aqueous protein-free nutrient liquor with a strain of *Aerobacter aerogenes* isolated from the cecum of a chick fed procaine penicillin.

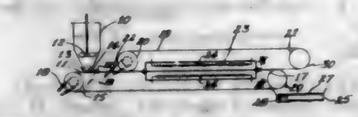
2,848,332

METHOD OF BROWNING FLOUR

Edward A. Fabish, McHenry, Ill.

Application May 1, 1953, Serial No. 352,409
1 Claim. (Cl. 99—93)

In a method of uniformly browning flour, applying a substantially uniform approximately ¾ inch layer of unroasted flour onto a heat conductive supporting surface, superimposing a heat conductive compressing surface upon the flour, between the surfaces placing the flour under compression to compact the layer of flour to about two-thirds of its original thickness, and subject-



ing the compacted layer of flour while maintaining it between said surfaces to roasting temperature uniformly throughout the layer of flour to effect a uniform browning of the particles of flour throughout the compacted layer.

2,848,333

METHOD OF PROCESSING FRESH FRUIT

George A. Fisher, Selinsgrove, Pa.

No Drawing. Application March 19, 1954
Serial No. 417,496
3 Claims. (Cl. 99—102)

1. The method of impregnating fresh pitted cherries which comprises maintaining a mass of said fruit in an enclosed zone, partially evacuating said zone, flooding the fruit in said zone, while maintaining said evacuated condition, with an aqueous solution of sugar, calcium salt and sulfur dioxide to impregnate the fruit therewith, the sulfur dioxide being in a concentration not exceeding one part per thousand of the flooding solution, and thereafter gradually increasing the pressure in said zone to atmospheric condition.

2,848,334

STABILIZED EGG AND MILK PRODUCT AND METHOD OF PREPARING SAME

Eynon Jones, Tigard, Oreg., assignor, by mesne assignments, to Chas. L. Nichols, as trustee, Beverly Hills, Calif.

No Drawing. Application March 29, 1955
Serial No. 497,798
2 Claims. (Cl. 99—113)

1. The process of stabilizing eggs for unfrozen refrigerated storage in bulk liquid form comprising preparing a mixture of milk and cream to a butterfat content in the range between 1% to 25%, pasteurizing said mixture, adding milk solids in an amount from 1% to 10% and butter in an amount from 1% to 10%, homogenizing said mixture, cooling the mixture, adding beaten eggs in an amount of 50% to 97% based on the weight of the entire mixture, and then homogenizing the resulting mixture.

2,848,335

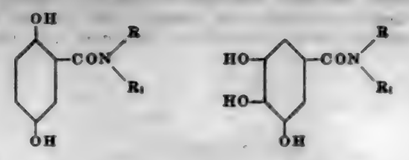
STABILIZATION OF NORMALLY OXIDIZABLE MATERIALS WITH HYDROXYBENZAMIDE COMPOUNDS

Alan Bell and Gerald R. Lappin, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

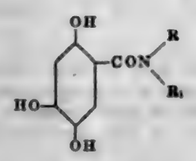
No Drawing. Application March 25, 1954
Serial No. 418,746
18 Claims. (Cl. 99—163)

1. A composition of matter comprising a normally oxidizable material stabilized with a hydroxybenzamide

compound selected from the group consisting of hydroxybenzamide compounds having the general formulas:



and



wherein each R_1 represents a member selected from the group consisting of a hydrogen atom, an alkyl group and a monocyclic aryl nucleus of the benzene series and each R represents a member selected from the group consisting of an alkyl group and a monocyclic aryl nucleus of the benzene series.

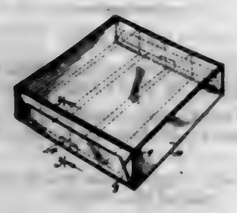
2,848,336

OLEAGINOUS FOOD PACKAGE

James Cage, Valley Stream, N. Y., assignor to Reynolds Metals Company, Richmond, Va., a corporation of Delaware

Application January 26, 1955, Serial No. 484,161

1 Claim. (Cl. 99—179)



A hermetically sealed package and a plurality of wrapped oleaginous bars therein, said package consisting of an innermost substantially rigid cardboard protective member enclosing the wrapped bars and having two major side walls; a minor side wall at right angles to and integral with said major side walls, two overlapped minor side walls integral with the major side walls and providing a heat sealing abutment for lapped folds of a heat sealing overwrap, the substantially rigid protective member having reversely foldable overlapped end walls, at two ends, providing sets of two ply heat sealing abutments for an overwrap, and a moisture impermeable overwrap consisting of a plurality of layers, the outermost layer being of foil and an inward layer adapted to fuse upon the application of heat and pressure and to seal the overwrap, said overwrap encompassing the cardboard protective member and with a pair of its margins mutually lapped and sealed to tightly embrace the cardboard protective member, each of the two remaining pairs of margins of the overwrap having lapped and sealed folds, one pair of said lapped folds overlying one two-ply end wall of the cardboard protective member, and the second pair of said lapped folds overlying a second two-ply end wall of said protective member.

2,848,337

METHOD OF PACKAGING ICE CREAM

Percy White, Worcester Park, and Henry Leslie Bowmer, Forest Gate, London, England, assignors to J. Lyons & Company Limited, London, England

Application February 8, 1955, Serial No. 486,992

Claims priority, application Great Britain February 10, 1954

1 Claim. (Cl. 99—180)

A method of preparing a body of ice cream with a peripheral wrapping comprising the steps of folding each of a plurality of unitary cardboard blanks into open-ended channels along a plurality of parallel fold lines to define a plurality of panels the two outermost of which are of unequal width, weakening on each of said blanks the fold line defining the narrower outermost panel, arranging said channel-formed blanks in end to end relationship passing said channel-formed blanks beneath a horizontal nozzle through which is continuously produced an extrusion of ice cream in a relatively soft state to deposit said extrusion into said channels, bringing said outermost two panels of each of said blanks to form said blanks about the periphery of said extrusion, securing said outermost two panels together to form a laterally projecting tongue of double thickness, severing the extrusion between successive blanks, and hardening the extrusion by lowering the temperature thereof.

2,848,338

FOUNDRY SAND ADDITIVE

Harry H. Johnson, Milwaukee, Wis.

No Drawing. Application March 6, 1953
Serial No. 340,919

9 Claims. (Cl. 106—38.2)

1. A foundry core sand comprising a mechanical mixture of about 98.5% to 99.5% sand and binder mix and about 0.5% to 1.5% of an additive composition capable of completely coating the individual sand grains, said additive composition comprising about 70% to 75% of powdered charcoal having a particle size in the range of 80 to 200 mesh and about 25% to 30% of fuel oil having a flash point in the range of 120° F. to 180° F.

2,848,339

METHOD OF PREPARING GLASS COLOR COMPOSITIONS

Christian C. Jansen, Perth Amboy, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 13, 1955
Serial No. 521,909

4 Claims. (Cl. 106—48)

1. In the process for preparing a hot-melt glass color composition by mixing a finely ground glass color containing 5% to 20% of inorganic oxide pigments and 95% to 80% of glass frit with a molten hot-melt vehicle at a temperature below 300° F., said vehicle being a composition having sharp melting characteristics which is solid at room temperature and melts readily at temperatures of about 120° F. to 212° F., the improvement in said process for providing hot-melt glass color compositions having greatly enhanced maintenance of sharp melting characteristics upon aging which comprises heating said finely ground glass color at a temperature between 450° F. and the softening point of the glass color and cooling the glass color to a temperature below 400° F. prior to mixing the glass color with said vehicle, the glass color being maintained in a moisture-free state after heating until it is mixed with said vehicle.

2,848,340

SLOW SETTING CEMENT COMPOSITIONS

Walter J. Holden, Houston, Tex., assignor to Lone Star Cement Corporation, New York, N. Y., a corporation of Maine

No Drawing. Application July 5, 1956
Serial No. 593,836

6 Claims. (Cl. 106—90)

1. A slow setting cement composition suitable for the cementation of oil wells at depths in excess of 8,000 feet consisting essentially of Portland cement and from about 0.1% to about 2.0% by weight, based on the dry cement, of a lower alkyl acid phosphate.

2,848,341

CELLULOSE ORGANIC ACID ESTER PLASTICS CONTAINING SYMMETRICAL DIPHENYL UREA

William M. Gearhart and Harry R. McAmis, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 23, 1954
Serial No. 425,316

3 Claims. (Cl. 106—196)

1. A cellulose organic acid ester plastic for molding and extrusion comprising a cellulose organic acid ester selected from the group consisting of cellulose acetate, cellulose propionate, cellulose butyrate, cellulose acetate-propionate and cellulose acetate-butyrate, a plasticizer therefor, and, as an agent for inhibiting deterioration of the plastic by ultraviolet light, approximately 0.5% to 1.5%, based on the weight of the cellulose ester, of s-diphenyl urea.

2,848,342

PROTEIN COMPOSITIONS

James Dudley Atkinson, Jr., Memphis, Tenn., assignor to The Buckeye Cellulose Corporation, Memphis, Tenn., a corporation of Ohio

No Drawing. Application March 3, 1955
Serial No. 492,831

4 Claims. (Cl. 106—154)

1. As a new composition of matter a protein-containing mixture containing not in excess of 10% water capable of substantially complete spontaneous dispersion in water comprising a protein, urea and urease, the said urea being present in an amount from about 3.3% to about 40% and the said urease being present in an amount equivalent to about 0.25% to about 1.0% of urease having an activity of about 375 Sumner units per gram, both by weight of the protein.

2,848,343

PROCESS FOR PRODUCING CELLULOSE TRIESTERS

Edward J. Costello, Philadelphia, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application May 4, 1955
Serial No. 506,883

12 Claims. (Cl. 106—196)

6. The process for preparing stable cellulose triesters having at least about 2.9 organic acid groups per glucose unit and containing not more than about 0.1% combined sulfur which comprises mixing cellulose, a lower aliphatic monocarboxylic acid, an anhydride of the acid, ammonium sulfate and sulfuric acid at a temperature below about 60° C., raising the temperature of the mass to not more than about 90° C., maintaining the temperature of the mass between about 60° C. and about 90° C. for a sufficient period to form a fiber-free liquid mass containing partially esterified cellulose wherein some of the hydroxyl groups have been replaced by acid sulfate groups, adding water to the liquid mass to convert the free acid anhydride to acid and to remove substantially all of the sulfur containing groups from the cellulose ester and thereafter adding additional acid anhydride to substantially complete the esterification.

2,848,344

METALLIC PIGMENT FORMULATIONS

Melvin H. Brown, Allegheny Township, Westmoreland County, Pa., assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application December 9, 1953
Serial No. 397,251

4 Claims. (Cl. 106—227)

1. Metallic aluminum pigment formulations characterized by substantial absence of development of pressure in sealed containers of the same, said formulations consisting essentially of from 7 to 80 percent aluminum flakes, from 0.1 to 4 percent of at least one fatty acid lubricating agent selected from the group consisting of stearic, palmitic, oleic, ricinoleic and lauric acids, the total amount of said acids not exceeding 4 percent, from 1 to 75 percent volatilizable hydrocarbon, from 0.25 to 51 percent of at least one inhibitor selected from the group of nitro derivatives of aliphatic and aromatic hydrocarbons consisting of nitroethane, 1-nitropropane, 1-nitrobutane, 2-nitrobutane, nitrobenzene, o-nitrotoluene and 3-nitro-1,2-dimethyl benzene, the total amount of said nitro derivatives of aliphatic and aromatic hydrocarbons not exceeding 51 percent, and water in amounts of 0.1 to 1.5 percent by weight of the formulations.

2,848,345

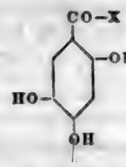
PARAFFIN WAX STABILIZED WITH A 2,4,5, TRIHYDROXYPHENYL KETONE

Alan Bell, M. B. Knowles, and Clarence E. Tholstrup, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application July 2, 1954
Serial No. 441,153

6 Claims. (Cl. 106—270)

1. Stabilized paraffin wax which contains from about 0.001% to about one percent by weight of an improved antioxidant having the following formula:



wherein X represents a member selected from the group consisting of an alkyl radical containing from 2 to 20 carbon atoms, a cycloalkyl radical containing from 6 to 10 carbon atoms, an alkenyl radical containing from 2 to 10 carbon atoms and an aralkyl radical containing from 7 to 20 carbon atoms.

2,848,346

PRODUCTION OF ZEOLITIC PIGMENTS

Orlando Leonard Bertorelli, Borger, Tex., assignor to J. M. Huber Corporation, Borger, Tex., a corporation of New Jersey

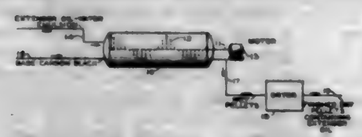
No Drawing. Application May 16, 1955
Serial No. 508,831

7 Claims. (Cl. 106—288)

1. The process of producing a fine zeolitic material useful as a filler or reinforcing pigment, which comprises, while strongly agitating and keeping alkaline an aqueous

reaction medium, combining in said medium an aqueous slurry of a finely divided precipitated silica suspended in a dilute aqueous solution of a salt of aluminum formable from a mineral acid, with an aqueous solution of an alkali metal silicate in which the molar ratio of SiO_2 to alkali metal oxide is from 1 to about 3.6, thereby precipitating in said medium in intimate association with said precipitated silica a composition of oxides of said alkali metal, aluminum and silicon substantially all the particles of which are smaller than 0.5 micron in diameter, the combined solutions being so proportioned that the molar ratio of alkali metal oxide to Al_2O_3 in said composition is from 0.8 to 1.3 and the molar ratio of SiO_2 to alkali metal oxide therein is from 4 to about 14, and separating, drying and disintegrating the precipitated material.

2,848,347
WET OIL-WATER EMULSION PELLETING OF CARBON BLACK
Wilson H. Rushford, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 28, 1953, Serial No. 400,624
7 Claims. (Cl. 106—307)



1. A process for simultaneously pelleting and incorporating an extender oil in flocculent carbon black which pellets most efficiently with an optimum water-oil emulsion content in the range of 40 to 56 weight percent of the total mixture, which comprises establishing the optimum water-oil emulsion content for most efficiently pelleting said black with a given oil content in the range of 1 to 90 weight percent of the emulsion by subjecting said black to pelleting agitation in admixture with different amounts of said water-oil emulsion in the range of 40 to 56 weight percent of the black-emulsion mixture to ascertain the emulsion content which effects the most rapid pelleting of said black; thereafter pelleting said black by mixing therewith an amount of water-oil emulsion within 2.5 weight percent of said optimum content and agitating the mixture to form apparently dry pellets of uniform oil content, the oil in said emulsion being in the range of 1 to 90 weight percent of the emulsion; and removing substantially all of the water from the resulting pellets by heating same to a temperature above 212° F.

2,848,348
TEMPORARY IDENTIFICATION LAUNDRY MARKING SYSTEM
Edward A. McCafferty, Cincinnati, Ohio, assignor to The National Marking Machine Company, Cincinnati, Ohio, a corporation of Ohio
No Drawing. Application April 18, 1956
Serial No. 578,877
14 Claims. (Cl. 117—1)

1. The method of providing temporary laundry identification of textile articles by use of a quenchable marking liquid containing a metallic oxide fluorescent phosphor which comprises applying a weak volatile organic acid to the marks remaining on the articles from a previous laundering operation to react therewith and obliterate said marks, and applying to each of the articles a new mark of metallic oxide fluorescent phosphor that is capable of being reacted with a weak volatile organic acid to be obliterated thereby.

2,848,349
FLAME SPRAYING PROCESS
Harold L. Rechter and Marvin Eisenberg, Chicago, Ill., assignors to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois
No Drawing. Application August 2, 1955
Serial No. 526,864
8 Claims. (Cl. 117—46)

1. The method of coating an object with an adherent coating which comprises directing a high temperature flame at said object and injecting into said flame a particulated mixture comprising lithium aluminate and zirconia.

2,848,350
COATING FOR CURED POLYESTER SURFACES
Luther L. Yaeger, Madison, Wis., assignor, by mesne assignments, to Tru-Scale, Inc.
No Drawing. Application March 7, 1955
Serial No. 492,729
1 Claim. (Cl. 117—47)

The process of making a coated article comprising the steps of: curing in the absence of air a surface of an organic cross-linked polyester synthetic resin, applying to said surface a composition comprising 10 parts of a polyelectrolyte synthetic resin consisting of a carboxyl-containing modified polystyrene and ½ part to 5 parts of a polyoxyethylene plasticizer therefor, both being dissolved in a solvent comprising primarily an aliphatic ketone and comprising less than 1% water, and drying the coated article.

2,848,351
NITRIC ACID PICKLING PROCESS
Ernest R. Boller, Marion, Ind., and Lowell D. Eubank, South Euclid, and John W. Robinson, Cleveland, Ohio, assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application September 28, 1945
Serial No. 619,265
1 Claim. (Cl. 117—51)

In the application of a metallic coating to a uranium article covered with an oxide film, the improvement which consists of treating said article with aqueous 50% to 70% nitric acid solution at 60° to 70° C. for 4 to 6 minutes, rinsing the acid solution from the uranium article, drying the article, and thereafter promptly passing it through a molten alkali-metal halide flux consisting of 42% LiCl, 53% KCl, and 5% NaCl into a molten metal coating bath consisting of 85 parts by weight zinc and 15 parts by weight aluminum.

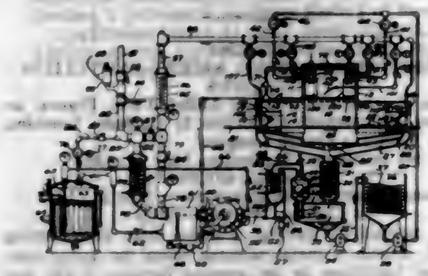
2,848,352
FUEL ELEMENTS AND METHOD OF MAKING
Robert A. Noland, Chicago, and Christopher Marzano, North Riverside, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application December 7, 1956, Serial No. 627,085
8 Claims. (Cl. 117—65)



1. A process of impregnating articles of metallic uranium with silicon, comprising immersing said articles

in a mixture of silicon metal and alkali metal selected from the group consisting of sodium, potassium and sodium-potassium alloy; heating said mixture to a temperature of between 425° and 600° C. whereby silicon is taken up by said alkali metal and thence is transferred to said uranium articles and a uranium-silicon compound is formed thereon, and removing said articles from said mixture.

2,848,353
METHOD AND APPARATUS FOR SPRAYING ARTICLES INCLUDING SEPARATION AND RECIRCULATION OF COATING MATERIAL
Edward O. Norris, Westport, Conn.
Application October 21, 1954, Serial No. 463,761
20 Claims. (Cl. 117—102)



6. The method of spraying articles which comprises feeding said articles into a substantially closed spray zone, spraying said articles in said zone with a spray liquid in a liquid solvent atomized by compressed air, withdrawing from said zone oversprayed liquid and gases, stripping the gases of said liquid and recycling the same to said spray means for reuse, compressing the stripped gases in contact with liquid solvent, stripping a substantial portion of the liquid solvent from said compressed gases, introducing controlled quantities of said solvent into said spray zone to compensate for solvent loss therein by evaporation and applying the stripped air to said spray means for atomization in a closed cycle.

2,848,354
YARN TREATING PROCESS AND APPARATUS
Horace S. Daley, Clifton, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application November 24, 1954, Serial No. 470,940
6 Claims. (Cl. 117—102)



1. The process of treating yarn comprising the steps of impregnating a strand of yarn with a liquid resin, passing the strand through the atmosphere, passing the strand through a confined zone maintained under a partial vacuum but having entrance and exit holes for the strand, wiping excess resin from the strand at the holes to provide an accumulation of resin adapted to substantially seal the holes, and passing the strand directly to the atmosphere upon leaving the exit hole.

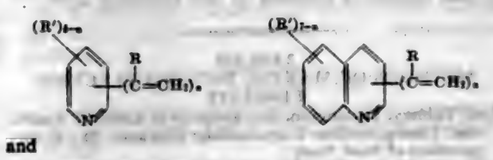
2. Apparatus for treating yarn comprising, in combination, means including a receptacle open to the atmosphere and adapted to contain a mass of material for impregnating a strand of yarn; a casing having a chamber therein provided with entrance and exit openings through which the impregnated strand is adapted to pass, said receptacle being located exteriorly of said chamber and being arranged to maintain the material therein out of fluid flow communication with said chamber; means at each of said openings for removing surplus impregnating material from the yarn and collecting the same to form a seal about the strand at said openings between said chamber and the atmosphere; and means for evacuating said chamber to remove air entrapped in the strand by the resin.

2,848,355
DELAMINATION TREATED PRESSURE SENSITIVE ADHESIVE TAPE
Charles Bartell, New Brunswick, N. J., assignor to Permacel-Le Page's Inc., a corporation of New Jersey
No Drawing. Application May 26, 1955
Serial No. 511,427
16 Claims. (Cl. 117—122)

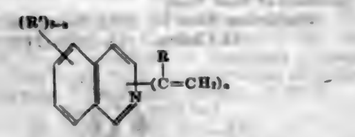
9. A paper-backed normally tacky and pressure-sensitive adhesive tape having improved characteristics of wet tensile strength and delamination resistance comprising a unified paper web internally bonded with a composition comprising bonding particles including an elastomeric copolymer containing an aldehyde resin reactive N-containing comonomer selected from the group consisting of unsaturated polymerizable nitriles, acrylamides and vinyl pyridines and a minor but effective amount of a water-dispersible, heat-reactive, aldehyde resin, said web having at least one major surface thereof coated with a normally tacky and pressure-sensitive adhesive, and said internally bonded web having internal strength sufficient to render it immune to splitting and delamination, when in a roll of the tape, it is subject to the forces exerted by the adhesive of an overlying ply of the tape in the unwinding thereof.

2,848,356
FUNGICIDES, THEIR PREPARATION AND USE
James E. Pritchard, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application August 30, 1954
Serial No. 453,123
22 Claims. (Cl. 117—138.5)

1. The process for the preparation of a fungicidal composition comprising reacting a metal salt of a carboxylic acid containing an active halogen atom selected from the group consisting of chlorine, iodine and bromine being positioned on a carbon atom alpha to an activating group and not over 20 carbon atoms with a polymer of a compound having a structure selected from the group consisting of



and

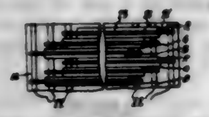


wherein n is an integer selected from the group consisting of 1 and 2, R is selected from the group consisting of H and CH_3, and each R′ is individually selected from the group consisting of nitro, alkoxy, halo, hydroxy, cyano, aryloxy, aryl, haloalkyl, alkaryl, hydroxyaryl, hydrogen, and alkyl, not more than 12 carbon atoms being present in the total of said R′ groups, to form a water-insoluble quaternary metal salt of the polymer.

2,848,357
AQUEOUS TERPOLYMER SIZED NYLON YARNS
Alva F. Harris, Williamsburg, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application December 15, 1954
Serial No. 475,579
4 Claims. (Cl. 117—139.5)

1. A method of sizing water-insoluble nylon warp yarns to prepare them for weaving which comprises treating said yarns with an aqueous solution comprising from about 2 to 15% by weight of a terpolymer of vinyl acetate, maleic anhydride and a styrene compound taken from the group consisting of styrene, alpha alkyl styrenes, alpha chlorostyrene, ring-substituted mono- and di-alkyl and chlorostyrenes, and dialkyl styrenes in which one alkyl group is in the alpha position, said alkyl groups containing from 1 to 4 carbon atoms, the mol percent ratio of vinyl acetate to maleic anhydride varying from 52:48 to 50:50 and the mol percent ratio of styrene compound ranging from 1.8 to 4 in the terpolymer, said solution being supplied in an amount sufficient to deposit from about 0.5 to 10% by weight, based on the dry yarns, of said terpolymer, and then drying said yarns.

2,848,358
METHOD OF MAKING RAY SENSITIVE TARGETS
Sidney Gray, Somerville, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 24, 1955, Serial No. 496,410
14 Claims. (Cl. 117—211)



1. The method of making a structure including a base and a plurality of closely spaced conductive elements electrically insulated from each other on a surface of said base, said method including depositing an insulating layer on said base, said insulating layer having the characteristic of causing vaporized material from which said conductive elements are formed to form a discontinuous layer during initial stages of deposition, placing on apertured masking member in close spaced relation with said insulating layer, said masking member being coated with a material having a high accommodation coefficient for the material forming said conductive elements, and directing vaporized material in sufficient quantities to form continuous conductive elements on said insulating layer.

2,848,359
METHODS OF MAKING PRINTED ELECTRIC CIRCUITS
Paul Talmey, Barrington, Ill., assignor to General American Transportation Corporation, Chicago, Ill., a corporation of New York
Application June 20, 1955, Serial No. 516,548
13 Claims. (Cl. 117—212)

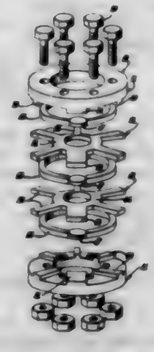


1. The method of making a printed electric circuit, which comprises providing a composite board carrying upon the face thereof a layer having a channel formed therein, said layer having a thickness substantially less than that of said board and said channel having a depth commensurate with the thickness of said layer so that only the portion of the face of said board constituting the bottom of said channel is exposed, both said board and said layer being formed of electrical insulating synthetic plastic material, said exposed portion of the face of said board constituting the bottom of said channel also carrying dispersed growth nuclei minute particles that are catalytic to a plating bath of the nickel cation-hypophosphite anion type, and immersing said composite board in a plating bath of the nickel cation-hypophosphite anion type for a sufficiently long time interval to effect chemical nickel plating of an electrical conductive circuit element upon the face of said board and in the bottom of said channel and having a thickness less than that of said layer, whereby said circuit element is completely channelized by said layer and comprises about 88 to 94% nickel and 6 to 12% phosphorus by weight.

2,848,360
METHOD OF TREATING NICKEL-BERYLLIUM ALLOYS
Stanislas Tezner and Jacques Millot, Paris, France, assignors of one-half to Societe le Carbone Lorraine, Paris, France, a French company
No Drawing. Application May 21, 1954
Serial No. 431,580
Claims priority, application France May 21, 1953
4 Claims. (Cl. 148—11.5)

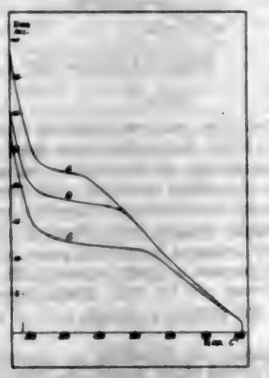
1. A method of treating a nickel base alloy having included therein a metal selected from the group consisting of beryllium in an amount between 2.5% and 4.5%, by weight, and magnesium, in an amount between 0.6% and 2.0%, by weight, in order to give to said alloy a high factor of real secondary emission, the relative concentration of nickel being sufficient to provide a saturated solid solution of said metal in the nickel; said method comprising the steps of water-quenching the alloy from a temperature of about 1100° C., compressing the alloy at a pressure of about 10 kg. per sq. cm. and at a temperature slightly below the melting point thereof, heating the alloy at a temperature of about 450° C., and finally heating the alloy at a temperature of about 800° C. in an oxidizing atmosphere until there is obtained the same parameter of mesh of the alloy as of said saturated solution of said metal in the nickel.

2,848,361
METHOD FOR SHAPING PISTON RINGS
Forrest W. Howell, Euclid, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application June 3, 1953, Serial No. 359,302
4 Claims. (Cl. 148—12)



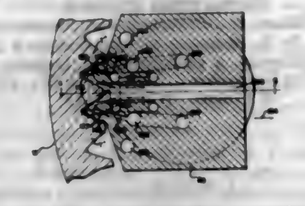
1. The method of stress relieving and heat shaping split annular piston rings which comprises the steps of elastically spreading the ring while free to the desired open gap by engaging the adjacent ends of the ring and moving the adjacent ends of the ring apart and spacing the ring to the required gap, clamping the ring flat and retaining the ring in its gapped position by engaging the ring only at circumferentially spaced regions, heating the spread ring while so clamped to a temperature sufficient to cause the carbon to go into solution and maintaining the ring at this temperature, and then cooling the ring in air, to relieve the stresses thereon.

2,848,362
METHOD OF QUENCHING METAL ARTICLES IN A MINERAL OIL
Göstа Lennart Flemmert, Robert Hugo Lindblad, and John Harry Oswald Lindbo, Nynashamn, Sweden, assignors to Aktiebolaget Nynäs-Petroleum, Nynashamn, Sweden, a joint-stock company limited of Sweden
Application March 11, 1957, Serial No. 645,340
Claims priority, application Sweden March 16, 1956
10 Claims. (Cl. 148—13.1)



1. A method of quenching metal articles comprising heating said articles to a temperature at which said articles are incandescent, immersing said heated articles in a bath of mineral oil, the components of which have a boiling point of at least 150° C. and have incorporated therein 0.2–10% of a metallic salt of a cyclic carboxylic acid.

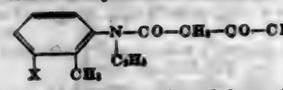
2,848,363
METHOD AND APPARATUS FOR HARDENING GEARS AND THE LIKE
Richard J. Chareq, Jr., Rochester, Earl D. Dammert, Penfield, and Carl E. Ernst and Edward C. Van Boern, Brighton, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Application March 31, 1955, Serial No. 498,325
21 Claims. (Cl. 148—21.56)



1. The method of heat treating a toothed workpiece which comprises heating an entire tooth thereof by directing gas flames against opposite flanks of the tooth simultaneously throughout substantially the entire length of the tooth, and simultaneously directing a coolant gas against the adjacent flanks of adjacent teeth throughout substantially the entire length of said teeth.

2,848,364
PRODUCTION OF NOVEL ACETOACETANILIDES, AND ACARICIDES PRODUCED THEREFROM
Henry Martin, Zurich, and Ernst Habicht, Schaffhausen, Switzerland, assignors to Ciba Limited, Schaffhausen, Switzerland, a Swiss company
No Drawing. Application March 28, 1956
Serial No. 574,396
Claims priority, application Switzerland March 30, 1955
3 Claims. (Cl. 167—30)

1. A method of killing mites, which comprises treating the mites with a compound of the formula



wherein X is a substituent selected from the group consisting of hydrogen and a cholorine atom.

2,848,365
PURIFICATION OF NEOMYCIN BY CHROMATOGRAPHY
William G. Jackson, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application March 13, 1950
Serial No. 149,443
1 Claim. (Cl. 167—65)

A process for the purification of impure neomycin containing not more than fifty percent impurities comprising: passing an aqueous solution of said impure neomycin containing from 10,000 to 60,000 units of neomycin per milliliter into a column of acid-washed, heat-activated charcoal in the ratio of 10,000 to 60,000 units of neomycin for each gram of charcoal, eluting said column containing neomycin and associated impurities adsorbed thereon with an eluant selected from the class consisting of distilled water and tap water, collecting a neomycin-rich fraction, and recovering neomycin therefrom, said process being operated at a pH of about 5.5 to 6.0.

2,848,366
NON-HYDRATED FERROUS FUMARATE AND HEMATINIC COMPOSITION THEREOF
Hugh C. Bertsch, St. Louis, Mo., and John F. Lamp, Alton, Ill., assignors to Mallinckrodt Chemical Works, St. Louis, Mo., a corporation of Missouri
No Drawing. Application May 18, 1956
Serial No. 585,633
12 Claims. (Cl. 167—68)

1. Non-hydrated ferrous fumarate.

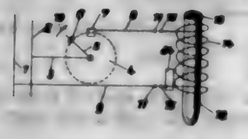
8. A hematinic composition in dosage form, comprising non-hydrated ferrous fumarate and a pharmaceutical carrier.

2,848,367
AUGMENTATIVE INTRINSIC FACTOR AND PROCESS FOR PREPARING IT IN HIGHLY PURIFIED FORM
William Lawrence Williams, New City, and Leon Ellenbogen, Spring Valley, N. Y., and Lester Otmar Olson, Bergenfield, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application January 17, 1956
Serial No. 559,547
13 Claims. (Cl. 167—74)

1. A process for preparing augmentative intrinsic factor which comprises comminuting animal intestine material, slurrying said comminuted intestine material in a saline solution, partially removing tissue solids to produce an extract phase containing at least 35% total tissue solids, adjusting the pH of the extract phase to approximately 7 to 10 in order to destroy pepsin, then adjusting the pH to approximately 1.0 to 2.5 to precipitate out undesired muco-proteins and other impurities, removing the resultant precipitate from the solution, dia-

carding the thus removed precipitate, adjusting the pH of the clear filtrate to about 3.9 to 6.1, adding a precipitating agent to precipitate the intrinsic factor.

2,848,368
METHOD OF MEASURING BLOOD SEDIMENTATION RATE
Horst Witt, Goettingen, Germany
Application August 20, 1953, Serial No. 375,330
2 Claims. (Cl. 167—84.5)



1. In a method for measuring the rate of sedimentation in blood samples, permitting settling of red blood cells to take place in a column of the sample over a predetermined time period, and then heating the column to a temperature within the range from 50° C. to 100° C. to irreversibly solidify the blood and to arrest further settling whereby thereafter the height of that portion of the column containing settled red blood cells remains constant.

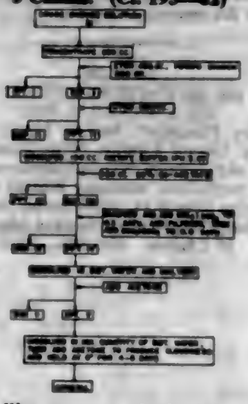
2,848,369
HAIR DYE COMPOSITION OF AN ANIONIC DYESTUFF-CATION ACTIVE LIPOPHILIC MATERIAL COMPLEX SOLUBILIZED BY NON-IONIC ETHYLENE OXIDE CONDENSATION PRODUCT
John Robert Seemuller, Maisons-Laffitte, France, assignor to Société Anonyme: Societe Monsavon-l'Oreal, Paris, France, a corporation of France
No Drawing. Application June 14, 1955
Serial No. 515,519
Claims priority, application France November 4, 1954
9 Claims. (Cl. 167—88)

6. A composition for dyeing live human hair comprising a complex of an anionic dyestuff and a cation active material solubilized by a non-ionic solubilizing agent, said cationic agent being present in equi-molecular portions to the anionic dyestuff so as to neutralize the latter and the non-ionic solubilizing agent being present in just sufficient quantity to bring the complex into solution in water, said cationic material being a base selected from the group consisting of an amine and a quaternary ammonium compound, said cation active material containing a lipophilic chain of at least six carbon atoms and said anionic dyestuff being characterized by acidity and the presence of at least one acid group selected from the group consisting of a free sulphonic acid group, a free carboxylic group and a free acid hydroxyl group, said solubilizing agent being a solubilizing group on said cation active material produced by the condensation thereof with ethylene dioxide.

2,848,370
11-β-HYDROXYLATION OF STEROIDS WITH PYCNOSPORIUM
Jacob W. Davisson, Levittown, and Donald A. Kita, Jackson Heights, N. Y., and John B. Routten, Tenafly, N. J., assignors to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application May 29, 1953
Serial No. 358,564
8 Claims. (Cl. 195—51)

1. A process for the 11-β-hydroxylation of a steroid compound having a methylene group at the 11-position, which comprises contacting said steroid compound with a material selected from the class consisting of a living culture of the microorganism Pycnoeporium sp. ATCC 12,231 and the mycelium of said microorganism.

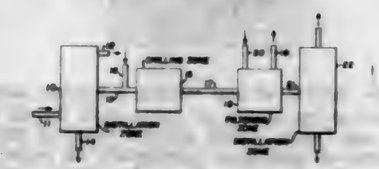
2,848,371
METHOD OF PRODUCING AND PURIFYING A NEW PROTEOLYTIC ENZYME
Fumihiko Yoshida, Chiba-ken, Japan, assignor to Noda Industrial and Scientific Research Laboratory, Noda-Shi, Chiba-ken, Japan
Application January 23, 1956, Serial No. 560,775
5 Claims. (Cl. 195—62)



1. The crystalline protease obtained from wheat bran cultures of a black Aspergillus type mold selected from the group consisting of *Aspergillus saitoi*, *Aspergillus usamii*, and *Aspergillus awamori*, said protease forming plate-shaped to needle-shaped crystals which have a molecular weight ranging from about 93,000 to 98,000, are acid-stable, have an isoelectric point of 4.50 to 4.70, exhibit their greatest activity between pH 2.5 and 3.0, have an optimum pH for milk casein digestion between 2.7 and 2.9, and possess a protein unit of 6700 PU/mg. protein-N.

2. The method of obtaining a crystalline protease from a mold of the black Aspergillus type selected from the group consisting of *Aspergillus saitoi*, *Aspergillus usamii*, and *Aspergillus awamori*, which comprises the steps of inoculating a nutrient medium with the Aspergillus, incubating at ordinary temperature, extracting with water at a pH of about 2.5 to 3.0, adding ethyl alcohol and starch to the extract, removing excess starch, precipitating the extract with additional ethyl alcohol, dissolving the precipitate in an acetate type buffer at pH of about 3.0, adding calcium acetate to remove impurities, dialyzing the solution to remove impurities, adding ammonium sulfate, separating the fraction between 0.3 and 0.8 saturation, dialyzing in aqueous solution, and adding acetone to the solution to separate the enzyme in the form of crystals.

2,848,372
PROCESS AND APPARATUS FOR SOLVENT DEWAXING OF OILS
William T. Knox, Jr., Cranford, and Stephen F. Perry, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application September 1, 1954, Serial No. 453,607
10 Claims. (Cl. 196—18)

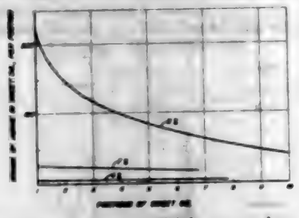


1. In a solvent dewaxing process utilizing a dewaxing solvent wherein a mixture of wax, oil, and solvent is chilled, by indirect heat exchange, the improvement of carrying out said chilling while said mixture is in contact with a heat transfer surface coated with phenol-formaldehyde polymer.

2,848,373
COPPER CHLORIDE SWEETENING
Russell H. Brown and William P. Fairchild, Hammond, Ind., and Fred K. Kawahara, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application February 25, 1955
Serial No. 490,684
4 Claims. (Cl. 196—29)

1. A process for sweetening a sour petroleum distillate selected from the class consisting of (*a*) thermally cracked distillates boiling in the range of about 100° F. to about 600° F., (*b*) virgin distillates boiling in the range of about 100° F. to about 600° F. which contain appreciable amounts of said thermally cracked distillate and (*c*) high sulfur content virgin distillates boiling in the range of about 325° and about 600° F., by contacting said distillate, in the presence of free-oxygen in the amount at least theoretically needed to sweeten said distillate, under copper chloride sweetening conditions in the presence of a catalytically effective amount of a copper chloride sweetening catalyst consisting of between about 35 to 45 weight percent of water, between about 4 and 15 weight percent of cupric chloride and the remainder essentially all fuller's earth, said catalyst being prepared by dissolving the required amount of cupric chloride in liquid water sufficient to produce in conjunction with water absorbed on said earth the desired water content catalyst and adding said solution to the required amount of granular fuller's earth.

2,848,374
OXYGEN SWEETENING PROCESS
Garbis H. Meguerian, Park Forest, Ill., and William P. Fairchild, Munster, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application June 6, 1955, Serial No. 513,362
9 Claims. (Cl. 196—29)

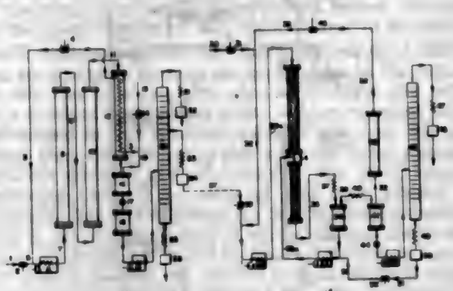


1. A sweetening process which comprises contacting (*a*) a sour petroleum naphtha with (*b*) between about 5 and 100 volume percent, based on said naphtha, of an aqueous solution consisting of (1) free-alkali metal hydroxide in a concentration between about 5% and saturation, (2) alkyl phenol mercaptan solubility promoter in a concentration of between about 1 volume percent and saturation, (3) water-soluble alkylene polyamine mercaptan solubility promoter in an amount between about 1 volume percent and saturation, each alkylene group containing from 2 to 4 carbon atoms, (4) a mercaptan oxidation catalyst consisting of the copper-polyamine complex formed by the reaction of a water-soluble copper salt and an alkylene polyamine wherein the alkylene group is selected from the class consisting of ethylene and propylene, in an amount between about 0.02 and 1 weight percent, calculated as copper, and (5) the remainder essentially water, in the presence of sufficient free-oxygen to convert essentially all the mercaptans in said naphtha, said contacting being carried out at a temperature between about 40° F. and 200° F. for a time sufficient to convert essentially all of the mercaptans in said naphtha, and separating an essentially sweet naphtha from aqueous solution.

2,848,375
REMOVAL OF BASIC NITROGEN IMPURITIES FROM HYDROCARBONS WITH BORIC ACID AND A POLYHYDROXY ORGANIC COMPOUND
John G. Gatsis, Chicago, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application February 6, 1956
Serial No. 563,420
12 Claims. (Cl. 196—39)

1. A process for the removal of nitrogen containing basic impurities from a hydrocarbon fraction containing the same which comprises treating said fraction with a solution comprising boric acid and a polyhydroxy organic compound, and recovering the purified hydrocarbon fraction.

2,848,376
TWO-STAGE HYDROGENATION PROCESS FOR THE PRODUCTION OF GASOLINE FROM HYDROCARBON OILS
Willi Oettinger and Wilhelm von Fraunberg, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
Application July 30, 1954, Serial No. 446,970
Claims priority, application Germany August 17, 1953
5 Claims. (Cl. 196—49)

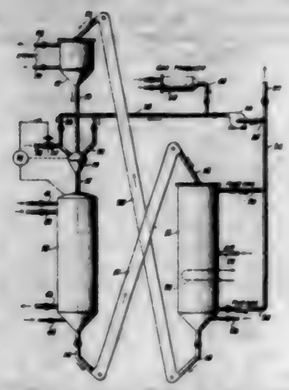


1. A process for the production of gasoline from oils by catalyst pressure hydrogenation which comprises: leading the initial oil together with hydrogen through a first stage under a pressure of 50 to 600 atmospheres at a temperature of 250° C. to 450° C. over a synthetic silicate catalyst under such conditions of pressure, temperature and throughput that at most an immaterial cracking of about 1 to 5% occurs, said catalyst being prepared by precipitating a silicate of at least one metal selected from the class consisting of nickel and cobalt from an aqueous solution thereof, washing the resulting metal silicate precipitate and drying it at 30° C. to 150° C. for a period of 3 to 15 hours, slowly heating the dried metal silicate to temperatures of 150° C. to 400° C., and calcining the catalyst at a temperature above 400° C.; and then leading the reaction product of said first stage together with hydrogen through a second stage under a pressure of more than 50 atmospheres at a temperature of 360° C. to 550° C. over a cracking catalyst composed of a carrier selected from the group consisting of aluminum silicate and magnesium silicate, said carrier being combined with at least one member of the group consisting of oxides and sulfides of a metal of the 6th to 8th groups of the periodic system, for the purpose of cracking said reaction product of said first stage to a high octane gasoline.

2,848,377
PLATINUM CATALYST COMPOSITE EMPLOYED IN THE HYDROFORMING OF A NAPHTHA
Glenn M. Webb, Western Springs, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application October 19, 1953
Serial No. 387,074
4 Claims. (Cl. 196—50)

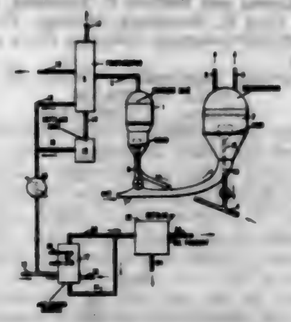
4. A hydroforming process which comprises the steps of contacting a petroleum naphtha boiling between about 180 and 375° F. with a catalyst consisting essentially of alumina, between about 0.1 and 1 percent by weight of platinum, and between about 0.1 and 1 percent by weight of iridium, based on dry Al_2O_3, at a temperature between about 800 and 1050° F., a pressure between about 100 and 1000 pounds per square inch gage, a hydrogen rate between about 1000 and 10,000 standard cubic feet per barrel of charging stock, and a liquid hourly space velocity between about 1 and 10, and withdrawing a hydroformate of improved octane number therefrom.

2,848,378
CATALYTIC HYDROCARBON CONVERSION PROCESS
Francis T. Sweeney, Palembang, Sumatra, Indonesia, assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application January 30, 1953, Serial No. 334,149
5 Claims. (Cl. 196—52)



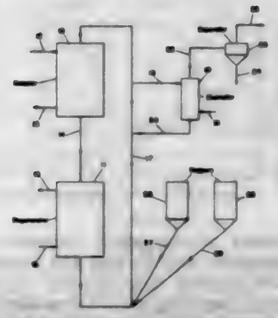
1. A continuous process for the conversion of fluid hydrocarbons in the presence of a granular adsorbent, which comprises: passing the catalyst through a reaction zone and contacting the catalyst therein with the fluid hydrocarbon charge to effect the desired conversion of the charge, passing spent catalyst from the reaction zone into a confined reconditioning zone and reconditioning the used catalyst therein for re-use in the reaction zone, passing reconditioned catalyst from the reconditioning zone to a region above the reaction zone maintained at a lower pressure than the reaction zone, passing catalyst from the lower pressure region into the reaction zone as a substantially compact feed stream of catalyst of substantially less cross-sectional area than the reaction zone, contacting the catalyst after reconditioning but prior to delivery to the upper end of said feed stream with steam to effect substantial hydration of the catalyst without effecting complete hydration of said catalyst and supplying seal gas to said feed stream adjacent its lower end, said seal gas consisting of steam and about twenty to seventy percent by volume of a non-condensible inert gas which is taken up by the catalyst to a substantially less extent than steam, whereby interruption in the flow of the feed stream supplying catalyst to the reaction zone is prevented.

2,848,379
TREATMENT OF HIGH BOILING CATALYTICALLY CRACKED PRODUCTS WITH ACTIVATED CARBON
John Hulsser, Jr., Westfield, and Lawrence T. Eby, Linden, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application July 16, 1953, Serial No. 368,256
3 Claims. (Cl. 196—52)



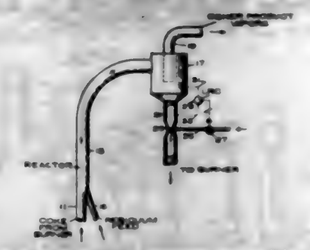
1. A catalytic cracking process comprising the steps of catalytically cracking a petroleum feed stock to form a cracked product, segregating a fraction boiling above about 700° F. from said product, passing said fraction to a treating zone, contacting said fraction in liquid form with from about 2% to about 20% by weight of activated carbon to form a treated liquid phase from which carcinogenic compounds have been removed, and separating said treated phase from said activated carbon.

2,848,380
CATALYTIC CRACKING PROCESS AND COMPOSITION
Charles L. Thomas, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application January 26, 1954, Serial No. 406,300
8 Claims. (Cl. 196—52)



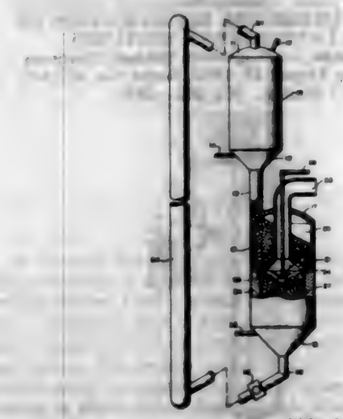
8. In a catalytic cracking process wherein a granular catalytic mass is continuously circulated through a cracking zone and a regeneration zone in the form of a moving bed, the improvement which comprises circulating through said zones a catalytic mass comprising a major proportion of silica-alumina cracking catalyst and a minor proportion of gamma alumina in which fluorine has been absorbed by previous contact with a hydrocarbon stock containing fluorine compounds resulting from previous contact of the hydrocarbon stock with hydrogen fluoride, whereby the catalytic mass has a cracking activity higher than that which would be obtained in the absence of said alumina, removing from the catalytic mass fines formed by attrition and comprising a higher ratio of alumina to silica-alumina catalyst than that in the circulating catalytic mass, and adding to the catalytic mass such fluorine-containing alumina to maintain the higher cracking activity.

2,848,381
GAS-SOLIDS SEPARATION IN HIGH TEMPERATURE COKING
Edward W. S. Nicholson, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application December 16, 1953, Serial No. 398,548
2 Claims. (Cl. 196—55)



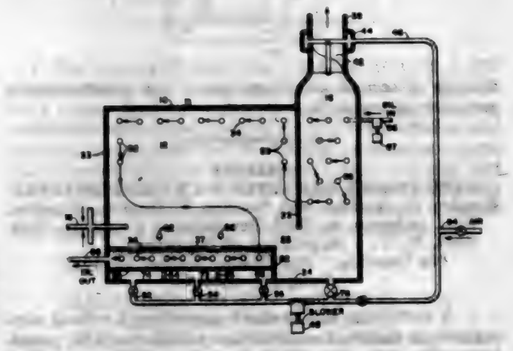
1. A chemicals coking process comprising contacting a hydrocarbon oil with particulate solids at a temperature above 1250° F. in a transfer line zone, cyclonically separating the suspension so formed in a separation zone, removing overhead from said separation zone gasiform conversion products, collecting separated solids in the lower portion of said separation zone, downwardly withdrawing the collected solids from said separation zone as a confined stream through a downwardly extending confined conduit having a venturi constriction, and directing a high velocity fluid stream downwardly into said constriction, responsive to the build up of collected solids in the lower portion of the separation zone whereby said collected solids are forcibly and rapidly withdrawn.

2,848,382
PEBBLE HEATER QUENCH SYSTEM
Myron O. Kilpatrick and Elwyn Charles Ayres, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application March 1, 1954, Serial No. 413,116
8 Claims. (Cl. 196—55)



1. An improved reactor for pebble heater apparatus which comprises, in combination, a closed upright elongated shell; pebble inlet means in the upper end of said shell; effluent outlet conduit means in the upper portion of said shell; pebble outlet means in the lower portion of said shell; a mass of pebbles within said shell; and means for spraying a heat exchange fluid parallel to and immediately above the top surface of said mass of pebbles.

2,848,383
METHOD AND APPARATUS FOR HEATING HYDROCARBON FLUIDS
Bradford E. Bailey, Elizabeth, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application October 20, 1954, Serial No. 463,480
6 Claims. (Cl. 196—110)

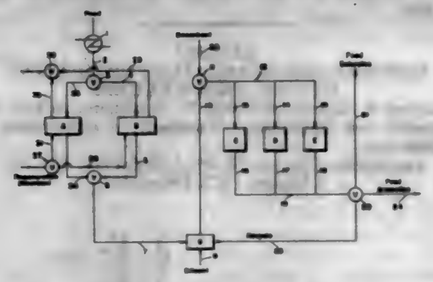


1. A furnace for heating fluids comprising an outer shell, a series of exposed interconnected tubes mounted adjacent the roof and vertical side walls of said shell, a horizontal tray having a perforated bottom mounted in the lower portion of said shell, a layer of fluidizable solids positioned in said tray, means for passing a fluidizing gas upwardly through the perforations in the bottom of said tray at a rate controlled to maintain said solids in a fluidized condition, a series of interconnected tubes submerged in said fluidized solids in said tray, the said tubes being in communication with the tubes mounted adjacent the roof and side walls of said shell, burners extending through the walls of said shell adapted to discharge fuel and oxidizing gas to effect flamed combustion in the central section of said shell and above said layer of fluidizable solids to thereby provide a source for radiant heating the surface of said fluidized solids and the tubes mounted adjacent the roof and walls of such shell, and means for removing combustion gases from said shell at a point removed from said burners and positioned to prevent the direct impingement of the flame on said tubes.

2,848,384
REFINING LUBRICATING OILS
James Van Dyck Fear, Media, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application June 20, 1955, Serial No. 516,424
2 Claims. (Cl. 196—147)

1. In an adsorption process for the removal of low V. I. aromatic constituents from mineral oils of lubricating viscosity containing a minor proportion of very strongly adsorbable compounds, the improvement which comprises contacting a first adsorbent mass with a mineral oil feed stock of lubricating viscosity comprising an aromatic fraction of high viscosity at room temperature, a saturate fraction of lower viscosity at room temperature and a minor proportion of gel poisons, which has been heated to a temperature of between about 150° F. to about 250° F., and sufficient to reduce the viscosity of the aromatic fraction to a point such that it presents no substantial resistance to the entry of the gel poisons into the pores of the adsorbent, withdrawing a mineral oil sub-

stantially free of gel poisons, passing said mineral oil, at a lower temperature not in excess of about 200° F.,

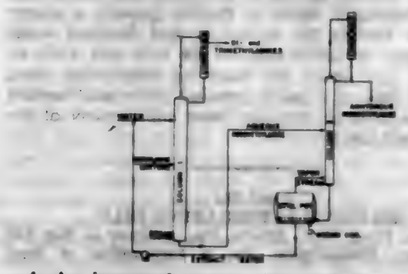


through a second adsorbent mass, and withdrawing a percolate poorer in aromatics than the feed.

2,848,385
GLOSS STABLE PARAFFIN WAX COMPOSITIONS
Karekin G. Arabian and Norman E. Duncan, Houston, Tex., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application October 10, 1955
Serial No. 539,675
6 Claims. (Cl. 196—149)

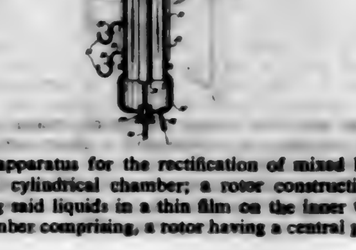
1. A petroleum wax product comprising a refined normally light-stable gloss-unstable crystalline paraffin petroleum wax and an extract derived from the extraction of a residual petroleum lubricating oil with a selective aromatics extractant, said extract having a viscosity of 400–900 SSU at 210° F. and being present in said product in an amount sufficient to impart thereto substantially improved gloss stability.

2,848,386
PROCESS FOR SEPARATION OF METHYLAMINES
Charles J. Krasuk, Houston, Tex., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application June 1, 1953, Serial No. 358,983
3 Claims. (Cl. 202—39.5)



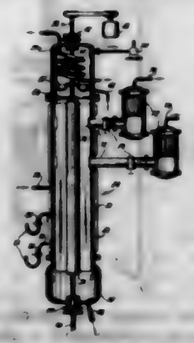
1. An improved process for producing substantially pure monomethylamine from methylamine mixtures containing predominantly monomethylamine and minor amounts of di- and trimethylamines, which comprises continuously feeding such a mixture to a distillation column at an intermediate point thereof, concurrently feeding extract water at a point above the amine inlet and near the top of the column at a rate such that the quantity of water present in the column is sufficient to dissolve the monomethylamine but insufficient to dissolve the dimethylamine and the trimethylamine, withdrawing di- and trimethylamines from the top of the column, withdrawing aqueous monomethyl amine from the bottom of the column, continuously feeding said aqueous monomethylamine substantially free from di- and trimethylamine to a second distillation column, withdrawing anhydrous monomethylamine from the top of said second column, and withdrawing water containing minor amount of monomethylamine from the bottom of the second column, at least a portion of said water being continuously returned to the first column as extract water.

2,848,387
SEPARATION OF AROMATIC AND NON-AROMATIC HYDROCARBONS
Edwin M. Glazier, Verona, and James M. Harrison, North East, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application March 3, 1954, Serial No. 413,856
6 Claims. (Cl. 202—42)



1. In a process for the separation of aromatic hydrocarbons from non-aromatic hydrocarbons in a mixture of aromatic and non-aromatic hydrocarbons by the azeotropic distillation of the mixture of aromatic and non-aromatic hydrocarbons in the presence of acetonitrile to form a volatile azeotrope of non-aromatic hydrocarbons and acetonitrile, and a bottoms product comprising aromatic hydrocarbons, a process for recovering acetonitrile from the non-aromatic hydrocarbons comprising extracting acetonitrile from the non-aromatic hydrocarbons with water to form an extract of water and acetonitrile and a raffinate of substantially acetonitrile-free non-aromatic hydrocarbons, extracting acetonitrile from said extract with aromatic hydrocarbons, recycling the extract of aromatic hydrocarbons and acetonitrile to the azeotropic distillation step, and recycling the raffinate of water from the extraction with aromatic hydrocarbons to the step of extracting acetonitrile from non-aromatic hydrocarbons.

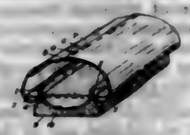
2,848,388
APPARATUS FOR THE RECTIFICATION OF MULTICOMPONENT MIXTURES
Walter Bueche, Ludwigshafen (Rhine), Germany
Application August 27, 1954, Serial No. 452,642
7 Claims. (Cl. 202—205)



1. In apparatus for the rectification of mixed liquids, a heated cylindrical chamber; a rotor construction for spreading said liquids in a thin film on the inner wall of said chamber comprising, a rotor having a central passage

for coolant and an imperforate non-cylindrical external surface; and a plurality of heat conducting blades on said rotor extending outwardly therefrom to points closely adjacent said wall, the external surface of the rotor construction defined by the rotor and the blades being such that a tangent at any point on said surface is oblique with respect to a radius drawn to said point whereby the liquid slides in a thin film along said external surface without the formation of droplets.

2,848,389
WATER PURIFIER
Johan Bjorksten, Fitchburg, Wis.
Application July 21, 1955, Serial No. 523,428
1 Claim. (Cl. 202—234)



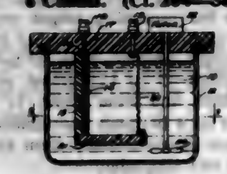
A solar still comprising an elongated sheet of substantially rigid organic synthetic resinous polymeric material having each of its edges bent upwardly to provide a channel to contain saline water, and, an elongated sheet of substantially rigid transparent organic synthetic resinous polymeric material disposed above said member, and bent downwardly between the axis thereof and the edges thereof to provide a roof over said first member, said edges bent inwardly and upwardly to provide channels adjacent the edges thereof to receive fresh water and further bent adjacent said channels to provide grooves adapted to receive the edges of said first member, said edges of said first member being seated in said groove.

2,848,390
METHOD AND APPARATUS FOR APPLYING METAL TO GLASS
Harry B. Whitehurst and William H. Otto, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application November 10, 1953, Serial No. 391,184
10 Claims. (Cl. 204—20)



10. Method of coating glass fibers with metal comprising suspending a quantity of molten metal by its own surface tension from a source of the molten metal, passing a continuous fiber in a generally vertical path through said suspended metal to receive the coating of said metal, replenishing the molten metal removed from said suspended metal to maintain it in equilibrium for continuous coating of fibers drawn therethrough, introducing a lubricant soluble in water to the coated fibers, gathering the fibers so produced into the form of an advancing strand, interrupting the advancing strand to form successive loops thereof, collecting said loops in a loosely formed package, and depositing a second coating of metal from a solution upon the surfaces of said fibers.

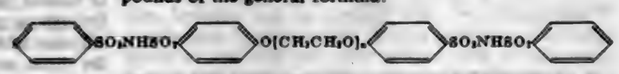
2,848,391
METHOD OF MAKING A MULTIPLE LAMINATION CONSTRUCTION
Frederick Palmer, Morristown, and James J. Shyne, Arlington, N. J., assignors to Vitro Corporation of America, New York, N. Y., a corporation of Delaware
Application October 19, 1953, Serial No. 386,882
6 Claims. (Cl. 204—38)



1. The process of preparing a multiple strip on a conductive base which comprises electrophoretically depositing a porous layer comprising particles of a relatively non-conductive radioactive material on said base, bonding said particles to each other and to said base by forming a metal matrix permeating the pores of said layer whereby said radioactive material is dispersed throughout said metal matrix, and electrodepositing an outer sheath of metal over the bonded electrophoretically deposited layer.

2,848,392
ELECTRODEPOSITION OF NICKEL AND ELECTROLYTES THEREFOR
Harry E. Ford, Euclid, and Wilbur J. Shenk, Jr., Shaker Heights, Ohio, assignors to The Harshaw Chemical Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application October 10, 1956
Serial No. 615,012
7 Claims. (Cl. 204—49)

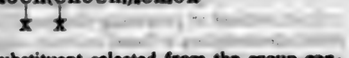
1. An acid, nickel electroplating solution comprising a nickel electrolyte of the class consisting of nickel sulfate, nickel chloride and mixtures thereof, together with an addition agent chosen from the class consisting of compounds of the general formula:



wherein *n* is an integer from 1 to 2 inclusive, and the sodium, potassium, iron, cobalt and nickel salts thereof and derivatives of the foregoing wherein from 1 to 4 nuclear hydrogen atoms are replaced by radicals of the class consisting of chlorine, bromine, fluorine, methyl, ethyl, carboxyl and sulfamyl, said addition agent being present to the extent of from 0.2 to 6 grams per liter of solution.

2,848,393
BRIGHT CADMIUM PLATING
Donald Gardner Foulke, Watchung, and Otto Kardos, Red Bank, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application November 8, 1955
Serial No. 545,778
10 Claims. (Cl. 204—56)

1. A process for producing bright cadmium deposits which comprises electrodepositing cadmium from an aqueous alkaline solution containing from 50 to 150 grams per liter of an alkali metal cyanide, from 10 to 50 grams per liter of cadmium, from 1/1000 to 3/4 gram per liter of a water-dispersible cellulose derivative, and from 1/4 to 30 grams per liter of a glycolic compound having the formula

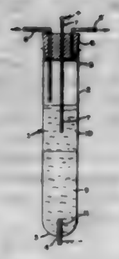


in which R is a substituent selected from the group consisting of hydrogen and alkyl radicals containing from 1 to 6 carbon atoms, X is a substituent selected from the group consisting of hydrogen, methyl, and ethyl, and *n* is a number from 0 to 500.

2,848,394
BRIGHT COPPER PLATING
Donald Gardner Foulke, Watchung, and Otto Kardos, Red Bank, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application May 4, 1956
Serial No. 582,661
13 Claims. (Cl. 204—52)

1. The process for producing bright copper deposits which comprises electrodepositing copper from an aqueous alkaline solution containing from 20 to 75 grams per liter of copper, from 45 to 125 grams per liter of an alkali metal cyanide, and from about ½ to about 25 millimols per liter of a titanium coordination compound having at least one ligand selected from the group consisting of polyols and alkanolamines.

2,848,395
ELECTROLYTIC PROCESS FOR PRODUCTION OF TITANIUM
Charles J. Carigana, Thornbury Township, Chester County, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 29, 1952, Serial No. 285,893
6 Claims. (Cl. 204—60)

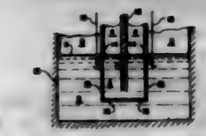


1. A process for preparing titanium metal which comprises electrolyzing with an inert anode and a metal cathode a separate fused salt anolyte layer which is substantially free of titanium subhalides and consists essentially of an alkali metal halide and alkaline earth metal halide mixture, said anolyte being immiscible in, forming an interface between, and different in density from a separate layer of a fused catholyte employed in the process consisting essentially of a salt solution of a subhalide of titanium in a halide selected from the group consisting of an alkali and alkaline earth metal, maintaining said salt layers at temperatures ranging from 450° C. to about 750° C., said anode in separate contact with said anolyte and said cathode in separate contact with said catholyte, and separately recovering the anode and cathode electrolytic deposition products.

2,848,396
ELECTROCHEMICAL PREPARATION OF BORON
Nelson F. Murphy and Richard S. Tinsley, Blacksburg, Va., assignors to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application February 4, 1955
Serial No. 486,274
5 Claims. (Cl. 204—60)

5. A method of preparing elemental boron which comprises electrolyzing a fused mixture consisting essentially of boric oxide, alkali metal fluoborate and alkali metal oxide, the molar ratio of alkali metal oxide to alkali metal fluoborate to boric oxide being in the range of 1:1:1 to 2:2:1, at a temperature in excess of 750° C. and recovering the boron deposited at the cathode.

2,848,397
ELECTROLYTIC PRODUCTION OF METALLIC TITANIUM
Lawrence J. Reinert, Schaefferville, and Erastus A. Fatzinger, Palmerton, Pa., assignors to The New Jersey Zinc Company, New York, N. Y., a corporation of New Jersey
Application July 6, 1954, Serial No. 441,324
7 Claims. (Cl. 204—64)



1. In the electrolytic production of metallic titanium wherein a chloride of titanium having a valence lower than four, and contained in a molten salt bath consisting essentially of at least one halide of the group consisting of alkali metal and alkaline earth metal halides, is electrolyzed in a cell between an anode and a cathode with the resulting deposition of metallic titanium on the cathode and evolution of chlorine gas at the anode, the improvement which comprises effecting cathodic deposition of metallic titanium in the absence of a physical barrier in the molten bath between the anode and cathode by (1) establishing and maintaining the relative position between the anode and cathode within the cell such that the evolved chlorine will rise in the body of molten bath between the anode and the proximate cathode surface without entering the body of molten bath adjacent the distal surface of the cathode and sufficiently close to one another to permit electrolytic depletion of the titanium content of the bath therebetween at a rate faster than this titanium content can be replaced by diffusion from other portions of the bath, (2) maintaining the body of molten bath between the anode and the proximate cathode surface in direct communication with the body of molten bath adjacent the distal surface of the cathode through a passage of sufficiently small area to retard diffusion of the titanium chloride from the bath adjacent the distal surface of the cathode into the bath between the anode and proximate cathode surface, (3) effecting electrolysis of the titanium chloride at a voltage high enough to establish and maintain such depletion of the titanium component of the bath between the anode and the proximate cathode surface as to develop a back electromotive force between the anode and cathode of at least 2.6 volts but insufficient to effect decomposition of any of the nontitaniferous components of the bath, and (4) supplying titanium tetrachloride to the body of molten bath which is in contact with the distal surface of the cathode so as to maintain a substantial concentration of said lower valence titanium chloride.

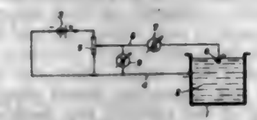
2,848,398
RECOVERY OF GALLIUM COMPOUNDS FROM THE COMBUSTION GASES OF COAL
Masaru Inagaki, Tokyo, Japan, assignor to Zaidan Hojin Seikatsu Sogo Kenkyujo, Tokyo, Japan
No Drawing. Application May 1, 1956
Serial No. 581,231
Claims priority, application Japan May 11, 1955
2 Claims. (Cl. 204—105)

1. The method of recovering gallium compounds from hot combustion gases containing trace amounts of germanium and gallium which comprises washing and cooling the gases with an aqueous solution to obtain an enriched washed liquor, adding a tannin to produce a gallium and germanium containing precipitate, drying and burning the precipitate to produce an ash containing oxides of gallium and germanium, chlorinating the ash to convert the oxides to germanium tetrachloride and gallium trichloride, hydrolizing the germanium tetrachloride to produce a precipitate of germanium dioxide leaving a residual solution containing gallium trichloride, subjecting the residual solution to filtration and reduction to remove the impurities, extracting the solution with an ether for gallium trichloride, mixing the ether solution of gallium trichloride with hydrochloric acid and recovering the ether by distillation to leave an aqueous gallium trichloride solution, treating said solution with an ammonium hydroxide solution to obtain a precipitate of gallium hydroxide, filtering this precipitate and dissolving the same in aqueous sodium hydroxide to form a sodium gallate solution, and subjecting this sodium gallate solution to electrolysis to recover the gallium in the solution.

2,848,399
ELECTROWINNING OF ZINC
Leslie D. McGraw and Garson A. Lutz, Columbus, Ohio, assignors, by mesne assignments, to American Zinc, Lead and Smelting Company, St. Louis, Mo., a corporation of Maine
No Drawing. Application June 6, 1955
Serial No. 513,609
8 Claims. (Cl. 204—119)

1. In a process for electrowinning zinc by electrolyzing an acidic aqueous solution of zinc containing dissolved manganese, employing an anode of a material selected from the group consisting of lead and lead-base alloys, a method of densifying anode scale and causing a substantial portion of said scale to adhere to said anode that comprises maintaining in said solution about 0.01 to 0.1 gram per liter of an aromatic sulfonic acid selected from the group consisting of the benzene and naphthalene sulfonic acids, alkyl substituted benzene and naphthalene sulfonic acids, and halogenated derivatives thereof.

2,848,400
METHOD FOR THE CURDLING OF MILK
Walter Maier, Aumuehlematte, and Peter Zublin, Glarisegg, near Steckborn, Switzerland
Application December 27, 1956, Serial No. 630,837
Claims priority, application Switzerland December 28, 1955
2 Claims. (Cl. 204—137)



1. In the curdling of milk for the production of cheese in a container made from stainless steel, the method of preventing the curd from adhering to the wall of said container which comprises applying to the said container a negative electric potential with reference to the electric potential of said milk.

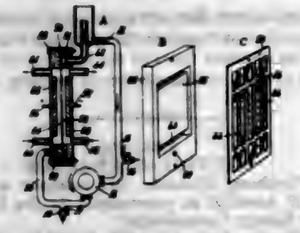
2,848,401
METHOD OF ELECTROLYTICALLY RIFLING GUN BARRELS
James C. Hartley, Branford, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application May 7, 1953, Serial No. 353,626
9 Claims. (Cl. 204—143)

4. In the method of rifling the bore of a gun barrel by anodic dissolution of portions of the bore in the presence of a suitable electrolyte solution, the steps which include temporarily masking against access by the electrolyte only those wall portions of the bore which are adapted to form the lands of the rifling; positioning a cathode member in said bore in spaced relation to the wall thereof; introducing into the bore surrounding said cathode member an electrolyte solution operative for anodic dissolution of the exposed wall portions of the bore; passing an electric current of sufficient magnitude



from said barrel to said cathode member through said electrolyte for a period of time sufficient to produce rifling grooves of proper depth in the exposed wall portions of the bore.

2,848,461
PROCESS FOR ELECTRODIALYZING LIQUIDS
Arend Hubregt de Haas van Dorsser, The Hague, and Cornelis van Hoek, Wassenaar, Netherlands, assignors to Nederlandse Centrale Organisatie Voor Toegepast-Natuurwetenschappelijk Onderzoek, The Hague, Netherlands, a corporation of the Netherlands
Application January 18, 1956, Serial No. 560,031
Claims priority, application Great Britain April 12, 1949
5 Claims. (Cl. 204—151)

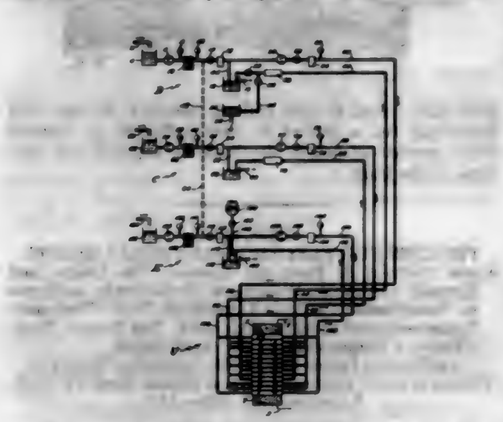


5. A process for electrodialyzing an electrolyte solution with a plurality of electrodialyzing units, which comprises in each unit flowing a stream of electrolyte solution between and in contact with two ion-permeable membranes, simultaneously flowing a stream of a rinsing liquid to and over the other side of each of said membranes and passing a direct current in series across said membranes through said solution to electrodialyze said solution, dividing the stream of electrodialyzed liquid issuing from between said membranes of each of said units into a first stream and a second stream, said first stream from each unit containing a substantially greater quantity of liquid than said second stream therefrom, adding said first stream from each unit to the aforesaid stream of said solution flowing into the same unit and maintaining the flow of the resulting liquid between the membranes of the same unit at a velocity sufficient to prevent polarization effects at the surfaces of such membranes, flowing said second stream from each but the last of said units to the next unit as the aforesaid stream of said solution, and taking off said second stream from the last of said units as the electrodialyzed product.

2,848,463
PROCESS FOR ELECTRODIALYZING LIQUIDS
Norman W. Rosenberg, Newton Center, Mass., assignor to Ionics, Incorporated, Cambridge, Mass., a corporation of Massachusetts
Application May 6, 1954, Serial No. 428,072
9 Claims. (Cl. 204—180)

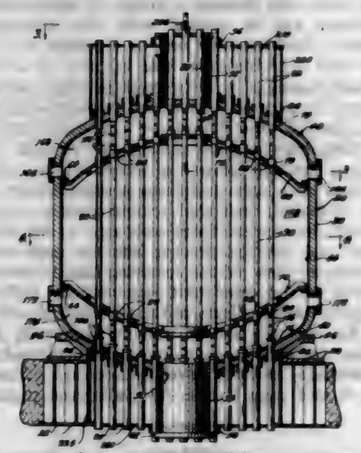
1. The method of modifying the concentration of an electrolyte solution comprising passing a first feed stream through diluting chambers of an electrodialysis unit having a plurality of concentrating and diluting chambers defined between alternate anion permeable membranes and cation permeable membranes said membranes having a thickness between about 0.1 mm. and about 1 mm. and

said diluting chambers having a thickness of about 0.5 mm. to about 2 mm., passing a second feed stream through the alternate concentrating chambers, passing a direct current in series across the alternating chambers and membranes, and passing the two feed streams in



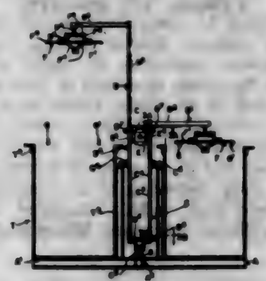
parallel concurrent flow through said chambers at flow rates controlled to maintain substantially equal hydraulic pressures on opposite faces of the membranes at any point thereof to prevent undue stresses or bowing of said membranes.

2,848,404
NEUTRONIC REACTOR
Michael Treshow, Hinsdale, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application August 2, 1956, Serial No. 601,845
3 Claims. (Cl. 204—193.2)



1. A neutronic reactor comprising a pressure vessel having a hollow portion and first and second heads sealed to each end at the hollow portion, said heads being provided with confronting openings, a sleeve sealed within each of the openings in the heads and extending outwardly from the pressure vessel coaxially with the axis of confronting openings, a fuel element disposed within each pair of confronting openings in the pressure vessel including a tube disposed in each sleeve in the first head having an outwardly extending flange abutting the outer end of the sleeve, a plurality of strands of thermal neutron fissionable material releasably mounted within each of the tubes, means disposed within the flanged end of the tube to seal each of the tubes, said strands being arranged in a plurality of concentric groups about one strand disposed on the axis of the tube, said axial strand and each alternate group of strands being provided with protective jackets having helical ribs on the exterior surfaces thereof, and the intermediate groups of strands having cylindrical protective jackets abutting the ribs of the confronting jackets in the adjacent groups, and removable means disposed within the sleeves of the second head to seal the sleeves to the passage of liquid, whereby the sleeve sealing means in the sleeves of the second head may be removed and the strands released to permit removal through the sleeves of the second head.

2,848,405
APPARATUS FOR HANDLING AND CONVEYING WORK
John A. Lisowski and Frank B. Lisowski, Detroit, Mich., assignors to Natural Products Company, Newport, Mich., a copartnership
Application April 30, 1953, Serial No. 352,165
17 Claims. (Cl. 294—103)



1. Work holding and conveying means comprising a carriage adjacent and parallel to a row of work processing stations extending substantially the length of said row and intermittently movable back and forth for a limited distance, elevators mounted on said carriage opposite said stations each including a vertical rod movable upward above said carriage, an arm projecting from the upper end of each rod laterally over the adjacent station, a plurality of work suspension holders, supporting means at said station for said holders, means on each arm for automatically coupling with and uncoupling from a work holder while said work holder is resting upon said supporting means during portions of the movement of said carriage, and mechanism for intermittently and alternately actuating said carriage and elevators timed to, first, simultaneously move upward all elevators which are coupled to work suspension holders, raising the latter off from said supporting means, second, to advance said carriage thereby transferring said raised holders from one station to another, third, to lower said raised elevators to deposit said holders on said supporting means, and fourth, to return the carriage thereby uncoupling said arms from said deposited holders and coupling them to other holders respectively during the initial and final portions of the return movement.

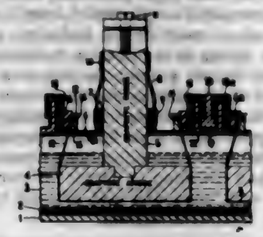
2,848,406
MOUNTING OF PRIMARY AND SECONDARY SECTIONS OF ELECTROLYTIC CELLS
Joshua Szechtman, Byram, Conn., assignor to Amroc Incorporated, New York, N. Y., a corporation of Michigan
Application November 19, 1953, Serial No. 393,133
3 Claims. (Cl. 204—219)

1. In electrolytic cell construction employing a mobile mercury cathode, an elongated trough like secondary section, an elongated trough like primary section, hinge means, having a horizontal axis, extending between said primary and secondary sections and adjacent an end of each thereof for hinging said primary and secondary sections together with said primary section in aligned relation above said secondary section, means for turning said



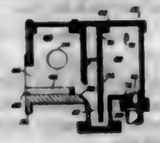
primary section about said hinge to vary the incline of the same with respect to the horizontal, and mounting means for said secondary section, said mounting means including adjustable members for varying the incline of said secondary member with respect to the horizontal.

2,848,407
MERCURY CELL
Sydney Forbes, Pittsburgh, Pa., assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware
Application October 5, 1955, Serial No. 538,747
13 Claims. (Cl. 204—219)



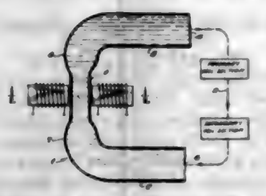
1. In an electrolytic cell of the mercury cathode type having a floor supporting a body of mercury and having a removable cover, an anode assembly comprising a graphite block having an underface parallel with, disposed above and spaced from the body of mercury, said block having a vertically-extending riser affixed thereto which passes upwardly through the cell cover, both said block and said riser being directly supported by thread suspension members which extend downwardly and around the anode block in supporting contact with the underface of the block, the ends of said thread members being securely mounted in the cell cover to provide that the length of the members contacting the underface of the block be disposed above and in spaced relationship with the bottom of the cell.

2,848,408
FLUID OUTPUT END APPARATUS FOR A MERCURY CATHODE ELECTROLYTIC CELL
Marshall P. Neipert, Robert D. Blue, and Howard E. Houser, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application November 5, 1957, Serial No. 696,012
8 Claims. (Cl. 204—219)



1. In a mercury cathode electrolytic cell in which brine and mercury amalgam cathode material flows, at an output end, from a slot between the planar surface of a cathode base and an anode spaced above said cathode base, an end box including a fluid entry compartment having side walls, an entry end wall secured to said output end of said cell, said entry end wall having a fluid entry slot therein, a steel mercury amalgam flow surface extending inwardly from said fluid entry slot and extending between the side walls, means secured to said flow surface and extending centrally thereof at an acute angle from said side walls for restricting the width of the surface over which mercury amalgam material may flow during operation of the cell, said flow surface being substantially aligned with the planar surface of the cathode base of said cell from the inlet slot past the centrally extending means for restricting the width of the surface, a strap having an inlet side and an outlet side disposed beyond said centrally extending means for withdrawing amalgam from said fluid entry compartment, and brine removal means disposed in at least one of said side walls above the amalgam inlet side of said trap.

2,848,409
DEVICES FOR THE PROPULSION OF MERCURY THROUGH A CONDUIT
Joshua Szechtman, Byram, Conn., assignor to Amroc Incorporated, New York, N. Y., a corporation of Michigan
Application January 26, 1954, Serial No. 406,207
4 Claims. (Cl. 204—220)

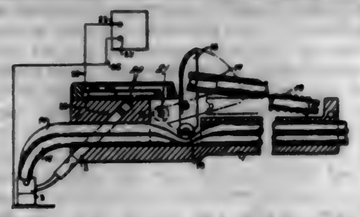


1. In electrolytic mercury cell construction having primary and secondary sections, a conduit for confining the flow of mercury between the secondary and primary sections of such cell, said conduit being formed out of material which will not amalgamate with mercury, a system for propelling mercury through said conduit which comprises, said conduit having a portion formed of graphite, a pair of electro-magnets on one pair of opposite sides of said portion, and a pair of electrical contacts on another pair of opposite sides of said portion for passing electric current transversely through said portion and through mercury contained therein at a position closely adjacent the position of said electro-magnets and transversely with respect to the magnetic field established thereby.

2,848,410
APPARATUSES FOR THE ELECTROLYTIC POLISHING OF LIMITED SURFACE PORTIONS OF A METALLIC WORKPIECE
Eggert Christian Flemming Knuth-Winterfeldt, Gentofte, and Lauritz Gudmund Damgaard, Virum, Denmark, assignors to H. Struers Chemiske Laboratorium, Copenhagen, Denmark
Application April 30, 1956, Serial No. 581,509
Claims priority, application Denmark May 13, 1955
9 Claims. (Cl. 204—224)

1. An apparatus for electrolytically polishing limited surface portions of a metallic workpiece, comprising a handle, a mouthpiece mounted on said handle, said mouthpiece having an open end to be applied to the workpiece and being constructed with two co-axial passages opening at a small distance behind said open end, a source of electrolyte, conduit means including flexible conduit portions connecting said two passages individually with said source of liquid electrolyte, means for circulating electrolyte from said source to the outer one of

said two passages and back through the inner one of said two passages to said source, manually operated means mounted on said handle for selectively permitting and



cutting off said circulation of electrolyte, and an electric circuit for creating a potential difference between the electrolyte and the workpiece.

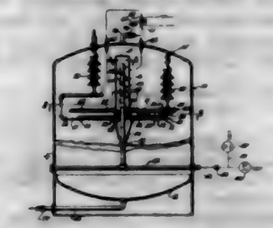
2,848,411
ELECTRODE
Forest H. Hartsell, Dayton, Ohio
Application April 12, 1955, Serial No. 500,730
3 Claims. (Cl. 204—290)



3. A composite electrode for use in an electrolytic cell having a liquid electrolyte in which said electrode is suspended and at least partially immersed, comprising in combination an elonagted main body portion including a metal resistant to electrolytic attack by said electrolyte, a core within said main body portion and extending substantially throughout the length thereof, said core including a metal of greater conductivity than said main body portion for conducting electrical current substantially throughout said main body portion, a protective steel sheath encasing said core for protection thereof against chemical attack by substances in said electrolyte which penetrate said main body portion, and means spacing said core from said main body portion adjacent one end thereof and generally positioned to extend from above to below the level of said liquid electrolyte, and a plurality of direct contact points penetrating said steel sheath and integrally uniting said main body portion with said core through said sheath.

2,848,412
ELECTRIC TREATER
Robert L. Easley, Houston, Tex., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
Application June 4, 1954, Serial No. 434,428
11 Claims. (Cl. 204—302)

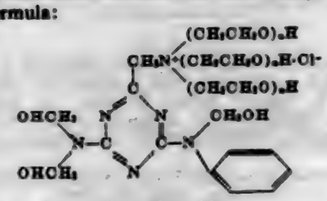
1. In an electric emulsion treater, the combination of: an inner pipe electrode closed at one end; means for delivering emulsion under pressure to the interior of said pipe electrode; an outer cylindrical electrode; means for mounting said electrodes in coaxial relationship and for insulating one from the other, said cylindrical electrode surrounding said pipe electrode to define therebetween an annular treating space open at an exit end, the axial length of said annular treating space being very much greater than its width measured between said electrodes; means for establishing a potential difference between said electrodes to establish an emulsion-treating electric field in said annular treating space; a plurality of fittings communicating between the interior of said pipe electrode and said annular treating space, said fittings extending outwardly from the periphery of said pipe electrode at spaced positions and being electrically connected thereto so that said electric field is concentrated adjacent said fittings, some of said positions being spaced from other of such positions circumferentially of said pipe electrode and some of the positions being spaced from others



longitudinally of said pipe electrode, said fittings being distributed throughout a substantial length of said annular treating space, each fitting including an open discharge orifice facing in a direction substantially tangential to a circle drawn around the common axis of said electrodes and discharging a unitary stream of emulsion in such direction; and means for maintaining said annular treating space filled with liquid comprising the constituents of the emulsion, said unitary streams jetting into said liquid and forming a larger stream filling and issuing from said open exit end of said treating space after electric treatment therein.

2,848,413
NOVEL MIXTURES OF QUATERNARY AMMONIUM SALTS
Walter H. Schaffer, Delray Beach, Fla., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application May 22, 1957
Serial No. 660,756
2 Claims. (Cl. 252—8.8)

1. A new composition of matter comprising an equimolar mixture of polymethylol derivatives of (*a*) N-(4 - amino - 6 - anilino - s - triazinylmethyl) - N,N,N-trimethylammonium chloride and (*b*) a N,N,N - (2 - hydroxyethyl) - N - (4 - amino - 6 - anilino - s - triazinylmethyl) ammonium chloride, the latter being represented by the formula:



where *n* is an integer from 2 to 11.

2,848,414
CORROSION INHIBITOR
Joseph A. Chenicek, Bensenville, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application November 23, 1955
Serial No. 548,761
13 Claims. (Cl. 252—32.5)

1. A non-corrosive composition of matter consisting essentially of a hydrocarbon material coming in contact with water during the useful life thereof, said hydrocarbon material having dissolved therein a corrosion inhibiting amount of an alkyl acid phosphate salt of an N-alkyl diaminoalkane of the general formula

$$R—NH—R'—NH_2$$

wherein R is an alkyl group of at least 6 carbon atoms and R' is a hydrocarbon radical of from 2 to 4 carbon atoms, at least one of the alkyl groups constituting the ester portion of said alkyl acid phosphate containing at least 8 carbon atoms.

2,848,415
METHOD OF MAKING A METAL PETROLEUM SULFONATE
Richard S. Logan, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application January 16, 1956
Serial No. 559,129
5 Claims. (Cl. 252—33)

1. The method of making a metal petroleum sulfonate which comprises sulfonating a lubricating oil stock having a viscosity of 200 to 230 Saybolt Universal seconds at 210° F., treating the entire sulfonation product with an aqueous alcohol solution of substantially the azeotropic concentration, thereby separating the sulfonated material into an extract fraction and a raffinate fraction, said alcohol having no more than 7 carbon atoms, neutralizing the extract with a basic metal compound, and recovering the resulting metal petroleum sulfonate.

2,848,416
EXTREME PRESSURE SOLUBLE OIL
Melvin E. Gilliland and Richard C. Givens, Port Arthur, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
No Drawing. Application October 8, 1956
Serial No. 614,346
5 Claims. (Cl. 252—33.3)

1. A soluble oil composition suitable for heavy duty metal cutting operations comprising mineral lubricating oil as the major constituent, oil-soluble emulsifying agents in an amount sufficient to cause formation of oil-in-water emulsions on mixing the soluble oils with water, and the following additives in percent by weight based on the soluble oil:

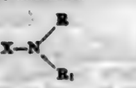
	Percent by wt.
Chlorinated dibenzyl disulfide	4 to 6
Chlorinated paraffin wax	3.5 to 5
Sulfurized sperm oil	3.5 to 5

2,848,417
EXTREME HIGH TEMPERATURE GREASE COMPOSITIONS
Jack W. Armstrong, Concord, and Harold A. Woods, Martinez, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application August 15, 1955
Serial No. 528,551
8 Claims. (Cl. 252—42.1)

1. A grease composition having lubricating properties which comprises a major proportion of an oleaginous lubricating liquid and between about 10% and about 60%, by weight, of an indanthrene compound melting above about 250° F. said liquid and compound being milled sufficiently to produce a composition of grease-like consistency.

2,848,418
LUBRICATING COMPOSITIONS
Werner Müller, Koln, and Roderich Raue, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application April 14, 1954
Serial No. 423,220
Claims priority, application Germany April 16, 1953
10 Claims. (Cl. 252—51.5)

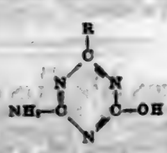
1. A lubricant composition compriaing a major amount of a mineral lubricating oil and a minor amount, sufficient to inhibit the oxidative deterioration of said oil, of an amide of the general formula



wherein X represents an acyl radical of an aromatic orthohydroxy carboxylic acid whereas R stands for an aliphatic hydrocarbon radical and R_1 for a member of the group consisting of hydrogen and an aliphatic hydrocarbon radical.

2,848,419
NONTARNISHING COMPOSITIONS
Louis H. Libby, Floosmoor, Ill., assignor to Lever Brothers Company, New York, N. Y., a corporation of Maine
No Drawing. Application July 12, 1954
Serial No. 442,893
20 Claims. (Cl. 252—137)

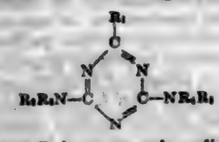
1. A detergent composition consisting essentially of a water-soluble substance selected from the group consisting of polyphosphates and synthetic organic nonsoap anionic and nonionic detergents which in aqueous solution tarnishes copper and certain alloys containing copper and a tarnish inhibitor in an amount to lessen the tarnishing action of the substance and having the general formula:



where R is an organic radical having at least three carbon atoms and selected from the group consisting of aliphatic hydrocarbon, aryl, mixed alkylene aryl, mixed phenylene guanide and mixed alkylene guanide radicals.

2,848,420
NONTARNISHING DETERGENT COMPOSITIONS
Charles H. Schramm, Hillsdale, N. J., assignor to Lever Brothers Company, New York, N. Y., a corporation of Maine
No Drawing. Application July 12, 1954
Serial No. 442,895
23 Claims. (Cl. 252—137)

1. A detergent composition consisting essentially of a water-soluble substance selected from the group consisting of polyphosphates and synthetic organic nonsoap anionic and nonionic detergents which in aqueous solution tarnishes copper and copper and nickel alloys and a tarnish inhibitor in an amount to lessen the tarnishing action of the substance and having the general formula:



where at least one R is an organic radical selected from the group consisting of hydrocarbon and guanamine radi-

cals having at least three carbon atoms, and the remaining R radicals are selected from the group consisting of hydrogen, hydrocarbon, and guanamine radicals.

2,848,421
INDICATING POWDER COMPOSITION
Taber De Forest, Northbrook, Ill., assignor to Magnaflux Corporation, Chicago, Ill., a corporation of Delaware
Application October 28, 1954, Serial No. 465,405
5 Claims. (Cl. 252—408)



1. A dry indicating powder composition comprising from 80 to 20 parts by weight of particles of a silica aerogel carrier and from 20 to 80 parts by weight of pigment particles having a particle size of less than about 10 microns and loosely adhering to and carried by said carrier.

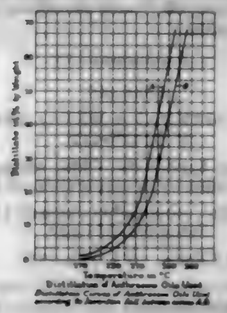
2,848,422
PREPARATION OF ACTIVE CONTACT MASSES FROM KAOLIN CLAYS
Joseph J. Donovan, Swarthmore, and Thomas H. Milliken, Jr., Moylan, Pa., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 6, 1955
Serial No. 513,698
2 Claims. (Cl. 252—440)

2. A method for forming hydrocarbon conversion catalyst which comprises contacting a kaolin clay at a temperature of between about 650 to 900° F. with a gas containing from about 6 mol percent to about 45 mol percent sulfur trioxide for a period at least sufficient to effect incorporation of about 22% SO_3 by weight in the clay, and then desulfating the clay by contacting it with a reducing gas at elevated temperatures.

2,848,423
PREPARATION OF KAOLIN CATALYSTS
George Alexander Mills, Swarthmore, and Gerhardt Talvenheimo, Chester, Pa., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application July 20, 1954
Serial No. 444,638
4 Claims. (Cl. 252—449)

1. A process of preparing granular aggregates of a catalytic contact material from kaolin clay which includes the steps of subjecting a plastic kaolin clay containing particles of larger than two micron size and finer sized particles to a procedure effective in separating the particles to form a fraction composed of not less than 80% particles of two micron size and smaller; shaping the fraction consisting predominantly of such two micron size and smaller particles of such plastic kaolin into granular aggregates; subjecting such aggregates to an elevated temperature treatment to form attrition resistant aggregates; subjecting such heat treated aggregates to a gas stream containing hydrogen sulfide at an elevated temperature of at least 1200° F. to form partially reacted aggregates; subjecting such partially reacted aggregates at an elevated temperature to a reactant gas containing ammonium chloride for the selective removal of a portion of the iron content of the kaolin to purify the kaolin; and subjecting the thus purified aggregates to further heat treatment to prepare granular aggregates of a cracking catalyst possessing a significantly higher activity for the cracking of high boiling hydrocarbons to hydrocarbons of the gasoline boiling range than granular aggregates prepared from particles having a particle size larger than two microns.

2,848,424
PROCESS OF PREPARING CARBON ELECTRODES AND A PASTE THEREFOR
Stefan Stanko, Saint Jean-de-Maurienne, France, assignor to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France
Application November 7, 1955, Serial No. 545,378
Claims priority, application France November 16, 1954
6 Claims. (Cl. 252—502)



1. A binder suitable in the preparation of carbon paste for use in the production of electrodes, consisting essentially of a pitch having the following characteristics:

Softening point, Kramer-Sarnow, between 70–85° C.;
Coking residue, in excess 50% by weight of the initial pitch;
Proportion of benzene insoluble resins and resins soluble in anthracene oils, not less than 20% by weight of the pitch;
Residue upon coking of said resins, not less than 89% by weight of said resins.

2,848,425
PREPARATION OF ALKOXYPOLYSILOXANES
Melvin M. Olson and Roger M. Christenson, Milwaukee, Wis., assignors to Pittsburgh Plate Glass Company
No Drawing. Application October 7, 1953
Serial No. 384,763
3 Claims. (Cl. 260—2)

1. A method of preparing a polysiloxane which comprises reacting as sole added reactants a mixture of: (A) about 1 mole of silicon tetrachloride; (B) about 3 moles of an alcohol of a class consisting of: methyl alcohol, ethyl alcohol, n-propyl alcohol, n-butyl alcohol, n-amyl alcohol, n-octyl alcohol, allyl alcohol, methallyl alcohol, with (C) about 1 mole of an acid free of water and being of a class consisting of: acetic acid, propionic acid, butyric acid, acrylic acid, methacrylic acid; removing the evolved hydrogen chloride substantially as it is formed and subsequently distilling off volatile reaction products contained in the reaction mixture.

2,848,426
POLYEPOXY POLYETHERS, THEIR PREPARATION AND POLYMERS
Herbert A. Newey, Lafayette, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application December 3, 1956
Serial No. 625,626
15 Claims. (Cl. 260—2)

1. A polyepoxide comprising an ether of (1) a monohydric alcohol having a



group contained in a cycloalkyl ring, and (2) an organic polyhydroxy-containing compound.

2,848,427
METHOD OF MAKING CELLULAR PLASTIC ARTICLES FROM VINYL AROMATIC RESINS
Louis C. Rubens, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application June 1, 1953
Serial No. 358,962
10 Claims. (Cl. 260—2.5)

1. A process for making a cellular thermoplastic polymer article possessing good dimensional stability at temperatures above the heat-plastifying temperature of the polymer, which process comprises impregnating a solid glass-like copolymer of from 99.75 to 99.99 percent by weight of at least one monovinyl aromatic compound of the benzene series and from 0.01 to 0.25 percent by weight of a polyvinyl aromatic hydrocarbon, with a normally gaseous agent selected from the group consisting of carbon dioxide, methyl fluoride, ethane, propane, ethylene and propylene, by subjecting the solid copolymer to contact with the normally gaseous agent under pressure at a temperature below the heat distortion temperature of the copolymer until the copolymer absorbs at least 2 percent by weight of said agent, releasing the pressure and heating the copolymer containing the dissolved normally gaseous agent to a temperature above the heat distortion temperature of the copolymer, whereby the dissolved normally gaseous agent expands the copolymer to form a cellular product.

2,848,428
LATENT FOAMING COMPOSITIONS OF VINYL AROMATIC RESINS AND METHOD OF MAKING
Louis C. Rubens, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application June 1, 1953
Serial No. 358,963
6 Claims. (Cl. 260—2.5)

1. A process for making a resinous polymeric composition suitable for forming a cellular article possessing good dimensional stability at temperatures above the heat-plastifying temperature of the polymer ingredient of the composition, which process comprises polymerizing a liquid mixture containing as the essential ingredients from 99.5 to 99.99 parts by weight of at least one monovinyl aromatic compound of the benzene series having the vinyl radical directly attached to a carbon atom of the aromatic nucleus and from 0.5 to 0.1 part of a polyvinyl aromatic hydrocarbon, together with from 0.05 to 0.3 gram mole per 100 grams of the polymerizable vinyl aromatic compounds of a fluid foaming agent selected from the group consisting of saturated aliphatic hydrocarbons and perchlorofluorocarbons having a molecular weight of at least 58 and boiling at a temperature below 95° C., by subjecting said liquid mixture under at least autogenous pressure to a polymerization temperature of from 40° to 150° C. until a solid polymeric product is obtained, then releasing the pressure at a temperature below the heat distortion temperature of said product.

2,848,429
ASPHALT COMPOSITIONS
Richard L. Woodruff, Concord, and Robert M. Ellsworth, Vallejo, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application May 24, 1956
Serial No. 586,924
5 Claims. (Cl. 260—4)

1. An asphalt composition comprising a major amount of an asphalt, a contaminating minor amount of a hydrocarbon wax, said wax being present in an amount between about 1% and about 10% by weight of the combined asphalt and wax, and between about 0.01% and about 0.5% by weight each of a hydrocarbon rubber of the group consisting of natural rubber, butadiene-styrene rubbers, and isobutylene copolymerized with 1.15–4.5% by weight of a di-olefin and a polymerized ester of an acrylic acid and an aliphatic monohydric alcohol having between 8 and 24 carbon atoms per molecule, said polymerized ester having a molecular weight between 5,000 and 500,000.

2,848,430
TALL OIL-PHENOL-FURAN RESIN COMPOSITIONS
Raymond M. Frey, Milwaukee, and Shiro F. Shiraga, Cudahy, Wis., assignors to McGraw-Edison Company, a corporation of Delaware
Application October 6, 1954, Serial No. 460,706
12 Claims. (Cl. 260—19)



1. A composition of matter comprising a polymerized material obtained by effecting reaction between ingredients including a furan compound selected from the group consisting of furfural and furfuryl alcohol; tall oil and a hydroxyl compound selected from the group consisting of o- and p-chlorophenol, o-, m-, and p-cresol, carvacrol, p-methoxyphenol, eugenol, p-phenyl phenol, p-(benzyloxoxy) phenol, catechol, 2-naphthol, 5-hydroxy 1,3 dimethylbenzene, cyclohexanol, and mixtures thereof; the amount of furan compound being at least 10% by weight of the total mix.

2,848,431
MODIFIED POLYCARBOXYLIC ACID-POLYMERIC POLYHYDRIC ALCOHOL RESINOUS PRODUCT
Russell T. Dean, Stamford, Conn., and Joseph P. Mannela, St. Albans, N. Y., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio
No Drawing. Application April 29, 1955
Serial No. 505,026
1 Claim. (Cl. 260—19)

Modified alkyd resins formed by reacting (A) an alkyd resin forming polycarboxylic acid with the reaction product of (B) fatty oil acid, (C) acid catalyzed phenoxyethanol-formaldehyde condensate having a melting point on the order of 75° C., and (D) a poylmeric polyhydric alcohol made by condensing dihydroxy diphenyl dimethyl methane with epichlorohydrin in the presence of alkali and having 5 to 20 hydroxyl groups per molecule and a molecular weight on the order of 400 to 4000.

2,848,432
STABILIZATION OF LINEAR POLYESTER RESINS AGAINST DEGRADATION BY HYDROLYSIS BY THE ADDITION OF AN ACRYLAMIDE POLYMER
Roger M. Schulken, Jr., and John W. Tamblyn, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application February 13, 1956
Serial No. 564,889
8 Claims. (Cl. 260—45.4)

1. A thermoplastic composition substantially composed of a linear polyester derived from the condensation of an aromatic nuclearly substituted dicarboxy compound and a glycol containing from about 0.1 to about 3%

by weight of said linear polyester of a polymeric buffering agent selected from the group consisting of sodium acrylate polymers, homopolymers of N-lower alkyl acrylamides, and copolymers containing at least 50% by weight of N-lower-alkyl acrylamides with monomers selected from the group consisting of acrylonitrile, acrylic acid, maleic anhydride and 2-methyl-5-vinylpyridine, which polymeric buffering agent is present in sufficient amount to substantially reduce loss in inherent viscosity of the composition resulting from exposure to heat.

2,848,433

COPOLYMERIZED AND CROSS-LINKED EPOXIDE RESINS

Frederick R. Eirich, Tuckahoe, N. Y., assignor to Aries Laboratories, Inc., New York, N. Y., a corporation of New York

No Drawing. Application December 30, 1953
Serial No. 401,383
8 Claims. (Cl. 260—45.5)

8. A composition of matter capable of setting to an infusible resin upon the application of heat comprising about 100 parts by weight of a resinous polyepoxide produced by reacting a polyhydric phenol with an epihalohydrin, said polyepoxide having a molecular weight from about 1500 to about 3000, about 20 to 40 parts by weight of a polycarboxylic acid anhydride containing an ethylenic unsaturation, and from 8 to 12 parts by weight of an ethylenically unsaturated monomer copolymerizable with said anhydride.

2,848,434

HYDROSOLS PREPARED BY POLYMERIZING TWO MONOMERS IN THE PRESENCE OF A COPOLYMER

Richard J. Hellmann, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application July 28, 1954
Serial No. 444,651
6 Claims. (Cl. 260—45.5)

1. A process for preparing a hydrosol which is compatible with gelatin which comprises heating a mixture consisting of water, a peroxide polymerization catalyst, a copolymer consisting of from 20–80% by weight of methacrylamide and 80–20% by weight of acrylic acid and a mixture of monomers consisting of from 10–90% by weight of an alkyl acrylate, wherein the said alkyl group contains from 1 to 4 carbon atoms, and 90–10% of styrene, the said copolymer and the said mixture of monomers being present in the ratio of from 0.5 to 20 parts by weight of the said copolymer and to from 99.5 to 80 parts by weight of the said mixture of monomers.

2,848,435

PROCESS FOR THE MANUFACTURE OF EPOXY RESINS

Leonard H. Griffin, Pasadena, and James H. Long, Houston, Tex., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application March 28, 1955
Serial No. 497,426
10 Claims. (Cl. 260—47)

1. A process for the production of glycidyl ether of a polyhydric phenol which comprises reacting a polyhydric phenol the sodium and potassium salts of which are soluble in the hereinafter described secondary alcohol with more than 0.5 mole of epihalohydrin per phenolic hydroxyl equivalent weight of the said polyhydric phenol and an alkali metal hydroxide of the group consisting of sodium and potassium hydroxide in the presence of an aliphatic secondary monohydric alcohol selected from the group consisting of isopropyl alcohol, 2-butanol and methyl isobutyl carbinol.

2,848,436

PREPARATION OF PHENOLIC RESINS

Roger M. Christensen, Whitefish Bay, Wis., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

No Drawing. Application May 3, 1954
Serial No. 427,384
4 Claims. (Cl. 260—53)

1. The method which comprises condensing a mixture of alkenylphenols containing from 4 to 5 carbon atoms in each alkenyl group with formaldehyde in the presence of an alkaline catalyst and a water soluble alkali metal hydrosulfite, thereby to obtain an oil soluble, light colored resin capable of forming fast curing, light colored films.

2,848,437

METALORGANIC COMPOUNDS AS INITIATORS FOR THE POLYMERIZATION OF FORMALDEHYDE

William P. Langsdorf, Jr., Wilmington, and Gale S. Stamatoff, Newark, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 16, 1954
Serial No. 423,855
7 Claims. (Cl. 260—67)

1. A process for preparing a high molecular weight addition polymer of formaldehyde comprising contacting substantially anhydrous monomeric formaldehyde with a polymerization initiator which is a metalorganic compound, in which the metal has a valence from 1 to 4, and is a member of the group consisting of metal hydrides, metal alkyls, metal cycloalkyls, metal aryls, metal alcoholates, metal mercaptides, metal carboxylates, alkyl metal halides, cycloalkyl metal halides, aryl metal halides, alkoxy metal halides, cycloalkoxy metal halides, aryloxy metal halides, alkylthio metal halides, cycloalkylthio metal halides, and arylthio metal halides, and recovering a high molecular weight addition polymer of formaldehyde.

2,848,438

AMINE-FORMALDEHYDE RESINS

Earl W. Glucsenkamp, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 22, 1954
Serial No. 417,975
11 Claims. (Cl. 260—72)

1. Monomeric condensation products of HCN-tetramer and at least one mole formaldehyde per mole HCN-tetramer.

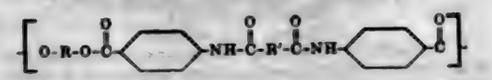
2,848,439

LINEAR POLYESTERS OF BIS(N-p-CARBOXYPHENYL) ALKYLENE DIAMIDES AND MANUFACTURE THEREOF

Delbert D. Reynolds and Thomas M. Laakso, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 26, 1955
Serial No. 504,101
12 Claims. (Cl. 260—75)

1. A highly polymeric material capable of forming orientable fibers and films, said material having an inherent viscosity of at least 0.7 having a melting point of at least 200° C. and consisting essentially of a succession of recurring structural units of the formula



wherein R is an alkylene group of 2–10 carbon atoms and R' is an alkylene group of 4–8 carbons atoms, the combined number of carbon atoms in R and R' being at least 10 in at least half of said recurring structural units, the group



being a phenylene group.

2,848,440

COPOLYMERS OF VINYL LACTAMS AND TRIMETHALLYL ISOCYANURATE

Clyde W. Davis, Antioch, and Forrest A. Ehlers, Walnut Creek, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 18, 1956
Serial No. 616,647
4 Claims. (Cl. 260—77.5)

1. A dye-receptive, water-insoluble, normally solid copolymer consisting essentially of a vinyl lactam and trimethallyl isocyanurate that contains a major proportion of the vinyl lactam monomer polymerized in the copolymer molecule.

2,848,441

NEW HYDROXY-CARBOXYLIC ACID AND CONDENSATION THEREOF

Reginald John William Reynolds and Edward Jarvis Vickers, Manchester, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application August 23, 1955
Serial No. 530,199
Claims priority, application Great Britain August 25, 1954
5 Claims. (Cl. 260—78.3)

1. α:α-Bis-(chloromethyl)-β-hydroxypropionic acid.
2. Process which comprises self-condensing, by heating, α:α-bis-(chloromethyl)-β-hydroxypropionic acid.

2,848,442

OIL RESISTANT CONJUGATED DIENE-HETEROCYCLIC NITROGEN BASE COPOLYMERS

Joseph F. Svetlik, Sr., Phillips, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application April 11, 1955
Serial No. 500,685
7 Claims. (Cl. 260—82.1)

1. A method of preparing an oil resistant rubber comprising mixing a rubbery conjugated diene/heterocyclic nitrogen base polymer with compounding ingredients including a vulcanizing agent and chloranil while maintaining the temperature below 230° F., the amount of said chloranil being in the range of 3 to 20 parts by weight per 100 parts of said rubbery polymer, and thereafter heating the resulting mixture at a temperature of 250 to 350° F. for 5 to 90 minutes to cure the same.

2,848,443

ALKYL GALLATES AS SHORT STOPPING AGENTS FOR THE EMULSION POLYMERIZATION OF SYNTHETIC RUBBERS

Lawrence R. Sperberg, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application June 22, 1953
Serial No. 363,389
3 Claims. (Cl. 260—84.3)

1. In the production of a synthetic rubber by the polymerization in aqueous emulsion of a monomeric material comprising a major portion of butadiene and a minor portion of styrene using a mercaptan as a polymer modifier and a hydroperoxide catalyst at a temperature in the range of —40 to 70° C., the improvement which comprises adding to the aqueous emulsion, when between 50 and 80 percent of said monomeric material is polymerized, dodecyl gallate in an amount of 0.1 to 1.5 parts per 100 parts of monomer so as to terminate said polymerization.

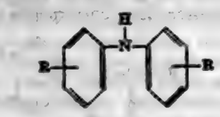
2,848,444

DIPHENYLAMINE-METAL POLYSULFIDE REACTION PRODUCTS AND METHOD OF PREPARING SAME

William H. Bruggeman, Jr., Milltown, and James M. Boyle, Bayonne, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application May 25, 1955
Serial No. 511,104
10 Claims. (Cl. 260—133)

1. An oil-soluble product prepared by reacting a polysulfide of an alkaline earth metal with a compound having the formula



where R is selected from the group consisting of hydrogen atoms and alkyl radicals containing 1 to 16 carbon atoms, the reaction being carried out at about 175° F. to about 570° F. for an extended period of time until said product contains a ratio of sulfur atoms to nitrogen atoms in the range of about 0.4 to 1.5, the proportion of metal polysulfide employed in the reaction being such as to provide sufficient reactive sulfur atoms to produce said ratio of sulfur atoms to nitrogen atoms in said product.

9. A process for preparing an oil-soluble sulfur- and nitrogen-containing product useful as an oxidation inhibitor which comprises forming a mixture of an alkaline earth metal polysulfide and a compound selected from the group consisting of diphenylamine and dialkyl derivatives of diphenylamine containing 1 to 16 carbon atoms in each alkyl group, the proportion of said metal polysulfide in said mixture being such as to provide sufficient reactive sulfur atoms so that said product contains a ratio of sulfur atoms to nitrogen atoms in the range of about 0.4 to 1.5, heating said mixture at an elevated temperature of about 175° F. to about 570° F. to effect a chemical reaction until said product contains sulfur and nitrogen atoms in said ratio, and recovering said product from the reaction mixture.

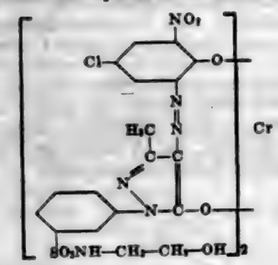
2,848,445

CHROMIUM-CONTAINING AZO DYESTUFFS OF THE PYRAZOLONE SERIES

Hans Ruckstuhl, Basel, Switzerland, assignor, by mesne assignments, to Sandoz Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application May 10, 1954
Serial No. 428,819
Claims priority, application Switzerland May 12, 1953
1 Claim. (Cl. 260—147)

The chromium-containing azo dyestuff of the pyrazolone series which corresponds to the formula



2,848,446

AZO DYESTUFFS

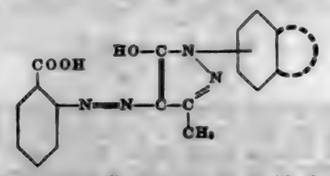
Piero Maderni, Basel, Switzerland, assignor, by mesne assignments, to Sani & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application January 28, 1955
Serial No. 483,163

Claims priority, application Switzerland February 23, 1954

6 Claims. (Cl. 260—147)

1. A member selected from the group consisting of an azo dyestuff and its chromium complex compound which, in the metal-free state, corresponds to the formula



wherein the dotted line represents a bivalent radical selected from the group consisting of

—CH=CH—CH=CH—

and —CH_2—CH_2—CH_2—CH_2—.

2,848,447

MONO-AZODYESTUFFS INSOLUBLE IN WATER

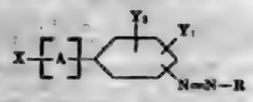
Herbert Kracher and Kurt Gemsjaegel, Offenbach (Main), Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application September 21, 1954
Serial No. 457,534

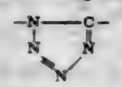
Claims priority, application Germany September 28, 1953

7 Claims. (Cl. 260—157)

1. The water-insoluble mono-azodyestuffs corresponding to the following general formula:



wherein X stands for a member selected from the group consisting of lower alkyl, benzyl, cyclohexyl, phenyl, methylphenyl, methoxyphenyl, ethoxyphenyl and chlorophenyl, Y_1 and Y_2 stand for members of the group consisting of hydrogen, methyl, methoxy, ethoxy and chlorine, R stands for the radical of a coupling component selected from the group consisting of arylamides of 2-hydroxy-naphthalene-3-carboxylic acid, 2-hydroxy-anthracene-3-carboxylic acid, 3-hydroxy-diphenylene oxide-2-carboxylic acid, 2-hydroxy-carbazole-3-carboxylic acid, 5-hydroxy-1.2.1'.2'-benzocarbazole-4-carboxylic acid, acetoacetic acid and terephthaloyl-bis-acetic acid, wherein the arylamides are selected from the group consisting of radicals of the benzene, naphthalene, diphenyl and diphenyleneoxide series, and A stands for the radical of 1.2.3.4-tetrazole of the following formula



2,848,448

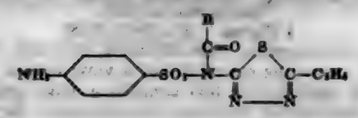
N¹-ACYL-N⁴-(5-ETHYL-1,3,4-THIADIAZOLE-2-YL)-SULFANILAMIDES

Russell E. Rhodes, Glenside, and Blaine M. Sutton, Philadelphia, Pa., assignors to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application August 23, 1954
Serial No. 695,706

7 Claims. (Cl. 260—239.95)

1. Compounds represented by the following formula:



in which



is a member selected from the group consisting of saturated alkanoyl having from 2 to 6 carbon atoms, benzoyl, oleoyl, phenylacetyl, glycyl and stearoyl.

2,848,449

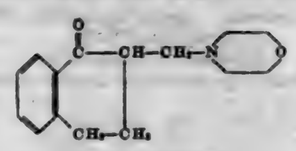
MORPHOLINOMETHYL KETONES

Arnaiger H. Sommers, Waukegan, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application August 31, 1955
Serial No. 531,839

4 Claims. (Cl. 260—247.7)

1. A chemical compound selected from the class consisting of the base and the acid addition salts thereof in which the base has the formula



2,848,450

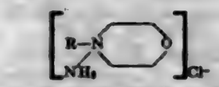
MORPHOLINIUM CHLORIDES

Bernard Rudner and Marguerite E. Brooks, Baltimore, Md., assignors to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut

No Drawing. Application January 5, 1956
Serial No. 557,454

11 Claims. (Cl. 260—247.5)

1. New chemical compounds, having the general formula:



wherein R is a radical selected from the group consisting of higher alkyl radicals having from 8 to 24 contiguous carbon atoms, alkenyl radicals having from 8 to 24 contiguous carbon atoms, alkadienyl radicals having from 8 to 24 contiguous carbon atoms, hydroxyloweralkyl radicals, primary aminoloweralkyl radicals, benzyl radicals, and phenyl radicals.

2,848,451

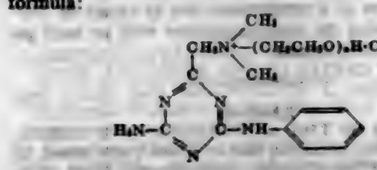
POLYETHOXAMERS OF NOVEL QUATERNARY AMMONIUM SALTS AND METHOD FOR PREPARING THE SAME

Walter H. Schuller, Delray Beach, Fla., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 22, 1957
Serial No. 660,744

5 Claims. (Cl. 260—249.9)

1. As a new composition: a N-(2-hydroxyethyl)-N-(4-amino-6-anilino-s-triazinylmethyl)-N,N-dimethylammonium chloride represented by the general formula:



in which *n* is an integer from about 4 to about 50.

2,848,452

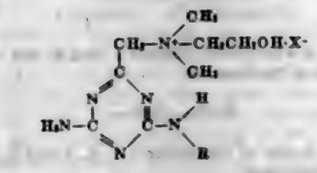
NOVEL QUATERNARY AMMONIUM SALTS AND METHOD OF PREPARING SAME

Walter H. Schuller, Delray Beach, Fla., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 22, 1957
Serial No. 660,745

8 Claims. (Cl. 260—249.9)

1. A new composition of matter: a N-(2,4-diamino-s-triazinylmethyl)-N-(2-hydroxyethyl)-N,N-dimethylammonium salt characterized by the general formula:



in which R is a radical selected from the group consisting of hydrogen and phenyl and X is a salt-forming radical.

2,848,453

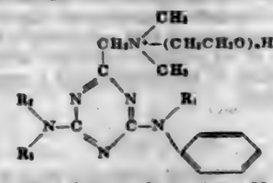
POLYETHOXAMER OF A NOVEL QUATERNARY AMMONIUM SALT AND PROCESS FOR PREPARING THE SAME

Walter H. Schuller, Delray Beach, Fla., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 22, 1957
Serial No. 660,755

5 Claims. (Cl. 260—249.9)

1. As a new composition of matter: a methylol derivative of N-(2-hydroxyethyl)-N-(4-amino-6-anilino-s-triazinylmethyl)-N,N-dimethylammonium chloride represented by the general formula:



wherein *n* is an integer from 4 to 50, inclusive, and R_1, R_2 and R_3 each is a radical selected from the group consisting of hydrogen and methylol and at least one of the R's represents a methylol radical.

2,848,454

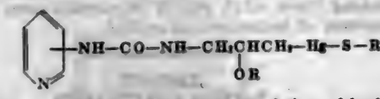
MERCAPTO DERIVATIVES OF MERCURATED 1-PYRIDYL-3-ALLYLUREAS

John H. Biel, Milwaukee, Wis., assignor to Lakeside Laboratories, Inc., a corporation of Wisconsin

No Drawing. Application June 4, 1956
Serial No. 588,998

10 Claims. (Cl. 260—270)

1. A member of the group of compounds of the formula



wherein R is a member of the group consisting of hydrogen and lower alkyl groups, and R' is a member of the group consisting of monocarboxy substituted lower alkyl groups, polycarboxy substituted lower alkyl groups, monocarboxy substituted phenyl groups, polycarboxy substituted phenyl groups, lower hydroxy alkyl groups and lower polyhydric alcohol groups, and nontoxic salts of such compounds.

2,848,455

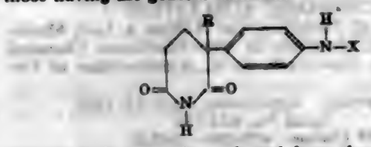
α-(P-AMINO-PHENYL)-α-LOWER ALKYL GLUTARIMIDES

Karl Hoffmann and Ernst Urech, Binningen, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application July 18, 1956
Serial No. 596,838
Claims priority, application Switzerland July 18, 1955

6 Claims. (Cl. 260—281)

1. A compound selected from the group consisting of those having the general formula:



wherein R is a member selected from the group consisting of methyl and ethyl radicals and X is a hydrogen atom, and the salts thereof.

2,848,456

DEHYDRATION OF 2-PYRIDINE ETHANOL TO 2-VINYL PYRIDINE

Harold L. Dimond, Lee J. Fleckenstein, and Marvin O. Shrader, Pittsburgh, Pa., assignor to Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application March 27, 1956
Serial No. 574,088

5 Claims. (Cl. 260—290)

4. A process for the preparation of 2-vinyl pyridine which comprises adding over a period of at least about 1½ hours at atmospheric pressure a solution of one part 2-pyridine ethanol and one to 6 parts water by weight to a strong inorganic alkali in an amount sufficient to cause dehydration of the 2-pyridine at a temperature of from 100 to 250° C., whereby 2-vinyl pyridine is simultaneously distilled.

2,848,457

THIOCYANOALKYLPYRIDINES AND THEIR PREPARATION

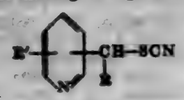
Wilhelm Mathes, Ludwigshafen (Rhine), and Anton Wolf, Heidelberg, Germany, assignors to Dr. F. Raschig G. m. b. H., Ludwigshafen (Rhine), Germany, a German limited-liability company

No Drawing. Application July 11, 1956
Serial No. 597,061

12 Claims. (Cl. 260—294.8)

1. A compound selected from the group consisting of

thiocyanoalkylpyridines and their salts, the said thiocyanoalkylpyridines having the general formula



wherein R is selected from the group consisting of hydrogen, an alkyl pyridine and a thiocyanoalkylpyridine, alkyl meaning lower alkyl, and R' is selected from the group consisting of hydrogen and methyl.

2,848,458
5-OXO-1,3-DITHIANES
Edward G. Howard, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 28, 1954
Serial No. 463,639
7 Claims. (Cl. 260—327)

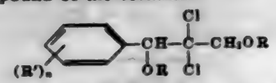
5. A 5-oxo-1,3-dithiane having attached to at least one of the 4- and 6-carbons a substituent,

$$R(CH{=}CH)_n{-}C{=}$$

in which n is a cardinal number not greater than 2 and R is selected from the class consisting of mono- and bicyclic aryl, furyl, pyrryl, thienyl and pyridyl, any other substituent on such carbons being selected from the group consisting of lower alkoxy carbonyl and cyano lower alkyl and having attached to the 2-carbon, members selected from the group consisting of hydrogen, methyl, cyclohexyl, naphthyl, chlorophenyl and ethoxyethyl.

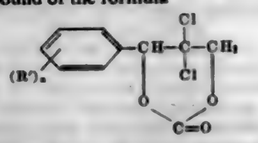
2,848,459
CARBAMIC ACID ESTERS
Edward J. Pribyl, Metuchen, and William A. Lott, Maplewood, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application April 25, 1957
Serial No. 654,988
19 Claims. (Cl. 260—340.2)

1. A compound of the formula



wherein one R is carbamyl and the other R is selected from the group consisting of hydrogen and carbamyl, R' is selected from the group consisting of hydrogen, lower alkyl, lower alkoxy, halogen and trifluoromethyl, and n is a positive integer less than three.

12. A compound of the formula



wherein R' is selected from the group consisting of hydrogen, lower alkyl, lower alkoxy, halogen and trifluoromethyl, and n is a positive integer less than three.

2,848,460
PURIFICATION OF MALEIC ANHYDRIDE
Howard David Cummings, St. Louis, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application December 20, 1954
Serial No. 476,571
7 Claims. (Cl. 260—346.8)

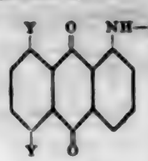
1. In the process for refining maleic anhydride, the improvement comprising heating a crude maleic anhydride in the presence of fumaric acid at a temperature above 130° C.

2,848,461
ORANGE PIGMENT
Roy A. Pizzarello, Mount Vernon, N. Y., and Alfred F. Schmid, New Milford, N. J., assignors to Interchemical Corporation, New York, N. Y., a corporation of Ohio
No Drawing. Application December 8, 1955
Serial No. 551,747
4 Claims. (Cl. 260—369)

1. A new pigment which imparts a bright orange color when dispersed in cellulose acetate and consists of the condensation product of one mol of symmetrical ortho phthalyl dichloride and two mols of 1-amino-4-methoxyanthraquinone, said condensation being carried out in an inert solvent at a temperature not in excess of 110° C., while blowing the reaction mixture with an inert gas to remove the HCl fumes.

2,848,462
DYESTUFFS OF THE ANTHRAQUINONE SERIES
Ernst Gutzwiller, deceased, late of Basel, Switzerland, by Jenny Gutzwiller-Markees, administratrix, Basel, Switzerland, and Hans Brunner, Basel, Switzerland, assignors, by mesne assignments to Sasl & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust
No Drawing. Application March 30, 1955
Serial No. 498,108
Claims priority, application Switzerland October 31, 1950
8 Claims. (Cl. 260—378)

1. An anthraquinone dyestuff which corresponds to the formula



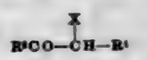
wherein m is one of the integers 5 and 8, one Y stands for a radical of the formula

$$C_nH_{2n+1}NH{-}$$

in which n is one of the integers 5, 6, 7 and 8, and the other Y is hydrogen.

2,848,463
STEROID SUBSTANCES AND PROCESS FOR PRODUCING SAME
Thomas Walker, South Harrow, Patrick Gadsden Jones, Hillingdon, and John Christopher Hamlet, Pinner, England, assignors to G. N. R. D. Patent Holdings Limited, London, England, a British company
No Drawing. Application July 6, 1954
Serial No. 441,686
Claims priority, application Great Britain July 13, 1953
12 Claims. (Cl. 260—397.45)

1. In a process for the preparation of a lower alkanoic acid ester of cortisone which comprises reacting the corresponding ester of 17α:21-dihydroxy-2:4-dibromo-3:11:20-triketoallopregnane with an alkali metal iodide to produce the corresponding 2-iodo-3-keto-Δ^4-steroid and reacting the last-named steroid compound with a reducing agent, the step of carrying out the reaction of said 2:4-dibromoallosteroid with said alkali metal iodide in the presence of an organic compound selected from the group consisting of allylbromide and a compound of the general formula



where R^3 is an alkyl radical containing from 1–4 carbon atoms, R^4 is selected from the group consisting of a hydrogen atom and an alkyl radical containing from 1–3 carbon atoms and X is selected from the group consisting of chlorine, bromine and iodine atoms.

2,848,464
2-BROMO-9α-FLUOROHYDROCORTISONE AND 21-ESTERS THEREOF
Josef Fried, New Brunswick, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application June 28, 1955
Serial No. 518,680
3 Claims. (Cl. 260—397.45)

1. A steroid selected from the group consisting of 2-bromo-9α-fluorohydrocortisone and 21-esters thereof with hydrocarbon carboxylic acids of less than ten carbon atoms.

2,848,465
2-BROMO-9α-FLUORO-Δ^1-PREGNENE-11β,17α,21-TRIOL-3,20-DIONE AND 21 ESTERS THEREOF
Josef Fried, New Brunswick, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Original application June 28, 1955, Serial No. 518,680. Divided and this application October 17, 1957, Serial No. 694,471
3 Claims. (Cl. 260—397.45)

1. A steroid selected from the group consisting of 2-bromo-9α-fluoro-Δ^1 - pregnene - 11β,17α,21 - triol - 3,20-dione and 21-esters thereof with a hydrocarbon carboxylic acid of less than 10 carbon atoms.

2,848,466
REMOVING ACYL HALIDE FROM ESTER COMPOSITIONS
George L. Fletcher, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application January 18, 1954
Serial No. 404,787
11 Claims. (Cl. 260—404)

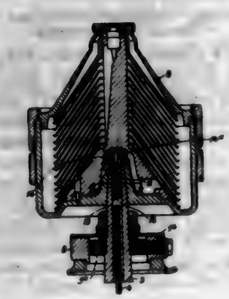
1. A method of purifying an ester composition resulting from the esterification of an alcohol with a stoichiometric excess of a high molecular weight fatty acid halide having more than eight carbon atoms, which comprises diluting said ester composition with a non-polar solvent, reacting said excess fatty acid halide in the resulting diluted ester composition with gaseous ammonia to form an amide, and thereafter separating said amide from the resulting mixture by filtration.

2,848,467
FATTY ACID DERIVATIVE
Joseph Nichols, Princeton, and Edgar S. Schipper, Highland Park, N. J., assignors to Ethicon, Inc., a corporation of New Jersey
No Drawing. Application July 5, 1957
Serial No. 669,936
1 Claim. (Cl. 260—486)

12-keto-9-octadecynoic acid.

2,848,468
METHOD AND APPARATUS FOR NEUTRALIZING FATTY OILS
Jan Wijnberg, Wormerveer, Netherlands, assignor to Aktiebolaget Separator, Stockholm, Sweden, a corporation of Sweden
Application March 28, 1955, Serial No. 497,084
8 Claims. (Cl. 260—425)

1. In the neutralization of fatty oils in a centrifuge by feeding separate streams of oil and aqueous alkali lye, respectively, into a rotating feed chamber forming a zone of relatively low centrifugal force within the centrifuge, keeping said feed chamber filled with oil and lye during said feeding, the lye being led directly into and mixed with the oil mass rotating with said chamber, feeding the resulting mixture into a zone of relatively high centrifugal force formed by the separating chamber of said centrifuge to divide it into oil and soap, and separately discharging the oil and soap from said centrifuge, the improvement which comprises substantially heating at least the oil prior to the neutralization, passing the oil-lye mixture, during a period of time of less than a second,



in turbulence-producing passages through said rotating feed chamber, and feeding said mixture immediately from said last chamber to the separating chamber.

2,848,469
POLYHYDROXYETHYL POLYCARBOXYMETHYL POLYAMINES AND CHELATES
Harry Kroll and Martin Knoll, Warwick, R. I., assignors to Geigy Chemical Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application August 13, 1954
Serial No. 449,773
10 Claims. (Cl. 260—429)

7. A water-soluble metal chelate of N,N',N''-trihydroxyethyl N,N'' - dicarboxymethyl diethylenetriamine with a polyvalent metal.

2,848,470
TRICHLOROBENZOIC ACID COMPOSITIONS
Theodore A. Girard, Wayne Township, Passaic County, Eugene P. Di Bella, Garfield, and Henri Sidi, Paramus, N. J., assignors to Heyden Newport Chemical Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application September 26, 1957
Serial No. 686,272
4 Claims. (Cl. 260—429)

1. A composition selected from the group consisting of a mixture of isomers of trichlorobenzoic acid and salts of said mixture of isomers, said isomeric mixture containing from about 20% to about 90% of the 2,3,6-isomer based on the total weight of the mixture of isomers.

2,848,471
PREPARATION OF TETRAETHYL LEAD
Pietro Pagliarini, Fidenza, Italy, assignor to C. I. P. Compagnia Italiana Petrolio S. p. A., Fidenza, Italy, a company of Italy
No Drawing. Application November 14, 1956
Serial No. 621,997
7 Claims. (Cl. 260—437)

1. The process of preparing tetraethyl lead which comprises reacting a lead-sodium alloy and ethyl chloride in the presence, as a catalyst, of a compound selected from the group consisting of tricresyl ortho phosphate, trixylenyl ortho phosphate, triphenyl ortho phosphate, tribenzyl ortho phosphate, dibutylphenyl ortho phosphate, 2-naphthyl-diphenyl ortho phosphate and 2-naphthyl-3'-methylphenyl-phenyl ortho phosphate.

2,848,472
PREPARATION OF ALKYL ALUMINUM DIHALIDES

Delmer L. Cottle, Highland Park, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

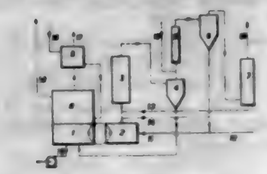
No Drawing. Application August 12, 1955
Serial No. 528,115
13 Claims. (Cl. 260—448)

1. A method for preparing alkyl aluminum dihalides which comprises reacting together (1) about 3 moles of alkyl halide selected from the group consisting of methyl halides and ethyl halides, (2) about 2 atoms of aluminum metal and (3) about 1 mole of aluminum halide, said halide being selected from the group consisting of chlorides, bromides and iodides, said reaction being carried out at a temperature in the range of about 20° to 125° C. for about 4 to 24 hours, and recovering alkyl aluminum dihalide as a product from the resultant reaction mixture.

2,848,473
PROCESS OF GASIFYING COMBUSTIBLE MATERIALS

Roman Rummel, Brühl, Bezirk Köln, and Rudolf Huttner, Köln-Raderberg, Germany, assignors to Union Rheinische Braunkohlen Kraftstoff Aktiengesellschaft, Wesseling, Bezirk Köln, a corporation of Germany

Application June 16, 1953, Serial No. 362,051
Claims priority, application Germany June 19, 1952
7 Claims. (Cl. 260—449)



1. A process for producing gases high in combustible constituents and low in inert compounds which comprises introducing fuels into molten slag together with an exothermic combustion supporting gas and an endothermic gasification reactant for said fuels to produce a combustible gas mixture therefrom, and introducing carbonaceous material into said combustible gas mixture at a position adjacent the surface of the slag to utilize the heat of the slag to crack the carbonaceous materials resulting in the formation of low molecular gaseous hydrocarbons in admixture with said combustible gas mixture.

2,848,474
METHOD OF PRODUCING AND RECOVERING TRIMETHYL PHOSPHITE

William W. Marshall, Anniston, Ala., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application October 19, 1953
Serial No. 387,060
2 Claims. (Cl. 260—461)

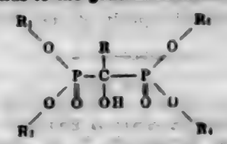
1. The method of producing trimethyl phosphite which comprises reacting in the presence of at least 3 mols of a tertiary amine and an inert solvent having a distillation temperature at atmospheric pressure of at least 20° above the boiling point of trimethyl phosphite substantially 3 mols of methanol and substantially 1 mol of phosphorus trichloride, to form a reaction product containing trimethyl phosphite, a tertiary amine hydrochloride, and said inert solvent, and subjecting said reaction product to distillation to directly separate said trimethyl phosphite.

2,848,475
SUBSTITUTED METHYLENE BIS (PHOSPHONIC ACID DIALKYL ESTERS)

Paul Schmidt, Therwil, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application April 9, 1954
Serial No. 422,253
Claims priority, application Switzerland April 20, 1953
4 Claims. (Cl. 260—461)

1. An organic compound containing phosphorus, which corresponds to the general formula



in which R_1–R_4 each represents lower alkyl and R represents a member selected from the group consisting of lower alkyl, chlorinated lower alkyl and phenyl.

2,848,476
PROCESS FOR PREPARING OMEGA-CHLORONITRILES FROM CYANOGEN CHLORIDE AND ETHYLENE

William L. Kohlhase, Wilmington, Del., and Theodore F. Marteus, West Chester, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 31, 1956
Serial No. 619,397
7 Claims. (Cl. 260—465.3)

1. The process for preparing ω-chloronitriles of the formula $Cl(CH_2CH_2)_nCN$, wherein n is an integer from 1 to 6, which comprises treating cyanogen chloride with an alkaline salt of a basic metal oxide and a weak acid, said metal being from groups I to II of the periodic system, reacting the cyanogen chloride with ethylene under super-atmospheric pressure at a temperature of 65° to 190° C. in the presence of a telomerization initiator selected from the group consisting of organic peroxides and aliphatic azo compounds, and separating the resulting chloronitriles from the reaction mixture.

2,848,477
PROCESS FOR PREPARING LOW MOLECULAR WEIGHT OMEGA-CHLORONITRILES FROM CYANOGEN CHLORIDE AND ETHYLENE

William L. Kohlhase, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 31, 1956
Serial No. 619,398
4 Claims. (Cl. 260—465.3)

1. The process for preparing omega-chloronitriles of the formula $Cl(CH_2CH_2)_nCN$, wherein n is an integer, which comprises reacting ethylene under superatmospheric pressure with liquid cyanogen chloride containing a telomerization initiator, the weight of cyanogen chloride liquid present in the reaction space being at least two times the weight of any cyanogen chloride vapor present to produce a mixture of omega-chloronitriles in which the total of beta-chloropropionitrile plus delta-chlorovaleronitrile is a major proportion of the mixture, and separating the resulting chloronitriles from the reaction mixture.

2,848,478
3-HYDROCARBO-2-CYCLOBUTENE-1,2-DICARBOXYLIC ACIDS AND THEIR PREPARATION

Burt C. Pratt, Indianfield, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 16, 1955
Serial No. 553,417
12 Claims. (Cl. 260—468)

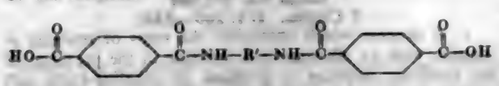
1. A member of the class consisting of 3-hydrocarbo-2-cyclobutene-1,2-dicarboxylic acids and, salts, esters, amides, and acid halides thereof, wherein the hydrocarbo substituent is a monovalent hydrocarbon radical free from aliphatic unsaturation in which the carbon atom attached to the cyclobutene ring has at least two hydrogen atoms joined to it.

2,848,479
MONOMERIC ESTERS OF N,N'-BIS(P-CARBOXYBENZOYL)ALKYLENEDIAMINES

Jack L. R. Williams and Thomas M. Laakso, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 26, 1955
Serial No. 504,165
11 Claims. (Cl. 260—471)

1. A monomeric diester of the dicarboxylic compound of the formula



wherein R' is a polymethylene group of 2–10 carbon atoms.

2,848,480
PRODUCTION OF KETO ESTERS

Walton J. Smith, Garden City, N. Y., assignor to Smith-New York Co., Inc., Freeport, N. Y., a corporation of New York

No Drawing. Application February 19, 1953
Serial No. 337,880
9 Claims. (Cl. 260—483)

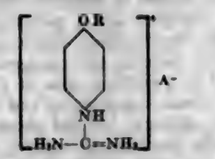
1. A process wherein a citric acid ester, selected from the group consisting of asymmetrical lower alkyl and cycloalkyl monoesters of citric acid and symmetrical lower alkyl and cycloalkyl diesters of citric acid, is oxidized to an ester of acetone dicarboxylic acid, which comprises subjecting said citric acid ester to the action of a chemical oxidation agent selected from the group consisting of chromic acid, potassium permanganate, and potassium dichromate at temperatures up to about 65° C. in a solvent selected from the group consisting of aqueous acid and water in admixture with an organic solvent for said ester of acetone dicarboxylic acid and isolating said ester of acetone dicarboxylic acid from the reaction mixture.

2,848,481
NEW GUANIDINE COMPOUNDS, THEIR PREPARATION AND USE AS REAGENTS FOR PICRIC ACID

Alberto Vercellone and Claudio Pasini, Milan, Italy, assignors to Società Farmaceutici Italia, a corporation of Italy

No Drawing. Application November 22, 1954
Serial No. 470,539
Claims priority, application Italy November 21, 1953
6 Claims. (Cl. 260—501)

1. As a reagent capable of quantitatively precipitating picric acid from aqueous solutions of picric acid and picric acid salts, the compound



wherein R is an alkyl radical comprising at least five carbon atoms and A^- is the radical of an acid taken from the group consisting of carbonic, hydro-halogenic, nitric, sulfuric and tartaric acids.

2,848,482
REACTION PRODUCTS OF DICYCLIC TERPENES AND SULFONIC ACIDS

John P. McDermott, Springfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

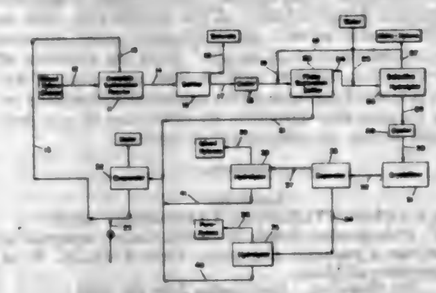
No Drawing. Application September 14, 1953
Serial No. 380,116
8 Claims. (Cl. 260—504)

1. As a composition of matter an addition product formed by reacting together a dicyclic terpene and a sulfonic acid selected from the group consisting of aliphatic and aromatic sulfonic acids.

2,848,483
SEPARATION OF XYLENES

Henry E. Relf, Drexel Hill, and Archibald P. Stuart, Media, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application December 31, 1953, Serial No. 401,488
10 Claims. (Cl. 260—505)



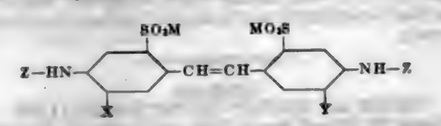
1. A method for the separation of xylene sulfonic acids from sulfuric acid which comprises adding an aromatic hydrocarbon to a homogeneous mixture of xylene sulfonic acids and aqueous sulfuric acid having a composition falling within the area ABCDEF of Fig. 2, in an amount sufficient to saturate said mixture at a temperature below that at which reaction of the sulfuric acid with the aromatic hydrocarbon will occur, whereby to cause separation of the mixture into a sulfonic acid phase and a sulfuric acid phase, and separately recovering each phase.

2,848,484
ALKOXY DIAMINOSTILBENEDISULFONIC ACIDS

Robert S. Long, Bound Brook, and Alice K. Kantor, Plainfield, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 17, 1955
Serial No. 541,074
4 Claims. (Cl. 260—507)

1. A compound of the formula:



wherein X is lower alkoxy, Y is selected from the group consisting of lower alkoxy, chlorine and bromine, Z is chosen from the group consisting of triazinyl and



radicals in which the Ar is an aromatic radical, and M is chosen from the group consisting of hydrogen, alkali metal cations, and ammonium.

2,848,485
HYDROGENATED POLYCARBOXYLIC DERIVATIVES OF CYCLODIENES
Charles A. Cohen, Roselle Park, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application May 23, 1955
Serial No. 510,561
9 Claims. (Cl. 260—514)

1. A hydrogenated derivative of a dicarboxylic acid selected from the group consisting of dicyclopentadiene dicarboxylic acid, dimethyldicyclopentadiene dicarboxylic acid and methyldicyclopentadiene dicarboxylic acid, said acid having one carboxyl group attached to a bridged C_6 ring, one carboxyl group attached to a C_5 ring fused to said C_6 ring, and having at least the C_6 ring saturated with hydrogen.

6. A process for hydrogenating a dicarboxylic acid having a dicyclopentadiene nucleus selected from the group consisting of dicyclopentadiene dicarboxylic acid, dimethyldicyclopentadiene dicarboxylic acid and methyldicyclopentadiene dicarboxylic acid, which comprises contacting a liquid solution of the dicarboxylic acid in an inert organic solvent with hydrogen under pressure with a temperature of 20 to 100° C. in the presence of a hydrogenation catalyst until at least one mole of hydrogen is reacted per mole of the acid so as to form the resulting dihydro acid derivative by saturation of one double bond in the dicyclopentadiene nucleus.

2,848,486
4,4'-(2,2-BUTYLIDENE) DIBENZOIC ACID
John C. Petropoulos, South Norwalk, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application July 20, 1955
Serial No. 523,355
1 Claim. (Cl. 260—515)

4,4'-(2,2-butylidene) dibenzoic acid.

2,848,487
RECOVERY OF CADMIUM FROM A RESIDUE OBTAINED IN THE MANUFACTURE OF TEREPHTHALIC ACID
Robert T. Keen, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application July 16, 1956
Serial No. 597,881
4 Claims. (Cl. 260—515)

1. In the manufacture of an aromatic dicarboxylic acid wherein a monovalent metal salt of another aromatic carboxylic acid is heated in the presence of a cadmium catalyst to form the corresponding monovalent metal salt of the desired aromatic dicarboxylic acid and the reaction product is extracted with water leaving a water-insoluble residue containing cadmium, the method of recovering cadmium from said residue which comprises contacting the residue with nitric acid to dissolve the cadmium present therein.

2,848,488
CRYSTALLIZATION OF PHTHALIC ACIDS
Chester M. Himel, Menlo Park, and Lester P. Berriman, Palo Alto, Calif., assignors to Richfield Oil Corporation, Los Angeles, Calif., a corporation of Delaware
No Drawing. Application May 18, 1954
Serial No. 430,747
5 Claims. (Cl. 260—525)

1. The method of crystallizing in the liquid phase a mixture comprising terephthalic acid and isophthalic acid, which mixture is obtained as a continuous effluent from a liquid phase nitric acid oxidation reaction conducted at an elevated pressure and a temperature from about 160 to 250° C., which comprises continuously removing the effluent containing the phthalic acids from the oxidation reaction, cooling the effluent through release of pressure at a rate to maintain the effluent temperature within the range from about 190 to 160° C. for at least two minutes to effect crystallization of terephthalic acid, and then cooling the effluent through release of pressure at a rate to maintain the effluent temperature within the range from about 150 to 115° C. for at least five minutes to effect crystallization of isophthalic acid.

2,848,489
PREPARATION OF ALKALINE-EARTH SALTS OF PANTOTHENIC ACID
Fred Kagan, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan
No Drawing. Application December 17, 1954
Serial No. 476,000
5 Claims. (Cl. 260—534)

1. A process which comprises the steps of reacting β-alanine with an alkaline-earth hydride in the presence of an alcoholic medium to produce an alkaline-earth salt of β-alanine, and reacting the alkaline-earth salt with α-hydroxy-β,β-dimethyl-γ-butyrolactone in the presence of the alcoholic medium to produce an alkaline-earth salt of pantothenic acid.

2,848,490
PROCESS FOR PREPARING DICARBOXYLIC ACIDS FROM OZONIDES OF CYCLOOLEFINS
Karl Friedrich Johannes Niebling and Gottfried Ernst Rumscheidt, Amsterdam, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application October 25, 1955
Serial No. 542,754
Claims priority, application Netherlands October 29, 1954
11 Claims. (Cl. 260—537)

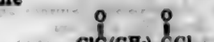
1. A process for the production of aliphatic dicarboxylic acids which comprises reacting an ozonide of a cyclic olefin of up to 30 carbon atoms in which each of the olefinically unsaturated carbon atoms is bonded to each of two other carbon atoms of the ring and to a hydrogen atom, with molecular oxygen in the presence of water and at least one polyvalent metal compound wherein the metal has an atomic number of from about 23 to about 82 as catalyst, said reaction being carried out in liquid phase under neutral conditions at a temperature above about 40° C.

2,848,491
PREPARATION OF CARBOXYLIC ACID CHLORIDES
Gordon F. MacKenzie and Elton E. Morris, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application October 7, 1954
Serial No. 461,034
18 Claims. (Cl. 260—544)

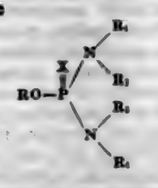
1. In the preparation of monocarboxylic acid chlorides by reaction of phosgene and a monocarboxylic acid in a liquid form, the improvement which comprises carrying out the reaction between the phosgene and the monocarboxylic acid in a reaction zone at a reaction temperature between room temperature and the boiling point of the reaction mixture, but not above about 200° C., while having the reactants in contact with from 0.5 to 10 percent of the total weight of the reaction mixture of a solid insoluble nitrogenous anion exchange resin which contains nitrogenous anion exchange groups in a salt form and is maintained in the reaction zone as catalyst for the reaction.

2,848,492
PREPARATION OF MIXED ANHYDRIDES OF PHOSPHORAMIDIC ACIDS
George A. Saul, Nitro, W. Va., and Phillip C. Hamm, Webster Groves, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application February 28, 1955
Serial No. 491,199
14 Claims. (Cl. 260—545)

1. The method of making a mixed anhydride of a carbon acid and a phosphoramidic acid which comprises heating a carbon acid chloride selected from the group consisting of lower fatty acid chlorides, halogen substituted lower fatty acid chlorides, phenyl substituted lower fatty acid chlorides, di(lower alkyl) carbamyl chlorides, di(lower alkyl) thiocarbamyl chlorides, chlorides of the structure



where n is an integer from zero to 4 inclusive and maleyl chloride with a lower alkyl ester of a phosphorodiamidic acid of the structure



where R represents lower alkyl, X is selected from the group consisting of oxygen and sulfur and R_1, R_2, R_3 and R_4 are selected from the group consisting of lower alkyl, chloro substituted lower alkyl, cyano substituted lower alkyl, hydroxy substituted lower alkyl, lower alkenyl and chloro substituted lower alkenyl.

2,848,493
PROCESS FOR SYNTHESIS OF UREA
William L. E. Dewling and Samuel W. Grossmann, Petersburg, Va., assignors to Allied Chemical Corporation, New York, N. Y., a corporation of New York
Application June 27, 1955, Serial No. 518,044
13 Claims. (Cl. 260—555)

1. A process for the synthesis of urea from carbon dioxide and ammonia, including recovery of unreacted ammonia and carbon dioxide from the urea synthesis effluent and their return to the urea synthesis together with make-up ammonia and carbon dioxide, which comprises: reacting in the urea synthesis step a feed containing water and ammonia and carbon dioxide in a mol ratio substantially greater than $2NH_3/1CO_2$ to form a synthesis effluent containing more than 3.0 and not substantially more than 9 mols ammonia and more than 0.5 mol water for every 1 mol of carbon dioxide, stripping from the urea synthesis effluent water and unreacted ammonia and carbon dioxide by heating the effluent under a pressure in the range 150 to 425 p. s. i. g. to evolve therefrom at least 90% of the ammonia and carbon dioxide accompanied by water as a gas-vapor mixture having a temperature in the range 120° to 225° C., separating said gas-vapor mixture from the unvaporized liquid containing urea, cooling said gas-vapor mixture under 150 to 425 p. s. i. g. pressure to a temperature in the range above 30° C. to about 115° C. at which the ammonia, carbon dioxide and water contained therein are substantially completely condensed to form a liquid condensate, maintaining the pressure under which the synthesis effluent is stripped and the pressure under which the resulting gas-vapor mixture is cooled to form the liquid condensate at predetermined values within the aforedefined limits for these pressures and maintaining (*a*) the gas-vapor mixture evolved in the stripping step at a temperature in the aforesaid range of 120° to 225° C., and (*b*) a composition of the urea synthesis effluent with respect to its mol ratios of ammonia, water and carbon dioxide, such that the mol ratios of ammonia, water and carbon dioxide in the gas-vapor mixture from the said stripping are in the ranges of 3 to 9 NH_3 0.5 to 4 $H_2O/1CO_2$ and the mol ratio of water to carbon dioxide is high enough to maintain the salting out temperature of said liquid condensate at a temperature in the range 30° to 95° C. which is below the temperature at which the ammonia, carbon dioxide and water of said gas-vapor mixture are condensed to form said liquid condensate, and returning said liquid condensate to the urea synthesis step as a part of the feed thereto.

2,848,494
PROCESS FOR CONVERTING OPTICALLY ACTIVE AMINODIOLS INTO RACEMIC AMINODIOLS
Carlo Giuseppe Alberti and Alberto Vercellone, Milan, and Giovanni Larini and Luigi Bernardi, Settimo Torinese, Italy, assignors to Societa Farmaceutici Italia, a corporation of Italy
No Drawing. Application March 30, 1956
Serial No. 574,971
Claims priority, application Italy March 31, 1955
2 Claims. (Cl. 260—562)

1. The process for converting a compound of the group consisting of the L-threo and D-erythro-isomers of 1-p-nitrophenyl-2-amino-1,3-propanediol to the D,L-threo-isomer, which comprises dissolving a p.nitro-α-RCO-amino-acrylophenone, wherein R represents a member of the group consisting of alkyl having from 1 to 4 carbon atoms, phenyl and dichloromethyl, in a lower aliphatic alcohol selected from the group consisting of methyl and ethyl alcohol, refluxing in the presence of a basic catalyst taken from the group consisting of alkaline metal hydroxides, salts of alkaline metals with an acid selected from the group consisting of carbonic, bicarbonic and acetic acid, alkaline metal alcoholates selected from the group consisting of methylates and ethylates and tertiary amines selected from the group consisting of triethylamine and N-ethyl piperidine, adding water, extracting with a water-insoluble solvent, recovering D,L-p.nitro-α-acylamino-β-alkoxy-propiophenone, treating each part by weight of said D,L-p.nitro-α-acylamino-β-alkoxy-propiophenone with about 0.05 part by weight of an alkaline metal borohydride in aqueous and alcohol-aqueous solution at room temperature, separating D,L-threo- and erythro-diastereoisomers of 1-p.nitrophenyl-2-RCO-amino-3-alkoxy-propane-1-ol from the solution and from each other by fractional crystallization, converting the erythro-diastereoisomer into the threo diasteroisomer by treating at a temperature from 0 to 25° C. and in the presence of chloroform as diluent with a dehydrating agent taken from the group consisting of $SOCl_2$, PCl_3, H_2SO_4, treating with a cold dilute alkali solution and separating threo-1-p-nitrophenyl-2-acylamino-3-alkoxy-propane-1-ol.

2,848,495
METHOD OF MANUFACTURE OF AMINES
Lucien Villemoy, Paris, France, assignor to Societe Industrielle des Derives de l'Acetylene (S. I. D. A.), Paris, France, a corporation of France
No Drawing. Application October 18, 1955
Serial No. 541,300
Claims priority, application France October 28, 1954
5 Claims. (Cl. 260—585)

1. A method of manufacturing isopropylamine comprising aminating isopropanol with ammonia at a temperature between about 60° C. and 150° C. under autogenous pressure in the presence of an amination catalyst and a hydrogen-accepting substance selected from the group consisting of the aldehydes and ketones corresponding to the isopropanol.

2,848,496
DIMERISATION OF KETENE IN MEDIUM OF DIKETENE AND ACETIC ANHYDRIDE
Richard Norman Lacey, Hull, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company
No Drawing. Application August 30, 1956
Serial No. 606,968
Claims priority, application Great Britain
September 15, 1955
8 Claims. (Cl. 260—585.5)

1. A process for the production of diketene from ketene comprising passing ketene into a reaction mixture consisting of diketene and acetic anhydride, said reaction mixture containing at least 33.3% by weight of acetic anhyride, and removing the heat of dimerisation of the ketene.

2,848,497
PROCESS FOR ISOMERIZING 8α-METHYL-1,2,3,4,6,7,8,8α-OCTAHYDRO-1-ETHYNYL-1β-HYDROXY-6-OXONAPHTHALENE AND ISOMER OBTAINED THEREBY
Melvin S. Newman, Columbus, Ohio, and Sambasiva Swaminathan, Mylapore, India, assignors to The Ohio State University Research Foundation, Columbus, Ohio, a corporation of Ohio
No Drawing. Application March 8, 1954
Serial No. 414,885
3 Claims. (Cl. 260—586)

1. A composition of matter consisting of 8α-methyl-1,2,3,4,6,7,8,8α-octahydro - 1 - ethynyl-1α-hydroxy-6-oxonaphthalene having a melting point of 145–146 degrees centigrade.

2,848,498
PROCESS FOR TREATING SATURATED OXO COMPOUNDS
Maurice Mention, Melle, France, assignor to Les Usines de Melle (Societe Anonyme), Saint-Leger-les-Melle, France, a corporation of France
Application September 16, 1954, Serial No. 456,377
Claims priority, application France October 16, 1953
9 Claims. (Cl. 260—594)

1. A process which comprises reacting for a short period a mixture of a saturated oxo compound having at least 3 carbon atoms with an aqueous alkaline condensation agent, flowing turbulently at high speed, to produce a condensation product, substantially immediately separating the entire mixture of said agent and reaction product as the turbulence ceases, and recycling only the alkaline condensation agent so separated for reuse in the process, the rate of flow of the mixture being 10 to 100 times as great as the feed of the oxo compound, and the alkaline condensation agent in the mixture being equivalent to 1 to 300 grams per litre of sodium hydroxide.

2,848,499
PREPARATION OF UNSATURATED ALDEHYDES
Alexander F. MacLean and Bruno G. Frenz, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application May 9, 1956, Serial No. 583,818
11 Claims. (Cl. 260—601)

1. In the process of producing an unsaturated aldehyde by the reaction of formaldehyde, another aldehyde of at least three carbon atoms and a salt of a secondary amine and wherein a Mannich base salt is formed by reaction of said aldehydes and said amine salt with splitting out of water, and in which said Mannich base salt is decomposed to form the desired unsaturated aldehyde, the improvement which comprises continuously feeding said aldehydes in about equimolecular proportions together with said amine salt and water to a reaction zone maintained under superatmospheric pressure and at a temperature of about 90 to 120° C., maintaining the resulting mixture in said reaction zone for a period of time sufficient to convert more than 90% of said aldehyde of at least 3 carbon atoms to the Mannich base salt, then passing said mixture continuously into a second reaction zone maintained at an elevated temperature sufficiently high to decompose said Mannich base salt to form by said decomposition an unsaturated aldehyde and an aqueous solution of said amine salt, boiling the mixture in said second zone to drive off said unsaturated aldehyde continuously, and continuously recycling said aqueous solution to said first reaction zone.

2,848,500
PREPARATION OF PURIFIED FORMALDEHYDE
Dennis Light Funck, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 28, 1957
Serial No. 636,440
15 Claims. (Cl. 260—606)

1. The process of removing water from a formaldehyde/water composition containing at least 1% by weight of water, which comprises forming a reaction product of said formaldehyde/water composition and an alcohol having an atmospheric boiling point of at least about 95° C. and being substantially free of any substituent group, other than a hydroxyl group, which is reactive with formaldehyde under the process conditions; removing water from said reaction product; and thereafter thermally decomposing said reaction product into vapors comprising formaldehyde and said alcohol, separating the vapors, and recovering a product having a higher proportion of formaldehyde to water than that of said formaldehyde/water composition.

2,848,501
PROTECTION OF GLYCOL ETHERS BY HYDRAZINE
William G. Lloyd, Bay City, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application November 12, 1954
Serial No. 468,535
3 Claims. (Cl. 260—611.5)

1. Glycol compounds of the class consisting of liquid diols, corresponding to the formula:

$$H(OC_nH_{2n})_mOH$$

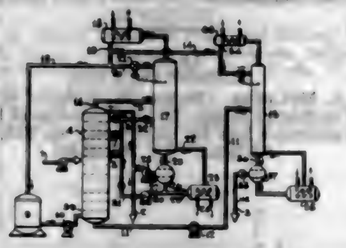
wherein n is an integer from 2 to 4 inclusive and m is an integer from 1 to 100, and the lower alkyl mono- and di-ethers thereof containing a small proportion of hydrazine sufficient to repress oxidative decomposition of the glycol compound on heating.

2,848,502
PREPARATION OF LINALOOL
Joseph Donald Surmatis, West Caldwell, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application November 27, 1956
Serial No. 624,484
8 Claims. (Cl. 260—631.5)

1. A process of making 3,7-dimethyl-1,6-octadien-3-ol which comprises reducing 3,7-dimethyl-1-octyn-6-en-3-ol in liquid ammonia with an alkali metal and an ammonium salt of a strong mineral acid.

2,848,503
SEPARATION OF ALCOHOLS FROM HYDROCARBONS
Merrell R. Fenske, State College, Pa., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application November 23, 1951, Serial No. 257,927
9 Claims. (Cl. 260—643)

1. A process for separating C_7 to C_{20} alcohols having 1 to 2 hydroxyl groups per molecule from a liquid feed mixture thereof with hydrocarbons having a similar boiling range as said alcohols, said mixture boiling between about 150° and 350° C., which comprises feeding said liquid mixture into an intermediate portion of an extraction zone having a multiplicity of extraction stages, introducing a liquid ammonia solvent containing 10 to 50% methylamine into a lower portion of said extraction zone and passing it upwardly therethrough, maintaining the extraction zone at a temperature between about 50° and 150° F. and at a pressure sufficient to maintain the



solvent in liquid phase, injecting water into the extraction zone above the feed inlet in a proportion of about 2 to 20 weight percent based on the ammonia solvent so as to maintain the solubility of the mixture of alcohols and hydrocarbons in the solvent at about 10 to 25 weight percent throughout the extraction zone, withdrawing an extract stream enriched in alcohols from the top portion of said extraction zone, and withdrawing a hydrocarbon raffinate stream from the bottom portion of the extraction zone.

2,848,504
ALKYL HEXAFLUOROCYCLOBUTANES AND PROCESS FOR PREPARING THEM
Stanley Dixon, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application July 21, 1954
Serial No. 444,905
22 Claims. (Cl. 260—648)

1. A disubstituted hexafluorocyclobutane in which the substituents are on different adjacent carbon atoms of the hexafluorocyclobutane ring, one substituent being an alkyl group of 1 to 18 carbon atoms and the other substituent being a member of the group consisting of alkyl groups of 1 to 18 carbon atoms and halogen atoms having an atomic weight of less than 80.

10. The process which comprises heating at a temperature of from about 100° C. to about 300° C. in a closed vessel under autogenous pressure an alkyltrifluoroethylene, in which the alkyl group contains 1 to 18 carbon atoms, with a substantially equimolecular proportion of a member of the group consisting of alkyltrifluoroethylenes in which the alkyl group contains 1 to 18 carbon atoms and halotrifluoroethylenes in which the halogen atom has an atomic weight of less than 80, and recovering from the reaction mixture a 1,2-disubstituted hexafluorocyclobutane in which at least one substituent is an alkyl group of 1 to 18 carbon atoms.

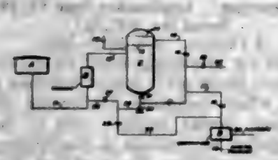
2,848,505
PROCESS FOR ZINC CHLORIDE ACTIVATING A DEHALOGENATION REACTION
William T. Miller, Ithaca, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application February 25, 1953
Serial No. 338,921
6 Claims. (Cl. 260—653)

1. In a process for dechlorinating trifluorotrichloroethane with metallic zinc and an alcohol, the improvement of the process which comprises introducing trifluorotrichloroethane, an alcohol, metallic zinc and zinc chloride into a dehalogenation zone, said zinc chloride being introduced in quantities between about 0.1 and about 10 percent based on the weight of metallic zinc, maintaining said zone and contents at a temperature between about 0° C. and about 200° C. and at a pressure sufficient to maintain trifluorotrichloroethane in the liquid phase and removing a vaporous overhead fraction comprising trifluorochloroethylene as a product of the process.

2,848,506
PREPARATION OF CYCLOPENTADIENYLSODIUM
David S. Breslow, New Castle County, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application April 29, 1954
Serial No. 426,685
8 Claims. (Cl. 260—665)

1. The process of preparing a cyclopentadienylmonosodium compound which comprises reacting one of the group consisting of cyclopentadiene and alkylcyclopentadienes wherein the cyclopentadienyl radical contains from 1 to 2 alkyl substituents with one of the group consisting of sodium and sodium compounds more basic than sodium hydroxide in an inert liquid organic diluent in which the cyclopentadienylsodium compound is soluble, said diluent being selected from the group consisting of tetrahydrofuran, dimethylformamide, and tert-butyl alcohol.

2,848,507
METHOD FOR CYCLIC HYDROCARBON CRYSTALLIZATION AND SEPARATION
Rufus B. Bennett, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 7, 1953, Serial No. 396,674
17 Claims. (Cl. 260—666)



1. A continuous process for recovering a normally liquid cyclic hydrocarbon compound crystallizable at a crystallization temperature no less than —95° F. from a feed stock consisting of a liquid mixture of organic hydrocarbon compounds including said cyclic compound which comprises the steps of continuously chilling a stream of said feed stock in a chilling zone to a crystallization temperature no less than —95° F. to partially crystallize said cyclic compound to provide a slurry of 5 to 20 volume percent of crystals of said cyclic compound in a mother liquor containing said cyclic compound in liquid form, continuously introducing said slurry to the first phase of a two phase slurry holding zone comprising a first phase of greater crystal density having a 25 to 60 volume percent content of crystals of said cyclic compound and a second phase of lesser crystal density having a total content of crystallized and liquid cyclic compound no greater than the initial liquid content of said cyclic compound in said feed stock, a portion of the crystals from the first phase passing to the second phase, said slurry holding zone being maintained at said crystallization temperature and said second phase being maintained quiescent, continuously removing mother liquor and crystals of said cyclic compound from the first phase and from the second phase of said slurry holding zone, separating said removed crystals and said removed mother liquor from the first phase into a filter cake fraction and a filtrate fraction, said crystals and mother liquor being

withdrawn from the second phase of said slurry holding zone at a rate equal to the rate of charge of said slurry to the first phase of said slurry holding zone, the ratio of withdrawn crystals to withdrawn mother liquor from the second phase being such that said cyclic compound is withdrawn from said slurry holding zone at a rate substantially equal to the rate of charge of said selected compound to said slurry holding zone.

2,848,508
PROCESS FOR RECOVERING CAROTENE
Harold M. Barnett, Long Beach, Miner L. Hartmann, Beverly Hills, Rupert C. Mosher, Downey, and Henry M. Espoy, Long Beach, Calif.; said Hartmann, said Mosher and said Espoy assignors to said Barnett
No Drawing. Application October 6, 1954
Serial No. 460,756
13 Claims. (Cl. 260—666)

1. In the process of recovering carotene from vegetable materials, the steps of preparing carotene-particle-containing juice substantially free from vegetable fiber, adding an inert particulate extender to said juice during coagulation of the carotene materials in said juice to form a coagulum, the proportion of said extender being at least equal in volume to the volume of said moist coagulum, completing the coagulation of the said juice in the presence of said extender, separating the mixture of coagulum and extender from the watery liquid, and extracting the carotene materials from said mixture without heating with a water-immiscible solvent.

2,848,509
PRODUCTION OF POLYALKYL BENZENES
William G. Toland, Jr., San Rafael, and L. G. Williams, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application June 17, 1954
Serial No. 437,587
6 Claims. (Cl. 260—668)

1. A process for producing lower alkyl benzenes having at least three lower alkyl groups attached to the benzene nucleus, which comprises condensing with formaldehyde a xylene isomer mixture feed in the presence of an acid catalyst to produce a diarylmethane hydrocarbon product, contacting the produced diarylmethane hydrocarbon product and hydrogen with a hydrogenation catalyst at from 650° F. to 900° F. and substantially atmospheric pressure to effect hydrogenolysis of the diarylmethane, and production of a reaction mixture comprising substituted benzene isomers having at least three lower alkyl groups substituted on the benzene nucleus, said reaction mixture being characterized by a very large predominance of one of said isomers, and recovering from said reaction mixture a fraction rich in said predominating isomer.

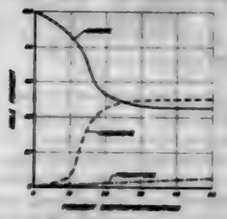
2,848,510
MANGANESE REFORMING OXIDE-CONTAINING CATALYST
John W. Myers, Bartlesville, Okla., and Lloyd C. Mabry, Jr., Waco, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application September 16, 1954
Serial No. 456,623
12 Claims. (Cl. 260—668)

1. A process for the catalytic conversion of a fluid hydrocarbon material to more valuable hydrocarbons which comprises contacting said material with a catalyst comprising a member of the group consisting of platinum and palladium in an amount in the range of 0.1 to 5 wt. percent, manganese oxide in the range of 1 to 20 wt. percent, and the balance a cracking component, under conversion conditions which convert said hydrocarbon material into more valuable hydrocarbons.

2. The process of claim 1 wherein the cracking component is selected from the group consisting of acid activated aluminum silicate clay, silica-alumina, silica-zirconia, silica-alumina-zirconia, silica-magnesia, silica-alumina-magnesia, and fluorinated alumina.

6. The process of claim 2 wherein the hydrocarbon material comprises a xylene fraction of other than an equilibrium concentration and xylene isomerizing conditions are maintained.

2,848,511
DURENE PROCESS
David A. McCauley, Chicago, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application July 24, 1955, Serial No. 524,507
5 Claims. (Cl. 260—668)



1. A process for the production of durene which comprises contacting, under substantially anhydrous conditions, a feed consisting essentially of pseudocumene with liquid HF catalyst, in an amount between 25 and 400 volume percent, based on said feed, at a temperature between about 80° C. and 160° C. for a time such that not more than about 12 mole percent of said pseudocumene is converted, removing HF from a product hydrocarbon mixture and separating from said mixture a tetramethylbenzene product containing at least 80 mole percent of durene.

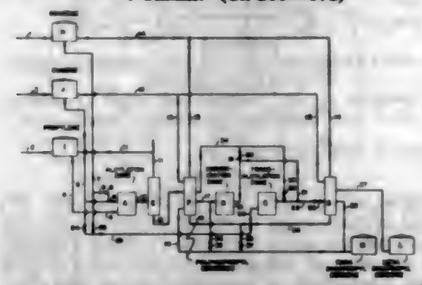
2,848,512
PREPARATION OF HYDRINDACENES
Louis Schmerling, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application October 10, 1955
Serial No. 539,647
20 Claims. (Cl. 260—668)

1. A process for the preparation of a substituted polynuclear hydrocarbon which comprises treating an aromatic hydrocarbon containing at least two pairs of unsubstituted adjacent carbon atoms separated by at least one carbon atom with a conjugated diene, in which at least one of the double bonded carbon atoms is a tertiary carbon atom, in the presence of a protonic acid catalyst selected from the group consisting of sulfuric acid, hydrogen fluoride, phosphoric acid and silica-alumina, and recovering the resultant polynuclear hydrocarbon.

2,848,513
PREPARATION OF HYDRINDACENES
Louis Schmerling, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application October 10, 1955
Serial No. 539,648
17 Claims. (Cl. 260—668)

1. A process for the preparation of a substituted polynuclear hydrocarbon which comprises treating an aromatic hydrocarbon free of olefinic unsaturation and containing at least two pairs of unsubstituted adjacent carbon atoms separated by at least one carbon atom with a monohydrohalide of a conjugated aliphatic diene in which at least one of the doubly bonded carbon atoms is a tertiary carbon atom in the presence of a protonic acid catalyst selected from the group consisting of sulfuric acid, hydrogen fluoride, phosphoric acid and silica-alumina, and recovering the resultant substituted polynuclear hydrocarbon.

2,848,514
PROCESS FOR PRODUCING DIISOPROPYL BENZENES
Adrianus de Keizer, Nicolaas Max, and Robert Willem Frederik Kreps, Amsterdam, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
Application July 14, 1955, Serial No. 522,000
Claims priority, application Netherlands July 30, 1954
4 Claims. (Cl. 260—671)



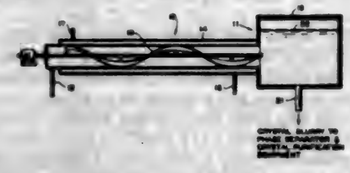
1. A process for the continuous production of diisopropyl benzene isomers of ortho-diisopropyl benzene which comprises, in combination: charging propylene to an alkylation zone to contact cumene therein in liquid phase in the presence of cracking catalyst at conditions including a temperature in the range between 160° and 300° C. and a liquid hourly space velocity of at least 4 v./v./hr. to produce a mixture comprising diisopropyl benzenes and polyisopropyl benzenes; subjecting said mixture to fractional distillation to recover therefrom as separate streams at least: (1) a fraction comprising essentially meta- and ortho-diisopropyl benzene, (2) a fraction comprising essentially para-diisopropyl benzene, (3) a fraction comprising essentially polyisopropyl benzenes, and cumene; passing at least said fraction (1) and at most both said fractions (1) and (2) to an isomerization zone wherein they are contacted in liquid phase with a cracking catalyst at conditions including a temperature in the range between 100° and 300° C. and a liquid hourly space velocity of less than 5 v./v./hr. and recovering therefrom an isomerization product containing no more than 5% ortho-diisopropyl benzene (based on total diisopropyl benzenes); passing said polyisopropyl benzene fraction (3) and at least an approximately equal molar amount of at least one compound of the group consisting of benzene and cumene to a transalkylation zone wherein they are contacted in liquid phase with a cracking catalyst at conditions including a temperature in the range between 160° and 350° C. and a liquid hourly space velocity of less than 5 v./v./hr. and recovering therefrom a transalkylation product comprising a substantial proportion of diisopropyl benzenes containing no more than 5% thereof as ortho-diisopropyl benzene; subjecting said isomerization product and said transalkylation product to fractional distillation and recovering therefrom at least one of the diisopropyl benzene isomers of ortho-diisopropyl benzene substantially free of ortho-diisopropyl benzene in substantial yield, and further recovering a cumene fraction from at least the distillation of said transalkylation product; and adding cumene recovered from all distillations, benzene recovered from all distillations and fresh aromatic feed to at least one of the zones in which diisopropyl benzene is produced by addition of alkyl groups to at least one feed compound selected from the group consisting of benzene and cumene.

2,848,515
PURIFICATION OF PARAXYLENE
Reuben F. Pfennig, Baytown, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application February 16, 1952, Serial No. 271,895
8 Claims. (Cl. 260—674)



1. A process for separating paraxylene of over 90% by weight purity from a feed stock consisting of a liquid mixture of aromatic hydrocarbons including paraxylene in the range from about 15 to 25% volume, the other isomeric xylenes including orthoxylene and ethyl benzene and containing no more than a small amount of other aromatic material, which comprises the steps of chilling said mixture and holding it at a temperature below the crystallization temperature of paraxylene and just above the eutectic point of paraxylene with the most easily precipitated component within the range of —90° and —110° F. for at least 30 minutes to form a first slurry of paraxylene crystals in a mother liquor with said crystals having a needle-like shape with a typical crystal size of 10 x 100 microns when viewed in a microscope, separating crystals from said first slurry to form a first cake having a total paraxylene content within the range of 65 to 85% by weight, melting said first cake to form a melt, chilling said melt and holding it at a temperature below the crystallization point of paraxylene within the range of —20° and 20° F. for at least 30 minutes to form a second slurry of paraxylene crystals in mother liquor, said paraxylene crystals having a plate-like rectangular shape with a typical crystal size of 90 x 270 microns when viewed in a microscope, subjecting slurry comprising said crystals in mother liquor to a separation step to form a second cake containing paraxylene having a purity in excess of 90% by weight and recovering said cake.

2,848,516
CRYSTAL PURIFICATION METHOD
Richard M. Green, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application March 16, 1953, Serial No. 342,423
4 Claims. (Cl. 260—674)

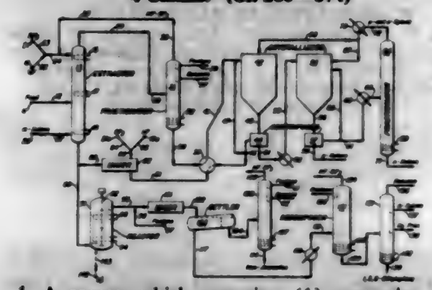


1. In a separation of materials which form primary and secondary solids by partial solidification processes in which the feed material is cooled to form a slurry and said slurry is held in a holding zone prior to further treatment, the improvement which comprises determining heat leak into the holding system during the desired holding time, crystallizing secondary solid material in an amount substantially equal to that which will be melted by heat leak into the holding zone, and withdrawing for said further treatment a slurry containing said primary solids substantially free of secondary solids.

2,848,517
SEPARATION OF XYLENE ISOMERS

Melvern C. Hoff, Highland, and Donald E. Barney, Griffith, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application July 23, 1954, Serial No. 445,236
4 Claims. (Cl. 260—674)



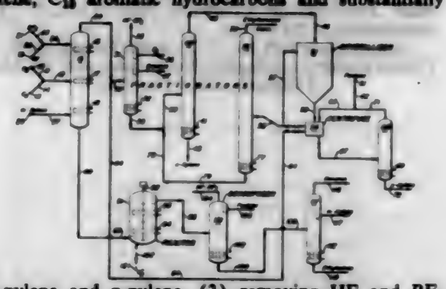
1. A process which comprises (1) contacting, under substantially anhydrous conditions (*a*) a feed containing o-xylene, m-xylene, p-xylene and ethylbenzene as essentially the only aromatic hydrocarbon constituents and essentially no hydrocarbons reactive therewith, with (*b*) an HF–BF_3 treating agent consisting essentially of about 1 mole of BF_3 per mole of m-xylene plus not more than 0.5 mole of BF_3 per mole of ethylbenzene and between about 5 and 50 moles of liquid HF per mole of m-xylene, at (*c*) a temperature between about −10° C. and +30° C. for a time between about 2 minutes and 30 minutes to essentially avoid isomerization of o-xylene and p-xylene, (2) separating a raffinate phase comprising benzene, o-xylene, p-xylene, ethylbenzene, and non-aromatic hydrocarbons from an extract phase comprising HF, BF_3, m-xylene, C_{10} aromatic hydrocarbons and substantially no o-xylene and p-xylene, (3) removing HF and BF_3 from said raffinate phase to obtain a raffinate, (4) chilling said raffinate to a temperature between about −50° C. and about −110° C. to produce a mixture of crystals of p-xylene and o-xylene, (5) separating said crystals from mother liquor, (6) recrystallizing said crystals to obtain crystals of essentially pure p-xylene and a second mother liquor consisting essentially of about the eutectic mixture of o-xylene and p-xylene, (7) separating said p-xylene crystals from said second mother liquor, (8) distilling said second mother liquor to obtain an essentially pure o-xylene fraction and a fraction consisting essentially of o-xylene and p-xylene, (9) contacting, under substantially anhydrous conditions, (*a*) the extract phase of step (2) together with mother liquor from step (5), in the presence of (*b*) BF_3 in an amount of at least about 1 mole and (*c*) liquid HF in an amount between about 5 and 50 moles, respectively, per mole of polyalkylbenzene present in said contacting zone at (*d*) a temperature between about +30° C. and +75° C. for a time between about 15 minutes and about 6 hours, the longer times corresponding to the lower temperatures to convert essentially all the ethylbenzenes to 1,3-dimethyl-5-ethylbenzene and all the o-xylene and p-xylene to m-xylene, (10) removing HF and BF_3 from the reaction product mixture produced in step (9), and (11) distilling said mixture to obtain an essentially pure 1,3-dimethyl-5-ethylbenzene fraction and a xylene boiling range fraction containing essentially only m-xylene as the aromatic hydrocarbon component.

2,848,518
C_8 AROMATIC HYDROCARBON SEPARATION

Nathan Fragen, Hammond, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application July 26, 1954, Serial No. 445,597
4 Claims. (Cl. 260—674)

1. A process which comprises (1) contacting, under substantially anhydrous conditions (*a*) a feed containing o-xylene, m-xylene, p-xylene and ethylbenzene as essentially the only xylene boiling range hydrocarbon constituents and essentially no hydrocarbons reactive therewith, with (*b*) an HF—BF_3 treating agent consisting essentially of about 1 mole of BF_3 per mole of m-xylene plus not more than 0.5 mole of BF_3 per mole of ethylbenzene and between about 5 and 50 moles of liquid HF per mole of m-xylene, at (*c*) a temperature between about −40° C. and +30° C. for a time between about 2 minutes and 30 minutes, to essentially avoid isomerization of o-xylene and p-xylene, (2) separating a raffinate phase comprising benzene, o-xylene, p-xylene and ethylbenzene, from an extract phase comprising HF, BF_3, m-xylene, C_{10} aromatic hydrocarbons and substantially

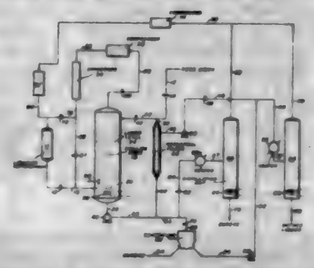


no o-xylene and p-xylene, (3) removing HF and BF_3 from said raffinate phase to obtain a raffinate, (4) distilling said raffinate under conditions to obtain a bottoms product consisting of high purity o-xylene and a fraction consisting substantially of p-xylene, o-xylene and ethylbenzene, (5) chilling said fraction to a temperature between about −15° C. and about −70° C., to produce essentially only crystals of p-xylene, (6) removing mother liquor to obtain crystals of essentially pure p-xylene, (7) distilling said mother liquor under conditions to obtain a high purity ethylbenzene product fraction and a fraction containing substantially only o-xylene and p-xylene, and (8) removing HF and BF_3 from said extract phase to recover a high purity m-xylene product.

2,848,519
PROCESS FOR RECOVERY OF HIGH PURITY HYDROCARBONS

Hampton G. Cornell, Everett W. Lewis, and John M. Powers, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application September 6, 1955, Serial No. 532,686
8 Claims. (Cl. 260—674)



1. A process for recovering durene from an aromatic feed stock boiling within the range from about 360° to about 400° F. and containing from about 5 to 40 percent durene, said process comprising the steps of dissolving said feed stock in about 0.5 to about 1.5 volumes per volume of feed stock of a liquefied normally gaseous refrigerant comprising a solvent for said feed stock, chilling the resultant solution by autorefrigeration in a crystallization zone to a temperature of maximized crystal formation within the range of about −50° to about −100° F. to form a slurry of crystals of said durene in a liquid medium consisting of a liquefied refrigerant and mother liquor, next continuously cycling a turbulently flowing stream of said slurry from said crystallization zone to an isothermal filtration zone to turbulently isothermally separate said stream into a filtrate fraction and a concentrated slurry fraction, continuously discarding said filtrate fraction, continuously returning said concentrated slurry fraction to said crystallization zone, continuing said cycling operation for a period of time sufficient to remove at least about 90 volume percent of said mother liquor from said slurry while providing an amount of said liquefied refrigerant sufficient to provide a slurry in said crystallization zone containing not more than about 70 weight percent of crystals and then separating said crystallized durene from said slurry whereby said durene is recovered as a product having a purity of at least about 95 weight percent.

2,848,520
PREPARATION OF METHYLACETYLENE AND ETHYLACETYLENE

Thomas F. Rutledge, Madison, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application November 9, 1953
Serial No. 391,140
8 Claims. (Cl. 260—678)

1. The process of producing an alkyne of the group consisting of methylacetylene and ethylacetylene which comprises forming a dispersion of monosodium acetylide in an organic liquid, said acetylide being of high purity, virtually white, and in a finely divided state, said liquid being substantially inert with respect to the reactants and products of reaction, introducing into the dispersion a compound of the group consisting of dimethyl sulfate and diethyl sulfate, and conducting the reaction under controlled temperature conditions to produce the desired alkyne in accordance with the following equation

$$Et_2SO_4 + 2NaC{\equiv}CH \rightarrow 2Et{-}C{\equiv}CH + Na_2SO_4$$

in which Et represents the alkyl group of said sulfates.

2,848,521
TREATMENT OF HYDROCARBON CONVERSION CATALYSTS

Walter B. Polk, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

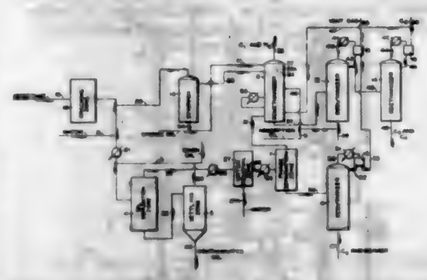
No Drawing. Application August 30, 1955
Serial No. 531,578
12 Claims. (Cl. 260—680)

1. In the conversion of a hydrocarbon in presence of a catalyst containing iron oxide as an active catalytic ingredient, wherein said catalyst is periodically contacted with an oxidizing gas under oxidizing conditions to remove carbonaceous materials from its surfaces, the improvement comprising maintaining in admixture with said oxidizing gas during said regeneration, from 1 to 5 percent of the volume of said oxidizing gas of at least one of hydrogen and a hydrocarbon containing 1 to 4 carbon atoms per molecule, and thereby preventing over-oxidation of the catalyst to Fe_3O_4, whereby substantial reduction of the induction period during said conversion is effected.

2,848,522
PROCESS FOR RECOVERY OF CRACKING PRODUCTS

Forrest E. Gilmore, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application January 4, 1954, Serial No. 401,954
3 Claims. (Cl. 260—683)



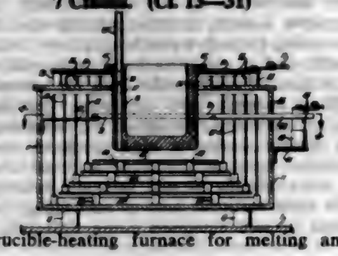
1. A process which comprises subjecting a normally gaseous hydrocarbon to cracking to obtain a composite product comprising hydrogen and C_1 to C_5 olefins and paraffins together with minor amounts of readily polymerizable aromatic and unsaturated impurities; cooling said composite product to a temperature such that the cracking reaction ceases; removing oil-insoluble impurities from said composite product; subjecting said product to refrigeration at a temperature in the range 40 to 70° F. and at a pressure in the range 115 to 125 p. s. i. g., whereby a gaseous phase and a liquid phase are obtained; recovering from said gaseous phase a C_3–C_4 fraction, a C_2 fraction, and a fraction comprising methane and hydrogen; and recovering from said liquid phase a C_4 and lighter fraction and a C_4 and heavier fraction containing substantially all of said readily polymerizable impurities.

ELECTRICAL

2,848,523
VACUUM CRUCIBLE FURNACE

Charles W. Hanks and Charles d'A. Hunt, Orinda, and Hugh R. Smith, Jr., Berkeley, Calif., assignors, by mesne assignments, to Stauffer Chemical Company, New York, N. Y., a corporation of Delaware

Application July 27, 1956, Serial No. 600,527
7 Claims. (Cl. 13—31)



1. A crucible-heating furnace for melting and outgassing materials under high-vacuum conditions comprising the combination of elements designated as elements (*a*) to (*f*) inclusive and defined as follows:

Element (*a*): an inner heating chamber having an opening in the top thereof adapted to admit the body of a crucible therethrough, the upper rim of said crucible remaining external to said chamber;

Element (*b*): insulating means for supporting such crucible within element (*a*) so as to leave an annular gap between the edges of said opening and the walls of said crucible that is small in area as compared with the area of the top of the crucible so supported;

Element (*c*): an electron-emitting cathode positioned to surround said crucible, when so supported, at substantially uniform spacing from the walls thereof;

Element (*d*): terminals for making electrical connections to said crucible and said cathode to establish an electrical discharge therebetween;

Element (*e*): means for injecting a controlled flow of inert gas within element (*a*) to add a controlled degree of ionic electrical discharge to electron discharge from said cathode; and

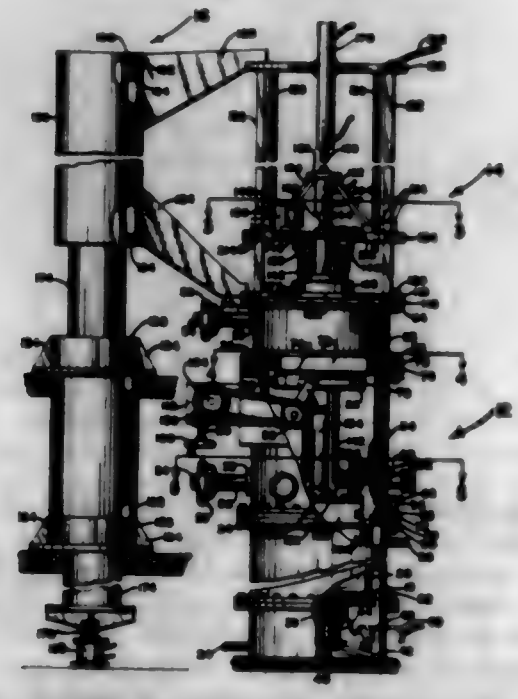
Element (*f*): a vacuum-tight tank enclosing elements (*a*) and (*b*) and provided with an exhaust connection adapted for attachment to a vacuum pump of such size as to maintain the pressure in said tank externally of said inner chamber at a value materially lower than that within it despite liberation of gas from material within said crucible.

2,848,524

ARC MELTING APPARATUS

Frank H. McLaughlin and Joseph L. Mangin, Las Vegas, Nev., assignors to Titanium Metals Corporation of America, New York, N. Y., a corporation of Delaware

Application October 15, 1956, Serial No. 615,927
5 Claims. (Cl. 13—31)



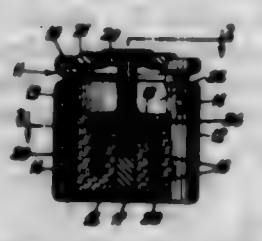
1. In arc melting apparatus, the combination of a plurality of furnace units each adapted to contain a cooled crucible, and means for releasably suspending an electrode holder therein, an electrode drive mechanism detachably mountable on each of said furnace units and including a ram detachably lockable to an electrode holder suspended in a furnace unit, means for sealing said furnace units during period of detachments of said electrode drive mechanism therefrom and means for positioning said electrode drive mechanism in mounted operative engagement selectively with any of said furnace units.

2,848,525

MINIATURE ALKALINE CELL

Erwin A. Schumacher, Parma, and Roswell J. Bennett, Lakewood, Ohio, assignors to Union Carbide Corporation, a corporation of New York

Application September 21, 1953, Serial No. 381,164
10 Claims. (Cl. 136—102)



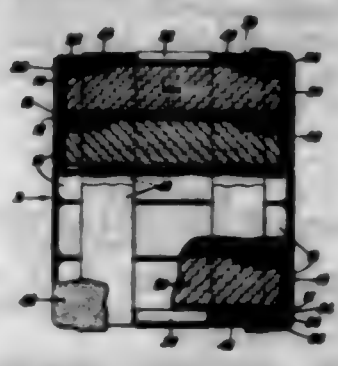
1. An air-depolarized primary galvanic cell comprising a metallic container having apertures therein for admission of air, an air-depolarizable carbon cathode lining the interior walls of said container and substantially filling said apertures, a separator adjacent said cathode, an immobilized aqueous alkaline electrolyte in said container, a consumable zinc anode of coiled zinc wire immersed in said electrolyte and electrically connected to a metal stud, and an impervious closure for said container having an electrical terminal thereon, said stud being in electrical contact with said terminal.

2,848,526

INTERCELL SEAL FOR MULTIPLE CELL BATTERY STRUCTURES

John V. Frangquemont, Lakewood, Ohio, assignor to Union Carbide Corporation, a corporation of New York

Application June 12, 1953, Serial No. 361,371
3 Claims. (Cl. 136—111)



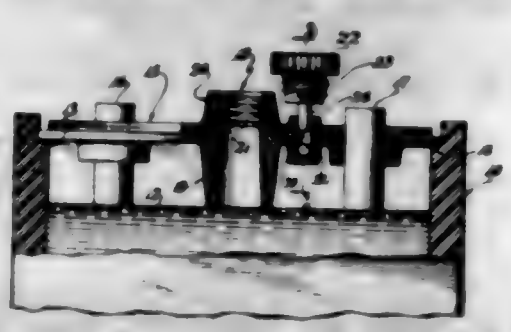
1. In a multi-cell primary galvanic battery comprising a stack of cell component assemblies in individual containers, said stack having an outer coating of moisture proof wax, and in addition, an improved seal and vent which comprises a layer of permanently soft, sealing compound having a texture like stiff grease and being inert to battery constituents, said layer intervening between the portions of each of said containers adjacent to others of said containers, said layer effectively sealing each of said cell component assemblies against loss of moisture therefrom but yielding under gas pressure to vent gas from said assemblies, and having yielded to relieve such pressure, said layer reforming to continue preventing moisture loss from said assemblies.

2,848,527

COVER FOR STORAGE BATTERY

Verlin A. Mocas, Elmhurst, Ill., assignor to The Richardson Company, Melrose Park, Ill., a corporation of Ohio

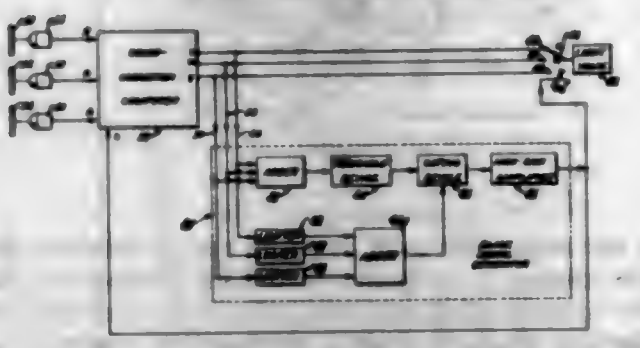
Application March 8, 1956, Serial No. 570,396
3 Claims. (Cl. 136—177)



1. In combination a cover for a storage battery, including a filling opening, an annular well surrounding said opening and extending downwardly from said cover a distance determined by the approximately upper level of electrolyte desired, an independently normally opened vent extending through a part of said cover removed from said well; and a cap detachably engageable with the upper portion of said annular well for normally sealing said filling opening, said cap being provided with a slender, cylindrical-like elongated pin depending from the bottom thereof having a cross sectional configuration substantially equal to the cross sectional configuration of the outer opening of said vent and substantially less than the cross sectional area of said filling opening, the lower end of said extension being adaptable for inser-

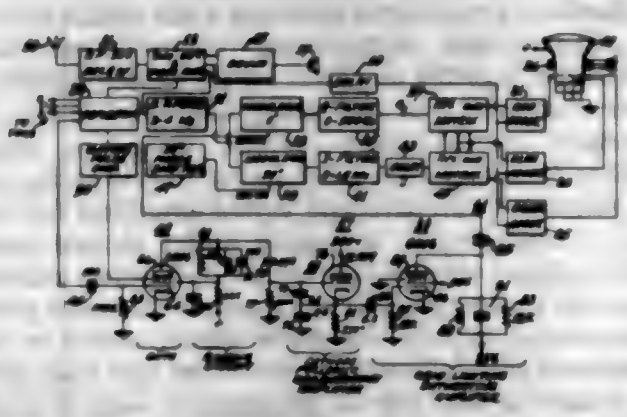
tion into the outer opening of said vent upon removal of the cap from the filling opening whereby said vent may be sealed from the atmosphere and thereby limit the addition of fluids to a cell up to substantially the bottom of said annular well.

2,848,528
COLOR-CORRECTION SYSTEM
Harry J. Woll, Audubon, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 30, 1953, Serial No. 371,371
27 Claims. (Cl. 178—5.4)



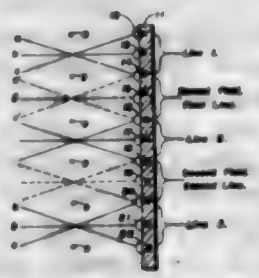
1. In a system for obtaining color-corrected records from a subject in color by means of electrical signals representative of color components of said subject, the combination of a plurality of channels for carrying said signals with each channel arranged for carrying signals corresponding to a different color component, means for producing signals related to the brightness of said subject responsive to signals in all of said channels, means for producing signals related to the color saturation of said subject responsive to a combination signal including signals from all of said channels, and means responsive to said brightness and saturation signals for producing signals representative of the black of said subject.

2,848,529
COLOR TELEVISION SYNCHRONIZATION
Peter H. Werenfels, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 30, 1953, Serial No. 394,937
The terminal fifteen years of the term of the patent to be granted has been disclaimed
7 Claims. (Cl. 178—5.4)



1. In a color television receiver system of the type employing a color synchronizing burst, a color synchronizing circuit comprising in combination, a ringing circuit means responsive to the frequency of said burst to develop electrical oscillations having a frequency equal to the frequency of said burst, means for applying said color synchronizing burst to said ringing circuit, an amplifier tube circuit having a grid and cathode, a resistor operatively connected from the cathode to a point of fixed potential, a pair of condensers connected in series, said series connected condensers connected from the grid of said amplifier tube to a point of fixed potential, the cathode connected end of said resistor connected to the mid terminal of said series connected condensers to furnish regeneration, means for applying the output of said ringing circuit means at the grid of said amplifier tube circuit, a saturating amplifier so connected that its output current saturates above a certain value of input voltage, a resonant circuit means responsive to the frequency of said burst and coupled to said saturating amplifier, means for utilizing the output signal of said regenerative-connected amplifier to drive said saturating amplifier, and means for utilizing the output signal of said saturating amplifier to drive said resonant circuit means, and means for utilizing the signal developed across said resonant circuit means for color selection in said color television receiver system.

2,848,530
PHOSPHOR STRIP TYPE COLOR TELEVISION TUBE SCANNING SYSTEM
Henry H. Schmalz, West Chicago, and Edward K. Novak, Batavia, Ill., assignors to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware
Application December 15, 1953, Serial No. 398,280
4 Claims. (Cl. 178—5.4)

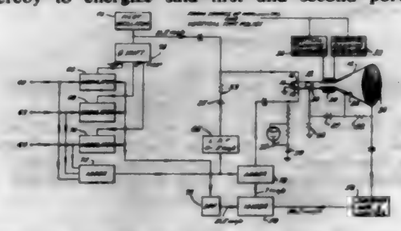


1. In a color television system, the combination comprising a cathode-ray video signal translating device of the direction-sensitive type having a masking element and an image screen positioned adjacent thereto, said image screen comprising a plurality of parallel phosphor strips of which alternate strips fluoresce to emit light of a given primary color, each of said alternate fluorescent strips being bordered on one side by a parallel fluorescent strip which emits light of a second primary color and bordered on the other side by a parallel fluorescent strip which emits light of a third primary color, a source of derived video signals having separate chrominance component values representing each of the three primary colors, means including three control electrodes in said signal translating device for developing a modulatable electron stream having three components, each component of which approaches said image screen from a direction different from the approach direction of the two other stream components, with one electron stream component approaching on a path between the paths of the two other stream components, means for modulating said one electron stream component with derived video signals of the given primary color and for modulating each of the two other electron stream components with a separate one of the video signal second and third primary color components, and switching means connected to two of said control electrodes and operating at the field frequency rate for interchanging the modulation signals of the two electron stream components modulated by the second and third primary color components.

2,848,531
VIDEO SIGNAL MODULATION OF PILOT CARRIER BEAM
Edgar M. Creamer, Jr., and Melvin E. Partin, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application June 3, 1954, Serial No. 434,302
12 Claims. (Cl. 178—5.4)

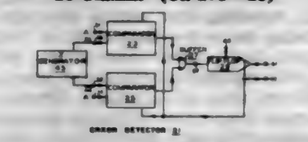
1. A cathode ray tube system comprising a cathode ray tube having an electron beam intercepting member, means for generating a plurality of electron beams and

means for independently controlling the intensities of said beams, said beam intercepting member having first portions thereof arranged in a given geometric configuration and having a first given response characteristic upon electron impingement, said intercepting member further having second portions thereof arranged in a second geometric configuration indicative of said first configuration and having a second given response characteristic upon electron impingement detectably different from said first characteristic, means for scanning said beams in synchronism across said beam intercepting member thereby to energize said first and second portions, a



source of a signal wave having variations indicative of desired variations of the response of said first portions, means for applying said signal wave to the intensity control means of a first of said beams, means for energizing the intensity control means of a second of said beams thereby to control the intensity of said second beam, means for additionally applying at least a portion of said signal wave to the intensity control means of said second beam thereby to vary the intensity of said second beam in response to said applied portion of said signal wave, and means for deriving from said second portions a control quantity having variations determined by variations of the resultant intensity of said second beam.

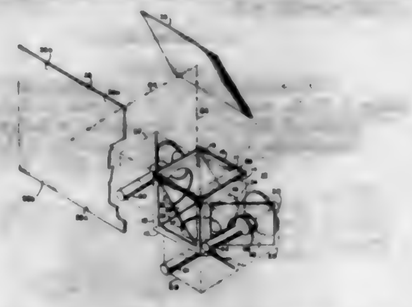
2,848,532
DATA PROCESSOR
Robert L. Welda, Elmhurst, N. Y., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application June 1, 1954, Serial No. 433,524
16 Claims. (Cl. 178—23)



1. Apparatus for inspecting the signals of a code group which is one of a sequence of code groups to determine whether the code group is one of a number of disallowed code groups which are included at the beginning and end of the sequence comprising receiving means for receiving the signals of the code group, first indicating means responsive to said receiving means for indicating whether the code group is a disallowed code group included at the beginning of the sequence, and second indicating means responsive to said receiving means for indicating whether the code group is a disallowed code group included at the end of the sequence.

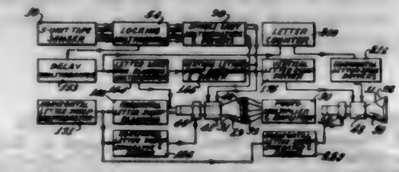
2,848,533
COLOR-IMAGE-REPRODUCING APPARATUS OF THE PROJECTION TYPE
Robert P. Burr, Huntington, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application November 26, 1954, Serial No. 471,248
7 Claims. (Cl. 178—5.4)

1. Color-image-reproducing apparatus of the projection type for a color-television receiver comprising: means including a plurality of cathode-ray tubes for projecting an image to be reproduced on a screen and having an effective nonuniform light-transmission characteristic across the projected image; and filter means so dis-



posed in the projection path as to be out of focus at the screen for casting a nonuniform diffuse shadow on the screen for compensating said nonuniform characteristic of said projecting means to reduce substantially undesirable color shading of the projected image.

2,848,534
CODE TRANSLATOR
Warren H. Bliss, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Original application March 1, 1951, Serial No. 213,389, now Patent No. 2,762,862, dated September 11, 1956. Divided and this application July 3, 1956, Serial No. 595,798
8 Claims. (Cl. 178—26)

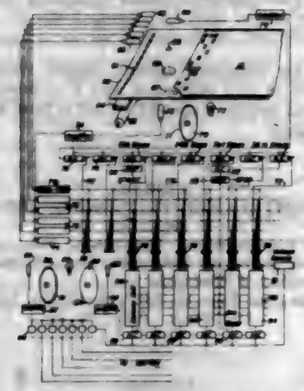


1. A code translator or converter for receiving code pulses from a code pulse source comprising a bank of multivibrators, each multivibrator having an initial state of conduction, a multigrid tube for each multivibrator, means whereby each multivibrator biases its associated multigrid tube, a gating amplifier for each multivibrator, a connection from each of said gating amplifiers to the said multivibrator corresponding thereto, means to supply code pulses from said code pulse source to said gating amplifiers whereby to prepare said gating amplifiers for conduction, a multivibrator to supply pulses to said gating amplifiers delayed with respect to said code pulses whereby to cause said gating amplifiers to transmit said code pulses upon occurrence thereof, means to supply pulses to said last mentioned multivibrator derived from said code pulse source, means to bias one of the grids of said multigrid tubes by voltages such that the plate currents of these tubes have a ratio of one-two-four.

2,848,535
CONTROL FOR FACSIMILE APPARATUS
Clayton E. Hunt, Jr., Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application December 9, 1954, Serial No. 474,169
8 Claims. (Cl. 178—30)

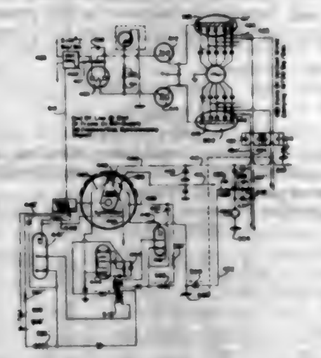
1. In apparatus for printing visual representations of characters on a medium in accordance with code arranged on cards in successive lines representative of said characters comprising a feeding station, sensing means ar-

ranged beyond said feeding station for deriving signals from said lines of code individual to the character representative thereof, a drive means, means operatively connected to said drive means for moving said cards successively from said feeding station and past said sensing means, a printing station adjacent said feeding station and said sensing means and including a row of recording elements, means for feeding said medium past and in working relation to said row of recording elements, means adapted to operatively connect said card moving means and said medium moving means for moving said cards and



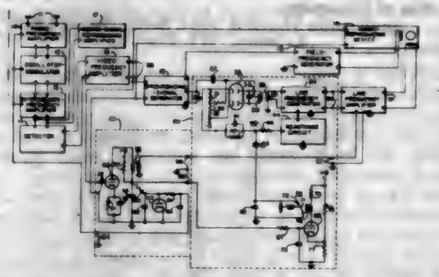
medium in synchronism, circuit means responsive to said sensing means for translating said coded character signals into a multiple series of electric signals to actuate said recording elements singly and in combinations for marking said medium in the form of the character designated by said signals, and an initiating circuit means arranged in said sensing station ahead of said sensing means and connected to said circuit means and said connecting means, said initiating circuit means being responsive to each card moved through said sensing station for deriving a signal from each card to initiate said circuit means and said connecting means in a predetermined time relation.

2,848,536
PROCESS FOR OBTAINING VOLTAGE IMPULSES SPACED OUT IN SEVERAL CONDUCTORS
Pierre Marie Gabriel Toulon, Pittsburgh, Pa.
Application October 31, 1957, Serial No. 693,622
50 Claims. (Cl. 178—50)



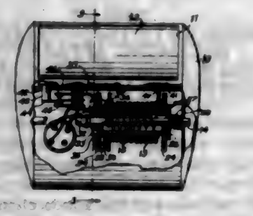
1. In a signal distribution system, a source of successively occurring signals, a plurality of normally blocked channels, means in each of said channels for unblocking said channel in response to a voltage pulse, a generator for providing periodic voltage pulses, means for distributing said voltage pulses among said channels, said last means comprising a rotary commutator having a moving conductive arm and a plurality of fixed contacts, one corresponding with each channel and contacted by said conductive arms in succession, and means for synchronizing rotation of said arm and timing of said pulses to apply each pulse to a channel via said arm and one of said contacts after establishment of contact between said arm and said one of said contacts.

2,848,537
HIGHLY NOISE-IMMUNE SYNCHRONIZING SYSTEM
Donald Richman, Flushing, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application December 31, 1952, Serial No. 328,917
20 Claims. (Cl. 178—69.5)



1. A highly noise-immune synchronizing system comprising: means for supplying a synchronizing signal liable to accompanying noise signals; a generator for generating oscillations desirably in synchronism with said synchronizing signal but which may be undesirably out-of-synchronism; synchronizing means for normally maintaining said oscillations in-synchronism and at a desired phase relation with said synchronizing signal including means for confining the response of said synchronizing means to noise signals during in-sychronism operation to a narrow pass band of frequencies, whereby its pull-in performance from out-of-synchronism operation is unsatisfactory; an auxiliary control system including means responsive jointly to said oscillations and said synchronizing signal and substantially unresponsive to noise signals for producing different control effects for out-of-synchronism operation and in-synchronism operation; and circuit means for utilizing said control effects for modifying the out-of-synchronism operation of said synchronizing means in such a way that the pull-in performance from out-of-synchronism operation is substantially improved.

2,848,538
MAGNASONIC HEARING AID DEVICE
John R. Randolph and John L. Huff, Worland, Wyo.
Application May 21, 1952, Serial No. 289,044
2 Claims. (Cl. 179—1)



1. In a telephone attachment, the combination which comprises a casing having an open pocket in the upper part, a spool journaled in the casing, a spring positioned

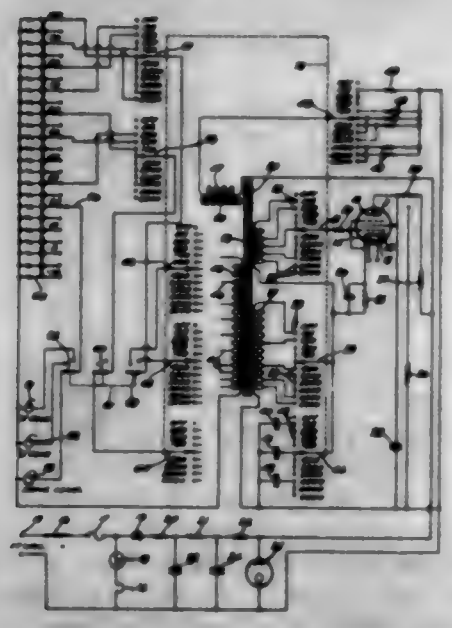
in the casing for winding the spool, contact rings on the spool, brushes positioned to engage the contact rings of the spool, a pickup coil having a high impedance field induction coil therein freely positioned in the pocket of the casing, a switch positioned in the casing and having a button extended into the open pocket in the upper part thereof, said button positioned to be engaged by the coil for closing a circuit to the coil positioned in the pocket, an electric cord extended around the spool and connected at one end to the contact rings on the spool and at the other to the coil, and said coil is adapted to be positioned adjacent a telephone receiver having an ear piece.

2,848,539

AUDIOMETER

Ralph E. Allison, Fuente, Calif., assignor to Patent Management, Incorporated, Minneapolis, Minn., a corporation of Minnesota

Application March 8, 1954, Serial No. 414,813
4 Claims. (Cl. 179—1)



1. In an audiometer, a signal generator capable of producing alternating currents of predetermined frequencies and having an inductor and tapped output winding magnetically connected thereto, a frequency selector switch connected to the signal generator having a first section for selecting the frequency delivered by the output winding, a transducer, a second section on the frequency selector switch connectable to the transducer, said second section having stationary contacts and a movable contact mechanically connected to the first section for movement in unison therewith, the stationary contacts of the second section and the taps on the output winding having strapping connections therebetween whereby at any frequency selected by the frequency selector switch proper voltage will be supplied by the output winding to cause the transducer to deliver the proper acoustical output for the selected frequency.

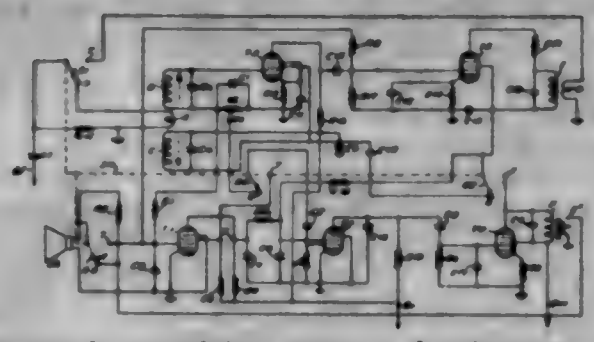
2,848,540

CARRIER-WAVE TRANSMITTING AND RECEIVING APPARATUS

John R. Cooney, Waldoboro, Maine

Application February 16, 1953, Serial No. 336,995
16 Claims. (Cl. 179—2.5)

1. A receiver for amplitude-modulated carrier wave signals of widely varying levels comprising, a receiving circuit, an electron tube amplifier having a cathode, a control grid and an anode, an output circuit connected between said cathode and the anode element of the tube, an input circuit coupling said receiving circuit to said electron tube and embodying means to effect rectification of said carrier wave signals by diode action between said grid and said cathode, a resistance in said input circuit traversed by detected signal current, a rectifier circuit connected to rectify the amplified waves in said output circuit, a connection from said rectifier to said



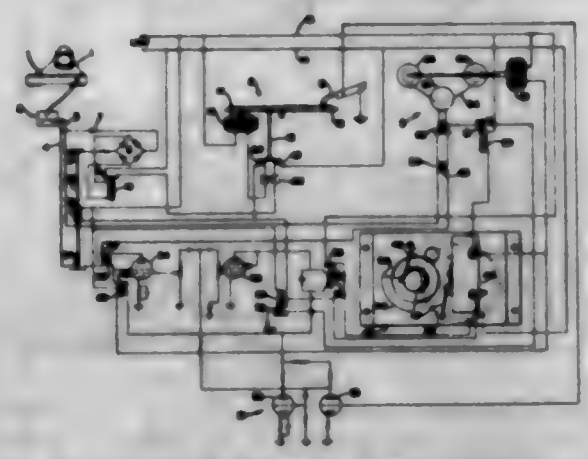
resistance for supplying detected signals from said rectifier circuit to said resistance, and a common detected-signal output circuit connected across at least a portion of said resistance.

2,848,541

TONE CONTROLLED TELEPHONE ANSWERING DEVICE

Joseph J. Zimmermann, Milwaukee, Wis., assignor to Electronic Secretary Industries, Inc., Waukesha, Wis., a corporation of Wisconsin

Application June 15, 1953, Serial No. 361,593
16 Claims. (Cl. 179—6)



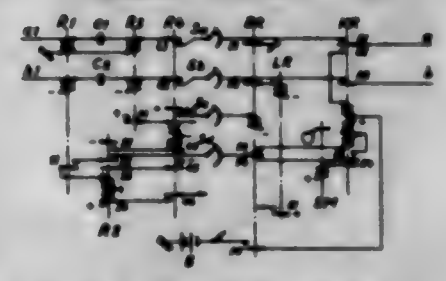
1. In an automatic telephone answering and message recording apparatus, a record with a previously recorded message and a continuous tone signal thereon, a reproducer connected in circuit with a telephone circuit to transmit said message thereover, a recorder electrically connected to said telephone circuit to record incoming messages, a timing relay operably connected in a circuit with the recorder and the reproducer to control operation of said recorder and to discontinue the transmission of said message in response to the presence of the continuous tone signal of said record for a predetermined period.

2,848,542

COIN BOXES

Karl Axel Lundkvist, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden

Application February 17, 1954, Serial No. 410,859
4 Claims. (Cl. 179—6.3)



1. In an automatic telephone system, a telephone exchange, a pay telephone station, a line connecting said

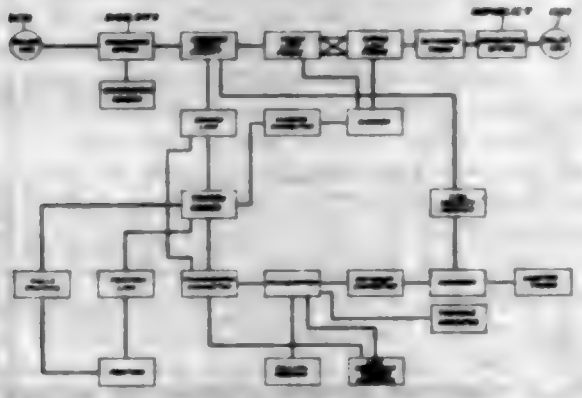
pay station with said exchange, said pay station including a coin chute, a contact means within said chute actuated by a coin passing through the chute, a movable blocking nose mounted and biased to extend into said chute to block the passage of a coin therethrough and electromagnetic means for controlling the passage of a coin through the chute coacting with said nose to withdraw the nose from the chute upon energization of said electromagnetic means; said exchange including a subscriber's meter for said pay station, relay means; relay contact means controlling the connection between said line and said exchange; means actuating said relay contact means at the beginning of each period of time for which a coin is to be deposited; an energizing circuit including said electromagnetic means, said line and said relay means; the actuation of said relay contact means disconnecting said connection and closing said energizing circuit, the resulting energization of said electromagnetic means causing withdrawal of said nose to free a coin inserted in said chute for passage therethrough to effect actuation of the chute contact means, the actuation of said chute contact means controlling said energizing circuit so as to operate said relay means included therein for restoring the connection between said line and said exchange, and an energizing circuit for said meter controlled by said relay means, said energising circuit for the meter being closed upon operation of said relay means by said chute contact means.

2,848,543

CALL DATA RECORDING TELEPHONE SYSTEM

Rolland N. Breed, West Caldwell, Orfeo Cesareo, Washington Township, Bergen County, and Charles E. Germanton, Summit, N. J., Robert W. Roberts, Albuquerque, N. Mex., and Lawrence A. Weber, Livingston, and Charles A. Wingardner, Chatham, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 19, 1954, Serial No. 463,182
28 Claims. (Cl. 179—7.1)



1. In a telephone system adapted for the automatic establishment of telephone connections through a tandem exchange between calling and called lines terminating in local telephone offices, said telephone offices being divided into a plurality of areas, each of said telephone offices having an identifying code, but with no two offices in the same area having the same code, means in said tandem exchange for automatically recording items of record information pertaining to each such connection, said means comprising registers for registering the identifying codes of both the calling office and the called office of a connection, means for recording items of record information pertaining to said connection, and means for rendering said recording means effective for a connection between a calling office and a called office in the same area only in the event that the registered identifying code of the calling office is different from the registered identifying code of the called office.

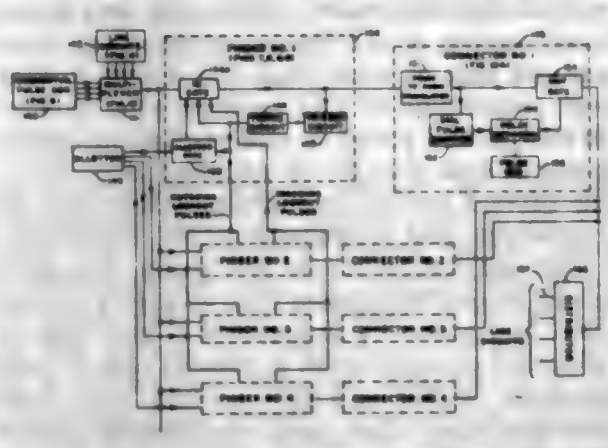
19. In a telephone system adapted for the automatic recording of items of record information included in an initial entry of two or more lines for each telephone connection established through a tandem exchange between a calling line and a called line in any two telephone offices of a plurality of such offices, said offices being divided into a plurality of designated areas, each of said offices having a code, but with no two offices in any one area having the same code, the offices in each area being divided in decades, with each decade connected by a designated trunk group with said tandem exchange, and with each office in the decade having a decimal index; the combination in said tandem exchange of storage devices operable to register the designations of said calling and called lines, including the codes of the two offices in which said lines respectively terminate, the designations of the areas in which said two offices are respectively located, and the designation of the trunk group over a trunk of which said calling line is extended to said tandem exchange, a recorder controller, a recorder individual to each of said trunk groups, a billing indexer responsive to the registration of said calling and called office codes, to the registration of said area designations, and to the registration of said trunk group designation for determining the decimal index of the calling office (office index), a decimal index indicating the charge rate for the connection (message billing index), and an arbitrary index indicating the character of the initial entry, means in said recorder controller responsive to all three determinations, and means responsive to said last-mentioned means for establishing an operative connection between said recorder controller and the recorder individual to said designated trunk group, thereby to operate said recorder under the control of said storage devices and said determination responsive means in said recorder controller to record the initial entry for the connection, including as part of said entry the determined office index and the determined message billing index.

2,848,544

ELECTRONIC SWITCHING MEANS

Robert B. Tremsdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application April 23, 1954, Serial No. 425,092
8 Claims. (Cl. 179—15)

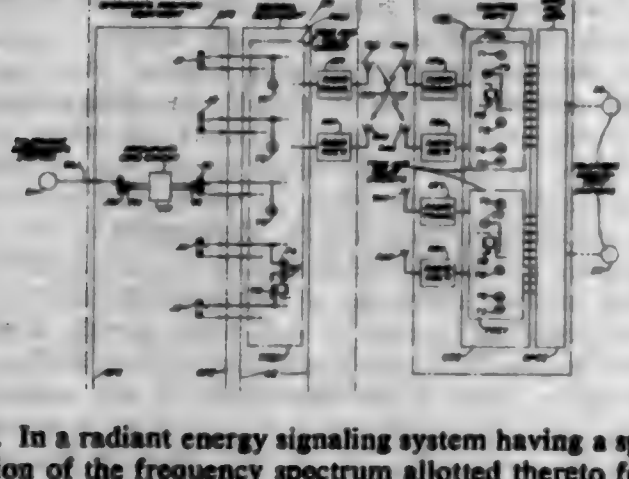


5. In a telephone system, a plurality of calling lines, a plurality of finders, each of said finders including a normally non-conducting electron discharge device, allotting means for successively enabling said finders for predetermined periods, means for unblocking said device during the enabled periods, means responsive to a calling condition on one of said lines for applying pulses at predetermined times to that discharge device which was unblocked by said allotting means whereby said discharge device is rendered conductive by pulses representing the calling line, and means utilizing said pulses for thereafter disabling said allotting means for the duration of the call and for disabling said discharge device for the duration of said predetermined period.

2,848,545
RADIANT ENERGY SIGNALING SYSTEM

Doren Mitchell, Martinsville, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application September 27, 1955, Serial No. 536,897
7 Claims. (Cl. 179—15)



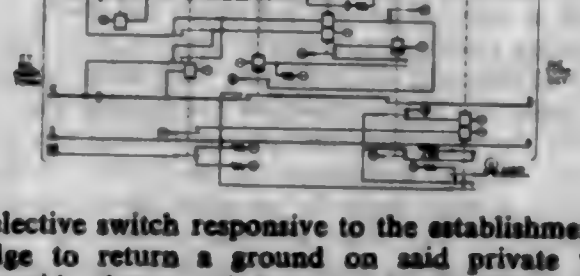
1. In a radiant energy signaling system having a specific section of the frequency spectrum allotted thereto for signaling purposes, said system comprising a network of signaling stations each having transmitting means adapted to transmit radiant energy carrier waves and receiving means adapted to receive radiant energy carrier waves, the method of establishing a point-to-point signaling path through said network from any one of said stations to any desired one of said stations, said method comprising dividing said allotted section of the frequency spectrum into a first half portion containing a first plurality of carrier frequencies and into a second half portion containing a second plurality of carrier frequencies, dividing said stations into a first group and a second group, at each station in said first group tuning the transmitting means to only carrier frequencies within said first portion of said allotted section of the frequency spectrum and the receiving means to only carrier frequencies within said second portion, at each station in said second group tuning the transmitting means to only carrier frequencies within said second portion and the receiving means to only carrier frequencies within said first portion, at any one of said stations such as at a first station in said first group of stations impressing only one of a plurality of assigned tones upon a selected one of said carrier frequencies within said first portion of said allotted section of the frequency spectrum, receiving said impressed tone at more than one station in said second group, responding to said received tone at only one station in said second group, at said responding station impressing one of said plurality of assigned tones upon a selected one of said carrier frequencies within said second portion, receiving said second-mentioned impressed tone at more than one station in said first group, responding to said received second-mentioned tone at only a second station in said first group by impressing at said station one of said plurality of tones upon a selected one of said carrier frequencies within said first portion, and repeating said above-mentioned steps until said desired station responds to one of said impressed tones.

2,848,546
ADAPTER CIRCUITS FOR MIXED TYPES TELEPHONE SYSTEM

William W. Pharis, Rochester, N. Y., assignor to General Dynamics Corporation, a corporation of Delaware

Application December 7, 1955, Serial No. 551,487
2 Claims. (Cl. 179—16)

1. In a telecommunication system, selector switches having terminals in their banks leading to a two wire talking circuit and a single private wire circuit, an adapter circuit connected to a set of said bank terminals and extending to a selective switch having a two wire talking circuit and a single private wire circuit, means for seizing one of said adapter circuits selected by one of said selector switches and for holding it busy by the application of ground to its said private wire, means responsive to said seizure to bridge the talking wires of said selective switch, means in each said selector switch for pulsing into said adapter circuit by battery pulses over one wire of said two wire talking circuit, means in said adapter circuit for translating said train of battery pulses into a train of open circuit pulses in a bridge established across said talking wires of said selective switch, means

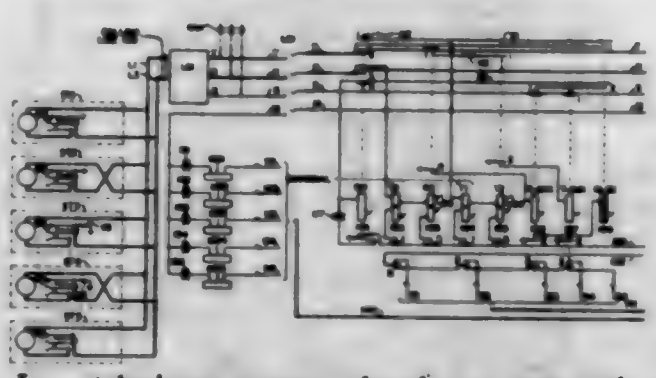


in said selective switch responsive to the establishment of said bridge to return a ground on said private wire, means in said selector switch responsive to release by a calling subscriber for releasing said ground connection to said private wire and for releasing said selector switch, means in said adapter circuit for immediately thereafter establishing a ground connection to said private wire terminal in the bank of said released selector switch, and means for maintaining said last ground connection under control of a called subscriber reached by said seized selective switch.

2,848,547
STATION-IDENTIFYING CALL-RECORDING TELEPHONE SYSTEM

Albert Hensel, Skokie, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland

Application August 11, 1955, Serial No. 527,709
9 Claims. (Cl. 179—17)

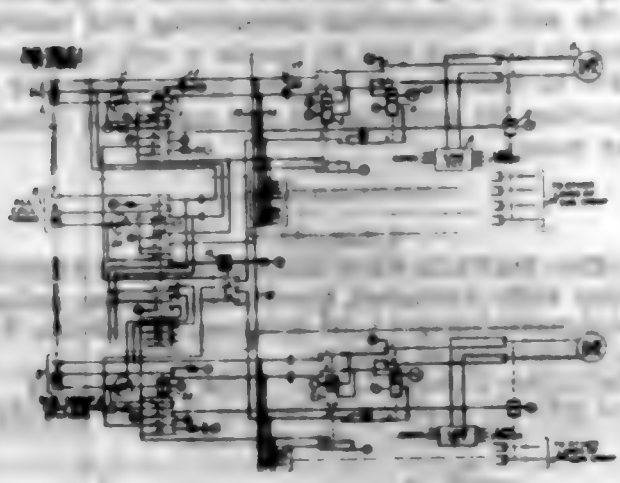


1. In a telephone system wherein an automatic telephone exchange serves two-conductor common-battery lines extending from the exchange to subscriber stations, with each station including a switch arranged to close and to open a series loop over the conductor of its associated line to initiate and to terminate a calling condition, and including a calling device arranged to produce successive series of momentary loop interruptions indicative of respective digits in the number of a line being called, certain of the lines being party lines each having at least a first station and a second station thereon, means providing a common conductor at each party-line station constituting a connection to the common battery at the exchange, means at each said station on any calling party line for making an identifying connection to a separate conductor of the associated line from the said common conductor during an interval when the calling device at that station produces a said interruption of the loop, means in the exchange controlled over any calling one of the said party lines for detecting the conductor to which the identifying connection is made, and station identifying means including the last said means.

2,848,548
CONFERENCE CIRCUIT

Ernest H. Gatnert, Rochester, N. Y., assignor to General Dynamics Corporation, a corporation of Delaware

Application December 1, 1955, Serial No. 550,387
8 Claims. (Cl. 179—18)



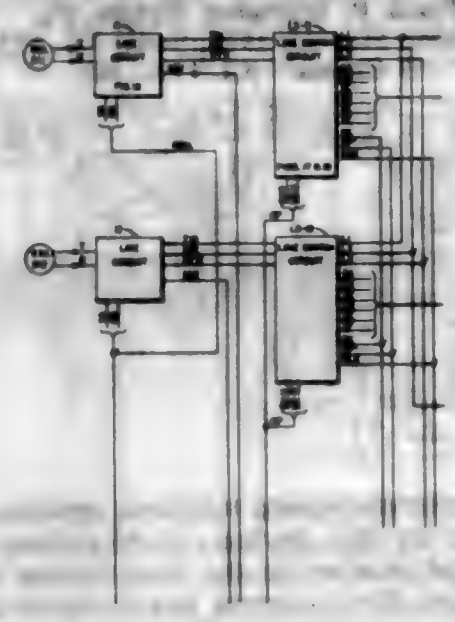
1. In a telephone system, a plurality of subscriber lines each having a conventional line circuit arrangement included in a conference group, a relay common to said lines and individual to said group, a conference circuit individual to each of said lines, means responsive to the initiation of a conference call for said conference group for operating said common relay, a cut-through relay common to said lines and individual to said group having means for disconnecting each said line from its said line circuit arrangement and for alternatively connecting each said line to its said conference circuit, a ringing circuit individual to each conference circuit, means controlled in response to the operation of said cut-through relay for connecting said ringing circuits to the corresponding lines to signal the subscribers thereat, a ring cut-off relay in each conference circuit operated in response to each subscriber answering said signal for disconnecting said ringing circuit, a battery feed relay individual to each conference circuit, said battery feed relay operated in response to the operation of its corresponding ring cut-off relay for feeding talking battery to the corresponding line, a circuit in each said conference circuit controlled by said battery feed relay therein for maintaining said common relays operated, and an individual locking circuit for each said ring cut-off relay controlled by its said associated battery feed relay extending during the operation of said battery feed relay individually therefrom and alternatively during release of said battery feed relay from said common relay.

2,848,549
ELECTRONIC TELEPHONE SYSTEM

Robert B. Tromsdale, Webster, and George Elliott, Rochester, N. Y., assignors to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application May 16, 1956, Serial No. 585,184
11 Claims. (Cl. 179—18)

1. In a telephone system, a plurality of lines, a plurality of directively controllable line selecting links common to said lines, a communication path individually associated with each of said links, a line switch for each line operable to connect its associated line to any one of said communication paths, a plurality of conductors fewer in number than said links connected in multiple to said line switches, means for applying line designation information from a particular one of said links to a respective unique combination of said conductors, and means in each line switch responsive to the receipt of line designation information corresponding to the designation of its associated line over said respective unique combination

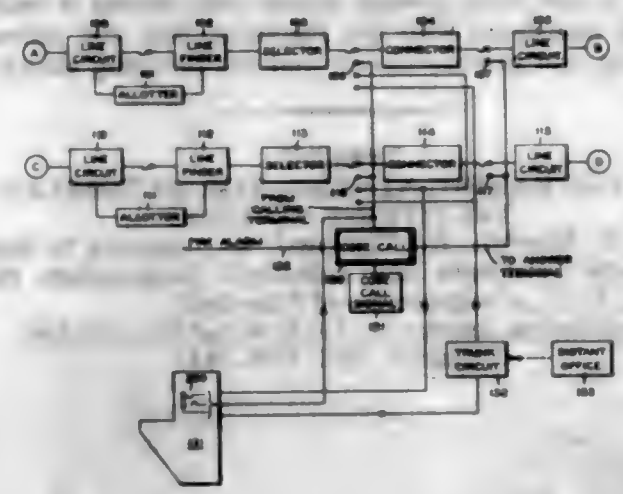


of conductors for connecting its associated line to the communication path of said particular link.

2,848,550
CODE CALL CIRCUIT

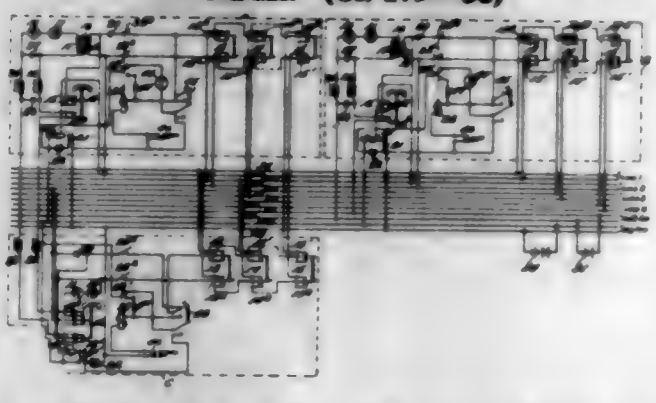
William W. Pharis, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware

Application February 3, 1956, Serial No. 563,219
8 Claims. (Cl. 179—18)



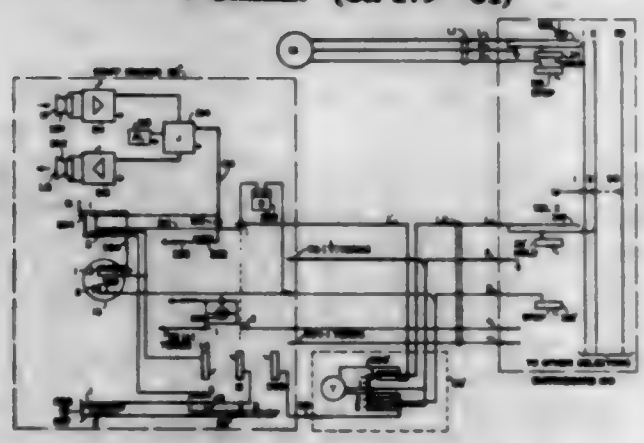
1. In a telephone system, means for controlling the transmission of code call signals, means for extending a calling line to said first named means, means for registering particular code call designations in said first named means responsive to receipt of signals from said calling line, means for transmitting distinctive code call signals in accordance with said registration of said particular designations, means for extending an answering line to said first named means for answering code calls, means responsive to said last named means for causing said first named means to halt the transmission of said distinctive code call signals, means responsive to an alarm condition for causing said first named means to transmit a general alarm, means also responsive to said alarm condition for releasing said calling line, means also responsive to said alarm condition for rendering said answering line ineffective, means also responsive to said alarm condition for marking said first named means as busy to other calls during said alarm condition, means for seizing said first named means during said alarm condition and means for causing said first named means to halt said transmission of said general alarm and to transmit an area alarm.

2,848,551
DIRECT CALL SECRECY INTERCOMMUNICATING TELEPHONE EQUIPMENT
Frank R. Mallalieu, Oxford, Pa.
Application May 31, 1955, Serial No. 512,139
7 Claims. (Cl. 179—38)



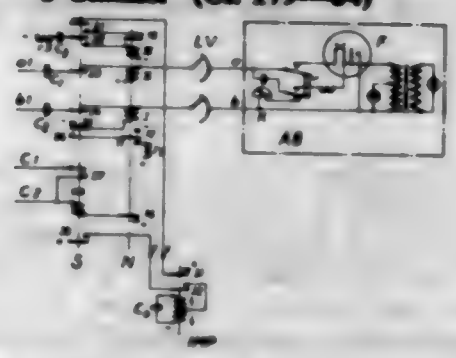
1. An intercommunicating telephone equipment of the direct call secrecy type having a local talking circuit, a transmitter and receiver in the local talking circuit, a common system direct current power source providing talking power, a power line to the common system direct current power source providing talking power and connected to the talking circuit, an incoming line, signal receiving means connected with the incoming line, a outward sigalling and privacy circuit, a common system direct current power source providing signalling power, a power line to the common system direct current power source providing signalling power and connected to the signal receiving means and to the outward signalling and privacy circuit, a selecting switch arranged to selectively connect with incoming lines of other equipments, in combination with a transformer having a first winding connected to the local talking circuit and having a second winding connected with the incoming line, the outward signalling and privacy circuit and the selecting switch.

2,848,552
LOUD-SPEAKING STATION FOR AUTOMATIC TELEPHONE SYSTEMS
Joseph F. Houdek, Jr., Elmhurst, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application August 11, 1955, Serial No. 527,694
7 Claims. (Cl. 179—81)



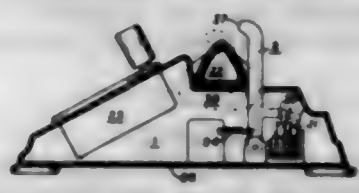
1. In a telephone station for use on a line of an automatic switching system, voice-current transmitting and receiving apparatus and means for operatively coupling it to the line, an impulse-sending device movable from and returnable to a normal position to generate a series of impulses for transmission over the line, relay means and means for actuating it responsive to the moving of the impulse-sending device out of its normal position, the relay means including contact means for imposing a calling condition on the said line before the said impulse generation occurs to thereby prepare for the effective transmission over the line of the generated impulses, the said means for operatively coupling apparatus to the line including contact means of the relay means, means for locking the said relay means to maintain it actuated after the said impulse-sending device has returned to its normal position, means for releasing the relay means to terminate the calling condition, a key having a normal position and two operated positions, means responsive to operation of the key to one said operated position for operating and locking the said relay means to operatively couple the said voice-current transmitting and receiving apparatus to the said line to receive a call, and means responsive to operation of the key to the other said operated position for actuating the said means for releasing the relay means.

2,848,553
RINGING DEVICE FOR TELEPHONE SYSTEMS
John Helge Willy Adamstedt, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application October 1, 1953, Serial No. 383,639
Claims priority, application Sweden October 3, 1952
3 Claims. (Cl. 179—84)



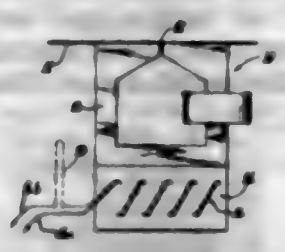
1. In a telephone exchange, in combination, a subscriber's station, a called line leading to said station, signalling and feeding circuit means connected with said called line, a central battery, a vibratory relay means including a feeding coil, a signalling coil and an interrupter contact, circuit means connecting said feeding coil in series with said battery and said line, and operating means for connecting said signalling coil, said interrupter contact and said battery in a series circuit causing said relay means to vibrate for supplying current pulses to said line, said feeding coil being connected for holding the relay means energized when the said station answers.

2,848,554
COMBINED CRADLE AND SWITCH ACTUATOR
Thaddeus W. Kacharski, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application January 13, 1954, Serial No. 403,833
5 Claims. (Cl. 179—100)



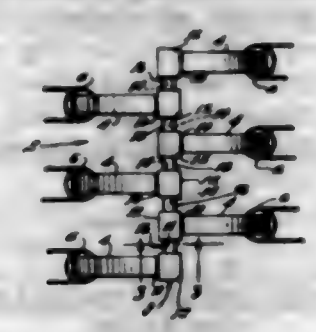
1. In a combination desk and wall type telephone subset, a telephone hand set, a housing assembly, a recess in said housing adapted to cradle said telephone hand set, an outstanding, elongated switch actuator positioned adjacent one side of said recess, means for pivotally mounting said switch actuator, said switch actuator being adapted to move on said pivot at an angle to said elongated dimension under the influence of said hand set when cradled, said housing and said switch actuator being shaped to cooperate in positioning said hand set in either of two positions, one of said two positions being displaced 90° with respect to the other of said two positions, a hook switch spring assembly, and means responsive to motion of said switch actuator for actuating said hook switch spring assembly.

2,848,555
MEANS FOR RECORDING
Marvin Camras, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois
Application January 25, 1954, Serial No. 405,892
2 Claims. (Cl. 179—100.2)



1. In a magnetic recording apparatus wherein a magnetic recording head having a magnetic core and certain functional components are required for carrying out the recording process, energization of said functional components causing said magnetic core to be heated, the improvement characterized by means for establishing an alternating flux in said core and heating means associated with said core and separate from the functional components for supplying heat to said core over and above that caused by energization of said functional components.

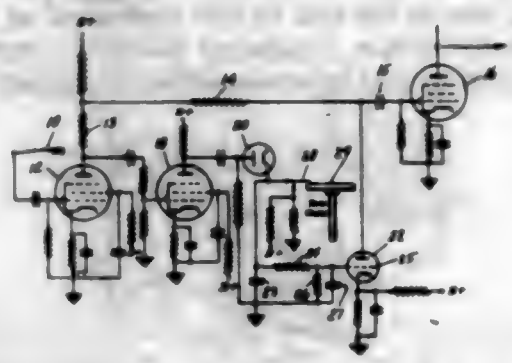
2,848,556
MAGNETIC RECORDING TRANSDUCER
Henry E. Roys, Haddon Heights, and Dallas R. Andrews, Collingswood, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application August 2, 1954, Serial No. 447,240
The terminal fifteen years of the term of the patent to be granted has been disclaimed
5 Claims. (Cl. 179—100.2)



1. A magnetic record transducer comprising a plurality of head units, each of said head units including a core member, a signal coil mounted on said core member and a magnetic flux return path member, said magnetic flux return path member being common to all of said head units, means defining signal gaps between each of said core members and said common flux return path member, said head units being arranged with adjacent gaps on opposite sides of said common return path member, and means associated with said common return path member providing a high magnetic impedance to transverse flux between adjacent head units, said last named means including a conductive member for establishing in response to said transverse flux a flux in opposition thereto.

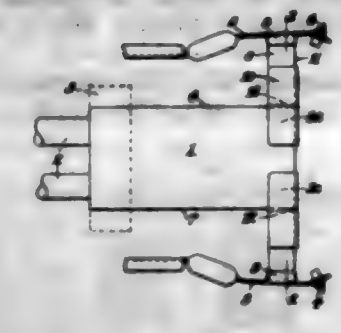
2,848,557
AUTOMATIC VOLUME LEVEL CONTROL FOR PHONOGRAPHS
John H. Riggs, Kenmore, N. Y., assignor to The Rudolph Wurlitzer Company, Chicago, Ill., a corporation
Application March 22, 1952, Serial No. 277,957
5 Claims. (Cl. 179—100.4)

1. In an automatic phonograph having an intermittently operated audio amplifier, an automatic level control circuit for providing a constant average volume level in the output of said amplifier comprising means connected in the output of a first stage of said audio amplifier for deriving a signal proportional to the signal level in said amplifier stage, an electron tube coupled between said signal deriving means and the input of a second stage of said audio amplifier and responsive to said signal voltage for predetermining the level of the input signal impressed on said



second stage, and a storage circuit operatively associated with the mechanism of said phonograph and controlled thereby to energize said electron tube during idle periods of said phonograph and to establish normal signal level in the input of said second amplifying stage during the initial period of operation of said phonograph.

2,848,558
PIEZO-ELECTRIC PICK-UPS
Roy Ernest Poulton, Swindon, England, assignor to The Garrard Engineering and Manufacturing Company Limited, Swindon, England
Application July 27, 1954, Serial No. 446,100
Claims priority, application Great Britain July 29, 1953
5 Claims. (Cl. 179—100.41)

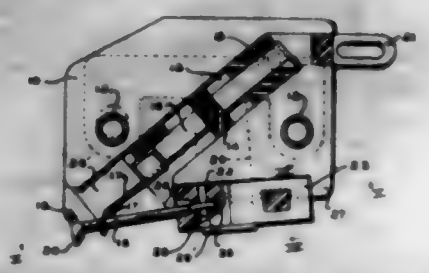


1. In a pick-up unit, a piezo-electric element mounted in a vertical plane for operation, a stylus, an arm carrying said stylus, said arm having a channeled socket, a clip rigidly connected to said piezo-electric element at a corner thereof, said clip having a channeled socket, the side walls of the respective channeled sockets of the arm and clip extending in the vertical plane, and means for coupling the piezo-electric element to the stylus, comprising a coupling bar of resiliently flexible material, whose pliability increases with increasing ambient temperature extending in the vertical plane and having its opposing ends entered into the respective sockets and rigidly clamped by the channeled walls thereof, to reduce the effective pliable length of the coupling bar to that portion thereof between the extremities of the channeled wall of the sockets clamping the same.

2,848,559
UNIVERSAL PHONOGRAPH PICK-UP CARTRIDGE
Maurice M. Palo, Conneaut, Ohio, assignor to The Astatic Corporation, Conneaut, Ohio, a corporation of Ohio
Application February 3, 1955, Serial No. 485,990
3 Claims. (Cl. 179—100.41)

3. In a phonograph pick-up cartridge of the type comprising a housing having a cavity therein, an electromechanical transducer mounted in said cavity, a stylus mounting member connected in operative relation with said transducer by a coupling member, said stylus mount-

ing member having a plurality of divergently related record groove engaging stylus tips at one end thereof, means to anchor the other end of said stylus mounting member with respect to said housing, means to rotate said means to anchor whereby said stylus mounting member is caused to rotate about its own axis for selectively presenting said tips in record engaging position, and means to restrict the side to side movement of said coupling member within preselected limits; the improvement characterized by said means to restrict comprising a mem-



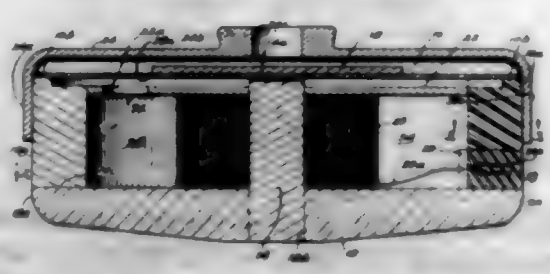
ber rotatively received in a recess integrally formed in said housing, said member adapted to receive and anchor said other end of said stylus mounting member, said recess having the forward and rear ends thereof at least partially blocked by abutment means formed integrally with said housing, said forward abutment means defining edge portions of integral raised lands partially enclosing said cavity, said lands having flat surfaces positioned on either side of said coupling member and adapted to restrict side to side movement of the latter.

2,848,560

HEARING AID RECEIVER

David E. Wiegand, Villa Park, and James E. Ancell, Chicago, Ill., assignors, by mesne assignments, to Beltone Hearing Aid Company, Chicago, Ill., a corporation of Illinois

Application September 20, 1954, Serial No. 457,144
6 Claims. (Cl. 179—115)



1. A receiver for a hearing aid comprising in combination: an annular axially magnetized permanent magnet having a circumferentially extending gap spanning its entire cross-section; a magnetic disc bridging one end of the permanent magnet and having a central pole piece extending within the confines of the permanent magnet to a point slightly short of the other end of the permanent magnet; a thin magnetic disc bridging the opposite end of the permanent magnet and carrying a magnetic disc of smaller radius at its center in registration with the pole piece; a voice coil encircling the pole piece; a non-conducting insert disposed in the gap and at its outer margin conforming to the shape of the magnet to define a smooth housing in conjunction therewith; and sockets embedded in the insert and connected to the coil to receive the connecting plug to the hearing aid.

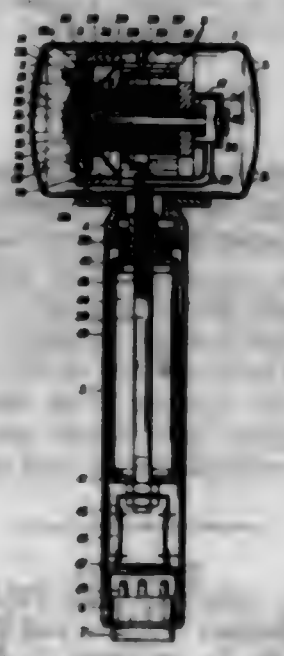
2,848,561

DYNAMIC MICROPHONE

Rudolf Görike, Vienna, Austria, assignor to Akustische u. Kino-Gerate Gesellschaft m. b. H., Vienna, Austria

Application December 8, 1953, Serial No. 396,827
Claims priority, application Austria June 2, 1953
10 Claims. (Cl. 179—115.5)

1. A dynamic microphone for transmitting a predetermined frequency range and responsive to front and rear sound fields; said microphone comprising, in combination, a vibrating system including a diaphragm exposed to the front sound field, means including the rear side of said diaphragm defining an air cushion, means defining at least two air spaces shielded from direct exposure to both said sound fields, means defining at least one duct of low frictional resistance which opens at one end directly into said air cushion and contains an air plug exposed to the rear sound field, said air spaces and said air plug in its entire length communicating with said air



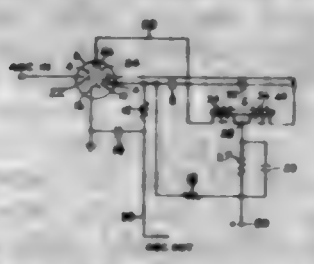
cushion and said air plug coupled only by said air cushion to the diaphragm, said air spaces constituting acoustic impedances different from each other, which together with the vibrating system provide resonance at frequencies distributed over said range, the length of said air plug is less than half the wavelength of the highest frequency of said range, the total air plug mass effective at the diaphragm together with said vibrating system forming an acoustic resonant circuit having a resonant frequency at least 100 C. S. below the natural frequency of said vibrating system.

2,848,562

AMPLIFIER FOR AUTOMATIC GAIN CONTROL VOLTAGE

Wolf J. Gruen, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

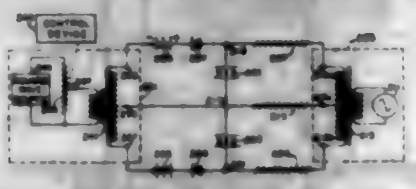
Application February 1, 1954, Serial No. 407,447
6 Claims. (Cl. 179—171)



1. An amplifier for increasing the amplitude of a negative voltage comprising in combination an electron tube having a cathode, a first grid, a screen grid, a third grid and a plate, a source of reference potential, means for connecting said cathode to said source, a filter comprised of a first resistor and a first condenser connected in series in the order named between said first grid and said cathode, a source of fixed potential that is positive with respect to said reference potential, a second resistor connected between said source of positive potential and said first grid, a tank circuit having a first and a second terminal and comprised of a third condenser and an inductance connected in parallel between said terminals, a fourth condenser connected between said first terminal

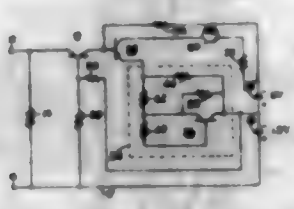
and said first grid, means for coupling said plate to said first terminal, means for coupling said second terminal of said tank circuit to said second grid, and means for coupling said source of positive potential to an intermediate point on said inductance of said tank circuit.

2,848,563
DIELECTRIC AMPLIFIER
Donald G. Scorgie, Forestville, Md.
Application April 29, 1954, Serial No. 426,612
1 Claim. (Cl. 179—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)



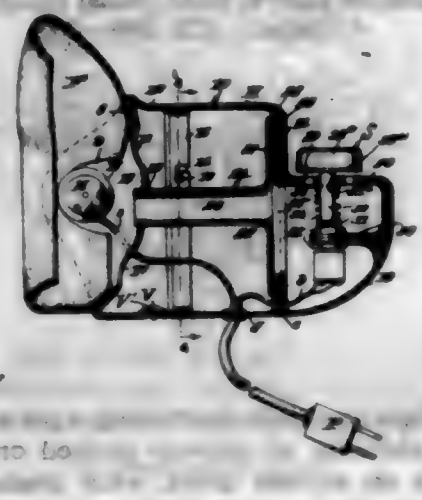
A dielectric amplifier comprising a pair of nonlinear capacitors possessing rectangular loop charge saturation characteristics, a load impedance, a split phase alternating voltage supply having an electrical neutral point, a pair of unidirectional elements, and a clamping control voltage supply having an electrical neutral point; said capacitors connected in series across said split phase source, said load being connected between the junction point of said capacitors and the electrical neutral point of said split phase source and the neutral point of said clamping control voltage source, one of said unidirectional elements connected between one end of said split phase source and one end of said clamping control voltage source, the other of said unidirectional elements connected between the other end of said split phase source and the other end of said clamping control voltage source, said unidirectional elements polarized so as to permit current to flow into the clamping control voltage source.

2,848,564
TEMPERATURE STABILIZED TRANSISTOR AMPLIFIER
Edward Keonjian, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application July 27, 1954, Serial No. 446,139
7 Claims. (Cl. 179—171)



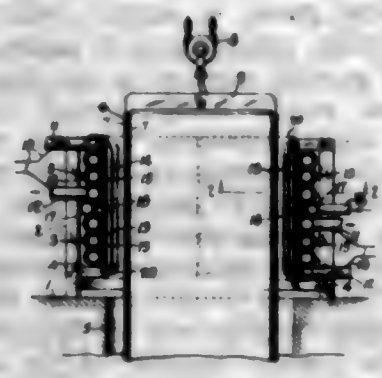
1. In a signal responsive device; a first solid state electric valve provided with at least two mutually reactive rectifying junctions associated with a first common base; a first network applying a potential across one of said junctions in the sense of minimum conductivity; a second network comprising a second solid state electric valve provided with electrodes forming at least two mutually reactive rectifying junctions associated with a second common base, a first resistor conductively connected between said junction electrodes, a second resistor conductively connected between one of said junction electrodes and said second base, and a third resistor conductively connected at one end with the junction between said first and second resistors; and means including said second network for applying a potential across the other of said junctions in said first solid state electric valve in the sense of maximum conductivity in which the points of conductive connection to said second network are at the free end of said third resistor and the other of the junction electrodes of said second solid state electric valve.

2,848,565
SOUND PROOF MASK FOR HAND MICROPHONE
Horace L. Webb, Fairfax, Va.
Application June 4, 1954, Serial No. 434,414
8 Claims. (Cl. 179—188)



5. A sound receiver of the class described comprising a casing in displaceable sections, two wall means in spaced relation carried by the sections, one of the wall means being a diaphragm, one of the wall means being provided with an opening, a microphone associated with said diaphragm, an air duct primarily for inhalation of atmospheric air open at both ends disposed within the casing carried by one of said wall means and extending removably into said opening thus providing a space within the casing between said diaphragm and said other wall means to establish communication between said duct and the atmosphere outside of said space adjacent to said other wall means, said diaphragm having an exhalation opening therethrough to said space, and one of said sections having an exhalation opening leading from said space to the atmosphere.

2,848,566
INDUCTION HEATING APPARATUS FOR FUSING VITREOUS ENAMEL
Eugene J. Liimpel, Fox Point, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application February 1, 1954, Serial No. 407,546
8 Claims. (Cl. 219—10.49)



1. Apparatus for firing a vitreous enamel to a steel article, comprising an induction heating element, means to energize said element and induce a current in said article to heat the same to a temperature sufficient to fuse the vitreous enamel coating to the steel article, means for reflecting the heat radiated from the article back toward the article, said metal being selected from the group consisting of aluminum, silver, gold and copper and means to cool the reflective surface to prevent oxidation and tarnishment thereof.

2,848,567
MULTIPOINT SWITCH
Roydan F. Estoppey, Berkeley Heights, and Frederick M. Bender, Union, N. J., assignors, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey
Application June 6, 1955, Serial No. 513,484
4 Claims. (Cl. 200—11)



1. A multipoint switch comprising a plate of insulating material, a plurality of contacts printed on one face of said plate in an arcuate array, each contact being disposed adjacent the contact next in sequence, relatively elongated and narrow leads printed on said plate and extending from the several printed contacts to terminal areas, said plate being provided with holes therethrough at said terminal areas of the leads, a blade with contact areas angularly and radially spaced for cooperation with said contacts, and means supporting said blade for movement on said plate and about an axis for selective engagement with said contacts.

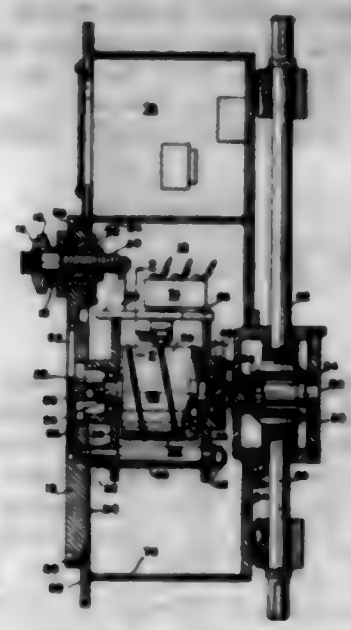
2,848,568
VARIABLE CIRCUIT CONSTRUCTION DEVICES AND SWITCHES THEREFOR
Edmund C. Berkeley, Newtonville, Mass., and Edward Kahan, New York, N. Y., assignors to Berkeley Enterprises, Inc., New York, N. Y., a corporation of New York
Application March 12, 1956, Serial No. 571,001
16 Claims. (Cl. 200—11)



1. A perforated panel, a second perforated panel, means for movably mounting said second perforated panel in spaced parallel relation to the first panel, said first and second panels being formed with equally spaced rows of aligned openings, a switch wiper, means extending through an opening of the first panel for attaching the switch wiper to the first panel, said switch wiper including a spring arm corrugated to form a channel, and a contact member on the second panel, means for attaching said contact member to the second panel and extending through one of the openings in the second panel, the contact member on the second panel having a transversely curved portion adapted to snap into the channel of said spring arm.

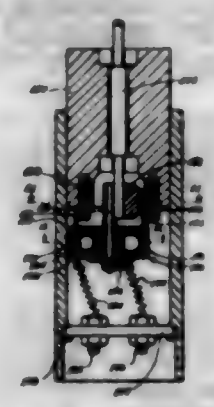
2,848,569
AUTOMATION CONTROL DEVICE
Richard Y. Moss and Stanley H. Durbin, Canton, Ohio, assignors to E. W. Bliss Company, Canton, Ohio, a corporation of Delaware
Application May 10, 1955, Serial No. 507,224
8 Claims. (Cl. 200—37)

1. In an automation control device for use in combination with machines having repetitive cycles of operation such as industrial presses and the like, the improvement comprising: a base plate; a shaft rotatably mounted in said base plate to extend normally therefrom; a helical cam secured to said shaft for rotation therewith; a plurality of ways secured to said base and disposed radially about said helical cam, said ways projecting outwardly from said base parallel to the axis of rotation of said heli-



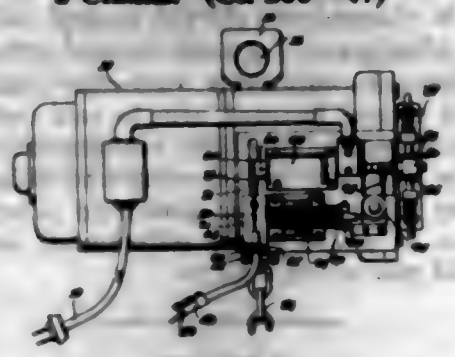
cal cam; a like plurality of switching elements slidably secured in said ways; switching element adjusting members mounted in said base plate to extend normally therethrough for engagement with adjacent switching elements, whereby said switching elements are axially positionable individually with respect to said helical cam for actuation thereby in a predetermined sequential order.

2,848,570
HIGH SPEED ROTARY ELECTRIC SWITCH
Howard W. Cole, Jr., Mountain Lakes, N. J.
Application June 4, 1954, Serial No. 434,571
8 Claims. (Cl. 200—32)



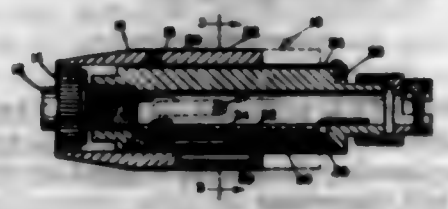
1. A rotary switch for supplying multi-phase pulses of current to a circuit, said switch comprising a rotatable support with an axle extending in a direction parallel to but offset from the axis of rotation of the support, a housing on the axle and within which the axle is free to turn as it moves the housing with an orbital movement around the axis of rotation of the support, means for preventing rotation of the housing during such orbital movement of the housing, the housing having an annular chamber therein and electrical conductors located at angularly spaced regions around the annular chamber and around the wall of the chamber which is at the outside of the annular space enclosed within the chamber, and an electrical conductor housed within the annular chamber and movable around the annular chamber by centrifugal force as the chamber is moved rapidly around the orbit described by said axle.

2,848,571
REMOTE MANUAL SWITCHING MECHANISM FOR ELECTRIC HOIST
Charles Carroll, Danville, Ill., assignor to Duff-Norton Company, Pittsburgh, Pa.
Application July 9, 1956, Serial No. 596,563
8 Claims. (Cl. 200—47)



1. For use with an electric hoist driving a flexible tension member with load engaging means at the end thereof, a remote switching mechanism comprising, in combination, a motor control switch having "up," "down," and "off" positions, yieldable means urging said switch into the "off" position, a hand control unit, a cable and associated sheath secured to the hand control, a shift on the hand control coupled to the cable, bracket means on the hoist anchoring the cable sheath to the hoist, a switch link pivoted to the hoist and adapted to actuate the hoist control switch when pivoted, a limit bar pivoted to the hoist, means on the limit bar for engaging the load engaging means when the load approaches the hoist thereby shifting the limit bar, link means coupling the limit bar to the switch link, and means coupling the cable with the switch link thereby translating the operator's motion of the hand control shift into an actuation of the power control switch and similarly translating the actuation of the limit bar back to the operator's hand control shift.

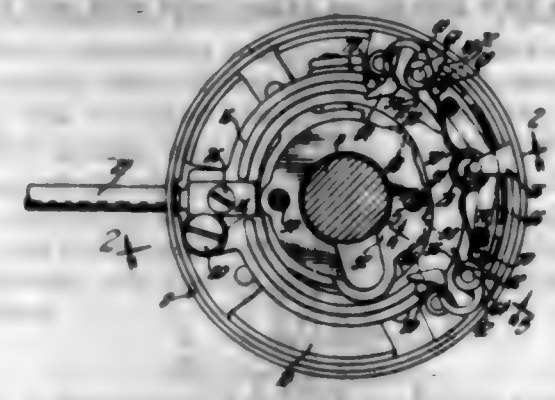
2,848,572
ELECTRICAL DISCONNECT PLUG
William G. Wagneck, Paramus, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application March 6, 1957, Serial No. 644,343
3 Claims. (Cl. 200—50)



1. An electrical plug having a cylindrical body, electrical contact means in said body, a sleeve slidably mounted on said body and movable from a position covering said contact means to another position exposing said contact means for connection, an electrical switch means in the body to control an electrical relay for supplying electrical power to the plug, and magnetic means carried by the sleeve for operating the switch means and thereby the electrical relay to disconnect the power from the electrical plug upon movement of the sleeve to a position exposing said contact means.

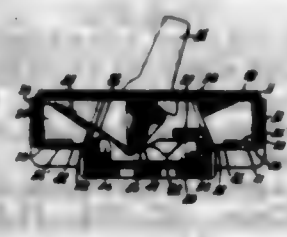
2,848,573
DIRECTION SIGNAL SWITCH MECHANISM
Edward L. Barcus, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 31, 1954, Serial No. 453,404
9 Claims. (Cl. 200—61.34)

1. A direction signal switch operating mechanism comprising a housing, a ring pivotally mounted in said housing for movement from a neutral position to operating positions at opposite sides of said neutral position, a pair of flexible pawls pivotally and directly mounted on



said housing, cam means movable in a circular path, and means carried by said ring for rotatably positioning said pawls for engagement by said cam means.

2,848,574
SLOW MAKE AND BREAK SWITCH
Philip Hutt, Milford, and Edwin G. Wilmot, Fairfield, Conn., assignors to General Electric Company, a corporation of New York
Application August 30, 1954, Serial No. 452,926
6 Claims. (Cl. 200—68)

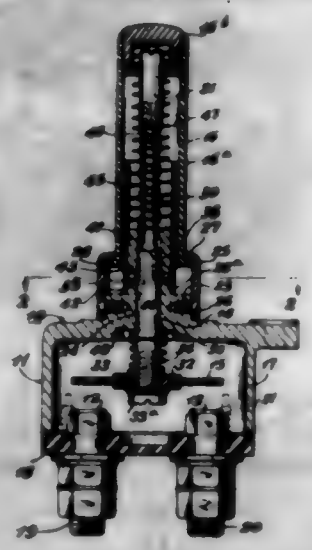


1. An electric switch comprising a recessed body member with a cover member for forming a hollow housing, the housing containing at least one fixed contact that is normally biased into engagement with a movable contact, each contact having a terminal end to which a lead wire may be connected, openings formed through the back wall of said housing to accommodate the terminals of said contacts, the said terminals lying within the openings and being supported on a side ledge of their respective opening, upwardly inclined strut members formed on each contact to be in engagement with the underside of said cover so that each terminal is held seated on said ledges by the downward force supplied by the cover while the opposite edge of each of the terminals is held against an overlying stop member of the housing, and a trigger pivotally supported in said housing for holding the movable contact away from the fixed contact.

2,848,575
ELECTRIC SWITCH
Elmer H. Hahn, Jr., Cleveland, Ohio, assignor to The Leece-Neville Company, Cleveland, Ohio, a corporation of Ohio
Application November 29, 1956, Serial No. 625,014
10 Claims. (Cl. 200—77)

1. In an electric switch, a housing having a guide passage therein, stationary contact means in said housing, a shaft axially movable in said guide passage, movable contact means engageable with and disengageable from said stationary contact means by switch closing and switch opening axial movements of said shaft, actuating means for imparting the switch closing axial movement to said shaft, spring means subject to loading in response to the switch closing actuation of said shaft and to partial unloading during movement of said actuating means in the switch opening direction, said shaft having a shoulder thereon, contractible means engageable with said shoulder for temporarily restraining said shaft against switch

opening movement thereof, and bevel means responsive to the loading of said spring means and being axially shiftable by the latter for contracting said contractible means into such restraining engagement with said shoul-



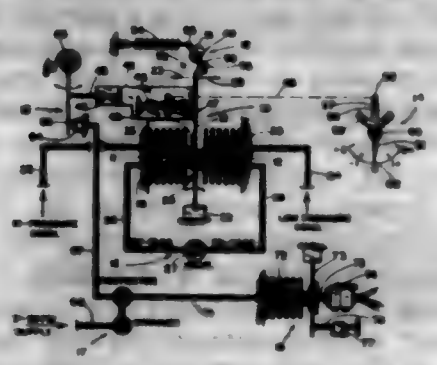
der, said contractible means being expandable by said shoulder in response to the partial unloading of said spring means for releasing said shaft for a quick switch opening actuation of the shaft by said spring means.

2,848,576

ELECTRO-PNEUMATIC DIFFERENTIAL PRESSURE SWITCH SYSTEM

John H. Bolton, Pointe Claire, Quebec, Canada, assignor to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts

Application April 2, 1956, Serial No. 575,453
1 Claim. (Cl. 200—81.5)



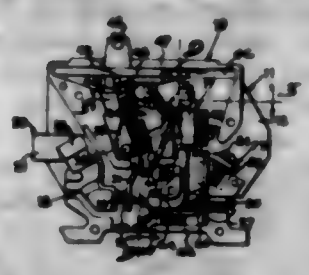
A differential pressure switching system wherein a small force as produced by the opposition of large pressures is substantially amplified comprising, in combination, a flexured arm, a pair of matched and balanced bellows mounted against said arm and in operative opposition to each other for producing a small unbalance force from the opposition of two relatively very large pneumatic pressures in said bellows, a pneumatic by-pass connection from one to the other of said pair of bellows for use in balancing said bellows against each other and a shut-off valve in said connection for closing said by-pass during the operation of said switching system, means for adjustably varying the effective lever length of said flexured arm between the flexure point thereof and the point of effective force application of at least one of said bellows to said flexure arm, a pneumatic amplifier nozzle-baffle system for applying a large amplication factor to said small unbalance force, a first mechanical connection between said flexured arm and an operatively movable portion of said nozzle-baffle system, means for adjustably varying the length of said first mechanical connection, an indicator device for indicating the value of said small unbalance force, a second mechanical connection between said flexured arm and said indicator device, means for adjustably varying the length of said second mechanical connection, a mechanical linkage amplification system involving said flexured arm and said operatively movable portion of said nozzle-baffle system for adding to said pneumatic amplification of said small unbalance force, an output bellows arranged for pneumatic actuation by the output of said pneumatic amplifier system in a movement-force combination in representation of said small unbalance force, a second flexured arm arranged to be engaged and moved by said output bellows, means for adjusting said second flexured arm against said output bellows to adjustably vary the force of opposition of said second flexured arm to said output bellows, and a mechanically operable calibration test device mounted for engaging and moving said differential pressure bellows flexured arm in simulated representation of small forces as produced by differentials between pressures in said pair of bellows.

2,848,577

CIRCUIT BREAKER

William H. Middendorf, Covington, Ky., assignor to The Wadsworth Electric Manufacturing Company, Inc., Covington, Ky., a corporation of Kentucky

Application August 2, 1956, Serial No. 601,783
18 Claims. (Cl. 200—88)



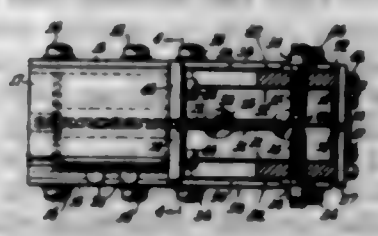
1. A circuit breaker comprising a housing, relatively movable contacts disposed within said housing, spring urged operating means for opening said contacts, current responsive tripping means effective to releasably latch said operating means and to release said operating means in response to an overload current, said tripping means comprising a thermally responsive bimetallic strip adapted to flex in a first plane and thereby cause release of said operating means, and a magnetic means including a magnetically permeable member carried by said bimetallic strip and effective to cause movement of said bimetallic strip in a second plane and thereby effect release of said operating means.

2,848,578

INVERTER FOR SMALL VOLTAGES

Knud J. Knudsen, Woodbury, Conn., assignor to The Lewis Engineering Company, Naugatuck, Conn., a corporation of Connecticut

Application August 24, 1955, Serial No. 530,249
11 Claims. (Cl. 200—90)



1. A device for changing small D. C. voltages on the order of 5 microvolts into pulsating voltage of the same magnitude comprising a coil connectible to a source of alternating current, a pivotally mounted armature oscillated by said coil, a pivotally mounted current-carrying contact arm connected to said armature for movement from and into electrical engagement with a fixed contact, said pivotal mounting of the contact and the armature each including a pivot pin with the pivot pins being in a plane which includes the mid-point of the path of movement of the contact, and means insulating both of

said contacts from said armature and coil to eliminate introduction of any significant spurious voltages during operation of the inverter.

2,848,579
POLARIZED RELAY

John L. Russell, Naugatuck, Conn., assignor to The Bristol Company, Waterbury, Conn., a corporation of Connecticut

Application May 1, 1956, Serial No. 581,984
13 Claims. (Cl. 200—93)

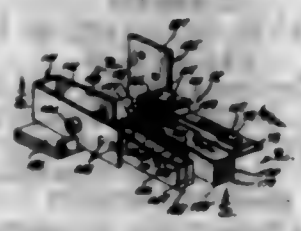


1. A polarized relay, comprising means including a polar structure defining a gap and for producing a constant magnetic field in said gap, a movable contact, a pair of stationary contacts each adjacent to and in position to be engaged by said movable contact upon displacement of the latter through an intermediate position, magnetic circuit means independent of said first mentioned means and including a deflectable armature extending in said gap for shifting said movable contact between said stationary contacts, said magnetic circuit means having a portion thereof remote from said gap positioned in close proximity with said polar structure and including said gap in common with said polar structure and being adapted to shunt the flux path across said gap asymmetrically and thereby bias said armature to maintain said movable contact normally in engagement with one of said stationary contacts, and means for producing a magnetic field flux along said armature in a direction opposed to the flux of said constant magnetic field whereby said armature is deflected to shift said movable contact away from said one stationary contact and into engagement with the other of said stationary contacts.

2,848,580
ELECTRICAL TIME DELAY SWITCH

Ralph W. De Lancey, Des Plaines, Ill., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware

Original application August 10, 1954, Serial No. 448,966. Divided and this application October 6, 1955, Serial No. 538,882
5 Claims. (Cl. 200—122)

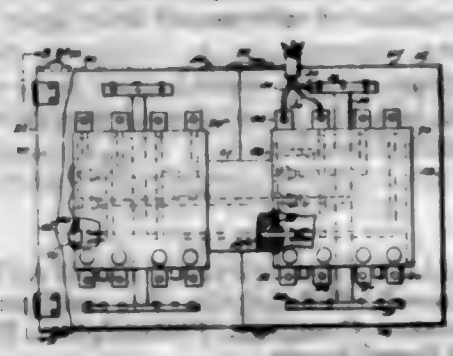


1. A temperature responsive switch comprising a U-shaped ambient temperature compensated bimetallic member, adjustable means attached to one leg of said U-shaped member for supporting it, a second bimetallic member carried by and spaced from the other leg of said U-shaped member, a heater disposed between said bimetallic members, an angle end on said second member, a pair of switch members cooperating with and held in closed position by cooperation with said angle end, electrical connections between said U-shaped element, the heater, the second bimetallic element and said switch members whereby the passage of an electric current will heat the heater and cause said bimetallic element to move out of cooperation with said switch members to open them and break the electric current, and manual means for reclosing said switch members.

2,848,581
ELECTRIC OUTLET OR FUSE BOX

Roy J. Oshkosh, Egg Harbor, and Bernard E. May, Sturgeon Bay, Wis.

Application October 16, 1956, Serial No. 616,347
1 Claim. (Cl. 200—133)

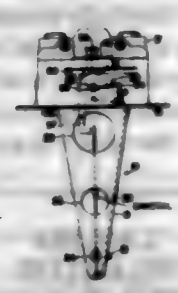


In combination, a pair of side abutting housings, each housing having an open side confronting the other housing, cooperating locking means including apertured lugs carried by one of said housings and recessed keepers carried by the other of said housings for locking said housings together, bus bars in each housing, each bus bar of one housing having an angularly disposed end projecting in the direction of the other housing, a pair of clamping jaws carried by the angular end of each of said bus bars in said one housing, the bus bars of the other housing including right angular bar portions in horizontal alignment with said clamping jaws, said latter named bars projecting from the open side of said other housing for engagement with said clamping jaws, a dielectric body encompassing said right angular bars, and terminals electrically associated with each bus bar.

2,848,582
CONTROL APPARATUS

Russell N. Booth, Lakeville, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application March 29, 1957, Serial No. 649,462
14 Claims. (Cl. 200—139)



1. Thermostatic control apparatus having a variable control point, the arrangement comprising, a housing having two side members, a bimetal element having a first end portion operatively secured to said housing, a manual adjustment member having an arcuate opening therein and having a portion operatively secured to a first of the side members of said housing, a first lever having a first end portion pivotally disposed in an opening in the second of the side members of said housing and hav-

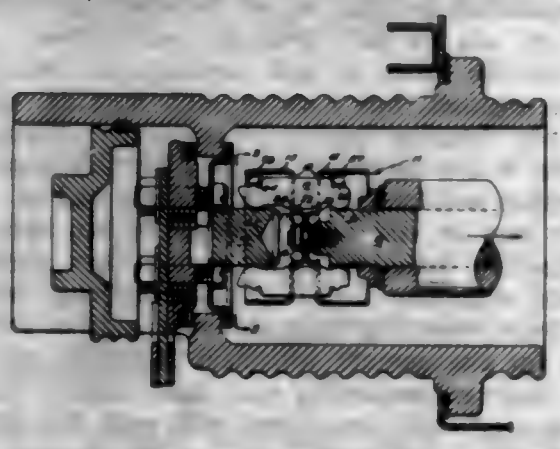
ing a second end portion disposed through the arcuate opening in said manual adjustment member and disposed in an oblong opening of said first side member, the arcuate opening in said manual adjustment member and the oblong opening in said first side member being so arranged that movement of said manual adjustment member results in oscillatory movement of said first lever about the first end portion of said first lever disposed in the opening of said second side member, a second lever operatively associated with and carried by so as to be oscillative with said first lever and so as to be rotatable about a longitudinal axis of said first lever, said second lever including a first portion in contact with a second end portion of said bimetal element so as to cause rotation of said second lever about the longitudinal axis of said first lever upon movement of said bimetal element, and a snap switch operatively attached to the side members of said housing and arranged with respect to said second lever so that the plunger of said snap switch is engaged by a second portion of said second lever and is actuated by rotation of said second lever upon movement of said bimetal element due to change in temperature or by movement of said second lever upon oscillatory movement of said first lever due to movement of said manual adjustment member.

2,848,583

PRIMARY DISCONNECT CONTACTS

Arthur S. Caswell, Philadelphia, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application December 12, 1955, Serial No. 552,614
4 Claims. (Cl. 200—163)



1. A primary disconnect contact for a circuit interrupter comprised of a housing and a plurality of finger contacts, said housing being comprised of a first section and a second section positioned back to back and each section having a plurality of radially disposed slots for receiving said plurality of finger contacts, a spring biasing means individual to each end of said finger contacts, each of said spring biasing means positioned within said housing; each of said finger contacts associated with two of said radially disposed slots; a surface of said radially disposed slots serving as a piovt point and stop to control the amount of finger deflection and load required to engage the assembled contact for said finger contacts.

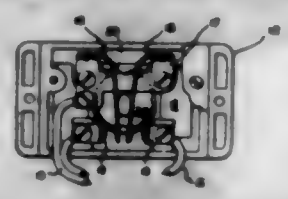
2,848,584

SELECTOR

Paul R. Goudy, Whitefish Bay, and Joseph J. Gribble, Fox Point, Wis., assignors to Square D Company, Detroit, Mich., a corporation of Michigan

Application September 14, 1955, Serial No. 534,348
13 Claims. (Cl. 200—166)

1. A selector switch comprising; an insulating base having a central recess, a chamber extending through a wall of said base forming a cylindrical wall in said base having a retaining flange projecting into said chamber at the outer edge, an opening taper on the inner edge of said chamber and a rectangular compartment opening into the chamber in the cylindrical wall opposing said taper, a pair of movable contacts, a pair of resilient contact supports aligned with said chamber for mounting the contacts to said base, a cylindrical indexing member seated for rotation in said chamber, an operator comprising an undercut oblong extension projecting axially from said member between said contact supports for operating said contacts; a detent spring having a peaked center section, laterally and arcuately extending side portions having opposing arcing end support portions loosely fitted into opposing lateral sides of said compartment



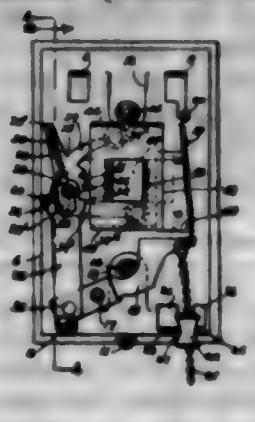
wherein the peaked center section extends into said chamber and the extreme ends are supported on a side of the compartment opposing said opening, recesses formed in the periphery of said indexing member cooperating with said spring to position said operator, said indexing member cooperating with the tapered edge of said chamber for inserting the member past the portion of the detent spring extending into the compartment and statically loading the spring through said peaked center section to deflect said spring and position the end portions into opposing adjacent corners of said compartment upon seating in said chamber.

2,848,585

LEVER ACTUATED, ELECTRIC SWITCH ADAPTERS

Horace W. Atkin, St. Vital, Manitoba, Canada

Application September 14, 1955, Serial No. 534,208
8 Claims. (Cl. 200—172)



1. In combination with a wall supported bracket and a lever actuated, electric, on and off, switch secured thereto, an adapter comprising, a casing secured to the bracket, a vertically shiftable plate within the casing, a mechanism mounted within the casing to shift the plate successively and alternately up and down upon said mechanism being actuated and a single pull chain extending downwardly from the casing and connected to said mechanism for mechanism actuating purposes.

2,848,586

NON-METALLIC ELECTRICAL HEATING ELEMENTS

Eugene Weiner, Cleveland Heights, and Donald E. Platt, Lakewood, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

No Drawing. Application September 9, 1953
Serial No. 379,313
10 Claims. (Cl. 201—63)

1. An electrical heating element having a central high-resistance portion and terminal low-resistance portions integral with said high-resistance portion, said portions

being composed of a binder selected from the group consisting of oxides of the second and third group elements of the periodic table and refractory metal silicides selected from the group consisting of the silicides of molybdenum, tungsten, tantalum, zirconium, niobium, titanium and mixtures thereof, said central portion comprising substantially equal portions by weight of the refractory metal silicide and said binder and said terminal portions comprising a major portion of said refractory metal silicide and a minor portion of said binder.

2,848,587

FIRE DETECTOR CABLE

Robert H. Postal, Clifton, N. J., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware

Application November 17, 1953, Serial No. 392,565
5 Claims. (Cl. 201—63)



1. A resistance-type temperature-responsive cable of indefinite continuous length comprising an impervious metal sheath and a spaced metal center wire having oxidized surfaces; means sealing said cable at the ends; a temperature-responsive material filling the space between said sheath and center wire, said material comprising predominantly an electronic non-stoichiometric oxidic semiconductor tending to release oxygen when heated and to recombine with available oxygen when cooled and having a temperature-responsive characteristic depending on the percentage oxygen content thereof, said semi-conductor being selected from the group consisting of the oxides of Co, Mn, Cr, Ni and Cr, said semiconductor comprising a plurality of semiconductive metal oxides of the same metal, said oxides having different percentage oxygen contents and being in a finely mixed pulverulent state compacted in said sheath into an essentially solid mass substantially impervious to diffusion of released oxygen gas therethrough when the cable is heated.

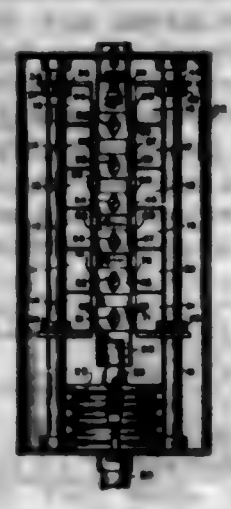
2,848,588

CONTROL SYSTEM FOR ELECTRIC HEATING

William C. Hackman, Silver Spring, Md., assignor to American Energetics Corporation, a corporation of the District of Columbia

Application June 29, 1956, Serial No. 594,815
8 Claims. (Cl. 219—20)

1. In a control for an electric heating system of the type having a plurality of electrically energized heating units, a plurality of control switches adapted to be operated for connecting electric energy to respective ones of the heating units, switch control means movable in a direction relative to said control switches in response to a rise in temperature of the heating system and normally out of engagement with said control switches, and demand means operative to respond to a temperautre of the heating system at or below a predetermined minimum value for moving said plurality of switches into the path of movement of said control means to engage and operate respective ones of said control switches depending



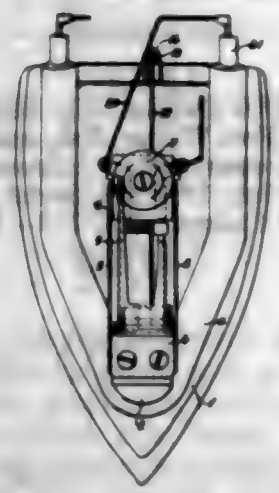
upon the position of said control means as determined by the temperature of the heating system.

2,848,589

ELECTRIC FLAT IRON WITH A THERMO-SWITCH

John Carlsen, Lyngby, Denmark

Application April 1, 1957, Serial No. 649,767
Claims priority, application Denmark April 7, 1956
3 Claims. (Cl. 219—25)



1. An electric flat iron comprising in combination a thermo-switch with two contacts; a first element of a high coefficient of expansion forming the bottom of said iron; a second element of a low coefficient of expansion in the shape of an elongated strip, mounted with its one-first terminal to the one-first end of said iron; a step-up leverage means, responsive to variations in expansion of said two elements, including a first pivoted arm, interposed between one-second end of said first element and the adjacent second terminal of said second element, said leverage means including a second arm pivotally mounted on said first arm for opening and closing said contacts automatically in response to variation in expansion of said two elements in excess of pre-set temperature limits and manually operated means to pre-set the automatic opening and closing of said contacts in response to predetermined temperatures, said manually operated means mounted to controllably displace the free end of said second arm.

2,848,590

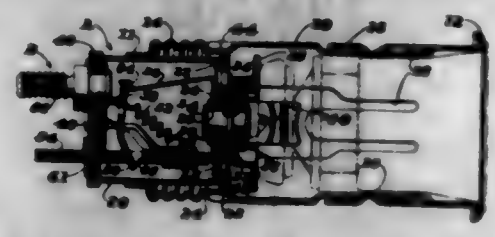
CIRCUIT BREAKER LIGHTER

Philip E. Ashton and Arthur W. Schnick, Meriden, Conn., assignors to Cune Engineering Corporation, Meriden, Conn., a corporation of Connecticut

Application October 9, 1956, Serial No. 614,948
10 Claims. (Cl. 219—32)

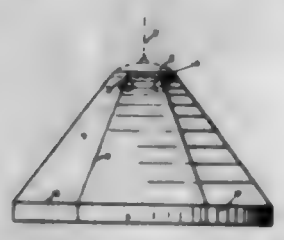
1. In a cigar lighter having a holder in which a removable plug having a heating element is adapted to be received and manually moved into a position to be heated;

a terminal in said holder having means thereon for engaging the plug when in such position so as to energize the heating element thereof to a normally-attained predetermined temperature; means defining a housing on said holder rearwardly of said terminal; a circuit breaker mounted in said housing comprising a thermally-responsive arm having a portion normally disposed in an operative position and movable into a release position in response to excessive temperature conditions and a movable arm having a portion resiliently urged into an



inoperative position out of engagement with said thermally-responsive arm in response to the movement of the latter into its release position; exposed means operatively connected with said movable arm within said housing and extending outwardly therefrom for moving said movable arm portion into an operative position in normally-retained engagement with said thermally-responsive arm portion; and means for electrically connecting said arms in series between said terminal and a source of electrical current.

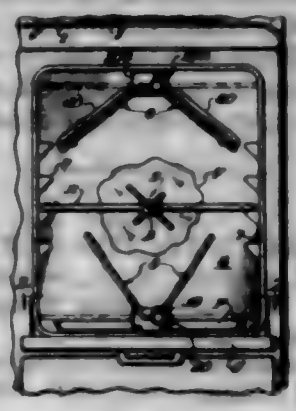
2,848,591
ENCLOSED INFRARED BROODERS
Robert B. Taylor, Fort Wayne, Ind., assignor to Rhinehart Development Corporation, a corporation of Indiana
Application July 19, 1954, Serial No. 444,046
14 Claims. (Cl. 219—35)



11. In a brooder with an infrared irradiation source above an occupancy zone for animals or fowl, the combination which comprises (*a*) an infrared radiation source above the occupancy zone, (*b*) a unitary, foldable plastic film canopy disposed around said infrared source and said occupancy zone, (*c*) a canopy supporting element attached to the upper part of said plastic film adapted to be attached above said irradiation source, (*d*) spacing means near the bottom of said plastic film canopy adapted to maintain said canopy in a predetermined distended configuration of substantialy panelled sides, and (*e*) at least one ingress-egress flap extending downwardly from a panelled side and adapted to provide communication with the occupancy zone.

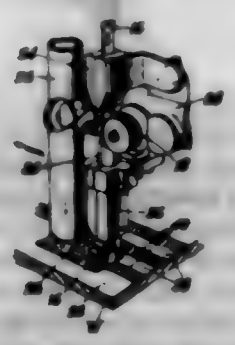
2,848,592
ADJUSTABLE HEATING UNITS FOR ELECTRIC RANGE OVENS
Frederick E. Mergen, Oak Park, Ill., assignor to General Electric Company, a corporation of New York
Application December 29, 1955, Serial No. 556,162
9 Claims. (Cl. 219—35)

1. An electric range or the like, comprising structure providing an oven cavity, a bearing structure fixed to a wall of said cavity, at least one electrical heating element disposed within said cavity, said heating element comprising a resistor insulatedly housed within a tubular metallic sheath formed to define an open structure of essentially flat, rectangular outline, a portion of said sheath extending parallel to and adjacent to a wall of said oven cavity, an end of said sheath portion entering said bearing structure for rotation therein, means secured to the opposite end of said sheath portion for pivotally mounting the same, whereby said heating element is pivotally supported



at two spaced locations for rotation relative to the said wall of said oven cavity, means for connecting the said resistor to a source of electrical energy, and means for securing said heating element in a desired angular relation to said wall.

2,848,593
STRIP METAL ARC WELDING
Arthur J. Newman and Jack L. Wilson, Niagara Falls, N. Y., assignors to Union Carbide Corporation, a corporation of New York
Application August 10, 1954, Serial No. 448,944
5 Claims. (Cl. 219—73)



1. Process of arc welding metal for surfacing a metallic base which comprises striking a metal fusing arc between the end of a non-tubular electrode consisting of a relatively thin and wide bare continuous flat strip of metal and the surface of a body of metal to be welded, the rest of said strip being carried by a reel, said strip being wide open and having a width-to-thickness ratio of at least 16:1 in cross section, simultaneously drawing such strip from said reel and continuously feeding such strip of metal in a rectilinear direction toward such arc as the end of the strip is fused by the arc which automatically travels back and forth across such end of the strip, maintaining its juncture with the surface of such body at the point of least resistance, and relatively moving the surface of said body and strip so that the major axis of the strip is perpendicular to the direction of the weld, whereby the metal of such strip is uniformly deposited on and welded to the surface of such body.

2,848,594
SOLDERING PIN AND THE LIKE WITH TWO OR MORE SOLDERING SETS
Karl J. Averstad, Lidingo, Sweden, assignor to Svenska Aktiebolaget Gasaccumulator, Lidingo (near Stockholm), Sweden, a corporation of Sweden
Application October 5, 1954, Serial No. 461,486
Claims priority, application Sweden July 3, 1954
1 Claim. (Cl. 219—99)

A soldering pin comprising a main metal part and an end contact part, said end contact part comprising at least two soldering metals in discrete formations, said

soldering metals having different melting points, both of said soldering metals having lower metal points than that of said main metal part, at least one of said melting points of soldering metals being sufficiently high to pro-



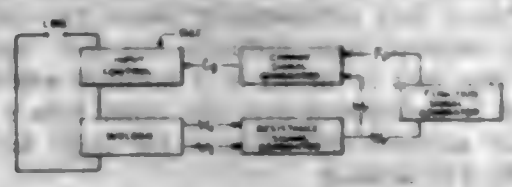
vide a fusion-delaying effect to insure effective heating of the member to which the pin is soldered, said discrete formations of soldering metals being disposed on one end of the main metal part with the soldering metal having the higher point more closely adjacent the main metal part.

2,848,595

RESISTANCE WELDING CONTROL

Herbert D. Van Sciver II, Merion Station, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application February 6, 1957, Serial No. 638,549
9 Claims. (Cl. 219—108)



1. The method of controlling a resistance welding operation on a workpiece which method comprises supplying an electric input to the workpiece until fusion of the workpiece material begins and then continuously adjusting the input rate during the operation to cause the resistance across the workpiece to follow a predetermined function thereof.

2,848,596

WELDING-ROD

Harald Strohmeier and Wilfried Mader, Kapfenberg, Steiermark, Austria, assignors to Gebr. Bohler & Co. Aktiengesellschaft, Vienna, Austria

No Drawing. Application July 22, 1955
Serial No. 523,931
Claims priority, application Austria August 2, 1954
1 Claim. (Cl. 219—146)

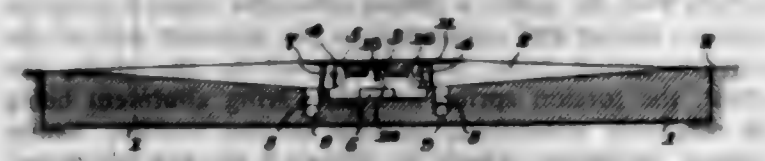
Welding rod consisting of a metal tube containing hard substances selected from the group consisting of hard metal and hard metal carbides in comminuted form, the tube being formed of a metal selected from the group consisting of aluminum, zinc and cadmium, and which is of a thickness to be completely burned up during welding by oxidation and combustion.

2,848,597

RUNWAY LIGHT

Lodewijk Frederik Arie Knottnerus, Amsterdam, Netherlands

Application October 29, 1956, Serial No. 618,729
Claims priority, application Netherlands March 13, 1952
9 Claims. (Cl. 240—1.2)



1. A runway light for positioning at the surface level of a runway comprising a light support, a source of directed light including a curved reflector means, said source of directed light mounted on said support, a cover plate on said support over said source of light and extending in the direction in which said light source is directed, a base sloping upwardly from said light support in the direction which said light source is directed from beneath the edge of said cover plate and below the level of said light source to a level immediately above the level of said light source, said base being elongated in the direction of its slope, and at least one web member integral with said sloping base extending along the length thereof from beneath the edge of said cover plate to the end of said base which is at a level above the level of said light source, said web projecting upwardly to the level between the edge of said cover plate over said base and the end of said sloping base which is above the level of said light source.

2,848,598

FLASHLIGHT WITH BATTERY LOCKING DEVICE

Richard E. Amlee, St. Paul, Minn., assignor to Gould-National Batteries, Inc., St. Paul, Minn., a corporation of Delaware

Application May 18, 1955, Serial No. 509,155
3 Claims. (Cl. 240—10.66)



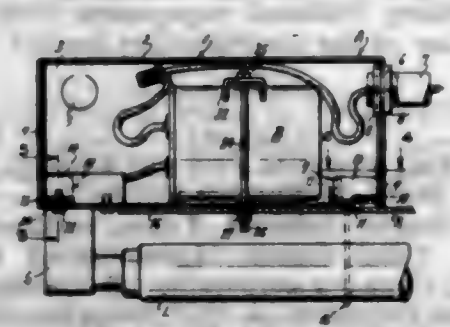
1. In a flashlight having an electric lamp, a rechargeable battery, a charging circuit and a discharge circuit including said battery and lamp, a casing containing said lamp, battery and circuits, said casing having a permanently closed end, an open end, a side opening and a removable closure for said open end, an improved battery locking device comprising, a clip having a rigid member projecting laterally between the battery and open end of the casing for confining the battery in said casing, said clip having a shank portion extending between the casing and a side of the battery, a lug projecting from said shank portion and normally engaging said casing in said side opening to retain said rigid member in confining relation to the battery in said casing and a switch housing covering said opening in said casing.

2,848,599

FLUORESCENT LIGHTING FIXTURES

Wilson A. Charbonneaux, Dayton, Ohio

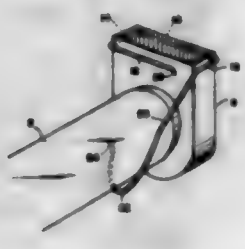
Application May 25, 1953, Serial No. 356,964
3 Claims. (Cl. 240—51.11)



1. A fluorescent lighting fixture comprising an open bottomed rectangular box having longitudinal and transverse side walls and a substantial flat top wall, said walls

being integrally connected together at their contiguous margins, a flat rectangular plate forming a closure across said open bottom, said plate being provided at two corners with upstruck elements, said plate furthermore having notches extending inwardly from opposite lateral margins adjacent said upstruck elements, a socket member mounted on the plate and extending downwardly therefrom when the plate is in closure-forming position, a circuit element mounted on the inner face of said plate for concealed disposition entirely within the box when the plate is in closure-forming position, flanges mounted on and extending inwardly from two opposed parallel side walls adjacent one end of the box and at the open end thereof and being in hinge-forming engagement with said notches, said upstruck element resting facewise against the inside faces of said flanges when the plate is in closure-forming position, said upstruck elements being movable out of facewise engagement with said flanges when the plate is swung downwardly out of closure-forming position so as to afford access to the circuit element, and means for releasably holding the plate in closure-forming position.

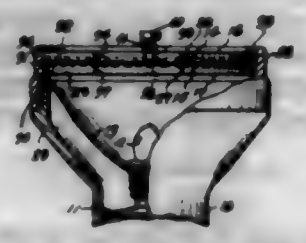
2,848,600
SAFETY GUARD FOR LAMP TUBES
Barney Roth, Philadelphia, Pa.
Application June 24, 1954, Serial No. 438,945
2 Claims. (Cl. 240—51.11)



2. In combination, a pair of vertical brackets mounted on a horizontal support, an elongated lamp tube positioned between said brackets and having its ends releasably connected to said brackets, and guard members releasably connected to said brackets, said guard members each comprising an upper loop substantially encircling the corresponding bracket, said loop having an end portion spaced from the adjacent portion of the loop, said end portion being defined by an angularly offset prong which is angularly transverse to the plane containing said loop, an arcuate support portion transversely underlying the adjacent portion of said lamp tube, said arcuate support portion being integrally connected to said loop by an intermediate portion in such manner that said loop is laterally offset relative to the plane containing said arcuate support portion, said arcuate support portion normally being free of the weight of the tube to hold said prong out of biting, frictional engagement with the adjacent surface of the corresponding bracket, and said arcuate support portion being actuatable by the weight of said tube to rock said loop to rotate said prong into biting frictional engagement with the said adjacent surface of the corresponding bracket.

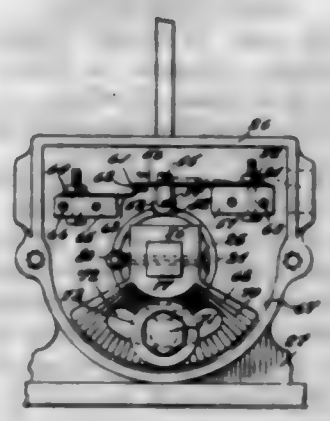
2,848,601
DOUBLE LENS SYSTEM FOR SECURING EITHER SPOT OR FLOOD EFFECTS
William H. Beach, Fairfield, Conn., assignor to The Bridgeport Metal Goods Manufacturing Company, Bridgeport, Conn., a corporation of Connecticut
Application December 14, 1955, Serial No. 553,082
3 Claims. (Cl. 240—106.1)

1. A lens system adapted for both spot and flood lighting from a light source and reflector at one side of the system, comprising a pair of superposed circular lenses arranged to be turned one relative to the other about a common central axis, both lenses being plain on one side and provided with a light diffusion pattern on the other, the diffusion side of each lens comprising a plurality of pairs of sectors of a circle composed of two different types of diffusion patterns arranged alternately and the diffusion pattern of one lens being the reverse of the other, the diffusion pattern of one sector of each pair of both lenses comprising circular alternate convex and



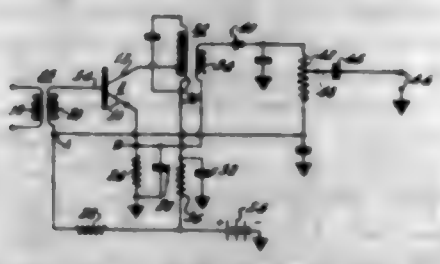
concave lenses, and the alternate sector of each pair of one lens comprising radial convex lenses, while the alternate sector of each pair of the other lens comprises radial concave lenses whereby when reversed patterns are superposed they substantially cancel out each other with greatly reduced light diffusion for spot light effect and when one lens is turned to a position where on type of pattern is superposed over the other type a substantially circular uniform diffusion of the light for flood lighting effect is secured.

2,848,682
DETECTOR FOR DRAGGING EQUIPMENT ON RAILROADS
Ernest K. Post, Collingswood, N. J., assignor to National Accessories Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 9, 1954, Serial No. 435,579
1 Claim. (Cl. 246—246)



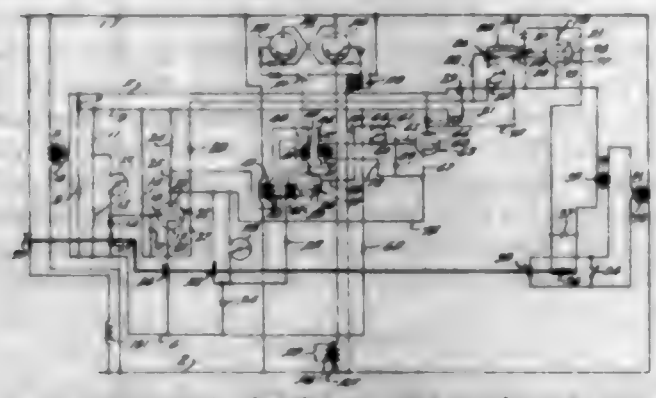
In a dragging equipment detector for a railroad track, a shaft extending across beneath the rails, generally horizontal bearings which pivotally mount the shaft and permit the same to turn, detector plates mounted on the shaft and extending upwardly so as to encounter dragging equipment when such is present, a torsion spring at one end of the shaft coaxial with the shaft, a spring anchorage for one end of the torsion spring connecting the torsion spring with the shaft, a spring abutment coaxial with the torsion spring and connected to the opposite end of the torsion spring from that connected to the shaft, the shaft, the torsion spring and the spring abutment being in relatively telescoping relation to one another, a segmental extension which is mounted on the abutment, extends radially outwardly and has an arcuate slot whose curvature is coaxial with the shaft, a bracket engaging one side of the segmental extension and bolt means extending generally parallel to the shaft axis through the arcuate slot in the segmental extension, holding the segmental extension in adjusted position against the bracket.

2,848,603
AUTOMATIC GAIN CONTROL SYSTEM
John B. Schultz, Glenolden, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application July 2, 1956, Serial No. 595,175
5 Claims. (Cl. 250—20)



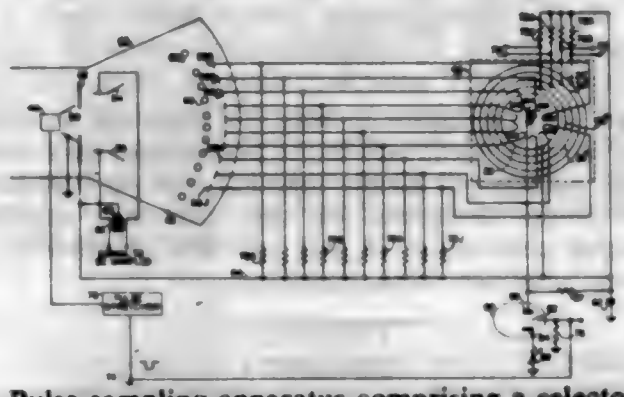
1. In a radio signal receiving system, the combination with a transistor intermediate frequency signal amplifier having a base, an emitter, and a collector electrode; transformer signal input means including a secondary winding connected with said base electrode for applying an intermediate frequency input signal between said base and emitter electrodes; tuned signal output means connected with said collector electrode for deriving therefrom an amplified intermediate frequency output signal; and stabilizing means including a resistor connected between said emitter electrode and ground; of a crystal diode detector having a pair of electrodes and coupled with said output means to detect an audio frequency signal and develop an automatic gain control potential in response to said amplified intermediate frequency signal; means including a volume control resistor direct-current conductively connecting one of the electrodes of said diode detector with said secondary winding; and means including said output means direct-current conductively connecting the other electrode of said diode detector with the junction of said emitter electrode and said resistor; said diode being poled in said circuit for forward conduction in a direction opposite to normal base-emitter current flow of said transistor and defining with the base and emitter electrodes of said transistor a series direct-current conductive circuit for applying said automatic gain control potential directly between the base and emitter electrodes of said transistor to the exclusion of said resistor and controlling the gain thereof in accordance with variation in the amplitude of said intermediate frequency signal.

2,848,604
WELDER CONTROL
Ernest G. Anger, Wauwatosa, and Robert C. Mierendorf and Clarence W. Porter, Milwaukee, Wis., assignors to Square D Company, Detroit, Mich., a corporation of Michigan
Application June 23, 1953, Serial No. 363,468
7 Claims. (Cl. 250—27)



1. In a control circuit, an electronic tube having a pair of principal electrodes and a control electrode, means for controlling the initiation of conduction through said tube comprising a capacitor, means connecting said capacitor to said control electrode, and one of said principal electrodes, a normally closed switch, a normally open switch, means for effecting operation of said switches, means for charging said capacitor through said normally closed switch, means for discharging said capacitor at predetermined rates through said normally open switch only after operation of both said switches whereby a timed period is determined, and means preventing conduction of said tube during momentary intervals during which both of said switches are in closed condition.

2,848,605
ANALOGUE-TO-DIGITAL CONVERSION USING CATHODE RAY SAMPLER TO CONTROL CATHODE RAY CODER
Saul Kuchinsky, Phoenixville, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application January 22, 1954, Serial No. 405,613
4 Claims. (Cl. 250—27)

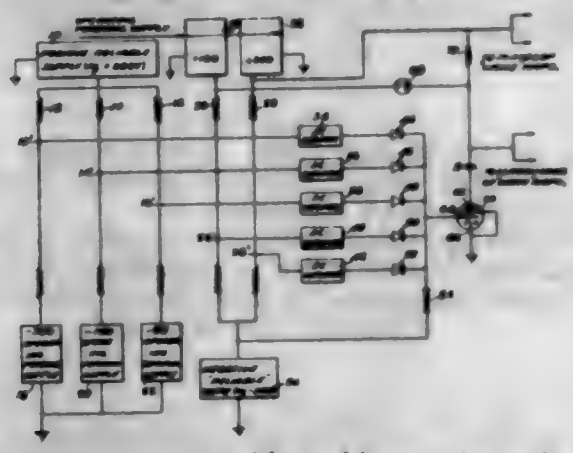


1. Pulse sampling apparatus comprising a selector tube including an electron gun for providing an electron beam, an array of individual output elements, said array of output elements being disposed in the path of said electron beam, means for deflecting said electron beam in response to variations of a signal to be sampled to cause said electron beam to impinge on selected ones of the output elements, a beam switching tube including an array of beam forming and directing electrodes, an electron emissive thermionic cathode disposed on one side of said array of electrodes, and a plurality of output electrodes equal in number to and disposed adjacent to but insulated from the electrodes of said array of beam forming and directing electrodes, respectively, and on the side thereof which is opposite to said cathode, each of said output elements of said selector tube being individually electrically coupled to a different one of said beam forming and directing electrodes, means including a separate impedance element connected between each of said beam forming and directing electrodes and a source of potential which is positive with respect to said cathode in order to lower the potential of the beam forming and directing electrode which is coupled to the output element of said selector tube upon which said electron beam impinges to thereby cause a stable electron flow between said thermionic cathode and the beam forming and directing electrode having said lowered potential, a portion of said flow being received by the associated switching tube output electrode, and means for momentarily extinguishing the electron beam in said beam switching tube while simultaneously sampling said signal in said selector tube.

2,848,606
ELECTRONIC PROTECTIVE DEVICE
Howard M. Zeidler, Palo Alto, Calif., assignor, by mesne assignments, to General Electric Company, New York, N. Y., a corporation of New York
Application March 11, 1954, Serial No. 415,658
8 Claims. (Cl. 250—27)

1. A protective system for a system including electronic amplifiers supplied with operating potentials from a positive and negative potential source, said protective system comprising a reliable positive potential source, a reliable negative potential source, a gas discharge tube having an anode, control grid and cathode, means coupling said

positive operating potential source with said reliable negative potential source and said reliable positive potential source with said negative operating potential source, means coupling the control grid of said gas tube to desired potential points in said means coupling said operating



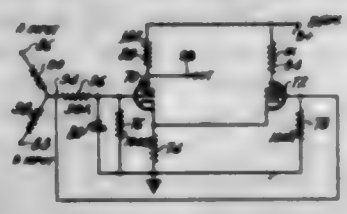
potential sources, means to bias said gas tube to be conductive only upon changes in the potential of said desired potential points, and means coupling said gas tube anode to the output electrodes of said electronic amplifiers whereupon conduction of said gas tube inactivates said electronic amplifiers from recording.

2,848,607

INFORMATION HANDLING SYSTEM

Irving Maron, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 22, 1954, Serial No. 470,296
13 Claims. (Cl. 250—27)



1. An electronic circuit having two input terminals and an output terminal for producing an output signal voltage of one type when the signal voltages at said input terminals are each greater than or are each less than a reference potential, and for producing an output signal voltage of another type when the signal voltage at one of said input terminals is greater than and the signal voltage at the other of said input terminals is less than said reference potential comprising a first and a second electron control device each having anode, cathode, and control electrodes, a common cathode impedance coupled at one terminal to said cathodes, input means including a first input terminal for coupling an input signal voltage greater or less than said reference potential to said first device, said input means including a second input terminal for coupling a second input signal voltage greater or less than said reference potential to said second device, means coupled between said first device control electrode and another terminal of said impedance for preventing the voltage at said first device control electrode from rising substantially above the voltage at said another impedance terminal, and means connected to said first device anode for deriving output signals.

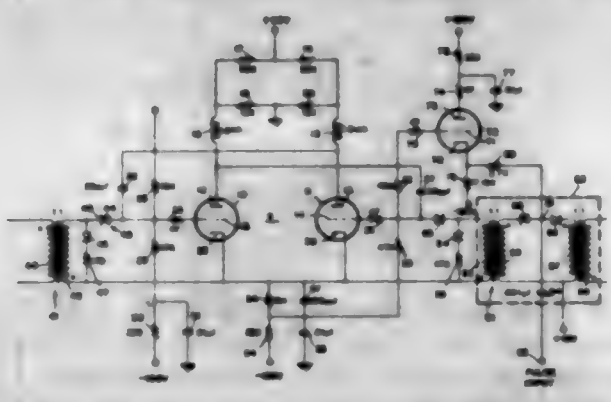
2,848,608

ELECTRONIC RING CIRCUIT

Raymond E. Nienburg, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application December 8, 1954, Serial No. 473,874
8 Claims. (Cl. 250—27)

1. A ring circuit comprising a plurality of adjacent stages, each stage including at least a flip-flop and an associated passive network, said flip-flops having two input circuits and an output circuit, each of said passive networks having two parallel branches, one of said parallel branches of each of said passive networks being coupled to one of said input circuits of its associated flip-flop, the



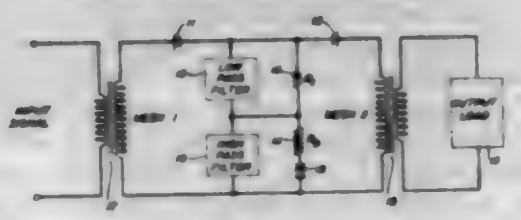
other of said parallel branches being coupled to one of said input circuits of a flip-flop in an adjacent succeeding stage, a source of pulses, coupling means for coupling the potential from said output circuit to said passive network, coupling means for coupling said source of pulses to all of said passive networks.

2,848,609

AMPLITUDE MODULATION LIMITING CIRCUIT

Clyde L. Ruthroff, Fair Haven, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 7, 1956, Serial No. 570,810
13 Claims. (Cl. 250—27)



1. In a frequency modulation transmission system capable of propagating a frequency modulated carrier signal upon which has been impressed an amplitude modulated noise signal, an amplitude modulation limiter circuit comprising two diodes disposed with their like electrodes connected, means for biasing said diodes, whereby at all signal levels greater than the biasing level afforded the diodes said diodes each demodulate a portion of the A.-M. noise signal from the F.-M. carrier at respectively different halves of the signal cycle, said demodulated portion of the A.-M. signal constituting a new and distinct baseband signal whose frequency is equal to the difference between the carrier frequency and that of the amplitude modulated side-bands, two resistors in a series relationship disposed across said limiter circuit between said two diodes, a low-pass filter shunting the first of said two resistors, a high-pass filter shunting the second of said two resistors, whereby said demodulated baseband signal current flows through said second resistor but not through said first resistor while said carrier signal and side-band currents flow through said first resistor but not through said second resistor, said first resistor having a value of resistance different from that of said second resistor.

2,848,610

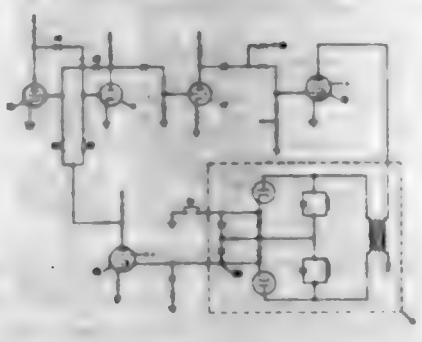
OSCILLATOR FREQUENCY CONTROL APPARATUS

William Leland Freienmuth, Gaithersburg, Md., assignor to Vitro Corporation of America, Verona, N. J.

Application May 25, 1953, Serial No. 356,935
1 Claim. (Cl. 250—36)

Oscillator control circuits comprising a free running multivibrator including two electron discharge tubes hav-

ing their plates cross-coupled by capacitors to their respective control electrodes, a pair of resistors each respectively connected to one of the control electrodes and to a common input terminal, the multivibrator being subject to random frequency variations and having a first predetermined frequency deviation gain in the absence of feedback, said multivibrator varying its frequency from a selected free running frequency in response to unidirectional voltage applied to the input terminal, a discriminator having a second predetermined frequency deviation gain, an amplitude limiter and power amplifier coupling the output of the oscillator to the input of the discriminator, said discriminator having a center frequency substantially the same as the free running frequency of the oscillator and producing a variable magnitude unidirectional feedback voltage at its output in response to varia-



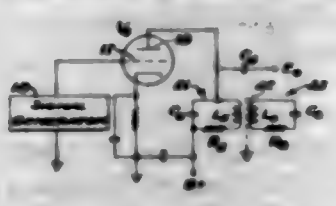
tions in said oscillator frequency, the product of said first gain and the reciprocal of said second gain having a value greatly in excess of unity, a direct current amplifier tube having its control electrode coupled to the discriminator output, a unidirectional control signal source, a pair of terminals connected in series with the discriminator output and the direct current amplifier control electrode, said terminals receiving the unidirectional control signal, and conductive means connecting the direct current amplifier output to the input terminal of the multivibrator for applying a composite unidirectional control voltage formed of the control signal and feedback signal to the input terminal to vary the oscillator frequency linearly from the selected frequency in accordance with changes in the control signal and to correct the random frequency variations.

2,848,611

PHASE STABILIZATION OF R. F. AMPLIFIERS AND OSCILLATOR CIRCUITS

Richard J. Bousek, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application July 23, 1953, Serial No. 369,930
2 Claims. (Cl. 250—36)



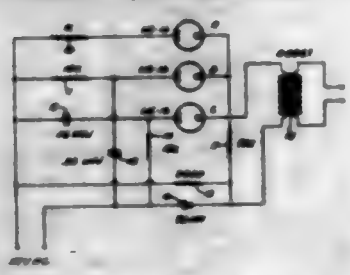
1. An oscillator circuit wherein phase shift may be controlled comprising, an electron tube, a frequency stabilizing element connected to one of the electrodes of said electron tube, a first resonant circuit comprising an inductor and capacitor connected in the output circuit of said electron tube, a dummy resonant circuit comprising a second inductor and a second capacitor having a resonant frequency the same as said first resonant circuit, the second inductor mutually coupled to the first inductor, said coupling being variable thereby varying the reflective impedance, and a capacitive shield mounted between the first resonant circuit and the dummy resonant circuit for shielding them capacitively while not interfering with the magnetic coupling.

2,848,612

COMPLEX NOISE GENERATOR

Ralph E. Allison, Pacific, Calif., assignor to Patent Management, Incorporated, Minneapolis, Minn., a corporation of Minnesota

Application October 4, 1954, Serial No. 459,969
1 Claim. (Cl. 250—36)



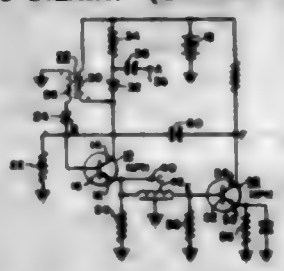
A complex noise generator comprising a circuit including a single phase power source, two or more phase shifting networks connected to said power source, gas tubes conductive in both directions with one each connected to the output of each of said phase shifting networks, a half wave rectifier in one side of said circuit, and the outputs of said gas tubes being in parallel and connected in series with the output of said circuit and with said half wave rectifier.

2,848,613

TRANSISTOR BLOCKING OSCILLATOR

Elberson D. Green and Martin G. Woolfson, Baltimore, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 29, 1955, Serial No. 556,146
11 Claims. (Cl. 250—36)



1. A blocking oscillator comprising a source of direct current voltage having its negative terminal connected to a point of reference potential, a junction transistor having an emitter, a collector and a base, a first resistor connecting said emitter to said point of reference potential, a second resistor connecting said base to said point of reference potential, a first unidirectional current device and a resistor connecting said collector to the positive terminal of said voltage source, a saturable core transformer having primary and secondary windings, said collector being connected to the positive terminal of said voltage source through said primary winding, a second unidirectional current device in series with said secondary winding for connecting said base to said point of reference potential, and means for applying trigger voltage pulses to said oscillator.

2,848,614

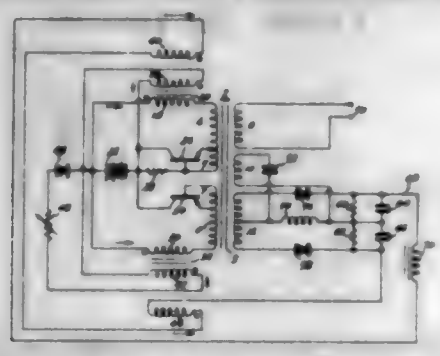
REGULATED POWER SUPPLY

Lambert F. Lyons, Burbank, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware

Application April 16, 1956, Serial No. 578,464
14 Claims. (Cl. 250—36)

1. A power supply system comprising: a semi-conductor switching system operable between two states; a saturable core transformer having at least a first and a second winding inductively coupled; means for energizing said first winding in one manner when said semi-conductor switching system is in one state, and in another manner when said semi-conductor switching system is in another state; means coupling said second winding to said

semi-conductor switching system such as to control the state of said semi-conductor switching system; an output circuit adapted to be energized under control of said semi-conductor switching system; signal-controlled means connected in series with said first winding for



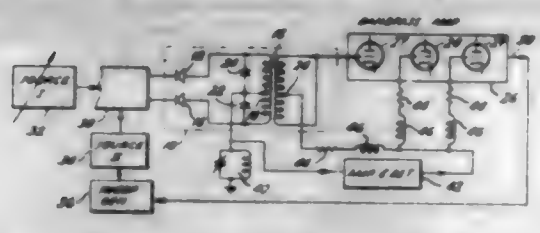
varying the current through said first winding; and means for forming a control signal which varies as signals in said output circuit; means coupling said control signal to said signal-controlled means to vary the current in said first winding according to said output signal.

2,848,615

FREQUENCY CONTROL SYSTEM

George H. Rother and Joseph E. Slawek, Sr., Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application May 21, 1956, Serial No. 586,240
12 Claims. (Cl. 250—36)



1. In combination with a source of oscillatory signal and an oscillator, a frequency control system comprising means associated with said oscillator for causing said oscillator to sweep in frequency over a selected band in the absence of a control signal of a preselected frequency and to remain fixed in frequency in response to a control signal of said preselected frequency, a heterodyne mixer circuit, means for supplying a signal from said source and a signal from said oscillator to said heterodyne mixer circuit, signal transfer means having two restricted passbands, one of said passbands including a frequency equal to said preselected frequency, the other of said passbands including a frequency equal to one-half said preselected frequency, said signal transfer means connecting said mixer circuit to said means for controlling the frequency of said oscillator, gain control means associated with said signal transfer means for altering the signal transfer characteristic of said signal transfer means at said preselected frequency in response to a signal at one-half said preselected frequency supplied to an input of said gain control means, and means connecting the output of said signal transfer means to said input of said gain control means.

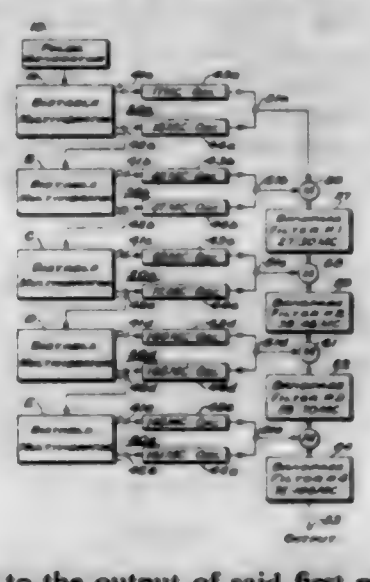
2,848,616

STEPPED FREQUENCY GENERATING MEANS

Robert D. Tollefson, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application July 16, 1956, Serial No. 598,055
4 Claims. (Cl. 250—36)

1. A stepped-frequency oscillator comprising a series of bistable circuits connected in tandem, a pulse generator having its output connected to the first of said series of bistable circuits, a different oscillator means associated with each of said bistable circuits, each of said oscillator means having two discrete frequencies having a frequency difference that is $2^{(n-1)}\Delta f$, in which n is the consecutive number beginning with one of said bistable circuits from said pulse generator, and Δf is the required spacing between adjacent frequency steps in the output of the system, a plurality of gating means with each connecting a different one of said oscillator means to the output of its respective bistable circuit, a first mixer having its inputs respectively connected to the outputs of said first and second of said oscillator means, a first



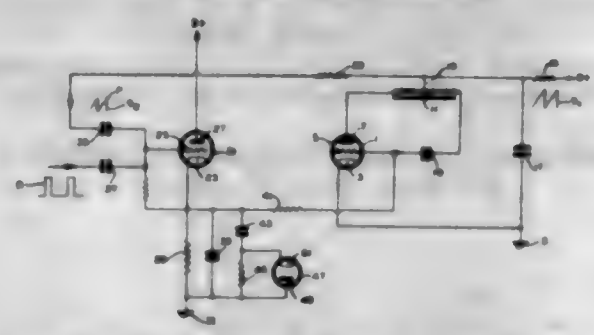
filter connected to the output of said first mixer to attenuate spurious response, a plurality of additional mixers, and a plurality of additional bandpass filters, with each bandpass filter connected to the output of a respective one of said mixers, one input of each of said additional mixers connected to the output of the immediately preceding bandpass filter, and the other input to each of said additional mixers connected to the output of one of the remaining of said oscillator means, with the last of the bandpass filters providing the output of the system.

2,848,617

PHASE DETECTOR AND OSCILLATOR SYSTEM

Irving Horowitz, Eatontown, N. J., assignor to U. V. Mfg. Corp., Newark, N. J., a corporation of New Jersey

Application May 14, 1957, Serial No. 659,088
4 Claims. (Cl. 250—36)



1. An electric system having, in combination, an oscillator having an input and an output, a phase detector having an input and an output, means for connecting the oscillator output to the phase detector input to apply to the phase detector a sample of the oscillations produced by the oscillator, means for applying impulses of predetermined reference frequency to the phase detector input in order to compare the phase of the reference frequency impulses with the phase of the oscillations produced by the oscillator, thereby to produce a direct-current error voltage in the output of the phase detector representative of the difference in phase between the reference frequency impulses and the said oscillations, an electric network connected in the said phase detector output and comprising a series-connected capacitor and resistor, the time-constant of the network being sufficiently short to respond substantially instantaneously to variations in the

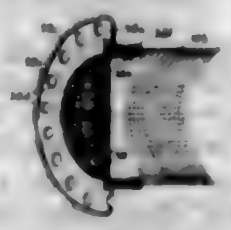
said error voltage, rectifying means connected in parallel with the said resistor in polarity such as to suppress oscillation in the substantially instantaneous response of the network to a variation in the said error voltage, and an electrical connection from the terminal of the said capacitor remote from the rectifying means to the oscillator input for controlling the phase of the oscillations in accordance with the said response of the network.

2,848,618

MASS SPECTROMETER

John G. Skinner, Corvallis, Oreg., and Alvin E. Butcher, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application November 10, 1955, Serial No. 546,056
8 Claims. (Cl. 250—41.9)



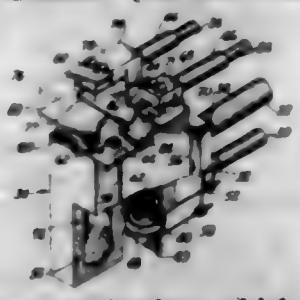
4. Apparatus for controlling the passage of charged particles comprising a flat annular plate having a first flange at the inner edge and a second flange at the outer edge, a metal screen extending across the opening in said plate, the diameter of said screen being greater than the inner diameter of said plate, a second annular plate of inner diameter substantially equal the inner diameter of said flat plate, and means securing said second plate to said flat plate on the side thereof opposite said inner flange, the edge of said screen being positioned between said plates.

2,848,619

ION SOURCE UNIT FOR A CALUTRON

William M. Brobeck, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application May 22, 1945, Serial No. 595,194
2 Claims. (Cl. 250—41.9)



1. Ion-producing mechanism which comprises a substantially U-shaped filament, an imperforate shield plate disposed to overlie said filament and electrically connected thereto, an apertured lower shield plate electrically connected to said filament and disposed to underlie said filament except for a linear portion thereof, and a source block having an ionization chamber disposed beneath said filament and having a passage aligned with the aperture in said lower shield plate to afford communication from said chamber to said filament.

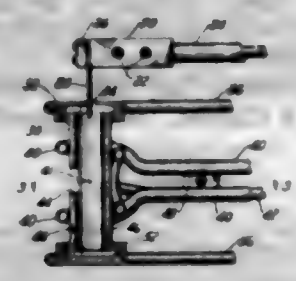
2,848,620

ION PRODUCING MECHANISM

John G. Backus, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application August 11, 1945, Serial No. 610,337
5 Claims. (Cl. 250—41.9)

1. An ion generator comprising walls defining a chamber having an exit opening through which ions may be withdrawn, a liner disposed on the walls of said chamber and containing the material to be ionized, means for producing an electric arc discharge through said



chamber to form a plasma region within said chamber, and means for rendering said liner electrically negative with respect to said plasma.

2,848,621

CALUTRON ION SOURCE

Frank Oppenheimer, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application January 16, 1946, Serial No. 641,615
2 Claims. (Cl. 250—41.9)



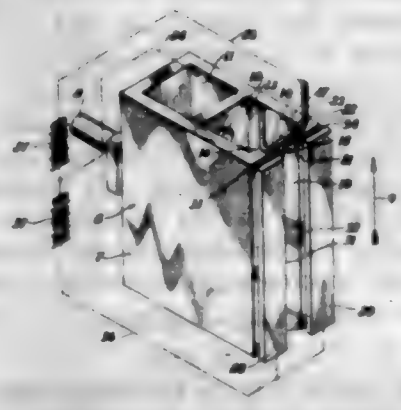
1. In a calutron having a strong magnetic field therethrough the combination comprising a source block having a gas ionization chamber therein, a pair of filament leads disposed adjacent to and overlying said block, filament gripping terminals on both of said leads, said terminals defining transverse grooves open at both ends, and a convoluted filament overlying said gas ionization chamber and having its opposite straight ends extending in the same direction parallel to the axis of the convoluted portion of the filament and entering both of said grooves from the same relative side thereof.

2,848,622

CALUTRON ION SOURCE

Frank Oppenheimer, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application January 16, 1946, Serial No. 641,616
5 Claims. (Cl. 250—41.9)



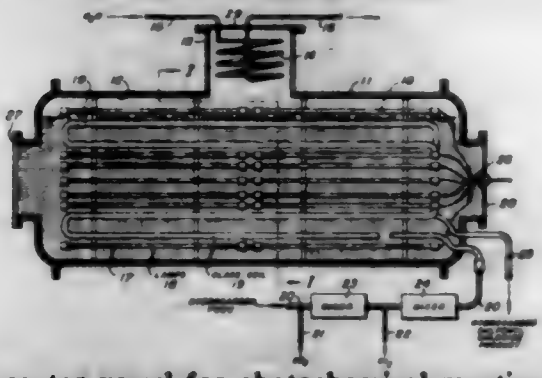
1. A calutron comprising an ion source member including an arc chamber having an exit opening, a cathode disposed to discharge electrons into said arc chamber, means forming electrodes defining the margins of said exit opening, means for insulating said electrodes from said member, and means for electrically connecting said electrodes to serve as anodes for said cathode.

2,848,623

APPARATUS FOR PHOTOCHEMICAL REACTIONS

Harry G. Boynton, Everett W. Lewis, and Albert T. Watson, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application October 20, 1955, Serial No. 541,599
11 Claims. (Cl. 250—47)



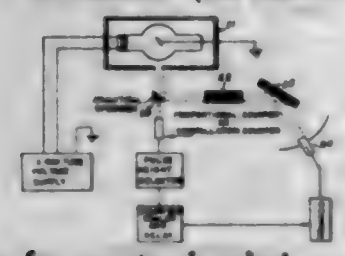
1. A reactor vessel for photochemical reactions which comprises, a vessel adapted to contain a liquid body of a vaporizable refrigerant, a plurality of photochemical lamps arranged in said vessel, a light transparent coil arranged in said vessel to describe a path through said vessel in proximity to said lamps, means connected to the upper part of said vessel for condensing refrigerant, means for introducing reactants into said coil, and means for withdrawing product from said coil.

2,848,624

SPECTROCHEMICAL ANALYSIS DEVICE

Herbert Friedman, Arlington, Va., and John J. Maguire, Washington, D. C., assignors, by mesne assignments, to J. J. Maguire, trading as J. J. Maguire Company, Washington, D. C.

Application November 10, 1953, Serial No. 391,358
26 Claims. (Cl. 250—71)



1. A device for spectrochemical analysis comprising, a source of primary radiations, a test specimen on which primary radiations are directed, a spectrograph detecting system comprising a detector and counter detecting and counting respectively fluorescent radiations from said test specimen, a monitor detecting system comprising a monitor detector and monitor counting means detecting and counting respectively the monitor radiations derived from said source, a relay device connected to said monitor counting means, the contacts of said relay being operated to interrupt the counting of said spectrograph detecting system upon a predetermined count being made by said monitor counting means, and means interposed between said source of primary radiations and said monitor counting means causing said last named means to count only radiations having substantially the same quality and being proportional to the quantity of the radiations of said spectrograph detecting system.

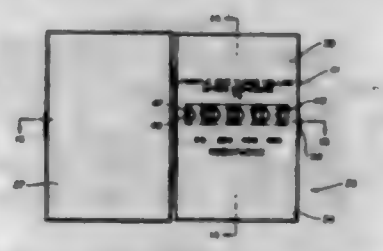
2,848,625

GAMMA AND X-RAY DOSIMETER AND DOSIMETRIC METHOD

George V. Taplin and Clayton H. Douglas, Los Angeles, and Sanford C. Sigoloff, Beverly Hills, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application August 13, 1953, Serial No. 387,556
19 Claims. (Cl. 250—83)

17. A dosimeter for colorimetrically indicating exposure to gamma and X-ray radiation comprising a metal case formed as a flattened generally rectangular cube with a receptacle portion and a cover portion, a face plate disposed to cover said receptacle portion and defining therewith a cavity, said plate being provided with a slot whereby the interior of said cavity may be viewed, a lead liner of about 0.5 mm. thickness fitting closely within the walls of said cavity and having a slot formed therein corresponding to the slot in said face plate, a channeled resilient member disposed within said cavity, colorimetric



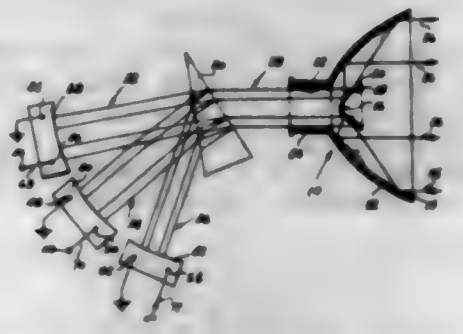
dosimeter cells disposed within the channels of said resilient member which cells include an enlarged lower portion having disposed therein a liquid chlorinated hydrocarbon phase having a normalizing agent dissolved therein and a constricted portion enclosing an aqueous acidimetric indicator dye phase which overlayers said hydrocarbon phase, said constricted portion of the cells being visible through said slot in the face plate, and resilient members disposed between the ends of said cells and adjacent portions of the liner.

2,848,626

INFRARED RADIATION DETECTION SYSTEM

William J. Brackmann, Tarrytown, N. Y., assignor, by mesne assignments, to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application September 2, 1955, Serial No. 532,205
11 Claims. (Cl. 250—83.3)



1. A system for detecting infrared radiation emanating from a target area including in combination means for collecting said infrared radiation, dispersion means disposed in the path of said collected radiation for splitting it into a number of separate beams corresponding respectively to a number of frequency bands, a plurality of detectors disposed in the respective paths of the separate beams for substantially simultaneously receiving radiation from the respective beams, each of said detectors adapted to produce an output signal representative of the total energy content of one of said separate beams, indicating means responsive to said output signals, and means for impressing said output signals on said indicating means.

2,848,627

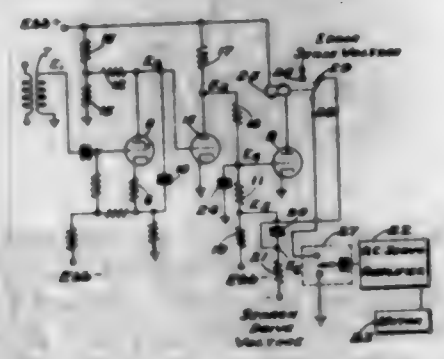
RANGE GATE LOCK-ON CIRCUIT

John B. Majerus and Wallace W. Prather, Cedar Rapids, Iowa, assignors to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application February 6, 1957, Serial No. 638,496
6 Claims. (Cl. 307—81)

1. Means for generating varied output signals responsive to repetitive pulse signals including input means having repetitive pulses applied thereto, means responsive to said input pulses for generating a saw-tooth voltage, a first switch means, a source of direct current volt-

age, current flow from said source of direct current voltage controlled by said first switch means, a second switch means, a first delay means, a third switch means, said second switch means connected to said source of direct current voltage and said first switch means, said first delay means connected to said source of direct current voltage and said second switch means, said second switch means responsive to signals generated by said first delay means, said first delay means actuated by signals applied from said first switch means, output means, a first output signal



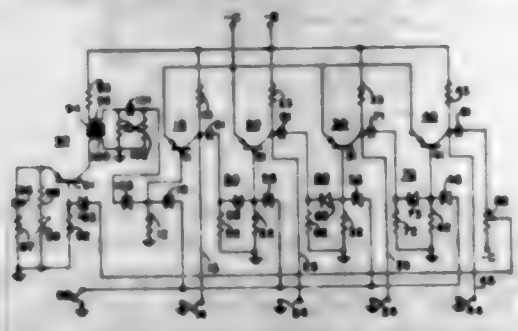
source, a second output signal source, said first output signal source connected to said output means, a second delay means connected to said first switch means and said output means generating a time variable signal, the signals applied to said output means being a resultant of said first output signals and said time variable signals from said second delay means, and said second source of output signals connected to said output means by the operation of said third switch means which simultaneously removes said first output signals from said output means.

2,848,628

TRANSISTOR RING COUNTER

Ernst R. Altschul, New York, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application October 6, 1954, Serial No. 460,981
13 Claims. (Cl. 307—88.5)



1. An electrical counter comprising: *n* counter stages each having stable indicating and nonindicating states and including a semiconductive body with emitter, collector, and base connections in contact therewith, and circuit means for supplying bias voltages between said emitter and base connections and between said collector and base connections; output circuit means coupled to at least one of said connections; an input circuit for supplying periodic control pulses simultaneously to one of said connections of each of said bodies to condition all of said stages to operate in said nonindicating state; translating means coupling the first through the last of said stages in cascade; and an astable pulse generator operatively coupled only between said last and said first stages and effective with said translating means to trigger a succeeding stage into an indicating state when a preceding stage is triggered into its nonindicating state, thereby to develop at said ouput circuit means periodic output pulses having a frequency

$$\frac{1}{n}$$

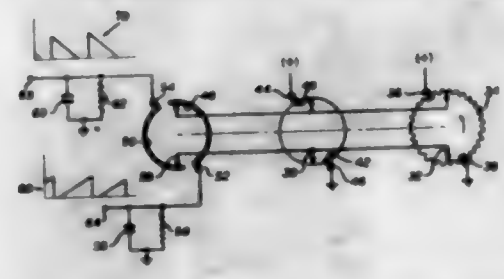
times that of said control pulses.

2,848,629

POTENTIOMETER

Herbert H. Adise and Henry Siegel, Great Neck, N. Y., assignors to Computer Instruments Corporation, Long Island, N. Y., a corporation of New York

Application February 17, 1958, Serial No. 715,567
6 Claims. (Cl. 307—106)



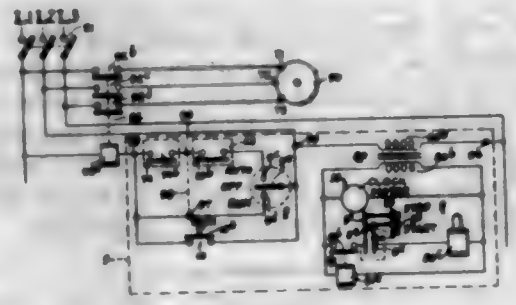
1. High speed rotary signal generator comprising an annular potentiometer element, terminals for connecting at least a portion of said element across a source of direct current voltage, the portion between said terminals occupying less than 360°, a shunt contact segment, terminal means for connecting said shunt contact segment to said source of voltage, output terminal means for connection to a capacitive load, rotary means including at least two conductive wiper contacts ganged together for conjoint rotation and eletcrically interconnected, said wipers being arranged to engage and wipe across respectively said potentiometer element and said shunt contact segment once each cycle, said segment being of such relative length and said wipers being phased such that said shunt contact segment is engaged by its wiper contact for a brief interval only at the beginning of each traverse across the said portion of the potentiometer element by its wiper contact, and means for coupling the output of said wiper contacts to said output terminal means during at least that portion of a cycle when the corresponding wiper is traversing the said portion of the potentiometer element whereby the load is connected directly to the voltage source for a brief interval at the beginning of each such traverse to bypass current surges through the capacitive load away from said potentiometer element.

2,848,630

ELECTRICAL CONTROLLER AND CIRCUITS UTILIZING SUCH A CONTROLLER

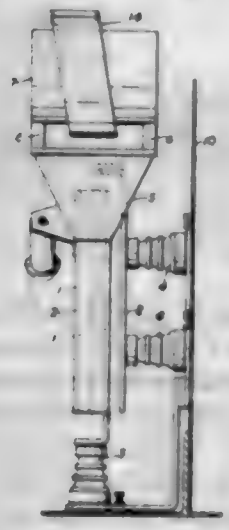
Forrest C. McNicol, Milwaukee, and Richard R. Ranson, Whitefish Bay, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application June 4, 1956, Serial No. 589,049
18 Claims. (Cl. 307—112)



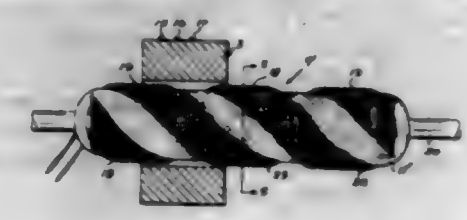
1. An electric controller comprising an electric motor, a program clock driven by said motor, an interval timer, normally interrupted driving connections between said motor and said timer, means including electroresponsive means energizable to complete said driving connections, means acting to interrupt said driving connections following completion of a timed interval by said timer, and switch means under the control of said clock and said timer to complete and interrupt a circuit as determined by the program of said clock following completion of the timed interval by said timer.

2,848,631
HIGH FREQUENCY HEATING APPARATUS
Christopher E. M. Tibbs, Wokingham, England, assignor to Radio Heaters Limited, Wokingham, England, a British company
Application July 11, 1955, Serial No. 521,358
Claims priority, application Great Britain July 16, 1954
8 Claims. (Cl. 307—156)



2. An output circuit for high frequency dielectric heating equipment, said circuit comprising an output transformer having a primary consisting of a single turn of metal strip provided with a pair of spaced supports at each of its ends, and a secondary coil consisting of a single turn of metal strip surrounding said primary coil and being threaded between the two individual supports constituting each of said pairs of supports, in combination with a condenser electrically connected in parallel with the primary coil of said transformer, the opposite plates of said condenser being connected to the supports at opposite ends of said primary coil.

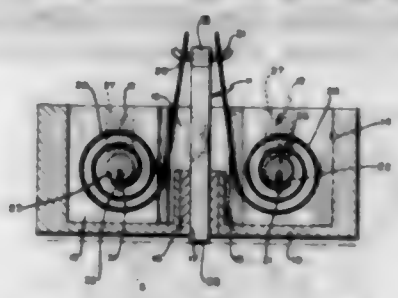
2,848,632
SPIRALED MAGNETIC FIELD SYNCHRO
Carl E. Keene, Lancaster, Calif.
Application April 29, 1957, Serial No. 655,923
9 Claims. (Cl. 310—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A synchro having coaxial outer and inner magnetic core assemblies in which the transversely magnetized core of the inner core assembly has two salient poles, the faces of which are in the form of diametrically opposite helices of greater axial extent than the magnetic core of said outer assembly, and the inner surface of said outer magnetic core assembly is substantially cylindrical.

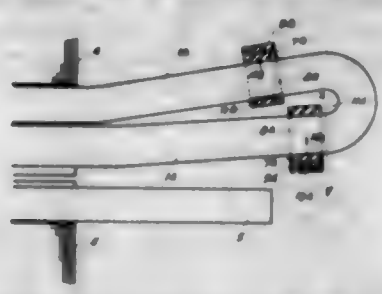
2,848,633
ELECTRICAL CONTACT BRUSH BIASING ARRANGEMENT
Zaven Atamian, Sherman Oaks, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application December 31, 1956, Serial No. 632,625
1 Claim. (Cl. 310—245)

An electrical contact brush mounting arrangement comprising, in combination: an elongated brush, rectangular in cross section, disposed for sliding contact of one axial end with a moving surface; a body for receiving and longitudinally slidably retaining said brush normal to said moving surface; a pair of identical force spiral tension springs disposed on lateral sides of said brush, axes of said springs being parallel to said lateral sides of said brush and normal to a longitudinal axis of said brush; a pair of individual arbors attached to said springs and disposed in openings in said body for connecting ends of said springs to said body; a plated end on said brush remote from said end thereof con-



tacting said moving surface; a pin extending laterally through said plated end, other ends of said spring being adapted for attachment to upwardly formed ends of said pin; means for rotatably positioning said arbors in said body whereby individually to adjust the effective force of each of said spiral tension springs; and set screws carried by said body and engaging said arbors for locking said arbors in desired positions relative to said force of each of said springs.

2,848,634
MEANS AND METHOD OF SECURING WINDING COIL ENDS
Paul-Albert Decaudaveine, Erquelines, Belgium, assignor to Forges et Ateliers de Construction Electriques de Jeumont, Paris, France, a corporation of France
Application May 9, 1957, Serial No. 658,121
Claims priority, application France May 15, 1956
6 Claims. (Cl. 310—260)

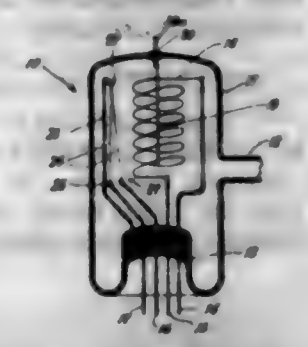


1. In combination, a magnetic structure having slots, electrical windings disposed in the slots, said windings comprising coils having coil and exposure from at least one end of the magnetic structure and slots, said coils having conductors forming substantially corresponding coil ends comprising looped portions having opposed sides formed by the conductors, improved means for holding said coil ends substantially in fixed spaced relationship comprising a continuous spacing tape impregnated with a rigidifying, thermal-setting resinous impregnating composition and having portions disposed reversably folded between corresponding sides of said looped portions of said coil ends, and at least another continuous binding tape impregnated with an adhesive, thermal-setting resinous impregnating composition disposed wrapped on the corresponding sides of the coils binding the coil ends together.

2,848,635
IONIZATION GAUGES
Frank Raible, Sands Point, and John Peters, Hempstead, N. Y., assignors to Vacuum-Electronic Engineering Co., New Hyde Park, N. Y., a partnership
Application November 16, 1954, Serial No. 469,147
7 Claims. (Cl. 313—7)

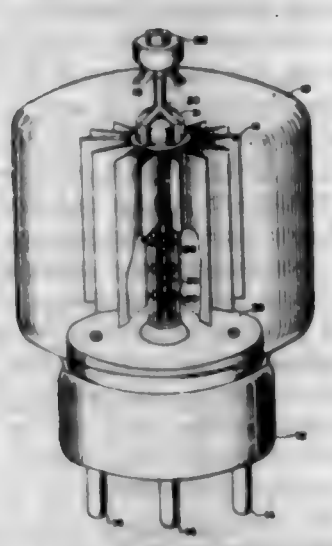
1. An ionization gauge for measuring gas pressures comprising an envelope, a helical positive grid electrode positioned within said envelope, a negative rectilinear

wire collector electrode located axially within said positive electrode, and electron emissive means positioned adjacent said positive electrode, said means comprising a filament base selected from the group consisting of iridium, rhodium and platinum-iridium alloy and being



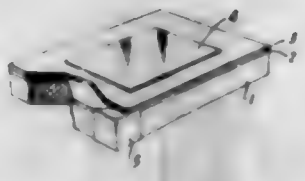
unaffected by exposure to atmospheric pressure and elevated temperature and a coating of electron emissive material selected from the group consisting of thorium oxide, cerium oxide, zirconium carbide and mixtures thereof on said base.

2,848,636
ANODE STRUCTURE
Robert L. Norton, Santa Barbara, Calif., assignor to Penta Laboratories, Inc., Santa Barbara, Calif., a corporation of California
Application February 15, 1954, Serial No. 410,126
4 Claims. (Cl. 313—40)



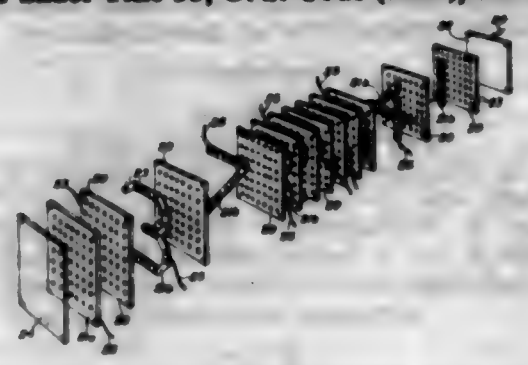
1. A thin walled extended area anode for a triode comprising a metallic endless corrugated strip, and a wire mesh secured to and in electrical contact with the innermost points of the corrugations in said strip.

2,848,637
ELECTROLUMINESCENT LAMP
Eric L. Mager, Peabody, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application August 22, 1950, Serial No. 180,785
2 Claims. (Cl. 313—108)



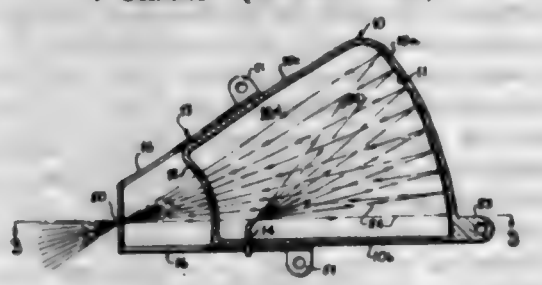
2. An electroluminescent lamp comprising two spaced conductors in close proximity to each other and a coating therebetween of phosphor embedded in an insulating material the dielectric constant and resistivity of the embedding material being high compared to that of the phosphor.

2,848,638
MULTI-DISPLAY TUBE
Edwin W. Smith, San Diego, Calif.
Application June 9, 1953, Serial No. 360,621
6 Claims. (Cl. 313—109.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A display device comprising a gas-filled light-passing envelope, a sandwich of alternately conducting and non-conducting layers, said sandwich being mounted in said envelope and having one of its faces positioned in close proximity with said envelope, said layers having a plurality of holes formed therein and comprising a plurality of cells each having a quantity of gas under pressure therein, each said cell having at least one conducting hole comprising a cathode therefor and at least one conducting hole comprising an anode therefor, said conducting layers being each electrically connected to selected ones of said holes corresponding to a configuration resembling the predetermined indicia whereby the cells individual thereto may be simultaneously fired, and means for connecting a source of power across selected pairs of said conductors to fire the gas in the cells connected to the thus energized conductors, said fired cells each being lighted by the luminous glow produced adjacent its cathode and said glow being visible through said envelope.

2,848,639
ILLUMINATING DEVICE
Norman Urban, Parma, Ohio
Application September 20, 1955, Serial No. 535,380
7 Claims. (Cl. 313—113)



1. An illuminating device comprising a sealed lamp shell, a concavely-shaped reflector provided in the rear portion of the shell, a lens concavely-shaped throughout its entirety and forming the front portion of the lamp shell, a light source positioned in the lamp shell adjacent the lens, a light-proof hood secured to the front portion of the lamp shell in spaced relation to the lens and having a slot in its foremost portion through which the light rays reflected from the reflector and focused by the lens are directed, and said hood having means for permitting the cooling of the lens from the heat generated by the concentrated light rays.

2,848,640
TITANIUM ELECTRODES FOR SPARK PLUGS
Sven Christian Pyk and Harry Viktorsson, Nynashamn, Sweden
No Drawing. Application March 23, 1953
Serial No. 344,202
Claims priority, application Sweden March 29, 1952
1 Claim. (Cl. 313—141)

A spark plug consisting of metal electrodes, a dielectric insulator and a casing, all forming a fixed unit; said metal

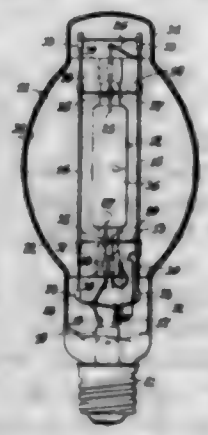
electrodes consisting essentially of non-magnetizable ductile titanium having good mechanical strength, hardness and resistance to oxidation, whereby bridging between the electrodes is avoided and the electrodes during use absorb combustion gases thereby increasing their surface hardness and mechanical resistance without affecting the electrical conductivity of their surface.

2,848,641

VAPOR ELECTRIC LAMP

Robert E. Peterson, Cedar Grove, Melvin C. Unglert, Wyckoff, and Edward A. Jenkins, Chester, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 13, 1953, Serial No. 354,713
3 Claims. (Cl. 313—184)



1. A high pressure discharge lamp having an envelope with a light-transmitting portion and an integrally-formed constricted portion co-axially disposed at each end thereof, said constricted portions each having an end open to the interior of said envelope, an electrode sealed in each end of said envelope and extending longitudinally through said constricted portions into said envelope, each of said electrodes having an arc-supporting portion and an electron-emissive portion remote from said arc-supporting portion, said electrode arc-supporting portions projecting into said envelope light-transmitting portion a substantial distance beyond the open ends of said constricted portions of said envelope to serve as discharge terminals and define a discharge path, and said electrode electron-emissive portions disposed outwardly from said electrode arc-supporting portions entirely within the said constricted portions of the envelope and more remote from the open ends thereof than the radial distance between said constricted portions and said electrodes whereby substantially all the sputtered electron-emissive material is intercepted by and deposited on the said constricted portions of the envelope during the operation of said lamp.

2,848,642

FILAMENT MOUNTING

Alvin A. Wisco, Pompton Lakes, and Stanley L. Sweatt, Belleville, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 19, 1954, Serial No. 470,000
3 Claims. (Cl. 313—279)



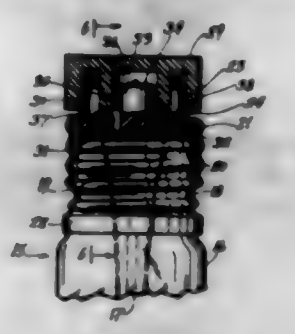
1. A filament mounting comprising a wire wound to form a coiled filament, and a conductor having a transversely-projecting end portion which is inserted into and engages a predetermined end section of said coiled filament, the said end portion of the conductor and engaged filament end section being bent at a point intermediate of the ends of said conductor end portion through an angle such that said engaged filament end section is deformed at said bend and said coiled filament locked in positive electrical contact with said conductor.

2,848,643

ELECTRIC LAMPS

Lucy Spataro, Brooklyn, N. Y.

Application May 26, 1955, Serial No. 511,351
2 Claims. (Cl. 313—318)



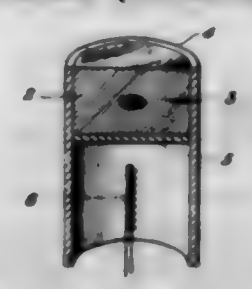
1. An electric lamp comprising a bulb with an insulator base permanently secured thereto, a filament in the bulb and a pair of lead-in members extending through the insulator base into the bulb, a threaded conductor ring secured to the base and spaced from the bulb on the base with an insulator base portion between the threaded conductor ring and the bulb, said conductor ring being connected with one of said lead-in members, an insulator ring extending from the base beyond the conductor ring, said insulator ring having spaced wire passage openings, an insulator cap adapted to fit over the insulator ring, means removably to hold the cap over the insulator ring, spaced pointed conductor prongs secured to the base inside the insulator ring, one of said prongs being connected with one lead-in member and the other prong being connected with the other lead-in member, and wire pressing means in the cap adapted to overlie the prongs when the cap is on the insulator ring to force the prongs into the wires extending through the wire openings in the insulator ring, said means removable to hold the cap on the insulator ring being a threaded stud secured to the cap, said insulator base having a post with an opening centrally disposed inside the insulator ring removable to receive the stud, said prongs being forked and double-pointed, said post having a conductor strip over the top thereof and extending beyond the insulator ring, said strip being connected with the lead-in member other than that one connected with said conductor ring.

2,848,644

THERMIONIC CATHODE

Otto G. Koppius, White Plains, N. Y., assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

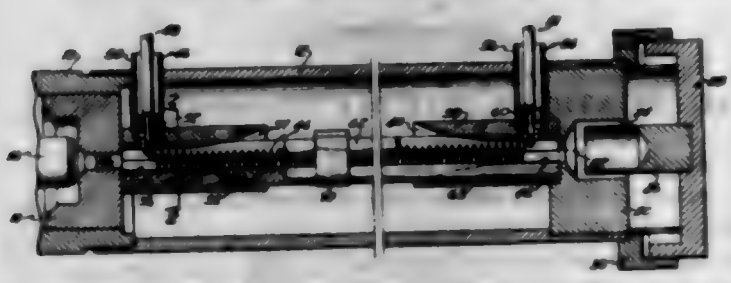
Application January 19, 1953, Serial No. 331,874
10 Claims. (Cl. 313—346)



1. A thermionic dispenser cathode comprising a body of refractory metal having a porous portion, and a supply within said body of a mixture of an alkaline earth

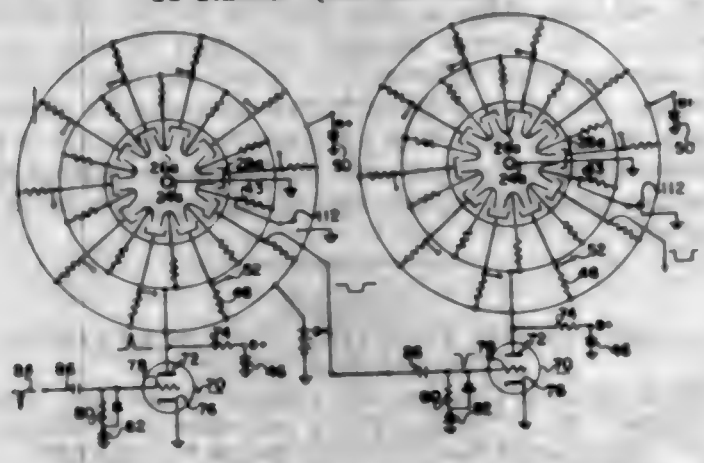
metal tungstate and a refractory metal different from that of said body and selected from the group consisting of thorium, tantalum and zirconium.

2,848,645
TRAVELLING WAVE TUBES
Warren D. McBee, Levittown, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application April 29, 1954, Serial No. 426,323
4 Claims. (Cl. 315—3.5)



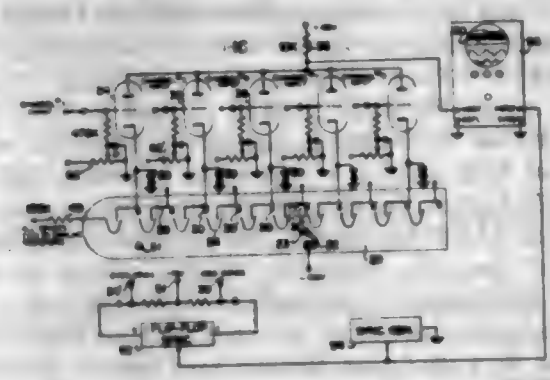
2. A travelling wave tube comprising a helical conductor, means for projecting a stream of electrons along the longitudinal axis of the helical conductor, an evacuated envelope enclosing said helical conductor and said means, a conductive circular horn having a throat portion of inner diameter slightly larger than the diameter of the helical conductor positioned at each end of the helical conductor, each horn having a plurality of holes extending parallel to the axis of revolution of the horns and providing openings in the inner surface of the respective horns, a plurality of non-conductive rods of equal diameter having their ends inserted in said holes whereby the rods are supported between the horns, the holes in each horn having their centers positioned on a circle with its center on the longitudinal axis of the helical conductor, the diameter of the circle being equal to the outer diameter of the helical conductor plus the diameter of one of the rods, the rods projecting axially into the throat portion of the horns with the peripheral surfaces of the rods extending radially into the throat portion through said longitudinal openings, whereby the helical conductor is supported in accurately spaced relationship from the inner surface of the horns by the rods, and coaxial line input and output transmission line sections coupled to the ends of the helical conductor.

2,848,646
COUNTING CIRCUIT USING MULTIPLE POSITION BEAM SWITCHING TUBES
Sin-pih Fan and Rudolph A. Cola, Philadelphia, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application February 1, 1954, Serial No. 407,296
11 Claims. (Cl. 315—8.6)



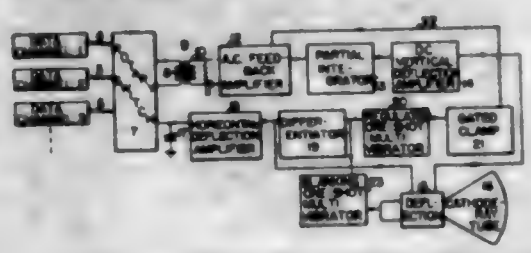
1. Pulse counting apparatus comprising a succession of magnetron type multiple position beam switching vacuum tubes which utilize crossed electrostatic and magnetic fields in the operation thereof, each of said beam switching tubes having a thermionic cathode electrode, a plurality of separate beam forming and directing electrodes each having a beam locking impedance element, and at least one target electrode, a source of potential, means for momentariliy changing the strength of said electrostatic field, said means including a separate electron tube associated with each beam switching tube, said electron tube having at least an anode, a control electrode and an electron emissive electrode, said anode and said electron emissive electrode being connected in series with an electrode of a beam switching tube and a connecting terminal of said source of potential, means for coupling an input signal to said electron tube, and means including a pulse shaping network interconnecting one target electrode of each of said beam switching tubes to the field changing means of the following tube of said succession of beam switching tubes to utilize the output signal of one target electrode of one beam switching tube as an input signal for switching the beam of said following beam switching tube.

2,848,647
MULTIPLEXING SYSTEM
Saul Kuchinsky, Phoenixville, and Hilary Moss, Malvern, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application June 23, 1954, Serial No. 438,805
20 Claims. (Cl. 315—9)



20. In combination, a magnetron beam switching tube having a single cathode and a plurality of targets defining cathode-to-target beam paths, switching means for selectively advancing an electron beam from one target to another, and a current-dividing network coupled to each of said target electrodes, said network including a first path through a unidirectional current flow means to a fixed potential source and a second path terminating in an output circuit and including a variable impedance device and having means coupled to said second path for varying both the current flow and the reference level of said current flow through said second path.

2,848,648
BAR GRAPH OSCILLOSCOPES
Henry O. Wolcott, Glendale, Calif., assignor, by mesne assignments, to International Telephone and Telegraph Corporation, a corporation of Maryland
Application May 9, 1956, Serial No. 583,745
18 Claims. (Cl. 315—26)



1. Oscilloscopic means for exhibiting the magnitudes of electrical energies in electrical channels comprising impedance means, switching means, both said impedance means and said switching means connected to said channels, only one transformer connected to said switching means and to amplifying means, electrical means con-

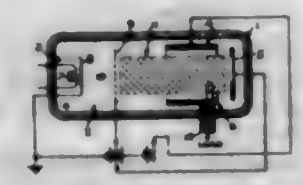
nected to said switching means to form a waveform, cathode-ray means having deflection means, said electrical means connected to said deflection means, electrical clamping means, means to synchronize said clamping means to said waveform, said clamping means connected to said amplifying means, said electrical energies amplified by said amplifying means and the zero axis successively restored by said clamping means, said amplifying means also connected to said deflection means; the recited elements coacting to display the magnitude of energy for each channel upon said cathode-ray means.

2,848,649

ELECTROMAGNETIC WAVE GENERATOR

John H. Bryant, Nutley, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application January 24, 1952, Serial No. 267,983
10 Claims. (Cl. 315—39)



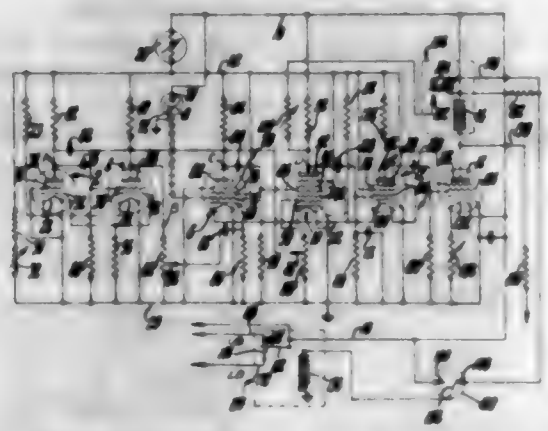
1. A device for converting direct-current kinetic energy to an electromagnetic wave energy comprising means containing a volume of ionizable material, means to establish a gas discharge plasma in said volume of ionizable material including a source of electrons adjacent one end of said volume of ionizable material and means to form an electron beam from the electrons of said source of electrons and to accelerate said electron beam into said volume of ionizable material, means spaced from said source of electrons and adjacent the other end of said volume of ionizable material to repel said accelerated electron beam in a direction toward said source of electrons to establish electron oscillations in said gas discharge plasma to generate electromagnetic wave energy at a frequency substantially equal to the frequency of said oscillations, and output coupling means adjacent said gas discharge plasma for coupling said electromagnetic wave energy therefrom.

2,848,650

LIGHT ACTUATED CONTROL CIRCUIT

Eugene G. Matkins, Reelsville, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 10, 1954, Serial No. 415,285
8 Claims. (Cl. 315—83)



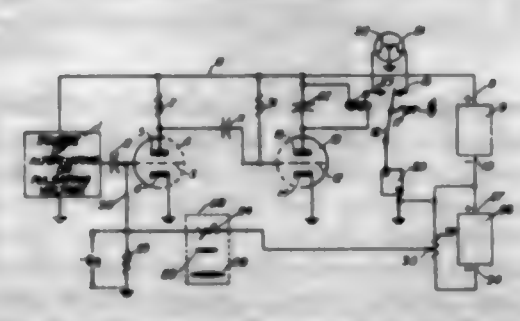
1. In a light controlled system, a source of electrical power, an oscillator connected thereto developing oppositely phased signals at different points, an electron tube having a plurality of control elements, one control element being connected to one point in the oscillator, a light sensitive cell connected to a second control element of the tube and to the source of electrical power to vary the conductance through said tube dependent upon the amount of light falling on said cell, a second electron tube having a plurality of control elements, one element being connected to said oscillator at a different point to receive an oppositely phased signal, the output of said first tube being connected to a second control element of the second tube so that the output of the second tube is affected both by the oppositely phased signals of the oscillator and the amount of light falling on the sensitive cell to provide a resultant control signal proportional to the light falling on the sensitive cell.

2,848,651

AUTOMATIC HEADLIGHT DIMMING DEVICE

George C. Byrne, Southbridge, Mass.

Application October 28, 1955, Serial No. 541,671
1 Claim. (Cl. 315—83)



In apparatus for automatically switching the dual headlight filaments of a vehicle in response to light emanating from a second opposing automobile comprising in combination, a light-sensitive element, said element having the property whereby the amount of conductivity increase of said element is proportional to the value of light intensity incident thereon, electric means coupled to said element comprising a source of negative potential and a potential divider consisting of a resistor and of a light sensitive element to create a negative potential increase, the amount of said negative potential increase being proportional to the value of light intensivty incident upon said element, electronic means coupled to said electric means, including a potentially controlled pulsed tube, said pulsed tube having two effective states of operation in response to two values of negative potential, one value lower than the second value and one value higher than the first value, wherein said first lower value of negative potential is effective in allowing said pulsed tube to open periodically, and said second higher value of negative potential is effective in closing said pulsed tube, means of converting the opening and closing of said pulsed tube into correspondingly amplified differential of lower and higher values of positive potential, a potentially controlled relay actuating tube connected thereto and having a cathode, a grid and a plate, a source of positive potential, a connection between said source of positive potential and said plate, a relay winding in said connection, whereby the current through said relay winding has a further amplified differential of lower and higher current values, said relay winding having an armature mechanically biased to remain in one position in response to said lower value of current and to become energized into another position in response to said higher value of current.

2,848,652

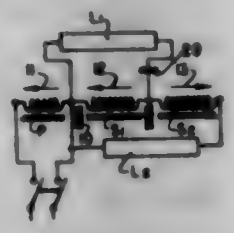
CIRCUIT FOR STARTING AND OPERATING DISCHARGE TUBES

Morris Spector, Chicago, Ill., assignor to Advance Transformer Co., Chicago, Ill., a corporation of Illinois

Application June 27, 1951, Serial No. 233,850
3 Claims. (Cl. 315—138)

1. In combination, a pair of gaseous discharge devices, an alternating current supply for the devices comprising a three-winding auto-transformer having a primary, a loosely coupled first secondary having one end connected

with the said primary, a loosely coupled second secondary, the said first secondary having its second end connected with the second secondary and in bucking voltage relationship to the second secondary, means including a capacitive reactor connecting one of said devices across the first secondary and excluding the primary, means connecting the second of said devices excluding the primary and including the first and second secondaries,



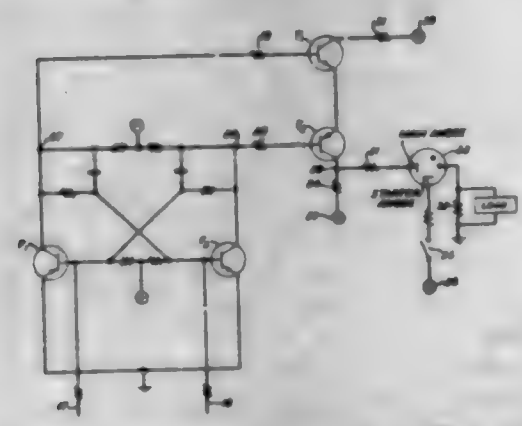
and means for connecting said source across the primary, the secondaries having a turn relationship to the primary to cause seriatim ignition of said first and second devices, and the reactance of the first secondary being very high relative to the second secondary whereby after the said devices are both operating the apparatus will form in effect a series circuit including the devices, the capacitive reactor, and the second secondary.

2,848,653

TRANSISTOR GATING CIRCUIT

Luther W. Hussey, Sparta, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 4, 1957, Serial No. 688,178
9 Claims. (Cl. 315—168)



4. A current-regulating switch including at least two transistors of opposite conductivity types, each having base, emitter and collector electrodes, means for directly coupling said emitters in series relationship, switching means operable to supply control potentials to said base electrodes, means for supplying operating potentials to said collector electrodes, and a gas tube connected in series with one of said collectors whereby a regulated current is supplied to said gas tube in response to the operation of said switching means.

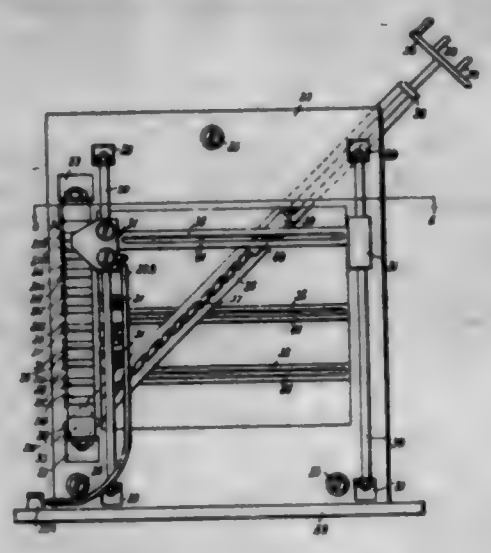
2,848,654

BRIGHTNESS CONTROLS FOR ELECTRIC LAMPS

John William Strange and John Shapland Lockyer, London, England, assignors to Thorn Electrical Industries Limited, London, England, a company of Great Britain

Application November 14, 1950, Serial No. 195,508
2 Claims. (Cl. 315—317)

1. A master brightness control for lamps including means adapted to displace the control members of secondary brightness controls, each of which is adapted to be associated with a lamp or series of lamps of a particular colour substantially simultaneously from a position corresponding to zero brightness towards predetermined positions at rates which are such functions of the required distances of displacement of the control members of the secondary brightness controls that the last-mentioned control members all reach the said predetermined positions at substantially the same instant, and means enabling said predetermined positions to be altered at will, wherein each control member includes a contact movable along a contact assembly upon displacement of an arm, and means for displacing the arm constituted



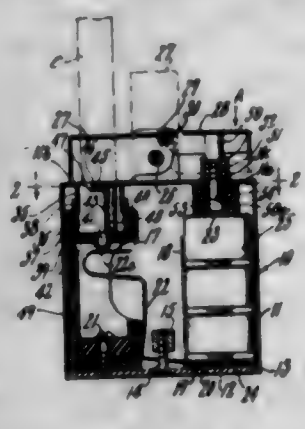
by a movably mounted nest of cams each of which cams is engageable with a cam follower operatively connected to the arm simultaneously, and wherein the means enabling the said predetermined positions to be altered at will are constituted by means for engaging the cam follower with any selected cam of the nest.

2,848,655

ELECTRICALLY OPERATED LIGHTER WITH FUEL SUPPLY

Irving Florman, New York, N. Y.

Application July 27, 1956, Serial No. 600,565
1 Claim. (Cl. 317—88)



A lighter comprising a housing having a movable cover, actuating means connected to said cover to move same to open and closed positions, a holder provided with two compartments inserted in said housing and for removal therefrom, said housing having an opening therein, one of said compartments receiving an electric battery having two terminals, the other compartment having an insulative lining accommodating a spring element, a contact piece extending from one terminal of said battery of said one compartment into said other compartment and in contact with said spring element, an electrically conductive sleeve detachably threaded in said lining, said sleeve having a contact pin engaging said spring element, said sleeve extending into said housing opening and having a rod therein, a heating coil supported by said rod and being located within said sleeve, a thermally insulative coil support secured to said rod below said coil, said coil being disposed immediately adjacent said opening, said actuating means and said sleeve being grounded to said housing, carrying means for fuel within said sleeve and located adjacent said coil, said coil being adapted to ignite fuel of said carrying means when fuel is present

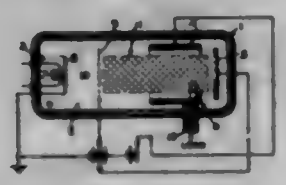
nected to said switching means to form a waveform, cathode-ray means having deflection means, said electrical means connected to said deflection means, electrical clamping means, means to synchronize said clamping means to said waveform, said clamping means connected to said amplifying means, said electrical energies amplified by said amplifying means and the zero axis successively restored by said clamping means, said amplifying means also connected to said deflection means; the recited elements coacting to display the magnitude of energy for each channel upon said cathode-ray means.

2,848,649

ELECTROMAGNETIC WAVE GENERATOR

John H. Bryant, Nutley, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application January 24, 1952, Serial No. 267,983
10 Claims. (Cl. 315—39)



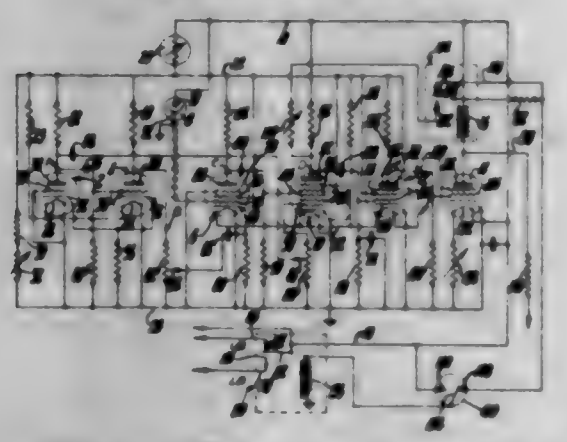
1. A device for converting direct-current kinetic energy to an electromagnetic wave energy comprising means containing a volume of ionizable material, means to establish a gas discharge plasma in said volume of ionizable material including a source of electrons adjacent one end of said volume of ionizable material and means to form an electron beam from the electrons of said source of electrons and to accelerate said electron beam into said volume of ionizable material, means spaced from said source of electrons and adjacent the other end of said volume of ionizable material to repel said accelerated electron beam in a direction toward said source of electrons to establish electron oscillations in said gas discharge plasma to generate electromagnetic wave energy at a frequency substantially equal to the frequency of said oscillations, and output coupling means adjacent said gas discharge plasma for coupling said electromagnetic wave energy therefrom.

2,848,650

LIGHT ACTUATED CONTROL CIRCUIT

Eugene G. Mathias, Reelsville, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application March 10, 1954, Serial No. 415,285
8 Claims. (Cl. 315—83)



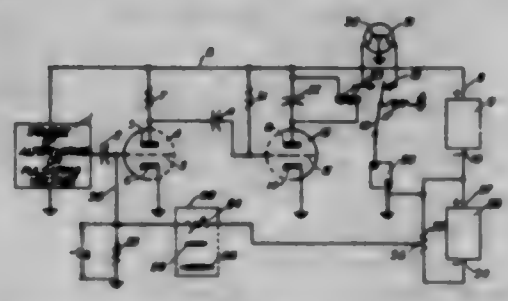
1. In a light controlled system, a source of electrical power, an oscillator connected thereto developing oppositely phased signals at different points, an electron tube having a plurality of control elements, one control element being connected to one point in the oscillator, a light sensitive cell connected to a second control element of the tube and to the source of electrical power to vary the conductance through said tube dependent upon the amount of light falling on said cell, a second electron tube having a plurality of control elements, one element being connected to said oscillator at a different point to receive an oppositely phased signal, the output of said first tube being connected to a second control element of the second tube so that the output of the second tube is affected both by the oppositely phased signals of the oscillator and the amount of light falling on the sensitive cell to provide a resultant control signal proportional to the light falling on the sensitive cell.

2,848,651

AUTOMATIC HEADLIGHT DIMMING DEVICE

George C. Byrne, Southbridge, Mass.

Application October 28, 1955, Serial No. 541,671
1 Claim. (Cl. 315—83)



In apparatus for automatically switching the dual headlight filaments of a vehicle in response to light emanating from a second opposing automobile comprising in combination, a light-sensitive element, said element having the property whereby the amount of conductivity increase of said element is proportional to the value of light intensity incident thereon, electric means coupled to said element comprising a source of negative potential and a potential divider consisting of a resistor and of a light sensitive element to create a negative potential increase, the amount of said negative potential increase being proportional to the value of light intensivty incident upon said element, electronic means coupled to said electric means, including a potentially controlled pulsed tube, said pulsed tube having two effective states of operation in response to two values of negative potential, one value lower than the second value and one value higher than the first value, wherein said first lower value of negative potential is effective in allowing said pulsed tube to open periodically, and said second higher value of negative potential is effective in closing said pulsed tube, means of converting the opening and closing of said pulsed tube into correspondingly amplified differential of lower and higher values of positive potential, a potentially controlled relay actuating tube connected thereto and having a cathode, a grid and a plate, a source of positive potential, a connection between said source of positive potential and said plate, a relay winding in said connection, whereby the current through said relay winding has a further amplified differential of lower and higher current values, said relay winding having an armature mechanically biased to remain in one position in response to said lower value of current and to become energized into another position in response to said higher value of current.

2,848,652

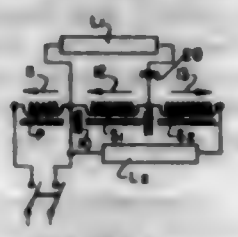
CIRCUIT FOR STARTING AND OPERATING DISCHARGE TUBES

Morris Spector, Chicago, Ill., assignor to Advance Transformer Co., Chicago, Ill., a corporation of Illinois

Application June 27, 1951, Serial No. 233,850
3 Claims. (Cl. 315—138)

1. In combination, a pair of gaseous discharge devices, an alternating current supply for the devices comprising a three-winding auto-transformer having a primary, a loosely coupled first secondary having one end connected

with the said primary, a loosely coupled second secondary, the said first secondary having its second end connected with the second secondary and in bucking voltage relationship to the second secondary, means including a capacitive reactor connecting one of said devices across the first secondary and excluding the primary, means connecting the second of said devices excluding the primary and including the first and second secondaries,



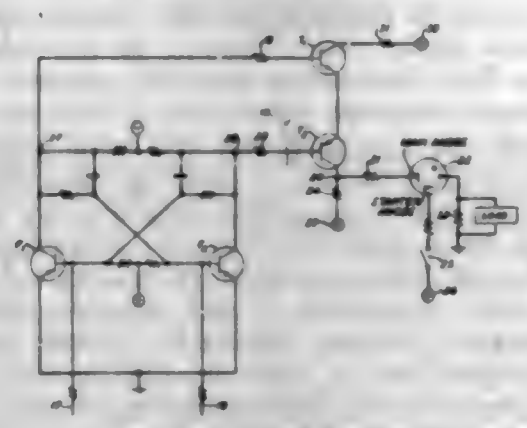
and means for connecting said source across the primary, the secondaries having a turn relationship to the primary to cause seriatim ignition of said first and second devices, and the reactance of the first secondary being very high relative to the second secondary whereby after the said devices are both operating the apparatus will form in effect a series circuit including the devices, the capacitive reactor, and the second secondary.

2,848,653

TRANSISTOR GATING CIRCUIT

Luther W. Hussey, Sparta, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 4, 1957, Serial No. 688,178
9 Claims. (Cl. 315—168)



4. A current-regulating switch including at least two transistors of opposite conductivity types, each having base, emitter and collector electrodes, means for directly coupling said emitters in series relationship, switching means operable to supply control potentials to said base electrodes, means for supplying operating potentials to said collector electrodes, and a gas tube connected in series with one of said collectors whereby a regulated current is supplied to said gas tube in response to the operation of said switching means.

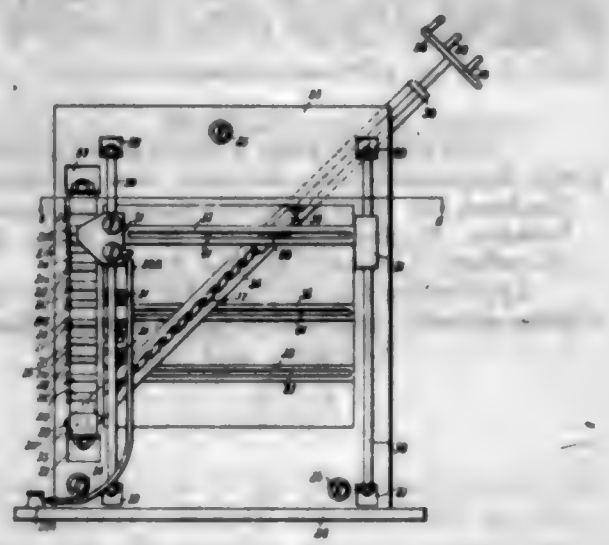
2,848,654

BRIGHTNESS CONTROLS FOR ELECTRIC LAMPS

John William Strange and John Shapland Lockyer, London, England, assignors to Thorn Electrical Industries Limited, London, England, a company of Great Britain

Application November 14, 1950, Serial No. 195,508
2 Claims. (Cl. 315—317)

1. A master brightness control for lamps including means adapted to displace the control members of secondary brightness controls, each of which is adapted to be associated with a lamp or series of lamps of a particular colour substantially simultaneously from a position corresponding to zero brightness towards predetermined positions at rates which are such functions of the required distances of displacement of the control members of the secondary brightness controls that the last-mentioned control members all reach the said predetermined positions at substantially the same instant, and means enabling said predetermined positions to be altered at will, wherein each control member includes a contact movable along a contact assembly upon displacement of an arm, and means for displacing the arm constituted



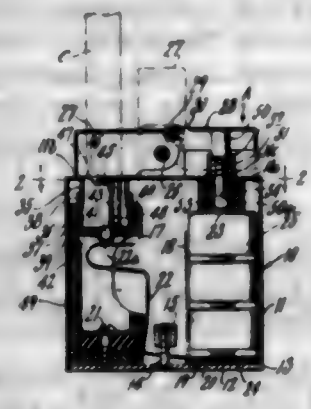
by a movably mounted nest of cams each of which cams is engageable with a cam follower operatively connected to the arm simultaneously, and wherein the means enabling the said predetermined positions to be altered at will are constituted by means for engaging the cam follower with any selected cam of the nest.

2,848,655

ELECTRICALLY OPERATED LIGHTER WITH FUEL SUPPLY

Irving Florman, New York, N. Y.

Application July 27, 1956, Serial No. 600,565
1 Claim. (Cl. 317—98)



A lighter comprising a housing having a movable cover, actuating means connected to said cover to move same to open and closed positions, a holder provided with two compartments inserted in said housing and for removal therefrom, said housing having an opening therein, one of said compartments receiving an electric battery having two terminals, the other compartment having an insulative lining accommodating a spring element, a contact piece extending from one terminal of said battery of said one compartment into said other compartment and in contact with said spring element, an electrically conductive sleeve detachably threaded in said lining, said sleeve having a contact pin engaging said spring element, said sleeve extending into said housing opening and having a rod therein, a heating coil supported by said rod and being located within said sleeve, a thermally insulative coil support secured to said rod below said coil, said coil being disposed immediately adjacent said opening, said actuating means and said sleeve being grounded to said housing, carrying means for fuel within said sleeve and located adjacent said coil, said coil being adapted to ignite fuel of said carrying means when fuel is present

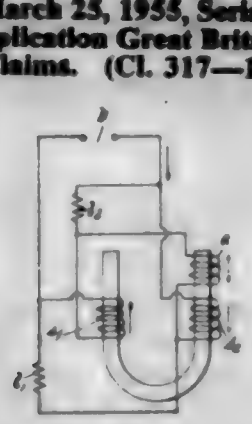
whereby a cigarette may be lighted selectively by flame from the fuel and by direct contact with said coil when said carrying means is devoid of fuel, the other terminal of said battery being engageable by said actuating means when said cover is moved to an open position and away from said coil, thus exposing said coil and simultaneously closing an electric circuit from said battery through said housing and said spring element to said coil.

2,848,656

WINDINGS FOR ELECTROMAGNETS

Leslie Reginald Nixon, deceased, late of Catford, London, England, by Edith Maud Nixon, executrix, Catford, London, England, assignor to J. Stone & Company (Deptford) Limited, London, England

Application March 25, 1955, Serial No. 496,876
Claims priority, application Great Britain March 31, 1954
5 Claims. (Cl. 317—131)



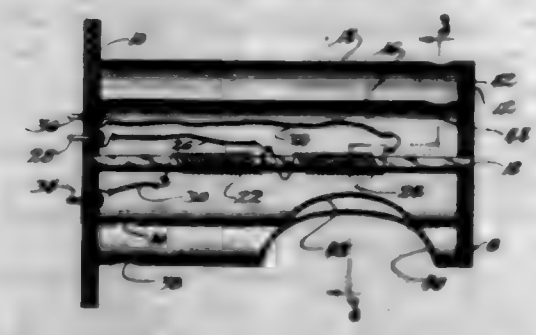
1. An electromagnet comprising a magnet and, in addition to a main winding divided into two parts disposed on said magnet and, an auxiliary winding disposed on said magnet and connected in one diagonal of a bridge circuit across whose other diagonal the source of supply of current is to be connected and whose pairs of opposite limbs comprise the two parts of the main winding and two ballast resistances respectively, the bridge circuit being arranged to be balanced at a normal mean temperature and, on unbalance due to temperature change, to produce in the auxiliary winding a magneto-motive force opposite to and substantially equal to the variation, produced by the temperature change, in the magneto-motive force on the main winding.

2,848,657

OVERHEAT SAFETY DEVICE

John T. Fisher, Indianapolis, Ind., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia

Application October 20, 1953, Serial No. 387,213
1 Claim. (Cl. 317—132)



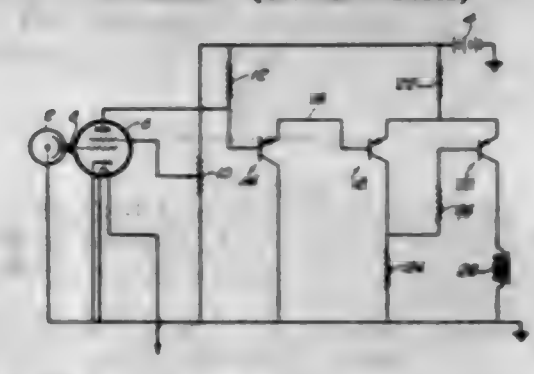
A safety device for preventing overheating of a combustion air heater component, comprising, in combination, an envelope adapted to be mounted in spaced opposing relation to a heater component within heater space through which a passing stream of air is heated from the heater component, said envelope including two elongated heat shielding shells disposed in mutually spaced relation one within the other, two electrical resistors mounted within the inner shell in spaced relation to each other and having high temperature coefficients of resistance, said respective shells defining alined openings therein dimensioned and located with respect to said resistors to expose only one of the resistors to radiant heat from the heater component the other resistor being shielded by said envelope from radiant heat from external sources, said envelope being pierced by openings communicating with the interior of said inner shell on opposite sides of said resistors and oriented with respect to the envelope to circulate a portion of an ambient air stream through the envelope around both resistors, a heater control circuit including a safety switch, and electrical operating means for said switch connected with said respective resistors and balanced therewith to operate said switch in response to a predetermined change in the resistance values of the resistors relative to each other due to differential heating of the resistors.

2,848,658

LIGHT RESPONSIVE CIRCUIT

Alex V. Mitchell, Bloomfield, N. J., assignor to Tung-Sol Electric Inc., a corporation of Delaware

Application April 29, 1955, Serial No. 504,725
5 Claims. (Cl. 317—148.5)



1. A circuit for coupling the light sensitive element of photoelectric means with a relay to be controlled in response to light incident on the light sensitive element, comprising an electronic tube having at least an anode, a control grid and a cathode, said grid being connected to said light sensitive element, a source of energizing potential for said circuit having positive and negative terminals, said anode being connected through a potential dropping resistor to said positive terminal of said source and said cathode being connected to said negative terminal, a p–n–p junction transistor having its collector connected to said cathode, and its base connected to said anode, a second p–n–p junction transistor having its base connected to the emitter of said first transistor, its collector connected to said cathode through a load resistor and its emitter connected to said positive terminal through a second potential dropping resistor, and a third p–n–p junction transistor having its base connected through a resistor to the collector of said second transistor, its emitter connected to the emitter of said second transistor and its collector connected to said cathode through the winding of the relay to be controlled.

2,848,659

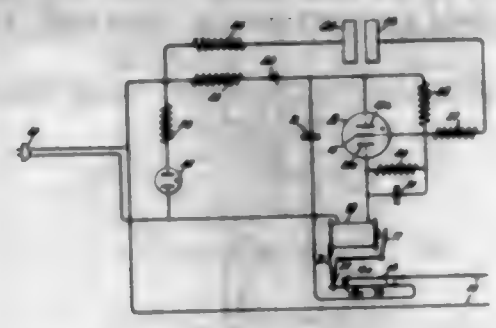
ELECTRONIC CONTROL SWITCH

Leon H. Cutler, Milford, Conn., assignor to General Electric Company, a corporation of New York

Application June 10, 1955, Serial No. 514,659
5 Claims. (Cl. 317—149)

1. A switch operable by touch contact comprising: a first glow tube having an anode, cathode, and control electrode; a latching relay connected to the cathode of said tube, said relay having contacts adapted to control an external circuit; means for connecting the circuit formed by said tube and relay to a source of electrical energy; a capacitor connected across said tube and relay circuit; a second glow tube positioned to radiate light on said first glow tube; a first touch surface of conducting material connected through a high resistance to the anode of said first glow tube; and a second touch surface of

conducting material in spaced relation with said first touch surface, said second touch surface being connected to all of the electrodes of said first glow tube through a branching circuit including a trunk resistor and addi-



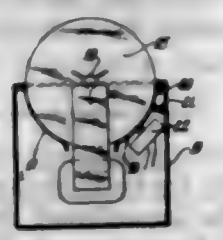
tional resistors in the branch circuits leading to the cathode and anode, whereby touch contact with said touch surfaces effects conduction through said first glow tube when said switch is connected to a source of electrical potential.

2,848,660

MASS DEMAGNETIZING DEVICE FOR MAGNETIC RECORDING MEDIA

John S. Boyers, Harvey, Ill., assignor, by mesne assignments, to Midwestern Instruments, Inc., Tulsa, Okla., a corporation of Delaware

Application June 5, 1952, Serial No. 291,999
8 Claims. (Cl. 317—157.5)



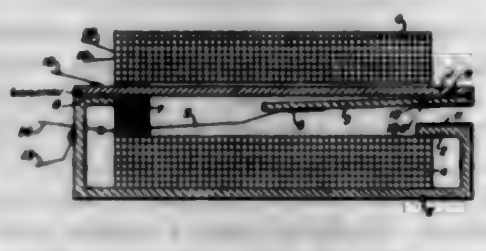
2. A bulk treating device comprising a housing, a generally U-shaped magnetic core in said housing having generally parallel legs, said housing having an opening providing access to the space between said legs, a coil linking said core to establish a magnetic field in the space between said legs, arcuate shelf portions carried within the housing on opposite sides of the space between the legs of said core and providing supporting surfaces, said supporting surfaces defining a generally semi-cylindrical space intersecting the space between the legs, switch means controlling energization of said coil and having actuating means therefor disposed adjacent one of said shelf portions, and said one shelf portion being movable to actuate said actuating means to accommodate energization of said coil.

2,848,661

MINIATURE ELECTROMAGNETIC RELAY

Paul A. Amouriq, Paris, France, assignor to Brion, Leroux & Cie, Paris, France, a corporation

Application February 8, 1955, Serial No. 486,921
6 Claims. (Cl. 317—165)



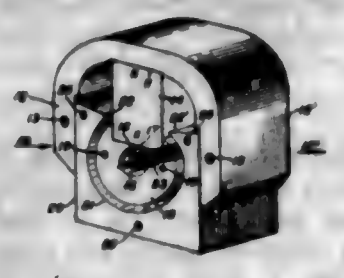
1. A miniature electromagnetic relay comprising an elongated coil having an axial hole therethrough, a first fixed member of magnetic material extending through the said hole, a second fixed member of magnetic material disposed outside of the coil and having an end spaced from an end of the said first member, an armature of magnetic material, and a non-magnetic spring supporting the armature for transverse bodily movement between the spaced ends of the said first and second members.

2,848,662

INSTRUMENT MAGNETIC SYSTEM

Austin W. Barry, Linden, and Richard P. Schake, East Orange, N. J., assignors, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application July 18, 1956, Serial No. 596,916
6 Claims. (Cl. 317—166)



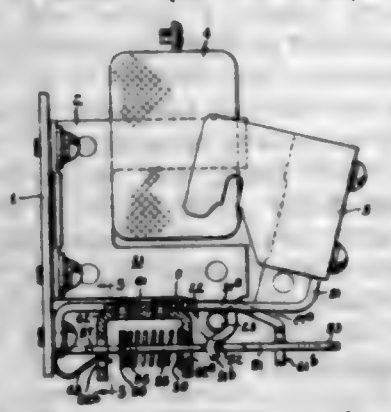
1. A magnetic structure for electrical instruments comprising a substantially U-shaped soft-iron yoke having an upper portion and substantially parallel spaced legs; a soft-iron pole piece abutting the legs of the yoke and closing the open end thereof, the said pole piece having a substantially circular bore extending longitudinally therethrough and opening upwardly through the top thereof, the pole piece top surface and circular bore terminating substantially in a common line; a cylindrical soft-iron core disposed within the bore of the pole piece and having its outer surface spaced from the walls of the said bore to form an arcuate flux gap, said core including an axial hole extending therethrough and an upwardly facing radial slot extending the entire length of the core and communicating with the said axial hole; a substantially rectangular permanent magnet having opposed parallel polar surfaces, one polar surface abutting the upper portion of the said yoke and the other polar surface abutting the core adjacent the said radial slot.

2,848,663

SUPPORT ASSEMBLY FOR ELECTROMAGNET ARMATURES

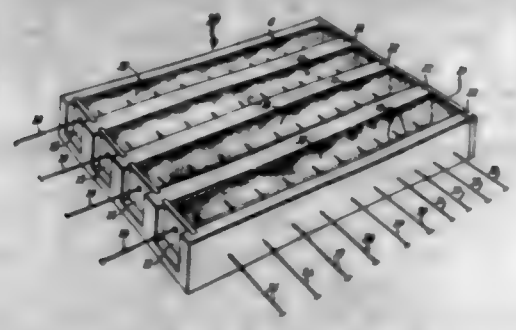
Rudolph E. Kelto, Butler, and Melvin H. Smith, Milwaukee, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application February 10, 1954, Serial No. 409,322
8 Claims. (Cl. 317—198)



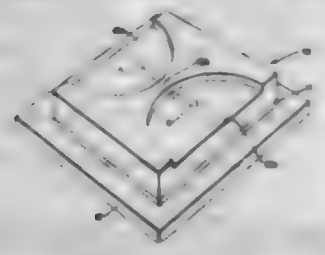
1. In combination, an electromagnetic switch operating mechanism including a movable armature assembly; a pivot pin upon which said armature assembly is removably mounted with open bearings; a spring-biased pivot yoke engageable with said armature assembly for maintaining it on said pivot pin, said pivot yoke being normally movable between each of two positions with movement of said armature and also being manually movable to a third position wherein said armature may be removed from its pivot pin; and means associated with said pivot yoke to insure against accidental movement thereof to said third position.

2,848,664
DIODE ARRAY
Arthur J. Critchlow, Santa Clara County, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application February 15, 1955, Serial No. 488,362
9 Claims. (Cl. 317—231)



1. An electrochemical diode having individual channels, said channels containing an electrolyte, a plurality of wires entering said electrolyte in each channel, said wires being of a material which will react with the electrolyte to provide a high resistance to current flow through the wires and the electrolyte in one direction and a low resistance to current flow in the other direction, and means for electrically insulating predetermined said wires from the electrolyte in predetermined said channels.

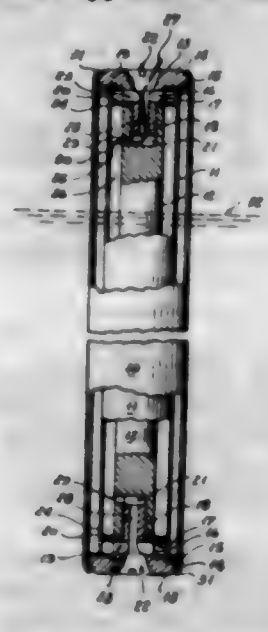
2,848,665
POINT CONTACT TRANSISTOR AND METHOD OF MAKING SAME
John B. Little, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 30, 1953, Serial No. 401,155
3 Claims. (Cl. 317—235)



1. A transistor comprising a semi-conductive body having formed in one surface thereof a ridge with a cross-sectional contour providing sharp corners at the base of the ridge, said ridge having portions increasing in width in either direction from an intermediate locality of said ridge and thereby defining a narrow neck portion at said locality between said portions of increasing width, point electrodes contacting the corners of the opposite sides of the base of the ridge at said neck portion, said ridge being effective to prevent movement of the point electrodes toward each other, and means supporting said point electrodes firmly in the corner at the base of the ridge at said neck portion, said supporting means being effective to prevent movement of the point electrode away from the ridge, and cooperating with said portions of increasing width to prevent displacement of the point electrodes lengthwise of the ridge.

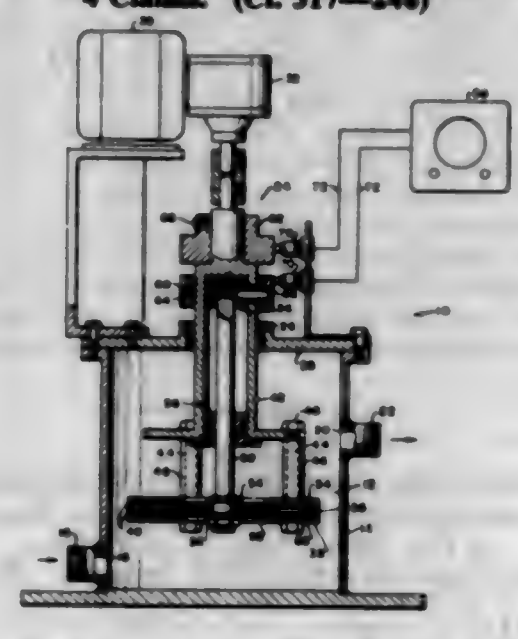
2,848,666
LIQUID LEVEL SENSING CAPACITOR
George V. Zito, Northvale, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application April 29, 1955, Serial No. 504,717
1 Claim. (Cl. 317—246)

A liquid level sensing capacitor, comprising an elongated inner metallic condenser element, a surrounding tubular metallic condenser element, and a cylindrical outer casing element, conductive shielding means in the form of a cap at each end of the casing for supporting the said elements axially in concentric spaced apart relation to form longitudinally disposed annular liquid passages along the axis of the capacitor, said cap sealed to and embraced by the outer casing, means associated with each of the said end supports for electrically insulating



the condenser elements, an axial centrally disposed passage formed in the shielding support means and lateral connecting passages for circulating dielectric fluid from an outside source through the annular passages, and means extending through the axial passage for connecting the condenser elements to a source of electricity.

2,848,667
ROTARY CAPACITANCE CELL
Hugh Royden Rolfe, Brooklands, Manchester, England, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application May 7, 1956, Serial No. 582,990
Claims priority, application Great Britain May 12, 1955
4 Claims. (Cl. 317—246)



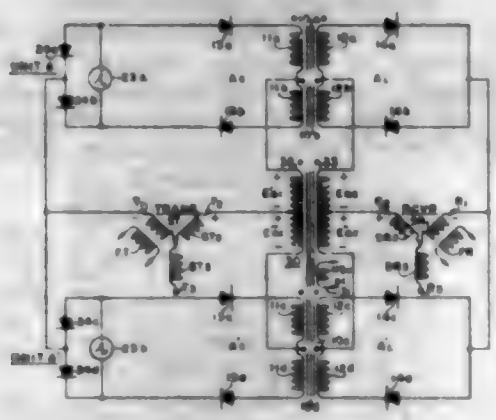
1. A capacitance cell for measuring the dielectric constant of a fluid comprising: means defining a chamber for receiving a sample of the fluid, a rotatable spindle structure having a portion disposed within said chamber, at least two condenser plates carried by said spindle structure portion and rotatable therewith about the axis of said spindle structure, insulating spacer means arranged between said plates, said means having a plurality of radially extending legs forming a plurality of radial spaces between the plates to receive the fluid under measurement as a dielectric, insulated conductor means comprising said spindle structure for electrically connecting said plates to a measuring bridge, and means for rotating said spindle structure.

2,848,668

MAGNETIC ERROR SENSING CIRCUIT FOR SELSYN SYSTEMS

Robert A. Ramey, Jr., Library, Pa., assignor to the United States of America as represented by the Secretary of the Navy

Application November 20, 1953, Serial No. 393,524
11 Claims. (Cl. 318—23.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



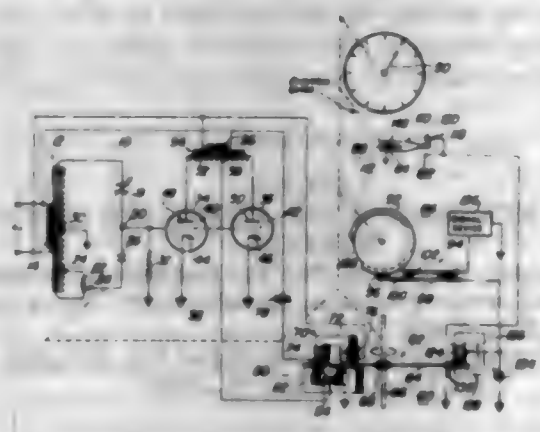
1. In a selsyn positioning system which includes a transmitter selsyn and at least one receiver selsyn, said selsyns producing respective output alternating voltages indicative of the angular position of the rotors thereof, a reset type magnetic amplifier coupling said transmitter and receiver selsyns and responsive to a difference in the time-integral of said respective output voltages to supply power to said receiver selsyn for repositioning thereof.

2,848,669

SERVOSYSTEM WITH DISC TYPE SERVOMOTOR

Stanley J. Smith, Briarcliff, N. Y., assignor to Simmonds Aerocessories, Inc., Tarrytown, N. Y., a corporation of New York

Application August 19, 1953, Serial No. 375,188
12 Claims. (Cl. 318—28)



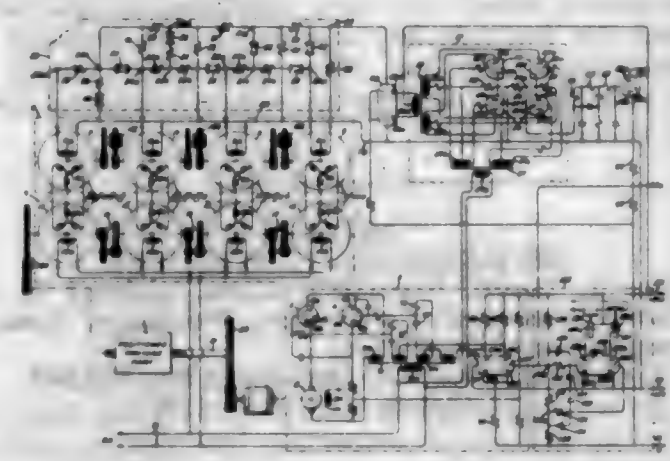
1. A reversible induction motor for use as a servomotor in a servo system wherein there is a balanceable network, responsive to variations in a condition and energized from an alternating voltage source, an adjustable device for restoring network balance, and an amplifier for amplifying network unbalance voltages to develop an amplified unbalance voltage having a magnitude which depends upon the extent of network unbalance and either substantially in phase or substantially 180° out of phase with the phase of the source voltage depending upon the direction of network unbalance, said reversible induction motor comprising: a rotor in the form of a substantially flat disc of electrically conductive material mounted for rotation about a central axis perpendicular to the plane of the disc and adapted for connection to the adjustable device to adjust said device in a direction tending to restore network balance in response to rotation of said disc, first and second electromagnetic means disposed adjacent to a common outer segmental portion of said disc and each having separate winding means for connection respectively to the amplifier output terminals and to the voltage source and arranged to establish respectively an A. C. signal field and an A. C. reference field which have magnetic flux lines cutting the plane of said disc to induce eddy currents therein and which are displaced in time-phase by a predetermined constant phase angle and physically displaced along the path of rotation of said disc to develop, when both winding means are energized upon unbalance of the network, a resultant driving torque produced by the interactions between the field fluxes and the eddy currents induced in said disc, and means for selectively damping the rotation of said rotor, said last-mentioned means comprising a third electromagnetic means positioned adjacent the periphery of said rotor disc so as to effect eddy current braking when energized, a winding for energizing said third electromagnetic means, and switch means operatively connected with said rotor for controlling the energization of said last-mentioned winding such that the rotation of said rotor in response to an appreciable network unbalance will be at a rapid rate with the attendant possibility of overshoot and at a substantially slower rate upon reversal of rotation following such overshoot.

2,848,670

AUTOMATIC PROGRAMMING SERVOMOTOR CONTROL SYSTEM

Leroy U. C. Kelling and Lawrence R. Peaslee, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application December 30, 1954, Serial No. 478,632
27 Claims. (Cl. 318—30)



3. In combination, an electric motor, a data storage medium reader having a plurality of sensing elements for detecting digital indicia on a digital data storage medium, a director comprising a plurality of induction devices each having relatively movable members provided with primary and secondary windings, means responsive to said sensing elements for relatively positioning said members in positions corresponding to the numerical value represented by said indicia, a position indicator comprising a plurality of induction devices each corresponding to a different induction device in said director and each having relatively movable members provided with primary and secondary windings, electrical connections between each induction device in said position indicator and its corresponding induction device in said director and mechanical driving connections between each induction device in said position indicator and said motor having ratios progressively differing from each other by successive powers of ten thereby to provide a plurality of different speed control systems for said motor, each comprising an induction device of said director and the corresponding induction device of said position indicator, means responsive to positional disagreement of the induction devices of each of said control systems for con-

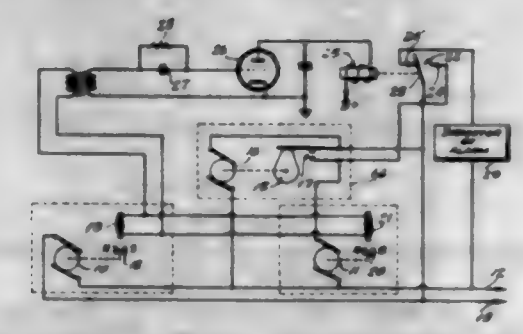
trolling the energization of said motor to cause it to rotate and to stop with its shaft in a position of total angular rotation from an initial position proportional to the numerical value of said digital indicia and means for transferring control of said motor from one to another of said control systems in the order of their speed ratios comprising a network array of linear and non-linear resistors electrically connected between said position indicator and said angular disagreement responsive means.

2,848,671

MOTOR-SYNCHRONIZING CIRCUIT

Joseph F. McDonald, New Hyde Park, N. Y., assignor to Servo Corporation of America, New Hyde Park, N. Y., a corporation of New York

Application January 17, 1955, Serial No. 481,996
9 Claims. (Cl. 318—72)



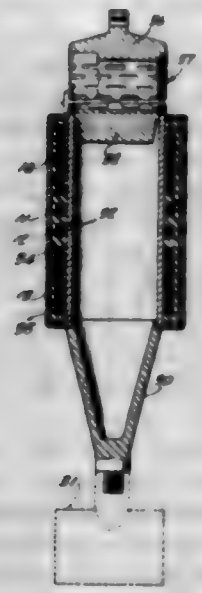
2. In combination, two synchronous motors having connections for supply by a common source, switch means in series relation with the connection to one of said motors, intermittently operative means controlling intermittent closed and open conditions of said switch means for intermittently completing and breaking the connection to said one motor, and hold-in means for said switch means and responsive to synchronized operation of said motors.

2,848,672

SELF-EXCITED TRANSDUCER

Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut

Application July 26, 1955, Serial No. 524,545
11 Claims. (Cl. 318—118)



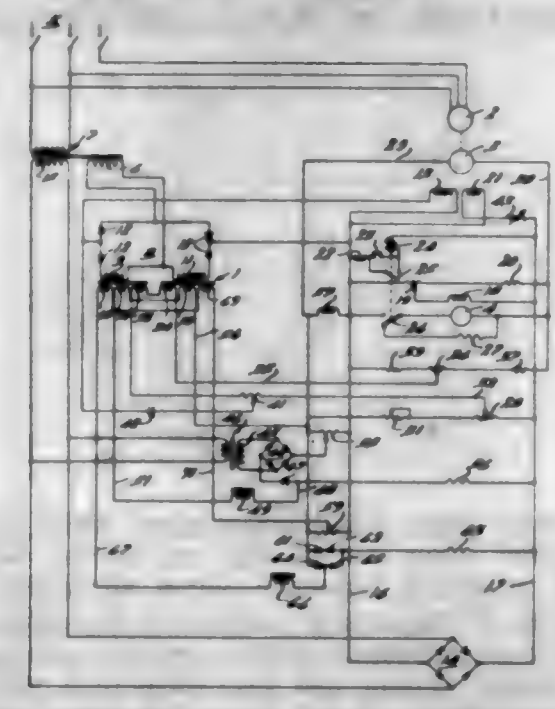
1. An electromechanical transducer, comprising an axially aligned array of separate elongated toroidally wound magnetostrictive ring members, said ring members having different magnetostrictive constants and being mechanically bonded so that a single mechanical structure including said ring members may resonate.

2,848,673

MAGNETIC AMPLIFIER MOTOR CONTROL

Dorn L. Pettit, Milwaukee, and Charles C. Gould, Brookfield, Wis., assignors to Square D Company, Detroit, Mich., a corporation of Michigan

Application July 28, 1954, Serial No. 446,248
16 Claims. (Cl. 318—143)



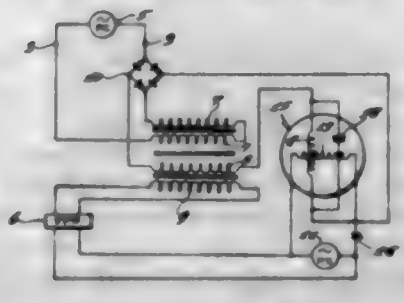
1. In an adjustable speed motor control circuit, a motor-generator system, a magnetic amplifier having a power winding and a control winding, means supplying a reference voltage, a feedback circuit for comparing said reference voltage and the generator output voltage and energizing said control winding by the difference therebetween to vary the output through said power winding, means for energizing the generator field through said power winding, circuit means for applying a constant D. C. voltage to the motor field for energization thereof and means in said circuit means for opposing said motor field energizing voltage by at least part of said generator output voltage whereby change in the generator field and output effects a simultaneous and opposite change in the motor field.

2,848,674

DRIFT-FREE MAGNETIC AMPLIFIER CIRCUIT SYSTEM

Philip Forman, Brooklyn, N. Y., assignor to American Macromotive Corporation, Brooklyn, N. Y., a corporation of New York

Application May 26, 1955, Serial No. 511,169
6 Claims. (Cl. 318—207)



1. A drift-free magnetic amplifier system for operating a two phase servo-motor comprising a magnetic amplifier circuit having a pair of power input terminals, an output, and a control input; a first source of alternating voltage of a first frequency; means connecting said first source to both a reference winding of said motor and to a signal controlling device; means connecting said signal controlling device to said control input; a second source of alternating voltage of a second frequency, said second source being connected to said power input terminals for supplying energizing current thereto, said second frequency being selected to be an integral multiple

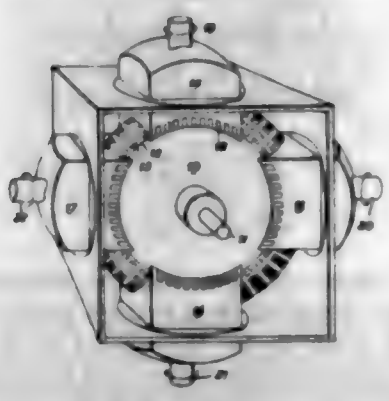
of said first frequency; and means connecting said output with a control winding of said motor, whereby drift signals in said output will be related harmonically to said first frequency and will be ineffective to cause operation of said motor.

2,848,675

INDUCTION MACHINES

Frederic C. Williams, Romily, and Eric R. Laithwaite, Manchester, England, assignors to National Research Development Corporation, London, England

Application November 29, 1956, Serial No. 625,175
Claims priority, application Great Britain December 1, 1955
11 Claims. (Cl. 318—243)



1. An alternating current machine comprising a first member of ferromagnetic material and having part of its surface of spherical shape, a second member having at least one part provided with a row of poles lying in a spherical surface concentric with the spherical surface of said first member, a source of alternating current, coils on said poles connected to said source to produce a magnetic field moving in a direction proceeding along the row of poles, means for enabling said second member to be rotated to a limited degree about an axis which passes through the common center of the spherical surface of said first member and the spherical surface on said second member, the row of poles being located on said second member so that when said second member is mechanically midway between the limits of its rotational movement, the angle between the direction of movement of the moving magnetic field at a point on said first member and the direction of movement of said point on said first member lies between 30 and 85 degrees and so that rotational movement of said second member gives rise to a change in said angle in the same sense for all parts of said second member, means for mounting the first member for rotation about an axis passing through said common center and a mesh of high electrical conductivity material embedded in the spherical surface of said first member, the mesh size being substantially less than the pitch of said poles.

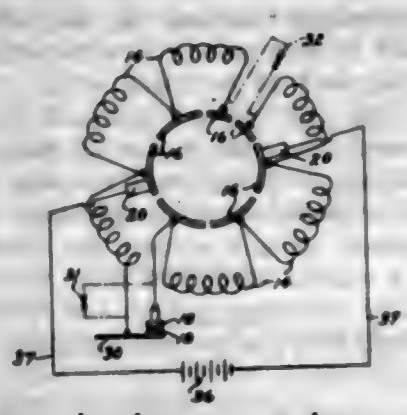
2,848,676

ELECTRIC MOTOR SPEED REGULATING SYSTEM

Philip A. Sidell, Wauwatosa, Wis., assignor, by mesne assignments, to Barber-Colman Company, a corporation of Illinois

Application April 12, 1957, Serial No. 652,509
7 Claims. (Cl. 318—325)

1. In an electric motor speed regulating system, a rotary armature having at least three effective poles angularly spaced equal distances around the armature and each provided with an energizing winding, said armature also having a commutator provided with one more segment than the number of poles and windings, said windings being connected in series with two adjacent windings disconnected from each other and having their disconnected ends each attached to one of said segments while the interconnected ends of the successive windings of the series are attached to the other segments, a centrifugal switch interposed between two adjacent windings of said series remote from said disconnected wind-



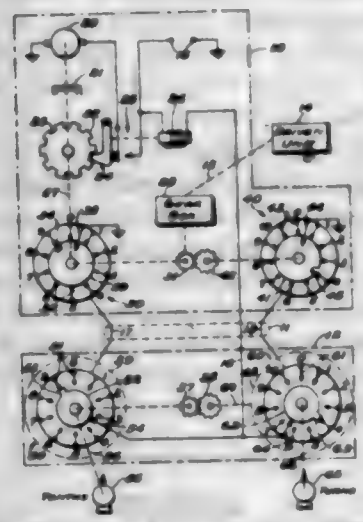
ings, commutator brushes connected to a source of electrical energy and coacting with said segments, and a magnetic field cooperating with said poles to rotate said armature.

2,848,677

SHAFT POSITIONING CONTROL MECHANISM

Glade M. Stockwell, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application July 19, 1956, Serial No. 598,929
10 Claims. (Cl. 318—467)



1. A shaft positioning system comprising a source of rotational energy, stop means having a first number of positions, a shaft, said stop means determining the orientations of said shaft during one revolution, a plurality of seeking switches coupled to said shaft, one of said plurality of seeking switches being coupled directly to said shaft and having said first number of positions, the remainder of said plurality of seeking switches each being positively coupled to said shaft by a ratio of said first number to a prime number, and each of the remainder of said plurality of seeking switches having a number of positions equal to the prime number used in its coupling ratio.

2,848,678

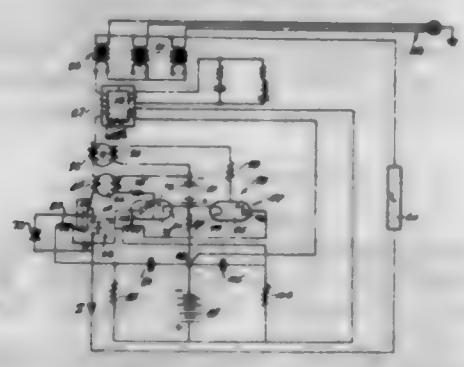
ELECTROMAGNETIC RECTIFIER

Fritz Kesselring, Zollikon-Zurich, and Erwin Wettstein and Alfred Spaelti, Zurich, Switzerland, assignors to FKG Fritz Kesselring Gerätebau A. G., Bochtobel-Weinfelden, Thurgau, Switzerland, a corporation of Switzerland

Application August 2, 1952, Serial No. 302,316
3 Claims. (Cl. 321—48)

1. An electromagnetic rectifier comprised of a commutating reactor, an electromagnetic switch, a closing circuit, and an opening circuit; said commutating reactor comprising a magnetic core and a main winding; said electromagnetic switch comprised of cooperating contacts having an engaged and disengaged position, a holding winding, a first auxiliary winding, and a second auxiliary

winding; a rectifier connected in parallel with said cooperating contacts; said main winding of said commutating reactor connected in series with said holding winding and said cooperating contacts of said electromagnetic switch; first and second gas triode tubes, said closing circuit being comprised of a closed series connection including the plate and cathode of said first gas triode tube, a first resistor, a first source of plate voltage, and said first auxiliary winding; said opening circuit being comprised of a closed series connection including the plate and cathode of said second gas triode tube, said first resistor, a second source of plate voltage, and said second auxiliary winding; a first and second saturable transformer, said first and second saturable transformers



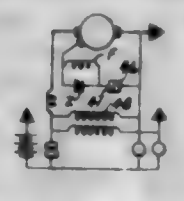
each having a primary winding and a secondary winding; said primary windings connected in series with said main winding, said cooperating contacts and said holding winding; said secondary windings connected in the grid cathode circuit of said first and second gas triode tubes, respectively; said secondary winding of said first saturable transformer supplying a positive pulse to said grid of said first gas triode tube only when said last mentioned transformer is unsaturated and current in the primary winding thereof is increasing; said secondary winding associated with said second saturable transformer supplying a positive potential to the grid of said second gas triode tube only when said last mentioned transformer is unsaturated and the current in the primary winding thereof is decreasing.

2,848,679

STABILIZATION OF REGULAR VOLTAGE UNDER SEVERE VIBRATION

Paul E. Hochstetter, Toledo, Ohio

Application February 1, 1954, Serial No. 407,444
2 Claims. (Cl. 322—28)



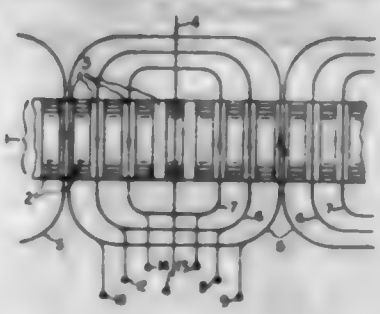
2. In a voltage regulating device for a direct current generator mounted for use under severe vibration and provided with a metallic housing member enclosing the generator, a pair of operative vibratory contacts each resiliently mounted on resilient means on said generator the mass and flexibility of the contacts and their mounting means being selected to be substantially equal and having static deflections greater than .0001 inches said contact points being connected in series with the generator field and adapted to open and close the field circuit to thereby regulate the voltage of said generator, electromagnetic means to actuate one of the vibratory contacts in response to voltage variations to open the field circuit, a rectifier connected in parallel with the generator field to suppress the arc at the vibratory contacts when the contacts are separated by the electromagnetic means to open the field circuit, and a metallic housing enclosing said regulating device adapted to be attached to the metallic housing member of the generator to completely enclose and shield the regulating device to substantially prevent radio emanations therefrom.

2,848,680

ALTERNATING CURRENT DYNAMO-ELECTRIC MACHINES

Arthur Hemborough Maggs, Rugby, England, assignor to The British Thomson-Houston Company Limited, a British company

Application May 10, 1955, Serial No. 507,369
Claims priority, application Great Britain May 14, 1954
2 Claims. (Cl. 322—57)



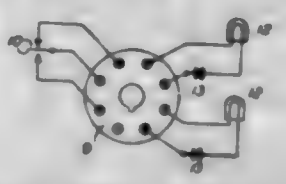
1. A synchronous dynamo-electric machine comprising in combination, a wound field system which carries in core slots for each pole three concentric field windings, the ends of said windings being connected to external terminals and the spans of the windings differing from each other, said field system further having the winding of intermediate span of the said three windings excited to cause under all normal armature loads magnetic saturation in those teeth of the armature which are embraced by said winding while the outer and inner windings which have greater and lesser spans are connected to means for regulating their excitation in opposite senses.

2,848,681

SIMULATED RELAY

Edward E. McKeige, Cranford, and Lester A. Pulley, Westfield, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application June 26, 1953, Serial No. 364,404
3 Claims. (Cl. 324—51)



1. A device for simulating a plug-in relay in an operating switching circuit to test the circuit wiring for the relay and the operation of the associated parts of the circuit controlled by the operation of the relay, said device comprising a plug adapted to be connected in the circuit in place of the relay, an electrical impedance connected to the plug to simulate a winding of the relay, a lamp for indicating current through the impedance, contacts connected to the plug to simulate the contacts of the relay and a manually controlled switch for operating the contacts.

2,848,682

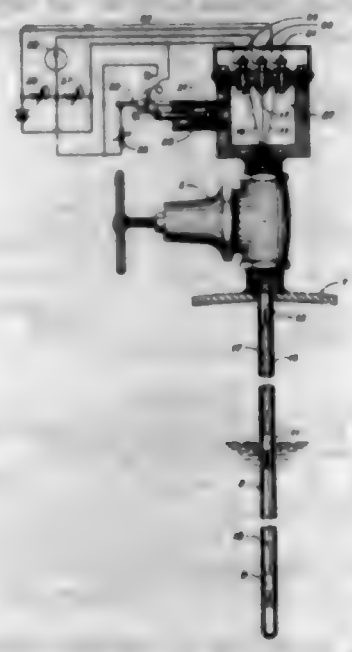
TUBULAR RESISTANCE COUPON

Joseph F. Chittum, Whittier, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application May 21, 1956, Serial No. 586,245
5 Claims. (Cl. 324—65)

1. Apparatus for measuring the corrosion rate in a metal container containing a fluid comprising an elongated metal tube projecting into said container and exposed to said fluid, a closed end on said tube to exclude

said fluid from the interior thereof, a plurality of electrical contacts placed in electrically conducting relationship with the interior wall of said tube and in spaced-apart relationship to each other, insulated conductors



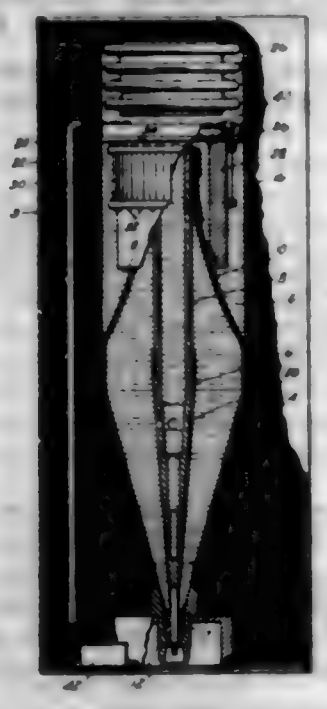
extending from said plurality of electrical contacts on the inside of said tube to terminals external to said container, and means for measuring the electrical resistance between said terminals.

2,848,683

CALORIMETRIC WATTMETER

Mack C. Jones, Unionville, Conn.

Application October 27, 1955, Serial No. 543,162
2 Claims. (Cl. 324—92)



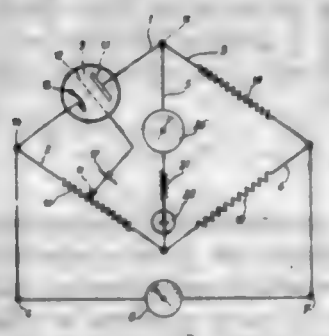
1. In a calorimetric wattmeter, a vertically extending section of transmission line including a center conductor and a coaxial outer conductor, a non-reflective load terminating said line at its upper end including a high loss coaxial impedance element terminating the center conductor and an impedance matching coaxial tapered conductor terminating the outer conductor, said line having a cylindrical extension on the outer conductor thereof surrounding said tapered conductor and forming with the portion of said outer conductor below said tapered conductor a container enclosing the impedance element and tapered conductor, a stationary body of heat transfer fluid filling said container and in which said impedance element and tapered conductor are immersed, an electrical input connector plug closing the lower end of said line and forming a leak-proof mechanical seal therefor, a housing having heat insulating walls surrounding said container, an annular imperforate member concentrically disposed within said cylindrical extension to enclose the terminating ends of said coaxial impedance element and said tapered conductor, a plurality of series-connected thermocouples fixed to the outer wall of said annular member in symmetrical circumferential configuration with their hot junctions in a plane normal to the axis of said line near the terminated end thereof and their cold junctions in a similar plane spaced below the terminating end of the line.

2,848,684

VOLTAGE MEASURING INSTRUMENT PROVIDING READINGS WITH AN ADJUSTABLE MAGNIFICATION RANGE

Claude Tuppin, Elisabethville, France, assignor to Institut de Recherches de la Siderurgie, Saint-Germain-en-Laye, France, a professional institution of France

Application February 28, 1955, Serial No. 491,166
Claims priority, application France March 4, 1954
4 Claims. (Cl. 324—101)



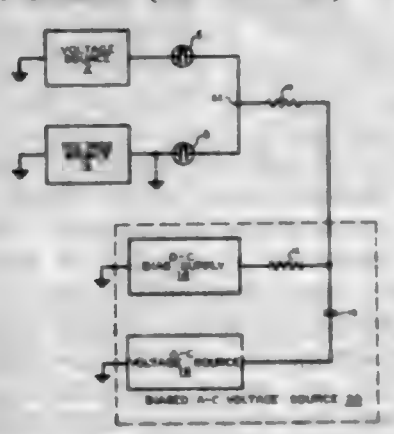
1. A voltage measuring instrument for providing readings with an adjustable magnification range comprising, in combination, a Wheatstone bridge having four arms, an electronic tube inserted in the first of said arms, a grid in said electronic tube, a voltage divider having a constant overall resistance and an adjustable point located in the second of said arms, said second arm being adjacent to said first arm on the cathode side of said electronic tube, said adjustable point being connected to said grid, a third arm adjacent to said first arm on the anode side of said electronic tube, a first fixed resistance in said third arm, a fourth arm between said second and said third arms, a second fixed resistance in said fourth arm, means for applying the voltage to be measured across one diagonal of the bridge with the first and the third arms at one side of said diagonal, and means for measuring the current across the other diagonal of the bridge.

2,848,685

VOLTAGE INDICATOR

Morton Mondschein, Belle Harbor, N. Y., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware

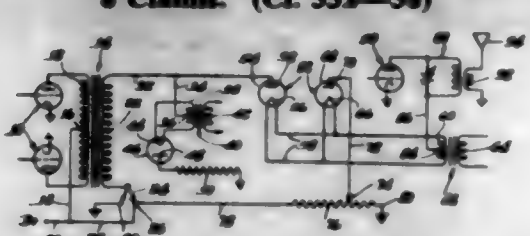
Application December 28, 1953, Serial No. 400,471
8 Claims. (Cl. 324—122)



4. A voltage indicator to indicate the one of a plurality of voltage sources which is at the highest potential

of a predetermined polarity, said indicator comprising an indicating means connected to each voltage source, each indicating means requiring a given potential difference to initiate an operation thereof and a lesser potential difference to maintain operation of said means, a source of cyclically varying potential of an opposite polarity and a voltage reducing device connected between all of said indicating means and said cyclically varying potential source, the instantaneous voltages of said varying potential source ranging between a voltage differing from said highest potential by more than said given potential difference and a voltage differing from said highest potential by less than said lesser potential difference.

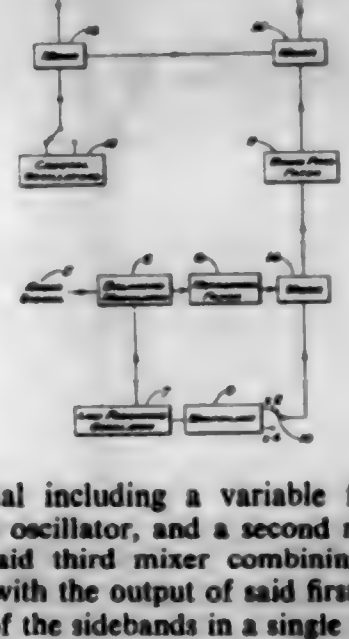
2,848,686
HIGH LEVEL A. M. MODULATION
Ollie James Allen, Lincroft, N. J.
Application April 20, 1955, Serial No. 502,553
8 Claims. (Cl. 332—38)



1. An A. M. modulation circuit comprising a carrier amplifier stage having an input connection for a modulating voltage, a source of alternate relatively positive and negative modulating voltage, a source of positive bias potential, an electronic switch connected to said input connection and to said sources of modulating voltage and positive bias potential, said electronic switch automatically effecting connection of said source of modulating voltage to said intput connection when said source of modulating voltage is more positive than said source of positive bias potential and automatically effecting disconnection of said source of modulating voltage from said input connection and simultaneously effecting connection of said source of positive bias potential thereto when said source of modulating voltage is less positive than said source of positive bias potential, resistance means approximating the resistance of the input connection of said amplifier stage, and means connecting said resistance means to said source of modulating voltage to impose a load on said source of modulating voltage when said source of modulating voltage is disconnected from said input connection.

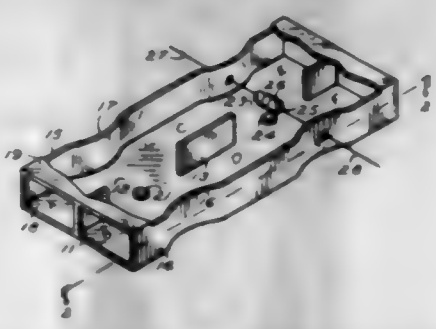
2,848,687
CIRCUIT FOR SELECTING BOTH UPPER AND LOWER SIDEBANDS
Ray Stanphill, Irving, Tex., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application April 12, 1956, Serial No. 577,796
1 Claim. (Cl. 332—45)

A single sideband transmission system including a source of audio signals, a source of low frequency signals, said low frequency signals having a frequency F1, a balanced modulator, said modulator combining said audio signals with said low frequency signals, means for selecting a predetermined output frequency from said modulator, a multiplying means, said multiplying means capable of producing a plurality of output frequencies from a single input frequency, certain of said output frequencies being related by a factor of two, said multiplying means connected to said source of low frequency signals whereby the output signals from said multiplying means are said low frequency signals multiplied a predetermined number of times, means for selecting the desired multiplier of said low frequency signals, a first mixer, the output signals from said multiplying means and said means for selecting a predetermined output frequency from said modulator means connected to said first mixer, filter means for filtering the output frequency from said first mixer, the output frequency from said filter being a predetermined number of times larger than said low frequency signal, means for producing a high



frequency signal including a variable frequency oscillator, a crystal oscillator, and a second mixing means, a third mixer, said third mixer combining the high frequency signal with the output of said first mixer whereby a desired one of the sidebands in a single sideband system is produced, said desired sideband being selected by the value of said multiplier.

2,848,688
MICROWAVE SWITCHING CIRCUIT
Julius T. Fraser, Ossining, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application April 9, 1956, Serial No. 577,022
5 Claims. (Cl. 333—7)



1. A microwave switch comprising two collinear waveguide short slot hybrid junctions axially aligned, each of said junctions including a coupling space, a ferrite element in the coupling space in one of said junctions, and means for applying a magnetic field to said element perpendicular to the narrow waveguide walls.

2,848,689
MATCHING DEVICE FOR MICROWAVE SHUNT TEE
John F. Zaleski, Valhalla, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application February 28, 1955, Serial No. 490,802
3 Claims. (Cl. 333—9)

2. A broadband efficient microwave guide shunt tee comprising, a microwave rectangular guide shunt arm, a pair of microwave rectangular guide collinear arms joined to said shunt arm at right angles, a conductive septum in the electric field extending transversely part way across said pair of collinear arms and comprehending the longitudinal axial electric field plane of said shunt arm, the septum being joined at one end to one common narrow

side of said collinear arms and terminating at its other end distant from said shunt arm by one quarter of the



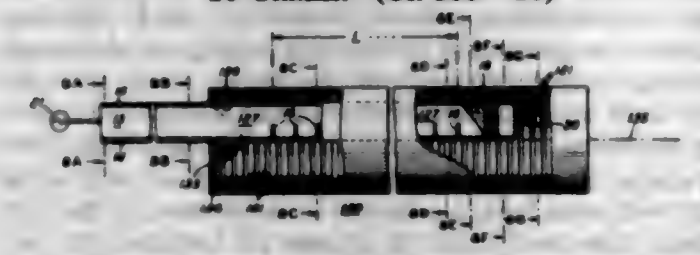
wavelength in guide of the applied microwave energy, and an inductive iris in said shunt arm at its junction with said collinear arms.

2,848,690

HIGH FREQUENCY SELECTIVE MODE TRANSDUCERS

Stewart E. Miller, Middletown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 27, 1953, Serial No. 357,665
10 Claims. (Cl. 333—10)



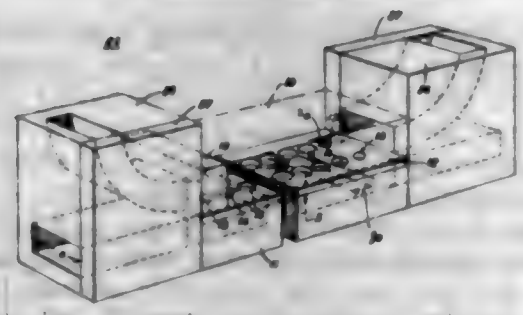
1. A wave transducer for converting electromagnetic wave energy from one mode into another mode, comprising first and second wave guides having a coextensive portion and forming a through transmission path, said transmission path having first and second ends for conducting said wave energy through said transducer between said ends, the transverse cross-section of said first end of the transmission path being rectangular and varying smoothly along the length of the first wave guide from the first end to an acute angle sector cross-section having an arcuate wall and radial walls, the transverse cross-section of said second transmission end being circular and varying smoothly along the length of the second wave guide from the second end to an obtuse angle sector cross-section having an arcuate wall and radial walls, the two arcuate walls forming a substantially circular cylinder along said coextensive portion of the transmission path, and directional coupling means for transferring energy between said first and second wave guides along said portion.

2,848,691

DIRECTIONAL COUPLER

Earl T. Harkless, Scotch Plains, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 23, 1954, Serial No. 477,299
2 Claims. (Cl. 333—10)



1. A directional coupler comprising two lengths of hollow pipe wave guide of rectangular cross section having wide and narrow transverse cross sectional dimensions a and b, respectively, said guides having equal phase constants γ and equal attenuation constants α, said guides being physically disposed one to the other so as to share a common wide wall of width a, said common wall having a thickness s and having at least one coupling aperture therethrough for communication between said guides, said aperture having dimensions small compared to a wavelength at any operating frequency for said guides, said aperture being located a distance x from one of said narrow walls, the thickness s of said common wall having a value providing a maximum value for A_1' in the expression

$$A_1' = \frac{j\gamma P}{ab}\left\{\frac{2}{e^{2\alpha}A_E}\sin^2\pi\frac{x}{a} + \frac{2a^2}{e^{2\alpha}A_E\gamma^2}\cos^2\pi\frac{x}{a} - \frac{k^2}{e^{2\alpha}A_H\gamma^2}\sin^2\pi\frac{x}{a}\right\}$$

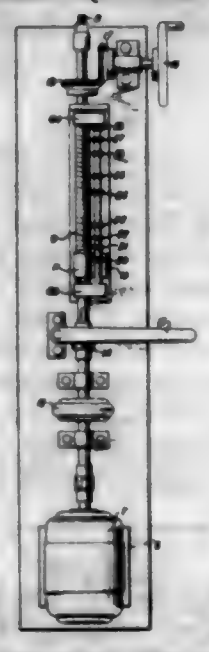
wherein A_1' is the relative amplitude of the wave that is excited in one of said guides by an impressed wave in the other of said guides propagating in the same direction, A_E and A_H are the attenuation factors for transverse electric and magnetic modes, respectively, passing through said coupling aperture, P is a multiplier which determines the magnitude of an electric moment of an equivalent electric dipole conceived of as being set up at the position of the coupling aperture, and wherein k is the phase constant in free space of any operating frequency of said directional coupler.

2,848,692

STANDING WAVE RATIO CONTROL APPARATUS

Frederick Kulick, Coopersburg, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application June 20, 1955, Serial No. 516,641
8 Claims. (Cl. 333—17)



1. Apparatus for automatically controlling the standing wave ratio in the output wave guide of an externally tunable oscillatory device having a driver for tuning the device for oscillation over a frequency range, comprising an adjustable standing wave introducer for the wave guide, a motor for adjusting the introducer, control means for energizing the motor to make an incremental adjustment in the introducer, and means controlled by the driver for selectively actuating the control means when the device is tuned for oscillation at predetermined frequencies.

2,848,693

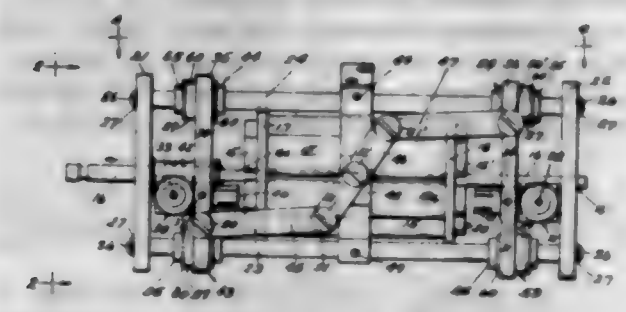
STEP ATTENUATORS

Michael T. Harges, Oyster Bay Cove, and Joseph Lorch, West Hempstead, N. Y., assignors to Empire Devices Products Corp., Bayside, N. Y.

Application February 6, 1957, Serial No. 638,539
16 Claims. (Cl. 333—81)

2. A step attenuator of the character described comprising a pair of plate members spaced apart and mov-

able along a longitudinal axis, an assembly of attenuator pads longitudinally oriented in a circular array, a pair of terminal connectors individually mounted on said plate members for selective engagement with said at-



tenuator pads across the terminal ends thereof, and means interlinking said pair of plate members to establish engagement and disengagement of said pair of terminal connectors with a selected attenuator pad.

2,848,694

COAXIAL CAVITY MODULATOR

John F. Zaleski, Valhalla, and Robert Crane, Jr., Chappaqua, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York

Application October 19, 1951, Serial No. 252,035
5 Claims. (Cl. 333—82)



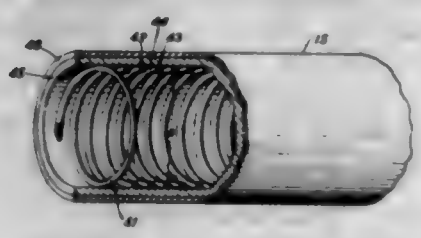
4. A modulating microwave resonant cavity comprising, a hollow tubular conductor closed at one end, a conductive rod projecting through said closed end into said hollow tubular conductor coaxially therewith, means for adjusting the amount by which said rod projects into said hollow tubular conductor, a shaft extending into said tubular conductor in a direction normal to the axis thereof and having a flattened end portion positioned adjacent the distal end of said conductive rod, means for rotating said shaft, and microwave coupling means associated with said hollow tubular conductor and conductive rod.

2,848,695

ELECTROMAGNETIC WAVE TRANSMISSION

John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 15, 1954, Serial No. 416,315
7 Claims. (Cl. 333—95)



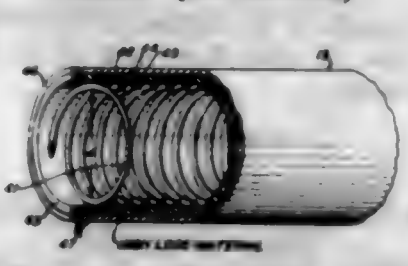
1. In an electromagnetic wave transmission system, means for producing the circular electric mode of said wave energy, means for utilizing said circular electric wave energy, and means connecting said utilizing means to said producing means, said connecting means comprising an elongated member of conductive material wound in a substantially helical form, said helix having a diameter greater than one wavelength of said wave energy, said helix having adjacent turns thereof electrically insulated from each other.

2,848,696

ELECTROMAGNETIC WAVE TRANSMISSION

Stewart E. Miller, Middletown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 15, 1954, Serial No. 416,316
1 Claim. (Cl. 333—95)



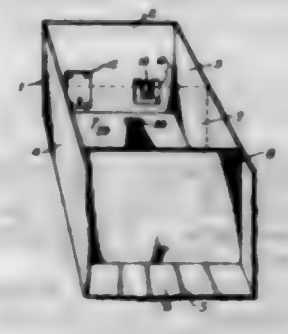
In an electromagnetic wave transmission system, means for producing the circular electric mode of said wave energy, means for utilizing said circular electric wave energy, transmission means connecting said utilizing means to said producing means comprising an elongated member of conductive material wound in a substantially helical form and a jacket of electrically dissipative material surrounding said conductive material, said helix having a diameter greater than one wavelength of said wave energy, said helix having adjacent turns thereof electrically insulated from each other to expose all longitudinal current components to said electrically dissipative material at least once every quarter wavelength of high frequency wave energy propagated along said transmission means and spaced substantially less than one quarter wavelength to expose circumferential current components of said circular electric mode to said dissipative material to a substantially smaller degree than the exposure of said longitudinal current components.

2,848,697

PLUG-IN PACKAGED WAVEGUIDE ASSEMBLY

Robert K-F Seal, Englewood, N. J., assignor to the United States of America as represented by the Secretary of Commerce

Application July 21, 1954, Serial No. 444,927
2 Claims. (Cl. 333—98)



1. A microwave coupling comprising a section of rectangular waveguide including a waveguide channel and a flange at one end, a flat supporting plate having a microwave aperture for receiving said waveguide, substantially U-shaped means secured to said plate about three sides of said aperture in spaced relation thereto defining a nesting space for receiving said flange, said U-shaped means being dimensionally oriented with respect to said microwave aperture and said waveguide channel to produce exact registry between said channel and aperture and self-acting spring means for resiliently containing said flange between said plate and said U-shaped means upon insertion of said flange into said nesting space in a direction parallel to said plate.

2,848,698

VARIABLE RELUCTANCE ELECTROMAGNETIC DEVICES

Charles K. Howey, Torrance, Tom T. Kumagai, Los Angeles, and Gordon A. Shifrin, Torrance, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application April 1, 1957, Serial No. 650,045
12 Claims. (Cl. 336—30)



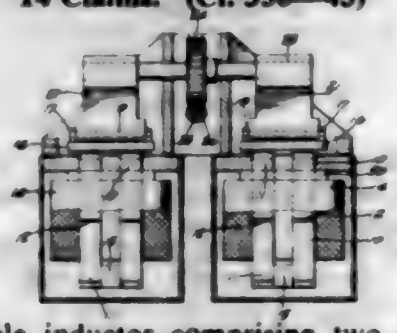
1. An incremental displacement detector comprising, at least one scale of magnetic material having a scale path thereon defined by spaced grooves in one surface thereof with lands therebetween, a pair of electromagnetic members, each electromagnetic member having a core of magnetic material including two legs, one leg terminating in a narrow pole face having a smaller width than the width of said respective grooves and the other pole face having a larger corresponding dimension sufficient to straddle a plurality of adjacent grooves, a coil disposed on said one leg of each core, said cores being disposed with said pole faces positioned for relative movement over said scale path in substantially sliding engagement with said grooved face of said scale and the spacing between said narrow pole faces positioning one narrow pole face substantially centrally of a land when the other narrow pole face is disposed substantially one-quarter of the distance between the centers of adjacent lands for one relative position of said scale with respect to said cores.

2,848,699

VARIABLE INDUCTANCE

Ralph E. Allison, Whittier, Calif., assignor to Patent Management, Incorporated, Minneapolis, Minn., a corporation of Minnesota

Application August 27, 1953, Serial No. 376,881
14 Claims. (Cl. 336—45)



1. A variable inductor comprising two spaced cores, a winding encircling portions of said cores, a magnetic shunt connecting the cores, magnetic flux generating means movable toward and away from said cores and arranged to have flux generated thereby pass sequentially through a portion of one core, through the shunt, and a portion of the other core, and dialed means for adjusting the flux generating means toward and away from the cores, said means having a shaft movable in accordance with an arithmetical progression, and means operable thereby connecting the shaft to the flux generating means for causing the flux generating means to move toward and away from the cores in accordance with a geometrical progression.

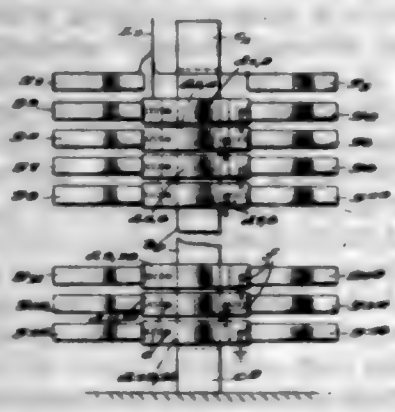
2,848,700

HIGH VOLTAGE TRANSFORMER

Hans Hartmann, Ennetbaden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland

Application November 30, 1954, Serial No. 472,191
Claims priority, application Switzerland
December 10, 1953
3 Claims. (Cl. 336—70)

1. In a high voltage transformer having a high voltage input lead and a ground connection, the combination comprising a closed magnetic iron core having a pair of parallel columns; a high voltage winding including an equal number of pancake type coils arranged on each of said core columns in superposed relation, the coils on one column being opposite corresponding coils on the other column, the uppermost coil of one column being connected to the high voltage lead and the lowermost coil of the other column being connected to ground, and means connecting said coils in series comprising first conductor means connecting oppositely-located coils together in pairs and second conductor means connecting one coil of each coil pair mounted on one column with one coil of an adjacent lower coil pair mounted on the other column; capacitance means having capacities graduated in decreasing values from the high voltage input lead



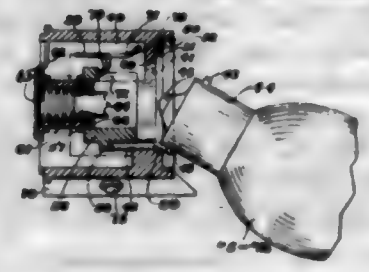
to ground comprising two equally-numbered groups of electrically conductive plates disposed in superposed relation on opposite sides of a plane established centrally through said core columns, said plates and said coils being parallel, the uppermost plates of each group lying above the uppermost coil pair and being connected to the high-voltage lead and the other plates of each group lying respectively substantially in the planes of each of said coil pairs; means for electrically connecting each of the plates on one side of said plane established centrally through the core columns with each of the first conductor means nearest adjacent thereto respectively; and means for electrically connecting each of the plates on the other side of said plane established through the core columns with each of the second conductor means nearest adjacent thereto respectively.

2,848,701

LAMP SOCKET FOR PHOTOFLASH UNITS

Edward S. McKee and Edmund F. Deffenbaugh, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

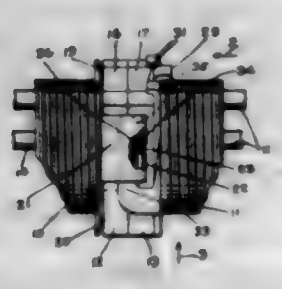
Application May 18, 1956, Serial No. 585,750
2 Claims. (Cl. 339—45)



1. A dual lamp socket for a photoflash unit adapted to releasably seat interchangeably regular flashlamps having a base from which bayonet pins extend radially and midget flashlamps having a base of smaller diameter than said regular lamps and having a radial flange extending circumferentially thereof and connect them in circuit with a power source carried by the photoflash unit and comprising in combination a hollow casing provided with a circular opening into which the lamp bases are adapted to be inserted and having an internal diameter slightly larger than the exterior diameter of the base

of a regular lamp, diametrically disposed radial slots in the wall forming said opening adapted to pass the bayonet pins extending radially from the base of the regular lamp, a pilot sleeve made of insulating material fixed in the bottom of said casing and in axial alignment with said opening therein, a metal center contact slidably mounted wtihin said pilot sleeve and adapted to engage the center contact of any lamp inserted into the socket, a coiled spring normally urging said center contact to an extended position and serving to electrically connect said contact to one side of the power source, cooperating means on said center contact and said pilot sleeve limiting the outward movement of said contact, a retractable sleeve slidably mounted on the exterior of said pilot sleeve and having an internal diameter slightly larger than the outside diameter of the base of a midget lamp, whereby it is adapted to act as a socket therefor, and having an external diameter substantially equal to the diameter of the base of a regular lamp, a coiled spring normally urging said retractable sleeve to an extended position, cooperating lugs on said retractable sleeve and said casing limiting the outward movement of said sleeve to said extended position, and a single releasable metal latch member within said casing adapted to positively engage a bayonet pin on the base of a regular lamp and the radial flange on the base of a midget flashlamp when one or the other type of lamps is pushed into said socket with a straight thrust to latch the lamp in said socket and at the same time connect the lamp base to the other side of said power source in the photoflash unit.

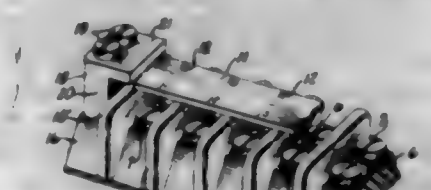
2,848,702
LOCK RING FOR ELECTRICAL CONNECTORS
Anton Jackson, Queens Village, and Boris A. Jackson, Valley Stream, N. Y.
Application July 13, 1954, Serial No. 442,942
1 Claim. (Cl. 339—90)



A lock ring for connectors of the character described, comprising a ring-like body having opposed offset portions said offset portions including angularly extending L-shaped arms directed in opposed directions to each other, ends of said arms having inwardly enlarged portions including outer bevelled walls, the periphery of the ring intermediate said arms having a pair of angularly extending spaced flanges extending in the same direction from the ring as said arms, and said ring, intermediate said flanges, having an angularly projecting key part extending in the opposite direction from said arms.

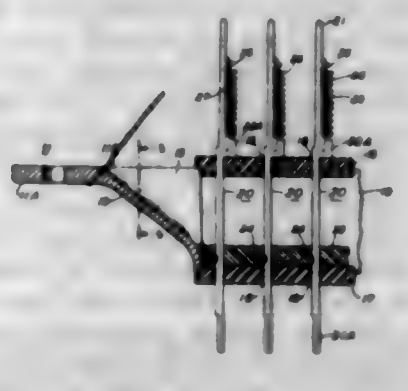
2,848,703
TERMINAL BLOCK WITH SHIFTABLE MARKER STRIP
Richard L. Foote, Erie, Pa., and Robert H. Fisher, Jr., New York, N. Y.; said Foote assignor to Marathon Electric Manufacturing Corporation, Wausau, Wis., a corporation of Wisconsin
Application October 3, 1956, Serial No. 627,528
(Filed under Rule 47(a) and 35 U. S. C. 116)
8 Claims. (Cl. 339—113)

3. In an electrical connecting device, the combination of: an elongated terminal block having longitudinally spaced transversely extending separators projecting up from the top of the block, and transversely opposite pairs of terminals on the top of the block between adjacent separators and arranged in parallel longitudinally extending rows, the tops of said separators lying in a common plane parallel to the top of the block; a flat elongated marking strip having a length sufficient to span all of the separators and width only slightly greater than the center to center distance of said rows of terminals; indicia on one face of the marking strip for identifying said terminals; and means for securing said strip to the block with the strip resting on the tops of the separators and said face thereof which has the indicia thereon uppermost, with the strip centered over said rows of terminals to restrict access to the terminals in both rows thereof,



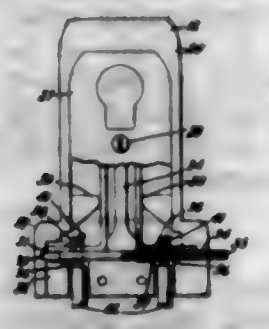
or with the strip completely covering the terminals in either row thereof and providing substantially unobstructed access to the terminals in the other row thereof, said last named means comprising retaining means on the ends of the block having ledges thereon with downwardly facing surfaces of substantial area overlying the endmost separators and flatwise contiguous to the top surface of the end portions of the marking strip so as to preclude flatwise displacement of the strip from the block, and pairs of cooperating abutments on the retaining means and on the end portions of the marking strip having laterally facing surfaces interengageable with one another in any of said positions of the marking strip to hold the strip against lateral displacement relative to the block.

2,848,704
TERMINAL STRIP
Charles V. Obst, South Ozone Park, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1954, Serial No. 478,609
10 Claims. (Cl. 339—198)



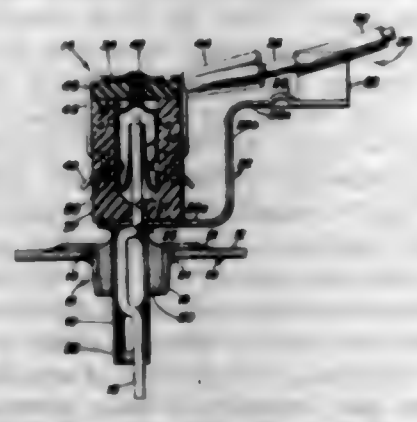
7. A terminal strip comprising a metallic frame having opposite open sides and oppositely directed mounting portions, correspondingly orificed insulating covers for said open sides, a plurality of elongated terminals arranged in rows each terminal in the corresponding orifices of each cover and projecting therefrom, and a molded mass of insulating material imbedding intermediate portions of the terminals and securing at least one cover to the terminals and to the frame, said terminals having a shouldered portion for securing the other cover to the frame.

2,848,705
WIRING DEVICE QUICK CONNECT TERMINALS
Herbert D. Williams, Monroe, and Donald J. Krom, Bridgeport, Conn., assignors to General Electric Company, a corporation of New York
Application June 30, 1955, Serial No. 519,212
4 Claims. (Cl. 339—200)



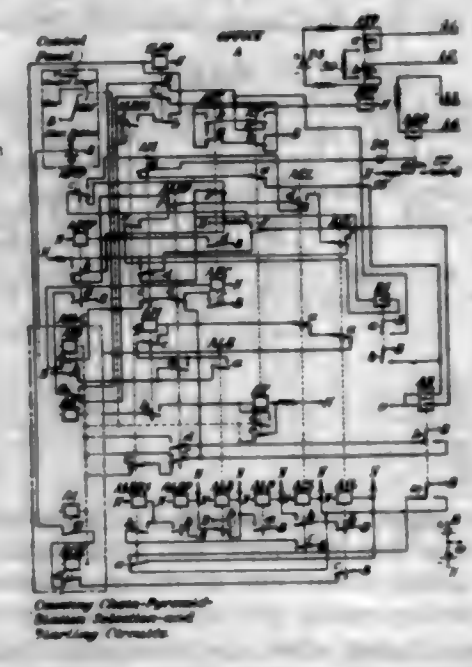
1. An electrical wiring device comprising a hollow housing having at least one contact member located therein, the terminal end of said contact being arranged in a spaced parallel relation to an inner wall of said housing, a conductor wire-receiving aperture in said wall, and a lanced opening in said terminal portion substantially in alignment with the aperture in the said wall, a slider extending through an adjacent wall of said housing and movable between the said terminal portion and said apertured wall, the opening in the said terminal portion being lanced in a direction away from the slider to leave a rounded edge surface on the side of the opening remote from the outer position of the slider so that when a lead wire is inserted through the aperture in the housing the slider may be depressed to wedge the wire between the said terminal portion and the opposed parallel wall surface of the housing, and locking means for holding the slider within the housing.

2,848,706
ELECTRICAL CONNECTOR
Carl W. Besserer, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application November 17, 1953, Serial No. 392,782
3 Claims. (Cl. 339—222)



2. An electrical connector adapted for use with hermetically sealed apparatus, comprising, a sealed housing enclosing said apparatus, a male contact outside of said housing and electrically insulated therefrom, a female contact for releasably engaging said male contact, a conductor, a lug on said female contact to secure said conductor to said female contact, and a jumper of resilient conductive material permanently secured to said male contact and adapted to be permanently secured to said conductor to form an electrical path in parallel with the electrical path established by the engagement of said male and female contacts and to retain said male and female contacts in engagement.

2,848,707
REMOTE CONTROL SYSTEMS
David G. Emmel, Mount Lebanon, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application January 24, 1956, Serial No. 561,100
12 Claims. (Cl. 340—163)

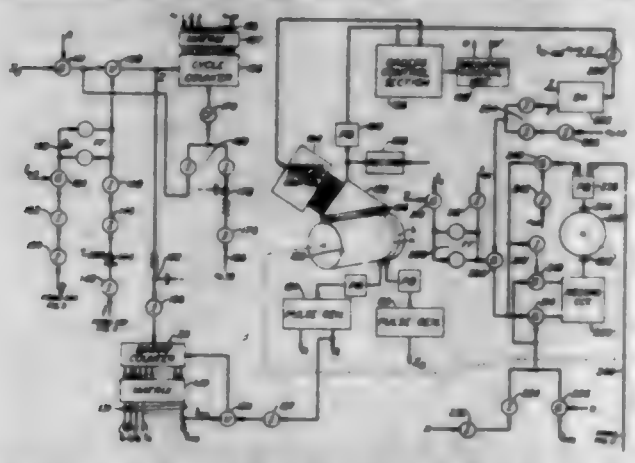


1. In a remote control system, the combination comprising: a first and second control office location, at least one station location at which a controllable function is located, said office locations and said station being connected by a communication channel with said second office interposed between said first office and said station, each said office location being provided with similar coding apparatus to transmit control codes to said station to remotely control said function, said station being provided with apparatus to receive said control codes and to deliver the controls to said function, each said office coding apparatus including a master relay which must be energized for the coding apparatus to transmit a control code, energizing circuit means for said master relay being provided at each office, said second office being further provided with selective means to normally pass said control codes from said first office to said station, said selective means including a normally open contact selectively operable at times to a closed position and a repeater relay of said master relay at said first office, said repeater being energized only when said first master relay is energized, said selectively operable contact and a deenergized position contact of said repeater relay being interposed in the energizing circuit means for the second master relay to permit said second office to at times also control said function at said station when said coding apparatus at said first office is not transmitting.

2,848,708
PRINTING CONTROL MEANS FOR ELECTRONIC COMPUTERS AND THE LIKE
William H. Burkhart, East Orange, and Richard J. LaManna, Orange, N. J., assignors to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Application June 4, 1953, Serial No. 359,532
8 Claims. (Cl. 340—173)

1. A system for serially indicating a number consisting of a series of digits recorded in coded form on a cyclically operating storage device comprising, a plurality of first flip-flops for receiving representations of the recorded digits from said storage device, one digit at a time, a digit indicating device, a plurality of second flip-flops each associated with a said first flip-flop for controlling said digit indicating device, timing means cyclically operated in synchronism with said storage de-

vice, first gating means enabled by said timing means to set said first flip-flops to represent a digit recorded on said storage device, means for precessing the number recorded on said storage device to apply representations of successive digits of said number to said first gating means, second gating means to set said second flip-flops in accordance with the setting of said first flip-flops, means for selecting the first digit to be indicated, means for producing a start signal when the first digit to be indicated is available in said first flip-flops, said start signal enabling said second gating means and disabling continued operation of said timing means, said digit indicating device producing a ready signal when said indicating device thereafter is conditioned for control by said second flip-flops, said ready signal enabling said second gating means and enabling said timing means for one cycle of operation.

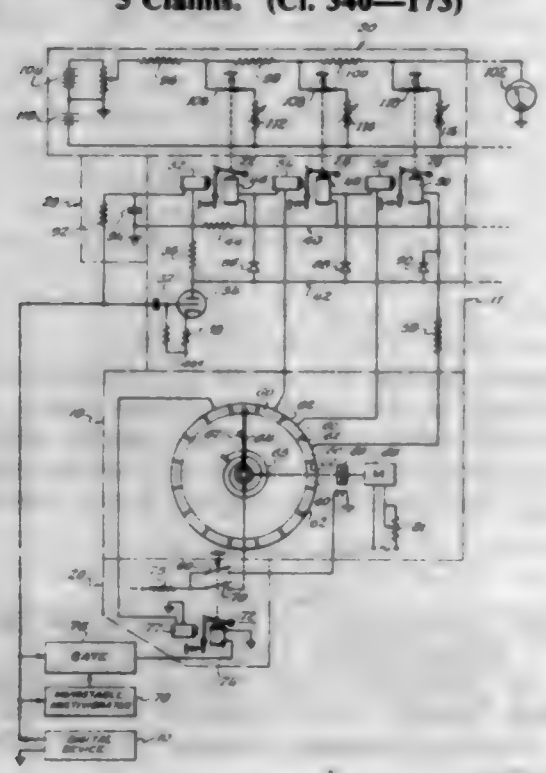


2,848,709

DIGITAL DATA STORAGE CIRCUIT

Curtis M. Jansky, New York, and Arthur W. Vodak, Garden City, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware

Application January 23, 1956, Serial No. 560,487
5 Claims. (Cl. 340—173)



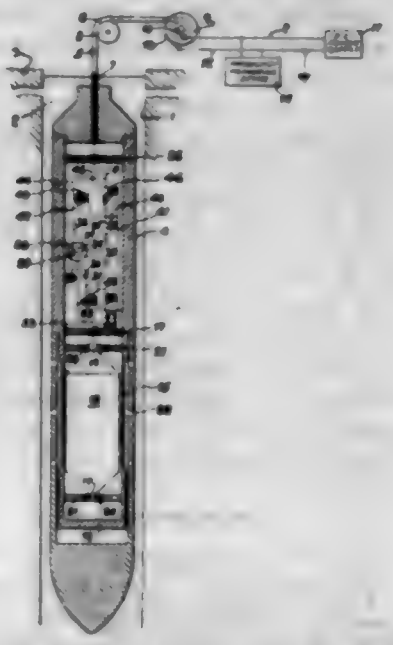
4. A circuit for storing a binary word signal received in such form that the presence or absence of pulses during successive digit intervals indicate the binary digit 1 and 0, respectively, said circuit comprising a plurality of bistable elements having first and second inputs for triggering said elements respectively to one or the other of the stable conditions, commutating means for successively energizing a plurality of output terminals thereof at the repetition rate of the successive binary digit intervals, and a plurality of "and" circuits for producing an output signal only in response to a simultaneously received pair of input pulses, each of the "and" circuits having one input thereof coupled to a respective one of the output terminals of the commutating means and the other input thereof coupled to the binary word signal, the output of each "and" circuit being coupled to a respective one of the inputs of an associated one of the bistable elements, the remaining input of each of the bistable elements except one being coupled to the output terminal of the commutating means that is energized thereby just prior to the time of energizing of the output terminal coupled to the "and" circuit associated with said one input terminal of the respective bistable element, whereby successive bistable elements are preset by the commutating means.

2,848,710

REMOTE READING FLUID PRESSURE GAUGE

John E. Owen, Tulsa, Okla., assignor to Geophysical Research Corporation, New York, N. Y., a corporation of New Jersey

Application March 26, 1954, Serial No. 419,044
4 Claims. (Cl. 340—200)

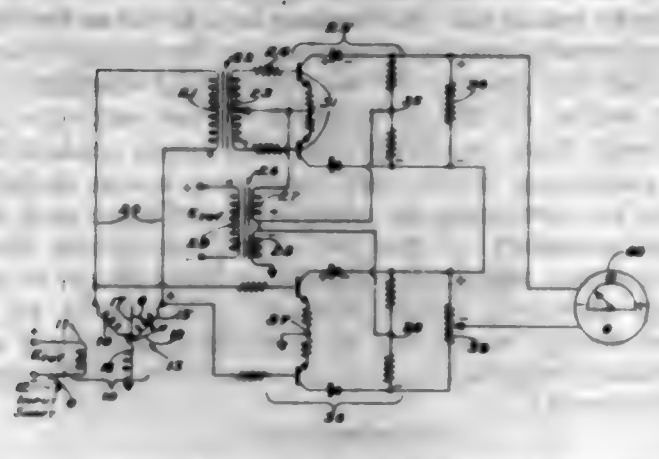


1. A remote reading fluid pressure gauge including a casing adapted to be lowered in the fluid, an electronic oscillator located in said casing and including an inductor and a fluid-pressure-responsive variable capacitance tuning capacitor, said casing having means for sealing said oscillator fluid-tightly from the fluid excepting for said capacitor and for mechanically protecting the latter while transmitting thereto the pressure of said fluid, a cable connected to said casing for use in lowering the latter and including at least one insulated conductor, means located in said casing for coupling the output of said oscillator to said conductor and to ground, means for powering said oscillator, said means for powering said oscillator comprising an electron tube having plate and filament circuits requiring power at relatively high and low potentials respectively, means located at said remote cable end for applying power to said conductors at said high potential, said conductors being connected to said circuits, and means in said filament circuit for dropping the potential therein to said low potential, said oscillator including a comparison capacitor of fixed capacitance, a relay having an actuating solenoid and contacts for switching at least one of said capacitors in and out of the oscillator, said solenoid being connected to said conductors for actuation of said contacts by an increase in the potential of the power applied to the conductors at said remote cable end, and a resistor, said relay having additional contacts for switching the last-named resistor into said plate and filament circuits so as to reduce the potential therein when the potential of the power applied to said conductors is increased to actuate said contacts.

2,848,711
MEANS FOR PROVIDING LINEAR INDICATIONS OF SHAFT ROTATIONS GREATER THAN NINETY DEGREES

Melvin H. Rhodes, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application February 28, 1957, Serial No. 643,010
3 Claims. (Cl. 340—207)

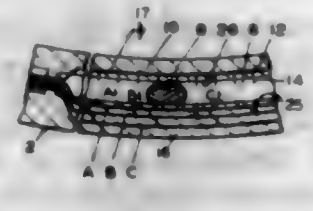


1. Shaft rotation indicator means comprising a synchro having an input rotor mounted on a rotatable shaft and a stator, said stator having three terminals with one terminal grounded, a first discriminator means connected across the two ungrounded terminals, said first discriminator means having an output, a second phase discriminator being connected between said ungrounded terminals and said ground, said second discriminator having an output, the outputs of said first and second discriminators being connected in series, and means in said output circuit for indicating the rotation of said shaft from a reference position.

2,848,712
AUTOMATIC SLEEP-WARNING SYSTEM DEVICE FOR AUTOMOBILES

James N. Preston, Phoenix, Ariz.

Application August 12, 1957, Serial No. 677,634
2 Claims. (Cl. 340—279)

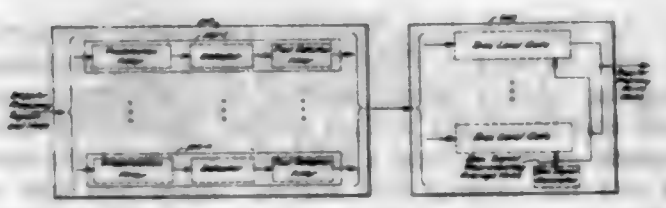


1. An awakener for drivers of vehicles having a steering wheel and a battery composed of an arcuate switch body of insulating material attached to said steering wheel having an inner arcuate channel, a live conductor attached to the one terminal of a battery in said vehicle within the material of said switch body having a plurality of spaced radial contact points extending into said channel, three separates conductors embedded in the material of said switch each having radially directed contact points extending into said channel; said contact points being equally spaced and extending alternately from said conductors, a blob of mercury in said channel adapted to connect any two of the contact points of said live conductor with any two adjacent contact points of said three conductors; when said steering wheel and switch body is rotatively moved, a thermostat switch having three bimetallic thermostatic arms adapted to open three normally closed alarm switches; each bar having an electric heating coil adapted to heat and bend said bar and open the alarm switch opearted by it when current is applied to said heating coil and said bar being adapted to return to normal shape and close said switch within a predetermined time when current is disconnected from said heating coil; each of said alarm switches being connected in series with a battery and an electrically operated alarm; each of the heating coils on each of said thermostatic arms being connected to the other terminal of said battery in said vehicle and to one of said three conductors within said arcuate switch body.

2,848,713
HIGHLY DISCRIMINATIVE FILTER AND BIAS-LEVEL GATING CIRCUIT

Brooks Ehrmon Cowart, Pacoima, Lloyd David Ball, Los Angeles, and John I. Daspit, Santa Monica, Calif., assignors to Gilfillan Bros. Inc., Los Angeles, Calif., a corporation of California

Application February 3, 1955, Serial No. 485,974
6 Claims. (Cl. 343—8)



1. A highly discriminative circuit for detecting Doppler frequency signals present in a frequency region Δf, the region Δf including noise signals statistically averageable throughout the region, said circuit comprising: a plurality of filtering means responsive to received Doppler frequency signals for separating the signals throughout the region Δf into a corresponding plurality of separate frequency divisions; a plurality of bias-level gating circuits coupled to said filtering means, respectively, each of said gating circuits including a unidirectional device having an input electrode for receiving the signal produced by the associated filter and an output electrode for passing a signal of a predetermined polarity; means coupling said output electrodes together; means providing a common bias circuit for said second electrode; and means for applying an average noise-level-representing signal to said last-named means, whereby said gating circuits may pass only a Doppler frequency signal having a level greater than the noise level represented, the largest Doppler signal received creating a further bias discriminating against any other Doppler signal of lesser amplitude.

2,848,714
ANTENNA COUPLING CIRCUITS

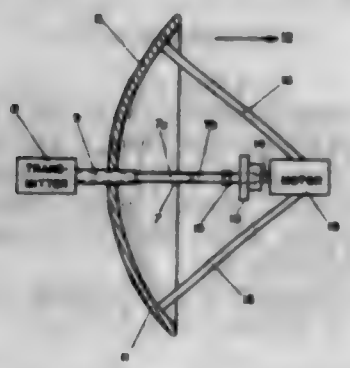
Douglas H. Ring, Red Bank, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 8, 1955, Serial No. 513,957
12 Claims. (Cl. 343—100)



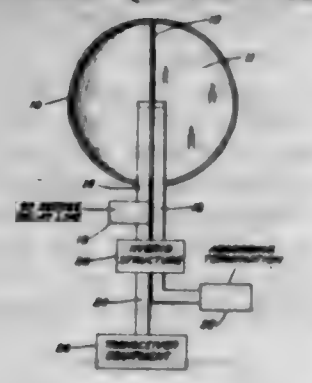
1. In combination, a plurality of antenna elements, a like plurality of circulators each having a first terminal connected to one of said antenna elements, first and second radio apparatus, a first converging network coupling said first radio apparatus to the second set of terminals of said circulators, and a second converging network substantially independent of said first converging network coupling said second radio apparatus to a third set of terminals of said circulators.

2,848,715
CONICAL SCANNING ANTENNA
Jesse L. Butler, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application May 19, 1954, Serial No. 430,924
10 Claims. (Cl. 343—763)



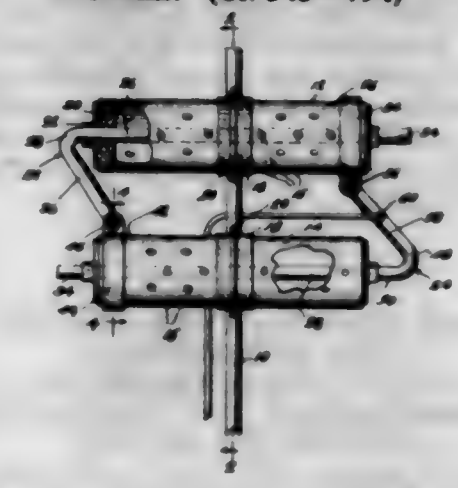
1. An antenna comprising an electrically nonconductive rod forming a dielectric radiator for propagating along the surface thereof surface electromagnetic energy waves and below the surface thereof sub-surface electromagnetic energy waves; a reflecting means at the end of said rod for causing said surface waves and said subsurface waves to be reflected in phase; and an annular member carried by said rod for radiating said waves comprising three radiating elements having their centers disposed substantially 120 degrees apart.

2,848,716
COMPARTMENTAL ANTENNA WITH HYBRID FEED
Robert L. Mattingly, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 3, 1957, Serial No. 656,985
11 Claims. (Cl. 343—782)



1. A directive transmitting system comprising, a secondary antenna section, separate means for illuminating each half of said antenna section, means for shielding each half of said antenna section from energy intended for the other half and each illuminating means from reflections from the half which it does not illuminate, means for connecting both said illuminating means to a single source of energy, said connecting means equally dividing the energy of said source between said illuminating means, said portions of energy being in phase, means for introducing an additional phase delay of ninety degrees in the energy to one of said illuminating means, means for introducing a compensating phase delay in the energy emanating from the aperture of the half of said secondary antenna section the energy to which did not encounter said additional delay, an energy absorbing means connected to said connecting means, said connecting means including means for combining the energy reflected from each half of said secondary antenna section to its associated illuminating means and directing said combined energy to said energy absorbing means, whereby substantially no reflected energy is returned to said source of energy and impedance irregularities are not introduced in the circuit of said source.

2,848,717
HIGH FREQUENCY TYPE ANTENNA WITHIN CONDUCTIVE APERTURED WALL
Anthony J. Warbeck, Manchester, Conn.
Application August 27, 1954, Serial No. 452,618
5 Claims. (Cl. 343—794)

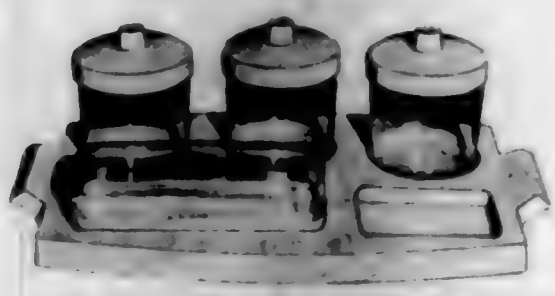


1. A high frequency antenna comprising a pair of legs, the legs being disposed in vertically spaced parallel relation, radiating shells coaxially disposed on the legs, insulation means interposed between the legs and the shells, said shells each having a series of openings formed radially therein, means connecting each of the legs to an opposite shell and a terminal post for a single lead in line on one of said connecting means.

DESIGNS

AUGUST 19, 1958

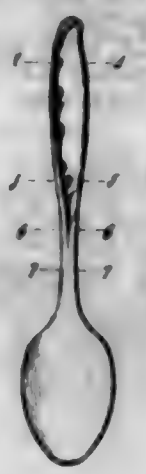
183,379
TOILET TRAY SET
Clement W. Alley, Lombard, Ill., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application December 27, 1955, Serial No. 39,476
Term of patent 7 years
(Cl. D44—10)



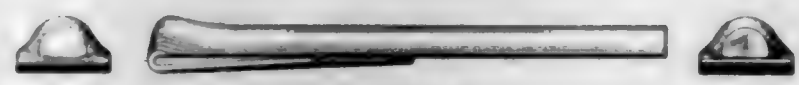
183,380
SPOON OR SIMILAR ARTICLE
Theodore E. Cayer, Taunton, Mass., assignor to Reed and Barton Corporation, a corporation of Massachusetts
Application September 26, 1957, Serial No. 47,887
Term of patent 14 years
(Cl. D54—12)



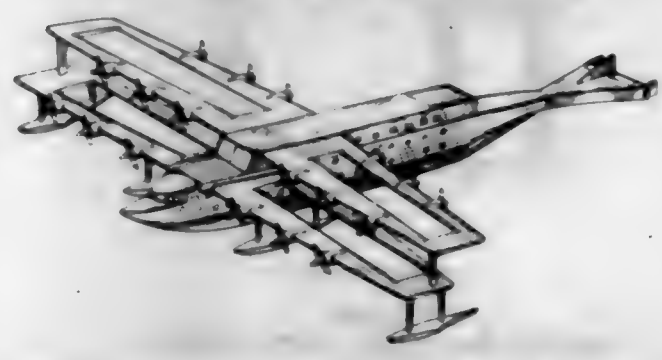
183,381
SPOON OR SIMILAR ARTICLE
Theodore E. Cayer, Taunton, Mass., assignor to Reed and Barton Corporation, Taunton, Mass., a corporation of Massachusetts
Application October 14, 1957, Serial No. 48,081
Term of patent 14 years
(Cl. D54—12)



183,382
MAGNIFYING READING BAR
Florence M. Chapman, Oakland, Calif.
Application February 10, 1958, Serial No. 49,565
Term of patent 14 years
(Cl. D57—1)



183,383
HYDROPLANE
Paul Projo de Asis, Yonkers, N. Y.
Application September 13, 1957, Serial No. 47,738
Term of patent 14 years
(Cl. D71—1)



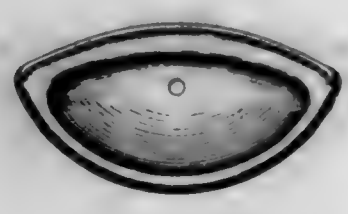
183,384
PORTABLE VEGETABLE AND FRUIT PEELER
Noel J. de Mille, Hillington, Glasgow, Scotland, assignor to The Prestige Group Limited, London, England, a British company
Application September 6, 1957, Serial No. 47,639
Claims priority, application Great Britain May 27, 1957
Term of patent 14 years
(Cl. D89—1)



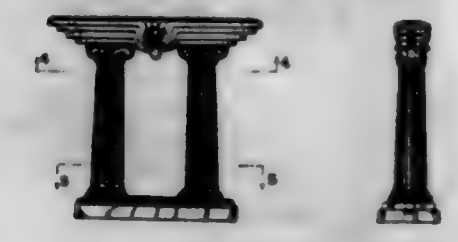
183,385
FOOD MIXER OR THE LIKE
Robert O. Ernest, Oak Park, and Ross E. Cornwell, Chicago, Ill., assignors to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application March 31, 1958, Serial No. 50,245
Term of patent 14 years
(Cl. D44—1)



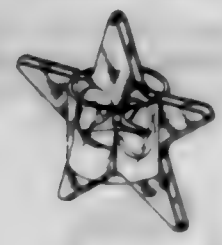
183,386
LAVATORY OR SIMILAR ARTICLE
Julian G. Everett, New York, N. Y., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application November 25, 1957, Serial No. 48,661
Term of patent 14 years
(Cl. D4—2)



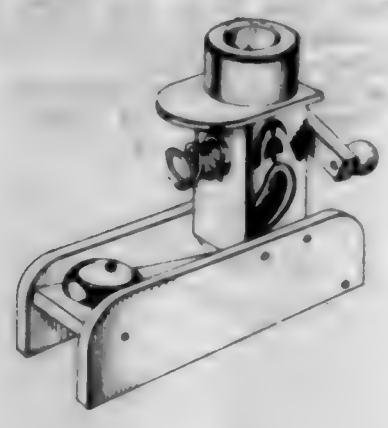
183,387
TROPHY BASE
Alfred John Flauder, Trumbull, Conn.
Application October 16, 1957, Serial No. 48,130
Term of patent 7 years
(Cl. D29—23)



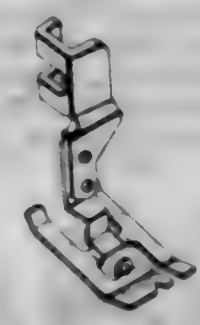
183,388
CHRISTMAS TREE ORNAMENT
John P. Garver, Poland, Ohio, assignor to Hoover Products, Inc., Youngstown, Ohio, a corporation of Ohio
Application March 21, 1957, Serial No. 45,385
Term of patent 14 years
(Cl. D29—1)



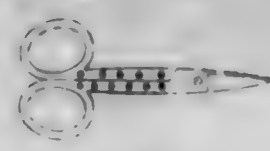
183,389
CRANK OPERATED TOY UTILIZING MARBLES
Raymond C. Gaston, Madeira, Ohio, assignor to The Chas. Wm. Doepke Manufacturing Company, Inc., Rossmoyne, Ohio, a corporation of Ohio
Application June 13, 1957, Serial No. 46,589
Term of patent 14 years
(Cl. D34—15)



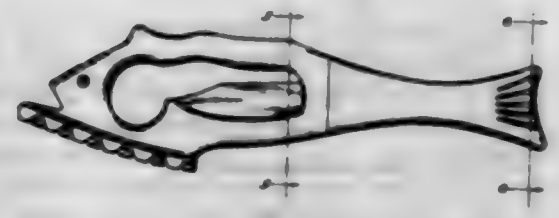
183,390
SEWING MACHINE PRESSER-FOOT
Ralph E. Johnson, Mountainside, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application October 2, 1957, Serial No. 48,075
Term of patent 14 years
(Cl. D70—2)



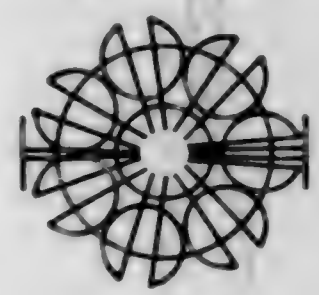
183,391
SCISSORS
Herman L. Kaplan, New York, N. Y.
Application December 20, 1955, Serial No. 39,399
Term of patent 3½ years
(Cl. D22—5)



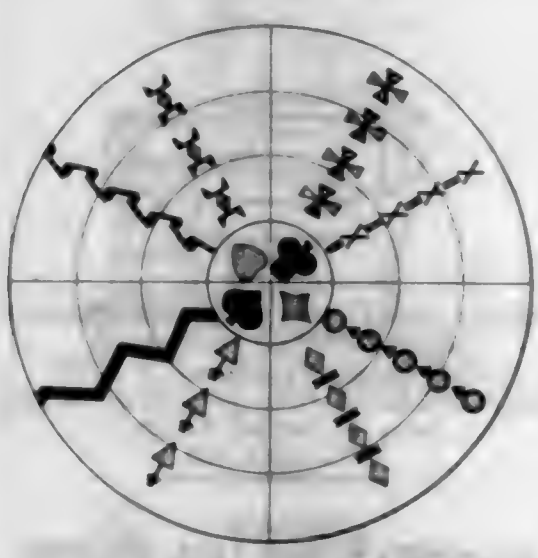
183,392
FISH CLEANING TOOL
Walter Kernicki, Grand Rapids, Mich.
Application March 3, 1958, Serial No. 49,864
Term of patent 14 years
(Cl. D31—4)



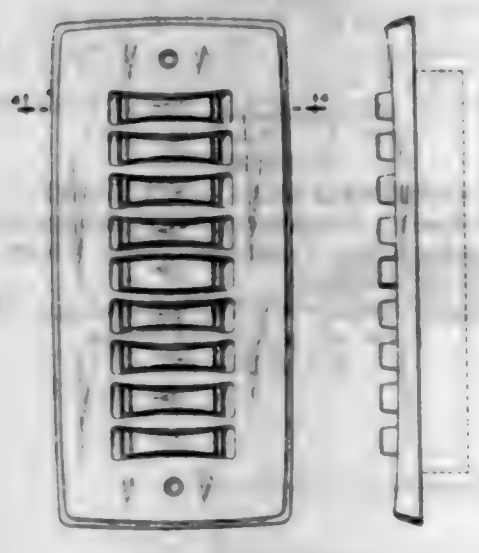
183,393
BOTTLE STERILIZING RACK
Joseph D. Kevorkian, Lansdowne, Pa., assignor to Advance Specialties Co. Inc., Lansdowne, Pa., a corporation of Pennsylvania
Application October 22, 1956, Serial No. 43,444
Term of patent 14 years
(Cl. D44—29)



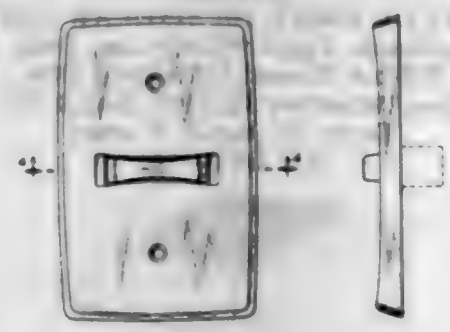
183,394
GAMEBOARD
Lillias P. Klute, Toledo, and Janette Miller Nash, Kent, Ohio
Application November 12, 1957, Serial No. 48,424
Term of patent 14 years
(Cl. D34—5)



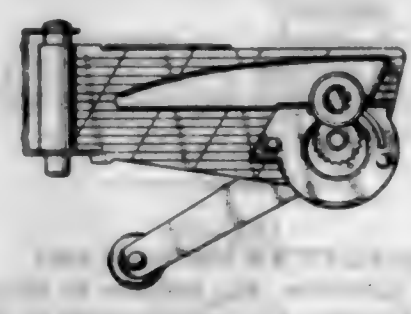
183,395
COMBINED WALL SWITCH PLATE AND PUSH-BUTTON ASSEMBLY
Samuel J. Koch, Great Neck, N. Y.
Application October 8, 1957, Serial No. 48,005
Term of patent 14 years
(Cl. D26—13)



183,396
COMBINED WALL SWITCH PLATE AND PUSH-BUTTON ASSEMBLY
Samuel J. Koch, Great Neck, N. Y.
Application October 8, 1957, Serial No. 48,006
Term of patent 14 years
(Cl. D26—13)



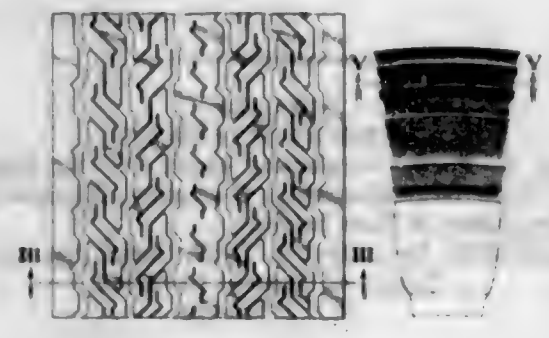
183,397
CAN OPENER
George A. Lehmann, Ferguson, Mo., assignor to The Dazey Corporation, St. Louis, Mo., a corporation of Missouri
Application March 25, 1957, Serial No. 45,411
Term of patent 7 years
(Cl. D22—2)



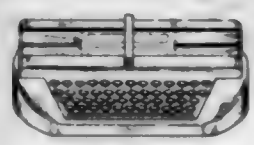
183,398
TOBACCO PIPE TAMPER
Benjamin B. Levine, Pittsburgh, Pa.
Application November 8, 1957, Serial No. 48,387
Term of patent 14 years
(Cl. D85—2)



183,399
PNEUMATIC TIRE
Louis Marick, Grosse Pointe Farms, and James F. Newman, St. Clair Shores, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 27, 1957, Serial No. 47,904
Term of patent 14 years
(Cl. D90—20)



183,400
CARD HANDLING MACHINE
Michael Maul, Schwabach, near Nurnberg, Germany
Application September 12, 1957, Serial No. 47,716
Term of patent 14 years
(Cl. D64—11)



183,401
ELECTRIC VIBRATOR OR SIMILAR ARTICLE
Samuel L. McNair, Whitman, Mass.
Application June 26, 1957, Serial No. 46,741
Term of patent 14 years
(Cl. D83—1)



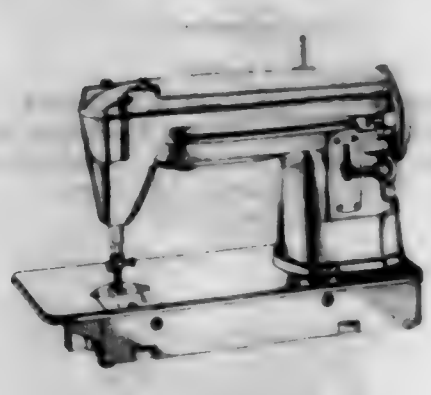
183,402
BINOCULAR MICROSCOPE
John R. Miles, Glenview, Ill., assignor to Skil-Craft Corporation, Chicago, Ill., a corporation of Illinois
Application April 4, 1958, Serial No. 50,334
Term of patent 14 years
(Cl. D57—1)



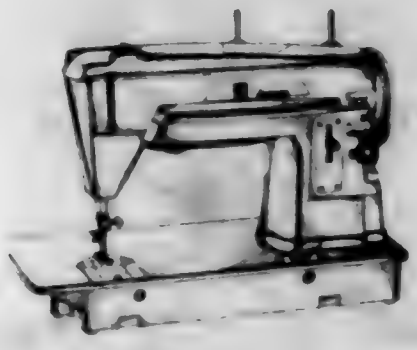
183,403
COIN BANK
Adam T. Norwich, Cleveland, Ohio
Application October 17, 1957, Serial No. 48,144
Term of patent 14 years
(Cl. D34—11)



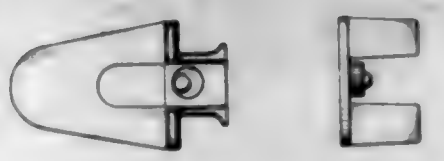
183,404
SEWING MACHINE
Malcolm S. Park, Verplanck Point, N. Y., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application December 2, 1957, Serial No. 48,737
Term of patent 14 years
(Cl. D70—1)



183,405
SEWING MACHINE
Malcolm S. Park, Verplanck Point, N. Y., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application December 3, 1957, Serial No. 48,758
Term of patent 14 years
(Cl. D70—1)



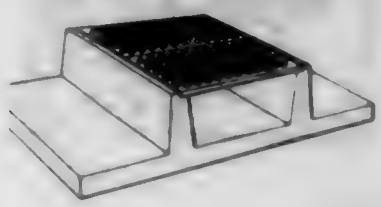
183,406
MASONRY GUIDE LINE HOLDER
Barney F. Power, Orange, Calif.
Application October 26, 1956, Serial No. 43,536
Term of patent 14 years
(Cl. D51—1)



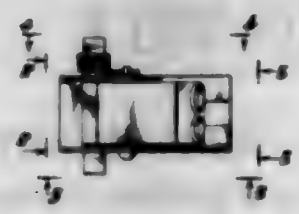
183,407
COMBINED SEAT AND EASEL
George E. Schaefer, Muskegon, Mich., assignor to Hamilton Manufacturing Company, Two Rivers, Wis., a corporation of Wisconsin
Application February 27, 1957, Serial No. 45,018
Term of patent 14 years
(Cl. D15—8)



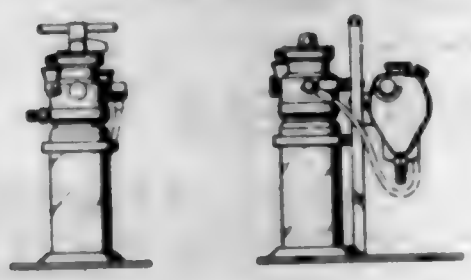
183,408
BARBECUE GRILL OR SIMILAR ARTICLE
Robert L. Spillman, Canal Winchester, Ohio, assignor to William Coons, Columbus, Ohio
Application December 30, 1957, Serial No. 49,062
Term of patent 7 years
(Cl. D81—10)



183,409
DRAPERY CORD LATCH
Orville T. Stall, Whittier, Calif.
Application December 30, 1957, Serial No. 49,068
Term of patent 14 years
(Cl. D21—1)



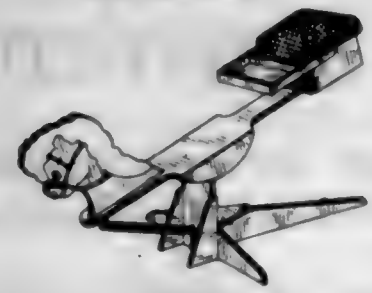
183,410
COMBINED ANESTHETIZING AND RESUSCITATING UNIT
Philip L. Stanton, Pasadena, Calif.
Application May 24, 1957, Serial No. 46,336
Term of patent 14 years
(Cl. D83—1)



183,411
SINGLE-BITTED HATCHET
Thomas J. Tretheway, Seattle, Wash., assignor of one-half to Paul Bromley, Seattle, Wash.
Application August 5, 1957, Serial No. 47,232
Term of patent 14 years
(Cl. D93—4)



183,412
BABY EXERCISER OR SIMILAR ARTICLE
James M. Webster and Elmer A. Clement, Chicago, Ill.
Application July 5, 1957, Serial No. 46,830
Term of patent 14 years
(Cl. D34—5)



183,413
SOFA
Forest Wilson, Chicago, Ill.
Application May 1, 1956, Serial No. 41,287
Term of patent 14 years
(Cl. D15—11)



183,414
INTERNAL WRENCH
Joseph F. Woerner, Houston, Tex.
Application August 31, 1956, Serial No. 42,800
Term of patent 14 years
(Cl. D54—16)



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LIST OF REISSUE PATENTEES

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NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

American Screen Products Co.: *See*—
Conrad, Owen. Re. 24,520.

Conrad, Owen, to American Screen Products Co. Self-retaining latch. Re. 24,520, 8–19–58, Cl. 160—369.

Wachsmuth, Erich A. Free-piston motor-compressors. Re. 24,522, 8–19–58, Cl. 230—56.

Young, Frank W. Dust collector. Re. 24,521, 8–19–58, Cl. 183—61.

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Fujihara, Paul K. Peach tree. 1,743, 8–19–58, Cl. 47—62.

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Advance Specialties Co. Inc.: *See*—
Kevorkian, Joseph D. 183,393.

Alley, Clement W., to Curtiss-Wright Corp. Toilet tray set. 183,379, 8–19–58, Cl. D44—10.

Bromley, Paul: *See*—
Tretheway, Thomas J. 183,411.

Cayer, Theodore E., to Reed and Barton Corp. Spoon or similar article. 183,380, 8–19–58, Cl. D54—12.

Cayer, Theodore E., to Reed and Barton Corp. Spoon or similar article. 183,381, 8–19–58, Cl. D54—12.

Chapman, Florence M. Magnifying reading bar. 183,382, 8–19–58, Cl. D57—1.

Clemens, Elmer A.: *See*—
Webster, James M., and Clemens. 183,412.

Coons, William: *See*—
Spillman, Robert L. 183,408.

Cornwell, Rose E.: *See*—
Ernest, Robert O., and Cornwell. 183,385.

Crane Co.: *See*—
Everett, Julian G. 183,386.

Curtiss-Wright Corp.: *See*—
Alley, Clement W. 183,379.

Dazey Corp., The: *See*—
Lehmann, George A. 183,397.

De Asis, Paul P. Hydroplane. 183,383, 8–19–58, Cl. D71—1.

De Mille, Noel J., to The Prestige Group Ltd. Portable vegetable and fruit peeler. 183,384, 8–19–58, Cl. D89—1.

Doepke, Chas. Wm., Mfg. Co., Inc., The: *See*—
Gaston, Raymond C. 183,389.

Ernest, Robert O., and R. E. Cornwell, to Sunbeam Corp. Food mixer or the like. 183,385, 8–19–58, Cl. D44—1.

Everett, Julian G., to Crane Co. Lavatory or similar article. 183,386, 8–19–58, Cl. D4—2.

Flauder, Alfred J. Trophy base. 183,387, 8–19–58, Cl. D29—23.

Garver, John P., to Hoover Products, Inc. Christmas tree ornament. 183,388, 8–19–58, Cl. D29—1.

Gaston, Raymond C., to The Chas. Wm. Doepke Mfg. Co., Inc. Crank operated toy utilizing marbles. 183,389, 8–19–58, Cl. D34—15.

Hamilton Mfg. Co.: *See*—
Schaefer, George E. 183,407.

Hoover Products, Inc.: *See*—
Garver, John P. 183,388.

Johnson, Ralph E., to The Singer Mfg. Co. Sewing machine presser-foot. 183,390, 8–19–58, Cl. D70—2.

Kaplan, Herman L. Scissors. 183,391, 8–19–58, Cl. D22—5.

Kernicki, Walter. Fish cleaning tool. 183,392, 8–19–58, Cl. D31—4.

Kevorkian, Joseph D., to Advance Specialties Co. Inc. Bottle sterilizing rack. 183,393, 8–19–58, Cl. D44—29.

Klute, Lillias P., and J. M. Nash. Gameboard. 183,394, 8–19–58, Cl. D34—5.

Koch, Samuel J. Combined wall switch plate and pushbutton assembly. 183,395, 8–19–58, Cl. D26—13.

Koch, Samuel J. Combined wall switch plate and pushbutton assembly. 183,396, 8–19–58, Cl. D26—13.

Lehmann, George A., to The Dazey Corp. Can opener. 183,397, 8–19–58, Cl. D22—2.

Levine, Benjamin B. Tobacco pipe tamper. 183,398, 8–19–58, Cl. D85—2.

Marick, Louis, and J. F. Newman, to United States Rubber Co. Pneumatic tire. 183,399, 8–19–58, Cl. D90—20.

Maul, Michael. Card handling machine. 183,400, 8–19–58, Cl. D64—11.

McNair, Samuel L. Electric vibrator or similar article. 183,401, 8–19–58, Cl. D83—1.

Miles, John R., to Skil-Craft Corp. Binocular microscope. 183,402, 8–19–58, Cl. D57—1.

Nash, Janette M.: *See*—
Klute, Lillias P., and Nash. 183,394.

Newman, James F.: *See*—
Marick, Louis, and Newman. 183,399.

Norwich, Adam T. Coin bank. 183,403, 8–19–58, Cl. D34—11.

Park, Malcolm S., to The Singer Mfg. Co. Sewing machine. 183,404, 8–19–58, Cl. D70—1.

Park, Malcolm S., to The Singer Mfg. Co. Sewing machine. 183,405, 8–19–58, Cl. D70—1.

Power, Barney F. Masonry guide line holder. 183,406, 8–19–58, Cl. 51—1.

Prestige Group Ltd., The: *See*—
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Reed and Barton Corp.: *See*—
Cayer, Theodore E. 183,380.
Cayer, Theodore E. 183,381.

Schaefer, George E., to Hamilton Mfg. Co. Combined seat and easel. 183,407, 8–19–58, Cl. D15—8.

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Park, Malcolm S. 183,404.
Park, Malcolm S. 183,405.

Skil-Craft Corp.: *See*—
Miles, John R. 183,402.

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Stall, Orville T. Drapery cord latch. 183,409, 8–19–58, Cl. D21—1.

Stanton, Philip L. Combined anesthetizing and resuscitating unit. 183,410, 8–19–58, Cl. D83—1.

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Webster, James M., and E. A. Clemens. Baby exerciser or similar article. 183,412, 8–19–58, Cl. D34—5.

Wilson, Forest. Sofa. 183,413, 8–19–58, Cl. D15—11.

Woerner, Joseph F. Internal wrench. 183,414, 8–19–58, Cl. D54—16.

LIST OF PATENTEES

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PATENTS WERE ISSUED ON THE 19TH DAY OF AUGUST, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A B Svenska Flaktfabriken : *See*—
Allander, Claes, and Lanne. 2,848,061.
A. C. E. Machinery Ltd. : *See*—
Lunn, Richard T. 2,848,129.
Abbott, Carl S., H. T. Hunt, Jr., and L. Dutton ; said Abbott and Dutton assors. to J. N. Fauver Co., Inc. Conveyor lubricator. 2,848,068, 8–19–58, Cl. 184—15.
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Sommers, Armiger H. 2,848,449.
Abelson, Arthur : *See*—
Taylor, James L., and Abelson. 2,847,846.
Aberer, Frank E. : *See*—
Talge, Henry J., and Aberer. 2,848,028.
Acosta, Tracy. Fruit juicing apparatus. 2,848,026, 8–19–58, Cl. 146—3.
Adams, John Q., to Becton, Dickinson and Co. Transfusion needle sheath. 2,847,995, 8–19–58, Cl. 128—214.
Addressograph-Multigraph Corp. : *See*—
Gollwitzer, Walter T. 2,848,047.
Adenstedt, John H. W., to Telefonaktiebolaget L M Ericsson. Ringing device for telephone systems. 2,848,553, 8–19–58, Cl. 179—84.
Adise, Herbert H., and H. Siegel, to Computer Instruments Corp. Potentiometer. 2,848,629, 8–19–58, Cl. 307—106.
Adlerwerke vorm. Heinrick Kleyer Akt. : *See*—
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Leigh, Robert L. 2,847,929.
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Hay, Wayne W. 2,848,309.
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Ajinomoto Co., Inc. : *See*—
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Akt. Brown, Boveri & Cie. : *See*—
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Flemmert, Gösta L., Lindblad, and Lindhe. 2,848,362.
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Görike, Rudolf. 2,848,561.
Alberti, Carlo G., A. Vercellone, G. Larini, and L. Bernardi, to Società Farmaceutici Italia. Process for converting optically active aminodiols into racemic aminodiols. 2,848,494, 8–19–58, Cl. 260—562.
Albertson, William C., Jr., to True Temper Corp. Grass shears. 2,847,760, 8–19–58, Cl. 30—238.
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Allemann, Hugo. Drilling machines. 2,847,881, 8–19–58, Cl. 77—55.
Allen, Clifford H., and W. S. Gleeson, to Thompson Products, Inc. Automatic tappet. 2,847,982, 8–19–58, Cl. 123—90.
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Allied Chemical Corp. : *See*—
Dewling, William L. E., and Grossmann. 2,848,493.
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Allison, Ralph E., to Patent Management, Inc. Audiometer. 2,848,539, 8–19–58, Cl. 179—1.
Allison, Ralph E., to Patent Management, Inc. Complex noise generator. 2,848,612, 8–19–58, Cl. 250—36.
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Cooper, La Mar S., Dittrich, and Noe. 2,847,835.
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Shaw, Edwin L. 2,847,942.
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McGraw, Leslie D., and Lutz. 2,848,399.
Amlee, Richard E., to Gould-National Batteries, Inc. Flashlight with battery locking device. 2,848,598, 8–19–58, Cl. 240—10.66.
Amouriq, Paul A., to Brion, Leroux & Cie. Miniature electromagnetic relay. 2,848,661, 8–19–58, Cl. 317—165.
Amroc Incorporated : *See*—
Szechtman, Joshua. 2,848,406.
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Ancell, James E. : *See*—
Wiegand, David E., and Ancell. 2,848,560.
Anderson, Billy J. Diaper folding machines. 2,848,220, 8–19–58, Cl. 270—84.
Anderson, Irvin F. Interchangeable triple view sign. 2,847,783, 8–19–58, Cl. 40—137.
Anderson, John G. : *See*—
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Andrews, Dallas E. : *See*—
Roys, Henry E., and Andrews. 2,848,556.
Andrews, John L., to General Electric Co. Drive mechanism for food waste disposers. 2,848,171, 8–19–58, Cl. 241—35.
Andrus, Harold L., and E. S. Clark. Machine for forming a combined curb and gutter strip in a continuous operation. 2,847,916, 8–19–58, Cl. 94—46.
Angell, Donald S., A. B. Tilseth, and G. O. Alexander, to Kaiser Aluminum & Chemical Corp. Article handling apparatus. 2,848,124, 8–19–58, Cl. 214—91.
Angenieux, Pierre. Variable focal-length objectives. 2,847,907, 8–19–58, Cl. 88—57.
Anger, Ernest G., R. C. Mierendorf, and C. W. Porter, to Square D. Co. Welder control. 2,848,604, 8–19–58, Cl. 250—27.
Arabian, Karekin G., and N. E. Duncan, to Shell Development Co. Gloss stable paraffin wax compositions. 2,848,385, 8–19–58, Cl. 196—149.
Aries Laboratories, Inc. : *See*—
Eirich, Frederick R. 2,848,433.
Armington, George E., to General Motors Corp. Frameless side dump trailer. 2,848,275, 8–19–58, Cl. 298—18.
Armour Research Foundation of Illinois Institute of Technology : *See*—
Camras, Marvin. 2,848,221.
Camras, Marvin. 2,848,555.
Rechter, Harold L., and Eisenberg. 2,848,349.
Armstrong, Jack W., and H. A. Woods, to Shell Development Co. Extreme high temperature grease compositions. 2,848,417, 8–19–58, Cl. 252—42.1.
Art Metal Construction Co. : *See*—
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Ashton, Philip E. and A. W. Schnick, to Cuno Engineering Corp. Circuit breaker lighter. 2,848,590, 8–19–58, Cl. 219—32.

Astatic Corp., The: *See*—
Palo Maurice M. 2,848,559.

Atamian, Zaven, to Hughes Aircraft Co. Electrical contact brush biasing arrangement. 2,848,633, 8–19–58, Cl. 310—245.

Atchison, Leonard W. to General Electric Co. Heating and cooling arrangement using a heat pump. 2,847,834, 8–19–58, Cl. 62—263.

Atkins, Horace W. Lever actuated, electric switch adapters. 2,848,585 8–19–58, Cl. 200—172.

Atkinson, James D., Jr., to The Buckeye Cellulose Corp. Protein compositions. 2,848,342, 8–19–58, Cl. 106—154.

Atkinson, Robert P., and F. W. Hoeltje, to General Motors Corp. Bearing oil scavenger. 2,848,284, 8–19–58, Cl. 308—187.

Atlantic Refining Co., The: *See*—
Williams, William K. 2,848,051.

Avard, Paul. Means for spreading seeded top soil. 2,848,281, 8–19–58, Cl. 302—55.

Avco Mfg. Corp.: *See*—
Schmain, Henry H., and Novak. 2,848,530.

Aversten, Karl J., to Svenska Aktiebolaget Gasaccumulator. Soldering pin and the like with two or more soldering sets. 2,848,594. 8–19–58, Cl. 219—99.

Ayling, Robert W., to Carrier Corp. Compressor valve arrangement. 2,848,157. 8–19–58. Cl. 230—231.

Ayre, James E. Instrument for obtaining cells for cytodiagnosis. 2,847,990. 8–19–58, Cl. 128—2.

Ayres, Elwyn C.: *See*—
Kilpatrick, Myron O., and Ayres. 2,848,382.

Babbitt, John F.: *See*—
Gregory, William K., Babbitt, and Bryant. 2,848,064.

Babcock & Wilcox Co., The: *See*—
Norton, Charles L., Jr., and Christie. 2,847,958.

Backus, John G., to United States of America, Atomic Energy Commission. Ion producing mechanism. 2,848,620, 8–19–58, Cl. 250—41.9.

Badische Anilin-& Soda-Fabrik Akt.: *See*—
Johannsen, Adolf, Wittmann, Dietrich, and Gebhard. 2,848,314.
Lehrer, Erwin, and Altstaedt. 2,848,305.
Oettinger, Willi, and von Fuener. 2,848,376.

Bagby, Ralph B. Drill jig. 2,847,883, 8–19–58, Cl. 77—62.

Bailey, Bradford E., to Esso Research and Engineering Co. Method and apparatus for heating hydrocarbon fluids. 2,848,383. 8–19–58, Cl. 196—110.

Baker, Max P., to General Motors Corp. Fluid seal. 2,847,837, 8–19–58, Cl. 64—32.

Ball, Lloyd D.: *See*—
Cowart, Brooks E., Ball, and Daspit. 2,848,713.

Bandy, Kenneth L., to The McKay Machine Co. Coil supporting head for metal strip uncoilers. 2,848,177, 8–19–58, Cl. 242—78.6.

Bank, Albert M., and A. J. Katz, to Super Sagless Spring Corp. Spring units for upholstery foundations. 2,848,038, 8–19–58, Cl. 155—179.

Barber-Colman Co.: *See*—
Sidell, Philip A. 2,848,676.

Barcus, Edward L., to General Motors Corp. Direction signal switch mechanism. 2,848,573, 8–19–58, Cl. 200—61.34.

Barnett, Harold M., M. L. Hartmann, R. C. Mosher, and H. M. Espoy; said Hartmann, said Mosher, and said Espoy to said Barnett. Process for recovering carotene. 2,848,508; 8–19–58, Cl. 260—666.

Barr, John C., to Power Jets (Research & Development) Ltd. Radial flow turbo-machines. 2,848,190, 8–19–58, Cl. 253—39.

Barry, Austin W., and R. P. Schake, to Daystrom, Inc. Instrument magnetic system. 2,848,662, 8–19–58, Cl. 317—166.

Bartell, Charles, and J. R. Weschler, to Permacel-Le Page's Inc. Improved normally tacky and pressure-sensitive adhesive tape. 2,848,105, 8–19–58, Cl. 206—59.

Bartell, Charles, to Permacel-Le Page's Inc. Delamination treated pressure sensitive adhesive tape. 2,848,355, 8–19–58, Cl. 117—122.

Barthel, Karl: *See*—
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Matthews, Russel B. 2,848,168.
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Bassick Co., The: *See*—
Kramcsak, Michael, Jr. 2,847,696.

Bateman, Floyd E. Level protractor tool. 2,847,765, 8–19–58, Cl. 33—215.

Batten, Frederick J. R.: *See*—
Leslie, Philip, Batten, and Smith. 2,847,992.

Baunach, August J.: *See*—
Frank, Arthur O., and Baunach. 2,847,845.

Bayer, Frank C., to Thompson Products, Inc. Throttle valve assembly. 2,848,186. 8–19–58, Cl. 251—58.

Beach, William H., to The Bridgeport Metal Goods Mfg. Co. Double lens system for securing either spot or flood effects. 2,848,601. 8–19–58, Cl. 240—106.1.

Beachler, Edward D., to Beloit Iron Works. Paper making machine drive and control means therefor. 2,847,912, 8–19–58, Cl. 92—38.

Beauty Products, Ltd.: *See*—
Propst, Robert L. 2,848,231.

Beck, David C., to The Liberty Folder Co. Paper feeding machine. 2,848,219. 8–19–58, Cl. 270—68.

Becker, Philip D., to United-Carr Fastener Corp. Fastening device. 2,847,745, 8–19–58. Cl. 24—108.

Becton, Dickinson and Co.: *See*—
Adams John Q. 2,847,995.

Bell, Alan, and G. H. Lappin, to Eastman Kodak Co. Stabilization of normally oxidizable materials with hydroxybenzamide compounds. 2,848,335, 8–19–58, Cl. 99—163.

Bell, Alan, M. B. Knowles, and C. E. Tholstrup, to Eastman Kodak Co. Paraffin wax stabilized with a 2,4,5, trihydroxyphenyl ketone. 2,848,345, 8–19–58, Cl. 106—270.

Bell, George R., to Burgess Vibrocrafters, Inc. Power saw work hold-down attachment. 2,848,021, 8–19–58, Cl. 143—107.

Bell Telephone Laboratories, Inc.: *See*—
Breed, Rolland N., Cesareo, Germanton, Roberts, Weber, and Wingardner. 2,848,543.
Harkless, Earl T. 2,848 691.
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Jurgens, William C., and Seifert. 2,848,293.
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Miller, Stewart E. 2,848,690.
Miller, Stewart E. 2,848,696.
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Obst, Charles V. 2,848,704.
Pierce, John R. 2,848,695.
Remeika, Joseph P. 2,848,310.
Ring, Douglas H. 2,848,714.
Ruthroff, Clyde L. 2,848,600.

Bellmann, Emma E.: *See*—
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Bellmann, Friedhelm: *See*—
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Beloit Iron Works: *See*—
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Beltone Hearing Aid Co.: *See*—
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Bender, Frederick M.: *See*—
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Bendix Aviation Corp.: *See*—
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Wagneck, William G. 2,848,572.
Zito, George V. 2,848,666.

Benesovsky, Friedrich: *See*—
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Benjamin, Milton L., and F. E. Winnen, to Erickson Tool Co. Recessing tool. 2,847,882. 8–19–58, Cl. 77—58.

Benjamin, Milton L. and S. S., to Erickson Tool Co. Floating tool holder. 2,848,239, 8–19–58, Cl. 279—16.

Benjamin, Stanley S.: *See*—
Benjamin, Milton L. and S. S. 2,848,239.

Bennet, Robert E.: *See*—
Radow, Robert S., and Bennet. 2,847,815.

Bennett, Arthur C., to General Motors Corp. Carburetor. 2,848,201, 8–19–58, Cl. 261—39.

Bennett, Dale L. Vertical Venetian blind. 2,848,045, 8–19–58, Cl. 160—172.

Bennett, Roswell J.: *See*—
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Bennett, Rufus B., to Esso Research and Engineering Co. Method for cyclic hydrocarbon crystallization and separation. 2,848,507, 8–19–58, Cl. 260—666.

Bent, Anthony J.: *See*—
Staples, Otis E., and Bent. 2,847,910.

Benton, Frank V., Jr. Cuff link. 2,847,744, 8–19–58, Cl. 24—102.

Berger, France B., to General Precision Laboratory Inc. Aircraft navigation system. 2,847,855, 8–19–58, Cl. 73—178.

Berkeley, Edmund C., and E. Kahan, to Berkeley Enterprises, Inc. Variable circuit construction devices and switches therefor. 2,848,568, 8–19–58, Cl. 200—11.

Berkeley Enterprises, Inc.: *See*—
Berkeley, Edmund C., and Kahan. 2,848,568.

Bernardi, Luigi: *See*—
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Bertorelli, Orlando L., to J. M. Huber Corp. Production of neolitic pigments. 2,848,346, 8–19–58, Cl. 106—288.

Bertsch, Hugh C., and J. F. Lemp, to Mallinckrodt Chemical Works. Non-hydrated ferrous fumarate and hematinic composition thereof. 2,848,366, 8–19–58, Cl. 167—68.

Bertsch, Joseph F., and K. H. Hansen, to General Motors Corp. Air suspension levelling system. 2,848,249, 8–19–58, Cl. 280—124.

Besserer, Carl W., to United States of America, Navy. Electrical connector. 2,848,706, 8–19–58, Cl. 339—222.

Best, Philip F.: *See*—
McBride, Charles B., and Best. 2,848,060.

Best, Stanley G., and T. P. Farkas, to United Aircraft Corp. Starting circuit for electronic jet fuel control. 2,847,824, 8–19–58, Cl. 60—39.14.

Betz Laboratories, Inc.: *See*—
Kahler, Harry L., Bishof, and Tanzola. 2,848,200.

Biderman, Ben, to Collins Radio Co. Trigonometric computing apparatus. 2,848,160, 8–19–58, Cl. 235—61.

Biel, John H., to Lakeside Laboratories, Inc. Mercapto derivatives of mercurated 1-pyridyl-3-allylureas. 2,848,454, 8–19–58, Cl. 260—270.

Bill, Clifford E., to General American Transportation Corp. Fluid joint and processed material discharge assembly for rotary processing vessels. 2,848,198, 8–19–58, Cl. 257—92.

Binder, Richard, to Fichtel & Sachs A. G. Two stage clutch control system. 2,848,080, 8–19–58, Cl. 192—.052.

Birchler, Robert O., E. W. Larsen, and C. R. Rasmussen, to Western Electric Co., Inc. Adjustable tape feeding mechanism. 2,848,223, 8–19–58, Cl. 271—2.5.

Birdsall, Oscar M., to All Metal Products Co. Toy firearm with pivoted magazine and firing assembly. 2,847,785, 8–19–58, Cl. 42—57.

Birdsboro Steel Foundry and Machine Co.: *See*—
Peterson, Edward T. 2,847,887.
Birmingham Small Arms Co. Ltd., The: *See*—
Harris, Geofrey T., and Child. 2,848,323.
Bishof, Chester A.: *See*—
Kahler, Harry L., Bishof, and Tanzola. 2,848,299.
Bjorksten, Johan. Water purifier. 2,848,389, 8–19–58, Cl. 202—234.
Blaha, Emil, to Selas Corp. of America. Pellet making. 2,847,702, 8–19–58, Cl. 18—5.
Bliss, E. W., Co.: *See*—
Moss, Richard Y., and Durbin. 2,848,569.
Bliss, Warren H., to Radio Corp. of America. Code translator. 2,848,534, 8–19–58, Cl. 178—26.
Blood, Harold A. Window construction. 2,847,724, 8–19–58, Cl. 20—11.
Bloom, Quentin M., and S. H. Herman, to Selas Corp. of America. Heat treating machine. 2,848,213, 8–19–58, Cl. 266—4.
Blue, Robert D.: *See*—
Neipert, Marshall P., Blue, and Houser. 2,848,408.
Blumer, Donald R., to Minneapolis-Honeywell Regulator Co. Humidity determination. 2,848,306, 8–19–58, Cl. 23—232.
Boals, Wayne S., to Hughes Tool Co. Automatic charger for guns and control therefor. 2,847,908, 8–19–58, Cl. 89—1.
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Coupette, Werner, and Sickbert. 2,848,317.
Boeing Airplane Co.: *See*—
Price, Rudolph, and Brown. 2,847,893.
Boller, Ernest R., L. D. Eubank, and J. W. Robinson, to United States of America, Atomic Energy Commission. Nitric acid pickling process. 2,848,351, 8–19–58, Cl. 117—51.
Bolton, John H., to The Foxboro Co. Electro-pneumatic differential pressure switch system. 2,848,576, 8–19–58, Cl. 200—81.5.
Booth, Richard H.: *See*—
Stephenson, Geoffrey H., and Booth. 2,848,159.
Booth, Russel N., to Minneapolis-Honeywell Regulator Co. Control apparatus. 2,848,582, 8–19–58, Cl. 200—139.
Boothroyd, Howard W., to United Shoe Machinery Corp. Cartridge ratio selectors for use in the belting of ammunition. 2,847,896, 8–19–58, Cl. 86—48.
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Loud, Eldon E., and Borchardt. 2,847,794.
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Loud, Eldon E., and Borchardt. 2,847,794.
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Bousek, Richard J., to Collins Radio Co. Phase stabilization of RF amplifiers and oscillator circuits. 2,848,611, 8–19–58, Cl. 250—36.
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Bowmer, Henry L.: *See*—
White, Percy, and Bowmer. 2,848,337.
Boyers, John S., to Midwestern Instruments, Inc. Mass demagnetizing device for magnetic recording media. 2,848,660, 8–19–58, Cl. 317—157.5.
Boyle, James M.: *See*—
Brugmann, William H., Jr., and Boyle. 2,848,444.
Boynton, Harry G., E. W. Lewis, and A. T. Watson, to Esso Research and Engineering Co. Apparatus for photochemical reactions. 2,848,623, 8–19–58, Cl. 250—47.
Brackmann, William J., to United Aircraft Corp. Infrared radiation detection system. 2,848,626, 8–19–58, Cl. 250—83.3.
Bragg, Clyde L.: *See*—
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Brandenthaler, Anthony: *See*—
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Brandl, Karl, and W. Rosler, to Gewerkschaft Eisenhuette Westfalia. Mining planer for use in a gallery traversed by a fault. 2,848,204, 8–19–58, Cl. 262—8.
Brandon, Thomas O. Golf swing-conditioner. 2,848,234, 8–19–58, Cl. 273—35.
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Brastad, William A., and E. C. Gear, to General Mills, Inc. Method and apparatus for electrostatic separation. 2,848,108, 8–19–58, Cl. 209—127.
Breed, Rolland N., O. Cesaero, C. E. Germanton, R. W. Roberts, L. A. Weber, and C. A. Wingardner, to Bell Telephone Laboratories, Inc. Call data recording telephone system. 2,848,543, 8–19–58, Cl. 179—7.1.
Breer, William Z. Fish hook disgorger. 2,847,793, 8–19–58, Cl. 43—53.5.
Brennan, Joseph B. Casting method. 2,847,737, 8–19–58, Cl. 22—57.2.
Breslow, David S., to Hercules Powder Co. Preparation of cyclopentadienylsodium. 2,848,506, 8–19–58, Cl. 260—665.
Brewer, Thomas L., to Curtiss-Wright Corp. Reverse thrust nozzle construction. 2,847,823, 8–19–58, Cl. 60—35.54.
Bridgeport Metal Goods Mfg. Co., The: *See*—
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Bridges, Jack E., to Zenith Radio Corp. Subscription television encoding apparatus. 2,847,768, 8–19–58, Cl. 35—4.
Bried, Julien A., to Honolulu Oil Corp. Fowl defeathering apparatus. 2,847,697, 8–19–58, Cl. 17—11.1.
Brion, Leroux & Cie: *See*—
Amouriq, Paul A. 2,848,661.
Bristol Aircraft Ltd.: *See*—
Pollard, Harold J., and Rees. 2,847,712.
Bristol Co., The: *See*—
Russell, John L. 2,848,579.
British Thomson-Houston Co. Ltd., The: *See*—
Magge, Arthur H. 2,848,680.
Brobeck, William M., to United States of America, Atomic Energy Commission. Ion source unit for a calutron. 2,848,619, 8–19–58, Cl. 250—41.9.
Brodie, Meyer. Stitch concealing binding for luggage. 2,848,079, 8–19–58, Cl. 190—54.
Brook, Leonard, to The Forgrove Co. Ltd. Wrapping machines. 2,847,807, 8–19–58, Cl. 53—53.
Brooks, E. J., Co.: *See*—
Brooks, Winfred M. 2,847,675.
Brooks, Winfred M. 2,847,774.
Brooks, Marguerite E.: *See*—
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Brooks, Winfred M., to E. J. Brooks Co. Sealing tool. 2,847,675, 8–19–58, Cl. 1—215.
Brooks, Winfred M., to E. J. Brooks Co. Tag. 2,847,774, 8–19–58, Cl. 40—2.
Brown Citrus Machinery Corp.: *See*—
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Brown, John K., to Westinghouse Electric Corp. Fuel ignition apparatus for an afterburner in the bypass duct of a turbojet engine. 2,847,821, 8–19–58, Cl. 60—35.6.
Brown, Melvin H., to Aluminum Co. of America. Metallic pigment formulations. 2,848,344, 8–19–58, Cl. 106—227.
Brown, Robert L.: *See*—
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Brown, Russell H., W. P. Fairchild, and F. K. Kawahara, to Standard Oil Co. Copper chloride sweetening. 2,848,373, 8–19–58, Cl. 196—29.
Brownstein, Louis. Method and apparatus for forming a closed loop of tape threaded through a buckle. 2,847,954, 8–19–58, Cl. 112—2.
Brugmann, William H., Jr., and J. M. Boyle, to Esso Research and Engineering Co. Diphenylamine-metal polysulfide reaction products and method of preparing same. 2,848,444, 8–19–58, Cl. 260—133.
Brunner, Hans: *See*—
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Bryan, William C., Jr. Grinding apparatus. 2,847,802, 8–19–58, Cl. 51—94.
Bryant, John H., to International Telephone and Telegraph Corp. Electromagnetic wave generator. 2,848,649, 8–19–58, Cl. 315—39.
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Halberstadt, Charles C. 2,848,035.
Stacy, Robert G. 2,848,072.
Van Sciver, Herbert D., II. 2,848,593.
Watter, Michael, and Pagon. 2,847,957.
Bueche, Walter. Apparatus for the rectification of multicomponent mixtures. 2,848,388, 8–19–58, Cl. 202—205.
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Bullard Co., The: *See*—
Havens, Eugene V., and Johnson. 2,848,260.
Bullard, Hubert. Two-row marker. 2,847,923, 8–19–58, Cl. 97—230.
Bunbury, Frederick M., and F. W. Pursall, to Foundry Services Ltd. Dressing fluxes. 2,848,321, 8–19–58, Cl. 75—94.
Bunker, Fredrick I. and R. L. Coin sorting machine. 2,848,004, 8–19–58, Cl. 133—3.
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Bunker, Fredrick I. and R. L. 2,848,004.
Burdick Co., The: *See*—
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Burgess Vibrocrafters, Inc.: *See*—
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Burgraff, Henry P. Toilet for boats. 2,847,679, 8–19–58, Cl. 4—10.
Burkhart, William H., and R. J. La Manna, to Monroe Calculating Machine Co. Printing control means for electronic computers and the like. 2,848,708, 8–19–58, Cl. 340—173.
Burney, Donald E.: *See*—
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Kuchinsky, Saul, and Moss. 2,848,647.
Burstyn, Walther. Arrangement for measuring a mechanical effect. 2,847,854, 8–19–58, Cl. 73—134.
Butcher, Alvin E.: *See*—
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Butler, Jesse L., to Sanders Associates Inc. Conical scanning antenna. 2,848,715, 8–19–58, Cl. 343—763.
Butler, Thomas J. Apparatus and method for pressure molding foundry sand. 2,847,735, 8–19–58, Cl. 22—20.
Buttner, Artur, K. Barthel, and L. Jung, to Schnellpressenfabrik Akt. Sheet-supplying device for printing- and paper-working machines. 2,848,226, 8–19–58, Cl. 271—12.
Byrne, George C. Automatic headlight dimming device. 2,848,651, 8–19–58, Cl. 315—83.
C. I. P. Compagnia Italiana Petrolio S. p. A.: *See*—
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Cage, James, to Reynolds Metals Co. Oleaginous food package. 2,848,336, 8–19–58, Cl. 99—179.
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California Research Corp.: *See*—
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Callery Chemical Co.: *See*—
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Caloia, John A. Apparatus for producing power from water waves. 2,848,189, 8–19–58, Cl. 253—11.

Calumet Steel Castings Corp.: *See*—
Wilson, Marion C. 2,848,070.

Cambeis, Harry: *See*—
McAuliffe, Dennis N. 2,848,268.

Campbell, Fletcher E., to E. I. du Pont de Nemours and Co. Fluid process for treating rayon yarn packages. 2,847,750, 8–19–58, Cl. 28—72.6.

Campbell, Norman L. Safety appliance for child's seat. 2,848,036, 8–19–58, Cl. 155—11.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Magnetic recorder drive mechanism. 2,848,221, 8–19–58, Cl. 271—2.3.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Means for recording. 2,848,555, 8–19–58, Cl. 179—100.2.

Cape Mfg. Co.: *See*—
Eribacher, Robert W. 2,847,740.

Carignan, Charles J., to E. I. du Pont de Nemours and Co. Electrolytic process for production of titanium. 2,848,395, 8–19–58, Cl. 204—60.

Carlsen, John. Electric flat iron with a thermo-switch. 2,848,589, 8–19–58, Cl. 219—25.

Carlson, George, to General Electric Co. Locking means for a fabricated box. 2,848,134, 8–19–58, Cl. 220—3.94.

Carraway, Thomas W. Control mechanism for cooling and condensing equipment. 2,847,831, 8–19–58, Cl. 62—158.

Carrier Corp.: *See*—
Ayling, Robert W. 2,848,157.
Johnson, Stuart E. 2,847,832.
Merrick, Richard H. 2,847,833.

Carrier, Robert M., Jr. Spiral conveyors. 2,847,767, 8–19–58, Cl. 34—164.

Carroll, Charles, to Duff-Norton Co. Remote manual switching mechanism for electric hoist. 2,848,571, 8–19–58, Cl. 200—47.

Carson, Stanley R.: *See*—
Sampson, Frederick W., and Carson. 2,847,695.

Cason, Warren M.: *See*—
Walker, Don J. 2,848,253.

Castelli, Charles, to Johnson & Johnson. Tape dispensers. 2,848,046, 8–19–58, Cl. 164—84.5.

Caswell, Arthur S., to I-T-E Circuit Breaker Co. Primary disconnect contacts. 2,848,583, 8–19–58, Cl. 200—163.

Caswell, Benson E., and M. M. Theriault, to Keyes Fibre Co. Article feeding apparatus. 2,848,138, 8–19–58, Cl. 221—209.

Celanese Corp. of America: *See*—
MacLean, Alexander F., and Frens. 2,848,499.

Cesareo, Orfeo: *See*—
Breed, Rolland N., Cesareo, Germanton, Roberts, Weber, and Wingardner. 2,848,543.

Chadwick, Abraham B., to American Radiator & Standard Sanitary Corp. Baseboard radiator housing. 2,847,926, 8–19–58, Cl. 98—40.

Chambers, Herbert I. Windshield wiper for curved glass. 2,847,694, 8–19–58, Cl. 15—245.

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Powers, Milton A., and Champlin. 2,847,989.

Charbonneaux, Wilson A. Flourescent lighting fixtures. 2,848,599, 8–19–58, Cl. 240—51.11.

Chechak, Jonas J., and J. E. Jones, to Eastman Kodak Co. Supersensitization with bis-heterocyclic bases. 2,848,329, 8–19–58, Cl. 96—104.

Chechak, Jonas J. J., Sagal, Jr., and A. C. Smith, Jr., to Eastman Kodak Co. Photographic emulsions sensitized with sulfonium salts and alkylene oxide polymers. 2,848,330, 8–19–58, Cl. 96—107.

Chenicek, Joseph A., to Universal Oil Products Co. Corrosion inhibitor. 2,848,414, 8–19–58, Cl. 252—32.5.

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Chernivsky, Victor A. Baby support. 2,848,040, 8–19–58, Cl. 155—189.

Chiantelassa, Attilio. Mixing and dosage machine for two or more fluids. 2,848,139, 8–19–58, Cl. 222—26.

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Sandahl, George S., Jr. 2,847,756.

Chicago Tramrail Corp.: *See*—
Thompson, Harry W. 2,848,128.

Child, Henry C.: *See*—
Harris, Geoffrey T., and Child. 2,848,323.

Chittum, Joseph F., to California Research Corp. Tubular resistance coupon. 2,848,682, 8–19–58, Cl. 324—65.

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Christie, Leonard D., Jr.: *See*—
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Christy, Robert A., and J. R. Moore, to Borg-Warner Corp. Device for trimming and shapping washing machine tubs or the like. 2,848,033, 8–19–58, Cl. 153—2.

Chrysler Corp.: *See*—
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Churchill, Kenneth G. Portable camping shelter. 2,848,007, 8–19–58, Cl. 135—4.

Ciba Ltd.: *See*—
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Ciba Pharmaceutical Products Inc.: *See*—
Hoffman, Karl, and Urech. 2,848,455.

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Martin, Henry, and Habicht. 2,848,364.

Cirrito, Anthony J., to Rice Barton Corp. Stock inlet system for a paper making machine. 2,847,913, 8–19–58, Cl. 92—44.

Clarcq, Richard J., Jr., E. D. Dammert, C. E. Ernst, and E. C. Van Beers, to The Gleason Works. Method and apparatus for hardening gears and the like. 2,848,363, 8–19–58, Cl. 148—21.56.

Clark, C. & J., Ltd.: *See*—
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Clearman, Jack F. Liquid distributor. 2,848,270, 8–19–58, Cl. 299—68.

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Cleveland Pneumatic Industries, Inc.: *See*—
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Cleveland Twist Drill Co., The: *See*—
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Cohen, Charles A., to Esso Research and Engineering Co. Hydrogenated polycarboxylic derivatives of cyclodienes. 2,848,485, 8–19–58, Cl. 260—514.

Cohen, Milton J., and R. K. McConnaughey, to Mil-Jam Instrument Corp. Hypodermic syringe. 2,847,996, 8–19–58, Cl. 128—218.

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Cole, Howard W., Jr. High speed rotary electric switch. 2,848,570, 8–19–58, Cl. 200—32.

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Bousek, Richard J. 2,848,611.
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Morris, Glen B. 2,847,836.
Rhodes, Melvin H. 2,848,711.
Stanphill, Ray. 2,848,687.
Stockwell, Glade M. 2,848,677.
Tollefson, Robert D. 2,848,616.

Color Carousel Corp.: *See*—
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Colson, Elmer E. Trenching machine. 2,847,771, 8–19–58, Cl. 37—94.

Columbia-Southern Chemical Corp.: *See*—
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Combustion Engineering, Inc.: *See*—
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Commonwealth Engineering Co. of Ohio, The: *See*—
Ernst, Walter. 2,848,034.
Toulmin, Harry A., Jr. 2,848,055.

Commonwealth Scientific and Industrial Research Organization: *See*—
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Compton, Charles E.: *See*—
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Compton, Charles E. Dehydrating apparatus. 2,848,209, 8–19–58, Cl. 263—34.

Compton, Charles E. Dehydrating gypsum or the like. 2,848,210, 8–19–58, Cl. 263—53.

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Adise, Herbert H., and Siegel. 2,848,629.

Conn, John B., and W. K. Humphrey, to Merck & Co., Inc. Separation of cobalt from nickel. 2,848,322, 8–19–58, Cl. 75—119.

Continental Air Filters, Inc.: *See*—
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Continental Can Co., Inc.: *See*—
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Continental Motors Corp.: *See*—
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Continental Optical Co., Inc.: *See*—
Calkins, Tracy H., and Hood. 2,847,804.

Controls Co. of America: *See*—
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Cooney, John E. Carrier-wave transmitting and receiving apparatus. 2,848,540, 8–19–58, Cl. 179—2.5.

Cooper, Hugh S., to W. M. Weil. Production of lower oxides of titanium. 2,848,303, 8–19–58, Cl. 23—202.

Cooper, La Mar S., E. J. Dittrich, and W. J. Noe, to Amana Refrigeration Inc. Tube and strainer assembly. 2,847,835, 8–19–58, Cl. 62—474.

Corbin, Douglas T.: *See*—
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Corbin, Milford H., R. L. Lippe, J. T. Yater, T. E. Goodwin, J. P. Drinjak, and E. M. Squire, to Color Carousel Corp. Paint mixing machine. 2,848,019, 8–19–58, Cl. 141—100.

Cornell, Hampton G., E. W. Lewis, and J. M. Powers, to Esso Research and Engineering Co. Process for recovery of high purity hydrocarbons. 2,848,519, 8–19–58, Cl. 260—674.

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Coupette, Werner, and A. Sickbert, to Bochumer Verein Für Gussstahlfabrikation Akt. Desulfurizing of steel. 2,848,317, 8–19–58, Cl. 75—49.
Cowart, Brooks E., L. D. Ball, and J. I. Daspit, to Gilfillan Bros. Inc. Highly discriminative filter and bias-level gating circuit. 2,848,713, 8–19–58, Cl. 343—8.
Cramer, Harold W. Envelope dispensing device. 2,848,137, 8–19–58, Cl. 221—86.
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Creamer, Edgar M., Jr., and M. E. Partin, to Philco Corp. Video signal modulation of pilot carrier beam. 2,848,531, 8–19–58, Cl. 178—5.4.
Critchlow, Arthur J., to International Business Machines Corp. Diode array. 2,848,664, 8–19–58, Cl. 317—231.
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Curry, John L., to Phillips Petroleum Co. Back pressure valve. 2,848,053, 8–19–58, Cl. 166—224.
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McNicol, Forrest C., and Ranson. 2,848,630.
Simson, Verne H., and Smith. 2,848,087.
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Davis, Louis D., Jr., to American Steel Foundries. Brake headbrake shoe assembly. 2,848,076, 8–19–58, Cl. 188—244.
Davis, William L., Jr., J. Feinman, and L. R. Little, Jr., to United States Steel Corp. Process for gaseous reduction of iron ore. 2,848,316, 8–19–58, Cl. 75—26.
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De Lancey, Ralph W., to Controls Co. of America. Electrical time delay switch. 2,848,580, 8–19–58, Cl. 200—122.
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Diamond, Lester A., ¼ to B. Sage, and ¼ to J. Sage. Simulated brick or the like wallpaper. 2,847,721, 8–19–58, Cl. 20—15.
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Edelstone, Sigmund E., and Dunlop. 2,847,692.

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Edelstone, Sigmund E., and Dunlop. 2,847,691.
Edelstone, Sigmund E., and Dunlop. 2,847,692.

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Edelstone, Sigmund E., and W. V. Dunlop, to Dupli-Color Products Co., Inc. Fountain applicator. 2,847,692, 8–19–58, Cl. 15—139.

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Eirich, Frederick R., to Aries Laboratories, Inc. Copolymerized and cross-linked epoxide resins. 2,848,433, 8–19–58, Cl. 260—45.5.

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Electric & Musical Industries Ltd.: *See*—
Stephenson, Geoffrey H., and Booth. 2,848,150.

Electronic Secretary Industries, Inc.: *See*—
Zimmermann, Joseph J. 2,848,541.

Elfes, Lee E., and L. J. Lorens, to Massey-Ferguson, Inc. Mounting and lifting means for a tractor mounted cutting assembly. 2,847,812, 8–19–58, Cl. 56—25.

Ellenbogen, Leon: *See*—
Williams, William L., Ellenbogen, and Olsen. 2,848,367.

Ellerman, Frank G. Wall display. 2,847,780, 8–19–58, Cl. 40—125.

Elliott, Brantford G., to Massey-Ferguson Inc. Gathering unit for harvesters. 2,848,103, 8–19–58, Cl. 198—213.

Elliott, George: *See*—
Trousdale, Robert B., and Elliott. 2,848,549.

Elston, Jessie M.: *See*—
Packwood, Clovis. 2,848,027.

Ellsworth, Robert M.: *See*—
Woodruff, Richard L., and Ellsworth. 2,848,429.

Emerson, Howard J.: *See*—
Juengst, John H., and Emerson. 2,848,107.

Emmel, David G., to Westinghouse Air Brake Co. Remote control systems. 2,848,707, 8–19–58, Cl. 340—163.

Empire Devices Products Corp.: *See*—
Harger, Michael T., and Lorch. 2,848,693.

Endresse, William E. Radial expanding, missile, torpedo fins. 2,847,960, 8–19–58, Cl. 114—20.

Enell, Milton J. Pressure testing devices. 2,847,851, 8–19–58, Cl. 73—40.

Equitable Paper Bag Co., Inc.: *See*—
Davis, John S. 2,847,914.

Erickson Tool Co.: *See*—
Benjamin, Milton L. and S. S. 2,848,239.
Benjamin, Milton L., and Winnen. 2,847,882.

Erlbacher, Robert W., to Cape Mfg. Co. Adjustable foundry slip box. 2,847,740, 8–19–58, Cl. 22—112.

Ernst, Albert C., to Meat Packers Equipment Co. Flue for gas water heaters. 2,847,953, 8–19–58, Cl. 110—97.

Ernst, Carl E.: *See*—
Claeys, Richard J., Jr., Dammert, Ernst, and Van Beers. 2,848,363.

Ernst, Walter, to The Commonwealth Engineering Co. of Ohio. Variable pressure fluid actuated brake beam compensation. 2,848,034, 8–19–58, Cl. 153—21.

Ertel Mfg. Corp.: *See*—
Warsaw, Arthur J. 2,848,086.

Erxleben, Reinhold, to Daimler-Benz A. G. Apparatus for controlling the fuel supply and the reversing gear of a marine engine optionally by different control mechanisms. 2,847,870, 8–19–58, Cl. 74—472.

Espoy, Henry M.: *See*—
Barnett, Harold M., Hartmann, Mosher, and Espoy. 2,848,308.

Esso Research and Engineering Co.: *See*—
Bailey, Bradford E. 2,848,383.
Bennett, Rufus B. 2,848,507.
Boynton, Harry G., Lewis, and Watson. 2,848,623.
Brugmann, William H., Jr., and Boyle. 2,848,444.
Cohen, Charles A. 2,848,485.
Cornell, Hampton G., Lewis, and Powers. 2,848,519.
Cottle, Delmer L. 2,848,472.
Fenske, Merrell R. 2,848,503.
Knox, William T., Jr., and Perry. 2,848,372.
McDermott, John P. 2,848,482.
Nicholson, Edward W. S. 2,848,381.
Pappas, George F. 2,848,280.
Pfennig, Reuben F. 2,848,515.
Rehner, John, Jr., and Eby. 2,848,379.

Estoppey, Royden F., and F. M. Bender, to Daystrom, Inc. Multipoint switch. 2,848,567, 8–19–58, Cl. 200—11.

Ethicon, Inc.: *See*—
Nichols, Joseph, and Schipper. 2,848,467.

Eubank, Lowell D.: *See*—
Boller, Ernest R., Eubank, and Robinson. 2,848,351.

Eureka Products Co.: *See*—
Gare, Morris R. 2,848,111.

Evans, George W., Jr., and G. A. Worn, to The Lummus Co. Condenser. 2,848,197, 8–19–58, Cl. 257—43.

Evans, Pauline B. Butter dish-brush attachment for toasters. 2,847,930, 8–19–58, Cl. 99—339.

Evans Products Co.: *See*—
Sturdy, Raymond O., Rigney, and Lowing. 2,847,946.

Ewing, Clifton H., to Westinghouse Electric Corp. Food waste disposer. 2,848,172, 8–19–58, Cl. 241—257.

FKG Fritz Kesselring Geratebau A. G.: *See*—
Kesselring, Fritz, Wettstein, and Spaelti. 2,848,078.

Fabish, Edward A. Method of browning flour. 2,848,332, 8–19–58, Cl. 99—93.

Fahnoe, Frederick, and J. J. Shyne, to Vitro Corp. of America. Method of making a multiple lamination construction. 2,848,391, 8–19–58, Cl. 204—38.

Fairchild Engine and Airplane Corp.: *See*—
Landers, Willard L. 2,848,181.

Fairchild, William P.: *See*—
Brown, Russell H., Fairchild, and Kawahara. 2,848,373.
Meguerian, Garbis H., and Fairchild. 2,848,374.

Fan, Sin-Pih, and R. A. Cola, to Burroughs Corp. Counting circuit using multiple position beam switching tubes. 2,848,646, 8–19–58, Cl. 315—8.6.

Farbenfabriken Bayer Akt.: *See*—
Müller, Werner, and Raue. 2,848,418.

Farbwerke Hoechst Akt. vormals Meister Lucius & Brüning: *See*—
Kracker, Herbert, and Gengnagel. 2,848,447.

Farkas, Thomas P.: *See*—
Best, Stanley G., and Farkas. 2,847,824.

Fatzinger, Erastus A.: *See*—
Reimert, Lawrence J., and Fatzinger. 2,848,397.

Fauver, J. M., Co., Inc.: *See*—
Abbott, Carl S., Hunt, and Dutton. 2,848,068.

Favre, Woodrow W., and H. B. Sadler. Deburring attachment for rotary drills. 2,847,884, 8–19–58, Cl. 77—66.

Fear, James V. D., to Sun Oil Co. Refining lubricating oils. 2,848,384, 8–19–58, Cl. 196—147.

Federal Paper Board Co., Inc.: *See*—
Murphy, Joseph P., and Weimer. 2,848,016.

Federal Screw Works: *See*—
Storch, Harold A. 2,848,272.

Feinman, Jerome: *See*—
Davis, William L., Jr., Feinman, and Little. 2,848,316.

Fenske, Merrell R., to Esso Research and Engineering Co. Separation of alcohols from hydrocarbons. 2,848,503, 8–19–58, Cl. 260—643.

Ferguson Equipment Corp.: *See*—
Troglione, Vincent R. 2,848,099.

Ferguson, J. L., Co.: *See*—
Talbot, Richard C. 2,848,098.

Ferguson, Robert T., Jr.: *See*—
Price, Lloyd R., and Ferguson. 2,848,225.

Ferrania S. p. A.: *See*—
D'Incerti, Ludovico. 2,847,902.

Feustel, Ernest A. Yarn carrier. 2,847,841, 8–19–58, Cl. 66—126.

Fichtel & Sachs A. G.: *See*—
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Fidelity Union Trust Co.: *See*—
Gutzwiller, Ernst, and Brunner. 2,848,462.
Maderni, Piero. 2,848,446.
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Fischer, John J., to The Patterson-Kelley Co., Inc. Rotary shaft seal. 2,848,285, 8–19–58, Cl. 308—187.1.

Fisher, George A. Method of processing fresh fruit. 2,848,333, 8–19–58, Cl. 99—102.

Fisher, John T., to Stewart-Warner Corp. Overheat safety device. 2,848,657, 8–19–58, Cl. 317—132.

Fisher, Robert H., Jr.: *See*—
Foote, Richard L., and Fisher. 2,848,703.

Fitzer, Robert J. Display stand. 2,848,119, 8–19–58, Cl. 211—137.

Fitzgerald, William B.: *See*—
Lewis, Morgan S. 2,848,222.

Fleckenstein, Lee J.: *See*—
Dimond, Harold L., Fleckenstein, and Shrader. 2,848,456.

Flemmert, Göste L., R. H. Lindblad, and J. H. O. Lindhe, to Aktiebolaget Nynäs-Petroleum. Method of quenching metal articles in a mineral oil. 2,848,362, 8–19–58, Cl. 148—13.1.

Fletcher, George L., to Eastman Kodak Co. Removing acyl halide from ester compositions. 2,848,466, 8–19–58, Cl. 260—404.

Flexigrip, Inc.: *See*—
Svec, Emil F., and Staller. 2,848,031.

Florman, Irving. Electrically operated lighter with fuel supply. 2,848,655, 8–19–58, Cl. 317—88.

Foote, Richard L., and R. H. Fisher, Jr., said Foote to Marathon Electric Mfg. Corp. Terminal block with shiftable marker strip. 2,848,703, 8–19–58, Cl. 339—113.

Forbes, Sydney, to Columbia-Southern Chemical Corp. Mercury cell. 2,848,407, 8–19–58, Cl. 204—219.

Ford, Harry E., and W. J. Shenk, Jr., to The Harshaw Chemical Co. Electrodeposition of nickel and electrolytes therefor. 2,848,392, 8–19–58, Cl. 204—49.

Forges et Ateliers de Construction Electriques de Jeumont: *See*—
Decaudaveine, Paul-Albert. 2,848,634.

Forgrove Co. Ltd., The: *See*—
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Forman, Philip, to American Macromotive Corp. Drift-free magnetic amplifier circuit system. 2,848,674, 8–19–58, Cl. 318—207.

Forster, Hans J. M., to Daimler-Benz Akt. Automatic door locking device for vehicles. 2,848,057, 8–19–58, Cl. 180—82.

Foulke, Donald G., and O. Kardos, to Hanson-Van Winkle-Munning Co. Bright cadmium plating. 2,848,393, 8–19–58, Cl. 204—50.

Foulke, Donald G., and O. Kardos, to Hanson-Van Winkle-Munning Co. Bright copper plating. 2,848,394, 8–19–58, Cl. 204—52.

Foundry Services Ltd.: *See*—
Bunbury, Frederick M., and Pursall. 2,848,321.

Foxboro Co., The: *See*—
Bolton, John H. 2,848,576.
Spink, Leland K. 2,847,850.

Fragen, Nathan, to Standard Oil Co. C_8 aromatic hydrocarbon separation. 2,848,518, 8–19–58, Cl. 260—674.

Frank, Arthur O., and A. J. Baunach, said Baunach to said Frank. Fleshing tool. 2,847,845, 8–19–58, Cl. 69—20.

Frankel, Harry: *See*—
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Franquemont, John V., to Union Carbide Corp. Intercell seal for multiple cell battery structures. 2,848,526, 8–19–58, Cl. 136—111.

Fraser, Julius T., to General Precision Laboratory Inc. Microwave switching circuit. 2,848,688, 8–19–58, Cl. 333—7.

Free, Alfred H., to Miles Laboratories, Inc. Composition of matter. 2,848,308, 8–19–58, Cl. 23—253.

Freedlander, Abraham L., to The Dayton Rubber Co. Mattress supporting construction. 2,847,685, 8–19–58, Cl. 5—354.

Freedman, David G.: *See*—
Land, Herbert L. N. 2,847,962.

Freeman, Ellsworth J., to O. W. Jolly. Fastener. 2,847,746, 8–19–58, Cl. 24—164.

Frees, David: *See*—
Porter, Gilbert E. 2,847,828.

Freienmuth, William L., to Vitro Corp. of America. Oscillator frequency control apparatus. 2,848,610, 8–19–58, Cl. 250—36.

Frenz, Bruno G.: *See*—
MacLean, Alexander F., and Frenz. 2,848,499.

Frey, Raymond M., and S. F. Shiraga, to McGraw-Edison Co. Tall oil-phenol-furan resin compositions. 2,848,430, 8–19–58, Cl. 260—19.

Frick, Chester A. Sliding door construction. 2,847,726, 8–19–58, Cl. 20—19.

Fried, Joseph, to Olin Mathieson Chemical Corp. 2-bromo-9α-fluorohydrocortisone and 21-esters thereof. 2,848,464, 8–19–58, Cl. 260—397.45.

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Friedman, Herbert, and J. J. Maguire, to J. J. Maguire, trading as J. J. Maguire Co. Spectrochemical analysis device. 2,848,624, 8–19–58, Cl. 250—71.

Fromm, Leonard W., Jr., to United States of America, Atomic Energy Commission. Remote retrieving tool. 2,848,266, 8–19–58, Cl. 294—19.

Fullhart, Lawrence, Jr., and E. L. Rohdenburg, to E. I. du Pont de Nemours and Co. Growth promoting compositions and their preparation. 2,848,331, 8–19–58, Cl. 99—4.

Funck, Dennis L., to E. I. du Pont de Nemours and Co. Preparation of purified formaldehyde. 2,848,500, 8–19–58, Cl. 260—606.

G-M Sheet Metal Works: *See*—
Geisler, Henry O., and Martin. 2,848,274.

G. N. R. D. Patent Holdings Ltd.: *See*—
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Gabrielsen, Christian, to Rowe Mfg. Co., Inc. Beverage merchandising machine. 2,848,140, 8–19–58, Cl. 222—51.

Gallant, Raymond A., to General Motors Corp. Hydraulic engine-starting device. 2,847,984, 8–19–58, Cl. 123—179.

Gandrud, Ebenhard S. Spreader for granular material and feeding rotor therefor. 2,848,143, 8–19–58, Cl. 222—242.

Gare, Morris R., to Eureka Products Co. Water purifying system for aquariums. 2,848,111, 8–19–58, Cl. 210—169.

Garrard Engineering and Mfg. Co. Ltd., The: *See*—
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Garvey, Louis P., H. A. Mackie, and C. H. Schamel, to General Motors Corp. Actuator mechanism. 2,847,937, 8–19–58, Cl. 103—3.

Gatsis, John G., to Universal Oil Products Co. Removal of basic nitrogen impurities from hydrocarbons with boric acid and a polyhydroxy organic compound. 2,848,375, 8–19–58, Cl. 196—39.

Gatsert, Ernest H., to General Dynamics Corp. Conference circuit. 2,848,548, 8–19–58, Cl. 179—18.

Gaylord, John A., ¼ to Rocket Jet Engineering Corp. Webbing adjuster. 2,847,747, 8–19–58, Cl. 24—170.

Gear, Eli C.: *See*—
Brastad, William A., and Gear. 2,848,108.

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Geiger, Clarence H., Sr. Paper container and blank for constructing same. 2,848,152, 8–19–58, Cl. 229—17.

Geiger, Clarence H., Sr. Paper container and blank for constructing same. 2,848,153, 8–19–58, Cl. 229—17.

Geigy Chemical Corp.: *See*—
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Geisler, Henry O., and C. P. Martin, to G-M Sheet Metal Works. Removable top for truck body. 2,848,274, 8–19–58, Cl. 296—102.

Geldhof, Peter E.: *See*—
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Pharis, William W. 2,848,546.
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General Electric Co.: *See*—
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Atchison, Leonard W. 2,847,834.
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Keiling, Leroy U. C., and Peaslee. 2,848,670.
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Mergen, Frederick E. 2,848,592.
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General Mills, Inc.: *See*—
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General Motors Corp.: *See*—
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Kelley, Oliver K., Hause, and Wrigley. 2,847,978.
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Georgi, Theodor, to American European Engineering Corp. Steerable axle assembly for motor vehicle trailers. 2,848,244, 8–19–58, Cl. 280—81.

Georgi, Theodor, to American European Engineering Corp. Steerable axle arrangement for motor vehicle trailers. 2,848,245, 8–19–58, Cl. 280—81.

Germanton, Charles E.: *See*—
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Germany, Norman V., to United Shoe Machinery Corp. Pressure applying pads. 2,847,687, 8–19–58, Cl. 12—38.

Gerrells, William H. Winding station counter. 2,848,165, 8–19–58. Cl. 235—91.

Gewerkschaft Eisenhuette Westfalia: *See*—
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Gibson, Colin C., and W. A. Spinks; said Spinks assignor to said Gibson. Overhead portable clothes dryer. 2,848,118, 8–19–58, Cl. 211—118.

Gibson, James E., Jr. Tethered sponge ball. 2,848,236, 8–19–58. Cl. 273—58.

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Gilliland, Melvin E., and R. C. Givens, to The Texas Co. Extreme pressure soluble oil. 2,848,416, 8–19–58, Cl. 252—33.3.

Gillespie, Russell A., 33⅓% to C. F. Spickelmier, 33⅓% to E. S. Greer, and 33⅓% to B. S. Spickelmier. Storm sash. 2,847,727, 8–19–58, Cl. 20—55.

Gilmore, Forrest E., to Phillips Petroleum Co. Process for recovery of cracking products. 2,848,522, 8–19–58, Cl. 260—683.

Girard, Theodore A., E. P. Di Bella, and H. Sidi, to Heyden Newport Chemical Corp. Trichlorobenzoic acid compositions. 2,848,470, 8–19–58, Cl. 260—429.

Given Machinery Co.: *See*—
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Givens, Richard C.: *See*—
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Gladden, John N., to Gladden Products Corp. Power braking system. 2,847,829, 8–19–58, Cl. 60—54.6.

Gladden Products Corp.: *See*—
Gladden, John W. 2,847,829.

Glass, Frederick F., to Air Controls Products, Inc. Side wall register. 2,847,926, 8–19–58, Cl. 98—106.

Glazier, Edwin M., and J. M. Harrison, to Gulf Research & Development Co. Separation of aromatic and non-aromatic hydrocarbons. 2,848,387, 8–19–58, Cl. 202—42.

Gleason Works, The: *See*—
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Gleeson, William S.: *See*—
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Gluesenkamp, Earl W., to Monsanto Chemical Co. Amine-formaldehyde resins. 2,848,438, 8–19–58, Cl. 260—72.

Gollner, Charles E. Prefabricated building wall construction. 2,847,723, 8–19–58, Cl. 20—4.

Gollwitzer, Walter T., to Addressograph-Multigraph Corp. Punch blocks. 2,848,047, 8–19–58, Cl. 164—111.

Gondek, John T. Hydraulic pump. 2,847,938, 8–19–58, Cl. 103—3.

Gonsalves, Conrad J., to American Enka Corp. Manufacture of cords. 2,847,817, 8–19–58, Cl. 57—62.

Gonyou, Eugene: *See*—
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Good-All Electric Mfg. Co.: *See*—
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Goodrich B. F., Co., The: *See*—
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Gould-National Batteries, Inc.: *See*—
Amlee, Richard E. 2,848,508.

Grace, W. R., & Co.: *See*—
Rudner, Bernard, and Brooks. 2,848,450.

Grant Development Co.: *See*—
Miller, Harry B. 2,848,158.

Grants, Paul R.: *See*—
Grants, Tamara. 2,847,848.

Grants, Tamara, to P. R. Grants. Precast masonry unit. 2,847,848, 8–19–58, Cl. 72—41.

Gray, Sidney, to Radio Corp. of America. Method of making ray sensitive targets. 2,848,358, 8–19–58, Cl. 117—211.

Green, Elberson D., and M. G. Woolfson, to Westinghouse Electric Corp. Transistor blocking oscillator. 2,848,613, 8–19–58, Cl. 250—36.

Green, Richard M., to Phillips Petroleum Co. Crystal purification method. 2,848,516, 8–19–58, Cl. 260—674.

Greenberg, Barney M.: *See*—
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Greene, Charles A., to E. E. Greene, by decree of distribution. Manufacture of siliceous pellets. 2,848,311, 8–19–58, Cl. 23—313.

Greene, Edith E.: *See*—
Greene, Charles A. 2,848,311.

Greene, William H.: *See*—
Nicol, Clinton C. 2,848,240.

Greenhouse, Alex, and G. Cohn, to Royal Sales Co. Cigarette lighter. 2,847,843, 8–19–58, Cl. 67—7.1.

Greening Nursery Co.: *See*—
Romine, James W. 2,847,808.

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Gregory, William K., J. F. Babbitt, and L. P. Bryant, to Continental Air Filters, Inc. Air and gas filter having automatically controlled movement of filter curtain. 2,848,064, 8–19–58, Cl. 183—62.

Grey, Gordon E. Bale wagon. 2,848,127, 8–19–58, Cl. 214—510.

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Goudy, Paul R., and Gribble. 2,848,584.

Griffin, Leonard H., and J. H. Long, to Shell Development Co. Process for the manufacture of epoxy resins. 2,848,435, 8–19–58, Cl. 260—47.

Griffin Wheel Co.: *See*—
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Grinnell Corp.: *See*—
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Gross, Arthur R. Change-making mechanism. 2,848,003, 8–19–58, Cl. 133—2.

Grossmann, Samuel W.: *See*—
Dewling, William L. E., and Grossmann. 2,848,493.

Gruen, Wolf J., to General Electric Co. Amplifier for automatic gain control voltage. 2,848,562, 8–19–58, Cl. 179—171.

Guinn, Walter W. Griddle cleaner. 2,847,693, 8–19–58, Cl. 15—210.

Gulf Research & Development Co.: *See*—
Glazier, Edwin M., and Harrison. 2,848,387.

Gulick, Kenneth H., to Harris-Intertype Corp. Separation of piled metal sheets. 2,848,227, 8–19–58, Cl. 271—18.

Gunter, Theodore A. Take-up drum for photoprinter. 2,848,176, 8–19–58, Cl. 242—72.

Gustin-Bacon Mfg. Co.: *See*—
Stephens, Frederick N., and Perkins. 2,848,175.

Gutzwiller, Ernst, deceased (by J. Gutzwiller-Markees, administratrix), and H. Brunner, to Saul & Co., as nominee of Fidelity Union Trust Co., executive trustee under Sandoz Trust. Dyestuffs of the anthraquinone series. 2,848,462, 8–19–58. Cl. 260—378.

Gutzwiller-Markees, Jenny: *See*—
Gutzwiller, Ernst, and Brunner. 2,848,462.

Gwinn, Joseph M., Jr., to Gar Wood Industries, Inc. Elevating tailgate and controls therefor. 2,848,122, 8–19–58, Cl. 214—77.

Gyllenberg, John L., to A. Brandenthaler. Slab barker having scraper. 2,848,022, 8–19–58, Cl. 144—208.

Haas, Herbert H., to Continental Motors Corp. Accessory drive for internal combustion engine. 2,847,986, 8–19–58, Cl. 123—195.

Habicht, Ernst: *See*—
Martin, Henry, and Habicht. 2,848,364.

Hackman, William C., to American Energetics Corp. Control system for electric heating. 2,848,588, 8–19–58, Cl. 219—20.

Hafekost, Frederick, and L. Edelson, to Steel Slides, Inc. Table construction having retractile top portion. 2,848,291, 8–19–58, Cl. 311—54.

Hahn, Elmer H., Jr., to The Leece-Neville Co. Electric switch. 2,848,575, 8–19–58, Cl. 200—77.

Hahn, Richard. Sound baffles. 2,848,059, 8–19–58, Cl. 181—31.

Halberstadt, Charles C., to The Budd Co. Apparatus for ejecting articles from a press. 2,848,035, 8–19–58, Cl. 153—48.

Haldas, Walter J., to Lone Star Cement Corp. Slow setting cement compositions. 2,848,340, 8–19–58, Cl. 106—90.

Hale, Arthur N., to The Singer Mfg. Co. Sewing machine needle positioning means. 2,847,956, 8–19–58, Cl. 112—219.

Haley, Kenneth M.: *See*—
Wynne, Ira H., Martin, and Haley. 2,848,208.

Hamjian, Harry J., and F. N. Darmara, to Kelsey-Hayes Co. Means for making die inserts. 2,847,708, 8–19–58, Cl. 18—34.

Hamlet, John C.: *See*—
Walker, Thomas, Jones, and Hamlet. 2,848,463.

Hamm, Leslie. Elevatable protective shell for vehicles. 2,847,720, 8–19–58, Cl. 20—1.13.

Hamm, Philip C.: *See*—
Saul, George A., and Hamm. 2,848,492.

Hanks, Charles W., C. d'A. Hunt, and H. R. Smith, Jr., to Stauffer Chemical Co. Vacuum crucible furnace. 2,848,523, 8–19–58, Cl. 13—31.

Hansen, Kai H.: *See*—
Bertsch, Joseph F., and Hansen. 2,848,249.

Hansen, Kai H., M. Olley, and R. Schilling, to General Motors Corp. Anti-roll scheme. 2,848,248, 8–19–58, Cl. 280—124.

Hanson, Edward S., Jr., and R. K. Strasel, to Jacobsen Mfg. Co. Lawn edger with adjustable wheel. 2,847,813, 8–19–58, Cl. 56—25.4.

Hanson, Roger H. Cardboard carton and integral handle assembly. 2,848,154, 8–19–58, Cl. 229—52.

Hanson-Van Winkle-Munning Co.: *See*—
Foulke, Donald G., and Kardos. 2,848,393.
Foulke, Donald G., and Kardos. 2,848,394.

Hard Mfg. Co.: *See*—
Doty, Boyd A. 2,848,200.

Harden, Carl, S. G. Nicholas, and R. B. McKinnis, to Brown Citrus Machinery Corp. Apparatus for high-oil citrus juice recovery. 2,848,025, 8–19–58, Cl. 146—3.

Harges, Michael T., and J. Lorch, to Empire Devices Products Corp. Step attenuators. 2,848,693, 8–19–58, Cl. 333—81.
Harklees, Earl T., to Bell Telephone Laboratories, Inc. Directional coupler. 2,848,691, 8–19–58, Cl. 333—10.
Harmon, Frank C. Transmission hoist. 2,848,120, 8–19–58, Cl. 212—135.
Harris, Alva F., to Monsanto Chemical Co. Aqueous terpolymer sized nylon yarns. 2,848,357, 8–19–58, Cl. 117—139.5.
Harris, Geoffrey T., and H. C. Child, to The Birmingham Small Arms Co. Ltd. Ferritic steel for high temperature use. 2,848,328, 8–19–58, Cl. 75—124.
Harris-Intertype Corp.: *See*—
Gulick, Kenneth H. 2,848,227.
Harris Transducer Corp., The: *See*—
Harris, Wilbur T. 2,848,672.
Harris, Wilbur T., to The Harris Transducer Corp. Self-excited transducer. 2,848,672, 8–19–58, Cl. 318—116.
Harrison, James M.: *See*—
Glasier, Edwin M., and Harrison. 2,848,887.
Harrison, John F., to Koehring Co. Selective pressure control means for road rollers. 2,847,918, 8–19–58, Cl. 94—50.
Harshaw Chemical Co., The: *See*—
Ford, Harry E., and Shenk. 2,848,392.
Hartley, James C., H. I. Day, and J. L. Wilson, to Olin Mathieson Chemical Corp. Composite firearm barrel comprising glass fibers. 2,847,786, 8–19–58, Cl. 42—76.
Hartley, James C., to Olin Mathieson Chemical Corp. Method of electrolytically rifling gun barrels. 2,848,401, 8–19–58, Cl. 204—143.
Hartmann, Hans, to Akt. Brown, Boveri & Cie. High voltage transformer. 2,848,700, 8–19–58, Cl. 336—70.
Hartmann, Miner L.: *See*—
Barnett, Harold M., Hartmann, Mosher, and Espoy. 2,848,508.
Hartner, Leo: *See*—
Junghans, Helmut, and Hartner. 2,847,818.
Hartsfield, William L. Compressional-wave lens. 2,848,058, 8–19–58, Cl. 181—.5.
Hartzell, Forest H. Electrode. 2,848,411, 8–19–58, Cl. 204—290.
Haskell, Albert A., and L. B. Wheeler, to Titanium Metals Corp. of America. Splitter device. 2,848,144, 8–19–58, Cl. 222—330.
Hass, Ernst A. Filter apparatus. 2,848,112, 8–19–58, Cl. 210—333.
Hause, Gilbert K.: *See*—
Kelley, Oliver K., Hause, and Wrigley. 2,847,978.
Hausler, Walter B.: *See*—
Pierce, George W., Seelbinder, and Hausler. 2,848,174.
Hausmann, George F., to United Aircraft Corp. Thrust modifying device. 2,847,822, 8–19–58, Cl. 60—35.54.
Hausmann, George F., to United Aircraft Corp. Boundary layer control apparatus for compressors. 2,848,155, 8–19–58, Cl. 230—122.
Havens, Eugene V., and E. H. Johnson, to The Bullard Co. Loading mechanism. 2,848,269, 8–19–58, Cl. 294—189.
Hawkins, Wallace G., to C. & J. Clark, Ltd. Machine for forming thermoplastic impregnated fibrous blanks. 2,847,706, 8–19–58, Cl. 18—19.
Hay, Wayne W., to Air Reduction Co., Inc. Carbon dioxide absorber. 2,848,309, 8–19–58, Cl. 23—284.
Hayes, John R., to General Motors Corp. Multi-piece hollow turbine bucket. 2,848,192, 8–19–58, Cl. 253—39.15.
Haseltine Research, Inc.: *See*—
Altschul, Ernst E. 2,848,628.
Burr, Robert P. 2,848,583.
Richman, Donald. 2,848,537.
Hebberling, Friedrich, to E. I. du Pont de Nemours and Co. Method and apparatus for yarn traverse. 2,848,178, 8–19–58, Cl. 242—43.
Heckathorn, Loyd E., to Towner Mfg. Co. Earth-penetrating point. 2,847,921, 8–19–58, Cl. 97—78.
Heer, Ralph W., L. W. Mundy, and P. G. Kuhn, to Poor & Co. Road surfacing machine. 2,847,917, 8–19–58, Cl. 94—46.
Heller, Hansjorg, to The B. F. Goodrich Co. Process for the basic dyeing of vinylidene cyanide interpolymers. 2,848,296, 8–19–58, Cl. 8—55.
Hellmann, Richard J., to Eastman Kodak Co. Hydrosols prepared by polymerizing two monomers in the presence of a copolymer. 2,848,434, 8–19–58, Cl. 260—45.5.
Hellwig, August. Bender for hollow conduits. 2,847,705, 8–19–58, Cl. 81—15.
Hemel, Albert, to International Telephone and Telegraph Corp. Station-identifying call-recording telephone system. 2,848,547, 8–19–58, Cl. 179—17.
Hempel, Gustav A.: *See*—
Rickard, Clyde E., and Hempel. 2,848,135.
Henry, Bessie D.: *See*—
Henry, Guy J. 2,848,187.
Henry, Guy J., deceased; The Northern Trust Co. and B. D. Henry, executors, to Henry Valve Co., Inc. Ball type swivel valve seat. 2,848,187, 8–19–58, Cl. 251—85.
Henry Valve Co., Inc.: *See*—
Henry, Guy J. 2,848,187.
Hepher, Martin, to Eastman Kodak Co. Light sensitive diazo compound and binder composition. 2,848,328, 8–19–58, Cl. 96—91.
Herbenar, Edward J., to Thompson Products, Inc. Power steering system of the hydraulic type. 2,848,056, 8–19–58, Cl. 180—79.2.
Herbster, George B. Cigarette holder. 2,848,000, 8–19–58, Cl. 131—207.
Hercules Powder Co.: *See*—
Breslow, David S. 2,848,506.
Keen, Robert T. 2,848,487.
Herman, Samuel H.: *See*—
Bloom, Quentin M., and Herman. 2,848,213.
Herrick, Robert E. Ribbon holder. 2,847,773, 8–19–58, Cl. 40—1.5.
Hess, Frederic O., to Selas Corp. of America. Radiant heat fuel burner. 2,847,988, 8–19–58, Cl. 126—39.
Hess, Frederic O., to Selas Corp. of America. Strip heating apparatus. 2,848,205, 8–19–58, Cl. 263—3.
Heyden Newport Chemical Corp.: *See*—
Girard, Theodore A., Di Bella, and Sidi. 2,848,470.
Hibbard, Robert L., to Grinnell Corp. Method of treating polytetrafluoroethylene and to polytetrafluoroethylene so treated. 2,847,711, 8–19–58, Cl. 18—55.
Highbaugh, David B.: *See*—
Irvine, William C. 2,848,125.
Hildebrandt, William J.: *See*—
Sharpe, Arthur H., Hildebrandt, and Intagliata. 2,848,090.
Hill, Eldon J., to The Burdick Co. Advertising signs and methods of making the same. 2,847,779, 8–19–58, Cl. 40—125.
Hill, Sanford J., to E. I. du Pont de Nemours & Co. Manganese ethylenebisdithiocarbamate stabilized by desiccant; method and package. 2,848,297, 8–19–58, Cl. 21—2.
Hill, Stanley E.: *See*—
Welsh, George W., and Hill. 2,848,081.
Hill, William H., to Callery Chemical Co. Process for detecting presence of boranes. 2,848,307, 8–19–58, Cl. 23—232.
Himel, Chester M., and L. P. Berriman, to Richfield Oil Corp. Crystallization of phthalic acids. 2,848,488, 8–19–58, Cl. 260—525.
Hirschfeldt, Georg. Toothbrushes. 2,848,002, 8–19–58, Cl. 132—79.
Hochstetter, Paul E. Stabilization of regular voltage under severe vibration. 2,848,679, 8–19–58, Cl. 322—28.
Hoeltje, Frederick W.: *See*—
Atkinson, Robert P., and Hoeltje. 2,848,284.
Hoff, Melvern C., and D. E. Burney, to Standard Oil Co. Separation of xylene isomers. 2,848,517, 8–19–58, Cl. 260—674.
Hoffman, Karl, and E. Urech, to Ciba Pharmaceutical Products Inc. α-(p-amino-phenyl)-α-lower alkyl glutarimides. 2,848,455, 8–19–58, Cl. 260—281.
Hoffmann-La Roche Inc.: *See*—
Surmatis, Joseph D. 2,848,502.
Hogan, Walter H., and A. F. Karlin, to Cleveland Pneumatic Industries, Inc. Inertia actuator. 2,847,869, 8–19–58, Cl. 74—424.8.
Holin, William F., to General Motors Corp. Brake rigging. 2,848,071, 8–19–58, Cl. 188—33.
Hollander, L. Preston, to Pawling Rubber Corp. Floor mat. 2,847,731, 8–19–58, Cl. 20—78.3.
Hollings, John S., and D. O. Davies, to Rolls-Royce Ltd. Gas turbine engine fuel system including a fuel control mechanism. 2,848,041, 8–19–58, Cl. 158—36.4.
Honolulu Oil Corp.: *See*—
Bried, Julien A. 2,847,697.
Hood, Thomas S.: *See*—
Calkins, Tracy H., and Hood. 2,847,804.
Horowitz, Irving, to U. V. Mfg. Corp. Phase detector and oscillator system. 2,848,617, 8–19–58, Cl. 250—36.
Houdek, Joseph F., Jr., to International Telephone and Telegraph Corp. Loud-speaking station for automatic telephone systems. 2,848,552, 8–19–58, Cl. 179—81.
Houdry Process Corp.: *See*—
Donovan, Joseph J., and Milliken. 2,848,422.
Mills, George A., and Talvenheimo. 2,848,423.
Houser, Howard E.: *See*—
Neipert, Marshall P., Blue, and Houser. 2,848,408.
Howard, Edward G., Jr., to E. I. du Pont de Nemours and Co. 5-oxo-1,3-dithianes. 2,848,458, 8–19–58, Cl. 260—327.
Howell, Forrest W., to Thompson Products, Inc. Method for shaping piston rings. 2,848,361, 8–19–58, Cl. 148—12.
Howes, Leslie D., to National Research Council. Pulsating torch igniter. 2,847,826, 8–19–58, Cl. 60—39.82.
Howey, Charles K., T. T. Kumagai, and G. A. Shifrin, to Hughes Aircraft Co. Variable reluctance electromagnetic devices. 2,848,698, 8–19–58, Cl. 336—30.
Hubbard, Arthur F., to American Air Filter Co., Inc. Collapsible trailer convertible from wheeled vehicle to runner supported vehicle. 2,848,241, 8–19–58, Cl. 280—8.
Huber, J. M., Corp.: *See*—
Bertorelli, Orlando L. 2,848,846.
Huber, Jennie: *See*—
Huber Ralph L. 2,847,994.
Huber, John R., to Eastern Rotorcraft Corp. Chain securing apparatus. 2,848,250, 8–19–58, Cl. 297—60.
Huber, Ralph L., deceased; J. Huber, administratrix. Donor set needle and tubing combination. 2,847,994, 8–19–58, Cl. 128—214.
Huff, John L.: *See*—
Randolph, John R., and Huff. 2,848,538.
Hughes Aircraft Co.: *See*—
Atamian, Zaven. 2,848,683.
Howey, Charles K., Kumagai, and Shifrin. 2,848,698.
Hughes Tool Co.: *See*—
Boals, Wayne S. 2,847,908.
Humphrey, William K.: *See*—
Conn, John B., and Humphrey. 2,848,322.
Hunt, Charles d'A.: *See*—
Hanks, Charles W., Hunt, and Smith. 2,848,523.
Hunt, Clayton K., Jr., to Eastman Kodak Co. Control for facsimile apparatus. 2,848,535, 8–19–58, Cl. 178—80.
Hunt, Hubert T., Jr.: *See*—
Abbott, Carl S., Hunt, and Dutton. 2,848,068.
Huntington, Frederick T., and A. M. Swift. Combination bullet press and ammunition reloader tool. 2,847,895, 8–19–58, Cl. 86—23.

Hurst, Justin, to Russell Construction Ltd. Sieves and strainers. 2,848,110, 8–19–58. Cl. 209—332.

Hussey, Luther W., to Bell Telephone Laboratories, Inc. Translator gating circuit. 2,848,653, 8–19–58, Cl. 315—168.

Hutt, Philip, and R. G. Wilmot, to General Electric Co. Slow make and break switch. 2,848,574, 8–19–58, Cl. 200—68.

Huttner, Rudolf: *See*—
Rummel, Roman, and Huttner. 2,848,473.

Hydraulic Unit Specialties Co.: *See*—
Tennis, Francis H. 2,848,014.

Hyman, Leo. Stairway covering. 2,847,732, 8–19–58, Cl. 20—79.

Hyster Co.: *See*—
Martin, William E. 2,848,252.

I-T-E Circuit Breaker Co.: *See*—
Caswell, Arthur S. 2,848,583.

I'Anson, Thomas. Conveyor chain flights. 2,848,101, 8–19–58, Cl. 198—176.

Imperial Chemical Industries Ltd.: *See*—
Reynolds, Reginald J. W., and Vickers. 2,848,441.

Inagaki, Masaru, to Zaidan Hojin Sekitan Sogo Kenkyujo. Recovery of gallium compounds from the combustion gases of coal. 2,848,398, 8–19–58, Cl. 204—105.

Independent Lock Co.: *See*—
Lynch, Robert J. 2,848,264.

Ingersoll, Howard E. Automatic grinder for tungsten carbide drill bits. 2,847,800, 8–19–58, Cl. 51—32.

Institut de Recherches de la Siderurgie: *See*—
Tuppin, Claude. 2,848,684.

Intagliata, Dominic. Device for dispensing the contents of collapsible tubes. 2,848,141, 8–19–58, Cl. 222—101.

Intagliata, Salvatore J.: *See*—
Sharpe, Arthur H., Hildebrandt, and Intagliata. 2,848,090.

Interchemical Corp.: *See*—
Dean, Russell T., and Manasia. 2,848,431.
Pizzarello, Roy A., and Schneid. 2,848,461.

International Business Machines Corp.: *See*—
Critchlow, Arthur J. 2,848,664.
Little, John B. 2,848,685.
Lynott, John J. 2,847,859.
Nienburg, Raymond E. 2,848,608.
Wagner, Eric G. 2,848,166.

International Staple and Machine Co.: *See*—
Wasynczuk, Victor. 2,847,674.

International Telemeter Corp.: *See*—
Serrell, Peter V. H. 2,848,163.

International Telephone and Telegraph Corp.: *See*—
Bryant, John H. 2,848,649.
Hemel, Albert. 2,848,547.
Houdek, Joseph F., Jr. 2,848,552.
Wolcott, Henry O. 2,848,648.

Ionics, Inc.: *See*—
Rosenberg, Norman W. 2,848,403.

Iron Fireman Mfg. Co.: *See*—
Wright, Richard C. 2,848,042.

Irvine, William C., ½ to D. B. Highbaugh. Attachment for tractor mounted front end loader operable by tractor movement. 2,848,125, 8–19–58, Cl. 214—144.

Iwanaga, Ryoji: *See*—
Yoshida, Toichi, Iwanaga, and Mori. 2,848,304.

Jackson, Anton and B. A. Lock ring for electrical connectors. 2,848,702, 8–19–58, Cl. 339—090.

Jackson, Boris A.: *See*—
Jackson, Anton and B. A. 2,848,702.

Jackson, Walter H. Portable threading tool for threading opposite ends of a blank in a single operation. 2,847,686, 8–19–58, Cl. 10—92.

Jackson, William G., to The Upjohn Co. Purification of neomycin by chromatography. 2,848,365, 8–19–58, Cl. 167—65.

Jackson, William M. Axial flow pumps. 2,847,941, 8–19–58, Cl. 103—89.

Jacobs, James W., to General Motors Corp. Self-rinsing sink. 2,847,681, 8–19–58, Cl. 4—187.

Jacobs, James W., to General Motors Corp. Heat exchanger. 2,848,200, 8–19–58, Cl. 257—255.

Jacobs, Joseph H., to Jacobs Wind Electric Co. Adjustable lathe center. 2,847,890, 8–19–58, Cl. 82—33.

Jacobs Wind Electric Co.: *See*—
Jacobs, Joseph H. 2,847,890.

Jacobsen Mfg. Co.: *See*—
Hanson, Edward S., Jr., and Strasel. 2,847,813.

Jameson, Howard L.: *See*—
Dietert, Harry W. and R. L., Jameson, and Bowman. 2,848,008.

Jansky, Curtis M., and A. W. Vodak, to Sperry Rand Corp. Digital data storage circuit. 2,848,709, 8–19–58, Cl. 340—173.

Jüppelt, Alfred, A. Doerges, and H. Schade, to F. J. Collin, Akt. Method of producing ammonium sulfate and ferrous hydroxide from ferrous sulfate pickle liquor. 2,848,302, 8–19–58, Cl. 23—119.

Jasper, Ronald J., to Lamb-Grays Harbor Co., Inc. Swing conveyors. 2,848,100, 8–19–58, Cl. 198—100.

Jeffrey Mfg. Co., The: *See*—
Whitney, Paul V. 2,848,102.

Jenkins, Edward A.: *See*—
Peterson, Robert K., Ungiert, and Jenkins. 2,848,641.

Jensen, Thormod, to American Machine & Foundry Co. Registration device for wrapping machines. 2,848,224, 8–19–58, Cl. 271—2.6.

Jervis, Joseph, to James Lees and Sons Co. Industrial apparatus and method. 2,847,717, 8–19–58, Cl. 19—106.

Jesnig, Charles J., to Duo-Vent Vacuum Closure Co. Pressure resistant closures. 2,847,130, 8–19–58, Cl. 215—31.

Jessen, Christian C., to E. I. du Pont de Nemours and Co. Method of preparing glass color compositions. 2,848,339, 8–19–58, Cl. 106—48.

Johannsen, Adolf, G. Wittmann, A. Dietrich, and W. Gebhard, to Badische Anilin- & Soda-Fabrik Akt. Production of roasting products practically free from copper. 2,848,314, 8–19–58, Cl. 75—9.

Johns, Henry S. and W. H. Movable magnetic bowling pin holding apparatus. 2,848,235, 8–19–58, Cl. 273—54.

Johns, William H.: *See*—
Johns, Henry S. and W. H. 2,848,235.

Johnson, Ernest H.: *See*—
Havens, Eugene V., and Johnson. 2,848,269.

Johnson, Harry H. Foundry sand additive. 2,848,338, 8–19–58, Cl. 106—38.2.

Johnson & Johnson: *See*—
Castelli, Charles. 2,848,046.

Johnson, Paul, to The Thew Shovel Co. Hydraulic compensating master cylinder. 2,847,827, 8–19–58, Cl. 60—54.6.

Johnson, Ralph H., to General Motors Corp. Piston ring. 2,848,288, 8–19–58, Cl. 309—24.

Johnson, Stuart E., to Carrier Corp. Absorption refrigeration systems. 2,847,832, 8–19–58, Cl. 62—101.

Jolly, Oscar W.: *See*—
Freeman, Ellsworth J. 2,847,746.

Jones, Eynon, to Chas. L. Nichols, as trustee. Stabilised egg and milk product and method of preparing same. 2,848,334, 8–19–58, Cl. 99—113.

Jones, Jean E.: *See*—
Chechak, Jonas J., and Jones. 2,848,329.

Jones, Mack C. Calorimetric wattmeter. 2,848,683, 8–19–58, Cl. 324—92.

Jones, Montgomery O., to G. T. Smith, C. Wortham, Jr., and F. L. Williams. Card cutting device. 2,847,759, 8–19–58, Cl. 30—229.

Jones, Patrick G.: *See*—
Walker, Thomas, Jones, and Hamlet. 2,848,463.

Jordan, Hans, to Given Machinery Co. Closure or stopper for drainage openings of sinks and the like. 2,847,683, 8–19–58, Cl. 4—296.

Juengst, John H., and H. J. Emerson, to Eastman Kodak Co. Film chopping and sorting apparatus. 2,848,107, 8–19–58, Cl. 209—074.

Jung, Ludwig: *See*—
Buttner, Artur, Barthel, and Jung. 2,848,226.

Junghans, Helmut, and L. Hartner. Electromagnetically operated clocks. 2,847,818, 8–19–58, Cl. 58—30.

Jurgens, William C., and J. A. Seifert, to Bell Telephone Laboratories, Inc. Mechanical interlock for cabinet-housed apparatus-mounting frameworks. 2,848,293, 8–19–58, Cl. 312—222.

Kagan, Fred, to The Upjohn Co. Preparation of alkaline-earth salts of pantothenic acid. 2,848,489, 8–19–58, Cl. 260—534.

Kahan, Edward: *See*—
Berkeley, Edmund C., and Kahan. 2,848,568.

Kahler, Harry L., C. A. Bishof, and W. A. Tansola, to Betz Laboratories, Inc. Corrosion inhibition in water systems. 2,848,290, 8–19–58, Cl. 21—2.7.

Kaiser Aluminum & Chemical Corp.: *See*—
Angel, Donald S., Tilseth, and Alexander. 2,848,124.

Kantor, Alice K.: *See*—
Long, Robert S., and Kantor. 2,848,484.

Kapff, Sixt F.: *See*—
Rhodes, Joseph C., and Kapff. 2,847,852.

Karbelt Mfg. Co.: *See*—
Sheren, Glen W. 2,848,250.

Kardos, Otto: *See*—
Foulke, Donald G., and Kardos. 2,848,393.
Foulke, Donald G., and Kardos. 2,848,394.

Karlin, Anthony F.: *See*—
Hogan, Walter H., and Karlin. 2,847,869.

Katz, Alex J.: *See*—
Bank, Albert M., and Katz. 2,848,038.

Kawahara, Fred K.: *See*—
Brown, Russell H., Fairchild, and Kawahara. 2,848,373.

Keen, Robert T., to Hercules Powder Co. Recovery of cadmium from a residue obtained in the manufacture of terephthalic acid. 2,848,487, 8–19–58, Cl. 260—515.

Keene, Carl E. Spiraled magnetic field synchro. 2,848,632, 8–19–58, Cl. 310—27.

Keller, Wayne H., and I. S. Zonis, to National Research Corp. Method of producing titanium. 2,848,319, 8–19–58, Cl. 75—84.5.

Keller, Wayne H., and I. S. Zonis, to National Research Corp. Method of producing chromium and niobium. 2,848,320, 8–19–58, Cl. 75—84.5.

Kelley, Oliver K., G. K. Hause, and C. C. Wrigley, to General Motors Corp. Windshield wiper actuating mechanism. 2,847,978, 8–19–58, Cl. 121—158.

Kelley, Walter E., to Providence Braid Co. Braiding machine. 2,847,897, 8–19–58, Cl. 87—19.

Kelling, Leroy U. C., and L. R. Peaslee, to General Electric Co. Automatic programming servomotor control system. 2,848,670, 8–19–58, Cl. 318—30.

Kelsey-Hayes Co.: *See*—
Hamjian, Harry J., and Darmara. 2,847,708.

Kelto, Rudolph E., and M. H. Smith, to Cutler-Hammer, Inc. Support assembly for electromagnet armatures. 2,848,668, 8–19–58, Cl. 317—198.

Kelvin & Hughes Ltd.: *See*—
Rankin, Alexander B. C. 2,847,853.

Kennedy, Clair M. Curtain fixture. 2,848,184, 8–19–58, Cl. 248—263.

Keonjian, Edward, to General Electric Co. Temperature stabilized transistor amplifier. 2,848,564, 8–19–58, Cl. 179—171.

Kerridge, Norman E., to Stothert & Pitt, Ltd. Pressure relief device for hydraulic weighing. 2,848,212, 8–19–58, Cl. 265—47.

Kesselring, Fritz, E. Wettstein, and A. Spaeiti, to FKG Fritz Kesselring Geratebau A. G. Electromagnetic rectifier. 2,848,678, 8–19–58, Cl. 321—48.

Kester, Russell S. Rifle rest. 2,847,909, 8–19–58, Cl. 89—40.

Keyes Fibre Co.: *See*—
Caswell, Benson E., and Theriault. 2,848,138.

Keys, Conrad R. Cable reel lifting, loading, and transporting apparatus. 2,848,123, 8–19–58, Cl. 214—77.

Kieffer, Richard A., and F. Benesovsky, to Schwarzkopf Development Corp. Process for producing titanium, zirconium and alloys of titanium and zirconium by reduction of oxides of titanium or zirconium. 2,848,315, 8–19–58, Cl. 75—10.

Kiekhaefer Corp.: *See*—
Strang, Charles D. 2,847,985.

Kiekhaefer, Elmer C. Outboard motor water inlet structure. 2,847,967, 8–19–58, Cl. 115—18.

Kilgore, E. J. Twine holder. 2,848,178, 8–19–58, Cl. 242—141.

Kilpatrick, Myron O., and E. C. Ayres, to Phillips Petroleum Co. Pebble heater quench system. 2,848,382, 8–19–58, Cl. 196—55.

Kimbro, John J., to Radio Corp. of America. Sheet feeding assembly. 2,848,228, 8–19–58, Cl. 271—26.

Kita, Donald A.: *See*—
Davisson, Jacob W., Kita, and Routten. 2,848,370.

Klein, Victor G., and C. H. Mueller, to The McNeal Machine & Engineering Co. Lubricant fitting coupler with wedged lock ring. 2,848,255, 8–19–58, Cl. 285—267.

Klinck, John C.: *See*—
Scott, Charles L., and Klinck. 2,848,012.

Knell, Martin: *See*—
Kroll, Harry, and Knell. 2,848,469.

Knight, Charles R. Glaser's instrument. 2,847,700, 8–19–58, Cl. 18—3.5.

Knitter, Raymond G. Tension responsive foldable marine anchor. 2,847,963, 8–19–58, Cl. 114—208.

Kniveton, James, to Selas Corp. of America. Furnace structure. 2,848,206, 8–19–58, Cl. 263—6.

Knottnerus, Lodewijk F. A. Runway light. 2,848,597, 8–19–58, Cl. 240—1.2.

Knowles, M. B.: *See*—
Bell, Alan, Knowles, and Tholstrup. 2,848,345.

Knox, William T., Jr., and S. F. Perry, to Esso Research and Engineering Co. Process and apparatus for solvent dewaxing of oils. 2,848,372, 8–19–58, Cl. 196—18.

Knudsen, Knud J., to The Lewis Engineering Co. Inverter for small voltages. 2,848,578, 8–19–58, Cl. 200—90.

Knuth-Winterfeldt, Eggert C. F., and L. G. Damgaard, to H. Struers Chemiske Laboratorium. Apparatuses for the electrolytic polishing of limited surface portions of a metallic workpiece. 2,848,410, 8–19–58, Cl. 204—224.

Koehring Co.: *See*—
Harrison, John F. 2,847,918.

Kofford, Reed S. Poultry watering cup. 2,848,013, 8–19–58, Cl. 137—408.

Kohler, Hans W. Cathode ray tube binary adder. 2,848,162, 8–19–58, Cl. 235—61.

Kohlhase, William L., and T. F. Martens, to E. I. du Pont de Nemours and Co. Process for preparing omega-chloronitriles from cyanogen chloride and ethylene. 2,848,476, 8–19–58, Cl. 260—465.3.

Kohlhase, William L., to E. I. du Pont de Nemours and Co. Process for preparing low molecular weight omega-chloronitriles from cyanogen chloride and ethylene. 2,848,477, 8–19–58, Cl. 260—465.3.

Koppelmann, Eldo K.: *See*—
Mock, Luther R., and Koppelmann. 2,847,757.

Koppers Co., Inc.: *See*—
Schofield, Wilfred C. 2,848,214.

Koppius, Otto G., to North American Philips Co., Inc. Thermionic cathode. 2,848,644, 8–19–58, Cl. 313—346.

Korber, Kurt, & Co. K.-G.: *See*—
Rudszinat, Willy. 2,848,030.

Kozan, Stephen M. Cutting device. 2,847,758, 8–19–58, Cl. 30—164.9.

Kracker, Herbert, and K. Gengnagel, to Farbwerke Hoechst Akt. vormals Meister Lucius & Brüning. Mono-azodyestuffs insoluble in water. 2,848,447, 8–19–58, Cl. 260—157.

Kramcsak, Michael, Jr., to The Bassick Co. Caster. 2,847,696, 8–19–58, Cl. 16—20.

Kramis, Charles J., to E. I. du Pont de Nemours and Co. Process for separation of methylamines. 2,848,386, 8–19–58, Cl. 202—39.5.

Krapf, Siegfried. Method of producing agglomerates highly resistant against heat and/or chemical attack. 2,848,324, 8–19–58, Cl. 75—206.

Kreps, Robert W. F.: *See*—
De Keiser, Adrianus, Max, and Kreps. 2,848,514.

Kroll, Harry, and M. Knell, to Geigy Chemical Corp. Polyhydroxyethyl polycarboxymethyl polyamines and chelates. 2,848,469, 8–19–58, Cl. 260—429.

Krom, Donald J.: *See*—
Williams, Herbert D., and Krom. 2,848,705.

Kronsbein, Curt, to E. E. Bellmann, R. Kronsbein, and F. Bellmann. Treating hosiery made of synthetic fibers. 2,848,146, 8–19–58, Cl. 223—51.

Kronsbein, Ruth: *See*—
Kronsbein, Curt. 2,848,146.

Krucsek, Andrew. Toy steering wheel. 2,847,797, 8–19–58, Cl. 46—1.

Kruger, Cyril. Necktie rack. 2,848,114, 8–19–58, Cl. 211—49.

Kucharski, Thaddeus W., to General Dynamics Corp. Combined cradle and switch actuator. 2,848,554, 8–19–58, Cl. 179—100.

Kuchinsky, Saul, to Burroughs Corp. Analogue-to-digital conversion using cathode ray sampler to control cathode ray coder. 2,848,605, 8–19–58, Cl. 250—27.

Kuchinsky, Saul, and H. Moss, to Burroughs Corp. Multiplexing system. 2,848,647, 8–19–58, Cl. 315—9.

Kuhlmann, Edgar E. Fishing floats. 2,847,792, 8–19–58, Cl. 43—44.9.

Kuhn, Paul G.: *See*—
Heer, Ralph W., Mundy, and Kuhn. 2,847,917.

Kulick, Frederick, to Western Electric Co., Inc. Standing wave ratio control apparatus. 2,848,692, 8–19–58, Cl. 333—17.

Kumagai, Tom T.: *See*—
Howey, Charles K., Kumagai, and Shifrin. 2,848,698.

Kuta, Martin J. Luggage carrier. 2,848,148, 8–19–58, Cl. 224—42.1.

Laakso, Thomas M.: *See*—
Reynolds, Delbert D., and Laakso. 2,848,439.
Williams, Jack L. R., and Laakso. 2,848,479.

Laas, Everett A.: *See*—
Laas, William E., R. F., and E. A. 2,847,892.

Laas, Robert F.: *See*—
Laas, William E., R. F., and E. A. 2,847,892.

Laas, William E., R. F., and E. A. Mumper or cushion for the finger rest of musical instruments. 2,847,892, 8–19–58, Cl. 84—380.

Lacey, Richard N., to The Distillers Co. Ltd. Dimerisation of ketene in medium of diketene and acetic anhydride. 2,848,496, 8–19–58, Cl. 260—585.5.

La France, Ivan E. Flare holder. 2,848,265, 8–19–58, Cl. 294—5.5.

Laithwaite, Eric R.: *See*—
Williams, Frederic C., and Laithwaite. 2,848,675.

Lakeside Laboratories, Inc.: *See*—
Biel, John H. 2,848,454.

La Manna, Richard J.: *See*—
Burkhart, William H., and La Manna. 2,848,708.

Lamb-Grays Harbor Co., Inc.: *See*—
Jasper, Ronald J. 2,848,100.

Land, Herbert L. N., ½ to D. G. Freedman. Salvage apparatus. 2,847,962, 8–19–58, Cl. 114—54.

Landers, Willard L., to Fairchild Engine and Airplane Corp. Wing tip jets. 2,848,181, 8–19–58, Cl. 244—58.

Lang, Gus W. Machine for making valley tile. 2,847,749, 8–19–58, Cl. 25—43.

Langsdorf, William P., Jr., and G. S. Stamatoff, to E. I. du Pont de Nemours and Co. Metalorganic compounds as initiators for the polymerization of formaldehyde. 2,848,437, 8–19–58, Cl. 260—67.

Lanne, Bengt: *See*—
Allander, Claes, and Lanne. 2,848,061.
Allander, Claes, and Lanne. 2,848,066.

Lappin, Gerald R.: *See*—
Bell, Alan, and Lappin. 2,848,335.

Larini, Giovanni: *See*—
Alberti, Carlo G., Vercellone, Larini, and Bernardi. 2,848,494.

Larsen, Einer W.: *See*—
Birchler, Robert O., Larsen, and Rasmussen. 2,848,223.

Lawther, William D.: *See*—
Meyes, Donald E., and Lawther. 2,847,741.

Lawton, Ray A., to The Parker Pen Co. Writing instrument. 2,847,975, 8–19–58, Cl. 120—42.4.

Leach, Clayton B., to General Motors Corp. Crossover exhaust system for V-8 engines. 2,847,820, 8–19–58, Cl. 60—29.

Leece-Neville Co., The: *See*—
Hahn, Elmer H., Jr. 2,848,575.

Lees, James, and Sons Co.: *See*—
Jervis, Joseph. 2,847,717.

Le Fiell, Sidney. Cross-over switch. 2,847,944, 8–19–58, Cl. 104—100.

Lehman, Carl. Weighing machine. 2,848,185, 8–19–58, Cl. 249—16.

Lehner-Stirnemann, Max. Manual knitting-apparatus. 2,847,839, 8–19–58, Cl. 66—60.

Lehrer, Erwin, and W. Altstaedt, to Badische Anilin- & Soda-Fabrik Akt. Apparatus for the production of acetylene by incomplete combustion of hydrocarbons. 2,848,305, 8–19–58, Cl. 23—217.

Leibing, William E. Degasser. 2,848,202, 8–19–58, Cl. 261—41.

Leigh, Robert L., to Air Controls Products, Inc. Damper for registers or the like. 2,847,929, 8–19–58, Cl. 98—110.

Lemp, John F.: *See*—
Bertsch, Hugh C., and Lemp. 2,848,366.

Lenz, Lionel C. Slipcover. 2,848,039, 8–19–58, Cl. 155—182.

Leslie, James D., C. H. Schamel, and C. S. Semar, to General Motors Corp. Window regulator. 2,848,218, 8–19–58, Cl. 268—124.

Leslie, Philip, F. J. R. Batten, and E. W. Smith. Method of making a surgical cast. 2,847,992, 8–19–58, Cl. 128—90.

Les Usines de Melle (Societe Anonyme): *See*—
Mention, Maurice. 2,848,498.

Lever Brothers Co.: *See*—
Libby, Louis H. 2,848,419.
Schramm, Charles H. 2,848,420.

Lewis Engineering Co., The: *See*—
Knudsen, Knud J. 2,848,578.

Lewis, Everett W.: *See*—
Boynton, Harry G., Lewis, and Watson. 2,848,623.
Corneil, Hampton G., Lewis, and Powers. 2,848,519.

Lewis, John H., to Buffalo Dental Mfg. Co. Centrifugal casting machine. 2,847,738, 8–19–58, Cl. 22—651.

Lewis, Morgan S., ½ to M. S. Lewis, and ½ to W. B. Fitzgerald. Coin-controlled stamp vending machines. 2,848,222, 8–19–58, Cl. 271—2.4.

Lewis, Ward M. X-ray film cabinet. 2,848,292, 8–19–58, Cl. 312—20.

Lewyt Corp.: *See*—
Meyerhoefer, Carl E. 2,848,062.
Meyerhoefer, Carl E. 2,848,063.

Liao, Chien-wei, to The Standard Oil Co. Composition containing 2-methyl pentanediol-2, 4 hydrogen borate and bis-(2-methyl pentanediol-2,4) diborate. 2,848,312, 8–19–58, Cl. 44—63.

Libby, Louis H., to Lever Brothers Co. Nontarnishing compositions. 2,848,419, 8–19–58, Cl. 252—137.

Liberty Folder Co., The: *See*—
Beck, David C. 2,848,219.

Lichtenfeld, Karl, to VEB Leuna-Werke "Walter Ulbricht." Clamp for shifting annular workpieces in a forging press. 2,847,886, 8–19–58, Cl. 78—98.

Lihn, Manuel M, to Clementon Hosiery Mill. Method of making hosiery. 2,847,840, 8–19–58, Cl. 66—89.

Liliquist, Torsten O., to General Motors Corp. Wheel slide control for dynamic braking. 2,848,262, 8–19–58, Cl. 291—2.

Limpel, Eugene J., to A. O. Smith Corp. Induction heating apparatus for fusing vitreous enamel. 2,848,566, 8–19–58, Cl. 219—10.49.

Lindblad, Robert H.: *See*—
Flemmert, Gösta L., Lindblad, and Lindhe. 2,848,362.

Lindeman, Joseph F., and W. G. Dobbs, to Northwest Equipment Co., Inc. Machine for positioning articles in trays. 2,847,809, 8–19–58, Cl. 53—160.

Lindhe, John H. O.: *See*—
Flemmert, Gösta L., Lindblad, and Lindhe. 2,848,362.

Lippe, Robert L.: *See*—
Corbin, Milford H., Lippe, Yater, Goodwin, Drinjak, and Squire. 2,848,019.

Lisowski, Frank B.: *See*—
Lisowski, John A. and F. B. 2,848,405.

Lisowski, John A. and F. B., to Natural Products Co. Apparatus for handling and conveying work. 2,848,405, 8–19–58, Cl. 204—203.

Little, John B., to International Business Machines Corp. Point contact transistor and method of making same. 2,848,665, 8–19–58, Cl. 317—235.

Little, Leslie R Jr.: *See*—
Davis, William L., Jr., Feinman, and Little. 2,848,316.

Livingstone, Jay G. Container. 2,848,142 8–19–58, Cl. 222—111.

Livingstone, Jay G. Pouring adapter. 2,848,145, 8–19–58, Cl. 222—542.

Lloyd, William G., to The Dow Chemical Co. Protection of glycol ethers by hydrazine. 2,848,501, 8–19–58, Cl. 260—611.5.

Locke, Burton H. Variable speed attachments for motors. 2,847 863, 8–19–58, Cl. 74—230.17.

Lockyer, John S.: *See*—
Strange, John W., and Lockyer. 2,848,654.

Logan, Richard S., to Phillips Petroleum Co. Method of making a metal petroleum sulfonate. 2,848,415, 8–19–58, Cl. 252—33.

Londgren, Walter R. Cattle chute stanchions. 2,847,974, 8–19–58, Cl. 119—99.

Lone Star Cement Corp.: *See*—
Haldas, Walter J. 2,848,340.

Long, James H.: *See*—
Griffin, Leonard H., and Long. 2,848,435.

Long, Oliver R., 35% to D. T. Corbin. Attachment for hair nets. 2,848,001, 8–19–58, Cl. 132—49.

Long, Robert S., and A. K. Kantor, to American Cyanamid Co. Alkoxy diaminostilbenedisulfonic acids. 2,848,484, 8–19–58, Cl. 260—507.

Lorch, Joseph: *See*—
Harges, Michael T. and Lorch. 2,848,683.

Lorens, Leo J.: *See*—
Elfes, Lee E., and Lorens. 2,847,812.

Lott, William A.: *See*—
Pribyl, Edward J., and Lott. 2,848,459.

Loud, Eldon E., and E. W. Borchardt, deceased, by O. M. Borchardt, administratrix. Fish live box. 2,847,794, 8–19–58, Cl. 43—55.

Lowing, James A.: *See*—
Sturdy, Raymond O., Rigney, and Lowing. 2,847,946.

Lucas, John H.: *See*—
Simmonds, Wayne W., and Lucas. 2,848,196.

Luginbühl, Pierre, to Schweizerische Industrie-Gesellschaft. Straightening-out and aligning of articles. 2,848,096, 8–19–58, Cl. 198—30.

Lummus Co., The: *See*—
Evans, George W., Jr., and Worn. 2,848,197.

Lundkvist, Karl A., to Telefonaktiebolaget L. M. Ericsson. Coin boxes. 2,848,542, 8–19–58, Cl. 179—6.3.

Lunn, Richard T., to A. C. E. Machinery Ltd. Power-operated hoists. 2,848,129, 8–19–58, Cl. 214—740.

Lutz, Garson A.: *See*—
McGraw, Leslie D. and Lutz. 2,848,399.

Lynch, Robert J., to Independent Lock Co. Door knob structure. 2,848,264, 8–19–58, Cl. 292—347.

Lynott, John J., to International Business Machines Corp. Positioning device. 2,847,859, 8–19–58, Cl. 74—37.

Lyon, George A. Wheel cover. 2,848,277, 8–19–58, Cl. 301—37.

Lyons, J., & Co. Ltd.: *See*—
White, Percy and Bowmer. 2,848,337.

Lyons, Lambert F., to Bendix Aviation Corp. Regulated power supply. 2,848,614, 8–19–58, Cl. 250—36.

Mabry, Lloyd C., Jr.: *See*—
Myers, John W., and Mabry. 2,848,510.

MacKenzie, Gordon F., and B. K. Morris, to The Dow Chemical Co. Preparation of carboxylic acid chlorides. 2,848,491, 8–19–58, Cl. 260—544.

Mackie, Harry A.: *See*—
Garvey, Louis P., Mackie, and Schamel. 2,847,937.

MacKnight, Bonna: *See*—
MacKnight, Edgar W. and B. 2,848,037.

MacKnight, Edgar W., to B. MacKnight. Cantilever type stool. 2,848,037, 8–19–58, Cl. 155—81.

MacLean, Alexander F., and B. G. Frenz, to Celanese Corp. of America. Preparation of unsaturated aldehydes. 2,848,499, 8–19–58, Cl. 260—601.

Mader, Wilfried: *See*—
Strohmeier, Harald, and Mader. 2,848,596.

Maderni, Piero, to Saul & Co., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust. Azo dyestuffs. 2,848,446, 8–19–58, Cl. 260—147.

Madison-Faessler Tool Co.: *See*—
Mock, Luther R., and Koppelmann. 2,847,757.

Mager, Eric L., to Sylvania Electric Products Inc. Electroluminescent lamp. 2,848,637, 8–19–58, Cl. 313—108.

Maggs Arthur H., to The British Thomson-Houston Co. Ltd. Alternating current dynamo-electric machines. 2,848,680, 8–19–58, Cl. 322—57.

Magnaflux Corp.: *See*—
De Forest, Taber. 2,848,421.

Maguire J. J.: *See*—
Friedman, Herbert, and Maguire. 2,848,624.

Maguire, J. J., Co.: *See*—
Friedman, Herbert, and Maguire. 2,848,624

Maguire, John J.: *See*—
Friedman, Herbert, and Maguire. 2,848,624.

Mahon, Harvey V. Liquid-level-indicating rollable container. 2,847,856 8–19–58, Cl. 73—325.

Majerus, John B., and W. W. Prather, to Collins Radio Co. Range gate lock-on circuit. 2,848,627, 8–19–58, Cl. 307—81.

Majestic Co., Inc., The: *See*—
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Triggs, Kenneth F. 2,848,078.

Maker, Walter J.: *See*—
Sullivan, Arthur M. 2,847,707.
Sullivan, Arthur M. 2,847,714.

Mallalieu, Frank R. Direct call secrecy intercommunicating telephone equipment. 2,848,551, 8–19–58, Cl. 179—38.

Mallinckrodt Chemical Works: *See*—
Bertsch, Hugh C., and Lemp. 2,848,366.

Manasia, Joseph P.: *See*—
Dean, Russell T., and Manasia. 2,848,431.

Mangin, Joseph L.: *See*—
McLaughlin, Frank H., and Mangin. 2,848,524.

Mannaioni, Righetto. Electromagnets and more particularly in electromagnetic clutches. 2,848,085, 8–19–58, Cl. 192—84.

Mannesmann Akt.: *See*—
Stoll, Karl. 2,848,251.

Marathon Electric Mfg. Corp.: *See*—
Foote, Richard L., and Fisher. 2,848,703.

Maron, Irving, to Radio Corp. of America. Information handling system. 2,848,607, 8–19–58, Cl. 250—27.

Marshall, William W., to Monsanto Chemical Co. Method of producing and recovering trimethyl phosphite. 2,848,474, 8–19–58, Cl. 260—461.

Martens, Theodore F.: *See*—
Kohlhase, William L., and Martens. 2,848,476.

Martin, Clinton P.: *See*—
Geisler, Henry O., and Martin. 2,848,274.

Martin, Henry, and E. Habicht, to Ciba Ltd. Production of novel acetoacetanilides, and acaricides produced therefrom. 2,848,364, 8–19–58, Cl. 167—30.

Martin, Henry K.: *See*—
Wynne, Ira H., Martin, and Haley. 2,848,208.

Martin, Menno Z, and P., to Sperry Rand Corp. Mobile harvesting machine. 2,847,811, 8–19–58, Cl. 56—1.

Martin, Phares: *See*—
Martin, Menno Z, and P. 2,847,811.

Martin, William E., to Hyster Co. Separable composite trailer construction. 2,848,252, 8–19–58, Cl. 280—415.

Marzano, Christopher: *See*—
Noland, Robert A., and Marzano. 2,848,352.

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Elfes, Lee E., and Lorenz. 2,847,812.
Elliott, Brantford G. 2,848,103.
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Mathes, Wilhelm, and A. Wolf, to Dr. F. Raschig G. m. b. H. Thiocyanoalkylpyridines and their preparation. 2,848,457, 8–19–58, Cl. 260—294.8.

Matkins, Eugene G., to General Motors Corp. Light actuated control circuit. 2,848,650, 8–19–58, Cl. 315—83.

Matter, Albert J. Adjustable appliance casters with wobble stop and load support for soft floors. 2,847,796, 8–19–58, Cl. 45—139.

Matthews, Russell B., to Baso Inc. Condition responsive control apparatus. 2,848,167, 8–19–58, Cl. 236—21.

Matthews, Russell B., to Baso Inc. Flow control device. 2,848,168, 8–19–58, Cl. 236—50.

Mattingly, Robert L., to Bell Telephone Laboratories, Inc. Compartmental antenna with hybrid feed. 2,848,716, 8–19–58, Cl. 343—782.

Max, Nicholaas: *See*—
De Keiser, Adrianus, Max, and Kreps. 2,848,514.

May, Bernard E.: *See*—
Oshkosh, Roy J., and May. 2,848,581.

May Hosiery Mills: *See*—
Minton, Clarence W. 2,847,838.

McAmis, Harry R.: *See*—
Gearhart, William M., and McAmis. 2,848,341.

McAuliffe, Dennis N., 50% to H. Cambels. Drill bit retriever. 2,848,268, 8–19–58, Cl. 294—99.

McBee, Warren D., to Sperry Rand Corp. Travelling wave tubes. 2,848,645, 8–19–58, Cl. 315—3.5.

McBride, Charles B., and P. F. Best, to The Thermix Corp. Apparatus for separating mist particles or droplets from gases. 2,848,060, 8–19–58, Cl. 183—34.

McCafferty, Edward A., to The National Marking Machine Co. Temporary identification laundry marking system. 2,848,348, 8–19–58, Cl. 117—1.
McCauley, David A., to Standard Oil Co. Durene process. 2,848,511, 8–19–58, Cl. 260—668.
McConnaughey, Robert K.: *See*—
Cohen, Milton J., and McConnaughey. 2,847,996.
McCordic, James R., and E. Gonyou, to Chrysler Corp. Transmission control mechanism. 2,847,874, 8–19–58, Cl. 74—507.
McDermott, John P., to Esso Research and Engineering Co. Reaction products of dicyclic terpenes and sulfonic acids. 2,848,482, 8–19–58, Cl. 260—504.
McDonald, Charles J.: *See*—
Walker, Don J. 2,848,253.
McDonald, John E., to Westinghouse Electric Corp. Drives for forced draft fans in steam plants. 2,847,952, 8–19–58, Cl. 110—56.
McDonald, Joseph F., to Servo Corp. of America. Motor-synchronizing circuit. 2,848,671, 8–19–58, Cl. 318—72.
McDowell Mfg. Co.: *See*—
Rickard, Clyde E., and Hempel. 2,848,135.
McDuffie, Archie D., to General Motors Corp. Piston head construction. 2,848,287, 8–19–58, Cl. 309—11.
McGraw-Edison Co.: *See*—
Frey, Raymond M., and Shirage. 2,848,430.
Postal, Robert H. 2,848,587.
McGraw, Leslie D., and G. A. Lutz, to American Zinc, Lead and Smelting Co. Electrowinning of zinc. 2,848,399, 8–19–58, Cl. 204—119.
McGurk, Alfred N. Shock absorbing attachment for throttle rods and the like. 2,848,216, 8–19–58, Cl. 267—1.
McIntosh, James A. Outboard motor pump. 2,847,966, 8–19–58, Cl. 115—17.
McKay Machine Co., The: *See*—
Bandy, Kenneth L. 2,848,177.
Thomas, Charles W. 2,847,763.
McKee, Arthur G., & Co.: *See*—
Tousalin, Robert E. 2,848,010.
McKee, Edward S., and E. F. Deffenbaugh, to Eastman Kodak Co. Lamp socket for photoflash units. 2,848,701, 8–19–58, Cl. 339—45.
McKeige, Edward E., and L. A. Pulley, to Western Electric Co., Inc. Simulated relay. 2,848,681, 8–19–58, Cl. 324—51.
McKinnis, Ronald B.: *See*—
Harden, Carl, Nicholas, and McKinnis. 2,848,025.
McLaughlin, Frank H., and J. L. Mangin, to Titanium Metals Corp. of America. Arc melting apparatus. 2,848,524, 8–19–58, Cl. 13—31.
McMullen, Wayne W. Slope grader attachment. 2,847,772, 8–19–58, Cl. 37—155.
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Klein, Victor G., and Mueller. 2,848,255.
Schneller, Rudy F. 2,848,067.
McNicol, Forrest C., and R. R. Ranson, to Cutler-Hammer, Inc. Electrical controller and circuits utilizing such a controller. 2,848,630. 8–19–58, Cl. 307—112.
Meat Packers Equipment Co.: *See*—
Ernst, Albert C. 2,847,953.
Meckenstock, John W., to Meckum Engineering, Inc. Portable dredge hull. 2,847,961, 8–19–58, Cl. 114—26.
Meckum Engineering, Inc.: *See*—
Meckenstock, John W. 2,847,961.
Meguerian, Garbis H., and W. P. Fairchild, to Standard Oil Co. Oxygen sweetening process. 2,848,374, 8–19–58, Cl. 196—29.
Meier, Walter, and P. Zublin. Method for the curdling of milk. 2,848,400, 8–19–58, Cl. 204—137.
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Warsaw, Arthur J. 2,848,086.
Mellick, Charles: *See*—
Ross, Frank, and Mellick. 2,848,298.
Mention, Maurice, to Les Usines de Melle (Societe Anonyme). Process for treating saturated oxo compounds. 2,848,498, 8–19–58, Cl. 260—594.
Merck & Co., Inc.: *See*—
Conn, John B., and Humphrey. 2,848,322.
Mergen, Frederick E., to General Electric Co. Adjustable heating units for electric range ovens. 2,848,592, 8–19–58, Cl. 219—35.
Mergenthaler Linotype Co.: *See*—
Robbins, Daniel H., and Corrado. 2,848,049.
Rossetto, Louis, Squassoni, Coleman, and Gorrill. 2,847,919.
Merrick, Richard H., to Carrier Corp. Defrost control for refrigeration systems. 2,847,833, 8–19–58, Cl. 62—155.
Merritt, Glenn W., to The Nolan Co. Fluid-actuated car-moving apparatus. 2,847,945, 8–19–58, Cl. 104—162.
Metallurgical Processes Co.: *See*—
Rusciano, Frank A. 2,848,207.
Meyer, Donald E., and W. D. Lawther, to American Steel Foundries. Method of making washed shell mold. 2,847,741, 8–19–58, Cl. 22—193.
Meyerhoefer, Carl E., to Lewyt Corp. Filter bag. 2,848,062, 8–19–58, Cl. 183—51.
Meyerhoefer, Carl E., to Lewyt Corp. Filter bag. 2,848,063, 8–19–58, Cl. 183—51.
Microlex Corp.: *See*—
Sassaman, Walter B., and Teiser. 2,847,901.
Middendorf, William H., to The Wadsworth Electric Mfg. Co., Inc. Circuit breaker. 2,848,577, 8–19–58, Cl. 200—88.
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Boyers, John S. 2,848,660.
Mierendorf, Robert C.: *See*—
Anger, Ernest G., Mierendorf, and Porter. 2,848,604.
Mil-jam Instrument Corp.: *See*—
Cohen, Milton J., and McConnaughey. 2,847,996.
Miles Laboratories, Inc.: *See*—
Free, Alfred H. 2,848,306.
Millar, John H. End fittings for flexible metallic hose. 2,848,254, 8–19–58, Cl. 285—149.
Miller, Allan. Street decoration support bracket. 2,848,117, 8–19–58, Cl. 211—107.
Miller, Edgar E. Combination sand box and table. 2,848,239, 8–19–58, Cl. 272—1.
Miller, Harry B., to Grant Development Co. Power driven fare collecting and registering apparatus. 2,848,158, 8–19–58, Cl. 235—32.
Miller, Roy G. Silent door latch. 2,848,268, 8–19–58, Cl. 292—78.
Miller, Stewart E., to Bell Telephone Laboratories, Inc. High frequency selective mode transducers. 2,848,690, 8–19–58, Cl. 333—10.
Miller, Stewart E., to Bell Telephone Laboratories, Inc. Electromagnetic wave transmission. 2,848,696, 8–19–58, Cl. 333—95.
Miller, Walter A. Feed attachment for woodworking machine. 2,848,023, 8–19–58, Cl. 144—246.
Miller, William J. Roof mop structure. 2,847,680, 8–19–58, Cl. 15—131.
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Millet, Jacques: *See*—
Tessner, Stanislas, and Millet. 2,848,360.
Milliken, Thomas H., Jr.: *See*—
Donovan, Joseph J., and Milliken. 2,848,422.
Mills, George A., and G. Talvenheimo, to Houdry Process Corp. Preparation of kaolin catalysts. 2,848,423, 8–19–58, Cl. 252—449.
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Blumer, Donald R. 2,848,306.
Booth, Russel N. 2,848,582.
Minton, Clarence W., to May Hosiery Mills. Knitted fabric and method of transfer knitting. 2,847,838, 8–19–58, Cl. 66—24.
Misiura, Wiktor S. Aerator for bath or washing equipment. 2,848,208, 8–19–58, Cl. 261—124.
Mitchell, Alex V., to Tung-Sol Electric Inc. Light responsive circuit. 2,848,658, 8–19–58, Cl. 317—148.5.
Mitchell, Doren, to Bell Telephone Laboratories, Inc. Radiant energy signaling system. 2,848,545, 8–19–58, Cl. 179—15.
Mocas, Verlin A., to The Richardson Co. Cover for storage battery. 2,848,527, 8–19–58, Cl. 136—177.
Mock, Luther R., and E. K. Koppelmann, to Madison-Paessler Tool Co. Method of inserting and sealing a closure in a plug hole. 2,847,757, 8–19–58, Cl. 29—423.
Modney, William, to Eastman Kodak Co. Multicontrast printer control units. 2,847,908, 8–19–58, Cl. 88—24.
Molins, Desmond W., to Molins Machine Co., Ltd. Apparatus for the manufacture of mouthpiece cigarettes. 2,847,999, 8–19–58, Cl. 131—61.
Molins Machine Co., Ltd.: *See*—
Molins, Desmond W. 2,847,999.
Mondschein, Morton, to Underwood Corp. Voltage indicator. 2,848,685, 8–19–58, Cl. 324—122.
Monroe Calculating Machine Co.: *See*—
Burkhart, William H., and La Manna. 1,848,705.
Monsanto Chemical Co.: *See*—
Cummings, Howard D. 2,848,460.
Gluesenkamp, Earl W. 2,848,438.
Harris, Alva F. 2,848,357.
Marshall, William W. 2,848,474.
Saul, George A., and Hamm. 2,848,492.
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Troxell, Harold M., Moore, and Davis. 2,848,179.
Moore, John R.: *See*—
Christy, Robert A., and Moore. 2,848,033.
Moore, Linza M. Interlocked blocks. 2,847,847, 8–19–58, Cl. 72—38.
Moore, William A. Wire line oil saver. 2,848,257, 8–19–58, Cl. 286—16.
More, Philip J., to General Electric Co. Rotisserie rack. 2,847,932, 8–19–58, Cl. 99—421.
Morehead, Laurel A., to National Cylinder Gas Co. Reentrant templet device. 2,847,761, 8–19–58, Cl. 33—28.
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Yoshida, Toichi, Iwanaga, and Mori. 2,848,304.
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Morris, Glen B., to Collins Radio Co. Torque limiting clutch. 2,847,836, 8–19–58, Cl. 64—30.
Morrison, Harold E., P. E. Geldhof, and L. Ringer, to Whirlpool Corp. Washing machine and fluid control system. 2,847,844, 8–19–58, Cl. 68—12.
Moskovitz, Milton A., ¼ to H. Frankel. Replaceable ball-joint unit. 2,848,260, 8–19–58, Cl. 287—90.
Mosher, Rupert C.: *See*—
Barnett, Harold M., Hartmann, Mosher, and Espoy. 2,848,508.
Moss, Hilary: *See*—
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Moss, Richard Y., and S. H. Durbin, to E. W. Bliss Co. Automation control device. 2,848,569, 8–19–58, Cl. 200—27.
Mudd, Derek P. Attachment device. 2,848,258, 8–19–58, Cl. 287—54.
Muddiman, Earll R. Amusement device. 2,848,260, 8–19–58, Cl. 272—8.
Mueller, Carl H.: *See*—
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Muenchinger, Herman G.: *See*—
Smith, Ian A., and Muenchinger. 2,847,994.
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Muller, Lloyd E., to General Motors Corp. Reversible exhaust manifold system. 2,847,819, 8–19–58, Cl. 60—29.
Müller, Werner, and E. Raue, to Farbenfabriken Bayer Akt. Lubricating compositions. 2,848,418, 8–19–58, Cl. 252—51.5.
Multiscope, Inc.: *See*—
Van Etten, Peter W. 2,848,093.
Mummert, John F., B. Williams, and R. L. Brown, to Chicago Bridge & Iron Co. Method of erecting floating roofs and apparatus therefor. 2,847,755, 8–19–58, Cl. 29—429.
Mundy, Lloyd W.: *See*—
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Murphy, Joseph P., and K. A. Weimer, to Federal Paper Board Co., Inc. Insulation ventilator tube. 2,848,016, 8–19–58, Cl. 138—78.
Murphy, Nelson F., and R. S. Tinsley, to Callery Chemical Co. Electrochemical preparation of boron. 2,848,396, 8–19–58, Cl. 204—60.
Muse, Richard H. Animated sign. 2,847,782, 8–19–58, Cl. 40—132.
Myers, John W., and L. C. Mabry, Jr., to Phillips Petroleum Co. Manganese reforming oxide-containing catalyst. 2,848,510, 8–19–58, Cl. 260—668.
National Accessories Corp.: *See*—
Post, Ernest K. 2,848,602.
National Cylinder Gas Co.: *See*—
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National Marking Machine Co., The: *See*—
McCafferty, Edward A. 2,848,846.
National Research Corp.: *See*—
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Keller, Wayne H., and Zonis. 2,848,320.
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Williams, Frederic C., and Laithwaite. 2,848,675.
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Naulin, Mick A. Incinerator. 2,847,950, 8–19–58, Cl. 110—8.
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Neidig, Claude E. Cutting tool lubricators and cleaners. 2,847,880, 8–19–58, Cl. 77—55.
Neipert, Marshall P., E. D. Blue, and H. E. Houser, to The Dow Chemical Co. Fluid output end apparatus for a mercury cathode electrolytic cell. 2,848,408, 8–19–58, Cl. 204—219.
Neisler Brothers, Inc.: *See*—
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Neisler, Charles E., Jr., to Neisler Brothers, Inc. Fabrics and method of making the same. 2,848,015, 8–19–58, Cl. 139—410.
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New Britain Machine Co., The: *See*—
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Newey, Herbert A., to Shell Development Co. Polyepoxy polyethers, their preparation and polymers. 2,848,426, 8–19–58, Cl. 260—2.
New Jersey Zinc Co., The: *See*—
Reimert, Lawrence J., and Fatzinger. 2,848,397.
Newman, Arthur J., and J. L. Wilson, to Union Carbide Corp. Strip metal arc welding. 2,848,593, 8–19–58, Cl. 219—73.
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Nichols, Joseph, and E. S. Schipper, to Ethicon, Inc. Fatty acid derivative. 2,848,467, 8–19–58, Cl. 260—406.
Nicholson, Edward W. S., to Esso Research and Engineering Co. Gas-solids separation in high temperature coking. 2,848,381, 8–19–58, Cl. 196—55.
Nicklas, Lewis B. Jet propulsion means for boats. 2,847,965, 8–19–58, Cl. 115—12.
Nicol, Clinton C., to W. H. Greene. Brace extension. 2,848,240, 8–19–58, Cl. 279—99.
Nicolai Door Mfg. Co.: *See*—
Warwick, Charles H. 2,847,730.
Niebling, Karl F. J., and G. E. Rumscheidt, to Shell Development Co. Process for preparing dicarboxylic acids from ozonides of cycloolefins. 2,848,490, 8–19–58, Cl. 260—537.
Nienburg, Raymond E., to International Business Machines Corp. Electronic ring circuit. 2,848,608, 8–19–58, Cl. 250—27.
Nist, Richard T. Receptacle for soiled clothing. 2,848,032, 8–19–58, Cl. 150—48.
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Nolan Co., The: *See*—
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Noll, George C.: *See*—
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Norton, Robert L., to Penta Laboratories, Inc. Anode structure. 2,848,636, 8–19–58, Cl. 313—40.
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Nuttman, John H. Cultivator disk grinding apparatus. 2,847,803, 8–19–58, Cl. 51—173.
Obermaier, Frank E., to The Dole Valve Co. Hot water heaters and control valves therefor. 2,848,169, 8–19–58, Cl. 236—79.
Obst, Charles V., to Bell Telephone Laboratories, Inc. Terminal strip. 2,848,704, 8–19–58, Cl. 339—198.
Odom, Harry T. Combination coin and paper holder. 2,848,116, 8–19–58, Cl. 211—89.
Oetiker, Hans. Hose clamp. 2,847,742, 8–19–58, Cl. 24—19.
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Olson, Raymond G., and H. W. Ronfeldt, to Cleveland Pneumatic Industries, Inc. Power operator for machine tools. 2,847,879, 8–19–58, Cl. 77—33.7.
Olson, Reuben A. Watch holder for vehicle dashboards and the like. 2,848,183, 8–19–58, Cl. 248—195.
O'Neil, John G., to Safe-Pack Container Co. Sealed container. 2,848,151, 8–19–58, Cl. 229—4.5.
Opoczynski, Leib B. Century calendar. 2,847,778, 8–19–58, Cl. 40—109.
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Orel, Ben. Coupling device for toy train sets. 2,847,798, 8–19–58, Cl. 46—216.
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Page, George H. Planning board. 2,847,777, 8–19–58, Cl. 40—63.

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Painter, Claude D. Order indicator. 2,847,971, 8–19–58, Cl. 116—133.

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Parkman, William C. Bait holder for use in impaling bait on a fishhook. 2,847,789, 8–19–58, Cl. 43—1.

Parmenter, Raymond O., to Powers-Samas Accounting Machines Ltd. Record controlled statistical machines. 2,848,048, 8–19–58, Cl. 164—111.

Partin, Melvin E.: *See*—
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Patent Management, Inc.: *See*—
Allison, Ralph E. 2,845,539.
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Paulson, Medford W. Clamping spanner wrench. 2,847,888, 8–19–58, Cl. 81—90.

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Penta Laboratories, Inc.: *See*—
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Peters, John: *See*—
Raible, Frank, and Peters. 2,848,635.

Peterson, Edward T., to Birdsboro Steel Foundry and Machine Co. Device for combined repeating or straight rolling. 2,847,887, 8–19–58, Cl. 80—52.

Peterson, Robert E., M. C. Unglert, and E. A. Jenkins, to Westinghouse Electric Corp. Vapor electric lamp. 2,848,641, 8–19–58, Cl. 313—184.

Peterson, William R.: *See*—
Rapp, Raymond I. 2,847,915.

Peterson, William R., to St. Regis Paper Co. Bag closing apparatus. 2,847,955, 8–19–58, Cl. 112—11.

Petrolite Corp.: *See*—
Easley, Robert L. 2,848,412.

Petropoulos, John C., to American Cyanamid Co. 4,4'-(2,2-Butylidene) dibenzoic acid. 2,848,486, 8–19–58, Cl. 260—515.

Pettit, Dorn L., and C. C. Gould, to Square D Co. Magnetic amplifier motor control. 2,848,673, 8–19–58, Cl. 318—143.

Pfennig, Reuben F., to Esso Research and Engineering Co. Purification of paraxylene. 2,848,515, 8–19–58, Cl. 260—674.

Pfizer, Chas., & Co., Inc.: *See*—
Davisson, Jacob W., Kita, and Routien. 2,848,370.

Pharis, William W., to General Dynamics Corp. Adapter circuits for mixed types telephone system. 2,848,546, 8–19–58, Cl. 179—16.

Pharis, William W., to General Dynamics Corp. Code call circuit. 2,848,550, 8–19–58, Cl. 179—18.

Philco Corp.: *See*—
Creamer, Edgar M., Jr., and Partin. 2,848,531.
Rother, George H., and Slawek. 2,848,615.

Phillips Petroleum Co.: *See*—
Curry, John L. 2,848,053.
Gilmore, Forrest R. 2,848,522.
Green, Richard M. 2,848,516.
Kilpatrick, Myron O., and Ayres. 2,848,882.
Logan, Richard S. 2,848,415.
Myers, John W., and Mabry. 2,848,510.
Pitzer, Emory W. 2,847,710.
Polk, Walter B. 2,848,521.
Pritchard, James E. 2,848,356.
Rushford, Wilson H. 2,848,347.
Skinner, John G., and Butcher. 2,848,618.
Sperberg, Lawrence R. 2,848,443.
Stinson, Donald L. 2,848,052.
Svetlik, Joseph F., Sr. 2,848,442.

Phillips, J. Lewis: *See*—
Cain, Ferrell O. 2,847,889.

Pierce, George W., D. C. Seelbinder, and W. B. Hausler, to Eastman Kodak Co. Semi-automatic roll film stripping apparatus. 2,848,174, 8–19–58, Cl. 242—55.

Pierce, John R., to Bell Telephone Laboratories, Inc. Electromagnetic wave transmission. 2,848,695, 8–19–58, Cl. 333—95.

Pigeon Hole Parking, Inc.: *See*—
Sanders, Vaughn A. 2,848,069.

Pisano, Albert J. Loose leaf metal ring construction. 2,847,998, 8–19–58, Cl. 129—1.

Pittsburgh Coke & Chemical Co.: *See*—
Dimond, Harold L., Fleckenstein, and Shrader. 2,848,456.

Pittsburgh Plate Glass Co.: *See*—
Christenson, Roger M. 2,848,436.
Olson, Melvin M., and Christenson. 2,848,425.

Pitzer, Emory W., to Phillips Petroleum Co. Method of improving fluid properties of finely divided materials. 2,847,710, 8–19–58, Cl. 18—55.

Pizzarello, Roy A., and A. F. Schneid, to Interchemical Corp. Orange pigment. 2,848,461, 8–19–58, Cl. 260—368.

Plasser, Franz, and J. Theurer. Mobile railway ballast tamping machine with track lifting mechanism. 2,847,943, 8–19–58, Cl. 104—12.

Platt, Donald E.: *See*—
Walner, Eugene, and Platt. 2,848,586.

Ploger, Gustav. Airplane wing. 2,848,180, 8–19–58, Cl. 244—12.

Polhemus, John K., to General Aniline & Film Corp. Double exposure prevention device for photographic camera. 2,847,920, 8–19–58, Cl. 95—31.

Polk, Walter B., to Phillips Petroleum Co. Treatment of hydrocarbon conversion catalysts. 2,848,521, 8–19–58, Cl. 260—680.

Pollard, Harold J., and J. Rees, to Bristol Aircraft Ltd. Method of molding ribbed structures from thermosetting resin and fibrous material. 2,847,712, 8–19–58, Cl. 18—55.

Pompon, Marcel R. Divan-bed and like convertible furniture. 2,847,684, 8–19–58, Cl. 5—38.

Pond, Alford L. Eave trough. 2,847,949, 8–19–58, Cl. 108—30.

Poor & Co.: *See*—
Heer, Ralph W., Mundy, and Kuhn. 2,847,917.

Porter, Clarence W.: *See*—
Anger, Ernest G., Mierendorf, and Porter. 2,848,604.

Porter, Forrest V., to Dresser Industries Inc. Sidewall sampler. 2,848,194, 8–19–58, Cl. 255—1.4.

Porter, Forrest V., to Dresser Industries, Inc. Formation sampler. 2,848,195, 8–19–58, Cl. 255—1.4.

Porter, Frank W., to Productive Equipment Co. Vibrating equipment. 2,847,860, 8–19–58, Cl. 74—87.

Porter, Gilbert E., ⅛ to D. Frees, ⅛ to E. L. Schwartz, and ¼ to B. M. Greenberg. Brake booster. 2,847,828, 8–19–58, Cl. 60—54.5.

Post, Ernest K., to National Accessories Corp. Detector for dragging equipment on railroads. 2,848,602, 8–19–58, Cl. 246—246.

Postal, Robert H., to McGraw-Edison Co. Fire detector cable. 2,848,587, 8–19–58, Cl. 201—63.

Poulton, Roy E., to The Garrard Engineering and Mfg. Co. Ltd. Piezo-electric pick-ups. 2,848,558, 8–19–58, Cl. 179—100.41.

Power Jets (Research & Development) Ltd.: *See*—
Barr, John C. 2,848,190.

Powers, John M.: *See*—
Cornell, Hampton G., Lewis, and Powers. 2,848,519.

Powers, Milton A., and R. C. Champlin, to Skuttle Mfg. Co. Humidifier unit. 2,847,989, 8–19–58, Cl. 126—113.

Powers-Samas Accounting Machines Ltd.: *See*—
Parmenter, Raymond O. 2,848,048.

Prather, Wallace W.: *See*—
Majerus, John B., and Prather. 2,848,627.

Pratt, Burt C., to E. I. du Pont de Nemours and Co. 3-Hydrocarbo-2-cyclobutene-1,2-dicarboxylic acids and their preparation. 2,848,478, 8–19–58, Cl. 260—468.

Preston, James N. Automatic sleep-warning system device for automobiles. 2,848,712, 8–19–58, Cl. 340—279.

Pribyl, Edward J., and W. A. Lott, to Olin Mathieson Chemical Corp. Carbamic acid esters. 2,848,450, 8–19–58, Cl. 260—340.2.

Price, Lloyd R., and R. T. Ferguson, Jr., to Robinson Tag & Label Co. Tag making machine and method. 2,848,225, 8–19–58, Cl. 271—2.6.

Price, Rudolph, and D. A. Brown, to Boeing Airplane Co. Adjustable thickness fastener having screw operable ball detents. 2,847,893, 8–19–58, Cl. 85—5.

Pritchard, James E., to Phillips Petroleum Co. Fungicides, their preparation and use. 2,848,356, 8–19–58, Cl. 117—138.5.

Proctor Electric Co.: *See*—
Saint, David. 2,847,931.

Productive Equipment Co.: *See*—
Porter, Frank W. 2,847,860.

Propst, Robert L., to Beauty Products, Ltd. Merry-go-round for playgrounds and the like. 2,848,231, 8–19–58, Cl. 272—41.

Providence Braid Co.: *See*—
Kelley, Walter E. 2,847,897.
Thibert, Laurent. 2,847,896.

Pruitt, Vestus E. Shale shaker. 2,848,100, 8–19–58, Cl. 209—234.

Puddy, Jesse M. Auxiliary brakes for trailers. 2,848,074, 8–19–58, Cl. 188—112.

Pugh, Joe S., to Nu-Lite Neon Co. Device for aquariums or the like. 2,847,973, 8–19–58, Cl. 119—5.

Pulley, Lester A.: *See*—
McKeige, Edward R., and Pulley. 2,848,681.

Pulvermacher, Dietrich. Device for making sand molds for metal casting. 2,847,736, 8–19–58, Cl. 22—36.

Purolator Products, Inc.: *See*—
Sebok, Joseph B. 2,848,065.

Pursall, Francis Walter: *See*—
Bunbury, Frederick M., and Pursall. 2,848,321.

Pyk, Sven C., and H. Viktorsson. Titanium electrodes for spark plugs. 2,848,640, 8–19–58, Cl. 313—141.

Quick, James L., to Quick Mfg., Inc. Tine for power driven tiller. 2,847,924, 8–19–58, Cl. 97—217.

Quick Mfg., Inc.: *See*—
Quick, James L. 2,847,924.

Quinn, Bayard E.: *See*—
Dudzik, Chester J., and Quinn. 2,847,900.

Quist, Harold A., to Sun Oil Co. Magnetized bob operated gauge hatch. 2,847,762, 8–19–58, Cl. 33—126.5.

Quist, Harold A., to Sun Oil Co. Jet action relief valve. 2,848,011, 8–19–58, Cl. 137—248.

Radio Corp. of America: *See*—
Bliss, Warren H. 2,848,534.
Gray, Sidney. 2,848,358.
Kimbro, John J. 2,848,228.
Maron, Irving. 2,848,607.
Roys, Henry E., and Andrews. 2,848,556.
Schultz, John B. 2,848,603.
Werenfels, Peter H. 2,848,529.
Woll, Harry J. 2,848,161.
Woll, Harry J. 2,848,528.
Tibbs, Christopher E. M. 2,848,631.

Radow, Robert S.: *See*—
Rockoff, Joseph, Waugh, and Radow. 2,847,865.

Radow, Robert S., and R. E. Bennet, to The Dayton Rubber Co. Cotton dofling assembly. 2,847,815, 8–19–58, Cl. 56—41.

Raible, Frank, and J. Peters, to Vacuum-Electronic Engineering Co. Ionization gauges. 2,848,635, 8–19–58, Cl. 313—7.

Ramberg, Einar M. Pressure vessels and methods of making such vessels. 2,848,133, 8–19–58, Cl. 220—3.

Ramey, Robert A., Jr., to United States of America, Navy. Magnetic error sensing circuit for selsyn systems. 2,848,668, 8–19–58, Cl. 318—23.5.

Randolph, John R., and J. L. Huff. Magnasonic hearing aid device. 2,848,538, 8–19–58, Cl. 179—1.

Rankin, Alexander B. C., to Kelvin & Hughes Ltd. Measuring apparatus employing ultrasonic waves. 2,847,853, 8–19–58, Cl. 73—67.6.

Ranson, Richard R.: *See*—
McNicol, Forrest C., and Ranson. 2,848,630.

Rapp, Raymond L., ½ to W. R. Peterson. Method of producing envelopes. 2,847,915, 8–19–58, Cl. 93—61.

Rasche, Joe A.: *See*—
Östholm, John I. G., and Rasche. 2,848,092.

Raschig, Dr. F., G. m. b. H.: *See*—
Mathes, Wilhelm, and Wolf. 2,848,457.

Rasmussen, Clarence R.: *See*—
Birchler, Robert O., Larsen, and Rasmussen. 2,848,223.

Raue, Roderich: *See*—
Müller, Werner, and Raue. 2,848,418.

Ravigneaux, Marie J. F.: *See*—
Ravigneaux, Pol. 2,847,877.

Ravigneaux, Pierre G.: *See*—
Ravigneaux, Pol, P. G., and M. J. F. 2,847,877.

Ravigneaux, Pol, deceased, by P. G. and M. J. F. Ravigneaux, legal representatives, to Clark Equipment Co. Epicyclic change speed gear. 2,847,877, 8–19–58, Cl. 74—759.

Raymond International Inc.: *See*—
Smith, Edward A. 2,847,830.

Rechter, Harold L., and M. Eisenberg, to Armour Research Foundation of Illinois Institute of Technology. Flame spraying process. 2,848,349, 8–19–58, Cl. 117—46.

Reed, Meuriel F., to Paper Mate Mfg. Co. Method of making a ball for ball point pen. 2,847,751, 8–19–58, Cl. 29—280.

Rees, John: *See*—
Pollard, Harold J., and Rees. 2,847,712.

Rehner, John, Jr., and L. T. Eby, to Esso Research and Engineering Co. Treatment of high boiling catalytically cracked products with activated carbon. 2,848,379, 8–19–58, Cl. 196—52.

Reif, Henry E., and A. P. Stuart, to Sun Oil Co. Separation of xylenes. 2,848,483, 8–19–58, Cl. 260—505.

Reilly, Gerard J. Tailboard cover for open-ended vehicles. 2,848,271, 8–19–58, Cl. 296—37.

Reimert, Lawrence J., and E. A. Fatzinger, to The New Jersey Zinc Co. Electrolytic production of metallic titanium. 2,848,397, 8–19–58, Cl. 204—64.

Reintjes, George P. Modular suspended wall. 2,847,849, 8–19–58, Cl. 72—101.

Remco Electronic, Inc.: *See*—
Shepard, Francis H., Jr. 2,847,867.

Remeika, Joseph P., to Bell Telephone Laboratories, Inc. Method of making single crystal ferrites. 2,848,310, 8–19–58, Cl. 23—305.

Reynolds, Delbert D., and T. M. Laakso, to Eastman Kodak Co. Linear polyesters of bis (*N*-*p*-carboxyphenyl) alkylene diamides and manufacture thereof. 2,848,439, 8–19–58, Cl. 260—75.

Reynolds Metals Co.: *See*—
Cage, James. 2,848,336.

Reynolds, Reginald J. W., and E. J. Vickers, to Imperial Chemical Industries Ltd. New hydroxy-carboxylic acid and condensation thereof. 2,848,441, 8–19–58, Cl. 260—78.3.

Rhinehart Development Corp.: *See*—
Taylor, Robert B. 2,848,591.

Rhodes, Joseph C., and S. F. Kapff, to Standard Oil Co. Light ends recorder. 2,847,852, 8–19–58, Cl. 73—53.

Rhodes, Melvin H., to Collins Radio Co. Means for providing linear indications of shaft rotations greater than ninety degrees. 2,848,711, 8–19–58, Cl. 340—207.

Rhodes, Russell E., and B. M. Sutton, to Smith, Kline & French Laboratories. N^1-acyl-N^1-(5-ethyl-1,3,4-thiadiazole-2-yl)-sulfanilamides. 2,848,448, 8–19–58, Cl. 260—239.95.

Rice Barton Corp.: *See*—
Cirrito, Anthony J. 2,847,913.

Rice, Frederick H. Container for phonograph record. 2,848,106, 8–19–58, Cl. 206—62.

Richardson Co., The: *See*—
Moeas, Verlin A. 2,848,527.

Richfield Oil Corp.: *See*—
Himel, Chester M., and Berriman. 2,848,488.

Richman, Donald, to Haseltine Research, Inc. Highly noise-immune synchronising system. 2,848,537, 8–19–58, Cl. 178—66.5.

Richter, Raymond R., to The Dayton Rubber Co. Washup attachment for printing presses and the like. 2,847,935, 8–19–58, Cl. 101—425.

Richter, Walther, to Allis-Chalmers Mfg. Co. Electromagnetic centrifugal pump. 2,847,936, 8–19–58, Cl. 103—1.

Rickard, Clyde E., and G. A. Hempel, to McDowell Mfg. Co. Coupling nose fitting. 2,848,135, 8–19–58, Cl. 220—46.

Riggs, John H., to The Rudolph Wurlitzer Co. Automatic volume level control for phonographs. 2,848,557, 8–19–58, Cl. 179—100.4.

Rigney, Winston T.: *See*—
Sturdy, Raymond O., Rigney, and Lowing. 2,847,946.

Ring, Douglas H., to Bell Telephone Laboratories, Inc. Antenna coupling circuits. 2,848,714, 8–19–58, Cl. 343—100.

Ringer, Luther: *See*—
Morrison, Harold E., Geldhof, and Ringer. 2,847,844.

Ringler, William A., to The Diamond Match Co. Multi-cell bottle carriers. 2,848,136, 8–19–58, Cl. 220—113.

Risner, Robert C. Automobile carriers. 2,848,270, 8–19–58, Cl. 296—1.

Ritterson, Samuel G., to Sun Oil Co. Scraper blade for wax flaker. 2,847,698, 8–19–58, Cl. 18—1.

Roake, William E., to United States of America, Atomic Energy Commission. Fuel elements for nuclear reactors and process of making. 2,848,325, 8–19–58, Cl. 75—211.

Robbins, Daniel H., and V. M. Corrado, to Mergenthaler Linotype Co. Justification information computer and tape perforator for photocomposing machines. 2,848,049, 8–19–58, Cl. 164—113.

Robbins, Ernest B. Method for packaging cut trees. 2,847,805, 8–19–58, Cl. 53—24.

Roberts, Fred T. and R. E. Reenforced hose and method of making same. 2,848,015, 8–19–58, Cl. 138—56.

Roberts, Robert E.: *See*—
Roberts, Fred T. and R. E. 2,848,015.

Roberts, Robert W.: *See*—
Breed, Rolland N., Cesareo, Germanton, Roberts, Weber, and Wingardner. 2,848,543.

Robertson, John W., to Art Metal Construction Co. Index device. 2,847,776, 8–19–58, Cl. 40—23.

Robertson, William. Trousers. 2,847,677, 8–19–58, Cl. 2—237.

Robinson, John W.: *See*—
Boller, Ernest R., Eubank, and Robinson. 2,848,351.

Robinson Tag & Label Co.: *See*—
Price, Lloyd R., and Ferguson. 2,848,225.

Robinton, Frank A. Quick attach and release device. 2,847,748, 8–19–58, Cl. 24—211.

Roboski, Walter S.: *See*—
Woodruff, Paul E. 2,847,969.

Rocket Jet Engineering Corp.: *See*—
Gaylord, John A. 2,847,747.

Rockoff, Joseph, D. L. Waugh, and R. S. Radow, to The Dayton Rubber Co. V-belts. 2,847,865, 8–19–58, Cl. 74—233.

Roe, A. V., Canada Ltd.: *See*—
Sachs, Robert M., and Secord. 2,848,191.

Rohde, Robert P.: *See*—
Wysong, Paul V., Jr., and Rohde. 2,848,000.

Rohdenburg, Edward L.: *See*—
Fullhart, Lawrence, Jr., and Rohdenburg. 2,848,831.

Rolfe, Hugh R., to Shell Development Co. Rotary capacitance cell. 2,848,667, 8–19–58, Cl. 317—246.

Rolls-Royce Ltd.: *See*—
Hollings, John S., and Davies. 2,848,041.

Romine, James W., to Greening Nursery Co. Tree wrapping machine. 2,847,808, 8–19–58, Cl. 53—124.

Ronfeldt, Howard W.: *See*—
Olson, Raymond G., and Ronfeldt. 2,847,879.

Rosenberg, Norman W., to Ionics, Inc. Process for electrodialyzing liquids. 2,848,403, 8–19–58, Cl. 204—180.

Rosenthal, Sidney N. Stamp pads. 2,847,972, 8–19–58, Cl. 118—265.

Rosler, Wulff: *See*—
Brandl, Karl, and Rosler. 2,848,204.

Ross, Frank, and C. Mellick, to Dearborn Chemical Co. Vapor-phase corrosion inhibition. 2,848,295, 8–19–58, Cl. 21—2.5.

Ross Gear and Tool Co., Inc.: *See*—
Newman, Percy A. 2,847,868.

Rossetto, Louis, G. F. Squasconi, E. F. Coleman, and W. S. Gorrill, to Mergenthaler Linotype Co. Photocomposing machine. 2,847,919, 8–19–58, Cl. 95—4.5.

Roth, Barney. Safety guard for lamp tubes. 2,848,600, 8–19–58, Cl. 240—51.11.

Rother, George H., and J. E. Slawek, to Philco Corp. Frequency control system. 2,848,615, 8–19–58, Cl. 250—36.

Routien, John B.: *See*—
Davisson, Jacob W., Kita, and Routien. 2,848,370.

Rowe Mfg. Co., Inc.: *See*—
Gabrielsen, Christian. 2,848,140.

Roy, Henri G. Artificial lumber products and their manufacture. 2,847,733, 8–19–58, Cl. 20—91.

Royal Metal Mfg. Co.: *See*—
Sandberg, Robert E. 2,848,294.

Royal Sales Co.: *See*—
Greenhouse, Alex, and Cohn. 2,847,843.

Roys, Henry E., and D. R. Andrews, to Radio Corp. of America. Magnetic recording transducer. 2,848,550, 8–19–58, Cl. 179—100.2.

Rubens, Louis C., to The Dow Chemical Co. Method of making cellular plastic articles from vinyl aromatic resins. 2,848,427, 8–19–58, Cl. 260—2.5.

Rubens, Louis C., to The Dow Chemical Co. Latent foaming compositions of vinyl aromatic resins and method of making. 2,848,428, 8–19–58, Cl. 260—2.5.

Ruckstuhl, Hans, to Saul & Co., as nominee of Fidelity Union Trust Co., executive trustee under Sandos Trust. Chromium-containing azo dyestuffs of the pyrazolone series. 2,848,445, 8–19–58, Cl. 260—147.

Rudner, Bernard, and M. E. Brooks, to W. R. Grace & Co. Morpholinium chlorides. 2,848,450, 8–19–58, Cl. 260—247.5.

Rudnick, Robert J.: *See*—
Schor, Abraham, and Rudnick. 2,848,104.

Rudszinat, Willy, to Kurt Korber & Co. K.-G. Tobacco cutting machine. 2,848,030, 8–19–58, Cl. 146—119.

Ruehle, Richard R., to C. E. Compton. Dehydrating gypsum or the like. 2,848,211, 8–19–58, Cl. 263—53.

Ruf, Walter. Steering device for motor vehicles. 2,848,246, 8–19–58, Cl. 280—91.

Rummel, Roman, and R. Huttner, to Union Rheinische Braunkohlen Kraftstoff Akt. Process of gasifying combustible materials. 2,848,473, 8–19–58, Cl. 260—449.

Rumscheidt, Gottfried E.: *See*—
Niebling, Karl F. J., and Rumscheidt. 2,848,490.

Rusciano, Frank A., to Metallurgical Processes Co. Apparatus for the scale free heating of metals. 2,848,207, 8–19–58, Cl. 263—15.

Rushford, Wilson H., to Phillips Petroleum Co. Wet oil-water emulsion pelleting of carbon black. 2,848,347, 8–19–58, Cl. 106—307.

Russell Construction Ltd.: *See*—
Hurst, Justin. 2,848,110.

Russell, John L., to The Bristol Co. Polarised relay. 2,848,679, 8–19–58, Cl. 200—93.

Ruthroff, Clyde L., to Bell Telephone Laboratories, Inc. Amplitude modulation limiting circuit. 2,848,609, 8–19–58, Cl. 250—27.

Rutledge, Thomas F., to Air Reduction Co., Inc. Preparation of methylacetylene and ethylacetylene. 2,848,520, 8–19–58, Cl. 260—678.

Sabatini, John J., to Bendix Aviation Corp. Engine starter gearing. 2,847,857, 8–19–58, Cl. 74—6.

Sachs, Robert M., and L. C. Secord, to A. V. Roe, Canada Ltd. Nozzle box. 2,848,191, 8–19–58, Cl. 253—39.1.

Sadler, Harry B.: *See*—
Favre, Woodrow W., and Sadler. 2,847,884.

Safe-Pack Container Co.: *See*—
O'Neil, John G. 2,848,151.

Sagal, John, Jr.: *See*—
Cheehak, Jonas J., Sagal, and Smith. 2,848,330.

Sage, Bernard: *See*—
Diamond, Lester A. 2,847,721.

Sage, Joseph: *See*—
Diamond, Lester A. 2,847,721.

Saiat, David, to Proctor Electric Co. Bread toasters. 2,847,931, 8–19–58, Cl. 99—389.

St. Pierre, Henry. Tension device. 2,848,217, 8–19–58, Cl. 267—71.

St. Regis Paper Co.: *See*—
Peterson, William R. 2,847,955.

Sampietro, Achilles C., to Thompson Products, Inc. Valve rotating device. 2,847,981, 8–19–58, Cl. 123—90.

Sampson, Frederick W., and S. R. Carson, to General Motors Corp. Windshield wiper arm. 2,847,695, 8–19–58, Cl. 15—255.

Sandberg, Robert E., to Royal Metal Mfg. Co. Combination article-supporting and display rack and storage cabinet unit. 2,848,294, 8–19–58, Cl. 312—234.

Sanders Associates Inc.: *See*—
Butler, Jesse L. 2,848,715.

Sanders, Vaughn A., to Pigeon Hole Parking, Inc. Platform leveling mechanism. 2,848,069, 8–19–58, Cl. 187—76.

Sandos Trust: *See*—
Gutzwiller, Ernst, and Brunner. 2,848,462.
Maderni, Piero. 2,848,446.
Ruckstuhl, Hans. 2,848,445.

Sangdahl, George S., Jr., to Chicago Bridge & Iron Co. Cladding assembly with internal cover plate. 2,847,756, 8–19–58, Cl. 29—470.9.

Santoni, Ermenegildo. Photogrammetric plotting apparatus. 2,847,906, 8–19–58, Cl. 88—29.

Sargent & Greenleaf, Inc.: *See*—
Taylor, James L., and Abelson. 2,847,846.

Sassaman, Walter R., and S. Teiser, to Microlex Corp. Reading apparatus. 2,847,901, 8–19–58, Cl. 88—24.

Saul & Co.: *See*—
Gutzwiller, Ernst, and Brunner. 2,848,462.
Maderni, Piero. 2,848,446.
Ruckstuhl, Hans. 2,848,445.

Saul, George A., and P. C. Hamm, to Monsanto Chemical Co. Preparation of mixed anhydrides of phosphoramidic acids. 2,848,492, 8–19–58, Cl. 260—545.

Saxe, Walter E., to The Conveyor Co. Variable speed transmission. 2,848,097, 8–19–58, Cl. 198—39.

Saxtan, Burton W.: *See*—
Winman, Russell M., and Saxtan. 2,848,043.

Scal, Robert K-F, to United States of America, Commerce. Plug-in packaged waveguide assembly. 2,848,697, 8–19–58, Cl. 333—98.

Scanlan, Thomas A. Multispeed bicycle drive. 2,847,878, 8–19–58, Cl. 74—781.

Schade, Helmut: *See*—
Jäppelt, Alfred, Doerges, and Schade. 2,848,802.

Schaerer, W., & Co. A. G.: *See*—
Schaerer, Wilhelm. 2,847,764.

Schaerer, Wilhelm, to W. Schaerer & Co. A. G. Instrument for measuring great lengths. 2,847,764, 8–19–58, Cl. 33—168.

Schake, Richard P.: *See*—
Barry, Austin W., and Schake. 2,848,562.

Schamel, Clyde H.: *See*—
Garvey, Louis P., Mackie, and Schamel. 2,847,937.
Leslie, James D., Schamel, and Semar. 2,848,218.

Scheers, Hermanus J. H., to American Enka Corp. Method and apparatus for cooling melt spun threads. 2,847,704, 8–19–58, Cl. 18—8.

Schick, Frederick A., to Allis-Chalmers Mfg. Co. Positive lock and detent mechanism for shift rods. 2,847,871, 8–19–58, Cl. 74—477.

Schilberg, Arnold G., to A. O. Smith Corp. Terminal extension for unit brake beam. 2,848,075, 8–19–58, Cl. 188—233.3.

Schilling, Robert: *See*—
Hansen, Kai H., Olley, and Schilling. 2,848,248.

Schipper, Edgar S.: *See*—
Nichols, Joseph, and Schipper. 2,848,467.

Schlachter, Edmund. Internal combustion engine having a steam vaporizing attachment. 2,847,980, 8–19–58, Cl. 123—25.

Schlese, Gerhard H. C., to Spinnbau G. m. b. H. Drive for a set of cards. 2,847,716, 8–19–58, Cl. 19—98.

Schlesinger, Joseph H., to Eagle Chemical Co. Shoes for golfers. 2,847,769, 8–19–58, Cl. 36—2.5.

Schmals, Henry H., and E. K. Novak, to Avco Mfg. Corp. Phosphor strip type color television tube scanning system. 2,848,530, 8–19–58, Cl. 178—5.4.

Schmerling, Louis, to Universal Oil Products Co. Preparation of hydrindacenes. 2,848,512, 8–19–58, Cl. 260—668.

Schmerling, Louis, to Universal Oil Products Co. Preparation of hydrindacenes. 2,848,513, 8–19–58, Cl. 260—668.

Schmidt, Paul, to Ciba Ltd. Substituted methylene bis (phosphonic acid dialkyl esters). 2,848,475, 8–19–58, Cl. 260—461.

Schneid, Alfred F.: *See*—
Pizzarello, Roy A., and Schneid. 2,848,461.

Schneller, Rudy F., to The McNeil Machine & Engineering Co. Lubricating system. 2,848,067, 8–19–58, Cl. 184—7.

Schnellpressenfabrik Akt.: *See*—
Buttner, Artur, Barthel, and Jung. 2,848,266.

Schnick, Arthur W.: *See*—
Ashton, Philip E., and Schnick. 2,848,590.

Schofield, Wilfred C., to Koppers Co., Inc. Sintering apparatus. 2,848,214, 8–19–58, Cl. 266—21.

Schor, Abraham, and R. J. Rudnick; said Schor assor. to said Rudnick. Dispensing protective packages for a plurality of rolls of web material. 2,848,104, 8–19–58, Cl. 206—56.

Schramm, Charles H., to Lever Brothers Co. Nontarnishing detergent compositions. 2,848,420, 8–19–58, Cl. 252—137.

Schreck, Irvin F. Means for producing differential steering of a pair of wheels. 2,848,247, 8–19–58, Cl. 280—96.

Schrenk, Hans A., and P. van Dijk, to American Enka Corp. Apparatus for producing varying denier filaments. 2,847,708, 8–19–58, Cl. 18—8.

Schroeder, Victor C., to Thompson Products, Inc. Bearing assembly for a high altitude booster pump. 2,848,285, 8–19–58, Cl. 308—63.

Schulken, Roger M., Jr., and J. W. Tamblyn, to Eastman Kodak Co. Stabilization of linear polyester resins against degradation by hydrolysis by the addition of an acrylamide polymer. 2,848,432, 8–19–58, Cl. 260—45.4.

Schuller, Walter H., to American Cyanamid Co. Novel mixtures of quaternary ammonium salts. 2,848,413, 8–19–58, Cl. 252—8.8.

Schuller, Walter H., to American Cyanamid Co. Polyethoxamers of novel quaternary ammonium salts and method for preparing the same. 2,848,451, 8–19–58, Cl. 260—249.9.

Schuller, Walter H., to American Cyanamid Co. Novel quaternary ammonium salts and method of preparing same. 2,848,452, 8–19–58, Cl. 260—249.9.

Schuller, Walter H., to American Cyanamid Co. Polyethoxamer of a novel quaternary ammonium salt and process for preparing the same. 2,848,453, 8–19–58, Cl. 260—249.9.

Schulte, Raymond H. Window construction. 2,847,725, 8–19–58, Cl. 20—12.

Schultz, John B., to Radio Corp. of America. Automatic gain control system. 2,848,603, 8–19–58, Cl. 250—20.

Schultze, Harold E., to General Motors Corp. Rod seal for a shock absorber. 2,848,261, 8–19–58, Cl. 288—19.

Schumacher, Erwin A., and E. J. Bennett, to Union Carbide Corp. Miniature alkaline cell. 2,848,525, 8–19–58, Cl. 136—102

Schwartz, Edwin L.: *See*—
Porter, Gilbert E. 2,847,328.
Schwarzkopf Development Corp.: *See*—
Kieffer, Richard A., and Benesovsky. 2,846,315.
Schweizerische Industrie-Gesellschaft: *See*—
Luginbühl, Pierre. 2,848,096.
Sciurba, Joseph. Glass grinding machine. 2,847,801, 8–19–58, Cl. 51—99.
Scorgie, Donald G. Dielectric amplifier. 2,848,563, 8–19–58, Cl. 179—171.
Scott, Charles L., and J. C. Klinck. Self-attending fire hose. 2,848,012, 8–19–58, Cl. 137—342.
Scott, Joseph F. Music box mounts. 2,847,891, 8–19–58, Cl. 84—94.
Scott, Kenneth W.: *See*—
Sweet, Sterling S., Scott, and van Horn. 2,847,709.
Scott, Nathaniel C. Expendable medical examining shield for the hands. 2,847,676, 8–19–58, Cl. 2—159.
Scovill Mfg. Co.: *See*—
Alfandre, Harry. 2,848,147.
Screen Engineering Co.: *See*—
Eichorn, Adrian. 2,848,327.
Sears, Roebuck and Co.: *See*—
Welsh, George W., and Hill. 2,848,081.
Sebok, Joseph H., to Purolator Products, Inc. Air cleaner. 2,848,065, 8–19–58, Cl. 183—71.
Secord, Lloyd C.: *See*—
Sachs, Robert M., and Secord. 2,848,191.
Seelbinder, David C.: *See*—
Pierce, George W., Seelbinder, and Hausler. 2,848,174.
Seemuller, John R., to Société Anonyme: Societe Monsavon-l'Oreal. Hair dye composition of an anionic dyestaffcation active lipophilic material complex solubilized by non-ionic ethylene oxide condensation product. 2,848,360, 8–19–58, Cl. 167—88.
Seifert, Joseph A.: *See*—
Jurgens, William C., and Seifert. 2,848,293.
Selas Corp. of America: *See*—
Blaha, Emil. 2,847,702.
Bloom, Quentin M., and Herman. 2,846,213.
Hess, Frederic O. 2,847,988.
Hess, Frederic O. 2,848,205.
Kniveton, James. 2,848,206.
Selby, Jack H., to The Warner & Swasey Co. Gill box. 2,847,719, 8–19–58, Cl. 19—165.
Sells, Bert E., and F. D. Doherty, to General Electric Co. Air cooled turbomachine blading. 2,848,193, 8–19–58, Cl. 253—39.15.
Semar, Claud S.: *See*—
Leslie, James D., Schamel, and Semar. 2,848,218.
Semler, Oskar A. Automatic storage system. 2,848,121, 8–19–58, Cl. 214—16.1.
Senseng, Miles L., to Sperry Rand Corp. Jig stripping dolly. 2,847,753, 8–19–58, Cl. 29—288.
Serrell, Peter V. H., to International Telemeter Corp. Record member for computing system. 2,848,163, 8–19–58, Cl. 235—61.12.
Serres, Jean P. J., to Societe pour l'Etude et La Realisation Dans l'Industrie "S. E. R. D. I." Measuring pumps. 2,847,940, 8–19–58, Cl. 103—38.
Servo Corp. of America: *See*—
McDonald, Joseph F. 2,848,671.
Shapiro, Samuel, to Summit Steel Corp. Means for vertical stocking of coil stock and the like. 2,848,115, 8–19–58, Cl. 211—49.
Sharpe, Arthur H., W. J. Hildebrandt, and S. J. Intagliata, to Underwood Corp. Typewriter control means. 2,848,090, 8–19–58, Cl. 197—19.
Shaw, Edwin L., to American Brake Shoe Co. Means of providing air purging in piston pump. 2,847,942, 8–19–58, Cl. 103—162.
Shaw, Robert F., to Underwood Corp. Machine for printing and checking mutually similar records. 2,848,088, 8–19–58, Cl. 197—1.
Shaw-Walker Co., The: *See*—
Page, John H. 2,848,289.
Shay, William L. Toilet ventilator. 2,847,682, 8–19–58, Cl. 4—213.
Shell Development Co.: *See*—
Arabian, Karekin G., and Duncan. 2,848,385.
Armstrong, Jack W., and Woods. 2,848,417.
De Keizer, Adrianus, Max, and Krepe. 2,848,514.
Griffin, Leonard H., and Long. 2,848,435.
Newey, Herbert A. 2,848,426.
Niebling, Karl F. J., and Rumscheidt. 2,848,490.
Rolfe, Hugh R. 2,848,667.
Woodruff, Richard L., and Ellsworth. 2,848,429.
Shenk, Wilbur J., Jr.: *See*—
Ford, Harry E., and Shenk. 2,848,392.
Shepard, Francis H., Jr., to Remco Electronic, Inc. Follow-up device. 2,847,667, 8–19–58, Cl. 74—388.
Sheren, Glenn W., ¼ to H. Vanaickle, d. b. a. Karbelt Mfg. Co. Safety belt. 2,848,250, 8–19–58, Cl. 280—150.
Shifrin, Gordon A.: *See*—
Howey, Charles K., Kumagai, and Shifrin. 2,848,698.
Shinall, Nelvin L., Jr., and L. M. Ziegler. Awnings. 2,847,728, 8–19–58, Cl. 20—57.5.
Shiraga, Shiro F.: *See*—
Frey, Raymond M., and Shiraga. 2,848,430.
Shrader, Marvin O.: *See*—
Dimond, Harold L., Fleckenstein, and Shrader. 2,848,456.
Shyne, James J.: *See*—
Fahnoe, Frederick, and Shyne. 2,848,391.
Sickbert, Adolf: *See*—
Coupette, Werner, and Sickbert. 2,848,317.
Sidell, Philip A., to Barber-Colman Co. Electric motor speed regulating system. 2,848,676, 8–19–58, Cl. 318—325.
Sidi, Henri: *See*—
Girard, Theodore A., Di Bella, and Sidi. 2,848,470.
Siegel, Henry: *See*—
Adise, Herbert H., and Siegel. 2,848,629.
Sigoloff, Sanford C.: *See*—
Taplin, George V., Douglas, and Sigoloff. 2,848,625.
Silver Engineering Works, Inc., a division of Silver Corp.: *See*—
Silver, Harold F. 2,847,766.
Silver, Harold F., to Silver Engineering Works, Inc., a division of Silver Corp. Drier. 2,847,766, 8–19–58, Cl. 34—57.
Silverstein, Isadore S. Fishing line projector. 2,847,987, 8–19–58, Cl. 124—7.
Simmonds Aerocessories, Inc.: *See*—
Smith, Stanley J. 2,848,669.
Simmonds, Arlie J.: *See*—
Simmonds, Wayne W. 2,848,196.
Simmonds, Wayne W., to J. H. Lucas, trustee for W. W. and A. J. Simmonds. Portable drilling rig. 2,848,196, 8–19–58, Cl. 255—19.
Simmons, Clarence C. Fishing lure. 2,847,791, 8–19–58, Cl. 43—42.26.
Simmons, Jesse T. Valve-lifter extractor. 2,847,752, 8–19–58, Cl. 29—280.
Simpson, John G. Cleaning container with magnetic removal. 2,848,006, 8–19–58, Cl. 134—133.
Simson, Verne H., and K. L. Smith, to Cutler-Hammer, Inc. Electric controllers for machines. 2,848,087, 8–19–58, Cl. 192—144.
Singer Mfg. Co., The: *See*—
Hale, Arthur N. 2,847,956.
Skellett, Albert M., to Tung-Sol Electric Inc. Method of forming color phosphor mosaic for television picture tubes. 2,848,295, 8–19–58, Cl. 316—22.
Skinas, Kosmas. Ship's collision preventer and shock absorber. 2,847,964, 8–19–58, Cl. 114—219.
Skinner, John G., and A. E. Butcher, to Phillips Petroleum Co. Mass spectrometer. 2,848,618, 8–19–58, Cl. 250—41.9.
Skuttle Mfg. Co.: *See*—
Powers, Milton A., and Champlin. 2,847,989.
Slawek, Joseph E.: *See*—
Rother, George H., and Slawek. 2,848,615.
Smathers, James F. Power-actuated typewriter mechanism. 2,848,089, 8–19–58, Cl. 197—17.
Smathers, James F. Typewriter escapement mechanism. 2,848,091, 8–19–58, Cl. 197—84.
Smith, A. O., Corp.: *See*—
Limpel, Eugene J. 2,848,566.
Schilberg, Arnold G. 2,848,075.
Smith, Albert C., Jr.: *See*—
Chechak, Jonas J., Sagal, and Smith. 2,848,330.
Smith, Cossie M. Picker stick check. 2,848,017, 8–19–58, Cl. 139—165.
Smith, Edward A., to Raymond International Inc. Pile shells. 2,847,830, 8–19–58, Cl. 61—79.
Smith, Edwin W. Multi-display tube. 2,848,638, 8–19–58, Cl. 313—109.5.
Smith, Ernest W.: *See*—
Leslie, Philip, Batten, and Smith. 2,847,992.
Smith, G. Tucker: *See*—
Jones, Montgomery O. 2,847,759.
Smith, Hugh R., Jr.: *See*—
Hanks, Charles W., Hunt, and Smith. 2,848,523.
Smith, Ian A., and H. G. Muenchinger, to American Screw Co. Socketed screw head with uniformly offset grooves. 2,847,894, 8–19–58, Cl. 85—45.
Smith, Ian A., and H. G. Muenchinger. Screw driver with offset wings. 2,848,024, 8–19–58, Cl. 145—50.
Smith, Kenneth L.: *See*—
Simson, Verne H., and Smith. 2,848,087.
Smith, Kline & French Laboratories: *See*—
Rhodes, Russell E., and Sutton. 2,848,448.
Smith, Melvin H.: *See*—
Kelto, Rudolph E., and Smith. 2,848,663.
Smith-New York Co., Inc.: *See*—
Smith, Walton J. 2,848,480.
Smith, Stanley J., to Simmonds Aerocessories, Inc. Servo-system with disc type servomotor. 2,848,669, 8–19–58, Cl. 318—28.
Smith, Thomas A., to United States of America, Navy. Transilluminated dial. 2,847,970, 8–19–58, Cl. 116—129.
Smith, Walton J., to Smith-New York Co., Inc. Production of keto esters. 2,848,480, 8–19–58, Cl. 260—483.
Società Farmaceutici Italia: *See*—
Alberti, Carlo G., Vercellone, Larini, and Bernardi. 2,848,494.
Vercellone, Alberto, and Pasini. 2,848,481.
Société Anonyme: Societe Monsavon-l'Oreal: *See*—
Seemuller, John R. 2,848,360.
Societe des Forges et Chantiers de la Mediterranee: *See*—
Veyssiere, Henri. 2,847,927.
Societe Industrielle des Derives de L'Acetylene (S. I. D. A.): *See*—
Villemey, Lucien. 2,848,495.
Societe Le Carbone Lorraine: *See*—
Tessner, Stanislas, and Millet. 2,848,360.
Societe pour l'Etude et La Realisation Dans l'Industrie "S. E. R. D. I.": *See*—
Serres, Jean P. J. 2,847,940.
Socony Mobil Oil Co., Inc.: *See*—
Sweeney, Francis T. 2,848,378.
Sommers, Armiger H., to Abbott Laboratories. Morpholinomethyl ketones. 2,848,449, 8–19–58, Cl. 260—247.7.
Southern Athletic Co., Inc.: *See*—
Wynn, Herman D. 2,848,233.
Spaelti, Alfred: *See*—
Kesselring, Fritz, Wettstein, and Spaelti. 2,848,678.

Spataro, Lucy. Electric lamps. 2,848,643, 8–19–58, Cl. 313—318.

Spaulding, Raymond L., to The Parker Pen Co. Spacer pattern for capillary reservoir elements. 2,847,976, 8–19–58, Cl. 120—50.

Spears, Esten W., to General Motors Corp. Gas turbine thrust augmenter comprising water injection ring. 2,847,825, 8–19–58, Cl. 60—39.32.

Specialties Development Corp.: *See*—
Daley, Horace S. 2,848,354.

Spector, Morris, to Advance Transformer Co. Circuit for starting and operating discharge tubes. 2,848,652, 8–19–58, Cl. 315—138.

Spellman, Edward B. Computer slide rule for automatic screw machine. 2,848,164, 8–19–58, Cl. 235—69.

Spencer, Herman J. Fastener appiying device. 2,847,673, 8–19–58, Cl. 1—49.

Sperberg, Lawrence R., to Phillips Petroleum Co. Alkyl gallates as short stopping agents for the emulsion polymerization of synthetic rubbers. 2,848,443, 8–19–58, Cl. 260—84.3.

Sperry Rand Corp.: *See*—
Jansky, Curtis M., and Vodak. 2,848,709.
Martin, Menno Z. and P. 2,847,811.
McBee, Warren D. 2,848,645.
Sensenig, Miles L. 2,847,753.
West, James R. 2,848,020.

Spickelmier, Carl F.: *See*—
Gillespie, Russell A. 2,847,727.

Spicklemier, Betty S.: *See*—
Gillespie, Russell A. 2,847,727.

Spink, Leland K., to The Foxboro Co. Fluid density measurement device. 2,847,850, 8–19–58, Cl. 73—30.

Spinks, Willard A.: *See*—
Gibson, Colin C., and Spinks. 2,848,118.

Spinnbian G. m. b. H.: *See*—
Schiese, Gerhard H. C. 2,847,710.

Square D Co.: *See*—
Anger, Ernest G., Mierendorf, and Porter. 2,848,604.
Goudy, Paul R., and Gribble. 2,848,584.
Pettit, Dorn L., and Gould. 2,848,673.

Squassoni, Gino F.: *See*—
Rossetto, Louis, Squassoni, Coleman, and Gorrill. 2,847,919.

Squire, Edmund M.: *See*—
Corbin, Milford H., Lippe, Yater, Goodwin, Drinjak, and Squire. 2,848,019.

Stacy, Robert G., to The Budd Co. Enclosed dual-disk brakes for vehicles. 2,848,072, 8–19–58, Cl. 188—59.

Staller, Karel J.: *See*—
Svec, Emil F., and Staller. 2,848,031.

Stamatoff, Gelu S.: *See*—
Langsdorf, William P., Jr., and Stamatoff. 2,848,437.

Standard Oil Co. (Indiana): *See*—
Brown, Russell H., Fairchild, and Kawahara. 2,848,373.
Fragen, Nathan. 2,848,518.
Hoff, Melvern C., and Burney. 2,848,517.
McCaulay, David A. 2,848,511.
Meguerian, Garbis H., and Fairchild. 2,848,374.
Rhodes, Joseph C., and Kapff. 2,847,852.
Webb, Glenn M. 2,848,377.

Standard Oil Co., The (Ohio): *See*—
Liao, Chien-wei. 2,848,312.

Stanko, Stefan, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Process of preparing carbon electrodes and a paste therefor. 2,848,424, 8–19–58, Cl. 252—502.

Stanphill, Ray, to Collins Radio Co. Circuit for selecting both upper and lower sidebands. 2,848,687, 8–19–58, Cl. 332—45.

Staples, Otis E., and A. J. Bent, to Textron Inc. Hobbing machine. 2,847,910, 8–19–58, Cl. 90—4.

Stauffer Chemical Co.: *See*—
Hanks, Charles W., Hunt, and Smith. 2,848,523.

Steel Slides, Inc.: *See*—
Hafekost, Frederick, and Edelson. 2,848,291.

Stephan, Hallis N., to The New Britain Machine Co. Horizontal boring, drilling and milling machine. 2,847,911, 8–19–58, Cl. 90—14.

Stephens, Frederick N., and C. C. Perkins, Jr., to Gustin-Bason Mfg. Co. Linear feed mat winding machine. 2,848,175, 8–19–58, Cl. 242—55.1.

Stephenson, Geoffrey H., and R. H. Booth, to Electric & Musical Industries Ltd. Apparatus for evaluating the rate of change of a magnitude. 2,848,159, 8–19–58, Cl. 235—61.

Stephenson, Walter H. Rotary mulching and cultivating device. 2,847,922, 8–19–58, Cl. 97—215.

Stevens, Edmund G. Stalk and straw disintegrating and distributing mechanism. 2,848,238, 8–19–58, Cl. 275—3.

Stewart-Warner Corp.: *See*—
Fisher, John T. 2,848,657.

Stinson, Donald L., to Phillips Petroleum Co. Process for vertical fracturing. 2,848,052, 8–19–58, Cl. 166—42.

Stockwell, Glade M., to Collins Radio Co. Shaft positioning control mechanism. 2,848,677, 8–19–58, Cl. 318—467.

Stoll, Karl, to Mannesmann Akt. Spring suspension for vehicles. 2,848,251, 8–19–58, Cl. 280—277.

Stone, J., & Co. (Deptford) Ltd.: *See*—
Nixon, Leslie R. 2,848,656.

Storch, Harold A., to Federal Screw Works. Bumper for limiting the movement of a vehicle panel. 2,848,272, 8–19–58, Cl. 296—44.

Stothert & Pitt, Ltd.: *See*—
Kerridge, Norman E. 2,848,212.

Strang, Charles D., to Kiekhaefer Corp. Engine starting mechanism. 2,847,985, 8–19–58, Cl. 123—179.

Strange, John W., and J. S. Lockyer, to Thorn Electrical Industries Ltd. Brightness controls for electric lamps. 2,848,654, 8–19–58, Cl. 315—317.

Strasel, Raymond K.: *See*—
Hanson, Edward S., Jr., and Strasel. 2,847,813.

Strohmeier, Harald, and W. Mader, to Gebr. Bohler & Co., Akt. Welding-rod. 2,848,596, 8–19–58, Cl. 219—146.

Struers, H., Chemisks Laboratorium: *See*—
Knuth-Winterfeldt, Eggert C. F., and Damgaard. 2,848,410.

Stuart, Archibald P.: *See*—
Reif, Henry E., and Stuart. 2,848,483.

Sturdy, Raymond O., W. T. Rigney, and J. A. Lowing, to Evans Products Co. Freight loading apparatus. 2,847,946, 8–19–58, Cl. 105—368.

Sullivan, Arthur M., to W. J. Maker. Apparatus for encapsulating articles in a plastic coating. 2,847,707, 8–19–58, Cl. 18—26.

Sullivan, Arthur M., to W. J. Maker. Method of making centrifugal castings. 2,847,714, 8–19–58, Cl. 18—58.3.

Summit Steel Corp.: *See*—
Shapiro, Samuel. 2,848,115.

Sun Oil Co.: *See*—
Fear, James V. 2,848,384.
Quist, Harold A. 2,847,762.
Quist, Harold A. 2,848,011.
Reif, Henry E., and Stuart. 2,848,483.
Ritterson, Samuel G. 2,847,698.
Thomas, Charles L. 2,848,380.

Super Sagless Spring Corp.: *See*—
Bank, Albert M., and Katz. 2,848,038.

Surmatis, Joseph D., to Hoffmann-La Roche Inc. Preparation of linalool. 2,848,502, 8–19–58, Cl. 260—631.5.

Sutton, Blaine M.: *See*—
Rhodes, Russell E., and Sutton. 2,848,448.

Svec, Emil F., and K. J. Staller, to Flexigrip, Inc. Slideriess fastener for pouch. 2,848,031, 8–19–58, Cl. 150—3.

Svejnoha, Frank. Game apparatus. 2,848,237, 8–19–58, Cl. 273—136.

Svenska Ackumulator Aktiebolaget Jungner: *See*—
Österman, Edvin M. 2,847,858.

Svenska Aktiebolaget Gasaccumulator: *See*—
Aversten, Karl J. 2,848,594.

Svetlik, Joseph F., Sr., to Phillips Petroleum Co. Oil resistant conjugated diene-heterocyclic nitrogen base copolymers. 2,848,442, 8–19–58, Cl. 260—82.1.

Swaminathan, Sambasiva: *See*—
Newman, Melvin S., and Swaminathan. 2,848,407.

Sweatt, Stanley I.: *See*—
Wisco, Alvin A., and Sweatt. 2,848,642.

Sweeney, Francis T., to Socony Mobil Oil Co., Inc. Catalytic hydrocarbon conversion process. 2,848,378, 8–19–58, Cl. 196—52.

Sweet, Sterling S., K. W. Scott, and M. H. van Horn, to Eastman Kodak Co. Process of producing unoriented formed articles from high polymers. 2,847,709, 8–19–58, Cl. 18—48.

Swift, Albert M.: *See*—
Huntington, Frederick T., and Swift. 2,847,895.

Switzer, Marshall H., to Continental Can Co., Inc. Method of applying preformed liner to a metal container. 2,847,959, 8–19–58, Cl. 113—120.

Sylvania Electric Products Inc.: *See*—
Mager, Eric L. 2,848,637.

Sylvester, Edmund O., to Griffin Wheel Co. Casting apparatus. 2,847,739, 8–19–58, Cl. 22—68.

Szechtman, Joshua, to Amroc Inc. Mounting of primary and secondary sections of electrolytic cells. 2,848,406, 8–19–58, Cl. 204—219.

Szechtman, Joshua, to Amroc Inc. Devices for the propulsion of mercury through a conduit. 2,848,409, 8–19–58, Cl. 204—220.

Talbot, Richard C., to J. L. Ferguson Co. Magnetic conveyor apparatus. 2,848,098, 8–19–58, Cl. 198—41.

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Tatter, Ernest O. P., to Warwick Mfg. Corp. Multispeed friction drive mechanism. 2,847,862, 8–19–58, Cl. 74—199.

Tauben, Daniel. Electric medicinal vaporizer. 2,847,734, 8–19–58, Cl. 21—119.

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Taylor, Leon G. Boat trailer. 2,848,126, 8–19–58, Cl. 214—506.

Taylor, Robert B., to Rhinehart Development Corp. Enclosed infrared brooders. 2,848,591, 8–19–58, Cl. 219—35.

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Thomas, Charles W., to The McKay Machine Co. Plural motor drive system controlled by measuring rolls. 2,847,763, 8–19–58, Cl. 33—132.

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Todd, Everett W., to Massey-Ferguson Inc. Gauge wheel for agricultural implements. 2,848,278, 8–19–58, Cl. 301—63.

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Toulon, Pierre M. G. Process for obtaining voltage impulses spaced out in several conductors. 2,848,536, 8–19–58, Cl. 178—50.

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Truitt, William G. Composite roofing strip. 2,847,948, 8–19–58 Cl. 108—6.

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Twigg, Lester A. Automatic shotgun choke. 2,847,788, 8–19–58, Cl. 42—79.

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Wang, Herman. Packing machines. 2,847,806, 8–19–58, Cl. 53—29.
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
August 19, 1958 Volume 733 Number 3

TRADE-MARKS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Ireland to the London 1934 Revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective May 14, 1958, of Ireland to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

June 11, 1958.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 532,907 (STONE ETERNAL), Georgia Granite Corp., Granite—namely, blue granite, gray granite, monumental stones, etc.; **Reg. No. 552,906**, same, filed Apr. 30, 1958, D. C., S. D. Tex. (Galveston), Doc. 2520, *Coggins Granite Industries, Inc.* v. *George P. Juneman et al.*

Reg. No. 552,906. (See Reg. No. 552,207.)

Reg. No. 395,020 (SPICE ISLANDS), Spice Islands Co., Red wine vinegar flavored with garlic, etc.; **Reg. No. 466,033**, same; **Reg. No. 574,147**, same; **Reg. No. 542,880** (SPICE ISLANDS COMPANY AND DESIGN), same, White wine vinegar, red wine vinegar, etc.; **Reg. No. 587,151** (SPICE ISLANDS), same, Tex. appeal filed July 2, 1958, C. C. A., 2nd Cir., Doc. 25226, *Spice Islands Co. v. Spice Lands Products, Inc.*

Reg. No. 407,430 (GLAMOUR), Conde Nast Publications, Inc., Monthly magazine; **Reg. No. 508,282**, same, filed June 17, 1958, D. C., S. D. N. Y., Doc. 134/320, *The Conde Nast Publications, Inc.* v. *Actual Publishing Co., Inc. et al.*

Reg. No. 468,022. (See Reg. No. 395,020.)

Reg. No. 508,282. (See Reg. No. 407,430.)

Reg. No. 587,287 (FUSETRON), McGraw Electric Co., doing business as Bussmann Mfg. Co., Electric fuses and protectors for electric circuits, etc.; filed Nov. 16, 1957, D. C., S. D. N. Y., Doc. 127/45, *McGraw-Edison Co.* v. *Star Fuse Co., Inc.* Consent judgment; defendants enjoined June 26, 1958.

Reg. No. 542,880. (See Reg. No. 395,020.)

Reg. No. 587,151. (See Reg. No. 395,020.)

Reg. No. 606,547 (AMERICAN BUILDING MAINTENANCE CO. WORLD'S LARGEST JANITORIAL CONTRACTORS AND DESIGN), American Building Maintenance Co. of California, Building maintenance services, filed Apr. 30, 1958, D. C. Ariz. (Tucson), Doc. 1050, *American Building Maintenance Co. of California et al.* v. *American Building Maintenance Co.*

Reg. No. 617,612 (INSTANT LEMON), Riva Distributing Co., Concentrated beverage base and food flavoring, filed June 15, 1958, D. C., N. D. Calif. (Sacramento), Doc. 7760, *Charles P. Riva, Jr. et al.* v. *Ray Neves et al.*

CONDITION OF TRADEMARK APPLICATIONS AS OF JUNE 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	12,655
Date of oldest new application	Dec. 12, 1957
Date of oldest amended application	Nov. 16, 1957

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	12-12-57	11-16-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	1-2-58	1-2-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	12-16-57	1-13-58
Renewals (All Classes)	5-25-58	6-30-58
Sec. 12 (c) Publications (All Classes)	6-2-58	6-30-58

Applications Filed During the Month of June 1958—1,900

Registrations Issued	257—No. 665,877 to No. 666,133
Renewals Issued	73

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 7,781. Fiberglass & Chemical Services, Inc., Seattle, Wash. Filed May 7, 1956.



For Fiber Glass; Plastics, Thermosetting and Thermoplastic; Fiber Glass Reinforced Plastics; Molding Compounds; Synthetic and Natural Reinforcing Materials for Plastics; Reinforced Plastics; Plastic-Coated Materials.

First use Mar. 25, 1946.

SN 40,946. Hickory Dickory Bar-B-Q Chips Co., Miami, Okla. Filed Nov. 19, 1957.

HICKORY
DICKORY

For Hickory Wood Chips Used for Flavoring Purposes in Barbeque Cooking.

First use Oct. 15, 1957.

Class 2—Receptacles

SN 18,536. Continental Can Company, Inc., New York, N. Y. Filed Nov. 1, 1956.

STURDY-PAK

For Plastic Containers of the Box, Cup, and Bag Type for the Commercial Packaging of Foods.

First use Aug. 10, 1956.

SN 33,589. Wallace Silversmiths, Inc., Wallingford, Conn. Filed July 11, 1957.

LITTER TAINER

For Metal Waste or Trash Receptacles.

First use June 10, 1957.

SN 33,591. Wallace Silversmiths, Inc., Wallingford, Conn. Filed July 11, 1957.

KUP-TAINER

For Foot Operated Metal Receptacle for the Disposal of Used Paper Cups.

First use in November 1956.

SN 37,498. Wilbert W. Haase Co., Broadview, Ill. Filed Sept. 19, 1957.

MONARCH WHITE

Applicant disclaims the exclusive rights in and to the word "White" as a color designation, and apart from the trademark "Monarch White" as shown. Owner of Reg. Nos. 420,694, 601,483, and others.

For Burial Vaults.

First use on or about Aug. 5, 1957.

SN 38,902. Continental Can Company, Inc., New York, N. Y. Filed Oct. 15, 1957.

GAIRVENEER

For Paperboard Containers Made of Corrugated Paperboard or Fibreboard Combined With Wood Veneer Panels.

First use Aug. 1, 1950.

SN 40,159. Tucker Products Corporation, Leominster, Mass. Filed Nov. 5, 1957.



For Following Goods Made of Plastic: Salad Bowls; Salad Forks and Spoons; Salt and Pepper Shakers; Butter Dishes; Sectional Food Plates; Mugs; Tumblers; Knives, Forks, and Spoons; Dust Pans; Dish Pans; Waste Baskets; Wash Basins; Pails; Bread Trays; Mixing Bowls; Cake Plate and Cover Sets; Food Containers for Use in Refrigerators; Laundry Baskets; and Decanters.

First use July 26, 1957, on bread trays, dust pans, and pails.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 44,932. Delmar G. Spatz, d. b. a. D M A, Chicago, Ill. Filed Jan. 29, 1958.

SALES CHARGER

For Pocket Wallets.

First use Aug. 28, 1957.

SN 44,938. Carol B. Sullivan, New York, N. Y. Filed Jan. 29, 1958.

"7-11"

For Handbags.

First use Sept. 15, 1957.

Class 4—Abrasives and Polishing Materials

SN 36,521. Knomark Manufacturing Co., Inc., Brooklyn, N. Y. Filed Aug. 30, 1957. Sec. 2(f).

LOOKING GLASS SHINE

For Shoe Polish.

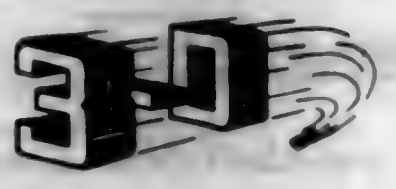
First use in February 1946.

SN 37,620. Arrow Chemical Products, Inc., Detroit, Mich. Filed Sept. 23, 1957.

POLY-ON

For Waxless Floor Polish.
First use on or about July 31, 1957.

SN 39,313. Associated Engineering Chemistry, Inc., Fort Lauderdale, Fla. Filed Oct. 22, 1957.



For Auto Polish.
First use Sept. 8, 1957.

SN 53,916. Twin City Sheilac Co., Inc., Brooklyn, N. Y. Filed June 17, 1958.

DAN-DEE

For Cleaner and Polish for Glass, Metal, and Porcelains.
First use May 21, 1948.

Class 5—Adhesives

SN 40,619. Jules S. Rosen, d. b. a. United Artist Materials Co., New York, N. Y. Filed Nov. 13, 1957.

UNARCO

For Rubber Cement.
First use during 1946.

SN 45,831. Sanford Ink Company, Bellwood, Ill. Filed Feb. 13, 1958.

ELEPHANT

For Glue.
First use June 7, 1957.

SN 45,879. Household Research Corporation, Cambridge, Mass. Filed Feb. 14, 1958.

SQUEEZ-A-STITCH

For Adhesive for Mending Fabrics and Leather.
First use Aug. 1, 1956.

SN 45,890. Lord Manufacturing Company, Erie, Pa. Filed Feb. 14, 1958.

CHEMLOK

Owner of Reg. No. 647,649.
For Resinous Plastic Adhesive Compositions and Components Thereof Used To Adhere Rubber, Metal, Wood, Plastics, Ceramics, Textiles and Glass to Each Other and to a Wide Variety of Other Materials, Including Adhesive Sealing Compositions and Components Thereof.
First use Aug. 13, 1957.

SN 45,997. Organic Development Corporation, Garden Grove, Calif. Filed Feb. 17, 1958.

SPECTRA-BOND

For Vinyl Adhesive.
First use Jan. 3, 1958.

Class 6—Chemicals and Chemical Compositions

SN 12,058. United Aniline Co., Norwood, Mass. Filed July 12, 1956. Sec. 2(f).

FIBERLUBE

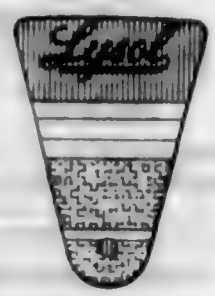
For Synthetic Wool Oil Booster in Liquid Form for Textile Processing.
First use May 1, 1956.

SN 12,196. Imperial Chemical Industries Limited, London, England. Filed July 16, 1956.

TOPANOL

Owner of British Reg. Nos. 662,980 and 689,336, dated Oct. 3, 1947, and May 25, 1950, respectively.
For Chemical Substances Being Phenols or Derivatives Thereof, or Aliphatic Alcohols or Derivatives Thereof, or Amines or Derivatives Thereof Used as Anti-Oxidants.

SN 20,635. Lehn & Fink Products Corporation, Bloomfield, N. J. Filed Dec. 7, 1956.



The drawing is lined for red and yellow. Owner of Reg. Nos. 53,937, 381,120, and others.
For Preparation Used on Animate and Inanimate Objects for Antiseptic, Disinfecting, Cleaning, and Deodorizing Purposes, and Also Used in the Preparation of Cosmetics and Pharmaceuticals.
First use Oct. 8, 1956.

SN 30,106. Orkin Exterminating Company, Inc., Atlanta, Ga. Filed May 15, 1957.

ORKIN-AIRE

Owner of Reg. No. 289,510.
For Insecticides.
First use Feb. 28, 1957.

SN 35,573. General Aniline & Film Corporation, New York, N. Y. Filed Aug. 15, 1957.

OXYDIAMINE

For Dyestuffs.
First use on or about Dec. 31, 1926.

SN 35,577. General Aniline & Film Corporation, New York, N. Y. Filed Aug. 15, 1957.

FAST BOND

For Dyestuffs.
First use on or about Mar. 31, 1938.

SN 35,580. General Aniline & Film Corporation, New York, N. Y. Filed Aug. 15, 1957.

ZAMBESI

For Dyestuffs.
First use on or about Apr. 24, 1927.

SN 36,515. Hayes-Sammons Chemical Company, Mission, Tex. Filed Aug. 30, 1957.

FIRE CRACKER

For Insecticides and Agricultural Fungicides.
First use Aug. 5, 1957.

SN 40,742. Chapman Chemical Company, Memphis, Tenn. Filed Nov. 15, 1957.

TEMPRON

For Preparation for Waterproofing and Strengthening Fiber Board.
First use May 21, 1957.

SN 42,260. Acme Chemical Company, Milwaukee, Wis. Filed Dec. 12, 1957.

SPICYMIST

For Room or Household Spray Deodorant.
First use Oct. 16, 1957.

SN 43,384. General Aniline & Film Corporation, New York, N. Y. Filed Jan. 3, 1958.

ANO

For Dyestuffs and Pigments.
First use on or about Dec. 31, 1947.

SN 43,638. Union Carbide Corporation, New York, N. Y. Filed Jan. 8, 1958.

UNION CARBIDE

Owner of Reg. Nos. 119,405 and 643,460.
For Synthetic Organic Chemicals for Industrial and Other Uses—Namely, Alcohols, Esters, Glycol-Ethers, Ketones, Nitrogen Compositions, Oxides, Polyols, and Surface Active Agents.
First use in August 1957.

Class 7 — Cordage

SN 35,025. Sam Atkinson, d. b. a. McLeansboro Twine Company, McLeansboro, Ill. Filed Aug. 6, 1957.

BLACKHAWK

For Binder and Baler Twine.
First use May 4, 1956.

SN 42,481. International Harvester Company, Chicago, Ill. Filed Dec. 16, 1957.

TOP KNOT

For Baler Twine.
First use Nov. 6, 1957.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 32,534. Redfield Gunsight Co., Denver, Colo. Filed June 24, 1957.

Sourdough

For Gunsights, Gunsight Mountings for Guns.
First use on or about June 25, 1946.

SN 40,093. V. J. Tovatt Co., Lynwood, Calif. Filed Nov. 4, 1957.

SUPER SPITFIRE

For Fireworks.
First use January 1956.

Class 10 — Fertilizers

SN 33,568. Plant Products Corporation, Blue Point, N. Y. Filed July 11, 1957.

PLANTSTIM

Owner of Reg. No. 431,810.
For Plant Growth-Inducing Preparation.
First use Feb. 19, 1957.

SN 40,079. Price's Producers, Inc., El Paso, Tex. Filed Apr. 4, 1958.

GARDEN-GREEN

For Fertilizers.
First use Feb. 22, 1958.

Class 11 — Inks and Inking Materials

SN 41,006. Columbia Ribbon & Carbon Manufacturing Company, Inc., Glen Cove, N. Y. Filed Nov. 20, 1957.

COLOMASTER

Owner of Reg. No. 659,559.
For Duplicating Fluid for Duplicating Machines.
First use Mar. 17, 1955.

SN 42,681. Will Laboratories, Inc., Long Island City, N. Y. Filed Dec. 18, 1957.



For Printing Inks.
First use Dec. 2, 1957.

Class 12—Construction Materials

SN 32,561. Vermiculite Manufacturing Co., Seattle, Wash. Filed June 24, 1957.

Z-STONE

Owner of Reg. No. 616,046.
For Building Bricks.
First use May 13, 1957.

SN 34,245. Oskar R. Ludwig and Anthony Pesone, Middle Village, N. Y. Filed July 23, 1957.

FUTUREWALL

For Flush Metal Partitions.
First use July 1, 1957.

SN 34,654. American Door Company, Inc., South Bend, Ind. Filed July 31, 1957.

MAGNA-FOLD

For Doors of Accordion Pleated Extensible and Contractable Type Having a Folding Frame and a Flexible Sheet Covering of the Accordion Folded Type.
First use May 23, 1957.

SN 37,548. Balsa Ecuador Lumber Corporation, New York, N. Y. Filed Sept. 20, 1957.

CERTIFIED KILNDRIED
GRIDKORE
BELCOBALSA

The words "Certified Kilndried" are disclaimed apart from the mark as shown. Owner of Reg. No. 580,244.
For Lumber and Wooden Panels.
First use Aug. 19, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 7,143. Stephen A. Young Corporation, Flora, Ind. Filed Apr. 25, 1956.

KITCHEN KWEEN

For Plumbing Fixtures and Parts Therefor Comprising Valve Bodies, Stems, Bushings, Screws, Washers, Escutcheons, Handles, Spray Heads, Aerators, and Spouts.
First use on or about January 1948.

SN 12,019. Flight Refueling, Incorporated, Baltimore, Md. Filed July 12, 1956.

PROBE AND DROGUE

The words "Probe and Drogue" are disclaimed.
For Nozzles, Couplings, Valves, and Pipe Connectors.
First use June 8, 1956, on nozzles; Jan. 25, 1955, as to the design portion on pipe connectors.

SN 36,999. Harry F. Davis, d. b. a. Automatic Nozzle Exchange, Oakland, Calif. Filed Sept. 11, 1957.

STAR ★ BRAND

For Rebuilt Automatic Nozzles Used on Service Station Gasoline Dispensing Pumps.
First use Dec. 6, 1956.

SN 38,814. Fetherwate Pipe & Tube Co., d. b. a. Security Industrial Supply Co., South Gate, Calif. Filed Oct. 14, 1957.

SECURITY

For Pipe Fittings, Valves, and Flanges.
First use Aug. 11, 1954.

SN 41,821. Philip Israel, d. b. a. Southwest Equipment Company, Houston, Tex. Filed Dec. 5, 1957.

CUPL-O

For Pipe Couplings.
First use June 29, 1955.

SN 43,407. Vapor Heating Corporation, Chicago, Ill. Filed Jan. 3, 1958. Sec. 2(f).

VAPOR

Owner of Reg. Nos. 576,567, 647,802, and 653,050.
For Water By-Pass Regulator for Boilers and Steam Generators; and Steam Line Couplings for Railway Cars.
First use June 26, 1945, on water by-pass regulator.

SN 44,066. Chicago Specialty Manufacturing Co., Chicago, Ill. Filed Jan. 16, 1958.

"5 IN 1"

Owner of Reg. No. 340,196.
For Radiator Handle.
First use Sept. 15, 1933.

SN 44,395. International Basic Economy Corporation, Cleveland, Ohio. Filed Jan. 21, 1958.

QUIK-FLEX

For Steam Traps.
First use on or about Feb. 13, 1957.

SN 44,838. The Pollak Steel Company, Evendale, Cincinnati, Ohio. Filed Jan. 28, 1958.

PIGGYBAK

For Metal Sign Posts.
First use Oct. 29, 1957.

SN 44,846. Sure Flow Brass Mfg. Co., Inc., Brooklyn, N. Y. Filed Jan. 28, 1958.

FLOW-RATOR

For Air-Escape and Pressure Relief Valves for Steam-Heat Heating Systems.
First use Jan. 22, 1958.

SN 44,922. Regal Ware, Inc., Kewaskum, Wis. Filed Jan. 29, 1958.

FLAVORITE

For Waterless Cookware.
First use Nov. 25, 1957.

SN 45,000. Aero Bolt & Screw Co., Inc., Inglewood, Calif. Filed Jan. 31, 1958.

ABSCO UNISEAL

For Bolts and Screws.
First use Nov. 18, 1957.
Subj. to Intf. with SN 49,934.

SN 45,024. Daimler-Benz Aktiengesellschaft, Stuttgart-Untertuerkheim, Germany. Filed Jan. 31, 1958.

Owner of German Reg. No. 685,072, dated Dec. 2, 1955; and U. S. Reg. Nos. 97,681, 376,775, and others.

For (based on use in commerce), Tire Chains; Automotive Lubricating Equipment; Bolts; Brackets; Clamps; Screws and Nuts; Rivets; Washers; Couplings; Fastening Devices; Tubing; Hinges; Door Handles; Door Hold-Open Devices; Hose Fittings; Key Chains; and Knobs.

For (based on German registration), Plumbing Fixtures; Pipings and Fittings for Kitchens, Bathrooms and Toilets; Small Hardware; Piping, Mountings and Fittings; Wire Goods; Tin and Enamel Ware; Tin-Plated Goods; Bells; Artesian Well Pipings and Fittings; Cargo Nets; Stainless Steel Coffee and Tea Services and Dishes; Cooking and Baking Utensils; Barbed Wire; Bathroom Accessories; Miscellaneous Cabinet and Shelf Hardware; Bath Tubs; Lavatories; Sinks; Water Closets; Bellows; Cabinet and Furniture Hardware and General Hardware; Conduits; Lawn Sprinklers; Garden Hose Nozzles; Curtain Tracks; Dispensers; Door Hardware; Door Stops; Picture Hangers; Housewares Made of Metal; Metal Fences; Metal Closet Accessories; Parachute Hardware; Plumbing Fixtures; Septic Tanks; Shower Cabinets; Slide Fasteners; Sprinkler Systems; Staples; Thumb Tacks; and Urinals.

First use in 1933; in commerce in 1933; in 1909 as to representation of a 3-pointed star.

SN 45,039. The Eagle Lock and Screw Company, Terryville, Conn. Filed Jan. 31, 1958. Sec. 2(f).

EVER-HANDY

Owner of Reg. No. 554,517.

For Packaged Screw Products—Namely, Machine Screws, Sheet Metal Screws, Wood Screws, and Stove Bolts.

First use Nov. 1, 1950.

SN 45,134. Daimler-Benz Aktiengesellschaft, Stuttgart-Untertuerkheim, Germany. Filed Feb. 3, 1958.

MERCEDES-BENZ

Owner of German Reg. No. 375,067, dated Oct. 7, 1927; and U. S. Reg. Nos. 376,768 and 285,557.

For (based on use in commerce), Tire Chains; Automotive Lubricating Equipment; Bolts; Brackets; Clamps; Screws and Nuts; Rivets; Washers; Couplings; Fastening Devices; Tubing; Hinges; Door Handles; Door Hold-Open Devices; Hose Fittings; Key Chains; and Knobs.

For (based on German registration), Plumbing Fixtures; Pipings and Fittings for Kitchens, Bathrooms and Toilets; Small Hardware; Piping, Mountings and Fittings; Wire Goods; Tin and Enamel Ware; Tin-Plated Goods; Bells; Artesian Well Pipings and Fittings; Cargo Nets; Stainless Steel Coffee and Tea Services and Dishes; Cooking and Baking Utensils; Barbed Wire; Bathroom Accessories; Miscellaneous Cabinet and Shelf Hardware; Bath Tubs; Lavatories; Sinks; Water Closets; Bellows; Cabinet and Furniture Hardware and General Hardware; Conduits; Lawn Sprinklers; Garden Hose Nozzles; Curtain Tracks; Dispensers; Door Hardware; Door Stops; Picture Hangers; Housewares Made of Metal; Metal Fences; Metal Closet Accessories; Parachute Hardware; Plumbing Fixtures; Septic Tanks; Shower Cabinets; Slide Fasteners; Sprinkler Systems; Staples; Thumb Tacks; and Urinals.

First use 1926; in commerce 1927; 1900 as to "Mercedes"; 1896 as to "Benz."

SN 49,934. Joseph Anthony Iaia, d. b. a. The Uniseal Company, Los Angeles, Calif. Filed Apr. 18, 1958.

"UNISEAL"

For Screw Fasteners.
First use on or about July 1956.
Subj. to Intf. with SN 45,000 and SN 43,128.

Class 14 — Metals and Metal Castings and Forgings

SN 27,796. The Hartford Electric Steel Corporation, Hartford, Conn. Filed Apr. 9, 1957.

H

For Carbon, Low Alloy and High Alloy Steel Castings Having a Carbon Content Range of From .20% to .50%.
First use in 1928.

SN 43,077. Crucible Steel Company of America, Pittsburgh, Pa. Filed Dec. 27, 1957.

VAR

For Alloy Steels in the Form of Bars and Billets.
First use Nov. 9, 1956.

Class 15 — Oils and Greases

SN 41,084. Esso Standard Oil Company, New York, N. Y. Filed Nov. 21, 1957.

HO-4

For Heating Oil Additives.
First use Aug. 6, 1957.

Class 16—Protective and Decorative Coatings

SN 4,634. Grand Rapids Varnish Corporation, Grand Rapids, Mich. Filed Mar. 15, 1956.

PERMATONE

For Wood Stains.
First use July 1, 1930.

SN 4,635. Grand Rapids Varnish Corporation, Grand Rapids, Mich. Filed Mar. 15, 1956.

GUARDSMAN

Owner of Reg. No. 602,634.
For General Industrial Finishes—Namely, Varnishes, Ready-Mixed Paints, Paint Enamel, and Lacquers.
First use July 20, 1939.

SN 11,296. Carlton L. Rydstrom, d. b. a. The Norcote Company, St. Petersburg, Fla. Filed June 29, 1956.

INSULCOTE

For Aluminum Paint.
First use Jan. 15, 1946.

SN 12,152. Camel Color & Paint Corp., Rego Park, N. Y., assignee of Camel Lead Color & Chemical Products Mfg. Corp., Brooklyn, N. Y. Filed July 16, 1956. Sec. 2(f).

SUNTEST 1905 1931 PAINTS

For Paints—Namely, Dry Paints, Oil Paints, Varnishes, and Paint Oil.
First use 1905.

SN 30,469. American-Marietta Company, Chicago, Ill. Filed May 22, 1957.

WATER SHIELD

For Protective Coatings for Masonry Surfaces.
First use on or about July 25, 1952.

SN 30,484. The P. D. George Company, St. Louis, Mo. Filed May 22, 1957.

GRIPEX

For Wire Enamel.
First use Mar. 25, 1957.

SN 46,491. Victor A. Schwall, Chicago, Ill. Filed Feb. 24, 1958.

SCHWALL'S BOOK SEAL

The words "Book Seal" are disclaimed apart from the mark.
For Protective Glazing and Coating for Books.
First use Oct. 20, 1956.

SN 46,947. Illinois Bronze Powder Co., Inc., Chicago, Ill. Filed Mar. 3, 1958.

RŪF-TOP

For Metallic Paints.
First use Sept. 9, 1952.

SN 48,328. D. J. Peterson, d. b. a. D. J. Peterson Company, Sheboygan, Wis. Filed Mar. 24, 1958.

POLY-AQUA

For Plastic Paint.
First use Mar. 1, 1956.

Class 18—Medicines and Pharmaceutical Preparations

SN 39,933. Collins Chemical Corporation, North Miami, Fla. Filed Sept. 17, 1957.

ALVAGEL

For Ointment for the Treatment of Burns, Wounds, Ulcers, Skin Lesions, and Skin Diseases.
First use November 1934.

SN 40,598. Olin Mathieson Chemical Corporation, New York, N. Y. Filed Nov. 13, 1957.

CARDIOGRAFIN

For Contrast Medium for Angiocardiography and Aortography.
First use Mar. 26, 1957.

SN 41,618. Ciba Limited, Basel, Switzerland. Filed Dec. 2, 1957.

OLIPRELON

Owner of Swiss Reg. No. 163,091, dated Nov. 5, 1956.
For Pharmaceutical Hormone Preparation.

SN 42,191. American Cyanamid Company, New York, N. Y. Filed Dec. 11, 1957.

VECTILONE

Owner of Reg. No. 657,381.
For Steroid Preparation.
First use Nov. 21, 1957.

SN 42,208. Drugmaster, Inc., St. Louis, Mo. Filed Dec. 11, 1957.

SINA-KARE

For Antihistaminic, Analgesic and Decongestant Tablets.
First use Nov. 25, 1957.

SN 42,261. American Cyanamid Company, New York, N. Y. Filed Dec. 12, 1957.

CYANAMID

For Antibiotic for Veterinary Use, and a Feed Supplement Containing Vitamins and Antibiotics.
First use in October 1956 on an antibiotic for veterinary use.

SN 42,620. American Cyanamid Company, New York, N. Y. Filed Dec. 18, 1957.

TERCINE

Owner of Reg. No. 540,146.
For Steroid Preparation for Human Use.
First use Dec. 4, 1957.

SN 45,396. Knoll A.-G. Chemische Fabriken, Ludwigshafen (Rhine), Germany. Filed Feb. 6, 1958.

SOPRINTIN

Owner of German Reg. No. 548,424, dated Aug. 26, 1942.
For Pharmaceutical Preparations—Namely, Sedative Agent.

SN 45,412. Rel-Ka-Sol Chemical Company, Jenkintown, Pa. Filed Feb. 6, 1958.

REL-KA-SOL

For Dental, Medical, and Surgical Disinfecting Fluid.
First use January 1914.

SN 45,429. United Laboratories, Ltd., Pasadena, Calif. Filed Feb. 6, 1958.

NUTRATE

For Concentrated Dietary Supplement To Be Used With a Reduction Diet Treatment of Obesity.
First use Apr. 13, 1935.

Class 19—Vehicles

SN 38,641. Spartan Aircraft Company, Tulsa, Okla. Filed Oct. 9, 1957.

SPARCRAFT

Owner of Reg. No. 635,930.
For Automotive Trailer House Coaches.
First use June 20, 1957.

SN 39,851. Albright Boat & Marine Co., Inc., Charlotte, N. C. Filed Oct. 31, 1957.

Albright

For Boats.
First use in January 1953.

SN 42,663. Robishaw Engineering, Inc., Houston, Tex. Filed Dec. 18, 1957.

FLEXIFLOAT

For Steel Floats Used in Marine Transportation and Operations.
First use at least as early as Oct. 19, 1955.

SN 46,117. Joseph Duner, d. b. a. Appen Co., Ventura, Calif. Filed Feb. 19, 1958.

KIDDIE AUTO RIDE

For Enclosure for Children Adapted for Mounting Behind the Front Seat of an Automobile.
First use Feb. 15, 1958.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 15,599. The Hoover Company, North Canton, Ohio. Filed Sept. 13, 1956. Sec. 2(f).

IT BEATS—AS IT SWEEPS—AS IT CLEANS

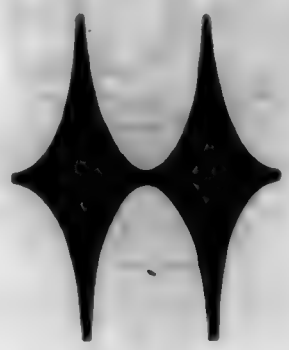
Owner of Reg. Nos. 132,170 and 527,595.
For Suction Cleaners.
First use March 1918.

SN 16,144. The Ramo-Wooldridge Corporation, Los Angeles, Calif. Filed Sept. 21, 1956.



For Electronic and Electrical Transformers, Transistorized Power Supplies, Magnetic Tape Recorders, and Communication Apparatus.
First use June 21, 1956.

SN 16,145. The Ramo-Wooldridge Corporation, Los Angeles, Calif. Filed Sept. 21, 1956.



For Electronic and Electrical Transformers, Transistorized Power Supplies, Magnetic Tape Recorders, and Communication Apparatus.
First use July 11, 1956.

SN 27,406. Waring Products Corporation, New York, N. Y. Filed Apr. 2, 1957.

WINSTON

For Electrical Blenders, Mixers, and Travel Irons.
First use Mar. 7, 1957.

SN 28,014. Arrow Engineering Company, Inc., Indianapolis, Ind. Filed Apr. 12, 1957.

Biff-Burger

For Electric Broilers.
First use Mar. 12, 1957.

SN 29,230. Reeves Instrument Corporation, Garden City, N. Y. Filed May 1, 1957.

RICO

Owner of Reg. No. 442,995.
For Electro-Magnetic Clutches.
First use on or about Mar. 20, 1957.

SN 33,171. "Rafi" Raimund Finsterholzl Elektrotechnische Spezialfabrik O. H. G., Ravensburg, Germany. Filed July 3, 1957.

Rafi

Owner of German Reg. No. 647,693, dated Nov. 10, 1953.
For Electric Lamps and Switches—Namely, Push Buttons, Pilot Lights, and Component Parts.
First use about the year 1900; in commerce Jan. 21, 1954.

SN 40,476. The Martindale Electric Co., Lakewood, Ohio. Filed Nov. 12, 1957.



The drawing is lined for shading purposes only.
For Demagnetisers; Electric Etchers; and Portable Electric Blowers.
First use in 1926 on electric etchers.

SN 42,852. Allen B. Du Mont Laboratories, Inc., Clifton, N. J. Filed Dec. 23, 1957.

DU MONT

Owner of Reg. Nos. 572,045 and 594,163.
For Phonographs, Television Receiver-Radio Receiver-Phonograph Combinations and Radio Receiver-Phonograph Combinations, and Parts Thereof.
First use Dec. 14, 1951; in December 1946 in a slightly different, oval form.

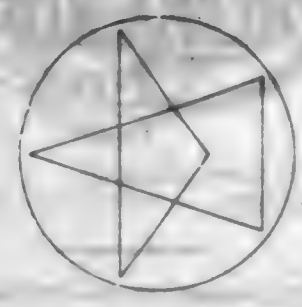
SN 54,593. Sears, Roebuck and Co., Chicago, Ill. Filed July 7, 1958.

SATELLITE

For Television Antennas.
First use on or about May 23, 1957.
Subj. to Intf. with SN 41,557.

Class 22—Games, Toys, and Sporting Goods

SN 22,062. North Star Industries, Inc., Hopkins, Minn. Filed Jan. 3, 1957.



For Plastic Toys—Namely, String Animals and Numbers, Animal Pairs, Shoe Banks, and Bunny Rattles.
First use Nov. 20, 1956.

SN 22,489. Andrew C. Watson, d. b. a. Bathurst Products, Toronto, Ontario, Canada. Filed Jan. 11, 1957.

FLORASTIK

For Sticks for Iceless Hockey.
First use Apr. 15, 1956; in commerce Apr. 15, 1956.

SN 28,429. Burke Golf Equipment Corporation, Newark, Ohio. Filed Apr. 18, 1957.

MARK II

For Golf Clubs.
First use May 12, 1956.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 12,805. Flight Refueling, Incorporated, Baltimore, Md. Filed July 25, 1956.



The words "Probe and Drogue" forming a part of the mark are disclaimed. Owner of Reg. No. 629,908.
For Power Actuated Mechanical Apparatus for Fluid Transfer in Flight and Component Parts and Spare Parts Thereof.
First use June 29, 1956; on Oct. 26, 1955, as to design.

SN 24,149. F & M Sales, Inc., Redondo Beach, Calif. Filed Feb. 11, 1957.



Without waiving its common law rights, applicant makes no claim to the word "Balls" apart from the mark as shown.
For Ball Bearings.
First use Oct. 15, 1956.

SN 25,171. The Green Mfg. Co., Bowling Green, Ohio. Filed Feb. 27, 1957.

HYDRA-LITE GREEN

For Hydraulic Cylinder Bearings.
First use June 1, 1956.

SN 25,214. Whitin Machine Works, Whitinsville, Mass. Filed Feb. 27, 1957. Sec. 2(f).

BI-COIL

The drawing is lined for red. Owner of Reg. Nos. 121,375, 513,030, and others.
For Drawing Frames.
First use Oct. 26, 1955.

SN 33,203. The Beloit Tool Corporation, Turtle, Wis. Filed July 5, 1957.

UNIPASS

For High Speed Steel Ground Thread Acme Taps.
First use Oct. 9, 1956.

SN 35,108. Frederik Lunning Inc., New York, N. Y. Filed Aug. 7, 1957.

TANAQUIL

For Stainless Steel Flatware for Table Use.
First use May 15, 1957.

SN 35,109. Frederik Lunning Inc., New York, N. Y. Filed Aug. 7, 1957.

OBELISK

For Stainless Steel Flatware for Table Use.
First use July 1955.

SN 35,267. King Oil Tools, Houston, Tex. Filed Aug. 9, 1957.

IT'S A KING

For Oil Well Tools and Parts Thereof—Namely, Swivels, Circulating Heads, Wire Line Strippers and Parts Therefor.
First use as early as Dec. 28, 1940.

SN 36,956. Columbia Beauty and Barber Supply Company, d. b. a. State and Columbia Beauty and Barbers Supply Company, Columbia, S. C. Filed Sept. 10, 1957.

STA-COL

For Shears and Straight Razors.
First use in June 1945.

SN 38,695. Gerhard Jahn, Solingen, Germany. Filed Oct. 10, 1957.

Adonis

Owner of German Reg. No. 408,430, dated Oct. 8, 1929.
For Razor Blades and Scissors.
First use Nov. 11, 1919; in commerce Sept. 1, 1956.

SN 40,033. Eveready Flood Control, Inc., Chicago, Ill., assignee of Deno Delvecchio, d. b. a. United Pre-Cast Concrete Co., Chicago, Ill. Filed Nov. 4, 1957.

EVEREADY

For Flood Control Equipment Comprising an Automatically Operating Valve for Preventing Entrance of Back Water to the Sewage System of a Building and/or Means for Receiving Building Waste and Pumping the Same to the Street Side of the Sewage System.
First use Sept. 30, 1957.

SN 41,130. Aluminum Marine Hardware Co. Inc., Auburn, N. Y. Filed Nov. 22, 1957.

NAUTA-BLAST

Owner of Reg. No. 606,902.
For Gas Operated Signal Horns and Containing Packs Holding Freon or Another Gas Under Pressure for Use With Such Signal Horns.
First use Aug. 1, 1957.

SN 41,261. Esco, Societe Anonyme, Neuchatel, Switzerland. Filed Nov. 25, 1957.

ESCOMATIC

Owner of Swiss Reg. No. 167,011, dated Sept. 2, 1957.
For Lathes Having Rotary Cutters and Accessories.

SN 41,741. Beaver Cable Dolly Corporation, Miami, Fla. Filed Dec. 4, 1957.

REEL-A-WAY

For Trailer Type Vehicle Equipped With a Hydraulic Lift Mechanism for Lifting and Transporting Cable Reels.
First use July 1957.

SN 42,700. Guilbert, Incorporated, Philadelphia, Pa. Filed Dec. 19, 1957. Sec. 2(f).

GUILBERT

For Freight Elevator Doors and Gates and Dumbwaiter Doors.
First use in 1947.

SN 43,502. Swingline, Inc., Long Island City, N. Y. Filed Dec. 30, 1957.

TOT 50

Owner of Reg. Nos. 367,388 and 368,988.
For Miniature Stapling Machine.
First use 1950; May 4, 1938, as to "Tot."

SN 43,625. The Osborn Manufacturing Company, Cleveland, Ohio. Filed Jan. 8, 1958.

HELITUF

Owner of Reg. No. 589,415.
For Rotary Brushes, and Twisted Stem Brushes for Use as Machine Accessories for Burr Removing, Polishing, and Cleaning.
First use Dec. 9, 1957.

SN 43,902. White Sewing Machine Corporation, Lakewood, Ohio. Filed Jan. 13, 1958.

WHITE

Owner of Reg. Nos. 62,302 and 622,995.
For Sewing Machines.
First use on or about Jan. 15, 1954.

SN 43,903. White Sewing Machine Corporation, Lakewood, Ohio. Filed Jan. 13, 1958.

Domestic

Owner of Reg. Nos. 228,217 and 251,781.
For Sewing Machines.
First use on or about Jan. 15, 1954.

SN 44,280. Toledo Scale Corporation, Toledo, Ohio. Filed Jan. 20, 1958. Sec. 2(f).

HAUGHTON

For Elevator Systems, Escalator Systems, Dumb-Waiter Systems, and Parts Thereof.
First use in 1890.

SN 44,516. Ardell Razor Blade Corp., d. b. a. Ardell R. B. Corp., Newark, N. J. Filed Jan. 23, 1958. Sec. 2(f).

SMITH

For Razor Blades.
First use 1934.

SN 44,655. Svenska Maskin ab. Greiff, Stockholm, Sweden. Filed Jan. 24, 1958. Sec. 2(f).

THERM-O-SPRAY

For Apparatus for Hot Spraying of Paints, Lacquers and the Like, Comprising a Paint Heater and an Air Heater for Use in Combination With a Spray Gun or the Like, and Replacement Parts Therefor.
First use Oct. 25, 1949.

SN 45,368. Blackhawk Mfg. Co., West Allis, Wis. Filed Feb. 6, 1958.

PULL-DOZER

For Mechanically and Hydraulically Operable Vehicle Body Straightening Tools and Pressure Applying Devices.
First use on or about Jan. 10, 1958.

SN 45,402. Mondiale S. A. de Constructions Mecaniques, Vilvorde, Belgium. Filed Feb. 6, 1958.



For Lathes.
First use in or about April 1938.

SN 45,541. De Vlieg Machine Company, Ferndale, Mich. Filed Feb. 10, 1958.

MICROPOINT

For Machines for Preparing Cutting Tool Edges by Grinding or Otherwise.
First use Dec. 31, 1957.

SN 45,616. Salsbury Corporation, Los Angeles, Calif. Filed Feb. 10, 1958.

EXPAND-O-MATIC

For Automobile Tire Mounting Wheels for Use in Retreading.
First use in October 1957.

SN 45,666. Pettibone Mulliken Corporation, Chicago, Ill. Filed Feb. 4, 1958.

PNEU-RECLAIM

For Sand Cleaning Apparatuses for Use in Foundries.
First use Oct. 4, 1957.

SN 46,031. Stuart Abseck, Long Island City, N. Y. Filed Feb. 17, 1958.

TRANSMATIC

For Machine for Handling Machine Shorthand Note Paper.
First use in or about May 1957.

SN 46,764. Shunk Manufacturing Company, Bucyrus, Ohio. Filed Feb. 27, 1958.

GATOR TWISTOOTH

For Blades for Heavy Duty Equipment, Such as Graders and Other Ground Working Machines.
First use in January 1957.

SN 47,107. All Channel Products Corporation, Woodside, N. Y. Filed Mar. 6, 1958.

PEEL-O-MATIC

For Vegetable Peeler Operated by Water Faucet Pressure.
First use Mar. 4, 1958.

SN 48,423. Martin Engineering Company, Neponset, Ill. Filed Mar. 25, 1958.

"Motomagnetic"

For Electrically Driven Mechanical Vibration Inducers.
First use Feb. 10, 1958.

SN 48,465. The Dalton Foundries, Inc., Warsaw, Ind. Filed Mar. 26, 1958.

BIG BOY

Owner of Reg. No. 223,786.
For Bumper Hitch and Frame Hitch.
First use Jan. 24, 1958.

Class 24 — Laundry Appliances and Machines

SN 27,265. The American Laundry Machinery Company, Cincinnati, Ohio. Filed Apr. 1, 1957.

CASCADEX

Owner of Reg. No. 199,896.
For Combination Washer-Extractors.
First use Oct. 12, 1956.

SN 43,174. Marquette Appliances, Inc., Minneapolis, Minn. Filed Dec. 30, 1957.

MARQUETTE

Owner of Reg. Nos. 420,892 and 640,684.
For Automatic and Conventional Electric Washing Machines, Electric Clothes Dryers, and Gas Clothes Dryers.
First use in April 1949.

Class 26 — Measuring and Scientific Appliances

SN 19,502. Photo-Crystals, Inc., Geneva, Ill. Filed Nov. 19, 1956.

PHOTO-CRYSTALS

For Electric Humidity Measuring Element.
First use on or about Oct. 12, 1956.

SN 22,845. White-Rodgers Company, St. Louis, Mo. Filed Jan. 18, 1957.

WR

Owner of Reg. Nos. 365,781, 571,789, and others.
For Instruments for Controlling the Operation of Heating, Cooling, and Refrigeration Apparatus—Namely, Temperature Responsive, Flame Responsive, and Pressure Responsive Switching Devices, Electrothermostatic Valves, and Electrothermal and Chronographic Time Switches.
First use December 1956 on a temperature responsive switching device.

SN 26,641. David Z. Roth, d. b. a. David Z. Roth & Co., Clifton, N. J. Filed Mar. 21, 1957.

DENS-O-LITH

For Unexposed Photographic Film.
First use Dec. 18, 1956.

SN 27,744. Seiko Denki Kogyo Kabushiki Kaisha, Toshima-ku, Tokyo, Japan. Filed Apr. 8, 1957.



The Japanese characters shown in the drawing represent the letters "S" and "D."
For Electrical Exposure Meters for Photography and Parts Thereof, Supplementary Photocells of the Exposure Meters for Photography.
First use Aug. 1, 1955; in commerce Sept. 20, 1955.

SN 30,652. Gevaert Photo-Producten N. V., Mortsel, Belgium. Filed May 24, 1957.

SCOPIX

Owner of Belgian Reg. No. 12,467, dated Feb. 3, 1943.
For Light Sensitive Photographic Material—Namely, Fluorographic X-Ray Films.

SN 31,214. High Voltage Engineering Corporation, Burlington, Mass. Filed June 3, 1957.



For Particle Accelerators of the Nuclear Radiation Source Type for Use in Scientific Research, Medicine, and Industry.
First use Oct. 5, 1956.

SN 31,247. Paddock of Texas, Inc., Dallas, Tex. Filed June 3, 1957.

SEABLUE

Owner of Reg. Nos. 603,196 and 619,926.
For Water Testing Sets, Thermometers, and Pressure Gauges.
First use Aug. 5, 1952, on pressure gauges.

SN 35,038. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed Aug. 6, 1957.

CRONAFLEX

Owner of Reg. Nos. 608,302 and 609,350.
For Reproduction Film.
First use Apr. 22, 1957.

SN 38,243. Tuboscope Company, Houston, Tex. Filed Oct. 2, 1957.

SONOSCOPE

For Measuring and Scientific Appliances for the Non-Destructive Detection of Flaws and Defects in Metals, Particularly on Drill Pipe, Casing, and Tubing for Wells.
First use on or before Feb. 17, 1953.

SN 40,640. Zeiss Ikon A. G., Stuttgart, Germany. Filed Nov. 13, 1957.

CONTAREX

Owner of German Reg. No. 481,807, dated Jan. 8, 1930.
For Photographic, Motion Picture, and Projection Apparatus.

SN 41,578. Sentinel Products Corporation, Temple, Tex. Filed Nov. 29, 1957.

Sentinel

For Volumetric Drum Meter.
First use Sept. 10, 1957.

SN 41,797. John Chatillon & Sons, New York, N. Y. Filed Dec. 5, 1957.

TEMPRUF

Owner of Reg. No. 622,223.
For Spring Scales.
First use Apr. 13, 1950.

SN 42,957. Oscar S. Wexler, d. b. a. I Glass Optical Company, Toledo, Ohio. Filed Dec. 23, 1957.



For Kits Containing Eye Glass Maintenance and Cleaning Accessories of Which Kits an Eye Glass Cleaning Fluid and Applicators Therefor, an Optical Screw Driver and Optical Screws, and a Box-Like Container for the Foregoing Are the Most Essential Parts.
First use Dec. 10, 1957.

SN 43,208. Pickett & Eckel, Inc., Alhambra, Calif. Filed Dec. 30, 1957. Sec. 2(f).

PICKETT

For Slide Rules.
First use during 1946.

SN 44,781. David A. Willey, Mill Valley, Calif. Filed Jan. 27, 1958.

MOBILAB

For Laboratory Cabinets.
First use Jan. 23, 1958.

SN 45,276. Precision Products, Inc., d. b. a. Precision Products, Tulsa, Okla. Filed Feb. 4, 1958.

RITE-TIMER

For Time Switches for the Control of Electrical Apparatus, Appliances, and Devices.
First use May 1, 1957.

SN 45,673. The Brearley Company, Rockford, Ill. Filed Feb. 11, 1958.

CLASSIC

For Weighing Scales.
First use July 1, 1957.

SN 45,979. Ideax Corporation, New York, N. Y. Filed Feb. 17, 1958.

OROFILM

For Photographic Supplies—Namely, Photographic Film.
First use Jan. 23, 1958.

SN 46,023. Scott Thermo-Meter Corporation, Rochester, N. Y. Filed Feb. 17, 1958.

STEAK-CHEF

For Devices for Indicating the Extent to Which Meat Has Been Cooked.
First use Nov. 15, 1957.

SN 46,177. F. W. Woolworth Co., New York, N. Y. Filed Feb. 19, 1958.

LADY MADISON

For Sunglasses.
First use Dec. 20, 1957.

SN 46,178. F. W. Woolworth Co., New York, N. Y. Filed Feb. 19, 1958.

JUNIOR MADISON

For Sunglasses.
First use Dec. 20, 1957.

SN 46,179. F. W. Woolworth Co., New York, N. Y. Filed Feb. 19, 1958.

LORD MADISON

For Sunglasses.
First use Dec. 20, 1957.

SN 46,384. Symington-Wayne Corporation, Salisbury, Md., assignee of The Wayne Pump Company, Salisbury, Md. Filed Feb. 21, 1958.

BLEND-O-MATIC

For Measuring Fluid Dispensing Pumps.
First use Oct. 11, 1957.

SN 46,431. Epsco, Incorporated, Boston, Mass. Filed Feb. 24, 1958.

MINIBIT

For Data Processing Apparatus, and, More Specifically, Magnetic Storage Elements as Used in Magnetic Shift Registers.
First use on or about Feb. 10, 1958.

SN 46,438. General Aniline & Film Corporation, New York, N. Y. Filed Feb. 24, 1958.

PRINTACHROME

For Light-Sensitive Photographic Material, Particularly Film and Paper.
First use Feb. 2, 1958.

SN 46,683. Millers Falls Company, Greenfield, Mass. Filed Feb. 26, 1958.

"MICRO-GUIDE"

For Bevel Cut Indicator Attachment for Portable Electric Saws.
First use Oct. 25, 1957.

Class 28—Jewelry and Precious-Metal Ware

SN 26,297. Ripley and Gowen Company Incorporated, Attleboro, Mass. Filed Mar. 15, 1957.

stylist

For Men's Jewelry Consisting of Tie Slides, Collar Pins, Cuff Buttons, Dress Sets Which Consist of a Pair of Cuff Links and Three Studs for Men's Dress Shirts, Watch Chains, Belt Buckles, Cuff Links, Tie Bars and Key Chains, All Made Wholly or in Part of Precious Metal.
First use in January 1933.

SN 38,012. V. H. Blackinton & Co., Inc., North Attleboro, Mass. Filed Sept. 30, 1957. Sec. 2(f).

BLACKINTON

For Badges, Medals, Insignia, Class Pins, Military Service Pins, Medallions, Tie Clasps, Collar Pins, Trophies, and General Jewelry for Personal Wear, Not Including Watches, All of Precious Metal, in Whole or Part.
First use in or about 1852.

SN 41,086. Feature Ring Co., Inc., New York, N. Y. Filed Nov. 21, 1957.

EMERALD FIRE

The word "Emerald," appearing in the drawing, is disclaimed apart from the mark as shown.
For Finger Rings and Finger Ring Mountings Made of Precious Metal.
First use on or about Nov. 15, 1957.

Class 29—Brooms, Brushes, and Dusters

SN 36,954. Columbia Beauty and Barber Supply Company, d. b. a. State and Columbia Beauty and Barbers Supply Company, Columbia, S. C. Filed Sept. 10, 1957.

STA-COL

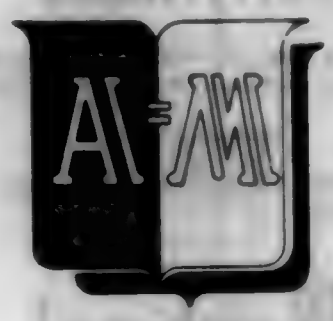
For Hair Brushes.
First use in June 1945.

SN 40,618. Roll Dippers, Inc., Maumee, Ohio. Filed Nov. 13, 1957.

BATH BLOTTER

For Sponge Material, Cut to Size, for Use as Wash Cloths.
First use Oct. 11, 1957.

SN 42,802. American-Marietta Company, O'Cedar Division, Chicago, Ill. Filed Dec. 23, 1957.



For Mops and Refill Heads Therefor, Brooms, Whisk Brooms, and Brushes.
First use in July 1952.

Class 31—Filters and Refrigerators

SN 44,338. Simplex Electric Company Limited, Broadwell, Oldbury, England. Filed Jan. 20, 1958.

CREDA

Owner of British Reg. No. 768,407, dated Aug. 16, 1957.
For Air Conditioning Apparatus and Refrigerators.

Class 33—Glassware

SN 40,872. Kimble Glass Company, Toledo, Ohio, assignee of Owens-Illinois Glass Company, Toledo, Ohio. Filed Nov. 18, 1957.

KIMAX

Assignee owner of Reg. No. 646,480.
For Bottles and Jars, All Made of Glass.
First use Aug. 16, 1957.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 29,161. Metzger Machine & Engineering Co., Milwaukee, Wis. Filed Apr. 30, 1957.

MILWAUKEE thermoflo

For Gas and Oil Fired Warm Air Heating Equipment.
First use Mar. 27, 1951.

SN 30,892. Crane Co., Chicago, Ill. Filed May 28, 1957.

Sunnyaire

For Unit Heaters Including Gas Fired Unit Heaters, Hot Water Unit Heaters, and Steam Unit Heaters.
First use Nov. 19, 1956.

SN 41,604. Aladdin Heating Corporation, San Leandro, Calif. Filed Dec. 2, 1957.

Aladdin
AIR HANDLING EQUIPMENT

Applicant disclaims the expression "Air Handling Equipment" apart from the mark.
For Centrifugal Fans, Roof Ventilators, and Mechanical Air Handling Apparatus.
First use Mar. 1, 1957.

SN 42,755. Leslie P. Beaver, Jr., d. b. a. Beaver Welding Supply Company, Memphis, Tenn. Filed Dec. 20, 1957.

BEAVER Welding Supply Company

For Welding Torches and Gas Welding Apparatus.
First use January 1948.

SN 44,621. Henry Valve Company, Melrose Park, Ill. Filed Jan. 24, 1958.

DRI-COR

For Dehydrators of the Kind Installed in Fluid Lines for the Purpose of Removing Moisture From the Fluid.
First use Jan. 7, 1958.

SN 44,890. The Emerson Electric Manufacturing Company, St. Louis, Mo. Filed Jan. 29, 1958.

NORTHWIND

Owner of Reg. No. 111,033.
For Air Conditioning Equipment.
First use Dec. 5, 1950.

SN 44,917. Philco Corporation, Philadelphia, Pa. Filed Jan. 29, 1958.

transitone

For Air Conditioners.
First use Jan. 3, 1958.

SN 44,983. Rheem Manufacturing Company, Richmond, Calif. Filed Jan. 30, 1958. Sec. 2(f).

RHEEM

Owner of Reg. No. 541,696.
For Condensers for Air Conditioning Units, Oil and Gas Fired Water Heaters, Space Heating Equipment, Including Gas Furnaces, Evaporative Coolers, and Heating Equipment and Systems for Domestic Use.
First use Mar. 1, 1930, on oil and gas fired water heaters.

SN 48,917. The Harris Calorific Company, Cleveland, Ohio. Filed Apr. 2, 1958. Sec. 2(f).

HARRIS

For Welding Torches and Tips, Mixers for Welding Torches, Cutting Torches and Tips, Gas-Air Blow Pipes for Low Temperature Brazing and Welding, Cutting Attachments for Welding Torches, and Tip Wrenches.
First use April 1926.

Class 37 — Paper and Stationery

SN 19,463. Keuffel & Esser Company, Hoboken, N. J. Filed Nov. 19, 1956.

LAMINENE

For Drawing Board Cover in the Form of a Paper Base Combined With a Plastic Layer.
First use in August 1943.

SN 22,305. Curtis Paper Company, Newark, Del. Filed Jan. 9, 1957. Sec. 2(f) as to "Curtis."

CURTIS TEXT

No claim is made to the word "Text" apart from the mark as shown. Owner of Reg. No. 540,200.
For Text Papers for Use in the Printing Industry and Art Field.
First use August 1947.

SN 27,700. Keuffel & Esser Company, Hoboken, N. J. Filed Apr. 8, 1957.

ABC

For Erasing Pad for Cleaning Drawing Surfaces.
First use Aug. 10, 1944.

SN 36,797. Golden Fleece Tissue Mills, Inc., New York, N. Y. Filed Sept. 6, 1957.

GOLDEN FLEECE

For Facial Tissues.
First use Mar. 26, 1937.

SN 38,813. The Esterbrook Pen Company, Camden, N. J. Filed Oct. 14, 1957.

SAFARI

For Fountain Pens, Ball Point Pens, Mechanical Pencils, and Cartridge Pens.
First use Sept. 16, 1957.

SN 40,927. Eberhard Faber Pencil Company, Wilkes-Barre, Pa. Filed Nov. 19, 1957.

THERMO-PRINT

For Pencils and Ball Point Pens.
First use Nov. 1, 1957.
Subj. to Intf. with SN 43,490.

SN 41,445. Eberhard Faber Pencil Company, Wilkes-Barre, Pa. Filed Nov. 27, 1957.

WING-DING

For Pencils and Ball Point Pens.
First use Nov. 22, 1957.

SN 43,490. Venus Pen & Pencil Corporation, Hoboken, N. J. Filed Jan. 6, 1958.

THERMOCOPY

For Pencils.
First use July 12, 1957.
Subj. to Intf. with SN 40,927.

SN 44,379. Continental Can Company, Inc., New York, N. Y. Filed Jan. 21, 1958.

PALEFACE

For Paper Bags.
First use Nov. 12, 1957.

SN 44,523. The Demp-Nock Company, Van Dyke, Mich. Filed Jan. 23, 1958.

DN

For Pressure Sensitive Stencils.
First use May 28, 1956.

SN 44,538. Graham Paper Company, St. Louis, Mo. Filed Jan. 23, 1958.

AQUAPHIL

For Paper Towels.
First use about 1935.

SN 44,540. Graham Paper Company, St. Louis, Mo. Filed Jan. 23, 1958.

YEWBO

For Wrapping Paper.
First use about 1928.

Class 38 — Prints and Publications

SN 27,216. Manufacturing Jewelers and Silversmiths of America, Inc., Providence, R. I. Filed Mar. 29, 1957. Sec. 2(f).

AMERICAN JEWELRY MANUFACTURER

For Periodical, Published Monthly.
First use Oct. 5, 1956.

SN 31,388. F. W. Dodge Corporation, New York, N. Y. Filed June 5, 1957.

BUILDING BUSINESS

Owner of Reg. Nos. 275,811 and 351,142.
For Monthly Bulletin of Information and Comment on Construction Trends and Related Subjects.
First use April 1934.

SN 32,175. The Fox Company, San Antonio, Tex. Filed June 18, 1957.

SANTA-CHROMES

Owner of Reg. No. 587,472.
For Greeting Cards.
First use May 1, 1957.

SN 32,745. Fansteel Metallurgical Corporation, North Chicago, Ill. Filed June 27, 1957.

CORROSIONOMICS

For Newsletter Distributed to Industry.
First use in or about January 1956.

SN 32,746. Fansteel Metallurgical Corporation, North Chicago, Ill. Filed June 27, 1957.

RECAP

For Newsletter Distributed to Industry.
First use in or about April 1957.

SN 33,347. Doris E. Hilton, Denver, Colo. Filed July 8, 1957.

jane sterling

For Newspaper Column.
First use on or about Sept. 28, 1949.

SN 40,582. Management Magazines, Inc., Greenwich, Conn. Filed Nov. 13, 1957. Sec. 2(f).

MANAGEMENT METHODS

For Periodical Publication.
First use Nov. 15, 1951.

SN 41,827. Swimquip, Inc., El Monte, Calif. Filed Nov. 25, 1957.



The drawing is lined for green and gray, but the colors are not claimed as a feature of the mark.
For Newsletter Published in the Interest of Swimming Pool Construction.
First use Mar. 1, 1957.

SN 41,900. Exhaust Publishing Co., Los Angeles, Calif. Filed Dec. 6, 1957.



For Magazine.
First use May 1, 1925.

SN 42,341. Bendix Aviation Corporation, Detroit, Mich. Filed Dec. 18, 1957.

THE SCINTILLATOR

For Printed Magazine.
First use in July 1942.

SN 42,686. American Greetings Corporation, Cleveland, Ohio. Filed Dec. 19, 1957.

FORGET-ME-NOT

Owner of Reg. No. 385,778.
For Greeting Cards.
First use Mar. 1, 1940.

SN 45,822. Illinois Academy of General Practice, Chicago, Ill. Filed Feb. 5, 1958.

THE FAMILY PHYSICIAN

For Medical Publication Published Periodically.
First use in or about May 1951.

SN 45,520. Betti Yerxa Ogden, Clearwater, Fla. Filed Feb. 10, 1958.

SYLLABUS

For Newspaper Column.
First use Jan. 6, 1957.

Class 39—Clothing

SN 18,648. Makegood Mfg. Co. Inc., New York, N. Y. Filed Nov. 2, 1956.

PICKWICK 20TH CENTURY

Owner of Reg. No. 603,451.
For Belts, Suspenders and Garters.
First use 1929.

SN 29,470. Norwegian-American Knitting Mills, Inc., Bennington, Vt. Filed May 6, 1957.

NORAK

For Underwear for Men, Women, and Children.
First use Jan. 20, 1957.

SN 29,863. Boreva Sportswear Company, Chicago, Ill. Filed May 13, 1957.

SKORT

For Women's Shorts.
First use Apr. 24, 1957.

SN 29,898. Gallenkamp Stores Co., Los Angeles, Calif. Filed May 15, 1957.

Gallenkamp's STRAPPER

Owner of Reg. Nos. 290,495, 624,098, and others.
For Men's Shoes of the Sandal Type the Upper Portion of Which Includes Straps.
First use Feb. 20, 1957.

SN 30,803. Modern Globe, Inc., Pawtucket, R. I. Filed May 27, 1957.

CHIFFONILLE

For Women's Rayon Knitted Undergarments.
First use on or about Jan. 1, 1938.

SN 35,018. Wee Moderns, Inc., New York, N. Y. Filed Aug. 5, 1957.

Wee Modes

For Infants' and Children's Bathrobes.
First use from about Oct. 1, 1947.

SN 37,089. Lamont International Corporation, New York, N. Y. Filed Sept. 12, 1957.

ALGOTEX

For Informal Attire for Men, Women, and Children—Namely, T-Shirts, Play Suits, Sport Shirts, and Beach Jackets.
First use on or about July 1, 1957.

SN 37,779. Claymore, Incorporated, Clayton, Mo. Filed Sept. 25, 1957.

ROBERT DALE

For Boys' Sport Shirts.
First use Sept. 10, 1957.

SN 37,929. Svit, Narodni Podnik, Gottwaldov, Czechoslovakia. Filed Sept. 4, 1957.

CE-BO

Owner of Czechoslovakian Reg. No. 150,119, dated Mar. 29, 1950.
For Men's, Women's, and Children's Footwear Made From Leather, Rubber, Cloth, Synthetic Materials and From Combinations Thereof.

SN 39,173. Robert E. Allen, Des Moines, Iowa. Filed Oct. 21, 1957.

INSERT-A-PAD

For Gun Pads Which Form a Part of a Shooting Vest.
First use Aug. 10, 1957.

SN 39,894. Lester Pincus Shoe Corporation, New York, N. Y. Filed Oct. 31, 1957.

MAGIC WALKER

For Men's and Boys' Shoes and Boots.
First use Sept. 26, 1957.

SN 41,391. Nagasawa Slipper Factory, Honolulu, Territory of Hawaii. Filed Nov. 26, 1957.

Holo Holo

For Slippers.
First use Feb. 24, 1954.

SN 41,642. Hymar, Inc., Philadelphia, Pa. Filed Dec. 2, 1957.

Lynmar

For Dresses.
First use Nov. 11, 1957.

SN 43,319. Kuensel Brothers, Philadelphia, Pa. Filed Jan. 2, 1958.

KAY-BEE

For Head-Wear, Particularly Uniform Caps and Children's Caps.
First use Aug. 27, 1957.

SN 43,487. Stedman Manufacturing Company, Asheboro, N. C. Filed Jan. 6, 1958. Sec. 2(f).

FULL-O-WEAR

Owner of Reg. No. 591,497.
For Men's and Boys' Underwear.
First use Dec. 8, 1952.

SN 43,542. Kalamazoo Pant Company, Kalamazoo, Mich. Filed Jan. 7, 1958.

LITTLE DAVID

Owner of Reg. No. 339,912.
For Boys' Pants, Shorts for Outer Wear and Jackets.
First use Oct. 15, 1957.

SN 43,733. Edward H. Behrman, d. b. a. Pelican Products, Miami, Fla. Filed Jan. 10, 1958.

SHOWER 'N SHAVE

For Men's and Women's Terrycloth Shorts.
First use Oct. 31, 1957.

SN 43,860. Little Rock Tent and Awning Company, Little Rock, Ark. Filed Jan. 13, 1958.

Tuf-Nut

Owner of Reg. Nos. 197,476, 536,623, and 536,624.
For Sportswear for Adults and Children, Including Jeans, Slacks, Bermuda and Walking Style Shorts, Shirts, Jackets and Pants.
First use May 1, 1930; Nov. 1, 1920, on other types of clothing.

SN 43,914. Alexander Shirt Co., Inc., Los Angeles, Calif. Filed Jan. 14, 1958.

JOHN PALMER

For Men's Outer Shirts.
First use Jan. 15, 1957.

SN 44,016. The Gilbert Shoe Co., Thiensville, Wis. Filed Jan. 15, 1958.

Kalstonik

PRE—PAIRS

Owner of Reg. Nos. 223,041, 420,384, and 430,614.
For Shoes.
First use Dec. 4, 1957.

SN 44,030. Wm. G. Leininger Knitting Co., Inc., Mohnton, Pa. Filed Jan. 15, 1958.



Owner of Reg. No. 263,956.
For Hosiery.
First use July 13, 1955; May 29, 1929, as to "Rapture."

SN 44,391. Gustinettes, Inc., Long Island City, N. Y. Filed Jan. 21, 1958.

PATINOS

For Men's, Women's, and Children's Shoes and Slippers.
First use Jan. 2, 1958.

SN 44,440. Craddock-Terry Shoe Corporation, Lynchburg, Va. Filed Jan. 22, 1958.

GRANVILLE

For Shoes.
First use Nov. 13, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 30,183. National Curtain Corp., New York, N. Y. Filed May 16, 1957.

TRI-PLEAT

For Curtains.
First use Apr. 26, 1957.

SN 33,065. Fashion Park, Inc., Rochester, N. Y. Filed July 2, 1957.

SATINTONE

For Fabric Sold Only in Finished Apparel—Namely, Men's and Boys' Coats, Vests, Pants, and Slacks.
First use June 21, 1957.

SN 33,535. Cone Mills Inc., New York, N. Y. Filed July 11, 1957.

Retento Finish

The word "Finish" is disclaimed apart from the mark as shown.
For Finish With Which Applicant Has Treated Its Cotton Piece Goods.
First use June 25, 1957.

SN 42,238. J. W. Wood Elastic Web Company, Stoughton, Mass. Filed Dec. 11, 1957.



For Elastic Fabrics.
First use Sept. 4, 1956.

SN 42,304. Patchogue-Plymouth Corporation, New York, N. Y. Filed Dec. 12, 1957.

PLASTI-KRAFT

For Scrim Fabrics Made of Twisted Paper Yarn and Used as a Laminating Fabric for the Back of Carpets and the Like.
First use Feb. 21, 1957.

SN 43,253. Facile Corporation, Paterson, N. J. Filed Dec. 31, 1957.

FACILON

Owner of Reg. No. 584,363.
For Laminated Plastic Fabric for Making Into Tarpaulins, Tents, Awnings, Swimming Pool Liners, Etc.
First use June 1, 1957.

SN 44,151. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Jan. 17, 1958.

COLOR-LURE

For Fine Textured Carpets.
First use Sept. 3, 1957.

SN 44,397. Joseph A. Kaplan & Sons, Inc., New York, N. Y. Filed Jan. 21, 1958.

SEAFOAM

For Plastic Bath Mats and Matching Lid Covers.
First use Jan. 2, 1958.

SN 44,398. Joseph A. Kaplan & Sons, Inc., New York, N. Y. Filed Jan. 21, 1958.

WASH-N-WALK

For Nylon Bath Rugs.
First use Jan. 2, 1958.

SN 44,545. Lady Carlton Coat Co., Inc., Stamford, Conn. Filed Jan. 23, 1958.

CUDDLE GLO

For Outer Garment Lining Fabrics.
First use June 17, 1957.

SN 44,666. United States Rubber Company, New York, N. Y. Filed Jan. 24, 1958.

TRILOK

Owner of Reg. No. 578,260.
For Textile Fabrics in the Piece Made of Synthetic Fibers, or Synthetic Fibers and Natural Fibers, for Example, Cotton or Linen or Mohair.
First use May 16, 1952.

Class 43—Thread and Yarn

SN 44,277. Gutermann & Co. A. G., Zurich, Switzerland. Filed Jan. 20, 1958.

MARA

Owner of Swiss Reg. No. 117,591, dated Sept. 20, 1946.
For Textile Threads and Sewing Threads.

Class 44—Dental, Medical, and Surgical Appliances

SN 26,177. Kay Electric Company, Pine Brook, N. J. Filed Mar. 14, 1957.

CARDIALYZER

For Audio and Sub-Audio Spectrograph Designed Specifically for Analyses of All Heart Sounds.
First use Feb. 28, 1957.

SN 39,839. Ritter Company, Inc., Rochester, N. Y. Filed Oct. 30, 1957.



Owner of Reg. Nos. 263,822 560,144, and others.
For Dental, Medical, and Surgical Equipment and Appliances Comprising Foot and Motor-Pump Operated Chairs and Tables, Stools, Equipment Stands or Units, Dental and Bone Surgery Engines, Dental Hand Pieces, Cuspidors, Syringes, Cauteries, Pulp Testers, Mouth Lamps and Mirrors, Examination, Treatment, and Surgical Tables, Sterilizers, X-Ray Machines, Air Compressors, Lathes, and Accessories and Supplies for Such Equipment and Appliances.
First use Apr. 1, 1956.

SN 40,040. Evans-Crowder Co., South Lyon, Mich. Filed Nov. 4, 1957. Sec. 2(f).

EVANS

For Atomizers for Cosmetic, Medicinal, and Toilet Preparations.
First use Sept. 11, 1946.

SN 43,747. Fairfax Manufacturing Company, Inc., Falls Church, Va. Filed Jan. 10, 1958.

AERO-TURBEX

For High Speed Dental Drills.
First use Nov. 15, 1957.

Class 45—Soft Drinks and Carbonated Waters

SN 10,768. The Frostie Company, Baltimore, Md. Filed June 22, 1956.



For Root Beer and Beverage Base for Making the Same.
First use August 1944.

Class 46—Foods and Ingredients of Foods

SN 685,004. Consolidated Badger Cooperative, d. b. a. Consolidated Badger, Inc., Shawano, Wis. Filed Apr. 6, 1955. Sec. 2(f) as to "Asselins."

Asselins

YULETIDE PUDDING

No claim is made to the words "Yuletide Pudding" apart from the mark shown.
For Ice Cream.
First use Dec. 1, 1923.

SN 5,235. The Pitchers, Oakland, Calif. Filed Mar. 26, 1956.

LIQUID-ENE

For Meat Curing Compositions Comprising a Mixture of Various Chemicals.
First use on or about Oct. 1, 1935.

SN 8,048. Alva Baber, d. b. a. Baber's Vis-Vita Sales and as Baber's Supply Company, Sioux City, Iowa. Filed May 10, 1956.



The drawing is lined for green, blue, and red. Owner of Reg. No. 556,241.
For Livestock and Poultry Feeds.
First use Mar. 1, 1948.

SN 13,596. Howard B. Morrow, Rialto, Calif. Filed Aug. 8, 1956. Sec. 2(f).

MORROW'S NUT HOUSE

For Edible Nuts, Shelled and Unshelled.
First use Jan. 1, 1920.

SN 15,025. Dorman & Company, Lubbock, Tex. Filed Sept. 4, 1956. Sec. 2(f).

Dorman

For Canned Peas, Beans, Tomatoes, and Blackberries.
First use in 1943.

SN 21,060. J. A. Folger & Company, Kansas City, Mo. Filed Dec. 14, 1956.



The drawing is lined for the colors red and copper. The copper background design is disclaimed apart from the mark as shown. Owner of Reg. Nos. 389,573, 395,209, and 424,541.
For Coffee.
First use Nov. 13, 1956; since 1877 as to "Folger's."

SN 25,520. Burnett Produce Company, Morristown, Tenn. Filed Mar. 5, 1957.



For Frozen Eviscerated Poultry.
First use Nov. 1, 1956.

SN 30,117. Russell Stover Candies of Kansas City, Kansas City, Kans.; Russell Stover Candies of Lincoln, Lincoln, Nebr., and Russell Stover Candies of Denver, Denver, Colo. Filed May 15, 1957.

CANDY JAR

The word "Candy" is disclaimed apart from the mark as shown.
For Candy.
First use Apr. 29, 1957.

SN 33,760. A. Sahadi & Company, Inc., New York, N. Y. Filed July 15, 1957.

MELISSA

Owner of Reg. No. 554,842.
For Nut Candy.
First use July 17, 1928.

SN 33,761. A. Sahadi & Company, Inc., New York, N. Y. Filed July 15, 1957. Sec. 2(f).

SAHADI'S

Owner of Reg. Nos. 554,102 and 565,780.
For Ground Sesame Seeds.
First use July 17, 1928.

SN 83,947. W. B. Camp & Sons, Inc., Bakersfield, Calif. Filed July 18, 1957.



For Potatoes in Their Natural State.
First use Apr. 4, 1937.

SN 30,013. N. V. Export-Centrale "Boxtel," Boxtel, Netherlands. Filed Aug. 22, 1957.



Owner of Dutch Reg. No. 122,925, dated Sept. 29, 1955.
For Meat Cuts, Canned Meats, Meat Extracts, Bacon, Animal Fats (Except Butter), Soups, Soup Preparations, Gravy Preparations, Broths, Bones, and Intestines.

SN 38,782. Blackstone Canning Co., Inc., Blackstone, Va. Filed Oct. 2, 1957.



No exclusive claim is made to the words "Chicken Brunswick Stew."
For Canned Chicken Brunswick Stew.
First use June 21, 1954.

SN 39,297. H. & M. Traenkle, d. b. a. H. & M. Traenkle Food Co., Philadelphia, Pa. Filed Oct. 21, 1957.

KAESNER

"Kaesner" is a German term which, when translated into English, means a "cheesemaker" or "cheesepinner."
For Cheese Spread, Consisting of a Blend of Domestic and Imported Cheese With Butter Added.
First use June 12, 1957.

SN 41,368. Food Foundation, Inc., Chicago, Ill. Filed Nov. 26, 1957.



For Maple and Cane Syrup.
First use on or about Apr. 1, 1954.

SN 41,894. William Davies Co., Inc., Chicago, Ill. Filed Dec. 6, 1957. Sec. 2(f).



The word "Brand" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 534,201 and 518,114.
For Canned Meats.
First use November 1948.

SN 42,361. Consumers Foodcraft Corp., Brooklyn, N. Y. Filed Dec. 13, 1957.

FRY SPRED

For Vegetable Oil and Vegetable Shortening.
First use Nov. 18, 1957.

SN 42,781. National Food Marketers, Inc., Blue Anchor, N. J. Filed Dec. 20, 1957.

SEA BRITE

For Frozen Prepared Foods—Namely, Breaded Oysters, Deviled Crabs, Shell Fish and Chicken Cutlets, and Shrimp and Chicken Burgers.
First use in September 1953.

SN 43,251. Dutch Maid Food Packing Co., Inc., Allentown, Pa. Filed Dec. 31, 1957.



Owner of Reg. No. 356,043.
For Pure Egg Noodles.
First use Feb. 1, 1937.

SN 44,506. Orchard Park Foods, Inc., Buffalo, N. Y. Filed Dec. 23, 1957.

SPRING LAKE

For Canned Evaporated Milk and Powdered Non-Fat Dry Milk.
First use Jan. 2, 1937, on canned evaporated milk.

SN 45,275. Pratt-Low Preserving Corporation, Santa Clara, Calif. Filed Feb. 4, 1958.

MAPLETTE

For Imitation Maple Flavor Syrup for Food Purposes.
First use Jan. 20, 1958.

SN 47,433. Reddi-Wip, Inc., Los Angeles, Calif. Filed Mar. 10, 1958.

Reddi-wip

Owner of Reg. Nos. 560,710, 631,030, and others.
For Whipped Cheese-Flavored Dressing for Use on Salads, Vegetables, Hors d'Oeuvres and the Like.
First use Oct. 29, 1957.

Class 49—Distilled Alcoholic Liquors

SN 39,979. Maurice Milstone, d. b. a. Milstone's Acme Liquor Store, Washington, D. C. Filed Nov. 1, 1957.

Canadian Crown

The lining on the drawing is a feature of the mark and does not represent color. No claim of exclusive right is made to "Canadian" as used on Canadian whiskey.
For Canadian Whiskey.
First use July 8, 1955.

Class 50—Merchandise Not Otherwise Classified

SN 29,164. F. H. Noble and Company, Chicago, Ill. Filed Apr. 30, 1957.

Owner of Reg. Nos. 350,137, 506,644, and 558,405.
For Trophy Bases, Metal Trophy Statuettes and Figurines, and Metal Trophy Cups.
First use October 1956.

SN 31,795. Seattle Tent & Awning Co., Seattle, Wash. Filed June 11, 1957.

COLD SEAL

For Curtains for Openings in Refrigerated Enclosures.
First use about Apr. 3, 1957.

SN 35,447. F. H. Noble and Company, Chicago, Ill. Filed Aug. 13, 1957.

NOBLE

For Trophy Awards and Bases.
First use Oct. 14, 1936.

SN 40,468. Knapp-Monarch Company, St. Louis, Mo. Filed Nov. 12, 1957.

Sparklet

For Bar Accessory Kits, Which May Include Jiggers, Stirring Spoons, Bottle Openers, Cork Pulls, Pouring Spouts, Strainers, and Ice Tongs.
First use July 1, 1956.

SN 41,689. Clarence A. Beihl, d. b. a. Beihl Products, Monrovia, Calif. Filed Dec. 3, 1957.

THIRD HAND

For Pan Holders.
First use Aug. 1, 1957.

SN 42,289. The Kendall Company, Walpole, Mass. Filed Dec. 12, 1957.

HERKY

For Plant Bed Covers.
First use on or before Nov. 19, 1956.

SN 42,786. Oglebay Norton Company, Cleveland, Ohio. Filed Dec. 20, 1957.

C&D

For Heat Retaining Covers Adapted To Be Placed in the Open Upper End of Hot Tops To Rest Upon the Upper End of the Sinkheads of Ingots.
First use on or about Feb. 15, 1957.

Class 51—Cosmetics and Toilet Preparations

SN 2,308. John Robert Powers Products Co. Inc., New York, N. Y. Filed Feb. 8, 1950.

FLUID GOLD

Owner of Reg. No. 530,890.
For Cosmetic Skin Creams, Cosmetic Lotions, Cosmetic Skin Fresheners, Cosmetic Skin Cleansers.
First use Feb. 11, 1948, on cosmetic skin creams.

SN 22,190. Juliette Margien, Inc., Ridgefield, N. J. (Delaware corporation), by merger and change of name from Juliette Margien Inc., Ridgefield, N. J. (California corporation). Filed Jan. 7, 1957.

REMBRANDT RUBY

For Lipsticks and for Preparations for Repairing, Preserving, and Beautifying Finger Nails and Toe Nails—Namely, Liquid Base Coating Materials, Liquid Top Coating or Sealer, and Colored Enamels.
First use July 16, 1955.

SN 24,529. Standard Merchandising Co., Inc., Hillside, N. J. Filed Feb. 15, 1957.

SEMCO PINK CHAMPAGNE

For Bubbling Bath Preparation.
First use May 15, 1956.

SN 26,293. Nylonet Corporation, Miami, Fla. Filed Mar. 15, 1957.

ice cake

For Foot Lotion for Sore, Tired Feet and Also as an Aid in Preventing Rough Skin Spots and Athlete's Foot.
First use Jan. 12, 1956.

SN 27,845. Bymart-Tintair, Inc., New York, N. Y. Filed Apr. 10, 1957.

BYOXIDE

For Hydrogen Peroxide for Tinting and Bleaching Hair.
First use Feb. 28, 1957.

SN 29,706. Helene Curtis Industries, Inc., Chicago, Ill. Filed May 9, 1957.

SOFT BRILLIANCE

For Hair Waving Lotion.
First use on or about Mar. 14, 1957.

SN 31,924. Godefroy Manufacturing Company, St. Louis, Mo. Filed June 13, 1957.

TRESoxide

Owner of Reg. Nos. 539,542 and 545,657.
For Hair Bleaching Agent.
First use Mar. 12, 1948.

SN 32,068. Aloe Creme Laboratories, Inc., d. b. a. Alo-Creme, Fort Lauderdale, Fla. Filed June 17, 1957.

WINTER CARNIVAL

For Packaged Unit Containing a Jar of Tanning Lotion and a Jar of Lotion for Skin Grooming.
First use Dec. 19, 1956.

SN 33,904. Park & Tilford, New York, N. Y. Filed July 17, 1957.

Woody Glen

For Perfumes.
First use May 20, 1957.

SN 33,905. Park & Tilford, New York, N. Y. Filed July 17, 1957.

My Desire

Owner of Reg. No. 124,184.
For Perfumes.
First use May 20, 1957.

SN 34,467. Produits Nina, Inc., New York, N. Y. Filed July 19, 1957.

nina

For Cosmetic Skin Creams, Lotions and Oils, Hand Cream, Facial and Body Astringent Lotion, Skin Bleaching Lotion, Beauty Mask, Medicated Cosmetic Skin Lotion Containing Sulfur, Cleansing Cream, Cologne, Dusting Powder.
First use in 1922 on skin cream.

SN 34,663. Caswell-Massey Co., Ltd., New York, N. Y. Filed July 31, 1957.

TRICORN

For Cologne Water and Toilet Water.
First use May 15, 1957.

SN 36,196. Michael B. Knudsen, d. b. a. Gravel, New York, N. Y. Filed Aug. 26, 1957.

GRAVEL

For Man's Cologne.
First use Aug. 21, 1957.

SN 36,569. Clairol Incorporated, Stamford, Conn. Filed Sept. 3, 1957.

Loving Care

For Wave Setting Lotion.
First use Aug. 19, 1957.

SN 36,663. Lenel Perfumes, d. b. a. Lenel, Dallas, Tex. Filed Sept. 4, 1957.

SUPERSOFT

For Hand and Body Lotion.
First use May 1, 1957.

SN 37,417. Chesebrough-Pond's Inc., New York, N. Y. Filed Sept. 18, 1957.

ANGEL CURL

Owner of Reg. Nos. 309,287, 657,865, and others.
For Hair Conditioning and Dressing Tonic, Hair Waving Lotion, and Hair Grooming Cream.
First use Aug. 6, 1957.

SN 38,380. Pierre Pellissard, Casablanca, Morocco. Filed Oct. 4, 1957.

TIULAK

Owner of Moroccan Reg. No. 14,207, dated Sept. 2, 1957.
For Perfumes, Face Powder, Talcum Powder, Cosmetic Skin Creams, Bath Salts, Face Lotions, Brilliantines, Lipstick, Rouge, Toilet Water, Dentifrices, Toothpaste.

SN 38,611. Clara M. Hodges, d. b. a. Clara Hodges, St. Louis, Mo. Filed Oct. 9, 1957.

CLARA HODGES

For Scalp and Hair Treatment Preparation—Namely, a Cream To Relieve Minor Scalp Irritations Due to Itchy Scalp and Excess Dandruff.
First use in or about 1943.

SN 38,780. Ar. Winarick, Inc., New York, N. Y. Filed Oct. 11, 1957.

Q. E. D.

For Hair Grooming and Dandruff Cream.
First use Sept. 18, 1957.

SN 38,959. Yardley & Company Limited, London, England. Filed Oct. 15, 1957.



Owner of British Reg. No. 761,006, dated Jan. 3, 1957; and U. S. Reg. Nos. 299,187 and 164,343.
For Lavender Water, Face Powder, Sachets, Cold Cream, Bath Salts, Hair Shampoo, Talcum Powder, Bath Dusting Powder, Toilet Lotion, Brilliantine, Face Cream, Perfume and Lipsticks and Make-Up Products.

SN 39,572. Guy Thomas Amodeo, d. b. a. Guytom Laboratories, West Islip, N. Y. Filed Oct. 28, 1957.

NO FUSS

For Hair Color Renewer Preparation for Coloring Fading and Graying Hair and for Removing Loose Dandruff.
First use Sept. 20, 1957.

Class 52—Detergents and Soaps

SN 34,082. Puhl & Co., Berlin-Neukolln, Germany. Filed July 19, 1957.

PULIA

Owner of German Reg. No. 805,635, dated Mar. 8, 1951.
For Soaps, Detergents, Stain Removers, and Cleaning Agents.

SN 40,209. James H. Conover, d. b. a. Mi Con Laboratories, Wauconda, Ill. Filed Nov. 7, 1957.

I-Septic

For Antiseptic Wetting and Cleaning Fluid for Plastic Contact Lenses.
First use Jan. 5, 1952.

SN 41,078. James H. Conover, d. b. a. Mi Con Laboratories, Wauconda, Ill. Filed Nov. 21, 1957.

Mi-Con

For Antiseptic, Wetting and Cleansing Solution for Plastic Contact Lens.
First use Jan. 25, 1957.

SN 42,269. Bonewitz Chemicals, Inc., Burlington, Iowa. Filed Dec. 12, 1957.

M[illegible]TAT

Owner of Reg. Nos. 401,505 and 401,506.
For Neutral Detergent.
First use Apr. 8, 1955.

SN 44,036. Roy Kenneth Monson, d. b. a. The Diamon Products Company, Denver, Colo. Filed Jan. 15, 1958.

DIAMON-GLOW

For Jewelry Cleaning Fluid.
First use Sept. 28, 1956.

SN 44,597. Cheesebrough-Pond's Inc., New York, N. Y. Filed Jan. 24, 1958.

ANGEL MIST

Owner of Reg. No. 653,888.
For Shampoo for the Hair.
First use Jan. 20, 1956.

SN 45,573. S. C. Johnson & Son, Inc., Racine, Wis. Filed Feb. 10, 1958.

BRAVO

For All-Purpose Cleaner With Sanitizing, Deodorizing, and Germicidal Characteristics.
First use Dec. 4, 1957.

SN 46,612. Horace M. Dunlap, d. b. a. The Dunlap Company, Wenatchee, Wis. Filed Feb. 26, 1958.

DUN-KWIK

Owner of Reg. No. 422,384.
For Wall Cleaner and Cleaner-Impregnated Disposable Pad.
First use Apr. 2, 1945.

SN 50,579. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Apr. 28, 1958.

RUVAT

For Alkaline, Heavy Duty, Soak Type Cleaner.
First use Feb. 11, 1952.

SN 51,779. Curley Company, Inc., Philadelphia, Pa. Filed May 16, 1958.

TRIX

For Household Detergent and Cleaner.
First use Apr. 15, 1958.

SN 51,780. Curley Company, Inc., Philadelphia, Pa. Filed May 16, 1958.

PEEK

For Household Detergent and Cleaner.
First use Mar. 6, 1958.

SERVICE MARKS

Class 101—Advertising and Business

SN 24,562. C and C Thrift Stamp Co., Inc., Amarillo, Tex. Filed Feb. 18, 1957.



For Promoting the Sale of Goods of Others Through the Use of Trading Stamps Which Are Issued to Retailers and Redeemed in Premium Merchandise.
First use Oct. 24, 1953.

SN 26,973. John E. Respondek, d. b. a. Mercury Stamp Company, Detroit, Mich. Filed Mar. 26, 1957.

LUCKY

For Promoting the Sale of the Goods and Services of Others by Means of Trading Stamps.
First use July 7, 1956.

SN 39,305. D. A. Williams and James D. Williams, d. b. a. Lucky Girl Office Service, Tulsa, Okla. Filed Oct. 21, 1957.



For Supplying Office Employees on a Temporary Basis.
First use July 1, 1957.

Class 102—Insurance and Financial

SN 41,060. Farm and Home Life Insurance Company, Phoenix, Ariz. Filed Nov. 4, 1957.

FARM AND HOME

For Writing of Life Insurance.
First use Apr. 1, 1950.

Class 103—Construction and Repair

SN 35,870. Llano Drilling Company, Midland, Tex. Filed Aug. 20, 1957.



The word "Llano" is derived from the Spanish language and may be literally translated as "plains."
For Drilling Oil and Gas Wells.
First use Apr. 1, 1957.

SN 35,871. Llano Drilling Company, Midland, Tex. Filed Aug. 20, 1957.

LLANO

The word "Llano" is derived from the Spanish language and may be literally translated as "plains."
For Drilling Oil and Gas Wells.
First use Apr. 1, 1957.

Class 105—Transportation and Storage

SN 35,134. Spector Freight System, Inc., Chicago, Ill. Filed Aug. 7, 1957.

SPECTOR MID-STATES

Owner of Reg. No. 641,125.
For Transportation of Freight by Motor Truck.
First use Apr. 2, 1957.

SN 36,218. Northwest Airlines, Inc., St. Paul, Minn. Filed Aug. 26, 1957.

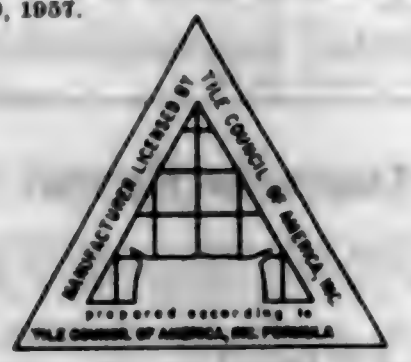
IMPERIAL

The lining in the drawing constitutes lining forming part of the mark but does not represent color.
For Transportation of Passengers, Cargo, and Mail by Air.
First use on or about Apr. 14, 1957.

CERTIFICATION MARKS

Class A—Goods

SN 34,090. Tile Council of America, Inc., New York, N. Y. Filed July 19, 1957.



The mark certifies that the material is prepared according to Tile Council of America, Inc. formulae.
For Mortars and Grouts.
First use June 1, 1957.

SN 47,915. Underwriters' Laboratories, Inc., Chicago, Ill. Filed Mar. 17, 1958.

UND. LAB. INC. INSP.

The mark certifies the safety and effectiveness of the goods. Owner of Reg. Nos. 634,214, 636,273, and 654,922.
For Electrical Equipment, Usually Not of a Voltage Exceeding 600 Volts; Building Materials and Equipment; Fire Fighting and Fire Prevention Equipment; Chemicals, Such as Detergents, Flares, Flammable Liquids, Safety Matches, Photographic Film, and Similar Chemicals; Hydraulic Equipment; Equipment for the Handling and Utilization of Hazardous Liquids and Gases, Including Heaters; Automotive Equipment; Equipment and Systems for Protection Against Burglary and Theft; Safety Appliances; and Air Ducts.
First use April 1906.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

665,877. PERLON. Perlon-Warenzeichenverband E. V. SN 698,635. COLLECTIVE MARK. Pub. 1–28–58. Filed 11–21–55.

665,878. DESIGN OF DIVISION MARK IN CIRCLE. Orefraction Incorporated. SN 28,412. Pub. 9–17–57. Filed 1–29–57.

665,879. PYROCERAM. Corning Glass Works. SN 27,422. Pub. 5–20–58. Filed 4–3–57.

665,880. P·Y·R. Pyrethrum Board of Kenya, assignee of Greene Trading Company, Inc. SN 28,595. Pub. 5–6–58. Filed 4–22–57.

665,881. ZERIFAC. Foote Mineral Company. SN 30,483. Pub. 6–3–58. Filed 5–22–57.

665,882. DUTCH CHARM BRAND. Johannes P. Roosen, d. b. a. John P. Roosen, Junior. SN 31,510. Pub. 4–22–58. Filed 6–6–57.

665,883. UNITED PRODUCTS AND DESIGN. United Cement Company, Inc. SN 31,800. Pub. 6–3–58. Filed 6–11–57.

665,884. WHITE'S OAK AND DESIGN. Frank Morrell. SN 33,890. Pub. 6–3–58. Filed 7–17–57.

665,885. GREEN GOLD. Central States Seed Service, Inc. SN 36,693. Pub. 6–3–58. Filed 9–5–57.

665,886. LAM-MOIRE ETC. AND DESIGN. Herman Basch & Co., Inc. SN 37,065. Pub. 6–3–58. Filed 9–12–57.

665,887. HHR. Double H Ranch. SN 38,203. Pub. 6–3–58. Filed 10–2–57.

665,888. GALAXY CALF. A. F. Gallun & Sons Corporation. SN 38,276. Pub. 6–3–58. Filed 10–3–57.

665,889. GENTHANE. The General Tire & Rubber Company. SN 39,056. Pub. 6–3–58. Filed 10–17–57.

665,890. FLAMINGO. McHutchison & Co. SN 39,074. Pub. 6–3–58. Filed 10–17–57.

665,891. BIG RED. Standard Milling Company. SN 39,292. Pub. 6–3–58. Filed 10–21–57.

665,892. PATIO CHEF. Standard Milling Company. SN 39,293. Pub. 6–3–58. Filed 10–21–57.

665,893. HICKORY RIVER. Standard Milling Company. SN 39,294. Pub. 6–3–58. Filed 10–21–57.

Class 2 — Receptacles

665,894. F AND DESIGN. Fibreboard Paper Products Corporation. SN 32,940. Pub. 6–3–58. Filed 7–1–57.

665,895. THESCH. The J. & B. Smith Company, Inc. SN 39,400. Pub. 6–3–58. Filed 10–23–57.

665,896. CAN-TRAK. Continental Can Company, Inc. SN 39,784. Pub. 6–3–58. Filed 10–30–57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

665,897. ACME. Acme Pet Products Corp. SN 40,988. Pub. 5–27–58. Filed 11–20–57.

Class 4 — Abrasives and Polishing Materials

665,898. LANOL WHITE. Knomark Manufacturing Co., Inc. SN 27,030. Pub. 6–3–58. Filed 3–27–57.

665,899. ABRA STICK. Bruno Rossi, d. b. a. Ditta Pietro Rossi di Bruno Rossi. SN 29,661. Pub. 6–3–58. Filed 5–8–57.

665,900. BEAR AND BEAR'S HEAD DESIGN. Norton Company. SN 39,260. Pub. 6–3–58. Filed 10–21–57.

Class 6 — Chemicals and Chemical Compositions

665,901. EPOXICAL. United States Gypsum Company. SN 15,062. Pub. 12–3–57. Filed 9–4–56.

665,902. MONSANTO POLYETHYLENE AND DESIGN. Monsanto Chemical Company. SN 15,210. Pub. 8–13–57. Filed 9–6–56.

665,903. PARASEW. Para-Chem, Incorporated. SN 30,935. Pub. 6–3–58. Filed 5–28–57.

665,904. PARASTAT. Para-Chem, Incorporated. SN 30,936. Pub. 6–3–58. Filed 5–28–57.

Class 8 — Smokers' Artides, Not Including Tobacco Products

665,905. EA. Elgin American, Inc. SN 38,907. Pub. 6–3–58. Filed 10–15–57.

665,906. SATELLITE. Elgin American, Inc. SN 39,610. Pub. 6–3–58. Filed 10–28–57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

665,907. CYADYN. American Cyanamid Company. SN 36,704. Pub. 6–3–58. Filed 9–6–57.

665,908. CUB. Astra, Unceta y Cia, S. A. SN 37,766. Pub. 6–3–58. Filed 9–25–57.

Class 10 — Fertilizers

665,909. MOCK'S SUPERTURF LONG GREEN AND DESIGN. Mock Seed Company. SN 18,178. Pub. 6–3–58. Filed 10–25–56.

665,910. ROOT PALS. Hyper-Humus Company. SN 38,047. Pub. 6–3–58. Filed 9–30–57.

Class 12 — Construction Materials

665,911. TRULITE AND DESIGN. Palmetto Quarries Company. SN 32,000. Pub. 6–3–58. Filed 6–14–57.

665,912. PT 75. Superior Clay Corporation. SN 32,266. Pub. 6–3–58. Filed 6–19–57.

665,913. RO-TILE. National Ro-Tile Corporation, by change of name from Idaho Bartile Company. SN 33,416. Pub. 6–3–58. Filed 7–9–57.

665,914. PANALLURE. Kochton Plywood & Veneer Co., Inc., d. b. a. Kochton Plywood and Veneer Co., Inc. SN 34,615. Pub. 6–3–58. Filed 7–30–57.

665,915. LIGHTNING BRAND ETC. AND DESIGN. The British Portland Cement Manufacturers, Limited. SN 37,216. Pub. 6–3–58. Filed 9–16–57.

665,916. MONO T9. Mexico Refractories Company. SN 37,799. Pub. 6–3–58. Filed 9–25–57.

665,917. GROUTLOCK. Precision Building System, Inc. SN 38,162. Pub. 6–3–58. Filed 10–1–57.

665,918. TRI-POXY. Masury-Young Company. SN 38,934. Pub. 6–3–58. Filed 10–15–57.

665,919. ROBINSON LAP-LOK. The Robinson Clay Product Company. SN 39,551. Pub. 6–3–58. Filed 10–25–57.

665,920. TILE-MATE. The Upco Company. SN 39,691. Pub. 6–3–58. Filed 10–28–57.

665,921. MINABOARD. Armstrong Cork Company. SN 39,701. Pub. 6–3–58. Filed 10–29–57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

665,922. ESTATE. The Autoyre Company. SN 40,417. Pub. 6–3–58. Filed 11–12–57.

665,923. ANCOR-EEZ. Woodmack Products, Incorporated. SN 40,636. Pub. 6–3–58. Filed 11–18–57.

Class 14—Metals and Metal Castings and Forgings

665,924. SCOVILL. Scovill Manufacturing Company. SN 35,123. Pub. 6–3–58. Filed 8–7–57.

Class 15—Oils and Greases

665,925. STARTIC. The Standard Oil Company. SN 39,555. Pub. 6–3–58. Filed 10–25–57.

665,926. GULF AND DESIGN. Gulf Oil Corporation. SN 39,874. Pub. 6–3–58. Filed 10–31–57.

Class 16—Protective and Decorative Coatings

665,927. TRIX. The Proko Company. SN 43,553. Pub. 6–3–58. Filed 1–7–58.

Class 17—Tobacco Products

665,928. SEVEN ELEVEN. Ogden Huddle, Inc. SN 37,178. Pub. 6–3–58. Filed 9–13–57.

Class 18—Medicines and Pharmaceutical Preparations

665,929. MEDICARE. Lehn & Fink Products Corporation. SN 660,003. Pub. 7–26–55. Filed 1–17–55.

665,930. QUINOPLEX. Gray Pharmaceutical Co., Inc., assignee, by mesne assignment, of Madison Pharmaceutical Laboratories, Inc. SN 14,816. Pub. 6–3–58. Filed 8–29–56.

665,931. HEMERAN. Geigy Chemical Corporation. SN 23,787. Pub. 6–3–58. Filed 2–5–57.

665,932. COBEGEL. The G. F. Harvey Company, Inc., assignee of The G. F. Harvey Company. SN 23,791. Pub. 6–3–58. Filed 2–5–57.

665,933. SOMA. Carter Products, Inc. SN 25,156. Pub. 6–3–58. Filed 2–27–57.

665,934. PAOS. Disease Prevention Research Foundation, Inc. SN 25,688. Pub. 6–3–58. Filed 3–7–57.

665,935. COLDENE. Joseph E. Seagram & Sons, Inc. SN 28,285. Pub. 6–3–58. Filed 4–17–57.

665,936. FLUORINSE. Harry A. Newton, d. b. a. Health-Aids. SN 28,956. Pub. 6–3–58. Filed 4–26–57.

665,937. SIGMOL. Don Baxter, Inc. SN 30,297. Pub. 6–3–58. Filed 5–20–57.

665,938. STA-COAT. Ralph L. Messer, d. b. a. Messer Laboratories. SN 34,446. Pub. 6–3–58. Filed 7–26–57.

665,939. EZ-IT AND DESIGN. Robert L. Gaddy. SN 36,292. Pub. 6–3–58. Filed 8–27–57.

665,940. VALMORIN. C. H. Boehringer Sohn. SN 37,338. Pub. 6–3–58. Filed 9–17–57.

665,941. EDINOL. Farbenfabriken Bayer Aktiengesellschaft. SN 37,847. Pub. 4–29–58. Filed 9–17–57.

665,942. ALFA-LITE. Pasco Products, Inc. SN 37,516. Pub. 6–3–58. Filed 9–19–57.

665,943. OXAZIMEDRINE. C. H. Boehringer Sohn. SN 37,628. Pub. 6–3–58. Filed 9–23–57.

665,944. G. Gane's Chemical Works, Inc. SN 38,091. Pub. 6–3–58. Filed 10–10–57.

665,945. DELTA-BUTAZOLIDIN. Geigy Chemical Corporation. SN 39,958. Pub. 6–3–58. Filed 11–1–57.

665,946. PROSTEX. Metabolic Products Corporation. SN 41,106. Pub. 6–3–58. Filed 11–21–57.

665,947. LUBATH. Texas Pharmacal Company. SN 41,330. Pub. 6–3–58. Filed 11–25–57.

665,948. HYDROZIL. Merck & Co., Inc. SN 41,464. Pub. 6–3–58. Filed 11–27–57.

665,949. CEANOTHYN. Flint, Eaton & Company. SN 42,011. Pub. 6–3–58. Filed 12–9–57.

Class 19—Vehicles

665,950. DESIGN OF CHEVRONS. Societe Anonyme Andre Citroen. SN 29,757. Pub. 5–13–58. Filed 5–9–57.

665,951. SPROUT-WALDRON FEED PIPER AND DESIGN. Sprout, Waldron & Company, Inc. SN 30,528. Pub. 6–3–58. Filed 5–22–57.

Class 21—Electrical Apparatus, Machines, and Supplies

665,952. KINAMATIC. General Electric Company. SN 1,357. Pub. 6–3–58. Filed 1–24–56.

665,953. VACU-FLO. D. W. Onan & Sons Inc. SN 1,715. Pub. 6–3–58. Filed 1–30–56.

665,954. REI. Ratigan Electronics, Inc. SN 11,404. Pub. 6–3–58. Filed 7–2–56.

665,955. REI AND DESIGN OF CROWN. Ratigan Electronics, Inc. SN 11,405. Pub. 6–3–58. Filed 7–2–56.

665,956. REI AND DESIGN. Ratigan Electronics, Inc. SN 11,406. Pub. 6–3–58. Filed 7–2–56.

665,957. BIG-VOICE. Henry W. Shaw, d. b. a. Sound-Craft Systems. SN 20,793. Pub. 6–3–58. Filed 12–10–56.

665,958. MUSICALL. Calbest Engineering & Electronics Co. SN 20,991. Pub. 6–3–58. Filed 12–13–56.

665,959. LITADDRESS. Roy M. Grill. SN 21,310. Pub. 6–3–58. Filed 12–19–56.

665,960. DIFFUSICONE. University Loudspeakers, Inc. SN 21,340. Pub. 6–3–58. Filed 12–19–56.

665,961. CHEMEX. Chemex Corporation. SN 21,577. Pub. 6–3–58. Filed 12–31–56.

665,962. LUMENAREA. Electro Silv-A-King Corporation. SN 24,765. Pub. 6–3–58. Filed 2–20–57.

665,963. KA-LUG. Burndy Corporation. SN 29,016. Pub. 6–3–58. Filed 4–29–57.

665,964. SPANTAP. Burndy Corporation. SN 29,017. Pub. 6–3–58. Filed 4–29–57.

665,965. FINGRIP. Burndy Corporation. SN 29,025. Pub. 6–3–58. Filed 4–29–57.

665,966. VACOMAT. Ortez S. A. SN 29,986. Pub. 6–3–58. Filed 4–24–57.

665,967. ISOLASTANE. Natvar Corporation. SN 32,521. Pub. 6–3–58. Filed 6–24–57.

665,968. MODERN MAID. Tennessee Stove Works, Inc. SN 34,881. Pub. 6–3–58. Filed 7–25–57.

665,969. ZENITH. Zenith Radio Corporation (Delaware corporation), by merger from Zenith Radio Corporation (Illinois corporation). CONSOLIDATED CERTIFICATE. SN 34,881, pub. 5–13–58, filed 8–2–57, Cl. 21; SN 34,880, pub. 2–25–58, filed 8–2–57, Cl. 36; SN 34,882, pub. 2–25–58, filed 8–2–57, Cl. 44.

665,970. T TRIANGLE ETC. AND DESIGN. Triangle Conduit & Cable Co., Inc. SN 37,462. Pub. 6–3–58. Filed 9–18–57.

Class 22—Games, Toys, and Sporting Goods

665,971. HOME-PORT PRODUCTS AND DESIGN. Alexander P. More, d. b. a. Home-Port Products Company. SN 37,283. Pub. 6–3–58. Filed 9–16–57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

665,972. ROOTS-CONNERSVILLE. Dresser Industries, Inc. CONSOLIDATED CERTIFICATE. SN 39,205, pub. 5–20–58, filed 10–21–57, Cl. 23; SN 39,206, pub. 5–20–58, filed 10–21–57, Cl. 26; SN 39,204, pub. 5–20–58, filed 10–21–57, Cl. 34.

665,973. TIPPER. Tipper Tie, Inc. SN 39,684. Pub. 6–3–58. Filed 10–28–57.

665,974. TY-SA-MAN. Ty-Sa-Man Machine Company. SN 40,095. Pub. 6–3–58. Filed 11–4–57.

665,975. JOGAIR. Albert J. Harvey, d. b. a. Harvey Engraving Company. SN 40,456. Pub. 6–3–58. Filed 11–12–57.

665,976. SB RULON. Dixon Corporation. SN 40,566. Pub. 6–3–58. Filed 11–13–57.

665,977. THERMO FLO. Arnold Haviland, d. b. a. Arnold Haviland Company. SN 40,577. Pub. 6–3–58. Filed 11–13–57.

665,978. APR. Motor Parts Depot. SN 40,687. Pub. 6–3–58. Filed 11–14–57.

665,979. SHOLD-A-GRIP. The Murray Company of Texas, Inc., d. b. a. Boston Gear Works, Division of the Murray Company of Texas, Inc. SN 40,688. Pub. 6–3–58. Filed 11–14–57.

665,980. RAICO. Ed. Raichert, Inc. SN 40,702. Pub. 6–3–58. Filed 11–14–57.

665,981. DEAN CUT-RATE AND DESIGN. Dean Cut-Rate Floor Covering Company, Inc. SN 43,244. Pub. 6–3–58. Filed 12–31–57.

665,982. GREGCO AND DESIGN. L. O. Gregory Engineering. SN 43,503. Pub. 6–3–58. Filed 12–30–57.

665,983. H AND DESIGN OF CROWN. Husqvarna Vapenfabriks Aktiebolag. SN 43,615. Pub. 6–3–58. Filed 1–8–58.

665,984. DELUXE KROME KING AND DESIGN. De Luxe Saw and Tool Company. SN 43,828. Pub. 6–3–58. Filed 1–13–58.

Class 24—Laundry Appliances and Machines

665,985. SUNBEAM. Sunbeam Corporation. SN 38,059. Pub. 6–3–58. Filed 9–17–57.

Class 26—Measuring and Scientific Appliances

665,972. CONSOLIDATED CERTIFICATE. See Class 23.

665,986. KODEN ELECTRONICS. Kabushiki-Kaisha Koden Seisakusho. SN 694,269. Pub. 11–27–56. Filed 9–8–55.

665,987. PENCO. Preston William Byington, d. b. a. Pacific Electro-Nuclear Co. SN 12,150. Pub. 9–10–57. Filed 7–16–56.

665,988. LARM-TECTOR. Way-Wolff Associates, Inc. SN 14,712. Pub. 6–3–58. Filed 8–27–56.

665,989. IMARECT. E. Leitz, Inc. SN 25,340. Pub. 6–3–58. Filed 2–1–57.

665,990. TRANS-OIL. National Tank Company. SN 25,446. Pub. 6–3–58. Filed 3–4–57.

665,991. MAGNA SENSOR. The Geolograph Company. SN 25,510. Pub. 6–3–58. Filed 4–19–57.

665,992. RYAN. Ryan Recording Thermometer Co. SN 29,101. Pub. 6–3–58. Filed 4–29–57.

665,993. RAPIDO-GUIDE. Koh-I-Noor Pencil Company, Inc. SN 29,159. Pub. 6–3–58. Filed 4–30–57.

665,994. SPECTRONIC 20 AND DESIGN. Bausch & Lomb Optical Company. SN 31,744. Pub. 6–3–58. Filed 6–11–57.

665,995. POST-TRONIC. The National Cash Register Company. SN 32,520. Pub. 6–3–58. Filed 6–24–57.

665,996. "THE FOURTEEN." Minnesota Mining and Manufacturing Company. SN 35,666. Pub. 6–3–58. Filed 8–16–57.

665,997. "THE PREMIER." Minnesota Mining and Manufacturing Company. SN 35,667. Pub. 6–3–58. Filed 8–16–57.

665,998. IDL. Instrument Development Laboratories, Inc. SN 36,519. Pub. 6–3–58. Filed 8–30–57.

665,999. MINISCOP. Electroacustic G. m. b. H. SN 36,577. Pub. 6–3–58. Filed 9–3–57.

666,000. PACDRILL. United Geophysical Corporation. SN 36,937. Pub. 6–3–58. Filed 9–9–57.

666,001. VISUAL GRIND AND DESIGN. Cleveland Grinding Machine Co. SN 37,719. Pub. 6–3–58. Filed 9–24–57.

666,002. SPARTUS. Herold Products Company, Inc. SN 37,955. Pub. 6–3–58. Filed 9–27–57.

666,003. THERMOLYNE. Thermo Electric Manufacturing Co. SN 38,100. Pub. 6–3–58. Filed 9–30–57.

666,004. DIGISTEPPER. Endevco Corporation. SN 41,750. Pub. 6–3–58. Filed 12–4–57.

666,005. DESIGN OF EAGLE. Societe Anonyme Dite: Mennier. SN 41,948. Pub. 6–3–58. Filed 12–6–57.

666,006. QUICKTAR. Quick-Set, Incorporated. SN 42,237. Pub. 6–3–58. Filed 12–11–57.

Class 27—Horological Instruments

666,007. VENUS. The Lux Clock Manufacturing Company. SN 680,490. Pub. 11–20–56. Filed 6–14–55.

Class 28—Jewelry and Precious-Metal Ware

666,008. DESIGN OF MAN. Raimond Incorporated. SN 21,465. Pub. 6–3–58. Filed 12–21–56.

Class 29—Brooms, Brushes, and Dusters

666,009. CHUK-AWAY. Harry Serwer. SN 35,127. Pub. 6–3–58. Filed 8–7–57.

666,010. IRON CLAD. D. W. Swindle, d. b. a. D. W. Swindle and Sons Company and The Southwestern Broom Mfg. Co. SN 37,694. Pub. 6–3–58. Filed 9–23–57.

Class 31—Filters and Refrigerators

666,011. UNDERFLOW. The Marley Company. SN 42,464. Pub. 6–3–58. Filed 1–6–58.

666,012. LEKTRO-CEL. Dole Refrigerating Company. SN 43,528. Pub. 6–3–58. Filed 1–7–58.

Class 32—Furniture and Upholstery

666,013. HALLOWELL AND DESIGN. Standard Pressed Steel Co. SN 20,320. Pub. 6–3–58. Filed 12–3–56.

666,014. DOO-TEE. Carlson Manufacturing Company. SN 43,587. Pub. 6–3–58. Filed 1–8–58.

Class 33—Glassware

666,015. SCREENLOK. Safetee Glass Company. SN 37,688. Pub. 6–3–58. Filed 9–23–57.

Class 34—Heating, Lighting, and Ventilating Apparatus

665,972. CONSOLIDATED CERTIFICATE. See Class 23.

666,016. SMOKEY. Design Engineers. SN 39,197. Pub. 6–3–58. Filed 10–21–57.

666,017. ELEGANCE. A. W. Pistol Inc. SN 39,746. Pub. 6–3–58. Filed 10–29–57.

666,018. HI-STRESS. Holophane Company, Inc. SN 40,122. Pub. 6–3–58. Filed 11–5–57.

Class 36—Musical Instruments and Supplies

665,969. CONSOLIDATED CERTIFICATE. See Class 21.

Class 37—Paper and Stationery

666,019. CLEARPRINT CHARTS. Clearprint Paper Company. SN 2,406. Pub. 6–3–58. Filed 2–10–56.

666,020. QUIKARBON. Superior Systems Forms, Inc. SN 29,762. Pub. 6–3–58. Filed 5–9–57.

666,021. TAD. Richard Best Pencil Company, Inc. SN 30,885. Pub. 6–3–58. Filed 5–28–57.

666,022. SELLVELOPE. Alphons J. Hackl, d. b. a. Colortone Press. SN 32,385. Pub. 6–3–58. Filed 6–21–57.

666,023. T-BALL. The Parker Pen Company. SN 32,693. Pub. 6–3–58. Filed 6–26–57.

666,024. CROSSETT PAPER MILLS AND DESIGN. The Crossett Company. SN 34,044. Pub. 6–3–58. Filed 7–19–57.

666,025. LIN-O-TAB. The Snapout Forms Company. SN 34,469. Pub. 6–3–58. Filed 7–26–57.

666,026. KRAFTSMAN DURA-CORR. West Virginia Pulp and Paper Company. SN 36,181. Pub. 6–3–58. Filed 8–28–57.

666,027. PARKONTROL. Globe Ticket Company. SN 36,371. Pub. 6–3–58. Filed 8–28–57.

666,028. HARDCOR. Menasha Wooden Ware Corporation. SN 37,668. Pub. 6–3–58. Filed 9–23–57.

666,029. IBSEN. Bergstrom Paper Company. SN 38,123. Pub. 6–3–58. Filed 10–1–57.

666,030. ZERO. Eberhard Faber Pencil Company. SN 38,811. Pub. 6–3–58. Filed 10–14–57.

666,031. BLARNEY. Helene McDonald, d. b. a. Emmett M. McDonald Enterprises. SN 39,406. Pub. 6–3–58. Filed 10–23–57.

666,032. DUCHESS. Milwaukee Lace Paper Company. SN 39,485. Pub. 6–3–58. Filed 10–24–57.

Class 38—Prints and Publications

666,033. MARCH. Macy H. Stein. SN 27,243. Pub. 6–3–58. Filed 3–29–57.

666,034. A HARBUS FILM. President and Fellows of Harvard College. SN 36,915. Pub. 6–3–58. Filed 9–9–57.

666,035. JENSELECTOR. Jensen Industries, Inc. SN 37,167. Pub. 6–3–58. Filed 9–13–57.

Class 39—Clothing

666,036. SAMPSON. Universal Overall Company. SN 678,288. Pub. 6–3–58. Filed 12–13–54.

666,037. YOUTHCRAFT FREE STRIDE. Youthcraft Creations, Inc. SN 683,075. Pub. 6–3–58. Filed 3–8–55.

666,038. PLAYTOGS BY JIMINY. Tam O'Shanter, Inc. SN 699,860. Pub. 6–3–58. Filed 12–12–55.

666,039. DECKS BY BLUE RIDGE. Cambridge Rubber Company. SN 10,982. Pub. 6–3–58. Filed 6–26–56.

666,040. ALPLINE AND DESIGN. Richard A. Heller. SN 11,765. Pub. 6–3–58. Filed 7–9–56.

666,041. ZEPHYRLYTE. New York Merchandise Co., Inc. SN 18,581. Pub. 6–3–58. Filed 11–1–56.

666,042. CLOGHOPPERS. Nu-Dell Plastics Corporation. SN 24,182. Pub. 6–3–58. Filed 2–11–57.

666,043. CUSHIONIZED BELLAIRES. Cushionized-Bellaire Shoe Co. SN 24,573. Pub. 6–3–58. Filed 2–18–57.

666,044. GOLDEN HOUSE. J. Schoeneman, Incorporated. SN 27,629. Pub. 5–6–58. Filed 4–5–57.

666,045. MADEMOISELLE DIOR. Comptoir de l'Industrie Cotonnierre, Etablissements Boussac, Société à Responsabilité Limitée. SN 30,889. Pub. 6–3–58. Filed 5–28–57.

666,046. FRENCH CUFF. Joyce, Inc. SN 32,960. Pub. 6–3–58. Filed 7–1–57.

666,047. CHEMGARD. Mine Safety Appliances Company. SN 33,563. Pub. 6–3–58. Filed 7–11–57.

666,048. 'ANGEL.' Princess Peggy, Inc. SN 37,289. Pub. 6–3–58. Filed 9–16–57.

666,049. DANA. Sheffield Hosiery Mills, Inc. SN 37,524. Pub. 6–3–58. Filed 9–19–57.

666,050. PERTIES. Irving E. Grossmann, d. b. a. I. E. G. Associates. SN 37,953. Pub. 6–3–58. Filed 9–27–57.

666,051. MOUVRAY. Adams-Millis Corporation. SN 38,003. Pub. 6–3–58. Filed 9–30–57.

666,052. CLAMDIGGER. White Stag Mfg. Co. SN 38,110. Pub. 6–3–58. Filed 9–30–57.

666,053. RENAULT. Indiana Merchandising Company, Inc. SN 38,286. Pub. 6–3–58. Filed 10–3–57.

666,054. FORMTEX. The Formfit Company. SN 38,446. Pub. 6–3–58. Filed 10–7–57.

666,055. JINDI'S. Rajinder Singh, d. b. a. Mohini Footwear Co. SN 38,491. Pub. 6–3–58. Filed 10–7–57.

666,056. "CLOUDY-DAY DUET." Carol B. Sullivan. SN 38,497. Pub. 6–3–58. Filed 10–7–57.

666,057. HI-SLAX. Baker-Cammack Hosiery Mills, Inc. SN 38,522. Pub. 6–3–58. Filed 10–8–57.

666,058. SADRAN. Ernest Donath Inc. SN 38,809. Pub. 6–3–58. Filed 10–14–57.

666,059. GO-AHEAD. Ino Merchandise Company. SN 39,143. Pub. 6–3–58. Filed 10–18–57.

666,060. GRAND-WAY. The Grand Union Company. SN 39,222. Pub. 6–3–58. Filed 10–21–57.

666,061. MATEX. M. K. M. Knitting Mills, Inc. SN 39,237. Pub. 6–3–58. Filed 10–21–57.

666,062. DOINGS-A-FOOT. Danvers Shoe Company, Inc. SN 39,323. Pub. 6–3–58. Filed 10–22–57.

666,063. TERRILOFER. Auerbach Bath Robe Corp. SN 39,940. Pub. 6–3–58. Filed 11–1–57.

666,064. PERTFORM. Pertform Brassiere Co., Inc. SN 40,489. Pub. 6-3-58. Filed 11-12-57.

666,065. SNOWCREST. Coat Craft Company. SN 40,564. Pub. 6-3-58. Filed 11-13-57.

Class 40—Fancy Goods, Furnishings, and Notions

666,066. COSTUMAKERS. Lida Brothers, Inc. SN 40,473. Pub. 6-3-58. Filed 11-12-57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

666,067. APRILIZED. Crompton Company. SN 26,161. Pub. 6-3-58. Filed 3-14-57.

666,068. PRF. J. P. Stevens & Co., Inc. SN 37,822. Pub. 6-3-58. Filed 9-25-57.

666,069. WISPAIRE. Ehniger Mills, Inc. SN 40,216. Pub. 6-3-58. Filed 11-7-57.

Class 44—Dental, Medical, and Surgical Appliances

665,969. CONSOLIDATED CERTIFICATE. See Class 21.

Class 45—Soft Drinks and Carbonated Waters

666,070. SHANDEX. Shandex (Edinburgh) Limited. SN 40,379. Pub. 6-3-58. Filed 11-8-57.

666,071. SHANDELL. Shandex (Edinburgh) Limited. SN 40,380. Pub. 6-3-58. Filed 11-8-57.

666,072. SHANDREX. Shandex (Edinburgh) Limited. SN 40,381. Pub. 6-3-58. Filed 11-8-57.

666,073. RYAN DRY. Walter Janik, d. b. a. The Johnnie Ryan Co. SN 40,719. Pub. 6-3-58. Filed 11-8-57.

Class 46—Foods and Ingredients of Foods

666,074. KOSHER STAR ETC. AND DESIGN. Kosher Star Sausage Mfg. Co. SN 662,271. Pub. 6-3-58. Filed 2-24-55.

666,075. CAKE-MATE. Timely Brands, Inc., assignee, by mesne assignment, of Joseph Amendola. SN 26,670. Pub. 5-20-58. Filed 3-22-57.

666,076. DESIGN OF STREET VENDOR AND CART. Gordon-Allen Co. SN 28,251. Pub. 6-3-58. Filed 4-16-57.

666,077. REPRESENTATION OF A SOUTHERN GENTLEMAN. Summerton Motel Corp., d. b. a. Summerton Motel & Coffee Shop. SN 28,654. Pub. 6-3-58. Filed 4-22-57.

666,078. WALDORF. Safeway Stores, Incorporated. SN 29,392. Pub. 6-3-58. Filed 5-3-57.

666,079. SOUTHDOWN PURITY AND DESIGN. Southdown Sugars, Inc. SN 29,758. Pub. 6-3-58. Filed 5-9-57.

666,080. OLD BAR-Q AND DESIGN. Jas. H. Forbes Tea and Coffee Corporation. SN 30,077. Pub. 6-3-58. Filed 5-15-57.

666,081. HI-VAL. Osceola Foods, Inc. SN 30,107. Pub. 6-3-58. Filed 5-15-57.

666,082. BILLY BOY. Wm. Barnes, Inc. SN 31,192. Pub. 6-3-58. Filed 6-3-57.

666,083. TOP-HAND. Top-Hand Dairies, Inc. SN 33,767. Pub. 6-3-58. Filed 7-15-57.

666,084. DCA. DCA Food Industries Inc. SN 34,217. Pub. 6-3-58. Filed 7-23-57.

666,085. ESKIMO PICKLE. Eskimo Pie Corporation. SN 34,596. Pub. 6-3-58. Filed 7-30-57.

666,086. WHITSON'S. The Borden Company. SN 35,028. Pub. 6-3-58. Filed 8-6-57.

666,087. PAB. The Procter & Gamble Company. SN 38,382. Pub. 6-3-58. Filed 10-4-57.

666,088. CLIDO. The Procter & Gamble Company. SN 38,383. Pub. 6-3-58. Filed 10-4-57.

666,089. WESTBROOK AND DESIGN. Westbrook Industries, Inc. SN 38,513. Pub. 6-3-58. Filed 10-7-57.

666,090. SEACROWN. Northam Trading Co., Inc. SN 38,940. Pub. 6-3-58. Filed 10-15-57.

666,091. BALTIC BRAND AND DESIGN. Richter Brothers, Inc. SN 39,011. Pub. 6-3-58. Filed 10-16-57.

666,092. SALAD SIP. Just So, Inc. SN 40,579. Pub. 6-3-58. Filed 11-13-57.

666,093. CHERRISPICE. B. M. Reeves Company, Inc. SN 40,615. Pub. 6-3-58. Filed 11-13-57.

666,094. RAINBO AND DESIGN. Brown-Miller Co. SN 40,914. Pub. 6-3-58. Filed 11-19-57.

666,095. "SWEET NELL" AND DESIGN. Crosbie's Pure Food Company Limited. SN 40,924. Pub. 6-3-58. Filed 11-19-57.

666,096. "DIPPERS." Nalley's, Inc. SN 41,038. Pub. 6-3-58. Filed 11-20-57.

666,097. SPARROW. Salvatore Casertano. SN 41,147. Pub. 6-3-58. Filed 11-22-57.

666,098. TEE-ZEE. Lehman Bros. SN 41,175. Pub. 6-3-58. Filed 11-22-57.

666,099. GLODO. The Procter & Gamble Company. SN 41,187. Pub. 6-3-58. Filed 11-22-57.

666,100. MISS MUSKIE. Elmore and Stahl. SN 41,259. Pub. 6-3-58. Filed 11-25-57.

666,101. EAGLE EYE. Salinas Valley Vegetable Exchange. SN 41,310. Pub. 6-3-58. Filed 11-25-57.

666,102. SMITTI-MOJO. Leslie A. Smith, d. b. a. Veterans Trading Post. SN 41,407. Pub. 6-3-58. Filed 11-26-57.

666,103. "BEE-TREE." Edward W. Hartman, d. b. a. Bee Tree Apiaries. SN 41,455. Pub. 6-3-58. Filed 11-27-57.

666,104. PINKY PIG. Winn-Dixie Stores, Inc. SN 41,599. Pub. 6-3-58. Filed 11-29-57.

Class 49—Distilled Alcoholic Liquors

666,105. ANDRE REMY. Phillip Hoffman, d. b. a. Walton Liquor Imports, Ltd. SN 30,337. Pub. 6-3-58. Filed 5-20-57.

666,106. GOVERNOR GENERAL. W. & A. Gilbey Ltd. SN 33,657. Pub. 6-3-58. Filed 7-12-57.

Class 50—Merchandise Not Otherwise Classified

666,107. DECOR-EZE. The General Tire & Rubber Company. SN 25,092. Pub. 6-3-58. Filed 2-26-57.

Class 51—Cosmetics and Toilet Preparations

666,108. BURMA. Burma-Vita Company. SN 38,798. Pub. 6-3-58. Filed 10-14-57.

666,109. IPANA PLUS. Bristol-Myers Company. SN 39,184. Pub. 6-3-58. Filed 10-21-57.

666,110. FLOWER FLAME. Avon Products, Inc. SN 39,367. Pub. 6-3-58. Filed 10-23-57.

666,111. VALE OF KASHMIR. Avon Products, Inc. SN 39,368. Pub. 6-3-58. Filed 10-23-57.

666,112. GREAT LADY. Parfums Evyan Inc. SN 39,663. Pub. 6-3-58. Filed 10-28-57.

Class 52—Detergents and Soaps

666,113. 88-25. National Disinfectant Company. SN 34,811. Pub. 6-3-58. Filed 8-1-57.

Service Marks

Class 102—Insurance and Financial

666,114. CLOVER FARM STORES AND DESIGN. Clover Farm Stores Corporation. SN 657,411. Pub. 8-27-57. Filed 12-4-53.

666,115. BANK A COUNT AND DESIGN. Bank-A-Count Corporation. SN 24,460. Pub. 6-3-58. Filed 2-15-57.

666,116. EST. 1847 AND DESIGN. Provident Tradesmens Bank and Trust Company. SN 30,523. Pub. 6-3-58. Filed 5-22-57.

666,117. EST. 1847 AND DESIGN. Provident Tradesmens Bank and Trust Company. SN 30,524. Pub. 6-3-58. Filed 5-22-57.

Collective Membership Marks

Class 200

666,118. LAUNDRY WORKERS INTERN'L UNION AND DESIGN. Laundry Workers' International Union. SN 24,173. Pub. 2-4-58. Filed 2-11-57.

666,119. LEGION OF HONOR AND DESIGN. National Association Legions of Honor Ancient Arabic Order of Nobles of the Mystic Shrine. SN 85,200. Pub. 6-3-58. Filed 8-8-57.

666,120. DESIGN OF MAN AND MAP OF ALASKA. Alaska Visitors Association. SN 41,127. Pub. 6-3-58. Filed 11-22-57.

Certification Mark

Class A—Goods

666,121. IBMA ETC. AND DESIGN. Independent Battery Manufacturers of America. SN 18,390. Pub. 6-3-58. Filed 10-22-56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

666,122. Clarence F. Hayward, d. b. a. Morrison Manufacturing Company, Lowell, Mass. SN 42,216. Filed 12-11-57.



The lining on the drawing is for shading only.
For Ladder Feet.
First use since 1915.

Class 18—Medicines and Pharmaceutical Preparations

666,123. Milton Okin, d. b. a. Nutrition Products Co., Yonkers, N. Y. SN 27,717. Filed P. R. 4-8-57. Am. S. R. 6-20-58.

Curb-wate

WITH CONTROLENE

For Tablets Effective To Control Appetite in Aid of Weight Reduction.
First use Feb. 26, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

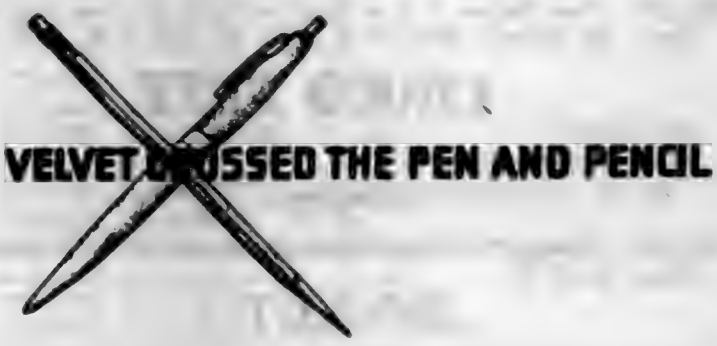
666,124. Union Gear & Sprocket Corporation, Quincy, Mass. SN 15,842. Filed P. R. 9-17-56. Am. S. R. 6-24-58.

HI-WEAR IRON

For Gears and Sprockets.
First use Jan. 10, 1956.

Class 37—Paper and Stationery

666,125. American Lead Pencil Company, Hoboken, N. J. SN 5,481. Filed P. R. 3-30-56. Am. S. R. 2-17-58.



For Ball Point Pens and Pencils.
First use Mar. 14, 1956.

666,126. Custom-Made Paper Bag Co., Inc., Long Island City, N. Y. SN 20,360. Filed P. R. 12-4-56. Am. S. R. 4-3-58.



For Paper Bags.
First use May 1952.

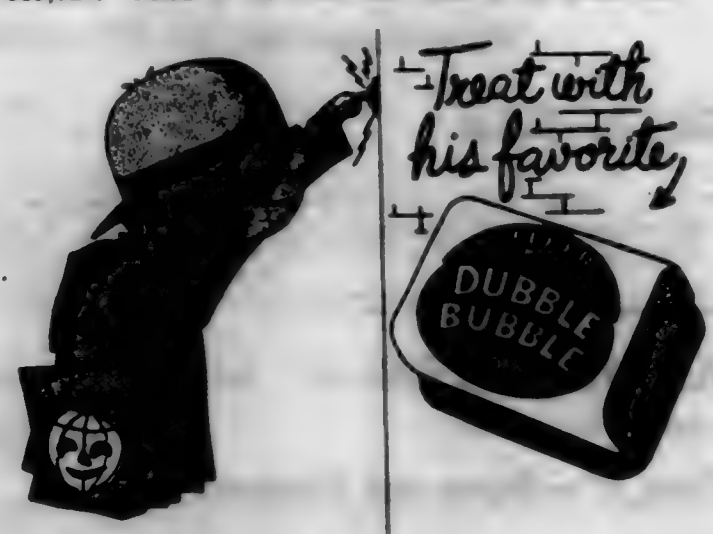
666,127. Silver Bear, Inc., Atlanta, Ga. SN 34,467. Filed P. R. 7-26-57. Am. S. R. 6-12-58.



For Note Books.
First use June 3, 1957.

Class 46—Foods and Ingredients of Foods

666,128. Frank H. Fleer Corporation, Philadelphia, Pa. SN 689,718. Filed P. R. 6-17-55. Am. S. R. 3-28-58.



For Bubble Gum.
First use May 10, 1955.

666,129. Karl Haller, d. b. a. Karl Haller & Son, Los Angeles, Calif. SN 15,541. Filed P. R. 9-12-56. Am. S. R. 4-25-58.

CHOCO PUFF

For Candy.
First use June 17, 1956.

666,130. Eskimo Pie Corporation, Richmond, Va. SN 43,060. Filed 12-27-57.

DO-NUT

For Chocolate Coated Ice Cream.
First use Nov. 29, 1956.

Class 49—Distilled Alcoholic Liquors

666,131. Heublein, Inc., d. b. a. G. F. Heublein & Bro., Hartford, Conn. SN 32,822. Filed P. R. 6-28-57. Am. S. R. 6-12-58.

THE WHISKEY OF TOMORROW

For Whiskey.
First use June 7, 1957.

Class 50—Merchandise Not Otherwise Classified

666,132. Joseph J. McIntosh, d. b. a. J. J. McIntosh Co., Carlisle, Pa. SN 32,194. Filed P. R. 6-18-57. Am. S. R. 6-23-58.

McIntosh

The drawing is lined for red.
For Traffic Boards and Sets of Replicas of Various Vehicles, Pedestrians and Traffic Accessories Adapted To Be Arranged in Similitude on Traffic Boards Representative of Traffic Accidents for Explaining and Illustrating the Conditions and Circumstances Incident to Traffic Accidents.
First use May 9, 1957.

Class 52—Detergents and Soaps

666,133. Varn Products Co. Inc., Flushing, N. Y. SN 22,285. Filed P. R. 1-8-57. Am. S. R. 6-11-58.

AQUA-LES

For Chemical Hand Cleaner.
First use Dec. 19, 1956.

TRADEMARK REGISTRATIONS RENEWED

120,773. NORTH AND DESIGN. Cl. 42. 3-5-18.
120,944. BECO. Cl. 21. 3-19-18.
122,193. ROYAL. Cl. 40. 7-9-18.
122,303. SPOOF. Cl. 22. 7-23-18.
122,429. CHAMPION. Cl. 23. 8-20-18.
122,472. SOUTH SHORE. Cl. 46. 8-20-18.
122,715. LACO. Cl. 29. 9-10-18.
122,730. ALCO. Cl. 46. 9-10-18.
122,750. LOYALTY. Cl. 42. 9-10-18.
122,951. PRIDE OF THE FLOCK. Cl. 43. 10-1-18.
123,110. DU-LITE. Cl. 16. 10-15-18.
123,279. INDIAN HEAD AND WIGWAM DESIGN. Cl. 1. 10-22-18.
123,428. GUARDIAN. Cl. 40. 11-12-18.
347,262. S S BRAND AND DESIGN. Cl. 5. 6-22-37.
349,183. COCK. Cl. 6. 8-24-37.
355,186. FULL MOON AND DESIGN. Cl. 39. 3-8-38.
355,451. OLD HEAVEN HILL. Cl. 49. 3-15-38.
355,826. WATER-SEALED. Cl. 6. 4-5-38.
355,938. WEAVELOK. Cl. 6. 4-5-38.
357,421. TELEMATIC AND DESIGN. Cl. 21. 6-7-38.
357,469. MASTER. Cl. 23 6-7-38.
357,482. KREST. Cl. 37. 6-7-38.
357,506. FASHION DIGEST AND DESIGN. Cl. 38. 6-7-38.
357,536. POSTUR-PEDIC AND DESIGN. Cl. 39. 6-7-38.
357,607. FIESTA. Cl. 37. 6-7-38.
357,683. GILLETTE AND DESIGN. Cl. 51. 6-14-38.
357,944. A SYMBOL FOR BOWL MILL. Cl. 23. 6-21-38.
357,951. CLING-SURFACE AND DESIGN. Cl. 46. 6-21-38.
357,992. NOVACEL. Cl. 42. 6-21-38.
358,050. CHRYSA. Cl. 6. 6-28-38.
358,267. BITUSIZE. Cl. 5. 7-5-38.
358,501. "SAFETY PATROL." Cl. 39. 7-19-38.
358,568. P KAY PLATE KLEEN. Cl. 51. 7-19-38.
358,617. DOLL BATHINETTE. Cl. 22. 7-19-38.
358,690. TRAVELAWN. Cl. 32. 7-19-38.
358,737. TELETAXE AND DESIGN. Cl. 26. 7-26-38.
358,768. PLAYGIRL. Cl. 39. 7-26-38.
358,860. BANDRITE. Cl. 37. 7-26-38.
358,877. IFFY THE DOPESTER AND DESIGN. Cl. 38. 7-26-38.
359,173. FARMERS GOLD. Cl. 46. 8-9-38.
359,546. VINEHEART. Cl. 47. 8-23-38.
359,760. DOMINION DRY. Cl. 45. 8-30-38.

359,795. F F V TAVERN APPETIZERS. Cl. 46. 8–30–38.
360,117. HAPPY DAY. Cl. 13. 9–6–38.
361,053. RCA VICTOR. Cl. 21. 10–4–38.
361,160. CO-OP NATIONAL CO-OPERATIVES AND DESIGN. Cl. 31. 10–11–38.
361,209. CANIBAL ETC. AND DESIGN. Cl. 52. 10–11–38.
361,263. FUNGIZYME. Cl. 6. 10–11–38.
361,285. BELLE ISLE ETC. AND DESIGN. Cl. 46. 10–11–38.
361,322. WILSON. Cl. 40. 10–11–38.
361,433. F. C. Z. E. V. AND DESIGN. Cl. 1. 10–18–38.
361,434. F. C. Z. E. V. AND DESIGN. Cl. 46. 10–18–38.
361,448. BANTAMAC AND DESIGN. Cl. 39. 10–18–38.
361,450. OPTAK. Cl. 38. 10–18–38.
361,524. CORDUREX. Cl. 42. 10–18–38.
361,827. SORE SPOT AND DESIGN. Cl. 44. 11–1–38.
361,839. CLOVER MAID AND DESIGN. Cl. 46. 11–1–38.
361,881. ROOTONE. Cl. 10. 11–1–38.
361,959. HOSTESS. Cl. 32. 11–8–38.
361,969. SUNBEAM. Cl. 47. 11–8–38.
362,116. AFTER SIX. Cl. 39. 11–15–38.
362,143. O. R. B. ETC. AND DESIGN. Cl. 46. 11–15–38.
362,154. ADCO ETC. AND DESIGN. Cl. 4. 11–15–38.
362,178. BEMBERG THE ARISTOCRAT OF YARNS. Cl. 43. Cl. 11–15–38.
362,179. BEMBERG RAYON ARISTOCRAT OF MAN MADE YARNS. Cl. 43. 11–15–38.
362,180. ARISTOCRAT OF MAN MADE YARNS. Cl. 43. 11–15–38.
362,192. CHARM TONE. Cl. 39. 11–15–38.
362,550. KENWOOD RELIANCE ETC. AND DESIGN. Cl. 42. 11–22–38.
362,637. CHERUB. Cl. 46. 11–22–38.
362,651. AMERICAN BRAKEBLOK. Cl. 35. 11–22–38.
362,761. AMERUNDUM. Cl. 4. 11–29–38.
362,767. FIL-A-BUSTER. Cl. 46. 11–29–38.
362,768. DIPSY DOODLE AND DESIGN. Cl. 46. 11–29–38.

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Section 8

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370,718. FLUOR-A-CASE. Cl. 24. 9–5–39.
430,249. TASCO. Cl. 21. 6–10–47.

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560,688. AFTON VILLA. Cl. 46.
560,704. ELEPHANT GOOD ENUF FOR ME AND DESIGN. Cl. 46.
560,713. DESIGN OF GIRL WITH HAND SPRAYING DEODORANT. Cl. 51.
560,716. BORADYNE. Cl. 18.
560,718. FOUNDED 1885 MR. DISNEY NEW YORK AND DESIGN. Cl. 39.
560,719. THIVIERGE T. W. S. R. AND DESIGN. Cl. 18.
560,720. STAR DESIGN. Cl. 29.
560,721. FLONETTE. Cl. 51.
560,722. AMERAN. Cl. 6.
560,727. GOOD COW AND DESIGN. Cl. 46.
560,731. CILOPRINE. Cl. 18.
560,733. HAWAIIAN FANTASY. Cl. 8.
560,736. SNAP TRAC. Cl. 13.
560,739. NITE-WICK. Cl. 18.
560,740. AMERI-GLAS. Cl. 50.
560,741. MOLDAIRE. Cl. 13.
560,743. NEALCO-MONSANTO. Cl. 6.
560,749. LUCKY CLOVER. Cl. 8.
560,750. HY-LINE. Cl. 18.
560,755. LONDON FLEXIBLE. Cl. 39.
560,758. D–C TABS NO. 1. Cl. 6.
560,763. DUTROL. Cl. 18.
560,764. MACKIE'S ST. TAMMANY PINE OIL AND DESIGN. Cl. 18.
560,776. CUSH.N.FOAM AVONITE. Cl. 39.
560,780. TELE-QUE. Cl. 38.
560,782. ADCHROME. Cl. 37.
560,788. ANAROXYL. Cl. 18.
560,787. ROLLER DERBY. Cl. 30.
560,790. SPORTBEAU. Cl. 39.
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560,801. LO-CID. Cl. 18.
560,805. THE NORTHWEST PAPER CO. MANUFACTURERS SINCE 1898 AND DESIGN. Cl. 37.
560,808. SWICK WITHIN DIAMOND DESIGN. Cl. 6.
560,810. EXACTOES AND DESIGN. Cl. 39.
560,814. STOK.N.LAST AND DESIGN. Cl. 6.
560,817. PACIFIC PRONTO. Cl. 6.
560,818. NEUROLENE AND DESIGN. Cl. 18.
560,819. ALPARKA-DRAPER WARMER. Cl. 39.
560,829. ELROXIN. Cl. 18.
560,831. TEXAS BILLY AND DESIGN. Cl. 39.
560,832. HARLEY EVERFIRM. Cl. 39.
560,839. EVERFIRM. Cl. 39.
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560,875. TOULON. Cl. 39.
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560,878. WHISTON. Cl. 39.
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560,892. FLORICHEM AND DESIGN. Cl. 18.
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560,907. PAMILIZED. Cl. 42.
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560,909. FARMER'S MARKET BULLETIN. Cl. 38.
560,910. MacCRAG. Cl. 39.
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560,934. THE PLASKON MAGAZINE. Cl. 38.
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Acme Pet Products Corp., New York, N. Y. 665,897, pub. 5–27–58. Cl. 8.
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Adirondack Sportswear Inc., Amsterdam, N. Y., to White Stag Mfg. Co., Portland, Oreg. 361,446, ren. 10–15–58. Cl. 39.
Air Engineering, Inc., San Francisco, Calif. 560,739, canc. Cl. 18.
Alaska Visitors Association, Juneau, Alaska. 666,120, pub. 6–3–58. Cl. 200.
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Austin, Nichols & Co., Inc., Brooklyn, to Austin, Nichols & Co. Inc., Maspeth, N. Y. 359,546, ren. 8–23–58. Cl. 47.
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Autoyre Co., The, Chicago, Ill. 665,922, pub. 6–3–58. Cl. 13.
Avon Products, Inc., New York, N. Y. 666,110–11, pub. 6–3–58. Cl. 51.
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Colortone Press: *See*—
Hackl, Alphons J.
Combustion Engineering Co., Inc., to Combustion Engineering, Inc., New York, N. Y. 357,944, ren. 6–21–58. Cl. 23.

Combustion Engineering, Inc.: *See*—
Combustion Engineering Co., Inc.
Compagnie Nationale de Matieres Colornates et Manufactures de Produits Chimiques du Nord reunies Etablissements Kuhlmann, to Manufactures de Produits Chimiques du Nord "Etablissements Kuhlmann", Paris, France. 349,183, ren. 8–24–57. Cl. 6.
Comptoir de l'Industrie Cotonnierre, Etablissements Boussac, Societe a Responsabilite Limitee, Paris, France. 666,045, pub. 6–3–58. Cl. 39.
Confino, Albert, New York, N. Y. 560,915, canc. Cl. 39.
Consolidated Safety Pin Co., Bloomfield, N. J., to The Risdon Mfg. Co., Naugatuck, Conn. 122,193, ren. 7–0–58. Cl. 40.
Consolidated Safety Pin Co., Bloomfield, N. J., to The Risdon Mfg. Co., Naugatuck, Conn. 123,428, ren. 11–12–58. Cl. 40.
Continental Can Co., Inc., New York, N. Y. 665,896, pub. 6–3–58. Cl. 2.
Corning Glass Works, Corning, N. Y. 665,879, pub. 5–20–58. Cl. 1.
Craddock Terry Co., to Craddock-Terry Shoe Corp., Lynchburg, Va. 362,192, ren. 11–15–58. Cl. 39.
Craddock-Terry Shoe Corp.: *See*—
Craddock Terry Co.
Crompton Co., New York, N. Y. 666,067, pub. 6–3–58. Cl. 42.
Crompton Co., West Warwick, R. I., to Crompton Co., New York, N. Y. 361,524, ren. 10–18–58. Cl. 42.
Crosbie's Pure Food Co. Ltd., Bradley, Lincolnshire, England. 666,095, pub. 6–3–58. Cl. 46.
Crossett Co., The, Crossett, Ark. 666,024, pub. 6–3–58. Cl. 37.
Cushionized-Bellaire Shoe Co., Portland, Maine. 666,043, pub. 6–3–58. Cl. 39.
Custom-Made Paper Bag Co., Inc., Long Island City, N. Y. 666,126. Cl. 37.
DCA Food Industries Inc., New York, N. Y. 666,084, pub. 6–3–58. Cl. 46.
Danvers Shoe Co., Inc., Manchester, N. H. 666,062, pub. 6–3–58. Cl. 39.
Dean Cut-Rate Floor Covering Co., Inc., Newark, N. J. 665,981, pub. 6–3–58. Cl. 23.
Delightform Foundations, Inc., Easton, Pa. 560,793, canc. Cl. 39.
DeLuxe Saw and Tool Co., Louisville, Ky. 665,984, pub. 6–3–58. Cl. 23.
Design Engineers, Rockford, Ill. 666,016, pub. 6–3–58. Cl. 34.
Detroit Free Press, Detroit, Mich. 358,877, ren. 7–26–58. Cl. 38.
Dictograph Products Co., Inc., New York, N. Y. 357,421, ren. 6–7–58. Cl. 21.
Disease Prevention Research Foundation, Inc., Chicago, Ill. 665,934, pub. 6–3–58. Cl. 18.
Dixon Corp., Bristol, R. I. 665,976, pub. 6–3–58. Cl. 23.
Dole Refrigerating Co., Chicago, Ill. 666,012, pub. 6–3–58. Cl. 31.
Dominion Dry Co.: *See*—
Farrell, M. M., & Sons.
Donath, Ernest, Inc., Boston, Mass. 666,058, pub. 6–3–58. Cl. 39.
Doniger, Arthur, Paper Co., Inc., New York, N. Y. 560,949, canc. Cl. 37.
Double H Ranch, Gibson, Ga. 665,887, pub. 6–3–58. Cl. 1.
Draper Brothers Co., Canton, Mass. 560,819, canc. Cl. 39.
Dresser Industries, Inc., Dallas, Tex. 665,972, pub. 5–20–58. Cl. 23, 26, and 34.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 123,110, ren. 10–15–58. Cl. 16.
Eberhard Faber Pencil Co., Wilkes-Barre, Pa. 666,030, pub. 6–3–58. Cl. 37.
Edwards, Pauline L., Upper Darby, Pa. 560,790, canc. Cl. 39.
Einiger Mills, Inc., New York, N. Y. 666,069, pub. 6–3–58. Cl. 42.
Electro Silv-A-King Corp., Chicago, Ill. 665,962, pub. 6–3–58. Cl. 21.
Electroacustic G. m. b. H., Kiel, Germany. 665,999, pub. 6–3–58. Cl. 26.
Elgin American, Inc., Elgin, Ill. 665,805–6, pub. 6–3–58. Cl. 8.
Elmore and Stahl, Pharr, Tex. 666,100, pub. 6–3–58. Cl. 46.
Emery Food Co.: *See*—
Hammond, G. H., Co., The.
Empire Pharmacal Co.: *See*—
Pfeiffer, S., Mfg. Co.
Endeveo Corp., Pasadena, Calif. 666,004, pub. 6–3–58. Cl. 26.
Eskimo Pie Corp., Richmond, Va. 666,085, pub. 6–3–58. Cl. 46.
Eskimo Pie Corp., Richmond, Va. 666,130. Cl. 46.
Executive Television Corp., The, Danbury, Conn. 560,808, canc. Cl. 6.
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 665,941, pub. 4–29–58. Cl. 18.
Farmer's Market Bulletin, Inc.: *See*—
Wolfe, Jack S.
Farrell, L. E., Co., Inc.: *See*—
Farrell, M. M., & Sons.
Farrell, M. M., & Sons, d. b. a. Dominion Dry Co., to L. E. Farrell Co., Inc., d. b. a. Dominion Dry Co., Burlington, Vt. 359,760, ren. 8–30–58. Cl. 45.
Fibreboard Paper Products Corp., San Francisco, Calif. 665,894, pub. 6–3–58. Cl. 2.
Fine Arts Litho Co., Dallas, Tex. 560,782, canc. Cl. 37.
Fleer, Frank H., Corp., Philadelphia, Pa. 666,128. Cl. 46.
Flint, Eaton & Co., Decatur, Ill. 665,949, pub. 6–3–58. Cl. 18.
Flonette Products Co., New York, N. Y. 560,721, canc. Cl. 51.
Florida Chemical Industries, Inc., Ocala, Fla. 560,892, canc. Cl. 18.
Foote Mineral Co., Philadelphia, Pa. 665,881, pub. 6–3–58. Cl. 1.
Forbes, Jas. H., Tea and Coffee Corp., St. Louis, Mo. 666,080, pub. 6–3–58. Cl. 46.
Formfit Co., The, Chicago, Ill. 666,054, pub. 6–3–58. Cl. 39.
Frank, Morrell, Brooklyn, N. Y. 665,884, pub. 6–3–58. Cl. 1.
Freydberg, Eric A., d. b. a. United States Flint Packers, New York, N. Y. 560,749, canc. Cl. 8.
Friesche Coöperatieve Zuivel-Export Vereeniging, Kortheidshalve Frico, Leeuwarden, Netherlands. 361,433, ren. 10–18–58. Cl. 1.
Friesche Coöperatieve Zuivel-Export Vereeniging, Kortheidshalve Frico, Leeuwarden, Netherlands. 361,434, ren. 10–18–58. Cl. 46.
Gaddy, Robert L., Tallahasse, Fla. 665,939, pub. 6–3–58. Cl. 18.
Gallun, A. F., & Sons Corp., Milwaukee, Wis. 665,888, pub. 6–3–58. Cl. 1.
Gamble-Skogmo, Inc., Minneapolis, Minn. 560,911, canc. Cl. 39.
Gane's Chemical Works, Inc., New York, N. Y. 665,944, pub. 6–3–58. Cl. 18.
Garden City Plating & Mfg. Co., Chicago, Ill. 370,718, canc. Cl. 34.
Geigy Chemical Corp., Ardsley, N. Y. 665,931, pub. 6–3–58. Cl. 18.
Geigy Chemical Corp., Ardsley, N. Y. 665,945, pub. 6–3–58. Cl. 18.
General Aniline & Film Corp., New York and Binghamton, N. Y. 561,009, canc. Cl. 6.
General Electric Co., Schenectady, N. Y. 665,952, pub. 6–3–58. Cl. 21.
General Tire & Rubber Co., The, Akron, Ohio. 665,889, pub. 6–3–58. Cl. 1.
General Tire & Rubber Co., The, Akron, Ohio. 666,107, pub. 6–3–58. Cl. 50.
Geolograph Co., The, Oklahoma City, Okla. 665,991, pub. 6–3–58. Cl. 26.
Gerda Footwear Co., Inc., New York, N. Y. 560,831, canc. Cl. 39.
Gilbey, W. & A., Ltd., London, England. 666,106, pub. 6–3–58. Cl. 49.
Gillette Co., The: *See*—
Gillette Safety Razor Co.
Gillette Safety Razor Co., to The Gillette Co., Boston, Mass. 357,683. Am. 7(d). Cl. 51.
Globe Ticket Co., Philadelphia, Pa. 666,027, pub. 6–3–58. Cl. 37.
Glucksman, Harold, Brooklyn, N. Y. 560,810, canc. Cl. 29.
Goldsmith Bros., New York, N. Y. 358,660, ren. 7–26–58. Cl. 37.
Goodman & Theise, Inc., New York, N. Y. 560,999, canc. Cl. 42.
Goodrich, B. F., Co., The: *See*—
American Anode Inc.
Gordon-Allen Co., Quincy, Mass. 666,076, pub. 6–3–58. Cl. 46.
Goshen Mfg. Co., The, Goshen, Ind. 358,690, ren. 7–19–58. Cl. 32.
Grand Union Co., The, East Paterson, N. J. 666,060, pub. 6–3–58. Cl. 39.
Gray Pharmaceutical Co., Inc., Dovel, Del., from Madison Pharmaceutical Laboratories, Inc., New York, N. Y. 665,930, pub. 6–3–58. Cl. 18.
Great Atlantic and Pacific Tea Co., The, New York, N. Y. 560,872, canc. Cl. 46.
Greene Trading Co., Inc.: *See*—
Pyrethrum Board of Kenya.
Gregory, L. O., Engineering, Memphis, Tenn. 665,982, pub. 6–3–58. Cl. 23.
Grill, Roy M., Harlingen, Tex. 665,959, pub. 6–3–58. Cl. 21.
Grossmann, Irving E., d. b. a. I. E. G. Associates, Los Angeles, Calif. 666,050, pub. 6–3–58. Cl. 39.
Gulf Oil Corp., Pittsburgh, Pa. 665,926, pub. 6–3–58. Cl. 15.
Hack, George O.: *See*—
Snap-Trac Corp., The.
Hacki, Alphons J., d. b. a. Colortone Press, Washington, D. C. 666,022, pub. 6–3–58. Cl. 37.
Haller, Karl, d. b. a. Karl Haller & Son, Los Angeles, Calif. 666,129. Cl. 46.
Haller, Karl, & Son: *See*—
Haller, Karl.
Hammond, G. H., Co., The, to Emery Food Co., Chicago, Ill. 122,472, ren. 8–20–58. Cl. 46.
Hartman, Edward W., d. b. a. Bee Tree Apiaries, Raytown, Mo. 666,103, pub. 6–3–58. Cl. 46.
Harvey, Albert J., d. b. a. Harvey Engraving Co., Detroit, Mich. 665,975, pub. 6–3–58. Cl. 23.
Harvey Engraving Co.: *See*—
Harvey, Albert J.
Harvey, G. F., Co., Inc., The, from The G. F. Harvey Co., Saratoga Springs, N. Y. 665,932, pub. 6–3–58. Cl. 18.
Harvey, G. F., Co., The: *See*—
Harvey, G. F., Co., Inc., The.
Haviland, Arnold, d. b. a. Arnold Haviland Co., Defiance, Ohio. 665,977, pub. 6–3–58. Cl. 23.
Haviland, Arnold, Co.: *See*—
Haviland, Arnold.
Hayward, Clarence F., d. b. a. Morrison Mfg. Co., Lowell, Mass. 666,122. Cl. 13.
Health-Aids: *See*—
Newton, Harry A.
Hearst Corp., The, New York, N. Y. 560,961, canc. Cl. 38.
Heaven Hill Distilleries, Inc.: *See*—
Old Heaven Hill Springs Distillery, Inc.
Heller, Richard A., New York, N. Y. 666,040, pub. 6–3–58. Cl. 39.
Hermsen, Paul J., Omaha, Nebr. 560,895, canc. Cl. 18.
Herold Products Co., Inc., Chicago, Ill. 66,002, pub. 6–3–58. Cl. 26.

Het Godische Schrijfamachinehuis & Handelsonderneming "Beka": *See*—
Kerk, Bernhard.
Heublein, G. F., & Bro.: *See*—
Heublein, Inc.
Heublein, Inc., d. b. a. G. F. Heublein & Bro., Hartford, Conn. 666,131. Cl. 49.
Higginbotham, Robert, Decatur, Ill. 561,017, canc. Cl. 13.
Histamist Corp., The, Chicago, Ill. 560,800, canc. Cl. 18.
Hoffman, J. S., Co., Inc.: *See*—
Robinson, Oskar.
Hoffman, Phillip, d. b. a. Walton Liquor Imports, Ltd., Jersey City, N. J. 666,105, pub. 6–3–58. Cl. 49.
Holophane Co., Inc., New York, N. Y. 666,018, pub. 6–3–58. Cl. 34.
Home-Port Products Co.: *See*—
More, Alexander P.
Hunter-Wilson Distilling Co., Inc.: *See*—
Wilson Distilling Co, Inc.
Hupp Corp., Cleveland, Ohio. 561,011, canc. Cl. 31.
Husqvarna Vapenfabriks Aktiebolag, Huskvarna, Sweden. 665,983, pub. 6–3–58. Cl. 23.
Huyck, F. C., & Sons, Albany, N. Y. 362,550, ren. 11–22–58. Cl. 42.
Hyper-Humus Co., Bryn Mawr, Pa. 665,910, pub. 6–3–58. Cl. 10.
I. E. G. Associates: *See*—
Grossmann, Irving E.
Idaho Bartile Co.: *See*—
National Ro Tile Corp.
Independent Battery Manufacturers of America, Akron, Ohio. 666,121, pub. 6–3–58. Cl. A.
Indiana Merchandising Co., Inc., Indianapolis, Ind. 666,063, pub. 6–3–58. Cl. 39.
Ino Merchandise Co., San Francisco, Calif. 666,059, pub. 6–3–58. Cl. 39.
Instrument Development Laboratories, Inc., Attleboro, Mass. 665,996, pub. 6–3–58. Cl. 26.
Istituto Farmaco-Biologico Raffaello Pagni, Firenze, Italy. 561,006, canc. Cl. 18.
J & L Steel Barrel Co., New York, N. Y. 560,925, canc. Cl. 24.
Jacques Wolf & Co., Clifton, N. J. 361,263, ren. 10–11–58. Cl. 6.
Janik, Walter, d. b. a. The Johnnie Ryan Co., Niagara Falls, N. Y. 666,073, pub. 6–3–58. Cl. 45.
Jensen Industries, Inc., Forest Park, Ill. 666,035, pub. 6–3–58. Cl. 38.
John Sunshine Chemical Co., Inc Chicago, Ill. 361,209, ren 10–11–58. Cl. 52.
Joyce, Inc., Cincinnati, Ohio. 666,046, pub. 6–3–58. Cl. 39.
Just So, Inc., Watertown, Wis. 666,092, pub. 6–3–58. Cl. 46.
Kabushiki-Kaisha Koden Seisakusho, Shinagawa-ku, Tokyo, Japan. 665,986, pub. 11–27–56. Cl. 26.
Kelly Co., The, Cleveland, Ohio. 560,704, canc. Cl. 46.
Kerk, Bernhard, d. b. a. Het Godische Schrijfmachinehuis & Handelsonderneming "Beka", Hilversum, Netherlands. 560,990, canc. Cl. 18.
Knomark Mfg. Co., Inc., Brooklyn, N. Y. 665,898, pub. 6–3–58. Cl. 4.
Kochton Plywood & Veneer Co., Inc., d. b. a. Kochton Plywood and Veneer Co., Inc., Chicago, Ill. 665,914, pub. 6–3–58. Cl. 12.
Koh-I-Noor Pencil Co., Inc., Bloomsbury, N. J. 665,998, pub. 6–3–58. Cl. 26.
Kosher Star Sausage Mfg. Co., Chicago, Ill. 666,074, pub. 6–3–58. Cl. 46.
Kresge Department Store, Newark: *See*—
Kresge, Sebastian S.
Kresge-Newark, Inc.: *See*—
Kresge, Sebastian S.
Kresge, Sebastian S., d. b. a. Kresge Department Store, Newark, Newark, N. J., and elsewhere, from Kresge Department Store, Newark, to Kresge-Newark, Inc., Newark, N. J., 357,482, ren. 6–7–58. Cl. 37.
Kress, S. H., and Co., New York, N. Y. 560,958, canc. Cl. 37.
Kuppenheimer, B., and Co. Inc., Chicago, Ill. 560,910, canc. Cl. 39.
Laitner, A., & Sons, to Laitner Brush Co., Detroit, Mich. 122,715, ren. 9–10–58. Cl. 29.
Laitner Brush Co.: *See*—
Laitner, A., & Sons.
Latis-Lyt, Inc., Culver City, Calif. 560,792, canc. Cl. 42.
Laundry Workers' International Union, Chicago, Ill. 666,118, pub. 2–4–58. Cl. 200.
Lee, Frank H., Co., The, Danbury, Conn. 560,718, canc. Cl. 39.
Lehman Bros., Cleveland, Ohio. 666,098, pub. 6–3–58. Cl. 46.
Lehn & Fink Products Corp., Bloomfield, N. J. 665,929, pub. 7–26–55. Cl. 18.
Leigh, Ethel T., d. b. a. The Traphagen School of Fashion, New York, N. Y. 357,506, ren. 6–7–58. Cl. 38.
Leitz, E., Inc., New York, N. Y. 665,989, pub. 6–3–58. Cl. 26.
Levy Brothers Dry Goods Co., Houston, Tex. 560,908, canc. Cl. 42.
Lewel Mfg. Co., Inc., to Lewel Mfg. Co., Inc., New York, N. Y. 355,186, ren. 3–8–58. Cl. 39.
Lexington Mfg. Co., Lexington, N. C. 560,900, canc. Cl. 39.
Libbey-Owens-Ford Glass Co., Toledo, Ohio. 560,934, canc. Cl. 38.
Lids Brothers, Inc., New York, N. Y. 666,066, pub. 6–3–58. Cl. 40.
Live Food Products Co.: *See*—
Bragg, Paul C.
Lux Clock Mfg. Co., The, Waterbury, Conn. 666,007, pub. 11–20–56. Cl. 27.
M. K. M. Knitting Mills, Inc., Manchester, N. H. 666,061, pub. 6–3–58. Cl. 39.
Mackie, H. A., and J. Harry Warner, Jr., Covington, La. 560,764, canc. Cl. 18.
Madison Pharmaceutical Laboratories, Inc.: *See*—
Gray Pharmaceutical Co., Inc.
Manufactures de Produits Chimiques du Nord "Etablissements Kuhlmann": *See*—
Compagnie Nationale de Matieres Colornates et M Manufactures de Produits Chimiques du Nord reunies Etablissements Kuhlmann.
Markwell Mfg. Co., Inc., New York, N. Y. 283,857, canc. Cl. 23.
Marley Co., The, Kansas City, Mo. 666,011, pub. 6–3–58. Cl. 31.
Masury-Young Co., Boston, Mass. 665,918, pub. 6–3–58. Cl. 12.
May Department Stores Co., The, St. Louis, Mo. 357,536, ren. 6–7–58. Cl. 39.
McCord, Robert S., North Little Rock, Ark. 560,931, canc. Cl. 38.
McDevitt, Betty R.: *See*—
McDevitt, Ruth E.
McDevitt, Ruth E., also d. b. a. Betty Ruth McDevitt, Silver Spring, Md. 560,883, canc. Cl. 38.
McDonald, Emmett M., Enterprises: *See*—
McDonald, Helene.
McDonald, Helene, d. b. a. Emmett M. McDonald Enterprises, Chicago, Ill. 666,031, pub. 6–3–58. Cl. 37.
McGraw-Hill Publishing Co., Inc., New York, N. Y. 560,978, canc. Cl. 38.
McGraw-Hill Publishing Co., Inc., New York, N. Y. 560,979, canc. Cl. 38.
McGraw-Hill Publishing Co., Inc., New York, N. Y. 560,984, canc. Cl. 38.
McHutchison & Co., Ridgefield, N. J. 665,890, pub. 6–3–58. Cl. 1.
McIntosh, J. J., Co.: *See*—
McIntosh, Joseph J.
McIntosh, Joseph J., d. b. a. J. J. McIntosh Co., Carlisle, Pa. 666,132. Cl. 50.
Menasha Wooden Ware Corp., Menasha, Wis. 666,028, pub. 6–3–58. Cl. 37.
Merck & Co., Inc., Rahway, N. J. 665,948, pub. 6–3–58. Cl. 18.
Messer Laboratories: *See*—
Messer, Ralph L.
Messer, Ralph L., d. b. a. Messer Laboratories, Kansas City, Kans. 665,938, pub. 6–3–58. Cl. 18.
Metabolic Products Corp., Boston, Mass. 665,946, pub. 6–3–58. Cl. 18.
Mexico Refractories Co., Mexico, Mo. 665,916, pub. 6–3–58. Cl. 12.
Mill Creek Products, Inc., Kansas City, Mo. 560,756, canc. Cl. 6.
Milwaukee Lace Paper Co., Milwaukee, Wis. 666,032, pub. 6–3–58. Cl. 37.
Mine Safety Appliances Co., Pittsburgh, Pa. 666,047, pub. 6–3–58. Cl. 39.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 665,996–7, pub. 6–3–58. Cl. 26.
Mock Seed Co., Pittsburgh, Pa. 665,909, pub. 6–3–58. Cl. 10.
Mohini Footwear Co.: *See*—
Singh, Rajinder.
Monsanto Chemical Co., St. Louis, Mo. 560,743, canc. Cl. 6.
Monsanto Chemical Co., St. Louis, Mo. 665,902, pub. 8–13–57. Cl. 6.
Montenier, Jules, Inc., Chicago, Ill. 560,718, canc. Cl. 51.
More, Alexander P., d. b. a. Home-Port Products Co., Staten Island, N. Y. 665,971, pub. 6–3–58. Cl. 22.
Morrell, Frank, Brooklyn, N. Y. 665,884, pub. 6–3–58. Cl. 1.
Morrison Mfg. Co.: *See*—
Hayward, Clarence F.
Motor Parts Depot, San Antonio, Tex. 665,976, pub. 6–3–58. Cl. 28.
Moxley, Wm. J., Inc., Chicago, Ill., to The Capital City Products Co., Columbus, Ohio. 122,730, ren. 9–10–58. Cl. 46.
Murray Co. of Texas, Inc., The, d. b. a. Boston Gear Works, Division of The Murray Co. of Texas, Inc., North Quincy, Mass. 665,979, pub. 6–3–58. Cl. 28.
Nalley's, Inc., Tacoma, Wash. 666,096, pub. 6–3–58. Cl. 46.
National Association Legions of Honor Ancient Arabic Order of Nobles of the Mystic Shrine, Miami, Fla. 666,119, pub. 6–3–58. Cl. 200.
National Cash Register Co., The, Dayton, Ohio. 665,995, pub. 6–3–58. Cl. 26.
National Cooperatives, Inc.: *See*—
National Co-Operatives, Inc.
National Co-Operatives, Inc., Indianapolis, Ind., to National Cooperatives, Inc., Albert Lea, Minn. 361,160, ren. 10–11–58. Cl. 31.
National Disinfectant Co., Dallas, Tex. 666,113, pub. 6–3–58. Cl. 52.
National Ro-Tile Corp., by change of name from Idaho Bartile Co., Boise, Idaho. 665,913, pub. 6–3–58. Cl. 12.
National Silver Co., New York, N. Y. 561,012, canc. Cl. 13.
National Tank Co., Tulsa, Okla. 665,990, pub. 6–3–58. Cl. 26.
Natvar Corp., Woodbridge, N. J. 665,967, pub. 6–3–58. Cl. 21.
Neurolene Corp., New York, N. Y. 560,818, canc. Cl. 18.
Newton, Harry A., d. b. a. Health-Aids, New York, N. Y. 665,936, pub. 6–3–58. Cl. 18.
New York Merchandise Co., Inc., New York, N. Y. 666,041, pub. 6–3–58. Cl. 39.
North Star Woolen Mill Co., Sanford, Maine. 120,773, ren. 3–5–58. Cl. 42.
Northam Trading Co., Inc., New York, N. Y. 666,090, pub. 6–3–58. Cl. 46.
Northwest Paper Co., The, Cloquet, Minn. 560,805, canc. Cl. 37.

Norton Co., Troy, N. Y. 665,900, pub. 6–3–58. Cl. 4.
Nu-Dell Plastics Corp., Chicago, Ill. 666,042, pub. 6–3–58. Cl. 39.
Nutrition Products Co.: *See*—
Okin, Milton.
Ogden Huddle, Inc., Chicago, Ill. 665,928, pub. 6–3–58. Cl. 17.
Okin, Milton, d. b. a. Nutrition Products Co., Yonkers, N. Y. 666,123. Cl. 18.
Old Heaven Hill Springs Distillery, Inc., to Heaven Hill Distilleries, Inc., Bardstown, Ky. 355,451, ren. 3–15–58. Cl. 49.
Onan, D. W., & Sons Inc., Minneapolis, Minn. 665,953, pub. 6–3–58. Cl. 21.
Orefraction Inc., Pittsburgh, Pa. 665,878, pub. 9–17–57. Cl. 1.
Ortex S. A., Geneva, Switzerland. 665,966, pub. 6–3–58. Cl. 21.
Osceola Foods, Inc., Osceola, Ark. 666,081, pub. 6–3–58. Cl. 46.
O'Shanter, Tam, Inc., Manchester, N. H. 666,036, pub. 6–3–58. Cl. 39.
Pacific Electro-Nuclear Co.: *See*—
Byington, Preston W.
Pacific Mills, Boston, Mass., and New York, N. Y. 560,907, canc. Cl. 42.
Palmetto Quarries Co., Columbia, S. C. 665,911, pub. 6–3–58. Cl. 12.
Para-Chem, Inc., Philadelphia, Pa. 665,903–4, pub. 6–3–58. Cl. 6.
Parfums Evyan Inc., New York, N. Y. 666,112, pub. 6–3–58. Cl. 51.
Parker Pen Co., The, Janesville, Wis. 666,023, pub. 6–3–58. Cl. 37.
Parker-Shields Mfg. Co.: *See*—
Shields, Garry H.
Pasco Products, Inc., Forest, Miss. 665,942, pub. 6–3–58. Cl. 18.
Perlon-Warenzeichenverband E. V., Frankfurt (Main), Germany. 665,877, pub. 1–28–58. Cl. 1.
Permacrease Corp., New York, N. Y. 560,943, canc. Cl. 6.
Pertform Brassiere Co., Inc., Bayonne, N. J. 666,064, pub. 6–3–58. Cl. 39.
Pfeiffer, S., Mfg. Co., d. b. a. Empire Pharmacal Co., St. Louis, Mo. 560,917, canc. Cl. 18.
Phillips-Jones Corp., New York, N. Y. 560,755, canc. Cl. 39.
Pinkham, Lydia E., Medicine Co., Lynn, Mass. 560,763, canc. Cl. 18.
Pioneer Hi-Bred Corn Co., Des Moines, Iowa. 560,750, canc. Cl. 18.
Pistol, A. W., Inc., New Rochelle, N. Y. 666,017, pub. 6–3–58. Cl. 34.
P-Kay Products Co., The: *See*—
Plate Kleen Products Co., The.
Plate Kleen Products Co., The, to The P-Kay Products Co., Dayton, Ohio. 358,568, ren. 7–19–58. Cl. 51.
Precision Building System, Inc., East Canton, Ohio. 665,917, pub. 6–3–58. Cl. 12.
President and Fellows of Harvard College, Cambridge, Mass. 666,034, pub. 6–3–58. Cl. 38.
Princess Peggy, Inc., Peoria, Ill. 666,048, pub. 6–3–58. Cl. 39.
Procter & Gamble Co., The, Cincinnati, Ohio. 666,087–8, pub. 6–3–58. Cl. 46.
Procter & Gamble Co., The, Cincinnati, Ohio. 666,089, pub. 6–3–58. Cl. 46.
Proko Co., The, Dallas, Tex. 665,927, pub. 6–3–58. Cl. 16.
Provident Tradesmens Bank and Trust Co., Philadelphia, Pa. 666,116–17, pub. 6–3–58. Cl. 102.
Publix Shirt Corp., New York, N. Y. 560,832, canc. Cl. 39.
Publix Shirt Corp., New York, N. Y. 560,839, canc. Cl. 39.
Pyrethrum Board of Kenya, Nakuru, Kenya Colony, Africa, from Greene Trading Co., Inc., New York, N. Y. 665,880, pub. 5–6–58. Cl. 1.
Quick-Set, Inc., Skokie, Ill. 666,006, pub. 6–3–58. Cl. 26.
RCA Mfg. Co., Inc., Camden, N. J., to Radio Corp. of America, New York, N. Y. 361,053, ren. 10–4–58. Cl. 21.
Radio Corp. of America: *See*—
RCA Mfg. Co., Inc.
Raichert, Ed., Inc., Chicago, Ill. 665,980, pub. 6–3–58. Cl. 23.
Raimond Inc., Malden, Mass. 666,008, pub. 6–3–58. Cl. 28.
Ratigan Electronics, Inc., Los Angeles, Calif. 665,954, pub. 6–3–58. Cl. 21.
Ratigan Electronics, Inc., Los Angeles, Calif. 665,955, pub. 6–3–58. Cl. 21.
Ratigan Electronics, Inc., Los Angeles, Calif. 665,956, pub. 6–3–58. Cl. 21.
Reeves, B. M., Co., Inc., Brooklyn, N. Y. 666,093, pub. 6–3–58. Cl. 46.
Richter Brothers, Inc., New York, N. Y. 666,091, pub. 6–3–58. Cl. 46.
Ridd Laboratories, Inc., Edmonds, Wash. 560,716, canc. Cl. 18.
Riedon Mfg. Co., The: *See*—
Consolidated Safety Pin Co.
Roberts, Maurice M., d. b. a. Romer Associates, Detroit, Mich. 560,889, canc. Cl. 18.
Robinson Clay Products Co., The, Akron, Ohio. 665,919, pub. 6–3–58. Cl. 12.
Robinson, Oskar, Warsaw, Poland, to J. S. Hoffman Co., Inc., New York, N. Y. 362,143, ren. 11–15–58. Cl. 46.
Roller Derby Associates, Chicago, Ill. 560,787, canc. Cl. 39.
Romer Associates: *See*—
Roberts, Maurice M.
Roosen, Johannes P., d. b. a. John P. Roosen Junior, Liese, Holland. 665,882, pub. 4–22–58. Cl. 1.
Roosen, John P., Junior: *See*—
Roosen, Johannes P.
Rossi, Bruno, d. b. a. Ditta Pietro Rossi di Bruno Rossi, Florence, Italy. 665,899, pub. 6–3–58. Cl. 4.
Rossi, Ditta Pietro, di Bruno Rossi: *See*—
Rossi, Bruno.
Rudofker's, S., Sons, to S. Rudofker's Sons, Inc., Philadelphia, Pa. 362,116, ren. 11–15–58. Cl. 39.
Rudofker's, S., Sons, Inc.: *See*—
Rudofker's, S., Sons.
Rueping, Fred, Leather Co., Fond du Lac, Wis. 123,279, ren. 10–22–58. Cl. 1.
Ryan, Johnnie, Co., The: *See*—
Janik, Walter.
Ryan Recording Thermometer Co., Seattle, Wash. 665,992, pub. 6–3–58. Cl. 26.
S S Artist Materials Inc.: *See*—
S S Rubber Cement Co.
S S Rubber Cement Co., to S S Artist Materials Inc., Chicago, Ill. 347,262, ren. 6–22–57. Cl. 5.
Sackman Brothers Co., New York, N. Y., to Sackman Brothers Co., Telford, Pa. 358,501, ren. 7–19–58. Cl. 39.
Safetee Glass Co., Philadelphia, Pa. 666,015, pub. 6–3–58. Cl. 33.
Safeway Stores, Inc.: *See*—
Western States Grocery Co.
Safeway Stores, Inc., Oakland, Calif. 666,078, pub. 6–3–58. Cl. 46.
Salinas Valley Vegetable Exchange, Salinas, Calif. 666,101, pub. 6–3–58. Cl. 46.
Salvatore Cascrtano, Waterbury, Conn. 666,097, pub. 6–3–58. Cl. 46.
Schering Corp., Bloomfield, N. J. 560,798, canc. Cl. 18.
Schoeneman, J., Inc., Baltimore, Md. 666,044, pub. 5–6–58. Cl. 39.
Schumacher, Hans H., d. b. a. Bee Line Honey Co., Alhambra, Calif. 359,173, ren. 8–9–58. Cl. 46.
Scovill Mfg. Co., Waterbury, Conn. 665,924, pub. 6–3–58. Cl. 14.
Seagram, Joseph E., & Sons, Inc., New York, N. Y. 665,935, pub. 6–3–58. Cl. 18.
Servit Foods Corp., New York, N. Y. 561,016, canc. Cl. 45.
Serwer, Harry, New York, N. Y. 666,009, pub. 6–3–58. Cl. 29.
Shandex (Edinburgh) Ltd., Perth, Scotland. 666,070–2, pub. 6–3–58. Cl. 45.
Shaw, Henry W., d. b. a. Sound-Craft Systems, Pittsburgh, Pa. 665,957, pub. 6–3–58. Cl. 21.
Sheffield Hosiery Mills, Inc., New York, N. Y. 666,049, pub. 6–3–58. Cl. 39.
Shepherd, N. T., Chair Co., Salt Lake City, Utah. 561,014, canc. Cl. 18.
Shields, Garry H., d. b. a. Parker-Shields Mfg. Co., Portland, Oreg. 560,963, canc. Cl. 18.
Silver Bear, Inc., Atlanta, Ga. 666,127. Cl. 37.
Simpson, Wm., Sons & Co., Inc., New York, N. Y. 122,750, ren. 9–10–58. Cl. 42.
Singh, Rajinder, d. b. a. Mohini Footwear Co., New York, N. Y. 666,055, pub. 6–3–58. Cl. 39.
Sioux Honey Association, Cooperative, Sioux City, Iowa. 361,839, ren. 11–1–58. Cl. 46.
Skik-Shav Inc., Detroit, Mich. 560,849, canc. Cl. 50.
Smith, J. & B., Co., Inc., The, Atlanta, Ga. 665,895, pub. 6–3–58. Cl. 2.
Smith, Kline & French Laboratories, Philadelphia, Pa. 560,829, canc. Cl. 18.
Smith, Kline & French Laboratories, Philadelphia, Pa. 560,904, canc. Cl. 18.
Smith, Leslie A., d. b. a. Veterans Trading Post, Bloomington, Ill. 666,102, pub. 6–3–58. Cl. 46.
Snapout Forms Co., The, Chardon, Ohio. 666,025, pub. 6–3–58. Cl. 37.
Snap-Trac Corp., The, Bedford, to G. O. Hack, Hudson, Ohio. 560,736, canc. Cl. 18.
Societe Anonyme Andre Citroen, Paris, France. 665,950, pub. 5–13–58. Cl. 19.
Societe Anonyme Dite: Messier, Paris, France. 666,005, pub. 6–3–58. Cl. 26.
Societe Belge de l'Azote et des Produits Chimiques du Marly, Liege, Belgium. 560,783, canc. Cl. 18.
Société Chryaa, Fontaines-sur-Soane, France. 358,050, ren. 6–28–58. Cl. 6.
"Sodeco" Societe des Compteurs de Geneve, Geneva, Switzerland. 358,737, ren. 7–26–58. Cl. 26.
Soptra Fabrics, Inc., New York, N. Y. 561,000, canc. Cl. 42.
Sound-Craft Systems: *See*—
Shaw, Henry W.
Southdown Sugars, Inc., New Orleans, La. 666,079, pub. 6–3–58. Cl. 46.
Southern Biscuit Co.: *See*—
Southern Biscuit Co., Inc.
Southern Biscuit Co., Inc., to Southern Biscuit Co. Inc., d. b. a. Southern Biscuit Co., Richmond, Va. 359,795, ren. 8–30–58. Cl. 46.
Sovereign International Corp., New York, N. Y. 560,944, canc. Cl. 42.
Sprout, Waldron & Co., Inc., Muncy, Pa. 665,951, pub. 6–3–58. Cl. 19.
Standard Milling Co., Kansas City, Mo. 665,891–3, pub. 6–3–58. Cl. 1.
Standard Oil Co., The, Cleveland, Ohio. 665,925, pub. 6–3–58. Cl. 15.
Standard Pressed Steel Co., Jenkintown, Pa. 666,018, pub. 6–3–58. Cl. 32.
Star Brush Mfg. Co., Inc., Boston, Mass. 560,720, canc. Cl. 29.
Stein, Macy H., New York, N. Y. 666,033, pub. 6–3–58. Cl. 38.
Stern, Edward, and Co., Inc., Philadelphia, Pa. 361,450, ren. 10–18–58. Cl. 38.

Stern, Merritt Co. Inc., New York, N. Y. 560,875, canc. Cl. 39.
Stern, Merritt Co. Inc., New York, N. Y. 560,876, canc. Cl. 39.
Stern, Merritt Co. Inc., New York, N. Y. 560,877, canc. Cl. 39.
Stern, Merritt Co, Inc., New York, N. Y. 560,878, canc. Cl. 39.
Stetson, John B., Co., Philadelphia, Pa. 358,768, ren. 7–26–58. Cl. 39.
Stevens, J. P., & Co., Inc., New York, N. Y. 666,066, pub. 6–3–58. Cl. 42.
Strathmore Paper Co., West Springfield, Mass. 357,607, ren. 6–7–58. Cl. 37.
Strong, Cobb and Co., Inc., Cleveland, Ohio. 560,903, canc. Cl. 18.
Sullivan, Carol B., New York, N. Y. 666,056, pub. 6–3–58. Cl. 39.
Summerton Motel & Coffee Shop: *See*—
Summerton Motel Corp.
Summerton Motel Corp., d. b. a. Summerton Motel & Coffee Shop, Summerton, S. C. 666,077, pub. 6–3–58. Cl. 46.
Sunbeam Corp., Chicago, Ill. 665,985, pub. 6–3–58. Cl. 24.
Sun Chemical Corp.: *See*—
Warwick Chemical Co.
Superior Clay Corp., Uhrichsville, Ohio. 665,912, pub. 6–3–58. Cl. 12.
Superior Systems Forms, Inc., Detroit, Mich. 666,020, pub. 6–3–58. Cl. 37.
Swindle, D. W., d. b. a. D. W. Swindle and Sons Co. and The Southwestern Broom Mfg. Co., Nashville, Tenn. 666,010, pub. 6–3–58. Cl. 29.
Swindle, D. W., and Sons Co.: *See*—
Swindle, D. W.
Tennessee Stove Works, Inc., Chattanooga, Tenn. 665,968, pub. 6–3–58. Cl. 21.
Texas Pharmacal Co., San Antonio, Tex. 665,947, pub. 6–3–58. Cl. 18.
Thermo Electric Mfg. Co., Dubuque, Iowa. 666,008, pub. 6–3–58. Cl. 26.
Ehivierge, Oscar N., Yonkers, N. Y., and East Douglas, Mass. 560,719, canc. Cl. 18.
Tigellia Cisco Di Giovanna, Brooklyn, N. Y. 560,922, canc. Cl. 39.
Timely Brands, Inc., Newton, Mass., from J. Amendola, Hamden, Conn. 666,075, pub. 6–20–58. Cl. 46.
Tipper Tie, Inc., Union, N. J. 665,973, pub. 6–3–58. Cl. 23.
Top-Hand Dairies, Inc., Bartlesville, Okla. 666,083, pub. 6–3–58. Cl. 46.
Traphagen School of Fashion, The: *See*—
Leigh, Ethel T.
Triangle Conduit & Cable Co., Inc., New Brunswick, N. J. 665,970, pub. 6–3–58. Cl. 21.
Ty-Sa-Man Machine Co., Knoxville, Tenn. 665,974, pub. 6–3–58. Cl. 23.
Ulmann, Bernhard, Co. Inc., Long Island City, N. Y. 122,951, ren. 10–1–58. Cl. 48.
Underwood: *See*—
Underwood Elliott Fisher Co.
Underwood Elliott Fisher Co., to Underwood, New York, N. Y. 357,469. ren. 6–7–58. Cl. 23.
Union Gear & Sprocket Corp., Quincy, Mass. 666,124. Cl. 23.
United Aircraft Products, Inc., Dayton, Ohio. 560,741, canc. Cl. 13.
United Cement Co., Inc., Montevallo, Ala. 665,883, pub. 6–3–58. Cl. 1.
United Geophysical Corp., Pasadena, Calif. 666,000, pub. 6–3–58. Cl. 26.
United States Flint Packers: *See*—
Freydberg, Eric A.
United States Gypsum Co., Chicago, Ill. 665,901, pub. 12–3–57. Cl. 6.
Universal Overall Co., Chicago, Ill. 666,036, pub. 6–3–58. Cl. 39.
University Loudspeakers, Inc., White Plains, N. Y. 665,960, pub. 6–3–58. Cl. 21.
Upco Co., The, Cleveland, Ohio. 665,920, pub. 6–3–58. Cl. 12.
Varn Products Co. Inc., Flushing, N. Y. 666,133. Cl. 52.
Veterans Trading Post: *See*—
Smith, Leslie A.
Walton Liquor Imports, Ltd.: *See*—
Hoffman, Phillip.
Warner, J. Harry, Jr.: *See*—
Mackie, H. A., and J. Harry Warner, Jr.
Warriner Products Co., Inc., New Orleans, to H. M. Baginsky, liquidator, to L. J. Cobb, St. Francisville, La. 560,685, canc. Cl. 46.
Warwick Chemical Co., West Warwick, R. I., to Sun Chemical Corp., New York, N. Y. 355,826, ren. 4–5–58. Cl. 6.
Warwick Chemical Co., West Warwick, R. I., to Sun Chemical Corp., New York, N. Y. 355,938, ren. 4–5–58. Cl. 6.
Watkins, Wm. B., Co.: *See*—
Watkins, William B.
Watkins, William B., to The Wm. B. Watkins Co., Evanston, Ill. 360,117, ren. 9–6–58. Cl. 13.
Way-Wolff Associates, Inc., New York, N. Y. 665,988, pub. 6–3–58. Cl. 26.
West Virginia Pulp and Paper Co., New York, N. Y. 666,026, pub. 6–3–58. Cl. 37.
Westbrook Industries, Inc., Long Island City, N. Y. 666,089, pub. 6–3–58. Cl. 46.
Western States Grocery Co., Reno, Nev., and Oakland, Calif., to Safeway Stores, Inc., Oakland, Calif. 362,637, ren. 11–22–58. Cl. 46.
White Stag Mfg. Co.: *See*—
Adirondack Sportswear Inc.
White Stag Mfg. Co., Portland, Oreg. 666,052, pub. 6–3–58. Cl. 39.
Wiener, Gerhard, New York, N. Y. 560,851, canc. Cl. 39.
Wilson Distilling Co. Inc., Bristol, Pa., to Hunter-Wilson Distilling Co., Inc., Louisville, Ky. 361,822, ren. 10–11–58. Cl. 49.
Wilson, Walter, Pasadena, Calif. 560,733, canc. Cl. 8.
Winn-Dixie Stores, Inc., Jacksonville, Fla. 666,104, pub. 6–4–58. Cl. 46.
Wolfe, Jack S., Des Moines, Iowa, to Farmer's Market Bulletin, Inc., Highland Park, Ill. 560,909, canc. Cl. 38.
Woodmack Products, Inc., San Jose, Calif. 665,923, pub. 6–3–58. Cl. 13.
Wyandotte Chemicals Corp., Wyandotte, Mich. 560,817, canc. Cl. 6.
Youthcraft Creations, Inc., New York, N. Y. 666,037, pub. 6–3–58. Cl. 39.
Zenith Radio Corp., from Zenith Radio Corp., Chicago, Ill. 665,969, Pub. 5–13–58 and 2–25–58. (Consolidated certificate, Classes 21, 36, and 44.)

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August 26, 1958 Volume 733 Number 4

PATENTS

NOTICES

Erratum

All references to Patent No. 2,846,209 to Helge Ingvar Sjostedt, for Flame Cutting Machines, appearing in the OFFICIAL GAZETTE of August 5, 1958, should be deleted as the application was withdrawn from issue and the patent was not issued.

Disclaimer

2,735,854.—*Milton F. Herr*, Kalamazoo Township, Kalamazoo County, Mich. STEROID COMPOUNDS. Patent dated Feb. 21, 1956. Disclaimer filed July 21, 1958, by the assignee, *The Upjohn Company*.

Hereby enters this disclaimer to claim 2 of said patent.

New Applications Received During June 1958

Patents	6,860
Designs	485
Plant Pats	10
Reissues	17
Total	7,372

Issue

Patents	996	No. 2,848,718 to No.	2,849,713, incl.
Designs	29	No. 183,415 to No.	183,443, incl.
Plant Pats	2	No. 1,744 to No.	1,745, incl.
Reissues	5	No. 24,523 to No.	24,527, incl.
Total	1,032		

CONDITION OF PATENT APPLICATIONS AS OF JUNE 30, 1958

Total number of pending applications (excluding Designs)		207, 166
Total number of pending Design applications		6, 832
Total number of applications awaiting action (excluding Designs)		88, 714
Total number of Design applications awaiting action		3, 312
Date of oldest new application	July	18, 1957
Date of oldest amended application	July	1, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 60,
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders; Harrows and Diggers; Plows	11-12-57	10-25-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	10-11-57	10-4-57
3. (VII) I E ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	1-3-58	1-3-58
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	10-14-57	10-9-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	10-4-57	8-16-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	11-12-57	11-6-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	10-31-57	11-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	10-28-57	11-1-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	11-6-57	10-14-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	11-12-57	10-31-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	1-23-58	1-6-58
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	10-2-57	10-3-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	10-14-57	10-1-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	10-1-57	10-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	10-4-57	10-2-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	10-1-57	10-1-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	12-2-57	12-3-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	10-3-57	10-1-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	11-6-57	10-8-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	10-7-57	10-11-57
21. (III) MADER, R. C., Textiles	9-3-57	9-3-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	10-1-57	10-1-57
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	9-7-57	8-5-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	1-3-58	12-30-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	10-3-57	10-17-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors; Transformers	11-15-57	12-2-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	12-10-57	12-9-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	10-3-57	10-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Red Joints; Tool-Handling Fastenings	10-1-57	7-30-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling; Refrigeration	12-16-57	11-26-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Synthetic Resins (part) (e. g., Polypropylenes, Polyisobutylenes); Mineral Oils	11-13-57	11-21-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	10-22-57	10-22-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	11-25-57	12-20-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	12-9-57	12-3-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	2-7-58	2-5-58
36. (V) EVANS, R. L., Measuring and Testing; Automatic Weighers; Weighing Scales	9-3-57	9-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	10-16-57	10-1-57
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*Established August 28, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 66

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during August 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,251,258 to 2,254,196, inclusive
Plant Patents ..... Numbers 480 to 488, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE RUFF ET AL.

No. 6257. Decided June 24, 1958

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—EVIDENCE—ADMISSION AGAINST INTEREST.

"When a man, or a witness, or an applicant for a patent, without knowing how it is going to affect his interest, makes a statement which he later attempts to deny when he has found it is against his interest, he will not be believed unless he produces convincing proof of his later assertion."

2. SAME—EQUIVALENCY—DISCLOSED IN APPLICATION—WHAT ART KNOWS AS DIFFERING FROM DISCOVERY OF APPLICANT.

"* * *, there is a basic difference between (*a*) a showing by an applicant for patent of what the *art knows* to be equivalents or what means taken from the art he can use indiscriminately without affecting his invention in carrying it out, and (*b*), a showing that *he has found*, as a part of his discovery or inventive process, that certain things may be used to achieve the same result. These findings are his property and he does not lose *all* of them just because of his showing when it turns out that others have earlier discovered one or more of them."

3. SAME—SAME—SAME—CASES GIVING RISE TO "BORCHERDT DOCTRINE."

"The cases which gave rise to what has come to be called the 'Borcherdt doctrine' are sound in result, well reasoned, and they appeal to common sense. They even support the *Borcherdt* case dictum that an applicant's disclosure alone *may* be sufficient for the rejection of a claim."

4. SAME—SAME—SAME—MAY REFUTE SUBSEQUENT ARGUMENT OF NO EQUIVALENCY.

"Even though a reference is not produced to show an equivalence *which is in fact art-recognized or obvious*, the applicant's own express recognition of it may be a sufficient basis on which to refute his subsequent argument that equivalence does not exist."

5. SAME—SAME—ACTUAL EQUIVALENCY NOT ENOUGH FOR REJECTION OF ONE MEMBER ON ANOTHER.

"That two things are *actually* equivalents, in the sense that they will both perform the same function, is not enough to bring into play the rule that when one of them is in the prior art the use of the other is obvious and cannot give rise to patentable invention."

6. SAME—SAME—TEST OF 35 U. S. C. 103.

"This question of equivalence, * * *, is a special aspect of what amounts to patentable 'invention,' assuming novelty to exist. The statutory provision on this subject is 35 U. S. C. 103 and the test there laid down is simply whether the difference between what is claimed *and the prior art* would have been obvious to one of ordinary skill in the art at the time the invention was made."

7. SAME—SAME—DISCLOSED IN APPLICATION—"MARKUSH" GROUP.

"* * * it is no longer possible to indulge in a presumption that the members of a Markush group are recognized by anyone to be equivalents except as they 'possess at least one property in common which is mainly responsible for their function in the claimed relationship.'"

8. SAME—SAME—SAME—SAME—*In re Ayres* RESTRICTED.

With regard to the "doctrine" of *In re Ayres*, 23 CCPA 1118, 88 F.2d 297, 1936 C. D. 468, 29 USPQ 424, *Held* that "if a Markush group happens to be made up of materials from an art-recognized or scientific class of equivalent substances, the principle of the rule would still apply but it can no longer be applied as a matter of course to everything called a Markush group."

9. SAME—SAME—ACTUAL EQUIVALENCY NOT ENOUGH FOR REJECTION OF ONE GROUP MEMBER ON ANOTHER—35 U. S. C. 103.

"* * *, actual equivalence is not enough to justify refusal of a patent on one member of a group when another member is in the prior art. The equivalence must be disclosed in the prior art or be obvious within the terms of Section 103."

10. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—MATTER BEFORE COURT—POINT NOT RAISED BY EXAMINER OR BOARD.

On review of a rejection based on an equivalency allegedly established by a disclosure, in the application as filed, of the incorporation of either amino or mercapto compounds in a polyphosphate composition, and an original claiming of such compounds in a "Markush" group, and anticipation of the composition containing the amino compounds, *Held* that a point regarding "the existence of an actual art-recognizable 'structural' equivalence between the prior art amino compounds and the claimed mercapto compounds, over and above any implied admission of such equivalence due to inclusion in a Markush group or expressly admitted functional equivalence," could not be considered "for the reason that it was not raised either by the Examiner or the Board."

11. PATENTABILITY—EQUIVALENCY—DISCLOSED IN APPLICATION—"MARKUSH" GROUP—PARTICULAR SUBJECT MATTER—POLYPHOSPHATE COMPOSITION.

A decision of the Board of Appeals refusing claims to a polyphosphate composition containing a mercapto compound as a tarnish inhibitor, reached on the basis that the application as filed disclosed the use of either the mercapto compound or an amino compound in the composition, and the compounds were originally claimed in a "Markush" group, and reached in view of the fact that the composition containing the amino compound was found in the prior art, is *Reversed*.

APPEAL from the Patent Office. Serial No. 172,776.

REVERSED.

Brumbaugh, Free, Graves & Donohue (*Eben M. Graves* and *John R. James* of counsel) for Ruff et al.

Clarence W. Moore (*J. Schimmel* of counsel) for the Commissioner of Patents.

American Patent Law Association, *C. Willard Hayes*, President, *William J. Barnes*, Immediate Past President, *Neal A. Waldrop*, Chairman, Chemical Practice Committee, *Leland L. Chapman*, Immediate Past Chairman, Chemical Practice Committee, (*Paul L. Tillson*, *John D. Upham*, and *Frederick C. Wellington* of counsel) amicus curiae.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

The appellants, Edgar E. Ruff and Robert E. Dukeshire, filed an application on July 8, 1950, entitled "Polyphosphate Composition Containing Tarnish Inhibitor," Serial No. 172,776. On this appeal it contains claims 20 through 35. Claims 21, 22, 25–28, 31 and 34 stood withdrawn from consideration under Patent Office Rule 142(b) and as to them the Board dismissed the appeal, affirming the rejection of the others as "lacking invention over" references. Thus, no claim stands allowed.

Claim 20 is illustrative and reads:

20. A composition comprising a water-soluble polyphosphate which in aqueous solution tarnishes copper and copper

and nickel alloys and a tarnish inhibitor in an amount to lessen the tarnishing action of the polyphosphate and having the general formula



where X is selected from the group consisting of oxygen and sulfur and Z is a radical taken in sufficient number to satisfy the free valences of the 4— and 5— ring carbon atoms and is selected from the group consisting of hydrogen, oxo oxygen, alkyl, aryl and saturated and unsaturated mono and polynuclear alicyclic and heterocyclic rings condensed therewith.

The references relied on are:

Schaeffer, 2,618,603, Nov. 18, 1952.

Schaeffer, 2,618,605, Nov. 18, 1952.

The invention relates to synthetic detergent compositions such as are used for dishwashing and which contain polyphosphates as "builders." While the latter greatly improve the effectiveness of the composition as a detergent, they cause tarnishing of copper and copper and nickel alloys, of which many utensils are made. The invention is directed to the solution of this serious commercial problem by the incorporation in the composition of a complex organic compound which functions as a tarnish inhibitor.

Reducing the formula of claim 20, supra, to the verbal language of the art, the compounds it symbolizes are all 2-mercapto compounds. Where the "X" is oxygen the compounds are either 2-mercaptooxazoles or 2-mercaptooxazolines; where it is sulfur they are 2-mercaptothiazoles or 2-mercaptothiazolines. The "mercapto" aspect of the nomenclature results from the presence of the —SH radical.

The whole problem in this case arises because the application, as filed, disclosed and claimed in addition the amino compounds corresponding to the foregoing mercapto compounds. This it did in words and also by formula, the latter being the same as in claim 20 except that where it has "SH" there was a "Y" defined as follows: "Y is a radical selected from the group consisting of mercapto and amino radicals, i. e., SH and NH_2 radicals," which will be recognised as a "Markush" expression.

Appellants, by amendment, removed from their application all reference to the amino compounds and in doing so changed the class symbol Y in the formula to the specific radical —SH. The record shows that this was done in view of the Schaeffer patents with which an interference had been threatened but the filing dates of which appellants could not antedate.[1] The amendment was made promptly upon their issuance and the Examiner cited them on the next action. They have since been relied on as showing that the detergent composition containing the cancelled amino compounds was effectively in the "prior art" and there is no question about this being so.

[1] Appellants' brief before the Board of Appeals states:

With the development of synthetic detergent compositions containing polyphosphates, such as tetrasodium pyrophosphate and pentasodium tripolyphosphate, there has arisen a tarnishing problem due to the action of the polyphosphates upon copper and nickel and copper alloys such as German silver. Warm solutions of synthetic detergent-polyphosphate compositions quickly turn these alloys a variety of shades from yellow to bluish black.

This problem was attacked by all concerned, and diligent (and, as it turned out, parallel) research has resulted in the invention of the tarnish inhibitors which are the subject of the Schaeffer patents, assigned to the Procter & Gamble Company, and the tarnish inhibitors disclosed and claimed in the appellants' application, assigned to Lever Brothers Company.

The sole issue before us is whether the retained claims to the compositions containing the unanticipated mercapto compounds are patentable to appellants under the above circumstances. No facts being in dispute, the question is one of law.

Appellants say "The patentability of appellants' claims is not seriously disputed by the Examiner and the Board of Appeals," but since they have both persisted in rejecting them we take this statement to mean either that patentable *novelty* of the claimed subject matter is not disputed or that the claims are all conceded to be patentable if we reverse the single ground of rejection relied on, which has to do with a peculiar aspect of the issue of "invention" which issue, since 1952, has been codified in 35 U. S. C. 103 in terms of unobviousness. Stated in another way, appellants insist that they have complied with all of the requirements of 35 U. S. C. 102 and 103 and are therefore, to quote the former, "entitled to a patent." There is no dispute about compliance with section 102. As to section 103, however, in answer to appellants' insistence that it has been complied with, the Board of Appeals has opposed two "doctrines" which it says have been established by this court and by which it is bound. Appellants reply that such a rejection is "non-statutory," which we take to mean *contrary* to the statutes rather than one not authorized by them.

The Grounds of Rejection

The Examiner's position in rejecting all claims was essentially that appellants originally claimed the compositions made with both the amino and the mercapto compounds, that these two groups of compounds are "equivalents," and that since the amino compound compositions are in the prior art the mercapto compound compositions are not patentable to appellants because of this equivalency. This would be sound, if true, according to the ancient negative rule of "invention" that the mere substitution of an equivalent is not an act of invention. *Butler Bros.* v. *Pratt*, 253 F. 654, 656 (CCA–8), and cases there cited. The Examiner made the categorical statement that "*The equivalency* of the various members of the Markush group of tarnish-inhibitors as originally disclosed and claimed in the instant case *is a fact*." [Emphasis ours.] However, he cited no prior art patent, text or treatise but demanded "convincing evidence of unequivalency" as a prerequisite to patentability and called attention to the cases of *In re Ayres*, 23 CCPA (Patents) 1118, 83 F.2d 297, 29 USPQ 424, and *In re Borcherdt et al.*, 39 CCPA (Patents) 1045, 197 F.2d 550, 94 USPQ 175.

Appellants, on appeal to the Board, argued strenuously, as they do here, the point which they stated in their summary thus:

There is no basis in the law for denying claims where, as the sole basis for the finding of non-patentability, the appellant's own disclosure is taken as an admission of equivalency, and such equivalency is not obvious to those skilled in the art, and is not shown or suggested in the art.

They also cited to the Board a line of cases, typified by *Ex parte Shelton* (Bd. App.) 49 USPQ 36, holding that an applicant should not be rejected on his own showing of equivalency where such equivalency was not known to the art.

In affirming the Examiner, the Board, after stating that the rejection "is on the basis that the 2-aminothiazoles [disclosed by Schaeffer] are the full *and admitted* equivalents of the remaining group of inhib-

itors which appellants are now claiming," [emphasis ours] and after adverting to appellants' argument that the Schaeffer disclosure is insufficient to permit anyone to predict any utility for the claimed mercapto group of inhibitors, said,

> All of the foregoing does not alter the fact that one of the groups originally claimed by appellants as tarnish inhibitors [Emphasis ours] is, in fact, disclosed by Schaeffer. Under these circumstances the legal doctrines of *In re Ayres* and *In re Borcherdt et al.* immediately become applicable.

While throughout its opinion the Board speaks repeatedly of the Borcherdt et al. "doctrine," we do not find that either the Examiner or the appellants, in their brief before the Board, made any reference to such a "doctrine." A review of this court's opinion in the Borcherdt et al. case discloses no apparent intent to state any new doctrine and our first enquiry, therefore, is as to just what is meant by the Board in referring to this so-called doctrine on which it quite clearly predicated its decision, at least in part, and which seems to have been evolved in the Patent Office.

The first clue we have is the Board's statement that the Examiner had pointed out that "under the doctrine of *In re Borcherdt et al.*, • • • appellants' own disclosure of equivalency alone may be sufficient to sustain this type of rejection." The next clue is that the Board itself said that it did not "agree with appellants' interpretation of the Borcherdt et al. doctrine as requiring that the prior art establish the equivalency admitted in appellants' specification before the doctrine becomes applicable. • • • The rejection would then simply be made on the basis of prior art showing the equivalency rather than appellants' original concession of equivalency." Looking at the fact situation before us, as to which there is no dispute, we see that the only supposed disclosure, concession or admission of equivalency is predicated on the fact of appellants having *included in the same application a disclosure of both the amino and the mercapto types of tarnish inhibitors and on having originally claimed both of these groups in generic claims.* It seems to us that the Board places perhaps its greatest emphasis on the fact that in those generic claims the amino and mercapto compounds were included in a "Markush" group, the "Y" in the formula and its defining clause. On this point, since *In re Borcherdt et al.* in no way involved any Markush group, we have also to consider the other "doctrine," that of *In re Ayres*, which the Board specifically stated to be as follows:

> The *In re Ayres* decision stands for the proposition that the mere cancellation of an anticipated member from the Markush group does not avoid anticipation of the remaining members of the group. In order for appellants to obtain a patent on the more restricted group here presented it would be necessary for them to show that its members possessed properties not shared by the larger group. *Ex parte Watt*, 1944 C. D. 5; 568 O. G. 193. Appellants have made no such showing.

In a petition asking for reconsideration by an augmented Board, because of the importance of the matter, appellants said that the question in this case presented a direct challenge to the "doctrines" of the Borcherdt and Ayres cases, as the Board had applied them, claiming that no decision of this court had based a finding of equivalency *solely* on an applicant's own disclosure, where the prior art did not show the equivalency and where it would not be obvious to those skilled in the art. In denying the petition the Board said that the question was one it had ruled on many times and that it had consistently been upheld by this court. It felt itself bound by the precedents.

Before us the American Patent Law Association, through its Chemical Practice Committee, has filed an amicus brief and presented oral argument. It would appear that the "Borcherdt doctrine" has become a matter of grave concern to applicants for patents, particularly those in the chemical field, and that the decision in the instant case to an unusual extent concerns others than the appellants.

While there is some overlap as between what we shall hereinafter call the Ayres doctrine and the Borcherdt doctrine, and while the Borcherdt case cites, inter alia, the Ayres case, the Board treated them as two doctrines, the Patent Office Solicitor presented his case in two corresponding separate parts and we shall do likewise, considering first the Borcherdt doctrine aspect of the case.

The Borcherdt Doctrine

As we have already suggested, the opinion in the Borcherdt case does not indicate that this court was conscious of having promulgated any new doctrine. The passage which apparently underlies the "doctrine" purports to state the rule of seven prior decisions. The Board in its opinion herein, furthermore, made the statement that "The Borcherdt et al. doctrine was expounded by the Court of Customs and Patent Appeals on its own initiative in *In re Bloomer*, 37 CCPA (Patents) 770; 1950 C. D. 80; 633 O. G. 331; 178 F.2d 407; 84 USPQ 135 and has been consistently followed by that court in subsequent decisions." Four cases were then cited, one of which was prior to the Borcherdt case. The doctrine seems to have been misnamed and should, perhaps, have been called the "Bloomer doctrine." In any event it is clear it did not originate in the 1952 Borcherdt opinion. The Patent Office Solicitor, on the other hand, believes the doctrine, as he conceives it, originated in *In re McKee*, 22 CCPA (Patents) 1010, 75 F.2d 635, 24 USPQ 414, in 1935, and that there are in excess of 30 decisions in this court on the matter. But he includes among those cases those *in which the prior art taught the functional equivalency between the claimed subject matter and what was in the prior art.* As we understand the patent law, such a *prior art* teaching is in itself enough to support a rejection and in such cases there is neither room nor need for a Borcherdt doctrine of the kind the Board relied on here. The whole burden of appellants' complaint is that the Board's application of this doctrine is such as to *substitute* it for a prior art showing, thus denying a patent *because of what the applicant said or did in his own application* regardless of the prior art, insofar as denying patentability because of equivalency with something in the prior art is concerned.

It will be illuminating, perhaps, to contrast *In re McKee* with the present case. The invention there claimed was a method of slicing meat by first freezing it. The application *defined* "slicing" as including subdividing "in whatever manner may be employed, as for instance, by means of a knife, chopping tool, or saw." The thus defined term "slicing" was employed in the claims and the applicant himself had determined what it was to mean. The first thing to note is that the court fully agreed with the Board that the claims, so

written, *were fully met by the references* because the applicant had so broadened the meaning of "slicing" as to read on chopping and sawing, which the references showed. When it was argued that claims specifically limited to the use of a knife blade cutter should be allowed, this court said,

> The difficulty with this position is that the appellant, by his definition of the meaning of "slicing," • • • considers a knife, a chopping tool, and a saw as equivalents. If he so considers and treats them, then he can claim no patentable distinction between them upon this application.

In other words, the applicant had made it about as clear as possible that so far as his invention was concerned, which resided in the slicing of meat while frozen, it made no difference—and a fortiori not a patentable difference—what *kind* of a cutter was used. When he made an about face and tried to base patentability on the use of the one cutter not disclosed in the art cited against him, this court was quite naturally unimpressed with the force of his argument that "invention" was involved in the difference between a knife and a chopper or a saw. If this be the Borcherdt doctrine, then long may it continue.

Now let us consider the present case. Appellants in their search for tarnish inhibitors made the discovery that two different classes of complex organic chemical compounds were effective for that purpose, the aforesaid amino and mercapto compounds. The chemists working for their assignee's competitor, carrying on the same search, discovered the effectiveness of the amino compounds first. Now, says the Patent Office, solely for the reason that you included both groups in one application, and even after deletion of the amino group in which you lost the race to your rival Schaeffer, you cannot have a patent on the detergents including the mercapto compounds because they are not patentable. They are not patentable because they are the "equivalents" of the amino compounds which you were not the first to invent and all the proof we need of that fact is that in your application *you said* that they were useful for the same purpose. " • • • the legal doctrine of • • • *In re Borcherdt et al.* immediately becomes applicable." Since you admitted such equivalency, there is no need, under the Borcherdt doctrine, to show that such equivalency was known to a soul. The *Ex parte Shelton* type of decision (49 USPQ 36), holding that rejection should not be based on an applicant's own disclosure of equivalency, "must be considered to have been overruled" by *In re Borcherdt et al.*

That the Borcherdt et al. case should have supplied the name of this doctrine is strange, considering what was there involved and what was decided. The applicants claimed a process of preparing organic nitriles which involved reacting, under certain conditions in a certain medium, a chlorhydrocarbon and hydrogen cyanide (HCN). The opinion states that one reference, Hager, "describes and claims the identical process • • • with the exception that NaCN (sodium cyanide) is employed in the patent instead of HCN." Now that reference, and the other three references, all issued the same day to the assignee of the Borcherdt et al. application, the du Pont Company. The issue raised by the references was "double patenting." This, in turn, depended on whether the claims on appeal were for a *patentably distinct* invention, and, as we have indicated, this rested on whether it was inventive or merely obvious to use HCN instead of NaCN. The application involved disclosed only HCN and contained nothing to indicate its equivalency in the process with NaCN; but another reference, Webb et al., owned by the same assignee, did, in both its description and by claiming the two in a Markush group. *The Examiner relied on that reference to show the equivalency* and to negative invention. On the actual issue of patentable distinction which was before the court, the most significant statement is this:

> *There does not seem to be any controversy that NaCN and HCN are equivalents in the claimed process.* Counsel for appellants seems to be opposed only to the manner in which the Examiner sought to establish such equivalency. [Emphasis ours.]

The court then went on to say that it felt that *the assignee*, having permitted the Webb et al. patent to issue, "may not now question the fact or form by which equivalency is established." In the next paragraph it repeated the thought thus:

> • • • the Webb et al. patent has been properly used to support the fact of equivalency.
>
> • • • In our opinion, the question of equivalency of hydrogen cyanide may not now properly be urged by appellants in view of the disclosure in claim 1 of the Webb et al. patent.

The court's ultimate conclusion was, of course, that there was no patentable distinction over the Hager patent claims but this decision certainly was not predicated on anything said or done by the applicants. The entire controversy over the use of the Webb et al. reference was whether it was "technically prior art." The court did not decide that point but said that even if it was assumed not to be, du Pont, its owner, prosecuting the application at bar, by taking out that patent saying HCN and NaCN were equivalents in the process, was not properly in a position to deny it.

Considered for what it is, a problem of getting at a fact—equivalency or non-equivalency—the situation is a commonplace one in the law and runs all through the cases cited in *In re Borcherdt et al.* and the cases which, in turn, cite it. [1] When a man, or a witness, or an applicant for a patent, without knowing how it is going to affect his interest, makes a statement which he later attempts to deny when he has found it is against his interest, he will not be believed unless he produces convincing proof of his later assertion.

[2] However, there is a basic difference between (*a*) a showing by an applicant for patent of what the *art knows* to be equivalents or what means taken from the art he can use indiscriminately without affecting his invention in carrying it out, and (*b*), a showing that *he has found*, as a part of his discovery or inventive process, that certain things may be used to achieve the same result. These findings are his property and he does not lose *all* of them just because of his showing when it turns out that others have earlier discovered one or more of them.

We have examined all of the cases relied on by the Board of Appeals as having followed the Borcherdt et al. case, which it considered to be binding on it, all of the cases cited in the Borcherdt et al. opinion in support of the dictum, which seems to be principally relied on to support the "doctrine," to the effect that an applicant's own disclosure of equivalency "*may be* sufficient for the rejection of a claim specific to one equivalent where the other appears in the prior art" [emphasis added], and all of the additional cases cited by the Patent Office as bearing on the Borcherdt doctrine. We have found none which clearly supports the application of the doctrine which has been made in the

itors which appellants are now claiming." [emphasis ours] and after adverting to appellants' argument that the Schaeffer disclosure is insufficient to permit anyone to predict any utility for the claimed mercapto group of inhibitors, said,

> All of the foregoing does not alter the fact that one of the groups originally claimed by appellants as tarnish inhibitors in a *Markush claim* [Emphasis ours] is, in fact, disclosed by Schaeffer. Under these circumstances the legal doctrines of *In re Ayres* and *In re Borcherdt et al.* immediately become applicable.

While throughout its opinion the Board speaks repeatedly of the Borcherdt et al. "doctrine," we do not find that either the Examiner or the appellants, in their brief before the Board, made any reference to such a "doctrine." A review of this court's opinion in the Borcherdt et al. case discloses no apparent intent to state any new doctrine and our first enquiry, therefore, is as to just what is meant by the Board in referring to this so-called doctrine on which it quite clearly predicated its decision, at least in part, and which seems to have been evolved in the Patent Office.

The first clue we have is the Board's statement that the Examiner had pointed out that "under the doctrine of *In re Borcherdt et al.*, * * * appellants' own disclosure of equivalency alone may be sufficient to sustain this type of rejection." The next clue is that the Board itself said that it did not "agree with appellants' interpretation of the Borcherdt et al. doctrine as requiring that the prior art establish the equivalency admitted in appellants' specification before the doctrine becomes applicable. * * * The rejection would then simply be made on the basis of prior art showing the equivalency rather than appellants' original concession of equivalency." Looking at the fact situation before us, as to which there is no dispute, we see that the only supposed disclosure, concession or admission of equivalency is predicated on the fact of appellants having *included in the same application a disclosure of both the amino and the mercapto types of tarnish inhibitors and on having originally claimed both of these groups in generic claims.* It seems to us that the Board places perhaps its greatest emphasis on the fact that in those generic claims the amino and mercapto compounds were included in a "Markush" group, the "Y" in the formula and its defining clause. On this point, since *In re Borcherdt et al.* in no way involved any Markush group, we have also to consider the other "doctrine," that of *In re Ayres*, which the Board specifically stated to be as follows:

> The *In re Ayres* decision stands for the proposition that the mere cancellation of an anticipated member from the Markush group does not avoid anticipation of the remaining members of the group. In order for appellants to obtain a patent on the more restricted group here presented it would be necessary for them to show that its members possessed properties not shared by the larger group. *Ex parte Watt*, 1944 C. D. 5; 568 O. G. 193. Appellants have made no such showing.

In a petition asking for reconsideration by an augmented Board, because of the importance of the matter, appellants said that the question in this case presented a direct challenge to the "doctrines" of the Borcherdt and Ayres cases, as the Board had applied them, claiming that no decision of this court had based a finding of equivalency *solely* on an applicant's own disclosure, where the prior art did not show the equivalency and where it would not be obvious to those skilled in the art. In denying the petition the Board said that the question was one it had ruled on many times and that it had consistently been upheld by this court. It felt itself bound by the precedents.

Before us the American Patent Law Association, through its Chemical Practice Committee, has filed an amicus brief and presented oral argument. It would appear that the "Borcherdt doctrine" has become a matter of grave concern to applicants for patents, particularly those in the chemical field, and that the decision in the instant case to an unusual extent concerns others than the appellants.

While there is some overlap as between what we shall hereinafter call the Ayres doctrine and the Borcherdt doctrine, and while the Borcherdt case cites, inter alia, the Ayres case, the Board treated them as two doctrines, the Patent Office Solicitor presented his case in two corresponding separate parts and we shall do likewise, considering first the Borcherdt doctrine aspect of the case.

The Borcherdt Doctrine

As we have already suggested, the opinion in the Borcherdt case does not indicate that this court was conscious of having promulgated any new doctrine. The passage which apparently underlies the "doctrine" purports to state the rule of seven prior decisions. The Board in its opinion herein, furthermore, made the statement that "The Borcherdt et al. doctrine was expounded by the Court of Customs and Patent Appeals on its own initiative in *In re Bloomer*, 37 CCPA (Patents) 770; 1950 C. D. 80; 633 O. G. 831; 178 F.2d 407; 84 USPQ 135 and has been consistently followed by that court in subsequent decisions." Four cases were then cited, one of which was prior to the Borcherdt case. The doctrine seems to have been misnamed and should, perhaps, have been called the "Bloomer doctrine." In any event it is clear it did not originate in the 1952 Borcherdt opinion. The Patent Office Solicitor, on the other hand, believes the doctrine, as he conceives it, originated in *In re McKee*, 22 CCPA (Patents) 1010, 75 F.2d 635, 24 USPQ 414, in 1935, and that there are in excess of 30 decisions in this court on the matter. But he includes among those cases those *in which the prior art taught the functional equivalency between the claimed subject matter and what was in the prior art.* As we understand the patent law, such a *prior art* teaching is in itself enough to support a rejection and in such cases there is neither room nor need for a Borcherdt doctrine of the kind the Board relied on here. The whole burden of appellants' complaint is that the Board's application of this doctrine is such as to *substitute* it for a prior art showing, thus denying a patent *because of what the applicant said or did in his own application* regardless of the prior art, insofar as denying patentability because of equivalency with something in the prior art is concerned.

It will be illuminating, perhaps, to contrast *In re McKee* with the present case. The invention there claimed was a method of slicing meat by first freezing it. The application *defined* "slicing" as including subdividing "in whatever manner may be employed, as for instance, by means of a knife, chopping tool, or saw." The thus defined term "slicing" was employed in the claims and the applicant himself had determined what it was to mean. The first thing to note is that the court fully agreed with the Board that the claims, so

written, *were fully met by the references* because the applicant had so broadened the meaning of "slicing" as to read on chopping and sawing, which the references showed. When it was argued that claims specifically limited to the use of a knife blade cutter should be allowed, this court said,

> The difficulty with this position is that the appellant, by his definition of the meaning of "slicing," * * * considers a knife, a chopping tool, and a saw as equivalents. If he so considers and treats them, then he can claim no patentable distinction between them upon this application.

In other words, the applicant had made it about as clear as possible that so far as his invention was concerned, which resided in the slicing of meat while frozen, it made no difference—and a fortiori not a patentable difference—what *kind* of a cutter was used. When he made an about face and tried to base patentability on the use of the one cutter not disclosed in the art cited against him, this court was quite naturally unimpressed with the force of his argument that "invention" was involved in the difference between a knife and a chopper or a saw. If this be the Borcherdt doctrine, then long may it continue.

Now let us consider the present case. Appellants in their search for tarnish inhibitors made the discovery that two different classes of complex organic chemical compounds were effective for that purpose, the aforesaid amino and mercapto compounds. The chemists working for their assignee's competitor, carrying on the same search, discovered the effectiveness of the amino compounds first. Now, says the Patent Office, solely for the reason that you included both groups in one application, and even after deletion of the amino group in which you lost the race to your rival Schaeffer, you cannot have a patent on the detergents including the mercapto compounds because they are not patentable. They are not patentable because they are the "equivalents" of the amino compounds which you were not the first to invent and all the proof we need of that fact is that in your application *you said* that they were useful for the same purpose. " * * * the legal doctrine of * * * *In re Borcherdt et al.* immediately becomes applicable." Since you admitted such equivalency, there is no need, under the Borcherdt doctrine, to show that such equivalency was known to a soul. The *Ex parte Shelton* type of decision (49 USPQ 36), holding that rejection should not be based on an applicant's own disclosure of equivalency, "must be considered to have been overruled" by *In re Borcherdt et al.*

That the Borcherdt et al. case should have supplied the name of this doctrine is strange, considering what was there involved and what was decided. The applicants claimed a process of preparing organic nitriles which involved reacting, under certain conditions in a certain medium, a chlorhydrocarbon and hydrogen cyanide (HCN). The opinion states that one reference, Hager, "describes and claims the identical process * * * with the exception that NaCN (sodium cyanide) is employed in the patent instead of HCN." Now that reference, and the other three references, all issued the same day to the assignee of the Borcherdt et al. application, the du Pont Company. The issue raised by the references was "double patenting." This, in turn, depended on whether the claims on appeal were for a *patentably distinct* invention, and, as we have indicated, this rested on whether it was inventive or merely obvious to use HCN instead of NaCN. The application involved disclosed only HCN and contained nothing to indicate its equivalency in the process with NaCN; but another reference, Webb et al., owned by the same assignee, did, in both its description and by claiming the two in a Markush group. The *Examiner relied on that reference to show the equivalency* and to negative invention. On the actual issue of patentable distinction which was before the court, the most significant statement is this:

> *There does not seem to be any controversy that NaCN and HCN are equivalents in the claimed process.* Counsel for appellants seems to be opposed only to the manner in which the Examiner sought to establish such equivalency. [Emphasis ours.]

The court then went on to say that it felt that *the assignee*, having permitted the Webb et al. patent to issue, "may not now question the fact or form by which equivalency is established." In the next paragraph it repeated the thought thus:

> * * * the Webb et al. patent has been properly used to support the fact of equivalency.
> * * * In our opinion, the question of equivalency of hydrogen cyanide may not now properly be urged by appellants in view of the disclosure in claim 1 of the Webb et al. patent.

The court's ultimate conclusion was, of course, that there was no patentable distinction over the Hager patent claims but this decision certainly was not predicated on anything said or done by the applicants. The entire controversy over the use of the Webb et al. reference was whether it was "technically prior art." The court did not decide that point but said that even if it was assumed not to be, du Pont, its owner, prosecuting the application at bar, by taking out that patent saying HCN and NaCN were equivalents in the process, was not properly in a position to deny it.

Considered for what it is, a problem of getting at a fact—equivalency or non-equivalency—the situation is a commonplace one in the law and runs all through the cases cited in *In re Borcherdt et al.* and the cases which, in turn, cite it. [1] When a man, or a witness, or an applicant for a patent, without knowing how it is going to affect his interest, makes a statement which he later attempts to deny when he has found it is against his interest, he will not be believed unless he produces convincing proof of his later assertion.

[2] However, there is a basic difference between (*a*) a showing by an applicant for patent of what the *art knows* to be equivalents or what means taken from the art he can use indiscriminately without affecting his invention in carrying it out, and (*b*), a showing that *he has found*, as a part of his discovery or inventive process, that certain things may be used to achieve the same result. These findings are his property and he does not lose *all* of them just because of his showing when it turns out that others have earlier discovered one or more of them.

We have examined all of the cases relied on by the Board of Appeals as having followed the Borcherdt et al. case, which it considered to be binding on it, all of the cases cited in the Borcherdt et al. opinion in support of the dictum, which seems to be principally relied on to support the "doctrine," to the effect that an applicant's own disclosure of equivalency "*may be* sufficient for the rejection of a claim specific to one equivalent where the other appears in the prior art" [emphasis added], and all of the additional cases cited by the Patent Office as bearing on the Borcherdt doctrine. We have found none which clearly supports the application of the doctrine which has been made in the

present case. We are of the opinion that that application was in error.

The error which we find in this case is of a type which is constantly recurring, and on that ground possibly excusable, being the result of undue generalization from particular cases. [3] The cases which gave rise to what has come to be called the "Borcherdt doctrine" are sound in result, well reasoned, and they appeal to common sense. They even support the Borcherdt case dictum that an applicant's disclosure alone *may* be sufficient for the rejection of a claim. But they do not support what has been done here. The difficulty appears to reside in an indiscriminate use of the word "equivalents" and a failure to consider the type of fact the applicant has disclosed.

Two lines of cases have to be reconciled.

The following Board of Appeals cases properly hold that an applicant's claims should not be rejected solely on his own showing of equivalency; that it is only where equivalency is known to the prior art or obvious to one of ordinary skill in the art that the substitution of one equivalent for another is not invention. *Ex parte Shelton*, 49 USPQ 36; *Ex parte Scrutchfield*, 66 USPQ 368; *Ex parte Manor*, 71 USPQ 271; *Ex parte Fein et al.*, 81 USPQ 73; and *Ex parte Anorum*, 91 USPQ 301. It will be found on examination that the equivalence which the applicants in these cases showed was not previously known to the art.

The following cases might be cited for the proposition that an applicant's own showing of equivalence *may* be used as the basis for rejecting a claim, and the list is but exemplary. *In re McKee*, supra, the meat slicing case; *In re Hartung*, 28 CCPA (Patents) 1364, 121 F.2d 529, 50 USPQ 151, disclosing a homologous series of catechols having 4 to 8 carbon atoms where the six carbon atom member was in the prior art; *In re Lobdell*, 35 CCPA (Patents) 1091, 167 F.2d 634, 77 USPQ 377, showing brazing as the known equivalent of silver soldering to hold the cutting tips in tool shanks; *In re Switzer et al.*, 35 CCPA (Patents) 1013, 166 F.2d 827, 77 USPQ 156, carbon black and titanium dioxide as known equivalent inert fillers or pigments in a coating; *In re Withington*, 26 CCPA (Patents) 1290, 104 F.2d 192, 41 USPQ 742, intaglio as the equivalent of cameo brand markings on a wooden handle; *In re Lindberg*, 39 CCPA (Patents) 886, 194 F.2d 732, 93 USPQ 23, a hydraulic drive for the agitator in a tank versus a chain and pulley drive; *In re Stewart*, 42 CCPA (Patents) 937, 222 F.2d 747, 106 USPQ 115, removing a film with a swab or with a spray of air and water. Some of these cases were cited by the Board to support the Borcherdt doctrine and others were cited in the Borcherdt case to support its dictum that the applicant's own disclosure of equivalence might be enough. There are many others, some more complex in their facts, but the principle running through these cases is basically the same in each. [4] Even though a reference is not produced to show an equivalence *which is in fact art-recognized or obvious*, the applicant's own express recognition of it may be a sufficient basis on which to refute his subsequent argument that equivalence does not exist. We see nothing wrong with the "Borcherdt doctrine" if it is kept within this limitation. The danger in the "doctrine" is that it is such a handy means of relieving hard-pressed Examiners of the necessity for searching the prior art that they tend to apply it indiscriminately.

[5] That two things are *actually* equivalents, in the sense that they will both perform the same function, is not enough to bring into play the rule that when one of them is in the prior art the use of the other is obvious and cannot give rise to patentable invention. One need not think very hard to appreciate that the vast majority of patentable inventions perform old functions. In the bearing art, for example, we have progressed through wood blocks, bronze bushings, ball bearings, roller bearings, tapered roller bearings, needle bearings and sintered powdered metal impregnated with lubricant, to name a few. Today they are art-recognized equivalents. But if, in the course of this progress, ball and roller bearings had both been invented by one person and disclosed in one application, and the art had never heard of roller bearings before, on what theory would a patent be denied on the latter when it turned out that another was the first to invent the ball bearing? That the inventor said they would perform the same function? This is not an imaginary problem for patent applicants more often than not invent and disclose and attempt to claim more than turns out to be novel when the art is searched. They should not be penalized merely because of their own industry and the fullness of their disclosures. So far as we have been able to find, this court has never made an intimation to the contrary.

A safer guide for those who crave an easy answer to the issue of patentability than the now somewhat confused Borcherdt or Ayres doctrines is the patent statutes, for they were written to apply in all cases, as no single court decision ever is, dealing as it does with a specific set of facts which is rarely duplicated. [6] This question of equivalence, as we said at the beginning, is a special aspect of what amounts to patentable "invention," assuming novelty to exist. The statutory provision on this subject is 35 U. S. C. 103 and the test there laid down is simply whether the difference between what is claimed *and the prior art* would have been obvious to one of ordinary skill in the art at the time the invention was made.[3]

To rely on an equivalence *known only to the applicant* to establish obviousness is to assume that his disclosure is a part of the prior art. The mere statement of this proposition reveals its fallaciousness.

Though the "equivalence" involved in *Graver Tank Mfg. Co., Inc.* v. *Linde Air Products Co.*, 339 U. S. 605, 85 USPQ 328, cited in the Borcherdt opinion, was a different aspect of equivalence than was involved in the latter case, namely what constitutes an infringement rather than what negatives patentability, certain words of the Supreme Court in the Graver case are as applicable here as they were there. The Court said:

> What constitutes equivalency must be determined against the context of the patent, the prior art, and the particular circumstances of the case. *Equivalence, in the patent law, is not the prisoner of a formula and is not an absolute to be considered in a vacuum.* * * * An important factor is whether

[3] It is significant that when the Ayres and Borcherdt doctrines, and many other aids to the determination of "invention," came into existence there was no statutory provision on the subject to serve as a guide. One reason for the inclusion of section 103 in the Patent Act of 1952, which became effective only on January 1, 1953, was, as stated in the reviser's note, the hope that "an explicit statement in the statute may have some stabilizing effect." The instant case is a good example of the need for such stabilization and illustrates the desirability of looking for guidance to the fundamental law.

persons reasonably skilled in the art would have known of the interchangeability of an ingredient not contained in the patent with one that was.

* * * * * * *

A finding of equivalence is a determination of fact. Proof can be made in any form; through the testimony of experts or others versed in the technology; by documents, including texts and treatises; and, of course, by the disclosure of the prior art. *Like any other issue of fact, final determination requires a balancing of credibility, persuasiveness and weight of evidence.* [Emphasis ours.]

"The Legal Doctrine of In re Ayres"

We have already quoted the Board's view of what this doctrine is. In short, the proposition is that "cancellation of an anticipated member from the Markush group does not avoid anticipation of the remaining members." Applied to the facts of this case, what the Examiner and the Board contend is that the original generic claim, in which the formula appearing in claim 20, supra, had a "Y" where it now has —SH, with a definition of Y which included NH_2 as well as SH, was a "Markush" claim and according to doctrine developed with respect to claims bearing that name, when the generic claim is reduced in scope to a specific claim, from a claim directed to both amino and mercapto compounds to a claim to the mercapto compounds alone, what remains is a "Markush group of diminished scope" and appellants must show that it possesses "properties not shared by the larger group."

Markush groups—so-called from the title of the case in which they were first permitted, *Ex parte Markush*, 1925 C. D. 126—were originally regarded as an exception to the previously acceptable claim terminology and were rigidly restricted to groups of substances belonging to some recognised class. Such was the rule at the time of the decision of *In re Ayres*, 23 CCPA (Patents) 1118, in 1936. If only equivalents recognised in scientific classification could be included in a Markush group, naturally the mere existence of such a group in an application tended to prove the equivalence of its members and when one of them was anticipated the group was therefore rendered unpatentable, in the absence of some convincing evidence of some degree of non-equivalency of one or more of the remaining members.

However, the original rigid, emergency-engendered restrictions have been progressively relaxed through the years to the point where [7] it is no longer possible to indulge in a presumption that the members of a Markush group are recognized by anyone to be equivalents except as they "possess at least one property in common which is mainly responsible for their function in the claimed relationship." These last words are quoted from the 1953 revision of section 706.03 (y) of the Manual of Patent Examining Procedure (an official reference work prepared for the Patent Office examining corps). This revision was in effect prior to the rejection here under consideration.

In view of the existing situation in the Patent Office, it is not seen that the "Ayres doctrine," as the Board has applied it, has much present validity. (We need not trouble to consider whether the *In re Ayres* case actually supports the "doctrine" as applied, a matter on which we have considerable doubt because the prior art seemed to show the equivalency. This court there refused to concede it did not.) [8] True, if a Markush group happens to be made up of materials from an art-recognised or scientific class of equivalent substances, the principle of the rule would still apply but it can no longer be applied as a matter of course to everything called a Markush group.

Moreover, the expression "Markush group" has come to be applied to formula-type claims like that here involved which are quite unlike the claims of the early cases in the Markush line. As early as 1951 the above section 706.03(y) provided, as it still does,

Where a Markush expression is applied only to a portion of a chemical compound, the propriety of the grouping is determined by the consideration of the compound as a whole, and *does not depend on there being a community of properties in the members of the Markush expression.* [Emphasis ours.]

This would seem to apply to the grouping of appellants' original claim in which Y equalled amino or mercapto and, if so, the mere fact of their having been claimed together fails to show any equivalency other than the functional equivalency discovered and first disclosed by appellants. Reliance thereon for rejection involves precisely the same fallacy we have found in the case of the "Borcherdt doctrine" application—the applicant's teaching is assumed to be the prior art.

We therefore are constrained to conclude that the Board's rejection based on the application of "the legal doctrines of *In re Ayres* and *In re Borcherdt et al.*" must be reversed as contrary to sections 102 and 103 of the patent statutes which we deem to be controlling.

To sum it all up [9] actual equivalence is not enough to justify refusal of a patent on one member of a group when another member is in the prior art. The equivalence must be disclosed in the prior art or be obvious within the terms of section 103.

We wish to make one final point. At the oral argument the Patent Office Solicitor gave us the impression that he was urging upon us the existence of an actual art-recognizable "structural" equivalence between the prior art amino compounds and the claimed mercapto compounds, over and above any implied admission of such equivalence due to inclusion in a Markush group or expressly admitted functional equivalence. This point was not urged in the Patent Office brief but that brief does advert to the presence in the Schaeffer patents of "certain thiazoles *and certain mercapto* compounds," [emphasis ours] without any greater specificity as to the disclosure or amplification of the significance of this comment. For all we know there are ten thousand mercapto compounds.

[10] If we are correct in our understanding that we were asked to consider this point, we are compelled to state that we cannot do so for the reason that it was not raised either by the Examiner or the Board.

[11] The decision of the Board of Appeals is reversed.

REVERSED.

WORLEY, *J.* (concurring):

In agreeing with the result reached here it might be appropriate and of some possible service to the Patent Office and patent bar for me to say, as the judge designated by the court to write the opinion in the Borcherdt case, that there was no desire or intention there to create a new doctrine. In so complex and technical a field as patents, it is extremely difficult to dispose of appeals with the degree of rhetorical preciseness possible in other fields of law without, at least to some degree, indulging in dictum. If the language in the Borcherdt decision was capable of the interpretation

placed on it by the Patent Office, and I do not say that it was not, it is regretted. However, that decision, although factually different, was intended to be based on the principle of the precedents cited therein. There was no intention to hold that a disclosure by an applicant that two or more materials were equivalent for his purposes would necessarily justify the rejection of a claim limited to one of such materials merely on the basis of a showing that another of them was known in the prior art.

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2,348,616, M. H. Frisbie, Worm drive toy locomotive; 2,461,864, W. R. Smith, Vapor generation and puffing with audible effects in toys, filed June 27, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 644/58–HW, *A. C. Gilbert Co. v. Revell, Inc. et al.*

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2,688,768. (See 2,541,092.)

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2,727,673. (See Des. 151,526.)

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REISSUES

AUGUST 26, 1958

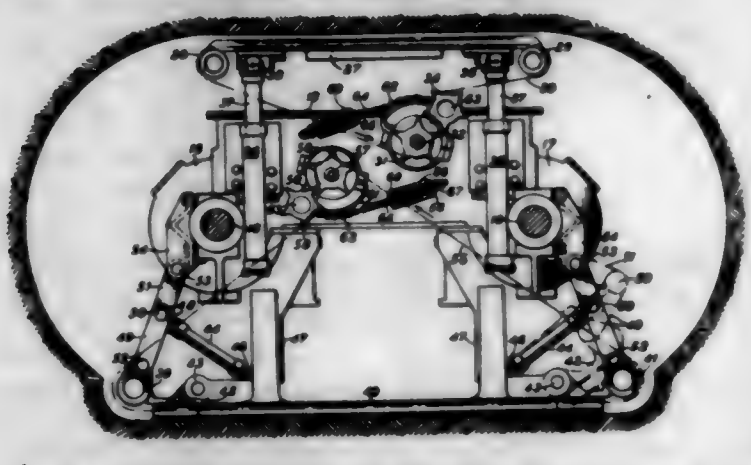
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,523
MINING MACHINE HAVING CUTTER CHAIN SLACK TAKE-UP MEANS

James S. Robbins, Seattle, Wash., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Original No. 2,743,093, dated April 24, 1956, Serial No. 440,375, June 30, 1954, which is a division of Serial No. 264,880, January 4, 1952, now Patent No. 2,705,624, dated April 5, 1955. Application for reissue March 24, 1958, Serial No. 723,619

5 Claims. (Cl. 262—7)



3. In a mining machine of the type having a pair of boring arms arranged to cut contiguous bores, at least one retractable cutter chain guide and an endless cutter chain guided thereby for cutting a cusp remaining from the action of said boring arms, and a drive means for said cutter chain, the improvement in such mining machine which comprises: means swingably movably supported by the mining machine for taking up slack in said cutter chain occasioned by movement of said cutter chain guide, said means including an arcuate surface substantially coincident with the swinging movement of the means, and other means for enabling and urging said first mentioned means to move in a direction to take up slack in said cutter chain, said other means including flexible means secured to said first mentioned means and disposed along said arcuate surface.

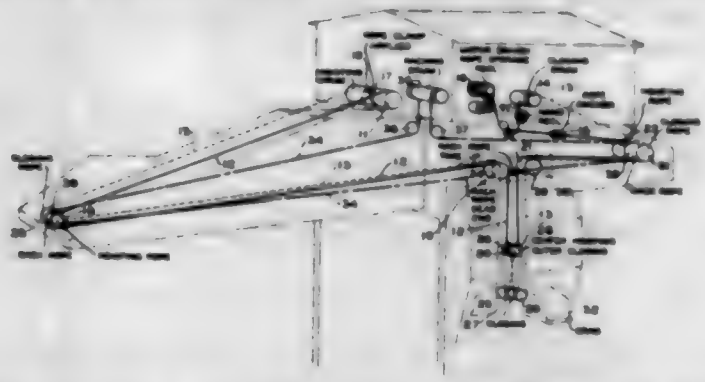
24,524
CONTINUOUS ROPE UNLOADING SYSTEM

Frederick O. Snow, Jr., Maplewood, N. J., assignor to McKiernan-Terry Corporation, Harrison, N. J., a corporation of New Jersey

Original No. 2,776,758, dated January 8, 1957, Serial No. 529,879, August 22, 1955. Application for reissue December 30, 1957, Serial No. 706,219

12 Claims. (Cl. 212—81)

11. One rope system, with spare unused rope at one end to compensate for worn rope taken out of the system at the other end, in an unloading tower and comprising the combination of grab bucket, closing drum having a releasable rope clamp, deadend anchor through which rope may be drawn in continuous length, spare rope storage means adjacent said anchor beyond the active rope portion of the system, a single continuous rope equal to combined length of holding and closing lines for the system, plus an excess spare length at one end for storage at said spare rope storage means, said spare length at the end of said rope being disposed at said rope storage means and extending continuously from said supply of spare rope through said releasable rope anchor and through said grab bucket to said hoisting drum as a hoisting line and looped and reversed on itself at said hoisting drum and returned in reverse direction back through the grab bucket to said closing drum as a closing line, and releasable rope loop holding means for securing said reversed loop of rope on said hoisting drum and whereby on release of the rope securing means on the closing drum, release of the through rope deadending anchor and release of the rope loop securing means on the hoisting drum, worn rope at the closing drum end of the system may be pulled out and



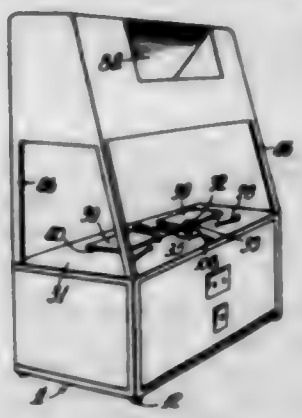
removed while fresh unused rope from the supply of spare rope at said spare rope storage means is fed through the released deadending anchor to and around said loop of rope at the hoisting drum and thence back through the grab bucket to the rope clamp on the closing drum and whereupon said rope clamp, the rope loop holding means on the hoisting drum and the deadend anchor may be closed to secure said one rope system in operative condition with a less-used section of rope in service at the closing drum and a fresh unused section of rope in service at the opposite end of the system.

24,525
COMPOSITE OPTICAL IMAGE PROJECTION APPARATUS

Thomas B. Howell, Larchmont, and Milton Rogin, Woodmere, N. Y., assignors to Howell-Rogin Studio, Inc., New York, N. Y., a corporation of New York

Original No. 2,754,722, dated July 17, 1956, Serial No. 405,474, January 21, 1954. Application for reissue December 24, 1957, Serial No. 703,338

11 Claims. (Cl. 88—24)



1. A composite optical image projecting apparatus comprising a substantially hollow base having a substantially horizontal top wall, a pair of spaced lenses in said top wall, a pair of light projectors in said base to project

light through said lenses respectively, a support positioned above the top wall of said base, a second pair of spaced lenses mounted on said support and positioned respectively over the lenses in said top wall, a pair of mirrors mounted on said support inclined toward each other and positioned in the path of the light from the second pair of lenses respectively, a second pair of inclined mirrors mounted on said support between said first pair of mirrors and facing the mirrors of said first pair respectively, to reflect the light reflected from the first pair of mirrors, and an additional mirror mounted on said support above the first two pairs of mirrors, said additional mirror being inclined so as to reflect the light from both of the mirrors of said second pair of mirrors.

24,526

HIGH-PRESSURE REACTION OF CARBON MONOXIDE WITH HYDRAZINE

Herman J. Sampson, Jr., Camden, S. C., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Original No. 2,589,289, dated March 18, 1952, Serial No. 18,295, March 31, 1948. Application for reissue March 13, 1958, Serial No. 721,326

5 Claims. (Cl. 260—554)

1. A process for producing semicarbazide and hydrazodicarbonamide which comprises reacting carbon monoxide with hydrazine in the presence of a metal carbonyl catalyst at a temperature from 0° to 200° C. under superatmospheric pressure in excess of 5 atmospheres, and isolating from the reaction mixture one of said compounds semicarbazide and hydrazodicarbonamide.

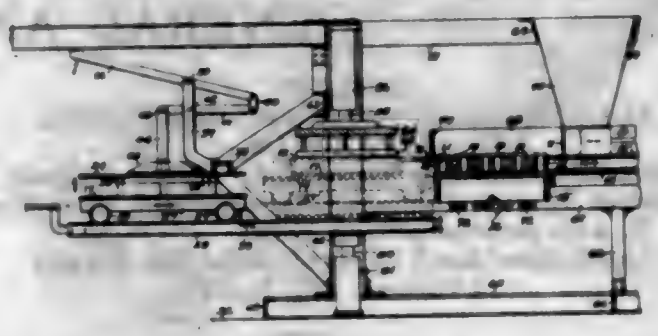
24,527

METHOD OF FABRICATING ORNAMENTAL CONCRETE BLOCKS

Edward P. Ripley, Van Nuys, Calif.

Original No. 2,708,783, dated May 24, 1955, Serial No. 309,757, September 16, 1952. Application for reissue July 28, 1955, Serial No. 525,091

12 Claims. (Cl. 25—155)



1. Steps in a method of fabricating concrete structural blocks with irregularly rounded side faces, comprising: preparing a concrete mix; utilizing said mix in molding a series of green blocks in approximate form but with flat squared sides; placing the green blocks on a flat supporting surface; applying pressure through a flat surface parallel to said supportirng surface, to the upper faces of the blocks while at least one side of each block is unconfined, to reduce the thickness of the blocks and simultaneously cause the unconfined sides thereof to bulge solely as the result of said application of pressure so as to assume the desired irregularly curved contours; and then allowing the blocks to cure.

PLANT PATENTS

GRANTED AUGUST 26, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,744

PECAN TREE

Julius A. Kernodle, Camp Hill, Ala., assignor to Simpson Nursery Company, Monticello, Fla., a partnership

Application December 5, 1957, Serial No. 702,925

1 Claim. (Cl. 47—62)

A new and distinct variety of pecan tree, substantially as herein shown and described, characterized particularly as to novelty by its luxuriant and relatively large foliage, the large size and blunt shape of its nuts and their extremely thin shells which tend to readily crack down the middle when subjected to hand pressure, the relatively light color and almost polished appearance of its nuts, the full and oily kernels and their relatively light color, excellent quality and flavor, and its relatively late nut-ripening habit.

1,745

STRAWBERRY PLANT

Albin E. Lang, Dodgeville, Wis.

Application April 2, 1957, Serial No. 650,285

1 Claim. (Cl. 47—62)

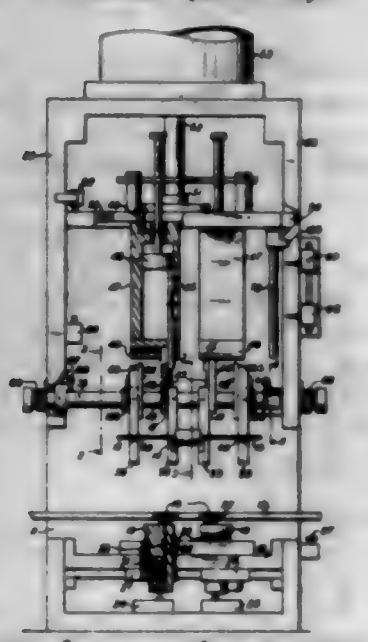
A new and distinct variety of strawberry substantially as herein shown and described, characterized by its persistent habit of heavy runner production; the production of fruit on both primary and secondary runner plants in the season of their appearance; its resistance to frost; and the everbearing production of large, tangy-flavored berries.

PATENTS

GRANTED AUGUST 26, 1958

GENERAL AND MECHANICAL

2,848,718
ELECTRICAL COMPONENT MOUNTING APPARATUS
William M. Hancock, Groveland, Mass., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 21, 1956, Serial No. 573,005
4 Claims. (Cl. 1—2)



1. An apparatus for mounting electrical components, having leads extending in opposite directions from and connected to opposing ends thereof, on a board having spaced pairs of apertures therein to receive the leads of selective articles, the apparatus comprising a shaft supported for rocking movement about its axis, a releasable latch normally holding the shaft against rocking movement, arms rigidly mounted at spaced positions on the shaft to support the leads of the components adjacent positions where bends are to be formed in the leads, a carriage supported for movement through operating cycles toward and away from the shaft, cylinders carried by and movable with the carriage, pistons operable in the cylinders and having piston rods extending through the cylinders toward their respective arms, forming members carried by the cylinders, adapted to cooperate with the arms to bend outer portions of the leads toward a pair of apertures in the board and having parallel grooves to receive and support the portions, means movable with the carriage to release the latch to free the shaft for rocking movement of the arms free of the bent leads by the cylinders, and means to operate the pistons in their cylinders to cause their rods to hold the leads on the arms during bending of the outer portions, to move free of the leads during movement of the arms free of the leads and move the leads relative to the forming members to force the bent portions of the leads free of the forming members and into the pair of apertures in the board.

2,848,719
PULL-FREE GARMENT CONSTRUCTION
Joseph Clyne, Bronx, N. Y., assignor to Flexsleev, Inc., Bronx, N. Y., a corporation of New York
Application November 13, 1956, Serial No. 621,797
6 Claims. (Cl. 2—125)

1. In a sleeved garment including a body having front and back sections of material, a combination sleeve and body panel structure the material of which when laid out flat in pattern form comprises a sleeve section proper having an attachment end edge and longitudinal edges diverging toward the attachment end edge, said combination structure in pattern form also including an elongated body panel of material integral with the material of the sleeve section proper located at the attachment end of the sleeve section proper and projecting therefrom generally in line with the sleeve section proper, one longitudinal edge of said elongated body panel being a continuation of one of said longitudinal edges of the sleeve section proper, the attachment end of the sleeve being sewn to and between the upper portions of the front and back sections of the body of the garment, said one edge



of the body panel being sewn to the side edge of the back section and its opposite edge being sewn to the front section of the body of the garment below the sleeve section proper, and the longitudinal edges of the sleeve being sewn to each other, the resulting seam by which the elongated body panel is joined to the back section of the body of the garment and the seam joining the longitudinal edges of the sleeve section proper to each other constituting a single continuous seam extending through the underarm portion of the sleeve and down through the side of the body of the garment to the lower end of the elongated body panel, said combination structure providing a seamless area adjacent to and in front of the underarm portion of the garment permitting free arm movement.

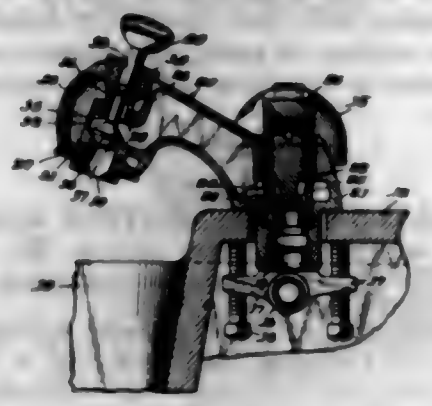
2,848,720
CAP STAY
Maurice H. Krieger, Brooklyn, N. Y., assignor to Art Cap Company, Inc., New York, N. Y., a corporation of New York
Application March 4, 1955, Serial No. 492,133
1 Claim. (Cl. 2—199)



A stay for shaping the front upper edge of a cap cover comprising a tapered, flexible hollow and shell-like member having lower and upper portions, the upper portion thereof having preformed convex and concave opposite sides, the lower portion of said member being readily bendable and extending angularly relative to the upper portion and being adapted for securement to the head-engaging portion of a cap adjacent the front of the cap cover, the upper extremity of said upper portion constituting an arcuate substantially horizontal top edge adapted

to lie in the same plane as the cap cover whereby the front upper edge of the cap cover is rounded in appearance with a contour as determined by the said arcuate edge, and said shell-like member having peripheral flanges extending along its sides and top, said top flange engaging and shaping the front of the cap cover, and said side peripheral flanges ending short of said top peripheral flange and thereby providing notches for engaging the shape retaining ring of the cap and preventing relative vertical movement of said tapered flexible member and retaining ring.

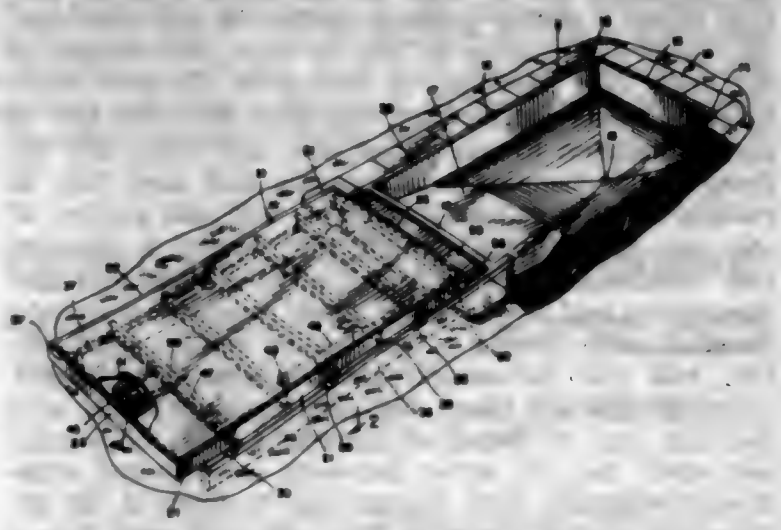
2,848,721
SPRAY-RINSE SINK CONSTRUCTION
Edward A. Fredrickson, Chicago, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application November 10, 1955, Serial No. 546,179
9 Claims. (Cl. 4—166)



1. A spray-rinse dental lavatory or the like comprising a basin, a spout having an inlet end connected to a source of water and an outlet end extending over said basin having a circular outlet opening defined by an edge portion of the spout spaced above the basin, valve means controlling flow into said spout inlet end, a partition extending across the spout outlet end including a pair of substantially parallel portions extending partially over said opening generally parallel to and spaced from the plane of said edge portion, said partition defining a pair of chambers one in communication with the inlet end and extending between said partition portions and the other in communication with the outlet opening and extending about the one chamber, stream discharge means extending from said one chamber centrally of the outlet opening through a portion of the other chamber, spray discharge means within the outlet opening extending about the stream discharge means having a conical face in closely spaced relation to said edge portion defining therewith an annular spray discharge outlet, opposed coaxial ports in said partition portions opening the one chamber to the stream discharge means and to the other chamber, a valve seat about each of the ports, a valve member between the partition portions movable for selective seating on said valve seats to close one port or the other, and a valve stem carrying said valve member projecting outwardly of the spout and shiftable axially of said ports, whereby either a stream of water or a conoidal sheet of water rinsing the basin wall may be discharged from the spout.

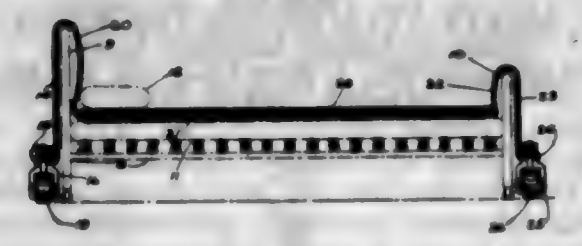
2,848,722
COVER ASSEMBLY FOR SWIMMING POOLS
Peter N. Chosporis, Arlington Heights, Ill.
Application March 28, 1957, Serial No. 649,251
7 Claims. (Cl. 4—172)

1. A swimming pool having side and end walls defining an open-topped chamber for receiving a quantity of water, in combination, an assembly for covering said pool comprising rigid cover means, wheels rotatably mounted on said cover means, tracks arranged on opposite sides of said pool for rollably receiving said wheels, and drive means for driving said cover means along said tracks to expose or cover said open-topped chamber, said cover means including a single unitary platform of rigid mate-



rial and defining a patio in either its open or closed position.

2,848,723
LIFT CARRIERS FOR HOSPITAL PATIENTS
Anna Arcand, San Francisco, Calif.
Application April 15, 1955, Serial No. 501,597
1 Claim. (Cl. 5—85)



A lifting and carrying device for transporting hospital patients from a bed to the operating room, embodying in its construction, a frame including a central horizontal portion formed with a substantially inverted U-shaped front portion capable of fitting over the front of the bed, the front face of the said inverted U-shaped portion being of a downwardly curved configuration, a substantially inverted U-shaped portion formed on the rear of the frame and capable of fitting over the foot of the bed, means including a plurality of wheel members for supporting the frame, means for adjusting the height of the frame, and a shelf mounted on the horizontal portion of said frame and capable of supporting a patient thereon, said shelf comprising a pair of flat members adapted to be actuated from the opposite sides of the frame, a tongue and groove connection provided at the inner ends of said members for detachably securing the same to each other.

2,848,724
HOOK FORMING PLIERS
Walter F. Wendt, Chicago, Ill., assignor to Mathias Klein & Sons, Chicago, Ill., a corporation of Illinois
Application July 15, 1957, Serial No. 672,086
3 Claims. (Cl. 7—5.6)



1. Long nose pliers for forming and crimping hooks in electronic component lead wires, comprising, in combination, two crossing levers medially hinged together for swinging movement about a common hinge axis, said levers defining two opposed handles extending in one direction from said hinge axis and two opposed jaws

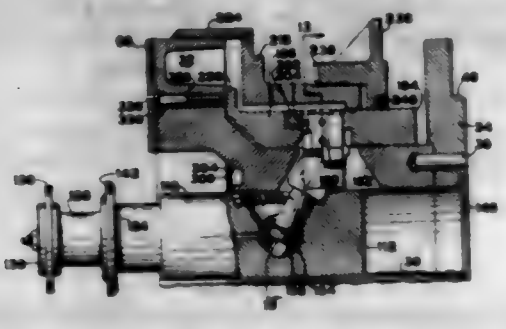
extending in the other direction from said hinge axis, the projecting end of each jaw defining a gripping surface facing a similar gripping surface on the other jaw, the hinge axis portion of one of said jaws defining a flat anvil face extending a substantial distance longitudinally along the jaw and opposing the other jaw in parallel relation to said hinge axis, said other jaw defining a flat clamping face opposing said anvil face in parallel relation to said hinge axis, said end portion of said one jaw defining on one side thereof a shearing face substantially perpendicular to said hinge axis and intersecting said anvil face to define therewith a straight shearing edge having a substantial length along the jaw, said end portion of said one jaw being deeply undercut laterally from the side opposite from said shearing face to define an abutment face intersecting said anvil face to define therewith an included angle of approximately sixty degrees and to form at the intersection of said abutment face with said anvil face a straight bending edge parallel to said shearing edge and having a predetermined spacing therefrom, and a shearing blade fixed to said other jaw and projecting therefrom to shear across said jaw shearing edge and slidably overlap said shearing face upon closing of said jaws.

2,848,725
SAFETY ATTACHMENT FOR BOATS
Milton O. Sloslin, Maddock, N. Dak.
Application May 3, 1955, Serial No. 505,660
1 Claim. (Cl. 9—3)



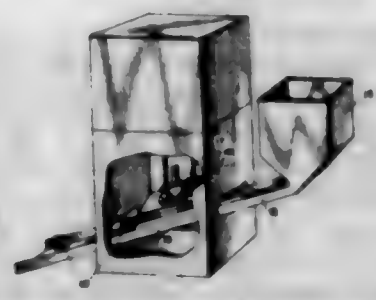
A safety device for boats comprising an elongated inflatable body, longitudinally extending flexible casings at the side edges of the body, rigid strips inserted in the casings, said casings conforming to the shape of said strips, and fastening means passing through the casings and strips for securing the body to the side of a boat.

2,848,726
TAPER THREAD CUTTING DIE HEAD WITH PIVOTED LEVER MEANS TO CONTROL TAPER
Charles A. Reimschissel and Donald E. Youtz, Waynesboro, Pa., assignors to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania
Application December 31, 1954, Serial No. 478,966
8 Claims. (Cl. 10—120.5)



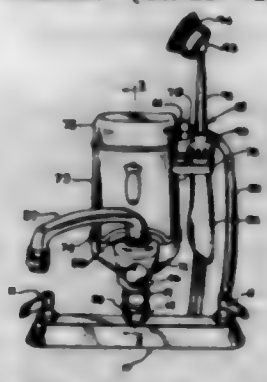
1. In a die head having a plurality of chaser holders mounted for radial movement in a body and control assembly mounted for axial movement on said body, operatively connected to said chaser holders and adapted upon axial movement with respect to said body to move said chaser holders radially: means to relatively axially move said control assembly with respect to said body during threading to produce a tapered thread comprising; a pilot mounted for axial movement within said body substantially centrally thereof and adapted to be moved axially by a workpiece during relative feeding movement of said head and said workpiece; a pair of levers pivotally associated with said pilot at points laterally offset from the axis of said pilot and extending radially outward therefrom; means pivotally mounting said levers adjacent their respective outer ends in said body; pivot means radially inward of said last-mentioned means pivotally connecting each of said levers to said control assembly; the pivotal connections between said levers and said control assembly and between said levers and said pilot being constructed and arranged to permit relative radial sliding movement of said levers with respect to said pilot and said control assembly whereby said control assembly is moved by forces acting parallel to the axis of said head; means mounting said pivot means for radial movement to adjust the amount of taper; and means for simultaneously and equally adjusting the radial position of said pivot means.

2,848,727
APPARATUS FOR SEPARATING ARTICLES
Arnold R. Johnson, Downers Grove, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application April 7, 1953, Serial No. 347,341
3 Claims. (Cl. 15—1.5)



1. An apparatus for separating material, which comprises means for advancing an article along a predetermined path, a pair of spaced electrodes on one side of said path at a predetermined position therealong, a negatively charged third electrode on the opposite side of said path, and means for applying positive potential alternately to the spaced electrodes in the pair to create alternating electrostatic fields between the pair of electrodes and the third electrode, said pair of electrodes being positioned at angles to each other and facing the third electrode to concentrate the electrostatic fields in the path of the article.

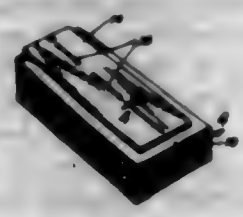
2,848,728
DISHWASHING APPARATUS
George Graff, Toledo, Ohio, Clarence C. Kinker, Manitou Beach, Mich., and Allen Owen, Toledo, Ohio, assignors, by mesne assignments, to Hoover Ball & Bearing Company, Ann Arbor, Mich., a corporation of Michigan
Application August 3, 1955, Serial No. 526,264
8 Claims. (Cl. 15—129)



1. A dishwashing apparatus for use with a water source comprising a swing spout, a water line, a diverter valve

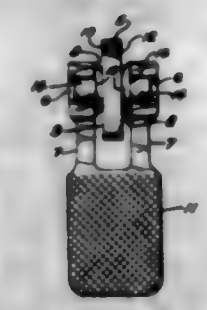
for selectively connecting said water source to said spout and to said water line, a detergent reservoir, means in said water line for creating vacuum responsive to the flow of water in said water line and opening thereinto, a detergent line connecting said reservoir to said vacuum means, a hand brush unit, a flexible water hose connecting said brush to said water line beyond said vacuum creating means, an air vent to said vacuum creating means for breaking the vacuum therein, an air hose connected to said air vent and leading with said water hose to said hand brush unit, and means at said hand brush unit whereby said air vent may be opened and closed selectively.

2,848,729
PENCIL POINT CLEANER
Michael A. Guarino, Chicago, Ill.
Application March 9, 1955, Serial No. 493,275
3 Claims. (Cl. 15—223)



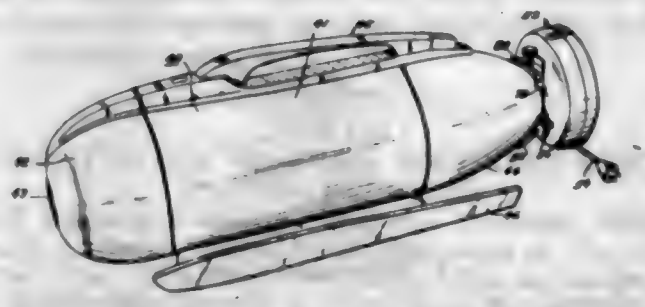
1. A pencil point cleaner for removing loose graphite and other material from a distance substantially equal to the length of a lead pencil point, comprising a stack of folded rectangular sheets of soft fibrous material with the edges at opposite sides transversely aligned, respective relatively stiff rectangular plate members on the top and bottom of said stack, and means located inwardly from the edges of the plate members for securing said stiff plate members and the sheets tightly together, the side margins of said stiff plate members being spaced inwardly from the said opposite edges of the said sheets, a distance substantially equal to the length of a pencil point whereby a pencil point may be cleaned by drawing said point along in the exposed margins of the stacked sheets which are disposed outwardly from the edges of the plate members, and wiping loose graphite and other loose material therefrom.

2,848,730
ROLLERS FOR APPLYING PAINT OR THE LIKE
Roy O. Billings, Milwaukee, Wis.
Application July 2, 1957, Serial No. 669,491
1 Claim. (Cl. 15—230)



A hand roller for applying paint to mortar line grooves, or for simulating mortar lines, comprising a handle having spaced-apart elongated holders with enlarged end bearing portions, a wheel having end faces and having an integral circular protrusion of less diameter than the end face on each end face, the periphery of each circular protrusion being angled toward said face in a direction to provide a circular groove for catching paint which overflows the periphery of the wheel, an integral trunnion projecting from each circular protrusion and rotatably supported in said enlarged bearing portions, the spacing between the enlarged bearing portions being substantially filled by the wheel and circular protrusions so that the outer faces of the latter rotate close to the inner faces of said enlarged end bearing portions, the diameter of each circular protrusion being at least equal to the greatest dimension of the adjacent enlarged end bearing portion so as to substantially cover the latter and protect the same from paint, whereby paint in the grooves will tend to flow back on the faces of the wheel toward its periphery during use.

2,848,731
VACUUM CLEANER WITH ELECTRIC CORD-REEL ATTACHMENT
Bernard J. Tamaria, Flourtown, Pa., assignor to The Vacuum Cleaner Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application July 27, 1949, Serial No. 107,991
33 Claims. (Cl. 15—323)



29. In combination, a torpedo type electric vacuum cleaner having an elongated housing containing an electric motor, and air mover and a dust collector, said housing adapted to have its longitudinal axis generally horizontally disposed when in normal use and having a generally horizontally discharging air discharge port, an electric cord reel, and electric cord and said reel adapted to be conductively connected to said motor, means for mounting said cord reel in a position exteriorly of said housing and in juxtaposition to said air discharge port and in the path of air discharged therefrom and with the major dimension of said reel disposed transversely of said axis of said housing, said mounting means being formed to space the cord reel, when in said position, a substantial distance from the discharge port of the cleaner and to provide an air passageway open to atmosphere between the cord reel and the housing transversely of said axis of said housing, said cord reel including means arranged to baffle at least a major portion of the air discharged from said port and to deflect it transversely of said axis of said housing through said air passageway to atmosphere.

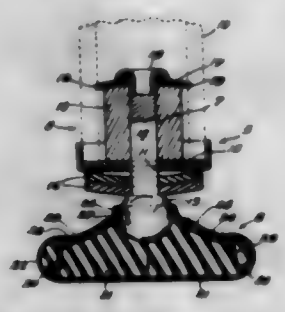
2,848,732
CASTER WHEEL MOUNTING
John Huff, Chicago, Ill.
Application May 18, 1956, Serial No. 585,759
2 Claims. (Cl. 16—38)



2. A caster wheel mounting for a hollow leg having an open lower end, a ferrule having a sleeve portion over said end and having a bottom wall beneath the same and said bottom wall having an aperture therein, a spindle

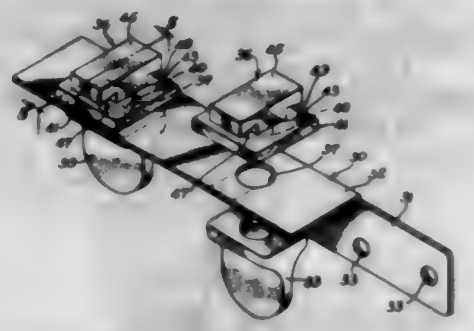
holder within the hollow leg and having a lower end connected to said bottom wall within said aperture, a caster wheel assembly having a spindle extending into said holder, said aperture disposed off-center on said bottom wall and said holder extending transversely athwart the principal axis of the leg and movable with said ferrule circumferentially of the leg to adjust the angular disposition of the holder with respect to the axis of the leg.

2,848,733
CUSHIONED SWIVEL GLIDE
Harry Thornsbury, Augusta, Ky., assignor to The F. A. Neider Company, Augusta, Ky., a corporation of Kentucky
Application August 13, 1956, Serial No. 603,732
1 Claim. (Cl. 16—42)



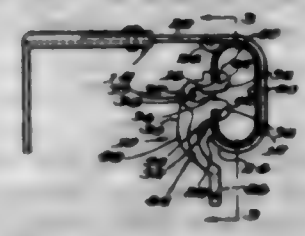
In a cushioned swivel glide for furniture legs, a cup-shaped base member having a curved side wall terminating in an inwardly turned upper end edge portion, a dome shaped plate comprising a top wall with its marginal edge engaged under the upper end edge portion of the base member and an integral skirt extending from the marginal edge downwardly and outwardly into the confines of the curved side wall of said base member, a pintle having an enlarged, round head formed on its lower end, a central opening formed in the plate, a dished, head keeper ring interposed between the head and the plate and having a central aperture for seating against the upper portion of the head, and a filler surrounding the lower portion of the head and filling the internal space bounded by the base member and the ring.

2,848,734
DRAPERY CARRIER
Hyman Jay Ault, Pasadena, Calif.
Application July 23, 1953, Serial No. 369,873
9 Claims. (Cl. 16—87.4)



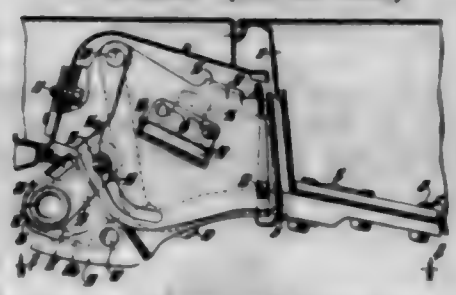
1. In a drapery supporting structure, the combination of: an elongated tubular track having a continuous slot formed in one side wall thereof; and a drapery carrier having a guide portion disposed externally of said track in contiguity to said one side wall, a shank portion on said guide portion located in said slot and a retainer portion insertable through said slot and disposed in the interior of said track, the upper edge of said retainer portion defining an elongated upper groove in said carrier into which the portion of the track defining the upper edge of said slot extends and a separate retainer attached to and movable on said retainer portion between a first, inoperative position and a second, operative position in which it defines, with said guide portion, a lower groove into which the portion of the track defining the lower edge of said slot extends.

2,848,735
DRAPERY CARRIER
Hyman Jay Ault, Pasadena, and Frank Wilcox, San Marino, Calif.; said Wilcox assignor to said Ault
Application March 7, 1955, Serial No. 492,566
3 Claims. (Cl. 16—93)



1. In a drapery carrier which is intended to be disposed in operative relationship with an elongated track having a guide slot communicating with an elongated recess whose width is greater than the width of the slot; a unitary body of resilient material including a head portion and a pendant portion, said head portion having an elongated slot lying in a plane generally perpendicular to said pendant portion and defining a pair of opposed jaws lying generally to one side of said pendant portion and a web member interconnecting said jaws, each of said jaws having a groove extending across the width of a surface of said jaw remote from the other of said pair of jaws, and a stiffening rib extending from said pendant portion to said web member, the one of said pair of jaws remote from said pendant portion being resiliently deflectable into engagement with the other of said pair of jaws.

2,848,736
HINGE AND HOLD-OPEN
Samuel F. Loria, Livonia, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 31, 1956, Serial No. 588,511
8 Claims. (Cl. 16—142)



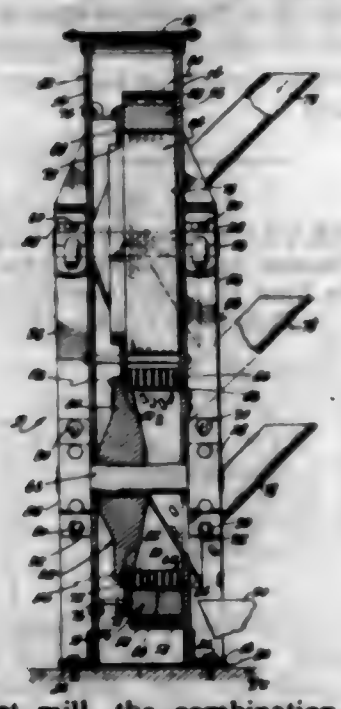
1. A two-position hinge and hold-open assembly for body and closure members, comprising in combination, a first hinge strap connected to the closure member, a second hinge strap connected to the body member, means pivotally connecting said straps together to permit swinging said closure between open and closed positions, a first hold-open comprising a toggle linkage including first and second links, pivot means connecting the links together, means pivotally connecting said first link to said first strap and pin and slot means pivotally and bodily movably connecting the second link to the second strap, the toggle links being extended when the closure is in an intermediate open position and being closed when the closure is swung to closed position, and the pin sliding in the slot to move the toggle links bodily with reference to said second strap when the closure swings from intermediate open position to fully open position, and a second hold-open comprising detent means on the second hinge strap over which said first hinge strap rides when the closure is swung from intermediate open position to fully open position.

2,848,737
EXTRUSION DIE
Clarence F. Poetter, Boyertown, and James E. Spohn, Pottstown, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application July 18, 1952, Serial No. 299,617
1 Claim. (Cl. 18—8)



A die for production of a plastic filament substantially elliptical in cross section and having sharp opposite edges, the die comprising a multiplicity of substantially elliptically shaped orifices of uniform size, the orifices being symmetrically arranged in respect to the center axis of the die, and the dimensions of said orifices being substantially 3 to 4 times larger than the corresponding dimensions of said filament, the die being provided with an integral conical structure on the inner face thereof, said structure having a complete conical surface, the axis of which is coaxial with the center axis of the die and the vertex of which is directed away from the outer face of the die, said structure being adapted to distribute plastic material uniformly to each of the orifices of the die.

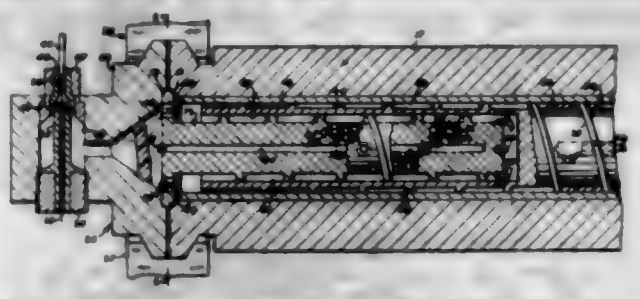
2,848,738
PELLET MILL
Paul Beaufoux, Lancaster, Calif.
Application July 13, 1955, Serial No. 521,781
3 Claims. (Cl. 18—12)



1. In a pellet mill, the combination of: a rotatable roller having a die-engaging surface formed on the interior thereof; and a plurality of rotatable dies mounted within said roller with their peripheries in supporting and driven relationship with said roller whereby said dies rotatably support said roller and said roller drives said dies, said dies having a plurality of pellet forming orifices therein for the formation of pellets thereby.

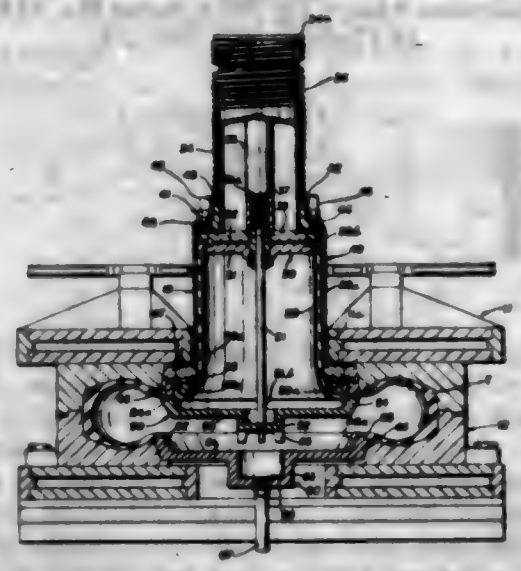
2,848,739
METHODS OF AND APPARATUS FOR MAKING CELLULAR PLASTIC PRODUCTS
George E. Henning, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application September 30, 1955, Serial No. 537,670
9 Claims. (Cl. 18—12)

5. Apparatus for making cellular plastic products, which comprises a conduit having an opening therein, a screw mounted rotatably in said conduit for forcing plastic toward said opening and for simultaneously working the plastic to a viscous fluid state, means for diverting a portion of the plastic before it is discharged from said opening and for recirculating the plastic through at least



a portion of said conduit, and means for introducing an expanding medium into the diverted portion before the latter is recirculated, whereby the plastic material passing through said opening contains the expanding medium in a dispersed condition.

2,848,740
APPARATUS FOR SHAPING AND VULCANIZING PNEUMATIC TIRES
Adolf Heinrich Froblich, Hannover, Germany, and Edward J. Harris, Akron, Ohio, assignors to The Cleveland Trust Company, Cleveland, Ohio, as trustee
Application October 3, 1955, Serial No. 538,225
8 Claims. (Cl. 18—17)

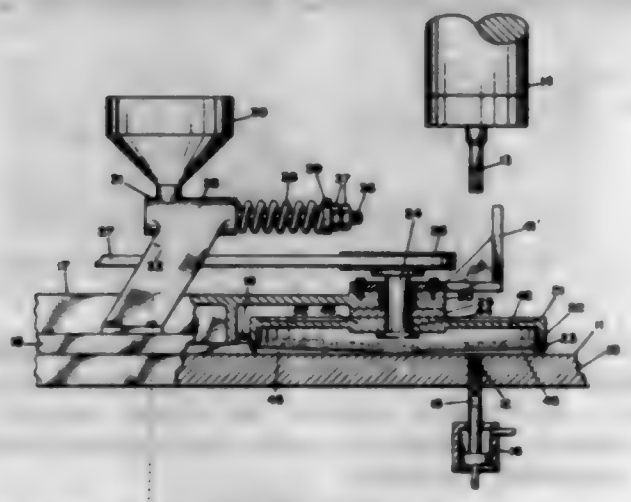


1. A vulcanizing press of the character described, comprising; a pair of complemental relatively movable mold sections having opposed bead seat areas and defining an annular curing chamber when closed; an inflatable former carried by one said mold section; a cylindrical housing carried by said mold section carrying said former and being disposed within the radial confines of said bead seat area thereof in concentricity therewith; means for moving said former between a position in said chamber and a position in said housing during the period said press is closed; seal-off means shiftable into and out of engagement with said bead seat area of said mold section carrying said former when said former is positioned within said housing whereby said housing is sealed off from said chamber; and means for supplying vulcanizing medium to said chamber during the period said seal-off means are in engagement with said bead seat area.

2,848,741
APPARATUS FOR FEEDING POWDERED OR GRANULAR MATERIALS TO RECEPTACLES
Leo B. McCracken, Sr., Columbus, Ohio, assignor, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application December 27, 1955, Serial No. 555,562
2 Claims. (Cl. 18—30)

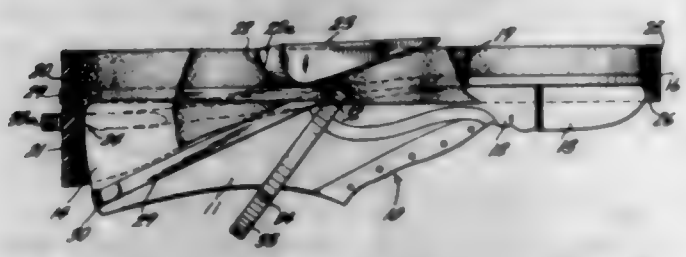
1. Apparatus for filling a die with granular material including means forming a bed having a flat upper sur-

face, die means having a mouth opening through said flat surface, a rotary material container means including an annular knife edge in slidable relation with said flat surface, and means for rotating said container means



while moving it across said die mouth whereby material will fill said die and be sliced off at the mouth thereof by said rotating annular knife edge in the plane of said flat surface.

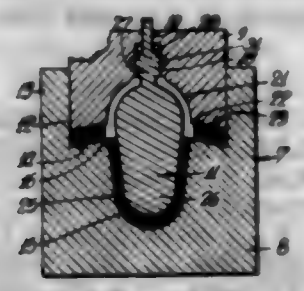
2,848,742
SHOE BOTTOMING METHODS AND APPARATUS
William H. Doherty, Rego Park, N. Y.
Application March 10, 1954, Serial No. 415,283
19 Claims. (Cl. 18—34)



1. Shoe sole and heel molding apparatus comprising resilient rubbery molding band means, means adapted to clamp said band means to a shoe adjacent to the bottom and along the periphery thereof, said band means extending a predetermined distance beyond the bottom of said shoe and having a cut away section on at least one side of the shoe adjacent to the shoe shank, and a core disposed in the cut away section and extending across the shank.

14. A shoe bottoming method comprising affixing band means to the shoe adjacent to the bottom and along the periphery thereof, the band means extending a predetermined distance beyond the shoe bottom, positioning a core in a cut away section of the band means, said core extending across the shank of the shoe, and pouring a casting compound into the mold.

2,848,743
METHOD AND EQUIPMENT FOR FORMING BLADDERS
Jean Mercier, New York, N. Y.
Application November 19, 1953, Serial No. 393,146
10 Claims. (Cl. 18—42)



4. Equipment for molding bladders comprising a base having a recess therein adapted to receive a charge of molding material, material receiving means laterally of said base recess and above the lower end of the latter to receive additional molding material, slidable pressure exerting means adapted to move against the material on said material receiving means, said slidable pressure exerting means having conformations complementary to the base recess to define the mold cavity, and a core in said cavity movable therein to react against the material in said base recess.

2,848,744
APPARATUS FOR AND METHOD OF FORMING TIRE TREADS
David E. Crooker, Ontonagon, Mich., assignor of one-half to Lloyd L. Felker, Marshfield, Wis.
Application November 16, 1955, Serial No. 547,144
4 Claims. (Cl. 18—44)



3. In a mold for forming a tire tread, an annular matrix having an outer periphery and provided with at least one circumferentially extending rider-strip-forming groove having a bottom and having a circumferentially extending concavity in said bottom, a multiplicity of spaced sipe-forming strips extending transversely of said groove and transversely of said mold to provide a circumferentially extending row of compartments, at least some of said strips at longitudinally spaced intervals throughout the length of the groove having projecting edges each provided with a notch substantially midway of the width of a groove for engagement with a wire traction augmenting member which is of less width than a groove to hold the upper portion of said member against tipping while the opposite portion is seated in said concavity in the bottom of the groove.

2,848,745
TIRE CURING APPARATUS
William Thomas Morris, Walled Lake, Mich.
Application June 10, 1957, Serial No. 664,607
1 Claim. (Cl. 18—45)

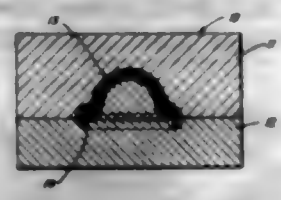


Apparatus for retreading a tire, comprising an inflatable hollow annular resilient curing bag insertable when deflated within said tire for disposition adjacent the tread portion thereof, said curing bag having an arcuate outer periphery conforming to the inner tread surface of the tire and a concave inner periphery merging into sharply curved connecting portions of increased thickness of material, and a collapsible rim insertable within said tire and expandable to annular shape for confining said bag against the tire tread portion, the expanded rim having an outer convex periphery engaging against in substantial conformity with the concave inner bag periphery to reduce tendency of the inner bag periphery to stretch laterally under inflation pressure, opposite side edges of said expanded rim defining with the inner side wall surfaces of said tire and with said sharply curved connecting portions of said bag a pair of annular spaces of triangular cross section for protecting said sharply curved bag portions from pinching between said rim side edges and the adjacent interior tire wall surfaces when the curing bag is inflated.

2,848,746
METHOD OF FORMING A SEAL

Albert F. Thiele, Jr., Melrose Park, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application July 5, 1955, Serial No. 519,834
1 Claim. (Cl. 18—47.5)

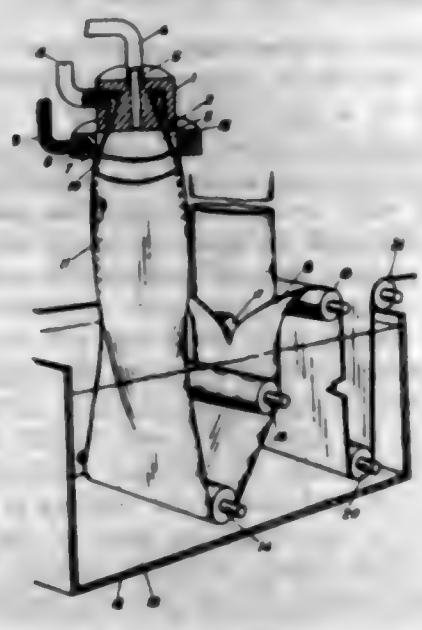


In a method of forming a seal for a sheet-like member having an aperture defined by centrally presented edge portions of said member, the steps comprising: molding a cup-like body of pliable material having a pair of flange portions defining a slot opening in the direction of the concavity of said cup-like body; turning said body inside-out to form a reversed cup-like body in which the concave surface of the molded body is reshaped into a convex surface and the said slot faces transversely of the opening in said cup-like body; and inserting the reshaped body into such an aperture while engaging said transversely facing slot with the mentioned centrally presented edge portions, thereby to seal the aperture.

2,848,747
TUBE EXTRUSION

Glenn R. Dixon, Hamden, Conn., assignor to Olin Mathieson Chemical Corporation, New Haven, Conn., a corporation of Virginia

Application September 23, 1955, Serial No. 536,129
4 Claims. (Cl. 18—47.5)



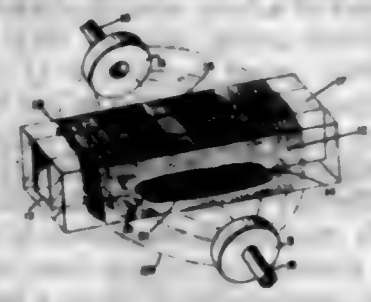
1. A method for producing cellulose film comprising continuously casting a cellulose film forming solution upon a newly extruded thermoplastic tube, expanding the composite tube and cast film, utilizing the heat inherent in the newly extruded tube to dry the film upon said tube, slitting the cellulose film and stripping it from the thermoplastic tube.

2,848,748
METHOD OF SECURING PERMANENT THREE-DIMENSIONAL PATTERNS OF MAGNETIC FIELDS

Lloyd R. Crump, Silver Spring, Md.

Application February 28, 1956, Serial No. 568,316
3 Claims. (Cl. 18—47.5)

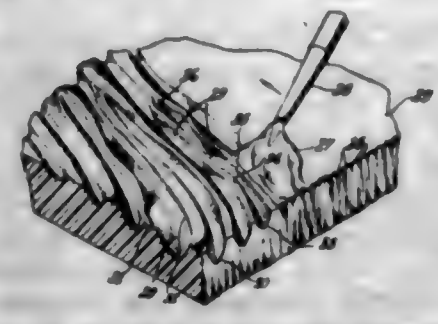
1. The method of securing a permanent, visible, three-dimensional pattern of the magnetic field existing in a predetermined zone, said method comprising the steps of: adding microscopic magnetic-responsive particles to a substantially transparent thermosetting plastic liquid held in a suitable container, causing said particles to become suspended in the liquid, adding a catalyst to the liquid which will cause the liquid to set and then solidify after a period of time, placing said container in said predetermined zone after adding said catalyst and before the liquid has set, the magnetic field existing in said predetermined zone causing said particles to align in conformance therewith, allowing the liquid to set while under the influence of said magnetic field, and thereafter allowing the set liquid to assume the state of a solid body, the amount of said particles by weight added to the liquid in said container being substantially smaller than the weight of the liquid so that the three-dimensional arrangement of said particles in the resulting solid can be observed.



2,848,749
STRIATED PLASTIC

Abraham Joel Tobias, Rego Park, N. Y.

Application May 22, 1957, Serial No. 660,825
7 Claims. (Cl. 18—48.8)



1. The process for forming a striated surface upon a cast sheet composed substantially of methyl methacrylate comprising the steps of stretching a heated sheet of said material, permitting it to cool while subjected to said stretching, whereby said sheet assumes a permanent set in its stretched condition, band sawing a portion of said sheet, whereby a plurality of indentations are formed on at least one edge of said sheet, applying a source of heat to said edge and then moving said source of heat from said edge into the vicinity of areas of said sheet adjoining said edge, said source of heat being continuously applied to said sheet while being so moved, whereby a plurality of striations are formed commencing at said indentations and extending into said adjoining areas, said striations extending in the direction of said stretching, the thickness of said sheet being greater than the depth of said striations.

2,848,750
PROCESS FOR PRODUCING SYNTHETIC RESIN ARTIFICIAL DENTURES WITH LININGS

Herbert Sennecke, Leverkusen, and Hermann Schnell, Krefeld-Uerdingen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application June 22, 1955
Serial No. 517,392
Claims priority, application Germany July 5, 1954
6 Claims. (Cl. 18—55.1)

1. A process of preparing a hard synthetic resin denture having a soft liner firmly adhered thereto comprising placing in a dental mold a mixture of a powdery polymer

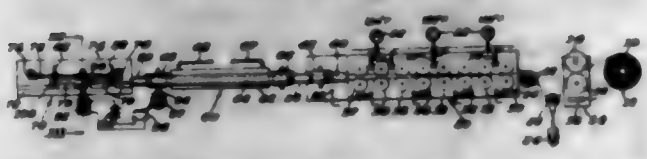
of a monoethylenically unsaturated ester and a liquid monoethylenically unsaturated ester, molding said mixture into a shaped denture of doughy consistency, preparing a sheet of soft plastic liner from a copolymer of a lower alkyl methacrylate in which the alkyl radical has from 1–3 carbon atoms and a second monomer copolymerizable therewith selected from the group consisting of (1) alkyl esters of acrylic acid in which the alkyl radical has 1–15 carbon atoms, and (2) alkyl methacrylates in which the alkyl group is from 4–15 carbon atoms, shaping said copolymeric sheet to fit the interior of the denture so as to form a soft resilient shaped liner, then swelling said shaped liner in a plasticizing solution of a compatible monomer having a single ethylenic linkage so as to partially impregnate the surface of said liner with said monomer, placing the swelled liner on the denture, and heating the combination of denture and liner in the mold so as to simultaneously cure the liner and denture and to effect polymerization of the monomer component of each, and removing from the mold a hard denture having a soft liner firmly welded thereto.

2,848,751

METHOD FOR MAKING INDEX TIPS

Dixon S. Vernon, Jamestown, N. Y., assignor to Art Metal Construction Company, Jamestown, N. Y.

Application January 12, 1953, Serial No. 330,770
4 Claims. (Cl. 18—56)



1. A method of making index covers from flat strip stock of thermoplastic material comprising passing the stock through a series of heated mating roller die units arranged to form longitudinal beads serving as guide fulcrums and to perform successive folding operations upon the longitudinal beads of the cover-forming stock strip to progressively fold the latter from flat stock form into lengthwise folded form having substantially sharp folds, progressively increasing the temperature of the stock strip at each successive forming die units wherein the temperature of the strip is lowest where the folding stress on the longitudinal beads is least and is highest where the folding stress on the longitudinal beads is greatest, and maintaining the folded condition of the strip by holding and pressing the strip during the cooling thereof to set the folds.

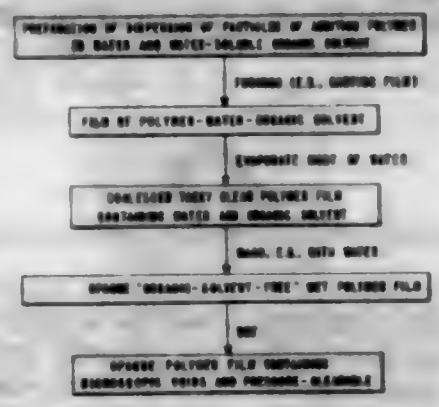
2,848,752

PROCESS FOR THE PRODUCTION OF POROUS OPEN-CELL STRUCTURE POLYMER FILMS

Max Fredrick Bechtold, Kennett Square, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application December 3, 1954, Serial No. 473,847
5 Claims. (Cl. 18—57)

1. A process for the production of porous open-cell structure polymer films which comprises (1) preparing a dispersion of discrete particles of a hydrophobic organic addition polymer having a wholly carbon chain of atoms, a molecular weight of at least 10,000 and a particle size less than 3 microns and being taken from the class consisting of vinyl and vinylidene addition polymers in an aqueous medium containing from 10% to 50% by weight of a water-soluble organic solvent for said polymer and having a boiling point above 100° C. and at a concentration insufficient to dissolve the polymer, (2) shaping the dispersion into the form of a film, (3) removing a substantial amount of the aqueous medium from the shaped film by evaporation until the polymer film becomes tacky, (4) washing the resulting tacky film with a water-miscible liquid in which the polymer is insoluble but which dissolves said organic solvent to form a porous opaque and coherent film substantially free from said organic solvent and (5) drying the washed



film at a temperature below its softening point to produce a strong, opaque article having a porous, open-cell structure characterized by microscopic voids communicating with the surface and receptive to ink.

2,848,753

PRODUCTION OF POLYMERIC α-CHLOROACRYLATE SHEETS

Harry D. Anspon, Easton, and Frank E. Pechorr, Phoenixville, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

Application June 1, 1953, Serial No. 358,974
9 Claims. (Cl. 18—59)



1. In a method of producing a polymeric α-chloroacrylate sheet, the steps comprising supporting in inclined position on a flat rigid member a casting cell composed of upper and lower flat cell walls edge-sealed and provided with spacers around the periphery thereof, said upper cell wall being relatively thin and flexible, filling the cell through an opening in the edge seal at the uppermost portion thereof with an amount of liquid α-chloroacrylic acid ester monomer sufficient to completely fill the casting cell when the cell walls are in parallel relationship, forcing a second flat rigid member having approximately the same surface dimensions as the cell walls on the upper cell wall so that said upper cell wall is substantially in parallel relationship with said lower cell wall, and sealing the opening at the uppermost portion of the cell when the level of the monomer in the cell is immediately adjacent thereto, all while maintaining said casting cell in inclined position.

2,848,754

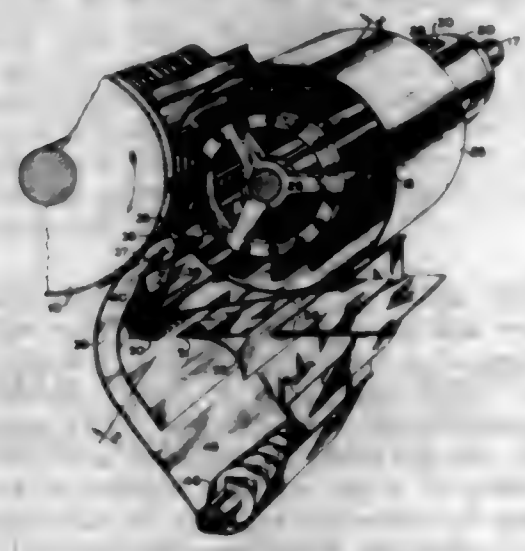
FIBER CLEANER

Mayer Mayer, Jr., New Orleans, and James I. Kotter, Metairie, La., assignors to the United States of America as represented by the Secretary of Agriculture

Application January 10, 1957, Serial No. 633,589
5 Claims. (Cl. 19—67)
(Granted under Title 35, U. S. Code (1952), sec. 266)

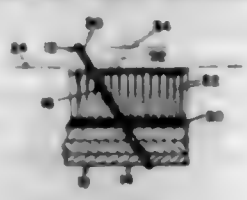
1. A fiber cleaner comprising a rotatable fiber processing cylinder onto which are fed fibers containing trash heavier than the fibers, a rotatable doffer cylinder mounted parallel to and adjacent the processing cylinder, the adjacent face of the doffer cylinder moving in the same direction as that of the processing cylinder but at a greater speed, a housing enclosing the doffer cylinder with an open portion adjacent the fiber processing cylinder, means for admitting air into the interior of the doffer cylinder and radially outwardly thereof through the open

portion of the housing, a conduit having its entrance adjacent the processing and doffer cylinders into which the air flows for conveying the fibers opened by the fiber processing and doffer cylinders, a deflector dividing the conduit into a trash conveying conduit and a fiber conveying conduit, said trash conveying conduit being more nearly tangential to the fiber processing cylinder than the fiber conveying conduit, and a trash box into which the trash conveying conduit leads, the fiber conveying conduit



leading to a region of pressure less than that in the trash box, whereby the heavier trash follows a path into the trash conveying conduit and the fibers follow the path to the region of lesser pressure, said fiber conveying conduit including a bend and a trash ejecting opening through its wall at the outer curved part of the bend leading into the trash box, whereby heavier trash yet remaining with the fibers is ejected through the trash ejecting opening into the trash box.

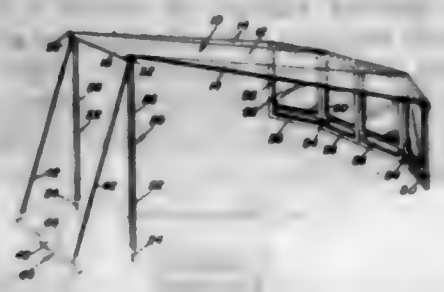
2,848,755
CARD-CLOTHING
Eugene V. Caille, South Barre, Mass., assignor to Howard Brothers Manufacturing Company, Worcester, Mass., a corporation of Massachusetts
Application December 30, 1955, Serial No. 556,499
2 Claims. (Cl. 19—114)



1. Card-clothing comprising a foundation and teeth therein extending therefrom, and soft, hair-like upstanding filaments secured to the foundation generally throughout, said filaments extending at the same side of the foundation as the teeth, the latter being bent and thus provided with knees located in the filaments.

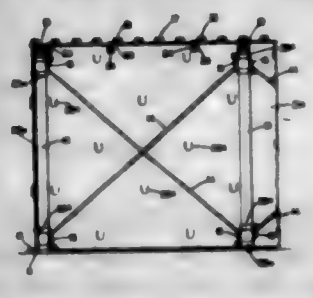
2,848,756
PORTABLE KNOCKDOWN BEACH SHELTER
Mary Jane McCann, Canoga Park, Calif.
Application February 24, 1956, Serial No. 567,506
3 Claims. (Cl. 20—2)

1. A portable knockdown beach shelter comprising, in combination, a flexible canopy, vertical poles elevating and supporting one end portion of said canopy, and a prefabricated vertical portable wall elevating and supporting the other end portion of said canopy, said wall being foldable and portable, constituting a wind and sand shield and being characterized by a plurality of window-frames operatively connected so that they may be angularly adjusted in keeping with ever-changing wind direction requirements, the lower portions of said window frames being constructed so that they may be embedded



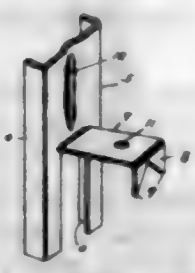
and adequately anchored in the sand, whereby to require neither props nor ancillary hold-down devices.

2,848,757
KNOCK-DOWN SHELTER
Abbott E. Armstrong, Jr., Pasadena, Tex., assignor of one-half to Billy J. Golden, Pasadena, Tex.
Application August 15, 1956, Serial No. 604,185
2 Claims. (Cl. 20—2)



2. A knock-down shelter construction of elongated rectangular shape comprising spaced vertical support posts located at the corners of said elongated rectangular shelter and intermediate the corners along the two longer sides of the shelter, transversely disposed beams only attached to the upper ends of the posts and connecting the posts in pairs, corrugated sheet metal roofing located upon the upper surfaces of said transversely disposed beams, sheet metal end and side walls located against the outer sides of the support posts, said sheet metal end and side walls having horizontally and vertically spaced louvers therein, sheet metal straps entirely encircling the upper and lower end portions of the support posts, opposite end portions of each sheet metal strap being located together flatwise and contacting the inner surface of the adjacent end or side wall, means detachably connecting the sheet metal side and end walls to said end portions of the sheet metal straps and providing the only means for attaching said end and side walls to said posts, depending angular clips at the edges of the corrugated roofing sheets, and means detachably connecting the upper edge portions of the sheet metal end and side walls to said angular clips and providing the only means for attaching said corrugated sheet metal roofing.

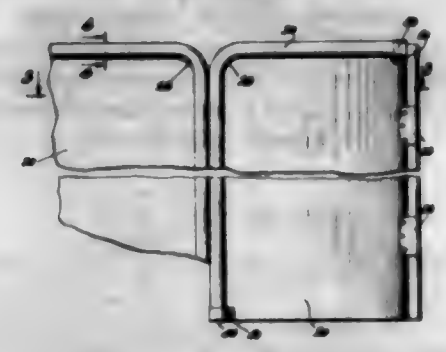
2,848,758
WALL BOARD SECURING CLEAT
Gordon R. Chisholm, St. Louis, Mo.
Application March 15, 1955, Serial No. 494,500
2 Claims. (Cl. 20—4)



1. As a new article of manufacture, a cleat for securing wall boards together along the adjacent edges comprising an elongated body portion, a tongue extending

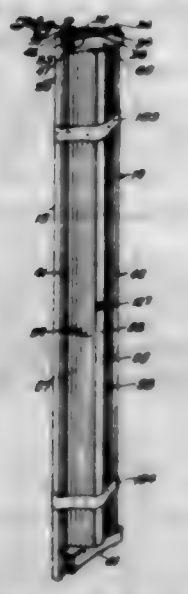
laterally from said body portion, a pair of beam piercing points extending angularly from said tongue, said tongue having an opening adapted to receive a securing nail, and said body having a slot extending lengthwise thereof and disposed above said tongue, the edges of said slot adapted to bite into a securing nail driven into the slot for holding a board and last mentioned nail against accidental displacement.

2,848,759
DOORS
Benjamin Cooper, Brooklyn, Milton Klein, Forest Hills, and Nathan Clay, New York, N. Y.; said Klein and said Clay assignors to said Cooper
Application November 8, 1954, Serial No. 467,364
5 Claims. (Cl. 20—16)



1. A door comprising an arcuate body member, hinged means disposed along one marginal edge of said body member for mounting said body member to a wall, a plurality of aligned, integrally formed and oppositely extending tongues disposed adjacent to the other marginal edges of said door, a resilient member having a pair of oppositely extending integrally formed recesses therein, and said resilient member being adapted to be disposed on the other marginal edges of said door wherein said tongues reside in said recesses and secure said resilient member on said body member.

2,848,760
WEATHER SEAL AND SASH BALANCE FOR REMOVABLE SASH WINDOWS
Donald M. Hettinger, Jackson County, and Robert L. Martin, Kansas City, Mo., assignors to The Weatherproof Products Corporation, Holmes Park, Mo., a corporation of Missouri
Application June 18, 1956, Serial No. 591,936
14 Claims. (Cl. 20—52.2)



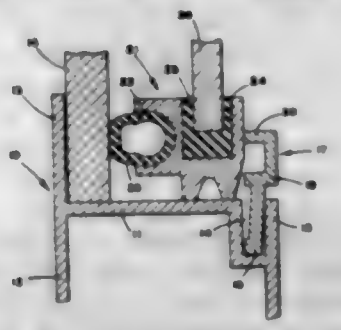
2. A combined window seal and balance for a removable sash window including a guide for the sash of the window, a balancing spring, means securing the balancing spring to the guide, a gripping device and having jaws connected to the spring, and a fitting for attachment to a sash and having a part adapted to be removably engaged by said jaws to effect a connection with the balancing spring, which connection is effective during both raising and lowering the sash.

2,848,761
WINDOW FRAME UNIT
Otto Hahn, Frankfurt am Main, Germany
Application August 17, 1953, Serial No. 374,675
1 Claim. (Cl. 20—56.4)



As a new article of manufacture, a pre-assembled glass window unit for insertion in an irregular wall opening, consisting of a single glass plate, a T-shaped frame member to which said glass is fixedly bonded, said T-shaped frame member being formed with a head which is generally parallel with the plane of said glass, said head consisting of a pair of legs disposed in the same plane, a first leg extending inwardly of said frame and a second leg extending in an opposite direction to said first leg and outwardly of said frame, a third leg secured centrally and perpendicular to said first and second legs, said glass plate being fixedly bonded by means of a layer of adhesive at its peripheral portion to said inwardly extending first leg and to said third leg, said second leg being of substantial width, for overlapping irregular edges of a wall opening, means for detachably securing the pre-assembled glass window unit in a wall opening, whereby the entire glass window unit may be removed when damaged and replaced by a pre-assembled unit of similar construction.

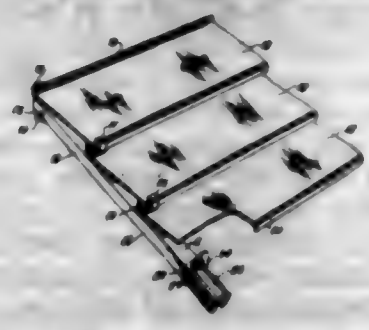
2,848,762
PANEL MOUNTING STRUCTURE
Gerald D. Peterson, Detroit, Mich.
Application March 11, 1955, Serial No. 493,691
3 Claims. (Cl. 20—56.4)



1. In a device for mounting a pair of closure panels for a double-glazed window, the combination comprising: an elongated sash frame member having a central web, flange means at one end of said web for engaging the outer surface of one of said panels and means defining a groove adjacent the other end of said central web, said groove being substantially parallel with said flange means; a retaining strip receivable within said groove and comprising a pressure member and a leg member, said leg member being appreciably narrower than said groove, and said pressure member having an inner surface arranged substantially parallel with said flange means, said leg member extending from said pressure member at such an angle with respect to said inner surface that, when the lower part of said leg member bears against the side of said groove nearest said flange means and an upper part of said leg member bears against the upper edge of that side of the groove furthest from said flange means, said

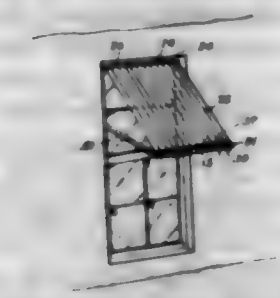
inner surface will be aligned substantially parallel with the general extent of said flange means; an intermediate member having a sash retaining groove therein and having also an inner surface arranged substantially parallel with said flange means and arranged for contact with said pressure member, and said intermediate member also having a compressible, resilient pressure member extending outwardly of the outer face thereof for engaging the inner surface of a closure panel and urging it against said flange means, the relative sizes and arrangement of said parts being such that, in operating position with said resilient member partially compressed and said intermediate member bearing against said pressure member, the lower end of said leg member will bear against the lower edge of the outer wall of said groove and an upper portion of said leg member will bear against the upper edge of the inner wall of said groove.

2,848,763
AWNINGS
David L. Scharger, Dallas, Tex., and Hillis F. Hackerdorn, Jr., Cleveland, Ohio
Application September 17, 1954, Serial No. 456,774
4 Claims. (Cl. 20—57.5)



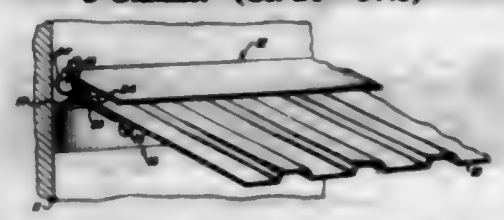
1. An awning including an elongated support, upstanding brackets on the support, each bracket being bent upon itself continuously into a downwardly-flaring throat and an upwardly-directed throat which overlap vertically of the bracket, and panels extending transversely of said support, each panel having upturned and downturned flanges at its longitudinal edge portions, the upturned flange of one panel being confined in the downwardly-flared throat of one of the brackets and the downturned flange of an adjacent panel being confined in the upwardly-directed throat of said bracket, whereby the flanges of adjacent panels overlap transversely of said bracket and are closely spaced to provide a sinuous passage for the flow of air currents between said flanges and to prevent a direct entrance of air therebetween.

2,848,764
AWNING
Bernard Turteltaub, Englewood, N. J.
Application October 18, 1955, Serial No. 541,205
2 Claims. (Cl. 20—57.5)



2. An awning comprising upper and lower frame members, each frame member being comprised of a plurality of segments each being substantially U-shaped in transverse section with the open sides thereof in confronting position, a plurality of dowels disposed between each of said upper and lower segments, pin means securing said frame members relative to said dowels, a pair of extension bars secured to said lower frame member and suspensioning eyes secured to an end of certain of said dowels.

2,848,765
UNIVERSAL FLASHING FOR AWNINGS
Dennis J. Showalter, Jackson, Miss.
Application March 19, 1956, Serial No. 572,311
5 Claims. (Cl. 20—57.5)



2. A universal flashing for providing an adjustable weather-tight joint between the roof of an awning and the wall of a building, said flashing including a wall engaging member and a roof engaging member, said wall engaging member comprising an elongated wall engaging plate to be secured to the wall of a building, a flange extending from the upper edge of said plate, a second flange extending from the free edge of said first flange, said second flange terminating along the free edge thereof in a bead substantially circular in cross section, said roof engaging member comprising an elongated channel for receiving the upper edge of the roof of an awning, the upper wall of said channel extending beyond the web thereof away from the roof receiving portion and terminating in a curled portion substantially circular in cross section and partially embracing said bead to provide a pivotal connection between said wall engaging member and said roof engaging member.

2,848,766
METAL DOORSILL
David H. Fulton, Bessemer, Ala., assignor of one-half to Ray E. Clarkson, Knoxville, Tenn.
Application October 18, 1956, Serial No. 616,707
5 Claims. (Cl. 20—64)

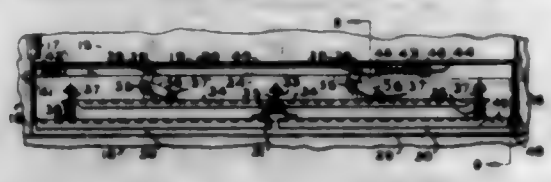


1. A combination weather sealing doorsill and threshold comprising an elongated transversely sloping tread plate, a pair of elongated spaced apart parallel webs integrally depending from the lower side of said tread plate supporting said tread plate, a threshold integrally formed with the upper edge of said tread plate and extending laterally therefrom, a web integrally depending from said threshold and extending parallel to said pair of webs for supporting said threshold, a trim plate secured at one edge to said threshold and extending downwardly and outwardly therefrom, and a sill member detachably secured to said tread plate along the edge thereof opposite said threshold.

2,848,767
RETRACTABLE SEAL FOR A HINGED DOOR
Kenneth B. Thompson, Hickman Mills, Mo.
Application December 11, 1956, Serial No. 627,675
5 Claims. (Cl. 20—68)

1. A retractable seal for a hinged door; the retractable seal comprising: a resilient sealing strip, said resilient sealing strip having a normal length so as to be the equivalent to the substantial width of a hinged door, a plurality of stiff retainers, said stiff retainers being spaced in tandem along the length of said resilient sealing strip,

said stiff retainers supporting said resilient sealing strip, toggle hinged members, said stiff retainers being coupled by said toggle hinged members, a plurality of equalizer beams, said equalizer beams being normally spaced parallel with said stiff retainers, said equalizer beams being resiliently coupled to said stiff retainers and said toggle hinged members, actuator members adapted to be moved by the closing of a door against a casing thereof, said actuator members being connected with said equalizer



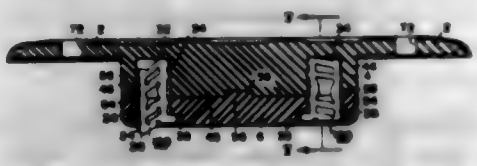
beams, journal screws adapted to be secured to a door, said actuator members being supported by said journal screws, said actuator members being located to move said equalizer beams toward said stiff retainers and the toggle hinged members so as to spread said stiff retainers to a greater spacing, and said resilient sealing strip being stretched through a portion of the mid-length thereof so as to have the ends thereof adapted to be pressed against a door casing having a greater width than the door thereof when the door is closed.

2,848,768

FASTENING DEVICE

Owen L. Taylor, Easton, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a corporation of Connecticut

Application November 30, 1954, Serial No. 472,154
12 Claims. (Cl. 20—92)



12. A one piece deformable fastening device comprising a pair of elongated, spaced, substantially parallel legs of approximately equal length, one of said legs being substantially longitudinally offset from the other, spaced cross braces extending obliquely between adjacent ends of said legs, respectively, and a plurality of projections extending outwardly from the outer side edge of at least said one of said legs whereby said cross braces move substantially pivotally with respect to said legs upon longitudinal movement of said other leg.

2,848,769

FABRICATED POLE

Perry Oakley, Superior, Mont.

Application May 21, 1953, Serial No. 356,387
8 Claims. (Cl. 20—99)



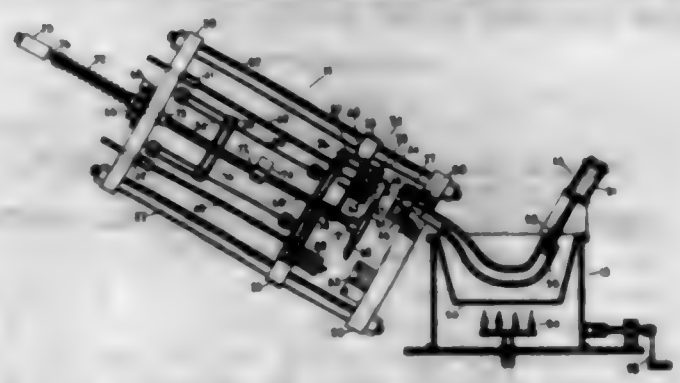
3. A laminated sectional pole construction comprising a plurality of pole sections, each of said pole sections being formed of a plurality of triangular cross sectional strips secured together in face-to-face engagement, ends of adjacent sections being joined together in interlocked relation, said strips being of different lengths to form a plurality of tongues and sockets, ends of adjacent sections being provided with complemental tongues and sockets, said strips being arranged in sets, strips of each set being equal in length, strips of different sets being of different lengths, strips of the different sets being alternated.

2,848,770

DIE CASTING AND TRIMMING APPARATUS

John R. Schuchardt, Bayside, N. Y.

Application May 5, 1955, Serial No. 506,280
10 Claims. (Cl. 22—68)



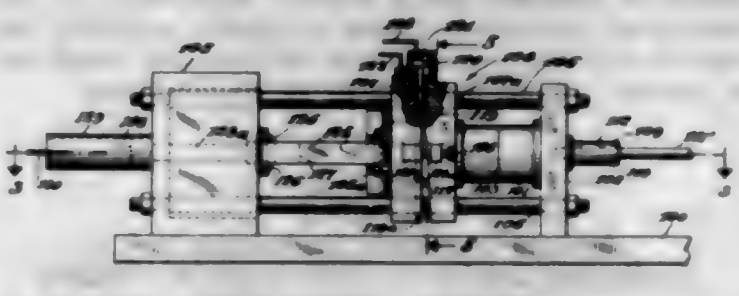
1. A casting and trimming machine comprising a frame supported cover die; a movable ejector die and a carriage therefor; metal heating and injecting means; and a support for castings rotatably reversible between said dies by a member extending through said carriage, said member including means for engagement and movement by said carriage to locate said support between said dies in casting receiving position.

2,848,771

APPARATUS FOR CLOSING AND LOCKING OF DIE CASTING MACHINES AND THE LIKE

Ulrich Eggenberger, Uzwil, Switzerland, assignor to Gebrueder Buhler, Uzwil, Switzerland, a corporation of Switzerland

Application February 29, 1956, Serial No. 568,673
Claims priority, application Switzerland March 3, 1955
10 Claims. (Cl. 22—68)



1. In a die casting machine or the like having a support, a stationary die platen and a crosshead rigidly mounted on said support, a movable die platen between said stationary platen and said crosshead, and means for guiding said movable platen between said stationary platen and said crosshead, the combination of an auxiliary platen between said crosshead and said movable platen, means for connecting said movable platen with said auxiliary platen and permitting limited movement of said last named platens with respect to one another, said movable platen and said auxiliary platen defining a pressure chamber of relatively large cross-sectional area therebetween, a supply of hydraulic fluid, a conduit for connecting said supply of fluid with said chamber, a source of pressure in said conduit, mechanical elements operatively connected with said crosshead and said auxiliary platen for moving said auxiliary platen and said movable platen toward and away from said stationary

platen and for locking said auxiliary platen with respect to said crosshead, a cylinder supported by said crosshead, a first double acting piston in said cylinder, an operative connection between said source of pressure and said cylinder, means for connecting said mechanical elements with said first piston, and at least one locking member between said auxiliary platen and said movable platen for rigidly retaining said movable platen with respect to said auxiliary platen.

2,848,773

SELF-LUBRICATING SHELL MOLDS

Joseph C. Kremer, Saginaw, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application April 15, 1953
Serial No. 349,110
8 Claims. (Cl. 22—193)

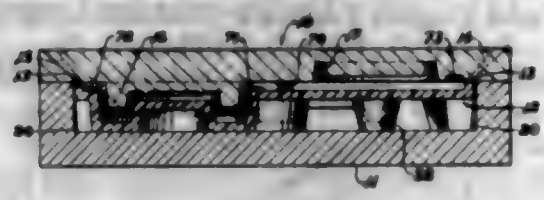
6. In the process of forming a shell mold by mixing a major proportion of sand with a minor proportion of a thermosetting binder and thereafter placing said mixture in contact with a heated pattern for a period of time sufficient to bond a substantial portion of the sand particles together, the improvement which consists in adding carnauba wax as a mold release agent to the molding mixture prior to contact of the mixture with the pattern, said carnauba wax being added in an amount constituting between approximately 0.05% and 1% of the total weight of the mixture.

2,848,773

METHOD OF PRECISION CASTING

Mervin F. Browne, Toledo, Ohio, assignor, by mesne assignments, to Allied Chemical Corporation, a corporation of New York

Application May 14, 1953, Serial No. 355,125
6 Claims. (Cl. 22—193)



1. The process of precision casting of metals which comprises shaping a wet sand molding mixture comprising fine molding sand, water and a water-soluble urea-formaldehyde resin in an enclosure containing a pattern means adapted to shape at least two of the inner, complementary, metal-contacting sand surfaces only and a removable drier support adapted to shape the outer supporting surfaces only of a sand mold component, removing said drier support and its adhering green sand mold component from said enclosure, heat-hardening said green sand mold component in contact with said drier support, assembling a plurality of said heat-hardened mold components to form a complete, self-supporting sand mold, and casting metal in said completed sand mold while it is supported by the shaped outer surfaces thereof.

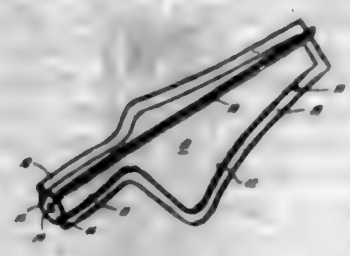
2,848,774

SECTIONAL MOLDS

Macon Petty, Houston, Tex., assignor to Hudson Engineering Corporation, Houston, Tex., a corporation of Texas

Application July 21, 1955, Serial No. 523,515
4 Claims. (Cl. 22—193)

1. In the method of making a sectional female mold for a shaped body, the steps of forming a narrow groove in a model of the body at the desired line of division between sections of the mold, inserting a thin parting strip within the groove with an edge of said strip projecting freely from the model, and covering the model and the projecting edge of the parting strip including the outer end thereof with a settable mold material to form mold sections which are interconnected to one another by



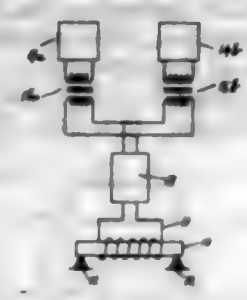
adjacent flanges, and forming aligning parts in adjacent flanges prior to separation of the interconnected mold sections.

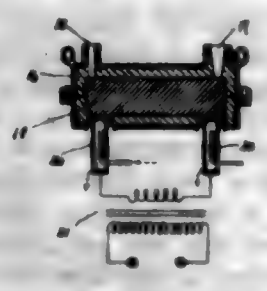
2,848,775

METHOD OF CONTROLLING THE PROPERTIES OF METALS AND METAL ALLOYS BY IRRADIATION WITH VIBRATIONS

Ladwig Josef Ettenreich, Wolfurt, Vorarlberg, Austria, assignor to Etma S. A., Panama, Panama, a corporation of Panama

Application September 17, 1953, Serial No. 380,812
16 Claims. (Cl. 22—200)





4. The methods of controlling the values of physical properties of a metal body consisting of a major ingredient and at least one minor ingredient, comprising the steps of heating the metal body to a temperature above its lowermost phase conversion temperature, subjecting the so heated metal body to the influence of externally produced beat oscillations of a frequency equal to the frequency of the natural beat vibration corresponding to the value to be imparted to the physical properties, and permitting the metal body to cool at the rate determined by the ambient atmosphere to substantially below such phase conversion temperature while maintaining the body subjected to the influence of the beat oscillations.

2,848,776

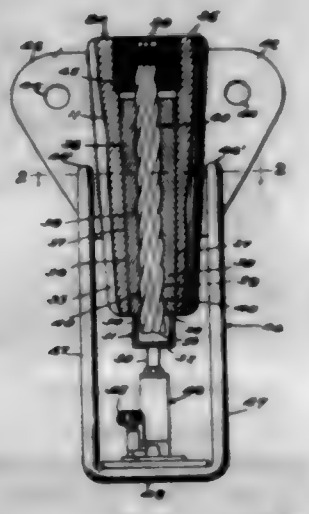
STRAIGHT LINE WIRE ROPE ANCHOR CLAMP

Harry G. Campbell, Charleston, W. Va.

Application November 4, 1954, Serial No. 466,815
1 Claim. (Cl. 24—126)

The combination with a straight line rope anchor clamp comprising a hollow body having a pair of laterally extended ears, said ears having openings, and rope clamping jaws slidable longitudinally of said hollow body, of a jaw releasing mechanism comprising a U-shaped saddle having right-angled ends disposed in said openings, said yoke depending below the lower ends of said clamping jaws, a jack including a plunger rod mounted on the bight of said saddle, a U-shaped member fitted between the end of said plunger rod and clamping jaws in con-

tact with said rod and jaws adapted to apply and maintain pressure on said clamping jaws in one direction,



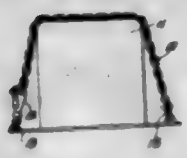
forcing said jaws longitudinally of said hollow body releasing the cable clamped by said jaws.

2,848,777

CHAIN ANCHOR RELEASE MECHANISM

John Richard Huber, Warrington, Pa., assignor to Eastern Rotorcraft Corporation, Doylestown, Bucks County, Pa., a corporation of Pennsylvania

Application December 15, 1953, Serial No. 398,311
2 Claims. (Cl. 24—241)



1. A securing device for attachment to a chain including a frame having a load transfer fitting at one end and chain engaging mechanism at the other, said chain engaging mechanism including a fixed jaw engageable with a chain link connected to said frame, a movable jaw engageable with a chain link having a pivot attachment to said frame, a load reaction surface on said movable jaw offset from the line of chain pull and being generally perpendicular to the direction of chain pull, a reaction member having a surface engageable with said load reaction surface, said reaction member having a pivot connecting it to said frame, a handle mounted along one edge of said frame, said handle having a pivotal attachment incorporating a slotted structure supporting the handle at one end adjacent the movable jaw, said handle having a longitudinal slot therein, a rod extending from said reaction member into said slot, said frame having a longitudinal slot therein adjacent the load transfer fitting end, said handle having a grip portion at the end opposite the pivotal attachment, said portion being shaped to engage the slot in said frame, and a spring urging said handle grip portion toward last named said slot.

2,848,778

FISHING LINE REWINDER

Francis C. Plummer, Sr., and Francis C. Plummer, Jr., Oakland, Calif.

Application October 30, 1953, Serial No. 389,264
2 Claims. (Cl. 24—243)

1. In a fishing line rewinder, a clamp comprising a split fishing rod receiving tube having a longitudinal opening, a split tubular liner of compressible material positioned within said tube, said liner having a longitudinal opening coinciding with the longitudinal opening of the tube, means located at one side of said longitudinal opening securing said liner to the tube, a leaf spring positioned within said tube between said tube and said liner at the other side of said longitudinal openings, said spring being fixed to the tube and being elongated in the direction of the length of said tube and having a free



end, and a screw traversing said tube and bearing against said free end.

2,848,779

HELICAL EXPANDER

Erma C. Scarbrough, Barberton, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application July 28, 1955, Serial No. 523,285
4 Claims. (Cl. 26—63)



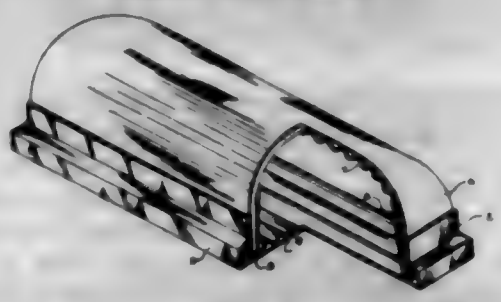
1. An expander for eliminating wrinkles from a sheet of continuous web material comprising an element with a curved surface having recesses over which the material is passed, rollers mounted for free rotation in said recesses with the direction of rotation diverging from the direction of travel of said web material with a segment of the peripheral surface of each roller protruding above the peripheral surface of said curved element.

2,848,780

VAULT AND CASKET COMBINATION

Robert W. Gossell, Skillington, Pa.

Application May 31, 1956, Serial No. 588,381
1 Claim. (Cl. 27—7)



A vault and casket combination, comprising a sheet of plastic material forming the base, said sheet having integral end and side portions that are flanged by being bent upwardly, then inwardly, and finally upwardly to form end and side moldings, a well forming element of substantially U-shaped cross-section extending throughout the entire inner periphery of the end and side moldings closely adjacent thereto and having sealing material within the bottom thereof, and a plastic cover having a bottom portion which is closely fitted in said well and sealed to said sealing material to completely seal the cover to the base.

2,848,781

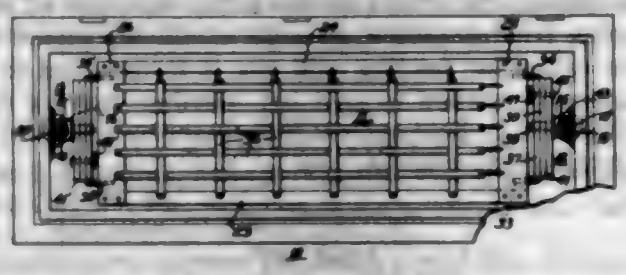
ADJUSTABLE BED FOR CASKET

Bernard J. Slaughter, Jr., Cincinnati, Ohio, and William Van Pelt, Ludlow, Ky., assignors to The Crane & Breed Casket Company, Cincinnati, Ohio, a corporation of Ohio

Application October 4, 1954, Serial No. 460,922
5 Claims. (Cl. 27—12)

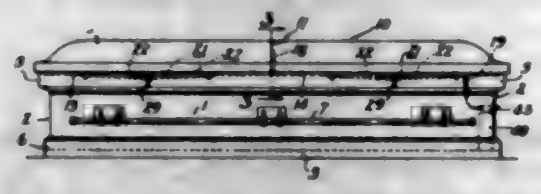
4. An adjustable support for a casket bed which comprises an elevating screw adapted to be mounted within

a casket at one end of the bed, a plate mounted on the elevating screw to be raised and lowered thereby, a second plate parallel to the first mentioned plate, means for pivotally connecting the plates, the second mentioned plate having means for supporting the adjacent end of



the bed, a friction member between the plates, the second plate being vertically movable with the first plate and being rotatable on said pivot means, and means for drawing the plates towards each other to releasably secure the second plate to prevent turning thereof on the pivot means.

2,848,782
BURIAL CASKETS
Robert W. Gillison, Rocky River, Ohio
Application June 2, 1955, Serial No. 512,728
11 Claims. (Cl. 27—17)



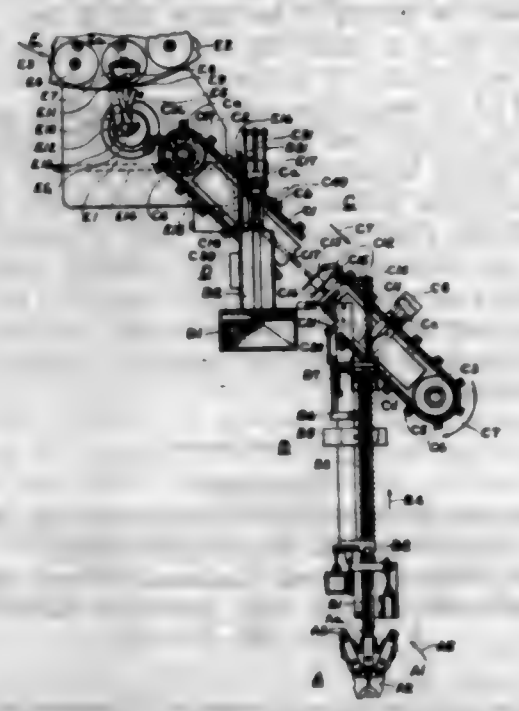
1. In a casket having upstanding side and end walls and a bottom wall forming an elongated generally rectangular receptacle, a continuous marginal channel in the upper surface of said receptacle extending throughout its periphery, a continuous flexible and dilatable liquid-including sealing tube in said channel and extending throughout the length thereof, a rectangular lid engageable with said sealing tube to provide an air-tight seal for said casket, means to hold said lid against said sealing tube, means in said receptacle for increasing the amount of liquid in said sealing tube and the liquid pressure therein and for maintaining the increased liquid pressure including a reservoir for gas and liquid under pressure connected to said sealing tube and means accessible from outside said casket for controlling said last-named means.

2,848,783
BURIAL CASKET AND RETAINING BRACKET THEREFOR
Horace D. Keller, Jr., Levi L. Ness, Stuart F. Oberdier, and Joseph H. Wolf, York, Pa., assignors to York-Hoover Corporation, York, Pa., a corporation of Pennsylvania
Application June 10, 1955, Serial No. 514,524
2 Claims. (Cl. 27—18)



1. A burial casket body having a top hingedly connected at one edge to the upper portion of the rear side of the casket body, in combination with a retaining bracket connected between said casket top and rear side of said body and operable to permit hinged movement of said top relative to said casket body between closed and open positions, said retaining bracket comprising in combination, a leaf attached to said top, an elongated flat member longitudinally slotted and hingedly connected at one end to said leaf about an axis parallel to the upper edge of the rear side of said casket and the plane of said flat member being parallel to said axis, a fixture attached to said rear side of said casket body adjacent the upper edge thereof and having a pair of short parallel spaced ears projecting perpendicularly from said rear side, a clamping member pivotally supported by said fixture between said ears for movement about an axis parallel to the upper edge of the rear side of said casket body and slidably interengageable with said elongated member in parallel relationship thereto, a threaded stud projecting perpendicularly from said clamping member and extending through the slot of said elongated member, and a hand operated clamping nut member operable upon said threaded stud and interengageable clampingly with said elongated member to secure said elongated member in any desired position relative to said clamping member to hold said top in any desired open position within its normal range of movement relative to said casket body and prevent closing movement of said top from said position until said clamping means is released, whereby said slotted elongated member is disposed relatively close to the inner surface of said rear side of said casket body in all positions of use so as to project only minimum distances into said casket body during use.

2,848,784
MOUNT AND BULB LOADING MACHINE
Anthony E. Pakish, Cleveland Heights, and Arthur W. Lamp, Lyndhurst, Ohio, assignors to General Electric Company, a corporation of New York
Application April 23, 1952, Serial No. 283,872
3 Claims. (Cl. 29—25.19)



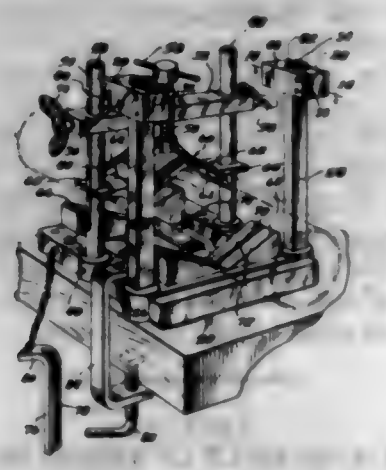
1. A machine for loading mounts including a pair of lead wires having transversely extending outer ends and juxtaposed depending inner ends supporting a filament, into open necked bulbs, comprising means for continuously receiving and segregating said mounts, a reciprocable rack conveyor for transporting said mounts in spaced relationship through a succession of predetermined positions occupied by each mount in turn, an indexing type conveyor comprising spaced holders for supporting bulbs neck up and presenting them successively at a mount loading station, means for loading bulbs into said holders, means driving both conveyors in synchronism whereby

each position on the rack conveyor corresponds to a station on the indexing conveyor, a missing mount detector at a position of said rack conveyor and a bulb ejector controlled thereby and located at the corresponding station on said indexing conveyor, a missing bulb detector at a station of said indexing conveyor and a mount ejector controlled thereby and located at the corresponding position on said rack conveyor, and means for releasing a mount from the last position on the rack conveyor into a bulb indexed into said loading station.

2,848,785
DEVICE FOR USE IN CLAMPING AND CUTTING TUBING

Herman Bachli and Harry S. Shapiro, Chicago, Ill., assignors to Chicago Specialty Manufacturing Co., Chicago, Ill., a corporation of Illinois

Application May 14, 1956, Serial No. 584,737
4 Claims. (Cl. 29—67)



1. In a device of the character described comprising a base, a pair of posts supported on said base, a saw blade guide block slidably supported on each said post, each guide block being independently slidable and positioned above the tubing to be cut, a slot in each said saw blade guide block to guide the saw blade, means for automatically and releasably locking each guide block at the upper end of its respective post by positioning said guide block at the upper end of said post, said means comprising a spring biased plunger in one of said members engaging a recess in the other member, a lower jaw positioned on said base to support a tube, a second pair of posts on said base, a cross member slidably supported in said second pair of posts, an upper clamping jaw adjustably supported on said cross member, and means for securing the cross member in adjusted position on said second pair of posts.

2,848,786
MEANS FOR FEEDING BAR STOCK IN AUTOMATIC MACHINE TOOLS

Frederick William Kendall, Leamore, Walsall, England

Application May 1, 1956, Serial No. 585,132
5 Claims. (Cl. 29—93)

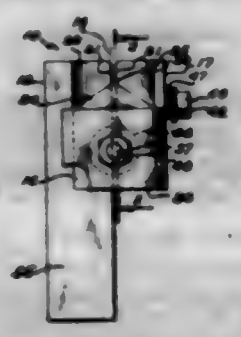


1. Means for automatically feeding bar stock to an automatic lathe or like machine tools, having a bar feed guide tube in which a bar to be fed to the machine tool is placed, means for feeding the bar to the machine tool comprising an endless chain mounted on chain sprocket wheels revolving about vertical axes, a horizontal bed on which the runs of the endless chain are supported, a pin on a link of the chain, a pusher mounted to reciprocate in the bar feed guide tube for engaging the end of said bar and slidably mounted in relation to said bed and having a slot engaged by said pin and along which the pin travels as it passes around said chain sprocket wheels, so that the pusher is reciprocated by the travel of the sprocket wheels in one direction, and power means driving the chain in the same direction of drive, a slipping friction clutch through which the power driving the chain for feeding said bar is transmitted so that a pressure is applied to said bar whether moving in the feed direction or held against movement by a stop or held in a clutch of the machine tool.

2,848,787
BURRING TOOL

Richard D. Berg, Westchester, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application November 22, 1954, Serial No. 470,399
4 Claims. (Cl. 29—95)

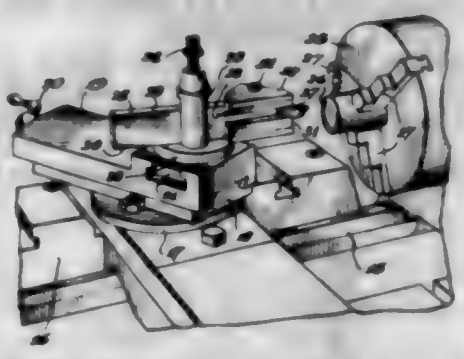


1. A burring tool comprising an element having a first flat face with a pair of parallel edges and of a width substantially equal to that of a part from which the burrs are to be removed and having a pair of diverging flat faces extending from said edges, a pair of cutting members each having a pair of diverging flat faces forming a straight cutting edge, said cutting members being disposed with one flat face in engagement with one diverging face of the element and with the other flat face in coplanar alignment with said first face of the element and with the cutting edges extending beyond the cutting edge of said element to form a slot for guiding a part for movement therethrough and for removing the burrs therefrom, and means for securing said members to said element.

2,848,788
TOOL HOLDER

Zolrab Goglanian, Morton Grove, Ill.

Application August 2, 1954, Serial No. 447,340
1 Claim. (Cl. 29—96)



A lathe tool holder for providing interchangeably a support for a plurality of tools without moving the holder in the lathe, comprising: an elongated shank for positioning the holder in a tool post; a head on the shank divided along its length into upper and lower portions, said head having upright sides arranged at an acute angle to each other and a plurality of different tool receiving channels parallel to each said side for holding different cutting tools, one of said head portions having a planar surface forming a common side for each of the tool receiving channels so as to hold one side of each tool in a

common plane permitting cutting tips on the tools to be similarly positioned relative to the holder and lathe; a clamping member on the head for tightening the head portions on tools placed in said channels; and a flat surface on the extremity of said head arranged perpendicular to one of said sides of the holder for aiding alignment of the tool holder with a lathe work holder.

2,848,789

CUTTING TOOLS

Ernest J. Friedline, Mount Pleasant Township, Westmoreland County, Pa., assignor to Kennametal Inc., Latrobe, Pa., a corporation of Pennsylvania

Application January 30, 1956, Serial No. 562,212
8 Claims. (Cl. 29—96)



1. A cutting tool comprising a toolholder having a shank and a head, said head being provided with a recess open at the top and two sides, and having a bottom lying in a single plane normal to the sides of the recess, a cutting insert having parallel top and bottom faces in the form of regular polygons of equal dimensions, each face lying in a single plane, and the bottom face seated on the bottom of said recess with two edges of the insert gauged against side walls of said recess and portions of said insert projecting from said recess beyond side walls of the toolholder head, the thickness of said cutting insert being less than half the length of a side of a face thereof, a chip breaker plate having a flat lower face portion releasably seated on the upper face of said insert, a releasable clamping member mounted in said head alongside said recess and having a finger overhanging said recess and engaging the upper face of said chip breaker plate, and means for forcing said finger toward the bottom of said recess to exert a clamping pressure on the chip breaker plate transmitted thereby to the upper face of said cutting insert, to hold the insert to its seat on the bottom of the recess.

7. A cutting tool comprising a tool holder having a shank and a head, said head being provided with a recess open at the top and on two sides, and having a bottom lying in a plane normal to the sides of said recess, a cutting insert of hard material having a modulus of elasticity of substantially twice that of steel or greater, said insert having parallel top and bottom faces each lying in a single plane and each having the form of a regular polygon of equal dimensions, a shim of hard material having a modulus of elasticity at least as great as that of said insert and having its lower face seated on the bottom of said recess and its upper face normal to the side walls of the recess, said cutting insert having its bottom face seated on the upper face of said shim with two edges of the insert gauged against side walls of the recess and with opposite edges of said insert projecting from said recess beyond the sides of the tool holder head, the thickness of said insert being less than half the length of a side of a face thereof, and releasable means for clamping said insert to its seat on said shim.

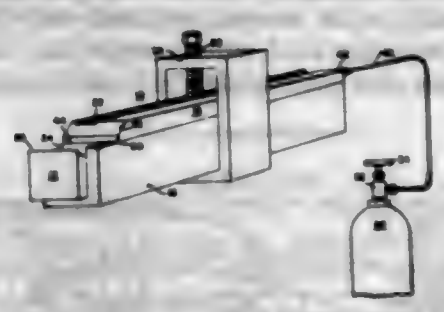
2,848,790

COOLANT DIRECTING CUTTING TOOL ASSEMBLY

George E. McMann, Watervliet, N. Y., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

Application November 12, 1953, Serial No. 391,618
1 Claim. (Cl. 29—106)

In a cutting tool assembly for machining metal and directing a fluid coolant thereto, the combination comprising, a cutting tool having a shank and a cutting tip, an elongated chip breaker disposed to seat lengthwise of the shank of the cutting tool, the cutting tool and chip breaker having their seating surfaces machined flat, an open groove in the machined surface of the chip breaker disposed lengthwise thereof, one end of the open groove terminating in a fluid coolant passageway extending to the rear of the breaker, the other end of



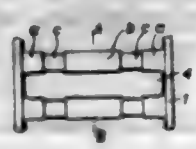
the open groove terminating at the chip breaking end of the breaker and being spaced from the cutting tip when the breaker is seated on the cutting tool disposed to direct fluid coolant to flow beneath the chip as the chip passes from the cutting tip to the breaker and to impinge the fluid coolant directly on the cutting tip of the cutting tool beneath the chip machined from the metal.

2,848,791

METHOD OF MAKING CAGES FOR ROLLER OR NEEDLE BEARINGS

Gerhard Neese, Bielefeld, Germany, assignor to Dürkoppwerke Aktiengesellschaft, Bielefeld, Germany, a corporation of Germany

Application December 27, 1954, Serial No. 477,845
Claims priority, application Germany January 11, 1954
1 Claim. (Cl. 29—148.4)



The method of forming a roller cage for a roller or needle bearing, said method comprising first forming a cylindrical blank exhibiting in longitudinal section parallel end flanges perpendicular to the cylinder axis and joining aligned longitudinal end portions which are in turn joined to a longer intermediate portion by angular portions oblique to said axis and the imparting step-by-step rotary motion to said cylindrical blank turning on its longitudinal axis to bring successive areas of the blank into position relative to a stamping tool corresponding in contour to the longitudinal sectional contour of the portion of the blank lying between the said end flanges and shaped to form an opening having a greater width in the parts thereof formed through the said angular portions than in the parts thereof formed through the said end and intermediate portions, and then by successive operations timed to the step-by-step rotary movement of the blank punching the portions of the blank lying between the said end flanges to form the said roller pockets.

2,848,792

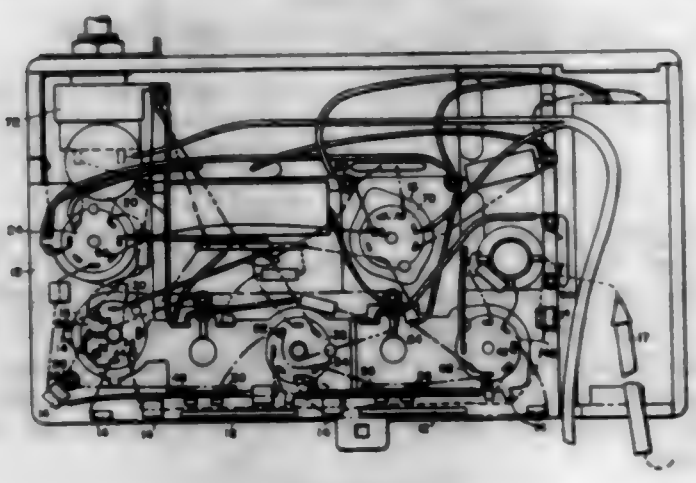
METHOD OF MAKING A WIRED CIRCUIT

Harold W. Reitz, Sunbury, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application July 10, 1953, Serial No. 367,224
2 Claims. (Cl. 29—155.5)

1. In a method of wiring an electrical apparatus, said apparatus including an electrical component chassis member made of insulating material and having a plurality of terminal members made of electrically conductive

material projecting from said chassis member and lying in a single plane and having a plurality of insulating material projections lying outside said plane projecting from said chassis member, with predetermined terminal members to be electrically connected to form a plurality of separate electrical circuits having points of crossover, the steps of extending a continuous wire member of electrically conductive material from a first terminal member of said plurality to a second terminal member of said plurality and securing said wire member to said terminal members, thereafter extending said wire member from



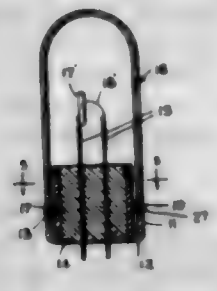
said second terminal member to a third terminal member and subsequently to at least a fourth terminal member, physically dipping said chassis member into a molten solder bath to immerse the projecting portions of a plurality of said terminals so that said wire member is soldered to a plurality of said terminals, and thereafter removing predetermined portions of said wire member which constitute undesired electrical paths between certain pairs of said terminal members, with the remaining portions of said wire member lying in different planes at points of crossover.

2,848,793

METHOD OF PRODUCING DIODES, RESISTORS, RECTIFIERS OR THE LIKE, OR THE CASTINGS THEREOF, AND THE PRODUCTS

Albert F. Pityo, Cedar Grove, N. J.

Application April 28, 1955, Serial No. 504,541
1 Claim. (Cl. 29—155.5)



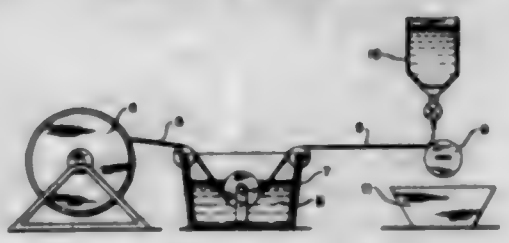
A method of forming diodes, resistors, rectifiers or the like, comprising taking a cylindrical elongated casing section formed of metallic material and having one end closed and its opposite end open and provided at the open end with a butt shoulder, taking an elongated companion cylindrical casing section formed of metallic material and of smaller exterior diameter than the interior diameter of the first-named casing section and having an elongated cylindrical flange of metallic material formed upon its outer end and arranged exteriorly of and spaced from the companion casing section and having the longitudinal axis of the flange extending longitudinally of the longitudinal axis of the companion casing section and the flange having the same diameter as the first-named cylindrical elongated casing section, said flange having a butt shoulder at its inner end and the inner end of the flange being spaced from the inner end of the companion casing section, introducing insulating material into the companion casing section, embedding lead wires in the insulating material and extending them beyond the inner and outer ends of the insulating material, mounting an electrical device upon the inner ends of the lead wires which electrical device would be injured by excessive heat, introducing the inner end of the companion casing section into the open end of the first-named casing section and bringing the butt end of the flange into contact with the butt end of the first-named casing section, the inner portion of the companion casing section forming a surrounding air space between it and the first-named casing section and the flange forming a surrounding air space with the companion casing section and causing the air spaces to register, pressing the butt shoulders together, and electrically welding the butt shoulders together, the method being such that the heat within the first-named casing section caused by the electrical welding is maintained below the point which would be injurious to the electrical device.

2,848,794

METHOD OF MAKING ELECTRICAL COILS FOR HIGH TEMPERATURE USE

Wilfred Roth, West Hartford, Conn., assignor to Bendix Aviation Corporation, New York, N. Y., a corporation of Delaware

Application December 30, 1953, Serial No. 401,313
3 Claims. (Cl. 29—155.57)



1. The method of making an electrical coil suitable for high temperature operation which comprises applying a coating of a refractory cement slurry to a wire enameled with an organic enamel, winding the resulting slurry-coated wire into coil form before the cement has set, allowing the cement to set, and thereafter heating the coil to a temperature above the decomposition temperature of the enamel to remove the enamel and prevent short circuiting.

2,848,795

FRICTION ELEMENTS

Francis J. Lowey, Rocky River, Ohio, assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware

No Drawing. Application June 23, 1955
Serial No. 517,645
3 Claims. (Cl. 29—182.5)

2. A powdered metal friction element produced from pressed and sintered powdered ingredients and consisting essentially of the following in minimum proportion and ratio: 80 parts by weight of powdered iron, and 2 parts by weight of powdered tin binding and coalescing the iron into a dense, hard essentially iron matrix; said matrix containing 2 parts by weight of lead and 4 parts by weight of graphite serving as friction modifiers; and said matrix containing 2 parts by weight of molybdenum sulfide and 3 parts by weight of alumina together imparting high strength to said matrix, imparting high heat resistance to the friction element as a whole, and imparting anti-weld characteristics to the wear face of said friction element thereby preventing undue welding of the wear face of the friction element to the opposing friction member in use.

2,848,796

ALLOY COATINGS AND METHOD OF APPLYING

Lowell D. Eubank, Richland, Wash., and Ernest R. Boller, Marion, Ind., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 12, 1945
Serial No. 588,860
14 Claims. (Cl. 29—194)

1. A solid metallic uranium article having its surface protected by a layer of uranium-aluminum alloy.

6. The method of protectively coating solid metallic uranium, which comprises removing oxide film from the solid metallic uranium and dipping the solid metallic uranium into a molten metal bath comprising about 55 to 99 parts of zinc and 45 to 1 part of aluminum at a temperature between 20 and 200 centigrade degrees above the melting point of the metal bath.

2,848,797

METAL-COATED ARTICLES AND METHOD OF MAKING

Lowell D. Eubank, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 16, 1945
Serial No. 588,768
10 Claims. (Cl. 29—194)

1. As a new article of manufacture a solid metallic uranium body having thereon an integral multiple layer protective coating comprising a continuous adherent zinc under-layer and a lead-silver overlayer firmly bonded to the zinc under-layer by a silver-zinc alloy layer.

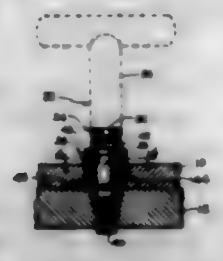
5. The method of protectively coating a metallic uranium article, which comprises dipping the metallic uranium article through an alkali-metal halide protective flux into a molten metal bath containing between about 85% and about 95% zinc and between about 5% and about 15% aluminum, withdrawing the metallic uranium article from this coating bath and dipping it into a second molten metal bath containing between about 95% and about 99% lead and between about 0.1% and about 5% silver, withdrawing the metallic uranium article from the second bath and causing the coating thereon to cool and solidify.

2,848,798

COMBINATION WORK PIECE ALIGNER AND CLAMPING TOOL

Oscar N. Davis, Wichita, Kans., assignor to Dulock, Inc., Wichita, Kans., a corporation of Kansas

Application September 26, 1956, Serial No. 612,187
1 Claim. (Cl. 29—271)



A tool adapted for aligning and clamping adjacent work pieces which have been drilled with a partial taper and tapped and for thereafter withdrawing said tool after work on said work pieces have been performed; comprising a bolt having a shank threaded at one of its ends adapted for engagement with the threaded portion of one of the work pieces, said shank having an annular groove adjacent its opposite end, a sleeve member circumscribing a portion of said shank and having a tapered end narrowing in the direction of said threaded shank portion, the taper of said sleeve cooperating with the drilled tapering portions of said work pieces and adapted to align same, said sleeve member having a projection on its internal wall cooperating with and extending into the annular groove of said shank for permitting relative rotation between said bolt member and sleeve member but preventing appreciable relative longitudinal movement of the sleeve on the bolt so that the sleeve will align and clamp said work pieces when said bolt is rotated in one direction by its threads cooperating with the threads of one of the work pieces and the tapering portions of the sleeve and work pieces, and to reverse such action when said bolt is rotated in an opposite direction.

2,848,799

METHOD OF ERECTING FLOATING ROOFS

James A. Hanna, Chicago, Ill., assignor to General American Transportation Corporation, Chicago, Ill., a corporation of New York

Application October 21, 1953, Serial No. 387,460
2 Claims. (Cl. 29—429)



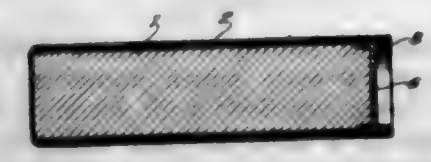
1. The method of erecting a pontoon supported floating roof for a cylindrical tank, which roof has a continuous peripheral pontoon, a center pontoon and a single deck extending between said pontoons, which comprises: constructing the bottom of the tank; constructing the pontoons and deck upon the bottom; installing vertical sleeves at spaced apart points through and near the inner periphery of the peripheral pontoon and through and near the outer periphery of the center pontoon; projecting supporting pipes of greater length than the sleeves through said sleeves into engagement with the bottom; attaching a hoisting device between each pipe and the deck; operating said hoisting devices to raise the deck into desired registration with the pontoons; welding the deck to the pontoons; operating said hoisting devices to raise the roof on said pipes into working position; fastening the sleeves to the pipes to secure the roof in working position; and completing the thus secured roof.

2,848,800

METHOD OF JACKETING URANIUM BODIES

James O. Maloney, Wilmington, Del., Earl B. Haines, Richland, Wash., and John B. Tope, Wilmington, Del., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application May 28, 1945, Serial No. 596,215
4 Claims. (Cl. 29—447)



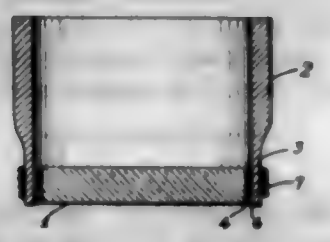
1. In the fabrication of jacketed uranium bodies, the method of tightly jacketing a uranium rod approximately 1.1 inches in diameter in an aluminum jacket of between 0.005 and 0.15 inch thickness comprising heating both the aluminum jacket and the uranium body to a temperature above 180° C. and below the melting points thereof, inserting the body into the jacket while maintaining both at said temperature, and thereafter cooling the assembly.

2,848,801

METHOD OF MAKING CERAMIC METAL SEAL

Mortimer Eber, West Orange, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application January 4, 1954, Serial No. 402,193
6 Claims. (Cl. 29—472.9)



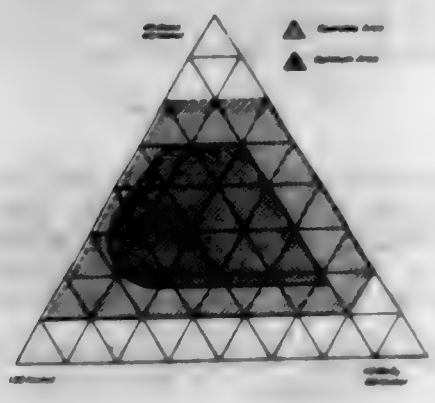
1. A method of forming a vacuum-tight seal between a zircon-porcelain disc and a Kovar ring disposed circumferentially about the disc, said method including disposing a layer of soldering material closely about the periphery of said disc, fitting said ring closely about said solder, fitting a resilient metal clamp about the exterior surface of said ring for yieldably pressing said ring into intimate contact with said solder and heating said assemblies sufficiently to melt said solder for forming said vacuum-tight seal, said clamp being formed of a material having a coefficient of thermal expansion substantially the same as that of said disc but less than that of said ring, said clamp further having a compressive strength during said heating sufficiently greater than the rigid strength of said Kovar ring whereby said clamp effectively restrains heat expansion of said metal ring away from said disc during said heating.

2,848,862

METHOD OF SOFT SOLDERING TO NON-METALLIC REFRACTORY BODIES

Daniel W. Lutz, Frenchtown, N. J., assignor to Frenchtown Porcelain Company, Trenton, N. J., a corporation of New Jersey

Application May 6, 1955, Serial No. 506,416
4 Claims. (Cl. 29—472.7)



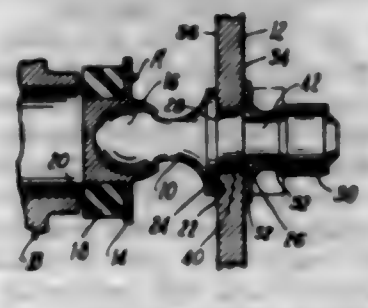
1. A method of joining a metallic body to a non-metallic refractory body which comprises coating said non-metallic refractory body with a composition consisting essentially of a metallic glass base, said base consisting essentially between about 60% to about 94.5% by weight of a powdered heavy metal selected from the group consisting of nickel, cobalt and iron, between about 0.5% and about 30% by weight, calculated as MnO_2, of a powdered manganese constituent and between about 5% and about 30% by weight powdered glass, in combination with a vehicle, firing said coated non-metallic refractory body at a temperature between about 1300° F. and about 2100° F. in a reducing atmosphere and soldering said metallic body directly to said coated body with soft solder.

2,848,883

FASTENING DEVICE

Walter E. Schock, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application July 19, 1955, Serial No. 523,010
4 Claims. (Cl. 29—517)



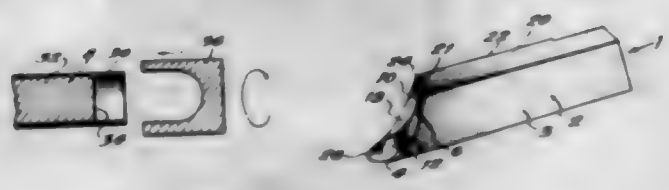
1. The method of attaching a poppet valve to a support member of predetermined thickness and having a hole therethrough comprising forming a first abutment surface on said poppet valve adapted to abut one side of said support member; forming a second abutment surface on said poppet valve spaced from said first abutment surface a distance greater than the predetermined thickness of said support member and inclined with respect to the other side of said support member, said second abutment surface being adapted to be inserted through said hole in said support member; inserting the portion of said poppet valve having said second abutment surface through the hole in said support member; placing a deformable sleeve member having a non-interference fit with respect to said poppet valve onto said poppet valve in the region between the other side of said support member and said second abutment surface; and forcing a crimping tool radially inwardly against said deformable sleeve to wedge the deformable sleeve between the other side of said support member and said second abutment surface in a manner tightening the poppet valve to the support member without the aid of a backup force.

2,848,884

METHOD AND MEANS FOR CLOSING TUBES BY SPINNING

Edwin E. Graves and Robert H. Coomfare, Columbus, Ohio, assignors to the United States of America as represented by the United States Atomic Energy Commission

Application October 18, 1945, Serial No. 623,128
6 Claims. (Cl. 29—543)



1. In a spinning tool, the combination of a substantially straight shank adapted for longitudinal movement radially of a rotating work piece, a working edge lying in a plane perpendicular to the axis of rotation of the work, and a spinning surface terminating in said working edge, at least a portion of said spinning surface being inclined at an acute angle with respect to said axis, whereby the area of contact between the rotating work and the tool will move along said spinning surface as the tool is moved radially with respect to the work, and a cut-off surface inclined to said spinning surface so that the effective spinning surface area between said working edge and said cut-off surface decreases toward the portion of said spinning surface that contacts the work near the axis of rotation.

2,848,805

METHOD OF MAKING A DROP CENTER ONE PIECE TUBELESS TIRE RIM

Winfield S. Brink, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 12, 1955, Serial No. 528,855
1 Claim. (Cl. 29—545)



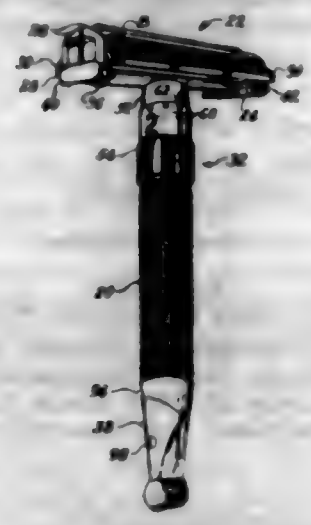
The method of forming a valve stem opening in a drop center rim having a flat wall portion of limited extent merging by curved portions into adjacent angularly extending rim surfaces, which comprises forming a hole through said wall portion intermediate said curved portions, enlarging said hole by radial expansion while reforming said curved portions adjacent said hole by appreciably reducing the radii of curvature thereof.

2,848,806

QUICK-OPENING SAFETY RAZOR HAVING ADJUSTABLE BLADE EDGE EXPOSURE

Meyer Joseph Shnitzler, Brookline, Edward Michael Lewiecki, Hingham, and Joseph Mures, Newtonville, Mass., assignors to The Gillette Company, Boston, Mass., a corporation of Delaware

Application November 1, 1955, Serial No. 544,226
11 Claims. (Cl. 30—60.5)



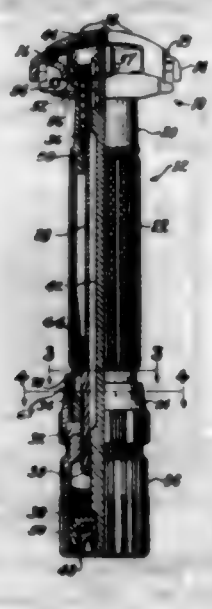
1. A safety razor comprising a hollow handle, a head portion disposed at one end of said handle and including a platform having upturned edges, a guard member having openings through which the upturned edges of the platform pass to maintain a blade above the surface thereof and separable cap sections relatively movable with respect to said guard member into three different positions, comprising a blade-clamping position wherein the blade is operatively clamped against the upturned edges of said platform for use in shaving, a partially open position in which the razor blade is loosely confined in the razor head portion for rinsing, and a fully open position for blade replacement, and a spider carrying said cap sections, a tubular extension having longitudinally-extending flutes affixed to said guard member extending co-axially of and secured to said handle, an extension affixed to said platform surrounding the guard extension and also extending co-axially of said handle, a finger knob threaded onto said platform extension and bottoming against said handle, said finger knob being adjustable to establish a desired height of the upturned platform edges with respect to the guard member, a detent spring carried by said finger knob and having a projecting portion adapted to enter the flutes in the guard extension to releasably maintain adjusted incremental positions of the finger knob, said finger knob having indicia in predetermined spaced relationship around its outer surface which may be matched against a mark provided on the platform extension, the relationship between said indicia and mark being such that the detent means releasably maintains the finger knob when an indicia marked thereon is in alignment with the mark provided on the platform extension, an axially-movable stem assembly for bringing said cap sections into the three aforementioned positions, said stem assembly comprising two relatively movable members and a coil spring interconnecting these members under tension, said stem assembly being fastened to said spider and extending through and beyond the other end of said handle, a spring urging said stem assembly towards a position wherein said cap sections are in their fully open position, a finger-piece pivotally mounted on said stem to co-act with said other end of said handle when brought in axially alignment therewith to overcome the action of said spring and thereby maintain said cap sections in their blade-clamping position, and means limiting the pivotal movement of said finger-piece in one direction to a definite position wherein said spring imparts axial movements to said stem assembly, limited by further engagement of said finger-piece with said other end of said handle, to bring said cap sections to their partially open position, said finger-piece being free to pivot in the other direction a greater distance sufficient to allow axial movement to be imparted to said stem by said spring to cause the cap sections to assume their fully open position.

2,848,807

SAFETY RAZOR WITH ADJUSTABLE BLADE SETTING

Meyer J. Shnitzler, Brookline, and Michael Douglas Benedict, Jr., Wollaston, Mass., assignors to The Gillette Company, Boston, Mass., a corporation of Delaware

Application March 19, 1956, Serial No. 572,494
3 Claims. (Cl. 30—60.5)



1. A safety razor of the type which has its component elements interconnected at all times, said razor comprising a handle and a head portion attached thereto for holding a double-edged blade, said head portion including a platform, swingable cap sections having an open position for blade replacement and a closed position for clamping the blade against the platform, and a guard spaced beneath the cutting edges of the clamped blade and in shaving relation with respect to said cutting edges, said handle comprising a hollow outer tube secured at one end to the guard and having a longitudinally extending slot in its other end, an inner tube secured to said platform and extending interiorly and concentrically of the outer tube,

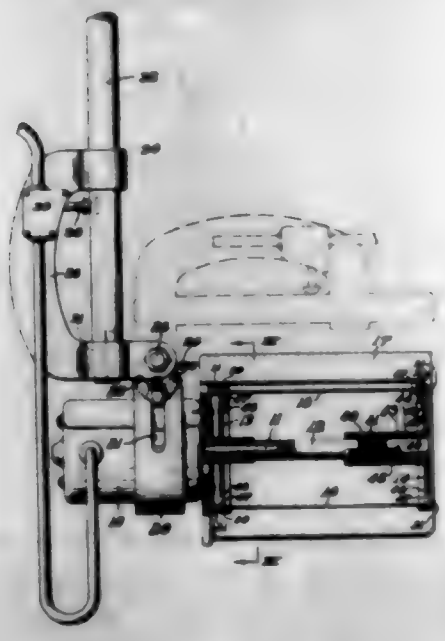
an adjusting knob threaded onto the lower end of the inner tube for varying the shaving relation of the guard with respect to said blade edges to suit the needs of the user, said adjusting knob having a seat for receiving said other end of the outer tube, spring means for maintaining said outer tube in engagement with the adjusting knob seat, said adjusting knob also having flutes formed on an interior surface overlapping the lower end of said outer tube and concentric therewith, and a lug integral with said overlapping portion and extending thereabove, a stop-spring comprising an elongated member extending between said outer tube and said inner tube and bearing against each of said tubes to urge its lower end outwardly through the slot in said outer tube causing said lower end to enter said flutes and releasably maintain said adjusting knob in selected positions, an integral projection on said stop-spring extending into the path of travel of said lug and limiting the movement of said adjusting knob to less than one full revolution, said head portion also including a spider on which said cap sections are swingably mounted, a stem connected to said spider and extending interiorly of said inner tube, means for imparting longitudinal movement to said stem and spider comprising a knob also threaded onto the lower end of said inner tube and in end-to-end relationship with said adjusting knob, said cap sections having projections and legs adjacent their pivotal mountings and said platform having undersurfaces which are engaged by said projections to swing said cap sections to their open position in response to movement of the stem in one direction, said platform also having edges which engage the cap section legs to swing said cap sections to their closed position in response to longitudinal movement of the stem and spider in the opposite direction as the blade is clamped against the platform.

2,848,889
RETRACTABLE SCRATCH AWL
John S. Crowder, Richland, Wash.
Application February 24, 1956, Serial No. 567,603
1 Claim. (Cl. 30—164.9)



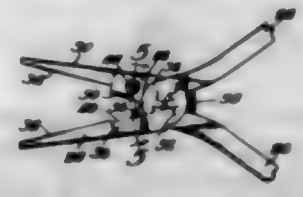
For use in a scribing tool body having an internally threaded bore containing a selectively rotatable longitudinally slotted drive tube for slidably receiving a scratch awl; a scratch awl comprising an elongated rod having a scratching point at one end and a head commensurate in cross sectional size and configuration to the rod at the opposed end and united therewith by means of a reduced extension; an adaptor having a recess and a communicating slot rotatably receiving said head and said extension and releasably locking said scratch awl against axial movement relative to said adaptor and adapted to be received in said drive tube; a radially disposed ridge on said adaptor extending beyond the periphery of said rod and adapted to slidably extend from the slot of said drive tube; and threads on the outer face of said ridge adapted to cooperate with the threads of the internally threaded bore when said scratch awl and adaptor are disposed in said scribing tool body.

2,848,866
TRIMMING DEVICE FOR LAWNS AND HEDGES
Lothar Robert Zifferer, Mount Joy, Pa.
Application May 22, 1956, Serial No. 586,510
11 Claims. (Cl. 30—124)



1. In a portable rotary cutting machine driven by a rotary power means, the combination which comprises a pair of discs carried on the ends of a rotatable shaft, a wire extending under tension between said discs, said wire being located near the outer periphery of said discs and arranged to follow a substantially cylindrical path about the axis of said shaft, one of said discs including a fan blade in the face thereof, whereby said fan blade creates a current of air when said wire is rotated about said shaft, clearing the cuttings from the vicinity of said shaft.

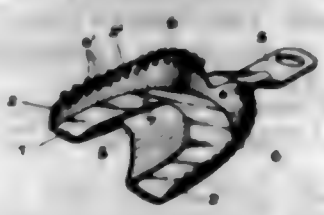
2,848,810
LONG NOSE CUTTING PLIERS
Walter F. Wendt, Chicago, Ill., assignor to Mathias Klein & Sons, Chicago, Ill., a corporation of Illinois
Application July 15, 1957, Serial No. 672,085
3 Claims. (Cl. 30—261)



1. Long nose pliers comprising, in combination, two elongated levers each having an intermediate hinge section crossing the hinge section of the other lever, pivot means connecting said levers together at said hinge sections thereof to swing in relation to each other about a predetermined hinge axis, one end of each lever being shaped into a handle opposing the handle of the other lever, the end of each lever opposite from said handle thereon being shaped into a tapered plier jaw extending from the hinge section of the lever, each jaw defining a generally flat gripping surface opposing the gripping surface of the other jaw in substantially parallel relation to said hinge axis, one of said jaws defining on the hinge section end thereof a first plane surface substantially perpendicular to said hinge axis and having a substantial length along the jaw, said hinge section end of said one jaw defining a second surface facing the other jaw and intersecting said first plane surface at a sharp angle to define therewith a straight shearing edge extending a substantial distance along said one jaw, said other jaw defining

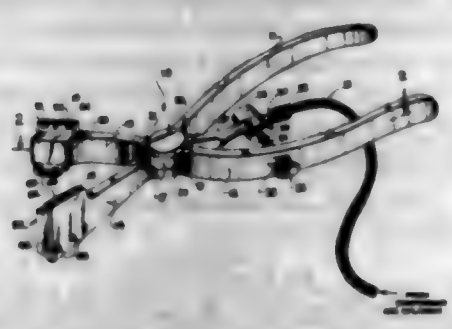
on the hinge section end thereof a substantially flat blade base surface generally parallel to said first surface on said one jaw, the plane of said base surface being oriented on said other jaw to intersect said second surface of said one jaw a very slight distance from said shearing edge when said jaws are swung together, a flat shearing blade fixed to said blade base surface to project therefrom into overlapping slidable engagement with said first surface of said one jaw upon swinging of said jaws together, the side of said blade projecting toward said one jaw defining a straight shearing edge nearly equal in length to said jaw shearing edge and oriented to have a virtually parallel relationship to said jaw shearing edge as the two edges approach each other upon closing of said jaws, and a tang on said blade projecting from the hinge section end of said blade edge into overlapping relation with said first jaw surface to guide said blade shearing edge across said jaw shearing edge and having a length sufficient to remain in overlapping relation to said first jaw surface when said jaws are swung apart to completely separate said shearing edges from each other.

2,848,811
DENTAL IMPRESSION TRAY
Klausdieter Wagner, Tuttlingen (Baden-Wurttemberg), Germany, assignor to Aktiengesellschaft für Feinmechanik vormals Jetter & Scheerer, Tuttlingen (Baden-Wurttemberg), Germany
Application May 25, 1956, Serial No. 587,353
8 Claims. (Cl. 32—19)



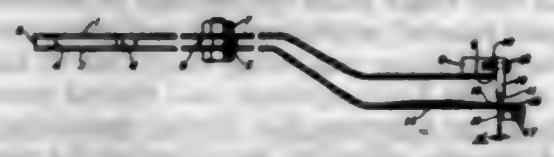
1. A dental impression tray comprising, in combination, a tray formed with a substantially U-shaped cavity in which a plastic material may be accommodated, said cavity being defined in part by an outer wall of the tray having a free edge and by a second wall joined to said outer wall at an edge thereof opposite said free edge; and a plurality of spacer portions carried by said outer wall, spaced from each other, and extending beyond said free edge of said outer wall in a direction away from said second wall and away from said cavity, so that when the tray is used excess material therein may freely flow past said edge of said outer wall through the spaces between said spacer portions, at least some of said spacer portions being interconnected by portions which are connected to said outer wall.

2,848,812
DENTAL PLIERS
John Faust, Glendale, N. Y.
Application July 10, 1957, Serial No. 670,906
6 Claims. (Cl. 32—62)



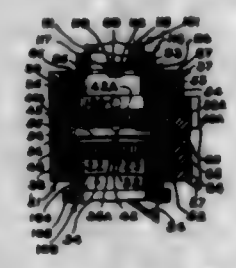
1. A dental forceps comprising a pair of handles pivoted together, each of said handles having connected thereto a jaw, the outer ends of each of said jaws being hollow, a piston-like member slidable within each of said hollow ends, spring means for normally retaining said piston-like members in a raised position, external tooth gripping members at the bottom of each of said jaws and connected to said piston-like members, and means for supplying compressed air to each of said hollow jaw ends whereby to move said piston-like members downwardly against the action of said spring means.

2,848,813
SCRIBER AND ROLLER GUIDE SKIN MARKER GAGE
Richard R. Kienle, Jamaica, N. Y.
Application May 7, 1956, Serial No. 583,060
10 Claims. (Cl. 33—41)



1. A scriber tool for sheet metal comprising an upper metal spring leaf, a lower metal spring leaf of a length greater than that of the upper leaf, a spacer at one end region of and between the leaves, means affixing the leaves to the spacer in superimposed longitudinal alignment, a tool block at the free end region of the upper leaf, a diamond pointed scriber detachably affixed to the tool block to extend with its scriber point downwardly to the lower leaf, a pin projecting downward from the region of the lower leaf extending beyond the upper free leaf end, a roller rotatably supported on the pin and of a diameter so that the end surfaces of the roller vertically overlap the scriber point, and a skip guide supported on the lower leaf extending to slightly below the bottom of the roller.

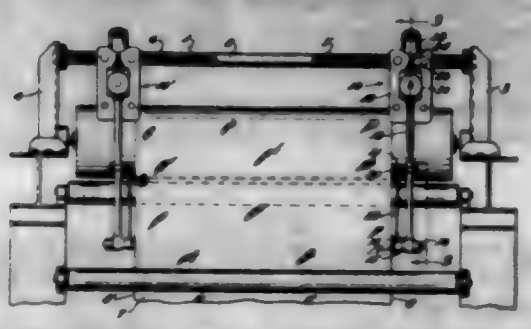
2,848,814
ADJUSTABLE SUPPORT AND RELEASABLY INTERLOCKING MEMBER SUPPORTED THEREBY
C Walton Musser, Beverly, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application November 27, 1956, Serial No. 624,707
13 Claims. (Cl. 33—50)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A support in which the position of the object supported thereby is selectively adjustable in an imaginary plane, such support comprising: a housing having an opening thereinto and having a flat, interior surface which faces that opening; a cap ring attached to said housing at the named opening thereinto so that the inner end of said cap ring is in spaced, substantially parallel relationship to said housing's flat, interior surface; a gimbal member for supporting the object to be supported by the support, said gimbal member having an annular flange the rim of which forms a portion of a spherical surface generated from a point on said gimbal member's axis, one face of said gimbal member's flange having a pair of projections which are positioned in a substantially diametrically opposed relationship to each other and the other face of said gimbal member's flange having another pair of projections which are positioned in substantially diametrical opposition to each other and which, further, are positioned substantially perpen-

dicularly to the projections on the flange's other face, said gimbal member being positioned in said housing in alignment with said cap ring, with the gimbal member's flange disposed between the housing's flat, interior surface and said cap ring's inner end, said gimbal member being prevented from rotating about its own axis in said housing, and said gimbal member being supported at the rim of its flange by said housing so that the position of the gimbal member is adjustable in an imaginary plane which passes through the gimbal member's axis; and an adjusting ring having one of its end surfaces inclined with reference to its other end surface, said adjusting ring being positioned in said housing around said gimbal member with one of the ring's end surfaces in abutment with said housing's flat, interior surface and with that ring's other end surface in abutment with one of said pairs of projections on said gimbal member's flange, said adjusting ring being supported by said housing for selective rotation about said gimbal member for the purpose of adjusting the gimbal member's position as stated, thereby providing for adjusting the position of the object supported by that member accordingly.

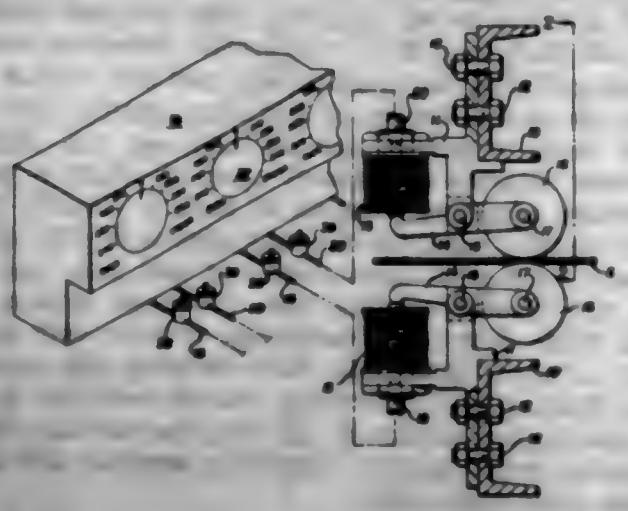
2,848,815
FABRIC WIDTH GAGE
Lester W. Schea, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application March 27, 1956, Serial No. 574,278
7 Claims. (Cl. 33—143)



4. A device for monitoring the relative position of two edges of continuous sheet material passing over processing apparatus comprising means contacting each said edge and responsive to lateral changes in position thereof, an electrical circuit including two voltage inducing means in series each respectively responsive to one said edge contacting means, a third voltage inducing means in series in said circuit adapted to induce a voltage equal and opposite to the sum of the voltages induced by said first two inducing means when said material is of a desired width and means responsive to any flow of current in said circuit, said last responsive means adapted to vary the voltage induced in said third inducing means to a magnitude equal and opposite to said sum of the voltages of said first two inducing means.

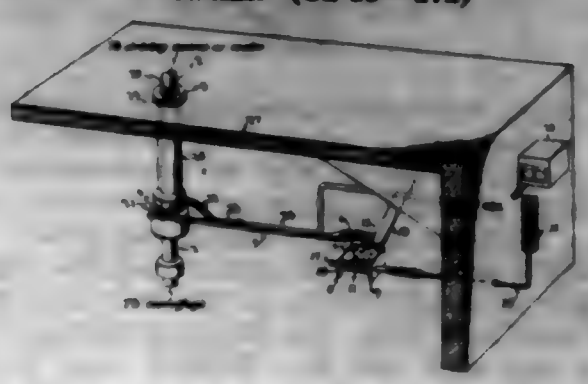
2,848,816
GLASS SHEET GAUGE
Louis R. O'Neill, Shinnston, W. Va.
Application June 23, 1955, Serial No. 517,557
2 Claims. (Cl. 33—148)

1. A glass sheet gauge comprising stationary support members positioned on either side of a glass sheet to be gauged, a plurality of brackets secured to each of said support members and spaced longitudinally thereon and transversely of said glass sheet to be gauged, levers pivoted to said brackets, rollers journaled one on the end of each of said levers, said brackets, said levers and rollers arranged in oppositely disposed pairs engaging the opposite surfaces of the glass sheet to be gauged, and means urging each of said levers and rollers toward said glass sheet, bellows mounted on said brackets in engagement with said levers for compression thereby when said rollers move toward one another, an indicator, fluid pressure lines communicating with said bellows and with piston and cylinder assemblies in said indicator, racks secured to the pistons of said piston and cylinder



assemblies and movable thereby, axially aligned shafts positioned adjacent said racks in said indicator, pinions on said shafts engaged on said racks for rotation thereby and bevel gear differential mechanisms joining said shafts, dials in said indicator, one on each of said shafts.

2,848,817
MEANS FOR DETERMINING CENTRIFUGE ALIGNMENT
Waverly Q. Smith, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application February 27, 1945, Serial No. 580,048
5 Claims. (Cl. 33—172)



1. In an apparatus for indicating the lateral displacement of a suspended type centrifuge at a remote point, in combination, a feeler member positioned so as to bear against the housing of the centrifuge shaft so that any sway or wobble of the shaft is imparted to the feeler member, mounting means for the feeler member comprising a plurality of spring hinge members, one of said hinge members having its pivot in a vertical plane to permit lateral displacement of said feeler member and one of said hinge members having its pivot in a horizontal plane so that said feeler member is non-rigidly mounted as respects up and down movement, means comprising an expansible-contractible element and a member actuatable by lateral displacement of said feeler member for compressing said element, said element having a fluid therein and a visible indicator associated with the element for indicating by means of said fluid the amount of compression of said element.

2,848,818
PLUMB BOBS
John Krasover, Philadelphia, Pa.
Application August 14, 1956, Serial No. 603,908
4 Claims. (Cl. 33—217)

1. A plumb bob comprising an elongate normally vertically disposed hollow body, a reel mounted in said body

for rotation about an axis transverse of said body and for limited free shifting movement longitudinally of said body, and holding means on said body located between said reel and the upper end of said body and engageable with said reel upon shifting movement of the latter to its limiting position toward the upper body end to hold said reel against rotation in said upper limiting position,



whereby a line coiled about said reel and extending upward therefrom is adapted to be unwound by rotation of said reel when said body is lowered by an external support and said line is adapted to be locked against unwinding by dropping said body to cause shifting movement of said reel into its limiting position held against rotation.

2,848,819

METHOD OF DRYING A WET COATING ON THE INTERIOR OF A CONTAINER BODY

William H. Schoenfeld, Jr., Glen Ellyn, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application June 9, 1955, Serial No. 514,164
4 Claims. (Cl. 34—21)



1. A method of drying a wet coating on the interior of a tubular sheet metal can body comprising, moving a can body open at both ends along a predetermined path of travel with the longitudinal axis of said body transverse said path of travel thereby positioning said open ends adjacent each side of said path of travel, said can body having on the interior thereof a wet coating comprising a film forming resin carried in a volatile flammable liquid, passing said body through a series of open flames emanating adjacent each side of and extending into said path of travel, the opposed flames from each side of said path of travel being non-merging and having a combined length at least equal to said can body length, sequentially impinging said flames on the surface of said wet coating through both open ends of said can body whereby substantially the entire surface of said wet coating is swept with flame, and continuing said impingement for about from 1 to 10 seconds whereby said wet coating is heated to vaporize said volatile liquid completely and the vaporized liquid is completely combusted.

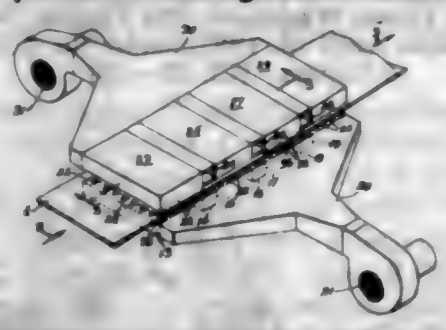
2,848,820

METHOD AND APPARATUS FOR SUPPORTING AND CONVEYING WEB-LIKE MATERIAL

Sven Werner Wallin and Claes Allander, Jonkoping, Sweden, assignors to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden

Application October 5, 1953, Serial No. 384,184
Claims priority, application Sweden October 8, 1952
9 Claims. (Cl. 34—23)

1. The method of conveying web-like materials along a path which comprises, directing groups of a plurality of jets of a first gaseous drying medium against the underside of a web of material at equally spaced intervals longitudinally in the direction of travel thereof, restraining the flow of the first gaseous drying medium to cause the major part of the medium discharged by each group of jets to flow beneath the web in the direction of travel thereof, exhausing the discharged medium from beneath the web of material at intervals therealong between adjacent groups of said jets, directing upper groups of a plurality of jets of a second gaseous medium against the



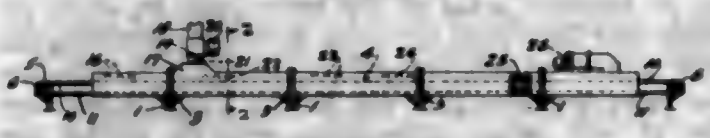
upper side of the web at equally spaced intervals longitudinally thereof in apposition to the groups of jets at the underside of the web, restraining the flow of the second gaseous drying medium to cause the major part of the second medium discharged by each of said upper groups of jets to flow above the web parallel to the plane thereof in a direction transversely at substantially right angles to the travel thereof toward a side edge of said web, and exhausting the second medium from above the web laterally thereof at spaced intervals therealong.

2,848,821

DRYING APPARATUS

Albert R. Clark and William R. Clark, Perrysburg, Ohio

Application August 26, 1953, Serial No. 376,705
5 Claims. (Cl. 34—66)



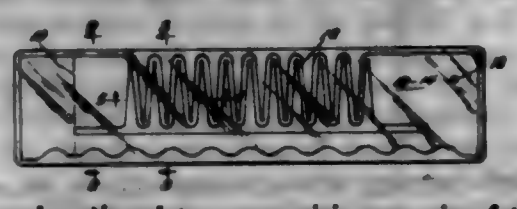
1. In a drying apparatus a tunnel-like drying chamber of substantial length, a continuously traveling conveyor running through the full length of the chamber, spaced transverse bars forming the main supporting structure of the conveyor surface, spaced fabric belts running longitudinally of the conveyor super imposed upon and fastened to the transverse bars, a first section of the chamber, means in said first section blocking air flow therethrough, heat radiating means mounted near the top of the first section, exhaust means beyond the first section drawing air from the chamber, a second section of the chamber beyond the exhaust means, additional heat radiating means mounted near the top of the second section of the chamber at three spaced apart stations, large air entering openings in the sides of the chamber beyond the additional heat radiating means, and a motor driven fan impelling air into the chamber beyond the air entering openings.

2,848,822

EDUCATIONAL TOY FOR DEMONSTRATING THE OPERATION OF THE SIPHON

Charles L. Morse, South Dartmouth, Mass.

Application September 16, 1955, Serial No. 536,627
6 Claims. (Cl. 35—19)



1. An educational toy comprising a pair of transparent generally flat bodies secured together, said bodies having

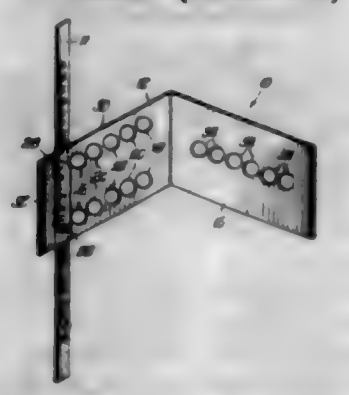
a plurality of voids on the mating surface thereof connected together by conduit means, a quantity of liquid in said toy, said liquid adapted to flow from one void area to another through said conduit means, said conduit means describing a continuous sinuous path.

2,848,823
EDUCATIONAL PUZZLE BOOK FOR SPELLING AND WORD ASSOCIATION
Alfred Fraser Washburn, Old Tappan, N. J.
Application April 10, 1957, Serial No. 652,029
8 Claims. (Cl. 35—35)



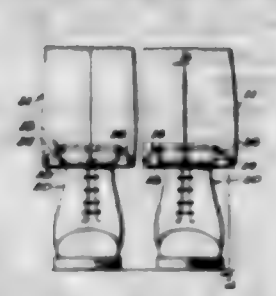
8. In a puzzle book, a set of pages including a stiff, plate-like main page having a plurality of cavities in the shape of letters, said cavities being arranged so as to form a word, said main page having areas of contrasting colors on which the word is superimposed to define part of the outline of an object which is represented by the word, letter-shaped inserts adapted to be snugly, removably fitted in the cavities and colored correspondingly to adjacent areas of the main page so as to cooperate with said adjacent areas in further outlining the object; and a transparent page adapted to be superimposed upon the main page and having a partial representation of said object cooperating with the partial representation provided by the main page and insert so as to permit recognition of the object responsive to filling of the cavities with the inserts and positioning of the transparent page upon the main page, said cavities having bottom surfaces colored to contrast strongly with the coloring of the adjacent areas of the main page so as to prevent recognition of the object at any time when one or more of the inserts is not in place, said transparent page having areas colored only in one of the colors of the main page, said transparent page further including lines representing portions of the object.

2,848,824
WORD FORMING DEVICE
Jay W. Donaldson, Milford, Iowa
Application April 5, 1955, Serial No. 499,333
2 Claims. (Cl. 35—75)



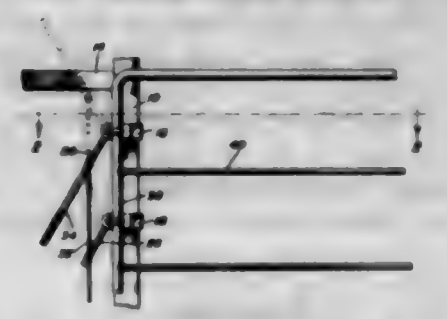
1. A word forming device comprising a plurality of elongate elements each having a front side and a rear side, said elements each bearing the letters of the alphabet on their front sides, a holder element formed with a pair of perforations for receiving each of said elongate elements, with the respective strips extending over the rear surface of the holder element between the margins of the holder element and the perforations of each pair of perforations and passing through the respective perforations to overlie the front surface of the holder element extending therebetween, said perforations positioning said elongate elements in substantial parallel relation, and a cover element adapted to be positioned over the front surface of said holder element and the portions of said elongate elements that extend through and between the respective perforations and overlie said front surface of said holder element, said cover element being fixed to said holder element and being formed with a perforation aligned with each of said elongate elements, said cover element perforations each being of a size to expose a single alphabet letter, said elongate elements being substantially longer in length than the dimension of the portion of said holder element over which they extend, and said alphabet letters terminating a substantial distance short of each end of the respective elongate elements.

2,848,825
TROUSER BLOUSING MEANS
Fred W. Dollar, Henderson, Tex.
Application June 13, 1957, Serial No. 665,614
8 Claims. (Cl. 36—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. The combination with a boot, shoe or the like having an upper including a free top edge; of semi-rigid and resilient trouser blousing means, means mounting said blousing means on said upper near said top edge of the same, said blousing means normally extending radially outwardly of said top edge of said upper, and said blousing means being movable upwardly so as to extend axially upwardly of said free top edge of said upper.

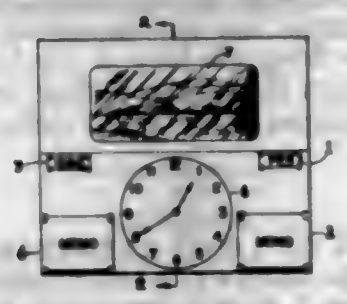
2,848,826
RELEASABLE HINGE FOR STOCK GATE
Steve J. Hebie, Atwood, Kans.
Application October 26, 1956, Serial No. 618,527
3 Claims. (Cl. 39—87)



1. A hinge construction comprising a hinge bracket, a hinge journaled in said hinge bracket and including a lever arm and a hook on the opposite ends thereof, a spindle rod engageable by said hook, said bracket including a projecting block spaced from said hinge, said spindle rod being rotatably received between said hook and said projecting block with said hook and said bracket cooperating to encompass said spindle rod to form a pivotal connection between said bracket and said spin-

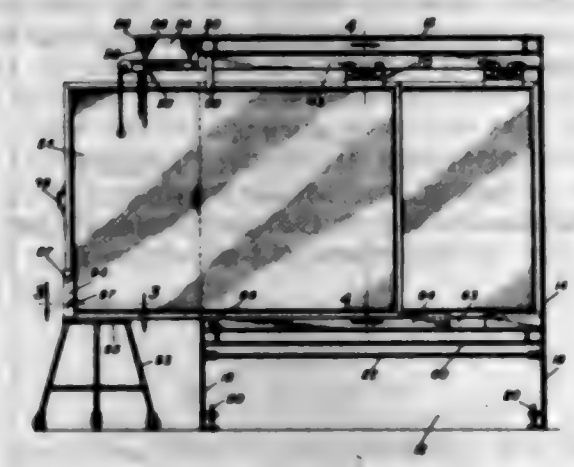
die rod, said spindle rod being removable from said bracket upon rotation of said hinge to a released position, said lever arm being angularly offset with respect to said hook.

2,848,827
CLOCK OPERATED CARD CHANGING DEVICE
Charles W. Kiker, Jr., Blue Ridge, Ga.
Application February 13, 1956, Serial No. 565,834
2 Claims. (Cl. 40—36)



1. In combination with a clock, card changing means comprising a housing or container for cards consisting of an upper and lower portion having a window in the upper portion thereof; means for retaining said cards in the upper portion of said housing, and for permitting said cards to drop into the lower portion thereof; consisting of an elongated strip engageable with said cards and having a flexibly windable longitudinal tensile portion; means for attaching said flexibly windable longitudinal tensile portion of said elongated strip to the clock mechanism consisting of a speed reduction gear having mounted thereon a reel upon which said flexibly windable longitudinal tensile portion of said strip is wound.

2,848,828
WALL MAP STORAGE CABINET
James T. Cawley, Regina, Saskatchewan, Canada, assignor of fifty percent to Morris C. Shumiatcher, Regina, Saskatchewan, Canada
Application November 30, 1956, Serial No. 625,522
5 Claims. (Cl. 40—65)



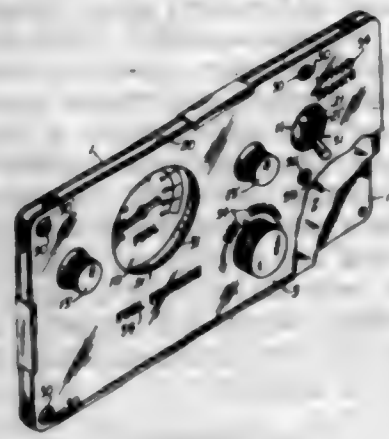
1. A wall map storage cabinet comprising the combination of a plurality of upper tracks, a plurality of lower tracks in alignment therewith, wall map panels disposed in pairs of said upper and lower tracks, each panel being adapted to be individually withdrawn from the tracks, each panel having a carriage attached at the upper end thereof and mounted on one of said upper tracks, a pivot in said carriage enabling the said panel to be rotated to selected angular positions when withdrawn from the cabinet, a transverse track on the exterior of said cabinet, a transverse carriage movable on said transverse track, and means in the said carriages for interlocking and interconnecting said carriages so that said panel may be withdrawn from the cabinet and attached to said transverse carriage for movement on said transverse track.

2,848,829
ILLUMINATED WARNING SIGNAL OR SIGN
Lawrence Johnson, Princeton, Minn.
Application February 1, 1956, Serial No. 562,868
5 Claims. (Cl. 40—129)



5. A safety signal of the class described, comprising a tubular frame having a light reflective surface and formed as a continuous loop, a source of illumination carried by said frame and disposed within the interior of said loop, a pair of translucent plates carried by said frame and disposed on opposite sides of the source of illumination, the inner surface of each of said plates formed as a relatively smooth highly reflective surface, the outer surface of each of said plates formed as an irregular light diffusing surface, a layer of opaque material having a highly reflective surface disposed on the inner side of each of said plates forming an opaque symbol on a portion of said plate and reflecting a portion of the light from the source of illumination in the direction of the other plate, and a layer of opaque material disposed on the outer side of each of said plates in alignment with the opaque material on the inner side of the plates and forming a symbol on the outer side of each of said plates in contrast with the remaining translucent portions of said plates.

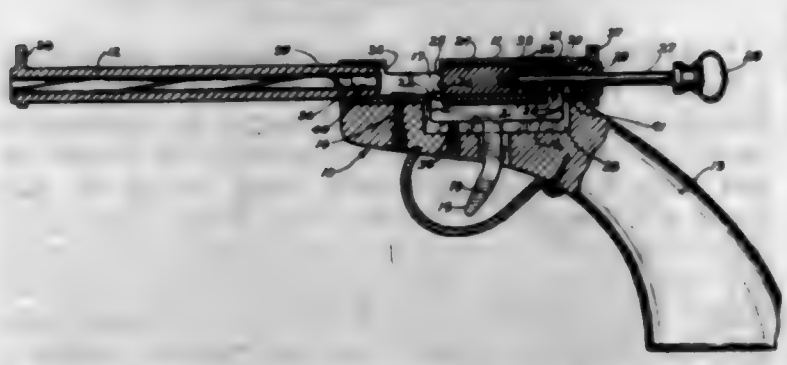
2,848,830
INDIRECTLY ILLUMINATED INSTRUMENT PANELS
Nickolas T. Dmitriev and Dennis G. De Courcey, Seattle, Wash., assignors to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application May 8, 1951, Serial No. 225,173
5 Claims. (Cl. 40—130)



1. An instrument panel comprising an opaque backing sheet having mounted thereon an element to be illuminated, a light transmission sheet in proximate face-to-face relation to said backing sheet having an aperture therethrough in registry with but at least partially in front of at least a portion of said element for release of light from the edge of said aperture to said element, a light source operable to project light edgewise into said light transmission sheet, and a facing sheet in proximate face-to-face relation to the side of said light transmission sheet remote from said backing sheet and having an aperture therethrough in registry with and in front of said element and said light transmission sheet aperture, said facing sheet being of transparent material and having an opaque coating covering the surface thereof next to said light transmission sheet, said opaque coating being interrupted to delineate indicia in areas where said facing sheet is uninterrupted and is operable to trans-

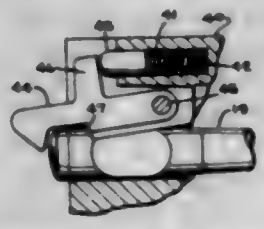
mit to the surface of said facing sheet remote from said light transmission sheet light escaping from said light transmission sheet through the interrupted indicia delineating portions of said opaque coating.

2,848,831
PISTOL
Neill S. McLaughlin, Minneapolis, Minn.
Application June 1, 1956, Serial No. 588,811
1 Claim. (Cl. 42—16)



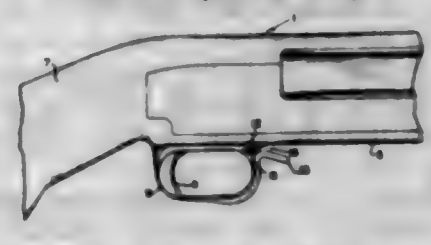
In a fire arm, a tubular receiver having longitudinally alined trigger arm and sear openings extending through a wall thereof; a receiver plug at a rear end of said receiver; a barrel fixedly mounted in said receiver at a forward end thereof; a bolt constituted as a solid cylindrical block slidably mounted within said receiver and having flat circular, forward and rear end surfaces; a firing pin integral with and extending forwardly of said forward surface of said block; a tubular stop member fixedly mounted in said receiver in contact with said receiver plug in position to have a forward end thereof limit rearward movement of said bolt; said stop member having a trigger arm opening therethrough in radial alinement with said trigger arm opening of said tubular receiver; a compression main spring extending through said stop member and bearing on said plug and said bolt to urge said bolt in a forward direction; a bolt pull rod fixedly mounted in the rear end of said bolt and extending through said compression coil spring, said tubular stop member and said receiver plug; a trigger arm pivot pin positioned between an outer cylindrical surface of said receiver and an inner cylindrical surface of said stop member and within said trigger arm openings in said receiver and said stop member; a trigger member having a trigger arm supported on said trigger arm pivot pin for pivotal movement with respect to said receiver, having a sear integral with and extending outwardly from said trigger arm to position within said sear opening in said receiver, and a trigger finger piece; and a trigger spring biasing said trigger member to tend to position said sear within said receiver to intercept said forward surface of said bolt.

2,848,832
FIRING PIN LOCK ASSEMBLY
Edward C. Lee, Detroit, Mich., assignor to Ithaca Gun Company, Incorporated, Ithaca, N. Y.
Application April 16, 1954, Serial No. 423,757
1 Claim. (Cl. 42—70)



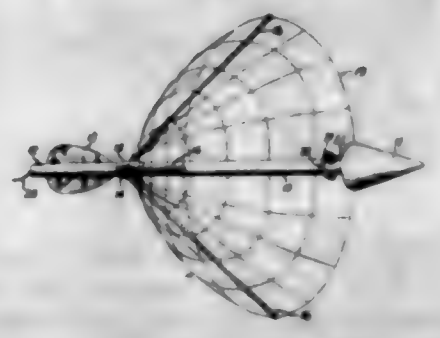
In a firearm of the type having a receiver, a breech block slidable in the receiver, a firing pin movable in the breech block, the combination wherein said pin has a recess in the rear portion thereof, a firing pin lock pivotally mounted in the breech block and movable therewith, said lock having a recess positioned to selectively engage with the recess portion of said firing pin, a projection extending rearwardly beyond said pin and breech block, the end of said rearward projection extending laterally of said pin partially across the end thereof when in locking position, said rearward projection having an inclined cam surface, a second lateral projection extending in a direction away from said firing pin, an opening formed in said breech block, a coil spring located in said opening, a plug in said opening outward of said spring, said plug being positioned to engage said second lateral projection to thereby urge the firing pin lock in pin locking position, and hammer means for making sliding contact with the cam surface to release the lock and strike the firing pin.

2,848,833
COMBINATION OF LONG-BARRELLED FIREARM AND SAFETY APPENDAGE
William J. Varley, Springfield, Ohio
Application October 14, 1954, Serial No. 462,247
2 Claims. (Cl. 42—85)



2. In combination, a long-barrelled firearm having a trigger, a longitudinally extending receiver portion and a trigger-guard depending from said receiver portion enclosing the trigger, said trigger-guard having a forward portion which extends in a generally vertical direction toward the said receiver portion, an appendage member secured to the forward portion of the trigger-guard and projecting forwardly from the trigger-guard below the said receiver portion in a downward direction from the said receiver portion of the firearm forming with the receiver portion a wedge-shaped wire-receiving bight, said appendage member being wholly below the said receiver portion, and said bight being open forwardly and laterally whereby wire received in said bight is wedged between said appendage member and said receiver portion.

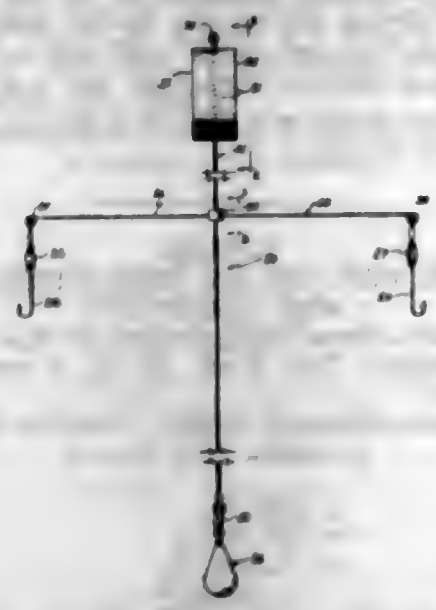
2,848,834
HUMANE HUNTING ARROW
Jack R. Cox, Myrtle Beach, S. C.
Application May 3, 1957, Serial No. 656,842
5 Claims. (Cl. 43—1)



3. A humane hunting arrow comprising a tubular arrow shaft, a relatively heavy blunt arrowhead secured to said shaft, a plurality of tubular ribs having corresponding ends pivotally connected to the shaft near the rear end of the latter, said ribs having longitudinal slots formed therethrough, a net extending through the slots of the ribs and adapted to be partly contained within the bores of the tubular ribs when the net and ribs are folded upon the arrow shaft, releasable latch means for the ribs near the forward end of the arrow shaft to hold the ribs with said net in collapsed position, and a flexi-

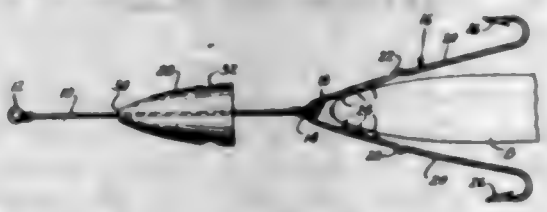
ble element of substantial length contained within the bore of said tubular shaft and connected with said latch means to actuate the same for releasing the ribs while the arrow is in flight, said flexible element adapted for attachment to the string of the bow used by the hunter for propelling said arrow.

2,848,835
DEEP SETTER FISHING DEVICE
Robert M. Witt, Brookfield, Ill.
Application June 23, 1955, Serial No. 517,542
3 Claims. (Cl. 43—42.74)



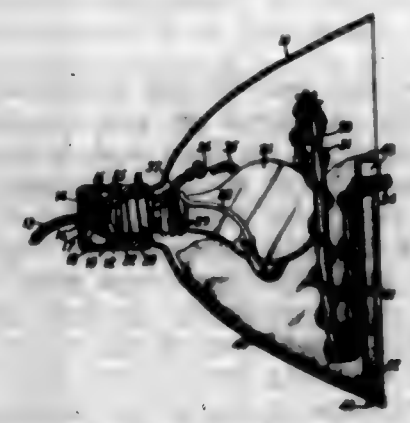
1. A deep setter fishing device comprising a float, a flexible vertically extending ball type chain one end of which is connected to said float and the other end of which is provided with a weight, a horizontally disposed wire-like flexible fish hook support extending outwardly from and at each side of said ball type chain, a clamp for adjustably attaching said fish hook support to said ball type chain, said clamp being arranged to permit said ball type chain to pass therethrough and said clamp being normally held in position by friction between portions of the clamp and the ball type chain but said clamp being manually movable along said chain, and said clamp comprising an inverted T-shaped member upon which portions of said wire-like flexible fish hook support are wound thereupon to maintain said fish-hook support at a right angle relationship with respect to said ball type chain, and said clamp having a cap-like member disposed over portions of said inverted T-shaped member and arranged to maintain wound portions of said wire-like fish hook support in proper relationship with respect to said clamp.

2,848,836
BAIT HARNESS
William C. Dodd, Ontario, Calif.
Application May 29, 1956, Serial No. 588,145
2 Claims. (Cl. 43—44.6)



1. A harness for a live bait fish comprising a single length of spring wire including medially between its opposite ends a spring loop, said length including elongated, transversely spaced clamping arms into one end of which the loop merges, said arms including outwardly bowed crimps intermediate their ends forming locking lugs, each of the arms being formed with a longitudinal series of sharply tipped clamping teeth extending between the crimp of the arm and said loop, the teeth of the respective arms being extended laterally inwardly from the arms in the space therebetween for engaging in opposite sides of the head of a bait fish, said loop being tensioned to normally shift the arms laterally outwardly from each other out of engagement with the bait fish, the arms at their other ends being formed with hook portions; a line connector attached to and projecting forwardly from said loop; and a hood member having a continuous, substantially uniform taper from end to end thereof closely duplicating the taper of a head of a bait fish for snug fitting of the head into the hood member, said member having at its smaller end an opening loosely receiving the line connector, and having adjacent its larger end apertures angularly spaced about the circumference of the hood member for receiving the lugs to releasably lock the member and arms against relative longitudinal movement, said member, when the lugs are engaged in the apertures, holding the arms in head-clamping positions against the restraint of the loop.

2,848,837
ELECTRICAL INSECT DESTROYING APPARATUS
Bryan J. Hansen and Maud Dee Hansen, Yakima, Wash.
Application February 8, 1957, Serial No. 639,063
8 Claims. (Cl. 43—113)



1. Electrical insect killing apparatus comprising, a light reflector, socket means connected with said reflector and including inner and outer terminals adapted for connection with a source of current, an electric light bulb including inner and outer terminals, the outer terminal of the electric light bulb engaging the outer terminal of the socket means and the inner terminal of the electric light bulb engaging the inner terminal of the socket means, a current conducting wire frame secured to the outer terminal of the socket means and electrically connected therewith and being bendable so that the frame may be formed about the light bulb and shaped as desired and will retain such shape when released, a separate wire heating element associated with said wire frame and extending longitudinally thereof and having one end electrically connected with the wire frame, and means to electrically connect the opposite end of the wire heating element with the inner terminal of the socket means, said wire heating element being adapted to kill insects which enter the reflector when attracted by the electric light bulb.

2,848,838
WALKING DOLL
Herbert E. Price, Auckland, New Zealand
Application April 24, 1956, Serial No. 580,262
4 Claims. (Cl. 46—105)

1. In a walking doll toy of the class described, the combination of a torso, a pair of side plates in said torso, means securing said side plates together, a spring motor secured between said side plate, a drive shaft

extending from said motor and rotatable by said motor, a gear train operable by said drive shaft, a leg operating shaft extending between and through said side plates and operable by said gear train, a pair of cam members mounted on each end of said leg operating shaft exteriorly of its adjacent side plate the cams of each pair being offset relative to the corresponding cam of the opposite pair, a pair of elongated leg levers and a pair of foot operating levers, each lever having a ring therein, the ring of each lever engaging one of said cams for oscillating movement relative to said leg operating shaft, a pair of flat bars pivotally secured to each elongated leg levers, a pair of foot supporting levers, a pin and slot



connection between each flat bar and its associated foot supporting lever, a second pin and slot connection between each elongated leg lever and its associated foot operating lever, a roller pivotally mounted to the lower extremity of each foot operating lever, a right angled portion at the extremity of each foot supporting lever, shoe portions each including a base plate having a slot therein, said rollers projecting through said slots, the eccentric motion of said rings of said elongated leg levers and said foot operating levers about said cams causing progressive extension of one of said rollers as each leg is successively advanced while the other of said rollers is retracted so that the opposite leg lever and foot operating lever remain stationary.

2,848,839
MUSICAL SPOONS
Walter R. Haines, Seattle, Wash.
Application April 22, 1955, Serial No. 503,242
5 Claims. (Cl. 46—191)

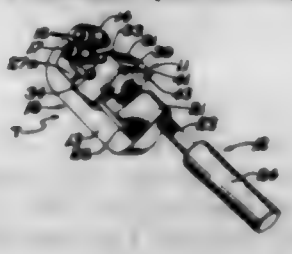


4. A musical rhythmic amusement device comprising a pair of spoon-like members having bowls at their outer ends, arranged with the bottoms thereof back to back and spaced apart from each other and having handle portions lying generally coplanar with the bowls; and a grip member having two grooves therein to receive and rigidly hold therewithin the entire end part of the handle portions of said spoons, and the grooves being spaced apart from each other to determine the normal spacing between bowls.

2,848,840
AGRICULTURAL SOIL TREATMENT WITH GRANULATED FOAMED RUBBER LATEX
Chester Henry O'Brien and Norman Lewis O'Brien, Somerset, Mass.
No Drawing. Application September 27, 1954
Serial No. 458,712
2 Claims. (Cl. 47—1)

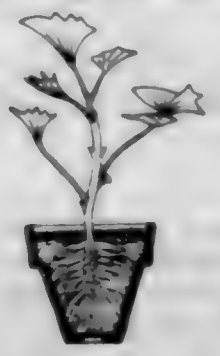
1. Agricultural soil for the promotion of plant life in the soil comprising coarsely granulated foamed rubber latex mixed with natural soil in proportion of 10% to 50% to enable the granulated foamed rubber latex to exercise its inherent characteristics of contracting when wet to absorb surplus moisture in the soil and to expand when drying out to give up the water stored in the granulated foamed rubber latex cells so as to aerate the soil and thereby condition the soil to absorb moisture when moisture is applied to the soil and thereby prevent water run-off.

2,848,841
TOOL FOR USE IN TREE GIRDLING AND GRAFTING
Mathew Kats, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application February 5, 1957, Serial No. 638,360
2 Claims. (Cl. 47—1)



1. A tool for removing a width of bark around the circumference of a woody plant or tree comprising a frame, a first cutter support mounted on said frame, a second cutter support mounted on said frame, means for providing relative motion of said cutter supports toward and away from one another, two pairs of axially spaced cutters rotatably mounted on one of said supports, an axially elongated cutter rotatably mounted on said other cutter support, opposite each pair of axially spaced cutters, said elongated cutters having reversely pitched helical cutting edges, said helical cutting edges comminuting and removing the bark of a plant or tree between circumferential score marks made by said axially spaced cutters as said tool is rotated around the plant or tree with said cutters pressing against the bark thereof.

2,848,842
PLANT CONTAINER WITH FIBROUS WALLS HOLDING A ROOT GROWTH INHIBITOR
James L. Tennant, Jr., Medfield, Mass., assignor to Bird & Son, Inc., East Walpole, Mass., a corporation of Massachusetts
Application June 28, 1955, Serial No. 519,258
10 Claims. (Cl. 47—34)



1. A plant container having a water-laid cellulosic fibrous wall structure including a substantially water-

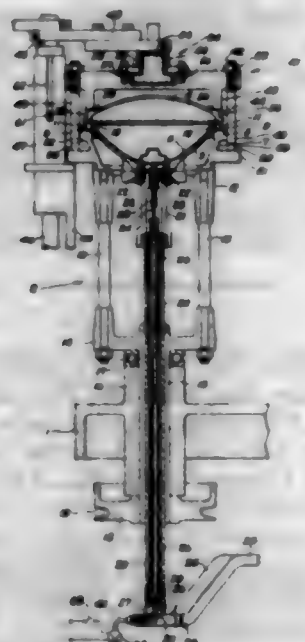
insoluble non-volatile chemical root growth inhibitor, said wall structure being permeable to root growth in the absence of said inhibitor, said inhibitor substantially inhibiting plant root growth at a distance of 1/16 to 1/4 inch from said wall structure without stunting the plant and being selected from the class consisting of hydroxyaromatic compounds; metal salts thereof; 2,4,5-trichlorophenoxyacetic acid propylene glycol butyl ether ester; and metal salts of a mixture of dimethyldithiocarbamic acid and 2-mercapto-benzothiazole.

2,848,843

ELECTRIC LAMP SEALING APPARATUS

Waldemar P. Schoenoff, Euclid, and Paul Vargo, Lyndhurst, Ohio, assignors to General Electric Company, a corporation of New York

Application March 1, 1956, Serial No. 568,729
6 Claims. (Cl. 49—2)



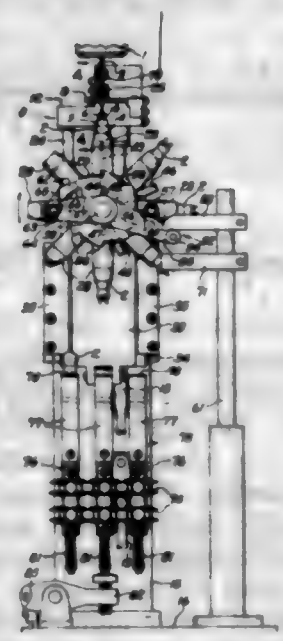
1. Apparatus for sealing a concave glass reflector section of a lamp envelope to a cover glass section having lamp-aiming surface means on its outward face disposed about the periphery thereof in a predetermined transverse plane relative to the axis of the cover glass section and located immediately inward of the sealing flange thereof, said apparatus comprising a ring-shaped holder for supporting said glass sections in assembled sealing relation with peripheral sealing flanges thereon in abutting sealing relation to one another, said holder ring being positioned with its axis vertical and having a flat horizontally disposed annular seating surface on which seating surfaces on the reflector section are adapted to rest to support the latter in place with its concave reflecting surface facing upwardly, heating means for fusing and sealing said sealing flanges together, means for connecting the interior of the envelope to a source of gas under pressure, while the glass at the seal is in a plastic condition, to displace the cover glass section upwardly relative to the reflector section so as to stretch and work the glass at the seal, stop means disposed above the said holder and having downwardly facing stop surface means adapted to engage the said lamp-aiming surface means on the cover glass section to accurately limit and control the amount of upward displacement thereof relative to the reflector section, and means vertically fixed in a predetermined position with respect to said stop means for supporting and locating said stop means in a predetermined position relative to said holder ring with the said stop surface means accurately disposed in a predetermined plane relative to the plane of the said seating surface on said holder ring.

2,848,844

APPARATUS FOR TIPPING-OFF INCANDESCENT LAMPS AND SIMILAR DEVICES

August W. Seitz, Euclid, Ohio, assignor to General Electric Company, a corporation of New York

Application April 30, 1956, Serial No. 581,422
7 Claims. (Cl. 49—2)



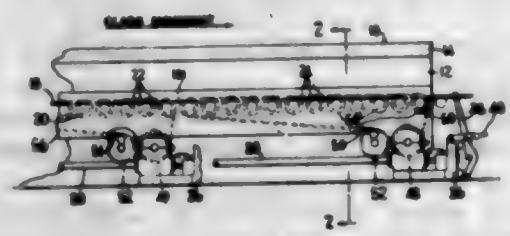
1. Apparatus for tipping-off the exhaust tube of an electric lamp supported by its exhaust tube in bulb-down position in an exhaust head of a lamp exhaust machine, comprising a vertically movable bulb holder disposed beneath the exhaust head for supporting and holding the bulb of the said lamp, a vertically movable carriage provided with lamp pull-down means for engagement with the upper side of the lamp bulb on downward movement of the carriage, a burner positioned on said carriage to direct a gas tipping-off fire against the exhaust tube of said lamp, and actuating means for elevating said holder into bulb-holding position prior to the softening of the exhaust tube by said tipping-off fire and thereafter lowering both said pull-down means and bulb holder in unison, while maintained in engagement with the lamp bulb, to move the lamp bulb downwardly and thereby stretch and sever the softened exhaust tube.

2,848,845

APPARATUS FOR IMPROVING LEHR OPERATION

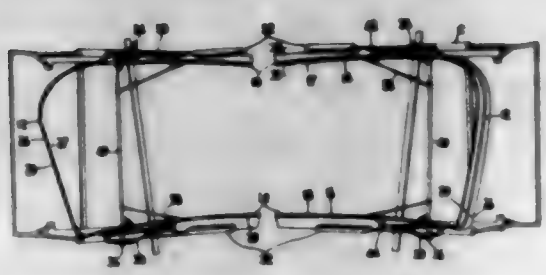
Armand J. Desmont, Tarentum, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

Application March 12, 1954, Serial No. 415,890
3 Claims. (Cl. 49—47)



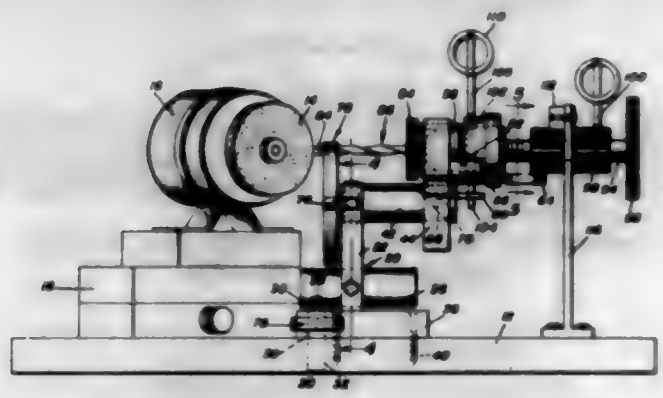
1. Apparatus for conveying a continuous ribbon of glass through a substantially horizontally disposed annealing lehr and rapidly removing split sections of said ribbon from the lehr comprising, a plurality of rolls positioned adjacent and within the entrance end of said lehr for supporting and conveying said ribbon therethrough means for rotating said plurality of rolls at a predetermined speed, additional rolls positioned adjacent and within the exit end of said lehr for rapidly removing said split sections of said ribbon from said lehr, and means for rotating said additional rolls at a speed in excess of said predetermined speed.

2,848,846
GLASS BENDING MOLDS
Charles H. Schnorr, Jr., Blawnox, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania.
Application April 30, 1956, Serial No. 579,561
4 Claims. (Cl. 49—67)



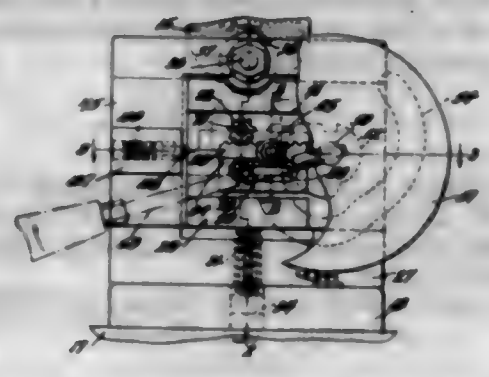
1. A sectionalized glass sheet bending mold of the skeleton type designed to have a minimum of thermal capacity combined with a maximum of structural rigidity comprising mold sections relatively movable between a spread position for supporting flat glass and a closed position wherein the upper surfaces of the mold sections provide a substantially continuous skeleton frame conforming in elevation and outline to the ultimate shape desired for the bent glass sheet, each mold section comprising an edgewise disposed rail curved lengthwise to provide a curved upper edge conforming to the elevation and outline desired for a portion of the ultimate shape of the glass sheet, said rails being longitudinally crimped for substantially their entire length, thereby providing the rails with sufficient structural rigidity to enable the mold structure to require substantially less interior or exterior bracing than that required for a mold whose rails are not reinforced by crimping.

2,848,847
DRILL GRINDING APPARATUS
Gordon D. Casselman, Lansing, Mich.
Application February 13, 1957, Serial No. 640,014
12 Claims. (Cl. 51—100)



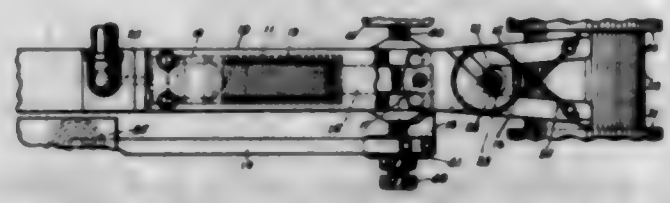
1. For use in grinding and sharpening twist drills, an apparatus comprising a horizontal stationary foundation, a table or an equivalent base for example, having bearing means, a motor driven grinding wheel mounted on said foundation adjacent to said means; a stand cooperable with said grinding wheel and embodying a vertical spindle at its bottom journalled for rotation in said bearing means, a first horizontal arm mounted atop said spindle, upright means adjustably mounted on and rising vertically from said first arm, and a second horizontal arm mounted atop said upright means; a chuck-assembly embodying a chuck in which the stem-end of a twist drill is adapted to be clamped, a shaft connected to and axially aligned with said chuck and having a hand-wheel at its actuatable end for oscillating and sliding the chuck; and holder and guide means for said chuck-assembly adjustably mounted on said second arm.

2,848,848
CAM GRINDING APPARATUS
Erle M. Hutchins, Winston-Salem, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application January 23, 1957, Serial No. 635,798
7 Claims. (Cl. 51—101)



1. A cam grinding apparatus comprising a grinding wheel rotatable about a fixed axis, means for supporting a cam blank for rotation, a carriage carrying said supporting means and shiftable to either of two predetermined positions to move the axis of rotation of the cam blank laterally of the axis of the grinding wheel, and a shaft having a pair of cams thereon one of which actuates the carriage for shifting movement and the other of which effects the rotation of the cam blank.

2,848,849
AXIAL LOCATING DEVICE
Harold E. Balsiger, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa.
Application July 28, 1955, Serial No. 524,930
4 Claims. (Cl. 51—105)

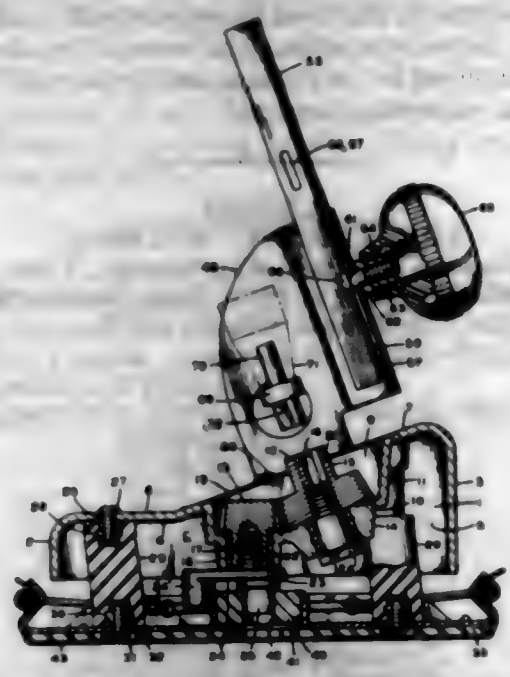


1. In a grinding machine for grinding workpieces having opposed shoulders or flanged portions, a grinding wheel and a support member, a work locating device having means rigidly mounted in said support member for co-operating with said shoulder portions for determining the relative axial position of said shoulder portions and said grinding wheel including a pair of work engaging fingers on said support member one on each side of the median plane of said grinding wheel and movable in the direction of said shoulders, and means for spreading said fingers into engagement with said shoulders to shift said workpiece axially into alignment with said grinding wheel.

2,848,859
ELECTRIC SANDERS
Boris G. Metoff, Dallas, Tex., assignor to Rotex Company, Dallas, Tex., a corporation of Texas
Application August 10, 1956, Serial No. 603,423
4 Claims. (Cl. 51—170)

3. For use with electric hand drills and similar electrically powered prime movers; a sander attachment comprising a hollow body member including a chamber having a top wall and a downwardly presented opening, said top wall having an angularly inclined portion provided with a recess having a side wall integral with and projecting downwardly from said inclined portion, a closure plate extending across said recess and being substantially coplanar with said inclined portion, a platen disposed across and in downwardly spaced relation to said opening, a plurality of elongated rubber posts rigidly secured

at their lower ends to the platen and rigidly secured at their upper ends to the body member inside the chamber, a rotary eccentric journaled within said chamber and being operably connected to the platen, gear means journaled within said recess and being drivingly connected to said eccentric, said gear means being provided with a hol-



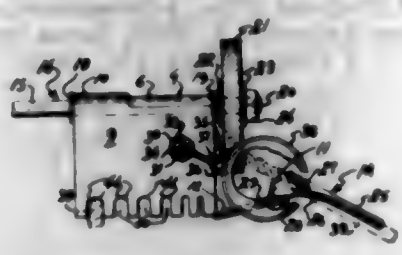
low hub projecting outwardly through said closure plate substantially at right angles thereto for optional connection with a prime mover, and means for attaching the prime mover to said angularly inclined portion so that the prime mover will extend angularly upwardly and outwardly with respect to the platen.

2,848,851
SAND-PAPER HOLDER
Thomas L. Fawick, Cleveland, Ohio
Application November 23, 1956, Serial No. 624,059
3 Claims. (Cl. 51—187)



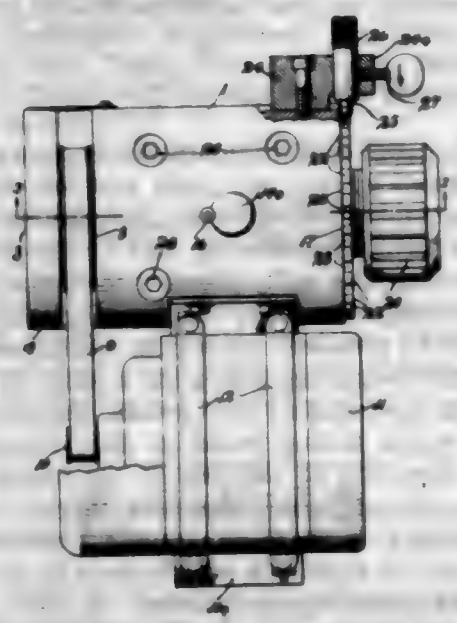
1. A sanding tool comprising a member having a backing surface for a sheet of abrasive material, a spring, and means on said member for holding said spring with a part of the sheet gripped between it and the said member, the spring-holding means comprising studs projecting from opposite side faces of the said member and the spring being of the cantilever type and having a middle part for gripping the sheet, and side parts extending from said middle part, along respective side faces of said member, to the studs, and anchoringly engaged with the studs.

2,848,852
TWIST DRILL-BIT SHARPENING UNIT
Gordon T. Roshelt, Minneapolis, Minn.
Application February 23, 1955, Serial No. 489,831
2 Claims. (Cl. 51—219)



1. A portable drill bit sharpening assembly comprising a shaft, a grinding element mounted on the shaft for rotation therewith and having a grinding surface, a framework including a part encircling said shaft to turn thereon and the framework extending laterally of the shaft, and a drill bit holding mechanism comprising a drill supporting and guiding member and a pivot coupling between the guiding member and the framework for turning on an axis always intersecting said grinding surface substantially at the point of contact of the axis of the drill and always intersecting the axis of said shaft, and the guiding member being supported by the pivot coupling to maintain the line of contact between a supported drill bit and said grinding surface at the point of intersection of said pivot coupling turning axis and the grinding surface.

2,848,853
MOTORIZED MILLING AND GRINDING HEAD
Albert E. Wittkopp, Muskegon, Mich.
Application January 26, 1956, Serial No. 561,391
1 Claim. (Cl. 51—237)

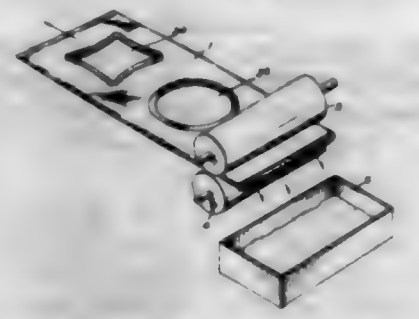


A motorized milling and grinding head unit comprising: a motor; a housing separate from said motor and including a block of material the composite weight of which is substantially heavier than said motor, said block having an underside with a flat support surface and front and rear ends; said rear end having a flat support surface disposed at right angles to said underside support surface; said block of material having a bore extending from the front end of said block parallel to said underside support surface and perpendicular to said rear end support surface; a spindle rotatably mounted in said bore; workpiece holding means on the front end of said spindle; said motor being mounted on the side of said block of material and located forwardly of the plane of said rear end support surface whereby said entire unit can selectively be supported on said underside support surface or said rear end support surface; and drive means operatively connected to said motor and to said spindle whereby said motor drives said spindle.

2,848,854
PROCESS FOR THE PRODUCTION OF CONTAINERS FILLED WITH LIQUIDS OR PASTES FROM A PLIABLE NON-METALLIC MATERIAL OF THERMOPLASTIC NATURE
Leopold Rado, London, England; Dorothy Frances Pickering executrix of said Leopold Rado, deceased
Application October 1, 1953, Serial No. 383,633
Claims priority, application Great Britain October 2, 1952
2 Claims. (Cl. 53—37)

1. The method for the production of containers filled with fluid substance from a pliable tubing of non-metallic material of at least in part thermoplastic nature, whereby

the containers to be produced therefrom are less in width than the width of the tubing, and whereby the excess fluid is removed from between the containers and from the margins of the tube, comprising the steps of providing a large container made from the said tubing from which a number of smaller containers are to be produced, introducing the fluid substance into the large container in excess of the quantity required for an individual smaller container, subjecting the tubing to pressure between a pair of opposed tools having cavities of the shape of the smaller containers to be produced therewith, the pressing portions of said tools being of lesser width than the width of the filled tubing, thereby filling out the cavities and displacing the fluid at the pressure places, bringing the walls of the tubing into contacting engagement with each other,



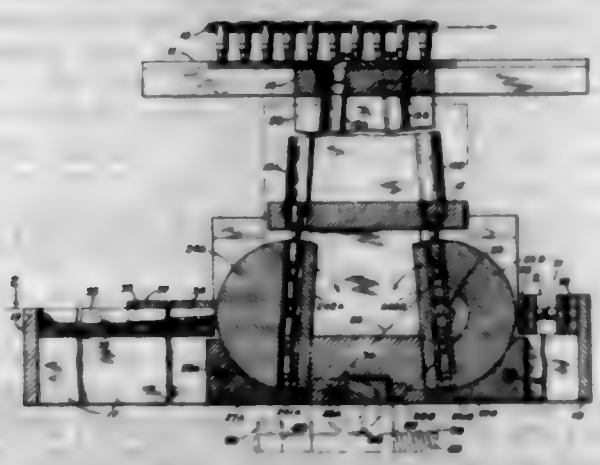
leaving an excess of fluid in the space between the smaller container defined by the said tools and the edges of the said large container and between the successive smaller containers so formed, generating heat by the presser tools to weld the contacting walls together to surround the said cavities, repeating the steps of pressing and welding, separating the so produced individual containers from the large container by cutting along the middle of the width of the welded surround of the cavities, and subsequently moving the waste tubing material thus formed in the longitudinal direction of the axis of the tubing and subjecting intercommunicating channels thereof containing the surplus fluid to a pinching action without puncturing the tubing walls to expel the surplus fluid to be reclaimed from the open end of the said tubing.

2,848,855

ARTICLE ARRANGING DEVICE

Albert W. G. Ervine, Bridgeport, and Warren S. Reynolds, Westport, Conn., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware

Application January 25, 1954, Serial No. 405,843
4 Claims. (Cl. 53—143)



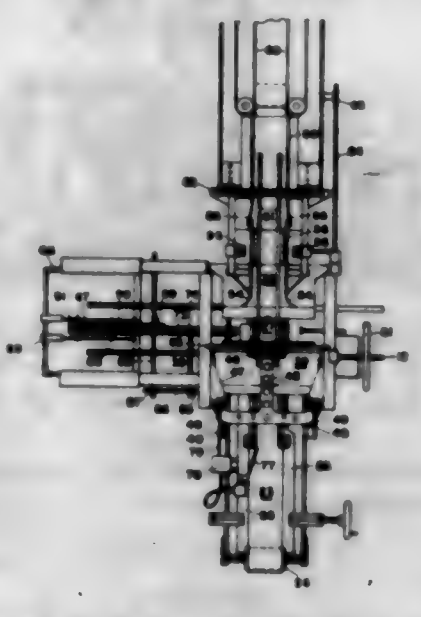
1. Apparatus for arranging longitudinally asymmetric articles in a row in which adjacent articles are reversely oriented, comprising a pair of orienting blocks on parallel axes, common drive means for rotating said blocks in opposite directions, each of said blocks having a plurality of article passages extending transversely therethrough, respective passages of said blocks being in longitudinal registry in a rotative article delivering position of said blocks, means for placing articles to be arranged in alternate passages in each of said blocks at one position of rotation of said blocks whereby an empty passage in each block is opposite and in alignment with an article containing passage in the other block when said blocks are rotated to said article delivery position, a set of article receiving elements disposed to register with said passages in article delivery position, and means for ejecting the articles contained in the passages of the two said blocks to said article receiving elements.

2,848,856

LID FORMING MACHINE

Richard A. Brock, Chattanooga, Tenn.

Application June 3, 1957, Serial No. 663,047
5 Claims. (Cl. 53—287)



1. A machine for forming a lid from a paperboard blank, having side walls and front and rear walls with front and rear tabs thereon, upon a material-filled paperboard box tray comprising a folding channel, an elevator movable from a tray receiving position to a position in line with the floor of said channel, means for feeding a lid blank across a tray when said elevator is in tray receiving position, means for moving said elevator upward, stationary guide means for folding the front and rear walls of said lid blank down against the front and rear tray walls as said elevator moves upward, guide means operative to fold the front end tabs of said lid blank against the opposite sides of said tray, means for moving said tray and lid rearwardly through said folding channel, stationary guides adapted to fold the rear end tabs of the rear walls against opposite side walls of said tray, means for applying glue to the inner sides of said unfolded side walls, and stationary guide means for folding said side walls down against the tray side walls and into adhesive engagement with said front and rear end tabs as said boxes move rearwardly.

2,848,857

BAG VALVE OPENER

Aaron P. Watts, Dallas, Tex., assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

Application February 9, 1955, Serial No. 487,104
2 Claims. (Cl. 53—384)



1. A bag valve opener comprising, in combination, a horizontally-extending housing and a support therefor,

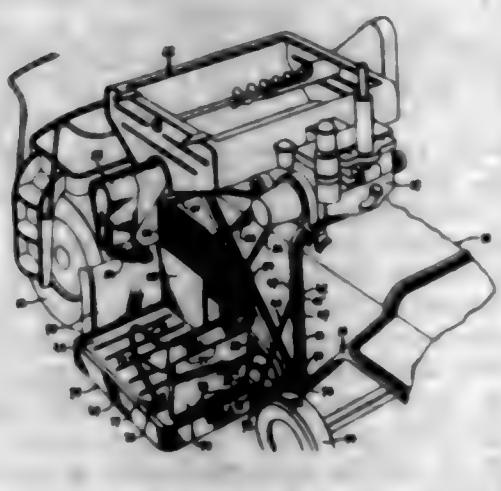
a horizontal opening in said housing from which extend two parallel horizontal fingers perpendicular to said housing, said fingers being secured to carrying members disposed within said housing, one of said carrying members being movable longitudinally in said housing but biased toward the other carrying member, a flexible, non-extensible connector secured to the movable carrying member and to actuating means operatively-connected thereto for moving said connector vertically, thereby to effect separation of said fingers, the cross section defined by said fingers in a closed position being small enough to slide into said valve.

2,848,858

COMBINE BAGGER PLATFORM ATTACHMENT

Leslie L. Kepkay and Edward W. Rowland-Hill, Toronto, Ontario, Canada, assignors to Massey-Ferguson Inc., a corporation of Maryland

Application June 4, 1956, Serial No. 589,158
3 Claims. (Cl. 56—10)



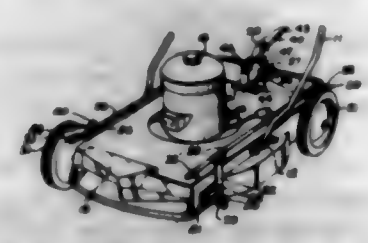
1. In a combine having a main body with a grain tank on the top and combine driving and operating mechanisms along one side, a bagging platform attachment for facilitating the bagging of grain taken from the tank comprising, in combination, a generally horizontally subframe rigidly secured to the side of the combine body and extending outwardly therefrom, an operator's platform pivotally secured to said subframe on a pivot normal to said subframe for swinging movement about an axis normal to the subframe between an operating position adjacent said combine body and a non-operating position away from said body which provides easy access to said driving and operating mechanisms, said platform resting on and being supported by said subframe in each of its said positions, and mutually co-operative means on said subframe and platform laterally spaced from said pivot for detachably securing the latter in its operating position.

2,848,859

LAWN MOWER WITH ADJUSTABLE WHEEL MOUNTING ASSEMBLY

Frederick Abel, Dayton, Ohio, assignor to The Huffman Manufacturing Company, Dayton, Ohio, a corporation of Ohio

Application April 3, 1957, Serial No. 650,414
10 Claims. (Cl. 56—25.4)



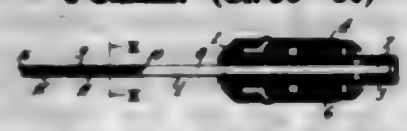
1. In a rotary lawn mower including cutting means supported in a main body casing for rotation on a substantially vertical axis, the combination of a plurality of bell cranks pivoted on said body and each including two arms, a wheel rotatably mounted on one arm of each of said bell cranks, a single connecting member pivotally connected to the other arm of each of said bell cranks, an operating lever pivoted on said body and having a connection with said connecting member to cause movement thereof generally parallel with said body in response to pivotal movement of said lever with resulting pivoting movement of said bell cranks about the axes of said wheels and generally vertical movement of said body with respect to said wheels, said connection between said lever and said operating member being located substantially centrally of said body for even transmission of force from said lever to both sides of said body, and means on said body for locking said lever in a plurality of selected positions thereof.

2,848,860

COTTON PICKING SPINDLE

Rector C. Ferguson, Gadsden, Ala., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Original application September 16, 1949, Serial No. 114,969, now Patent No. 2,671,298, dated March 9, 1954. Divided and this application February 12, 1954, Serial No. 409,875
8 Claims. (Cl. 56—50)



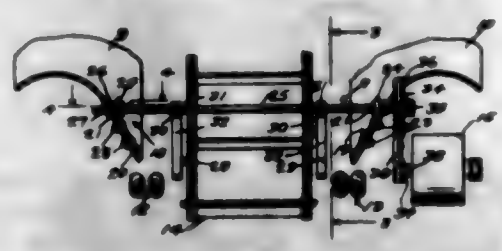
1. A cotton picking spindle comprising a generally cylindrical, narrow elongated member having a circumferential series of closely spaced longitudinal ribs thereon, said ribs having a pointed arch, cross sectional configuration.

2,848,861

TRASH REMOVER FOR A TWO ROW CORN PICKER

John W. Ketelhut, Pukwana, S. Dak.

Application January 18, 1957, Serial No. 634,862
3 Claims. (Cl. 56—105)



1. A trash removing attachment for a two row corn picker having a driven part, side shields, snapping rolls and an elevator operatively associated therewith, comprising bearing members adapted to be secured to the side shields, a shaft extending between and journaled in said bearing members and adapted to be supported thereby above the snapping rolls, a pair of trash clearing fingers fixed to and projecting radially from the shaft between the bearing members, and means connected between said driven part and the shaft for revolving the shaft and fingers, said fingers being rotated in a direction for propelling trash upwardly and rearwardly relative to the snapping rolls and elevator, said fingers being of a length such that the free ends thereof move in close proximity to portions of the snapping rolls and the elevator.

2,848,862

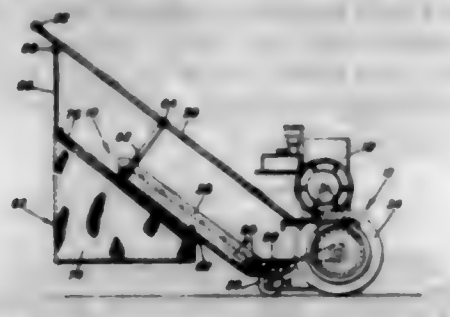
GRASS CONVEYOR FOR MOWERS

Floyd T. Harrigan, Hobart, Ind.

Application March 7, 1957, Serial No. 644,588
3 Claims. (Cl. 56—199)

1. An attachment for reel type lawn mowers having a rearwardly and upwardly extending handle, a frame,

wheels on said frame, a cutter bar on said frame, and a reel rotatably powered and supported on said frame for movement past the cutter bar for cutting grass, said attachment comprising a rearwardly and upwardly inclined conveyor, means connected with the front of the conveyor and pivotally supporting the front end of the conveyor from said frame adjacent to and in trailing relation to the cutter bar for receiving grass clippings therefrom, means connected with the rear of the conveyor and the handle for suspending the rear end of the conveyor from the handle, an enlarged receptacle disposed under the



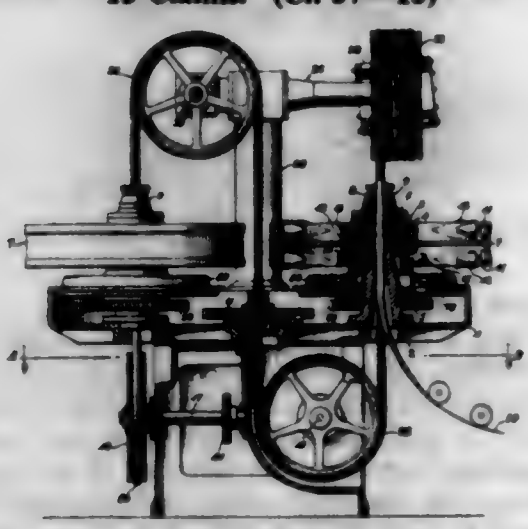
rear end of the conveyor for receiving grass clippings therefrom, means interconnecting the receptacle and conveyor and interconnecting the receptacle and handle for removably supporting said receptacle for permitting emptying thereof, and means drivingly connecting said conveyor with the reel, said means pivotally supporting the front end of the conveyor from said frame including a pair of brackets with the forward ends thereof pivotally secured to the frame and the rear ends thereof being pivotally connected to the conveyor whereby the relation between the cutter bar and receptacle may be varied.

2,848,863

APPARATUS FOR MAKING REINFORCED RUBBER TUBING

Marcello Vanzo, Milan, Italy, assignor to Pirelli S. p. A., Milan, Italy

Application January 27, 1956, Serial No. 561,886
Claims priority, application Italy October 13, 1955
13 Claims. (Cl. 57—15)



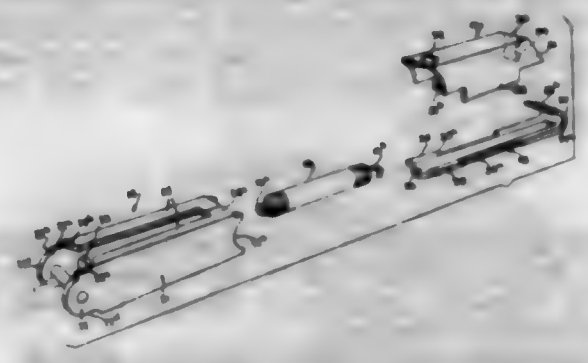
1. A machine for covering an uncured rubber tube with at least two layers of threads helically wound in opposite directions, comprising a base member in which are mounted the reduction and control gears of the machine, a number of vertical perforated spindles equal to the number of thread layers to be applied rigidly mounted on the upper surface defining said base member, a rotor surrounding each spindle, the rotation of the adjacent rotors being in opposite directions, a plurality of thread bobbins secured on each rotor, means for guiding the tube to be covered and the thread used for the covering positioned above the spindles and on the hub of the rotors, a tube feeding device for each rotor being provided for passing a tube to be covered from the bottom to the top in correspondence with the axis of the respective rotors, and a traction device for the tube already covered.

2,848,864

REMOVABLE EXPANSION BRACELET LINK

Louis Pompeo, Bloomfield, N. J., and Andrew Szeglin, Hempstead, N. Y., assignors to Duchess Jewelry Mfg. Corporation, Hoboken, N. J., a corporation of New York

Application February 13, 1957, Serial No. 639,943
1 Claim. (Cl. 59—79)



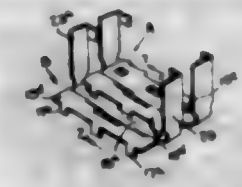
An expansion bracelet to be worm on the wrist, comprising a plurality of circumferentially extending expansion links, each said link comprising an open-ended, longitudinally elongated female shell presenting a bottom wall toward the wrist and a top wall remote from the wrist, an open-ended, longitudinally elongated male shell slidably and telescopically received within said female shell, and spring means coupling said shells and normally maintaining said link in contracted condition, said female shell having pin holding means extending forwardly of the main portion thereof, and having a laterally extending pivot pin held at its ends by said pin-holding means and spaced from the main portion of said female shell, said male shell having a bottom wall and having side walls with forwardly upwardly inclined rear edges, said male shell also having a catch which extends from its bottom wall rearwardly of its side walls, said catch being of general hook shape and being bent upwardly and then into upward forward inclination, the forwardly inclined portion of said catch being spaced from the rear edges of said side walls and converging toward same, the diameter of said pivot pin being greater than the distance between the upper end of the catch and the rear edges of said side walls and being less than the distance between the lower portion of the forwardly inclined portion of said catch and said inclined rear edges, said forwardly inclined portion of said catch being resiliently yieldable whereby the pivot pin of one link is frictionally slidable between the upper end of the catch and the inclined rear edges of the side walls of another link and is freely turnable within the space between the upper portion of the forwardly inclined portion of the catch and said inclined edges.

2,848,865

SHEET METAL LINK FOR EXTENDING WATCH BRACELET

Frederick W. Napoli, Brooklyn, N. Y., and Louis Pompeo, Bloomfield, N. J., assignors to Duchess Jewelry Mfg. Corporation, Hoboken, N. J., a corporation of New York

Application March 1, 1957, Serial No. 643,372
4 Claims. (Cl. 59—80)



1. A unitary blank for a bracelet link, said blank being in the form of a bendable metal plate having a laterally elongated center portion, said center portion having a laterally elongated notch extending to its front edge, a plurality of laterally spaced and alined holes located

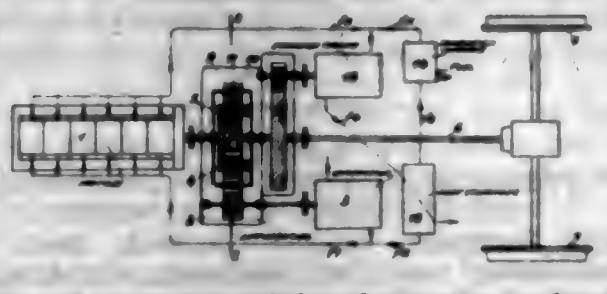
rearwardly of said notch, a cut-out located rearwardly of said holes and laterally elongated and parallel to and registering longitudinally with said notch, and prongs extending rearwardly from a rear edge of said center portion in respective longitudinal alinement with respective holes, said blank also having wings extending laterally outwardly from said center portion and disposed longitudinally between the rear edge of said notch and said cut-out, and tabs extending forwardly from the respective wings adjacent the sides thereof, said wings being of appropriate lengths and said tabs being appropriately positioned to enter said notch upon bending said wings toward each other and into parallelism with said center portion and upon bending said tabs toward said center portion into perpendicularity with said wings, the longitudinal distance between the rear edge of said cut-out and the rear edge of said center portion being substantially equal to the longitudinal distance between the rear edge of said notch and the longitudinal center of a hole.

2,848,866

ARRANGEMENT FOR TRANSMITTING THE POWER OUTPUT OF COMBUSTION ENGINES TO THE WHEELS OF A VEHICLE OR THE LIKE

Leonhard Geislinger, Saint-Germain-en-Laye, France

Application September 1, 1953, Serial No. 381,074
3 Claims. (Cl. 60—12)



2. In a plant for transmitting the power produced by at least one internal combustion engine to a main shaft, gearing means of the differential type connecting said engine to said main shaft, planet pinions in said gearing means, a sun gear in said gearing means in meshing engagement with said planet pinions and drivingly connected to said main shaft, a carrier in said gearing means carrying said planet pinions, means drivingly connecting said carrier to said engine, a ring gear in said gearing means containing said planet pinions, said ring gear being provided with a set of internal teeth meshing with said planet pinions and a set of external teeth, an air compressor having a driving shaft, a gear meshing with said external teeth of said ring gear keyed on said driving shaft to drive said compressor, a tubular connection between said compressor and the inlet of said engine to supercharge said engine, at least one expansion turbine, a tubular connection between said turbine and said compressor to pass the excess greater part of compressed air from the said compressor to the turbine, a tubular connection between the outlet of the engine and the turbine to feed said turbine by means of the exhaust gases of the engine, and a driving connection between the said turbine and said main shaft.

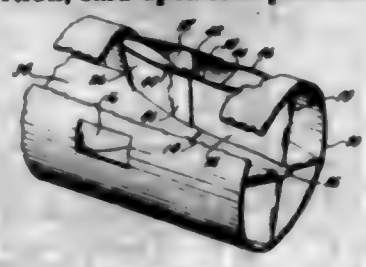
2,848,867

EJECTOR-SILENCER EXHAUST NOZZLE

George F. Hausmann, Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application December 24, 1956, Serial No. 630,326
6 Claims. (Cl. 60—35.6)

6. An exhaust nozzle for a jet power plant including a duct having a wall, an inner body centrally located in said duct and cooperating with said wall to form an annular passage, streamlined struts extending radially from said inner body to said wall thereby normally forming convergent-divergent passages therebetween, each of said struts comprising upstream and downstream portions, said upstream portion comprising an airfoil leading edge and being open at its aft end, said downstream portion comprising an airfoil shaped member and having a leading edge located adjacent the opening in the aft end of said upstream portion, said upstream portion being hollow,



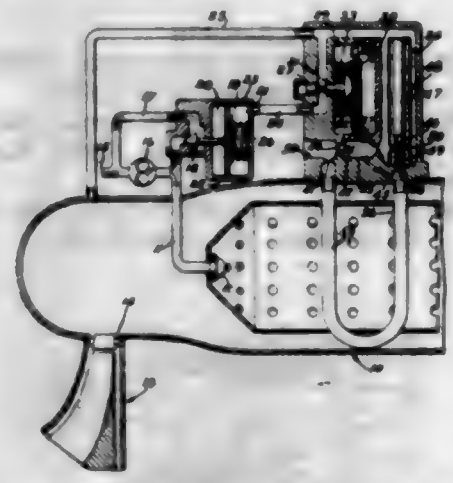
openings in the wall of said duct in registry with said upstream portion, means for inducting air from said openings into the hollow of said upstream portion, means for ejecting said air over said aft portion for mixture with the flow between said struts including spanwise flaps carried by the trailing edge of said upstream portion, and means for moving said flaps.

2,848,868

TEMPERATURE RESPONSIVE FUEL CONTROL APPARATUS FOR GAS TURBINE

Raymond W. Jensen, Encino, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application September 4, 1953, Serial No. 378,635
3 Claims. (Cl. 60—39.28)



1. Control mechanism for a gas turbine having a combustion chamber operatively connected with a fuel supply flow path and a source of combustion air under pressure, comprising: a fuel control valve; a fluid pressure responsive actuator for said valve; means for controlling said fluid pressure including a movable wall; a pair of parallel fluid flow paths respectively connected through restricted inlets with said combustion air, and having restricted outlets, one of said parallel flow paths being in heat exchange relation with said combustion chamber; flow connections respectively connecting the opposite sides of said movable wall with said parallel flow paths; and a temperature responsive needle valve for varying the flow through the restricted inlet of said one of said parallel flow paths in response to temperature changes of said combustion air.

2,848,869

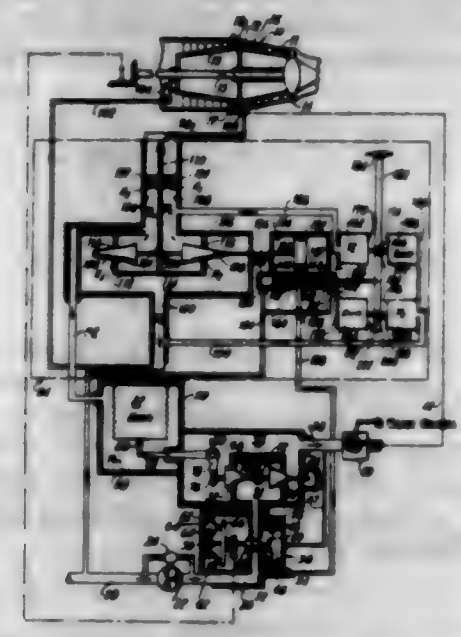
FUEL CONTROL SYSTEM FOR GAS TURBINE ENGINES

Daniel G. Russ, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application October 26, 1953, Serial No. 388,293
30 Claims. (Cl. 60—39.28)

8. In a fuel control system for gas turbine engines having a burner and a compressor, means for metering

fuel to the burner comprising a fuel flow regulating restriction, valve means for controlling said restriction, means for regulating the fuel pressure drop across said restriction, means operatively connected to said valve



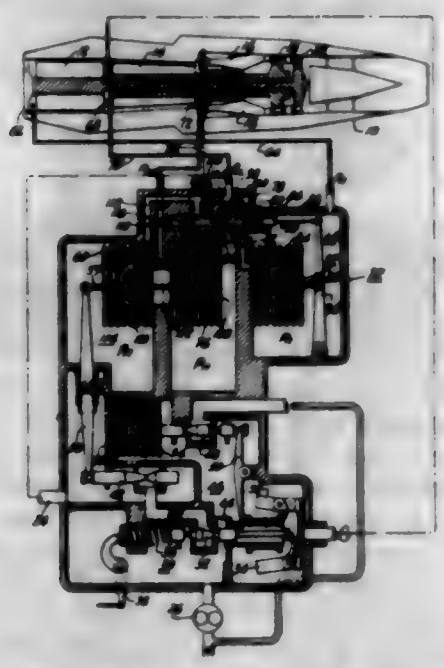
means responsive to an air pressure, and means including air valve means modulating said air pressure during operation of the engine in such a way that said pressure is a measure of the ratio of pressures across the compressor at any given altitude.

2,848,870

FUEL FEED AND POWER CONTROL SYSTEM FOR GAS TURBINE ENGINES

James Middleton Eastman, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application September 22, 1955, Serial No. 535,907
11 Claims. (Cl. 60—39.28)



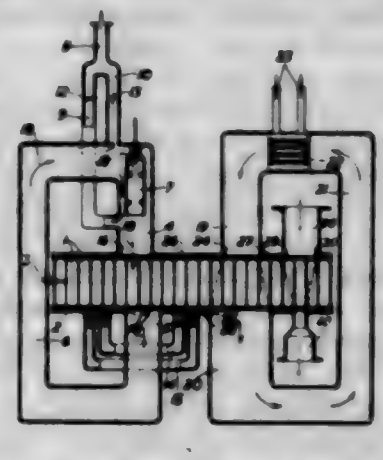
1. In a fuel control system for a gas turbine engine having a burner, a low pressure compressor and a high pressure compressor drivably connected to separate turbines and rotated independently of one another, a conduit for supplying fuel to said burner, valve means for varying the effective area of said conduit, and means for controlling the flow through said valve means during transient engine operating conditions comprising means responsive to high pressure compressor speed for varying the pressure drop across said valve means and means for varying the travel of said valve means including a first chamber, a bellows in said chamber the exterior of which is in communication through a conduit having a restriction therein with low pressure compressor discharge pressure and having in the evacuated interior thereof a resilient member urging said bellows toward its direction of maximum extension, a linkage system operably connecting said bellows with said valve means, a second chamber, a second bellows in said second chamber the exterior of said bellows being in communication through a conduit having a restriction therein with low pressure compressor discharge pressure, a third bellows positioned within said second bellows the space between said second and third bellows communicating with high pressure compressor discharge pressure, the interior of said third bellows being in communication with the interior of said first bellows, a shaft attached to the common end of said second and third bellows in such manner as to exert a force tending to urge said first bellows in its direction of maximum extension when the distance between the ends of said bellows reaches a predetermined minimum, a third chamber communicating with low pressure compressor inlet pressure and through a conduit having a fixed restriction and a variable restriction with low pressure compressor discharge pressure, a fourth bellows in said chamber having its hollow interior communicating through a fixed restriction with low pressure compressor discharge pressure, an evacuated bellows concentrically positioned within said fourth bellows, a shaft and a valve member mounted on said shaft, and a lever attached to said shaft and to said fourth bellows in such manner as to transmit movement of said bellows to said shaft to thereby vary the area of said variable restriction.

2,848,871

LOW PRESSURE SCAVENGING ARRANGEMENTS OF PRESSURE EXCHANGERS

George Jendrassik, London, England; Andre G. T. Bessenyei and Clara Jendrassik, executors of said George Jendrassik, deceased, assignors, by mesne assignments, to Jendrassik Developments Limited, London, England

Application September 14, 1953, Serial No. 380,876
Claims priority, application Great Britain September 26, 1952
7 Claims. (Cl. 60—39.45)



1. A pressure exchanger comprising in combination a first and a second element mounted co-axially for relative rotation; said first element defining a series of open-ended cells extending therethrough, said second element including first inlet means communicating with said cells for the introduction thereto of low pressure gas, second inlet means circumferentially displaced from said first inlet means and communicating with said cells for the introduction thereto of high pressure gas, said low pressure gas being compressed and said high pressure gas being expanded simultaneously in said cells during said relative rotation of said elements, outlet means communicating with said cells for the removal therefrom of said expanded gas and further inlet means communicating with said cells for the introduction thereto of cool low pressure gas for scavenging said cells; an interconnection

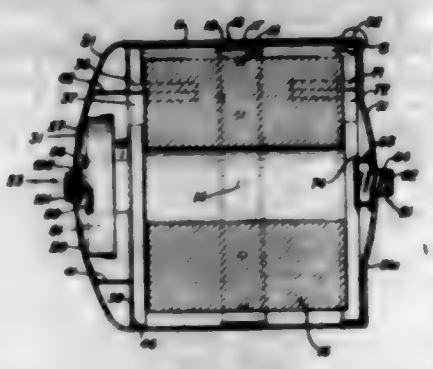
between said outlet means and said further inlet means, cooling-means in said interconnection for gas flowing therethrough and means to effect said relative rotation.

2,848,972

TURBOJET STARTER CARTRIDGE CASE

Wayne A. Proell, Chicago, Ill., William G. Stanley, Munster, Ind., Don E. Kennedy, Park Forest, Ill., and Joseph F. Dominik, Hammond, and Robert H. Osyra, Seymour, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application November 25, 1955, Serial No. 548,973
7 Claims. (Cl. 60—39.47)



7. A turbojet starter cartridge case comprising (*a*) a thin-walled tubular body portion provided with a shallow groove in the exterior of said body portion at about the mid-point thereof, and positioned in said groove a plurality of apertures substantially uniformly spaced about the periphery of said body portion, (*b*) an elastic ribbon-like member positioned in said groove and extending over the apertures provided therein, (*c*) a thin-walled end-closure means attached to one end of said body portion, which end-closure is adapted for the mounting of an igniter assembly and is provided with a plurality of apertures, said end-closure apertures being positioned to allow free-flow of gases from the interior of the case, (*d*) upper resilient side-members and upper resilient end-members supported near the end-closure means, which upper side-members are adapted to maintain a pre-determined spacing between the interior side of the body portion wall and the inner surface of said upper side-members and between the interior side of said end-closure wall and the inner surface of said upper end-members, (*e*) a thin-walled screen-like member adapted to be attached to the other end of said body-portion, said screen-like member being provided with a spring-like spacing element positioned substantially at the center of said screen-like member and projecting beyond the exterior side of the wall thereof, and a multiplicity of holes extending through the wall thereof, (*f*) lower resilient side-members and lower resilient end-members positioned near the screen-like member, which lower side-members are adapted to maintain a predetermined spacing between the interior side of the body portion wall and the inner surface of said lower side-members and between the interior side of said screen-like member and the inner surface of said lower end-members.

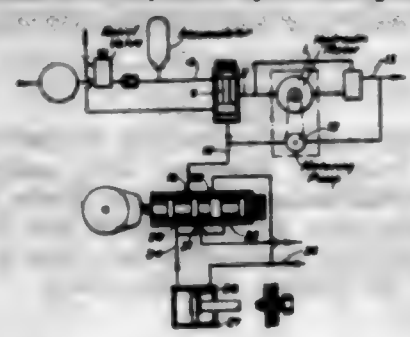
2,848,573

APPARATUS FOR CAUSING INTERMITTENT OPERATION OF A HYDRAULIC MOTOR

Francis Benjamin Lovetus and Alan Roy Hydon, Coventry, England, assignors to The Koolavite Company Limited, Coventry, England, a British company

Application November 26, 1956, Serial No. 549,133
Claims priority, application Great Britain
November 26, 1954
3 Claims. (Cl. 60—51)

1. Apparatus for causing intermittent operation of a hydraulic motor in predetermined steps by opening and closing of a control valve, said apparatus comprising an accumulator system including a source of fluid under pressure, a metering pump, an accumulator device chargeable from said source and dischargeable by said metering pump, said pump being connected to be directly driven by the hydraulic motor, and hydraulic pressure respon-



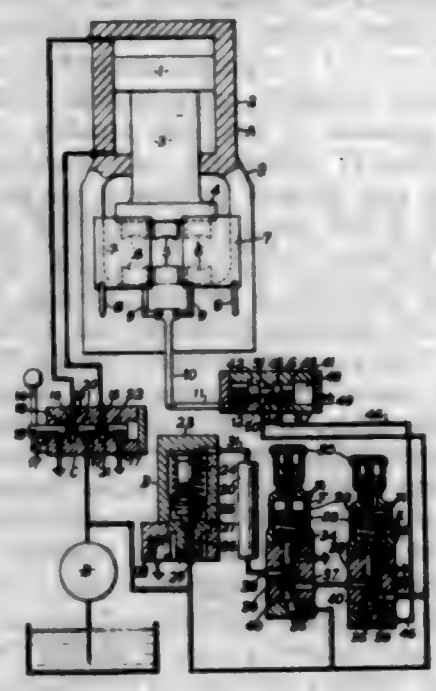
sive means operatively connected to the control valve and responsive to the pressure in the accumulator system to start the motor when the accumulator device is charged and to stop the motor when the accumulator has been discharged.

2,848,574

CONTROL VALVES FOR HYDRAULIC PRESSES

John Maurice Towler, Mayfair, London, England, assignor to Electraulic Presses Limited, Rodley, near Leeds, England, a British limited-liability company

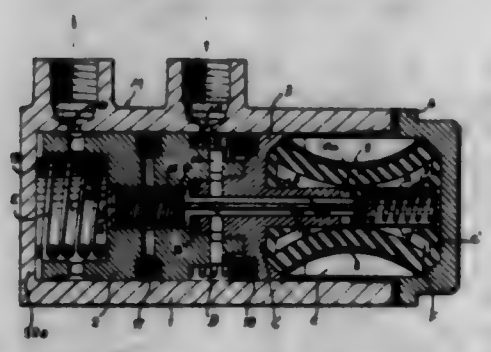
Application December 8, 1954, Serial No. 473,896
Claims priority, application Great Britain
December 14, 1953
2 Claims. (Cl. 60—52)



1. In a hydraulic system, in combination, a pressure fluid operated actuator, a source of fluid under pressure, a valve controlling the delivery of fluid from said source to said actuator, a relief valve having a movable member controlling communication between an inlet port and an exhaust port and having one end extending into a closed chamber, said member having an area at one end exposed to the pressure prevailing at said inlet port and an area at the opposite end exposed to the pressure prevailing in said chamber, conduit means connecting said fluid source to said inlet port, a spring in said chamber urging said member in a direction to close said inlet port from said exhaust port, other conduit means connecting said fluid source with said chamber, a first pressure responsive valve in said other conduit means operable to interrupt the supply of fluid to said chamber and to trap the fluid therein when the pressure reaches a predetermined value, a second pressure responsive valve in said conduit means operable to interrupt the supply of fluid to said chamber and to trap the fluid therein when the pressure reaches a different predetermined value, and

valve means operative to condition said pressure responsive valve for operation selectively, said chamber being dimensioned to hold a predetermined volume of fluid compressible to permit sufficient movement of said valve member to vent the fluid source to exhaust when the fluid in the system reaches a predetermined pressure.

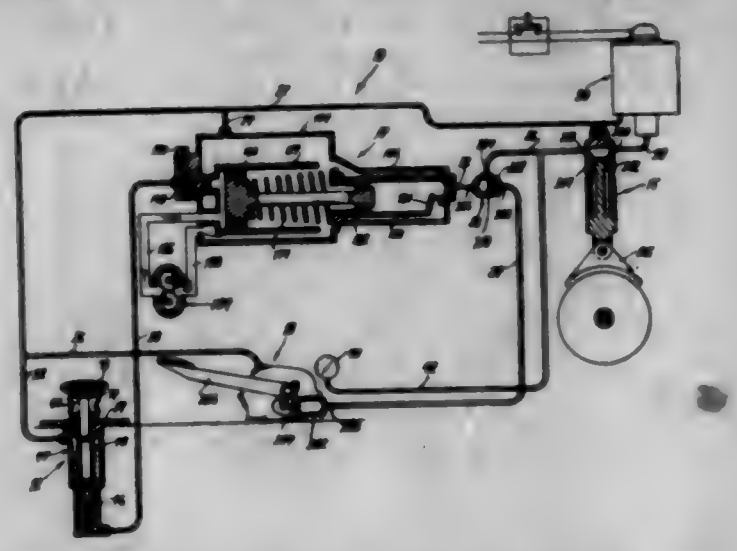
2,848,875
AUXILIARY CYLINDER BOOSTER
Philip Sidney Baldwin, Florence, Italy, assignor of one-half to Fiat Società per Azioni, Turin, Italy
Application May 21, 1951, Serial No. 227,424
Claims priority, application Italy June 3, 1950
11 Claims. (Cl. 60—54.5)



1. A booster device for a hydraulic system comprising a cylinder and means for supplying fluid under pressure thereto, a low pressure chamber A adapted for connection to said source of fluid pressure, a high pressure chamber B adapted for connection to a hydraulic motor, slidable piston means 102—103 intermediate said chambers, the area of the piston exposed to pressure in the low pressure chamber being greater than that exposed to the pressure in the high pressure chamber, a fluid flow channel 27 connecting said chambers, a valve 111 slidable in said channel to control the flow through said chambers, a first pressure means 119 adjacent the high pressure chamber and acting on said valve to urge it to its closed position, a second pressure means 128 adjacent the low pressure chamber and acting on said valve to urge it to its open position, means 112 between said first and second pressure means to transmit force from one to the other, the force of said second pressure means being greater than that of said first means to normally hold said valve open; said valve having an area exposed to the pressure of fluid in said high pressure chamber and an area exposed to the pressure of fluid in said low pressure chamber, whereby upon a rise of pressure in said low pressure chamber sufficient to overcome the force of said second pressure means, the valve is caused to close without moving the piston, the continued rise of pressure in said low pressure chamber, after the closing of the valve, building up pressure on the piston to move it on a protractile stroke and increase the pressure in the high pressure chamber, said valve remaining closed during said stroke to prevent return flow from the high pressure chamber, said valve opening upon a drop in pressure in said high pressure chamber below that in the low pressure chamber to admit more fluid to the high pressure chamber.

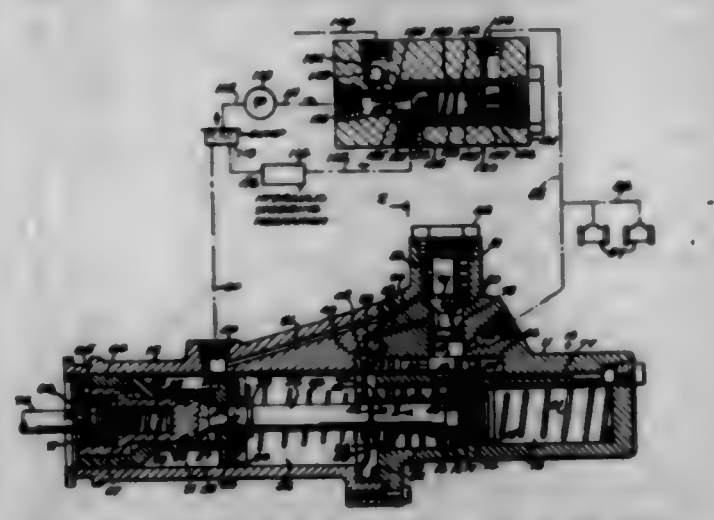
2,848,876
POWERED HYDRAULIC BRAKE ASSEMBLY
Steve Schnell, Kirkwood, Mo., assignor to Wagner Electric Corporation, St. Louis, Mo., a corporation of Delaware
Application August 9, 1952, Serial No. 303,565
7 Claims. (Cl. 60—54.6)

1. A device of the type described, comprising a housing containing a fluid reservoir; a first cylinder fixedly positioned within the housing and containing a first piston reciprocally mounted therein; an inlet and an outlet adjacent one end of the cylinder to one side of the piston; fluid pressure producing means in communication with the inlet and the outlet for circulating fluid through the cylinder; means for restricting the flow of fluid from the cylinder; a second cylinder adjacent the other end of the first cylinder in axial alignment therewith and containing a second piston reciprocally mounted therein, the second cylinder having limited axial movement relative to the first cylinder so as to be movable between an inoperative



position and an operative position upon movement of the second piston; means interconnecting the interior of the second cylinder and the reservoir when the second cylinder is in the inoperative position and closing off communication between them when the second cylinder is in the operative position; means interconnecting the first and second pistons for moving the second piston when the first piston is actuated; and a fluid pressure outlet from the second cylinder.

2,848,877
BOOSTER BRAKE MECHANISM
William Stelzer, Summit, N. J.
Application June 25, 1954, Serial No. 439,331
14 Claims. (Cl. 60—54.6)



1. A booster brake mechanism for a brake system having wheel cylinders, comprising a source of hydraulic pressure, a pair of cylinders of different diameters having fluid connection with the wheel cylinders, a small piston in the smaller cylinder and a large piston in the larger cylinder, manual means connected for effecting movement of said pistons to displace hydraulic fluid from said cylinders, a valve connected to normally cut off communication between said source and the wheel cylinders and being connected to be moved by movement of said manual means from a normal off position to connect said source to the wheel cylinders, said smaller cylinder communicating with the wheel cylinders to be subject to pressure therein to proportionately react against said

manual means, control means connected to be responsive to pressure in said source when said valve is operated to return fluid from the larger cylinder to said source to render said larger cylinder inoperative when pressure is present in said source, and means connected to be operative when pressure in said larger cylinder is higher than pressure in said smaller cylinder to bypass fluid from the former to the latter upon a failure of power in said source.

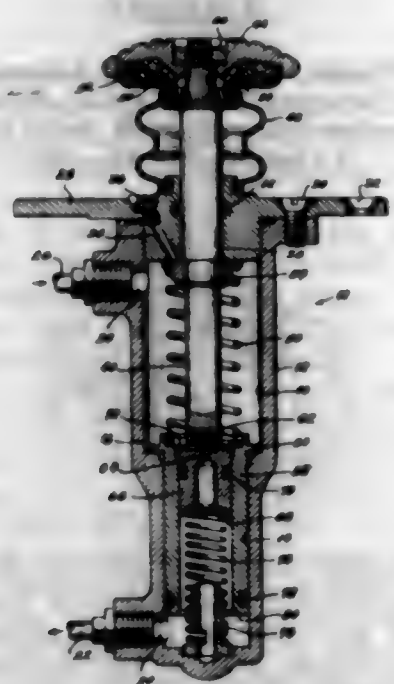
2,848,878

CONTROL CYLINDER

Steve Schnell, St. Louis, Mo., assignor to Wagner Electric Corporation, St. Louis, Mo., a corporation of Delaware

Original application August 9, 1952, Serial No. 303,565. Divided and this application April 27, 1956, Serial No. 581,214

6 Claims. (Cl. 60—54.6)



6. A fluid pressure generating device comprising a housing containing a first chamber and a second chamber contiguous therewith, an outlet from said second chamber spaced from the first chamber, piston means movable into the second chamber to increase the fluid pressure therein, pressure-reducing means movable solely opposite to and independently of the piston means from the second chamber responsive to an increase in fluid pressure therein to reduce the pressure in said second chamber solely by displacement of the fluid within the second chamber, and yieldable means between said piston and pressure reducing means retarding the movement of the latter from the second chamber.

2,848,879

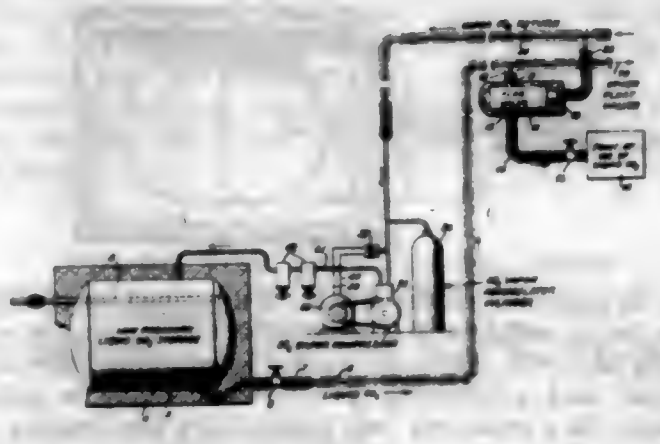
SYSTEM FOR DISPENSING LIQUID CARBON DIOXIDE

James C. Hesson, Riverdale, Ill., assignor to Cardox Corporation, Chicago, Ill., a corporation of Illinois

Application August 17, 1955, Serial No. 528,921

2 Claims. (Cl. 62—54)

1. Apparatus for delivering liquid carbon dioxide from a storage container at a low temperature and pressure to a point of use, comprising an insulated chamber adjacent said point of use for containing a supply of liquid carbon dioxide, said chamber having an inlet and a vapor outlet in the upper portion thereof, said inlet and vapor outlet each being located above the level of the liquid carbon dioxide normally contained in said chamber, means forming an insulated flow path from the bottom portion of said storage container to said chamber inlet, means forming an insulated flow path from the bottom portion of said chamber to said point of use, float actuated valve means for opening and closing said vapor outlet in response to changes in the liquid level in said chamber to prevent the flow of liquid from said vapor outlet and to release the vapor from said flow path, a compressor having an inlet port, means forming a flow path from said vapor outlet to said compressor inlet port, means



for controlling the actuation of said compressor in response to changes in the pressure in said last mentioned flow path, means for returning the compressed vapor from said compressor to said storage container, and means for lowering the temperature of the vapor returned to said storage container to reliquefy the same and to maintain the low temperature and pressure of the liquid in the storage container.

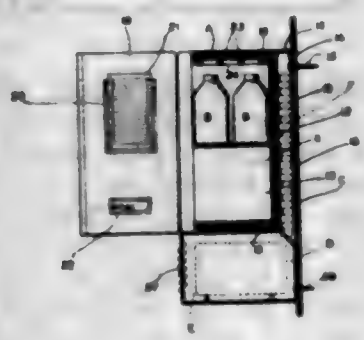
2,848,880

DAIRY BOX

Walter H. Riedel and William C. Riedel, St. Paul, Minn.; Marie A. Riedel and First Trust Company of St. Paul, executors of said Walter H. Riedel, deceased

Application January 17, 1955, Serial No. 482,277

3 Claims. (Cl. 62—263)



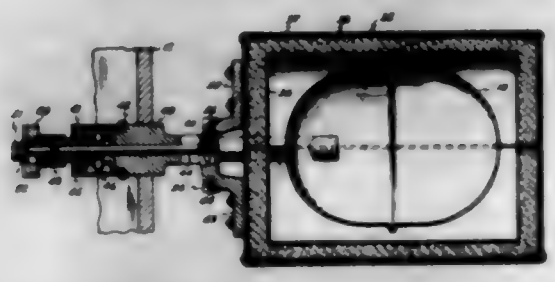
3. A depository for perishables comprising a storage compartment having insulated end, side and back walls, an insulated closure member swingably attached to the front of said storage compartment, means affixed to said closure member to maintain said closure member in a locked position, adjustable shelving attached to the back and side walls within said storage compartment, removable recording means positioned within said storage compartment, a cooling unit housing having side, end and back walls attached beneath said storage compartment, a removable louvered front wall for said cooling unit housing, locking means affixed to said louvered front wall, a cooling unit for said storage compartment positioned within said cooling unit housing, an air duct coextensive with the back wall of said storage compartment and adjacent thereto communicable with said cooling unit housing, and means for fixedly supporting said depository on a vertical surface.

2,848,881

THERMALLY SHIELDED MOISTURE REMOVAL DEVICE

Oran E. Miller, Oak Ridge, Tenn., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application January 13, 1945, Serial No. 572,722
11 Claims. (Cl. 62—270)



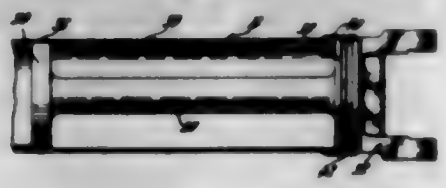
1. In apparatus of the character described, in combination, means comprising an evacuated tank, means for evacuating said tank, means for extracting moisture from within said tank comprising a vessel containing a cooling medium at a relatively low temperature for freezing out moisture from the air in said tank, thermal shielding means for said vessel movable into and out of thermal shielding position, and means for operating said thermal shielding means.

2,848,882

DRIVE NOISE INSULATING MEANS

Hugh W. Larson, Milford, George H. Princeau, Grosse Pointe, and William O. Robbins, West Bloomfield Township, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 28, 1955, Serial No. 548,996
7 Claims. (Cl. 64—1)



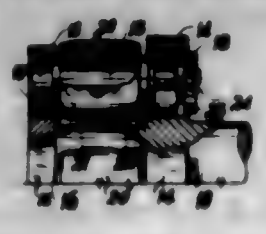
1. Drive noise insulating means which includes a tubular drive shaft extending between power transmitting connections, a stub shaft rigidly secured to one of said power transmitting connections and extended within one end of said drive shaft, a flange formed upon the end of said stub shaft within said drive shaft, and means securing said flange to said drive shaft in spaced relation to one end thereof for the transmission of torque from said tubular shaft to said stub shaft, said flange being formed to provide limited axial flexibility between said drive and stub shafts.

2,848,883

CONTROLLED TORQUE COUPLING FOR CONVEYING ROTARY MOTION

Vittorio Dall'Olio, Legnano, Italy

Application June 19, 1956, Serial No. 592,387
Claims priority, application Italy June 23, 1955
6 Claims. (Cl. 64—29)



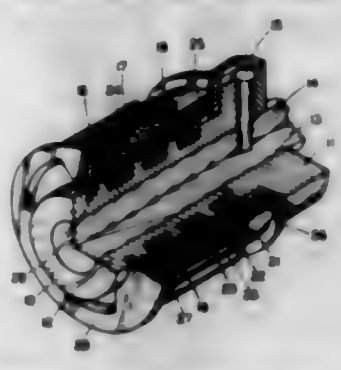
1. In a controlled torque coupling device for conveying motion from a first rotary part to a second rotary part co-axial to said first rotary part, in combination, a plurality of idler roller means having an outer surface forming member of resiliently compressible material and rotatably supported by one of said rotary parts and positioned about a corresponding plurality of axes evenly spaced at angular intervals about the main axis of said rotary parts and at like radial distances therefrom, so that the said plurality of axes travels along a circular path as the said one rotary part rotates, and a hollow member connected to the other of said rotary parts and including an inner surface, having a plurality of adjacent hollows therein, the said inner surface being shaped and positioned with respect to the said plurality of said idler rollers so that the latter are caused to roll along and in contact with said inner surface and to pass from any one to the adjacent one of said hollows upon radial compression of said outer surface forming member of compressible material.

2,848,884

GEAR

William A. Maude, Lynn, Mass., assignor to General Electric Company, a corporation of New York

Application November 17, 1955, Serial No. 547,352
3 Claims. (Cl. 64—30)



1. A gear comprising a hub member and a ring gear member concentrically arranged with respect to each other, one of said members having axially spaced annular grooves therein, each of said grooves having side walls and a bottom surface, and a torque transmitting elastically deformable O-ring mounted in each of said grooves, said O-rings being in limited frictional engagement with said side walls and said bottom surface of said grooves and with the non-grooved member whereby a predetermined torque applied to one of said members will cause relative rotational movement between said members.

2,848,885

FOOTLETS AND METHOD OF MAKING SAME

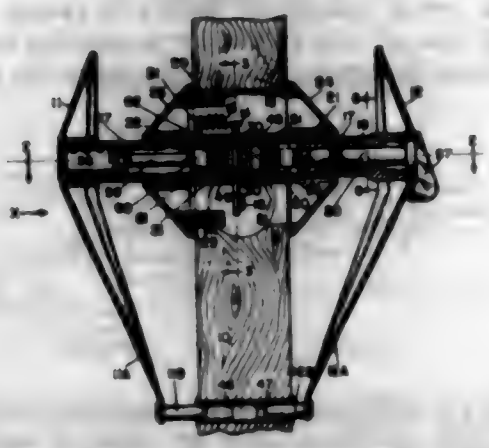
Norman H. Goodman, New York, N. Y., assignor to Triumph Hosiery Mills, Inc., New York, N. Y., a corporation of New York

Application January 14, 1954, Serial No. 403,954
9 Claims. (Cl. 66—171)



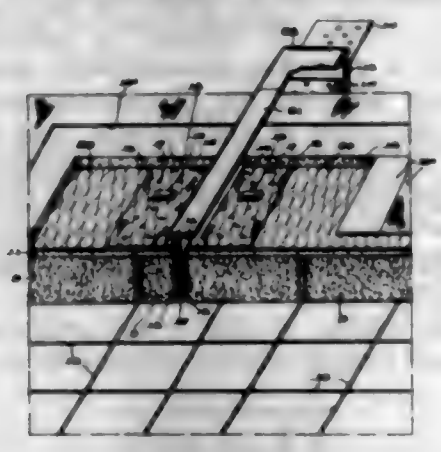
1. A method of making a foot covering article, comprising the steps of knitting a flat blank of a predetermined size and shape having integral portions interconnected at opposite ends thereof with said portions having outside peripherally extending free edges and inside free marginal edges, securing together said outside free edges of said portions from the region of one end thereof to a point short of the other end thereof, and securing together said other end from said point to form a foot covering article having a foot opening communicating with an interior foot receiving compartment, said foot opening being defined by said inside marginal edges.

2,848,886
DOOR LATCH ASSEMBLY
Albert Varria, Oregon City, and Elmer G. Anderson, Portland, Oreg., assignors, by mesne assignments, to Stanley N. Lewis, Gardena, Calif.
Application April 4, 1956, Serial No. 576,039
5 Claims. (Cl. 70—146)



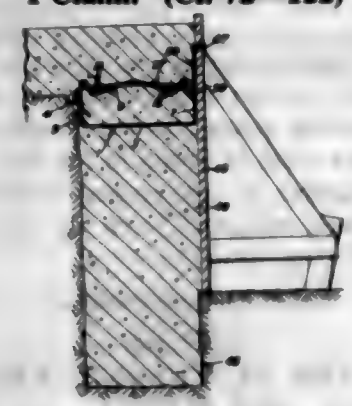
5. In a door latch assembly, a pair of door plates mounted on opposite faces of a door, a stationary sleeve extending between and supported by said door plates, a hollow shaft extending through said sleeve and movable longitudinally therein, a pair of door knobs secured to opposite ends of said shaft respectively, means limiting the movement of said shaft and therewith of said door knobs with respect to said sleeve, a latch control member carried by said shaft, a slot in said sleeve for said control member, a locking cylinder in said shaft, means holding said cylinder against relative axial movement with respect to said shaft but permitting partial rotation of said cylinder in said shaft, a stationary locking pin secured in said sleeve and extending transversely through slots in said shaft and in said cylinder, said cylinder having locking notches engageable with said stationary locking pin upon partial rotation of said cylinder, and means mounted in one of said door knobs extending to and engaging an end of said cylinder to enable said cylinder to be rotated into and out of locking position through the medium of said latter mentioned means.

2,848,887
INSULATED FACED WALL
Jerry B. Comptoo, Pittsburgh, Pa.
Application February 24, 1955, Serial No. 490,358
4 Claims. (Cl. 72—28)



1. An insulated structure comprising a base wall and a plurality of slab-like insulating members disposed thereover, expansion joints between the adjacent edges of said members, said joints comprising a pair of resilient strips, each bent along a longitudinal median line and forming a fold therein, the folds being positioned side-by-side between the adjacent edges of the two slab-like members, oppositely extended wings integral with the remote sides of the folds and each wing lying upon and secured to the slab-members, the outer side of each fold diverging outwardly relative to its inner side and the inner side of each of the folds extending vertically and disposed in flat-wise engagement with each other, oppositely projecting flange-like members integral with said vertical sides at the outer edges thereof, said flanges occupying a common horizontal plane substantially parallel to but spaced outwardly from the plane of the wings, a cap strip overlying the flange-like members and having its edges inturned into snug fitting relation with the flange members, thereby holding them tightly together, and means connecting the wings to the slab faces, there being clearance normally existing between the slab members and the strips at their fold lines and close engagement between the abutting edges of the slab members and the flared sides of the strips at areas adjacent the wings.

2,848,888
CHAIRS FOR REINFORCING RODS FOR CONCRETE
Ebb K. Jones, Amarillo, Tex.
Application August 16, 1955, Serial No. 528,666
1 Claim. (Cl. 72—122)

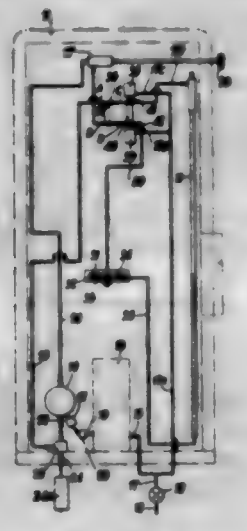


A chair for supporting reinforcing rods in a concrete form comprising an oblong frame including a top seat portion for supporting rods, and downwardly opening loops at the ends of said frame and seat portion, and a locking rod extending through said loops and alongside said top seat portion, said top seat portion between said loops being upwardly bowed and obtuse angled with a central apex portion and forming with corresponding sides of the loops a pair of V-shaped rod rests inclining downwardly from said apex portion and said sides of said loops, said frame having end legs forming the other sides of the loops, said locking rod having an acute angled handle end portion hooked around one of said legs in straddling relation thereto, one of said loops terminating in an upwardly opening hook, said locking rod having a right angled end portion at an angle to said handle end portion and being rotatable in said loops by said handle end portion to swing said right angled end portion into said hook and said handle end portion into said straddling relation to said one leg, said locking rod engaging one side of said apex portion and being longitudinally bent for camming coaction with said apex portion in response to rotation of the rod to swing said right angled end portion into said hook with a snap action.

2,848,889
PNEUMATIC GAUGES
John Loxham, Letchworth, England, assignor to The Sigma Instrument Company Limited, Letchworth, England, a British company
Application January 18, 1956, Serial No. 559,893
4 Claims. (Cl. 73—37.5)

1. A pneumatic gauge for checking a dimension of a workpiece, the gauge comprising a source of air under pressure, a pneumatic measuring head for co-operating with the workpiece, a first conduit for feeding air from the source to said head, there being a control orifice in said conduit, a transparent tube, liquid in the tube, a second conduit leading from that portion of the first conduit

that is on the downstream side of the orifice to one end of said tube, a first valve in said second conduit, a member for supporting the workpiece, timing means for moving said member cyclically from a loading position where the workpiece is placed on said member to a gauging position where the workpiece is presented to the pneumatic



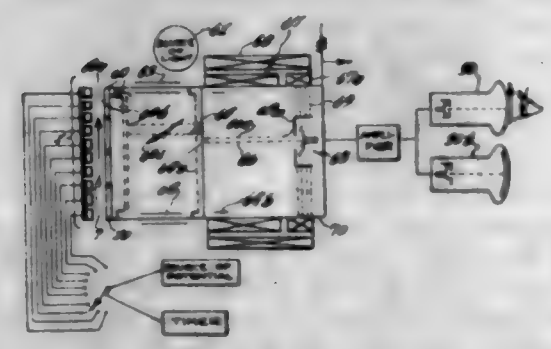
measuring head, and a connection from the timing means to said first valve to cause the latter to be opened and closed by the timing means during gauging of the workpiece whereby the level of liquid in the tube is maintained at the level indicative of the gauged dimension after the workpiece has been removed from co-operation with the pneumatic measuring head.

2,848,890

APPARATUS FOR SUPERSONIC EXAMINATION OF BODIES

Edward Emanuel Sheldon, New York, N. Y.

Application May 7, 1952, Serial No. 286,521
9 Claims. (Cl. 73—67.5)



1. A device for reproducing supersonic images comprising in combination an examined body a source of supersonic radiation for irradiating said body and producing a supersonic image of said body, a vacuum tube having piezo-electric means sensitive to supersonic radiation, said piezo-electric means receiving said supersonic image and converting said image into an electrical pattern, said piezo-electric means being furthermore supported by the wall of said tube, means for producing a broad non-scanning beam of electrons, said beam being modulated by said electrical pattern on said piezo-electric means and means spaced apart from said piezo-electric means for receiving said modulated broad electron beam.

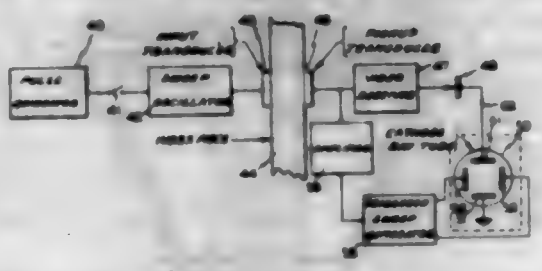
2,848,891

APPARATUS FOR ULTRASONIC TESTING

Joseph E. Hunter, Jr., Royal Oak, and Norman W. Schubring, Hazel Park, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 19, 1954, Serial No. 451,023
4 Claims. (Cl. 73—67.5)

1. In a device for the determination of the size of grains in a given article the combination of means for recurrently generating variable high frequency electrical oscillations at a predetermined sweep frequency, a first electro-mechanical transducer electrically coupled to said first means and mechanically coupled to a surface of said article, a second electro-mechanical transducer mechanically coupled to an opposite surface of said article and actuated by mechanical vibrations transmitted therethrough, a sweep generator having a sweep frequency identical to that of said means for generating oscillations, an oscilloscope having pairs of beam deflecting plates, one



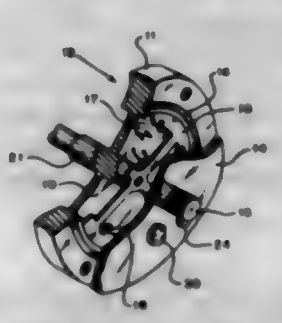
of said pairs of deflecting plates being electrically coupled to said second transducer and the other of said pairs of deflecting plates being connected to said sweep generator, a calibrated screen on said oscilloscope correlating the oscilloscope trace with the size of grain in said article, and means connected in circuit with said second transducer and said sweep generator and responsive to the lowest frequency oscillations produced by said means for generating oscillations to initiate the operation of said sweep generator.

2,848,892

ELEVATOR LOAD TRANSDUCER

Donald Bernard Hoffman, Hatboro, Pa.

Application October 21, 1954, Serial No. 463,834
4 Claims. (Cl. 73—141)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Load measuring apparatus, comprising: a relatively thin, resilient diaphragm element; means for securing said diaphragm element by its edges for measuring strain; means integral with said element for applying loads to said element; a plurality of individual strain sensitive gages forming at least two circumferentially arranged rows about the center of said element, said rows located at alternate areas of tension and compression on one surface of said diaphragm element, said gages securely bonded to said element; means sealing said one surface of said diaphragm element with its edges and said gages bonded thereto within an airtight enclosure; and means responsive to strains in said strain sensitive gages for measuring said strains and thereby said loads.

2,848,893

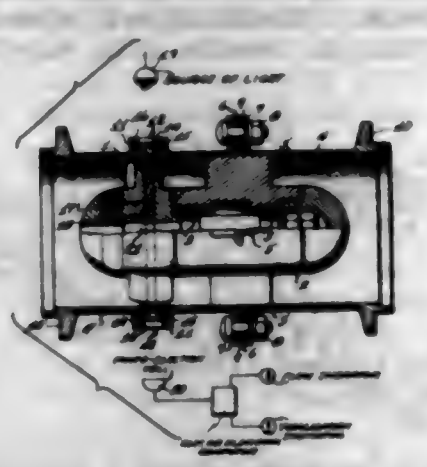
TRANSPARENT TURBINE ELEMENT FOR ELECTRONIC FLOW METERS

Pierre Edmond Taffet, Tarbes, and Jean Soulie, L'Union, France

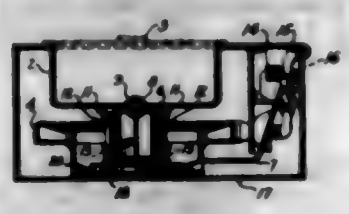
Application December 7, 1955, Serial No. 551,575
Claims priority, application France August 11, 1955
6 Claims. (Cl. 73—231)

1. In a turbine for an electric flow meter of the type comprising means for so mounting the same in a piping for the fluid whose rate of flow must be measured as to cause said fluid to impart rotation to said turbine about

an axis coincident with the piping axis, a transparent transverse member extending completely through said turbine, a stationary ray source for emitting a beam of rays through the piping axis, and stationary ray-responsive means arranged for being energized every time said transparent member is interposed between said ray source and said responsive means determining the number of revolutions effected by the turbine.

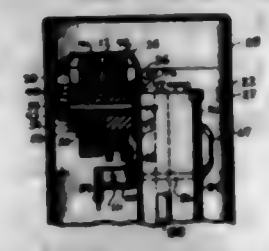


2,848,894
THERMO-SENSOR ATTACHMENT FOR DEEP FAT FRYER
Phillip M. Pappas, Houston, Tex.
Application May 5, 1955, Serial No. 506,283
1 Claim. (Cl. 73—343)



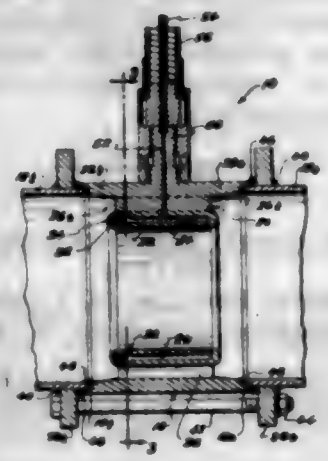
In an apparatus of the class described, the combination with a casing, of a pot provided in its bottom at the center thereof with an inverted narrow elongated half-round shaped bulge in cross section, a thermo-sensor housing provided with a centrally-positioned elongated narrow depending half-round shaped bulge in cross section registering with said first-mentioned bulge, and said registering similar bulges forming a totally enclosed elongated tube-like closed central narrow pocket for receiving a narrow tube-like hydraulic thermostat when said housing and pot are assembled.

2,848,895
RECORDING THERMOMETER
Donald R. Bristol, Seattle, Wash., assignor to Ryan Recording Thermometer Company, Seattle, Wash., a corporation of Washington
Application June 21, 1954, Serial No. 438,007
2 Claims. (Cl. 73—343.5)



1. In a recording thermometer, a pair of thermostatic coils having their inner ends fixed with respect to a given common axis central of the coils, each of said coils having an outer end portion which has a constant radius of curvature with reference to said axis at a given calibration temperature and which is formed with a longitudinally extending elongated slot, a pair of cranks of equal length journaled for unitary rotation about an axis parallel to said common axis, a pair of links of equal length pivotally connected at one of their ends to respective ends of said cranks, and respective means for pivotally and adjustably connecting the other ends of said links to said outer end portions of the coils at any selected position along the length of said portions, each said means comprising a member pivotally connected to the respective said link and having a hole therethrough, a screw passing through said hole and the respective slot, and a nut on said screw extending into the slot by a reduced head having diametrically opposite flat side edge portions arranged and adapted to be restrained from turning and from shifting sideways in the slot by the side walls thereof whereby said member is adjustably connected to the slotted portion of the respective coil.

2,848,896
TEMPERATURE SENSING DEVICES
Ferdinand L. Peragallo, Oakland, N. J., assignor to Hesse Instrument and Valve Inc., Hoboken, N. J., a corporation of New Jersey
Application April 24, 1956, Serial No. 580,230
9 Claims. (Cl. 73—368)

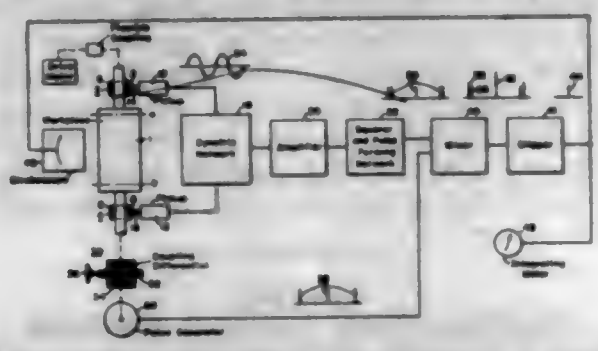


1. In combination with a tubular structure including successive pipe sections through which a fluid mass may be passed; a device for sensing the temperature of a fluid mass within said tubular structure comprising an assembly interposed between adjacent ends of said successive pipe sections to form a continuation of said tubular structure, said assembly including a tubular member having a portion of reduced internal diameter with axial internal bores in communication with each other and adapted to contain a temperature responsive medium, said portion of reduced internal diameter further having axial passages extending therethrough at locations disposed radially outward with respect to said internal bores so that the temperature of a fluid mass in said tubular structure is transmitted through said tubular member to the temperature responsive medium in said bores from the fluid mass within said passages as well as in contact with other surfaces of said portion of reduced internal diameter.

2,848,897
STROBOSCOPIC BALANCE TESTER
Sheldon I. Rambo, Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 23, 1955, Serial No. 517,555
7 Claims. (Cl. 73—466)

1. Apparatus for detecting the angle of unbalance of a rotatable body comprising, flexible bearing means for journaling a rotatable body, circuit means including electrical pick-up means responsive to vibratory movement of said body for producing electrical pulses which due to extraneous vibratory movement of said body and said bearing means are irregularly spaced in time, an

electrical pulse generator driven in synchronism with said rotatable body and producing electrical pulses synchronized with said rotatable body, a mixer circuit receiving the electrical pulses from said electrical pick-up circuit means and said pulse generator and producing an electrical output which includes all said electrical pulses with coincident pulses added together to produce predominate pulses, a clipper circuit receiving the output of said mixer circuit and having an output of elec-



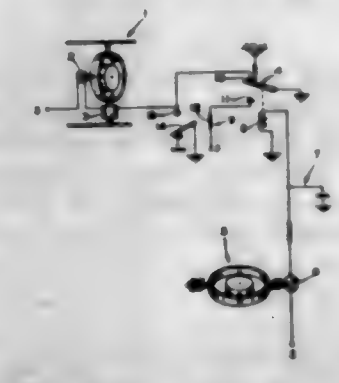
trical pulses determined by said predominate pulses, an integrating device connected to the output of said clipper circuit for indicating the summation of said predominate pulses, means for shifting the phase of the electrical pulse output of said pulse generator to obtain maximum response from said integrating device, and a stroboscopic tube connected to the output of said clipper circuit to be controlled thereby and disposed to illuminate said rotatable body.

2,848,898

DIRECTIONAL GYRO TURN ERROR MINIMIZING SYSTEM

Sheldon M. Waldow, Fort Lee, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application December 22, 1955, Serial No. 554,873
8 Claims. (Cl. 74—5.34)



1. In a directional gyro system, means for erecting the gyro to proper position upon the latter varying therefrom, relay means actuated in one sense in response to turning maneuvers of a craft embodying the directional gyro system, means operable by the relay means upon the latter being actuated in said one sense to cut out the erection system, timing means to delay for a predetermined period of time the actuation of said relay means in response to a turning maneuver, and other timing means rendered effective by the actuation of said relay means to connect said erection system back into operation upon the turning maneuver continuing in excess of a predetermined period of time.

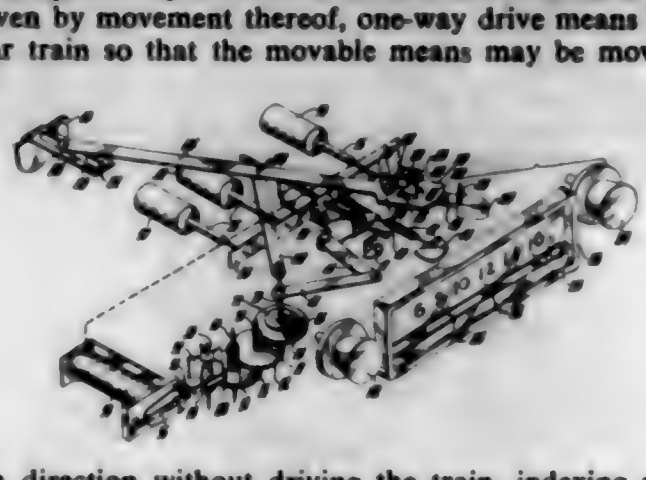
2,848,899

MANUALLY LOADED SIGNAL SEEKING TUNER

William R. Kearney and Manfred G. Wright, Kokomo, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 23, 1955, Serial No. 510,088
8 Claims. (Cl. 74—10.2)

1. In radio receiving apparatus, adjustable means for tuning the apparatus over a predetermined band of frequencies, movable means upon which the adjustable means is mounted, resilient means connected to the movable means to tend to move it in one direction, a gear train operatively connected to said movable means and driven by movement thereof, one-way drive means in the gear train so that the movable means may be moved in



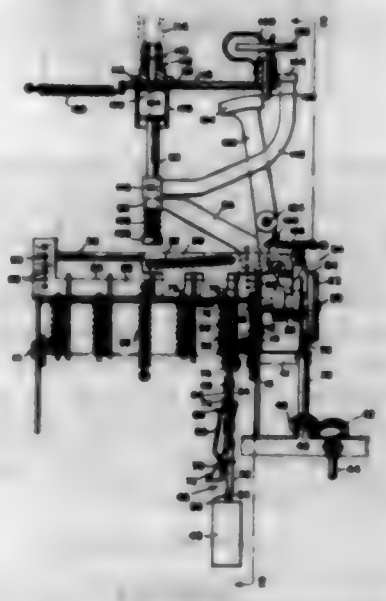
one direction without driving the train, indexing means driven by the gear train, magnetic control means engageable with the indexing means to lock the gear train, and manually movable pivotally mounted means link coupled to the first-named movable means to move the latter within the range and to load the resilient means.

2,848,900

RADIO TUNER WITH VACUUM ASSIST

John H. Teaf, Merchantville, N. J., assignor to Radio Condenser Company, Camden, N. J., a corporation of New Jersey

Application December 21, 1953, Serial No. 399,214
9 Claims. (Cl. 74—10.33)



1. Push button tuning means comprising a member settable to adjustable positions to effect tuning, a plurality of push button devices each of which is effective under manual manipulation to set said member to a corresponding position, pneumatic means set into operation by manipulation of each of said push button devices to assist the setting of said member by such device, and means operated by said pneumatic means for terminating the operation of said pneumatic means after such assisted setting of said member.

2,848,901

DRIVE BELT

James C. Groff, Manheim, Pa., assignor to Manheim Manufacturing and Belting Company, Manheim, Pa., a corporation of Pennsylvania

Application October 22, 1957, Serial No. 691,678
6 Claims. (Cl. 74—233)

1. A laminated driving belt comprising a plurality of links arranged in superimposed successive overlapping relation, each of said links having a plurality of apertures

arranged in pairs respectively at the forward, intermediate, and trailing portions of said link, fastening means extending through the apertures in the overlapping portions of the links and having means at the opposite ends thereof engaging the innermost and outermost links to secure said plurality of links together, said pair of apertures at the forward end of each of said links being spaced apart a distance greater than the spacing of said pair of apertures



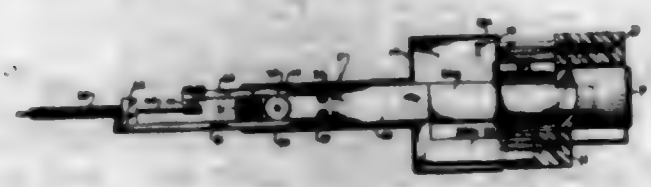
in the intermediate portion of said link, and the spacing of said pair of said intermediate apertures being greater than the spacing between the pair of apertures at the trailing portion of said link, the forward portion of said link being outermost and the trailing portion of said link being innermost in said succession of said superimposed overlapped links whereby said fastening elements diverge outwardly and effect outwardly convex flexure of said links transversely thereof.

2,848,902

DRIVE SELECTOR MECHANISM

Hayden E. Hale, Kalamazoo, Mich., assignor to Shakespeare Products Company, Kalamazoo, Mich., a corporation of Michigan

Application March 27, 1956, Serial No. 574,303
6 Claims. (Cl. 74—502)



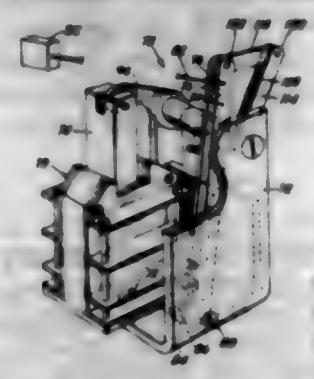
1. A selector mechanism for operating a Bowden cable provided with a sliding wire and a sheath comprising first and second members slidably disposed in parallel planes, means operatively coupling said members whereby a shift of one member in a given direction effects a shift of the other to the same extent in the opposite direction, a plurality of actuating elements supported for movement independently of each other toward said members, each element having first and second projections directed toward said first and second members respectively and releasably engageable therewith, said projections having a predetermined longitudinal displacement whereby when said members are engaged thereby they are caused to assume corresponding relative locations, and means connecting said sliding wire to one member and the sheath to the other whereby the relative positions thereof are determined by the relative locations of the members.

2,848,903

SOLENOID ACTUATED OPERATOR SYSTEM

Panfilo Trombetta, Milwaukee, Wis.

Application October 28, 1952, Serial No. 317,336
5 Claims. (Cl. 74—516)



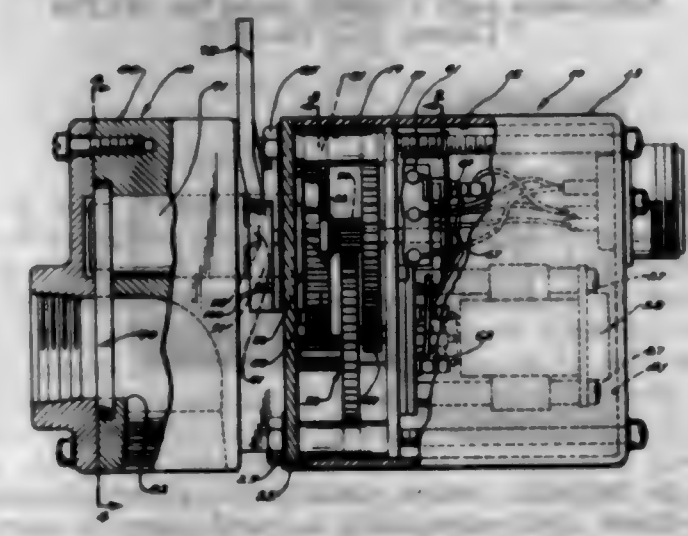
1. An apparatus for operating a device comprising a frame, a solenoid pivotally mounted on the frame, a shaft movably mounted on the frame, means secured to the shaft and controlled by the solenoid for moving the shaft, an arm pivotally mounted on the frame, means interconnecting the arm with the shaft to produce movement of the arm in response to movement of the shaft, said arm having a plurality of spaced apertures therein, and means secured to the device and engageable within a selected one of the apertures to operate the device in accordance with a movement of the arm.

2,848,904

ELECTRICAL VALVE ACTUATOR

Robert K. Wilson and Eugene M. Stoner, Los Angeles, Calif.

Application March 25, 1954, Serial No. 418,538
2 Claims. (Cl. 74—625)



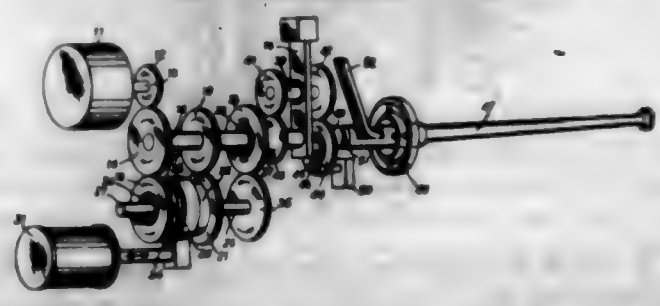
2. In an electrical actuator for a valve movable between a plurality of positions, the combination of: a housing having an opening in a wall thereof and an arcuate slot adjacent said opening; a valve drive shaft projecting through said opening; a motor in said housing connected to a reduction gear train; a bidirectional overrunning clutch operatively connected between the output of said gear train and said drive shaft; means for energizing and de-energizing said clutch mounted thereupon and juxtaposed to said slot; and a manual override mounted on said drive shaft exteriorly of said housing and operatively connected to said energizing means through said slot, said manual override being constituted by a handle freely rotatable on said drive shaft and said operative connection being constituted by a pin extending through said slot and engaging said energizing means.

2,848,905

ANTENNA FEEDER DRIVE

Lawrence R. Evans, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy

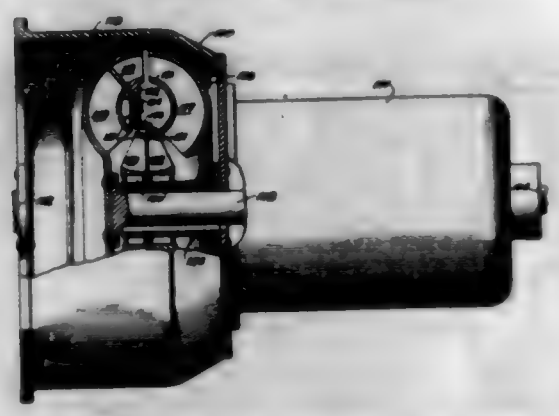
Application April 26, 1956, Serial No. 580,973
5 Claims. (Cl. 74—660)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An antenna drive comprising a shaft, a carrier plate attached to said shaft, an eccentric shaft attached to said carrier plate, a secondary gear rotatably journaled on said eccentric shaft, a primary gear in mesh with said second-

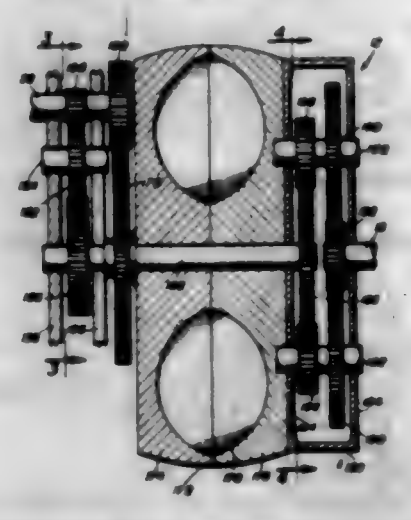
ary gear and rotatably mounted to said carrier plate, means for driving said carrier plate at a fixed speed, first and second gear trains for selectively driving said primary gear at different speeds, one of which is the same as the speed said carrier plate is drivable, clutch means for selectively connecting one of said gear trains in driving relation with said primary gear, and a gimbally mounted antenna feed horn pivotally connected in eccentric relation to the axis of said secondary gear for vertical movement with respect thereto whereby said antenna feed horn is selectively nutated in spiral and conical patterns.

2,848,906
HYDRAULIC TORQUE CONVERTER
Adiel Y. Dodge, Rockford, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application April 27, 1953, Serial No. 351,374
3 Claims. (Cl. 74—677)



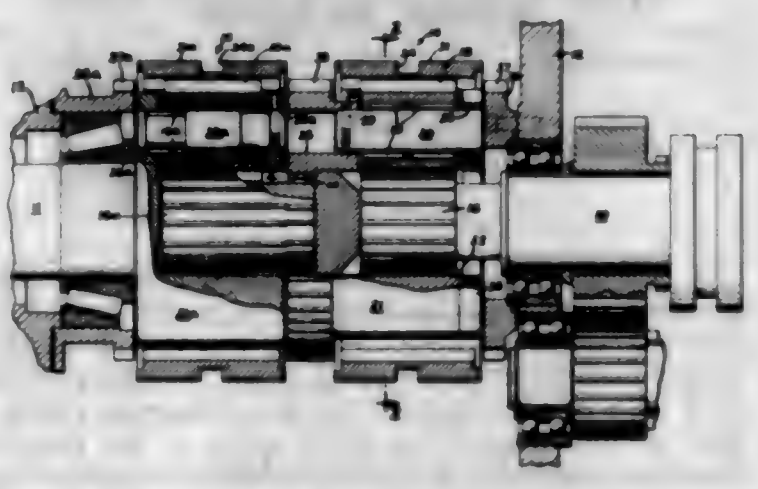
1. A hydraulic torque converter to connect driving and driven shafts comprising a vaned pump, a vaned auxiliary turbine adjacent to the fluid outlet of the pump, a vaned main turbine at the fluid outlet side of the auxiliary turbine, vaned stator means including a pair of independently rotatable vaned stator rings lying between the main turbine outlet and the pump inlet, means to connect the pump to the driving shaft, means to connect the main turbine to the driven shaft, one-way brakes to hold the stator rings separately against reverse rotation, and a differential gear set including three relatively rotatable elements connected respectively to the main and auxiliary turbines and to said stator ring closest to the pump inlet.

2,848,907
TRANSMISSION
William L. Wilson, Tiffin, Ohio
Application March 25, 1955, Serial No. 496,830
3 Claims. (Cl. 74—688)



1. A power transmission comprising a gearing system interconnecting the output shaft of a reversing mechanism with a propeller shaft, said gearing system interconnecting the output shaft and the propelling shaft including a pair of longitudinal spaced drive gears of unequal size mounted on the output shaft, a freely rotatable idler gear in meshing engagement with the smaller of said spaced gears, a pair of spaced unequal driven gears in meshing engagement with said free idler gear and the other of said spaced gears, respectively, for rotation of said driven gears in opposite directions, one of said driven gears being secured to a central shaft and the other of said driven gears being rotatably mounted on said central shaft in alignment with the other of said spaced drive gears, a central gear mounted on the other end of said central shaft, a fluid clutch including a pair of torus members rotatably mounted on said central shaft with the forward torus being secured to said other of said driven gears, and the rear torus rotatably supporting a pair of stub shafts, each of said stub shafts having a pair of inner and outer gears thereon with the inner gears in meshing engagement with the central gear, and a propelling shaft gear secured to the propelling shaft in meshing engagement with the outer pair of gears mounted on the stub shafts for driving the propelling shaft at varying speeds.

2,848,908
PLANETARY SPEED CHANGE TRANSMISSION
John C. Hollis, Fond du Lac, Wis., assignor to Giddings & Lewis Machine Tool Company, Fond du Lac, Wis., a corporation of Wisconsin
Application December 18, 1953, Serial No. 397,410
11 Claims. (Cl. 74—769)

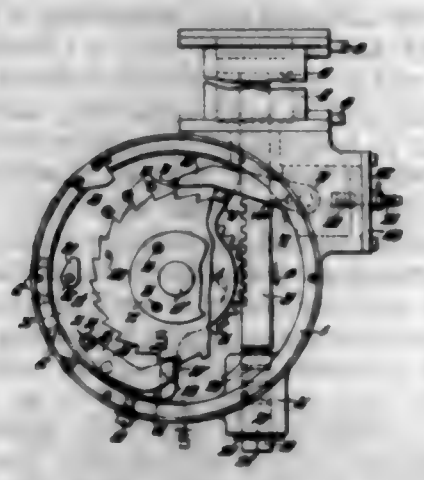


1. In a planetary speed change transmission, the combination comprising a housing, input and output shafts journaled in said housing, two planetary gear sets and means connecting them in tandem between said shafts, each of said sets having an axially slidable internally toothed ring gear, two sets of stationary locking teeth on said housing engageable by respective ones of said ring gears upon shifting of the latter to first predetermined axial positions, the first of said sets having a spider connected in driving relationship with the second of said sets, and locking teeth rigid with said spider engageable by either of said ring gears when the latter are shifted to second predetermined positions, said transmission thereby providing disconnection of said shafts when neither of said ring gears is in any of said predetermined positions, and providing a first speed change ratio when both ring gears are shifted to their first predetermined positions, a second speed change ratio when both ring gears are shifted to their second predetermined positions, and a third speed change ratio when one ring gear is in its first and the other ring gear in its second predetermined position.

2,848,909
INDEXING APPARATUS
George H. Hill, Williamsburg, Mass.
Application April 3, 1956, Serial No. 575,768
2 Claims. (Cl. 74—822)

1. Indexing apparatus comprising a support, a stud journalled in said support, a toothed ratchet fixed to said stud, a cylinder having a piston reciprocable therein in

indexing and non-indexing directions, a rack extending from the piston in said cylinder and being reciprocable in said support in indexing and non-indexing directions, an integral gear and carrier unit rotatable in indexing and non-indexing directions on said stud, a brake mechanism between said stud and support limiting rotation of said stud to the indexing direction, a clutch mechanism between said stud and gear and carrier unit for rotating said stud in the indexing direction as said gear and carrier unit rotates in the indexing direction, stop means movable on said support and being movable between non-stop and stop positions in engagement with said ratchet to stop said stud against rotation in the indexing rotation, stop actuating means on said gear and carrier



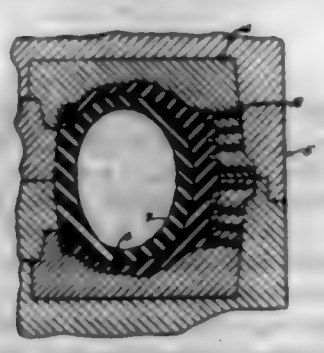
unit being engageable with said stop means and operable upon the rotation of said gear and carrier unit in the indexing direction for actuating said stop means to the stop position, other means on said gear and carrier unit being operable upon rotation of said gear and carrier unit in the non-indexing direction for actuating said stop means to the non-stop position, lock means movable on said gear and carrier unit between lock and non-lock positions in engagement with said ratchet, lock actuating means on said support being swingable by said lock means as said gear and carrier unit rotates in the indexing direction for moving said lock means to the non-lock position, and other actuating means on said support for moving said lock means to the lock position as said gear and carrier unit rotates in the non-indexing direction.

2,848,910

TIRE MOLDS AND METHOD OF MAKING SAME

Raymond E. Bastian, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application March 22, 1955, Serial No. 495,838
5 Claims. (Cl. 76—107)



5. A method of making a metallic tire mold comprising providing a positive mold member to be used for casting a negative tire tread pattern, providing a back cope, disposing said positive mold member within said back cope leaving a space between said positive member and said cope, supporting partial vent forming elements in said space and casting metallic material of which the tire mold is to be formed in said space about said elements, detaching said positive mold member and cope from said cast tire mold and drilling through said cast tire mold material to continue the vents formed by said elements entirely through said tire mold.

2,848,911

WORK PROTECTOR FOR DRILL CHUCKS

Daniel A. Black, Pittsburgh, Pa., assignor to Fabricated Products Company, Inc., West Newton, Pa., a corporation of Pennsylvania

Application February 14, 1956, Serial No. 565,356
1 Claim. (Cl. 77—55)



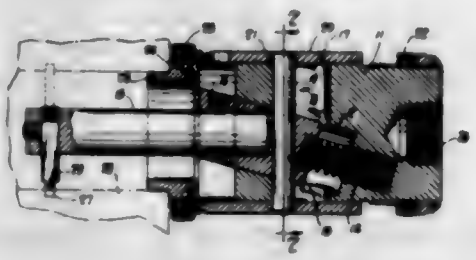
A work protective attachment for hand drill chucks used in drilling holes through a metal member, comprising a wear resistant plate like member having an upper face adapted to provide bearing engagement for the end of a drill chuck, an opening through said plate like member larger than a drill bit to be received in said chuck providing free passage of a drill bit extending from said chuck, a resilient rubber facing bonded to the lower face of the plate like member and of substantially greater thickness than the plate like member, said rubber facing adapted to space the plate like member from the surface of a member being drilled, and an opening extending through said rubber facing concentric with the plate like member opening, said rubber facing opening being sufficiently smaller than the diameter of the drill bit extending therethrough to retain the attachment upon the drill by compression of the rubber and providing less frictional resistance to rotation of the drill bit than the frictional resistance of the under face of the rubber facing to rotation upon engaging the adjacent face of the surface of the member being drilled.

2,848,912

CHAMFERING TOOL

Elmer J. Kalat, Bedford, Ohio, assignor to The Maxwell Company, Bedford, Ohio, a partnership consisting of Henry S. Reddig, Thelma D. Reddig, and Elmer J. Kalat

Application June 22, 1955, Serial No. 517,229
6 Claims. (Cl. 77—58)

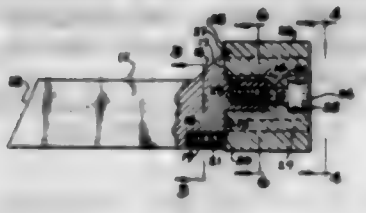


1. A recessing tool comprising an elongated body having a bore formed therein at an angle with the axis of the body, a shiftable sleeve carried by said body for engagement with a work piece, slide means in said bore, a cutting tool carried by the slide means, and a pin affixed to the sleeve and slidably engaged with the slide means, said pin holding the slide means against longitudinal movement while allowing lateral movement relative to the sleeve as said body is moved toward the work piece, whereby the cutting tool is brought into engagement with the work piece.

2,848,913
SELF CENTERING MULTIPLE BORING TOOL HOLDER

Niels C. Thomsen, Feradale, Mich.

Application March 5, 1956, Serial No. 569,373
2 Claims. (Cl. 77—58)



1. A self-centering boring toolholder for a lathe comprising a horizontally extending shank of rectangular cross section and including a flat upright end face, a cylindrical interiorly threaded boss forming an integral part of said shank and projecting normally of said end face, a centrally apertured barrel with one end wall bearing against said end face rotatably journaled on said boss and adjustably secured thereto, there being a series of parallel spaced boring tool receiving slots of different diameter formed lengthwise through said barrel at equal distances from its center of rotation, means on said barrel registerable with each of said slots to retainingly engage a boring tool of predetermined diameter adjustably secured longitudinally and rotatively within one of said slots, the aperture in said barrel at its inner end terminating in an axial opening of reduced diameter adapted to receive the shank of a securing screw, said reduced opening terminating in a counter-sunk opening extending to the outer wall of the barrel, a headed screw extending through said barrel for securing the same in rotatively adjusted position, there being a series of transverse acute angularly related intersecting depressions of uniform depth formed in said one end wall of the barrel, each depression being at a predetermined definite spaced relation to corresponding tool receiving slots, and of a width to cooperatively and retainingly receive therein the end face of said shank.

2,848,914
WIRE STRIPPING DEVICE

Shalom Gottfried, Haifa, Israel

Application March 7, 1955, Serial No. 492,477
Claims priority, application Israel March 14, 1954
1 Claim. (Cl. 81—9.5)

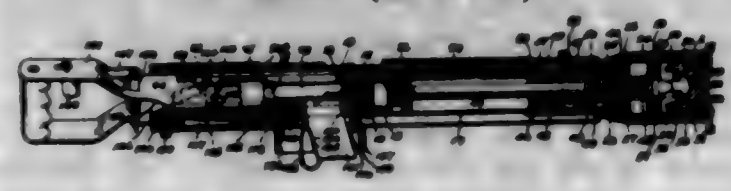


A wire stripping device comprising a handle having a hole forming a transverse passage extending through said handle, a flat stripper plate mounted in said passage with the plane of the plate extending perpendicular to the axis of the passage, said stripper plate having cutting edges forming a slot merging into said hole, said slot having a widened portion at one end and a narrowed portion at another end so that the widened portion will permit free passage of a wire whereas the narrowed portion will strip the wire of any coating thereon.

2,848,915
POWDER ACTUATED SWAGING TOOL

William H. Aitken, Milford, Lyle B. Connor, Westport, and Philip R. Haskell, Fairfield, Conn., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware

Application September 4, 1956, Serial No. 607,922
18 Claims. (Cl. 81—15)

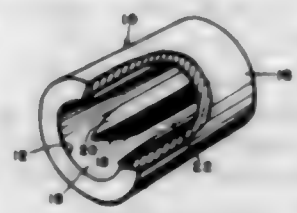


1. A powder actuated tool comprising a barrel having a breech end and a muzzle end, a cartridge receiving chamber in said breech end, a work holding head secured to said muzzle end, a work supporting anvil die carried by said head in longitudinal alignment with said barrel, an identor piston movable in said barrel for projecting and retracting movement and including a piston head at its rearward end and an indentor tool element at its forward end opposed to said anvil die, stop means engageable by said indentor piston to limit its projecting movement, and yieldable means normally pressing said indentor piston to its projected position against said stop means, said indentor tool element adapted to be engaged with a work piece disposed in said anvil die under the pressure of said yieldable means to determine the prefiring retracted position of said piston head relatively to said chamber.

2,848,916
FEED-THROUGH SOCKET

Harold C. Reynolds, Athens, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey

Application August 9, 1957, Serial No. 677,288
5 Claims. (Cl. 81—121)



1. A feed-through socket for nuts, bolts and the like comprising, a member having a circular longitudinal bore therethrough for the passage of such nuts, bolts or the like, inwardly extending ribs spaced around the periphery of the bore of said member, each of said ribs being tapered at its entry-end portion so as to decrease in size toward the entry end of said bore.

2,848,917
RIGHT AND LEFT THREAD, SLIDABLE JAW, HANDLE-ACTUATED WRENCH

Ellis M. Cook, Loogoots, Ind.

Application June 7, 1957, Serial No. 664,391
1 Claim. (Cl. 81—163)

In a right and left thread, slidable jaw, handle-actuated wrench, the combination which comprises an elongated handle having an enlarged portion with left hand threads on the outer surface spaced from one end thereof and having a stem of a diameter less than that of the enlarged portion extended from said enlarged portion and having right hand threads thereon, a body having an opening therethrough and an inner jaw on one end slidably mounted on the handle, the body having an internally threaded socket in alignment with the axis of the handle in the end upon which the inner jaw is positioned and into which said stem is threaded, and an outer

jaw having a shank with threads on an inner edge slidably mounted in an opening extended longitudinally through the body and positioned with the threads thereof in meshing relation with the threads of the said enlarged



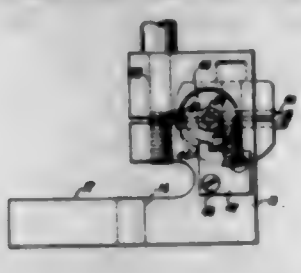
portion of the handle whereby upon rotation of the handle in one direction both the inner and outer jaws move away from a point between the jaws and upon rotation of the handle in the opposite direction both jaws move toward a common point.

2,848,918

TOOL POST AND HOLDER

Peter Lustrik, Cleveland, Ohio, assignor to Lustrik Tool Company, Cleveland, Ohio, a corporation of Ohio

Application November 15, 1954, Serial No. 468,894
2 Claims. (Cl. 82—36)



1. A tool post comprising a body, a cylindrical bore in said body, a tool holder having a cylindrical shank for a sliding fit in said bore, means for deforming said body to clamp said tool holder therein, a shoulder on said tool holder for engagement with said body, thereby locating the tool in respect to said body, stop means adjustably mounted on the end of said tool holder opposite said shoulder, said stop means comprising a member having a radial shoulder formed thereon, and a second stop means affixed to said body comprising an arm projecting across the end of said bore and having a face complementary with and engageable by said radial shoulder on the tool holder stop means.

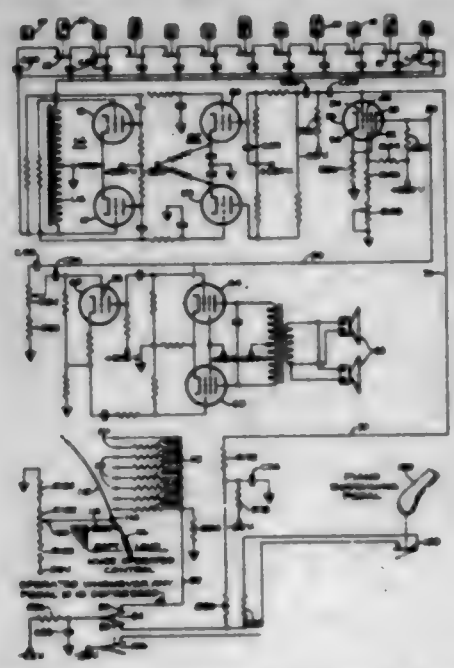
2,848,919

TONE INTENSITY ENVELOPE CONTROL FOR ELECTRICAL MUSICAL INSTRUMENTS

John M. Hanert, Des Plaines, Ill., assignor to Hammond Organ Company, a corporation of Delaware

Application May 29, 1953, Serial No. 358,517
9 Claims. (Cl. 84—1.26)

1. In an electrical musical instrument adapted to be played in conjunction with a piano having a sustaining pedal, the combination of a plurality of playing keys, tone signal generating means, an amplifier for the signals supplied by the generating means, said amplifier having a terminal the potential of which determines the amplitude of the output signal, an electroacoustic transducer connected to the output of the amplifier, means operable by the keys to determine the pitch of the tone signal supplied to the amplifier by the generating means, a potential source of such value that when applied to the terminal will cut off the amplifier, a voltage source of such value that when applied to said terminal will cause the amplifier to amplify the tone signals to the maximum desired extent, a first capacitor connected between the said voltage source and said terminal, a first resistor connected between said potential source and said terminal, a single pole double throw switch biased so as to have its movable element normally engaging one contact thereof,



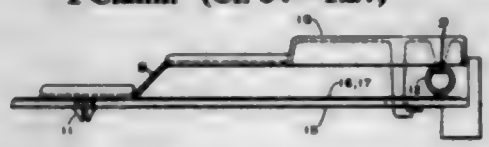
means to apply an adjustable potential to said switch contact, a second resistor connecting the movable switch element to said potential source, a second capacitor connecting said movable switch element to the voltage source, a conductor connecting the other contact of said switch to said terminal, and means for operating said switch against its bias upon operation of any of the playing keys.

2,848,920

KEY CONTACT SYSTEM FOR ELECTRONIC ORGANS

John M. Lester, Garden City, N. Y.

Application March 2, 1955, Serial No. 491,561
1 Claim. (Cl. 84—1.27)



A key switch for use in an electronic musical instrument comprising a movably plastic key member, a pair of conductive members below said member and forming part of a tone generating circuit, a tubular, flexible, conductive member attached to said key and having selective bridging contact with said conductive members to close said circuit, the flexibility of said tubular member providing a variable impedance between said conductive members.

2,848,921

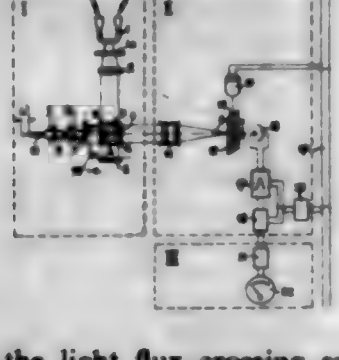
APPARATUS FOR MEASURING VERY LITTLE LENGTHS

Miron Koulikovitch, Geneva, Switzerland, assignor to Societe Genevoise d'Instruments de Physique, Geneva, Switzerland, a corporation of Switzerland

Application May 11, 1953, Serial No. 354,089
Claims priority, application Switzerland June 11, 1952
4 Claims. (Cl. 88—14)

1. In an apparatus for the measure of very little lengths the combination of an interferometer of the Michelson type having a movable mirror and presenting parallel fringes, a measuring device and a photo-electric sighting device comprising an opaque reticule submitted to a movement of sustained oscillations and provided with

transparent slits corresponding in the shape and the geometric position to the brilliant fringes of the interferometer, an object-glass projecting on said reticule the fringes of the interferometer, a photo-electric cell intercepting the light rays crossing said reticule, an electronic device converting the currents issued from the photo-electric cell and consecutive to the fluctuations of the intercepted light flux, in impulses of very short durations, in order that at each coincidence of the brilliant fringes with the slits which occurs during the oscillating movement



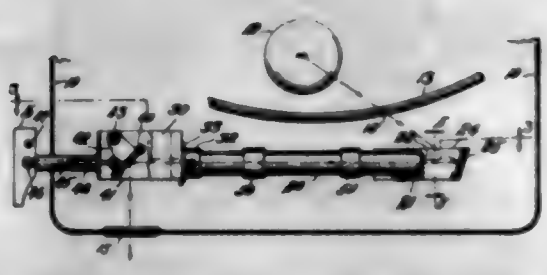
of the reticule, the light flux crossing said reticule, impinges the photo-electric cell which controls, by the intermediary of the electronic device, the emission of impulses acting on said measuring device, which measuring device indicates the ratio of the elapsed times between two successive coincidences occurring during a whole period of the oscillating movement of said reticule, whereby said ratio is a function of the amplitude of the displacement of said movable mirror of said interferometer.

2,848,922

OPTICAL INDICATOR MEANS FOR USE WITH COPY PROJECTION APPARATUS

Philip M. Field, Maplewood, N. J., assignor to Charles Beseler Company, East Orange, N. J., a partnership

Application February 15, 1956, Serial No. 565,594
3 Claims. (Cl. 88—24)



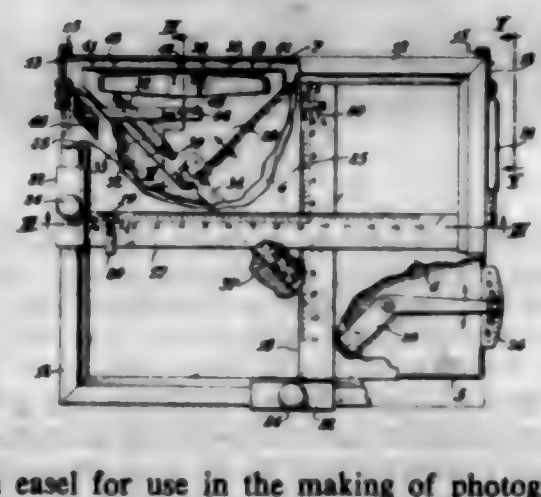
1. A pointer-image projector unit, comprising a single, fixed and open-ended tubular housing adapted for mounting on projector apparatus provided with a source of illumination; a plate closing one end of the housing and having an aperture adapted to pass a beam of light through the housing from the source of illumination which conforms to an indicator image to be projected on a screen simultaneously with copy projected by the projector apparatus; a condenser lens within the tubular housing associated optically with the apertured plate; an objective lens mounted at the other end of the tubular housing in the optional axis of the condenser lens; a frame frictionally supported over and for oscillation on said other end of the tubular housing and coaxially therewith, and having a projection opening; a mirror rockably mounted and positioned angularly in the frame in the path of the projected aperture image, the latter being directed thereby toward said projection opening; and manually actuatable means to rock the frame, including a support member extending therefrom coaxially with respect to the tubular housing, and a handle element pivotally attached at its one end to an angular extension of the support member, together with a link connecting the handle element with the mirror to rock the latter.

2,848,923

PHOTOGRAPHIC EASEL

James C. Diefenbach, New Hyde Park, N. Y., assignor to Simmon Brothers, Inc., Long Island City, N. Y., a corporation of New York

Application June 26, 1956, Serial No. 593,979
5 Claims. (Cl. 88—24)



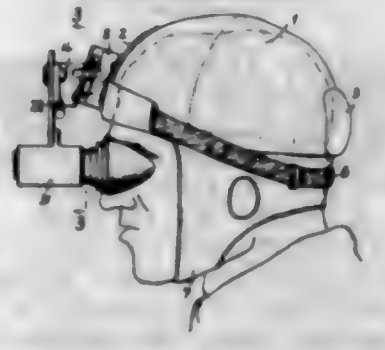
1. An easel for use in the making of photograph exposures comprising a base member provided with a frame adapted to be opened and closed relative to said base member, an aligning member provided with spring-biased paper-stopping depressible fingers disposed at right angles to each other carried by said base member and movable with respect to the latter to accurately preselect two sides of the exposure field and to simultaneously preselect the marginal width of the finished photograph for said two sides by said depressible fingers, a scale carried by said easel provided with graduations, a pointer movable into registry with any selected graduation on said scale and connected to said aligning member for causing movement of the paper-stopping depressible fingers of said aligning member a distance corresponding to the graduation selected on said scale, masking bars provided with graduations thereon carried by said frame and adjustable relative thereto to accurately preselect the remaining two sides of the exposure field and the marginal width of these remaining two sides of the finished photograph when said frame is closed relative to said base, and said frame being operable upon closure thereof to depress said paper-stopping fingers in opposition to the spring-tension thereof into said base member with the tops of said fingers closely adjacent the sensitized paper carried thereby.

2,848,924

HEAD SUPPORTED BINOCULARS

Henry Charles Alexandre Potez, Paris, France

Application October 18, 1955, Serial No. 541,269
Claims priority, application France October 27, 1954
3 Claims. (Cl. 88—36)



1. A binocular support comprising, in combination, a portable supporting means adapted to be carried on the head of a wearer, a forwardly projecting first plate member attached to the front of said supporting means and provided with a substantially vertical slot, a second plate member having a front portion provided with two outwardly extending wings and a rear portion adapted to contact with one side of said first plate member, said

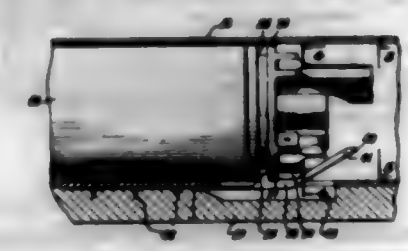
rear portion having a substantially horizontal slot formed therein, a pair of arms secured to said wings and carrying each one barrel of said binocular, and clamping means including a screw mounted through said vertical and horizontal slots to permit relative angular, vertical and horizontal adjustment of said plate members when said screw is in untightened condition and clamping of said plate members in the adjusted position of said binocular upon tightening of said screw to thereby hold said binocular to the requirements of the wearer's eyesight.

2,848,925

BLAST RELEASE DETENT

Delos W. Hood, Sherman Oaks, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application May 31, 1955, Serial No. 512,191
3 Claims. (Cl. 89—1.7)



1. In a rocket launcher comprising a casing and a tube in the casing adapted to contain a rocket having tail elements and a retaining flange at the aft end, the combination of a rocket detent for the tube comprising a strip of spring material secured to the aft end of the tube at a location outside the inner surface of the tube with the aft end of the strip spring biased inwardly, a flange at the aft end of the strip extending generally inwardly toward the axis of the tube to a location inwardly of said inner surface and having an obliquely forwardly and outwardly extending loading cam, said flange having a notch at the innermost edge for receiving a rocket retaining flange, an extension on the strip aft of the notch extending in a lateral oblique direction and forming a tail element engaging unloading cam subject to depression by manual rotation of the rocket and a tail element thereon, said strip having a member extending obliquely inwardly and rearwardly to a location adapted to receive blast from an ignited rocket whereby to release the detent from rocket retaining flange engaging position.

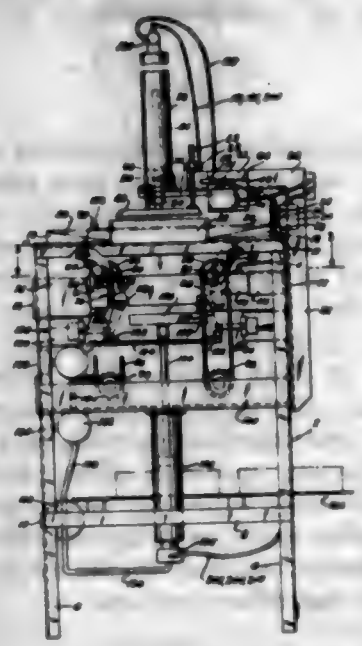
2,848,926

CARTON ERECTING MACHINE

Edouard E. Gschwind and Ralph N. Greene, Jacksonville, Fla., assignors, by mesne assignments, to Owens-Illinois Glass Company, Toledo, Ohio, a corporation of Ohio

Application April 17, 1956, Serial No. 578,835
15 Claims. (Cl. 93—51)

1. A carton erecting machine comprising a support, a blank folding die the interior of which is substantially of the size and shape of the outside of an erected carton, said die being mounted on said support and having an open top and an open bottom, a bottom carton retainer mounted on said support and movable between first and second positions respectively beneath and beyond the open bottom of said die at a distance from the open top thereof which is at least *n* times the depth of an erected carton, where *n* is any integer greater than 1, whereby at least two carton-erected blanks may be supported one above the other on said bottom support, at least the uppermost of said carton-erected blanks being within said die, means for moving said bottom retainer between said first and second positions, a plunger movable into said die via the open top thereof to a distance above said bottom retainer no less than the depth of a single carton-erected blank, and an interlock between said plunger and said means for moving said bottom retainer effective to move said bottom retainer from its first to its second position only after said plunger has moved into said die to said distance, whereby a blank



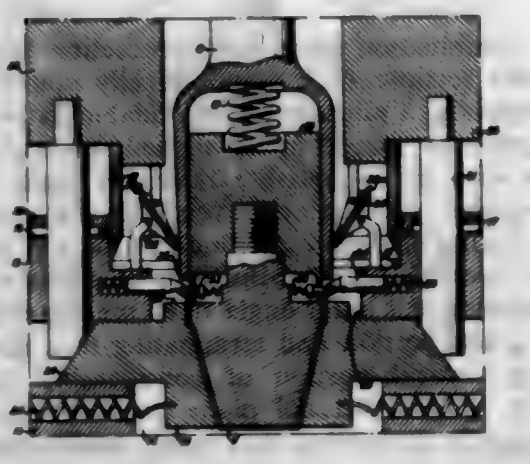
moved into said die by said plunger will move the preceding carton-erected blank down onto said bottom retainer and said preceding carton-erected blank will pass down beyond said bottom retainer after said plunger has moved the next succeeding blank into said die.

2,848,927

MACHINES FOR PRODUCING CONTAINERS

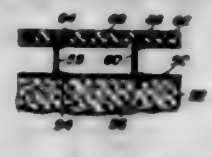
Sava Byron Franghia, Paris, France

Application February 17, 1955, Serial No. 488,887
2 Claims. (Cl. 93—60)



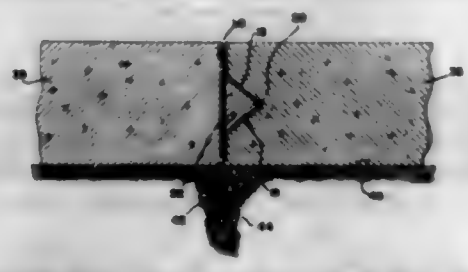
1. An improvement in crimped cup-making machines of the type wherein a punch, which reciprocates along the vertical work axis of the frame of said machine, forces a disc of thin sheet material from coaxial pleating dies into coaxial cup shaping dies on each down stroke while the dies and the punch drive means cooperate to provide a time interval between the end of said down stroke and the beginning of the up stroke, comprising: an inside coaxial series of horizontally spaced, radially movable, outwardly biased pushers mounted on said punch for vertical movement bodily therewith, said pushers being positioned to engage the inner side of the upper end margin of a cup in said shaping dies and bend the lower portion thereof outwardly; and a corresponding outside coaxial series of horizontally spaced, radially movable, inwardly biased pushers mounted on said frame in position to engage the outer side of the upper end margin of a cup in said shaping dies and bend the upper portion thereof inwardly.

2,848,928
HIGHWAY CONSTRUCTION
Hugh G. Gibson, Salem, Ohio
Application February 3, 1955, Serial No. 485,993
2 Claims. (Cl. 94—4)



1. A highway construction comprising a pair of spaced elongated curb walls, a drainage base extending between said curb walls, an imperforate metallic base plate overlying and resting on said drainage base, metallic channel members welded to said base plate and rising therefrom in spaced parallel relationship, an upper plate disposed on and welded to said channel members, and a resilient wearing strip on said upper plate between said curb walls, said base plate having spaced depressions therein projecting into and interlocking with said drainage base, said top plate having upwardly offset portions projecting into and interlocking with said wearing strip, said depressions and offset portions being in vertical registry and said channels being received in the recesses formed by said depressions and offset portions.

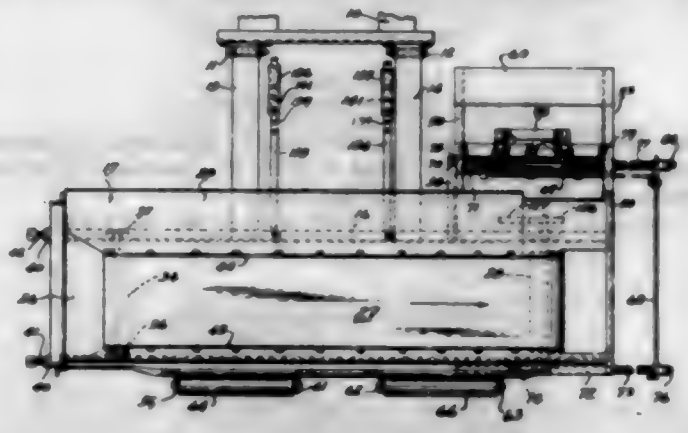
2,848,929
CONCRETE SLAB KEY-JOINT FORMING MEMBER
Warren D. Wilbur, Belmont, Calif., assignor of one-half to Richard N. Tone, Belmont, Calif.
Application January 11, 1957, Serial No. 633,723
6 Claims. (Cl. 94—17)



1. A combination form and contraction joint for adjacent slab sections of a monolithically poured concrete slab comprising a plurality of expendable flattened stakes set to grade at spaced apart aligned intervals, in combination with an expendable relatively rigid sheet material member comprising a vertically extending plane portion having an inverted J-hook at the top edge thereof, said inverted J-hook consisting of a horizontal portion extending at a right angle from the top edge of said vertical plane portion and terminating in a downwardly extending vertical portion of considerably less height than that of said vertical plane portion, said inverted J-hook snugly embracing and being solely supported at grade level on the upper ends of said flattened stakes with the vertically extending plane portions of said sheet member held in contact with the adjacent vertical portions of said stakes, whereby, when concrete is poured against said sheet material on the side away from said stakes, it will press said sheet material member against said supporting stakes, and concrete may then be poured immediately against the stake supporting side of said sheet material member.

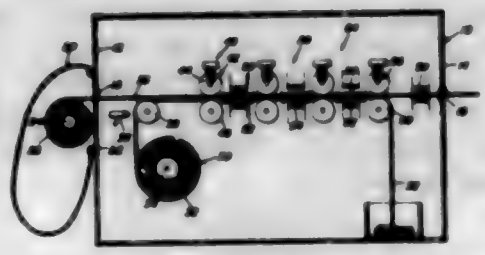
2,848,930
PAVEMENT WIDENING MACHINE
Seaborn Estill Thompson, Blakely, Ga.
Application April 28, 1955, Serial No. 504,624
7 Claims. (Cl. 94—44)

1. In apparatus for widening a highway pavement, in combination, a propelling vehicle, a conveyer frame pivotally connected to the propelling vehicle and adapted for extending transversely of the pavement, a hopper mounted on the conveyer frame, a horizontally disposed belt conveyer mounted in the bottom of the hopper for conveying paving material, supporting rollers for the conveyer frame, an outwardly extending discharge section mounted on said conveyer frame and adapted for overhanging the highway alongside the pavement for discharging paving material thereon, said discharge section comprising a vertical outer end shield pivotally connected at its forward end to said conveyer frame and a vertical



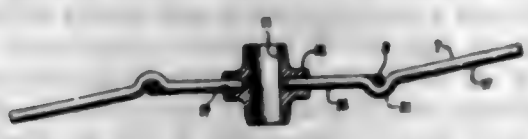
leveling plate secured to the rear of said outer end shield and extending transversely thereof, said end shield extending transversely of said frame and having horizontal adjusting means thereon operatively connected to said frame whereby the shield may be moved inwardly and outwardly of the conveyer frame and thereby vary the width of the area over which paving material is being discharged, and adjustable supporting means connecting the rear end of the discharge section to the conveyer frame.

2,848,931
FILM DEVELOPING APPARATUS
Robert A. Treidl, Lake George, N. Y.
Application July 26, 1955, Serial No. 524,382
5 Claims. (Cl. 95—94)



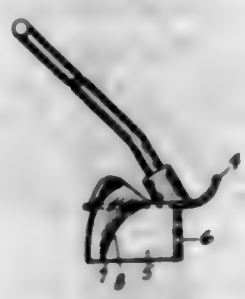
2. An apparatus for the rapid developing of film comprising a light proof housing, exposed film holding means connected with said housing and arranged to dispense the film therein, said housing having an entrance slot and an exit slot, said exposed film holding means being adjacent said entrance slot, a lightproof bag enclosing said exposed film holding means, a web in said housing having developing solution thereon, a first roller over which said web is passed, means in said housing to convey the film therethrough and bring the emulsion side of the film into initial contact with said web at said first roller and for applying pressure to said web and film in order to impregnate the emulsion on the film with the developing solution, said conveying and pressure applying means including a plurality of longitudinally spaced pairs of rollers defining between the rollers of each pair a path for the film to follow from said entrance slot through the housing and through said exit slot, the upper roller of each pair being resiliently biased downwardly to apply pressure to said web and said film, said film and said web being moved together due to the contacting relationship and the force exerted by the pairs of rollers.

2,848,932
ROTARY HOE WHEEL
Frank Hopkins, Highland Park, Mich., assignor to Massey-Ferguson Inc., a corporation of Maryland
Application October 3, 1955, Serial No. 537,989
5 Claims. (Cl. 97—212)



1. A wheel for a rotary hoe comprising, a hub member having a plurality of elongated socket portions, a plurality of teeth slidably inserted in said socket portions, respectively, and extending radially from said hub, said teeth being formed with intermediate axially offset portions, and a ring element disposed coaxially with said hub and movably engaging said opposite offset portions of adjacent teeth to restrain slidable movement of said teeth in said sockets.

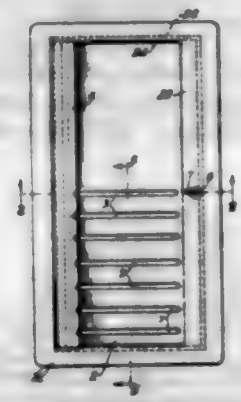
2,848,933
LAWN EDGER
Carl Morton, Erie, Pa.
Application July 25, 1955, Serial No. 523,976
1 Claim. (Cl. 97—227)



In a lawn edger, an elongated shoe having a flat bottom surface for sliding on the surface of the lawn and an upwardly curved front end to keep the shoe from digging in, an elongated knife blade depending from one side edge of the shoe and extending from adjacent the upwardly curved front end to the rear of the shoe, said knife blade having a sharp vertical cutting edge at the front of the blade adjacent and to the rear of the upwardly curved front end of the shoe, said blade having a bottom edge extending to the rear of the shoe and tracking in the cut made by the vertical cutting edge and a back end concavely curved outwardly away from the shoe and acting to turn a furrow, the concave curvature of the knife blade starting at generally a diagonal line closer to the front edge of the knife blade at the top than at the bottom and said concave portion having a lateral projection increasing toward the top of the blade whereby the furrow increases in width from the bottom of the furrow toward the top, a handle inclined rearwardly and upwardly from the shoe and having its lower end fixed to the shoe close to said one side of the shoe and to the rear of the upwardly curved front end of the shoe and substantially directly above the vertical cutting edge so the vertical and forward components of the pushing force are directly transmitted to the cutting edge and do not tend to rock the shoe or tilt the blade.

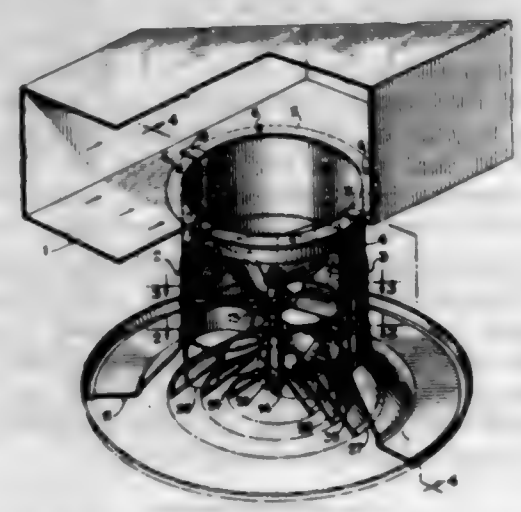
2,848,934
METHOD FOR INTRODUCING A GASEOUS MEDIUM IN AN ENCLOSURE
Claes Allander, Jonkoping, Sweden, assignor to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden
Application February 8, 1955, Serial No. 486,920
Claims priority, application Sweden February 8, 1954
5 Claims. (Cl. 98—40)

1. In a method for introducing a gaseous medium into an enclosure, the steps which comprise supplying a medium having a given condition to at least one area of introduction into the enclosure, dividing the medium supplied into two portions at each area of introduction, directing one portion of said medium into the enclosure in one direction in a plurality of jet streams at a relatively high velocity, and interrupting said jet streams by directing the second portion of said medium into the enclosure adja-



cent the entrance of said jet streams in a direction at right angles to said jet streams across said area at a relatively lower velocity than said jet streams, said second portion being formed as a medium-curtain stream coextensive with the area of introduction to thereby intermix the curtain stream with all of said jet streams and prevent creation of drafts in the enclosure.

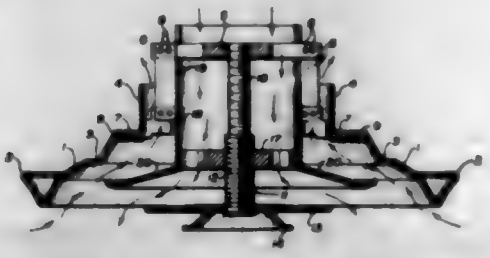
2,848,935
AIR DISTRIBUTING DEVICES
Charles Demuth, Mineola, N. Y., assignor to Charles Demuth & Sons, Inc., Mineola, N. Y., a corporation of New York
Application October 11, 1955, Serial No. 539,725
3 Claims. (Cl. 98—40)



1. In an air distributing device, the combination of a take-off pipe for use as an outlet from an air duct, a sleeve axially disposed within said pipe, means supporting said sleeve in said take-off pipe, an outwardly and downwardly flaring hood secured to the lower end of said pipe, a diffuser unit provided with an axially disposed stem the upper end of which is slidably disposed within and supported by said sleeve, means for fastening said stem in its axially adjusted position within the said sleeve to thereby hold said diffuser unit in the desired vertical position within said hood, said diffuser unit comprising a series of downwardly and outwardly tapered successively smaller frusto-conical deflectors fixed in spaced apart relation to provide air passages, a series of hoops disposed around said stem within said pipe and substantially tangential thereto and to each other, said hoops being secured together substantially at their points of tangent contact to thereby provide an included socket embracing the lower end of said stem, the uppermost and next lowermost diffusers being rigidly secured to and supported by said

hoops, the lowermost diffuser having an axially disposed upwardly extending sleeve through which the lower end of said stem extends, and a member threadingly engaging the lower end of said stem and serving to clamp said hoops to said stem and hold said diffuser unit in assembled condition.

2,848,936
DIFFUSER
Vincent F. Vallero, Denver, Colo.
Application September 4, 1956, Serial No. 607,700
6 Claims. (Cl. 98—40)

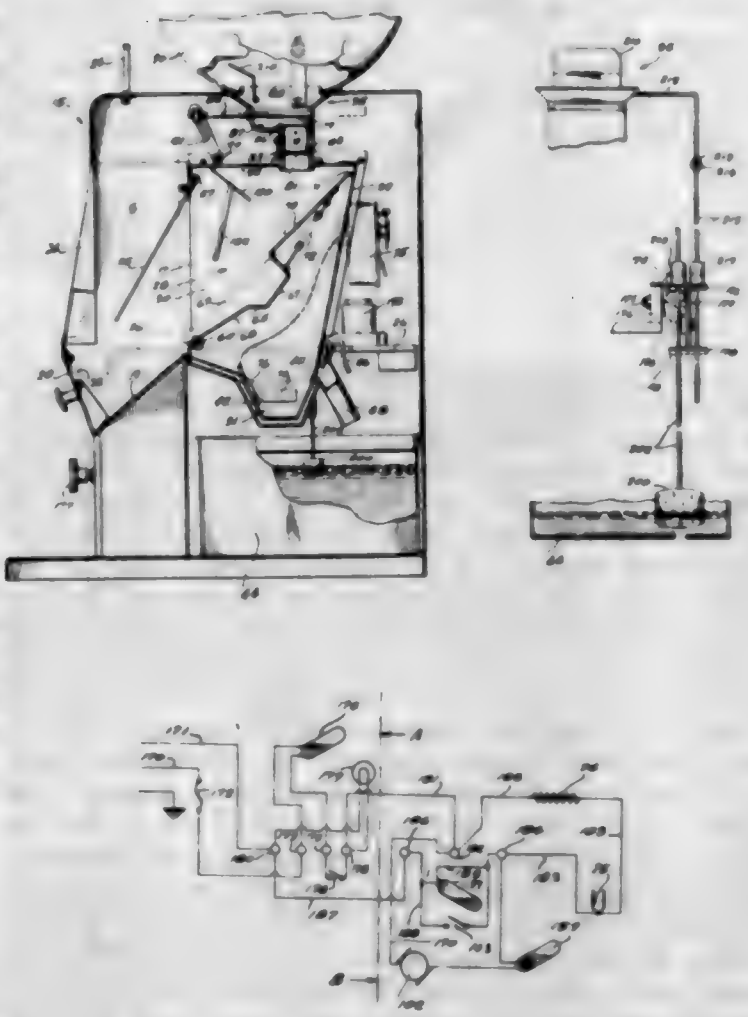


1. A diffuser of the class described comprising a tubular conduit arranged to provide a passage through a building partition, a flared outlet secured to said tubular conduit and providing an outlet on one side of said partition, a rigid spider mounted in said tubular conduit, a double lead right hand stud mounted on said spider and extending substantially centerwise of said tubular conduit, an elongated nut having a double lead right hand inside thread and a single lead right hand outside thread mounted on said stud, a disc-shaped vane mounted on one end of said elongated nut and disposed internally of said flared outlet, a second spider threadedly engaging the external threads of said elongated nut and providing extending arms internally of said tubular conduit, a concentric tubular member secured to said second spider and arranged to reciprocally move therewith and providing an internal passage of said tubular conduit, an annular vane interconnected with and extending laterally from an end of said tubular member and disposed internally of said outlet and arranged to sealingly engage the opening between said conduit and said tubular member and to extend transversely therefrom, and means arranged to prevent rotation of said tubular member and permit reciprocal movement thereof, whereby rotation of said disc-shaped vane moves the same toward and away from said annular vane to open and close a space therebetween and to simultaneously move said annular vane toward and away from said flared outlet so as to open and close a passage therebetween.

2,848,937
AUTOMATIC CORN POPPING MACHINE
Gayle Martin, Milwaukee, Wis.
Original application March 29, 1950, Serial No. 152,564, now Patent No. 2,674,936, dated April 13, 1954. Divided and this application February 23, 1954, Serial No. 411,831
12 Claims. (Cl. 99—238.3)

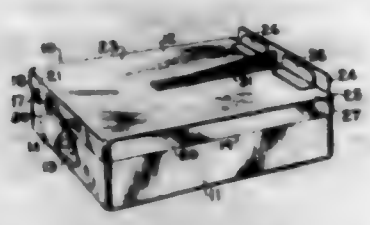
1. In an automatic corn popping machine of the character described, the combination with an electric heater, a popping basket, and an electric motor connected to said basket for moving it in a cycle including one position in which the corn is popped and another position in which the basket is tilted to eject popped corn, of an electric control circuit for said motor and heater including branch circuits for said motor and heater connected in parallel, said motor branch including a first switch in series with said motor whereby said motor may be de-energized independently of the heater, and a second switch in series connection with both said branches for simultaneous control of said motor and heater.

7. In a corn popping machine of the character described and including means for the delivery of unpopped corn from a hopper to a heater below the hopper, an oil bath containing oil heated by the heater and an electric circuit for energizing said heater, said circuit including a motor for actuating the corn delivery means, the combination with a safety switch in said circuit for preventing operation of said motor and said heater when either the supply of oil or the supply of unpopped corn falls below a predetermined minimum, of means for operating said switch, said means comprising a switch actuating arm whose movement in one direction closes the switch and movement in another direction opens the switch, motion transmitting connections to said arm responsive to the level of oil in said storage tank and motion transmitting connections to said arm responsive to the level of unpopped corn in said hopper, the movement of either of said connections being such as to move said arm in said other direction to open the switch when the level of oil drops below a predetermined minimum or the level of unpopped corn in the hopper drops below a predetermined minimum, the opening of said switch being effective to preclude operation of said motor and heater.



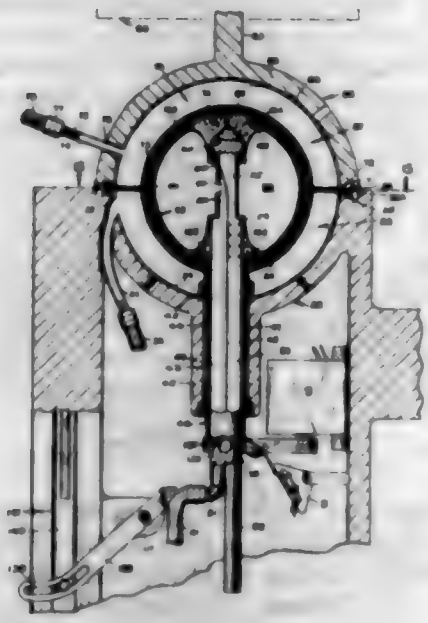
11. In an automatic corn popping machine of the character described including a popping basket having an articulate mounting, a heater and a motor to move the basket on its mounting from a popping position over said heater to an ejecting position away from said heater, and a switch for said motor, an umbrella provided with an independent mounting over said basket and yieldable upwardly on said mounting under pressure of expanding popped corn, a connection between said umbrella and said switch whereby upward movement of the umbrella will close said switch to actuate the motor to move the basket to its ejecting position, the normal position of the umbrella prior to raising thereof by expansion of popped corn being such as to hold the switch open to deactuate said motor.

2,848,938
PORTABLE FRYING APPARATUS AND DRAIN
Isidore Klein, Elmhurst, N. Y.
Application June 21, 1954, Serial No. 438,276
2 Claims. (Cl. 99—355)



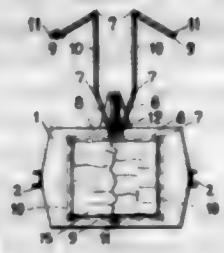
1. In combination with a tank of the type described, a drain cover comprising a base, a marginal flange extending around three sides of the base and the corners of the remaining side, a lip provided along the unflanged length of the remaining side of the base and extending therefrom in a direction substantially opposite the flange, brace means provided on the outer surface of the base adjacent to and parallel with the lip and adapted therewith to define a slot, the drain cover in reversed position adapted to be detachedly secured to the tank by engagement of the tank wall between the lip and the brace means to support the drain cover in angled engagement with the tank so as to allow drainage of liquids from the drain cover into the tank.

2,848,939
APPARATUS FOR EXTRACTING JUICE FROM WHOLE CITRUS FRUITS
Harry A. Warner, Miami, Fla.
Application March 12, 1956, Serial No. 570,774
6 Claims. (Cl. 100—108)



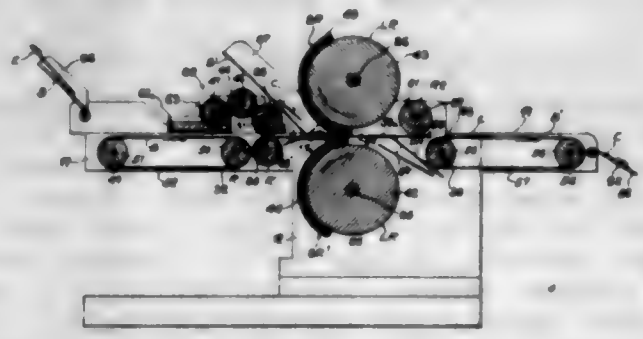
1. Apparatus for extracting the juice of citrus fruit and without altering the contour of the fruit comprising first and second relatively movable confining sections, inflatable jacket sections mounted within the confining sections and adapted to receive the fruit between them when the confining sections are separated, means for shifting the confining sections together so that the jacket sections will surround the fruit, juice conducting and straining means operated in conjunction with the first-named means for movement into the interior of the fruit and extending exteriorly thereof, an inflatable bladder carried by said conducting means and shiftable therewith to the interior of the fruit, and means for inflating the jacket sections and said bladder so that the jacket sections will exert a compressive force upon the exterior of the fruit to prevent it from bursting while the bladder exerts an expanding force upon the interior contents of the fruit for compressing the contents against the rind of the fruit and causing the juice to be strained inside of the fruit and conducted by said conducting means to the outside of the fruit.

2,848,940
BALE PRESSES FOR PAPER, RAGS, STRAW, PEAT AND THE LIKE
Einar Julius Jakob Jonsson, Stockholm, Sweden
Application July 26, 1956, Serial No. 600,289
Claims priority, application Sweden August 18, 1955
1 Claim. (Cl. 100—255)



A bale press for paper, rags, peat and the like of the type comprising a horizontal foundation, a parallelepipedic container provided on the upper side of said foundation, and two mutually parallel uprights having their lower ends secured on opposite sides of said foundation at a distance from said container and their upper ends interconnected by a horizontal beam supporting piston rods and a piston with attached operating means, the walls of said container consisting of side plates, each of which is connected to at least one adjacent side plate by means of hinges provided at the vertical edges of said side plates, one of said hinges having its lower end secured to said foundation and its upper end secured to a supporting arm that is rigidly connected to said foundation, all to the effect that said side plates are swingable about said last-mentioned hinge, the rear wall of said container consisting of two side plates, the front wall of two other side plates, and each of the two side walls consisting of one plate, said front wall plates being provided with interlocking means by which these plates can be coupled together on a line with one another, and said two rear wall plates being interconnected by the hinge that is secured to the foundation and the supporting arm.

2,848,941
TRANSFER-PRINTING PRESS FOR PRINTING ADDRESSES ON ENVELOPES FROM NEGATIVE FORMS ON CARDS
Tobias Richard Muth, West Orange, N. J., assignor to William Stroh, Jr., Orange, N. J.
Application July 22, 1954, Serial No. 445,129
4 Claims. (Cl. 101—132.5)



1. A transfer-printing press for positive printing of addresses on mailing envelopes or the like from negative printing forms on cards comprising a pair of reversely-rotatable shafts each provided with a pad-supporting cylinder and mounted in parallel alignment with each other, a pair of segmental members rotatable reversely by said shafts and cylinders in peripheral engagement with each other, said segmental members comprising peripheral pads of elastic material mounted on the peripheries of said pad-supporting cylinders and having a smooth elastic

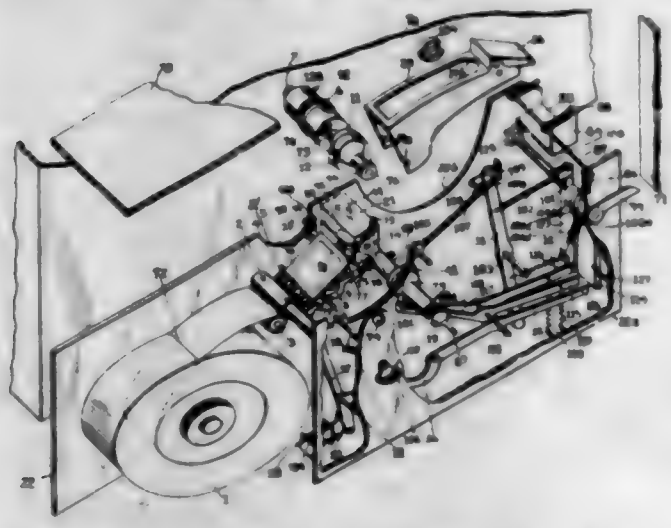
surface raised above the surface of said supporting rollers and provided with sharply defined terminal ends for a non-slipping engagement and abrupt positive release of the printing elements, said shafts and supporting cylinders being so disposed in relation to each other to produce between said segmental pads peripheral engagement of sufficient elastic compression to provide a positive gripping engagement of interposed printing elements of sheet material and to elastically compensate for varying thicknesses, folds and overlapping joints of such printing elements of sheet material and also to produce a simultaneous printing movement of such interposed printing elements between said segmental members upon such reverse rotary movement, means for guiding and moving into contact with the engaging peripheries of said segmental members edge portions of a pair of printing elements having surfaces thereof facing each other in printing alignment with each other, one of said printing elements being provided on a surface facing the other with a negative printing form, means for moving said shafts and pad supports to produce a rotary movement of said segmental members in opposite directions to each other, whereby said printing elements are elastically gripped between said segmental pads and are moved under a transfer printing pressure applied by said segmental members on said printing elements.

2,848,942

PRINTING MECHANISM FOR METER MAILING MACHINES

Ernest Persson, New York, N. Y., assignor to The International Postal Supply Company, New York, N. Y., a corporation of New York

Application November 1, 1955, Serial No. 544,231
13 Claims. (Cl. 101—227)



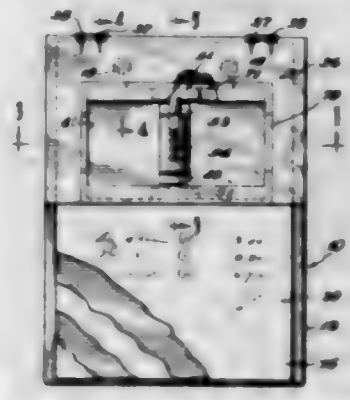
1. In combination with a meter mailing machine comprising a rotating shaft, a continuously rotatable printing platen, and an intermittently rotatable printing roller: a casing detachably mounted on the machine, with the rotating shaft, the printing platen and roller extending into the casing; and arranged in said casing means for supplying a continuous length of tape, said tape supply means being operable by and upon rotation of said shaft and including a tape supply control shaft selectively adjustable for tape feed and non-feed positions, an apertured guideway receiving said length of tape, a resilient pressure roll subjacent the aperture in the guideway, a cam fixedly mounted on said rotating shaft and adjacent said pressure roll, the tape between the pressure roll and the cam being conveyed upon adjustment of the tape control shaft to the tap feed position; a tape cutting mechanism adjacent the tape supply means for cutting tape fed thereto into labels; guide means for guiding the labels between the printing roller and the platen, said labels being conveyed by the rotating printing platen; means for rotating the printing roller; a control mechanism for selectively operating the tape supply control shaft; and trip means actuatable under pressure contact of an envelope contacted with the trip means when said tape supply control shaft is in the non-feed position for rotating the printing roller.

2,848,943

PORTABLE IMPRINTING DEVICE FOR CREDIT PLATES

Stanley Simons, Chicago, Ill.

Application March 12, 1956, Serial No. 571,053
7 Claims. (Cl. 101—269)



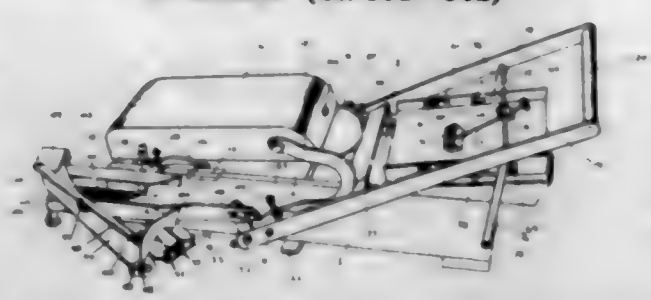
1. A portable imprinting device for use with credit or charge plates having characters of indicia formed in relief thereon, said device enabling imprinting of said indicia on an assemblage of alternating paper sheets and carbon paper; comprising a relatively thin, substantially rectangular base and cover member hingedly connected together at one end of the base, said cover member being pivotal between a position superimposed over the base to a position removed therefrom, said base having a recessed seat therein for accommodating the said plate, said cover having a window therein registering with said seat when the cover and base are in superimposed position, a friction member slidably mounted in said window for reciprocal transverse movement relative to said base, said friction member having an arcuate hard bottom edge and an opposite end protruding outwardly from said window, a pair of oppositely aligned tracks in said cover member opening into said window, an axially movable guide member extending outwardly of each end of said friction member and loosely engaged in a said track, said friction member being manually reciprocal with said arcuate edge pressed against an assemblage arranged between said plate and cover member in said superimposed position to affect imprinting of said indicia.

2,848,944

FLAT BED PLATEN PRINTING PRESSES

Hugh Rogers McLaughlin, Dublin, Ireland

Application December 6, 1955, Serial No. 551,405
10 Claims. (Cl. 101—382)



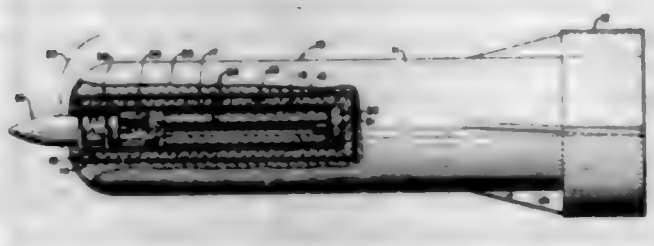
1. A flat bed platen printing press for letterpress printing, comprising the combination of a machine frame; a main shaft journaled in the machine frame; a pair of horizontal rails mounted on the machine frame; a paper-supporting platen supported on said rails for horizontal reciprocation on said machine frame from an outward paper feeding position to an inward printing contact position; a flat bed carrying type and supported on the machine frame in juxtaposed position above the horizontal

path of reciprocation of the platen and adapted for movement into and out of printing contact with the platen when reciprocated inwardly thereunder; a pivotal connection between the flat bed at its inner end and the machine frame; inking roller means provided at the inward end of the platen for reciprocation therewith and adapted to traverse the face of the type carried on the flat bed during each inward and outward reciprocation; and actuating means adapted to effect both the combined reciprocation of the platen and inking roller means and the sequential printing contact movements of the flat bed, said actuating means including an actuating handle rigidly secured at its innermost end to the main shaft, reciprocating means comprising a crank lever, a mechanical linkage connected between the platen and one end of the crank lever and a spring coupling connecting the other crank lever end to the main shaft, said spring coupling consisting of a coil spring encircling the main shaft, an anchorage on the main shaft to which one end of the spring is connected, a boss on the crank lever by which the crank lever is loosely mounted on the main shaft, an anchorage on said boss to which the other end of the spring is secured and adapted to transmit through the spring to the boss the rotation of the main shaft in one direction, and a pin projecting radially from the main shaft through a slot in the crank lever boss, which is adapted to transmit to the boss the rotation of the main shaft in the other direction, said reciprocating means being adapted to effect the reciprocation of the platen during a rocking movement of the actuating handle from an intermediate to an uppermost position thereof and back again to the intermediate position, and a pivotal linkage between the outer end of the flat bed and the actuating handle, which is adapted to effect the descent to the platen of the flat bed through a small arcuate but substantially vertical movement and the return ascent thereof while the actuating handle is rocked respectively downwardly from the intermediate to a fully downward position against the action of the spring coupling and upwardly again to the intermediate position assisted by the action of the spring coupling.

2,848,945
ROCKET DECELERATED MINE

Donald Q. Brumbaugh, Hyattsville, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application October 15, 1954, Serial No. 462,635
3 Claims. (Cl. 102—7)
(Granted under Title 35, U. S. Code (1952), sec. 266)

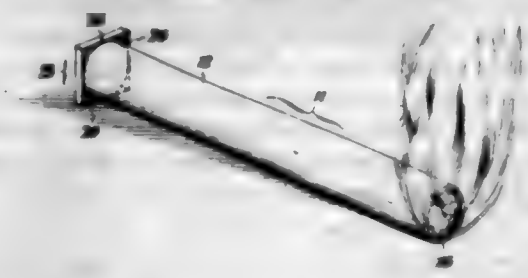


1. A decelerating device for a mine adapted to be dropped from an aircraft in flight comprising, in combination, a mine casing having a centrally disposed well formed therein and opening in the nose portion thereof, a rocket motor disposed within said well, a fuze disposed within said well, means including a normally open firing circuit connected to said motor and fuze for igniting said rocket motor as said firing circuit is closed, normally open switch means carried by said fuze and included in said firing circuit for closing said firing circuit, a movable rod having a contact element carried thereby for closing said switch means as the rod is moved longitudinally from an initial locked position to a moved position, an arming wire releasably connected to said rod for locking the rod in said initial position until the arming wire is disconnected therefrom, and a time delay actuating mechanism connected to said rod for moving the rod to said moved position when a predetermined period of time has elapsed after the arming wire has been disconnected.

2,848,946
NON-ROLLING FUSEE

Reba C. Goebig, Croydon, Pa., assignor to Samuel Jackson's Sons, Inc., Philadelphia, Pa., a corporation of Delaware

Application August 19, 1955, Serial No. 529,446
1 Claim. (Cl. 102—37.8)

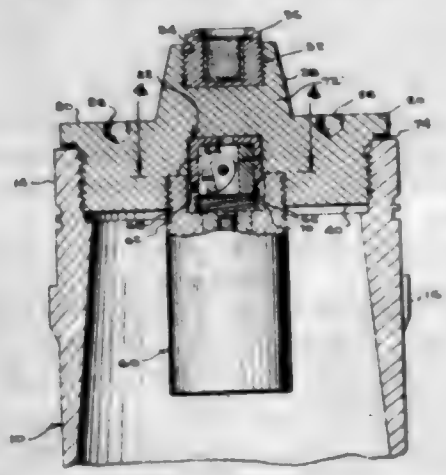


A non-rolling fusee for use on a highway for burning in a horizontal or vertical position, said fusee comprising in combination a cylindrical body, pyrotechnic material contained within said cylindrical body, a removable cap at one end of said cylindrical body for holding the pyrotechnic material within said cylinder before the fusee is ignited, a non-metal base comprising a cylindrical plug extending into and closing the other end of the body and having a square portion at its distal end in a plane transverse to the axis of the cylindrical plug, the sides and end of the distal portion of the plug are provided with flat, ground-engaging surfaces so that the fusee can be burned in either horizontal or vertical position, said plug having two axially-spaced peripheral rings formed therein, adhesive material contained in said rings and adhesively contacting the inner surface of said cylindrical body, said square portion of the plug having a transverse surface abutting against the end of the cylindrical body, and said square portion having flat side surfaces which form a tangent with the outer circumference of the cylindrical body for preventing the fusee from rolling when in horizontal position on a highway and for packing said fusees in boxes wherein adjacent fusees have their cylindrical bodies in contact with each other.

2,848,947
INTEGRAL BASE CLOSURE

Charles C. Latham, Jr., Milan, Tenn., assignor to the United States of America as represented by the Secretary of the Army

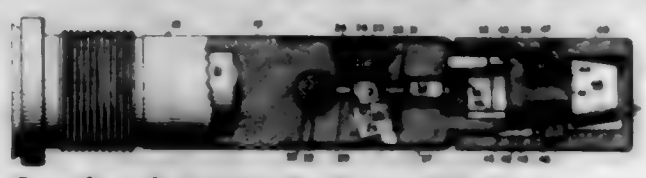
Application February 20, 1957, Serial No. 641,431
1 Claim. (Cl. 102—56)
(Granted under Title 35, U. S. Code (1952), sec. 266)



In combination, an explosive shell having an axial line of symmetry, including a forward nose end, a rotating

band, and an open internally threaded rearward end, an integral generally cylindrical base closure for said open rearward end comprising a body defining a peripheral flange adjacent its rearward end and extending perpendicularly therefrom, a forwardly extending threaded portion for threadable engagement with said internally threaded end of said shell, and a rearwardly extending, axially disposed, frusto-conical boss having an opening through its rearward end adapted to receive a tracer device therein, said forwardly extending threaded portion having an axially disposed bore opening through its forward end and an internally threaded counter bore forwardly of said axially disposed bore, there being a partition wall between said bores in said forwardly extending threaded portion and said bore in said boss, a fuze mechanism for said shell comprising a percussion cup slidable in said axial bore in said body, a reduced cylindrical member fixed in said percussion cup and extending beyond, a firing pin carried by said cylindrical member, a detonator carrier defining a tubular body, closed at its forward end and having external threads adjacent its open end for engagement with said internally threaded counterbore in said tubular body in said base closure, said tubular body having a counterbore adjacent its open end thereof, a coil spring encircling said reduced cylindrical member extending beyond said percussion cup at one of its ends and having its other end received in said counterbore in said tubular body, normally biasing said cup, said reduced cylindrical member and said firing pin from said detonating charge in said tubular body and means sealing between said base closure and said shell comprising an annular gasket disposed between said peripheral flange on said base closure and the rearward face of said shell.

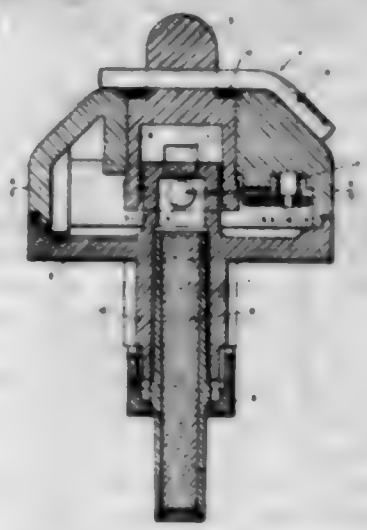
2,848,948
MAGNETIC INERTIA CONTROLLED FUZE
Harold J. Plumley, Washington, D. C.
Application May 16, 1944, Serial No. 535,799
14 Claims. (Cl. 102—70.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a fuze for projectile, in combination, an explosive charge arranged within the projectile, electroresponsive means for detonating the charge, a coil of wire connected to the detonating means, a magnetic circuit within which the coil is arranged, means for setting up magnetic flux within said circuit, a magnetically retained inertia member composed of magnetic material and included within the magnetic circuit, said inertia member being adapted to be moved from an initial position into spaced adjacency thereto by a shock impulse and returned to said initial position by magnetic attraction thereby to vary the reluctance of the magnetic circuit as the projectile strikes a target and generate a voltage within the coil sufficient to operate said detonating means, and means operatively connected to said coil for preventing operation of said electroresponsive means by the voltage generated in said coil until the inertia member has moved toward said initial position.

2,848,949
PERCUSSION FUSE FOR LAND MINES
Albert Diels, Brussels-Uccle, Belgium, assignor to Poudreries Reunies de Belgique S. A., Brussels, Belgium, a corporation of Belgium
Application May 18, 1956, Serial No. 585,846
Claims priority, application Germany May 18, 1955
1 Claim. (Cl. 102—73)

A non-magnetic fuse for igniting an explosive charge, comprising a casing, a primer charge mounted in said casing, a pair of non-magnetic springs each carrying a striker mounted in said casing for horizontal movement adjacent the primer charge, vertically movable spring retaining means for holding the springs in cocked position out of contact with the primer charge in a normal, upper position of the retaining means, said retaining means including a pressure member slidably mounted in the casing and an annular skirt integral with the pressure member, said skirt having a pair of side windows positioned above the primer charge in said upper position of the pressure member and permitting propulsion of the strikers therethrough and into contact with the primer charge in a depressed position of the pressure member, and a frangible pin for maintaining the pressure member in said upper position unless sufficient pressure is applied thereto to break the pin.



2,848,950
TOY CAPS
James B. Donaldson, Cooksville, Ontario, Canada
Application November 4, 1955, Serial No. 545,053
3 Claims. (Cl. 102—86.5)

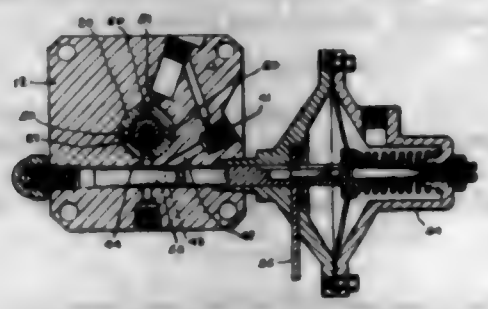


1. In a method of making toy caps the steps of applying spaced deposits of an explosive composition admixed with a liquid to a base sheet permeable to moisture, partially drying said explosive composition to a moisture content at which the explosive composition will not substantially spread when sprayed with a coating composition but at which the detonation of said explosive composition will be inhibited, and spraying said base sheet and the partially dried explosive composition with a thin layer of a coating composition immiscible with said liquid to provide a protective covering to consolidate and maintain said deposits in position on the base sheet.

2,848,951
FUEL INJECTION APPARATUS
Carl F. High, Detroit, Mich., assignor to American Bosch Arma Corporation, a corporation of New York
Application March 2, 1954, Serial No. 413,580
3 Claims. (Cl. 103—2)

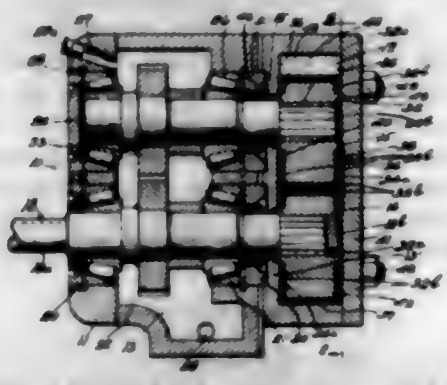
1. In a fuel injection pump for an internal combustion engine, a housing having a bore and a fuel inlet passage and a plurality of outlet passages communicating with said bore, a pumping and distributing member in said bore, said pumping and distributing member having a bore and fuel inlet and delivery ports communicating therewith, an adjustable throttle valve in said fuel inlet passage for controlling the quantity of fuel supplied to said bore of said pumping and distributing member, and

governor means operatively connected to said throttle valve for adjusting the position of said valve, said pump-



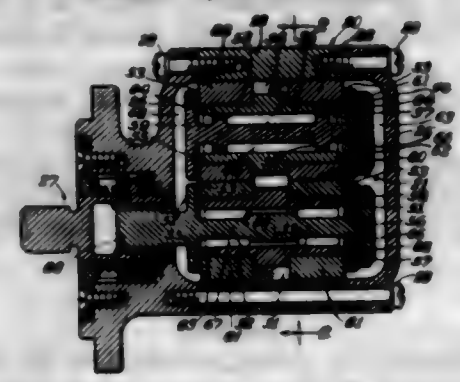
ing and distributing member having a spill or bypass passage for controlling the termination of injection.

2,848,952
PUMP CONSTRUCTION
Alden H. Wakeman, Lakemills, Wis., assignor to The Creamery Package Mfg. Company, Chicago, Ill., a corporation of Illinois
Application May 29, 1953, Serial No. 358,263
2 Claims. (Cl. 103—126)



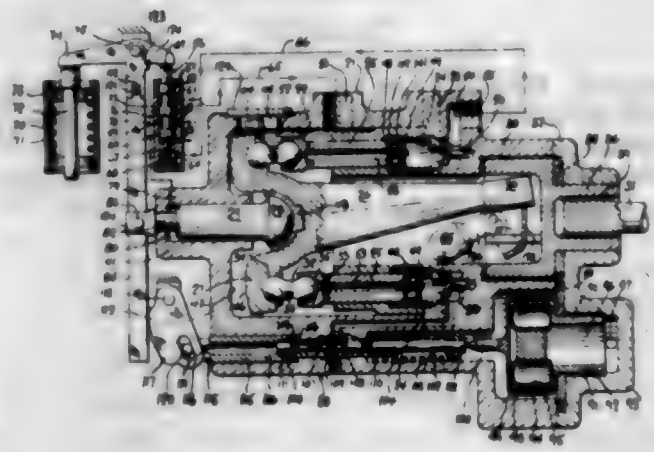
1. A pump for circulating a liquid product, comprising a casing provided with a chamber, an inlet port through which such product enters said chamber, and an outlet port through which such product leaves said chamber at a higher relative pressure; an impeller rotatably mounted within said chamber and disposed intermediate said inlet and outlet ports, said impeller having a peripheral configuration formed by a non-uniform radius about the rotary axis of said impeller and portions of said periphery being in slidable contact with said chamber surface to impel such product from said inlet port to said outlet port, an end face of said impeller being provided with a resilient peripheral boss conforming to the contour of said impeller periphery and in substantially continuous slidable engagement with the adjacent chamber surface and forming a cavity encompassing the rotary axis of said impeller and occupying a substantial portion of the area of said impeller end face; conduit means provided on said casing and communicating with the outlet port of said casing and said cavity and effecting entrapment within said cavity of a portion of the discharged product, the entrapped product being at a substantially uniform pressure throughout said cavity and effecting lubrication between said end face and the adjacent chamber surface; a drive shaft for said impeller protruding from said end face and extending through a suitable bore formed in said chamber surface, the end of said bore adjacent said chamber surface being provided with a counterbore in partial overlapping and communicating relation with said cavity; and a liquid pressure-responsive, shaft-encompassing element engaging the periphery of said shaft and disposed within said counterbore and being deformable by the liquid pressure within said cavity to effect a liquid seal between said shaft and said bore.

2,848,953
GEAR PUMP OR MOTOR
John L. Nagely, Grosse Pointe Park, Mich.
Application November 27, 1956, Serial No. 624,584
9 Claims. (Cl. 103—126)



1. In a gear-type liquid displacement device of the character described, a housing having a fluid inlet and outlet with a gear chamber therebetween, a pair of meshed gears mounted in said gear chamber, a pair of coacting end plate structures mounted in said housing in sealing relation therewith and with opposite side faces of said gears, a pair of gear shafts carrying said gears and journaled at their ends in said end plate structures, thrust means having a portion thereof spaced from and cooperable with at least one of said end plate structures to provide a fluid pressure loading chamber therebetween, means for supplying fluid under pressure to said loading chamber for urging said one end plate structure inwardly toward said gears, and at least one tension member separate from said gear shafts extending between said end plate structures and operatively coacting between said thrust means and the other of said end plate structures whereby the fluid pressure in said loading chamber also urges said other end plate structure inwardly toward said gears and whereby the reaction forces from the pressure loading of said end plate structures are imposed on said tension member without applying the same to said housing, said tension member being independent of and having no tension-resisting connections with said gear shafts.

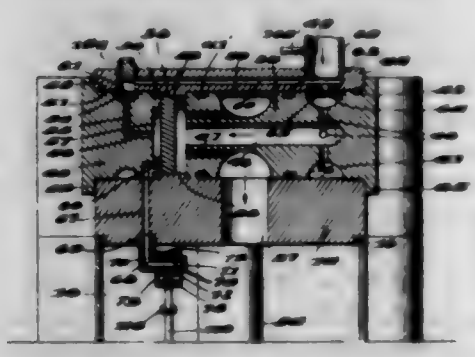
2,848,954
WOBBLER TYPE MULTIPLE PISTON PUMP
Tadeusz Budzich, Watertown, N. Y.
Application October 28, 1955, Serial No. 543,374
13 Claims. (Cl. 103—173)



1. A multiple piston pump comprising a housing means having at one end a fixed end plate, said housing means including cylinder block means having a plurality of axially disposed cylinders therein, piston means reciprocable within each cylinder, and a wobbler member effective to reciprocate said piston means, said wobbler member having a plate portion and a stem portion, said plate portion at one side having rolling contact with said fixed end plate, means positively interconnecting the other side of said plate portion with each piston means, rotatable

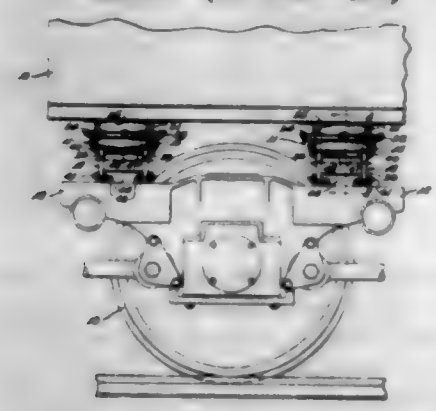
drive means journalled in said housing means at the other end thereof, a driving connection between said stem portion and drive means whereby the latter is effective to swing the stem portion in a circular path about the axis of rotation of the drive means to impart a wobble action to said plate portion, and control means including a control plunger having bearing engagement with said plate portion at said one side thereof, said control plunger longitudinal axis coinciding with the axis of rotation of the drive means, said control plunger by selective movement being effective to vary the effective angle of the wobbler member thereby to vary the piston means pumping stroke.

2,848,955
PNEUMATIC DISPLACEMENT PUMP
Doyle H. Miller, Corpus Christi, Tex.
Application June 7, 1957, Serial No. 664,328
6 Claims. (Cl. 103—240)



2. A pneumatic displacement pump comprising a pump barrel, a first head secured to one end of the pump barrel and provided with a pair of bores, compressed air inlet and exhaust valve bodies secured within said bores and having air passage means and defining chambers within said bores, inlet and exhaust disc valve elements shiftably mounted within said chambers of the bores, pilot valves connected with said head and communicating with said chambers for controlling the pneumatic pressure within said chambers upon corresponding sides of the disc valve elements, float means within said pump barrel for operating the pilot valves so that pneumatic pressure is built up in one of said chambers and simultaneously reduced in the other chamber, and foot valve means for the lower end of the pump barrel for admitting liquid under a hydrostatic head into the pump barrel whenever the pneumatic pressure within the pump barrel is reduced.

2,848,956
VEHICLE SUSPENSION
Herbert H. Deist, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application December 15, 1955, Serial No. 553,293
4 Claims. (Cl. 105—199)



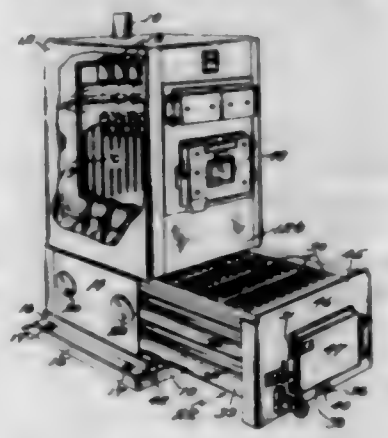
1. A rail car suspension comprising a bellows containing air under pressure and having a predetermined rate in vertical deflection and a substantially greater rate in lateral deflection, said bellows being interposed between a portion of the frame of said rail car and a portion of a truck of said rail car and resilient means connecting said bellows to one of said portions, said resilient means having a rate in lateral deflection substantially smaller than the corresponding rate of said bellows.

2,848,957
FIRE-RETAINING ROOF STRUCTURE
John T. W. Babcock, Evanston, Ill.
Application September 30, 1953, Serial No. 383,225
6 Claims. (Cl. 108—6.5)



1. A roof structure comprising a plurality of edge interlocking metal plates arranged side by side with cracks therebetween to provide an extended upper surface for receiving waterproofing material, a layer of fireproof mineral cement immediately above said extended upper surface sealing the cracks in said surface, a continuous layer of aluminum foil on top of said cement layer, a second layer of fireproof mineral cement on top of said aluminum foil layer so that said aluminum foil layer is sandwiched between said two layers of mineral cement, combustible roofing insulation above said second layer of mineral cement, and combustible waterproofing materials above said insulation, said waterproofing materials including at least one layer of roofing paper and a coating thereabove of a combustible bituminous material.

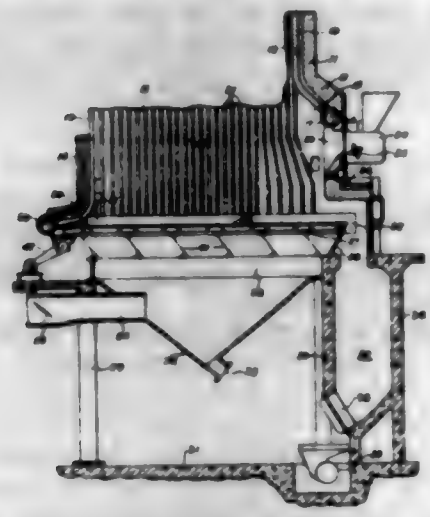
2,848,958
HEATER UTILIZING OPTIONAL FUELS
Nicholas Kolmar, Bridgeport, Conn.; Edward S. Gall, administrator of said Nicholas Kolmar, deceased
Application February 27, 1952, Serial No. 273,667
4 Claims. (Cl. 110—22)



1. In a heater convertible without dismantling its parts for optionally burning different fuels, the combination of, a hollow main heater frame structure including upright walls embracing in heat exchange relationship a permanent fire box compartment with a heat utilizing gallery in heat receptive relation thereto and an ash pit beneath said compartment, two of said upright walls being opposite walls each containing an aperture forming an opening from said ash pit to the outside of the heater whereby said ash pit comprises a tunnel extending crosswise of the heater under said fire box compartment opening at both ends to the outside of the heater, a fuel utilizing unit including a rigid elongate chassis mounted to be shifted in relation to said ash pit adaptable for mounting fuel burning apparatuses on respectively different portions thereof said unit comprising in at least one portion of said shiftable chassis apparatus for burning

fuel and of shape and size to alone enter and occupy a fuel burning position underlying said fire box compartment simultaneously with the vacating of said position by another of said portions of said chassis when said chassis is so shifted, and support means inside said ash pit bearing the weight of said chassis in a manner to permit sliding movement of the latter in shifting relation to said tunnel while a portion of said chassis projects therefrom into outboard relation to the heater frame through at least one of said apertures.

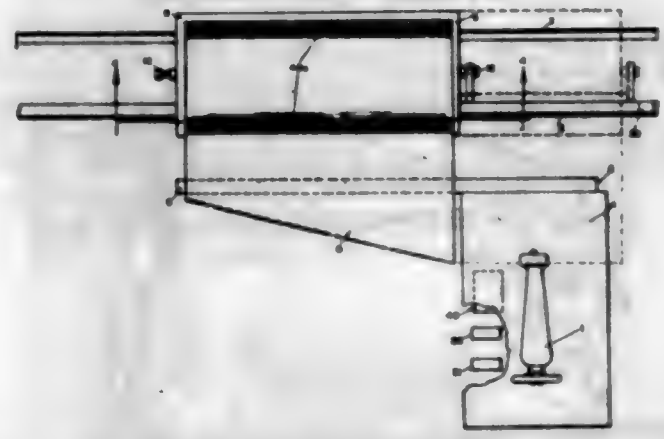
2,848,959
FUEL BURNING APPARATUS
Ollison Craig, Worcester, Mass., assignor to Riley Stoker Corporation, Worcester, Mass., a corporation of Massachusetts
Application October 5, 1954, Serial No. 460,339
2 Claims. (Cl. 110—38)



2. A fuel burning apparatus for use in a steam generating unit comprising a furnace mounted on a supporting foundation and having an arch located in the lower portion thereof, a grate having a substantially horizontal flat surface extending throughout the bottom of the furnace, means for introducing fuel to the grate, means for mounting the grate for vibratory movement to cause the fuel to move from one end to the other of the grate, the last-named means including flexure plates lying in parallel planes extending transversely to the direction of movement of the fuel and being inclined to the surface of the grate, the flexure plates being fastened at their upper ends to the grate and at their lower ends to the support and constituting substantially the entire support of the grate, the plates offering more resistance to horizontal motion away from a position of rest than in returning to the said position, a shaft rotatably mounted on the grate having its axis parallel to the surface of the grate and to the planes in which the flexure plates lie, eccentrics carried by the shaft for imparting substantially horizontal vibratory motion to the grate whereby fuel is ultimately burned to ash, a motor mounted on the foundation and connected by a flexible drive to the eccentrics, the eccentrics being rotated freely in space out of contact with the grate, and means whereby the motor and eccentrics are shielded from radiation from the furnace.

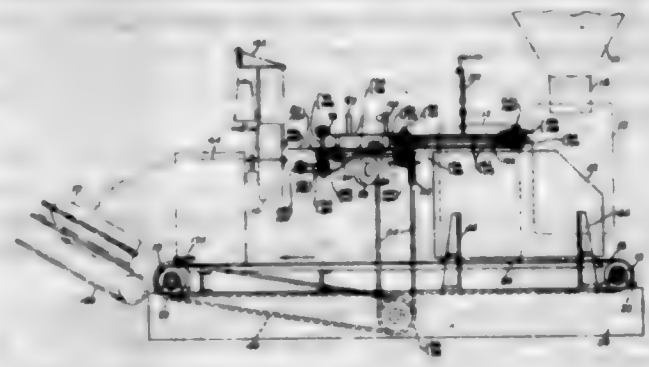
2,848,960
CONVEYING MACHINE FOR LINE PRODUCTION OF SEWN MATERIALS
Frank Anthony Cetrulo, Jr., Fort Thomas, Ky.
Application August 28, 1956, Serial No. 606,674
5 Claims. (Cl. 112—2)

1. In combination with a sewing machine, rails adjacent said sewing machine, a movable work table supported on said rails adapted to receive and retain a stack of individual piece of material to be sewed successivley while stacked on said table, a reciprocating rack adapted to move forward and backward past said sewing machine, a link rotatably supported on and movable with said rack, said link being detachably connected to said work table during back and forth movement to move said work table in the direction of and with said rack while sewing a piece of said material supported on said table, a motor



and a gear driven by said motor to move said rack and said table, foot treadle switch means to close an electrical circuit to energize said motor and move said work table continuously or intermittently to and past said sewing machine and in synchronized relationship with the operation of said sewing machine.

2,848,961
BAG CLOSING MECHANISM
Eli R. Strine, York, Pa., assignor to Side-O-Matic Unloader Corporation, York, Pa., a corporation of Pennsylvania
Application November 21, 1955, Serial No. 547,966
6 Claims. (Cl. 112—11)



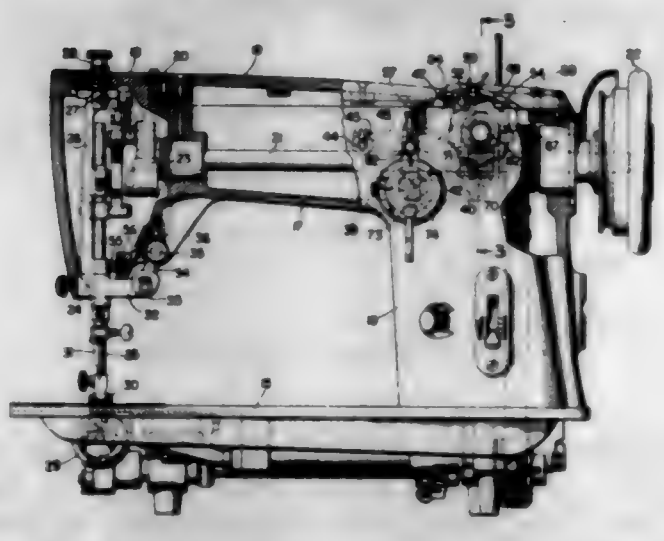
1. Bag closing mechanism comprising in combination, a conveyor operable to support and move filled bags along a path while said bags are substantially in upright position from a filling station, a pair of endless bag closing belts supported by pairs of pulleys spaced longitudinally along said path and positioned commonly in a substantially horizontal plane intersecting the upper end portions of said filled bags, said belts having substantially parallel courses positioned to engage opposite sides of the said upper end of said filled bags as moved by said conveyor and said belts being operable to press the same toward each other to close said bags, air dispelling means comprising a pair of members supported at opposite sides of said path and engageable with said opposite sides of filled bags at a plane below said plane of said bag closing belts and while the upper end of said bags are held closed by said belts said air dispelling means being operable to dispel air in said bags from above the solid contents therein, means positioned and operable to apply bag sealing means to the upper end of said bags while the tops are held closed by said belts as aforesaid, and a pair of resilient fingers extending from said belts toward said seal applying means and positioned and shaped to engage opposite sides of the upper end portions of said bags and hold the same closed while said bags are moving from said bag closing belts to said seal applying means.

2,848,962

CONTROL MEANS FOR ORNAMENTAL STITCH SEWING MACHINES

Martin R. Perla, Bridgeport, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application August 2, 1955, Serial No. 525,969
6 Claims. (Cl. 112—158)



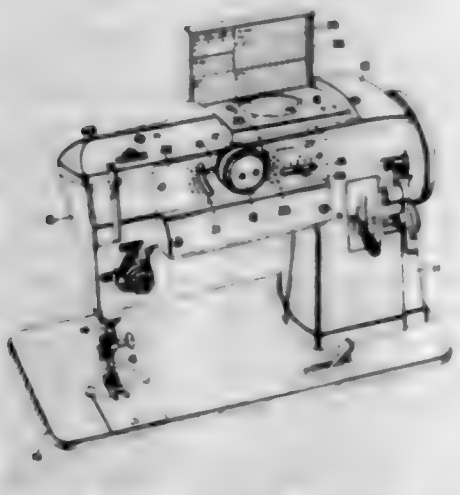
1. In a sewing machine having a frame, a needle mounted upon said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a rotary pattern cam mounted upon said frame, a cam follower element engaging said cam, and connections between said follower element and said needle for imparting sidewise movements to said needle; the improvement which consists in the provision of manually operable means for shifting said cam follower radially away from said cam, said last mentioned means comprising a lever carried by and pivotally mounted upon said cam follower, and a stationary abutment member carried by said frame and disposed within the range of movement of one end portion of said lever so as to be engaged thereby.

2,848,963

MEANS FACILITATING THE CONTROL AND OPERATION OF ORNAMENTAL STITCH SEWING MACHINES

Ralph E. Johnson, Mountainside, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application June 15, 1956, Serial No. 591,718
1 Claim. (Cl. 112—158)



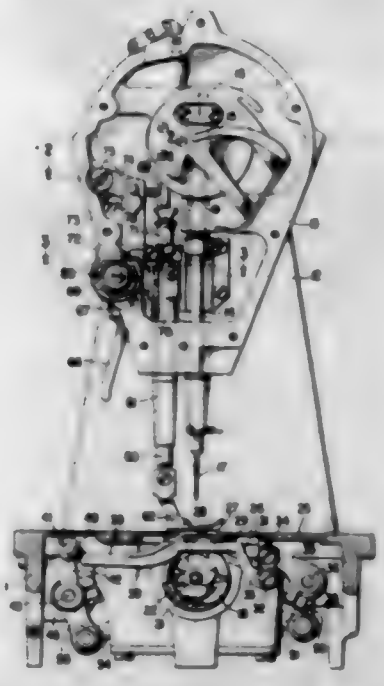
In an ornamental stitch sewing machine having a hollow frame including an upright standard and a horizontally disposed bracket-arm, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of cams mounted for rotation within the frame, a cam-follower connecting a selected one of the cams with the needle for imparting sidewise movements to the needle, and means connected between the cam-follower and the needle for varying the reaction of the needle to a selected cam; the improvement which consists in the provision of a first handle connected with the cam follower for shifting the latter from one cam to another, a second handle connected with the last mentioned means for actuating the same, such two handles being shiftably carried by and exposed at the front face of the bracket-arm for conjointly regulating the pattern of sidewise needle movements, a distinctive set of indicia provided on the front face of the bracket-arm adjacent each of the two handles and representing different positions of adjustment of its associated handle, a plate having one edge thereof hinged to the rear top edge of the bracket-arm, means releasably maintaining the plate in either its closed horizontal position against the bracket-arm or in its open vertical position, a pictorial representation of each of a plurality of stitch patterns produceable by the needle provided on the inner face of the plate and indicia provided on the inner face of the plate adjacent each pattern representation and representing the particular handle settings necessary to produce the illustrated stitch pattern.

2,848,964

FEEDING MECHANISMS FOR SEWING MACHINES

William C. Van Ness, Devon, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application May 31, 1955, Serial No. 511,842
2 Claims. (Cl. 112—215)



2. A feeding mechanism for a sewing machine having a bed provided with a work supporting surface, and a rotary hook carried on a hook shaft journaled longitudinally in said bed, said feeding mechanism comprising a feed advance rock shaft journaled in said bed to one side of and parallel to said hook shaft, a feed lift rock shaft journaled in said bed on the opposite side of and parallel to said hook shaft, a feed advance rock frame secured to said feed advance rock shaft in a position to extend vertically upwardly from said feed advance rock shaft, a feed lift rock arm extending from said feed lift rock shaft in a direction upwardly inclined toward said hook, a feed bar connected at one end to said feed advance rock frame and having its body portion extending over and bridging said rotary hook and formed at its other end with a downwardly inclined free end terminating substantially vertically beneath the free end of said upwardly inclined free end of said feed lift rock arm, a link connecting the free end of said feed bar with the free end of said feed lift rock arm, and ac-

tuating mechanism for imparting rocking movements to said feed advance rock shaft and said feed lift rock shaft.

2,848,965

SEWING MACHINE

Waldemar A. Ayres, Lakewood, Ohio, assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware

Application January 25, 1954, Serial No. 405,724
6 Claims. (Cl. 112—231)



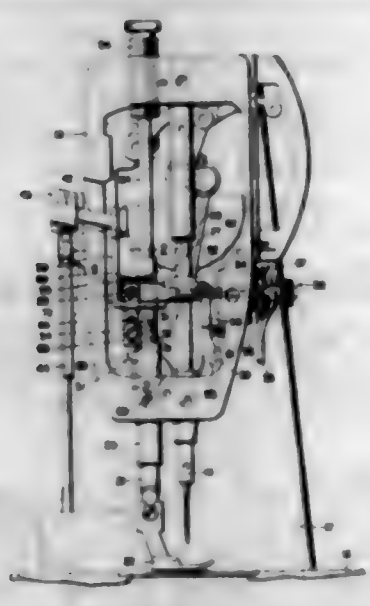
1. A bobbin case for use with the rotary hook of a sewing machine comprising a substantially cup-shaped member within which the bobbin may be mounted and from the exterior of the bottom wall of which extends a centrally disposed externally threaded supporting portion, a friction ring mounted on said portion and engaging the exterior of the bottom wall of said member, a sleeve nonrotatably mounted on said portion and having limited axial movement thereon, a pulley having a hub rotatably supported by said sleeve, said sleeve being provided at its outer end with a radially disposed flange, said friction ring contacting one side of said hub, a second friction ring located on said sleeve intermediate said hub and said flange and engaging said hub and flange, and means screwed on said exterior threads of said supporting portion outwardly of said sleeve and flange and engaging the latter whereby said means can be adjusted inwardly or outwardly of said portion to vary the pressure between said hub and said rings to vary the tension on the thread withdrawn from the bobbin and wrapped around said pulley.

2,848,966

THREAD TENSION RELEASING DEVICES

Herman Ritter, Cranford, and Adam P. Steiner, Linden, N. J., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application November 14, 1956, Serial No. 622,061
5 Claims. (Cl. 112—238)



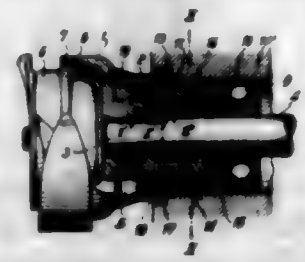
1. In combination, a sewing machine comprising a head, a presser-bar movably supported in said head, a bracket adjustably held to said presser-bar, means for raising said presser-bar, a tension release lever pivotally supported in said sewing machine head, said tension release lever comprising a body member and a segmental member, means adjustably securing said segmental member to said body member, and means carried by said bracket for engaging said segmental member and thereby moving said tension release lever when said presser-bar is raised.

2,848,967

MEANS FOR THE LUBRICATION OF THE RACEWAYS OF ROTATING GRIPPERS OF DOUBLE QUILT STITCH SEWING MACHINES

Karl Nicolay, Bielefeld, Germany, assignor to Durkoppwerke Aktiengesellschaft, Bielefeld, Germany, a corporation of Germany

Application March 8, 1956, Serial No. 570,329
3 Claims. (Cl. 112—256)



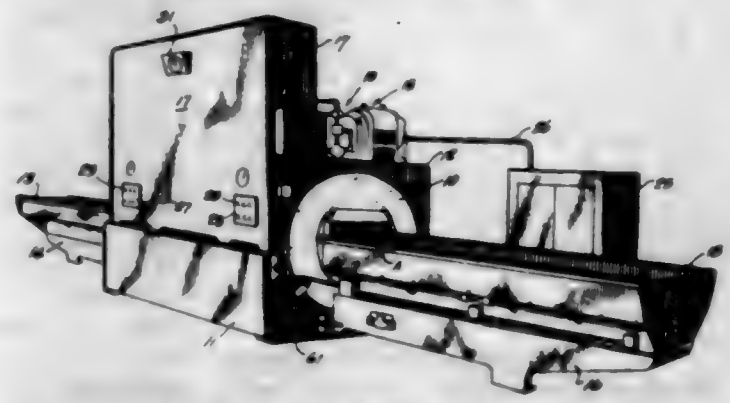
1. In a sewing machine utilizing a bottom thread, a loop taker shaft, a loop taker structure fixed on said shaft and having a raceway, a thread holder positioned in the raceway of said structure, a bearing block having a bore and a bearing in said bore for said shaft, an absorbent pad for lubricant in said bore around said shaft, a ring in said bore around said shaft disposed between said pad and loop taker, said ring and loop taker provided with mutually sliding surfaces, said ring provided with axial passageways therethrough for lubricant from said pad to said sliding surfaces, an annular lip on said loop taker structure around and outwardly of said sliding surfaces and forming a groove for lubricant from said surfaces, said loop taker structure provided with tubes for lubricant extending from said groove obliquely relative to the longitudinal axis of said shaft to said raceway, and means for supplying lubricant to said pad.

2,848,968

HIGH PRESSURE HYDRAULIC PRESS

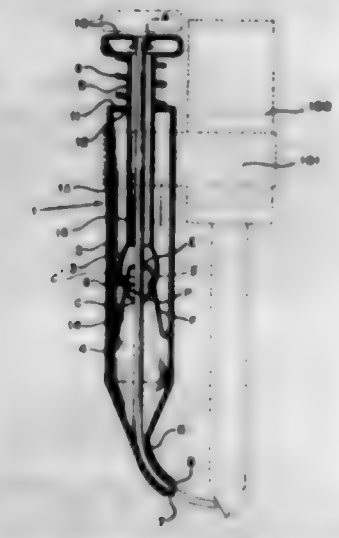
John A. Novak, Chicago, Ill.

Application March 19, 1954, Serial No. 417,266
9 Claims. (Cl. 113—44)



1. A metal-forming apparatus having a base and a press rotatably mounted on the base; said press comprising a tubular shell, a pair of upper and lower semi-cylindrical bodies removably mounted in said shell and spaced apart in a direction extending transversely thereof to define a working chamber therebetween, said bodies being removable endwise from the shell, one of said bodies having an expandible diaphragm for cooperation with a die mounted on the other of said bodies to shape sheet metal therebetween; and means to rotate the press to locate the upper body in a lower position for ready endwise removal from said shell.

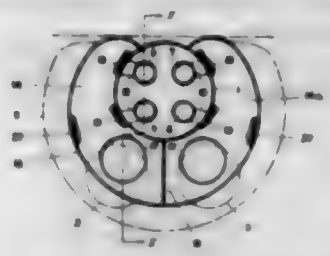
2,848,969
SOLDER FEEDER
Alvin N. Shapiro, Philadelphia, Pa.
Application February 11, 1954, Serial No. 409,786
3 Claims. (Cl. 113—94)
(Granted under Title 35, U. S. Code (1952), sec. 266)



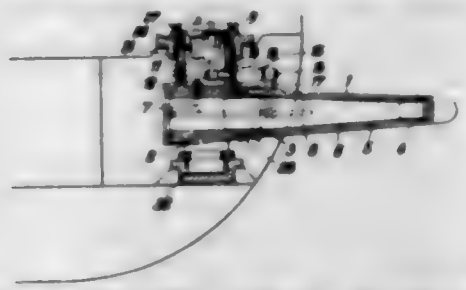
1. A solder feeder comprising a first tubular member having a lower orifice and an upper face, said upper face having an aperture therethrough, a second tubular member extending through said aperture and terminating at one end within said first tubular member and having opposed bowed lower prong members attached at said end, a button member having an aperture therethrough disposed perpendicular to the longitudinal axis of said second tubular member and attached to the upper end thereof, the prong members being bowed outwardly with respect to the second tubular member and then inwardly to form an approximately elliptical cross-sectional shape with the ends remote from the second tubular member being disconnected, there being a varying space throughout the lengths of the respective tubular members at least sufficient to pass a length of solder therethrough, a pair of reversely bent prongs each having a lower bent portion attached to the inside side wall of the first tubular member and having an upwardly and inwardly bent portion curving downwardly, the uppermost portions of the reversely bent prongs always being above the lowermost portions of the bowed prongs, abutment means on and rigidly attached to the bowed prongs in perpendicular relation to the reversely bent prongs, depression of said button member causing the solder to be gripped by the bowed prongs and pushed through the orifice of the first tubular member, said abutment means serving to limit pressure of the reversely bent prongs on the solder except in the lowered position of the bowed prongs, angles of curvature of the prongs with respect to the solder surface being such that retraction of the button member and the bowed prongs in the lowered position causes gripping of the solder by the reversely bent prongs to a greater degree than the gripping of the bowed prongs.

2,848,970
SUBMARINE VESSELS
Maximilian Frederick Gunning, Steep, Petersfield, England
Application May 10, 1956, Serial No. 584,143
Claims priority, application Great Britain May 23, 1955
10 Claims. (Cl. 114—17)

1. In a submarine vessel, in combination, a first pressure-resistant compartment, at least one torpedo tube disposed in said first compartment for mounting a torpedo therein, a tank disposed circumferentially around at least a portion of said first compartment and normally filled with water when the submarine is operative afloat, water-delivery duct means connecting the tank and the torpedo tube, means for selectively establishing communication between the tank and the tube when a torpedo is to be discharged from the tube, a cylinder having one end communicating with said tank, a piston reciprocable in said cylinder, at least a second pressure-resistant compartment spaced radially from said first pressure-resistant compartment, means in said second pressure-resistant compartment arranged for selectively, cyclically reciprocating the piston between a first position and a second position in a direction for reducing the volume in said tank, whereby when said duct means are in communication with said tank and said piston is reciprocated in said volume-reducing direction water is discharged from the tank to the torpedo tube for discharging a torpedo from said tube.

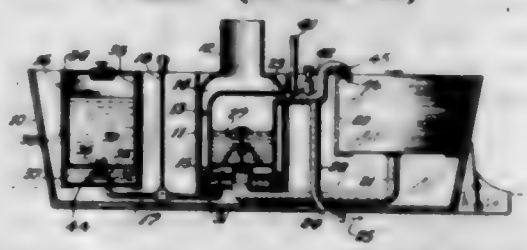


2,848,971
DEVICES FOR DAMPING THE ROLLING MOVEMENT OF SHIPS
Walter Michael Kollenberger, Hamburg-Othmarschen, Germany
Application October 11, 1955, Serial No. 539,796
Claims priority, application Germany August 1, 1955
9 Claims. (Cl. 114—126)



1. A device for use with a ship for damping the rolling motion of a ship comprising a stabilising surface adapted to be located laterally in the operative position on each side of a ship's hull below the water line, a stabiliser shaft connected with each of said stabilising surfaces, means mounting said stabilising surfaces for angular movement on said shafts, each shaft having bearing means to be lubricated, a stabiliser chamber adapted to be located in the ship's hull to accommodate each stabilising surface in the inoperative position thereof, and a swivel support for each of the stabiliser shafts about which each stabilising surface may be swung into and out of its associated chamber, each stabiliser shaft being rigidly associated with said swivel supports at its inner end.

2,848,972
BOAT HAVING UNDERWATER FLUID PROPULSION
Marian L. Orzynski, Perth Amboy, N. J.
Application April 27, 1955, Serial No. 504,147
1 Claim. (Cl. 115—11)



In a boat comprising a hull, a casing disposed in said hull and having a discharge opening at the upper end thereof, a gas generator housing of smaller proportions

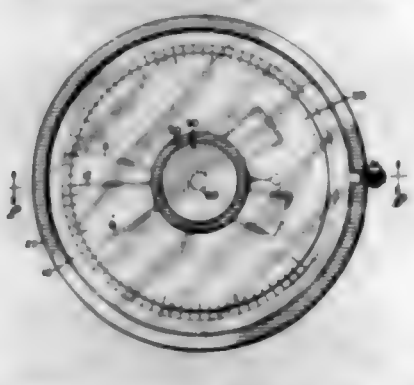
than said casing disposed therein and defining therewith a passage for gases, a heater unit disposed beneath the generator, a housing for heating the same, a water reservoir disposed in said hull in spaced relation to the gas generator, means connecting the water reservoir with the gas generator housing to supply water thereto for conversion into gas on heating said generator, a gas discharge pipe connected at one end with the gas generator and, at the other end, disposed through the hull below the water line thereof, to thereby propel the hull on generation and discharge of said gas through said other end of the discharge pipe, a fuel reservoir disposed in said hull in spaced relation to said gas generator, means connecting said reservoir to the heater unit to supply fuel to the heater unit to heat the generator, said fuel reservoir comprising an outer shell fixed to said hull and open at the upper end thereof, a fuel holding casing slidably disposed in said shell through said open end and having an opening in the lower end thereof for the passage of fuel into said shell intermediate the lower end of the casing and said shell, and spring means interposed between the lower end of the shell and casing, whereby, when the weight of the casing and fuel therein is greater than the force of said spring, the spring will be compressed and the fuel will flow through said opening in the lower end of the casing, and when said weight of the casing and fuel therein is less than the force of said spring, the casing will be moved upwardly out of the shell to indicate its empty condition.

2,848,973

MAXIMUM-MINIMUM POINTER ASSEMBLY

Robert B. Stiens, Cincinnati, Ohio, assignor to Palmer Thermometers, Inc., Norwood, Ohio, a corporation of Ohio

Application February 28, 1956, Serial No. 568,330
7 Claims. (Cl. 116—129)



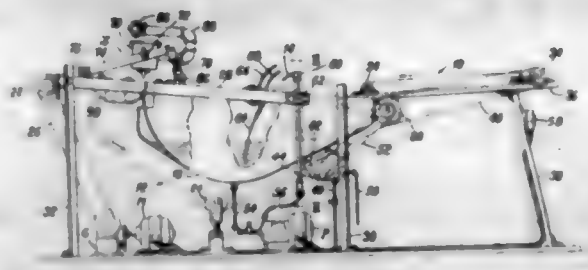
1. A maximum-minimum pointer assembly comprising an axially bored bushing having a lower end which terminates in an outturned flange having a lower axial face, a hollow first shaft rotatably journaled in and extending through the bore of said bushing, the lower end of said shaft circumscribed by a flange having parallel upper and lower axial faces, friction means between the upper face of said shaft flange and the lower axial face of the bushing flange, a first control knob secured to, carried by and projecting outwardly from the upper end of said first shaft above the bushing, said first control knob securing the adjacent faces of the first shaft flange and bushing flange in axial engagement with said friction means, a second shaft extending axially through said hollow first shaft, the lower end of the second shaft terminating in a flange having parallel upper and lower axial faces, a second control knob secured to and carried by the free end of the second shaft beyond the first control knob, friction means disposed between the adjacent faces of said first and second control knobs, said second control knob securing the second shaft relative to the first shaft with the adjacent faces of the flanges of said first and second shafts in contacting relationship, and securing the adjacent faces of the said first and second control knobs in axial engagement with said last mentioned friction means, whereby turning of the first control knob will simultaneously rotate the first and second shafts relative to the bushing, and turning of the second control knob will rotate only the second shaft.

2,848,974

LEATHER FINISH APPLYING MACHINES

Edmund S. Lee III, Hamilton, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application February 14, 1955, Serial No. 487,745
3 Claims. (Cl. 118—63)



1. A seasoning machine comprising an openwork conveyor which permits the passage of air therethrough, an infeed conveyor moving at a lower rate of speed than said first named conveyor and extending above said first named conveyor for retarding and maintaining the trailing edge of a workpiece above said first named conveyor until it is deposited thereon, means for applying an excess of seasoning compound to individual workpieces carried by said first named conveyor, and an air knife extending widthwise of said first named conveyor for removing the excess of seasoning compound from each workpiece thereby leaving a thin uniform coating thereon.

2. A seasoning machine comprising an openwork conveyor which permits the passage of air therethrough, said conveyor having an upper work carrying run, means for applying an excess of seasoning compound to individual workpieces carried by said conveyor, an air knife extending widthwise of said conveyor for removing the excess of seasoning compound from each workpiece, a tray mounted beneath the upper run of said conveyor, said tray having a forward edge which is parallel to and adjacent the air stream of said air knife, and a lid covering said tray spaced from said edge a distance slightly greater than the width of said air stream, said tray having openings in its ends whereby the air from said air knife is dissipated toward the sides of the machine.

3. A seasoning machine comprising an openwork conveyor which permits the passage of air therethrough, means for applying an excess of seasoning compound to individual workpieces carried by said conveyor, said means including a series of flat spray nozzles mounted above said conveyor, a sump toward which said spray nozzles are directed, a deflection plate the upper surface of which is tangential to the stream of seasoning compound emitting from said nozzles, the lower surface of the plate entering the compound level in the sump for directing the stream of compound into the sump with a minimum of turbulence, and an air knife extending across the width of said conveyor for removing the excess of seasoning compound from each workpiece thereby leaving a thin uniform coating thereon.

2,848,975

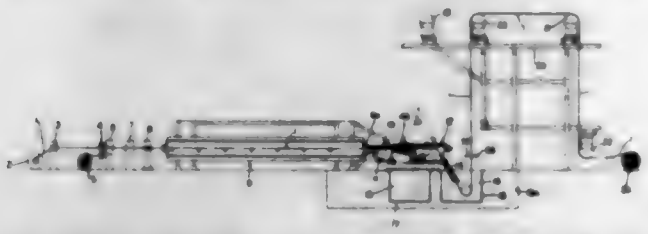
METAL COATING APPARATUS WITH MOVABLY MOUNTED WIPING MEANS

Robert F. Renkin, Sharon, Pa., assignor to Sharon Steel Corporation, Sharon, Pa., a corporation of Pennsylvania

Application June 10, 1955, Serial No. 514,634
6 Claims. (Cl. 118—68)

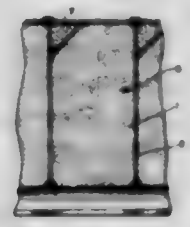
2. In apparatus for continuously hot coating metal strip selectively with different coating metals, controlled

atmosphere furnace means through which a metal strip is passed for preparing a coating-receptive surface on the surfaces of the strip, the furnace including a muffle having an exit-end, first pot means, a bath of one hot coating metal in the first pot means, second pot means, a bath of another hot coating metal in the second pot means, heating means for maintaining coating metal molten in at least one of the pot means, pot cover means for the pot removable to uncover the first or second pot means, a muffle tube extending from the muffle exit-end into the bath of molten coating metal in one of said pot means when uncovered, means removably mounting the muffle tube on the exit-end of the muffle, muffle extension tube means, means removably mounting one end



of the muffle extension tube means on the exit-end of the muffle when the other pot means is uncovered, means mounting the muffle tube on the other end of the muffle extension tube means when said other pot means is uncovered, the muffle tube extending into the bath of molten coating metal in the other pot means when the latter is uncovered and when the muffle tube is mounted on the muffle extension tube means; and means for continuously passing strip metal through said controlled atmosphere furnace means, and then selectively through the muffle tube and the bath of molten coating metal into which one end of the muffle tube extends and contained in the uncovered pot means while the other pot means is covered by said cover means.

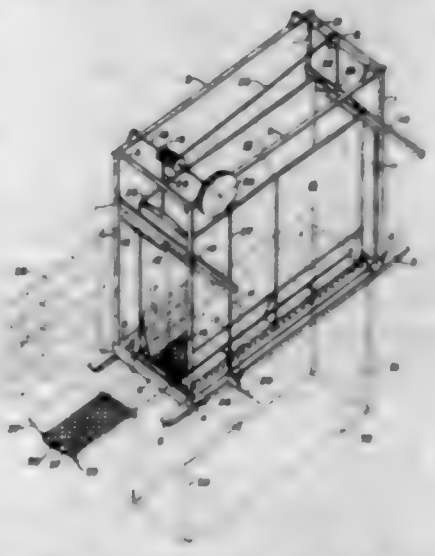
2,848,976
ANIMAL BED
Jesse T. Combs, Dania, Fla., assignor to Clifford Carlock, Betterton, Md.
Application November 13, 1956, Serial No. 621,943
4 Claims. (Cl. 119—1)



1. A livestock stall having means defining a bedding inclosure, said inclosure having a layer of exfoliated expanded African vermiculite, at least two inches in thickness and being composed of particles having a minimum dimension of ¼ inch.

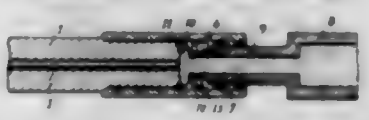
2,848,977
PORTABLE CATTLE DIP
Lars O. Prestrud, Denver, and Francis P. Murphy, Coalmont, Colo.
Application July 13, 1956, Serial No. 597,632
1 Claim. (Cl. 119—158)

A portable animal dipping vat of the class described comprising a pair of elongated skids spaced apart in parallel relation in position to straddle a narrow, elongated hole in the earth, an open framework inclusive of four corner posts mounted on said skids and a plurality of cross members interconnecting said corner posts, said framework extending a substantial distance above said skids and having an animal inlet at one end and an outlet at the opposite end, a solution tank mounted between said skids and movable from an upper movable position to an animal dipping position below said skids, an open ended, animal stage insertable in the tank and mounted in said framework and movable from a position in said framework at about skid level to a lower position substantially below said skids, a gate reciprocally mounted at each open end of said framework for opening and closing said open ends, a cable supporting shaft rotatably mounted adjacent each end of the framework and at an



elevated position therein, a lift cable interlaced about shafts for conjointly rotating said shafts, there being two free cable ends extending downwardly from and operable for raising and lowering by said shafts, connection means on each of the free ends of said cable for selectively interconnection with said tank for movability and said stage for animal dipping, and means for rotating at least one said shaft for raising and lowering the free ends of said cable.

2,848,978
ERASER MOUNTING FOR PENCILS
Wilhelm Schäter, Nurnberg, Germany, assignor to A. W. Faber-Castell, Stein near Nurnberg, Germany, a German firm
Application November 7, 1955, Serial No. 545,484
Claims priority, application Germany November 26, 1954
6 Claims. (Cl. 120—38)

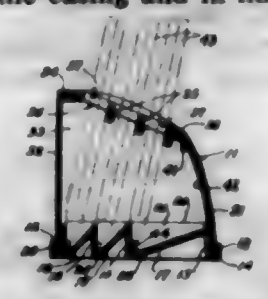


1. A pencil having a ferrule partially sleeved over to seat on one of the terminals of said pencil, said ferrule partially extending from said pencil terminal and being provided with an opening at its free end, a rubber eraser inserted in said opening and held in that part of said ferrule, at least one of the interengaging seating surfaces of said ferrule and said terminal having longitudinal and the other of said surfaces having transverse channels, said longitudinal and said transverse channels respectively intersecting one another, and a cement filling said channels to firmly secure said ferrule to said pencil terminal at the points of intersection.

2,848,979
PENCIL HOLDER
Robert F. Van Voorhis, New York, N. Y.
Application February 27, 1956, Serial No. 567,939
1 Claim. (Cl. 120—108)

A pencil holder comprising a base portion and a hollow casing supported thereon, said casing having a slanting top wall spaced above the base portion, said top wall having a plurality of spaced intermediate openings and end openings of larger dimensions than the inter-

mediate openings, said base portion having a floor of zigzag formation including vertically disposed longitudinally extending wall portions, and inclined floor portions exending downwardly and rearwardly to the bottom ends of said vertically disposed wall portions, spaced transversely extending wall portions intersecting said vertically disposed longitudinally extending wall portions, said vertically disposed wall portions, transversely disposed wall portions and inclined floor portions defining pockets, below and in line with the intermediate openings in the top wall of the casing and in line with the end open-



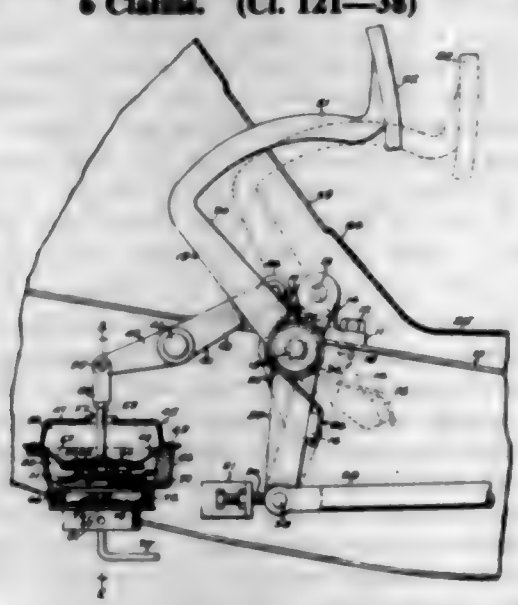
ings in said top wall, the meeting edges of the vertically disposed wall portions and inclined floor portions being disposed offset vertically from the center of the intermediate openings in the top wall and from the center of the end openings in said top wall, said meeting edges serving as seats for the sharpened points of conventional wooden pencils inserted through the intermediate openings in said top wall and for the bottom ends of fountain pens inserted through the end openings in said top wall whereby said pencils and fountain pens are adapted to be supported at an angle to the vertical.

2,848,980

MOTOR FOR POSITIONING A BRAKE PEDAL

David T. Ayers, Jr., Birmingham, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware

Application October 19, 1953, Serial No. 386,944
6 Claims. (Cl. 121—38)



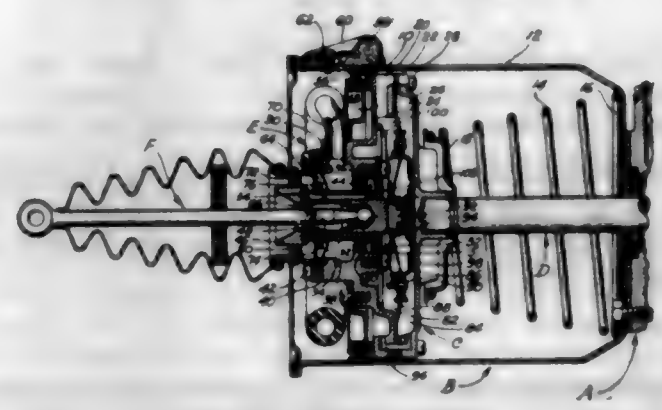
1. In a power device for controlling different speeds of movement of an operating member mounted to assume either of two positions, a differential fluid pressure operated motor having a pressure responsive member therein, an actuating member connected to said pressure responsive member for moving said operating member to one or the other of its said positions, means biasing said actuating member toward a first position for moving said operating member to one of said positions, and valve means having fluid connection with said motor, the atmosphere and a vacuum source and including portions operable to normally maintain differential force on said pressure responsive member to overcome said means biasing said actuating member and for establishing differential pressures in said motor at a restricted rate to move said actuating member to a second position for relocating said operating member to the other of its positions, said valve means comprising a valve element biased to move, when no vacuum is present in said source, to a position freely relieving said motor of differential pressure whereby said means biasing said actuating member toward a first position moves said actuating member to said one position.

2,848,981

FLUID PRESSURE SERVO-MOTOR

Edward E. Hupp, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application May 2, 1956, Serial No. 582,273
4 Claims. (Cl. 121—46.5)



1. In a control valve for fluid pressure servo-motors and the like: a body member having an opening therein; a first valve seat in said opening adjacent one end of said opening; a sleeve-like member in said opening having a first generally rigid radially extending flange portion having a sealing surface thereon for abutment with said valve seat, and a second generally radially extending flange portion spaced toward the other end of said opening from said first valve seat, said second flange portion providing a movable wall in sealing engagement with the sidewalls of said opening to thereby form a first valve pressure chamber therewith; a rigid partition member spaced toward said other end of said opening from said second flange portion and slidably and sealingly engaging said sleeve-like member to form a valve balancing chamber; said sleeve-like member having a second valve seat for its central opening which faces in the same direction as said sealing surface of said first flange portion; a valve closure member for abutment with said second valve seat; and means communicating said valve balancing chamber with the space that communicates said first and second valve seats.

2,848,982

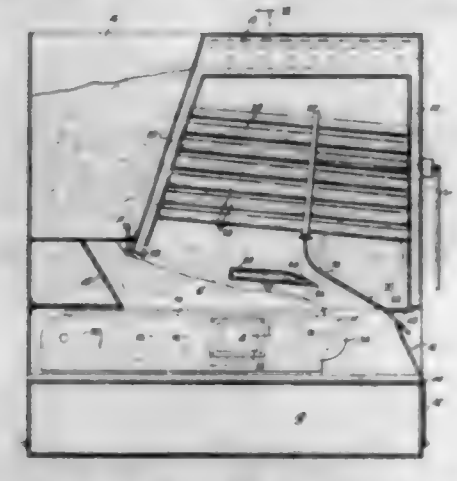
COAL FURNACE HAVING A GAS REFLECTOR

George E. Valentine and Joseph H. Eubanks, Schuylkill Haven, Pa., assignors to V. & E. Products, Inc., Schuylkill Haven, Pa., a corporation of Pennsylvania

Application June 2, 1955, Serial No. 512,727
3 Claims. (Cl. 122—368)

1. In a furnace, a water compartment, a movable grate under said water compartment, a pair of walls on opposite sides of said grate supporting said compartment, a first hollow end wall connected to said compartment and adapted to contain water, said end wall extending from a position adjacent one end of the grate upwardly and over a central portion of the grate, a second hollow end wall connected to said water compartment, water tubes connected between said end walls and extending over said grate, a flue outlet adjacent the lower water tubes near said second end wall, a baffle between said flue outlet and said grate, a hollow gas deflecting member between said baffle and said grate, said member having a lower surface slightly inclined to direct hot gases under said lower surface toward said first end wall and an upper

surface which with a portion of said baffle forms a passageway of reduced cross-sectional area to direct gas flow across the top of said deflecting member toward said first end wall and cause the combustion gases from said fire



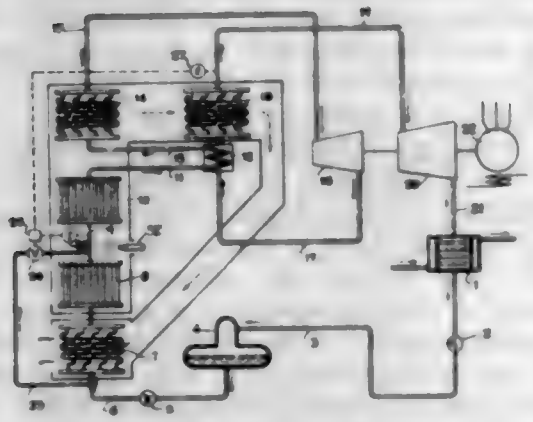
bed to pass along said first hollow end wall and under said water compartment, and means connecting said water compartment to the interior of said hollow gas deflecting member.

2,848,983

VAPOR OR STEAM GENERATING PLANT WITH RESUPERHEATERS

Arthur Lieberherr, Winterthur, Switzerland, assignor to Sulzer Freres, Societe Anonyme, Winterthur, Switzerland, a corporation of Switzerland

Application December 20, 1954, Serial No. 476,189
Claims priority, application Switzerland December 23, 1953
4 Claims. (Cl. 122—479)



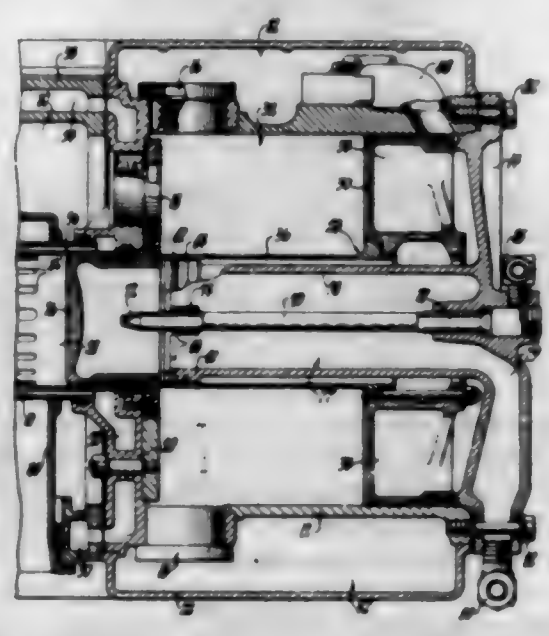
1. In a vapor generating plant operating under the reheat cycle and under variable load conditions, a forced flow vapor generator comprising fuel burning means generating radiant heat and combustion gases, a first relatively small superheater exposed to radiant heat from said fuel burning means and a second superheater exposed to the combustion gases for superheating primary vapor, a resuperheater exposed to said combustion gases for resuperheating secondary vapor, a heat exchanger for indirectly exchanging heat between the primary vapor and the secondary vapor, said heat exchanger including a conduit interposed between said first and second superheater for conducting primary vapor as a heating medium from said first superheater through said heat exchanger to said second superheater, said heat exchanger including a compartment accommodating said conduit and having an inlet for receiving secondary vapor which is to be resuperheated and having an outlet connected with said resuperheater for conducting partially resuperheated secondary vapor from said compartment into said resuperheater, an inlet pipe connected with said first superheater, injecting means connected with said inlet pipe for injecting liquid into the primary vapor entering said first superheater for lowering the temperature of the superheated primary vapor entering said heat exchanger for controlling the heat exchanged in said heat exchanger between the primary vapor and the secondary vapor and for simultaneously protecting said superheater against overheating by the radiant heat.

2,848,984

OIL COOLING ARRANGEMENT FOR FREE PISTON GASIFIER

Gregory Flynn, Jr., Grosse Pointe Farms, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 25, 1957, Serial No. 642,198
4 Claims. (Cl. 123—41.35)



1. A liquid cooling arrangement for a free piston engine comprising a compressor cylinder, a diesel cylinder of substantially smaller diameter than the compressor cylinder and located at one end of the compressor cylinder, an annular compressor piston in the compressor cylinder, a hollow diesel piston in the diesel cylinder, an annular piston skirt interconnecting the pistons, a cushion head closing off the other end of the compressor cylinder to form a cushion chamber for the engine, a tube cantilevered from the cushion head projecting through the compressor piston and into the piston skirt, the outer diameter of the free end of the tube being slidable in the inner diameter of the piston skirt and having ring grooves formed therein, piston rings in the ring grooves of the tube engaging the inner diameter of the piston skirt, liquid coolant supply means, coolant discharge means, and a coolant spray pipe spaced in the tube having a nozzle portion at one end directed at the hollow side of the diesel piston and having a connection with the liquid coolant supply means at the other end, the liquid coolant discharge means communicating with the space between the spray pipe and the tube to drain said space.

2,848,985

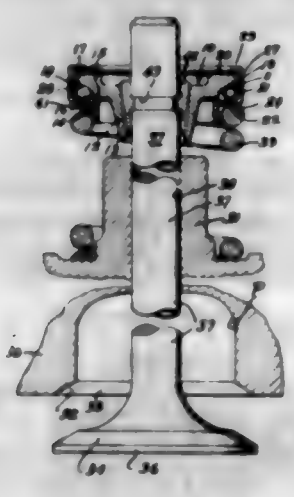
VALVE ROTATING DEVICE

Samuel Harry Norton, University Heights, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application February 20, 1956, Serial No. 566,509
24 Claims. (Cl. 123—90)

1. In combination, two axially loaded parts having load-transmitting spring means between said parts and being assembled in preloaded relation to restrict the parts against rotation, said spring means providing a plurality of coils, said parts having axially spaced abutment surfaces engaging each coil to transmit a portion of the load transversely of the spring and between the parts, one of said parts having means forming an axially extending abutment surface engaging the outermost periphery of

said coils, whereupon the coils will tip in response to increased axial load, thereby removing the restriction



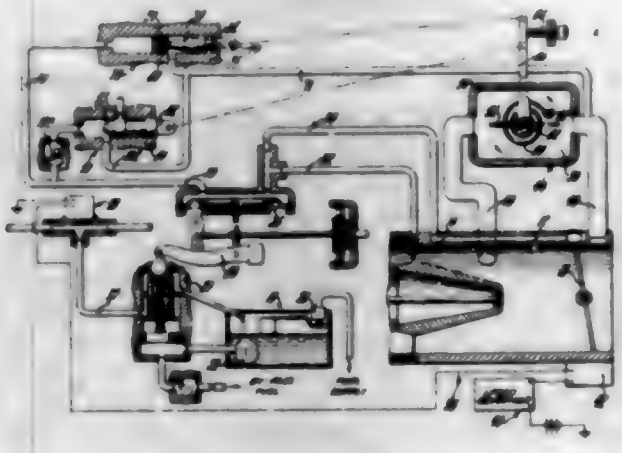
against rotation and rotatably driving the parts with respect to one another.

2,848,986

FUEL INJECTION SYSTEM

Lawrence C. Dermond, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 3, 1957, Serial No. 650,389
10 Claims. (Cl. 123—119)



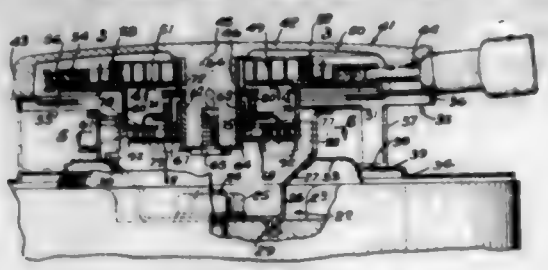
1. A fuel injection system for an internal combustion engine comprising an air induction passage, a venturi in said passage, a throttle valve in said passage posterior to said venturi, a source of fuel under pressure, conduit means for communicating said fuel source to the cylinders of said engine, a valve disposed intermediate said fuel source and said conduit means for metering the quantity of fuel flowing to said cylinders, a device for controlling said metering valve, conduit means communicating said venturi with said control device to position the metering valve in accordance with the mass of air flowing through the induction passage, passage means for bypassing air around said throttle when closed, a valve in said passage, means responsive to the temperature of said engine for actuating said valve to control the flow of air through said bypass passage in inverse proportion to engine temperature, additional passage means communicating at one end with said induction passage posteriorly of said throttle and at the other end with said metering valve control device whereby manifold vacuum is adapted to actuate said device to increase the flow of fuel to said cylinders, valve means in said additional passage for modulating the flow of manifold vacuum through said passage, and means connecting said modulating valve means with said temperature responsive means whereby the manifold vacuum acting on said control device is inversely proportional to engine temperature.

2,848,987

REWIND ENGINE STARTER

Russell L. Morden, Lansing, Mich., assignor to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan

Application May 11, 1955, Serial No. 507,587
26 Claims. (Cl. 123—179)



1. An engine starter comprising a housing adapted to be mounted on a fixed part of the engine, a pulley rotatably mounted within said housing, a cord adapted to be wound around said pulley to rotate the pulley when pulled, means yieldably resisting the rotation of said pulley in one direction and tending to return the pulley to its original position, pawls pivotally mounted on said pulley, a member having a driving connection with a rotatable part of the engine and adapted to be engaged by said pawls, means including an annular washer individual to each said pawl and rotatably mounted within said housing about the axis of rotation of said pulley, means for applying an axial force to said washers to frictionally resist rotation of said washers, and means extending between each said washer and its respective pawl whereby when the pulley is rotated in one direction by pulling the cord the pawls are caused to pivot into engagement with the member having the driving connection with the rotatable part of the engine and when the pulley is rotated in the opposite direction the pawls are caused to disengage said member.

2,848,988

SAFETY STARTER ACTUATING DEVICE

Richard Binder, Schweinfurt am Main, Germany, assignor to Fichtel & Sachs A. G., Schweinfurt am Main, Germany, a corporation of Germany

Application January 14, 1957, Serial No. 634,100
Claims priority, application Federal Republic of Germany February 11, 1956
5 Claims. (Cl. 123—179)



1. A safety switching device for the starter of an engine provided with a lever for shifting gears, comprising a starter actuating lever operatively connected with said gear shifting lever for displacement in two directions relative thereto, and switch means disposed so that upon displacement of said starter actuating lever in a first direction with said gear shifting lever in neutral position said switch means is closed for energizing said starter, whereas when said gear shifting lever is not in neutral position said switch means can be closed by displacement of said starter actuating lever in a second direction in addition to displacement in said first direction.

2,848,989

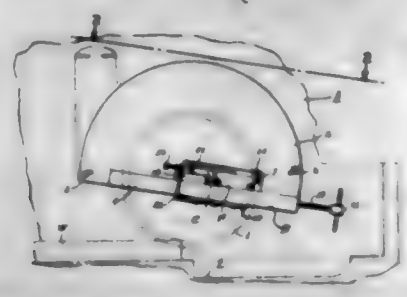
GRINDING WHEEL DRESSER

Jack C. Potter, St. Louis, Mo.

Application April 18, 1957, Serial No. 653,636
5 Claims. (Cl. 125—11)

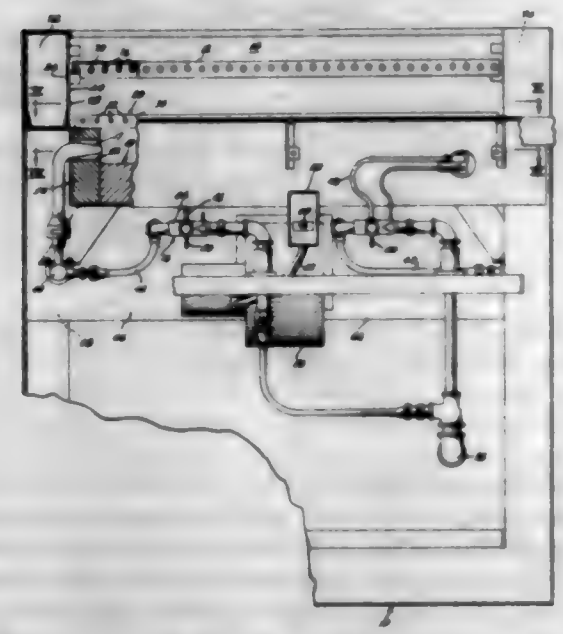
4. An angle dresser for grinding wheels having a frame and a rotatably mounted grinding wheel, compris-

ing a plate-like shield for disposition coveringly over the outer upper portion of said grinding wheel, the bottom edge of said shield extending along a line downwardly inclined with respect to the transverse center line of the grinding wheel, an angle dresser frame axially parallel to the bottom edge of said shield, comprising a side member disposed outwardly of said shield, a pair of end members engaged to the ends of said side member and to said shield whereby said end members, said side member, and the portion of the shield opposite said



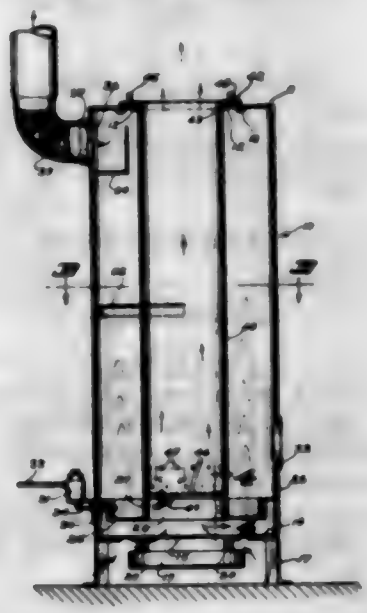
side member define an elongated opening, a carriage disposed in said opening for sliding movement from end to end thereof, means for effecting movement of said carriage, a top block pivotally mounted on said carriage, a point carrier slideably carried from said top block for axial reciprocal movement, a point holder provided on said point carrier, a point provided on said point holder, said shield having an opening, said point holder projecting through the opening in said shield for presenting the point to the periphery of the grinding wheel.

2,848,990
GAS-FIRED GRILL AND BROILING METHOD
Edward J. Haedike, Chicago, and Steve Zavodny, Barrington, Ill., assignors to Mid-Continent Metal Products Company, Chicago, Ill., a corporation of Illinois
Application January 30, 1956, Serial No. 562,304
7 Claims. (Cl. 126—41)



1. A cooking range, comprising a horizontally arranged food grill, a horizontally arranged grate, supported in spaced relation below said grill, a bed of non-burning material upon said grate, an adjustable gas burner means carried below said grate to heat it and the non-burning material carried thereby, said gas burner means comprising a plurality of nozzles mounted in the side walls of the range with the nozzles extending horizontally therefrom, means cooperating with the side walls of said range to provide horizontal longitudinal ducts, one wall of each of said ducts facing the chamber between said grill and grate, means to supply air under pressure to said duct, said duct wall being provided with a horizontal longitudinally extending series of openings providing horizontal outlets from said duct to provide that air in said duct will be forced into a series of air jets directed horizontally and transversely of the range adjacent the bed of non-burning material between the grate and grill above said gas burners to control flames between said grate and said grill without changing the adjustable gas burner means.

2,848,991
OIL BURNING HEATER STRUCTURE
Roy R. Smith, Chester, Miss.
Application February 11, 1957, Serial No. 639,527
9 Claims. (Cl. 126—94)



1. An oil burning heater having in combination, a casing, a heating tube in said casing somewhat shorter than said casing and coaxial therewith, said tube being open at each end, the upper end of said tube being rotatably attached to the top of said casing, an air inlet at the bottom of said casing having a tubular portion extending inwardly of said casing in circumferential alignment with said tube, an oil trough about said tubular portion, cooperating means secured to the lower end of said tube and to said inlet portion for moving said tube toward and away from said tubular portion when said tube is rotated to control the movement of air into said oil trough.

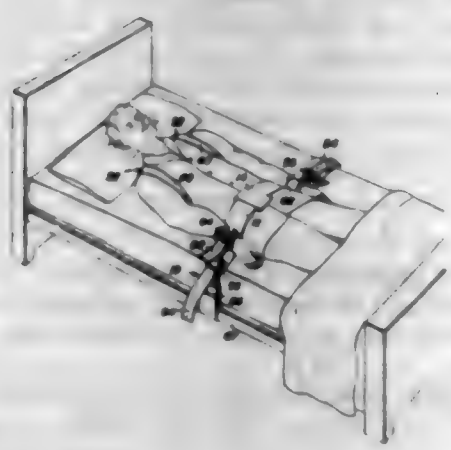
2,848,992
APPARATUS FOR CONTROLLING THE PULSE
Gérard Pigeon, Paris, France
Application August 30, 1955, Serial No. 531,387
Claims priority, application France September 15, 1954
3 Claims. (Cl. 128—2.05)



2. Apparatus for automatically watching and controlling the pulse of a patient, said apparatus comprising in combination means for producing an electric signal at each throbbing, said means comprising two electrodes intended to be fastened in two different parts of the patient's body, an electronic amplifier connected to said electrodes, a relay energized by said amplifier at each throbbing, said apparatus comprising also an integrator circuit comprising a capacity, a discharge resistance connected to said capacity, means for charging said capacity at each throbbing, said charging means comprising an

auxiliary capacity of smaller value, a current source and means for alternately connecting said auxiliary capacity to said current source and to said first-cited capacity, said connecting means comprising a switch actuated by said relay, said apparatus comprising also a measuring instrument graduated in frequencies fed by said integrator circuit, means for comparing the frequency measured by said instrument with two adjustable values, corresponding respectively to the minimum exigible frequency and to the maximum permissible frequency of the pulse, and a warning device controlled by said comparing means.

2,848,993
RESTRAINING DEVICE
Charm G. Terrell, St. Petersburg, Fla.
Application June 20, 1957, Serial No. 667,002
10 Claims. (Cl. 128—134)



4. A restraining device comprising a bed belt having fastening means at each end to releasably secure said belt to the side frames of a bed, a wrist-strap at each end portion of said belt, means to adjust each of said wrist-straps longitudinally of said bed belt, a loop secured to the center of said bed belt, a slide belt loosely passing through said loop, a first body strap secured at its ends to said slide belt, a second body strap releasably secured at its ends to the ends of said first body strap, a back panel secured to said second body strap, and a pair of shoulder straps on said back panel.

2,848,994
DISPOSABLE BREATHER MASK
Edward Aguado, St. Louis, Mo.
Application November 7, 1955, Serial No. 545,382
2 Claims. (Cl. 128—146)



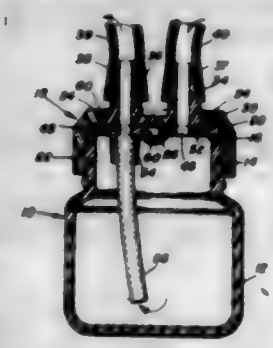
1. A mask of the character described comprising a longitudinally and transversely arched shell having an integral, semi-flexible peripheral flange, the shell being formed symmetrically about a longitudinal center line, and means on the shell forming a gas inlet passage, the front of the mask having a depressed, perforated wall portion located on said center line, a valve seating on the outer surface of the depressed wall portion, a valve mounting member located on said center line and projecting from the front of said shell outwardly of the depressed wall portion, and a head band secured to said mounting member.

2,848,995
TRANSFUSION APPARATUS
George R. Ryan, Waukegan Township, Lake County, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois
Original application July 6, 1949, Serial No. 103,202, now Patent No. 2,653,606, dated September 29, 1953. Divided and this application September 11, 1953, Serial No. 379,574
5 Claims. (Cl. 128—214)



1. In a transfusion device, the combination which comprises: an imperforate, flexible, collapsible bag; a plurality of projections integral with said bag and in open communication therewith; and filter means in the nature of a series of closely spaced small passages defining a relatively small chamber communicating with one of said projections.

2,848,996
SYRINGE
Jack Stephen Kowal, Denver, Colo., assignor of seventy percent to Gordon E. Eckley and twenty-five percent to Vincent D. Eckley, Denver, Colo.,
Application November 8, 1956, Serial No. 621,858
4 Claims. (Cl. 128—229)



2. A syringe comprising a receptacle having an open top, a valve seat on said open top, a valve element rotatably disposed on said valve seat, a valve body detachably secured to said receptacle and holding said seat and element assembled in superposition on said receptacle, an inlet and an outlet member connected to said valve element, said seat having a pair of apertures that are spaced to align with said inlet and outlet members when said member is in one position so that liquid passing into said inlet member may pass into said receptacle and issue through said outlet member, said seat having a passage located between said apertures and being of sufficient length to connect said inlet member with said outlet member whereby liquid entering said inlet member by-passes said receptacle and enters said outlet member, said valve element being made of flexible material and being slightly cambered so that when pressed on said seat it flattens and seals thereon.

2,848,997
SQUEEZE BOTTLE
John J. Miskel, Brooklyn, and Hugh Horner, Merrick, N. Y., and Jeremiah A. Lott, Fanwood, N. J., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware
Application June 11, 1956, Serial No. 590,659
4 Claims. (Cl. 128—232)

1. A squeeze bottle comprising a container of thin resilient plastic, a cap including closure and cannula por-

tions, the neck of said container and said closure portions respectively including external and internal protuberances for locking said cap upon said container, said cap including a centrally disposed boss for insertion within said neck, said boss fitting closely within said neck to support said neck and to maintain said cap firmly locked therewith



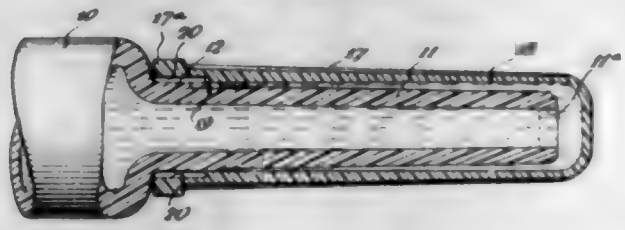
throughout all phases of operation, removable means applied over said cannula to protect said cannula and the contents of said container from contamination, and said container includes an indentation extending across its base for promoting substantially complete collapse of said container upon application of pressure thereto.

2,848,998

MEDICAMENT APPLICATOR

Hugh D. Bryan, Evansville, Ind., assignor to Mead Johnson & Company, a corporation of Indiana

Application January 31, 1956, Serial No. 562,513
4 Claims. (Cl. 128—260)



1. In a medicament applicator for depositing a medicament bearing paste-like carrier material in a body cavity, and having a material containing body from which the material may be expelled, an enlarged nozzle adapted to be inserted into the body cavity, having a discharge opening at the tip thereof and joined to said body by an enlarged base portion having a longitudinally extending channel therein, and an elongated cap removably positioned over said nozzle and having an end portion frictionally engaged with said enlarged base, the interior wall of said cap being spaced from said nozzle throughout substantially the entire length thereof to provide a closed space therearound, there being a longitudinally extending channel in said end portion of the cap which may be brought into communication with the channel in said base to vent said space whereby some of the material in said body may be expelled into said space to lubricate the nozzle, facilitating the insertion thereof into a body cavity.

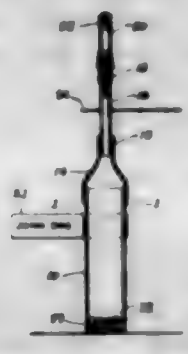
2,848,999

SAMPLING APPARATUS

Robert F. McGrew, Waukegan, Ill., and Milton L. Turner, Towson, Md., assignors to Abbott Laboratories, Chicago, Ill., a corporation of Illinois

Application November 13, 1952, Serial No. 320,332
14 Claims. (Cl. 128—276)

1. A fluid sampling device comprising a section of deformable resilient tubing having one end closed and the other end supporting an end closure member permanently secured therewith and having extending outwardly therefrom a tube of substantially smaller diameter than the said resilient tubing having an unobstructed axial passage therethrough directly communicating with the interior of the said tubing, said tube having means for detachably securing on one end thereof a hub of a hypodermic needle, and cover means enclosing the said means for accommodating the hub of a hypodermic needle and for sealing



the said tube to prevent contamination of the interior of the said tubing and dissipation of the contents thereof which detachably engages the said means for securing the hub of a hypodermic needle, said sampling device exerting a substantial suction when expanding after being deformed and thereby assisting the flow of fluid into the said device.

2,849,000

TAMPONS AND THE LIKE

Albert W. Lewing, Monson, Mass., assignor to Tampax, Incorporated, Palmer, Mass., a corporation of Delaware

Application June 8, 1953, Serial No. 360,071
11 Claims. (Cl. 128—285)



2. An improved vaginal tampon adapted for catamenial fluid absorption and retention under normal conditions of use within a vaginal cavity comprising as a fluid absorbing and retaining means a compressed mass of absorbent cotton fibers, said fibers carrying substantially uniformly distributed thereover a fluid, nontoxic, hydrophilic, polyhydric alcohol retention agent selected from the class consisting of sorbitol, mannitol, glycerine, glycols and glycol polymers.

2,849,001

HAEMOSTATIC CATHETER

Vincent J. Oddo, Cranston, R. I.

Application October 17, 1955, Serial No. 540,674
7 Claims. (Cl. 128—325)



7. A haemostatic catheter for stopping bleeding in the vesical neck and in the prostate bed after a prostatectomy, said catheter comprising a tubular body portion adapted to extend through the urethra and vesical neck to a point within the bladder, the walls of said body portion having an opening adjacent the distal end, and inflatable means on said body portion for applying a direct pressure to the walls of the prostate bed, to the vesical neck, and to the upper and lower surfaces of the vesical neck,

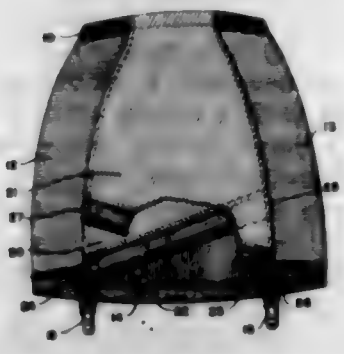
said inflatable means comprising a pair of adjacent inflatable portions joined by an integral portion therebetween, said catheter having an integral one-piece construction and being flexible throughout.

2,849,002
HAEMOSTATIC CATHETER
Vincent J. Odde, Cranston, R. I.
Application March 12, 1956, Serial No. 570,758
12 Claims. (Cl. 128—325)



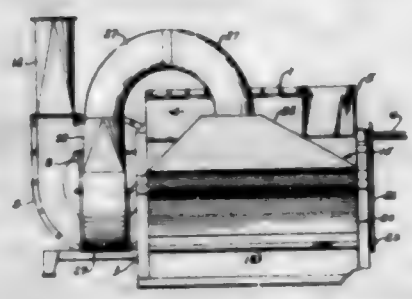
1. A surgical accessory comprising an elongated tubular body portion having a central longitudinal drainage channel closed at the distal end, said body portion having a drainage opening adjacent the distal end and communicating with said drainage channel, an inflatable balloon on said body portion adjacent the drainage opening, a second inflatable balloon on said body portion slightly spaced from said first balloon, a connecting member extending between the adjacent walls of said balloons spaced from said body portion, said body portion having inflation channels communicating with said balloons, and separate conduits at the proximal end of said body portion for said drainage channel and said inflation channels.

2,849,003
BODY GARMENT
Charles W. Hine, Pine Orchard, Conn., assignor to Sarong Inc., West Haven, Conn., a corporation of Connecticut
Application September 27, 1955, Serial No. 536,986
7 Claims. (Cl. 128—547)



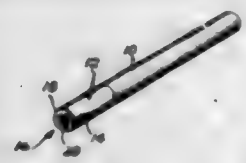
1. A girdle including side portions each having a substantially vertical edge situated at the front of said garment, a pair of partially superposed front panels both being joined at each side thereof to each said substantially vertical edge, and a pair of elastic strips, the lower edge of each of said front panels being joined to one of said elastic strips, each of said strips at one end thereof being joined to and biased upwardly from a lower corner of one said substantially vertical edge and being joined to the other said substantially vertical edge at a location below the horizontal medial line at the front of said girdle, said strips crossing substantially along the front vertical medial line of said girdle.

2,849,004
CORN SHELLING APPARATUS
Edward P. McCreery, Lakewood, and Milo F. Arms, Parma Heights, Ohio, assignors to The C. O. Bartlett & Snow Company, Cleveland, Ohio, a corporation of Ohio
Application March 11, 1955, Serial No. 493,697
3 Claims. (Cl. 130—6)



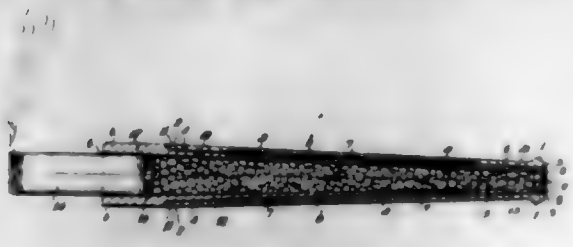
1. In corn sheller apparatus including a sheller unit having an ear corn feed hopper at one end and a cob and husk discharge opening at the other end, corn shelled therein being discharged along the bottom of the unit, and a cob blower connected to such discharge opening of the sheller unit; a shelled corn cleaner disposed adjacent the sheller unit, said cleaner having a receiving hopper portion into which the shelled corn falls, a discharge chute through which such corn is expelled from the cleaner, means forming a downwardly extending passageway connecting the hopper portion and discharge chute for directing the falling corn from the former to the latter, fan means, duct means extending from the outlet of said fan means to a side wall of the passageway and being of decreasing cross-sectional area in such direction, said duct means terminating in a relatively narrow discharge opening in such side wall of the passageway with the air supplied therethrough being directed transversely across the passageway, means defining an expansion chamber extending from an opening in the other side wall of the passageway opposite such discharge opening and of considerably greater cross-sectional area than the same, the air flowing across the passageway entering such chamber and there undergoing a reduction in velocity sufficient to cause dropping of corn entrained in the flow, such flow thereby effecting separation of dust and the like from the shelled corn, and conduit means connecting said expansion chamber to the inlet of said cleaner and expels dust therein along with the cobs and cob blower, whereby the latter draws in air from the husks.

2,849,005
EMBLEMATIZED CIGARETTE FILTER TIP
Irwin W. Tucker and Charles J. Moll, Jr., Louisville, Ky., assignors to Brown & Williamson Tobacco Corporation, Louisville, Ky., a corporation of Delaware
Application November 15, 1955, Serial No. 546,850
4 Claims. (Cl. 131—10)



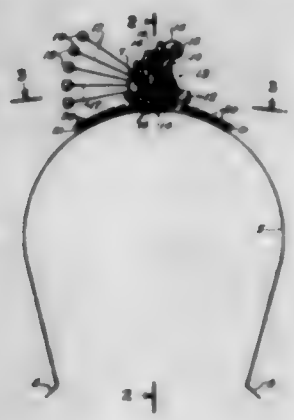
1. An emblematized cigarette filter tip comprising a filter body composed of fiber filter material, the exposed end of the filter having impressed over part of the fiber area thereof a non-fibrous substance defining a latent image of an emblem, said substance rendering said impressed area differently responsive to the emission of smoke than the remaining area whereby the latent image is developed by the smoke into visibility as the cigarette is being consumed.

2,849,006
CIGARETTE HOLDERS
José Mazar Barnett, Buenos Aires, Argentina, assignor to Filtox S. A., Montevideo, Uruguay, a corporation of Uruguay
Application January 11, 1955, Serial No. 481,196
2 Claims. (Cl. 131—187)



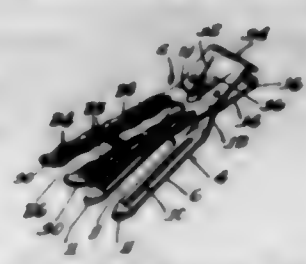
2. A removable filter cartridge for a cigar or cigarette holder comprising a tubular member having a bore tapering from one end to the other, a thickened portion at the smaller end of the tubular member forming an external frusto-conical surface which is inturned at its extremity to form a flange with a small aperture therethrough, a thickened portion at the larger end of the tubular member forming an external frusto-conical stepped surface, the extremity of the said larger end constituting an adapter for the reception of one end of a cigar or cigarette, a single perforated sealing diaphragm wedged in said adapter portion, and a mass of granular filtering material in direct contact with and filling the tubular member between the sealing diaphragm and the inturned flange and having its individual granules of a size greater than the aperture at the smaller extremity of the tubular member and greater than the perforations of said single perforated sealing diaphragm and confined in position by said flange and said diaphragm to provide a long axial passage for smoke.

2,849,007
LADY'S HAIR ORNAMENT
Siegfried Behr, Flushing, N. Y.
Application October 23, 1956, Serial No. 618,382
3 Claims. (Cl. 132—46)



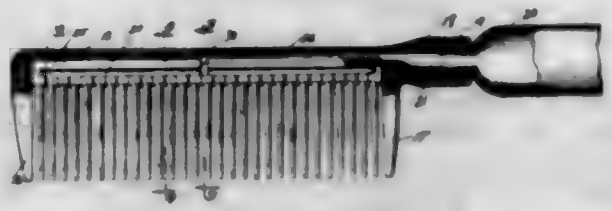
1. A lady's hair ornament comprising a horse-shoe shaped flexible body portion for encircling the head of the wearer, a horn-shaped socket member secured to the closed end of the body portion and opening laterally, said socket member having a flared body with a hole in the closed end for receiving the stem of a flower or the like inserted into the flared body, grille work mounted on the closed end of the flexible body portion in front of the socket member, said grille work being shaped in plan similar to the shape of the socket member, a jewel mounted on the narrow end of the socket member adjacent said hole and protruding forwardly of the flexible body portion, and a spray of jewels supported on the edge of the mouth of the socket member and extending radially therefrom, said spray serving as a support for flowers inserted into the socket member.

2,849,008
HAIR CLIP
Eric Otten, Chicago, Ill., assignor to Lady Lora Wave Clip Corp., Chicago, Ill., a corporation of Illinois
Application February 14, 1958, Serial No. 715,335
10 Claims. (Cl. 132—48)



1. In a hair clip for holding together flat curls comprising a pair of superimposed arms extending longitudinally of one another and having confronting clamp jaw-forming portions adapted to clamp a hair curl therebetween, and longitudinally outwardly diverging handle-forming end portions, the inner ends of which terminate in a fulcrum where the arms are relatively rockable relative to one another about a transverse axis to open and close the jaws of the clip, the improvement comprising means for resiliently urging the jaws of the clip together, said means comprising a resilient tongue extending longitudinally from one of said arms towards the other arm and a resilient tongue extending longitudinally from said other arm toward said one arm, said tongues making face-to-face contact with one another and resiliently urging the clip jaws together, said tongues being in the region of said fulcrum.

2,849,009
FOUNTAIN TYPE DISPENSING COMB
Herbert Heinrich, Ridgewood, N. J., and Bertram Reibel, New York, N. Y., assignors to Coty, Inc., New York, N. Y., a corporation of Delaware
Application January 17, 1957, Serial No. 634,685
5 Claims. (Cl. 132—116)

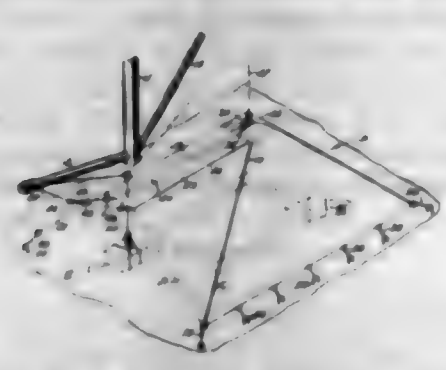


1. A dispensing comb comprising a channel-shaped back, a comb body having an elongated head embraced by said back, said comb body having comb teeth and being formed with branch passageways to individual teeth, said head being formed with a groove section and said back being formed with a groove section both of which mate to produce a liquid feeding groove when the comb body is embraced by said back, means to provide communication between said branch passageways and said groove, and a liquid input nozzle on said back, said means to provide communication comprising a pair of elongated semi-circular grooves formed along the length of the sides of said head, said semi-circular grooves being enclosed by the sides of said channel-shaped back, and a connecting transverse passageway formed between said liquid feeding groove and both of said semi-circular grooves.

2,849,010
CARGO HATCH TENT
Frank J. Marino, Brooklyn, N. Y.
Application December 24, 1956, Serial No. 630,392
4 Claims. (Cl. 135—1)

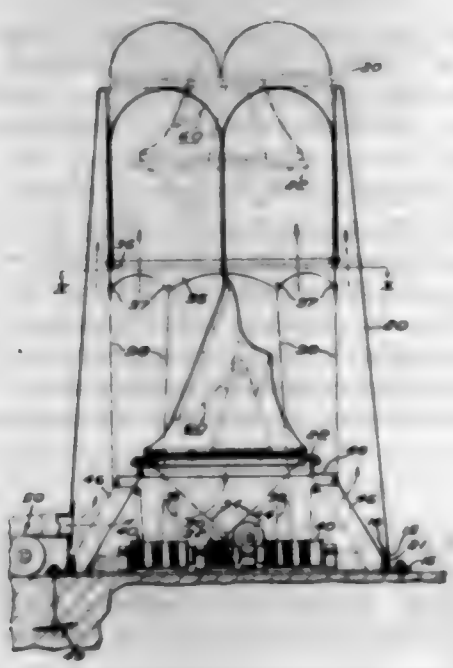
1. A tent for suspension over a cargo hatch in a vessel deck, comprising a top frame of rectangular form in plan and including a pair of parallel opposite side bars, a rear bar normal to said side bars, and a pair of front bars parallel with said rear bar and having the adjacent ends

thereof in spaced relation, and a pair of parallel bars extending inwardly from said adjacent ends of said front bars toward the center of the frame, a pair of trapezoidal shaped flexible side panels having their upper edges secured to said side bars, a trapezoidal shaped flexible rear panel having its upper edge secured to said rear bar, a pair of triangular shaped flexible front panels each having at its upper edge an elongated flap substantially in the



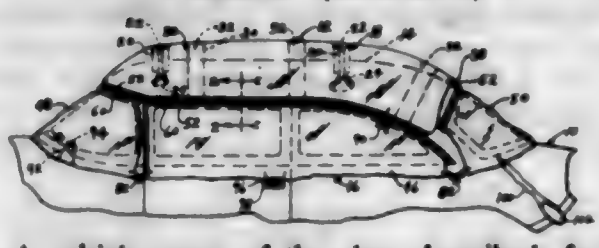
plane of said bars and having one end thereof secured to one of said front bars, said flaps having their adjacent edges in spaced relation providing a slot extending between the bars of said inwardly extending pair thereof, for passage of a load supporting rope from the exterior of the tent to a position over said hatch, means securing the adjacent edges of said panels together, and means for securing the bottom edges of the opposite side and rear panels to the vessel deck.

2,849,011
AIR INFLATED TOWER OR THE LIKE
Walter W. Bird, Williamsville, N. Y., assignor to Birdair Structures, Inc., Buffalo, N. Y.
Application September 26, 1957, Serial No. 686,462
5 Claims. (Cl. 135—1)



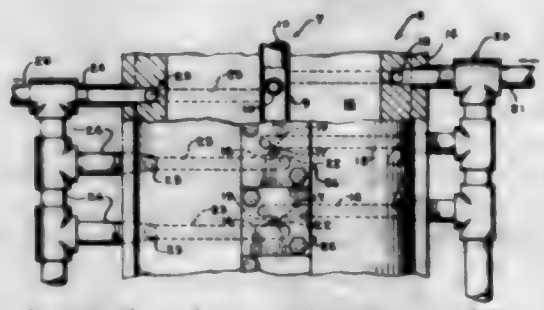
1. A self erecting air inflated tower comprising a rigid base member, an elongated sleeve formed of flexible substantially airtight material fixed at its bottom end to said base member and having a reduced diameter closure member at its upper end sealing the latter, girth panel means encircling said sleeve member intermediately of its ends, tension cables extending separately from said closure member and from said girth panel interiorly of said sleeves, winch means selectively controlling release and tensioning of said cables, whereby said tower may be progressively inflated and deflated by alternate input and release of air from the interior of said sleeve coincident with selective actuation of said winch means.

2,849,012
VEHICLE COVER
Maurice Cohen and Jean Karson, Detroit, Mich.
Application July 12, 1955, Serial No. 521,458
7 Claims. (Cl. 135—5)



1. A vehicle cover of the class described, for use on vehicles having a roofed passenger compartment provided with window areas comprising: a first part adapted to cover the roof of a vehicle and being shaped in accordance therewith; retaining means for detachably anchoring said first part of the vehicle roof in a spaced relationship therewith; said first part being provided with a plurality of fluid storage pockets therein; a second part adapted to cover the window areas of the vehicle and being shaped in accordance therewith; and, fastening means for detachably fastening said second part to the vehicle.

2,849,013
MULTIPLE JET PIPE RELAY REGULATOR
Bernard L. Callender, Harvey, Ill., assignor to Askania Regulator Company, Chicago, Ill., a corporation of Illinois
Application July 27, 1956, Serial No. 600,497
6 Claims. (Cl. 137—83)

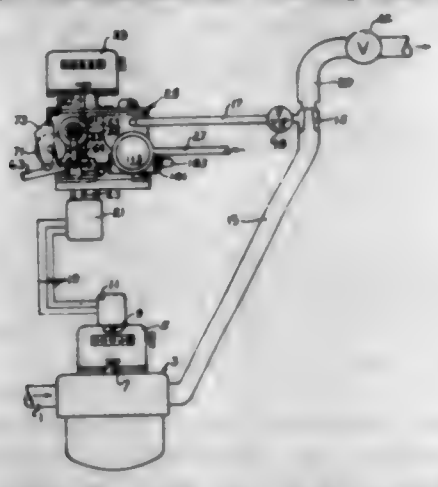


1. A hydraulic relay regulator comprising an ejector structure and a receiver structure and support means interconnecting said structures for movement of one relative to the other in preselected directions and in a preselected path, said ejector structure having plural fluid discharge apertures and internal passage means for delivering fluid to them for discharge as multiple jets, and said receiver structure having plural distributor members each of which has at least one receive port, said distributor members corresponding in number to said discharge apertures, each of said distributor members being disposed for cooperation with a different one of said apertures, and said apertures and ports being relatively disposed for corresponding variation in degrees of registration of the various said ports with the respective cooperative said apertures as a consequence of movement of said one structure relative to the other, said receiver structure having internal passage means communicating with said ports for delivery of fluid that they receive from said apertures and said regulator including structure provided with a common delivery passage and branch passageways interconnecting said delivery passage with said receiver structure passage means.

2,849,014
LIQUID PROPORTIONER
Ralph B. Pressler and Victor O. Walker, Fort Wayne, Ind., assignors to Bowser, Inc., Fort Wayne, Ind., a corporation of Indiana
Application May 28, 1952, Serial No. 290,392
6 Claims. (Cl. 137—98)

1. A proportioning meter comprising a double-acting displacement mechanism, means for supplying liquid

thereto, a valve movable between two positions for controlling the flow of liquid to and from the displacement mechanism, a mechanism for moving said valve quickly



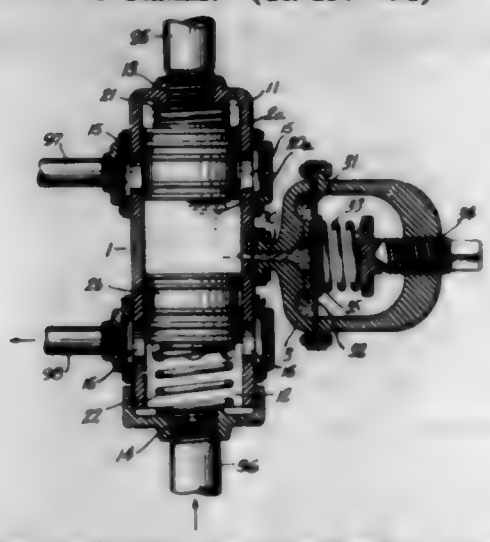
from one position to the other and means connected to the displacement mechanism for controlling the rate of travel thereof.

2,849,015

TANK PRESSURE COORDINATING MECHANISMS

William J. Colson, Mercer Island, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application September 27, 1954, Serial No. 458,422
6 Claims. (Cl. 137—98)



6. Valve mechanism for coordinating pressure in two tanks such as supply individual interreacting fluids to a common burner or the like, comprising a hollow valve casing, a first and a second spill port spaced axially of said valve casing by a given distance, a first and a second pressure port leading to the respective ends of the valve casing, outwardly of the corresponding spill ports, for connection to the respective tanks, plunger means guided for axial movement within said valve casing, of an axial length at least sufficient to span both such spill ports simultaneously, spring means reacting between the respective ends of the plunger means and the corresponding ends of the valve casing, to maintain the plunger means normally positioned to close both spill ports simultaneously, but shiftable axially in the event of application of a pressure force from one pressure port in excess of the resisting pressure force from the other pressure port, to uncover the spill port at the end corresponding to the then higher pressure port.

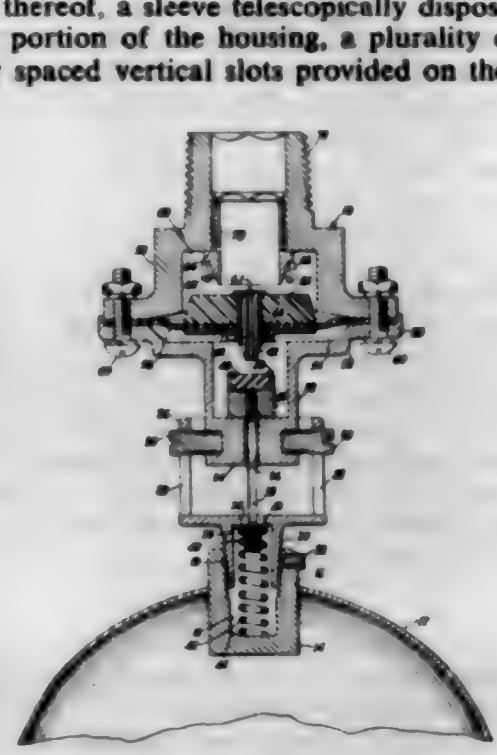
2,849,016

AIR ELIMINATOR VALVE

Glen R. Nations, Tulsa, Okla., assignor to Oil Capital Valve Company, Tulsa, Okla., a corporation of Oklahoma

Application April 20, 1955, Serial No. 502,712
2 Claims. (Cl. 137—202)

1. In combination with a pipe line, a gas eliminator valve comprising a sectional housing, a diaphragm secured within the housing to provide an upper chamber and a lower chamber, means in the upper chamber for providing communication between the interior and exterior thereof, a valve carried by the diaphragm, a passageway therethrough, a valve seat surrounding the valve and disposed in the upper chamber, a second valve, a fluid passageway therethrough, said second valve threadedly secured within the upper chamber and adapted to cooperate with the valve seat therein to intermittently permit exhaust of gas from the upper chamber, a second valve seat slidably disposed within the lower chamber and adapted to cooperate with the first mentioned valve to facilitate the operation thereof, a sleeve telescopically disposed around the lower portion of the housing, a plurality of circumferentially spaced vertical slots provided on the sleeve, a



plurality of outwardly extending screws circumferentially disposed on the lower portion of the housing and adapted to cooperate with the slots to provide said telescopic relation, a threaded and apertured boss integral with the lower end of the sleeve member and having a threaded cap member secured thereon, a valve stem extending downwardly from the second valve seat through the bottom of the housing, through the apertured boss, and into the cap member a flanged sleeve threadedly secured to the lower end of the stem, a spring surrounding the flanged sleeve and having one end anchored thereto and the opposite end anchored to the cap member, a float member rigidly secured to the cap member and responsive to fluid level differential within the line and cooperating with the sleeve to permit alternately opening and closing of both valves, and means for securing the valve in the pipe line.

2,849,017

INFLATION VALVE FOR PREVENTING UNAUTHORIZED DEFLATION OF TIRES

Leslie Dickens, Eureka, Mo., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application December 17, 1954, Serial No. 475,917
1 Claim. (Cl. 137—223)



A tamper-proof valve for admitting inflationary air into a pneumatic tire and retaining it therein, said valve comprising a valve stem having a central passage extending longitudinally therethrough, an annular seat disposed about one end of said passage and having an outer diameter at least four times greater than the diameter of said passage, an imperforate disc positioned adjacent said

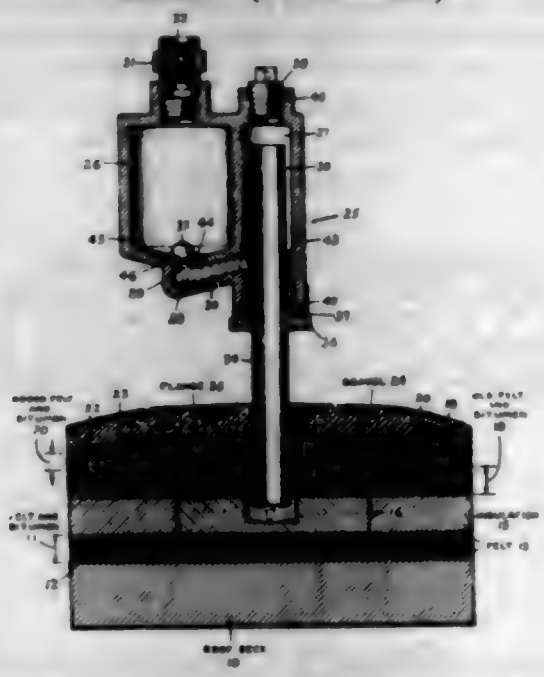
seat and closing said inner end of said passage when in contact with said seat, a support having a portion holding said disc against lateral displacement away from said seat and having a second portion spaced from said seat a distance approximately twice the thickness of the disc, thereby permitting said disc to move axially away from said seat under the force of inrushing air under pressure in said central passage and to move against said seat to close off said passage in response to the pressure of the air acting in the opposite direction, said disc being of flexible material and having a diameter corresponding to the diameter of said seat to permit the central portion of said disc to be displaced axially from the inner end of said passage into contact with said second support portion while the outer annular portion of said flexible disc retains sealing contact with said seat.

2,849,018

VENT VALVE FOR RELIEVING PRESSURE

Joseph W. Donegan, Lecuia, and Benjamin S. Penley, Bergenfield, N. J., assignors to Allied Chemical Corporation, a corporation of New York

Application December 28, 1955, Serial No. 555,966
6 Claims. (Cl. 137—251)



1. A vent valve adapted to release pressure generated within an enclosed system comprising an expansion chamber having a vent in an upper portion thereof, an orifice-valve seat at the lowest portion thereof, a valve closing member seated on said valve seat and sealing the same, a plenum chamber having an aperture in the lower portion thereof, a shallow-draft liquid-passage having a valve-arm extending generally downwardly from said valve seat and a pressure-responsive arm laterally extending from the said aperture of said plenum chamber joining with said valve-arm at the lower extremity of each of said arms, an opening in one end of said plenum chamber, a conduit fixed in said opening for connecting the portion of said chamber above said liquid-passage with the source of pressure to be released, and a liquid filling said liquid-passage to a level greater than the level of said valve seat whereby the junction of said valve closing member and said valve seat is sealed.

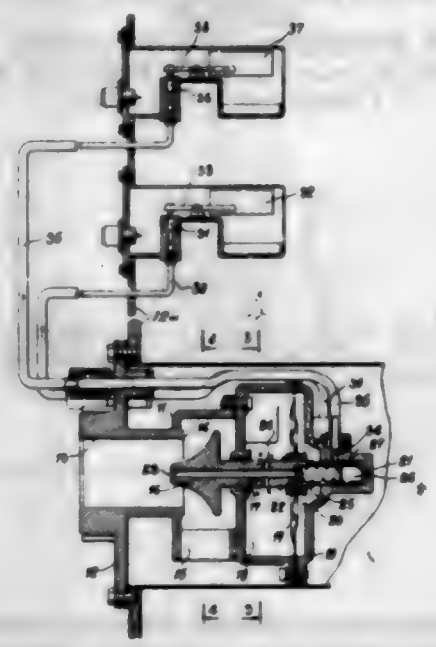
2,849,019

APPARATUS FOR CONTROLLING THE FILLING AND EMPTYING OF TANKS

John V. Olivesa, Greenwich, Conn., and Frederick W. Dalzell, Yonkers, N. Y., assignors to The Aerotec Corporation, Greenwich, Conn., a corporation of Connecticut

Application September 21, 1956, Serial No. 611,144
7 Claims. (Cl. 137—391)

1. Apparatus for controlling the filling and emptying of tanks which comprises a housing, a valve seat mounted on and in advance of said housing through which liquid may pass into and out of said tank, a diaphragm in said housing dividing said housing into a front chamber and a rear chamber, a valve element movable to seat on said valve seat and having a supporting stem extending into said housing and through said diaphragm into said rear chamber and secured to said diaphragm to be moved thereby, said stem having a passage from the front end of said valve element to said front and rear chambers and a



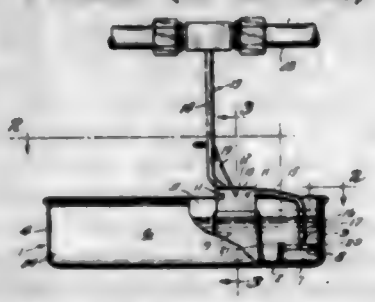
port near its rear end, a pair of float valves outside said housing and above the housing, one at a lower level than the other, a primary conduit extending from said rear chamber to the lower level float valve, a secondary conduit connecting said rear chamber to the higher level float valve and having a port to said rear chamber in sliding abutment with said stem and positioned to align with a port in said stem to be opened by the stem of said valve element when said valve element is near closing position and closed when said valve element is fully open.

2,849,020

DRINKING FOUNTAIN FOR POULTRY AND THE LIKE

John W. Goff, St. Paul, Minn., assignor to United Screw Products & Mfg. Co., St. Paul, Minn., a corporation of Minnesota

Application June 5, 1957, Serial No. 663,811
1 Claim. (Cl. 137—408)



In a device of the class described, an open topped bowl, a relatively rigid conduit tube adapted to be connected to a source of fluid under pressure, said tube having a generally horizontally disposed portion bent to provide an upwardly opening notch-like saddle and a generally vertically disposed discharge end portion terminating within said bowl in closely spaced relation to the bottom of said bowl and adjacent a side wall portion thereof, a compressible sealing member mounted on said bottom of the bowl in underlying relation to the discharge end of said tube, bracket means in said bowl at opposite sides of said saddle, and a horizontally disposed pivot pin mounted in said bracket means and seated in said saddle for supporting said bowl from said saddle for pivotal movements of said bowl in directions to move said compressible sealing member toward and away

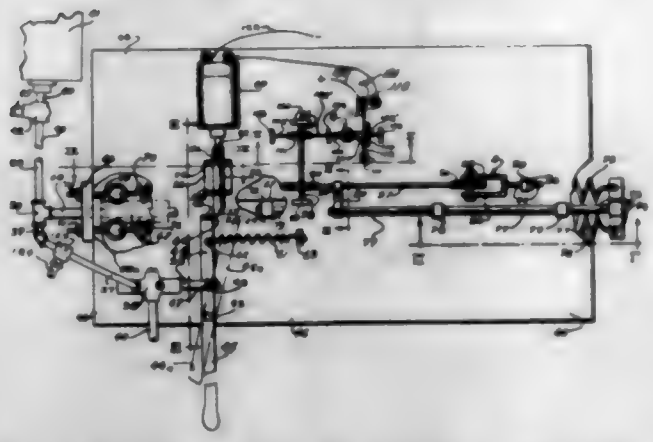
from sealing engagement with the discharge end of said tube, said pivot pin including an angularly disposed anchoring clip portion engaging said tube in spaced relation to the axis of pivotal movement of said bowl to limit axial movement of said pivot pin relative to said tube and bracket means.

2,849,021

AUTOMATIC HYDRAULIC PRESSURE RELEASE DEVICE

Arthur P. Heidenbrand, Oklahoma City, Okla.

Application February 1, 1954, Serial No. 407,481
2 Claims. (Cl. 137—467)



1. In an automatic hydraulic pressure relief valve device; said device comprising a hydraulic pressure cylinder and means connecting the cylinder with a hydraulic pressure system, a hydraulic pressure relief valve, said valve being in a line of the hydraulic pressure system, means in the cylinder and extensible therefrom by hydraulic pressure introduced into the cylinder, a latch bar, means responsive to pressure change in a pressure increasing direction for positioning the latch bar for holding the hydraulic pressure relief valve in a closed position and for operating said latch bar to release the valve to an open position in response to a momentary cessation of hydraulic pressure increase in the hydraulic pressure system, said means for releasing the hydraulic pressure relief valve to an open position being operable from the said means extensible from the said hydraulic pressure cylinder, said relief valve having a lever handle thereon to open and close the valve, a spring, said spring being attached to the lever handle and tensioned to open the relief valve, said means for operating the latch bar comprising a solenoid electric coil having a longitudinally movable core therein, said latch bar engageable with the lever handle to hold the relief valve in a closed position, said latch bar being attached to the said core of the solenoid coil for movement thereby to release the lever handle for valve opening purposes, an electric switch, said solenoid coil and electric switch being included in an electric circuit whereby the coil may be operably controlled by the switch, a governor device, said governor device being associated with said electric switch for purposes of opening and closing the switch, and means intermediate the said governor device and the means extensible form the said cylinder for driving the governor.

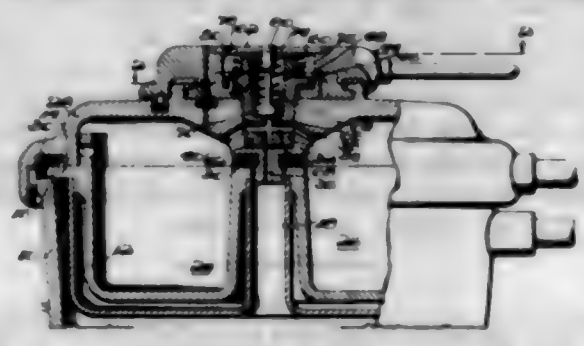
2,849,022

COMBINED PRESSURE RELIEF AND PRESSURE INDICATING DEVICE

Alexander E. Kramer, Washington, D. C.

Original application December 7, 1950, Serial No. 199,695, now Patent No. 2,688,322, dated September 7, 1954. Divided and this application April 13, 1954, Serial No. 423,003
6 Claims. (Cl. 137—512.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A combined pressure relief and pressure indicating device comprising structure forming a tapered seat having an inlet passage in one end thereof, a valve body including a tapered plug adapted to seat on said valve seat and having an axially extending bore adapted to communicate at opposite ends thereof respectively with the said end of said seat in which said inlet passage is formed and a region in the device in constant communication with the atmosphere, a pre-loaded valve having a head reciprocable in a portion of said bore in fluid



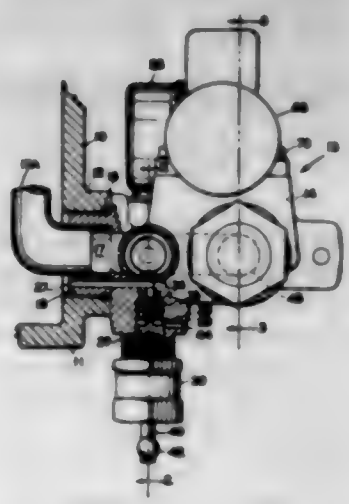
tight relation thereto in response and in proportion to the pressure in the inlet to said seat, means to vent the pressure in the inlet side of said seat through said bore in response to predetermined movement of the valve head under the influence of inlet pressure, and yieldable means to urge said plug axially to seated position with a force exceeding by a predetermined amount the force required to overcome the pre-loaded reciprocable valve.

2,849,023

COMBINATION VALVE MEANS

Jack J. Kelly, Waldwick, and John S. Jaquith, Cedar Grove, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application May 28, 1953, Serial No. 358,066
4 Claims. (Cl. 137—546)



1. A fluid control unit for filling a tank with a pressurized fluid, for delivering the fluid from the tank and for relieving the tank of excessive pressure comprised of a casing, a first bore for communicating with the interior of the tank, a second bore in said casing adapted to receive a pressurized fluid and communicating with said first bore, valve means in said second bore controlling the flow of pressurized fluid therethrough, a third bore in said casing communicating with said first bore and having an outlet, an orifice in said third bore between the junction of said first and third bores and said outlet and having a valve seat facing into said third bore, a valve element slidable on said third bore and having a valve disc for engagement with said valve seat to close said orifice, means carried by said valve element dividing said third bore into first and second chambers, said first bore communicating with said first chamber, resilient means in said second chamber engaged with said valve element and imposing a force thereon tending to move said valve

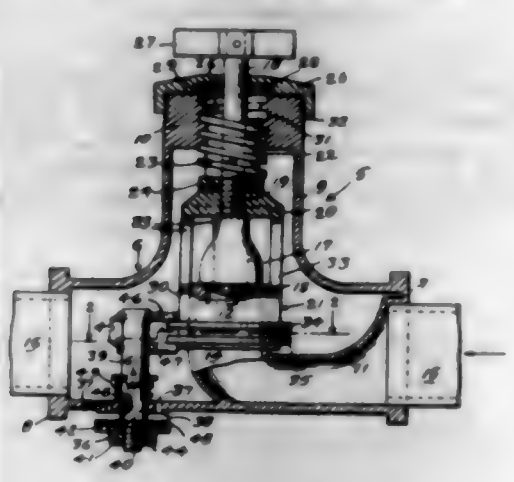
element to closed position, said valve element having effective areas disposed in said first and second chambers, the effective area of said valve element in said first chamber being relative less than the effective area thereof in said second chamber when said valve element is in closed position, and electric solenoid controlled valve means effective in one position to intercommunicate said first and second chambers whereby the pressures therein are balanced and the net force produced thereby on the effective areas of said valve element when it is in its closed position augments the force of said resilient means to maintain said valve element in closed position, and in a second position to vent said second chamber whereby the pressures in said first and second chambers are unbalanced and the net force produced thereby on the effective areas of said valve element moves said valve element to open position against the biasing force of said resilient means to thereby open said orifice and permit flow from the tank through said valve.

2,849,024

WATER VALVE WITH DRAINAGE ATTACHMENT

Robert B. McCann, Three Oaks, Mich.

Application February 23, 1956, Serial No. 567,245
2 Claims. (Cl. 137—596.2)



1. In combination with a regulating valve structure including a casing having an outlet end, a valve seat, a main valve movably disposed in said casing, and manually actuated means for moving the main valve into and out of engagement with the valve seat for shutting off the flow through the casing when said main valve is in a closed position; a bottom-most portion of the casing being provided with a drain port located adjacent said outlet and below the level of the valve seat, said casing being provided with an opening located adjacent said drain port, a post extending slidably through said opening, a sealing element supported by said post beneath the drain port, an actuator connected to and movable in unison with said main valve, and elements fixed to and projecting transversely from said post in longitudinally spaced relation to one another, said elements straddling a part of said actuator whereby when said main valve is moved to an open position and said actuator moves in unison therewith said actuator part by engagement with one of said elements will displace the post inwardly of the casing for moving the sealing element to a position for sealing the drain port and opening, said other element being engaged by said actuator part during movement of the main valve to a closed position for displacing the sealing member away from the drain port, said manually actuated means including a threaded connection between the main valve and casing whereby said main valve and actuator are rotatable about the axis thereof to effect axial travel of the main valve and actuator, said actuator part constituting a segment of a ring, and said elements comprising rollers.

2,849,025

CIRCULATION VALVE

Martin B. Conrad, Downey, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application November 21, 1955, Serial No. 548,060
6 Claims. (Cl. 137—625.48)



5. In valve apparatus: a housing; a tubular mandrel connectible to a tubular string for lowering the apparatus in a well bore and telescoped within said housing; said mandrel being movable longitudinally and without rotation with respect to said housing; a valve seat on said housing; a valve head on said mandrel adapted to engage said seat when said mandrel occupies a first telescoped position within said housing and to be disengaged from said seat when said mandrel occupies a second telescoped position within said housing with said head disposed on one side of said seat; a laterally movable latch carried by said housing; means on said mandrel engaging said latch to locate said mandrel in one of said telescoped positions, said means being adapted to shift said latch outwardly to a position disengaged from said means in response to a predetermined longitudinal force imposed on said means by said mandrel; a stop member threadedly secured to said housing and engaged by said other member for positively locating said mandrel in said first telescoped position within said housing; and means responsive to rotation of said mandrel within said housing for threading said stop member along said housing to a position permitting said mandrel to be disposed in a third telescopic position within said housing with said head disposed on the other side of said seat.

2,849,026

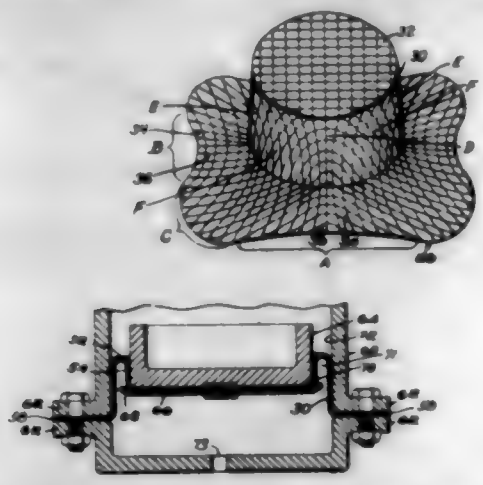
FLEXIBLE FLUID SEALING DIAPHRAGM

John F. Taplin, West Newton, Mass.

Application December 12, 1955, Serial No. 554,756
6 Claims. (Cl. 137—795)

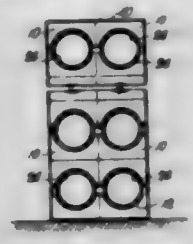
1. A rolling seal diaphragm with a flexible, fluid-tight wall portion having a substantially circular cross section, comprising, a layer of fabric of the type having interlocking fibers and having adherent thereto a fluid-tight layer of elastomer, said layer of fabric being non-extensible longitudinally of said wall and in compression circumferentially thereof to provide limited extensibility circumferentially thereof, said wall having a transversely inwardly extending wall adjacent one end and flange means adjacent the opposite end forming diaphragm attaching means, whereby said wall may roll from an inner surface onto a surrounding outer surface of larger perimeter with respect to which said inner surface is axially relatively movable, said fabric layer giving support at the upper limit of said limited extensibility against fur-

ther stretching, and said fabric layer nowhere in said wall presenting more than a single thickness, whereby



said wall is free of mechanically weakening overlapping pleats.

2,849,027
PIPE SHOE
John J. Tetyak, Mission, Kans.
Application December 23, 1953, Serial No. 399,876
1 Claim. (Cl. 138—48)



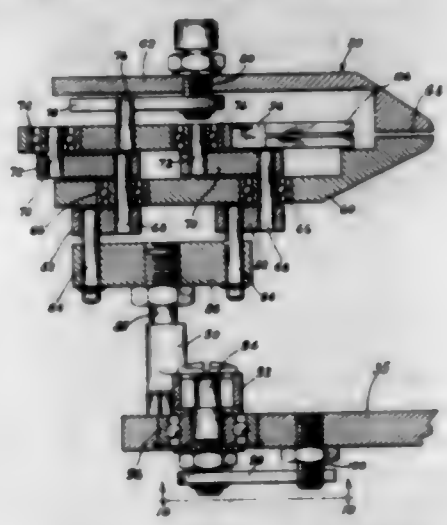
A composite pipe shipping unit comprising in combination a plurality of side-by-side horizontally spaced rows of vertically stacked parallel pipes, each pipe having a corrosion-proof protective coating, a non-corrosive spacer for each pipe, each spacer including an upper shoe and an opposed identical lower shoe, each shoe having a pair of opposed, flat, vertical end walls, an elongated, transversely arcuate, substantially semi-circular concavity extending from one end wall to the opposite end wall, each concavity conforming in contour to and receiving a corresponding pipe in partial surrounding relationship thereto, a pair of opposed, flat, vertical side walls and a flat horizontal face in opposed relationship to the concavity, proximal faces of the shoes of each spacer being in interengagement, each row of vertically stacked pipes being disposed adjacent one row of adjacent vertically stacked pipes, adjacent rows having proximal side walls of the shoes thereof in interengagement, pads lining the concavities, adhesive means bonding the pads of one shoe of each spacer to the pipe coatings, the shoes all being separate one from the other and the other shoe of each spacer being unbonded to the pipes, said pads being resilient whereby the shoes have limited movement relative to the pipe coating; and a continuous rectangular band surrounding the rows of stacked pipe to hold the shoes and pipes together.

2,849,028
CELLULAR PRODUCTS AND METHOD OF MANUFACTURE
Lawrence Clark, Lancaster, Thaddeus J. Grabowski, Salisbury Township, Lancaster County, and Algirdas C. Poshkus, Lancaster, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
No Drawing. Application October 3, 1955
Serial No. 538,262
12 Claims. (Cl. 138—49)

1. The method of making a hollow, cylindrical, flexible, substantially closed-cell cellular article which comprises blending a thermoplastic polyvinyl resin having a long melting point range with a rubbery butadiene copolymer selected from the group consisting of butadiene-styrene and butadiene acrylonitrile copolymers, said resin being present in an amount in the range of about 25–45 parts by weight per 100 parts by weight of said rubber, adding filler and plasticizer to said mix, intimately blending a blowing agent consisting of p,p'-oxybis (benzene sulfonyl hydrazide) therein in an amount of about 1—25 parts by weight per 100 parts by weight of said rubber to form a sulfur-free mixture, extruding resulting mixture to form a hollow, cylindrical object, and heating said object at a temperature sufficient to decompose said blowing agent to isotropically expand said object in the absence of a mold.

8. A hollow, cylindrical article comprising a flexible, substantially closed-cell, cellular, cured, sulfur-free composition comprising a rubbery butadiene copolymer selected from the group consisting of butadiene-styrene and butadiene-acrylonitrile copolymers, a thermoplastic polyvinyl resin having a long melting point range in an amount in the range of about 25–45 parts by weight per each 100 parts by weight of said rubber, plasticizer, and filler, said cells being formed by the gaseous decomposition products of p,p'-oxybis (benzene sulfonyl hydrazide).

2,849,029
WIRE CLOTH SELVAGE FORMING MECHANISM
Clarence Eugene Webber and Lester K. Watson, Jr., York, Pa., assignors to New York Wire Cloth Company, York, Pa., a corporation of Delaware
Application April 23, 1956, Serial No. 579,915
11 Claims. (Cl. 139—130)



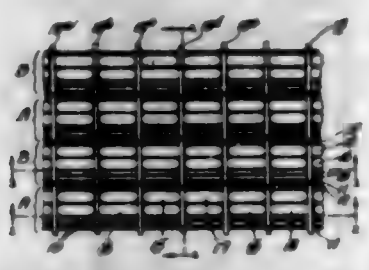
1. Wire cloth selvage forming mechanism comprising a wire cloth weaving loom of the type constructed to position individual cut weft wires between the warp wires, said loom including a stationary frame, gripper carriers operable to position said weft wires as aforesaid with the opposite ends thereof initially projecting beyond the outermost warp wires, a reed bar unit, and harness frames; in combination with tucking units positioned at opposite sides of the loom respectively adjacent the opposite edges of the weave of the wire cloth and interconnected to said stationary frame for support, said tucking units having blades movable into engagement with said oppositely projecting ends of the cut weft wires, actuating pins interconnected to said blades, cam means movably carried by said reed bar unit and interengageable with said actuating pins of said blades when said reed bar is moving in one direction to effect the aforesaid movement of said blades, thereby bending said projecting ends of the weft wires directly into the shed and into position to be abutted by the next inserted weft wire when beat-up thereto by said reed bar unit, said cams being movable past said actuating pins when said reed bar moves in the opposite direction.

2,849,030

PILE FABRIC

Raymond B. Patterson and Harry J. Smiley, Glasgow, Va., assignors to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania

Application April 8, 1957, Serial No. 651,287
4 Claims. (Cl. 139—403)



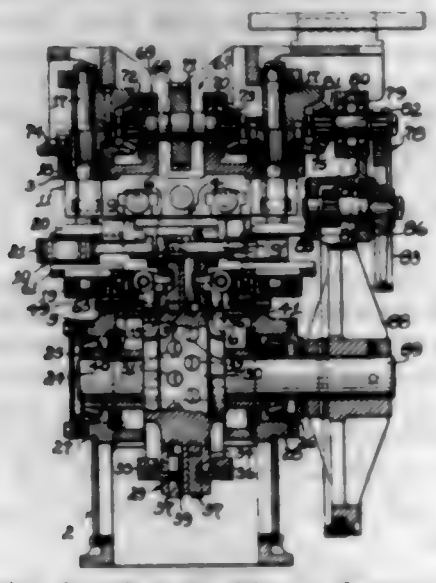
1. A Wilton-type pile fabric having a plurality of co-planar top shots, a plurality of co-planar bottom shots, stuffer warps separating said top and bottom shots, chain warps for binding said top and bottom shots together, and at least two pile warps in warpwise parallel relationship, one of said pile warps being tied down under three successive top shots, carried through to the back under a fourth top and bottom shots and carried back to the face between the fifth top and bottom shots.

2,849,031

WIRE FORMING MACHINE

Svend G. Blumensaadt, Beachwood Village, Ohio, assignor to The Universal Wire Spring Company, Bedford, Ohio, a corporation of Ohio

Application October 7, 1955, Serial No. 539,184
11 Claims. (Cl. 140—71)



1. In a wire forming machine a frame, forming pin supporting means, and supporting and shifting means for the forming pin supporting means, said supporting and shifting means including crank shaft means mounted on the frame and having a crank arm connected to the forming pin supporting means at one area thereof, link supporting means adjustably shiftably mounted on the frame, and a link pivotally connecting the link supporting means with the forming pin supporting means at an area different from the first area thereof, said areas arranged at separate locations to effect shifting of the forming pin supporting means through an adjustable circuitous level path.

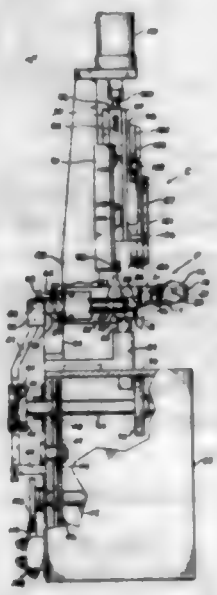
2,849,032

LAMP FILAMENT MOUNTING APPARATUS

Hartley D. Rowan, Cleveland, and Edward C. De George, Parma, Ohio, assignors to General Electric Company, a corporation of New York

Application February 28, 1955, Serial No. 491,113
12 Claims. (Cl. 140—71.6)

1. Apparatus for mounting a filament upon a pair of leading-in wires of a lamp mount, comprising a head for supporting the mount at a filament mounting station, filament forming mechanism at said station comprising filament wire supply means located to one side of said head and including wire-guiding means having a wire-receiving opening through which the filament wire extends from the said supply thereof, a pair of feed jaws located at the other side of said head, means mounting said feed jaws for movement toward and away from said wire-guiding means to grip the end of the filament wire passing through said guiding means and withdraw a length of said wire from said supply means and dispose it across the head, a stationary forming pin at said station extending across said head in a direction normal to the path of movement of said feed jaws and located between the said path and said head, means mounting jaws and wire supply means for movement in unison toward said head to bend the withdrawn filament wire around said forming pin into hairpin shape and arrange it in mounting position at said station



relative to a mount when properly supported in a head at said station, clamping and severing means located at said station and comprising clamping jaws, jaw-closing means coacting with said clamping jaws to close them so as to clamp the ends of the hairpin shaped portion of the filament wire to the ends of the leading-in wires of the mount at said station, a movable cutter knife, knife-actuating means coacting with said cutter-knife to actuate it so as to thereafter sever the portion of the filament wire connected to the leading-in wires from the remainder of the said supply thereof, operating means coacting with said feed jaws to open and retract them so as to release and clear the end of the filament wire while the said clamping jaws are still closed against the ends of the leading-in wires and the ends of the filament wire portion connected thereto, and actuating means operatively connected with said filament forming mechanism, said operating means and with said jaw-closing and knife-actuating means for actuating them in proper time relation.

2,849,033

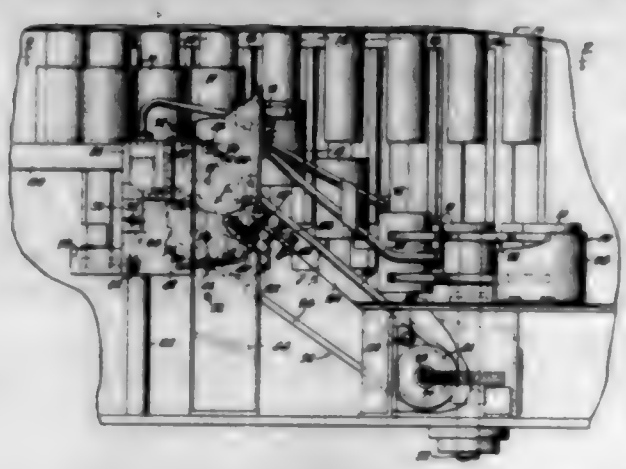
HIGH SPEED CONTAINER FILLING MACHINE

John R. Nalbach, Oak Park, Ill., assignor to John R. Nalbach Engineering Co., Chicago, Ill., a corporation of Illinois

Application March 16, 1956, Serial No. 572,057
12 Claims. (Cl. 141—148)

10. In a machine for filling finely divided material into a moving succession of upwardly open containers, the combination of an annular assembly of downwardly open vertical filling tubes, said assembly being rotatable about a vertical axis to move the tubes through a circular path, a movable container elevating element supported below said filling tubes and defining an upwardly exposed movable surface extending continuously in a

generally straight line underlying a segment of said circular filling tube path and steeply inclined upwardly in the direction of rotary movement of the overlying tubes, said exposed movable surface of said container elevating element having an upper end underlying said tube movement path at a container filling level, operating means connected to said container elevating element to drive the latter in a direction which causes the instantaneous upwardly exposed surface thereof to move toward said upper end thereof along said inclined line of the surface, container support means extending from said upper end of said inclined elevating element surface in the direction of rotary movement of the overlying tubes, and container feeding means mounted to feed containers onto the lower end of said inclined surface of said container elevating element in underlying relation to said tube movement path.

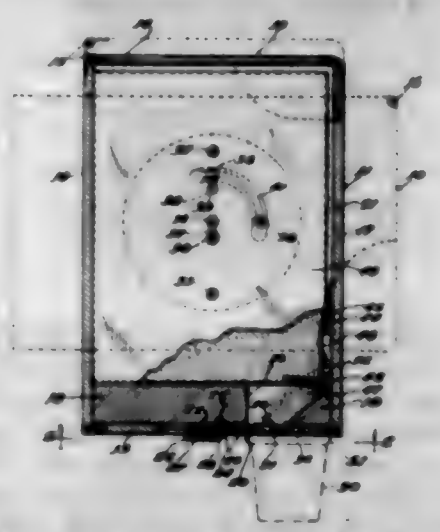


2,849,034
CAN FILLER
Walter A. Barrett, Fort Wayne, Ind., assignor to Fort Wayne Dairy Equipment Company, Fort Wayne, Ind., a corporation of Indiana
Application April 28, 1955, Serial No. 504,495
16 Claims. (Cl. 141—270)



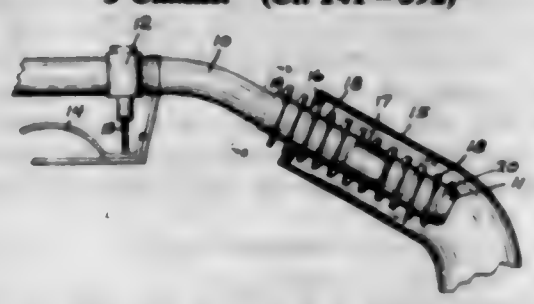
1. A can filler comprising a base, a can supporting platform, means mounting said platform on said base for vertical reciprocating motion, pneumatic motor means for reciprocating said platform, a fill tube, means mounting said tube for vertical reciprocating motion and pneumatic motor means for reciprocating said tube, a liquid container, means connecting said container for supplying liquid to said tube and means controlled by the tube, as it reciprocates, for starting and stopping the flow of liquid through the tube.

2,849,035
POWDERED SOAP AND DETERGENT DISPENSING DEVICE
Ole Morvy, Escanaba, Mich.
Application August 4, 1955, Serial No. 526,386
5 Claims. (Cl. 141—360)



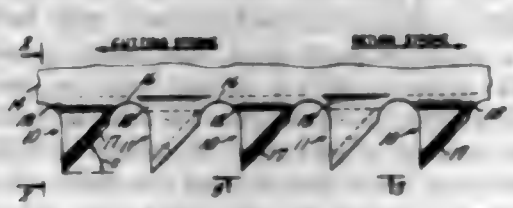
1. A dispensing device for powdered soap, detergents, and the like, comprising a housing adapted to contain a supply of powdered soap, detergent, or like material, means for detachably mounting said housing upon a vertical supporting wall surface, said housing including a bottom wall having a discharge outlet therein, manually operable slide means slidably mounted upon said bottom wall of said housing and normally closing said discharge outlet, resilient means normally urging said slide means into position to close said discharge outlet, a dispensing receptacle comprising a cup-like body having an annular ferrous metallic element encircling said body adjacent the top thereof, means for slidably retaining said dispensing receptacle upon said bottom wall of said housing adjacent said discharge outlet, said last named means including a plurality of magnets mounted in spaced relationship to each other on the bottom wall of said housing and adapted to magnetically attract said ferrous metal element so as to retain and removably hold said receptacle upon said bottom wall of said housing, said slide means including a slide bar having a portion normally extending below and closing said discharge outlet, said slide bar having a plurality of spaced lugs depending therefrom in position to be engaged by the wall of said receptacle to enable said slide bar to be slidably moved upon the bottom wall of said housing by manual pressure applied to said receptacle so as to move said slide bar into position to open said discharge outlet.

2,849,036
LIQUID BAFFLE FOR GASOLINE DISPENSING NOZZLES
Fred B. Davenport, Jr., Sioux City, Iowa
Application October 5, 1955, Serial No. 538,719
3 Claims. (Cl. 141—392)



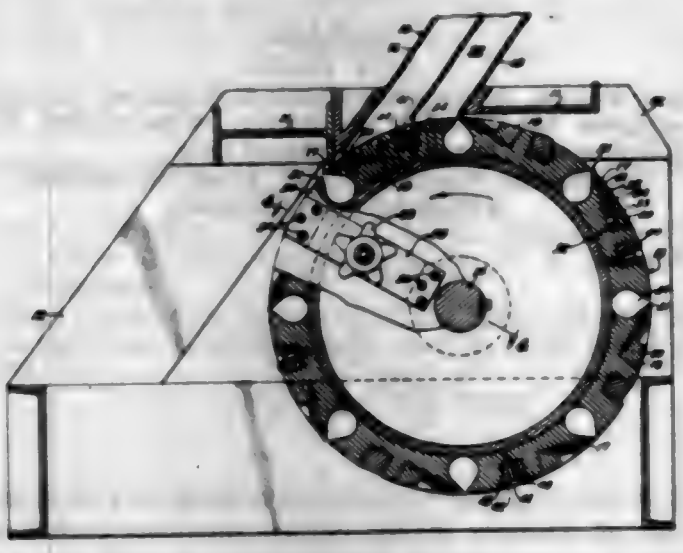
1. A liquid baffle for gasoline dispensing nozzles comprising a continuous helically wound flange member adapted to receive the end of said nozzle to thereby provide a helical passageway for displaced air passing from a gasoline tank, a cylindrical sleeve to which said flange member is attached, said sleeve snugly receiving said nozzle end.

2,849,837
RECIPROCATING SAW BLADE
John W. Wright, Stratford, Conn.
Application December 9, 1954, Serial No. 474,173
5 Claims. (Cl. 143—133)



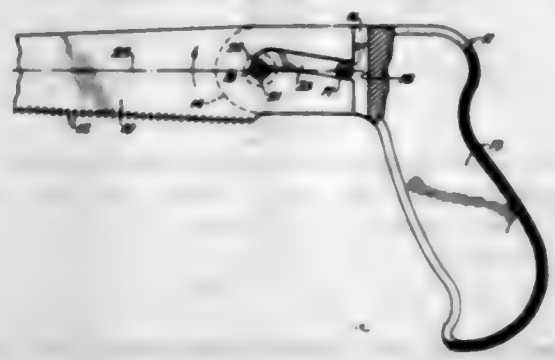
1. A reciprocating saw blade comprising a plurality of saw teeth extending from a blade body and spaced along an edge thereof, a laterally offset root joining each tooth in a laterally offset relation to the blade, adjacent teeth being laterally offset in opposite directions, a vertical leading face formed on each tooth approximately perpendicular to the longitudinal axis of the blade, the vertical leading face of each tooth forming with the plane of the blade in the offset direction of said tooth an angle of at least 90 degrees to advance sawdust in one direction along a kerf being cut during a cutting stroke of the blade, a beveled face extending towards the blade body and away from the leading face to form a cutting edge and point on each tooth, the bevel of the beveled face extending towards the blade body and inwardly from the cutting point, the beveled face of each tooth forming with the plane of the blade in the offset direction of said tooth an acute angle to bypass sawdust by urging it towards the side of the kerf remote from said tooth during a return stroke of the blades, the lateral offset of the leading face being greater than that of the beveled face, and the lateral offset of the cutting point being greater than that of the root, whereby reciprocation of the saw blade in the kerf progressively moves sawdust along the kerf in one direction.

2,849,838
MACHINE FOR PRODUCING FIBROUS WAFERS
James d'A. Clark, Longview, Wash., assignor to Changewood Corporation, Chicago, Ill., a corporation of Illinois
Application June 16, 1954, Serial No. 437,265
10 Claims. (Cl. 144—172)



1. In a machine for cutting slices from a body of wood, the combination comprising a rotatable supporting member, abutment means on said supporting member defining an abutment surface thereon, means adjacent said supporting member for guiding a wood body toward said abutment surface in a predetermined plane downwardly inclined toward the direction of rotation of the rotatable supporting member whereby the wood body is caused to be fed down the plane by the movement of the supporting surface in combination with gravity, a cutting blade mounted on said supporting member for movement therewith along a circular path, said blade having a cutting edge spaced in front of said abutment surface and extending substantially perpendicularly to said path and said predetermined direction for cutting slices from the wood body, adjusting means on said rotatable supporting member for varying the relative spacing between said cutting edge and said abutment surface at the opposite ends of said cutting blade and thereby regulating the relative thicknesses of the slices at the opposite ends thereof, a manually movable control member at a stationary point adjacent said rotatable supporting member, and clutch means responsive to movement of said control member and operatively connected to said adjusting means for operating said adjusting means during rotation of the supporting member.

2,849,839
SAW CONSTRUCTION
Raymond C. Dreier, Chicago, Ill., assignor to Dreier Brothers, Inc., Chicago, Ill., a corporation of Illinois
Application February 13, 1957, Serial No. 639,869
1 Claim. (Cl. 145—31)

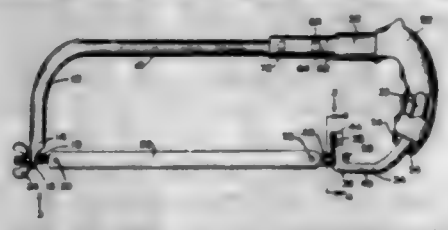


In a saw structure having a removable blade, a saw blade equipped with teeth along a longitudinal edge thereof, said blade being provided at one end thereof with a single channel having an open end substantially centered on the longitudinal axis of said blade, said channel extending from the open end thereof in a diverging relationship with respect to the axis of said blade and terminating at its inner end in an offset socket centered on the axis of the blade and having abutment walls substantially normal to the axis of the blade and spaced from each other along said axis, a handle having a slot therein for receiving the channel-equipped end of said blade, and a pair of spaced apart pins mounted in said handle and extending transversely across said slot, said pins being slidable within said channel, one of said pins being snugly received in said socket and between said abutment walls to prevent longitudinal movement of said blade with respect to said handle when the blade is mounted within the handle and the other pin being snugly received in the open end portion of the channel.

2,849,040
HACK SAW
Carl E. Tideman, Millbury, Mass., assignor to Tideman Manufacturing Co., Inc., Millbury, Mass., a corporation of Massachusetts
Application September 16, 1957, Serial No. 684,327
3 Claims. (Cl. 145—34)

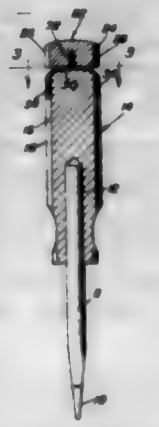
1. A hack-saw comprising a pair of tubular members one of which is of lesser diameter than the other and telescopes therewithin, the one tubular member including a down-turned arm, a flat pressed end portion on the down-turned arm, side flanges on the flat end portion, said flat end portion being apertured, a blade-holding pin in the aperture, the other telescoping tubular

member being in the form of a U, one leg of which slidingly receives the said one tubular member, a detachable connection in the telescoping portions of said tubular members, the other leg of the U being pressed to



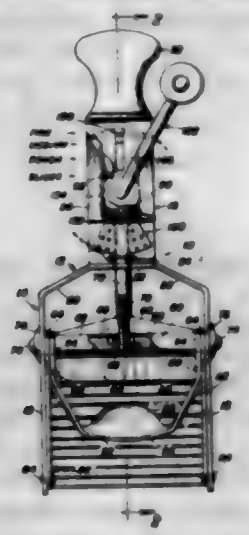
form a flat end portion at an angle to said other leg, the same being apertured, a blade-holding pin in the aperture, and means on the last-named pin for holding the blade, said flat end portions being substantially parallel.

2,849,041
ATTACHMENT FOR A SCREW DRIVER HANDLE
Michael Vetri, Hasbrouck Heights, N. J.
Application May 9, 1957, Serial No. 658,097
1 Claim. (Cl. 145—61)



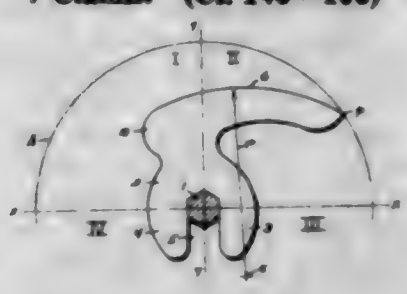
An end thrust and rotating attachment for the outer end of a fluted screw driver handle comprising a generally circular marginally fluted end thrust head having a flat bottom face, a concavo-convex washer, a headed fastener securing said washer centrally to the flat face of said head, said washer being of a diameter less than the diameter of said head, the outer peripheral edge of said washer having diametrically opposite pairs of springy metal fingers, the fingers of each pair being in divergent relationship and suitably curved and shaped to resiliently embrace and clasp the end portion of a screw driver handle.

2,849,042
FOOD SLICER AND DICER
Georg Westenrieder, Montreal, Quebec, Canada
Application July 26, 1956, Serial No. 600,241
7 Claims. (Cl. 146—78)



2. A food slicer comprising a supporting frame, a fixed series of knives carried by said supporting frame for simultaneously slicing an article of food, a pressure member for engaging an article of food to move the same through said knives, mounting means pivotally mounting said pressure member on said supporting frame, and feed means carried by said supporting frame and connected to said pressure member for moving said pressure member relative to said knives, said feed means including a variable speed drive, said variable speed drive including a driven shaft, a driven gear on said driven shaft, a drive shaft, a drive gear on said drive shaft, said drive gear having a plurality of series of drive teeth, means mounting said driven gear on said driven shaft for movement relative to said drive gear whereby different ones of said drive teeth may be selectively meshed with said driven gear.

2,849,043
SAUSAGE MEAT CUTTER KNIFE
Hans Jansen, Hildesheim, Germany
Application December 7, 1955, Serial No. 551,624
7 Claims. (Cl. 146—106)



1. A cutter knife for use in sausage meat processing machinery fixed to a rotary axis by a slot and having a cutting edge curving outwardly from its axis of rotation, in which cutter knife the cutting edge is disposed to the right and left of a line passing through the center of said slot and extends into first and second consecutive quadrants of the circle described by its tip with the tip disposed in the second quadrant, said cutting edge commencing at a point spaced from said axis of rotation, consecutive points along said cutting edge approaching the said circle gradually at an average tangent angle of approximately more than 10°, said tangent angle being the angle formed between a line tangent to the cutting edge of the knife and a line tangent to the said circle with both lines of tangency being located on a common radius of said circle.

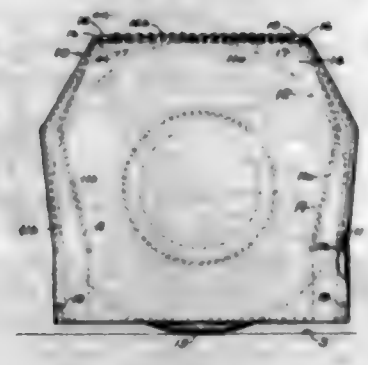
2,849,044
KEY CASE
Georg Reitzel, Altenmittlau Kreis Gelnhausen, Germany, assignor to Drescher & Kiefer, Altenmittlau Kreis Gelnhausen, Germany, a German firm
Application March 19, 1957, Serial No. 647,010
6 Claims. (Cl. 150—40)



1. A carrying case for keys comprising, in combination, a pair of similarly shaped closure members each having a pair of spaced parallel longitudinal side walls and a pair of spaced parallel transverse end walls, hinge means pivotally connecting corresponding side walls of each of said closure members together, spring means associated with said hinge means for biasing said closure members toward an open position, latch means associated with the opposite corresponding side walls releasably securing said case in a normally closed position against the action of said

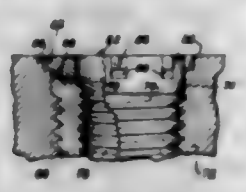
spring means, each of said closure members including a frame having an outwardly disposed flat flange and an inwardly disposed annular flange defining a key receiving opening, a cover shell having a continuous outer surface and an inwardly turned peripheral lip spaced from the inner surface of said shell, fastening means carried by the sides of each frame for securing said associated cover shell thereto, one of said end walls of one of said members having a shallow recess defining with the corresponding end wall of the other of said members an elongated slot providing communication between the interior and exterior of said case when said members are in said closed position.

2,849,845
WHEEL COVER
Elmer E. Anderson, Two Harbors, Minn.
Application January 7, 1957, Serial No. 632,741
3 Claims. (Cl. 150—54)



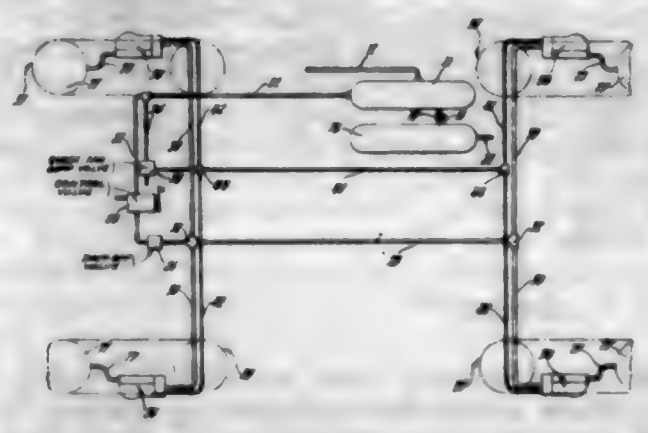
1. A cover applicable to a wheel of an automobile, comprising a resilient rod frame having an intermediate portion engageable with the tire tread at the top of the wheel and also having opposite depending end portions spaced from each other and converging in a downward direction at a position below a horizontal diameter of the wheel for engaging the tire tread at the opposite sides of the wheel at a position below a horizontal diameter thereof, the ends of the rod frame being disposed in widely spaced relation upwardly from a horizontal plane at the bottom of the tire tread, and a covering member constructed of flexible sheet material and secured to the end and intermediate portions of the frame in overlying and protecting relation with the outer face of the wheel, said covering member extending downwardly from the ends of the frame into close proximity with the horizontal plane at the bottom of the tire tread, whereby to adequately protect the wheel from paint spray and the like, yet facilitate ready and easy application and removal of the cover to and from the wheel.

2,849,046
INSERT FOR SOFT MATERIALS AND LOCKING MEMBER THEREFOR
Louis A. Cummaro, Monterey, Mass., assignor to Phillips Screw Company, New York, N. Y., a corporation of Delaware
Original application August 10, 1953, Serial No. 373,322. Divided and this application April 9, 1957, Serial No. 651,716
5 Claims. (Cl. 151—41.73)



1. The combination comprising a hollow, externally threaded insert adapted for installation in a body formed with a screw-threaded socket, one end of said insert being provided with a coaxial counterbore, the walls of said insert defining said counterbore being slotted from said one end, and a locking member comprising a ring portion adapted to fit within said counterbore and a plurality of teeth extending from said ring portion and adapted to be received within said slots, said teeth being adapted to extend outwardly of said insert and to project into said parent body upon engagement of said locking member and said insert to lock the same against rotation relative to said parent body.

2,849,047
PRESSURE CONTROL SYSTEM
Adam S. Lamont and Edwin T. Todd, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 15, 1954, Serial No. 436,964
2 Claims. (Cl. 152—417)

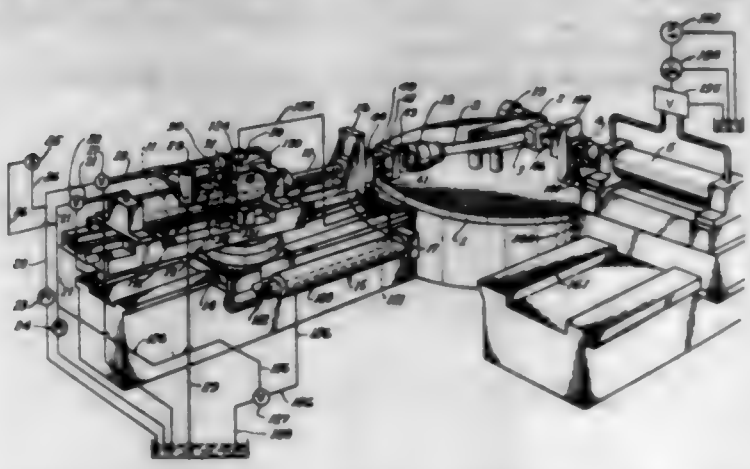


1. A pressure control system adaptable for use in inflating and deflating vehicle tires while in use and which includes a source of pressurized air having an air manifold connected thereto, branch air lines connected to said air manifold and extended to each vehicle tire, means for controlling the air pressure within said manifold and branch air lines, full pressure air lines connected to said source of pressurized air and extended to each vehicle tire, and a valve assembly connected between and to the ends of said branch and full pressure air lines and to each of said vehicle tires, said valve assemblies each having a passage in direct communication with said tire and a free floating double ended shuttle valve disposed within said passage, said full pressure air lines being connected in said passages for moving said shuttle valves to close one end of said passage and to open the other end thereof, and said branch lines being connected into said passages intermediate the ends thereof for access through the open ends of said passages with said tires, said shuttle valve closing said one end of said passage as long as the air pressure in said full pressure air lines exceeds the air pressure in said vehicle tires.

2,849,048
STRETCH AND WIPE FORMING APPARATUS WITH TENSION, YIELD, AND ELONGATION CONTROL
Richard L. Curtner, Solon, Ohio, assignor to The Cyril Bath Company, Solon, Ohio, a corporation of Ohio
Application June 24, 1957, Serial No. 667,376
10 Claims. (Cl. 153—40)

1. In a metal forming machine for forming a length of metal stock against a curved face die progressively unidirectionally from one part of the curved face to another part while the stock is held under tension endwise, at least adjacent the instantaneous line of tangency of the stock and curved face, and including a die having a curved face, tool means operatively connected to the stock and adapted to apply endwise tension to the stock, fluid pressure operated piston and cylinder assemblage means connected to the tool means for tensioning the stock through the medium of the tool means in relation to the pressure of working fluid supplied to the assemblage

means, means supporting the die and assemblage means for relative movement for progressively unidirectionally applying the stock against said curved face of the die, power driven means to effect said relative movement, a fluid circuit for supplying pressure fluid to the assemblage means, and settable valve means in the fluid circuit settable in different operating positions for controlling the pressure of the operating fluid supplied to the assemblage means; load cell means operatively interposed between the assemblage means and tool means so as to be strained substantially only by the tensioning forces applied by the tool means to the stock, reversible electric



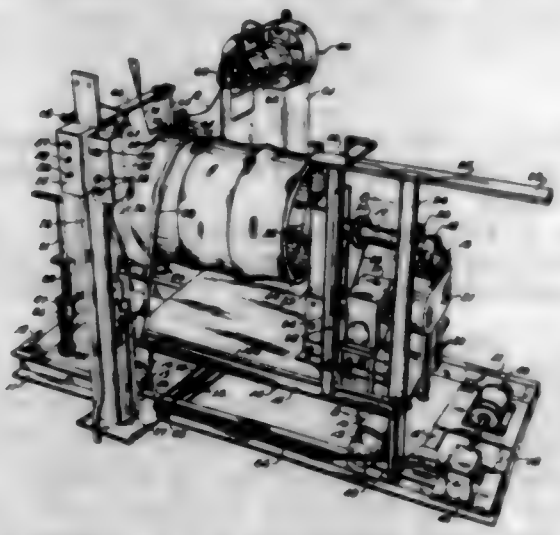
motor means operable when energized for setting said valve means in said different operating positions, strain gauge means operable, when in an energized signal circuit, to produce changes in electrical signals in the circuit in response to certain changes in the condition of the strain gauge means, electric circuit means including a circuit connecting the motor means and strain gauge means for operation of the motor means in response to changes in the electric signals produced in the electric circuit means by the strain gauge means, and said strain gauge means being connected to the load cell means so that said changes in the condition of the strain gauge means are produced in relation to changes in the strain of the load cell means.

2,849,849

METHOD OF FORMING AN ENDLESS TIRE TREAD AND SIDEWALL PORTION ON A CARCASS BAND AND PRODUCT THEREOF

Elmo E. Hanson, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application May 16, 1956, Serial No. 585,357
9 Claims. (Cl. 154—14)



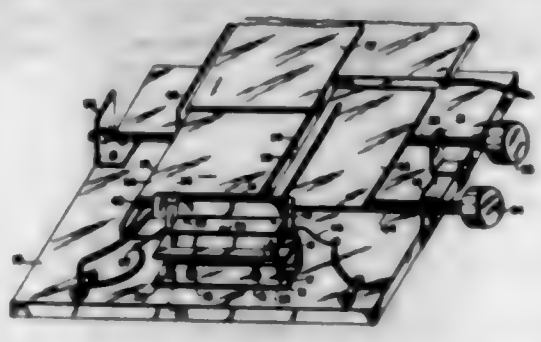
3. The method of forming an endless tread-sidewall portion on the carcass band of a vehicle tire preparatory to molding the tire into finished shape, which comprises the steps of forming a heated continuous ribbon of elastomeric tire material, said ribbon being substantially diamond-shaped in cross section and of the order of .2" wide and .05" thick, applying the ribbon progressively to the carcass band while rotating said carcass on its axis at a peripheral speed substantially equal to the linear speed of said ribbon to wrap the ribbon around the carcass band a plurality of times, moving the carcass and ribbon relative to each other axially of the carcass as the ribbon is wrapped around the carcass so as laterally to overlap adjacent turns of the ribbon, and reversing said relative movement at intervals to build up a tread and sidewall portion of desired contour having uniform density and balance.

2,849,850

ADJUSTABLE HEAT SEALING ENVELOPE FORMING DEVICE

Leonard A. Meyerson, Highland Mills, N. Y.

Application April 18, 1956, Serial No. 579,068
2 Claims. (Cl. 154—42)



1. An adjustable heat sealing envelope forming device comprising a frame, a sealing bar element mounted on the frame, a table movably mounted on the frame adjacent said sealing bar element, a cutter blade positioned behind said sealing bar element and parallel thereto, means to move the table on the frame parallel to the cutter blade, a second sealing bar element disposed perpendicular to the first mentioned sealing bar element, a second cutter blade parallel to the second sealing bar element, means to heat said sealing bar elements, a flanged guide plate movably mounted on the table, and a rack and pinion means connected to the flange to move the guide plate toward and away from the first mentioned sealing bar element, a resilient member mounted between the first mentioned sealing bar element and the frame and another resilient member between the table and the frame resiliently to mount said sealing bar element and the table on said frame, said resilient members being pairs of coil springs, said means to heat the sealing bar elements being electrical circuits with fixed and movable terminals, said movable terminals being mounted on the sealing bar elements and adapted to bear against the fixed terminals to close the circuits to the sealing bar elements when said elements are depressed.

2,849,851

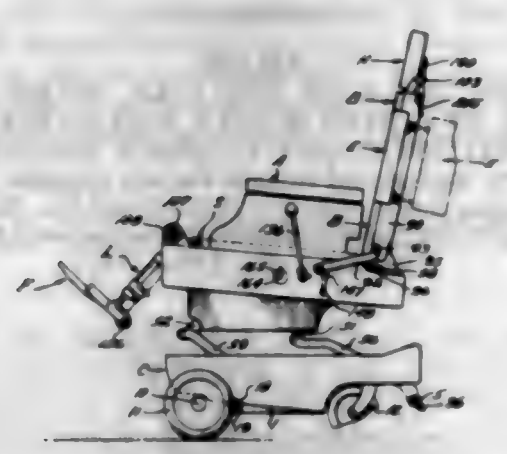
CONVERTIBLE WHEELED CHAIR

George W. Streeter III, Longmeadow, Mass.

Application December 5, 1956, Serial No. 626,523
13 Claims. (Cl. 155—30)

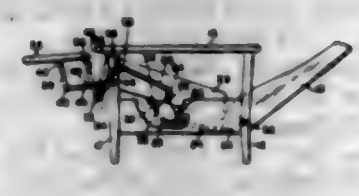
1. A convertible chair, comprising a mobile chassis, a seat including a frame, means supporting said frame from the chassis for raising and lowering movements, a hydraulic jack mounted on the chassis and connected to the seat frame for raising the same by hydraulic pressure, a back connected to the rear of the seat frame, leg rests including frames pivotally connected to the front of the seat frame one on each side thereof, hydraulic jacks one for each leg rest and connecting each leg rest frame to the seat frame for raising the leg rest frame by hydraulic pressure, a distributing conduit, a pump mounted on the seat frame and operable by an occupant of said seat for supplying liquid under pressure to said conduit, a first

control means on the seat frame operable by an occupant of said seat for selectively connecting said jacks to said conduit, whereby the jacks may be operated the one independently of the other, and a second control means on



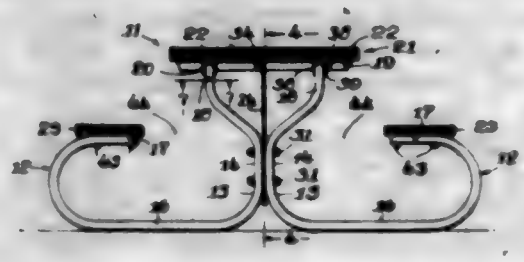
the seat frame operable by an occupant of said seat for releasing pressure from said conduit and any jack connected thereto to allow lowering of the frame that was raised by the jack.

2,849,053
LEG REST RECLINING SEATING UNITS RETRACTABLE UNDER SEAT
Fridtjof F. Schliephacke, Berlin-Dahlem, Germany, assignor to Anton Lorenz, Greenwich, Conn.
Application June 8, 1956, Serial No. 590,284
7 Claims. (Cl. 155—106)



1. A reclining article of furniture having a stationary frame, a seat and a back rest and means for mounting said seat and back rest on said frame permitting tilting movement thereof with respect to the frame, a leg rest and a system of linkage for supporting the leg rest from the seat and causing movement thereof from a retracted position below the seat to a projected position when the seat is tilted, said system including links attached to the leg rest at spaced points from front to rear of the leg rest, said system including at least one pair of crossed links pivoted to each other at their point of crossing, one of said links being pivoted to the seat near the front thereof, a leg rest lever pivoted between its ends to the seat at a point spaced from the point at which the crossed link is pivoted to the seat, said leg rest lever being pivoted at one end to the other of said crossed links and having an extension beyond the point at which it is pivoted to the seat, at least one guide member pivoted to a part of the article of furniture, connections between guide member and a part of the article of furniture relatively movable with respect to the part of the article of furniture to which the guide member is pivoted, when the seat and back rest are tilted, and a leg rest operating link connected at one end to the extension of said leg rest lever at a point spaced from the point at which said lever is pivoted to the seat and operatively connected at its other end to a guide member at a point spaced from the point at which said guide member is pivoted to the first named part of the article of furniture, said leg rest operating linkage being so constructed and arranged that said leg rest operating link holds the leg rest retracted under the seat in upright sitting position and holds the leg rest projected in reclining position.

2,849,053
CONSTRUCTION OF FOLDABLE PICNIC TABLE
Ray M. Beller and Frank W. Beller, Aurora, Ill., assignors to Beloon Manufacturing Company, North Aurora, Ill., a partnership
Application September 23, 1957, Serial No. 685,613
1 Claim. (Cl. 155—124)



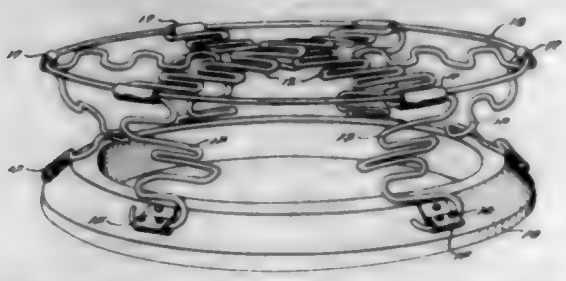
In a foldable picnic table comprising an end frame having a pair of tubular pedestal members each bent to provide an intermediate portion and a table supporting portion, a ground contacting portion, and a return bend seat supporting portion, that improvement wherein the pedestal members are fastened together at their intermediate portions, the upper ends of the pedestal members being flared outwardly therefrom to somewhat U-shape, an attachment bar extending across the said upper ends, hinge means connecting each upper end to said attachment bar, said intermediate portions having vertically spaced connecting means each including a bolster sleeve, the intermediate portions having confronting openings respectively receiving the bolster sleeve, perforations in the intermediate portions opposite said bolster sleeve on their outer faces respectively, reduced with respect to the bolster sleeve, a cross pin passing through said openings, perforations and bolster sleeve, and cap nuts on each end of the cross pin, confronting holes in the pedestal members in a region between their intermediate portions and their ground contact portions, said members being spaced apart thereat, a pintle in said holes having its ends extending into said members and of a length approaching the outer walls of the members, and a brace rod articulated with the pintle, the members being unapertured on their outer walls opposite said pintle whereby said pintle is held in position against accidental removal until said interengaging means are disengaged.

2,849,054
FOLDING FURNITURE STRUCTURE
William L. Shepherdson, Phoenix, Ariz., assignor to J. E. Meacham, Phoenix, Ariz.
Application October 29, 1956, Serial No. 618,744
4 Claims. (Cl. 155—139)



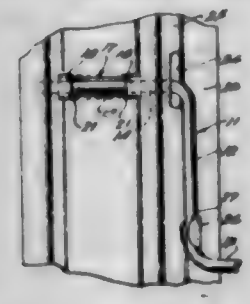
1. A folding furniture structure having a top board, a leg element including a leg, a support arm having one end pivotally connected to said top board and its other end pivotally connected intermediate the ends of said leg, a yielding tension means connected to said support arm to one side of a plane defined by the axes of pivotal mounting of the ends of said support arm with said top board and said leg, means on the upper end of said leg to automatically connect the upper end of said leg to said top board when said legs are opened to load carrying position, and means to connect the other end of said yielding tension means to said top board.

2,849,055
CIRCULAR SINUOUS SPRING SEAT
Paul Weinberger, Garden City, Mich., assignor to No-Sag Spring Company, Warren Township, Mich., a corporation of Michigan
Application January 23, 1952, Serial No. 267,789
3 Claims. (Cl. 155—179)



1. A spring assembly comprising a plurality of like formed sinuous spring strips each having a central load supporting portion and upper and lower terminal end portions, said strips having the load supporting portions in crossed relation at the center of the assembly, and upper and lower ring members secured to the upper and lower terminal end portions.

2,849,056
SUPPORTING MEANS FOR SINUOUS SPRINGS
Hyland C. Flint, John F. Hern, and Russell G. Heyl, Jr., Birmingham, Mich., assignors to American Metal Products Company, Detroit, Mich., a corporation of Michigan
Application November 4, 1953, Serial No. 390,228
6 Claims. (Cl. 155—179)



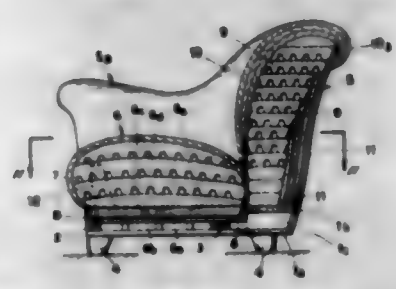
1. A spring strip made of wire bent back and forth to form transverse torsion bars joined by longitudinally extending bendable bars, and a straight bendable bar extending outwardly from the end of the endmost torsion bar in aligned relation to other of the bendable bars forming anchoring means by which the spring is secured to a framing member.

2,849,057
WIRE SPRING MEMBERS AND STRUCTURES
William H. Neely, Cleveland, Ohio, assignor to The Universal Wire Spring Company, Bedford, Ohio, a corporation of Ohio
Application August 9, 1954, Serial No. 448,551
11 Claims. (Cl. 155—179)



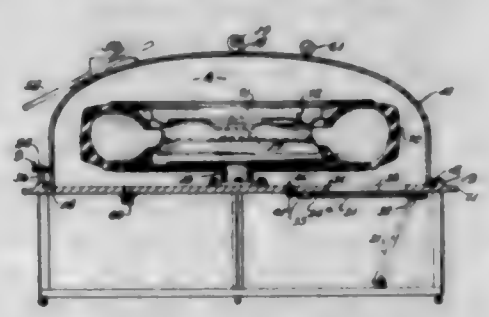
1. In a wire spring structure, a frame, axially aligned oppositely disposed pairs of longitudinaly spaced accordion-fold wire members, each of said accordion-fold wire members including laterally spaced accordion-fold wire supporting elements and means therebetween supporting the same in cantilever relationship from said frame, and two zigzag wire strips for each aligned pair of longitudinally spaced accordion-fold wire members, each zigzag strip being supported on two axially aligned accordion-fold wire supporting elements in spaced relationship to said frame and the adjacent zigzag strip.

2,849,058
ARMCHAIR, SOFA OR THE LIKE, MADE UP ENTIRELY OF A RESILIENTLY YIELDABLE MATERIAL WITHOUT ANY CARRIER FRAMEWORK
Leonetto Bulleri and Renato Bulleri, Cascina, Italy
Application September 19, 1955, Serial No. 535,212
Claims priority, application Italy September 21, 1954
4 Claims. (Cl. 155—179)



1. An armchair including a rigid base, a back supported on said base, said back continuing around the base and forwardly thereof to form side arm rests, said back being composed of mutually fastened together portions of material having different resilient yielding characteristics and a resilient seat supported on said base between said arm rests.

2,849,059
BEAD SEATING AND INFLATING DEVICE FOR TUBELESS TIRE
George P. Bosomworth, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application July 21, 1955, Serial No. 523,444
3 Claims. (Cl. 157—1.1)

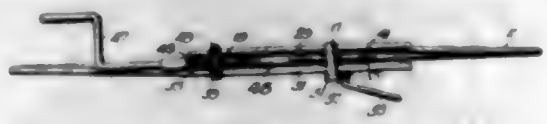


3. Apparatus for mounting a tubeless tire on a tire rim comprising an air tight chamber to receive the said rim with a tire mounted in an uninflated condition thereon and with a portion of a tire bead being spaced from and not seated in operative position on said rim, means for simultaneously building up air pressure in said chamber and tire and means for sudden discharge of air from said chamber, said latter means comprising a differential pressure valve including an escape port and a closure member therefor, a fluid pressure operated trigger by which said closure member is released from its closed position relative to said port, the area of the opening of said port being greater than the space separating the tire beads from the rim.

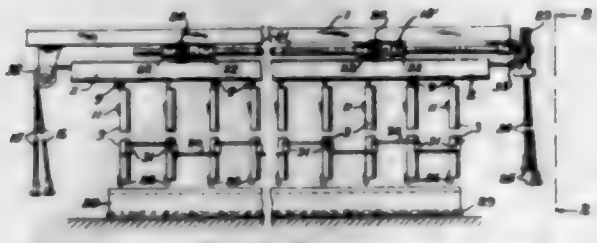
2,849,060
TREAD COMPRESSING TYPE TIRE BEAD SEATING TOOL
David S. Swarthout, Chicago, Ill.
Application February 17, 1955, Serial No. 488,800
1 Claim. (Cl. 157—1.21)

A tire tool comprising a band adapted to extend around the outer circumference of a tire, said band having over-

lapping ends, and tightening and holding means for tightening and holding said band around a tire to thereby circumferentially clamp the tire, said means including a pair of thrust plates, each plate having a spaced pair of parallel openings adjacent their inner edges for receiving the overlapping band ends, means for securing one band end to one thrust plate, and separate means for securing the other band end to the other thrust plate, said separate means comprising a U-shaped member having its arms provided with openings to receive the band end, an arm being located on each side of said other thrust plate, a collar slidably fitted on the band end and located between the plate and one arm of the U-shaped member, manually operable means threaded into the collar for clamping the collar to the band end, and adjustable thrust means coacting with the two thrust plates for moving them apart whereby to tighten the band about a tire.



2,849,061
VERTICAL SLAT BLIND CONTROL
Andrew J. Toti, Modesto, Calif.
Application July 21, 1952, Serial No. 300,063
7 Claims. (Cl. 160—176)



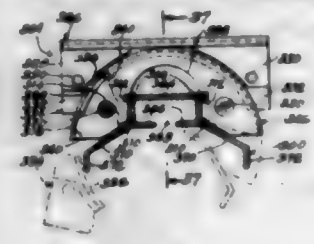
1. A vertical slat blind suspension comprising a pair of horizontally extending laterally spaced parallel tracks, means above the tracks suspending said tracks for simultaneous opposite lateral and opposite longitudinal directional movement, means suspending a series of slats, each slat from both tracks, including two carriers, each carrier respectively slidably engaging one only of the tracks for free movement therealong, the means suspending the tracks including a plurality of downwardly extending connections to the tracks at points thereon clearing said carriers, and whereby the carriers are free to slide past said connections.

2,849,062
VENETIAN BLIND TILTING MECHANISM
Lloyd O. Bonsteel, Indian Head, Md.
Application May 9, 1957, Serial No. 658,135
2 Claims. (Cl. 160—176)



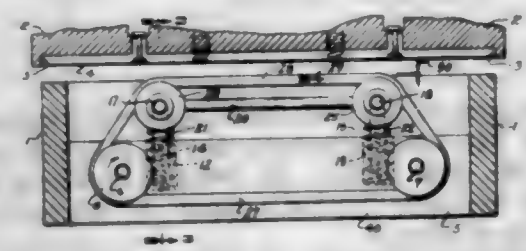
1. In a Venetian blind including a support bracket, vertically disposed slat-supporting tapes extending below said bracket, and support means for said tapes rockably carried by said bracket for imparting slat-tilting movements to said tapes, a device for effecting the rocking movements of said support means comprising a gear carried by said support means, a rotatable shaft positioned adjacent said gear and having gear means thereon normally in meshing engagement with said gear, means connecting said shaft to said bracket for movement of said shaft about a transverse horizontal axis from the position in which said gear means is in meshing engagement with said gear to a tilted position in which said gear means is out of meshing engagement with said gear, a pulley carried by said shaft, and a length of flexible actuating means having a midportion traveling over said pulley, the free ends of said last-named means being manually adjustable relative to each other upon execution of movement of said shaft to the tilted position in which said gear means is out of meshing engagement with said gear and consequent freeing of said pulley and shaft for rotational movement together independently of said gear.

2,849,063
VERTICAL SLAT BLIND
Maurice E. Achler and Albert H. Milstine, Chicago, Ill., assignors of one-tenth to Harry Shapiro, Chicago, Ill.
Application June 2, 1955, Serial No. 512,694
4 Claims. (Cl. 160—177)



1. In a blind construction a horizontal tilt shaft journaled for rocking about a horizontal axis, a series of slats suspended from said shaft and each being rockable about a vertical axis pursuant to rotation of said shaft, said shaft having longitudinally coextensive depending wings extending oppositely angularly outwardly and downwardly, said shaft having a pair of spaced longitudinally coextensive ribs, support means intermediate the ends of said shaft, said support means comprising a stationary hanger part adapted to be attached to a fixed support and having opposed lateral shoulders, a movable hanger part comprising a generally yoke shaped member having means engageable with said ribs so as to be interlocked and rockable with said shaft but being freely slidable longitudinally thereof, said yoke terminating short of said wings, said movable hanger part having spaced oppositely directed lateral flanges engageable with said shoulders, said movable hanger part and said shaft being rockable about said horizontl axis, and said wings being selectively engageable with said slats.

2,849,064
PANEL EJECTOR
Stanley E. Huyck, Ithaca, Mich.
Application April 2, 1956, Serial No. 575,612
5 Claims. (Cl. 164—33)



1. The combination comprising two opposed blanking dies; drive roller means carried by one of said dies; idler roller means adjacent the space between the dies; endless conveyor means trained around said idler roller means and said drive roller means; and yieldable means urging the idler roller means and adjacent portions of the conveyor means toward the space between the opposed dies whereby to (1) put the conveyor surface in the space

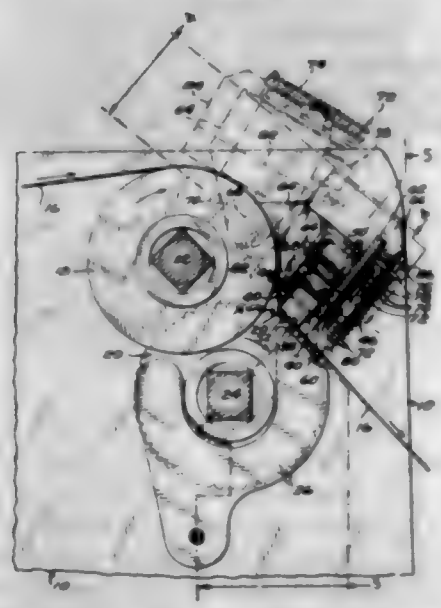
between the opposed dies, and (2) cause the conveyor means to be drivingly engaged by the drive roller means; the yieldable nature of the urging means permitting the idler roller means to move toward the drive roller means in response to die-closing pressure transmitted to the endless conveyor means, whereby to loosen the conveyor means' grip on the drive roller means.

2,849,065

TACKY TAPE DISPENSER WITH TAPE STRAIGHTENING MEANS

Theodore H. Krueger, Stratford, and Everett E. Sharpe, Shelton, Conn., assignors to Better Packages, Incorporated, a corporation of New York

Application May 10, 1954, Serial No. 428,550
5 Claims. (Cl. 164—39)



1. In a tacky tape dispenser, feed discs to which the tape is adhered, peeler discs overlapping the peripheries of the feed discs for peeling the tape from the feed discs, means for rotating said feed discs and peeler discs in the same direction but at different speeds, the peripheral speed of the peeler discs being greater than that of the feed discs, a pressure pad mounted adjacent to the peripheries of the peeler discs for engaging the tape and pressing it into engagement with such peeler discs at a point beyond the apex of the angle of intersection of the peripheries of the feed and peeler discs, a carrier for the pad, means for mounting the carrier for pivotal movement about an axis parallel to the axes of the feed and peeler discs so that the carrier and the pad carried thereby may be swung to an inoperative position so as to permit the cleaning of the discs and introduction of a new piece of tape, a knife carried by the pad carrier and a guard for guarding the edge of the knife, said guard being movably mounted on the carrier and being provided with spring means to project the guard into knife protecting position when the pad, pad carrier and knife are moved to inoperative position.

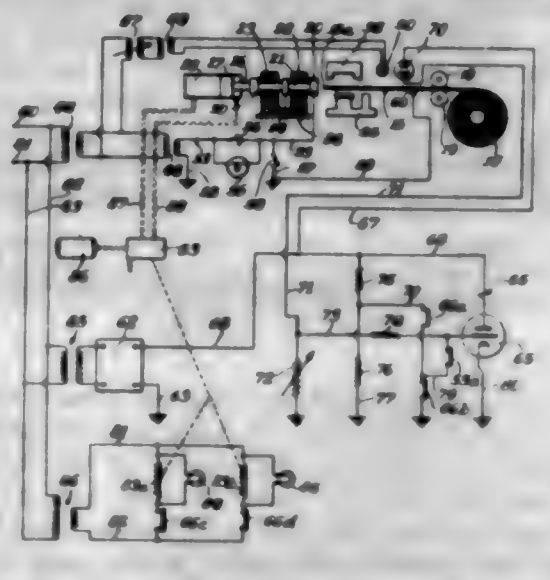
2,849,066

INDEXING DEVICE FOR METAL STRIP

Charles J. Michelet, Wilmette, and Jack E. Caveney, Chicago, Ill., and Milton D. Robinson, Gary, Ind., assignors to Acme Steel Company, Chicago, Ill., a corporation of Illinois

Application December 19, 1955, Serial No. 553,935
19 Claims. (Cl. 164—48)

10. The combination in an indexing device for positioning in a strip cutting machine successive segments of a moving metal strip bearing equally spaced index marks having a color contrasting with that of said strip, of means for moving said strip endwise, means for casting a beam of light on a spot on said strip, means adapted to engage the end of said strip to stop the movement of said strip, an electric control circuit having a branch which is closed through said strip when said strip engages



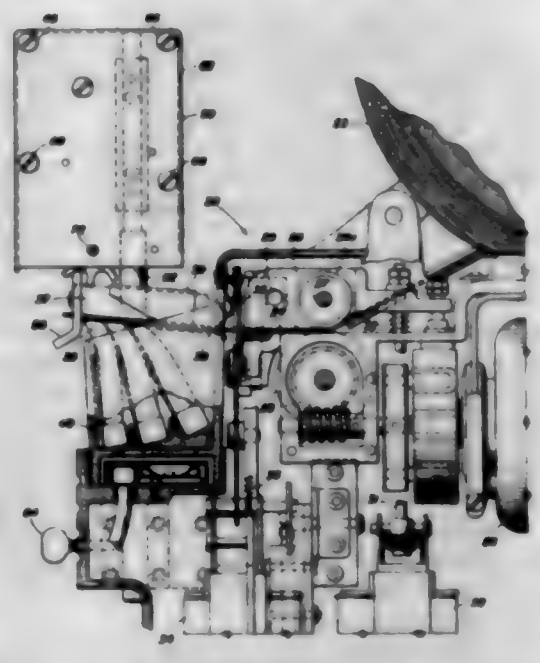
said stopping means, and means actuated by said circuit for adjusting the position of said stopping means.

2,849,067

FEED CONTROL FOR STRIP DISPENSER

Theodore H. Krueger, Stratford, Conn., assignor to Better Packages Incorporated, a corporation of New York

Application April 1, 1955, Serial No. 498,697
7 Claims. (Cl. 164—49)



6. In a tape dispenser, in combination, means to feed out a measured length of tape, tape cutting means positioned forwardly of the feed means, means spaced forwardly of the cutting means cooperating with a fed and severed length of tape and responsive to the removal of a severed length of tape to feed out and sever a new length of tape, and control means for the feed means constructed and arranged to cause tape strips of different lengths to be delivered in a regular predetermined sequence.

2,849,068

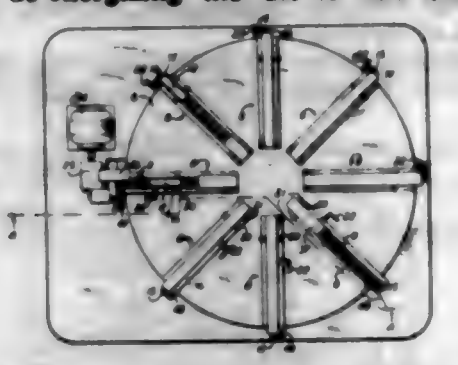
MACHINE FOR SEPARATING AND DISPENSING STACKED ADHESIVELY UNITED ARTICLES

Gerard A. Frank, Allentown, and Walter J. Tesche, Coopersburg, Pa., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application June 2, 1953, Serial No. 359,899
5 Claims. (Cl. 164—34.5)

1. A machine for separating adhesively united stacked articles comprising a rotary table carrying radially disposed stacks of the articles, means for shearing the ar-

ticles one at a time from the stacks, a driver for the shearing means, a switch operated upon depletion of the articles of each stack, relays controlled by the switch for sequentially de-energizing the driver and stopping the



shearing means, means controlled by the switch for indexing the next stack into the shearing position when the driver is de-energized and means controlled by one of the relays for restarting the driver when the table is indexed to shear articles from the next stack.

2,849,069

SUBSURFACE WELL TOOLS

Reuben C. Baker, Coalinga, and Martin B. Conrad, Downey, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application October 12, 1953, Serial No. 385,336
23 Claims. (Cl. 166—138)



9. In a slip assembly for a well tool: a functionally integral, rigid slip having a gripping portion engageable with the surface of the inner wall of a well conduit and a drag portion adjacent said gripping portion and frictionally engageable with the surface of the inner wall of the well conduit to resist movement of the slip therewithin; said drag portion being slidable longitudinally along the conduit in both longitudinal directions; and means engaging said slip behind said drag portion urging said drag portion into engagement with the inner surface of the conduit wall and said gripping portion out of engagement with the conduit wall.

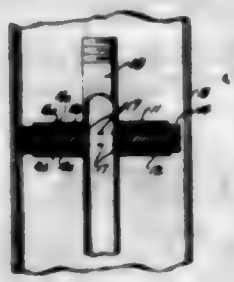
2,849,070

WELL PACKER

George P. Maly, Fullerton, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application April 2, 1956, Serial No. 575,563
15 Claims. (Cl. 166—179)

1. A well tool comprising an elongated body portion adapted to be lowered into a well bore; at least two rigid imperforate retaining plates coaxially positioned along said body portion in substantially parallel spaced relationship, each of the opposed faces of adjacent retaining members extending over a substantial portion of the cross-sectional area of said well bore; a ring-shaped inert resilient expansible sealing element extending between the opposed faces of adjacent retaining plates adjacent the peripheries thereof and surrounding said body por-



tion at a distance therefrom; at least one sealing ring composed of a resilient material capable of being swelled by petroleum hydrocarbons encircling the peripheral face of said sealing element; a body of a liquid-swellable material positioned between the opposed faces of adjacent retaining plates and extending between said body portion and said sealing element; and means for directing a swelling liquid into intimate contact with said body of liquid-swellable material.

2,849,071

CASING CENTRALIZERS

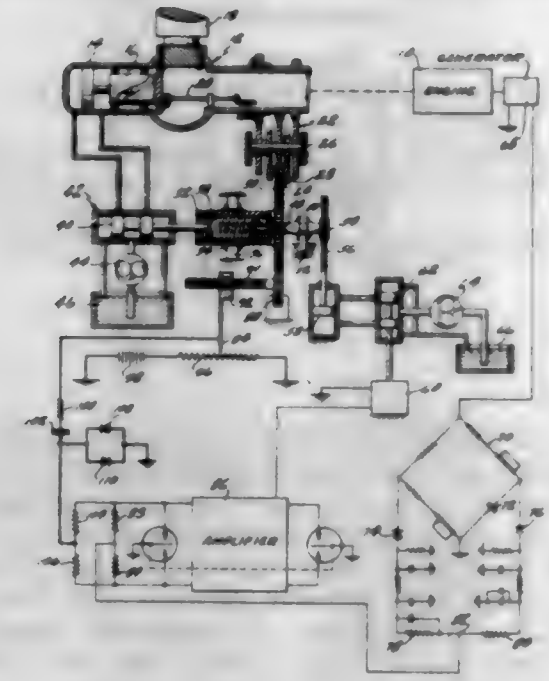
Robert O. Park, Lakewood, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application July 30, 1956, Serial No. 600,913
6 Claims. (Cl. 166—241)



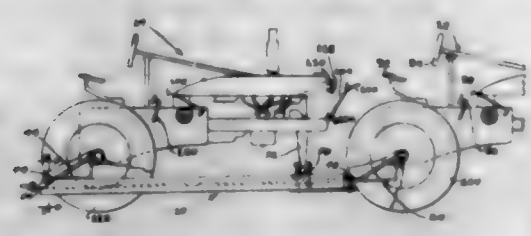
1. An apparatus adapted to be mounted on a well conduit: longitudinally spaced supporting members, each supporting member having an inner generally cylindrical portion to fit on the well conduit and an outer circumferential channel-shaped portion comprising longitudinally spaced flanges separated by a web integral therewith which is substantially parallel to and spaced outwardly of said cylindrical portion, one of said flanges extending inwardly of one end of said web and being integral with said cylindrical portion and the other of said flanges extending inwardly of the other end of said web, said web having circumferentially spaced longitudinally elongated slots therein; circumferentially spaced outwardly bowed spring members disposed around said supporting members and overlying the exteriors of said cylindrical portions, the end portions of said spring members extending through said slots and engaging the inner walls of said webs longitudinally outwardly of said slots; and means for securing said end portions of said springs to said channel-shaped portions longitudinally outwardly of said slots.

2,849,072
VARIABLE SENSITIVITY SPEED CIRCUIT FOR VARIABLE PITCH PROPELLERS
Charles B. Brahm, Windsor Locks, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application June 23, 1955, Serial No. 517,544
11 Claims. (Cl. 170—160.2)



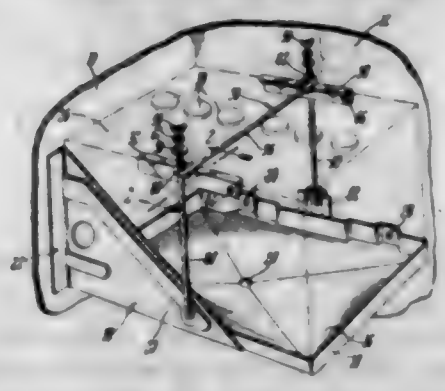
3. In a engine-propeller speed control system, means creating a speed error signal proportional to the deviation of the engine speed from a selected speed datum, means transforming said error signal into pitch changing movement of said propeller to vary the load on the engine and return the engine speed to the datum speed and eliminate said speed error, and means responsive to the rate of pitch change creating a feed-back signal, means connecting said feed-back signal in opposition to said speed error signal to reduce the signal fed to said transforming means, and means preventing said opposing feed-back signal from exceeding a preselected value when said created feedback signal exceeds said value.

2,849,073
TANDEM HITCH FOR FARM TRACTORS
Martin S. Gaspardo, Long Point, Ill.
Application May 14, 1956, Serial No. 584,849
5 Claims. (Cl. 180—14)



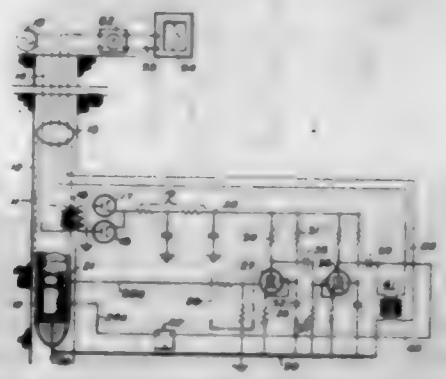
2. A hitch construction for interconnecting in alignment two tractors each having a drawbar comprising an I-beam including a pair of vertically disposed sides and a horizontally disposed web interconnecting said sides, a pair of plates mounted on said I-beam and extending outwardly therefrom parallel to said web and having aligned apertures therein disposed outwardly from said I-beam for interconnection to the drawbar of the front tractor, a transverse plate mounted on said I-beam adjacent the other end thereof and having apertures therein for connection to the drawbar of the rear tractor, and an extension mounted on the other end of said I-beam and extending rearwardly with respect to the second tractor in assembled position to provide an implement connection, said sides having grooves therein to receive the front wheel post of the rear tractor.

2,849,074
BATTERY RETAINER MEANS
Cleo H. Key, Dearborn, Ralph H. Merkle, Milford, and Shirrell C. Richey, Huntington Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 12, 1956, Serial No. 597,550
4 Claims. (Cl. 180—68.5)



4. Battery retainer means including a tray member formed to receive a battery member thereon, a retainer member including elongated right angle members spaced to engage opposite edges of said battery member and having a rod member secured transversely thereto and extended therebetween, the ends of said rod member extending beyond said angle members and being bent back upon themselves and secured to said angle members to form closed loop portions at opposite ends of said retainer member, said loop portions extending beyond the saide edges of said battery member, and tie rod members engaged to said tray member and having the ends thereof extended through said loop portions, said ends of said tie rods being threaded to receive fastener means for drawing said retainer members towards said tray member and engaging said battery member therebetween.

2,849,075
SELF-SUSTAINING OSCILLATORY ACOUSTIC WELL LOGGING
John K. Godbey, Dallas, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
Application March 23, 1953, Serial No. 344,090
7 Claims. (Cl. 181—.5)



1. An acoustic well logging system comprising an exploring unit which includes a piezo-electric element, a first electrode in contact with a first surface of said element, a second electrode and a third electrode spaced apart in contact with the surface of said element opposite said first electrode, a two stage amplifier connected at its input to the first and second of said electrodes for producing at its output voltages shifted in phase substantially 360° from voltages applied to the input thereof, a first circuit connected between said output and said first and third electrodes for applying said output to said piezo-electric element and thereby to complete a feedback loop for producing oscillations whose frequency is dependent upon the properties of said element as modified by conditions in said bore hole, and a second circuit connected to said output and including measuring means

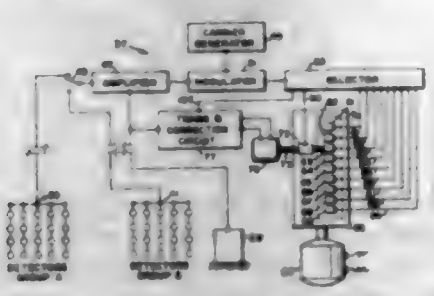
at the mouth of said well bore for detecting variations in the frequency of said output as an index to variations in said conditions.

2,849,076

SEISMIC EXPLORATION AND RECORDING SYSTEM

Sidney Kaufman, Houston, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application July 18, 1955, Serial No. 522,804
4 Claims. (Cl. 181—.5)



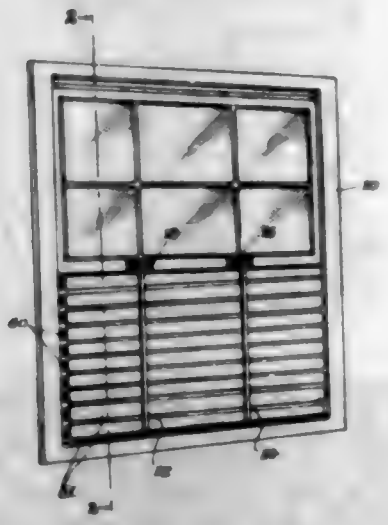
1. A system for reproducibly recording seismic waves generated by the fall of a mass on the ground, said system comprising a plurality of fixed recording heads and a movable pickup head, means comprising one of the recording heads for reproducibly recording an impulse corresponding to the start of the fall of said mass, means comprising the said one recording head for reproducibly recording an impulse corresponding to the impact of said mass upon the ground, means for measuring the interval between said impulses, means for metering out a predetermined interval, means for comparing said two intervals, and means for spacing the movable pickup head from the said fixed recording head by a distance proportional to the difference between said two intervals.

2,849,077

NOISE SUPPRESSING SCREEN

Ernst W. Kopke, New York, N. Y., assignor to Courtland Hastings, New York, N. Y.

Application March 4, 1954, Serial No. 414,173
4 Claims. (Cl. 181—33)



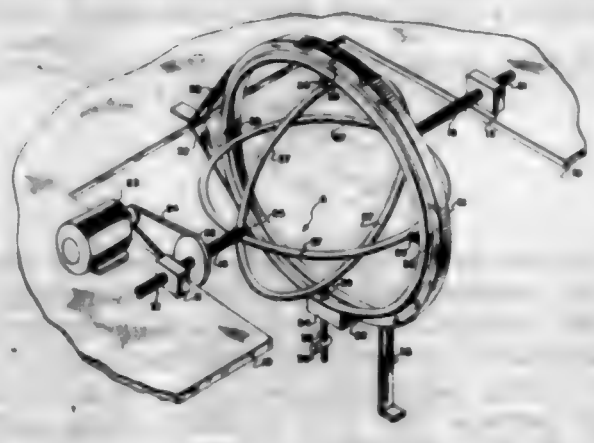
1. A noise suppressing screen adaptable to placement in room openings to supress sound waves tending to pass therethrough while directly admitting light and air, comprising a plurality of parallel horizontal members, means supporting said members in vertical arrangement spaced apart to directly admit light and air, the upper and lower faces of each member having laterally spaced upwardly and downwardly directed surfaces extending longitudinally along said members forming upwardly and downwardly directed passageways, said passageways having their surfaces inclined outwardly toward incoming sounds to cause interference, reflection back and suppression of sound waves impinging upon one side of the screen, and said horizontal members being of length approximating the width of the opening in which the screen is to be placed.

2,849,078

APPARATUS FOR SEPARATING ENTRAINED PARTICLES FROM GASES

Walter J. Sakowski, Youngstown, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application September 9, 1955, Serial No. 533,432
7 Claims. (Cl. 183—77)



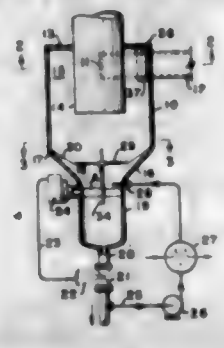
1. A centrifuge for separating entrained materials including solid and liquid particles from gases which comprises a rotor mounted for rotation about an axis including a first elongated conduit having an inlet end and an outlet end disposed on said axis, the central portion of said conduit being displaced from said axis, a second conduit in the form of a closed loop disposed substantially concentric with said rotor and radially beyond said first conduit, and means interconnecting the interiors of said first and second conduits opening into said first conduit at the portion along the length thereof most displaced from said axis; means for rotating said rotor about said axis; and means for removing centrifugally separated solid and liquid particles from said second conduit during rotation of said rotor while substantially preventing escape of gas from said second conduit.

2,849,079

CYCLONE WITH DRAINED PLATE

Harry D. Evans, Oakland, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

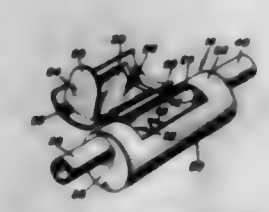
Application January 25, 1957, Serial No. 636,433
12 Claims. (Cl. 183—85)



1. A cyclone for separating suspended liquid from a gas comprising: an enclosing wall defining a centrifugation chamber; means for admitting a gas burdened with liquid with a rotary motion about the axis of said chamber to form a vortex therein; an overflow outlet for the discharge of gas at a central region of said chamber; an underflow outlet for the discharge of separated liquid from a part of said chamber beneath said overflow outlet; a bottom plate extending substantially horizontally between said overflow and underflow outlets, said plate and wall providing a passage for the downflow of liquid

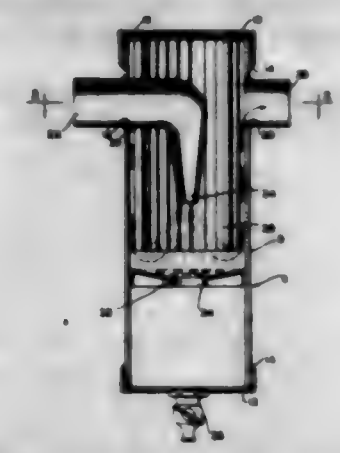
near the wall to the underflow outlet, said plate having a drain opening therein situated beneath said overflow outlet and spaced inwards from the margin of the plate; and a drain pipe connected to the said opening in the bottom plate and extending thence downwardly into the underflow outlet to discharge liquid from the top of the plate into said underflow outlet.

2,849,088
TRAP ATTACHMENT FOR VACUUM CLEANERS
Edward J. Enright, Yakima, Wash.
Application November 19, 1956, Serial No. 622,914
2 Claims. (Cl. 183—110)



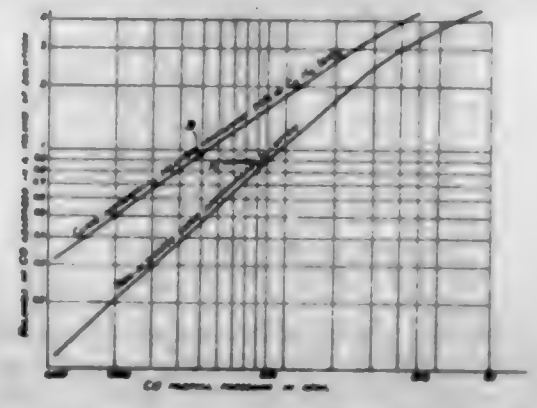
1. For use in the suction line of a vacuum cleaner, a trap for communicative but removable installation in said line, comprising a hollow casing having intake and discharge necks communicating with the chamber portion of said casing, said casing also having an entrance opening, an openable trap door normally closing said opening, and baffle elements mounted and projecting into the air flow path of said chamber, one of said baffle elements being fixed in said casing between the opposite ends of the casing, said casing being circular in cross-section and said one baffle element being substantially semi-circular in form, another one of said baffle elements being fixed to and carried by said door, both of said baffle elements being obliquely angled and spaced apart in general parallelism, said last named baffle element depending into the chamber from one transverse end portion of said door and being situated between the intake neck and said first named baffle element.

2,849,081
AIR PURIFIER
Willis T. Downing, Alexandria, Va.
Application May 10, 1957, Serial No. 658,472
3 Claims. (Cl. 183—113)
(Granted under Title 35, U. S. Code (1952), sec. 266)



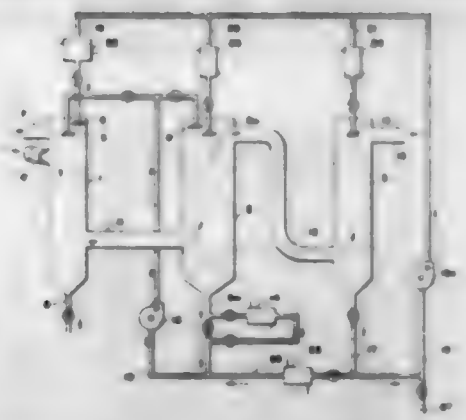
1. A moisture separator of the class described comprising a hollow container, a tubular member formed of corrugated material fixedly mounted within said hollow container, in spaced relation with the inner wall of said container, an air inlet tube extending through the wall of said container and through said tubular member in air-tight relation with each, said inlet tube having a nozzle member at the discharge end thereof within said tubular member, an air deflection plate mounted within said separator opposite the discharge end of said nozzle, an air outlet tube extending through the wall of said outer container only, in air-tight relation therewith, whereby outwardly flowing air must move between the outer wall of said tubular member and the inner wall of said outer container and thence through said outlet tube.

2,849,082
PROCESS FOR REMOVING CARBON MONOXIDE FROM GASEOUS MIXTURES
Giuseppe Giammarco, Porto Marghera, Italy, assignor to S. p. A. "Vetrocoke," Turin, Italy
Application December 6, 1955, Serial No. 551,410
Claims priority, application Italy December 13, 1954
4 Claims. (Cl. 183—115)



1. Process for purifying a gaseous mixture from its carbon monoxide contents by washing with a cupro-ammoniacal solution, comprising admixing the solution with at least one organic compound of an alcoholic character, and utilising the solution for washing the gaseous mixture to be purified.

2,849,863
SEPARATION OF IRON CHLORIDE FROM GASEOUS IRON CHLORIDE-TITANIUM TETRACHLORIDE MIXTURES
Earl W. Nelson and Albert Dietz, Lynchburg, and John P. Wilkswo, Amherst, Va., and William E. Trees, Savannah, Ga., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application January 31, 1957, Serial No. 637,556
8 Claims. (Cl. 183—120)



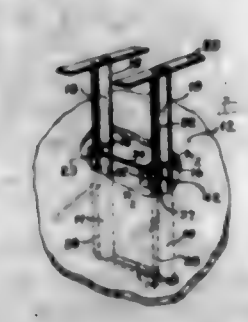
1. A continuous process for separating iron chloride in apparently dry particulate form from a hot crude iron chloride-titanium tetrachloride gaseous mixture which comprises cooling said hot gaseous mixture at least chiefly by direct contact with recycled iron chloride-titanium tetrachloride slurry to condense substantially all of the iron chloride in said gaseous mixture in the form of apparently dry particles and at the same time drying the iron chloride particles in said slurry to substantially the same form; settling out a substantial proportion but not substantially all of said condensed and said dried particles from said gaseous mixture; separately scrubbing the gaseous mixture with sufficient liquid titanium tetrachloride to wash substantially all of the residual iron chloride particles from said gaseous mixture in the form of a pumpable slurry; and recycling said slurry to said hot gaseous mixture.

2,849,084

FLUSH FLOOR MOUNTED SAFETY LATCH FOR HYDRAULIC LIFTS

Ion V. K. Hott and David M. Goldzwig, Dayton, Ohio, assignors to The Joyce-Cridland Company, Dayton, Ohio, a corporation of Ohio

Application September 9, 1954, Serial No. 454,890
3 Claims. (Cl. 187—8.5)



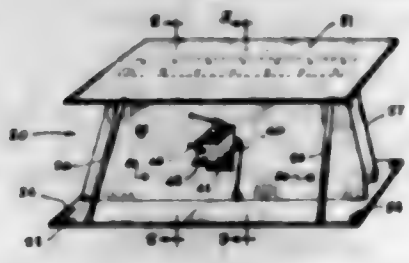
1. A safety device for a vehicle lift having means for raising a vehicle from a floor, said lift having a member provided with indentations moving with the lift, including the combination of a pawl mechanism having an operative position and an inoperative position, said pawl mechanism passing through dead center when moving from one position to the other, means for mounting the pawl mechanism below floor level so as to engage the indentations when in operative position, and foot operated means located on the floor level when the pawl mechanism is in operative position and positioned below a portion of said vehicle raising means, said foot operated means engaging said pawl mechanism to actuate the same, said foot operated means being movable into a position above floor level to actuate the pawl mechanism from operative position into inoperative position, said portion of said vehicle raising means when lowered to the floor actuating the foot means into floor level position to thereby recock the safety device.

2,849,085

DIE TABLES

Fred P. Hopfeld, Elmwood Park, Ill., assignor to Grand Specialties Company, Chicago, Ill., a corporation of Illinois

Application August 11, 1955, Serial No. 527,850
2 Claims. (Cl. 187—17)



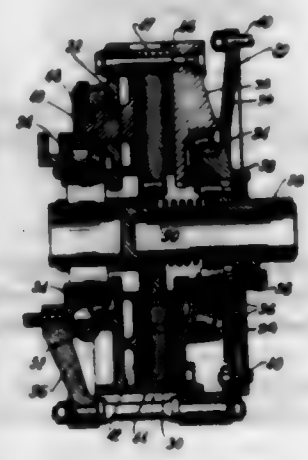
1. A die table comprising a base member, a pair of vertically disposed plates anchored in relatively closely spaced relation on said base member and affording a relatively narrow cavity therebetween, a table top superimposed on the upper edges of said plates and extending outwardly of said plates for a substantial distance, hydraulic cylinder and piston means disposed in the cavity between said plates and having the piston means thereof pivotally connected to the under-side of said table top to apply a vertical elevating force to the table top equally distributed with respect to the area thereof, at least a pair of vertical guide members disposed in said cavity and being attached to the under-side of the table top in equally spaced relation with respect to said piston means and having a slide engagement with said plates to stabilize the table top laterally during elevation thereof, idlers rotatably supported on the inside faces of said plates, and a pair of equalizing chains each respectively secured at one end to the upper portion of a corresponding one of said guide members and passed about said idlers with the opposite ends thereof each secured respectively to the lower portion of the other one of said guide members so that the vertical movement of each guide member is equally imparted to the other to hold the table top level at either end during elevation thereof, said chains crossing in said cavity.

2,849,086

OVERLOAD RELEASE BRAKE MECHANISM

John G. Martin, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application October 12, 1953, Serial No. 385,311
2 Claims. (Cl. 188—2)



1. The combination with a driven shaft drivably connected to a shaft to be braked, of a fixedly mounted two-part spider member having its parts spaced apart and sleeved over the driven shaft, a disk type brake mechanism located between the parts of the spider member and comprising a disk like rotor member sleeved over the driven shaft and drivably connected therewith, friction means positioned on each side of the rotor member, a pressure plate positioned adjacent a part of the friction means, a two-part stator member rotatably mounted on the driven shaft, one of the parts of said member being mounted on one side of the rotor member and the other of said parts being mounted on the other side of the rotor member, means for securing the stator members together, fluid operated motor means mounted in one of the stator members and operable, through the intermediary of the pressure plate, to force the friction means into braking engagement with the rotor member, and means for controlling the operation of said motor means comprising a spider mounted cut-off valve and means, including yieldable means, operably connecting one of the stator member parts with the valve and operable to actuate said valve to limit the operation of the brake.

2,849,087

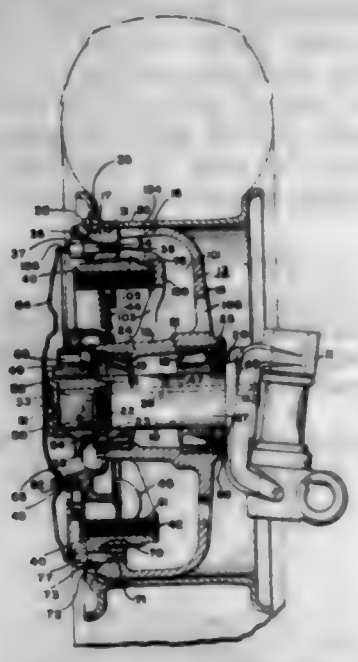
WHEEL AND BRAKE ASSEMBLY

Hans O. Schjolin, Birmingham, and Donald K. Isbell, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 19, 1953, Serial No. 362,838
10 Claims. (Cl. 188—18)

1. In a brake for a motor vehicle, the combination of: a wheel comprising a bearing hub, a rim portion, and a support structure between said hub and said rim portion; a brake drum encircled by said rim portion and engaging the same for support thereby; said drum having peripheral engagement thereof with said rim portion at peripherally spaced engaging land areas; said land areas being disposed

alternately at opposite supporting edges of said drum about the periphery thereof; and attachment means be-



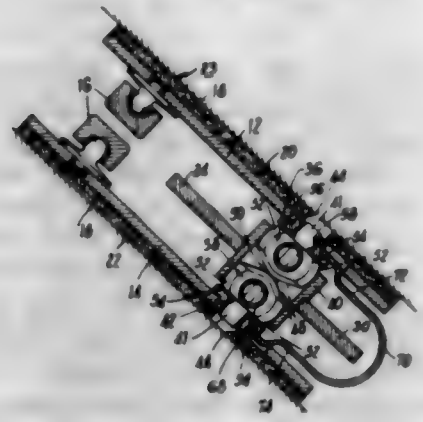
tween said rim portion and said drum demountably attaching said drum on said rim portion.

2,849,088

BRAKE ACTUATOR

Richard T. Burnett, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application February 4, 1955, Serial No. 486,184
11 Claims. (Cl. 188—70)



4. An actuator for a friction element comprising a cam, means for turnably mounting said cam, said cam being inclusive of curved cam surfaces operatively associated with spaced portions of said friction element, the centers of curvature of said cam surfaces being located on perpendicular axes intersecting at the center of said cam in order that transverse movement of the friction element is translated into substantially proportionate applying movement for all degrees of transverse movement.

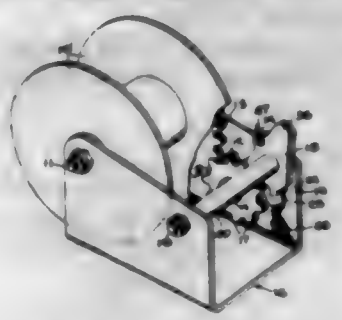
2,849,089

REVERSIBLE RATCHET MECHANISM

Howard C. Lindmark, Rockford, Ill.

Application March 30, 1956, Serial No. 575,051
6 Claims. (Cl. 188—82.2)

4. Reversible ratchet mechanism having, in combination, a support, a cam rigid with said support, a member movable relative to said support and having a follower surface thereon, a spring acting between said support and said member and cooperating with said cam and said follower surface to urge the member to either side of and away from a center position, a pawl rotatably mounted on said support and having a pivotal connection with said member for movement of the pawl back and forth with the member through said center position and between two limit positions, said pawl having angularly spaced teeth, and a toothed ratchet element movable in opposite directions on said support and having teeth engaged by



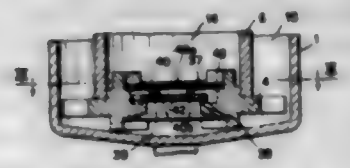
the respective pawl teeth in the different limit positions of the pawl for blocking movement of the element in one direction while permitting movement thereof in the opposite direction during engagement of each pawl tooth.

2,849,090

SHOCK ABSORBER RESERVOIR VALVE

Arie A. De Koning and Kornelis K. K. De Koning, Oud-Beijerland, Netherlands

Application July 29, 1955, Serial No. 525,322
Claims priority, application Netherlands May 18, 1953
2 Claims. (Cl. 188—100)



1. In a shock absorber having a working cylinder surrounded by an outer cylinder spaced from said working cylinder to leave an annular reservoir therebetween, a relief valve in one end of the working cylinder between the interior of the working cylinder and the reservoir comprising an annular valve seat defining an inner passage of circular cross section, at least one thin resilient plate and one rigid plate each having an outer diameter which is at least equal to that of said seat, said plates being stacked on said seat to close said passage with said thin resilient plate between said rigid plate and said seat, said thin resilient plate having an aperture therein and located on the axis of said inner passage, and said rigid plate having at least one fine bore therein spaced inwardly from said seat and outwardly from said aperture, the face of said thin resilient plate toward said rigid plate and the face of said rigid plate toward said thin resilient plate contacting each other at least along the portion of the surface of said rigid plate into which said fine bore opens, whereby the bore is sealed off individually.

2,849,091

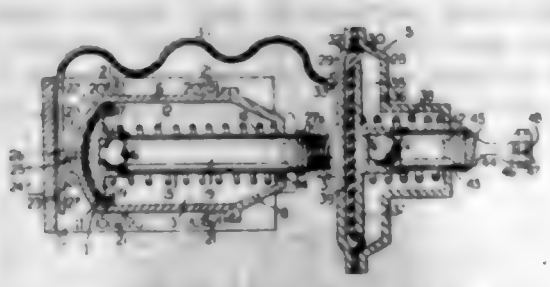
FLUID PRESSURE BRAKE CYLINDER APPARATUS FOR USE WITH COMPOSITION BRAKE SHOES ON RAILWAY CARS

George K. Newell, Pitcairn, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application September 26, 1956, Serial No. 612,162
3 Claims. (Cl. 188—153)

1. In a fluid pressure brake apparatus for actuating a brake rigging to effect a brake application on a railway vehicle, a brake cylinder pipe, a brake cylinder device and an auxiliary cylinder device each having fluid pressure operable movable abutment means operatively connected to said brake rigging for applying an actuating force thereto, means for conveying operating fluid under pressure from said brake cylinder pipe to the movable abutment means of both said brake cylinder device and

said auxiliary cylinder device, the movable abutment means of said auxiliary cylinder device having a greater effective area subjected to fluid under pressure supplied thereto from said brake cylinder pipe than the similarly subjected effective area of the movable abutment means of said brake cylinder device, whereby said auxiliary cylinder device is rendered capable of initial actuation of



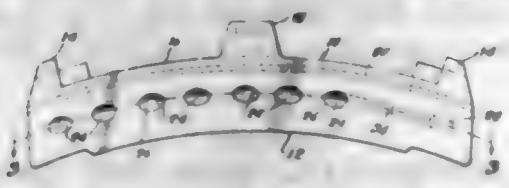
said brake rigging under opposition of an ice-bound condition, and the movable abutment means of said auxiliary cylinder device being of limited travel relative to that of the movable abutment means of said brake cylinder device, whereby the degree of brake application resultant from actuation of said brake rigging is limited to that created by pressure of fluid acting on the abutment means of said brake cylinder device.

2,849,092

AIR COOLED BRAKE SHOE

Robert W. Foster, Sullivan, Ind., assignor of eight percent to Robert W. Matthews, fourteen percent to Ralph Molden, four percent to John Helmbold, three and one-eighth percent to Jack Anderson, five percent to Alden Fields, two and one-half percent to Harold Funcannon, one and nine-sixteenths percent to Carl Engle, one and one-half percent to Henry Branstetter, one percent to Ivan Marts, and one and nine-sixteenths percent to Gilbert Snyder

Application September 9, 1954, Serial No. 454,904
5 Claims. (Cl. 188—264)



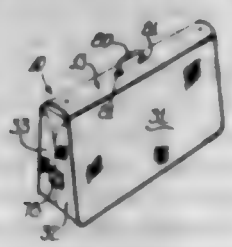
1. In a brake shoe, a generally arcuate body portion having longitudinally extending side surfaces and an end surface adapted to conform generally to the surface of a wheel, a plurality of lateral passages extending through the body of the shoe with openings in the side surfaces, and a venturi in each such passage, all of the venturi being generally aligned longitudinally.

2,849,093

LUGGAGE CARRIER

William C. Chesnut, Racine, Wis., assignor to Skyway Luggage Company, Seattle, Wash., a corporation of Washington

Application January 5, 1956, Serial No. 557,536
7 Claims. (Cl. 190—43)



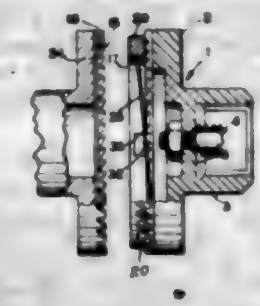
1. In a garment carrier luggage device, a frame comprising a pair of generally U-shaped gussett forms, a saddle plate secured to the ends of the arms of each of said gussett forms, a saddle disposed between the gussett forms adjacent the saddle plates, and a flexible material covering overlying said saddle plates and said saddle and secured thereabout and therebetween thereby forming a flexible hinge connection between said saddle and said gussett forms.

2,849,094

JAW CLUTCH MESHING DEVICE

John C. Vaiden, Packanack Lake, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application June 28, 1955, Serial No. 518,441
6 Claims. (Cl. 192—67)



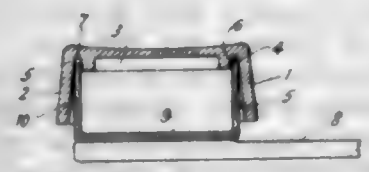
5. In engine starter mechanism of the character described: an axially movable and rotatable starter driving jaw having a ring of radially broad saw teeth in an end face thereof; an opposed engine jaw having in an end face thereof a ring of radially extending but relatively narrower saw teeth engageable with the outer radial portion of the engine jaw teeth; a thickened ring partly receivable axially in a recess of the engine jaw and having an end face adapted to frictionally engage an opposed wall of the recess; the ring having peripheral saw teeth around it of small radial thickness and engageable in the opposed inner radial portion of the starter jaw teeth; torsion spring means anchoring the thickened ring to the starter jaw; the torsion spring means having a normal position wherein the teeth of the thickened ring are axially held out of engagement from the teeth of the starter jaw and the ends thereof abut the ends of the teeth of the latter, and having a wound position wherein the teeth of the starter jaw are axially drawn into engagement with those of the thickened ring and the teeth of the engine jaw; the thickened ring in normal position serving to space the starter jaw out of engagement from the engine jaw; and means for driving the starter jaw axially to move the end face of the ring into frictional engagement with the recessed wall of the engine jaw and for rotating the starter jaw, whereby the torsion spring is wound to draw the starter jaw into engagement with the teeth of the thickened ring and those of the engine jaw.

2,849,095

CAPS FOR TYPEWRITER KEYS

William B. Kerzner, New York, N. Y.

Application March 22, 1954, Serial No. 417,811
1 Claim. (Cl. 197—102)



The combination with a typewriter key and a cylindrical cup-shaped element having a straight upstanding rim secured rigidly to the key adjacent one end thereof, of a conical cap on said element, said cap having a slightly concave top, a downwardly projecting rim flaring away from the top and being of larger diameter at its edge than said cup, and a bead inside and concentric with the

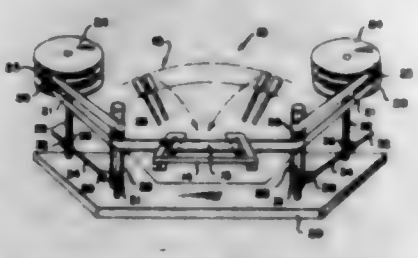
rim of the cap, said bead being separated from the rim of the cap by a groove having straight sides converging towards the top, said groove having the same diameter as said cup-shaped element, said bead projecting slightly from the inner face of the top and said groove being wider between its outer edges and narrower at its inner end than the thickness of the upstanding rim of said element at the end of said key, said upstanding rim being inserted into said groove and fitting tightly therein, so that the cap is secured in place by frictional engagement with said upstanding rim.

2,849,096

RIBBON PROTECTOR

Robert Orland Markes, Detroit, Mich.

Application July 5, 1957, Serial No. 670,301
5 Claims. (Cl. 197—151)



1. In a writing machine of the type embodying an inked ribbon and a plurality of type bearing members arranged in spaced relation to the inked ribbon and selectively movable into engagement with the inked ribbon at an impression position for forcing an impression therethrough and with the inked ribbon being of the type which is wound about a pair of spaced spools, each mounted upon a spindle with means provided to rotate the spindles to feed the ribbon in a proper direction to wind upon one spool and unwind from the other spool to thereby continuously change the ribbon portion at the impression position; the improvement comprising, an additional pair of spools mounted on the spindles with such additional spools carrying a protector tape wound about each, and means for aligning the protector tape with the inked ribbon and between the inked ribbon and the type bearing members at the impression position and for holding the protector tape taut at the impression position, said means comprising a pair of spaced worms aligned in substantial parallelism with the spindles and each arranged on an opposite side of the impression position, with the tape spirally wound about each worm and with the ribbon passing about the worm at the end of the spiral winding whereby the tape is positioned in alignment with the ribbon between the two worms.

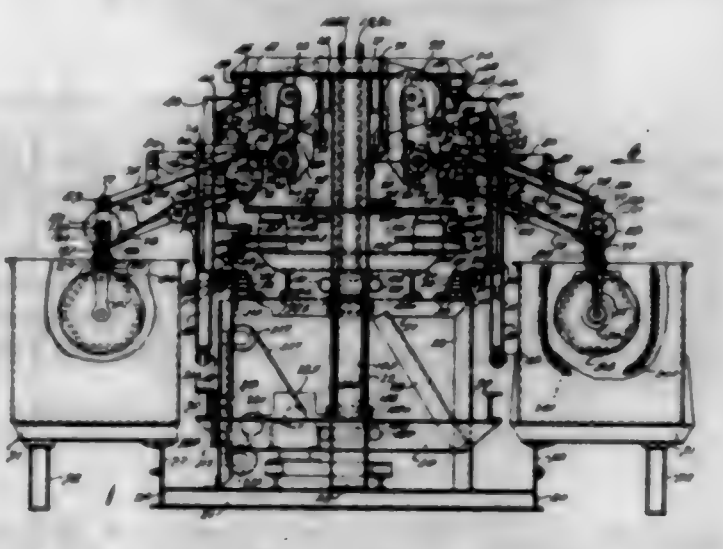
2,849,097

AUTOMATIC APPARATUS FOR CHEMICAL TREATMENT OF METAL ARTICLES IN BULK

William H. Jackson, Birmingham, Mich., assignor to The Udylite Corporation, Detroit, Mich., a corporation of Delaware

Application August 5, 1954, Serial No. 448,084
15 Claims. (Cl. 198—19)

14. An automatic machine for plating and chemical treatment of articles in bulk, which machine comprises an elongated, central frame, a plurality of treating stations around the outer periphery of said frame, a plurality of individual carriage frames mounted for movement around said central frame, a pair of upper and a pair of lower pantograph arms each pivotally attached to each said carriage frame and arranged to extend outwardly therefrom over said stations, a barrel hanger arm suspended between such upper and lower pantograph arms to form a parallelogram suspension, a horizontal rotatable barrel attached to said hanger arms, a lift leg slidably carried on each said carriage frame and having its upper end attached to said suspension, an elevator beam suspended along said central frame opposite stations requiring barrel elevation, said beam being supported from below by a plurality of inverted T-shaped elevator members slidably suspended from said central frame, means for lifting and lowering said elevator members, a lineshaft along the straight-sided portions of said central frame and having spur gears thereon opposite those stations requiring barrel rotation, an individually-driven barrel rotation gear in a curved end portion of said frame, an epicyclic



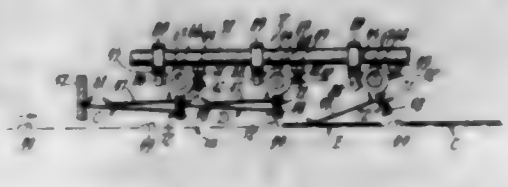
gear train on each said carriage for engagement with said lineshaft and individual barrel rotation gears, a belt drive and gear train mounted on said pantograph and barrel hanger arms for rotating said barrel, transfer means for advancing said carriages from one said station to the next said station, a delayed set-down mechanism at those stations requiring shorter immersion times and larger drainage times, and control means integrating said elevator means, said transfer means, and said delayed set-down means to secure progressive movement of each barrel around said central frame and through said stations.

2,849,098

STRIP HOLDING AND RELEASING DEVICE

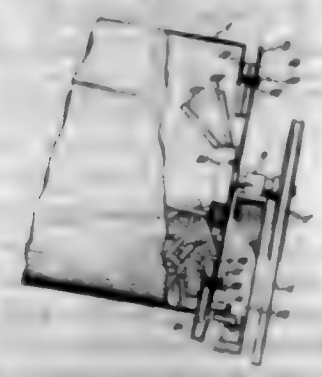
Ralph K. Pottle, Georgetown, Conn., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application July 23, 1954, Serial No. 445,283
8 Claims. (Cl. 198—32)



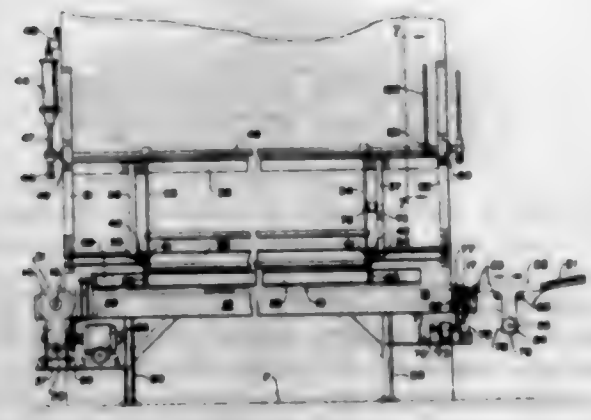
1. In a machine for feeding and slitting sheet material, the combination of a conveyor, actuating means for advancing said conveyor, a plurality of feed dogs on said conveyor in spaced order, a plurality of spaced and parallel support bars extending transversely over said conveyor, said support bars having opposed faces and having a longitudinal groove in each face for receiving and for supporting opposed edges of strips interposed between adjacent bars, means for feeding said strips of sheet material into position between said support bars with opposed edges of said strips supported by said grooves, and means for moving said support bars in succession relative to each other and in time with the advancement of said feed dogs to release said strips from said grooves in succession to said conveyor for the advancement of said strips by said conveyor in spaced and timed order.

2,849,099
ARTICLE HANDLING MEANS
John Halahan, Brookville, and Theodore F. Aronson, Valley Stream, and Floyd A. Lyon, Brookville, N. Y.,
Application March 17, 1955, Serial No. 494,966
9 Claims. (Cl. 198—33)



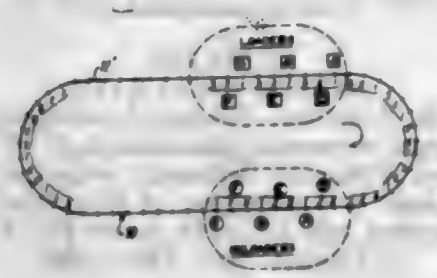
1. Means for feeding boxes comprising a rotatable barrel member substantially open at one end, a rotatable disc mounted adjacent said open end at a different axis of rotation than said barrel, said disc being spaced so that there is just sufficient spacing at the bottom between said barrel and said disc for single boxes to fall out, whereby the opening at the top of the barrel is wider and jammed pieces will be gently carried to the top and dropped back into the barrel.

2,849,100
ARTICLE TRANSPORTING APPARATUS
Montague H. Duval, New York, N. Y., and Carl M. Vitz, York, Pa., assignors, by mesne assignments, to Capitol Products Corporation, Mechanicsburg, Pa., a corporation of Pennsylvania
Original application November 15, 1951, Serial No. 256,436, now Patent No. 2,741,384, dated April 10, 1956. Divided and this application August 25, 1955, Serial No. 530,466
4 Claims. (Cl. 198—34)



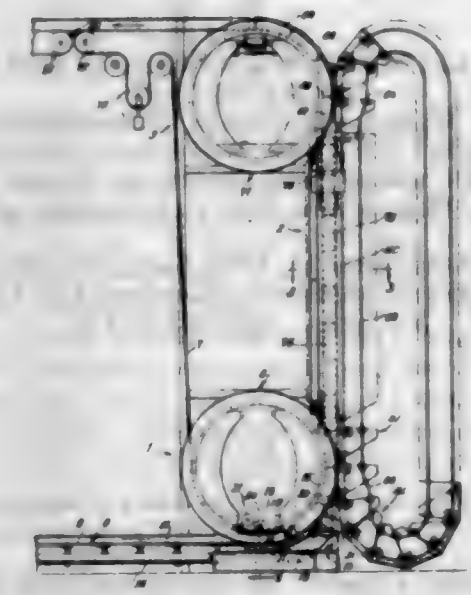
1. Article feeding and spacing mechanism comprising, a first conveyor for conveying articles in an unbroken row, a second conveyor for receiving successive articles from said first conveyor, actuating means for operating said second conveyor, a drive connection between said conveyors for operating said first conveyor at a slower speed than said second conveyor to space articles on said second conveyor, said drive connection including a variable speed means for selectively varying the slower speed of said first conveyor with respect to the faster speed of said second conveyor, and means operatively connected with said second conveyor responsive to a predetermined linear travel thereof for interrupting operation of said actuating means to collect on said second conveyor a predtermined number of spaced articles in predetermined spaced relation.

2,849,101
CONVEYOR DISPATCHING MACHINE
Leonard E. Austin, Arthur K. Brown, Jr., and John H. Ettinger, South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application March 2, 1955, Serial No. 491,738
11 Claims. (Cl. 198—38)



1. An automatically operable mechanism for sequentially loading a plurality of different units onto and then sequentially unloading said units from a power operated conveyor including a plurality of trolley units, a plurality of sequentially operable loader units mounted alongside the conveyor, each of the several loader units including an adjustable movable member actuated by a portion of each trolley unit and having means mounted thereon for varying the sequence of operation of the several loader units; and a plurality of unloader units also operable sequentially and mounted alongside the conveyor system, each of the several unloader units including a movable member actuated by a portion of each trolley unit and having means mounted thereon for varying the sequence of operation of the several unloader units.

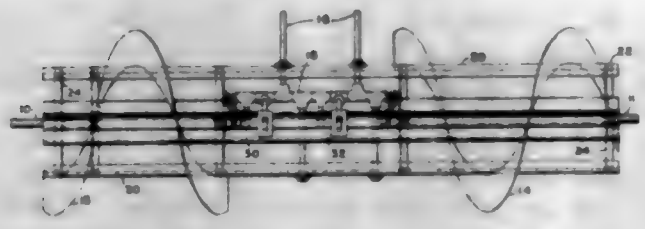
2,849,102
DEVICE FOR MOVING MATERIAL SUBSTANTIALLY VERTICALLY
Orville J. Borrowdale, Chicago, Ill.
Application September 11, 1953, Serial No. 379,671
3 Claims. (Cl. 198—82)



1. A device for moving material from one elevation to another which comprises, a frame rotatable in a substantially vertical plane, circumferentially spaced projections carried by said frame, means for conveying material into the path of movement of said projections whereby said material is carried by said projections, a plurality of units movable substantially vertically in seriatim, a projection carried by each unit, said unit projections being movable in the path of travel of the material carried by said frame projections whereby said material is carried substantially vertically by said unit projections, a second frame rotatable in a substantially vertical plane, circumferentially spaced projections carried by said second

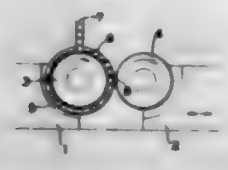
frame, said second frame projections being movable in the path of travel of the material carried by said unit projections whereby said material is carried by the second frame projections, and endless conveyor means disposed adjacent the path of travel of the material carried by said second frame projections whereby said material is transferred to said endless conveyor means.

2,849,103
AUGER CONVEYOR
Helmut K. H. Scheffter, Cologne-Lindenthal, Werner A. W. Fromme, Cologne, and Joseph F. Vrastil, Westhoven, near Cologne, Germany, assignors to Massey-Ferguson Inc., a corporation of Maryland
Application July 25, 1955, Serial No. 524,142
7 Claims. (Cl. 198—104)



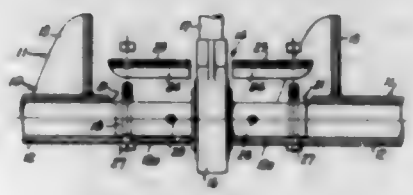
1. In a material handling device, a series of axially spaced discs, a plurality of circumferentially spaced rib members axially positioned in parallelism and rigidly secured to said discs to form an open rotary structure whereby accumulation of material therein is precluded, an auger flight wound about each end of said structure, said flights extending inwardly from the ends of said structure and having their adjacent ends terminating a distance from each other to define a central portion of said ribs, an eccentric shaft mounted within said structure and between said flights, retractable fingers pivotally secured at their inner ends to said eccentric shaft, mounting means secured to said ribs through which said fingers are adapted to reciprocate, a shaft extending from either end of said device to rotatably support the latter.

2,849,104
APPARATUS FOR FEEDING AND ROLLING WORKPIECES
Ernst Fritz Wilhelm Moeltzner, Berlin-Charlottenburg, and Johann Hübl, Berlin-Halensee, Germany, assignors, by mesne assignments, to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania
Application June 24, 1953, Serial No. 363,730
Claims priority, application Germany July 15, 1952
8 Claims. (Cl. 198—211)



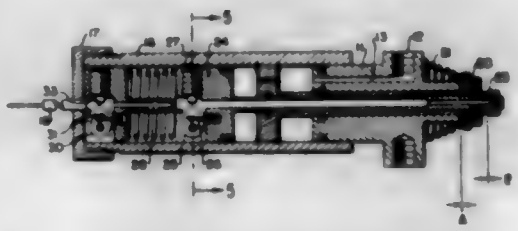
1. A transfer cylinder for conveying work pieces to a work forming station and supporting said work pieces at said station comprising, a body member, said body member having a substantially cylindrical rim concentric with the axis of said transfer cylinder, a plurality of transfer segments each having an arcuate portion formed on substantially the same radius as the rim of said body member, a mating groove and ridge construction on said rim and said segments, and clamping means for positively retaining said segments on said body with said arcuate portion on said segments in engagement with said cylindrical rim on said body and said groove and ridge construction in interfitting relation, said segments being spaced apart along their entire lengths to form work piece receiving recesses therebetween.

2,849,105
CONVEYER APPARATUS
Louis L. Tonton, Fresno, Calif.
Application March 21, 1956, Serial No. 572,969
3 Claims. (Cl. 198—213)



1. In conveyor apparatus, conveyor means comprising a shaft and material-moving flight means mounted thereon, at least one end portion of said shaft being hollow, a shaft inserted within said hollow end portion, a slot formed in said hollow end portion, said slot extending in a direction axially of the hollow shaft portion for a substantial distance from the end thereof at least equal to the distance that the second named shaft is inserted in the hollow shaft portion, the surfaces defining said slot being spaced apart a distance only sufficient to allow for the passage of the inserted shaft end portion laterally therebetween, the two side wall portions of said hollow shaft portion adjacent the sides of the slot each extending for a substantial distance in a general direction tangential of the inserted shaft, a bolt passing through the two side walls of the hollow shaft portion and through the inserted shaft at its axis, and an additional bolt extending at right angles to the first mentioned bolt for securing the inner end portion of the inserted shaft to the hollow shaft portion.

2,849,106
FEEDER DEVICE
Robert E. Hunt, Wakefield, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application July 6, 1956, Serial No. 596,337
14 Claims. (Cl. 203—125)



1. Apparatus for feeding filamentary material comprising a feeding device, support means for said feeding device, means for advancing said feeding device relative to said support means and advancing said filamentary material therewith, means for advancing said filamentary material without advancing said feeding device, and means for retracting said last-mentioned means without retracting said filamentary material.

2,849,107
LUBRICANT FOR SPRAYING ON CHEMICALLY COATED METAL SURFACES
Earl Eugene Loeve, Jr., Birmingham, Mich., assignor to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan
No Drawing. Application January 26, 1954
Serial No. 406,333
6 Claims. (Cl. 205—2)

5. The method of deforming chemically coated metal which comprises the steps of contacting chemically coated metal by spraying with an aqueous solution consisting essentially of 30 to 460 pounds per 100 gallons of solu-

tion of a concentrate which is the product of admixing the following ingredients, in parts by weight:

Saturated higher fatty acid	22.5–70
Rosin acid	3.5–30
Alkali metal hydroxide	3.5–15
Water	50–140

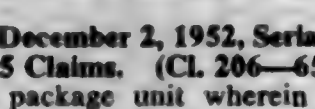
and about 2%–10% by weight of mineral oil, the ratio of rosin acid to fatty acid being in the range of 3.5:22.5 and 30:70, said solution having a pH in the range of 8.8 to 10.5, a Babcock number in the range of 2.5 to 3.0 and a free acid value of 0.3 to 1.3 points higher than the Babcock number, drying the coating and thereafter deforming the metal.

2,849,108
HAT RING

Martin M. Pascale, Norwalk, and George M. Rickus, Wilton, Conn., assignors to Hat Corporation of America, Norwalk, Conn., a corporation of Delaware

Original application November 9, 1954, Serial No. 467,790. Divided and this application January 20, 1956, Serial No. 560,375

4 Claims. (Cl. 206—9)



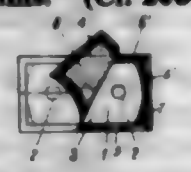
1. A hat ring for supporting a hat in a hat box to prevent damage of a hat during handling comprising a flat sheet of material having an opening therein and having tabs spacially positioned around said opening, an annular band positioned in said opening in perpendicular relation to said sheet with said sheet lying intermediate the width of said band, said tabs overlying and engaging said band intermediate the width thereof, and means securing said tabs and said band together to form a sturdy and relatively rugged hat ring.

2,849,109
RAZOR BLADE PACKAGE

Max Rommel, The Hague, Netherlands

Application August 19, 1953, Serial No. 375,175

2 Claims. (Cl. 206—46)



1. A razor blade package comprising a pair of paper strips adapted to receive a razor blade therebetween, said strips each having marginal edges extending beyond all edges of the razor blade, said strips each having a tear line formed therein and extending from one end to the other of said strips and longitudinally of the razor blade, and an adhesive coating securing the confronting faces of the marginal edges of the strips together securing the razor blade therebetween.

2. A device as claimed in claim 1 wherein the adhesive coating extends across the entire confronting surfaces of said strips, and the central portion thereof is covered to prevent adherence of said central portions to each other or to the razor blade.

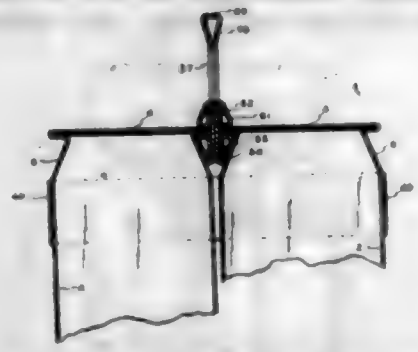
2,849,110
CONTAINER COUPLER

Adolph Weiss, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application December 2, 1952, Serial No. 323,545

5 Claims. (Cl. 206—65)

1. In a twin package unit wherein substantially flat juxtaposed vertical side walls of the packages are held one against the other by coupling means, said juxtaposed side walls being formed with opposed transverse indentations each having a substantially flat horizontal upper wall, and a handle having a lower portion interposed between the coupled packages, said handle portion being provided with projections extending from opposite sides thereof into said indentations in the package walls to support said unit, the improvement wherein said handle member comprises a pair of connected vertical walls of sheet material with bottom marginal portions of said



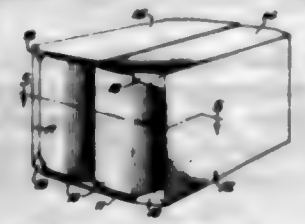
handle walls extending in opposite directions outwardly and upwardly, then horizontally inwardly, and then downwardly against the handle and being there secured to form lower beads substantially triangular in cross section and having substantially flat upper ledge portions in engagement with said flat upper walls of the package indentations to provide a maximum area of supporting engagement between said handle ledges and flat upper walls of said package indentations.

2,849,111
ARTICLE CARRIER

Francis W. Fielding, New Orleans, La., assignor to Lengsfield Brothers, Inc., New Orleans, La., a corporation of Louisiana

Application October 17, 1955, Serial No. 540,981

4 Claims. (Cl. 206—65)



1. In combination, a carton and a plurality of cylindrical articles, said carton being formed of paper board or the like with interconnected top, bottom and side panels defining an open ended container in which the articles are received in side by side relationship, a foldable flap foldably joined to the end of at least one of the panels along a fold line spaced from and generally parallel to the end of the panel to fold back into the container between said one of the panels and an adjacent one of the articles in the container, and a web formed of a pair of generally triangular sections foldably joined to each other along a central fold line and foldably joined to one end of the flap and to an adjacent panel along angularly related fold lines, all of the fold lines meeting at a common point at one corner of the carrier and the web extending across a corner of the open end of the container and contacting an end edge portion of the adjacent article to prevent accidental removal of articles from the container.

2,849,112
PAPERBOARD CARRIER HAVING EMBOSSED END EDGE PORTIONS

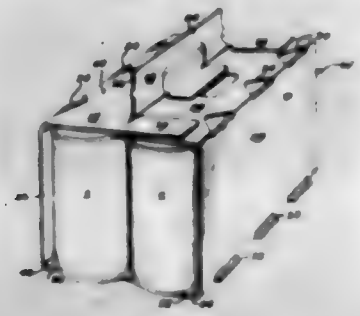
Homer W. Forrer, Atlanta, Ga., assignor, by mesne assignments, to Mead-Atlanta Paper Company, a corporation of Ohio

Application February 20, 1957, Serial No. 641,292

6 Claims. (Cl. 206—65)

1. In a paperboard wrapper of the type arranged to be transversely folded and secured about a group of

cylindrical objects, such as cans, to form a four-sided package with open ends, and having positioning slots located adjacent the transverse folds therein for engagement with end edge portions of the cans within the carrier, the improvement which comprises inwardly doubled edge portions on the open ends of said wrapper terminating adjacent the end positioning slots of said wrapper, each of said edge portions having at least one embossed section positioned between an end positioning slot and the adjacent end edge, said embossed section



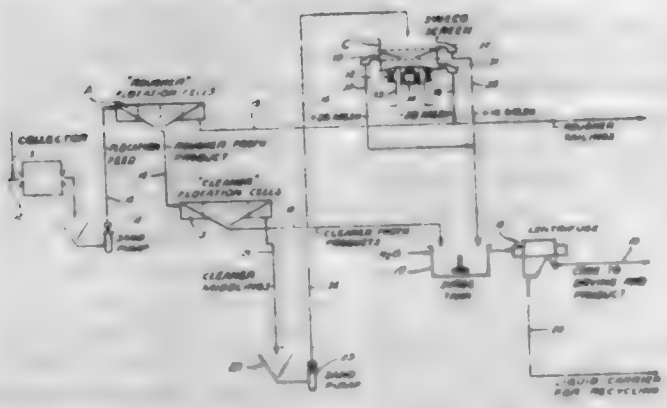
being defined by a score line at each side thereof parallel to the transverse folds in said wrapper and having a portion therein depressed away from the adjacent wrapper surface and unsecured thereto, said score lines being moved towards each other upon a folding of the wrapper thereby forcing the embossed section between said hinge lines inwardly of the carrier and resulting in an inward bulging of the embossed section with a height in the erected carrier substantially greater than that of the height of said embossed sections in a flat unfolded position.

2,849,113

METHODS OF AND MEANS FOR HANDLING FLOTATION MIDDLINGS IN ORE CONCENTRATION PROCESSES

Douglas Johnston Bourne and Marvin H. Harrison, Carlsbad, N. Mex., assignors to Duval Sulphur and Potash Company, Houston, Tex., a corporation of Texas

Application November 16, 1953, Serial No. 392,178
11 Claims. (Cl. 209—12)



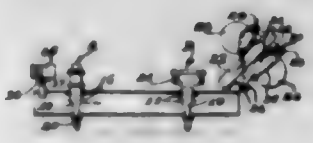
1. In an ore concentrating process wherein the ore is subjected to froth flotation in flotation cells and wherein a middling material is produced which consists partially of coarse particles of the collected ore constituent which are difficult to refloat and partially of relatively fine particles of the depressed ore constituent which were mechanically entrapped in the froth, the method of handling middling material which includes, conducting said middling material from the flotation circuit and subjecting the same to mechanical separation to separate said material into at least two fractions according to mesh size, conducting one fraction directly to the final froth product from the flotation cells, and conducting the other fraction to the depressed product which is discharged from said flotation cells.

2,849,114

APPARATUS FOR INSPECTING AND CLASSIFYING GLASS CONTAINERS

Burton A. Noble, Oakland, and Joseph F. Schlesinger, Alameda, Calif., assignors to Owens-Illinois Glass Company, a corporation of Ohio

Application July 16, 1956, Serial No. 597,932
6 Claims. (Cl. 209—74)



1. In apparatus of the character described an endless series of intermittently moving cradles adapted to support glass containers in recumbent positions and carry them in succession to a plurality of horizontally spaced container inspecting stations and thence to an unloading station, a horizontal distributing conveyor having a receiving end positioned at the unloading station, means for tilting the cradles and thereby transferring containers supported thereon to upright positions upon the conveyor at said unloading station, accumulator tables for defective containers at opposite sides of the distributing conveyor, one table adapted to receive containers having defects falling in one general classification and the other table adapted to receive containers having defects of another distinctive general classification, container deflectors individual to and normally overlying the tables and movable one at a time to a position over the conveyor to direct selected defective containers to said tables, an air motor supporting and operable to so move each deflector, an electric solenoid valve individual to and for controlling the delivery of air under pressure to each motor, microswitches individual to and electrically connected to the solenoid valves for controlling operation of the latter, a self-contained defect detecting unit at each inspecting station, microswitch operators individual to and traveling with the cradles and normally occupying neutral positions but movable to alternate positions each so related to one of the microswitches as to operate by means of said microswitch a selected one of said deflectors when the container in the cradle associated with said operator reaches said deflectors and an actuator for each detecting unit operable in response to the detection by a unit of a specific kind of a defect in a container for moving a microswitch operator to a preselected operative position in which it will actuate the microswitch which upon actuation causes operation of the deflector that directs containers to the table whereon containers having the detected defect are classified, thereby to direct the containers having said specific kind of defect to said last named table.

2,849,115

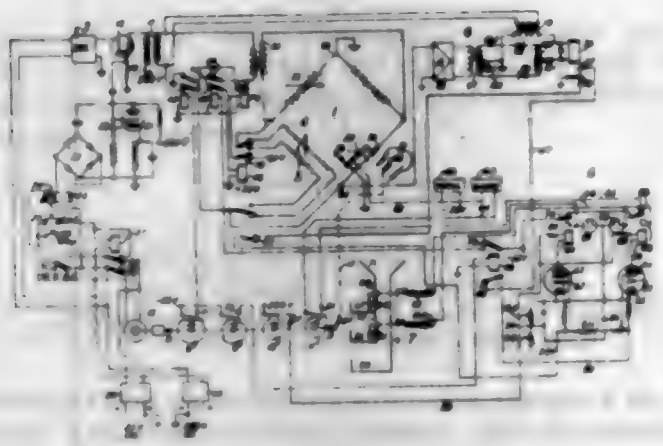
SYSTEM FOR ELECTRICALLY TESTING AND CLASSIFYING IMPEDANCE ELEMENTS

Howard A. Tooker, Allentown, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application November 27, 1951, Serial No. 258,485
5 Claims. (Cl. 209—81)

1. In a system for electrically testing and classifying resistors, high and low limit resistors with which the resistors to be tested are to be compared, a test bridge having in one arm thereof test terminals for receiving the

resistors and having in another arm terminals for receiving successively the high and low limit resistors, mechanism for feeding the resistors in succession to and holding them in contact with the test terminals for a predetermined time, driving means for the feeding mechanism, a phase sensitive detector connected to the bridge, a source of alternating current connected to the detector, high and low limit gas-filled tubes selectively con-



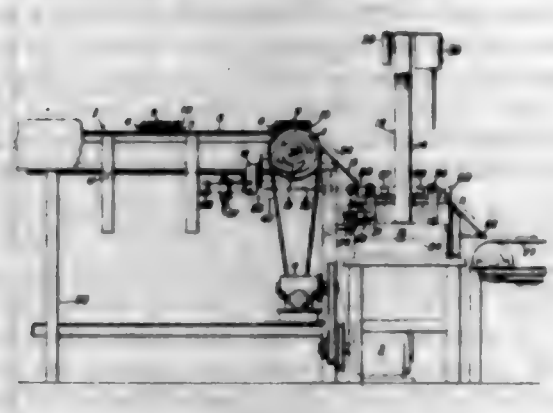
trolled by the phase sensitive detector, high and low limit resistor segregating means controlled by the tubes, a first relay for successively connecting the limit resistors into the bridge, relays for connecting the source of alternating current to the bridge and disconnecting it therefrom during operation of the first relay, a plurality of cams rotated by the driving means and contacts operated by the cams for operating and releasing the relays in cyclic sequence for each resistor fed to the bridge.

2,849,116

AUTOMATIC WEIGHT SORTING APPARATUS

William F. Fried, Jr., Pittsburgh, Pa., assignor to "Pilotlab," Evans City, Pa., a corporation of Pennsylvania

Application April 18, 1957, Serial No. 653,575
6 Claims. (Cl. 209—121)



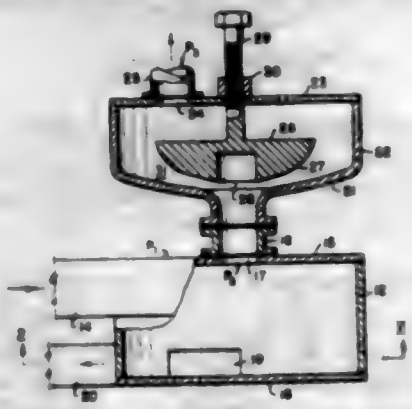
1. Weight sorting apparatus comprising an automatic scale having a platform and a pointer, a feed conveyor divided longitudinally into a plurality of pockets of substantially equal length each for conveying one of the units to be sorted to said platform, a pair of reciprocable pusher means disposed substantially normal to each other and positioned to sweep across said platform and eject a unit therefrom in one of two directions, motor means for reciprocating each of said pusher means, photosensitive means responsive to the position of said pointer for selecting the pusher means to be actuated in accordance with whether the particular unit on the platform is within or outside acceptable weight limits, and means synchronized with said feed conveyor for initiating actuation of the selected pusher means on deposit of a unit on said platform.

2,849,117

CENTRIFUGAL SEPARATOR WITH DIFFUSER

Kornelis Rietema, Amsterdam, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application June 23, 1955, Serial No. 517,592
Claims priority, application Netherlands June 30, 1954
6 Claims. (Cl. 209—211)



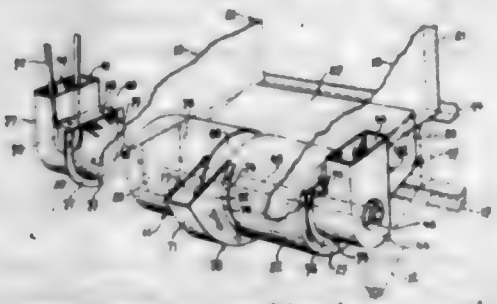
1. In a stationary centrifugal separator including an outer wall enclosing a centrifugation chamber, a tangential inlet for said chamber, an overflow outlet, and an underflow outlet, at least one of said outlets comprising an opening in said outer wall of lesser diameter than and in coaxial relation to said centrifugation chamber, the improvement of a diffuser including: an enclosing wall defining a pressure-recovery chamber of greater diameter than and in alignment and direct communication with said one outlet; a deflecting body situated predominantly within said pressure-recovery chamber and having a central recess in alignment with and open toward said one outlet, and an annular deflecting surface surrounding said recess and having a diameter greater than said one outlet and less than said pressure-recovery chamber; and an outlet for said pressure-recovery chamber.

2,849,118

FANNING MILL FOR COMBINES

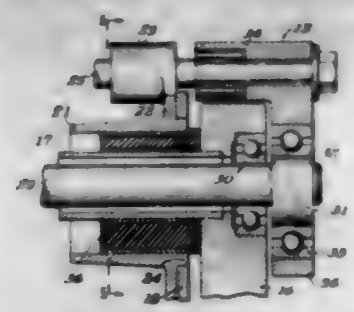
Robert Ashton, Toronto, Ontario, Canada, assignor to Massey-Ferguson Inc., a corporation of Maryland

Application February 20, 1956, Serial No. 566,708
3 Claims. (Cl. 209—318)



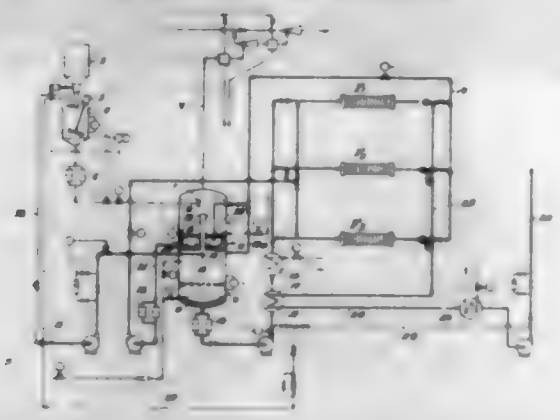
1. In a combine, the combination comprising a main body supported a spaced distance from the ground on ground engaging wheels, a fanning mill having an elongated cylindrical fan chamber mounted beneath said main body and having an air inlet at each end thereof and a delivery chamber extending generally tangentially therefrom, an intake air chamber secured to each end of said fan chamber and over said inlets so as to place said fan chamber in air receiving communication with said intake chambers, said intake chambers extending generally upwardly along the opposite sides of said main body and terminating above said fan chamber and having intake openings adjacent their upper end, said fan chamber having an air receiving passageway intermediate its length and extending around a portion of its periphery, an intermediate duct secured to said fan chamber and in air communication therewith through said passageway, said intermediate duct extending in a generally upward direction to closely underlie said combine body and having an inlet opening adjacent its upper end.

2,849,119
VIBRATING SCREEN DEVICE
Joseph R. Guess, Covina, Calif.
Application August 2, 1954, Serial No. 447,064
6 Claims. (Cl. 209—365)



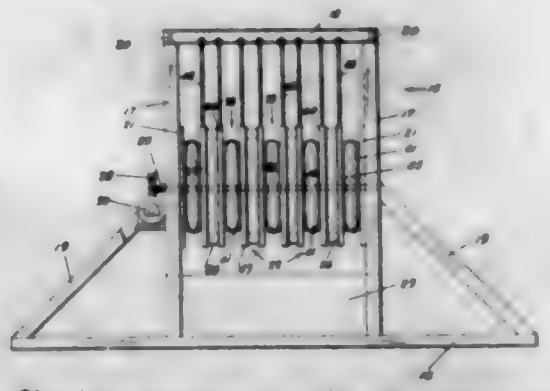
4. A material-screening device comprising at least two pairs of posts, a pair of tubes extending between each pair of posts, a pair of rotatable shafts within said tubes, said shafts being mounted by bearings in said posts, an eccentric on each end of each of said shafts, a pair of rods running between said posts parallel to said shafts, said rods and said shafts being inter-connected by a strap encircling said eccentrics, a set of hubs suspended from said rods, said hubs encircling said tubes adjacent the ends thereof, a compressible member disposed between said hubs and tubes, and a screen suspended from said hub and tube combination, said screen being adapted to reciprocate upon rotation of said shafts.

2,849,120
OIL BLEACHING EQUIPMENT
Charles E. McMichael, John W. Godbey, and Victor L. Zehnder, Louisville, Ky., assignors, by mesne assignments, to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Original application August 28, 1951, Serial No. 244,016, now Patent No. 2,717,256, dated September 6, 1955. Divided and this application November 16, 1954, Serial No. 478,213
7 Claims. (Cl. 210—193)



1. Equipment for use in bleaching oils with a bleaching adsorbent comprising, in combination with a filter having an oil inlet and an oil outlet, an oil treatment vessel having upper and lower treatment chambers therein, an oil spray inlet in the upper region of the lower chamber, an oil outlet from the lower chamber connected with the filter inlet, a connection for delivering oil from the filter outlet to the upper chamber of said vessel, an inlet for introducing adsorbent in dispersed form into the upper portion of the upper chamber, an oil outlet from the upper chamber connected with the filter inlet, the oil outlets from the lower and upper chambers being alternately connectible and disconnectible with respect to the filter inlet, a vacuum connection in the upper chamber, a stripping steam inlet in the lower chamber, and a connection between the upper portions of the upper and lower chambers providing for serial flow of the stripping steam from the lower chamber to the upper chamber to the vacuum outlet, and providing for sequential stripping by said steam of the oil sprayed into the lower chamber and then contact of said steam with the adsorbent in the upper chamber.

2,849,121
PRESSURE FILTER
Blair Burwell, Grand Junction, Colo.
Application September 22, 1954, Serial No. 457,628
13 Claims. (Cl. 210—226)

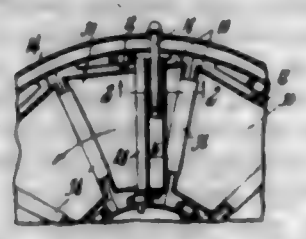


1. In a filtering apparatus a series of vertical expanding and retracting sided pressure chambers alternately spaced between filtering chambers with the rigid sides of the pressure chambers forming on their exterior faces the filter plate sides of the filter chambers on which are attached drainage grooves and filter cloth in such a manner that a pressure-tight filter chamber is formed when the sides of the pressure chamber are moved outward against the margins of a movable filter press frame; means for sealing the surface of the margin of the frames and corresponding surface of the filter plates against escape of liquid under pressure; means for supporting the filter press frames in such a position that they are movable only in a vertical plane at right angles to the horizontal axis of said pressure chambers; means for expanding and retracting the filter plate sides of said pressure chambers in a direction alternately outward and inward along the horizontal axis of the chambers while maintaining the spacing of the center lines of said pressure chambers along the horizontal axis; means for supplying a mixture of liquids and solids under pressure to the inside of the filter chambers when the pressure chamber sides are expanded to form a tight seal with their corresponding filter frame; means for conducting filtrate away from the filtering chambers after its passage through the filter cloth; means for moving the filter frames in a vertical plane at right angles to the horizontal axis of the chambers to a position where the solids contained on the filter frames can be removed outside the device when the sides of said pressure chambers are withdrawn from their sealing position against the margins of said filter frames; means for rigidly mounting the assemblage of pressure chambers and filter chambers in a framework in operative position to confine the thrust of the pressure chambers in a horizontal line and at the same time maintain the relative position and spacing of the alternate filter and pressure chambers.

2,849,122
PAN FILTER CONSTRUCTION
John T. Roos, Walpole, Mass., assignor to Bird Machine Company, South Walpole, Mass., a corporation of Massachusetts
Application February 5, 1957, Serial No. 638,246
5 Claims. (Cl. 210—328)

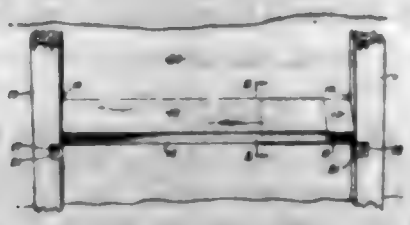
1. In a pan type filtering device comprising an array of individual filter cells arranged for advancing in sequence and a supply means above the path of the advancing cells for feeding liquid onto said cells successively as they advance, the improvement comprising a perforate deflector member mounted between said supply means and said cells for deflecting and guiding said liquid onto the face of said cells, said deflector member

having a free end swingable to and from a lowered position in which the liquid flows primarily across the face of said deflector to the cells and a raised position in



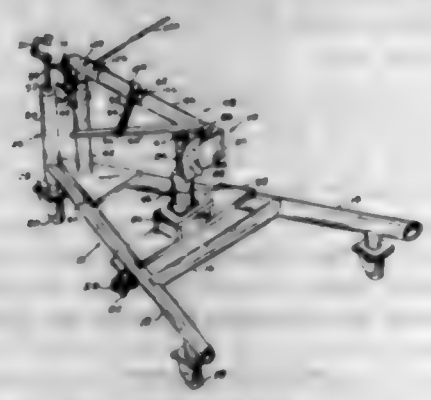
which the liquid flows primarily through said perforations onto said cells, said deflector being swingable to and from said positions by the advancing movement of the cells therebeneath.

2,849,123
DEMOUNTABLE EXPANDING SHELF
Paul L. Magill, Menlo Park, Calif.
Application April 30, 1954, Serial No. 426,647
9 Claims. (Cl. 211—90)



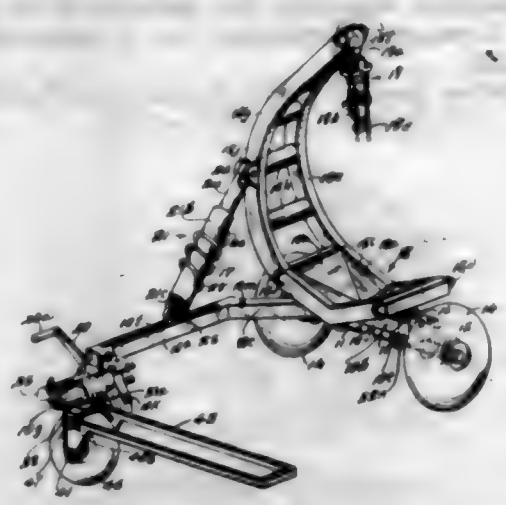
1. An expanding shelf for easy attachment to the space between the open studding of a framed wall, which comprises two telescoping sections of sheet metal formed with aprons on the sides and ends to provide rigidity, said side aprons extending downwardly and inwardly, flattened ears extending longitudinally beyond the ends of the shelf, said ears being formed from extensions of the end aprons substantially in line with the front edge of the shelf and adapted to lie flat against the face of said studding and attach thereto, and supporting spurs extending rearwardly from the end aprons beyond the rear edge of the shelf suitable for driving into the sheathing to which the studding is attached.

2,849,124
ENGINE AUXILIARY EQUIPMENT HANDLING JACK ASSEMBLY
William H. Warner, Riverside, Calif., assignor to the United States of America as represented by the Secretary of the Air Force
Application May 7, 1956, Serial No. 583,344
3 Claims. (Cl. 214—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



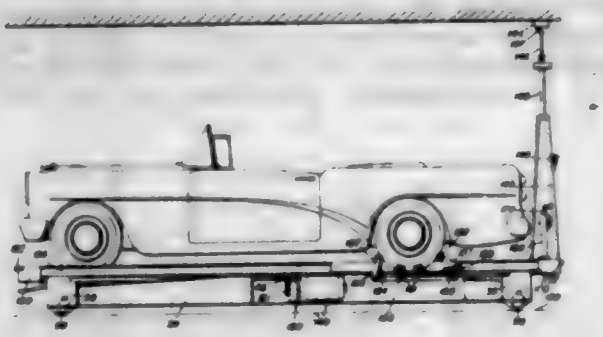
1. A jack stand for installing engine accessories in engine nacelles comprising a mobile base frame, a pedestal jack adjustably supporting said frame at an end thereof, an upstanding stationary strut on said frame, a tubular casing pivotally mounted at an end thereof on said upstanding strut, an upstanding jack on said frame pivotally connected to said tubular casing for adjustable supporting the same, a reciprocable member in said casing, a work supporter pivotally connected to said reciprocable member at a front end thereof, torque levers adjustably connecting said reciprocable member to said work supporter, a linear adjustment screw for said reciprocable member, a rotary adjustment member in said casing, said rotary adjustment member connected to said reciprocable member for transmitting rotary motion thereto, and handle means for manually operating said rotary adjustment member.

2,849,125
TREE-HANDLING DEVICE
Herman F. Beseler, Minneapolis, Minn.
Application November 28, 1949, Serial No. 129,821
9 Claims. (Cl. 214—3)



1. A tree-handling device having in combination, a frame comprising a side member and a transverse member at the rear thereof, said frame having an opening in front of said transverse member, a cradle on said frame having a top surface adapted to support a tree and tree ball with the trunk of said tree inclined to the vertical pivoted adjacent the rear thereof and having an upstanding post at the same side as said side member, the same forming a boom, said cradle being swingable about an axis extending transversely of said frame, a hoist secured to the upper end of said boom and depending therefrom, and means for swinging said cradle whereby an object can be lifted at the rear of said frame by said hoist and swung over said frame by said boom, placed on said cradle and can be lifted from said cradle and lowered by said hoist through said opening.

2,849,126
CENTRALIZE INDEX AND DRIVER FOR STORAGE AND PARKING
Coleman Louis Kerekes, New Brunswick, N. J.
Application May 23, 1955, Serial No. 510,097
5 Claims. (Cl. 214—16.1)



1. A track switch system for a garage comprising a horizontal supporting structure, rails secured to said horizontal supporting structure, carriages mounted on said rails, electric power ribbons mounted in said garage above said rails, drive means for said carriages, support means for connecting said drive means to said ribbons, said rails

comprising spaced rail sections having rollers rotatably mounted and extending therebetween, turntables at the intersections of said rails, each of said carriages comprising a platform having a plurality of drive housings depending therefrom for supporting said platform, sprockets in said drive housings, means for driving said sprockets about a horizontal axis, and means for simultaneously indexing said sprockets in ninety degree increments about a vertical axis, said sprockets being indexed when on selected of said turntables, said turntables rotating with said sprockets when said sprockets are indexed.

2,849,127

APPARATUS FOR MECHANICALLY PARKING AND STORING AUTOMOBILES

Neal W. Densmore, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 27, 1955, Serial No. 518,090
12 Claims. (Cl. 214—16.1)



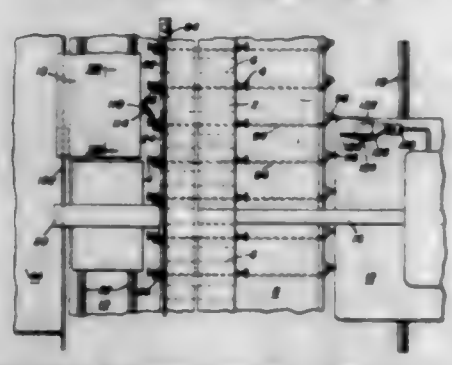
1. In an automobile parking and storing apparatus, a centrally located upright mastlike structure, a series of superimposed automobile supports disposed exteriorly of said mastlike structure and spaced vertically at different levels along said mastlike structure for support solely by said mastlike structure, an elevator supported by and movable vertically along said mastlike structure, a guide on said elevator for an automobile support, and guides on said mastlike structure disposed at said different levels whereby an automobile support may be transferred from said elevator guide to a guide on said mastlike structure and vice versa at any level.

2,849,128

CONTROL SYSTEM FOR COKE-OVEN PUSHER MACHINE AND COKE-SIDE DOOR MACHINE

William A. Sloss, Bay Village, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey

Application October 18, 1956, Serial No. 616,672
4 Claims. (Cl. 214—23)



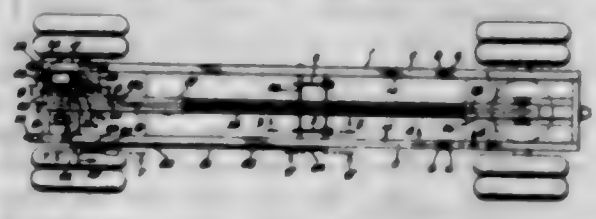
3. In a coke-oven battery having a door for each coking chamber through which coke is discharged, a pusher positioned on the side of the battery opposite the discharge doors, said pusher carrying a ram for pushing the coke from the chamber, an electric control for controlling the travel of the pusher, an electric control for controlling forward movement of the ram, a coke-side door machine, an electric control for controlling the travel of the door machine, a coke-guide, means for racking the coke-guide into place against the coke chamber to be pushed, and a quench car for receiving the coke; the combination including a lever pivotally mounted adjacent its ends on said door machine, a cam track extending along the inner side of said car, the first end of said lever adapted to contact said cam track when said car is in position to receive coke, a first electric circuit to said door machine travel control, a normally closed switch in said first electric circuit, said lever opening said switch when said coke-guide is racked in place, a second electric circuit to said pusher travel control, means for interrupting said second electric circuit when said pusher is in place at the chamber to be pushed, a third electric circuit to said pusher ram control, and means for closing said third electric circuit when said second electric circuit is interrupted, the coke-guide is racked in place at the coking chamber in line with the pusher ram and the car is in position to receive coke.

2,849,129

LOAD TRANSFERRING APPARATUS

James R. Likens, Huntington Park, Calif.

Continuation of application Serial No. 218,604, March 31, 1951. This application December 3, 1956, Serial No. 625,951
12 Claims. (Cl. 214—38)



1. A load transfer combination comprising a forward truck, a rearward truck and a longitudinally shiftable wheel-supported carrier initially mounted at a rearmost position on said rearward truck, a pair of carrier-supporting tracks on the forward truck, a pair of correspondingly spaced carrier-supporting tracks on the rearward truck and complementary aligning means respectively on the forward and rearward trucks having both laterally engaging camming faces and vertically engaging camming faces whereby to align said pairs of tracks in both a horizontal and a vertical plane when the trucks are brought together, a chain drive assembly comprising a longitudinal chain support mounted on the rear truck at a location independent of the tracks on said rear truck and extending throughout the length of travel of said carrier, a sprocket mounted on a transverse countershaft on the rearward truck at each end of the chain support and an endless chain extending over said sprockets and slidably supported on said chain support, a push dog fixed in erect position on said chain, temporary dog-engaging elements respectively on said carrier and said chain support engageable during travel of said carrier from the rearward truck to the forward truck, and a motor operably attached to one of said sprockets whereby to shift said carrier from the rearward truck to the forward truck.

2,849,130

TILTABLE BED HAULING DEVICE

William Van der Velde, Berwyn, Ill.

Application March 12, 1957, Serial No. 645,582
1 Claim. (Cl. 214—85)

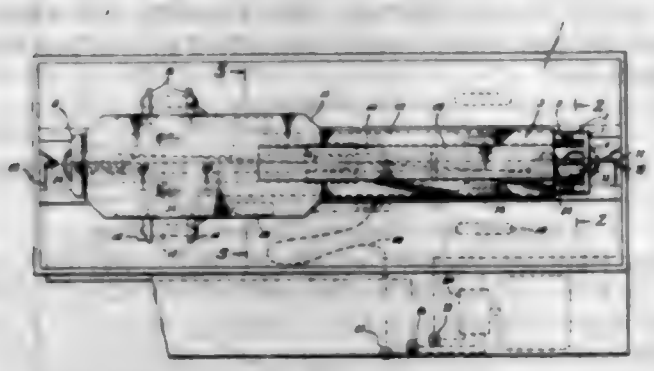
In a hauling device including a self-propelled truck having a frame with a power-actuated rear-tilting dumping bed, the improvement comprising a pair of trans-

versely spaced tracks mounted on said bed and generally parallel to the plane of tilting of the bed, a removable container having a plurality of rotatably secured castered wheels disposed for rolling in said track ways and for supporting said container thereon, each of said track ways including a pair of internal longitudinally disposed guide ribs spaced slightly wider than the width of said wheels whereby said wheels are accurately guided and supported on the track ways, selectively releasable latch means operatively associated with said track ways and said container for securing said container in a stored position on said track ways, a pair of auxiliary track ways normally stored on said bed between said spaced track ways, said auxiliary track ways being substantially wider than the distance between the respective pairs of



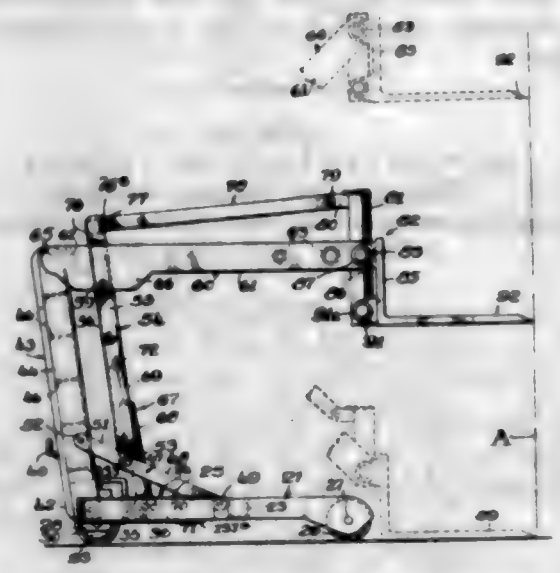
guide ribs on said spaced track ways, means for selectively securing one end of each of said auxiliary track ways to the respective outer ends of said spaced track ways with the other ends of the auxiliary track ways resting on a loading surface, and lead-in guide ribs formed at said one end of each of said auxiliary track ways and operatively associated with said guide ribs of said spaced track ways to provide a transition between the track ways, said other ends of the auxiliary track ways being flared to provide widened leads into the auxiliary track ways to facilitate rolling said wheels into said auxiliary track ways from the loading surface, whereby said auxiliary track ways form removable extensions for shifting said container on said track ways between said stored position and the loading surface.

2,849,131
VEHICLE PARKING ELEVATOR
James A. Smith and Jeffrey D. George, Houston, Tex., assignors, by mesne assignments, to Mechanical Parking Systems, Inc., Houston, Tex., a corporation of Texas
Application May 24, 1957, Serial No. 661,443
6 Claims. (Cl. 214—95)



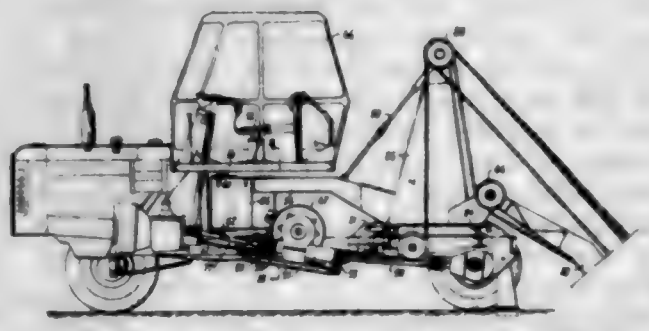
2. In an automobile parking lift and transfer assembly, an automobile receiving and conveying platform having a floor opening extending longitudinally in relation to an automobile to be received on the platform, an automobile lift and transfer dolly having supporting wheels to ride on the platform on both sides of said longitudinal opening, means to guide the path of travel of said transfer dolly on and off the platform and comprised of an inner guide member telescopically fitted to and having longitudinal guide bearing engagement with said dolly as a track therefor, said inner guide member being of a length substantially corresponding to the length of said dolly and having intermediate its length a dependent supporting assembly projected through said floor opening, supporting guide tracks fixedly mounted below said floor and engaged by said dependent assembly for supporting said inner guide member and guiding its longitudinal movement and power means carried by said dependent assembly and operatively connected with said platform and with said dolly to effect concurrent travel of said guide member and said dolly for the guided projection and retraction of the latter on and off said platform.

2,849,132
LIFT TRUCK
Jesse E. Clarke, Hinsdale, Ill.
Application August 2, 1956, Serial No. 601,753
13 Claims. (Cl. 214—130)



1. A lift truck, comprising, a mobile chassis, a mast pivoted on the chassis, a boom pivoted on the mast overhanging said chassis, a strut pivoted on the boom forwardly adjacent the mast, said strut extending above the boom, an L-shape member pivoted on the boom at its outer end, said member having an arm extending above the boom, a stabilizer link above the boom articulated with the strut and with said arm, a pair of toggle joints articulated intermediately respectively with the lower end of the strut and at its ends with the mast and chassis rearwardly and forwardly of the strut, hydraulic means carried by the truck for reciprocating the strut vertically, and propulsion means for the truck, whereby the outer end of the boom moves in a substantially linear vertical path and the base of the L-shape member is maintained approximately horizontal.

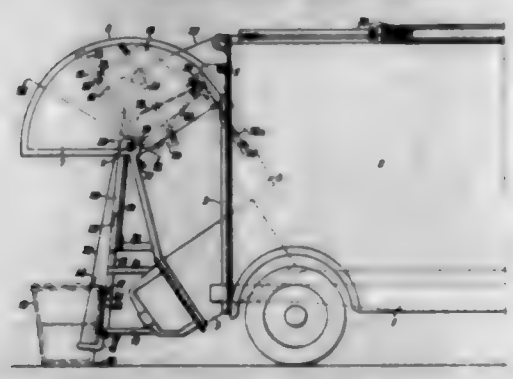
2,849,133
DIGGING MACHINE
Erik Ingemar Carlsson and Gunnar Robert Johdet, Orebro, Sweden, assignors to Örebro Bil- & Traktor Aktiebolag, Orebro, Sweden, a corporation of Sweden
Application May 20, 1955, Serial No. 509,974
Claims priority, application Sweden May 22, 1954
12 Claims. (Cl. 214—142)



1. A material handling machine, wherein a driven undercarriage carries a drive motor and a structure rotary

about a vertical axis to which structure material handling means are attached, and which material handling means are manoeuvred by means of wire ropes running over rope drums driven by the motor and supported by bearings located on the undercarriage, characterized in an arm extending from the turning structure in a direction diametrically opposite to the material handling means, respectively, said arm carrying a counterweight and being arranged in certain positions of the turning structure to take up such a position close to a member of the undercarriage as to abut thereagainst and stabilize the turning structure during a heavy material handling operation, and further characterized in a free space being arranged between the carrying framework of the undercarriage and a cabin for the operator built on same, and in which cabin all necessary manoeuvring means are placed, through which free space the arm and the counterweight pass while swinging from the one side of the undercarriage to the other.

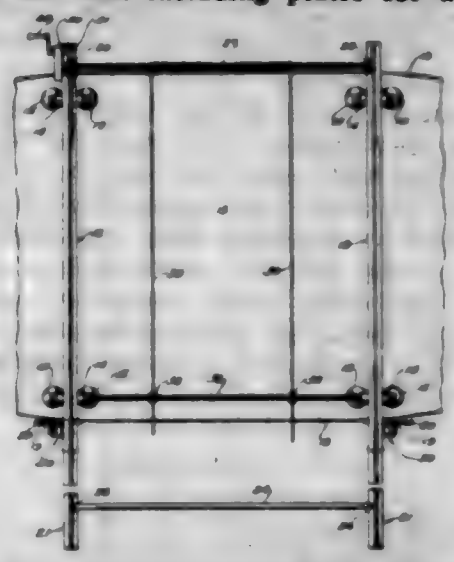
2,849,134
REFUSE COLLECTING VEHICLE
Hilding Linde, Kalmar, Sweden
Application June 21, 1955, Serial No. 516,931
5 Claims. (Cl. 214—302)



1. A refuse collecting vehicle, comprising a refuse collecting container, a hood which is formed by two vertical side walls connected by an arcuate cover and has an entrance mouth opening directed downwardly, a shutter pivoted at one end in the center of said arcuate cover and extending in its normal position with a free opposite end directed downwardly, which shutter is adapted to be swung into the hood and has a form substantially corresponding to the axial section of the hood for closing the same, a movable dustbin carrier, guide members on said shutter for said carrier, and a hoisting device with cables passing through said hood to the carrier for lifting the carrier to an upper end position on the shutter and swinging the shutter and the carrier with a dustbin into a discharge position within the hood.

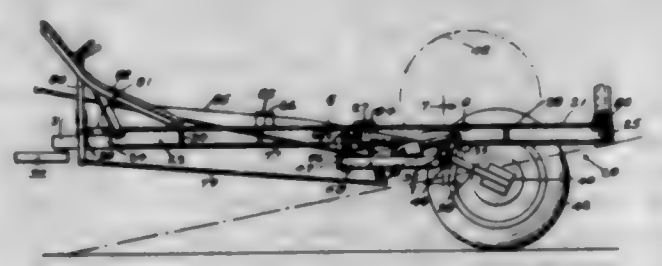
2,849,135
SIDE LOADING AUTOMOBILE TOP CARRIER
Joseph D. Embler, Sturgis, Mich.
Application January 20, 1956, Serial No. 560,422
7 Claims. (Cl. 214—450)

1. In a means for loading a boat upon the top of an automobile, two rails and means for mounting them on the automobile top in spaced parallel relation and in positions extending transversely of the top, two additional rails to incline from the ground to one end of the first mentioned rails, a winch mounted on the other ends of said first mentioned rails, means for detachably connecting said additional rails with said first mentioned rails, track engaging rollers to travel up said additional rails and onto said first mentioned rails, means for mounting said rollers on front and rear portions of the boat to be loaded with the plane of said rollers extending in a direction transversely of the keel line of said boat, two pull lines connected with said winch, and means for connecting said pull lines with front and rear portions of the boat respectively, said means for mounting said rollers on the boat including plates for attachment to



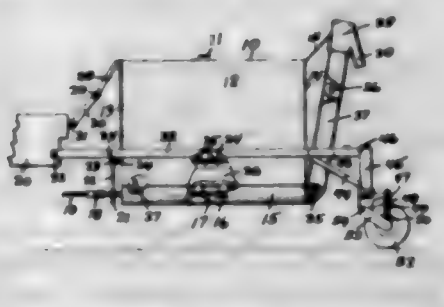
the boat, said means for connecting said pull lines with the boat including eyes secured to at least two of said plates.

2,849,136
BOAT TRAILER
George S. Moore, Mendota, Ill.
Application November 19, 1956, Serial No. 622,947
3 Claims. (Cl. 214—506)



1. A trailer comprising a frame, means detachably connecting the forward end of said frame to a towing vehicle, a shaft extending transversely of said frame and journalled for rotation thereon, crank arms extending perpendicularly from opposite ends of said shaft, a wheel journalled on the end of each of said crank arms opposite said shaft, an arm having one end journalled on said shaft, resilient means securing the opposite end of said arm to said frame, a hydraulic jack pivotally mounted to said arm, a crank arm fixed to said shaft intermediate the opposite ends thereof, and a piston rod extending from said jack and pivotally connected to said last named crank arm.

2,849,137
TRACTOR MOUNTED POWER FEEDER FOR BUNK FEEDING
Alfred W. Hansen, Kadoka, S. Dak.
Application June 4, 1956, Serial No. 589,310
1 Claim. (Cl. 214—522)



A tractor mounted power feeder for bunk feeding comprising a grain receiving hopper, a resiliently mounted wheel journalled rearwardly on said hopper, means for pulling said hopper including a three terminal suspension unit attached thereto adapted to be attached to

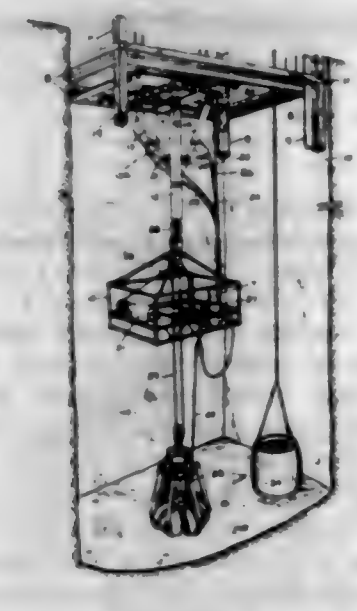
the three-point rear system of a tractor, said hopper including a lower longitudinally positioned conveyor, means for attaching said conveyor to a tractor rear power take-off shaft, an agitator member positioned above said conveyor and driven by the same, an upwardly and angularly positioned hollow chute communicating with said conveyor for discharging feed to one side of said feeder, said chute including a further conveyor therein, and including a downwardly positioned spout at its upper end, means for adjustably positioning said chute at desired angles.

2,849,138

MINE SHAFT MUCKING APPARATUS

James A. Drain, Blair, Ontario, and John A. Read and John E. Gordon, Galt, Ontario, Canada, assignors to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application April 3, 1956, Serial No. 575,779
12 Claims. (Cl. 214—657)



1. In combination, a supporting structure guided for vertical movement in a mine shaft, a material removing element suspended from said supporting structure for loading material from the shaft bottom, adjustable supporting mechanism for said material removing element for moving the latter into different operating positions laterally within the shaft, motor operated means carried by an element of said supporting mechanism for raising and lowering said material removing element relative to said supporting mechanism, and remote control means operable by an operator standing at the shaft bottom for controlling the operation of said motor operated means.

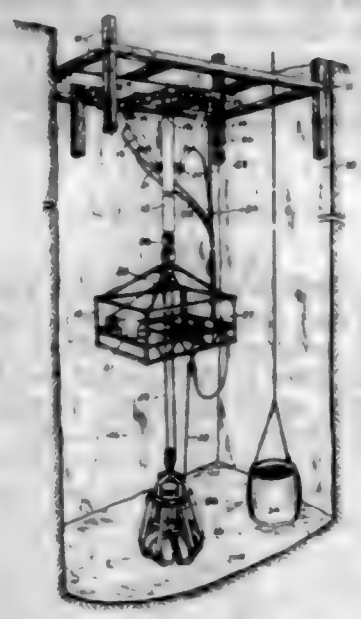
2,849,139

MINE SHAFT MUCKING MACHINE

James A. Drain, Blair, Ontario, John Edward Gordon, Galt, Ontario, and John Albert Read, North Bay, Ontario, Canada, assignors to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 10, 1955, Serial No. 514,621
14 Claims. (Cl. 214—658)

1. A mucking machine comprising a supporting structure positionable in a mine shaft, a boom suspended from said supporting structure on a universal pivotal mounting located substantially centrally within the shaft, said boom extending downwardly within the shaft within the supporting structure, power devices operatively connected to said boom and to said supporting structure for swinging said boom to move its lower end laterally within the shaft, a material removing implement suspended from the lower end of said boom, means for operating said implement to effect movement thereof along a straight vertical path, and control means for operating said power devices to swing said boom to move said implement laterally substantially to any operating



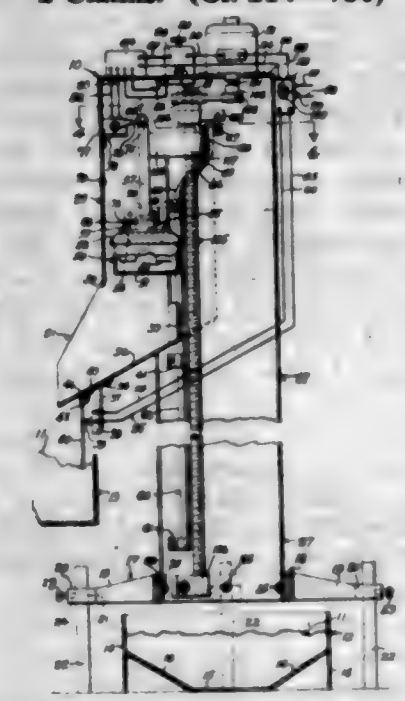
point between the walls of the mine shaft while said straight path of movement thereof remains vertical.

2,849,140

CONVEYOR ELEVATOR

Peter P. Ruppe and Alan E. Bodycombe, Grosse Pointe Woods, Mich.

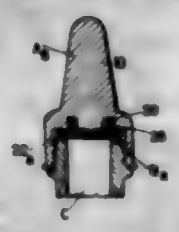
Original application February 25, 1952, Serial No. 273,298, now Patent No. 2,762,519, dated September 11, 1956. Divided and this application September 10, 1956, Serial No. 614,042
2 Claims. (Cl. 214—730)



1. A conveyor elevator for lifting articles from a supply station at a low level to a laterally offset delivery station at a higher level, said conveyor elevator comprising a substantially upright supporting structure positioned above said supply station, an article pickup elevator unit connected to said supporting structure and movable in a substantially vertical path, an article pickup carrier unit connected to said elevator unit and movable upward and downward thereby, said carrier unit being mounted on said elevator unit for lateral movement relatively thereto, an article pickup carrier unit connected to said elevator unit and movable upward and downward thereby, said carrier unit being mounted on said elevator unit for lateral movement relatively thereto, an article pickup unit mounted on said carrier unit for travel therewith, a motor drivingly connected to said elevator unit, and mechanism responsive to the travel of one of said units

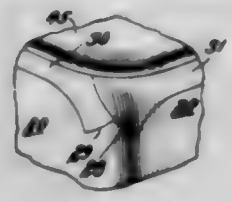
to a predetermined height above said supply station for moving said carrier unit laterally relatively to said elevator unit toward said delivery station, said elevator unit including a screw element and said carrier unit including a nut element threadedly engaging said screw element and traveling therealong, one of said elements being rotatable relatively to the other element and drivingly connected to said motor.

2,849,141
STOPPER FOR BOTTLES AND THE LIKE
Arnaldo Abbiati and Giuseppe Fabbri, Cernusco Montevecchia, Italy, assignors to Italo Mirri, Milan, Italy
Application June 6, 1955, Serial No. 513,447
Claims priority, application Italy October 4, 1954
5 Claims. (Cl. 215—40)



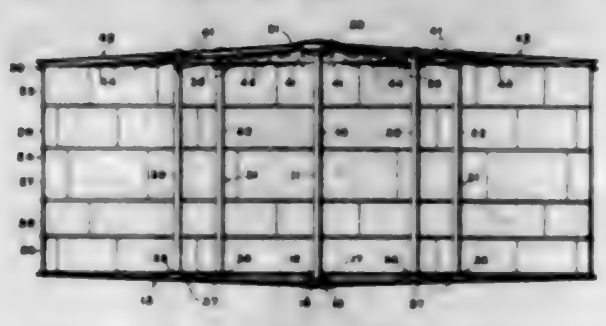
1. A closure assembly for tightly sealing the mouth of a container comprising a cap having a downwardly opening hollow portion adapted to extend over and be secured to a container mouth, said hollow portion having a flat interior top wall surface and a cylindrical side wall surface extending from the periphery of said top wall surface, and a compressible polyethylene sealing gasket including a radial wall portion adapted to seat between said flat top wall surface and the rim of a container mouth and having a normally smaller peripheral diameter than the internal diameter of said side wall surface so that a radial clearance is provided between the latter and the periphery of said radial wall portion into which the latter can radially expand as it is axially compressed by tightening of the cap on a container mouth, and an annular protrusion extending axially from the top surface of said radial wall portion and having an external diameter substantially smaller than the diameter of said radial wall portion, said interior top wall surface of the cap having an annular, downwardly opening groove therein receiving said protrusion to hold said sealing gasket within said hollow portion of the cap.

2,849,142
BOX STRUCTURE
Vincent Riccio, Garden City, N. Y.
Application January 11, 1956, Serial No. 558,566
2 Claims. (Cl. 217—65)



2. Box structure for reinforcing luggage comprising a body member having side and end walls and a cover panel, the said side and end walls merging into rounded corners, each of the said rounded corners having a recess extending thereinto from the outer marginal edge of the walls, parallel pairs of reinforcing strips adhesively secured to the side and end walls at the outer marginal edge thereof and to the cover, the bottom of each of said recesses having intersecting surfaces angled toward said marginal edge and forming beveled seats, the said reinforcing strips being right triangular in cross-section with the ends thereof extending into and filling the beveled seats in said recesses, the right angled sides of said strips facing said walls and cover respectively and one of the parallel pairs of reinforcing strips having their ends beveled inwardly to join adhesively in overlapping relation the hypotenuse faces of the other parallel pair of strips, the corners between the walls and cover and also the ends of the corners between the side and end walls being rounded by cutting to a smooth contour, the ends of the overlapping reinforcing strips, the side and end walls and the cover all combining at the rounded ends of each of the side and end wall corners to form a strong, continuous, rounded surface.

2,849,143
TANK DESIGN
Alfred E. Roeske, San Jose, Calif., assignor to International Minerals & Chemical Corporation, a corporation of New York
Application February 9, 1956, Serial No. 564,425
5 Claims. (Cl. 220—1)



1. A tank for storing liquid material comprising a tank bottom member, a central roof support member positioned in the center of the tank bottom member, a wall member secured to the tank bottom member in an area adjacent to the outer periphery of the tank bottom member, a multiplicity of intermediate roof support members positioned intermediate between the central roof support member and the wall member, a multiplicity of girders extending from the top of the intermediate roof support members to the top of adjacent intermediate roof support members, a multiplicity of roof members supported at the extremities thereof by attachment to roof support members, each of said roof members being a sheet metal unit having a tapering flat plate with the longitudinal edges thereof extending at an oblique angle to each other, said flat plate having a U-shaped gutter integrally formed adjacent to one of said longitudinal edges to serve as a stiffening means, said U-shaped gutter being open in an upwardly direction and having a flange extending from the edge opposite said flat plate in a plane coextensive with said flat plate, portions of said roof member adjacent the oblique longitudinal edges being adapted to overlap and being secured to the adjacent roof members, inlet means for introducing liquid into the tank and outlet means for removing liquid from the tank.

2,849,144
FABRICATED CONTAINER
Edward H. Southwell, Los Angeles, Calif.
Application August 22, 1955, Serial No. 529,851
2 Claims. (Cl. 220—4)

1. A fabricated plastic bottle which can be formed of any pre-determined length having a body formed of a section of plastic tubular stock material cut to a specified length depending upon the size bottle desired and a paper body stock fixed to the outer peripheral surface of said section, a bottom insert having a peripheral rim telescoped in one end of said section and fixed therein in fluid tight relation, a tubular top insert having a neck telescoped into the other end of said section and fixed to the inner periphery thereof and a shoulder located against the edge of said body located adjacent said other end of said section and fixed thereto, the outer periphery of said

shoulder being substantially flush with the outer periphery of the paper stock of said body, and a cap snap-fitted on the open end of said tubular top insert for sealing the



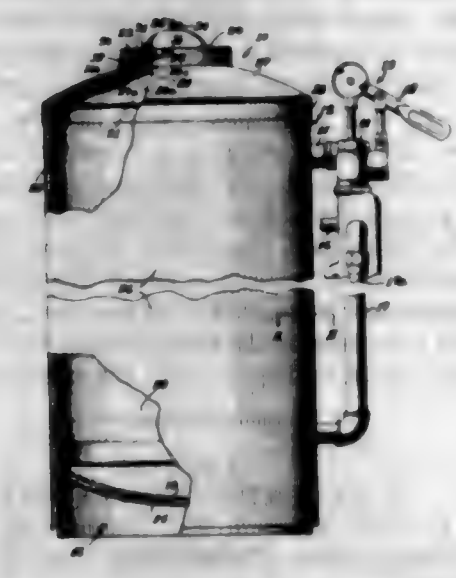
open end thereof whereby a bottle of any pre-determined length can be formed by utilizing tubular stock material of varying lengths with the same tubular top insert design.

2,849,145

INSULATED WATER SOFTENER TANK

Frederick D. Gugeler, Lombard, Ill.

Application January 3, 1955, Serial No. 479,440
2 Claims. (Cl. 220—14)



1. In a tank construction of the character described including a tank body having a top with an opening defined by a neck provided with an annular lateral flange overlying the top in spaced relation, insulation for encasing the tank body and top, a protective sheath structure for protectively encasing the insulation, said sheath structure including a cap having an aperture therethrough for receiving said neck to overlie the insulation on the top of said tank, said aperture being defined by an inner resilient margin to underlie said annular lateral flange in spaced relation thereto, a cover plate for disposition on said neck, and having a depending peripheral flange to overlie said cap margin in encompassing relation about said lateral neck flange and with said inner margin of the cap projecting substantially radially inwardly beyond said depending cover plate flange, a plurality of circumferentially spaced nuts located inside of said depending cover plate flange under said annular lateral neck flange and each having a margin thereof resiliently urged by said cap margin toward underside of the opposing margin of said annular lateral flange, and screws engaging said plate and drawing up said nuts against said lateral neck flange for sealingly securing said plate to said neck and with said depending peripheral flange in assembled relation to said cap margin.

2,849,146

SCREW COVER CONTAINER

George W. Wigert, Union, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application May 23, 1956, Serial No. 586,842
7 Claims. (Cl. 220—40)



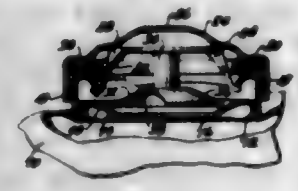
7. A container comprising a tubular body having a radially outwardly projecting curled edge defining and surrounding the container mouth, said curled edge at spaced intervals around its periphery having vertically compressed portions constituting lugs projecting radially outwardly beyond said curled edge, and a screw cover having a depending skirt wall surrounding said curled edge, said skirt wall having radially inwardly projecting ininclined thread sections disposed in outwardly spaced relation to said curled edge for loose application of said cover thereover to engage said thread sections beneath said lugs upon rotation of the cover to lock the same in place on the container, the outer peripheral portions of said lugs being inclined to substantially correspond to the inclination of said cover thread sections to facilitate wedging of the latter beneath said lugs.

2,849,147

GASOLINE TANK WITH ANTI-SPLASH CLOSURE

Clyde L. Thompson, Michigan Center, Mich.

Application February 26, 1954, Serial No. 412,776
5 Claims. (Cl. 220—44)



1. In combination, a fuel tank with a filling opening and a removable closure cap for said opening, said opening being defined by an annular flange on said tank wall having a concave interior surface, and the outer periphery of said flange being defined by an upright annular wall outwardly directed with respect to said tank interior, a collar secured against and around said outwardly directed wall, said collar being formed for the releasable affixing of the closure cap over the filling opening, said closure cap having an air bleed opening and having means engageable with said collar for affixing the cap in position over the filling opening, said cap also carrying baffle means opposed to said air bleed hole which baffle means in the affixed condition of the cap is disposed immediately over said annular flange and closes said filling opening except for a restricted annular space defined between the outer periphery of said baffle means and the said annular flange.

2,849,148

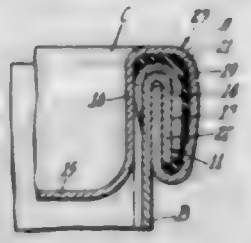
CAN END SEAM

Delmont J. Lohuis, Harrington, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application December 29, 1955, Serial No. 556,190
3 Claims. (Cl. 220—67)

1. In a tubular sheet metal can comprising a body member having a side seam which extends the entire length

of said body member and an end member secured to the body member in an interfolded end seam, said end seam having a peripherally extending gasket material enclosed therein for sealing said end seam against the passage of fluids therethrough, the improvement which comprises a patch of a resilient sealing compound in addition to said



gasket material only in that portion of said end seam in which the body member side seam is enclosed within said end seam, said resilient compound being in direct contact with said side seam and bridging the same within said end seam to effect a substantially improved hermetic seal in said end seam.

2,849,149

CANISTERS

William A. Welden, Venice, Fla., assignor to Revere Copper and Brass Incorporated, Rome, N. Y., a corporation of Maryland

Application October 4, 1955, Serial No. 538,368
1 Claim. (Cl. 220—82.5)



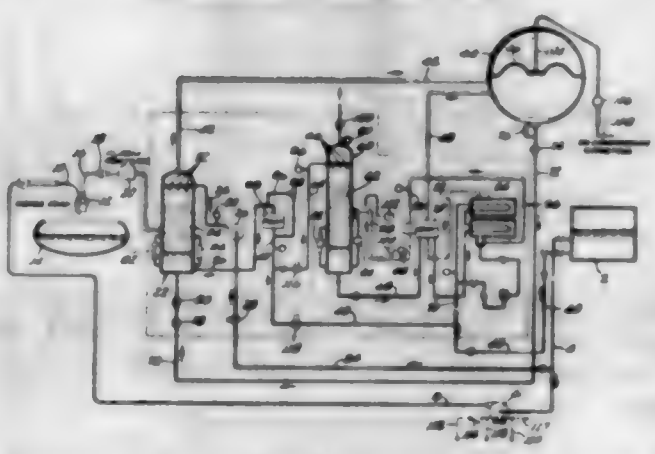
A canister cover having at its upper side a removable hollow knob of transparent molded plastic material adapted to receive and display a sample of the canister contents, said knob having an upper top wall, a skirt depending from said top wall having a lower annular edge defining an opening to the interior of said knob from its under side for entrance of such sample into it when it is removed from the cover and for contact with the upper side of the cover for closing such opening when the knob is attached to the cover, said knob having an interior center post depending from said top wall, a part fixedly embedded in said center post having a downwardly opening screw-threaded bore positioned axially of said annular edge, a screw having a flange-like head resting on the upper side of said cover and secured thereto by welding or the like, the shank of said screw projecting upwardly for screw-threaded reception in said bore by relative rotation of the knob and cover for removably attaching the knob to the cover and for moving said edge of said skirt into contact with the upper side of the cover when such relative rotation is in such direction as to cause said shank to be so received, the portion of said cover so contacted by said edge and surrounded by said edge when it is in contact with the cover being resiliently distortable whereby continued relative rotation of said knob and cover after said edge is initially so moved into contact with said cover will forcibly flex such distortable portion resiliently against said edge for tightly sealing the joint between said edge and cover and for frictionally locking said knob against rotation relative to said cover, the lower end surface of said center post being so positioned as to lie in vertically spaced relation to the upper surface of said flange-like head of said screw when said edge of said skirt is initially moved into contact with said cover and to be moved against said surface of said flange by such continued relative rotation for limiting the extent of such continued rotation for insuring against rupture of the weld securing said flange to the upper side of the cover, said bore and shank and the screw-threads thereof being of such extent axially of said knob as to permit such continued rotation.

2,849,150

VAPOR RECOVERY SYSTEM

Albert H. Tompkins, Jr., Los Angeles, Calif., assignor to Superior Tank & Construction Co., Los Angeles, Calif., a corporation of California

Application March 19, 1956, Serial No. 572,479
10 Claims. (Cl. 220—85)



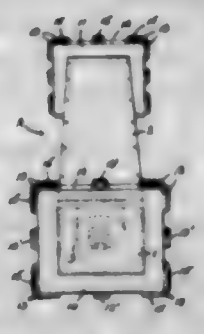
6. Apparatus for recovering vapors from a tank into which a volatile liquid is introduced, including a volatile combustible liquid supply source, means for flowing the liquid from the source to the tank, means in atmospherically sealed flow communication with the tank for saturating the vapor from the tank to render the vapor non-explosive and including means for supplying a stream of the combustible liquid as a saturant, a temporary storage chamber for the saturated vapor in flow communication from the saturating means, a vapor compressor in flow communication from the temporary storage chamber, a control switch for the compressor, said switch having a connection with said temporary storage chamber for volume responsive actuation, a vapor absorber in vapor flow communication from said compressor, and means for supplying a stream of the combustible liquid to said vapor absorber to pick up liquid from the compressed vapor.

2,849,151

STACKING CONTAINER

George C. Heil, Morton, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application January 27, 1955, Serial No. 484,419
2 Claims. (Cl. 220—97)



1. A stacking container for housing a long and heavy roll as is used in industry, said container comprising a rectangular body section, chocks within the body section for centrally positioning the roll, rectangular flange pieces affixed around each end of the body section, a first series of projecting teeth pads affixed to each of the four edges of the rectangular flange pieces which teeth lie in a direction lengthwise of the container, and a second series of projecting toothed pads affixed to each edge of the rectangular flange pieces which pads lie at substantially right angles to the first series of pads, said first and second series of projecting teeth pads being mounted so as

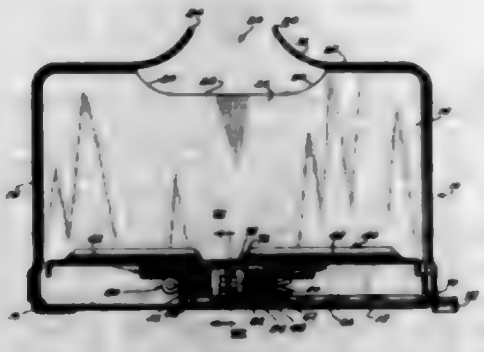
to interlock with similarly positioned teeth pads on like containers whereby the container is capable of being retained in locked position on any one of its four sides upon any one of the locking pad surfaces of a like container.

2,849,152
DISPENSER CARTON
John N. Tuttle, Rhinelander, Wis., assignor to Rhinelander Paper Company, Rhinelander, Wis., a corporation of Wisconsin
Application November 15, 1954, Serial No. 468,749
6 Claims. (Cl. 221—48)



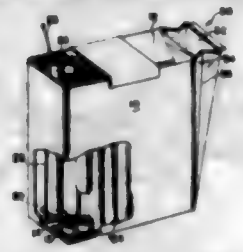
4. A carton for dispensing a sheet at a time from a stack of sheets contained therein including a bottom, parallel opposed side and end walls, a top and means on said top and end walls adapted to provide a dispensing slot therein for the removal of said sheets from said carton, the improvement which comprises providing lines of weakness defining a knock-out portion on said bottom adapted to be disengaged therefrom to provide an aperture to accommodate the introduction of external means into said carton for biasing said stack toward the top of said carton, lines of weakness on said knock-out portion defining supporting tabs for supporting said stack of sheets in spaced relation above said bottom in the absence of said external biasing means and means for locking said supporting tabs in stack supporting disposition.

2,849,153
DISPENSING DEVICE
John N. Tuttle, Rhinelander, Wis., assignor to Rhinelander Paper Company, Rhinelander, Wis., a corporation of Wisconsin
Application June 29, 1956, Serial No. 594,899
4 Claims. (Cl. 221—57)



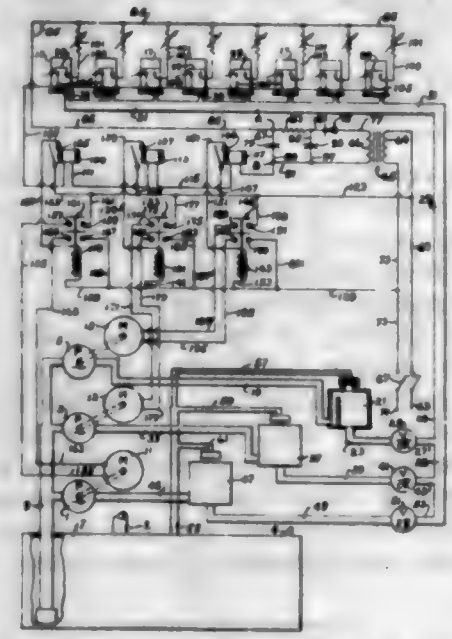
1. In a dispensing device for a stack of sheets to be dispensed, a generally flat frame, a housing having a stack-receiving cavity and having a dispensing opening normally extending generally parallel to said frame through which sheets may be dispensed, means pivotally interconnecting the housing and the frame to permit the entire housing to be moved between an open stack-loading position and a stack-enclosing position, a pressure plate supported within the housing to support a stack of sheets, means carried by said frame and supporting the pressure plate, means reacting through said frame and co-operating with said pressure plate to bias the said plate to an extended position biasing the stack towards the dispensing opening in said pivotable housing, said pressure plate having a retracted position non-biasing said stack, and means operative to latch said pressure plate in retracted position with said housing closed and to prevent movement of said housing toward open position except when said pressure plate is positively retained in non-biasing position.

2,849,154
CIGARETTE PACKAGE
Charles W. Gartrell and Kathryn W. Gartrell, Santa Barbara, Calif.
Application January 5, 1956, Serial No. 557,522
2 Claims. (Cl. 221—260)



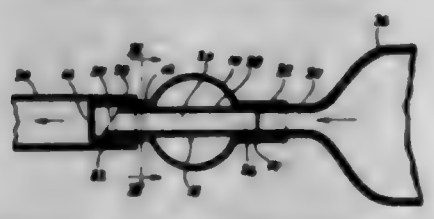
1. In combination with a cigarette package, a cigarette ejecting mechanism comprising a base member positioned contiguously with the inside bottom of said package, a movable flap member formed at one end of said base member by a pair of slits extending inwardly therefrom, said flap member being of a size to underlie and support at least one cigarette and having an inner end hingedly joined to said base member along a stationary axis extending transversely between said slits and spaced inwardly from the ends of said base member, and pull-tab means secured to the other end of said flap member and extending upwardly therefrom to the uppermost portion of said package for raising said flap member out of the plane of said base member and elevating the cigarettes supported thereby to an accessible position.

2,849,155
SEQUENCE CONTROL SYSTEM FOR MULTIPLE ELECTRICALLY OPERATED DISPENSING UNITS
Roger J. Daley, Fort Wayne, Ind., assignor to Bowser, Inc., Fort Wayne, Ind., a corporation of Indiana
Application February 10, 1954, Serial No. 409,501
10 Claims. (Cl. 222—76)



10. In a liquid dispensing system, the combination of a number of dispensers, a liquid supply means in communication with said dispensers, said liquid supply means having a number of pumps connected thereto, said pumps being connected in parallel to supply liquid under pressure to said dispensers, a motor connected to drive each pump, a substantially constant voltage power supply, a manually operable dispenser switch for each dispenser, connecting means joining all of the dispenser switches in parallel and with said power supply, said connecting means having current varying means and means sequentially responsive to the strength of the flow of current connected in circuit with said connecting means and power supply and operating means responsive to said current responsive means for energizing the motors.

2,849,156
DISPENSING DEVICE
Svend Axel Jörgen Mansted, Hellerup, near Copenhagen, Denmark
Application April 11, 1955, Serial No. 500,618
7 Claims. (Cl. 222—83)



1. A dispensing device comprising in combination a one-end open housing made from a non-deformable material and being closed at its open end by means of a cover made from a deformable material, said housing being provided opposite said open end with a first tubular branch, a blocking wall closing said first tubular branch, a second tubular branch connected to said housing and opening into the interior thereof, said housing being further provided interiorly thereof with an opening member having its one end guided by the bore of said first branch and facing said blocking wall and its other end facing said cover so that by a depression of said cover said opening member is displaced for cutting through said blocking wall.

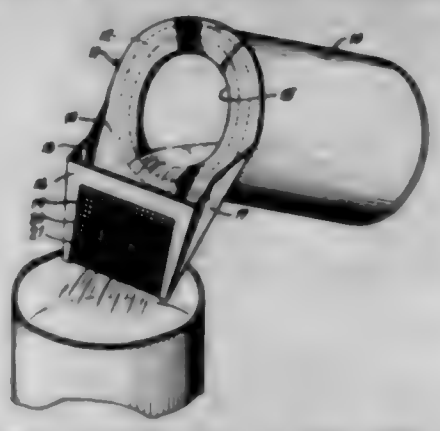
2,849,157
EXPENDABLE LIQUID COATING APPLICATOR
William H. Remien, Jr., Wilmette, Ill., assignor of one-third to F. Henry Remien, Wilmette, Ill., and one-third to C. Jack Remien, Winnetka, Ill.
Application January 26, 1954, Serial No. 406,144
3 Claims. (Cl. 222—169)



1. A paint container comprising an outer cylinder having one end closed and one end open and having its side wall pervious to liquid, an inner paint-filled cylinder impervious to liquid having one end opened and one end closed and arranged interiorly of the outer cylinder with its open end adjacent to and closed by the closed end of said outer cylinder, an external flange on the closed end of said inner cylinder, and releasable interengaging means on said flange and the open end of said outer cylinder to releasably retain said inner cylinder in its closed relation, whereby release of said interengaging means and withdrawal of said inner cylinder serve to introduce paint into said outer cylinder for use of the latter as an applicator.

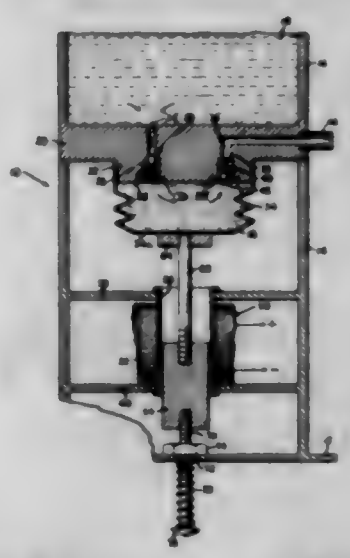
2,849,158
POURING SPOUT AND STRAINER FOR PAINT CAN
Lloyd M. Hopla, Keyport, N. J.
Application July 6, 1954, Serial No. 441,196
8 Claims. (Cl. 222—189)

1. In combination, a pouring spout and strainer for a paint can in which the can is provided with a chime in one face thereof, said pouring spout and strainer being formed of a fairly rigid but foldable material, said pouring spout being shaped as a four-sided portion of triangular cross section and having a circular, centrally apertured, integral portion extending from the spout, said pouring spout also being provided with a central aperture, the strainer covering said pouring spout aperture, and an adhesive on the under side of said circular portion so that it may be pressed against the open face of a paint can to provide a tight adhesion between the



circular portion and the face of the paint can to completely cover the chime of the paint can.

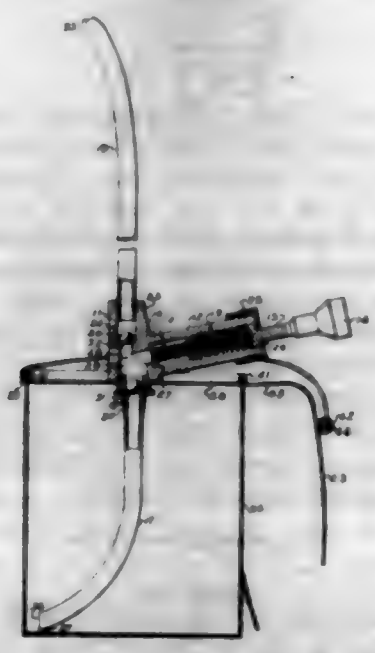
2,849,159
SOLENOID-ACTUATED DISPENSER
Stanley L. Kaufmann, East Meadow, N. Y., assignor to Marshfield Manufacturing Company, Long Island City, N. Y.
Application July 18, 1955, Serial No. 522,517
3 Claims. (Cl. 222—309)



1. A dispensing mechanism for dispensing measured quantities of flowable material, comprising an elevated reservoir for such material, a bellows situated below said reservoir, a passage between said reservoir and said bellows through which said material may flow by gravity from the reservoir into the bellows, a valve in said passage, a second passage connected to said bellows through which the material received by the bellows may be ejected therefrom, a second valve in said second passage, a solenoid situated below the bellows, said solenoid having a coil which is fixed relative to the reservoir and a vertically movable plunger, and means connecting said plunger to said bellows, said plunger being movable upwardly when the solenoid is energized to compress the bellows and eject its contents through the second passage, said plunger being movable downwardly when the solenoid is deenergized to expand the bellows and thereby to fill it with material from the reservoir drawn through the first passage, said first valve being a normally closed valve which is adapted to open under the suction produced when the bellows is expanded to open position, the second valve being a normally closed valve which is adapted to open under the pressure produced when the bellows is compressed to closed position, and metering means being provided to control the flow of material from the reservoir to the bellows and then out of the bellows, said metering means comprising an adjustable travel-limiting device which is connected to the plunger and is vertically movable therewith, said travel-limiting device

comprising a screw which is secured at one end to said plunger, the opposite end of the screw extending through a frame which is fixed relative to the solenoid coil, and a nut on said screw which is adjustably engageable with said frame to limit the downward movement of said screw relative to said frame and of said plunger relative to said coil, thereby limiting the expansion stroke of the bellows and controlling its intake of material from the reservoir.

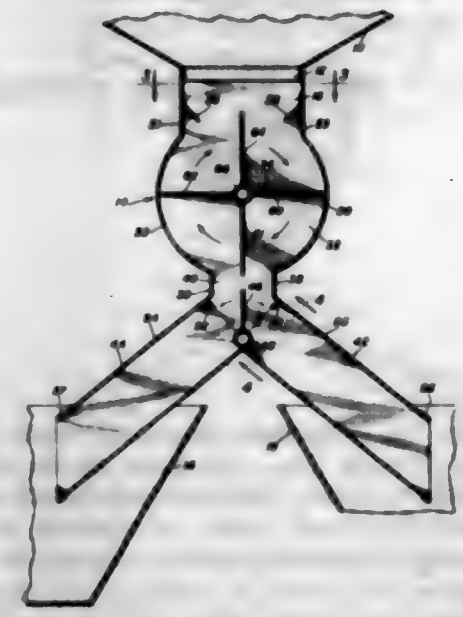
2,849,160
PUMP TYPE OILER
Leonard C. Gray, Canaan, Vt.
Application June 15, 1955, Serial No. 515,607
5 Claims. (Cl. 222—324)



1. An oil can pump comprising a combination valve and pump body having a cylinder therein, an intake tube having a check valve therein extended from said body, a spout also extended from said body, a check valve in the body and positioned between the spout and cylinder, a plunger slidably mounted in the cylinder, means for manually actuating the plunger for pumping oil from the can through the spout, said valve and pump body having wire retaining recesses in the sides and a clamp including spaced wires positioned in the recesses of the valve and pump body with a rim gripping hook on one end and with the opposite end pivotally connected to a handle, an end of which engages the rim on the opposite side of the can, the pivotal connection of the wires to the handle passing through a plane extended through the rim gripping points providing a toggle action for securing the body on the end of a can with the intake tube extended through an opening in the end of the can.

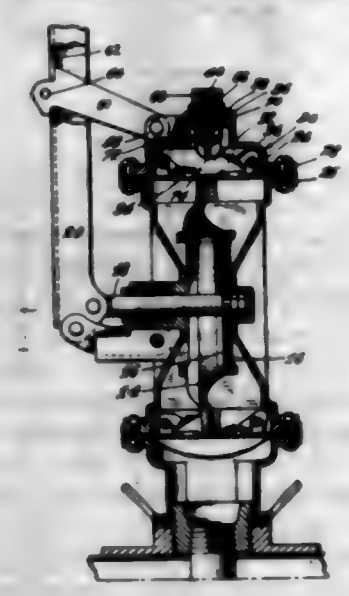
2,849,161
FEED MEASURING AND DISPENSING DEVICE
Amos D. Turnbow and Ralph B. Souker, Ontario, Oreg.
Application September 18, 1956, Serial No. 610,479
1 Claim. (Cl. 222—368)

A combination measuring and dispensing device for feed, said device comprising a dispensing wheel chamber and an inlet, said inlet and chamber being formed by four walls of sheet material, two of said walls having arcuate sections which cooperate with sections of the other two of said walls to define a substantially cylindrical dispensing wheel chamber, a spindle rotatably supported in said chamber, an axial handle on said spindle emerging from said chamber and adapted to rotate said spindle, radial plates carried by said spindle terminating adjacent said arcuate wall sections, baffles in said inlet to direct the feed toward the center part of said chamber, a throat in said four walls downstream of said chamber and in registry with said chamber, a pair of spouts connected with said throat, means to divert the feed into a selected spout, said means comprising a flat valve, a valve spindle to which said flat valve is secured, one of said walls having an opening through which said valve



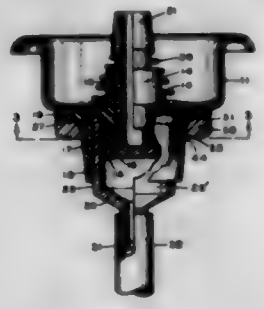
spindle passes, a handle at the end of said valve spindle to rotate said spindle to thereby move said flat valve to selected positions in said throat, a pair of stops spaced from each other and secured to a wall of each chute, said stops being contacted by said flat valve in order to limit the extent of travel of said flat valve in opposite directions.

2,849,162
PUMP-DISCHARGE FITTING
George W. Wright, Yoder, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana
Application November 29, 1954, Serial No. 471,550
5 Claims. (Cl. 222—375)



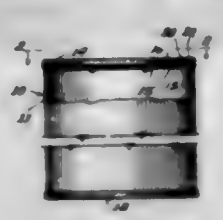
1. An outlet fitting for a discharge device such as a hand pump having a casing terminating at the top in a flanged face, said fitting comprising a flanged body adapted to be received and retained on said face, an outwardly directed outlet in one side wall of said body and adapted to receive the connected end of a flexible hose, a hose nozzle hanger extending outward from the opposite side wall and adapted to receive the nozzle of said flexible hose in supporting relation, said outlet and hanger cooperating to support the flexible hose in a depending loop therefrom.

2,849,163
DISPENSING VALVE HAVING DIP-TUBE SUSPENSION MEANS
Jack W. Soffer, St. Louis, and Eugene H. Neupert, Ferguson, Mo., assignors to Development Research, Inc., St. Louis, Mo., a corporation of Missouri
Application May 8, 1957, Serial No. 657,969
8 Claims. (Cl. 222—394)



1. In a valve for a pressure dispenser whose contents are discharged through flow-conducting means within the container, means to secure such flow-conducting means in communication with such valve, comprising a resilient valve seat having a depending tubular portion in the path of flow to such valve, a hollow, substantially rigid walled member in communication with such flow-conducting means and having an upper wall inwardly adjacent said depending tubular portion of such valve seat, and a substantially rigid annulus having a plurality of inwardly-presented spaced retaining projections, said annulus disposed spacedly about and radially outward of said rigid walled member and the depending portion of said valve seat being interposed therebetween.

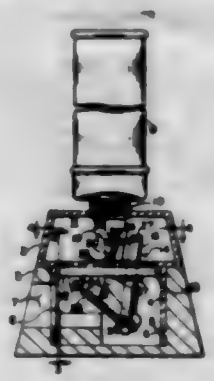
2,849,164
DISPENSING CANS
William C. Weisgerber, Chicago, Ill.
Application December 16, 1955, Serial No. 553,648
4 Claims. (Cl. 222—480)



1. In a dispensing top for cleanser cans and the like, a top cover comprising a main wall having a chime wall at its edge and having a plurality of dispensing openings in said main wall spaced inwardly from said chime wall, a closure plate fitted into the space within said chime wall and against said main wall to close all of said openings, means on said closure plate engaging a plurality of points on one of said walls of said cover to mechanically interlock with said cover to hold said closure plate in position, and an engaging portion on said closure plate adjacent an edge thereof and spaced from said chime wall for application of prying lifting forces reacted against said chime wall to displace and remove said closure plate.

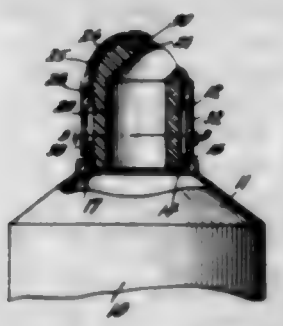
2,849,165
TOOTH POWDER DISPENSER
Bronislaw Wandel, Boston, Mass.
Application September 25, 1956, Serial No. 611,976
3 Claims. (Cl. 222—505)

1. A tooth powder dispenser comprising an upper and lower section with said upper section defining a cylindrical sleeve portion of reduced diameter adapted to be slidably disposed within said lower section, a transverse partition member positioned within said sleeve portion, said partition member defining a plurality of openings aligned along the diameter of said partition member and an aperture symmetrically spaced on either side of the said diameter, an actuator member having vertical posts and a solid web portion extending therebetween over a major portion of the overall length of said member, said posts extending through said spaced apertures, a slide member disposed on said partition member, said slide



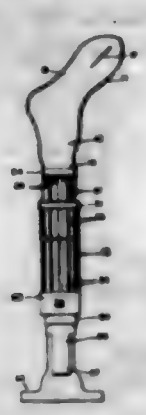
member having a central vertical standard portion and a horizontal portion containing a plurality of passages in register with said partition openings when said slide is in operative position, means operatively connecting the vertical standard portion and the actuator posts to thereby translate reciprocating movement of said posts into horizontal displacement of said slide member to thereby cause a quantity of powder to be deposited on a toothbrush bearing against said web portion.

2,849,166
TOOTHPASTE DISPENSER
Walter B. Eitzel, Chevy Chase, Md.
Application March 11, 1957, Serial No. 645,175
4 Claims. (Cl. 222—519)



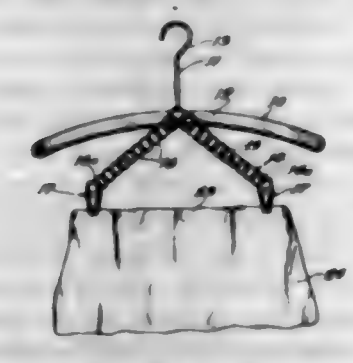
1. In a dispenser for toothpaste and like material, the combination with a container having a collapsible body and a discharge neck, the outer end of said neck having a hemispherical external surface apertured laterally of the neck axis to provide a neck discharge port, of a closure cap dimensioned for reception on said neck and having a hemispherical internal end surface apertured laterally of the cap axis to provide a cooperating cap discharge port, said neck and cap being provided with coacting threads whereby said cap may be seated on said neck with said hemispherical surfaces in sealing engagement and said ports out of alignment to prevent discharge of the container contents, said cap having a depending skirt portion capable of flexure, coacting abutments on said neck and cap skirt portion, said abutments being wedge-shaped at one side to permit the cap abutment to ride over the neck abutment as the cap is threaded onto the neck and presenting generally radial opposed faces at the other side to prevent continued rotation of said cap in a direction to unseat said cap, said abutments being so relatively located in the seated position of said cap as to permit limited rotation of the latter in said direction to place said neck port and said cap port in registry for the discharge of the container contents.

2,849,167
TURNING DEVICE
Joseph G. Waiser, Jr., High Point, N. C.
Application February 25, 1957, Serial No. 641,954
10 Claims. (Cl. 223—37)



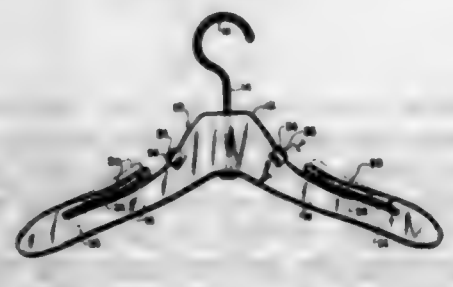
1. A turning apparatus for folding back the cuff portion of a stocking comprising a stocking receiving form on which a stocking may be placed in extended condition, an outer sleeve member and an inner sleeve member mounted for vertical movement on said form, said inner sleeve member extending beyond said outer sleeve member, each of said members having an upper and a lower collar band spaced axially from each other, said upper collar bands of the inner and outer sleeve members being stationary, and each of said lower collar bands being guidably displaceable sequentially toward the corresponding upper collar band, and a plurality of axially extending flexible members reaching between the upper and lower collar bands and affixed thereto, said flexible members being free for a vertical reach to be displaced radially upon displacing the lower collar band toward the upper collar band, fingers supported on the lower collars of each sleeve member and reaching to a length intermediate the extent between the collar bands for urging the flexible members toward the form whereby upon displacing the outer sleeve lower collar vertically a first cuff fold is formed and upon displacing the inner sleeve lower collar band upon retraction of the outer sleeve lower collar band a second cuff fold is formed.

2,849,168
GARMENT HANGER UNITS
Clara Mae Boyer, Chicago, Ill.
Application May 28, 1956, Serial No. 587,831
1 Claim. (Cl. 223—91)



Garment hanger apparatus comprising a rigid cross bar member adapted to support a coat or like garment and having an upper surface and opposite side surfaces, a hook-shaped supporting member attached to the center portion of said upper surface and extending substantially normally thereto, a flexible chain comprising a plurality of interconnected individual links, a pair of clamping clips each of which includes a pair of arms pivotally connected to one another, at least one of the arms of each clamping clip having a hole formed therethrough, each of the end links at opposite ends of said chain extending through the hole formed in the arm of one of said clips thereby supporting said clips at opposite ends of said chain, a central link of said chain being disposed in surrounding relationship to the lower portion of said supporting member and being freely slidable with respect thereto, the central portion of said chain bearing against said cross member when in operative position.

2,849,169
SAFETY DRESS HANGER
Rose Voltura, Bronx, N. Y.
Application April 1, 1957, Serial No. 649,860
5 Claims. (Cl. 223—92)



1. A garment hanger comprising a suspension hook, a rigid body carried by the hook and including a center portion and garment support arms diverging downwardly from the center portion, and elongated fingers extending longitudinally of the support arms and fixedly connected at one end to the arms, defining slots between the fingers and arms adapted to receive loops provided on the surfaces of the shoulder portions of a supported garment, the slots having closed ends terminating inwardly from the outer ends of the arms, the slots having open ends terminating outwardly a short distance from opposite sides of the center portion, said arms and fingers being extended in substantially parallel relation with the fingers overlying the top surfaces of the arms, said fingers being of a resilient material and being tensioned to normally extend in closely spaced relation to the arms, said hanger further including means adjustably mounted on the arms for movement into and out of the slots and having a cam surface engageable with the fingers to bias the fingers outwardly from the arms, thereby to increase the transverse dimensions of the slots and change the angularity of the fingers to each other.

2,849,170
POWDER BOX
Jacob Frederick Roos, Liverpool, and Albert Smith, Heston, England, assignors to Coty, Inc., New York, N. Y., a corporation of Delaware
Application January 31, 1957, Serial No. 637,455
6 Claims. (Cl. 229—43)



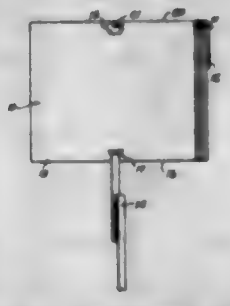
1. The combination with a container body having a circumferential side wall tefminating in an upper lip, of a closure cover therefor, said cover comprising a top wall, a circumferential skirt depending from said top wall, and an insert of flexible material fixedly disposed in said cover and having at least circumferential edge portions thereof inwardly spaced from circumferential edge portions of said top wall, the extreme edges of said circumferential edge portions of said insert being connected to said circumferential skirt and forming a closed chamber under said top wall, said extreme edges normally resting against said upper lip in the closed position of the container.

2,849,171
BAG WITH TIE MEMBER FOR CLOSING AND CARRYING IT
Charles S. O'Brien, Jr., Minneapolis, Minn., assignor to Bemis Bro. Bag Co., St. Louis, Mo., a corporation of Missouri
Application August 31, 1953, Serial No. 377,307
3 Claims. (Cl. 229—63)



3. A tubular open-topped flat bag including opposed front and rear wall elements of thin flexible sheet material directly joined together at their side and bottom edges, the upper open end portion of the bag being readily gathered about the contents in closing the same, and means for securing the gathered upper end of the bag in the closed condition, said means comprising an elongated pliable ribbon-like tie member of thin flexible sheet material extending transversely of one wall of said bag and normally in face-to-face contact with the outer surface of said one wall, said tie member being of a length co-extensive with the width of the adjacent bag wall surface and being anchored at its opposite ends only to the opposite side edges of said adjacent wall in downwardly spaced relation to the upper end thereof, said tie member being adapted to be wrapped around the gathered portion of the bag when the upper end portion of the bag is gathered about the contents.

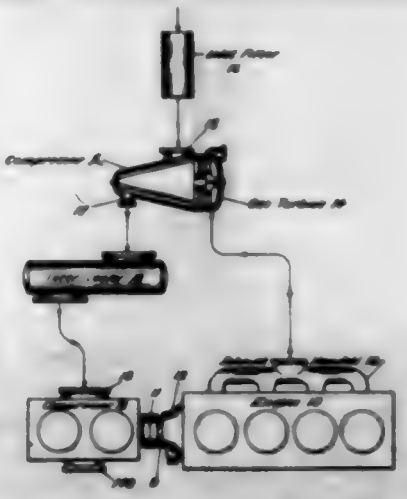
2,849,172
FASTENER
Nicholas L. Kruysman, Garden City, N. Y.
Application June 9, 1955, Serial No. 514,325
1 Claim. (Cl. 229—77)



The combination of a stationery folder, a bonding element and a fastening element affixed to said folder in which said bonding element is provided with a metal clip at one end thereof and said folder is provided with an aperture to receive said bonding element, and said fastening element is formed of a rigid material and is provided with a slot that is open to one side of said element to receive said bonding element, said metal clip inserted through one end of said aperture to in turn position said bonding element in said aperture, and be retained in said folder and means to secure said bonding element with said fastening element.

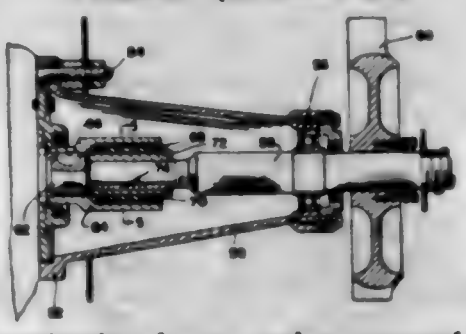
2,849,173
COMPRESSOR SYSTEM
Charles J. Surdy, Scarsdale, N. Y.
Application January 31, 1956, Serial No. 562,413
1 Claim. (Cl. 230—45)

In a compressor system, the combination of an internal combustion engine having exhaust means, a compressor having an inlet and an outlet driven by said engine and requiring power from said engine less than the normal rating of said engine whereby a surplus of fluid energy is provided for the engine exhaust means, a gas turbine element, a compressor having an inlet and an outlet driven by said gas turbine element, such compressor having its inlet capacity at least twice the inlet capacity of the engine driven compressor and operating over a compression ratio equal at least to the ratio of the inlet volume that the gas turbine driven compressor bears to the engine



driven compressor, means connecting said engine exhaust means from said engine to operate said gas turbine element by fluid power, means connecting the outlet of the turbine driven compressor to the inlet of said engine driven compressor including an intercooler for reducing the compressed volume of the turbine driven compressor to the inlet capacity of the engine driven compressor.

2,849,174
FAN SUPPORT FOR BLOWER
Warren M. Spreng, Ashland, Ohio, assignor to The F. E. Myers & Bro. Co., Ashland, Ohio, a corporation of Ohio
Application August 8, 1956, Serial No. 602,692
5 Claims. (Cl. 230—116)

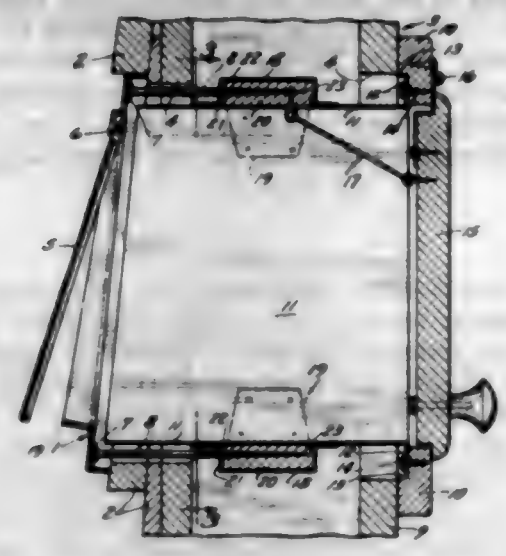


1. In combination in an engine powered blower arrangement; an engine having a crankcase and an output shaft extending outwardly thereof, a housing support element fixed to the engine crankcase, a second shaft journalled in the outer end of said support element co-axially with said output shaft, said second shaft being adapted for supporting a blower impeller on its outer end, resilient coupling means drivingly connecting the shafts together, said coupling means comprising an inner sleeve keyed to said second shaft, an outer sleeve concentric with the inner sleeve, rubberlike material between said sleeves and bonded to one thereof, and a rigid connector keyed at one end to said output shaft and having a cylindrical projection lightly press fitted over said outer sleeve whereby the shafts are drivingly interconnected while the inner end of the said second shaft receives radial support from the output shaft.

2,849,175
MAIL BOX CONSTRUCTION
Norman A. Thieman, Fairmont, Minn.
Application August 19, 1957, Serial No. 679,025
3 Claims. (Cl. 232—19)

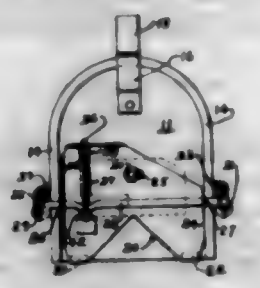
1. In a device of the class described, a pair of door equipped frames adapted to be positioned on opposite

sides of a building wall whereby to encompass opposite ends of a horizontal opening through said wall, a tubular sleeve carried by one of said frames and adapted to extend into said opening and terminating in spaced relation to the other of said frames, a pair of metallic retainer



cups secured to the outer surface of said sleeve intermediate the opposite ends thereof and circumferentially spaced about the axis thereof, non-metallic screw threadable cores in said cups, and elongated screws spaced about the other of said frames and having pointed ends generally alignable with openings in said metallic cups.

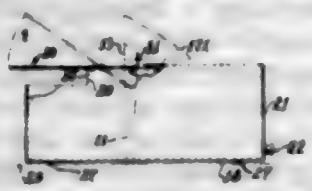
2,849,176
MAIL BOX
Thomas L. McMinn, Anniston, Ala.
Application August 19, 1957, Serial No. 678,868
7 Claims. (Cl. 232—35)



1. In combination, a mail box having a downwardly opening door pivotally mounted across the lower edge of the front thereof, a trip shaft extending across the front of the door and having rearwardly extending crank arms at the ends thereof alongside the box, a spring connected to each crank arm arranged to urge the door toward closed position and secured to the box, an indicator flag hingedly mounted on a pivot extending in parallel relation to the door and transversely of the trip shaft, said flag having an elongated slot through which the shaft extends and disposed to engage the shaft and hold the flag in outward position when the door is closed and to release the shaft as the door is opened, and a spring connected to the flag to swing it inwardly toward the door when the shaft is released.

2,849,177
WASTEBASKET
Howard Meyer, Brooklyn, N. Y.
Application May 13, 1957, Serial No. 658,689
1 Claim. (Cl. 232—43.1)

A substantially rectangular wastebasket adapted for use between the legs of an office desk consisting essentially of an integral substantially U-shaped vertical wall having a rounded front vertical wall segment integral with two opposed planar vertical wall segments, said front wall segment and a portion of the side wall segments adjacent thereto being of lesser vertical height than the remainder of the opposed side walls forming a cut-out portion; a horizontal top wall disposed in space relationship behind said cut-out portion and fixedly secured to the top edges of said opposed side walls, said side walls having opposed axle receiving apertures between said cut-out portion and said top wall; a rear flat wall hingedly secured throughout its length to the rear edge of said top wall and adapted to close the opening of said U-shaped wall; a flat bottom wall secured to the entire



bottom periphery of said U-shaped wall; an axle disposed in said opposed apertures of said side walls; and a swingable door secured to said axle intermediate the front edge and the rear edge of said door, said door consisting of a flat section receiving said axle integral with a rear vertically disposed section adapted to engage said desk when said door is in a closed horizontal position, whereby said vertical door section is adapted to engage said desk thereby preventing removal of said closed door wastebasket from beneath said desk.

2,849,178
SPINNING SMOKER'S STAND
Murray Langbaum, East Hills, N. Y.
Application June 17, 1957, Serial No. 665,996
6 Claims. (Cl. 232—43.2)



6. A smoker's stand comprising a base, post means extending upwardly therefrom, a top plate having a central ash-receiving opening, means fixedly connecting the top plate to the base in position vertically spaced upwardly from the post means, a support member telescopically adjustable within and projecting upwardly from the post means, ash-receiving means carried by said member, said ash-receiving means being engaged against the underside of the top plate in one position of said member and being exposed downwardly from the top plate in another position of the member for ready access to the interior of the ash-receiving means, the ash-receiving means including a receptacle rigid with said member and a bowl removably seated in the receptacle, the post means being hollowly formed and including, in the upper end thereof, axially bored friction-producing material through which the member extends, said material binding against the member in selected positions to which the member is telescopically adjusted to hold the member in said positions of telescopic adjustment, the ash-receiving means including a spring held under compression between the bowl and receptacle for partially ejecting the bowl responsive to movement of the bowl and receptacle away from the top plate out of engagement therewith, said stand further including a contractile spring connected between said member and the base for normally shifting the member in a direction away from the top plate, whereby to permit partial ejection of the bowl on move-

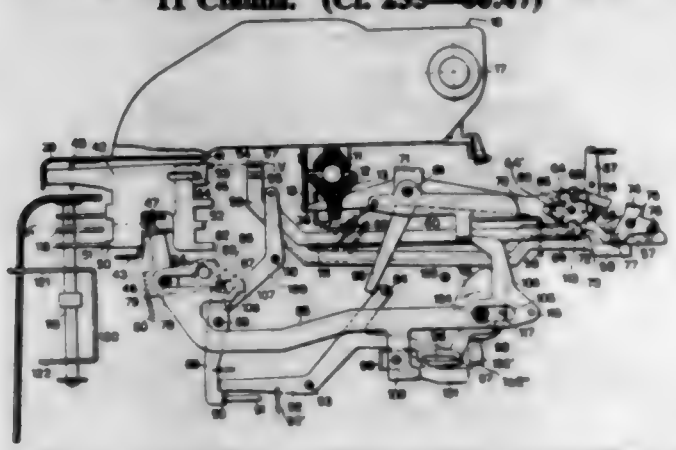
ment of the member away from the top plate under the pull of the contractile spring, and latch means carried by the post means and normally engaging said member in an upper position thereof in which the bowl and receptacle are in engagement with the top plate, the contractile spring being of a force adapted to overcome the restraining force of the friction-producing material on shifting of the latch means out of engagement with said member, whereby to effect retraction of said member within the post means at a predetermined, retarded rate, the latch means comprising a detent pivotally mounted upon the post means and including a pin projecting toward said member, said member having an aperture receiving the pin in the extended position of said member, said latch means being spring biased in the direction of said member and including a handle for swinging the latch means against the spring bias thereof out of engagement with said member.

2,849,179

COLUMN AND FUNCTION CONTROLS FOR AN ACCOUNTING MACHINE HAVING A TRAVELING PAPER CARRIAGE

Natale Capellaro, Ivrea, Italy, assignor to Ing. C. Olivetti & C., S. p. A., Ivrea, Italy, a corporation of Italy

Application June 1, 1955, Serial No. 512,532
Claims priority, application Italy June 11, 1954
11 Claims. (Cl. 235—60.47)



4. In an accounting machine having a traveling paper carriage, a set of column stops mounted on said carriage and movable bodily therewith to locate the carriage in predetermined columnar positions, said column stops being normally in a first position, means operable for arresting said carriage in any of said columnar positions, means mounted on a stationary support for cooperation with a selected portion of said column stops during travel of the carriage to individually shift said column stops from said first position to a second position, means controlled by said column stops upon being shifted from said first to said second position to operate said arresting means for arresting said carriage, power means, an actuator engageable by said power means for individually shifting said column stops from said second to a third position to enable said column stops to automatically control predetermined machine functions, and means controlled by said column stops upon being shifted from said first to said second position to enable said power means to engage said actuator.

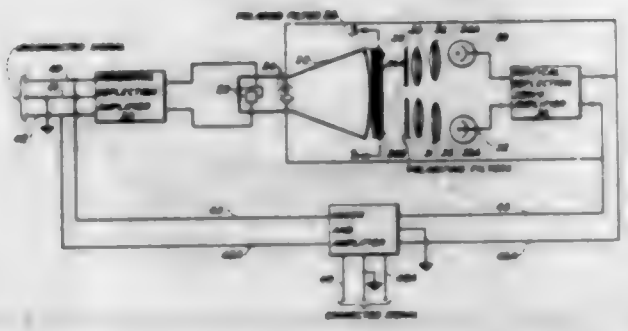
2,849,180

FUNCTION GENERATOR HAVING CATHODE RAY MEANS FOR FOLLOWING EDGE OF BIREFRINGENT PATTERN

Harry E. Burke and Leland P. Robinson, Pasadena, Robert L. Sink, Altadena, and Robert M. Strassner, Pasadena, Calif., assignors, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application June 18, 1953, Serial No. 362,541
6 Claims. (Cl. 235—61)

6. Apparatus for linearizing a non-linear signal which comprises a cathode ray tube having horizontal and vertical deflection plates, a first amplifier connected at its input to receive the non-linear signal and at its output to one set of deflection plates, a polarizing filter mounted adjacent the screen of the cathode ray tube, a mask having two contiguous sections one isotropic and the other birefringent in the form of a quarter-wave plate with the boundary between the sections conforming to an amplified function of the deviations of the non-linear signal from linearity, a pair of photosensitive elements, a separate polarizing filter interposed between the masks and each photosensitive element, the two filters being of different optical orientation with one filter being oriented to pass light which is transmitted through the isotropic section of the mask and the other filter being oriented to pass light which is transmitted through the birefringent section of the mask, a second amplifier connected at its input to receive the differential of the output of the two photosensitive elements and at its output to the other set of deflection plates, and a mixing network connected to develop the algebraic sum of the non-linear input signal and a predetermined fraction of the output of the second amplifier.

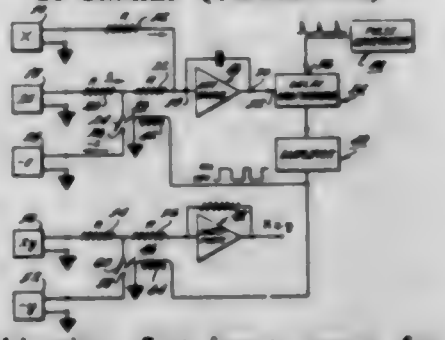


2,849,181

TIME-DIVISION COMPUTING DEVICE

Jules Lehmann, Trenton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application March 1, 1954, Serial No. 413,233
16 Claims. (Cl. 235—61)

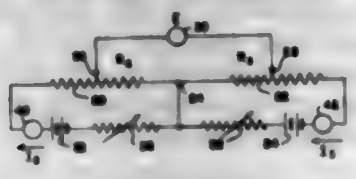


1. In combination, first input means for producing two sets of first signals of different values in accordance with a first input voltage, second input means for producing second signals in accordance with a second input voltage, means to which said first and second signals are applied for producing additional signals that vary in accordance with the algebraic sum of said first and second signals, and means responsive to said additional signals for switching alternately one and the other of said first signals of different values to said additional signal producing means to make said algebraic signal sum substantially zero, said switching means including a circuit for generating at a constant repetition frequency switching signals to actuate the alternate switching of said first signals, said circuit being responsive to said additional signals for providing said switching signals with a varying characteristic in accordance with said additional signals.

2,849,182
ANALOGUE COMPUTING AND PLOTTING DEVICE

Alfred C. Winterhalter, Beaumont, Tex., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application October 13, 1954, Serial No. 462,005
6 Claims. (Cl. 235—61)

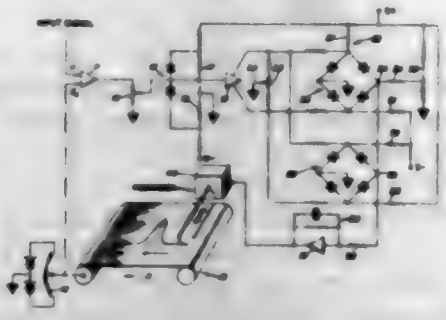


1. Apparatus for use in seismic prospecting for the plotting of boundaries on a scaled drawing comprising elements locatable on such drawing to define three points thereof, members interconnecting one of said elements with both of the other two elements, a pair of potentiometers connected with said members and displaceable thereby to provide variable resistances respectively proportional to the distances between the first mentioned element and said other two elements, means providing adjustable currents through said resistances, and means indicating the sum of the RI drops through said resistances.

2,849,183
DISTRIBUTION CURVE ANALYZER

John H. Kuck, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application May 1, 1956, Serial No. 582,050
5 Claims. (Cl. 235—61)



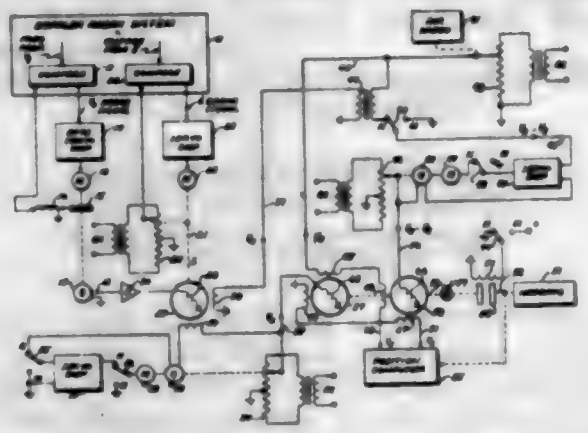
1. An analyzer for plotting the probability of the occurrence of a given amplitude in an electrical wave comprising, a recorder providing a graphic record of the value of a dependent variable against an independent variable, means for generating a sweep voltage constituting said independent variable, means providing a voltage proportional to the difference between said sweep voltage and said electrical wave, a gate circuit controllable by the output of said difference means for providing an output upon the occurrence of substantial equality in the amplitudes of said sweep voltage and said electrical wave and means providing a voltage proportional to the average value of said gate output, said average value constituting said dependent variable.

2,849,184
WIND COMPUTER

Arden H. Fredrick, Mount Kisco, and John W. Gray, Pleasantville, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York

Application August 16, 1956, Serial No. 604,498
5 Claims. (Cl. 235—61)

1. A navigation system comprising, a dead reckoning position computer, means for measuring heading angle and supplying data indicative thereof to said computer, normally operative means for measuring ground speed and drift angle, means for normally deriving first and second voltages respectively indicative of the along heading and cross heading components of ground velocity from the measured values of ground speed and drift angle, means for normally supplying said first and second voltages to said position computer, means for measuring air speed, means operative while said normally operative means is operative for deriving a third voltage indicative of the difference between the along heading component of ground speed and air speed, means for storing said third voltage,

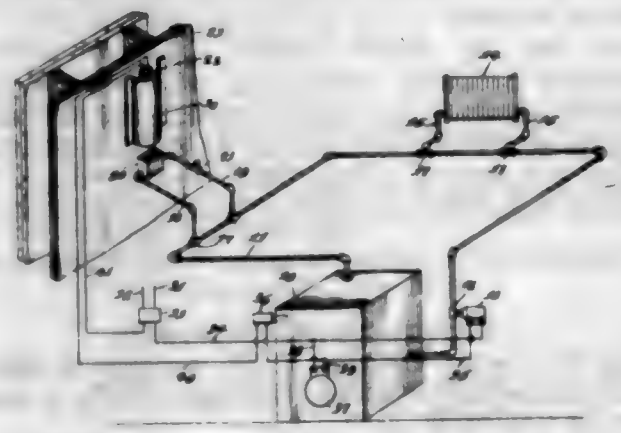


means for storing a fourth voltage indicative of the cross heading component of ground velocity, and means operative when said normally operative means is inoperative for computing the along heading and cross heading components of ground velocity from said stored third voltage, said stored fourth voltage, air speed and change of heading angle and for supplying the computed components to said position computer.

2,849,185
HEATING SYSTEM

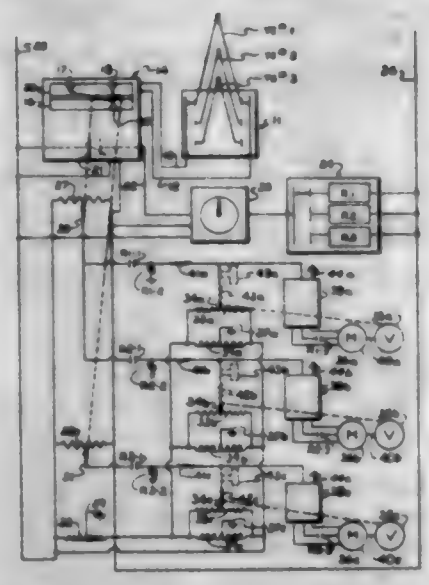
Jack Keyes, Park Ridge, Ill., assignor to Bell & Gossett Company, Morton Grove, Ill., a corporation of Illinois

Application December 8, 1953, Serial No. 396,949
7 Claims. (Cl. 236—9)



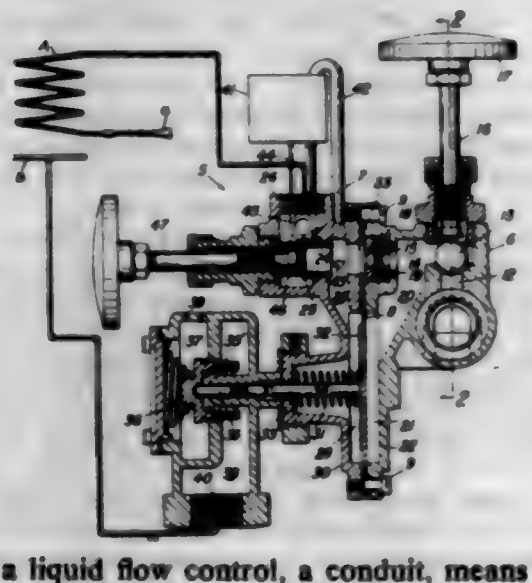
1. Control means for a heating system used to heat a room having at least one wall exposed to outside temperatures and in which said heating system includes an electrical circuit adapted to be opened and closed by said control means to operate the system, said control means comprising a metal thermostatic element movable in response to temperature changes and in a direct heat-conductive relation to the inner surface of said one wall and responsive to the temperature of said surface, and a cooperating relatively fixed element coacting with said thermostatic element to open and close said electrical circuit in response to temperature changes, said control means being positioned on said one wall in close physical association with a heating element whose output is proportional to the output of the heating system when operating, whereby the temperature of the one wall effectively places the heating system in operation and the output of said closely associated heating element shuts off the heating system after it overcomes the cooling effect of said one wall on said thermostatic element.

2,849,186
TEMPERATURE RESPONSIVE DEVICE FOR PLURAL ZONE DEW POINT CONTROL
Ralph Hanna, Toledo, Ohio, assignor to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application July 28, 1955, Serial No. 525,009
9 Claims. (Cl. 236—15)



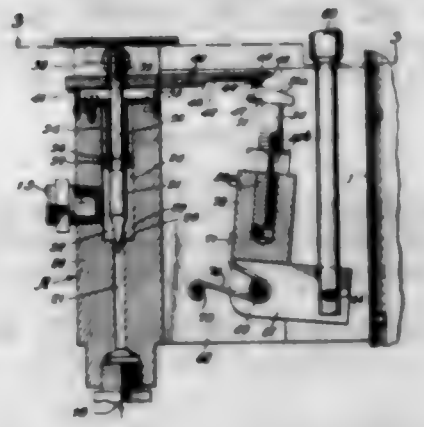
3. Apparatus for maintaining the temperatures of a plurality of zones in a furnace comprising: a temperature measuring device for each of said zones; a potentiometer; selector means for periodically indicating on said potentiometer the actual temperature measured by each device; set pointers in said potentiometer for setting the temperature desired for each of the zones; a first source of current responsive to the deviation between the desired and actual temperatures; a burner for each zone; a valve for controlling flow of fuel to each burner; a second source of current responsive to the position of each of the valves; means for changing the position of each of the valves in response to the difference between the currents of said first and second sources; a selector switch for sequentially actuating each of the valve position means; means for indexing said selector switch and said selector means at periodic intervals; and a timing device for delaying the actuating of said valve position means for a period of time after the selector switch is indexed.

2,849,187
LIQUID FLOW CONTROL
Walter W. Taylor, Oakland, Calif., assignor to Malsbary Manufacturing Company, Oakland, Calif., a corporation of California
Application June 14, 1954, Serial No. 436,547
3 Claims. (Cl. 236—25)



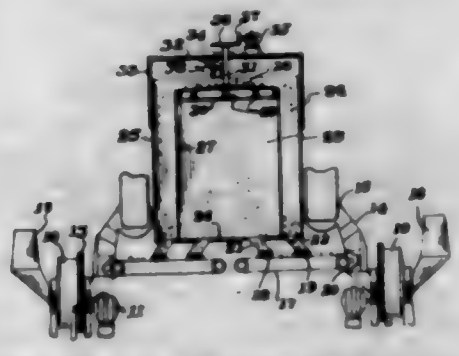
2. In a liquid flow control, a conduit, means for passing a liquid therethrough under pressure, a pressure-responsive flexible washer, fixedly mounted, in said conduit and operable to pass a constant volume of liquid therethrough regardless of changes in pressure as long as a given minimum differential in pressure is maintained on opposite sides of the washer, a diaphragm subject to the washer intake pressure on one side thereof and subject to the washer delivery pressure on the opposite side thereof, means operable by the diaphragm tending to build up the delivery pressure toward a balancing of the pressures on opposite sides of the washer, and biasing means operative on the diaphragm to maintain said minimum pressure differential.

2,849,188
FLOATLESS HEAT RESPONSIVE VALVE FOR LIQUID BURNERS
James L. Breese, Santa Fe, N. Mex., assignor, by mesne assignments, to Breese Burners, Inc., Schiller Park, Ill., a corporation of Illinois
Application July 11, 1955, Serial No. 520,944
10 Claims. (Cl. 236—96)



1. A heat responsive flow regulating and anti-flooding shut-off valve assembly for heaters which includes a valve body having a valve seat in the line of flow of liquid fuel from a fuel supply to a burner in a heater, a movable valve member opposable to said valve seat, yielding means tending normally to move said valve member against said valve seat in the fuel shut-off position, means for normally resisting said movement of the valve member toward the valve seat during a predetermined temperature range, and means for releasing said valve for movement toward said valve seat to closed position in response both to a predetermined maximum temperature at the heater and to a predetermined minimum temperature at the heater.

2,849,189
MATERIAL REDUCTION MILL
Arthur R. MacPherson, Toronto, Ontario, Canada, assignor to Aerofall Mills Incorporated, Columbus, Ohio, a corporation
Application April 7, 1955, Serial No. 499,916
2 Claims. (Cl. 241—81)



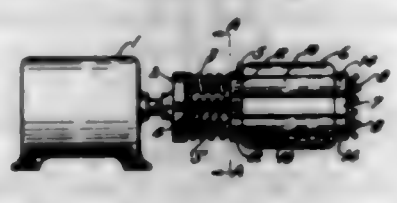
2. In a plant for the comminution of minerals comprising a plurality of milling units of the rotating drum type arranged in substantially circular formation with their axes of rotation converging to a central point; a

vertical cylindrical storage bin arranged with its central axis substantially over said central point, said storage bin comprising an outer cylindrical wall, and an inner cylindrical wall co-axial with said outer wall and dividing said storage bin into an inner cylindrical compartment and an outer annular compartment; feed distributing means disposed at the upper end of said inner compartment and arranged to deliver fine material to said inner compartment and coarse material uniformly around said outer compartment; means for feeding unsegregated material to said feed distributing means; a plurality of outlet ports in the bottom of said inner and outer compartments, one of said outlet ports in each said compartment being connected by conveyor means with an associated milling unit; feeders in each said outlet port for controllably feeding material for passage into said associated milling unit.

2,849,190
SPRING MOUNTED COMPOUND MOTION BALL MILL

Elmer H. Everett, Needham, and Ernst Czerlinsky, Arlington, Mass., assignors to the United States of America as represented by the Secretary of the Air Force

Application March 21, 1957, Serial No. 647,732
3 Claims. (Cl. 241—175)
(Granted under Title 35, U. S. Code (1952), sec. 266)

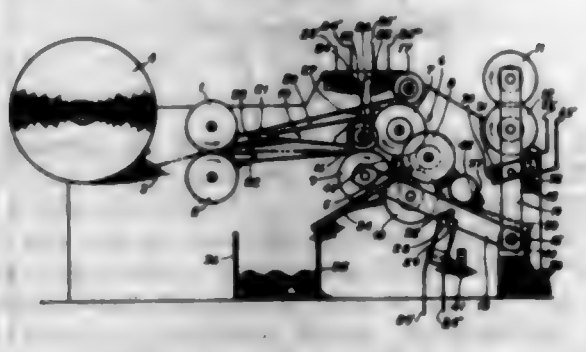


1. In a ball mill, a container, means including a driving plate for rotating said container, one set of stiff springs and one set of lighter springs for supporting said container and connected to said driving plate for flexibly driving said container for eccentric motion about the axis of rotation of said driving means to produce a tumbling action.

2,849,191
MACHINE FOR WINDING PAPER MATERIAL IN ROLLS

Gustav Åke Bernhard Gadler, Amal, Sweden, assignor to Arenco Aktiebolaget, Stockholm, Sweden, a joint-stock company of Sweden

Application February 9, 1955, Serial No. 487,123
Claims priority, application Sweden February 12, 1954
13 Claims. (Cl. 242—56)

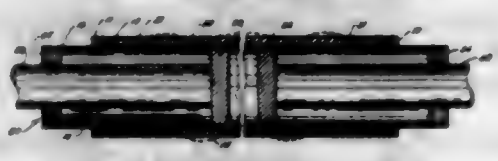


1. A machine for winding paper material in smaller rolls without the use of a cylindrical core or a reel, comprising two stationary winding stations and a device for cutting the web of paper material when the rolls have grown to a predetermined diameter, means for guiding the free end of said web alternately into one of said winding stations, said winding stations comprising a number of rollers driven in the same direction but being non-displaceable, each winding station further comprising a set of rollers also driven in the same direction as the first mentioned rollers, and each of the last mentioned sets being arranged to move away from said non-displaceable rollers as the paper rolls increase in size.

2,849,192
CORE ENGAGING SHAFT

Horatio J. Fairchild, Kalamazoo, Mich., assignor to United States Shaft Company, Kalamazoo, Mich., a corporation of Michigan

Application October 20, 1955, Serial No. 541,700
1 Claim. (Cl. 242—72)

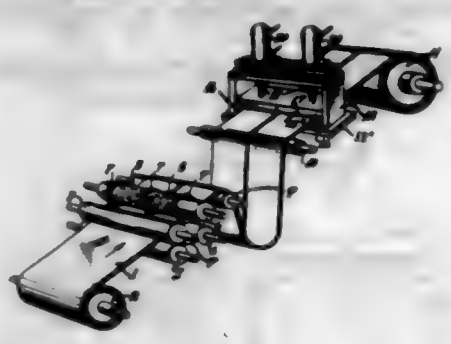


A hollow shaft for supporting a cylindrical core, comprising: an elongated cylindrical inner casing of substantially rigid construction; a pair of elongated elements extending into the opposite ends of, and concentric with, said inner casing, said elements being spaced from each other and from said inner casing; spaced members rigidly securing each of said elements with respect to said inner casing; a cylindrical, resilient sleeve closely surrounding said inner casing and extending substantially the full length thereof; means securing the axial end portions of said sleeve in fluid-tight relationship with said inner casing; a cylindrical outer casing closely surrounding said sleeve, said outer casing being of substantially the same axial length as said sleeve and having a plurality of spaced openings through which the adjacent portions of said sleeve can project; means supporting said outer casing upon, and coaxial with, said inner casing, the distance between said inner and outer casings being slightly larger than the thickness of said sleeve; and conduit means extending through said inner casing and communicating between a point near one end of said inner casing and a point between said inner casing and said sleeve.

2,849,193
APPARATUS FOR SLITTING ALUMINUM WEBS AND REWINDING STRIPS THEREFROM

Edwin A. Pauls and Theodore R. Diersen, La Grange, Ill., assignors to Reynolds Metals Company, Richmond, Va., a corporation of Delaware

Application January 26, 1956, Serial No. 561,396
1 Claim. (Cl. 242—78.1)

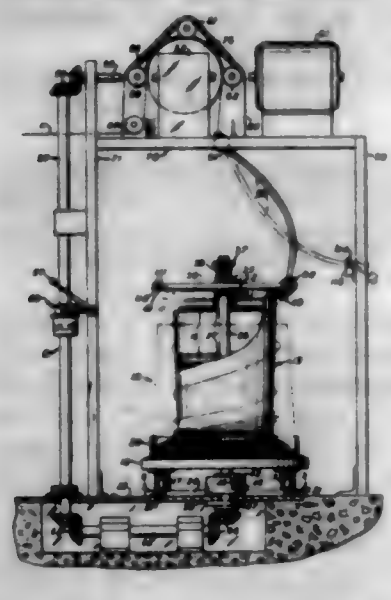


In apparatus for slitting metallic webs and rewinding strips therefrom, improved rewinding means comprising means for guiding and supporting the slit web into a slack loop formation, a take-up reel, and means forwardly of the take-up reel for imparting vertical pressure to the cut strips of the web and for separating the cut strips, the pull upon the cut strips, intermediate the loop formation thereof and said pressure means being by the take-up reel, the said pressure and strip separating means consisting of a cushioned base plate, a cushioned upper plate, each transversely channeled, and separator strips in the channel of one plate and adapted to enter the channel of the second plate when the plates are brought into engagement with the cut strips.

2,849,194
APPARATUS FOR COILING FILAMENTARY MATERIAL

George E. Henning, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application May 9, 1955, Serial No. 507,078
4 Claims. (Cl. 242—82)

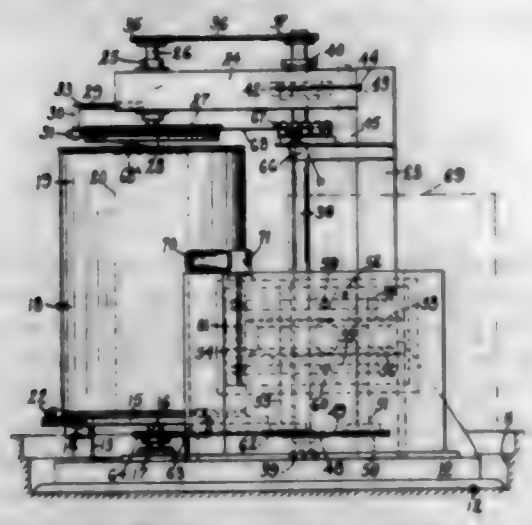


1. Apparatus for coiling filamentary material, which comprises a platform, a tapered material-receiving swift secured to said platform, means associated with said platform for placing said swift in a material-receiving position, a vertical shaft rotatably mounted within said swift, a flyer having notches in the ends thereof loosely secured to the upper end of said shaft and above said swift and designed to rotate normally with said shaft, a flexible tube rotatably secured at one end above said flyer when said swift is in said material-receiving position, coupling means secured to the other end of said tube attaching said other end to one of said notches in said flyer, means for feeding said material to said swift through said tube, and means for driving said shaft from the lower end thereof in synchronism with the feeding means.

2,849,195
COMBINATION WIRE DRAWING AND PACKAGING DEVICE

William H. Richardson, Mount Carmel, and Joseph J. Kovaleski, Ansonia, Conn., assignors to The Driscoll Wire Company, Shelton, Conn., a corporation of Connecticut

Application August 18, 1953, Serial No. 374,850
8 Claims. (Cl. 242—83)

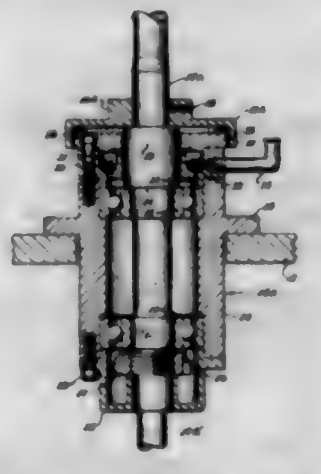


2. In a wire packaging machine, a capstan having a peripheral surface around which the wire passes, a casting device adjacent the capstan and in substantially the same plane as the latter through which the wire is passed, a rotatably mounted drum below the capstan for receiving the wire therefrom, means for pressing the wire against the surface of the capstan and releasing it therefrom to pass into the drum, means for rotating the capstan, means for continuously rotating the drum on its axis, and means for varying the angular velocity of the drum with respect to that of the capstan.

2,849,196
SPOOL SPINDLE JOURNAL MOUNTING

George A. Spencer, Akron, Ohio, and Harold R. Sell, Pottstown, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application April 8, 1954, Serial No. 421,900
5 Claims. (Cl. 242—130)



1. Filament spooling construction including a housing, a spool spindle journaled in said housing, a cap plate secured to one end of the housing and forming an annular shoulder projecting radially beyond the exterior of said housing, and a cover secured to the spindle exteriorly of said top plate and having an annular flange covering said annular shoulder and terminating flush with the bottom of said shoulder.

2,849,197
SERVO CONTROL MECHANISM

Jacob Rabinow, Takoma Park, Md., Emmett C. Bailey, Riverside, Calif., and Francis H. Shepard, Jr., Summit, N. J., assignors to the United States of America as represented by the Secretary of the Navy

Application July 10, 1952, Serial No. 298,076
5 Claims. (Cl. 244—14)



1. An aerodynamically streamlined air powered servo unit adapted to be mounted on an airborne body having directional control members, said unit comprising a casing, an air turbine rotatably mounted on one end of said casing, a traveler shaft operatively connected to said air turbine and keyed to said casing for axial movement therein, transmission means including a clutch mechanism linking said turbine with said traveler shaft, means carried by said transmission means in threaded engagement with said traveler for imparting said axial movement to said traveler shaft in response to the operation of the clutch means, a link member connected to said traveler shaft and the control members for actuating said control members of the airborne body in response to said axial movement of said traveler shaft, a slide wire carried by and disposed within said casing, and electrical contact means carried by said traveler shaft in engagement with and cooperating with said slide wire for pro-

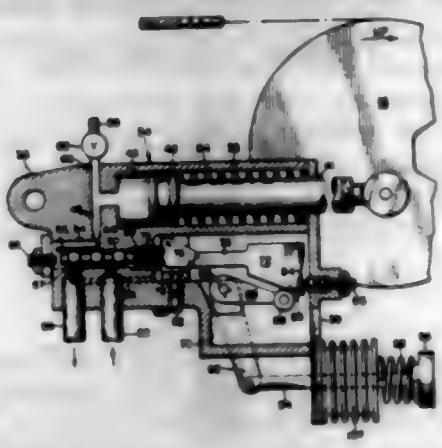
viding an electrical signal indicative of said axial movement of the traveler shaft thereby to determine the position of the control means.

2,849,198

HYDRAULIC FORCE-LIMITER FOR AIRCRAFT CONTROLS

Otto J. Borngesser, Hermosa Beach, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application January 24, 1956, Serial No. 561,168
10 Claims. (Cl. 244—83)



1. In an aircraft having a control surface moved in accordance with a manual force applied by a pilot to control linkage, a hydraulic force-limiter comprising a cylinder, a piston reciprocable in the cylinder and connected to the control linkage, a source of fluid pressure, a valve for porting fluid pressure to one side of the piston for applying a resistance force on said control linkage warning the pilot that the aircraft is being overstressed, a movable mass connected to said valve for actuating said valve to the porting position when the aircraft is subjected to an excessive gravity force, and means operable by the movement of the control linkage for venting the fluid pressure on the piston and overriding the limiter for emergency operation of the aircraft.

2,849,199

AIRCRAFT UNDERCARRIAGE

Rene Lucien, Paris, France

Application December 28, 1954, Serial No. 478,149
Claims priority, application France January 1, 1954
2 Claims. (Cl. 244—104)



1. In the combination of an aircraft gear having telescoping members with an anti-shimmy compass device having arms pivoted respectively to the said telescoping members, and wherein one of said arms includes coupled hydraulic elements mutually permitting but damping oscilations of said landing gear laterally of a line of travel: said one arm comprising a unitary structure incorporating said hydraulic elements in a single body, valve means establishing a permanent communication between said hydraulic elements inside of said body, and at least one narrow restricted passage in said valve means, said valve means comprising a main valve having said narrow restricted passage therein, two auxiliary stress-limiting valves interposed respectively between the opposite sides of said main valve and the related hydraulic element, a passage in each auxiliary valve facing said narrow restricted passage, a spring urging each auxiliary valve into contact with said main valve, and at least one additional passage in said main valve outside of the zones of contact therewith of said auxiliary valves.

2,849,200

PROBE-DROGUE REFUELING MEANS

Robert P. Person, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application April 15, 1954, Serial No. 423,442
4 Claims. (Cl. 244—135)



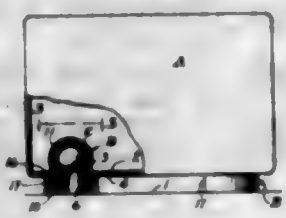
1. In a receiving aircraft, an elongated rigid probe directed forwardly from the receiving aircraft substantially in the line of flight and terminating in a tip for coupling within a complemental drogue trailing behind a tanker aircraft, means to extend said probe forwardly and to retract it rearwardly with respect to the receiving aircraft whereon it is mounted, stop means fixedly positioned with respect to the receiving aircraft and located adjacent the probe and behind the probe's tip when the probe is in its foremost position, the movement of the probe's tip effected by the extending and retracting means being of such extent as to withhold the probe-coupled drogue from contact with the stop means when the probe is in its foremost position, and to effect contact between the drogue and the stop means, to uncouple the drogue from the probe, before the probe reaches its rearmost position.

2,849,201

RESILIENT FOOT FOR INSTRUMENTS AND THE LIKE

Alex Scheigunov, Euclid, Ohio, assignor to Bird Electronic Corporation

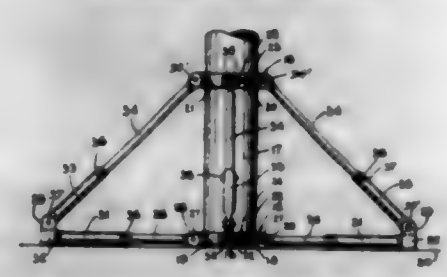
Application October 7, 1953, Serial No. 384,581
12 Claims. (Cl. 248—24)



9. A two-piece blind mounting of the type described adapted to be applied from the exposed surface to the blind surface of an apertured workpiece and comprising a deformable elastic member having a shank portion formed with an entering end for insertion through the workpiece and an enlarged integral head portion for overlying the exposed surface of the workpiece, said member being formed with a recess extending axially through said head portion and into said shank portion, an expander pellet having a cross section transversely of the passageway greater than the said passageway in said shank portion, said pellet being inserted through the passageway in said head portion and into the shank portion thereby deforming said shank portion laterally to provide an

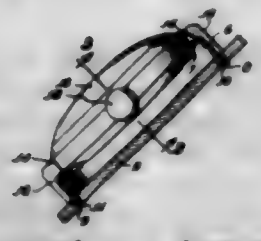
abutment for engagement with the blind surface of the workpiece, the deformable material surrounding said passageway in the shank portion and within said aperture expanding laterally during passage of the pellet therethrough and thereafter contracting to restrict the passageway and retain the pellet therein, the length of said passageway in the shank portion beyond the blind surface of the workpiece being less than the length of the axis of the pellet in the direction of insertion into the shank portion to ensure contracting engagement with the trailing end of the pellet by the expanded shank portion for holding the pellet against said abutment, and abutment means at the entering end of the shank portion preventing passage of the pellet therethrough.

2,849,202
POLE SUPPORT
Roy McCombs, Covelo, Calif.
Application July 20, 1954, Serial No. 444,500
1 Claim. (Cl. 248—44)



In a device for supporting a pole upon a surface, a lower pole embracing collar to rest upon the surface, lower arms having inner ends pivoted to the lower collar and having outer ends, said lower arms normally occupy-horizontal positions, feet mounted on the outer ends of said lower arms comprising surface engaging portions below said lower arms and standard portions rising above said lower arms, an upper pole embracing collar spaced above said lower collar, upper outwardly declining arms having inner ends pivoted to said upper collar and outer ends pivoted to said standard portions of the feet on a level above said lower arms, each of said upper and lower arms consisting of a relatively stationary inner section and a longitudinally adjustable outer section telescopically engaged with the inner section, said outer sections of the lower arms having outer ends on which said feet are fixed, and locking means acting between the inner and outer sections of the upper and lower arms for locking the sections in adjusted longitudinal relation to each other.

2,849,203
TELEPHONE DIAL TIMEPIECE AND MOUNTING THEREFOR
Adolph Irving Trank, Downey, and Leonard Trank and Samuel Trank, Los Angeles, Calif.
Application June 13, 1955, Serial No. 514,975
1 Claim. (Cl. 248—115)



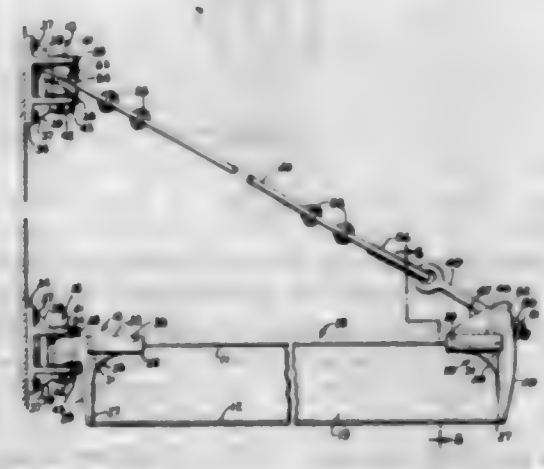
A support for a watch case, including a ring adapted to spacedly surround the said case, said ring provided at one end with an internal flange having a depth substantially equal to the width of the peripheral side edge of said case, the said case and the said flange being in press-fit engagement, a second ring positioned beneath the said annular flange of the first ring and in press-fit engagement with the first ring, said second ring formed with an inwardly directed curved annular flange extending beyond the inner edge of the flange of the first ring and tangent to the base surface thereof for engagement with the watch case to hold the said case against movement in one direction.

2,849,284
LOCKING MEANS FOR A STAND
Russell E. Petrick and Edward J. Petrick, Park Ridge, Ill., assignors to Bretford Manufacturing, Inc., Franklin Park, Ill., a corporation of Illinois
Original application July 21, 1950, Serial No. 175,164, now Patent No. 2,703,698, dated March 8, 1955. Divided and this application June 22, 1953, Serial No. 363,124
3 Claims. (Cl. 248—161)



1. A portable stand, comprising a tubular standard supported in an upright position, an extension rod telescoping into the upper end of said standard, said standard having a longitudinal slot extending downward from its upper end and having a bayonet slot extending laterally from said longitudinal slot and then upwardly to form a seat, a cap on the upper end of said standard perforated to receive and guide said extension rod and having a lug thereon to coact with the seat of said bayonet slot for securing said cap, a nipping lever fulcrumed on said standard on an axis transverse to said extension rod and adapted to hold said extension rod, a helical spring bearing between said cap and said nipping lever to normally tilt said nipping lever downward into holding engagement with said extension rod and to normally urge said cap upward to lock said lug in said bayonet slot seat, and an arm on said lever projecting from said standard for shifting said nipping lever out of its holding engagement with said extension rod.

2,849,285
JIB CRANE KIT
William S. Chapin, Jr., Muskegon Heights, Mich., assignor to Manning, Maxwell & Moore, Inc., Muskegon, Mich., a corporation of New Jersey
Application May 28, 1953, Serial No. 356,288
5 Claims. (Cl. 248—282)



4. In a jib crane including a length of conventional I-beam, a pair of bearing brackets adapted to be mounted at vertically spaced points on a wall with a vertical pintle pin in each of said brackets, the improvement compris-

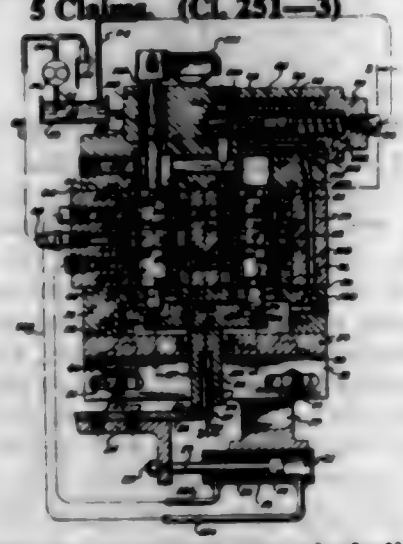
ing first and second single-piece fittings removably secured to the respective ends of said I-beam, an apertured integral projection on said first fitting which is pivotally received on the lower pintle pin, a stay having one of its ends journaled on the upper pintle pin, an eyebolt having the other end of the said stay secured through its eye, said second fitting having an integral, upwardly extending, arcuate projection inclined angularly outwardly toward the free end of said I-beam and presenting a concave surface on the side thereof which is remote from said stay, said projection having an elongated opening extending lengthwise thereof, said eyebolt having a threaded end opposite its eye and extending through said opening, a sleeve on the end of said eyebolt and having a convex end surface matingly engaging said concave surface, and a nut threaded on said eyebolt pressing against said sleeve for tightening said stay, relative sliding between said convex and concave surfaces in response to such tightening causing the eyebolt automatically to swing within said opening and to aline with said stay so that the eyebolt is free of bending stresses.

2,849,206

HYDRAULIC TRACER CONTROL VALVE

Arthur P. Waterson, Fort Worth, Tex., assignor to R. K. Le Blond Machine Tool Co., Cincinnati, Ohio, a corporation of Delaware

Application June 16, 1955, Serial No. 515,960
5 Claims. (Cl. 251—3)



1. A hydraulic tracer control valve including a pressure control valve spool, an exhaust control valve spool, a tracer finger, a rocker bar fixed to said tracer finger having abutment means on the outer ends thereof operatively engaging said spools to axially reciprocate the same, yielding means engaging said spools to bias said spools in opposition to the movement effected by said rocker bar, and means for pivotally mounting said rocker bar and tracer finger on an axis of rocking movement located more closely to the axis of one of said spools than the other axis of the other so that actuation of said tracer finger oppositely reciprocates said spools with one spool traveling a lesser distance than the other.

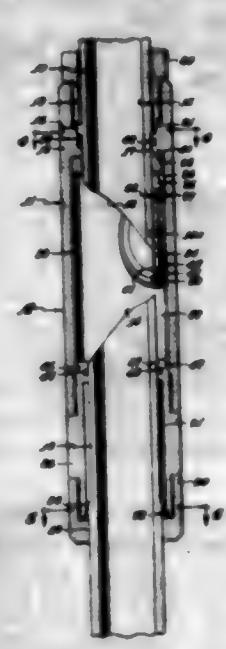
2,849,207

SUBSURFACE WELL BORE VALVE APPARATUS

Martin B. Conrad, Downey, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application January 30, 1956, Serial No. 562,235
18 Claims. (Cl. 251—149)

5. In valve apparatus to be incorporated in a tubular string to be disposed in a well bore: an outer tubular member; an inner tubular member rotatably mounted within said outer member and having a valve seat inclined to the axis of said members; a valve pivotally mounted on said outer member and swingable into and out of engagement with said seat; relative rotation between said members causing the inclined portion of said inner member at said seat to cam said valve head out of engagement with said seat; said members being relatively



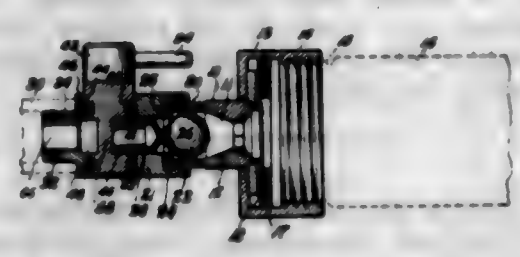
rotatable to the extent at which the periphery of said inner member engages and holds said head completely out of the path of fluid flow through said inner member.

2,849,208

VALVE MECHANISM FOR SPRAYERS

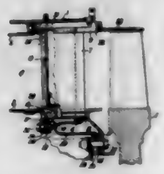
Lee Skipwith, Jr., St. Petersburg, Fla., assignor to Sprayers & Nozzles, Inc., St. Petersburg, Fla., a corporation of Florida

Application July 26, 1954, Serial No. 445,692
1 Claim. (Cl. 251—211)



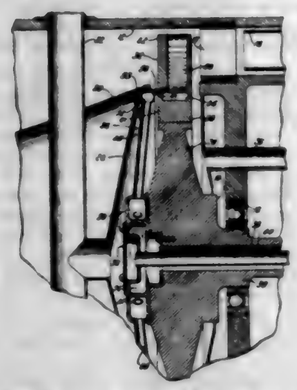
In a valve, the combination of a housing provided with a passage having inlet and outlet ends, a valve seat provided in the inlet end portion of said passage, a valve element movably disposed in the passage at the inlet side of said seat and engageable with the latter, a rotatable plug provided in said housing and extending transversely of said passage at the outlet side of said seat, an eccentric provided on said plug in said passage, and a hollow pin slidable in said passage between said seat and said plug and affording communication between portions of the passage at opposite ends of the pin, said pin having an inlet and engageable with said valve element and an outlet end in engagement with said eccentric, whereby the valve element may be disengaged from said seat upon rotation of said plug, a second valve seat provided in the inlet end portion of said passage in spaced opposing relation to the first mentioned seat, said valve element being engageable with said second valve seat independently of actuation of said pin by said plug, said plug being undercut to provide said eccentric, said eccentric being disposed wholly within the undercut portion of the plug and spaced radially inwardly from the lateral surface of the plug, and said second valve seat providing stop means for said valve element and for said pin, whereby the outlet end portion of the pin at all times projects into the undercut portion of the plug and constitutes sole means for preventing removal of the plug from said housing.

2,849,209
NOZZLE CONSTRUCTION FOR TURBINES
Neil Bergan, Melrose, and Donald F. Warner, Marblehead, Mass., assignors to General Electric Company, a corporation of New York
Application October 11, 1950, Serial No. 189,562
6 Claims. (Cl. 253—39.1)



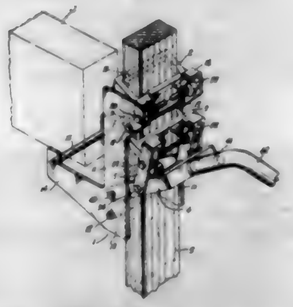
1. A nozzle diaphragm for a turbomachine comprising a plurality of individual hollow nozzle blade members, each having a platform portion at one end thereof, the other end portions of said blade members having a circumferential, radially extending slot on their inner sides, an annular support member having a similar radially extending slot in radially aligned juxtaposition relation with said slots in said blade members, a fixed support, and means for securing said blade members at said other end portions to said support member including a plurality of equally spaced, substantially parallel, exterior slots in said support member receiving said individual blade members therein, a cantilever support connecting said support member with said fixed support, and locking means in engagement in said radially extending slots, said blade members being equally spaced around the periphery of said support member to form a plurality of similar fluid passages between adjacent blade members, said platform end portions being supported by their respective blade members and forming an outer boundary for said fluid passages.

2,849,210
TURBINE BLADE COOLING SYSTEM
William A. Turunen, Birmingham, Mich., and Patrick W. O'Connell, deceased, late of Royal Oak, Mich., by Elaine A. O'Connell, administratrix, Royal Oak, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 19, 1953, Serial No. 331,991
7 Claims. (Cl. 253—39.15)



1. An evaporative cooled turbine having a sealed coolant system comprising a rotatable turbine wheel, turbine buckets having root portions dovetailed to the rim of said turbine wheel, said buckets defining liquid coolant chambers in said buckets having access openings through the sides of said root portions, coolant distributing means on said turbine wheel comprising an annular inner coolant condensing chamber connected by radial coolant passages to an annular coolant vaporizing chamber, said vaporizing chamber being disposed radially outward of the condensing chamber and proximate radially with said root portions, and liquid coolant transfer tubes connecting said access openings with said vaporizing chamber.

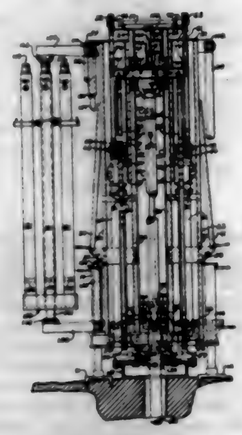
2,849,211
JACK
Clyde E. Shoesmith, Seattle, Wash.
Application June 29, 1956, Serial No. 594,752
1 Claim. (Cl. 254—106)



A jack comprising a carriage formed of two side plates and crossbars joining the plates at their opposite ends and located to engage respectively opposite faces of a stud or like post, a work-engaging bracket projecting from the side plates at the lower end of the latter, an actuating lever of U-shape straddling the post and oscillatably mounted adjacent the lower end of the carriage, at the side thereof adjacent the bracket, a first cramping ring for encircling the stud with some clearance when disposed generally in a plane transverse to the stud's length, but to grip the stud when tilted with respect to the stud's length, pivot means supporting said first cramping ring directly from the carriage, at the upper end of the latter and at the side of the latter opposite the oscillatory axis of the actuating lever, spring means reacting between the carriage and the first cramping ring to urge the latter into tilted gripping disposition, a second cramping ring formed and positioned similarly to the first, intermediate the first ring and the actuating lever, said second cramping ring positioned between the two side plates and the crossbars, a link pivotally connected to and operatively interconnecting each of the second cramping ring and the swinging portion of the actuating lever, for shifting said second cramping ring, by oscillatory movement of the actuating lever in one sense, from its tilted gripping position and lengthwise of the stud while the first cramping ring resists retrograde movement, and spring means reacting between the second cramping ring and the link to urge the former into tilted gripping position while the first cramping ring and the carriage are being advanced along the stud by oscillatory movement of the actuating lever in the opposite sense.

2,849,212
DRILLING APPARATUS
Davis Robbins, Oneonta, Ala.
Application December 10, 1956, Serial No. 627,192
2 Claims. (Cl. 255—22)

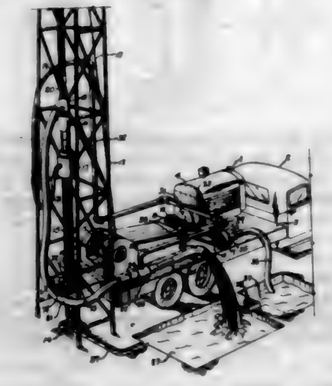
1. Drilling apparatus for drilling holes downwardly into the earth comprising a vertical frame, vertical guideways in the frame, a polygonal rotary driving shaft mounted to rotate in the frame and carried thereby, means for rotating said driving shaft, a transmission unit mounted for vertical movement in the guideways, means connecting the transmission unit in driving relation with the polygonal shaft, a hollow drill rod adapted to convey air from an air pressure source downwardly to clear the hole being bored of cuttings, a hollow drill bit connected to the lower end of the drill rod, means detachably connecting the drill rod to and driving the same from the transmission unit, a discharge housing for said cuttings surrounding the drill rod adjacent the lower end of the vertical frame, upper and lower sprockets mounted for rotation adjacent the top and bottom respectively, of said vertical frame, a pair of sprockets mounted for vertical movement along said frame between said upper and lower sprockets, a first sprocket chain connected at one end to said transmission and passing over said upper



sprocket and under one sprocket of said pair of sprockets with the other end of said first chain secured to the vertical frame adjacent said upper sprocket, a second sprocket chain connected at one end to said transmission and passing under said lower sprocket and over the other sprocket of said pair of sprockets with the other end of said second chain secured to said frame above said lower sprocket, a fluid pressure operated cylinder mounted above the lower sprocket and connected to said pair of sprockets for raising and lowering the same, an upwardly projecting piston rod for said cylinder, a U-shaped bracket at the upper end of said piston rod, a transverse shaft extending between the legs of said U-shaped bracket and carrying said pair of sprockets, and said vertical frame being mounted for pivotal movement intermediate its ends.

2,849,213
APPARATUS FOR CIRCULATING DRILLING FLUID IN ROTARY DRILLING
George E. Failing, Enid, Okla., assignor to George E. Failing Company, Enid, Okla., a corporation of Delaware
Application November 12, 1953, Serial No. 391,448
2 Claims. (Cl. 255—24)

1. In a drilling apparatus for drilling a bore hole from the surface of the ground to substantial depths below said surface and which includes a drilling string composed of customary lengths of intercoupled drill pipe, a Kelly rod having an upflow duct connected with the upper drill pipe and having a downflow duct provided with a jet orifice opening into the lower end of the kelly, a swivel head on the upper end of the Kelly rod, a swivel connection on the kelly and having connection with the downflow duct, a bit on the lower end of the drill pipe, means for supplying drilling fluid to the upper end of the bore hole exteriorly of the drill pipe to cause upward movement of drilling fluid within the drill pipe, means for rotating the Kelly rod, said downflow duct providing a driving connection between the rotating means and the kelly to turn the drill bit for deepening the bore hole, means connected with the swivel head for lowering the drilling string with deepening of the bore hole and for raising the drilling string when disconnecting the Kelly rod for adding another joint of drill pipe and for lowering the drilling string to engage the downflow duct on the Kelly rod with said rotating means to continue the drilling of the bore hole, a hose connected with the swivel head and forming the down-leg of a siphon of which the Kelly rod constitutes the up-leg, said swivel head having a flow passage connecting the up-leg with the down-leg of the siphon, an eductor connected with the down-leg of the siphon, means for supporting the eductor in substantially fixed position, a

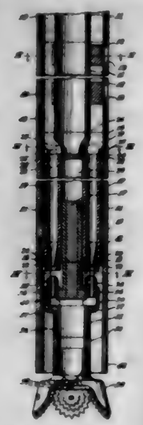


pump, duct means connecting the pump to the eductor for supplying a fluid under pressure to the eductor to be discharged therefrom for furnishing energy to lift the drilling fluid and cuttings carried therewith through the siphon, means connecting the pump with the swivel connection to supply pressure fluid through the downflow duct to said jet orifice to increase the velocity flow of the drilling fluid and cuttings through the siphon to said eductor, an elongated tubular body member connected to the discharge of the eductor, said body member comprising an inlet portion attached to the discharge end of the eductor, and an elongated outwardly flaring discharge portion forming the other end of the body member and providing an outwardly flaring expansion chamber, whereby an elongated mixing chamber is provided in said elongated body member to provide commingling and high velocity agitation of the drilling and pressure fluids and whereby discharge of the drilling and pressure fluids is effected through the flared expansion chamber.

2,849,214
BOREHOLE DRILLING APPARATUS FOR PREVENTING LOST CIRCULATION
John I. Hall, Lourenco Marques, Mozambique, Portuguese East Africa, assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application September 2, 1954, Serial No. 453,899
4 Claims. (Cl. 255—24)

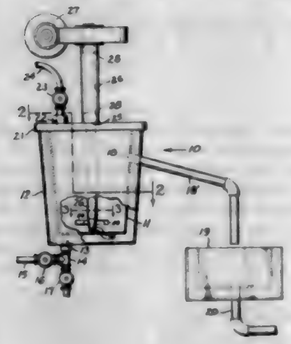
1. Rotary drilling apparatus wherein a drill pipe carries at its lower end a bit holder with drill bit attached thereto comprising a drill pipe providing a fluid-supply passage and an associated fluid-return passage, a bit holder rigidly connected to said drill pipe, a fluid-flow channel from said fluid-supply passage through said bit holder adapted to supply fluid to the drill bit, an up-

wardly-directed nozzle in said bit holder, a fluid-flow channel from said fluid-supply channel to said nozzle, a venturi tube in said bit holder spaced above said nozzle and axially aligned with said nozzle, a fluid-flow chan-



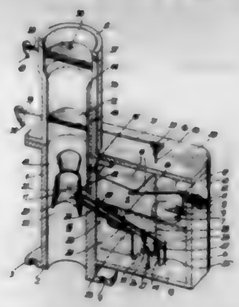
nel affording fluid communication from the borehole immediately above the drill bit to the lower end of said venturi tube, and a fluid-flow channel from the upper end of said venturi tube to said fluid-return passage.

2,849,215
MECHANICAL FOAMING DEVICE
Alfred J. Hurst, Santa Rosa, Calif., assignor to Ply-Bord Inc., Healdsburg, Calif., a corporation of California
Application August 9, 1956, Serial No. 603,148
3 Claims. (Cl. 259—8)



1. A mechanical foamer for producing continuously foamed liquid comprising a container having a top, a bottom, side walls sloping inwardly from top to bottom, an inlet in the bottom of the container for admitting unfoamed liquid, a lid over the top of the container, an inlet in the lid for admitting wash-out liquid, an agitator shaft passing through approximately the center of the lid and extending to a point closely adjacent the bottom, agitator means for agitating the liquid affixed to a lower portion of said agitator shaft, said agitator means having two sets of blades fastened adjacent the lower end of the agitator shaft, the top set of blades being pitched to impel liquid upwardly in the container on rotation of said shaft and the bottom set of blades being pitched to impel liquid downwardly in the container on rotation of said shaft, motor means for driving said shaft, an outlet opening in an upper portion of a side wall of the container positioned above said agitator means, a holding tank positioned outside the container, pipe connections from said outlet opening to the holding tank, whereby when liquid is placed in the container and the agitator shaft driven the liquid is foamed and rises in the container to flow out of the container through the outlet opening to the holding tank.

2,849,216
CARBURETTORS
Antonio J. G. Perotti and Arturo A. Monacci, Necochea, Argentina
Application August 22, 1956, Serial No. 605,506
7 Claims. (Cl. 261—44)



1. A carburettor for internal combustion engines of the ignition type and having accelerator means; said carburettor comprising a tube including a Venturi and having a lower end adapted to be connected to the intake manifold of an engine and an upper end adapted to be connected to an air filter, a float chamber for housing fuel which defines a fuel level and is connected to said tube, a fuel injector tube having a rear end and a front end including a fuel injector nozzle, a needle mounted in said fuel injector tube and linked to said accelerator means for controlling said fuel injector nozzle said needle being controlled by said accelerator means, a throttle valve housed in the first mentioned tube and linked to said accelerator means in order to be also controlled by said accelerator means, said front end of the fuel injector tube being arranged in said Venturi and said rear end being arranged in said float chamber, said throttle valve being disposed above said Venturi and below said upper end of the first mentioned tube whereby said Venturi is completely subjected to the suction produced by the engine, a vent in said first mentioned tube below said throttle valve connecting said first mentioned tube with said float chamber above said fuel level, said vent maintaining said float chamber under sub-atmospheric pressure when said engine is operating, said rear end of the fuel injector tube defining a bell arranged below said fuel level, first air supply means for supplying air at atmospheric pressure below said bell and capable of supplying the necessary air when said engine operates at maximum so that said fuel may leave said float chamber through said fuel ejector nozzle, and at least one opening in said fuel injector tube within said float chamber permitting the discharge of excess air in said fuel injector tube into said float chamber when said engine operates at less than maximum.

2,849,217
AERATORS
Herman Bachli and Harry S. Shapiro, Chicago, Ill., assignors to Chicago Specialty Manufacturing Co., Chicago, Ill., a corporation of Illinois
Application August 13, 1954, Serial No. 449,578
3 Claims. (Cl. 261—76)

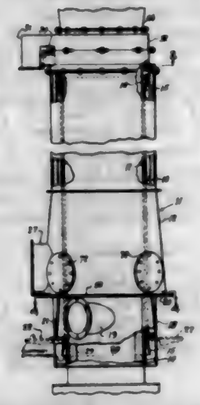
1. A device for aerating a liquid under pressure comprising a one piece casing having single inlet and outlet portions, said casing being closed except for said single

inlet and outlet portions, said inlet portion being adapted to be supported on the end of the faucet through which liquid may flow, a spray jet unit in said casing including a conical shaped canopy having an inlet opening and an apertured disc secured thereto below said canopy, a foraminous member adjacent the casing outlet including a plurality of superimposed foraminous discs, means for supporting said foraminous member in said casing, said fo-



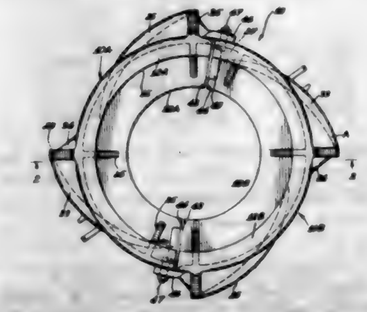
raminous member having a circumference less than the inner wall of the casing adjacent said foraminous member to space the periphery of said foraminous member from said inner wall of the casing to provide enlarged interior air inlets between the periphery of the foraminous member and the inner wall of the casing for permitting entry of air solely upwardly into the casing through said single outlet.

2,849,218
RECUPERATOR FOR COMBUSTION FURNACES
Carroll Cone and William H. Dailey, Jr., Toledo, Ohio, assignors to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application November 1, 1954, Serial No. 466,088
19 Claims. (Cl. 263—20)



16. Recuperator apparatus for transferring heat from flue gas discharging from a vertically opening flue of an associated furnace which comprises: a vertical flue gas pipe aligned with the opening of said associated furnace flue; sealing means connecting the lower end of said pipe to the opening to confine flue gases passing therethrough and allow vertical relative movement of said flue gas pipe lower end; an outer pipe forming with said flue gas pipe a fluid heating passage; means for supplying fluid to one end of said passage; means for discharging fluid at the other end of said passage; a first annular flange extending from the upper end of said flue gas pipe, said first annular flange having an outside diameter substantially less than the inside diameter of said outer pipe; a pair of annular flanges extending from said outer pipe, said pair of flanges having an inside diameter substantially greater than the outside diameter of said flue gas pipe, said pair of flanges also cooperatively engaging said first flange to support said flue gas pipe in a manner which permits radial movement thereof and to form sealing means for the upper end of said fluid heating passages.

2,849,219
FURNACE BOTTOM SUPPORTS
Frank J. Boron, Elyria, Ohio, assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application December 19, 1955, Serial No. 554,075
4 Claims. (Cl. 263—40)

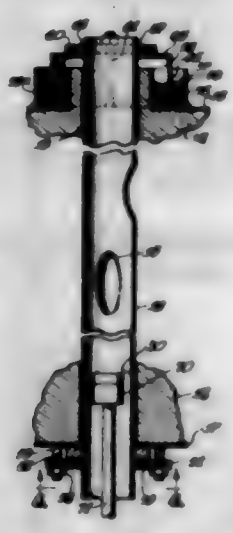


3. In a bottom support for a furnace having adjacent its base means for forcibly circulating heated gases upwardly through an open-bottomed work-container in the furnace, two complemental half castings adapted to be connected at ends thereof to provide a chamber for such gases below the work-container and a support for said container above said chamber, each such casting comprising, an upper wall half segment so that when the castings are connected such segments cooperate at their respective ends to afford a fully complemented upper wall on which said container is adapted to be supported, a lower wall half segment so that when the castings are connected such lower wall segments cooperate at their respective ends to afford a fully complemented lower wall, said lower wall segments being joined to their respective upper wall segments thereby affording an intervening chamber for circulation of gas below the bottom of said container, an ear off-set vertically and then forwardly at selected ends of the lower wall segments of said half casting so as to overlap adjacent flat end portions of the lower wall segments with spacing between such opposing ends of the lower wall segments allowing for thermal expansion, and means depending from each lower wall segment so as to afford a standard for said bottom support in the furnace except at the aforesaid opposing ends so that said ears and the associated overlapped portions do not carry any of the load of said work-container.

2,849,220
INDUSTRIAL FURNACE WITH REMOVABLE COMBUSTION TUBES
John R. Duffy and August Wilford Lillieuberg, Chicago, Ill., assignors to Lindberg Engineering Company
Application September 28, 1953, Serial No. 382,686
3 Claims. (Cl. 263—42)

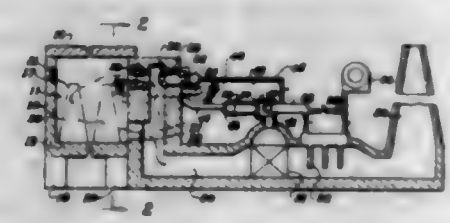
1. In a heat treating furnace, a vertical open ended combustion tube for radiantly heating the interior of the furnace, said tube extending through the top and bottom walls of the furnace and having inwardly extending dimples spaced circumferentially and lengthwise thereof within the furnace, a burner mounted centrally within the tube and spaced upwardly from the lower open end thereof, means for supplying said burner with a mixture of fuel and primary air insufficient to completely burn the fuel, there being an annular space between the burner and the tube for admitting a stream of secondary air

through said lower open end of the tube, said dimples progressively agitating said secondary air stream and



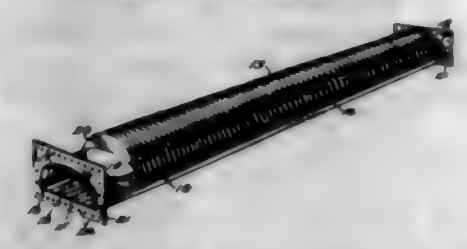
promoting mixing thereof with the unburned fuel, thus effecting progressive combustion throughout the length of the tube within the furnace.

2,849,221
HEAT TREATING FURNACE
Carroll Cone, Toledo, Ohio, and Donald K. Martin, Pittsburgh, Pa., assignors to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application April 6, 1955, Serial No. 499,673
10 Claims. (Cl. 263—43)



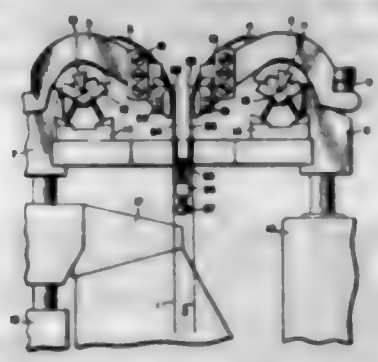
1. The method of heating a soaking pit furnace which comprises: firing a first burner to produce flame in the heating chamber of said furnace until the temperature of said chamber rises to a control point temperature; then substantially reducing the firing rate of said burner and firing a second burner into an auxiliary combustion chamber and discharging therefrom a high velocity stream of combustion gas in inspirating relation to furnace gases venting from the furnace; and directing the resulting admixture into said heating chamber to supply thereto a recirculating stream of heating gas while the furnace is above the control point temperature.

2,849,222
MUFFLE
Edwin C. Senger, Fairfield, Conn., assignor to Rolock, Incorporated, Fairfield, Conn., a corporation of Connecticut
Application December 4, 1956, Serial No. 626,129
9 Claims. (Cl. 263—47)



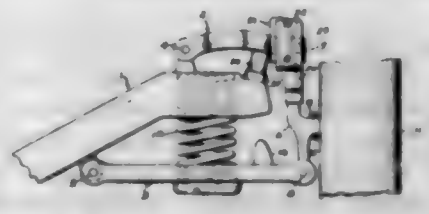
9. A muffle having walls highly pervious to heat adapted to bridge a high temperature chamber in a heat treating furnace without sagging, comprising in combination, a channel-shaped sheet metal hearth section including a floor wall having corrugations of continuous linear extent in the sheet metal thereof running lengthwise of the muffle between opposite lateral margins of said floor wall and disposed to form upstanding work supporting ridges, and a sheet metal hood wall arched over the width of said hearth wall and having corrugations separated from said corrugations in said floor wall running crosswise of the muffle disposed to form alternate ridges and grooves each following the arch of said hood wall, said hood wall terminating at the sides of the muffle in downward directed edges united respectively with said opposite lateral margins of said floor wall in a manner to form a gas-tight joint therebetween.

2,849,223
ADJUSTMENT DEVICE FOR WEIGHING SCALES
Leonardus H. Rikken, Rotterdam, Netherlands, assignor to U. S. Slicing Machine Company, Inc., La Porte, Ind., a corporation of Indiana
Application November 9, 1955, Serial No. 545,900
Claims priority, application Great Britain November 25, 1954
11 Claims. (Cl. 265—27)



1. An adjustment device for a weighing scale having two associated parts at least one of which is adapted for pivotal movement about an axis, comprising adjustable means connecting said two parts and subjected to change in configuration caused by pivotal movement of said one part, said means being capable of exerting a biasing force on said connected parts, the attachment of the connecting means to said one pivotal part being such that during pivotal movement from the half-load position of the scale, the moment of at least a component of the force exerted by said connecting means on the one said pivotal part varies in direct proportion to the third power of the angular measure of the pivotal movement.

2,849,224
VEHICLE STABILIZING SYSTEM AND METHOD
Christian H. Sauer, Chico, Calif.
Application January 23, 1951, Serial No. 207,298
3 Claims. (Cl. 267—8)



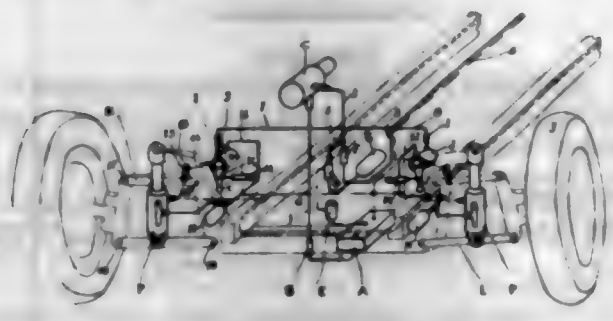
1. In a vehicle having a pair of front wheels respectively mounted on steering knuckle supports, with each of said supports swingably connected to the vehicle body by a pair of vertically spaced arms with a body spring extending between said body and the lower arm of said pair, a compression bumper extending between said body and the upper arm of said pair with its opposite ends in engagement with said body and said upper arm when said body is in a normally loaded condition for resisting movement of said body in a direction away from said wheels, hydraulic means mounted on each of said supports and operatively connected with said upper arm for yieldably resisting movement in said direction only.

2,849,225

ELASTIC SUSPENSION SYSTEM FOR VEHICLES AND ESPECIALLY AUTOMOBILES

René Lucien, Paris, France

Application February 1, 1955, Serial No. 485,553
Claims priority, application France September 3, 1954
3 Claims. (Cl. 267—11)



1. An oleo-pneumatic suspension, for a vehicle having wheels, and comprising, for each wheel, relatively movable elements connected respectively to the chassis and to the wheels, a hydraulic jack connected respectively to one of said movable elements and to the chassis, a hydraulic distributor connected, on one hand, to a source of pressure liquid, and on the other hand, to the cylinder of the jack, an oleo-pneumatic accumulator connected to the distributor and jack, the distributor being adapted to supply liquid to the jack to extend it and to withdraw liquid therefrom to retract it, the body of said distributor being fixed to the chassis and having a movable actuating member, a resilient element connecting the actuating member to the element movable with the wheel relative to the chassis, said resilient connecting element being adapted to be flexed with respect to the relative displacement of the wheel and the chassis, thereby to move the actuating member, said distributor further comprising a pendulous mass, the actuating member of said distributor being rigidly coupled to said pendulous mass which is adapted by reason of its inertia to resist movement of the actuating member of said distributor.

2,849,226

MAIN SPRING FOR MOTOR VEHICLES

Herbert F. W. Marahn, Stuttgart-Uhlbach, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany

Application July 5, 1955, Serial No. 519,989
Claims priority, application Germany July 3, 1954
3 Claims. (Cl. 267—47)



3. A main spring leaf for a leaf spring assembly comprising a main central part and two intermediate parts, said intermediate parts being integrally joined with said central part by portions of varying width, said intermediate parts being of less width than said central part and being of a thickness greater than said central part, the thickness of said intermediate parts increasing in directions leading away from said central part, curved portions integral with said intermediate parts and forming eyes, said curved portions having a thickness greater than the greatest thickness of said intermediate parts.

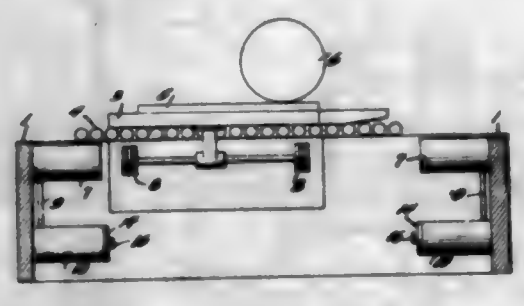
2,849,227

BRAKING DEVICE FOR PRINTING PRESSES WITH RECIPROCATING TYPE BED

Sten Richard Stenstrom, Trollhattan, Sweden

Application October 18, 1955, Serial No. 541,247
1 Claim. (Cl. 267—75)

In combination with a printing press having a reciprocating type-bed, braking apparatus comprising a brake cylinder mounted on the press frame and having an open end, a brake piston mounted on said type-bed to reciprocate therewith, and in position to enter said brake cylinder to perform a braking operation by the compression of air in said cylinder, a closed counter cylinder also mounted on said press frame, a conduit means having connections with said brake cylinder with said counter cylinder for the transfer of air therebetween, a second piston slidably



mounted in said counter cylinder having one face toward said conduit connection with said counter cylinder, and a yieldable spring in said counter cylinder acting against the other face of said second piston tending to oppose movement of said second piston under the influence of air supplied to said counter cylinder through said conduit, thereby affecting the pressure in and the braking effect of said braking cylinder.

2,849,228

WITHDRAWN

2,849,229

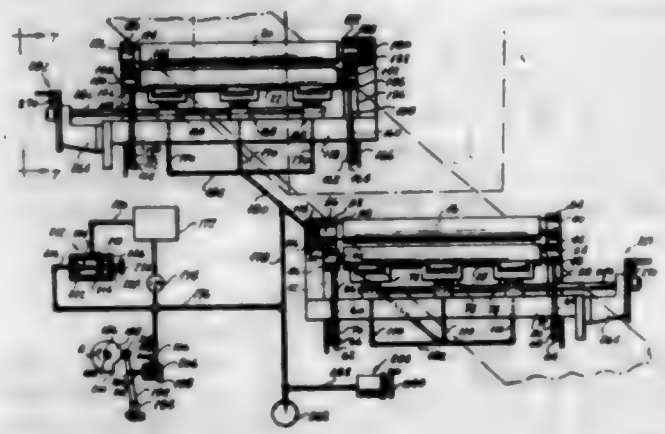
WITHDRAWN

2,849,230

HYDRAULICALLY CLAMPED STOCK FEED ASSEMBLY FOR POWER PRESSES

James C. Danly, River Forest, and Theodore F. Novak and Vasil Georgeff, La Grange Park, Ill., assignors to Danly Machine Specialties, Inc., Chicago, Ill., a corporation of Illinois

Application July 19, 1956, Serial No. 598,805
11 Claims. (Cl. 271—2.4)

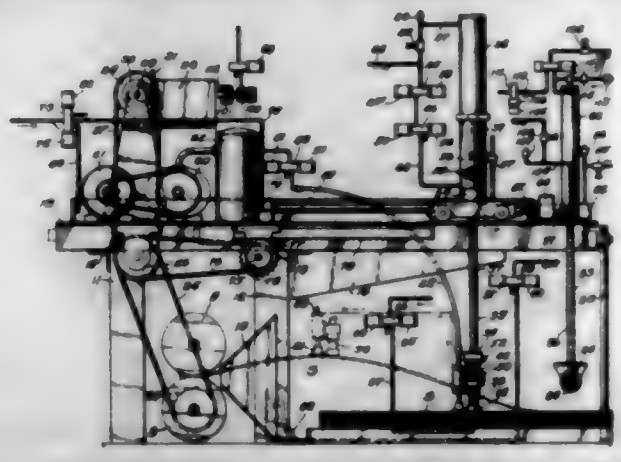


8. In a power press through which a sheet of stock is to be fed, a feed roll assembly including an upper and a lower feed roll, means mounting said rolls for relative movement toward each other to clamp said sheet, means normally urging said rolls away from each other and fluid means comprising rollers for engaging the surface of the lower roll for acting against said means normally urging said rolls to clamp said sheet.

2,849,231
METAL SHEET FEEDER

Lewis J. Reguly, Gary, Ind., John M. Marshall, Chicago, Ill., Alvin Coffman, Indiana Harbor, Ind., and Walter Lysek, Palos Heights, Ill., assignors to Inland Steel Company, a corporation of Delaware

Application March 11, 1954, Serial No. 415,504
9 Claims. (Cl. 271—11)

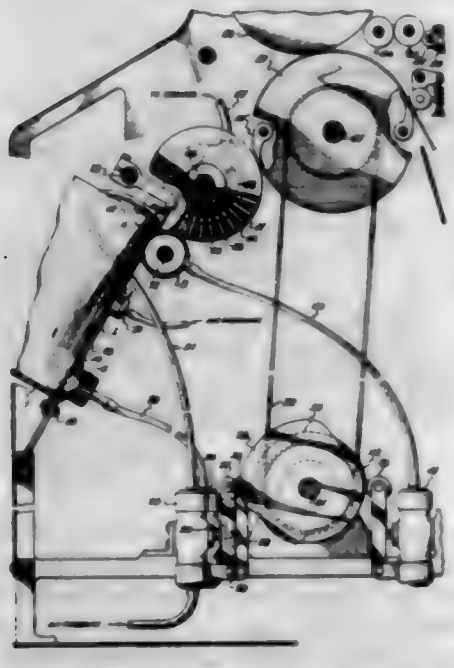


1. Apparatus for sequentially feeding the top sheet of a vertically stacked horizontal pile of metal sheets to a pair of driven sheet gripping rolls comprising, a frame adapted to be positioned adjacent and above said gripping rolls, a horizontal track supported by said frame with one end of the track above and adjacent said rolls, said track extending away therefrom and adapted to extend over a horizontal stack of sheets, a carriage mounted on said track for horizontal reciprocal movement generally toward and away from said gripping rolls, a sheet lifting pneumatic piston and cylinder means mounted upright on said carriage and extending above said carriage and having sheet lifting means extending below said carriage for raising a sheet vertically from said stack positioned below the carriage, and additional pneumatic piston and cylinder means operatively connected to said carriage for moving said carriage and sheet lifting means horizontally to feed a sheet to said sheet gripping rolls.

2,849,232
SHEET FEEDER

John Halahan, Brookville, Theodore F. Aronson, Valley Stream, and Floyd A. Lyon, Brookville, N. Y.

Application January 7, 1955, Serial No. 480,392
4 Claims. (Cl. 271—29)

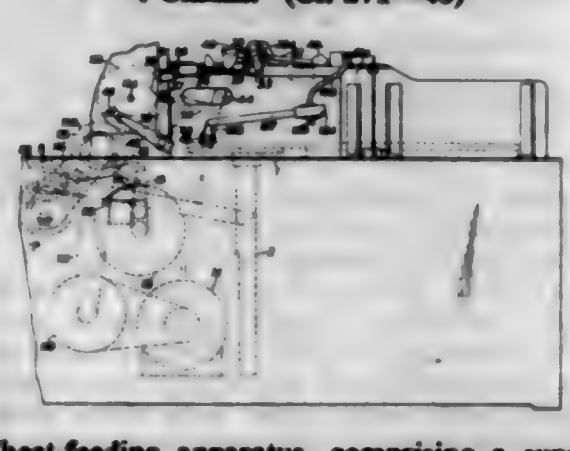


1. Means for feeding paper separately from a stack comprising an inclined rack to hold said stack, an oscillating vacuum sucker located adjacent the upper side of said rack, air blast nozzle oscillatably mounted adjacent the top of said rack, a registration member connected to said air blast nozzle and adapted to rest on top of said stack, means to oscillate said oscillating sucker and said nozzle in predetermined sequence and stationary vacuum sucker means connected adjacent the lower side of said rack.

2,849,233
APPARATUS FOR FEEDING SHEETS

Donald Richard Patrick Jackson, Deptford, London, England, assignor to Molins Machine Company, Limited, London, England, a British company

Application June 7, 1955, Serial No. 513,837
Claims priority, application Great Britain June 9, 1954
4 Claims. (Cl. 271—43)

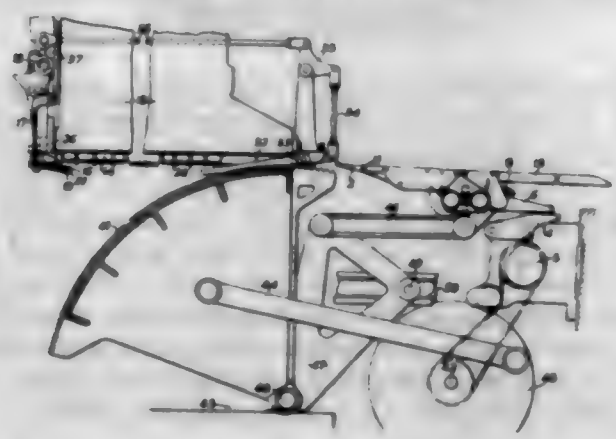


1. Sheet-feeding apparatus, comprising a support for a pile of sheets, a feed member comprising a thin tooth arranged to rest on the top sheet of the pile near the rear edge thereof, a pushing element arranged to engage the upper surface of said top sheet and move it forwardly so that its rear edge passes beneath the said tooth of the feed member, the feed member being arranged thereafter to move forwardly so that the said tooth moves under the said rear edge and so as to engage the said rear edge to push the said sheet forwardly, and means to move the said support upwardly so as to raise the pile as successive sheets are fed therefrom.

2,849,234
SHEET FEEDING MECHANISM

Tom Rowlands, Howard Osborn, and Henry James Hubbard, London, England, assignors to Molins Machine Company, Limited, London, England, a British company

Application June 9, 1955, Serial No. 514,204
Claims priority, application Great Britain June 11, 1954
6 Claims. (Cl. 271—44)



1. In a cutting and creasing machine of the kind comprising a segment of a drum which rolls beneath a forme and the arcuate face of the segment presses a sheet against the forme to effect the desired operations on the sheet, mechanism comprising a reciprocating sheet carrier having a gripper for carrying a sheet beneath said forme to register against a front lay, whereafter the gripper slides off the sheet as the sheet carrier continues its

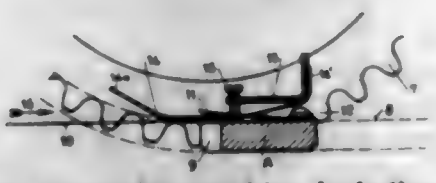
motion, a further gripper having jaws and located at the lay position, actuating devices for said gripper jaws arranged to open and hold them open to receive a sheet brought against the lay by the said sheet feeding gripper and means operable thereupon to close said further gripper jaws and hold the sheet in the lay position.

2,849,235

MACHINES FOR OPERATING ON SHEETS, SUCH FOR EXAMPLE AS A STRIP-CUTTING PRESS OR A PRESS FOR CORRUGATING CARDBOARD SHEETS

Frederic Laufer, Prilly, near Lausanne, Switzerland, assignor to J. Bobst & Son S. A., Prilly, near Lausanne, Switzerland, a corporation of Switzerland

Application March 30, 1955, Serial No. 498,079
Claims priority, application Switzerland April 5, 1954
3 Claims. (Cl. 271—50)



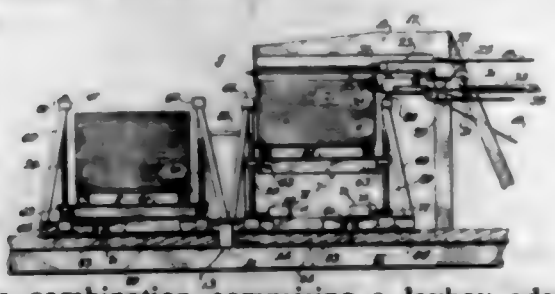
1. In a sheet processing machine including bars with grippers for grasping the sheets and chains for conveying the bars, the chains being adapted to be driven by toothed wheels, each sheet being fed to its grippers at a level defined by a tangent to the circle described by the base of the teeth; a guide device comprising a pair of wheels for driving the chains, an axle supporting said wheels, a transverse beam parallel to said axle, said transverse beam being rigidly positioned with respect to said axle and rotating therewith, at least one wing supported by said transverse beam in a position substantially tangent to the circle described by the base of the teeth, and an inclined portion included in said wing for guiding each sheet tangent to the circle and thereby to the grippers.

2,849,236

REVOLVING LAYBOY PILER

Delton C. Beaulieu, Neenah, Wis., assignor, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware

Application September 14, 1954, Serial No. 455,845
3 Claims. (Cl. 271—88)



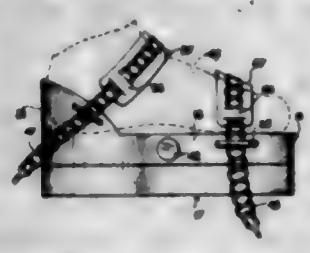
1. The combination comprising a layboy adapted to receive sheet material being successively fed thereto and to arrange said sheet material in a vertical stack, a piler associated with said layboy for receiving sheets therefrom in a vertical stack, said piler comprising a platform mounted for rotation about a vertical axis, a pair of vertically movable tables carried by said platform on opposite sides of said vertical axis, means for rotating said platform to thereby selectively position one of said tables to receive sheets being fed to the layboy, means for independently raising and lowering each of said tables, and a control element on said layboy which is responsive to the increase in the height of the pile of sheet material being formed to operate the raising and lowering means associated with the selected one of said tables as the latter is positioned to receive sheets from the layboy, so as to gradually lower said table as the height of the pile of sheet material thereon increases.

2,849,237

INTERCHANGEABLE EXERCISING SHOE

Ted Smithis, New York, N. Y.

Application May 2, 1957, Serial No. 656,632
3 Claims. (Cl. 272—57)



1. A weighted shoe for developing the lower muscles of the leg comprising a thick metal plate shaped to conform to the shape of the foot of the wearer, said plate having a central slot in its undersurface and having a lateral opening intersecting said slot, a similarly shaped weighted member having a protruding bearing bracket on its upper surface interfitted in the slot in the metal plate, said bearing bracket having a central opening therein, and a spring-pressed pin extending through the lateral opening in the metal plate and through the central opening in the bearing bracket for holding the plate and weighted member in interfitting relation.

2,849,238

GOLF PUTTING PRACTICE DEVICE

Robert C. Eldredge, Webster City, Iowa, assignor to Stewart H. M. Lund, Webster City, Iowa

Application February 21, 1956, Serial No. 566,967
3 Claims. (Cl. 273—177)



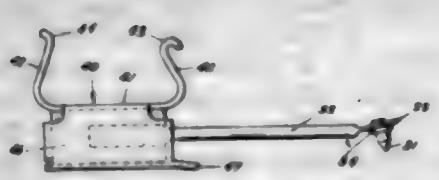
1. A game equipment comprising a hole structure adapted to be placed on a playing surface and a playing ball adapted to be propelled thereinto, said structure including a box-like member having a roof and four side walls depending therefrom in rectangular formation, each side wall having an unobstructed opening midway between its ends and extending through its lower edge of a width greater than but less than twice the diameter of said ball and adapted to pass said ball freely therethrough, the roof having a vertical aperture centrally thereof, and an elongate rod removably projected through said aperture perpendicular to the playing surface, the lower end of said rod extending at least to the playing surface and being disposed in alignment with all of said openings to thereby obstruct movement out of one of said openings of the ball when the latter has entered the structure through an oppositely disposed opening.

2,849,239

PHONOGRAPH PICKUPS

Norman H. Dieter, Jr., Pleasantville, and Ignatius Michalko, Ossining, N. Y., assignors to Sonotone Corporation, Elmsford, N. Y., a corporation of New York

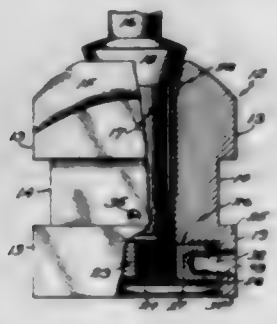
Application February 7, 1955, Serial No. 487,508
6 Claims. (Cl. 274—37)



1. In a phonograph pickup having a mechano-electric transducer structure and a stylus support for a stylus

which drives the transducer structure, a stylus drive structure comprising a thin, elongated drive member carrying at its front portion a single stylus only, an elongated elastomer body coaxial with said drive member and holding flexibly embedded therein a substantial length of the rear portion of said drive member, a relatively thick elongated positioning structure engaging and holding in position longitudinally spaced portions of said elastomer body, said elastomer body constituting the sole connection between said positioning structure and said drive member, said positioning structure having two elastically flexible junction arms with facing junction surfaces extending transversely to the longitudinal axis of said drive member and longitudinally spaced along the length of said drive member, whereby said junction arms are movable into detachable elastic clamping engagement with spaced surfaces of the stylus support of said pickup for thereby fixing the operative coupling position of said stylus drive structure relatively to the transducer structure.

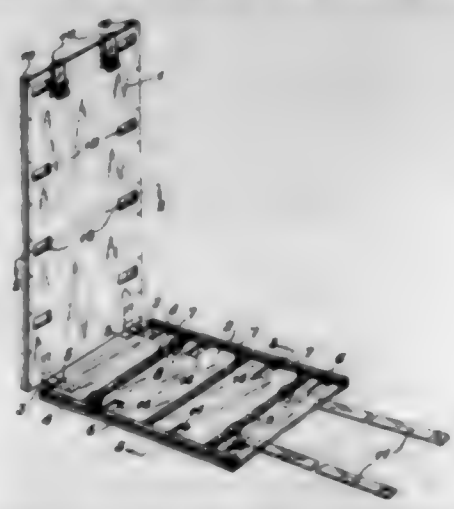
2,849,240
COLLET HOLDER
Otto E. Sorensen, Fairfield, Conn.
Application October 24, 1955, Serial No. 542,188
4 Claims. (Cl. 279—5)



2. A portable work chucking device comprising an axially elongate collet having a circumferentially contractible flaring head portion and a screw threaded draw-end portion with a tubular shank extending therebetween, a collet holding integral block having a bore therethrough and having at one end of said bore a tapering mouth receptive to said head portion of said collet and having at the opposite end of said bore a recess bordered by sides of said block that flank and extend beyond said draw-end portion of the collet, said block presenting at least four external flat side surfaces contained respectively in intersecting planes paralleling the axis of the collet and ending in coplanar terminal surfaces arranged about said recess on which the block is adapted to rest stably, a thrust receptive seat in said recess surrounding a portion of said collet shank adjacent said threaded end portion of the collet, and a nut confined within said recess on said draw-end portion of the collet turnable in thrust relation to said seat for drawing said collet head into said mouth of the block, said sides of the block being apertured to afford a gap exposing said nut for the application thereof of a nut turning tool when the block rests on any of the said five flat surfaces.

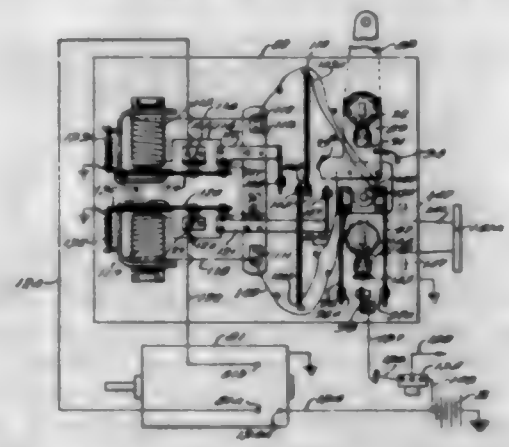
2,849,241
CARRYING DEVICE FOR KITCHEN STOVE OR THE LIKE
James N. Owen, Sr., East Cleveland, Ohio
Application March 7, 1955, Serial No. 492,368
2 Claims. (Cl. 280—8)

1. A carrier for a stove or the like, comprising two flat bodies hinged together at their ends and adapted to occupy extended position in substantially the same plane, or in folded over-lying arrangement, or at substantially ninety degrees to each other, one of said bodies having dimensions corresponding substantially to those of the bottom of a stove or the like, the other of said bodies having dimensions corresponding substantially to those of the end of the stove or the like, said bodies being provided with laterally arranged pairs of hand-holes that are spaced from each other and from the end of the carrier so as to permit engagement by the hands of the user when the carrier is in use, the corresponding hand-holes of each pair of said hand-holes being adapted to register with each other when in folded position, strap means affixed to said bodies at points in substantial alignment with said hand-holes so as to permit said strap means to be



extended through said hand-holes, said body corresponding to the end of the stove or the like having two pairs of rollers upon the under-side thereof, the other of said bodies having skid rails provided lengthwise upon the under-side thereof, the rollers of one of said pairs of rollers being located near the hinge connection between said bodies and with their treads in planes near the outer edges thereof, and the rollers of the other pair of said rollers being located near the opposite end of the body to which said rollers are attached and with their treads in planes in approximately the middle part of the body to which said rollers are attached.

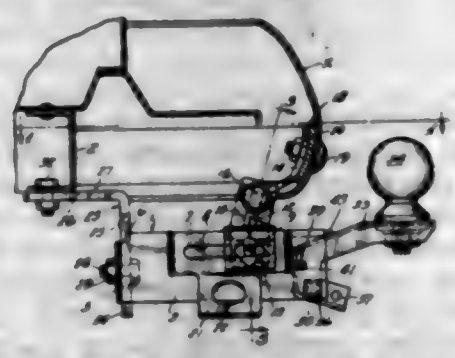
2,849,242
PRESSURE CONTROL MEANS FOR LOAD COMPENSATOR MECHANISM
William D. Allison, Grosse Pointe Farms, Mich.
Application January 31, 1955, Serial No. 484,949
13 Claims. (Cl. 280—124)



1. In a vehicle having brakes, a stop light and a control means for a vehicle load compensating mechanism having a servo-motor, comprising an electrical switch provided with relatively movable contacts adapted to be engaged in response to a change in static load on the vehicle thereby to effect actuation of said servo-motor, a pressure switch device having a first terminal adapted to be connected to one of said contacts and a second terminal adapted to be connected to the vehicle stop light, said device also having a switch normally connecting said first terminal with a source of electric energy, and fluid pressure actuated means controlled by fluid pressure im-

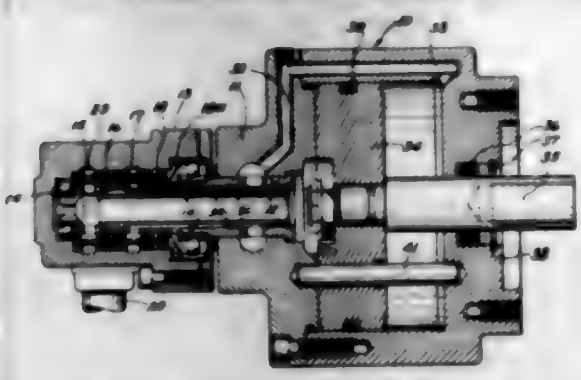
posed thereon by the operation of the vehicle brakes for moving said switch member from said first terminal to connect said second terminal with said source.

2,849,243
TRAILER HITCH
Milton A. Halverson, St. Paul, Minn.
Application March 13, 1957, Serial No. 645,698
6 Claims. (Cl. 280—491)



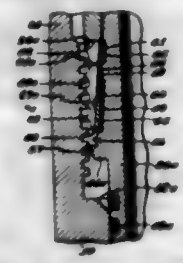
3. In a device of the class described, an inverted rearwardly opening channel-shaped body comprising a top and opposed sides, means for detachably securing said body to the undercarriage of an automotive vehicle in close proximity to and below the plane of the rear bumper thereof with said channel extending parallel to the direction of travel of said vehicle, an elongated hitch ball-carrying member, means pivotally mounting one end portion of said member intermediate the sides of said body for swinging movements of its ball-equipped opposite end from an extended position projecting rearwardly of said body to a retracted position underlying said body forwardly of said pivot, means for locking said member in its extended and retracted positions, an upstanding anchoring ear carried by the longitudinally intermediate portion of said body, and an anchoring tongue having one end pivotally secured to said anchoring ear and having its opposite end adapted to be secured to said rear bumper.

2,849,244
O-RING SEAL FOR ROTARY HYDRAULIC CYLINDER
Merritt B. Sampson, Chagrin Falls, Ohio, assignor to The S-P Manufacturing Corporation, Cleveland, Ohio, a corporation of Ohio
Application December 19, 1955, Serial No. 553,863
2 Claims. (Cl. 285—134)



2. A spindle seal in a fluid control unit for a rotary hydraulic cylinder having a fluid operated reciprocable piston therein, inner and outer faces on said piston, said control unit comprising a stationary housing having a bore therein and a pair of fluid inlet openings, a rotary spindle in said housing locked against axial movement and having an axial bore therein and intercommunicating radial ports providing fluid communication between one of said inlet openings and the outer face of said piston, said spindle having secondary radial ports therein axially spaced from said first named ports, a sleeve in said spindle having a diametrically reduced portion defining together with said second named ports a passageway providing fluid communication from the other fluid inlet opening to the inner face of the piston, anti-friction bearings in each of said housing supporting said spindle and provided to assure the rotational alignment thereof, spaced mating rings engaged in said bore in the housing and having a running clearance with said spindle, one of said mating rings having radial ports therein communicating with one of said fluid inlet openings, a second mating ring axially spaced from the first named mating ring and having radial ports therein communicating with the other of said fluid inlet openings, a third mating ring between said first and second named mating rings and having inner and outer circumferential grooves and radial openings therein communicating with said circumferential grooves and constituting a sump, the contiguous faces of adjacent mating rings being smooth, flat and parallel to one another, a plurality of pairs of concentric O-rings between confronting faces of each pair of adjacent mating rings, separator rings disposed between the faces of each pair of said mating rings, the outer rings of each pair of said O-rings being in static engagement with said housing and the confronting faces of adjacent mating rings and the inner O-rings of each pair of O-rings being engaged with said spindle and one face of said mating rings, said last named O-rings constituting sealing rings, one of said sealing rings being deformable into engagement with said spindle and the face of a mating ring against which it is biased by fluid flowing towards the inner face of said piston, and another of said sealing rings being deformable into engagement with said spindle and a face of another mating ring against which it is biased by fluid flowing toward the outer face of said piston, whereby said sealing rings are maintained in a substantially fixed axial position and wear occurs only on the inner diameter and one side of the circumferential face thereof.

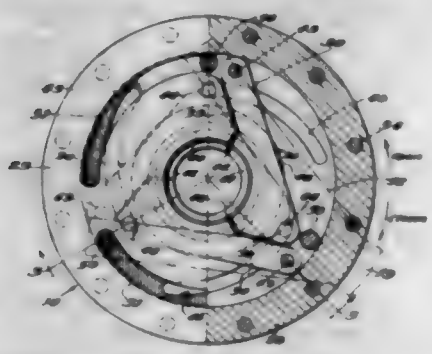
2,849,245
NON-ROTARY THREADED COUPLING
Reuben C. Baker, Coalinga, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Original application July 10, 1950, Serial No. 172,925, now Patent No. 2,737,248, dated March 6, 1956. Divided and this application August 12, 1955, Serial No. 528,047
2 Claims. (Cl. 285—141)



1. In a device of the character described: a first member having an internal thread; a second member adapted to be telescoped within said first member; an expansible and retractable split latch sleeve movable laterally and longitudinally on said second member, said latch sleeve having an external thread companion to said internal thread and meshable therewith; longitudinally spaced and longitudinally extending external backing portions on said second member engageable with companion longitudinally spaced and longitudinally extending internal portions on said sleeve to hold said external thread meshed with said internal thread; said internal portions being movable into spaces on said second member when said internal and external portions are out of engagement to permit said latch sleeve to retract and said external thread to come out of threaded engagement with said internal thread; at least one of said external backing portions being tapered to engage a companion taper on one of said internal portions to expand and hold said latch sleeve in threaded engage-

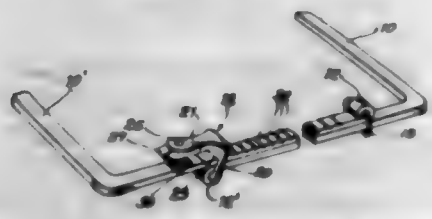
ment with said internal thread; and a laterally extending stop on said second member axially to one side of said backing portions and said sleeve and engageable with an end portion of said latch sleeve to limit longitudinal movement of said second member along said latch sleeve and to locate said backing portions in engagement with said internal portions, said stop member extending laterally beyond the internal diameter of said latch sleeve, whereby the extent of outward expansion of said external thread is limited to prevent binding of said threads.

2,849,246
CLOSURE DEVICE
Stanley M. Linzell and Dan J. Dorcy, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application June 4, 1945, Serial No. 597,476
3 Claims. (Cl. 286—20)



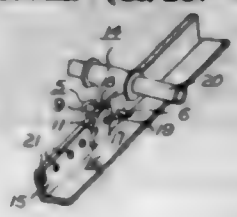
1. A sealing construction comprising a housing adapted to be mounted concentrically with respect to a rod to be sealed and having a concentric slot in an end thereof, a plurality of shoes pivotally mounted in said housing, each of said shoes being provided with a facing portion, a compressible facing on each facing portion, a rotatable member mounted in said housing provided with camming grooves, means connecting said shoes with said camming grooves, and means for quickly rotating said rotatable member in one direction to move said shoes to sealing position and in the opposite direction to move said shoes to open position including a handle having mounting means extending through said slot.

2,849,247
LATCH FOR TROUSER CREASER OR THE LIKE
John W. Wade, Cleveland Heights, Ohio, assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application November 12, 1954, Serial No. 468,287
7 Claims. (Cl. 287—58)



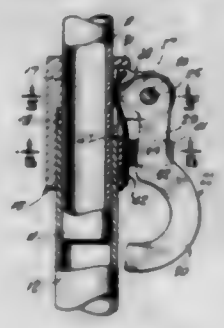
1. In combination with a pair of elongated elements arranged in contiguous sliding relation to each other, latch means for retaining said members in longitudinally adjusted position relative to each other, said latch means comprising a pair of leaves fixedly arranged angularly to each other, one of said leaves being generally parallel to the major plane of said elements and the other being generally normal to said plane, said latch means being rockably secured to one of said elements, one of said leaves having a detent engageable with a face of one of said elements and said latch means being self-spring biased, whereby said detent is normally resiliently urged into clamping engagement with said face.

2,849,248
SELF-LATCHING COUPLING PIN
Lawrence E. Allen, Independence, Mo., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application September 1, 1955, Serial No. 531,887
1 Claim. (Cl. 287—58)



The combination comprising, a first member received about a second member, said members being provided with registering apertures, a coupling pin received in said registering apertures and including a pintle portion having one end extending beyond one side of said first member, a stop shank portion extending alongside said members in generally radially spaced parallel relation to said pintle portion and having one end extending beyond said one side of said first member, a handle portion joining the other end of said pintle portion with the other end of said stop shank portion, stop means on said handle portion contacting said first member and limiting insertion of said pintle portion into said apertures, and a keeper portion extending at generally a right angle from said one end of said stop shank portion, the axial distance along said stop shank between said keeper portion and a plane extending at right angles to said pintle portion through said stop means being less than the width of said first member so that when said stop means on said handle portion is in contact with said first member said keeper portion is in nonregistry with said one side of said first member, and a turned out end portion provided on said keeper portion and having the free end thereof in registry with said one side of said first membr so that as said coupling member is pivoted about said pintle portion into a locked position said turned out end portion will be forced into camming relation with said one side thereby deflecting said coupling pin and bringing said keeper portion into resilient contact with said one side of said first member.

2,849,249
CLAMPING DEVICE
Annette E. Fridolph, New York, N. Y.
Application October 20, 1955, Serial No. 541,767
1 Claim. (Cl. 287—58)



A clamp for releasably securing two telescopically adjustable members one to the other comprising a tubular body member having an opening extending therethrough and an elongated slot in the wall of said body having its long axis aligned with the axis of said opening in the body, a pair of tabs carried by said body and extending outwardly therefrom in spaced relationship with the adjoining faces of the tabs being substantially coincident with said slot, one end of said central opening being enlarged from the adjoining end of said body to a point at least coincident with the adjoining end of said slot for reception of the larger of said telescopically adjustable members, the other end of said opening slidably

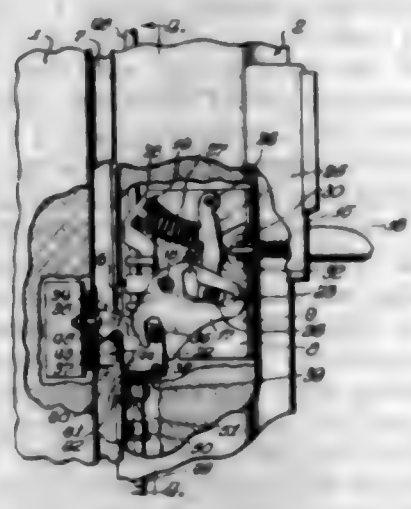
receiving the other of said telescopically adjustable members, an elongated member of resilient material and of a width slightly less than the width of the slot secured at one end to said body and having its other end extending into the slot, said other end of the elongated member being curved outwardly out of contact with the smaller of said telescopically adjustable members, an operating handle pivotally secured to said tabs for movement relative thereto, said operating handle carrying an eccentric cam adjoining the pivoted end thereof and movable inwardly of said slot and against said resilient member when at least a portion of said operating handle is in parallel relationship to said body and movable outwardly of said slot when said handle is moved outwardly of the body and about the pivoted end thereof, said cam upon being urged inwardly of said slot contacting said resilient member and urging it forcibly against the smaller of said telescopically adjustable members to fix it in position relative to the body, said resilient member preventing displacement of the cam through longitudinal stresses that may be placed on the last said member, said cam being angularly positioned relative to said handle so that upon movement of the handle to a position substantially parallel to said body said cam will be moved at least slightly beyond a dead center position in contact with said resilient member so that the reactionary forces exerted by the smaller of said telescopically adjustable members and said resilient member will hold the operating lever in said parallel position and said cam in the clamping position.

2,849,250

EMERGENCY RELEASE LATCH MECHANISM

Cecil M. Williamson, Lombard, Ill., assignor to General Electric Company, a corporation of New York

Application September 27, 1955, Serial No. 536,826
4 Claims. (Cl. 292—92)



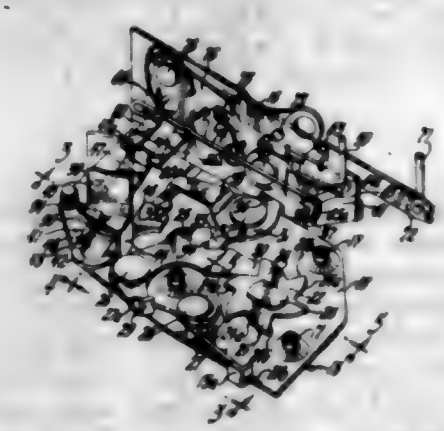
1. An emergency latch release mechanism operable from within an enclosure having a hinged door, comprising a keeper having a fixed frame portion secured externally of said enclosure adjacent a margin of the door opening, a keeper member within said frame portion, latching means carried by said door and including a latch bolt disposed within said door, said latch bolt having rigid wall members defining a forked portion, said door having an opening forming an entrance for said keeper member to bring the same into latching position within the forked portion of said latch bolt when the door is swung to closed position, means for mounting said keeper member for free pivotal movement whereby when the door is swung in opening direction one of said latch bolt wall members will engage and rotate said keeper member out of said forked portion, retainer means releasably securing said keeper member against such rotation, a release member disposed within said door for operating said retainer means to releasing position, and an operator carried by said door within said enclosure and adapted by manual effort applied against said operator in a door-opening direction, to operate said release member to its releasing position.

2,849,251

DOOR LATCH WITH SLIDABLE ACTUATOR

Russel G. Corbin, Inkster, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 23, 1956, Serial No. 579,995
7 Claims. (Cl. 292—280)



1. A vehicle door latch of the character described, including: a latch frame having a body lying in a plane generally parallel to the jamb face of the door; latch means rotatably mounted on said frame body; detent means movably mounted on said frame body and normally engaging said latch means for holding the latch means against rotation in one direction; an actuating member having a planar body portion lying parallel to said frame body and adapted to engage said detent means and an integral flange extending generally normal to said frame body; means for mounting said actuating member for sliding and pivoting movement on said frame, the integral flange of said actuating member normally lying in a plane closely adjacent a plane in which the axis of pivotal movement of said member extends; outside operating means for engaging said flange to slide said actuating member and move the detent means out of engagement with said latch means; and means for swinging said actuating member to move the latch operating portion thereof out of operative relationship with said detent means.

2,849,252

CAN HANDLE

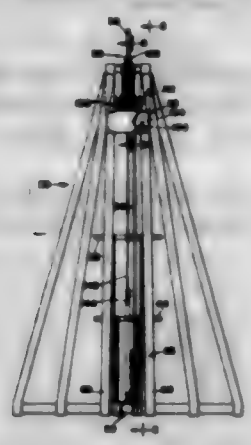
Duart V. McLean, Lachine, Montreal, Canada

Application April 2, 1956, Serial No. 575,577
2 Claims. (Cl. 294—31.2)



1. A bail attaching means for cylindrical containers, comprising a retaining band to encircle the container, a bail pivotally engaged at its ends at diametrically opposite points in said band, one of said bail ends being detachable from said band, and a member projecting outwardly from said band at one side thereof and out of diametrical alignment with said bail end pivots for pivotal engegement by said detachable bail end.

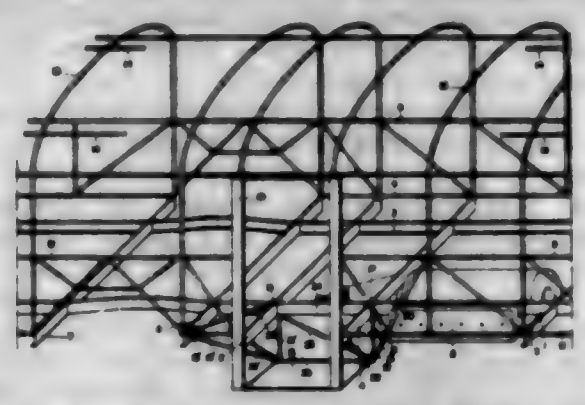
2,849,253
SELF-BALANCING LOADER FORK
Cecil W. Bopp, Waterloo, Iowa, assignor to Bopp Mfg., Inc., Waterloo, Iowa, a corporation of Iowa
Application December 31, 1956, Serial No. 631,766
21 Claims. (Cl. 294—63)



1. A suspended loader fork for handling apertured building blocks arranged in a pattern including a front series of blocks supported in a horizontal plane with their apertures extending fore-and-aft and at least a rear series of similar blocks supported in the same plane with their apertures fore-and-aft and alined respectively with the apertures in the blocks in the front series, said fork comprising: a generally upright rigid frame means having upper and lower parts; a plurality of spaced apart horizontally coplanar tines rigid on the lower part of said frame means and extending therefrom to free outer ends adapted to penetrate both series of blocks via said alined apertures; track means rigid on the upper part of said frame means and inclining upwardly and outwardly therefrom in overhanging relation to the tines; suspension means carried by the track and biased to a downhill position thereon substantially directly over the center of mass of the empty fork, said suspension means being movable uphill by a lifting force applied thereto when the fork is loaded; a first track stop on the fork having an operative position limiting uphill movement of the suspension means to a first location substantially directly above the center of mass of the fork when loaded with both series of blocks, said first track stop being movable to an inoperative position enabling further uphill movement of said suspension means; a block stop on the fork and selectively settable between a first position enabling the tines to penetrate both series of blocks and a second position enabling the tines to penetrate only the front series of blocks; means interconnecting the block stop and the track stop for incurring the operative and inoperative positions of said track stop respectively according to the first and second positions of said block stop; and a second track stop on the track means uphill from the first track stop for limiting uphill movement of the suspension means to a second location substantially directly over the center of mass of the fork when loaded with only said front series of blocks.

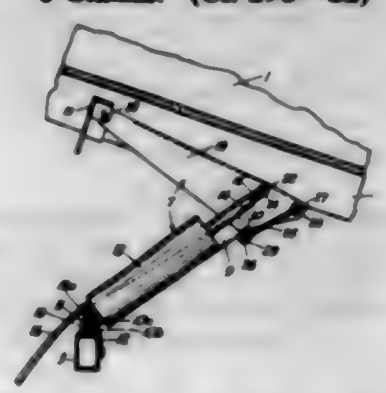
2,849,254
SELF-SUPPORTING BODY, MORE PARTICULARLY FOR A MOTOR BUS
Jacques Martinus Herman Dolk, The Hague, Netherlands, assignor of one-half to N. V. Carrosseriefabriek Verheul, Waddinxveen, Netherlands, a corporation of the Netherlands
Application February 28, 1955, Serial No. 491,153
5 Claims. (Cl. 296—28)

1. In a self-supporting vehicle body having a frame of longitudinal and transverse girders, side walls with longitudinal lattice girders therein and a door case provided in one of said side walls between successive transverse girders and interrupting the lattice girders in that side wall, that improvement comprising two rigid three-dimensional couple transferring structures, one attached to a lattice girder on each side of the door frame for transferring couples from the lattice girder out of the



plane of the lattice girder, and a rigid couple transferring structure connecting said two rigid three-dimensional couple transferring structures outside of the plane of the lattice girder.

2,849,255
HOIST MECHANISM FOR DUMP TRUCKS
Gerald J. Pesher, Monticello, Iowa
Application August 16, 1955, Serial No. 528,652
6 Claims. (Cl. 298—22)

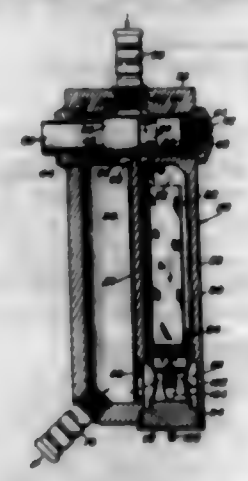


1. A hoist for a vehicle having a fore-and-aft main frame and a body pivoted to the rear end of the frame for upward and rearward tilting, said hoist comprising: a pair of transversely spaced apart bars extending fore-and-aft and pivoted at their front ends to a front part of the main frame on a transverse axis below the body, said bars normally extending generally horizontally and having their rear ends cross-connected by a first transverse pivot shaft; a link pivoted at one end to the first pivot shaft and extending normally upwardly and rearwardly and having at its other end a second transverse pivot shaft; a pair of transversely spaced apart fore-and-aft extending lift arms having their rear ends connected to the second pivot shaft and normally extending forwardly below the body and above the bars and having their front ends pivotally connected to the body above the pivot of the bars, each of said arms having an under edge portion engaging the first pivot shaft from above to limit the downward movement of said arms; and an extensible force-exerting device connected at its front end to the main frame adjacent to the pivot of the bars and connected at its rear end to the arms by a cross pin above both the first pivot shaft and the second pivot shaft and ahead of the second pivot shaft whereby the rate of lift of the body increases as the body lifts.

2,849,256
HYGIENIC DISINFECTANT APPARATUS
Jack S. Kowal, Denver, Colo., assignor of fifty percent to Gordon E. Eckley and twenty-five percent to Vincent D. Eckley, both of Denver, Colo.
Application January 31, 1956, Serial No. 562,381
2 Claims. (Cl. 299—84)

1. A syringe control assembly comprising a body having a fluid pressure inlet and an outlet, a partition defin-

ing two compartments within the body, selective valve control means in the body providing separate communication between the fluid pressure inlet and the compartments, one of the compartments directly communicating with the fluid pressure outlet, the other compartment including a portion for accommodating a fluid dissolvable disinfecting agent, a downstream outlet portion contained in the partition providing communication between the compartments, a one-way valve assembly contained in the other compartment downstream of the portion for containing the disinfecting agent controlling fluid pressure communication between the compartments, said one



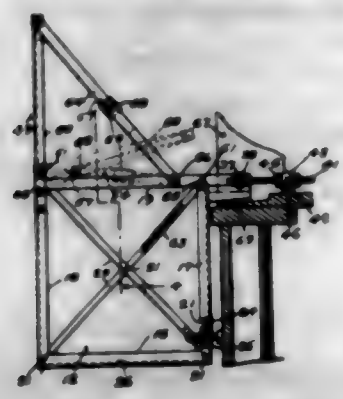
way valve assembly consisting of a housing extending into the other compartment, said housing including a cap securable in the body and having perforated side walls extending from said cap, said side walls terminating in an open ended annular ring which extends into the other compartment, a spider secured in said ring, a screen extending across one side of said spider, a support pin secured on the spider and being perpendicular thereto, said pin terminating in an enlarged end within the housing, a poppet valve reciprocably received on said pin and engageable in sealing relationship on the spider, and a spring circumposed on the support pin between the poppet valve and the enlarged end of said pin.

2,849,257

WINDOW SERVICING PLATFORM

Thomas M. Woyton, Elmont, N. Y.

Application June 28, 1957, Serial No. 668,723
1 Claim. (Cl. 304—27)



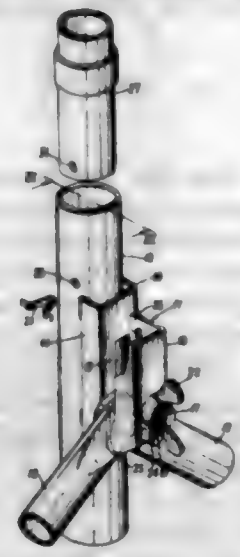
A window servicing platform comprising a box-like frame having an open top and including inner and outer corner posts and diagonal braces extending between and connected to said corner posts, said frame including bottom members each extending between and connected to an inner and an outer corner post, a floor supported by said bottom members, top bars each secured to an inner and an outer corner post, said top bars having extensions projecting inwardly from said inner corner posts, sill engaging members secured to the undersides of said extensions and having inclined undersides adapted to rest flush on the upper surface of a window sill of a window frame into the outer side of which said extensions project, a rod extending between and through said extensions, a plurality of eyebolts mounted on said rod and having threaded shanks extending inwardly therefrom, and a window frame engaging member having an intermediate portion to which said threaded shanks are connected and end portions adapted to bear against the inner edges of the upright sides of the window frame for supporting said window servicing platform frame and flooring on the outer side of the window frame.

2,849,258

CLAMPING CONNECTIONS FOR FRAMEWORK

Eric George Benjamin Crook, Osterley, England, assignor to Acrow (Engineers) Limited, London, England

Application May 16, 1957, Serial No. 659,510
Claims priority, application Great Britain May 22, 1956
6 Claims. (Cl. 304—40)



1. A scaffold member having means for securing bracing members to it, the said means comprising a fixed pin standing out from the scaffold member on which the ends of the bracing members can be impaled, said scaffold member having a longitudinally slotted part, a movable pin engaged in the said slotted part, a head on one end of the movable pin lying within the said slotted part, a nut screw threaded on the other end of the movable pin, a cover plate carried by the movable pin and adapted to be disposed in a position in which it at least partially covers the said ends of the said bracing members on the fixed pin so that the bracing members are squeezed between the said part and the cover plate when the nut is tightened against the latter, a projection on the scaffold member, and means on the cover plate for temporarily suspending it from the projection in a position in which, with the movable pin still engaged in the slotted part, it is well clear of the fixed pin and thus allows the bracing members to be readily engaged on the said pin.

2,849,259

TRACK PLATE FOR A TRACK OF A TRACK-LAYING VEHICLE

Erik Ragnar Engström, Bofors, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a corporation of Sweden

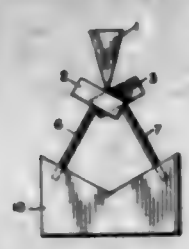
Application May 2, 1955, Serial No. 505,454
Claims priority, application Sweden October 1, 1954
3 Claims. (Cl. 305—10)



1. A track plate for the track of a track laying vehicle comprising a grouser extending across the entire width of the working face of the plate and being integral there-

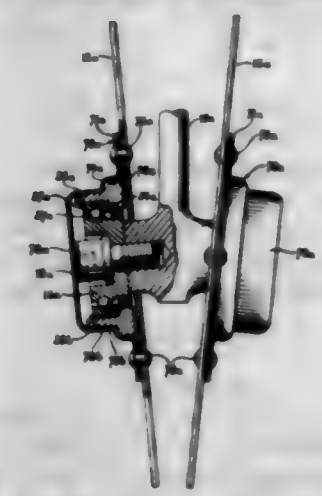
with, said grouser having a central portion of uniform width and increasing uniformly in width from said central portion of each opposite end thereof, the maximum width of the grouser being at the outermost ends thereof.

2,849,260
BEARING FOR WEIGHING SCALES
Leonardus Henricus Rikken, Rotterdam, Netherlands, assignor to U. S. Slicing Machine Company, Inc., La Porte, Ind., a corporation of Indiana
Application November 9, 1955, Serial No. 545,899
Claims priority, application Great Britain November 25, 1954
7 Claims. (Cl. 308—2)



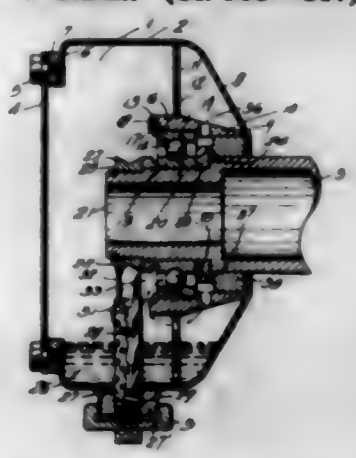
1. A knife-edge bearing for a measuring instrument, such as a weighing scale, comprising a knife-edge member, a plurality of independently movable knife-edge supporting means to support said knife-edge member, each of said knife-edge supporting means including supporting surfaces occupying a plane tangent to said knife-edge member, said surfaces being disposed pairwise at different angles so that an essentially V-shaped trough is formed, each of said supporting means comprising a stem perpendicular to the tangent plane with the knife-edge member and located on the side of the supporting means remote from the knife-edge member so that a compressive force is exerted thereon, said stems each possessing such a ratio between length and diameter that the supporting means are relatively free to adjust themselves in all directions.

2,849,261
DISC BEARING
Peder Bjerre, Toronto, Ontario, Canada, assignor to Massey-Ferguson Inc., a corporation of Maryland
Application February 20, 1956, Serial No. 566,445
1 Claim. (Cl. 308—181)



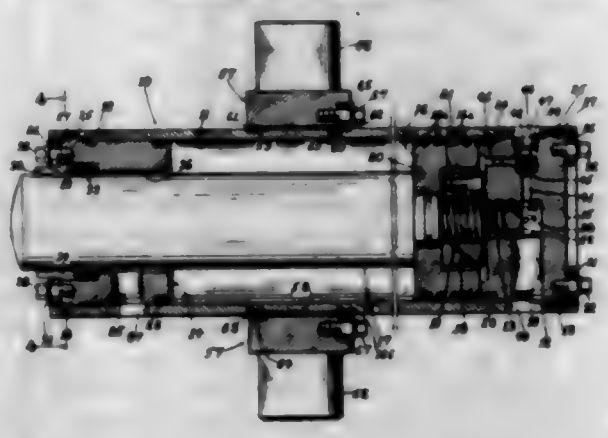
A sealed anti-friction bearing assembly for rotatably mounting an earth working blade on a support structure comprising, an inner race detachably secured to said structure, an outer race concentrically positioned around said inner race, said outer race having a shoulder and an annular surface, anti-friction members between said inner and outer races for rotatably supporting the latter on the former, an earth working blade positioned on one side of said races, a housing rigidly secured to said blade and engaging said shoulder of said outer race to rigidly secure it to said blade, flexible sealing means between said inner and outer races at said one side thereof, a removable cap member on the other side of said races and slidable over said annular surface of said outer race whereby removal of said cap member affords access to said inner race for detaching the latter from said structure.

2,849,262
LUBRICATION METHOD
John Wood, Jr., Lynn, and Paul J. Barnico, Beverly, Mass., assignors to the United States of America as represented by the Secretary of the Navy
Application June 25, 1956, Serial No. 593,780
1 Claim. (Cl. 308—187)



In an oil-mist system for the lubrication of a high speed bearing comprising a housing, a bearing supported in the housing, a shaft mounted in said bearing, a slinger ring mounted for rotation with the shaft adjacent the bearing, an oil reservoir in the housing, means for drawing the oil from the reservoir to the slinger ring whereby an oil-mist is formed adjacent the bearing, said latter means comprising a perforated tube mounted in the oil reservoir, a wick mounted for sliding movement within the tube and a spring for urging the wick against the slinger ring, the combination therewith of the improvement to draw the oil-mist around the bearing so that proper lubrication of the bearing is effected, said improvement including an impeller mounted for rotation with the shaft adjacent the bearing for drawing the oil-mist through the bearing so that the bearing is properly lubricated, a sealing ring for retaining the oil in the housing, said impeller comprising a spacer mounted between the bearing and the sealing ring with a plurality of radial slots in one face of the spacer adjacent the bearing and the other face of the spacer abutting the sealing ring.

2,849,263
FLUID CYLINDER STRUCTURE
Dwight A. Johnston, Youngstown, Ohio
Application May 9, 1955, Serial No. 506,727
8 Claims. (Cl. 309—2)



1. A fluid cylinder construction, comprising a cylinder barrel having a pair of spaced annular grooves in its outer periphery, a ring member seated in each of said grooves and providing spaced, outwardly extending shoulders, the

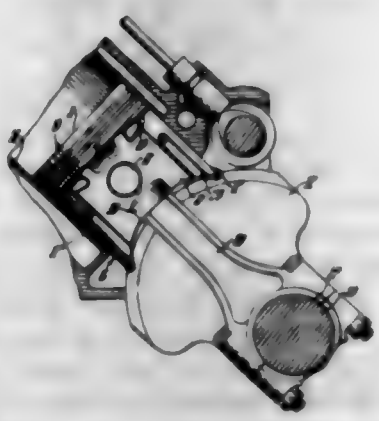
outer peripheral surface of each of said ring members being concentric with the bore of said cylinder barrel when said ring members are seated in their respective grooves, and body means apertured to fit about said cylinder barrel and extending longitudinally between said ring members, said body means having spaced surfaces engageable with the latter and certain of said surfaces being engageable with respective shoulders provided by said ring members to restrain said body against movement axially of said cylinder barrel and certain other of said surfaces being closely engageable with the respective outer peripheries of said ring members to insure accurate radial location of said body means relative to the bore of said cylinder barrel.

2,849,264

PISTON STRUCTURE

Lockwood B. Ellis, Birmingham, and George C. Trevarthen, Farmington, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 12, 1955, Serial No. 533,642
6 Claims. (Cl. 309—11)



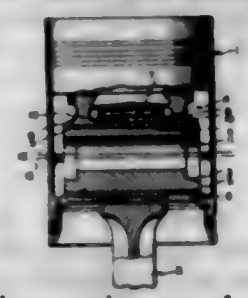
1. A piston comprising a head and a supporting wall extending at one side of and inwardly of said head when said piston is disposed in a cylinder of an internal combustion engine, said supporting wall being formed to extend around said piston and within said head and to engage said cylinder for supporting said piston, said supporting wall being formed to provide oppositely disposed side walls having oppositely disposed pin bosses formed therein for operating said piston within said cylinder, means associated with said head and said pin bosses and said side walls for supporting said head upon said pin bosses and said side walls, and balancing weight means formed on opposite sides of said piston and projecting inwardly of said pin bosses and within said side walls and formed integrally with respect to said pin bosses and the extremities of said side walls inwardly of said pin bosses and throughout the radial and axial extent of said pin bosses and said extremities.

2,849,265

FLOATING PISTON PIN

Robert L. Ten Eyck, Western Springs, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 2, 1954, Serial No. 447,255
8 Claims. (Cl. 309—19)



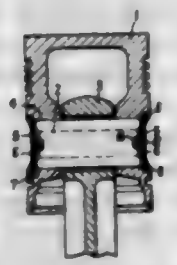
1. In combination a piston and connecting rod having aligned bearings, a wrist pin having a substantially cylindrical outer surface concentric with its axis of rotation, said wrist pin operatively connecting said piston and connecting rod and journalled for rotation in said bearings, said wrist pin being freely rotatable in both said piston and said connecting rod, said wrist pin further having its center of mass radially spaced from the longitudinal axis of said pin to induce a rotation of said pin relative to the piston and connecting rod during operative movement of said piston and connecting rod.

2,849,266

PISTON WRIST PIN FASTENING MEANS

Hans Glöckl, Stuttgart-Weil im Dorf, Germany, assignor to Maschinenfabrik Augsburg-Nürnberg A. G., Augsburg, Germany, a corporation of Germany

Application March 20, 1956, Serial No. 572,642
Claims priority, application Germany March 25, 1955
7 Claims. (Cl. 309—19)



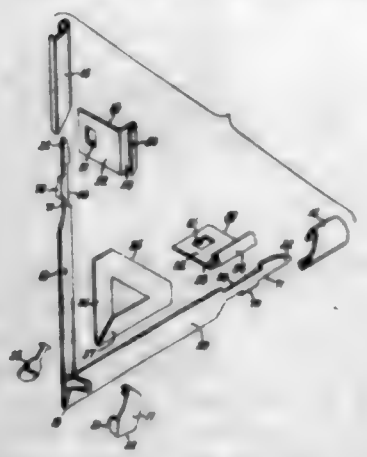
1. In wrist pin fastening means of the character described for fastening a sealing cover at the ends of the wrist pin bore of a piston, the combination which comprises an undercut groove around said bore, an arcuately deformed resilient tension plate for engagement in said groove to secure said cover in position, and means on said tension plate for interlocking with said groove, said groove being largely discontinuous for insertion thereinto of said interlocking means.

2,849,267

GLASS-RETAINER STRUCTURE FOR CABINET

Albert Joseph Fitzgerald, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

Application November 1, 1954, Serial No. 465,798
6 Claims. (Cl. 312—7)



1. A framing apparatus for mounting a sheet of material with respect to a window opening comprising an inner corner member including first and second angularly disposed legs joined in abutting relation at a predetermined angle, first and second semi-tubular outer members fitted over respective ones of said legs in sliding relation thereto and in end abutting relation with respect to each other, an outer corner member in overlapping relation with respect to the abutting ends of said semi-tubular outer members, and a spring member coacting with said inner corner member, the abutting ends of said semi-tubular outer members, and said outer corner member for resiliently maintaining all of said members in assembled

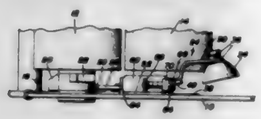
relation and said outer corner member in slidable overlapping contact with the ends of said two semi-tubular outer members.

2,849,268
TOWEL DISPENSING CABINET
Leon H. Kirkell, Blairsville, Pa.
Application November 23, 1954, Serial No. 470,597
4 Claims. (Cl. 312—38)



2. In a towel dispensing cabinet in combination a towel measuring roll forcibly rotated upon withdrawal of a length of toweling from the cabinet, a stop mounted on the roll for selective concurrent rotation therewith and gravitational movement transverse to the axis of rotation of the roll, means mounted on said roll for engagement with said stop to effect concurrent rotation of the stop and means during forcible rotation of the roll, an abutment for engagement by said stop after withdrawal of a measured length of toweling, means for imparting reverse movement to the roll and the means mounted thereon after release of tension in the withdrawn length of toweling, and timing means mounted on said cabinet and actuated by said roll in dispensing toweling for engaging with said stop to retain it in abutment engaging position against gravitational movement after reverse rotation of the measuring roll.

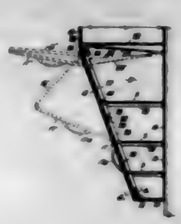
2,849,269
VACUUM CUP STOP MECHANISM FOR TOWEL DISPENSERS
Joseph L. Zizzi, Utica, N. Y., assignor to Joseph Darman, Utica, N. Y.
Application September 2, 1954, Serial No. 453,838
4 Claims. (Cl. 312—39)



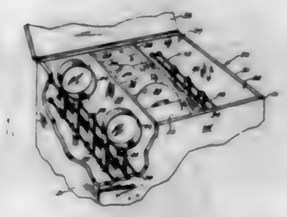
4. In a towel dispenser having a pair of spaced side walls and a pair of rolls journaled therebetween, a timing device comprising a cam directly connected with one of said rolls for rotation therewith, said cam including a helical cam side portion and a projecting abutment finger, an operating lever pivotally secured to one of said side walls and having an end portion engaged with said helical cam, a vacuum cup secured to the opposite end of said lever and adapted to engage and adhere to said one side wall to temporarily maintain the first-mentioned end portion of the lever in the path of movement of said abutment finger to prevent rotation of said rolls.

2,849,270
CABINET WITH UPFOLDING DOOR
Ain D. Warnock, Atchison, Kans.
Application August 9, 1956, Serial No. 603,039
5 Claims. (Cl. 312—328)

1. In a cabinet assembly, the combination of a cabinet structure having an opening in the front and a back wall spaced rearwardly of said opening, said opening being defined by parallel upright jambs and an upper edge and a lower edge, the front being inclined with respect to the back wall so that the jambs are furthest from the back wall at their upper ends and the closet at their lower ends, an upfolding door normally disposed in said opening and comprising a pair of normally coplanar panels hingedly connected with one another along a horizontal axis intermediate the upper and lower edges of said opening, means pivotally mounting the upper edge of the uppermost panel to said cabinet structure for swinging movement about a horizontal axis thereby to provide for outward and upward movement of said panel with respect to said opening, cooperating guide means connecting the lower end of the lowermost panel with said jambs and providing for free movement of the lower end of the lowermost panel upwardly parallel to the jambs as the upper panel is swung outwardly and upwardly thereby to cause the inside face of the lower panel to fold toward the inside face of the upper panel, a lever arm secured to said upper panel and extending inwardly and upwardly within said cabinet, a telescopic thrust member having one end pivotally supported against said back wall and extending forwardly to pivotally connect at its other end with said lever arm at a point above the level of the pivot axis of said upper panel, said thrust member being yieldably biased in an extended position and normally exerting a turning moment on said upper panel tending to maintain said panel in said normal position and resist outward swinging thereof, said thrust member operable to shift during outward swinging of said upper panel to a position in which it imposes a turning moment on said first panel tending to swing said panel outwardly and yieldably maintain said door in open position.

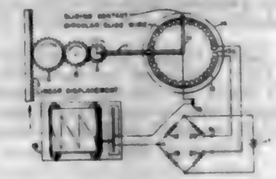


2,849,271
KITCHEN UTENSIL HOLDING DEVICES
Samuel G. Kramer, Spring Glen, N. Y.
Application July 15, 1955, Serial No. 522,360
1 Claim. (Cl. 312—350)



A kitchen storing device for use in storing culinary articles having handle portions thereon comprising: a handle engaging element of hollow configuration, and a plurality of guiding rods; said handle engaging element being slidably associated with said guiding rods.

2,849,272
RECYCLING DISPLACEMENT MEASURING AND RECORDING DEVICE
Martin W. Broesman, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy
Application June 22, 1953, Serial No. 363,425
1 Claim. (Cl. 346—31)
(Granted under Title 35, U. S. Code (1952), sec. 266)



An extended range displacement measuring and recording device comprising a rack and pinion in which the rack is moved in response to a linear displacement to be measured; a two leg impedance bridge; a circular potentiometer forming the centermost impedance of one leg of said impedance bridge; said potentiometer having a rotatable sliding contact mechanically coupled to said pinion to rotate therewith; said sliding contact being rotatable throughout complete revolutions in at least one selected direction; a recording means for recording time/rate of change, electrically connected between the center of the other leg of said impedance bridge and said sliding contact to indicate a difference in voltage therebetween proportional to the angular displacement of said pinion from a determined position, said recording means having a determined scaler interval for recording rate of change; said scaler interval being representative of "*n*" complete revolutions of said sliding contact, where "*n*" is an integer.

2,849,273
INSTRUMENT FOR CHECKING THE RATE OF TIME-PIECE MOVEMENTS
Fritz Marti, Georges Braunschweig, and Jean Schaad, La Chaux-de-Fonds, Switzerland
Application April 6, 1954, Serial No. 421,364
2 Claims. (Cl. 346—78)

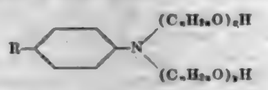


1. In an instrument for checking the rate of time-piece movements; the combination of a top plate; a synchron motor serving as a time standard; a rotary member driven by said motor and provided with marking ribs mounted below said top plate; an electromagnet excitable by the amplified beats of the time-piece to be tested; a striking hammer controlled by said electromagnet; an inking device including an inking ribbon and a ribbon reversing mechanism cooperating with said striking hammer; a recording band mounted on said top plate and cooperating with said inking device and striking hammer to record thereon the successive points of intersection of the marking ribs with the striking hammer; two spaced vertical flanges above said top plate; means for rigidly connecting said flanges together; there being a spring guided roller for said recording band between said flanges; means associated with said flanges for supporting therebetween said inking device, said electromagnet and said spring-loaded guide roller; means for hingedly connecting said flanges by the one end and for removably securing them by their other end to said top plate to form a pivotable recording unit whereby setting of the recording band and changing of the inking ribbon is facilitated.

CHEMICAL

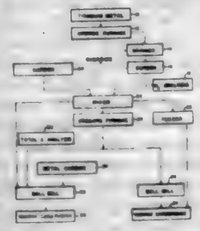
2,849,274
PRODUCING ALL SKIN VISCOSE RAYON
Marion R. Lytton, West Chester, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application November 3, 1954
Serial No. 466,655
5 Claims. (Cl. 18—54)

1. In a method of producing shaped bodies of regenerated cellulose consisting substantially entirely of skin by extruding viscose into a coagulating and regenerating bath, the improvement which comprises modifying the viscose by incorporating therein from 0.2% to 4%, based on the weight of cellulose in the viscose, of a water-soluble substance selected from the compounds corresponding to the formula



and mixtures of such compounds, wherein R is an aliphatic radical having from 6 to 24 carbon atoms, *n* is at least 2 but not more than 3, *x* and *y* are whole numbers and their sum is from 6 to about 75, and extruding said modified viscose into a bath containing from about 10% to about 25% sodium sulfate, from about 3% to about 15% zinc sulfate and sulfuric acid, the percentage sulfuric acid content of the bath exceeding the slubbing point but not exceeding about 1.3 times the percentage of caustic soda in the viscose so as to produce shaped bodies consisting substantially entirely of skin, said modified viscose having a sodium chloride salt test of greater than 6 at the time of extrusion.

2,849,275
PRODUCTION OF REFRACTORY METAL CARBIDES
William H. Bleecker, Huntington Woods, Mich., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
Application January 21, 1954, Serial No. 405,287
4 Claims. (Cl. 23—14)



1. In the production of titanium carbide, the steps comprising, heating titanium metal in an atmosphere of

hydrogen at a temperature between 325° C. and 350° C. to form titanium hydride, mechanically comminuting the titanium hydride, screening the comminuted titanium hydride to obtain a predetermined particle size of no greater than 100 mesh, adding a predetermined mass of carbon in the form of fine powder to the titanium hydride, mixing the titanium hydride and carbon to produce a substantially uniformly blended mixture, and vacuum carburizing the mixture at a temperature between 1800° C. and 2000° C.

2,849,276

PREPARATION OF ALKALI METAL BOROHYDRIDES

Hugh J. Brownegh, Chattanooga, Tenn., assignor, by mesne assignments, to Thiokol Chemical Corporation, a corporation of Delaware

No Drawing. Application November 29, 1956
Serial No. 625,198
3 Claims. (Cl. 23—14)

1. A method for the production of an alkali metal borohydride which comprises reacting an alkali metal hydride and boron orthophosphate at 200° C. to 400° C. while the reactants are in admixture with an inert liquid petroleum fraction boiling above the kerosene range and recovering the alkali metal borohydride from the reaction mixture.

2,849,277

PROCESS OF SECURING PLUTONIUM IN NITRIC ACID SOLUTIONS IN ITS TRIVALENT OXIDATION STATE

John R. Thomas, Silver Spring, Md., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 26, 1949
Serial No. 106,967
11 Claims. (Cl. 23—14.5)

6. A process for the separation of plutonium from an organic solvent solution of uranyl salt and a plutonium salt having a valence of at least +4, which comprises contacting said organic solvent solution with an aqueous nitric acid solution containing a salting-out agent, ferrous ions and sulfamate ions, and separating said aqueous phase containing trivalent plutonium salt from said organic solvent phase containing said uranyl salt.

2,849,278

METAL VALUE RECOVERY FROM PHOSPHATE ROCK

Charles A. Feldt, Lakeland, Fla., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application October 3, 1952
Serial No. 313,853
15 Claims. (Cl. 23—14.5)

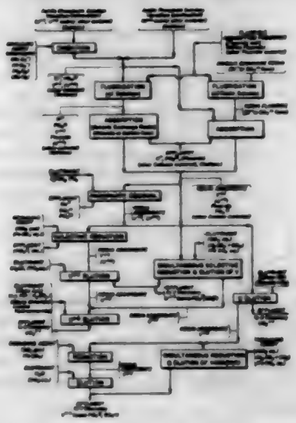
5. A process for the recovery of uranium values from Florida phosphate rock which comprises acidulating said rock in comminuted condition such that at least 50% passes a 200 mesh screen with aqueous sulfuric acid of between about 60 and about 70% strength, said acidulated rock mixture containing at least one added reagent capable of acting as an oxidizing agent for conversion of tetravalent uranium to hexavalent uranium under the prevailing reaction conditions, said sulfuric acid being used to the extent of between about 101 and about 120% acidulation of the constituents of the rock capable of reacting with the sulfuric acid and to form monocalcium phosphate, agitating the mixture during the acidulation, aging the reacted mixture for between about 14 and about 30 days, admixing a liquid selected from the group consisting of water and an unsaturated aqueous monocalcium phosphate solution with the aged acidified phosphatic material, slurrying the same, separating undissolved solids from the phosphatic liquid, contacting the phosphatic liquid with a basic anion exchange resin, operating on the chloride cycle, to sorb the uranium values, eluting the loaded resin with dilute aqueous hydrochloric acid and recovering the uranium values from the eluate.

2,849,279

CATALYTIC PROMOTION OF THE ADSORPTION OF VANADIUM ON AN ANIONIC EXCHANGE RESIN

Richard H. Bailes, Walnut Creek, and David A. Ellis, Concord, Calif., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application October 7, 1952, Serial No. 313,558
8 Claims. (Cl. 23—14.5)



1. In a process for recovering vanadium from an anionic exchange recalcitrant acidic phosphatic solution, the steps comprising oxidizing the vanadium in the solution to the pentavalent state, adding a fluoridic anionic exchange promoter to the solution, contacting said solution with an anionic exchange resin whereby the adsorption of the pentavalent vanadium is effectuated thereon by said promoter, and eluting said vanadium from said resin.

2,849,280

NITRIC ACID TREATMENT OF LEACHED ZONE MATERIAL

Ira M. Le Baron, Evanston, Ill., and Robert F. McCullough, Lakeland, Fla., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application August 17, 1953
Serial No. 374,810
14 Claims. (Cl. 23—14.5)

8. A process for recovering the mineral values of leached zone material from the Florida pebble phosphate overburden which comprises reacting leached zone material with nitric acid of a concentration between about 20% and about 70% in an amount between about 30% and about 120% of the amount required to react with all of the constituents capable of reacting with nitric acid, separating insoluble material from the aqueous solution consisting predominantly of aluminum, phosphate, and nitrate components, solvent extracting the aqueous solution with a trialkylphosphoric acid ester, separating the uranium rich solvent phase from the aqueous raffinate phase, and introducing ammonium ions into the uranium rich solvent phase to precipitate uranium as the U_3O_8 oxide, introducing ammonium ions into the aqueous raffinate to precipitate aluminum and iron compounds, and recovering the precipitated materials.

2,849,281

ORGANIC EXTRACTANT AND METHOD OF SOLVENT EXTRACTING MINERAL VALUES

Robert F. McCullough, Glenview, Ill., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application July 6, 1955
Serial No. 520,379
9 Claims. (Cl. 23—14.5)

1. A process for preparing phosphate esters useful for extracting tetravalent uranium from an acidic aqueous solution thereof which comprises reacting a saturated monohydric alcohol of the general formula R—OH wherein R is selected from the group consisting of primary and secondary alkyl radicals containing from 6 to 18 carbon atoms with phosphorus pentoxide, adjusting the reaction product to a pH above about 5, acidifying the adjusted product to a pH below about 3, extracting the organic-soluble materials from the acidified product with an organic solvent, and separating the resulting organic phase, containing the desired phosphate esters, from the aqueous phase.

2,849,282

METHOD OF SEPARATION

George E. Boyd, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application August 14, 1944
Serial No. 549,477
9 Claims. (Cl. 23—14.5)

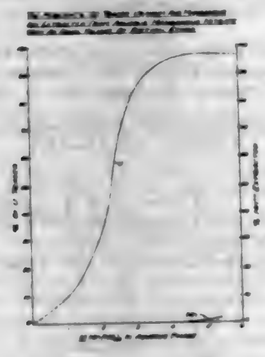
1. A method of separating values of uranium, plutonium, and fission products which comprises flowing a solution containing uranium ions, fission product ions, and plutonium ions through a column containing a cation exchange resin whereby the ions of uranium, fission products, and plutonium are adsorbed, desorbing said adsorbed uranium ions with a solution of between 0.2 M and 0.3 M in H_2SO_4, desorbing said adsorbed fission product ions with a solution approximately 0.6 M in H_3PO_4 and approximately 1 M in HNO_3, and desorbing said adsorbed plutonium ions with a solution of approximately 0.8 M in H_3PO_4 and approximately 1 M in HNO_3.

2,849,283

SEPARATION OF URANYL NITRATE BY EXTRACTION

Raymond W. Stoughton and Frank L. Steahly, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application January 9, 1945, Serial No. 572,052
8 Claims. (Cl. 23—14.5)



1. A process for deriving a uranium isotope from an aqueous solution containing a beta-emitting isotope of protactinium, which comprises forming a precipitate in said solution whereby said protactinium is removed from the aqueous phase by association with said precipitate, separating said precipitate and its associated protactinium from the supernatant solution, forming an aqueous nitric acid solution from said precipitate and its associated material, effecting sufficient aging subsequent to said precipitation to permit substantial decay of protactinium into uranium, providing a substantial concentration of manganous nitrate in the resulting nitric acid solution containing uranyl nitrate, contacting the resulting solution with a substantially water-immiscible organic solvent having at least one ether linkage, and separating the resulting organic phase containing dissolved uranyl nitrate.

2,849,284

METHOD OF SEPARATING URANIUM SUSPENSIONS

Eugene P. Wigner, Chicago, Ill., and William A. McAdams, Richland, Wash., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application March 29, 1945
Serial No. 585,574
2 Claims. (Cl. 23—14.5)

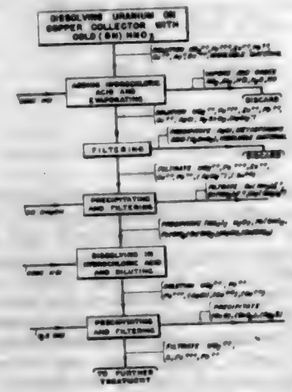
1. In a process for separating uranium combined as an oxide from colloidal dispersions of the lower oxides of the uranium in a hydrogen oxide medium, the step which comprises contacting the dispersed uranium oxide with a hydrogen peroxide whereby the uranium is converted to a non-colloidal uranium peroxide.

2,849,285

METHOD FOR PURIFYING URANIUM

Joseph W. Kennedy, Berkeley, Calif., and Emilio G. Segre, Santa Fe, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission

Original application June 26, 1944, Serial No. 542,220. Divided and this application July 21, 1945, Serial No. 606,407
2 Claims. (Cl. 23—14.5)



2. The method of recovering uranium in substantially pure form from metal surfaces comprising dissolving the uranium on the said surfaces with nitric acid, whereby uranium and metal impurities such as copper, iron, zinc, lead, silver and tin are put in solution, adding excess hydrochloric acid and boiling the solution, whereby nitric acid is substantially completely removed, filtering the solution, whereby insoluble impurities such as silver chloride, metastannic acid and bits of carbon are removed from the solution, precipitating the uranium in the solution as ammonium diuranate by adding ammonium hydroxide, and filtering, whereby uranium and impurities such as lead and iron along with traces of copper, silver

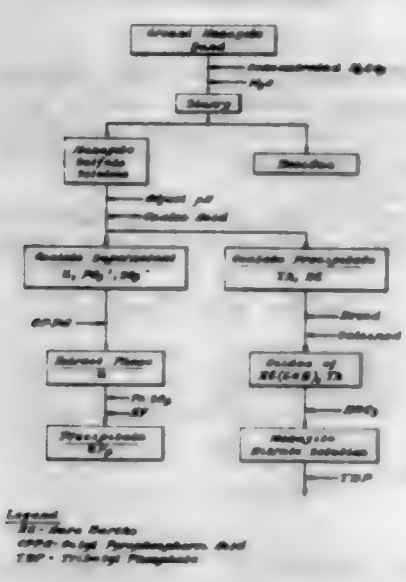
and tin are separated as a precipitate from impurities such as copper, zinc and silver which remain in solution as ammonio complex ions, dissolving the precipitate to form a dilute hydrochloric acid solution of uranium with impurities such as lead, iron, copper, silver and tin, saturating the hydrochloric acid solution with H_2S and filtering, whereby impurities such as copper, tin and silver are removed from the solution, boiling the solution, whereby H_2S is removed, adding concentrated nitric acid and heating, whereby any sulfur in the solution is oxidized, treating the solution with an excess of ammonium carbonate-ammonium hydroxide reagent and filtering, whereby impurities such as iron and lead are separated from uranium which remains in solution, acidifying the solution with nitric acid, evaporating the solution to a dry residue, igniting the residue at a red heat, whereby the uranium in the residue is converted to U_3O_8, dissolving the U_3O_8 in nitric acid and filtering the solution, whereby silica is separated from the solution, evaporating the solution and igniting the residue, whereby substantially pure U_3O_8 is produced.

2,849,286

METHOD OF PROCESSING MONAZITE SAND

Martin A. Welt, Brooklyn, N. Y., and Morton Smutz, Ames, Iowa, assignors to the United States of America as represented by the United States Atomic Energy Commission

Application December 2, 1957, Serial No. 700,240
19 Claims. (Cl. 23—14.5)



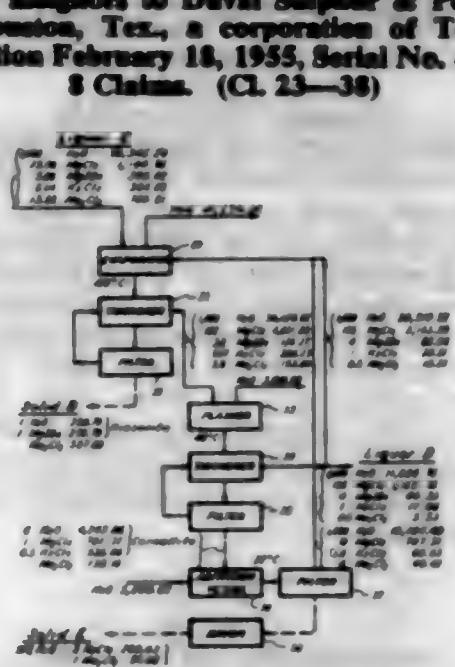
1. A process of separating and recovering thorium, uranium and rare earth values including cerium values from monazite sand, comprising mixing finely ground monazite sand with concentrated sulfuric acid at elevated temperature whereby a slurry is obtained; diluting the slurry; separating the solution of the slurry, the monazite sulfate solution, from the undissolved residue; adjusting the acidity of said monazite sulfate solution to a pH value of between 0.4 and 3; adding oxalic acid anions to said monazite sulfate solution whereby the thorium and the rare earth values precipitate as the oxalates; separating the oxalate precipitate from the uranium-containing oxalate supernatant; drying the oxalate precipitate; calcining the oxalate precipitate whereby the oxalates are converted to the oxides and the cerium to the tetravalent state; dissolving the calcined precipitate in nitric acid whereby a monazite nitrate solution is formed; contacting said monazite nitrate solution with tributyl phosphate whereby an organic extract phase containing the cerium and thorium values and an aqueous raffinate containing the other rare earth values are obtained; separating the organic extract phase from the aqueous raffinate; and back-extracting said cerium and thorium values from said organic extract phase with an aqueous medium.

2,849,287

PROCESSES FOR TREATING LANGBEINITE ORE TO OBTAIN USEFUL PRODUCTS THEREFROM

George E. Atwood and Douglas J. Bourne, Carlsbad, N. Mex., assignors to Duval Sulphur & Potash Company, Houston, Tex., a corporation of Texas

Application February 18, 1955, Serial No. 489,024
8 Claims. (Cl. 23—38)



1. A process of treating langbeinite ore to obtain useful products therefrom, comprising the steps of, treating said ore to obtain a solid of essentially pure langbeinite, reacting said pure langbeinite with water in a system substantially free of potassium chloride to obtain a sulphate liquor and a solid having a greater potassium sulphate content than said pure langbeinite, reacting said sulphate liquor with a sodium chloride liquor at a temperature below about 10° C. to obtain Glauber's salts and a concentrated magnesium chloride liquor having a magnesium chloride content between about 15 mols and about 30 mols per 1,000 mols of water, controlling the sulphate concentration of said sulphate liquor so that it is sufficiently high to yield said concentrated magnesium chloride liquor and Glauber's salts, removing water from said concentrated magnesium chloride liquor to obtain sodium chloride and magnesium sulphate solids and a very concentrated magnesium chloride liquor having a magnesium chloride content between about 80 mols and about 100 mols per 1,000 mols of water, cooling said very concentrated magnesium chloride liquor to produce carnallite and sodium chloride solids and a very highly concentrated magnesium chloride liquor having a magnesium chloride content in excess of 100 mols per 1,000 mols of water, and reacting said carnallite and sodium chloride solids with water to obtain a solid which is predominantly potassium chloride.

2,849,288

RECOVERY OF AMMONIA AND PYRIDINE

Robert P. Langguth, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application September 27, 1954, Serial No. 458,558
4 Claims. (Cl. 23—107)



1. The method of recovering ammonia and pyridine from coke oven gases, said ammonia being recovered as

diammonium orthophosphate, which method comprises passing said gases through a first absorbing zone in contact with an aqueous phosphoric acid solution saturated with respect to diammonium orthophosphate and maintained at a pH between about 5 and about 8 to remove a predominant proportion of the ammonia from said gases and to precipitate diammonium orthophosphates from said solution, passing the gases from the first absorbing zone into a second absorbing zone in contact with an aqueous phosphoric acid solution maintained at a pH below about 3.0 to remove a predominant proportion of said pyridine and a predominant proportion of the remaining ammonia, and thereafter passing ammonia into the solution formed in the second absorbing zone, thereby causing separation of a non-aqueous phase comprising pyridine.

2,849,289

PROCESS FOR THE DECOMPOSITION OF TITANIUM ORE

Hans Zirngibl, Leverkusen-Bayerwerk, and Gerhard Heinze, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application April 19, 1956
Serial No. 579,148
Claims priority, application Germany April 21, 1955
5 Claims. (Cl. 23—117)

1. A process of decomposing oxidic titanium ores with excess sulfuric acid which consists in that the ore to be decomposed had added to it, in addition to the amount of sulfuric acid which is stoichiometrically required to convert the titanium and iron content into titanyl sulfate and ferrous sulfate, an excess of sulfuric acid having a concentration of H_2SO_4 of between 45 and 75% by weight amounting to at least one and a half times the quantity of H_2SO_4 stoichiometrically required to convert the titanium and iron content into titanyl sulfate and ferrous sulfate, whereby said sulfates precipitate out, said decomposition being effected at a temperature of between 130 and 180° C., the excess of said acid being separated from said sulfates and reused.

2,849,290

PREPARATION OF PENTABORANE(11)

John P. Faust, Kenmore, Donald J. Mangold, Niagara Falls, and Ellsworth D. Whitney, Snyder, N. Y., assignors, by mesne assignments, to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application March 1, 1956
Serial No. 568,703
2 Claims. (Cl. 23—204)

1. A method for the production of pentaborane(11) which comprises contacting diborane in gaseous form with solid zirconium boride at a temperature of from 130° C. to 185° C.

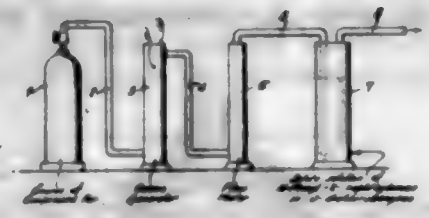
2,849,291

COLORIMETRIC PROCEDURE FOR THE QUANTITATIVE MEASUREMENT OF ATMOSPHERIC OZONE

Albert R. Allison, Brooklyn, Alvin D. Delman, Plainview, Alban E. Ruff, New York, and Bernard B. Simms, Franklin Square, N. Y.

Application November 13, 1957, Serial No. 696,298
8 Claims. (Cl. 23—232)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A non-aqueous method for determining atmospheric ozone concentrations which comprises passing a stream of atmospheric air containing ozone in intimate direct contact with a known quantity of a dilute solution of N-phenyl-2-naphthylamine in o-dichlorobenzene at room temperature and atmospheric pressure until a substantial color change occurs in said solution, measuring the color of a specimen of said colored solution in a colorimeter, in comparison with the measured colors of solutions containing known amounts of ozone, determining the volume of ozone bearing air employed to effect such color change, and correcting such determined volume for temperature



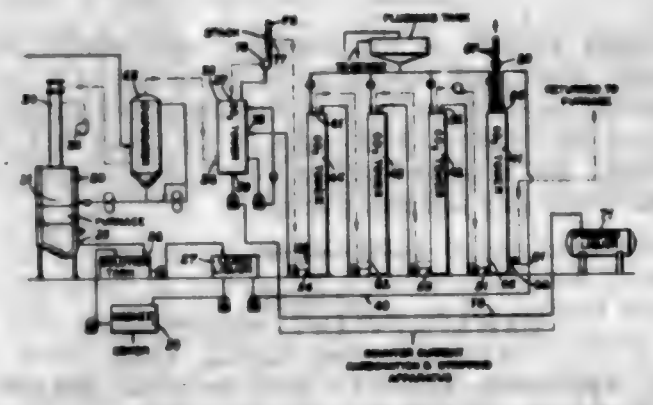
and atmospheric pressure to a selected reference temperature and pressure, whereby the ozone concentration in the ozone bearing gas may then be mathematically calculated from the information so obtained.

2,849,292

PULP MANUFACTURE

Philip E. Shick, Chillicothe, Ohio, assignor to The Mead Corporation, Dayton, Ohio, a corporation of Ohio

Original application November 16, 1953, Serial No. 392,182. Divided and this application April 9, 1956, Serial No. 582,312
8 Claims. (Cl. 23—262)



1. In recovery apparatus of the character described for recovery of heat and chemicals from pulp manufacturing spent cooking liquors, the combination which comprises a recovery furnace for combustion of said spent liquor, a scrubbing tower for removing sulphur dioxide from effluent gases from said furnace, means for exhausting to the atmosphere a limited portion of said gases flowing out of said scrubbing tower, means for dissolving molten furnace products from said furnace, countercurrent carbonation tower means for reacting another limited portion of said effluent gases from said scrubbing tower with said solution of said molten furnace products, a gas take-off in said carbonation tower means intermediate the ends thereof for returning directly to said furnace a limited portion of said gases flowing through said carbonation tower means, and a gas exhaust at one end of said carbonation tower means for exhausting to the atmosphere another limited portion of said gases flowing through said carbonation tower means.

2,849,293

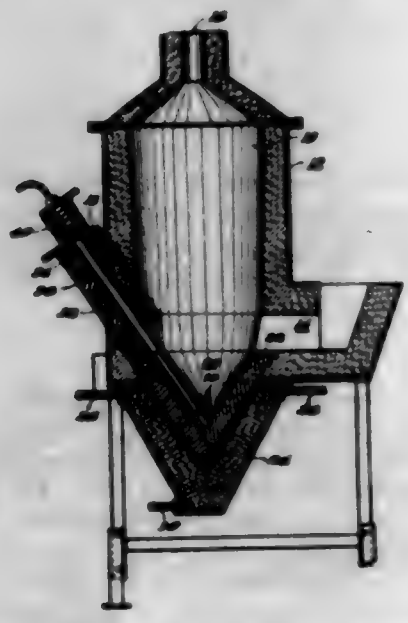
METAL HALIDE GENERATOR

Charles B. Wendell, Jr., Canton, George E. Engelson, Kenberma, and Henry P. Donohue, Jr., Quincy, Mass., assignors to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts

Application November 26, 1954, Serial No. 471,392
8 Claims. (Cl. 23—281)

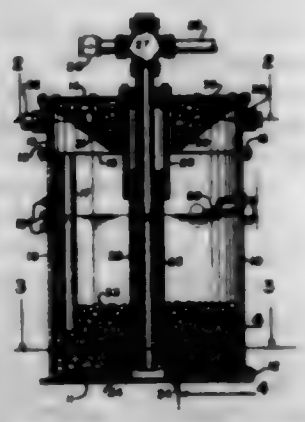
1. A metal halide generator adapted for the reaction of halogen gas with molten metal comprising a generally upright chamber having a metal shell and a vapor outlet near the top, a jacket about the bottom section of said shell provided with inlet and outlet means for circulation of coolant liquid therethrough, a protective lining cemented in good thermal contact directly to the inner sur-

face of said jacketed bottom section, a refractory heat insulating lining on the inside of the unjacketed portion of said shell, an impervious sleeve mounted in the sidewall of said shell immediately above said jacketed portion, an impervious conduit movably mounted in said sleeve with its lower end extending well down into the



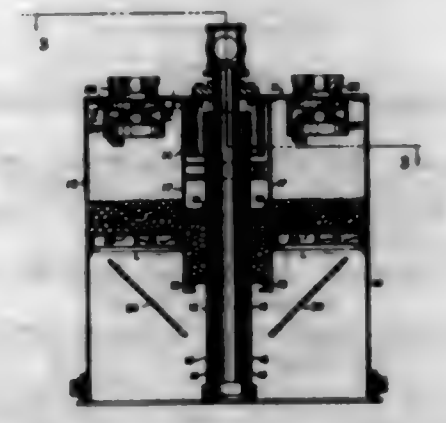
jacketed portion of the chamber, said bottom section lining, sleeve and conduit being composed of a material resistant to attack by both molten metal and halogen gas, means for feeding halogen gas to the upper end of said conduit, and a metal charging port in the sidewall of said shell above said jacketed portion.

2,849,294
EXHAUST GAS CONDITIONER
Joseph P. Ruth, Denver, Colo.
Application August 15, 1955, Serial No. 528,207
8 Claims. (Cl. 23—284)



1. An exhaust gas conditioner comprising an upright housing formed with top and bottom closures, a partition transversely dividing said housing into a lower member adapted to confine a charge of water and an upper member, a water supply line serving said lower member through a float-controlled valve operable to maintain water therein at a substantially uniform level spacedly subjacent said partition, means characterized by a concentric tube assembly upstanding centrally of said lower member from the bottom closure thereof in communication through the lower end of the outer tube with the lower housing member interior adapted in reaction to the input of exhaust gases through the inner of the tubes to intermix the gases with water entering the outer tube from the charge of the lower housing member and to circulate the resulting mixture upwardly between the tubes to discharge in the zone of the housing lower member between said partition and the water charge, a hood closed at one end against and depending from the housing top closure loosely through said partition to spaced, telescopic cooperation with the delivery end of said tube assembly above the water charge, an outlet to atmosphere from the upper housing member, and sleeve and baffle means in the housing upper member defining a succession of expansion chambers intercommunicating through restricted passages as a vapor travel path between the lower end of said hood and said outlet.

2,849,295
EXHAUST GAS CONDITIONER
Joseph P. Ruth, Denver, Colo.
Application August 6, 1956, Serial No. 602,222
9 Claims. (Cl. 23—284)

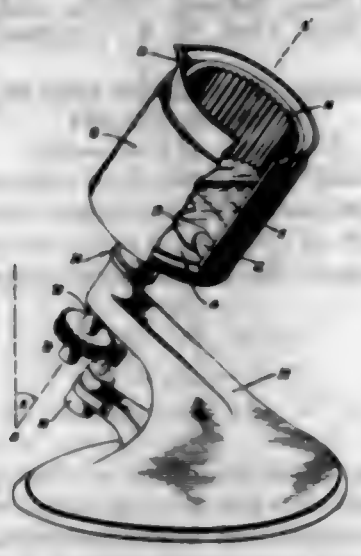


1. An exhaust gas conditioner comprising a closed housing adapted to confine a charge of water substantially filling its lower half portion, spaced, parallel baffles closing transversely between sides of said housing and depending from closed relation with the housing top to free margins below the mid-height of the housing and hence within the housing water charge, whereby to define a closed chamber centrally and transversely of the housing upper portion between like housing end compartments, means including a conduit opening to the upper portion of said chamber from communication at its lower end with a lower portion of the housing in spacedly-surrounding relation with a coaxial gas input line disposed to deliver within and spacedly adjacent the conduit lower end reactive to the input of exhaust gases through said line under discharge pressure for the generation and circulation of gas-water mixtures to delivery within the upper portion of said chamber whence the vapors may escape only about the submerged lower margins of said baffles, a vent to atmosphere from an upper portion of each of said end compartments, and a plate spanning transversely between and perpendicular to the sides of the housing lower portion beneath each of said end compartments at an upward and outward lateral inclination from a disposition of its inner margin parallel to and spacedly subjacent the lower margin of the adjacent baffle to an outer margin inwardly adjacent the housing end wall and below the housing midheight, whereby to induce a circulation of the water charge at each side of the housing lower portion about the plate submerged therein in reaction to outflow from said chamber about the lower margin of the corresponding baffle.

2,849,296
ETCHING COMPOSITION AND METHOD
Anthony J. Certa, Bridgeport, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application January 23, 1956, Serial No. 560,681
11 Claims. (Cl. 41—42)

4. A method of etching a body of semiconductive material, comprising immersing said body in an etchant substantially free of bromine and consisting essentially of about 19 to 21 parts by volume of glacial 99.8% acetic

acid, 14 to 16 parts by volume of 70% nitric acid, 9 to 11 parts by volume of 48% hydrofluoric acid and 2 to



4½ parts by volume of water, and providing agitation of the solution about said body.

2,849,297

ETCHING METHODS FOR CONTROLLED CLEANING AND POLISHING OF THE SURFACE OF MAGNESIUM

Adolf Hermann Wieken, Hamburg, Germany, assignor to Magna Kleen Inc., New York, N. Y., a corporation of New York

No Drawing. Application May 4, 1956
Serial No. 582,663
11 Claims. (Cl. 41—42)

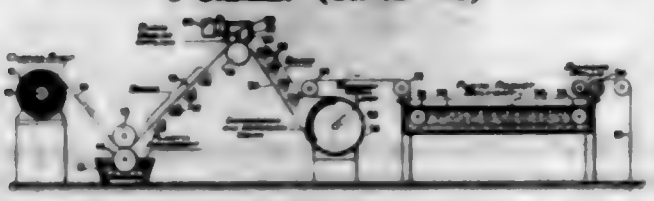
1. A method of etching the surface of degreased and cleaned fabricated parts or sheets of magnesium and its alloys comprising dipping said parts in a water-miscible alcoholic etching medium containing, in parts by volume, at least 65% of a water-miscible aliphatic alcohol about 10–30% of an inorganic mineral acid etching agent consisting of about 2 parts of nitric acid to 1 part of hydrochloric acid and up to 5% of a water-soluble lower aliphatic organic acid.

2,849,298

PRINTED CIRCUITRY LAMINATES AND PRODUCTION THEREOF

Cornelius Werberig, Levittown, Pa., assignor to St. Regis Paper Company, New York, N. Y., a corporation of New York

Application May 3, 1955, Serial No. 505,791
3 Claims. (Cl. 41—43)



3. A method for producing thermoset resinous laminates having pattern areas of thin sheet metal embedded in at least one surface thereof, which comprises: feeding a strip of thin sheet metal in the direction of its length while progressively applying to one surface thereof a self-supporting, firmly adhering film of plastic material, progressively applying to the opposite surface thereof a coating of a photo-sensitive resist, light sensitizing said photo-sensitive resist in accordance with said pattern areas at longitudinally spaced intervals along said strip, developing said light sensitized pattern areas of said resist, thereafter etching away all portions of said metal strip except the pattern areas covered by said resist, thus to produce a web of said plastic film having said metal pattern areas adhering thereto, cutting said film web into lengths corresponding to said successive pattern areas, superimposing a length of the film web so cut, with the metal pattern exposed, onto a stacked assembly of sheets of fibrous material impregnated with a thermosetting resin, and hot pressing said assembly and superimposed length of film between platens to consolidate the same into a unitary, thermoset laminate having said metal pattern embedded flush with the laminate in a surface thereof.

2,849,299

METHOD OF CHEM-MILLING HONEYCOMB STRUCTURES

Harold S. Young, Chula Vista, Calif.

Application August 31, 1956, Serial No. 607,320
6 Claims. (Cl. 41—43)



1. In a chem-milling process for honeycomb structures, the steps of coating the entire honeycomb structure with a tacky substance, placing the honeycomb structure in a tank of water with the liquid level coinciding with a plane along a line where it is desired to remove portions of the honeycomb structure, spraying the projecting portion of the honeycomb structure with an etching acid-resist, removing the masked honeycomb structure and finally immersing the same in an aqueous etchant bath.

5. In a process of chem-milling honeycomb structures the steps of forming a geometrical figure from a wax body to conform to the shape of the desired workpiece, pressing the honeycomb structure downward on the wax-like body while the same is supported on a work surface, and finally placing the honeycomb structure with the wax-like body imbedded therein in an aqueous etchant bath.

2,849,300

IGNITER

Max George Berman and Arnold Irwin, Elkton, Md., and Donald Walter Kershner, Wilmington, Del., assignors to Thiokol Chemical Corporation, Trenton, N. J., a corporation of Delaware

No Drawing. Application July 6, 1955
Serial No. 520,354
3 Claims. (Cl. 44—40)

1. An igniter having two components in selectively combustible and contacting zones, one component being a starter mix and the other being a combustion-sustaining mix, the starter mix comprising a mixture of about 40 to 96% ammonium nitrate, about 2 to 40% carbon and about 2 to 40% of a burning rate accelerator selected from the group consisting of potassium dichromate and ferric oxide, the combustion-sustaining mix comprising a combustible mixture of ammonium nitrate, carbon and combustible binding agent.

2,849,301

FUEL OIL COMPOSITION

Paul Y. C. Gee, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

No Drawing. Application July 18, 1956
Serial No. 598,543
13 Claims. (Cl. 44—64)

1. A distillate fuel oil containing a small amount, sufficient to reduce the screen-clogging tendencies there-

of, of a fuel oil soluble ester selected from the group consisting of:

(a)



wherein R is a hydrocarbon radical, and *n* is an integer from 0 to 20, and R' is selected from the group consisting of hydrogen, alkyl, aryl, and hetero radicals,

(b)



wherein R, R' and *n* are as described in (*a*), and *m* is an integer from 0 to 20.

2,849,302

ANTIKNOCK COMPOSITIONS

Raymond G. Lyben, Detroit, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 31, 1955
Serial No. 512,284
7 Claims. (Cl. 44—69)

1. A halohydrocarbon scavenger-containing organolead antiknock fluid wherein at least one mole percent of halogen in the scavenger is present in the form of poly(t-halo)hydrocarbons having 5 to 20 carbon atoms in which the halogens are of atomic weight 35 to 81 and are on tertiary carbon atoms alpha to carbon atoms having at least one hydrogen atom attached thereto; the total amount of said halohydrocarbon scavenger being in the range of 0.1–4.0 theories based on the amount of organolead compound present and the total amount of said poly(t-halo)hydrocarbon being 0.01–1.5 theories based on the amount of organolead compound present; a theory being that amount of scavenger which provides 2 atoms of halogen for every lead atom in said fluid.

5. A petroleum hydrocarbon fuel of the gasoline boiling range containing the composition of claim 1 in amount such that the lead content is between about 0.02 and 13.2 grams of lead per gallon of fuel.

2,849,303

ANTIKNOCK COMPOSITIONS

Raymond G. Lyben, Detroit, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 31, 1955
Serial No. 512,285
7 Claims. (Cl. 44—69)

1. A halohydrocarbon scavenger-containing organolead antiknock fluid wherein at least one mole percent of halogen in the scavenger is present in the form of mono(t-halo)hydrocarbons having 4 to 20 carbon atoms in which the halogen is of atomic weight 35 to 81 and is on a tertiary carbon atom alpha to a carbon atom having at least one hydrogen atom attached thereto; the total amount of said halogenated organic compound scavenger being in the range of 0.1–4.0 theories based on the amount of organolead compound present and the total amount of said mono(t-halo)-hydrocarbon being in the range of 0.01–1.5 theories based on the amount of organolead compound present; a theory being that amount of scavenger which provides two atoms of halogen for every lead atom present in said fluid.

5. A petroleum hydrocarbon fuel of the gasoline boiling range containing the composition of claim 1 in amount such that the lead content is between about 0.02 and 13.2 grams of lead per gallon of fuel.

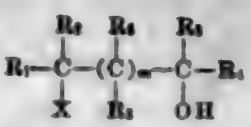
2,849,304

ANTIKNOCK COMPOSITIONS

Raymond G. Lyben, Detroit, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 31, 1955
Serial No. 512,287
7 Claims. (Cl. 44—69)

1. An organolead antiknock fluid containing halogenated organic compounds as scavengers wherein at least one mole percent of halogen in the scavengers is present in the form of open chain halohydrin compounds having the formula



wherein *m* ranges from 0 to 1; X is a halogen of atomic weight 35–81 and the R's are selected from the group consisting of hydrogen and aliphatic radicals of 1 to 18 carbon atoms, said compound having 2 to 20 carbon atoms, 1 to 4 hydroxy groups and 1 to 6 halogens of atomic weight 35–81, said halohydrin being further characterized in that at least one halogen in each molecule is located on a carbon atom which is not more than two carbons removed from an OH-bearing carbon; the total amount of said halogenated organic compound scavenger ranging from 0.1 to 4.0 theories based on the organolead compound present and the total amount of said halohydrin compound ranging from 0.01 to 2.0 theories based on the organolead compound present; a theory being defined as that amount of scavenger sufficient to provide two atoms of halogen for every atom of lead present.

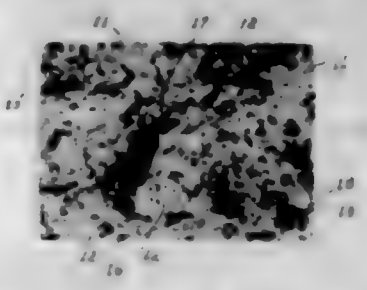
5. A petroleum hydrocarbon fuel of the gasoline boiling range containing the composition of claim 1 in amounts such that the lead content is between about 0.02 and 13.2 grams of lead per gallon of fuel.

2,849,305

ELECTRIC FURNACE PRODUCT

Leon J. Frost, Lewiston, N. Y., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

Application August 30, 1954, Serial No. 453,109
5 Claims. (Cl. 51—307)



2. A fused abrasive material which consists essentially of fine crystals of titanium carbide dispersed in a matrix, said matrix consisting essentially of crystalline alpha alumina, said carbide being present in an amount from about 10% to 50% by weight.

2,849,386

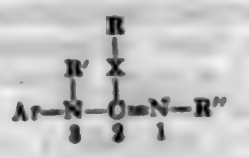
HERBICIDAL METHOD AND COMPOSITION EMPLOYING ARYL PSEUDOUREAS

Norman E. Searle, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

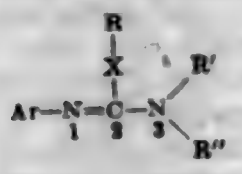
No Drawing. Application March 19, 1954
Serial No. 417,503
2 Claims. (Cl. 71—2.6)

2. A herbicidal composition comprising an inert solid pest control adjuvant and in amount sufficient to exert herbicidal action an aryl pseudourea selected from the

group consisting of compounds represented by the formula



and



and the salts of said compounds, where Ar is selected from the group consisting of phenyl and substituted phenyl radicals, X is selected from the group consisting of oxygen and sulfur, R is selected from the group consisting of unsubstituted and halogen-substituted monovalent alkyl and monovalent alkenyl radicals containing from 1 through 6 carbon atoms, and R′ and R″ are selected from the group consisting of hydrogen and monovalent alkyl and monovalent alkenyl radicals containing from 1 through 12 carbon atoms, with the proviso that not more than 1 of R′ and R″ is hydrogen.

2,849,307

METHOD AND FLUX COMPOSITION FOR TREATING URANIUM

Frank Foote, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 3, 1945
Serial No. 632,599

3 Claims. (Cl. 75—84)

1. A flux composition for use with molten uranium and alloys that have a predominant content of uranium, said flux comprising about 35% to 55% by weight of calcium fluoride, about 35% to 55% by weight of magnesium fluoride, and about 5% to 15% by weight of uranium tetrafluoride.

3. In a method of melting uranium and uranium-base alloys the step of adding a flux comprising about 35 to 55% by weight of calcium fluoride, about 35 to 55% of magnesium fluoride, and about 5 to 15% by weight of uranium tetrafluoride.

2,849,308

FLUX COMPOSITION AND METHOD FOR TREATING URANIUM-CONTAINING METAL

Frank Foote, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 3, 1945
Serial No. 632,598

3 Claims. (Cl. 75—84.1)

1. A flux composition for use with metals wherein uranium predominates, said flux comprising about 50 percent to 70 percent by weight of calcium fluoride, about 20 percent to 40 percent by weight of calcuim chloride and about 5 percent to 15 percent by weight of uranium tetrafluoride.

3. In a method of melting uranium and uranium base alloys the step of adding a flux comprising about 50 to 70 percent by weight of calcium fluoride, about 20 to 40 percent by weight of calcium chloride and about 5 to 15 percent by weight of uranium tetrafluoride.

2,849,309

PREPARATION OF ALKALINE EARTH METAL ALLOYS

Thomas P. Whaley, Royal Oak, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 22, 1954
Serial No. 477,140
7 Claims. (Cl. 75—135)

3. A process for the preparation of powdered, irregularly shaped crystalline alloy of aluminum and calcium having the formula Al_9Ca which comprises dissolving aluminum and calcium in proportion within about 5 percent of the stoichiometric amount in molten sodium, cooling the solution to a temperature where the alloy formed is in solid state, and recovering said alloy by reacting the sodium with at least the stoichiometric amount of methanol at a temperature below the boiling point of methanol.

2,849,310

COPPER-BASE ALLOY

Paul Henry Waller, Oxhey, Watford, England

No Drawing. Application December 29, 1953
Serial No. 401,080
Claims priority, application Great Britain May 28, 1951
11 Claims. (Cl. 75—157.5)

1. An alloy consisting essentially of from 4.0% to 22.5% of nickel, from 4.0% to less than 20% of zinc, more than 0.5% and up to 3.5% of cadmium and not less than 55% of copper, the quantity of nickel not exceeding twice the quantity of zinc.

2,849,311

METHOD OF MAKING MAGNESIUM-ZIRCONIUM MASTER ALLOY

William C. Newhams, Cleveland, Ohio, assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application January 22, 1952
Serial No. 267,685
5 Claims. (Cl. 75—168)

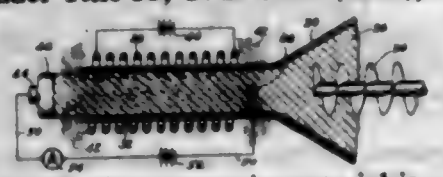
1. The method of making a substantially chloride-free master alloy containing magnesium and zirconium comprising providing a body of molten magnesic metal, adding zirconium chloride thereto while maintaining said body in a molten condition, mixing said chloride with said molten metal whereby the reaction between the molten metal and zirconium chloride is substantially completed and a maximum amount of zirconium is introduced into the molten metal, terminating said mixing, allowing the mixture to stand and to gravitationally separate into metallic and non-metallic layers without substantial change in temperature with respect to that prevailing during the period of adding and mixing the zirconium chloride, lowering the temperature of the layered mass to a level where at least some of the molten metal solidifies, removing substantially the entire non-metallic layer, reheating the remaining metallic portion at least to a temperature at which the previously frozen magnesic metal again melts and thereafter removing any liquid alloy.

2,849,312

METHOD OF ALIGNING MAGNETIC PARTICLES IN A NON-MAGNETIC MATRIX

Milton J. Peterman, Los Angeles, Calif.

Application February 1, 1954, Serial No. 407,618
3 Claims. (Cl. 75—201)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Method of aligning magnetic material in a non-magnetic matrix comprising mixing together finely divided

magnetic material with non-magnetic material in a liquid state, applying a magnetic field to the mixture to orient said magnetic material, and solidifying said non-magnetic material while retaining the orientation of said magnetic material.

2,849,313

PREPARATION OF METAL POWDER COMPACTS PRIOR TO PRESSING

Herman Mansfield, Flushing, N. Y., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 8, 1952
Serial No. 324,827
8 Claims. (Cl. 75—211)

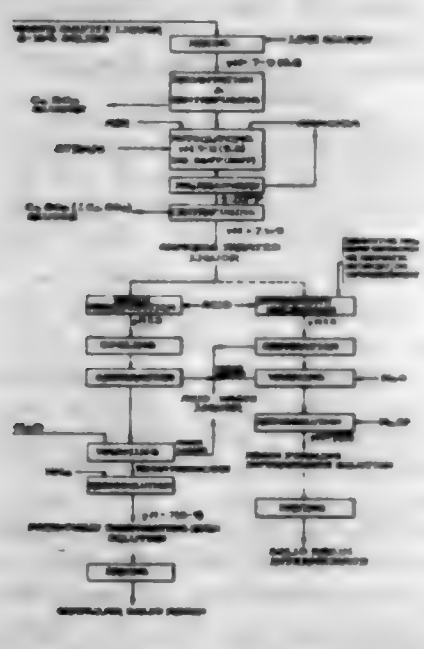
1. The method of fabricating uranium by powder metallurgical techniques which comprises the sequence of steps of introducing uranium hydride in powder form into a receptacle shaped to coincide with the contour of the die cavity, heat treating the hydride below the melting point of uranium under conditions that will decompose the hydride to metal and cause the metal to cohere in the shape of the receptacle and thereafter pressing the preformed metal powder and sintering it in vacuum to obtain a dense sintered compact.

2,849,314

PROCESS OF TREATMENT AND PRODUCTS FROM WASTE SULFITE LIQUORS

Worth C. Goss, Kirkland, Wash., assignor, by mesne assignments, to Permanente Cement Company, Oakland, Calif., a corporation of California

Application March 2, 1953, Serial No. 339,831
10 Claims. (Cl. 92—3)



1. The process of producing reactive nitrogen containing compositions from waste sulfite liquor, which are condensable with aldehydes to form potentially thermosetting resins, comprising heating the liquor in the presence of ammonia to impart a substantial nitrogen content to the acid-precipitatable component thereof, and acidifying the liquor to precipitate and recover said nitrogen-containing compositions.

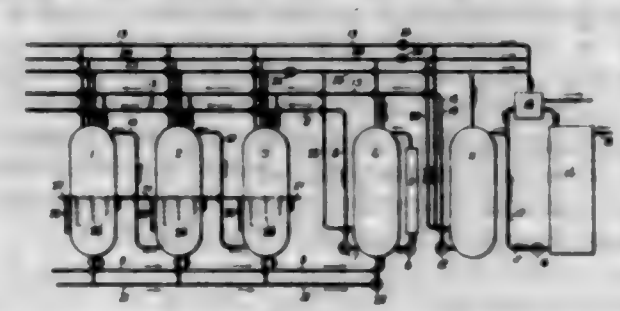
2,849,315

DIGESTION OF WOOD

Gustaf Haglund, Storangen, Sweden

Application April 30, 1954, Serial No. 426,775
Claims priority, application Sweden May 7, 1953
2 Claims. (Cl. 92—11)

1. A process for the digestion of wood to cellulose by means of the sulfite process, consisting in digesting the wood in a first stage at a temperature of the order of 110–130° C. with a cooking liquor containing a considerably higher amount of sulfite base material than that required for carrying through the digestion and made up of fresh cooking liquor and cooking liquor drawn off from a preceding first stage digestion, until the lignin has been sulfonated and the wood is soaked through, softened and settled but only a comparatively small amount of the incrustation substances has been dissolved out, drawing off so much cooking liquor that the remaining liquor substantially only covers the settled wood, completing the digestion of the wood in a second stage and at a higher temperature with the cooking liquor remaining in the digester so that only a relatively small amount of heat is required for heating to the temperature required for completing the digestion, the cooking liquor charged in the first stage containing such an amount of sulfite base material that after said drawing off of



liquor at the end of the first stage the liquor remaining contains substantially the whole amount of sulfite base material required for completing the digestion and thus the digestion to defibration of the wood is completed in a liquor of high concentration, and supplying the cooking liquor drawn off at the end of the first stage while substantially maintaining the temperature thereof to a succeeding first stage digestion for recovery of the excess of sulfite base material therein and the heat thereof, the heating in the first stage being effected by withdrawing cooking liquors from a number of digesters, supplying them to a common central heating tank, holding the liquors in said central heating tank at a temperature of the order of 110–130° C., and returning the liquors to the digesters, so that the heating in the first stage is effected substantially solely by heat contained in said central heating tank.

2,849,316

METHOD OF PRODUCING FLAME RESISTANT FIBERBOARD

Edgar A. Lauring, International Falls, Minn., assignor to Minnesota and Ontario Paper Company, Minneapolis, Minn.

No Drawing. Application September 5, 1956
Serial No. 607,987
7 Claims. (Cl. 92—21)

1. A method of making a vegetable fibrous board comprising adding finely divided anhydrous borax to the fiber slurry, forming a board within a period of time not greater than about 3 minutes from the time of addition of the finely divided aphydrous borax to the fiber slurry, and then drying the wet board for a time not less than about two hours whereby the anhydrous borax is changed to hydrated borax compound in situ during drying of the wet board.

2,849,317

AMENDMENT FOR LEGUME FEEDS

Artemy A. Horvath, Santa Fe, N. Mex.

No Drawing. Application October 5, 1955
Serial No. 538,797
2 Claims. (Cl. 99—2)

1. An improved feed meal having properties of avoiding harmful effects of legumes, comprising comminuted particles selected from the group consisting of alfalfa,

clover, and soybean oil meal, together with the order of 0.1% to 2% thereof of comminuted creosote bush leaf, the comminuted creosote bush leaf containing its natural alcohol-soluble components.

2,849,318
METHOD OF PREPARING DISPERSIONS OF VEGETAL PHOSPHATIDE FRACTIONS
Percy L. Julian, Oak Park, and Herbert T. Iveson, Elmhurst, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application June 21, 1951
Serial No. 232,868
3 Claims. (Cl. 99—15)

1. The method of preparing separate concentrated dispersions in carriers of the alcohol-soluble moiety and the alcohol-insoluble moiety of crude vegetal phosphatides which comprises the steps of: extracting crude vegetal phosphatides with an aliphatic alcohol having up to 3 carbons and separating the crude material into an alcohol-soluble moiety and an alcohol-insoluble moiety; thereafter dispersing both separated moieties into separate carriers selected from the group consisting of organic solvents boiling above about 150° C. and glyceride oils while each moiety is still wet with the aliphatic alcohol employed in said extraction and separation, the weight of each moiety being such in relation to the weight of carrier employed that the moiety constitutes between 50% and 80% of the resulting dispersion by weight, and finally heating both dispersions to remove the aliphatic alcohol therefrom and to recover separate, homogeneous, stable, dispersions of the separated moieties.

2,849,319
COATED FOOD PRODUCT AND COATING COMPOSITION THEREFOR
Richard C. Weinmann, Chestnut Hill, Mass., and Richard A. Cotton, Nashua, N. H.
No Drawing. Application June 1, 1954
Serial No. 433,838
30 Claims. (Cl. 99—169)

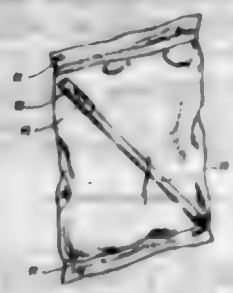
2. A coated food product having a substantially continuous, substantially transparent and cast coating adhered thereto and comprising the dried, consolidated residue of an aqueous emulsion of a water insoluble, solid resinous copolymer of a vinylidene chloride and another vinylidene compound plasticized with a plasticizer of low toxicity, the proportion of said plasticizer to said copolymer being about 1 part plasticizer to between about 2.5 and 9.0 parts of copolymer.

20. A coating composition for coating food products, said composition comprising an aqueous emulsion a copolymer of a vinylidene chloride and one of the group consisting of an unsubstituted and a lower alkyl alpha substituted vinyl cyanide, plasticized with a plasticizer of low toxicity, the upper limit of the amount of said plasticizer being about 1 part plasticizer to about 2.5 parts copolymer and the lower limit being about 1 part plasticizer to about 4.5 parts of copolymer, the percentage by weight of water in said emulsion being between 22% and about 84.5%.

2,849,320
FOOD COATING PROCESS
Richard C. Weinmann, Chestnut Hill, Mass., and Richard A. Cotton, Nashua, N. H.
No Drawing. Application June 1, 1954
Serial No. 433,839
25 Claims. (Cl. 99—169)

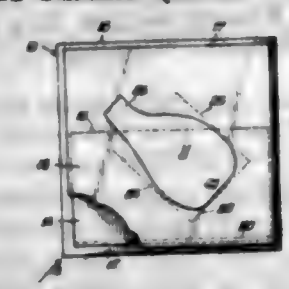
1. The process of packaging a food product comprising applying to the surface of said product a coating of a liquid coating composition comprising an aqueous emulsion of a solid vinylidene resin plasticized with a plasticizer of low toxicity, the proportion of plasticizer being about 1 part plasticizer to between about 2.5 and about 9.0 parts resin, drying said coating and consolidating the coating by the application of heat thereto to render it substantially continuous.

2,849,321
CONTAINER FOR LIQUID AND SEMI-LIQUID FOODSTUFFS
Yves Lhermitte and Raoul Besson, Paris, France, assignors to Societe Glaces Gervais, Paris, France, a corporation of France
Application July 16, 1956, Serial No. 597,995
Claims priority, application France July 16, 1955
5 Claims. (Cl. 99—171)



5. A method for producing a substantially valueless container filled with a liquid or semi-liquid foodstuff adapted to be drawn out by means of a straw having a bevelled end, consisting in cutting a sheath of yielding plastic material into sections of a predetermined length, closing transversely one of the ends of each section, filling said sections with the desired foodstuff, inserting in each section a removably capped drinking straw having a bevelled end, and closing transversely the second open end of each section.

2,849,322
WRAPPED HAM
Francis X. Brucker, Mount Prospect, Ill.
Application June 27, 1955, Serial No. 518,159
21 Claims. (Cl. 99—174)



1. A wrapped ham comprising a brine-cured ham subject to loss of juices therefrom, and a two-layer wrapping completely enclosing the ham, the butt of the ham being housed in a pocket formed by initially folding the wrapping over the butt in all directions from the butt toward the shank, the inner layer in contact with the ham being a sheet of paper absorptive of said juices and of grease, the outer layer being a sheet of cellulosic material transmissive of water vapor and resistant to the transmission of grease, and between said two layers in the pocket-forming portion of the wrapping a third sheet of material resistant to transmission of water vapor and resistant to the transmission of grease and said juices in the direction from the ham into the sheet, said third sheet forming a pocket for the butt of the ham and having its edges in the folded form inwardly from the end of the shank of the ham, whereby grease and aqueous solution from the ham do not penetrate through the wrapping around the pocketed butt, whereby aqueous juices leaking from the ham to the inner sheet in the pocket may move only laterally within the inner sheet around the pocketed butt, and whereby water vapor may readily escape from the wrapped ham only at the open end of the pocket and through the exterior sheet and the folds of the wrapping.

2,849,323

SELF-PROPELLING FOOD MIXTURE

Edmond G. Young, Mickleton, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 4, 1957
Serial No. 643,516
4 Claims. (Cl. 99—189)

1. A self-propelling food mixture confined under pressure in an aerosol dispensing container, said mixture consisting essentially of an aerosol-dispensible edible food formulation containing water as a constituent and a propellant for said food formulation which propellant is a member of the group consisting of perfluorocyclobutane which is mainly in liquefied form and mixtures of said perfluorocyclobutane with at least one of chlorotrifluoromethane, tetrafluoromethane and chloropentafluoroethane in a minor proportion sufficient to increase the pressure in the container up to about 40 to about 90 pounds per square inch gage at 70° F.

2,849,324

POLISHING COMPOSITION

Marvin E. Cox, Oaklawn, Ill., assignor to Simoniz Company, a corporation of Delaware

No Drawing. Application November 19, 1956
Serial No. 622,770
11 Claims. (Cl. 106—10)

1. A polish composition, consisting essentially of: a wax; a solvent for said wax, a portion of the wax being in the form of small, discrete, undissolved particles; and a discontinuous phase in small droplet form of an aqueous solution of a solute of the class consisting of calcium chloride, sodium thiosulfate, sodium nitrate, copper nitrate, urea, magnesium chloride, sodium chloride, potassium bromide, magnesium sulfate, lithium chloride and dibasic ammonium citrate.

2,849,325

STABILIZED CELLULOSE ETHER COMPOSITION

Dwight C. Lincoln, Kennett Square, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

Application June 28, 1952, Serial No. 296,150
8 Claims. (Cl. 106—189)

1. A stabilized cellulose ether composition comprising a thermoplastic cellulose ether and from 0.1% to 5% by weight of a polycyclic phenol having 2 to 3 monocyclic phenyl nuclei, said nuclei being joined by methylene groups and each of said nuclei having a hydroxy group in a position adjacent to the carbon atom attached to said methylene group and substituents in the remaining positions selected from the group consisting of hydrogen atoms and alkyl radicals having 1 to 5 carbon atoms.

2,849,326

PAPER COATING COMPOSITION AND PROCESS OF MAKING IT

John J. Schoenberger, Willow Springs, and Gabriel T. Tarula, Park Forest, Ill., assignors to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application June 21, 1955
Serial No. 517,046
3 Claims. (Cl. 106—205)

3. The method of preparing a coating composition which comprises forming a dispersion in cold water of a pigment, a pigment dispersing agent, an alkali, and an adhesive, the pH of the dispersion ranging from 8 to 9.5; said adhesive being selected from the group consisting of dried partially hydrolyzed starch and repolymerized dried partially hydrolyzed starch having a D. E. value within the range of about 5 to about 50 and being soluble in cold water to the extent of at least 90 percent.

2,849,327

COLD-WATER-SOLUBLE DEXTRINE ADHESIVE AND PROCESS OF MAKING IT

John J. Ryan, Brooklyn, N. Y., and Richard A. Weidener, Englewood, N. J., assignors to National Starch Products Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 16, 1954
Serial No. 410,734
10 Claims. (Cl. 106—208)

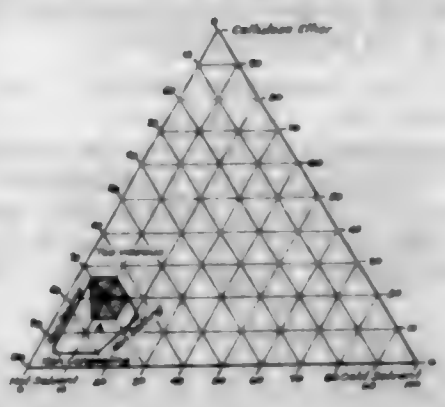
1. A borated cold-water-soluble dextrine product comprising a mix of a cold-water-soluble, dry, high-moisture-content dextrine, borax and a normally solid hygroscopic salt, said dextrine when added to the mix having a moisture content in the range of from about 9% to about 18%, based upon the weight of the dextrine in the anyhydrous state, said mix being characterized by comprising discrete and non-agglomerating grains in the dry state and by being non-agglomerating when mixed with cold water.

2,849,328

COLD-SEALING WATER-SOLUBLE THERMOPLASTIC CELLULOSE ETHER COMPOSITION

Richard W. Swinehart and George K. Greminger, Jr., Midland, and Miles A. Weaver, Ithaca, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application November 25, 1953, Serial No. 394,250
6 Claims. (Cl. 106—176)



1. A thermoplastic composition consisting essentially of (1) a water-soluble alkyl hydroxyalkyl cellulose ether; (2) a compound which will dissolve said cellulose ether only at temperatures over 100° C.; and (3) a compound which will dissolve said cellulose ether only at temperatures below 50° C.; all in proportions represented by the enclosed area on the annexed drawing.

2,849,329

PROCESS OF PREPARING WATER-INSOLUBLE COLORING MATTERS

Oskar Braun, Frankfurt am Main, Germany, assignor to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application June 7, 1955
Serial No. 513,911
Claims priority, application Germany December 12, 1952
5 Claims. (Cl. 106—308)

1. A process for the manufacture of a water-insoluble, non-aqueous powdered azo-dyestuff pigment having a soft grain, which comprises adding during the coupling operation to form said dyestuff a mineral oil in such a quantity that the mineral oil content of the finished dyestuff ranges from about 3% to about 25% of the dyestuff, and as an emulsifying agent for the mineral oil a sulfonamido acetate of an aliphatic hydrocarbon fraction boiling between about 150° C. and 350° C.

2,849,330

CELLULOSE DERIVATIVES

Henry A. Hoffman, Jr., and William K. Wilkinson, Waynesboro, Va., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 1, 1955
Serial No. 513,567
28 Claims. (Cl. 106—169)

1. A composition comprising, as the major component, a cellulose derivative soluble in an organic solvent and, as a minor component, an organic polymeric substance also soluble in such solvent and containing as part of the polymer structure at least 0.32 grams of sulfur, in the form of sulfonic acid groups available for reaction with basic dyestuffs, per kilogram of the total composition.

2,849,331

MASKING METHOD AND COMPOSITION FOR PRODUCING COLOR PAINTINGS

Joseph Turbolente, Richmond Hill, N. Y.

No Drawing. Application June 2, 1953
Serial No. 359,233
4 Claims. (Cl. 117—5.5)

1. The method of producing water color paintings, which comprises applying in a predetermined figuration as a temporary protective covering over a portion of a surface a blended mixture comprising petroleum jelly, white lead and a thinner of the type of xylol for said petroleum jelly, blended together in approximately the proportions by volume to each other of 39¼ parts, 12 parts and 48 parts, respectively, said mixture constituting a non-drying masking substance which is water repellent and is impermeable to water soluble colors and is inert as to said water soluble colors, then applying a coating of a water soluble color over said masking substance and the portion of said surface adjacent to and not protectively covered by said masking substance, then allowing said color coating to dry, and thereafter removing said masking substance by wiping the same from said surface with an absorbent material moistened with a solvent of the type of benzol for said petroleum jelly and which is inert as to said color coating.

2,849,332

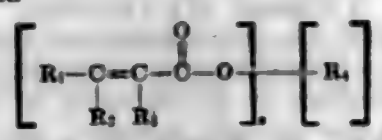
WRINKLE COATING COMPOSITION, ARTICLE AND METHOD

Oreal R. Smith, Lorain, and John E. Powell, Jr., Lakewood, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application August 24, 1955, Serial No. 530,305
29 Claims. (Cl. 117—41)



16. The method which comprises mixing together to form a plastic, fusible, wrinkle finish forming composition, comprising the following essential wrinkle finish components in the following relative proportions, about 100 parts by weight of a polymer of a monomeric material in which each constituent contains a single olefinic double bond and in which the predominant monomer is a haloethylene having from 1 to 2 halogen atoms on only one carbon atom, from about 45 to 75 parts by weight of a material compatible with said polymer and having the general formula



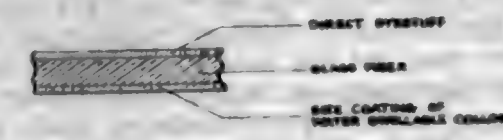
where R_1, R_2 and R_3 are radicals selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl and amyl radicals, R_4 is aliphatic and x is an integer having at least the number 2, and from about 5 to 40 parts by weight of a plasticizer for said haloethylene-containing polymer, depositing said composition as a coating on a base material and heating said coating for a time and at a temperature sufficient to fuse said coating to said base to form an adherent, flexible, hard, tough, wear-resistant and weather-resistant wrinkle finish coating on said base.

2,849,333

METHOD OF DYEING TIGHTLY WOUND GLASS FIBERS SIZED WITH A WATER SWELLABLE MATERIAL

Ralph N. Kingsbury, Pawtucket, R. I., assignor to Owens-Corning Fiberglas Corporation, a corporation of Delaware

Application January 8, 1954, Serial No. 403,062
10 Claims. (Cl. 117—63)



1. The method for coloring glass fibers sized with a composition containing a water swellable adhesive and in which the sized glass fibers are tightly wound into a package, comprising impregnating the package of glass fibers with a dye composition formed of a diluent and a dyestuff in which the dyestuff constitutes a water soluble dyestuff selected from the group consisting of direct and acid dyestuffs in amounts sufficient to impart the desired intensity of color to the glass fibers and in which the diluents consist essentially of 5–50 percent by weight of a coupler selected from the group consisting of polyhydric alcohols of low carbon length and polyhydric alcohol esters of low carbon length, with the remainder being formed of an alcohol having a short carbon chain which function as a non-solvent diluent for the water soluble dyestuff but which forms a stable composition in the presence of the coupler.

2,849,334

PROCESS OF FORMING AN INSOLUBILIZED PROTEIN FILM ON A BASE

Robert T. Hart, Gorham, Maine, assignor to S. D. Warren Company, Boston, Mass., a corporation of Massachusetts

No Drawing. Application November 4, 1954
Serial No. 466,942
2 Claims. (Cl. 117—64)

1. The process of forming a film employing as a component a soluble, modified protein and subsequently insolubilizing said protein in situ in said film comprising the steps of colloidally dispersing a modified protein in an alkaline aqueous liquid medium, mixing therewith a relatively stable basic inner complex chelate salt containing in its ring at least one radical having a multivalent metal ion, said chelate salt also containing a hydroxyl radical for suppressing the protein insolubilizing action of said multivalent metal ion, regulating the amount of said complex salt in said medium to provide said multivalent ions in sufficient quantity with respect to the said protein to insolubilize substantially all of said protein, applying said colloidally dispersed protein and dissolved complex salt to a supporting base to form a film while said protein is still in the colloidally dispersed state, and thereafter substantially simultaneously and uniformly insolubilizing said protein in situ throughout said film by eliminating said hydroxyl radicals from said complex salt.

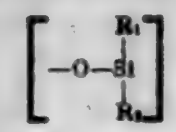
2,849,335
BACKING FOR SMOOTH SURFACE COVERINGS AND PROCESS THEREFOR

Leon B. Palmer, Little Falls, N. J., assignor to Congoleum-Nairn Inc., Kearny, N. J., a corporation of New York

Application September 17, 1956, Serial No. 610,238
33 Claims. (Cl. 117—68)



1. In a method of treating a felted fibrous sheet to render it suitable as a backing for a smooth surface covering for floors, walls and the like which comprises impregnating from one surface of the sheet to a depth of about 20 to about 70 percent of the thickness of the sheet with a dispersion in a volatile solvent of a sizing binder selected from the group consisting of bituminous binders and organic resinous binders thereby forming a first zone in said sheet and thereafter impregnating from the opposite surface of the sheet to a depth sufficient to at least contact the first zone but less than 90 percent of the thickness of the sheet with an impregnating binder selected from the group consisting of bituminous binders and organic resinous binders thereby forming a second zone in said sheet, there being at least 10 percent greater percentage of binder in said second zone than in said first zone, the improvement which comprises uniformly incorporating in said dispersion of sizing binder a heat-hardenable organopolysiloxane having a molecular structure comprising repeating units of the radical



wherein R_1 is a hydrocarbon group containing from 1 to 8 carbon atoms and R_2 is selected from the group consisting of hydrocarbon groups containing from 1 to 8 carbon atoms and hydrogen, thereby incorporating in said first zone from about 0.1 to about 5 percent of said organopolysiloxane based on the weight of the dry sheet in the first zone.

2,849,336
METHOD OF PRODUCING BORIDE COATINGS ON METAL

Margaret A. Reid, Washington, D. C., and Abner Brenner, Chevy Chase, Md., assignors to the United States of America as represented by the Secretary of Commerce

No Drawing. Application August 30, 1954
Serial No. 453,171
6 Claims. (Cl. 117—106)

1. The method of coating a metal comprising passing a metallic borohydride vapor over the surface of the metal to be coated at a temperature between 400 and 800 degrees C. whereby metallic boride from said vapor is deposited as a coating on said metal.

2,849,337
METAL COATING BATHS

John W. Robinson, Brecksville, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application November 28, 1945
Serial No. 631,482
1 Claim. (Cl. 117—114)

In the process of coating metallic uranium with an alloy of copper and tin by hot dipping the uranium in a bath comprising approximately 67% copper and 33% tin, the method of regenerating a bath which has lost its ability after extended use to wet uranium which comprises adding to the bath metallic aluminum in amount corresponding to 7/10% of the weight of the bath.

2,849,338
METAL COATED FIBROUS GLASS

Harry B. Whitehurst and William H. Otto, Newark, Ohio, assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware

Original application November 7, 1952, Serial No. 319,388, now Patent No. 2,772,987, dated December 4, 1956. Divided and this application February 1, 1956, Serial No. 563,966
4 Claims. (Cl. 117—126)



1. Metal coated fibers of the glass composition comprising by weight:

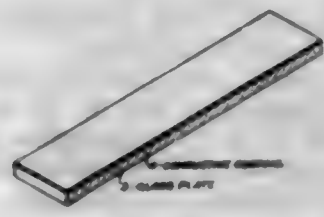
	Percent
SiO_2	55.7
Al_2O_3	14.5
CaO	10.0
B_2O_3	9.0
Na_2O	0.6
CuO	10.2

and only minor proportions of any other oxides as impurities.

2,849,339
INDIUM BASIC TRIFLUORACETATE AND METHOD OF COATING VITREOUS BODIES THEREWITH

Mary S. Jaffe, Cleveland Heights, Ohio, assignor to General Electric Company, a corporation of New York

Application April 8, 1953, Serial No. 347,617
8 Claims. (Cl. 117—211)



4. The method of forming a conductive iridized coating on a high temperature resistant vitreous body which comprises flowing a varnish of indium basic trifluoracetate onto said body and then heating the said body to decompose the varnish to a conductive coating.

2,849,340
FILTER TREATMENT

Joseph B. Sutton, Liftwood, Del., and John V. P. Torrey, Richland, Wash., assignors to the United States of America as represented by the United States Atomic Energy Commission

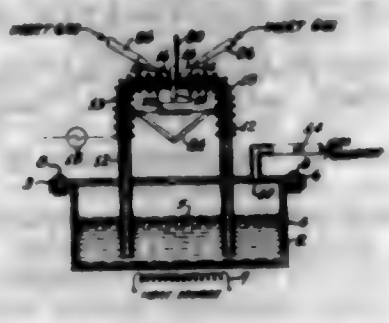
No Drawing. Application January 7, 1946
Serial No. 639,696
2 Claims. (Cl. 134—41)

1. In a process for reconditioning a fused aluminum oxide filter which has become substantially ineffective as a filtering medium by the accretion of bismuth phosphate in the pores of said medium, the improvement which comprises contacting said aluminum oxide filter with oleum and maintaining said contact for a substantial period of time.

2,849,341
METHOD FOR MAKING SEMI-CONDUCTOR DEVICES

Dietrich A. Jenny, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application May 1, 1953, Serial No. 352,327
12 Claims. (Cl. 148—1.5)



1. A method of making a semi-conductor device comprising placing a molten mass consisting essentially of an impurity material capable of imparting to a particular semi-conductive material characteristics of one conductivity type, in contact with a body of said semi-conductive material of opposite conductivity type, said semiconductive material being selected from the group consisting of germanium and silicon, thereby to alloy a portion of said mass into said body and to form a P–N rectifying junction within said body.

2,849,342
SEMICONDUCTOR DEVICES AND METHOD OF MAKING THEM

William M. Webster, Jr., Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application June 28, 1954, Serial No. 439,582
13 Claims. (Cl. 148—1.5)

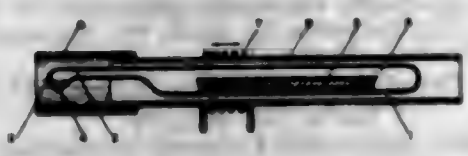


2. A semiconductor device comprising a body of crystalline semiconductor material of one type of conductivity, emitter and collector rectifying electrodes in contact with said body, the magnitude of conductivity of said body varying substantially exponentially between said electrodes with the highest conductivity portion adjacent to said emitter electrode and the lowest conductivity portion adjacent to said collector electrode.

2,849,343
METHOD OF MANUFACTURING SEMI-CONDUCTIVE BODIES HAVING ADJOINING ZONES OF DIFFERENT CONDUCTIVITY PROPERTIES

Ferdinand Anne Kröger, Johan Charles Marie Basart, Jan van den Boomgaard, Hendrik Jan Vink, Jan Bloem, and Dirk de Nobel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 30, 1955, Serial No. 497,987
Claims priority, application Netherlands April 1, 1954
8 Claims. (Cl. 148—1.5)



1. A method of producing a semi-conductive body containing a p-n junction, which comprises providing a semi-conductive body containing a volatile constituent which tends to evaporate out of the semi-conductive body when the latter is in a molten state, melting and freezing adjacent portions of said semi-conductive body in the presence of a vapor of said volatile constituent, and establishing a p-n junction in said body by varying the vapor pressure of said volatile constituent between two extremes while melting and freezing said adjacent portions of said semi-conductive body whereby at one extreme of said pressure one of said molten portions of the body takes up said volatile constituent and upon subsequent freezing produces one type of conductivity material, and at the other extreme of said pressure the adjacent molten portion gives off said volatile constituent and upon subsequent freezing produces the opposite type of conductivity material, said frozen adjacent portions establishing a p-n junction within the body.

2,849,344
PORCELAIN ENAMELLING

Marco James Cramer, Royal Oak, Mich., assignor to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

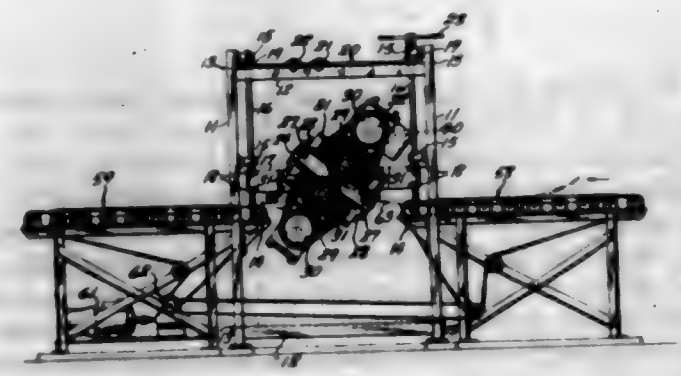
No Drawing. Application June 15, 1954
Serial No. 437,004
12 Claims. (Cl. 148—6.14)

8. A method of forming a vitreous enamel base stock which comprises the steps of forming on the surface of a metal a coating comprising the combination of the reaction product of contacting said metallic surface with an aqueous acidic solution of a water soluble compound selected from the class consisting of arsenic, antimony and bismuth compounds, said coating having a weight in the range of 5 mg. and about 3 grams per sq. ft. of surface area and heating the resulting coated surface in an oxidizing atmosphere at a temperature and for a time sufficient to produce on said surface a modified, heat-induced oxide coating having a total weight not less than 0.25 gram nor exceeding 15 grams per sq. ft.

2,849,345
PRELIMINARY PRESSING OF BENT GLASS ASSEMBLIES

William G. Smith and Brook J. Dennison, Tarentum, Pa., assignors to Pittsburgh Plate Glass Company

Application August 27, 1952, Serial No. 306,532
7 Claims. (Cl. 154—2.7)



7. Apparatus for the preliminary pressing of bent laminated assemblies comprising two sheets of glass and an interposed sheet of thermoplastic material which are to be bonded together into a unitary structure by the action of heat and pressure, which apparatus comprises, in combination, a supporting structure, a balanced housing pivotally mounted on a horizontal axis in said supporting structure and having a limited range of oscillatory movement about its axis, a pair of cooperating inflated nipper rolls mounted horizontally one above the other in the balanced housing, means for driving the rolls, and a pressure equalizing connection between the inflated rolls.

2,849,346

METHOD OF MAKING A COMPOSITE FRICTION UNIT CLUTCH PLATE

John O. Almen, Sierra Madre, Calif., and William L. Carnegie, Romeo, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Original application November 17, 1953, Serial No. 392,596, now Patent No. 2,733,797, dated February 7, 1956. Divided and this application January 31, 1955, Serial No. 487,822

6 Claims. (Cl. 154—81)



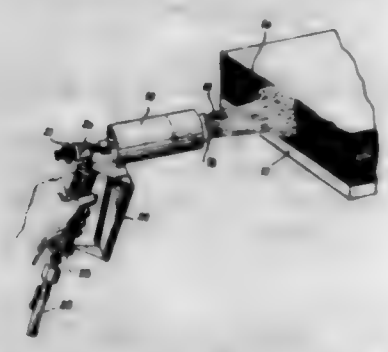
6. In the process of making a composite clutch plate comprising a wear face bonded to a metal disc and adapted for use in a lubricant bath, the steps comprising; forming a fibrous mat having interstitial voids therein for subsequent attachment to said disc, dipping said mat in a fluid mixture including a thermosetting resin as a base for sheath coating the fibers of said mat, drying the dipped mat by spinning the mat for centrifugally removing excess coating material and for forming interstitial lubricant flow ducts between the fibers, adhering the metal disc to the dried mat with a layer of thermosetting resin cement, and then baking the assembly of the disc, curing and mat under mechanical pressure sufficient to cause a bonding of the mat to the disc while maintaining the interstitial lubricant flow ducts between the fibers of the mat.

2,849,347

METHOD OF TREATING CUT EDGES OF PLASTIC FABRICS TO PREVENT FRAYING

Victor Uziel, Paris, France

Application January 23, 1956, Serial No. 560,846
Claims priority, application France February 5, 1955
1 Claim. (Cl. 154—116)



A method of preparation of pieces of fabric made of threads of fusible plastic materials and cut-out for the manufacture of ready-made articles of clothing, the said method consisting in the simultaneous cutting of a pile of superposed thicknesses of the said fabric, subjecting the edges of the uncompressed pile of superposed cut-out pieces to the simultaneous action of heating to a temperature greater than the temperature of fusion of the said plastic material and to a blowing action to separate the pieces of fabric from each other while fusing the edges of the said fabrics without welding the pieces together.

2,849,348

ELECTRODEPOSITION OF NICKEL ON URANIUM

Allen G. Gray, Rocky River, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 9, 1945
Serial No. 572,092
3 Claims. (Cl. 204—1.5)

3. In the application of a nickel electroplating to metallic uranium, the improvement which comprises treating the surface of the uranium with molten ferric chloride hexahydrate between 50° C. and 70° C. until a black film covers the metal surface, washing the surface with water and promptly electroplating it in an aqueous nickel sulfate electroplating bath.

2,849,349

PROCESS FOR THE ELECTROLYTIC DEPOSITION OF ALUMINIUM

Karl Ziegler and Herbert Lehmkuhl, Mulheim an der Ruhr, Germany; said Lehmkuhl assignor to said Ziegler

No Drawing. Application July 11, 1955
Serial No. 521,424
Claims priority, application Germany July 28, 1954
23 Claims. (Cl. 204—14)

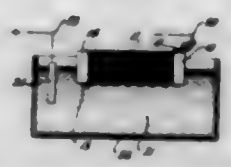
1. A process for the electrolytic deposition of aluminum upon an electrically conductive surface which comprises passing an electric current between an anode and said electrically conductive surface as a cathode through an electrolyte which consists essentially of a homogeneous melt of a true organic compound of aluminum of the general formula $AlR(R')_2$ in which R is an alkyl group and R' is a substituent selected from the group consisting of alkyl, hydrogen and halogen, in combination with a complex compound of such aluminum compound $AlR(R')_2$ with a compound of the formula MeR' in which Me is selected from the group consisting of alkali metals and quaternary ammonium radicals and R' has the same significance as above, said complex compound being of the formula $MeR'AlR(R')_2$ in which Me, R and R' have the same significance as above, the quantity of said organic compound of aluminium of the formula $AlR(R')_2$ in said homogeneous melt being in excess of that contained in said complex compound of the formula $MeR'AlR(R')_2$.

2,849,350

RESISTANCE ELEMENT METHOD OF MANUFACTURE

Charles J. Roach, Los Angeles, Calif., assignor to Hughes Aircraft Company, a corporation of Delaware

Application March 25, 1955, Serial No. 496,681
1 Claim. (Cl. 204—15)



A method of manufacturing electrical resistance elements comprising, in combination, the steps of: winding a plurality of convolutions of an insulated non-precious wire about an elongated rectangular support; removing insulation from said wire along entire transverse opposite edges of said support; electrically connecting all of said convolutions along one edge of said support; electroplating a precious metal on exposed portions of said wire along the other edge of said support; eliminating said electrical connecting; and reinsulating said convolutions along said one edge of said support.

2,849,351

ELECTROPLATING PROCESS

Wolfgang Gündel, Duesseldorf-Oberkassel, Wenmemar Strauss, Duesseldorf-Benrath, and Hermann Haas, Duesseldorf-Holthausen, Germany, assignors to Dehydag, Deutsche Hydrierwerke G. m. b. H., Duesseldorf, Germany, a German company

No Drawing. Application July 8, 1954
Serial No. 442,199
Claims priority, application Germany September 19, 1953
14 Claims. (Cl. 204—44)

1. An electroplating bath for producing deposits of metals selected from the group consisting of nickel, cop-

per, zinc, silver, bronz and brass, comprising an acid solution of an inorganic salt of the metal to be deposited and a compound selected from the group consisting of organic sulfonic acids having the general structural formula

$$G—R—SO_3H$$

and their salts, wherein G is an organic radical which includes a carbon atom bonded exclusively with three hetero atoms, one of which is a sulfur atom through which said organic radical G is linked to the radical $R—SO_3H$, the other two hetero atoms being selected from the group consisting of nitrogen, sulfur and oxygen atoms, and R is a bivalent aliphatic radical, said compound being added in a quantity sufficient to produce a bright metal deposit.

2,849,352
ELECTROPLATING PROCESS

Alfred Kirstahler, Duesseldorf, and Wennemar Strauss and Wolf-Dieter Willmund, Duesseldorf-Holthausen, Germany, assignors to Dehydag, Deutsche Hydrierwerke G. m. b. H., Duesseldorf, Germany, a corporation of Germany

No Drawing. Application October 25, 1956
Serial No. 618,183

Claims priority, application Germany June 15, 1956

10 Claims. (Cl. 204—44)

1. An electroplating bath for producing bright electrodeposits of metals selected from the group consisting of copper, zinc, cadmium, nickel, silver, bronze and brass, comprising an aqueous solution of an inorganic salt of the metal to be electrodeposited and, as a brightener, an organic sulfonic acid compound having the general formula

$$R(—S—R_1—SO_3X)_n$$

wherein R is selected from the group consisting of straight-chain and cyclic organic radicals comprising at least two carbon atoms linked exclusively to atoms selected from the group consisting of oxygen, nitrogen and sulfur, each of said carbon atoms being linked to an $—S—R_1—SO_3X$ group, R_1 is a bivalent lower aliphatic radical, X is selected from the group consisting of hydrogen, alkali metal and ammonium, and *n* is an integer equal to the number of said carbon atoms in the radical R, said brightening agent being present in sufficient amount to effect the brightening action.

2,849,353
BRIGHT NICKEL PLATING

Otto Kardos, Red Bank, N. J., assignor to Hanson-Van Winkle-Munning Company, a corporation of New Jersey

No Drawing. Application February 8, 1955
Serial No. 486,977

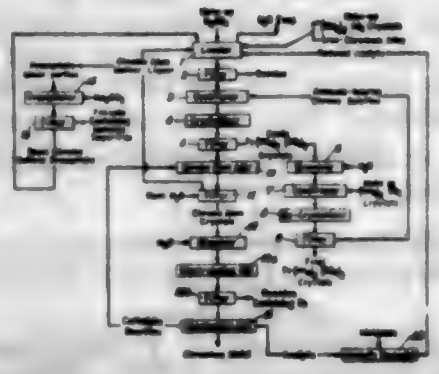
3 Claims. (Cl. 204—49)

1. A process for producing bright nickel deposits which comprises electrodepositing nickel from an aqueous acidic solution of at least one nickel salt in which there is dissolved from about 0.05 to about 1.5 grams per liter of 2-butene-1,4-diol and from about ½ to about 75 grams per liter of a water-soluble sulfo-oxygen compound selected from the group consisting of mononuclear and binuclear aromatic sulfonic acids, heterocyclic sulfonic acids, mononuclear aromatic sulfinic acids, alkali metal, ammonium, magnesium and nickel salts of said acids, and mononuclear aromatic sulfonamides and imides.

2,849,354
PURIFYING SOLUTIONS FOR USE IN THE ELECTROWINNING OF CHROMIUM

Michael C. Carosella, Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York

Application June 28, 1955, Serial No. 518,482
2 Claims. (Cl. 204—105)

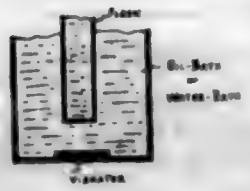


1. In the electrowinning of chromium from chromium sulphate containing solutions, the improvement which comprises maintaining the pH of said solution at a value between approximately 1.0 and 2.25 to allow precipitation of the lead while retaining the chromium in solution, first electrolyzing said solution in at least one cell for greater than 30 ampere hours per gallon of solution to precipitate the contained-lead impurity, separating said precipitated contained-lead impurity from the resultant solution, and then electrolyzing the resultant solution in another cell to electrowin the metallic chromium.

2,849,355
METHOD FOR PREPARING DI-ACETONE-L-SORBOSE

Masuo Hosokawa, Toyonaka, Osaka, Hiroshi Yagi, Sumiyoshi-ku, Osaka, and Kenji Naito, Shimogyo-ku, Kyoto, Japan, assignors to Takeda Pharmaceutical Industries, Ltd., Osaka, Japan

Application June 12, 1953, Serial No. 361,418
Claims priority, application Japan June 28, 1952
3 Claims. (Cl. 204—154)



1. A method for preparing di-acetone-L-sorbose which comprises reacting a member selected from the group consisting of L-sorbose and mono-acetone-L-sorbose with acetone at a temperature not exceeding 40° C. in the presence of a dehydrating agent under irradiation with super-sonic waves having a frequency exceeding about 14 kc. for a time not exceeding about 70 minutes, and thereafter recovering di-acetone-L-sorbose from the reaction mixture.

2,849,356
CHEMICAL SYNTHESIS

Jean P. Manion, New Haven, Conn., assignor to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia

Application December 8, 1954, Serial No. 473,813
1 Claim. (Cl. 204—177)

The method of preparing hydrazine which comprises passing ammonia at a pressure of substantially 3 to 50 millimeters of mercury through the positive column of an electrical glow discharge, said glow discharge being

formed between an anode and a cathode, and said cathode having a surface of material chosen from the group



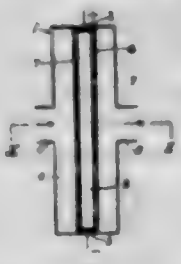
consisting of an alkali metal, an alkaline earth metal, and an oxide thereof.

2,849,357

HYDRAZINE

John C. Devine, Schenectady, N. Y., and Milton Burton, Mishawaka, Ind., assignors to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia

Application December 12, 1955, Serial No. 552,497
5 Claims. (Cl. 204—177)



3. The method of preparing hydrazine which comprises subjecting ammonia at a pressure of substantially 3 to 10 millimeters of mercury to a direct current electrical glow discharge formed at a voltage of about 25 to 70 volts per centimeter and at a current density of substantially 0.6 to 6.0 milliamperes per square centimeter between electrodes spaced substantially 50 to 160 centimeters apart, at least about 95% of the electrical energy input into the said discharge being expended in the positive region, and causing the ammonia to flow transversely through the said positive region with a residence time therein of not more than 10 milliseconds.

2,849,358

METHOD OF RECOVERING HETEROCYCLIC NITROGEN BASES FROM AQUEOUS SOLUTIONS

William E. Bergman and William L. Stalder, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application October 11, 1954, Serial No. 461,418
1 Claim. (Cl. 204—180)



The method of recovering pyridines from a dilute aqueous solution thereof which comprises passing an aqueous solution containing 0.01 to 0.5% 2-methyl-5-ethylpyridine and 0 to 0.1% 2-methyl-5-vinylpyridine together with trace quantities of picolines into contact with one side of a membrane permeable to cations and substantially impermeable to anions, and also into contact with an anode positioned adjacent said membrane, maintaining an aqueous phase saturated with said pyridines and picolines in contact with the other side of said membrane and with a cathode, agitating the aqueous solution on the anode side of the membrane but not the aqueous phase on the cathode side of the membrane, passing an electric current between said anode and said cathode at such rate as to cause said 2-methyl-5-ethylpyridine, 2-methyl-5-vinylpyridine and picolines to be selectively transmitted through said membrane and form an organic phase superimposed on said aqueous phase due to the saturation of said aqueous phase with said pyridines and picolines, adding an effective quantity of a polymerization inhibitor selected from the group consisting of tertiary-butyl catechol, sodium polysulfide and sulfur to said aqueous phase as the separation proceeds, and separately recovering said aqueous and organic phases.

2,849,359

HEAT SEALING OF POLYETHYLENE TEREPHTHALATE FILMS

William Mayo Smith, Jr., Cuyahoga Falls, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application May 13, 1955
Serial No. 508,321
8 Claims. (Cl. 154—139)

1. Process of heat sealing together the surfaces of films of polyesters of (A) acids selected from the group consisting of terephthalic and isophthalic acids and mixtures of said acids with (B) glycols selected from the group consisting of straight and branched-chain glycols containing from 1 to 5 carbon atoms and mixtures of said glycols, which comprises coating the faying surfaces of the films with incipient plasticizing agents for said polyesters selected from the group consisting of

Benzyl alcohol	Acetophenone
Benzyl methyl ether	Glycolonitrile
Hydroquinone	Resorcinol dibenzoate
Resorcinol monobenzoate	Glycidyl phenyl ether
Cyclohexanone	Cyclohexanol
Benzyl benzoate	Anisole
o-Dichlorobenzene	Salicylaldehyde
Dimethyl formamide	Vanillin
Pyrogallic acid	Benzene sulfonamide
4-methyl-3-butene-2-one	Phenol
Cinnamic acid	Benzophenone
Catechol	m-Dinitrobenzene
Phenyl ethyl cinnamate	Dibenzofurane
4,4'-dihydroxydiphenyl sulfide	

and then pressing the faying surfaces together and heating them at temperatures from 250° to 280° F.

2,849,360

SYNERGISTIC FUNGICIDAL MIXTURES OF CHLORO PHENOLS AND PYRONES FOR PRESERVING VEGETABLE FIBERS

Jose Polak, Mexico City, Mexico, assignor to Polaquimia, Sociedad Anonima de Capital Variable (S. A. de C. V.), Mexico City, Mexico, a corporation of Mexico

No Drawing. Application April 25, 1955
Serial No. 503,802
14 Claims. (Cl. 167—38.5)

1. The method of preserving vegetable fibers which comprises applying thereto a mixture comprising (*a*) at least two chlorinated phenols selected from the group consisting of 2,4,5-trichloro-phenol, 4-chloro-2-phenyl-phenol, 6-chloro-2-phenyl-phenol; and (*b*) a pyrone compound synergistic with said chlorinated phenols, wherein said mixture consists essentially of from 0.5% to 5% by weight of said pyrone compound and from 99.5% to 95% by weight of said chlorinated phenols.

2,849,361

FUMIGANT COMPOSITIONS COMPRISING 3-BROMOPROPYNE AND 1,2-DIBROMO-3-CHLOROPROPANE

Charles R. Youngson, Long Beach, and Cleve A. I. Goring, Garden Grove, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 1, 1957
Serial No. 637,603
9 Claims. (Cl. 167—39)

1. A fumigant composition comprising as active toxic ingredients from about 1 part by weight of 3-bromopropyne and from about 0.1 to 9 parts by weight of 1,2-dibromo-3-chloropropane, the active toxic ingredients of said composition being mutually activating.

2,849,362

FUMIGANT COMPOSITIONS COMPRISING 3-BROMOPROPYNE AND 1,3-DICHLOROPROPENE

Charles R. Youngson, Long Beach, and Cleve A. I. Goring, Garden Grove, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 1, 1957
Serial No. 637,605
9 Claims. (Cl. 167—39)

1. A fumigant composition comprising as active toxic ingredients from about 1 part by weight of 3-bromopropyne and from about 0.3 to 4 parts by weight of 1,3-dichloropropene, the active toxic ingredients of said composition being mutually activating.

2,849,363

FUMIGANT COMPOSITIONS COMPRISING 1,4-DICHLORO-2-BUTYNE AND 1,2-DIBROMO-3-CHLOROPROPANE

Charles R. Youngson, Long Beach, and Cleve A. I. Goring, Garden Grove, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 1, 1957
Serial No. 637,606
9 Claims. (Cl. 167—39)

1. A fumigant composition comprising as active toxic ingredients from about 1 part by weight of 1,4-dichloro-2-butyne and from about 0.3 to 9 parts by weight of 1,2-dibromo-3-chloropropane, the active toxic ingredients of said composition being mutually activating.

2,849,364

FUMIGANT COMPOSITIONS COMPRISING 1,4-DICHLORO-2-BUTYNE AND ETHYLENE DIBROMIDE

Charles R. Youngson, Long Beach, and Cleve A. I. Goring, Garden Grove, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 1, 1957
Serial No. 637,607
9 Claims. (Cl. 167—39)

1. A fumigant composition comprising as active toxic ingredients from about 1 part by weight of ethylene dibromide and from about 0.1 to 9 parts by weight of 1,4-dichloro-2-butyne, the active toxic ingredients of said composition being mutually activating.

2,849,365

FUMIGANT COMPOSITIONS COMPRISING 1,4-DICHLORO-2-BUTYNE AND 3-BROMOPROPYNE

Charles R. Youngson, Long Beach, and Cleve A. I. Goring, Garden Grove, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 1, 1957
Serial No. 637,608
9 Claims. (Cl. 167—39)

1. A fumigant composition comprising as active toxic ingredients from about 1 part by weight of 3-bromopropyne and from about 0.1 to 9 parts by weight of 1,4-dichloro-2-butyne, the active toxic ingredients of said composition being mutually activating.

2,849,366

FUMIGANT COMPOSITIONS COMPRISING 1,4-DICHLORO-2-BUTYNE AND 1,3-DICHLOROPROPENE

Charles R. Youngson, Long Beach, and Cleve A. I. Goring, Garden Grove, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 1, 1957
Serial No. 637,609
9 Claims. (Cl. 167—39)

1. A fumigant composition comprising as active toxic ingredients from about 1 part by weight of 1,3-dichloropropene and from about 0.3 to 9 parts by weight of 1,4-dichloro-2-butyne, the active toxic ingredients of said composition being mutually activating.

2,849,367

FUMIGANT COMPOSITIONS COMPRISING ETHYLENE DIBROMIDE AND 1,2-DIBROMO-3-CHLOROPROPANE

Charles R. Youngson, Long Beach, and Cleve A. I. Goring, Garden Grove, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 1, 1957
Serial No. 637,610
9 Claims. (Cl. 167—39)

1. A fumigant composition comprising as active toxic ingredients from about 1 part by weight of ethylene dibromide and from about 3 to 10 parts by weight of 1,2-dibromo-3-chloropropane, the active toxic ingredients of said composition being mutually activating.

2,849,368

FUMIGANT COMPOSITION COMPRISING 3-BROMOPROPYNE AND ETHYLENE DIBROMIDE

Charles R. Youngson, Long Beach, and Cleve A. I. Goring, Garden Grove, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 24, 1957
Serial No. 692,037
9 Claims. (Cl. 167—39)

1. A fumigant composition comprising as active toxic ingredients from about 1 part by weight of ethylene dibromide and from about 3 to 9 parts by weight of 3-bromopropyne, the active toxic ingredients of said composition being mutually activating.

2,849,369

THERAPEUTIC COMPOSITIONS OF CYANACETIC ACID HYDRAZIDE AND ACID ADDITION SALTS THEREOF, AND PROCESSES EMPLOYING THE SAME

Pedro Puig Musset, Molins de Rey, Spain, assignor to Laboratoires O M, Société Anonyme, Geneva, Switzerland, a Swiss corporation

No Drawing. Application September 18, 1953
Serial No. 381,117
17 Claims. (Cl. 167—65)

6. A therapeutic composition in dosage unit form comprising between ten milligrams and one hundred milli-

grams per dosage unit of an active ingredient selected from the group consisting of cyanacetic acid hydrazide and acid addition salts thereof, and a solid pharmaceutical carrier.

2,849,370

INJECTABLE INSULIN PREPARATIONS WITH PROTRACTED EFFECT AND PROCESS OF PRODUCING SAME

Karl Petersen and Jorgen Schlichtkrull, Copenhagen, Denmark, assignors to Novo Terapeutisk Laboratorium A/S, Copenhagen, Denmark, a limited liability company of Denmark

No Drawing. Application May 28, 1954
Serial No. 433,271
Claims priority, application Denmark June 4, 1953
11 Claims. (Cl. 167—75)

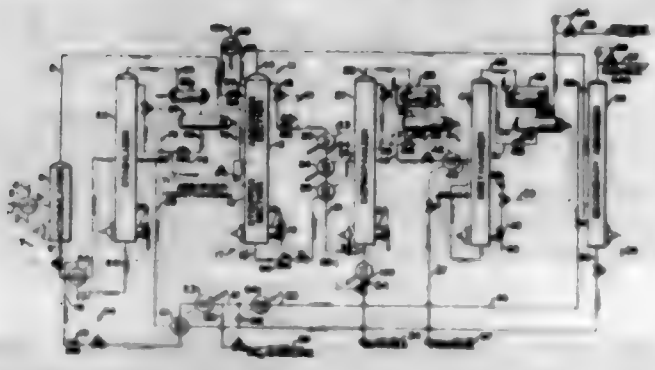
1. An injectable insulin preparation with protracted effect, comprising a sterile suspension of amorphous zinc protamine insulin in an aqueous suspension medium having a pH-value between 6 and 8, said suspension containing protamine in an amount of at least one mg. per 1000 international units of insulin but not exceeding the amount necessary for substantially complete precipitation of the insulin, and zinc in an amount between ¼ and 20 mgs. per 1000 international units of insulin, said suspension being also free from phosphate and citrate ions in amounts preventing the suppression by the zinc of the solubility of the insulin at pH 7.

2,849,371

SEPARATION AND RECOVERY OF HYDROCARBONS FROM GASEOUS MIXTURES THEREOF

Forrest E. Gilmore, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application September 27, 1954, Serial No. 458,448
9 Claims. (Cl. 196—8)



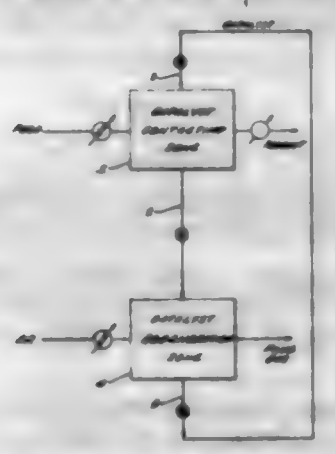
1. A method for treating a vaporous mixture of normally gaseous hydrocarbons and easily vaporized normally liquid hydrocarbons comprising separating said mixture at a superatmospheric pressure into a vapor phase and a liquid phase, intimately contacting in a demethanizing operation said vapor phase with a bottoms material as subsequently produced, withdrawing an overhead vaporous material and a liquid bottoms material from said demethanizing operation, depropanizing this withdrawn liquid bottoms material and withdrawing an overhead vaporous stream comprising propane and ethane, deethanizing this latter over head steam and from this deethanizing operation recovering a first product comprising ethane and a second product comprising propane, stabilizing the aforementioned liquid phase and from this stabilizing operation removing vaporous material and condensing same, introducing at least a portion of the condensate into said demethanizing operation, withdrawing stabilized gasoline from said stabilizing operation, removing one portion thereof as another product of the process and contacting the other portion with said overhead vaporous material in an absorbing operation, from this latter absorbing operation removing an overhead gaseous material as another product, introducing gasoline containing absorbed hydrocarbons from said latter absorption operation into said stabilizing operation, passing a portion of the bottoms from the depropanizing operation into said demethanizing operation as said bottoms material as subsequently produced and removing the remainder as another product of the process.

2,849,372

CATALYTIC CONVERSION AND ADSORPTION PROCESSES

Ross A. Hanson, Anaheim, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application November 7, 1955, Serial No. 545,308
12 Claims. (Cl. 196—24)



9. In a catalytic contacting process wherein a fluid reactant is contacted with adsorbent catalyst granules at an elevated temperature to effect a chemical conversion, and wherein said granules are normally subjected to mechanical abrading forces which erode catalytic material therefrom, the improvement which comprises minimizing such erosion by employing therein abrasion-resistant granules, each of said granules comprising at least about 10% by weight of a homogeneously distributed kaolin-bentonite clay composite coextensive with the volume of the granule, any remainder of said granule being composed of finely divided catalytic material intimately dispersed and bonded within said clay composite, said granules having been formed by a method including the steps of intimately admixing and wetting a powdered, acid-washed bentonite clay and a powdered kaolin clay, thereby forming a moist plastic mass, the weight-ratio of kaolin/bentonite in said plastic mass being between about 35/65 and 5/95 on a dry basis, shaping a portion of said plastic mass into the form desired for said granules, and subsequently drying and calcining the shaped granules.

2,849,373

PREVENTING COLOR FORMATION IN GASOLINE

Simon Miron, Texas City, Tex., assignor to The American Oil Company

No Drawing. Application March 31, 1955
Serial No. 498,439
12 Claims. (Cl. 196—29)

1. In the process of improving the oxidation stability of a hydrocarbon oil containing (1) a phenolic compound, and (2) a member of the class consisting of alkylbenzenes, alkylcycloparaffins, olefins, cycloolefins, diolefins and cyclodiolefins, which process comprises adding to said oil, in the presence of free-oxygen, a phenylene diamine inhibitor having the amino groups in a non-meta orientation and not more than one amino group having an alkyl substituent group, said alkyl group having not more than 16 carbon atoms, which process is characterized by the formation of a pinkish color in said oil, the improvement which comprises adding an aldehyde to said oil prior to the formation of a significant amount of pinkish color, whereby further formation of pinkish color is prevented.

2,849,374

PROCESS FOR REMOVING MERCAPTAN SULFUR WITH HYDROGEN FLUORIDE IN THE PRESENCE OF A SATURATED HYDRO-CARBYL MONO KETONE

Johann Heinrich Friedrich Diederich Schmidt, Amsterdam, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application July 27, 1955
Serial No. 524,888
Claims priority, application Netherlands August 20, 1954
4 Claims. (Cl. 196—31)

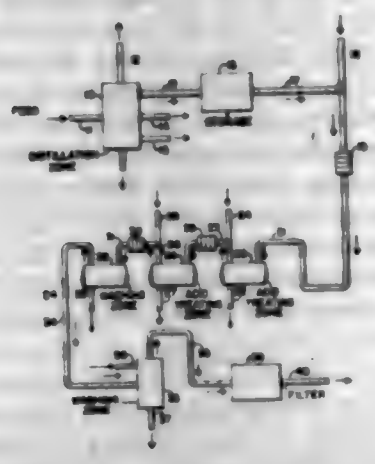
1. A process for the removal of mercaptan sulfur from an essentially saturated mercaptan-containing hydrocarbon oil, which comprises the steps of contacting the oil with liquid hydrogen fluoride in a ratio of from about 0.05 to about 1 volume of a liquid hydrogen fluoride per volume of the oil in the presence of from about 1 to about 20 gram mols, per gram atom of mercaptan sulfur present in the hydrocarbon oil, of a saturated hydrocarbyl mono-ketone having from 3 through 8 carbon atoms per molecule, separating the oil from the hydrogen fluoride and recovering an oil product of reduced mercaptan sulfur content.

2,849,375

PROCESS FOR PRODUCING HIGH QUALITY WHITE PETROLEUM OIL WITH SULFURIC ACID FOLLOWED BY SULFURIC ACID AND FORMALDEHYDE

Erving Arundale, Westfield, and Joseph Versteeg, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 17, 1954, Serial No. 437,395
5 Claims. (Cl. 196—40)



1. In the process of producing a high quality petroleum white oil wherein a virgin petroleum distillate boiling in the range of from about 300° to 750° F. is subjected to a succession of sulfuric acid treating steps, the improvement which comprises treating said distillate with 98 percent sulfuric acid in each of said steps with the exception of the final step, and treating said distillate in the final step with an acid mixture comprising more than about 90 percent and less than 98 percent of sulfuric acid, based on the weight of said mixture, and from about 0.1 percent to about 0.4 percent of formaldehyde, based on the weight of said distillate.

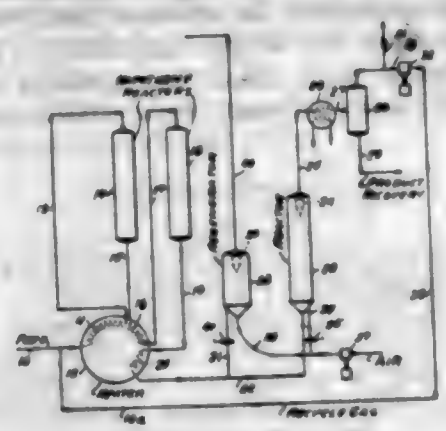
2,849,376

TWO STAGE PROCESS FOR PRODUCING A HIGH OCTANE GASOLINE

Kenneth M. Watson, Lake Zurich, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application June 17, 1952, Serial No. 293,883
2 Claims. (Cl. 196—50)

1. A two-stage process for production of a high octane level reformate from a hydrocarbon reforming stock which comprises contacting the charge stock in the first stage in the presence of recycle hydrogen gas with a platinum-alumina type reforming catalyst at a temperature of about 850° to 950° F. and a pressure of 200 to 750 p. s. i. g. while controlling the extent of conversion at a level resulting in an octane level of about 75 to 85 CFRR (clear), contacting the first stage reaction effluent with a reforming catalyst selected from the group



consisting of chromium oxide alumina and molybdenum oxide-alumina at a temperature of about 850° to 975° F. and a pressure of atmospheric to 750 p. s. i. g., separating hydrogen gas for recycle and recovering from the second stage reaction effluent the liquids products having an octane number of about 92 to 98 CFRR (clear).

2,849,377

CONTROL OF CATALYTIC REFORMING PROCESS

Hugh B. Ogburn and Robert D. Bent, Springfield, and George P. Mascologites, Media, Pa., assignors to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

Application April 16, 1953, Serial No. 349,122
13 Claims. (Cl. 196—50)

1. In a process for catalytically reforming a hydrocarbon fraction boiling within the gasoline-kerosine range to increase the anti-knock value thereof in the presence of hydrogen and a catalyst comprising an acidic metal oxide component impregnated with a metal from the group consisting of platinum and palladium in which the reaction temperature for maximum isomer production at high selectivity is of less severity than is the reaction temperature for the maximum production of aromatics, the step of increasing the reaction temperature for maximum isomer production at high selectivity in the direction of the severity of the reaction temperature for producing maximum aromatics which comprises conducting the reforming process in the presence of at least one nitrogen-containing compound from the group consisting of ammonia and compounds which will yield ammonia under the reforming process conditions without the deposition of a solid residue on the catalyst in an amount sufficient to permit an increase in the reaction temperature applicable to maximum isomer production at the desired selectivity and increasing the reaction temperature within the range of the reaction temperature for the maximum production of aromatics, thereby to produce simultaneously maximum aromatics and maximum isomers at the desired selectivity.

2,849,378

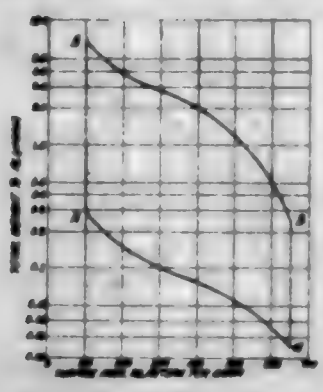
CATALYTIC REFORMING WITH A HIGH SURFACE AREA CATALYST

Richard W. Baker, Wenonah, N. J., Frank G. Ciapetta, Upper Darby, Pa., and Robert M. Dobres, Wenonah, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York

Application March 31, 1954, Serial No. 420,092
20 Claims. (Cl. 196—50)

1. A process for reforming hydrocarbon fractions having an initial boiling point of at least about 60° F. and

an end boiling point of less than about 450° F. and boiling substantially continuously between said initial boiling point and said end boiling point, which comprises contacting said fractions with a catalyst that has a surface area that varies between about 650 square meters per gram and about 100 square meters per gram and which includes at least one metal selected from the group consisting of platinum and palladium, in amounts that vary between about 0.05 percent, by weight, and about 2 percent, by weight, deposited upon silica that contains alumina in amounts that vary between about 0.025 percent and



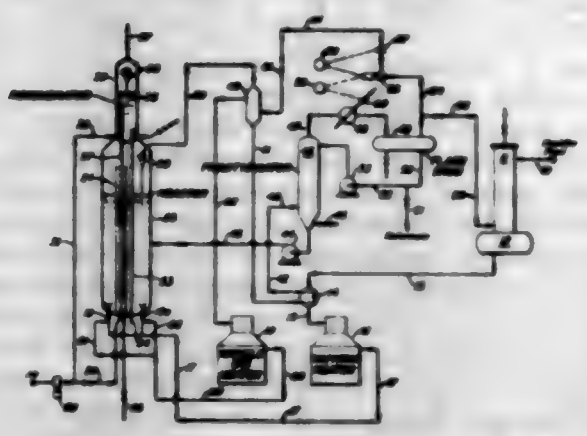
about 7.0 percent, based on the weight of the catalyst and in which the relationship between the amount of the alumina and the surface area defines a point falling within the area delineated by points A, B, G and H in Fig. 8, at temperatures varying between about 700° F. and about 1000° F., at a liquid hourly space velocity varying between about 0.1 and about 10, in the presence of hydrogen under pressures varying between about 100 pounds per square inch gauge and about 1000 pounds per square inch gauge, and using a molar ratio of hydrogen to hydrocarbon charge varying between about 1 and about 20.

2,849,379

PROCESS FOR CONTROLLING RECYCLE HYDROGEN GAS

Robert J. Hengstebeck, Valparaiso, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application December 29, 1954, Serial No. 478,237
3 Claims. (Cl. 196—50)



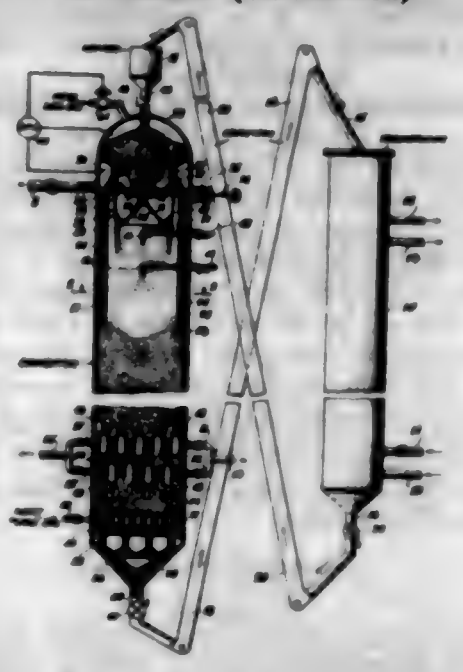
1. In a process for conversion of a hydrocarbon charge stock in the presence of a catalyst and hydrogen-rich recycle gas wherein the hydrogen-rich gas is separated from conversion products in a flash zone and is recycled to the conversion zone by means of a compressor, the method of maintaining compressor speed substantially constant at constant discharge pressure while maintaining the pressure drop of recycle gas through the compressor flow control orifice constant which comprises controlling the speed of said compressor to compensate for incipient changes in said pressure drop, and regulating the temperature in the flash zone in response to incipient changes in compressor speed so as to maintain the molecular weight of the gas separated therefrom substantially constant.

2,849,380

METHOD AND APPARATUS FOR CATALYTIC CONVERSION OF LIQUID FEEDS

Ernest Utterback, New York, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application March 31, 1954, Serial No. 419,958
11 Claims. (Cl. 196—52)



1. The method for conversion of high boiling liquid hydrocarbons comprising maintaining a substantially compact column of particle-form contact material at a suitable temperature for effecting the hydrocarbon conversion along a lower portion of a confined conversion zone, maintaining a gas space above said column in said conversion zone, spraying a high boiling hydrocarbon charge at least partially in the liquid phase into said gas space a substantial distance above the surface of said column and passing the liquid spray downwardly through only a substantially central portion of said gas space, passing said hydrocarbons downwardly into said column to effect conversion thereof to lower boiling hydrocarbons, withdrawing hydrocarbon products in the gaseous phase from the lower section of said column separately of the contact material, withdrawing contact material from the lower section of said column to promote downward movement of the particles therein, supplying contact material at a suitable conversion supporting temperature through a plurality of confined passages which circumvent the central portion of said gas space and discharge directly onto the surface of said column only at a plurality of points near the periphery thereof, said confined passages being the only confined passages delivering contact material directly onto the surface of said column, whereby substantial contact of the liquid spray and the contact material passages is avoided.

2,849,381

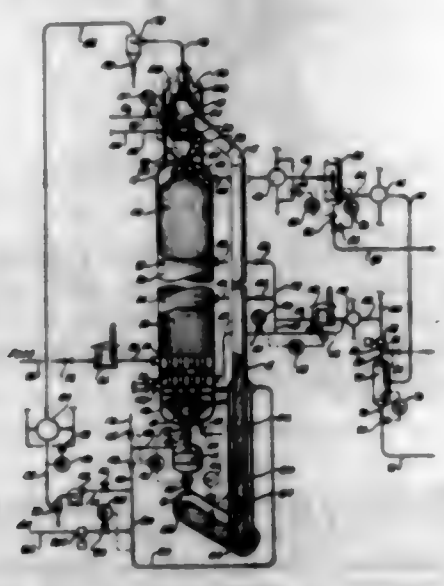
HYDROCARBON CONVERSION PROCESS AND APPARATUS

Clyde H. O. Berg, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application June 25, 1954, Serial No. 439,226
19 Claims. (Cl. 196—52)

1. In a solids-fluid contacting process wherein a granular solid contact material is recirculated through a solids contacting zone and a solids regeneration zone and a reactant fluid is passed through said contacting zone in contact with said solid material and said solid material is contacted with a regeneration fluid in said regeneration zone to regenerate said solids, the improvement which comprises preventing the intermixing of said reactant and regeneration fluids through flow thereof between said contacting and regeneration zones without the use of a

foreign sealing fluid which comprises establishing a solids receiving and sealing leg zone in solids delivery relation to said contacting zone, introducing regenerated solids thereinto in the presence of a flow of regeneration fluid, passing a portion of said fluid concurrently with said solids to an intermediate point in said solids receiving zone, introducing a sealing fluid comprising a part of said reactant fluid into a fluid engaging zone surrounding said solids receiving and sealing leg zone, passing a secondary portion thereof upwardly countercurrent to said solids in said sealing leg zone to said intermediate point, removing the mixture of regeneration and sealing fluid



from a first fluid disengaging zone at said intermediate point, passing the primary portion of said sealing fluid into said contacting zone for removal with the contacting zone effluent thereby preventing fluid intermixing at the solids inlet thereto, passing a fluid comprising a portion of said regeneration fluid countercurrent to solids through the solids outlet from said contacting zone to an adjacent second sealing fluid disengaging zone, passing another portion of said reactant fluid from said contacting zone concurrently with the solids into said second sealing fluid disengaging zone, and removing the fluid mixture thus formed therefrom whereby fluid flow between said contacting and regeneration zones is prevented.

2,849,382

SILICA-ALUMINA-CHROMIUM FLUORIDE CATALYTIC COMPOSITIONS; THEIR PREPARATION; AND THEIR USE IN HYDROCARBON CONVERSIONS

Alfred E. Hirschler, Springfield, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application June 7, 1955
Serial No. 513,893
7 Claims. (Cl. 196—52)

1. A catalyst for the conversion of hydrocarbons consisting essentially of a synthetic silica-alumina composition impregnated with from 4 to 19% by weight, based on the final composition, of chromium fluoride, the radius of the pores of said catalyst being from 135 to 300 A., and the surface area of said catalyst being from 20 to 90 square meters per gram.

3. Process for the preparation of a catalyst for use in the conversion of hydrocarbons which comprises impregnating a synthetic silica-alumina composition having an activity index of from 30 to 50 with an aqueous solution of a water soluble chelate compound of chromium fluoride, drying the resulting composition and calcining the dried composition in contact with air at a temperature of from about 500° C. to about 750° C., wherein the concentration of the chelate compound of chromium fluoride in said aqueous solution is sufficient to give a concentration of chromium fluoride of from 4 to 19% by weight in the final composition.

4. Process for converting a hydrocarbon fraction boiling above the gasoline range which comprises contacting said fraction with a catalyst consisting essentially of from 75 to 90% silica, from 6 to 21% by weight alumina and from 4 to 19% by weight chromium fluoride under catalytic conversion conditions whereby said hydrocarbon fraction is converted to gasoline of high octane rating, the radius of the pores of said catalyst being from 135 to 300 A. and the surface area of said catalyst being from 20 to 90 square meters per gram.

2,849,383

CATALYTIC COMPOSITION AND HYDROCARBON CONVERSION THEREWITH

Alfred E. Hirschler, Springfield, and Abraham Schneider, Overbrook Hills, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application October 13, 1955
Serial No. 540,350
18 Claims. (Cl. 196—52)

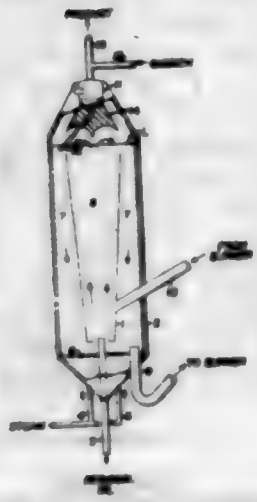
1. Process for converting the hydrocarbons of a relatively high boiling petroleum fraction to lower boiling hydrocarbons which comprises contacting said high boiling hydrocarbons, at a cracking temperature of from 450° C. to 540° C., with a catalytic composition prepared by incorporating from 2.9% by weight to 11% by weight of an oxide selected from the group consisting of chromium oxide, vanadium oxide, molybdenum oxide and tungsten oxide on a synthetic siliceous cracking catalyst and subjecting the resulting composition to contact with steam at a temperature of from about 600° C. to 800° C. for from about 1 hour to 8 hours, whereby the hydrocarbons of the relatively high boiling petroleum fraction are converted to lower boiling hydrocarbons.

2,849,384

FLUID COKING PROCESS

Alexis Voorhies, Jr., and Edward W. S. Nicholson, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 30, 1954, Serial No. 440,366
2 Claims. (Cl. 196—55)



1. In a process for coking a heavy hydrocarbon oil by contacting the oil coking charge stock at a temperature in the range of 900° to 1600° F. with a body of coke particles maintained in the form of a dense, turbulent, fluidized bed in a reaction zone, removing product vapors from the reaction zone, circulating the coke particles through an extraneous heating zone wherein the particles are heated and back to the reaction zone to supply heat thereto, the improvement which comprises the steps of injecting the coke particles from the heating zone upwardly at a velocity in the range of 0.1 to 10 ft./sec. into an upwardly diverging internal passageway

of restricted cross section within the dense, turbulent, fluidized bed of coke particles, the passageway having a total included angle in the range of 3 to 8°, the portion of the fluid bed within the passageway containing 20 to 50% of the total dense, turbulent, fluidized bed volume and having a desity of 30 to 45 lbs./cu. ft.; injecting the oil charge stock into a lower portion of said passageway whereby the oil undergoes cracking yielding vaporous conversion products; circulating the coke particles from the upper portion of the passageway downwardly at a velocity in the range of 0.02 to 6 ft./sec. through an annular path of increasing cross sectional area defined by said passageway and the confines of the reaction zone to the lower portion of the passageway, the fluidized bed within the path having a density of 40 to 50 lbs./cu. ft. and greater than that in the passageway; introducing an inert stripping gas into the lower portion of said path; passing the stripping gas upwardly through the path, the stripping gas having an increasing velocity as it proceeds upwardly through said path; withdrawing at a velocity in the range of 3 to 10 ft./sec. and rapidly cooling the vaporous conversion products from the upper portion of the bed to a temperature below about 750° F. within 3 seconds to substantially end the conversion reaction by limiting the free vapor passageway above the level of the dense, turbulent, fluidized bed.

2,849,385

PROCESS FOR PREPARING LUBRICATING OILS

James H. Kirk, Dyer, Ind., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 2, 1955
Serial No. 505,549
4 Claims. (Cl. 196—147)

1. The method of producing non-additive aircraft engine lubricating oil compositions consisting essentially of about 5 to 50 volume percent of a refined neutral oil of a viscosity of about 300 to 600 SUS at 100° F. and 50 to 95 volume percent of a refined heavy mineral lubricating oil fraction of a viscosity of about 80 to 200 SUS at 210° F. which comprises contacting the refined neutral oil fraction with about 1 to 5 pounds of acid activated clay per barrel at a temperature of about 325 to 450° F., stripping said contacted neutral oil of components boiling at temperatures up to about 700° F., separating the neutral oil from the clay, contacting the refined heavy lubricating oil with about 4 to 8 pounds of acid activated clay per barrel at a temperature of about 500 to 600° F., stripping said contacted heavy lubricating oil of components boiling at temperatures up to about 700° F., separating the heavy lubricating oil from the clay, contacting each of the acid clay-treated neutral oil and heavy lubricating oil components with about 2 to 15 pounds of a neutral clay per barrel at a temperature of 275 to 350° F., separating the oil components from the neutral clay and blending the recovered oil components to obtain a lubricating oil composition.

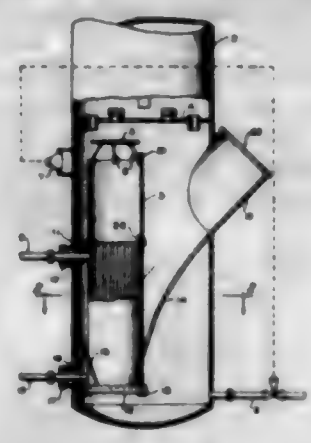
2,849,386

APPARATUS FOR USING A THERMO-SIPHON REBOILER IN A FRACTIONATOR

Forrest E. Gilmore and Robert D. Bauer, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application October 9, 1953, Serial No. 385,068
4 Claims. (Cl. 202—153)

1. In a fractionating column having a kettle section with a generally cylindrical wall structure the improvement comprising, in combination, a thermo-siphon reboiler removably disposed within said kettle section, said reboiler having an over-all length greater than the diameter of said kettle section; and a manhole in the wall of said kettle section, said manhole including a conduit member joined to said wall at an angle of less than 90 degrees and forming a passage communicating with said kettle section, said passage having a cross section approximately equal to but sufficiently greater than the cross section of said reboiler to permit easy lengthwise



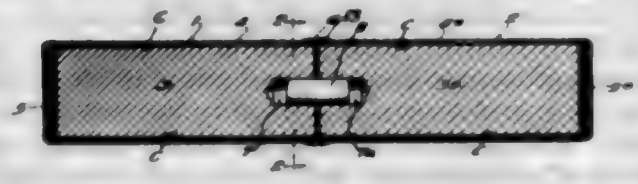
passage of said reboiler through said passage, said conduit member being located so that said reboiler when tilted to an angle of less than 90 degrees can be removed lengthwise through said conduit member, and closure means for said conduit member.

2,849,387

CORROSION RESISTANT JACKETED METAL BODY

Elmer W. Brugmann, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application May 1, 1945, Serial No. 591,302
15 Claims. (Cl. 204—193.2)



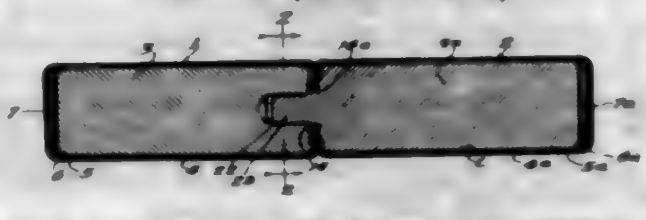
1. A jacketed fissionable body comprising a plurality of fissionable body sections disposed in endwise relation with respect to each other, an open-ended jacket bonded to each of said body sections, and a sealing joint connecting the open ends of said jackets to secure the jacketed body sections tightly together in said endwise relation and provide a fluid-tight seal therebetween.

2,849,388

CORROSION RESISTANT JACKETED METAL BODY

Elmer W. Brugmann, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application May 22, 1945, Serial No. 595,185
9 Claims. (Cl. 204—193.2)

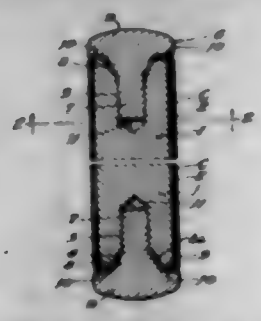


1. A metal jacketed metallic body comprising a plurality of metal jacketed metallic body sections disposed in endwise relation and having their metal jackets overlying only the peripheries of, and interposed between, the adjacent end faces of said metallic body sections in relatively confronting relation, and thread and screw means centrally of said faces securing said jacketed body sections tightly together in said endwise relation and compressing said overlying jacket portions to provide a fluid-tight seal therebetween.

2,849,389
CORROSION RESISTANT JACKETED METAL BODY

Elmer W. Bruggmann, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application June 19, 1945, Serial No. 600,490
17 Claims. (Cl. 204—193.2)



1. A metal jacketed metallic body comprising a body member having an inner cylindrical recessed wall flared at its outer end to provide a conical section, an open-ended metal jacket snugly surrounding said body with the open edge of said jacket conforming to said conical section of said recessed wall in said body member, and closure means in said recess securing said jacket adjacent its open edge to the recessed body wall and providing a fluid tight seal.

2,849,390
WELDED JACKETED URANIUM BODY

David H. Gurinsky, North Plainfield, N. J., assignor to the United States of America as represented by the United States Atomic Energy Commission

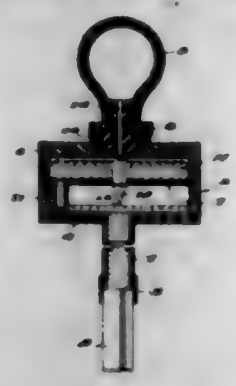
Application October 11, 1945, Serial No. 621,839
2 Claims. (Cl. 204—193.2)

1. A fuel element to be subjected to the action of neutrons comprising a uranium body, a nonfissionable jacket surrounding said body, said jacket including a portion sealed by a weld, and an inclusion in said sealed jacket at said weld of a flux having a low neutron capture cross-section.

2,849,391
MERCURY CAPILLARY ASSEMBLY

Rolf Karl Ladisch, Lansdowne, Pa.

Application October 15, 1956, Serial No. 616,060
4 Claims. (Cl. 204—195)

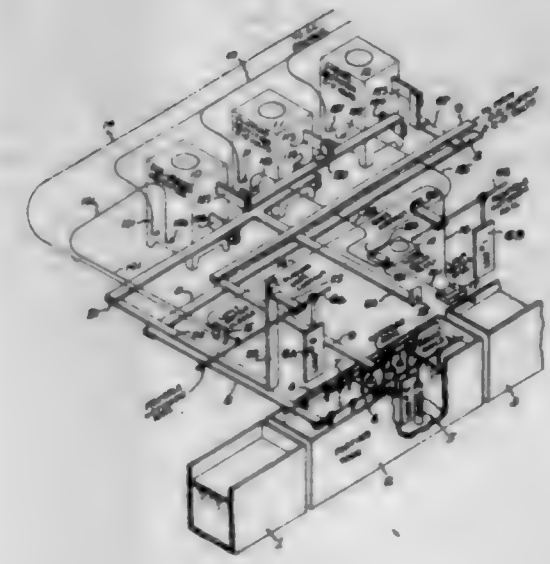


1. A dropping mercury capillary assembly comprising, in combination, a body having two separate mercury reservoirs, one directly above the other, both reservoirs being of substantially the same lateral dimensions; the upper reservoir having a top wall, and a bottom wall separating it from the lower reservoir; a collapsible elastomeric bulb secured to said top wall and being open to the upper reservoir so that, when it is collapsed and then released, it will create a partial vacuum in the upper part of the upper reservoir; the lower reservoir having in its upper portion a vent to the atmosphere and also having a bottom wall; a capillary that is straight throughout its length extending from the upper part of the upper reservoir through the bottom wall of the upper reservoir down to a level somewhat above the bottom wall of the lower reservoir, the lower end of said capillary being drawn down to a point or tip; a mercury-conducting tube extending from the bottom of the upper reservoir nearly to the bottom wall of the lower reservoir, the lower end of said tube being below the lower pointed end of said capillary; a tube coupled to the bottom wall of the lower reservoir to conduct mercury therefrom; and a second capillary coupled to the lower end of the last-named tube to form drops of mercury.

2,849,392
VOLTAGE CONTROL SYSTEM

Richard C. Scott, Detroit, Mich., assignor to The Udylite Corporation, Detroit, Mich., a corporation of Delaware

Application June 1, 1954, Serial No. 433,655
3 Claims. (Cl. 204—198)



1. In an apparatus for chrome plating a nickel-plated workpiece, a tank, an electrode in said tank, transporting means for moving the workpiece relative to said tank including means for lowering the workpiece from a fully emersed position to a fully immersed position, first circuit means effective while the workpiece is being lowered to said fully immersed position for establishing a potential difference of a first preselected finite amplitude between said electrode and the workpiece, second circuit means for establishing a potential difference of a second and different preselected finite amplitude between said electrode and the workpiece, third circuit means for establishing a potential difference of a third and still different preselected finite amplitude between said electrode and the workpiece, and means controlled by said transporting means and effective after the workpiece has been lowered to said fully immersed position for successively enabling said second and third circuit means.

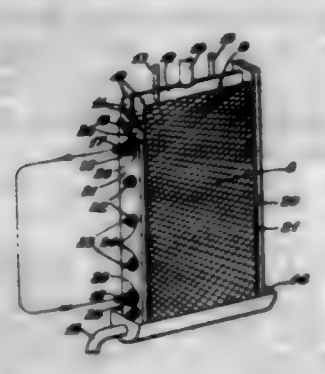
2,849,393
CATHODIC DEVICE FOR ELECTROLYTIC CELLS HAVING A MOVING MERCURY CATHODE

Charles Deprez and Jean Clément, Brussels, Belgium, assignors to Solvay & Cie., Brussels, Belgium, a Belgian company

Application January 4, 1955, Serial No. 479,746
Claims priority, application Belgium January 27, 1954
13 Claims. (Cl. 204—219)

1. In an electrolytic cell including a moving mercury cathode, a support surface for the mercury, said support surface comprising a monoplanar surface area for receiving the mercury cathode stream interrupted by two sets of grooves extending inwardly in a direction away from the exposed surface of said mercury cathode stream,

said two sets of grooves being inclined in opposite directions and intersecting in such a manner that their inter-



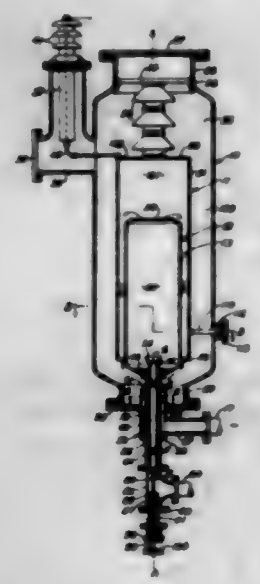
sections define angles the bisectors of which extend horizontally.

2,849,394

ROTATING ELECTRODE EMULSION COALESCER

Logan C. Waterman, Houston, Tex., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

Application June 22, 1953, Serial No. 363,349
16 Claims. (Cl. 204—304)



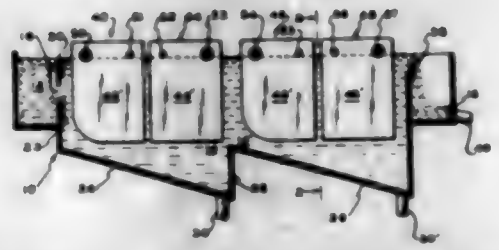
1. A rotary coalescer for emulsions including in combination: a housing; two smooth-surfaced imperforate cylindrical members of different diameter; two end walls respectively closing opposite ends of said two cylindrical members; two positioning means respectively secured to said cylindrical members, one of said positioning means including a tubular member communicating with the interior of its respective cylindrical member through the end wall thereof; spaced supports mounting said positioning means and said cylindrical members within said housing with said cylindrical members disposed one within the other concentric with a common axis, the inner of said cylindrical members being spaced from the outer of said cylindrical members to define therebetween a narrow annular treating space much larger in length parallel to said axis than in width, one of said supports including means for mounting its corresponding cylindrical member to turn relative to the other member about said common axis, said tubular member communicating with the interior of its said respective cylindrical member through a circular discharge orifice coaxial with said common axis; means for flowing a stream of emulsion through said annular treating space from end to end thereof by way of said tubular member and said circular discharge orifice; and means for turning said one of said cylindrical members about said common axis.

2,849,395

METHOD AND APPARATUS FOR ELECTRICAL SEPARATION OF EMULSIONS

Harry A. Wintermute, Plainfield, N. J., assignor to Research Corporation, New York, N. Y., a corporation of New Jersey

Application September 29, 1953, Serial No. 383,106
3 Claims. (Cl. 204—305)



1. Apparatus for separating water-in-oil emulsions comprising a treating tank of electrically conductive material connected to one terminal of a source of alternating current, an inlet for an emulsion to be separated at one end of the tank, a partition member extending across the tank at right angles to the direction of flow of the emulsion through the tank and forming therewith successive treating zones, said partition member extending upwardly from the bottom of said tank to a position below the upper edge of the tank side walls, means for successively subjecting a water-in-oil emulsion passing through each of the treating zones in the tank to a high potential alternating current field and a high potential unidirectional current field said means including a first set of electrodes adjacent the upper surface of said emulsion and spaced from the walls of the tank and said partition member and connected to the other terminal of the source of alternating current, a second set of electrodes positioned above and parallel to said partition member and spaced from said first set of electrodes and the walls of the tank, alternating current rectifier means connected to the source of alternating current, and electrical conductor means connecting the output of the rectifier means to the second set of electrodes, first outlet means at the other end of the tank for removing the upper layer of the liquid passing through the tank, and second outlet means communicating with the bottom of the tank for removing the lower layer of liquid passing through the tank.

2,849,396

SELECTIVE SOLVENT

William T. Nelson, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application June 29, 1953
Serial No. 364,928
27 Claims. (Cl. 252—1)

1. The process of separating an unsaturated hydrocarbon selected from the group consisting of acetylenes, aromatic hydrocarbons, and naphthene hydrocarbons from a less unsaturated hydrocarbon selected from the group consisting of olefins, aromatic hydrocarbons, naphthene hydrocarbons, and paraffin hydrocarbons which comprises contacting said hydrocarbons with a N-alkyl-2-pyridone having less than 5 carbon atoms in the alkyl radical and separating said N-alkyl-2-pyridone containing dissolved unsaturated hydrocarbon from the remaining less unsaturated hydrocarbon.

13. A package which comprises a pressure resistant container, an adsorbent material, a N-alkyl-2-pyridone having less than 5 carbon atoms in the alkyl radical, and acetylene.

2,849,397

SILVER PHOSPHATES AS WEAR-REDUCING AGENTS

Bruce W. Hotten, Orinda, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 28, 1955
Serial No. 555,748

9 Claims. (Cl. 252—32.5)

1. A lubricating oil composition comprising a major proportion of an oil of lubricating viscosity and, in an amount sufficient to inhibit wear in said lubricating oil composition, a silver dialkyl phosphate containing a total of 24–44 carbon atoms in the alkyl radicals.

2,849,398

MINERAL-BASE LUBRICATING OILS AND METHODS FOR USING SAME

Leonard E. Moody, Cranford, and Alexander H. Popkin, Newark, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application August 19, 1953, Serial No. 375,137

3 Claims. (Cl. 252—32.7)

1. A lubricating oil composition having a resinification index less than 20 mg./5 gr., comprising at least 75 weight percent of a petroleum oil having an initial boiling point above 300° F. and a final boiling point below 600° F., both at 10 mm. Hg abs., a viscosity in the range of 50 to 160 S. U. S. at 100° F. and in the range of 33 to 50 S. U. S. at 210° F., a pour point below 15° F. and a resinification index less than 10 mg./5 gr., and up to 25 weight percent of additives improving the properties of said composition, said additives including in the range of 1 to 15 weight percent of a viscosity index improver selected from the group consisting of polyolefins having a molecular weight in the range of 5,000 to 50,000 and polymethacrylate esters; in the range of 1 to 15 weight percent of a detergent consisting of a phosphosulfurized hydrocarbon having a molecular weight in the range of 300 to 30,000 neutralized with a metal containing reagent; and in the range of 0.01 to 5 weight percent of a zinc dialkyl dithiophosphate as an antioxidant.

2,849,399

IMPROVED LUBRICATING COMPOSITION

Alfred H. Matuszak, Westfield, and William J. Craven, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 9, 1956
Serial No. 576,766

6 Claims. (Cl. 252—32.7)

1. An improved lubricating oil composition having reduced deposit forming tendencies which comprises a major proportion of an extracted mineral lubricating oil boiling within the range of about 375° to 675° F. at 10 mm. Hg and having a resinification index below about 20 mg./5 gms. of oil, about 0.5 to 10 wt. percent of a detergent selected from the group consisting of alkaline earth metal salts of C_8–C_{24} alkyl phenol sulfides and their phosphosulfurized derivatives and alkaline earth metal aromatic hydrocarbon sulfonates having molecular weights of about 800 to 1000, about 0.1 to 5 wt. percent of zinc di (C_8–C_{12} alkyl)dithiophosphate, about 0.005 to 5.0 wt. percent of C_{12}–C_{18} methacrylate polymer of 15,000 to 25,000 molecular weight, and an ester selected from the group consisting of the C_7 to C_{14} branched chain primary aliphatic alcohol esters of the dimer and trimer of linoleic acid.

2,849,400

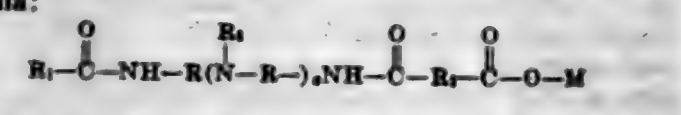
GREASES THICKENED WITH POLYAMIDO ACID SALTS

Bruce W. Hotten, Orinda, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

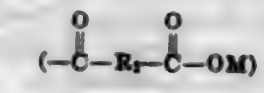
No Drawing. Application December 31, 1953
Serial No. 401,696

7 Claims. (Cl. 252—33.6)

1. A grease composition comprising at least 50%, by weight, of a mineral oil of lubricating viscosity, and, in an amount sufficient to thicken said lubricating oil to the consistency of a grease, a polyamido acid salt of the formula:



wherein R is an alkylene radical containing no more than 3 carbon atoms; R_1 is a hydrocarbon radical of the acyl group derived from a fatty acid, said hydrocarbon radical containing from 10 to 22 carbon atoms; R_2 is an alkylene radical containing from 1 to 8 carbon atoms; R_3 is selected from the group consisting of hydrogen, fatty acid radicals containing from 10 to 22 carbon atoms, and the radical



M is an alkali metal; x is a number having a value from 1 to 7.

2,849,401

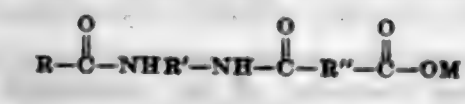
DIAMIDO ACID SALT GREASE THICKENERS

Bruce W. Hotten, Orinda, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 31, 1953
Serial No. 401,698

16 Claims. (Cl. 252—33.6)

3. A grease composition comprising at least 50%, by weight, of a mineral oil of lubricating viscosity, and, in an amount sufficient to thicken said lubricating oil to the consistency of a grease, a diamido acid salt of the formula:



wherein R is selected from the group consisting of saturated, unsaturated, straight-chain and branched-chain aliphatic radicals containing from 10–22 carbon atoms; R′ is selected from the group consisting of saturated, unsaturated, straight-chain, branched-chain and cyclic radicals having the formula $(CH_2)_x$, wherein x is a number from 0–16; R″ is selected from the group consisting of saturated, unsaturated, straight-chain, branched-chain and cyclic hydrocarbon radicals containing from 1–8 carbon atoms, and M is an alkali metal.

2,849,402

GREASE COMPOSITION CONTAINING CHLOROSULFONATED POLYMER

Earl D. Rogak, Brooklyn, N. Y., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 13, 1954
Serial No. 443,167

7 Claims. (Cl. 252—42.1)

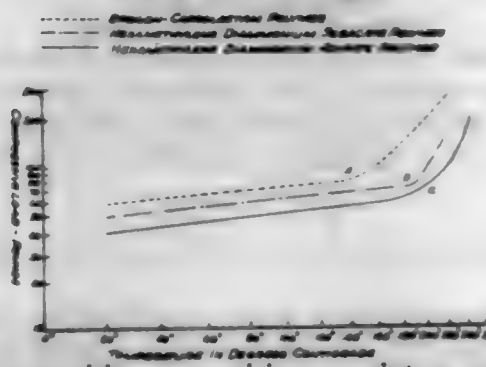
1. A grease composition comprising a lubricating oil thickened to grease consistency with a metal base fatty acid soap and having incorporated therein a chlorosulfonated polymer, having a molecular weight of about 1100 to 118,000 of aliphatic unsaturated hydrocarbons having two to five carbon atoms per molecule in an amount sufficient to impart extreme pressure properties to the composition.

2,849,403

NYLON POLYTETRAFLUOROETHYLENE COMPOSITION AND ARTICLE

Louis L. Stott, Wyomissing, Pa., assignor to The Polymer Corporation, a corporation of Pennsylvania

Application September 21, 1954, Serial No. 457,370
8 Claims. (Cl. 252—51.5)



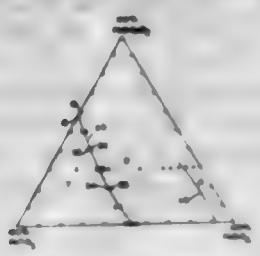
1. A composition comprising a mixture of finely divided linear polyamide and polytetrafluorethylene, said linear polyamide being a polyamide which is soluble in phenol at room temperature and insoluble in ethylene glycol except at temperatures above about 140° C. and having an ultimate particle size of less than 40 microns, said polytetrafluorethylene being present in a concentration of from 2 to 75 percent by weight of said mixture.

2,849,404

MORPHOTROPIC PIEZOELECTRIC CERAMICS

Bernard Jaffe, South Euclid, Ohio, Robert S. Roth, Silver Spring, Md., and Samuel Marzullo, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Army

Application April 13, 1956, Serial No. 578,157
6 Claims. (Cl. 252—62.9)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. A piezoelectric ceramic composition comprising a solid solution consisting of the compounds of: lead titanate, lead stannate, and lead zirconate, said compounds having proportions such that if the proportion of one of said compounds were considered fixed, the proportions of the remaining two compounds would be within about 10 mole percent of the morphotropic phase boundary of said solid solution, said boundary being approximately determined by the smooth curve drawn through the points of four boundary compositions on a composition diagram of the ternary system lead stannate—lead titanate—lead zirconate, said four boundary compositions being substantially as follows: 58 mole percent lead stannate—42 mole percent lead titanate, 40 mole percent lead stannate—45 mole percent lead titanate—15 mole percent lead zirconate, 20 mol percent lead stannate—48 mole percent lead titanate—32 mole percent lead zirconate, and 46 mole percent lead titanate—54 mole percent lead zirconate.

2,849,405

LIQUID DEFOAMING COMPOSITIONS

John Henry Shott III, Wilmington, Del., and Charles Herbert Lighthipe, Bloomfield, and John Edward Ward, West Orange, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application December 28, 1953
Serial No. 400,802
15 Claims. (Cl. 252—358)

1. A liquid defoamer composition comprising (1) from about 40% to about 80% by weight of a liquid aliphatic hydrocarbon having a boiling point of at least 150° F., (2) from about 5% to about 15% by weight of an ester produced by reacting a mono-hydroxy polyoxypropylene mono-ether of a low molecular weight aliphatic monohydric alcohol having a carbon chain length of from 1 to about 4 carbon atoms, with an aliphatic monocarboxylic acid having a carbon chain length of from about 8 to about 22 carbon atoms, (3) from about 5% to about 30% by weight of a product selected from the class consisting of esters and mixtures containing same produced by reacting a glycol selected from the class consisting of ethylene glycol, diethylene glycol and triethylene glycol with a material selected from the class consisting of aliphatic monocarboxylic acids having a carbon chain length of from about 8 to about 22 carbon atoms and glycerides, the fatty portion of which consists chiefly of fatty acid radicals having a carbon chain length of from about 8 to about 22 carbon atoms and (4) from about 5% to about 20% by weight of a product selected from the class consisting of esters and mixtures containing same produced by reacting a polyethylene glycol having a molecular weight of at least about 200 with a material selected from the class consisting of aliphatic monocarboxylic acids having a carbon chain length of from about 8 to about 22 carbon atoms and glycerides, the fatty portion of which consists chiefly of fatty acid radicals having a carbon chain length of from about 8 to about 22 carbon atoms.

2,849,406

REACTIVATION OF HYDROFORMING CATALYST

Trent Lane, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application May 1, 1953
Serial No. 352,597
3 Claims. (Cl. 252—413)

3. The method of reactivating a hydroforming, porous, alumina supported, metallic platinum containing catalyst which has become deactivated during a hydroforming operation, said alumina having a surface area of at least 25 sq. meters per gram, which comprises the steps of treating the supported catalyst with an aqueous solution of about 5.6 M nitric acid and 4.2 M hydrochloric acid, about 7 ml. of the aqueous solution being utilized per gram of supported catalyst, at a maximum temperature of about 200° F.; drying the supported catalyst; and reducing the supported catalyst.

2,849,407

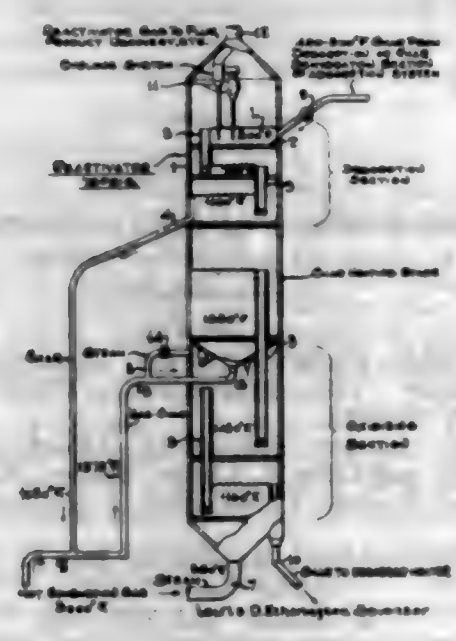
ADSORBENT REACTIVATION PROCESS

Lewis D. Etherington, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application August 28, 1951, Serial No. 244,026
5 Claims. (Cl. 252—418)

1. Process for reactivating spent solid absorbent containing desorbable contaminants and nondesorbable high molecular weight polymeric and tar-like contaminants, which comprises providing a reactivation zone containing a desorbing section, a heating section, and an oxidizing section through which the spent adsorbent flows downwardly in successive order, introducing the spent adsorbent into the desorption section, contacting the spent adsorbent in the desorption section with ascending gas containing steam and carbon dioxide but substantially free of molecular oxygen and at temperatures in the range of 400° to 1100° F. to strip desorbable contaminants from the char and to heat the adsorbent gradually as it descends through said desorption section, said gas ascending from the heating section, contacting the adsorbent freed of desorbable contaminants in the heating section with hot combustion gas containing carbon dioxide and steam formed at a sufficiently elevated temperature to raise the temperature of the adsorbent to 1300° to 1600° F., pass-

ing the adsorbent heated to a temperature between 1300° and 1600° F. from the heating section into the oxidizing section, contacting the thus heated adsorbent descending in the oxidizing section countercurrently with relatively lower temperature process steam to effect controlled final



oxidation of the nondesorbable contaminants on the adsorbent as the adsorbent loses heat in contact with the cooler steam, recovering reactivated adsorbent from the oxidizing section, and removing spent reactivating gases from the desorption section.

2,849,408

CATALYST

Paul F. Bente, Jr., Lewiston, N. Y., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 21, 1947
Serial No. 730,187
3 Claims. (Cl. 252—474)

1. As a catalyst structure suitable for the decomposition of hydrogen peroxide, a metal support, a substance taken from the class consisting of anodically oxidized lead and electrodeposited cobalt adherent to said support, and an activating surface coating of spongy silver on said substance.

2,849,409

LIQUID COATING COMPOSITION COMPRISING A METHYL METHACRYLATE POLYMER AND CELLULOSE ACETATE BUTYRATE

John L. Evans, Springfield, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 7, 1956
Serial No. 563,849
5 Claims. (Cl. 260—17)

1. A liquid coating composition comprising as an essential film-forming constituent a polymer of methyl methacrylate having a relative viscosity of about 1.117 to 1.196, cellulose acetate butyrate having a viscosity of about 0.1 to 2.0 seconds, and a solvent for said polymer and cellulose acetate butyrate, the weight ratio of cellulose acetate butyrate to polymer of methyl methacrylate being between 15:85 and 75:25, and said polymer of methyl methacrylate being a member of the group consisting of homopolymers of methyl methacrylate and copolymers of methyl methacrylate with from 2 to 25% by weight of a member of the group consisting of acrylic acid, methacrylic acid, a 1 to 4 carbon alkyl ester of acrylic acid, a 2 to 4 carbon alkyl ester of methacrylic acid, vinyl acetate, acrylonitrile, and styrene.

2,849,410

ADHESIVE COMPOSITION INCLUDING LIMED ROSIN AND ACRYLIC PLASTICIZER

Raymond R. Lamm, Ambler, Pa., assignor to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts

No Drawing. Application September 24, 1954
Serial No. 458,283
2 Claims. (Cl. 260—27)

2. A normally viscous and tacky adhesive composition adapted for adhesively securing acoustical tiles and the like to a supporting surface and characterized by a high wet strength comprising essentially from 25% to 45% by weight of limed rosin binder, a plasticizer comprising a 40% solution in oil of lauryl and hexyl methacrylate, clay, water in the range of about 2% to 4% of the adhesive and a volatile hydrocarbon solvent in quantity necessary to bring the adhesive to proper consistency, said adhesive composition containing about 25 parts of said plasticizer to 100 parts of binder and from about 100 to 200 parts of said clay per 100 parts by weight of said binder.

2,849,411

STABILIZATION OF BASIC CONDENSATION PRODUCTS OF EPICHLOROHYDRIN

Wolfgang Lehmann and Otto Bayer, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application November 19, 1953
Serial No. 393,232
Claims priority, application Germany November 19, 1952
1 Claim. (Cl. 260—29.2)

The process of stabilizing an aqueous solution of a polymeric, basic condensation product containing epoxy groups in the molecule obtained by reacting, at a pH of 7–9.5 and a temperature between 40 and 70° C., in water, at a total concentration of 5 to 40% by weight, 1 mol of epichlorhydrin with 0.3 mol of γ,γ'-diaminopropylmethylamine, which consists in reducing the pH value of the aqueous solution to about pH 2.5, by the addition of a mineral acid, the resulting solution of the condensate being stable indefinitely at room temperature but capable of being insolubilized on heating to about 100° C.

2,849,412

PLASTICIZATION OF VULCANIZED PERFLUOROCHLOROOLEFIN POLYMERS

Lester E. Robb, Westfield, and David R. Wolf, Bloomfield, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application May 11, 1955
Serial No. 507,714
11 Claims. (Cl. 260—30.6)

1. A novel composition comprising a vulcanized copolymer of trifluorochloroethylene and vinylidene fluoride said polymer being vulcanized with a cross-linking agent selected from the group consisting of polyfunctional amines, polyisocyanates, and organic peroxides admixed with a plasticizer having the formula $RO—X—(OR)_n$ in which R is selected from the group consisting of 2 to 18 carbon monovalent aromatic hydrocarbon and aliphatic hydrocarbon radicals and X is selected from the group consisting of a phosphoryl radical and a dicarboxylic radical having the formula

$$—C(=O)—R'—C(=O)—$$

in which R′ is selected from the group consisting of 3 to 18 carbon alkylene hydrocarbon and divalent aromatic hydrocarbon radicals and where X is a dicarboxylic radical n is equal to 1, and where X is a phosphoryl radical n is equal to 2.

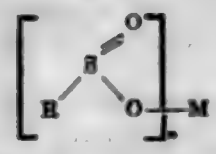
2,849,413

ACRYLONITRILE COMPOSITIONS STABILIZED WITH METAL FORMALDEHYDE SULFOXYLATES, ZINC DICETYL DITHIOPHOSPHATE, AND INORGANIC ACIDS, AND METHOD OF MAKING

Lloyd T. Jenkins, Decatur, Ala., and Richard R. Holmes, Bethesda, Md., assignors to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware

No Drawing. Application May 23, 1956
Serial No. 586,682
20 Claims. (Cl. 260—32.6)

1. A new composition of matter comprising a polymer containing at least 80 percent of polymerized acrylonitrile and up to 20 percent of another polymerizable monoolefinic monomer copolymerizable therewith, a solvent therefor, and an inhibiting agent comprising a compound having the general formula,



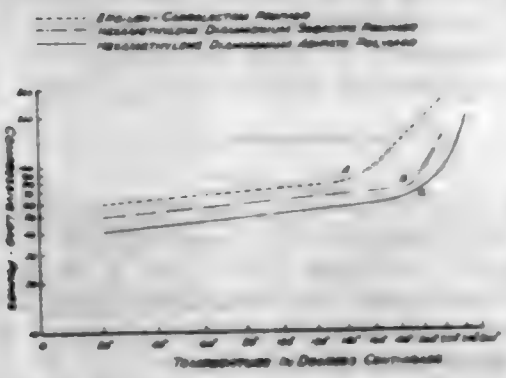
wherein R is an alkanol group containing 1 to 3 carbon atoms and having the free valence on a carbon atom joined to the hydroxy group, *n* is an integer from 1 to 2, and M is a metal selected from the group consisting of sodium, potassium and zinc; zinc dicetyl dithiophosphate and an inorganic acid having an ionization constant greater than 1×10^{-4}.

2,849,414

NYLON-CARBON BLACK COMPOSITION AND ARTICLE

Louis L. Stott, Wyomissing, Pa., assignor to The Polymer Corporation, a corporation of Pennsylvania

Application September 21, 1954, Serial No. 457,390
4 Claims. (Cl. 260—37)



1. A composition having a low fill ratio comprising a mixture of finely divided linear polyamide and carbon black, said linear polyamide being a polyamide which is soluble in phenol at room temperature and insoluble in ethylene glycol except at temperatures above about 140° C., and having an ultimate particle size of less than 40 microns, said carbon black being present in a concentration of 5 to 85 percent by bulk volume.

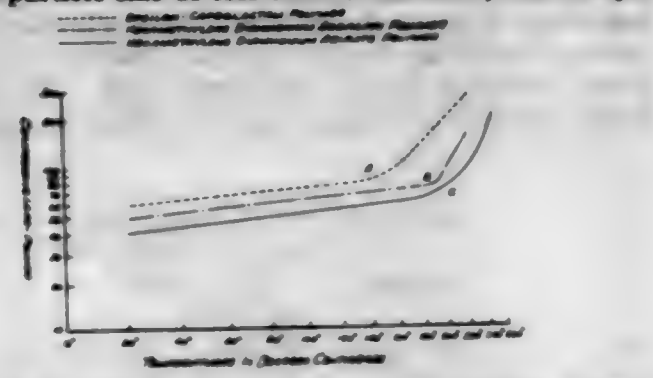
2,849,415

NYLON COMPOSITION AND ARTICLE

Louis L. Stott, Wyomissing, Pa., assignor to The Polymer Corporation, a corporation of Pennsylvania

Application September 21, 1954, Serial No. 457,449
6 Claims. (Cl. 260—37)

1. A composition comprising a mixture of finely divided linear polyamide and molybdenum disulfide, said linear polyamide being a polyamide which is soluble in phenol at room temperature and insoluble in ethylene glycol except at temperatures above about 140° C. and having an ultimate particle size of less than 40 microns, said molybdenum disulfide being present in a concentration of from about 10 to about 90 percent by weight.



2,849,416

ADDITION PRODUCTS OF POLYGLYCIDYL ETHERS OF PHENOLIC RESINS AND POLYTHIOLS

Howard L. Bender, Bloomfield, Alford G. Farnham, Caldwell, and John W. Guyer, Verona, N. J., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application July 12, 1952
Serial No. 298,618
6 Claims. (Cl. 260—43)

3. An exothermally reactive composition of matter comprising a dithiol compound of the structure—

$$HS(CH_2CH_2OCH_2OCH_2CH_2SS)_n CH_2CH_2OCH_2OCH_2CH_2SH$$

where *n* is a whole number, and having an average molecular weight of about 1,000; a polyglycidyl ether having an epoxide functionality greater than two of the group consisting of (1) polyglycidyl ether mixtures of a fusible phenol-formaldehyde resin, said resin being the reaction product of excess phenol with formaldehyde in the presence of an acid catalyst and containing about 65 percent diphenylol methane and about 35 percent of polyphenylol methanes having from 3 to 8 phenylol groups and (2) a triglycidyl ether of the triphenylolpropane formed by condensing acrolein and phenol, having a molecular weight of about 322, and an alkaline catalyst; and in which composition the ratio of glycidyl ether groups to thiol groups is at least 1.01 and not greater than 1.50.

2,849,417

AMINE-EPOXIDE ADHESIVE COMPOSITION CONTAINING THIURAM SULFIDE AND PROCESS OF MAKING SAME

Tung Tsang, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

No Drawing. Application May 16, 1956
Serial No. 585,188
11 Claims. (Cl. 260—37)

7. An adhesive composition consisting essentially of an epoxy base resin, a diamine catalyst, a tetrasulfide taken from the group consisting of dipentamethylene thiuramtetrasulfide and tetramethyl thiuramtetrasulfide, and titanium dioxide filler, said epoxy base resin being the condensation product of epichlorohydrin and bis-phenol.

2,849,418

THERMOSETTING EPOXIDE POLYMER MIXTURES, METHOD OF MAKING SAME AND COATINGS CONTAINING SAME

James C. Fang, Sharon Hill, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 10, 1953
Serial No. 391,389
24 Claims. (Cl. 260—45.5)

1. As a new composition of matter, a thermo-setting mixture comprising a phosphated epoxide polymer and

an epoxide-containing compound free of phosphate groups in such proportions that there are present 0.10–1.5 mols of epoxide oxygen in the epoxide-containing compound for each mol of phosphate ester, calculated as H_3PO_4, in the phosphated epoxide polymer, said phosphated epoxide polymer being a phosphate ester reaction product of a preformed epoxide-containing addition-type polymer prepared by polymerizing at least one polymerizable ethylenically unsaturated monomer.

2,849,419

ORIENTED FILAMENTS OF GRAFT COPOLYMER OF POLYACRYLATE POLYMERIZED ON VINYLIDENE CHLORIDE RESIN

Robert A. Hayes, Akron, and Francis A. Bonnacco, Massillon, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application April 15, 1954
Serial No. 423,544
2 Claims. (Cl. 260—45.5)

1. An oriented filament composed of graft copolymer, which graft copolymer is composed of 50 to 90 parts of polymeric vinylidene chloride resin of at least 85 parts of vinylidene chloride and up to 15 parts of monoethylenically unsaturated monomer copolymerized therewith, and 50 to 10 parts of a polyacrylate polymerized on to the graft copolymer, said polyacrylate being a polyester of a saturated monohydric alkyl alcohol containing 1 to 10 carbon atoms in the alkyl group.

2,849,420

RUBBER STABILIZED WITH METALLIC SYMMETRICAL DISUBSTITUTED THIOUREA COMPOUND

Henry P. Stevens, Akron, Ohio, Lloyd O. Bentz, York, Pa., and Harry E. Albert, Akron, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application July 24, 1953
Serial No. 370,209
18 Claims. (Cl. 260—45.75)

1. A sulfur vulcanized rubber composition which includes as an inhibitor of decomposition a small amount of a metallic compound of a symmetrical disubstituted thiourea of the class consisting of salts and of adducts with a metal salt, each substituent being from the class consisting of alkyl and cycloalkyl groups containing up to nine carbon atoms, and the metal being bivalent and from the class consisting of nickel, cadmium, lead, tin and zinc.

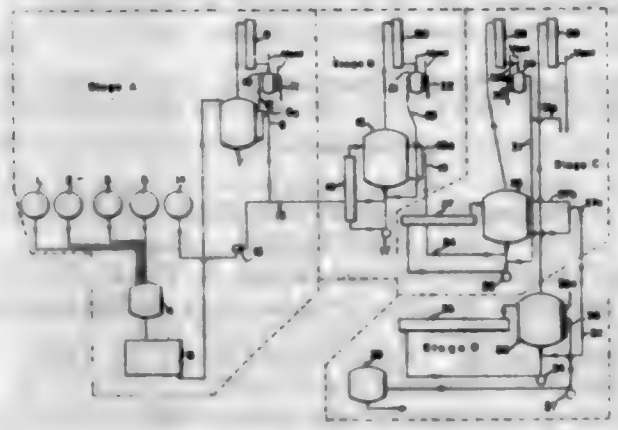
2,849,421

CONTINUOUS PROCESS FOR PREPARING ALKYLATED ALKYLOL UREA RESINS

Thomas D. Weldin, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application August 16, 1956, Serial No. 604,514
5 Claims. (Cl. 260—70)

1. A continuous process for the preparation of alkylated alkylol urea resins which comprises at least four stages, stage A comprising forming an aqueous mixture (1) of urea, aliphatic aldehyde selected from the class consisting of formaldehyde, paraformaldehyde, and acetaldehyde, and in aliphatic monohydric alcohol having up to 4 carbon atoms; continuously introducing said mixture (1) into the top portion of a reaction vessel, simultaneously withdrawing reaction product from said reaction vessel, distilling said alcohol and water from stage A reaction vessel and returning said alcohol to said stage A reaction vessel; stage B of said process comprising continuously forming a mixture (2) of effluent from said stage A, acid catalyst, aliphatic monohydric alcohol and a portion of the reaction product of said stage B from the bottom portion of the reaction vessel of said stage B, continuously passing said mixture (2) through a heat exchanger into the top portion of said stage B reaction vessel, continuously distilling water and said alcohol from said stage B reaction vessel and returning said alcohol to said stage B reaction vessel, continuously passing another portion of the reaction product of stage B to stage C; stage C of said process comprising continuously forming a mixture (3) of effluent from said stage B, aliphatic monohydric alcohol, and a portion of a reaction product of said stage C from the bottom portion of the reaction vessel of said stage C, continuously passing said mixture (3) through a heat exchanger into the top portion of said stage C reaction vessel, continuously distilling water and said alcohol from said stage C reaction vessel and



returning at least a portion of said alcohol to said stage C reaction vessel, continuously passing another portion of the reaction product of stage C to stage D; stage D of said process comprising continuously forming a mixture (4) of effluent from said stage C and a portion of the reaction product of said stage D from the bottom portion of the reaction product of said stage D, continuously passing said mixture (4) through a heat exchanger into the top portion of said stage D reaction vessel, continuously distilling water and said alcohol from said stage D reaction vessel, and continuously withdrawing another portion of the reaction product of stage D as an alcoholic solution of substantially water-free alkylated alkylol urea resin from said stage D reaction vessel, said process steps being carried out at substantially atmospheric pressure.

2,849,422

VINYL RESINS FOR APPLICATION AS SOLVENT SOLUTIONS

George P. Rowland, Jr., and Robert A. Piloni, Pottstown, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application January 13, 1956
Serial No. 558,844
14 Claims. (Cl. 260—78.5)

1. Process which comprises subjecting, to a free-radical-generating catalyst and free-radical polymerizing conditions a mixture consisting of

	Percent
Vinyl chloride	55–75
A di-(saturated hydrocarbon) diester of an acid selected from the group consisting of maleic chloromaleic and fumaric acids containing 6–24 carbon atoms	14–35
A mono-(saturated hydrocarbon) monohydrogen ester of an acid selected from the group consisting of maleic chloromaleic and fumaric acids containing 5–14 carbon atoms	5–10
A halogenated unsaturated compound selected from the group consisting of cis- and trans-1,2-dichloroethylene, cis- and trans-1,2-dibromoethylene, tetrachloroethylene, tetrabromooethylene, 1,1-dichloro-2-bromoethylene, allyl chloride, methallyl chloride, allyl bromide, allyl iodide, methallyl bromide, methallyl iodide, 2,3-dichloro-1-propene, 3,3-dichloro-1-propene, 2,3-dibromo-1-propene, 1-chloro-2-butene, 1-chloro-2-decene and 1-chloro-2-octadecene	1.0–6.5

the percentages being based on the total weight of said mixture.

2,849,413

VINYL RESINS FOR APPLICATION AS SOLVENT SOLUTIONS

George P. Rowland, Jr., and Robert A. Piloni, Pottstown, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application January 13, 1956
Serial No. 558,847
16 Claims. (Cl. 260—78.5)

1. Process which comprises subjecting to a free-radical-generating catalyst and free-radical polymerizing conditions, a mixture consisting of

	Percent
Vinyl chloride	55–75
A di-(saturated hydrocarbon) ester of an acid selected from the group consisting of maleic, fumaric and chloromaleic acids containing 6–24 carbon atoms	14–35
Mono-n-butyl monohydrogen maleate	5–10
A saturated halogenated hydrocarbon containing up to 16 carbon atoms and up to 5 halogen atoms selected from the group consisting of fluorine, bromine and iodine	1.0–6.5

the percentages being based on the total weight of the mixture.

2,849,424

VINYL RESINS FOR APPLICATION AS SOLVENT SOLUTIONS

George P. Rowland, Jr., and Robert A. Piloni, Pottstown, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application January 17, 1956
Serial No. 559,532
5 Claims. (Cl. 260—78.5)

1. Process which comprises subjecting, to a free-radical-generating catalyst and free-radical polymerizing conditions, at temperatures in the range of 70°–85° C., a mixture consisting of

	Percent
Vinyl chloride	55–75
A di-(saturated hydrocarbon) diester of an acid selected from the group consisting of maleic, chloromaleic and fumaric acids containing 6–24 carbon atoms	14–35
A mono-(saturated hydrocarbon) monohydrogen ester of an acid selected from the group consisting of maleic chloromaleic and fumaric acids containing 5–14 carbon atoms	5–10

the percentages being based on the total weight of said mixture.

2,849,425

N-PENTAMETHYLENE TETRAHYDROBENZOTHIAZOLE-2-SULFENAMIDE ACCELERATION OF RUBBER VULCANIZATION

Glen Alliger, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application February 13, 1956
Serial No. 564,882
2 Claims. (Cl. 260—79.5)

1. Method of vulcanizing a sulfur-vulcanizable rubbery substance of the group consisting of natural rubber and synthetic rubbery conjugated diolefin hydrocarbon polymers comprising heating to a vulcanizing temperature the rubbery substance and sulfur in the presence of 0.1 to 10 parts per 100 parts of rubbery substance of N-pentamethylene tetrahydrobenzothiazole-2-sulfenamide.

2,849,426

TREATMENT OF CARBOXYL-CONTAINING POLYMERS

Verle A. Miller, Dover, Del., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application January 19, 1954
Serial No. 405,051
20 Claims. (Cl. 260—79.5)

1. A sulfur-vulcanized carboxyl-containing rubbery polymer of a conjugated diene and an ethylenically unsaturated monomer ionically cross-linked by a polyfunctional reagent of the group consisting of polyvalent metal oxides, polyvalent metal hydroxides, polyvalent metal salts of weak acids, polyamines and polyamine salts of weak acids characterized by a high gum tensile strength, excellent resistance to abrasion and good low temperature properties.

2,849,427

FOAM SUPPRESSION OF HOT LATEX EMULSIONS DURING RECOVERY OF MONOMERS THEREIN

Thomas J. Kennedy and Bobbie H. Smith, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application August 15, 1955
Serial No. 528,521
10 Claims. (Cl. 260—83.7)

1. In a process of emulsion polymerization above about 72° F. of a monomer system comprising 1,3-butadiene and styrene wherein following formation of the latex emulsion and stopping the polymerization the remaining monomers are volatilized from the emulsion, the improvement which comprises suppressing foam formation during the volatilization by adding a foam-suppressing amount of an aqueous dispersion of zinc stearate to said emulsion.

2,849,428

PROCESS FOR THE PREPARATION OF A DISSOLVED ALUMINUM CHLORIDE CATALYST

Augustus B. Small and John L. Ernst, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 24, 1953
Serial No. 363,931
8 Claims. (Cl. 260—85.3)

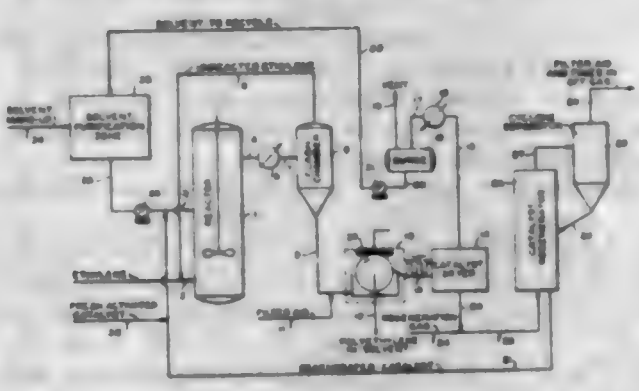
1. A process for preparing a catalyst of improved efficiency which comprises passing through a body of solid aluminum chloride at a temperature of about —80° C., an organic solvent previously chilled to about —80° C. and characterized by less than three carbon atoms per molecule, a freezing point below —80° C. and non-reactivity with aluminum chloride.

2,849,429

FILTRATION AND CATALYST REGENERATION IN OLEFIN POLYMERIZATION

Martin R. Cines, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application May 2, 1955, Serial No. 505,174
10 Claims. (Cl. 260—88.1)



1. In a process wherein olefins are polymerized in the presence of a particulate solid catalyst in a solvent slurry the improvement comprising adding a filter aid to the slurry after polymerization, filtering a resulting slurry, recovering a resulting filter cake, regenerating catalyst contained in said filter cake, separating catalyst fines and sufficient filter aid to prevent continual buildup of used filter aid in the catalyst from reusable catalyst and returning regenerated and reusable catalyst to the polymerization zone.

2,849,430

REMOVAL OF VOLATILE INGREDIENTS FROM THERMOPLASTIC POLYMERS

James L. Amos, Midland, and Arthur F. Roche, Freeland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application July 7, 1955, Serial No. 520,531
3 Claims. (Cl. 260—93.5)

1. A method for removing, from non-volatile thermoplastic polymers of vinylidene compounds, vaporizable organic ingredients that are present as impurities incident to formation of the polymers from such compounds, which method comprises heating the polymer composition containing said ingredients in a vessel under conditions of temperature and pressure such as to vaporize said ingredients, the temperature being of a range of from about 200° to about 270° C., the portions of said vessel that are thereby contacted with the vaporized organic ingredients being composed of a metal composition containing aluminum as the principal ingredient and free of metals higher than magnesium in the electromotive series, and withdrawing the vapors from the vessel.

2,849,431

CHLORINATION OF POLYPROPYLENE

Warren Nesmith Baxter, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 5, 1955
Serial No. 520,139
3 Claims. (Cl. 260—93.7)

1. Process for chlorinating normally partially crystalline solid polypropylene in CCl_4 solution by reaction with chlorine in the presence of 0.005 to 2.0% titanium tetrachloride, based on the weight of CCl_4, said polypropylene being further characterized in that it is obtained by homopolymerization of propylene in the presence of a $TiCl_4$-aluminum alkyl catalyst.

2,849,432

POLYMERIZATION OF DIOLEFINES

Richard W. Kibler, Cuyahoga Falls, Francis A. Bonnacco, Massillon, and Lawrence E. Forman, Akron, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application February 6, 1956
Serial No. 563,448
6 Claims. (Cl. 260—94.2)

1. Process of polymerizing a substance selected from the group consisting of conjugated diolefines and mixtures thereof with other unsaturated compounds free of highly negative groups copolymerizable therewith, which comprises contacting said selected substance with a lithium dihydrocarbon amide in which the hydrocarbon groups contain from 1 to 40 carbon atoms.

2,849,433

INACTIVATION OF FRIEDEL-CRAFTS CATALYST SYSTEMS

Helmuth G. Schneider, Westfield, and Hans G. Goering, Elizabeth, N. J., and Vincent F. Mistretta, Chicago, Ill., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 31, 1953, Serial No. 401,576
2 Claims. (Cl. 260—94.8)

1. Process for preparing polyisobutylene which comprises contacting a mixture of isobutylene and hexane at −80° to +40° C. in the presence of finely divided solid Friedel Crafts catalyst and contacting the reactor effluent immediately with 0.23 to 1.2 wt. percent of water containing up to 1% caustic to deactivate the catalyst, passing the deactivated effluent in heat exchange with the fresh feed and washing the heat exchanged effluent with at least equal volumes of aqueous caustic per volume of reaction product, said caustic containing between 10 and 100 mol percent excess sodium hydroxide over that theoretically necessary to react with the catalyst.

2,849,434

S-(1,2-DICHLOROVINYL)-GLUTATHIONE AND METHOD FOR ITS PREPARATION

Arthur C. Eldridge, Morton, and Leonard L. McKinney, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application January 22, 1958
Serial No. 710,589
4 Claims. (Cl. 260—112)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. S-(1,2-dichlorovinyl)-glutathione.

2,849,435

ORTHO:ORTHO'-DIHYDROXY-AZO-DYESTUFFS AND COMPLEX METAL COMPOUNDS THEREOF

Walter Hanhart, Riehen, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application April 7, 1955
Serial No. 500,015
Claims priority, application Switzerland April 14, 1954
8 Claims. (Cl. 260—145)

1. A dyestuff selected from the group consisting of an ortho:ortho'-dihydroxyazo dyestuff and the ortho:ortho'-dihydroxyazo copper complex of such dyestuff containing a single complex bound copper atom in the dyestuff molecule, the dyestuff corresponding to the formula

$$R_1—N=N—R_2—N=N—R_3—N=N—R_4$$

in which R_1 represents a benzene radical containing in para-position to the azo linkage a hydroxyl group and in ortho-position to the latter group a carboxylic acid group, R_2 represents a naphthalene radical bound in para-position to the azo linkages, R_3 represents a benzene radical bound in para-position to the azo linkages and containing in ortho-position to the —N=N—R_4 group a hydroxyl group and R_4 represents a naphthalene radical containing in a position vicinal to the azo linkage a hydroxyl group as the sole auxochromic group and also containing at least one sulfonic acid group.

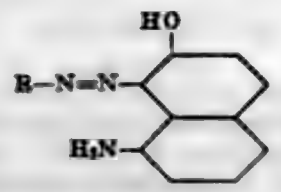
2,849,436

METALLIFEROUS MONOAZO-DYESTUFFS AND PROCESS OF MAKING SAME

Arthur Boehler, Rheinfelden, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application February 9, 1953
Serial No. 336,803
Claims priority, application Switzerland February 11, 1952
11 Claims. (Cl. 260—151)

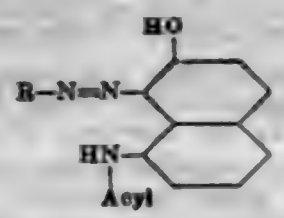
1. A member selected from the group consisting of a cobalt and a chromium compound containing substantially one metal atom bound in complex union with two molecules of a monoazo-dyestuff free from sulfonic acid and carboxylic acid groups, which corresponds to the formula



in which R represents a hydroxybenzene radical bound to the azo-linkage in ortho-position to its hydroxyl group and containing a member selected from the group con-

sisting of a sulfone group and a sulfonic acid amide group.

6. A process which comprises heating in the presence of an excess of at least 0.5 and at most 6 molecular proportions of alkali one molecular proportion of a monoazo dyestuff free from sulfonic and carboxylic acid groups, which corresponds to the formula



in which the acyl group contains only carbon, hydrogen and oxygen atoms and R represents a hydroxybenzene radical bound to the azo-linkage in ortho-position to its hydroxyl group and containing a member selected from the group consisting of a sulfone group and a sulfonic acid amide group, with less than one molecular proportion of a complex chromium compound of an aromatic ortho-hydroxy-carboxylic acid.

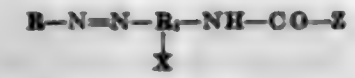
2,849,437

NEW MONOAZO DYESTUFFS

René de Montmollin, Neu-Allschwil, and Heinrich Zollinger, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application December 16, 1955
Serial No. 553,437
Claims priority, application Switzerland December 30, 1954
10 Claims. (Cl. 260—196)

1. A monoazo dyestuff of the formula



in which R represents the radical of a 2-aminonaphthalene-sulfonic acid bound in the 1-position to the azo linkage, R_1 represents a benzene radical, Z represents an alkyl radical which contains at most two carbon atoms and a member selected from the group consisting of a bromine and a chlorine atom in one of the positions α and ω and X represents a functionally converted sulfonic acid group.

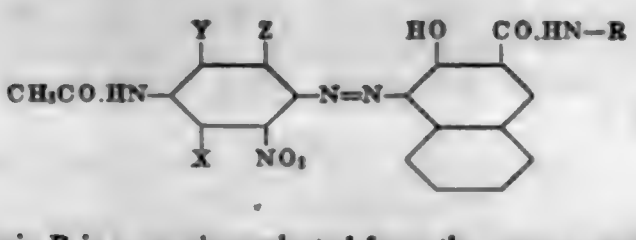
2,849,438

WATER-INSOLUBLE MONOAZO DYESTUFFS

Gerd Muller, Koln-Flittard, Franz Bechlars and Herbert Detzner, Leverkusen, and Hartmut Grahmann, Koln-Riehl, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application June 27, 1956
Serial No. 594,097
Claims priority, application Germany July 20, 1955
5 Claims. (Cl. 260—204)

1. A water-insoluble monoazo dyestuff corresponding to the following formula:



wherein R is a member selected from the group consisting of phenyl, halo-substituted phenyl, lower alkyl-substituted phenyl, and lower-alkoxy-substituted phenyl, and X, Y and Z stand for a member selected from the group consisting of hydrogen, chlorine, lower alkyl, lower alkoxy and nitro radicals.

2,849,439

TREATMENT OF SOLUTIONS OF ORGANIC ACID ESTERS OF CELLULOSE

Henry W. Steinmann, Madison, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application June 28, 1955
Serial No. 518,455
20 Claims. (Cl. 260—227)

1. In a process for the production of organic acid esters of cellulose, the steps which comprise esterifying cellulose with an organic acid anhydride in the presence of a water-immiscible solvent for the ester being formed whereby there will be obtained at the completion of the esterification a substantially homogeneous solution, and subjecting the solution to a two phase extraction with an aqueous medium having an electrolyte dissolved therein to remove water-soluble materials from the esterification solution, there being present during the extraction a sufficient proportion of water-immiscible solvent to prevent precipitation of the organic acid ester of cellulose from the solution.

2,849,440

PRODUCTION OF ORGANIC ACID ESTERS OF CELLULOSE BY THE HOMOGENEOUS PROCESS

Henry W. Steinmann, Madison, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application August 16, 1955
Serial No. 528,530
15 Claims. (Cl. 260—227)

1. In a process for the production of organic acid esters of cellulose, the steps which comprise esterifying cellulose with an organic acid anhydride in the presence of a water-immiscible solvent for the ester being formed whereby there will be obtained at the completion of the esterification a substantially homogeneous solution, subjecting the solution to a two-phase extraction with an aqueous medium to remove water-soluble material from the esterification solution, there being present during the extraction a sufficient proportion of water-immiscible solvent to prevent precipitation of the organic acid ester of cellulose from the solution, and removing water from the extracted solution by contacting the solution with a solid dehydrating agent that is insoluble in said solution, and separating the solution and the dehydrating agent.

2,849,441

PRODUCTION OF ORGANIC ACID ESTERS OF CELLULOSE

Henry W. Steinmann, Madison, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application July 16, 1954
Serial No. 443,957
23 Claims. (Cl. 260—230)

1. In a process for the production of organic acid esters of cellulose, the steps which comprise esterifying cellulose with an organic acid anhydride of a water-soluble acid in the presence of a water-immiscible solvent for the ester being formed whereby there will be obtained at the completion of the esterification a substantially homogeneous solution, and subjecting the solution to a two phase extraction with an aqueous medium to remove substantially all the water-soluble acid and other water-soluble materials therefrom, there being present during the extraction a sufficient proportion of water-immiscible solvent to prevent precipitation of the organic acid ester of cellulose from the solution.

2,849,442

PRODUCTION OF ORGANIC ACID ESTERS OF CELLULOSE IN HOMOGENEOUS SOLUTION WITH SUBSEQUENT MULTIPLE PHASE EXTRACTION

Henry W. Steinmann, Madison, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application November 23, 1954
Serial No. 470,835
22 Claims. (Cl. 260—230)

1. In a process for the production of lower aliphatic acid esters of cellulose, the steps which comprise esterifying cellulose with a lower aliphatic acid anhydride in the presence of an acid esterification catalyst and a water-immiscible solvent for the ester being formed whereby there will be obtained at the completion of the esterification a substantially homogeneous solution, neutralizing the acid esterification catalyst with a nitrogeneous base free from interfering groups, and subjecting the solution to a two phase extraction with an aqueous medium to remove substantially all the water-soluble materials therefrom, there being present during the extraction a sufficient proportion of water-immiscible solvent to prevent precipitation of the organic acid ester of cellulose from the solution.

2,849,443

PRODUCTION OF ORGANIC ACID ESTERS OF CELLULOSE

Henry W. Steinmann, Madison, and Michael Dunay, Fanwood, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application March 3, 1955
Serial No. 492,846
9 Claims. (Cl. 260—230)

1. In a process for the production of organic acid esters of cellulose, the steps which comprise esterifying cellulose with an organic acid anhydride in the presence of a water-immiscible solvent for the ester being formed whereby there will be obtained at the completion of the esterification a substantially homogeneous solution, passing the said solution over one surface of a membrane, and passing an extracting liquid over the other surface of the membrane whereby impurities in the solution will pass through the membrane by dialysis and be carried away by the extracting liquid.

2,849,444

PROCESS FOR THE PREPARATION OF ORGANIC ACID ESTERS OF CELLULOSE

Henry W. Steinmann, Madison, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application June 22, 1955, Serial No. 517,195
13 Claims. (Cl. 260—230)

1. In a process for the production of organic acid esters of cellulose, the steps which comprise esterifying cellulose with an organic acid anhydride in the presence of a water-immiscible solvent for the ester being formed whereby there will be obtained at the completion of the esterification a substantially homogeneous solution, subjecting the solution to a two-phase extraction with an aqueous medium to remove water-soluble materials therefrom, there being present during the extraction a sufficient proportion of water-immiscible solvent to prevent precipitation of the organic acid ester of cellulose from the solution, removing at least a portion of the water present in the extracted solution by contacting the said solution with a hydrophilic polymeric material that is insoluble in said solution to pick up the water from said solution, and separating the polymeric material from said solution.

2,849,445

PROCESS FOR THE PRODUCTION OF ALKALI CELLULOSE

William Reginald Weigham, Coventry, England, assignor to Courtaulds Limited, London, England, a British company

No Drawing. Application November 12, 1953
Serial No. 391,761
Claims priority, application Great Britain
November 19, 1952
2 Claims. (Cl. 260—233)

1. In a process for the continuous production of alkali cellulose of uniform composition and temperature, which comprises forming cellulose sheets into a slurry in caustic soda liquor in a slurry-forming vessel, passing the slurry into a surge tank, continuously passing the slurry from the surge tank, under pressure, to a slurry separating container in which a pair of perforated, peripherally opposed rotating press rolls are partially immersed, separating the alkali cellulose from the slurry by means of said press rolls and returning caustic liquor from which alkali cellulose has been separated from said press rolls to said slurry-forming vessel; the improvement which comprises maintaining the hemi-cellulose content of said slurry substantially constant by continuously withdrawing a portion of the caustic soda liquor from which alkali cellulose has been separated and which contains hemi-cellulose from the system and replacing it with an equivalent amount of fresh caustic soda liquor substantially free from hemi-cellulose, whereby the pressure of the slurry passing to the press rolls and the press-weight ratio of the alkali cellulose are maintained substantially constant.

2,849,446

CAPROLACTAM CONTAINING 2,6-DI-TERT.-BUTYL-p-CRESOL

Robert H. Sullivan, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 27, 1954
Serial No. 432,927
2 Claims. (Cl. 260—239.3)

1. A caprolactam composition suitable for polymerization consisting essentially of caprolactam and from 0.01 to 1% by weight of 2,6-di-tert-butyl-p-cresol.

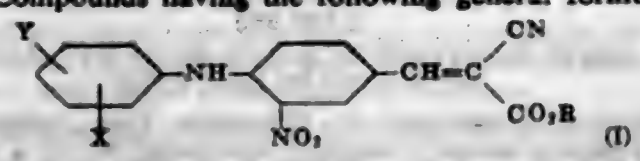
2,849,447

NITRO DIARYLAMINE METHINE DYES

Nicholas J. Kartinos, Niles, Ill., and William W. Williams, New York, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application September 19, 1955
Serial No. 535,261
11 Claims. (Cl. 260—239.7)

1. Compounds having the following general formula:



(I)

wherein X and Y are selected from the group consisting of hydrogen, nitro, lower alkyl, lower alkoxy, chloro, bromo, and sulfonamide radicals, and R is selected from the group consisting of lower alkyl, chloro lower alkyl, bromo lower alkyl, hydroxy lower alkyl and cyano lower alkyl.

2,849,448

STEROID COMPOUNDS

George B. Spero and John L. Thompson, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 9, 1957
Serial No. 677,206
4 Claims. (Cl. 260—239.55)

1. A member of the group consisting of 5α,11-dihy-

droxy-6β,11-dimethylallopregnane-3,20-dione, 3,20-bis-(lower-alkylene) ketal; 5α,11-dihydroxy-6β,11-dimethyl-allopregnane-3,20-dione; and 6α,11-dimethyl-11-hydroxy-progesterone.

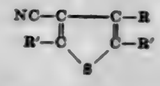
2,849,449

ARYL METHYLENEAMINO - SUBSTITUTED 3-CYANOTHIOPHENES AND THEIR PREPARATION

Arthur C. Cope, Belmont, Mass., and Bruce S. Fisher, Philadelphia, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

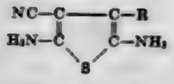
No Drawing. Application April 20, 1955
Serial No. 502,723

1. A substituted thiophene of the formula



wherein R is a radical selected from the class consisting of cyano, phenyl, carbamyl and carboalkoxy of no more than six carbon atoms, at least one of the R′ groups is a —N=CHAr group wherein Ar is a radical of no more than 12 carbon atoms selected from the class consisting of phenyl, nitrophenyl, dialkylaminophenyl, cyanoalkyl-aminophenyl, hydroxyphenyl, dihydroxyphenyl, N-cyano-alkyl-N-alkylaminophenyl, cyanophenyl, chlorophenyl and bromophenyl, and the other R′ group is selected from the class consisting of the amino radical and said —N=CHAr group wherein Ar is defined as aforesaid.

10. Process for preparing an aryl methylene-amino-substituted 3-cyanothiophene which comprises reacting (*a*) an aryl aldehyde of no more than 13 carbon atoms wherein the aryl radical is attached directly to the aldehyde group CHO and is selected from the class consisting of phenyl, nitrophenyl, dialkylaminophenyl, cyano-alkylaminophenyl, hydroxyphenyl, dihydroxyphenyl, N-cyanoalkyl-N-alkylaminophenyl, cyanophenyl, chloro-phenyl and bromophenyl, with (*b*) a substituted thiophene having the formula



wherein R is a radical selected from the class consisting of cyano, phenyl, carbamyl and carboalkoxy of no more than six carbon atoms.

2,849,450

MANUFACTURE OF SALTS OF ALKYL ACID SULFATES IN ONE STEP

Robert C. Harrington, Jr., Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 18, 1956
Serial No. 578,896
5 Claims. (Cl. 260—247.1)

1. A process of manufacturing substituted ammonium salts of sulfated long chain alcohols wherein the alcohol chain is of 5–20 carbon atoms, the salts having good color and being produced in substantially one step which comprises premixing said 5–20 carbon atom alcohol with a nitrogen containing compound from the group consisting of alkylol amines and morpholine, then bringing the aforementioned premixture into reactive contact with a sulfating agent from the group consisting of sulfuric acid and chlorosulfonic acid while agitating the aforesaid materials.

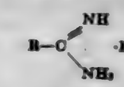
2,849,451

PREPARATION OF s-TRIAZINES

Ingemain Hechenbleikner, Clarksburg, Mass., and Grace Peters, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 22, 1957
Serial No. 654,859
5 Claims. (Cl. 260—248)

1. An improved method for preparing substituted s-triazines which comprises: heating at temperatures between 180° C. and 275° C. to fuse at least equimolecular quantities of formamidine hydrohalide and an amidine compound represented by the formula:



where R is selected from the group consisting of methyl, ethyl and phenyl and X is a halogen atom, and recovering thus-formed substituted s-triazines.

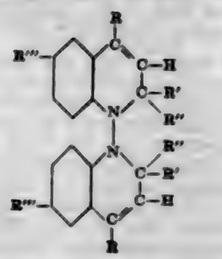
2,849,452

OXIDATION PRODUCTS OF 6-SUBSTITUTED-2,2,4-TRIALKYL DIHYDROQUINOLINES

Frederick J. Webb, Cuyahoga Falls, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application July 29, 1955
Serial No. 525,361
6 Claims. (Cl. 260—288)

1. As a new compound:



in which R, R′ and R″ are alkyl substituents of the class consisting of methyl and ethyl and R‴ is from the group consisting of alkyl, aryl, alkoxy and aryloxy; the alkyl groups of the foregoing substituents each containing 1 to 12 carbon atoms, and the aryl groups being from the class consisting of phenyl and phenyl substituted with at least one alkyl substituent of 1 to 12 carbon atoms.

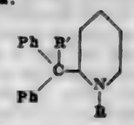
2,849,453

PIPERIDINES AND THEIR MANUFACTURE

Karl Hoffmann and Jules Heer, Binningen, Ernst Sury, Basel, and Ernst Urech, Binningen, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application December 20, 1954
Serial No. 476,598
Claims priority, application Switzerland
December 22, 1953
10 Claims. (Cl. 260—293)

1. A member of the group consisting of piperidines of the following formula:



wherein R is selected from the group consisting of hydrogen, methyl, ethyl and propyl, R′ is selected from the

group consisting of lower alkyl and lower hydroxy alkyl, and each Ph stands for a phenyl radical, and therapeutically useful acid addition salts thereof.

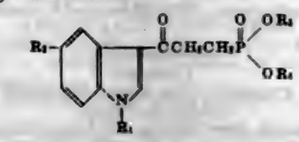
2,849,454

γ(3-INDOLYL)-γ-KETO-PROPYL PHOSPHONIC ACIDS

Jacob Szmuszkovicz, Portage Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application June 27, 1957
Serial No. 668,308
13 Claims. (Cl. 260—319)

1. A γ-(3-indolyl)-γ-keto-propylphosphonic acid represented by the formula:



wherein R_1 is selected from the group consisting of hydrogen and a lower-alkyl radical containing from one to six carbon atoms, inclusive, R_2 is selected from the group consisting of hydrogen and hydroxy, and R_3 and R_4 are selected from the group consisting of hydrogen and an alkali-metal.

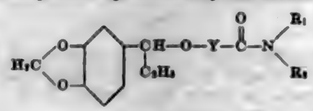
2,849,455

ALPHA-ETHYL-PIPERONYL ETHER OF HYDROXYALKANAMIDES

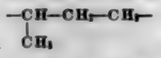
Edward A. Prill, Yonkers, N. Y., assignor to Boyce Thompson Institute for Plant Research, Inc., a corporation of New York

No Drawing. Application July 19, 1955
Serial No. 523,899
4 Claims. (Cl. 260—340.5)

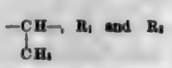
1. The compound represented by the formula



wherein Y is a member of the group of alkylene radicals represented by the formulas $—CH_2—CH_2—CH_2—$



$—CH_2—$, and



are members of the group consisting of the hydrogen atom, alkyl, cycloalkyl radicals of the cyclohexane series, alkoxyalkyl and aralkyl radicals containing not more than 10 carbon atoms, and not more than one of R_1 and R_2 is hydrogen.

2,849,456

PREPARATION OF DEHYDROACETIC ACID

Sidney John Branch, Cottingham, East Yorks, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application September 3, 1957
Serial No. 681,469
Claims priority, application Great Britain
September 14, 1956
7 Claims. (Cl. 260—343.5)

1. A process for the production of dehydroacetic acid which comprises adding diketene to an inert solvent in the presence of trimethylamine, the addition being made under substantially anhydrous conditions and at a temperature in the range from —10° to 50° C. and recovering the dehydroacetic acid so produced.

2,849,457

GAMMA-MONOLACTONE OF 4-HYDROXYSUBERIC ACID, ITS SALTS AND ESTERS, AND THE SALTS AND AMIDES OF 4-HYDROSUBERIC ACID, THEIR PREPARATION AND USE

Howard E. Holmquist, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 21, 1956
Serial No. 592,738
11 Claims. (Cl. 260—343.6)

4. Process for preparing an oxygen-containing heterocyclic compound which comprises heating and hydrogenating [$\Delta^{2,2'(5H,5'H)}$-bifuran]-5,5′-dione with hydrogen in contact with a nickel hydrogenation catalyst at a temperature in the range of 75° to 275° C. and under a pressure of 1000 to 10,000 lb./sq. in., in the presence of a liquid organic reaction medium selected from the group consisting of dioxane, decahydronaphthalene, tetralin, cyclohexane, isooctane, lower alkanols, and lower alkanol esters of lower alkanoic acids, and obtaining as the resulting product at least one oxygen-containing heterocyclic compound selected from the class consisting of gamma - (omega - carboxypropyl) butyrolactone and gamma-(omega-carbalkoxypropyl) butyrolactone.

2,849,458

PRODUCTION OF SULFONATES

Isaac F. Walker, Hockessin, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 1, 1957
Serial No. 649,593
9 Claims. (Cl. 260—343.6)

1. The sulfonate of a dilactone corresponding to

$$C_8(RR')_2O_4$$

wherein R and R′ are taken from the class consisting of hydrogen, haloaryl where the aryl radical is hydrocarbon of not more than 10 carbon atoms, alkoxyaryl where the alkoxy radical is of not more than 12 carbon atoms, and the aryl radical is hydrocarbon of not more than 10 carbon atoms, and monovalent hydrocarbon radicals, free from non-aromatic unsaturation, of not more than 12 carbon atoms.

2,849,459

PREPARATION OF CHROMANS, CHROMENES, AND COUMARONS

Robert F. Leary, Cranford, and Joseph F. Nelson, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 22, 1953, Serial No. 363,264
10 Claims. (Cl. 260—345.5)

1. The process which comprises reacting, at elevated temperatures of 120° to 270° C. in the presence of an iron metal catalyst, a mixture of open-chain C_5 and C_6 diolefins contained in a hydrocarbon fraction selected from the group consisting of benzene, toluene, and xylene fractions, with a phenolic solvent selected from the group consisting of phenol and cresylic acid, separating and recovering from higher boiling sludge materials the resulting mixture of aromatic cyclic ethers, whose structures result from the attachment of one molecule of said diolefins to one molecule of said phenolic solvent, said ethers having the dicyclic ring structures of the compounds selected from the group consisting of chroman, chromene, and coumaran.

2,849,460

PURIFICATION OF STEROIDS

Helmuth Corvi, New Brunswick, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application November 17, 1953
Serial No. 392,767
8 Claims. (Cl. 260—397.4)

1. The method of separating a steroid of the group consisting of hydrocortisone, Δ^4-pregnene-11-alpha,17-alpha,21-triol-3,20-dione, Δ^4-pregnene-11-alpha,17-alpha,-21-triol-3,20-dione 11, 21-diacetate, and $\Delta^{5,16}$-pregnadiene-3β-ol-20-one from genetic contaminants, which comprises forming a halo-alkane adduct of the steroid, recovering the adduct, and treating the adduct to obtain the free steroid, the halo-alkane being a member of the group consisting of the relatively low-boiling chloro and bromo derivatives of methane and ethane.

2,849,461

METHOD FOR PREPARING 19-NOR, 17-α-ALKYL TESTOSTERONE

Pietro de Ruggieri, Milan, Italy

No Drawing. Application April 16, 1957
Serial No. 653,059
2 Claims. (Cl. 260—397.4)

1. A method of preparing 19-nor-17-α-alkyl testosterone comprising the steps of reacting compounds selected from the group consisting of 3-ethoxy-17-cyano-17-ol-estra-3-5-diene or 3-ethylendioxy-17-cyano-17-ol-estra-5-ene with an excess of an alkyl magnesium halide and of decomposing the product by hydrochloric acid.

2,849,462

METHOD FOR PREPARING 19-NOR 17-α-ETHYNYL TESTOSTERONE

Pietro de Ruggieri, Milan, Italy

No Drawing. Application April 16, 1957
Serial No. 653,060
1 Claim. (Cl. 260—397.4)

A method for preparing 19-nor,17-α-ethynyl testosterone comprising the steps of reacting compounds selected from the group consisting of 3-ethoxy-17-cyano-17-ol-estra,3-5-diene or 3-ethylenedioxy-17-cyano-17-ol-estra,5-ene, and acetylene in presence of potassium t.amyloxide and decomposing the product by hydrochloric acid.

2,849,463

PROCESS OF MAKING 3,20-DISEMICARBAZONE OF CORTISONE ACETATE

Robert Joly, Montmorency, Gerard Nomine, Noisy-le-Sec, and Jean Jolly, Fontenay-sous-Bois, France, assignors to Les Laboratoires Francais de Chimiotherapie, Paris, France, a French body corporate

No Drawing. Original application April 13, 1955, Serial No. 501,174. Divided and this application April 11, 1957, Serial No. 652,097
Claims priority, application France July 29, 1954
1 Claim. (Cl. 260—397.45)

In a process of preparing the 3,20-disemicarbazone of cortisone acetate, the steps comprising heating cortisone acetate at a temperature not substantially exceeding 50° C. in acetic acid containing about 1.5% of water in a nitrogen atmosphere with about 5 mols of semicarbazide hydrochloride and with the addition of disodium phosphate as buffer compound and separating the resulting disemicarbazone from the reaction mixture.

2,849,464

6-METHYL, Δ^4, 3-KETO ANDROSTENE DERIVATIVES

Milton E. Herr and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application May 27, 1957
Serial No. 661,624
8 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6-methyl-11β,17β-dihydroxy-4-androsten-3-one, 6-methyl-17β-hydroxy-4-androstene-3,11-dione, 6-methyl-11β,17β-dihydroxy-4-androsten-3-one 17β-acylate, 6-methyl-17β-hydroxy-4-androstene-3,11-dione 17β-acylate, wherein the acyl group is of a hydrocarbon carboxylic acid containing from one to nine carbon atoms, inclusive; 6-methyl-11β-hydroxy-4-androstene - 3,17 - dione and 6 - methyladrenosterone.

2,849,465

NEW COMPOUNDS AND METHODS OF MAKING SAME

David I. Randall, New Vernon, N. J., and Edgar E. Renfrew, Jr., Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application September 25, 1956
Serial No. 612,971
13 Claims. (Cl. 260—484)

1. A method for the preparation of nuclear chlormethylated derivatives of anilides having the following formula:

Ar—NH—COR

wherein R is a radical selected from the group consisting of alkyl, phenyl, halo phenyl and alkylated phenyl radicals, Ar represents a benzene nucleus containing at least one of the positions ortho and para to the amido group free of substituents which comprises treating the anilides at a temperature below about 30° C. with a mixture of bischlormethyl ether in sulfuric acid of at least 96% concentration.

2,849,466

PREPARATION OF α,β-UNSATURATED ACIDS

Otto Isler and Rudolf Ruegg, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application January 26, 1955
Serial No. 484,316
Claims priority, application Switzerland
February 12, 1954
2 Claims. (Cl. 260—410.9)

1. A process of making an α,β-unsaturated carboxylic acid which comprises the steps of reacting a β-halovinyl ether with an alkali metal amide in liquid ammonia, condensing the thus obtained alkali metal acetylide of an ethinyl ether in liquid ammonia with a carbonyl compound selected from the group consisting of aldehydes and ketones, converting the acetylenic condensation product obtained to an acetylenic carbinol; contacting said acetylenic carbinol with a liquid acidic medium thereby obtaining an ester of an α,β-unsaturated carboxylic acid, and hydrolyzing said ester.

2,849,467

SEPARATION OF RADIOACTIVE COLUMBIUM TRACER

Lawrence E. Glendenin and Howard Gest, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application November 29, 1945
Serial No. 631,774
12 Claims. (Cl. 260—429)

1. In a process for the recovery of carrier-free radioactive columbium from a solution containing values of radioactive columbium and radioactive tellurium, in which said values are separated from said solution by means of

an insoluble inorganic oxide carrier precipitate, the steps which comprise forming an aqueous acidic solution of said oxide precipitate and its associated columbium and tellurium values, introducing inactive tellurium in ionic form into said solution, effecting reduction of the tellurium in the resulting solution to the elemental state, separating the resulting insoluble elemental tellurium from the supernatant solution, contacting said supernatant solution with finely divided basic ferric acetate, separating the basic ferric acetate and its associated columbium values from the remaining solution, dissolving the separated basic ferric acetate and associated columbium values to form an aqueous acidic solution, and extracting the ferric ions from the resulting solution by means of an organic solvent.

2,849,468

AMINO ACID DERIVATIVES

Earl V. Cardinal, Deerfield, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application February 1, 1954
Serial No. 407,571
8 Claims. (Cl. 260—429.9)

1. A process for the preparation of zinc magnesium glutamate which comprises mixing an aqueous magnesium glutamate-containing solution with freshly precipitated zinc hydroxide at a pH between about 5.5 and about 11.0, and separating the insoluble zinc magnesium glutamate salt therefrom.

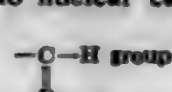
2,849,469

SUBSTITUTED DICYCLOPENTADIENYLIRON COMPOUNDS CONTAINING AT LEAST ONE ALDOMETHYL GROUP AND THEIR PREPARATION

Peter J. Graham, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 8, 1953
Serial No. 360,370
4 Claims. (Cl. 260—439)

4. A substituted dicyclopentadienyliron compound wherein the iron atom is attached to two cyclopentadienyl nuclei, at least one of said cyclopentadienyl nuclei having directly bonded to nuclear carbon thereof the aldomethyl



and each of said cyclopentadienyl nuclei having as its sole substituents, in addition to said iron atom, no more than one aldomethyl group and no more than one monovalent hydrocarbon radical selected from the class consisting of aromatic, saturated aliphatic, and saturated cycloaliphatic hydrocarbon radicals, each of not more than seven carbon atoms.

2,849,470

OXY-DICYCLOPENTADIENYL COMPOUNDS OF TRANSITION METALS OF GROUPS VI TO VIII AND THEIR PREPARATION

Richard Edward Benson, Claymont, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 6, 1954
Serial No. 448,371
25 Claims. (Cl. 260—439)

13. A compound of iron wherein the iron atom is directly bonded to two cyclopentadienyl nuclei, at least one of which nuclei has directly attached to a nuclear carbon thereof a carbacyloxy radical, free from aliphatic unsaturation and of not more than seven carbon atoms, each of said cyclopentadienyl nuclei having a total of not more than two carbacyloxy radicals separately attached to different nuclear carbons thereof, the remaining valences of the nuclear carbons of each cyclopentadienyl nuclei being satisfied, other than by hydrogen, solely and separately with a total of not more than two monovalent hydrocarbon radicals per each of said nuclei, said hydrocarbon radicals being free from aliphatic unsaturation, and each of not more than seven carbon atoms.

2,849,471

ORGANOMETALLIC CARBONYL HALIDE COMPOUNDS OF A GROUP VIII METAL DIRECTLY BONDED TO ONE CYCLOPENTADIENYL NUCLEUS AND TO HALOGEN AND CO-ORDINATELY BONDED TO AT LEAST TWO CARBONYL GROUPS, AND THEIR PREPARATION

John C. Thomas, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 28, 1955
Serial No. 484,830
17 Claims. (Cl. 260—439)

1. Process for preparing a cyclopentadienyliron dicarbonyl halide which comprises reacting a halogen in solution with bis(cyclopentadienyliron) tetracarbonyl at a temperature of 0 to 50° C.

5. An organometallic carbonyl halide of a group VIII metal in which said metal is co-ordinately bonded to each of at least two carbonyl groups and is further directly bonded to halogen and to a carbocyclic hydrocarbon radical containing a cyclopentadiene ring through nuclear carbon of said ring, said carbocyclic hydrocarbon radical containing not more than 12 carbon atoms.

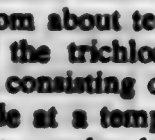
2,849,472

METHOD OF PREPARING ALKYNYL TRICHLOROSILANES

Arthur N. Pines, Snyder, and George H. Wagner, Clarence, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application June 28, 1954
Serial No. 439,892
2 Claims. (Cl. 260—448.2)

1. A process of dehydrochlorinating chloroalkenyl trichlorosilane having the formula



where R is an alkyl radical which comprises heating said trichlorosilane with from about ten percent to about fifty percent by weight of the trichlorosilane of compounds taken from the group consisting of isoquinoline and isoquinoline hydrochloride at a temperature of from about 160° C. to 250° C. to evolve hydrogen chloride from the reaction zone.

2,849,473

(CYCLOHEXEN-3-YL-1)-ETHYLSILOXANE BIS(DIMETHYL SILOXANE) CYCLIC TRIMER

Donald L. Bailey, Snyder, and William T. Black, Buffalo, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application October 31, 1955
Serial No. 544,038
2 Claims. (Cl. 260—448.2)

1. A chemical compound in the form of a cyclosiloxane polymer consisting of one (cyclohexen-3-yl-1)-ethyl siloxane unit and two dimethyl siloxane units.

2,849,474

ALKYLARYL THIO-URETHANS

Herman S. Bloch, Chicago, Ill., and Donald R. Strehlau, Drexel Hill, Pa., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application September 1, 1954
Serial No. 453,700
18 Claims. (Cl. 260—455)

1. An alkylaryl hydrocarbon N-substituted monothio-urethan having the empirical formula:

$$R(R')_s—Ar—NHCSOZ$$

wherein Ar is a polyvalent aryl hydrocarbon nucleus selected from the group consisting of the mono- and bi-

cyclic aryl hydrocarbons, *n* is a numeral selected from the group consisting of 0, 1, and 2, R is an alkyl group containing from 3 to about 20 carbon atoms, R' is an alkyl group containing from 1 to 2 carbon atoms, and Z is a monovalent radical of a member selected from the group consisting of a poly-(oxyalkylene) glycol, a poly-(oxyalkylene) glycol ether, a poly-(oxyalkylene) glycol ester, a polyhydroxy-substituted paraffinic hydrocarbon, a polyhydroxy-substituted cycloparaffinic hydrocarbon, and a carbohydrate.

8. A process for the production of an alkylaryl monothio-urethan which comprises reacting compound (1) with compound (2), said compound (1) consisting of: a mono-(alkylaryl)-substituted isothiocyanate in which said alkylaryl radical is substituted on the isothiocyanate nitrogen atom of said isothiocyanate and is selected from the group consisting of mono- and bicyclic aryl hydrocarbon radicals containing an alkyl substituent on the aryl nucleus having from 3 to about 20 carbon atoms, and said compound (2) is a polyoxy organic compound selected from the group consisting of a poly-(oxyalkylene) glycol, a poly-(oxyalkylene) glycol ether, a poly-(oxyalkylene) glycol ester, a polyhydroxy-substituted paraffinic hydrocarbon, a polyhydroxy-substituted cycloparaffinic hydrocarbon, and a carbohydrate.

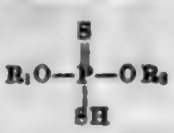
2,849,475

DIESTERS OF DITHIOPHOSPHORIC ACID

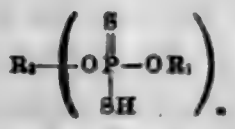
Joseph Emmett Carpenter, Greenwich, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 4, 1956
Serial No. 575,988
9 Claims. (Cl. 260—461)

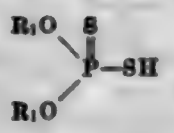
1. A process for the preparation of diesters of dithiophosphoric acid corresponding to a general formula selected from the group consisting of:



and

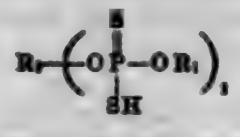


in which R_1 is an alkyl radical containing 1 to 6 carbon atoms, R_2 is a radical containing 7 to 30 carbon atoms selected from the group consisting of an aliphatic residue derived from a monohydric aliphatic alcohol and a phenylaliphatic residue derived from a monohydric phenylaliphatic alcohol, R_3 is a radical derived from a polyhydric aliphatic alcohol containing *n* hydroxyl groups and selected from the group consisting of a polyhydric alkylene radical and a polyhydric alkylene radical with oxygen atoms interrupting the carbon chain and in which *n* is a whole number from 2 to 4, inclusive, which comprises: bringing into reactive combination at temperatures between 40° C. and 110° C. a diester of dithiophosphoric acid of the general formula:

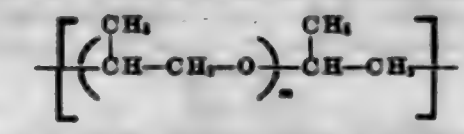


in which R_1 has the above-defined meaning, with a transesterifying alcohol selected from the group consisting of a monohydric aliphatic alcohol of 7 to 30 carbon atoms, a monohydric phenylaliphatic alcohol of 7 to 30 carbon atoms, and a polyhydric aliphatic alcohol containing of from 2 to 4 hydroxyl groups, said alcohol being selected from the group consisting of a polyhydric alkylene radical and a polyhydric alkylene radical with oxygen atoms interrupting the carbon chain; distilling off the resulting alcohol as formed under reduced pressure, and recovering the corresponding substantially transesterified compound as a principal product in the residue.

8. The compound which is represented by the general formula:



in which R_1 is an alkyl radical from 1 to 6 carbon atoms; and R_2 is a radical characterized by the grouping:



wherein *m* is a whole number from 1 to 39 inclusive.

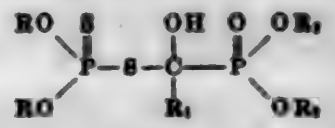
2,849,476

O,O-DIALKYL S-(1-DIALKYLPHOSPHONO-1-HYDROXY) ALKYL PHOSPHOROTHIOLOTHIONATES

Richard L. McConnell and Harry W. Coover, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

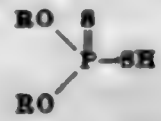
No Drawing. Application February 21, 1957
Serial No. 641,445
12 Claims. (Cl. 260—461)

1. As a composition of matter an organophosphorus compound having the structural formula:

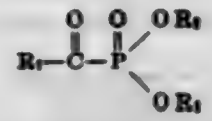


wherein R and R_2 are alkyl radicals, containing 1 to 4 carbon atoms, and R_1 is selected from the group consisting of phenyl, alkyl radicals containing 1 to 4 carbon atoms and chloroalkyl radicals containing 1 to 4 carbon atoms.

7. The method for producing organophosphorus compounds which comprises reacting a dialkyl phosphorothiolothionate having the structural formula:



wherein R is an alkyl radical containing 1 to 4 carbon atoms with a dialkyl acylphosphonate having the structural formula:



wherein R_1 is selected from the group consisting of phenyl, alkyl radicals containing 1 to 4 carbon atoms and chloroalkyl radicals containing 1 to 4 carbon atoms and R_2 is an alkyl radical containing 1 to 4 carbon atoms at a temperature within the range of −25 to 150° C.

2,849,477

PREPARATION OF α-ACYLAMINO-NITRILES

Alfred Dornow and Siegfried Löpfert, Hannover, Germany

No Drawing. Application June 6, 1957
Serial No. 663,869
Claims priority, application Germany June 12, 1956
8 Claims. (Cl. 260—465)

1. A process which comprises reacting an aromatic ketone imine with an α-keto-nitrile selected from the group consisting of lower alkanoyl cyanides and aryloyl cyanides.

2,849,478

PREPARATION OF NITRILES

Geoffrey Zubay, Cambridge, Mass., and Carl E. Johnson, Griffith, and Thomas D. Nevitt, Valparaiso, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application December 18, 1956
Serial No. 628,973
4 Claims. (Cl. 260—465.1)

1. A process for the preparation of nitriles which comprises contacting an amine having the general formula RCH_2NH_2, in which R is a hydrocarbon radical having from 1 to 15 carbon atoms, with a catalyst comprised essentially of about 1 to 10 weight percent of alkali metal oxide, about 10 to 50 weight percent of chromium oxide and the remainder essentially alumina at a temperature between 425° C. and 550° C. at a space velocity of at least 2 liquid volumes of amine/hour/volume of catalyst, and recovering nitriles from the reaction products.

2,849,479

S-NITROPHENYL CARBOXYALKYL DISULFIDES

Marvin Carmack, Bloomington, Ind., and John F. Harris, Jr., Wilmington, Del., assignors to the Trustees of the University of Pennsylvania, Philadelphia, Pa.

No Drawing. Application September 12, 1956
Serial No. 609,346
6 Claims. (Cl. 260—470)

1. An unsymmetrical nitrophenyl disulfide represented by the formula

R—S—S—R′—COOH

and its salts and esters, where R is a nitro-substituted phenyl group having from 1 to 2 nitro substituents and R′ is a radical having from 1 to 5 carbon atoms and selected from the class consisting of an open-chain hydrocarbon and an acyl-substituted open chain hydrocarbon radical.

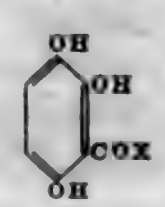
2,849,480

PROCESS FOR THE PREPARATION OF 2,3,6-TRIHYDROXYBENZOIC ACID AND DERIVATIVES

Algird Kreuchmann, Detroit, Mich.

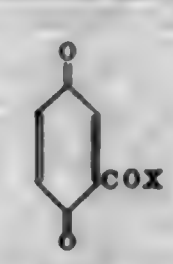
No Drawing. Application October 5, 1956
Serial No. 614,077
4 Claims. (Cl. 260—473)

1. In a process for preparing a compound of the formula:

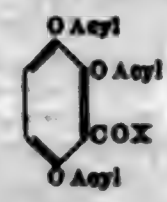


(I)

where X is a member of the group consisting of lower alkoxyl, amido and N,N-dialkylamido, the steps comprising treating a quinone of the formula



where X has the same significance as given above, with an acid anhydride in the presence of a preferred catalyst which is a member of the group consisting of sulfuric acid and boron trifluoride to obtain a compound of the formula



reacting the latter compound with an alcohol in the presence of a strong acid and recovering a compound of the Formula I.

2,849,481

WITHDRAWN

2,849,482

PRODUCTION OF NAPHTHALENE-2,6-DICARBOXYLIC ACID

Bernhard Raecke, Duesseldorf, Werner Stein, Duesseldorf-Holthausen, and Hubert Schirp, Duesseldorf, Germany, assignors to Henkel & Cie. G. m. b. H., Duesseldorf-Holthausen, Germany, a corporation of Germany

No Drawing. Application November 19, 1956
Serial No. 622,813
Claims priority, application Germany November 19, 1955
8 Claims. (Cl. 260—515)

1. The process of producing dialkali metal salts of naphthalene-2,6-dicarboxylic acid, which comprises heating a material selected from the group consisting of dialkali metal salts of naphthalic acid and mixtures consisting of naphthalic acid anhydride and an alkali metal carbonate, said mixtures forming dialkali metal salts of naphthalic acid at the reaction temperature, in a substantially oxygen-free, substantially anhydrous inert atmosphere to a temperature between about 340° C. and the temperature at which the starting materials and reaction products begin to decompose, until a substantial amount of the starting material has been transformed into the corresponding dialkali metal salt of naphthalene-2,6-dicarboxylic acid.

2,849,483

METHOD OF PURIFYING AROMATIC DICARBOXYLIC ACIDS

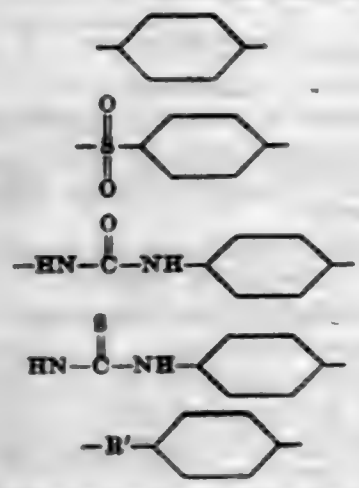
George E. Ham, Decatur, Ala., assignor to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware

No Drawing. Application July 30, 1954
Serial No. 446,963
11 Claims. (Cl. 260—516)

1. A process for purifying aromatic dicarboxylic acids having the formula:



wherein *n* is an integer from zero to one, inclusive, and R is a radical selected from the group consisting of

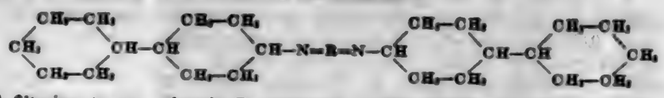


where R′ is an alkyl group containing from 1 to 8 carbon

atoms; O—R''— where R'' is an alkyl group containing from 1 to 6 carbon atoms; and



where R''' is an alkyl group containing from 1 to 6 carbon atoms, which comprises dissolving the acid in a recrystallization solvent selected from the group consisting of N-formyl morpholine and N-formyl piperidine at a temperature in the range of 50° C. to 160° C., cooling



the solution to crystallize the acid, and filtering to remove the purified crystallized dibasic acid.

2,849,484

SYNTHESIS OF CARBOXYLIC ACIDS

William H. Clingman, Jr., Texas City, Tex., assignor to The American Oil Company, Texas City, Tex., a corporation of Texas

No Drawing. Application November 30, 1956
Serial No. 625,231
6 Claims. (Cl. 260—533)

1. In a process for preparing carboxylic acids by intimately commingling an alicyclic paraffinic hydrocarbon with a liquid aqueous solution, passing a gaseous stream containing ozone through the resulting mixture, and separating a carboxylic acid from the resulting reaction products, the improvement which comprises including dichromate ion in the aqueous solution and maintaining the pH of said aqueous solution below 3.

2,849,485

CATALYTIC ALKYLATION OF UREAS

George M. Massie, Cuyahoga Falls, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application May 11, 1955
Serial No. 507,719
5 Claims. (Cl. 260—553)

1. The process which comprises contacting (I) a tertiary olefin containing up to 12 carbon atoms with (II) a substance selected from the group consisting of urea and N-alkylureas in which the alkyl groups contain from 1 to 10 carbon atoms in (III) a sulfuric acid medium containing from 1.5 to 2.0 moles of sulfuric acid per mole of said selected substance, in the presence of (IV) an ionic iron salt, said tertiary olefin reacting with said selected substance to alkylate the same, and said iron salt acting to bring about a state of operation which would require a greater amount of sulfuric acid in the absence of the iron salt.

2,849,486

NITROGENOUS CONDENSATION PRODUCT

William F. Tousignant, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 26, 1955
Serial No. 543,040
2 Claims. (Cl. 260—566)

1. A composition comprising a colorless, water soluble condensation product obtained by the reaction of from 2.0 to 2.5 moles of formaldehyde with one mole of 3,3'-diaminodipropylamine at a temperature not greater than 50° C.

2,849,487

N,N'-ALKANEDIYLIDENEBIS (BICYCLOHEXYL)-4-AMINES

Harry F. Brust, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 6, 1957
Serial No. 657,045
3 Claims. (Cl. 260—566)

1. An N,N'-alkanediylidenebis [(bicyclohexyl)-4-amine] having the formula

wherein R represents a alkanediylidene radical containing from 2 to 4 carbon atoms, inclusive.

2,849,488

ALKYLATION OF UREAS

Joseph C. Ambelang, Akron, and George M. Massie, Cuyahoga Falls, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application December 30, 1957
Serial No. 705,815
4 Claims. (Cl. 260—553)

1. The process which comprises contacting, at temperatures in the range −40° to +5° C., (I) a tertiary olefin containing up to 10 carbon atoms with (II) a reaction mass containing

	Moles
(A) A urea	1
(B) A substance selected from the group consisting of sulfuric acid and oleum	1–3
and	
(C) Sulfur dioxide	0.5–4.0

said urea (A) being selected from the group consisting of urea itself, mono-N-alkyl ureas in which the alkyl groups contain 1–10 carbon atoms, and di-N-alkyl ureas in which both alkyl groups are on one of the nitrogen atoms and contain 1–10 carbon atoms and said selected substance (B) ranging in composition from 80% sulfuric acid to 60% oleum, the reaction yielding mono-N-alkylated and di-N,N'-alkylated ureas in those cases where urea itself is selected, and yielding N,N'-alkylated ureas in those cases in which alkyl ureas are selected.

2,849,489

PRODUCTION OF 8-KETOTRICYCLODECANE

Karl Büchner, Duisburg-Hamborn, and Josef Meis, Oberhausen-Osterfeld, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a German corporation

No Drawing. Application April 19, 1954
Serial No. 424,278
Claims priority, application Germany May 8, 1953
6 Claims. (Cl. 260—586)

1. Process for the keto conversion of tricyclo-(5,2,1,$0^{2,6}$)-decene-(4)-ol-8 which comprises contacting at a temperature between about 100–250° C., tricyclo-(5,2,1,$0^{2,6}$)-decene-(4)-ol-8 with a dehydrogenating-hydrogenating catalyst selected from the group consisting of metals of the 8th group and metals of the 1st and 8th group of the periodic system activated with a metal oxide of the 2nd group of the periodic system, and recovering the tricyclodecane-(5,2,1,$0^{2,6}$)-one-8 formed.

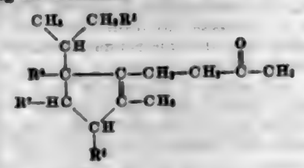
2,849,490

HYDROGENATED KETONES AND THEIR PREPARATION

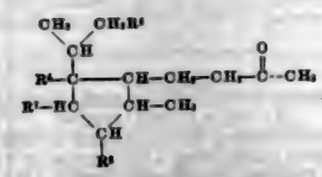
George O. Chase, Hawthorne, and Walter Kimel, Highland Park, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application August 13, 1956
Serial No. 603,790
7 Claims. (Cl. 260—586)

1. A compound selected from the group consisting of those having the formulas



and



wherein, in each of the foregoing formulas, each of the symbols R^3, R^6, R^7 and R^8 represents a member from the group consisting of hydrogen and lower alkyl radicals.

2,849,491

6,8-DIMETHYL-5-NONEN-2-ONE

Joseph Donald Surmatis, West Caldwell, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Original application December 7, 1954, Serial No. 473,726, now Patent No. 2,806,887, dated September 17, 1957. Divided and this application March 26, 1957, Serial No. 648,517
1 Claim. (Cl. 260—593)

6,8-dimethyl-5-nonen-2-one.

2,849,492

PROCESS FOR THE OXIDATION OF METHANOL TO FORMALDEHYDE USING UNSUPPORTED CATALYST

Charles L. Allyn, Eugene M. Barrentine, Theodore S. Hodgins, and Frederic J. Shelton, Seattle, and Ralph L. Rawson, Mercer Island, Wash., assignors to Reichhold Chemicals, Inc., Detroit, Mich.

Original application August 27, 1954, Serial No. 452,684, now Patent No. 2,812,309, dated November 5, 1957. Divided and this application May 23, 1957, Serial No. 666,498
1 Claim. (Cl. 260—603)

A method of making formaldehyde which comprises passing methanol and an oxidizing gas through a converter at a superatmospheric temperature in the presence of a mixed molybdenum iron oxide oxidation catalyst formed within the converter by heating and air blowing an inactive catalyst precursor comprising a partially hydrated mass having a pH on the acid side, and consisting principally of a mixture of molybdenum and iron oxides in the molecular ratio of MoO_3 to Fe_2O_3 of from 3.3:1 to 11.2:1 having a specific gravity between 2.9 and 4.3 and a moisture content within the approximate range of 5% to 30%, the air blowing of the catalyst precursor being continued until substantially all traces of moisture are removed prior to introduction of the methanol into the converter.

2,849,493

PROCESS FOR THE OXIDATION OF ALKANOL TO ALDEHYDE USING SUPPORTED CATALYST

Frederic J. Shelton and Eugene M. Barrentine, Seattle, Wash., assignors to Reichhold Chemicals, Inc., Detroit, Mich.

Original application August 27, 1954, Serial No. 452,685, now Patent No. 2,812,308, dated November 5, 1957. Divided and this application May 24, 1957, Serial No. 666,499
2 Claims. (Cl. 260—603)

1. A process for making aldehyde which comprises passing an alkanol and an oxygen containing gas through a converter at superatmospheric temperature in the presence of a supported active catalyst formed within the converter by heating and air blowing an inactive supported catalyst precursor produced by forming in situ an iron molybdenum oxalate coating upon a carrier selected from a group consisting of carbides and sintered iron oxide and partially drying said coating to a moisture content of from 2 to 25% by weight of the coating, the partially dried coating having a molar ratio of MoO_3 to Fe_2O_3 of between 3.4 and 11.1, the air blowing of the catalyst precursor being continued until substantially all traces of moisture and any remaining gas are removed prior to the introduction of the alkanol into the converter.

2,849,494

2,2'-THIOBIS(POLYHALOPHENOLS)

Robert H. Cooper, Nitro, and Kenneth L. Godfrey, St. Albans, W. Va., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 17, 1956
Serial No. 585,377
6 Claims. (Cl. 260—609)

1. The method of making a 2,2'-thiobis(halogen substituted phenol) containing halogen at least in the 4- and 6-positions which comprises heating at 50–90° C. the halogen substituted phenol selected from the class consisting of 2,4 and 2,4,5 halogen substituted phenols and a sulfur halide wherein the halogen is selected from a group consisting of chlorine and bromine in a solvent inert to the reactants in the presence of at least about 2.5 but not more than about 15 parts by weight of aluminum chloride per molecular weight of halophenol.

2,849,495

PREPARATION OF 3,4-DEHYDRO-β-CAROTENE

Otto Isler, Basel, Herbert Lindlar, Reinach, Basel, Marc Montavon and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application December 15, 1955
Serial No. 553,218
Claims priority, application Switzerland December 24, 1954
11 Claims. (Cl. 260—617)

8. A process which comprises condensing 10-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-4,8-dimethyl-4,6,8-decatrien-1-yn-3-ol with approximately one molar proportion of 8-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,6-dimethyl-2,4,6-octatrien-1-al thereby forming 1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-18-(2,6,6-trimethyl-1-cyclohexen-1-yl)-3,7,12,16-tetramethyl-8,11-dihydroxy-2,4,6,12,14,16-octadecahexaen-9-yne; reacting the latter with hydrogen halide selected from the group consisting of hydrogen chloride and hydrogen bromide, thereby forming the corresponding 1-2,6,6-trimethyl-1,3-cyclohexadien-1-yl)-18-2,6,6-trimethyl-1-cyclohexen-1-yl)-3,7,12,16-tetramethyl-2,17-dihalo-3,5,7,11,13,15-octadecahexaen-9-yne, and dehydrohalogenating the latter, thereby forming 3,4-15,15'-bisdehydro-β-carotene; partially hydrogenating the latter at the triple bond thereby forming

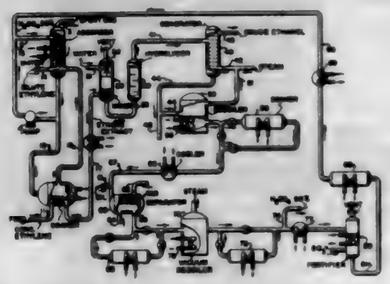
3,4-dehydro-15,15'-mono-cis-β-carotene; and isomerizing the latter thereby forming all-trans-3,4-dehydro-β-carotene.

2,849,496

TREATMENT FOR REDUCTION OF FOAMING CHARACTERISTICS OF CONTAMINATED SULFURIC ACID IN ETHANOL PRODUCTION

Thomas H. Hakala, Union, and Walter R. F. Guyer, Short Hills, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 28, 1954, Serial No. 458,751
3 Claims. (Cl. 260—639)



1. In an ethanol synthesis process wherein ethylene gas is absorbed in 95 to 99% sulfuric acid in an ethylene absorption zone, the resulting extract is hydrolyzed by aqueous dilution to an acid strength of about 45 to 50%, the crude ethanol is stripped from the hydrolyzed extract, the remaining black dilute acid of about 45 to 50% acid strength and containing carbonaceous impurities is reconcentrated to an intermediate level of about 65 to 70% H_2SO_4 by distilling off water in an atmospheric evaporation zone, the reconcentrated 65 to 70% acid is cooled and then washed with an inert, immiscible oil in a tar separation zone, the resulting carbon-containing oil layer is separated from the washed acid layer, the washed acid layer is further reconcentrated to at least 90% H_2SO_4 by distilling off water in a vacuum distillation zone at a pressure of 25 to 125 mm. Hg, the resulting reconcentrated 90+% acid is fortified to at least 95% H_2SO_4 by addition of sulfur trioxide thereto, and the fortified acid is recycled to the ethylene absorption zone; the improvement which comprises heat soaking the sulfuric acid after it has been reconcentrated to at least 90% H_2SO_4 at a temperature of 150° to 280° C. for a period of 1 to 15 hours and under a pressure sufficient to prevent boiling of the acid until the foaming characteristics of the acid have been sufficiently reduced, and then cooling the heat-soaked acid.

2,849,497

PREPARATION OF NITROBENZENE

Mike Edward Buchanan, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application October 10, 1956, Serial No. 615,169
4 Claims. (Cl. 260—645)



1. A continuous process for the manufacture of nitrobenzene which comprises (1) continuously introducing separately into a primary reaction zone a solution of nitrobenzene in benzene and an aqueous mixture of nitric and sulfuric acids, (2) continuously removing the reaction mass from said reaction zone and transferring said mass to a settling zone, (3) continuously removing acid-wet nitrobenzene from the top of said settling zone and spent acid from the bottom thereof, said spent acid being transferred to a denitrating zone, (4) continuously introducing benzene to said denitrating zone and agitating same with said spent acid to remove the major portion of previously unreacted nitric acid therein by the formation of nitrobenzene, (5) continuously removing said last-named nitrobenzene in benzene solution from said denitrator and introducing same into the primary reaction zone, and (6) continuously recycling at least a portion of the denitrated spent acid which is discharged from the denitrating zone into contact with the acid-wet nitrobenzene from the settling zone to remove a major portion of the dissolved nitric acid therefrom whereby said nitric acid may be recovered and fed to the denitrator for reaction there with benzene to form additional nitrobenzene.

2,849,498

PROCESSING OF BENZENE HEXACHLORIDE ALCOHOLIC SOLUTIONS

Leo Daniker, Kenmore, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application April 4, 1952
Serial No. 280,650
4 Claims. (Cl. 260—648)

1. In a process for the refining of benzene hexachloride wherein the benzene hexachloride is present in alcoholic solution in contact with a metal subject to corrosion by the alcoholic solution, the step which comprises adding to the alcoholic solution a nitrate of a metal selected from the group consisting of alkali metals and alkaline earth metals in an amount sufficient to inhibit the corrosion.

2,849,499

COMPOSITION OF MATTER HAVING THE FORMULA $C_{10}Cl_{12}$ AND PROCESS FOR ITS PREPARATION

Earl T. McBee, West Lafayette, and James D. Idol, Jr., Lafayette, Ind., assignors to Purdue Research Foundation, Lafayette, Ind., a corporation of Indiana

No Drawing. Application June 27, 1955
Serial No. 518,397
2 Claims. (Cl. 260—648)

1. A composition of matter having the empirical formula $C_{10}Cl_{12}$ and melting at 221 to 223 degrees centigrade.

2. The process which includes: introducing chlorine into a dispersion of bis(pentachlorocyclopentadienyl); irradiating the reaction mixture at a temperature of approximately 15 degrees centigrade; and separating from the reaction mixture a composition having the empirical formula $C_{10}Cl_{12}$ melting at 221 to 223 degrees centigrade.

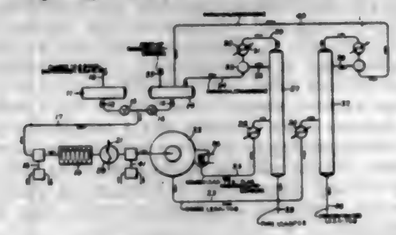
2,849,500

PURIFICATION OF 1,2,4,5-TETRACHLOROBENZENE BY PRESSING

Delbert L. Hanna, Oak Park, Ill., assignor to Allied Chemical Corporation, New York, N. Y., a corporation of New York

Application October 4, 1955, Serial No. 538,331
6 Claims. (Cl. 260—650)

1. The process of recovering crystalline 1,2,4,5-tetrachlorobenzene from mixture thereof with liquor impurities comprising 1,2,3,4-tetrachlorobenzene which comprises incorporating crystalline paradichlorobenzene into said mixture, subjecting the resultant mixture of 1,2,4,5-tetrachlorobenzene and paradichlorobenzene crystals to pressure of at least 200 pounds per square inch whereby the paradichlorobenzene crystals deform, flow into, and at least partially fill the interstices between the crystals of 1,2,4,5-tetrachlorobenzene, and liquor impurities comprising 1,2,3,4-tetrachlorobenzene contained



within the said interstices are displaced therefrom, and separating said displaced liquor impurities from said crystals of 1,2,4,5-tetrachlorobenzene and of paradichlorobenzene.

2,849,501

PROCESS FOR MAKING CHLOROMESITYLENE

Frank H. Bolton, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 18, 1957
Serial No. 646,545
11 Claims. (Cl. 260—650)

1. A process for making mono- and dichloromesitylenes which comprises reacting chlorine with a mixture of aromatic hydrocarbons having nine carbon atoms in the molecule and substantially free of unsaturated side chains and boiling at temperatures between 155° and 200° C. at atmospheric pressure and containing at least 5 percent by weight of mesitylene by introducing chlorine into admixture with the liquid aromatic hydrocarbons in amount corresponding to from 0.75 to 1.5 gram molecular proportion of the chlorine per gram molecular proportion of the mesitylene substantially without exposure of the mixture to actinic radiation and at reaction temperatures between —10° and 110° C. and separating the chlorinated mesitylenes from the unchlorinated aromatic hydrocarbons.

2,849,502

1,1,1-TRIFLUORO-2-BROMO-2-CHLOROETHANE AND A PROCESS OF MAKING IT

Charles Walter Suckling, Widnes, and James Raventos, Blackley, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application October 18, 1955
Serial No. 539,689
Claims priority, application Great Britain
October 20, 1954
3 Claims. (Cl. 260—653)

1. The new chemical compound 1:1:1 - trifluoro - 2-bromo-2-chloroethane.

2. Process for the manufacture of 1:1:1-trifluoro-2-bromo - 2 - chloroethane which comprises chlorinating 1:1:1-trifluoro-2-bromoethane with chlorine in the gaseous phase at a temperature from about 300° to 475° C. and wherein the molar ratio of said 1:1:1-trifluoro-2-bromoethane to said chlorine is from about 5:1 to 1:1.

2,849,503

GEOMETRIC ISOMERS OF 1,3-DICHLORO-BUTADIENE

Kenneth C. Eberly, Akron, and Robert J. Reid, Canal Fulton, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application December 23, 1953
Serial No. 400,129
3 Claims. (Cl. 260—655)

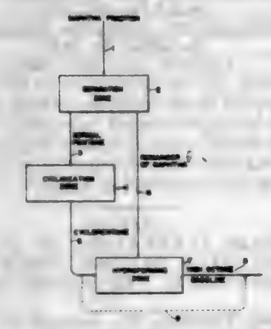
1. A 1,3-dichloro-1,3-butadiene.

2,849,504

CYCLIZATION OF ALIPHATIC HYDROCARBONS

Chia-chen C. Kang, Newark, and John M. McCrea, Jersey City, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application February 10, 1954, Serial No. 409,504
19 Claims. (Cl. 260—666)



1. A process which comprises subjecting a naphtha fraction containing a straight chain hydrocarbon selected from the group consisting of a C_6 hydrocarbon, a C_7 hydrocarbon and mixtures thereof to a separation treatment whereby a straight chain hydrocarbon is removed therefrom, contacting at least the remainder of the naphtha fraction with a platinum catalyst under suitable reforming conditions in a reforming zone to produce a high octane quality gasoline material, treating a catalyst comprising about 5 to about 25% by weight of platinum with a hydrogen containing gas, contacting the straight chain saturated hydrocarbon with the treated platinum catalyst at a temperature of about 250°, to about 420° C., a pressure of about 1 to about 70 p. s. i. a., and a weight space velocity of about 0.001 to about 2 thereby producing a cyclopentane compound, and combining the cyclopentane compound with the remainder of the naphtha fraction.

2,849,505

ALKYLATION CATALYST COMPRISING A TIN HALIDE AND METALLIC ALUMINUM

Louis Schmerling, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application July 18, 1955
Serial No. 522,843
10 Claims. (Cl. 260—666)

1. A process which comprises alkylating an alkylatable compound with an alkylating agent at alkylating conditions in the presence of an alkylation catalyst comprising a tin halide and metallic aluminum.

2,849,506

PREPARATION OF 15,15'-CIS-β-CAROTENE

Otto Isler, Basel, Herbert Lindlar, Reinach, Basel, and Rudolf Rüegg, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application December 13, 1955
Serial No. 552,723
Claims priority, application Switzerland
December 24, 1954
3 Claims. (Cl. 260—666)

1. A process for the preparation of 15,15'-cis-β-carotene which comprises catalytically hydrogenating a mixture of 15,15'-dehydro-β-carotene and an inert hydrocarbon liquid, wherein initially at least a major proportion of the said dehydrocarotene is in suspension in said hydrocarbon liquid.

2,849,507

PREPARATION OF ALL-TRANS-CAROTENOID COMPOUNDS

Otto Isler, Basel, Herbert Lindlar, Reinach, Basel Land, Marc Montavon and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application December 15, 1955
Serial No. 553,216
Claims priority, application Switzerland
December 24, 1954
4 Claims. (Cl. 260—666)

1. A process for the preparation of an all-trans-carotenoid compound which comprises heating a mixture of a 15,15'-mono-cis-C_{40}-carotenoid compound and an inert hydrocarbon liquid, wherein initially at least a major proportion of the said mono-cis-carotenoid compound is in suspension in said hydrocarbon liquid.

2,849,508

SIDE CHAIN ALKYLATION OF ALKYLAROMATICS WITH OLEFINS USING AN ORGANOMETALLIC COMPOUND AS CATALYST

Herman Pines, Evanston, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application June 8, 1955
Serial No. 514,114
22 Claims. (Cl. 260—668)

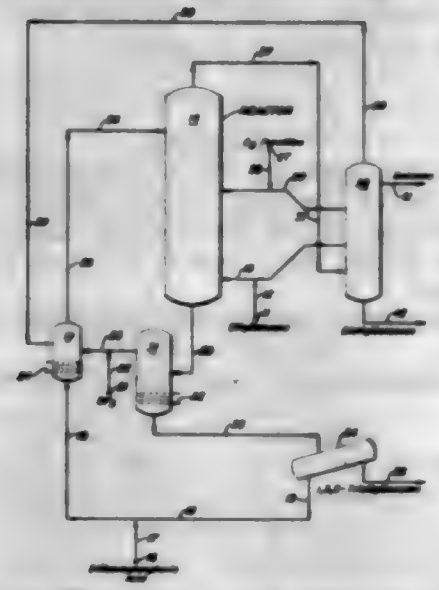
1. In a process which comprises reacting a nonconjugated olefinic hydrocarbon and an aromatic compound selected from the group consisting of carbocyclic aromatic and heterocyclic aromatic ring compounds having attached to a nuclear carbon atom a carbon atom of a hydrocarbon group selected from the group consisting of an alkyl group, a cycloalkyl group, a cycloalkalkyl group, and an aralkyl group, and to which last-named carbon atom is attached at least one hydrogen atom, the improvement which comprises carrying out the reaction at a temperature of from about 100° to about 350° C. and at a pressure of from about 5 to about 50 atmospheres in the presence of a free alkali metal and of a minor promoting amount of a conjugated polyolefinic hydrocarbon capable of reacting with a portion of said free alkali metal to form an organoalkali metal compound, and recovering the resultant condensation products.

2,849,509

PROCESS FOR CONVERSION OF ALKYLBENZENES WITH A DIFLUOROPHOSPHORIC ACID-BF_3 CATALYST

John I. Slaughter, Beaver Dams, N. Y., and David A. McCaulay, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application December 20, 1955, Serial No. 554,461
13 Claims. (Cl. 260—668)



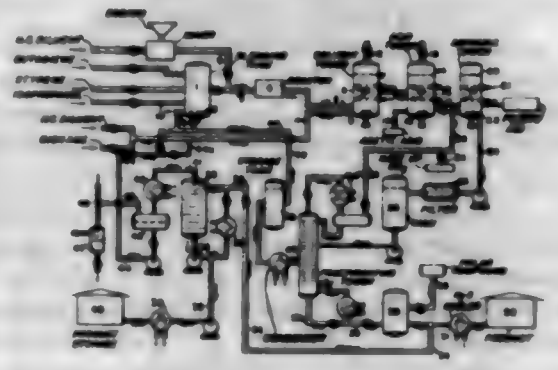
1. A process for the catalytic conversion of alkylbenzenes having between 1 and 4 carbon atoms inclusive in any one alkyl side chain, the sum of the carbon atoms in the total number of side chains being at least 2 carbon atoms per alkylbenzene molecule, which process comprises contacting said alkylbenzene with between about 1 and 10 volumes of difluorophosphoric acid per volume of alkylbenzene in the presence of a partial pressure of BF_3 of between about 100 and 5000 p. s. i. g. at a temperature between about 0° and 300° F. for a period of time between about 20 hours and 1 minute, the longer times corresponding to the lower temperatures, removing BF_3 from contact with the hydrocarbons and acid, separating an acid phase from a hydrocarbon phase, and recovering converted alkylbenzenes from said hydrocarbon phase.

2,849,510

PROCESS FOR PREPARING HYDROCARBON DRYING OIL PRODUCT BY CO-POLYMERIZING A BUTADIENE AND STYRENE

Stanley E. Jaros, Watchung, and Joseph F. Nelson, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application February 1, 1955, Serial No. 485,392
3 Claims. (Cl. 260—669)



1. Process for producing a polymeric hydrocarbon drying oil which comprises continuously adding a feed mixture of 75 to 85 parts of butadiene, 25 to 15 parts of styrene, 200 to 300 parts of an inert hydrocarbon diluent boiling between 150 and 200° C., about 5 to 50 parts of an ether modifier having 2 to 8 carbon atoms per molecule, chosen from the group consisting of alkyl ethers and cyclic diethers having the oxygen atoms separated by at least two carbon atoms, and about 1 to 5 parts of finely divided alkali metal catalyst, and 10 to 50% of an alcohol, based on alkali metal, to a first polymerization zone, reacting said mixture without further addition of feed and catalyst until a conversion of 40–80% is obtained at a temperature of 55–75° C., then commencing the continuous introduction of feed and catalyst, continuously passing the reactants to a second polymerization zone while continuing the reaction in the first zone by the introduction of feed and catalyst, maintaining the reaction in the second zone at a temperature of 60–75° C. and then completing the conversion in a third zone at a temperature of 65–80° C. while continuing the polymerization in the first two zones.

2,849,511

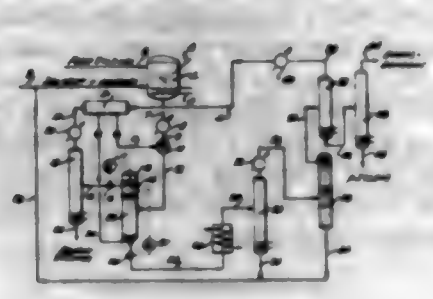
SEPARATION OF ORGANIC COMPOUNDS

William D. Schaeffer, Ontario, Art C. McKinnis, Long Beach, and William Smith Dorsey, Fullerton, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application May 25, 1953, Serial No. 356,993
31 Claims. (Cl. 260—674)

1. A process for resolving a mixture of aromatic hydrocarbons differing in molecular configuration by ex-

tractive crystallization with a solid Werner complex, said Werner complex consisting of a metal salt coordinated with 2 to 6 moles of a heterocyclic nitrogen base, which comprises dissolving said hydrocarbons and said Werner complex in a solvent consisting essentially of a lower aliphatic poly-alcohol containing not more than three hydroxyl groups, cooling the resulting solution to pre-



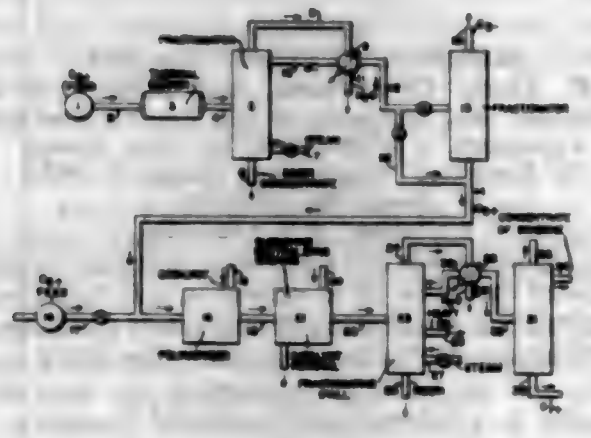
cipitate a solid clathrate phase composed of said Werner complex containing intimately absorbed therein the most readily clathratable fraction of said hydrocarbons, thereby leaving a less readily clathratable fraction of said hydrocarbons in a phase distinct from said solid clathrate phase, and thereafter recovering said hydrocarbon fractions separately from said two phases.

2,849,512

PREPARATION OF OLEFINIC-AROMATIC FEEDS FOR SOLVENT EXTRACTION

Fred W. Banes and Joseph F. Nelson, Westfield, and Robert F. Leary, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application October 14, 1953, Serial No. 386,950
2 Claims. (Cl. 260—674)



1. Process for selectively removing reactive dienes and tertiary alkenes from a C_5 to C_8 hydrocarbon fraction in which they are present with cyclic dienes, primary alkene and aromatic hydrocarbons, which comprises heating the fraction at about 80 to 120° C. to selectively dimerize the cyclic dienes, distilling unreacted acylic dienes, alkene and aromatic components from the dimerized cyclic dienes, removing components lower boiling than 38° C. from the distilled components by fractionation selectively polymerizing tertiary alkenes and acyclic dienes in said distilled and fractionated components boiling above 38° C. mixed with 0.25 to 2 wt. percent $AlCl_3$ at —10 to 70° C. until 1 to 10 wt. percent of the acyclic dienes remain unreacted, stopping the polymerizing before more than 20% of primary alkenes present are reacted, then distilling the remaining unreacted aromatic, acyclic diene, and alkene components from higher boiling polymers and resins formed from the tertiary alkenes and the dienes.

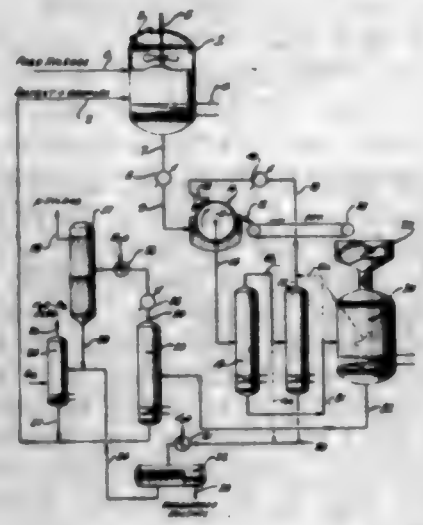
2,849,513

SEPARATION OF HYDROCARBONS BY CLATHRATE FORMATION WITH WERNER COMPLEX COMPOUNDS

William D. Schaeffer, Ontario, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application December 7, 1953, Serial No. 396,636
26 Claims. (Cl. 260—674)

1. A process for resolving a mixture of aromatic hydrocarbons differing in molecular configuration by extractive crystallization with a solid Werner complex, said Werner complex consisting of a metal salt coordinated with 2 to 6 moles of a heterocyclic nitrogen base, which comprises dissolving said hydrocarbons and said Werner complex in a solvent, said solvent consisting essentially of a lower aliphatic mono-alcohol containing at least three carbon atoms, cooling the resulting solution to precipi-



tate a solid clathrate phase composed of said Werner complex containing intimately absorbed therein the most readily clathratable fraction of said hydrocarbons, thereby leaving a less readily clathratable fraction of said hydrocarbons in a phase distinct from said solid clathrate phase, and thereafter recovering said hydrocarbon fractions separately from said two phases.

2,849,514

EXTRACTION OF HYDROCARBON MIXTURES WITH HYDROXY SULFONES

Thomas D. Nevitt, Crown Point, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application April 21, 1955
Serial No. 503,826
11 Claims. (Cl. 260—674)

1. A process for the selective separation of a hydrocarbon from a mixture of hydrocarbons of diverse homologous series, which process comprises selectively extracting said mixture with a liquid solvent conforming to the formula $RSO_2CH_2(CH_2)_nOH$, wherein R is an alkyl group containing 1 to 3 carbon atoms, inclusive, and n is 1 to 2, inclusive.

2,849,515

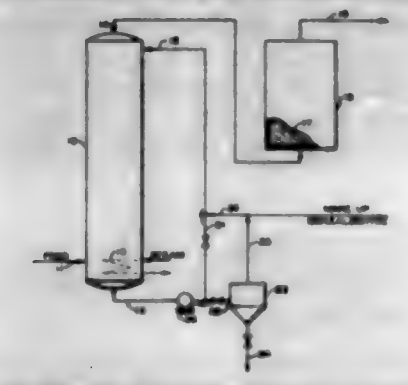
REMOVAL OF OXYGEN FROM GASEOUS MIXTURES

Gerald T. Leatherman and James T. Edmonds, Jr., Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application May 9, 1955, Serial No. 506,692
7 Claims. (Cl. 260—677)

1. A process for the substantially complete removal of oxygen from a polymerization process feed stream containing ethylene and less than 1 weight percent oxygen which comprises continuously passing said ethylene-con-

taining stream to a reaction zone; intimately contacting said ethylene-containing stream with a stoichiometric excess of an aromatic aldehyde selected from the group consisting of benzaldehyde, tolualdehyde, chlorobenzaldehyde, hydroxy-benzaldehyde, and aminobenzaldehyde dissolved in a normally liquid hydrocarbon in said reaction zone at a pressure in the range of about atmospheric to about 600 p. s. i. g., and a temperature in the range of about room temperature to about 200° F. so that the aromatic aldehyde reacts with the oxygen to form the corresponding aromatic acid; withdrawing a liquid slurry of said aromatic



aldehyde in said liquid hydrocarbon; recovering aromatic acid from said slurry as a product of the process; adding aromatic aldehyde to said reaction zone to replace aromatic aldehyde converted to aromatic acid; removing a gaseous, substantially oxygen-free, ethylene-containing stream from said reaction zone; passing said substantially oxygen-free stream to an adsorption zone packed with an adsorbent material so as to adsorb entrained aromatic aldehyde and liquid hydrocarbon; and recovering a substantially oxygen-free, ethylene-containing stream from said adsorption zone as an additional product of the process.

2,849,516

SHAPED RUBBER COMPOSITIONS CONTAINING PETROLEUM CRESYLIC ACID MONOSULFIDES

Harry E. Albert, Akron, Ohio, and Lloyd O. Bentz, Lancaster, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application December 24, 1953
Serial No. 400,342
2 Claims. (Cl. 260—810)

1. A white, shaped, sulfur-vulcanized composition of natural rubber which is adapted to be stretched dynamically, contains sufficient white pigment to make the composition white and contains as a non-discoloring antiozone agent, a small amount of monosulfide of a cresylic acid of petroleum origin which (1) is substantially free from phenol and (2) contains monoalkylphenols, dialkylphenols and trialkylphenols and (3) boils above 195° C. and no higher than 250° C.

2,849,517

PROCESS OF VULCANIZING RUBBER CONTAINING BIS - ALPHA - METHYLBENZYL - SUBSTITUTED PHENOL MONOSULFIDES AND RESULTING PRODUCTS

Harry E. Albert, Lafayette Hill, Pa., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Continuation of application Serial No. 400,347, December 24, 1953. This application April 11, 1957, Serial No. 652,105
14 Claims. (Cl. 260—810)

1. A sulfur-vulcanized composition of natural rubber which contains a small amount of bis-2,4-disubstituted phenol monosulfide in which one substituent is an alpha-methylbenzyl group and the other substituent is from the class consisting of alkyl, cycloalkyl and aralkyl groups containing up to nine carbon atoms.

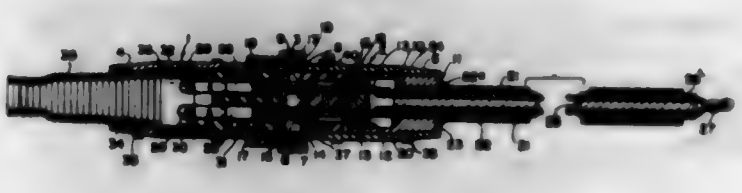
ELECTRICAL

2,849,518

TEMPERATURE INDICATOR

Charles M. MacDonald, Cincinnati, Ohio

Application October 12, 1953, Serial No. 385,566
3 Claims. (Cl. 136—4)



3. A thermo-couple temperature indicator comprising a tubular metal casing, a thermo-couple comprising metal leads supported by and extending axially of said casing, an elongated metal tube enclosing the metal leads of the thermo-couple, insulating material disposed between said metal leads and said metal tube, a cylindrical shaped metal cup having a coefficient of expansion substantially that of glass snugly fitting in the outer end of said casing and extending coaxially thereof, said metal cup having a cylinder-shaped inner end portion defining a chamber, a ceramic plug fitted into said inner end portion and sealing said chamber, said plug and said metal cup having substantially the same coefficient of expansion, and said plug being of substantially uniform thickness throughout its length, and leading-in conductors extending through said plug and sealed thereto which conductors are connected to said thermo-couple leads within said chamber.

2,849,519

STORAGE BATTERY PLATES

Clark R. Frese, Philadelphia, and William S. Graff, Wyndmoor, Pa., assignors to The Electric Storage Battery Company, a corporation of New Jersey

No Drawing. Application August 3, 1954
Serial No. 447,640
5 Claims. (Cl. 136—28)

5. A positive plate for silver-zinc batteries comprising comminuted particles of a substance selected from the group consisting of silver oxide and silver peroxide, only the particles on the surfaces of said plate being sintered together, and the particles throughout the body of said plate being in a porous and unsintered condition.

2,849,520

CELL CONSTRUCTION

Michael A. Piccirillo, Maywood, N. J., assignor to Vitro Corporation of America, Verona, N. J.

Application July 28, 1953, Serial No. 370,843
10 Claims. (Cl. 136—89)



7. The method of assembling a cell comprising the steps of casting an elongated element formed from light sensitive material in a body of insulating material, boring

a hole adjacent and physically separated from each end of said element through said body, inserting a conductor in each hole, sealing said conductors in said body, cutting away segmental portions of said body to expose the end surfaces of said element and areas of said conductors, and applying an electrically conductive coating to the body, corresponding end surfaces and areas of the corresponding conductors for electrically connecting said end surfaces and their respective conductors.

2,849,521

MULTI-PLY WASHER FOR THE PREVENTION OF ELECTROLYTE CREEPAGE

George W. Heise and Nelson C. Cahoon, Fairview Park, Ohio, assignors to Union Carbide Corporation, a corporation of New York

Application September 21, 1954, Serial No. 457,508
5 Claims. (Cl. 136—133)



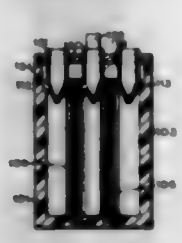
1. A method of eliminating electrolyte creepage in dry cells, which comprises at least partially covering the electrolyte-wet depolarizing mix body with a multi-ply washer comprising a plurality of absorbent materials separated by an electrolyte-immobilizing material selected from the group which consists of starch, methyl cellulose, hydroxy alkyl cellulose ethers, polyvinyl alcohol, salts of cellulose glycolic acid, locust bean gum and guar gum, and sealing the cell.

2,849,522

ELECTRICAL ACCUMULATORS

Paul Garine, Paris, France, assignor to Yardney International Corp., New York, N. Y., a corporation of New York

Application November 2, 1953, Serial No. 389,817
Claims priority, application Switzerland November 11, 1952
4 Claims. (Cl. 136—143)



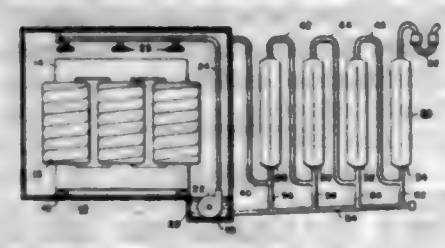
1. In an electric battery, in combination, a casing having a bottom and sides, rigid electrolyte-swellable inter-electrode separator means dividing said casing into separate electrode compartments, and resilient retaining means secured to said casing along the bottom and sides thereof, said retaining means yieldably engaging said separator means along the lower and lateral edges thereof, thereby forming a continuous seal along said edges while enabling swelling of said separator means.

2,849,523

ELECTRICAL APPARATUS WITH VAPORIZABLE LIQUID COOLANT

Paul Narbutovskih, now by judicial change of name Paul Narbut, Sharpsville, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 16, 1952, Serial No. 304,729
7 Claims. (Cl. 174—15)



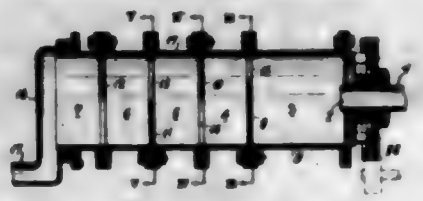
5. In electrical apparatus, in combination, a casing for the electrical apparatus, an electrical conductor disposed in the casing, a vaporizable fluorinated organic liquid coolant boiling between 50° C. and 225° C. for circulation in the casing to dissipate heat from the electrical apparatus, means for circulating the liquid coolant in the casing and applying it to the electrical apparatus whereby when the temperature of the electrical apparatus is above the temperature of vaporization of the liquid coolant the cooling of the electrical apparatus is effected mainly by the conversion of the liquid coolant into a condensable vapor, a plurality of cooling units for condensing the vaporized liquid coolant associated with the casing, the means for condensing the vaporized liquid coolant containing a gas, a connection for transferring the vaporized liquid coolant from the casing to the cooling units for condensing the vaporized liquid coolant, a return conduit connected to the lower end of each cooling unit for returning the condensed coolant to the casing for further use in the cooling process, said return conduit being adapted to prevent the flow of the vaporized coolant from the casing to the cooling units and from one cooling unit to another through the return conduit, and means for venting during normal operation of the electrical apparatus the gas contained in the means for condensing the vaporized coolant at predetermined pressures.

2,849,524

FLOW INTERRUPTER FOR MERCURY CELL BATTERY CIRCUITS

Naojiro Matsuo, Musashino, Shogo Fujioka, Osaka, and Masahiko Murozumi, Kamakura, Japan, assignors to Asahi Garasu Kabushiki Kaisha, Tokyo, Japan, a corporation of Japan

Application March 25, 1953, Serial No. 344,496
Claims priority, application Japan March 28, 1952
5 Claims. (Cl. 174—15)



1. An interrupter for the flow of amalgam or mercury between portions of an electrolytic alkali-chlorine system, wherein such portions are to operate at different electrical potentials, including a casing having an inlet and an outlet for the admission and delivery of such amalgam or mercury, means for subdividing the interior of the casing into a plurality of mutually insulated compartments arranged in series between said inlet and said outlet, means associated with said subdividing means for establishing a communicating path for the flow of such amalgam or mercury between each of said compartments and an adjoining compartment and thereby interconnecting each

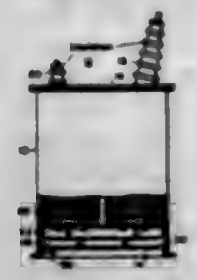
compartment with its adjoining compartment and establishing therebetween a path along which electric current might flow, said means subdividing said casing into compartments acting to interpose an insulating barrier between said interconnected compartments and the other compartments of said series in said casing, and means causing said compartments to communicate with an adjoining compartment in sequence whereby said compartments operate to cause flow from said inlet to said outlet while at all times interrupting any continuous electrical path from said inlet to said outlet.

2,849,525

COMPOSITE GASEOUS INSULATION CONTAINING HIGHLY FLUORINATED ORGANIC COMPOUNDS FOR ELECTRICAL APPARATUS

Leo J. Berberich and Carroll N. Works, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 30, 1953, Serial No. 365,208
6 Claims. (Cl. 174—17)



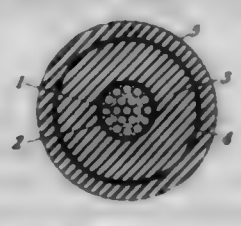
1. Electrical apparatus comprising, in combination, a casing, an electrical conductor in the casing and a composite gaseous dielectric in the casing and surrounding the entire conductor and comprising the sole fluid dielectric for the conductor, the gaseous dielectric comprising nitrogen gas as the major volumetric component and from 0.003 to 0.25 pound per cubic foot thereof of the vapor of a fluorinated organic compound, the fluorinated organic compound selected from the group consisting of hydrocarbons, hydrocarbon ethers and tertiary hydrocarbon amines in which all of the hydrogen atoms have been substituted by at least one halogen selected from the group consisting of fluorine and chlorine, and at least 75 atom percent of the halogen being composed of fluorine, the fluorinated organic compound having a partial pressure of at least 3 mm. of mercury at 25° C., the molecules of the fluorinated organic compound having at least four carbon atoms, the vapors providing for an increase of dielectric strength of the gaseous dielectric of at least about 50% over that of the nitrogen alone.

2,849,526

SUBMARINE CABLE

Robert Alston Brockbank, Keston, England

Application August 12, 1952, Serial No. 303,880
Claims priority, application Great Britain August 16, 1951
5 Claims. (Cl. 174—107)



3. A coaxial submarine cable for high frequency signalling consisting solely of a steel wire strength core having a plurality of layers of steel wires of opposite lay so that the core undergoes substantially no twisting under tension, the core constituting the sole tension sustaining element of the submarine cable; a metal conductor surrounding said core and extending longitudinally thereof in the form of a longitudinal sleeve and constituting the inner conductor of the coaxial submarine cable; a second longitudinally extending conductor sheath of substantially larger diameter than said first conductor and constituting the outer conductor of the submarine cable, said second conductor being metal of a thickness approximately that of said first conductor and being held concentric to said first conductor by interposed solid insulating material; and a non-metallic covering surrounding said second conductor and constituting the sole external covering of the submarine cable.

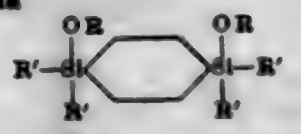
2,849,527

POLYMERIC COMPOSITION CONTAINING SILICONE MODIFIED UNSATURATED POLYESTER AND VINYLIDENE MONOMER AND ELECTRICAL CONDUCTOR COATED THEREWITH

Dow A. Rogers, Jr., and Daniel W. Lewis, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 20, 1955, Serial No. 510,037
6 Claims. (Cl. 174—121)

1. A polymerizable resinous composition comprising (A) from 5% to 95% by weight of a resinous polyester obtained by esterifying (*a*) an organosilicon monomer having the formula



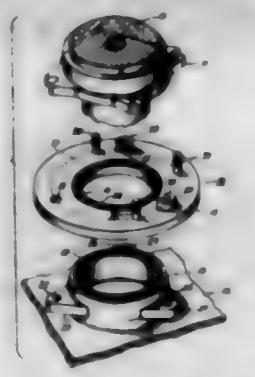
wherein R is a monovalent radical selected from the group consisting of hydrogen and $-(CH_2)_nOH$ radicals wherein n is at least 2 and R' is a hydrocarbon selected from the group consisting of monovalent alkyl groups having not over four carbon atoms per molecule and monovalent aryl groups from the group consisting of a phenyl and benzene group with not over two methyl groups substituted for hydrogen atoms in the benzene ring, there being not more than one benzene ring for each molecule of organosilicon monomer, with (*b*) a substantially molar equivalent of at least one ethylenically unsaturated alpha, beta dicarboxylic acid, (B) from 95% to 5% by weight of at least one liquid unsaturated vinylidene monomer having the reactive group >C=<, and (C) at least one polymerization inhibitor.

2,849,528

HIGH VOLTAGE BUSHING ADAPTER

John C. Dutton, Rome, Ga., assignor to General Electric Company, a corporation of New York

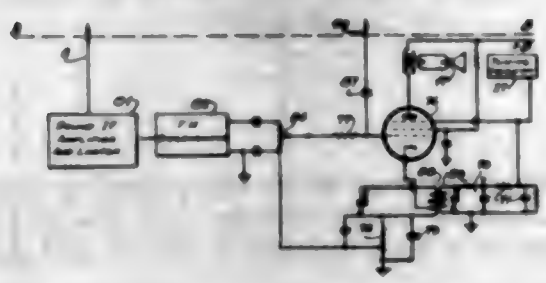
Application July 27, 1955, Serial No. 524,732
3 Claims. (Cl. 174—152)



1. An adapter for mounting a bushing having four symmetrical mounting apertures on a high-voltage electrical apparatus adapted for bushings having three symmetrical mounting apertures spaced on a circle having the same diameter as the circle around which the apertures of the four-aperture bushing are disposed, comprising a metallic plate having a central circular aperture through which the lower end of a bushing extends, said plate having three symmetrical mounting holes defining a mounting ring coaxial with said aperture, three threaded

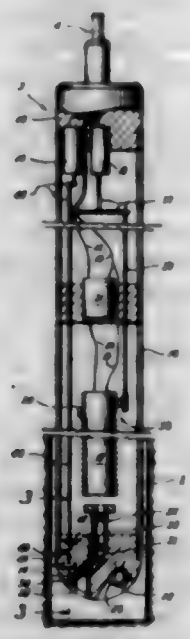
studs extending from one side of said plate along said mounting ring, said studs being positioned with respect to one of said mounting holes so that in combination with said one mounting hole they form four symmetrical mounting means, and spacing means extending from said one side of said plate and at least partially surrounding the other two of said mounting holes.

2,849,529
TUNING SYSTEM FOR TELEVISION RECEIVERS
Louis W. Parker, Great Neck, N. Y.
Application August 30, 1952, Serial No. 307,222
10 Claims. (Cl. 178—5.8)



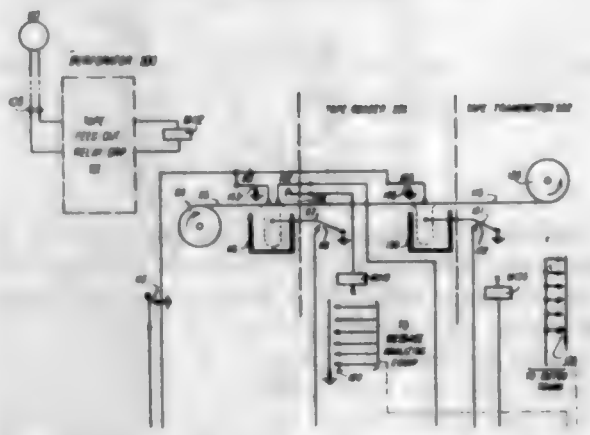
10. In a tunable television receiver having means responsive to a received composite signal for producing an audio frequency signal and means responsive to said received signal for producing a separate intermediate frequency picture carrier, a grid controlled vacuum tube, means coupling both said audio and intermediate frequency picture carrier signals to said vacuum tube whereby the same said vacuum tube amplifies both said signals, sound producing means coupled to said vacuum tube and responsive to said amplified audio signal, and a frequency selective tuning indicator coupled to said vacuum tube and responsive to the magnitude of said amplified intermediate frequency picture carrier signal.

2,849,530
MEANS FOR OBSERVING BOREHOLES
John H. Fleet, Taft, Tex.
Application September 12, 1955, Serial No. 533,605
1 Claim. (Cl. 178—7.2)



For use in observing boreholes, the combination of an elongated housing having normally upper and lower ends and adapted to be run in a borehole; a video camera positioned in said housing; a coil of wire surrounding said camera and adapted to have direct current passed therethrough whereby said camera may be surrounded by a stabilized magnetic field; said housing having a window therein through which light may pass from said borehole; first reflection means adapted to reflect light entering said window at right angles; means for rotating said first reflection means about an axis parallel with the line of light reflected by said first reflection means; a second reflection means adapted to reflect light received from said first reflection means to the pickup end of said video camera; focusing means secured to said housing between said second reflecting means and said camera; means for varying the distance between said focusing means and said camera; a light source positioned in the normally lower end of said housing and adapted to illuminate the bore hole in the area around the window; means for supplying appropriate pulsed signals and power said camera and said light source for the operation thereof; means for transmitting the signal derived from said video camera to the surface of the ground for observation.

2,849,531
TELEGRAPH SYSTEM WITH AUTOMATIC SPEED CONTROL
Richard C. Stiles, La Grange, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application April 12, 1955, Serial No. 500,879
18 Claims. (Cl. 178—17.5)

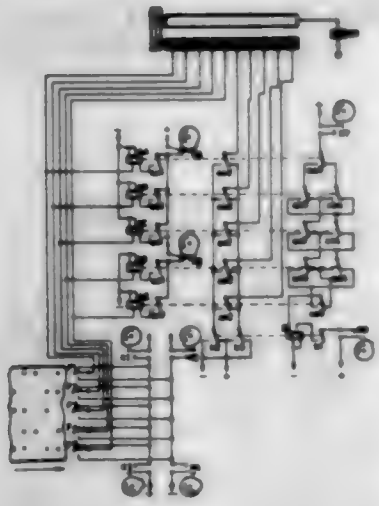


1. In a telegraph system having a tape reader for sensing telegraph messages that have been perforated on a tape by a tape perforator, a storage bin between said tape perforator and said tape reader, first means governed in accordance with the accumulation of a first predetermined amount of tape in said tape storage bin for controlling said tape reader to sense said tape at a first rate of speed, and second means operated in response to the accumulation of a second predetermined amount of tape in said tape storage bin for controlling said tape reader to sense said tape at a second rate of speed.

2,849,532
CIRCUIT ARRANGEMENT FOR THE TRANSMISSION OF TELEGRAPHIC INTELLIGENCE
Fritz Heanig, Munich-Solln, Germany, assignor to Siemens & Halske, Aktiengesellschaft, Munich, Germany, a corporation of Germany
Application October 22, 1953, Serial No. 387,594
Claims priority, application Germany October 23, 1952
9 Claims. (Cl. 178—23)

1. In an error-correcting telegraph system having a transmitting station and a receiving station; means at said transmitting station for scanning a code combination containing one or the other of two possible types of signal elements, means for transmitting the signal elements of said scanned code combination to said receiving station, circuit means cooperating with said scanning means for storing the signal elements of the scanned code combination, means controlled by said storing means for ascertaining the respective odd or even number of signal elements of predetermined type contained in the stored code combination, means controlled by said ascertaining means for additionally transmitting to said receiving station

a test combination allotted to said transmitted code combination, said test combination consisting in the case of an even number of signal elements contained in said code combination, of unaltered repetition of such signal elements and in the case of an odd number of signal elements in said code combination, of mirrored repetition of the signal elements of said code combination; means at said receiving station for scanning the signal elements of said code combination and of said test combination received from said transmitting station, first relay means controlled by said receiving scanning means for respectively storing said received signal elements of said code combination and of said test combination, circuit means cooperatively controlled by said first control relay means for ascertaining those signal elements of said received code combination which correspond in type to the sequentially corresponding signal elements of said test combination, means for ascertaining the odd or even number of the signal elements of predetermined type contained in said received code combination, circuit means for marking those signal elements of said received code com-



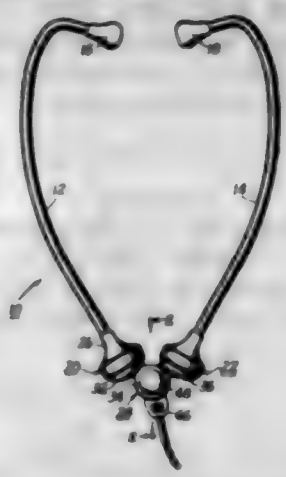
bination which are, in the case of an even number of signal elements of predetermined type contained therein, of the opposite type as the sequentially corresponding signal elements of said received test combination and which are, in the case of an odd number of said signal elements of predetermined type contained therein, of the identical type as said sequentially corresponding signal elements of said received test combination, means controlled by said marking means for counting said marked signal elements of said received code combination, means for retransmitting the signal elements of said received code combination, second control relay means jointly controlled by said marking circuit means and by said counting means for governing the operation of said retransmitting means, and further circuit means cooperatively connected with said second control relay means for supressing retransmission of said signal elements of said code combination in the presence of a predetermined number of marked signal elements ascertained by said counting means and for causing transmission of an error signal in place of the suppressed signal elements.

2,849,533
HEADPHONE DEVICE

Alfred L. Di Mattia, Fairfield, Conn., assignor to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York

Application December 12, 1951, Serial No. 261,242
4 Claims. (Cl. 179—1)

2. A headphone device for use in a signal transcribing system of the type wherein the signal is to be confined to one listener comprising, a pair of curved rigid hearing tubes, a pair of driving units mounted on one end of said tubes and coupled therewith to provide fixed and matched acoustical characteristics for each assembly, a projecting ear on each of said driving units adapted to mate with the corresponding projecting ear to provide a mechanical pivot point for said tubes, and spring-urged sliding elec-

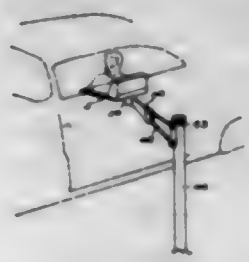


trical contacts mounted within said projecting ears to provide an electrical circuit between said driving units and the prongs of a plug inserted in one of said projecting ears.

2,849,534
SERVING TRAY SUPPORT FOR DRIVE-IN RESTAURANTS

William Stoner Doyle, Fort Lauderdale, Fla.

Application December 1, 1955, Serial No. 550,355
4 Claims. (Cl. 179—1)



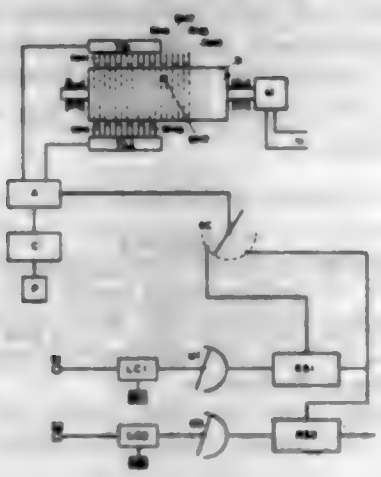
2. A food carrying tray support for use in vehicle drive-in restaurants that comprises a rigid standard that is positioned adjacent to a drive-in lane that defines the approximate position of a vehicle to be served, inner and outer bracket arms that are hinged together and with the inner arm being hingedly connected to the standard, the outer arm being also connected in a manner to swing in a vertical plane, the tray support embodying a rigid base that is pivotally connected to the outer end of the outer arm and whereby the tray support is capable of being swung in a horizontal plane, a housing overlying the base and with the housing being provided with a flat bed for the resting support of a food carrying tray, latch means whereby to control the vertical movement of the outer arm, the said latch means being actuatable in any desired degree of horizontal angularity of the tray support with respect to the outer arm, means embodied in the outer arm whereby the tray support and its flat bed is maintained in a horizontal plane throughout all degrees of vertical or horizontal adjustment, the said base and the overlying housing being rectangular in top plan, the pivotal connection for the base being at a point intermediate the width of the base and adjacent its rear end and whereby to protect the finish of the vehicle sill, the flat bed of the housing being parallel with the base and overlying its major area, the housing being provided with cabinets having sight openings and whereby to house convenience articles, one cabinet having its front wall louvered for the transmission and or reception of sound through or from a magnetic speaker that is adapted to be installed in the cabinet, the forward end of the flat bed being downwardly angled to form a panel and with the panel being provided with a program sight opening and an electrical actuating button and volume control.

2,849,535

MAGNETIC DRUM TYPE TELEPHONE METERING SYSTEM

George Thomas Baker and Victor Edmund Mann, Taplow, England, assignors to British Telecommunications Research Limited, Taplow, England, a British company

Application February 14, 1955, Serial No. 487,948
Claims priority, application Great Britain February 15, 1954
13 Claims. (Cl. 179—7)



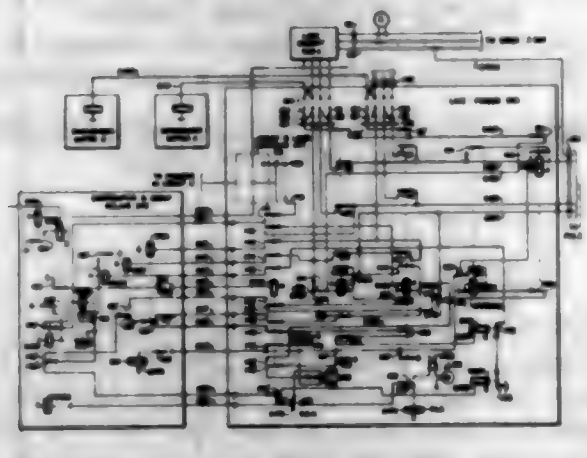
1. In a telephone system, a drum with a surface of magnetic material, means for rotating said drum about its axis at a constant speed, a writing head associated with a circumferential track on said surface, a plurality of lines, call fee meters respectively associated with each of said lines, means including said writing head for recording dialled information transmitted over any of said lines in portions of said track individually associated with said lines, means for supplying pulse trains of different values, means controlled by said registered dialled information for selecting the appropriate pulse train in respect of individual lines, means for registering in each of said portions the number of pulses received for the corresponding individual lines, and means operative on the number of pulses registered in any portion attaining a predetermined value for erasing said registration and effecting the operation of the call fee meter associated with the corresponding line.

2,849,536

MEASURED SERVICE CONTROL APPARATUS

John E. Ostline, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application June 13, 1955, Serial No. 514,995
20 Claims. (Cl. 179—8.5)



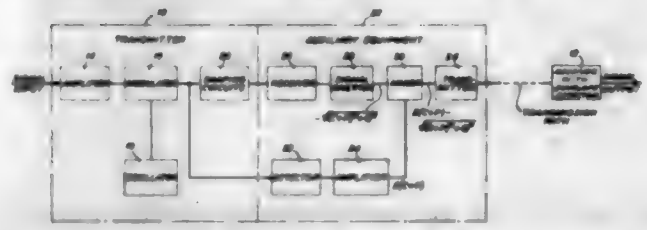
1. In a telephone system, a local exchange, calling subscriber lines in said local exchange, called subscriber lines in said local exchange, first switching apparatus in said local exchange for completing connections between a calling and a called subscriber line in said local exchange, a plurality of registering means individual to each of said calling subscriber lines for registering calls, means for operating said registering means, said operating means operated responsive to the completion of calls between said calling and said called subscriber lines in said local exchange, other exchanges, called subscriber lines in said other exchanges, second switching apparatus for completing connections between a calling subscriber line in said local exchange and a called subscriber line in one of said other exchanges, means associated with said first and said second switching apparatus for determining whether said calls are to be completed in said local exchange or in one of said other exchanges, and means for disabling said operating means to thereby prevent operation of said registering means responsive to the determination by said determining means that said call is to be completed in one of said other exchanges.

2,849,537

REDUCTION OF QUADRATURE DISTORTION

James M. Eglin, Glen Rock, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application December 30, 1952, Serial No. 328,663
8 Claims. (Cl. 179—15.5)



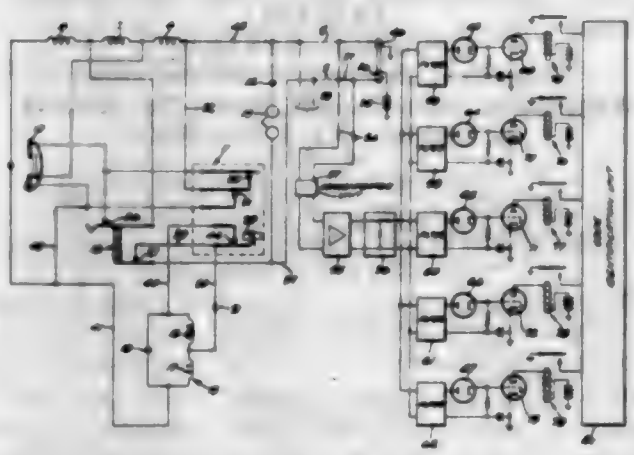
1. In a vestigial sideband system, a terminal transmitter including a modulator for producing vestigial sideband signals in response to a message wave to be transmitted, a terminal receiver including an envelope detector for recovering the message wave from said signals, a transmission channel joining said terminal transmitter and said terminal receiver, and means for reducing quadrature distortion in the reproduced wave comprising an auxiliary transmitter having characteristics similar to those of the terminal transmitter, means for obtaining from the output of said terminal transmitter a replica of the output wave normally produced in response thereto by said terminal receiver, means for producing from the output of said modulator a quantity proportional to the carrier and in-phase component only of the transmitter output, and means for inverting said replica and combining the resulting wave with said quantity for application to said auxiliary transmitter for transmission over said channel.

2,849,538

AUTOMATIC PARTY IDENTIFIER SYSTEM

Robert L. Koehler, Canoga Park, Calif., assignor to Ralph D. Collins, Beverly Hills, Calif.

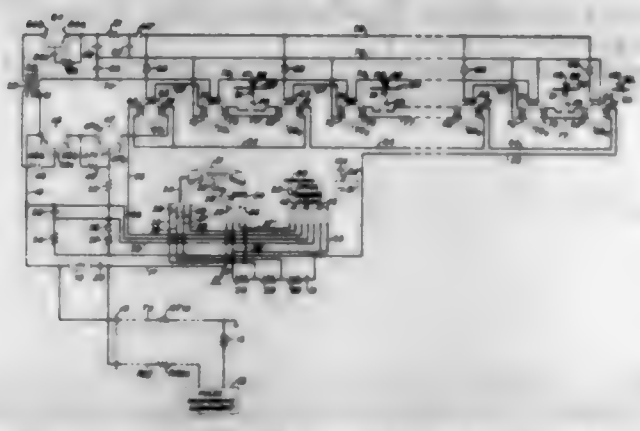
Application August 8, 1955, Serial No. 527,113
8 Claims. (Cl. 179—17)



1. In a telephone subscriber's identification system, the combination of a telephone subset having switch hook

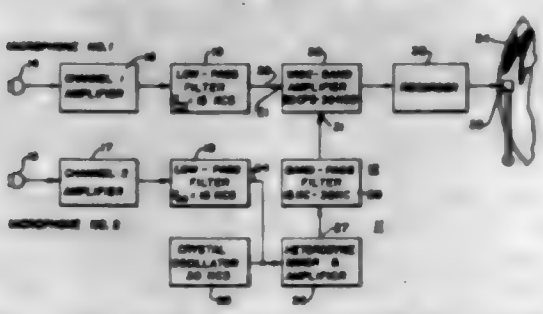
contacts and multiple dialing contacts, central office equipment including a plurality of filters for separating currents of different frequencies transmitted thereto, an autotransformer damped wave oscillator located at said subset, and circuit connections between said central station and said oscillator and through said switch hook contacts when closed for impressing an excitation potential on said oscillator for generating a damped alternating current tone, and circuit connections through said switch hook contacts and said dialing contacts for transmitting said tone to said central office equipment.

2,849,539
MAGNETIC CORE CIRCUITS
Henry H. Abbott, Yonkers, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 13, 1956, Serial No. 628,169
33 Claims. (Cl. 179—90)



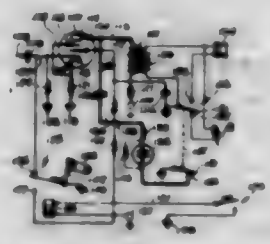
1. An electrical circuit comprising a first and a second plurality of magnetic cores, an input, an output, and an advance winding inductively coupled to each of said cores, a first circuit means for serially connecting the advance windings of said first plurality of cores, a second circuit means for serially connecting the advance windings of said second plurality of cores, a first plurality of coupling circuits associated respectively with each of said first plurality of cores and connecting the output windings of said first plurality of cores and the input windings of said second plurality of cores, a second plurality of coupling circuits associated respectively with each of said second plurality of cores and connecting the output windings of said second plurality of cores and the input windings of said first plurality of cores, first switching means, a current source controlled by said first switching means for applying an advance current to said first circuit means to switch a particular core of said first plurality of cores from one to another magnetic condition and induce an output current in the associated first coupling circuit, and second switching means controlled by said output current for applying said output current to said second circuit means.

2,849,540
BINAURAL SYSTEM
Kenneth R. Hamann, Parkview, Ohio
Application June 17, 1954, Serial No. 437,545
12 Claims. (Cl. 179—100.1)



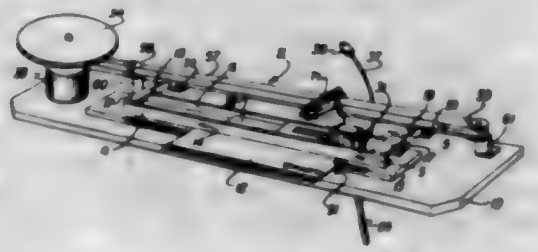
1. A binaural reproducing system for use with a binaural recording system recording on a recording medium a single track containing first and second superposed audio signals with said first signal occupying a channel between zero and a first frequency and said second signal occupying a channel above said first frequency, and with said single track also containing a substantially constant control frequency signal, said reproducing system including a detector for detecting the first and second signals and said constant control frequency, means to obtain a second control frequency signal controlled by said first control frequency signal, means to heterodyne said second control frequency signal with said second signal to reproduce audio components below said first frequency, a first audio output channel to pass said detected first signal, and a second audio output channel to pass said reproduced audio components.

2,849,541
MULTIPURPOSE INDICATOR FOR PHONOGRAPHS
Charles T. Jacobs, Bernardsville, N. J., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application June 28, 1956, Serial No. 592,641
13 Claims. (Cl. 179—100.1)



1. In a dictating machine including an audio circuit for sound-representing oscillations to be recorded, and a recording mechanism including a start-stop switch: the combination of an amplifier tube in said audio circuit; a B power supply for said amplifier tube having lower and higher voltage according to whether the said tube is heated or not; a signal device characterized as being operable by a voltage above a preset minimum value less than the minimum voltage of said B power supply; a circuit connected to said B supply for providing an operate voltage for said signal device whether said amplifier tube is heated or not; and means responsive to operation of said start-stop switch into start position for reducing the voltage supplied to said signal device to cause the signal device to be rendered inoperative when the amplifier tube is heated and operative when the amplifier tube is not heated.

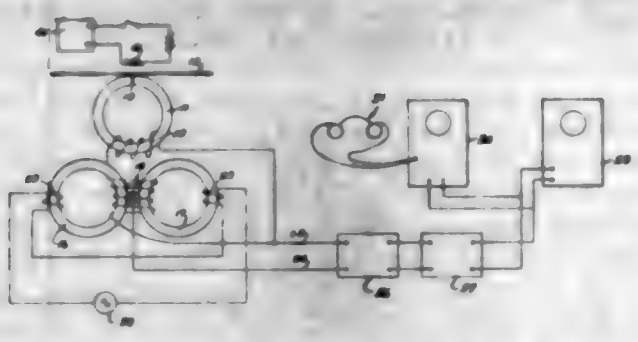
2,849,542
APPARATUS FOR MAGNETIC RECORDING OF SOUND ON RECORD CARDS
Chester M. MacCheney, Chicago, Ill., assignor to Ellamac Incorporated, Chicago, Ill., a corporation of Illinois
Application December 31, 1952, Serial No. 328,955
3 Claims. (Cl. 179—100.2)



1. Apparatus for recording sound on an elongated magnetic medium carried on the surface of a substantially flat record card; said apparatus comprising an elongated flat platen for supporting the record card in a substantially flat fixed position thereon with the magnetic medium exposed, an elongated guide mounted for movements toward and away from said platen into respective

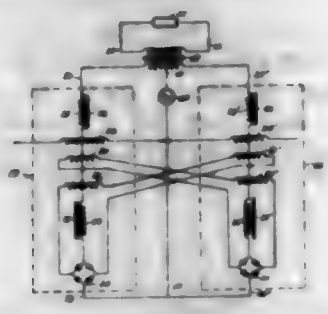
clamp and release positions with respect to the supported record card, means for selectively moving said guide between its clamp and release positions, a magnetic recording head carried by said guide and mounted for movement thereon over the supported record card longitudinally along and in contact with the exposed magnetic medium carried by the supported record card when said guide occupies its clamp position, mechanism operative to move said magnetic recording head on said guide at a substantially uniform recording speed, means for selectively operating said mechanism, and means for energizing said magnetic recording head with electric signal current corresponding to the sound to be recorded as it is moved on said guide.

2,849,543
MAGNETIC PLAYBACK SYSTEM
David E. Wiegand, Villa Park, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois
Application June 2, 1955, Serial No. 512,763
3 Claims. (Cl. 179—100.2)



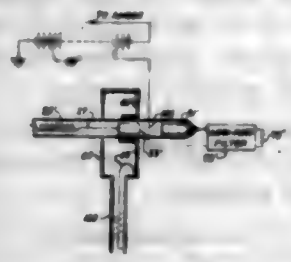
1. In combination, a playback system for obtaining a relatively linear output without equilization comprising a magnetic playback head having an induction coil for producing a signal voltage related to the time derivative of signal flux linking said head, a modulating core having winding means thereon connected to said induction coil for establishing a signal flux therein upon establishment of a signal flux in said playback head, and means for establishing a high frequency exciting flux in said modulating core for modulation by the signal flux therein.

2,849,544
PACKAGED MAGNETIC AMPLIFIER
Herbert Herz, Forest Hills, Andrew A. Sterk, New York, and Harold A. Goldsmith, Elmhurst, N. Y., assignors to Magnetic Amplifiers, Inc., Long Island City, N. Y., a corporation of New York
Application November 21, 1951, Serial No. 257,598
2 Claims. (Cl. 179—171)



1. In a magnetic amplifier, a transformer having a primary and a secondary winding, a first magnetic amplifier unit and a second magnetic amplifier unit substantially identical with said first unit, said two amplifiers having separate magnetic core portions and connected output circuit portions, one side of each of the output circuit portions of said two amplifiers being connected to a common terminal, the opposite side of each of said circuit portions of said magnetic amplifier units being connected push-pull to the primary of said transformer, the first of said magnetic amplifier units having a feed back and biasing circuit comprising in series a rectifier, a feed back coil means about the core of said first magnetic amplifier and biasing coil means about the core of said second magnetic amplifier unit whereby said biasing coil means operates to minimize the quiescent current in said first unit, the second of said magnetic amplifier units having a similar feed back and biasing circuit to minimize quiescent current in said second unit, said primary having an intermediate tap whereby an alternating current power source may be connected between said intermediate tap and the common terminal of said magnetic amplifier units, the secondary of said transformer having terminals for connecting to a load.

2,849,545
WIDE BAND TRAVELING WAVE AMPLIFIER
John T. Mendel, Summit, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 29, 1953, Serial No. 371,125
3 Claims. (Cl. 179—171)

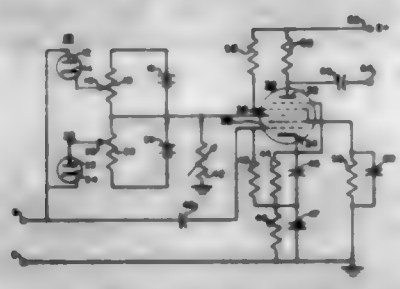


1. An amplifier for signals occupying a frequency bandwidth of the order of 1000 megacycles comprising a traveling wave tube having an electron gun including a cathode, a grid in immediate proximity to said cathode and an apertured anode for developing a density-modulated beam of electrons, a wave-delaying wave guide positioned to receive said beam substantially axially thereof, impedance matching means coupled to the end of said wave guide remote from said electron gun for preventing material reflection of waves transmitted thereby, a collector of electrons from said beam and an output circuit for amplified signals developed by said tube; means for biasing said anode and wave guide to accelerate electrons from said cathode to produce said beam, means for coupling a source of signals to be amplified to said cathode and grid to modulate said electron beam, an oscillator adapted to generate electric waves of a substantially constant frequency several times as great as the highest frequency signal to be amplified, means for coupling said oscillator to said wave guide to excite therein traveling waves, a demodulator connected in said output circuit, a low pass filter connected to said demodulator adapted to select from the output thereof frequencies lower than that generated by said oscillator; said output circuit of said traveling wave tube being connected to said collector; said demodulator comprising a grid positioned in immediate proximity to said collector in the path of the said beam; and means for so biasing said last mentioned grid and said collector as to retard electrons of said beam approaching said collector.

2,849,546
COMPRESSOR CIRCUIT
Bernard Martin, Long Branch, N. J.
Application March 8, 1956, Serial No. 570,394
2 Claims. (Cl. 179—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A compressor circuit comprising a vacuum tube having a plate electrode, a cathode electrode, a first control electrode, and a second control electrode; a source of positive potential with respect to ground; a load impedance connected in series with said vacuum tube across said source of potential; a source of alternating signal

voltage adapted to be connected to said first control electrode; a first diode having an anode and a cathode, a first potentiometer having a variable tap; a first source of voltage connected across said potentiometer, the anode of said first diode connected to said source of signal voltage; the cathode of said first diode connected to the variable tap of said potentiometer; the negative terminal of said first source of voltage connected to said second control electrode, a second diode having an anode and a

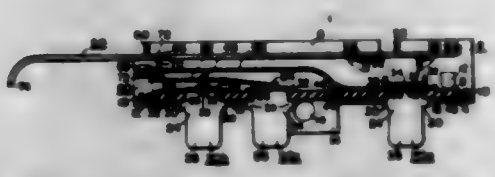


cathode, a second potentiometer havinging a variable tap, a second source of voltage connected across said second potentiometer; the anode of said second diode connected to the variable tap of said second potential divider, the cathode of said second diode connected to said source of signal voltage, the positive terminal of said second source of voltage connected to said second control electrode and a variable resistance connected between said second control electrode and ground.

2,849,547
WIRING DEVICE

Owen L. Taylor, Easton, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a corporation of Connecticut

Application July 6, 1955, Serial No. 520,210
9 Claims. (Cl. 200—1)



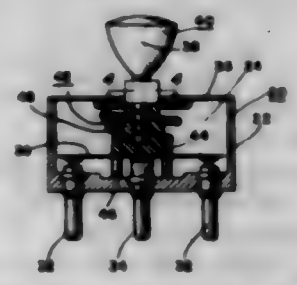
1. An electric switch comprising, spaced stationary contacts, a movable contact arm mounted at one end at a point spaced from said stationary contacts so that it is movable toward and away from said stationary contacts, said movable contact arm having a relatively movable contact portion normally biased relative to said contact arm toward said stationary contacts and into engagement with the more remote one of said stationary contacts and with an intermediate portion spaced from the other of said stationary contacts, said contact portion being mounted solely at one point in said movable contact so that when said movable contact arm is moved toward said stationary contacts its said contact portion is first moved to engage the other of said stationary contacts and thereafter it is moved out of engagement with said more remote one of said stationary contacts.

2,849,548
ELECTRIC SWITCH

Kenneth W. Young, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 25, 1954, Serial No. 439,343
14 Claims. (Cl. 200—6)

1. In an electric switch, a housing carrying at least two contacts in spaced relation, a plate pivoted on one of said contacts, a unitary actuating handle capable of pivotal movement relative to said housing having an end portion embracing said plate, and a coil spring having one end bearing against said housing and the other bearing on said handle for normally holding said handle and plate in a neutral position and said plate in engagement with said one contact, said handle being adapted to be

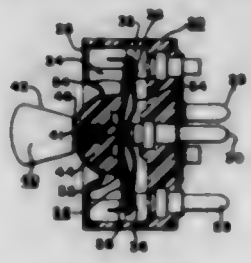


moved against the force of said spring for rocking said plate on said pivot contact into engagement with one of the other stationary contacts.

2,849,549
ELECTRIC SWITCH

Harold V. Elliott, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 13, 1956, Serial No. 621,613
11 Claims. (Cl. 200—6)

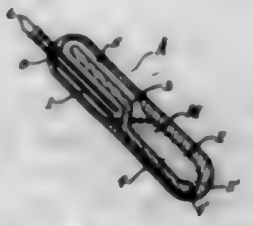


1. An electric switch comprising; a housing having spaced stationary contacts and a center contact intermediate said spaced contacts, a contact plate within said housing pivoted on said center contact and arranged to selectively engage any one of said stationary contacts, a spring strip having end portions carried by said housing and a plurality of slots therein each oriented between said center contact and one of said spaced contacts, an actuator disposed between said spring strip and contact plate, and a pivotal actuating member having projecting lugs extending through said slots into engagement with said actuator and having a body portion in constant engagement with said spring strip, said actuating member, spring strip, actuator and contact plate being constructed and arranged so the pivotal movement of said actuating member is resiliently opposed by said spring strip and the pivotal movement of said actuating member is accompanied by a pivotal movement of said contact plate.

2,849,550
ELECTRIC SWITCH

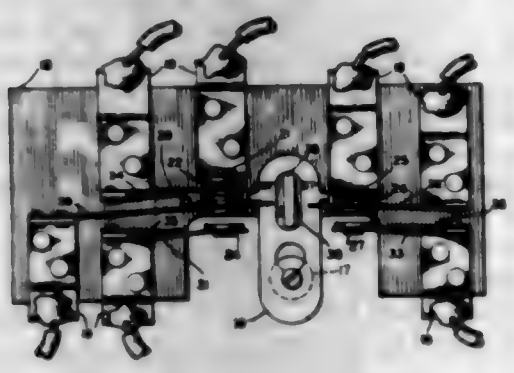
Francois J. Olmer, Highland Park, Ill., and Jules Chasnoff, Clayton, and Jack M. Chasnoff, Ladue, Mo.

Application April 4, 1956, Serial No. 576,109
9 Claims. (Cl. 200—33)



1. A time delay switch comprising an enclosed vessel for a charge of conductive fluid, having first and second chambers, there being first and second passages said passages being mutually offset in end to end relationship, said first passage extending between the normally lower ends of said chambers, and said second passage extending between the normally upper ends of said chambers.

2,849,551
CONTROL SWITCH
Francis W. Truesdell, Dover, N. H., and William J. Schultz, Peabody, Mass., assignors to General Electric Company, a corporation of New York
Application December 16, 1954, Serial No. 475,754
4 Claims. (Cl. 200—38)



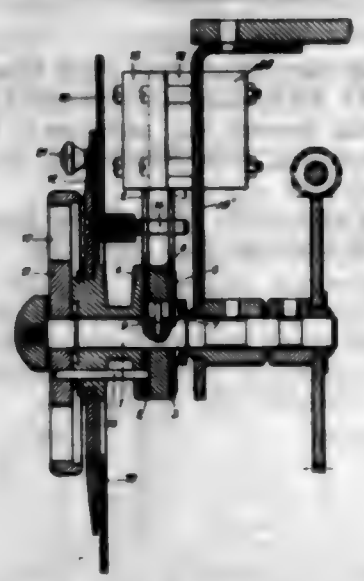
4. A control switch comprising, in combination: first and second pairs of closed contacts, said first and second pairs of contacts having a first common movable contact, a third pair of open contacts, said second and third pairs of contacts having a second common movable contact, said third pair of contacts having as its other contact a third movable contact, said first, second and third movable contacts being mounted on first, second and third resilient members, a fourth pair of closed contacts, a fifth pair of open contacts, said fourth and fifth pairs of contacts having a fourth common movable contact, said fifth pair of contacts having as its other contact a fifth movable contact, said fourth and fifth movable contacts being mounted on fourth and fifth resilient members, said first and second resilient members being normally biased toward each other and having a net biasing force in a first contact closing direction, said third, fourth and fifth resilient members also being biased in said first direction, adjustable stop means for said first, third, and fifth resilient members limiting motion thereof resulting solely from said biasing action, and means to move said second and fourth resilient members in a second direction opposite to said first direction to open said second and said fourth pairs of contacts and to close said third and said fifth pairs of contacts, said first pair of contacts opening automatically when said second member is moved in said second direction.

2,849,552
CIRCUIT BREAKER LOCKING
Edward Firestone, Los Angeles, Calif., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 19, 1954, Serial No. 417,332
14 Claims. (Cl. 200—42)



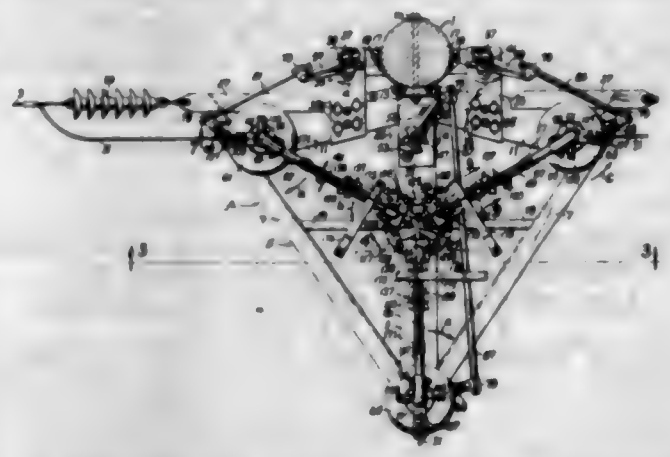
13. In a circuit interrupter handle holding device, a portion having opposed surfaces for receiving opposite sides of a circuit interrupter handle therebetween, a portion extending rearwardly of the handle receiving portion and having a blocking tip at its lower rear edge, an opening in the rearwardly extending portion extending into the handle-receiving portion; and a securing member movably mounted in the opening in the rearwardly extending portion for movement of one end thereof into the space between the opposed surfaces for receiving the circuit interrupter handle.

2,849,553
DIFFERENTIAL METERING MECHANISM WITH PRE-SELECTION
Solo Bar, Paris, France
Application July 5, 1955, Serial No. 520,066
Claims priority, application France July 8, 1954
9 Claims. (Cl. 200—47)



1. Differential metering mechanism with pre-selection, designed for measuring and fractionating any desired quantities, and particularly applicable to dictating machines, essentially characterised by the combination of two switches with two control cams mounted with light friction on the same shaft, the rotation of which is controlled by the movement to be checked, and two discs for operating and recording purposes, each being fast in rotation with one of the two cams, one of which cams actuates the corresponding switch at the end of its travel and the other cam operates the other switch at the end of its travel in the opposite direction.

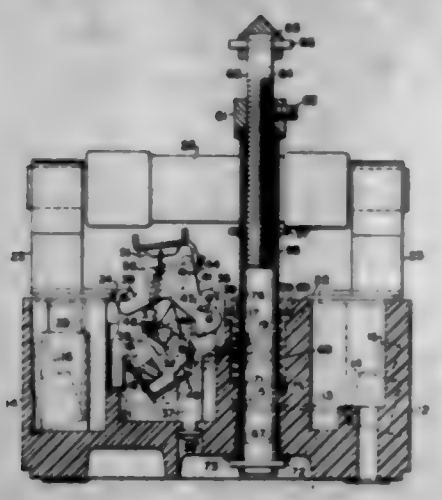
2,849,554
SECTIONALIZING SWITCH
Thomas E. Curtis and Ronald P. Bridges, Centralia, Mo., assignors to A. B. Chance Company, Centralia, Mo., a corporation of Missouri
Application August 17, 1956, Serial No. 604,798
5 Claims. (Cl. 200—48)



1. A sectionalizing switch comprising three side-break switches, each of which has a horizontally swinging switch arm and a rotary insulator supporting said switch arm for swinging movement, and all of which have a common stationary insulator located substantially at the geometric center of an equilateral triangle having its corners at the centers of rotation of the rotary insulators, a conductive bushing affixed to the common insulator, three spring clip assemblies rotatable in the bushing and engageable and disengageable with the respective switch arms upon respective rotations of the latter, reversible stop means for the swinging switch arms, and reversible

stop means for the rotatable clip assemblies, whereby each switch may be assembled from substantially identical insulator, clip assembly and switch arm parts for various directions of rotation of its side-break switches for opening and closing movements.

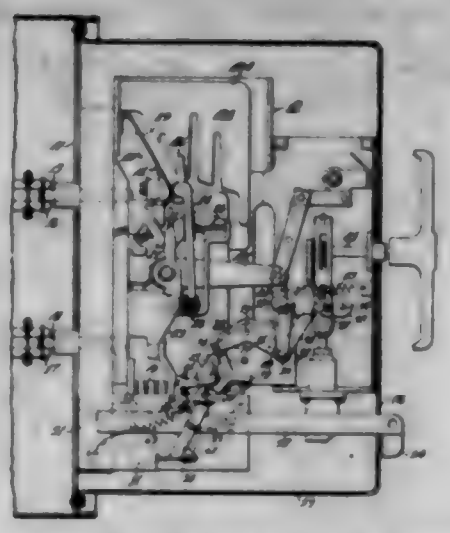
2,849,555
OPERATING MECHANISM FOR ENCLOSED CIRCUIT BREAKERS OR SWITCHES
Albert R. Cellerini, Beaver, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 31, 1956, Serial No. 619,583
10 Claims. (Cl. 200—50)



9. In a multi-pole electric switch, in combination, an insulating base having a plurality of recesses therein, a shaft rotatably mounted parallel to said base, a contact arm for each pole disposed in a separate recess in the base, said contact arms being attached to said shaft, an actuating mechanism disposed in another recess in the base for rotating said shaft to oscillate said contact arms, a sleeve disposed substantially perpendicularly to the base and having one end rotatably mounted in an opening in the base, a threaded member secured to the other end of the sleeve, an operating shaft threaded into said threaded member and adjustably fastened in the sleeve to rotate the sleeve, an operating arm secured to the sleeve and connected to the actuating mechanism to operate the mechanism, a spring surrounding the sleeve in said opening to resiliently support the sleeve and to apply a torsion force to the sleeve, and an operating handle for rotating the shaft, the torsion force of said spring counteracting the weight of said handle.

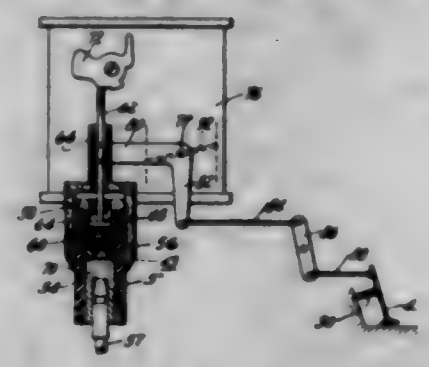
2,849,556
COVER INTERLOCK ASSEMBLY
Thor G. Bank, St. Paul, Minn., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application April 1, 1957, Serial No. 649,585
9 Claims. (Cl. 200—50)

1. In a circuit interrupting device, the combination comprising, a frame structure, a control element mounted on said frame and adapted for movement between a circuit closed position and a circuit open position, an enclosure for said control element including a removable cover, interlock means for selectively moving said control element to said circuit open and closed positions including an arm mounted on said frame for pivotal movement between a first position and a second position, said arm being engageable with said cover to hold said cover in a closed position to prevent said cover being removed while said arm is in said first position, means for transmitting to said control element the pivotal movement of said arm from said first arm position to said second arm position to move said control element from said circuit closed position to said circuit open position, and means connected to said arm and operable in response to movement of said arm from said first position to said second position to engage said frame structure and latch said arm



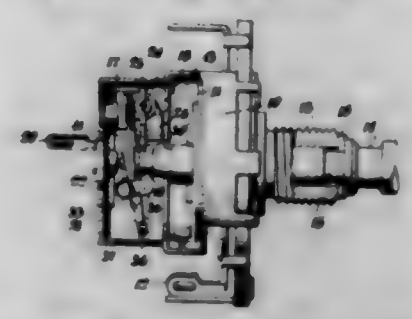
in said second position and said control element in said circuit open position.

2,849,557
ANTI-CREEP ACCELERATOR SWITCH
Richard H. Long, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application October 11, 1954, Serial No. 461,621
3 Claims. (Cl. 200—61.9)



1. A switch mechanism including in combination, a movable casing, a switch contact fixedly secured to said casing, a stop member having a portion thereof housed within the casing, a second switch contact slidably mounted within the casing, a spring interposed between the stop member and the second switch contact and biasing said contact into engagement with the first mentioned contact, and a spring interposed between the casing and the latter switch contact said spring biasing the two contacts out of engagement with each other.

2,849,558
SWITCH
George L. Chapman, York Village, Maine, assignor to Clarostat Mfg. Co., Inc., Dover, N. H., a corporation of New York
Application September 16, 1954, Serial No. 456,444
5 Claims. (Cl. 200—67)



1. A switch including in combination a mounting base, fixed contacts supported in a plane on said mounting base, a contact-carrying member pivotally connected with

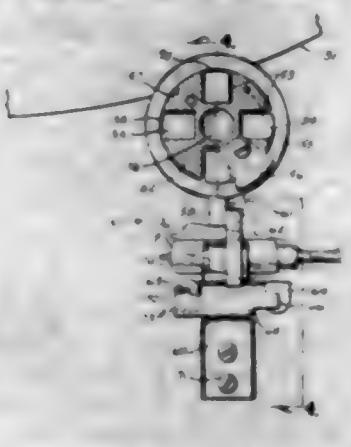
said base, second contacts mounted on said contact-carrying member in a plane substantially parallel with the plane of said first contacts, an axial member about which the contact-carrying member can rotate, an actuator pivotally mounted about said axial member, said actuator being insulated from the contact carried by said contact-carrying member, a spring one end of which is connected to said actuator and the other end of which is connected to said contact-carrying member and insulated from the contact carried thereby, and said spring being constructed to control the movement of said contact-carrying member by shifting its position to rotate the contact-carrying member about said axial member when the actuator is rotated by means of said shaft, said rotation of the contact-carrying member being in the opposite direction of rotation of said actuator and in an arc which moves the contacts carried thereby to wipe said fixed contacts, the direction of motion of the second contacts being at a right angle to the plane of the contacts.

2,849,559

CONTROL APPARATUS

Thomas R. Smith, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a corporation of Delaware

Application March 25, 1953, Serial No. 344,510
12 Claims. (Cl. 200—80)



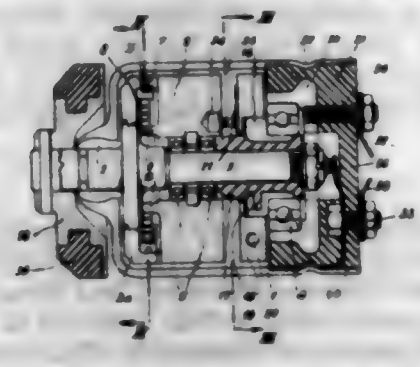
10. In an automatic switch control, centrifugally responsive means for connection to a rotary shaft and movable a limited distance radially of the shaft in response to shaft speed, a ring member concentric with said means and mounted to move in a plane normal to the shaft axis, and an electrical switch directly actuated by a predetermined movement of said ring.

2,849,560

APPARATUS FOR THE AUTOMATIC CONTROL OF THE BRAKING OF A WHEEL OF A VEHICLE

René Lucien, Neuilly-sur-Seine, France, assignor to Recherches Etudes Production R. E. P., Paris, France, a corporation of France

Application November 21, 1957, Serial No. 697,992
Claims priority, application France August 29, 1957
7 Claims. (Cl. 200—80)



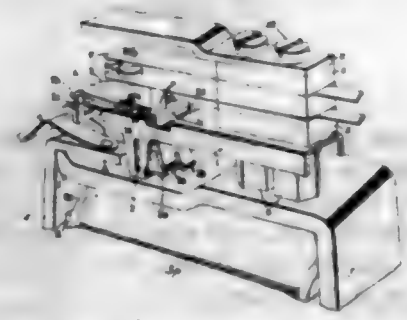
1. An automatic braking controller for the wheel of a vehicle comprising an inertia fly-wheel, a shaft driven by the wheel of said vehicle, a stop on said shaft, the fly-wheel being rotatably mounted on the shaft for rotation limited by the stop, a spiral spring coupling said fly-wheel to said shaft, a first contact, means supporting said first contact on the shaft for rotation therewith and electrically isolating the first contact from the shaft, a second contact on the fly-wheel to be engaged by the first contact in accordance with the relative rotational displacement between the contacts, a casing, a self-lubricating ring supporting the shaft in said casing, and a ball bearing electrically insulated from the casing and shaft and further supporting the shaft in the casing.

2,849,561

ALTERNATE MAKE AND BREAK RELAY

Josef Fischer and Heinz Kubick, Munich, Germany, assignors to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany

Application July 21, 1955, Serial No. 523,474
Claims priority, application Germany July 28, 1954
4 Claims. (Cl. 200—87)



1. In switching apparatus having contact means for controlling an electrical circuit and the like, a device for alternately placing said contact means into actuated and thereafter into released position, said device comprising a relatively stationary member, an interlock member movably mounted on said stationary member for interlocking coaction therewith, spring means for holding said interlock member in predetermined normal angular non-interlocked position relative to said stationary member, a drive member and means for successively momentarily displacing it, said drive member being upon first displacement thereof effective to engage a portion of said interlock member for moving such member to actuate said contact means, said spring means being thereupon effective to move said interlock member into interlocking engagement with said stationary member so as to maintain said contact means actuated, whereby said portion of said interlock member is displaced in its position with respect to said drive member, said drive member being upon second displacement effective to actuate said portion of said interlock member for the purpose of moving such member to release the interlocking engagement thereof with said stationary member, said spring thereupon restoring said interlock member to normal position and thereby restoring said contact means, a base for rockably supporting said interlock member, an extension formed by said base constituting said stationary member, means extending from said base for movably mounting said drive member, an electromagnetically operable armature for controlling said drive member, said base and said drive member and said interlock member forming a unitary assembly, and means for removably mounting said assembly to dispose said interlock member adjacent said contact means and said drive member linked to said armature.

2,849,562

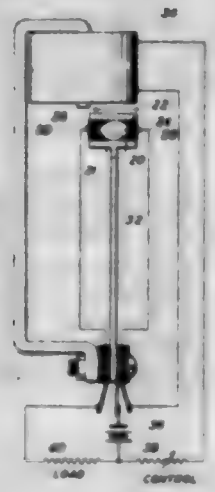
ACCELERATION RESPONSIVE SWITCH

Peter V. N. Heller, Pasadena, Calif.

Application August 6, 1953, Serial No. 372,767
13 Claims. (Cl. 200—90)

1. An electric switch comprising a container defining a chamber elongated along an axis of revolution, the chamber having a varying cross-sectional area with maxi-

mum cross-sectional area at the central part of the chamber and tapering off in cross-sectional area toward either end, a globule of conductive liquid located in the chamber and having a volume and a molecular cohesion which cause it to extend throughout the central portion of the chamber of largest cross-sectional area when the con-



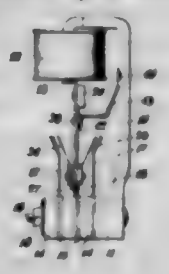
tainer is at rest and to move into portions at either end of the chamber of smaller cross-sectional area only when the container is accelerated in a direction parallel to said axis of revolution, and electrical contact means for engaging the conductive liquid when it is in predetermined positions in the chamber.

2,849,563

ELECTROMAGNETIC VIBRATORY INTERRUPTER

Clarence Huetten and James J. Kaufmann, Indianapolis, and William E. Rigsbee, Shelbyville, Ind., assignors to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware

Application November 10, 1954, Serial No. 468,090
11 Claims. (Cl. 200—90)



1. A vibratory interrupter comprising, in combination, a reed having a first hinge portion integrally formed with an end portion thereof, a second hinge portion secured to said end portion of the reed and electrically insulated therefrom, a first pair of reed arms mechanically and electrically connected to said reed above said first hinge portion, a second pair of reed arms mounted on but electrically disconnected from said reed above and in electrical connection with said second hinge portion, and means for vibrating said reed.

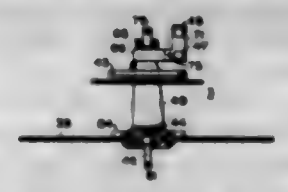
2,849,564

ELECTRORESPONSIVE DEVICES

Kolman Riesz, Gillette, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 29, 1953, Serial No. 389,031
9 Claims. (Cl. 200—91)

1. A rotor assembly for an induction-type instrument comprising a shaft having an annular groove, an electroconductive armature having a first opening, said shaft extending through said first opening with clearance with said annular groove positioned adjacent said first opening, said armature being provided with an additional opening communicating with said first opening, and means uniting said armature and said shaft in spaced relation, said means comprising a member formed of an insulating material engaging said shaft and filling said annular groove, said additional opening and said first opening, said



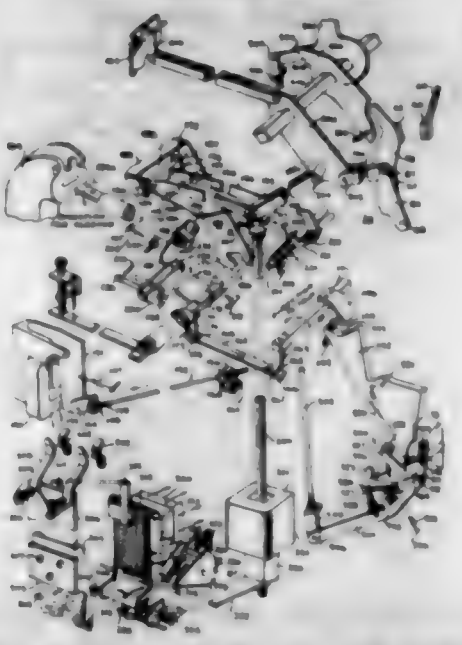
shaft having a pair of ends which are positioned clear of said insulating member to permit supporting of said shaft for rotation about the axis of the shaft.

2,849,565

SHORT TIME DELAY DEFEATER DURING CLOSING STROKE OF CIRCUIT BREAKER

Frank Joseph Pokorny, Hatboro, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application July 22, 1954, Serial No. 445,094
6 Claims. (Cl. 200—98)



1. In a circuit breaker having a pair of cooperating contacts with an initial engaged, a final engaged and a disengaged position, and a time delayed overcurrent trip means, said overcurrent time delay trip means being comprised of an armature, an overcurrent coil to control the movement of said armature, a timer mechanism and a timer arm; said timer arm positioned in the path of movement of said armature to delay the movement thereof when said coil is energized by an overcurrent, means operatively connected to said timer arm and said circuit breaker to remove said timer arm from the path of movement of said armature when said circuit breaker contacts are moved from said final engaged to said disengaged position; said means effective to maintain said timer arm in said removed position while said circuit breaker contacts are being moved from said disengaged to said initial engaged position, said means effective to release said timer arm to thereby permit said arm to be moved into the path of movement of said armature when said contacts are in said final engaged position.

2,849,566

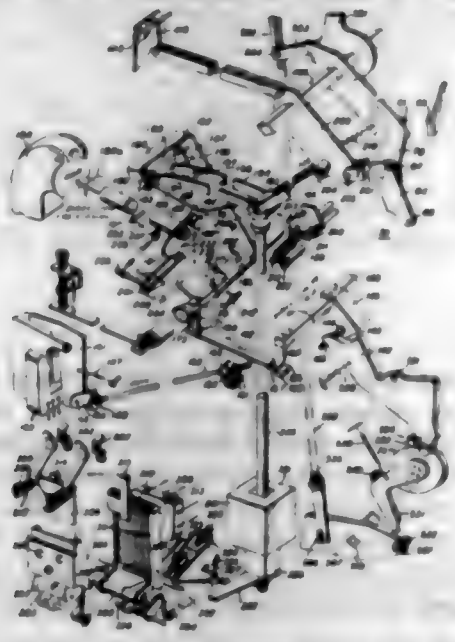
PROTECTION FOR CIRCUIT BREAKER IN CLOSING AGAINST FAULT CONDITIONS

Frank Joseph Pokorny, Hatboro, and Richard G. Shoulberg, Plymouth Meeting, Pa., assignors to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application July 22, 1954, Serial No. 445,122
5 Claims. (Cl. 200—98)

1. In a circuit breaker having a pair of cooperating contacts having an initial engaged, a final engaged and a

disengaged position, a trip means operatively connected to effect disengagement of said contacts, a timer mechanism operatively connected to said trip means to delay the operation of said trip means, said timer mechanism contained within a timer housing, said timer housing being pivotally mounted, latch means to prevent the rotation



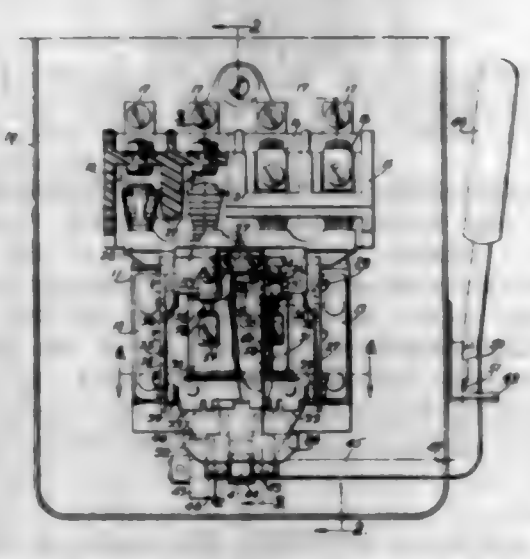
of said housing when said contacts are in said final engaged position to thereby effect time delay operation of said trip means; said latch means operatively connected to said circuit breaker and effective to permit rotation of said timer housing when said circuit breaker is in the disengaged and initial engaged position.

2,849,567

ELECTRIC SWITCH DEVICE

Howard Davies and Algernon C. Towe, Yeadon, Pa., assignors, by mesne assignments, to said Davies

Application September 15, 1954, Serial No. 456,182
13 Claims. (Cl. 200—104)



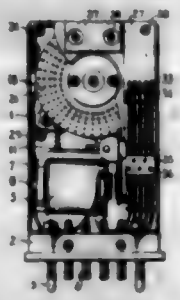
1. In an electric switch, stationary switch contacts, other switch contacts movable into and out of engagement wtih said stationary contacts, electrically operable actuating means for said movable contacts, said actuating means comprising a normally stationary energizable component and a movable component, means mechanically connecting said movable contacts to said movable component, said normally stationary component being normally in a position in which it is effective upon being energized to actuate said movable component to effect engagement of said contacts and to maintain them engaged until such time as said normally stationary component is deenergized, means supporting said normally stationary component for movement, and manually-operable means actuatable at will to move said normally stationary component to another position in which it is ineffective to maintain or effect engagement of said contacts, and to insure disengagement of said contacts.

2,849,568

ELECTRICAL SWITCHING DEVICES

Harold D. Gaite, Taplow, England, assignor to British Telecommunications Research Limited, Taplow, England, a British company

Application April 26, 1954, Serial No. 425,515
Claims priority, application Great Britain April 28, 1953
3 Claims. (Cl. 200—105)



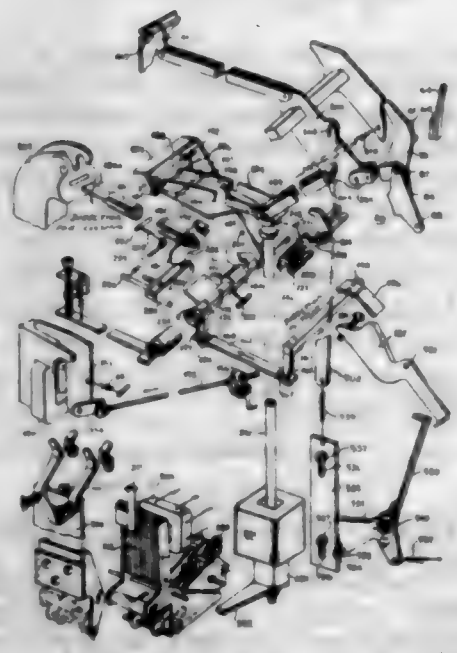
1. An electrical switching device for controlling a plurality of circuits simultaneously comprising a rotatable disc, a plurality of groups of depressions located on said disc, the depressions of each group being located at different radial distances from the axis of rotation of said disc, which distances are the same for all the groups, a plurality of metallic balls selectively located in said depressions in accordance with the desired switching operations, an insulating protective cover for retaining said balls in position, a plurality of contact fingers projecting through said cover at radial distances corresponding to the various depressions of a group, said cover having a removable portion opening to one group of said depressions so as to facilitate selective placing of the balls in said depressions, and means for effecting continuous step-by-step rotation of said disc.

2,849,569

SELECTIVE TRIP CIRCUIT BREAKER WITH INSTANTANEOUS TRIP DURING CLOSING

William M. Scott, Jr., Bryn Mawr, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application July 22, 1954, Serial No. 445,123
6 Claims. (Cl. 200—108)



1. In a circuit breaker having a pair of cooperating contacts with an initially engaged, a final engaged and a disengaged position, overcurrent trip means operatively connected to said circuit breaker to move said cooperating contacts from said engaged position to said disengaged

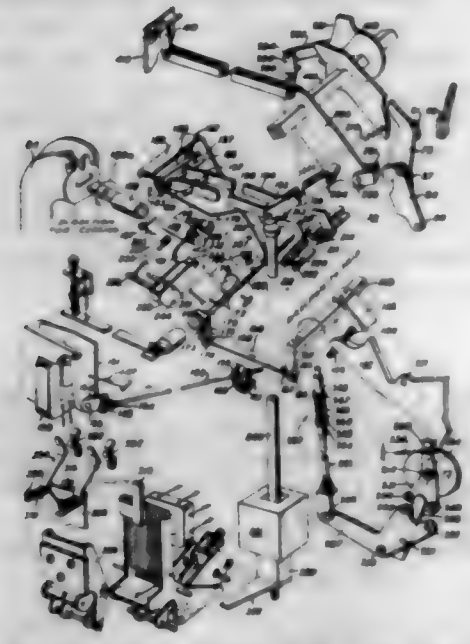
position; said overcurrent trip means being comprised of a time delay armature and an instantaneous armature, said instantaneous armature effective to cause tripping operation of said circuit breaker when said circuit breaker is being closed on a fault line and said circuit breaker is in said initially engaged position, said time delay armature effective to cause automatic tripping operation of said circuit breaker when said circuit breaker contacts are in said final engaged position and a fault current flows through said contacts; means operatively connected and controlled by the movement of said interrupter to render said instantaneous armature operative to cause tripping operation of said circuit breaker without time delay when said circuit breaker is in said initially engaged position; said means comprising an energy storage device in which energy is stored while said circuit breaker is moved from said disengaged position to said initially engaged position and released when said circuit breaker is moved from said initially engaged position to said final engaged position.

2,849,570

SHORT TIME DELAY DEFEATER DURING CLOSING STROKE OF CIRCUIT BREAKER

William M. Scott, Jr., Bryn Mawr, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application July 22, 1954, Serial No. 445,124
6 Claims. (Cl. 200—108)



1. A circuit interrupter having a pair of cooperating contacts with an initial engaged, final engaged and a disengaged position; automatic trip means to effect movement of said contacts from said final engaged position to said disengaged position; a timer mechanism for said trip means to time delay the operation thereof; a single means to rotate said timer mechanism to a freely rotatable position when said contacts are moved to said disengaged position; said single means operatively connected to rotate said timer mechanism to an operative position when said contacts are moved past said initial engaged position to said final engaged position.

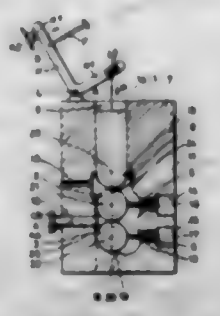
2,849,571

TRIGGER MECHANISM FOR CIRCUIT BREAKERS

Paul Duffing, Berlin-Siemensstadt, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a German corporation

Application February 24, 1955, Serial No. 490,299
Claims priority, application Germany February 27, 1954
25 Claims. (Cl. 200—109)

1. A lock and release mechanism for circuit breakers and the like, comprising a housing having a cavity, an opening in said housing communicating with said cavity, a switch part slidably disposed for linear motion in said opening, said cavity having a stationary bottom surface opposite said opening and having stationary stop points aligned substantially perpendicular to said bottom surface, resilient means applying inwardly-directed pressure on said switch part, a plurality of rollable bodies normally aligned in labile equilibrium between the inner end



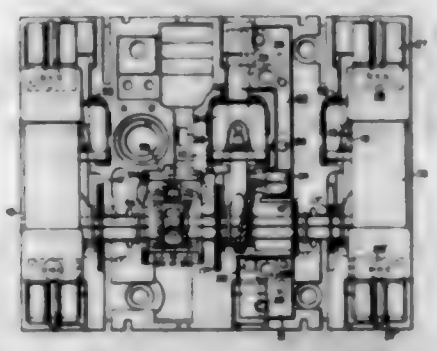
of said switch part and said bottom surface and contacting said stop points when so aligned, and means to displace said rollable bodies from their positions of labile equilibrium, said cavity having means serving to delimit the extent of displacement movement of the bodies, and means applying a restoring force to return the bodies to their positions of labile equilibrium, said displacement being assisted by the pressure of said resilient means.

2,849,572

FUSIBLE ELECTRIC SWITCH

Albert R. Cellerini and Hiller D. Dorfman, Beaver, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 31, 1956, Serial No. 619,582
12 Claims. (Cl. 200—114)



1. In a three-pole electric switch, in combination, an insulating base, an insulating shaft rotatably mounted in said base, a contact arm for each pole of the switch, said contact arms being secured to said shaft, an actuating arm secured to the shaft between two of said contact arms, a toggle mechanism connected to the actuating arm for rotating said shaft and oscillating said contact arms, operating means for operating the toggle mechanism, and said toggle mechanism being offset from the center pole and disposed between the same two of said contact arms as said actuating arm where it and said operating means are electrically deenergized at all times.

2,849,573

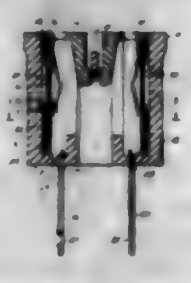
ELECTRICAL FUSE AND PLUG-IN RECEPTACLE COMBINATION

Frederick D. Keeler, Trumbull, Conn., assignor to Gilbert Manufacturing Co., Inc., Long Island City, N. Y., a corporation of New York

Application October 25, 1956, Serial No. 618,385
6 Claims. (Cl. 200—115.5)

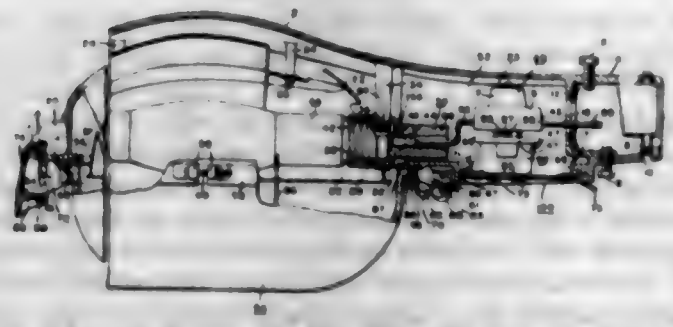
1. An electrical fuse in combination with a plug-in receptacle adapted for use in conjunction with an appliance cord plug and receptacle outlet, comprising a hollow body of insulating material having end walls each containing a recess extending substantially the length thereof, side walls each containing a pair of grooves adjacent said

end walls, a bottom wall containing a pair of apertures therein, and a cover having a pair of rectangular openings adapted to receive a pair of corresponding receptacle-mating-prongs; a pair of identical receptacle-mating contact elements each formed of a doubled-over conductive strip providing a prong at one end and having an L-shaped projection at the other end, each of said receptacle-mating contact elements being positioned within a respective end wall recess with its said L-shaped projection engaging said side walls and its said prong extending beyond and through a bottom wall aperture; a pair of identical fuse-contact elements each comprising a strip of non-conductive material, a strip of fusible conductive material, and a prong-mating contact member, said fusible conductive strip having substantially the same length as



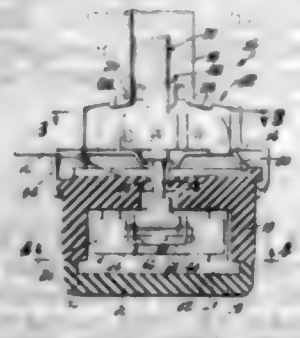
said non-conductive strip and being attached to one side of said non-conductive strip, said fusible conductive strip having a necked-down portion in the center thereof, and said prong-mating contact member being formed of a further strip of conductive material attached to and folded over one end of both said non-conductive strip and said fusible strip and extending away from the reverse side substantially half the length thereof; each of said fuse-contact elements being positioned within said side wall grooves adjacent said receptacle-mating contact element and having the end of one of said fusible conductive strips opposite its said prong-mating contact member in electrical contact with said receptacle-mating contact element and having said prong-mating contact member substantially in line with one of said openings in said cover.

2,849,574
LUMINAIRE
Robert T. Burns, Bay Village, and Dana W. Rowten, Lakewood, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 29, 1955, Serial No. 518,844
9 Claims. (Cl. 200—118)



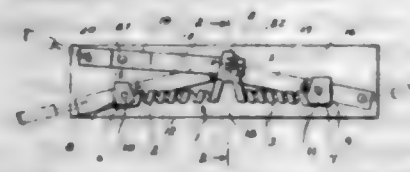
1. A luminaire comprising a dished housing, said housing having an elongated rigid hollow sleeve extending laterally outwardly from said housing adjacent the open side thereof, said housing having an opening communicating with said sleeve, securing means adjacent the outer end of said sleeve for securing said sleeve to a support, lampholding means mounted in said housing at a point adjacent said opening and spaced inwardly of said securing means for supporting a light source and to provide a space in an intermediate portion of said sleeve between said securing means and said lampholding means, an opening in the wall of said portion of the sleeve facing in the same direction as the open side of said housing, a film receptacle mounted in said portion of the sleeve and having normally engaged separable contacts connected to said lampholding means and exposed to said sleeve opening, a film holder of a size to be insertable through said sleeve opening and having film contacts thereon engageable with said receptacle contacts to separate the latter when the holder is at its operative position in said sleeve portion, and means for releasably holding said film holder at said operative position.

2,849,575
THERMOSTATIC CONTROL
James R. Campbell, Laguna Beach, Calif.
Application January 14, 1957, Serial No. 634,029
15 Claims. (Cl. 200—138)



4. In a control, the combination of: a housing; a helical sensing element supported in said housing; a shaft mounted for rotation in said housing by said sensing element and having one extremity connected to said sensing element; a switch carriage mounted on the other extremity of said shaft for movement about an axis perpendicular to the axis of said shaft; spring means engageable with said shaft adjacent said other extremity thereof tending to resist rotation of said shaft; and a switch element mounted in said carriage for movement therewith.

2,849,576
THERMAL RELAYS
Seymour Napolin, Williston Park, and Mark H. Harwood, Syosset, N. Y.; said Harwood assignor to Granco Products Inc., a corporation of New York
Application May 21, 1957, Serial No. 663,567
20 Claims. (Cl. 200—138)

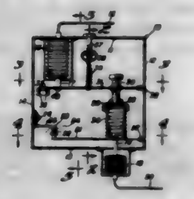


1. A thermal relay, comprising a spirally wound bimetallic element, at least one switching element attached to said bimetallic element, means for applying current to said bimetallic element to move said switching element, and means under control of said switching element for short-circuiting at least a portion of said bimetallic element upon said current exceeding a predetermined value.

2,849,577
TEMPERATURE PRESSURE CONTROL
Henry A. Pfeiffer, Fredericksburg, Tex.
Application June 6, 1957, Serial No. 664,051
3 Claims. (Cl. 200—140)

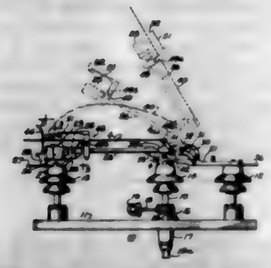
1. In a control unit, a hollow housing, a first bellows arranged within said housing, a first tube connected to said first bellows, a first pin extending from said first bellows, a second bellows arranged externally of said housing, a second tube connected to said second bellows, a second pin extending from said second bellows, a bar having one end pivotally connected to a wall of said housing and said second pin being connected to said bar, a pair of first spaced apart contacts carried by said bar, a lug secured within said housing, a pair of second con-

tacts connected to said lug for selective engagement by said first contacts, a coil spring positioned within said housing and arranged in engagement with said bar, a cap connected to said coil spring, a lever pivotally connected



to a wall of said housing, a securing element extending through said lever and arranged in engagement with said cap, and a stop member secured within said housing for engagement by said lever.

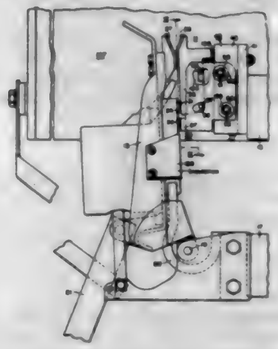
2,849,578
HIGH VOLTAGE SWITCH
Lester C. Hart, Cleveland, Ohio, assignor to Joslyn Mfg. & Supply Co., Chicago, Ill., a corporation of Illinois
Application October 10, 1955, Serial No. 539,367
5 Claims. (Cl. 200—146)



1. A high voltage switch comprising a pair of relatively movable current carrying contacts, one of said current carrying contacts being supported on a movable elongated switch blade, a pair of relatively movable arc interrupting contacts connected in parallel with said current carrying contacts, one of said arc interrupting contacts including an elongated resilient whiplike rod contact normally disposed in spaced parallel relationship with said elongated switch blade and supported for movement therewith, said rod contact being at least coextensive with said switch blade, the other of said arc interrupting contacts comprising a latch, said latch holding said whiplike rod contact in electrical engagement during a substantial portion of the switch opening operation, means for absorbing the kinetic energy of motion of said rod contact when released by said latch comprising a loop of resilient material, and means for supporting said loop from the said blade in a position to be struck by said rod contact when released by said latch.

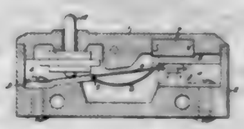
2,849,579
CONTACT STRUCTURE
Russell E. Frink, Forest Hills, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 31, 1956, Serial No. 601,259
11 Claims. (Cl. 200—146)

1. In a circuit breaker, a stationary contact structure comprising a fixed member having spaced inner and outer support members thereon, a pair of plates disposed on the outer side of each of said outer support members and pivotally mounted on said outer support members for limited movement relative thereto, spring means providing pressure contact between said plates and said outer support members, contact-carrying members disposed between said outer support members and said inner support member and pivotally mounted on said support members for limited movement relative thereto, spring means providing pressure contact between said contact-carrying members and said inner support member, main stationary contact means on said plates and on said contact-carrying



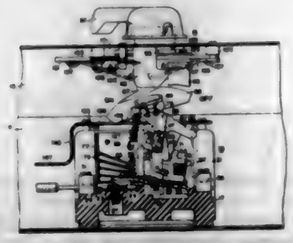
members, a contact member disposed between said pivoted plates and supported between said plates for limited movement relative thereto, intermediate and arcing contacts on said contact member, and a movable switch member having movable main, intermediate and arcing contacts thereon for cooperating respectively with said stationary main, intermediate and arcing contacts to open and close the circuit.

2,849,580
SNAP SWITCH FOR DIRECT CURRENT
Kazuma Tateishi, Ukyoku, Kyoto, Japan
Application April 7, 1954, Serial No. 421,555
1 Claim. (Cl. 200—147)



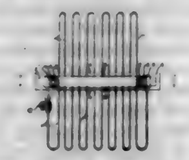
A double-throw snap switch for direct current comprising a completely closed casing, an anchor mounted therein and having a notched end, a three-armed spring plate having a central spring arm secured at one end to the anchor, contacts carried by and movable with the other end of the spring arm, the two remaining arms of the plate being bowed under compression and maintained in such bowed condition by engagement with the notched end of the anchor, upper and lower stationary contacts mounted within the casing respectively above and below the contact-carrying end of the spring arm, a cover fitted on and closing the casing, a push button having a plunger operative through the cover and located above the spring arm and adapted when depressed to force the spring arm downwardly, a permanent magnet partially embedded in and carried by the cover and positioned above the upper stationary contact with its poles disposed longitudinally to the spring arm, whereby an arc formed upon breaking of contacts is deflected transversely of said arm and sheets of heat-conductive metal attached to the inner side wall surfaces of the casing adjacent to the contacts in the path of arc deflection, the walls of the casing overlying said sheets being perforated for heat transfer directly to the atmosphere.

2,849,581
FRONT-OPERATED CIRCUIT INTERRUPTERS
Melvin Bingenheimer, Beaver, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 28, 1955, Serial No. 484,614
14 Claims. (Cl. 200—168)



3. A switch for controlling an electric circuit comprising a base of molded insulating material, insulating barriers on said base forming compartments extending the length of the base, stationary and movable butt contacts in each compartment, a movable switch arm in each compartment having the movable butt contact thereon, an operating mechanism for said switch arms disposed in the center compartment comprising a handle movable to open and closed positions to effect opening and closing movements of said switch arms, a cover formed from a flat sheet of insulating material mounted on said barriers and leaving said movable butt contacts exposed so that said contacts are visible from the front of the switch at least in the open position of the switch arms, a portion of said cover extending beyond said barriers at the end of said base adjacent said contacts.

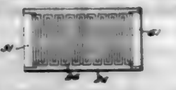
2,849,582
RESISTOR GRID
Albert van der Perk, Rotterdam, Netherlands
Application July 10, 1956, Serial No. 597,044
1 Claim. (Cl. 201—69)



A resistor for heavy current comprising a zig-zag shaped metallic ribbon having spaced portions with edges lying substantially in a plane and the ribbon surfaces essentially normal to that plane, a corrugated metallic support, said corrugations corresponding to the spacing of said portions, an insulating strip intermediate said ribbon and said support and generally conforming to said corrugations, and means to clamp the edges of said spaced portions in the corrugations of said support, said corrugations, being shallow whereby the contact surfaces between said ribbon and the insulating strip are limited to the edges of the ribbon.

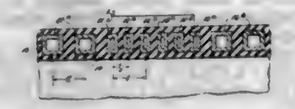
2,849,583
ELECTRICAL RESISTOR AND METHOD AND APPARATUS FOR PRODUCING RESISTORS
Nathan Pritikin, Chicago, Ill.
Application July 19, 1952, Serial No. 299,797
6 Claims. (Cl. 201—73)

1. A resistor comprising an insulating base, an oxidizable metallic resistance film adhering to said base, a pair of terminals electrically connected to spaced points on said resistance film, and a layer of silicon monoxide



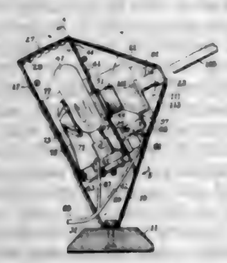
covering substantially all the exposed surface of said resistance film.

2,849,584
MULTIPHASE INDUCTION BILLET HEATER
Chester A. Tudbury, Cleveland, Ohio, assignor to The Ohio Crankshaft Company, Cleveland, Ohio, a corporation of Ohio
Application September 10, 1956, Serial No. 608,960
3 Claims. (Cl. 219—10.75)



1. A three-phase billet heater, comprising in combination: three individual coil sections in axially aligned relationship and each adapted to be connected to a separate phase of a three-phase power source, the adjacent turns only of each pair of coils being interleaved one with the other, and in electrically insulated relationship from each other.

2,849,585
OPTICAL CIGARETTE LIGHTER
John C. Evans, Rochester, N. Y., assignor to Tropel, Inc., Fairport, N. Y., a corporation of New York
Application November 8, 1956, Serial No. 621,166
14 Claims. (Cl. 219—32)

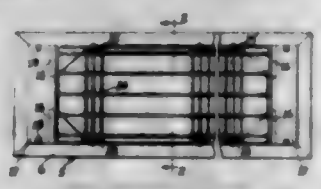


14. An optical cigarette lighter comprising means for guiding a cigarette for axial movement to and from a given location, a source of radiant energy, means including a reflector and a lens for focusing radiant energy from said source onto an end of a cigarette in said location to ignite said cigarette, said source having different portions spaced at materially different distances from said lens, whereby said lens will image said source portions in substantial depth at said location, and means for energizing said source in response to travel of said cigarette toward said location and for deenergizing said source in response to travel away from said location.

2,849,586
BASEBOARD PANEL HEATER
Max Nathanson, Montreal, Quebec, Canada
Application October 22, 1956, Serial No. 617,470
8 Claims. (Cl. 219—34)

1. In a panel heater, a wall panel, a series of support brackets projecting outwardly from said panel, a wire shielding box located on said wall panel adjacent one end thereof, the said wire shielding box having an aperture

open to the back of said panel, a heating unit including a heating element mounted on the front of said wall panel on said supporting brackets, said heating unit having one or more end compartments projected beyond the ends of



the heating element section of the unit, and a removable front cover for each of said end compartments, one of said end compartments forming a wire terminal box located over said wire shielding box.

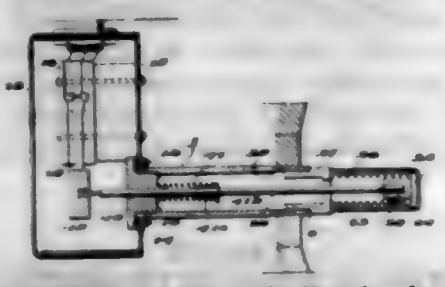
2,849,587

ELECTRICAL SAFETY CONTROL APPARATUS

Timothy J. Sullivan, Butte, Mont., assignor to Sullivan Valve and Engineering Company, Butte, Mont., a corporation of Montana

Original application March 22, 1954, Serial No. 417,862, now Patent No. 2,778,917, dated January 22, 1957. Divided and this application October 23, 1956, Serial No. 624,186

2 Claims. (Cl. 219—38)



1. The combination with a boiler having electrically energized means for heating the same, and a permanently connected electrical network for supplying power to said electrically energized means, said network including a normally-closed switch with an operating lever biased for movement to open said switch to de-energize said electrically-energized means; of an over-temperature safety control comprising a heat responsive member, means for supporting said member on said boiler in position to be subject to over-heating within the same, said supporting means comprising a mounting tube removably secured in an opening in the boiler wall, said heat-responsive member comprising a tubular casing secured at one end to the end of said mounting tube within the boiler and being closed at the other end, said tubular casing having an outer diameter less than the outer diameter of said mounting tube, a bellows element within said casing having an open end secured to the inner end of said mounting tube and a closed end adjacent the closed end of said casing to form a sealed chamber intermediate the outer surface of the bellows element and the inner walls of the casing, and liquid within said closed chamber, an actuating rod supported for axial movement in said supporting tube, said actuating rod being secured at one end to said bellows element and carrying at its opposite end a knob positioned to engage and block opening movement of said switch operating lever, whereby upon heating of said liquid above a preselected temperature said actuating rod will be moved by the bellows element to displace said knob from blocking engagement with said switch operating lever.

2,849,588

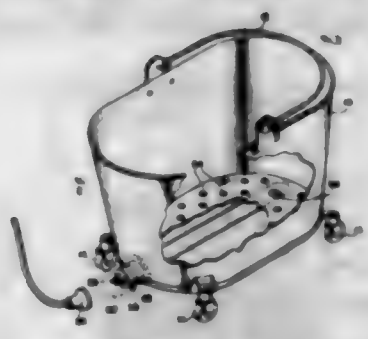
MOP BUCKET

Harry M. Marcuse, Seattle, Wash.

Application June 17, 1957, Serial No. 665,892

2 Claims. (Cl. 219—38)

1. An electrically heated mop bucket, comprising: an elongated mop bucket formed of rust proofed material; a plurality of supporting castors secured directly to said bucket; an electrical heating element adapted to be disposed parallel to and above the inner surface of the bottom of said bucket; demountable means for securing said element in place in a manner to seal the mounting opening in the bucket and further to permit convenient removal of the element from the bucket; a perforated baf-



fle plate or screen disposed above said element and adapted to provide a chamber for the collection of sediment and to prevent the mop from entering said chamber; thermostatic means for controlling the temperature of the water in the bucket and shielding means to protect the electrical means disposed outside of said bucket from water and the like which may be spilled during a mopping operation.

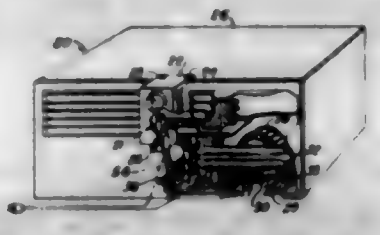
2,849,589

LIMIT SWITCHES FOR ELECTRIC HEATING ELEMENTS

Rodney W. Lancaster, Red Bank, N. J.

Application July 5, 1957, Serial No. 670,156

11 Claims. (Cl. 219—39)



8. In a room air cooling unit having a casing with room air entrance and exit and an electric fan circulating the air therethrough; an electric heating element disposed in the casing in the path of the circulated air, a removable housing disposed over at least a portion of the exit, the housing having a heated room air inlet and outlet, a fusible limit switch for the element disposed in the housing, the switch comprising a removable fusible link in series with the element, the link measuring the intensity of the heat energy given off by the element as well as the amperage therethrough, a hollow conical frustum with open ends disposed in the housing, the open end of maximum diameter being directed toward the exit and the opposite end toward the link, a source of electrical energy for the link and element and for the fan, and means for connecting the fan and element to the source of electrical energy whereby the element operates only when the fan is in operation.

2,849,590

MINIATURE IMMERSION HEATER WITH BUILT-IN, MANUALLY OPERABLE, SWITCH

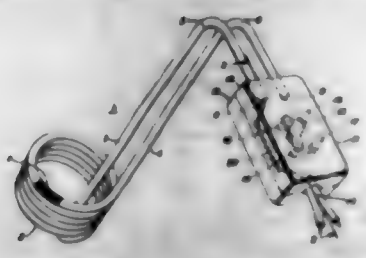
Theodor H. Stiebel, Holzminden (Weser), Germany

Application July 3, 1957, Serial No. 669,757

4 Claims. (Cl. 219—41)

1. In an electric immersion heater including a heating coil, a metal tube enclosing the coil and having a pair of parallel free end portions, a switch comprising a handle about the free end portions of the tube, the handle having one wall of which at least a portion is flexible, a cavity within the handle, a pair of spaced fixed terminals within the cavity, a cable extending into the handle for connection at its free end to a line supply of which one con-

ductor is connected to one of the pair of terminals, a first conductor connecting one end of the coil within one of the straight tube portions to the other of the terminals in the cavity, a second conductor connecting the other end of the coil within the other straight tube portion and within the handle to the other conductor of the cable, a conductive bridge movable to engage and disengage the



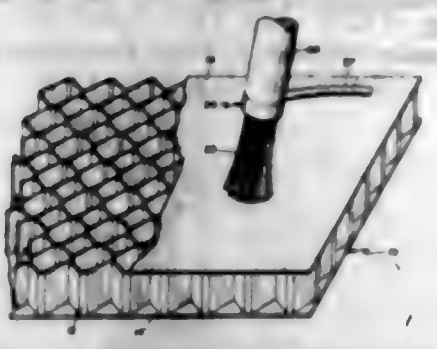
pair of spaced terminals, a spring biasing the bridge to disengagement from the terminals, and a button on the bridge and extending into but not through the flexible portion of the one wall of the handle so that on depression of such portion the button is movable against the biasing spring to engage the bridge with the spaced terminals.

2,849,591

METHOD OF MANUFACTURING LIGHTWEIGHT METAL CELLULAR CORE PANELS

John R. Fullerton, Lawrence E. Leech, and Donald L. Heyser, San Diego, Calif., assignors to The Ryan Aeronautical Co., San Diego, Calif., a corporation of California

Application March 29, 1956, Serial No. 574,681
4 Claims. (Cl. 219—107)



1. A method of manufacturing lightweight metal cellular core panels, comprising: connecting a metallic cellular core to one output connection of a resistance welding apparatus; placing a thin metallic skin in contact with one surface of the core; connecting a flexible, multiple bristle, brush type electrode to the other output connection of the apparatus; and applying short pulses of welding current to the brush electrode, while moving the electrode over the skin in firm frictional contact therewith to cover substantially the entire surface area of the skin with the complete pressure exerted by said firm frictional contact localized to that small portion of the skin immediately contacted by the brush electrode, whereby said small portion of the thin metallic skin is locally deflected into contact with the adjacent portion of said one surface of the core and thus accommodating for minor variations from accurately flat configuration of said one surface.

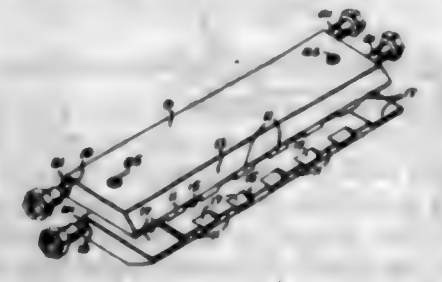
2,849,592

BUTT WELDING METAL STRIPS HAVING INFLATABLE SLITS

Lowell H. Hawthorne, Verona, N. Y., assignor to Revere Copper and Brass Incorporated, Rome, N. Y., a corporation of Maryland

Application April 2, 1957, Serial No. 650,132
7 Claims. (Cl. 219—137)

1. The method of butt welding metal strips having between their opposite faces and parallel thereto slits extending longitudinally thereof with unslitted metal at each of opposite sides of each of the slits, and with the slit or slits of each strip aligned with and communicating with those of the other upon said strips being so welded, comprising positioning a pair of the strips in endwise abutting relation with the slits thereof in alignment, striking an arc from a substantially non-consumable electrode against each face of the abutting strips at the joint between them and traversing such arc longitudinally of said joint, the arc being of sufficient intensity to fuse together at the joint the metal lying between the plane of the slits



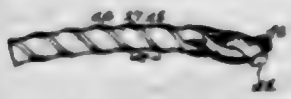
and the face of the abutting strips against which the arc is struck; and preventing the arc struck against each face of the abutting strips from liquefying the metal at and adjacent the joint and lying between the aligned slits and that face by contacting those portions only of said face which lie at opposite sides of the joint adjacent the joint and opposite the slits with a heat conductive member effective by heat conduction to reduce the heating effect of the arc on the metal at and adjacent the joint lying between said face and the aligned slits.

2,849,593

ELECTRIC ARC WELDING

Charles Volff, Paris, France, and Guy Savard, Vaudreuil, Quebec, Canada, assignors to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France

Application February 18, 1957, Serial No. 640,882
Claims priority, application France May 21, 1952
5 Claims. (Cl. 219—146)



1. A continuous electrode for electric arc welding comprising from two to three bare-surfaced circular cross-section wires of a weldable quality metal selected from the group consisting of mild steel, stainless steel and hard facing steel alloys, said wires being twisted together in a spiral and forming a continuous flexible stranded wire carrier of welding metal having a substantially dead lay, the wires of said carrier forming lands and intervening spiral flutes, a continuous ribbon of flux substantially filling each flute between the lands, the lands presenting a continuous bare top portion constituting continuous electrical contacts each of said wires having a uniform diameter within the range from about .040" to about .080", the pitch of twist being from about 3 to about 4½ turns to the inch, the amount of flux being an amount effective to provide a protective slag at high welding speed between about 8% and about 16% by weight of the electrode, the flux being an unbaked mineral flux having a density within the range from about 2.5 to about 3.5, the flux being compacted into the flutes and adhesively bonded to the wires in a continuous solid mass adhering to the metal to prevent it shedding during normal handling and welding.

2,849,594

HANDBAG FRAME WITH ILLUMINATING MEANS

Nathan Redmond, Salford, England

Application September 23, 1955, Serial No. 536,119
1 Claim. (Cl. 240—6.45)

A frame for a handbag or the like comprising a pair of channeled members each generally in the form of

an inverted U and having corresponding pairs of their open ends hinged together, engageable means carried by one of said members for securing said members together, depressible means mounted on the other of said members for disengagement from said first means when it is desired to open said handbag, a rigid support insulatedly carried on said other of said members in spaced apart relation to said depressible means, a socket on said support, a lamp in said socket having its base electrically



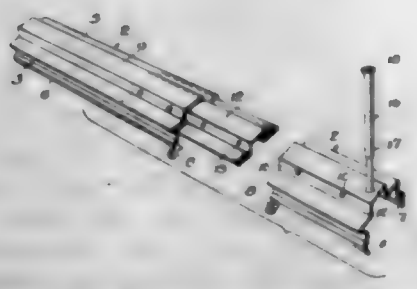
connected to said support and having a free contact tip, a cuplike receptacle rigidly carried on said support, a second cup-like receptacle on said other of said members spaced apart from and facing said first receptacle, and spring means in said second receptacle adapted to urge a dry cell battery into electrical contact with both said receptacles, and said depressible means being electrically connected to said second receptacle and adapted when depressed to establish contact with said free contact tip of said lamp.

2,849,595

FLUORESCENT LIGHT FIXTURE

Edward F. Zurawski, Chicago, Ill., assignor to Garden City Plating & Manufacturing Co., a corporation of Illinois

Application March 16, 1955, Serial No. 494,728
3 Claims. (Cl. 240—9)



1. A fluorescent light fixture comprising a pair of reflectors arranged in end to end relationship, each of said reflectors having a top wall provided with an integral upstanding channel of less width than said top wall extending longitudinally thereof and forming an integral stiffening rib for said top wall, said channel comprising a top wall parallel to the plane of the top wall of the reflector and two side walls extending between the top wall of the channel and the top wall of the reflector, and a coupling secured to adjacent ends of said reflectors, said coupling having a longitudinally extending upstanding channel fitting snugly within said first mentioned channels and a pair of flanges extending laterally outwardly from the lower edges of said coupling channel, said flanges fitting flush against the underside of the top wall of said reflectors.

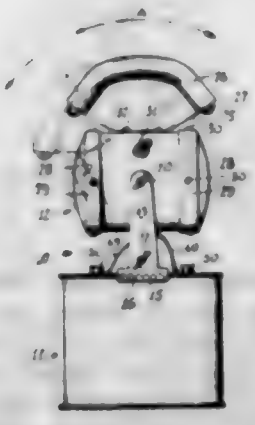
2,849,596

ELECTRIC HAND LANTERN

Julian A. McDermott, Corona, N. Y.

Application August 3, 1955, Serial No. 526,257
3 Claims. (Cl. 240—10.63)

3. An electric hand lantern comprising the combination with a battery container having a marginal flange thereon and a lamp container containing a lamp therein; of means pivotally retaining the lamp container above and spaced from the battery container, said means comprising a pair of mounting posts, the lamp container pivotally mounted between said mounting posts near opposite ends thereof, a pair of integrally formed inwardly directed jaws on said mounting posts, one of said jaws at each of said other ends of said mounting posts wherein to re-



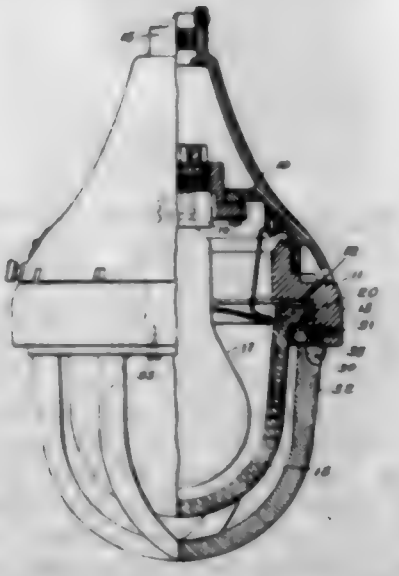
ceive the flange on the battery container at opposite sides thereof, removable means passing through said mounting posts whereby rigidly and releasingly to retain the battery container in said jaws, and an arched handle mounted above and spaced from the lamp container whereby the lamp may be tilted upwardly or downwardly selectively.

2,849,597

EXPLOSION PROOF LIGHTING UNIT

Jay R. Petree, Fayetteville, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a corporation of New York

Application October 2, 1956, Serial No. 613,566
5 Claims. (Cl. 240—11.2)



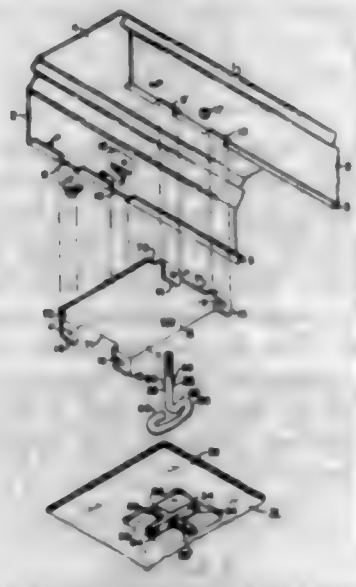
1. A flame tight glass to metal joint for explosion proof electrical apparatus, an annular metallic member having flat radial annular surface, a glass closure member having a flat radial annular surface complemental to the annular surface of said metallic member, an annular metallic sealing member cast on said annular surface of said glass member, said sealing member having a radial portion coextensive with the annular surface of said metallic member for abutting thereagainst, said sealing member having an outer portion engaging the periphery of the annular surface of said glass member, the abutting surfaces of said sealing member and said metallic member being formed with a plurality of complemental interfitting concentrically disposed ribs, and an annular member having threaded engagement with said metallic member and engaging said glass closure member for clamping said sealing member in tight abutting relation to said annular surface of said metallic member.

2,849,598
NON-GLARE LIGHTING FIXTURE
Willis L. Lipscomb, San Diego, Calif.
Application September 8, 1953, Serial No. 378,800
2 Claims. (Cl. 240—11.4)



1. In a lighting fixture, a translucent hollow casing, a pair of sockets within said casing adjacent the ends thereof, a fluorescent lamp operatively mounted in said sockets, a reflector mounted on the inner surface of said casing and having elongated substantially concave portions above and below said lamp to project the light therefrom substantially horizontally, a heater element integrally contained in said reflector and adapted to heat said lamp, said heater element and said lamp having means for connection through said sockets to a source of power.

2,849,599
FLUORESCENT LUMINAIRE OF SIMPLIFIED CONSTRUCTION
Joseph W. Steiner, North Olmsted, and William S. Kolb, Euclid, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 19, 1953, Serial No. 362,896
10 Claims. (Cl. 240—51.11)



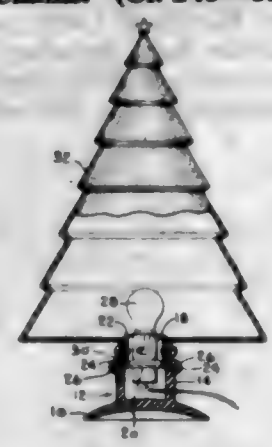
1. A luminaire comprising an elongated body member having laterally extending spaced sidewalls each terminating in inwardly facing longitudinal flanges at its free edge, at least a pair of spaced notches in each of said flanges adjacent each end of said body member, respectively, so as to form at least two pairs of opposed notches at each end of said body member, a cross member having at least two extending supporting flanges at each of its sides so as to form at least two pairs of opposed flanges, said cross member being notched between adjacent supporting flanges whereby said pairs of supporting flanges may be inserted through said pair of notches at each end of said body member and said cross member positioned between said sidewalls, at least one of said pairs of supporting flanges having open ended slots in one side which extend longitudinally in one direction so that when said cross member is moved longitudinally it engages prepositioned fastening means adjacent the end of said body member, whereby said cross member may be located and secured to each of said sidewalls.

2,849,600
LIGHTING FIXTURE HOLDER ASSEMBLY
Edwin W. Harris, Oak Lawn, Ill., assignor to Curtis Lighting, Inc., Chicago, Ill., a corporation of Illinois
Application November 10, 1954, Serial No. 468,028
5 Claims. (Cl. 240—51.11)



1. In a lighting fixture having a lamp holder extending outwardly from an edge portion of a wire base which is dimensioned to be larger in cross-section than the lamp holder and which has a cross slot extending downwardly from an intermediate portion of the top wall thereof and a second slot extending forwardly from an intermediate portion of the cross slot to the front wall of the wire base, and a panel on which the wire base is supported in position of use, the improvement which includes means for holding the wire base in position of use on the supporting panel comprising slot in the panel in alignment with the second slot in the wire base dimensioned to have a width corresponding to the width of the second opening and a heighth less than the heighth of said second slot and a fastener formed of a strip of spring metal having a central portion formed to correspond to the shape of the cross slot and dimensioned slidably to be received therein in the assembled relation, portions adjacent the central portion formed to extend forwardly in alignment with the second slot when the central portion is seated within the cross slot and spaced one from the other by an amount corresponding to the width of the slot and dimensioned to have a length corresponding to the length of the slot plus the width of the supporting panel and end portions integral with the ends of the arms formed with outwardly extending and inwardly extending portions to define a bulbous portion therebetween for camming engagement with the panel slot upon extension therethrough whereby the fastener snaps into position to bring the wire base resiliently into engagement with the rear wall of the supporting panel as the bulbous portion clears the panel slot upon passage therethrough.

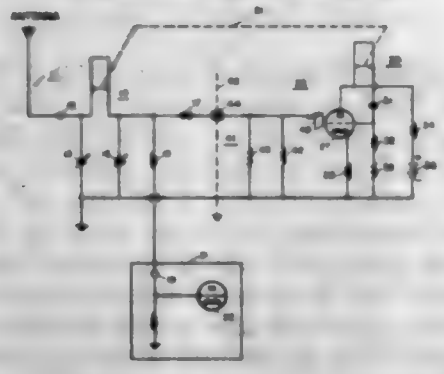
2,849,601
AUTOMOBILE ORNAMENT
George W. Walzer, Troy Center, Wis.
Application July 30, 1956, Serial No. 600,948
4 Claims. (Cl. 240—52.2)



1. An automobile device comprising, a rubber base including a neck portion having a beaded rim and a suction cup for mounting on a surface of an automobile, a socket adapter having a tubular wall and a peripheral flange received in a cooperating slot in the inside of said beaded rim, a lamp socket mounted in said lamp adapter and having wires leading therefrom through the wall of the base for connection to the electrical system of the

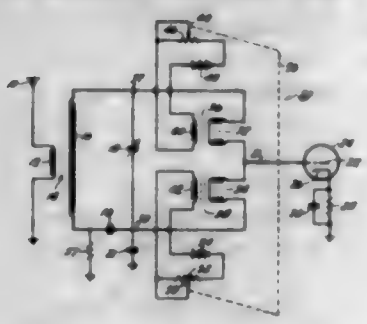
auto, a lamp in said socket, and a translucent ornament having a sleeve portion telescopically interfitted with said tubular wall and secured thereto.

2,849,682
HETERODYNE CIRCUIT
Henry R. Henze, East Paterson, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application March 1, 1952, Serial No. 274,440
3 Claims. (Cl. 250—20)



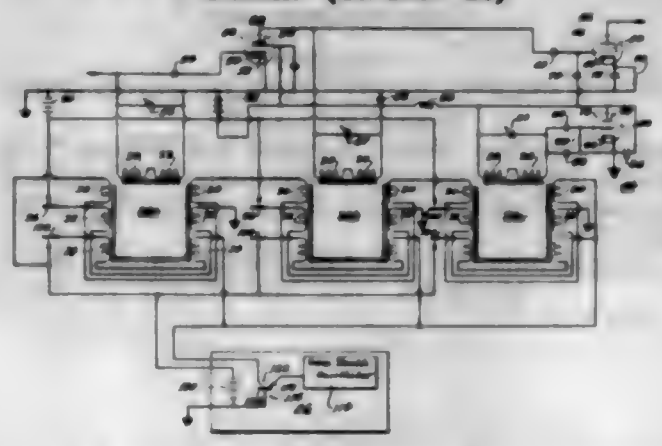
1. A heterodyne circuit comprising an oscillator tube having an insulative envelope and grid and anode electrodes therein, a linear tuned circuit and a blocking capacitor connected in series between the grid and anode electrodes of said oscillator tube, a conductive element positioned adjacent to and outside said envelope to form a capacitance with one of said electrodes, the dielectric of said capacitance comprising the intervening air and tube envelope portion, a signal mixing device conductively connected in series with said conductive element, a parallel tuned circuit connected in shunt between said conductive element and ground, a source of radio frequency signals connected to said signal mixing device and ground, and an intermediate frequency amplifier connected to said signal mixing device, a shielding partition positioned between said conductive element and said signal mixing device, a connection between said conductive element and said signal mixing device which connection comprises an electrical conductor passing through an opening in said partition, the capacitive component of said shunt connected parallel tuned circuit being the capacitance formed between said electrical conductor and said partition in the vicinity of said opening.

2,849,683
CONTROLLABLE INDUCTANCE VOLTAGE DIVIDER APPARATUS
Carl G. Sontheimer, Stamford, Conn., assignor to C. G. S. Laboratories, Inc., Stamford, Conn.
Application November 5, 1954, Serial No. 467,827
20 Claims. (Cl. 250—20)



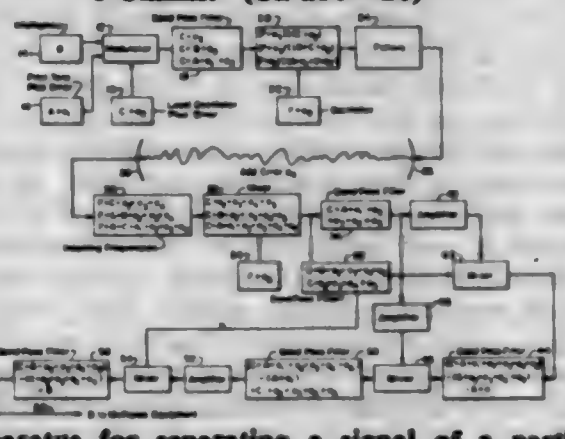
1. An electrically controllable inductance voltage divider circuit for dividing an input signal and feeding a controllable fraction thereof to an output circuit while avoiding any variation in impedance loading on the source of the input signal comprising a tuned circuit including at least an inductance element and a capacitance element, an input circuit coupled to said tuned circuit for feeding an alternating signal thereto, first and second magnetically permeable and saturable core portions, first and second controllable inductance windings wound on said first and second core portions, respectively, said first and second windings being connected in series across an inductance element in said tuned circuit, an output circuit having two input connections, one of said connections being connected to said windings at a point electrically between them, the other of said connections being connected to the opposite side of said first winding from said point for connecting said output circuit across said first winding, a source of magnetic flux associated with each of said core portions to regulate the degree of magnetic saturation thereof, and a control connected to said source and arranged to change the magnitude of the flux in said core portions in opposite directions, while maintaining constant the sum of the inductances of said first and second windings in series.

2,849,684
PANORAMIC RECEIVER
Andrzej B. Przedpelski, Forest Park, Ill., assignor to A. R. F. Products, Inc., River Forest, Ill., a corporation of Illinois
Application February 14, 1957, Serial No. 640,251
7 Claims. (Cl. 250—20)



1. An electrical circuit comprising, in combination, a ferromagnetic yoke defining a magnetic circuit with a gap therein, a ferromagnetic member disposed in the gap of the magnetic circuit, a first coil wound about the ferromagnetic member, second, third and fourth coils disposed about the yoke for conducting currents to establish a magnetic flux in the magnetic circuit, a direct current source connected to the second coil, a pulse generator connected to the third and fourth coils, and an impedance connected between the fourth of said coils and the pulse generator.

2,849,685
SINGLE SIDEBAND COMMUNICATION SYSTEM
Walter A. Fickett, Severn, and David M. Chauvin, Glen Burnie, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 6, 1957, Serial No. 657,357
6 Claims. (Cl. 250—20)



6. Apparatus for separating a signal of a particular frequency from a plurality of signals of varying fre-

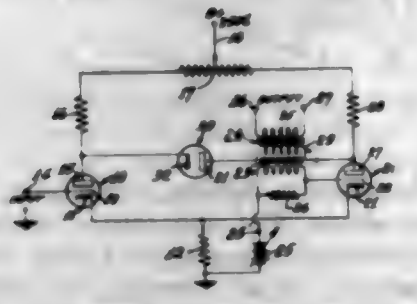
quencies comprising, in combination, a pair of signal channels connected to said source of signals of varying frequencies, one of said channels including a first filter and the second of said channels including a second filter, first means for mixing the outputs of said first and second filters, a third filter connected to the output of said first mixing means, second means for mixing the output of said third filter with the output of said first filter, a fourth filter connected to the output of said second mixing means, third means for mixing the output of said fourth filter with the output of said second filter, and a fifth filter connected to the output of said third mixing means.

2,849,606

AMPLITUDE COMPARISON CIRCUIT

Sydney R. Parker, Pitman, N. J., and Edward Fischer, Lancaster, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 25, 1953, Serial No. 344,595
7 Claims. (Cl. 250—27)



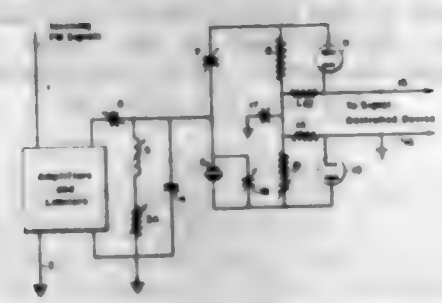
1. An amplitude comparison circuit comprising first and second electron discharge devices having input and output electrodes, means to apply voltages to be compared to the input electrodes of said devices, a pulse transformer having a plurality of coupled windings, a first winding of said transformer and a diode connected in series between the output electrodes of said devices, and a second winding of said transformer coupled to the input electrode of one of said devices and so poled that the flow of current thru said first winding causes a reduction of current flow thru said one device.

2,849,607

FREQUENCY SHIFT RECEIVER

Robert E. Leister, Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 21, 1953, Serial No. 350,846
4 Claims. (Cl. 250—27)



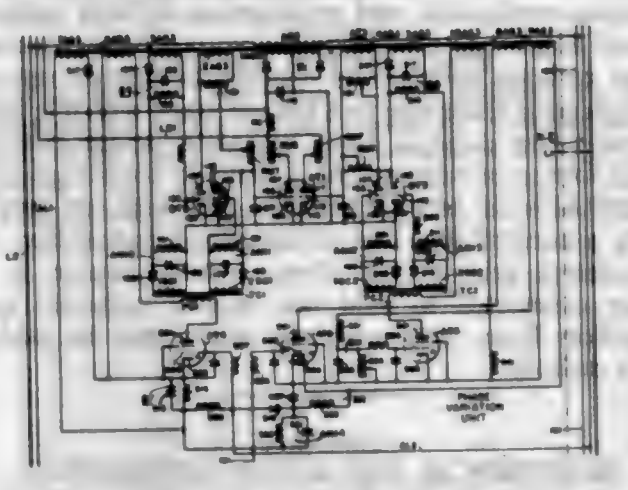
1. In combination with a source of frequency modulated waves a circuit comprising a resonant circuit embodying an adjustable resistor, a capacitance and a piezoelectric crystal having a common junction connected to draw current directly from said resonant circuit, a pair of impedances connected in series between the free terminals of said capacitance and said crystal, a rectifier and a load resistor shunting each of said pair of impedances, said rectifiers being connected to produce oppositely poled voltages across said load resistors and said load resistors having a common terminal, a work circuit connected to shunt said load resistors, and a third impedance connecting the common terminal of said pair of impedances with said resonant circuit.

2,849,608

CONTROL FOR RESISTANCE WELDING

William E. Large, Lancaster, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 23, 1953, Serial No. 381,936
8 Claims. (Cl. 250—27)



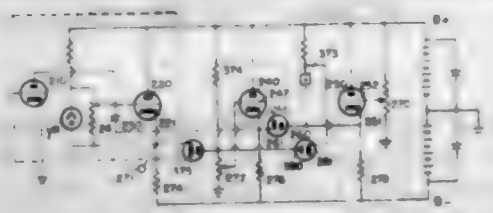
1. In combination, a first electric discharge path defined by an anode and a cathode and having a control electrode, a second electric discharge path defined by an anode and a cathode and having a control electrode, means for connecting said anodes and cathodes in parallel, a first capacitor connected between the control electrode and the cathode of said first path, a second capacitor connected between the control electrode and the cathode of said second path, means connected to said first capacitor for normally discharging said first capacitor, means connected to said second capacitor for normally charging said second capacitor to a potential tending to decrease the conductivity of said second path, signal receiving means, first means connected to said receiving means and to said first capacitor responsive to a signal received by said receiving means for interrupting the discharging and initiating and maintaining the charging of said first capacitor to a potential tending to decrease the conductivity of said first path, and second means connected to said receiving means and to said second capacitor responsive to said signal and operative a predetermined time interval after the receiving of said signal for interrupting the charging and initiating and maintaining the discharging of said second capacitor.

2,849,609

SWEEP CIRCUIT HAVING AN ADJUSTABLE EXPANDED SECTION

Robert F. Casey, Pompton Plains, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application August 19, 1954, Serial No. 451,027
7 Claims. (Cl. 250—27)



1. A circuit for generating a sawtooth voltage waveform having at least two different slopes, said circuit comprising a capacitor; a charging circuit connected to one terminal of said capacitor to supply thereto a charging current to develop across said capacitor a voltage which increases according to a first of said slopes; a cathode fol-

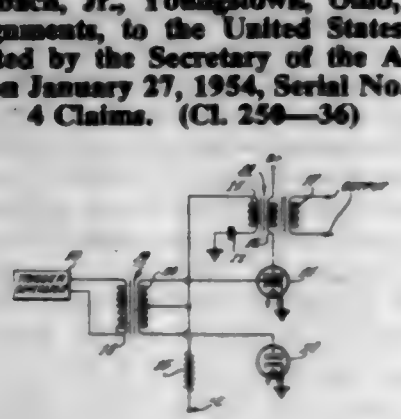
lower having an input connected to said capacitor to be energized by the voltage thereacross; a second cathode follower having an input connected to the output of said first cathode follower to be energized by the voltage therefrom; a load resistor connected to the cathode of said second cathode follower; a connection from the remaining terminal of said capacitor to the junction of said load resistor and said cathode; a direct current bias voltage source connected to said second cathode follower to render it non-conductive until said capacitor has charged to a predetermined level, said second cathode follower then becoming conductive and transferring to said cathode a reduced amplitude replica of the voltage with which said second cathode follower is energized, thereby upvolting said capacitor according to a second slope which is greater than said first slope; a diode having an anode connected to said source of voltage and a cathode connected to said cathode of said second cathode follower; an amplifier having a control grid and a cathode; a connection from said control grid to said direct current source; a load resistor connected to said last named cathode; and a connection from the anode of said diode to said last named cathode.

2,849,610

ELECTRICAL ISOLATION APPARATUS

Louis A. Umbach, Jr., Youngstown, Ohio, assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force

Application January 27, 1954, Serial No. 406,447
4 Claims. (Cl. 250—36)



1. In a blocking oscillator having an inductive feedback winding, the combination comprising a trigger generator, a transformer for coupling said trigger generator to the input of said blocking oscillator, an output winding on said transformer, and a center tap on said output winding having said feedback winding connected thereto, one end of said output winding being connected to said input of said blocking oscillator, said input having a certain impedance with respect to ground, an opposite end of said output winding being connected to ground through an impedance element so that the impedance of said ends with respect to ground is balanced.

2,849,611

ELECTRICAL OSCILLATOR CIRCUIT

Robert P. Adams, Elkins Park, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application May 16, 1955, Serial No. 508,706
8 Claims. (Cl. 250—36)



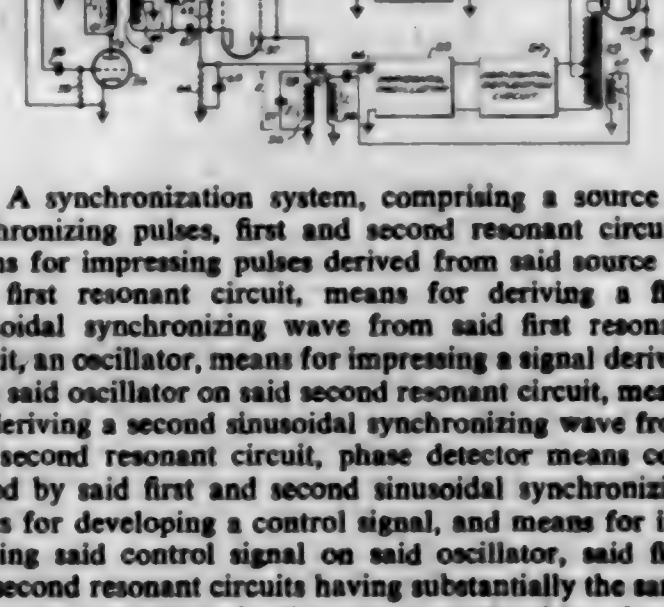
1. A transistor oscillator comprising a three electrode transistor device having an input circuit and an output circuit, a regenerative feedback circuit connected between said output circuit and said input circuit, a direct current bypass circuit connected to directly shunt two of said electrodes, and a biasing resistor having an appreciable temperature coefficient connected in series with one of said two electrodes and said bypass circuit, said bypass circuit and said biasing resistor comprising a temperature responsive signal divider network to provide a controlled bias to condition said transistor for oscillation under varying changes in ambient temperature.

2,849,612

SYNCHRONIZATION SYSTEM

Patrick R. J. Court, Buffalo, N. Y., assignor to Sylvania Electric Products, Inc., a corporation of Massachusetts

Application October 5, 1955, Serial No. 538,636
3 Claims. (Cl. 250—36)



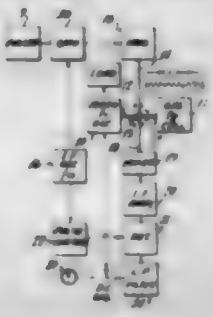
1. A synchronization system, comprising a source of synchronizing pulses, first and second resonant circuits, means for impressing pulses derived from said source on said first resonant circuit, means for deriving a first sinusoidal synchronizing wave from said first resonant circuit, an oscillator, means for impressing a signal derived from said oscillator on said second resonant circuit, means for deriving a second sinusoidal synchronizing wave from said second resonant circuit, phase detector means controlled by said first and second sinusoidal synchronizing waves for developing a control signal, and means for impressing said control signal on said oscillator, said first and second resonant circuits having substantially the same Q so that variations in the phase relationship of said synchronizing pulses and said first sinusoidal synchronizing wave are compensated by corresponding variations in the phase relationship of said oscillator signal and said second sinusoidal synchronizing wave.

2,849,613

METHODS AND SYSTEMS FOR PRODUCING GAS-ABSORPTION LINES OF DOPPLER-REDUCED BREADTH

Robert H. Dicke, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army

Application January 31, 1956, Serial No. 562,441
7 Claims. (Cl. 250—36)



1. A molecular resonance system comprising a gas cell for confining at low pressure a gas which exhibits molecular resonance and for providing a propagation path for microwave energy, a plurality of conductive structures permeable to the gas and to said microwave energy disposed within said cell and spaced in the direction of propagation of said energy, means for generating

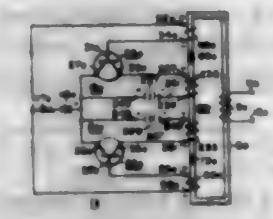
microwave energy, means for pulse-modulating said microwave energy to produce microwave sidebands, means for introducing said pulse modulated energy into said gas cell, and means for exciting said structures to produce within said cell a spatially periodic field for Doppler-reduction in line breadth of the absorption of one of said microwave sidebands by the gas.

2,849,614

ELECTRICAL INVERTER CIRCUITS

George H. Royer, Highland, N. Y., and Richard L. Bright, Hempfield Township, Westmoreland County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 25, 1957, Serial No. 642,034
11 Claims. (Cl. 250—36)



1. In an electrical system, a pair of output terminals, first and second unidirectional input voltage sources, first and second electrical paths, said first source being connected in said first path to energize the first path, said second source being connected in said second path to energize said second path, saturable magnetic core means, said paths being effective when energized from said sources to supply magnetomotive forces to said core means which act in opposing directions, a separate electrical switch device included in each of said paths, each of said switch devices being operable to transfer the associated path between a conductive condition and a substantially non-conductive condition, switch operating means effective in response to saturation of said core means produced by a conductive condition of said first path while the second path is in a substantially non-conductive condition to operate said switch devices for reversing the conductive conditions of said paths, said switch operating means being additionally effective in response to saturation of said core means produced by a conductive condition of said second path while said first path is in a substantially non-conductive condition to operate said switch devices for reversing the conductive conditions of said paths, and output winding means linking said core means to deliver to said output terminals alternating voltage induced therein, said alternating voltage having positive pulses each with a time duration dependent upon the magnitude of the first input voltage, and having negative pulses each with a time duration dependent upon the magnitude of the second input voltage.

2,849,615

CIRCUIT ARRANGEMENT FOR CONVERTING A LOW VOLTAGE INTO A HIGH A. C. VOLTAGE

Darrel W. Gustafson, Attleboro, Mass., assignor to Contronics, Inc., Providence, R. I., a corporation of Rhode Island

Application June 17, 1957, Serial No. 665,978
16 Claims. (Cl. 250—36)



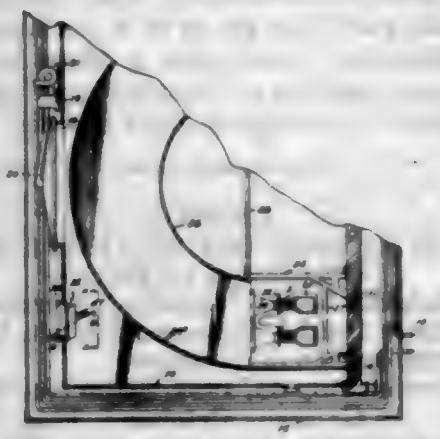
1. A transistor oscillator for converting a low direct-current voltage into a high alternating-current voltage, comprising a transistor, power supply connections for the transistor, input and output circuits for the transistor, a feedback transformer having a primary winding connected in parallel to a portion of the output circuit so that there is an impedance match between said feedback primary winding and said portion of the output circuit, and a secondary winding on said feedback transformer inductively coupled to said feedback primary winding and connected in said input circuit to supply regenerative feedback energy to said transistor.

2,849,616

ISOTOPE SEPARATORS

Conrad G. Bacon, Oak Ridge, Tenn., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application January 9, 1945, Serial No. 572,054
9 Claims. (Cl. 250—41.9)



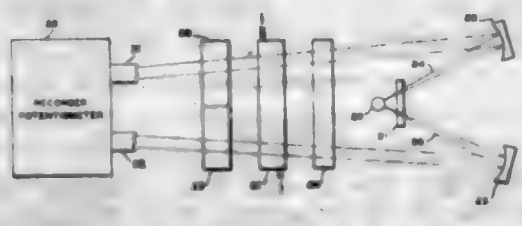
1. In apparatus of the character described, in combination, means forming a vacuum chamber, means for evacuating said chamber, means for producing a relatively intense magnetic field within said chamber, means forming a window in said chamber, means forming a closure operable between a first and second position for covering said window, operating means for said closure including an electrical winding disposed in said magnetic field, and said electrical winding means being operable when energized to move said closure to the second of its positions.

2,849,617

WATER DETECTION IN SULPHUR DIOXIDE BY AN INFRA-RED ANALYZER

Francis W. Karasek, Dewey, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application May 25, 1953, Serial No. 357,143
8 Claims. (Cl. 250—43.5)



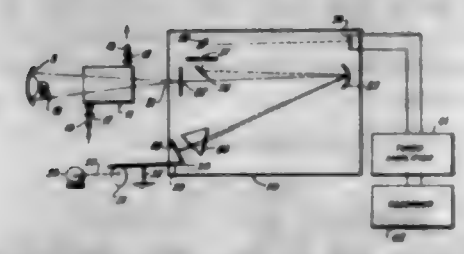
1. A method for determining the water content of a liquid sulphur dioxide stream containing not more than a small noninterfering concentration of hydrocarbon material which comprises the steps of passing a beam of infra-red radiation through a sample of said stream; measuring the energy absorbed by said sample at wave lengths in the region of 2.7–2.8 microns; and comparing the energy absorption of said sample with the energy absorption of a standard sample of sulphur dioxide of known water content at said wave lengths.

2,849,618

HIGH RESOLUTION INFRA-RED SPECTROMETER ANALYZER FOR GASES

Donald C. Smith, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application July 20, 1953, Serial No. 369,170
11 Claims. (Cl. 250—43.5)



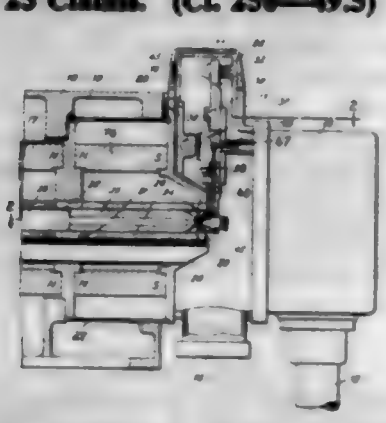
1. A method of gas analysis to determine the presence and quantity of a particular gas in a gaseous sample which comprises, in combination, the steps of passing a beam of radiation through a gaseous sample; resolving said beam into its spectrum; continuously scanning a fixed and definite interval of said spectrum containing periodic absorption lines of substantially equal intensities characteristic of said particular gas so as to produce an electrical signal; feeding said signal into a tuned amplifier, said amplifier being tuned to a frequency equal to the product of the number of absorption lines and the rate of scan.

2,849,619

ELECTRON MICROSCOPE HAVING A MULTIPLE-SPECIMEN CARRIER

Manfred Elsfeldt, Berlin-Tempelhof, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich, Germany, a corporation of Germany

Application July 23, 1951, Serial No. 238,182
In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
23 Claims. (Cl. 250—49.5)



8. In an electron microscope, a holder for receiving a plurality of specimens for examination in the path of the electron beam, first means for moving said holder to position any selected specimen into approximate position relative to the beam path, and second means for thereafter moving said holder to position the selected specimen accurately relative to the beam path.

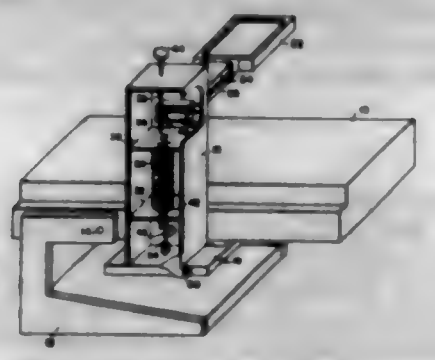
2,849,620

X-RAY APPARATUS

Harry E. Koerner, Catonsville, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application January 25, 1955, Serial No. 483,931
2 Claims. (Cl. 250—58)

1. In an X-ray table including a tiltable frame having a movable carriage, a tower supported on said carriage adjacent to one side of said frame, and a pivot member connecting the lower portion of said tower to said carriage, said table further including a fluoroscopic screen supporting member pivotally connected to said tower, the improvement which comprises a weight counterbalancing spring having a first end and a second end carried within said tower, an elongated connector member extending from said first end of said spring to said carriage at a point horizontally spaced from said pivot member, whereby said spring is operative to counterbalance at least part of



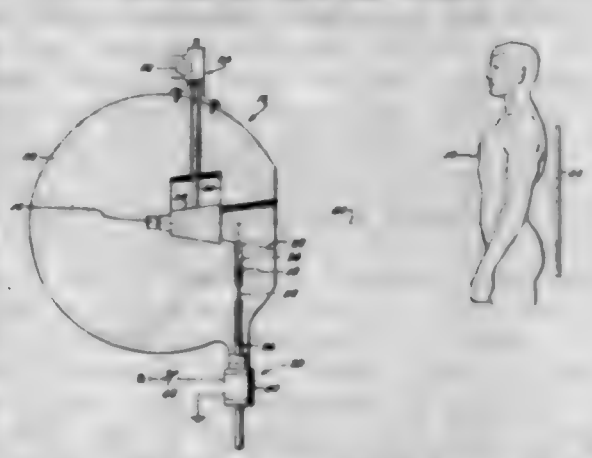
the weight of said tower as the latter is pivoted relative to said frame, and means connecting said second end of said spring to said screen supporting member whereby said spring counterbalances the weight of said member as the latter is pivoted relative to said tower.

2,849,631

METHODS AND APPARATUS FOR X-RAY THERAPY

John W. Clark, Santa Monica, Calif., assignor to Litton Industries of California, Beverly Hills, Calif.

Application March 25, 1955, Serial No. 496,732
14 Claims. (Cl. 250—64)



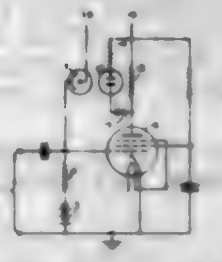
12. The method of determining radiographically the internal position of an object to be irradiated relative to the axis of a therapeutic X-ray beam, said method comprising the use of a low energy radioactive source for first irradiating the object with a low energy X-ray beam whose axis coincides with the axis of the therapeutic beam.

2,849,622

CONTROL CIRCUITS

Darrin H. Gridley, Washington, D. C.

Application July 19, 1946, Serial No. 684,905
2 Claims. (Cl. 250—205)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a bistable circuit, a variable impedance device having a conductive state and a nonconductive state and including at least a first element, a second element and a control element, means connected to said variable impedance device for maintaining the same in said nonconductive state, a first source of potential, an impedance element, means for connecting said impedance element

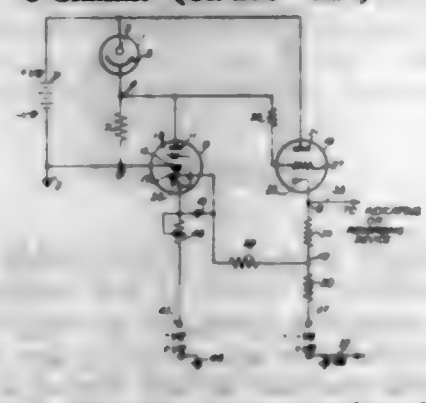
between said first element and said first source of potential, a gas discharge device, a second source of potential, means for connecting said gas discharge device and said second source of potential to form a series circuit connected in parallel with said impedance element such that the potential difference across the impedance element and the first source of potential are additive when said variable impedance device is in said conductive state, a photo tube positioned to receive radiant energy from said gas discharge device, means for maintaining said variable impedance device in the conductive state, means for connecting said photo tube between the last mentioned means and the control element of said variable impedance device, means connected to said variable impedance device for triggering the same to a selected one of the states, an output circuit, and means for connecting said output circuit to the variable impedance device.

2,849,623

SYSTEM FOR COMPENSATING FOR AMBIENT RADIATION

Arthur K. Drake, Braintree, Mass., assignor to Edgerton, Germeshausen and Grier, Inc., Boston, Mass., a corporation of Massachusetts

Application March 2, 1953, Serial No. 339,867
6 Claims. (Cl. 250—214)



1. A radiation detecting system having, in combination, an electric circuit comprising a radiation detector, a source of energy and a first load connected in series relation in order to produce a voltage from the source across the first load in response to radiation impinging upon the radiation detector, an electron tube having an anode, a control electrode and a cathode, means for connecting the anode and the control electrode in parallel with the radiation detector, a cathode load connected to the cathode, a further electron tube having an anode, a cathode and a pair of further electrodes, means for connecting the further electron-tube anode and one of the further electrodes in parallel with the first load, a time-constant-controlled electric network, means for connecting the network from the said cathode load to between the other further electrode and the cathode of the further electron tube, the parameters of the network providing a time constant of value sufficiently large to present a low-impedance to steady-state or slowly varying voltages from the said cathode load in order correspondingly to control the further electron tube, while presenting a high impedance to rapidly varying voltages so that the further electron tube may be insensitive to the same.

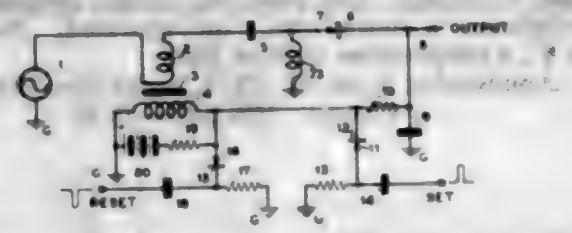
2,849,624

SATURABLE REACTANCE CIRCUITS

Richard L. Snyder, Moorestown, N. J.

Application August 31, 1956, Serial No. 607,441
3 Claims. (Cl. 307—88)

3. In a saturable reactor circuit, the combination of, a saturable reactor core, a signal coil coupled to said core, a control coil coupled to said core, a regenerative feedback circuit including a rectifier for passing holding current through said control coil in response to current passed by said signal coil and a non-regenerative feedback circuit for passing a predetermined initial current opposed to said holding current through said control



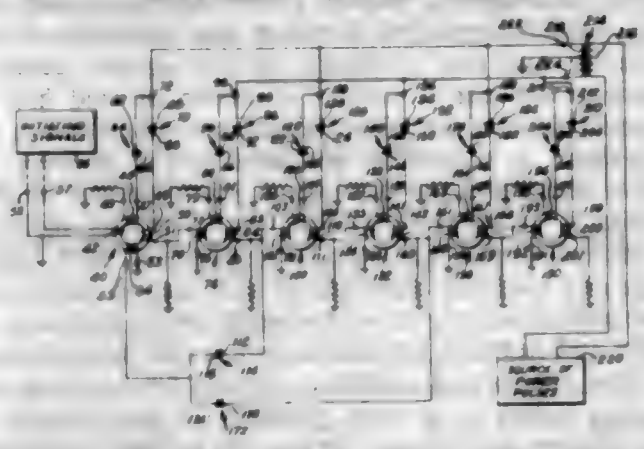
coil for substantially cancelling initial current flowing in said control coil.

2,849,625

MAGNETIC AMPLIFIER PULSE GENERATOR

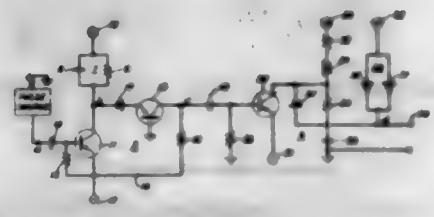
Lloyd M. Germain, New York, N. Y., assignor to Control Instrument Company, Brooklyn, N. Y., a corporation of New York

Application October 9, 1956, Serial No. 614,857
18 Claims. (Cl. 307—88)



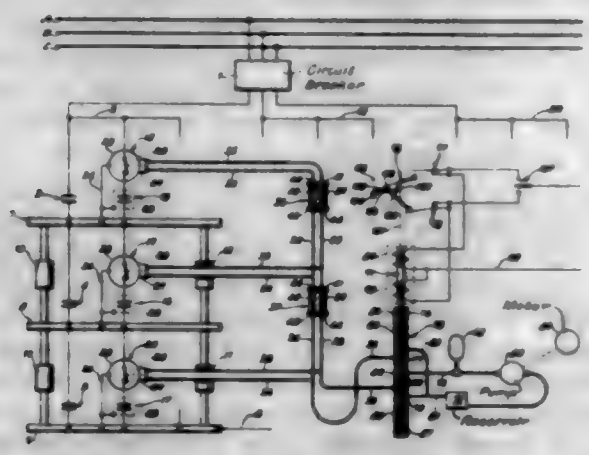
12. A magnetic amplifier pulse generator comprising a first magnetic core capable of assuming a positive or a negative remanence state, a first input winding coupled to said first magnetic core, a source of initiating signals coupled to feed said first input winding to drive the core into the positive remanence state, a feedback winding coupled to said first magnetic core, a first power winding coupled to said first magnetic core to pass a signal when the core is in the positive remanence state, a second magnetic core capable of assuming a positive or a negative remanence state, a second input winding coupled to said second magnetic core and fed by said first power winding to drive said second magnetic core into the positive remanence state, a second power winding coupled to said second magnetic core to pass a signal when the second magnetic core is in the positive remanence state, first means coupling said first magnetic core to said second power winding to inhibit the passing of signals from said source of initiating signals by said first magnetic core when said second magnetic core is in a positive remanence state, a third magnetic core capable of assuming a positive or a negative remanence state, a third input winding coupled to said third magnetic core and fed by said second power winding to drive said third magnetic core into the positive remanence state, a third power winding coupled to said third magnetic core to pass a signal when said third magnetic core is in the positive remanence state, a fourth magnetic core capable of assuming a positive or a negative remanence state, a fourth input winding coupled to said fourth magnetic core and fed by said third power winding to drive said fourth magnetic core into the positive remanence state, a fourth power winding coupled to said fourth magnetic core to pass a signal when said fourth magnetic core is in the positive remanence state, a source of power pulses and second means interposed between said source of power pulses and said power windings to feed power pulses sequentially to adjacent power windings and simultaneously to alternate power windings.

2,849,626
MONOSTABLE CIRCUIT
Claude D. Klapp, Los Angeles, Calif., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 15, 1955, Serial No. 501,612
4 Claims. (Cl. 307—88.5)



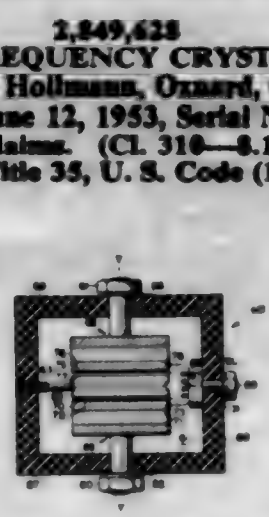
1. In a timing circuit for generating a pulse of predetermined duration independently of the duration of the pulses triggering said circuit, first and second electronic translating devices each having three electrodes, said devices each having high and low conduction conditions, a source of triggering pulses, a first resistor, means connecting said first resistor between one electrode of said first device and one electrode of said second device, a connection between a second electrode of said first device and a second electrode of said second device, a second resistor, a source of potential having positive and negative terminals and having an intermediate terminal providing a reference potential point, means including said second device for serially connecting said second resistor and said one electrode of said second device with said second electrode of said second device between said positive and negative terminals to bias said second device in its low conduction condition, means for applying said triggering pulses to a third electrode of said second device to trigger said second device into its high conduction condition for the duration of each triggering pulse, means including said connection between said second electrodes and a further connection between the third electrode of said first device and said reference potential point for biasing said first device into its low conduction condition in response to the triggering of said second device, a capacitor, means including said second resistor and said capacitor for holding said first device in its low conduction condition for a predetermined time longer than the duration of said triggering pulse, and means for deriving an output voltage wave from said first resistor.

2,849,627
HYDRAULIC OPERATION OF HIGH VOLTAGE ELECTRICAL APPARATUS
Max Rigert, West Allis, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application May 7, 1956, Serial No. 583,000
8 Claims. (Cl. 307—144)



8. In combination with a high voltage electric power line, a capacitor bank including a plurality of capacitor groups serially connected with each other and to said line and constituting a first voltage divider step, additional capacitor groups constituting an additional step adapted to be connected in series with each other and in parallel with coordinate groups in said first step, a high voltage switch in series with certain of said additional groups, respectively, a hydraulic switch actuator operatively connected to each switch, frame means supporting coordinate capacitor groups and their associated switches at different potential levels, respectively, hydraulic pump means, hydraulic conduit means interconnecting said pump means and hydraulic actuators, and conduit insulators separating said capacitor groups and switches at said different potential levels, said conduit insulators having fluid passageways therethrough in communication with said hydraulic conduit means, whereby said conduit means are separated into sections having potential levels corresponding with those of said capacitor groups.

2,849,628
VARIABLE FREQUENCY CRYSTAL DEVICE
Hans E. Hollmann, Oxnard, Calif.
Application June 12, 1953, Serial No. 361,447
2 Claims. (Cl. 310—8.1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



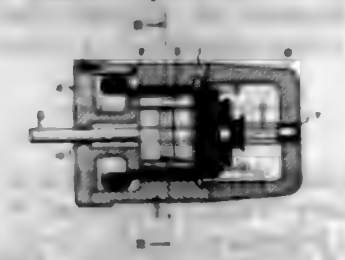
1. A variable frequency crystal device which comprises a piezoelectric crystal, a first nonlinear capacitor including a dielectric composed at least partially of a ferroelectric substance and having a first electrode disposed adjacent one face of said crystal, a second nonlinear capacitor including a dielectric composed at least partially of a ferroelectric substance and having a second electrode disposed adjacent another face of said crystal, said first and second electrodes being adapted to cause vibrations of said crystal when an oscillating voltage is impressed thereon, and an inductor connected between said first and second electrodes to serve as a choke coil to the said oscillating voltage.

2,849,629
CHATTER ACCELEROMETER
Charles W. Kissinger, Hyattsville, Md., assignor to the United States of America as represented by the Secretary of Commerce
Application August 16, 1955, Serial No. 528,851
5 Claims. (Cl. 310—8.4)



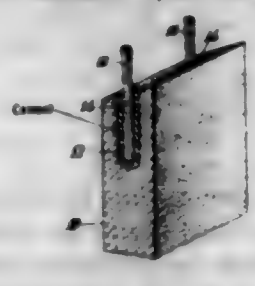
1. An accelerometer comprising piezoelectric means, means for deriving an output signal from said piezoelectric means, a loading mass on said piezoelectric means, a loose mass resting on said loading mass, positionable clamping means normally spaced from said loading mass to permit unrestrained motion of said loose mass and selectively operable means for positioning said clamping means relative to said loading mass for fixedly securing said loose mass to said loading mass.

2,849,630
ELECTRICAL GENERATORS
Dmitri Waloff, London, and William Frank Knight, Ashford, England, assignors to The Sperry Gyroscope Company Limited, Brentford, England, a company of Great Britain
Application November 29, 1955, Serial No. 549,786
Claims priority, application Great Britain September 1, 1955
2 Claims. (Cl. 310—154)



1. A tachogenerator comprising a flux conducting stator including an external annular yoke and a permanent magnet having the shape of a segmental cylinder with two diametrically opposite, substantially parallel flat faces and two salient poles fixedly located within the yoke with its axis coaxial with the axis of the yoke, a flat metallic piece cemented to each of the respective flat faces of the magnet extending between the salient poles thereof to provide a temperature compensating shunt for the stator, and a wound cup-shaped rotor coaxial with the yoke extending within the gap provided in the stator between the yoke and magnet.

2,849,631
ELECTRICALLY CONDUCTIVE CEMENT AND BRUSH SHUNT CONNECTION CONTAINING THE SAME
Kenneth R. Matz, Cleveland, Ohio, assignor to Union Carbide Corporation, a corporation of New York
Application April 19, 1957, Serial No. 653,765
17 Claims. (Cl. 310—249)



16. An embedded shunt connection for electrical brushes and contacts having a cavity therein and in said cavity a flexible conductor of electricity secured therein by a conductive cement consisting of 60 percent by weight of silver flakes, the largest dimension of which does not exceed 65 microns, from 25.2 percent to 36 percent by weight of an epoxy resin, 4 percent to 12 percent by weight of finely divided quartz filler material and from 2.8 percent to 4 percent by weight of triethanolamine.

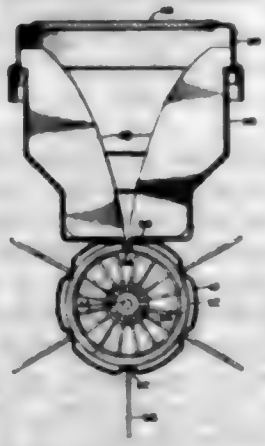
2,849,632
ARC TUBE SEAL AND MOUNT
Klaus Gottschalk, South Euclid, Ohio, assignor to General Electric Company, a corporation of New York
Application August 30, 1956, Serial No. 607,006
6 Claims. (Cl. 313—25)

4. An electric discharge lamp of the jacketed high-pressure type comprising a vitreous outer envelope enclosing a quartz arc tube, said tube having at each end an axially projecting flat pinch seal of width at least substantially as great as the diameter of the arc tube with an inlead conductor having an intermediate foil portion hermetically sealed therethrough, a pair of support wires embedded within each seal, one near each lateral edge and projecting axially from the outer end of the seal, at least one support wire in each seal having a laterally bent portion within the seal connected to the outer end of the foil portion of the inlead conductor therethrough, and



means within the outer envelope engaging the outer ends of the support wires to provide therethrough substantially the entire mechanical support for the arc tube and electrical connections to the inlead conductors.

2,849,633
MAGNETRON
Paul W. Crapuchettes, Atherton, Calif., assignor to Litton Industries, Inc., Beverly Hills, Calif.
Application November 16, 1954, Serial No. 469,178
9 Claims. (Cl. 313—45)

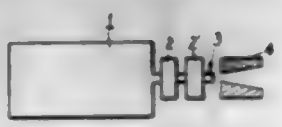


1. In a magnetron, the combination comprising: an anode assembly including an annular anode member having a substantially cylindrical periphery; a tubular housing member having a central region and two end regions, said housing member having a plurality of evenly spaced grooves depressed in its external periphery at its central region whereby a corresponding plurality of projections are formed in the internal wall of said housing member, each of said grooves and its corresponding projection being substantially parallel to the longitudinal axis of said tubular housing member, the reference circle defined by the tips of said projections having a diameter substantially equal to the diameter of said annular member, said annular member being positioned within said housing member adjacent said central region and being held therein by said projections; and a plurality of cooling fins fixedly attached to said central region of said housing member and extending radially outward, the plane of each of said fins being substantially parallel to the longitudinal axis of said tubular housing member.

2,849,634
LINEAR ELECTRON ACCELERATORS
Michael Crowley Crowley-Milling, Heaton Moor, England, assignor to Metropolitan-Vickers Electrical Company Limited, London, England, a British company
Application July 9, 1956, Serial No. 596,524
4 Claims. (Cl. 313—57)

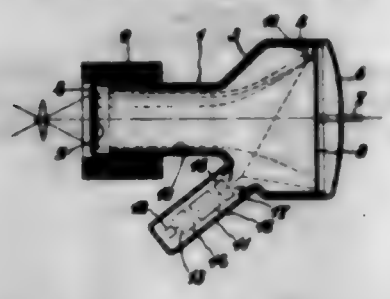
1. X-ray generating equipment comprising a linear electron accelerator in combination with a magnetic focus-

ing assembly for focusing the beam on the target which focusing assembly comprises two or more quadripolar magnetic lenses, successive lenses being of opposite po-



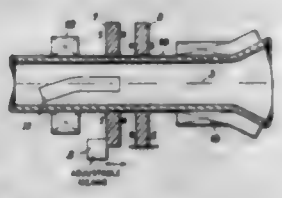
larity and the lenses having relative axial lengths so chosen as to ensure that the beam is brought to approximately the same focal point in the two principal planes which focal points are coincident with the target.

2,849,635
TELEVISION PICK-UP TUBE
Pieter Schagen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 2, 1953, Serial No. 395,679
Claims priority, application Netherlands December 9, 1952
3 Claims. (Cl. 313—65)



1. A television pick-up tube comprising a target electrode at one end, a photo-electric cathode at the other end producing photo-electrons in response to incident light, adjustable electron-optical means for projecting an electron image produced by part of the cathode onto the target, means disposed on the same side of the target as the cathode for scanning the target with an electron beam, said scanning means being closer to one edge of the target than an opposite edge, means including an electron-opaque member disposed in front of and alongside said opposite edge of said target electrode for intercepting photo-electrons and preventing the latter, independent of the adjustment of the electron-optical means, from impinging on a portion of the target located behind the electron-opaque member but at the same time allowing said scanning means to scan said portion of the target, and a conductive member serving as a collector and surrounding the target electrode.

2,849,636
MAGNETIC ELECTRON LENS
Johan Anton Verhoef and Wilhelm Godfried Amesz, Eindhoven, Netherlands, assignors, by meme assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application November 28, 1952, Serial No. 322,962
Claims priority, application Netherlands January 4, 1952
8 Claims. (Cl. 313—84)



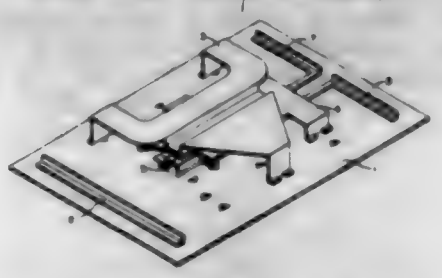
1. In combination, means producing a charged particle beam along a given path and means for focusing the beam, said focusing means comprising a pair of substantially annular, permanent magnets mounted substantially coaxially with and adjacent one another and surrounding the beam path and cooperating to produce an active magnetic field substantially at their axes and substantially in the area within the magnets, said magnets being magnetized in opposite directions whereby the stray magnetic fields produced by said pair of magnets at their axes on the side of each magnet remote from the other magnet are substantially neutralized, and means for varying the axial spacing between the magnets thereby to vary the strength of the active magnetic field and the focusing effect on the beam.

2,849,637
ELECTRODE FOR FLUORESCENT LAMP
Harry Weiss, Larchmont, N. Y.
Application February 2, 1956, Serial No. 563,018
8 Claims. (Cl. 313—109)



1. A fluorescent lamp comprising a glass tube with fluorescent coating and an electrode at each end, the electrodes each comprising a filament wire coated with carbon and additionally coated with an electron emissive coating.

2,849,638
ELECTRODE STRUCTURE AND METHOD FOR ELECTRONIC TUBES
Warren C. Johnson, Elmira, and Richard W. Anderson, Horseheads, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 25, 1955, Serial No. 490,452
12 Claims. (Cl. 313—257)



1. An electrode structure for an electrical discharge tube comprising a support-plate of insulating material having a planar portion including a central window, a cathode of sheet metal having an electron-emitting surface directly supported from said support-plate parallel to the plane of said window and said planar portion, said electron-emitting surface being above the plane of said window, a grid-electrode formed from sheet metal and having a central opening crossed by wire members parallel to said electron-emitting surface, said grid-electrode having side-portions substantially perpendicular to and directly affixing it to said support-plate so that said grid electrode is in parallel spaced relation to said electron-emitting surface, and an anode formed from sheet metal having side-members substantially perpendicular to and directly supporting it from said support-plate so that said anode is in parallel spaced relation to said electron-emitting surface.

2,849,639
ELECTRIC DISCHARGE DEVICE AND METHOD OF MAKING SAME
Edith B. Fehr, Schenectady, N. Y., and Allen P. Haase, Owensboro, Ky., assignors to General Electric Company, a corporation of New York
Application May 12, 1953, Serial No. 354,502
3 Claims. (Cl. 313—261)

1. An electrode assembly for an electric discharge device comprising a pair of coaxial rolls of continuous

insulating tape each having successive turns superimposed, a first electrode having opposite marginal edge portions interleaved between a pair of successive turns of the respective rolls and having its major portion extending between said rolls, and a second electrode having oppo-



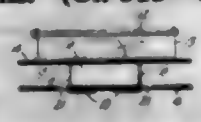
site marginal edge portions wrapped around and supported by the respective rolls with its major portion extending between the rolls in spaced relation to said first electrode, the major portions of said electrodes being separated only by free space forming an unobstructed electron flow path between said electrodes.

2,849,640

SPACER STRUCTURE

Joe F. Stephens, Owensboro, Ky., assignor to General Electric Company, a corporation of New York

Application October 26, 1954, Serial No. 464,766
3 Claims. (Cl. 313—292)



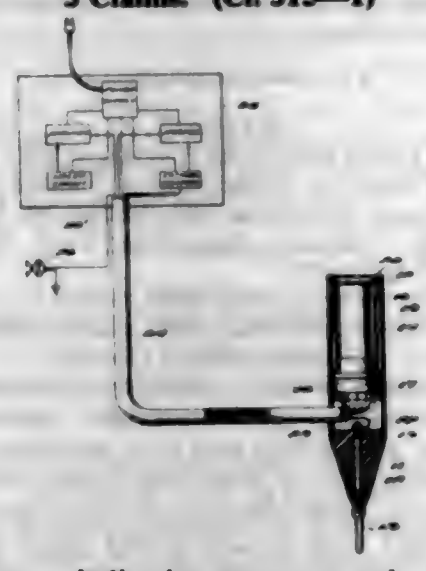
3. In an electronic tube, an insulative disk, a getter support, a shield interposed between said disk and getter support and in parallel spaced relation with said disk, and a spacer member of U-shaped cross section throughout its length disposed edgewise between said disk and shield, said spacer member having tabs extending from the opposite edges thereof, one of said tabs extending through and being bent over said disk for securing said disk to said spacer member, another of said tabs extending through said shield and having said getter support secured thereto with said getter support engaging said shield over said spacer member, whereby said getter support is effectively mounted and adapted for rigidly securing said shield to said spacer member.

2,849,641

WAVE INDICATING MEANS

Lawrence Zarrow, Jackson Heights, N. Y.

Application July 12, 1955, Serial No. 521,497
5 Claims. (Cl. 315—1)



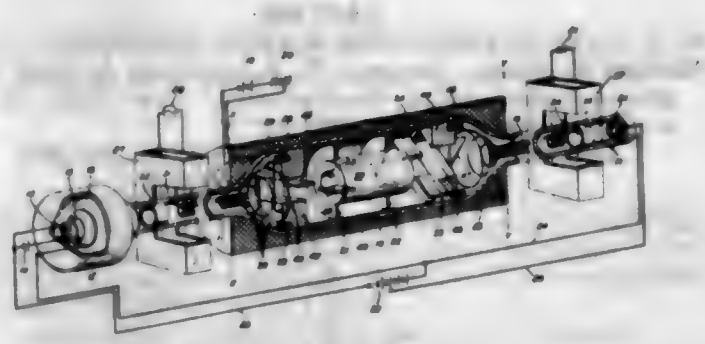
1. In a wave indicating means, a tube of insulating material adapted to be carried in the hand of a person, a cathode ray oscilloscope tube within said tube of insulating material and having ray deflecting electrodes, an end of said cathode ray tube being viewable through an end of said insulating tube for the observance of wave shape on said end of said cathode ray tube, a metallic tubular shield in said insulating tube and about said cathode ray tube, and a metallic probe secured to said insulating tube and extending outwardly therefrom.

2,849,642

TRAVELING WAVE AMPLIFIER

William M. Goodall, Oakhurst, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 17, 1953, Serial No. 362,310
4 Claims. (Cl. 315—3.6)



1. A wave amplifying device enclosed within a sealed envelope comprising a transmission path including a conductor in the form of an elongated helix, an input coupling circuit for said helix for exciting said helix with traveling electromagnetic waves, means for projecting a stream of electrons lengthwise of the helix and in the space occupied by the field of said helix, means for supporting linearly polarized electromagnetic wave energy in a plurality of polarizations including mutually perpendicular polarizations, said means being interposed in a center region of said path with adjacent portions of said helix extending on either side thereof, transition means at each end of said interposed means for coupling between said waves on an adjacent portion of said helix and waves of a predetermined linear polarization in each end of said interposed means, means for rotating wave energy propagated from one end to the other end of said interposed means from the predetermined polarization in said one end into the predetermined polarization in said other end, said rotation being antireciprocal, and means included in said interposed means for attenuating wave energy of one predetermined polarization to a substantially smaller degree than wave energy polarized perpendicular to said one predetermined polarization, said one predetermined polarization of said attenuating means being substantially parallel to the polarization of waves passing said attenuating means in the direction of said electron stream flow and thereby also perpendicular to some polarization of waves passing said attenuating means in a direction counter to said electron flow.

2,849,643

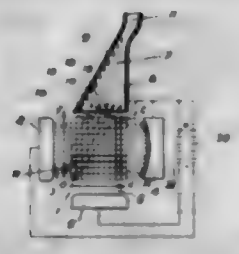
DOUBLE BEAM ELECTRON DISCHARGE TUBE

Georges Mourier, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France

Application January 11, 1956, Serial No. 558,448
Claims priority, application France January 13, 1955
17 Claims. (Cl. 315—3.6)

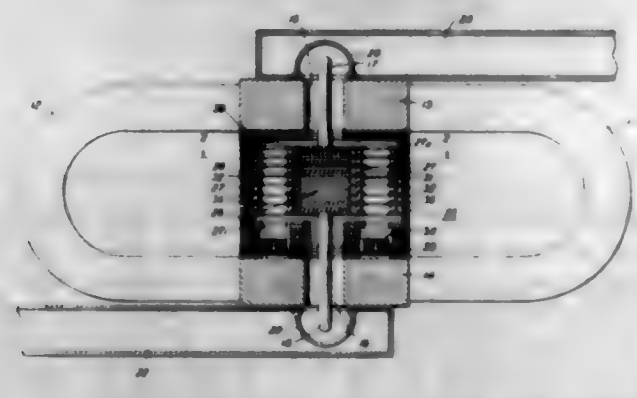
2. An ultra high frequency discharge tube comprising: a delay structure which is geometrically periodical along first and second mutually intersecting directions; first electron emissive means positioned for propagating electrons in said first direction in coupled relationship with said

structure for interaction with energy propagating therein; second electron emissive means positioned for propagating electrons in said second direction in coupled rela-



tionship with said structure for interaction with energy propagating therein; and output means coupled to said structure for abstracting energy propagating therein.

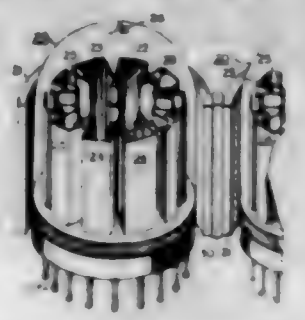
2,849,644
ELECTRON DISCHARGE DEVICES
Marion E. Hines, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 15, 1953, Serial No. 355,210
7 Claims. (Cl. 315—5.16)



1. An electron discharge device comprising means defining an input resonant cavity, means defining an output resonant cavity, means defining a plurality of low Q juxtaposed annular resonant cavities between said input and output resonant cavities, said last-mentioned means including annular wall members common to adjacent cavities, each of said wall members having a plurality of beam slots radially and symmetrically disposed with respect to the axis of said wall members, the slots in successive wall members being aligned, means for projecting an electron beam of high current through the aligned slots of each of said cavities in succession from said input resonant cavity to said output resonant cavity for obtaining high gain and efficiency by multiple interaction, means for focusing said electron beam, signal input and output means coupled to said input and output resonant cavities, and resistive signal power absorbent elements positioned within said plurality of resonant cavities between said input and output cavities for reducing the characteristic impedance and increasing the effective bandwidth thereof, said absorbent elements being annular and positioned coaxially around the inner and outer edges of said radially disposed slots in each of said plurality of resonant cavities.

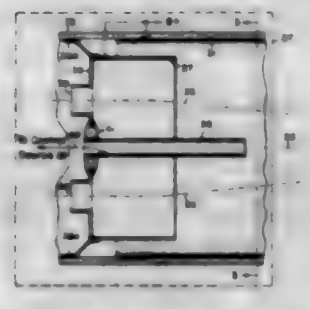
2,849,645
MAGNETRON TUBE MAGNET STRUCTURE
Theodore A. Haddad, Swarthmore, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application March 15, 1956, Serial No. 571,649
7 Claims. (Cl. 315—8)

1. A magnet structure for a plurality of magnetron tubes comprising a plurality of cylindrical magnets positioned in proximity on a common surface with their magnetic axes mutually parallel, and a plurality of bars of low reluctance material interposed one between each pair of adjacent magnet walls of said cylindrical magnets



with the major axes of said bars parallel to said magnetic axes.

2,849,646
COLOR CONVERGENCE SYSTEM
Theodore S. Noskowicz, Wood Dale, Ill., assignor to The Rauland Corporation, a corporation of Illinois
Application February 24, 1953, Serial No. 338,200
4 Claims. (Cl. 315—13)

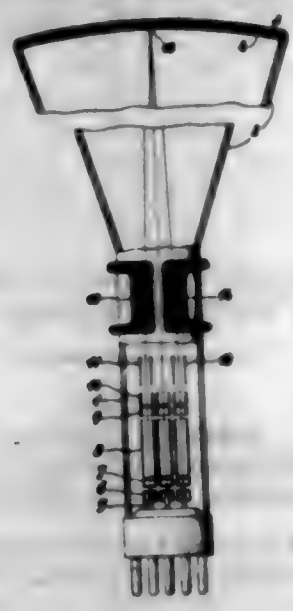


1. An image reproducing device including: an electrode system for developing a plurality of electron beams having predetermined focal lengths and projecting said beams along substantially parallel paths radially spaced in a substantially symmetrical pattern about a reference axis and extending through a scanning-deflection field space toward a target electrode; a first convergence-deflection structure mounted substantially within said beam-path pattern intermediate said electrode system and said scanning-deflection field space; means for coupling said first convergence-deflection structure to a first control-potential source; a second convergence-deflection structure radially spaced about said reference axis beyond said beam-path pattern in substantially encompassing relation to said first deflection structure and defining therewith a convergence field space encompassing a portion of each of said beam paths; and means for coupling said second convergence-deflection structure to a second control-potential source to establish in said convergence field space a transverse electrostatic field for individual directing each of said electron beams toward a common point of convergence without substantially changing said focal lengths of said beam.

2,849,647
COLOR TELEVISION REPRODUCING DEVICE
Jan Carel Francken, Emmasingel, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 28, 1955, Serial No. 491,163
Claims priority, application Netherlands March 4, 1954
6 Claims. (Cl. 315—13)

1. An electrical device comprising a cathode-ray tube including an electron-receiving screen, means including three electron guns within said tube producing three electron beams lying in as single flat plane, deviation-field-producing means common to said three electron beams for causing said three beams in said single plane jointly to scan said electron-receiving screen, said deviation-field-producing means establishing a field having substan-

tially two perpendicular components, one of said perpendicular components being parallel to the single plane of the beams and also substantially at right angles to the axis of the tube, and electrostatic deflecting means as-



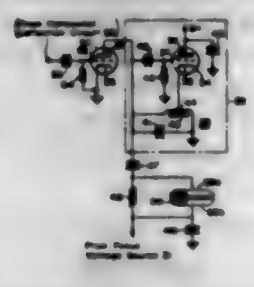
sociated with each of two of said electron guns for causing the beams produced by said two guns to be directed substantially to the same area of said screen as the beam from the third gun.

2,849,648

TELEVISION APPARATUS

Francis T. Thompson, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 22, 1956, Serial No. 593,201
7 Claims. (Cl. 315—24)



1. A cathode ray tube spot wobble deflection system comprising, a cathode ray tube comprising a target electrode and an electron gun arrangement for producing and focusing a beam of electrons, said electron gun arrangement including as a part thereof a divided electrode, main deflection means for said cathode ray tube, a vertical deflection circuit connected to said main deflection means for deflecting said beam in a vertical direction across said target electrode at a relatively slow rate, a horizontal deflection circuit connected to said main deflection means for deflecting said beam in a horizontal direction across said target electrode at a more rapid rate, and an auxiliary vertical deflection circuit connected to said divided electrode for effecting a very rapid deflection of said beam in a vertical direction.

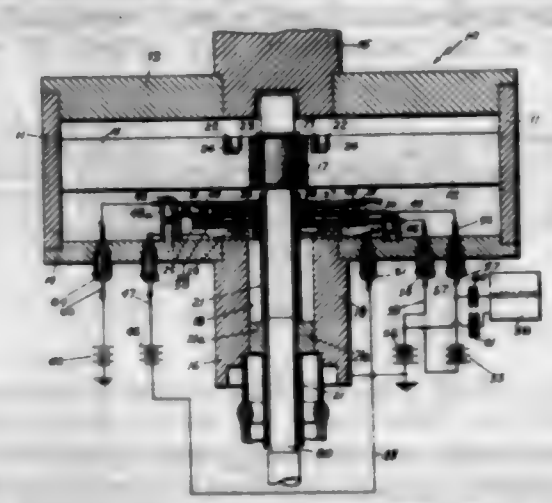
2,849,649

ELECTRON DISCHARGE DEVICES

Lawrence L. Clampitt, Needham, and Palmer P. Derby, Wellesley, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application December 18, 1953, Serial No. 399,054
5 Claims. (Cl. 315—39.57)

1. In an electron discharge device having an anode defining a plurality of cavity resonators and a principal cathode formed on a cylindrical surface, a supplementary cathode disposed on a plane perpendicular to the axis of the principal cathode and parallel to the plane of the resonators formed in the anode, and a plurality of grid



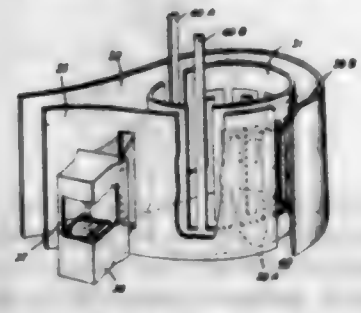
electrodes extending radially about the axis of the principal cathode in a plane perpendicular to said axis.

2,849,650

HIGH FREQUENCY APPARATUS

Calvin F. Quate, Berkeley Heights, and John W. Sullivan, Scotch Plains, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application June 10, 1955, Serial No. 514,422
6 Claims. (Cl. 315—3.5)



1. In an electron discharge device, in combination, means for establishing a singular equipotential surface characterized by a crossover region, said means comprising an outer electrode and an inner electrode, said inner electrode comprising a slow wave circuit for propagating an electromagnetic wave and having a teardrop-shaped cross-section over at least a portion of its length, an auxiliary electrode having a surface defining a portion of the singular equipotential surface encompassing the crossover region and being apertured at the crossover region, and means positioned external to the region bounded by the inner and outer electrodes and the auxiliary electrode for projecting an electron beam through the aperture in the auxiliary electrode for flow along another portion of the singular equipotential surface for interaction with the propagating electromagnetic wave.

2,849,651

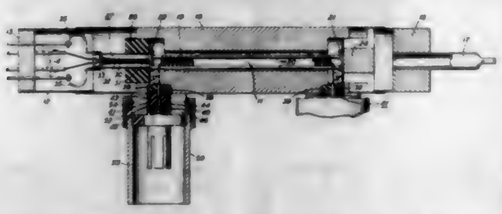
TRAVELING WAVE TUBES

George H. Robertson, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 23, 1952, Serial No. 305,958
9 Claims. (Cl. 315—39.3)

1. A traveling wave tube comprising a conductive wire helix, means for projecting a stream of electrons along said helix, a coaxial terminal, and means for transferring electromagnetic signal waves between said helix and said terminal, said last-mentioned means comprising a solid insulator core member, a conductive wire coil of constant pitch wound on said core member and electrically connected between said helix and the inner conductor of said coaxial terminal, and a metallic member encompassing said coil, closely spaced therefrom, and

connected to the outer conductor of said coaxial terminal, the length of said coil being a quarter wave long at a particular frequency of said signal waves and the impedance of the transmission line defined by said coil



and said metallic member being constant and being such as to match the impedances of said helix and said coaxial terminal whereby substantially no reflection of said signal waves occurs at said frequency.

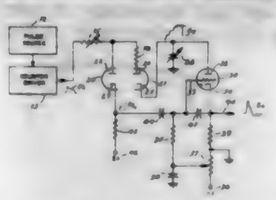
2,849,652
MAGNETRON
Karl Steimel, Ulm (Danube), Germany, assignor to Telefunken G. m. b. H., Ulm (Danube), Germany
Application April 26, 1954, Serial No. 425,584
Claims priority, application Germany April 24, 1953
20 Claims. (Cl. 315—39.75)



1. A magnetron comprising, in combination, a cathode; a plurality of cavity resonators symmetrically disposed about said cathode and each having an open end facing the same, the number of cavity resonators being equal to an integral multiple of x, x being an integer greater than one; means coupled to at least some of said cavity resonators for causing immediately succeeding groups, each consisting of x adjacent resonators, to oscillate together as succeeding first units forming together a first cavity resonator system, and for causing immediately succeeding different groups, each consisting of x adjacent different ones of said cavity resonators than comprise any of said first units, to oscillate together as succeeding second units forming together a second cavity resonator system, whereby said first and second units overlap one another and are mutually electrically decoupled from one another; output means coupled to one of said first units for extracting radio frequency energy from said magnetron and thereby loading said first cavity resonator system; and input means coupled to one of said second units for injecting a control oscillation into said second cavity resonator system.

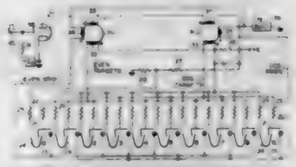
2,849,653
COUNTER CIRCUITS
Howard A. Bleam, Chicago, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application March 21, 1955, Serial No. 495,626
12 Claims. (Cl. 315—84 5)

1. In combination with a counter circuit including a capacitor, first diode means for supplying a train of pulses to said capacitor to produce cumulative incremental charges thereon, means for supplying said train of pulses to said first diode means, and discharge circuit means having a control element and constructed to discharge the charge on said capacitor in response to a signal supplied to said control element, a control circuit constructed to respond to a predetermined amount of charge on said capacitor to supply at least one of the pulses of said train



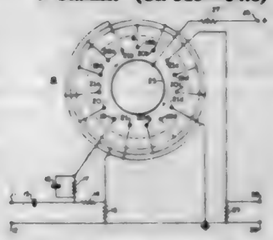
of pulses to said control element to cause said discharge circuit means to discharge the charge on said capacitor.

2,849,654
DRIVER CIRCUIT
Joseph L. Medoff, Merion Station, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application February 15, 1956, Serial No. 565,741
8 Claims. (Cl. 315—84.6)



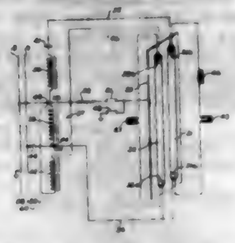
1. A driver circuit including a magnetron beam switching tube having a plurality of output electrodes and a plurality of switching grids, a pair of saturable magnetic cores, a first winding on each of said cores connected to respective sets of alternate output electrodes of said tube, a second winding on each of said cores connected to respective sets of alternate switching grids of said tube in polarity opposite to said first winding, and a third winding on each of said cores in series circuit coupling a common switching pulse current to both cores in polarity opposite to said first winding.

2,849,655
GLOW TRANSFER TUBE DRIVING CIRCUIT
John E. Adams, Newtonville, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application October 31, 1956, Serial No. 619,536
9 Claims. (Cl. 315—84.6)



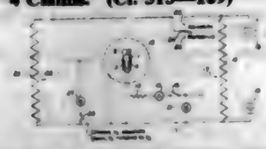
1. A drive circuit for a glow discharge counting tube having a plurality of cathodes and first and second sets of guide electrodes comprising means for applying an input signal to said first set of guide electrodes, means for simultaneously applying a portion of said input signal to said second set of guide electrodes, and means for increasing the potential on said first set of guide electrodes in a positive direction after the transfer of said glow discharge to one of said first set of guide electrodes to cause the subsequent transfer of said glow discharge to one of said second set of guide electrodes.

2,849,656
SWITCH-START DISCHARGE LAMP CIRCUIT
Walter J. Karash, Euclid, Ohio, assignor to General Electric Company, a corporation of New York
Application September 15, 1953, Serial No. 380,313
3 Claims. (Cl. 315—97)



1. A switch-start leading power factor circuit combination comprising an elongated electric discharge device having a pair of filamentary thermionic electrodes sealed into opposite ends thereof, a leading power factor load circuit including said device and comprising a voltage source and a ballasting capacitance connected in series therewith, an electrode preheating circuit comprising a thermal starting switch connected in shunt across said device and in series with its filamentary electrodes, a conductive member located in proximity to said device and extending the length thereof, and means for applying to said member a potential intermediate those applied to said electrodes by said load circuit at starting.

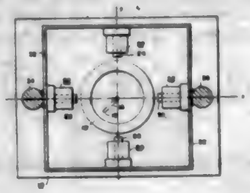
2,849,657
GLOW DISCHARGE DEVICE CIRCUIT
Nancy Elizabeth Nash, Tryon, N. C., and Ted E. Foulke, Cleveland, Ohio, assignors to General Electric Company, a corporation of New York
Application March 30, 1954, Serial No. 419,851
4 Claims. (Cl. 315—169)



1. In combination, a gaseous electric glow discharge device comprising an envelope containing an inert gas at a low pressure and a pair of cold electrodes coated with an electron-emissive mixture containing alkaline-earth oxides sealed therein, a light-impervious enclosure surrounding said device, a conductive member surrounding said envelope and in electrical charge-imparting relation thereto, and means applying to said member, upon each extinguishment of said device, a negative voltage change of approximately —30 volts to effect immediately the terminal dark breakdown voltage of said device.

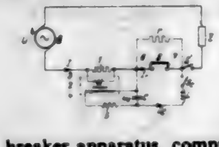
2,849,658
CONTROL APPARATUS
Edwin W. Johnson, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 24, 1953, Serial No. 400,219
9 Claims. (Cl. 315—344)

1. In an arc positioning control device, the combination comprising, means for producing an electric arc, two electromagnets, each electromagnet including at least two coils, the coils of the two electromagnets being so positioned around said arc that when current flows through the coils of one of the two electromagnets said arc is deflected in one direction and when current flows through the coils of the other of the two electromagnets said arc is deflected in another direction, a balancing circuit so connected to the coils of the two electromagnets that when the balancing circuit is at a predetermined setting the current flow through the coils of the two



electromagnets is substantially zero, and means connected to the balancing circuit for unbalancing the balancing circuit, to thereby change the relative magnitudes of the current flow through the coils of the two electromagnets and thus deflect said arc in a given direction.

2,849,659
DIRECT-CURRENT AND ALTERNATING-CURRENT CIRCUIT INTERRUPTERS
Fritz Kesselring, Zollikon, Zurich, Switzerland, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany
Application March 24, 1954, Serial No. 418,263
Claims priority, application Switzerland March 25, 1953
16 Claims. (Cl. 317—11)

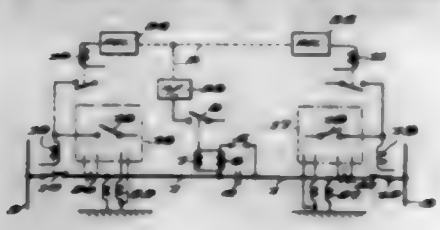


1. Circuit breaker apparatus, comprising a load circuit to be opened, a normally closed main switch in said load circuit providing a current-interrupting gap when open, a normally open impulse circuit connected across said gap and having circuit closing means, control means connected with said closing means for closing said impulse circuit at a time near the opening of said main switch, said impulse circuit having impulse generating means operative upon closing of said circuit closing means to pass through said gap an instantaneous current pulse of opposite polarity relative to the load current, said impulse generating means comprising a normally charged capacitance and voltage supply means connected with said capacitance for charging said capacitance, said voltage supply means having at said capacitance a voltage higher than the minimum required for the instantaneous amplitude of said current pulse to be higher than the simultaneously instantaneous magnitude of said load current.

2,849,660
PROTECTIVE CIRCUIT FOR HIGH TENSION LINES WITH SERIES CONDENSERS
Franz Gygax, Ennetbaden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie., Baden, Switzerland, a joint-stock company
Application July 1, 1955, Serial No. 519,589
Claims priority, application Switzerland July 10, 1954
7 Claims. (Cl. 317—29)

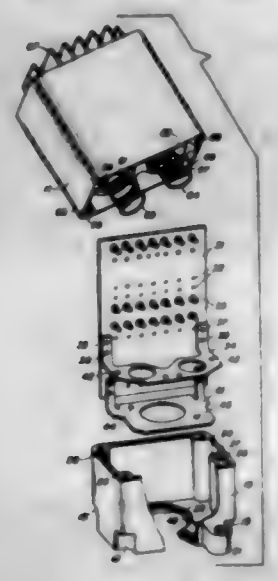
1. In a protective arrangement for a high voltage transmission line extending outwardly from a power station, said line including condenser means connected to the line at a point remote from the power station and means such as a spark gap connected in parallel with said condenser means for shunting said condenser means out of the line when overstrained as a result of a short-circuit condition on the line, the improvement which comprises means actuated upon shunting out said condenser means for produc-

ing a signal, means transmitting said signal back to said station, and protective means at said station responsive



to receipt of said signal for effecting a disconnection of the line at said station.

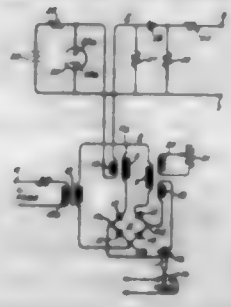
2,849,661
BRACKET TYPE PACKAGE UNIT
William M. Olsson, San Diego, Calif.
Application November 13, 1953, Serial No. 392,065
3 Claims. (Cl. 317—101)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A repairable plug-in package comprising a base member, a cap, ledges formed on opposite sides of said base member, a pair of oppositely disposed aligned vertical slots formed in both said base member and said cap, an aperture in the bottom of said base member, a parts board assembly comprising a parts board positioned in said slots and a pair of spaced brackets secured rigidly to the lower portion of said parts board and extending perpendicularly therefrom, the lower one of said brackets being adapted to mount a connector plug thereon, and means on said parts board adapted for mounting electronics components thereon, means associated with said lower bracket for rigidly mounting and securing said parts board assembly in said base member with said plug extending through the aperture in said base member with said upper bracket supported by said ledges, threaded bores in said ledges, at least one aperture in said upper bracket adapted for mounting a tube socket therein, and smaller openings adjacent said tube socket aperture for securing tube sockets on said bracket, certain of said openings being aligned with the threaded bores in said ledges whereby securing elements may extend therethrough to secure said bracket rigidly in position within said base member.

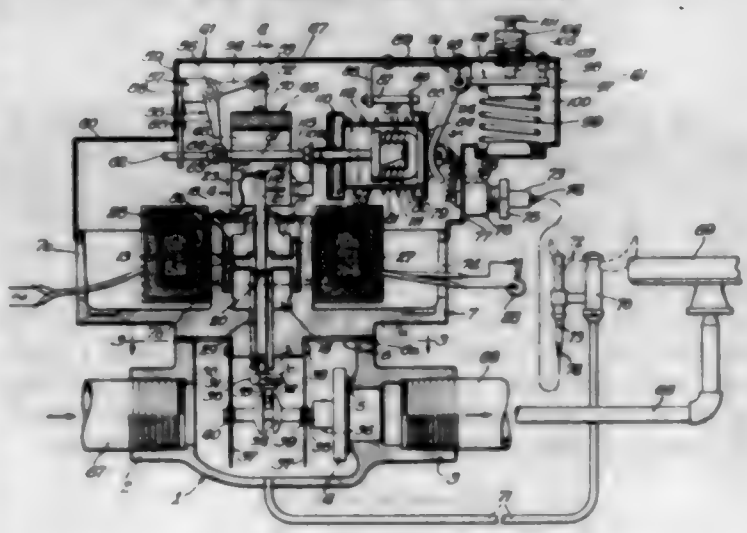
2,849,662
STATIC INVERSE TIME OVERVOLTAGE DEVICE
Harold H. Britten, Waynesboro, Va., assignor to General Electric Company, a corporation of New York
Application April 24, 1956, Serial No. 580,249
6 Claims. (Cl. 317—148)

1. A static inverse time overvoltage device comprising a magnetic amplifier having output terminals, a saturation control winding and a main load circuit reactance winding, means comprising a saturable core transformer for supplying to said load circuit reactance winding an alternating voltage of substantially constant volt seconds per cycle and having a magnitude substantially less than the magnitude required to produce flux excursions of maximum flux density in the magnetic structure of said amplifier, a pair of signal voltage input terminals, and means responsive to a predetermined normal value of signal voltage at said input terminals for establishing at said output terminals a relatively low value of output voltage and responsive to an overvoltage value of said



signal voltage for producing at said output terminals a relatively large value of output voltage a predetermined interval of time after the occurrence of said overvoltage that is inversely proportional to the magnitude of said overvoltage comprising a source of reference voltage and electrical connections interconnecting said reference voltage source, said input terminals and said control winding supply a first current of one polarity in response to said predetermined normal voltage at said input terminals and a second current of another polarity to said control winding in response to an overvoltage at said input terminals.

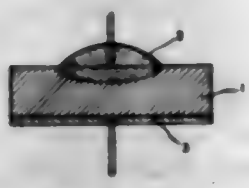
2,849,663
ELECTROMAGNETIC CONTROL WITH MAGNETIC SHUNT SAFETY MEANS
John H. Thornbery, Whitefish Bay, and Russell B. Matthews, Wauwatosa, Wis., assignors to Base Inc., a corporation of Wisconsin
Application January 21, 1953, Serial No. 332,464
10 Claims. (Cl. 317—197)



1. Control means comprising, means defining a low reluctance flux path and an air gap operatively associated therewith, an actuatable member in said air gap responsive to flow of magnetic flux thereacross, means for producing magnetic flux flow in said low reluctance path, condition responsive flux diverting means comprising a winding associated with said flux path and energized in response to a given condition by magnetic flux afforded by said flux producing means for diverting magnetic flux around a portion of said flux path for flow across said air gap and actuation of said member, flux shunting means including a movable magnetic member having an inoperative position and having an operative position bridging said air gap and affording a magnetic shunt

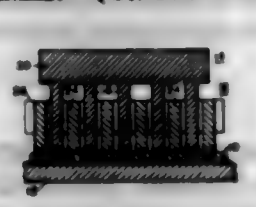
therefor to prevent any substantial magnetic flux flow across said air gap and hence to prevent actuation of said actuatable member irrespective of the response of said flux diverting means to said condition, and electromagnetic operating means for said magnetic member.

2,849,664
SEMI-CONDUCTOR DIODE
Julian Robert Anthony Beale, Wraysbury, near Staines, England, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application October 17, 1955, Serial No. 540,726
Claims priority, application Great Britain October 18, 1954
8 Claims. (Cl. 317—234)



1. A semi-conductor diode comprising a semi-conductive body and ohmic and rectifying connections to said body and spaced apart a distance greater than the diffusion length of minority carriers in said body, the lifetime of minority carriers in said body being not more than 5 microseconds.

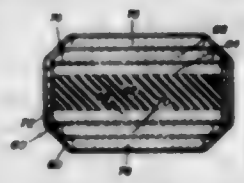
2,849,665
ULTRA HIGH POWER TRANSISTOR
John L. Boyer, Forest Hills, and August P. Colaneco, Penn Township, Allegheny County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 17, 1955, Serial No. 540,756
7 Claims. (Cl. 317—235)



1. A translation device comprising a body of semiconductor material of one type conductivity having two parallel large dimension surfaces, said body having a plurality of spaced zones of opposite type conductivity material positioned in one surface thereof, electrode contacts to said zones and said body to provide two electrodes, said electrodes consisting of a plurality of spaced large area sheet-like members having a coefficient of thermal expansion similar to said semiconductor material positioned with an edge of each of said members positioned on the surface in which said zones are positioned, a first group of said members forming one electrode in contact with said zones in the surface of said body and a second group of said members forming the other electrode in contact with said body intermediate said zones to form two interleaved structures.

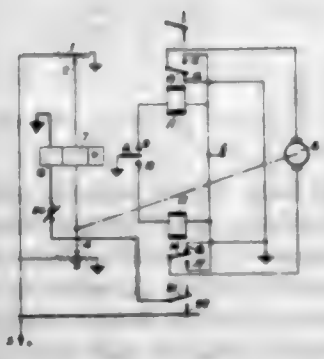
2,849,666
TENSIONED DIELECTRIC VARIABLE CONDENSER
William A. Seergeant, Cashion, Ariz.
Application July 5, 1955, Serial No. 519,887
6 Claims. (Cl. 317—249)

1. A variable condenser, comprising an insulating base plate, a plurality of planar spaced electrode plates supported by said insulating base plate, a continuous web of pliable insulating sheet material, fixedly held relatively to the insulating base plate, being wound under tensional stress about the insulating base plate in a plurality of layers, each of said layers including a section passing over the surface of one of the spaced electrode plates, each of the spaced planar electrode plates being thus separated from an adjacent electrode plate by a section of the continuous web of insulating sheet mate-



rial under a tensional stress applied substantially in parallelism to the surface of the electrode plates between which it passes, means for moving a planar electrode plate held between sections of the continuous web essentially in parallelism to itself and to the insulating web transversely with respect to said web to vary the capacity of the condenser.

2,849,667
SERVO SYSTEMS
Terence Alexander McMullin, Welwyn Garden City, England, assignor to Murphy Radio Limited, London, England, a British company
Application May 10, 1954, Serial No. 428,729
Claims priority, application Great Britain May 15, 1953
6 Claims. (Cl. 318—28)



2. A servo mechanism comprising a master device adjustable in opposite senses, a slave device operable in opposite senses, a source of power for operating the slave device, mechanism connecting said source of power to said slave device to operate it in one sense or the other, means connecting said master and slave devices with said mechanism to determine the sense of operation, a source of bias associated with said mechanism and means actuated by and during operation of said mechanism in one sense only for causing said source of bias to shift the equilibrium relation of said master device and slave device.

2,849,668
AUTOMATIC MACHINE CONTROL
Robert W. Tripp, Bronxville, N. Y., assignor, by mesne assignments, to Inductosyn Corporation, Carson City, Nev., a corporation of Nevada
Application October 14, 1955, Serial No. 540,429
7 Claims. (Cl. 318—28)

4. A digital-to-analog converter comprising means for supplying a digital input as groups of digits of decimal numbers representing desired travel of a driven element, a rotary stepping switch for each of said groups of digits, each of said switches having ten positions and a stepping magnet, a circuit responsive to the digital input in each of said groups to operate one of said magnets and move its switch to any one of said positions as determined by said input, one of said switches comprising means for supplying different signal values of a range of values, and another of said switches comprising means for supplying

different signal values in another range of values decimally related to and overlapping said first range, and means



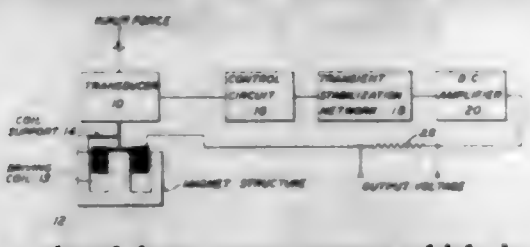
for operating said driven element by the combined signal values selected by a plurality of said switches.

2,849,669

ELECTRONIC CLOSED LOOP SYSTEM

John F. Kinkel, Altadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application October 25, 1955, Serial No. 542,623
6 Claims. (Cl. 318—32)



6. In a closed loop servo system which is normally balanced, the combination of means generating an error signal in accordance with a condition of unbalance of the system; a control circuit coupled to the error signal generating means including a first electron tube and a second electron tube, each of said electron tubes including at least a cathode, an anode and a control electrode; means connecting the anode of the first electron tube to the control electrode of the second electron tube; a voltage divider connected between the cathode of the second electron tube and ground reference potential; a positive feedback path connected between the voltage divider and the cathode of the first electron tube; a frequency selective negative feedback path comprising a resistor and a capacitor connected serially between the cathode of the second electron tube and the control electrode of the first electron tube, the values of resistors and capacitors in said feedback paths being so selected as to provide the control circuit with a gain which is substantially inversely proportional to frequency for signals having a frequency lower than audio frequency and a substantially constant gain for signals having a frequency greater than audio frequency; an amplifier coupled to the control circuit for amplifying the error signal, and means coupled to the amplifier to return the system to its normally balanced condition in response to the amplified error signal.

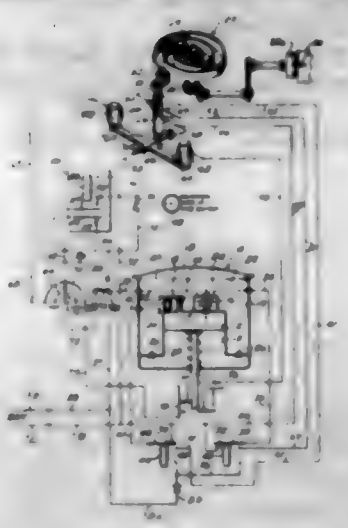
2,849,670

FOLLOW-UP CONTROL SYSTEM

Harold A. McIntosh, Los Angeles, and Winston G. Shoquen, La Crescenta, Calif., assignors to General Controls Co., Glendale, Calif., a corporation of California

Application May 21, 1956, Serial No. 586,213
3 Claims. (Cl. 318—32)

1. In a follow-up control system, including a load actuator, electrically operable means for moving the actuator in opposite directions, a circuit controller having an arm movable to opposite contacting positions that are respectively effective to oppositely operate said electrically operable means, condition responsive means influencing the position of the arm, first electromagnetic means for urging the arm toward one contacting position, second electromagnetic means for urging the arm toward the other contacting position, the combination therewith of: a potentiometer having a resistance and two taps, one of said taps being adjustable; a circuit for said first electromagnetic means including one end of



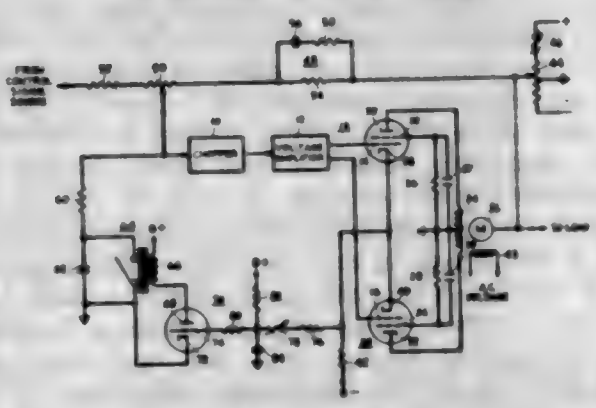
said potentiometer resistance and one of said taps; a circuit for said second electromagnetic means including the other end of said first potentiometer resistance, said one tap and a second potentiometer the resistance of which changes in accordance with the position of the actuator; the other tap paralleling said one tap; a switch movable between two positions; and timer means operable at one position of said switch for making said other tap effective at one time and said one tap effective at another time; said one tap being continuously operable when said switch is at its other position.

2,849,671

INTEGRAL CONTROL FOR SERVOMECHANISMS

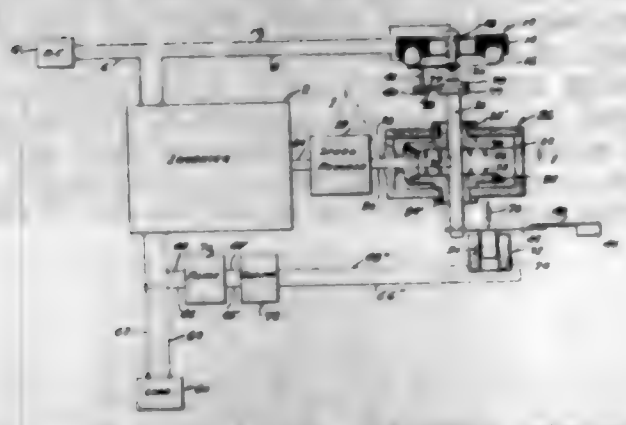
Robert S. Stefan, Towson, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application October 10, 1956, Serial No. 615,210
11 Claims. (Cl. 318—448)



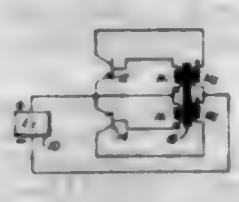
1. In a servomechanism, amplifier means, an integral control having a capacitance means, said integral control being connected to the input of said amplifier means, shunting means connected across at least a part of said capacitance means, means connected between said shunting means and said amplifier means whereby the impedance of said shunting means is decreased with increased signal input to said amplifier means in a predetermined relationship, said means connected between said switch means and said amplifier means including time delay means to preclude chattering of said switch means.

2,849,672
INVERTER CONTROL
William Kober, Fairport, N. Y., assignor to TKM Electric Corp., Rochester, N. Y.
Application April 8, 1954, Serial No. 421,936
5 Claims. (Cl. 321—18)



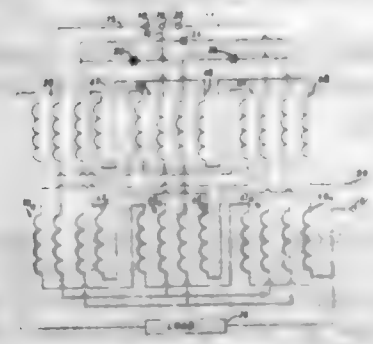
1. A control mechanism for maintaining substantially constant the output frequency of a dynamoelectric machine having a direct current input and an alternating current output comprising, an adjustable electrical control device interposed in the input circuit of said machine, a pair of movable members, drive means for moving said members in opposite directions, control means normally biased to a neutral position with respect to said members and selectively engageable therewith for being moved thereby in opposite directions, means operatively connecting said control means with said control device for adjusting the latter upon movement of said control means by either of said members, and means for shifting said control means into selective engagement with said members automatically in response to variations in the output frequency of said machine including electrically actuated means operatively associated with said control means for shifting the same and energizing circuit means for said electrically actuated means including frequency sensitive means operatively associated with the output circuit of said machine.

2,849,673
TRANSISTORIZED INVERTERS
Robert M. Hubbard, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application October 8, 1956, Serial No. 614,397
8 Claims. (Cl. 321—44)



1. A circuit for converting direct voltage into alternating voltage, comprising two transistors each having emitter, collector and base, a timing control transformer having a core of the type represented by a "square" hysteresis loop, a pair of similar primaries and a pair of similar secondaries, a source of direct voltage having a positive terminal connected to the emitters of both transistors, means connecting said secondaries respectively in series with the emitter and base of said transistors respectively with relatively opposite polarity of said secondaries in relation thereto, said direct voltage source having a negative terminal connected to one end of one primary and to the oppositely poled end of the other primary, means connecting the remaining ends of said primaries to the transistor collectors, respectively, thereby to form a self-oscillating circuit wherein said transistors are alternately driven between collector current saturation and cutoff by feedback through said timing control transformer, a power output transformer having a pair of primaries and a secondary, means including a source of direct voltage connecting the collector and emitter of one transistor in series with one such output transformer primary to pass direct current through the latter during periods of transistor conductivity between such collector and emitter, and means including a source of direct voltage connecting the collector and emitter of the other transistor in series with the other such output transformer primary to pass direct current through the latter with a polarity opposite to that of the first such primary during periods of transistor conductivity between such latter collector and emitter, thereby to induce alternating voltage in such output transformer secondary during self-oscillation of said self-oscillating circuit.

2,849,674
FREQUENCY MULTIPLYING TRANSFORMER
Paul Peter Biringer, Toronto, Ontario, Canada, assignor to The General Engineering Company Limited, Toronto, Ontario, Canada
Application May 2, 1955, Serial No. 505,426
7 Claims. (Cl. 321—68)

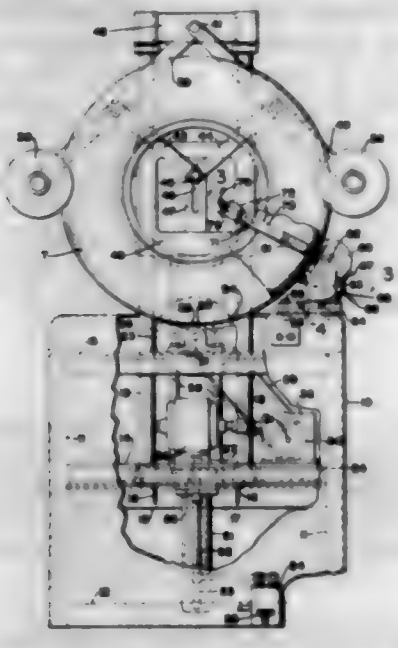


1. A frequency multiplying transformer connectable to a multi-phase source of electrical power of predetermined frequency and adapted to convert said power to power of greater frequency with power factor correction and comprising in combination: a core providing a closed flux path for each phase of said source; a primary winding on each closed flux path of said core and connectable to said source; a secondary winding on each closed flux path of said core; means connecting said secondary windings electrically in series for each power phase obtainable from said secondary windings; a compensating winding magnetically coupled to each primary winding; a capacitance for said compensating windings; means electrically connecting said compensating windings and capacitances therefor to compensate for current distortions in said primary windings; a control winding on each closed flux path of said core for controlling saturation thereof; and means for applying direct current to said control windings for controlling the power output of said secondary windings.

2,849,675
APPARATUS FOR DETERMINING AND EVALUATING IRREGULARITIES IN PNEUMATIC TIRES
George L. Hall and Floyd S. Conant, Akron, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application January 8, 1954, Serial No. 403,002
6 Claims. (Cl. 324—61)

1. Apparatus for testing uniformity of material in a pneumatic tire casing, including roller means supporting the casing by engagement with the tread outer surface thereof, means for driving said roller means to rotate said casing about its axis, a roller electrode contacting the tread outer surface, a fixed electrode closely adjacent to the tread inner surface opposite the roller electrode and positioned at a predetermined distance therefrom, conductor means connecting said electrodes in a radio-fre-

quency oscillator circuit, a rectifier circuit for picking up variations in the radio-frequency signal caused by variations in dielectric properties of the tire and converting



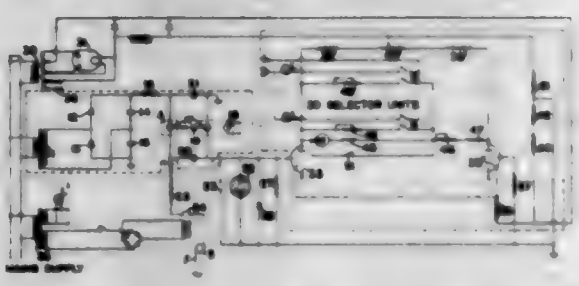
them to variations in direct current potential, and a recording instrument for recording said direct current potential variations.

2,849,676

APPARATUS FOR MEASURING THE MOISTURE CONTENT OF FABRICS

Jack Bertram Collins, Isleworth, England, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application May 1, 1953, Serial No. 352,317
2 Claims. (Cl. 324—65)



2. Apparatus for measuring the moisture content of a fabric having a small residual moisture content, comprising a substantially ripple free D. C. source, means electrically connecting one pole of said source to one end of a length of fabric and the other end to ground, a known resistance, means electrically connecting the other pole of said source to one end of said resistance and the other end to ground, and means measuring the potential difference across said known resistance in terms of the moisture content of said fabric.

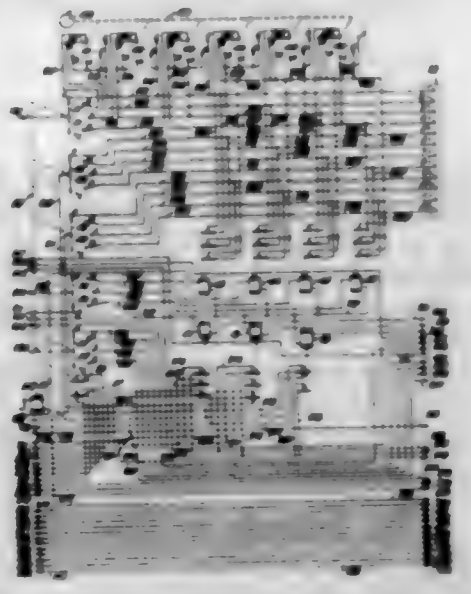
2,849,677

ELECTRICAL CIRCUIT ANALYZER

Warren W. Hannon, Olathe, Kans., assignor to Dit-MCO, Inc., Kansas City, Mo., a corporation of Missouri

Application December 1, 1954, Serial No. 472,487
13 Claims. (Cl. 324—73)

1. In a circuit analyzer for testing a plurality of external electrical circuits: input terminal means for each of said plurality of external circuits respectively and adapted for coupling with at least one termination of the latter; output terminal means for each of said plurality of external circuits respectively and adapted for coupling with at least another termination of the latter; first circuit fault detecting means adapted for coupling with a source of electrical power and including electrically responsive fault indicating means; first switching means for coupling said input terminal means and said output terminal means for any one of said plurality of external circuits with said first circuit fault detecting means; actuating means for said first switching means and operably coupled therewith for actuating said first switching means to automatically and successively couple said input terminal means and said output terminal means for each of said plurality of external circuits with said first circuit fault detecting means; second circuit fault detecting means adapted for coupling with a source of electrical power and including electrically responsive fault indicating means; second switching means for coupling said input terminal means for any one of said plurality of external



circuits and one of said terminal means for at least another of said plurality of external circuits with said second circuit fault detecting means; actuating means for said second switching means and operably coupled therewith for actuating said second switching means to automatically and successively couple said input terminal means for each of said plurality of external circuits and one of said terminal means for at least another of said plurality of external circuits with said second circuit fault detecting means; and operating means for operating said actuating means for said first and second switching means in a controlled, predetermined, cooperative relationship with each other.

2,849,678

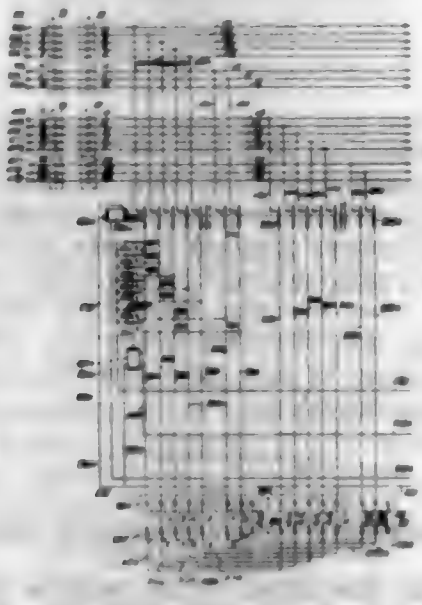
AUTOMATIC CIRCUIT CAPACITY MULTIPLYING APPARATUS FOR ELECTRICAL CIRCUIT ANALYZER

Warren W. Hannon, Olathe, Kans., assignor to Dit-Mco, Inc., Kansas City, Mo., a corporation of Missouri

Application January 9, 1956, Serial No. 558,056
5 Claims. (Cl. 324—73)

1. For use with a circuit analyzer adapted for successively testing a large but limited plurality of external circuits and of the kind provided with a first group of connecting means adapted for respective coupling with one end of each of said limited plurality of circuits, a second group of connecting means adapted for respective coupling with the other end of each of said limited plurality of circuits, electrical power means, electrical testing means for determining characteristics of a circuit to which power is applied, and switching means for cyclically coupling said power means and said testing means successively with each corresponding pair of said first and second connecting means to successively energize and test each of said limited plurality of circuits, apparatus for substantially increasing the number of external circuits that may be tested by the analyzer without modification of the latter by repetitive coupling of different limited pluralities of circuits with said connecting means, said apparatus comprising: a first group of connecting

structures adapted for respective coupling with said first group of connecting means of the analyzer; a second group of connecting structures adapted for respective coupling with said second group of connecting means of the analyzer; a first set of connecting devices, including at least one device for each of said first group of connecting structures and a plurality of devices for at least some of said second group of connecting structures, a number of said devices of said first set greater than said limited plurality being adapted for coupling with one end of an external circuit to be tested; a second set of connecting devices, including at least one device for each



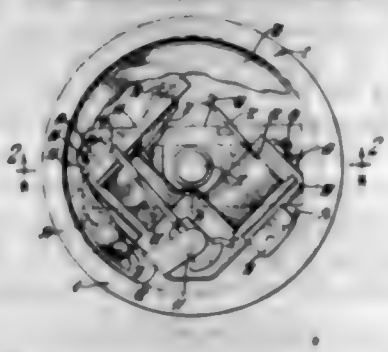
of said first group of connecting structures and a plurality of devices for at least some of said second group of connecting structures, a number of said devices of said second set greater than said limited plurality being adapted for coupling respectively with the other ends of said external circuits with which said devices of said first set are adapted to be coupled; and switching circuit mechanism for successively and alternately connecting different portions of said first set of devices with said first group of connecting structures and corresponding portions of said second set of devices with said second group of connecting structures.

2,849,679

VOLTMETER

Theo A. Barlett, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 14, 1952, Serial No. 271,604
1 Claim. (Cl. 324—131)



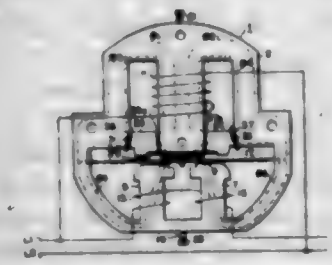
In an electrical meter, a frame, permanently magnetized indicating means rotatably mounted about a pivot on said frame and movable over a scale from a zero position, a first electromagnetic assembly including a coil and a magnetizable core mounted on said frame, said core having its longitudinal axis extending through the pivot of the magnetized indicating means and providing a magnetic field, when energized, to rotate the magnetized indicating means upscale from zero, a second electromagnetic assembly including a coil and core, said second electromagnetic assembly being mounted on said frame at an angle to the first electromagnetic assembly and having the longitudinal axis of its core substantially aligned along the zero position of said indicating means and intersecting the longitudinal axis of the core of said first electromagnetic assembly at the pivot of the magnetized indicating means, said cores being in substantially the same plane as said magnetized indicating means and said coils being electrically connected in series, and a permanent magnet having one of its poles contacting the core of said second electromagnetic assembly and having a polarity such as to create a magnetic field to attract said magnetized indicating means to its zero position, said second electromagnetic means providing, when energized, a field opposing that of the permanent magnet to neutralize the same and permit the first electromagnetic assembly to attract the magnetized indicating means upscale when the two coils are energized.

2,849,680

ELECTRICAL INSTRUMENTS RESPONSIVE TO ALTERNATING ENERGIZATION

Bernard E. Lenehan, Bloomfield, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 31, 1952, Serial No. 290,895
8 Claims. (Cl. 324—138)



1. In a reactive impedance device, a main winding having a positive temperature coefficient of resistance, a magnetic structure establishing first and second parallel paths for magnetic flux produced by electrical current flowing through the winding, said second path for magnetic flux including an air gap, a first closed winding linked with first magnetic flux flowing in the first path, and a second closed winding linked with second magnetic flux flowing in the second path, said closed windings having predetermined different temperature coefficients of resistance proportioned to maintain a predetermined phase relationship between the voltage applied to said winding and magnetic flux flowing in the first path over a substantial range of variation of temperature, said second closed winding being movable through said air gap to vary the amount of magnetic flux linked thereby.

2,849,681

ELECTRICAL PROBE

José Belart, Jamaica, N. Y., assignor to Precision Apparatus Co., Inc., Glendale, N. Y., a corporation of New York

Application December 21, 1955, Serial No. 554,527
10 Claims. (Cl. 324—149)



1. An electrical probe comprising a fixed tip and an insulation handle having a back contact therein, a conductor leading to said handle and connected to said back contact, a resistor connected in series between said tip and said back contact, a slidable sleeve made of insulation and surrounding said resistor, and a contact spring secured inside of and extending longitudinally of said

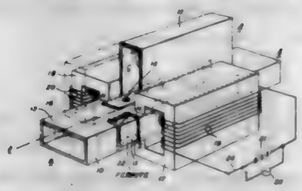
sleeve, said spring being so shaped that it exerts its resilient contact pressure radially of the sleeve, said spring being slidable axially with said sleeve between one position in which the spring connects the tip and the back contact and thereby short circuits the resistor, and another position in which the spring does not connect the tip and the back contact and thus leaves the resistor in series.

2,849,682
RECTIFIER GRADING APPARATUS
Erwin A. Herr, Peabody, Mass., assignor to General Electric Company, a corporation of New York
Application August 31, 1956, Serial No. 607,450
10 Claims. (Cl. 324—158)



1. Apparatus for the testing of dry current rectifiert comprising a source of periodically varying electric current, means impressing signals derived from said source across one of said rectifiers to cause currents to flow therethrough, means responsive to said signals producing half-wave electrical output signals synchronized with and of the same periodicity as said periodically varying current, electrical discriminating amplifier means having an output current circuit and an input circuit controlling the flow of currents in said output circuit, means energizing said output current circuit with said half-wave signals, means applying voltage from across said one rectifier to said input circuit, whereby only those voltage drops of one polarity across said rectifier are amplified in said amplifier means, and measuring means responsive to currents in said output circuit.

2,849,683
NON-RECIPROCAL WAVE TRANSMISSION
Stewart E. Miller, Middletown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 31, 1953, Serial No. 371,437
20 Claims. (Cl. 333—10)



1. An electromagnetic wave transmission path adapted for propagating wave energy in respectively opposite longitudinal directions, means in a longitudinally extending region along said path for transversely concentrating the longitudinal lines of magnetic field of said wave energy in said region, the direction of said transverse concentration being to opposite sides of the longitudinal axis of said transmission path for opposite longitudinal directions of propagation along said path, and means for coupling exclusively to said longitudinal lines of magnetic field along said longitudinally extending region in which the longitudinal magnetic field concentration is different for said opposite directions of propagation along said path.

2,849,684
NON-RECIPROCAL WAVE TRANSMISSION
Stewart E. Miller, Middletown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 31, 1953, Serial No. 371,594
17 Claims. (Cl. 333—10)



1. In combination, first and second microwave transmission lines, and means for coupling said lines along a longitudinal interval of their lengths, at least one of said lines having a phase constant for one direction of propagation along said interval different from the phase constant for the other direction therealong, said phase constant for said one direction being also different from the phase constant of said other line for either direction of propagation therealong.

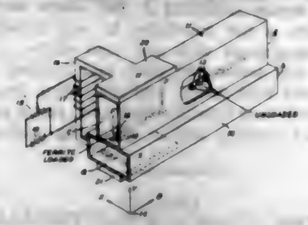
2,849,685
NON-RECIPROCAL MULTIBRANCH WAVE GUIDE COMPONENT
Max T. Weiss, Red Bank, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 17, 1953, Serial No. 374,511
11 Claims. (Cl. 333—10)



1. In combination, a first and a second substantially parallel rectangular waveguide for electromagnetic wave energy having a common wall therebetween, "*n*" spaced directional coupling apertures through said common wall where *n* is greater than two, means including elements of gyromagnetic material magnetized transversely to said common wall interposed between said coupling apertures in at least one of said waveguides for shifting the phase of wave energy in said first waveguides with respect to wave energy propagating in said second waveguide by a phase angle in one direction of *x* degrees, said phase shift being nonreciprocal for shifting the phase of wave energy propagating in said first waveguide with respect to wave energy propagating in said second path in the reverse direction by a value of $[x-(n-1)(180)]$ degrees.

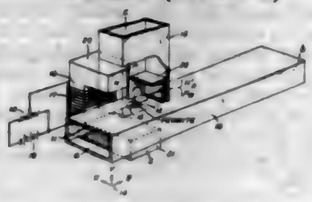
2,849,686
FERROMAGNETIC DEVICES
Edward H. Turner, Red Bank, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 17, 1953, Serial No. 374,529
15 Claims. (Cl. 333—10)

1. In an electromagnetic wave energy transmission system, a first section of shielded transmission line for guiding said wave energy having an aperture in the shield thereof, an element of gyromagnetic material closing said aperture, means for exciting said first line with electromagnetic wave energy having a primary component of magnetic field in a first direction, means for magnetizing said element in a second direction different from said first direction, said primary field and said magnetizing means inducing in said element a secondary field hav-



ing a third direction different from said first and second direction, and a second section of shielded transmission line coupled to said aperture with said induced field in a direction in said second section parallel to and coincident in space and phase with a magnetic field component of a propagating electromagnetic wave therein.

2,849,687
NON-RECIPROCAL WAVE TRANSMISSION
Stewart E. Miller, Middletown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 17, 1953, Serial No. 374,772
14 Claims. (Cl. 333—10)



1. In an electromagnetic wave energy transmission system, first and second sections of shielded transmission line for supporting said wave energy, said energy as supported in said lines having longitudinally and transversely extending magnetic field components, a single magnetically polarized gyromagnetic element coupling between said lines, said element being polarized outside the region of gyromagnetic resonance and being positioned in one of said lines in a location for which said energy has both said field components and positioned in the other of said lines in a location for which said energy has only one of said components, and means for matching the impedance of said other line to said one line through said coupling element.

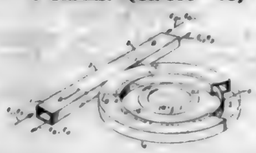
2,849,688
ELECTROMAGNETIC WAVEGUIDE SYSTEMS
James Lee Ayers, Garston, and Arthur Stephen Walsh, Bushey, England, assignors to The General Electric Company Limited, London, England
Application October 27, 1953, Serial No. 388,484
Claims priority, application Great Britain November 4, 1952
11 Claims. (Cl. 333—11)

1. An electromagnetic waveguide system, including a hybrid waveguide junction, the system including a first elongated arm in the form of a length of waveguide of oblong cross-section, said first arm thereby including two parallel broad walls and two parallel narrow walls, said first arm dividing symmetrically at the junction into a second elongated waveguide arm and a third elongated waveguide arm, said second and third waveguide arms being of oblong cross-section and thereby each including two parallel broad walls and two parallel narrow walls, said narrow walls of the second and third arms merging into the narrow walls of the first arm at the junction, said first arm dividing at the junction about a plane between and parallel to the two broad walls of said first arm, the longitudinal axes of the second and third arms at the junction being coplanar with that of the first arm and being inclined to one another at an angle not greater than 90° so that the outer broad walls of the second and third arms are divergent at the junction, the longer cross-section dimensions of the second and third arms lying parallel to that of the first arm, an aperture in the narrow walls of the first three arms at the junction of said arms and a fourth elongated waveguide arm opening into the junction at said aperture, the longitudinal axis of the fourth arm at the junction being perpendicular to the



plane of the longitudinal axes of the other three arms and intersecting that of the first arm, the aperture and at least the end section of the fourth arm next to the aperture having a six-sided shape that is symmetrical on either side of the plane containing the longitudinal axes of both the first and fourth arms, said six-sided shape including a first pair of parallel walls one of which is longer than the other and both of said walls crossing the plane of symmetry of the aperture, a second pair of parallel walls perpendicular to the walls of the first pair and extending from the longer wall thereof, and the remaining two walls conforming approximately to the two divergent walls of the outer broad walls of the second and third arms at the junction respectively and extending from the shorter of the first pair of walls to the second pair of walls.

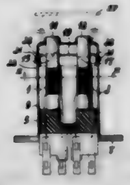
2,849,689
DIRECTIONAL FILTER
Winston E. Kock, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 29, 1954, Serial No. 406,977
6 Claims. (Cl. 333—73)



1. The combination which comprises a linearly extended wave-guiding structure having a first port and a second port and defining an open wave translating path for wave energy therein, a re-entrant wave-guiding structure defining a closed loop wave translating path for wave energy therein, a directional coupler interconnecting said extended structure with said re-entrant structure, said reentrant structure including within it, means for establishing a phase velocity of one magnitude for waves advancing in one direction around said loop path and a phase velocity of a different magnitude for waves advancing in the opposite direction around sad loop path, means for introducing wave energy of a preassigned frequency at said first port, and means for utilizing wave energy emergent at said second port, said frequency being so coordinated with said different phase velocities and with the length of said closed loop path that said closed loop path embraces an integral number of full wave-

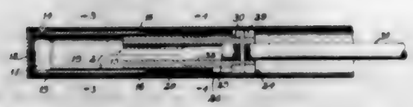
lengths in one angular direction and an odd number of half wavelengths in the opposite angular direction, whereby energy of said frequency is passed from said first port to said second port while energy of said frequency which may enter said second port is blocked from reaching said first port.

2,849,690
COIL SYSTEM MORE PARTICULARLY INTERMEDIATE-FREQUENCY BAND-PASS FILTERS
Lambertus Verboeven, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 12, 1955, Serial No. 552,568
Claims priority, application Netherlands December 21, 1954
4 Claims. (Cl. 336—75)



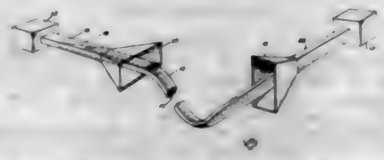
1. A coil system adapted for high frequency operation, comprising a pair of substantially parallel, spaced coils having longitudinal axes, a common conductive housing for said coils, and means for adjusting the coupling between the coils, said adjusting means including a conductive plate-like member mounted wholly within the housing and extending substantially at right angles to the axes of the coils, said plate-like member having a pair of apertures therein each larger than one of said coils and each accommodating one of said coils, whereby each of the coils is spaced from the portions of the conductive member defining their respective aperture, said conductive member also having a further aperture of smaller width than each of said pair of apertures and interconnecting these apertures, said plate-like member having been moved in an axial direction to a position within the housing at which the desired coupling between the coils is obtained.

2,849,691
WAVEMETER
Donald R. De Tar, Stratford, Conn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application November 3, 1954, Serial No. 466,508
3 Claims. (Cl. 333—82)



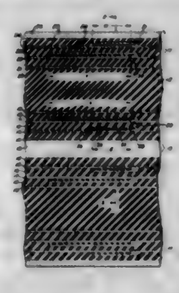
2. An absorption type wavemeter, comprising an insulating tubular housing, a U-shaped inductance element in the form of a conductive sleeve received within said housing adjacent one end thereof, said sleeve having a pair of diametrically opposite longitudinal slots formed in one end thereof and defining a pair of opposed arm portions on said sleeve and interconnected at one end by a bridge portion, interconnected outer and inner movable cylindrical tuning elements disposed in said housing, said arm portions being telescopically received between said outer and inner elements, said elements being free of said bridge portion, outer and inner insulating bushings disposed between said arm portions and said outer and inner elements, and means for longitudinally moving said outer and inner elements to vary the extent of telescoping between said cylindrical elements and said arm portions and thereby vary the capacitance between said arm portions, said means including a lead screw connected to said elements, a nut connected to said housing and in threaded engagement with said lead screw, a generally cylindrical dial telescoped over said housing and connected to said lead screw, said dial being manually rotatable to shift said movable elements, and a pointer element on said housing and in indicating relation to said dial.

2,849,692
DIELECTRIC GUIDE FOR ELECTROMAGNETIC WAVES
Arthur G. Fox, Ramsen, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 18, 1954, Serial No. 450,626
6 Claims. (Cl. 333—95)



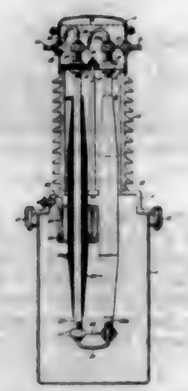
4. In combination, first and second electro-magnetic wave devices, an elongated member of dielectric material connecting said devices, means for coupling one of said devices to said member to launch waves therein in the hybrid electromagnetic mode, means coupling the other of said devices to said member to abstract energy therefrom, and means extending along said member to couple to and dissipate waves propagating therein the transverse magnetic mode.

2,849,693
COMPOSITE CONDUCTOR
James M. Eglin, Glen Rock, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 29, 1954, Serial No. 446,489
11 Claims. (Cl. 333—96)



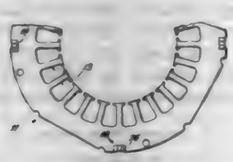
1. A conductor adapted to carry high-frequency currents comprising two conducting layers separated by insulation, one of said layers being divided transversely into sections which are short compared to a wavelength at a transmitted frequency, and lumped series capacitances connecting said sections, each of said capacitances being large compared to the capacitance between one of said sections and the other layer, said layers having different effective series inductances, and said series capacitances being so chosen that the currents transmitted through said layers are in phase at said frequency.

2,849,694
CURRENT TRANSFORMER
David C. Prince, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 12, 1954, Serial No. 442,470
2 Claims. (Cl. 336—174)



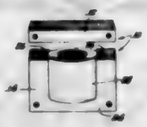
1. In a current transformer assembly, a pair of elongated bushing cores, each having a rectilinear configuration and comprising an elongated conductive stud and an insulating sheath disposed thereabout, means for mounting said cores to extend throughout their lengths in closely-spaced, substantially-parallel relationship, a singular tubular ceramic insulating shell closely surrounding said pair of bushing cores, said core-mounting means comprising an insulating plate secured to one end of said ceramic insulating shell and means rigidly clamping said studs to said plate adjacent one end of said studs to thereby suspend said studs from said plate, a conductive member detachably secured to the other end of said studs and electrically interconnecting said studs in series circuit relationship, an annular magnetic core mounted about one of said sheaths, and a secondary winding inductively linked with said magnetic core.

2,849,695
CORE CONSTRUCTION
Edward J. Schaefer, Fort Wayne, Ind.
Application November 12, 1954, Serial No. 468,191
10 Claims. (Cl. 336—210)



7. In combination, a stack of laminations superimposed in face-to-face relation, said stack having a groove extending across the edges of the respective laminations, and an elongated key strip fitted in said groove with the longitudinal side edges of the strip in tight frictional engagement with the corresponding sides of said groove for securing the laminations together, the end portions of said strip projecting beyond the ends of the stack and being bent over into axially compressing engagement with the ends of the stack, and said end portions including the bends therein having transverse curvature for imparting increased rigidity thereto whereby to stiffen and retain the same in contact with the ends of the stack.

2,849,696
FERROMAGNETIC CORE
John J. Moynihan, Chicago, Ill., assignor to M & F Associates, St. Joseph, Mich., a limited partnership
Application August 4, 1953, Serial No. 372,213
3 Claims. (Cl. 336—212)



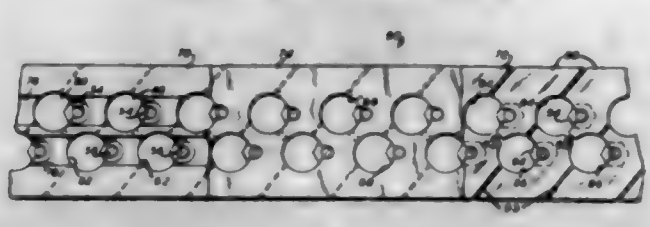
1. A ferromagnetic core comprising a member substantially in the form of a block letter E and having a portion connecting the ends of the legs of the E, said portion being parallel to the backbone of the E, the center leg of the E being substantially cylindrical, the opposite faces of the member including the legs and backbone of the E being planar, said member having a predetermined height between the planar faces, the backbone of the E having a width in the direction of the legs and a length perpendicular to the direction of the legs and parallel to said planar faces, the portion interconnecting the ends of the legs having a width in the direction of the legs and a length parallel to the backbone of the E and equal to the length of said backbone, said legs having a length perpendicular to the backbone of the E, the backbone of the E and the portion connecting the ends of the legs being rectangular in cross section, the end legs of the E being rectangular in cross section except for the faces confronting the center leg which are substantially surfaces of a cylinder of predetermined diameter, the heretofore mentioned dimensions occurring in substantially the following proportions, X being the unit of length: diameter of center leg=1.1488X; predetermined cylinder diameter=2.0642X; height between planar faces=1.0924X; width of backbone of E=.4577X; width of portion interconnecting ends of legs=.4577X; length of legs=1.44199X; and length of backbone of E=2.88398X.

2,849,697
TURN IN SOCKET
Glenn S. Farison, Birmingham, Mich., assignor to Essex Wire Corporation
Application July 7, 1955, Serial No. 520,440
3 Claims. (Cl. 339—127)



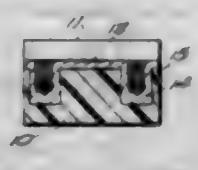
3. In a removable mounting construction for securing a lamp socket base to a supporting panel having an aperture therein, including a circular portion and first and second opposite slot portions extending radially outward from said circular portion; a substantially flat spring member with four rectangularly shaped integral tabs extending radially from a central portion thereof; two adjacent tabs corresponding dimensionally to the first of said mounting aperture slot portions; the two remaining adjacent tabs corresponding dimensionally to the second of said mounting aperture slot portions; the two opposite ends of one tab being bent upwardly; one corresponding end of the opposite tab also being bent upwardly; one corresponding end of each of the remaining tabs being bent downwardly; and means securing said lamp socket base to the central portion of said spring member.

2,849,698
COMPOSITE PLATES AND METHODS OF MAKING THEM
Alexander Logan, Pikesville, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 15, 1954, Serial No. 416,125
7 Claims. (Cl. 339—198)



2. A composite plate for supporting cable terminals having a plurality of individual terminal posts while performing electrical tests thereon, which comprises a pair of generally coextensive steel plates mounted parallel and spaced closely to each other, each of said plates having a plurality of keyhole shaped slots aligned and arranged in a pattern suitable to permit the individual terminal posts of a cable terminal to extend through the composite plate, the slots in one of said plates being slightly larger than the corresponding slots in the other plate so that the terminal posts extending through the aligned slots are prevented from electrically contacting the plate having the larger slots therein, the plate having the smaller slots being divided into a plurality of isolated segments to insulate the terminal posts from each other, and a thin layer of insulating material sandwiched between and bonded to the pair of steel plates, said insulating material comprising at least one sheet of fabric gauze impregnated and coated with rubber cement.

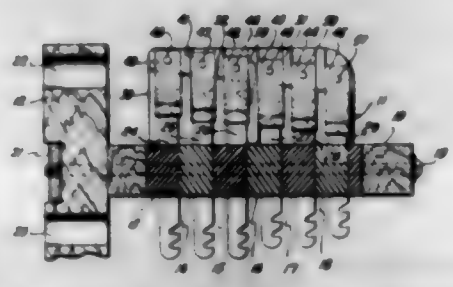
2,849,699
MOLDED TERMINAL BLOCK
Ashod Charles Demurjian, Cranston, R. I.
Application May 11, 1954, Serial No. 428,921
1 Claim. (Cl. 339—198)



A molded terminal block comprising a base of molded dielectric material in the form of an elongated rectangular block, a plurality of integral rectangular barrier strips extending transversely across the top of said base in spaced parallel relation, a plurality of conducting bus bar plates mounted on said base between said barrier strips and extending transversely across the width of said base, said plates each having a threaded opening adjacent each end, and means integral with said plates for anchoring said plates to said base, said means including integral rectangular blocks extending downwardly adjacent each end of said plates beneath the plate openings and extending into said base, said threaded openings extending into said blocks, the lower end of each block being wider than the upper end in a direction parallel to said plate.

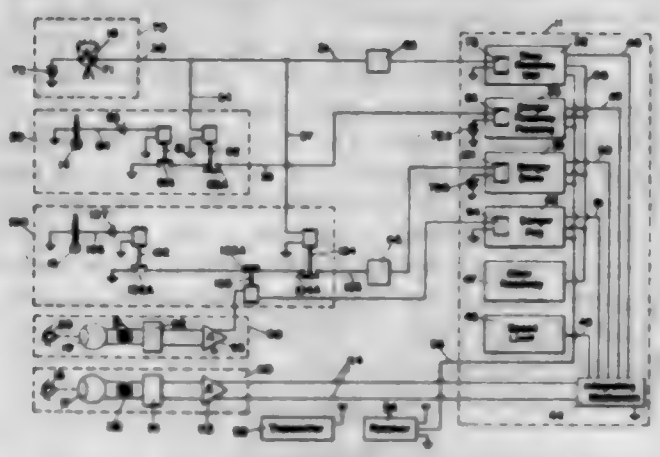
2,849,700
TELEPHONE INTERCEPT BRIDGE
Roy Perkin, Monterey Park, Calif., assignor to General Telephone Company of California, Santa Monica, Calif., a corporation of California
Application June 22, 1956, Serial No. 593,188
3 Claims. (Cl. 339—198)

1. For use in a telephone distribution circuit having a terminal block in which at least one row of terminal pins is affixed and so that each said terminal pin is insulated from the other pins and spaced a given distance from each adjacent terminal pin, the combination comprising an insulator back having a given flat face, a plurality of parallel contact spring clips being attached to the face and spaced one from the other and being adapted to hold the terminal pins against the face, each



of the contact clips being adapted to form a conductive connection with a given terminal pin, means for forming a conductive connection between at least two predetermined contact clips, a guide tongue affixed to the face between two adjacent clips and having a given width which is less than the distance between adjacent terminal pins, said guide tongue being parallel to the clips.

2,849,701
HIGHWAY CONDITION INDICATING SYSTEM
Louis P. Clark, Broomall, Pa., assignor to Tele-Dynamics Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application April 23, 1954, Serial No. 425,131
18 Claims. (Cl. 340—22)

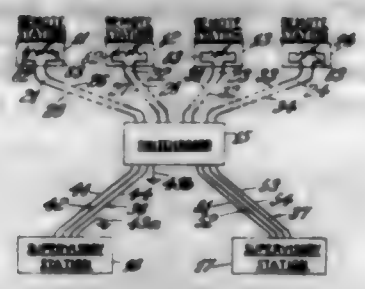


10. A visual indicating system for informing motorists of prevailing driving conditions at a point in advance of their position comprising a visual signaling device having driving condition and speed limit indicators, means for detecting changes in the road condition, means responsive to said detecting means for energizing said driving condition indicator to inform motorists of the nature of the road condition, and means for translating the change in road condition to a change in speed limit commensurate with the safe braking distance existing under the condition.

2,849,702
ELECTRICAL COMMUNICATION SYSTEMS
Abraham Gilmoor, Rickmansworth, England
Application March 24, 1953, Serial No. 344,300
Claims priority, application Great Britain March 6, 1953
25 Claims. (Cl. 340—157)

1. An electrical communication system comprising a switching station; a plurality of stations remote therefrom; a plurality of communication channels extending between the switching station and the respective remote stations; a plurality of line relays associated respectively with said communication channels, each line relay being operable to render operative the associated channel; said switching station including a selector operable to select for operation any one of said line relays; a dial having con-

tacts operable, by dialing to operate said selector; means for energizing the selected line relay through the selector;



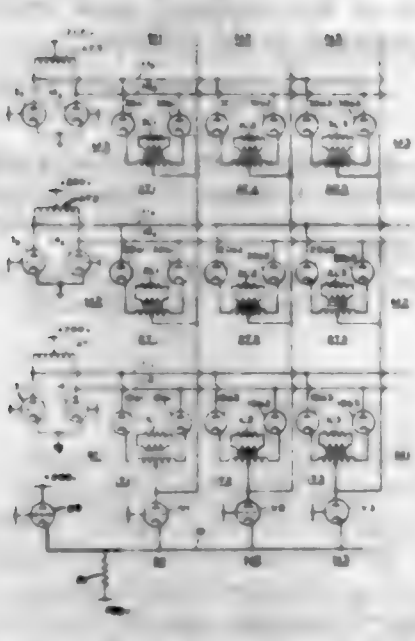
and means for maintaining the selected line relay in operated condition independently of the selector.

2,849,703

ELECTRONIC SELECTOR STAGES

Douglas George Bindon, Withington, Manchester, and Martin Joseph Friedman, Handforth, England, and Vernon Leopold Newhouse, Moorestown, N. J., assignors to Ferranti, Limited, Hollinwood, Lancashire, England, a company of Great Britain

Application October 10, 1955, Serial No. 539,552
Claims priority, application Great Britain October 12, 1954
6 Claims. (Cl. 340—166)



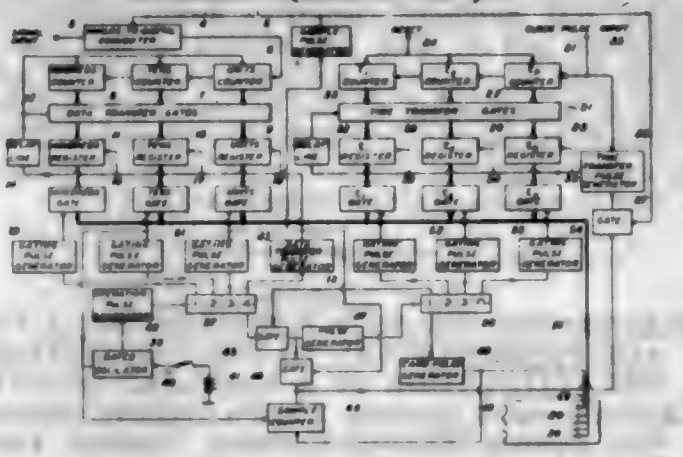
1. An electronic selector stage for producing in any selected one of a plurality of loads two sequential current pulses of opposite sense comprising a row-and-column array of load-energizing transformers the primary winding of each of which is electrically divided into two parts by an intermediate tapping, individual to each column of transformers a single column-selecting discharge tube having at least a cathode, an anode, and an intermediate control grid electrode, the tube being included in the connection to the intermediate tapping of each transformer in that column, individual to each row of transformers a pair of sense-determining discharge tubes each tube having at least a cathode, an anode, and an intermediate control grid electrode, the two tubes of each pair being associated with the circuits of one and the other, respectively, of the said parts of the primary winding of each transformer of that row, driving means for energising by each of two sequential voltage pulses the column-selecting tube of the column containing the transformer for energising the selected load, and control means for so controlling the sense-determining discharge tubes of the row containing that transformer as to ensure that said two pulses energise said two parts of the primary winding sequentially, thereby energising the selected load in opposite senses.

2,849,704

DATA PROCESSING SYSTEM

Glyn A. Neff, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application June 28, 1954, Serial No. 439,779
9 Claims. (Cl. 340—174)



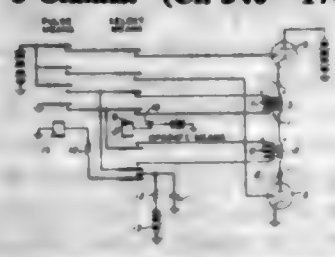
1. In a data processing system, the combination of a plurality of data registers each of which is adapted to register a significant digit of a sampled variable, a plurality of time registers each of which is adapted to register a significant digit of a time referenced number, a plurality of gates each of which is connected to one of the registers, means sequentially energizing the gates coupled to the data register, means energizing at least one of the gates coupled to the time registers whenever all of the gates coupled to the data registers have been energized, and a common output circuit connected to all of the gates whereby a signal train is provided in which electrical signals representing the registrations in the time registers are time division multiplexed with electrical signals representing the registrations in the data registers.

2,849,705

MULTIDIMENSIONAL HIGH SPEED MAGNETIC ELEMENT MEMORY MATRIX

Munro King Haynes, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Original application August 25, 1953, Serial No. 376,300, now Patent No. 2,739,300, dated March 20, 1956. Divided and this application June 27, 1955, Serial No. 518,863
5 Claims. (Cl. 340—174)



1. Apparatus for storing information electrically by selectively and directionally electromagnetizing each of a plurality of bistable magnetic elements capable of retaining a high degree of the magnetization to which said elements are subjected, comprising a matrix connection of a plurality of series of said elements, a said series of said elements constituting a word line and each element of a said series constituting a word bit, a diode in each said word line to confine current flow therethrough to one direction, a first plurality of matrix connections each having a group of said word lines connected by one end of each of the word lines thereto and a second plurality of matrix connections each having a group of said word lines connected by the other end of each of the word lines thereto, said connections being so arranged that any one of said first plurality of matrix connections is connected to any one of said second plurality of matrix connections through but a single one of said word lines, means for selectively, concurrently and transiently trans-

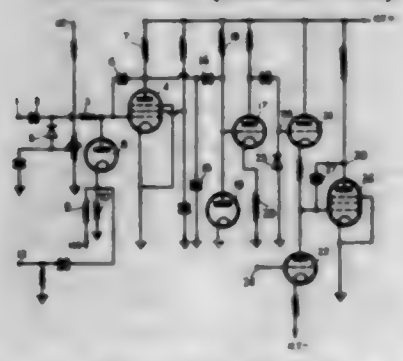
mitting an energizing current through a given one of said word lines, and a plurality of additional energizing means transiently, concurrently and concurrently with said first current transmitting means and corresponding with the various elements of said series for selectively and directionally energizing said elements of said selected series, said additional energizing means comprising an additional coil for each said element of said word line, which may be selectively energized to add to or subtract from a magnetization of said element in a direction to a state to express binary 1 where said element is normally in a state to express binary 0, or to leave said element in a state to express binary 0 respectively.

2,849,706

ELECTRONIC CIRCUITS FOR DERIVING A VOLTAGE PROPORTIONAL TO THE LOGARITHM OF THE MAGNITUDE OF A VARIABLE QUANTITY

Charles Leonard Hamblin, London, England, assignor to The General Electric Company Limited, London, England

Application February 3, 1953, Serial No. 334,918
Claims priority, application Great Britain February 4, 1952
11 Claims. (Cl. 343—7.3)



1. An electronic circuit for deriving a voltage proportional to the logarithm of the magnitude of a variable quantity, including, a capacitance, means for normally maintaining in operation the charge on said capacitance at a datum value, said means including a resistance and a charging path for said capacitance through the resistance such that any return to the datum value after a departure is made exponentially with respect to time, means, operating in opposition to said last-mentioned means, for periodically causing the charge on the capacitance to alter from the datum value by amounts proportional to the instantaneous magnitude of the variable quantity, a smoothing circuit, having input terminals and output terminals, which produces a voltage across the output terminals thereof which is proportional to the time integral of a voltage applied across the input terminals thereof, and means for applying a voltage wave derived from the voltage variations across said capacitance between the input terminals of the smoothing circuit, said means including limiting arrangements for restricting the range of voltage variations effective to one not greater than the range defined by the voltage across the capacitance when it is charged to the datum value and the voltage across the capacitance when the charge is altered from the datum value by a predetermined minimum amount, the desired voltage appearing in operation across the output terminals of the smoothing circuit.

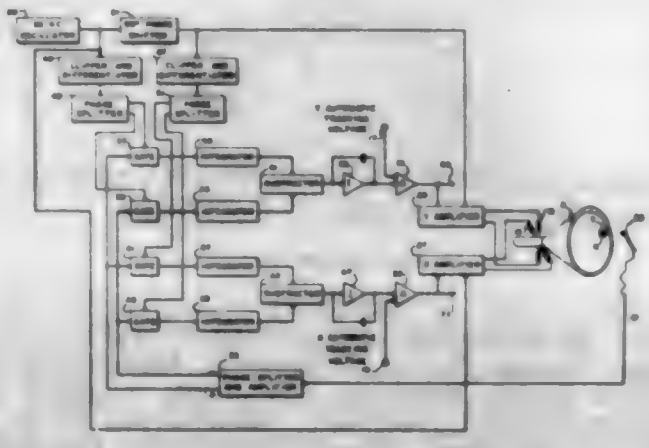
2,849,707

POSITION CORRECTING MEANS FOR TRACK-WHILE-SCAN CHANNELS

Warren D. White, East Norwich, N. Y., assignor to the United States of America as represented by the Secretary of the Army

Application May 9, 1955, Serial No. 507,750
7 Claims. (Cl. 343—7.3)

1. A tracking error correction system for application to an automatic track-while-scan channel connected to a radar system, comprising a cathode ray display tube responsive to the radar system to display the actual position of a target, circuit means including a source of relatively dephased alternating voltages and responsive to the output of said track-while-scan channel to produce a tag circle on the face of said display tube centered about the target position predicted by said track-while-scan



channel, a movable photoelectric pickup means adapted to be placed over the observed target position on the face of said display tube and means responsive to the output of said photoelectric pickup means and to said relatively dephased alternating voltages to develop error voltages representative of the positional error between said predicted and observed target position.

2,849,708

RADAR DISPLAY SYSTEMS

Robert Matthews, London, England, assignor to The Decca Record Company Limited, London, England, a British company

Application September 26, 1955, Serial No. 536,723
12 Claims. (Cl. 343—11)

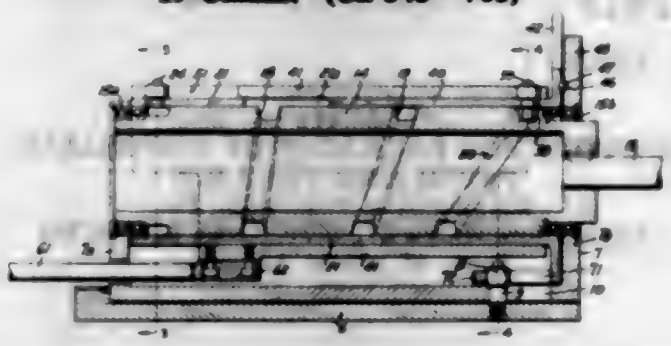


1. In a cathode ray tube display system having fixed orthogonal deflector means for deflecting the cathode ray beam, the combination of separate waveform generators for feeding sawtooth waveforms to said deflector means having rates of change which are dependent on separate direct control voltages, a first source of sine and cosine voltages coupled to a cyclically moving body to produce sine and cosine direct control voltages representative of the angular position of said body, a second source of sine and cosine direct control voltages, means including a switching device for applying direct control voltages alternatively from said first source or said second source to said waveform generators to produce sine and cosine deflection signals in orthogonal deflector means, and switch control means for operating said switch to connect said second source to said waveform generators during the intervals between successive sawtooth outputs produced by said waveform generators under the control of said first source.

2,849,709

WITHDRAWN

2,849,710
MECHANICAL SCANNER AND CAM TRANSMISSION THEREFOR
Omer R. Wade, Menlo Park, Calif.
Application August 16, 1955, Serial No. 528,767
19 Claims. (Cl. 343—763)



5. A cam transmission comprising a cylindrical rotatable unit having at least one continuous cam path formed on its periphery, a follower engaged in said cam path, means for restraining the follower for reciprocating movement longitudinally of the axis of the unit responsive to rotation of the cylindrical unit, a member mounted for reciprocation in a direction parallel to the movement of the follower, and selectively operable means for releasably locking said member to the cam follower.

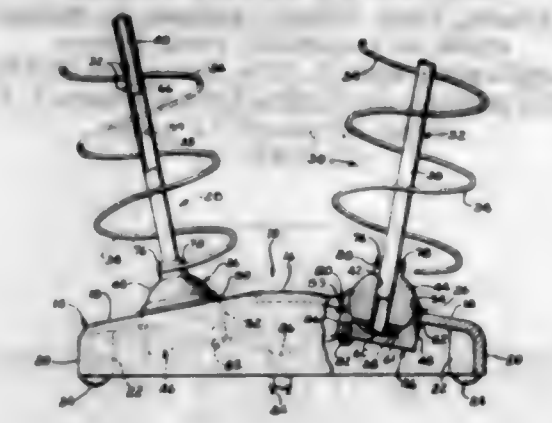
2,849,711
SLOTTED CYLINDER ANTENNA
George B. MacKinnie, Montreal, Quebec, Canada, assignor to Radio Corporation of America, a corporation of Delaware
Application May 13, 1953, Serial No. 354,780
10 Claims. (Cl. 343—771)



1. A tubular waveguide adapted to interchange energy between the interior thereof and surrounding space, said waveguide comprising a tubular conductive wall and a longitudinal conductive septum attached to the interior of said tubular wall, said tubular wall being provided with a longitudinal slot located in the portion of said wall farthest removed from the attachment of said septum to said wall, a conductive strip connected between a point on said wall and a point on said septum, said conductive strip being located near the center of said slot in the lengthwise dimension of said waveguide.

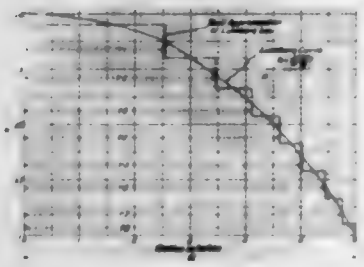
2,849,712
ANTENNA STRUCTURE
Frank J. Klaucnik, Jr., Chicago, Ill., assignor to Hi-Lo TV Antenna Corp., Chicago, Ill., a corporation of Illinois
Application December 31, 1956, Serial No. 631,815
6 Claims. (Cl. 343—805)

1. Antenna structure comprising in combination a base member formed of electrically insulating material, a pair of metal rods forming a dipole antenna component, ball and socket means swivelly connecting the proximate end of each rod to the base member at spaced points thereon whereby the rods may be individually swung throughout respective solid angles between positions of wide divergence and positions of parallelism, said connecting means comprising a metal socket member fixedly secured to the base and having a spherical socket formed therein, a spherical ball loosely mounted for universal turning movement in said socket, said ball being formed with



a radial bore extending completely therethrough and opening into said socket, the inner end region of said rod projecting completely through said bore and being slidable axially therein, means providing a shoulder on said ball, means providing a shoulder on said rod, spring means interposed between said shoulders for normally urging said rod axially inwardly of the socket whereby the proximate end thereof frictionally engages the wall of the latter, and a terminal connection in electrical contact with said socket member.

2,849,713
SPHERICAL MICROWAVE LENS
Glen P. Robinson, Jr., Atlanta, Ga., assignor to Scientific-Atlanta, Inc., a corporation of Georgia
Application December 1, 1955, Serial No. 550,246
17 Claims. (Cl. 343—910)



1. A device for focusing radio waves from incident plane phase fronts lying in any plane, comprising a spherical body symmetrical with respect to its center and being composed of concentric shell-like spherical layers of dielectric material in such a manner that the index of refraction of these layers stepwise radially of the sphere approximates the "Luneberg" equation $n=\sqrt{2-R^2}$ where R is the ratio of the radial distance to a point in said sphere to the maximum radial distance; said dielectric material being composed of a mixture of a stable expanded dielectric plastic substance, and a dispersible dielectric substance.

DESIGNS

AUGUST 26, 1958

183,415
SPECTACLE FRAME FRONT
Marcel Arnaut, Paris, France, assignor to Societe Industrielle de Lunetterie, Paris, France
Application April 3, 1956, Serial No. 40,285
Claims priority, application France March 5, 1956
Term of patent 14 years
(Cl. D57—1)



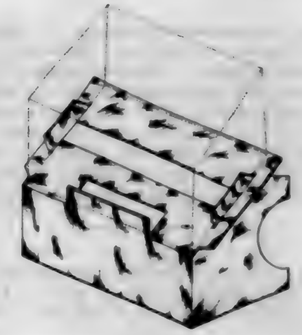
183,416
CHAIR
Hans Bellmann, Zurich, Switzerland, assignor to Strässle Söhne & Co., Kirchberg, near St. Gallen, Switzerland
Application November 5, 1956, Serial No. 43,654
Term of patent 14 years
(Cl. D15—1)



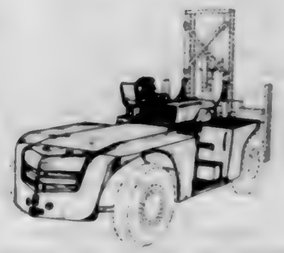
183,417
CHAIR
Morton R. Cohen, Chicago, Ill.
Application February 12, 1958, Serial No. 49,612
Term of patent 14 years
(Cl. D15—1)



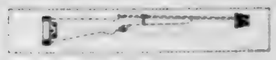
183,418
SUPPORT FOR PACKAGES OF DISPOSABLE PAPER AND THE LIKE
Ralph Covel, Pittsburgh, Pa.
Application March 27, 1956, Serial No. 40,799
Term of patent 14 years
(Cl. D52—2)



183,419
LIFT TRUCK
Dennis E. Erickson and Elmer G. Bjorklund, Battle Creek, Mich., assignors to Clark Equipment Company, a corporation of Michigan
Application August 29, 1957, Serial No. 47,541
Term of patent 14 years
(Cl. D14—3)



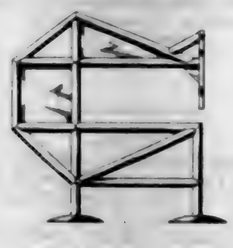
183,420
RIFLE RACK
Leslie W. Ferguson, Smithwick, S. Dak.
Application February 28, 1956, Serial No. 40,394
Term of patent 14 years
(Cl. D33—3)



183,421
CELERY AND OLIVE DISPENSER
Gerard X. Foley, Boston, Mass.
Application December 26, 1957, Serial No. 49,038
Term of patent 14 years
(Cl. D44—24)



183,422
PUNCH PRESS FRAME
Richard F. Gallagher, San Jose, Calif.
Application September 16, 1957, Serial No. 47,757
Term of patent 3½ years
(Cl. D63—1)



183,423
WIRE TWISTER
John C. Geizer, Mentor, Ohio, assignor to Upson Development Corporation, Painesville, Ohio, a corporation of Ohio
Application June 25, 1957, Serial No. 46,730
Term of patent 14 years
(Cl. D54—13)



183,424
CLOSURE CAP
Stanley J. Goldberg, Chicago, Ill., assignor to Aerosol Research Company, a corporation of Illinois
Application November 30, 1956, Serial No. 44,004
Term of patent 3½ years
(Cl. D58—26)



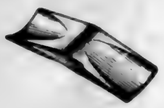
183,425
PORTABLE CLEANING CART
Beatrice D. Grow, Warrington, Fla.
Application January 25, 1957, Serial No. 44,608
Term of patent 14 years
(Cl. D14—3)



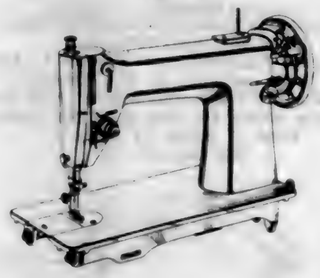
183,426
SHOE HANGER
Eugene H. Hale, Dayton, Ohio
Application April 26, 1955, Serial No. 35,692
Term of patent 14 years
(Cl. D33—3)



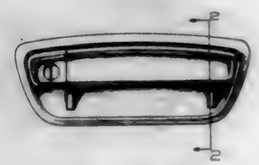
183,427
EXCAVATING TOOTH
John F. Lindell, Newton, Iowa, assignor, by mesne assignments, to Koehring Company, Milwaukee, Wis., a corporation of Wisconsin
Application October 11, 1956, Serial No. 43,312
Term of patent 14 years
(Cl. D39—1)



183,428
SEWING MACHINE
Malcolm S. Park, Verplanck Point, N. Y., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application November 12, 1957, Serial No. 48,415
Term of patent 14 years
(Cl. D70—1)



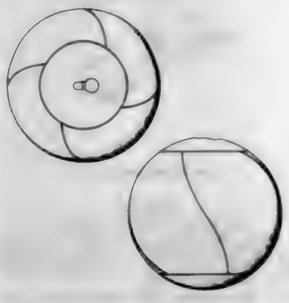
183,429
AUTOMOBILE DOOR HANDLE
Frederick Reynolds, Birmingham, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application July 29, 1957, Serial No. 47,120
Term of patent 14 years
(Cl. D10—8)



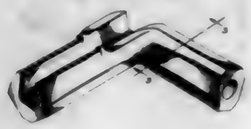
183,430
ELECTRICAL SWITCH
Francis C. Schmidt, Logansport, Ind.
Application February 26, 1957, Serial No. 44,989
Term of patent 14 years
(Cl. D26—13)



183,431
TETHERBALL
David Louis Seane, La Habra, Calif., assignor to W. J. Voit Rubber Corp., Los Angeles, Calif., a corporation of California
Application November 19, 1956, Serial No. 43,817
Term of patent 14 years
(Cl. D34—15)



183,432
TAP CONNECTOR FOR ELECTRICAL CONDUCTORS
James F. Turley, Cranford, and Edward L. Eldridge, Metuchen, N. J., assignors to The Thomas & Betts Co., Elizabeth, N. J., a corporation of New Jersey
Application August 14, 1956, Serial No. 42,600
Term of patent 14 years
(Cl. D26—1)



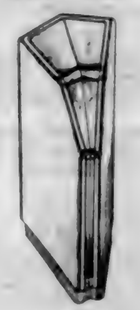
183,433
DISPENSING CONTAINER
Paul S. Van Baarn, New York, N. Y.
Application March 11, 1957, Serial No. 45,172
Term of patent 14 years
(Cl. D58—24)



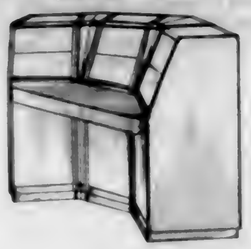
183,434
RELISH SERVER
William D. Warren, New York, N. Y.
Application March 31, 1958, Serial No. 50,242
Term of patent 14 years
(Cl. D44—7)



183,435
ELECTRONIC CABINET
James G. Wells, Chicago, and Herbert C. Golz, Aurora, Ill., assignors to Elgin Metalformers Corporation, Elgin, Ill., a corporation of Illinois
Application September 24, 1957, Serial No. 47,841
Term of patent 14 years
(Cl. D26—5)



183,436
ELECTRONIC CABINET
James G. Wells, Chicago, and Herbert C. Golz, Aurora, Ill., assignors to Elgin Metalformers Corporation, Elgin, Ill., a corporation of Illinois
Application September 24, 1957, Serial No. 47,842
Term of patent 14 years
(Cl. D26—5)



183,437
CHAIR
Herbert E. Williams, Temple, Tex.
Application May 14, 1957, Serial No. 46,168
Term of patent 14 years
(Cl. D15—1)



183,438
COMBINATION CHAIR-DESK
Herbert E. Williams, Temple, Tex.
Application May 14, 1957, Serial No. 46,170
Term of patent 14 years
(Cl. D15—8)



183,439
COMBINATION CHAIR AND DESK
Herbert E. Williams, Temple, Tex.
Application May 14, 1957, Serial No. 46,171
Term of patent 14 years
(Cl. D15—8)



183,440
ARMCHAIR
Herbert E. Williams, Temple, Tex.
Application May 14, 1957, Serial No. 46,172
Term of patent 14 years
(Cl. D15—1)



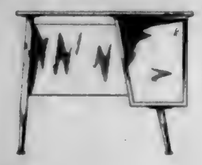
183,441
FURNITURE LEG
Herbert E. Williams, Temple, Tex.
Application May 14, 1957, Serial No. 46,173
Term of patent 14 years
(Cl. D33—14)



183,442
OPEN FRONT BOOK BOX DESK
Herbert E. Williams, Temple, Tex.
Application June 6, 1957, Serial No. 46,503
Term of patent 14 years
(Cl. D33—7)



183,443
DESK
Herbert E. Williams, Temple, Tex.
Application June 6, 1957, Serial No. 46,512
Term of patent 14 years
(Cl. D33—7)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 26TH DAY OF AUGUST, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Du Pont de Nemours, E. I., & Co.: *See*—
Sampson, Herman J., Jr. Re. 24,526.

Goodman Mfg. Co.: *See*—
Robbins, James S. Re. 24,523.

Howell-Rogin Studio, Inc.: *See*—
Howell, Thomas B., and Rogin. Re. 24,525.

Howell, Thomas B., and M. Rogin, to Howell-Rogin Studio, Inc. Composite optical image projection apparatus. Re. 24,525, 8–26–58, Cl. 88—24.

McKiernan-Terry Corp.: *See*—
Snow, Frederick O., Jr. Re. 24,524.

Ripley, Edward P. Method of fabricating ornamental concrete blocks. Re. 24,527, 8–26–58, Cl. 25—155.

Robbins, James S., to Goodman Mfg. Co. Mining machine having cutter chain slack take-up means. Re. 24,523, 8–26–58, Cl. 262—7.

Rogin, Milton: *See*—
Howell, Thomas B., and Rogin. Re. 24,525.

Sampson, Herman J., Jr., to E. I. du Pont de Nemours & Co. High-pressure reaction of carbon monoxide with hydrazine. Re. 24,526, 8–26–58, Cl. 260—554.

Snow, Frederick O., Jr., to McKiernan-Terry Corp. Continuous rope unloading system. Re. 24,524, 8–26–58, Cl. 212—61.

LIST OF PLANT PATENTEES

Kernodle, Julius A., to Simpson Nursery Co. Pecan tree. 1,744, 8–26–58, Cl. 47—62.

Lang, Albin E. Strawberry plant. 1,745, 8–26–58, Cl. 47—62.

Simpson Nursery Co.: *See*—
Kernodle, Julius A. 1,744.

LIST OF DESIGN PATENTEES

Aersol Research Co.: *See*—
Goldberg, Stanley J. 183,424.

Arnaut, Marcel, to Societe Industrielle de Lunetterie. Spectacle frame front. 183,415, 8–26–58, Cl. D57—1.

Bellmann, Hans, to Strässle Söhne & Co. Chair. 183,416, 8–26–58, Cl. D15—1.

Bjorklund, Elmer G.: *See*—
Erickson, Dennis E., and Bjorklund. 183,419.

Chrysler Corp.: *See*—
Reynolds, Frederick. 183,429.

Clark Equipment Co.: *See*—
Erickson, Dennis E., and Bjorklund. 183,419.

Cohen, Morton B. Chair. 183,417, 8–26–58, Cl. D15—1.

Covel, Ralph. Support for packages of disposable paper and the like. 183,418, 8–26–58, Cl. D52—2.

Eldridge, Edward L.: *See*—
Turley, James F., and Eldridge. 183,432.

Elgin Metalformers Corp.: *See*—
Wells, James G., and Gois. 183,435.
Wells, James G., and Gois. 183,436.

Erickson, Dennis E., and E. G. Bjorklund, to Clark Equipment Co. Lift truck. 183,419, 8–26–58, Cl. D14—3.

Ferguson, Leslie W. Rifle rack. 183,420, 8–26–58, Cl. D33—3.

Foley, Gerard X. Celery and olive dispenser. 183,421, 8–26–58, Cl. D44—24.

Gallagher, Richard F. Punch press frame. 183,422, 8–26–58, Cl. D63—1.

Geiser, John C., to Upson Development Corp. Wire twister. 183,423, 8–26–58, Cl. D54—13.

Goldberg, Stanley J., to Aerosol Research Co. Closure cap. 183,424, 8–26–58, Cl. D58—26.

Gois, Herbert C.: *See*—
Wells, James G., and Gois. 183,435.
Wells, James G., and Gois. 183,436.

Grow, Beatrice D. Portable cleaning cart. 183,425, 8–26–58, Cl. D14—3.

Hale, Eugene H. Shoe hanger. 183,426, 8–26–58, Cl. D33—3.

Koehring Co.: *See*—
Lindell, John F. 183,427.

Lindell, John F., to Koehring Co. Excavating tooth. 183,427, 8–26–58, Cl. D39—1.

Park, Malcolm S., to The Singer Mfg. Co. Sewing machine. 183,428, 8–26–58, Cl. D70—1.

Reynolds, Frederick, to Chrysler Corp. Automobile door handle. 183,429, 8–26–58, Cl. D10—8.

Schmidt, Francis C. Electrical switch. 183,430, 8–26–58, Cl. D26—13.

Senne, David L., to W. J. Voit Rubber Corp. Tetherball. 183,431, 8–26–58, Cl. D34—15.

Singer Mfg. Co., The: *See*—
Park, Malcolm S. 183,428.

Societe Industrielle de Lunetterie: *See*—
Arnaut, Marcel. 183,415.

Strässle Söhne & Co.: *See*—
Bellmann, Hans. 183,416.

Thomas & Betts Co., The: *See*—
Turley, James F., and Eldridge. 183,432.

Turley, James F., and E. L. Eldridge, to The Thomas & Betts Co. Tap connector for electrical conductors. 183,432, 8–26–58, Cl. D26—1.

Upson Development Corp.: *See*—
Geiser, John C. 183,423.

Van Baarn, Paul S. Dispensing container. 183,433, 8–26–58, Cl. D58—26.

Voit, W. J., Rubber Corp.: *See*—
Senne, David L. 183,431.

Warren, William D. Relish server. 183,434, 8–26–58, Cl. D44—7.

Wells, James G., and H. C. Gois, to Elgin Metalformers Corp. Electronic cabinet. 183,435, 8–26–58, Cl. D26—5.

Wells, James G., and H. C. Gois, to Elgin Metalformers Corp. Electronic cabinet. 183,436, 8–26–58, Cl. D26—5.

Williams, Herbert E. Chair. 183,437, 8–26–58, Cl. D15—1.

Williams, Herbert E. Combination chair-desk. 183,438, 8–26–58, Cl. D15—8.

Williams, Herbert E. Combination chair and desk. 183,439, 8–26–58, Cl. D15—8.

Williams, Herbert E. Armchair. 183,440, 8–26–58, Cl. D15—1.

Williams, Herbert E. Furniture leg. 183,441, 8–26–58, Cl. D33—14.

Williams, Herbert E. Open front book box desk. 183,442, 8–26–58, Cl. D33—7.

Williams, Herbert E. Desk. 183,443, 8–26–58, Cl. D33—7.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 26TH DAY OF AUGUST, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A. R. F. Products, Inc.: *See*—
Przedpelski, Andrzej B. 2,849,604.
Abbiati, Arnaldo, and G. Fabbri, to Italo Mirri. Stopper for bottles and the like. 2,849,141, 8–26–58, Cl. 215—40.
Abbott, Henry H., to Bell Telephone Laboratories, Inc. Magnetic core circuits. 2,849,539, 8–26–58, Cl. 179—90.
Abbott Laboratories: *See*—
McGrew, Robert F., and Turner. 2,848,999.
Ryan, George R. 2,848,995.
Abel, Frederick, to The Huffman Mfg. Co. Lawn mower with adjustable wheel mounting assembly. 2,848,859, 8–26–58, Cl. 56—25.4.
Achler, Maurice E., and A. H. Milstine, ½ to H. Shapiro. Vertical slat blind. 2,849,063, 8–26–58, Cl. 160—177.
Acme Steel Co.: *See*—
Michelet, Charles J., Caveney, and Robinson. 2,849,066.
Acrow (Engineers) Ltd.: *See*—
Crook, Eric G. B. 2,849,258.
Adams, John E., to Sylvania Electric Products Inc. Glow transfer tube driving circuit. 2,849,655, 8–26–58, Cl. 315—84.6.
Adams, Robert P., to Minneapolis-Honeywell Regulator Co. Electrical oscillator circuit. 2,849,611, 8–26–58, Cl. 250—36.
Admiral Corp.: *See*—
Bleam, Howard A. 2,849,653.
Aerofall Mills Inc.: *See*—
MacPherson, Arthur R. 2,849,189.
Aerotec Corp., The: *See*—
Oliveau, John V., and Dalzell. 2,849,019.
Aguado, Edward. Disposable breather mask. 2,848,994, 8–26–58, Cl. 128—146.
Aitken, William H., L. B. Connor, and P. R. Haskell, to Remington Arms Co., Inc. Powder actuated swaging tool. 2,848,915, 8–26–58, Cl. 81—15.
Akt. Brown, Boveri & Cie.: *See*—
Gyraz, Franz. 2,849,660.
Akt. für Feinmechanik vormals Jetter & Scheerer: *See*—
Wagner, Klausdieter. 2,848,811.
Aktiebolaget Bofors: *See*—
Engström, Erik R. 2,849,259.
Aktiebolaget Svenska Flaktfabriken: *See*—
Allander, Claes. 2,848,934.
Wallin, Sven W., and Allander. 2,848,820.
Aladdin Industries, Inc.: *See*—
De Tar, Donald R. 2,849,691.
Albert, Harry E.: *See*—
Stevens, Henry P., Bentz, and Albert. 2,849,420.
Albert, Harry E., and L. O. Bentz, to The Firestone Tire & Rubber Co. Shaped rubber compositions containing petroleum cresylic acid monosulfides. 2,849,516, 8–26–58, Cl. 260—810.
Albert, Harry E., to The Firestone Tire & Rubber Co. Process of vulcanizing rubber containing bis-alpha-methylbenzyl-substituted phenol monosulfides and resulting products. 2,849,517, 8–26–58, Cl. 260—810.
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Wallin, Sven W., and Allander. 2,848,820.
Allander, Claes, to Aktiebolaget Svenska Flaktfabriken. Method for introducing a gaseous medium in an enclosure. 2,848,934, 8–26–58, Cl. 98—40.
Allegheny Ludlum Steel Corp.: *See*—
Bleecker, William H. 2,849,275.
McMann, George E. 2,848,790.
Allen, Lawrence E., to Allis-Chalmers Mfg. Co. Self-latching coupling pin. 2,849,248, 8–26–58, Cl. 287—58.
Allied Chemical Corp.: *See*—
Browne, Mervin F. 2,848,778.
Donegan, Joseph W., and Penley. 2,849,018.
Hanna, Delbert L. 2,849,500.
Alliger, Glen, to The Firestone Tire & Rubber Co. N-pentamethylene tetrahydrobenzothiazole-2-sulfenamide acceleration of rubber vulcanization. 2,849,425, 8–26–58, Cl. 260—79.5.
Allis-Chalmers Mfg. Co.: *See*—
Allen, Lawrence E. 2,849,248.
Bank, Thor G. 2,849,556.
Fergason, Rector C. 2,848,860.
Allison, Albert R., A. D. Delman, A. E. Ruff, and B. B. Simms. Colorimetric procedure for the quantitative measurement of atmospheric ozone. 2,849,291, 8–26–58, Cl. 23—232.
Allison, William D. Pressure control means for load compensator mechanism. 2,849,242, 8–26–58, Cl. 280—124.
Allyn, Charles L., E. M. Barrentine, T. S. Hodgins, F. J. Shelton, and R. L. Rawson, to Reichhold Chemicals, Inc. Process for the oxidation of methanol to formaldehyde using unsupported catalyst. 2,849,492, 8–26–58, Cl. 260—603.
Almen, John O., and W. L. Carnegie, to General Motors Corp. Method of making a composite friction unit clutch plate. 2,849,346, 8–26–58, Cl. 154—81.
Aluminum Co. of America: *See*—
Newhams, William C. 2,849,311.

Ambelang, Joseph C., and G. M. Maasle, to The Firestone Tire & Rubber Co. Alkylation of ureas. 2,849,488, 8–26–58, Cl. 260—553.
American Bosch Arma Corp.: *See*—
High, Carl F. 2,848,951.
American Brake Shoe Co.: *See*—
Boron, Frank J. 2,849,219.
Lowey, Francis J. 2,848,795.
McCracken, Leo B., Sr. 2,848,741.
American Can Co.: *See*—
Lohuis, Delmont J. 2,849,148.
Pottle, Ralph K. 2,849,008.
Schoenfeld, William H., Jr. 2,848,819.
Weiss, Adolph. 2,849,110.
Wigert, George W. 2,849,146.
American Cyanamid Co.: *See*—
Carpenter, Joseph E. 2,849,475.
Hechenbleikner, Ingenuin, and Peters. 2,849,451.
Nelson, Earl W., Dietz, Wikswo, and Trees. 2,849,083.
American Metal Products Co.: *See*—
Flint, Hyland C., Hern, and Heyl. 2,849,056.
American Oil Co., The: *See*—
Clingman, William H., Jr. 2,849,484.
Miron, Simon. 2,849,373.
American Viscose Corp.: *See*—
Heil, George C. 2,849,151.
Lytton, Marion R. 2,849,274.
Amess, Wilhelm G.: *See*—
Verhoef, Johan A., and Amess. 2,849,636.
Amos, James L., and A. F. Roche, to The Dow Chemical Co. Removal of volatile ingredients from thermoplastic polymers. 2,849,430, 8–26–58, Cl. 260—93.5.
Anderson, Elmer E. Wheel cover. 2,849,045, 8–26–58, Cl. 150—54.
Anderson, Elmer G.: *See*—
Varrin, Albert, and Anderson. 2,848,886.
Anderson, Richard W.: *See*—
Johnson, Warren C., and Anderson. 2,849,638.
Anspon, Harry D., and F. E. Pschorr, to General Aniline & Film Corp. Production of polymeric α-chloroacrylate sheets. 2,848,753, 8–26–58, Cl. 18—58.
Arcand, Anna. Lift carriers for hospital patients. 2,848,723, 8–26–58, Cl. 5—85.
Arenco Aktiebolaget: *See*—
Gadler, Gustav A. B. 2,849,191.
Armour Research Foundation of Illinois Institute of Technology: *See*—
Wiegand, David E. 2,849,543.
Arms, Milo F.: *See*—
McCreery, Edward P., and Arms. 2,849,004.
Armstrong, Abbott E., Jr., ½ to B. J. Golden. Knock-down shelter. 2,848,757, 8–26–58, Cl. 20—2.
Armstrong Cork Co.: *See*—
Clark, Lawrence, Grabowski and Poshkus. 2,849,028.
Aronson, Theodore F.: *See*
Halahan, John, Aronson, and Lyon. 2,849,090.
Halahan, John, Aronson, and Lyon. 2,849,232.
Art Cap Co., Inc.: *See*—
Krieger, Maurice H. 2,848,720.
Art Metal Construction Co.: *See*—
Vernon, Dixon S. 2,848,751.
Arundale, Erving, and J. Versteeg, to Esso Research and Engineering Co. Process for producing high quality white petroleum oil with sulfuric acid followed by sulfuric acid and formaldehyde. 2,849,375, 8–26–58, Cl. 196—40.
Asahi Garasu Kabushiki Kaisha: *See*—
Matsuo, Naojiro, Fujioka, and Murozumi. 2,849,524.
Ashton, Robert, to Massey-Ferguson Inc. Fanning mill for combines. 2,849,118, 8–26–58, Cl. 209—318.
Askania Regulator Co.: *See*—
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Atlantic Refining Co., The: *See*—
Ogburn, Hugh B., Bent, and Masologites. 2,849,377.
Atwood, George E., and D. J. Bourne, to Duval Sulphur & Potash Co. Processes for treating langbeinite ore to obtain useful products therefrom. 2,849,287, 8–26–58, Cl. 23—38.
Ault, Hyman J. Drapery carrier. 2,848,734, 8–26–58, Cl. 16—87.4.
Ault, Hyman J., and F. Wilcox, said Wilcox to said Ault. Drapery carrier. 2,848,735, 8–26–58, Cl. 16—93.
Austin, Leonard E., A. K. Brown, Jr., and J. H. Ettinger, to Bendix Aviation Corp. Conveyor dispatching machine. 2,849,101, 8–26–58, Cl. 198—38.
Ayers, David T., Jr., to Kelsey-Hayes Co. Motor for positioning a brake pedal. 2,848,980, 8–26–58, Cl. 121—38.
Ayers, James L., and A. S. Walsh, to The General Electric Co. Ltd. Electromagnetic waveguide systems. 2,849,688, 8–26–58, Cl. 333—11.
Ayres, Waldemar A., to White Sewing Machine Corp. Sewing machine. 2,848,965, 8–26–58, Cl. 112—231.
Babcock, John T. W. Fire-retaining roof structure. 2,848,957, 8–26–58, Cl. 108—6.5.

Bachli, Herman, and H. S. Shapiro, to Chicago Specialty Mfg. Co. Device for use in clamping and cutting tubing. 2,848,785, 8–26–58, Cl. 29—67.
Bachli, Herman, and H. S. Shapiro, to Chicago Specialty Mfg. Co. Aerators. 2,849,217, 8–26–58, Cl. 261—76.
Bacon, Conrad G., to United States of America, Atomic Energy Commission. Isotope separators. 2,849,616, 8–26–58, Cl. 250—41.9.
Bailes, Richard H., and D. A. Ellis, to United States of America, Atomic Energy Commission. Catalytic promotion of the adsorption of vanadium on an anionic exchange resin. 2,849,279, 8–26–58, Cl. 23—14.5.
Bailey, Donald L., and W. T. Black, to Union Carbide Corp. (Cyclohexen-3-yl-1)-ethyisiloxane bis (dimethylsiloxane) cyclic trimer. 2,849,473, 8–26–58, Cl. 260—448.2.
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Baker, Reuben C. 2,849,245.
Baker, Reuben C., and Conrad. 2,849,069.
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Conrad, Martin B. 2,849,207.
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Baker, Reuben C., to Baker Oil Tools, Inc. Non-rotary threaded coupling. 2,849,245, 8–26–58, Cl. 285—141.
Baker, Richard W., F. G. Ciapetta, and R. M. Dobres, to Socony Mobil Oil Co., Inc. Catalytic reforming with a high surface area catalyst. 2,849,376, 8–26–58, Cl. 196—50.
Baldwin, Philip S., ¼ to Fiat Società per Azioni. Auxiliary cylinder booster. 2,848,875, 8–26–58, Cl. 60—54.5.
Balsiger, Harold R., to Landis Tool Co. Axial locating device. 2,848,849, 8–26–58, Cl. 51—105.
Bance, Fred W., J. F. Nelson, and R. F. Leary, to Esso Research and Engineering Co. Preparation of olefinic-aromatic feeds for solvent extraction. 2,849,512, 8–26–58, Cl. 260—674.
Bank, Thor G., to Allis-Chalmers Mfg. Co. Cover interlock assembly. 2,849,556, 8–26–58, Cl. 200—50.
Bar, Solo. Differential metering mechanism with preselection. 2,848,553, 8–26–58, Cl. 200—47.
Bartlett, Theo A., to General Motors Corp. Voltmeter. 2,849,679, 8–26–58, Cl. 324—131.
Barnett, Jose M., to S. A. Piltox. Cigarette holders. 2,849,006, 8–26–58, Cl. 131—187.
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Allyn, Charles L., Barrentine, Hodgins, Shelton, and Rawson. 2,849,492.
Shelton, Frederic J., and Barrentine. 2,849,493.
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Bartlett, C. O., & Snow Co., The: *See*—
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Baso Inc.: *See*—
Thornbery, John H., and Matthews. 2,849,663.
Bastian, Raymond E., to The Firestone Tire & Rubber Co. Tire molds and method of making same. 2,848,910, 8–26–58, Cl. 76—107.
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Baxter, Warren N., to E. I. du Pont de Nemours and Co. Chlorination of polypropylene. 2,849,431, 8–26–58, Cl. 260—93.7.
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Beaulieu, Delton C., to Kimberly-Clark Corp. Revolving layboy piler. 2,849,236, 8–26–58, Cl. 271—58.
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Bechtold, Max F., to E. I. du Pont de Nemours and Co. Process for the production of porous open-cell structure polymer films. 2,848,752, 8–26–58, Cl. 18—57.
Behr, Siegfried. Lady's hair ornament. 2,849,007, 8–26–58, Cl. 132—046.
Belart, José, to Precision Apparatus Co., Inc. Electrical probe. 2,849,681, 8–26–58, Cl. 324—149.
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Eglin, James M. 2,849,537.
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Fox, Arthur G. 2,849,692.
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Miller, Stewart E. 2,849,683.
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Beller, Ray M. and F. W., to Belson Mfg. Co. Construction of foldable picnic table. 2,849,053, 8–26–58, Cl. 155—124.
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Beller, Ray M. and F. W. 2,849,053.
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O'Brien, Charles S., Jr. 2,849,171.
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Burnett, Richard T. 2,849,088.
Eastman, James M. 2,848,870.
Hupp, Edward E. 2,848,981.
Kelly, Jack J., and Jaquith. 2,849,023.
Long, Richard H. 2,849,557.
Martin, John G. 2,849,066.
Roth, Wilfred. 2,848,794.
Russ, Daniel G. 2,848,869.
Schoch, Walter E. 2,848,803.
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Shnitzler, Meyer J., and Benedict. 2,848,807.
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Berberich, Leo J., and C. N. Works, to Westinghouse Electric Corp. Composite gaseous insulation containing highly fluorinated organic compounds for electrical apparatus. 2,849,525, 8–26–58, Cl. 174—17.
Berg, Clyde H. O., to Union Oil Co. of California. Hydrocarbon conversion process and apparatus. 2,849,381, 8–26–58, Cl. 196—52.
Berg, Richard D., to Western Electric Co., Inc. Burring tool. 2,848,787, 8–26–58, Cl. 29—95.
Bergman, William E., and W. L. Stalder, to Phillips Petroleum Co. Method of recovering heterocyclic nitrogen bases from aqueous solutions. 2,849,358, 8–26–58, Cl. 204—180.
Berman, Max G., A. Irwin, and D. W. Kershner, to Thiokol Chemical Corp. Igniter. 2,849,300, 8–26–58, Cl. 44—40.
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Field, Phillip M. 2,848,922.
Bessler, Herman F. Tree-handling device. 2,849,125, 8–26–58, Cl. 214—3.
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Better Packages Inc.: *See*—
Krueger, Theodore H. 2,849,067.
Krueger, Theodore H., and Sharpe. 2,849,065.
Billings, Roy O. Rollers for applying paint or the like. 2,848,730, 8–26–58, Cl. 15—230.
Bindon, Douglas G., M. J. Friedman, and V. L. Newhouse, to Ferranti, Ltd. Electronic selector stages. 2,849,703, 8–26–58, Cl. 340—166.
Bingenheimer, Melvin, to Westinghouse Electric Corp. Front-operated circuit interrupters. 2,849,581, 8–26–58, Cl. 200—168.
Bird Electronic Corp.: *See*—
Schelgunov, Alex. 2,849,201.
Bird Machine Co.: *See*—
Roos, John T. 2,849,122.
Bird & Son, Inc.: *See*—
Tennant, James L., Jr. 2,848,842.
Bird, Walter W., to Birdair Structures, Inc. Air inflated tower or the like. 2,849,011, 8–26–58, Cl. 135—1.
Birdair Structures, Inc.: *See*—
Bird, Walter W. 2,849,011.
Biringer, Paul P., to The General Engineering Co. Ltd. Frequency multiplying transformer. 2,849,674, 8–26–58, Cl. 321—68.
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Black, Daniel A., to Fabricated Products Co., Inc. Work protector for drill chucks. 2,848,911, 8–26–58, Cl. 77—55.
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Bleecker, William H., to Allegheny Ludlum Steel Corp. Production of refractory metal carbides. 2,849,275, 8–26–58, Cl. 23—14.
Bloch, Herman S., and D. R. Strehlau, to Universal Oil Products Co. Alkylaryl thio-urethans. 2,849,474, 8–26–58, Cl. 260—455.
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Blumensaadt, Svend G., to The Universal Wire Spring Co. Wire forming machine. 2,849,031, 8–26–58, Cl. 140—71.
Bobet, J., & Son S. A.: *See*—
Laufer, Frederic. 2,849,235.
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Hubbard, Robert M. 2,849,673.
Person, Robert P. 2,849,200.

Boller, Ernest R.: *See*—
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Bolton, Frank H., to The Dow Chemical Co. Process for making chloromesitylene. 2,849,501, 8–26–58, Cl. 260—650.

Bonnafoux, Paul. Pellet mill. 2,848,738, 8–26–58, Cl. 8—12.

Bonsteel, Lloyd O. Venetian blind tilting mechanism. 2,849,062, 8–26–58, Cl. 160—176.

Bopp, Cecil W., to Bopp Mfg., Inc. Self-balancing loader fork. 2,849,253, 8–26–58, Cl. 294—63.

Bopp Mfg., Inc.: *See*—
Bopp, Cecil W. 2,849,253.

Borg-Warner Corp.: *See*—
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Borngesser, Otto J., to United States of America, Navy. Hydraulic force-limiter for aircraft controls. 2,849,198, 8–26–58, Cl. 244—83.

Boron, Frank J., to American Brake Shoe Co. Furnace bottom supports. 2,849,219, 8–26–58, Cl. 263—40.

Borrowdale, Orville J. Device for moving material substantially vertically. 2,849,102, 8–26–58, Cl. 198—82.

Bosomworth, George P., to The Firestone Tire & Rubber Co. Bead seating and inflating device for tubeless tire. 2,849,059, 8–26–58, Cl. 157—1.1.

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Bourne, Douglas J., and M. H. Harrison, to Duval Sulphur and Potash Co. Methods of and means for handling flotation middlings in ore concentration processes. 2,849,113, 8–26–58, Cl. 209—12.

Bowser, Inc.: *See*—
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Pressler, Ralph B., and Walker. 2,849,014.

Boyce Thompson Institute for Plant Research, Inc.: *See*—
Prill, Edward A. 2,849,455.

Boyd, George E., to United States of America, Atomic Energy Commission. Method of separation. 2,849,282, 8–26–58, Cl. 23—14.5.

Boyer, Clara M. Garment hanger units. 2,849,168, 8–26–58, Cl. 223—91.

Boyer, John L., and A. P. Colaiaco, to Westinghouse Electric Corp. Ultra high power transistor. 2,849,665, 8–26–58, Cl. 317—235.

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Brahm, Charles B., to United Aircraft Corp. Variable sensitivity speed circuit for variable pitch propellers. 2,849,072, 8–26–58, Cl. 170—160.2.

Branch, Sidney J., to The Distillers Co. Ltd. Preparation of dehydroacetic acid. 2,849,456, 8–26–58, Cl. 260—343.5.

Braun, Oskar, to Farbwerke Hoechst Akt. vormals Meister Lucius & Brüning. Process of preparing water-insoluble coloring matters. 2,849,329, 8–26–58, Cl. 106—308.

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Brink, Winfield S., to The Firestone Tire & Rubber Co. Method of making a drop center one piece tubeless tire rim. 2,848,805, 8–26–58, Cl. 29—545.

Bristol, Donald R., to Ryan Recording Thermometer Co. Recording thermometer. 2,848,895, 8–26–58, Cl. 73—343.5.

British Telecommunications Research Ltd.: *See*—
Baker, George T., and Mann. 2,849,535.
Gaite, Harold D. 2,849,568.

Britten, Harold H., to General Electric Co. Static inverse time overvoltage device. 2,849,662, 8–26–58, Cl. 317—148.

Brock, Richard A. Lid forming machine. 2,848,856, 8–26–58, Cl. 53—287.

Brockbank, Robert A. Submarine cable. 2,849,526, 8–26–58, Cl. 174—107.

Bronaugh, Hugh J., to Thiokol Chemical Corp. Preparation of alkali metal borohydrides. 2,849,276, 8–26–58, Cl. 23—14.

Brossman, Martin W., to United States of America, Navy. Recycling displacement measuring and recording device. 2,849,272, 8–26–58, Cl. 346—31.

Brown, Arthur K., Jr.: *See*—
Austin, Leonard E., Brown, and Ettinger. 2,849,101.

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Tucker, Irwin W., and Moll. 2,849,005.

Browne, Mervin F., to Allied Chemical Corp. Method of precision casting. 2,848,773, 8–26–58, Cl. 22—193.

Brucker, Francis X. Wrapped ham. 2,849,322, 8–26–58, Cl. 99—174.

Brugmann, Elmer W., to United States of America, Atomic Energy Commission. Corrosion resistant jacketed metal body. 2,849,387, 8–26–58, Cl. 204—193.2.

Brugmann, Elmer W., to United States of America, Atomic Energy Commission. Corrosion resistant jacketed metal body. 2,849,388, 8–26–58, Cl. 204—193.2.

Brugmann, Elmer W., to United States of America, Atomic Energy Commission. Corrosion resistant jacketed metal body. 2,849,389, 8–26–58, Cl. 204—193.2.

Brumbaugh, Donald Q., to United States of America, Navy. Rocket decelerated mine. 2,848,945, 8–26–58. Cl. 102—7.

Brust, Harry F., to The Dow Chemical Co. N,N'-alkanediylidenebis (bicyclohexyl)-4-amines. 2,849,487, 8–26–58, Cl. 260—566.

Bryan, Hugh D., to Mead Johnson & Co. Medicament applicator. 2,848,998, 8–26–58, Cl. 128—260.

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Taylor, Owen L. 2,848,768.
Taylor, Owen L. 2,849,547.

Buchanan, Mike E., to E. I. du Pont de Nemours and Co. Preparation of nitrobenzene. 2,849,497, 8–26–58, Cl. 260—645.

Büchner, Karl, and J. Meis, to Ruhrchemie Akt. Production of 8-ketotricyclodecane. 2,849,489, 8–26–58, Cl. 260—586.

Budzich, Tadeusz. Wobbler type multiple piston pump. 2,848,954, 8–26–58, Cl. 103—173.

Buehler, Arthur, to Ciba Ltd. Metalliferous monoazo-dyestuffs and process of making same. 2,849,436, 8–26–58, Cl. 260—151.

Bulleri, Leonetto, and R. Armchair, sofa or the like, made up entirely of a resiliently yieldable material without any carrier framework. 2,849,058, 8–26–58, Cl. 155—179.

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Burgess, Neil, and D. F. Warner, to General Electric Co. Nozzle construction for turbines. 2,849,209, 8–26–58, Cl. 253—39.1.

Burke, Harry E., L. P. Robinson, R. L. Sink, and R. M. Strassner, to Consolidated Electrodynamics Corp. Function generator having cathode ray means for following edge of birefringent pattern. 2,849,180, 8–26–58, Cl. 235—61.

Burnett, Richard T., to Bendix Aviation Corp. Brake actuator. 2,849,088, 8–26–58, Cl. 188—70.

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Burroughs Corp.: *See*—
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Medoff, Joseph L. 2,849,654.

Burton, Milton: *See*—
Devins, John C., and Burton. 2,849,357.

Burwell, Blair. Pressure filter. 2,849,121, 8–26–58, Cl. 210—226.

C. G. S. Laboratories, Inc.: *See*—
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Cabot, Godfrey L., Inc.: *See*—
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Heise, George W., and Cahoon. 2,849,521.

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Hotten, Bruce W. 2,849,397.
Hotten, Bruce W. 2,849,400.
Hotten, Bruce W. 2,849,401.

Callender, Bernard L., to Askania Regulator Co. Multiple jet pipe relay regulator. 2,849,013, 8–26–58, Cl. 137—83.

Campbell, Harry G. Straight line wire rope anchor clamp. 2,848,776, 8–26–58, Cl. 24—126.

Campbell, James R. Thermostatic control. 2,849,575, 8–26–58, Cl. 200—138.

Capellaro, Natale, to Ing. C. Olivetti & C., S. p. A. Column and function controls for an accounting machine having a traveling paper carriage. 2,849,179, 8–26–58, Cl. 235—60.47.

Capitol Products Corp.: *See*—
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Cardinal, Earl V., to International Minerals & Chemical Corp. Amino acid derivatives. 2,849,468, 8–26–58, Cl. 260—429.9.

Cardox Corp.: *See*—
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Carlock, Clifford: *See*—
Combs, Jesse T. 2,848,976.

Carlsson, Erik I., and G. R. Johdet, to Örebro Bil- & Traktor Aktiebolag. Digging machine. 2,849,133, 8–26–58, Cl. 214—142.

Carmack, Marvin, and J. F. Harris, Jr., to trustees of University of Pennsylvania. S-nitrophenyl carboxyalkyl disulfides. 2,849,479, 8–26–58, Cl. 260—470.

Carnegie, William L.: *See*—
Almen, John O., and Carnegie. 2,849,346.

Carosella, Michael C., to Union Carbide Corp. Purifying solutions for use in the electrowinning of chromium. 2,849,354, 8–26–58, Cl. 204—105.

Carpenter, Joseph E., to American Cyanamid Co. Diesters of dithiophosphoric acid. 2,849,475, 8–26–58, Cl. 260—461.

Casey, Robert F., to Allen B. Du Mont Laboratories, Inc. Sweep circuit having an adjustable expanded section. 2,849,609, 8–26–58, Cl. 250—27.

Casselman, Gordon D. Drill grinding apparatus. 2,848,847, 8–26–58, Cl. 51—100.

Caveney, Jack E.: *See*—
Michelet, Charles J., Caveney and Robinson. 2,849,066.

Cawley, James T., 50% to M. C. Shumiatcher. Wall map storage cabinet. 2,848,828, 8–26–58, Cl. 40—65.

Celanese Corp. of America: *See*—
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Steinmann, Henry W. 2,849,442.
Steinmann, Henry W. 2,849,444.
Steinmann, Henry W., and Dunay. 2,849,443.

Cellerini, Albert R., to Westinghouse Electric Corp. Operating mechanism for enclosed circuit breakers or switches. 2,849,555, 8–26–58, Cl. 200—50.

Cellerini, Albert R., and H. D. Dorfman, to Westinghouse Electric Corp. Fusible electric switch. 2,849,572, 8–26–58, Cl. 200—114.

Certa, Anthony J., to Philco Corp. Etching composition and method. 2,849,296, 8–26–58, Cl. 41—42.

Cetrulo, Frank A., Jr. Conveying machine for line production of sewn materials. 2,848,960, 8–26–58, Cl. 112—2.

Chance, A. B., Co.: *See*—
Curtis, Thomas E., and Bridges. 2,849,554.

Changewood Corp.: *See*—
Clark, James d'A. 2,849,038.

Chapin, William S., Jr., to Manning, Maxwell & Moore, Inc. Jib crane kit. 2,849,205, 8–26–58, Cl. 248—282.

Chapman, George L. to Clarostat Mfg. Co., Inc. Switch. 2,849,558, 8–26–58, Cl. 200—67.

Chase, George O., and W. Kimel, to Hoffmann-La Roche Inc. Hydrogenated ketones and their preparation. 2,849,490, 8–26–58, Cl. 260—586.

Chasnoff, Jack M.: *See*—
Olmer, Francois J., and J. and J. M. Chasnoff. 2,849,550.

Chasnoff, Jules: *See*—
Olmer, Francois J., and J. and J. M. Chasnoff. 2,849,550.

Chauvin, David M.: *See*—
Fickett, Walter A., and Chauvin. 2,849,605.

Chemstrand Corp., The: *See*—
Ham, George E. 2,849,483.
Jenkins, Lloyd T., and Holmes. 2,849,413.

Chestnut, William C., to Skyway Luggage Co. Luggage carrier. 2,849,093, 8–26–58, Cl. 190—43.

Chicago Specialty Mfg. Co.: *See*—
Bachli, Herman, and Shapiro. 2,848,785.
Bachli, Herman, and Shapiro. 2,849,217.

Chisholm, Gordon R. Wall board securing cleat. 2,848,758, 8–26–58, Cl. 20—4.

Choporis, Peter N. Cover assembly for swimming pools. 2,848,722, 8–26–58, Cl. 4—172.

Ciapetta, Frank G.: *See*—
Baker, Richard W., Ciapetta, and Dobres. 2,849,378.

Ciba Ltd.: *See*—
De Montmollin, René, and Zollinger. 2,849,437.
Hanhart, Walter. 2,849,435.

Ciba Pharmaceutical Products, Inc.: *See*—
Hoffmann, Karl, Heer, Sury, and Urech. 2,849,453.

Cines, Martin R., to Phillips Petroleum Co. Filtration and catalyst regeneration in olefin polymerization. 2,849,429, 8–26–58, Cl. 260—88.1.

Clampitt, Lawrence L., and P. P. Derby, to Raytheon Mfg. Co. Electron discharge devices. 2,849,649, 8–26–58, Cl. 315—39.57.

Clark, Albert R. and W. B. Drying apparatus. 2,848,821, 8–26–58, Cl. 34—66.

Clark, James d'A., to Changewood Corp. Machine for producing fibrous wafers. 2,849,038, 8–26–58, Cl. 144—172.

Clark, John W., to Litton Industries of California. Methods and apparatus for X-ray therapy. 2,849,621, 8–26–58, Cl. 250—64.

Clark, Lawrence, T. J. Grabowski, and A. C. Poshkus, to Armstrong Cork Co. Cellular products and method of manufacture. 2,849,028, 8–26–58, Cl. 138—49.

Clark, Louis P., to Tele-Dynamics Inc. Highway condition indicating system. 2,849,701, 8–26–58, Cl. 340—22.

Clark, William B.: *See*—
Clark Albert R. and W. B. 2,848,821.

Clarke, Jesse E. Lift truck. 2,849,132, 8–26–58, Cl. 214—130.

Clarkson Roy E.: *See*—
Fulton, David H. 2,848,766.

Clarostat Mfg. Co., The: *See*—
Chapman, George L. 2,849,558.

Clay, Nathan: *See*—
Cooper, Benjamin, Klein, and Clay. 2,848,750.

Clément, Jean: *See*—
Deprez, Charles, and Clément. 2,849,393.

Cleveland Trust Co., The: *See*—
Frohlich, Adolf H., and Harris. 2,848,740.

Clingman, William H., Jr., to The American Oil Co. Synthesis of carboxylic acids. 2,849,484, 8–26–58, Cl. 260—533

Clyne, Joseph, to Flexsleev, Inc. Pull-free garment construction. 2,848,719, 8–26–58, Cl. 2—125.

Coffman, Alvin: *See*—
Reguly, Lewis J., Marshall, Coffman, and Lysek. 2,849,231.

Cohen, Maurice, and J. Karson. Vehicle cover. 2,849,012, 8–26–58, Cl. 135—5.

Colaiaco, August P.: *See*—
Boyer, John L., and Colaiaco. 2,849,665.

Collins, Jack B., to The Firestone Tire & Rubber Co. Apparatus for measuring the moisture content of fabrics. 2,849,676, 8–26–58, Cl. 324—65.

Collins, Ralph D.: *See*—
Koehler, Robert L. 2,849,538.

Colson, William J., to Boeing Airplane Co. Tank pressure coordinating mechanisms. 2,849,015, 8–26–58, Cl. 137—98.

Combs, Jesse T., to C. Carlock. Animal bed. 2,848,976, 8–26–58, Cl. 119—1.

Compagnie Generale de Telegraphie Sans Fil: *See*—
Mourier, Georges. 2,849,643.

Compton, Jerry B. Insulated faced wall. 2,848,887, 8–26–58, Cl. 72—28.

Conant, Floud S.: *See*—
Hall, George L., and Conant. 2,849,675.

Cone, Carroll, and W. H. Dailey, Jr., to Surface Combustion Corp. Recuperator for combustion furnaces. 2,849,218, 8–26–58, Cl. 263—20.

Cone, Carroll, and D. K. Martin, to Surface Combustion Corp. Heat treating furnace. 2,849,221, 8–26–58, Cl. 263—43.

Congoleum-Nairn Inc.: *See*—
Palmer, Leon B. 2,849,385.

Connor, Lyle B.: *See*—
Aitken, William H., Connor, and Haskell. 2,848,915.

Conrad, Martin B.: *See*—
Baker, Reuben C., and Conrad. 2,849,069.

Conrad, Martin B., to Baker Oil Tools, Inc. Circulation valve. 2,849,025, 8–26–58, Cl. 137—625.48.

Conrad, Martin B., to Baker Oil Tools, Inc. Subsurface well bore valve apparatus. 2,849,207, 8–26–58, Cl. 251—149.

Consolidated Electrodynamics Corp.: *See*—
Burke, Harry E., Robinson, Sink, and Strassner. 2,849,180.
Kinkel, John F. 2,849,669.
Neff, Glyn A. 2,849,704.

Control Instrument Co.: *See*—
Germain, Lloyd M. 2,849,625.

Contronics, Inc.: *See*—
Gustafson, Darrel W. 2,849,615.

Cook, Ellis M. Right and left thread, slidable jaw, handle-actuated wrench. 2,848,917, 8–26–58, Cl. 81—163.

Coonfare, Robert H.: *See*—
Graves, Edwin E., and Coonfare. 2,848,804.

Cooper, Benjamin, M. Klein, and N. Clay; said Klein and said Clay assors. to said Cooper. Doors. 2,848,759, 8–26–58, Cl. 20—16.

Cooper, Robert H., and K. L. Godfrey, to Monsanto Chemical Co. 2,2′-thiobis(polyhalophenols). 2,849,494, 8–26–58, Cl. 260—609.

Coover, Harry W., Jr.: *See*—
McConnell, Richard L., and Coover. 2,849,476.

Cope, Arthur C., and B. S. Fisher, to E. I. du Pont de Nemours and Co. Aryl methyleneamino-substituted 3-cyanothiophenes and their preparation. 2,849,449, 8–26–58, Cl. 260—240.

Corbin, Russel G., to General Motors Corp. Door latch with slidable actuator. 2,849,251, 8–26–58, Cl. 292—280.

Corda, Helmuth, to Olin Mathieson Chemical Corp. Purification of steroids. 2,849,460, 8–26–58, Cl. 260—397.4.

Corn Products Refining Co.: *See*—
Schoenberger, John J., and Turula. 2,849,326.

Cotton, Richard A.: *See*—
Weinmann, Ritchard C., and Cotton. 2,849,319.
Weinmann, Ritchard C., and Cotton. 2,849,320.

Coty, Inc.: *See*—
Heinrich, Herbert, and Reibel. 2,849,009.
Roos, Jacob F., and Smith. 2,849,170.

Court, Patrick R. J., to Sylvania Electric Products, Inc. Synchronization system. 2,849,612, 8–26–58, Cl. 250—36.

Courtaulds Ltd.: *See*—
Weigham, William R. 2,849,445.

Cox, Jack R. Humane hunting arrow. 2,848,834, 8–26–58, Cl. 43—1.

Cox, Marvin E., to Simonis Co. Polishing composition. 2,849,324, 8–26–58, Cl. 106—10.

Craig, Ollison, to Riley Stoker Corp. Fuel burning apparatus. 2,848,959, 8–26–58, Cl. 110—38.

Cramer, Marco J., to Parker Rust Proof Co. Porcelain enamelling. 2,849,344, 8–26–58, Cl. 148—6.14.

Crane & Breed Casket Co., The: *See*—
Slaughter, Bernard J., Jr., and Van Pelt. 2,848,781.

Crane Co.: *See*—
Fredrickson, Edward A. 8,848,721.

Crapuchettes, Paul W., to Litton Industries, Inc. Magnetron. 2,849,633, 8–26–58, Cl. 313—45.

Craven, William J.: *See*—
Matuszak, Alfred H., and Craven. 2,849,399.

Creamery Package Mfg. Co., The: *See*—
Wakeman, Alden H. 2,848,952.

Crook, Eric G. B., to Acrow (Engineers) Ltd. Clamping connections for framework. 2,849,258, 8–26–58, Cl. 304—40.

Crooker, David E., ½ to L. L. Felker. Apparatus for and method of forming tire treads. 2,848,744, 8–26–58, Cl. 18—44.

Crouse-Hinds Co.: *See*—
Petree, Jay B. 2,849,597.

Crowder, John S. Retractable scratch awl. 2,848,809, 8–26–58, Cl. 30—164.9.

Crowley-Milling, Michael C. to Metropolitan-Vickers Electrical Co. Ltd. Linear electron accelerators. 2,849,634, 8–26–58, Cl. 313—57.

Crump, Lloyd R. Method of securing permanent three-dimensional patterns of magnetic fields. 2,848,748, 8–26–58, Cl. 18—47.5.

Cummaro, Louis A., to Phillips Screw Co. Insert for soft materials and locking member therefor. 2,849,046, 8–26–58, Cl. 151—41.73.

Curtis Lighting, Inc.: *See*—
Harris, Edwin W. 2,849,600.

Curtis, Thomas E., and R. P. Bridges, to A. B. Chance Co. Sectionalizing switch. 2,849,554, 8–26–58, Cl. 200—48.

Curtner, Richard L., to The Bath Cyril Co. Stretch and wipe forming apparatus with tension, yield, and elongation control. 2,849,048, 8–26–58, Cl. 153—40.

Cserlinsky, Ernst: *See*—
Everett, Elmer H., and Cserlinsky. 2,849,190.

Dailey, William H., Jr.: *See*—
Cone, Carroll, and Dailey. 2,849,218.

Daimler-Benz Akt.: *See*—
Maruhn, Herbert F. W. 2,849,226.

Daley, Roger J., to Bowser, Inc. Sequence control system for multiple electrically operated dispensing units. 2,849,155, 8–26–58, Cl. 222—76.

Dall'Olio, Vittorio. Controlled torque coupling for conveying rotary motion. 2,848,883, 8-26-58, Cl. 64—29.

Dalsell, Frederick W.: *See*—
Olliveau, John Y., and Dalsell. 2,849,019.

Danly, James C., T. F. Novak, and V. Georgeff, to Danly Machine Specialties, Inc. Hydraulically clamped stock feed assembly for power presses. 2,849,230, 8-26-58, Cl. 271—2.4.

Danly Machine Specialties, Inc.: *See*—
Danly, James C., Novak, and Georgeff. 2,849,230.

Danaker, Leo, to Olin Mathieson Chemical Corp. Processing of benzene hexachloride alcoholic solutions. 2,849,498, 8-26-58, Cl. 260—648.

Darman, Joseph: *See*—
Zizzi, Joseph L., and Darman. 2,849,269.

Davenport, Fred B., Jr. Liquid baffle for gasoline dispensing nozzles. 2,849,036, 8-26-58, Cl. 141—392.

Davies, Howard, and A. C. Towe; said Towe assor. to said Davies. Electric switch device. 2,849,567, 8-26-58, Cl. 200—104.

Davis, Oscar N., to Dulock, Inc. Combination work piece aligner and clamping tool. 2,848,798, 8-26-58, Cl. 29—271.

Decca Record Co. Ltd., The: *See*—
Matthews, Robert. 2,849,708.

De Courcey, Dennis G. *See*—
Dmitriev, Nickolas T., and De Courcey. 2,848,830.

De George, Edward C.: *See*—
Rowan, Hartley D. and De George. 2,849,062.

Dehydag, Deutsche Hydrierwerke G. m. b. H.: *See*—
Gundel, Wolfgang, Strauss, and Haas. 2,849,351.
Kirstahler, Alfred, Strauss, Willmund. 2,849,352.

Deist, Herbert H., to The Firestone Tire & Rubber Co. Vehicle suspension. 2,848,956, 8-26-58, Cl. 105—199.

De Koning, Arie A. and K. K. K. Shock absorber reservoir valve. 2,849,090, 8-26-58, Cl. 188—100.

De Koning, Kornelis K. K.: *See*—
De Koning, Arie A. and K. K. K. 2,849,090.

Delman, Alvin D.: *See*—
Allison, Albert R., Delman, Ruff, and Simms. 2,849,291.

De Montmollin, René, and H. Zollinger, to Ciba Ltd. New monoazo dyestuffs. 2,849,437, 8-26-58, Cl. 260—196.

Demurjian, Ashod C. Molded terminal block. 2,849,699, 8-26-58, Cl. 339—198.

Demuth, Charles, to Charles Demuth & Sons Inc. Air distributing devices. 2,848,935, 8-26-58, Cl. 98—40.

Demuth, Charles, & Sons, Inc.: *See*—
Demuth, Charles. 2,848,935.

Dennison, Brook J.: *See*—
Smith, William G., and Dennison. 2,849,345.

De Nobel, Dirk: *See*—
Kroger, Ferdinand A., Basart, van den Boomgaard, Vink, Bloem, and De Nobel. 2,849,343.

Densmore, Neal W., to Joy Mfg. Co. Apparatus for mechanically parking and storing automobiles. 2,849,127, 8-26-58, Cl. 214—16.1.

Depres, Charles, and J. Clement, to Solvay & Cie. Cathodic device for electrolytic cells having a moving mercury cathode. 2,849,393, 8-26-58, Cl. 204—219.

Derby, Palmer P.: *See*—
Clampitt, Lawrence L., and Derby. 2,849,649.

Dermond, Lawrence C., to General Motors Corp. Fuel injection system. 2,848,986, 8-26-58, Cl. 123—119.

De Ruggieri, Pietro. Method for preparing 19-nor, 17-α-alkyl testosterone. 2,849,461, 8-26-58, Cl. 260—397.4.

De Ruggieri, Pietro. Method for preparing 19-nor 17-α-ethynyl testosterone. 2,849,462, 8-26-58, Cl. 260—397.4.

De Tar, Donald R., to Aladdin Industries, Inc. Wavemeter. 2,849,691, 8-26-58, Cl. 333—82.

Detsner, Herbert: *See*—
Muller, Gerd, Bechlars, Detzner, and Grahmann. 2,849,438.

Development Research, Inc.: *See*—
Soffer, Jack W., and Neupert. 2,849,163.

Devins, John C., and M. Burton, to Olin Mathieson Chemical Corp. Hydrazine. 2,849,357, 8-26-58, Cl. 204—177.

Diamond Alkali Co.: *See*—
Watts, Aaron P. 2,848,857.

Dicke, Robert H., to United States of America, Army. Methods and systems for producing gas-absorption lines of doppler-reduced breadth. 2,849,613, 8-26-58, Cl. 250—36.

Dickens, Leslie, to The Firestone Tire & Rubber Co. Inflation valve for preventing unauthorized deflation of tires. 2,849,017, 8-26-58, Cl. 137—223.

Dictaphone Corp.: *See*—
Di Mattia, Alfred L. 2,849,533.

Diefenbach, James C., to Simmon Brothers, Inc. Photographic easel. 2,848,923, 8-26-58, Cl. 88—24.

Diels, Albert, to Poudreries Reunies De Belgique S. A. Percussion fuse for land mines. 2,848,940, 8-26-58, Cl. 102—73.

Diersen, Theodore B.: *See*—
Pauls, Edwin A., and Diersen. 2,849,193.

Dieter, Norman H., Jr., and I. Michalko, to Sonotone Corp. Phonograph pickups. 2,849,239, 8-26-58, Cl. 274—37.

Dietz, Albert: *See*—
Nelson, Earl W., Dietz, Wikswoo, and Trees. 2,849,083.

Di Mattia, Alfred L., to Dictaphone Corp. Headphone device. 2,849,533, 8-26-58, Cl. 179—1.

Distillers Co. Ltd., The: *See*—
Branch, Sidney J. 2,849,456.

Dit-M Co, Inc.: *See*—
Hannon, Warren W. 2,849,677.
Hannon, Warren W. 2,849,678.

Dixon, Glenn R., to Olin Mathieson Chemical Corp. Tube extrusion. 2,848,747, 8-26-58, Cl. 18—47.5.

Dmitriev, Nickolas T., and D. G. De Courcey, to Boeing Airplane Co. Indirectly illuminated instrument panels. 2,848,830, 8-26-58, Cl. 40—130.

Dobres, Robert M.: *See*—
Baker, Richard W., Ciapetta, and Dobres. 2,849,378.

Dodd, William C. Bait harness. 2,848,830, 8-26-58, Cl. 43—44.6.

Dodge, Adiel Y., to Borg-Warner Corp. Hydraulic torque converter. 2,848,906, 8-26-58, Cl. 74—677.

Doherty, William H. Shoe bottoming methods and apparatus. 2,848,742, 8-26-58, Cl. 18—34.

Dolk, Jacques M. H., ⅓ to N. V. Carrosseriefabriek Verheul. Self-supporting body, more particularly for a motor bus. 2,849,254, 8-26-58, Cl. 296—28.

Dollar, Fred W. Trouser blousing means. 2,848,828, 8-26-58, Cl. 38—1.

Dominik, Joseph F.: *See*—
Proell, Wayne A., Stanley, Kennedy, Dominik, and Omyra. 2,848,872.

Donaldson, James B. Toy caps. 2,848,950, 8-26-58, Cl. 102—86.5.

Donaldson, Jay W. Word forming device. 2,848,824, 8-26-58, Cl. 35—75.

Donegan, Joseph W., and B. S. Penley, to Allied Chemical Corp. Vent valve for relieving pressure. 2,849,018, 8-26-58, Cl. 137—251.

Donohue, Henry P., Jr.: *See*—
Wendell, Charles B., Jr., Engelson, and Donohue. 2,849,293.

Dorcy, Dan J.: *See*—
Linsell, Stanley M., and Dorcy. 2,849,246.

Dorfman, Hiller D.: *See*—
Cellerini, Albert R., and Dorfman. 2,849,572.

Dornow, Alfred, and S. Lupfert. Preparation of α-acylaminonitriles. 2,849,477, 8-26-58, Cl. 260—465.

Dorsey, William S.: *See*—
Schaeffer, William D., McKinnis, and Dorsey. 2,849,511.

Doumont, Armand J., to Pittsburgh Plate Glass Co. Apparatus for improving lehr operation. 2,848,845, 8-26-58, Cl. 49—47.

Dow Chemical Co., The: *See*—
Amos, James L., and Roche. 2,849,430.
Bolton, Frank H. 2,849,501.
Brust, Harry F. 2,849,487.
Swinehart, Richard W., Greminger, and Weaver. 2,849,329.
Tousignant, William F. 2,849,486.
Youngson, Charles R., and Goring. 2,849,361-8.

Downing, Willis T. Air purifier. 2,849,081, 8-26-58, Cl. 183—113.

Doyle, William S. Serving tray support for drive-in restaurants. 2,849,534, 8-26-58, Cl. 179—1.

Drain, James A., J. A. Read, and J. E. Gordon, to Joy Mfg. Co. Mine shaft mucking apparatus. 2,849,138, 8-26-58, Cl. 214—657.

Drain, James A., J. E. Gordon, and J. A. Read, to Joy Mfg. Co. Mine shaft mucking machine. 2,849,139, 8-26-58, Cl. 214—658.

Drake, Arthur K., to Edgerton, Germeshausen and Grier, Inc. System for compensating for ambient radiation. 2,849,623, 8-26-58, Cl. 250—214.

Dreier Brothers, Inc.: *See*—
Dreier, Raymond C. 2,849,039.

Dreier, Raymond C., to Dreier Brothers, Inc. Saw construction. 2,849,039, 8-26-58, Cl. 145—31.

Drescher & Kiefer: *See*—
Reitzel, Georg. 2,849,044.

Driscoll Wire Co., The: *See*—
Richardson, William H., and Kovaleski. 2,849,195.

Duchess Jewelry Mfg. Corp.: *See*—
Napoli, Frederick W., and Pompeo. 2,848,865.
Pompeo, Louis, and Steglin. 2,848,864.

Duffing, Paul, to Siemens-Schuckertwerke Akt. Trigger mechanism for circuit breakers. 2,849,571, 8-26-58, Cl. 200—109.

Duffy, John R., and A. W. Lillienberg, to Lindberg Engineering Co. Industrial furnace with removable combustion tubes. 2,849,220, 8-26-58, Cl. 263—42.

Dulock, Inc.: *See*—
Davis, Oscar N. 2,848,798.

Du Mont, Allen B., Laboratories, Inc.: *See*—
Casey, Robert F. 2,849,609.
Hesse, Henry R. 2,849,602.

Dunay, Michael: *See*—
Steinmann, Henry W., and Dunay. 2,849,443.

Du Pont, E. I. de Nemours and Co.: *See*—
Baxter, Warren N. 2,849,431.
Bechtold, Max F. 2,848,752.
Benson, Richard E. 2,849,470.
Bente, Paul F., Jr. 2,849,408.
Buchanan, Mike E. 2,849,497.
Cope, Arthur C., and Fisher. 2,849,449.
Evans, John L. 2,849,409.
Fang, James C. 2,849,418.
Graham, Peter J. 2,849,469.
Hoffman, Henry A., Jr., and Wilkinson. 2,849,330.
Holmquist, Howard E. 2,849,457.
Searle, Norman E. 2,849,306.
Sullivan, Robert H. 2,849,446.
Thomas, John C. 2,849,471.
Walker, Isaac F. 2,849,458.
Weldin, Thomas D. 2,849,421.
Young, Edmond G. 2,849,323.

Dürkoppwerke Akt.: *See*—
Neese, Gerhard. 2,848,791.
Nicolay, Karl. 2,848,967.

Dutton, John C., to General Electric Co. High voltage bushing adapter. 2,849,528, 8-26-58, Cl. 174—152.

Duval, Montague H., and C. M. Vitz, to Capitol Products Corp. Article transporting apparatus. 2,849,100, 8-26-58, Cl. 198—34.

Duval Sulphur & Potash Co.: *See*—
Atwood, George E., and Bourne. 2,849,287.
Bourne, Douglas J., and Harrison. 2,849,118.

Eastern Rotorcraft Corp.: *See*—
Huber, John R. 2,848,777.

Eastman, James M., to Bendix Aviation Corp. Fuel feed and power control system for gas turbine engines. 2,848,870, 8-26-58, Cl. 60—39.28.

Eastman Kodak Co.: *See*—
Harrington, Robert C., Jr. 2,849,450.
McConnell, Richard L., and Coover. 2,849,476.

Eber, Mortimer, to United States of America, Navy. Method of making ceramic metal seal. 2,848,801, 8-26-58, Cl. 29—472.9.

Eberly, Kenneth C., and R. J. Reed, to The Firestone Tire & Rubber Co. Geometric isomers of 1,3-dichlorobutadiene. 2,849,503, 8-26-58, Cl. 260—655.

Eckley, Gordon E.: *See*—
Kowal, Jack S. 2,849,256.
Kowal, Jack S. 2,848,996.

Eckley, Vincent D.: *See*—
Kowal, Jack S. 2,849,256.
Kowal, Jack S. 2,848,996.

Edgerton, Germeshausen and Grier, Inc.: *See*—
Drake, Arthur K. 2,849,623.

Edmonds, James T., Jr.: *See*—
Leatherman, Gerald T., and Edmonds. 2,849,315.

Eggenberger, Ulrich, to Gebruder Buhler. Apparatus for closing and locking of die casting machines and the like. 2,848,771, 8-26-58, Cl. 22—68.

Eglin, James M., to Bell Telephone Laboratories, Inc. Reduction of quadrature distortion. 2,849,587, 8-26-58, Cl. 179—15.5.

Eglin, James M., to Bell Telephone Laboratories, Inc. Composite conductor. 2,849,693, 8-26-58, Cl. 333—96.

Einfeldt, Manfred, to Siemens & Halske Akt. Electron microscope having a multiple-specimen carrier. 2,849,619, 8-26-58, Cl. 250—49.5.

Eitzel, Walter B. Toothpaste dispenser. 2,849,166, 8-26-58, Cl. 222—510.

Eldredge, Robert C., to S. H. M. Lund. Golf putting practice device. 2,849,238, 8-26-58, Cl. 273—177.

Eldridge, Arthur C., and L. L. McKinney, to United States of America, Agriculture. 8-(1,2-dichlorovinyl)-gintathione and method for its preparation. 2,849,434, 8-26-58, Cl. 260—112.

Electraulic Presses Ltd.: *See*—
Towler, John M. 2,848,874.

Electric Storage Battery Co., The: *See*—
Preas, Clark R., and Graff. 2,849,519.

Ellamac Inc.: *See*—
MacChesney, Chester M. 2,849,542.

Elliott, Harold V., to General Motors Corp. Electric switch. 2,849,549, 8-26-58, Cl. 200—6.

Ellis, David A.: *See*—
Bailes, Richard H. and Ellis. 2,849,279.

Ellis, Lockwood B., and G. C. Trevarthen, to General Motors Corp. Piston structure. 2,849,264, 8-26-58, Cl. 309—11.

Embler, Joseph D. Ride loading automobile top carrier. 2,849,135, 8-26-58, Cl. 214—450.

Engelson, George E.: *See*—
Wendell, Charles B., Jr., Engelson, and Donohue. 2,849,293.

Engström, Erik R., to Aktiebolaget Bofors. Track plate for a track of a track-laying vehicle. 2,849,259, 8-26-58, Cl. 305—10.

Enright, Edward J. Trap attachment for vacuum cleaners. 2,849,080, 8-26-58, Cl. 183—110.

Ernst, John L.: *See*—
Small, Augustus B., and Ernst. 2,849,428.

Ervine, Albert W. G., and W. S. Reynolds, to Remington Arms Co., Inc. Article arranging device. 2,848,853, 8-26-58, Cl. 53—143.

Essex Wire Corp.: *See*—
Farison, Glenn S. 2,849,697.

Esso Research and Engineering Co.: *See*—
Arundale, Erving, and Verstegen. 2,849,375.
Banes, Fred W., Nelson, and Leary. 2,849,512.
Etherington, Lewis D. 2,849,407.
Hakala, Thomas H., and Guyer. 2,849,406.
Jaros, Stanley E., and Nelson. 2,849,510.
Lane, Trent. 2,849,406.
Leary, Robert F., and Nelson. 2,849,459.
Matuszak, Alfred H., and Craven. 2,849,399.
Moody, Leonard E., and Popkin. 2,849,398.
Schneider, Helmuth G., Goerling, and Mistretta. 2,849,433.
Small, Augustus B., and Ernst. 2,849,428.
Voorhies, Alexis, Jr., and Nicholson. 2,849,384.

Etherington, Lewis D., to Esso Research and Engineering Co. Adsorbent reactivation process. 2,849,407, 8-26-58, Cl. 252—418.

Ethyl Corp.: *See*—
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Lyben, Raymond G. 2,849,303.
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Ettenreich, Ludwig J. 2,848,775.

Ettenreich, Ludwig J., to Etna S. A. Method of controlling the properties of metals and metal alloys by irradiation with vibrations. 2,848,775, 8-26-58, Cl. 22—200.

Ettinger, John H.: *See*—
Austin, Leonard E., Brown, and Ettinger. 2,849,101.

Eubank, Lowell D., and E. R. Boller, to United States of America, Atomic Energy Commission. Alloy coatings and method of applying. 2,848,796, 8-26-58, Cl. 29—194.

Eubank, Lowell D., to United States of America, Atomic Energy Commission. Metal-coated articles and method of making. 2,848,797, 8-26-58, Cl. 29—194.

Eubanks, Joseph H.: *See*—
Valentine, George E., and Eubanks. 2,848,982.

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Evans, John C., to Tropel, Inc. Optical cigarette lighter. 2,849,585, 8-26-58, Cl. 219—32.

Evans, John L., to E. I. du Pont de Nemours and Co. Liquid coating composition comprising a methyl methacrylate polymer and cellulose acetate butyrate. 2,849,409, 8-26-58, Cl. 260—17.

Evans, Lawrence R., to United States of America, Navy. Antenna feeder drive. 2,848,905, 8-26-58, Cl. 74—660.

Everett, Elmer H., and E. Cserlinsky, to United States of America, Air Force. Spring mounted compound motion ball mill. 2,849,190, 8-26-58, Cl. 241—175.

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Schäfer, Wilhelm. 2,848,978.

Fabricated Products Co., Inc.: *See*—
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Failing, George E. 2,849,213.

Fairchild, Horatio J., to United States Shaft Co. Core engaging shaft. 2,849,192, 8-26-58, Cl. 242—72.

Fang, James C., to E. I. du Pont de Nemours and Co. Thermosetting epoxide polymer mixtures, method of making same and coatings containing same. 2,849,418, 8-26-58, Cl. 260—45.5.

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Lehmann, Wolfgang, and Bayer. 2,849,411.
Muller, Gerd, Bechlars, Detzner, and Grahmann. 2,849,438.
Sannecke, Herbert, and Schnell. 2,848,750.
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Farnham, Alford G.: *See*—
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Fawick, Thomas L. Sand-paper holder. 2,848,851, 8-26-58, Cl. 51—187.

Fehr, Edith B., and A. P. Haase, to General Electric Co. Electric discharge device and method of making same. 2,849,639, 8-26-58, Cl. 313—261.

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Felker, Lloyd L.: *See*—
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Ferguson, Rector C., to Allis-Chalmers Mfg. Co. Cotton picking spindle. 2,848,860, 8-26-58, Cl. 56—50.

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Bindon, Douglas G., Friedman, and Newhouse. 2,849,703.

Fiat Società per Azioni: *See*—
Baldwin, Philip S. 2,848,875.

Fickett, Walter A., and D. M. Chauvin, to Westinghouse Electric Corp. Single sideband communication system. 2,849,605, 8-26-58, Cl. 250—20.

Field, Philip M., to Charles Beseler Co. Optical indicator means for use with copy projection apparatus. 2,848,922, 8-26-58, Cl. 88—24.

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Fields, Alden: *See*—
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Filtox S. A.: *See*—
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Albert, Harry E. 2,849,517.
Albert, Harry E., and Bentz. 2,849,516.
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Ambelang, Joseph C., and Massie. 2,849,488.
Bastian, Raymond E. 2,848,910.
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Collins, Jack B. 2,849,676.
Deist, Herbert H. 2,848,956.
Dickens, Leslie. 2,849,017.
Eberly, Kenneth C., and Reed. 2,849,503.
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Hanson, Elmo E. 2,849,049.
Hayes, Robert A., and Bossacco. 2,849,419.
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Miller, Verle A. 2,849,426.
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Rowland, George P., Jr., and Piloni. 2,849,423.
Rowland, George P., Jr., and Piloni. 2,849,424.
Scarbrough, Erna C. 2,848,779.
Scheu, Lester W. 2,848,815.
Smith, William M., Jr. 2,849,359.
Spencer, George A., and Bell. 2,849,196.
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First Trust Co. of St. Paul: *See*—
Riedel, Walter H. and W. C. 2,848,880.

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Fischer, Josef, and H. Kubick, to Siemens & Halske Akt. Alternate make and break relay. 2,849,561, 8–26–58, Cl. 200—87.
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Flynn, Gregory, Jr., to General Motors Corp. Oil cooling arrangement for free piston gasifier. 2,848,984, 8–26–58, Cl. 123—41.35.
Foote, Frank, to United States of America, Atomic Energy Commission. Method and flux composition for treating uranium. 2,849,307, 8–26–58, Cl. 75—84.
Foote, Frank, to United States of America, Atomic Energy Commission. Flux composition and method for treating uranium-containing metal. 2,849,308, 8–26–58, Cl. 75—84.1.
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Barrett, Walter A. 2,849,034.
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Fox, Arthur G., to Bell Telephone Laboratories, Inc. Dielectric guide for electromagnetic waves. 2,849,692, 8–26–58, Cl. 333—95.
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Franghia, Sava B. Machines for producing containers. 2,848,927, 8–26–58, Cl. 93—60.
Frank, Gerard A., and W. J. Tesche, to Western Electric Co., Inc. Machine for separating and dispensing stacked adhesively united articles. 2,849,068, 8–26–58, Cl. 164—84.5.
Freas, Clark R., and W. S. Graff, to The Electric Storage Battery Co. Storage battery plates. 2,849,519, 8–26–58, Cl. 136—20.
Fredrick, Arden H., and J. W. Gray, to General Precision Laboratory Inc. Wind computer. 2,849,184, 8–26–58, Cl. 235—61.
Fredrickson, Edward A., to Crane Co. Spray-rinse sink construction. 2,848,721, 8–26–58, Cl. 4—186.
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Luks, Daniel W. 2,848,802.
Fridolph, Annette E. Clamping device. 2,849,249, 8–26–58, Cl. 287—58.
Fried, William F., Jr., to "Pilotlab." Automatic weight sorting apparatus. 2,849,116, 8–26–58, Cl. 209—121.
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Frink, Russell E., to Westinghouse Electric Corp. Contact structure. 2,849,579, 8–26–58, Cl. 200—146.
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Fullerton, John R., L. E. Leech, and D. L. Heyser, to The Ryan Aeronautical Co. Method of manufacturing lightweight metal cellular core panels. 2,849,591, 8–26–58, Cl. 219—107.
Fulton, David H., ¼ to R. E. Clarkson. Metal doorsill. 2,848,766, 8–26–58, Cl. 20—64.
Gadler, Gustav A. B., to Arenco Aktiebolaget. Machine for winding paper material in rolls. 2,849,191, 8–26–58, Cl. 242—56.
Gaite, Harold D., to British Telecommunications Research Ltd. Electrical switching devices. 2,849,568, 8–26–58, Cl. 200—105.
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Zurawski, Edward F. 2,849,595.
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Jensen, Raymond W. 2,848,868.
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Gartrell, Charles W. and K. W. 2,849,154.
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Gee, Paul Y. C., to Socony Mobil Oil Co., Inc. Fuel oil composition. 2,849,301, 8–26–58, Cl. 44—64.
Geislinger, Leonhard. Arrangement for transmitting the power output of combustion engines to the wheels of a vehicle or the like. 2,848,866, 8–26–58, Cl. 60—12.
General American Transportation Corp.: *See*—
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General Aniline & Film Corp.: *See*—
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Kartinos, Nicholas J., and Williams. 2,849,447.
Randall, David I., and Renfrew. 2,849,465.
General Controls Co.: *See*—
McIntosh, Harold A., and Shequen. 2,848,670.
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Fehr, Edith B., and Haase. 2,849,639.
Fitzgerald, Albert J. 2,849,267.
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Jaffe, Mary S. 2,849,339.
Karash, Walter J. 2,849,656.
Maude, William A. 2,848,884.
Nash, Nancy E., and Foulke. 2,849,657.
Pakish, Anthony E., and Lamp. 2,848,784.
Prince, David C. 2,849,694.
Rowan, Hartley D., and De George. 2,849,032.
Schoenoff, Waldemar P., and Vargo. 2,848,843.
Seits, August W. 2,848,844.
Stephens, Joe F. 2,849,640.
Truesdell, Francis W., and Schultz. 2,849,551.
Williamson, Cecil M. 2,849,250.
General Electric Co. Ltd., The: *See*—
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Hamblin, Charles L. 2,849,706.
General Engineering Co. Ltd., The: *See*—
Biringer, Paul P. 2,849,674.
General Motors Corp.: *See*—
Almen John O., and Carnegie. 2,849,346.
Bartlett, Theo A. 2,849,679.
Corbin, Russel G. 2,849,251.
Dermond, Lawrence C. 2,848,986.
Elliott, Harold V. 2,849,549.
Ellis, Lockwood B., and Trevarthen. 2,849,264.
Flynn, Gregory, Jr. 2,848,984.
Hunter, Joseph E., Jr., and Schubring. 2,848,891.
Kearney, William R., and Wright. 2,848,899.
Key, Cleo H., Merkle, and Richey. 2,849,074.
Kremer, Joseph C. 2,848,772.
Lamont, Adam S., and Todd. 2,849,047.
Larsen, Hugh W., Primeau, and Robbins. 2,848,882.
Loria, Samuel F. 2,848,736.
Schjolin, Hans O., and Isbell. 2,849,087.
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Turunen, William A., and O'Connell. 2,849,210.
Young, Kenneth W. 2,849,548.
General Precision Laboratory Inc.: *See*—
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General Telephone Co. of California.: *See*—
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General Telephone Laboratories, Inc.: *See*—
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Stiles, Richard C. 2,849,531.
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Gilbert Mfg. Co., Inc.: *See*—
Keeler, Frederick D. 2,849,573.
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Schnitzler, Meyer J., Lewiecki, and Muros. 2,848,806.
Gillison, Robert W. Burial caskets. 2,848,782, 8–26–58, Cl. 27—17.
Gilmoor, Abraham. Electrical communication systems. 2,849,702, 8–26–58, Cl. 340—157.
Gilmore, Forrest E., to Phillips Petroleum Co. Separation and recovery of hydrocarbons from gaseous mixtures thereof. 2,849,371, 8–26–58, Cl. 196—8.
Gilmore, Forrest E., and R. D. Bauer, to Phillips Petroleum Co. Apparatus for using a thermo-siphon reboiler in a fractionator. 2,849,386, 8–26–58, Cl. 202—153.
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Glidden Co., The: *See*—
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McMichael, Charles E., Godbey, and Zehnder. 2,849,120.
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Goglanian, Zohrab. Tool holder. 2,848,788, 8–26–58, Cl. 29—96.
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Armstrong, Abbott E., Jr. 2,848,757.
Goldsmith, Harold A.: *See*—
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Gordon, John E.: *See*—
Drain, James A., Gordon, and Read. 2,849,139.
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Goss, Worth C., to Permanente Cement Co. Process of treatment and products from waste sulfite liquors. 2,849,314, 8–26–58, Cl. 92—3.
Gottfried, Shalom. Wire stripping device. 2,848,914, 8–26–58, Cl. 81—9.5.
Gottschalk, Klaus, to General Electric Co. Arc tube seal and mount. 2,849,632, 8–26–58, Cl. 313—25.
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Napolin, Seymour, and Harwood. 2,849,576.
Grand Specialties Co.: *See*—
Hopfeld, Fred P. 2,849,085.
Graves, Edwin E., and R. H. Coonfare, to United States of America, Atomic Energy Commission. Method and means for closing tubes by spinning. 2,848,804, 8–26–58, Cl. 29—543.
Gray, Allen G., to United States of America, Atomic Energy Commission. Electrodeposition of nickel on uranium. 2,849,348, 8–26–58, Cl. 204—1.5.
Gray, John W.: *See*—
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Gridley, Darrin H. Control circuits. 2,849,622, 8–26–58, Cl. 250—205.
Groff, James C., to Manheim Mfg. and Belting Co. Drive belt. 2,848,901, 8–26–58, Cl. 74—233.
Gschwind, Edouard E., and R. N. Greene, to Owens-Illinois Glass Co. Carton erecting machine. 2,848,926, 8–26–58, Cl. 93—51.
Guarino, Michael A. Pencil point cleaner. 2,848,729, 8–26–58, Cl. 15—223.
Guess, Joseph N. Vibrating screen device. 2,849,119, 8–26–58, Cl. 209—365.
Gugeler, Frederick D. Insulated water softener tank. 2,849,145, 8–26–58, Cl. 220—14.
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Gunning, Maximilian F. Submarine vessels. 2,848,970, 8–26–58, Cl. 114—17.
Gurinsky, David H., to United States of America, Atomic Energy Commission. Welded jacketed uranium body. 2,849,390, 8–26–58, Cl. 204—193.2.
Gustafson, Darrel W., to Contronics, Inc. Circuit arrangement for converting a low voltage into a high A. C. voltage. 2,849,615, 8–26–58, Cl. 250—36.
Guyer, John W.: *See*—
Bender, Howard L., Farnham, and Guyer. 2,849,416.
Guyer, Walter R. F.: *See*—
Hakala, Thomas H., and Guyer. 2,849,496.
Gygax, Frans, to Akt. Brown, Boveri & Cie. Protective circuit for high tension lines with series condensers. 2,849,660, 8–26–58, Cl. 317—29.
Haas, Hermann: *See*—
Gundel, Wolfgang, Strauss, and Haas. 2,849,351.
Haase, Allen P.: *See*—
Fehr, Edith B., and Haase. 2,849,639.
Hackedorn, Hillis P., Jr.: *See*—
Schurger, David L., and Hackedorn. 2,848,763.
Haddad, Theodore A., to Burroughs Corp. Magnetron tube magnet structure. 2,849,645, 8–26–58, Cl. 315—8.
Haedike, Edward J., and S. Zavodny, to Mid-Continent Metal Products Co. Gas-fired grill and broiling method. 2,849,990, 8–26–58, Cl. 126—41.
Haglund, Gustaf. Digestion of wood. 2,849,315, 8–26–58, Cl. 92—11.
Hahn, Otto. Window frame unit. 2,848,761, 8–26–58, Cl. 20—56.4.
Haines, Earl B.: *See*—
Maloney, James O., Haines, and Tepe. 2,848,800.
Haines, Walter R. Musical spoons. 2,848,839, 8–26–58, Cl. 46—191.
Hakala, Thomas H., and W. R. F. Guyer, to Esso Research and Engineering Co. Treatment for reduction of foaming characteristics of contaminated sulfuric acid in ethanol production. 2,849,490, 8–26–58, Cl. 260—639.
Halahan, John, T. F. Aronson, and F. A. Lyon. Article handling means. 2,849,099, 8–26–58, Cl. 198—33.
Halahan, John, T. F. Aronson, and F. A. Lyon. Sheet feeder. 2,849,232, 8–26–58, Cl. 271—29.
Hale, Hayden E., to Shakespeare Products Co. Drive selector mechanism. 2,848,902, 8–26–58, Cl. 74—502.
Hall, George L., and F. S. Conant, to The Firestone Tire & Rubber Co. Apparatus for determining and evaluating irregularities in pneumatic tires. 2,849,675, 8–26–58, Cl. 324—61.
Hall, John L., to Gulf Research & Development Co. Borehole drilling apparatus for preventing lost circulation. 2,849,214, 8–26–58, Cl. 255—24.
Halverson, Milton A. Trailer hitch. 2,849,243, 8–26–58, Cl. 280—491.
Ham, George E., to The Chemstrand Corp. Method of purifying aromatic dicarboxylic acids. 2,849,483, 8–26–58, Cl. 260—516.
Hamblin, Charles L., to The General Electric Co. Ltd. Electronic circuits for deriving a voltage proportional to the logarithm of the magnitude of a variable quantity. 2,849,706, 8–26–58, Cl. 343—7.3.
Hamann, Kenneth R. Binaural system. 2,849,540, 8–26–58, Cl. 179—100.1.
Hammond Organ Co.: *See*—
Hanert, John M. 2,848,919.
Hancock, William M., to Western Electric Co., Inc. Electrical component mounting apparatus. 2,848,718, 8–26–58, Cl. 1—2.
Hanert, John M., to Hammond Organ Co. Tone intensity envelope control for electrical musical instruments. 2,848,919, 8–26–58, Cl. 84—1.26.
Hanhart, Walter, to Ciba Ltd. Ortho:ortho'-dihydroxy-azodyestuffs and complex metal compounds thereof. 2,849,435, 8–26–58, Cl. 260—145.
Hanna, Delbert L., to Allied Chemical Corp. Purification of 1,2,4,5-tetrachlorobensene by pressing. 2,849,500, 8–26–58, Cl. 260—650.
Hanna, James A., to General American Transportation Corp. Method of erecting floating roofs. 2,848,799, 8–26–58, Cl. 29—429.
Hanna, Ralph, to Surface Combustion Corp. Temperature responsive device for plural zone dew point control. 2,849,186, 8–26–58, Cl. 236—15.
Hannon, Warren W., to Dit-Mco, Inc. Electrical circuit analyser. 2,849,677, 8–26–58, Cl. 324—73.
Hannon, Warren W., to Dit-Mco, Inc. Automatic circuit capacity multiplying apparatus for electrical circuit analyser. 2,849,678, 8–26–58, Cl. 324—73.
Hansen, Alfred W. Tractor mounted power feeder for bunk feeding. 2,849,137, 8–26–58, Cl. 214—522.
Hanson, Bryan J., and M. D. Hanson. Electrical insect destroying apparatus. 2,848,837, 8–26–58, Cl. 43—113.
Hanson, Elmo E., to The Firestone Tire & Rubber Co. Method of forming an endless tire tread and sidewall portion on a carcass band and product thereof. 2,849,049, 8–26–58, Cl. 154—14.
Hanson, Maud D.: *See*—
Hanson, Bryan J., and M. D. 2,848,837.
Hanson, Ross A., to Union Oil Co. of California. Catalytic conversion and adsorption processes. 2,849,372, 8–26–58, Cl. 196—24.
Hanson-Van Winkle-Munning Co.: *See*—
Kardos, Otto. 2,849,383.
Harrigan, Floyd T. Grass conveyer for mowers. 2,848,862, 8–26–58, Cl. 56—199.
Harrington, Robert C., Jr., to Eastman Kodak Co. Manufacture of salts of alkyl acid sulfates in one step. 2,849,450, 8–26–58, Cl. 260—247.1.
Harris, Edward J.: *See*—
Frohlich, Adolf H., and Harris. 2,848,739.
Harris, Edwin W., to Curtis Lighting, Inc. Lighting fixture holder assembly. 2,849,600, 8–26–58, Cl. 240—51.11.
Harris, John F., Jr.: *See*—
Carmack, Marvin, and Harris. 2,849,479.
Harrison, Marvin H.: *See*—
Bourne, Douglas J., and Harrison. 2,849,113.
Hart, Lester C., to Joslyn Mfg. & Supply Co. High voltage switch. 2,849,578, 8–26–58, Cl. 200—146.
Hart, Robert T., to S. D. Warren Co. Process of forming an insolubilized protein film on a base. 2,849,334, 8–26–58, Cl. 117—64.
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Napolin, Seymour, and Harwood. 2,849,576.
Haskell, Philip R.: *See*—
Aitken, William H., Connor, and Haskell. 2,848,915.
Hastings, Courtland: *See*—
Kopke, Ernst W. 2,849,077.

Fischer, Edward: *See*—
Parker, Sydney R., and Fischer. 2,849,606.
Fischer, Josef, and H. Kubick, to Siemens & Halske Akt. Alternate make and break relay. 2,849,561, 8–26–58, Cl. 200—87.
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Cope, Arthur C., and Fisher. 2,849,449.
Fitzgerald, Albert J., to General Electric Co. Glass-retainer structure for cabinet. 2,849,267, 8–26–58, Cl. 312—7.
Fleet, John H. Means for observing boreholes. 2,849,530, 8–26–58, Cl. 178—7.2.
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Clyne, Joseph. 2,848,719.
Flint, Hyland C., J. F. Hern, and R. G. Heyl, Jr., to American Metal Products Co. Supporting means for sinuous springs. 2,849,056, 8–26–58, Cl. 155—179.
Flynn, Gregory, Jr., to General Motors Corp. Oil cooling arrangement for free piston gasifier. 2,848,984, 8–26–58, Cl. 123—41.35.
Foote, Frank, to United States of America, Atomic Energy Commission. Method and flux composition for treating uranium. 2,849,307, 8–26–58, Cl. 75—84.
Foote, Frank, to United States of America, Atomic Energy Commission. Flux composition and method for treating uranium-containing metal. 2,849,308, 8–26–58, Cl. 75—84.1.
Forman, Lawrence E.: *See*—
Kibler, Richard W., Bozzacco, and Forman. 2,849,432.
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Foster, Robert W., 7% to R. Molden and 2½% to A. Fields. Air cooled brake shoe. 2,849,092, 8–26–58, Cl. 188—264.
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Nash, Nancy E., and Foulke. 2,849,657.
Fox, Arthur G., to Bell Telephone Laboratories, Inc. Dielectric guide for electromagnetic waves. 2,849,692, 8–26–58, Cl. 333—95.
Francken, Jan C., to North American Philips Co., Inc. Color television reproducing device. 2,849,647, 8–26–58, Cl. 315—13.
Franghia, Sava B. Machines for producing containers. 2,848,927, 8–26–58, Cl. 93—60.
Frank, Gerard A., and W. J. Tesche, to Western Electric Co., Inc. Machine for separating and dispensing stacked adhesively united articles. 2,849,068, 8–26–58, Cl. 164—84.5.
Freas, Clark R., and W. S. Graff, to The Electric Storage Battery Co. Storage battery plates. 2,849,519, 8–26–58, Cl. 136—20.
Fredrick, Arden H., and J. W. Gray, to General Precision Laboratory Inc. Wind computer. 2,849,184, 8–26–58, Cl. 235—61.
Fredrickson, Edward A., to Crane Co. Spray-rinse sink construction. 2,848,721, 8–26–58, Cl. 4—186.
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Luks, Daniel W. 2,848,802.
Fridolph, Annette E. Clamping device. 2,849,249, 8–26–58, Cl. 287—58.
Fried, William F., Jr., to "Pilotlab." Automatic weight sorting apparatus. 2,849,116, 8–26–58, Cl. 209—121.
Friedline, Ernest J., to Kennametal Inc. Cutting tools. 2,848,789, 8–26–58, Cl. 29—96.
Friedman, Martin J.: *See*—
Bindon, Douglas G. Friedman, and Newhouse. 2,849,703.
Frink, Russell K., to Westinghouse Electric Corp. Contact structure. 2,849,579, 8–26–58, Cl. 200—146.
Frohlich, Adolf H., and E. J. Harris, to The Cleveland Trust Co., as trustee. Apparatus for shaping and vulcanising pneumatic tires. 2,848,740, 8–26–58, Cl. 18—17.
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Scheffter, Helmut K. H., Fromme, and Vrastil. 2,849,103.
Frost, Leon J., to National Lead Co. Electric furnace product. 2,849,305, 8–26–58, Cl. 51—307.
Fuest, John. Dental pliers. 2,848,812, 8–26–58, Cl. 32—62.
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Matsuo, Naojiro, Fujioka, and Murozumi. 2,849,524.
Fullerton, John R., L. E. Leech, and D. L. Heyser, to The Ryan Aeronautical Co. Method of manufacturing lightweight metal cellular core panels. 2,849,591, 8–26–58, Cl. 219—107.
Fulton, David H., ½ to R. E. Clarkson. Metal doorsill. 2,848,766, 8–26–58, Cl. 20—64.
Gadler, Gustav Å. B., to Arenco Aktiebolaget. Machine for winding paper material in rolls. 2,849,191, 8–26–58, Cl. 242—56.
Gaite, Harold D., to British Telecommunications Research Ltd. Electrical switching devices. 2,849,568, 8–26–58, Cl. 200—105.
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Garden City Plating & Mfg. Co.: *See*—
Zurawski, Edward F. 2,849,595.
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Jensen, Raymond W. 2,848,868.
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Gartrell, Charles W. and K. W. 2,849,154.
Gaspardo, Martin S. Tandem hitch for farm tractors. 2,849,073, 8–26–58, Cl. 180—14.
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Gee, Paul Y. C., to Socony Mobil Oil Co., Inc. Fuel oil composition. 2,849,301, 8–26–58, Cl. 44—64.
Geislinger, Leonhard. Arrangement for transmitting the power output of combustion engines to the wheels of a vehicle or the like. 2,848,886, 8–26–58, Cl. 60—12.
General American Transportation Corp.: *See*—
Hanna, James A. 2,848,709.
General Aniline & Film Corp.: *See*—
Anspon, Harry D., and Pschorr. 2,848,753.
Kartinos, Nicholas J. and Williams. 2,849,447.
Randall, David L., and Renfrew. 2,849,465.
General Controls Co.: *See*—
McIntosh, Harold A., and Shequen. 2,849,670.
General Electric Co.: *See*—
Britten, Harold H. 2,849,662.
Burgess, Neil, and Warner. 2,849,209.
Dutton, John C. 2,849,528.
Fehr, Edith B., and Haase. 2,849,639.
Fitzgerald, Albert J. 2,849,267.
Gottschalk, Klaus. 2,849,632.
Herr, Erwin A. 2,849,682.
Jaffe, Mary S. 2,849,339.
Karash, Walter J. 2,849,658.
Maude, William A. 2,848,884.
Nash, Nancy E., and Foulke. 2,849,657.
Pakish, Anthony E., and Lamp. 2,848,784.
Prince, David C. 2,849,694.
Rowan, Hartley D., and De George. 2,849,032.
Schoenoff, Waldemar P., and Vargo. 2,848,843.
Seitz, August W. 2,848,844.
Stephens, Joe F. 2,849,640.
Truesdell, Francis W., and Schultz. 2,849,551.
Williamson, Cecil M. 2,849,250.
General Electric Co. Ltd., The: *See*—
Ayers, James L., and Walsh. 2,849,688.
Hamblin, Charles L. 2,849,706.
General Engineering Co. Ltd., The: *See*—
Biringer, Paul P. 2,849,674.
General Motors Corp.: *See*—
Almen John O., and Carnegie. 2,849,346.
Bartlett, Theo A. 2,849,679.
Corbin, Russel G. 2,849,251.
Dermond, Lawrence C. 2,848,986.
Elliott, Harold V. 2,849,549.
Ellis, Lockwood B., and Trevarthen. 2,849,264.
Flynn, Gregory, Jr. 2,848,984.
Hunter, Joseph E., Jr., and Schubring. 2,848,891.
Kearney, William R., and Wright. 2,848,899.
Key, Cleo H., Merkle, and Richey. 2,849,074.
Kremer, Joseph C. 2,848,772.
Lamont, Adam S., and Todd. 2,849,047.
Larsen, Hugh W., Primeau, and Robbins. 2,848,882.
Loria, Samuel F. 2,848,736.
Schjolin, Hans O., and Isbell. 2,849,087.
Ten Eyck, Robert L. 2,849,265.
Turunen, William A., and O'Connell. 2,849,210.
Young, Kenneth W. 2,849,548.
General Precision Laboratory Inc.: *See*—
Fredrick, Arden H., and Gray. 2,849,184.
General Telephone Co. of California.: *See*—
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General Telephone Laboratories, Inc.: *See*—
Outline, John E. 2,849,536.
Stiles, Richard C. 2,849,531.
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Glendenin, Lawrence E., and Gest. 2,849,467.
Giammarco, Giuseppe, to S. p. A. "Vetrocoke" Process for removing carbon monoxide from gaseous mixtures. 2,849,082, 8–26–58, Cl. 183—115.
Gibson, Hugh G. Highway construction. 2,848,928, 8–26–58, Cl. 94—4.
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Gilbert Mfg. Co., Inc.: *See*—
Keeler, Frederick D. 2,849,573.
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Schnitsler, Meyer J., and Benedict. 2,848,807.
Schnitsler, Meyer J., Lewiecki, and Muros. 2,848,806.
Gillison, Robert W. Burial caskets. 2,848,782, 8–26–58, Cl. 27—17.
Gilmoor, Abraham. Electrical communication systems. 2,849,702, 8–26–58, Cl. 340—157.
Gilmore, Forrest E., to Phillips Petroleum Co. Separation and recovery of hydrocarbons from gaseous mixtures thereof. 2,849,371, 8–26–58, Cl. 196—8.
Gilmore, Forrest E., and R. D. Bauer, to Phillips Petroleum Co. Apparatus for using a thermo-siphon reboiler in a fractionator. 2,849,386, 8–26–58, Cl. 202—153.
Glendenin, Lawrence E., and H. Gest, to United States of America, Atomic Energy Commission. Separation of radioactive columbium tracer. 2,849,467, 8–26–58, Cl. 260—429.
Glidden Co., The: *See*—
Julian, Percy L., and Iveson. 2,849,318.
Glöckl, Hans, to Maschinenfabrik Augsburg-Nurnberg A. G. Piston wrist pin fastening means. 2,849,266, 8–26–58, Cl. 309—19.
Godbey, John K., to Socony Mobil Oil Co., Inc. Self-sustaining oscillatory acoustic well logging. 2,849,075, 8–26–58, Cl. 181—.5.
Godbey, John W.: *See*—
McMichael, Charles E., Godbey, and Zehnder. 2,849,120.
Godfrey, Kenneth L.: *See*—
Cooper, Robert H., and Godfrey. 2,849,404.

Goebig, Reba C., to Samuel Jackson's Sons, Inc. Non-rolling fusee. 2,848,940, 8–26–58, Cl. 102—37.8.
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Schneider, Helmuth G., Goering, and Mistretta. 2,849,433.
Goff, John W., to United Screw Products & Mfg. Co. Drinking fountain for poultry and the like. 2,849,020, 8–26–58, Cl. 137—408.
Gogianian, Zohrab. Tool holder. 2,848,788, 8–26–58, Cl. 29—96.
Golden, Billy J.: *See*—
Armstrong, Abbott E., Jr. 2,848,757.
Goldsmith, Harold A.: *See*—
Hern, Herbert, Strek, and Goldsmith. 2,849,544.
Goldwig, David M.: *See*—
Hott, Ion V. K., and Goldswig. 2,849,084.
Goodall, William M., to Bell Telephone Laboratories, Inc. Traveling wave amplifier. 2,849,642, 8–26–58, Cl. 315—3.6.
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Gordon, John E.: *See*—
Drain, James A., Gordon, and Read. 2,849,139.
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Goss, Worth C., to Permanente Cement Co. Process of treatment and products from waste sulfite liquors. 2,849,314, 8–26–58, Cl. 92—3.
Gottfried, Shalom. Wire stripping device. 2,848,914, 8–26–58, Cl. 81—9.5.
Gottschalk, Klaus, to General Electric Co. Arc tube seal and mount. 2,849,632, 8–26–58, Cl. 313—25.
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Clark, Lawrence, Grabowski, and Poshkus. 2,849,028.
Graff, George, C. C. Kinker, and A. Owen, to Hoover Ball & Bearing Co. Dishwashing apparatus. 2,848,728, 8–26–58, Cl. 15—129.
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Grahmann, Hartmut: *See*—
Muller, Gerd, Bechlars, Detsner, and Grahmann. 2,849,438.
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Napolin, Seymour, and Harwood. 2,849,576.
Grand Specialties Co.: *See*—
Hopfeld, Fred P. 2,849,085.
Graves, Edwin E., and R. H. Coonfare, to United States of America, Atomic Energy Commission. Method and means for closing tubes by spinning. 2,848,804, 8–26–58, Cl. 29—543.
Gray, Allen G., to United States of America, Atomic Energy Commission. Electrodeposition of nickel on uranium. 2,849,348, 8–26–58, Cl. 204—1.5.
Gray, John W.: *See*—
Frederick, Arden H., and Gray. 2,849,184.
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Gridley, Darrin H. Control circuits. 2,849,622, 8–26–58, Cl. 250—205.
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Gschwind, Edouard E., and R. N. Greene, to Owens-Illinois Glass Co. Carton erecting machine. 2,848,926, 8–26–58, Cl. 93—51.
Guarino, Michael A. Pencil point cleaner. 2,848,729, 8–26–58, Cl. 15—223.
Guess, Joseph R. Vibrating screen device. 2,849,119, 8–26–58, Cl. 209—365.
Gugeler, Frederick D. Insulated water softener tank. 2,849,145, 8–26–58, Cl. 220—14.
Gulf Research & Development Co.: *See*—
Hall, John I. 2,849,214.
Gundel, Wolfgang, W. Strauss, and H. Haas, to Dehydag, Deutsche Hydrierwerke G. m. b. H. Electroplating process. 2,849,351, 8–26–58, Cl. 204—46.
Gunning, Maximilian F. Submarine vessels. 2,848,970, 8–26–58, Cl. 114—17.
Gurinsky, David H., to United States of America, Atomic Energy Commission. Welded jacketed uranium body. 2,849,390, 8–26–58, Cl. 204—193.2.
Gustafson, Darrel W., to Contronics, Inc. Circuit arrangement for converting a low voltage into a high A. C. voltage. 2,849,615, 8–26–58, Cl. 250—36.
Guyer, John W.: *See*—
Bender, Howard L., Farnham, and Guyer. 2,849,416.
Guyer, Walter R. F.: *See*—
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Hancock, William M., to Western Electric Co., Inc. Electrical component mounting apparatus. 2,848,718, 8–26–58, Cl. 1—2.
Hanert, John M., to Hammond Organ Co. Tone intensity envelope control for electrical musical instruments. 2,848,919, 8–26–58, Cl. 84—1.26.
Hanhart, Walter, to Ciba Ltd. Ortho:ortho'-dihydroxy-azodyestuffs and complex metal compounds thereof. 2,849,435, 8–26–58, Cl. 260—145.
Hanna, Delbert L., to Allied Chemical Corp. Purification of 1,2,4,5-tetrachlorobenzene by pressing. 2,849,500, 8–26–58, Cl. 260—650.
Hanna, James A., to General American Transportation Corp. Method of erecting floating roofs. 2,848,709, 8–26–58, Cl. 29—429.
Hanna, Ralph, to Surface Combustion Corp. Temperature responsive device for plural zone dew point control. 2,849,186, 8–26–58, Cl. 236—15.
Hannon, Warren W., to Dit-Mco, Inc. Electrical circuit analyzer. 2,849,677, 8–26–58, Cl. 324—73.
Hannon, Warren W., to Dit-Mco, Inc. Automatic circuit capacity multiplying apparatus for electrical circuit analyzer. 2,849,678, 8–26–58, Cl. 324—73.
Hansen, Alfred W. Tractor mounted power feeder for bunk feeding. 2,849,137, 8–26–58, Cl. 214—522.
Hanson, Bryan J., and M. D. Hanson. Electrical insect destroying apparatus. 2,848,837, 8–26–58, Cl. 43—113.
Hanson, Elmo E., to The Firestone Tire & Rubber Co. Method of forming an endless tire tread and sidewall portion on a carcass band and product thereof. 2,849,049, 8–26–58, Cl. 154—14.
Hanson, Maud D.: *See*—
Hanson, Bryan J., and M. D. 2,848,837.
Hanson, Ross A., to Union Oil Co. of California. Catalytic conversion and adsorption processes. 2,849,372, 8–26–58, Cl. 196—24.
Hanson-Van Winkle-Munning Co.: *See*—
Kardos, Otto. 2,849,383.
Harrigan, Floyd T. Grass conveyor for mowers. 2,848,862, 8–26–58, Cl. 56—199.
Harrington, Robert C., Jr., to Eastman Kodak Co. Manufacture of salts of alkyl acid sulfates in one step. 2,849,450, 8–26–58, Cl. 260—247.1.
Harris, Edward J.: *See*—
Frohlich, Adolf H., and Harris. 2,848,739.
Harris, Edwin W., to Curtis Lighting, Inc. Lighting fixture holder assembly. 2,849,600, 8–26–58, Cl. 240—51.11.
Harris, John F., Jr.: *See*—
Carmack, Marvin, and Harris. 2,849,479.
Harrison, Marvin H.: *See*—
Bourne, Douglas J., and Harrison. 2,849,113.
Hart, Lester C., to Joslyn Mfg. & Supply Co. High voltage switch. 2,849,578, 8–26–58, Cl. 200—146.
Hart, Robert T., to S. D. Warren Co. Process of forming an insolubilized protein film on a base. 2,849,334, 8–26–58, Cl. 117—64.
Harwood, Mark H.: *See*—
Napolin, Seymour, and Harwood. 2,849,576.
Haskell, Philip R.: *See*—
Aitken, William H., Connor, and Haskell. 2,848,915.
Hastings, Courtland: *See*—
Kopke, Ernst W. 2,849,077.

Hat Corp. of America : *See*—
Pascale, Martin M., and Rickus. 2,849,108.
Hausmann, George F., to United Aircraft Corp. Ejector-silencer exhaust nozzle. 2,848,867, 8-26-58, Cl. 60—35.6.
Hawthorne, Lowell H., to Revere Copper and Brass Inc. Butt welding metal strips having inflatable slits. 2,849,592, 8-26-58, Cl. 219—137.
Hayes, Robert A., and F. A. Bossacco, to The Firestone Tire & Rubber Co. Oriented filaments of graft copolymer of polyacrylate polymerised on vinylidene chloride resin. 2,849,419, 8-26-58, Cl. 260—45.5.
Haynes, Munro K., to International Business Machines Corp. Multidimensional high speed magnetic element memory matrix. 2,849,706, 8-26-58, Cl. 340—174.
Hebie, Steve J. Releasable hinge for stock gate. 2,848,826, 8-26-58, Cl. 39—87.
Hechenbleikner, Ingenuin, and G. Peters, to American Cyanamid Co. Preparation of S-triazines. 2,849,451, 8-26-58, Cl. 260—248.
Heer, Jules : *See*—
Hoffmann, Karl, Heer, Sury, and Urech. 2,849,453.
Heil, George C., to American Viscose Corp. Stacking container. 2,849,151, 8-26-58, Cl. 220—97.
Heinrich, Herbert, and B. Reibel, to Coty, Inc. Fountain type dispensing comb. 2,849,009, 8-26-58, Cl. 132—116.
Heise, George W., and N. C. Cahoon, to Union Carbide Corp. Multi-ply washer for the prevention of electrolyte creepage. 2,849,521, 8-26-58, Cl. 136—133.
Heinze, Gerhard : *See*—
Zirngibl, Hans, and Heinze. 2,849,289.
Heldenbrand, Arthur P. Automatic hydraulic pressure release device. 2,849,021, 8-26-58, Cl. 137—467.
Heller, Peter V. M. Acceleration responsive switch. 2,849,562, 8-26-58, Cl. 200—90.
Hengstebeck, Robert J., to Standard Oil Co. Process for controlling recycle hydrogen gas. 2,849,379, 8-26-58, Cl. 196—30.
Henkel & Cie G. m. b. H. : *See*—
Raecke, Bernhard, Stein, and Schirp. 2,849,462.
Hennig, Fritz, to Siemens & Halske, Akt. Circuit arrangement for the transmission of telegraphic intelligence. 2,849,532, 8-26-58, Cl. 178—23.
Henning, George E., to Western Electric Co., Inc. Methods of and apparatus for making cellular plastic products. 2,848,739, 8-26-58, Cl. 18—12.
Henning, George E., to Western Electric Co., Inc. Apparatus for coiling filamentary material. 2,849,194, 8-26-58, Cl. 242—82.
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Peragallo, Ferdinand L. 2,848,896.
Hercules Powder Co. : *See*—
Lincoln, Dwight C. 2,849,325.
Hern, John F. : *See*—
Flint, Hyland C., Hern, and Heyl. 2,849,056.
Herr, Erwin A., to General Electric Co. Rectifier grading apparatus. 2,849,682, 8-26-58, Cl. 324—158.
Herr, Milton E., and G. B. Spero, to The Upjohn Co. 6-methyl-Δ^4-3-keto androstene derivatives. 2,849,464, 8-26-58, Cl. 260—397.45.
Herz, Herbert, A. A. Sterk, and H. A. Goldsmith, to Magnetic Amplifiers, Inc. Packaged magnetic amplifier. 2,849,644, 8-26-58, Cl. 179—171.
Hesse, Henry R., to Allen B. Du Mont Laboratories, Inc. Heterodyne circuit. 2,849,602, 8-26-58, Cl. 250—20.
Hesson, James C., to Cardox Corp. System for dispensing liquid carbon dioxide. 2,848,879, 8-26-58, Cl. 62—54.
Hettinger, Donald M., and R. L. Martin, to The Weatherproof Products Corp. Weather seal and sash balance for removable sash windows. 2,848,760, 8-26-58, Cl. 20—52.2.
Heyl, Russell G., Jr. : *See*—
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Fullerton, John R., Leech, and Heyser. 2,849,591.
High, Carl F., to American Bosch Arma Corp. Fuel injection apparatus. 2,848,951, 8-26-58, Cl. 103—2.
Hill, George H. Indexing apparatus. 2,848,909, 8-26-58, Cl. 74—822.
Hine, Charles W., to Sarong Inc. Body garment. 2,849,003, 8-26-58, Cl. 128—547.
Hines, Marion E., to Bell Telephone Laboratories, Inc. Electron discharge devices. 2,849,644, 8-26-58, Cl. 315—5.16.
Hirschler, Alfred E., to Sun Oil Co. Silica-alumina-chromium fluoride catalytic compositions; their preparation; and their use in hydrocarbon conversions. 2,849,382, 8-26-58, Cl. 196—52.
Hirschler, Alfred E., and A. Schneider, to Sun Oil Co. Catalytic composition and hydrocarbon conversion therewith. 2,849,383, 8-26-58, Cl. 196—52.
Hodgins, Theodore S. : *See*—
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Hoffman, Donald B. Elevator load transducer. 2,848,892, 8-26-58, Cl. 73—141.
Hoffman, Henry A., Jr., and W. K. Wilkinson, to E. I. du Pont de Nemours and Co. Cellulose derivatives. 2,849,330, 8-26-58, Cl. 106—160.
Hoffmann, Karl, J. Heer, E. Sury, and E. Urech to Ciba Pharmaceutical Products, Inc. Piperidines and their manufacture. 2,849,453, 8-26-58, Cl. 260—293.
Hoffmann-La Roche Inc. : *See*—
Chase, George O., and Kimel. 2,849,490.
Isler, Otto, Lindlar, Montavon, Rüegg, and Zeller. 2,849,495.
Isler, Otto, Lindlar, Montavon, Rüegg, and Zeller. 2,849,507.
Isler, Otto, Lindlar, and Rüegg. 2,849,506.
Isler, Otto, and Rüegg. 2,849,466.
Surmatis, Joseph D. 2,849,491.
Hollis, John C., to Giddings & Lewis Machine Tool Co. Planetary speed change transmission. 2,849,908, 8-26-58, Cl. 74—769.
Hollmann, Hans R. Variable frequency crystal device. 2,849,628, 8-26-58, Cl. 310—8.1.
Holmes, Richard R. : *See*—
Jenkins, Lloyd T., and Holmes. 2,849,413.
Holmquist, Howard E., to E. I. du Pont de Nemours and Co. Gamma-monolactone of 4-hydroxysuberic acid, its salts and esters, and the salts and amides of 4-hydroxysuberic acid, their preparation and use. 2,849,457, 8-26-58, Cl. 260—343.6.
Hood, Delos W., to United States of America, Navy. Blast release detent. 2,848,925, 8-26-58, Cl. 89—1.7.
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Graff, George, Kinker, and Owen. 2,848,728.
Hopfeld, Fred P., to Grand Specialties Co. Die tables. 2,849,085, 8-26-58, Cl. 187—17.
Hopkins, Frank, to Massey-Ferguson Inc. Rotary hoe wheel. 2,848,932, 8-26-58, Cl. 97—212.
Hopis, Lloyd M. Pouring spout and strainer for paint can. 2,849,158, 8-26-58, Cl. 222—189.
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Horvath, Artemy A. Amendment for legume feeds. 2,849,817, 8-26-58, Cl. 99—2.
Hosokawa, Masuo, H. Yagi, and K. Naito, to Takeda Pharmaceutical Industries, Ltd. Method for preparing di-acetone-L-sorbose. 2,849,355, 8-26-58, Cl. 204—154.
Hott, Ion V. K., and D. M. Goldswig, to The Joyce-Cridland Co. Flush floor mounted safety latch for hydraulic lifts. 2,849,084, 8-26-58, Cl. 187—8.5.
Hottes, Bruce W., to California Research Corp. Silver phosphates as wear-reducing agents. 2,849,397, 8-26-58, Cl. 252—32.5.
Hottes, Bruce W., to California Research Corp. Greases thickened with polyamido acid salts. 2,849,400, 8-26-58, Cl. 252—33.6.
Hottes, Bruce W., to California Research Corp. Diamido acid salt grease thickeners. 2,849,401, 8-26-58, Cl. 252—33.6.
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Hubbard, Henry J. : *See*—
Rowlands, Tom, Osborn, and Hubbard. 2,849,254.
Hubbard, Robert M., to Boeing Airplane Co. Transistorised inverters. 2,849,673, 8-26-58, Cl. 321—44.
Huber, John R., to Eastern Rotorcraft Corp. Chain anchor release mechanism. 2,848,777, 8-26-58, Cl. 24—241.
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Huetten, Clarence, J. J. Kaufmann, and W. E. Rigsbee, to P. R. Mallory & Co., Inc. Electromagnetic vibratory interrupter. 2,849,563, 8-26-58, Cl. 200—90.
Huff, John. Caster wheel mounting. 2,848,732, 8-26-58, Cl. 16—38.
Huffman Mfg. Co., The : *See*—
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Roach, Charles J. 2,849,350.
Hunt, Robert E., to Sylvania Electric Products Inc. Feeder device. 2,849,108, 8-26-58, Cl. 203—125.
Hunter, Joseph E., Jr., and N. W. Schubring, to General Motors Corp. Apparatus for ultrasonic testing. 2,848,891, 8-26-58, Cl. 73—67.5.
Hupp, Edward E., to Bendix Aviation Corp. Fluid pressure servo-motor. 2,848,981, 8-26-58, Cl. 121—46.5.
Hurst, Alfred J., to Ply-Bord Inc. Mechanical foaming device. 2,849,215, 8-26-58, Cl. 259—8.
Hutchins, Erle M., to Western Electric Co., Inc. Cam grinding apparatus. 2,848,848, 8-26-58, Cl. 51—101.
Huyck, Stanley E. Panel ejector. 2,849,064, 8-26-58, Cl. 164—33.
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Pokorny, Frank J., and Shoulberg. 2,849,566.
Scott, William M., Jr. 2,849,569.
Scott, William M., Jr. 2,849,570.
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Suckling, Charles W., and Raventos. 2,849,502.
Inductosyn Corp. : *See*—
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Ing. C. Olivetti & C., S. p. A. : *See*—
Capellaro, Natale. 2,849,179.
Ingersoll-Rand Co. : *See*—
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Isler, Otto, and R. Rüegg, to Hoffmann-La Roche Inc. Preparation of α,β-unsaturated acids. 2,849,466, 8-26-58, Cl. 260—410.9.

Isler, Otto, H. Lindlar, M. Montavon, R. Rüegg, and P. Zeller, to Hoffmann-La Roche, Inc. Preparation of 3,4-dehydro-β-carotene. 2,849,495, 8-26-58, Cl. 260—617.
Isler, Otto, H. Lindlar, and R. Rüegg, to Hoffmann-La Roche Inc. Preparation of 15,15'-cis-β-carotene. 2,849,506, 8-26-58, Cl. 260—666.
Isler, Otto, H. Lindlar, M. Montavon, R. Rüegg, and P. Zeller, to Hoffmann-La Roche Inc. Preparation of all-trans-carotenoid compounds. 2,849,507, 8-26-58, Cl. 260—666.
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Lee, Edward C. 2,848,832.
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Jackson, Donald R. P., to Molins Machine Co., Ltd. Apparatus for feeding sheets. 2,849,233, 8-26-58, Cl. 271—43.
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Jackson, William R., to The Udylite Corp. Automatic apparatus for chemical treatment of metal articles in bulk. 2,849,097, 8-26-58, Cl. 198—19.
Jacobs, Charles T., to McGraw-Edison Co. Multipurpose indicator for phonographs. 2,849,541, 8-26-58, Cl. 179—100.1.
Jaffe, Bernard, R. S. Roth, and S. Marzullo, to United States of America, Army. Morphotropic piezoelectric ceramics. 2,849,404, 8-26-58, Cl. 252—62.9.
Jaffe, Mary S., to General Electric Co. Indium basic trifluoracetate and method of coating vitreous bodies therewith. 2,849,339, 8-26-58, Cl. 117—211.
Jansen, Hans. Sausage meat cutter knife. 2,849,043, 8-26-58, Cl. 146—106.
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Jaros, Stanley E., and J. F. Nelson, to Esso Research and Engineering Co. Process for preparing hydrocarbon drying oil product by co-polymerising a butadiene and styrene. 2,849,510, 8-26-58, Cl. 260—669.
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Jendrassik, George. 2,848,871.
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Jendrassik, George. 2,848,871.
Jendrassik, George, deceased (A. G. T. Bossormenyi and C. Jendrassik, executors), to Jendrassik Developments Ltd. Low pressure scavenging arrangements of pressure exchangers. 2,848,871, 8-26-58, Cl. 60—39.45.
Jenkins, Lloyd T., and R. R. Holmes, to The Chemstrand Corp. Acrylonitrile compositions stabilized with metal formaldehyde sulfoxylates, zinc dicetyl dithiophosphate, and inorganic acids, and method of making. 2,849,413, 8-26-58, Cl. 260—32.6.
Jenny, Dietrich A., to Radio Corp. of America. Method for making semi-conductor devices. 2,849,341, 8-26-58, Cl. 148—1.5.
Jensen, Raymond W., to The Garrett Corp. Temperature responsive fuel control apparatus for gas turbine. 2,848,868, 8-26-58, Cl. 60—39.28.
Jobdet, Gunnar R. : *See*—
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Johnson, Carl E. : *See*—
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Johnson, Edwin W., to Westinghouse Electric Corp. Control apparatus. 2,849,658, 8-26-58, Cl. 315—344.
Johnson, Lawrence. Illuminated warning signal or sign. 2,848,829, 8-26-58, Cl. 40—129.
Johnson, Ralph E., to The Singer Mfg. Co. Means facilitating the control and operation of ornamental stitch sewing machines. 2,848,963, 8-26-58, Cl. 112—158.
Johnson, Warren C., and R. W. Anderson, to Westinghouse Electric Corp. Electrode structure and method for electronic tubes. 2,849,638, 8-26-58, Cl. 313—257.
Johnston, Dwight A. Fluid cylinder structure. 2,849,263, 8-26-58, Cl. 309—2.
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Joly, Robert, G. Nomine, and J. Jolly, to Les Laboratoires Francais de Chimiotherapie. Process of making 3,20-disemicarbazone of cortisone acetate. 2,849,463, 8-26-58, Cl. 260—397.45.
Jones, Ebb K. Chairs for reinforcing rods for concrete. 2,848,888, 8-26-58, Cl. 72—122.
Jonsson, Einar J. J. Bale presses for paper, rags, straw, peat and the like. 2,848,940, 8-26-58, Cl. 100—255.
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Julian, Percy L., and H. T. Iveson, to The Glidden Co. Method of preparing dispersions of vegetal phosphatide fractions. 2,849,318, 8-26-58, Cl. 99—15.
Kalat, Elmer J., to The Maxwell Co. Chamfering tool. 2,848,912, 8-26-58, Cl. 77—58.
Kang, Chin-Chen C., and J. M. McCrea, to The M. W. Kellogg Co. Cyclization of aliphatic hydrocarbons. 2,849,504, 8-26-58, Cl. 260—666.
Karasek, Francis W., to Phillips Petroleum Co. Water detection in sulphur dioxide by an infra-red analyser. 2,849,617, 8-26-58, Cl. 250—43.5.
Karash, Walter J., to General Electric Co. Switch-start discharge lamp circuit. 2,849,656, 8-26-58, Cl. 315—97.
Kardos, Otto, to Hanson-Van Winkle-Manning Co. Bright nickel plating. 2,849,353, 8-26-58, Cl. 204—49.
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Kaufman, Sidney, to Shell Development Co. Seismic exploration and recording system. 2,849,076, 8-26-58, Cl. 181—.5.
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Kearney, William R., and M. G. Wright, to General Motors Corp. Manually loaded signal seeking tuner. 2,848,899, 8-26-58, Cl. 74—10.2.
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Keeler, Frederick D., to Gilbert Mfg. Co., Inc. Electrical fuse and plug-in receptacle combination. 2,849,573, 8-26-58, Cl. 200—115.5.
Keller, Horace D., Jr., L. L. Ness, S. F. Oberdier, and J. H. Wolf, to York-Hoover Corp. Burial casket and retaining bracket therefor. 2,848,783, 8-26-58, Cl. 27—18.
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Kennedy, Joseph W., and E. G. Segre, to United States of America, Atomic Energy Commission. Method for purifying uranium. 2,849,285, 8-26-58, Cl. 23—14.5.
Kennedy, Thomas J., and B. H. Smith, to Phillips Petroleum Co. Foam suppression of hot latex emulsions during recovery of monomers therein. 2,849,427, 8-26-58, Cl. 260—83.7.
Kepkay, Leslie L., and E. W. Rowland-Hill, to Massey-Ferguson Inc. Combine bagger platform attachment. 2,848,858, 8-26-58, Cl. 56—10.
Kerekes, Coleman L. Centralise index and driver for storage and parking. 2,849,126, 8-26-58, Cl. 214—16.1.
Kershner, Donald W. : *See*—
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Kersner, William B. Caps for typewriter keys. 2,849,095, 8-26-58, Cl. 197—102.
Kesselring, Fritz, to Siemens-Schuckertwerke Akt. Direct-current and alternating-current circuit interrupters. 2,849,659, 8-26-58, Cl. 317—11.
Ketelhut, John W. Trash remover for a two row corn picker. 2,848,861, 8-26-58, Cl. 56—105.
Key, Cleo H., R. H. Merkle, and S. C. Richey, to General Motors Corp. Battery retainer means. 2,849,074, 8-26-58, Cl. 180—68.5.
Keyes, Jack, to Bell & Gossett Co. Heating system. 2,849,185, 8-26-58, Cl. 236—9.
Kibler, Richard W., F. A. Bossacco, and L. E. Forman, to The Firestone Tire & Rubber Co. Polymerisation of di-olefines. 2,849,432, 8-26-58, Cl. 260—94.2.
Kienle, Richard R. Scriber and roller guide skin marker gage. 2,848,813, 8-26-58, Cl. 33—41.
Kiker, Charles W., Jr. Clock operated card changing device. 2,848,827, 8-26-58, Cl. 40—36.
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Chase, George O., and Kimel. 2,849,490.
Kingsbury, Ralph N., to Owens-Corning Fiberglas Corp. Method of dyeing tightly wound glass fibers sized with a water swellable material. 2,849,333, 8-26-58, Cl. 117—68.
Kinkel, John F., to Consolidated Electrodynamics Corp. Electronic closed loop system. 2,849,669, 8-26-58, Cl. 318—32.
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Graff, George, Kinker, and Owen. 2,848,728.
Kirk, James H., to Sinclair Refining Co. Process for preparing lubricating oils. 2,849,385, 8-26-58, Cl. 196—147.
Kirkell, Leon H. Towel dispensing cabinet. 2,849,268, 8-26-58, Cl. 312—38.
Kirstahler, Alfred, W. Strauss, and W.-D. Willmund, to Dehydag, Deutsche Hydrierwerke G. m. b. H. Electroplating process. 2,849,352, 8-26-58, Cl. 204—44.
Kissinger, Charles W., to United States of America, Commerce. Chatter accelerometer. 2,849,629, 8-26-58, Cl. 310—8.4.
Klancnik, Frank J., Jr., to Hi-Lo TV Antenna Corp. Antenna structure. 2,849,712, 8-26-58, Cl. 343—905.
Klapp, Claude D., to Bell Telephone Laboratories, Inc. Monostable circuit. 2,849,626, 8-26-58, Cl. 307—88.5.
Klein, Isidore. Portable, frying apparatus and drain. 2,848,938, 8-26-58, Cl. 99—355.
Klein, Mathias, & Sons : *See*—
Wendt, Walter F. 2,848,724.
Wendt, Walter F. 2,848,810.
Klein, Milton : *See*—
Cooper, Benjamin, Klein, and Clay. 2,848,759.
Knight, William P. : *See*—
Weloff, Dmitri, and Knight. 2,849,630.
Kober, William, to TKM Electric Corp. Inverter control. 2,849,672, 8-26-58, Cl. 321—18.
Kock, Winston E., to Bell Telephone Laboratories, Inc. Directional filter. 2,849,689, 8-26-58, Cl. 333—73.
Koehler, Robert L., to R. D. Collins. Automatic party identifier system. 2,849,538, 8-26-58, Cl. 179—17.

Koerner, Harry E., to Westinghouse Electric Corp. X-ray apparatus. 2,849,620, 8-26-58, Cl. 250—58.

Kolb, William S.: *See*—
Steiner, Joseph W., and Kolb. 2,849,599.

Kollenberger, Walter M. Devices for damping the rolling movement of ships. 2,848,971, 8-26-58, Cl. 114—126.

Kolmar, Nicholas, E. S. Gall, administrator of said N. Kolmar, deceased. Heater utilizing optional fuels. 2,848,958, 8-26-58, Cl. 110—22.

Kopke, Ernst W., to C. Hastings. Noise suppressing screen. 2,849,077, 8-26-58, Cl. 181—33.

Kotter, James I.: *See*—
Mayer, Mayer, Jr., and Kotter. 2,848,754.

Koulikovitch, Miron, to Societe Genevoise d'Instruments de Physique. Apparatus for measuring very little lengths. 2,848,921, 8-26-58, Cl. 88—14.

Kovaleski, Joseph J.: *See*—
Richardson, William H., and Kovaleski. 2,849,195.

Kowal, Jack S., 50% to G. D. Eckley and 50% to V. D. Eckley. Hygienic disinfectant apparatus. 2,849,256, 8-26-58, Cl. 299—84.

Kowal, Jack S., 70% to G. E. Eckley and 25% to V. D. Eckley. Syringe. 2,848,996, 8-26-58, Cl. 128—229.

Kramer, Alexander E. Combined pressure relief and pressure indicating device. 2,849,022, 8-26-58, Cl. 137—512.2.

Kramer, Samuel G. Kitchen utensil holding devices. 2,849,271, 8-26-58, Cl. 312—350.

Krasover, John. Plumb bobs. 2,848,818, 8-26-58, Cl. 33—217.

Kremer, Joseph C., to General Motors Corp. Self-lubricating shell molds. 2,848,772, 8-26-58, Cl. 22—193.

Kreuchunas, Algird. Process for the preparation of 2,3,6-trihydroxybensoic acid and derivatives. 2,849,480, 8-26-58, Cl. 260—473.

Krieger, Maurice H., to Art Cap Co., Inc. Cap stay. 2,848,720, 8-26-58, Cl. 2—199.

Kroger, Ferdinand A., J. C. M. Basart, J. van den Boomgaard, H. J. Vink, J. Bloem, and D. De Nobel, to North American Philips Co., Inc. Method of manufacturing semi-conductive bodies having adjoining zones of different conductivity properties. 2,849,343, 8-26-58, Cl. 148—1.5.

Krueger, Theodore H., and E. E. Sharpe, to Better Packages, Inc. Tacky tape dispenser with tape straightening means. 2,849,065, 8-26-58, Cl. 164—39.

Krueger, Theodore H., to Better Packages Inc. Feed control for strip dispenser. 2,849,007, 8-26-58, Cl. 164—49.

Kruysman, Nicholas L. Fastener. 2,849,172, 8-26-58, Cl. 229—77.

Kubick, Heinz: *See*—
Fischer, Josef, and Kubick. 2,849,561.

Kuck, John H., to United States of America, Navy. Distribution curve analyzer. 2,849,183, 8-26-58, Cl. 235—61.

Kuts, Mathew, to The B. F. Goodrich Co. Tool for use in tree girdling and grafting. 2,848,841, 8-26-58, Cl. 47—1.

Laboratoires O M, Societe Anonyme: *See*—
Puig Muset, Pedro. 2,849,369.

Ladisch, Rolf K. Mercury capillary assembly. 2,849,391, 8-26-58, Cl. 204—195.

Lady Lora Wave Clip Corp.: *See*—
Otten, Eric. 2,849,008.

L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude: *See*—
Wolff, Charles, and Savard. 2,849,593.

Lamm, Raymond R., to The Patent and Licensing Corp. Adhesive composition including limed rosin and acrylic plasticizer. 2,849,410, 8-26-58, Cl. 260—27.

Lamont, Adam S., and E. T. Todd, to General Motors Corp. Pressure control system. 2,849,047, 8-26-58, Cl. 152—417.

Lamp, Arthur W.: *See*—
Pakish, Anthony E. and Lamp. 2,848,784.

Lancaster, Rodney W. Limit switches for electric heating elements. 2,849,589, 8-26-58, Cl. 219—39.

Landis Machine Co.: *See*—
Moeltzner, Ernst F. W., and Hübl. 2,849,104.
Reimschissel, Charles A., and Youtz. 2,848,726.

Landis Tool Co.: *See*—
Balsiger, Harold E. 2,848,849.

Lane, Trent, to Esso Research and Engineering Co. Reactivation of hydroforming catalyst. 2,849,406, 8-26-58, Cl. 252—413.

Langbaum, Murray. Spinning smoker's stand. 2,849,178, 8-26-58, Cl. 232—43.2.

Langguth, Robert P., to Monsanto Chemical Co. Recovery of ammonia and pyridine. 2,849,288, 8-26-58, Cl. 23—107.

Large, William E., to Westinghouse Electric Corp. Control for resistance welding. 2,849,608, 8-26-58, Cl. 250—27.

Larsen, Hugh W., G. H. Primeau, and W. O. Robbins, to General Motors Corp. Drive noise insulating means. 2,848,82. 8-26-58, Cl. 64—1.

Latham, Charles C., Jr., to United States of America, Army. Integral base closure. 2,848,947, 8-26-58, Cl. 102—56.

Laufer, Frederic, to J. Bobst & Son S. A. Machines for operating on sheets, such for example as a strip-cutting press or a press for corrugating cardboard sheets. 2,849,235, 8-26-58, Cl. 271—50.

Lauring, Edgar A., to Minnesota and Ontario Paper Co. Method of producing flame resistant fiberboard. 2,849,316, 8-26-58, Cl. 92—21.

Leary, Robert F.: *See*—
Banes, Fred W., Nelson, and Leary. 2,849,512.

Leary, Robert F., and J. F. Nelson, to Esso Research and Engineering Co. Preparation of chromans, chromenes and coumarans. 2,849,459, 8-26-58, Cl. 260—345.5.

Leatherman, Gerald T., and J. T. Edmonds, Jr., to Phillips Petroleum Co. Removal of oxygen from gaseous mixtures. 2,849,515, 8-26-58, Cl. 260—677.

Le Baron, Ira M., and R. F. McCullough, to United States of America, Atomic Energy Commission. Nitric acid treatment of leached zone material. 2,849,280, 8-26-58, Cl. 23—14.5.

Le Blond, R. K., Machine Tool Co.: *See*—
Waterson, Arthur P. 2,849,206.

Lee, Edmund S. III, to United Shoe Machinery Corp. Leather finish applying machines. 2,849,974, 8-26-58, Cl. 118—63.

Lee, Edward C., to Ithaca Gun Co., Inc. Firing pin lock assembly. 2,848,832, 8-26-58, Cl. 42—70.

Leech, Lawrence E.: *See*—
Fullerton, John R., Leech, and Heyser. 2,849,591.

Lees, James, and Sons Co.: *See*—
Patterson, Raymond B., and Smiley. 2,849,030.

Lehmann, Jules, to Radio Corp. of America. Time-division computing device. 2,849,181, 8-26-58, Cl. 235—61.

Lehmann, Wolfgang, and O. Bayer, to Farbenfabriken Bayer Akt. Stabilization of basic condensation products of epichlorohydrin. 2,849,411, 8-26-58, Cl. 260—29.2.

Lehmkuhl, Herbert: *See*—
Ziegler, Karl, and Lehmkuhl. 2,249,349.

Leister, Robert E., to Westinghouse Electric Corp. Frequency shift receiver. 2,849,607, 8-26-58, Cl. 250—27.

Lenehan, Bernard E., to Westinghouse Electric Corp. Electrical instruments responsive to alternating energization. 2,849,680, 8-26-58, Cl. 324—138.

Lengsfield Brothers, Inc.: *See*—
Fielding, Francis W. 2,849,111.

Les Laboratoires Francais de Chimiotherapie: *See*—
Joly, Robert, Nomine, and Jolly. 2,849,463.

Lester, John M. Key contact system for electronic organs. 2,848,920, 8-26-58, Cl. 84—1.27.

Levetus, Francis B., and A. R. Hyslop, to The Keelavite Co. Ltd. Apparatus for causing intermittent operation of a hydraulic motor. 2,848,873, 8-26-58, Cl. 60—51.

Lewiecki, Edward M.: *See*—
Schnitzler, Meyer J., Lewiecki, and Muros. 2,848,806.

Lewing, Albert W., to Tampax, Inc. Tampons and the like. 2,849,000, 8-26-58, Cl. 128—285.

Lewis, Daniel W.: *See*—
Rogers, Dow A., Jr., and Lewis. 2,849,527.

Lewis, Stanley N.: *See*—
Varrin, Albert, and Anderson. 2,848,886.

Lhermitte, Yves, and R. Besson, to Societe Glaces Gervais. Container for liquid and semi-liquid foodstuffs. 2,849,321, 8-26-58 Cl. 99—171.

Lieberherr, Arthur, to Sulzer Freres, Societe Anonyme. Vapor or steam generating plant with resuperheaters. 2,848,983, 8-26-58, Cl. 122—479.

Lighthipe, Charles H.: *See*—
Shott, John H. III, Lighthipe, and Ward. 2,849,405.

Likens, James R. Load transferring apparatus. 2,849,129, 8-26-58, Cl. 214—38.

Lillienberg, August W.: *See*—
Duffy, John R., and Lillienberg. 2,849,220.

Lincoln, Dwight C., to Hercules Powder Co. Stabilized cellulose ether composition. 2,849,325, 8-26-58, Cl. 106—189.

Lindberg Engineering Co.: *See*—
Duffy, John R., and Lillienberg. 2,849,220.

Linde, Hilding. Refuse collecting vehicle. 2,849,134, 8-26-58, Cl. 214—302.

Lindlar, Herbert: *See*—
Isler, Otto, Lindlar, Montavon, Rüegg, and Zeller. 2,849,495.
Isler, Otto, Lindlar, Montavon, Rüegg, and Zeller. 2,849,507.
Isler, Otto, Lindlar, and Rüegg. 2,849,506.

Lindmark, Howard C. Reversible ratchet mechanism. 2,849,089, 8-26-58, Cl. 188—82.2.

Linzell, Stanley M., and D. J. Dorcy, to United States of America, Atomic Energy Commission. Closure device. 2,849,246, 8-26-58, Cl. 286—20.

Lipscomb, Willis L. Non-glare lighting fixture. 2,849,598, 8-26-58, Cl. 240—11.4.

Litton Industries of California: *See*—
Clark, John W. 2,849,621.

Litton Industries, Inc.: *See*—
Crapuchettes, Paul W. 2,849,633.

Logan, Alexander, to Western Electric Co., Inc. Composite plates and methods of making them. 2,849,698, 8-26-58, Cl. 339—198.

Logue, Earl E., Jr., to Parker Rust Proof Co. Lubricant for spraying on chemically coated metal surfaces. 2,849,107, 8-26-58, Cl. 205—2.

Lohuis, Delmont J., to American Can Co. Can end seam. 2,849,148, 8-26-58, Cl. 220—67.

Long, Richard H., to Bendix Aviation Corp. Anti-creep accelerator switch. 2,849,557, 8-26-58, Cl. 200—61.9.

Lorenz, Anton: *See*—
Schliephacke, Fridtjof F. 2,849,052.

Loria, Samuel F., to General Motors Corp. Hinge and hold-open. 2,848,736, 8-26-58, Cl. 16—142.

Lott, Jeremiah A.: *See*—
Miskel, John J., Horner, and Lott. 2,848,997.

Lowey, Francis J., to American Brake Shoe Co. Friction elements. 2,848,795, 8-26-58, Cl. 29—182.5.

Loxham, John, to The Sigma Instrument Co., Ltd. Pneumatic gauges. 2,848,889, 8-26-58, Cl. 73—87.5.

Lucien, René. Aircraft undercarriage. 2,849,199, 8-26-58, Cl. 244—104.

Lucien, René. Elastic suspension system for vehicles and especially automobiles. 2,849,225, 8-26-58, Cl. 267—11.

Lucien, René, to Recherches Etudes Production R. E. P. Apparatus for the automatic control of the braking of a wheel of a vehicle. 2,849,560, 8-26-58, Cl. 200—80.

Luks, Daniel W., to Frenchtown Porcelain Co. Method of soft soldering to non-metallic refractory bodies. 2,848,802, 8-26-58, Cl. 29—472.7.

Lund, Stewart H. M.: *See*—
Eldredge, Robert C. 2,849,238.

Lupfert, Siegfried: *See*—
Dornow, Alfred, and Lupfert. 2,849,477.

Lustrik, Peter, to Lustrik Tool Co. Tool post and holder. 2,848,918, 8-26-58, Cl. 82—36.

Lustrik Tool Co.: *See*—
Lustrik, Peter. 2,848,918.

Lyben, Raymond G., to Ethyl Corp. Antiknock compositions. 2,849,302, 8-26-58, Cl. 44—69.

Lyben, Raymond G., to Ethyl Corp. Antiknock compositions. 2,849,303, 8-26-58, Cl. 44—69.

Lyben, Raymond G., to Ethyl Corp. Antiknock compositions. 2,849,304, 8-26-58, Cl. 44—69.

Lyon, Floyd A.: *See*—
Halahan, John, Aronson, and Lyon. 2,849,099.
Halahan, John, Aronson, and Lyon. 2,849,232.

Lysek, Walter: *See*—
Reguly, Lewis J., Marshall, Coffman, and Lysek. 2,849,231.

Lytton, Marion R., to American Viscose Corp. Producing all skin viscose rayon. 2,849,274, 8-26-58, Cl. 18—54.

M & P Associates: *See*—
Moynihan, John J. 2,849,696.

MacChesney, Chester M., to Ellamac Inc. Apparatus for magnetic recording of sound on record cards. 2,849,542, 8-26-58, Cl. 179—100.2.

MacDonald, Charles M. Temperature indicator. 2,849,518, 8-26-58, Cl. 136—4.

MacKimmie, George B., to Radio Corp. of America. Slotted cylinder antenna. 2,849,711, 8-26-58, Cl. 343—771.

MacPherson, Arthur B., to Aerofall Mills Inc. Material reduction mill. 2,849,189, 8-26-58, Cl. 241—61.

Magill, Paul L. Demountable expanding shelf. 2,849,123, 8-26-58, Cl. 211—90.

Magna Kleen Inc.: *See*—
Wisken, Adolf H. 2,849,297.

Magnetic Amplifiers, Inc.: *See*—
Hers, Herbert, Sterk, and Goldsmith. 2,849,544.

Mallory, P. R., & Co., Inc.: *See*—
Huetten, Clarence, Kaufmann, and Rigsbee. 2,849,563.

Maloney, James O., E. B. Haines, and J. B. Tepe, to United States of America, Atomic Energy Commission. Method of jacketing uranium bodies. 2,848,800, 8-26-58, Cl. 29—447.

Malsbary Mfg. Co.: *See*—
Taylor, Walter W. 2,849,187.

Maly, George P., to Union Oil Co. of California. Well packer. 2,849,070, 8-26-58, Cl. 166—179.

Mangold, Donald J.: *See*—
Faust, John P., Mangold, and Whitney. 2,649,290.

Manheim Mfg. and Belting Co.: *See*—
Groff, James C. 2,848,901.

Manion, Jean P., to Olin Mathieson Chemical Corp. Chemical synthesis. 2,849,356, 8-26-58, Cl. 204—177.

Mann, Victor E.: *See*—
Baker, George T., and Mann. 2,849,535.

Manning, Maxwell & Moore, Inc.: *See*—
Chapin, William S., Jr. 2,849,205.

Mansfield, Herman, to United States of America, Atomic Energy Commission. Preparation of metal powder compacts prior to pressing. 2,849,313, 8-26-58, Cl. 75—211.

Mansted, Svend A. J. Dispensing device. 2,849,156, 8-26-58, Cl. 222—83.

Marcuse, Harry M. Mop bucket. 2,849,588, 8-26-58, Cl. 219—38.

Marino, Frank J. Cargo hatch tent. 2,849,010, 8-26-58, Cl. 135—1.

Markes, Robert O. Ribbon protector. 2,849,096, 8-26-58, Cl. 197—151.

Marshall, John M.: *See*—
Reguly, Lewis J., Marshall, Coffman, and Lysek. 2,849,231.

Marshfield Mfg. Co.: *See*—
Kaufmann, Stanley L. 2,849,159.

Marti, Fritz, G. Braunschweig, and J. Schaad. Instrument for checking the rate of time-piece movements. 2,849,273, 8-26-58, Cl. 346—78.

Martin, Bernard. Compressor circuit. 2,849,546, 8-26-58, Cl. 179—171.

Martin, Donald K.: *See*—
Cone, Carroll, and Martin. 2,849,221.

Martin, Gayle. Automatic corn popping machine. 2,848,937, 8-26-58, Cl. 99—238.3.

Martin, John G., to Bendix Aviation Corp. Overload release brake mechanism. 2,849,086, 8-26-58, Cl. 188—2.

Martin, Robert L.: *See*—
Hettinger, Donald M., and Martin. 2,848,760.

Maruhn, Herbert F. W., to Daimler-Benz Akt. Main spring for motor vehicles. 2,849,226, 8-26-58, Cl. 267—47.

Marzullo, Samuel: *See*—
Jaffe, Bernard, Roth, and Marzullo. 2,849,404.

Maschinenfabrik Augsburg-Nurnberg A. G.: *See*—
Glöckl, Hans. 2,849,266.

Masologites, George P.: *See*—
Ogburn, Hugh B., Bent, and Masologites. 2,849,377.

Massey-Ferguson Inc.: *See*—
Ashton, Robert. 2,849,118.
Bjerre, Peder. 2,849,261.
Hopkins, Frank. 2,848,932.
Kepkay, Leslie L., and Rowland-Hill. 2,848,858.
Schefter, Helmut K. H., Fromme, and Vrastil. 2,849,103.

Massie, George M.: *See*—
Ambelang, Joseph C., and Massie. 2,849,488.

Massie, George M., to The Firestone Tire & Rubber Co. Catalytic alkylation of ureas. 2,849,485, 8-26-58, Cl. 260—553.

Matsuo, Naojiro, S. Fujioka, and M. Murosumi, to Asahi Garasu Kabushiki Kaisha. Flow interrupter for mercury cell battery circuits. 2,849,524, 8-26-58, Cl. 174—15.

Matthews, Robert, to The Decca Record Co. Ltd. Radar display systems. 2,849,708, 8-26-58, Cl. 343—11.

Matthews, Russell B.: *See*—
Thornbery, John H., and Matthews. 2,849,663.

Matusak, Alfred H., and W. J. Craven, to Esso Research and Engineering Co. Improved lubricating composition. 2,849,399, 8-26-58, Cl. 252—32.7.

Mats, Kenneth R., to Union Carbide Corp. Electrically conductive cement and brush shunt connection containing the same. 2,849,631, 8-26-58, Cl. 310—249.

Maude, William A., to General Electric Co. Gear. 2,848,884, 8-26-58, Cl. 64—30.

Maxwell Co., The: *See*—
Kalaf, Elmer J. 2,848,912.

Mayer, Mayer, Jr., and J. I. Kotter, to United States of America, Agriculture. Fiber cleaner. 2,848,754, 8-26-58, Cl. 19—67.

Maytag Co., The: *See*—
Smith, Thomas R. 2,849,550.

McAdams, William A.: *See*—
Wigner, Eugene P., and McAdams. 2,849,284.

McBee, Earl T., and J. D. Idol, Jr., to Purdue Research Foundation. Composition of matter having the formula $C_{20}Cl_8$ and process for its preparation. 2,849,490, 8-26-58, Cl. 260—648.

McCann, Mary J. Portable knockdown beach shelter. 2,848,756, 8-26-58, Cl. 20—2.

McCann, Robert B. Water valve with drainage attachment. 2,849,024, 8-26-58, Cl. 137—596.2.

McCaulay, David A.: *See*—
Slaughter, John I., and McCaulay. 2,849,509.

McCombs, Roy. Pole support. 2,849,202, 8-26-58, Cl. 248—44.

McConnell, Richard L., and H. W. Coover, Jr., to Eastman Kodak Co. O,o-dialkyl α-(1-dialkylphosphono-1-hydroxy) alkyl phosphorothiolothionates. 2,849,476, 8-26-58, Cl. 260—481.

McCracken, Leo B., Sr., to American Brake Shoe Co. Apparatus for feeding powdered or granular materials to receptacles. 2,848,741, 8-26-58, Cl. 18—30.

McCrea, John M.: *See*—
Kang, Chia-Chen C., and McCrea. 2,849,504.

McCreery, Edward P., and M. F. Arms, to The C. O. Bartlett & Snow Co. Corn shelling apparatus. 2,849,004, 8-26-58, Cl. 130—6.

McCullough, Robert F.: *See*—
Le Baron, Ira M., and McCullough. 2,849,280.

McCullough, Robert F., to United States of America, Atomic Energy Commission. Organic extractant and method of solvent extracting mineral values. 2,849,281, 8-26-58, Cl. 23—14.5.

McDermott, Julian A. Electric hand lantern. 2,849,596, 8-26-58, Cl. 240—10.63.

McGraw-Edison Co.: *See*—
Jacobs, Charles T. 2,849,541.
Rigert, Max. 2,849,627.

McGrew, Robert F., and M. L. Turner, to Abbott Laboratories. Sampling apparatus. 2,848,999, 8-26-58, Cl. 128—276.

McIntosh, Harold A., and W. G. Shequen, to General Controls Co. Follow-up control system. 2,849,670, 8-26-58, Cl. 318—32.

McKinney, Leonard L.: *See*—
Eldridge, Arthur C., and McKinney. 2,849,434.

McKinnis, Art C.: *See*—
Schaeffer, William D., McKinnis, and Dorsey. 2,849,511.

McLaughlin, Hugh R. Flat bed platen printing presses. 2,848,944, 8-26-58, Cl. 101—302.

McLaughlin, Neill S. Pistol. 2,848,831, 8-26-58, Cl. 42—16.

McLean, Duart V. Can handle. 2,849,252, 8-26-58, Cl. 294—31.2.

McMann, George E., to Allegheny Ludlum Steel Corp. Coolant directing cutting tool assembly. 2,848,790, 8-26-58, Cl. 29—106.

McMichael, Charles E., J. W. Godbey, and V. L. Zehnder, to National Cylinder Gas Co. Oil bleaching equipment. 2,849,120, 8-26-58, Cl. 210—193.

McMinn, Thomas L. Mail box. 2,849,176, 8-26-58, Cl. 232—35.

McMullin, Terence A., to Murphy Radio Ltd. Servo systems. 2,849,667, 8-26-58, Cl. 318—28.

Meacham, J. E.: *See*—
Shepherdson, William L. 2,849,054.

Mead-Atlanta Paper Co.: *See*—
Forrer, Homer W. 2,849,112.

Mead Corp., The: *See*—
Shick, Philip E. 2,849,292.

Mead Johnson & Co.: *See*—
Bryan, Hugh D. 2,848,998.

Mechanical Parking Systems, Inc.: *See*—
Smith, James A., and George. 2,849,131.

Medoff, Joseph L., to Burroughs Corp. Driver circuit. 2,849,654, 8-26-58, Cl. 315—84.6.

Meis, Josef: *See*—
Büchner, Karl, and Meis. 2,849,489.

Mendel, John T., to United States of America, Navy. Wide band traveling wave amplifier. 2,849,545, 8-26-48, Cl. 179—171.

Mercier, Jean. Method and equipment for forming bladders. 2,848,743, 8-26-58, Cl. 18—42.

Merkle, Ralph H.: *See*—
Key, Cleo H., Merkle, and Richey. 2,849,074.

Metoff, Boris G., to Rotex Co. Electric sanders. 2,848,850, 8-26-58, Cl. 51—170.

Metropolitan-Vickers Electrical Co. Ltd.: *See*—
Crowley-Milling, Michael C. 2,849,634.

Meyer, Howard. Wastebasket. 2,849,177, 8–26–58, Cl. 232—43.1.

Meyerson, Leonard A. Adjustable heat sealing envelope forming device. 2,849,050, 8–26–58, Cl. 154—42.

Michalko, Ignatius: *See*—
Dieter, Norman H., Jr., and Michalko. 2,849,239.

Michelet, Charles J., J. E. Caveney, and M. D. Robinson, to Acme Steel Co. Indexing device for metal strip. 2,849,066, 8–26–58, Cl. 164—48.

Mid-Continent Metal Products Co.: *See*—
Haedike, Edward J., and Zavodny. 2,848,990.

Miller, Doyle H. Pneumatic displacement pump. 2,848,955, 8–26–58, Cl. 103—240.

Miller, Oran E., to United States of America, Atomic Energy Commission. Thermally shielded moisture removal device. 2,848,881, 8–26–58, Cl. 62—270.

Miller, Stewart E., to Bell Telephone Laboratories, Inc. Non-reciprocal wave transmission. 2,849,683, 8–26–58, Cl. 333—10.

Miller, Stewart E., to Bell Telephone Laboratories, Inc. Non-reciprocal wave transmission. 2,849,684, 8–26–58, Cl. 333—10.

Miller, Stewart E., to Bell Telephone Laboratories, Inc. Non-reciprocal wave transmission. 2,849,687, 8–26–58, Cl. 333—10.

Miller, Verle A., to The Firestone Tire & Rubber Co. Treatment of carboxyl-containing polymers. 2,849,420, 8–26–58, Cl. 260—79.5.

Milstine, Albert H.: *See*—
Achler, Maurice E., and Milstine. 2,849,063.

Minneapolis-Honeywell Regulator Co.: *See*—
Adams, Robert P. 2,849,611.
Tsang, Tung. 2,849,417.

Minnesota Mining and Mfg. Co.: *See*—
Robb, Lester E., and Wolf. 2,849,412.

Minnesota and Ontario Paper Co.: *See*—
Lauring, Edgar A. 2,849,316.

Miron, Simon, to The American Oil Co. Preventing color formation in gasoline. 2,849,373, 8–26–58, Cl. 196—29.

Miskel, John J., H. Horner, and J. A. Lott, to Chas. Pfizer & Co., Inc. Squeeze bottle. 2,848,907, 8–26–58, Cl. 128—232.

Mistretta, Vincent F.: *See*—
Schneider, Helmuth G., Goering, and Mistretta. 2,849,433.

Moeltsner, Ernst F. W., and J. Hübl, to Landis Machine Co. Apparatus for feeding and rolling workpieces. 2,849,104, 8–26–58, Cl. 198—211.

Molden, Ralph: *See*—
Foster, Robert W. 2,849,092.

Moline Machine Co., Ltd.: *See*—
Jackson, Donald R. P. 2,849,233.
Rowlands, Tom, Osborn, and Hubbard. 2,849,234.

Moll, Charles J., Jr.: *See*—
Tucker, Irwin W., and Moll. 2,849,005.

Monacci, Arturo A.: *See*—
Perotti, Antonio J. G., and Monacci. 2,849,216.

Monsanto Chemical Co.: *See*—
Cooper, Robert H. and Godfrey. 2,849,494.
Langguth, Robert P. 2,849,288.

Montavon, Marc: *See*—
Isler, Otto, Lindlar, Montavon, Rüegg, and Zeller. 2,849,495.
Isler, Otto, Lindlar, Montavon, Rüegg, and Zeller. 2,849,507.

Moody, Leonard E., and A. H. Popkin, to Esso Research and Engineering Co. Mineral-base lubricating oils and methods for using same. 2,849,398, 8–26–58, Cl. 252—32.7.

Moore, George S. Boat trailer. 2,849,136, 8–26–58, Cl. 214—506.

Morden, Russell L., to Motor Wheel Corp. Rewind engine starter. 2,848,987, 8–26–58, Cl. 123—179.

Morey, Ole. Powdered soap and detergent dispensing device. 2,849,035, 8–26–58, Cl. 141—360.

Morris, William T. Tire curing apparatus. 2,848,745, 8–26–58, Cl. 18—45.

Morse, Charles L. Educational toy for demonstrating the operation of the siphon. 2,848,822, 8–26–58, Cl. 35—19.

Morton, Carl. Lawn edger. 2,848,933, 8–26–58, Cl. 97—227.

Motor Wheel Corp.: *See*—
Morden, Russell L. 2,848,987.

Mourier, Georges, to Compagnie General de Telegraphie sans Fil. Double beam electron discharge tube. 2,849,643, 8–26–58, Cl. 315—3.6.

Moynihan, John J., to M & F Associates. Ferromagnetic core. 2,849,696, 8–26–58, Cl. 336—212.

Muller, Gerd, F. Bechlars, H. Detzner, and H. Grahmann, to Farbenfabriken Bayer Akt. Water-insoluble monoazo dyestuffs. 2,849,438, 8–26–58, Cl. 260—204.

Muros, Joseph: *See*—
Shnitzler, Meyer J., Lewiecki, and Muros. 2,848,806.

Murozumi, Masahiko: *See*—
Matsuo, Naojiro, Fujioka, and Murozumi. 2,849,524.

Murphy, Francis P.: *See*—
Prestrud, Lars O., and Murphy. 2,848,977.

Murphy Radio Ltd.: *See*—
McMullin, Terence A. 2,849,607.

Musser, C Walton, to United States of America, Army. Adjustable support and releasably interlocking member supported thereby. 2,848,814, 8–26–58, Cl. 33—50.

Muth, Tobias R., to W. Stroh, Jr. Transfer-printing press for printing addresses on envelopes from negative forms on cards. 2,848,941, 8–26–58, Cl. 101—132.5.

Myers, F. E., & Bro. Co., The: *See*—
Spreng, Warren M. 2,849,174.

N. V. Carrosseriefabriek Verheul: *See*—
Dolk, Jacques M. H. 2,849,254.

Nagely, John L. Gear pump or motor. 2,848,953, 8–26–58, Cl. 103—126.

Naito, Kenji: *See*—
Hosokawa, Masuo, Yagi, and Naito. 2,849,355.

Nalbach, John R., to John R. Nalbach Engineering Co. High speed container filling machine. 2,849,033, 8–26–58, Cl. 141—148.

Nalbach, John R., Engineering Co.: *See*—
Nalbach, John R. 2,849,033.

Napoli, Frederick W., and L. Pompeo, to Duchess Jewelry Mfg. Corp. Sheet metal link for extending watch bracelet. 2,848,865, 8–26–58, Cl. 59—80.

Napolin, Seymour, and M. H. Harwood, said Harwood to Granco Products Inc. Thermal relays. 2,849,576, 8–26–58, Cl. 200—138.

Narbut, Paul: *See*—
Narbutovskih, Paul, and Narbut. 2,849,523.

Narbutovskih, Paul, now by judicial change of name, Paul Narbut, to Westinghouse Electric Corp. Electrical apparatus with vaporizable liquid coolant. 2,849,523, 8–26–58, Cl. 174—15.

Nash, Nancy E., and T. E. Foulke, to General Electric Co. Glow discharge device circuit. 2,849,657, 8–26–58, Cl. 315—169.

Nathanson, Max. Baseboard panel heater. 2,849,586, 8–26–58, Cl. 219—34.

National Cylinder Gas Co.: *See*—
McMichael, Charles E., Godbey, and Zehnder. 2,849,120.

National Lead Co.: *See*—
Frost, Leon J. 2,849,305.

National Starch Products Inc.: *See*—
Ryan, John J., and Weidener. 2,849,327.

Nations, Glen R., to Oil Capital Valve Co. Air eliminator valve. 2,849,016, 8–26–58, Cl. 137—202.

Neely, William H., to The Universal Wire Spring Co. Wire spring members and structures. 2,849,057, 8–26–58, Cl. 155—179.

Neese, Gerhard, to Dürkoppwerke Akt. Method of making cages for roller or needle bearings. 2,848,791, 8–26–58, Cl. 29—148.4.

Neff, Glyn A., to Consolidated Electrodynamics Corp. Data processing system. 2,849,704, 8–26–58, Cl. 340—174.

Neider, F. A., Co., The: *See*—
Thornsbury, Harry. 2,848,733.

Nelson, Earl W., A. Dietz, J. P. Wikswo, and W. E. Trees, to American Cyanamid Co. Separation of iron chloride from gaseous iron chloride-titanium tetrachloride mixtures. 2,849,083, 8–26–58, Cl. 183—120.

Nelson, Joseph F.: *See*—
Bance, Fred W., Nelson, and Leary. 2,849,512.
Jaros, Stanley E., and Nelson. 2,849,510.
Leary, Robert F., and Nelson. 2,849,459.

Nelson, William T., to Phillips Petroleum Co. Selective solvent. 2,849,396, 8–26–58, Cl. 252—1.

Ness, Levi L.: *See*—
Keller, Horace D., Jr., Ness, Oberdier, and Wolf. 2,848,783.

Neupert, Eugene H.: *See*—
Soffer, Jack W., and Neupert. 2,849,163.

Nevitt, Thomas D.: *See*—
Zubay, Geoffrey, Johnson, and Nevitt. 2,849,478.

Nevitt, Thomas D., to Standard Oil Co. Extraction of hydrocarbon mixtures with hydroxy sulfones. 2,849,514, 8–26–58, Cl. 260—674.

Newell, George K., to Westinghouse Air Brake Co. Fluid pressure brake cylinder apparatus for use with composition brake shoes on railway cars. 2,849,091, 8–26–58, Cl. 188—153.

Newhams, William C., to Aluminum Co. of America. Method of making magnesium-zirconium master alloy. 2,849,311, 8–26–58, Cl. 75—168.

Newhouse, Vernon L.: *See*—
Bindon, Douglas G., Friedman, and Newhouse. 2,849,703.

New York Wire Cloth Co.: *See*—
Webber, Clarence E., and Watson. 2,849,029.

Nicholson, Edward W. S.: *See*—
Voorhies, Alexis, Jr., and Nicholson. 2,849,384.

Nicolay, Karl, to Durkoppwerke Akt. Means for the lubrication of the raceways of rotating grippers of double quilt stitch sewing machines. 2,848,967, 8–26–58, Cl. 112—256.

Noble, Burton A., and J. F. Schlasinger, to Owens-Illinois Glass Co. Apparatus for inspecting and classifying glass containers. 2,849,114, 8–26–58, Cl. 209—74.

Nomine, Gerard: *See*—
Joly, Robert, Nomine, and Jolly. 2,849,463.

Nopco Chemical Co.: *See*—
Shott, John H., III, Lighthipe, and Ward. 2,849,405.

North American Philips Co. Inc.: *See*—
Beale, Julian R. A. 2,849,664.
Francken, Jan C. 2,849,647.
Kroger, Ferdinand A., Basart, van den Boomgaard, Vink, Bloem, and De Nobel. 2,849,343.
Schagen, Pieter. 2,849,635.
Verhoef, Johan A., and Amesz. 2,849,636.
Verhoeven, Lambertus. 2,849,690.

Norton, Samuel H., to Thompson Products, Inc. Valve rotating device. 2,848,985, 8–26–58, Cl. 123—90.

No-Sag Spring Co.: *See*—
Weinberger, Paul. 2,849,055.

Noskowicz, Theodore S., to The Rauland Corp. Color convergence system. 2,849,646, 8–26–58, Cl. 315—13.

Novak, John A. High pressure hydraulic press. 2,848,968, 8–26–58, Cl. 113—44.

Novak, Theodore F.: *See*—
Danly, James C., Novak, and Georgeff. 2,849,230.

Novo Terapeutisk Labortorium A/S: *See*—
Petersen, Karl, and Schlichtkrull. 2,849,370.

Oakley, Perry. Fabricated pole. 2,848,769, 8–26–58, Cl. 20—99.

Oberdier, Stuart F.: *See*—
Keller, Horace D., Jr., Ness, Oberdier, and Wolf. 2,848,765.

O'Brien, Charles S., Jr., to Bemis Bro. Bag Co. Bag with tie member for closing and carrying it. 2,849,171, 8–26–58, Cl. 229—63.

O'Brien, Chester H. and N. L. Agricultural soil treatment with granulated foamed rubber latex. 2,848,840, 8–26–58, Cl. 47—1.

O'Brien, Norman L.: *See*—
O'Brien, Chester H. and N. L. 2,848,840.

O'Connell, Elaine A.: *See*—
Turunen, William A., and O'Connell. 2,849,210.

O'Connell, Patrick W.: *See*—
Turunen, William A., and O'Connell. 2,849,210.

Oddo, Vincent J. Haemostatic catheter. 2,849,001, 8–26–58, Cl. 128—325.

Oddo, Vincent J. Haemostatic catheter. 2,849,002, 8–26–58, Cl. 128—325.

Ogburn, Hugh B., R. D. Bent, and G. P. Masologites, to The Atlantic Refining Co. Control of catalytic reforming process. 2,849,377, 8–26–58, Cl. 196—50.

Ohio Crankshaft Co., The: *See*—
Tudbury, Chester A. 2,849,584.

Oil Capital Valve Co.: *See*—
Nations, Glen R. 2,849,016.

Oleson, William M. Bracket type package unit. 2,849,661, 8–26–58, Cl. 317—101.

Olin Mathieson Chemical Corp.: *See*—
Corda, Helmuth. 2,849,460.
Danziger, Leo. 2,849,498.
Devins, John C., and Burton. 2,849,357.
Dixon, Glenn R. 2,848,747.
Faust, John P., Mangold, and Whitney. 2,849,290.
Manion, Jean P. 2,849,356.
Sakowski, Walter J. 2,849,078.

Oliveau, John V., and F. W. Dalsell, to The Aerotec Corp. Apparatus for controlling the filling and emptying of tanks. 2,849,019, 8–26–58, Cl. 137—391.

Olmer, Francois J., and J. and J. M. Chasnoff. Electric switch. 2,849,560, 8–26–58, Cl. 200—33.

O'Neill, Louis R. Glass sheet gauge. 2,848,816, 8–26–58, Cl. 33—148.

Örebro Bil- & Traktor Aktiebolag: *See*—
Carlsson, Erik I., and Johdet. 2,849,188.

Oryvnski, Marian L. Boat having underwater fluid propulsion. 2,848,972, 8–26–58, Cl. 115—11.

Osborn, Howard: *See*—
Rowlands, Tom, Osborn, and Hubbard. 2,849,234.

Osayra, Robert H.: *See*—
Proell, Wayne A., Stanley, Kennedy, Dominik, and Osayra. 2,848,872.

Ostline, John E., to General Telephone Laboratories, Inc. Measured service control apparatus. 2,849,536, 8–26–58, Cl. 179—8.5.

Otten, Eric, to Lady Lora Wave Clip Corp. Hair clip. 2,849,008, 8–26–58, Cl. 132—46.

Otto, William H.: *See*—
Whitehurst, Harry B., and Otto. 2,849,338.

Owen, Allen: *See*—
Graff, George, Kinker, and Owen. 2,848,728.

Owen, James N., Sr. Carrying device for kitchen stove or the like. 2,849,241, 8–26–58, Cl. 280—8.

Owens-Corning Fiberglas Corp.: *See*—
Kingsbury, Ralph N. 2,849,338.
Whitehurst, Harry B., and Otto. 2,849,338.

Owens-Illinois Glass Co.: *See*—
Gschwind, Edouard E., and Greene. 2,848,926.
Noble, Burton A., and Schlesinger. 2,849,114.

Pakish, Anthony E., and A. W. Lamp, to General Electric Co. Mount and bulb loading machine. 2,848,784, 8–26–58, Cl. 29—25.19.

Palmer, Leon B., to Congoleum-Nairn Inc. Backing for smooth surface coverings and process therefor. 2,849,335, 8–26–58, Cl. 117—68.

Palmer Thermometers, Inc.: *See*—
Stiens, Robert B. 2,848,978.

Pappas, Phillip M. Thermo-sensor attachment for deep fat fryer. 2,848,594, 8–26–58, Cl. 73—343.

Park, Robert O., to Baker Oil Tools, Inc. Casing centralisers. 2,849,071, 8–26–58, Cl. 166—241.

Parker, Louis W. Tuning system for television receivers. 2,849,529, 8–26–58, Cl. 178—5.8.

Parker Rust Proof Co.: *See*—
Cramer, Marco J. 2,849,344.
Logue, Earl E., Jr. 2,849,107.

Parker, Sydney R., and E. Fischer, to United States of America, Navy. Amplitude comparison circuit. 2,849,606, 8–26–58, Cl. 250—27.

Pascale, Martin M., and G. M. Rickus, to Hat Corp. of America. Hat ring. 2,849,108, 8–26–58, Cl. 206—9.

Pasker, Gerald J. Hoist mechanism for dump trucks. 2,849,255, 8–26–58, Cl. 298—22.

Patent and Licensing Corp., The: *See*—
Lamm, Raymond R. 2,849,410.

Patterson, Raymond B., and H. J. Smiley, to James Lees and Sons Co. Pile fabric. 2,849,030, 8–26–58, Cl. 139—403.

Paula, Edwin A., and T. B. Diersen, to Reynolds Metals Co. Apparatus for slitting aluminum webs and rewinding strips therefrom. 2,849,193, 8–26–58, Cl. 242—78.1.

Penley, Benjamin S.: *See*—
Donegan, Joseph W., and Penley. 2,849,018.

Peragallo, Ferdinand L., to Henze Instrument and Valve Inc. Temperature sensing devices. 2,848,896, 8–26–58, Cl. 73—368.

Perkin, Roy, to General Telephone Co. of California. Telephone intercept bridge. 2,849,700, 8–26–58, Cl. 339—198.

Perla, Martin R., to The Singer Mfg. Co. Control means for ornamental stitch sewing machines. 2,848,962, 8–26–58, Cl. 112—158.

Permanente Cement Co.: *See*—
Goss, Worth C. 2,849,314.

Perotti, Antonio J. G., and A. A. Monacci. Carburettors. 2,849,216, 8–26–58, Cl. 261—44.

Person, Robert P., to Boeing Airplane Co. Probe-drogue refueling means. 2,849,200, 8–26–58, Cl. 244—135.

Persson, Ernest, to The International Postal Supply Co. Printing mechanism for meter mailing machines. 2,848,942, 8–26–58, Cl. 101—227.

Peterman, Milton J. Method of aligning magnetic particles in a non-magnetic matrix. 2,849,312, 8–26–58, Cl. 75—201.

Petera, Grace: *See*—
Hechenbleikner, Ingenuin, and Petera. 2,849,451.

Petersen, Karl, and J. Schlichtkrull, to Novo Terapeutisk Labortorium A/S. Injectable insulin preparations with protracted effect and process of producing same. 2,849,370, 8–26–58, Cl. 167—75.

Peterson, Gerald D. Panel mounting structure. 2,848,762, 8–26–58, Cl. 20—56.4.

Petree, Jay E., to Crouse-Hinds Co. Explosion proof lighting unit. 2,849,597, 8–26–58, Cl. 240—11.2.

Petrick, Edward J.: *See*—
Petrick, Russell E. and E. J. 2,849,204.

Petrick, Russell E. and E. J., to Bretford Mfg., Inc. Locking means for a stand. 2,849,204, 8–26–58, Cl. 248—161.

Petrolite Corp.: *See*—
Waterman, Logan C. 2,849,394.

Petty, Macon, to Hudson Engineering Corp. Sectional molds. 2,848,774, 8–26–58, Cl. 22—193.

Pfeiffer, Henry A. Temperature pressure control. 2,849,577, 8–26–58, Cl. 200—140.

Pfizer, Chas. & Co., Inc.: *See*—
Miskel, John J., Horner, and Lott. 2,848,997.

Philco Corp.: *See*—
Certa, Anthony J. 2,849,296.
Thielen, Albert F., Jr. 2,848,746.

Phillips Petroleum Co.: *See*—
Bergman, William E., and Stalder. 2,849,358.
Clnes, Martin R. 2,849,429.
Gilmore, Forrest E. 2,849,371.
Gilmore, Forrest E., and Bauer. 2,849,386.
Karasek, Francis W. 2,849,617.
Kennedy, Thomas J., and Smith. 2,849,427.
Leatherman, Gerald T., and Edmonds. 2,849,515.
Nelson, William T. 2,849,396.
Smith, Donald C. 2,849,618.

Phillips Screw Co.: *See*—
Cummaro, Louis A. 2,849,046.

Picciano, Michael A., to Vitro Corp. of America. Cell construction. 2,849,520, 8–26–58, Cl. 136—89.

Pickering, Dorothy F.: *See*—
Rado, Leopold. 2,848,854.

Pigeon, Gérard. Apparatus for controlling the pulse. 2,848,992, 8–26–58, Cl. 128—2.05.

Piloni, Robert A.: *See*—
Rowland, George P., Jr., and Piloni. 2,849,422.
Rowland, George P., Jr., and Piloni. 2,849,423.
Rowland, George P., Jr., and Piloni. 2,849,424.

"Pilotlab": *See*—
Fried, William F., Jr. 2,849,116.

Pines, Arthur N., and G. H. Wagner, to Union Carbide Corp. Method of preparing alkynyl trichlorosilanes. 2,849,472, 8–26–58, Cl. 260—448.2.

Pines, Herman, to Universal Oil Products Co. Side chain alkylation of alkylaromatics with olefins using an organometallic compound as catalyst. 2,849,508, 8–26–58, Cl. 260—668.

Pirelli S. p. A.: *See*—
Vanso, Marcello. 2,848,863.

Pittsburgh Plate Glass Co.: *See*—
Doumont, Armand J. 2,848,845.
Schnorr, Charles H., Jr. 2,848,846.
Smith, William G., and Dennison. 2,849,345.

Pityo, Albert F. Method of producing diodes, resistors, rectifiers or the like, or the castings thereof, and the products. 2,848,793, 8–26–58, Cl. 29—155.5.

Plumley, Harold J. Magnetic inertia controlled fuse. 2,848,948, 8–26–58, Cl. 102—70.2.

Plummer, Francis C., Jr.: *See*—
Plummer, Francis C., Sr., and F. C. Plummer, Jr. 2,848,778.

Plummer, Francis C., Sr., and F. C. Plummer, Jr. Fishing line rewinder. 2,848,778, 8–26–58, Cl. 24—243.

Ply-Board Inc.: *See*—
Hurst, Alfred J. 2,849,215.

Poetter, Clarence F., and J. E. Spohn, to The Firestone Tire & Rubber Co. Extrusion die. 2,848,737, 8–26–58, Cl. 18—8.

Pokorny, Frank J., to I-T-E Circuit Breaker Co. Short time delay defeater during closing stroke of circuit breaker. 2,849,565, 8–26–58, Cl. 200—98.

Pokorny, Frank J., and R. G. Shoulberg, to I-T-E Circuit Breaker Co. Protection for circuit breaker in closing against fault conditions. 2,849,566, 8–26–58, Cl. 200—98.

Polak, Jose, to Polaquimia, Sociedad Anonima de Capital Variable (S. A. ste C. V.). Synergistic fungicidal mixtures of chloro phenols and pyrones for preserving vegetable fibers. 2,849,360, 8–26–58, Cl. 167—33.5.

Polaquimia, Sociedad Anonima de Capital Variable (S. A. ste C. V.): *See*—
Polak, Jose. 2,849,360.

Polymer Corp., The: *See*—
Stott, Louis L. 2,849,403.
Stott, Louis L. 2,849,414.
Stott, Louis L. 2,849,415.

Pompeo, Louis: *See*—
Napoli, Frederick W., and Pompeo. 2,848,865.

Pompeo, Louis, and A. Szeglin, to Duchess Jewelry Mfg. Corp. Removable expansion bracelet link. 2,848,864, 8–26–58, Cl. 59—79.

Popkin, Alexander H.: *See*—
Moody, Leonard E., and Popkin. 2,849,398.

Poshkus, Algirdas C.: *See*—
Clark, Lawrence, Grabowski, and Poshkus. 2,849,028.

Potes, Henry C. A. Head supported binoculars. 2,849,924, 8–26–58, Cl. 88—36.

Potter, Jack C. Grinding wheel dresser. 2,848,989, 8–26–58, Cl. 125—11.

Pottle, Ralph K., to American Can Co. Strip holding and releasing device. 2,849,098, 8–26–58, Cl. 198—32.

Poudreries Reunies De Belgique S. A.: *See*—
Diels, Albert. 2,848,949.

Powell, John E., Jr.: *See*—
Smith, Orea E., and Powell. 2,849,332.

Precision Apparatus Co., Inc.: *See*—
Belart, Jose. 2,849,681.

Pressler, Ralph B., and V. O. Walker, to Bowser, Inc. Liquid proportioner. 2,849,014, 8–26–58, Cl. 137—98.

Prestrud, Lars O., and F. P. Murphy. Portable cattle dip. 2,848,977, 8–26–58, Cl. 119—158.

Price, Herbert E. Walking doll. 2,848,838, 8–26–58, Cl. 46—105.

Prill, Edward A., to Boyce Thompson Institute for Plant Research, Inc. Alpha-ethyl-piperonyl ether of hydroxy-alkanamides. 2,849,455, 8–26–58, Cl. 260—340.5.

Primeau, George H.: *See*—
Larsen, Hugh W., Primeau, and Robbins. 2,848,882.

Prince, David C., to General Electric Co. Current transformer. 2,849,694, 8–26–58, Cl. 336—174.

Pritikin, Nathan. Electrical resistor and method and apparatus for producing resistors. 2,849,583, 8–26–58, Cl. 201—73.

Proell, Wayne A., W. G. Stanley, D. E. Kennedy, J. F. Dominik, and R. H. Ossyra, to Standard Oil Co. Turbojet starter cartridge case. 2,848,872, 8–26–58, Cl. 60—39.47.

Przedpelski, Andrzej B., to A. R. P. Products, Inc. Panoramic receiver. 2,849,604, 8–26–58, Cl. 250—20.

Pschorr, Frank E.: *See*—
Anspon, Harry D., and Pschorr. 2,848,753.

Puig Muset, Pedro, to Laboratoires O M, Societe Anonyme. Therapeutic compositions of cyanacetic acid hydraside and acid addition salts thereof, and processes employing the same. 2,849,369, 8–26–58, Cl. 167—65.

Purdue Research Foundation: *See*—
McBee, Earl T., and Idol. 2,849,499.

Quate, Calvin F., and J. W. Sullivan, to Bell Telephone Laboratories, Inc. High frequency apparatus. 2,849,650, 8–26–58, Cl. 315—3.5.

Rabinow, Jacob, E. C. Bailey, and F. H. Shepard, Jr., to United States of America, Navy. Servo control mechanism. 2,849,197, 8–26–58, Cl. 244—14.

Radio Condenser Co.: *See*—
Teaf, John H. 2,848,900.

Radio Corp. of America: *See*—
Jenny, Dietrich A. 2,849,341.
Lehmann, Jules. 2,849,181.
MacKimmie, George B. 2,849,711.
Webster, William M., Jr. 2,849,342.

Rado, Leopold, deceased; D. F. Pickering, executrix. Process for the production of containers filled with liquids or pastes from a pliable non-metallic material of thermoplastic nature. 2,848,854, 8–26–58, Cl. 53—37.

Raecke, Bernhard, W. Stein, and H. Schirp, to Henkel & Cie G. m. b. H. Production of naphthalene-2,6-dicarboxylic acid. 2,849,482, 8–26–58, Cl. 260—515.

Rambo, Sheldon L., to Westinghouse Electric Corp. Stroboscopic balance tester. 2,848,897, 8–26–58, Cl. 73—466.

Randall, David L., and E. E. Renfrew, Jr., to General Aniline & Film Corp. New compounds and methods of making same. 2,849,465, 8–26–58, Cl. 260—404.

Rauland Corp., The: *See*—
Noakowicz, Theodore S. 2,849,646.

Raventos, James: *See*—
Suckling, Charles W., and Raventos. 2,849,502.

Rawson, Ralph L.: *See*—
Allyn, Charles L., Barrentine, Hodgins, Shelton, and Rawson. 2,849,492.

Raytheon Mfg. Co.: *See*—
Clampitt, Lawrence L., and Derby. 2,849,649.

Read, John A.: *See*—
Drain, James A., Read, and Gordon. 2,849,138.

Read, John A.: *See*—
Drain, James A., Gordon, and Read. 2,849,139.

Recherches Etudes Production R. E. P.: *See*—
Lucien, Rene. 2,849,560.

Redmond, Nathan. Handbag frame with illuminating means. 2,849,594, 8–26–58, Cl. 240—6.45.

Reed, Robert J.: *See*—
Eberly, Kenneth C., and Reed. 2,849,503.

Reguly, Lewis J., J. M. Marshall, A. Coffman, and W. Lysek, to Inland Steel Co. Metal sheet feeder. 2,849,231, 8–26–58, Cl. 271—11.

Reibel, Bertram: *See*—
Heinrich, Herbert, and Reibel. 2,849,009.

Reichhold Chemicals, Inc.: *See*—
Allyn, Charles L., Barrentine, Hodgins, Shelton, and Rawson. 2,849,492.
Shelton, Frederic J., and Barrentine. 2,849,493.

Reid, Margaret A., and A. Brenner, to United States of America, Commerce. Method of producing boride coatings on metal. 2,849,336, 8–26–58, Cl. 117—100.

Reimschissel, Charles A., and D. E. Youts, to Landis Machine Co. Taper thread cutting die head with pivoted lever means to control taper. 2,848,726, 8–26–58, Cl. 10—120.5.

Riess, Kolman, to Westinghouse Electric Corp. Electro-responsive devices. 2,849,564, 8–26–58, Cl. 200—91.

Reitz, Harold W., to Westinghouse Electric Corp. Method of making a wired circuit. 2,848,792, 8–26–58, Cl. 29—155.5.

Reitzel, Georg, to Drescher & Kiefer. Key case. 2,849,044, 8–26–58, Cl. 150—40.

Remien, C. Jack: *See*—
Remien, William H., Jr. 2,849,157.

Remien, F. Henry: *See*—
Remien, William H., Jr. 2,849,157.

Remien, William H., Jr., ¼ to F. H. Remien and ¼ to C. J. Remien. Expendable liquid coating applicator. 2,849,157, 8–26–58, Cl. 222—169.

Remington Arms Co., Inc.: *See*—
Aitken, William H., Connor, and Haskell. 2,848,915.
Ervine, Albert W. G., and Reynolds. 2,848,855.

Renfrew, Edgar E., Jr.: *See*—
Randall, David L., and Renfrew. 2,849,465.

Renkin, Robert F., to Sharon Steel Corp. Metal coating apparatus with movably mounted wiping means. 2,848,975, 8–26–58, Cl. 118—68.

Research Corp.: *See*—
Wintermute, Harry A. 2,849,395.

Revere Copper and Brass Inc.: *See*—
Hawthorne, Lowell H. 2,849,592.
Welden, William A. 2,849,149.

Reynolds, Harold C. to Ingersoll-Rand Co. Feed-through socket. 2,848,916, 8–26–58, Cl. 81—121.

Reynolds Metals Co.: *See*—
Pauls, Edwin A., and Diersen. 2,849,193.

Reynolds, Warren S.: *See*—
Ervine, Albert W. G., and Reynolds. 2,848,855.

Rhinelander Paper Co.: *See*—
Tuttle, John N. 2,849,152.
Tuttle, John N. 2,849,153.

Riccio, Vincent. Box structure. 2,849,142, 8–26–58, Cl. 217—65.

Richardson, William H., and J. J. Kovaleski, to The Driscoll Wire Co. Combination wire drawing and packaging device. 2,849,195, 8–26–58, Cl. 242—83.

Rickus, George M.: *See*—
Pascale, Martin M., and Rickus. 2,849,108.

Riedel, Marie A.: *See*—
Riedel, Walter H. and W. C. 2,848,880.

Riedel, Walter H., deceased, and W. C. Riedel (M. A. Riedel and First Trust Co. of St. Paul, executors). Dairy box. 2,848,880, 8–26–58, Cl. 62—263.

Riedel, William C.: *See*—
Riedel, Walter H. and W. C. 2,848,880.

Rietema, Kornelis, to Shell Development Co. Centrifugal separator with diffuser. 2,849,117, 8–26–58, Cl. 209—211.

Rigert, Max, to McGraw-Edison Co. Hydraulic operation of high voltage electrical apparatus. 2,849,627, 8–26–58, Cl. 307—144.

Rigsbee, William E.: *See*—
Huetten, Clarence, Kaufmann, and Rigsbee. 2,849,563.

Rikken, Leonardus H., to U. S. Slicing Machine Co., Inc. Adjustment device for weighing scales. 2,849,223, 8–26–58, Cl. 265—27.

Rikken, Leonardus H., to U. S. Slicing Machine Co., Inc. Bearing for weighing scales. 2,849,260, 8–26–58, Cl. 308—2.

Riley Stoker Corp.: *See*—
Craig, Ollison. 2,848,959.

Ritter, Herman, and A. P. Steiner, to The Singer Mfg. Co. Thread tension releasing devices. 2,848,966, 8–26–58, Cl. 112—238.

Roach, Charles J., to Hughes Aircraft Co. Resistance element method of manufacture. 2,849,350, 8–26–58, Cl. 204—15.

Robb, Lester E., and D. R. Wolf, to Minnesota Mining and Mfg. Co. Plasticization of vulcanized perfluorochloroolefin polymers. 2,849,412, 8–26–58, Cl. 260—30.6.

Robbins, Davis. Drilling apparatus. 2,849,212, 8–26–58, Cl. 255—22.

Robbins, William O.: *See*—
Larsen, Hugh W., Primeau, and Robbins. 2,848,882.

Robertson, George H., to Bell Telephone Laboratories, Inc. Traveling wave tubes. 2,849,651, 8–26–58, Cl. 315—39.3.

Robinson, Glen P., Jr., to Scientific-Atlanta, Inc. Spherical microwave lens. 2,849,713, 8–26–58, Cl. 343—910.

Robinson, John W., to United States of America, Atomic Energy Commission. Metal coating baths. 2,849,337, 8–26–58, Cl. 117—114.

Robinson, Leland P.: *See*—
Burke, Harry E., Robinson, Sink, and Strassner. 2,849,180.

Robinson, Milton D.: *See*—
Michelet, Charles J., Caveney, and Robinson. 2,849,066.

Roche, Arthur F.: *See*—
Amos, James L., and Roche. 2,849,430.

Roeske, Alfred E., to International Minerals & Chemical Corp. Tank design. 2,849,143, 8–26–58, Cl. 220—1.

Rogak, Earl D., to Sinclair Refining Co. Grease composition containing chlorosulfonated polymer. 2,849,402, 8–26–58, Cl. 252—42.1.

Rogers, Dow A., Jr. and D. W. Lewis, to Westinghouse Electric Corp. Polymeric composition containing silicone modified unsaturated polyester and vinylidene monomer and electrical conductor coated therewith. 2,849,527, 8–26–58, Cl. 174—121.

Rolock, Inc.: *See*—
Senger, Edwin C. 2,849,222.

Rommel, Max. Razor blade package. 2,849,100, 8–26–58, Cl. 206—46.

Roos, Jacob F., and A. Smith, to Coty, Inc. Powder box. 2,849,170, 8–26–58, Cl. 229—43.

Roos, John T., to Bird Machine Co. Pan filter construction. 2,849,122, 8–26–58 Cl. 210—328.

Rosenberg, Norman W. Process for electrodialyzing liquids. 2,849,403, 8–26–58, Cl. 204—180.

Rosholt, Gordon T. Twist drill-bit sharpening unit. 2,848,852, 8–26–58, Cl. 51—219.

Rotex Co.: *See*—
Metoff, Boris G. 2,848,850.

Roth, Robert S.: *See*—
Jaffe, Bernard, Roth, and Marzullo. 2,849,404.

Roth, Wilfred, to Bendix Aviation Corp. Method of making electrical coils for high temperature use. 2,848,794, 8–26–58, Cl. 29—155.57.

Rowan, Hartley D., and E. C. De George, to General Electric Co. Lamp filament mounting apparatus. 2,849,032, 8–26–58, Cl. 140—71.6.

Rowland, George P., Jr., and R. A. Piloni, to The Firestone Tire & Rubber Co. Vinyl resins for application as solvent solutions. 2,849,422, 8–26–58, Cl. 260—78.5.

Rowland, George P., Jr., and R. A. Piloni, to The Firestone Tire & Rubber Co. Vinyl resins for application as solvent solutions. 2,849,423 8–26–58, Cl. 260—78.5.

Rowland, George P., Jr., and R. A. Piloni, to The Firestone Tire & Rubber Co. Vinyl resins for application as solvent solutions. 2,849,424, 8–26–58, Cl. 260—78.5.

Rowland-Hill, Edward W.: *See*—
Kepkay, Leslie L., and Rowland-Hill. 2,848,858.

Rowlands, Tom, H. Osborn, and H. J. Hubbard, to Molins Machine Co., Ltd. Sheet feeding mechanism. 2,849,234, 8–26–58, Cl. 271—44.

Rowten, Dana W.: *See*—
Burns, Robert T., and Rowten. 2,849,574.

Royer, George H. and R. L. Bright, to Westinghouse Electric Corp. Electrical inverter circuits. 2,849,614, 8–26–58, Cl. 250—36.

Rüegg, Rudolf: *See*—
Isler, Otto, Lindlar, Montavon, Rüegg, and Zeller. 2,849,495.
Isler, Otto, Lindlar, Montavon, Rüegg, and Zeller. 2,849,507.
Isler, Otto, Lindlar, and Rüegg. 2,849,506.
Isler, Otto, and Rüegg. 2,849,466.

Ruff, Alban E.: *See*—
Allison, Albert R., Delman, Ruff, and Simms. 2,849,291.

Ruhrchemie Akt.: *See*—
Büchner, Karl, and J. Meis. 2,849,489.

Runpe, Peter P., and A. E. Bodycombe. Conveyor elevator. 2,849,140, 8–26–58, Cl. 214—730.

Russ, Daniel G., to Bendix Aviation Corp. Fuel control system for gas turbine engines. 2,848,869, 8–26–58, Cl. 60—39.28.

Ruth, Joseph P. Exhaust gas conditioner. 2,849,294, 8–26–58 Cl. 23—284.

Ruth, Joseph P. Exhaust gas conditioner. 2,849,295, 8–26–58, Cl. 23—284.

Ryan Aeronautical Co., The: *See*—
Fullerton, John R., Leech, and Heyser. 2,849,591.

Ryan, George R., to Abbott Laboratories. Transfusion apparatus. 2,848,995, 8–26–58, Cl. 128—214.

Ryan, John J., and R. A. Weidener, to National Starch Products Inc. Cold-water-soluble dextrine adhesive and process of making it. 2,849,327, 8–26–58, Cl. 106—208.

Ryan Recording Thermometer Co.: *See*—
Bristol, Donald R. 2,848,895.

S-P Mfg. Corp., The: *See*—
Sampson, Merritt B. 2,849,244.

S. p. A. "Vetrocoke": *See*—
Giammarco, Giuseppe. 2,849,082.

St. Regis Paper Co.: *See*—
Werberig Cornelius. 2,849,298.

Sakowski, Walter J., to Olin Mathieson Chemical Corp. Apparatus for separating entrained particles from gases. 2,849,078, 8–26–58, Cl. 183—77.

Sampson, Merritt B., to The S-P Mfg. Corp. O-ring seal for rotary hydraulic cylinder. 2,849,244, 8–26–58, Cl. 285—134.

Sannecke Herbert, and H. Schnell, to Farbenfabriken Bayer Akt. Process for producing synthetic resin artificial dentures with linings. 2,848,750, 8–26–58, Cl. 18—55.1.

Sarong Inc.: *See*—
Hine, Charles W. 2,849,003.

Sauer, Christian H. Vehicle stabilizing system and method. 2,849,224, 8–26–58, Cl. 267—8.

Savard, Guy: *See*—
Volff, Charles, and Savard. 2,849,593.

Scarbrough, Erna C., to The Firestone Tire & Rubber Co. Helical expander. 2,848,779, 8–26–58, Cl. 26—63.

Schaad, Jean: *See*—
Marti, Fritz, Braunschweig, and Schaad. 2,849,273.

Schaefer, Edward J. Core construction. 2,849,095, 8–26–58, Cl. 336—210.

Schaeffer, William D., A. C. McKinnis, and W. S. Dorsey, to Union Oil Co. of California. Separation of organic compounds. 2,849,511, 8–26–58, Cl. 260—674.

Schaeffer, William D., to Union Oil Co. of California. Separation of hydrocarbons by clathrate formation with Werner complex compounds. 2,849,513, 8–26–58, Cl. 260—674.

Schäfer, Wilhelm, to Faber-Castell, A. W. Eraser mounting for pencils. 2,848,978, 8–26–58, Cl. 120—38.

Schagen, Pieter, to North American Philips Co., Inc. Television pick-up tube. 2,849,635, 8–26–58, Cl. 313—65.

Scheffler, Helmut K. H., W. A. W. Fromme, and J. F. Vrastil, to Massey-Ferguson Inc. Auger conveyor. 2,849,103, 8–26–58, Cl. 198—104.

Schelgunov, Alex, to Bird Electronic Corp. Resilient foot for instruments and the like. 2,849,201, 8–26–58, Cl. 248—24.

Scheu, Lester W., to The Firestone Tire & Rubber Co. Fabric width gage. 2,848,815, 8–26–58, Cl. 33—143.

Schirp, Hubert: *See*—
Raecke, Bernhard, Stein, and Schirp. 2,849,482.

Schjolin, Hans O., and D. K. Isbell, to General Motors Corp. Wheel and brake assembly. 2,849,087, 8–26–58, Cl. 188—18.

Schlesinger, Joseph F.: *See*—
Noble, Burton A., and Schlesinger. 2,849,114.

Schlichtkrull, Jorgen: *See*—
Petersen, Karl, and Schlichtkrull. 2,849,370.

Schliephacke, Fridtjof F., to A. Lorens. Leg rest reclining seating units retractable under seat. 2,849,052, 8–26–58, Cl 155—106.

Schmerling, Louis, to Universal Oil Products Co. Alkylation catalyst comprising a tin halide and metallic aluminum. 2,849,505, 8–26–58, Cl. 260—666.

Schmidt, Johann H. F. D., to Shell Development Co. Process for removing mercaptan sulfur with hydrogen fluoride in the presence of a saturated hydro-carbyl mono ketone. 2,849,374, 8–26–58, Cl. 196—31.

Schneider, Abraham: *See*—
Hirschler, Alfred E., and Schneider. 2,849,383.

Schneider, Helmuth G., H. G. Goering, and V. F. Mistretta, to Esso Research and Engineering Co. Inactivation of Friedel-Crafts catalyst systems. 2,849,433, 8–26–58, Cl. 260—94.8.

Schnell, Hermann: *See*—
Sannecke, Herbert, and Schnell. 2,848,750.

Schnell, Steve, to Wagner Electric Corp. Powered hydraulic brake assembly. 2,848,876, 8–26–58, Cl. 60—54.6.

Schnell, Steve, to Wagner Electric Corp. Control cylinder. 2,848,878, 8–26–58, Cl. 60—54.6.

Schnorr, Charles H., Jr., to Pittsburgh Plate Glass Co. Glass bending molds. 2,848,846, 8–26–58, Cl. 49—67.

Schock, Walter E., to Bendix Aviation Corp. Fastening device. 2,848,803, 8–26–58, Cl. 29—517.

Schoenberger, John J., and G. T. Turula, to Corn Products Refining Co. Paper coating composition and process of making it. 2,849,326, 8–26–58, Cl. 106—205.

Schoenfeld, William H., Jr., to American Can Co. Method of drying a wet coating on the interior of a container body. 2,848,819, 8–26–58, Cl. 34—21.

Schoenoff, Waldemar P., and P. Vargo, to General Electric Co. Electric lamp sealing apparatus. 2,848,843, 8–26–58, Cl. 49—2.

Schubring, Norman W.: *See*—
Hunter, Joseph E., Jr., and Schubring. 2,848,891.

Schuchardt, John R. Die casting and trimming apparatus. 2,848,770, 8–26–58, Cl. 22—68.

Schultz, William J.: *See*—
Truesdell, Francis W., and Schultz. 2,849,551.

Schurger, David L., and H. F. Hackedorn, Jr. Awnings. 2,848,763, 8–26–58, Cl. 20—57.5.

Scientific-Atlanta, Inc.: *See*—
Robinson, Glen P., Jr. 2,849,713.

Scott, Richard C., to The Udylite Corp. Voltage control system. 2,849,392, 8–26–58, Cl. 204—198.

Scott, William M., Jr., to I-T-E Circuit Breaker Co. Selective trip circuit breaker with instantaneous trip during closing. 2,849,569, 8–26–58, Cl. 200—108.

Scott, William M., Jr., to I-T-E Circuit Breaker Co. Short time delay defeator during closing stroke of circuit breaker. 2,849,570, 8–26–58, Cl. 200—108.

Searle, Norman E., to E. I. du Pont de Nemours and Co. Herbecidal method and composition employing aryl pseudoureas. 2,849,306, 8–26–58, Cl. 71—2.6.

Sears, Roebuck and Co.: *See*—
Wade, John W. 2,849,247.

Seargeant, William A. Tensioned dielectric variable condenser. 2,849,666, 8–26–58, Cl. 317—249.

Segre, Emilio G.: *See*—
Kennedy, Joseph W., and Segre. 2,849,285.

Seitz, August W., to General Electric Co. Apparatus for tipping-off incandescent lamps and similar devices. 2,848,844, 8–26–58, Cl. 49—2.

Sell, Harold R.: *See*—
Spencer, George A., and Sell. 2,849,196.

Senger, Edwin C., to Rolock, Inc. Muffle. 2,849,222, 8–26–58, Cl. 263—47.

Senker, Ralph B.: *See*—
Turnbow, Amos D., and Senker. 2,849,161.

Shakespeare Products Co.: *See*—
Hale, Hayden E. 2,848,902.

Shapiro, Alvin N. Solder feeder. 2,848,969, 8–26–58, Cl. 113—94.

Shapiro, Harry: *See*—
Achler, Maurice E., and Milstine. 2,849,063.

Shapiro, Harry S.: *See*—
Bachli, Herman, and Shapiro. 2,848,785.
Bachli, Herman, and Shapiro. 2,849,217.

Sharon Steel Corp.: *See*—
Renkin, Robert F. 2,848,975.

Sharpe, Everett E.: *See*—
Krueger, Theodore H., and Sharpe. 2,849,065.

Sheldon, Edward E. Apparatus for supersonic examination of bodies. 2,848,890, 8–26–58, Cl. 73—67.5.

Shell Development Co.: *See*—
Evans, Harry D. 2,849,079.
Kaufman, Sidney. 2,849,076.
Rietema, Kornelis. 2,849,117.
Schmidt, Johann H. F. D. 2,849,374.

Shelton, Frederic J.: *See*—
Allyn, Charles L., Barrentine, Hodgins, Shelton, and Rawson. 2,849,492.

Shelton, Frederic J., and E. M. Barrentine, to Reichhold Chemicals Inc. Process for the oxidation of alkanol to aldehyde using supported catalyst. 2,849,493, 8–26–58, Cl. 260—603.

Shepard, Francis H., Jr.: *See*—
Rabinow, Jacob, Bailey, and Shepard. 2,849,197.

Shepherdson, William L., to J. E. Meacham. Folding furniture structure. 2,849,054, 8–26–58, Cl. 155—139.

Shequen, Winston G.: *See*—
McIntosh, Harold A., and Shequen. 2,849,670.
Shick, Philip E., to The Mead Corp. Pulp manufacture. 2,849,292, 8–26–58, Cl. 23—262.
Shnitzler, Meyer J., and M. D. Benedict, Jr., to The Gillette Co. Safety razor with adjustable blade setting. 2,848,807, 8–26–58, Cl. 30—60.5.
Shnitzler, Meyer J., E. M. Lewiecki, and J. Muros, to The Gillette Co. Quick-opening safety razor having adjustable blade edge exposure. 2,848,806, 8–26–58, Cl. 30—60.5.
Shoesmith, Clyde E. Jack. 2,849,211, 8–26–58, Cl. 254—106.
Shott, John H., III, C. H. Lighthipe, and J. E. Ward, to Nopco Chemical Co. Liquid defoaming compositions. 2,849,405, 8–26–58, Cl. 252—358.
Shoulberg, Richard G.: *See*—
Pokorny, F. J., and Shoulberg. 2,849,566.
Showalter, Dennis J. Universal flashing for awnings. 2,848,765, 8–26—58, Cl. 20—57.5.
Shumiatcher, Morris C.: *See*—
Cawley, James T. 2,848,828.
Side-O-Matic Unloader Corp.: *See*—
Strine, Ell R. 2,848,961.
Siemens & Halske Akt.: *See*—
Elsfeldt, Manfred. 2,849,619.
Fischer, Josef, and Kubick. 2,849,561.
Hennig, Fritz. 2,849,532.
Siemens-Schuckertwerke Akt.: *See*—
Duming, Paul. 2,849,571.
Kesselring, Fritz. 2,849,659.
Sigma Instrument Co., Ltd., The: *See*—
Loxham, John. 2,848,889.
Simithis, Ted. Interchangeable exercising shoe. 2,849,237, 8–26–58, Cl. 272—57.
Simmon Brothers, Inc.: *See*—
Diefenbach, James C. 2,848,923.
Simms, Bernard B.: *See*—
Allison, Albert R., Delman, Ruff, and Simms. 2,849,291.
Simoniz Co.: *See*—
Cox, Marvin E. 2,849,324.
Simons, Stanley. Portable imprinting device for credit plates. 2,848,943, 8–26–58, Cl. 101—269.
Sinclair Refining Co.: *See*—
Kirk, James H. 2,849,385.
Rogak, Earl D. 2,849,402.
Watson, Kenneth M. 2,849,376.
Singer Mfg. Co., The: *See*—
Johnson, Ralph E. 2,848,963.
Perla, Martin R. 2,848,962.
Ritter, Herman, and Steiner. 2,848,966.
Van Ness, William C. 2,848,964.
Sink, Robert L.: *See*—
Burke, Harry E., Robinson, Sink, and Strassner. 2,849,180.
Skipwith, Lee, Jr., to Sprayers & Nozzles, Inc. Valve mechanism for sprayers. 2,849,208, 8–26–58, Cl. 251—211.
Skyway Luggage Co.: *See*—
Chestnut, William C. 2,849,093.
Slaughter, Bernard J., Jr., and W. Van Pelt, to The Crane & Breed Casket Co. Adjustable bed for casket. 2,848,781, 8–26–58, Cl. 27—12.
Slaughter, John I., and D. A. McCaulay, to Standard Oil Co. Process for conversion of alkylbenzenes with a difluorophosphoric acid-BF_3 catalyst. 2,849,509, 8–26–58, Cl. 260—668.
Sloss, William A., to United States Steel Corp. Control system for coke-oven pusher machine and coke-side door machine. 2,849,128, 8–26–58, Cl. 214—23.
Sloulin, Milton O. Safety attachment for boats. 2,848,725, 8–26–58, Cl. 9—3.
Small, Augustus B., and J. L. Ernst, to Esso Research and Engineering Co. Process for the preparation of a dissolved aluminum chloride catalyst. 2,849,428, 8–26–58, Cl. 260—85.3.
Smiley, Harry J.: *See*—
Patterson, Raymond B., and Smiley. 2,849,030.
Smith, Albert: *See*—
Roos, Jacob F., and Smith. 2,849,170.
Smith, Bobbie H.: *See*—
Kennedy, Thomas J., and Smith. 2,849,427.
Smith, Donald C., to Phillips Petroleum Co. High resolution infra-red spectrometer analyzer for gases. 2,849,618, 8–26–58, Cl. 250—43.5.
Smith, James A., and J. D. George, to Mechanical Parking Systems, Inc. Vehicle parking elevator. 2,849,131, 8–26–58, Cl. 214—95.
Smith, Oreal R., and J. E. Powell, Jr., to The B. F. Goodrich Co. Wrinkle coating composition, article and method. 2,849,332, 8–26–58, Cl. 117—41.
Smith, Roy R. Oil burning heater structure. 2,848,991, 8–26–58, Cl. 126—94.
Smith, Thomas R., to The Maytag Co. Control apparatus. 2,849,559, 8–26–58, Cl. 200—80.
Smith, Waverly Q., to United States of America, Atomic Energy Commission. Means for determining centrifuge alignment. 2,848,817, 8–26–58, Cl. 33—172.
Smith, William G., and B. J. Dennison, to Pittsburgh Plate Glass Co. Preliminary pressing of bent glass assemblies. 2,849,345, 8–26–58, Cl. 154—2.7.
Smith, William M., Jr., to The Firestone Tire & Rubber Co. Heat sealing of polyethylene terephthalate films. 2,849,359, 8–26–58, Cl. 154—139.
Smutz, Morton: *See*—
Welt, Martin A., and Smutz. 2,849,286.
Snyder, Richard L. Saturable reactance circuits. 2,849,624, 8–26–58, Cl. 307—88.
Societe Genevoise d'Instruments de Physique: *See*—
Koulikovitch, Miron. 2,848,921.
Societe Glacee Gervais: *See*—
Lhermitte, Yves, and Besson. 2,849,321.
Socony Mobil Oil Co., Inc.: *See*—
Baker, Richard W., Ciapetta, and Dobres. 2,849,378.
Gee, Paul Y. C. 2,849,301.
Godbey, John K. 2,849,075.
Utterback, Ernest. 2,849,380.
Soffer, Jack W., and E. H. Neupert, to Development Research, Inc. Dispensing valve having dip-tube suspension means. 2,849,163, 8–26–58, Cl. 222—394.
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Depres, Charles, and Clément. 2,849,393.
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Sontheimer, Carl G., to C. G. S. Laboratories, Inc. Controllable inductance voltage divider apparatus. 2,849,603, 8–26–58, Cl. 250—20.
Sorensen, Otto E. Collet holder. 2,849,240, 8–26–58, Cl. 279—5.
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Tuffet, Pierre E., and Soulie. 2,848,893.
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Spencer, George A., and H. R. Sell, to The Firestone Tire & Rubber Co. Spool spindle journal mounting. 2,849,196, 8–26–58, Cl. 242—130.
Spero, George B.: *See*—
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Spero, George B., and J. L. Thompson, to The Upjohn Co. Steroid compounds. 2,849,448, 8–26–58, Cl. 260—239.55.
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Spreng, Warren M., to The F. E. Myers & Bro. Co. Fan support for blower. 2,849,174, 8–26–58, Cl. 230—116.
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Slaughter, John I., and McCauley. 2,849,509.
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Stefan, Robert S., to United States of America, Navy. Integral control for servomechanisms. 2,849,671, 8–26–58, Cl. 318—448.
Steimel, Karl, to Telefunken G. m. b. H. Magnetron. 2,849,652, 8–26–58, Cl. 315—39.75.
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Steiner, Joseph W., and W. S. Kolb, to Westinghouse Electric Corp. Fluorescent luminaire of simplified construction. 2,849,599, 8–26–58, Cl. 240—51.11.
Steinmann, Henry W., to Celanese Corp. of America. Treatment of solutions of organic acid esters of cellulose. 2,849,439, 8–26–58, Cl. 260—227.
Steinmann, Henry W., to Celanese Corp. of America. Production of organic acid esters of cellulose by the homogeneous process. 2,849,440, 8–26–58, Cl. 260—227.
Steinmann, Henry W., to Celanese Corp. of America. Production of organic acid esters of cellulose. 2,849,441, 8–26–58, Cl. 260—230.
Steinmann, Henry W., to Celanese Corp. of America. Production of organic acid esters of cellulose in homogeneous solution with subsequent multiple phase extraction. 2,849,442, 8–26–58, Cl. 260—230.
Steinmann, Henry W., and M. Dunay, to Celanese Corp. of America. Production of organic acid esters of cellulose. 2,849,443, 8–26–58, Cl. 260—230.
Steinmann, Henry W., to Celanese Corp. of America. Process for the preparation of organic acid esters of cellulose. 2,849,444, 8–26–58, Cl. 260—230.
Steiner, William. Booster brake mechanism. 2,848,877, 8–26–58, Cl. 60—54.6.
Stenstrom, Sten R. Braking device for printing presses with reciprocating type bed. 2,849,227, 8–26–58, Cl. 267—75.
Stephens, Joe F., to General Electric Co. Spacer structure. 2,849,640, 8–26–58, Cl. 313—292.
Stevens, Henry P., L. O. Bents, and H. E. Albert, to The Firestone Tire & Rubber Co. Rubber stabilized with metallic symmetrical disubstituted thiourea compound. 2,849,420, 8–26–58, Cl. 260—45.75.
Stiebel, Theodor H. Miniature immersion heater with built-in, manually operable, switch. 2,849,590, 8–26–58, Cl. 219—41.
Stiens, Robert B., to Palmer Thermometers, Inc. Maximum-minimum pointer assembly. 2,848,973, 8–26–58, Cl. 116—129.
Stiles, Richard C., to General Telephone Laboratories, Inc. Telegraph system with automatic speed control. 2,849,531, 8–26–58, Cl. 178—17.5.
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Stott, Louis L., to The Polymer Corp. Nylon-carbon black composition and article. 2,849,414, 8–26–58, Cl. 260—37.
Stott, Louis L., to The Polymer Corp. Nylon composition and article. 2,849,415, 8–26–58, Cl. 260—37.
Stoughton, Raymond W., and F. L. Steahly, to United States of America, Atomic Energy Commission. Separation of uranyl nitrate by extraction. 2,849,283, 8–26–58, Cl. 23—14.5.
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Sullivan, Timothy J., to Sullivan Valve and Engineering Co. Electrical safety control apparatus. 2,849,587, 8–26–58, Cl. 219—38.
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Sutton, Joseph B., and J. V. F. Torrey, to United States of America, Atomic Energy Commission. Filter treatment. 2,849,340, 8–26–58, Cl. 134—41.
Swarthout, David S. Tread compressing type tire bead seating tool. 2,849,060, 8–26–58, Cl. 157—1.21.
Swinehart, Richard W., G. K. Greminger, Jr., and M. A. Weaver, to The Dow Chemical Co. Cold-sealing water-soluble thermoplastic cellulose ether composition. 2,849,328, 8–26–58, Cl. 106—176.
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Samuszkevics, Jacob, to The Upjohn Co. 7-(3-indolyl)-γ-ketopropyl phosphonic acids. 2,849,454, 8–26–58, Cl. 260—319.
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Tamarin, Bernard J., to The Vacuum Cleaner Corp. of America. Vacuum cleaner with electric cord-reel attachment. 2,848,731, 8–26–58, Cl. 15—323.
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Taplin, John F. Flexible fluid sealing diaphragm. 2,849,026, 8–26–58, Cl. 137—795.
Tateishi, Kasuma. Snap switch for direct current. 2,849,580, 8–26–58, Cl. 200—147.
Taylor, Owen L., to The Bryant Electric Co. Fastening device. 2,848,768, 8–26–58, Cl. 20—92.
Taylor, Owen L., to The Bryant Electric Co. Wiring device. 2,849,547, 8–26–58, Cl. 200—1.
Taylor, Walter W., to Malsbary Mfg. Co. Liquid flow control. 2,849,187, 8–26–58, Cl. 236—25.
Teaf, John H., to Radio Condenser Co. Radio tuner with vacuum assist. 2,848,900, 8–26–58, Cl. 74—10.33.
Tele-Dynamics Inc.: *See*—
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Ten Eyck, Robert L., to General Motors Corp. Floating piston pin. 2,849,265, 8–26–58, Cl. 309—19.
Tennant, James L., Jr., to Bird & Son, Inc. Plant container with fibrous walls holding a root growth inhibitor. 2,848,842 8–26–58, Cl. 47—34.
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Frank, Gerard A., and Tesche. 2,849,068.
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Thielen, Albert F., Jr., to Philco Corp. Method of forming a seal. 2,848,746, 8–26–58, Cl. 18—47.5.
Thieman, Norman A. Mail box construction. 2,849,175, 8–26–58, Cl. 232—19.
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Berman, Max G., Irwin, and Kershner. 2,849,300.
Bronaugh, Hugh J. 2,849,276.
Thomas, John C., to E. I. du Pont de Nemours and Co. Organometallic carbonyl halide compounds of a group VIII metal directly bonded to one cyclopentadienyl nucleus and to halogen and coordinately bonded to at least two carbonyl groups, and their preparation. 2,849,471, 8–26–58, Cl. 260—439.
Thomas, John R., to United States of America, Atomic Energy Commission. Process of securing plutonium in nitric acid solutions in its trivalent oxidation state. 2,849,277, 8–26–58, Cl. 23—14.5.
Thompson, Clyde L. Gasoline tank with anti-splash closure. 2,849,147, 8–26–58, Cl. 220—44.
Thompson, Francis T., to Westinghouse Electric Corp. Television apparatus. 2,849,648, 8–26–58, Cl. 315—24.
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Thompson, Kenneth B. Retractable seal for a hinged door. 2,848,767, 8–26–58, Cl. 20—68.
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Thompson, Seaborn E. Pavement widening machine. 2,848,930, 8–26–58, Cl. 94—44.
Thomsen, Niels C. Self centering multiple boring tool holder. 2,848,913, 8–26–58, Cl. 77—58.
Thornbery, John H., and R. B. Matthews, to Baso Inc. Electromagnetic control with magnetic shunt safety means. 2,849,663, 8–26–58, Cl. 317—197.
Thornsbury, Harry, to The F. A. Neider Co. Cushioned swivel glide. 2,848,733, 8–26–58, Cl. 16—42.
Tideman, Carl E., to Tideman Mfg. Co., Inc. Hack saw. 2,849,040, 8–26–58, Cl. 145—34.
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Tousignant, William F., to The Dow Chemical Co. Nitrogeneous condensation product. 2,849,486, 8–26–58, Cl. 260—566.
Touton, Louis L. Conveyor apparatus. 2,849,105, 8–26–58, 8–26–58, Cl. 198—213.
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Trank, Adolph I., L., and S. 2,849,203.
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Troidl, Robert A. Film developing apparatus. 2,848,931, 8–26–58, Cl. 95—94.
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Truesdell, Francis W., and W. J. Schultz, to General Electric Co. Control switch. 2,849,551, 8–26–58, Cl. 200—38.
Tsang, Tung, to Minneapolis-Honeywell Regulator Co. Amine-epoxide adhesive composition containing thiuram sulfide and process of making same. 2,849,417, 8–26–58, Cl. 260—37.
Tucker, Irwin W., and C. J. Moll, Jr., to Brown and Williamson Tobacco Corp. Emblematized cigarette filter tip. 2,849,005, 8–26–58, Cl. 131—10.
Tudbury, Chester A., to The Ohio Crankshaft Co. Multiphase induction billet heater. 2,849,584, 8–26–58, Cl. 219—10.75.
Tuffet, Pierre E., and J. Soulie. Transparent turbine element for electronic flow meters. 2,848,893, 8–26–58, Cl. 73—231.
Turbolenta, Joseph. Masking method and composition for producing color paintings. 2,849,331, 8–26–58, Cl. 117—5.5.
Turnbow, Amos D., and R. B. Besker. Feed measuring and dispensing device. 2,849,161, 8–26–58, Cl. 222—368.
Turner, Edward H., to Bell Telephone Laboratories, Inc. Ferromagnetic devices. 2,849,686, 8–26–58, Cl. 333—10.
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Turunen, William A., and P. W. O'Connell, deceased (by E. A. O'Connell, administratrix), to General Motors Corp. Turbine blade cooling system. 2,849,210, 8–26–58, Cl. 253—39.15.

Tuttle, John N., to Rhinelander Paper Co. Dispenser carton. 2,849,152, 8–26–58, Cl. 221—48.

Tuttle, John N., to Rhinelander Paper Co. Dispensing device. 2,849,153, 8–26–58, Cl. 221—57.

Udylite Corp., The: *See*—
Jackson, William H. 2,849,097.
Scott, Richard C. 2,849,392.

Umbach, Louis A., Jr., to United States of America, Air Force. Electrical isolation apparatus. 2,849,610, 8–26–58, Cl. 250—36.

Union Carbide Corp.: *See*—
Bailey, Donald L., and Black. 2,849,473.
Bender, Howard L., Farnham, and Guyer. 2,849,416.
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Heise, George W., and Cahoon. 2,849,521.
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Utterback, Ernest, to Socony Mobil Oil Co., Inc. Method and apparatus for catalytic conversion of liquid feeds. 2,849,380, 8–26–58, Cl. 196—52.

Usiel, Victor. Method of treating cut edges of plastic fabrics to prevent fraying. 2,849,347, 8–26–58, Cl. 154—116.

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Valden, John C., to Bendix Aviation Corp. Jaw clutch meshing device. 2,849,094, 8–26–58, Cl. 192—67.

Valentine, George E., and J. H. Eubanks, to V. & E. Products, Inc. Coal furnace having a gas reflector. 2,848,982, 8–26–58, Cl. 122—368.

Vallero, Vincent P. Diffuser. 2,848,936, 8–26–58, Cl. 98—40.

Van den Boomgaard, Jan: *See*—
Kroger, Ferdinand A., Basart, van den Boomgaard, Vink, Bloem, and De Nobel. 2,849,343.

Van der Perk, Albert. Resistor grid. 2,849,582, 8–26–58, Cl. 201—69.

Van der Velde, William. Tiltable bed hauling device. 2,849,130, 8–26–58, Cl. 214—85.

Van Ness, William C., to The Singer Mfg. Co. Feeding mechanisms for sewing machines. 2,848,964, 8–26–58, Cl. 112—215.

Van Pelt, William: *See*—
Slaughter, Bernard J., Jr., and Van Pelt. 2,848,781.

Van Voorhis, Robert F. Pencil holder. 2,848,979, 8–26–58, Cl. 120—108.

Vanso, Marcello, to Pirelli S. p. A. Apparatus for making reinforced rubber tubing. 2,848,863, 8–26–58, Cl. 57—15.

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Varley, William J. Combination of long-barrelled firearm and safety appendage. 2,848,833, 8–26–58, Cl. 42—85.

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14: Des. 183,441
D34—15: Des. 183,431
D39— 1: Des. 183,427
D44— 7: Des. 183,434
24: Des. 183,431
D53— 3: Des. 183,418
D54—13: Des. 183,423
D67— 1: Des. 183,415
D58—26: Des. 183,424
Des. 183,433
D63— 1: Des. 183,422
D70— 1: Des. 183,428

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
August 26, 1958 Volume 733 Number 4

TRADE-MARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 85,923 (STARRETT), L. S. Starrett Co., Ball points, brad sets, tool makers' buttons, etc.; **Reg. No. 86,215**, same, Bevels, calipers, dividers, etc.; **Reg. No. 621,235** (STARRETT AND DESIGN), same, Hacksaws, band saws, hand knives, etc.; **Reg. No. 622,642** (STARRETT RED STRIPE AND DESIGN), same, Hacksaw blades; **Reg. No. 622,649** (STARRETT BLUE STRIPE AND DESIGN), same; **Reg. No. 622,650** (STARRETT GREEN STRIPE AND DESIGN), same, filed Oct. 3, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 18052, *The L. S. Starrett Co.* v. *Aaron Machinery Co., Inc. et al.* Consent judgment July 17, 1958.

Reg. No. 86,215. (See Reg. No. 85,923.)

Reg. No. 330,304 (GENERAL ELECTRIC AND DESIGN), General Electric Co., Dynamo electric machines and parts thereof etc.; filed July 23, 1958, D. C., W. D. N. Y. (Buffalo), Doc. 7925, *General Electric Co.* v. *Quaker Industries, Inc.*

Reg. No. 346,888 (SAFWAY), Uecker Equipment Co., Ladders and scaffold equipment, filed July 10, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c1268, *Safway Steel Products, Inc.* v. *Safway Steel Scaffold Co. of Illinois.*

Reg. No. 323,307 (STONE ETERNAL), Georgia Granite Corp. Granite, namely, blue granite, gray granite, etc.; **Reg. No. 352,206**, same, Stone monuments, stone memorials, etc., filed Apr. 30, 1958, D. C., S. D. Tex. (Galveston), Doc. 2520, *Coggins Granite Industries, Inc.* v. *George P. Juneman et al.* Final judgment for plaintiff July 7, 1958.

Reg. No. 352,206. (See Reg. No. 352,207.)

Reg. No. 404,642 (NODOZ), H. T. Harrison, Medical preparation in tablet form especially prepared to relieve drowsiness; **Reg. No. 543,624** (NODOZ AND DESIGN), same, filed July 15, 1958, D. C., E. D. Mich. (Detroit), Doc. 18286, *Grove Laboratories, Inc.* v. *Pacific Products Co.*

Reg. No. 441,727 (BLUE BELL'S WRANGLER), Blue Bell, Inc., Western style dungarees and pants; **Reg. No. 517,844**, same, Men's, women's, boys' and girls' work shirts; **Reg. No. 532,851**, same, Western style jackets; **Reg. No. 616,351** (WRANGLER FRONTIER JEANS), same, Ladies', girls' and kiddies' dungarees, filed July 21, 1958, D. C. Colo. (Denver), Doc. 6132, *Blue Bell, Inc.* v. *Francis and Francis et al.*

Reg. No. 517,844. (See Reg. No. 441,727.)

Reg. No. 532,851. (See Reg. No. 441,727.)

Reg. No. 543,624. (See Reg. No. 404,642.)

Reg. No. 666,018 (PLAYBOY), HMH Publishing Co., Inc., Monthly magazine; **Reg. No. 643,926** (DESIGN OF A RABBIT'S HEAD FOR PLAYBOY MAGAZINE), same, filed May 29, 1957, D. C., S. D. N. Y., Doc. 121/51, *HMH Publishing Co., Inc.* v. *Bannister Publishing Co. et al.* Consent judgment; defendants enjoined July 25, 1958.

Reg. No. 616,351. (See Reg. No. 441,727.)

Reg. No. 621,235. (See Reg. No. 85,923.)

Reg. No. 622,642. (See Reg. No. 85,923.)

Reg. No. 622,649. (See Reg. No. 85,923.)

Reg. No. 622,650. (See Reg. No. 85,923.)

CONDITION OF TRADEMARK APPLICATIONS AS OF JUNE 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 12,655
Date of oldest new application ..... Dec. 12, 1957
Date of oldest amended application ..... Nov. 16, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	12-12-57	11-16-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	1-3-58	1-2-58
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	12-16-57	1-13-58
Renewals (All Classes)	5-25-58	6-20-58
Sec. 12 (c) Publications (All Classes)	6-2-58	6-20-58

Applications Filed During the Month of June 1958—1,900

Registrations Issued ..... 291—No. 666,134 to No. 666,424
Renewals Issued 67

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

Reg. No. 643,126 (RIBNRAY), Academy Ribbon Mills, Ribbons for gift wrapping, filed July 22, 1958, D. C., S. D. N. Y., Doc. 136/50, *Speakman Co. v. Globe Importing Co.*

Reg. No. 643,936. (See Reg. No. 600,018.)

Reg. No. 645,784 (ACCENT), Oneida, Ltd., Stainless steel flat tableware; Des. 176,077, F. R. Perry, Spoon or similar article, filed July 8, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37467, *Oneida, Ltd. v. Jack E. Ellis et al.*

Reg. No. 650,649 (VESTAGLAS INC AND DESIGN), Vestaglas, Inc., Construction and repairs, filed July 11, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c1272, *Vestaglas, Inc. v. Howard Blumberg, doing business as Alumaglas.*

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 15,372. Kerr Manufacturing Company, Detroit, Mich. Filed Sept. 10, 1956.

TOOL STONE

For Gypsum Mold Material Used for Holding Bushings, Making Jigs, Etc.
First use January 1955.

SN 29,772. Freeman Chemical Corporation, Port Washington, Wis. Filed Apr. 29, 1957.

PAK-N-FOAM



For Urethane Foam Resin Packaging Material.
First use Mar. 28, 1957.

SN 32,405. Nopco Chemical Company, Harrison, N. J. Filed June 21, 1957.

INSULINING

For Polyurethane Foamed Plastics for Use as Insulation and Particularly for Use as Insulation for Clothing and Related Products.
First use May 20, 1957.

SN 33,735. Oakes Ranches, Chicago, Ill. Filed July 15, 1957.

TRU-TEST

For Live Cattle.
First use June 1, 1957.

SN 36,794. Ferry-Morse Seed Co., Detroit, Mich. Filed Sept. 6, 1957.



Owner of Reg. Nos. 534,013 and 551,380.
For Seeds—Namely, Vegetable, Flower, and Grass Seeds.
First use on or about Aug. 9, 1957.

SN 37,180. Ohio Lime Company, Woodville, Ohio. Filed Sept. 13, 1957.



For Dead Burned or Roasted Dolomite.
First use Apr. 9, 1957.

SN 44,831. Ludlow Papers, Inc., Needham Heights, Mass. Filed Jan. 28, 1958.

FLEX-L

For Plastic Film.
First use in October 1957.

SN 48,673. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Jan. 30, 1958.

MAKROLON

Owner of German Reg. No. 673,907, dated Apr. 2, 1955.
For Synthetic Plastics on the Basis of Polyurethanes, Polyamides, Polyesters, Polyvinyl- and Polydivinyl-Compounds, Copolymerisates and Mixtures of Said Substances, Silicone Resins, and High Molecular Esters as Raw Materials, and Semi-Finished Products Prepared Therefrom—Namely, Plates, Blocks, Tubes, and Foils.

SN 51,484. Michigan Peat, Inc., New York, N. Y. Filed May 12, 1958.



Owner of Reg. Nos. 579,529, 638,619, and 658,891.
For Potting Soil.
First use Feb. 1, 1950.

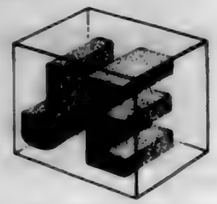
Class 2—Receptacles

SN 11,230. Container Corporation of America, Chicago, Ill. Filed June 29, 1956.



For Paperboard Shipping Containers for Use With a Flexible Liquid-Tight Bag.
First use on or about Mar. 23, 1956.

SN 27,317. J. E. Plastics Manufacturing Corp., New York, N. Y. Filed Apr. 1, 1957.



For Transparent Plastic Containers for Commercial Packaging of Consumer Articles or Goods.
First use January 1950.

SN 33,748. W. R. Richey, Shreveport, La. Filed July 15, 1957.

LIVE-PAK

For Polyethylene Bags Used for Transporting Live Bait, Live Gold Fish, or Live Tropical Fish.
First use Apr. 22, 1957.

SN 38,777. United States Borax & Chemical Corporation, Los Angeles, Calif. Filed Oct. 11, 1957.

BORAXO

Owner of Reg. No. 590,904.
For Dispensers for Powdered Hand Cleanser.
First use at least as early as 1938.

SN 40,520. West Chemical Products, Inc., Long Island City, N. Y. Filed Nov. 12, 1957.

WESTROLL

Owner of Reg. No. 568,865.
For Paper Towel and Toilet Tissue Metal Cabinets.
First use Mar. 1, 1948.

SN 42,475. H. P. Gott Manufacturing Company, Winfield, Kans. Filed Dec. 16, 1957.

TALL-BOY

For Portable Insulated Cans To Keep Fluids Hot or Cold.
First use on or about Nov. 14, 1957.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 33,730. Philip Mitchell & Sons, Inc., Brooklyn, N. Y. Filed July 15, 1957.

"TWO FOR THE MONEY"

For Combined Wallet, Billfold, and Lady's Handbag.
First use Apr. 8, 1957.

SN 45,278. Reliable Luggage, Inc., West Pittsburg, Pa. Filed Feb. 4, 1958. Sec. 2(f).

BOYLE

Owner of Reg. Nos. 342,193, 504,829, and others.
For Certain Articles Made From Leather, Fabric, Composition Materials, Plastic Materials, and Combinations Thereof—Namely, Traveling Bags, Suit Cases, Trunks, Wardrobe Cases, Brief Cases, Vanity Cases, Hat Boxes, Shoe Cases, Toilet Cases, Dressing Cases.
First use in 1851.

SN 45,442. Amity Leather Products Co., West Bend, Wis. Filed Feb. 7, 1958.

TOWNSMAN

For Men's Billfolds.
First use Jan. 2, 1958.

SN 46,115. Droutman Manufacturing Company, Brooklyn, N. Y. Filed Feb. 19, 1958.

SAC-MOBILE

For Garment Carrying Bags and Hand Carrying Cases.
First use Mar. 14, 1957.

SN 46,802. Bernard Cahn Co., Inc., New York, N. Y. Filed Feb. 28, 1958.

LITTLE MISS

For Wallets and Billfolds.
First use Mar. 4, 1957.

Class 4 — Abrasives and Polishing Materials

SN 32,515. Merion Company, Merion Station, Pa. Filed June 24, 1957.

SHINE-EASE

For Disposable Shoe Shine Kits.
First use May 5, 1956.

Class 6 — Chemicals and Chemical Compositions

SN 8,513. Stanley Home Products, Inc., Westfield, Mass. Filed May 17, 1956.

STANLEY

For Moth Cakes; Perfumed Crystals; Bowl Deodorants; Moth Sprays, Insecticides, and Disinfectants, Moth Proofing Rinses, Liquid Insecticides and Disinfectants; Air or Room Deodorants; Refrigerator Deodorizers.
First use Sept. 15, 1931.

SN 26,772. Chemurgy Products, Inc., Greenville, S. C. Filed Mar. 25, 1957.

NU-SHEEN

For Liquid Starch.
First use July 1, 1956.

SN 33,080. Charles Eneu Johnson Carbon Black Company, Charleston, W. Va. Filed July 2, 1957.

ATLANTIC

For Carbon Black Having a General Use in the Industrial Arts.
First use Dec. 15, 1929.

SN 35,578. General Aniline & Film Corporation, New York, N. Y. Filed Aug. 15, 1957.

DIAMINOGEN

For Dyestuffs.
First use on or about Dec. 31, 1925.

SN 35,584. General Aniline & Film Corporation, New York, N. Y. Filed Aug. 15, 1957.

OXYDIAMINOGEN

For Dyestuffs.
First use on or before Dec. 31, 1926.

SN 38,555. Montecatini, Societa Generale per l'Industria Mineraria e Chemica, Milan, Italy. Filed Oct. 8, 1957.

MOPLEN

Priority claimed under Sec. 44(d) on Italian application filed Apr. 18, 1957; Reg. No. 133,573, dated Oct. 2, 1957.
For Synthetic Resins.

SN 38,808. Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt (Main), Germany. Filed Oct. 14, 1957.

PROVENTIN

Owner of German Reg. No. 854,901, dated July 23, 1926.
For Organic Nitrogen Compounds for Treatment of Polyamides and Fibers, Foils and Other Shaped Bodies of Polyamides to Protect Them Against Oxidative Attack.

SN 39,389. Easy Glitter Wax Company, West Palm Beach, Fla. Filed Oct. 23, 1957.

EASY GLITTER

For Fog Inhibitor.
First use October 1956.

SN 41,228. The Baker Castor Oil Company, Bayonne, N. J. Filed Nov. 25, 1957.

POLYCIN

Owner of Reg. No. 542,247.
For Castor Oil, Dehydrated Castor Oil, Soy Bean Oil, and Other Vegetable Oils, All of Which Are in the Form of Solid Gels, or Solutions or Dispersions of Said Gels.
First use June 8, 1948, on solid gels.

SN 41,819. Philip A. Hunt Company, Palisades Park, N. J. Filed Dec. 5, 1957.

GRAPH-O-TONE

Owner of Reg. No. 594,400.
For Photographic Developer.
First use in March 1957.

SN 42,133. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company, Rochester, N. Y. Filed Dec. 10, 1957.

HALOID XEROX

Owner of Reg. Nos. 576,118 and 661,809.
For Xerographic Developers, Toners, and Chemicals for Fusing; Photographic Developer and Fixing Chemicals.
First use Nov. 29, 1957.

SN 42,863. The B. F. Goodrich Company, Akron, Ohio. Filed Dec. 23, 1957.

SUPERFLEX

For Non-Staining Anti-Oxidants for Rubber and Other Oxidizable Organic Substances.
First use Nov. 29, 1956.

SN 43,789. Tennessee Corporation, New York, N. Y. Filed Jan. 10, 1958.

THIOPON

For Synthetic Resins Comprising Epoxy Ethers of Polyhydroxy Polyaryl Sulfones.
First use Nov. 4, 1957.

SN 43,815. The American Oil Company, New York, N. Y. Filed Jan. 14, 1958.

AMOCO

Owner of Reg. Nos. 408,193, 167,760, and others.
For Lighter Fluid.
First use Nov. 1, 1946.

SN 43,955. National Aluminate Corporation, Chicago, Ill. Filed Jan. 14, 1958.

NALCOMO

For Catalysts.
First use Sept. 20, 1957.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 30,015. J. L. Galef & Son, Inc., New York, N. Y. Filed May 14, 1957.

LIGHTNING

For Pistols.
First use Dec. 8, 1956.

Class 10 — Fertilizers

SN 45,084. Texas Farm Products Company, Nacogdoches, Tex. Filed Jan. 31, 1958.



The drawing is lined for red and blue. Owner of Reg. Nos. 295,169 and 278,243.
For Fertilizers.
First use in the year 1946.

SN 47,097. Campbell Fertilizer Company, Inc., Houston, Tex. Filed Mar. 5, 1958.



Applicant disclaims the words "Organic Base" and "Fertilizer."
For Fertilizer.
First use Aug. 14, 1950.

SN 49,311. The Stadler Fertilizer Company, Cleveland, Ohio. Filed Apr. 8, 1958.



For Combination Weed Control and Lawn Food.
First use Jan. 20, 1958.

SN 49,606. Northrup, King & Co., Minneapolis, Minn. Filed Apr. 14, 1958.

NORTHRUP KING

For Fertilizers.
First use Feb. 1, 1951.

SN 49,881. Stern's Nurseries, Inc., Geneva, N. Y. Filed Apr. 17, 1958.

MIRACID

For Plant Food.
First use July 7, 1952.

SN 49,985. Smith-Douglas Company, Incorporated, Norfolk, Va. Filed Apr. 18, 1958.

TREL

For Fertilizers and Fertilizer Ingredients.
First use Jan. 23, 1958.

SN 50,182. Organics, Incorporated, Denver, Colo. Filed Apr. 22, 1958.

THE REAL McCOY

For Lawn Fertilizer and Weed-Free Manure.
First use Apr. 15, 1958.

SN 50,253. Smith-Douglass Company, Incorporated, Norfolk, Va. Filed Apr. 23, 1958.

SmiDO

For Fertilizers.
First use at least as early as 1943.

SN 50,810. Lone Star Cotton Company, Lubbock, Tex. Filed May 1, 1958.

PEP-SOIL

For Soil Conditioner.
First use Apr. 1, 1958.

SN 51,158. Wilson & Toomer Fertilizer Co., Jacksonville, Fla. Filed May 6, 1958.

FLORAGANIC

For Plant Food.
First use Oct. 12, 1957.

SN 51,483. Michigan Peat, Inc., New York, N. Y. Filed May 12, 1958.



Owner of Reg. Nos. 645,963, 645,964, and 658,426.
For Peat Used as a Soil Conditioner.
First use Feb. 1, 1950.

SN 51,596. Smith-Douglass Company, Incorporated, Norfolk, Va. Filed May 13, 1958.

27 GRAN

For Fertilizers.
First use Jan. 27, 1958.

SN 51,770. A. B. Chrisman Grain Company, Meredosia, Ill. Filed May 16, 1958.

ABC

For Plant Food.
First use in March 1955.

SN 52,550. Armour and Company, Chicago, Ill. Filed May 29, 1958.

ARMORGANIC

For Fertilizers.
First use Dec. 29, 1956.

Class 11 — Inks and Inking Materials

SN 25,280. Readex Process, Inc., New York, N. Y. Filed Feb. 28, 1957.



For Carbon Paper, Business Machine Ribbons, and Typewriter Ribbon.
First use Aug. 15, 1956.

SN 38,915. The Fulton Marking Equipment Company, Inc., Elizabeth, N. J. Filed Oct. 15, 1957.

WARRIOR

For Rubber Stamps, Stamp Pads, Daters, and Inks.
First use June 28, 1949.

SN 42,682. Willpac, Inc., Long Island City, N. Y. Filed Dec. 18, 1957.



For Printing Inks.
First use Dec. 2, 1957.

SN 44,262. Claremont Pigment Dispersion Corporation, Roslyn Heights, N. Y. Filed Jan. 20, 1958.

MAXIPRINT

For Printing Inks.
First use Sept. 24, 1957.

SN 44,438. Codo Manufacturing Corporation, Leetsdale, Pa. Filed Jan. 22, 1958.

ELECTRO WRITE

For Carbon Paper.
First use Sept. 19, 1957.

SN 45,079. Sun Chemical Corporation, Long Island City, N. Y. Filed Jan. 31, 1958.

SPLIT SEC

For Printing Inks.
First use Jan. 17, 1958.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 27,675. Dexter Industries, Inc., Grand Rapids, Mich. Filed Apr. 8, 1957.

DEXLOCK

Owner of Reg. No. 652,388.
For Passage Sets.
First use Jan. 4, 1957.

SN 29,780. Beauty Products, Ltd., d. b. a. Funco Products, Denver, Colo. Filed May 10, 1957.

FISHBONE

For Connector for Joining Wood Parts.
First use Aug. 15, 1956.

SN 31,005. Grove Valve and Regulator Company, Oakland, Calif. Filed May 29, 1957.

FLEX-FLO

For Valves and Regulators for the Control of Fluids and/or Gases.
First use Nov. 1, 1943.

SN 42,739. Swingline, Inc., New York, N. Y. Filed Dec. 19, 1957.

TOT

Owner of Reg. No. 368,985.
For Staples.
First use May 4, 1938.

SN 42,945. Swingline, Inc., Long Island City, N. Y. Filed Dec. 23, 1957. Sec. 2(f).



Owner of Reg. No. 416,025.
For Staples, Tacks, and Double Pronged Fasteners Adapted To Be Used in Stapling Machines and Tackers.
First use July 10, 1936.

SN 44,701. The Gilbert & Bennett Mfg. Co., Georgetown, Conn. Filed Jan. 27, 1958.

TRIPLE PACK

For Woven Galvanized Steel Wire Hexagon Mesh Fabric Sold in Rolls, Commonly Known as Chicken Wire or Chicken Netting.
First use Jan. 24, 1958.

SN 44,820. Hercules Plastics Corp., New York, N. Y. Filed Jan. 28, 1958.

WATERATOR

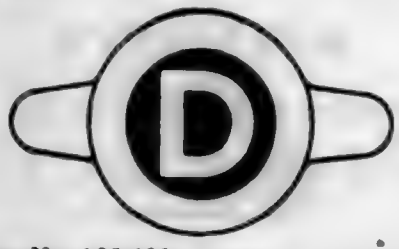
For Back-Check Valves.
First use Jan. 15, 1958.

SN 45,008. Aerator Sales Corp., Chicago, Ill. Filed Feb. 3, 1958.

AER-LINER

For Toilet Tank Liner Made of Insulating Material.
First use Jan. 6, 1958.

SN 45,146. Detroit Brass & Malleable Co., Cleveland, Ohio. Filed Feb. 3, 1958.



Owner of Reg. No. 166,401.
For Malleable Fittings, Cast Iron Fittings, Drainage Fittings.
First use in 1904.

SN 45,152. E–Z Just Hinge Company, Los Angeles, Calif. Filed Feb. 3, 1958.

E-Z JUST

For Hinges.
First use Dec. 3, 1957.

SN 45,200. Revere Copper and Brass Incorporated, New York, N. Y. Filed Feb. 3, 1958.

REVALON

For Non-Ferrous Metal Tubes.
First use in 1936.

SN 45,436. Rudolf Kellermann Fabrik fuer Gewindeteile, Schraubenfabrik, Osterode (Harz), Germany. Filed Feb. 6, 1958.

KAMAX

Owner of German Reg. No. 600,389, dated July 19, 1950.
For Hexagon-Head Steel Screws and Threaded Parts of High Strength Properties.

Class 14—Metals and Metal Castings and Forgings

SN 28,901. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed Apr. 25, 1957.

SC SPECIAL

No claim is made to the word "Special" except in association with the letters "SC."
For Tool Steel in the Form of Annealed or Heat Treated Billets, Bars, Sheets and Plates, Circles, Stamped or Cut From Plates or Sheets for Use in Fabricating Into Such Articles as Circular Saws, Circular Knives, Tools and Dies for Hot Work, Tools and Dies for Hot and Cold Extrusion, Hot Forging, for Hot and Cold Stamping and the Like; and Disc and Ring and Shaped Forgings Forged on a Steam Hammer, Drop Hammer or Press From Rolled or Preforged Stock, for Use in Fabricating Into Tools and Dies for Hot and Cold Work and the Like.
First use Jan. 15, 1941.

Class 15—Oils and Greases

SN 695,545. Great West Lubricants, Inc., Fort Worth, Tex. Filed Sept. 29, 1955. Sec. 2(f).

TUBE-O-LUBE

For Lubricating Grease.
First use July 12, 1955.
Subj. to Intf. with Reg. No. 659,512.

SN 32,761. S. C. Johnson & Son, Inc., Racine, Wis. Filed June 27, 1957. Sec. 2(f).

JOHNSON'S

For Metal Working Preparations for Use as Lubricants and/or Coolants.
First use Nov. 12, 1946.

SN 33,130. Continental Oil Company, Ponca City, Okla. Filed July 3, 1957.

EGGOL

For White Mineral Oil.
First use Apr. 5, 1945.

SN 35,710. Universal Oil Products Company, Des Plaines, Ill. Filed Aug. 16, 1957.

ALKAR

For Aromatic Compounds Such as Ethylbenzene, Propylbenzene, and Butylbenzene Used as an Intermediate in the Manufacture of Chemicals, as a Blending Component in Gasoline, or as a Solvent.
First use June 25, 1957.

SN 40,902. Western Oil and Fuel Company, Minneapolis, Minn. Filed Nov. 18, 1957.

WESTERN

For Gasolines, Distillate Fuel Oils, Jet Fuel Oil, Residual Fuel Oils, Lubricating Oils, Greases, Hydraulic Oils, Asphalt and Road Oils, All Petroleum Products.
First use Feb. 20, 1957.

SN 42,549. The Standard Oil Company, Cleveland, Ohio. Filed Dec. 16, 1957.

SOHIPEN

For Grease.
First use Feb. 1, 1957.

SN 43,986. United Candle Company, Inc., New York, N. Y. Filed Jan. 14, 1958.

Celestial

For Candles.
First use Nov. 15, 1957.

SN 44,568. The Texas Company, New York, N. Y. Filed Jan. 23, 1958.

TEXACO

Owner of Reg. Nos. 57,902, 150,620, and others.
For Gasoline, Naptha, Lubricating Grease, Cutting Oil, Hydraulic Transmission Oil, Diesel Fuel, Petroleum Wax, Coal Spray Oil, Aircraft Engine Preservative Oil, Jet Engine Fuel, Flushing Oil, Absorption Oil and Petroleum Base Flux Concentrate, Motor Detergent Concentrate, Rust Inhibitor, Rust-Proof Compound and Anti-Rust Concentrate.
First use about 1908 on lubricating grease.

Class 16—Protective and Decorative Coatings

SN 48,630. Grand Rapids Varnish Corporation, Grand Rapids, Mich. Filed Mar. 28, 1958.

KEGN

For Coating Composition.
First use Feb. 18, 1958.

SN 48,740. Gulf States Paint Co., Houston, Tex. Filed Mar. 31, 1958.

VEP

For Polyvinyl Emulsion Plastic Paints and Polyvinyl Emulsion Plastic Paint Additives.
First use February 1955.

Class 18—Medicines and Pharmaceutical Preparations

SN 30,453. The Stanley Research Corporation, Fairfield, Conn. Filed May 21, 1957.

STAN
Dispensatab

For Medicated Sticks for External Skin Application, for Pimples, Acne, and Minor Rashes.
First use Mar. 1, 1957.

SN 35,289. Plough, Inc., Memphis, Tenn. Filed Aug. 9, 1957.

Chap-Ade

For Medicated Lip Pomade for the Relief of Chapped Lips.
First use July 16, 1957.

SN 45,725. The Dow Chemical Company, Midland, Mich. Filed Feb. 12, 1958.

NARLENE

For Organic Phosphorus Product for Veterinary Use, Especially for the Control of Internal Parasites in Livestock.
First use Dec. 11, 1957.

SN 46,503. Sterling Drug Inc., d. b. a. Winthrop Laboratories, New York, N. Y. Filed Feb. 24, 1958.

MILVONIQUE

For Veterinary Preparation Used in the Treatment of Mange and Other Skin Diseases.
First use Feb. 6, 1958.

Class 19—Vehicles

SN 31,401. Kreidler's Metall-U. Drahtwerke G. m. b. H., Stuttgart-Zuffenhausen, Germany. Filed June 5, 1957.

AMAZONE

Owner of German Reg. No. 666,102, dated Nov. 9, 1954.
For Motor Cars; Motor Cycles; Motor Bicycles; and Parts Thereof—Namely, Frames, Forks, Pedals, Wheel Rims; and Accessories Thereto—Namely, Headlights, Fuel Tanks, Fenders, and Package Carriers.

SN 35,696. Societh Applicazioni Gomma Antivibranti "S. A. G. A." S. p. A., Milan, Italy. Filed Apr. 21, 1958.

ELIPRESS

Owner of Italian Reg. No. 132,563, dated May 27, 1957.
For Antivibrating Supports and Springs for Vehicles.

SN 44,286. Hub-O-Matic, Inc., Spokane, Wash. Filed Jan. 20, 1958.

HUB-O-MATIC

For Vehicle Wheel Balancers Attached to Vehicle Wheels.
First use Nov. 8, 1956.

SN 46,458. Kolcraft Products, Inc., Chicago, Ill. Filed Feb. 24, 1958.

KOLCRAFT

For Car Seats and Car Beds.
First use in June 1945.

SN 46,484. Robertson Manufacturing Company, Incorporated, Moberly, Mo. Filed Feb. 24, 1958.

ROC-OK

For Laminated Trailer and Truck Flooring.
First use Nov. 15, 1957.

SN 46,555. Melvin R. Kroeder, d. b. a. Yellowstone Coach Company, Wakarusa, Ind. Filed Feb. 25, 1958.

YELLOWSTONE

For Travel Trailers and Mobile Homes.
First use Apr. 1, 1947.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 27,416. Bobrich Products Corp., New York, N. Y. Filed Apr. 3, 1957.

BOBRICH

Owner of Reg. No. 441,811.
For Electric Bedcovering and Electric Pads.
First use in January 1951.

SN 43,017. Electrical Engineers Equipment Co., Melrose Park, Ill. Filed Dec. 26, 1957.

ISO-DUCT

For Electrical Switchgear Units Including Switches, Potheads, Fittings, Conduits and Conductors in Various Combinations and Arrangements.
First use Oct. 28, 1957.

SN 43,098. Good-All Electric Mfg. Co., Ogallala, Nebr. Filed Dec. 27, 1957.



For Capacitors, Rectifiers, Solenoids, and Soldering Machines.
First use Sept. 1, 1957.

SN 43,135. Belden Manufacturing Company, Chicago, Ill. Filed Dec. 30, 1957.

POLYSIL

For Electrical Wire.
First use Apr. 1, 1955.

SN 43,261. Metalcraft Products Company, Inc., Philadelphia, Pa. Filed Dec. 31, 1957.

AURORA

For Commercial Fluorescent Lighting Fixtures.
First use in September 1954.

SN 43,307. The Firestone Tire & Rubber Company, Akron, Ohio. Filed Jan. 2, 1958.

ARC

For Storage Batteries.
First use Feb. 1, 1942.

SN 43,336. Packard Bell Electronics Corporation, Los Angeles, Calif. Filed Jan. 2, 1958.

PORTA-BELL

For Portable Television Sets.
First use Nov. 22, 1957.

SN 43,348. Silver Ray Tube Manufacturing Co., Chicago, Ill. Filed Jan. 2, 1958.

SILVER RAY

For Rebuilt Television Picture Tubes.
First use May 15, 1955.

SN 43,441. Elkem Corporation, Dublin, Calif. Filed Jan. 6, 1958.

ELKEM

For Solenoid Valves.
First use on or about May 5, 1957.

SN 43,498. Kondo Electrical Industrial Company Limited (Kondo Denkikogyo Kabushikikaisha), Setagaya-ku, Tokyo, Japan. Filed Dec. 2, 1957.



Owner of Japanese Reg. No. 306,446, dated Oct. 18, 1946.
For Projection Lamps, Spotlight Lamps, Photo Lamps, Exciter Lamps, Studio Lamps, Projector Lamps, Reflector Lamps, and All Other Lamps and Bulbs.

Class 22—Games, Toys, and Sporting Goods

SN 12,508. Higbie Manufacturing Company, Rochester, Oakland County, Mich. Filed July 20, 1956. Sec. 2(f) as to "Bronson."

BRONSON SPIN KING

Owner of Reg. Nos. 626,487 and 635,851.
For Fishing Tackle viz.: Fishing Reels.
First use Feb. 21, 1956; during the year 1924 as to "Bronson."

SN 29,652. The Philip S. Olt Company, Pekin, Ill. Filed May 8, 1957. Sec. 2(f).



No claim to exclusive right is made to "Game Calls" as used on game calls.
For Duck Calls, Crow Calls, Hawk Calls, Goose Calls, Quail and Turkey Calls.
First use Mar. 1, 1951.

SN 30,965. Texas Water Crafters, Wichita Falls, Tex. Filed May 28, 1957.

SKI-MASTER

For Life Belts Having Buoyancy in Water, and Buoyant Boat Cushions, and Ski Tow Ropes.
First use July 1, 1956.

SN 39,052. Ero Manufacturing Company, Chicago, Ill. Filed Oct. 17, 1957.

E-Row TRIM-SLIM

For Rowing Machines for Exercising Purposes.
First use on or about Sept. 20, 1957.

SN 39,227. The Hettrick Manufacturing Company, Toledo, Ohio. Filed Oct. 21, 1957.

HETTRICK
Ship Mate

Owner of Reg. Nos. 508,943 and 516,706.
For Buoyant Seat Cushions for Marine Use.
First use Sept. 10, 1957.

SN 40,121. Allan Herschell Company, Inc., North Tonawanda, N. Y. Filed Nov. 5, 1957.



For Park and Carnival Amusement Ride Devices.
First use on or about Oct. 1, 1957.

SN 41,271. James Heddon's Sons, Dowagiac, Mich. Filed Nov. 25, 1957.

FIRETAIL

For Artificial Fish Lures.
First use Nov. 19, 1957.

SN 41,460. Stephen Lipka, Melbourne, Fla. Filed Nov. 27, 1957.

Millboat

For Floating Boat-Shaped Toy for Holding Miniature Drinking Receptacles.
First use Nov. 18, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 24,219. Wolfram & Molybdene Société Anonyme, Nyon, Switzerland. Filed Feb. 11, 1957.

STELLRAM

Owner of Swiss Reg. No. 127,645, dated Jan. 24, 1940; and U. S. Reg. No. 552,666.
For Tools—Namely, Tipped or Non-Tipped of Cemented or Cast Carbides of Great Hardness, Reamers, Drills, Cutters and Lathe Tools, Drawing Tools and Dies.

SN 36,410. Volck-Nu-Matic Corporation, Brooklyn, N. Y. Filed Aug. 15, 1957.

VOLCK-NU-MATIC

The drawing is lined for red.
For Portable Rotary Air Powered Industrial Brushing Tool.
First use Mar. 12, 1956.

SN 37,771. Bizerba-Waagenfabrik Wilhelm Kraut Kg., Balingen, Wurttemberg, Germany. Filed Sept. 25, 1957.

BIZERBA

Owner of German Reg. Nos. 263,701, 603,342, and 707,568, dated Apr. 19, 1921, Dec. 15, 1950, and Oct. 22, 1957, respectively.
For Comminuting Machines, in Particular Coffee Mills, Machines for Chopping Meat, Cutting Vegetables and Slicing Bread, Machines for Slicing Cheese, Ham and Sausage, Tensioning Arrangements on Machine Tools, Number Printing Mechanisms.

SN 41,761. Geo. W. King Limited, Hertfordshire, England. Filed Dec. 4, 1957.



Owner of British Reg. No. 696,994, dated Mar. 22, 1951.
For Conveyors (Machines), Cranes, Electric and Hand Operated Pulley Blocks, Chaff Cutting Machines, Apparatus for Lifting Sacks, Elevators, Agricultural Implements of the Larger Kind, Overhead Runways (Being Parts of Conveying Plant), and Parts of and Fittings for All the Aforesaid Goods.

SN 45,496. Scottish Tool, Die & Metal Products Company, Cleveland, Ohio. Filed Feb. 7, 1958.



For Dies for Stamping Metal.
First use May 12, 1955.

SN 45,781. Bird Machine Company, South Walpole, Mass. Filed Feb. 13, 1958.

CYCLEAN

For Centrifugal Separators.
First use Jan. 13, 1958.

SN 48,590. Solingen Steel Distributors, Inc., New York, N. Y. Filed Mar. 27, 1958.

SOSTEEL

For Meat Grinding Knives and Holder Thereof.
First use Dec. 1, 1957.

SN 48,595. Uniflex Engineering, Inc., Elgin, Ill. Filed Mar. 27, 1958.

FABROLAY

For Plastic Bending and Laminating Machines, Cove Press Machines, Countertop Forming Machines and Miter Cutting Equipment.
First use on or about Oct. 1, 1957.

SN 48,644. Millers Falls Company, Greenfield, Mass. Filed Mar. 28, 1958.

BLU-MOL

Owner of Reg. No. 621,165.
For Saw Blades.
First use July 20, 1933.

SN 48,681. American Iron & Machine Works Company, Inc., Oklahoma City, Okla. Filed Mar. 31, 1958.



Owner of Reg. Nos. 216,830 and 354,208.
For Oil Field Equipment Including: Bailers, Break-Out Blocks, Blow-Out Preventers, Core Barrels, Core Bits, Crown-Blocks, Cat-Heads, Draw-Works, Drilling Rigs, Drill Bits, Engine Bases, Engine Braces, Engine Pistons, Mud-Pump Valves, Mud Line Fittings, Inside Pipe-Cutters, Pipe Racking Apparatus, Pipe Swivels, Pipe-Tongs, Rocker Arms, Releasing Joints, Rotary Tables, Shale Separators, Sheaves, Water Cooling Apparatus for Brake-Drums, Drill Collars, Tool Joints, Packer Hold-Downs, Water Softening Apparatus of a Mechanical Nature and Exclusive of Traps, for Introducing Chemicals to Boiler Feed Water, Whipstocks, Wrenches, Flow-Beans, Paraffin Removing Apparatus, Pressure Flow Apparatus for Wells, Sucker-Rod Couplings, Sucker-Rod Guides, Sucker-Rod Reciprocating Apparatus, Wall Packers, Well Pumps, Casing Heads, Tubing Supports, Tubing Heads, and Metal Portable Tool Houses, Valves and Valve Parts.
First use Jan. 16, 1957.

Class 26—Measuring and Scientific Appliances

SN 603,757. The Lufkin Rule Company, Saginaw, Mich. Filed Aug. 26, 1955.

BETTER MEASURE WITH

LUFKIN

Owner of Reg. No. 518,890.
For Measuring Tools and Equipment—Namely, Precision Tools and Gauges Comprising: Micrometers, Depth Gauges, Squares, Indicators, Planar Gauges, Center Gauges, Protractors, Universal Bevels, Calipers, Dividers, Telescope Gauges, Radius Gauges, Screw Pitch Gauges, Thickness Gauges, Universal Surface Gauges, V-Blocks, Pocket Scribers; and Measuring Tapes and Rules.
First use September 1952.

SN 16,299. F. J. Sirchie, d. b. a. Sirchie Finger Print Laboratories, Berlin, N. J. Filed Oct. 12, 1956.



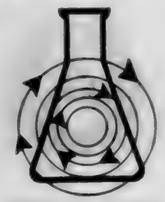
For Fingerprinting Apparatus, Equipment and Supplies.
First use 1935.

SN 16,968. Milton Roy Company, Philadelphia, Pa. Filed Oct. 4, 1956.

$-\Delta P$

The mark when spoken is pronounced "Minus Delta P."
For Controlled Volume Pumping Apparatus.
First use May 14, 1956.

SN 18,451. New Brunswick Scientific Company, New Brunswick, N. J. Filed Oct. 30, 1956.



For Laboratory Apparatus—Namely, Shakers, Rotary Action Flask Shakers, Double Tier Shakers, Rotary Action Constant Temperature Water Bath Shakers, Reciprocating Shaker Baths, Tier Type Reciprocating Shakers, and Fermentors.
First use May 25, 1950.

SN 19,710. U. D. A. Inc., St. Louis, Mo. Filed Nov. 21, 1956.

LOTT

For Photographic Supplies—Namely, Negative and Print Washers, Print Dryers, and Film Dryers.
First use Apr. 26, 1947.

SN 20,862. William L. Davis, Lombard, Ill. Filed Dec. 4, 1956.

PIN MIKE

For Micrometers.
First use Nov. 7, 1956.

SN 21,372. W. & L. E. Gurley, Troy, N. Y. Filed Dec. 20, 1956. Sec. 2(f).

W. & L. E. GURLEY

Owner of Reg. No. 633,148.
For Engineering Instruments and Surveying Instruments, i. e. Theodolites, Transits, Levels, Compasses, Alidades, Plane Tables, Leveling Rods, Stadia Rods, Range Poles; Accessories and Field Equipment for Surveyors—Namely, Hand Levels and Plummets; Hydrological Instruments, i. e. Water Level Recorders, Water Level Indicators, Current Meters and Hook Gages; Testing Instruments for Papers and Textiles; Standard Weights and Measures; Meteorological Instruments, i. e. Anemometers, Wind Direction Instruments, Wind Direction and Velocity Recorders and Pilot Balloon Theodolites; and Optical Instruments, i. e. Bore Inspection Telescopes, Collimators and Telescopes; Lenses, Prisms, Mirrors, Flats and Reticles.
First use 1852.

SN 22,132. Rapp Foreign Trade Corp., New York, N. Y. Filed Jan. 4, 1957.

NEPTUNE

For Portable Depth Gauges, Portable Depth Gauges Attachable to the Wrist of Skin Divers, and Portable Depth Gauge-Fluid Compass Units for Use by Skin Divers.
First use Jan. 31, 1956.

SN 22,923. Ichizuka Kōgaku Kōgyō Kabushikigaisha, Shinjuku-ku, Tokyo, Japan. Filed Jan. 22, 1957.

IZUKAR

Owner of Japanese Reg. No. 461,435, dated Mar. 5, 1955.
For Optical Lenses for Use in Photographic Cameras, Projectors, Telescopes, Microscopes, and Photographic Cameras, Projectors, Telescopes, Microscopes.

SN 24,280. The Standard Electric Time Company, Springfield, Mass. Filed Feb. 12, 1957. Sec. 2(f).

STANDARD

For Electric, Electro-Mechanical and Electronic Systems, Equipments, and Instruments—Namely, Speed and Time Measuring Devices, Analogue Computers.
First use July 17, 1937.

SN 25,311. Bulova Research & Development Laboratories, Inc., Woodside, N. Y. Filed Mar. 1, 1957.

BULOVA

For Torqmeters, Dynamometers, Horsepower Indicators, Autostrobes (High Speed Stroboscopes), Spin Rigs (Electrically Powered Centrifugal Force Test Instruments), Magnetic Materials Analysers, and Operating Parts Thereof.
First use Dec. 7, 1955.

SN 25,791. Servo Corporation of America, New Hyde Park, N. Y. Filed Mar. 8, 1957.

SERVO

Owner of Reg. Nos. 542,274, 338,806, and 651,543.
For Control Equipment, Measuring Instruments and Testing Devices—Namely, Analysing and Testing Apparatus for Servomechanisms; Bolometers, Oscilloscope Indicators; Automatic Piloting Equipment, Including Homing Devices and Associated Sensing and Measuring Elements for Guidance of Aircraft; Radio Direction Finders; Temperature and Radiation Measuring Calibrating and Control Apparatus; Control System Synthesis and Test Equipment—Namely, Electro-Mechanical Assembly Kits Comprising Mechanical and Electrical Parts for the Breadboard Rigging and Testing of Servomechanisms and Control Systems; Industrial Process Measurement and Control Apparatus.
First use Nov. 24, 1954.

SN 27,293. General Aniline & Film Corporation, New York, N. Y. Filed Apr. 1, 1957.

ACTIFILM

For Light-Sensitive Diazotype Film and Paper.
First use Mar. 19, 1957.

SN 28,554. Sperry Rand Corporation, New York, N. Y. Filed Apr. 19, 1957.

UNIVAC SCIENTIFIC

For Electronic Computing Apparatus and Components Thereof.
First use Sept. 5, 1956.

SN 28,594. Robert C. Graham, d. b. a. The Safelite Company, Pasadena, Calif. Filed Apr. 22, 1957.



For Lenses for Optical Use.
First use Jan. 3, 1957.

SN 28,804. Goetz Schrader, d. b. a. Plaubel Feinmechanik und Optik, Frankfurt am Main, Germany. Filed Apr. 24, 1957.

MAKIFLEX

Owner of German Reg. No. 520,476, dated Apr. 12, 1940; and U. S. Reg. Nos. 297,999 and 334,332.
For Optical Apparatus, Instruments and Implements, Photographic and Cinematographic Cameras and Reproducing Apparatus of All Kinds—Namely, Mirror Reflex Cameras and Parts Therefor, Objectives, Lenses, Ancillary Lenses, Lens Carriers, Ground Glass Equipment, Projectors and Parts Therefor, Illuminating Lenses and Lens Systems.

SN 28,978. Tru-Space, Inc., Renton, Wash. Filed Apr. 26, 1957.

Tru-Space

For Layout Tape and Strip for Determining the Spacing of the Brick in Brick and Mortar Construction.
First use Mar. 1, 1956.

SN 29,215. Industrial Nucleonics Corporation, Columbus, Ohio. Filed May 1, 1957.

AccuTrol

Owner of Reg. Nos. 585,217 and 631,750.
For Automatic Controlling Equipment for Regulating Industrial Processes.
First use Mar. 18, 1957.

SN 29,220. Oakton Engineering Corporation, Skokie, Ill. Filed May 1, 1957.

robovision

For Picture Projector With Sound Reproducing Mechanism.
First use Mar. 1, 1957.

SN 29,603. The Standard Register Company, Dayton, Ohio. Filed May 8, 1957.

STANOMATIC

For Electronic Code Sensing Apparatus.
First use Sept. 21, 1956.

SN 30,133. Cutler-Hammer, Inc., Milwaukee, Wis., assignee of Airborne Instruments Laboratory, Incorporated, Mineola, N. Y. Filed May 16, 1957.

MODAC

For Electronic Data Processing Equipment Including Electronic Digital Computers and Components Thereof and Accessories Therefor.
First use June 1954.

SN 30,637. Clairol, Incorporated, Stamford, Conn. Filed May 24, 1957.

RINSE BAR

For Automatic Measuring Dispensers Combined With Display Stands for Liquid Hair Treating Preparations.
First use May 16, 1957.

SN 31,873. Seneca Falls Machine Company, Seneca Falls, N. Y. Filed June 12, 1957.

CYCLESAFE

For Lubrication Pressure Failure Responsive Machine Control Comprising an Electrical Pressure Switch and Pressure Regulator.
First use Sept. 5, 1956.

SN 32,772. Piclear, Inc., Mamaroneck, N. Y. Filed June 27, 1957.

PICLEAR

For Photographic Film Scratch Removing and Cooling Apparatus and Fluid Therefor.
First use in or about November 1956.

SN 36,660. Industrial Gauge & Instrument Co., Inc., New York, N. Y. Filed Sept. 4, 1957.



For Industrial Gauges.
First use May 1952.

SN 36,757. Tobe Deutschmann Corporation, Norwood, Mass. Filed Sept. 5, 1957.

TELEMETROSCOPE

For Electrical Testing Instruments for Fault Finding in Electrical Lines and Cables.
First use Nov. 20, 1946.

SN 36,839. Bailey Meter Company, Cleveland, Ohio. Filed Sept. 9, 1957.

STANDATROL

For Regulating and Control Apparatus for Automatically Controlling an Operation Responsively to the Fluctuations of One or More Variable Conditions.
First use May 12, 1936.

SN 41,857. Tokyo Shibaura Electric Company Limited, Horikawa-cho, Kawasaki-shi, Japan. Filed Dec. 5, 1957.

Toshiba

Owner of Japanese Reg. No. 404,029, dated Oct. 13, 1951.
For Electric Meters, Oscillographs, Electric Computers, Electronic Computers, Electric Network Analyzers, Transient Analyzers, Radio Beacon Apparatus, Radio Range Apparatus, Radio Direction Finders, Radars, High Frequency Measuring Apparatus, Electro-Cardiographs, Electro-Encephalographs, Mass Spectrometers, Radiation Measuring Apparatus, Telemetering Equipments, Dynamic-Balance Measuring Equipments, Electric Microscopes, Transmission Line Fault Locating Apparatus and Electric Exploration Apparatus.

SN 42,922. Romal Electric Products Co., Inc., New York, N. Y. Filed Dec. 23, 1957.

Vanguard

For Photographic Equipment—Namely, Electronic Photoflash Apparatus for Providing a High Intensity Light Source When Taking Black and White and Color Photographs.
First use Nov. 20, 1957.

SN 43,815. Florence M. Chapman, d. b. a. Chapman's Idea House, Oakland, Calif. Filed Jan. 13, 1958.

MAGNA-LINE

For Sliding Magnifiers for Books, Sheets of Paper and the Like.
First use Feb. 6, 1957.

SN 44,704. John R. Goldsmith, Berkeley, Calif. Filed Jan. 27, 1958.

PUFF METER

Applicant disclaims the word "Meter" apart from the mark as shown.
For Device for Measuring Respiratory Function.
First use in 1957.

SN 46,681. Shepard J. Wilder, Concord, N. H. Filed Feb. 26, 1958.



For Eyeglass Case Clip.
First use Feb. 6, 1957.

Class 29—Brooms, Brushes, and Dusters

SN 41,058. The Wooster Brush Company, Wooster, Ohio. Filed Nov. 20, 1957.



For Paint Roller Covers.
First use Sept. 10, 1957.

Class 31—Filters and Refrigerators

SN 48,606. Lena A. Bennett, d. b. a. Appliance Specialty Co., Minneapolis, Minn. Filed Mar. 28, 1958.

RUSTRAP

For Water Filters.
First use May 16, 1957.

SN 48,696. Borg-Warner Corporation, Chicago, Ill. Filed Mar. 31, 1958.

"SWING-N-SERVE"

For Refrigerators, Freezers and Accessories, and Parts Thereof for Replacement and Repair.
First use on or before Dec. 1, 1957.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 27,157. Whirlpool Corporation, St. Joseph, Mich., by change of name from Whirlpool-Seeger Corporation, St. Joseph, Mich. Filed Mar. 28, 1957.

FSP

For Replacement Parts for Gas Ranges.
First use Mar. 1, 1957.

SN 27,689. G. A. Glafey, Nurnberg, Germany. Filed Apr. 8, 1957.



Priority under Sec. 44(d) on German application filed Oct. 19, 1956; Reg. No. 710,331, dated Jan. 24, 1958. The drawing is lined for the colors green, yellow, and blue.

For Oil-Burning Lamps, Such as Night-Lamps, Illumination- and Sanctuary Lamps, Wicks, Sanctuary Lamp Wicks, Non-Electric Lanterns and Parts Thereof, Used for Religious Purposes.

SN 44,795. Arkla Air Conditioning Corporation, Evansville, Ind. Filed Jan. 28, 1958.

SUN VALLEY

For Air Conditioning and Fluid Cooling Apparatus.
First use Mar. 12, 1956.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 26,888. Stillman Rubber Company, Culver City, Calif. Filed Mar. 25, 1957.



For O, D, S, and C Rings, Seals, Gaskets, Combined Seals and Diaphragms, Sealing Grommets, and Packings, Formed of Molded Resilient Material or Resilient Material and Metallic Elements.
First use June 1953.

SN 40,939. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Nov. 19, 1957.

HAUL - AWAY

For Tires.
First use Sept. 17, 1957.

Class 37—Paper and Stationery

SN 27,066. Valley Paper Company, Holyoke, Mass. Filed Mar. 27, 1957.

VP

For Writing and/or Typewriting and/or Printing Paper.
First use at least as early as March 1948.

SN 39,221. Graham Paper Company, St. Louis, Mo. Filed Oct. 21, 1957.

WHITEWOOD

For Wrapping Paper.
First use about 1936.

Class 38—Prints and Publications

SN 22,960. Review & Herald Publishing Association, Washington, D. C. Filed Jan. 22, 1957.

WORLD-WIDE BIBLE PICTURES

The words "Bible Pictures" are disclaimed apart from the mark as shown.

For Motion Pictures, Publications of a Religious Nature Distributed at Intervals, Still Pictures or Transparencies.
First use Aug. 11, 1947.
Subj. to Intf. with SN 22,181, SN 22,182, SN 22,183, and SN 22,184.

SN 43,269. Regal Stationery Company Limited, Toronto, Ontario, Canada. Filed Dec. 31, 1957.

IDENT DECALS

The term "decals" is disclaimed apart from the mark as shown. Owner of Canadian Reg. No. 106,342, dated Oct. 18, 1957.

For Decalcomania Products—Namely, Personalized Identification Transfers.

SN 44,920. A. Pomerantz & Company, Philadelphia, Pa. Filed Jan. 29, 1958.

"PERSONALLY YOURS"

For Calendars.
First use Dec. 27, 1957.

SN 45,149. F. W. Dodge Corporation, New York, N. Y. Filed Feb. 3, 1958.

F.W. DODGE
CORPORATION

Owner of Reg. No. 289,435.

For Books, Brochures, Bulletins, Catalogs, House Organs, Magazines, Reports, and Other Publications Issued Periodically or From Time to Time.
First use June 25, 1930.

Class 39—Clothing

SN 20,590. Bristol Manufacturing Company, Bristol, R. I. Filed Dec. 7, 1956.

LI'L TOTS

For Infants' Shoes Made With Canvas Uppers and Rubber Soles, and Infants' Overshoes.
First use Nov. 21, 1956.

SN 26,236. Atlas Underwear Corporation, Piqua, Ohio. Filed Mar. 15, 1957.

FANTAM

For Men's Knit Underwear.
First use Mar. 11, 1957.

SN 29,395. Schuessler Knitting Mills, Inc., Chicago, Ill. Filed May 3, 1957.

JET ACE

For Knit Headwear.
First use Apr. 23, 1957.

SN 30,271. I. Schneierson & Sons, Inc., New York, N. Y. Filed May 17, 1957.

SLUMBR'ETTES

For Ladies' and Children's Nightgowns and Combination Nightgown and Panties Used for Sleeping.
First use Apr. 10, 1957.

SN 31,348. Sharp, Perrin & Company Limited, London, England. Filed June 4, 1957.

ROB ROY

Owner of British Reg. No. 674,587, dated Nov. 18, 1948.
For Articles of Clothing Other Than Boots, Shoes, Slippers, Leggings, or Gaiters.

SN 32,094. Lassie Slipper, Inc., New York, N. Y. Filed June 17, 1957.



The word "Slippers" is disclaimed apart from the mark as shown.
For Slippers.
First use in January 1954.

SN 32,253. Lakeland Manufacturing Company, Sheboygan, Wis. Filed June 19, 1957.

SKÖL COAT

Applicant makes no claim herein to the word "Coat" apart from the mark as shown.
For Men's and Boys' Coats and Jackets.
First use September 1955.

SN 34,142. R. Johnston & Co. Proprietary Limited, Collingwood, Victoria, Australia. Filed July 22, 1957.

SNOOPERS

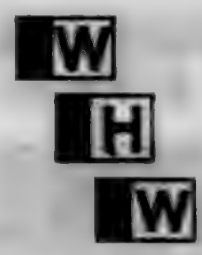
Owner of Australian Reg. No. 81,964, dated Dec. 6, 1945.
For Boots and Shoes.

SN 35,445. Frances & Walter Nelkin, Inc., New York, N. Y. Filed Aug. 13, 1957.

Janie

For Women's, Misses', and Children's Hats.
First use Aug. 6, 1957.

SN 35,997. Hi-Line Co., Inc., New York, N. Y. Filed Aug. 22, 1957.



For Infants' and Children's Apparel, Toddlers', Boys', Misses', Teen-Age and Junior Apparel, Consisting of Overalls, Coveralls, Suits, Blouses, Blouse and Pants Combinations, Shirt and Pants Combinations, Shorts, Slacks, Coordinates—Namely, Shirts and Pants, and Slacks and Hats, Jackets, Dresses, Sleeping Garments, Playsuits, and Sunsuits.
First use Mar. 10, 1945.

SN 39,497. M. H. Raab-Meyerhoff Co., Inc., Philadelphia, Pa. Filed Oct. 24, 1957.



Applicant disclaims the words "Authentic Fashions" apart from the mark as shown. Owner of Reg. Nos. 310,878, 331,545, and 555,806.
For Underwear—Namely, Shirts, Shorts, Union Suits, and Sox and Stockings, Pajamas, Necktles, Scarfs, Jackets, Slacks, Bath Robes, and Bathing Trunks.
First use May 15, 1947.

SN 40,816. Cluett, Peabody & Co., Inc., New York, N. Y. Filed Nov. 18, 1957.

DURA-NEAT

Owner of Reg. No. 295,007.
For Collars Sold Only as Parts of Outer Shirts.
First use June 3, 1957.

SN 41,413. Victor Gloves Inc., New York, N. Y. Filed Nov. 26, 1957.

wonder-feel

For Ladies' Gloves and Foot Protectors.
First use Nov. 8, 1957.

SN 42,474. Good Luck Glove Company, Carbondale, Ill. Filed Dec. 16, 1957.

WHOPPER

For Work Gloves.
First use Apr. 8, 1940.

SN 43,053. Standard Knitting Mills, Inc., Knoxville, Tenn. Filed Dec. 26, 1957. Sec. 2(f).

FULL FREEDOM SLEEVE

Owner of Reg. Nos. 353,963, 634,078, and others.
For Men's and Boys' Sweat Shirts.
First use July 20, 1940.

SN 43,054. Standard Knitting Mills, Inc., Knoxville, Tenn. Filed Dec. 26, 1957. Sec. 2(f).

FREEDOM SLEEVE

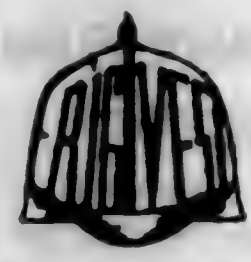
Owner of Reg. Nos. 353,963, 634,078, and others.
For Men's and Boys' Sweat Shirts.
First use in March 1933.

SN 43,200. North American Utility & Construction Corp., New York, N. Y. Filed Dec. 30, 1957.

FRIGIVEST

For Heat Resistant Industrial Protective Clothing.
First use Apr. 18, 1956.

SN 43,201. North American Utility & Construction Corp., New York, N. Y. Filed Dec. 30, 1957.



For Heat Resistant Industrial Protective Clothing.
First use June 14, 1957.

SN 43,278. Top Form Mills, Inc., New York, N. Y. Filed Dec. 31, 1957.

LADY RUSSEL

For Women's Slips, Half Slips, and Pajamas.
First use Nov. 1, 1957.

SN 43,495. Wispese Corp., New York, N. Y. Filed Jan. 6, 1958.

b'n b

For Girdles.
First use Dec. 18, 1957.

SN 43,635. Tailored Junior Dress Co., New York, N. Y. Filed Jan. 8, 1958.

Miss t.j.

For Dresses for Women and Misses.
First use Dec. 12, 1957.

SN 44,085. Grayson-Robinson Stores, Inc., New York, N. Y. Filed Jan. 16, 1958.

Motionaire

For Brassieres.
First use on or about Mar. 29, 1956.

SN 44,565. Somersworth Manufacturing Company, Somersworth, N. H. Filed Jan. 23, 1958.

JOHN SABATINI

For Women's Shoes.
First use Apr. 6, 1953.

SN 44,709. C. H. Hyer & Sons, Inc., Olathe, Kans. Filed Jan. 27, 1958.

RACEWAY

For Boots and Shoes.
First use Jan. 1, 1957.

SN 45,176. The Manhattan Shirt Company, New York, N. Y. Filed Feb. 3, 1958.

BEACHBUOY

For Swim Trunks and Sport Shirts.
First use Jan. 9, 1958.

SN 45,316. Ely & Walker Dry Goods Company, St. Louis, Mo. Filed Feb. 5, 1958.

Janet Walker

For Sweaters, Lingerie, and Knitted Outer Wear.
First use Oct. 1, 1936.

SN 45,346. Plymouth Undergarment Co., New York, N. Y. Filed Feb. 5, 1958.

Q-P'S

For Women's Panties.
First use Dec. 4, 1957.

SN 45,394. Karell Lingerie, Inc., New York, N. Y. Filed Feb. 6, 1958.

PET·E·PLUS

For Ladies' Petticoats.
First use Nov. 7, 1957.

SN 45,660. Super-Form Brassiere, Inc., New York, N. Y. Filed Feb. 10, 1958.

Love Affair

For Brassieres.
First use Dec. 2, 1957.

SN 45,790. Famous Bathrobe Co., Inc., New York, N. Y. Filed Feb. 13, 1958.

DAISY LEAGUE

For Pajamas and Pajama Sets for Infants Including Long and Short Pants.
First use Jan. 24, 1958.

SN 45,791. Famous Bathrobe Co., Inc., New York, N. Y. Filed Feb. 13, 1958.

BABY LEAGUE

For Pajamas and Pajama Sets for Infants Including Long and Short Pants and Booties.
First use Jan. 24, 1958.

SN 45,792. Famous Bathrobe Co., Inc., New York, N. Y. Filed Feb. 13, 1958.

PONY LEAGUE

For Pajamas and Pajama Sets for Infants Including Long and Short Pants.
First use Jan. 24, 1958.

Class 40—Fancy Goods, Furnishings, and Notions

SN 30,081. "Givenchy" (Société Anonyme), Paris, France. Filed May 15, 1957.

Hubert de Givenchy.

Owner of French Reg. No. 461,378, dated Dec. 5, 1956; Natl. Inst. No. 85,043.
For Brooches, Bracelets, Necklaces, Dress Clips, Cuff Links, Earrings, Rings for Scarfs, All Not Made of Precious Metal.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 18,353. Seamprufe Incorporated, New York, N. Y. Filed Oct. 29, 1956.

BLENDID

For Woven Fabric for Making Ladies' Lingerie.
First use Oct. 1, 1956.

SN 19,972. Hornwood Warp Knitting Corporation, Wadesboro, N. C. Filed Nov. 27, 1956.

NYLUX

For Bed Sheets and Pillow Cases.
First use June 22, 1956.

SN 25,972. Crompton Company, New York, N. Y. Filed Mar. 12, 1957.

SNOW SPUN

For Textile Fabrics in the Piece Composed of Cotton, Wool, Silk, and Synthetic Fibers.
First use Jan. 15, 1957.

SN 31,026. Preston S. Schwarz, New York, N. Y. Filed May 29, 1957.

Scotclad

For Cotton, Rayon, and Wool Plaid Fabrics of Woven and Knitted Textures.
First use Mar. 1, 1957.

SN 35,900. Bates Manufacturing Company, Lewiston, Maine. Filed Aug. 21, 1957.

WHISPERCALE

For Sheets and Sheetings and Pillowcases.
First use Apr. 4, 1957.

SN 39,856. Asten-Hill Mfg. Co., Philadelphia, Pa. Filed Oct. 31, 1957.

SYNBEST

For Dryer Felts in the Piece.
First use Oct. 28, 1957.

SN 39,999. United Mills Corporation, Mt. Gilead, N. C. Filed Nov. 1, 1957.

HONEYTRIQUE

For Nylon Tricot Lingerie Fabric.
First use June 1, 1957.

SN 41,817. Hockmeyer Bros. Inc., New York, N. Y. Filed Dec. 5, 1957.



For Textile Fabrics in the Piece Composed of Corduroy.
First use in 1920.

SN 44,046. J. P. Stevens & Co. Inc., New York, N. Y. Filed Jan. 15, 1958.

DELTAWEAVE

Owner of Reg. Nos. 341,045, 650,154, and others.
For Blends of Polyester and Cotton Piece Goods.
First use Nov. 27, 1957.

SN 44,047. J. P. Stevens & Co., Inc., New York, N. Y. Filed Jan. 15, 1958.

DELTARAY

Owner of Reg. Nos. 341,045, 650,154, and others.
For Piece Goods of Synthetic Fibers and Combinations Thereof.
First use Nov. 27, 1957.

SN 44,048. J. P. Stevens & Co., Inc., New York, N. Y. Filed Jan. 15, 1958.

PLAY-PILE

For Finished Corduroy in the Piece.
First use Nov. 8, 1957.

SN 44,094. Indian Head Mills, Inc., New York, N. Y. Filed Jan. 16, 1958.

NAUTICOOL

For Cotton Piece Goods.
First use Nov. 15, 1957.

SN 44,687. Joseph Bancroft & Sons Co., Wilmington, Del. Filed Jan. 24, 1958.

BAN-CARE

For Fabrics Consisting of or Containing Cellulosic Fibers.
First use Jan. 9, 1958.

SN 44,893. Fabrex Corporation, New York, N. Y. Filed Jan. 29, 1958.

FORWARD LOOK

For Textile Piece Goods of Finished Cotton.
First use Aug. 20, 1956.

SN 45,158. D. B. Fuller & Co. Inc., New York, N. Y. Filed Feb. 3, 1958.

CAVALENO

For Textile Fabrics in the Piece of Rayon and Synthetic Fibers.
First use July 25, 1957.

SN 45,641. James W. Whitsitt, d. b. a. Jim Whitsitt Textiles Co., Kansas City, Mo. Filed Feb. 10, 1958.



For Kitchen Towels.
First use during November 1956.

Class 43—Thread and Yarn

SN 40,798. American Enka Corporation, Enka, N. C. Filed Nov. 18, 1957.

JETSPUN

Owner of Reg. Nos. 588,406 and 603,096.
For Yarn.
First use Sept. 26, 1957.

SN 43,995. American Viscose Corporation, Philadelphia, Pa. Filed Jan. 15, 1958.

AV X L

For Yarns, Threads, and Yarn and Thread Filaments.
First use Jan. 7, 1958.

SN 45,010. The American Thread Company, New York, N. Y. Filed Jan. 31, 1958.

D-D

For Thread.
First use Jan. 8, 1958.

Class 44—Dental, Medical, and Surgical Appliances

SN 34,675. Datol Rubber Company, Providence, R. I. Filed July 31, 1957.

PLISOL

For Surgical Equipment—Namely, Bulbs, Syringes, and Aspirators.
First use on or about July 24, 1957.

Class 46—Foods and Ingredients of Foods

SN 7,881. United Biscuit Company of America, Melrose Park, Ill. Filed May 7, 1956.



For Biscuits, Crackers, and Cookies.
First use Mar. 20, 1956.

SN 30,975. Winter Garden Sales, Inc., Jackson, Miss. Filed May 28, 1957.



For Canned Fruits and Vegetables, Vienna Sausage, Chili Con Carne Without Beans, Canned Fish, Mayonnaise and Salad Dressing, French Dressing, Macaroni, Spaghetti, Tea, Spices, Tomato Catsup, Tomato Paste, Tomato Puree, and Chili Sauce.
First use in October 1955 on canned vegetables.

SN 31,088. Dairymen's League Co-Operative Association, Inc., New York, N. Y. Filed May 31, 1957.

DAIRYLEA

Owner of Reg. Nos. 173,135, 344,443, and others.
For Butter, Ice Cream, Cheese, Fresh Fluid Milk, Powdered Milk, Condensed Milk, Evaporated Milk, Sour Cream, Dried Skim Milk, Chocolate Milk, Buttermilk and Cottage Cheese.
First use Mar. 1, 1923, on condensed milk and evaporated milk.

SN 31,221. Interstate Bakeries Corporation, Kansas City, Mo. Filed June 3, 1957. Sec. 2(f) as to "Weber's."



Exclusive right to register the word "Bread" is not claimed apart from the mark as shown. Owner of Reg. Nos. 270,774, 642,408, and others.
For Bakery Products—Namely, Bread and Rolls.
First use on or about May 14, 1956; May 15, 1908, as to "Weber's."

SN 32,605. The Kroger Co., Cincinnati, Ohio. Filed June 25, 1957.

CUP-O-CHEER

Owner of Reg. No. 351,079.
For Coffee.
First use June 17, 1955.

SN 32,670. David Epstein Co., Inc., Boston, Mass. Filed June 26, 1957.

FERN-JAMES

For Cured Meats—Namely, Beef and Pork.
First use Nov. 18, 1954.

SN 33,757. S. E. Rykoff & Company, Los Angeles, Calif. Filed July 15, 1957.

Silver Key

Owner of Reg. No. 189,530.
For Vegetable Shortening; Crackers; Soy Bean Noodles, Macaroni and Spaghetti; Salad Dressing; Extracts for Food Purposes; Canned Fish; Fruit Jellies; Prepared Mustard; Pickles; Pickle Relish; Sauces for Meat; Dry Soup Base; Table Syrup; Canned Fruits; Canned Vegetables; Tomato Catsup.
First use Feb. 1, 1924.

SN 33,758. S. E. Rykoff & Company, Los Angeles, Calif. Filed July 15, 1957.

SERCO

For Canned Fish, Canned Fruits, Canned Vegetables, Dried Fruits, Anti-Oxidant Preparation for Preserving Foods, and Chili Sauce.
First use July 1927.

SN 33,809. Fruit Products Corporation, New York, N. Y. Filed July 17, 1957.

MALTANZA

Owner of Reg. Nos. 549,212 and 620,401.
For Frozen Confections on Sticks and a Dry Powder Flavoring for Making the Same.
First use Apr. 24, 1957.

SN 34,183. South Coast Fisheries, Inc., Terminal Island, Calif. Filed July 22, 1957.



The drawing is lined for red. Owner of Reg. No. 653,506.
For Canned Tuna Fish.
First use May 26, 1957; June 10, 1944, as to "Sea Glory."

SN 34,214. H. C. Brill Company, Inc., Newark, N. J. Filed July 23, 1957.

BRIL-LEM

Owner of Reg. Nos. 252,141, 632,808, and others.
For Lemon Flavored Base for Making Fillings in Bakery Products.
First use Oct. 30, 1952.

SN 34,215. H. C. Brill Company, Inc., Newark, N. J. Filed July 23, 1957.

BRIL-EG

Owner of Reg. Nos. 252,141, 632,808, and others.
For Dry Product Containing Dried Egg Yolks, Lecithin, Salt, Vegetable Protein and Dextrose, Used in Making Bakery Products.
First use Jan. 16, 1952.

SN 34,357. International Salt Company, Scranton, Pa. Filed July 25, 1957.

GOLD BOND

For Salt, With Other Minerals Added To Be Used for Mixing With Poultry and Animal Feeds.
First use June 26, 1957.

SN 35,307. Waterloo Mills Company, Waterloo, Iowa. Filed Aug. 9, 1957.

Clear as a Quill

Owner of Reg. No. 123,672.
For Feed for Livestock and Fowls.
First use Jan. 1, 1938.

SN 35,320. Bowman Dairy Company, Chicago, Ill. Filed Aug. 12, 1957.

HI-BOW

For Dried Cultured Skim Milk for Use in Baking.
First use June 16, 1954.

SN 35,523. O. W. Meyer, d. b. a. O. W. Meyer Laboratories, Napoleon, Ohio. Filed Aug. 14, 1957.

CHOC-O-LASS

For Feed Additive for Livestock and Poultry the Principal Ingredients of Which Are Molasses, Corn Oil Meal, Soybean Oil Meal, Soybean Millfeed, and Cocoa Shell Meal.
First use July 19, 1957.

SN 38,631. Paul Peters Company, Inc., d. b. a. The Town Crier, Boston, Mass. Filed Oct. 9, 1957.



For Candies, Jellies, Spices, Soups, Puddings, Lobster Pate, Welsh Rarebit.
First use Mar. 15, 1953.

SN 38,742. Elmer Candy Co., Inc., New Orleans, La. Filed Oct. 11, 1957.

BUBLETS

Owner of Reg. No. 390,428.
For Candy.
First use Nov. 3, 1937.

SN 39,911. Standard Brands Incorporated, New York, N. Y. Filed Oct. 31, 1957.

ROYAL

Owner of Reg. Nos. 135,855, 600,807, and others.
For Desserts—Namely, a Mix for Preparing Puddings, Pie Fillings, and Ice Creams.
First use Mar. 24, 1920.

SN 41,393. Patrick Cudahy Inc., Cudahy, Wis. Filed Nov. 26, 1957.

SMOKIE TREATS

Owner of Reg. No. 639,796.
For Sausage.
First use June 14, 1957.

SN 41,730. John R. Thompson Co., d. b. a. Henrici's, Chicago, Ill. Filed Dec. 3, 1957. Sec. 2(f).

HENRICI'S

For Candies and Bake Goods—Namely, Coffee Cakes, Sweet Rolls, Doughnuts, Bread, Hard Rolls, Cakes, Pies, Cup Cakes, Muffins, French Pastries, and Cookies.
First use 1921.

SN 41,976. Bell Heather Preserves Company Limited, Glasgow, Scotland. Filed Dec. 9, 1957.

Bell Heather

For Preserves, Being Jams, Marmalades, Curds, and Jellies.
First use in July 1956; in commerce in July 1956.

SN 41,988. Cashmere Cooperative Association, Inc., Cashmere, Wash. Filed Dec. 9, 1957.



Without waiving common law rights, applicant makes no claim to the word "Brand" apart from the mark.
For Fresh Deciduous Fruits.
First use Aug. 15, 1934.

SN 42,387. The U. & J. Lenson Corporation, Brooklyn, N. Y. Filed Dec. 13, 1957.

KENT

For Coffee.
First use Nov. 25, 1957.

SN 43,612. Harts Mountain Products Corp., New York, N. Y. Filed Jan. 8, 1958.

MASTER SEED

Owner of Reg. Nos. 348,673 and 567,550.
For Bird Food.
First use Jan. 7, 1935.

SN 44,006. J. S. Danenberg, d. b. a. Danny Danenberg, El Centro, Calif. Filed Jan. 24, 1958.

ONE-ELEVEN

For Lettuce.
First use Dec. 1, 1957.

SN 44,966. Loblaw Inc., Buffalo, N. Y. Filed Jan. 30, 1958.

APPLE GROVE

For Butter.
First use Jan. 1, 1929.

SN 44,967. Loblaw Inc., Buffalo, N. Y. Filed Jan. 30, 1958.

MAGIC CUP

For Coffee.
First use June 1, 1936.

SN 44,968. Loblaw Inc., Buffalo, N. Y. Filed Jan. 30, 1958.

BUTTER-BIRD

For Dressed Poultry.
First use Sept. 25, 1957.

SN 44,969. Loblaw Inc., Buffalo, N. Y. Filed Jan. 30, 1958.

HIGH PARK

For Coffee and Tea.
First use Mar. 1, 1926, on coffee.

SN 45,105. Barbeque Queen Food Systems, Inc., La Jolla, Calif. Filed Feb. 3, 1958.



The drawing is lined for red but color is not claimed as a necessary feature.
For Barbecue Sauce and Salad Dressing.
First use Nov. 3, 1957.

SN 45,190. Pacific Mercantile Company, San Francisco, Calif. Filed Feb. 8, 1958.

Shurgold

For Shortening Made From Selected Meat Fats and Vegetable Oils.
First use Nov. 22, 1957.

SN 46,629. J. Kilsi, Nuxo-Werk A.-G., Kempraten, Rapperswil, Switzerland. Filed Feb. 26, 1958.

NUX-O-FINE

Owner of Swiss Reg. No. 167,853, dated Oct. 24, 1957.
For Bread-Spreading Made of Nuts.

SN 46,752. Joseph Oscola, Pompano Beach, Fla. Filed Feb. 27, 1958.

COTTON TOP

For Fresh Vegetables.
First use in or about October 1953.

SN 46,956. Milton Lampe, d. b. a. Kare-Pak Foods Co., New York, N. Y. Filed Mar. 3, 1958.

STEAKFURTER

For Sausage Made of Steak and Meat Trimmings.
First use Nov. 6, 1957.

SN 47,805. Alhambra Wine Company, d. b. a. Hi-Country Processors, Selah, Wash. Filed Mar. 17, 1958.

hi-country

For Apple Juice.
First use Feb. 26, 1958.

SN 47,835. James J. Catalano, d. b. a. Catalano Companies, Los Angeles, Calif. Filed Mar. 17, 1958.

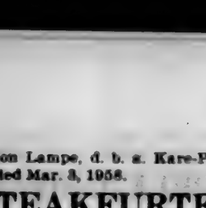
FLORALA

For Flavoring Oil for Bakery Goods, Cereals, Ice Creams, Confections, and Beverages.
First use Feb. 11, 1958.

Class 47 — Wines

SN 34,036. Brookside Vineyard Company, Guasti, Calif. Filed July 19, 1957.

ASSUMPTION ABBEY WINES



The expression "Iter Para Tutum" means "Prepare for us a safe journey." No claim is made to the word "Wines" apart from the mark in its entirety.
For Wines.
First use Apr. 5, 1957.

SN 37,563. E. & J. Gallo Winery, Modesto, Calif. Filed Sept. 20, 1957.

Bird

Owner of Reg. No. 656,907.
For Wines.
First use Sept. 9, 1957.

Class 48 — Malt Beverages and Liquors

SN 30,025. Konigsbacher Brauerei Aktiengesellschaft, vorm. Joseph Thillmann, Koblenz (Rhine), Germany. Filed May 14, 1957.

STUDENT PRINCE

For Beer.
First use at least as early as Aug. 20, 1935; in commerce at least as early as Aug. 20, 1935.

SN 30,090. International Breweries, Inc., Detroit, Mich. Filed May 15, 1957. Sec. 2(f).

MELODRY

For Beer and Ale.
First use Feb. 6, 1951.

Class 49 — Distilled Alcoholic Liquors

SN 30,948. James Robertson Company, Los Angeles, Calif. Filed May 28, 1957.

PRINCE NICOLAS

For Vodka.
First use May 14, 1957.

SN 40,080. James Robertson Company, Los Angeles, Calif. Filed Nov. 4, 1957.

EL

Owner of Reg. No. 658,896.
For Scotch Whisky.
First use Oct. 11, 1957.

SN 44,724. Maison Rochez, Ltd., Los Angeles, Calif. Filed Jan. 27, 1958.

WHITE CHRISTMAS

For Blend of Brandy and Rum.
First use in October 1957.

Class 50 — Merchandise Not Otherwise Classified

SN 26,808. Quixet, Inc., Dayton, Ohio. Filed Mar. 25, 1957.
Owner of Reg. No. 325,282.

QUIXET

For Changeable Letter Advertising Devices.
First use Jan. 15, 1930.

SN 28,605. Kenro Products, Lake View, Iowa. Filed Apr. 22, 1957.

POPPIN' PAK



For Popcorn Package Unit Comprising an Aluminum Popper, Bowls, Popping Solution, Popcorn Ball Maker, Measuring Cup, Salt Shaker, and Popcorn.
First use Jan. 7, 1957.

SN 29,163. F. H. Noble and Company, Chicago, Ill. Filed Apr. 30, 1957.

MAR-B-LINE

For Trophies and Bases for Trophies.
First use Apr. 24, 1957.

SN 34,575. Bernard B. White, New York, N. Y. Filed July 29, 1957.

Permatone

Owner of Reg. Nos. 387,010 and 611,971.
For Artificial Leather.
First use Sept. 1, 1939.

SN 40,239. Lasting Building Supply & Equipment Company, Baltimore, Md. Filed Nov. 7, 1957.

STRUCTO LITE

For Translucent Canopies for Doors, Windows, Porches, Patios, Etc.
First use April 1955.

SN 41,614. Bronze Marker Corporation, Maple Park, Ill. Filed Dec. 2, 1957.

MEMORIALS OF LOVE

No registration rights are claimed for the word "Memorials" apart from the mark as shown.
For Grave Markers and Memorials.
First use June 28, 1957.

Class 51 — Cosmetics and Toilet Preparations

SN 32,908. Carew Products, Inc., Floral Park, N. Y. Filed July 1, 1957.

Helene Carew

The mark is the name of a living individual whose consent is of record.
For Night Nourishment Facial Cream.
First use Sept. 1, 1950.

SN 33,272. Helen Neushaefer, Inc., College Point, N. Y. Filed July 5, 1957.

MODERNA

Owner of Reg. No. 620,102.
For Lipstick.
First use Feb. 8, 1957.

Class 52 — Detergents and Soaps

SN 9,993. Lan-Lay, Inc., San Francisco, Calif. Filed June 11, 1956.

AQUA DERMA

For Cream Shampoo.
First use Apr. 10, 1955.

SN 17,894. William C. Fawkner, d. b. a. Prestex Products Company, St. Paul, Minn. Filed Oct. 22, 1956.

PRESTEX

For Liquid Glass Cleaner.
First use Sept. 15, 1956.

SN 30,882. Andersen Specialty Mfg. Corp., Chicago, Ill. Filed May 28, 1957.

ZINGO

For Liquid Preparation for Cleaning Paint Brushes and Paint Rollers.
First use Nov. 15, 1956.

SN 32,074. Fels and Company, Philadelphia, Pa. Filed June 17, 1957.



Owner of Reg. Nos. 57,674, 510,801, and 56,842.
For Detergents for Household Use and Soaps.
First use May 21, 1957; March 1894 in a different form.

SN 32,075. Fels and Company, Philadelphia, Pa. Filed June 17, 1957. Sec. 2(f) as to "Naptha."

FELS

Owner of Reg. Nos. 55,478, 555,461, and others.
For Detergents for Household Use and Soaps.
First use May 21, 1957; March 1894 as to "Naptha."

SN 32,673. Franklin Research Company, Philadelphia, Pa. Filed June 26, 1957.

F-57

For General Purpose Germicidal Detergent.
First use Jan. 18, 1957.

SN 34,627. Pennsalt Chemicals Corporation, Philadelphia, Pa. Filed July 30, 1957.

PHISEL

For Household Cleaner and Detergent Composition.
First use Mar. 15, 1949.

SN 40,886. Solventol Chemical Products, Incorporated, Detroit, Mich. Filed Nov. 18, 1957.

Dish-Dri

For Liquid Composition for Reducing the Surface Tension of Water for Use in Rinsing Glassware and Dishes After Washing.
First use Sept. 26, 1957; Feb. 9, 1956, as to "Dish Dry."

SN 42,023. Houston Oil Field Material Company, Inc., Houston, Tex. Filed Dec. 9, 1957.

HOMCO

Owner of Reg. Nos. 428,094 and 432,221.
For All Purpose Detergent, Waterless Hand Cleaner, and Oilfield Laundry Compound.
First use December 1947 on oilfield laundry compound.

SN 42,130. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company, Rochester, N. Y. Filed Dec. 10, 1957.

PRODUCTS FOR XEROGRAPHY • PRODUCTS FOR PHOTOGRAPHY
HALOID XEROX

The words "Products for Xerography" and "Products for Photography" are disclaimed.

For Film Removers and Cleaners for Xerography.

First use Dec. 6, 1957.

SN 42,135. Haloid Xerox Inc., Rochester, N. Y., by change of name from The Haloid Company, Rochester, N. Y. Filed Dec. 10, 1957.

HALOID XEROX

For Film Removers and Cleaners for Xerography.

First use Dec. 6, 1957.

SN 42,494. Cut Kravagna, d. b. a. Cleano Products Company, El Segundo, Calif. Filed Dec. 16, 1957.

SKODE

For Toilet Bowl Cleaner.

First use Sept. 20, 1957.

SN 43,651. Duraclean Company, Deerfield, Ill. Filed Aug. 13, 1957.

SPOTCRAFT

For Cleaning, Renovating, Stain-Softening, and Spot-Removing Compounds for Use on Rugs, Carpets, Upholsteries, Auto Interiors, Lamp Shades, Coats, Furs, Venetian Blinds, Wallpaper, Window Shades, Printed Surfaces, and the Like.

First use on or about Feb. 21, 1957.

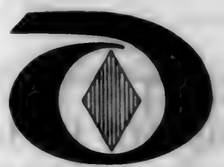
SN 50,469. Tom Fields, Ltd., Englewood, N. J. Filed Apr. 28, 1958.

TINKERBELL

For Soap.

First use in June 1952.

SN 51,701. Diamond Alkali Company, Cleveland, Ohio. Filed May 15, 1958.



The drawing is lined for red. Owner of Reg. Nos. 152,151, 658,914, and others.

For Detergents and Cleaners for Industrial Use and Metal Cleaning Compositions.

First use Nov. 26, 1957; 1912 as to representation of a diamond.

SERVICE MARKS

Class 101 — Advertising and Business

SN 29,276. Thos. Dunne Co., Inc., New Orleans, La. Filed May 2, 1957.

S S·P·I

For Sales Promotion Advertising of Goods of Others by Distribution of Specialty and Novelty Products.

First use on or about Dec. 15, 1956.

SN 30,901. Ralph Heineman, Inc., Chicago, Ill. Filed May 28, 1957.



For Advertising and Mat Services Appearing in Printed Publications and Displays.

First use Jan. 30, 1957.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

666,134. BURKART URETHANE FOAM AND DESIGN. Textron Inc., d. b. a. F. Burkart Mfg. Company. SN 29,112. Pub. 6–10–58. Filed 4–29–57.

Class 2 — Receptacles

666,135. HAMONDFLOTE. Hammond Iron Works. SN 40,576. Pub. 6–10–58. Filed 11–13–57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

666,136. THIN TWIN. Prince Gardner Company, Inc. SN 30,604. Pub. 6–10–58. Filed 5–23–57.

666,137. PERMATEX. Bernard B. White. SN 35,020. Pub. 6–10–58. Filed 8–5–57.

Class 4 — Abrasives and Polishing Materials

666,138. WINTHROP. Joseph A. Romano, d. b. a. Winthrop Wax Co. SN 13,951. Pub. 6–10–58. Filed 8–14–56.

666,139. PABS AUTO BEAUTY. Professional Auto Beauty Shop, Inc., assignee of Carl O. Wakefield. SN 34,385. Pub. 6–10–58. Filed 7–25–57.

666,140. SECURE. Fischer-Lang & Company, Inc. SN 38,985. Pub. 6–10–58. Filed 10–16–57.

666,141. FLO-LUSTER. Fischer-Lang & Company, Inc. SN 38,986. Pub. 6–10–58. Filed 10–16–57.

666,142. GORDON'S KROMABIL. Milton J. Gordon, d. b. a. M. J. Gordon Company. SN 39,327. Pub. 6–10–58. Filed 10–22–57.

666,143. SILVER SPARKLE. Kee Lox Manufacturing Company. SN 39,644. Pub. 6–10–58. Filed 10–28–57.

666,144. MARBALURE. The Bergen Point Brass Foundry, Inc., d. b. a. Standard Bronze Co. SN 40,549. Pub. 6–10–58. Filed 11–12–57.

Class 5 — Adhesives

666,145. PLACCO. The Borden Company. SN 38,124. Pub. 6–10–58. Filed 10–1–57.

666,146. PAKLON. Minnesota Mining and Manufacturing Company. SN 40,585. Pub. 6–10–58. Filed 11–13–57.

Class 6 — Chemicals and Chemical Compositions

666,147. POZZOBEL. American-Marietta Company. SN 22,786. Pub. 6–10–58. Filed 1–18–57.

666,148. ANTI-DUST. Krylon, Inc. SN 32,188. Pub. 6–10–58. Filed 6–18–57.

666,149. RANCH HOUSE AND DESIGN. The United Salt Corporation. SN 33,302. Pub. 6–10–58. Filed 7–5–57.

666,150. GENERAL. The General Tire & Rubber Company. SN 34,690. Pub. 6–10–58. Filed 7–31–57.

666,151. ATOMEX. Engelhard Industries, Inc., by merger and change of name from Baker & Co., Inc. SN 35,080. Pub. 6–10–58. Filed 8–7–57.

666,152. DIPHACIN. Food Machinery and Chemical Corporation. SN 36,508. Pub. 6–10–58. Filed 8–30–57.

666,153. SUPER DYNATOX. Hayes-Sammons Chemical Company. SN 36,514. Pub. 6–10–58. Filed 8–30–57.

666,154. ZEROSTAT. Ciba Limited. SN 36,567. Pub. 6–10–58. Filed 9–3–57.

666,155. DOWBOL. The Dow Chemical Company. SN 38,673. Pub. 6–10–58. Filed 10–10–57.

666,156. MULTI-CHLOR. Wyandotte Chemicals Corporation. SN 39,114. Pub. 6–10–58. Filed 10–17–57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

666,157. FRAC-JET. Jet Research Center, Inc. SN 36,589. Pub. 6–10–58. Filed 9–3–57.

Class 10 — Fertilizers

666,158. KAY-BEE AND DESIGN. Kahn Bros. Co. SN 42,777. Pub. 6–10–58. Filed 12–20–57.

Class 12 — Construction Materials

666,159. NB BLUE RIBBON BRAND AND DESIGN (REPRESENTATION OF A SEAL). Nickey Brothers, Inc. SN 673,934. Pub. 6–10–58. Filed 9–28–54.

666,160. WORTHWOOD. International Paper Company, assignee of The Long-Bell Lumber Company. SN 15,799. Pub. 6–10–58. Filed 9–17–56.

666,161. POROX. The Patterson Foundry and Machine Company. SN 34,253. Pub. 6–10–58. Filed 7–23–57.

666,162. SWIRL WOOD SW AND DESIGN. Dri-Rite Kiln Corporation, d. b. a. S & S Lumber Company. SN 35,248. Pub. 5–6–58. Filed 8–9–57.

666,163. BILT-UP. Lumber Fabricators, Inc. SN 35,364. Pub. 6–10–58. Filed 8–12–57.

666,164. INTERSTATE AND DESIGN. Charles G. Cabral, d. b. a. Interstate Venetian Blinds Company. SN 35,902. Pub. 6–10–58. Filed 8–21–57.

666,165. KYLOSEAL. Minnesota Mining and Manufacturing Company. SN 36,730. Pub. 6–10–58. Filed 9–5–57.

666,166. SEWERTEX. The Philip Carey Manufacturing Company, d. b. a. The Lehon Company. SN 39,446. Pub. 6–10–58. Filed 10–24–57.

666,167. S–14. Schalk Chemical Company. SN 39,993. Pub. 6–10–58. Filed 11–1–57.

666,168. JAMB-UP. Macklanburg-Duncan Company. SN 40,062. Pub. 6–10–58. Filed 11–4–57.

666,169. MICRO-FINISH. Robbins Floor Products, Inc. SN 40,262. Pub. 6–10–58. Filed 11–7–57.

666,170. PERI. E. J. Lavino and Company. SN 40,352. Pub. 6–10–58. Filed 11–8–57.

666,171. VARIPERM. Petroleum Engineering Associates, Inc. SN 40,371. Pub. 6–10–58. Filed 11–8–57.

666,172. UNIVERSE. Hunter Douglas Aluminum Corporation. SN 40,402. Pub. 6–10–58. Filed 11–12–57.

666,173. HI-LINE. Hatfield Industries, Inc. SN 40,757. Pub. 6–10–58. Filed 11–15–57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

666,174. SAFESPOUT. Richard C. Barkelew. SN 26,756. Pub. 6–10–58. Filed 3–25–57.

666,175. GANG-NAILS. Gang-Nails, Inc. SN 28,443. Pub. 6–10–58. Filed 4–18–57.

666,176. SIMS. The Sims Company. SN 29,834. Pub. 6–10–58. Filed 5–10–57.

666,177. DOO-TEE. Carlson Manufacturing Company. SN 34,508. Pub. 6–10–58. Filed 7–29–57.

666,178. VITCRETE. Vitreous Steel Products Company. SN 35,406. Pub. 6–10–58. Filed 8–12–57.

666,179. EKCO. Ekco Products Company. SN 35,567. Pub. 6–10–58. Filed 8–15–57.

666,180. LUBROTITE. American Chain & Cable Company, Inc. SN 35,964. Pub. 6–10–58. Filed 8–22–57.

666,181. RAINLINE AND DESIGN. Paxton-Mitchell Co. SN 36,100. Pub. 6–10–58. Filed 8–28–57.

666,182. HOLDOL. Masonite Corporation. SN 36,205. Pub. 6–10–58. Filed 8–26–57.

666,183. ACROFLEX. Acro Metal Stamping Company. SN 40,199. Pub. 6–10–58. Filed 11–7–57.

Class 14—Metals and Metal Castings and Forgings

666,184. "403." The International Nickel Company, Inc. SN 16,127. Pub. 6–10–58. Filed 9–21–56.

666,185. GOLD ANCHOR ETC. AND DESIGN. Vanadium-Alloys Steel Company. SN 28,081. Pub. 6–10–58. Filed 4–12–57.

666,186. WCC. Vanadium-Alloys Steel Company. SN 28,900. Pub. 6–10–58. Filed 4–25–57.

Class 15—Oils and Greases

666,187. FEDLUBE. Federal Employees' Distributing Company. SN 40,041. Pub. 6–10–58. Filed 11–4–57.

Class 16—Protective and Decorative Coatings

666,188. COPPERPAC. The Dolphin Paint & Varnish Company. SN 31,909. Pub. 6–10–58. Filed 6–13–57.

666,189. THINIT AND DESIGN. Eastern Chemicals, Inc. SN 33,141. Pub. 6–10–58. Filed 7–3–57.

666,190. SUPER DURABAKE. S & C Electric Company. SN 33,434. Pub. 6–10–58. Filed 7–9–57.

666,191. AVIEX. United States Aviex Company. SN 42,089. Pub. 6–10–58. Filed 12–9–57.

666,192. TWINS. General Waterproofing Corporation. SN 44,285. Pub. 6–10–58. Filed 1–20–58.

666,193. DEM-KOTE. Dayton Electric Manufacturing Company. SN 44,607. Pub. 6–10–58. Filed 1–24–58.

666,194. UNION CARBIDE AND DESIGN. Union Carbide Corporation. SN 44,664. Pub. 6–10–58. Filed 1–24–58.

Class 17—Tobacco Products

666,195. DESIGN OF LION AND THISTLE. John Cotton Limited. SN 39,191. Pub. 6–10–58. Filed 10–21–57.

666,196. VAN CAMP. United Vintners, Inc., d. b. a. Petri Cigar Company. SN 39,761. Pub. 6–10–58. Filed 10–29–57.

666,197. VINCITOR. United Vintners, Inc., d. b. a. Petri Cigar Company. SN 39,762. Pub. 6–10–58. Filed 10–29–57.

Class 18—Medicines and Pharmaceutical Preparations

666,198. MEDI-PHRAGM. Charles B. Hagaman, d. b. a. Medi-Phragm Products. SN 12,721. Pub. 6–10–58. Filed 7–24–56.

666,199. STAMINEX. H. Clay Glover Co., Inc. SN 13,287. Pub. 6–10–58. Filed 8–2–56.

666,200. DIDRATE. S. B. Penick & Company. SN 15,293. Pub. 6–10–58. Filed 9–7–56.

666,201. DECORTRIL. Chas. Pfizer & Co., Inc. SN 16,730. Pub. 6–10–58. Filed 10–1–56.

666,202. DARBID. Smith Kline & French Laboratories. SN 26,503. Pub. 6–10–58. Filed 3–19–57.

666,203. PYRISULFINE. Warner-Lambert Pharmaceutical Company. SN 30,051. Pub. 6–10–58. Filed 5–14–57.

666,204. ACHROPAR. American Cyanamid Company. SN 31,066. Pub. 6–10–58. Filed 5–31–57.

666,205. LAVEMA. Sterling Drug Inc. SN 35,463. Pub. 6–10–58. Filed 8–13–57.

666,206. COOL-SPRAY. Furst-McNess Company. SN 35,645. Pub. 6–10–58. Filed 8–16–57.

666,207. LUMOPAQUE. Sterling Drug Inc. SN 37,061. Pub. 6–10–58. Filed 9–10–57.

666,208. BLIP. Stanley Drug Products, Inc. SN 38,567. Pub. 6–10–58. Filed 10–8–57.

666,209. LARIDOX. Dr. Karl Thomae G. m. b. H. SN 38,663. Pub. 6–10–58. Filed 10–1–57.

666,210. SILOMAT. Dr. Karl Thomae G. m. b. H. SN 38,664. Pub. 6–10–58. Filed 10–1–57.

666,211. WELADOL. West Laboratories, Inc. SN 39,112. Pub. 6–10–58. Filed 10–17–57.

666,212. MYO MIST. Parry Laboratories, Inc. SN 39,155. Pub. 6–10–58. Filed 10–18–57.

666,213. LOMPOLIDON. Farbenfabriken Bayer Aktiengesellschaft. SN 39,716. Pub. 6–10–58. Filed 10–29–57.

666,214. IOMYCIN. Norden Laboratories. SN 40,075. Pub. 6–10–58. Filed 11–4–57.

666,215. DARLEIC. Norman Dartell, d. b. a. Dartell Laboratories. SN 40,170. Pub. 6–10–58. Filed 11–6–57.

666,216. DELECTAVITES. White Laboratories, Inc. SN 40,984. Pub. 6–10–58. Filed 11–19–57.

666,217. TEMPTAVITES. White Laboratories, Inc. SN 40,985. Pub. 6–10–58. Filed 11–19–57.

666,218. FROSST. Charles E. Frosst & Co. SN 42,371. Pub. 6–10–58. Filed 12–13–57.

666,219. TUSSAMINIC. The Wander Company, d. b. a. Smith-Dorsey. SN 42,563. Pub. 6–10–58. Filed 12–16–57.

666,220. TRI-COSTIVIN. Professional Laboratories, Inc. SN 42,596. Pub. 6–10–58. Filed 12–17–57.

Class 19—Vehicles

666,221. SEATCO. B. T. Crump Company, Inc. SN 35,636. Pub. 6–10–58. Filed 8–16–57.

666,222. OLYMPIA REKORD. Adam Opel Aktiengesellschaft. SN 37,998. Pub. 6–10–58. Filed 9–30–57.

666,223. MINER. W. H. Miner, Inc. SN 38,063. Pub. 6–10–58. Filed 9–30–57.

666,224. HIGHWAY H AND DESIGN. Highway Trailer Company. SN 38,747. Pub. 6–10–58. Filed 10–11–57.

666,225. JEEPERS CREEPER. R & L Manufacturing Company. SN 40,611. Pub. 6–10–58. Filed 11–13–57.

666,226. JEEPER. R & L Manufacturing Company. SN 40,612. Pub. 6–10–58. Filed 11–13–57.

666,227. MINIT HEAT. Stewart-Warner Corporation. SN 40,624. Pub. 6–10–58. Filed 11–13–57.

666,228. SHOP-N-ROLL. Dennis Mitchell Industries. SN 40,956. Pub. 6–10–58. Filed 11–19–57.

666,229. SHELGLAS. Shell Lake Boat Company. SN 41,405. Pub. 6–10–58. Filed 11–26–57.

Class 21—Electrical Apparatus, Machines, and Supplies

666,230. SPORTLITE. Michael Pisani, d. b. a. Pisani Brothers. SN 1,109. Pub. 4–2–57. Filed 1–19–56.

666,231. ARFLITE. The May Department Stores Company. SN 6,622. Pub. 6–10–58. Filed 4–18–56.

666,232. CTS AND DESIGN. Chicago Telephone Supply Corporation. SN 36,350. Pub. 6–10–58. Filed 8–28–57.

666,233. BOWMAN AND DESIGN. The Bowman Products Co. SN 38,194. Pub. 6–10–58. Filed 10–2–57.

666,234. CENTRE-KOOLED. Sarkes Tarsian, Inc. SN 38,572. Pub. 6–10–58. Filed 10–8–57.

666,235. ELEXA. "Elexa." SN 38,812. Pub. 6–10–58. Filed 10–14–57.

666,236. WATT-MASTER. Andrew Kux, d. b. a. Occidental Electric Company. SN 38,827. Pub. 6–10–58. Filed 10–14–57.

666,237. PADOHM. Clarostat Mfg. Co., Inc. SN 38,899. Pub. 6–10–58. Filed 10–15–57.

666,238. HYFLUX. The Indiana Steel Products Company. SN 39,068. Pub. 6–10–58. Filed 10–17–57.

666,239. CIRCLOK. Circle F Mfg. Co. SN 39,131. Pub. 6–10–58. Filed 10–18–57.

666,240. PERMASEAL. Sprague Electric Company. SN 39,342. Pub. 6–10–58. Filed 10–22–57.

666,241. BIFLEX. Alter Lansing Corporation. SN 39,507. Pub. 6–10–58. Filed 10–25–57.

666,242. SOHIVOLT. The Standard Oil Company. SN 39,558. Pub. 6–10–58. Filed 10–25–57.

666,243. HY-MARKER. Hycon Mfg. Company. SN 39,624. Pub. 6–10–58. Filed 10–28–57.

666,244. VICON. Insul-8-Corp. SN 39,635. Pub. 6–10–58. Filed 10–28–57.

666,245. POWERTRON. Hanson-Van Winkle-Munning Company. SN 39,725. Pub. 6–10–58. Filed 10–29–57.

666,246. FLUXAMP. Sprague Electric Company. SN 39,755. Pub. 6–10–58. Filed 10–29–57.

666,247. SOUND GUARD. Progress Sound Guard Corp. SN 39,837. Pub. 6–10–58. Filed 10–30–57.

666,248. POWERLOID. Guardian Electric Manufacturing Co. SN 39,962. Pub. 6–10–58. Filed 11–1–57.

666,249. OCELCO. Andrew Kux, d. b. a. Occidental Electric Company. SN 39,970. Pub. 6–10–58. Filed 11–1–57.

666,250. UNION CARBIDE AND DESIGN. Union Carbide Corporation. SN 39,998. Pub. 6–10–58. Filed 11–1–57.

666,251. KRES-TONE. S. S. Kresge Company. SN 40,059. Pub. 6–10–58. Filed 11–4–57.

666,252. CRUSILITE. Morganite Incorporated. SN 40,071. Pub. 6–10–58. Filed 11–4–57.

666,253. EVERLITE AND DESIGN. The Curtis Development & Mfg. Co. SN 40,324. Pub. 6–10–58. Filed 11–8–57.

Class 22—Games, Toys, and Sporting Goods

666,254. RED HEAD CUSTOM AND DESIGN. Alexander Baskin, d. b. a. Beaver Sporting Goods Company. SN 35,618. Pub. 6–10–58. Filed 8–16–57.

666,255. ZIP. Paul Czetto. SN 36,166. Pub. 6–10–58. Filed 8–26–57.

666,256. OASIS. Gerald James Shepard, d. b. a. Jerry Shepard Swimming Pool Company. SN 36,241. Pub. 6–10–58. Filed 8–26–57.

666,257. SNARKIE. The Creek Chub Bait Company. SN 37,232. Pub. 6–10–58. Filed 9–16–57.

666,258. SNARK-EEL. The Creek Chub Bait Company. SN 37,233. Pub. 6–10–58. Filed 9–16–57.

666,259. SNARK. The Creek Chub Bait Company. SN 37,865. Pub. 6–10–58. Filed 9–26–57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

666,260. MIAG. Miag Muhlenbau und Industrie G. m. b. H. SN 700,876. Pub. 6–10–58. Filed 12–30–55.

666,261. ROYCO. Royco Tap and Tool Corporation. SN 17,759. Pub. 6–10–58. Filed 10–18–56.

666,262. WILLIAMS. Connecticut Tool & Engineering Company. SN 29,199. Pub. 6–10–58. Filed 5–1–57.

666,263. CORR-U-CUTTER. Turner Printing Machinery, Inc. SN 29,977. Pub. 6–10–58. Filed 5–13–57.

666,264. SWAN AND DESIGN. William A. Swan, d. b. a. Swan Specialties Company. SN 30,049. Pub. 6–10–58. Filed 5–14–57.

666,265. CEM-WAY AND DESIGN. Clark Engineering & Manufacturing, Inc. SN 31,081. Pub. 6–10–58. Filed 5–31–57.

666,266. DUAL TORQUE. Pacific Coast Engineering Company. SN 31,246. Pub. 5–20–58. Filed 6–3–57.

666,267. ROTAC. Ex-Cell-O Corporation. SN 36,792. Pub. 6–10–58. Filed 9–6–57.

666,268. FILTER QUEEN AND DESIGN. Health-Mor, Inc. SN 37,012. Pub. 6–10–58. Filed 9–11–57.

666,269. TORQUE-FLOW. Western Machinery Company. SN 37,923. Pub. 6–10–58. Filed 9–26–57.

666,270. MIRACL-EDGE. W. R. Case & Sons Cutlery Company. SN 38,020. Pub. 6–10–58. Filed 9–30–57.

666,271. VENDSTOR. Mayville Metal Products Company. SN 38,702. Pub. 6–10–58. Filed 10–10–57.

666,272. CENTOR. Aktiebolaget Uno Lindholm & Co. SN 40,737. Pub. 6–10–58. Filed 10–17–57.

666,273. AIRMOUNT. The Firestone Tire & Rubber Company. SN 40,824. Pub. 6–10–58. Filed 11–18–57.

666,274. MADISON AND DESIGN. Madison Industries, Inc. SN 40,859. Pub. 6–10–58. Filed 11–18–57.

666,275. DES-KART. Geerpres Wringer, Inc. SN 40,906. Pub. 6–10–58. Filed 11–18–57.

666,276. AQUAHOG. Griffin Wellpoint Corporation. SN 40,941. Pub. 6–10–58. Filed 11–19–57.

666,277. GALE. Outboard Marine Corporation. SN 41,304. Pub. 6–10–58. Filed 11–25–57.

666,278. SATELLITE. Wallace Silversmiths, Inc. SN 41,339. Pub. 6–10–58. Filed 11–25–57.

666,279. VIBRA-WASHER. Simplicity Engineering Company. SN 42,039. Pub. 6–10–58. Filed 12–9–57.

666,280. FARM CHIEF. Comfort Equipment Company. SN 42,202. Pub. 6–10–58. Filed 12–11–57.

666,281. MOTO-TILT. Moto-Tilt Products Co. SN 43,950. Pub. 6–10–58. Filed 1–14–58.

666,282. ALT-O-MATIC AND DESIGN. Alt Manufacturing & Distributing Co., Inc. SN 44,515. Pub. 6–10–58. Filed 1–23–58.

666,283. T"O"M. Trans "O" Matic Transmission Corp. SN 44,661. Pub. 6–10–58. Filed 1–24–58.

Class 24—Laundry Appliances and Machines

666,284. MILNOR. Pellerin Milnor Corporation. SN 38,299. Pub. 6–10–58. Filed 10–3–57.

666,285. CAPRI. National Cooperatives, Inc. SN 38,372. Pub. 6–10–58. Filed 10–4–57.

666,286. SUNBEAM. Sunbeam Corporation. SN 38,658. Pub. 6–10–58. Filed 9–17–57.

Class 26—Measuring and Scientific Appliances

666,287. NIPPON KOGAKU TOKYO AND DESIGN. Nippon Kogaku Kogyo K. K. SN 681,288. Pub. 6–10–58. Filed 2–8–55.

666,288. SENCORE. Service Instruments Corp. SN 26,302. Pub. 4–8–58. Filed 3–15–57.

666,289. DEVODARK. Peerless Photo Products, Inc. SN 26,564. Pub. 6–17–58. Filed 3–20–57.

666,290. ELECTRO-PORTIONER. C. W. Logeman Company. SN 36,090. Pub. 5–13–58. Filed 8–23–57.

Class 29—Brooms, Brushes, and Dusters

666,291. WALLCO. Wallco Kjemisk Industri A/S. SN 37,829. Pub. 6–10–58. Filed 9–25–57.

Class 30—Crockery, Earthenware, and Porcelain

666,292. ROYAL STETSON. Stetson China Co., Inc. SN 32,783. Pub. 6–10–58. Filed 6–27–57.

Class 31—Filters and Refrigerators

666,293. BOSSMAN. Selmer Raymond Thompson, d. b. a. Thompson Refrigeration. SN 36,747. Pub. 6–10–58. Filed 9–5–57.

666,294. COOLPAD. Research Products Corporation. SN 40,616. Pub. 6–10–58. Filed 11–13–57.

666,295. DIACLEAR AND DESIGN. The Wallace, Davis Company. SN 43,358. Pub. 6–10–58. Filed 1–2–58.

666,296. LINDE. Union Carbide Corporation. SN 44,571. Pub. 6–10–58. Filed 1–23–58.

Class 32—Furniture and Upholstery

666,297. BROYHILL PREMIER DIVISION. Broyhill Furniture Factories. SN 34,912. Pub. 6–10–58. Filed 8–5–57.

666,298. SUR-TOPPER. Nachman Corporation. SN 45,812. Pub. 6–10–58. Filed 2–13–58.

666,299. BLUE GRASS. Belknap Hardware and Manufacturing Company. SN 46,098. Pub. 6–10–58. Filed 2–19–58.

666,300. OLD KENTUCKY HOME. Belknap Hardware and Manufacturing Company. SN 46,099. Pub. 6–10–58. Filed 2–19–58.

666,301. ADD-A-MATIC. Falco Products Co. SN 46,127. Pub. 6–10–58. Filed 2–19–58.

Class 34—Heating, Lighting, and Ventilating Apparatus

666,302. COOL-MATE. Weil-McLain Company. SN 15,249. Pub. 6–10–58. Filed 9–6–56.

666,303. IONITRON. Philco Corporation. SN 19,177. Pub. 9–3–57. Filed 11–13–56.

666,304. PREWAY. Preway, Inc. SN 35,452. Pub. 6–10–58. Filed 8–13–57.

666,305. SWEIGART SCOTCHEATER. William M. Sweigart, d. b. a. Wm. M. Sweigart Mfg. Co. SN 38,396. Pub. 6–10–58. Filed 10–4–57.

666,306. AMER-KOOL. American Air Filter Company, Inc. SN 38,723. Pub. 6–10–58. Filed 10–11–57.

666,307. STARTEMP. Star Metal Mfg. Co., Inc. SN 39,424. Pub. 6–10–58. Filed 10–23–57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

666,308. TYRB-X. Tyrex Sales Corporation. SN 697,509. Pub. 12–18–56. Filed 11–1–55.

666,309. 3-T. The Goodyear Tire & Rubber Company. SN 37,952. Pub. 6–10–58. Filed 9–27–57.

666,310. BUCRON. Atlas Supply Company. SN 40,545. Pub. 6–10–58. Filed 11–13–57.

666,311. THORO-LINK. The Dayton Rubber Company. SN 40,819. Pub. 6–10–58. Filed 11–18–57.

666,312. THERMO-FLO. The Goodyear Tire & Rubber Company. SN 40,832. Pub. 6–10–58. Filed 11–18–57.

666,313. PRE-PAK. Air Products, Inc. SN 41,428. Pub. 6–10–58. Filed 11–27–57.

666,314. ATOMATIC. Atlas Supply Company. SN 41,740. Pub. 6–10–58. Filed 12–4–57.

Class 36—Musical Instruments and Supplies

666,315. LUBRI-STAT. Fidelitone, Incorporated, by change of name from Permo, Incorporated. SN 28,795. Pub. 6–10–58. Filed 4–24–57.

666,316. TOREADOR. Fernando J. Montilla. SN 39,825. Pub. 6–10–58. Filed 10–30–57.

Class 38—Prints and Publications

666,317. ALLURE LINE. Advance Lithographing Company. SN 20,884. Pub. 6–10–58. Filed 12–12–56.

666,318. EASTER SEAL. The National Society for Crippled Children and Adults, Inc., d. b. a. The Easter Seal Society and The Easter Seal Agency. SN 28,537. Pub. 6–10–58. Filed 4–19–57.

666,319. FINANCIAL WORLD. Guenther Publishing Corporation. SN 34,423. Pub. 6–10–58. Filed 7–26–57.

666,320. LOCALE. Ad-Research. SN 36,705. Pub. 6–10–58. Filed 9–5–57.

666,321. THE COWCATCHER CONFIDENTIAL. Feed Service Corporation. SN 39,463. Pub. 6–10–58. Filed 10–24–57.

666,322. HAMMOND TANKER. Hammond Iron Works. SN 39,875. Pub. 6–10–58. Filed 10–31–57.

666,323. PIANO AND ORGAN KEYBOARD MAGIC. Song Dex, Inc. SN 39,996. Pub. 6–10–58. Filed 11–1–57.

666,324. JIM SOLAR SPACE SHERIFF AND DESIGN. Vital Publications, Inc. SN 40,004. Pub. 6–10–58. Filed 11–1–57.

666,325. WHITE COLLAR REPORT. The Bureau of National Affairs, Inc. SN 40,168. Pub. 6–10–58. Filed 11–6–57.

666,326. INDUSTRIAL ELECTRONICS. Sutton Publishing Company, Inc. SN 40,192. Pub. 6–10–58. Filed 11–6–57.

666,327. THE AMERICAN ROUND TABLE. The Advertising Council, Inc. SN 40,734. Pub. 6–10–58. Filed 11–15–57.

666,328. JESTERS AND DESIGN. American Greetings Corporation. SN 41,216. Pub. 6–10–58. Filed 11–25–57.

666,329. HELINEWS. Helipot Corporation. SN 41,275. Pub. 6–10–58. Filed 11–25–57.

Class 39—Clothing

666,330. TUCAWAY. Glovecraft, Inc. SN 27,499. Pub. 6–10–58. Filed 4–4–57.

666,331. LILY MAID. Lily of France, Inc., Assignee of Sidney Bernstein & Son Lingerie, Inc. SN 29,860. Pub. 11–26–57. Filed 5–13–57.

666,332. ANDY PANDA. Select Sportswear, Inc. SN 37,819. Pub. 6–10–58. Filed 9–25–57.

666,333. COASTAL. Coastal Footwear Corporation. SN 39,383. Pub. 6–10–58. Filed 10–23–57.

666,334. TOURNEY. Haggar Company. SN 39,525. Pub. 6–10–58. Filed 10–25–57.

666,335. CHANTILLY. Glen Raven Knitting Mills, Inc. SN 39,620. Pub. 6–10–58. Filed 10–28–57.

666,336. DUCK-A-STORM. Napco Chemical Company, Incorporated. SN 39,981. Pub. 6–10–58. Filed 11–1–57.

666,337. H.S.K AND DESIGN. Hayakawa Seni Kogyo Kabushiki Kaisha (Hayakawa Textile Industries Co., Ltd.). SN 40,120. Pub. 6–10–58. Filed 11–5–57.

666,338. PARTY-PRETTY. International Latex Corporation. SN 41,021. Pub. 6–10–58. Filed 11–20–57.

666,339. LARK. Bifex Foundations, Inc. SN 41,282. Pub. 6–10–58. Filed 11–25–57.

666,340. JANE ANN. Alamo Manufacturing Co., Inc. SN 41,346. Pub. 6–10–58. Filed 11–26–57.

666,341. MONOCLE DEBS. J. Freeser & Son, Inc. SN 41,371. Pub. 6–10–58. Filed 11–26–57.

Class 40—Fancy Goods, Furnishings, and Notions

666,342. VALET HORN. Anson Incorporated. SN 37,208. Pub. 6–10–58. Filed 9–16–57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

666,343. KAYCEL. Kimberly-Clark Corporation. SN 35,438. Pub. 3–25–58. Filed 8–13–57.

666,344. WONDERCARE. J. P. Stevens & Co., Inc. SN 38,307. Pub. 6–10–58. Filed 10–3–57.

666,345. SENECLASS. United Merchants and Manufacturers, Inc. SN 38,311. Pub. 6–10–58. Filed 10–3–57.

666,346. CALICOOL. S. Augstein & Co., Inc. SN 40,415. Pub. 6–10–58. Filed 11–12–57.

666,347. PERMAPAD. Cabin Crafts, Inc. SN 40,554. Pub. 6–10–58. Filed 11–13–57.

Class 44—Dental, Medical, and Surgical Appliances

666,349. SIR AND DESIGN. Aeralite Co. Inc. SN 39,440. Pub. 6–10–58. Filed 10–24–57.

Class 46—Foods and Ingredients of Foods

666,349. GOLD MINE. DCA Food Industries Inc., by change of name from Doughnut Corporation of America. SN 14,039. Pub. 6–10–58. Filed 8–16–56.

666,350. PIZZARAMA. Donna Lochiatto, d. b. a. House of Pizza. SN 19,317. Pub. 6–10–58. Filed 11–15–56.

666,351. BURK'S. Louis Burk Company. SN 30,142. Pub. 6–10–58. Filed 5–16–57.

666,352. P & P'S. Planters Nut & Chocolate Co. SN 33,097. Pub. 6–10–58. Filed 7–2–57.

666,353. GARDEN STATE. Garden State Packing Co. SN 33,145. Pub. 6–10–58. Filed 7–3–57.

666,354. BAILEY'S BREW BEST AND DESIGN. Southland Coffee Company. SN 35,012. Pub. 6–10–58. Filed 8–5–57.

666,355. BURLS. Edy's Character Candies. SN 37,245. Pub. 6–10–58. Filed 9–16–57.

666,356. BANZONA. Anton Banz, d. b. a. Banzona Product Company. SN 38,970. Pub. 6–10–58. Filed 10–16–57.

666,357. REALL. Somafa, S. A. SN 39,500. Pub. 6–10–58. Filed 10–24–57.

666,358. BON APPETIT! Leaf Brands, Inc. SN 41,030. Pub. 6–10–58. Filed 11–20–57.

666,359. BLUE LAKES. Blue Lakes Trout Farm. SN 41,353. Pub. 6–10–58. Filed 11–26–57.

666,360. VIN-MIX. Standard Brands Incorporated. SN 41,721. Pub. 6–10–58. Filed 12–3–57.

666,361. WHIRLIGIGS. James O. Welch Company. SN 41,959. Pub. 6–10–58. Filed 12–6–57.

666,362. DU-RATION. Food Products Company of America. SN 42,124. Pub. 6–10–58. Filed 12–10–57.

666,363. SPUD-QUIK AND DESIGN. Produce Packers, Inc. SN 42,156. Pub. 6–10–58. Filed 12–10–57.

666,364. SWEETFLOW. Nutrena Mills, Inc. SN 42,303. Pub. 6–10–58. Filed 12–12–57.

666,365. UNLIMITED. Andrus & Funk Produce Co., d. b. a. Andrus & Funk. SN 42,338. Pub. 6–10–58. Filed 12–13–57.

Class 48—Malt Beverages and Liquors

666,366. HB AND DESIGN. Staatliches Hofbräuhaus in München. SN 28,649. Pub. 6–10–58. Filed 4–22–57.

666,367. BUD. Anheuser-Busch, Incorporated. SN 40,799. Pub. 6–10–58. Filed 11–18–57.

Class 49—Distilled Alcoholic Liquors

666,368. SCHENLEY ELEGANCE SE AND DESIGN. Schenley Industries, Inc. SN 33,915. Pub. 6–10–58. Filed 7–17–57.

666,369. OLD KT. Glenmore Distilleries Company. SN 37,352. Pub. 6–10–58. Filed 9–17–57.

666,370. CURUMCAO. El Louvre, S. A. SN 40,474. Pub. 6–10–58. Filed 11–12–57.

666,371. FELTON'S. Felton & Son, Incorporated. SN 41,013. Pub. 6–10–58. Filed 11–20–57.

Class 50—Merchandise Not Otherwise Classified

666,372. HOBBY BIRTHDAY. Jerome H. Pennock. SN 31,862. Pub. 6–10–58. Filed 6–12–57.

666,373. ADDRESSOGRAPH. Addressograph-Multigraph Corporation. SN 39,029. Pub. 6–10–58. Filed 10–17–57.

666,374. LUMIPLEX. The Bevelite Corporation. SN 39,579. Pub. 6–10–58. Filed 10–28–57.

Class 51—Cosmetics and Toilet Preparations

666,375. DEEP ORCHID. Kenneth Henderson, d. b. a. Andrea Gail. SN 698,865. Pub. 6–10–58. Filed 11–25–55.

666,376. ORCHID MIST. Kenneth Henderson, d. b. a. Andrea Gail. SN 698,866. Pub. 6–10–58. Filed 11–25–55.

666,377. SPRAY OF ORCHIDS. Kenneth Henderson, d. b. a. Andrea Gail. SN 698,867. Pub. 6–10–58. Filed 11–25–55.

666,378. PARFRANCE. Parfums de France et de Monte-Carlo. SN 13,002. Pub. 6–10–58. Filed 4–30–56.

666,379. STA-COL AND DESIGN. Columbia Beauty and Barber Supply Company, d. b. a. State and Columbia Beauty and Barbers Supply Company. SN 13,424. Pub. 6–10–58. Filed 8–6–56.

666,380. BON VIVANT. Hagan Chemicals & Controls, Inc., by assignment, merger and change of name from Calgon, Inc. SN 18,710. Pub. 6–10–58. Filed 11–5–56.

666,381. REDYWAVE. The Realistic Company. SN 29,390. Pub. 6–10–58. Filed 5–3–57.

666,382. LACLEDE. Laclede Laboratories, Inc. SN 31,570. Pub. 6–10–58. Filed 6–7–57.

666,383. QUEEN ROYAL. W. F. Straub & Company. SN 34,055. Pub. 6–10–58. Filed 7–19–57.

666,384. "SO LOVELY." The Realistic Company. SN 36,474. Pub. 6–10–58. Filed 8–29–57.

666,385. SMUGGLER'S GOLD AND DESIGN. Pan-Am Cosmetic Company, Inc. SN 37,184. Pub. 6–10–58. Filed 9–13–57.

666,386. SPRAY-LIFE. Revlon, Inc. SN 37,375. Pub. 6–10–58. Filed 9–17–57.

666,387. ROYAL CROWN. J. Strickland & Co. SN 37,710. Pub. 6–10–58. Filed 9–23–57.

666,388. ROYAL COMMAND. Eleanor Mast, d. b. a. Imperial Toiletries Company. SN 37,741. Pub. 6–10–58. Filed 9–24–57.

666,389. HAMOLSWISS. Inter-Hamol Company, Ltd. SN 37,959. Pub. 6–10–58. Filed 9–27–57.

666,390. SAMEDI SOIR. The Lander Co. Inc., d. b. a. Elizabeth Post. SN 38,290. Pub. 6–10–58. Filed 10–3–57.

666,391. MARE MANO. Marino Manocchia, d. b. a. Vieni-Bella Cosmetic. SN 38,477. Pub. 6–10–58. Filed 10–7–57.

Class 52 — Detergents and Soaps

666,392. SCHWARZKOPF. Hans Schwarzkopf. SN 17,311. Pub. 6–10–58. Filed 10–11–56.

666,393. LUSTRITE. Turco Products, Inc. SN 34,829. Pub. 6–10–58. Filed 8–1–57.

666,394. PREGEST. Wallerstein Company, Inc. SN 41,055. Pub. 6–10–58. Filed 11–20–57.

Service Marks

Class 100 — Miscellaneous

666,395. NIBLACK SYSTEM. Niblack System, Inc. SN 39,544. Pub. 6–10–58. Filed 10–25–57.

Class 102 — Insurance and Financial

666,396. TREASURE STATE LIFE INSURANCE ETC. AND DESIGN. Treasure State Life Insurance Co. SN 40,398. Pub. 6–10–58. Filed 11–8–57.

666,397. AMICA. Automobile Mutual Insurance Company of America. SN 41,792. Pub. 6–10–58. Filed 12–5–57.

Class 107 — Education and Entertainment

666,398. REGISCOPE. Nassour Studios, Inc. SN 17,950. Pub. 6–10–58. Filed 10–22–56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 6 — Chemicals and Chemical Compositions

666,399. St. Louis Solvents and Chemical Company, Maplewood, St. Louis County, Mo. SN 25,645. Filed 3–6–57.

QUICK SOLV

For Solvents.
First use Jan. 1, 1945.

Class 17 — Tobacco Products

666,400. Domingo Mendez e Hijos, Havana, Cuba. SN 42,478. Filed 12–16–57.



"Regalias" means "royal rights or prerogatives"; "El Cuno" means a "die or a mark put on silver"; "Trigo" means "wheat." Owner of Cuban Reg. No. 71,264, dated Oct. 11, 1946.

For Cigarettes.

Class 21 — Electrical Apparatus, Machines, and Supplies

666,401. The Glastic Corporation, Cleveland, Ohio. SN 12,616. Filed P. R. 7–25–56. Am. S. R. 6–30–58.

CHANNEL-DUCT

For Protective Closure for Electrical Wires Particularly When Used on Panels for Electrical Apparatus.
First use May 7, 1956.

Class 22 — Games, Toys, and Sporting Goods

666,402. True Temper Corporation, Cleveland, Ohio, by change of name and merger from Montague-Ocean City Rod & Reel Co., Philadelphia, Pa. SN 15,481. Filed P. R. 9–11–56. Am. S. R. 6–19–58.

"STARLESS"

For Drag Reels and Other Type Fishing Reels.
First use June 28, 1956.

666,403. Stanley S. Harris, Culver, Oreg. SN 32,248. Filed P. R. 6–19–57. Am. S. R. 6–6–58.

HARRIS

For Holders for Fish Lures.
First use Apr. 1, 1957.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

666,404. Miele & Cie., Gutersloh, Westphalia, Germany. SN 6,542. Filed P. R. 4–17–56. Am. S. R. 2–20–57.

Miele

Owner of German Reg. Nos. 374,582 and 267,154, dated Sept. 26, 1927 and June 14, 1921, respectively.

For Water Motors and Vacuum Cleaners, Dish Washing Machines, Bread Cutting Machines, Meat Grinding Machines, Meat Cutting Machines, and Parts Thereof, Milking Installations Such as Milking Machines; Small Dairy Machinery Such as Milk Centrifuges, and Butter Kneaders; Fodder Shredders and Parts Thereof.

Class 28 — Jewelry and Precious-Metal Ware

666,405. Colonial Belt Co., Inc., New York, N. Y. SN 25,968. Filed P. R. 3–12–57. Am. S. R. 5–9–58.

MILANO

For Leather Wrist Watch Straps.
First use Jan. 4, 1957.

Class 38 — Prints and Publications

666,406. Relyea Publishing Corporation, New York, N. Y., assignee of The Industrial Laboratories Publishing Company, Chicago, Ill. SN 23,147. Filed P. R. 1–24–57. Am. S. R. 6–12–58.

RESEARCH AND DEVELOPMENT

For Publication Issued Periodically.
First use Jan. 4, 1957.

666,407. Stuart M. Ginsberg, Detroit, Mich. SN 29,061. Filed P. R. 4-29-57. Am. S. R. 6-13-58.

Home Buyers GUIDE

For Magazine Publication.
First use Nov. 23, 1956.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

666,408. Bates Manufacturing Company, Lewiston, Maine. SN 26,155. Filed P. R. 3-14-57. Am. S. R. 6-25-58.



The word "Finish" is disclaimed apart from the mark as shown.
For Shrinkage-Control Finish With Which Applicant Has Treated Its Fabric Piece Goods of Cotton, Synthetic, and All Mixtures of Cotton and Synthetic Fibers.
First use Mar. 4, 1957.

666,409. Rugby Rug Mills Inc., New York, N. Y. SN 27,347. Filed P. R. 4-1-57. Am. S. R. 6-17-58.

WEARBEST

For Textile Floor Coverings.
First use Mar. 20, 1957.

Class 43—Thread and Yarn

666,410. Bernhard Altmann International Corporation, New York, N. Y. SN 33,320. Filed 7-8-57.

THE HOUSE OF CASHMERE

For Yarn Being Made Wholly of Cashmere or in Substantial Part of Cashmere.
First use September 1951.

Class 46—Foods and Ingredients of Foods

666,411. Stephen F. Whitman & Son, Inc., Philadelphia, Pa. SN 608,750. Filed P. R. 11-22-55. Am. S. R. 6-12-57.

The Philadelphia Store Assortment

For Candy.
First use Oct. 3, 1955.

666,412. Haxton Foods, Inc., Oakfield, N. Y. SN 32,082. Filed P. R. 6-17-57. Am. S. R. 6-9-58.

FRU-T-APPLE

For Canned Blend of Applesauce and Apricots.
First use June 3, 1957.

666,413. Ohio Valley Egg Cooperative, Milford, Ohio. SN 36,015. Filed P. R. 8-22-57. Am. S. R. 6-19-58.

OHIO VALLEY

For Raw Eggs.
First use Oct. 1, 1955.

666,414. Frank Pluss, d. b. a. Pluss Poultry Company, Denver, Colo. SN 42,038. Filed P. R. 12-9-57. Am. S. R. 6-23-58.



For Fresh or Frozen Dressed Poultry.
First use on or about and prior to Sept. 1, 1947.

666,415. Kellogg Company, Battle Creek, Mich. SN 43,459. Filed 1-6-58.

HANDI-PAK

For Cereal Breakfast Foods.
First use Mar. 2, 1948.

666,416. N. Dorman & Co., Inc. (N. Y.), New York, N. Y. SN 47,568. Filed 3-12-58.

Dorman's

For Cheese.
First use Feb. 16, 1957.

Class 48—Malt Beverages and Liquors

666,417. G. Heileman Brewing Co., La Crosse, Wis. SN 37,654. Filed P. R. 9-23-57. Am. S. R. 6-23-58.



For Beer.
First use June 10, 1957.

Class 51—Cosmetics and Toilet Preparations

666,418. Richard Hudnut, New York, N. Y. SN 12,625. Filed P. R. 7-28-56. Am. S. R. 5-15-58.

GOLDEN PEARL

For Hair Coloring.
First use July 17, 1956.

666,419. Sylvia Menda, Los Angeles, Calif., assignee of Tint 'N Set, Inc., Los Angeles, Calif. SN 17,134. Filed P. R. 10-8-56. Am. S. R. 1-20-58.

Tint 'n Set

For Hair Treating Compound.
First use May 2, 1954.

666,420. Frances Denney, Philadelphia, Pa. SN 19,433. Filed P. R. 11-19-56. Am. S. R. 6-30-58.

MULTI-LAYER MOISTURIZER

For Cosmetic Skin Cream Lotion or Emulsion.
First use Nov. 5, 1956.

666,421. Hand-Care, Incorporated, Chicago, Ill. SN 29,799. Filed P. R. 5-10-57. Am. S. R. 5-9-58.

Brush-on nail

For Combination Package Containing an Application Shield, Plastic Powder, and Liquid Activating Agent for Use in Lengthening, Forming, and Shaping Fingernails Which, on Application, Is Transformed Into a Solid.
First use Feb. 11, 1957; May 25, 1955, as to "Brush-On."

666,422. L'Adorn, Inc., Great Neck, N. Y. SN 84,147. Filed 7-22-57.



The mark is the configuration of the package containing the goods.
For Perfume, Cologne, Toilet Water.
First use Oct. 19, 1955.

PINK TOUCH

For Lipsticks.
First use June 1, 1949.

Service Mark

Class 102—Insurance and Financial

666,424. The First National Bank of San Jose, San Jose, Calif. SN 690,692. Filed P. R. 7-5-55. Am. S. R. 2-10-58.



The drawing is lined for red and yellow.
For Extension of Credit to Customers Purchasing From Subscribing Retail Outlets and Making Collections From Such Customers Through a Central Billing System.
First use June 1, 1953.

TRADEMARK REGISTRATIONS RENEWED

121,942. PASCO. Cl. 46. 6-11-18.
121,986. MARQUETTE. Cl. 37. 6-11-18.
122,029. SWANSDOWN AND DESIGN. Cl. 46. 6-18-18.
122,103. AVRO. Cl. 19. 6-25-18.
122,187. CARIBONUM AND DESIGN. Cl. 11. 7-9-18.
122,483. DIAMOND. Cl. 27. 8-20-18.
122,493. DEFENDER. Cl. 13. 8-20-18.
122,496. RUTHLESS. Cl. 13. 8-20-18.
122,498. KICKAPOO. Cl. 13. 8-20-18.
122,544. SPREDIT. Cl. 46. 8-20-18.
123,007. IRONTIC. Cl. 18. 10-1-18.
123,151. CELLUSEAL. Cl. 16. 10-15-18.
355,143. EXHUMAT. Cl. 18. 8-8-38.
355,761. OHIO AND DESIGN. Cl. 9. 8-29-38.
356,452. LONGCHAMPS. Cl. 46. 8-26-38.
356,537. ELNA. Cl. 23. 8-8-38.
357,075. MASTER. Cl. 19. 8-14-38.
357,829. SERRATED BAR AND DIAMOND. Cl. 15. 8-14-38.
357,980. ARTWISE AND DESIGN. Cl. 11. 8-21-38.
357,996. FERROSTAN. Cl. 14. 8-21-38.
358,038. COLLORESINE. Cl. 6. 8-28-38.
358,063. BEAUTY ANGLE. Cl. 50. 8-28-38.
358,228. DECO. Cl. 46. 7-5-38.
358,411. EUMIG AND DESIGN. Cl. 26. 7-12-38.
358,509. INGELHEIM AND DESIGN. Cl. 18. 7-19-38.
358,906. PHILLY. Cl. 39. 7-26-38.
359,048. UNIVERSITY AND DESIGN. Cl. 37. 8-2-38.
359,465. DANMARK.00 AND DESIGN. Cl. 46. 8-23-38.
359,660. SULPHOCOL. Cl. 18. 8-30-38.
359,725. ALDROX. Cl. 18. 8-30-38.
359,820. NOREEN AND DESIGN. Cl. 51. 8-30-38.
359,874. BELIXOL. Cl. 18. 8-30-38.
359,879. SHAKESPEARE. Cl. 22. 8-30-38.
360,134. DI-HARD AND DESIGN. Cl. 23. 9-6-38.
360,213. RED SAIL AND DESIGN. Cl. 46. 9-13-38.
360,381. EVENREST. Cl. 32. 9-13-38.
360,474. CAPITOL. Cl. 37. 9-20-38.
360,554. WONDER. Cl. 6. 9-20-38.
360,556. MAGIC. Cl. 6. 9-20-38.
360,557. MAJESTY. Cl. 6. 9-20-38.
360,953. ETHOFOIL. Cl. 37. 10-4-38.
361,237. EXTERMITAL. Cl. 6. 10-11-38.
361,250. SOLVE-X. Cl. 16. 10-11-38.
361,380. WAXSPOT. Cl. 38. 10-18-38.
361,439. NATIONAL. Cl. 23. 10-18-38.
361,484. ROUND THE CLOCK. Cl. 39. 10-18-38.
361,523. PEN-EASE. Cl. 37. 10-18-38.
361,638. SALEX. Cl. 46. 10-25-38.

361,670. R AND DESIGN. Cl. 14. 10–25–38.
361,774. SNOW WHITE. Cl. 49. 11–1–38.
361,946. Z. Cl. 6. 11–8–38.
362,048. FLARE AND DESIGN. Cl. 52. 11–8–38.
362,166. METHOCEL. Cl. 6. 11–15–38.
362,211. ARCH POISE AND DESIGN. Cl. 39. 11–15–28.
362,615. FLARE AND DESIGN. Cl. 16. 11–22–38.
362,616. FLARE AND DESIGN. Cl. 4. 11–22–38.
362,628. DICTO-MATIC. Cl. 21. 11–22–38.
362,672. ETHOCEL. Cl. 6. 11–29–38.
362,754. CHARTREUSE. Cl. 49. 11–29–38.
362,811. TAXES ON PARADE. Cl. 38. 11–29–38.
362,877. STYRON. Cl. 1. 12–6–38.
362,878. STYREX. Cl. 1. 12–6–38.
362,934. FLARE AND DESIGN. Cl. 5. 12–6–38.
362,998. PAPAZIAN CLEAROMA-COFFEE AND DESIGN. Cl. 45. 12–6–38.
363,009. POROSEEN. Cl. 42. 12–6–38.
363,010. POROSETTE. Cl. 42. 12–6–38.
363,015. POREENA. Cl. 42. 12–6–38.

TRADEMARK REGISTRATIONS CANCELED

Section 8

18,260. WAB AND DESIGN. Cl. 1. 8–5–1890.
86,479. TE-CE-CO. Cl. 46. 5–7–12.
86,480. WINAWAY AND DRAWING. Cl. 46. 5–7–12.
86,638. TE-CE-CO AND DRAWING. Cl. 46. 5–21–12.
291,932. KATHYMLAC. Cl. 18. 2–23–32.
355,921. CURLY TOP. Cl. 51. 4–5–38.
363,433. MERRIWINKLE. Cl. 1. 12–27–38.
395,682. BURPEE'S. Cl. 10. 6–2–42.
433,178. LUCKY LOUIE. Cl. 22. 9–30–47.
441,280. WM. HENRY MAULE. Cl. 1. 11–9–48.
441,281. MAULE'S. Cl. 1. 11–9–48.
441,282. MAULE. Cl. 1. 11–9–48.
541,824. STAR GLO AND DESIGN. Cl. 21. 5–1–51.

The following registrations issued July 8, 1958

561,027. ALCOBOL. Cl. 6.
561,028. IT HITS THE SPOT. Cl. 48.
561,029. VITROGLOSS. Cl. 16.
561,033. PEACOCK. Cl. 45.
561,047. ST. HELENA. Cl. 47.
561,049. FOLER-IZED. Cl. 46.
561,050. MY POP'S IT'S TOPS IN ROOTBEER AND DESIGN. Cl. 45.
561,051. CRYSTA LINE AND DESIGN. Cl. 33.
561,052. CADET. Cl. 48.
561,055. MORRIS. Cl. 39.
561,057. INDIA PALE ALE LABEL AND DESIGN. Cl. 48.
561,058. NITE 'N DAY. Cl. 32.
561,063. BD MONOGRAM AND ENTIRE LABEL (OPORTO) DESIGN. Cl. 47.
561,067. DESIGN OF AN ENTRANCE. Cl. 51.
561,068. KERMATH. Cl. 23.
561,069. LENNOX HOLIDAY HOUSE. Cl. 12.
561,070. JET OMATIC. Cl. 23.
561,073. CHARMETTE. Cl. 51.
561,074. PUMI-CELL AND ENTIRE DESIGN. Cl. 12.
561,075. PUMI-CELL. Cl. 12.
561,077. ALOYL. Cl. 15.
561,081. MAGIC FISH LURE AND DESIGN. Cl. 22.
561,082. THE KENTSHIRE. Cl. 32.
561,083. DARK MIST. Cl. 1.
561,087. CRACKIN' GOOD AND ENTIRE DESIGN. Cl. 46.
561,090. HOMADOR. Cl. 32.
561,091. ALLASH KUMMEL AND ENTIRE DESIGN. Cl. 49.
561,092. HANDI-POCKET COIN BANK. Cl. 37.
561,099. LUX PUNTAX. Cl. 26.
561,101. ARD WITHIN DESIGN. Cl. 1.
561,103. BURTAS. Cl. 39.
561,106. RED TOPPER. Cl. 39.
561,111. KENTUCKY COLONEL COAL AND DESIGN. Cl. 1.
561,112. PIECES OF 8 AND DESIGN. Cl. 46.
561,123. SARA'S WAF'L-BAT'R. Cl. 46.
561,126. TREASURE. Cl. 29.
561,127. CHICKEN BYE-BYE. Cl. 46.
561,129. STANDARD SPEEDMIXER. Cl. 23.
561,139. INSPIRATION. Cl. 32.
561,140. CRUSADER TOYS AND DESIGN. Cl. 22.
561,141. CERESOTA. Cl. 46.
561,146. SERV-8-SET. Cl. 30.
561,147. VILLAGE INN AND DESIGN. Cl. 46.
561,148. RALLY. Cl. 23.
561,149. EVEREZE. Cl. 32.
561,158. MEER-ACLE. Cl. 8.
561,163. HARDIE'S. Cl. 46.
561,167. DYNA-DISC. Cl. 13.
561,169. PEN-SUL-DENT. Cl. 44.
561,170. ENHANSET. Cl. 28.
561,173. MONOGRAM DESIGN. Cl. 28.
561,174. TABLE ON THE SPOT. Cl. 32.
561,175. WI-DI-LET. Cl. 28.
561,180. SEVA. Cl. 13.
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Hudnut, Richard, Morris Plains, N. J. 358,063, ren. 6–28–58. Cl. 50.
Hudnut, Richard, New York, N. Y. 666,418. Cl. 51.
Hunter Douglas Aluminum Corp., Bridgeport, Conn. 666,172, pub. 6–10–58. Cl. 12.
Hunt Foods and Industries, Inc.: *See*—
Ohio Match Co., The.
Hycon Mfg. Co., Pasadena, Calif. 666,243, pub. 6–10–58. Cl. 21.
Imperial Toiletries Co.: *See*—
Mast, Eleanor.
Independent Milwaukee Brewery, Milwaukee, Wis. 561,052, canc. Cl. 48.
Indiana Steel Products Co., The, Valparaiso, Ind. 666,238, pub. 6–10–58. Cl. 21.
Industrial Laboratories Publishing Co., The: *See*—
Relyea Publishing Corp.
Ingraham, E., Co., The, Bristol, Conn. 122,483, ren. 8–20–58. Cl. 27.
Insulating Aggregates Co.: *See*—
Grant, Gerald M. M.
Insul-8-Corp., San Carlos, Calif. 666,244, pub. 6–10–58. Cl. 21.
Inter-Hamol Co., Ltd., Zurich, Switzerland. 666,389, pub. 6–10–58. Cl. 51.
International Latex Corp., Dover, Del. 666,338, pub. 6–10–58. Cl. 39.
International Nickel Co., Inc., The, New York, N. Y. 361,670, ren. 10–25–58. Cl. 14.
International Nickel Co., Inc., The, New York, N. Y. 666,184, pub. 6–10–58. Cl. 14.
International Paper Co., New York, N. Y., from The Long-Bell Lumber Co., Longview, Wash. 666,160, pub. 6–10–58. Cl. 12.
Interstate Venetian Blinds Co.: *See*—
Cabral, Charles G.
Iversen Canning Co., Bellingham and Point Roberts, Wash. 561,267, canc. Cl. 46.
Jet Research Center, Inc., Arlington, Tex. 666,157, pub. 6–10–58. Cl. 9.
Juilliard, A. D., & Co., Inc., New York, N. Y. 561,216, canc. Cl. 42.
Kahn Bros. Co., Chicago, Ill. 666,158, pub. 6–10–58. Cl. 10.
Kee Lox Mfg. Co., Rochester, N. Y. 666,143, pub. 6–10–58. Cl. 4.
Kellogg Co., Battle Creek, Mich. 666,415. Cl. 46.
Kent-Coffey Mfg. Co., Lenoir, N. C. 561,082, canc. Cl. 32.
Kermath Mfg. Co., Detroit, Mich. 561,068, canc. Cl. 23.
Keystone Steel & Wire Co., to Keystone Steel & Wire Co., Peoria, Ill. 122,493, ren. 8–20–58. Cl. 13.
Keystone Steel & Wire Co., to Keystone Steel & Wire Co., Peoria, Ill. 122,496, ren. 8–20–58. Cl. 13.
Keystone Steel & Wire Co., to Keystone Steel & Wire Co., Peoria, Ill. 122,498, ren. 8–20–58. Cl. 13.
Kimberly-Clark Corp., Neenah, Wis. 666,343, pub. 3–25–58. Cl. 42.
Kresge, S. S., Co., Detroit, Mich. 666,251, pub. 6–10–58. Cl. 21.
Kryion, Inc., Norristown, Pa. 666,148, pub. 6–10–58. Cl. 6.
Kux, Andrew, d. b. a. Occidental Electric Co., Nogales, Ariz. 666,249, pub. 6–10–58. Cl. 21.
Kux, Andrew, d. b. a. Occidental Electric Co., Nogales, Ariz. 666,236, pub. 6–10–58. Cl. 21.
Labatt, John, Ltd., London, Ontario, Canada. 561,057, canc. Cl. 48.
Laciede Laboratories, Inc., New York, N. Y. 666,382, pub. 6–10–58. Cl. 51.
L'Adorn, Inc., Great Neck, N. Y. 666,422, pub. 8–26–58. Cl. 51.
Landbrugsministeriet, Copenhagen, Denmark. 359,465, ren. 8–23–58. Cl. 46.
Lander Co. Inc., The, d. b. a. Elizabeth Post, New York, N. Y. 666,390, pub. 6–10–58. Cl. 51.
Lashley, Sara H., Atlantic City, N. J. 561,175, canc. Cl. 28.
Lavino, E. J., and Co., Philadelphia, Pa. 666,170, pub. 6–10–58. Cl. 12.
Leaf Brands, Inc., Chicago, Ill. 666,358, pub. 6–10–58. Cl. 46.
Lee Mfg. Co., Philadelphia, Pa. 561,315, canc. Cl. 50.
Lehon Co., The: *See*—
Carey, Philip, Mfg. Co., The.
Lennox Furnace Co., The, Marshalltown, Iowa. 561,069, canc. Cl. 12.
Lifter Bottling Co. of Chicago, Chicago, Ill.; F. J. Curtis, receiver in bankruptcy of said Lifter Bottling Co. of Chicago, to D. Shuman. 561,033, canc. Cl. 45.
Lily of France, Inc., from Sidney Bernstein & Son Lingerie, Inc., New York, N. Y. 666,331, pub. 11–26–57. Cl. 39.
Lochiatto, Donna, d. b. a. House of Pizza, Jamaica Plain, Mass. 666,350 pub. 6–10–58. Cl. 46.
Logeman, C. W., Co., Brooklyn, N. Y. 666,290, pub. 5–13–58. Cl. 26.
Long-Bell Lumber Co., The: *See*—
International Paper Co.
Longchamps, Inc.: *See*—
Restaurants & Patisseries Longchamps, Inc.
Lumber Fabricators, Inc., Fort Payne, Ala. 666,163, pub. 6–10–58. Cl. 12.
Lyon Fish Co., Minneapolis, Minn. 360,213, ren. 9–13–58. Cl. 46.
Macklanburg-Duncan Co., Oklahoma City, Okla. 666,168, pub. 6–10–58. Cl. 12.
Madison Industries, Inc., Muskegon, Mich. 666,274, pub. 6–10–58. Cl. 23.
Malmberg, Ake, Stockholm, Sweden. 561,148, canc. Cl. 23.
Manocchia, Marino, d. b. a. Vieni-Bella Cosmetic, Pittsburgh, Pa. 666,391, pub. 6–10–58. Cl. 51.
Martin-Senour Co., The, Chicago, Ill. 361,250, ren. 10–11–58. Cl. 16.
Masonite Corp., Chicago, Ill. 666,182, pub. 6–10–58. Cl. 13.
Mast, Eleanor, d. b. a. Imperial Toiletries Co., New York, N. Y. 666,388, pub. 6–10–58. Cl. 51.
Maule, Wm. Henry, Co., to W. Atlee Burpee Co., Philadelphia, Pa. 441,280, canc. Cl. 1.
Maule, Wm. Henry, Co., to W. Atlee Burpee Co., Philadelphia, Pa. 441,281, canc. Cl. 1.
Maule, Wm. Henry, Co., to W. Atlee Burpee Co., Philadelphia, Pa. 441,282, canc. Cl. 1.
May Department Stores Co., The, St. Louis, Mo. 666,231, pub. 6–10–58. Cl. 21.
Mayville Metal Products Co., Mayville, Wis. 666,271, pub. 6–10–58. Cl. 23.
McAteer, James A., & Sons, Inc., Pittsburgh, Pa., to General Foods Corp., White Plains, N. Y. 122,029, ren. 6–18–58. Cl. 46.
McBee Co., The, Athens, Ohio, to Royal McBee Corp., Port Chester, N. Y. 361,380, ren. 10–18–58. Cl. 38.
Medi-Phragm Products: *See*—
Hagaman, Charles B.
Mende, Sylvia, from Tint 'N Set, Inc., Los Angeles, Calif. 666,419. Cl. 51.
Mendez, Domingo, E Hijos, Havana, Cuba. 666,400. Cl. 17.
Mesco Products: *See*—
Smith, Marsh E.
Metlox Mfg. Co., Manhattan Beach, Calif. 561,293, canc. Cl. 30.
Metlox Mfg. Co., Manhattan Beach, Calif. 561,298, canc. Cl. 30.
Miag Muhlenbau und Industrie G. m. b. H., Braunschweig, Germany. 666,260, pub. 6–10–58. Cl. 23.
Michigan Dock Co., to Michigan Dock and Mfg. Co., Battle Creek, Mich. 561,149, canc. Cl. 32.
Michigan Dock and Mfg. Co.: *See*—
Michigan Dock Co.
Miele & Cie, Gutersloh (Westf.), Germany. 666,404. Cl. 23.
Miller, Andrew J., Granville, Iowa. 291,932, canc. Cl. 18.
Miner, W. H., Inc., Chicago, Ill. 666,223, pub. 6–10–58. Cl. 19.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 666,146, pub. 6–10–58. Cl. 5.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 666,165, pub. 6–10–58. Cl. 12.
Minser Tackle Co.: *See*—
Minser, William D.
Minser, William D., d. b. a. Minser Tackle Co., Seattle, Wash. 433,178, canc. Cl. 22.
Miss Swank, Inc., New York, N. Y. 561,231, canc. Cl. 39.
Mitchell, Dennis, Industries, Philadelphia, Pa. 666,228, pub. 6–10–58. Cl. 19.
Montague-Ocean City Rod & Reel Co.: *See*—
American Tackle and Equipment Co.
Montilla, Fernando J., New York, N. Y. 666,316, pub. 6–10–58. Cl. 36.
Moore, Thomas, d. b. a. The Vosemar Co., Bury, England. 355,921, canc. Cl. 51.
Morganite Inc., Long Island City, N. Y. 666,252, pub. 6–10–58. Cl. 21.
Morris Garment Co.: *See*—
Morris, William P.
Morris, William P., d. b. a. Morris Garment Co., Hobbs, N. Mex. 561,055, canc. Cl. 39.
Morse, Faye B.: *See*—
Tork, Alfred.
Moto-Tilt Products Co., Wauconda, Ill. 666,281, pub. 6–10–58. Cl. 23.
Mulford Colloid Laboratories, Philadelphia, Pa. 359,660, ren. 8–30–58. Cl. 18.
My Pop's Root Beer Co., Philadelphia, Pa. 561,050, canc. Cl. 45.
Nachman Corp., Chicago, Ill. 666,298, pub. 6–10–58. Cl. 32.

Napa Valley Grape Products, Inc., New York, N. Y. 561,047, canc. Cl. 47.
Napco Chemical Co., Inc., Denver, Colo. 666,336, pub. 6–10–58. Cl. 39.
Nassour Studios, Inc., Los Angeles, Calif. 666,398, pub. 6–10–58. Cl. 107.
National Cooperatives, Inc., Albert Lea, Minn. 666,285, pub. 6–10–58. Cl. 24.
National Engineering Co., Chicago, Ill. 561,129, canc. Cl. 23.
National Hosiery Mills, Inc.: *See*—
National Silk Hosiery Mills, Inc.
National Plastic Products Co., The, Odenton, Md. 561,211, canc. Cl. 12.
National Silk Hosiery Mills, Inc., to National Hosiery Mills, Inc., Indianapolis, Ind. 361,484, ren. 10–18–58. Cl. 39.
National Society for Crippled Children and Adults, Inc., The, d. b. a. The Easter Seal Society and The Easter Seal Agency, Chicago, Ill. 666,318, pub. 6–10–58. Cl. 38.
National Twist Drill & Tool Co., Detroit, Mich. 361,439, ren. 10–28–58. Cl. 23.
Nelson Brothers, West Wyoming, Pa. 561,058, canc. Cl. 32.
New England Grain Products Co., Yarmouth, Maine. 561,049, canc. Cl. 46.
New Jersey Egg Institute, Inc., Toms River, N. J. 561,285, canc. Cl. 46.
New York Trade School, The, New York, N. Y. 561,279, canc. Cl. 103.
Niblack System, Inc., Houston, Tex. 666,395, pub. 6–10–58. Cl. 100.
Nickey Brothers, Inc., Memphis, Tenn. 666,159, pub. 6–10–58. Cl. 12.
Nippon Kogaku Kogyo K. K., Shimagawa-Ku, Tokyo, Japan. 666,287, pub. 6–10–58. Cl. 26.
Norden Laboratories, Lincoln, Nebr. 666,214, pub. 6–10–58. Cl. 18.
Northwood Fur Farms, Cary, Ill. 561,083, canc. Cl. 1.
Noreen, Inc.: *See*—
Baum, Ellen N.
Nutrena Mills, Inc., Minneapolis, Minn. 666,364, pub. 6–10–58. Cl. 46.
O'Brien Corp., The: *See*—
O'Brien Varnish Co., The.
O'Brien Varnish Co., The, to The O'Brien Corp., South Bend, Ind. 123,151, ren. 10–15–58. Cl. 16.
Occidental Electric Co.: *See*—
Kux, Andrew.
Ohio Match Co., The, Wadsworth, Ohio, to Hunt Foods and Industries, Inc., Fullerton, Calif. 355,761, ren. 3–29–58. Cl. 9.
Ohio Valley Egg Cooperative, Milford, Ohio. 666,413. Cl. 46.
Oil Well Supply Co., Dallas, Tex., to United States Steel Corp., Pittsburgh, Pa. 360,134, ren. 9–6–58. Cl. 23.
Outboard Marine Corp., Waukegan, Ill. 666,277, pub. 6–10–58. Cl. 23.
Pacific Coast Engineering Co., Alameda, Calif. 666,266, pub. 5–20–58. Cl. 23.
Pacific Wines, Los Angeles, Calif. 561,232, canc. Cl. 47.
Pan-Am Cosmetic Co., Inc., Brooklyn, N. Y. 666,385, pub. 6–10–58. Cl. 51.
Papazian, Garabed S., West New Brighton, N. Y. 362,998, ren. 12–6–58. Cl. 45.
Parfums de France et de Monte-Carlo, Paris, France. 666,378, pub. 6–10–58. Cl. 51.
Park & Tilford, New York, N. Y. 666,423. Cl. 51.
Parry Laboratories, Inc., New York, N. Y. 666,212, pub. 6–10–58. Cl. 18.
Pastene & Co. Inc.: *See*—
Pastene, P., & Co., Inc.
Pastene, P., & Co., Inc., Boston, Mass., to Pastene & Co. Inc., New York, N. Y. 121,942, ren. 6–11–58. Cl. 46.
Paterson Foundry and Machine Co., The, East Liverpool, Ohio. 666,161, pub. 6–10–58. Cl. 12.
Paxton-Mitchell Co., Omaha, Nebr. 666,181, pub. 6–10–58. Cl. 13.
Peerless Photo Products, Inc., Shoreham, N. Y. 666,289, pub. 6–17–58. Cl. 26.
Pellerin Milnor Corp., New Orleans, La. 666,284, pub. 6–10–58. Cl. 24.
Penick, S. B., & Co., New York, N. Y. 666,200, pub. 6–10–58. Cl. 18.
Pennock, Jerome H., Moorestown, N. J. 666,372, pub. 6–10–58. Cl. 50.
Perfection Mattress & Spring Co., Birmingham, Ala. 360,381, ren. 9–13–58. Cl. 32.
Permo, Inc.: *See*—
Fildelitone, Inc.
Petersohn, Ralph, Norristown, Pa. 561,197, canc. Cl. 37.
Petersohn, Ralph, Norristown, Pa. 561,198, canc. Cl. 37.
Petri Cigar Co.: *See*—
United Vintners, Inc.
Petroleum Engineering Associates, Inc., Pasadena, Calif. 666,171, pub. 6–10–58. Cl. 12.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 666,201, pub. 6–10–58. Cl. 18.
Philco Corp., Philadelphia, Pa. 666,303, pub. 9–3–57. Cl. 34.
Pierce's Proprietaries, Inc.: *See*—
World's Dispensary Medical Association.
Pisani Brothers: *See*—
Pisani, Michael.
Pisani, Michael, d. b. a. Pisani Brothers, Pittsburgh, Pa. 666,230, pub. 4–2–57. Cl. 21.
Plant Bros. Co., San Francisco, Calif. 561,182, canc. Cl. 32.
Planters Nut & Chocolate Co., Wilkes-Barre, Pa. 666,352, pub. 6–10–58. Cl. 46.
Pluss, Frank, d. b. a. Pluss Poultry Co., Denver, Colo. 666,414. Cl. 46.
Pluss Poultry Co.: *See*—
Pluss, Frank.
Pond's Extract Co., New York, N. Y. 561,295, canc. Cl. 51.
Poole, J. R., Co., Boston, Mass. 561,300, canc. Cl. 46.
Post, Elizabeth: *See*—
Lander Co, Inc., The.
Preway, Inc., Wisconsin Rapids, Wis. 666,304, pub. 6–10–58. Cl. 34.
Primrose House, Inc., Indianapolis, Ind. 561,067, canc. Cl. 51.
Prince Gardner Co., Inc., St. Louis, Mo. 666,136, pub. 6–10–58. Cl. 3.
Produce Packers, Inc., Chicago, Ill. 666,363, pub. 6–10–58. Cl. 46.
Professional Auto Beauty Shop, Inc., to C. O. Wakefield, Decatur, Ill. 666,139, pub. 6–10–58. Cl. 4.
Professional Laboratories, Inc., New York, N. Y. 666,220, pub. 6–10–58. Cl. 18.
Progress Sound Guard Corp., Jersey City, N. J. 666,247, pub. 6–10–58. Cl. 21.
R & L Mfg. Co., Toledo, Ohio. 666,225–6, pub. 6–10–58. Cl. 19.
Rayco Tap and Tool Corp., North Branch, Mich. 666,261, pub. 6–10–58. Cl. 23.
Realistic Co., The, Cincinnati, Ohio. 666,381, pub. 6–10–58. Cl. 51.
Realistic Co., The, Cincinnati, Ohio. 666,384, pub. 6–10–58. Cl. 51.
Relyea Publishing Corp., New York, N. Y., from The Industrial Laboratories Publishing Co., Chicago, Ill. 666,406. Cl. 38.
Research Products Corp., Madison, Wis. 666,294, pub. 6–10–58. Cl. 31.
Restaurants & Patisseries Longchamps, Inc., to Longchamps, Inc., New York, N. Y. 356,452, ren. 4–26–58. Cl. 46.
Revlon, Inc., New York, N. Y. 666,386, pub. 6–10–58. Cl. 51.
Robbins Floor Products, Inc., Tuscumbia, Ala. 666–169, pub. 6–10–58. Cl. 12.
Roe, A. V., & Co. Ltd., Manchester, England. 122,103, ren. 6–25–58. Cl. 19.
Romano, Joseph A., d. b. a. Winthrop Wax Co., West Babylon, N. Y. 666,138, pub. 6–10–58. Cl. 4.
Rosensetin, Max, d. b. a. American Ossacryl Co., New York, N. Y. 561,189, canc. Cl. 44.
Royal McBee Corp.: *See*—
McBee Co., The.
Rugby Rug Mills Inc., New York, N. Y. 666,409. Cl. 42.
S & C Electric Co., Chicago, Ill. 666,190, pub. 6–10–58. Cl. 16.
S & S Lumber Co.: *See*—
Dri-Rite Kiln Corp.
St. Louis Solvents and Chemical Co., St. Louis County, Mo. 666,399. Cl. 6.
Schalk Chemical Co., Los Angeles, Calif. 666,167, pub. 6–10–58. Cl. 12.
Schenley Industries, Inc., New York, N. Y. 666,368, pub. 6–10–58. Cl. 49.
Schwarzkopf, Hans, Hamburg-Altona, Germany. 666,392, pub. 6–10–58. Cl. 52.
Seaboard Container Corp., Bristol, Pa. 561,294, canc. Cl. 2.
Seidlitz Paint & Varnish Co., Kansas City, Mo. 561,029, canc. Cl. 16.
Seidmann's, D., Sons, Inc., Philadelphia, Pa. 358,906, ren. 7–26–58. Cl. 39.
Selby Shoe Co., The, Portsmouth, to The United States Shoe Corp., Cincinnati, Ohio. 362,211, ren. 11–15–58. Cl. 39.
Select Sportswear, Inc., New York, N. Y. 666,332, pub. 6–10–58. Cl. 39.
Selected Specialties Co., Kansas City, Kans. 561,193, canc. Cl. 32.
Seneca Knitting Mills Co., Inc., Seneca Falls, N. Y. 561,106, canc. Cl. 39.
Service Instruments Corp., Addison, Ill. 666,288, pub. 4–8–58. Cl. 26.
Shuman, David: *See*—
Lifter Bottling Co. of Chicago.
Shakespeare Co., Kalamazoo, Mich. 359,879, ren. 8–30–58. Cl. 22.
Shanblum, Sarah G., Fort Worth, Tex. 561,123, canc. Cl. 46.
Shell Lake Boat Co., Shell Lake, Wis. 666,229, pub. 6–10–58. Cl. 19.
Shepard, Gerald J., d. b. a. Jerry Shepard Swimming Pool Co., Eugene, Oreg. 666,256, pub. 6–10–58. Cl. 22.
Shepard, Jerry, Swimming Pool Co.: *See*—
Shepard, Gerald J.
Shirley Fabrics Corp., New York, N. Y. 561,278, canc. Cl. 42.
Silverberg, I. Monte, d. b. a. American Bancservice Co., Chicago, Ill. 561,092, canc. Cl. 37.
Simplicity Engineering Co., Durand, Mich. 666,279, pub. 6–10–58. Cl. 23.
Sims Co., The, Erie, Pa. 666,176, pub. 6–10–58. Cl. 13.
Smith Kline & French Laboratories, Philadelphia, Pa. 666,202, pub. 6–10–58. Cl. 18.
Smith, Marsh E., d. b. a. Mesco Products, Cleveland, Ohio. 561,070, canc. Cl. 23.
Smokador Mfg. Co., Inc., Bloomfield, N. J. 561,090, canc. Cl. 32.
Somafa, S. A., Berne, Switzerland. 666,357, pub. 6–10–58. Cl. 46.
Song Dex, Inc., New York, N. Y. 666,323, pub. 6–10–58. Cl. 38.
Southland Coffee Co., Atlanta, Ga. 666,354, pub. 6–10–58. Cl. 46.
Sprague Electric Co., North Adams, Mass. 666,240, pub. 6–10–58. Cl. 21.
Sprague Electric Co., North Adams, Mass. 666,246, pub. 6–10–58. Cl. 21.
Smith-Dorsey: *See*—
Wander Co., The.
Staatliches Hofbrauhaus In Muchen, Munich, Germany. 666,366, pub. 6–10–58. Cl. 48.

Standard Brands Inc., New York, N. Y. 666,360, pub. 6–10–58. Cl. 46.
Standard Bronze Co.: *See*—
Bergen Point Brass Foundry, Inc., The.
Standard Milling Co., Chicago, Ill. 361,141, canc. Cl. 46.
Standard Oil Co., The, Cleveland, Ohio. 666,242, pub. 6–10–58. Cl. 21.
Standard Oil Co. of California, San Francisco, Calif. 357,829, ren. 6–14–58. Cl. 15.
Stanley Drug Products, Inc., Portland, Oreg. 666,208, pub. 6–10–58. Cl. 18.
Star Metal Mfg. Co., Inc., Philadelphia, Pa. 666,307, pub. 6–10–58. Cl. 34.
State and Columbia Beauty and Barbers Supply Co.: *See*—
Columbia Beauty and Barber Supply Co.
Sta-Wake Laboratories, Los Angeles, Calif. 561,310, canc. Cl. 18.
Sterling Drug Inc., New York, N. Y. 666,205, pub. 6–10–58. Cl. 18.
Sterling Drug Inc., New York, N. Y. 666,207, pub. 6–10–58. Cl. 18.
Stern, L. & H., Inc., New York, N. Y. 561,158, canc. Cl. 8.
Stetson China Co., Inc., Lincoln, Ill. 666,292, pub. 6–10–58. Cl. 30.
Stevens, J. P., & Co., Inc., New York, N. Y. 666,344, pub. 6–10–58. Cl. 42.
Stevenson, E. A., & Co., Wilmington, Del., and New York, N. Y., to The Glidden Co., Cleveland, Ohio. 122,544, ren. 8–20–58. Cl. 46.
Stewart-Warner Corp., Chicago, Ill. 666,227, pub. 6–10–58. Cl. 19.
Stoumen, Chas., & Son, Philadelphia, Pa. 561,276, canc. Cl. 42.
Straub, W. F., & Co., Chicago, Ill. 666,383, pub. 6–10–58. Cl. 51.
Strickland, J., & Co., Memphis, Tenn. 666,387, pub. 6–10–58. Cl. 51.
Sunbeam Corp., Chicago, Ill. 666,286, pub. 6–10–58. Cl. 24.
Sutton Publishing Co., Inc., White Plains, N. Y. 666,326, pub. 6–10–58. Cl. 38.
Swan Specialties Co.: *See*—
Swan, William A.
Swan, William A., d. b. a. Swan Specialties Co., Casper, Wyo. 666,264, pub. 6–10–58. Cl. 23.
Sweigart, William M., d. b. a. Wm. M. Sweigart Mfg. Co., Belleville, Pa. 666,305, pub. 6–10–58. Cl. 34.
Sweigart, Wm. M., Mfg. Co.: *See*—
Sweigart, William M.
Tarzian, Sarkes, Inc., Bloomington, Ind. 666,234, pub. 6–10–58. Cl. 21.
Tavaro S. A.: *See*—
Elna S. A.
Terri Lee, Inc., Lincoln, Nebr. 561,242, canc. Cl. 22.
Textron Inc., d. b. a. F. Burkart Mfg. Co., St. Louis, Mo. 666,134, pub. 6–10–58. Cl. 1.
Thomae, Dr. Karl, G. m. b. H., Biberach an der Riss, Germany. 666,209–10, pub. 6–10–58. Cl. 18.
Thompson Refrigeration: *See*—
Thompson, Selmer R.
Thompson, Selmer R., d. b. a. Thompson Refrigeration, Chicago, Ill. 666,293, pub. 6–10–58. Cl. 31.
Thornton & Chester Milling Co., Buffalo, N. Y. 86,479, canc. Cl. 46.
Thornton & Chester Milling Co., Buffalo, N. Y. 86,480, canc. Cl. 46.
Thornton & Chester Milling Co., Buffalo, N. Y. 86,638, canc. Cl. 46.
Tint 'N Set, Inc.: *See*—
Mende, Sylvia.
Tork, Alfred, d. b. a. The Exhumat Co., Topeka, Kans., to F. B. Morse, Miami, Fla. 355,143, ren. 3–8–58. Cl. 18.
Trans "O" Matic Transmission Corp., Palisades Park, N. J. 666,283, pub. 6–10–58. Cl. 23.
Treasure State Life Insurance Co., Butte, Mont. 666,396, pub. 6–10–58. Cl. 102.
True Temper Corp., Cleveland, Ohio, by change of name and merger from Montaque Ocean City Rod & Reel Co. 666,402. Cl. 22.
Turco Products, Inc., Los Angeles, Calif. 666,393, pub. 6–10–58. Cl. 52.
Turner Printing Machinery, Inc., Cleveland, Ohio. 666,263, pub. 6–10–58. Cl. 23.
Tyrex Sales Corp., Forest Hills, N. Y. 666,308, pub. 12–18–56. Cl. 35.
Union Carbide Corp., New York, N. Y. 666,194, pub. 6–10–58. Cl. 16.
Union Carbide Corp., New York, N. Y. 666,250, pub. 6–10–58. Cl. 21.
Union Carbide Corp., New York, N. Y. 666,296, pub. 6–10–58. Cl. 31.
United Merchants and Manufacturers, Inc., New York, N. Y. 666,345, pub. 6–10–58. Cl. 42.
United Salt Corp., The, Houston, Tex. 666,149, pub. 6–10–58. Cl. 6.
United States Aviex Co., Niles, Mich. 666,191, pub. 6–10–58. Cl. 16.
United States Shoe Corp., The: *See*—
Selby Shoe Co., The.
United States Steel Corp.: *See*—
Carnegie-Illinois Steel Corp.
Oil Well Supply Co.
United Vintners, Inc., d. b. a. Petri Cigar Co., San Francisco, Calif. 666,196–7, pub. 6–10–58. Cl. 17.
Vanadium-Alloys Steel Co., Latrobe, Pa. 666,185, pub. 6–10–58. Cl. 14.
Vanadium-Alloys Steel Co., Latrobe, Pa. 666,186, pub. 6–10–58. Cl. 14.
Vanyon Longeri Co., Los Angeles, Calif. 561,255, canc. Cl. 39.
Vieni-Bella Cosmetic: *See*—
Manocchia, Marino.
Vital Publications, Inc., New York, N. Y. 666,324, pub. 6–10–58. Cl. 38.
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